DEPARTMENT OF THE AIR FORCE
377TH AIR BASE WING (AFGSC)

22 September 2020

Colonel David S. Miller
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377th Air Base Wing
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Mr. Kevin M. Pierard, Bureau Chief
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Dear Mr. Pierard

Attached, please find the *Quarterly Monitoring Report for April - June 2020 for the Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base, New Mexico,* dated September 2020. This report summarizes soil vapor monitoring, groundwater monitoring, and interim measure activities associated with the distal plume capture and treatment system at Solid Waste Management Units ST-106/SS-111.

If you have any questions or concerns, please contact Mr. Sheen Kottkamp at commercial line (505) 846-7674 or email sheen.kottkamp.1@us.af.mil.

Sincerely

DAVID S. MILLER, Colonel, USAF
Commander

Attachment:
Quarterly Monitoring Report for April - June 2020, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base, New Mexico, dated September 2020; 2 Hard Copies/2 CDs

cc:
NMED Resource Protection Division (Stringer), letter and CD
NMED HWB (Cobrain), letter and CD
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KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

QUARTERLY MONITORING REPORT –
APRIL–JUNE 2020
BULK FUELS FACILITY
SOLID WASTE MANAGEMENT UNITS ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO

SEPTEMBER 2020

377 MSG/CEI
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KIRTLAND AIR FORCE BASE
ALBUQUERQUE, NEW MEXICO

Quarterly Monitoring Report – April–June 2020
Bulk Fuels Facility
Solid Waste Management Units ST-106/SS-111
Kirtland Air Force Base, New Mexico

September 2020

Prepared for
Kirtland Air Force Base
2050 Wyoming Boulevard SE
Kirtland Air Force Base, New Mexico 87117-5270

Prepared by
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14. ABSTRACT

This Quarterly Report describes monitoring activities performed from April 1 through June 30, 2020 and the progress of the Resource Conservation and Recovery Act interim measure for groundwater remediation at Solid Waste Management Units ST-106/SS-111, the Bulk Fuels Facility site, at Kirtland Air Force Base, New Mexico. During the quarter, groundwater, soil vapor, drinking water from supply wells, and the groundwater treatment system (GWTS) samples were collected and analyzed for contaminants of concern (notably ethylene dibromide [EDB]) and other relevant field and laboratory parameters. Areas of high and low contaminant of concern concentrations remained consistent with previous quarters. The GWTS extracted and treated 60,132,800 gallons of groundwater through a granular activated carbon filtration system and discharged the treated effluent to the Tijeras Arroyo Golf Course main pond and injection well KAFB-7 in the second quarter (Q2) 2020. The GWTS was running 99.9 percent of the time and removed approximately 1,511 milligrams of EDB in Q2 2020.

15. SUBJECT TERMS

Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, ethylene dibromide, EDB, interim measures, RCRA, groundwater sampling, groundwater treatment system operation, granular activated carbon

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DAVID S. MILLER, Colonel, U.S. Air Force
Commander, 377th Air Base Wing

22 September 2020
Date

This document has been approved for public release.

KIRTLAND AIR FORCE BASE
377th Air Base Wing Public Affairs

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PREFACE

This Quarterly Monitoring Report – April–June 2020 has been prepared by EA Engineering, Science, and Technology, Inc., PBC (EA) for Kirtland Air Force Base under the U.S. Army Corps of Engineers Contract Number W912DR-12-D-0006, Delivery Order DM01 and pertains to Kirtland AFB Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, located in Albuquerque, New Mexico.

This report contains data collected by EA itself as well as from other entities/sources that are not under EA's direct control (collectively "non-EA Data"). All non-EA data reported herein are displayed in the form they were received from their source entity, and EA assumes no liability for the accuracy of any non-EA data in this report.

This report was prepared in accordance with applicable federal, state, and local laws and regulations, including the New Mexico Hazardous Waste Act, New Mexico Statutes Annotated 1978, New Mexico Hazardous Waste Management Regulations, Resource Conservation and Recovery Act, and regulatory correspondence between the New Mexico Environment Department Hazardous Waste Bureau and the U.S. Air Force, dated March 25 and May 20, 2016. The work presented in this report was conducted in accordance with Kirtland Air Force Base's Hazardous Waste Treatment Facility Operating Permit number NM9570024423 and the Class V Underground Injection Well Discharge Permit number 1839, both issued by the New Mexico Environment Department.

Monitoring of groundwater and drinking water, and operation of the groundwater treatment system were conducted from April 1 through June 30, 2020.

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LIST OF ACRONYMS AND ABBREVIATIONS

µg/m^3	microgram(s) per cubic meter
µg/L	microgram(s) per liter
%	percent
2D	two-dimensional
3D	three-dimensional
AFB	Air Force Base
AOI	area of interest
BFF	Bulk Fuels Facility
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
CFR	Code of Federal Regulations
CO_2	carbon dioxide
DO	dissolved oxygen
DoD	Department of Defense
DP	Discharge Permit
EDB	ethylene dibromide
EPA	U.S. Environmental Protection Agency
ft	foot (feet)
GAC	granular activated carbon
GCMP	Golf Course main pond
gpm	gallon(s) per minute
GWM	groundwater monitoring
GWTS	groundwater treatment system
HC	hydrocarbon
Horiba	Horiba MEXA-584L auto emissions analyzer
IDW	investigation-derived waste
IMOA	Interim Measure Operational Area
ISB	in situ bioremediation
KAFB	Kirtland Air Force Base
Kh	horizontal hydraulic conductivity
Kv	vertical hydraulic conductivity
LNAPL	light non-aqueous phase liquid
MCL	maximum contaminant level
mg	milligram(s)
mg/L	milligram(s) per liter

LIST OF ACRONYMS AND ABBREVIATIONS (CONCLUDED)

NMED	New Mexico Environment Department
NMWQCC	New Mexico Water Quality Control Commission
No.	number
NRMSD	Normalized Root Mean Squared Deviation
O_2	oxygen
O&M	operation and maintenance
ORP	oxidation-reduction potential
ppmv	part(s) per million by volume
psi	pound(s) per square inch
PSL	project screening level
Q1	first quarter of the year, January 1 through March 31
Q2	second quarter of the year, April 1 through June 30
Q3	third quarter of the year, July 1 through September 30
Q4	fourth quarter of the year, October 1 through December 31
QAPjP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
REI	reference elevation interval
SE	Southeast
SVM	soil vapor monitoring
SVMP	soil vapor monitoring point
SWMU	Solid Waste Management Unit
TCZ	Target Capture Zone
USGS	U.S. Geological Survey
VA	Veterans Affairs

EXECUTIVE SUMMARY

The investigation and remediation of the Kirtland Air Force Base (AFB) Bulk Fuels Facility (BFF) release (Solid Waste Management Units [SWMUs] ST-106/SS-111) are being implemented pursuant to the Resource Conservation and Recovery Act (RCRA) corrective action provisions in Part 6 of Kirtland AFB's Hazardous Waste Treatment Facility Operating Permit (Permit Number NM9570024423 [RCRA Permit]) (New Mexico Environment Department [NMED], 2010). This Quarterly Report for the second quarter (Q2) of calendar year 2020 summarizes the activities performed from April 1 through June 30, 2020. These activities include regular groundwater and soil vapor monitoring and evaluation of the dissolved-phase ethylene dibromide (EDB) groundwater pump and treat interim measure.

In Q2 2020, 271 soil vapor and 161 groundwater monitoring wells samples were collected. Consistent with previous quarters, the highest EDB, benzene, and hydrocarbon concentrations were detected on Kirtland AFB within the source area. Depths to groundwater were gauged in 165 groundwater monitoring wells during the synoptic gauging event. During gauging, light non-aqueous phase liquid was detected and measured in three of these wells. All three wells were located on-Base within the source area plume (KAFB-106059, KAFB-106076, and KAFB-106150-484), consistent with previous quarters.

As part of the interim measure groundwater treatment system, groundwater pumped from extraction wells within the dissolved-phase EDB plume is treated at the groundwater treatment system (GWTS) located on Kirtland AFB. This groundwater flows into the GWTS and is filtered through granular activated carbon. The water flowing into the GWTS had concentrations of EDB below the maximum contaminant level of 0.05 micrograms per liter and had no detections of BTEX. While flowing through the granular activated carbon vessels, the EDB was filtered out of the groundwater. During Q2 2020, the GWTS ran for 99.9% of the time, treated 60,132,800 gallons of groundwater and removed an estimated 1.5 grams of EDB. Once the groundwater is treated to below drinking water standards, the water from the GWTS is then pumped to the Tijeras Arroyo Golf Course main pond (54,626,900 gallons) and/or gravity-fed into injection well KAFB-7 (5,505,900 gallons). During the Q2 2020 timeframe, discharged groundwater had no detections of EDB or BTEX.

14 sentinel wells monitored by U.S. Geological Survey (USGS) between the EDB plume and drinking water wells owned and operated by the Albuquerque Bernalillo County Water Utility Authority and Raymond G. Murphy Veterans Affairs (VA) Medical Center were sampled during Q2 2020 and no contaminants associated with the BFF release were detected. Additionally, three Kirtland AFB drinking water supply wells (KAFB-003, KAFB-015, and KAFB-016) and the VA drinking water supply well (ST106-VA-2) were sampled in April, May, and June 2020 and no contamination was detected in the drinking water supply wells.

Analysis of the collected data indicates that the mass of EDB has decreased significantly since the interim measure (IM) began in Q4 2016. As of June 2020, only 2.4 grams of EDB remains to be remediated within the target capture zone. This represents a 98% decrease in plume mass since the interim measure began operations approximately 3.5 years ago. In general, the analysis shows that the IM has collapsed the EDB plume, with the remaining mass of EDB north of Ridgecrest Drive SE either being centered around IM extraction well KAFB-106228, or just north of Ridgecrest Drive SE as an extension of the source area plume. Overall, the plume analysis suggests that the dissolved-phase EDB mass removal is as expected due to the interim measure groundwater extraction system.

Planned activities for the third quarter (Q3) 2020 include:

- Sample the Q3 2020 designated wells and measuring depth to water in the groundwater monitoring network beginning in July 2020
- Sample drinking water supply wells for organic compounds on a monthly basis
- Operate and perform routine maintenance and monitoring of the GWTS.

1. INTRODUCTION

The investigation and remediation of the Kirtland Air Force Base (AFB) Bulk Fuels Facility (BFF) release (Solid Waste Management Units [SWMUs] ST-106/SS-111) are being implemented pursuant to the Resource Conservation and Recovery Act (RCRA) corrective action provisions in Part 6 of Kirtland AFB's Hazardous Waste Treatment Facility Operating Permit (Permit Number [No.] NM9570024423 [RCRA Permit]) (New Mexico Environment Department [NMED], 2010). This Quarterly Report for the second quarter (Q2) of calendar year 2020 was prepared in accordance with Section 6.2.4.1, and presents non-cumulative data for Q2 2020, summarizing the activities performed from April 1 through June 30, 2020. The reporting schedule is provided in the Work Plan for BFF Expansion of the Dissolved-Phase Plume Groundwater Treatment System (GWTS) Design (Kirtland AFB, 2017a). Key regulatory correspondence for Q2 2020 are provided in Appendix A-1, and response to regulator comments is provided as Appendix A-2.

The BFF site is located within the northwestern portion of Kirtland AFB, on the southern end of the city of Albuquerque, as shown on the site location map (Figure 1-1). The Phase I RCRA Facility Investigation (Kirtland AFB, 2018a) provides a detailed site description, history, and conceptual site model. Ongoing groundwater monitoring (GWM), soil vapor monitoring (SVM), and groundwater interim measures are discussed in this report. Ongoing pilot tests, which are reported under separate cover, are discussed herein only as the data from these pilot tests impact the data from the GWM, SVM, and groundwater interim measures.

The bioventing pilot test utilizes existing soil vapor extraction wells and existing SVM wells for air injection and two new SVM well clusters at KAFB-106V1 and KAFB-106V2 for observation. Well locations are shown on Figure 1-2. The long term bioventing pilot test continued in Q2 2020 with two respiration tests, including field parameter measurements and analytical vapor samples. The quarterly bioventing report was removed from this Q2 2020 Report in accordance with direction from NMED in the letter dated July 11, 2020 (NMED, 2020). A final report will be submitted to NMED upon completion of the pilot test.

The ethylene dibromide (EDB) in situ bioremediation (ISB) pilot test is being performed directly south of Randolph Avenue, near the BFF groundwater source area. The main objective of the pilot test is to investigate in situ anaerobic bioremediation of EDB in groundwater. The quarterly summary report was removed from this Q2 2020 Report in accordance with NMED directive from the letter dated July 11, 2020 (NMED, 2020). A final report will be submitted to the NMED under separate cover upon completion.

The GWM, SVM, bioventing pilot test, EDB ISB pilot test, and interim measure for SWMUs ST-106/SS-111 were conducted concurrently. The Q2 2020 monitoring program was performed in accordance with multiple work plans: (1) soil vapor (NMED, 2017a, 2018a; Kirtland AFB, 2017b), (2) GWM (NMED, 2017b, 2018a, 2018b; Kirtland AFB, 2017a, 2017b, 2017c), and (3) drinking water supply well sampling (NMED, 2018a; Kirtland AFB, 2017b). GWTS operations, sampling, and treated effluent discharge were performed in accordance with the Operations and Maintenance (O&M) Plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b).

This report is organized as follows:

- Section 1: Introduction
- Section 2: Vadose Zone Monitoring
- Section 3: Groundwater Monitoring

- Section 4: Drinking Water Supply Well Monitoring
- Section 5: GWTS Operation and Performance
- Section 6: Investigation-Derived Waste (IDW)
- Section 7: Projected Activities
- Section 8: References.

2. VADOSE ZONE MONITORING

This section describes the field activities for semiannual soil vapor sampling for the Q2 2020 monitoring of 51 SVM locations at Kirtland AFB (Figure 2-1). Semiannual soil vapor sampling is conducted to characterize and monitor fuel-related contaminant concentrations in the vadose zone. Section 2.1 through Section 2.3 of this report discuss field sampling and laboratory testing procedures, data usability, and results of soil vapor data collected during Q2 2020.

2.1 Vadose Zone Soil Vapor Data Collection

Each SVM location is comprised of up to six soil vapor monitoring points (SVMPs), each screened at discrete intervals ranging from approximately 25 to 450 feet (ft) below ground surface (bgs). Each SVMP has a unique database identification, which includes the SVM location followed by a number identifying the approximate depth of the screened interval associated with an individual SVMP (e.g., KAFB-106135-025 and KAFB-106135-050 are two of six SVMPs located at KAFB-106135, with the bottom of the screened intervals at 25 and 50 ft, respectively). Table 2-1 lists each SVM sample location, its associated SVMPs (location identification), the screen intervals, and the pre-calculated purge volumes. SVM locations are shown on Figure 2-1.

To the extent possible, soil vapor samples collected in Q2 2020 represent the vadose zone conditions without the influence of induced air flow. SVMP locations that are within the influence of induced air flow due to bioventing injection wells were not sampled. All SVMP sample ports were sealed to atmospheric air, which minimized exchanges with atmospheric "inhalation" and "exhalation" cycles that were driven by barometric pressure fluctuations.

Soil vapor samples were collected from 271 of 284 SVMPs (within 51 of 56 SVM locations) and were submitted for laboratory analysis. The remaining 13 SVMPs are currently in use for the bioventing pilot test (Kirtland AFB, 2017e) and were sampled as part of pilot test activities (results to be presented in a standalone report), but not sampled as part of the semiannual monitoring event. Field parameters were measured and recorded during the Q2 2020 sampling event (Table 2-2). Soil vapor analytical results are provided in Tables 2-3, 2-4, and 2-5. The condition of the SVM location vault and the pneumatic quick-connect fittings at each SVMP were documented on a purge log to ensure sample representativeness (Appendix C-1).

2.1.1 Field Soil Vapor Data

Field parameters including total hydrocarbon (HC) concentration, oxygen (O_2), and carbon dioxide (CO_2) were measured and recorded at each SVMP using a Horiba MEXA-584L auto emissions analyzer (Horiba). SVMPs were purged of their respective casing volume before field measurements were recorded and before samples were collected. Static air pressure readings (measured in inches of water column) were measured using an electric manometer and recorded on purge logs for pre-purging and post-purging conditions of each well to ensure the stability of each well before sampling. Purge data were recorded on purge logs (Appendix C-1); field data are listed in Table 2-2. Horiba calibration and sample system leak tests were performed and documented on calibration logs (Appendix C-2); daily quality control reports are provided in Appendix C-2.

2.1.2 Laboratory Soil Vapor Analytical Data

In Q2 2020, soil vapor samples were collected between April 7 and April 22. Two hundred and seventy-one SVMP field samples and 29 field duplicates were collected using certified pre-evacuated Summa

canisters fitted with a specialized pneumatic connector to allow only the vapor from the SVMP to enter the canister. Sample information was recorded on sample collection logs (Appendix C-1). Chain-of-custody records are provided in Appendix C-3. After collecting each SVMP sample, the canister was placed in protective packaging and shipped to ALS Environmental in Simi Valley, California, for volatile organic compound analysis by U.S. Environmental Protection Agency (EPA) Method TO-15.

The Data Quality Evaluation Report is provided in Appendix D-1. Analytical results are reported in the ALS Environmental laboratory report (Appendix D-2). Soil vapor analytical data were validated by Environmental Data Services, Ltd., Newport News, Virginia. Data validation reports are provided in Appendix D-2 and soil vapor analytical results are provided in Tables 2-3, 2-4, and 2-5. Analytical data for the current and three previous sampling events are provided in Appendix D-3.

2.1.3 Soil Vapor Sampling Deviations

During the Q2 2020 soil vapor sampling event, 12 SVMPs showed unstable static pressure after purging. Unstable static pressure is defined as a difference larger than 0.1 inch of water column in static pressure before and after purging. Field parameters taken from these SVMPs were compared to historical values and were found to be consistent, indicating that the change in static pressure had no effect on sample quality.

2.2 Data Review and Usability

Environmental Data Services, Ltd. performed 22 percent (%) EPA Stage 3 data validation of Q2 2020 soil vapor analytical data in accordance with the approved work plan (Kirtland AFB, 2017b). All soil vapor data were validated as usable; no data were qualified as rejected. The technical data completeness was 100%. The data met data quality objectives for use in project decision making. Some analytical results were flagged as estimated (J-flagged), which occurred when an analyte was identified in the sample; however, the associated numerical value was determined to be estimated. The results of the quality control parameter and data quality indicator evaluation (precision, bias [accuracy], representativeness, completeness, comparability, and sensitivity) are provided in the Data Quality Evaluation Report (Appendix D-1). Validated soil vapor data are provided in Tables 2-3, 2-4, 2-5, and Appendix D-3.

2.3 Q2 2020 Soil Vapor Data

The Q2 2020 analytical results and field data from the 271 SVMPs were used to generate two-dimensional (2D) plan-view maps (Figures 2-2 through 2-8) that depict benzene, EDB, and HC concentrations at depths of 25, 50, 100, 150, 250, 350, and 450 ft bgs, respectively. Field parameters collected during the SVM event are listed in Table 2-2. Soil vapor analytical results are provided in Tables 2-3, 2-4, and 2-5.

The SVM locations have been categorized into three areas of interest (AOIs), which are all located south of Ridgecrest Drive Southeast (SE): (1) off-Base SVM locations, (2) on-Base SVM locations outside the source area, and (3) on-Base SVM locations inside the source area. Soil vapor analytical data are discussed in relation to each AOI. The soil vapor source area (Figures 2-2 through 2-8), established in the Phase I RCRA Facility Investigation Report (Kirtland AFB, 2018a), is defined as a 100-ft buffer zone around the original underground jet fuel pipelines that were the source of the BFF releases. These pipelines were removed in 2010.

The RCRA permit does not specify cleanup levels for soil vapor; therefore, the vapor data are used in this report to assess spatial concentration trends. Pending resolution of appropriate screening criteria with NMED, comparison concentrations were used to help the reader distinguish areas of relatively high or low soil vapor concentrations in figures and in text discussion and visualize the conceptual site model. Comparison concentrations were set based on a qualitative analysis of soil vapor data in Q2 2016 (Kirtland AFB, 2016b). Generally, it was observed that locations where concentrations exceed the comparison concentrations are within the source area, the contaminant migration pathway to the water table, or above the benzene groundwater plume. The comparison concentrations are 3,800 micrograms per cubic meter ($\mu g/m^3$) (0.5 parts per million by volume [ppmv]) for EDB, 3,200 $\mu g/m^3$ (1 ppmv) for benzene, and 1,000 ppmv for HCs.

Sections 2.3.1 through 2.3.3 discuss the soil vapor concentrations of EDB, benzene, HC, O_2, and CO_2 in relation to each AOI. Refer to Figures 2-2 through 2-8 for the EDB, benzene, and HC data.

2.3.1 Off-Base Soil Vapor Monitoring Points

There are five off-Base SVM locations consisting of 28 SVMPs, with four screened at intervals from approximately 25 to 450 ft bgs. Each of these SVM locations is in non-residential areas: in Bullhead Park, City of Albuquerque open space, or Veterans Affairs (VA) hospital parking lot. Well KAFB-106028 is screened at intervals from 150 to 450 ft bgs. Consistent with prior sampling events, off-Base soil vapor concentrations were reported to be very low in comparison to the on-Base AOIs and were below comparison concentrations. The maximum off-Base HC concentration was 149 ppmv, observed at KAFB-106028-450.

- EDB was reported in one of the 28 off-Base SVMPs, KAFB-106142-450, at an estimated concentration of 2.4 $\mu g/m^3$ (J-flag value), below the comparison level of 3,800 $\mu g/m^3$.

- Benzene was reported in 17 of the 28 off-Base SVMPs. Fifteen of the 17 benzene detections were estimated concentrations (J-flag values) of 35 $\mu g/m^3$ or less. The two non-estimated detections were reported to have concentrations of 38 $\mu g/m^3$ at KAFB-106142-450 and 3.3 $\mu g/m^3$ at KAFB-106142-050, which are both below the comparison level of 3,200 $\mu g/m^3$.

- HC concentrations in the 28 off-Base SVMPs ranged between 0 and 149 ppmv. The highest HC concentration of 149 ppmv was observed at KAFB-106028-450, below the HC comparison concentration.

- O_2 concentrations at off-Base SVMPs averaged 20.11%, or near atmospheric levels (approximately 21%) (Berner et al., 2007). CO_2 levels ranged from 0.04 to 3.24%. The maximum CO_2 level (3.24%) was detected at KAFB-106138-050; however, 24 of the 28 SVMPs had CO_2 levels below 1.00%.

2.3.2 On-Base Soil Vapor Monitoring Points Outside of Source Area

There are 40 on-Base SVM locations outside of the source area, consisting of 224 SVMPs that are screened at intervals from approximately 25 to 450 ft bgs. Results in the on-Base SVM AOI located outside of the source area were consistent with previous sampling events. The highest soil vapor concentrations in this AOI were reported to be located adjacent to the source area and above the source area groundwater plume. Measured O_2 and CO_2 levels suggest aerobic microbial activity is occurring in this AOI.

- EDB was reported in 18 of the 224 on-Base SVMPs outside the source area. The highest EDB concentration of 4,300 µg/m^3 was reported at SVMW-02-100, located approximately 50 ft north of the source area, and was the only sample in this AOI to exceed the comparison concentration (3,800 µg/m^3; Table 2-4).

- Benzene was reported in 182 of the 224 on-Base SVMPs outside the source area. Benzene concentrations in 102 of these 182 SVMPs were at estimated concentrations (J-flag values). Benzene concentrations equaled or exceeded the comparison value of 3,200 µg/m^3 at 26 of the 182 SVMPs with detections. The highest benzene concentration of 630,000 µg/m^3 was reported at SVMW-02-100, located approximately 50 ft north of the source area.

- HC was measured in the 224 on-Base SVMPs outside the source area. In 23 of these SVMPs, HC was observed at concentrations greater than 1,000 ppmv. These 23 SVMPs were screened from approximately 50 to 450 ft bgs. The highest HC concentration (25,460 ppmv) was observed at SVMW-02-100, located approximately 50 ft north of the source area. In the remaining 201 SVMPs, HC was measured at concentrations ranging from 0 to 975 ppmv.

- O_2 and CO_2 were measured in the 224 on-Base SVMPs outside the source area. Thirty-nine SVMPs had relatively low O_2 levels (<15%) with corresponding CO_2 levels ranging between 1.10 and 15.56%. KAFB-106117-350 and SVMW-02-050 had high CO_2 levels of 14.82 and 15.56%, respectively, with corresponding low O_2 levels below 5%. This suggests that at these SVMPs, and others with similar O_2 and CO_2 comparisons, there are rate-limiting conditions for aerobic microbial activity and that aerobic biodegradation may be occurring at less than optimal conditions.

2.3.3 On-Base Soil Vapor Monitoring Points Inside the Source Area

There are 11 on-Base SVM locations inside the source area, consisting of 32 SVMPs that are screened at intervals from approximately 25 to 450 ft bgs. These SVMPs are within 100 ft of the original location of the underground jet fuel pipeline. SVMW-08-266 is plugged and could not be monitored (Table 2-2). SVM locations SVEW-01, SVEW-02/03, SVEW-04/05, SVMW-10, and SVMW-11 (consisting of 13 SVMPs) were in use to perform a bioventing pilot test (Kirtland AFB, 2017e) and were not sampled for soil vapor during this quarter. The remaining 19 SVMPs were sampled in Q2 2020.

Consistent with previous sampling events, the highest benzene and HC concentrations obtained from soil vapor for Q2 2020 were encountered on-Base within the source area AOI. Concentrations observed included 960,000 µg/m^3 for benzene (SVEW-07-160) and 24,050 ppmv for HC (SVEW-07-160). This AOI had the highest percentage of benzene detections (Table 2-5). However, no samples from the SVMPs on-Base inside the source area had detections of EDB, which is inconsistent with the results of previous sampling events.

- EDB was reported as non-detect in all 19 sampled SVMPs inside the source area. Detection limits at these locations ranged from 2 to 15,000 µg/m^3.

- Benzene was reported in 17 of the 19 sampled SVMPs inside the source area. Benzene concentrations greater than 3,200 µg/m^3 were detected at 14 SVMPs screened at depth intervals ranging between 50 and 300 ft bgs. The highest benzene concentration of 960,000 µg/m^3 was reported at SVEW-07-160.

- HC was detected at concentrations below 1,000 ppmv in 4 of 19 sampled SVMPs. HC concentrations above 1,000 ppmv were detected at screened intervals ranging from approximately 50 to 300 ft bgs. The highest concentration of HC was 24,050 ppmv, which was detected at SVEW-07-160.

The O_2 levels on-Base, inside the source area SVMPs, ranged from 2.40 to 20.51%. Three SVMPs had O_2 levels below 5% at depths ranging from approximately 50 to 100 ft bgs. CO_2 levels ranged from 0.02 to 15.50%. The maximum CO_2 level (15.50%) was detected at SVEW-08-100. In the fourth quarter (Q4) 2019, only four SVMPs in the source area had O_2 levels greater than 5%. In Q2 2020, all but three SVMPs reported O_2 levels greater than 5%. This increase in O_2 levels may be a result of bioventing activities.

2.3.4 Maintenance and Repairs

Maintenance and/or repairs were performed at 51 of 56 SVM locations following completion of the Q2 2020 sampling event. SVM locations SVEW-01, SVEW-02/03, SVEW-04/05, SVMW-10, and SVMW-11 were in use to perform a bioventing pilot test (Kirtland AFB, 2017e). Routine maintenance will be performed at these five SVM locations after bioventing activities are completed. Any maintenance needs, which included corroded quick-connects, worn or damaged gaskets, overgrown vegetation, and overall cleanliness of locations were noted during the sampling event and addressed during the subsequent weeks.

Rusty pneumatic quick-connects were observed at the following 5 SVMPs during the Q2 2020 sampling event and were repaired after the event:

- KAFB-106116-450
- KAFB-106140-350
- SVMW-02-100
- SVMW-08-100
- SVMW-09-250.

Pneumatic quick-connects were replaced on May 5 and 6, 2020, as part of periodic maintenance of the SVM network. In addition to the pneumatic quick-connect maintenance, SVM locations were also swept and cleared of vegetation and miscellaneous debris, as necessary. Damaged or missing parts (typically gaskets and pneumatic quick-connects) were repaired or replaced. These maintenance activities were performed after Q2 2020 samples were collected and had no effect on the results.

3. GROUNDWATER MONITORING

At the end of Q2 2020, the BFF GWM well network was comprised of 167 GWM wells (Figure 3-1, Table 3-1, and Table 3-2), including 161 wells that are regularly sampled, five wells that were gauged but not sampled, and one well that will be sampled once the water level rises sufficiently. A total of 161 of these wells were sampled in Q2 in accordance with the sampling requirements (Table 3-3).

Appendices pertinent to GWM are listed below:

- Appendix E-1 Daily Quality Control Reports – Groundwater Sampling
- Appendix E-2 Groundwater and Light Non-Aqueous Phase Liquid (LNAPL) Measurements
- Appendix E-3 Groundwater Purge Logs and Sample Collection Logs
- Appendix E-4 Groundwater Sample Chain-of-Custody Forms
- Appendix E-5 U.S. Geological Survey (USGS) Sentinel Well Data
- Appendix E-6 Descriptions from Previous Reports
- Appendix F-1 Data Quality Evaluation Report – Groundwater Samples
- Appendix F-2 Data Packages – Groundwater Samples
- Appendix F-3 EPA Data Verification and Validation Figures
- Appendix F-4 Groundwater Analytical Data.

Throughout this report, GWM wells, and their associated groundwater data, are described based on reference elevation intervals (REIs). REIs are below ground surface elevations that divide the GWM network into datasets comprised of wells that are screened across their respective elevations, allowing for a vertical evaluation of groundwater parameters and contaminant locations (Figure 3-2). Currently, wells are assigned to three REIs (4857, 4838, and 4814). A detailed explanation of how the REIs are defined is provided in Appendix E-6.

In previous reports, GWM wells were assigned designations based either on their location related to the groundwater gradient and their spatial relationship to the dissolved-phase ethylene dibromide (EDB) plume or simply on their location (i.e., source area, etc.). In response to the changing regional groundwater gradient (Appendix E-6), well designations are no longer used in figures and analytical results tables. The former well designations and current monitoring well objectives are provided in Table 3-1 along with the current sampling regime by quarter. A detailed description of the former well designations and the frequency of samples collected by designation is provided in Appendix E-6.

In this report, sample results from GWM wells are discussed based on their location (north or south) in relation to Ridgecrest Drive SE. The Source Area Plume is located south of Ridgecrest Drive SE. The Interim Measure Operational Area (IMOA) for the groundwater interim measure is the distal section of the EDB plume located north of Ridgecrest Drive SE. The Target Capture Zone (TCZ) is located within the IMOA and is defined in accordance with EPA 2008 guidance. The definition used by EPA defines the TCZ as the three-dimensional (3D) zone of groundwater that must be captured by the remedy extraction wells for the hydraulic containment portion of the remedy to be considered successful. The 3D zone of groundwater that must be captured by the interim measure extraction wells (i.e., the TCZ) is defined as the maximum contaminant level (MCL) for dissolved EDB, 0.05 micrograms per liter (µg/L).

GWM activities included measuring the depths to groundwater and LNAPL (Tables 3-2 and 3-4, Figures 3-3 and 3-4) and measuring field parameters in wells sampled with low-flow sampling pumps (Table 3-5). Field parameter measurements are not part of the passive sampling methodology, as discussed in more detail in Appendix E-6. Groundwater samples were collected and submitted for laboratory analysis from 161 wells in Q2 2020 (Tables 3-6 through 3-8 and Figures 3-5 through 3-19).

3.1 New Groundwater Monitoring Activities

After four quarters of baseline sampling, newly added wells will be assigned an objective and moved into their relevant sampling regime in the following quarter (Table 3-9), in accordance with the Work Plan for Vadose Zone Coring, Vapor Monitoring, and Water Supply Sampling (Kirtland AFB, 2017b). For well KAFB-106S7, baseline sampling will be completed in the third quarter (Q3) 2020.

3.2 Groundwater and Light Non-Aqueous Phase Liquid Gauging

Depth to water was measured in 165 of the 167 GWM wells between April 14 and 16, 2020 (Figures 3-3 and 3-4 and Tables 3-2 and 3-4), using three oil-water interface probes and one water level meter in accordance with the approved work plan (Kirtland AFB, 2017a). Each well was also checked for the presence of LNAPL. Gauging deviations are discussed in Section 3.2.1. Of the 88 GWM wells in REI 4857 gauged in Q2 2020, 29 wells had screens that intersected the current water table, while the remaining wells had submerged well screens. Screen submergence in REI 4857 wells that were gauged in Q2 2020 ranged from 0.34 to 26.42 ft (KAFB-106219 and KAFB-106025, respectively) (Table 3-2).

The interface probe was checked for proper operation and cable integrity prior to each use and was decontaminated after gauging each well. If LNAPL was detected using the interface probe, a plastic bailer was used to confirm the presence and thickness of the LNAPL. Additionally, during Bennett pump sampling, every well was checked for the presence of LNAPL prior to the installation of the pump. Depths to LNAPL and groundwater were recorded in the field on well gauging forms (Appendix E-2).

Depth to water in the GWM wells was gauged by three field teams using four oil-water interface probes and water level meters, each dedicated to groups of wells with similar historical analytical results. Each probe was used to measure depth to water in three GWM wells located south of the source area (KAFB-106027, KAFB-106044, and KAFB-106045) to quantify any measurement difference from a control probe (Table E-2-1). Over a 3-day period, barometric pressure changes at the site can cause water levels in a given well to vary by up to 0.15 ft, even after diurnal variations are taken into account. This was determined by observing the change in water levels due to barometric pressure at three wells during a 7-day background monitoring period prior to aquifer testing at KAFB-106228 (Kirtland AFB, 2016c). Therefore, a measurement difference between probes of up to 0.03 ft, or less than 20% of 0.15 ft, is negligible as compared to these naturally occurring changes. If a probe measures greater than 0.03 ft different from the control probe, water levels taken using that probe are corrected by the value of the difference (Table E-2-2).

The potentiometric surface at the water table is provided on Figure 3-3. Horizontal groundwater gradients within the monitoring network are dominated by a radial flow pattern toward depressions in the water table, which are primarily attributable to groundwater extraction. Changes in water levels and LNAPL thickness from Q2 2019 and Q4 2019 to Q2 2020 are provided in Table 3-4. On average, water levels rose 2.65 ft since Q4 2019, and 2.81 ft since Q2 2019.

LNAPL was measured in only three of the 165 wells (KAFB-106059, KAFB-106076, and KAFB-106150-484) in Q2 2020 at thicknesses of 0.15, 0.01, and 0.38 ft, respectively (Table 3-2 and Figure 3-4). All three wells with LNAPL are located south of Ridgecrest Drive SE, on-Base, and within the footprint of the Source Area Plume.

3.2.1 Gauging Deviations

Water level measurements were not obtained from two wells during the Q2 2020 synoptic gauging event. Depth to water in wells KAFB-106063 and KAFB-106064 (Figure 3-1) was not measured during the synoptic gauging event in April due to the presence of dedicated downhole equipment related to the Environmental Security Technology Certification Program pilot test project for EDB *in situ* biodegradation (Kirtland AFB, 2016d); however, water levels were measured prior to sampling in May (Appendix E-3). The water level was measured in KAFB-106211 approximately 1.9 ft above the bottom of the screen. This well will be added to the sampling network after the water level rises enough to allow for passive sampling (approximately 5 ft of water column).

3.3 Groundwater Sampling

Quarterly groundwater samples were collected from 161 wells in the GWM network between April 6 and May 19, 2020, using portable low-flow pump systems or passive sampling methods (Table 3-3). Well locations are shown on Figure 3-1, and sentinel well locations are shown on Figure 3-20. Sentinel wells are wells located between contaminant plumes and extraction wells to provide early detection if contaminants migrate toward the extraction wells. Groundwater samples collected for the Q2 2020 monitoring event were analyzed for EDB; benzene, toluene, ethylbenzene, and total xylenes (BTEX); anions; alkalinity; and metals (Table 3-3). Groundwater samples were analyzed by Eurofins Lancaster Laboratories Environmental, LLC located in Lancaster, Pennsylvania, which maintains current Department of Defense (DoD) Environmental Laboratory Accreditation Program certification. The groundwater purge and sampling forms are provided in Appendix E-3 and the chain-of-custody forms are provided in Appendix E-4.

For low-flow sampling, well water was purged continuously at a flow rate between 0.5 and 1 liter per minute, while field parameters (turbidity, temperature, dissolved oxygen [DO], specific conductivity, pH, and oxidation reduction potential [ORP]) were measured and recorded every 5 minutes. Samples were collected after parameters stabilized for three consecutive readings within 10% of one another, or after 1 hour of purging. Field parameters were recorded on the field forms (Appendix E-3). Wells without a dedicated low-flow pump sampling system were designated, based on historical analytical data, as either clean, intermediate, or hazardous. Decontaminated non-dedicated tubing and portable low-flow pumps were used to sample wells designated as clean. The entire sampling assembly was decontaminated following use at each well. Dedicated tubing specific to a given well was used for wells designated as intermediate or hazardous.

3.3.1 Sampling Deviations

Due to a database error, nitrate/nitrite nitrogen was not collected from well KAFB-106247-450. This error was corrected and the well will be sampled for nitrate/nitrite nitrogen in Q3 2020.

3.4 Data Review and Usability Results

The Q2 2020 groundwater analytical data underwent EPA 100% Stage 3 data validation by an independent third-party subcontractor, Environmental Data Services, Inc., Virginia Beach, Virginia, following data verification. Data verification is performed on a data set to ensure method, procedural, and contractual compliance with project-specific requirements and is typically performed by the contractor responsible for data collection. Data validation is an analyte- and sample-specific process that extends the evaluation of analytical data beyond the data verification process to determine the analytical quality of a specific data set.

Data verification and data validation are sequential steps in a data review process that can be performed by either the contractor collecting the data or an independent third-party subcontractor. For this project, verification is performed by the contractor to ensure compliance with the project Quality Assurance Project Plan (QAPjP), Appendix D of the Work Plan for BFF Expansion of the Dissolved-Phase Plume GWTS and associated QAPjP (Kirtland AFB, 2017a), and is performed during or at the completion of field or laboratory data collection activities. EPA Stage 3 data validation is conducted by Environmental Data Services, Inc. and incorporates the data verification process and further evaluates data quality based on analytical method-specific quality control criteria and DoD Quality Systems Manual requirements as documented in the project QAPjP. Further details regarding EPA data verification and validation processes are documented in Figures 2 and 4 of the Guidance on Environmental Data Verification and Data Validation (EPA, 2002) that are provided in Appendix F-3.

Subsequent to performing data validation, the data qualifiers were uploaded to the EQuIS® project database. Data were further assessed for accuracy, precision, representativeness, comparability, completeness, and sensitivity and determined to achieve the project data quality objectives in Q2 2020. All groundwater data presented and discussed in this report are final validated data. The Environmental Resources Program Information Management System data deliverable is scheduled for submittal in August 2020. The Data Quality Evaluation Report for groundwater samples collected in Q2 2020 is provided in Appendix F-1, and the final laboratory data reports are included in Appendix F-2.

3.5 Project Screening Levels

The project screening levels (PSLs) for hazardous constituents listed in 40 Code of Federal Regulations (CFR) Part 261, Appendix VIII or 40 CFR Part 264, Appendix IX were selected to satisfy the requirements of the Kirtland AFB RCRA Permit (NMED, 2010) as the lower of:

- New Mexico Water Quality Control Commission (NMWQCC) standards per the New Mexico Administrative Code, Title 20.6.2.3103, Standards for Groundwater of 10,000 milligrams per liter (mg/L) Total Dissolved Solids Concentration or Less (New Mexico Administrative Code, 2018). For metals, the NMWQCC standard applies to dissolved metals and total mercury.

- EPA National Primary Drinking Water Regulations, MCLs and secondary MCLs, and Title 40 CFR Parts 141 and 143.

If no MCL or NMWQCC standard existed for an analyte, the PSL used was the EPA Resident Tapwater Regional Screening Level (EPA, 2020).

The analytical method utilized to analyze for total nitrate/nitrite nitrogen concentrations (Method 353.2) cannot identify individual nitrate and nitrite concentrations without modification. Typically, in highly oxidizing and near neutral aquifers, nitrate is the primary nitrogen species found in groundwater (Langmuir, 1997). Previous studies in the Albuquerque Basin have used total nitrate/nitrite nitrogen concentrations as equivalent to nitrate nitrogen concentrations (Longmire, 2016; Anderholm et al., 1995). Therefore, total nitrate/nitrite nitrogen concentrations were compared to the 10 mg/L MCL for nitrate in this report.

Groundwater MCLs or PSLs for all analytes are provided in the groundwater analytical data tables included in this report.

3.6 Groundwater Quality Data

Groundwater samples collected for the Q2 2020 monitoring event were analyzed for EDB, BTEX, anions, alkalinity, and metals (Table 3-3). Alkalinity, sulfate, dissolved iron, and dissolved manganese concentrations provide direct and indirect evidence of anaerobic conditions and thus are important indicators of bioremediation (Section 3.6.5). Contaminant concentrations were compared to their respective MCLs or PSLs and are discussed in the following sections. The analytical results for field duplicate samples are presented in the tables and were used to assess field and laboratory analytical precision. However, field duplicate results are not discussed in this text for comparison purposes unless otherwise noted and duplicate data are not provided on figures. The results for the duplicate sample analyses are included in the Data Quality Evaluation Report (Appendix F-1).

In this report, sample results from GWM wells are discussed based on their location (north or south) in relation to Ridgecrest Drive SE. The Source Area Plume, where the highest EDB and BTEX concentrations are consistently observed, is located south of Ridgecrest Drive SE. The IMOA for the groundwater interim measure is located north of Ridgecrest Drive SE.

Analytical data for both organic and inorganic compounds for the newly added wells are provided in Table 3-6. Data for organic compounds for GWM wells are provided in Table 3-7 and inorganic compounds in Table 3-8. The status of baseline sampling of one newly added well (KAFB-106S7) is provided in Table 3-9. Historical EDB and BTEX results for the previous three samples from each GWM well are provided in Tables 3-10 and 3-11, respectively. Groundwater analytical data for this quarter and the previous three quarters are provided in Appendix F-4. Concentrations for various compounds and field parameters are depicted on figures as listed below:

- EDB on Figures 3-5 to 3-7
- Benzene on Figures 3-8 to 3-10
- Toluene on Figure 3-11
- Ethylbenzene on Figure 3-12
- Total xylenes on Figure 3-13
- Total alkalinity on Figure 3-14
- Nitrate/nitrite nitrogen on Figure 3-15
- Sulfate on Figure 3-16
- Bromide on Figure 3-17
- Dissolved iron on Figure 3-18
- Dissolved manganese on Figure 3-19
- DO on Figure 3-21
- ORP on Figure 3-22.

3.6.1 Organic Compounds Analytical Results

3.6.1.1 EDB Analytical Results

Groundwater samples from 161 wells were analyzed for EDB in Q2 2020 (Table 3-3). Analytical results of EDB are presented in Tables 3-6 and 3-7, and on Figures 3-5 through 3-7.

3.6.1.1.1 EDB Analytical Results North of Ridgecrest Drive SE

Of the 161 wells analyzed for EDB in Q2 2020, 82 were located in the IMOA north of Ridgecrest Drive, SE. Concentrations of EDB exceeded the EPA MCL of 0.05 µg/L in three of these wells.

- One EDB exceedance was north of Gibson Boulevard SE in well KAFB-106041 at a concentration of 0.054 µg/L.

- The highest EDB concentration north of Ridgecrest Drive SE was detected in the groundwater sample collected from KAFB-106035 at a concentration of 0.093 µg/L. This well is in REI 4857 and is located near extraction well KAFB-106228.

3.6.1.1.2 EDB Analytical Results South of Ridgecrest Drive SE

Of the 161 wells analyzed for EDB in Q2 2020, 79 were located south of Ridgecrest Drive SE in the Source Area. Concentrations of EDB exceeded the EPA MCL of 0.05 µg/L in 15 of these wells.

- Nine EDB exceedances were observed in wells located on-Base in the immediate vicinity of, or within, the BFF.

- The highest EDB concentrations south of Ridgecrest Drive SE were detected in the groundwater samples collected from wells KAFB-106S8-451 and KAFB-106S1-447 (400 and 390 µg/L, respectively).

3.6.1.2 BTEX Analytical Results

Groundwater samples from 54 wells were analyzed for BTEX in Q2 2020 (Table 3-3). These wells are located south of Ridgecrest Drive SE. In accordance with the sampling plan (Table 3-1), groundwater samples from wells located north of Ridgecrest Drive SE were not analyzed for BTEX in Q2 2020. BTEX analytical results are presented in Tables 3-6 and 3-7, and on Figures 3-8 through 3-10. There were no exceedances of BTEX compounds in sentinel GWM wells in Q2 2020. BTEX was detected in areas consistent with previous Source Area Plume designations.

- Benzene exceeded the 5.0 µg/L MCL in 21 wells located south of Ridgecrest Drive SE (Figures 3-8 through 3-10); these exceedances were primarily in REI 4857 with two in REI 4838. The highest benzene concentration was detected in KAFB-106S9-447 (9,900 µg/L) in REI 4857 in the Source Area Plume.

- Toluene exceeded the 1,000 µg/L PSL in 13 wells located south of Ridgecrest Drive SE (Figure 3-11); these exceedances were primarily in REI 4857 with one in REI 4838. The highest toluene concentration was detected in KAFB-106063 (18,000 µg/L) in REI 4838 in the EDB ISB study area within the Source Area Plume.

- Ethylbenzene exceeded the 700 µg/L PSL in six wells located south of Ridgecrest Drive SE (Figure 3-12); five exceedances were in REI 4857 and one was in REI 4838. The highest ethylbenzene concentration was detected in KAFB-106063 (1,700 µg/L) in REI 4838 in the EDB ISB study area within the Source Area Plume.

- Total xylenes exceeded the 620 µg/L PSL in 14 wells located south of Ridgecrest Drive SE (Figure 3-13); these exceedances were primarily in REI 4857 with one in REI 4838. The highest

total xylenes concentration was detected in KAFB-106063 (5,100 µg/L) in REI 4838 in the EDB ISB study area within the Source Area Plume.

It should be noted that the EDB and benzene plumes represented in Figures 3-5 and 3-8 are presented at two different extents. The plume extent shown in the inset box on both figures is the full plume extent at the water table as interpolated through 3D kriging from all Q2 2020 concentration measurements. The plume extent shown in relation to measurement values in each figure represents the interpolated plume extent at an elevation of 4,863 ft above mean sea level.

The two plume extents are shown because newly installed monitoring wells located within the plume boundary south of Ridgecrest Drive SE are presenting concentrations that were likely present historically and are now being observed due to the new data points (recently installed vadose zone wells). These new data locations, coupled with a limited number of water table wells on the plume boundary, cause the interpolation to show a radial expansion of the plume volume over monitoring wells submerged by 12 ft or more of water. This radial expansion causes the EDB plume in the upper 15 ft of the water table to appear noticeably wider than it does at lower elevations, an effect that may be overrepresented due to the number of control wells at the boundaries. For this reason, the plume area south of Ridgecrest Drive SE is depicted below the elevation of 4,863 ft above mean sea level. This elevation represents the highest elevation where submerged monitoring wells south of Ridgecrest Drive SE offer lateral control on the plume extent. This issue does not affect IMOA plume depictions or analyses as the plume is adequately controlled in this area and is shown in its full extent in all figures. Data from additional wells scheduled for installation in accordance with the Data Gap Monitoring Well Installation Work Plan will be used to refine the plume interpolation at the water table (Kirtland AFB, 2019a).

3.6.2 Inorganic Compounds Analytical Results

Inorganic compounds include total metals (arsenic, lead, calcium, magnesium, potassium, and sodium), dissolved metals (iron and manganese), and anions (bromide, chloride, sulfate, and nitrate/nitrite nitrogen). A total of 160 wells were sampled for inorganic compounds in Q2 2020 (Table 3-1). Inorganic analytical results are presented in Tables 3-6 and 3-8. Inorganic sampling is conducted to assess geochemical aquifer conditions. Inorganic analytical results are presented in Tables 3-6 and 3-8, and on Figures 3-14 through 3-19.

3.6.2.1 Inorganic Compounds Analytical Results North of Ridgecrest Drive SE

Of the 160 wells sampled for inorganic compounds in Q2 2020, 81 are located north of Ridgecrest Drive SE in the IMOA.

- Total alkalinity was detected in the groundwater samples collected from the 81 GWM wells located north of Ridgecrest Drive SE. Twenty-nine of the detections were in REI 4857 (Figure 3-14). Concentrations in REI 4857 ranged from 67.7 to 152 mg/L; there is no established PSL for alkalinity.

- Nitrate/nitrite nitrogen was detected in groundwater samples collected from 69 wells located north of Ridgecrest Drive SE. None of these sample results exceeded the 10 mg/L PSL. Twenty-four of the detections were in REI 4857 (Figure 3-15).

- Sulfate exceeded the 250 mg/L PSL in one groundwater sample collected north of Ridgecrest Drive SE. KAFB-106049, in REI 4857, had a sulfate concentration of 255 mg/L (Figure 3-16).

- Bromide was detected in groundwater samples collected from 11 of the GWM wells located north of Ridgecrest Drive SE. Eight of the detections were in REI 4857 (Figure 3-17). Concentrations in REI 4857 ranged from 1.8 J to 21 mg/L; there is no established PSL for bromide.

- Dissolved iron was detected in groundwater samples collected from two wells located north of Ridgecrest Drive SE, KAFB-106070 in REI 4857 and KAFB-106072 in REI 4838. Neither of these sample results exceeded the 1 mg/L PSL.

- Dissolved manganese was detected in groundwater samples collected from seven wells located north of Ridgecrest Drive SE; one exceeded the 0.2 mg/L PSL. Manganese was detected in KAFB-106021, in REI 4857 and 4838, at 1.77 mg/L (Figure 3-19).

- Chloride was detected in groundwater samples collected from the 81 GWM wells located north of Ridgecrest Drive SE. None of these sample results exceeded the 250 mg/L PSL. Twenty-nine of the detections were in REI 4857.

3.6.2.2 Inorganic Compounds Analytical Results South of Ridgecrest Drive SE

Of the 160 wells sampled for inorganic compounds in Q2 2020, 79 are located south of Ridgecrest Drive SE.

- Total alkalinity was detected in the groundwater samples collected from the 79 wells located south of Ridgecrest Drive SE. Forty-five of the detections were in REI 4857 (Figure 3-14). Concentrations in REI 4857 ranged from 83.8 to 591 mg/L; there is no established PSL for alkalinity.

- Nitrate/nitrite nitrogen was detected in groundwater samples from 39 wells located south of Ridgecrest Drive SE. None of these sample results exceeded the 10 mg/L PSL. Twenty of the detections were in REI 4857 (Figure 3-15).

- Sulfate exceeded the 250 mg/L PSL in groundwater samples collected from four wells located south of Ridgecrest Drive SE, located in REI 4857. The highest sulfate concentration was detected in KAFB-106S4-446 ([342 mg/L] Figure 3-16).

- Bromide was detected in groundwater samples collected from 13 GWM wells located south of Ridgecrest Drive SE. Ten of the detections were in REI 4857 (Figure 3-17). Concentrations in REI 4857 ranged from 1.9 J to 4.4 mg/L; there is no established PSL for bromide.

- Dissolved iron was detected in groundwater samples collected from 21 wells located south of Ridgecrest Drive SE; eight exceeded the 1 mg/L PSL. The highest iron concentration was detected in KAFB-106S3-451, in REI 4857, at 8.55 mg/L. Six of the exceedances were in REI 4857 (Figure 3-18).

- Dissolved manganese was detected in groundwater samples collected from 36 wells located south of Ridgecrest Drive SE; 25 exceeded the 0.2 mg/L PSL. The highest manganese concentration was detected in KAFB-106064, in REI 4857, at 7.94 mg/L. Twenty exceedances were in REI 4857 (Figure 3-19).

- Chloride was detected in groundwater samples collected from the 79 GWM wells located south of Ridgecrest Drive SE. One of these sample results exceeded the 250 mg/L PSL. Chloride was detected in KAFB-106019 at 314 mg/L. Forty-five of the detections were in REI 4857.

3.6.3 Sampling Results for U.S. Geological Survey Sentinel Wells

USGS monitors 14 sentinel wells between the Kirtland AFB BFF EDB plume and the Albuquerque Bernalillo County Water Utility Authority water supply wells as a means of providing independent observation of water quality in the vicinity of the Albuquerque Bernalillo County Water Utility Authority water supply wells. Samples are collected from these sentinel wells quarterly. For Q2 2020, these samples were collected using dual membrane samplers from June 2 to 5, 2020. The samples were analyzed for volatile organic compounds and EDB by the USGS National Water Quality Laboratory using Method O-4127-96 (Connor et al., 1998). No detections were found in the Q2 2020 samples. The USGS transmittal letter, including the Q2 2020 data results, is provided in Appendix E-5.

3.6.4 Field Parameters

Field parameters were collected from 57 wells located south of Ridgecrest Drive SE that were sampled using the low-flow sampling method. Field parameter data are presented in Table 3-5. DO and ORP values are presented on Figures 3-21 and 3-22, respectively.

- Groundwater temperatures ranged from 17.0 degrees Celsius in KAFB-106065 and KAFB-106066 to 24.2 degrees Celsius in KAFB-106076.
- Sample pH ranged from 6.81 in KAFB-106064 to 7.91 in KAFB-106045.
- Specific conductivity ranged from 328.3 microSiemens per centimeter in KAFB-106096 to 1,895 microSiemens per centimeter in KAFB-106019.
- DO ranged from an anaerobic value of 0.05 mg/L in KAFB-106064 to an aerobic value of 7.45 mg/L in KAFB-106004 (Figure 3-21).
- ORP ranged from -256.6 millivolts in KAFB-106059 to 348.7 millivolts in KAFB-106045 (Figure 3-22).
- Turbidity ranged from 0.31 nephelometric turbidity units in KAFB-106002 to 118 nephelometric turbidity units in KAFB-106020.

3.6.5 Bioremediation Indicators

Alkalinity, sulfate, dissolved iron, and dissolved manganese concentrations provide direct and indirect evidence of subsurface conditions impacted by microbial activities.

Increased alkalinity and dissolved metals concentrations relative to "background" in the Source Area are likely associated with biological activity, as CO_2 respiration is a common component of many microbiological systems. As the dissolved CO_2 reacts with the groundwater, carbonic acid forms and mineral dissolution occurs. This dissolution results in increased total alkalinity and dissolved metals concentrations. The highest total alkalinity measurements are observed within the footprint of the Source Area Plume (Figure 3-14).

In REI 4857, the PSL exceedances for dissolved iron and manganese were clustered in the Source Area (Figures 3-18 and 3-19, respectively). The combination of elevated alkalinity and dissolved metals concentrations is likely associated with increased microbial degradation of organics in the Source Area

Plume, resulting in the creation of anaerobic conditions. Aerobic microorganisms require the presence of DO to effectively break down organic compounds found in the environment. Decreased DO and ORP can be indicators of microbial degradation of HC in the subsurface. The lowest DO and ORP values are located in the Source Area (Figures 3-21 and 3-22, respectively).

Decreased concentrations of nitrate/nitrite nitrogen and sulfate are often associated with microbial activity. Nitrogen is incorporated into microbial biomass and sulfate/sulfite transitions can be used as an energy bank by some microorganisms. Generally, lower concentrations of nitrate/nitrite nitrogen and sulfate were observed near the Source Area Plume with the notable exceptions of KAFB-106012R, KAFB-106244-445, and KAFB-106S4-446, which had sulfate levels ranging from 309 to 342 mg/L. An investigation by Kirtland AFB found that nearby sewer lines are intact, while a junction manhole may have been a historical source of sanitary waste release to the subsurface (Kirtland AFB, 2017f). A replacement manhole was installed in Q4 2017. Nitrogen levels in the area have been decreasing since Q4 2017 and are now only detected below the PSL, while sulfate levels in KAFB-106012R, KAFB-106244-445, and KAFB-106S4-446 remain above the PSL.

3.7 Groundwater Monitoring Well Network Operation and Maintenance

The GWM well network was inspected to ensure that the condition of all protective covers and wellheads met the intended requirements for performance and security. During the inspection period, cleaning and maintenance were performed and all GWM wells were determined to be fully serviceable.

Monitoring wells KAFB-106005 and KAFB-106028 were disinfected in June 2020. These monitoring wells were swabbed, brushed, and bailed prior to disinfection. A 10% free chlorine disinfectant solution was added to each well in accordance with the NMED approved well disinfection standard operating procedure, provided as Appendix R to the O&M plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b). The well screens were then swabbed to mix the chlorinated water into the surrounding formation. The chlorine was left to sit overnight then purged to remove the chlorinated water. Purging was considered complete when free chlorine concentrations were below 0.4 mg/L. Free chlorine measurements and gallons purged were recorded in the field and are included in Appendix E-1. Pre- and post-disinfection sample results are provided in Table 3-12.

As of the end of Q2 2020, 94 dedicated Bennett pumps have been removed from the GWM well network. Of these, 77 were removed in Q2 2017 as part of a transition to passive sampling for the monitoring program (NMED, 2017b). In the remaining 17 wells, dedicated Bennet pumps were removed due to pump failure. Eleven of these 17 wells have been sampled using a portable Bennet pump since removal, and six were transitioned to passive sampling based on previous technical discussions. However, in future quarters, these six wells will be sampled using a portable Bennet pump until official written approval is obtained for passive sampling. Two dedicated Bennett pumps were removed during Q2 2020 from wells KAFB-106018 and KAFB-106096. Although several wells are sampled using portable Bennett pumps, ongoing issues with this sampling system continue to arise due to biofouling of wells, corrosion of components, and mechanical failure due to aging parts.

4. DRINKING WATER SUPPLY WELL MONITORING

Three drinking water supply wells (KAFB-003, KAFB-015, and KAFB-016) provide drinking water to on-Base employees and tenants of Maxwell Housing, which is located off-Base. One drinking water supply well (ST106-VA-2) provides drinking water to VA Medical Center patients, employees, and visitors. These drinking water wells are community water systems that are regulated by the NMED Drinking Water Bureau in accordance with the Safe Drinking Water Act.

As part of the monitoring associated with the BFF site, these wells are sampled monthly and analyzed for EDB and BTEX to document that the EDB plume has not impacted these drinking water wells.

4.1 Drinking Water Supply Well Sampling and Analysis Procedures

Drinking water supply wells KAFB-003, KAFB-016, and ST106-VA-2 were sampled in April, May, and June 2020. Well KAFB-015 was offline for repairs in April and May and was sampled in June 2020 after operations resumed. Field measurements, sample collection, packaging, shipping, and analyses were performed in accordance with the Vadose Zone Coring, Vapor Monitoring, and Water Supply Sampling Work Plan and associated QAPjP (Kirtland AFB, 2017b). Field DO, pH, ORP, conductivity, and temperature were measured using an YSI Professional Plus multiparameter water quality probe; turbidity was measured using a Hach 2100Q or Geotech portable turbidity meter. Instrument calibrations were performed at the start of each day of the sampling event to ensure accurate readings.

Prior to sample collection, the pump at each well ran for a minimum of 15 minutes. The sample port at each drinking water well head was then opened for 60 seconds prior to sampling to purge any entrained sediment. Following filling, the sample containers were immediately sealed, checked for headspace bubbles, labeled, and put into an iced cooler. Daily quality control reports are provided in Appendix G-1. Completed sample collection logs and chain-of-custody forms are provided in Appendix G-2. Drinking water supply samples were collected and submitted for the following analyses:

- EDB using EPA Method 504.1
- BTEX using EPA Method 524.2.

Samples were submitted to Eurofins TestAmerica Laboratories in Savannah, Georgia, for analytical testing. Analytical results were validated by Environmental Data Services, Inc. The Data Quality Evaluation Reports are provided in Appendix H-1. The Eurofins TestAmerica Laboratories Analytical Reports for January, February, and March 2020 are provided in Appendix H-2.

In addition, semi-annual water samples were collected in June 2020, and analyzed for the following inorganic parameters:

- Total metals (calcium, magnesium, potassium, and sodium) using EPA Method 6010C
- Dissolved metals (iron and manganese) using EPA Method 6010C
- Total metals (arsenic and lead) using EPA Method 6020A
- Anions (bromide, chloride, and sulfate) using EPA Method 300.0A
- Anions (nitrate/nitrite nitrogen) using EPA Method 353.2
- Ammonia nitrogen using Standard Method 4500NH3B/C
- Sulfide using Standard Method 4500S2CF
- Alkalinity-bicarbonate/carbonate using Standard Method 2320B.

4.2 Data Review and Usability

The Q2 2020 drinking water analytical data underwent a 100% Stage 3 data validation performed by Environmental Data Services, Inc., Virginia Beach, Virginia, following data verification. The data verification and validation steps are discussed in detail in Section 3.4.

All data were valid based on necessary criteria, and no data were qualified as rejected. The technical data completeness was 100%. The data met data quality objectives and were appropriate for use in project decision-making. The quality control parameter and data quality indicator (precision, bias [accuracy], representativeness, comparability, completeness, and sensitivity) evaluation results are provided in the Data Quality Evaluation Report and Data Validation Report provided in Appendix H-1. Final validated data are provided in Table 4-1.

4.3 Drinking Water Supply Well Water Quality for Q2 2020

All four wells continue to show no detectable concentrations of EDB or BTEX in the drinking water that is supplied to Kirtland AFB employees and tenants and VA Medical Center patients, employees, and visitors. Analytical results for April, May, and June 2020 are presented in Table 4-1, Figure 4-1, and Appendix H-3. In addition, analytical data from the previous three quarters are provided in Appendix H-3. Analytical data were compared to drinking water MCLs and Secondary MCLs. The MCLs for drinking water supply wells are established in the EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40 CFR Parts 141 and 143.

All inorganic compounds detected in the samples collected from drinking water supply wells KAFB-003 and ST106-VA-2 were below their respective EPA MCL. The arsenic concentrations detected in the samples collected from KAFB-015 and KAFB-016 in June 2020 were 0.017 and 0.024 mg/L, respectively, which both exceeded the MCL of 0.01 mg/L. These arsenic concentrations are consistent with naturally occurring arsenic observed in the Albuquerque Basin (Bexfield and Plummer, 2003). Consequently, Kirtland AFB operates an arsenic compliance system as part of the water treatment system and, as a result, arsenic concentrations in the Kirtland AFB drinking water supply do not exceed drinking water criteria (Kirtland AFB, 2003). All other inorganic compounds detected in KAFB-015 and KAFB-016 were below their respective MCLs.

5. GROUNDWATER TREATMENT SYSTEM OPERATION AND PERFORMANCE

This section presents Q2 2020 groundwater treatment system operations, performance monitoring and EDB removal, system maintenance and expansion, and performance assessment and analysis of the lines of evidence for the GWTS.

Appendices pertinent to GWTS operation and performance are:

- Appendix I-1 GWTS Plant O&M Documentation
- Appendix I-2 New Mexico 811 Line Locate Tickets
- Appendix I-3 GWTS Performance Sample Collection Logs
- Appendix I-4 Data Quality Evaluation Report – GWTS Samples
- Appendix I-5 Data Packages – GWTS Samples.
- Appendix I-6 GWTS Performance Analytical Data.

5.1 Groundwater Treatment System Operation

The GWTS is part of the interim measure performed pursuant to the corrective action provisions in Kirtland AFB's RCRA Permit. The purpose of the interim measure is to collapse and treat the dissolved-phase EDB plume within the IMOA, which located north of Ridgecrest Drive SE. The GWTS includes:

- Four extraction wells (KAFB-106228, KAFB-106233, KAFB-106234, and KAFB-106239)
- Influent conveyance piping
- Two 800-gallon per minute (gpm) maximum capacity carbon treatment trains located within the GWTS building and associated influent conveyance lines
- Effluent conveyance lines discharging to either the Tijeras Arroyo Golf Course main pond (GCMP) or gravity-fed injection well KAFB-7 (Figure 5-1).

In addition to the operational procedures outlined in the O&M Plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b), the GWTS is also subject to the terms of Class V Underground Injection Well Discharge Permit (DP) No. 1839 (DP-1839) (NMED, 2017c) for injecting treated groundwater to KAFB-7. DP-1839 became effective on April 28, 2017. Drilling and installation of underground injection control well KAFB-106IN2 under DP-1839 is scheduled for Q3 2020 (Kirtland AFB, 2019b). The requirements associated with the conditions of DP-1839 and the location of reporting requirements in this report are summarized in Table 5-1.

5.1.1 Groundwater Treatment System Treatment Volumes and Percentage Run Time

5.1.1.1 Quarterly Run Time

For the purpose of run time evaluation, GWTS operation is defined as the time when groundwater was being pumped from at least one extraction well and was subsequently treated and discharged. Table 5-2 provides a monthly and quarterly summary of the extraction well performance, including individual extraction well run times.

During Q2 2020, the GWTS treated 60,132,800 gallons of groundwater; 54,626,900 gallons was discharged to the GCMP, and 5,505,900 gallons was discharged to injection well KAFB-7. During Q2 2020, Trains 1 and 2 treated 32,683,400 and 27,449,400 gallons, respectively. Table 5-3 provides a cumulative summary of groundwater quantities extracted, treated, and discharged.

From April 1 through June 30, 2020, the GWTS was operational 99.9% of the time (Table 5-2), which is similar to the first quarter (Q1) 2020. Planned and unplanned system shutdowns affecting GWTS overall run time during Q2 2020 are described in Sections 5.3.1 and 5.3.3.

5.1.2 Extraction Well Performance Metrics

The following subsection provides a summary of the performance metrics for the four extraction wells. Quarterly extraction well performance data required for DP-1839 reporting compliance are provided in Table 5-2. Average operational extraction flow rates do not include flow rates during downtime. Well performance figures are provided in Appendix I-1.

5.1.2.1 Quarterly Extraction Rates

During Q2 2020, three extraction wells were operated based on GCMP capacity with the following priority: extraction wells KAFB-106228 and KAFB-106239 continue to capture EDB mass based on treatment system performance monitoring and wellhead sampling, and thus are considered the highest priority for operation of the GWTS. Well KAFB-106234, which serves as a distal plume capture well for protection of the municipal water supply wells northeast of the EDB plume, is the next priority for the GWTS. Well KAFB-106233 was temporarily taken off-line to support system maintenance and expansion activities. Based on historical monitoring data showing non-detect or trace concentrations from 2017 to present, the contribution of this well to capture the EDB plume is negligible (Section 5.4.4.2). The flow from well KAFB-106233 was reduced during maintenance activities and periods when the GWTS effluent was otherwise limited and, therefore, KAFB-106233 had limited run time during Q2 2020.

Water was extracted from KAFB-106228 during Q2 2020 at an average operational flow rate of 143.3 gpm with a run time of 99.0% (Table 5-2).

Water was extracted from KAFB-106234 during Q2 2020 at an average operational flow rate of 175.0 gpm with a run time of 99.9% (Table 5-2).

Water was extracted from KAFB-106239 during Q2 2020 at an average operational flow rate of 74.4 gpm with a run time of 94.9% (Table 5-2).

Water was extracted from KAFB-106233 during Q2 2020 at an average operational flow rate of 165.1 gpm with a run time of 45.0% (Table 5-2). This well was shut off periodically during winter months in order to manage the amount of water being provided to KAFB-7. Section 5.3.3.1 below provides additional information.

5.1.3 Injection Well Performance Metrics

Quarterly injection well performance data required for DP-1839 reporting compliance are provided in Table 5-4. Injection well performance figures are provided in Appendix I-1.

Groundwater was injected into KAFB-7 during Q2 2020 at an average operational flow rate of 545.6 gpm with a run time of 9.9% (Table 5-4). Rehabilitation of KAFB-7 began on May 27, 2020 and will be completed in Q3 2020.

5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal

GWTS performance monitoring is performed in conformance with the most recently approved Work Plan (Kirtland AFB, 2017a) as well as Appendix L of the O&M Plan, Sampling and Analysis Plan, and any subsequent revisions. DP-1839 provides additional sampling criteria. Table 2 of DP-1839 provides a list of the constituents of concern that are most frequently monitored at the GWTS (NMED, 2017d). Q2 2020 GWTS analytical performance metrics and EDB mass removal are discussed in the following sections.

5.2.1 Quarterly Sampling and Analysis

Water samples from Train 1 (KAFB-106233 and KAFB-106234) and Train 2 (KAFB-106228 and KAFB-106239) were collected monthly from the untreated influent (sample identifications GWTS-BFF-INF1 and GWTS-BFF-INF2), from a port located after the initial granular activated carbon (GAC) vessel (sample identifications GWTS-BFF-GAC1 and GWTS-BFF-GAC2) but before the final GAC vessel, and from the treated effluent (sample identifications GWTS-BFF-EFF1 and GWTS-BFF-EFF2) in Q2 2020. These samples were analyzed for EDB, BTEX, and dissolved iron and manganese. In previous reports, the samples collected between the two GAC vessels were referred to as post-GAC samples but will hereafter be referred to as mid-GAC samples to clarify that they are not effluent samples. EDB concentrations and mass removal for Q2 2020 are summarized in Table 5-5. Sample results and effluent discharge limits are provided in Table 5-6 for Train 1 and Table 5-7 for Train 2. GWTS performance sample collection logs are provided in Appendix I-3 and analytical data for this quarter and the previous three quarters is provided in Appendix I-6.

In Q2 2020, an estimated 1,511 milligrams (mg) of EDB was captured in the initial GAC vessel and removed by Train 2. There were no detections of EDB in the influent concentrations for Train 1. Quantities of mass were calculated by taking the sum of each monthly influent concentration multiplied by the respective total weekly treated volume (Table 5-5).

Concentrations of EDB were not detected in the influent samples of Train 1 in April, May, or June 2020 (Table 5-6). Concentrations of EDB were detected in the influent samples of Train 2 below the 0.05 µg/L MCL at estimated concentrations of 0.01 J, 0.014 J, and 0.024 J µg/L in April, May, and June 2020, respectively (Table 5-7). The J-qualifier denotes that the analyte was identified, but at a low enough concentration that the associated numerical value is estimated. BTEX was not detected in any influent samples collected from either train during Q2 2020.

Dissolved manganese was detected below the PSL in all monthly influent samples collected from Train 2 in Q2 2020, and was detected below the PSL in the June 2020 influent sample collected from Train 1, but not the April or May 2020 influent samples (Tables 5-6 and 5-7). Dissolved iron was not detected in any monthly influent samples collected from either Train 1 or Train 2 (Tables 5-6 and 5-7).

Concentrations of BTEX, dissolved iron, and manganese were non-detect in all mid-GAC and effluent monthly samples collected from both Trains 1 and 2 during Q2 2020 (Tables 5-6 and 5-7). Concentrations of EDB were detected in the mid-GAC sample of Train 1 at an estimated concentration of 0.01 µg/L in June 2020 (Table 5-6). Concentrations of EDB were detected in the mid-GAC sample of Train 2 at an estimated concentration of 0.011 µg/L in June 2020 (Table 5-7). Under DP-1839, GAC changeouts are

not required until mid-GAC concentrations of EDB reach or exceed 90% of the MCL of EDB (0.05 µg/L).

5.2.2 Data Validation

The GWTS analytical data from Q2 2020 underwent EPA Stage 3 data validation by Environmental Data Services, Inc., Virginia Beach, Virginia, following data verification. The data verification and validation steps are discussed in detail in Section 3.4.

Upon completion of the verification and validation process, the data were assessed for accuracy, precision, representativeness, comparability, completeness, and sensitivity to determine if the project data quality objectives were achieved and deemed usable for their intended purpose. The data validation results are included in the Data Quality Evaluation Report provided in Appendix I-4 and the final laboratory data reports provided in Appendix I-5.

5.3 Groundwater Treatment System Maintenance and Expansion Activities

Q2 2020 maintenance activities at the GWTS were performed in accordance with the O&M Plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b) and are discussed in the following sections.

5.3.1 Routine Maintenance Activities

Routine maintenance is any activity described as such in the GWTS O&M Plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b). A summary of routine maintenance activities is provided below.

5.3.1.1 Quarterly Routine Maintenance Activities

During Q2 2020, the effluent and influent bag filters were not changed out for either Trains 1 or 2 in Q2 2020 as they did not reach the differential pressure requiring change outs (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b). The differential pressure along the initial GAC vessel on Train 1 was 1.0 pound per square inch (psi) on April 1, 2020; and, on June 30, 2020, the differential pressure was 2.0 psi (Appendix I-1). The differential pressure along the initial GAC vessel on Train 2 was 3.7 psi on April 1, 2020; and, on June 30, 2020, the differential pressure was 4.5 psi.

The influent basket strainers were cleaned 15 times for Train 1 and 18 times for Train 2 throughout Q2 2020. The effluent Wye-strainers were cleaned one time for both Train 1 and Train 2 throughout Q2 2020. Wye-strainers/basket strainers were cleaned to maintain equalization of the influent tanks and prevent cavitation at the influent pump intakes. The Wye-strainers/basket strainers accumulate biologic materials coming in with the influent.

The GWTS routine maintenance schedule is provided in Table 5-8 and non-routine maintenance activities that were performed during Q2 2020 are discussed in Section 5.3.3 and in Table 5-9.

5.3.2 Conveyance Line Security and Administrative Controls

Kirtland AFB is registered as a line-owner with New Mexico 811 for the off-Base portion of the conveyance lines. U.S. Air Force permits are required for all on-Base excavation projects.

5.3.2.1 Quarterly Conveyance Line Security

During Q2 2020, Kirtland AFB responded to seven off-Base tickets requested through New Mexico 811 (Appendix I-2). There were no conveyance line breaches and all off-Base conveyance lines remained intact.

5.3.3 Non-Routine Maintenance Activities

Non-routine maintenance activities are defined as maintenance items that fall outside of the scope of the GWTS O&M Plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b) but need to be addressed in order to maintain consistent GWTS operation. A summary of shutdowns associated with non-routine maintenance activities occurring during Q2 2020 is provided on Table 5-9. Major non-routine maintenance performed in Q2 2020 is listed below.

5.3.3.1 Quarterly Non-Routine Maintenance Activities

On October 22, 2019, KAFB-106233 was temporarily taken offline to maintain the water level in injection well KAFB-7 during the winter months when the amount of water that can be diverted to the GCMP is minimal. KAFB-106233 was selected for shut down because EDB concentrations observed in this well have been below the PSL since July 2017 (Table 5-10). It is not the most downgradient well (KAFB-106244) and is not preventing concentrations from moving north. Currently, this well is operated to enhance capture to well KAFB-106239 (Section 5.4.2.4.2). With warmer temperatures and higher rates of irrigation at the GCMP in Q2 2020, KAFB-106233 began a greater frequency of operation by May 28, 2020.

Between May 7 and May 13, 2020, the Train 1 effluent pump skid motor (P-118) and a Train 2 influent pump skid motor (P-212B) were replaced with spare motors due to extensive wear on the bearings caused by standard use and aging of the motor. All pump skid motors were given grounding rings and laser alignments. On June 18, 2020, the Train 2 influent pump skid motor (P-212B) was replaced with a new motor after detections of bearing vibration anomalies.

Rehabilitation on extraction well KAFB-106239 was performed between June 22 and June 26, 2020. This included chlorine disinfection, mechanical surging, brushing, bailing, and a camera survey. Extraction well disinfection was performed in accordance with the Standard Operating Procedure provided as Appendix R to the O&M Plan (NMED, 2016; Kirtland AFB, 2016a, 2017d, 2018b). The Standard Operating Procedure was approved by NMED on August 6, 2018 (NMED, 2018b). The analytical sampling suites for pre-treatment and post-treatment groundwater samples were approved on November 16, 2018 (NMED, 2018c).

Pre- and post-treatment samples were analyzed for bromate and chlorite using EPA Method E300.1. Perchlorate was analyzed using EPA Method E331.0. Bromate and chlorite were not detected in either sample. Perchlorate was detected at concentrations ranging from 0.15 to 0.2 µg/L, below the PSL of 14 µg/L, in both samples (Table I-1-5). Groundwater from the Middle Rio Grande Basin has naturally occurring perchlorate concentrations ranging from 0.12 to 1.8 µg/L (Plummer et al., 2006).

5.3.4 Effluent Conveyance Line Integrity

Final retesting of the effluent conveyance line segment between the changeover valve and KAFB-7 will be performed after rehabilitation of KAFB-7 occurs. At that time, a new surface-mounted flow control valve will be installed. The current valve is no longer sealing correctly; and while this does not result in leakage onto the ground surface, the failure to seal prevents proper line pressure testing. The seal integrity

of the valve was tested again on January 24, 2020, with no success. The valve is scheduled for replacement in July 2020.

5.4 Pump and Treat Interim Measure Performance Assessment

This section details the vertical capture, horizontal water level pairs analyses and actual field sampling results indicating 100% capture of the volume and mass of the initial TCZ. Additionally, the numerical flow model estimated that the interim measure produced capture conditions for greater than 99% of the initial TCZ volume and mass. The following section, Section 5.5 Analysis of the Lines of Evidence, presents the various lines of evidence presented above used in the plume capture assessment. The results of this assessment suggest that at least 99% of the initial TCZ volume and mass the interim measure was designed to contain is being captured under Q2 2020 conditions.

The pump and treat interim measure to contain the dissolved-phase EDB groundwater plume is being implemented pursuant to the corrective action provisions in Part 6 of Kirtland AFB's RCRA Permit. As discussed above, this interim measure focuses on the collapse and treatment of the dissolved-phase EDB concentrations in groundwater that extends north of Ridgecrest Drive SE. It does not address dissolved-phase EDB or other fuel-related constituent concentrations present in the source area located south of Ridgecrest Drive SE. The fuel release-related contamination south of Ridgecrest Drive SE will be comprehensively addressed in the Corrective Measures Implementation phase once the final remedy for the source area has been selected by NMED. At a minimum, the pump and treat system will continue to operate until the corrective measures evaluation is completed, NMED has selected the final remedy or remedies, and the corrective measures implementation plan is approved.

The principal goals of the groundwater interim measure are to:

1. Collapse the dissolved-phase EDB plume north of Ridgecrest Drive SE, which includes reducing the volume and EDB mass over time.

2. Halt plume expansion in the dissolved-phase EDB plume north of Ridgecrest Drive SE and provide protection to water supply wells by hydraulic capture of the dissolved-phase EDB utilizing well pumping.

Measuring the attainment of these goals during implementation of both the interim measure and the final remedy is referred to as performance assessment.

Defining the effectiveness of the interim measure in achieving the first goal of collapsing the plume is performed by analyzing groundwater samples for the presence and concentration of EDB and interpolating the extent of the plume based on these analyses. Groundwater samples are collected and analyzed every second and fourth quarter and the plume volume and mass is interpolated for each sampling period. In this way, the effect of interim measure extraction on the extent of the plume can be observed and quantified. This analysis also provides a domain against which the interim measure's capture potential (goal 2) can be evaluated.

The second goal, referred to as plume capture by the EPA (EPA, 2008) and in this report, provides mitigation of impact to receptors prior to implementation of the final remedy. Performance assessment of the EDB pump and treat interim measure is performed in Q2 and Q4 of each year using the EPA Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems (EPA, 2008). Performance assessment, consisting of multiple lines of evidence including numerical modeling, was approved by NMED on April 23, 2018 (NMED, 2018d) in resolution of the modeling component of the Notice of Deficiency issued to Kirtland AFB on November 16, 2017 (NMED, 2017d).

The EPA document (EPA, 2008) highlights six key steps for systematically performing a capture zone evaluation (detailed in Section 5.4.2). Quoting from this document, *Specific techniques to interpret the extent of capture achieved by the ground-water extraction are applied in Steps 3 to 5. Each of these techniques is subject to limitations, and in most cases, no single line of evidence will conclusively differentiate between successful and failed capture. Therefore, developing "converging lines of evidence," by applying multiple techniques to evaluate capture, increases confidence in the conclusions of the capture zone analysis.*

Specific lines of evidence used to assess the capture zone include:

- Interpretation of collected water level data
- Modeling to simulate water levels in conjunction with particle tracking
- Evaluation of concentration trends.

The groundwater modeling performed is an iterative process and is used to support the interpretation of the collected water level and concentration data.

This performance assessment is a snapshot of the system's performance at the time of the synoptic gauging event and is designed to evaluate point-in-time capture produced by the interim measure extraction system. It does not provide an integrated assessment of capture throughout Q2 2020, and it is not intended to be a final remedy evaluation.

5.4.1 Plume Collapse Analysis

This section describes the analyses designed to quantify the distribution of dissolved-phase EDB mass and volume within the aquifer over the course of the interim measure. The interim measure goal is to reduce the mass and volume of contaminated media by containing, capturing, and treating contaminated groundwater in the plume north of Ridgecrest Drive SE.

As discussed in Section 3.0, the IMOA for the groundwater interim measure is the distal section of the EDB plume located north of Ridgecrest Drive SE. The TCZ within the IMOA is defined in accordance with EPA 2008 guidance. The definition used by EPA defines the TCZ as the 3D zone of groundwater that must be captured by the remedy extraction wells for the hydraulic containment portion of the remedy to be considered successful. The 3D zone of groundwater that must be captured by the interim measure extraction wells (i.e., the TCZ) is defined as the MCL for dissolved EDB, 0.05 µg/L. The iso-shell delineating the cleanup standard is defined as the 3D polygon with a periphery concentration of 0.05 µg/L. Collapse of the TCZ is the long-term goal; therefore, establishing a consistent method of measurement that allows comparison of plume mass and volume trends over the duration of cleanup activities is essential.

The effectiveness of the interim measure is evaluated by comparing the most recent dissolved-phase EDB delineation with past delineations. EDB concentration data are collected and analyzed from the full GWM network during Q2 and Q4 of each year. Therefore, dissolved-phase EDB delineations are updated on this schedule and plume comparisons are presented in the reports associated with these quarters. All delineation updates are performed using the same methodology with the only variations being the insertion of the current EDB concentration data, addition of any new monitoring wells since the last assessment, and allowance of volume increase due by resetting the plume upper surface to the current water table surface.

Figure 5-2 shows the interpolated EDB delineations for the last eight synoptic measuring periods. The 3D zone of groundwater that must be captured by the interim measure extraction wells (i.e., the TCZ) is defined as the MCL for dissolved EDB, 0.05 µg/L. The iso-shell delineating the cleanup standard is defined as the 3D polygon with a periphery concentration of 0.05 µg/L. The plume volume defined by the 0.05 µg/L iso-shell changes between measuring periods as a result of the rising regional water table and interim measure extraction activity. The volume and mass of the plume is calculated for each assessment period shown in Figure 5-2 and the values are listed in Table 5-11.

As can be seen in both Figure 5-2 and in Table 5-11, the volume and mass of the plume has reduced significantly over time. In Q4 2016, 15 months after the first interim measure extraction well KAFB-106228 became active, the plume volume and mass were estimated at 114,700,000 cubic ft and 104 grams, respectively. Both of these values have been on a decreasing trend over the last 3.5 years with the current plume volume and mass estimated at 4,720,000 cubic ft and 2.4 grams, respectively. This represents a 96% decrease in plume volume and a 98% decrease in plume mass.

Figure 5-3 shows a cross-section comparison of the dissolved-phase EDB extent in Q4 2019 and Q2 2020. The plume has been cut along the AECOM T1A transect that, in general, runs along the longitudinal axis of the plume from southwest to northeast. The plume is shown transparent against the stratigraphic layers of the saturated portion of the aquifer along this transect developed by AECOM (2016) so that the shape and movement of the plume can be compared to the location and extent of coarse-grained (white) and fine-grained (gray) lithology as coarse-grained sediments are generally more permeable and conductive and may provide pathways for plume movement.

Beginning in Q2 2019, this analysis was modified to focus on dissolved-phase EDB mass and volume changes solely for the TCZ, the plume extent north of Ridgecrest Drive SE. East-west transect intervals were started at, and oriented parallel to, Ridgecrest Drive SE. The total number of analysis intervals was reduced from 11 to 6 (A through F) (Figure 5-3). Both Figure 5-3 and Table 5-11 list the volume and mass of each interval and summarize these for total TCZ plume characterization. In order to retain mass and volume change comparisons, the modified analysis was repeated on dissolved-phase EDB plumes derived for Q4 2016 through Q2 2018 performance assessments. Figure 5-3 shows a graphic comparison of the Q4 2019 and Q2 2020 analyses, while Table 5-11 summarizes the analysis comparisons from Q4 2016 to Q2 2020. The dissolved-phase EDB mass values (in grams) assume a uniform total porosity of 25% for the contaminated thickness of the aquifer.

As shown in Table 5-11, dissolved-phase EDB mass in the interim measure TCZ (intervals A through F) was 104 grams in Q4 2016, 82 grams in Q2 2017, 80 grams in Q4 2017, 19 grams in Q2 2018, 16 grams in Q4 2018, 11 grams in Q2 2019, 9.1 grams in Q4 2019, and 2.4 grams in Q2 2020. Dissolved-phase EDB mass has consistently decreased in the TCZ over this time with the decrease between Q4 2019 and Q2 2020 (-74%) being greater than all but the largest percent change (-77%) occurring between Q4 2017 and Q2 2018 (Kirtland AFB, 2018c).

Approximately 2.8 and 3.1 grams of EDB were removed by the GWTS in Q4 2019 and Q1 2020, respectively (Table 5-5). The 5.9 grams of extracted EDB (combined Q4 2019 and Q1 2020 extracted grams of EDB) is in reasonable agreement with the mass reduction estimated at 6.8 grams by comparing the modeled TCZ EDB plume mass for Q4 2019 and Q2 2020 (Table 5-11) considering that extraction well KAFB-106239 captures mass from both within the TCZ and south of Ridgecrest Drive SE. In addition to mass removal by the interim measure, EDB concentrations are also reduced by dispersion and diffusion processes.

This analysis shows that the interim measure has collapsed the TCZ, with the bulk of the remaining volume and mass north of Ridgecrest Drive SE either being centered around interim measure well KAFB-

106228, or present just north of Ridgecrest Drive SE as an extension of the Source Area Plume. Overall, the plume analysis reveals the general pattern of dissolved-phase EDB volume and mass response expected due to interim measure system extraction.

5.4.2 Plume Capture Evaluation

As described in Section 5.4, one of the goals of the interim measure is to halt the migration of the EDB plume. The degree to which the interim measure is achieving this goal is defined by performing a capture evaluation during each assessment period. The subsections below describe the methods and results of the capture evaluation being utilized to assess the effectiveness of the interim measure. The evaluation follows EPA capture evaluation guidelines defined as a six-step process (EPA, 2008):

- Step 1: Review site data, site conceptual model, and remedy objectives
- Step 2: Define site-specific TCZ
- Step 3: Interpret water levels
  - Potentiometric surface maps (horizontal capture)
  - Water level difference maps (vertical capture)
  - Water level pairs (gradient control points)
- Step 4: Perform calculations
  - Estimate flow rate calculation
  - Capture zone width calculation
  - Modeling (analytical or numerical) to simulate water levels, in conjunction with particle tracking and/or transport modeling
- Step 5: Evaluate concentration trends
- Step 6: Interpret actual capture based on Steps 3 through 5, compare to TCZ, and assess uncertainties and data gaps.

As defined by EPA, a "Capture Zone" refers to the 3D region in an aquifer system that contributes the groundwater extracted by one or more wells (EPA, 2008). The purpose of the performance assessment is to assess hydraulic containment produced by each interim measure extraction well at a single point in time (period of gauging) and compare it to the TCZ (dissolved EDB concentrations above the MCL). The percentage of the plume contained will be identified as captured, meaning that if conditions do not change, the contained portion of the plume will eventually flow to the extraction well and be removed from the aquifer. The terms "capture" and "contained" are used interchangeably representing the above definition.

Steps 3 through 5 represent techniques for systematically evaluating capture, and each has limitations, meaning that no single line of evidence will conclusively differentiate between successful and failed capture. Therefore, in order to increase the confidence in the conclusions of a capture zone analysis,

multiple techniques are applied so that converging lines of evidence can be developed. This section describes the methods and results for each line of evidence used to evaluate dissolved-phase EDB capture at Kirtland AFB BFF. Descriptions of the methodologies utilized can be found in Appendix E-6.

5.4.2.1 Step 1: Review Site Data, Site Conceptual Model, and Remedy Objectives

EPA (2008) identifies four prerequisites for establishing meaningful TCZs. These prerequisites are cited below, followed by responses to the posed questions.

1. *Is the plume adequately delineated in three dimensions?*

   Yes, plume delineation is accomplished through the GWM network gauging and sampling activities described in Section 3, along with the gauging of six wells that are not in the GWM network (Appendix E-2). In Q2 2020, the groundwater level and water chemistry monitoring network included 164 and 161 monitoring wells, respectively. Of the 164 gauged groundwater level monitoring wells, 128 are part of 42 two-, three-, or four-well nested and co-located sites designed to monitor vertical gradients and 3D water chemistry. Nested wells are wells that are located within the same borehole. Co-located wells are individual well screens that were installed at different depths and generally located within 50 feet of each other. These 42 sites consist of nine nested sites (13 wells) and 33 co-located sites (115 wells). The use of multiple well screens at different depths allows for assessment of the plume in three dimensions.

2. *Is there adequate hydrogeologic information for performing capture zone evaluations?*

   Yes, quarterly analyses are used to identify data gaps and define locations for additional monitoring wells, continually improving the performance of the monitoring well network. A summary of hydrogeologic information used for the capture zone evaluations follows:

   - Groundwater levels across the site are measured during 3- to 5-day synoptic periods every quarter. (Note that "groundwater level" and "head" are used interchangeably throughout Section 5.4.) Based on screen interval elevations, the monitoring well network has been grouped into three REIs that allow for a systematic way to analyze the horizontal flow and vertical gradients at depth in the aquifer.

   - Water chemistry data are collected from the entire monitoring well network every Q2 and Q4 in order to define and monitor the extent and character of contaminant concentrations, including dissolved-phase EDB addressed in this section.

   - Quarterly water level measurements have shown that the groundwater levels in the project area have been increasing at an average rate of approximately 3.3 ft per year since 2013. As of Q2 2020, well screens of 29 monitoring wells remained unsubmerged by the rising water table.

3. *Is there a site conceptual model (not a numerical model)?*

   Yes, the plume exists in an unconfined aquifer characterized by coarse-grained, braided river deposits with a northeast-southwest-oriented channel axis (AECOM, 2016). Silt and clay units representing overbank, backwater, and/or floodplain deposits are interbedded with the coarser grained channel deposits.

Due to relatively high evapotranspiration rates, recharge from the ground surface is usually negative. The primary source of recharge to the aquifer is from mountain front runoff and from seepage from the Rio Grande and its tributary streams and arroyos (AECOM, 2016).

In a study of the hydrologic system of the Middle Rio Grande Basin (Bartolino and Cole, 2002), USGS states: "Though the aquifer is under confined conditions locally, it is considered to be an unconfined aquifer as a whole. (For groundwater flow modeling, the upper part of the aquifer system is treated as unconfined and the lower part as confined.)."

The network currently incorporates 42 nested and co-located groundwater level monitoring locations (Figures 5-4 and 5-5), which measure pressure at two or three vertically distinct horizons in the aquifer at relatively the same horizontal location (for this discussion, wells are considered nested if the wells being compared are located less than 180 ft apart). Well pairs are evaluated across the entire plume in conjunction with the Step 3 potentiometric surface analysis. Aquifer confinement would be indicated by differences in pressure between vertical nested wells. In Q2 2020, vertical head differences could not be determined well nest KAFB-106063 and KAFB-106064 due to the presence of downhole equipment associated with the *in situ* biodegradation pilot study (Kirtland AFB, 2016d) in these wells. Measurements could only be obtained for the REI 4814 well (KAFB-106062) and this is not expected to significantly impact capture assessments in the TCZ.

A comparison of the head difference between the shallow (REI 4857) and intermediate (REI 4838) monitoring location for each of the 39 well pairs shows that 51% (20 well pairs) represent unconfined conditions, having vertical pressure differences of between -0.1 and 0.1 ft (head difference rounded to the nearest tenth of a foot). The remaining 19 well pairs are scattered throughout the monitored groundwater network for the BFF EDB plume representing localized aquifer separation due to discontinuous interbedded fine grain lenses between the nested well screens. A comparison of the head difference between the intermediate (REI 4838) and deep (REI 4814) monitoring location for each of the 37 well pairs shows that 62% (23 well pairs) represents unconfined conditions, having vertical pressure differences of between -0.1 and 0.1 ft. Similar to the upper comparison, the remaining 14 well pairs are scattered around the project area representing localized aquifer separation due to discontinuous interbedded fine grain lenses between the nested well screens.

The section of aquifer upon which the hydraulic containment analyses presented in this section are performed includes the upper part of the Santa Fe Group (Middle Rio Grande Basin), above the uppermost confining unit referred to as A2 (AECOM, 2015).

4. *Is the objective of the remedy clearly stated?*

   Yes, the objective of the groundwater pump and treat system is hydraulic containment (capture) and collapse of the dissolved-phase EDB >0.05 µg/L north of Ridgecrest Drive SE (TCZ).

5.4.2.2 Step 2: Define Site-Specific Target Capture Zone

According to EPA (2008), the *TCZ is defined herein as the 3D zone of groundwater that must be captured by the remedy extraction wells for the hydraulic containment portion of the remedy to be considered successful. This will depend on the site-specific remedy objectives (Step 1)."*

- Water chemistry samples collected from vertically nested wells have shown that EDB in concentrations above the detection limit do not extend throughout the entire thickness of the impacted portion of the aquifer; therefore, a 3D delineation of the TCZ is required.

- EDB concentration data are collected and analyzed from the full GWM network during Q2 and Q4 of each year. Therefore, dissolved-phase EDB delineations are updated on this schedule and plume comparisons are presented in the reports associated with these quarters. All delineation updates are performed using the same methodology with the only variations being the insertion of the current EDB concentration data, addition of any new monitoring wells since the last assessment, and allowance of volume increase due by resetting the plume upper surface to the current water table surface.

EPA (2008) also states that *the TCZ should be defined in terms of specific criteria, such as a specific concentration contour or a geographical boundary along which an inward hydraulic gradient is to be established.*

- The 3D zone of groundwater that must be captured by the interim measure extraction wells (i.e., the TCZ) is defined as the MCL for dissolved EDB, 0.05 µg/L. The iso-shell delineating the cleanup standard is defined as the 3D polygon with a periphery concentration of 0.05 µg/L.

The plume delineation produced in Step 2 estimates the volume and mass of the TCZ (plume extent north of Ridgecrest Drive SE) against which the interim measure capture potential for each evaluation period is gauged. As shown in Section 5.4.1, the volume and mass of the TCZ has continued to decrease overtime. This means that the interim measure capture target has decreased. It is important to note that the decreasing plume extent significantly effects how the effectiveness of interim measure capture is reported. For example, if the interim measure is found to capture all but 1 gram of EDB mass in the TCZ in Q4 2016, this would result in an estimated capture potential of 99%, while if the interim measure is found to capture all but 1 gram of EDB mass in the TCZ in Q2 2020, the estimated capture potential would be only 58%. While the two capture percentages are very different, they both represent the same amount of uncaptured mass. For this reason, the interim measure capture potential will be reported in volume and mass values, percent of current TCZ, and percent of initial TCZ which is represented by the Q4 2016 TCZ delineation. The final determination of interim measure capture for the evaluation period will be based on the percent of initial TCZ captured.

5.4.2.3 Step 3: Interpret Water Levels

EPA (2008) states that *for most sites, it is appropriate to analyze groundwater flow patterns in three dimensions (i.e., both horizontal and vertical). The potential for vertical transport of contaminants to underlying or overlying aquifers should be considered. Three-dimensionality of groundwater flow patterns in the vicinity of pumping wells should also be considered.*

Hydraulic capture analyses, both in the horizontal and vertical directions, are based on defining the direction of groundwater flow through mapping pressure in the aquifer from discrete measuring points (monitoring wells). The purpose of the performance assessment is to delineate the zone of hydraulic containment produced by each interim measure extraction well at a single point in time (period of gauging) and compare the zone to the TCZ (dissolved-phase EDB north of Ridgecrest Drive SE). The percentage of the plume within the containment zone will be identified as contained; meaning that, if conditions do not change, the contained portion of the dissolved-phase EDB will eventually flow to the extraction well and be removed from the aquifer. The current capture zone analyses were conducted using groundwater head and EDB concentration data sets collected in Q2 2020.

The synoptic groundwater head measuring event was from April 14 to April 16, 2020 and included 165 GWM network monitoring wells. In addition to the GWM network wells gauged as part of the synoptic event, 28 non-GWM network wells were gauged for use in the performance assessment on April 14, 2020. The synoptic water chemistry sampling event was from April 6 to May 19, 2020 and included 161 monitoring wells. A full description of how REIs are defined and of the method used to perform horizontal capture are included in Appendix E-6.

It should be noted that Steps 3a and 3b, which are discussed in Sections 5.4.3.1 and 5.4.3.2 below, are capture analyses that do not rely on the delineation or interpretation of drawdown. Drawdown is the change of water level due to groundwater extraction. It is calculated by subtracting the water level measured under pumping conditions from the water level measured without pumping. The "cone of depression" (i.e., drawdown) caused by extraction from one or more locations does not represent the capture zone associated with that extraction.

If a regional hydraulic gradient exists (which it does across the project area), there are locations outside the capture zone where drawdown due to pumping is observed. These analyses define capture by delineating the flow field under pumping conditions only.

5.4.2.3.1 Step 3a: Potentiometric Surface Maps (Horizontal Capture Analysis)

EPA (2008) states that *horizontal capture is defined by a bounding flow line, within which all other flow lines reach an extraction location. The delineation of the capture zone in this manner is a derived interpretation since water level contours must first be interpreted from water level values.*

Horizontal water level maps indicate contours of water levels within the aquifer from which the extent of horizontal capture can be interpreted. Flow lines are interpreted as perpendicular lines to water level contours. The method used in this analysis uses Esri Spatial Analyst to develop potentiometric surface grids (analogous to groundwater level contours) from measured groundwater levels, then converts the potentiometric surface grid into flow direction grids (analogues to flow lines). From the flow direction grids, still using Spatial Analyst, the hydraulic divide defining capture by each interim measure extraction well is defined.

Capture analyses are performed in Q2 and Q4 of each year when dissolved-phase EDB delineations are updated. The horizontal capture analysis for the TCZ north of Ridgecrest Drive SE for the current EDB delineation (Q2 2020) and the previous seven delineations (Q4 2016, Q2 2017, Q4 2017, Q2 2018, Q4 2018, Q2 2019, and Q4 2019) are summarized in Table 5-12.

Figure 5-6 shows the horizontal capture of the portion of the dissolved-phase EDB within REI 4857 during Q2 2020. Plume capture is divided among the three extraction wells, which were active during the synoptic gauging period (KAFB-106228, KAFB-106234, and KAFB-106239). Interim measure extraction well KAFB-106233 was not active during the synoptic gauging period. With respect to the current TCZ north of Ridgecrest Drive SE, the interim measure resulted in the horizontal capture of 100% of the dissolved-phase EDB volume and mass (Table 5-12). Within REI 4857 north of Ridgecrest Drive SE, extraction well KAFB-106228 was the most effective with capturing 57.4% of the dissolved-phase EDB volume and 51.3% of the mass, followed by KAFB-106239 capturing 42.6% of the dissolved-phase EDB volume and 48.7% of the mass (Table 5-13). Even though KAFB-106234 was active, its capture zone did not intercept any of the EDB plume volume. KAFB-106233 does not have capture statistics because it was inactive during the evaluation period (Section 5.3.3.1).

Figure 5-7 shows the horizontal capture of the TCZ within REI 4838 during Q2 2020. With respect to capture in the current TCZ, the interim measure resulted in the horizontal capture of 100% of the

dissolved-phase EDB volume and mass (Table 5-12). Within REI 4838 north of Ridgecrest Drive SE, extraction well KAFB-106228 is the most effective, capturing 84.3% of the dissolved-phase EDB volume and 85.3% of the mass; followed by KAFB-106239, capturing 15.7% of the dissolved-phase EDB volume and 14.8% of the mass (Table 5-13). Again, even though KAFB-106234 was active, its capture zone did not intercept any of the EDB plume volume and KAFB-106233 does not have capture statistics because it was inactive (Section 5.3.3.1). Horizontal capture for REI 4814, which does not contain any dissolved-phase EDB volume, is shown in Figure 5-8.

Combining dissolved-phase EDB volume and mass capture analyses for both REIs 4857 and 4838, the interim measure resulted in the horizontal capture if 4,720,000 cubic ft and 2.4 grams of the current TCZ volume and mass respectively (Table 5-14). This equates to a capture of 100% of the initial TCZ volume and mass under Q2 2020 groundwater conditions, as no uncaptured volume or mass in the TCZ was identified.

With the addition of the 15 water table wells in 2018 and nine in 2019 (both newly installed and existing), the flow directions and hydraulic containment along the saturated/unsaturated interface can start to be analyzed. Combining data from the added wells and from the existing unsubmerged and slightly submerged wells (less than 3.5 ft of submergence) in REI 4857, a water table surface can be interpolated.

Figure 5-9 shows the interpolated water table surface based on these wells for Q2 2020. Since this analysis merges with the REI 4857 at locations throughout the domain, a unique plume split cannot be developed; however, hydraulic containment can be represented graphically by placing delineated water table containment basins over the REI 4857 plume outline as defined by dissolved-phase EDB. The data presented in Figure 5-9 show that the distal end of the dissolved-phase EDB (TCZ) is contained at the water table by KAFB-106228 extraction, as it is in REI 4857, and that the rising water table is not causing EDB to migrate away from the extraction well. Water table capture near Ridgecrest Drive SE cannot be delineated because drawdown associated with KAFB-106239 extraction cannot be defined at the water table.

KAFB-106239 is not screened across the water table and all nearby monitoring wells are submerged. Placement of a monitoring well near KAFB-106239 that is screened across the water table would allow for the measurement of the associated drawdown and the delineation of capture associated with this well.

Below is a list of parameters used for the interpretation of horizontal capture cited by EPA (EPA, 2008) to be considered and how this assessment addresses them:

- Are the number and distribution of measurement locations adequate?
  - Yes, while there is no rule regarding the “correct” amount of groundwater level data (EPA, 2008), each of the four interim extraction wells is surrounded by from five to eight nested monitoring wells indicating the direction of flow radially around the extraction well and at depth. Groundwater level monitoring is also conducted within, at the perimeter, and downgradient of the TCZ to interpret groundwater flow patterns and the associated capture zone.
  - Contouring accuracy will increase as the number of data points increase. Measurement locations have improved with the installation of 15 new Data Gap wells in Q4 2018 and Q1 2019. Locations are shown on Figure 3-1.
- Are water levels included in the vicinity of extraction wells (and have well inefficiency and losses been considered at extraction well locations)?

  - Yes, for extraction wells KAFB-106228 and KAFB-106233, which have nested monitoring wells located less than 55 ft away.

  - No, for extraction wells KAFB-106234 and KAFB-106239 where the closest monitoring wells are 223 and 150 ft away and represent only the uppermost portion of the aquifer.

  - The water level measured in an extraction well is typically lower than the level in the adjacent aquifer due to well inefficiency and well losses (EPA, 2008). Therefore, groundwater levels at the extraction wells are estimated through linear interpolation using the measured head in the closest monitoring well to the extraction well and all other neighboring monitoring wells.

- Has the horizontal capture evaluation been performed individually for all pertinent horizontal units?

  - Yes, horizontal capture is performed in three REIs covering the extraction screen interval and is reported for each REI containing a portion of the TCZ.

- Is there bias based on contouring algorithm?

  - No, the potentiometric surface for each REI is interpolated using a natural neighbor algorithm that honors all measured values, places contours based on the distance between any one well and all of its neighboring wells, and eliminates over- and under-run estimates related to the gradient between neighboring wells.

  - Uncertainty still exists as the method assumes that all ridges and valleys (divides) in the potentiometric surface are represented by the monitoring well network.

- Is representation of transient influences adequate?

  - No, but the data required to perform a fully transient evaluation are not available. Groundwater level measurements are only available for second and fourth quarter except at four locations within the model domain. Water supply well extraction rate data (on- and off-Base) is only available as monthly total volumes. It is recognized that extraction within and surrounding the project area is transient and, therefore, the regional gradient across the site is transient requiring continual updating of the capture assessment currently scheduled at twice a year. As discussed in Section 5.4 above, this performance assessment is a snapshot of the systems performance. EPA guidance emphasizes that while the modeling used for this biannual performance assessment is a tool for evaluating and improving the site conceptual model, predicting capture zones, and evaluating alternative remediation scenarios, capture zone effectiveness is “ultimately determined by field monitoring.”

- Has potential for vertical transport been neglected when evaluating horizontal capture?

  - No, vertical transport potential is assessed separately from, but in conjunction with, horizontal capture (see next section).

5.4.2.3.2 Step 3b: Water Level Difference Maps (Vertical Capture Analysis)

EPA (2008) states that *water levels between adjacent hydrogeologic units are evaluated to indicate zones of upward versus downward flow. The analysis can be based on vertical head differences or vertical gradients (the head difference divided by the vertical distance between measurements).*

The vertical capture analysis for the interim measure TCZ north of Ridgecrest Drive SE for Q2 2020 is summarized in Table 5-15. A vertical capture analysis defines hydraulic containment by evaluating groundwater levels between adjacent hydrologic units to determine zones of upward versus downward flow. Containment is defined by zones with upward flow that prevents dissolved contaminants from being transported by advection deeper into the aquifer. Vertical flow direction can be evaluated by subtracting the groundwater head measured in an adjacent lower hydrologic unit from the groundwater head measured in the overlying unit. A head difference of less than zero indicates that the head in the lower unit is greater than the head in the upper unit and, therefore, water will flow vertically upward. Vertical hydraulic gradient is the head difference divided by the vertical distance between measuring points. While vertical gradients can provide more information than head differences because they account for the distance between measurements, significant error exists in calculating vertical gradients from groundwater levels measured from long screen intervals. Also, vertical gradient values are typically very small reducing their ability to represent the magnitude of the vertical difference. Because of this and because interim measure monitoring well screen intervals range from 10 to 30 ft in length, this analysis uses vertical head differences to illustrate vertical capture as described in the EPA guidance above.

The well network was resurveyed in 2017 by USGS, and all measuring point elevations were officially updated in October 2017. As such, the measuring point elevations and, therefore, groundwater elevations for most of the GWM wells changed from historical values, as discussed in more detail in Section 5.4.3.

The method for delineating vertical containment was changed in the Q4 2018 analysis. Previously, the vertical head difference between REIs was calculated by subtracting the potentiometric surfaces developed for each REI. However, significant uncertainty was introduced using this method as the data resolution was different within each REI because the number of head measurements decreased with depth.

Starting in Q4 2018, vertical head differences were calculated only at each nested well location. Those difference values were then used to interpolate the vertical head differences across the plume area using a linear interpolation method assigning head differences between data points based on the distance from and magnitude of all neighboring data points. While the new method removed the data resolution issues going forward, the change limits the usefulness of comparison of vertical containment with past analyses.

The entire dissolved-phase EDB volume delineated for Q2 2020 was sliced along the elevation surface dividing REI 4857 and REI 4838 and along the elevation surface dividing REI 4838 and REI 4814. The upper dissolved-phase EDB volume has two opportunities to be contained vertically. Initially, this plume volume can be contained by upward flow between REI 4838 and REI 4857. Portions of the plume not contained in this interval have the potential to move downward into the lower unit. Once in the lower unit, these portions can be contained by vertical upward flow between REI 4814 and REI 4838. The lower plume volume can only be contained by vertical upward flow between REI 4814 and REI 4838. No non-pumping potentiometric surface grids are developed and no pumping versus non-pumping difference maps are calculated.

Figure 5-4 shows the results of the vertical containment analysis for the upper unit plume volume (above the 4838 REI midpoint) in Q2 2020. All “green” areas are vertically captured, and “tan” areas do not have vertical capture. With respect to the dissolved-phase EDB within the current interim measure TCZ, 99.8%

of the dissolved-phase EDB volume and 99.9% of the mass were vertically contained in this unit (Table 5-15). Figure 5-5 shows the results of the vertical containment analysis for the lower plume volume (below the 4838 REI midpoint) in Q2 2020. Similar to Figure 5-4, the "green" areas are vertically captured, and "tan" areas do not have vertical capture. With respect to the current interim measure TCZ, 100% of the dissolved-phase EDB volume and 100% of the mass were vertically contained (Table 5-14).

In total (above and below the 4838 REI mid-point), the vertical capture evaluation estimated that the interim measure extraction system produced containment of 4,710,000 cubic ft and 2.4 grams of the current TCZ volume and mass, respectively (Table 5-16). This equates to a capture of 99.9% of the initial TCZ volume and 100.0% of the initial TCZ mass under Q2 2020 groundwater conditions.

Vertical capture based on vertical head differences or vertical hydraulic gradients is subject to a similar set of uncertainties as described for horizontal capture. With respect to having an adequate vertical distribution of monitoring wells, 11 of the REI 4814 monitoring wells within the TCZ north of Ridgecrest Drive SE are screened above an elevation of 4,790 ft. Downward vertical flow at these well nests may be in response to the 3D capture zone of an extraction well and not the loss of capture.

This uncertainty in the vertical containment analysis has been addressed by comparing multiple lines of evidence (i.e., modeling). Section 5.4.4 describes the results of a numerical model designed for use in Step 4 of the EPA capture evaluation guidelines (EPA, 2008). The numerical model provides for a method to three-dimensionally estimate the containment produced by the interim measure extraction.

5.4.2.3.3 Step 3c: Water Level Pairs (Gradient Control)

To support the previously presented horizontal and vertical containment analyses, a water level pairs analysis was performed. Water level pairs analysis defines gradient control points and demonstrates the direction of flow relative to the plume boundary, thus providing an initial assessment of interim measure effectiveness and a supporting line of evidence for assumptions made during horizontal and vertical containment analyses. Two types of water level pairs analysis were performed, as described below.

To support the horizontal containment analyses, a horizontal water level pairs analysis was performed for REI 4857 and REI 4838. Thiessen polygons, which define the area that is closest to each point relative to all other points within a spatial dataset, were developed for each of the interval group wells. Water levels were then compared among a well in the center of a polygon and all of the wells with neighboring polygons. The graphical representation of the Q2 2020 horizontal water levels pairs analysis is shown on Figure 5-10. The arrows on these figures show the potential directions of flow from each well based off of the head comparison. Polygon colors delineate the plume area as: captured (by one or more extraction wells), possibly captured (flow could go to an extraction well or to an unidentified sink), or not captured (flow cannot go to an extraction well). The horizontal water level pairs analyses show that all well pair gradients within or surrounding the plume boundary north of Ridgecrest Drive SE in REI 4857 and REI 4838 flow toward one or more interim measure extraction wells. The water level pairs analysis verifies the reasonableness of the capture zones defined in the horizontal capture analyses discussed in Section 5.4.3.1.

To support the vertical containment analysis, heads in vertically nested well sets were compared in order to verify the vertical flow direction. The locations of the centroid for each nested well pair are shown on Figures 5-4 and 5-5. The values associated with these wells represent the head difference when the lower unit's head is subtracted from the upper unit's head. A head difference of less than zero represents upward flow (wells shown as "green") and, therefore, vertical containment is achieved.

A head difference greater than zero presents downward flow (wells shown as orange) and, therefore, vertical containment is not achieved. Results from this well pair analysis are shown on the figures to identify the location and magnitude of gradient control points for the vertical containment analysis.

5.4.2.4 Step 4: Perform Calculations

Step 4 of the EPA Systematic Approach for Evaluation of Capture Zones (EPA, 2008) states that *specific calculations can be performed to add additional lines of evidence regarding the extent of capture, including the following:*

- *Simple horizontal analyses related to capture, such as estimated flow rate calculations and capture zone width calculations* (EPA, 2008).

- *Modeling (analytical or numerical) to simulate heads, in conjunction with particle tracking and/or contaminant transport modeling* (EPA, 2008).

- *Determining the appropriate types of calculations to perform should be based on site complexity. For instance, numerical simulation of heads for evaluating capture may not be necessary for sites with very simple hydrogeology and only minor heterogeneity of aquifer parameters* (EPA, 2008).

Calculations performed in Step 4 can range from simple 2D analyses estimating capture zone width based on extraction rates and aquifer properties to complex 3D analytical or numerical simulations of head, producing particle track delineations of capture. EPA encourages the use of groundwater modeling at more complex sites as a tool for evaluating and improving the site conceptual model and predicting capture zones. Complexity can be defined as aquifer heterogeneity and anisotropy, non-uniform aquifer thickness, non-uniform hydraulic gradient, transient conditions, offsite aquifer stresses, and/or the presence of many partially penetrating extraction and/or injection wells.

If one or more of these complexities is present, the assumptions associated with simple 2D methods are violated and a more complex form of additional lines of evidence should be examined. Heterogeneity and non-uniform hydraulic gradient have been identified as complexities that may need to be addressed with future use of the numerical model.

Performance assessment of the interim measure initially used a simple 2D capture zone width calculation (Bullet 1) to provide a supporting line of evidence to the measured data-based analyses described in Step 3 (presented in the Q4 2016 Quarterly and Annual Report [Kirtland AFB, 2017g]). This calculation has the following simplifying assumptions:

- The aquifer is homogeneous and isotropic.

- The aquifer is confined and has uniform thickness.

- The aquifer contains fully penetrating wells.

- The aquifer has a uniform regional horizontal hydraulic gradient and steady-state flow.

- There is no net recharge to the aquifer.

However, the upper aquifer at the BFF site is not confined, does not have a uniform thickness, and none of the interim measure or supply wells are fully penetrating. In addition, the simple horizontal capture

zone calculations do not pertain to vertical capture, which is an important aspect to assessing performance of the interim measure due to the abundance of supply wells screened below the interim measure extraction wells in the aquifer. Therefore, the 3D numerical model was added (Bullet 2) to simulate heads resulting from interim measure extraction and define the 3D hydraulic containment produced by interim measure extraction at the point in time when groundwater heads are measured and compare these containment zones to the TCZ developed for the same time period.

5.4.2.4.1 Step 4a: Groundwater Flow Model Design

EPA guidelines do not dictate specific model types for use in Step 4 stating that different types of simulation models, ranging from analytical to numerical, can be applied to calculate hydraulic heads and produce particle tracks upon which capture can be evaluated (EPA, 2008). NMED deferred to Kirtland AFB for selection of an appropriate modeling approach and approved the proposed modeling approach on April 23, 2018 (NMED, 2018d). The numerical model used for the purpose of adding a supporting line of evidence to this capture zone evaluation was developed using the finite element software FEFLOW (DHI Group). FEFLOW was chosen primarily because of the superior mesh design capabilities of the finite-element method. The finite-element mesh allows for the articulation of each monitoring well and extraction well no matter how irregular or close the spacing, and it allows for localized refinement around each extraction well increasing the accuracy of simulated drawdown due to extraction at the well while minimizing the number of nodes and elements required, thus minimizing computation time.

A simplified numerical flow model was designed and used to evaluate capture for Q4 2017, Q2 2018, Q4 2018, and Q2 2019 groundwater conditions. However, concern over the proximity of the model boundaries to the interim measure extraction wells was raised with the opinion that the constant head boundary assignments may be adversely affecting the simulated capture for these wells. In addition, this early model assumed that the aquifer could be accurately represented as a homogeneous unconfined aquifer having a single horizontal hydraulic conductivity (Kh) derived from aquifer tests conducted in the BFF area. The inability to produce a single model design (i.e., constant hydraulic conductivity assignment) that would produce acceptably calibrated results under different groundwater conditions raised concerns about this assumption. Therefore, a new model (Kirtland Air Force Base [KAFB] 2020 GWM), having a greatly expanded domain and representing the reported heterogeneity within the aquifer sediments, was developed for capture analysis in Q4 2019 (Kirtland AFB, 2020) and beyond.

The KAFB 2020 GWM numerical flow model is designed as a 3D, multi-layer representation of the unconfined aquifer underlying the BFF and surrounding area. The model simulates steady-state, time specific flow conditions through the aquifer. The model has been designed to represent the known heterogeneity (i.e., distribution of fine-grained and coarse-grained material) within the aquifer. Analysis of 197 driller's logs and 47 geophysical logs from the BFF and the surrounding area were used to develop a grain size-based 3D lithology model delineating vertical intervals of clay-silt (CL), clayey silty sand (SM), very-fine-grained sand (VFS), fine-grained sand (FS), medium-grained sand (MS), and coarse-grained sand (CS).

The numerical flow model was designed to replicate the vertical resolution of the lithology model. The top layer of the model (layer one), designed to completely contain the water table, extended from an elevation of 4,905 ft above mean sea level down to an elevation of 4,865 ft above mean sea level. Model layer one is followed by 29 layers with a uniform thickness of 5 ft. The next 16 layers had a uniform thickness of 10 ft and the bottom layer had a variable thickness representing the remaining aquifer thickness between an elevation of 4,560 ft above mean sea level and the top of the A2 unit for a total of 47 model layers. The flow model was designed with a horizontal node spacing of less than 100 meters (328 ft), which was refined down to less than 10 meters (33 ft) in the region surrounding the dissolved EDB plume, equal to 50 meters (164 ft) along the external model boundary and equal to 1 meter (3.3 ft)

around each interim remedy extraction well, each water production well, and each injection well within the model domain.

The lithology model cell data were transposed directly into the flow model layer network allowing the model to replicate the interpolated distribution of lithology types. Kh assignments for each lithology type given above were determined through analysis of three, grain size-based, hydraulic conductivity equations and on the results of aquifer pump test performed within and surrounding the model domain. The model assigned lithology type Kh values are listed in Table 5-17. Each lithology zone was assumed to have the same vertical anisotropy set at 10/1 Kh/vertical hydraulic conductivity (Kv). A more detailed overview of the groundwater flow model design and calibration is presented in the Q4 2019 Annual Report (Kirtland AFB, 2020).

The original model was calibrated to three different groundwater conditions: Q4 2017, Q4 2018, and Q4 2019. Three identical versions of the model were modified to include calibration period specific boundary conditions and extraction and injection rates. The hydraulic head along the external model boundary was defined by the assignment of constant head values along all boundary nodes. The constant head values were estimated by a nearest neighbor interpolation of all measured groundwater levels within and surrounding the model domain out to a maximum distance of approximately 3.4 miles.

Extraction rates assigned to the interim measure wells are defined by the extraction rate measured from each well prior to gauging. Results from the 2015 constant rate aquifer test, performed using interim measure extraction well KAFB-106228, showed that the head in observation wells observed to have any related drawdown reach steady-state with respect to extraction within 5 days (Kirtland AFB, 2016c). Therefore, extraction rates assigned to simulated interim measure wells are based on the extraction record for the well for the 5 days prior to gauging. Some water production wells within the model domain (KAFB-14, KAFB-016, KAFB-20, Burton-5) extract water from both above and below the A2 confining unit. For these wells, the assigned extraction rate was modified based on the estimated percentage of each wells screen interval above and below the A2.

Each model was considered calibrated when the simulation produced a Normalized Root Mean Squared Deviation (NRMSD) of less than or equal to 5%. The accepted industry standard for the NRMSD is 10%. It should be noted that changes made to one model during calibration were made to all three models, and that the final calibrated models were identical except for the assigned extraction/injection rates and the assigned boundary heads. The three calibrated models had a final NRMSD of 4% (Q4 2017), 5% (Q4 2018), and 5% (Q4 2019).

In order to perform the Q2 2020 capture analysis, the KAFB 2020 GWM was updated with boundary conditions representing the Q2 2020 groundwater condition and with Q2 2020 extraction and injection rates. In addition, due to the continuously rising water table, a new layer was added between the elevations of 4,870 and 4,865 ft above mean sea level in the Q2 2020 version. This new layer became model layer two and model layer one now extends from 4,905 to 4,870 ft above mean sea level. The distribution of lithology types in this layer was derived from the original lithology model and assigned the same lithology type Kh values as in the other model layers. The Q2 2020 version of the KAFB 2020 GWM has a total of 48 layers. Figure 5-11 shows the domain, boundary groundwater elevations and extraction locations, and rates for the Q2 2020 version of the KAFB 2020 GWM.

Each side of the model has at least one gauged monitoring well to control the heads interpolated along its length. Time period groundwater measurements from distant USGS monitoring wells, Jerry Cline C, Montessa Park B, and Del Sol Divider 3 were also used to define the groundwater levels coming into the model domain. Finally, the interpolated regional flow field included an estimate of the drawdown being created by extraction at the nearby Ridgecrest wellfield. The drawdown associated with Ridgecrest wells

1, 2, and 3 was estimated through a linear continuation of the observed water level drop between USGS monitoring wells Del Sol Divider 3 and Trumbull 1A, extrapolated to the locations of the three Ridgecrest wells. The assigned constant head values, in conjunction with the Kh value assigned to boundary elements, control the flux of water into and out of the model. It is assumed that all water enters the model through the exterior boundaries or through injection wells; no areal recharge is assigned to the model.

Figure 5-11 also shows the model simulated non-extraction flow-field, with particle tracks, for Q2 2020. As a starting condition for the simulation, the head values defining the regional flow-field assigned to the model boundary represent an estimate of the flow-field across the model domain with no operating extraction wells. Once interim measure extraction is activated in the model, the assigned regional flow-field only controls simulated heads along the model boundary while the flow-field varies within the model domain in response to the assigned extraction rates.

Analysis of the interim measure extraction record showed that, for the 5 days prior to Q2 2020 gauging, KAFB-106228, KAFB-106234, and KAFB-106239 were operational at 100% of capacity. Therefore, the operational rate was assigned to each extraction well in the model. KAFB-106233 was not active prior to the Q2 2020 gauging period and was, therefore, not active in the Q2 2020 model. Table 5-18 lists the details of the flow model assigned extraction and injection wells for the Q2 2020 simulation.

With no other model modifications other than the evaluation period updates described above, the model was able to simulate Q2 2020 groundwater conditions with the same level of accuracy as achieved for the three calibration time periods. Comparing the residuals between simulated and measured head at 187 gauged wells within the model domain resulted in a NRMSD of 5% for Q2 2020 conditions. Figure 5-12 shows a plot of simulated versus measured heads at all 187 Q2 2020 gauged monitoring wells.

Figure 5-13 shows the Q2 2020 simulated flow-field and the location of each Q2 2020 gauged well, which are color coded to represent whether the simulated head residual at that location is within the acceptable range of +/- 0.65 ft (green), or above (orange) or below (blue) the range. The figure shows that the simulated head at 178 out of 187 gauged wells (95%) is within the acceptable range. Simulated head at six of the remaining well locations is above the acceptable range and below the acceptable range at three of the remaining well locations. The fit to observed data statistics for the Q2 2020 simulation are listed in Table 5-19. In addition to the simulation having a NRMSD of less than 10%, Figure 5-13 shows that there is no spatial grouping of simulated heads outside of the acceptable range. The calculated mean of the residuals (Rmean in Table 5-19) value of approximately zero shows that the simulated head field has no positive or negative bias compared to observed data.

The model is intended to be used as a supporting line of evidence as part of performance assessment every Q2 and Q4. For each assessment period, the model will be updated, further refinements will be incorporated, and extraction and injection rates for all interim measure and water supply wells and updated with the most recent regional flow-field estimate. This biannual update is consistent with the iterative capture zone analysis process outlined in the EPA guidance. See Section 5.4.2.6.1 Uncertainty and Data Gaps below for planned numerical model refinements to more accurately represents the saturated matrix within the domain and improve the overall performance assessments analysis.

5.4.2.4.2 Step 4b: Groundwater Flow Model Results

Step 4b (Bullet 3) of the EPA guidelines (EPA, 2008) suggests:

- *Modeling (analytical or numerical) to simulate heads, in conjunction with particle tracking and/or contaminant transport modeling.*

The objective of Step 4a is to quantify capture. EDB plume-specific capture delineation was focused to the TCZ plume volume. Plume-specific capture is delineated using forward run particle tracks from the centroids of each model cell in the quarter's plume model, over 1,100 seed points in Q2 2020, which completely represent the 3D volume of the dissolved-phase EDB in the TCZ.

With respect to capture in the TCZ, the interim measure resulted in the capture of 3,100,430 cubic ft of the dissolved-phase EDB volume and 1.5 grams of the mass (Table 5-20). North of Ridgecrest Drive SE, extraction well KAFB-106228 is the most effective with capturing 44.5% of the dissolved-phase EDB volume and 38.4% of the mass, followed by KAFB-106239 capturing 21.2% of the dissolved-phase EDB volume and 25.4% of the mass. Interim measure extraction well KAFB-106234, while active, does not capture any of the dissolved EDB plume in the TCZ in Q2 2020 (Table 5-21). Interim measure KAFB-106233 is not active in the Q2 2020 model (see Section 5.3.3.1).

With the model showing less than 100% capture of the TCZ under Q2 2020 conditions, a scenario model was run, identical to the Q2 2020 conditions model, except with an active KAFB-106233 running at 100% capacity (160 gpm). The forward particle track results from the "KAFB-106233 on" scenario model showed TCZ capture would increase but not reach 100% under Q2 2020 conditions. With KAFB-106233 active, the interim measure extraction system was predicted to capture 3,367,795 cubic ft of the TCZ volume and 1.7 grams of the TCZ mass.

Capture produced by KAFB-106239 showed the greatest increase under this scenario with a 22% increase in TCZ volume and a 25% increase in TCZ mass captured. The TCZ volume and mass captured by KAFB-106228 only increased by 2%, but this increase includes the distal plume segment southwest of KAFB-106234. The increase in capture is due to the competition for water among KAFB-106233, KAFB-106239 and KAFB-106228. While an active KAFB-106233 does not directly capture any of the dissolved-phase EDB volume, it removes water otherwise going to KAFB-106239 and KAFB-106228, forcing their capture zone to expand to meet its extraction requirement.

The uncaptured TCZ volume and mass equates to 1,616,370 cubic ft and 0.9 grams, respectively, in Q2 2020. As described in the above sections, the total volume and mass the interim measure was designed to capture was greater than 114,000,000 cubic ft and 103 grams, respectively. Over time, the interim measure has caused the migration of this initial plume volume and mass towards the interim measure extraction wells, reducing the overall size of the TCZ by mass removal and concentration of mass into a smaller volume. With respect to the initial TCZ volume and mass, Step 4 estimates that under Q2 2020 groundwater conditions, the interim measure is producing the potential capture of greater than 99% of the target plume volume and mass. This is consistent with past Step 4 capture estimates dating back to the first Step 4 estimate in Q2 2018 (Table 5-20).

Capture zone effectiveness is ultimately determined by field monitoring that includes hydraulic head measurement and groundwater sampling and analysis, in conjunction with field confirmation of pumping rates. Ultimately, modeling is only one line of evidence to support the field monitoring.

5.4.2.5 Step 5: Evaluate Concentration Trends

Step 5 of the EPA Systematic Approach for Evaluation of Capture Zones (EPA, 2008) states that *Contaminant concentrations can be monitored at two types of locations downgradient of the TCZ in an attempt to interpret capture…:*

- *Sentinel wells located downgradient of the TCZ and are not currently impacted above background concentrations*

- *Downgradient performance monitoring wells located downgradient of the TCZ and are currently impacted above background concentrations.*

Monitoring concentration trends downgradient of the dissolved-phase EDB provide supporting evidence to the primary capture analyses. Concentration trend monitoring is being conducted at two location types at Kirtland AFB: sentinel wells and downgradient performance monitoring wells. For sentinel wells, contaminant concentrations should remain at background levels over time if capture is successful. For downgradient performance monitoring wells, contaminant concentrations should decline to background levels (or below cleanup levels) over time if capture is successful. Figure 5-14 shows the location of the nine monitored sentinel wells and the location and concentration trends in the five distal performance monitoring wells. EDB concentrations in the sentinel wells have remained below detection since monitoring began.

Distal performance monitoring well concentration trends are shown from the beginning of 2015 to the present. Within this time period, water chemistry samples from KAFB-106205, located northeast of the distal end of the dissolved-phase EDB plume have mostly been non-detect for EDB and have always been below the TCZ concentration of 0.05 µg/L. The increase of EDB in Q2 2017 was a result of a 30-day system shutdown. With the interim measure extraction returning to full capacity, the concentration in KAFB-106205 decreased and is below the detection limit in Q2 2020.

Groundwater samples collected from KAFB-106106, located on the western edge of the dissolved-phase EDB boundary, have historically had detectable EDB concentrations. Before interim measure extraction began in June 2015, EDB concentrations in this well were above the EDB MCL concentration (0.05 µg/L) and the well was within the dissolved-phase EDB boundary. Since interim measure wells KAFB-106233 and KAFB-106234 came on-line in 2016, the EDB concentrations in KAFB-106106 have declined to at or below detection for the last seven assessment periods. EDB was reported at 0.022 µg/L (just above the detection limit of 0.019 µg/L) in the groundwater sample collected from KAFB-106106 in Q2 2020.

At the beginning of 2015, EDB was detected in groundwater samples collected from the three clustered wells (KAFB-106055, KAFB-106057, and KAFB-106058). EDB concentrations decreased with depth. Concentrations above the MCL were observed in well KAFB-106055 (REI 4857) and well KAFB-106057 (REI 4838). Since interim measure extraction began at KAFB-106234 in December 2015, the EDB concentrations in KAFB-106057 and KAFB-106058 have decreased and currently have estimated values at or below the detection limit (Figures 3-6 and 3-7, respectively). In Q4 2018, the data gap associated with submergence at this well nest was eliminated by the installation of monitoring well KAFB-106241-428 with a screen interval across the water table. The EDB concentration measured in this new well has been constantly below 0.05 µg/L since sampling began in Q4 2018, with an estimated Q2 2020 concentration of 0.015 µg/L (below the standard detection limit).

5.4.2.6 Step 6: Interpret Actual Capture and Compare to Target Capture Zone

Step 6 of the EPA Systematic Approach for Evaluation of Capture Zones (EPA, 2008) states that *Once multiple lines of evidence regarding capture have been evaluated, actual capture achieved by the extraction wells should be interpreted… To avoid bias, the actual capture should be interpreted independent of the TCZ (i.e., they should be compared after the actual capture zone is interpreted).*

Based on evaluations of multiple lines of evidence discussed in Step 3 through Step 5 described above, the actual capture achieved by the interim measure extraction wells is interpreted in Step 6, and the following items are addressed:

- Compare the interpreted capture zone to the TCZ
- Assess uncertainties in the interpretation of the actual capture zone
- Assess the need for additional characterization and/or monitoring.

In Step 3, the potentiometric surface analysis resulted in 100% capture of the volume and mass of the initial TCZ. The vertical head difference analysis resulted in an estimated containment of greater than 99% of the initial TCZ. In Step 4, the numerical flow model estimated that the interim measure produced capture conditions for greater than 99% of the initial TCZ volume and mass. In Step 5, the concentration trends in the designated performance monitoring wells show static or decreasing trends indicating decreasing dissolved-phase EDB volume and mass reduction. Table 5-22 summarizes the TCZ evaluation for this site, which concludes that at least 99% of the initial TCZ volume and mass the interim measure was designed to contain is being captured under Q2 2020 conditions.

5.4.2.6.1 Uncertainty and Data Gaps

There is uncertainty in the analysis of water levels due to a linear estimate of the water levels at the extraction wells. However, the results from the numerical model suggest that, based on extraction rates and aquifer conductivity, the extraction well water levels used in the water level analysis were under-estimated and, therefore, do not overestimate the capture prediction.

There is uncertainty in the numerical modeling with respect to the assigned regional flow-field. Uncertainty exists in that the method relies on interpolations from data measurements taken up to approximately 3.4 miles away from the model domain and on estimated groundwater levels associated with external extractions. An additional uncertainty component is the length of time the estimated regional flow-field persists over the model domain. The flow-field is sensitive to both on-Base and nearby public supply extractions and these stresses change seasonally and with local domestic demand allowing for the possibility that the simulated capture zones may change between each analysis period.

There is uncertainty in the numerical modeling associated with the assignment of lithology-based hydraulic conductivity zones. The assigned lithology type is based on visual delineation of grain sizes, not laboratory sieve analysis and error is added with grain size mixing and loss due to drilling methods. There is also uncertainty in the extent of the assigned lithology zones, as the transitions between zones can only be estimated from the spatial distribution of wells.

Capture zone analysis is an iterative process, as shown on Figure 5-15, and includes the following:

- Evaluate capture based on existing data
- Identify any data gaps that create uncertainty in the conclusions of the capture zone analysis
- Fill any data gaps that are identified (e.g., add new monitoring wells), and re-evaluate capture
- Continue monitoring capture over time
- If capture is ever determined to not be sufficient, optimize the extraction system until capture is sufficient

- If capture is determined to be sufficient, continue routine monitoring and consider the potential to optimize extraction locations and/or rates to be reduce cost.

Additional monitoring wells will be installed in the future under the Work Plan for Data Gap Monitoring Well Installation KAFB-106248 to KAFB-106252 (Kirtland AFB, 2019a). In addition, analysis methods are continuously evaluated through comparison to observed data and are revised when more accurate results can be obtained. An example of this is the development and application of the new numerical groundwater flow model that includes an expanded domain and more accurately represents aquifer heterogeneity.

As discussed in Section 5.4 above, this performance assessment is a snapshot of the system's performance. EPA guidance emphasizes that capture zone effectiveness is "ultimately determined by field monitoring," and modeling is only one line of evidence used to support the field monitoring data.

5.5 Analysis of the Lines of Evidence

The following includes the various lines of evidence used in the plume capture assessment:

- The volume and mass of the plume has reduced significantly over time. In Q4 2016, 15 months after the first interim measure extraction well KAFB-106228 became active, the plume volume and mass were estimated at 114,700,000 cubic ft and 104 grams, respectively. Both of these values have been on a decreasing trend over the last 3.5 years with the current plume volume and mass estimated at 4,720,000 cubic ft and 2.4 grams, respectively. This represents a 96% decrease in plume volume and a 98% decrease in plume mass.

- This analysis shows that the interim measure has collapsed the TCZ, with the bulk of the remaining volume and mass north of Ridgecrest Drive SE either being centered around interim measure well KAFB-106228, or present just north of Ridgecrest Drive SE as an extension of the Source Area Plume. Overall, the plume analysis reveals the general pattern of dissolved-phase EDB volume and mass response expected due to interim measure system extraction.

- The vertical capture analysis estimated that the interim measure extraction system produced containment of 4,710,000 cubic ft and 2.4 grams of the current TCZ volume and mass, respectively. This equates to a vertical capture component of 99.9% of the initial TCZ volume and 100.0% of the initial TCZ mass under Q2 2020 groundwater conditions.

- The horizontal water level pairs analyses within the IMOA show that all well pair gradients within or surrounding the plume boundary north of Ridgecrest Drive SE in REI 4857 and REI 4838 flow toward one or more interim measure extraction wells. The water level pairs analysis verifies the reasonableness of the capture zones defined in the horizontal capture analyses discussed in Section 5.4.3.1 above.

- Actual field sampling resulted in a potentiometric surface analysis indicating 100% capture of the volume and mass of the initial TCZ. The vertical head difference analysis resulted in an estimated containment of greater than 99% of the initial TCZ. Additionally, the numerical flow model estimated that the interim measure produced capture conditions for greater than 99% of the initial TCZ volume and mass. Concentration trends analysis in performance monitoring wells indicated static or decreasing trends of dissolved-phase EDB volume and mass reduction.

Table 5-22 summarizes the TCZ evaluation for this site, which concludes that at least 99% of the initial TCZ volume and mass the interim measure was designed to contain is being captured under Q2 2020 conditions.

- Capture zone effectiveness is ultimately determined by field monitoring that includes hydraulic head measurement and groundwater sampling and analysis, in conjunction with field confirmation of pumping rates.

- 14 USGS sentinel wells installed outside the IMOA between the EDB plume and drinking water wells owned and operated by the Albuquerque Bernalillo County Water Utility Authority and Raymond G. Murphy Veterans Affairs (VA) Medical Center were tested and no contaminants associated with the BFF release were detected in Q2 2020 samples. These wells are tested quarterly to provide advance notice of any threat to drinking water wells. The USGS transmittal letter, including the Q2 2020 data results, is provided in Appendix E-5.

- Finally, three Kirtland AFB drinking water supply wells (KAFB-003, KAFB-015, and KAFB-016) and the VA drinking water supply well (ST106-VA-2) are sampled monthly to verify the safety of the drinking water. No contamination was detected in the April, May, or June 2020 samples from the drinking water supply wells.

Based on the various lines of evidence presented above used in the plume capture assessment suggests that at least 99% of the initial TCZ volume and mass the interim measure was designed to contain is being captured under Q2 2020 conditions.

6. INVESTIGATION-DERIVED WASTE

During Q2 2020, both hazardous and non-hazardous IDW were generated. Non-hazardous IDW consisted of liquids that were sourced from GWM operations. Liquid hazardous waste was generated during routine GWM activities and well rehabilitation work performed during the quarter. There was no drilling-related solid or liquid IDW generated or disposed of during Q2 2020.

In addition to the IDW generated specifically during Q2 2020, non-hazardous IDW generated during Q4 2018, Q4 2019, and Q1 2020 from GWM activities was managed during Q2 2020. This section discusses the details of waste generated, disposed of, and managed during the quarter.

6.1 Non-Hazardous Investigation-Derived Waste

Non-hazardous IDW liquids comprised the majority of waste volume generated during the quarter. This waste was generated from quarterly GWM sampling activities. Appendices J-1 and J-2 provide specific information regarding the non-hazardous liquid and solid IDW generated and disposed of during Q2 2020.

6.1.1 Groundwater Monitoring Liquid Investigation-Derived Waste

Non-hazardous IDW purge water collected during sampling of the GWM wells was placed in 55-gallon plastic (poly) drums. The drums were sealed with matching plastic lids with steel, locking-ring collars, labeled with vinyl non-hazardous waste labels, and transferred to the designated non-hazardous IDW yard located on Kirtland AFB. Small volumes of IDW water, typically generated from the sampling of drinking water wells, were placed in labeled, 5-gallon plastic buckets (pails) with sealing lids.

Eligibility for discharge of non-hazardous liquid IDW to the GWTS was determined by comparing historical, well-specific data from the previous two quarters to the acceptance criteria of the GWTS. Liquid IDW from monitoring wells that had historically met the GWTS acceptance criteria was discharged to the facility without further review. Liquid IDW sourced from wells with historical data from the previous two quarters that exceeded the GWTS acceptance criteria was held for further evaluation.

For Q2 2020, a total of 881.5 gallons of non-hazardous water was generated. Of this total volume, 697 gallons of IDW were processed through the GWTS. The water was sourced from GWM well purge activities as well as small volumes from GWM equipment decontamination. In all cases, the water met the GWTS acceptance criteria. All IDW water processed through the GWTS was discharged to the GCMP (Table J-1-1). There was no non-hazardous liquid IDW from other sources collected or disposed of during Q2 2020 (Table J-1-2).

Any liquid IDW that is collected, but not yet processed through the GWTS, is temporarily accumulated in the “Pending Disposal” area of the IDW yard. Typically, this category includes non-hazardous purge water collected during the quarter that meets GWTS acceptance criteria, but was held due to GWTS discharge limitations, O&M activities, or pending disposal approvals. By the end of Q2 2020, no GWM purge water was being held in the “Pending Disposal” category (Table J-1-3).

Any liquid IDW that is collected, but held pending receipt and evaluation of analytical data, is placed in the “Pending Analysis” area of the IDW yard. The total volume of liquid in this area at the end of Q2 2020 was 234 gallons. This consisted of a variety of waste generated from GWM activities, meter calibration fluid, and equipment rinsate liquids (Table J-1-4).

6.1.2 Non-Hazardous Drilling Liquid Investigation-Derived Waste

There was no liquid IDW generated or disposed of from drilling activities during Q2 2020 (Table J-1-5).

6.1.3 Non-Hazardous Well Drilling Liquid Investigation-Derived Waste Pending Disposal

There was no well drilling liquid IDW held as "Pending Disposal" at the end of Q2 2020.

6.1.4 Non-Hazardous Solid Waste

There was no non-hazardous, non-routine (GWTS maintenance) solid waste generated or disposed of during Q2 2020 (Appendix J-2, Table J-2-1).

Routine, non-hazardous disposable solid wastes were generated during GWM activities. These included single-use dual membrane samplers, disposable in-line filters, nitrile gloves, and paper trash. These items were disposed of as municipal solid waste and volumes were not tracked.

6.1.5 Non-Hazardous Well Drilling Solid Investigation-Derived Waste

During Q2 2020, there was no non-hazardous solid IDW (soil or mud) managed and disposed of during the quarter (Table J-2-2a). There was no soil or mud waste generated from well drilling activities held as "Pending Disposal" at the end of Q2 2020.

6.1.6 Special Waste Well Drilling Solid Investigation-Derived Waste

Special waste is defined as petroleum-contaminated soil that has total petroleum hydrocarbon concentrations greater than 100 milligrams per kilogram (Subparagraph [i] of Paragraph [13] of Subsection S of 20.9.2.7 New Mexico Administrative Code [2011]). No special waste was generated or disposed of during Q2 2020 (Table J-2-2b). No special waste was held in "Pending Disposal" areas of the IDW yard at the end of Q2 2020.

6.2 Hazardous Investigation-Derived Waste

Hazardous or suspected hazardous IDW is accumulated in one of two RCRA less than 90-day accumulation areas associated with the Kirtland BFF Project. Hazardous waste generated from routine GWM sampling or well maintenance activities (purge or well development water) is placed in the Kirtland AFB BFF RCRA less than 90-day accumulation area. Hazardous or suspected hazardous waste generated during drilling activities is held in the Kirtland AFB Zia Park temporary RCRA less than 90-day accumulation area. No solid hazardous or suspected hazardous waste was generated during Q2 2020.

Prior to the start of each quarterly GWM sampling event, a preliminary evaluation is made to identify monitoring wells that are anticipated to generate characteristically hazardous liquid IDW for initial waste segregation purposes. Based on historical analytical data available for each well, the water is suspected to be characteristically hazardous if the concentration of benzene exceeded 500 µg/L (per 40 CFR Part 261.24) in either of the previous two sampling events. Liquid IDW from these wells is managed as a potentially characteristically hazardous waste pending confirmation from laboratory analytical results. The hazardous waste classification code for benzene is D018.

For monitoring wells located in the source area of the groundwater plume that show consistent data that indicate purge water is hazardous, "Generator Knowledge" is used for hazardous waste determination. Use of generator knowledge to determine if solid waste is hazardous is permitted under RCRA regulations 40 CFR 262.11(d)(1).

All liquid hazardous waste (purge or well development water) is placed in 55-gallon steel drums with steel tops and locking rings (UN designation 1A2/Y1.2/100/**). When small volumes (less than five gallons) of waste is generated at a well, a plastic container with threaded top (jerrican) is used to contain the liquid. The jerrican is then placed in a steel, 55-gallon drum for more secure storage. All waste containers are properly labeled, sealed, and placed on secondary containment pallets located within the appropriate less than 90-day accumulation area. The accumulation areas and waste containers are inspected on a weekly basis by trained personnel as required under 40 CFR 262.34.

Solid hazardous wastes are held in either 55-gallon steel drums with steel tops and locking rings or, if volume requires, 20-yard capacity roll-off bins. Bin doors are sealed with an expanding foam to minimize the potential of leaks and the bins are double lined with 10-millimeter plastic liners. Bins have either integrated hard cover tops with ratcheting straps or have removable, heavy-duty vinyl covers that are secured to the bin using heavy-duty rubber straps to protect the contents from weather or access by local fauna. All drums are placed on secondary containment pallets. Roll-off bins are placed on secondary containment composed of plastic sheeting with berm or rolled edges.

Upon receipt of analytical data, the IDW remains in the less than 90-day accumulation area if confirmed to be a hazardous waste. If the IDW is determined to not meet hazardous criteria based on analytical data, the non-hazardous waste is transferred to the "Pending Disposal" area of the non-hazardous IDW yard.

All hazardous waste must be removed from Kirtland AFB and properly disposed of off-Base within the required 90-day accumulation time limit. Hazardous waste is transported off Kirtland AFB after it is properly profiled, manifested, and approved for transport by the Kirtland AFB Hazardous Waste Management Group. Waste is transported by a licensed hazardous waste hauler to a permitted treatment, storage, and disposal facility.

When possible, liquid hazardous waste may be consolidated. This is typically done to combine small volumes of waste generated during passive sampling activities at multiple well sites. Consolidation is also performed to reduce the total number of drums that require offsite disposal. Appendix J-3 provides specific information regarding the hazardous liquid waste disposed of during Q2 2020.

6.2.1 Hazardous Investigation-Derived Waste Volume Q2 2020

During Q2 2020, hazardous purge water was generated from GWM activities. A small volume of hazardous purge water from Q1 2020 was also managed in Q2 2020. A total of two drums and three jerricans of hazardous waste were held in the BFF less than 90-day area. All hazardous fluids were consolidated into a single, steel, 55-gallon drum prior to disposal. Passive monitoring methods only generate a small volume of hazardous waste per well. Consolidation of waste is performed to minimize the number of containers required of offsite disposal and is a routine waste management activity.

A total of 40 gallons of hazardous waste was disposed of from the BFF less than 90-day accumulation area by the end of Q2 2020. This drum contained consolidated GWM liquids from multiple wells utilizing a passive monitoring sampling technique. This waste was removed from the less than 90-day accumulation area for disposal on June 2, 2020 by Advanced Chemical Transport Inc. under Manifest No. 012264129 FLE (Table J-3-1).

Two drums containing hazardous water were held in the BFF less than 90-day accumulation area at the end of Q2 2020 (Table J-3-2). The liquid was sourced from rehabilitation activities performed at well KAFB-106028 and was held as "Pending Disposal." The 90-day deadlines for disposal of these two drums are September 22 and 26, 2020.

6.2.2 Hazardous Investigation-Derived Waste Volume Quarterly Totals

For the calendar year 2020, Table J-3-3 provides a cumulative total of hazardous waste disposed of from the Kirtland AFB BFF project. As of Q2 2020, a total of 65 gallons had been manifested and properly disposed of in 2020.

7. PROJECTED ACTIVITIES

Q3 2020 will comprise the period between July 1 and September 30, 2020. Planned Q3 2020 activities are summarized below.

Groundwater Monitoring

- Perform and report on quarterly GWM in Q3 2020.
- Report quarterly monitoring of USGS sentinel wells (by USGS).

Drinking Water Supply Well Monitoring

- Perform drinking water supply well monitoring monthly for organic compound analysis for the four wells sampled.

Groundwater Treatment System Operation

- Continue operating the GWTS and extraction wells KAFB-106228, KAFB-106233, KAFB-106234, and KAFB-106239.
- Perform GWTS well disinfection as required.

Reporting

- Prepare a quarterly report to detail the activities conducted during the quarter, including complete incorporation of NMED comments on quarterly reports dated July 11, 2020 (NMED, 2020) (Appendix A-2).

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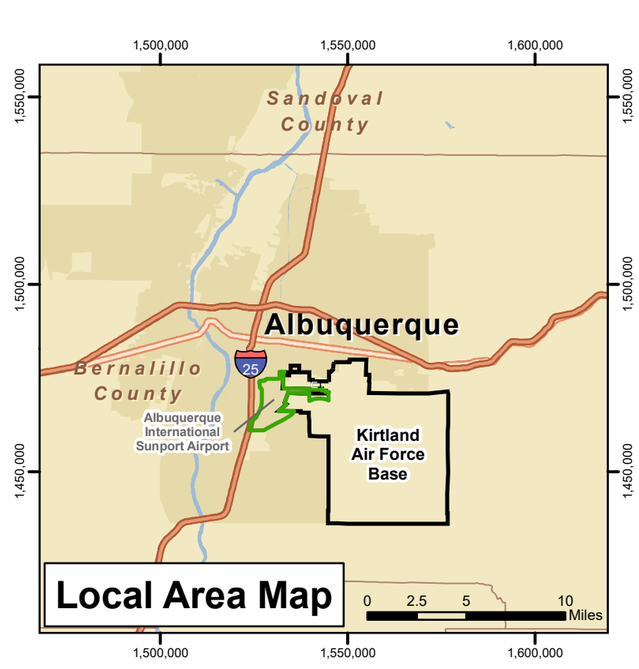
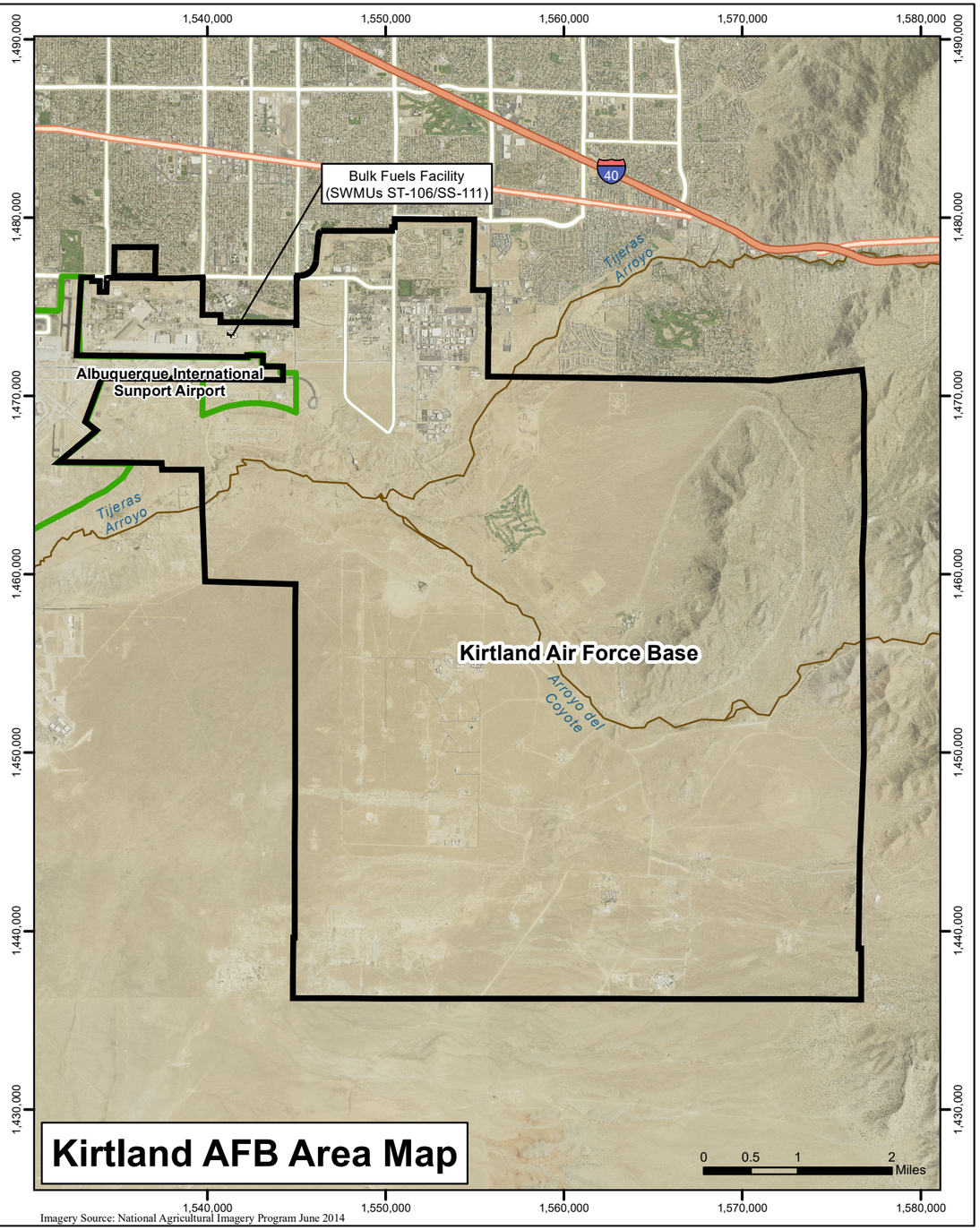
FIGURES

APPENDICES
(Provided electronically via compact disc)





Imagery Source: National Agricultural Imagery Program June 2014

Legend

- Kirtland Air Force Base Installation Boundary
- Albuquerque International Sunport Airport
- Major Highways
- Highways
- Major Roads
- Arroyos
- Rivers
- Source Area

Note:
SWMU = Solid Waste Management Unit

N

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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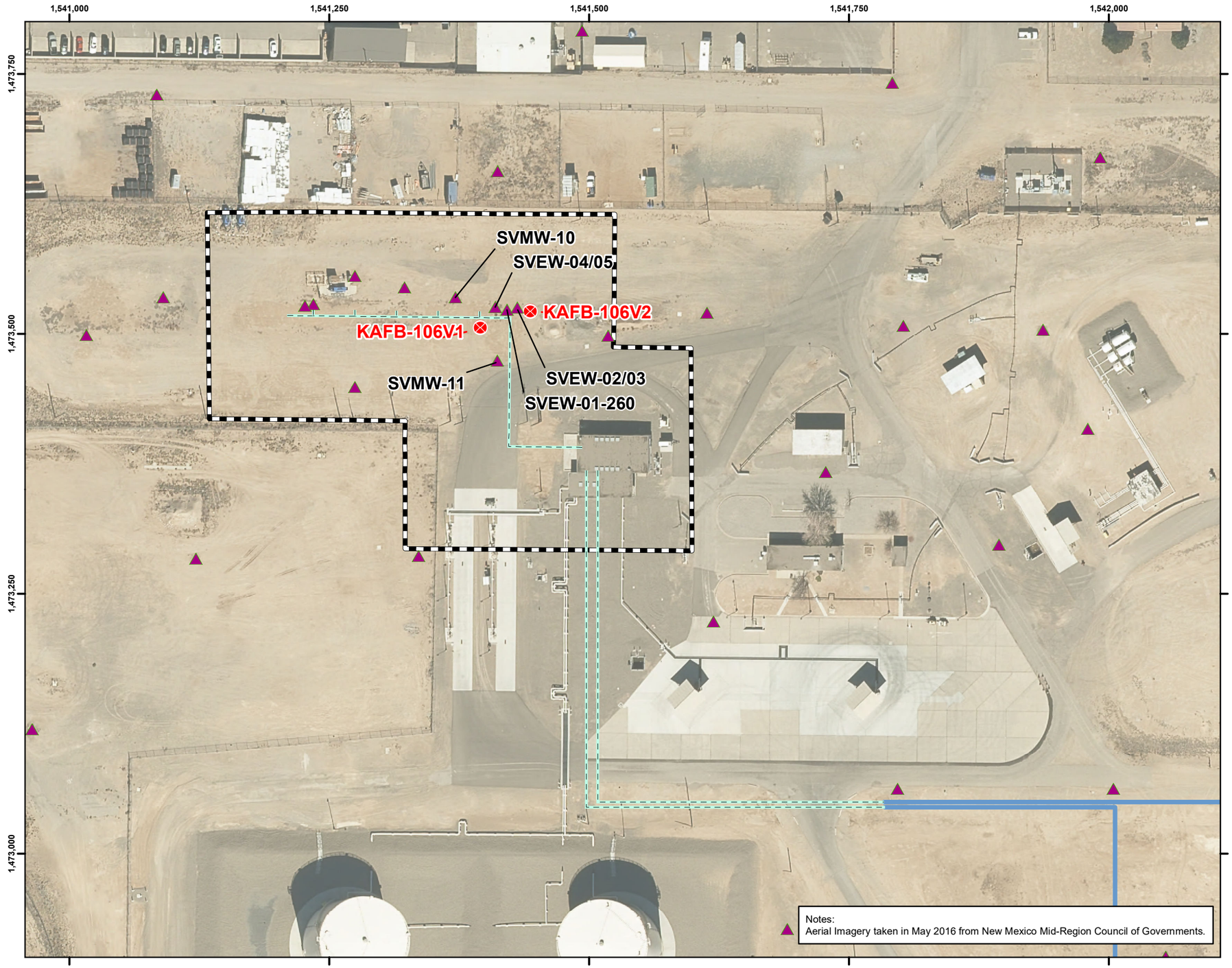
FIGURE 1-1

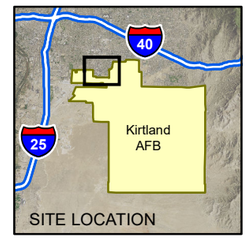
SITE LOCATION MAP

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 1\1-1 SiteLocMap.mxd 7/14/2020 EA ecarpio



Legend

- Existing Soil Vapor Well
- Biovent Observation Well
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Source Area



N

0 50 100 200

Feet

1 inch = 100 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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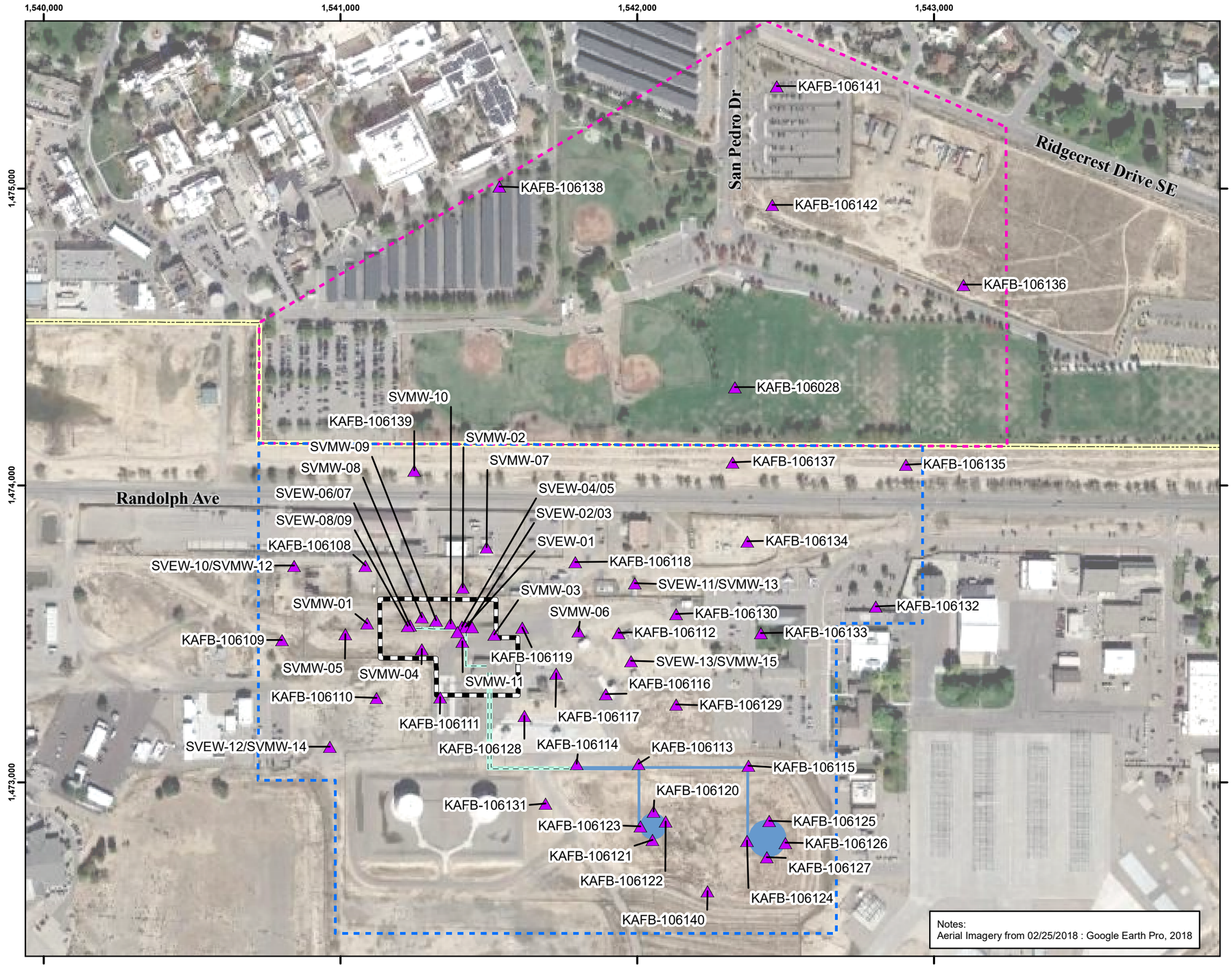
FIGURE 1-2

BIOVENTING PILOT TEST AREA IN THE SOURCE AREA PLUME

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 1\1-2 Bioventing Pilot Test Area.mxd 9/16/2020 EA ecarpio

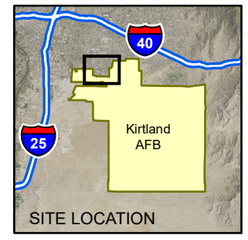


Legend

- Soil Vapor Monitoring Point
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700

Feet

1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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FIGURE 2-1

SOIL VAPOR MONITORING LOCATIONS IN THE SOURCE AREA PLUME

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-1 Soil Vapor Monitoring Locations.mxd 6/23/2020 EA ecarpio

1,540,000 1,541,000 1,542,000 1,543,000

1,475,000 1,474,000 1,473,000

San Pedro Dr

Ridgecrest Drive SE

Randolph Ave

KAFB-106138-025
EDB: ND
Benzene: ND
HC: 0

KAFB-106141-025
EDB: ND
Benzene: ND
HC: 0

KAFB-106142-030
EDB: ND
Benzene: 1.2 J
HC: 0

KAFB-106136-025
EDB: ND
Benzene: 0.35 J
HC: 0

KAFB-106139-025
EDB: ND
Benzene: ND
HC: 2

KAFB-106112-025
EDB: ND
Benzene: ND
HC: 2

KAFB-106130-025
EDB: ND
Benzene: 0.82 J
HC: 0

KAFB-106137-025
EDB: ND
Benzene: ND
HC: 0

KAFB-106135-025
EDB: ND
Benzene: 1.7 J
HC: 3

KAFB-106116-025
EDB: ND
Benzene: 13
HC: 0

KAFB-106134-025
EDB: ND
Benzene: 0.66 J
HC: 2

KAFB-106108-025
EDB: ND
Benzene: ND
HC: 2

KAFB-106118-025
EDB: ND
Benzene: 230
HC: 2

KAFB-106132-025
EDB: ND
Benzene: 0.54 J
HC: 0

KAFB-106109-025
EDB: ND
Benzene: 0.58 J
HC: 4

KAFB-106119-025
EDB: ND
Benzene: ND
HC: 0

KAFB-106133-025
EDB: ND
Benzene: 0.41 J
HC: 2

KAFB-106111-025
EDB: ND
Benzene: 0.74 J
HC: 2

KAFB-106117-025
EDB: ND
Benzene: 1.8 J
HC: 2

KAFB-106129-025
EDB: ND
Benzene: 1.5 J
HC: 0

KAFB-106110-025
EDB: ND
Benzene: ND
HC: 2

KAFB-106128-025
EDB: ND
Benzene: 2.3 J
HC: 2

KAFB-106113-020
EDB: 490
Benzene: ND
HC: 0

KAFB-106120-025
EDB: 0.32 J
Benzene: 0.40 J
HC: 0

KAFB-106115-025
EDB: ND
Benzene: ND
HC: 0

KAFB-106114-025
EDB: ND
Benzene: 0.96 J
HC: 2

KAFB-106124-025
EDB: ND
Benzene: 0.52 J
HC: 0

KAFB-106131-025
EDB: ND
Benzene: 1.1 J
HC: 1

KAFB-106125-025
EDB: ND
Benzene: 0.46 J
HC: 2

KAFB-106123-025
EDB: ND
Benzene: 1.1 J
HC: 0

KAFB-106126-025
EDB: ND
Benzene: 1.0 J
HC: 0

KAFB-106121-025
EDB: ND
Benzene: ND
HC: 0

KAFB-106122-025
EDB: ND
Benzene: ND
HC: 1

KAFB-106140-025
EDB: ND
Benzene: 0.59 J
HC: 0

KAFB-106127-025
EDB: ND
Benzene: 0.59 J
HC: 4

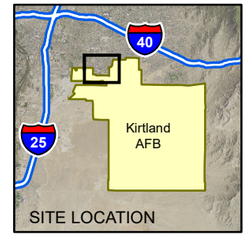
Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold = reported concentrations are above the detection limit, but below the historic high:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified, but the associated numerical value is estimated

Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Former Aboveground Storage
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700
Feet
1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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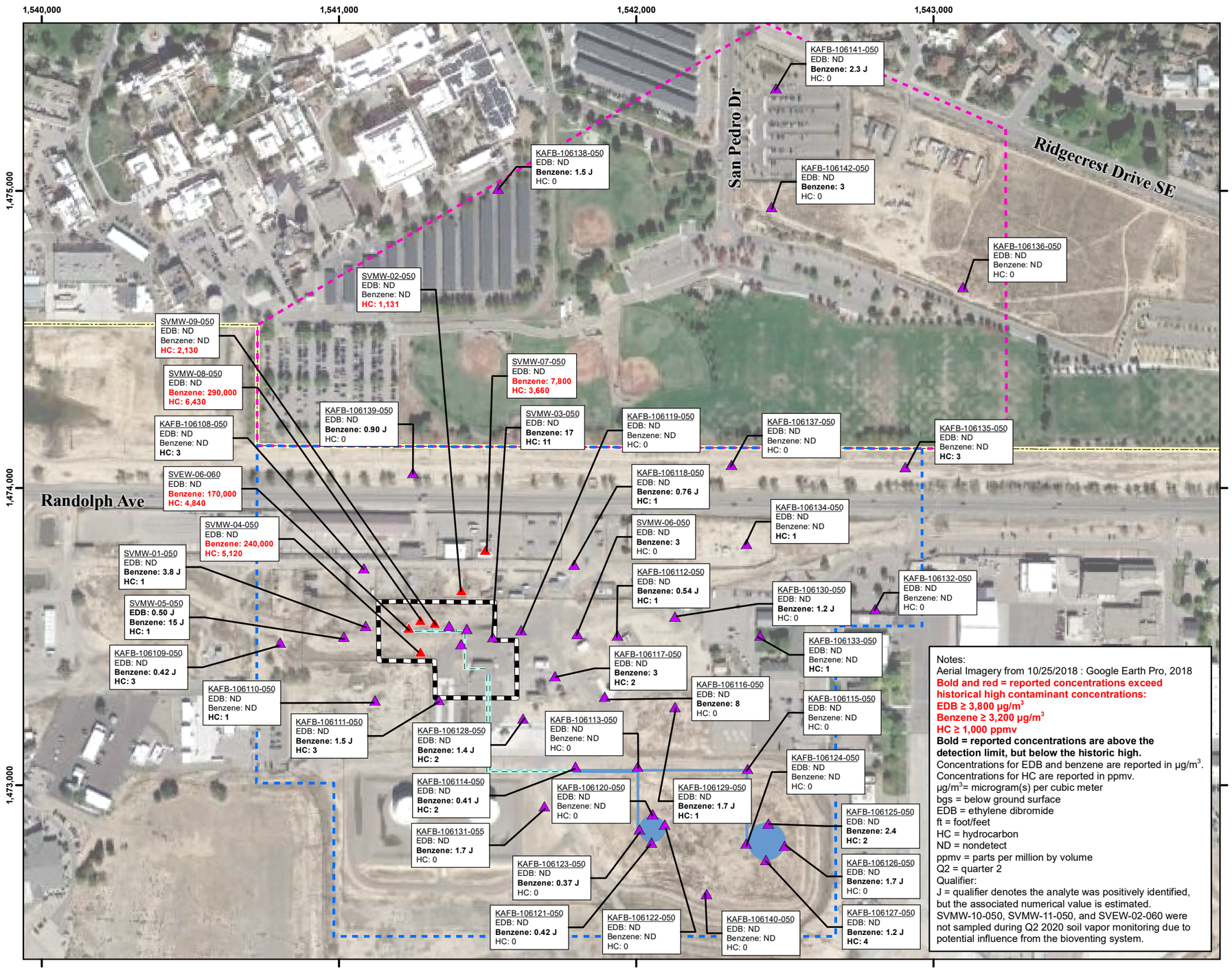
FIGURE 2-2

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 25 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-2 Benzene_EDB_HC_Conc_25ftQ22020.mxd 7/21/2020 EA ecarpio

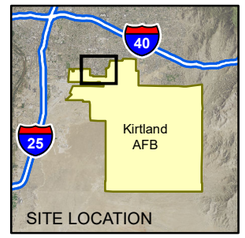


Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Soil Vapor Monitoring Point - At Least One Contaminant Exceedance
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold and red = reported concentrations exceed historical high contaminant concentrations:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Bold = reported concentrations are above the detection limit, but below the historic high.
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
SVMW-10-050, SVMW-11-050, and SVEW-02-060 were not sampled during Q2 2020 soil vapor monitoring due to potential influence from the bioventing system.

N

0 175 350 700

Feet

1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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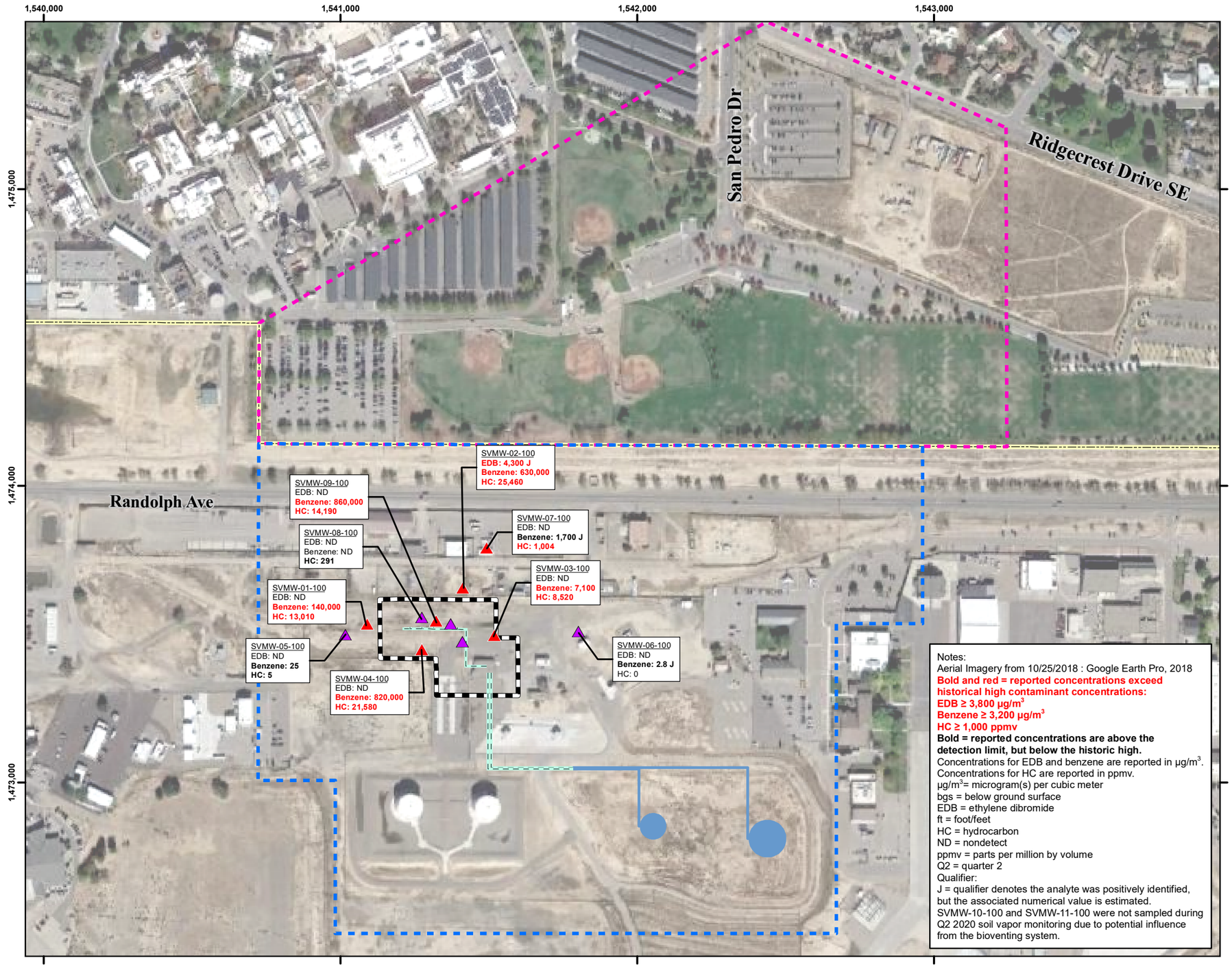
FIGURE 2-3

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 50 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-3 Benzene_EDB_HC_Conc_50ftQ22020.mxd 7/14/2020 EA ecarpio



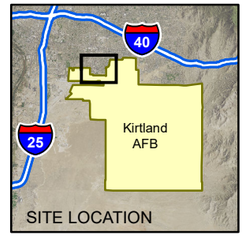
Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold and red = reported concentrations exceed historical high contaminant concentrations:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Bold = reported concentrations are above the detection limit, but below the historic high.
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
SVMW-10-100 and SVMW-11-100 were not sampled during Q2 2020 soil vapor monitoring due to potential influence from the bioventing system.

Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Soil Vapor Monitoring Point - At Least One Contaminant Exceedance
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700
Feet
1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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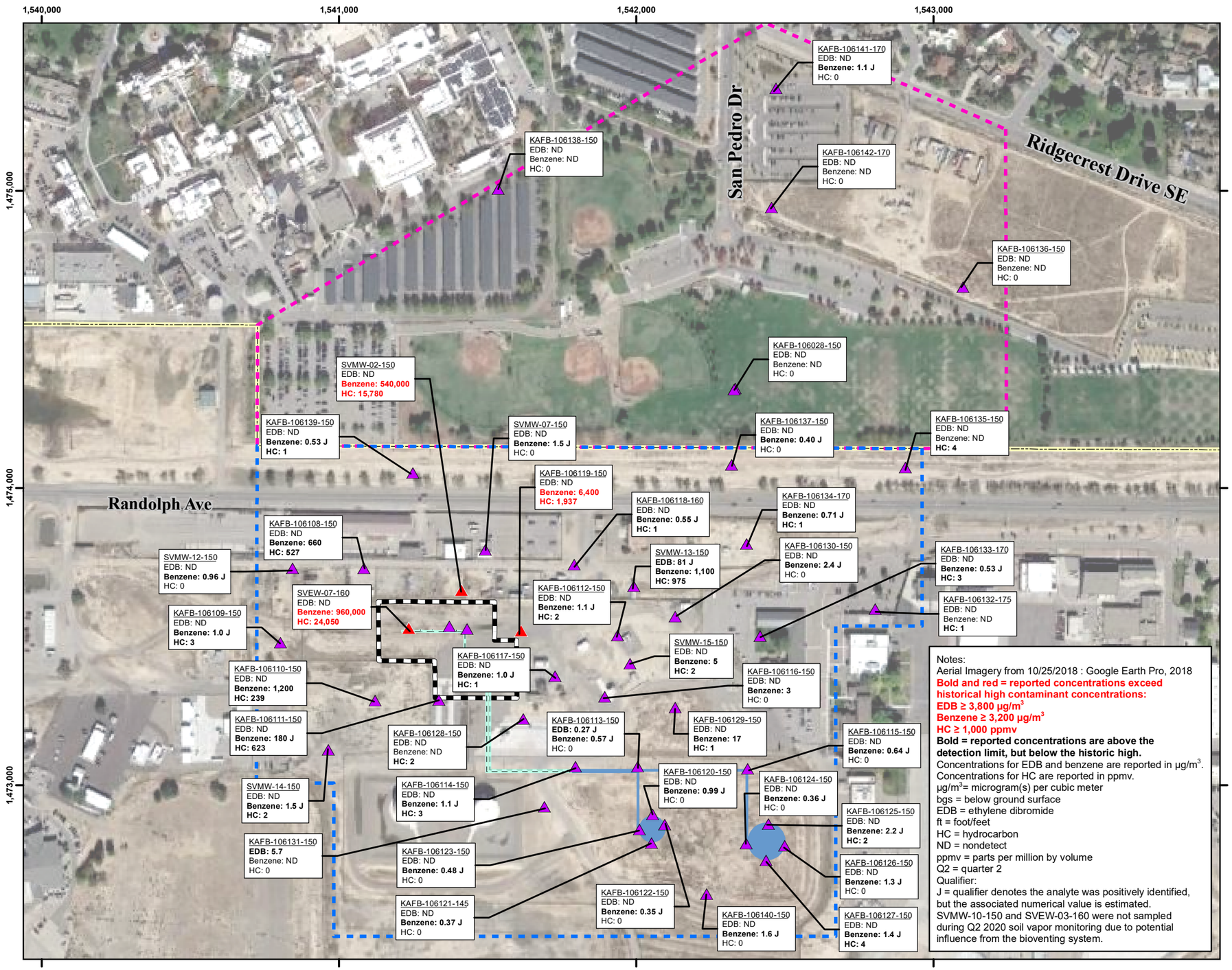
FIGURE 2-4

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 100 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-4 Benzene_EDB_HC_Conc_100ftQ22020.mxd 7/14/2020 EA ecarpio



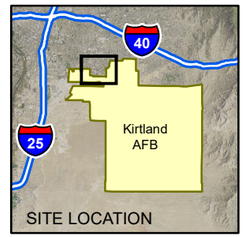
Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold and red = reported concentrations exceed historical high contaminant concentrations:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Bold = reported concentrations are above the detection limit, but below the historic high.
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
SVMW-10-150 and SVEW-03-160 were not sampled during Q2 2020 soil vapor monitoring due to potential influence from the bioventing system.

Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Soil Vapor Monitoring Point - At Least One Contaminant Exceedance
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700

Feet

1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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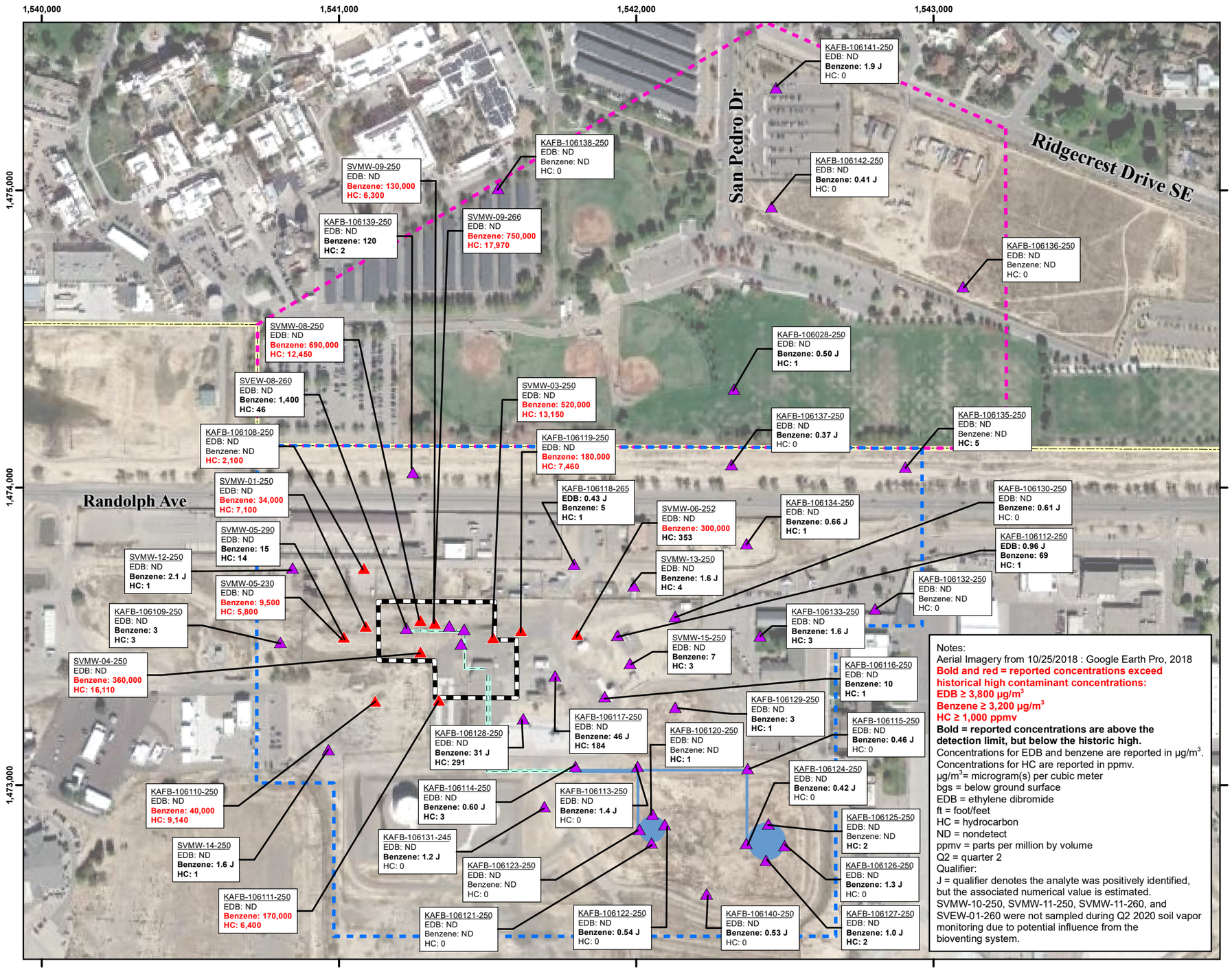
FIGURE 2-5

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 150 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-5 Benzene_EDB_HC_Conc_150ftQ22020.mxd 7/14/2020 EA ecarpio



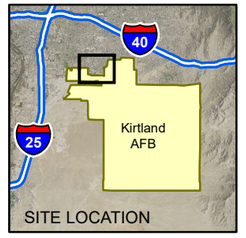
Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold and red = reported concentrations exceed historical high contaminant concentrations:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Bold = reported concentrations are above the detection limit, but below the historic high.
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
SVMW-10-250, SVMW-11-250, SVMW-11-260, and SVEW-01-260 were not sampled during Q2 2020 soil vapor monitoring due to potential influence from the bioventing system.

Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Soil Vapor Monitoring Point - At Least One Contaminant Exceedance
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700

Feet

1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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FIGURE 2-6

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 250 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-6 Benzene_EDB_HC_Conc_250ftQ22020.mxd 7/14/2020 EA ecarpio

1,540,000 1,541,000 1,542,000 1,543,000

1,475,000 1,474,000 1,473,000

San Pedro Dr

Ridgecrest Drive SE

Randolph Ave

KAFB-106141-350
EDB: ND
Benzene: 1.3 J
HC: 0

KAFB-106138-350
EDB: ND
Benzene: 0.41 J
HC: 0

KAFB-106142-350
EDB: ND
Benzene: ND
HC: 0

KAFB-106136-350
EDB: ND
Benzene: ND
HC: 0

KAFB-106118-350
EDB: ND
Benzene: 0.89 J
HC: 1

KAFB-106119-350
EDB: ND
Benzene: 22,000
HC: 2,810

KAFB-106028-350
EDB: ND
Benzene: 1.4 J
HC: 0

SVMW-03-300
EDB: ND
Benzene: 180,000
HC: 11,070

KAFB-106139-350
EDB: ND
Benzene: 34
HC: 0

SVMW-06-302
EDB: 83
Benzene: 65
HC: 4

KAFB-106137-350
EDB: ND
Benzene: 0.67 J
HC: 1

KAFB-106135-350
EDB: ND
Benzene: ND
HC: 5

SVMW-04-300
EDB: ND
Benzene: 100,000
HC: 1,533

KAFB-106112-350
EDB: 45
Benzene: 1,500
HC: 3

KAFB-106134-350
EDB: ND
Benzene: 1.7 J
HC: 2

KAFB-106108-350
EDB: 2.8 J
Benzene: 1,000
HC: 6

SVMW-13-350
EDB: 0.92 J
Benzene: 59
HC: 4

KAFB-106133-350
EDB: ND
Benzene: 6
HC: 2

SVMW-12-350
EDB: ND
Benzene: 5
HC: 0

KAFB-106130-350
EDB: ND
Benzene: 1.4 J
HC: 0

SVMW-01-300
EDB: ND
Benzene: 2,900
HC: 179

KAFB-106132-350
EDB: ND
Benzene: 1.2 J
HC: 0

SVMW-15-350
EDB: 13 J
Benzene: ND
HC: 31

KAFB-106109-350
EDB: ND
Benzene: 12
HC: 4

KAFB-106116-350
EDB: ND
Benzene: 670
HC: 103

KAFB-106129-350
EDB: ND
Benzene: 1.4 J
HC: 0

KAFB-106110-350
EDB: ND
Benzene: ND
HC: 95

KAFB-106115-350
EDB: ND
Benzene: 0.85 J
HC: 0

KAFB-106117-350
EDB: ND
Benzene: 270 J
HC: 481

KAFB-106120-350
EDB: ND
Benzene: 83
HC: 2

KAFB-106128-350
EDB: ND
Benzene: 61,000
HC: 6,710

SVMW-14-350
EDB: 1.2 J
Benzene: 8
HC: 1

KAFB-106124-350
EDB: ND
Benzene: 21 J
HC: 6

KAFB-106111-350
EDB: ND
Benzene: 20,000
HC: 2,550

KAFB-106114-350
EDB: ND
Benzene: 15
HC: 8

KAFB-106113-350
EDB: ND
Benzene: 1,600
HC: 103

KAFB-106125-350
EDB: ND
Benzene: ND
HC: 5

KAFB-106131-350
EDB: ND
Benzene: 1.4 J
HC: 0

KAFB-106123-350
EDB: 1.1 J
Benzene: 0.61 J
HC: 0

KAFB-106126-350
EDB: ND
Benzene: 7.2 J
HC: 6

KAFB-106121-350
EDB: ND
Benzene: 1.3 J
HC: 0

KAFB-106122-350
EDB: ND
Benzene: 0.88 J
HC: 0

KAFB-106140-350
EDB: ND
Benzene: 18
HC: 2

KAFB-106127-350
EDB: ND
Benzene: 3.9 J
HC: 4

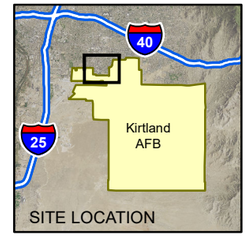
Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold and red = reported concentrations exceed historical high contaminant concentrations:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Bold = reported concentrations are above the detection limit, but below the historic limit.
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
SVEW-04-313 was not sampled during Q2 2020 soil vapor monitoring due to potential influence from the bioventing system.

Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Soil Vapor Monitoring Point - At Least One Contaminant Exceedance
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700
Feet
1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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FIGURE 2-7

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 350 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-7 Benzene_EDB_HC_Conc_350ftQ22020.mxd 7/14/2020 EA ecarpio

1,540,000 1,541,000 1,542,000 1,543,000

1,475,000 1,474,000 1,473,000

San Pedro Dr

Ridgecrest Drive SE

Randolph Ave

KAFB-106141-450
EDB: ND
Benzene: 1.1 J
HC: 0

KAFB-106138-450
EDB: ND
Benzene: 0.60 J
HC: 1

KAFB-106142-450
EDB: 2.4 J
Benzene: 38
HC: 0

KAFB-106136-450
EDB: ND
Benzene: 1.3 J
HC: 0

KAFB-106119-450
EDB: ND
Benzene: 110 J
HC: 258

KAFB-106028-450
EDB: ND
Benzene: 35 J
HC: 149

KAFB-106139-450
EDB: ND
Benzene: 2.2 J
HC: 1

KAFB-106118-450
EDB: ND
Benzene: 110
HC: 29

KAFB-106137-450
EDB: 460
Benzene: 11,000
HC: 339

KAFB-106135-450
EDB: ND
Benzene: 0.70 J
HC: 6

SVEW-09-460
EDB: ND
Benzene: 1,100
HC: 40

SVEW-11-410
EDB: ND
Benzene: 8,800
HC: 222

KAFB-106108-450
EDB: ND
Benzene: 13
HC: 2

SVMW-13-450
EDB: ND
Benzene: 8
HC: 5

KAFB-106134-450
EDB: ND
Benzene: 400
HC: 46

KAFB-106130-450
EDB: ND
Benzene: 1000
HC: 40

SVMW-12-450
EDB: ND
Benzene: 19
HC: 0

KAFB-106112-450
EDB: ND
Benzene: 15,000
HC: 681

SVEW-13-410
EDB: ND
Benzene: 20,000
HC: 1,170

KAFB-106132-450
EDB: ND
Benzene: 2.0 J
HC: 0

SVEW-10-410
EDB: ND
Benzene: 570
HC: 0

KAFB-106109-450
EDB: ND
Benzene: 8
HC: 4

KAFB-106111-450
EDB: ND
Benzene: 1,100
HC: 13

KAFB-106117-450
EDB: ND
Benzene: 12,000
HC: 7,070

SVMW-15-450
EDB: ND
Benzene: 64,000
HC: 3,050

KAFB-106133-450
EDB: ND
Benzene: 1,100
HC: 49

KAFB-106129-450
EDB: 22 J
Benzene: 2,300
HC: 138

SVEW-12-410
EDB: ND
Benzene: ND
HC: 3

KAFB-106128-450
EDB: ND
Benzene: 16,000
HC: 11,830

KAFB-106116-450
EDB: ND
Benzene: 58,000
HC: 5,230

KAFB-106120-450
EDB: ND
Benzene: 110
HC: 16

KAFB-106115-450
EDB: ND
Benzene: 3,800
HC: 482

SVMW-14-450
EDB: ND
Benzene: 22
HC: 2

KAFB-106114-450
EDB: ND
Benzene: 14,000
HC: 3,920

KAFB-106113-450
EDB: ND
Benzene: 33,000
HC: 1,258

KAFB-106124-450
EDB: ND
Benzene: 290 J
HC: 203

KAFB-106110-450
EDB: ND
Benzene: 440
HC: 21

KAFB-106125-450
EDB: ND
Benzene: 180 J
HC: 77

KAFB-106131-450
EDB: ND
Benzene: 4,100
HC: 223

KAFB-106123-450
EDB: ND
Benzene: 3
HC: 0

KAFB-106126-450
EDB: ND
Benzene: ND
HC: 423

KAFB-106121-450
EDB: ND
Benzene: 180
HC: 2

KAFB-106122-450
EDB: ND
Benzene: 150
HC: 15

KAFB-106140-450
EDB: ND
Benzene: 120
HC: 9

KAFB-106127-450
EDB: ND
Benzene: 64 J
HC: 105

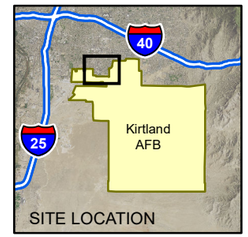
Notes:
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
Bold and red = reported concentrations exceed historical high contaminant concentrations:
EDB ≥ 3,800 µg/m^3
Benzene ≥ 3,200 µg/m^3
HC ≥ 1,000 ppmv
Bold = reported concentrations are above the detection limit, but below the historic high.
Concentrations for EDB and benzene are reported in µg/m^3.
Concentrations for HC are reported in ppmv.
µg/m^3= microgram(s) per cubic meter
bgs = below ground surface
EDB = ethylene dibromide
ft = foot/feet
HC = hydrocarbon
ND = nondetect
ppmv = parts per million by volume
Q2 = quarter 2
Qualifier:
J = qualifier denotes the analyte was positively identified but the associated numerical value is estimated.
SVEW-05-460 was not sampled during Q2 2020 soil vapor monitoring due to potential influence from the bioventing system.

Legend

- Soil Vapor Monitoring Point - No Contaminant Exceedances
- Soil Vapor Monitoring Point - At Least One Contaminant Exceedance
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary

Area of Interest

- Off-Base
- On-Base Outside of Source Area
- Source Area



N

0 175 350 700

Feet

1 inch = 350 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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FIGURE 2-8

BENZENE, EDB, AND HC CONCENTRATIONS IN SOIL VAPOR IN THE SOURCE AREA PLUME AT 450 FT BGS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 2\2-8 Benzene_EDB_HC_Conc_450ftQ22020.mxd 7/14/2020 EA ecarpio

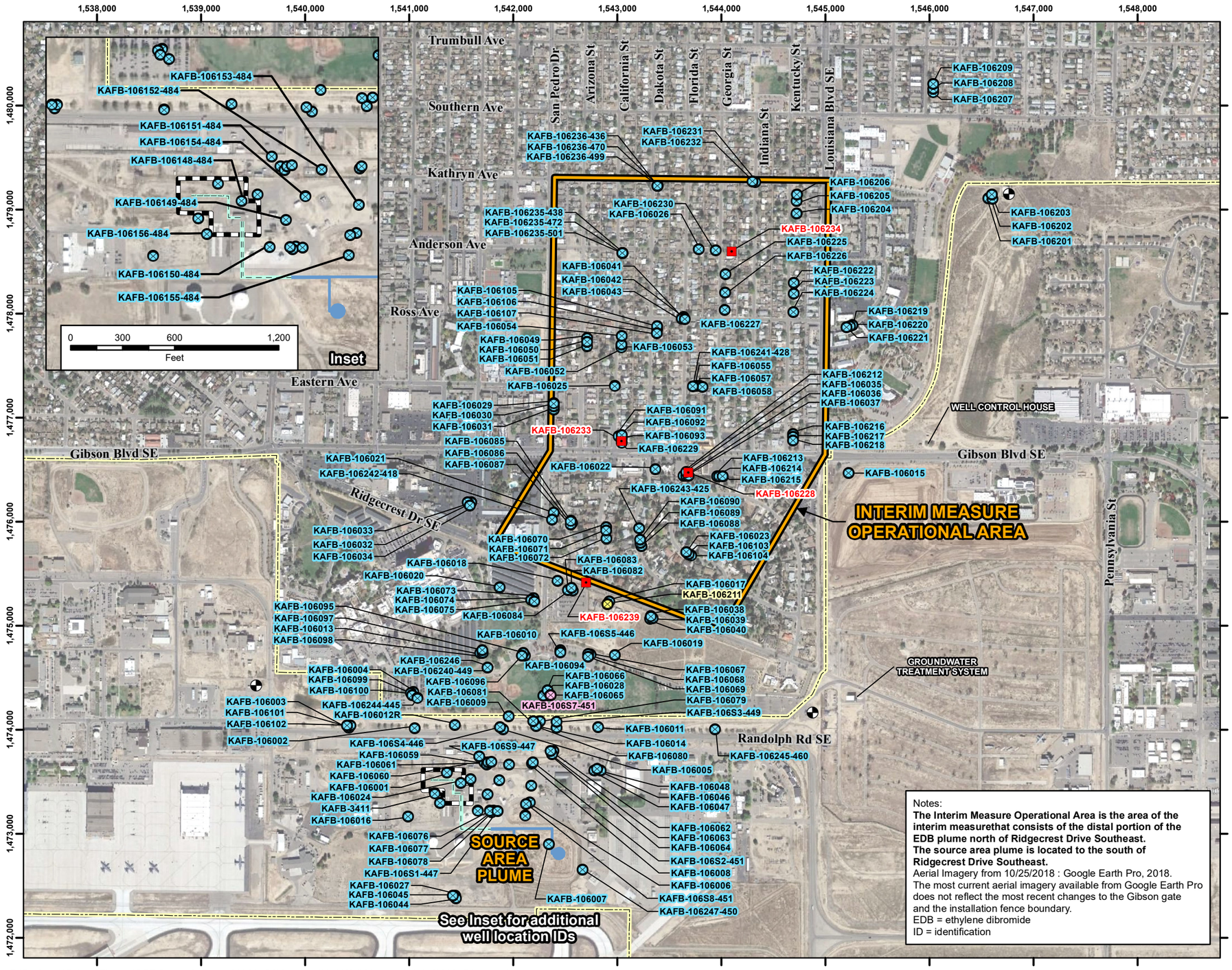

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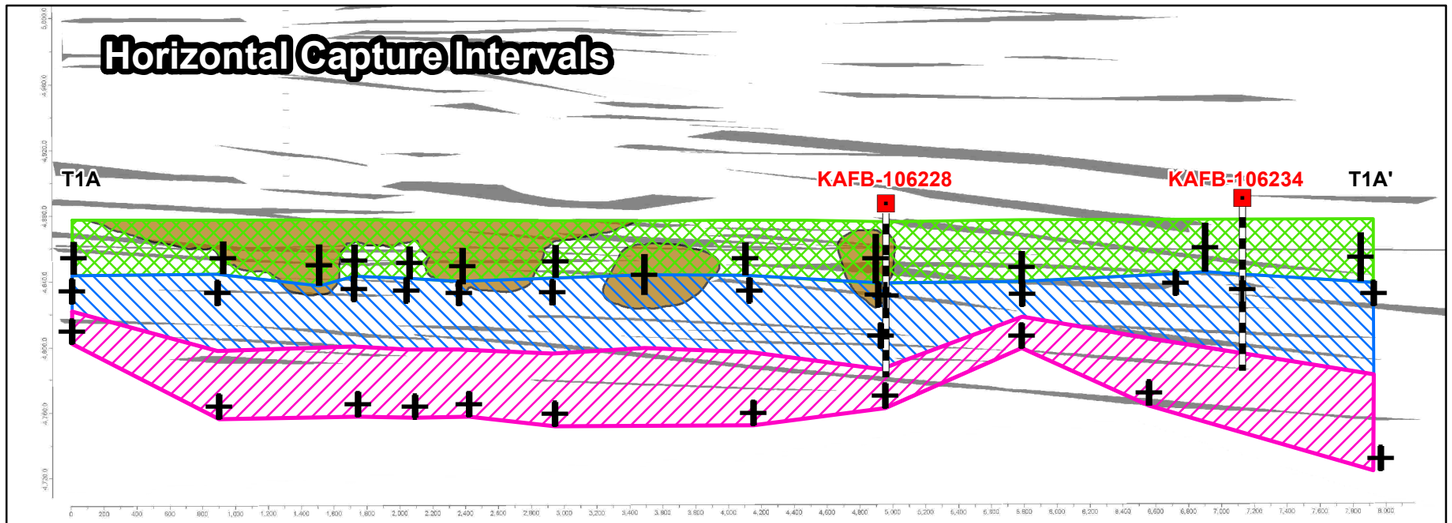
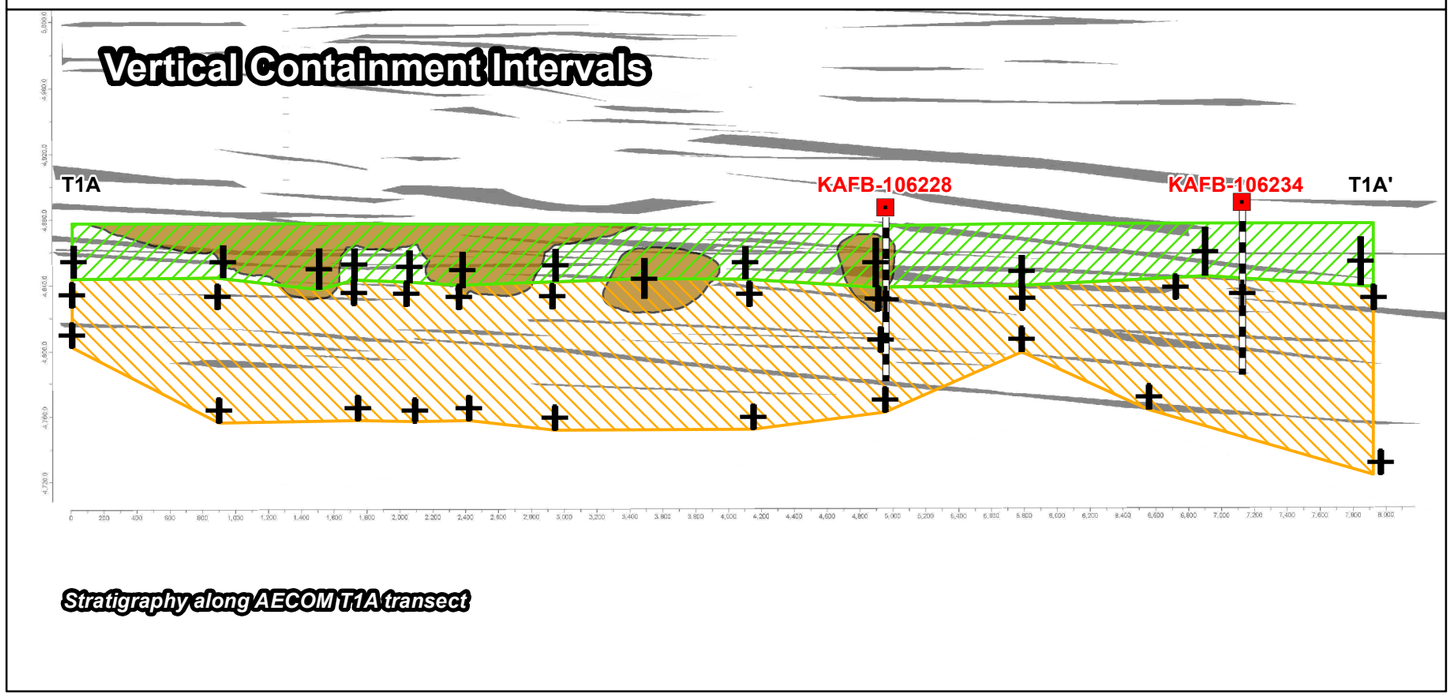
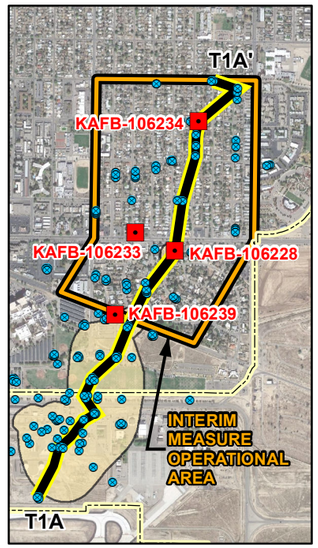
FIGURE 3-1

GROUNDWATER MONITORING NETWORK, DRINKING WATER SUPPLY WELL, AND EXTRACTION WELL LOCATIONS

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-1 Well Map.mxd 9/15/2020 EA ecarpio







Legend

- Groundwater Monitoring Well Screen (With Midpoint)
- Extraction Well Screen
- Extraction Well
- Groundwater Monitoring Well
- T1A Transect
- AECOM Defined Fine Grained Lithology
- Interim Measure Operational Area

Reference Elevation Interval For Horizontal Capture

- 4857 (ft AMSL)
- 4838 (ft AMSL)
- 4814 (ft AMSL)
- Q2 2020 EDB Plume with Concentration > 0.05 µg/L (EPA MCL)

Reference Elevation Interval For Vertical Containment

- Above 4838 Midpoint (ft AMSL)
- Below 4838 Midpoint (ft AMSL)

Notes:
EDB plume model generated with C-Tech MVS Premier Version 9.94
ft AMSL = feet above mean sea level
µg/L = micrograms per liter
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency Maximum Contaminant Level
AECOM = Architecture, Engineering, Consulting, Operations, and Maintenance
Q2 = quarter 2

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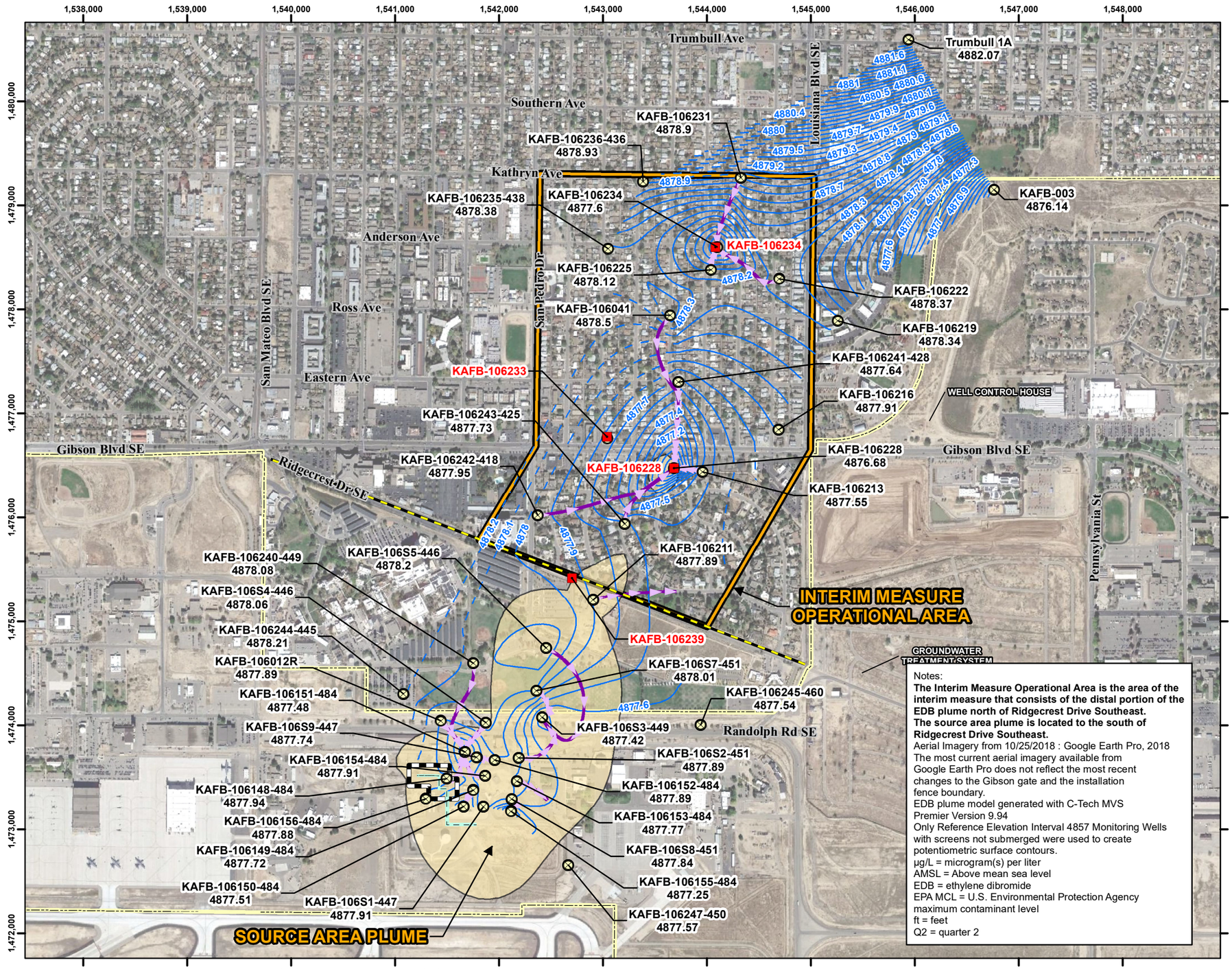
FIGURE 3-2

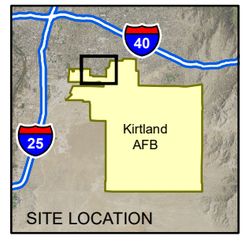
REFERENCE ELEVATION CAPTURE AND CONTAINMENT INTERVALS, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-2 Reference Elevation Intervals.mxd 9/15/2020 EA ecarpio



Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Extraction Well
- Groundwater Level Contour (0.1 ft interval) (dashed where inferred)
- Particle Flow Lines (Direction of Flow)
- Installation Fence Boundary
- Target Capture Zone Boundary
- Q2 2020 EDB Plume with Concentration > 0.05 µg/L (EPA MCL)
- Interim Measure Operational Area
- Source Area



Notes:

The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume model generated with C-Tech MVS Premier Version 9.94
Only Reference Elevation Interval 4857 Monitoring Wells with screens not submerged were used to create potentiometric surface contours.
µg/L = microgram(s) per liter
AMSL = Above mean sea level
EDB = ethylene dibromide
EPA MCL = U.S. Environmental Protection Agency maximum contaminant level
ft = feet
Q2 = quarter 2

N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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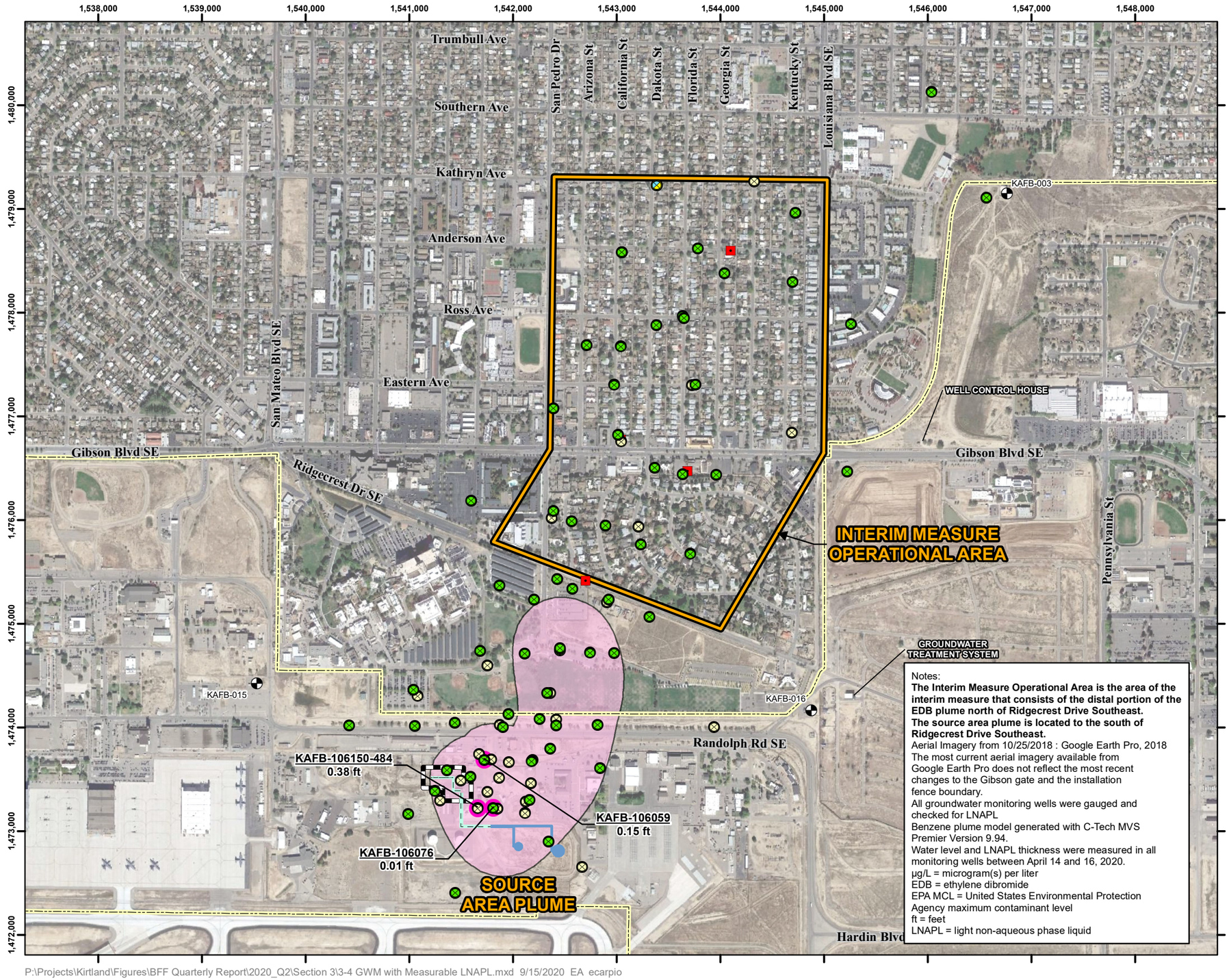
FIGURE 3-3

POTENTIOMETRIC SURFACE OF WATER TABLE, Q2 2020

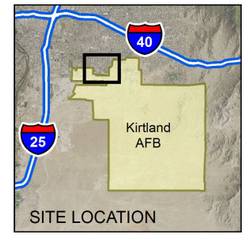
P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-3 PotentiometricSurface Water Table.mxd 9/15/2020 EA ecarpio



Legend

- Monitoring Well with Confirmed LNAPL
- Reference Elevation Interval 4857 Groundwater Monitoring Wells with top of screen unsubmerged
- Reference Elevation Interval 4857 and 4857/4838 Groundwater Monitoring Wells with fully submerged screens
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer
- Installation Fence Boundary
- Benzene Plume, Q2 2020 ≥5 µg/L (EPA MCL) in the Source Area Plume
- Interim Measure Operational Area
- Source Area

Well Location ID
LNAPL Thickness (ft)



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
All groundwater monitoring wells were gauged and checked for LNAPL
Benzene plume model generated with C-Tech MVS Premier Version 9.94.
Water level and LNAPL thickness were measured in all monitoring wells between April 14 and 16, 2020.
µg/L = microgram(s) per liter
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ft = feet
LNAPL = light non-aqueous phase liquid

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FIGURE 3-4

GROUNDWATER MONITORING WELLS WITH MEASURABLE LNAPL APRIL 14 - APRIL 16, 2020

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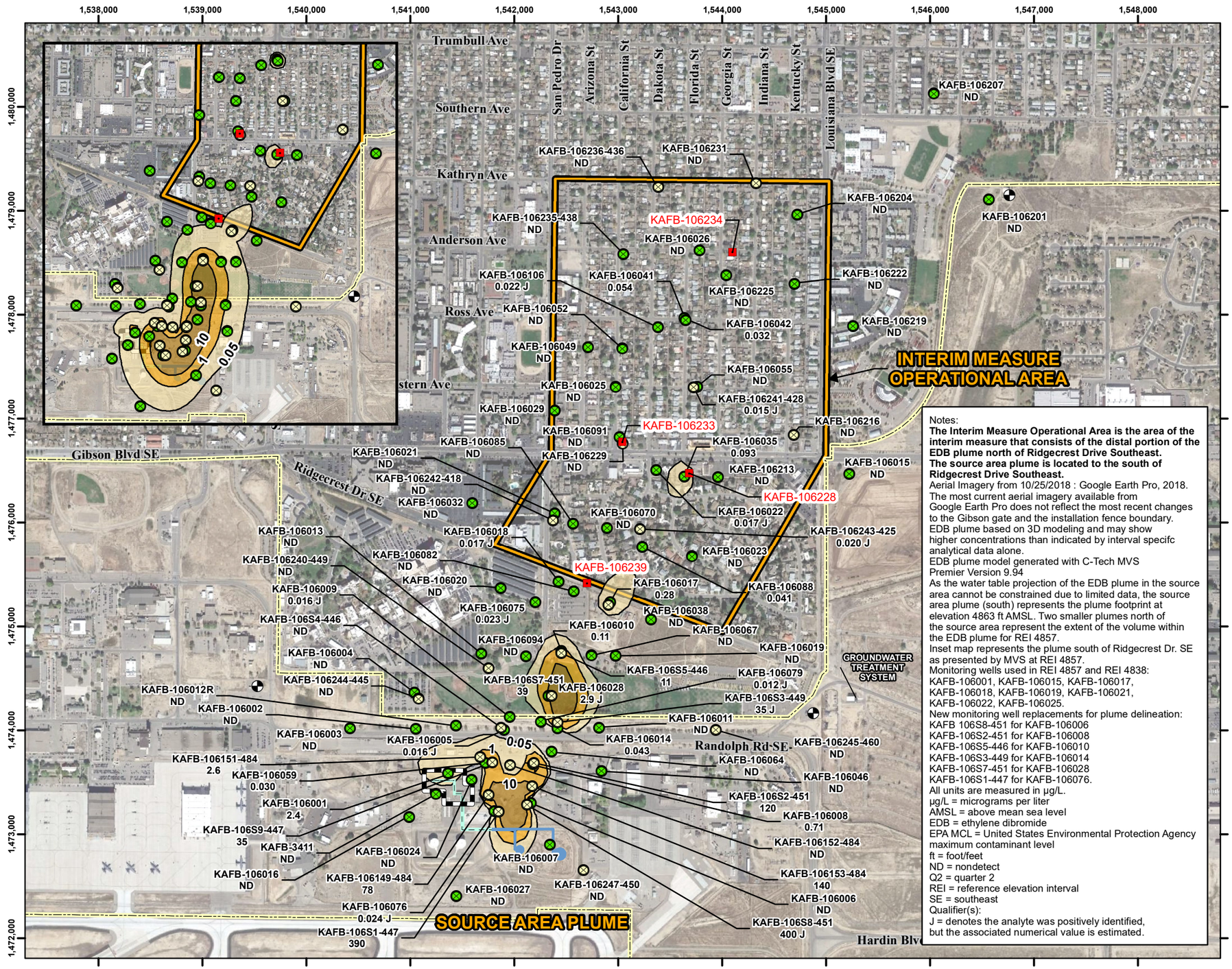


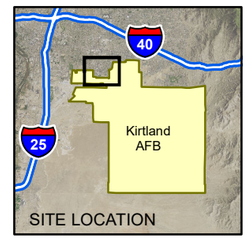
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume based on 3D modeling and may show higher concentrations than indicated by interval specifc analytical data alone.
EDB plume model generated with C-Tech MVS Premier Version 9.94
As the water table projection of the EDB plume in the source area cannot be constrained due to limited data, the source area plume (south) represents the plume footprint at elevation 4863 ft AMSL. Two smaller plumes north of the source area represent the extent of the volume within the EDB plume for REI 4857.
Inset map represents the plume south of Ridgecrest Dr. SE as presented by MVS at REI 4857.
Monitoring wells used in REI 4857 and REI 4838:
KAFB-106001, KAFB-106015, KAFB-106017, KAFB-106018, KAFB-106019, KAFB-106021, KAFB-106022, KAFB-106025.
New monitoring well replacements for plume delineation:
KAFB 106S8-451 for KAFB-106006
KAFB-106S2-451 for KAFB-106008
KAFB-106S5-446 for KAFB-106010
KAFB-106S3-449 for KAFB-106014
KAFB-106S7-451 for KAFB-106028
KAFB-106S1-447 for KAFB-106076.
All units are measured in µg/L.
µg/L = micrograms per liter
AMSL = above mean sea level
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ft = foot/feet
ND = nondetect
Q2 = quarter 2
REI = reference elevation interval
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- EDB Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

EDB Concentration Range

- 0.05 (EPA MCL) - 1.0 µg/L
- 1.0 - 10 µg/L
- 10 - 500 µg/L



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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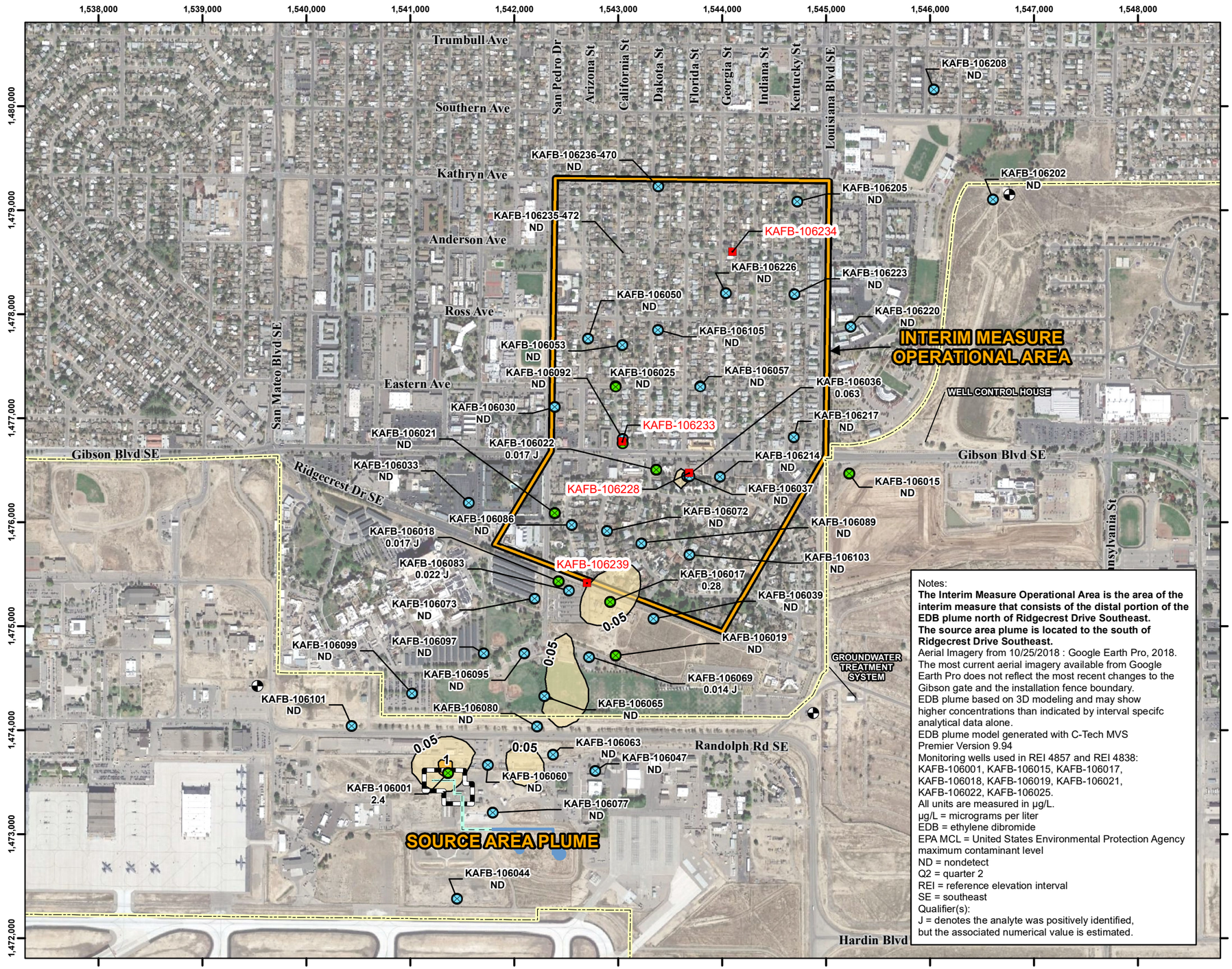
FIGURE 3-5

EDB CONCENTRATIONS IN GROUNDWATER
REFERENCE ELEVATION INTERVAL 4857,
Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-5 Interval 4857 EDB.mxd 9/15/2020 EA ecarpio

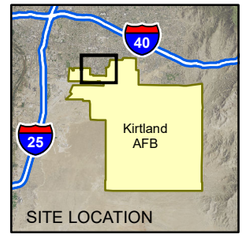


Legend

- Reference Elevation Interval 4858/4838 Monitoring Well (Screen Submerged)
- Reference Elevation Interval 4838 Monitoring Well (Screen Submerged)
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- EDB Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

EDB Concentration Range

- 0.05 (EPA MCL) - 1.0 µg/L
- 1.0 - 10 µg/L
- 10 - 500 µg/L



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume based on 3D modeling and may show higher concentrations than indicated by interval specifc analytical data alone.
EDB plume model generated with C-Tech MVS Premier Version 9.94
Monitoring wells used in REI 4857 and REI 4838:
KAFB-106001, KAFB-106015, KAFB-106017, KAFB-106018, KAFB-106019, KAFB-106021, KAFB-106022, KAFB-106025.
All units are measured in µg/L.
µg/L = micrograms per liter
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ND = nondetect
Q2 = quarter 2
REI = reference elevation interval
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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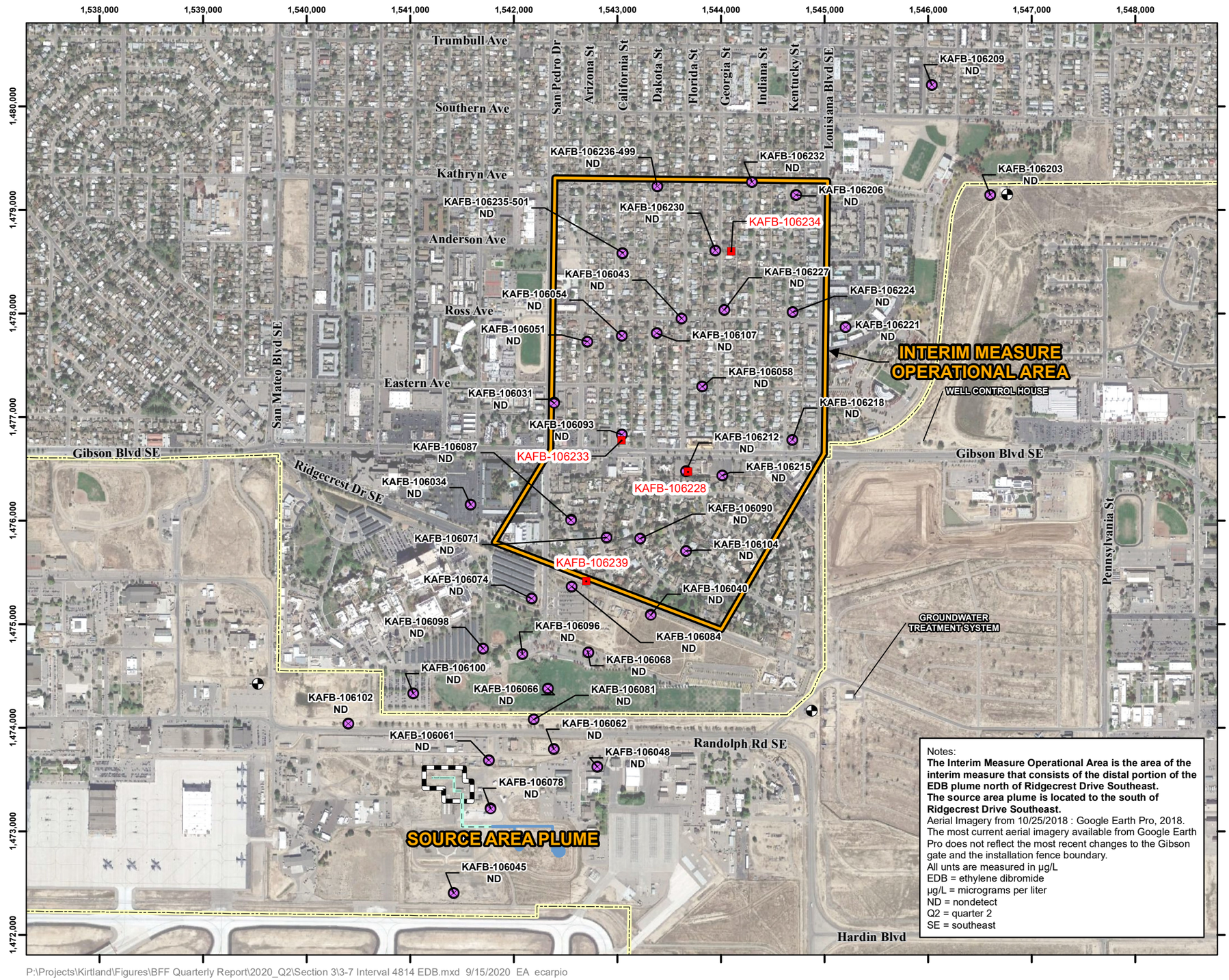
FIGURE 3-6

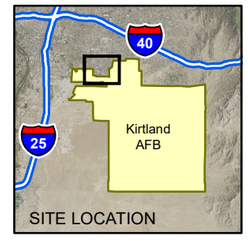
EDB CONCENTRATIONS IN GROUNDWATER
REFERENCE ELEVATION INTERVAL 4838,
Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-6 Interval 4838 EDB.mxd 9/15/2020 EA ecarpio



Legend

- Reference Elevation Interval 4814 Monitoring Well (Screen Submerged)
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Interim Measure Operational Area
- Source Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
All unts are measured in µg/L
EDB = ethylene dibromide
µg/L = micrograms per liter
ND = nondetect
Q2 = quarter 2
SE = southeast

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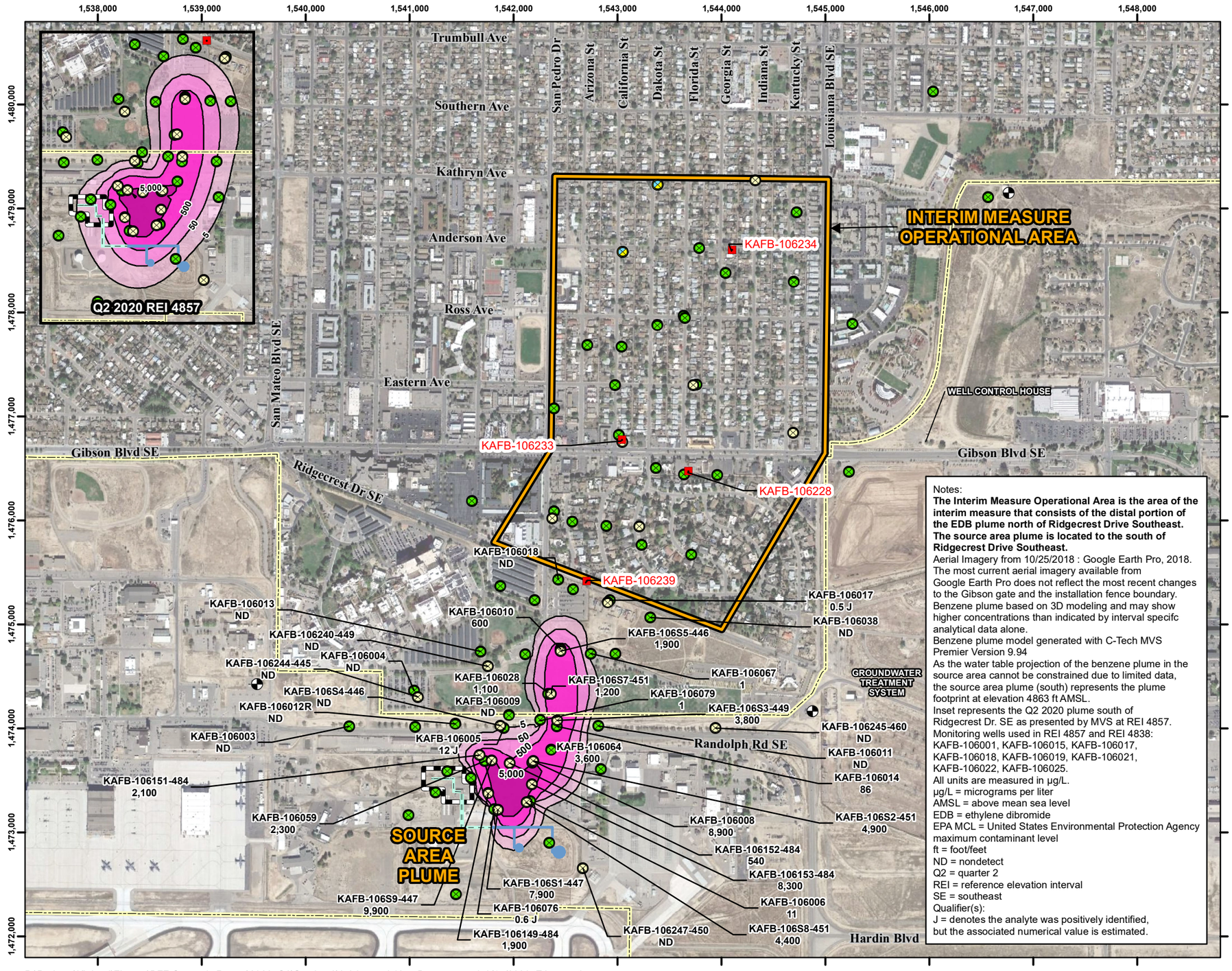
FIGURE 3-7

EDB CONCENTRATIONS IN GROUNDWATER
REFERENCE ELEVATION INTERVAL 4814,
Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-7 Interval 4814 EDB.mxd 9/15/2020 EA ecarpio

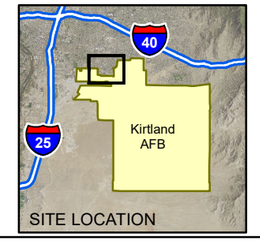


Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast. The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Benzene plume based on 3D modeling and may show higher concentrations than indicated by interval specifc analytical data alone.
Benzene plume model generated with C-Tech MVS Premier Version 9.94
As the water table projection of the benzene plume in the source area cannot be constrained due to limited data, the source area plume (south) represents the plume footprint at elevation 4863 ft AMSL.
Inset represents the Q2 2020 plume south of Ridgecrest Dr. SE as presented by MVS at REI 4857.
Monitoring wells used in REI 4857 and REI 4838: KAFB-106001, KAFB-106015, KAFB-106017, KAFB-106018, KAFB-106019, KAFB-106021, KAFB-106022, KAFB-106025.
All units are measured in µg/L.
µg/L = micrograms per liter
AMSL = above mean sea level
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ft = foot/feet
ND = nondetect
Q2 = quarter 2
REI = reference elevation interval
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Benzene Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

Benzene Concentration Range
- 5.0 (EPA MCL) - 50 µg/L
- 50 - 500 µg/L
- 500 - 5,000 µg/L
- >5,000 µg/L



N

0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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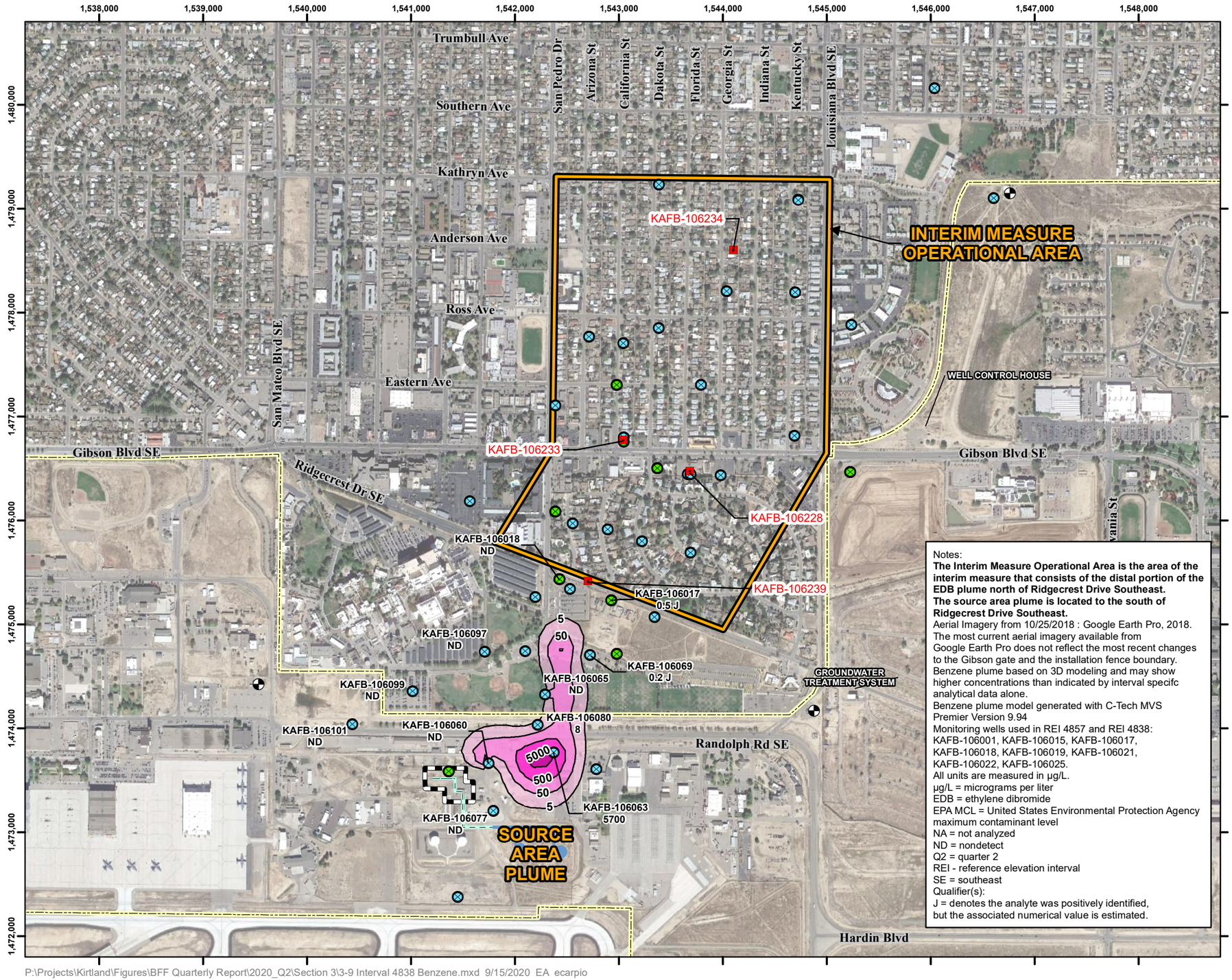
FIGURE 3-8

BENZENE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-8 Interval 4857 Benzene.mxd 9/15/2020 EA ecarpio

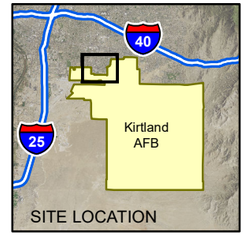


Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Benzene plume based on 3D modeling and may show higher concentrations than indicated by interval specifc analytical data alone.
Benzene plume model generated with C-Tech MVS Premier Version 9.94
Monitoring wells used in REI 4857 and REI 4838: KAFB-106001, KAFB-106015, KAFB-106017, KAFB-106018, KAFB-106019, KAFB-106021, KAFB-106022, KAFB-106025.
All units are measured in µg/L.
µg/L = micrograms per liter
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
NA = not analyzed
ND = nondetect
Q2 = quarter 2
REI - reference elevation interval
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

Legend

- Reference Elevation Interval 4858/4838 Monitoring Well (Screen Submerged)
- Reference Elevation Interval 4838 Monitoring Well (Screen Submerged)
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Benzene Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

Benzene Concentration Range
- 5.0 (EPA MCL) - 50 µg/L
- 50 - 500 µg/L
- 500 - 5,000 µg/L
- >5,000 µg/L



N

0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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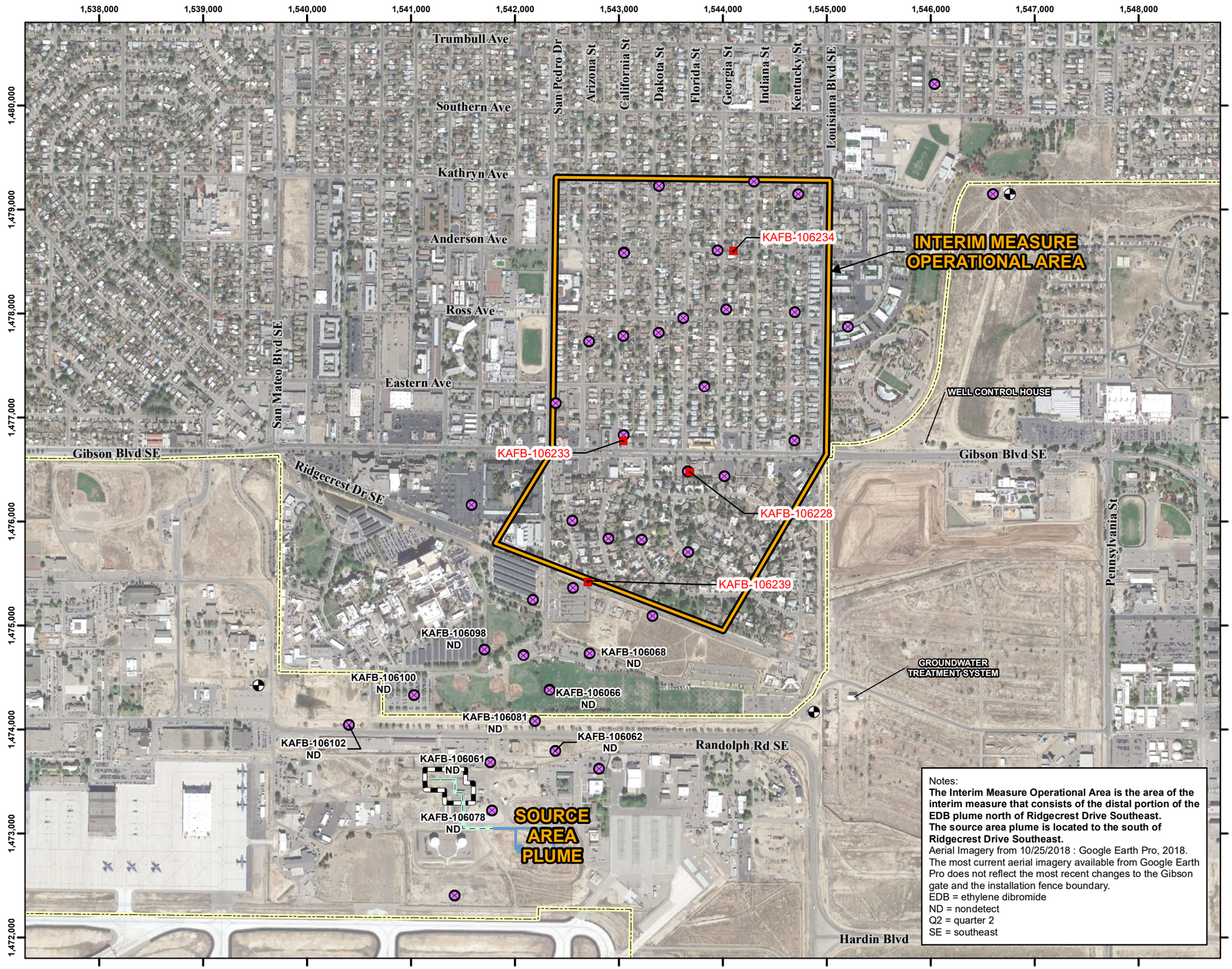
FIGURE 3-9

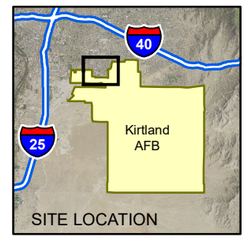
BENZENE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4838, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-9 Interval 4838 Benzene.mxd 9/15/2020 EA ecarpio



Legend

- Reference Elevation Interval 4814 Monitoring Well (Screen Submerged)
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Interim Measure Operational
- Source Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB = ethylene dibromide
ND = nondetect
Q2 = quarter 2
SE = southeast

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FIGURE 3-10

BENZENE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4814, Q2 2020

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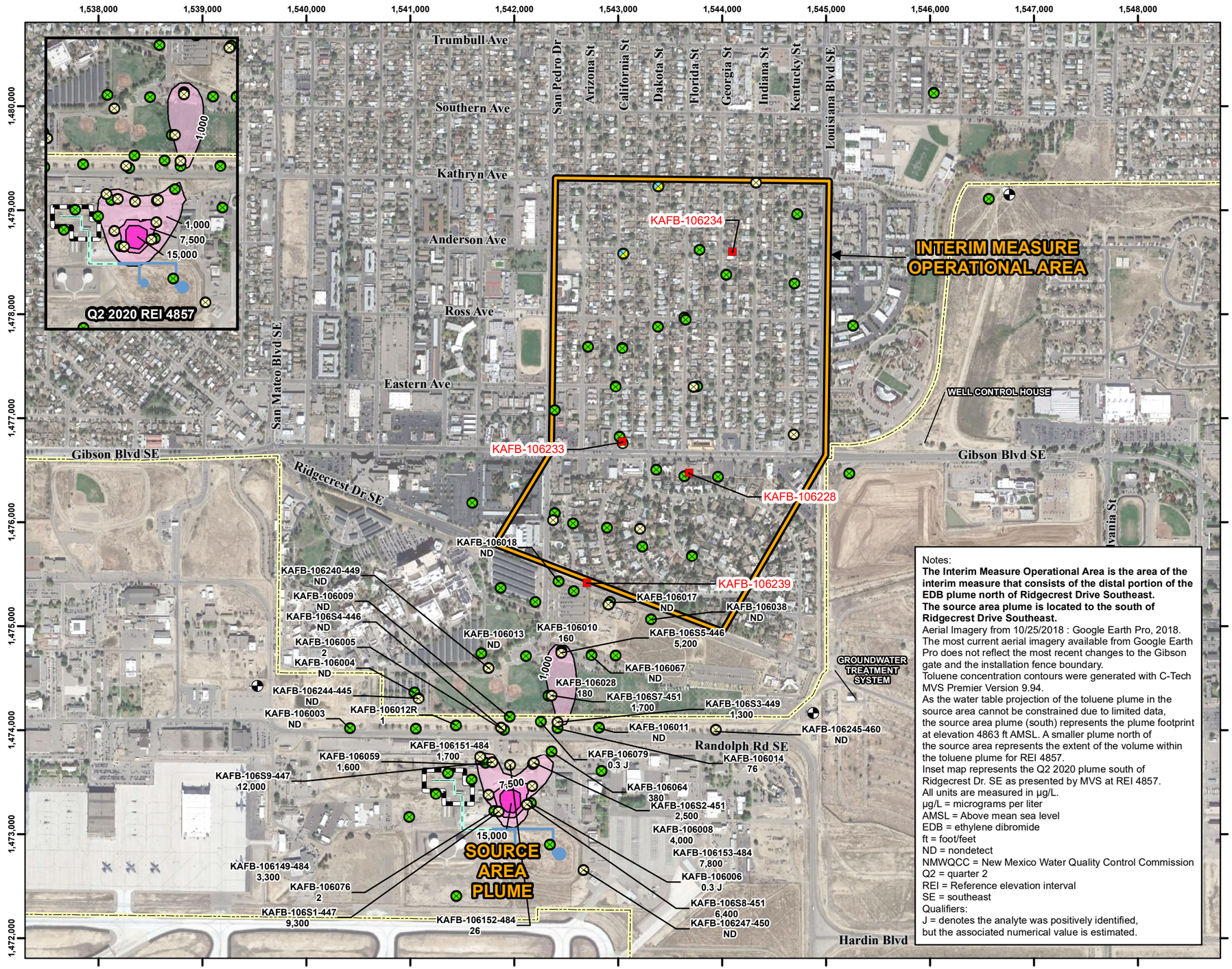


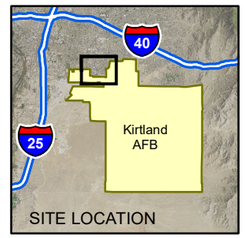
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Toluene concentration contours were generated with C-Tech MVS Premier Version 9.94.
As the water table projection of the toluene plume in the source area cannot be constrained due to limited data, the source area plume (south) represents the plume footprint at elevation 4863 ft AMSL. A smaller plume north of the source area represents the extent of the volume within the toluene plume for REI 4857.
Inset map represents the Q2 2020 plume south of Ridgecrest Dr. SE as presented by MVS at REI 4857.
All units are measured in µg/L.
µg/L = micrograms per liter
AMSL = Above mean sea level
EDB = ethylene dibromide
ft = foot/feet
ND = nondetect
NMWQCC = New Mexico Water Quality Control Commission
Q2 = quarter 2
REI = Reference elevation interval
SE = southeast
Qualifiers:
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Toluene Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

Toluene Concentration Range

- 1,000 (NMWQCC standard) - 7,500 µg/L
- 7,500 - 15,000 µg/L
- 15,000 - 30,000 µg/L



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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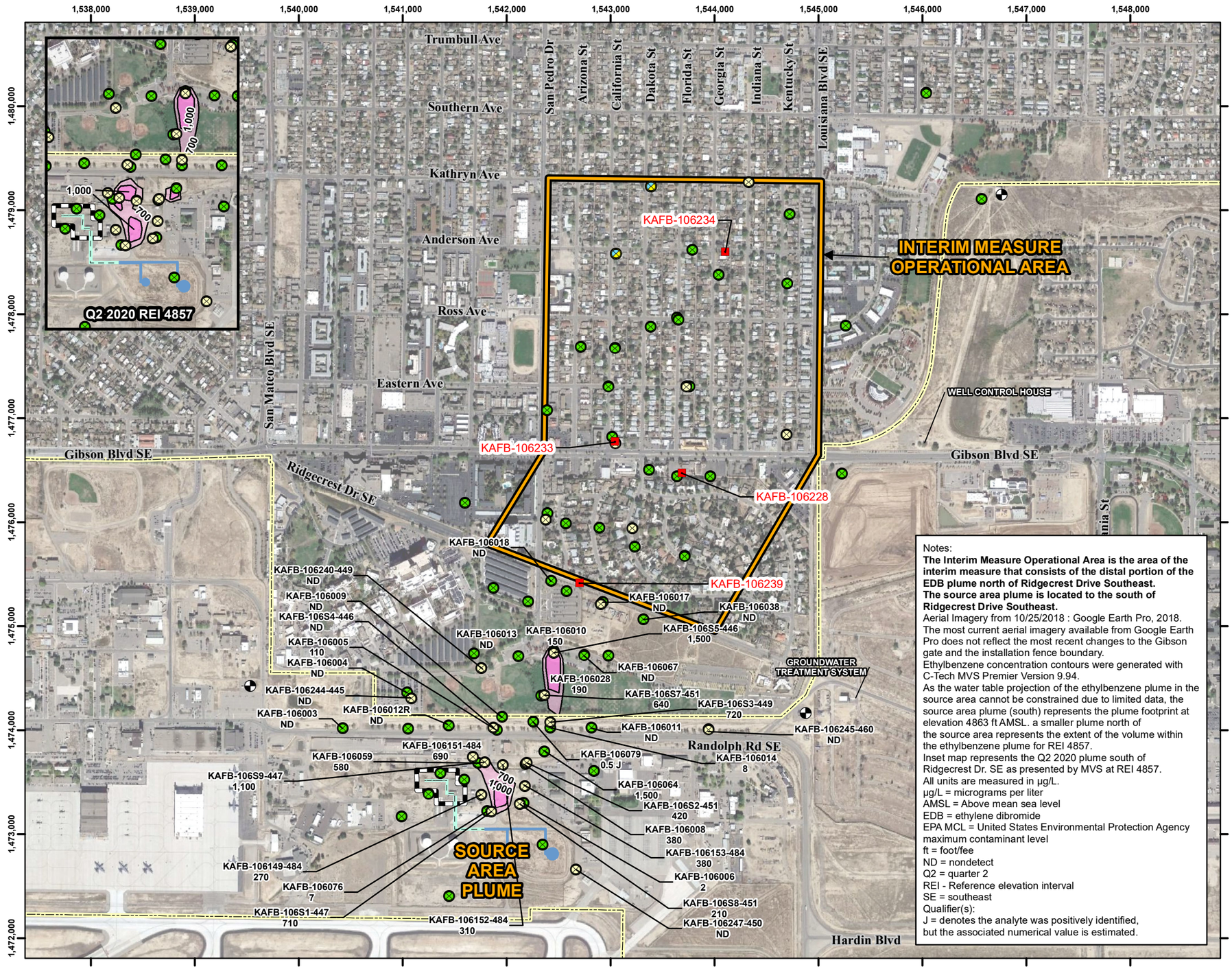
FIGURE 3-11

TOLUENE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-11 Interval 4857 Toluene.mxd 9/15/2020 EA ecarpio

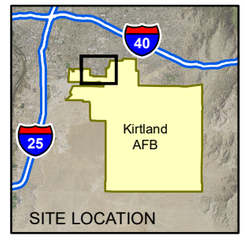


Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Ethylbenzene Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

Ethylbenzene Concentration Range

- 700 (EPA MCL) - 1,000 µg/L
- 1,000 - 2,000 µg/L



Notes:

The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Ethylbenzene concentration contours were generated with C-Tech MVS Premier Version 9.94.
As the water table projection of the ethylbenzene plume in the source area cannot be constrained due to limited data, the source area plume (south) represents the plume footprint at elevation 4863 ft AMSL. a smaller plume north of the source area represents the extent of the volume within the ethylbenzene plume for REI 4857.
Inset map represents the Q2 2020 plume south of Ridgecrest Dr. SE as presented by MVS at REI 4857.
All units are measured in µg/L.
µg/L = micrograms per liter
AMSL = Above mean sea level
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ft = foot/fee
ND = nondetect
Q2 = quarter 2
REI - Reference elevation interval
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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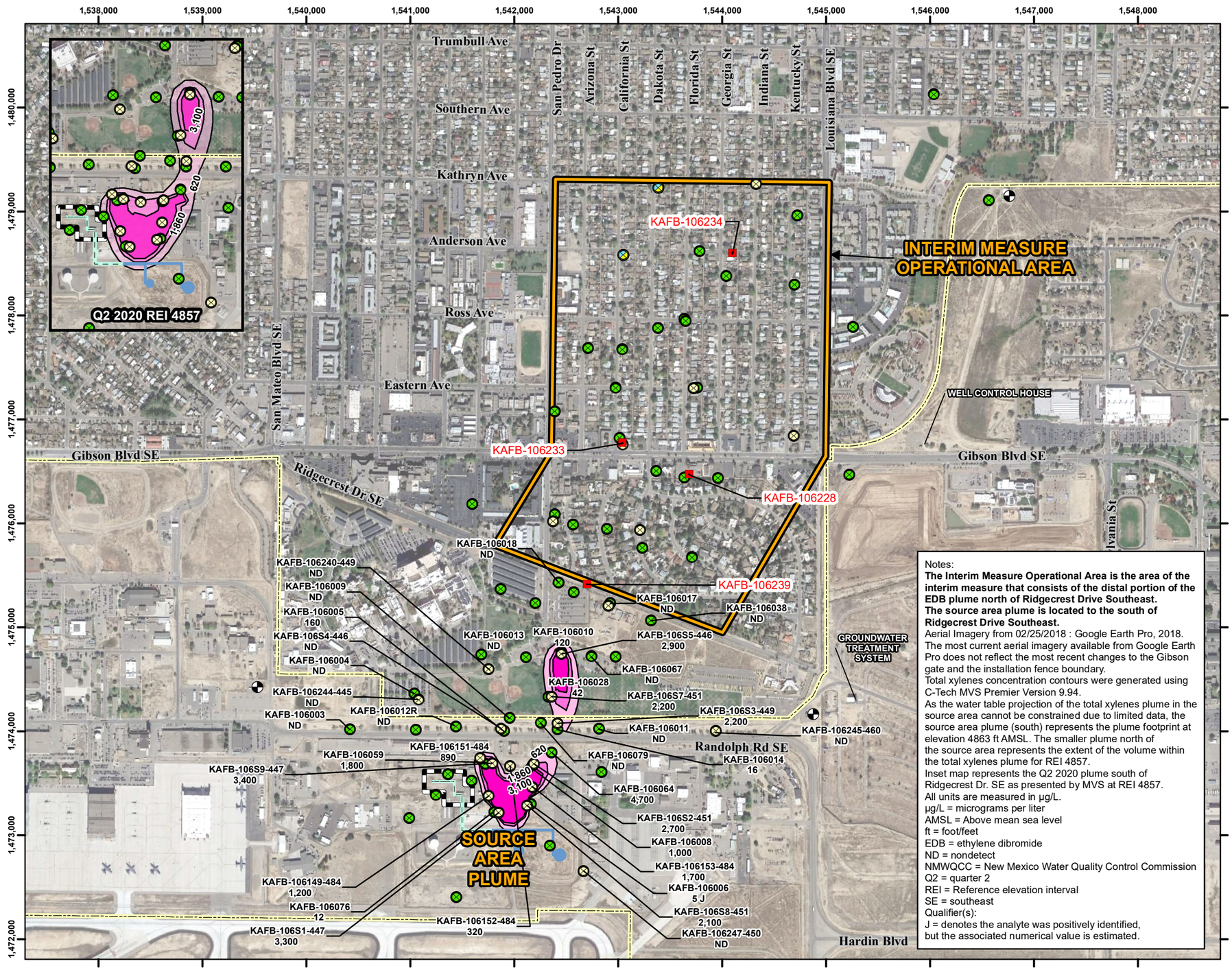
FIGURE 3-12

ETHYLBENZENE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-12 Interval 4857 Ethylbenzene.mxd 9/15/2020 EA ecarpio



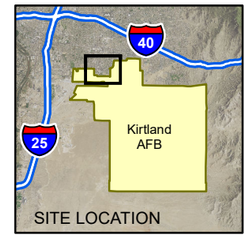
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 02/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Total xylenes concentration contours were generated using C-Tech MVS Premier Version 9.94.
As the water table projection of the total xylenes plume in the source area cannot be constrained due to limited data, the source area plume (south) represents the plume footprint at elevation 4863 ft AMSL. The smaller plume north of the source area represents the extent of the volume within the total xylenes plume for REI 4857.
Inset map represents the Q2 2020 plume south of Ridgecrest Dr. SE as presented by MVS at REI 4857.
All units are measured in µg/L.
µg/L = micrograms per liter
AMSL = Above mean sea level
ft = foot/feet
EDB = ethylene dibromide
ND = nondetect
NMWQCC = New Mexico Water Quality Control Commission
Q2 = quarter 2
REI = Reference elevation interval
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Total Xylenes Concentration Isocontour (µg/L)
- Interim Measure Operational Area
- Source Area

Total Xylenes Concentration Range

- 620 (NMWQCC standard) - 1,860 (µg/L)
- 1,860 - 3,100 (µg/L)
- 3,100 - 6,200 (µg/L)



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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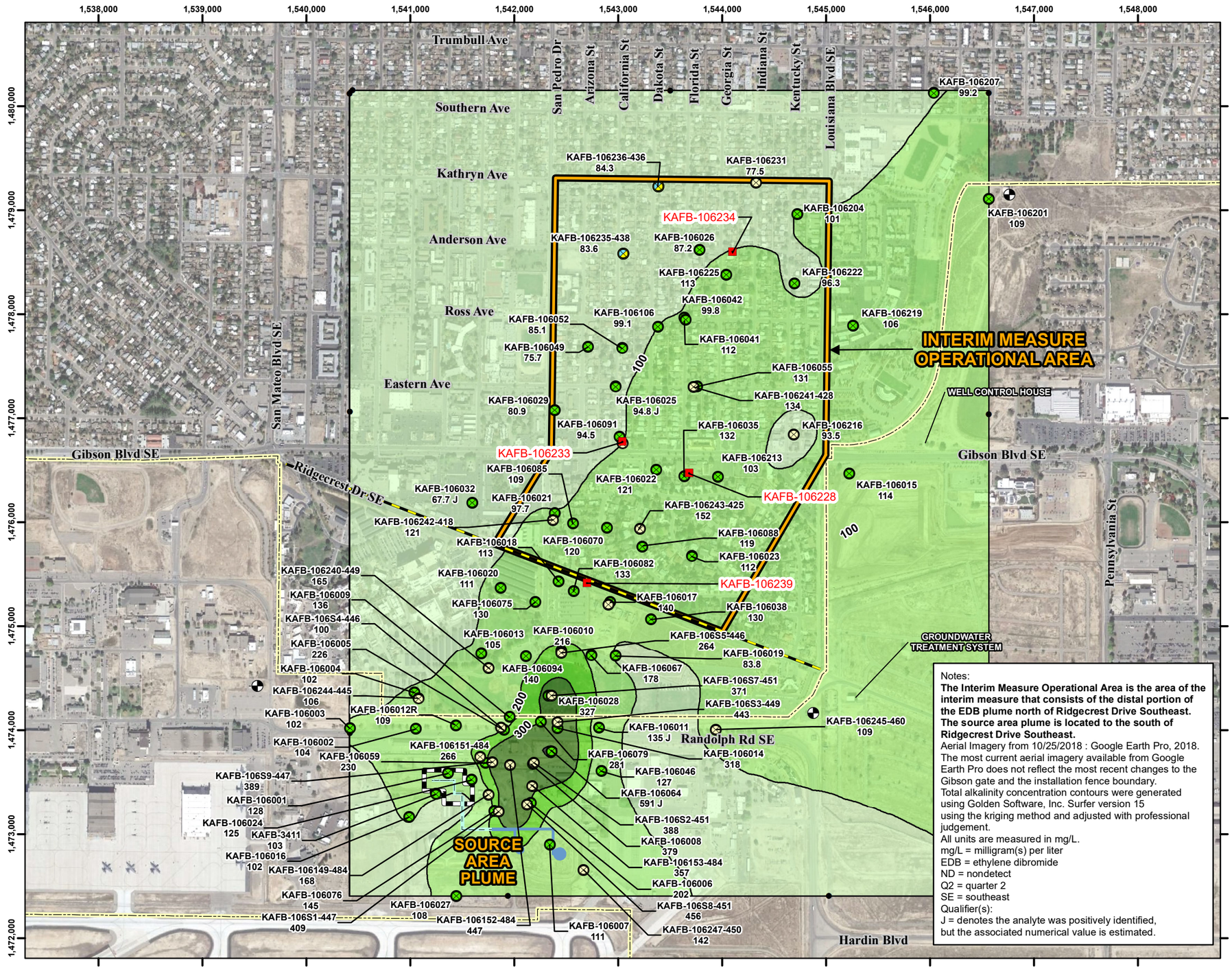
FIGURE 3-13

TOTAL XYLENES CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-13 Interval 4857 Xylene.mxd 9/16/2020 EA ecarpio

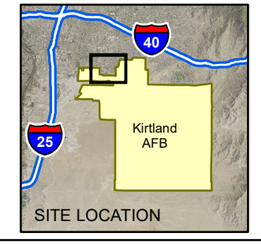


Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Target Capture Zone Boundary
- Imterim Measure Operational Area
- Source Area
- Total Alkalinity Concentration Isocontour (dashed where inferred)
- Model Extent

Total Alkalinity Concentration Range

- 0 - 100 mg/L
- 100 - 200 mg/L
- 200 - 300 mg/L
- 300 - 500 mg/L
- > 500 mg/L



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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FIGURE 3-14

TOTAL ALKALINITY CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

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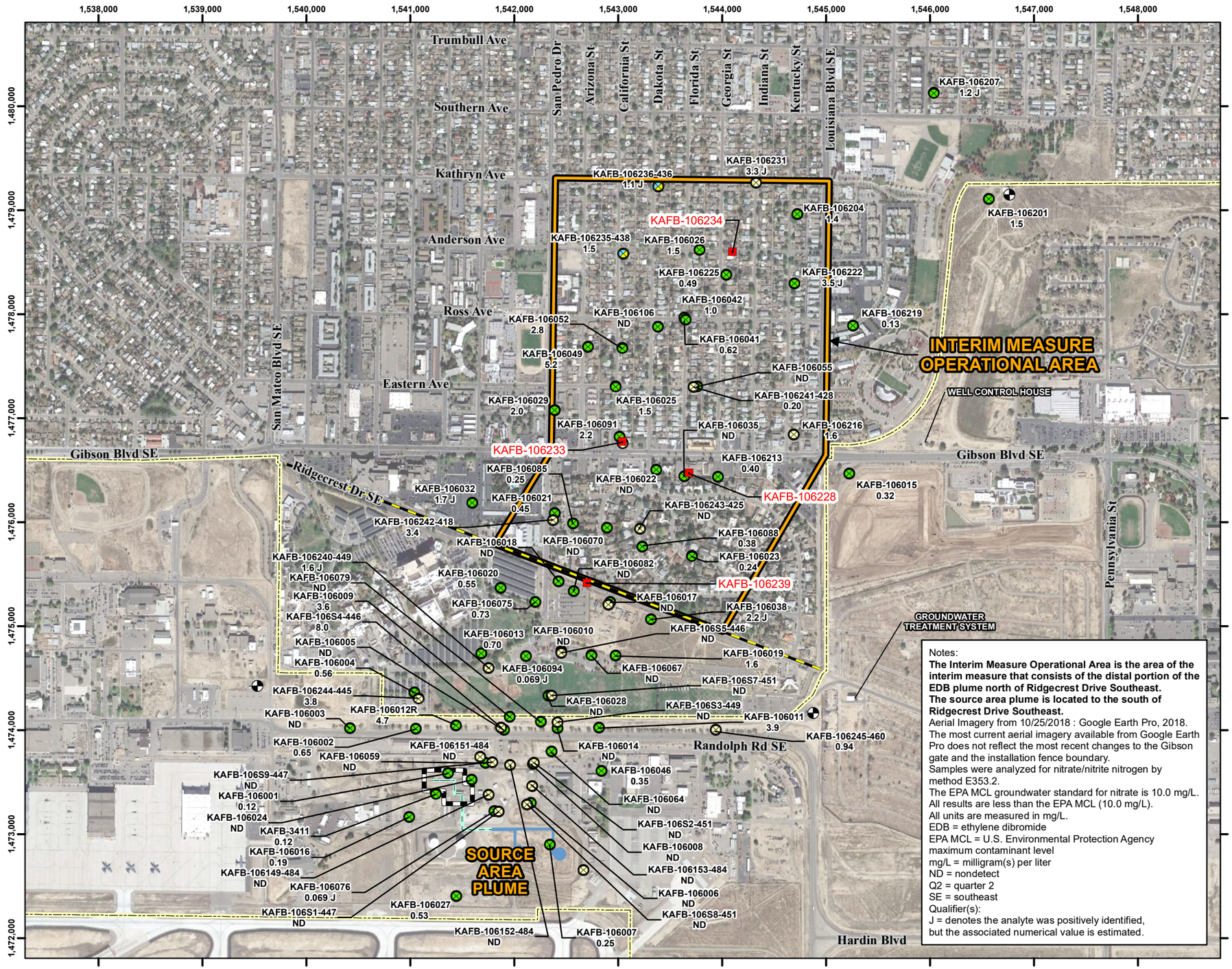
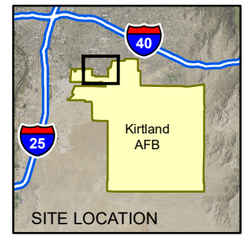


Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Target Capture Zone Boundary
- Interim Measure Operational Area
- Source Area



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Samples were analyzed for nitrate/nitrite nitrogen by method E353.2.
The EPA MCL groundwater standard for nitrate is 10.0 mg/L.
All results are less than the EPA MCL (10.0 mg/L).
All units are measured in mg/L.
EDB = ethylene dibromide
EPA MCL = U.S. Environmental Protection Agency maximum contaminant level
mg/L = milligram(s) per liter
ND = nondetect
Q2 = quarter 2
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

N

0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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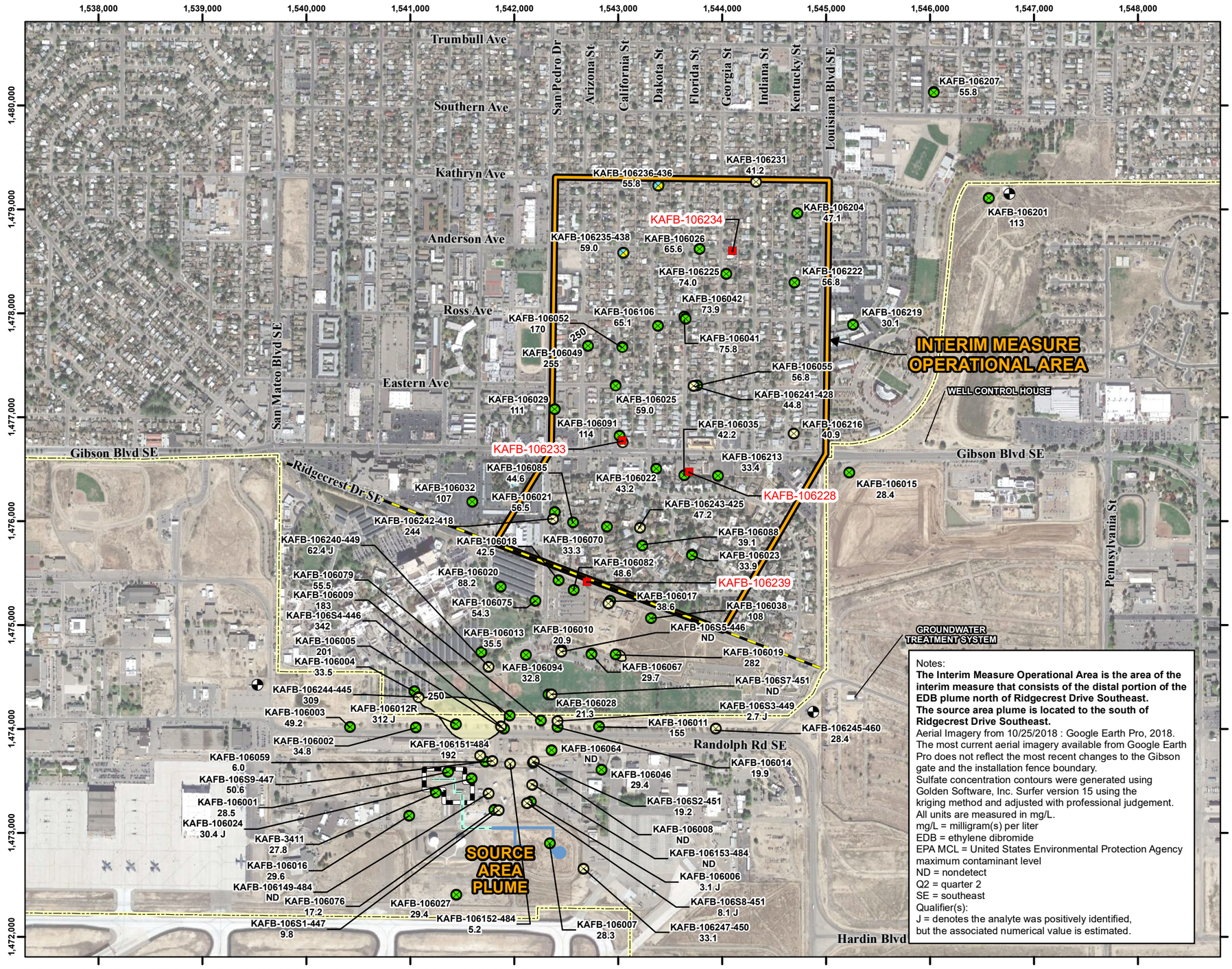
FIGURE 3-15

NITRATE/NITRITE NITROGEN CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-15 Interval 4857 Nitrogen.mxd 9/16/2020 EA ecarpio

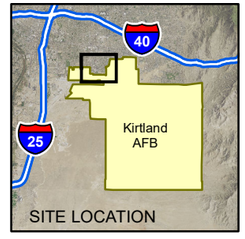


Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Sulfate Concentration Isocontour (mg/L)
- Target Capture Zone Boundary
- Interim Measure Operational Area
- Source Area

Sulfate Concentration Range

- 250 (EPA MCL) - 350 mg/L
- 350 mg/L - 550 mg/L
- > 550 mg/L



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Sulfate concentration contours were generated using Golden Software, Inc. Surfer version 15 using the kriging method and adjusted with professional judgement.
All units are measured in mg/L.
mg/L = milligram(s) per liter
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ND = nondetect
Q2 = quarter 2
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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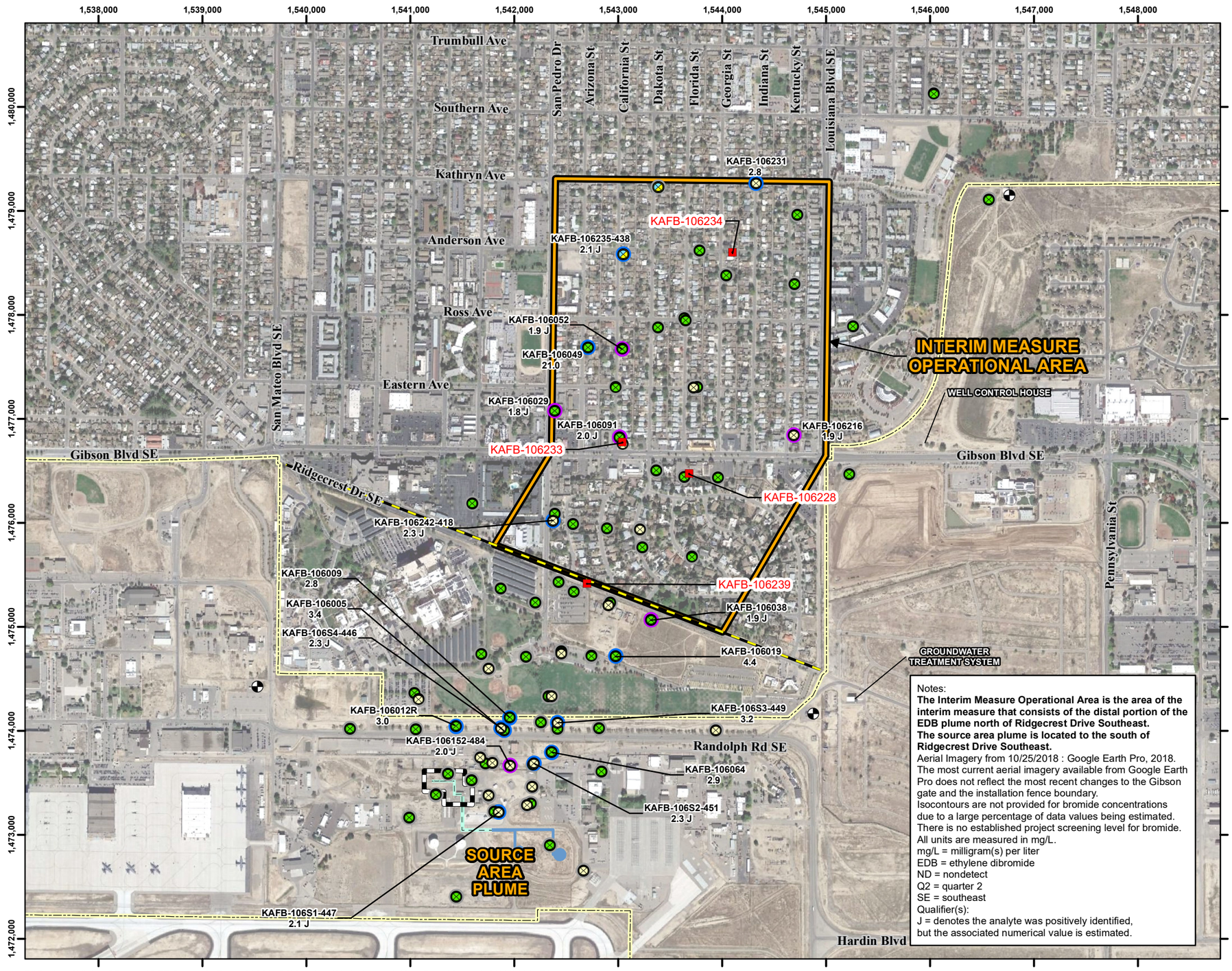
FIGURE 3-16

SULFATE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-16 Interval 4857 SO4.mxd 9/16/2020 EA ecarpio

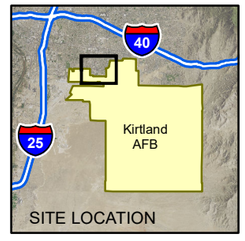


Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Target Capture Zone Boundary
- Interim Measure Operational
- Source

Bromide Concentration Range

- Nondetect
- 1.0 - 2.0 mg/L
- 2.1 - 5.0 mg/L



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Isocontours are not provided for bromide concentrations due to a large percentage of data values being estimated.
There is no established project screening level for bromide.
All units are measured in mg/L.
mg/L = milligram(s) per liter
EDB = ethylene dibromide
ND = nondetect
Q2 = quarter 2
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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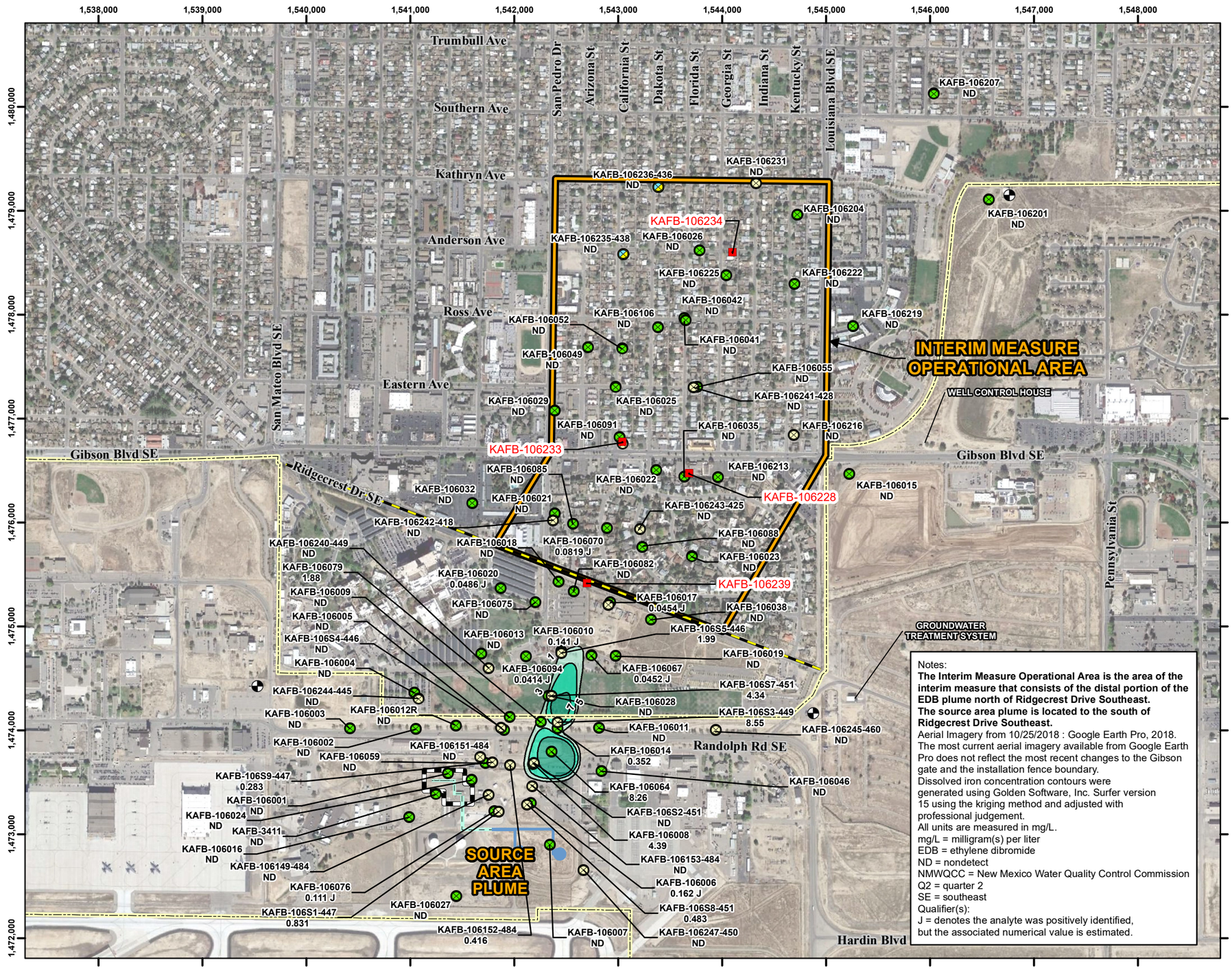
FIGURE 3-17

BROMIDE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-17 Interval 4857 Bromide.mxd 9/16/2020 EA ecarpio

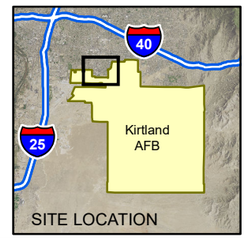


Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Dissolved Iron Isocontour (mg/L)
- Target Capture Zone Boundary
- Interim Measure Operational Area
- Source Area

Dissolved Iron Concentration Range

- 1.0 (NMWQCC standard) - 3.0 mg/L
- 3.0 - 5.0 mg/L
- 5.0 - 7.0 mg/L
- > 7 mg/L



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Dissolved iron concentration contours were generated using Golden Software, Inc. Surfer version 15 using the kriging method and adjusted with professional judgement.
All units are measured in mg/L.
mg/L = milligram(s) per liter
EDB = ethylene dibromide
ND = nondetect
NMWQCC = New Mexico Water Quality Control Commission
Q2 = quarter 2
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

N

0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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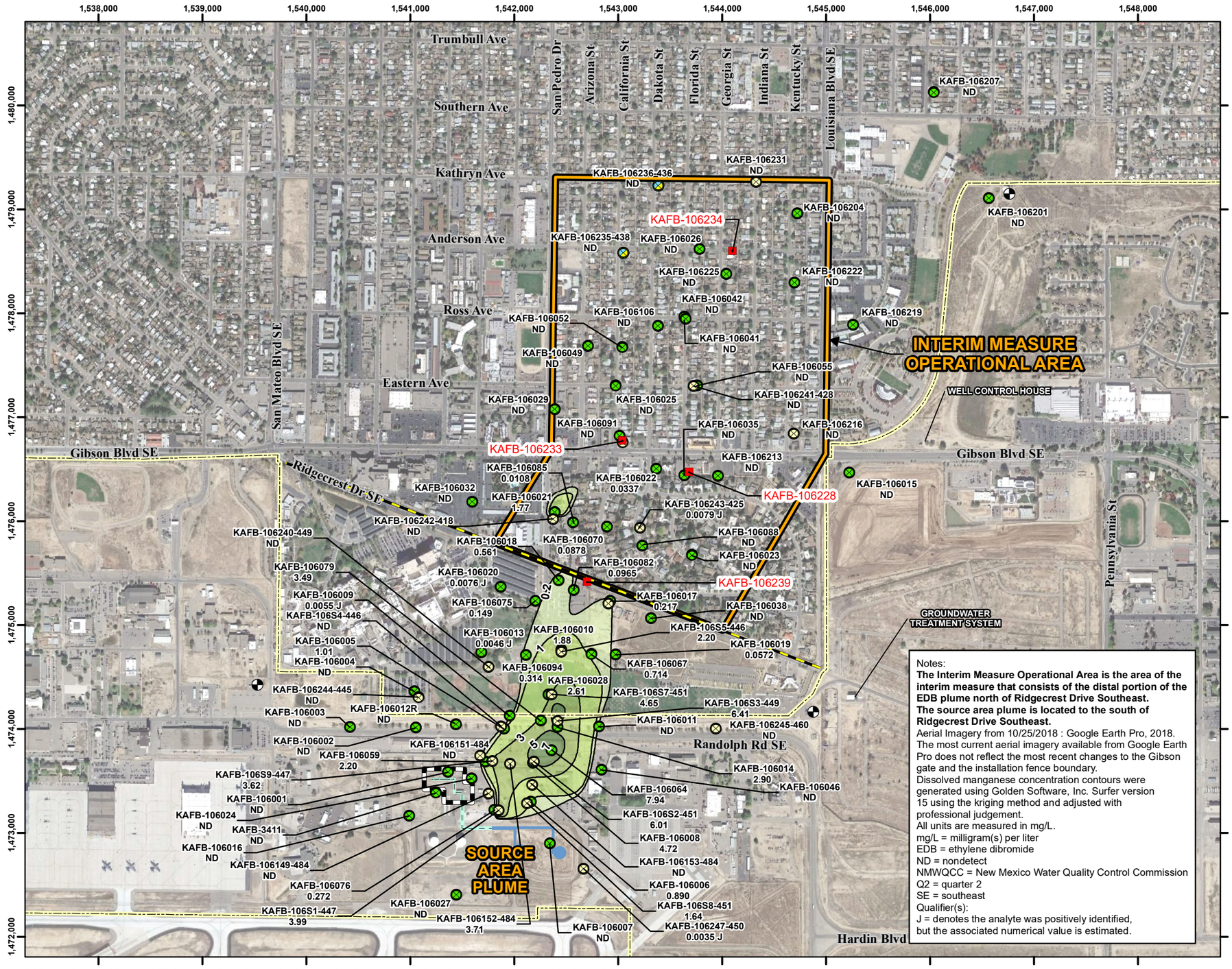
FIGURE 3-18

DISSOLVED IRON CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-18 Interval 4857 Dissolved Iron.mxd 9/16/2020 EA ecarpio



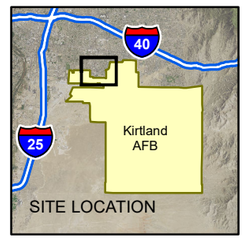
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Dissolved manganese concentration contours were generated using Golden Software, Inc. Surfer version 15 using the kriging method and adjusted with professional judgement.
All units are measured in mg/L.
mg/L = milligram(s) per liter
EDB = ethylene dibromide
ND = nondetect
NMWQCC = New Mexico Water Quality Control Commission
Q2 = quarter 2
SE = southeast
Qualifier(s):
J = denotes the analyte was positively identified, but the associated numerical value is estimated.

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Dissolved Manganese Isocontour (mg/L)
- Target Capture Zone Boundary
- Interim Measure Operational Area
- Source Area

Dissolved Manganese Concentration Range

- 0.2 (NMWQCC standard) - 1.0 mg/L
- 1.0 - 3.0 mg/L
- 3.0 - 5.0 mg/L
- 5.0 7.0 mg/L
- >7.0 mg/L



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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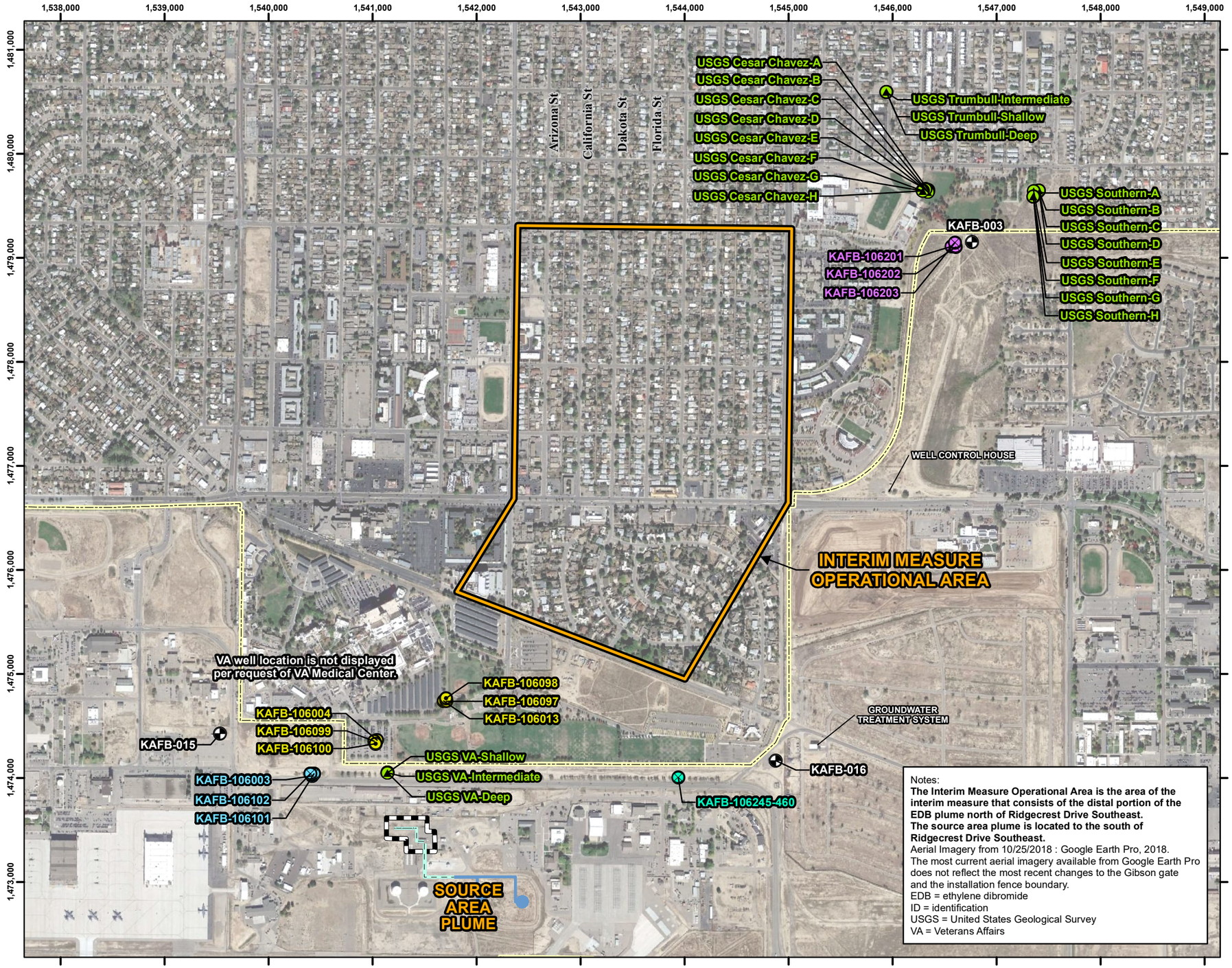
FIGURE 3-19

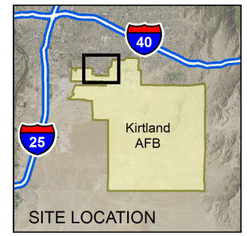
DISSOLVED MANGANESE CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-19 Interval 4857 Dissolved Manganese.mxd 9/16/2020 EA ecarpio



Legend

- KAFB-016 Sentinel
- KAFB-003 Sentinel
- VA Proximal and KAFB-015 Sentinel
- Drinking Water Supply Well
- USGS Sentinel
- VA Proximal
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Interim Measure Operational Area
- Source Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB = ethylene dibromide
ID = identification
USGS = United States Geological Survey
VA = Veterans Affairs

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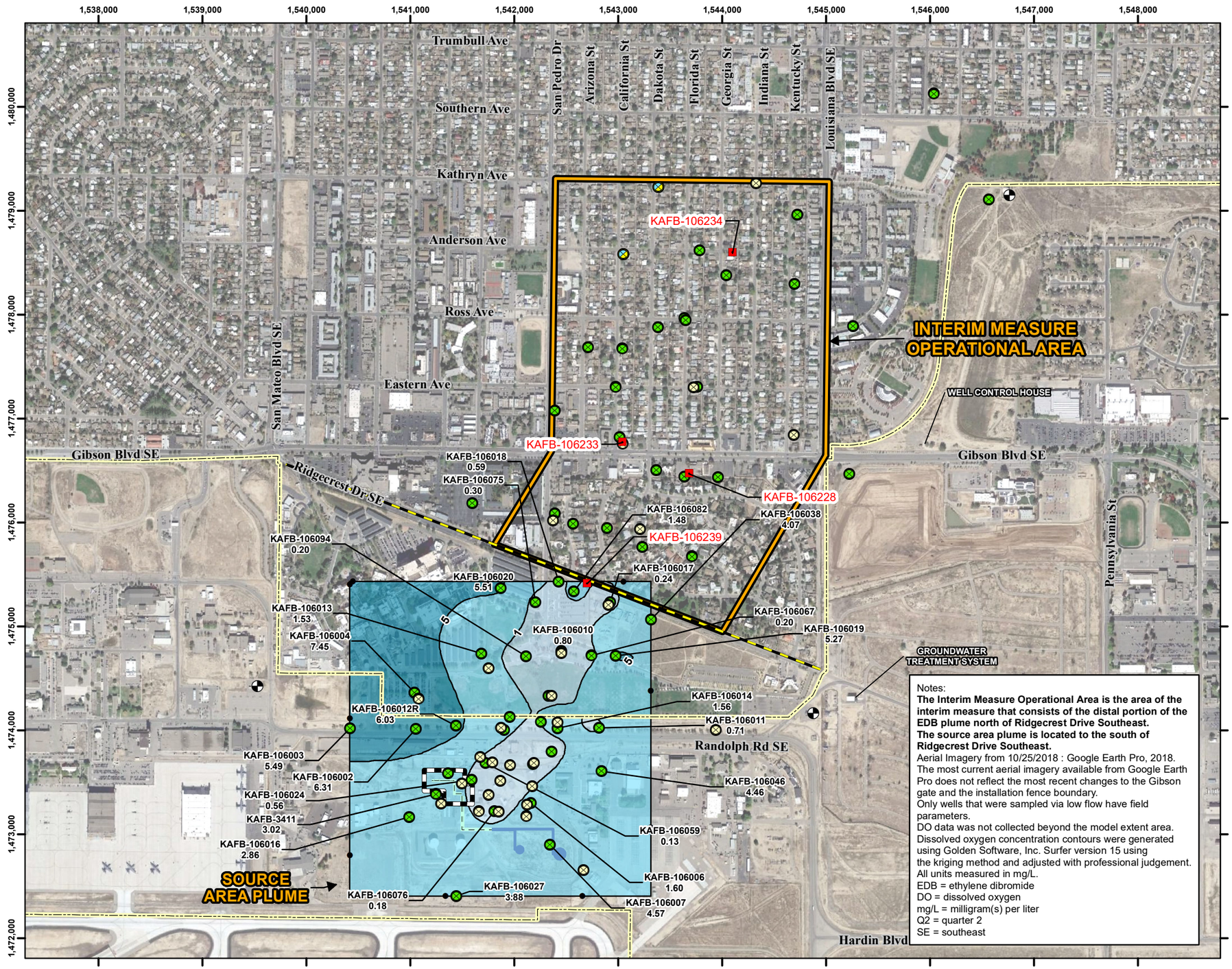
FIGURE 3-20

SENTINEL WELL LOCATIONS

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-20 Sentinel Well Locations.mxd 9/16/2020 EA ecarpio



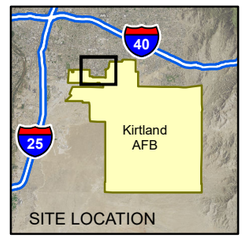
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Only wells that were sampled via low flow have field parameters.
DO data was not collected beyond the model extent area.
Dissolved oxygen concentration contours were generated using Golden Software, Inc. Surfer version 15 using the kriging method and adjusted with professional judgement.
All units measured in mg/L.
EDB = ethylene dibromide
DO = dissolved oxygen
mg/L = milligram(s) per liter
Q2 = quarter 2
SE = southeast

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage
- Former Buried Fuel Transfer
- Former Aboveground Fuel Transfer
- Installation Fence Boundary
- Target Capture Zone Boundary
- Interim Measure Operational
- Source
- DO Concentration Isocontour (mg/L) (dashed where inferred)
- Model Extent

Dissolved Oxygen Concentration Range

- 0 - 1 mg/L
- 1 - 5 mg/L
- 5 - 10 mg/L



N

0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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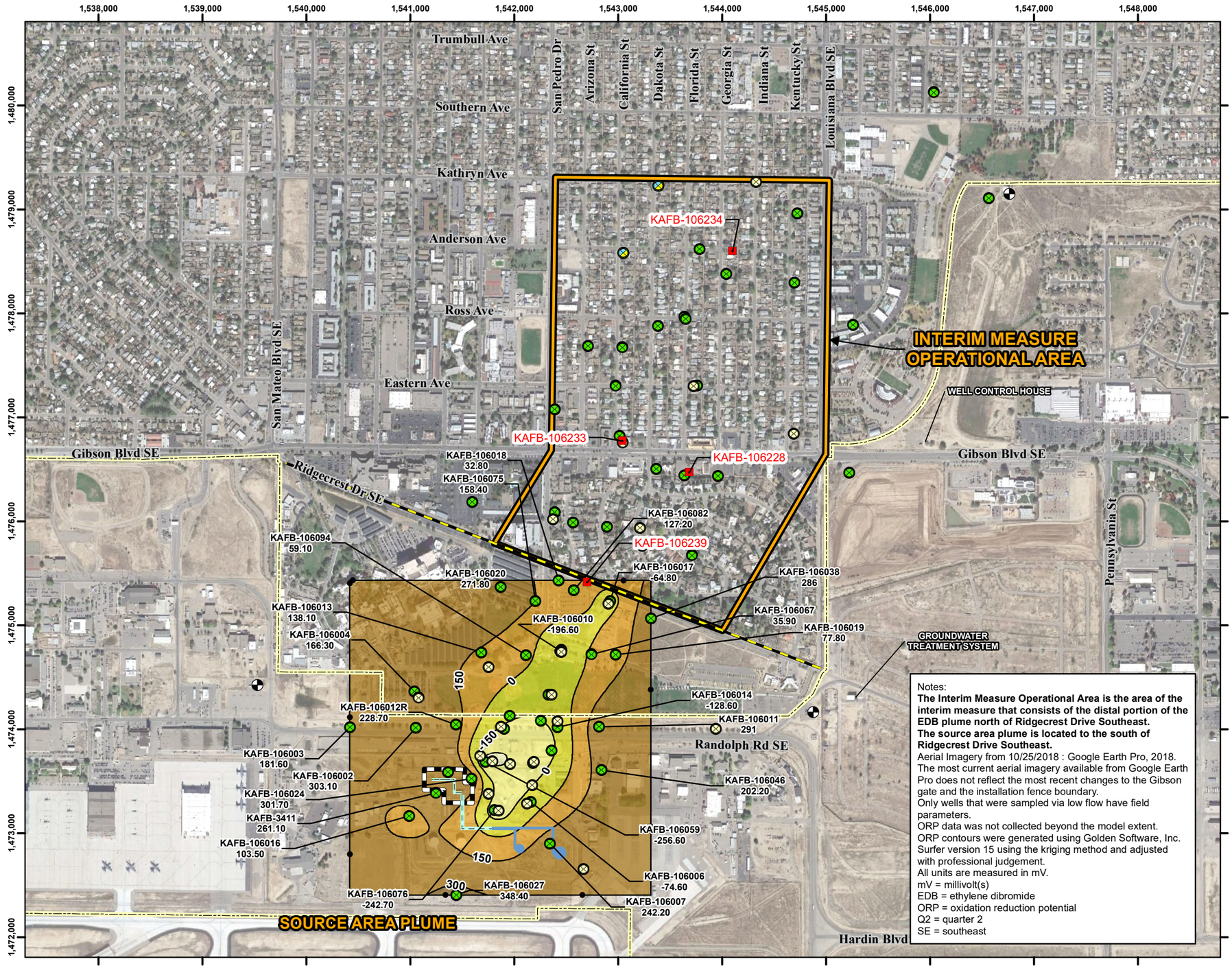
FIGURE 3-21

DISSOLVED OXYGEN CONCENTRATIONS IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-21 Interval 4857 DO.mxd 9/16/2020 EA ecarpio



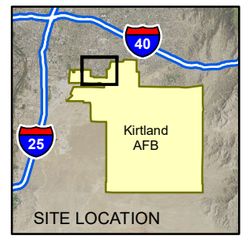
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Only wells that were sampled via low flow have field parameters.
ORP data was not collected beyond the model extent.
ORP contours were generated using Golden Software, Inc. Surfer version 15 using the kriging method and adjusted with professional judgement.
All units are measured in mV.
mV = millivolt(s)
EDB = ethylene dibromide
ORP = oxidation reduction potential
Q2 = quarter 2
SE = southeast

Legend

- Reference Elevation Interval 4857 Monitoring Well (Screen Not Submerged)
- Reference Elevation Interval 4857 and 4857/4838 Monitoring Well (Screen Submerged)
- Nested Groundwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Fence Boundary
- Target Capture Zone Boundary
- Interim Measure Operational Area
- Source Area
- ORP Isocontour (mV) (dashed where inferred)
- Model Extent

Oxidation-Reduction Potential Range

< -300 mV	0 to 150 mV
-150 to -300 mV	150 to 300 mV
0 to -150 mV	>300 mV



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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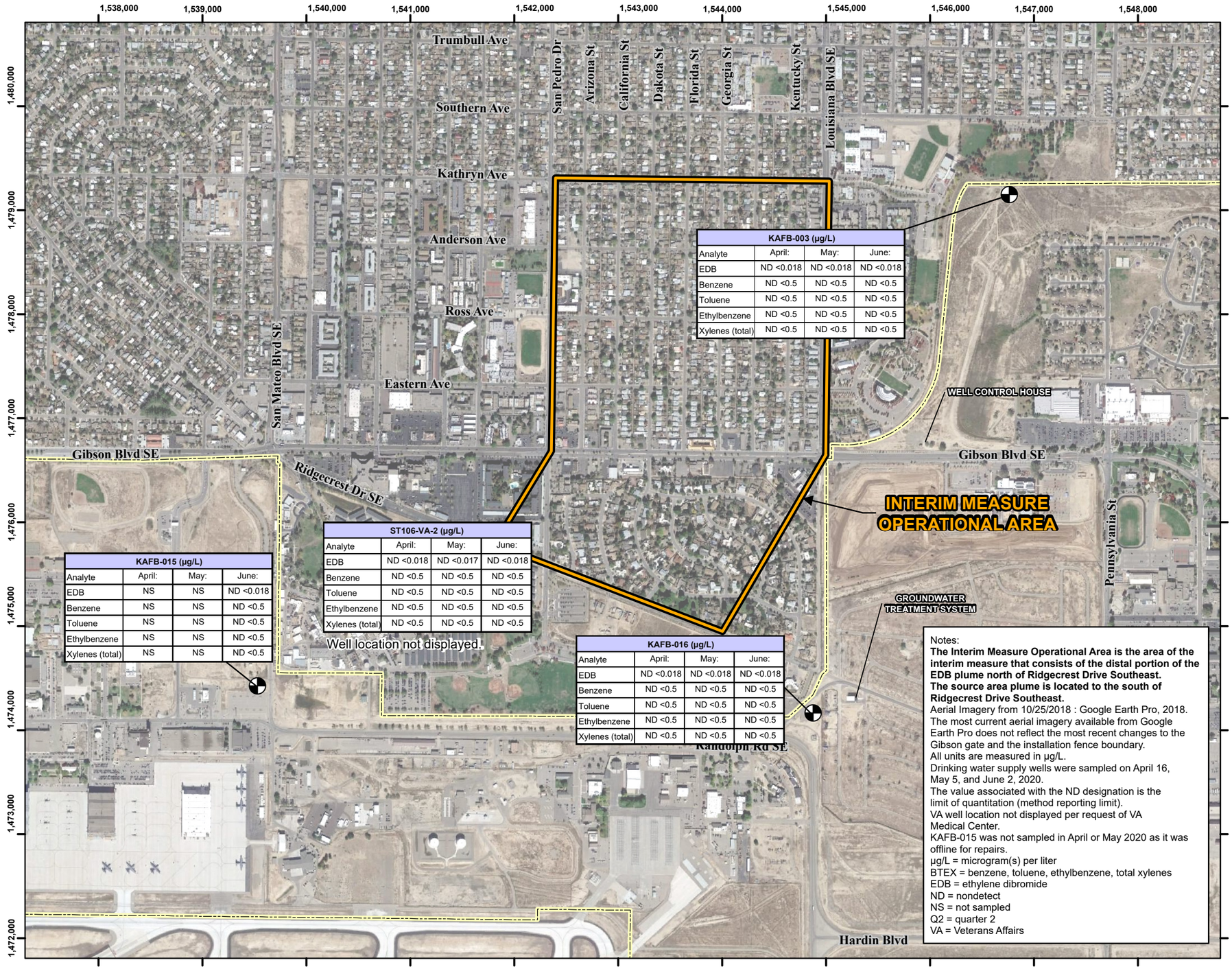
FIGURE 3-22

OXIDATION REDUCTION POTENTIAL IN GROUNDWATER REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 3\3-22 Interval 4857 ORP.mxd 9/16/2020 EA ecarpio



KAFB-003 (µg/L)			
Analyte	April:	May:	June:
EDB	ND <0.018	ND <0.018	ND <0.018
Benzene	ND <0.5	ND <0.5	ND <0.5
Toluene	ND <0.5	ND <0.5	ND <0.5
Ethylbenzene	ND <0.5	ND <0.5	ND <0.5
Xylenes (total)	ND <0.5	ND <0.5	ND <0.5

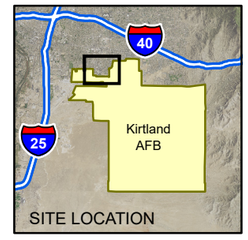
ST106-VA-2 (µg/L)			
Analyte	April:	May:	June:
EDB	ND <0.018	ND <0.017	ND <0.018
Benzene	ND <0.5	ND <0.5	ND <0.5
Toluene	ND <0.5	ND <0.5	ND <0.5
Ethylbenzene	ND <0.5	ND <0.5	ND <0.5
Xylenes (total)	ND <0.5	ND <0.5	ND <0.5

KAFB-015 (µg/L)			
Analyte	April:	May:	June:
EDB	NS	NS	ND <0.018
Benzene	NS	NS	ND <0.5
Toluene	NS	NS	ND <0.5
Ethylbenzene	NS	NS	ND <0.5
Xylenes (total)	NS	NS	ND <0.5

KAFB-016 (µg/L)			
Analyte	April:	May:	June:
EDB	ND <0.018	ND <0.018	ND <0.018
Benzene	ND <0.5	ND <0.5	ND <0.5
Toluene	ND <0.5	ND <0.5	ND <0.5
Ethylbenzene	ND <0.5	ND <0.5	ND <0.5
Xylenes (total)	ND <0.5	ND <0.5	ND <0.5

Legend

- Drinking Water Supply Wells
- Installation Fence Boundary
- Interim Measure Operational Area



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast. The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
All units are measured in µg/L.
Drinking water supply wells were sampled on April 16, May 5, and June 2, 2020.
The value associated with the ND designation is the limit of quantitation (method reporting limit).
VA well location not displayed per request of VA Medical Center.
KAFB-015 was not sampled in April or May 2020 as it was offline for repairs.
µg/L = microgram(s) per liter
BTEX = benzene, toluene, ethylbenzene, total xylenes
EDB = ethylene dibromide
ND = nondetect
NS = not sampled
Q2 = quarter 2
VA = Veterans Affairs

N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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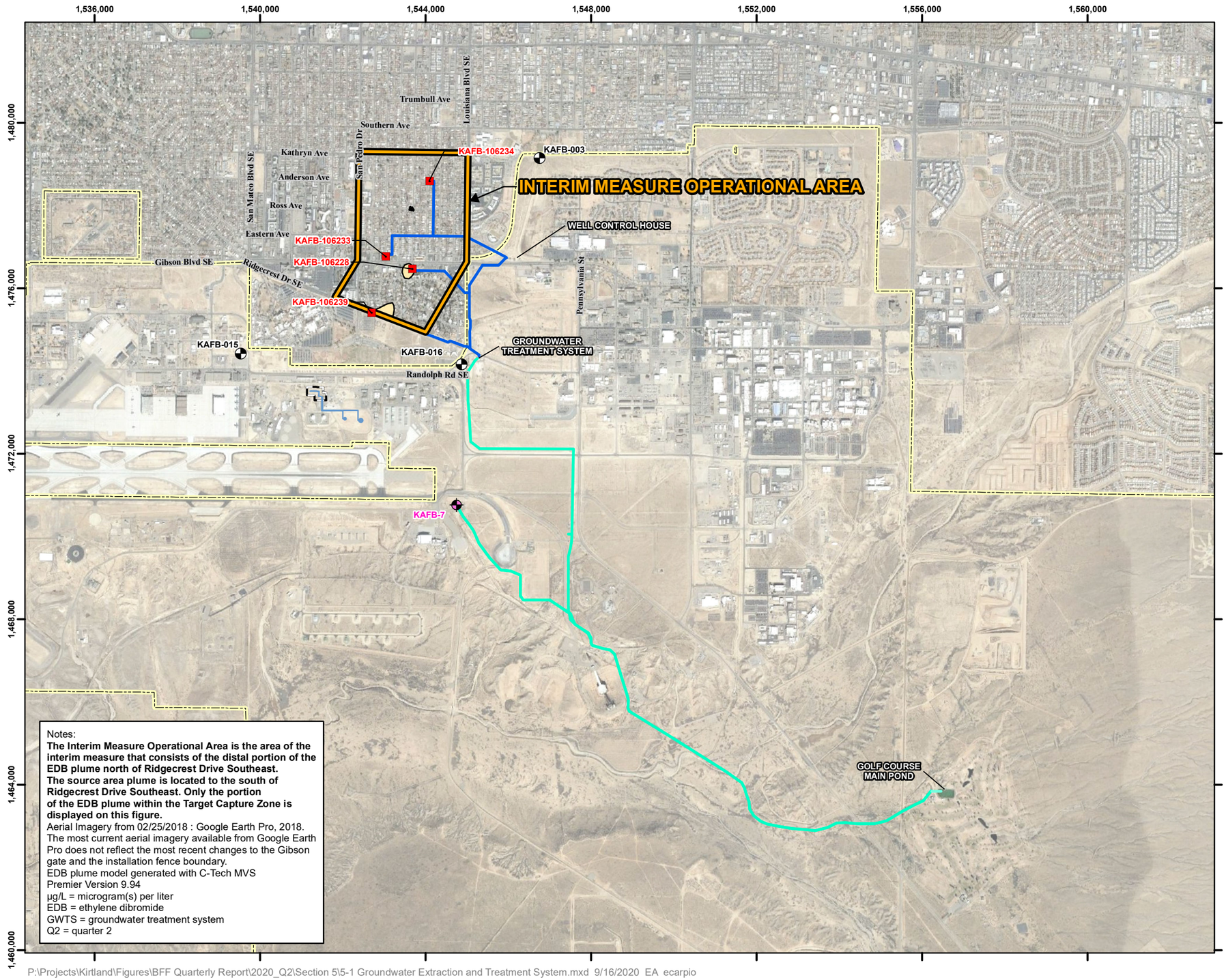
FIGURE 4-1

EDB AND BTEX RESULTS IN DRINKING WATER SUPPLY WELLS, Q2 2020

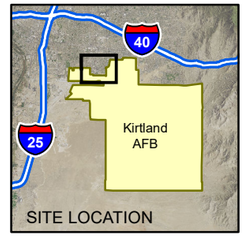
P:\Projects\Kirtland\Figures\Drinking Water Supply Wells\Quarterly Reports 2020\4-1 EDB BTEX Drinking Water Supply Q220.mxd 9/16/2020 EA ecarpio



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast. Only the portion of the EDB plume within the Target Capture Zone is displayed on this figure.
Aerial Imagery from 02/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume model generated with C-Tech MVS Premier Version 9.94
µg/L = microgram(s) per liter
EDB = ethylene dibromide
GWTS = groundwater treatment system
Q2 = quarter 2

Legend

- Injection Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Fuel Transfer Line
- GWTS Influent Piping
- GWTS Effluent Piping
- Installation Fence Boundary
- Interim Measure Operational Area
- Source Area
- EDB Plume within the Target Capture Zone Q2 2020 (> 0.05 µg/L)



N

0 1,250 2,500 5,000

Feet

1 inch = 2,500 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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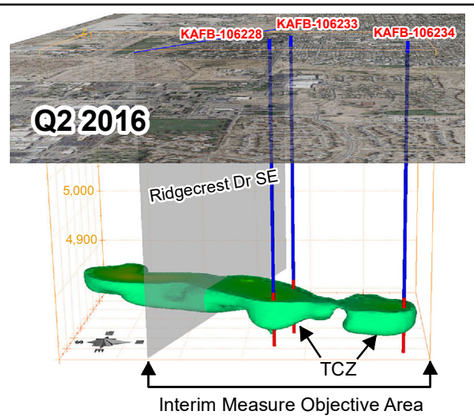
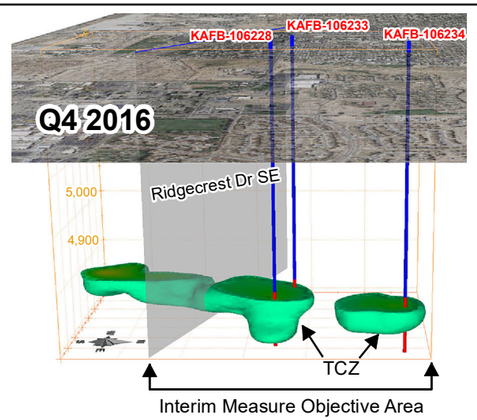
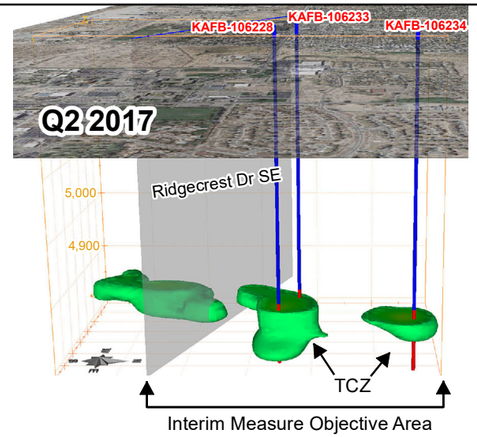
FIGURE 5-1

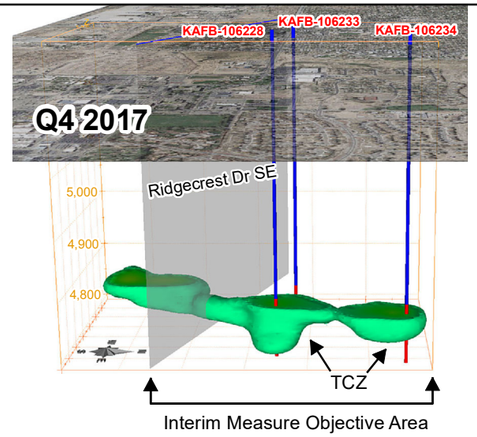
GROUNDWATER EXTRACTION AND TREATMENT SYSTEM LOCATION

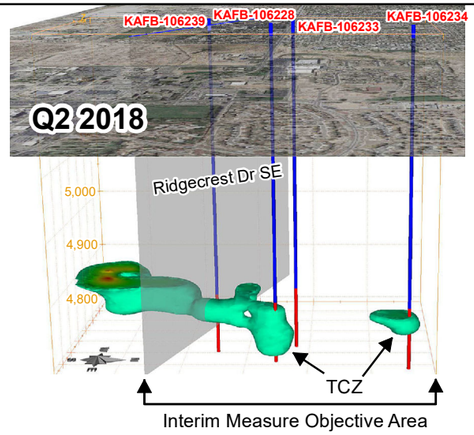
P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-1 Groundwater Extraction and Treatment System.mxd 9/16/2020 EA ecarpio

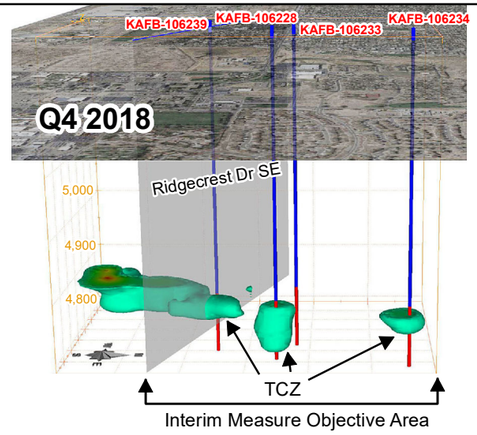


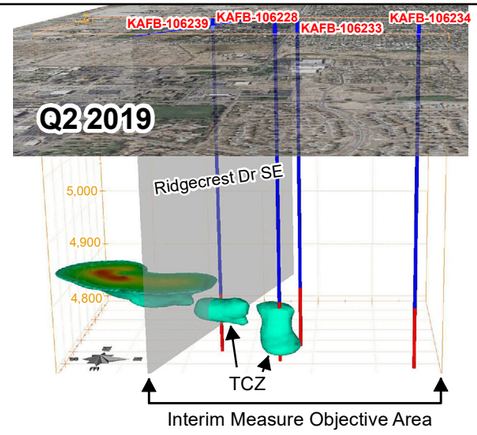


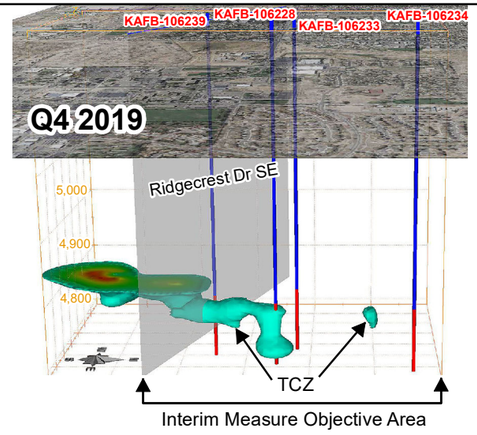


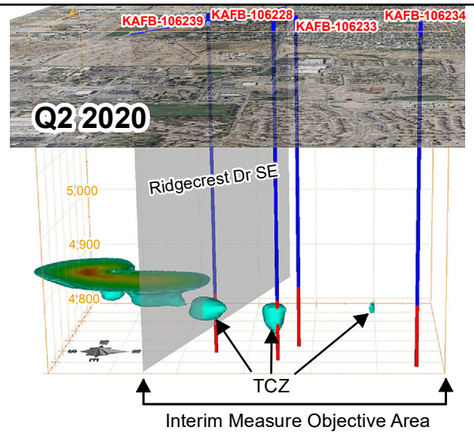












Legend

0.05 µg/L EDB Iso-shell

Extraction Well

Red = Screened interval

Notes:
Aerial Imagery from 04/22/2017 : Google Earth Pro, 2017
EDB plume model generated with C-Tech MVS Premier Version 9.94.
3D models vertically exaggerated by a factor of 10.
Target Capture Zone is EDB plume >0.05 µg/L north of Ridgecrest Drive SE.
µg/L = microgram(s) per liter
EDB = ethylene dibromide
TCZ = Target Capture Zone
Q2 = quarter 2
Q4 = quarter 4

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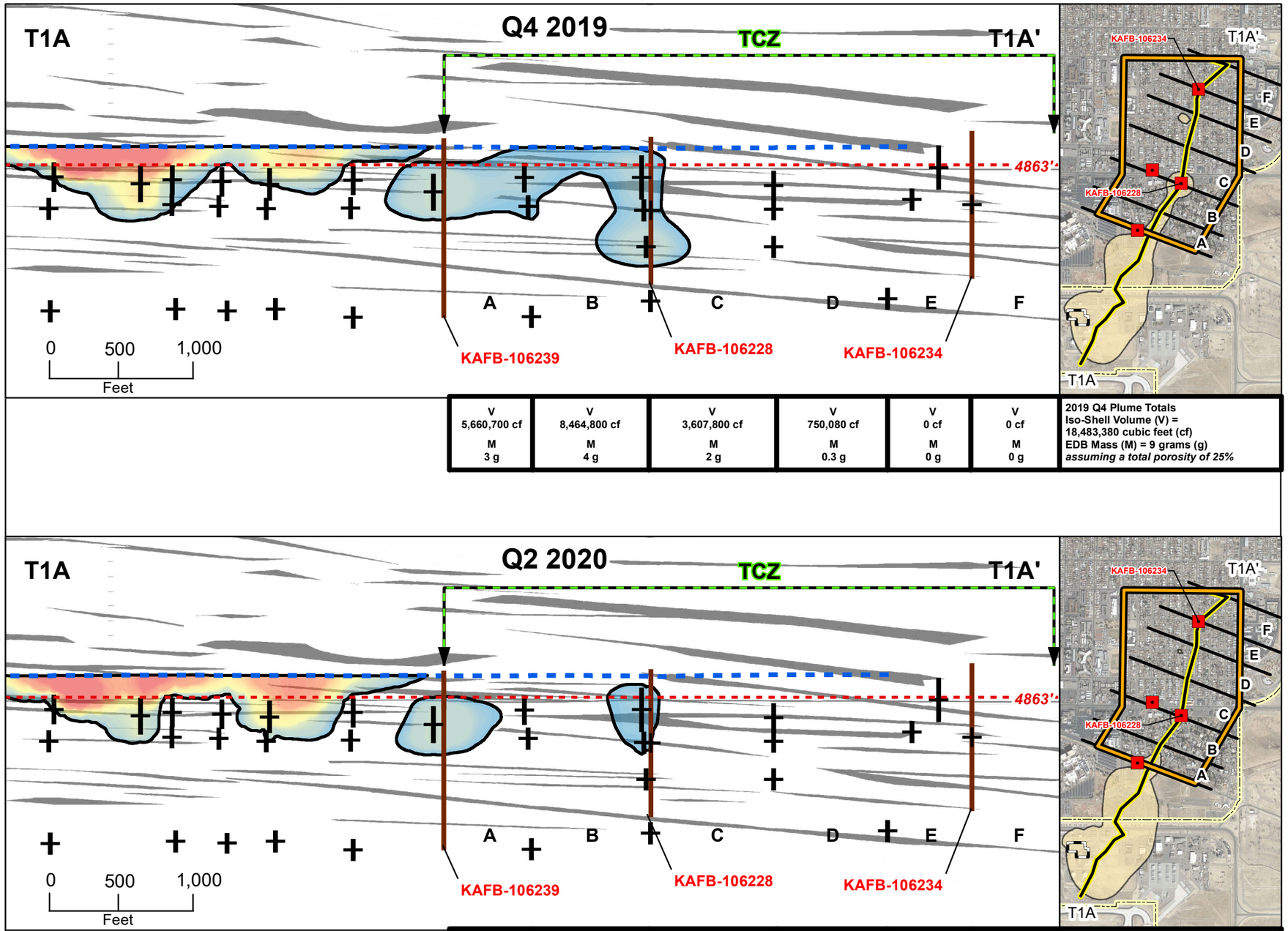
FIGURE 5-2

COMPARISON OF EDB
PLUME MORPHOLOGY
Q2 2016 - Q2 2020

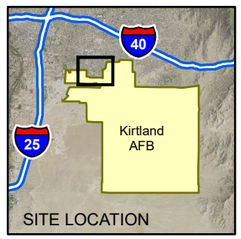
P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-2 Comparison of EDB Plume Morphology 2016-2020Q2.mxd 9/11/2020 EA ecarpio



Legend

- Groundwater Monitoring Well Screen
- Extraction Well
- Reference Elevation Interval 4863
- Water Table Level
- Volumetric Lines
- Installation Boundary
- Interim Measure Operational Area
- EDB Plume with Concentration > 0.05 µg/L (EPA MCL)
- AECOM Defined Fine Grained Lithology
- EDB Concentration of 0.05 µg/L
- EDB Concentration of 1.00 µg/L
- EDB Concentration of > 30.0 µg/L

Notes:
Aerial Imagery from 02/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume model generated with C-Tech MVS Premier Version 9.94.
3D model vertical exaggeration depicted by a factor of 10.
EDB concentrations were screened against the EPA MCL (0.05 µg/L).
AECOM = Architecture, Engineering, Consulting, Operations, and Maintenance
cf = cubic feet
EDB = ethylene dibromide
EPA MCL = U.S. Environmental Protection Agency maximum contaminant level
g = grams
V = volume
M = mass
TCZ = Target Capture Zone
µg/L = microgram(s) per liter
Q2 = quarter 2
Q4 = quarter 4



Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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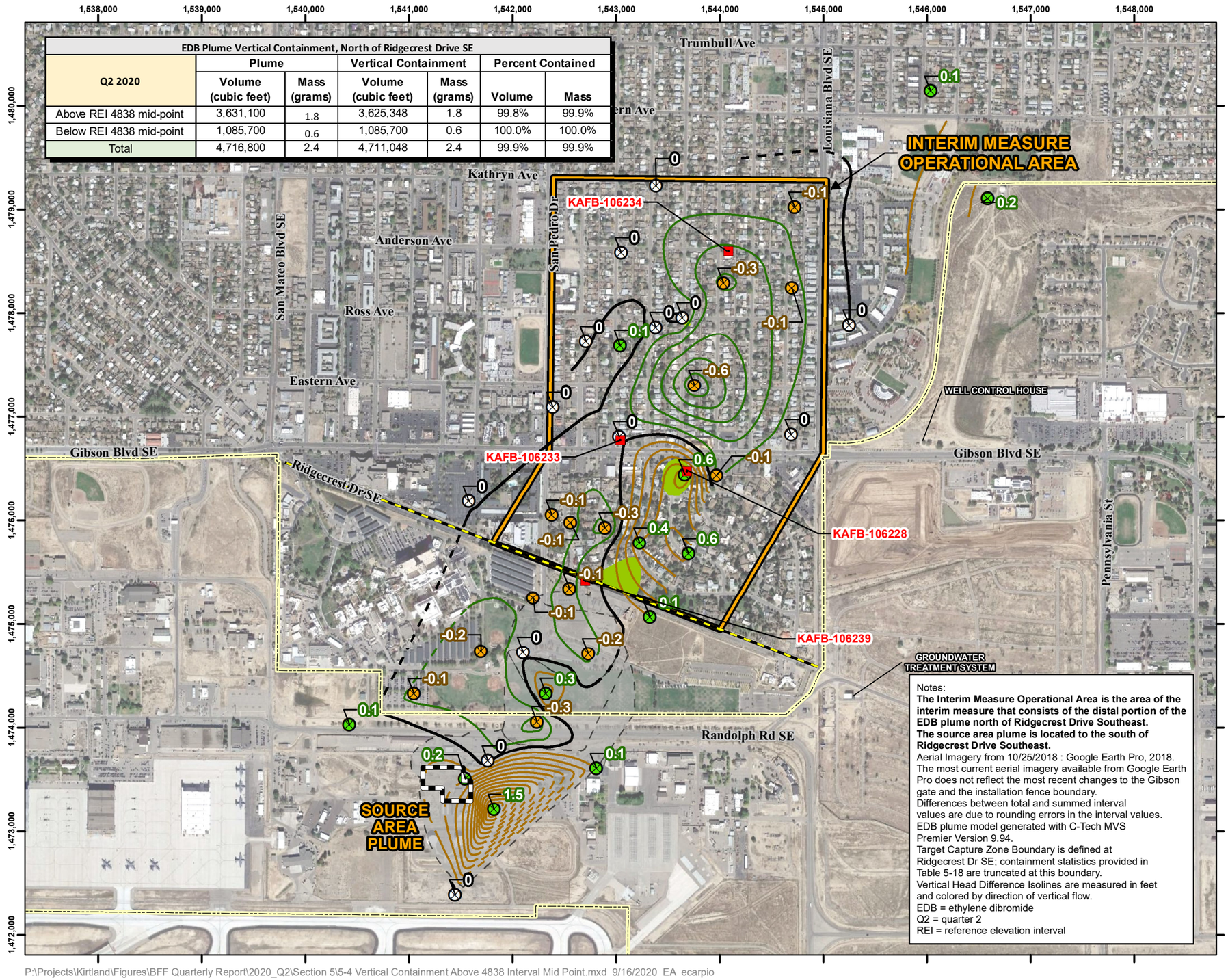
FIGURE 5-3

T1A PLUME CROSS SECTION COMPARISON
Q4 2019 - Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-3 T1A Plume Cross Section Comparison.mxd 9/16/2020 EA ecarpio

EDB Plume Vertical Containment, North of Ridgecrest Drive SE						
Q2 2020	Plume		Vertical Containment		Percent Contained	
	Volume (cubic feet)	Mass (grams)	Volume (cubic feet)	Mass (grams)	Volume	Mass
Above REI 4838 mid-point	3,631,100	1.8	3,625,348	1.8	99.8%	99.9%
Below REI 4838 mid-point	1,085,700	0.6	1,085,700	0.6	100.0%	100.0%
Total	4,716,800	2.4	4,711,048	2.4	99.9%	99.9%



Legend

- Extraction Well

Centroid of Nested Monitoring Well Pair

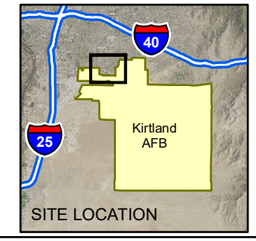
- Monitoring Well Defining Upward Vertical Flow
- Monitoring Well Defining Downward Vertical Flow
- Monitoring Well Defining No Vertical Flow
- Installation Fence Boundary
- Target Capture Zone Boundary

Vertical Head Difference Isolines (ft)

- Upward Vertical Flow
- Downward Vertical Flow
- No Flow

Plume Area Vertical Containment Analysis

- Contained Above And Below Mid-point
- Contained Below Mid-point
- Contained Above Mid-point
- Not Contained
- Interim Measure Operational Area
- Source Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Differences between total and summed interval values are due to rounding errors in the interval values.
EDB plume model generated with C-Tech MVS Premier Version 9.94.
Target Capture Zone Boundary is defined at Ridgecrest Dr SE; containment statistics provided in Table 5-18 are truncated at this boundary.
Vertical Head Difference Isolines are measured in feet and colored by direction of vertical flow.
EDB = ethylene dibromide
Q2 = quarter 2
REI = reference elevation interval

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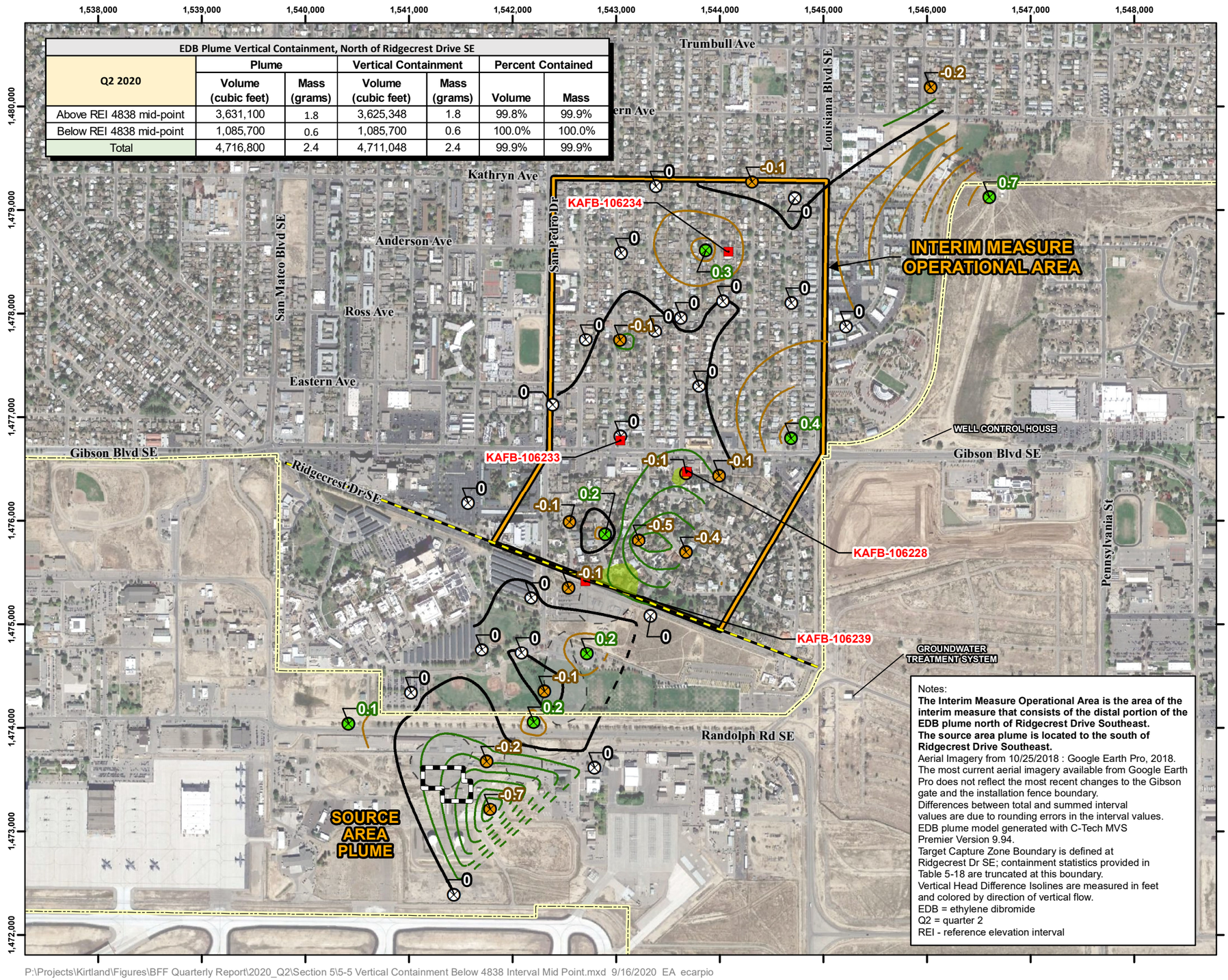
FIGURE 5-4

VERTICAL CONTAINMENT ABOVE REFERENCE ELEVATION INTERVAL 4838 MID-POINT, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-4 Vertical Containment Above 4838 Interval Mid Point.mxd 9/16/2020 EA ecarpio

EDB Plume Vertical Containment, North of Ridgecrest Drive SE						
Q2 2020	Plume		Vertical Containment		Percent Contained	
	Volume (cubic feet)	Mass (grams)	Volume (cubic feet)	Mass (grams)	Volume	Mass
Above REI 4838 mid-point	3,631,100	1.8	3,625,348	1.8	99.8%	99.9%
Below REI 4838 mid-point	1,085,700	0.6	1,085,700	0.6	100.0%	100.0%
Total	4,716,800	2.4	4,711,048	2.4	99.9%	99.9%



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Differences between total and summed interval values are due to rounding errors in the interval values.
EDB plume model generated with C-Tech MVS Premier Version 9.94.
Target Capture Zone Boundary is defined at Ridgecrest Dr SE; containment statistics provided in Table 5-18 are truncated at this boundary.
Vertical Head Difference Isolines are measured in feet and colored by direction of vertical flow.
EDB = ethylene dibromide
Q2 = quarter 2
REI - reference elevation interval

Legend

- Extraction Well

Centroid of Nested Monitoring Well Pair

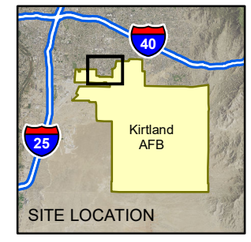
- Monitoring Well Defining Upward Vertical Flow
- Monitoring Well Defining Downward Vertical Flow
- Monitoring Well Defining No Vertical Flow
- Installation Fence Boundary
- Target Capture Zone Boundary

Vertical Head Difference Isolines (ft)

- Upward Vertical Flow
- Downward Vertical Flow
- No Flow

Plume Area Vertical Containment Analysis

- Contained Above And Below Mid-point
- Contained Below Mid-point
- Contained Above Mid-point
- Not Contained
- Interim Measure Operational Area
- Source Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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FIGURE 5-5

VERTICAL CONTAINMENT BELOW REFERENCE ELEVATION INTERVAL 4838 MID-POINT, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-5 Vertical Containment Below 4838 Interval Mid Point.mxd 9/16/2020 EA ecarpio

Capture in REI 4857, North of Ridgecrest Drive SE				
Q2 2020	Volume		Mass	
	Volume (cubic ft)	Percent Captured	Grams	Percent Captured
KAFB-106228	2,084,200	57%	0.9	51%
KAFB-106233	0	0%	0.0	0%
KAFB-106234	0	0%	0.0	0%
KAFB-106239	1,546,900	43%	0.9	49%
Total	3,631,100	100%	1.8	100%

INSET MAP (PLUME NORTH OF RIDGECREST DR SE)

SOURCE AREA PLUME

INTERIM MEASURE OPERATIONAL AREA

WELL CONTROL HOUSE

GROUNDWATER TREATMENT SYSTEM

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Differences between total and summed interval values are due to rounding errors in the interval values.
EDB plume model generated with C-Tech MVS Premier Version 9.94.
Target Capture Zone Boundary is defined at Ridgecrest Dr SE. Capture statistics provided in Table 5-11.
Differences between total and summed interval values are due to rounding errors in the interval values.
AMSL = above mean sea level
EDB = ethylene dibromide
ft = foot/feet
Q2 = quarter 2
REI = reference elevation interval

Legend

- Extraction Well
- Groundwater Monitoring Well
- Groundwater Level Contour (0.1 ft interval)
- Inferred Groundwater Level Contour (0.1 ft interval)
- Hydraulic Divide
- Inferred Hydraulic Divide
- Particle Flow Lines (Direction of Flow)
- Installation Fence Boundary
- Target Capture Zone Boundary

Plume Area Horizontal Capture Analysis

- Plume Not Captured
- Captured by KAFB-106228
- Captured by KAFB-106239
- Outside Target Capture Zone
- Source Area
- Interim Measure Operational Area

Kirtland AFB
SITE LOCATION

N
0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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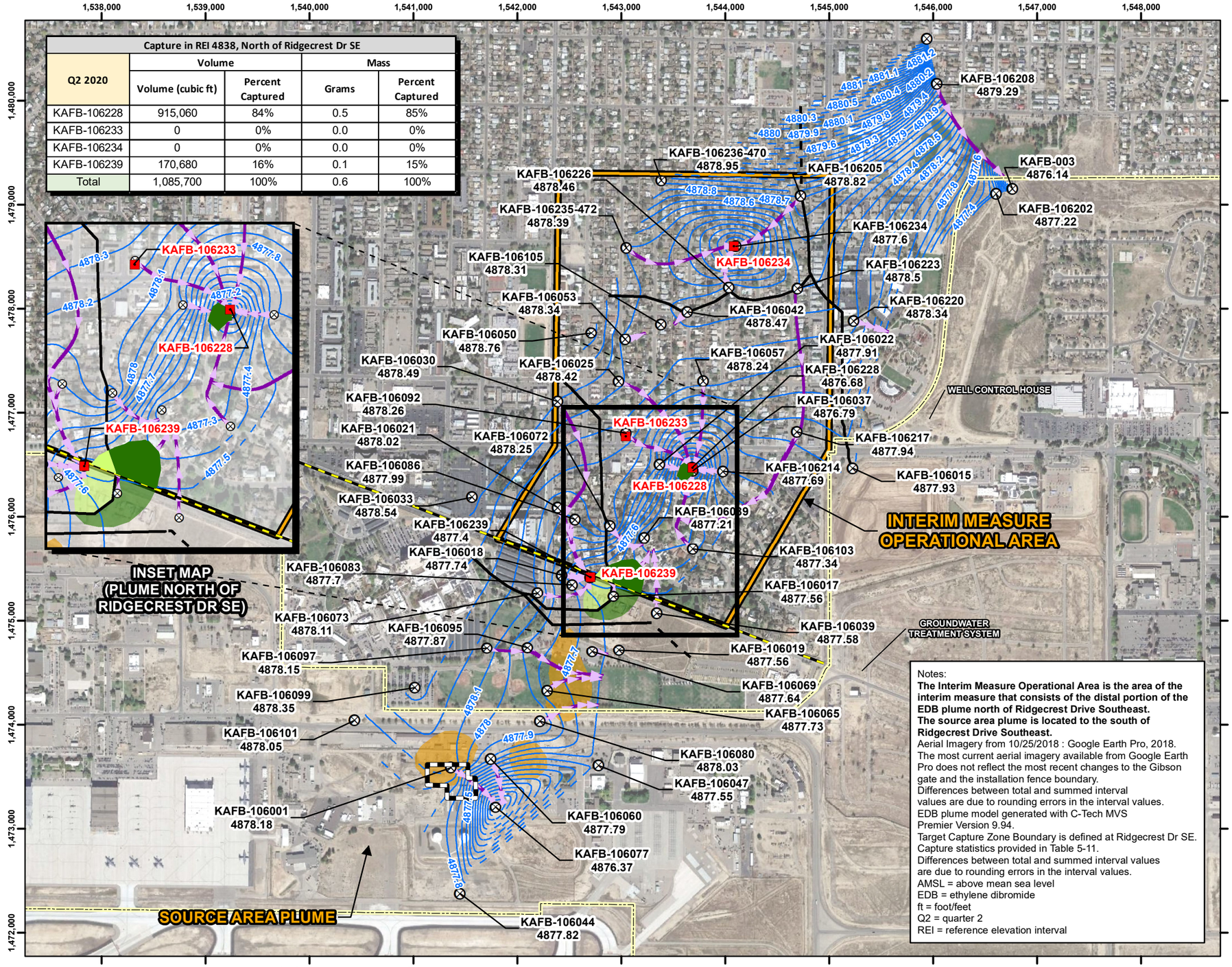
FIGURE 5-6

HORIZONTAL CAPTURE OF EDB IN REFERENCE ELEVATION INTERVAL 4857, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-6 Horizontal Capture Interval 4857.mxd 9/15/2020 EA ecarpio

Capture in REI 4838, North of Ridgecrest Dr SE				
Q2 2020	Volume		Mass	
	Volume (cubic ft)	Percent Captured	Grams	Percent Captured
KAFB-106228	915,060	84%	0.5	85%
KAFB-106233	0	0%	0.0	0%
KAFB-106234	0	0%	0.0	0%
KAFB-106239	170,680	16%	0.1	15%
Total	1,085,700	100%	0.6	100%



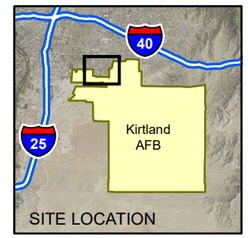
Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Differences between total and summed interval values are due to rounding errors in the interval values.
EDB plume model generated with C-Tech MVS Premier Version 9.94.
Target Capture Zone Boundary is defined at Ridgecrest Dr SE.
Capture statistics provided in Table 5-11.
Differences between total and summed interval values are due to rounding errors in the interval values.
AMSL = above mean sea level
EDB = ethylene dibromide
ft = foot/feet
Q2 = quarter 2
REI = reference elevation interval

Legend

- Extraction Well
- Groundwater Monitoring Well
- Groundwater Level Contour (0.1 ft interval)
- Inferred Groundwater Level Contour (0.1 ft)
- Hydraulic Divide
- Inferred Hydraulic Divide
- Particle Flow Lines (Direction of Flow)
- Installation Fence Boundary
- Target Capture Zone Boundary

Plume Area Horizontal Capture Analysis

- Plume Not Captured
- Captured by KAFB-106228
- Captured by KAFB-106239
- Outside Target Capture Zone
- Source Area
- Interim Measure Operational Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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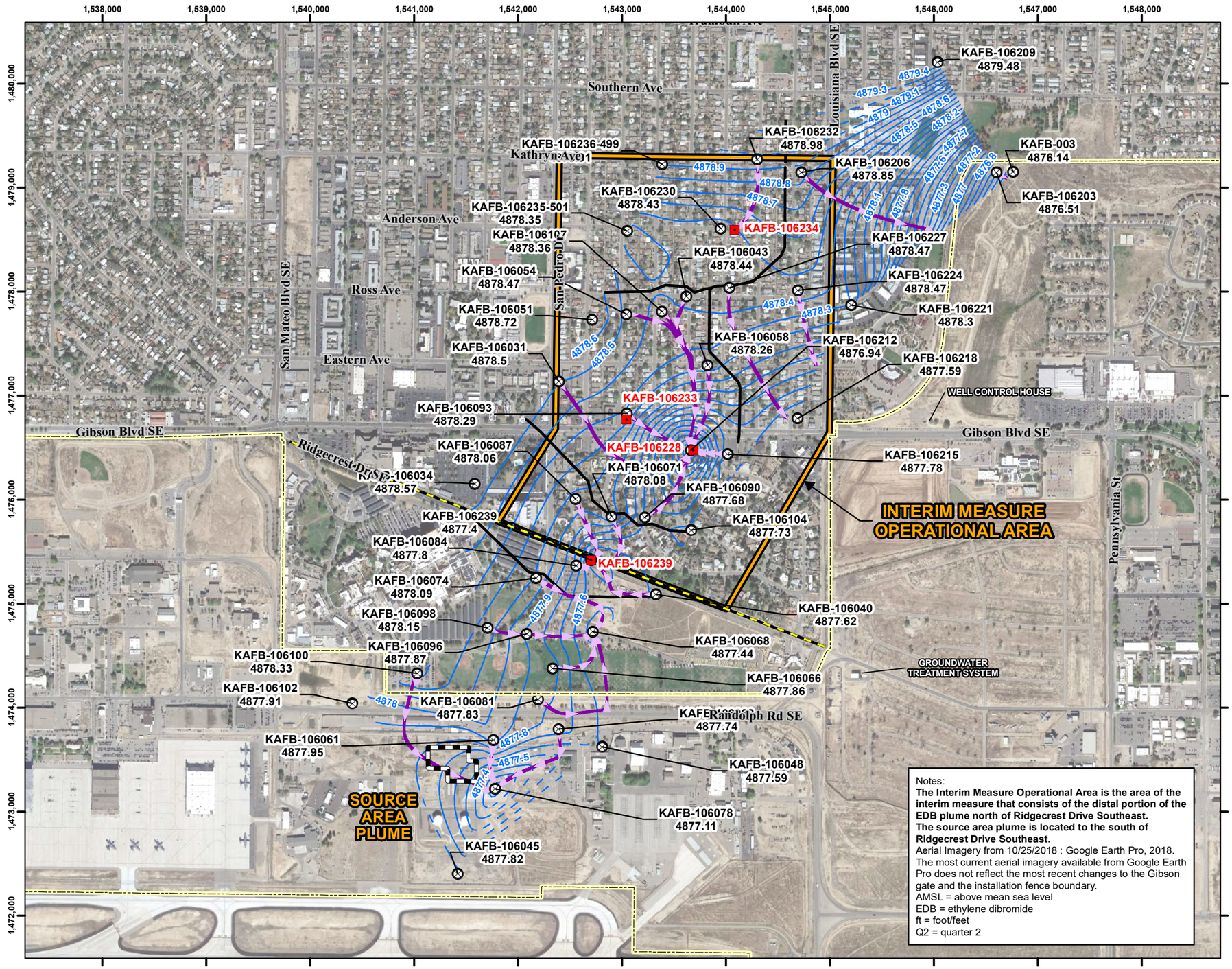
FIGURE 5-7

HORIZONTAL CAPTURE OF EDB IN REFERENCE ELEVATION INTERVAL 4838, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-7 Horizontal Capture Interval 4838.mxd 9/15/2020 EA ecarpio



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
AMSL = above mean sea level
EDB = ethylene dibromide
ft = foot/feet
Q2 = quarter 2

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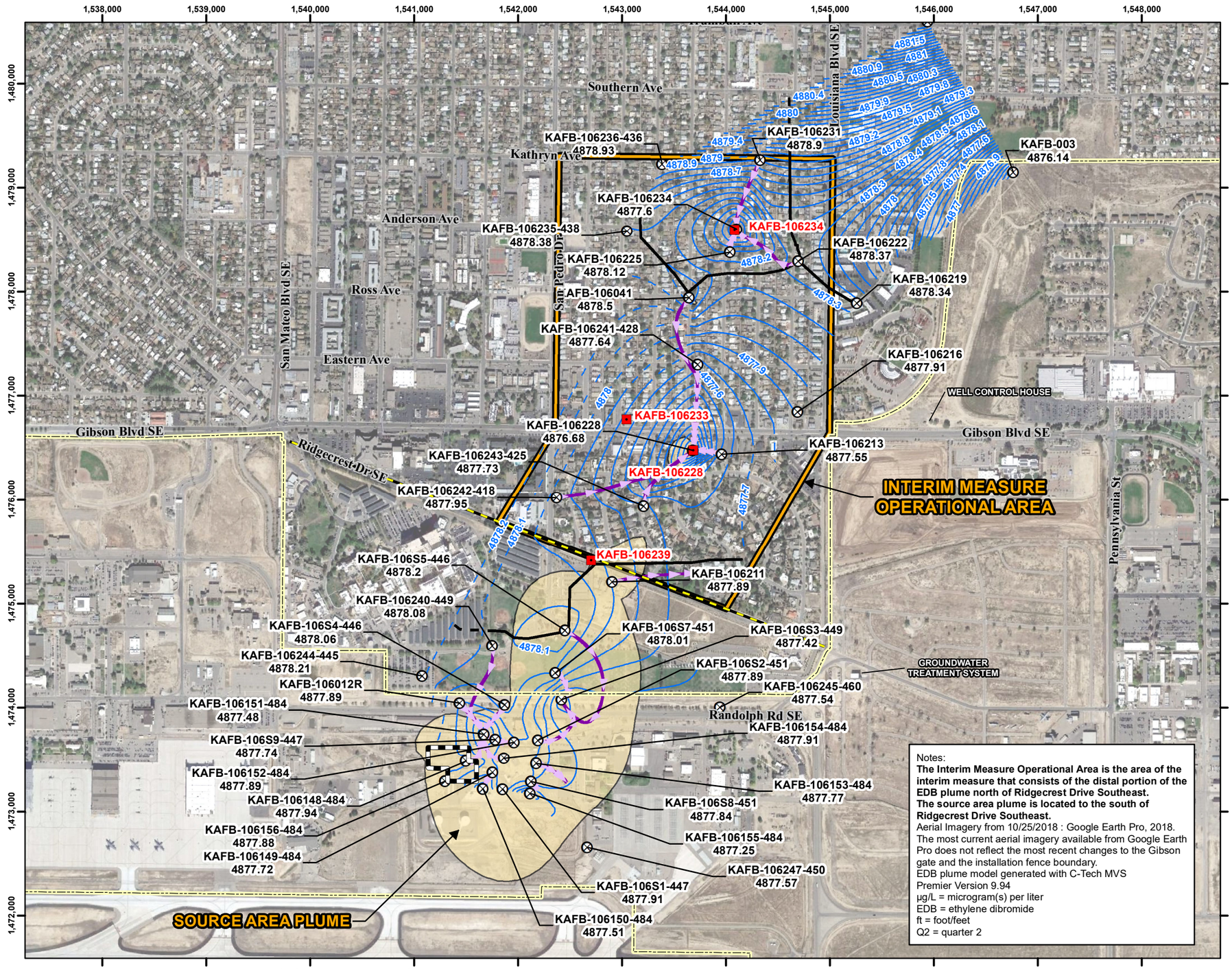
FIGURE 5-8

HORIZONTAL CAPTURE OF EDB IN REFERENCE ELEVATION INTERVAL 4814, Q2 2020

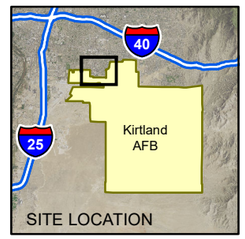
P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-8 Horizontal Capture Interval 4814.mxd 9/16/2020 EA ecarpio



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume model generated with C-Tech MVS Premier Version 9.94
µg/L = microgram(s) per liter
EDB = ethylene dibromide
ft = foot/feet
Q2 = quarter 2

Legend

- Extraction Well
- Groundwater Monitoring Well
- Groundwater Level Contour (0.1 ft interval)
- Inferred Groundwater Level Contour (0.1 ft)
- Hydraulic Divide
- Inferred Hydraulic Divide
- Particle Flow Lines (Direction of Flow)
- Installation Fence Boundary
- Target Capture Zone Boundary
- EDB Plume Q2 2020 (> 0.05 µg/L)
- Interim Measure Operational Area
- Source Area



N

0 500 1,000 2,000
Feet
1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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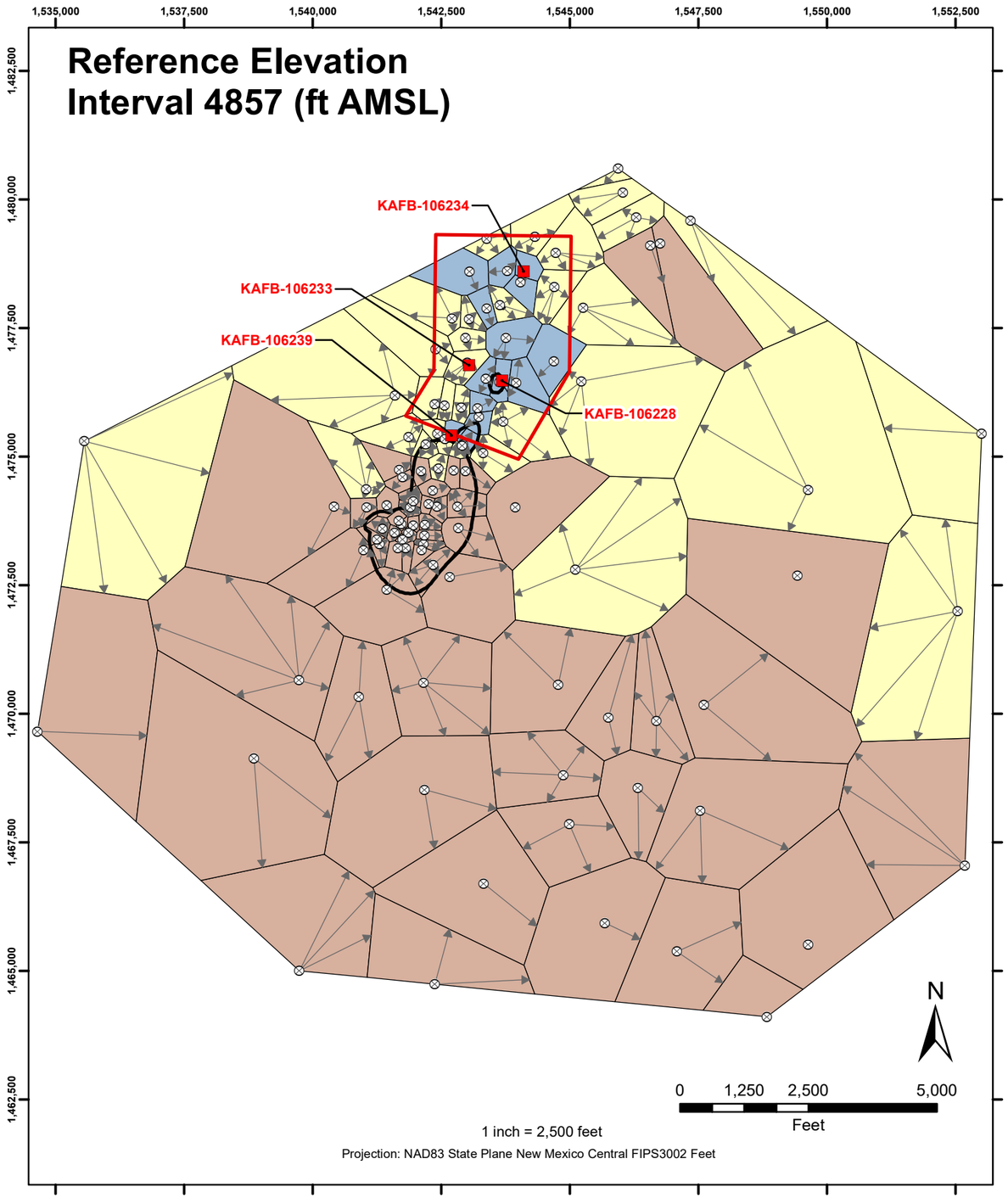
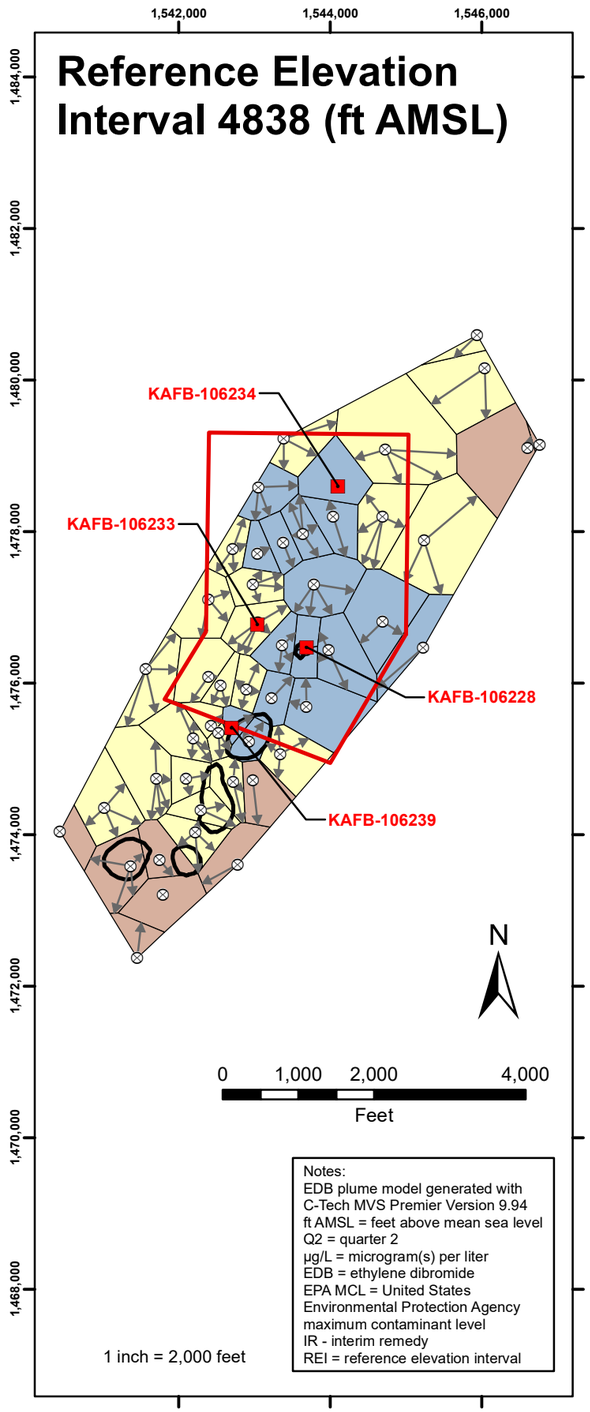
FIGURE 5-9

HORIZONTAL CAPTURE AT
THE WATER TABLE, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-9 Horizontal Capture Water Table.mxd 9/16/2020 EA ecarpio





Notes:
EDB plume model generated with C-Tech MVS Premier Version 9.94
ft AMSL = feet above mean sea level
Q2 = quarter 2
µg/L = microgram(s) per liter
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
IR - interim remedy
REI = reference elevation interval

Legend

- Groundwater Monitoring Well Pairs with Groundwater Elevation (ft AMSL)
- Extraction Well
- Flow Direction
- Q2 EDB Plume >0.05 µg/L (EPA MCL)
- Interim Measure Operational Area

Captured by Extraction Well

- Will Be Captured by an IR Extraction Well
- Can Be Captured by an IR Extraction Well
- Will Not Be Captured by an IR Extraction Well

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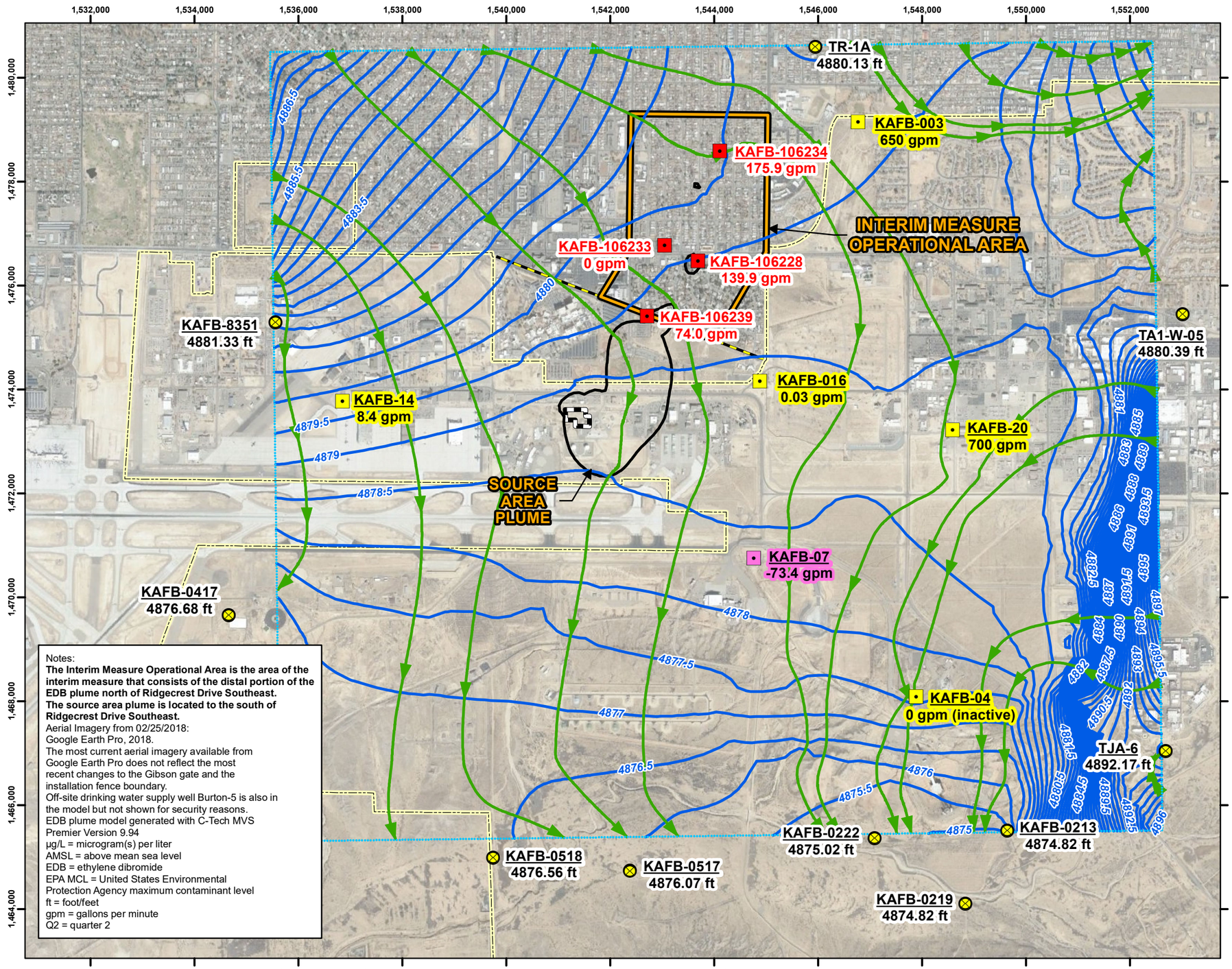
FIGURE 5-10

WATER LEVEL PAIRS
REI 4857 AND REI 4838
Q2 2020

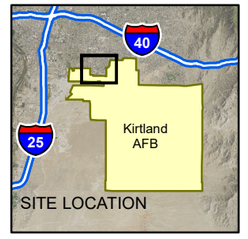
P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-10 Interval 4857 and Interval 4838 Water Level Pairs.mxd 9/16/2020 EA ecarpio



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 02/25/2018:
Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
Off-site drinking water supply well Burton-5 is also in the model but not shown for security reasons.
EDB plume model generated with C-Tech MVS Premier Version 9.94
µg/L = microgram(s) per liter
AMSL = above mean sea level
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ft = foot/feet
gpm = gallons per minute
Q2 = quarter 2

Legend

- Model Assigned Interim Remedy Extraction Well (Extraction Rate)
- Model Assigned Injection Well (Injection Rate)
- Model Assigned Base Drinking Water Supply Well (Extraction Rate)
- Groundwater Monitoring Boundary Well (groundwater elevation - ft AMSL)
- Constant Head Boundary Assignment
- Pre-Extraction Particle Track (Flow Direction)
- Pre-Extraction Poentiometric Surface Contours (ft AMSL)
- EDB Plume with Concentration > 0.05 µg/L (EPA MCL) The depicted boundary represents the 0.05 µg/L concentration contour
- Target Capture Zone Boundary
- Installation Fence Boundary
- Interim Measure Operational Area
- Source Area



N

0 1,000 2,000 4,000
Feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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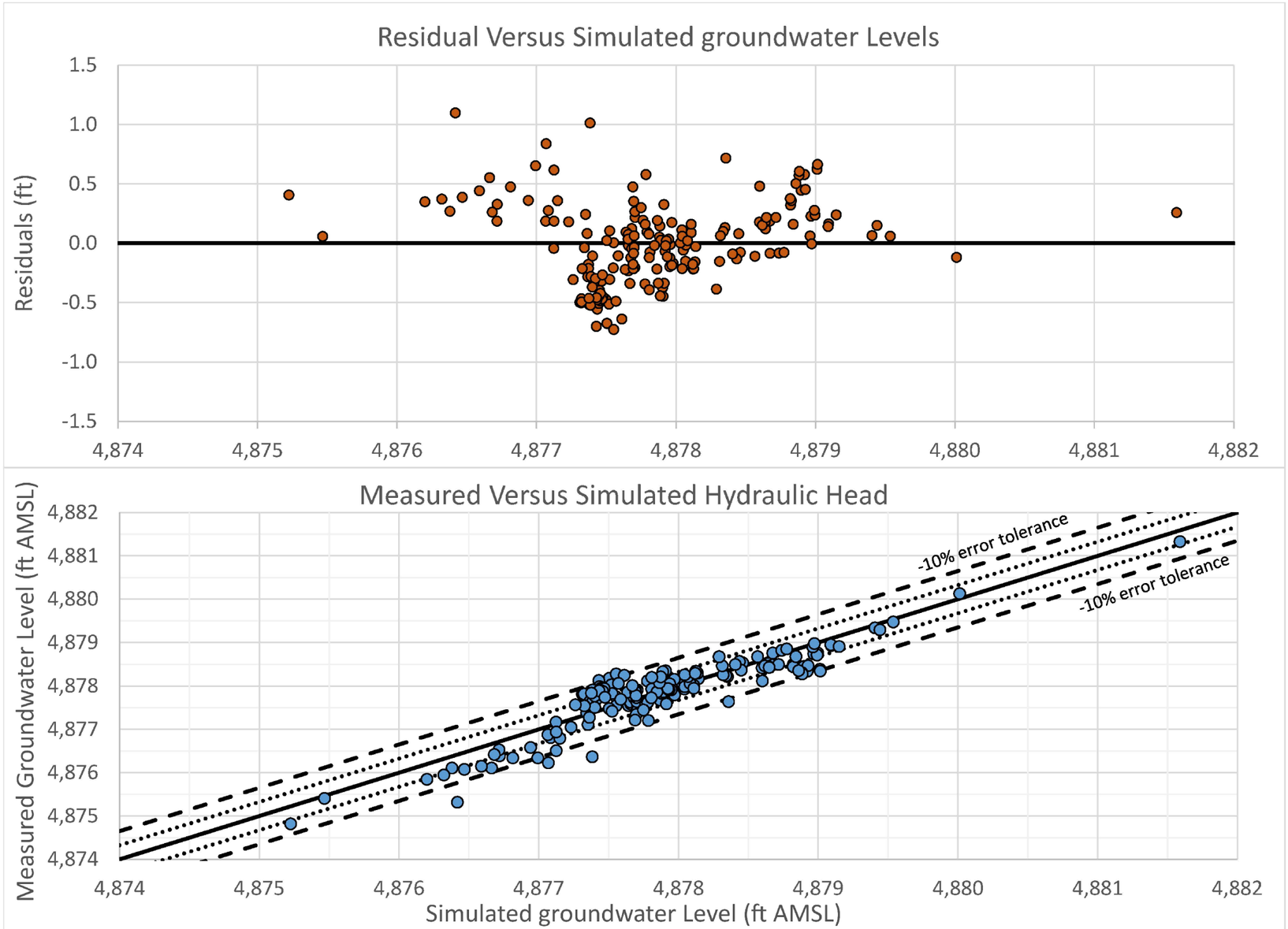
FIGURE 5-11

GROUNDWATER FLOW MODEL DOMAIN, KEY FEATURES AND NON-EXTRACTION FLOW FIELD, Q2 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-11 Groundwater Flow Model Domain, Key Features and Non-Extraction Flow Field, Q2 2020.mxd 9/16/2020 EA ecarpio



Legend

- Residual Groundwater Level
- Measured Hydraulic Head

Notes:
AMSL = above mean sea level
ft = foot/feet
Q2 = quarter 2

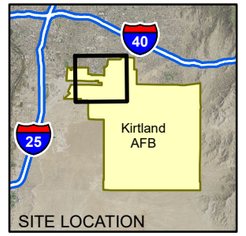


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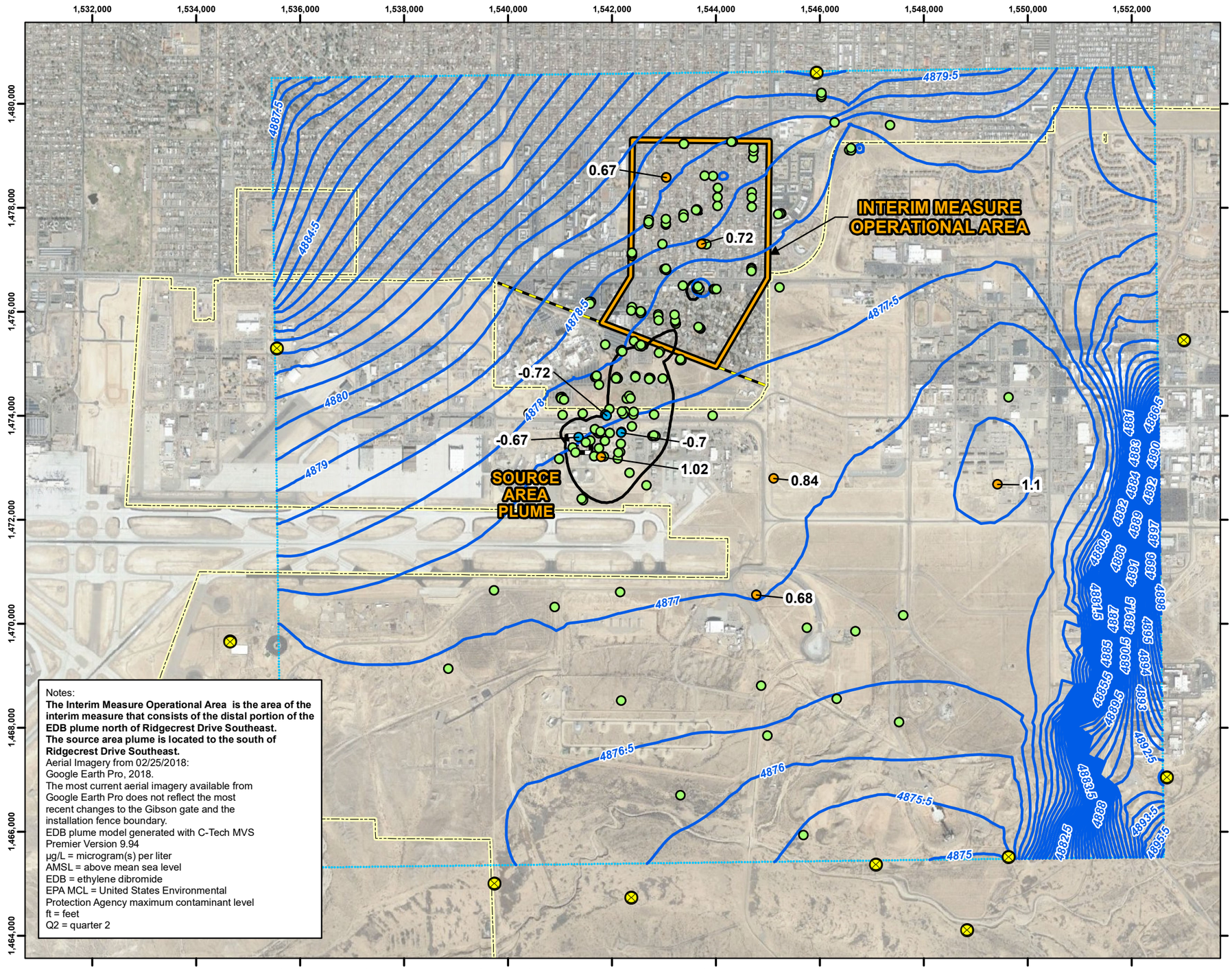
FIGURE 5-12

Q2 2020 NUMERICAL MODEL GOODNESS OF FIT RESULTS – SIMULATED VS MEASURED GROUNDWATER LEVELS

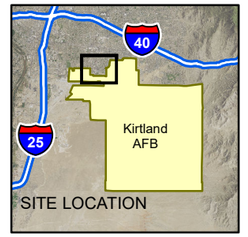
P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-12 Simulated vs Measured Head Plot, Q2 2020.mxd 9/11/2020 EA ecarpio



Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast.
The source area plume is located to the south of Ridgecrest Drive Southeast.
Aerial Imagery from 02/25/2018:
Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume model generated with C-Tech MVS Premier Version 9.94
µg/L = microgram(s) per liter
AMSL = above mean sea level
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
ft = feet
Q2 = quarter 2

Legend

- Groundwater Monitoring Boundary Well
- Residual Below Calibration Target Range
- Residual Within Calibration Target Range
- Residual Above Calibration Target Range
- Post-Extraction Potentiometric Surface Contours
- Constant Head Boundary Assignment
- EDB Plume with Concentration > 0.05 µg/L (EPA MCL) The depicted boundary represents the 0.05 µg/L concentration contour
- Target Capture Zone Boundary
- Installation Fence Boundary
- Interim Measure Operational Area
- Source Area
- **-0.59** Residual Value



N

0 1,000 2,000 4,000
Feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

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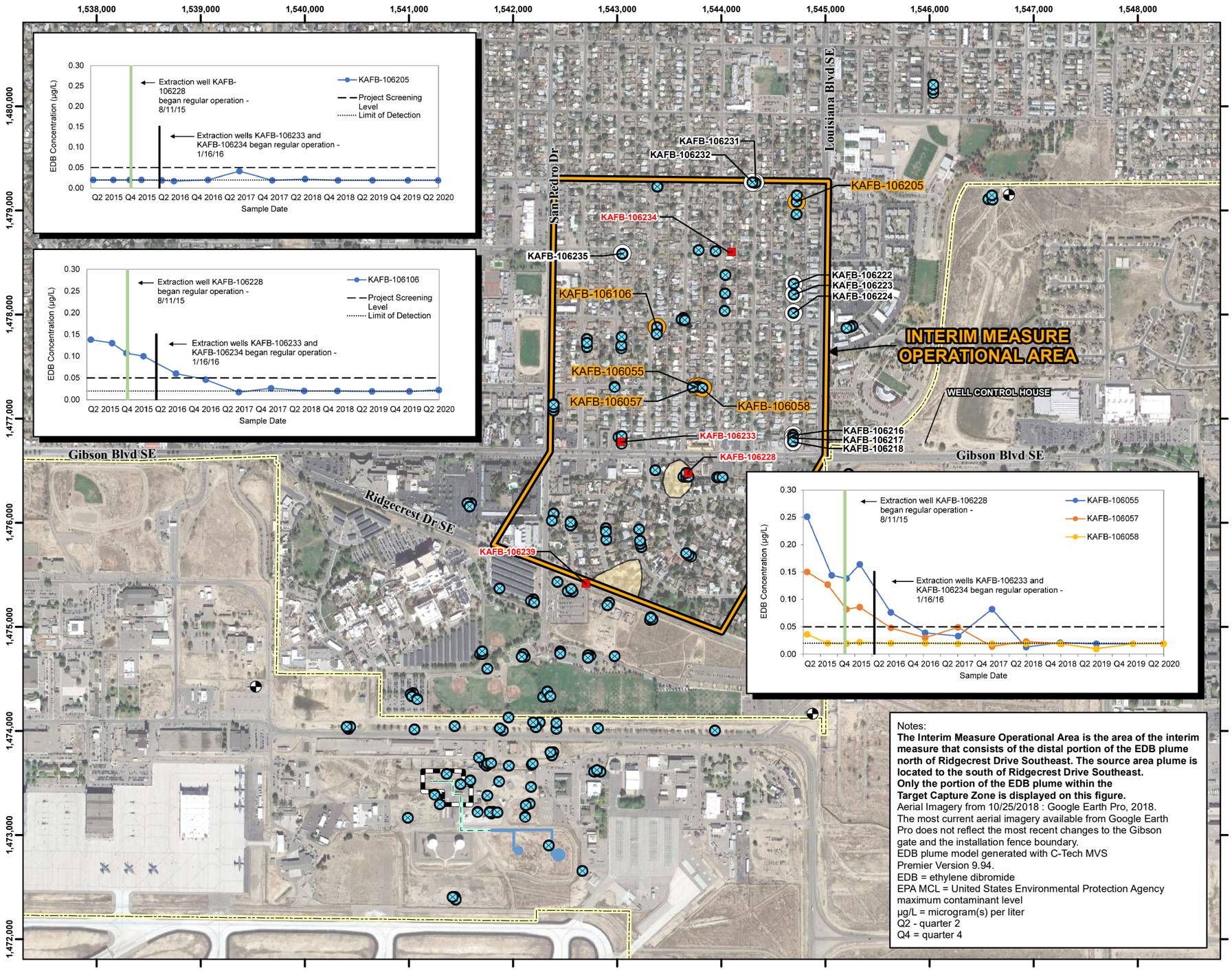
FIGURE 5-13

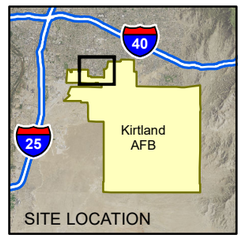
GROUNDWATER FLOW MODEL SIMULATED Q2 2020 WATER-TABLE AND DISTRIBUTION OF SIMULATION RESIDUALS

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-13 Groundwater Flow Model Simulated Q2 2020 Water-Table and Distribution of Simulation Residuals.mxd 9/21/2020 EA ecarpio



Legend

- Performance Monitoring Well (Performance Assessment)
- Sentinel Well (Performance Assessment)
- Groudnwater Monitoring Well
- Extraction Well
- Drinking Water Supply Well
- Former Aboveground Storage Tank
- Former Buried Fuel Transfer Line
- Former Aboveground Fuel Transfer Line
- Installation Boundary
- Q2 2020 EDB Plume within the Target Capture Zone with Concentration > 0.05 µg/L (EPA MCL)
- Interim Measure Operational Area
- Source Area



N

0 500 1,000 2,000

Feet

1 inch = 1,000 feet

Projection: NAD83 State Plane New Mexico Central FIPS3002 Feet

Notes:
The Interim Measure Operational Area is the area of the interim measure that consists of the distal portion of the EDB plume north of Ridgecrest Drive Southeast. The source area plume is located to the south of Ridgecrest Drive Southeast.
Only the portion of the EDB plume within the Target Capture Zone is displayed on this figure.
Aerial Imagery from 10/25/2018 : Google Earth Pro, 2018.
The most current aerial imagery available from Google Earth Pro does not reflect the most recent changes to the Gibson gate and the installation fence boundary.
EDB plume model generated with C-Tech MVS Premier Version 9.94.
EDB = ethylene dibromide
EPA MCL = United States Environmental Protection Agency maximum contaminant level
µg/L = microgram(s) per liter
Q2 - quarter 2
Q4 = quarter 4

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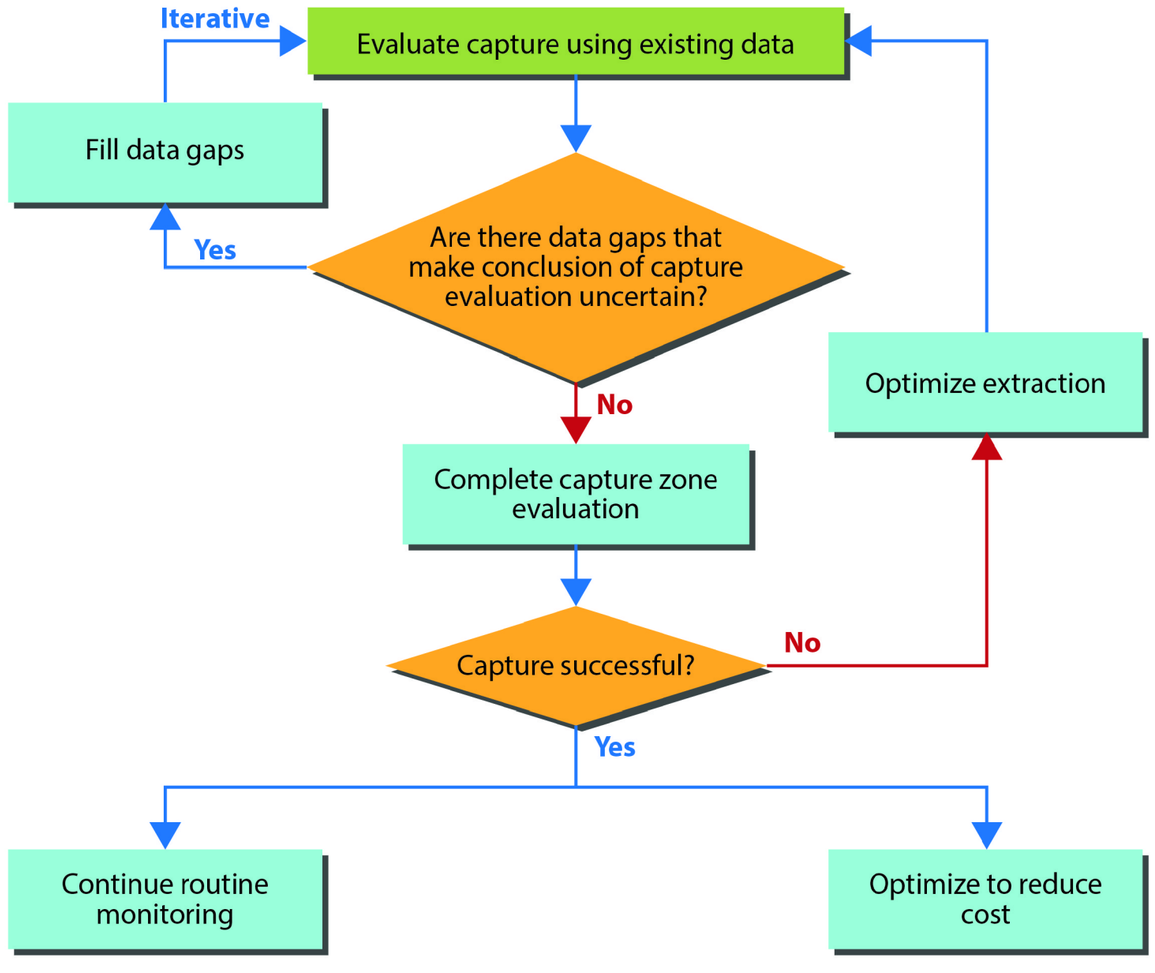
FIGURE 5-14

CONCENTRATION TRENDS IN PERFORMANCE MONITORING WELLS, 2015 - 2020

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-14 Concentration Trends in Performance Monitoring Wells, 2015-2020.mxd 9/16/2020 EA ecarpio

Exhibit 7

Capture Zone Analysis - Iterative Approach



Notes:
Exhibit 7 reproduced from
A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems: Final Project Report.
U.S. Environmental Protection Agency (EPA) 600/R-08/003. January. pp. 166.

EPA = U.S. Environmental Protection Agency

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FIGURE 5-15

EPA CAPTURE ZONE ANALYSIS - ITERATIVE APPROACH (EXHIBIT 7)

P:\Projects\Kirtland\Figures\BFF Quarterly Report\2020_Q2\Section 5\5-15 EPA Capture Zone Analysis - Iterative Approach (Exhibit 7)_REV1.mxd 9/11/2020 EA ecarpio

TABLES

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
Off Base	KAFB-106028	KAFB-106028-150	148.75	151.25	1/2	0.00136	0.409	0.615
		KAFB-106028-250	248.75	251.25	1/2	0.00136	0.409	0.752
		KAFB-106028-350	348.75	351.25	1/2	0.00136	0.409	0.888
		KAFB-106028-450	448.75	451.25	1/2	0.00136	0.409	1.024
	KAFB-106136	KAFB-106136-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106136-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106136-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106136-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106136-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106136-450	440	450	3	0.04909	1.636	23.725
	KAFB-106138	KAFB-106138-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106138-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106138-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106138-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106138-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106138-450	440	450	3	0.04909	1.636	23.725
	KAFB-106141	KAFB-106141-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106141-050	50	60	3/4	0.00307	1.636	1.820
		KAFB-106141-170	160	170	3/4	0.00307	1.636	2.158
		KAFB-106141-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106141-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106141-450	440	450	3	0.04909	1.636	23.725
	KAFB-106142	KAFB-106142-030	20	30	3/4	0.00307	1.636	1.728
		KAFB-106142-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106142-170	160	170	3/4	0.00307	1.636	2.158
		KAFB-106142-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106142-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106142-450	440	450	3	0.04909	1.636	23.725

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106108	KAFB-106108-025	15.3	25.3	3/4	0.00307	1.636	1.714
		KAFB-106108-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106108-150	140.2	150.2	3/4	0.00307	1.636	2.097
		KAFB-106108-250	240.3	250.3	3/4	0.00307	1.636	2.404
		KAFB-106108-350	340.3	350.3	3/4	0.00307	1.636	2.711
		KAFB-106108-450	440	450	3	0.04909	1.636	23.725
	KAFB-106109	KAFB-106109-025	15.2	25.2	3/4	0.00307	1.636	1.713
		KAFB-106109-050	40.1	50.1	3/4	0.00307	1.636	1.790
		KAFB-106109-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106109-250	240.2	250.2	3/4	0.00307	1.636	2.404
		KAFB-106109-350	340.6	350.6	3/4	0.00307	1.636	2.712
		KAFB-106109-450	440	450	3	0.04909	1.636	23.725
	KAFB-106110	KAFB-106110-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106110-050	40.1	50.1	3/4	0.00307	1.636	1.790
		KAFB-106110-150	140.3	150.3	3/4	0.00307	1.636	2.097
		KAFB-106110-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106110-350	340.2	350.2	3/4	0.00307	1.636	2.710
		KAFB-106110-450	440	450	3	0.04909	1.636	23.725
	KAFB-106111	KAFB-106111-025	15.2	25.2	3/4	0.00307	1.636	1.713
		KAFB-106111-050	40.1	50.1	3/4	0.00307	1.636	1.790
		KAFB-106111-150	140.3	150.3	3/4	0.00307	1.636	2.097
		KAFB-106111-250	240.3	250.3	3/4	0.00307	1.636	2.404
		KAFB-106111-350	340.4	350.4	3/4	0.00307	1.636	2.711
		KAFB-106111-450	440.3	450.3	3	0.04909	1.636	23.740
	KAFB-106112	KAFB-106112-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106112-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106112-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106112-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106112-350	339	349	3/4	0.00307	1.636	2.707
		KAFB-106112-450	439	449	3	0.04909	1.636	23.676

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106113	KAFB-106113-020	10	20	3/4	0.00307	1.636	1.697
		KAFB-106113-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106113-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106113-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106113-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106113-450	440	450	3	0.04909	1.636	23.725
	KAFB-106114	KAFB-106114-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106114-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106114-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106114-250	235	245	3/4	0.00307	1.636	2.388
		KAFB-106114-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106114-450	439.6	449.6	3	0.04909	1.636	23.706
	KAFB-106115	KAFB-106115-025	14.6	24.6	3/4	0.00307	1.636	1.711
		KAFB-106115-050	39.6	49.6	3/4	0.00307	1.636	1.788
		KAFB-106115-150	144.6	154.6	3/4	0.00307	1.636	2.110
		KAFB-106115-250	239.6	249.6	3/4	0.00307	1.636	2.402
		KAFB-106115-350	339.6	349.6	3/4	0.00307	1.636	2.709
		KAFB-106115-450	439.6	449.6	3	0.04909	1.636	23.706
	KAFB-106116	KAFB-106116-025	10	19.45	3/4	0.00307	1.54602	1.606
		KAFB-106116-050	40	49.45	3/4	0.00307	1.54602	1.698
		KAFB-106116-150	140	149.45	3/4	0.00307	1.54602	2.005
		KAFB-106116-250	240	249.45	3/4	0.00307	1.54602	2.311
		KAFB-106116-350	340	349.45	3/4	0.00307	1.54602	2.618
		KAFB-106116-450	440	448.95	3	0.04909	1.46422	23.502
	KAFB-106117	KAFB-106117-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106117-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106117-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106117-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106117-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106117-450	440	450	3	0.04909	1.636	23.725

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106118	KAFB-106118-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106118-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106118-160	150	160	3/4	0.00307	1.636	2.127
		KAFB-106118-265	255	265	3/4	0.00307	1.636	2.449
		KAFB-106118-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106118-450	440	450	3	0.04909	1.636	23.725
	KAFB-106119	KAFB-106119-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106119-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106119-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106119-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106119-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106119-450	440	450	3	0.04909	1.636	23.725
	KAFB-106120	KAFB-106120-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106120-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106120-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106120-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106120-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106120-450	434	444	3	0.04909	1.636	23.431
	KAFB-106121	KAFB-106121-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106121-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106121-145	135	145	3/4	0.00307	1.636	2.081
		KAFB-106121-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106121-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106121-450	434	444	3	0.04909	1.636	23.431
	KAFB-106122	KAFB-106122-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106122-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106122-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106122-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106122-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106122-450	434	444	3	0.04909	1.636	23.431

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106123	KAFB-106123-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106123-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106123-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106123-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106123-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106123-450	432	442	3	0.04909	1.636	23.333
	KAFB-106124	KAFB-106124-025	15.1	25	3/4	0.00307	1.61964	1.696
		KAFB-106124-050	40.1	50	3/4	0.00307	1.61964	1.773
		KAFB-106124-150	140.1	150	3/4	0.00307	1.61964	2.080
		KAFB-106124-250	240.1	250	3/4	0.00307	1.61964	2.387
		KAFB-106124-350	340.1	350	3/4	0.00307	1.61964	2.693
		KAFB-106124-450	440.1	450	3	0.04909	1.61964	23.709
	KAFB-106125	KAFB-106125-025	15.2	25	3/4	0.00307	1.60328	1.680
		KAFB-106125-050	40.2	50	3/4	0.00307	1.60328	1.757
		KAFB-106125-150	140.2	150	3/4	0.00307	1.60328	2.063
		KAFB-106125-250	240.2	250	3/4	0.00307	1.60328	2.370
		KAFB-106125-350	340.2	350	3/4	0.00307	1.60328	2.677
		KAFB-106125-450	440.2	450	3	0.04909	1.60328	23.693
	KAFB-106126	KAFB-106126-025	15.1	25	3/4	0.00307	1.61964	1.696
		KAFB-106126-050	40.1	50	3/4	0.00307	1.61964	1.773
		KAFB-106126-150	140.1	150	3/4	0.00307	1.61964	2.080
		KAFB-106126-250	240.1	250	3/4	0.00307	1.61964	2.387
		KAFB-106126-350	340.1	350	3/4	0.00307	1.61964	2.693
		KAFB-106126-450	440.2	450	3	0.04909	1.60328	23.693
	KAFB-106127	KAFB-106127-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106127-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106127-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106127-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106127-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106127-450	440	450	3	0.04909	1.636	23.725

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106128	KAFB-106128-025	15.04	25.04	3/4	0.00307	1.636	1.713
		KAFB-106128-050	40.07	50.07	3/4	0.00307	1.636	1.790
		KAFB-106128-150	140.19	150.19	3/4	0.00307	1.636	2.097
		KAFB-106128-250	240.29	250.29	3/4	0.00307	1.636	2.404
		KAFB-106128-350	340.39	350.39	3/4	0.00307	1.636	2.711
		KAFB-106128-450	440.06	450.06	3	0.04909	1.636	23.728
	KAFB-106129	KAFB-106129-025	15.1	25.1	3/4	0.00307	1.636	1.713
		KAFB-106129-050	39.7	49.7	3/4	0.00307	1.636	1.788
		KAFB-106129-150	140.2	150.2	3/4	0.00307	1.636	2.097
		KAFB-106129-250	240.1	250.1	3/4	0.00307	1.636	2.403
		KAFB-106129-350	337.4	347.4	3/4	0.00307	1.636	2.702
		KAFB-106129-450	440.7	450.7	3	0.04909	1.636	23.760
	KAFB-106130	KAFB-106130-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106130-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106130-150	150	160	3/4	0.00307	1.636	2.127
		KAFB-106130-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106130-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106130-450	440	450	3	0.04909	1.636	23.725
	KAFB-106131	KAFB-106131-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106131-055	45	55	3/4	0.00307	1.636	1.805
		KAFB-106131-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106131-245	235	245	3/4	0.00307	1.636	2.388
		KAFB-106131-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106131-450	430	440	3	0.04909	1.636	23.234
	KAFB-106132	KAFB-106132-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106132-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106132-175	164	174	3/4	0.00307	1.636	2.170
		KAFB-106132-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106132-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106132-450	440	450	3	0.04909	1.636	23.725

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106133	KAFB-106133-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106133-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106133-170	160	170	3/4	0.00307	1.636	2.158
		KAFB-106133-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106133-350	339	349	3/4	0.00307	1.636	2.707
		KAFB-106133-450	439	449	3	0.04909	1.636	23.676
	KAFB-106134	KAFB-106134-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106134-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106134-170	160	170	3/4	0.00307	1.636	2.158
		KAFB-106134-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106134-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106134-450	440	450	3	0.04909	1.636	23.725
	KAFB-106135	KAFB-106135-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106135-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106135-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106135-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106135-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106135-450	440	450	3	0.04909	1.636	23.725
	KAFB-106137	KAFB-106137-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106137-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106137-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106137-250	240.1	250.1	3/4	0.00307	1.636	2.403
		KAFB-106137-350	340.5	350.5	3/4	0.00307	1.636	2.711
		KAFB-106137-450	440	450	3	0.04909	1.636	23.725
	KAFB-106139	KAFB-106139-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106139-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106139-150	140	150	3/4	0.00307	1.636	2.096
		KAFB-106139-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106139-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106139-450	440	450	3	0.04909	1.636	23.725

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	KAFB-106140	KAFB-106140-025	15	25	3/4	0.00307	1.636	1.713
		KAFB-106140-050	40	50	3/4	0.00307	1.636	1.789
		KAFB-106140-150	141.8	151.8	3/4	0.00307	1.636	2.102
		KAFB-106140-250	240	250	3/4	0.00307	1.636	2.403
		KAFB-106140-350	340	350	3/4	0.00307	1.636	2.710
		KAFB-106140-450	440	450	3	0.04909	1.636	23.725
	SVMW-01	SVMW-01-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-01-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-01-250	250.7	253.2	1/2	0.00136	0.409	0.754
		SVMW-01-300	308.5	310	1/2	0.00136	0.2454	0.668
	SVMW-02	SVMW-02-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-02-100	97	99.5	1/2	0.00136	0.409	0.545
		SVMW-02-150	150	152.5	1/2	0.00136	0.409	0.617
	SVMW-05	SVMW-05-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-05-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-05-230	229.5	231	1/2	0.00136	0.2454	0.560
		SVMW-05-290	287.5	290	1/2	0.00136	0.409	0.804
	SVMW-06	SVMW-06-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-06-100	99.5	102	1/2	0.00136	0.409	0.548
		SVMW-06-252	252	254.5	1/2	0.00136	0.409	0.756
		SVMW-06-302	302.5	305	1/2	0.00136	0.409	0.825
	SVMW-07	SVMW-07-050	49.5	52	1/2	0.00136	0.409	0.480
		SVMW-07-100	95.5	98	1/2	0.00136	0.409	0.543
		SVMW-07-150	147.5	150	1/2	0.00136	0.409	0.614
	SVEW-10/SVMW-12	SVEW-10-410	400	410	2	0.02182	1.636	10.581
		SVMW-12-150	150	152.5	1/2	0.00136	0.409	0.617
		SVMW-12-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-12-350	350	352.5	1/2	0.00136	0.409	0.890
		SVMW-12-450	450	452.5	1/2	0.00136	0.409	1.026

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Outside the Source Area)	SVEW-11/SVMW-13	SVEW-11-410	400	410	2	0.02182	1.636	10.581
		SVMW-13-150	150	152.5	1/2	0.00136	0.409	0.617
		SVMW-13-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-13-350	350	352.5	1/2	0.00136	0.409	0.890
		SVMW-13-450	450	452.5	1/2	0.00136	0.409	1.026
	SVEW-12/SVMW-14	SVEW-12-410	400	410	2	0.02182	1.636	10.581
		SVMW-14-150	150	152.5	1/2	0.00136	0.409	0.617
		SVMW-14-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-14-350	350	352.5	1/2	0.00136	0.409	0.890
		SVMW-14-450	450	452.5	1/2	0.00136	0.409	1.026
	SVEW-13/SVMW-15	SVEW-13-410	400	410	2	0.02182	1.636	10.581
		SVMW-15-150	150	152.5	1/2	0.00136	0.409	0.617
		SVMW-15-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-15-350	350	352.5	1/2	0.00136	0.409	0.890
		SVMW-15-450	450	452.5	1/2	0.00136	0.409	1.026
On Base (Inside the Source Area)	SVEW-01	SVEW-01-260	245	260	2	0.02182	2.454	8.126
	SVEW-02/03	SVEW-02-060	45	60	2	0.02182	2.454	3.763
		SVEW-03-160	145	160	2	0.02182	2.454	5.945
	SVEW-04/05	SVEW-04-313	298	313	2	0.02182	2.454	9.283
		SVEW-05-460	445	460	2	0.02182	2.454	12.490
	SVEW-06/07	SVEW-06-060	45	60	2	0.02182	2.454	3.763
		SVEW-07-160	145	160	2	0.02182	2.454	5.945
	SVEW-08/09	SVEW-08-260	245	260	2	0.02182	2.454	8.126
		SVEW-09-460	443	457	2	0.02182	2.2904	12.261
	SVMW-03	SVMW-03-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-03-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-03-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-03-300	300	302.5	1/2	0.00136	0.409	0.821
	SVMW-04	SVMW-04-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-04-100	98	100.5	1/2	0.00136	0.409	0.546
		SVMW-04-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-04-300	297.5	300	1/2	0.00136	0.409	0.818

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

AOI	Sample Location	Location ID	Screened Interval (ft bgs)		Well Diameter (in)	Casing Area (ft^2)	Filter Pack Volume[a] (ft^3)	Purge Volume (ft^3)
			Top	Bottom				
On Base (Inside the Source Area)	SVMW-08	SVMW-08-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-08-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-08-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-08-266[b]	266	268.5	1/2	0.00136	0.409	0.775
	SVMW-09	SVMW-09-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-09-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-09-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-09-266	266	268.5	1/2	0.00136	0.409	0.775
	SVMW-10	SVMW-10-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-10-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-10-150	150	152.5	1/2	0.00136	0.409	0.617
		SVMW-10-250	250	252.5	1/2	0.00136	0.409	0.753
	SVMW-11	SVMW-11-050	50	52.5	1/2	0.00136	0.409	0.481
		SVMW-11-100	100	102.5	1/2	0.00136	0.409	0.549
		SVMW-11-250	250	252.5	1/2	0.00136	0.409	0.753
		SVMW-11-260	260	262.5	1/2	0.00136	0.409	0.767

Table 2-1
Soil Vapor Well Construction Parameters and Pre-Calculated Purge Volumes

[a] Filter Pack Volume (V) was calculated using the following equation: $((\pi * d^2) / 4)* P * L = V$

$\pi \approx 3.14159$

d = Diameter of the borehole casing (0.833 ft)

P = Porosity of sand (assumed 0.3)

L = Length of the screened interval (ft)

[b] Measurements at SVMW-08-266 cannot be obtained because SVMW-08-266 is clogged.

AOI = area of interest

bgs = below ground surface

ft = foot

ft^2 = square feet

ft^3 = cubic feet

ID = identification

in = inch

KAFB = Kirtland Air Force Base

SVEW = soil vapor extraction well

SVMW = soil vapor monitoring well

SWMU = solid waste management unit

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
Off Base	KAFB-106028	KAFB-106028-150	04/08/20	SV028-150-202	-1.2	0.10	19.94	0	0.633	2.0
		KAFB-106028-250	04/08/20	SV028-250-202	-1.4	0.22	20.29	1	0.767	2.0
		KAFB-106028-350	04/08/20	SV028-350-202	-1.6	0.28	20.53	0	0.900	2.0
		KAFB-106028-450	04/08/20	SV028-450-202	-1.6	1.58	18.32	149	1.033	2.0
	KAFB-106136	KAFB-106136-025	04/08/20	SV136-025-202	0.0	0.26	20.54	0	1.733	4.0
		KAFB-106136-050	04/08/20	SV136-050-202	0.0	0.24	20.50	0	1.800	4.0
		KAFB-106136-150	04/08/20	SV136-150-202	0.0	0.12	20.42	0	2.133	4.0
		KAFB-106136-250	04/08/20	SV136-250-202	-0.3	0.14	20.61	0	2.467	4.0
		KAFB-106136-350	04/08/20	SV136-350-202	-0.3	0.18	20.60	0	2.733	4.0
		KAFB-106136-450	04/08/20	SV136-450-202	-0.2	0.04	20.35	0	23.733	4.0
	KAFB-106138	KAFB-106138-025	04/08/20	SV138-025-202	-0.1	2.60	19.15	0	1.733	4.0
		KAFB-106138-050	04/08/20	SV138-050-202	-0.3	3.24	18.27	0	1.800	4.0
		KAFB-106138-150	04/08/20	SV138-150-202	-1.7	0.28	19.54	0	2.133	4.0
		KAFB-106138-250	04/08/20	SV138-250-202	-1.7	0.32	20.07	0	2.467	4.0
		KAFB-106138-350	04/08/20	SV138-350-202	-1.8	0.28	20.54	0	2.733	4.0
		KAFB-106138-450	04/08/20	SV138-450-202	-1.8	2.08	19.37	1	24.333	4.0
	KAFB-106141	KAFB-106141-025	04/08/20	SV141-025-202	-0.1	0.62	19.94	0	1.733	4.0
		KAFB-106141-050	04/08/20	SV141-050-202	-0.1	0.22	19.95	0	1.867	4.0
		KAFB-106141-170	04/08/20	SV141-170-202	-1.6	0.16	20.21	0	2.200	4.0
		KAFB-106141-250	04/08/20	SV141-250-202	-1.6	0.14	20.39	0	2.467	4.0
		KAFB-106141-350	04/08/20	SV141-350-202	-1.7	0.16	20.54	0	2.733	4.0
		KAFB-106141-450	04/08/20	SV141-450-202	-1.8	0.20	19.98	0	23.733	4.0
	KAFB-106142	KAFB-106142-030	04/08/20	SV142-030-202	0.0	0.30	20.42	0	1.733	4.0
		KAFB-106142-050	04/08/20	SV142-050-202	0.0	0.32	20.55	0	1.800	4.0
		KAFB-106142-170	04/08/20	SV142-170-202	-0.9	0.14	20.67	0	2.200	4.0
		KAFB-106142-250	04/08/20	SV142-250-202	-0.9	0.14	20.63	0	2.467	4.0
		KAFB-106142-350	04/08/20	SV142-350-202	-1.0	0.16	20.78	0	2.733	4.0
		KAFB-106142-450	04/08/20	SV142-450-202	-0.9	0.20	20.10	0	23.733	4.0
On Base (Outside the Source Area)	KAFB-106108	KAFB-106108-025	04/21/20	SV108-025-202	0.0	0.88	19.09	2	1.723	2.2
		KAFB-106108-050	04/21/20	SV108-050-202	0.0	2.40	16.58	3	1.797	2.2
		KAFB-106108-150	04/21/20	SV108-150-202	0.0	1.92	14.74	527	2.127	2.2
		KAFB-106108-250	04/21/20	SV108-250-202	-0.5	1.10	13.90	2100	2.420	2.2
		KAFB-106108-350	04/21/20	SV108-350-202	0.0	0.34	19.07	6	2.713	2.2
		KAFB-106108-450	04/21/20	SV108-450-202	0.0	0.52	19.91	2	23.760	2.2

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	KAFB-106109	KAFB-106109-025	04/15/20	SV109-025-202	0.0	0.50	20.49	4	1.773	3.8
		KAFB-106109-050	04/15/20	SV109-050-202	0.0	1.02	19.97	3	1.837	3.8
		KAFB-106109-150	04/15/20	SV109-150-202	-1.5	0.18	18.62	3	2.153	3.8
		KAFB-106109-250	04/15/20	SV109-250-202	-1.7	0.30	19.46	3	2.407	3.8
		KAFB-106109-350	04/15/20	SV109-350-202	-1.8	0.24	20.21	4	2.723	3.8
		KAFB-106109-450	04/15/20	SV109-450-202	-1.8	0.40	20.68	4	23.750	3.8
	KAFB-106110	KAFB-106110-025	04/15/20	SV110-025-202	0.0	0.92	19.56	2	1.773	3.8
		KAFB-106110-050	04/15/20	SV110-050-202	0.0	1.46	17.44	1	1.837	3.8
		KAFB-106110-150	04/15/20	SV110-150-202	-0.8	1.60	14.45	239	2.153	3.8
		KAFB-106110-250	04/15/20	SV110-250-202	-1.2	1.94	10.88	9140	2.407	3.8
		KAFB-106110-350	04/15/20	SV110-350-202	-1.4	0.32	18.10	95	2.723	3.8
		KAFB-106110-450	04/15/20	SV110-450-202	-1.5	0.48	19.72	21	23.750	3.8
	KAFB-106111	KAFB-106111-025	04/07/20	SV111-025-202	0.0	2.40	13.63	0	1.773	3.8
		KAFB-106111-050	04/07/20	SV111-050-202	0.0	6.42	7.46	3	1.837	3.8
		KAFB-106111-150	04/07/20	SV111-150-202	0.0	7.56	5.53	623	2.153	3.8
		KAFB-106111-250	04/07/20	SV111-250-202	-0.5	11.44	7.00	6400	2.407	3.8
		KAFB-106111-350	04/07/20	SV111-350-202	-0.7	1.94	12.45	2550	2.723	3.8
		KAFB-106111-450	04/07/20	SV111-450-202	-1.0	0.88	15.56	13	23.750	3.8
	KAFB-106112	KAFB-106112-025	04/21/20	SV112-025-202	0.0	0.30	18.75	2	1.907	2.2
		KAFB-106112-050	04/21/20	SV112-050-202	0.6	0.56	17.97	1	1.797	2.2
		KAFB-106112-150	04/21/20	SV112-150-202	0.0	0.68	18.82	2	2.127	2.2
		KAFB-106112-250	04/21/20	SV112-250-202	0.0	0.84	18.43	1	2.420	2.2
		KAFB-106112-350	04/21/20	SV112-350-202	0.0	0.90	16.55	3	2.713	2.2
		KAFB-106112-450	04/21/20	SV112-450-202	0.0	1.52	16.82	681	23.687	2.2
	KAFB-106113	KAFB-106113-020	04/15/20	SV113-020-202	-0.1	0.34	20.40	0	1.733	4.0
		KAFB-106113-050	04/15/20	SV113-050-202	0.0	0.58	20.05	0	1.800	4.0
		KAFB-106113-150	04/15/20	SV113-150-202	-1.0	0.40	19.95	0	2.133	4.0
		KAFB-106113-250	04/15/20	SV113-250-202	-1.2	0.90	19.59	0	2.467	4.0
		KAFB-106113-350	04/15/20	SV113-350-202	-1.4	0.42	18.76	103	2.733	4.0
		KAFB-106113-450	04/15/20	SV113-450-202	-1.5	1.94	14.38	1258	23.733	4.0
	KAFB-106114	KAFB-106114-025	04/08/20	SV114-025-202	0.0	0.40	19.68	2	1.773	3.8
		KAFB-106114-050	04/08/20	SV114-050-202	0.0	0.54	18.77	2	1.837	3.8
		KAFB-106114-150	04/08/20	SV114-150-202	-0.9	0.52	18.65	3	2.153	3.8
		KAFB-106114-250	04/08/20	SV114-250-202	-1.3	2.14	16.20	3	2.407	3.8
		KAFB-106114-350	04/08/20	SV114-350-202	-1.6	0.84	15.73	8	2.723	3.8
		KAFB-106114-450	04/08/20	SV114-450-202	-1.5	4.32	9.09	3920	23.750	3.8

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	KAFB-106115	KAFB-106115-025	04/15/20	SV115-025-202	0.0	0.46	20.82	0	1.733	4.0
		KAFB-106115-050	04/15/20	SV115-050-202	-0.1	0.60	20.72	0	1.800	4.0
		KAFB-106115-150	04/15/20	SV115-150-202	-1.3	0.42	20.07	0	2.133	4.0
		KAFB-106115-250	04/15/20	SV115-250-202	-1.4	0.32	20.38	0	2.467	4.0
		KAFB-106115-350	04/15/20	SV115-350-202	-1.6	0.32	20.52	0	2.733	4.0
		KAFB-106115-450	04/15/20	SV115-450-202	-1.6	1.42	18.90	482	23.733	4.0
	KAFB-106116	KAFB-106116-025	04/07/20	SV116-025-202	0.1	0.26	18.97	0	1.667	4.0
		KAFB-106116-050	04/07/20	SV116-050-202	0.1	0.62	17.15	0	1.733	4.0
		KAFB-106116-150	04/07/20	SV116-150-202	-0.1	0.60	18.72	0	2.133	4.0
		KAFB-106116-250	04/07/20	SV116-250-202	-0.2	0.90	18.17	1	2.333	4.0
		KAFB-106116-350	04/07/20	SV116-350-202	-0.5	1.32	15.57	103	2.667	4.0
		KAFB-106116-450	04/07/20	SV116-450-202	-0.6	6.24	7.12	5230	23.533	4.0
	KAFB-106117	KAFB-106117-025	04/07/20	SV117-025-202	0.0	2.24	13.90	2	1.773	3.8
		KAFB-106117-050	04/07/20	SV117-050-202	0.0	4.06	10.51	2	1.837	3.8
		KAFB-106117-150	04/07/20	SV117-150-202	-0.5	5.28	8.16	1	2.153	3.8
		KAFB-106117-250	04/07/20	SV117-250-202	-0.8	9.16	4.42	184	2.407	3.8
		KAFB-106117-350	04/07/20	SV117-350-202	-1.1	14.82	0.53	481	2.723	3.8
		KAFB-106117-450	04/07/20	SV117-450-202	-1.5	13.26	0.43	7070	23.750	3.8
	KAFB-106118	KAFB-106118-025	04/21/20	SV118-025-202	0.0	0.48	19.84	2	2.100	2.1
		KAFB-106118-050	04/21/20	SV118-050-202	0.0	0.80	19.21	1	1.820	2.1
		KAFB-106118-160	04/21/20	SV118-160-202	0.0	0.88	18.95	1	2.135	2.1
		KAFB-106118-265	04/21/20	SV118-265-202	-0.5	0.94	18.69	1	2.457	2.2
		KAFB-106118-350	04/21/20	SV118-350-202	0.0	0.76	17.66	1	2.713	2.2
		KAFB-106118-450	04/21/20	SV118-450-202	0.0	1.42	15.86	29	23.760	2.2
	KAFB-106119	KAFB-106119-025	04/22/20	SV119-025-202	-0.1	1.56	15.67	0	1.733	4.0
		KAFB-106119-050	04/22/20	SV119-050-202	-0.1	7.84	3.34	0	1.800	4.0
		KAFB-106119-150	04/22/20	SV119-150-202	-0.4	13.40	1.43	1937	2.133	4.0
		KAFB-106119-250	04/22/20	SV119-250-202	-0.4	8.32	11.27	7460	2.467	4.0
		KAFB-106119-350	04/22/20	SV119-350-202	-0.5	5.50	11.00	2810	2.733	4.0
		KAFB-106119-450	04/22/20	SV119-450-202	-0.6	6.72	4.61	258	23.733	4.0
	KAFB-106120	KAFB-106120-025	04/14/20	SV120-025-202	-0.1	0.68	20.30	0	1.733	4.0
		KAFB-106120-050	04/14/20	SV120-050-202	-0.3	2.12	19.17	0	1.800	4.0
		KAFB-106120-150	04/14/20	SV120-150-202	-2.3	0.42	20.20	0	2.133	4.0
		KAFB-106120-250	04/14/20	SV120-250-202	-2.4	0.36	20.23	1	2.467	4.0
		KAFB-106120-350	04/14/20	SV120-350-202	-2.5	0.30	19.94	2	2.733	4.0
		KAFB-106120-450	04/14/20	SV120-450-202	-2.5	0.60	19.06	16	23.467	4.0

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	KAFB-106121	KAFB-106121-025	04/14/20	SV121-025-202	-0.1	1.00	20.23	0	1.733	4.0
		KAFB-106121-050	04/14/20	SV121-050-202	-0.5	1.10	20.20	0	1.800	4.0
		KAFB-106121-145	04/14/20	SV121-145-202	-2.3	0.30	20.33	0	2.133	4.0
		KAFB-106121-250	04/14/20	SV121-250-202	-2.5	0.26	20.37	0	2.467	4.0
		KAFB-106121-350	04/14/20	SV121-350-202	-2.7	0.32	20.57	0	2.733	4.0
		KAFB-106121-450	04/14/20	SV121-450-202	-2.6	0.44	20.24	2	23.467	4.0
	KAFB-106122	KAFB-106122-025	04/14/20	SV122-025-202	0.0	0.30	20.91	1	1.733	4.0
		KAFB-106122-050	04/14/20	SV122-050-202	-0.1	1.38	20.08	0	1.800	4.0
		KAFB-106122-150	04/14/20	SV122-150-202	-2.3	0.32	20.25	0	2.133	4.0
		KAFB-106122-250	04/14/20	SV122-250-202	-2.4	0.42	20.24	0	2.467	4.0
		KAFB-106122-350	04/14/20	SV122-350-202	-2.5	0.34	20.40	0	2.733	4.0
		KAFB-106122-450	04/14/20	SV122-450-202	-2.5	0.48	20.13	15	23.467	4.0
	KAFB-106123	KAFB-106123-025	04/14/20	SV123-025-202	0.0	0.76	20.56	0	1.867	4.0
		KAFB-106123-050	04/14/20	SV123-050-202	0.0	1.60	19.54	0	1.800	4.0
		KAFB-106123-150	04/14/20	SV123-150-202	-1.6	0.24	20.22	0	2.133	4.0
		KAFB-106123-250	04/14/20	SV123-250-202	-1.8	0.36	19.61	0	2.467	4.0
		KAFB-106123-350	04/14/20	SV123-350-202	-1.9	0.38	19.97	0	2.733	4.0
		KAFB-106123-450	04/14/20	SV123-450-202	-1.9	0.50	19.07	0	23.333	4.0
	KAFB-106124	KAFB-106124-025	04/07/20	SV124-025-202	0.0	0.22	20.42	0	1.710	3.8
		KAFB-106124-050	04/07/20	SV124-050-202	0.0	1.12	19.63	0	1.773	3.8
		KAFB-106124-150	04/07/20	SV124-150-202	-1.1	0.40	19.68	0	2.090	3.8
		KAFB-106124-250	04/07/20	SV124-250-202	-1.1	0.22	20.04	0	2.407	3.8
		KAFB-106124-350	04/07/20	SV124-350-202	-1.1	0.28	20.42	6	2.723	3.8
		KAFB-106124-450	04/07/20	SV124-450-202	-1.0	0.50	20.03	203	23.750	3.8
	KAFB-106125	KAFB-106125-025	04/07/20	SV125-025-202	0.0	1.12	19.96	2	1.710	3.8
		KAFB-106125-050	04/07/20	SV125-050-202	0.0	2.38	19.34	2	1.773	3.8
		KAFB-106125-150	04/07/20	SV125-150-202	-1.4	0.38	20.22	2	2.090	3.8
		KAFB-106125-250	04/07/20	SV125-250-202	-1.4	0.20	20.30	2	2.407	3.8
		KAFB-106125-350	04/07/20	SV125-350-202	-1.3	0.24	20.71	5	2.723	3.8
		KAFB-106125-450	04/07/20	SV125-450-202	-1.5	0.64	20.18	77	26.473	3.8
	KAFB-106126	KAFB-106126-025	04/21/20	SV126-025-202	0.0	0.88	19.99	0	1.733	4.0
		KAFB-106126-050	04/21/20	SV126-050-202	0.0	1.28	19.60	0	1.800	4.0
		KAFB-106126-150	04/21/20	SV126-150-202	-0.4	0.24	19.82	0	2.133	4.0
		KAFB-106126-250	04/21/20	SV126-250-202	-0.4	0.20	19.96	0	2.400	4.0
		KAFB-106126-350	04/21/20	SV126-350-202	-0.2	0.24	20.49	6	2.733	4.0
		KAFB-106126-450	04/21/20	SV126-450-202	-0.3	0.54	20.15	423	25.267	4.0

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	KAFB-106127	KAFB-106127-025	04/07/20	SV127-025-202	0.0	0.46	20.54	4	1.710	3.8
		KAFB-106127-050	04/07/20	SV127-050-202	0.0	0.78	20.14	4	1.837	3.8
		KAFB-106127-150	04/07/20	SV127-150-202	-1.7	0.24	20.37	4	2.153	3.8
		KAFB-106127-250	04/07/20	SV127-250-202	-1.5	0.20	20.35	2	2.407	3.8
		KAFB-106127-350	04/07/20	SV127-350-202	-1.8	0.22	20.30	4	2.723	3.8
		KAFB-106127-450	04/07/20	SV127-450-202	-1.6	0.48	19.85	105	23.750	3.8
	KAFB-106128	KAFB-106128-025	04/08/20	SV128-025-202	-0.5	2.58	10.68	2	1.773	3.8
		KAFB-106128-050	04/08/20	SV128-050-202	0.0	4.48	9.13	2	1.837	3.8
		KAFB-106128-150	04/08/20	SV128-150-202	-1.1	3.48	10.85	2	2.153	3.8
		KAFB-106128-250	04/08/20	SV128-250-202	-1.2	12.08	0.42	291	2.407	3.8
		KAFB-106128-350	04/08/20	SV128-350-202	-1.5	8.66	4.12	6710	2.723	3.8
		KAFB-106128-450	04/08/20	SV128-450-202	-2.1	10.66	1.14	11830	23.750	3.8
	KAFB-106129	KAFB-106129-025	04/21/20	SV129-025-202	0.0	0.16	20.35	0	1.733	4.0
		KAFB-106129-050	04/21/20	SV129-050-202	-0.1	0.18	20.37	1	1.800	4.0
		KAFB-106129-150	04/21/20	SV129-150-202	-0.4	0.24	20.10	1	2.533	4.0
		KAFB-106129-250	04/21/20	SV129-250-202	-0.4	0.46	19.87	1	2.467	4.0
		KAFB-106129-350	04/21/20	SV129-350-202	-0.5	0.62	19.31	0	2.733	4.0
		KAFB-106129-450	04/21/20	SV129-450-202	-0.5	1.14	17.96	138	23.800	4.0
	KAFB-106130	KAFB-106130-025	04/22/20	SV130-025-202	0.0	0.12	20.59	0	1.733	4.0
		KAFB-106130-050	04/22/20	SV130-050-202	0.0	0.16	20.49	0	1.800	4.0
		KAFB-106130-150	04/22/20	SV130-150-202	-0.3	0.48	19.99	0	2.133	4.0
		KAFB-106130-250	04/22/20	SV130-250-202	-0.3	0.72	19.92	0	2.467	4.0
		KAFB-106130-350	04/22/20	SV130-350-202	-0.3	0.78	19.23	0	2.733	4.0
		KAFB-106130-450	04/22/20	SV130-450-202	-0.4	1.66	17.40	40	23.733	4.0
	KAFB-106131	KAFB-106131-025	04/15/20	SV131-025-202	0.0	0.32	20.12	1	1.733	4.0
		KAFB-106131-055	04/15/20	SV131-055-202	0.0	0.28	19.55	0	1.867	4.0
		KAFB-106131-150	04/15/20	SV131-150-202	-1.0	0.36	19.65	0	2.133	4.0
		KAFB-106131-245	04/15/20	SV131-245-202	-1.1	0.44	19.47	0	2.400	4.0
		KAFB-106131-350	04/15/20	SV131-350-202	-1.4	0.30	17.13	0	2.733	4.0
		KAFB-106131-450	04/15/20	SV131-450-202	-1.2	0.62	15.40	223	23.333	4.0
	KAFB-106132	KAFB-106132-025	04/14/20	SV132-025-202	-0.5	2.02	18.92	0	1.773	3.8
		KAFB-106132-050	04/14/20	SV132-050-202	-0.7	1.98	18.95	0	1.837	3.8
		KAFB-106132-175	04/14/20	SV132-175-202	-2.2	0.54	19.59	1	2.217	3.8
		KAFB-106132-250	04/14/20	SV132-250-202	-2.2	0.36	20.07	0	2.407	3.8
		KAFB-106132-350	04/14/20	SV132-350-202	-2.1	0.60	20.20	0	2.723	3.8
		KAFB-106132-450	04/14/20	SV132-450-202	-1.9	0.90	19.82	0	23.750	3.8

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	KAFB-106133	KAFB-106133-025	04/08/20	SV133-025-202	0.0	1.72	19.66	2	1.710	3.8
		KAFB-106133-050	04/08/20	SV133-050-202	0.0	1.62	19.60	1	1.837	3.8
		KAFB-106133-170	04/08/20	SV133-170-202	-1.2	0.50	19.69	3	2.217	3.8
		KAFB-106133-250	04/08/20	SV133-250-202	-1.1	0.62	19.45	3	2.407	3.8
		KAFB-106133-350	04/08/20	SV133-350-202	-1.3	0.74	19.50	2	2.723	3.8
		KAFB-106133-450	04/08/20	SV133-450-202	-1.7	1.30	18.36	49	23.687	3.8
	KAFB-106134	KAFB-106134-025	04/14/20	SV134-025-202	-0.6	0.16	20.51	2	1.773	3.8
		KAFB-106134-050	04/14/20	SV134-050-202	0.0	0.20	20.54	1	1.837	3.8
		KAFB-106134-170	04/14/20	SV134-170-202	-1.3	0.24	20.34	1	2.217	3.8
		KAFB-106134-250	04/14/20	SV134-250-202	-1.1	0.30	20.24	1	2.407	3.8
		KAFB-106134-350	04/14/20	SV134-350-202	-1.3	0.42	20.30	2	2.723	3.8
		KAFB-106134-450	04/14/20	SV134-450-202	-1.5	0.60	19.99	46	23.750	3.8
	KAFB-106135	KAFB-106135-025	04/14/20	SV135-025-202	0.0	0.32	21.23	3	1.773	3.8
		KAFB-106135-050	04/14/20	SV135-050-202	0.0	0.38	21.29	3	1.837	3.8
		KAFB-106135-150	04/14/20	SV135-150-202	-1.9	0.24	21.09	4	2.153	3.8
		KAFB-106135-250	04/14/20	SV135-250-202	-2.5	0.30	21.46	5	2.407	3.8
		KAFB-106135-350	04/14/20	SV135-350-202	-2.7	0.36	20.42	5	2.723	3.8
		KAFB-106135-450	04/14/20	SV135-450-202	-2.3	0.42	20.09	6	23.750	3.8
	KAFB-106137	KAFB-106137-025	04/14/20	SV137-025-202	0.0	0.20	20.49	0	1.773	3.8
		KAFB-106137-050	04/14/20	SV137-050-202	0.0	0.28	20.32	0	1.837	3.8
		KAFB-106137-150	04/14/20	SV137-150-202	-1.6	0.22	19.96	0	2.153	3.8
		KAFB-106137-250	04/14/20	SV137-250-202	-2.3	0.24	19.99	0	2.407	3.8
		KAFB-106137-350	04/14/20	SV137-350-202	-2.5	0.30	20.14	1	2.723	3.8
		KAFB-106137-450	04/14/20	SV137-450-202	-2.5	1.02	19.41	339	23.750	3.8
	KAFB-106139	KAFB-106139-025	04/14/20	SV139-025-202	0.0	0.46	20.30	2	1.773	3.8
		KAFB-106139-050	04/14/20	SV139-050-202	0.0	0.76	20.00	0	1.837	3.8
		KAFB-106139-150	04/14/20	SV139-150-202	-1.9	0.64	19.27	1	2.153	3.8
		KAFB-106139-250	04/14/20	SV139-250-202	-1.7	0.50	19.45	2	2.407	3.8
		KAFB-106139-350	04/14/20	SV139-350-202	-2.1	0.42	19.85	0	2.723	3.8
		KAFB-106139-450	04/14/20	SV139-450-202	-2.1	0.40	20.13	1	23.750	3.8
	KAFB-106140	KAFB-106140-025	04/14/20	SV140-025-202	0.0	0.16	20.68	0	1.733	4.0
		KAFB-106140-050	04/14/20	SV140-050-202	0.2	0.16	21.06	0	1.800	4.0
		KAFB-106140-150	04/14/20	SV140-150-202	-1.3	0.14	20.50	0	2.133	4.0
		KAFB-106140-250	04/14/20	SV140-250-202	-1.5	0.18	20.08	0	2.467	4.0
		KAFB-106140-350	04/14/20	SV140-350-202	-1.5	0.26	21.11	2	2.733	4.0
		KAFB-106140-450	04/14/20	SV140-450-202	-1.5	0.46	21.15	9	23.733	4.0

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	SVMW-01	SVMW-01-050	04/21/20	SV01-050-202	0.0	10.66	1.88	1	0.500	2.0
		SVMW-01-100	04/21/20	SV01-100-202	-0.1	13.26	0.19	13010	0.567	2.0
		SVMW-01-250	04/21/20	SV01-250-202	-0.7	5.44	7.91	7100	0.933	2.0
		SVMW-01-300	04/21/20	SV01-300-202	-0.7	0.38	18.34	179	0.700	2.0
	SVMW-02	SVMW-02-050	04/21/20	SV02-050-202	-0.1	15.56	0.98	1131	0.500	2.0
		SVMW-02-100	04/21/20	SV02-100-202	-0.2	3.42	16.27	25460	0.567	2.0
		SVMW-02-150	04/21/20	SV02-150-202	-0.7	1.00	19.70	15780	0.633	2.0
	SVMW-05	SVMW-05-050	04/21/20	SV05-050-202	0.0	4.96	10.76	1	0.500	2.0
		SVMW-05-100	04/21/20	SV05-100-202	-0.1	7.54	8.43	5	0.567	2.0
		SVMW-05-230	04/21/20	SV05-230-202	-0.6	2.88	8.78	5800	0.567	2.0
		SVMW-05-290	04/21/20	SV05-290-202	-0.6	0.48	18.74	14	0.833	2.0
	SVMW-06	SVMW-06-050	04/21/20	SV06-050-202	-0.1	1.02	17.54	0	0.500	2.0
		SVMW-06-100	04/21/20	SV06-100-202	-0.3	1.54	17.53	0	0.567	2.0
		SVMW-06-252	04/21/20	SV06-252-202	-0.8	1.80	15.65	353	0.767	2.0
		SVMW-06-302	04/21/20	SV06-302-202	-0.5	1.34	16.79	4	0.833	2.0
	SVMW-07	SVMW-07-050	04/15/20	SV07-050-202	-1.4	1.68	16.13	3660	0.567	2.0
		SVMW-07-100	04/15/20	SV07-100-202	-0.2	3.86	15.03	1004	0.567	2.0
		SVMW-07-150	04/15/20	SV07-150-202	-0.2	3.10	16.35	0	0.633	2.0
	SVEW-10/SVMW-12	SVEW-10-410	04/21/20	SVE10-410-202	-0.6	0.20	20.20	0	10.600	2.0
		SVMW-12-150	04/21/20	SV12-150-202	0.0	0.18	18.62	0	0.633	2.0
		SVMW-12-250	04/21/20	SV12-250-202	-0.6	0.24	19.54	1	0.767	2.0
		SVMW-12-350	04/21/20	SV12-350-202	-0.5	0.70	19.76	0	0.900	2.0
		SVMW-12-450	04/21/20	SV12-450-202	-0.5	0.20	19.98	0	1.033	2.0
	SVEW-11/SVMW-13	SVEW-11-410	04/21/20	SVE11-410-202	0.0	1.22	17.40	222	10.600	2.0
		SVMW-13-150	04/21/20	SV13-150-202	-1.2	6.16	9.08	975	0.933	2.0
		SVMW-13-250	04/21/20	SV13-250-202	-0.7	0.58	19.54	4	0.767	2.0
		SVMW-13-350	04/21/20	SV13-350-202	-0.6	0.70	19.14	4	0.900	2.0
		SVMW-13-450	04/21/20	SV13-450-202	-0.6	0.90	17.43	5	1.033	2.0
	SVEW-12/SVMW-14	SVEW-12-410	04/15/20	SVE12-410-202	-1.6	0.68	19.95	3	11.400	3.8
		SVMW-14-150	04/15/20	SV14-150-202	-1.4	0.24	19.02	2	0.633	2.0
		SVMW-14-250	04/15/20	SV14-250-202	-1.4	0.22	19.15	1	0.767	2.0
		SVMW-14-350	04/15/20	SV14-350-202	-1.3	0.20	19.47	1	0.900	2.0
		SVMW-14-450	04/15/20	SV14-450-202	-1.3	1.40	19.29	2	1.033	2.0

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Outside the Source Area)	SVEW-13/SVMW-15	SVEW-13-410	04/21/20	SVEW13-410-202	0.0	1.92	13.92	1170	10.600	2.0
		SVMW-15-150	04/21/20	SV15-150-202	0.0	0.50	19.14	2	0.833	2.0
		SVMW-15-250	04/21/20	SV15-250-202	0.0	0.60	18.95	3	0.767	2.0
		SVMW-15-350	04/21/20	SV15-350-202	0.0	0.92	16.37	31	0.900	2.0
		SVMW-15-450	04/21/20	SV15-450-202	0.5	3.66	10.77	3050	1.033	2.0
On Base (Inside the Source Area)	SVEW-01	SVEW-01-260[b]	--	--	--	--	--	--	--	--
	SVEW-02/03	SVEW-02-060[b]	--	--	--	--	--	--	--	--
		SVEW-03-160[b]	--	--	--	--	--	--	--	--
	SVEW-04/05	SVEW-04-313[b]	--	--	--	--	--	--	--	--
		SVEW-05-460[b]	--	--	--	--	--	--	--	--
	SVEW-06/07	SVEW-06-060	04/07/20	SVE06-060-202	-0.1	11.46	8.25	4840	3.800	4.0
		SVEW-07-160	04/07/20	SVE07-160-202	-2.0	4.22	13.90	24050	6.000	4.0
	SVEW-08/09	SVEW-08-260	04/07/20	SVE08-260-202	-1.7	2.22	17.90	46	8.133	4.0
		SVEW-09-460	04/07/20	SVE09-460-202	-1.7	2.20	16.99	40	12.267	4.0
	SVMW-03	SVMW-03-050	04/07/20	SV03-050-202	0.0	14.82	2.40	11	0.500	2.0
		SVMW-03-100	04/07/20	SV03-100-202	-0.1	7.84	8.34	8520	0.567	2.0
		SVMW-03-250	04/07/20	SV03-250-202	-0.6	0.84	18.04	13150	0.767	2.0
		SVMW-03-300	04/07/20	SV03-300-202	-0.9	4.56	14.51	11070	0.867	2.0
	SVMW-04	SVMW-04-050	04/07/20	SV04-050-202	0.0	10.28	9.41	5120	0.500	2.0
		SVMW-04-100	04/07/20	SV04-100-202	0.1	3.18	16.03	21580	0.567	2.0
		SVMW-04-250	04/07/20	SV04-250-202	0.0	2.34	17.75	16110	0.767	2.0
		SVMW-04-300	04/07/20	SV04-300-202	-1.1	1.4	19.5	1533	0.833	2.0
	SVMW-08	SVMW-08-050	04/07/20	SV08-050-202	-1.3	0.90	19.25	6430	0.500	2.0
		SVMW-08-100	04/07/20	SV08-100-202	0.0	15.50	3.44	291	0.600	2.0
		SVMW-08-250	04/07/20	SV08-250-202	0.1	3.64	16.33	12450	0.767	2.0
		SVMW-08-266[c]	--	--	--	--	--	--	--	--
	SVMW-09	SVMW-09-050	04/07/20	SV09-050-202	0.1	13.82	4.14	2130	0.500	2.0
		SVMW-09-100	04/07/20	SV09-100-202	-0.1	2.64	18.34	14190	0.567	2.0
		SVMW-09-250	04/07/20	SV09-250-202	-1.3	0.02	20.51	6300	0.767	2.0
		SVMW-09-266	04/07/20	SV09-266-202	-1.5	1.20	18.53	17970	0.800	2.0
	SVMW-10	SVMW-10-050[b]	--	--	--	--	--	--	--	--
		SVMW-10-100[b]	--	--	--	--	--	--	--	--
		SVMW-10-150[b]	--	--	--	--	--	--	--	--
		SVMW-10-250[b]	--	--	--	--	--	--	--	--

Table 2-2
Field Measurements for Soil Vapor Monitoring, Q2 2020

AOI	Sample Location	Location ID	Date	Sample ID	Static Pressure (in. WC)	CO_2 (%)	O_2 (%)	HC (ppmv)	Volume Purged (ft^3)	Purge Rate (cfm)
On Base (Inside the Source Area)	SVMW-11	SVMW-11-050[b]	--	--	--	--	--	--	--	--
		SVMW-11-100[b]	--	--	--	--	--	--	--	--
		SVMW-11-250[b]	--	--	--	--	--	--	--	--
		SVMW-11-260[b]	--	--	--	--	--	--	--	--

[a] Purge rate was not recorded; volume purged is estimated.

[b] This SVMP was being utilized to perform the Bioventing Pilot Test during Q2 2020 sampling activities and was therefore not sampled as part of the Q2 2020 Soil Vapor Monitoring Event.

[c] Measurements at SVMW-08-266 could not be obtained because SVMW-08-266 is clogged.

-- = Parameter or analyte not required for analysis in Q4

AFB = Air Force base

AOI = area of interest

cfm = cubic foot per minute

CO_2 = carbon dioxide

ft^3 = cubic foot

HC = hydrocarbon

ID = identification

in. = inch

O_2 = diatomic oxygen

ppmv = part per million by volume

SVEW = soil vapor extraction well

SVMW = soil vapor monitoring well

SWMU = solid waste management unit

WC = water column

Table 2-3
Analytical Data in Off-Base Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106028-150			KAFB-106028-250			KAFB-106028-350			KAFB-106028-450			KAFB-106136-025			KAFB-106136-050		
	Field Sample ID:		SV028-150-202			SV028-250-202			SV028-350-202			SV028-450-202			SV136-025-202			SV136-050-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.45	J	0.81	ND	U	0.79	0.39	J	0.81	ND	U	12	0.54	J	0.77	0.54	J	0.89
	1,1-dichloroethane	µg/m³	ND	U	1.6	ND	U	1.5	4.5	--	1.6	ND	U	23	ND	U	1.5	ND	U	1.7
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	22	ND	U	1.4	ND	U	1.7
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	1,2-dibromoethane	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	1,2-dichloroethane	µg/m³	ND	U	0.81	ND	U	0.79	0.82	J	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.81	ND	U	0.79	0.45	J	0.81	89	--	12	ND	U	0.77	ND	U	0.89
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	22	ND	U	1.4	ND	U	1.7
	1,4-dioxane	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	0.47	J	0.89
	2-butanone	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	52	J	22	1.1	J	1.4	ND	U	1.7
	2-hexanone	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	4-methyl-2-pentanone	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	Acetone	µg/m³	6.0	J	13	5.6	J	12	ND	U	13	ND	U	190	12	J	12	ND	U	14
	Benzene	µg/m³	ND	U	0.81	0.50	J	0.79	1.4	J	0.81	35	J	12	0.35	J	0.77	ND	U	0.89
	Bromodichloromethane	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	1.4	J	0.77	2.1	J	0.89
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	22	ND	U	1.4	ND	U	1.7
	Carbon disulfide	µg/m³	3.3	J	2.6	0.93	J	2.5	1.6	J	2.6	ND	U	38	ND	U	2.4	1.4	J	2.8
	Carbon tetrachloride	µg/m³	ND	U	0.81	ND	U	0.79	0.97	J	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	Chloroethane	µg/m³	ND	U	1.5	ND	U	1.5	8.0	--	1.5	ND	U	22	ND	U	1.4	ND	U	1.7
	Chloroform	µg/m³	ND	U	0.81	0.37	J	0.79	0.64	J	0.81	ND	U	12	7.9	--	0.77	9.2	--	0.89
	Chloromethane	µg/m³	ND	U	1.5	ND	U	1.5	2.3	J	1.5	8.4	J	22	ND	UJ	1.4	ND	UJ	1.7
	Cyclohexane	µg/m³	ND	U	1.6	ND	U	1.6	4.1	J	1.6	7600	--	24	ND	U	1.5	ND	U	1.8
	Dibromochloromethane	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	Dichlorodifluoromethane	µg/m³	5.7	--	1.5	9.0	--	1.5	5.0	--	1.5	ND	U	22	2.8	--	1.4	3.0	--	1.7
	Ethanol	µg/m³	11	J	4	11	J	3.8	15	J	4	ND	U	58	ND	U	3.8	ND	U	4.4
	Ethyl acetate	µg/m³	ND	U	3.1	ND	U	3	55	--	3.1	ND	U	46	ND	U	2.9	ND	U	3.4
	Ethylbenzene	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	Hexane	µg/m³	ND	U	1.5	ND	U	1.5	4.1	--	1.5	860	--	22	ND	U	1.4	ND	U	1.7
	Isopropyl alcohol (manufacturing-strong acid)	µg/m³	ND	U	3	ND	U	2.9	ND	U	3	200	--	44	ND	UJ	2.9	ND	UJ	3.3
	m,p-Xylene	µg/m³	ND	U	1.6	ND	U	1.6	ND	U	1.6	16	J	24	ND	U	1.5	ND	U	1.8
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	22	ND	U	1.4	ND	U	1.7
	Naphthalene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	22	ND	U	1.4	ND	U	1.6
	n-Heptane	µg/m³	ND	U	1.5	ND	U	1.5	0.69	J	1.5	60	--	22	ND	U	1.4	0.46	J	1.7
	o-Xylene	µg/m³	ND	U	0.81	ND	U	0.79	0.59	J	0.81	73	--	12	ND	U	0.77	ND	U	0.89
	Propylene (propene)	µg/m³	ND	U	1.5	ND	U	1.5	2.4	J	1.5	270	--	22	0.77	J	1.4	ND	U	1.7
	Styrene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	22	ND	U	1.4	ND	U	1.7
	Tetrachloroethene	µg/m³	0.80	J	0.81	0.39	J	0.79	0.99	J	0.81	ND	U	12	ND	U	0.77	0.41	J	0.89
	Tetrahydrofuran	µg/m³	42	--	0.81	120	--	0.79	3.7	--	0.81	ND	U	12	0.82	J	0.77	ND	U	0.89
	Toluene	µg/m³	0.69	J	0.81	0.62	J	0.79	2.8	--	0.81	ND	U	12	0.75	J	0.77	0.46	J	0.89
	Trichloroethene	µg/m³	ND	U	0.81	ND	U	0.79	ND	U	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	Trichlorofluoromethane	µg/m³	1.9	J	1.5	3.1	--	1.5	4.0	--	1.5	ND	U	22	1.4	J	1.4	1.6	J	1.7
	Vinyl chloride	µg/m³	ND	U	0.81	ND	U	0.79	3.1	--	0.81	ND	U	12	ND	U	0.77	ND	U	0.89
	Xylenes, Total	µg/m³	ND	U	1.6	ND	U	1.6	ND	U	1.6	89	--	24	ND	U	1.5	ND	U	1.8

Table 2-3
Analytical Data in Off-Base Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106136-150			KAFB-106136-250			KAFB-106136-350			KAFB-106136-450			KAFB-106138-025			KAFB-106138-050		
	Field Sample ID:		SV136-150-202			SV136-250-202			SV136-350-202			SV136-450-202			SV138-025-202			SV138-050-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	1.0	J	0.78	1.2	J	0.82	0.47	J	0.9	0.44	J	0.8	0.46	J	0.85	0.54	J	0.74
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.6	ND	U	1.7	1.0	J	1.6	ND	U	1.7	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.6	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	ND	U	0.8	ND	U	0.85	ND	U	0.74
	1,2-dibromoethane	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	ND	U	0.8	ND	U	0.85	ND	U	0.74
	1,2-dichloroethane	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	1.2	J	0.8	ND	U	0.85	ND	U	0.74
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	ND	U	0.8	ND	U	0.85	ND	U	0.74
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	0.64	J	1.5	ND	U	1.6	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	0.78	0.37	J	0.82	0.43	J	0.9	1.3	J	0.8	0.47	J	0.85	ND	U	0.74
	2-butanone	µg/m³	2.7	J	1.5	1.1	J	1.5	1.6	J	1.7	8.9	--	1.5	2.3	J	1.6	8.2	--	1.4
	2-hexanone	µg/m³	0.42	J	0.78	ND	U	0.82	ND	U	0.9	0.38	J	0.8	0.43	J	0.85	0.78	J	0.74
	4-methyl-2-pentanone	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	0.96	J	0.8	0.39	J	0.85	ND	U	0.74
	Acetone	µg/m³	15	J	12	7.1	J	13	27	J	14	36	--	13	48	--	14	40	--	12
	Benzene	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	1.3	J	0.8	ND	U	0.85	1.5	J	0.74
	Bromodichloromethane	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	ND	U	0.8	ND	U	0.85	ND	U	0.74
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.6	ND	U	1.4
	Carbon disulfide	µg/m³	3.8	J	2.5	13	--	2.6	7.8	--	2.9	170	--	2.5	ND	U	2.7	2.0	J	2.3
	Carbon tetrachloride	µg/m³	2.2	J	0.78	3.3	--	0.82	1.8	J	0.9	0.57	J	0.8	ND	U	0.85	ND	U	0.74
	Chloroethane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	4.9	--	1.5	ND	U	1.6	ND	U	1.4
	Chloroform	µg/m³	0.95	J	0.78	ND	U	0.82	ND	U	0.9	0.33	J	0.8	ND	U	0.85	0.37	J	0.74
	Chloromethane	µg/m³	ND	UJ	1.5	ND	UJ	1.5	ND	UJ	1.7	18	J	1.5	ND	U	1.6	0.65	J	1.4
	Cyclohexane	µg/m³	ND	U	1.6	ND	U	1.6	ND	U	1.8	ND	U	1.6	ND	U	1.7	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	ND	U	0.8	ND	U	0.85	ND	U	0.74
	Dichlorodifluoromethane	µg/m³	3.5	--	1.5	2.9	--	1.5	1.5	J	1.7	2.3	J	1.5	2.5	J	1.6	3.0	--	1.4
	Ethanol	µg/m³	11	J	3.8	ND	U	4	ND	U	4.4	33	--	3.9	6.2	J	4.2	6.6	J	3.6
	Ethyl acetate	µg/m³	10	--	3	ND	U	3.1	ND	U	3.4	110	--	3.1	ND	U	3.3	ND	U	2.8
	Ethylbenzene	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	0.53	J	0.8	ND	U	0.85	ND	U	0.74
	Hexane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	1.1	J	1.5	ND	U	1.6	ND	U	1.4
	Isopropyl alcohol (manufacturing-strong acid)	µg/m³	1.8	J	2.9	ND	UJ	3	ND	UJ	3.3	11	J	3	ND	U	3.2	1.3	J	2.7
	m,p-Xylene	µg/m³	ND	U	1.6	ND	U	1.6	ND	U	1.8	1.5	J	1.6	ND	U	1.7	1.2	J	1.5
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	0.99	J	1.5	ND	U	1.6	ND	U	1.4
	Naphthalene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.6	ND	U	1.5	ND	U	1.6	ND	U	1.3
	n-Heptane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	1.7	J	1.5	ND	U	1.6	ND	U	1.4
	o-Xylene	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	0.58	J	0.8	ND	U	0.85	0.45	J	0.74
	Propylene (propene)	µg/m³	1.1	J	1.5	ND	U	1.5	ND	U	1.7	7.0	--	1.5	ND	U	1.6	1.6	J	1.4
	Styrene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.6	ND	U	1.4
	Tetrachloroethene	µg/m³	1.6	J	0.78	1.1	J	0.82	0.38	J	0.9	0.39	J	0.8	ND	U	0.85	0.79	J	0.74
	Tetrahydrofuran	µg/m³	2.7	--	0.78	13	--	0.82	21	--	0.9	39	--	0.8	0.40	J	0.85	0.77	J	0.74
	Toluene	µg/m³	1.1	J	0.78	ND	U	0.82	ND	U	0.9	7.6	--	0.8	0.49	J	0.85	3.7	--	0.74
	Trichloroethene	µg/m³	ND	U	0.78	0.42	J	0.82	ND	U	0.9	ND	U	0.8	ND	U	0.85	ND	U	0.74
	Trichlorofluoromethane	µg/m³	2.9	--	1.5	3.0	--	1.5	1.3	J	1.7	1.2	J	1.5	9.3	--	1.6	15	--	1.4
	Vinyl chloride	µg/m³	ND	U	0.78	ND	U	0.82	ND	U	0.9	9.8	--	0.8	ND	U	0.85	ND	U	0.74
	Xylenes, Total	µg/m³	ND	U	1.6	ND	U	1.6	ND	U	1.8	2.1	J	1.6	ND	U	1.7	1.6	J	1.5

Table 2-3
Analytical Data in Off-Base Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106138-150			KAFB-106138-150			KAFB-106138-250			KAFB-106138-350			KAFB-106138-450			KAFB-106141-025		
	Field Sample ID:		SV138-150-202			SV138-150-602			SV138-250-202			SV138-350-202			SV138-450-202			SV141-025-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	6.9	--	0.74	6.8	--	0.96	8.2	--	0.75	4.4	--	0.71	0.55	J	0.76	0.59	J	0.71
	1,1-dichloroethane	µg/m³	ND	U	1.4	ND	U	1.9	0.36	J	1.5	0.49	J	1.4	2.3	J	1.5	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	ND	U	0.76	ND	U	0.71
	1,2-dibromoethane	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	ND	U	0.76	ND	U	0.71
	1,2-dichloroethane	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	1.1	J	0.76	ND	U	0.71
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	ND	U	0.76	ND	U	0.71
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3
	1,4-dioxane	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	2.6	--	0.71	ND	U	0.76	7.6	--	0.71
	2-butanone	µg/m³	ND	U	1.4	ND	U	1.8	3.1	J	1.4	5.6	--	1.3	3.2	J	1.4	4.1	J	1.3
	2-hexanone	µg/m³	ND	U	0.74	ND	U	0.96	0.58	J	0.75	1.6	J	0.71	0.44	J	0.76	0.67	J	0.71
	4-methyl-2-pentanone	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	0.32	J	0.71	0.49	J	0.76	ND	U	0.71
	Acetone	µg/m³	ND	U	12	8.4	J	15	17	J	12	24	--	11	20	J	12	22	--	11
	Benzene	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	0.41	J	0.71	0.60	J	0.76	ND	U	0.71
	Bromodichloromethane	µg/m³	7.6	--	0.74	7.4	--	0.96	21	--	0.75	21	--	0.71	4.2	--	0.76	0.32	J	0.71
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	ND	U	1.4	0.53	J	1.3
	Carbon disulfide	µg/m³	5.4	--	2.3	8.0	--	3.1	3.6	J	2.4	9.6	--	2.2	120	--	2.4	2.1	J	2.2
	Carbon tetrachloride	µg/m³	2.9	--	0.74	2.8	J	0.96	4.1	--	0.75	2.8	--	0.71	ND	U	0.76	0.46	J	0.71
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	3.4	--	1.4	ND	U	1.3
	Chloroform	µg/m³	36	--	0.74	36	--	0.96	95	--	0.75	100	--	0.71	6.9	--	0.76	3.8	--	0.71
	Chloromethane	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	0.48	J	1.3	6.4	--	1.4	0.47	J	1.3
	Cyclohexane	µg/m³	ND	U	1.5	ND	U	1.9	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	1.4
	Dibromochloromethane	µg/m³	0.71	J	0.74	0.67	J	0.96	3.1	--	0.75	2.2	J	0.71	1.2	J	0.76	ND	U	0.71
	Dichlorodifluoromethane	µg/m³	7.1	--	1.4	7.1	--	1.8	6.6	--	1.4	3.4	--	1.3	2.7	--	1.4	13	--	1.3
	Ethanol	µg/m³	2.7	J	3.6	5.0	J	4.7	8.3	J	3.7	22	--	3.4	23	J	3.7	7.7	J	3.4
	Ethyl acetate	µg/m³	ND	U	2.8	19	--	3.7	ND	U	2.9	39	--	2.7	33	--	2.9	ND	U	2.7
	Ethylbenzene	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	0.38	J	0.76	ND	U	0.71
	Hexane	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3
	Isopropyl alcohol (manufacturing-strong acid)	µg/m³	ND	U	2.7	ND	U	3.6	1.2	J	2.8	1.5	J	2.6	6.5	J	2.8	ND	U	2.6
	m,p-Xylene	µg/m³	ND	U	1.5	ND	U	1.9	ND	U	1.5	ND	U	1.4	0.97	J	1.5	ND	U	1.4
	Methylene Chloride	µg/m³	ND	U	1.4	ND	U	1.8	2.2	J	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3
	Naphthalene	µg/m³	ND	U	1.3	ND	U	1.8	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3
	n-Heptane	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	0.74	J	1.4	ND	U	1.3
	o-Xylene	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	0.37	J	0.76	ND	U	0.71
	Propylene (propene)	µg/m³	ND	U	1.4	ND	U	1.8	0.93	J	1.4	1.2	J	1.3	3.5	--	1.4	1.1	J	1.3
	Styrene	µg/m³	ND	U	1.4	ND	U	1.8	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3
	Tetrachloroethene	µg/m³	1.2	J	0.74	1.5	J	0.96	1.0	J	0.75	0.79	J	0.71	0.32	J	0.76	3.4	--	0.71
	Tetrahydrofuran	µg/m³	1.8	J	0.74	3.6	--	0.96	1.6	J	0.75	1.5	J	0.71	3.5	--	0.76	0.37	J	0.71
	Toluene	µg/m³	ND	U	0.74	0.87	J	0.96	ND	U	0.75	1.7	J	0.71	4.6	--	0.76	0.30	J	0.71
	Trichloroethene	µg/m³	3.8	--	0.74	3.7	--	0.96	8.4	--	0.75	7.1	--	0.71	0.69	J	0.76	ND	U	0.71
	Trichlorofluoromethane	µg/m³	23	--	1.4	23	--	1.8	25	--	1.4	5.7	--	1.3	8.2	--	1.4	11	--	1.3
	Vinyl chloride	µg/m³	ND	U	0.74	ND	U	0.96	ND	U	0.75	ND	U	0.71	4.0	--	0.76	ND	U	0.71
	Xylenes, Total	µg/m³	ND	U	1.5	ND	U	1.9	ND	U	1.5	ND	U	1.4	1.3	J	1.5	ND	U	1.4

Table 2-3
Analytical Data in Off-Base Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106141-050			KAFB-106141-170			KAFB-106141-250			KAFB-106141-350			KAFB-106141-450			KAFB-106142-030		
	Field Sample ID:		SV141-050-202			SV141-170-202			SV141-250-202			SV141-350-202			SV141-450-202			SV142-030-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	Analyte	Units	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.69	J	0.81	0.89	J	0.83	0.67	J	0.74	ND	U	0.91	ND	U	0.88	0.46	J	0.77
	1,1-dichloroethane	µg/m³	ND	U	1.6	ND	U	1.6	ND	U	1.4	ND	U	1.8	5.0	--	1.7	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.6	ND	U	1.4	ND	U	1.7	ND	U	1.7	ND	U	1.5
	1,2,4-trimethylbenzene	µg/m³	0.62	J	0.81	ND	U	0.83	ND	U	0.74	0.40	J	0.91	ND	U	0.88	ND	U	0.77
	1,2-dibromoethane	µg/m³	ND	U	0.81	ND	U	0.83	ND	U	0.74	ND	U	0.91	ND	U	0.88	ND	U	0.77
	1,2-dichloroethane	µg/m³	ND	U	0.81	ND	U	0.83	ND	U	0.74	ND	U	0.91	2.4	J	0.88	ND	U	0.77
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.81	ND	U	0.83	ND	U	0.74	ND	U	0.91	ND	U	0.88	ND	U	0.77
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.6	ND	U	1.4	ND	U	1.7	0.46	J	1.7	ND	U	1.5
	1,4-dioxane	µg/m³	1.4	J	0.81	1.5	J	0.83	6.4	--	0.74	ND	U	0.91	0.33	J	0.88	0.92	J	0.77
	2-butanone	µg/m³	16	--	1.5	17	--	1.6	25	--	1.4	6.8	--	1.7	11	--	1.7	3.4	J	1.5
	2-hexanone	µg/m³	1.6	J	0.81	1.6	J	0.83	1.7	J	0.74	ND	U	0.91	ND	U	0.88	ND	U	0.77
	4-methyl-2-pentanone	µg/m³	2.2	J	0.81	4.0	--	0.83	1.1	J	0.74	0.58	J	0.91	4.8	--	0.88	0.40	J	0.77
	Acetone	µg/m³	74	--	13	77	--	13	120	--	12	39	--	15	38	--	14	26	--	12
	Benzene	µg/m³	2.3	J	0.81	1.1	J	0.83	1.9	J	0.74	1.3	J	0.91	1.1	J	0.88	1.2	J	0.77
	Bromodichloromethane	µg/m³	1.0	J	0.81	2.8	--	0.83	2.5	--	0.74	1.8	J	0.91	ND	U	0.88	ND	U	0.77
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.6	ND	U	1.4	ND	U	1.7	ND	U	1.7	ND	U	1.5
	Carbon disulfide	µg/m³	1.2	J	2.6	6.1	--	2.6	10	--	2.3	11	--	2.9	99	--	2.8	0.91	J	2.5
	Carbon tetrachloride	µg/m³	0.84	J	0.81	1.0	J	0.83	1.1	J	0.74	0.71	J	0.91	0.66	J	0.88	ND	U	0.77
	Chloroethane	µg/m³	0.78	J	1.5	ND	U	1.6	1.1	J	1.4	0.43	J	1.7	6.1	--	1.7	ND	U	1.5
	Chloroform	µg/m³	8.3	--	0.81	21	--	0.83	21	--	0.74	8.9	--	0.91	2.6	J	0.88	1.7	J	0.77
	Chloromethane	µg/m³	3.5	--	1.5	1.1	J	1.6	4.6	--	1.4	2.3	J	1.7	17	--	1.7	ND	U	1.5
	Cyclohexane	µg/m³	1.4	J	1.6	ND	U	1.7	ND	U	1.5	ND	U	1.8	ND	U	1.8	2.6	J	1.5
	Dibromochloromethane	µg/m³	ND	U	0.81	ND	U	0.83	0.53	J	0.74	ND	U	0.91	ND	U	0.88	ND	U	0.77
	Dichlorodifluoromethane	µg/m³	18	--	1.5	20	--	1.6	12	--	1.4	6.0	--	1.7	4.0	--	1.7	2.5	--	1.5
	Ethanol	µg/m³	95	--	4	36	--	4.1	33	--	3.6	7.5	J	4.5	2.4	J	4.3	47	--	3.8
	Ethyl acetate	µg/m³	370	--	3.1	200	--	3.2	370	--	2.8	1.8	J	3.5	ND	U	3.4	360	--	3
	Ethylbenzene	µg/m³	2.1	J	0.81	0.88	J	0.83	ND	U	0.74	ND	U	0.91	ND	U	0.88	0.36	J	0.77
	Hexane	µg/m³	1.3	J	1.5	ND	U	1.6	ND	U	1.4	ND	U	1.7	ND	U	1.7	ND	U	1.5
	Isopropyl alcohol (manufacturing-strong acid)	µg/m³	31	--	3	8.1	J	3.1	5.0	J	2.7	ND	U	3.4	2.3	J	3.3	20	--	2.9
	m,p-Xylene	µg/m³	7.0	--	1.6	1.1	J	1.7	0.80	J	1.5	0.99	J	1.8	ND	U	1.8	1.0	J	1.5
	Methylene Chloride	µg/m³	1.9	J	1.5	ND	U	1.6	0.74	J	1.4	ND	U	1.7	ND	U	1.7	ND	U	1.5
	Naphthalene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.3	ND	U	1.7	ND	U	1.6	ND	U	1.4
	n-Heptane	µg/m³	2.7	--	1.5	1.0	J	1.6	0.56	J	1.4	ND	U	1.7	0.77	J	1.7	1.1	J	1.5
	o-Xylene	µg/m³	2.6	--	0.81	0.42	J	0.83	ND	U	0.74	ND	U	0.91	ND	U	0.88	0.40	J	0.77
	Propylene (propene)	µg/m³	9.2	--	1.5	6.2	--	1.6	5.3	--	1.4	2.6	J	1.7	3.8	--	1.7	5.1	--	1.5
	Styrene	µg/m³	0.94	J	1.5	1.8	J	1.6	ND	U	1.4	ND	U	1.7	ND	U	1.7	ND	U	1.5
	Tetrachloroethene	µg/m³	1.3	J	0.81	2.0	J	0.83	1.8	J	0.74	0.68	J	0.91	0.45	J	0.88	0.36	J	0.77
	Tetrahydrofuran	µg/m³	0.94	J	0.81	3.5	--	0.83	26	--	0.74	31	--	0.91	160	--	0.88	0.35	J	0.77
	Toluene	µg/m³	24	--	0.81	6.9	--	0.83	10	--	0.74	2.1	J	0.91	0.60	J	0.88	13	--	0.77
	Trichloroethene	µg/m³	ND	U	0.81	1.2	J	0.83	0.63	J	0.74	ND	U	0.91	ND	U	0.88	0.71	J	0.77
	Trichlorofluoromethane	µg/m³	18	--	1.5	24	--	1.6	19	--	1.4	10	--	1.7	6.4	--	1.7	2.1	J	1.5
	Vinyl chloride	µg/m³	ND	U	0.81	ND	U	0.83	ND	U	0.74	ND	U	0.91	7.6	--	0.88	ND	U	0.77
	Xylenes, Total	µg/m³	9.7	--	1.6	1.5	J	1.7	0.80	J	1.5	0.99	J	1.8	ND	U	1.8	1.4	J	1.5

Table 2-3
Analytical Data in Off-Base Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106142-050			KAFB-106142-170			KAFB-106142-170			KAFB-106142-250			KAFB-106142-350			KAFB-106142-450		
	Field Sample ID:		SV142-050-202			SV142-170-202			SV142-170-602			SV142-250-202			SV142-350-202			SV142-450-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			FD			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.47	J	0.75	0.66	J	0.77	0.65	J	0.77	0.65	J	0.82	ND	U	0.85	ND	U	2.1
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	1.6	ND	U	4.1
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	ND	U	4
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	2.4	J	2.1
	1,2-dibromoethane	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	2.4	J	2.1
	1,2-dichloroethane	µg/m³	ND	U	0.75	ND	U	0.77	0.49	J	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	14	--	2.1
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	ND	U	4
	1,4-dioxane	µg/m³	0.42	J	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	2-butanone	µg/m³	0.97	J	1.4	10	--	1.4	2.9	J	1.4	0.69	J	1.6	0.68	J	1.6	18	--	4
	2-hexanone	µg/m³	ND	U	0.75	3.1	--	0.77	0.57	J	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	4-methyl-2-pentanone	µg/m³	ND	U	0.75	0.60	J	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	Acetone	µg/m³	6.8	J	12	27	--	12	15	J	12	7.7	J	13	32	--	13	34	J	34
	Benzene	µg/m³	3.3	--	0.75	ND	U	0.77	0.72	J	0.77	0.41	J	0.82	ND	U	0.85	38	--	2.1
	Bromodichloromethane	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	ND	U	4
	Carbon disulfide	µg/m³	1.1	J	2.4	2.0	J	2.4	3.9	J	2.4	6.7	--	2.6	9.6	--	2.7	26	--	6.8
	Carbon tetrachloride	µg/m³	ND	U	0.75	1.3	J	0.77	1.3	J	0.77	1.9	J	0.82	0.94	J	0.85	ND	U	2.1
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	ND	U	4
	Chloroform	µg/m³	1.5	J	0.75	0.74	J	0.77	0.61	J	0.77	1.8	J	0.82	5.2	--	0.85	2.7	J	2.1
	Chloromethane	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	2.1	J	4
	Cyclohexane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	1.7	800	--	4.3
	Dibromochloromethane	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	Dichlorodifluoromethane	µg/m³	2.8	--	1.4	29	--	1.4	29	--	1.4	27	--	1.6	5.8	--	1.6	3.7	J	4
	Ethanol	µg/m³	ND	U	3.7	11	J	3.7	5.5	J	3.7	3.6	J	4	8.1	J	4.1	13	J	10
	Ethyl acetate	µg/m³	ND	U	2.9	ND	U	2.9	ND	U	2.9	ND	U	3.2	7.4	--	3.2	ND	U	8.1
	Ethylbenzene	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	6.3	J	2.1
	Hexane	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	0.65	J	1.6	ND	U	1.6	1100	--	12
	Isopropyl alcohol (manufacturing-strong acid)	µg/m³	ND	U	2.8	1.7	J	2.8	ND	U	2.8	ND	U	3.1	3.0	J	3.1	5.4	J	7.9
	m,p-Xylene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	1.7	9.3	J	4.3
	Methylene Chloride	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	ND	U	4
	Naphthalene	µg/m³	0.94	J	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	3.9
	n-Heptane	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	0.59	J	1.6	ND	U	1.6	440	--	4
	o-Xylene	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	58	--	2.1
	Propylene (propene)	µg/m³	ND	U	1.4	1.7	J	1.4	1.1	J	1.4	ND	U	1.6	1.2	J	1.6	9.5	--	4
	Styrene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.6	ND	U	1.6	ND	U	4
	Tetrachloroethene	µg/m³	ND	U	0.75	0.61	J	0.77	0.84	J	0.77	2.4	J	0.82	0.37	J	0.85	4.2	J	2.1
	Tetrahydrofuran	µg/m³	ND	U	0.75	0.66	J	0.77	0.83	J	0.77	3.6	--	0.82	7.2	--	0.85	6.7	J	2.1
	Toluene	µg/m³	0.50	J	0.75	0.53	J	0.77	0.66	J	0.77	1.6	J	0.82	1.9	J	0.85	51	--	2.1
	Trichloroethene	µg/m³	0.35	J	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	1.1	J	2.1
	Trichlorofluoromethane	µg/m³	1.7	J	1.4	20	--	1.4	19	--	1.4	21	--	1.6	7.8	--	1.6	4.1	J	4
	Vinyl chloride	µg/m³	ND	U	0.75	ND	U	0.77	ND	U	0.77	ND	U	0.82	ND	U	0.85	ND	U	2.1
	Xylenes, Total	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	1.7	68	--	4.3

Table 2-3
Analytical Data in Off-Base Soil Vapor Monitoring Points, Q2 2020

$\mu g/m^3$ = microgram per cubic meter
AFB = Air Force Base
ID = identification
KAFB = Kirtland Air Force Base
LOQ = limit of quantitation
ND = not detected
REG = normal field sample
Val Qual = validation qualifier
VOC = volatile organic compound
Shading = detected concentrations above the detection limit
Val Quals based on independent data validation
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.
-- = Validation qualifier not assigned.

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106108-025			KAFB-106108-050			KAFB-106108-150			KAFB-106108-250			KAFB-106108-350			KAFB-106108-350		
	Field Sample ID:		SV108-025-202			SV108-050-202			SV108-150-202			SV108-250-202			SV108-350-202			SV108-350-602		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			FD		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	140	--	0.75	420	--	1.1	610	--	180	850	J	780	1600	--	17	1900	--	18
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	2.1	ND	U	360	ND	U	1500	2.3	J	5.4	1.9	J	5.8
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	2	ND	U	350	ND	U	1500	ND	U	5.2	ND	U	5.6
	1,2,4-trimethylbenzene	µg/m³	5.2	--	0.75	5.0	--	1.1	ND	U	180	ND	U	780	11	J	2.8	30	J	3
	1,2-dibromoethane	µg/m³	ND	U	0.75	ND	U	1.1	ND	U	180	ND	U	780	2.8	J	2.8	2.2	J	3
	1,2-dichloroethane	µg/m³	ND	U	0.75	ND	U	1.1	ND	U	180	ND	U	780	6.8	J	2.8	5.5	J	3
	1,3,5-trimethylbenzene	µg/m³	1.0	J	0.75	1.1	J	1.1	ND	U	180	ND	U	780	7.9	J	2.8	11	--	3
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	2	ND	U	350	ND	U	1500	ND	U	5.2	ND	U	5.6
	1,4-dioxane	µg/m³	85	--	0.75	ND	U	1.1	ND	U	180	ND	U	780	ND	U	2.8	ND	U	3
	2-butanone	µg/m³	4.6	J	1.4	1.9	J	2	ND	U	350	ND	U	1500	4.1	J	5.2	5.3	J	5.6
	2-hexanone	µg/m³	1.2	J	0.75	ND	U	1.1	ND	U	180	ND	U	780	ND	U	2.8	ND	U	3
	4-methyl-2-pentanone	µg/m³	ND	U	0.75	ND	U	1.1	180	J	180	ND	U	780	3.7	J	2.8	1.8	J	3
	Acetone	µg/m³	23	J	12	24	J	17	ND	U	2900	ND	U	12000	ND	U	44	30	J	47
	Benzene	µg/m³	ND	U	0.75	ND	U	1.1	660	--	180	ND	U	780	1000	--	2.8	810	--	3
	Bromodichloromethane	µg/m³	ND	U	0.75	ND	U	1.1	ND	U	180	ND	U	780	ND	U	2.8	ND	U	3
	Bromoform	µg/m³	ND	U	1.4	ND	U	2	ND	U	350	ND	U	1500	ND	U	5.2	ND	U	5.6
	Carbon disulfide	µg/m³	1.6	J	2.4	2.2	J	3.4	ND	U	580	ND	U	2500	380	--	8.8	320	--	9.5
	Carbon tetrachloride	µg/m³	10	--	0.75	36	--	1.1	ND	U	180	ND	U	780	74	--	2.8	77	--	3
	Chloroethane	µg/m³	ND	U	1.4	ND	U	2	ND	U	350	ND	U	1500	8.0	J	5.2	6.4	J	5.6
	Chloroform	µg/m³	1.1	J	0.75	3.0	J	1.1	ND	U	180	ND	U	780	7.2	J	2.8	7.5	J	3
	Chloromethane	µg/m³	1.4	J	1.4	ND	U	2	ND	U	350	ND	U	1500	77	--	5.2	63	--	5.6
	Cyclohexane	µg/m³	ND	U	1.5	ND	U	2.1	110000	--	370	400000	--	1600	370	--	5.6	340	--	6
	Dibromochloromethane	µg/m³	ND	U	0.75	ND	U	1.1	ND	U	180	ND	U	780	ND	U	2.8	ND	U	3
	Dichlorodifluoromethane	µg/m³	4.8	--	1.4	9.6	--	2	ND	U	350	ND	U	1500	7.9	J	5.2	8.1	J	5.6
	Ethanol	µg/m³	17	J	3.7	30	J	5.2	ND	U	900	ND	U	3800	9.7	J	14	10	J	15
	Ethyl acetate	µg/m³	2.5	J	2.9	3.0	J	4.1	ND	U	700	ND	U	3000	ND	U	11	ND	U	11
	Ethylbenzene	µg/m³	ND	U	0.75	ND	U	1.1	ND	U	180	ND	U	780	4.4	J	2.8	5.0	J	3
	Hexane	µg/m³	ND	U	1.4	ND	U	2	85000	--	350	300000	--	1500	180	--	5.2	160	--	5.6
	Isopropyl alcohol (manufacturing-strong	µg/m³	3.2	J	2.8	3.6	J	3.9	ND	U	680	ND	U	2900	ND	U	10	ND	U	11
	m,p-Xylene	µg/m³	1.6	J	1.5	1.9	J	2.1	ND	U	370	ND	U	1600	68	--	5.6	66	--	6
	Methylene Chloride	µg/m³	ND	U	1.4	0.97	J	2	ND	U	350	ND	U	1500	ND	U	5.2	ND	U	5.6
	Naphthalene	µg/m³	1.3	J	1.4	1.4	J	1.9	ND	U	330	ND	U	1400	ND	U	5.1	5.3	J	5.5
	n-Heptane	µg/m³	ND	U	1.4	ND	U	2	10000	--	350	54000	--	1500	41	--	5.2	47	--	5.6
	o-Xylene	µg/m³	0.56	J	0.75	0.61	J	1.1	83	J	180	430	J	780	50	--	2.8	47	--	3
	Propylene (propene)	µg/m³	1.5	J	1.4	2.0	J	2	2100	--	350	6900	--	1500	11	--	5.2	9.6	--	5.6
	Styrene	µg/m³	ND	U	1.4	ND	U	2	ND	U	350	ND	U	1500	ND	U	5.2	ND	U	5.6
	Tetrachloroethene	µg/m³	2.0	J	0.75	3.9	--	1.1	ND	U	180	340	J	780	14	--	2.8	15	--	3
	Tetrahydrofuran	µg/m³	0.97	J	0.75	ND	U	1.1	ND	U	180	ND	U	780	210	--	2.8	170	--	3
	Toluene	µg/m³	1.1	J	0.75	2.6	J	1.1	170	J	180	ND	U	780	320	--	2.8	290	--	3
	Trichloroethene	µg/m³	0.79	J	0.75	0.78	J	1.1	ND	U	180	ND	U	780	7.6	J	2.8	7.5	J	3
	Trichlorofluoromethane	µg/m³	1.9	J	1.4	3.7	--	2	ND	U	350	ND	U	1500	16	--	5.2	17	--	5.6
	Vinyl chloride	µg/m³	ND	U	0.75	ND	U	1.1	ND	U	180	ND	U	780	10	--	2.8	8.3	J	3
	Xylenes, Total	µg/m³	2.1	J	1.5	2.6	J	2.1	ND	U	370	ND	U	1600	120	--	5.6	110	--	6

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106108-450			KAFB-106109-025			KAFB-106109-050			KAFB-106109-150			KAFB-106109-250			KAFB-106109-350		
	Field Sample ID:		SV108-450-202			SV109-025-202			SV109-050-202			SV109-150-202			SV109-250-202			SV109-350-202		
	Sample Date:		4/21/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	240	--	0.77	8.8	--	0.71	25	--	0.67	110	--	0.72	180	--	0.68	210	--	0.77
	1,1-dichloroethane	µg/m³	1.2	J	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	1,2,4-trimethylbenzene	µg/m³	2.6	--	0.77	4.8	--	0.71	2.6	--	0.67	2.3	--	0.72	1.9	J	0.68	1.3	J	0.77
	1,2-dibromoethane	µg/m³	ND	U	0.77	ND	U	0.71	ND	U	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	1,2-dichloroethane	µg/m³	0.88	J	0.77	ND	U	0.71	ND	U	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	1,3,5-trimethylbenzene	µg/m³	0.64	J	0.77	0.95	J	0.71	0.60	J	0.67	0.56	J	0.72	0.39	J	0.68	ND	U	0.77
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	1,4-dioxane	µg/m³	0.37	J	0.77	ND	U	0.71	4.1	--	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	2-butanone	µg/m³	3.1	J	1.4	1.7	J	1.3	5.2	--	1.3	0.69	J	1.4	0.63	J	1.3	9.5	--	1.5
	2-hexanone	µg/m³	0.73	J	0.77	ND	U	0.71	1.1	J	0.67	ND	U	0.72	ND	U	0.68	2.3	J	0.77
	4-methyl-2-pentanone	µg/m³	3.5	--	0.77	ND	U	0.71	0.37	J	0.67	ND	U	0.72	ND	U	0.68	0.40	J	0.77
	Acetone	µg/m³	14	J	12	13	J	11	27	--	11	7.9	J	11	ND	U	11	26	--	12
	Benzene	µg/m³	13	--	0.77	0.58	J	0.71	0.42	J	0.67	1.0	J	0.72	3.1	--	0.68	12	--	0.77
	Bromodichloromethane	µg/m³	ND	U	0.77	ND	U	0.71	ND	U	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Carbon disulfide	µg/m³	25	--	2.4	ND	U	2.3	9.7	--	2.1	ND	U	2.3	ND	U	2.2	7.9	--	2.5
	Carbon tetrachloride	µg/m³	14	--	0.77	0.38	J	0.71	0.99	J	0.67	18	--	0.72	21	--	0.68	9.5	--	0.77
	Chloroethane	µg/m³	1.6	J	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Chloroform	µg/m³	1.1	J	0.77	ND	U	0.71	ND	U	0.67	0.68	J	0.72	2.4	--	0.68	1.7	J	0.77
	Chloromethane	µg/m³	7.1	--	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	0.48	J	1.5
	Cyclohexane	µg/m³	10	--	1.5	2.9	J	1.4	ND	U	1.3	ND	U	1.4	3.1	J	1.4	4.2	J	1.5
	Dibromochloromethane	µg/m³	ND	U	0.77	ND	U	0.71	ND	U	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	Dichlorodifluoromethane	µg/m³	2.1	J	1.4	2.7	--	1.3	3.1	--	1.3	56	--	1.4	23	--	1.3	11	--	1.5
	Ethanol	µg/m³	2.7	J	3.7	23	--	3.5	12	J	3.3	3.4	J	3.5	ND	U	3.3	8.8	J	3.8
	Ethyl acetate	µg/m³	ND	U	2.9	18	--	2.7	10	--	2.6	ND	U	2.8	ND	U	2.6	ND	U	3
	Ethylbenzene	µg/m³	0.99	J	0.77	0.33	J	0.71	ND	U	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	Hexane	µg/m³	7.0	--	1.4	2.3	--	1.3	0.55	J	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	2.8	0.98	J	2.6	1.6	J	2.5	ND	U	2.7	ND	U	2.5	ND	U	2.9
	m,p-Xylene	µg/m³	5.8	--	1.5	1.6	J	1.4	1.0	J	1.3	1.5	J	1.4	0.83	J	1.4	0.79	J	1.5
	Methylene Chloride	µg/m³	ND	U	1.4	1.4	J	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Naphthalene	µg/m³	ND	U	1.4	1.0	J	1.3	ND	U	1.2	ND	U	1.3	ND	U	1.2	ND	U	1.4
	n-Heptane	µg/m³	1.9	J	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	o-Xylene	µg/m³	3.1	--	0.77	0.61	J	0.71	0.39	J	0.67	0.56	J	0.72	0.34	J	0.68	ND	U	0.77
	Propylene (propene)	µg/m³	1.4	J	1.4	1.4	J	1.3	1.6	J	1.3	3.7	--	1.4	2.0	J	1.3	4.7	--	1.5
	Styrene	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Tetrachloroethene	µg/m³	10	--	0.77	0.34	J	0.71	0.70	J	0.67	18	--	0.72	14	--	0.68	5.0	--	0.77
	Tetrahydrofuran	µg/m³	8.2	--	0.77	0.94	J	0.71	0.98	J	0.67	3.7	--	0.72	22	--	0.68	21	--	0.77
	Toluene	µg/m³	71	--	0.77	3.0	--	0.71	1.2	J	0.67	1.3	J	0.72	0.99	J	0.68	1.4	J	0.77
	Trichloroethene	µg/m³	1.2	J	0.77	ND	U	0.71	ND	U	0.67	240	--	0.72	130	--	0.68	150	--	0.77
	Trichlorofluoromethane	µg/m³	1.8	J	1.4	1.4	J	1.3	2.0	J	1.3	4.1	--	1.4	3.0	--	1.3	1.4	J	1.5
	Vinyl chloride	µg/m³	1.9	J	0.77	ND	U	0.71	ND	U	0.67	ND	U	0.72	ND	U	0.68	ND	U	0.77
	Xylenes, Total	µg/m³	9.0	--	1.5	2.2	J	1.4	1.4	J	1.3	2.1	J	1.4	1.2	J	1.4	0.79	J	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106109-450			KAFB-106109-450			KAFB-106110-025			KAFB-106110-050			KAFB-106110-150			KAFB-106110-250		
	Field Sample ID:		SV109-450-202			SV109-450-602			SV110-025-202			SV110-050-202			SV110-150-202			SV110-250-202		
	Sample Date:		4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	5.2	--	0.75	5.3	--	0.74	24	--	0.68	53	--	0.74	410	--	42	8600	--	1700
	1,1-dichloroethane	µg/m³	6.0	--	1.5	6.1	--	1.4	ND	U	1.3	ND	U	1.4	ND	U	81	ND	U	3300
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	79	ND	U	3200
	1,2,4-trimethylbenzene	µg/m³	2.3	J	0.75	12	--	0.74	5.3	--	0.68	1.9	J	0.74	19	J	42	ND	U	1700
	1,2-dibromoethane	µg/m³	ND	U	0.75	ND	U	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	1,2-dichloroethane	µg/m³	2.8	--	0.75	2.8	--	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	1,3,5-trimethylbenzene	µg/m³	0.53	J	0.75	2.3	--	0.74	1.0	J	0.68	0.40	J	0.74	23	J	42	ND	U	1700
	1,3-butadiene	µg/m³	0.46	J	1.4	0.51	J	1.4	ND	U	1.3	ND	U	1.4	ND	U	79	ND	U	3200
	1,4-dioxane	µg/m³	ND	U	0.75	ND	U	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	2-butanone	µg/m³	5.1	J	1.4	2.8	J	1.4	1.3	J	1.3	2.5	J	1.4	ND	U	79	ND	U	3200
	2-hexanone	µg/m³	1.2	J	0.75	ND	U	0.74	ND	U	0.68	0.53	J	0.74	ND	U	42	ND	U	1700
	4-methyl-2-pentanone	µg/m³	0.67	J	0.75	0.58	J	0.74	ND	U	0.68	ND	U	0.74	210	--	42	ND	U	1700
	Acetone	µg/m³	23	J	12	ND	U	12	11	J	11	13	J	12	ND	U	660	ND	U	27000
	Benzene	µg/m³	7.9	--	0.75	9.2	--	0.74	ND	U	0.68	ND	U	0.74	1200	--	42	40000	--	1700
	Bromodichloromethane	µg/m³	ND	U	0.75	ND	U	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	79	ND	U	3200
	Carbon disulfide	µg/m³	120	--	2.4	120	--	2.3	1.8	J	2.1	4.0	J	2.4	ND	U	130	ND	U	5400
	Carbon tetrachloride	µg/m³	1.1	J	0.75	1.2	J	0.74	15	--	0.68	27	--	0.74	ND	U	42	ND	U	1700
	Chloroethane	µg/m³	8.1	--	1.4	7.9	--	1.4	ND	U	1.3	ND	U	1.4	ND	U	79	ND	U	3200
	Chloroform	µg/m³	0.38	J	0.75	0.40	J	0.74	0.57	J	0.68	0.70	J	0.74	ND	U	42	ND	U	1700
	Chloromethane	µg/m³	35	--	1.4	33	--	1.4	0.56	J	1.3	0.60	J	1.4	ND	U	79	ND	U	3200
	Cyclohexane	µg/m³	4.6	J	1.5	16	--	1.5	ND	U	1.4	ND	U	1.5	30000	--	84	1000000	--	3400
	Dibromochloromethane	µg/m³	ND	U	0.75	ND	U	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	Dichlorodifluoromethane	µg/m³	2.2	J	1.4	2.2	J	1.4	8.9	--	1.3	19	--	1.4	47	J	79	ND	U	3200
	Ethanol	µg/m³	13	J	3.7	20	J	3.6	8.7	J	3.3	8.4	J	3.6	ND	U	200	ND	U	8300
	Ethyl acetate	µg/m³	50	--	2.9	51	--	2.8	29	--	2.6	9.2	--	2.8	ND	U	160	ND	U	6500
	Ethylbenzene	µg/m³	0.87	J	0.75	1.5	J	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	Hexane	µg/m³	4.9	J	1.4	14	J	1.4	ND	U	1.3	ND	U	1.4	18000	--	79	1400000	--	5400
	Isopropyl alcohol (manufacturing-strong	µg/m³	2.9	J	2.8	5.4	J	2.7	1.4	J	2.5	ND	U	2.8	ND	U	150	ND	U	6300
	m,p-Xylene	µg/m³	3.1	J	1.5	6.8	--	1.5	1.7	J	1.4	0.71	J	1.5	73	J	84	10000	J	3400
	Methylene Chloride	µg/m³	1.3	J	1.4	4.6	--	1.4	ND	U	1.3	ND	U	1.4	110	J	79	3200	J	3200
	Naphthalene	µg/m³	ND	U	1.4	1.2	J	1.3	0.74	J	1.2	ND	U	1.4	ND	U	76	ND	U	3100
	n-Heptane	µg/m³	1.3	J	1.4	1.8	J	1.4	ND	U	1.3	ND	U	1.4	5700	--	79	1300000	--	5400
	o-Xylene	µg/m³	1.0	J	0.75	2.1	J	0.74	0.56	J	0.68	ND	U	0.74	66	J	42	2200	J	1700
	Propylene (propene)	µg/m³	ND	U	1.4	8.0	--	1.4	1.3	J	1.3	1.6	J	1.4	630	--	79	21000	--	3200
	Styrene	µg/m³	ND	U	1.4	0.38	J	1.4	ND	U	1.3	ND	U	1.4	ND	U	79	ND	U	3200
	Tetrachloroethene	µg/m³	1.1	J	0.75	1.3	J	0.74	2.7	--	0.68	3.7	--	0.74	95	J	42	2300	J	1700
	Tetrahydrofuran	µg/m³	52	--	0.75	49	--	0.74	1.7	J	0.68	4.0	--	0.74	ND	U	42	ND	U	1700
	Toluene	µg/m³	25	--	0.75	31	--	0.74	3.0	--	0.68	0.87	J	0.74	160	--	42	63000	--	1700
	Trichloroethene	µg/m³	13	--	0.75	13	--	0.74	ND	U	0.68	0.40	J	0.74	88	J	42	ND	U	1700
	Trichlorofluoromethane	µg/m³	0.84	J	1.4	0.80	J	1.4	1.8	J	1.3	2.7	--	1.4	ND	U	79	ND	U	3200
	Vinyl chloride	µg/m³	11	--	0.75	10	--	0.74	ND	U	0.68	ND	U	0.74	ND	U	42	ND	U	1700
	Xylenes, Total	µg/m³	4.1	J	1.5	8.9	--	1.5	2.3	J	1.4	0.71	J	1.5	140	J	84	12000	--	3400

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106110-250			KAFB-106110-350			KAFB-106110-450			KAFB-106111-025			KAFB-106111-050			KAFB-106111-050		
	Field Sample ID:		SV110-250-602			SV110-350-202			SV110-450-202			SV111-025-202			SV111-050-202			SV111-050-602		
	Sample Date:		4/15/2020			4/15/2020			4/15/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		FD			REG			REG			REG			REG			FD		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	10000	--	2100	130	--	19	14	J	7.7	84	--	0.86	130	--	0.75	140	--	1.3
	1,1-dichloroethane	µg/m³	ND	U	4100	ND	U	38	6.9	J	15	ND	U	1.7	ND	U	1.5	ND	U	2.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	3900	ND	U	37	ND	U	15	ND	U	1.6	ND	U	1.4	ND	U	2.4
	1,2,4-trimethylbenzene	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	20	--	0.86	12	J	0.75	120	J	1.3
	1,2-dibromoethane	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	ND	U	0.75	0.78	J	1.3
	1,2-dichloroethane	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	1,3,5-trimethylbenzene	µg/m³	ND	U	2100	ND	U	19	4.4	J	7.7	5.8	--	0.86	3.5	J	0.75	33	--	1.3
	1,3-butadiene	µg/m³	ND	U	3900	ND	U	37	ND	U	15	ND	U	1.6	ND	U	1.4	ND	U	2.4
	1,4-dioxane	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	0.67	J	0.75	ND	U	1.3
	2-butanone	µg/m³	ND	U	3900	ND	U	37	17	J	15	1.9	J	1.6	2.8	J	1.4	6.9	J	2.4
	2-hexanone	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	4-methyl-2-pentanone	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	0.93	J	0.86	ND	U	0.75	1.6	J	1.3
	Acetone	µg/m³	ND	U	33000	ND	U	310	ND	U	120	21	J	14	46	--	12	37	J	20
	Benzene	µg/m³	33000	--	2100	ND	U	19	440	--	7.7	0.74	J	0.86	1.5	J	0.75	3.1	J	1.3
	Bromodichloromethane	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	Bromoform	µg/m³	ND	U	3900	ND	U	37	ND	U	15	ND	U	1.6	ND	U	1.4	ND	U	2.4
	Carbon disulfide	µg/m³	ND	U	6700	ND	U	62	270	--	25	7.0	--	2.7	7.6	--	2.4	6.8	J	4
	Carbon tetrachloride	µg/m³	ND	U	2100	ND	U	19	7.0	J	7.7	68	--	0.86	92	--	0.75	93	--	1.3
	Chloroethane	µg/m³	ND	U	3900	ND	U	37	8.9	J	15	ND	U	1.6	ND	U	1.4	ND	U	2.4
	Chloroform	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	Chloromethane	µg/m³	ND	U	3900	ND	U	37	54	--	15	ND	U	1.6	0.81	J	1.4	0.87	J	2.4
	Cyclohexane	µg/m³	850000	--	4200	18000	--	39	3200	--	15	5.4	J	1.7	6.7	J	1.5	22	J	2.5
	Dibromochloromethane	µg/m³	ND	U	2100	ND	U	19	ND	U	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	Dichlorodifluoromethane	µg/m³	ND	U	3900	300	--	37	36	--	15	45	--	1.6	60	--	1.4	60	--	2.4
	Ethanol	µg/m³	ND	U	10000	ND	U	95	ND	U	38	7.0	J	4.2	2.0	J	3.7	8.0	J	6.1
	Ethyl acetate	µg/m³	ND	U	8000	ND	U	75	ND	U	30	26	--	3.3	ND	U	2.9	2.1	J	4.8
	Ethylbenzene	µg/m³	ND	U	2100	ND	U	19	40	--	7.7	4.0	--	0.86	1.5	J	0.75	14	--	1.3
	Hexane	µg/m³	1100000	--	3900	3800	--	37	3700	--	15	2.7	J	1.6	2.2	J	1.4	13	--	2.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	7800	ND	U	72	ND	U	29	ND	U	3.2	ND	U	2.8	3.0	J	4.7
	m,p-Xylene	µg/m³	11000	J	4200	ND	U	39	110	--	15	44	--	1.7	15	J	1.5	150	J	2.5
	Methylene Chloride	µg/m³	3700	J	3900	ND	U	37	ND	U	15	ND	U	1.6	ND	U	1.4	ND	U	2.4
	Naphthalene	µg/m³	ND	U	3800	ND	U	36	ND	U	14	1.6	J	1.6	1.7	J	1.4	14	--	2.3
	n-Heptane	µg/m³	1100000	--	3900	62	--	37	3400	--	15	7.8	--	1.6	3.7	J	1.4	36	J	2.4
	o-Xylene	µg/m³	2500	J	2100	14	J	19	28	--	7.7	17	--	0.86	6.0	J	0.75	56	J	1.3
	Propylene (propene)	µg/m³	19000	--	3900	290	--	37	93	--	15	ND	U	1.6	2.1	J	1.4	4.1	--	2.4
	Styrene	µg/m³	ND	U	3900	ND	U	37	ND	U	15	ND	U	1.6	ND	U	1.4	ND	U	2.4
	Tetrachloroethene	µg/m³	3000	J	2100	14	J	19	ND	U	7.7	5.8	--	0.86	8.0	--	0.75	8.2	--	1.3
	Tetrahydrofuran	µg/m³	ND	U	2100	ND	U	19	93	--	7.7	ND	U	0.86	1.2	J	0.75	3.3	J	1.3
	Toluene	µg/m³	58000	--	2100	ND	U	19	1000	--	7.7	11	--	0.86	4.2	J	0.75	34	J	1.3
	Trichloroethene	µg/m³	ND	U	2100	54	J	19	8.1	J	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	Trichlorofluoromethane	µg/m³	ND	U	3900	24	J	37	ND	U	15	5.0	--	1.6	6.3	--	1.4	6.2	--	2.4
	Vinyl chloride	µg/m³	ND	U	2100	ND	U	19	9.5	J	7.7	ND	U	0.86	ND	U	0.75	ND	U	1.3
	Xylenes, Total	µg/m³	14000	--	4200	ND	U	39	140	--	15	61	--	1.7	21	J	1.5	200	J	2.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106111-150			KAFB-106111-250			KAFB-106111-350			KAFB-106111-450			KAFB-106112-025			KAFB-106112-050		
	Field Sample ID:		SV111-150-202			SV111-250-202			SV111-350-202			SV111-450-202			SV112-025-202			SV112-050-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	2900	--	310	11000	--	1200	4800	--	500	120	--	4.8	24	--	0.85	28	--	0.85
	1,1-dichloroethane	µg/m³	ND	U	610	ND	U	2300	ND	U	980	6.0	J	9.3	ND	U	1.6	ND	U	1.6
	1,2,4-trichlorobenzene	µg/m³	ND	U	590	ND	U	2200	ND	U	950	ND	U	9	ND	U	1.6	ND	U	1.6
	1,2,4-trimethylbenzene	µg/m³	ND	U	310	1400	J	1200	ND	U	500	14	J	4.8	8.7	--	0.85	3.8	--	0.85
	1,2-dibromoethane	µg/m³	ND	U	310	ND	U	1200	ND	U	500	ND	U	4.8	ND	U	0.85	ND	U	0.85
	1,2-dichloroethane	µg/m³	ND	U	310	ND	U	1200	ND	U	500	ND	U	4.8	ND	U	0.85	ND	U	0.85
	1,3,5-trimethylbenzene	µg/m³	ND	U	310	3100	J	1200	550	J	500	8.4	J	4.8	1.5	J	0.85	0.80	J	0.85
	1,3-butadiene	µg/m³	ND	U	590	ND	U	2200	ND	U	950	ND	U	9	ND	U	1.6	ND	U	1.6
	1,4-dioxane	µg/m³	1700	--	310	ND	U	1200	ND	U	500	ND	U	4.8	0.47	J	0.85	ND	U	0.85
	2-butanone	µg/m³	ND	U	590	ND	U	2200	ND	U	950	31	J	9	1.4	J	1.6	12	--	1.6
	2-hexanone	µg/m³	ND	U	310	ND	U	1200	ND	U	500	ND	U	4.8	0.46	J	0.85	0.34	J	0.85
	4-methyl-2-pentanone	µg/m³	ND	U	310	ND	U	1200	ND	U	500	13	J	4.8	ND	U	0.85	4.3	--	0.85
	Acetone	µg/m³	ND	U	5000	ND	U	19000	ND	U	8000	ND	U	76	ND	U	13	17	J	13
	Benzene	µg/m³	180	J	310	170000	--	1200	20000	--	500	1100	--	4.8	ND	U	0.85	0.54	J	0.85
	Bromodichloromethane	µg/m³	ND	U	310	ND	U	1200	ND	U	500	ND	U	4.8	ND	U	0.85	ND	U	0.85
	Bromoform	µg/m³	ND	U	590	ND	U	2200	ND	U	950	ND	U	9	ND	U	1.6	ND	U	1.6
	Carbon disulfide	µg/m³	ND	U	1000	ND	U	3800	ND	U	1600	180	--	15	2.2	J	2.7	2.4	J	2.7
	Carbon tetrachloride	µg/m³	ND	U	310	ND	U	1200	ND	U	500	11	J	4.8	9.6	--	0.85	12	--	0.85
	Chloroethane	µg/m³	ND	U	590	ND	U	2200	ND	U	950	ND	U	9	ND	U	1.6	ND	U	1.6
	Chloroform	µg/m³	ND	U	310	ND	U	1200	ND	U	500	2.4	J	4.8	11	--	0.85	15	--	0.85
	Chloromethane	µg/m³	ND	U	590	ND	U	2200	ND	U	950	45	--	9	ND	U	1.6	ND	U	1.6
	Cyclohexane	µg/m³	16000	--	630	700000	--	2400	250000	--	1000	1100	--	9.6	ND	U	1.7	ND	U	1.7
	Dibromochloromethane	µg/m³	ND	U	310	ND	U	1200	ND	U	500	ND	U	4.8	ND	U	0.85	ND	U	0.85
	Dichlorodifluoromethane	µg/m³	ND	U	590	ND	U	2200	510	J	950	190	--	9	13	--	1.6	14	--	1.6
	Ethanol	µg/m³	ND	U	1500	ND	U	5800	ND	U	2500	62	J	23	4.4	J	4.1	86	--	4.1
	Ethyl acetate	µg/m³	ND	U	1200	ND	U	4600	ND	U	1900	ND	U	18	2.2	J	3.2	72	--	3.2
	Ethylbenzene	µg/m³	ND	U	310	3900	--	1200	270	J	500	89	--	4.8	0.46	J	0.85	1.4	J	0.85
	Hexane	µg/m³	8500	--	590	730000	--	2200	170000	--	950	810	--	9	ND	U	1.6	ND	U	1.6
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	1200	ND	U	4400	ND	U	1900	ND	U	18	ND	U	3.1	17	--	3.1
	m,p-Xylene	µg/m³	ND	U	630	13000	--	2400	1200	J	1000	250	--	9.6	2.4	J	1.7	5.4	J	1.7
	Methylene Chloride	µg/m³	1000	--	590	3800	--	2200	1600	--	950	ND	U	9	ND	U	1.6	ND	U	1.6
	Naphthalene	µg/m³	ND	U	570	ND	U	2200	ND	U	920	ND	U	8.7	3.1	--	1.5	1.5	J	1.5
	n-Heptane	µg/m³	1100	--	590	390000	--	2200	66000	--	950	920	--	9	ND	U	1.6	0.62	J	1.6
	o-Xylene	µg/m³	ND	U	310	16000	--	1200	2300	--	500	73	--	4.8	0.86	J	0.85	1.9	J	0.85
	Propylene (propene)	µg/m³	370	J	590	7100	--	2200	6400	--	950	40	--	9	ND	U	1.6	3.9	--	1.6
	Styrene	µg/m³	ND	U	590	ND	U	2200	ND	U	950	ND	U	9	ND	U	1.6	0.58	J	1.6
	Tetrachloroethene	µg/m³	750	J	310	2700	J	1200	1200	J	500	2.5	J	4.8	1.3	J	0.85	1.5	J	0.85
	Tetrahydrofuran	µg/m³	ND	U	310	ND	U	1200	ND	U	500	50	--	4.8	4.2	--	0.85	15	--	0.85
	Toluene	µg/m³	ND	U	310	41000	--	1200	ND	U	500	2700	--	4.8	1.5	J	0.85	12	--	0.85
	Trichloroethene	µg/m³	190	J	310	590	J	1200	320	J	500	ND	U	4.8	ND	U	0.85	0.39	J	0.85
	Trichlorofluoromethane	µg/m³	ND	U	590	ND	U	2200	ND	U	950	17	--	9	3.1	--	1.6	3.6	--	1.6
	Vinyl chloride	µg/m³	ND	U	310	ND	U	1200	ND	U	500	8.7	J	4.8	ND	U	0.85	ND	U	0.85
	Xylenes, Total	µg/m³	ND	U	630	28000	--	2400	3500	--	1000	330	--	9.6	3.2	J	1.7	7.3	--	1.7

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106112-150			KAFB-106112-250			KAFB-106112-350			KAFB-106112-450			KAFB-106112-450			KAFB-106113-020		
	Field Sample ID:		SV112-150-202			SV112-250-202			SV112-350-202			SV112-450-202			SV112-450-602			SV113-020-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/15/2020		
	Sample Type:		REG			REG			REG			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	9.7	--	0.77	16	--	0.77	6.5	J	6.9	250	J	150	ND	U	160	1.4	J	0.83
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	13	ND	U	280	ND	U	310	ND	U	1.6
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	13	ND	U	270	ND	U	300	ND	U	1.6
	1,2,4-trimethylbenzene	µg/m³	3.6	--	0.77	5.1	--	0.77	26	--	6.9	670	--	150	610	--	160	1.6	J	0.83
	1,2-dibromoethane	µg/m³	ND	U	0.77	0.96	J	0.77	45	--	6.9	ND	U	150	ND	U	160	490	--	0.83
	1,2-dichloroethane	µg/m³	ND	U	0.77	0.33	J	0.77	11	J	6.9	ND	U	150	ND	U	160	83	--	0.83
	1,3,5-trimethylbenzene	µg/m³	0.76	J	0.77	3.8	--	0.77	19	J	6.9	860	--	150	820	--	160	0.53	J	0.83
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	13	ND	U	270	ND	U	300	ND	U	1.6
	1,4-dioxane	µg/m³	ND	U	0.77	0.61	J	0.77	ND	U	6.9	ND	U	150	ND	U	160	1.2	J	0.83
	2-butanone	µg/m³	6.1	--	1.4	9.9	--	1.5	ND	U	13	110	J	270	ND	U	300	5.4	--	1.6
	2-hexanone	µg/m³	0.99	J	0.77	ND	U	0.77	ND	U	6.9	ND	U	150	ND	U	160	7.5	--	0.83
	4-methyl-2-pentanone	µg/m³	ND	U	0.77	ND	U	0.77	ND	U	6.9	ND	U	150	ND	U	160	1.4	J	0.83
	Acetone	µg/m³	28	--	12	33	--	12	ND	U	110	ND	U	2300	ND	U	2500	32	--	13
	Benzene	µg/m³	1.1	J	0.77	69	--	0.77	1500	--	6.9	15000	--	150	15000	--	160	ND	U	0.83
	Bromodichloromethane	µg/m³	ND	U	0.77	ND	U	0.77	ND	U	6.9	ND	U	150	ND	U	160	ND	U	0.83
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	13	ND	U	270	ND	U	300	ND	U	1.6
	Carbon disulfide	µg/m³	8.5	--	2.4	39	--	2.5	200	--	22	ND	U	460	ND	U	500	6.4	--	2.6
	Carbon tetrachloride	µg/m³	2.4	--	0.77	9.8	--	0.77	4.7	J	6.9	160	J	150	ND	U	160	2.7	--	0.83
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	13	ND	U	270	ND	U	300	ND	U	1.6
	Chloroform	µg/m³	0.77	J	0.77	0.44	J	0.77	ND	U	6.9	ND	U	150	ND	U	160	0.53	J	0.83
	Chloromethane	µg/m³	1.2	J	1.4	0.83	J	1.5	29	--	13	ND	U	270	ND	U	300	0.48	J	1.6
	Cyclohexane	µg/m³	ND	U	1.5	2.8	J	1.5	19	J	14	140000	--	290	150000	--	310	ND	U	1.7
	Dibromochloromethane	µg/m³	ND	U	0.77	ND	U	0.77	ND	U	6.9	ND	U	150	ND	U	160	ND	U	0.83
	Dichlorodifluoromethane	µg/m³	8.0	--	1.4	7.8	--	1.5	14	J	13	76	J	270	ND	U	300	3.7	--	1.6
	Ethanol	µg/m³	40	--	3.7	9.0	J	3.8	ND	U	34	1300	J	710	450	J	770	14	J	4.1
	Ethyl acetate	µg/m³	30	--	2.9	2.0	J	3	ND	U	26	ND	U	560	ND	U	600	ND	U	3.2
	Ethylbenzene	µg/m³	0.59	J	0.77	5.6	--	0.77	130	--	6.9	1300	--	150	1300	--	160	ND	U	0.83
	Hexane	µg/m³	ND	U	1.4	0.89	J	1.5	18	J	13	65000	--	270	66000	--	300	ND	U	1.6
	Isopropyl alcohol (manufacturing-strong	µg/m³	2.5	J	2.8	4.6	J	2.9	ND	U	25	ND	U	540	ND	U	580	3.4	J	3.1
	m,p-Xylene	µg/m³	2.5	J	1.5	14	--	1.5	470	--	14	6400	--	290	6300	--	310	ND	U	1.7
	Methylene Chloride	µg/m³	0.75	J	1.4	ND	U	1.5	ND	U	13	ND	U	270	ND	U	300	ND	U	1.6
	Naphthalene	µg/m³	0.86	J	1.4	0.72	J	1.4	ND	U	13	ND	U	270	ND	U	290	ND	U	1.5
	n-Heptane	µg/m³	ND	U	1.4	0.45	J	1.5	14	J	13	48000	--	270	49000	--	300	ND	U	1.6
	o-Xylene	µg/m³	0.82	J	0.77	12	--	0.77	250	--	6.9	4200	--	150	4100	--	160	ND	U	0.83
	Propylene (propene)	µg/m³	1.3	J	1.4	2.2	J	1.5	ND	U	13	1100	--	270	1100	--	300	2.1	J	1.6
	Styrene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	13	ND	U	270	ND	U	300	ND	U	1.6
	Tetrachloroethene	µg/m³	2.7	--	0.77	8.2	--	0.77	2.8	J	6.9	110	J	150	ND	U	160	0.81	J	0.83
	Tetrahydrofuran	µg/m³	11	--	0.77	11	--	0.77	5.5	J	6.9	69	J	150	ND	U	160	0.74	J	0.83
	Toluene	µg/m³	6.3	--	0.77	97	--	0.77	4300	--	6.9	15000	--	150	15000	--	160	0.65	J	0.83
	Trichloroethene	µg/m³	ND	U	0.77	1.7	J	0.77	ND	U	6.9	170	J	150	ND	U	160	ND	U	0.83
	Trichlorofluoromethane	µg/m³	1.8	J	1.4	2.2	J	1.5	ND	U	13	ND	U	270	ND	U	300	1.2	J	1.6
	Vinyl chloride	µg/m³	ND	U	0.77	ND	U	0.77	3.4	J	6.9	ND	U	150	ND	U	160	3.2	--	0.83
	Xylenes, Total	µg/m³	3.3	J	1.5	26	--	1.5	730	--	14	11000	--	290	10000	--	310	ND	U	1.7

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106113-050			KAFB-106113-150			KAFB-106113-250			KAFB-106113-350			KAFB-106113-450			KAFB-106114-025		
	Field Sample ID:		SV113-050-202			SV113-150-202			SV113-250-202			SV113-350-202			SV113-450-202			SV114-025-202		
	Sample Date:		4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/8/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	3.0	--	0.87	2.4	--	0.72	2.9	--	0.76	ND	U	22	490	--	98	12	--	0.81
	1,1-dichloroethane	µg/m³	ND	U	1.7	ND	U	1.4	ND	U	1.5	ND	U	43	ND	U	190	ND	U	1.6
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	42	ND	U	180	ND	U	1.5
	1,2,4-trimethylbenzene	µg/m³	2.4	J	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	3400	--	98	7.1	--	0.81
	1,2-dibromoethane	µg/m³	ND	U	0.87	0.27	J	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	1,2-dichloroethane	µg/m³	ND	U	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	1,3,5-trimethylbenzene	µg/m³	0.66	J	0.87	ND	U	0.72	ND	U	0.76	43	J	22	3200	--	98	2.8	--	0.81
	1,3-butadiene	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	42	ND	U	180	ND	U	1.5
	1,4-dioxane	µg/m³	ND	U	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	1.6	J	0.81
	2-butanone	µg/m³	ND	U	1.6	ND	U	1.4	4.2	J	1.4	ND	U	42	ND	U	180	1.5	J	1.5
	2-hexanone	µg/m³	ND	U	0.87	0.80	J	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	4-methyl-2-pentanone	µg/m³	ND	U	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	0.83	J	0.81
	Acetone	µg/m³	ND	U	14	19	J	11	17	J	12	ND	U	350	ND	U	1600	12	J	13
	Benzene	µg/m³	ND	U	0.87	0.57	J	0.72	1.4	J	0.76	1600	--	22	33000	--	98	0.96	J	0.81
	Bromodichloromethane	µg/m³	2.2	J	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	Bromoform	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	42	ND	U	180	ND	U	1.5
	Carbon disulfide	µg/m³	ND	U	2.8	28	--	2.3	9.7	--	2.4	ND	U	71	130	J	310	8.1	--	2.6
	Carbon tetrachloride	µg/m³	15	--	0.87	19	--	0.72	17	--	0.76	ND	U	22	ND	U	98	8.1	--	0.81
	Chloroethane	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	42	ND	U	180	ND	U	1.5
	Chloroform	µg/m³	28	--	0.87	3.2	--	0.72	2.3	J	0.76	ND	U	22	ND	U	98	0.38	J	0.81
	Chloromethane	µg/m³	ND	U	1.6	0.45	J	1.4	0.94	J	1.4	ND	U	42	ND	U	180	ND	U	1.5
	Cyclohexane	µg/m³	ND	U	1.7	ND	U	1.4	4.1	J	1.5	4800	--	45	45000	--	200	2.1	J	1.6
	Dibromochloromethane	µg/m³	ND	U	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	Dichlorodifluoromethane	µg/m³	6.4	--	1.6	9.3	--	1.4	25	--	1.4	150	--	42	310	--	180	90	--	1.5
	Ethanol	µg/m³	ND	U	4.2	5.5	J	3.5	11	J	3.7	ND	U	110	ND	U	480	ND	U	3.9
	Ethyl acetate	µg/m³	ND	U	3.3	ND	U	2.8	21	--	2.9	ND	U	85	ND	U	370	ND	U	3.1
	Ethylbenzene	µg/m³	ND	U	0.87	ND	U	0.72	0.35	J	0.76	12	J	22	3800	--	98	1.6	J	0.81
	Hexane	µg/m³	ND	U	1.6	ND	U	1.4	4.1	--	1.4	980	--	42	45000	--	180	2.2	J	1.5
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3.2	ND	U	2.7	ND	U	2.8	ND	U	83	ND	U	360	1.6	J	3
	m,p-Xylene	µg/m³	2.4	J	1.7	ND	U	1.4	1.4	J	1.5	63	J	45	16000	--	200	38	--	1.6
	Methylene Chloride	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	42	180	J	180	ND	U	1.5
	Naphthalene	µg/m³	ND	U	1.6	ND	U	1.3	ND	U	1.4	ND	U	41	ND	U	180	2.4	J	1.5
	n-Heptane	µg/m³	ND	U	1.6	0.37	J	1.4	3.1	--	1.4	ND	U	42	37000	--	180	11	--	1.5
	o-Xylene	µg/m³	0.89	J	0.87	ND	U	0.72	0.40	J	0.76	92	--	22	7000	--	98	12	--	0.81
	Propylene (propene)	µg/m³	ND	U	1.6	0.97	J	1.4	1.9	J	1.4	670	--	42	6500	--	180	0.72	J	1.5
	Styrene	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	42	ND	U	180	ND	U	1.5
	Tetrachloroethene	µg/m³	3.8	--	0.87	2.8	--	0.72	0.79	J	0.76	ND	U	22	130	J	98	0.50	J	0.81
	Tetrahydrofuran	µg/m³	2.8	--	0.87	64	--	0.72	19	--	0.76	ND	U	22	59	J	98	1.4	J	0.81
	Toluene	µg/m³	1.4	J	0.87	1.0	J	0.72	4.6	--	0.76	830	--	22	60000	--	98	7.0	--	0.81
	Trichloroethene	µg/m³	ND	U	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	Trichlorofluoromethane	µg/m³	1.2	J	1.6	1.1	J	1.4	2.0	J	1.4	17	J	42	ND	U	180	13	--	1.5
	Vinyl chloride	µg/m³	ND	U	0.87	ND	U	0.72	ND	U	0.76	ND	U	22	ND	U	98	ND	U	0.81
	Xylenes, Total	µg/m³	3.3	J	1.7	ND	U	1.4	1.8	J	1.5	160	--	45	23000	--	200	50	--	1.6

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106114-050			KAFB-106114-150			KAFB-106114-250			KAFB-106114-250			KAFB-106114-350			KAFB-106114-450		
	Field Sample ID:		SV114-050-202			SV114-150-202			SV114-250-202			SV114-250-602			SV114-350-202			SV114-450-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			REG			FD			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	22	--	0.78	26	--	0.75	18	--	0.84	18	--	0.74	120	--	2.2	240	J	330
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	1.4	ND	U	4.4	ND	U	640
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	ND	U	620
	1,2,4-trimethylbenzene	µg/m³	4.6	--	0.78	15	--	0.75	6.7	J	0.84	22	J	0.74	5.6	J	2.2	8400	--	330
	1,2-dibromoethane	µg/m³	ND	U	0.78	ND	U	0.75	ND	U	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	1,2-dichloroethane	µg/m³	ND	U	0.78	ND	U	0.75	ND	U	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	1,3,5-trimethylbenzene	µg/m³	1.7	J	0.78	4.0	--	0.75	1.9	J	0.84	5.7	--	0.74	3.0	J	2.2	6500	--	330
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	550	J	620
	1,4-dioxane	µg/m³	1.1	J	0.78	ND	U	0.75	ND	U	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	2-butanone	µg/m³	3.9	J	1.5	1.1	J	1.4	5.8	--	1.6	3.0	J	1.4	ND	U	4.2	320	J	620
	2-hexanone	µg/m³	ND	U	0.78	ND	U	0.75	2.6	J	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	4-methyl-2-pentanone	µg/m³	0.48	J	0.78	0.44	J	0.75	0.85	J	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	Acetone	µg/m³	14	J	12	33	--	12	29	--	13	18	J	12	ND	U	36	ND	U	5200
	Benzene	µg/m³	0.41	J	0.78	1.1	J	0.75	0.60	J	0.84	1.6	J	0.74	15	--	2.2	14000	--	330
	Bromodichloromethane	µg/m³	ND	U	0.78	ND	U	0.75	ND	U	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	ND	U	620
	Carbon disulfide	µg/m³	3.1	J	2.5	4.8	J	2.4	13	--	2.7	9.4	--	2.4	ND	U	7.1	ND	U	1000
	Carbon tetrachloride	µg/m³	17	--	0.78	20	--	0.75	93	--	0.84	94	--	0.74	6.1	J	2.2	ND	U	330
	Chloroethane	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	ND	U	620
	Chloroform	µg/m³	0.70	J	0.78	0.88	J	0.75	13	--	0.84	14	--	0.74	1.5	J	2.2	ND	U	330
	Chloromethane	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	ND	U	620
	Cyclohexane	µg/m³	1.1	J	1.6	3.6	J	1.5	0.84	J	1.7	5.9	--	1.5	72	--	4.5	150000	--	660
	Dibromochloromethane	µg/m³	ND	U	0.78	ND	U	0.75	ND	U	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	Dichlorodifluoromethane	µg/m³	180	--	1.5	190	--	1.4	230	--	1.6	230	--	1.4	1900	--	63	3300	--	620
	Ethanol	µg/m³	2.1	J	3.8	ND	U	3.7	4.5	J	4.1	6.4	J	3.6	ND	U	11	ND	UJ	1600
	Ethyl acetate	µg/m³	ND	U	3	ND	U	2.9	ND	U	3.2	30	--	2.8	5.5	J	8.6	ND	U	1300
	Ethylbenzene	µg/m³	1.0	J	0.78	2.7	--	0.75	1.0	J	0.84	3.6	--	0.74	2.3	J	2.2	5600	--	330
	Hexane	µg/m³	1.3	J	1.5	6.0	--	1.4	1.1	J	1.6	9.3	--	1.4	25	--	4.2	100000	--	620
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	2.9	1.5	J	2.8	3.7	J	3.1	ND	U	2.8	ND	U	8.3	ND	U	1200
	m,p-Xylene	µg/m³	19	--	1.6	46	--	1.5	12	J	1.7	59	J	1.5	20	--	4.5	46000	--	660
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	ND	U	620
	Naphthalene	µg/m³	1.2	J	1.4	1.9	J	1.4	3.3	--	1.5	ND	U	1.4	ND	U	4.1	ND	U	600
	n-Heptane	µg/m³	6.5	--	1.5	26	--	1.4	4.6	J	1.6	37	J	1.4	87	--	4.2	290000	--	6200
	o-Xylene	µg/m³	5.8	--	0.78	12	--	0.75	3.9	J	0.84	15	J	0.74	12	--	2.2	29000	--	330
	Propylene (propene)	µg/m³	0.59	J	1.5	ND	U	1.4	1.5	J	1.6	1.1	J	1.4	8.0	--	4.2	7600	J	620
	Styrene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4	ND	U	4.2	ND	U	620
	Tetrachloroethene	µg/m³	1.1	J	0.78	4.9	--	0.75	1.1	J	0.84	1.7	J	0.74	4.7	J	2.2	ND	U	330
	Tetrahydrofuran	µg/m³	37	--	0.78	3.5	--	0.75	2.7	J	0.84	5.9	--	0.74	ND	U	2.2	ND	U	330
	Toluene	µg/m³	4.4	--	0.78	15	--	0.75	3.8	J	0.84	22	J	0.74	ND	U	2.2	44000	--	330
	Trichloroethene	µg/m³	ND	U	0.78	1.0	J	0.75	1.6	J	0.84	1.6	J	0.74	ND	U	2.2	ND	U	330
	Trichlorofluoromethane	µg/m³	24	--	1.5	18	--	1.4	21	--	1.6	21	--	1.4	360	--	4.2	580	J	620
	Vinyl chloride	µg/m³	ND	U	0.78	ND	U	0.75	ND	U	0.84	ND	U	0.74	ND	U	2.2	ND	U	330
	Xylenes, Total	µg/m³	25	--	1.6	58	--	1.5	16	J	1.7	75	J	1.5	32	--	4.5	75000	--	660

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106115-025			KAFB-106115-025			KAFB-106115-050			KAFB-106115-150			KAFB-106115-250			KAFB-106115-350		
	Field Sample ID:		SV115-025-202			SV115-025-602			SV115-050-202			SV115-150-202			SV115-250-202			SV115-350-202		
	Sample Date:		4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.53	J	0.75	0.55	J	0.84	0.53	J	0.69	0.84	J	0.78	0.95	J	0.86	ND	U	0.75
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.6	ND	U	1.3	ND	U	1.5	ND	U	1.7	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.6	2.2	J	1.3	ND	U	1.5	ND	U	1.6	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	1,2-dibromoethane	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	1,2-dichloroethane	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.6	ND	U	1.3	ND	U	1.5	ND	U	1.6	ND	U	1.4
	1,4-dioxane	µg/m³	2.2	J	0.75	ND	U	0.84	0.50	J	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	2-butanone	µg/m³	4.3	J	1.4	1.6	J	1.6	7.7	--	1.3	0.65	J	1.5	1.3	J	1.6	3.3	J	1.4
	2-hexanone	µg/m³	1.9	J	0.75	ND	U	0.84	2.1	J	0.69	ND	U	0.78	ND	U	0.86	0.57	J	0.75
	4-methyl-2-pentanone	µg/m³	0.52	J	0.75	0.41	J	0.84	0.99	J	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	Acetone	µg/m³	24	--	12	9.8	J	13	19	J	11	ND	U	12	ND	U	14	18	J	12
	Benzene	µg/m³	ND	U	0.75	0.47	J	0.84	ND	U	0.69	0.64	J	0.78	0.46	J	0.86	0.85	J	0.75
	Bromodichloromethane	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.6	ND	U	1.3	ND	U	1.5	ND	U	1.6	ND	U	1.4
	Carbon disulfide	µg/m³	ND	U	2.4	1.8	J	2.7	1.5	J	2.2	5.9	--	2.5	ND	U	2.7	11	--	2.4
	Carbon tetrachloride	µg/m³	2.1	J	0.75	2.1	J	0.84	3.2	--	0.69	7.3	--	0.78	0.89	J	0.86	ND	U	0.75
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.6	0.29	J	1.3	ND	U	1.5	ND	U	1.6	ND	U	1.4
	Chloroform	µg/m³	0.74	J	0.75	0.70	J	0.84	1.2	J	0.69	1.3	J	0.78	ND	U	0.86	0.32	J	0.75
	Chloromethane	µg/m³	0.75	J	1.4	ND	U	1.6	ND	U	1.3	ND	U	1.5	ND	U	1.6	0.56	J	1.4
	Cyclohexane	µg/m³	3.8	J	1.5	5.3	J	1.7	ND	U	1.4	1.2	J	1.6	ND	U	1.7	1.2	J	1.5
	Dibromochloromethane	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	Dichlorodifluoromethane	µg/m³	2.4	--	1.4	2.4	J	1.6	2.4	--	1.3	1.2	J	1.5	0.63	J	1.6	ND	U	1.4
	Ethanol	µg/m³	ND	U	3.7	ND	U	4.1	ND	U	3.4	ND	U	3.8	ND	U	4.2	8.3	J	3.7
	Ethyl acetate	µg/m³	ND	U	2.9	ND	U	3.2	ND	U	2.6	ND	U	3	1.4	J	3.3	21	--	2.9
	Ethylbenzene	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	Hexane	µg/m³	3.0	--	1.4	4.8	--	1.6	0.80	J	1.3	0.66	J	1.5	0.65	J	1.6	1.0	J	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	1.0	J	2.8	ND	U	3.1	1.1	J	2.6	ND	U	2.9	ND	U	3.2	2.1	J	2.8
	m,p-Xylene	µg/m³	ND	U	1.5	0.84	J	1.7	ND	U	1.4	ND	U	1.6	ND	U	1.7	ND	U	1.5
	Methylene Chloride	µg/m³	ND	U	1.4	ND	U	1.6	ND	U	1.3	ND	U	1.5	ND	U	1.6	ND	U	1.4
	Naphthalene	µg/m³	ND	U	1.4	ND	U	1.5	2.1	--	1.3	ND	U	1.4	ND	U	1.6	ND	U	1.4
	n-Heptane	µg/m³	6.1	--	1.4	9.7	--	1.6	1.3	J	1.3	2.3	J	1.5	0.81	J	1.6	0.81	J	1.4
	o-Xylene	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	Propylene (propene)	µg/m³	1.0	J	1.4	ND	U	1.6	1.4	J	1.3	ND	U	1.5	ND	U	1.6	1.4	J	1.4
	Styrene	µg/m³	ND	U	1.4	ND	U	1.6	ND	U	1.3	ND	U	1.5	ND	U	1.6	ND	U	1.4
	Tetrachloroethene	µg/m³	1.1	J	0.75	0.79	J	0.84	0.74	J	0.69	1.3	J	0.78	ND	U	0.86	ND	U	0.75
	Tetrahydrofuran	µg/m³	0.66	J	0.75	0.84	J	0.84	31	--	0.69	8.3	--	0.78	0.80	J	0.86	22	--	0.75
	Toluene	µg/m³	0.82	J	0.75	1.2	J	0.84	0.43	J	0.69	0.53	J	0.78	0.48	J	0.86	3.6	--	0.75
	Trichloroethene	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	0.57	J	0.78	0.83	J	0.86	13	--	0.75
	Trichlorofluoromethane	µg/m³	1.2	J	1.4	1.2	J	1.6	1.2	J	1.3	1.2	J	1.5	0.75	J	1.6	ND	U	1.4
	Vinyl chloride	µg/m³	ND	U	0.75	ND	U	0.84	ND	U	0.69	ND	U	0.78	ND	U	0.86	ND	U	0.75
	Xylenes, Total	µg/m³	ND	U	1.5	0.84	J	1.7	ND	U	1.4	ND	U	1.6	ND	U	1.7	ND	U	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106115-450			KAFB-106116-025			KAFB-106116-050			KAFB-106116-150			KAFB-106116-250			KAFB-106116-350		
	Field Sample ID:		SV115-450-202			SV116-025-202			SV116-050-202			SV116-150-202			SV116-250-202			SV116-350-202		
	Sample Date:		4/15/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	190	29	--	1.1	53	--	0.78	10	--	0.74	15	--	0.76	16	J	22
	1,1-dichloroethane	µg/m³	ND	U	380	ND	U	2.2	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	43
	1,2,4-trichlorobenzene	µg/m³	ND	U	360	ND	U	2.1	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	42
	1,2,4-trimethylbenzene	µg/m³	ND	U	190	18	--	1.1	5.8	--	0.78	2.5	--	0.74	2.7	--	0.76	ND	U	22
	1,2-dibromoethane	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	1,2-dichloroethane	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	1,3,5-trimethylbenzene	µg/m³	ND	U	190	8.9	--	1.1	2.2	J	0.78	0.77	J	0.74	2.1	J	0.76	42	J	22
	1,3-butadiene	µg/m³	ND	U	360	ND	U	2.1	2.9	--	1.5	ND	U	1.4	ND	U	1.4	20	J	42
	1,4-dioxane	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	2-butanone	µg/m³	ND	U	360	2.5	J	2.1	0.92	J	1.5	0.67	J	1.4	2.3	J	1.4	ND	U	42
	2-hexanone	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	4-methyl-2-pentanone	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	Acetone	µg/m³	ND	U	3100	ND	U	18	6.3	J	12	7.1	J	12	17	J	12	ND	U	350
	Benzene	µg/m³	3800	--	190	13	--	1.1	7.8	--	0.78	3.4	--	0.74	10	--	0.76	670	--	22
	Bromodichloromethane	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	Bromoform	µg/m³	ND	U	360	ND	U	2.1	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	42
	Carbon disulfide	µg/m³	ND	U	620	ND	U	3.6	2.0	J	2.5	13	--	2.3	6.8	--	2.4	ND	U	70
	Carbon tetrachloride	µg/m³	ND	U	190	5.2	--	1.1	16	--	0.78	6.9	--	0.74	22	--	0.76	ND	U	22
	Chloroethane	µg/m³	ND	U	360	ND	U	2.1	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	42
	Chloroform	µg/m³	ND	U	190	0.64	J	1.1	0.97	J	0.78	1.2	J	0.74	0.58	J	0.76	ND	U	22
	Chloromethane	µg/m³	ND	U	360	ND	U	2.1	ND	U	1.5	ND	U	1.4	0.45	J	1.4	ND	U	42
	Cyclohexane	µg/m³	3900	--	390	110	--	2.3	16	--	1.6	1.6	J	1.5	13	--	1.5	9100	--	44
	Dibromochloromethane	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	Dichlorodifluoromethane	µg/m³	ND	U	360	67	--	2.1	99	--	1.5	29	--	1.4	33	--	1.4	230	--	42
	Ethanol	µg/m³	ND	U	950	3.8	J	5.6	ND	U	3.8	1.6	J	3.6	ND	UJ	3.7	ND	UJ	110
	Ethyl acetate	µg/m³	ND	U	740	2.7	J	4.4	ND	U	3	4.6	J	2.8	ND	U	2.9	ND	U	85
	Ethylbenzene	µg/m³	230	J	190	11	--	1.1	5.7	--	0.78	2.6	--	0.74	3.0	--	0.76	ND	U	22
	Hexane	µg/m³	1600	--	360	75	--	2.1	18	--	1.5	2.5	--	1.4	3.3	--	1.4	940	--	42
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	720	ND	U	4.2	ND	U	2.9	ND	U	2.7	4.4	J	2.8	ND	U	82
	m,p-Xylene	µg/m³	620	J	390	56	--	2.3	22	--	1.6	9.5	--	1.5	10	--	1.5	34	J	44
	Methylene Chloride	µg/m³	ND	U	360	ND	U	2.1	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	42
	Naphthalene	µg/m³	ND	U	350	2.6	J	2.1	1.6	J	1.4	0.63	J	1.3	0.88	J	1.4	ND	U	40
	n-Heptane	µg/m³	180	J	360	250	--	2.1	31	--	1.5	4.7	--	1.4	4.0	--	1.4	21	J	42
	o-Xylene	µg/m³	270	J	190	31	--	1.1	8.5	--	0.78	3.2	--	0.74	5.0	--	0.76	44	J	22
	Propylene (propene)	µg/m³	540	J	360	5.6	J	2.1	1.9	J	1.5	ND	UJ	1.4	2.4	J	1.4	260	J	42
	Styrene	µg/m³	ND	U	360	ND	U	2.1	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	42
	Tetrachloroethene	µg/m³	ND	U	190	1.0	J	1.1	0.92	J	0.78	1.9	J	0.74	2.3	J	0.76	ND	U	22
	Tetrahydrofuran	µg/m³	ND	U	190	ND	U	1.1	100	--	0.78	1.9	J	0.74	3.2	--	0.76	ND	U	22
	Toluene	µg/m³	5900	--	190	64	--	1.1	36	--	0.78	18	--	0.74	23	--	0.76	ND	U	22
	Trichloroethene	µg/m³	ND	U	190	1.3	J	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	38	J	22
	Trichlorofluoromethane	µg/m³	ND	U	360	8.4	--	2.1	12	--	1.5	3.3	--	1.4	3.8	--	1.4	33	J	42
	Vinyl chloride	µg/m³	ND	U	190	ND	U	1.1	ND	U	0.78	ND	U	0.74	ND	U	0.76	ND	U	22
	Xylenes, Total	µg/m³	900	J	390	87	--	2.3	30	--	1.6	13	--	1.5	15	--	1.5	78	J	44

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106116-350			KAFB-106116-450			KAFB-106117-025			KAFB-106117-050			KAFB-106117-150			KAFB-106117-250		
	Field Sample ID:		SV116-350-602			SV116-450-202			SV117-025-202			SV117-050-202			SV117-150-202			SV117-250-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		FD			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	9.7	J	20	ND	U	630	75	--	0.78	74	--	0.57	140	--	0.75	1200	--	100
	1,1-dichloroethane	µg/m³	ND	U	39	ND	U	1200	ND	U	1.5	ND	U	1.1	ND	U	1.5	ND	U	190
	1,2,4-trichlorobenzene	µg/m³	ND	U	38	ND	U	1200	ND	U	1.5	ND	U	1.1	ND	U	1.4	ND	U	190
	1,2,4-trimethylbenzene	µg/m³	ND	U	20	5600	--	630	19	--	0.78	27	--	0.57	11	--	0.75	60	J	100
	1,2-dibromoethane	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	ND	U	0.57	ND	U	0.75	ND	U	100
	1,2-dichloroethane	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	ND	U	0.57	ND	U	0.75	ND	U	100
	1,3,5-trimethylbenzene	µg/m³	31	J	20	5900	--	630	5.7	--	0.78	5.8	--	0.57	2.9	--	0.75	140	J	100
	1,3-butadiene	µg/m³	33	J	38	1000	J	1200	ND	U	1.5	ND	U	1.1	ND	U	1.4	ND	U	190
	1,4-dioxane	µg/m³	ND	U	20	ND	U	630	1.4	J	0.78	ND	U	0.57	ND	U	0.75	630	--	100
	2-butanone	µg/m³	ND	U	38	ND	U	1200	3.9	J	1.5	53	--	1.1	7.4	--	1.4	ND	U	190
	2-hexanone	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	ND	U	0.57	1.8	J	0.75	ND	U	100
	4-methyl-2-pentanone	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	10	--	0.57	ND	U	0.75	ND	U	100
	Acetone	µg/m³	ND	U	320	ND	U	10000	18	J	12	110	--	9.1	31	--	12	ND	U	1600
	Benzene	µg/m³	430	--	20	58000	--	630	1.8	J	0.78	2.8	--	0.57	1.0	J	0.75	46	J	100
	Bromodichloromethane	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	ND	U	0.57	ND	U	0.75	ND	U	100
	Bromoform	µg/m³	ND	U	38	ND	U	1200	ND	U	1.5	ND	U	1.1	ND	U	1.4	ND	U	190
	Carbon disulfide	µg/m³	ND	U	63	ND	U	2000	ND	U	2.5	3.4	J	1.8	10	--	2.4	ND	U	320
	Carbon tetrachloride	µg/m³	ND	U	20	ND	U	630	22	--	0.78	22	--	0.57	46	--	0.75	ND	U	100
	Chloroethane	µg/m³	ND	U	38	ND	U	1200	ND	U	1.5	ND	U	1.1	ND	U	1.4	ND	U	190
	Chloroform	µg/m³	ND	U	20	ND	U	630	0.45	J	0.78	0.70	J	0.57	10	--	0.75	ND	U	100
	Chloromethane	µg/m³	ND	U	38	ND	U	1200	ND	U	1.5	0.86	J	1.1	0.53	J	1.4	ND	U	190
	Cyclohexane	µg/m³	6000	--	40	540000	--	1300	1.4	J	1.6	9.5	--	1.1	0.94	J	1.5	120	J	200
	Dibromochloromethane	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	ND	U	0.57	ND	U	0.75	ND	U	100
	Dichlorodifluoromethane	µg/m³	150	--	38	750	J	1200	89	--	1.5	72	--	1.1	130	--	1.4	110	J	190
	Ethanol	µg/m³	ND	UJ	97	ND	UJ	3100	4.3	J	3.8	330	--	2.8	25	--	3.7	ND	U	490
	Ethyl acetate	µg/m³	ND	U	76	1900	J	2400	ND	U	3	280	--	2.2	140	--	2.9	ND	U	380
	Ethylbenzene	µg/m³	ND	U	20	9600	--	630	4.2	--	0.78	5.1	--	0.57	0.73	J	0.75	ND	U	100
	Hexane	µg/m³	610	--	38	380000	--	1200	0.57	J	1.5	5.7	--	1.1	0.65	J	1.4	ND	U	190
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	74	ND	U	2300	ND	U	2.9	89	--	2.1	3.0	J	2.8	ND	U	370
	m,p-Xylene	µg/m³	28	J	40	46000	--	1300	22	--	1.6	18	--	1.1	3.2	J	1.5	100	J	200
	Methylene Chloride	µg/m³	ND	U	38	ND	U	1200	ND	U	1.5	14	--	1.1	ND	U	1.4	370	--	190
	Naphthalene	µg/m³	ND	U	36	ND	U	1100	11	--	1.4	9.8	--	1	4.3	--	1.4	ND	U	180
	n-Heptane	µg/m³	15	J	38	430000	--	5900	1.6	J	1.5	34	--	1.1	0.89	J	1.4	ND	U	190
	o-Xylene	µg/m³	33	J	20	29000	--	630	11	--	0.78	7.4	--	0.57	1.8	J	0.75	49	J	100
	Propylene (propene)	µg/m³	220	J	38	11000	J	1200	2.2	J	1.5	39	--	1.1	7.1	--	1.4	130	J	190
	Styrene	µg/m³	ND	U	38	ND	U	1200	ND	U	1.5	2.5	--	1.1	ND	U	1.4	ND	U	190
	Tetrachloroethene	µg/m³	ND	U	20	ND	U	630	1.5	J	0.78	2.3	--	0.57	2.0	J	0.75	290	J	100
	Tetrahydrofuran	µg/m³	ND	U	20	ND	U	630	1.3	J	0.78	48	--	0.57	2.7	--	0.75	ND	U	100
	Toluene	µg/m³	ND	U	20	120000	--	630	28	--	0.78	68	--	0.57	6.8	--	0.75	ND	U	100
	Trichloroethene	µg/m³	23	J	20	ND	U	630	ND	U	0.78	0.35	J	0.57	3.1	--	0.75	56	J	100
	Trichlorofluoromethane	µg/m³	20	J	38	ND	U	1200	12	--	1.5	10	--	1.1	17	--	1.4	ND	U	190
	Vinyl chloride	µg/m³	ND	U	20	ND	U	630	ND	U	0.78	ND	U	0.57	ND	U	0.75	ND	U	100
	Xylenes, Total	µg/m³	61	J	40	76000	--	1300	33	--	1.6	25	--	1.1	5.0	--	1.5	150	J	200

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106117-350			KAFB-106117-450			KAFB-106118-025			KAFB-106118-050			KAFB-106118-160			KAFB-106118-265		
	Field Sample ID:		SV117-350-202			SV117-450-202			SV118-025-202			SV118-050-202			SV118-160-202			SV118-265-202		
	Sample Date:		4/7/2020			4/7/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	1400	--	110	12000	--	1400	21	--	0.77	24	--	0.75	17	--	0.71	24	--	0.73
	1,1-dichloroethane	µg/m³	ND	U	220	ND	U	2700	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	220	ND	U	2600	ND	U	1.5	1.4	J	1.4	ND	U	1.3	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	190	J	110	32000	--	1400	20	--	0.77	4.9	--	0.75	2.0	J	0.71	3.4	--	0.73
	1,2-dibromoethane	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	ND	U	0.75	ND	U	0.71	0.43	J	0.73
	1,2-dichloroethane	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	ND	U	0.75	ND	U	0.71	0.38	J	0.73
	1,3,5-trimethylbenzene	µg/m³	150	J	110	15000	--	1400	5.0	--	0.77	1.2	J	0.75	0.70	J	0.71	0.71	J	0.73
	1,3-butadiene	µg/m³	ND	U	220	ND	U	2600	1.2	J	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	110	ND	U	1400	4.8	--	0.77	0.65	J	0.75	0.53	J	0.71	ND	U	0.73
	2-butanone	µg/m³	ND	U	220	ND	U	2600	38	--	1.5	7.0	--	1.4	5.3	--	1.3	3.3	J	1.4
	2-hexanone	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	0.94	J	0.75	1.5	J	0.71	ND	U	0.73
	4-methyl-2-pentanone	µg/m³	ND	U	110	ND	U	1400	100	--	0.77	12	--	0.75	0.38	J	0.71	ND	U	0.73
	Acetone	µg/m³	ND	U	1800	ND	U	22000	220	--	12	34	--	12	25	--	11	28	--	12
	Benzene	µg/m³	270	J	110	12000	--	1400	230	--	0.77	0.76	J	0.75	0.55	J	0.71	4.9	--	0.73
	Bromodichloromethane	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	ND	U	0.75	ND	U	0.71	ND	U	0.73
	Bromoform	µg/m³	ND	U	220	ND	U	2600	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.4
	Carbon disulfide	µg/m³	ND	U	360	ND	U	4400	60	--	2.5	1.9	J	2.4	3.1	J	2.3	11	--	2.3
	Carbon tetrachloride	µg/m³	ND	U	110	ND	U	1400	8.7	--	0.77	9.8	--	0.75	8.1	--	0.71	36	--	0.73
	Chloroethane	µg/m³	ND	U	220	ND	U	2600	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.4
	Chloroform	µg/m³	ND	U	110	ND	U	1400	0.89	J	0.77	1.1	J	0.75	1.5	J	0.71	0.80	J	0.73
	Chloromethane	µg/m³	ND	U	220	ND	U	2600	ND	U	1.5	0.75	J	1.4	0.49	J	1.3	0.59	J	1.4
	Cyclohexane	µg/m³	26000	--	230	460000	--	2800	6.2	--	1.5	1.2	J	1.5	ND	U	1.4	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	ND	U	0.75	ND	U	0.71	ND	U	0.73
	Dichlorodifluoromethane	µg/m³	240	J	220	ND	U	2600	8.0	--	1.5	8.3	--	1.4	7.5	--	1.3	4.1	--	1.4
	Ethanol	µg/m³	ND	U	560	ND	U	6800	73	--	3.8	140	--	3.7	8.6	J	3.5	78	--	3.6
	Ethyl acetate	µg/m³	ND	U	440	ND	U	5300	ND	U	3	91	--	2.9	3.3	J	2.7	1.8	J	2.8
	Ethylbenzene	µg/m³	ND	U	110	21000	--	1400	56	--	0.77	3.1	--	0.75	0.65	J	0.71	1.1	J	0.73
	Hexane	µg/m³	11000	--	220	320000	--	2600	1.4	J	1.5	0.76	J	1.4	ND	U	1.3	ND	U	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	420	ND	U	5200	2.9	J	2.9	39	--	2.8	1.3	J	2.6	3.1	J	2.7
	m,p-Xylene	µg/m³	160	J	230	200000	--	2800	130	--	1.5	13	--	1.5	2.8	J	1.4	3.0	J	1.5
	Methylene Chloride	µg/m³	450	--	220	4300	J	2600	ND	U	1.5	1.2	J	1.4	ND	U	1.3	1.0	J	1.4
	Naphthalene	µg/m³	ND	U	210	ND	U	2500	1.4	J	1.4	1.2	J	1.4	ND	U	1.3	0.85	J	1.3
	n-Heptane	µg/m³	16000	--	220	570000	--	2600	1.8	J	1.5	1.6	J	1.4	0.40	J	1.3	ND	U	1.4
	o-Xylene	µg/m³	160	J	110	70000	--	1400	36	--	0.77	4.3	--	0.75	0.76	J	0.71	1.5	J	0.73
	Propylene (propene)	µg/m³	ND	U	220	11000	--	2600	6.1	--	1.5	7.4	--	1.4	1.1	J	1.3	1.3	J	1.4
	Styrene	µg/m³	ND	U	220	ND	U	2600	9.4	--	1.5	1.4	J	1.4	ND	U	1.3	ND	U	1.4
	Tetrachloroethene	µg/m³	ND	U	110	3100	J	1400	0.41	J	0.77	0.57	J	0.75	0.60	J	0.71	0.33	J	0.73
	Tetrahydrofuran	µg/m³	ND	U	110	ND	U	1400	0.96	J	0.77	38	--	0.75	0.41	J	0.71	6.3	--	0.73
	Toluene	µg/m³	ND	U	110	96000	--	1400	400	--	7.7	25	--	0.75	3.8	--	0.71	30	--	0.73
	Trichloroethene	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	0.41	J	0.75	ND	U	0.71	ND	U	0.73
	Trichlorofluoromethane	µg/m³	ND	U	220	ND	U	2600	4.5	--	1.5	4.9	--	1.4	4.7	--	1.3	6.0	--	1.4
	Vinyl chloride	µg/m³	ND	U	110	ND	U	1400	ND	U	0.77	ND	U	0.75	ND	U	0.71	ND	U	0.73
	Xylenes, Total	µg/m³	330	J	230	270000	--	2800	160	--	1.5	17	--	1.5	3.5	J	1.4	4.5	J	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106118-350			KAFB-106118-450			KAFB-106118-450			KAFB-106119-025			KAFB-106119-050			KAFB-106119-150		
	Field Sample ID:		SV118-350-202			SV118-450-202			SV118-450-602			SV119-025-202			SV119-050-202			SV119-150-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/22/2020			4/22/2020			4/22/2020		
	Sample Type:		REG			REG			FD			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	12	--	0.81	13	J	15	11	J	13	55	--	0	190	--	0	ND	U	1300
	1,1-dichloroethane	µg/m³	ND	U	1.6	ND	U	29	ND	U	25	ND	U	1	ND	U	1	ND	U	2600
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	28	ND	U	24	ND	U	1	ND	U	1	ND	U	2500
	1,2,4-trimethylbenzene	µg/m³	20	--	0.81	ND	U	15	32	J	13	0.36	J	0	ND	U	0	ND	U	1300
	1,2-dibromoethane	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	1,2-dichloroethane	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	1,3,5-trimethylbenzene	µg/m³	4.2	--	0.81	8.4	J	15	14	J	13	ND	U	0	ND	U	0	ND	U	1300
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	28	ND	U	24	ND	U	1	ND	U	1	ND	U	2500
	1,4-dioxane	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	2-butanone	µg/m³	2.0	J	1.5	ND	U	28	ND	U	24	4.0	J	1	3.3	J	1	ND	U	2500
	2-hexanone	µg/m³	0.36	J	0.81	ND	U	15	ND	U	13	0.94	J	0	0.65	J	0	ND	U	1300
	4-methyl-2-pentanone	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	Acetone	µg/m³	22	J	13	ND	U	230	ND	U	210	16	J	12	15	J	12	ND	U	21000
	Benzene	µg/m³	0.89	J	0.81	110	--	15	96	--	13	ND	U	0	ND	U	0	6400	--	1300
	Bromodichloromethane	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	Bromoform	µg/m³	ND	U	1.5	ND	U	28	ND	U	24	ND	U	1	ND	U	1	ND	U	2500
	Carbon disulfide	µg/m³	4.3	J	2.6	250	--	47	210	--	41	ND	U	2	1.1	J	2	ND	U	4300
	Carbon tetrachloride	µg/m³	19	--	0.81	66	--	15	62	--	13	2.4	--	0	3.7	--	0	ND	U	1300
	Chloroethane	µg/m³	ND	U	1.5	6.9	J	28	5.5	J	24	ND	U	1	ND	U	1	ND	U	2500
	Chloroform	µg/m³	6.7	--	0.81	8.6	J	15	7.5	J	13	0.70	J	0	ND	U	0	ND	U	1300
	Chloromethane	µg/m³	ND	U	1.5	39	J	28	33	J	24	ND	U	1	ND	U	1	ND	U	2500
	Cyclohexane	µg/m³	ND	U	1.6	6800	--	30	5900	--	26	2.0	J	1	ND	U	1	210000	--	2700
	Dibromochloromethane	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	Dichlorodifluoromethane	µg/m³	3.7	--	1.5	ND	U	28	ND	U	24	7.8	--	1	11	--	1	ND	U	2500
	Ethanol	µg/m³	ND	U	4	ND	U	72	ND	U	63	7.0	J	3	4.3	J	3	ND	U	6500
	Ethyl acetate	µg/m³	ND	U	3.1	ND	U	57	ND	U	49	ND	U	2	ND	U	2	ND	U	5100
	Ethylbenzene	µg/m³	1.6	J	0.81	14	J	15	14	J	13	ND	U	0	ND	U	0	ND	U	1300
	Hexane	µg/m³	ND	U	1.5	330	--	28	280	--	24	ND	U	1	ND	U	1	16000	--	2500
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3	ND	U	55	ND	U	48	1.2	J	2	ND	U	2	ND	U	5000
	m,p-Xylene	µg/m³	7.2	--	1.6	27	J	30	32	J	26	0.71	J	1	ND	U	1	ND	U	2700
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	28	ND	U	24	ND	U	1	ND	U	1	ND	U	2500
	Naphthalene	µg/m³	2.7	--	1.5	ND	U	27	ND	U	24	ND	U	1	ND	U	1	ND	U	2400
	n-Heptane	µg/m³	0.91	J	1.5	ND	U	28	ND	U	24	ND	U	1	ND	U	1	5000	--	2500
	o-Xylene	µg/m³	2.1	J	0.81	21	J	15	21	J	13	ND	U	0	ND	U	0	ND	U	1300
	Propylene (propene)	µg/m³	11	--	1.5	13	J	28	10	J	24	1.2	J	1	2.1	J	1	2700	J	2500
	Styrene	µg/m³	ND	U	1.5	ND	U	28	ND	U	24	ND	U	1	ND	U	1	ND	U	2500
	Tetrachloroethene	µg/m³	0.54	J	0.81	ND	U	15	ND	U	13	0.87	J	0	2.6	--	0	ND	U	1300
	Tetrahydrofuran	µg/m³	0.44	J	0.81	70	--	15	61	--	13	ND	U	0	ND	U	0	ND	U	1300
	Toluene	µg/m³	4.9	--	0.81	490	--	15	440	--	13	1.1	J	0	0.58	J	0	6300	--	1300
	Trichloroethene	µg/m³	ND	U	0.81	ND	U	15	ND	U	13	ND	U	0	ND	U	0	ND	U	1300
	Trichlorofluoromethane	µg/m³	7.5	--	1.5	ND	U	28	ND	U	24	2.2	J	1	3.6	--	1	ND	U	2500
	Vinyl chloride	µg/m³	ND	U	0.81	7.9	J	15	6.6	J	13	ND	U	0	ND	U	0	ND	U	1300
	Xylenes, Total	µg/m³	9.3	--	1.6	48	J	30	53	J	26	0.71	J	1	ND	U	1	ND	U	2700

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106119-250			KAFB-106119-350			KAFB-106119-450			KAFB-106120-025			KAFB-106120-025			KAFB-106120-050		
	Field Sample ID:		SV119-250-202			SV119-350-202			SV119-450-202			SV120-025-202			SV120-025-602			SV120-050-202		
	Sample Date:		4/22/2020			4/22/2020			4/22/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			REG			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	4800	ND	U	1400	380	J	140	0.39	J	0.68	0.47	J	0.86	0.89	J	0.71
	1,1-dichloroethane	µg/m³	ND	U	9400	ND	U	2800	ND	U	270	ND	U	1.3	ND	U	1.7	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	ND	U	1.3
	1,2,4-trimethylbenzene	µg/m³	ND	U	4800	690	J	1400	ND	U	140	2.5	--	0.68	3.1	--	0.86	ND	U	0.71
	1,2-dibromoethane	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	0.32	J	0.68	ND	U	0.86	ND	U	0.71
	1,2-dichloroethane	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	ND	U	0.68	ND	U	0.86	ND	U	0.71
	1,3,5-trimethylbenzene	µg/m³	ND	U	4800	730	J	1400	ND	U	140	1.1	J	0.68	1.4	J	0.86	ND	U	0.71
	1,3-butadiene	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	ND	U	1.3
	1,4-dioxane	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	0.40	J	0.68	ND	U	0.86	0.27	J	0.71
	2-butanone	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	1.0	J	1.3	1.7	J	1.6	33	--	1.3
	2-hexanone	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	0.50	J	0.68	0.68	J	0.86	1.8	J	0.71
	4-methyl-2-pentanone	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	ND	U	0.68	ND	U	0.86	0.45	J	0.71
	Acetone	µg/m³	ND	U	77000	ND	U	23000	ND	U	2200	7.9	J	11	22	J	14	32	--	11
	Benzene	µg/m³	180000	--	4800	22000	--	1400	110	J	140	0.40	J	0.68	0.90	J	0.86	ND	U	0.71
	Bromodichloromethane	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	44	--	0.68	54	--	0.86	380	--	7.1
	Bromoform	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	ND	U	1.3
	Carbon disulfide	µg/m³	ND	U	15000	ND	U	4600	ND	U	450	ND	U	2.2	2.1	J	2.7	1.8	J	2.3
	Carbon tetrachloride	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	1.5	J	0.68	1.9	J	0.86	20	--	0.71
	Chloroethane	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	ND	U	1.3
	Chloroform	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	170	--	0.68	210	--	0.86	1000	--	7.1
	Chloromethane	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	0.37	J	1.3
	Cyclohexane	µg/m³	920000	--	9700	250000	--	2900	35000	--	280	ND	U	1.4	ND	U	1.7	ND	U	1.4
	Dibromochloromethane	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	1.4	J	0.68	1.6	J	0.86	78	--	0.71
	Dichlorodifluoromethane	µg/m³	ND	U	9100	ND	U	2700	88	J	260	2.5	--	1.3	2.9	--	1.6	3.0	--	1.3
	Ethanol	µg/m³	ND	U	24000	ND	U	7100	ND	U	680	ND	U	3.3	7.0	J	4.2	10	J	3.5
	Ethyl acetate	µg/m³	ND	U	19000	ND	U	5500	ND	U	540	ND	U	2.6	ND	U	3.3	28	--	2.7
	Ethylbenzene	µg/m³	3100	J	4800	ND	U	1400	ND	U	140	1.4	J	0.68	1.9	J	0.86	ND	U	0.71
	Hexane	µg/m³	510000	--	9100	61000	--	2700	5800	--	260	ND	U	1.3	ND	U	1.6	ND	U	1.3
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	18000	ND	U	5400	ND	U	520	5.8	J	2.5	12	--	3.2	3.1	J	2.6
	m,p-Xylene	µg/m³	16000	J	9700	1200	J	2900	150	J	280	4.6	--	1.4	7.3	--	1.7	ND	U	1.4
	Methylene Chloride	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	6.9	--	1.3
	Naphthalene	µg/m³	ND	U	8800	ND	U	2600	ND	U	260	1.3	J	1.2	1.7	J	1.6	ND	U	1.3
	n-Heptane	µg/m³	180000	--	9100	51000	--	2700	6300	--	260	0.77	J	1.3	1.7	J	1.6	ND	U	1.3
	o-Xylene	µg/m³	16000	--	4800	3000	J	1400	ND	U	140	2.2	J	0.68	3.1	--	0.86	ND	U	0.71
	Propylene (propene)	µg/m³	ND	U	9100	2500	J	2700	270	J	260	1.7	J	1.3	3.3	--	1.6	1.5	J	1.3
	Styrene	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	ND	U	1.3	ND	U	1.6	ND	U	1.3
	Tetrachloroethene	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	2.1	--	0.68	2.3	J	0.86	9.5	--	0.71
	Tetrahydrofuran	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	0.39	J	0.68	0.92	J	0.86	63	--	0.71
	Toluene	µg/m³	73000	--	4800	860	J	1400	180	J	140	5.4	--	0.68	8.2	--	0.86	2.2	J	0.71
	Trichloroethene	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	0.95	J	0.68	0.79	J	0.86	4.6	--	0.71
	Trichlorofluoromethane	µg/m³	ND	U	9100	ND	U	2700	ND	U	260	1.1	J	1.3	1.2	J	1.6	1.2	J	1.3
	Vinyl chloride	µg/m³	ND	U	4800	ND	U	1400	ND	U	140	ND	U	0.68	ND	U	0.86	ND	U	0.71
	Xylenes, Total	µg/m³	32000	--	9700	4300	J	2900	150	J	280	6.8	--	1.4	10	--	1.7	ND	U	1.4

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106120-150			KAFB-106120-250			KAFB-106120-350			KAFB-106120-450			KAFB-106121-025			KAFB-106121-050		
	Field Sample ID:		SV120-150-202			SV120-250-202			SV120-350-202			SV120-450-202			SV121-025-202			SV121-050-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	1.0	J	0.69	0.72	J	0.66	3.1	J	1.9	ND	U	15	0.69	J	0.76	0.69	J	0.73
	1,1-dichloroethane	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	3.7	ND	U	29	ND	U	1.5	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	ND	U	28	ND	U	1.4	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	0.68	J	0.76	0.44	J	0.73
	1,2-dibromoethane	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	ND	U	0.76	ND	U	0.73
	1,2-dichloroethane	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	ND	U	0.76	ND	U	0.73
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	ND	U	0.76	ND	U	0.73
	1,3-butadiene	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	ND	U	28	ND	U	1.4	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	ND	U	0.76	0.51	J	0.73
	2-butanone	µg/m³	12	--	1.3	3.1	J	1.2	10	J	3.5	ND	U	28	3.7	J	1.4	2.4	J	1.4
	2-hexanone	µg/m³	2.2	--	0.69	0.48	J	0.66	1.3	J	1.9	ND	U	15	0.53	J	0.76	0.87	J	0.73
	4-methyl-2-pentanone	µg/m³	0.47	J	0.69	0.99	J	0.66	ND	U	1.9	ND	U	15	ND	U	0.76	ND	U	0.73
	Acetone	µg/m³	29	--	11	8.2	J	10	57	J	30	ND	U	230	16	J	12	12	J	12
	Benzene	µg/m³	0.99	J	0.69	ND	U	0.66	83	--	1.9	110	--	15	ND	U	0.76	0.42	J	0.73
	Bromodichloromethane	µg/m³	4.7	--	0.69	0.48	J	0.66	ND	U	1.9	ND	U	15	45	--	0.76	53	--	0.73
	Bromoform	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	ND	U	28	ND	U	1.4	ND	U	1.4
	Carbon disulfide	µg/m³	1.4	J	2.2	1.9	J	2.1	ND	U	6	150	--	47	ND	U	2.4	3.0	J	2.3
	Carbon tetrachloride	µg/m³	22	--	0.69	2.4	--	0.66	ND	U	1.9	ND	U	15	15	--	0.76	16	--	0.73
	Chloroethane	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	6.4	J	28	ND	U	1.4	ND	U	1.4
	Chloroform	µg/m³	51	--	0.69	2.3	--	0.66	ND	U	1.9	ND	U	15	500	--	7.6	590	--	7.3
	Chloromethane	µg/m³	0.40	J	1.3	0.52	J	1.2	ND	U	3.5	24	J	28	ND	U	1.4	0.47	J	1.4
	Cyclohexane	µg/m³	ND	U	1.4	ND	U	1.3	47	--	3.8	22	J	29	ND	U	1.5	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	1.2	J	0.76	2.1	J	0.73
	Dichlorodifluoromethane	µg/m³	9.6	--	1.3	10	--	1.2	120	--	3.5	99	--	28	3.7	--	1.4	4.0	--	1.4
	Ethanol	µg/m³	ND	U	3.4	ND	U	3.2	ND	U	9.2	ND	U	72	15	J	3.7	9.2	J	3.6
	Ethyl acetate	µg/m³	ND	U	2.6	ND	U	2.5	ND	U	7.2	ND	U	56	ND	U	2.9	ND	U	2.8
	Ethylbenzene	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	6.9	J	15	ND	U	0.76	ND	U	0.73
	Hexane	µg/m³	ND	U	1.3	ND	U	1.2	17	--	3.5	24	J	28	ND	U	1.4	ND	U	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	3.8	J	2.6	1.6	J	2.4	ND	U	7	ND	U	54	1.3	J	2.8	1.2	J	2.7
	m,p-Xylene	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	3.8	14	J	29	ND	U	1.5	ND	U	1.5
	Methylene Chloride	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	ND	U	28	1.1	J	1.4	ND	U	1.4
	Naphthalene	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.4	ND	U	27	ND	U	1.4	ND	U	1.3
	n-Heptane	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	ND	U	28	ND	U	1.4	0.40	J	1.4
	o-Xylene	µg/m³	ND	U	0.69	ND	U	0.66	1.4	J	1.9	9.1	J	15	ND	U	0.76	ND	U	0.73
	Propylene (propene)	µg/m³	2.7	--	1.3	0.68	J	1.2	9.1	--	3.5	ND	U	28	1.0	J	1.4	0.95	J	1.4
	Styrene	µg/m³	ND	U	1.3	ND	U	1.2	ND	U	3.5	ND	U	28	ND	U	1.4	ND	U	1.4
	Tetrachloroethene	µg/m³	2.9	--	0.69	0.42	J	0.66	1.9	J	1.9	ND	U	15	4.6	--	0.76	5.2	--	0.73
	Tetrahydrofuran	µg/m³	6.6	--	0.69	4.5	--	0.66	1.1	J	1.9	27	J	15	0.56	J	0.76	3.5	--	0.73
	Toluene	µg/m³	0.91	J	0.69	0.56	J	0.66	4.2	J	1.9	130	--	15	1.2	J	0.76	1.9	J	0.73
	Trichloroethene	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	ND	U	15	2.2	J	0.76	2.4	--	0.73
	Trichlorofluoromethane	µg/m³	1.1	J	1.3	1.2	J	1.2	13	--	3.5	10	J	28	1.2	J	1.4	1.2	J	1.4
	Vinyl chloride	µg/m³	ND	U	0.69	ND	U	0.66	ND	U	1.9	7.0	J	15	ND	U	0.76	ND	U	0.73
	Xylenes, Total	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	3.8	24	J	29	ND	U	1.5	ND	U	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106121-145			KAFB-106121-145			KAFB-106121-250			KAFB-106121-350			KAFB-106121-440			KAFB-106122-025		
	Field Sample ID:		SV121-145-202			SV121-145-602			SV121-250-202			SV121-350-202			SV121-450-202			SV122-025-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.92	J	0.74	0.92	J	0.75	1.2	J	0.77	3.5	--	0.74	4.4	J	1.9	0.47	J	0.7
	1,1-dichloroethane	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.4	7.0	--	3.7	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	3.6	ND	U	1.3
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.74	0.46	J	0.75	ND	U	0.77	ND	U	0.74	2.8	J	1.9	ND	U	0.7
	1,2-dibromoethane	µg/m³	ND	U	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	ND	U	1.9	ND	U	0.7
	1,2-dichloroethane	µg/m³	ND	U	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	3.1	J	1.9	ND	U	0.7
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	1.4	J	1.9	ND	U	0.7
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	3.6	ND	U	1.3
	1,4-dioxane	µg/m³	0.28	J	0.74	ND	U	0.75	0.92	J	0.77	ND	U	0.74	ND	U	1.9	ND	U	0.7
	2-butanone	µg/m³	4.3	J	1.4	3.8	J	1.4	2.4	J	1.5	2.4	J	1.4	8.3	J	3.6	0.49	J	1.3
	2-hexanone	µg/m³	0.31	J	0.74	0.31	J	0.75	0.59	J	0.77	0.68	J	0.74	ND	U	1.9	ND	U	0.7
	4-methyl-2-pentanone	µg/m³	ND	U	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	ND	U	1.9	ND	U	0.7
	Acetone	µg/m³	19	J	12	7.5	J	12	13	J	12	14	J	12	36	J	31	ND	U	11
	Benzene	µg/m³	0.37	J	0.74	0.43	J	0.75	ND	U	0.77	1.3	J	0.74	180	--	1.9	ND	U	0.7
	Bromodichloromethane	µg/m³	3.2	--	0.74	3.0	--	0.75	ND	U	0.77	ND	U	0.74	ND	U	1.9	6.6	--	0.7
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	3.6	ND	U	1.3
	Carbon disulfide	µg/m³	1.7	J	2.3	4.0	J	2.4	4.5	J	2.5	8.6	--	2.4	270	--	6.1	1.3	J	2.2
	Carbon tetrachloride	µg/m³	16	--	0.74	14	--	0.75	3.7	--	0.77	0.53	J	0.74	ND	U	1.9	0.88	J	0.7
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.4	8.1	--	3.6	ND	U	1.3
	Chloroform	µg/m³	50	--	0.74	46	--	0.75	2.5	--	0.77	0.76	J	0.74	ND	U	1.9	67	--	0.7
	Chloromethane	µg/m³	0.48	J	1.4	ND	U	1.4	ND	U	1.5	0.57	J	1.4	47	--	3.6	ND	U	1.3
	Cyclohexane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.5	1.6	J	1.5	34	--	3.9	ND	U	1.4
	Dibromochloromethane	µg/m³	ND	U	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	ND	U	1.9	ND	U	0.7
	Dichlorodifluoromethane	µg/m³	19	--	1.4	17	--	1.4	26	--	1.5	140	--	1.4	170	--	3.6	2.5	--	1.3
	Ethanol	µg/m³	ND	U	3.6	ND	U	3.7	ND	U	3.8	12	J	3.6	ND	U	9.4	ND	U	3.4
	Ethyl acetate	µg/m³	ND	U	2.8	2.9	J	2.9	ND	U	3	49	--	2.8	ND	U	7.4	ND	U	2.7
	Ethylbenzene	µg/m³	ND	U	0.74	0.36	J	0.75	ND	U	0.77	ND	U	0.74	36	--	1.9	ND	U	0.7
	Hexane	µg/m³	ND	U	1.4	0.50	J	1.4	ND	U	1.5	1.3	J	1.4	11	--	3.6	ND	U	1.3
	Isopropyl alcohol (manufacturing-strong	µg/m³	4.4	J	2.7	ND	U	2.8	ND	U	2.9	2.1	J	2.8	ND	U	7.1	ND	U	2.6
	m,p-Xylene	µg/m³	ND	U	1.5	1.4	J	1.5	ND	U	1.5	0.69	J	1.5	51	--	3.9	ND	U	1.4
	Methylene Chloride	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	3.6	ND	U	1.3
	Naphthalene	µg/m³	ND	U	1.3	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	3.5	ND	U	1.3
	n-Heptane	µg/m³	ND	U	1.4	0.98	J	1.4	ND	U	1.5	ND	U	1.4	4.8	J	3.6	ND	U	1.3
	o-Xylene	µg/m³	ND	U	0.74	0.51	J	0.75	ND	U	0.77	0.35	J	0.74	17	--	1.9	ND	U	0.7
	Propylene (propene)	µg/m³	2.0	J	1.4	0.76	J	1.4	0.76	J	1.5	1.1	J	1.4	7.3	--	3.6	ND	U	1.3
	Styrene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	3.6	ND	U	1.3
	Tetrachloroethene	µg/m³	2.3	--	0.74	1.9	J	0.75	0.35	J	0.77	0.80	J	0.74	1.4	J	1.9	0.66	J	0.7
	Tetrahydrofuran	µg/m³	30	--	0.74	31	--	0.75	6.9	--	0.77	4.9	--	0.74	83	--	1.9	1.4	J	0.7
	Toluene	µg/m³	0.98	J	0.74	2.5	--	0.75	0.56	J	0.77	4.2	--	0.74	810	--	1.9	1.0	J	0.7
	Trichloroethene	µg/m³	0.33	J	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	ND	U	1.9	0.32	J	0.7
	Trichlorofluoromethane	µg/m³	1.7	J	1.4	1.7	J	1.4	2.1	J	1.5	15	--	1.4	19	--	3.6	1.2	J	1.3
	Vinyl chloride	µg/m³	ND	U	0.74	ND	U	0.75	ND	U	0.77	ND	U	0.74	9.9	--	1.9	ND	U	0.7
	Xylenes, Total	µg/m³	ND	U	1.5	1.9	J	1.5	ND	U	1.5	1.0	J	1.5	68	--	3.9	ND	U	1.4

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106122-050			KAFB-106122-150			KAFB-106122-250			KAFB-106122-350			KAFB-106122-450			KAFB-106123-025		
	Field Sample ID:		SV122-050-202			SV122-150-202			SV122-250-202			SV122-350-202			SV122-450-202			SV123-025-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.56	J	0.8	0.55	J	0.75	0.96	J	0.79	1.2	J	0.84	ND	U	15	0.54	J	0.73
	1,1-dichloroethane	µg/m³	ND	U	1.6	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	29	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	1.6	ND	U	28	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.8	ND	U	0.75	0.51	J	0.79	ND	U	0.84	ND	U	15	ND	U	0.73
	1,2-dibromoethane	µg/m³	ND	U	0.8	ND	U	0.75	ND	U	0.79	ND	U	0.84	ND	U	15	ND	U	0.73
	1,2-dichloroethane	µg/m³	ND	U	0.8	ND	U	0.75	ND	U	0.79	ND	U	0.84	ND	U	15	ND	U	0.73
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.8	ND	U	0.75	ND	U	0.79	ND	U	0.84	ND	U	15	ND	U	0.73
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	1.6	ND	U	28	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	0.8	0.31	J	0.75	0.60	J	0.79	ND	U	0.84	ND	U	15	0.78	J	0.73
	2-butanone	µg/m³	2.8	J	1.5	4.5	J	1.4	24	--	1.5	6.6	--	1.6	71	J	28	6.1	--	1.4
	2-hexanone	µg/m³	0.67	J	0.8	0.56	J	0.75	1.7	J	0.79	0.80	J	0.84	ND	U	15	0.65	J	0.73
	4-methyl-2-pentanone	µg/m³	ND	U	0.8	ND	U	0.75	0.78	J	0.79	0.40	J	0.84	ND	U	15	0.32	J	0.73
	Acetone	µg/m³	16	J	13	27	--	12	73	--	13	43	--	13	ND	U	240	29	--	12
	Benzene	µg/m³	ND	U	0.8	0.35	J	0.75	0.54	J	0.79	0.88	J	0.84	150	--	15	1.1	J	0.73
	Bromodichloromethane	µg/m³	48	--	0.8	1.7	J	0.75	ND	U	0.79	ND	U	0.84	ND	U	15	170	--	0.73
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	1.6	ND	U	28	ND	U	1.4
	Carbon disulfide	µg/m³	2.1	J	2.6	5.1	--	2.4	21	--	2.5	24	--	2.7	210	--	48	4.3	J	2.3
	Carbon tetrachloride	µg/m³	9.2	--	0.8	16	--	0.75	3.5	--	0.79	ND	U	0.84	ND	U	15	3.6	--	0.73
	Chloroethane	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.5	ND	U	1.6	7.2	J	28	ND	U	1.4
	Chloroform	µg/m³	470	--	0.8	25	--	0.75	0.61	J	0.79	0.41	J	0.84	ND	U	15	310	--	7.3
	Chloromethane	µg/m³	0.54	J	1.5	0.91	J	1.4	1.5	J	1.5	ND	U	1.6	39	J	28	ND	U	1.4
	Cyclohexane	µg/m³	ND	U	1.6	ND	U	1.5	1.8	J	1.6	2.9	J	1.7	54	J	30	5.9	--	1.5
	Dibromochloromethane	µg/m³	1.5	J	0.8	ND	U	0.75	ND	U	0.79	ND	U	0.84	ND	U	15	18	--	0.73
	Dichlorodifluoromethane	µg/m³	2.9	--	1.5	6.1	--	1.4	21	--	1.5	54	--	1.6	65	--	28	3.2	--	1.4
	Ethanol	µg/m³	5.2	J	3.9	67	--	3.7	28	--	3.9	45	--	4.1	55	J	73	40	--	3.5
	Ethyl acetate	µg/m³	ND	U	3.1	ND	U	2.9	30	--	3	82	--	3.2	89	J	57	39	--	2.8
	Ethylbenzene	µg/m³	ND	U	0.8	ND	U	0.75	0.41	J	0.79	ND	U	0.84	27	J	15	0.63	J	0.73
	Hexane	µg/m³	ND	U	1.5	ND	U	1.4	1.7	J	1.5	0.93	J	1.6	35	J	28	4.7	--	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3	1.2	J	2.8	2.2	J	2.9	4.1	J	3.1	ND	U	55	3.2	J	2.7
	m,p-Xylene	µg/m³	ND	U	1.6	ND	U	1.5	1.2	J	1.6	0.75	J	1.7	45	J	30	2.6	J	1.5
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	1.4	0.73	J	1.5	ND	U	1.6	ND	U	28	3.1	--	1.4
	Naphthalene	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	27	ND	U	1.3
	n-Heptane	µg/m³	ND	U	1.5	ND	U	1.4	0.55	J	1.5	ND	U	1.6	ND	U	28	0.64	J	1.4
	o-Xylene	µg/m³	ND	U	0.8	ND	U	0.75	0.42	J	0.79	ND	U	0.84	15	J	15	0.86	J	0.73
	Propylene (propene)	µg/m³	0.68	J	1.5	0.87	J	1.4	1.5	J	1.5	2.0	J	1.6	ND	U	28	4.8	--	1.4
	Styrene	µg/m³	ND	U	1.5	5.0	--	1.4	ND	U	1.5	ND	U	1.6	ND	U	28	ND	U	1.4
	Tetrachloroethene	µg/m³	3.7	--	0.8	2.0	J	0.75	0.41	J	0.79	0.68	J	0.84	ND	U	15	2.9	--	0.73
	Tetrahydrofuran	µg/m³	0.47	J	0.8	120	--	0.75	20	--	0.79	3.5	--	0.84	210	--	15	2.1	J	0.73
	Toluene	µg/m³	0.48	J	0.8	0.60	J	0.75	2.6	--	0.79	3.9	--	0.84	630	--	15	11	--	0.73
	Trichloroethene	µg/m³	1.2	J	0.8	ND	U	0.75	5.3	--	0.79	ND	U	0.84	ND	U	15	1.2	J	0.73
	Trichlorofluoromethane	µg/m³	1.2	J	1.5	0.91	J	1.4	1.7	J	1.5	5.3	--	1.6	ND	U	28	1.2	J	1.4
	Vinyl chloride	µg/m³	ND	U	0.8	ND	U	0.75	ND	U	0.79	ND	U	0.84	8.9	J	15	ND	U	0.73
	Xylenes, Total	µg/m³	ND	U	1.6	ND	U	1.5	1.6	J	1.6	0.75	J	1.7	59	J	30	3.4	J	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106123-050			KAFB-106123-150			KAFB-106123-250			KAFB-106123-350			KAFB-106123-450			KAFB-106124-025		
	Field Sample ID:		SV123-050-202			SV123-150-202			SV123-250-202			SV123-350-202			SV123-450-202			SV124-025-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/7/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	1.0	J	0.73	1.3	J	0.77	3.1	--	0.79	6.7	--	0.76	6.2	--	0.71	0.47	J	0.81
	1,1-dichloroethane	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.6
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.5
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	0.38	J	0.71	15	--	0.81
	1,2-dibromoethane	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	1.1	J	0.76	ND	U	0.71	ND	U	0.81
	1,2-dichloroethane	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	ND	U	0.71	ND	U	0.81
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	ND	U	0.71	2.7	--	0.81
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.5
	1,4-dioxane	µg/m³	ND	U	0.73	ND	U	0.77	0.34	J	0.79	0.36	J	0.76	ND	U	0.71	ND	U	0.81
	2-butanone	µg/m³	3.6	J	1.4	1.1	J	1.5	3.0	J	1.5	2.3	J	1.4	7.5	--	1.3	2.3	J	1.5
	2-hexanone	µg/m³	1.1	J	0.73	ND	U	0.77	0.63	J	0.79	0.77	J	0.76	1.1	J	0.71	ND	U	0.81
	4-methyl-2-pentanone	µg/m³	0.32	J	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	0.33	J	0.71	ND	U	0.81
	Acetone	µg/m³	15	J	12	8.0	J	12	17	J	13	17	J	12	21	J	11	16	J	13
	Benzene	µg/m³	0.37	J	0.73	0.48	J	0.77	ND	U	0.79	0.61	J	0.76	2.7	--	0.71	0.52	J	0.81
	Bromodichloromethane	µg/m³	380	--	7.3	3.8	--	0.77	5.8	--	0.79	0.97	J	0.76	5.6	--	0.71	16	--	0.81
	Bromoform	µg/m³	6.6	--	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Carbon disulfide	µg/m³	1.1	J	2.3	2.8	J	2.5	2.1	J	2.5	2.7	J	2.4	6.2	--	2.2	ND	U	2.6
	Carbon tetrachloride	µg/m³	20	--	0.73	15	--	0.77	7.4	--	0.79	1.6	J	0.76	ND	U	0.71	0.72	J	0.81
	Chloroethane	µg/m³	0.29	J	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Chloroform	µg/m³	880	--	7.3	26	--	0.77	12	--	0.79	12	--	0.76	7.0	--	0.71	180	--	0.81
	Chloromethane	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.5	0.43	J	1.4	0.63	J	1.3	ND	U	1.5
	Cyclohexane	µg/m³	ND	U	1.5	0.68	J	1.5	ND	U	1.6	1.8	J	1.5	3.8	J	1.4	ND	U	1.6
	Dibromochloromethane	µg/m³	84	--	0.73	0.36	J	0.77	1.2	J	0.79	0.37	J	0.76	2.4	--	0.71	0.34	J	0.81
	Dichlorodifluoromethane	µg/m³	10	--	1.4	27	--	1.5	75	--	1.5	260	--	1.4	270	--	1.3	2.1	J	1.5
	Ethanol	µg/m³	12	J	3.6	5.6	J	3.8	10	J	3.9	9.6	J	3.7	58	--	3.4	29	--	4
	Ethyl acetate	µg/m³	74	--	2.8	1.3	J	3	ND	U	3	2.8	J	2.9	42	--	2.7	110	--	3.1
	Ethylbenzene	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	0.71	J	0.71	0.89	J	0.81
	Hexane	µg/m³	0.62	J	1.4	0.71	J	1.5	ND	U	1.5	1.4	J	1.4	3.2	--	1.3	ND	U	1.5
	Isopropyl alcohol (manufacturing-strong	µg/m³	1.7	J	2.7	ND	U	2.9	ND	U	2.9	1.1	J	2.8	4.6	J	2.6	6.5	J	3
	m,p-Xylene	µg/m³	ND	U	1.5	0.74	J	1.5	ND	U	1.6	ND	U	1.5	1.4	J	1.4	4.1	J	1.6
	Methylene Chloride	µg/m³	12	--	1.4	ND	U	1.5	ND	U	1.5	0.98	J	1.4	1.5	J	1.3	0.82	J	1.5
	Naphthalene	µg/m³	ND	U	1.3	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	1.3	3.6	--	1.5
	n-Heptane	µg/m³	0.38	J	1.4	0.48	J	1.5	ND	U	1.5	ND	U	1.4	0.54	J	1.3	1.0	J	1.5
	o-Xylene	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	0.58	J	0.71	1.4	J	0.81
	Propylene (propene)	µg/m³	1.4	J	1.4	0.71	J	1.5	0.81	J	1.5	0.98	J	1.4	2.1	J	1.3	4.5	--	1.5
	Styrene	µg/m³	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.3	ND	U	1.5
	Tetrachloroethene	µg/m³	7.6	--	0.73	2.0	J	0.77	1.1	J	0.79	0.69	J	0.76	1.9	J	0.71	0.77	J	0.81
	Tetrahydrofuran	µg/m³	ND	U	0.73	1.1	J	0.77	0.72	J	0.79	4.4	--	0.76	8.5	--	0.71	3.0	--	0.81
	Toluene	µg/m³	3.6	--	0.73	1.6	J	0.77	0.59	J	0.79	1.5	J	0.76	14	--	0.71	8.0	--	0.81
	Trichloroethene	µg/m³	4.0	--	0.73	0.73	J	0.77	ND	U	0.79	0.43	J	0.76	ND	U	0.71	ND	U	0.81
	Trichlorofluoromethane	µg/m³	1.9	J	1.4	2.1	J	1.5	6.2	--	1.5	27	--	1.4	28	--	1.3	1.1	J	1.5
	Vinyl chloride	µg/m³	ND	U	0.73	ND	U	0.77	ND	U	0.79	ND	U	0.76	ND	U	0.71	ND	U	0.81
	Xylenes, Total	µg/m³	ND	U	1.5	0.74	J	1.5	ND	U	1.6	ND	U	1.5	2.0	J	1.4	5.5	--	1.6

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106124-050			KAFB-106124-150			KAFB-106124-250			KAFB-106124-250			KAFB-106124-350			KAFB-106124-450		
	Field Sample ID:		SV124-050-202			SV124-150-202			SV124-250-202			SV124-250-602			SV124-350-202			SV124-450-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG			FD			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.48	J	0.86	0.34	J	0.71	ND	U	0.71	ND	U	0.74	ND	U	7.9	ND	U	210
	1,1-dichloroethane	µg/m³	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	15	ND	U	400
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	15	ND	U	390
	1,2,4-trimethylbenzene	µg/m³	11	--	0.86	7.5	--	0.71	22	J	0.71	41	J	0.74	6.4	J	7.9	ND	U	210
	1,2-dibromoethane	µg/m³	ND	U	0.86	ND	U	0.71	ND	U	0.71	ND	U	0.74	ND	U	7.9	ND	U	210
	1,2-dichloroethane	µg/m³	ND	U	0.86	ND	U	0.71	ND	U	0.71	ND	U	0.74	ND	U	7.9	ND	U	210
	1,3,5-trimethylbenzene	µg/m³	2.2	J	0.86	1.5	J	0.71	4.4	J	0.71	8.4	J	0.74	ND	U	7.9	ND	U	210
	1,3-butadiene	µg/m³	ND	U	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	15	ND	U	390
	1,4-dioxane	µg/m³	ND	U	0.86	0.50	J	0.71	ND	U	0.71	0.83	J	0.74	ND	U	7.9	ND	U	210
	2-butanone	µg/m³	8.8	--	1.6	1.1	J	1.3	1.1	J	1.3	2.2	J	1.4	ND	U	15	ND	U	390
	2-hexanone	µg/m³	1.5	J	0.86	ND	U	0.71	0.30	J	0.71	0.50	J	0.74	ND	U	7.9	ND	U	210
	4-methyl-2-pentanone	µg/m³	0.58	J	0.86	ND	U	0.71	0.96	J	0.71	0.78	J	0.74	ND	U	7.9	ND	U	210
	Acetone	µg/m³	47	--	14	ND	U	11	17	J	11	24	--	12	ND	U	120	ND	U	3300
	Benzene	µg/m³	ND	U	0.86	0.36	J	0.71	0.42	J	0.71	4.9	--	0.74	21	J	7.9	290	J	210
	Bromodichloromethane	µg/m³	230	--	0.86	13	--	0.71	ND	U	0.71	0.44	J	0.74	ND	U	7.9	ND	U	210
	Bromoform	µg/m³	14	--	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	15	ND	U	390
	Carbon disulfide	µg/m³	4.1	J	2.7	5.5	--	2.3	8.3	J	2.3	32	J	2.3	ND	U	25	240	J	650
	Carbon tetrachloride	µg/m³	17	--	0.86	29	--	0.71	3.4	--	0.71	3.4	--	0.74	ND	U	7.9	ND	U	210
	Chloroethane	µg/m³	ND	U	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	15	ND	U	390
	Chloroform	µg/m³	1800	--	8.6	170	--	0.71	2.9	--	0.71	3.7	--	0.74	ND	U	7.9	ND	U	210
	Chloromethane	µg/m³	0.99	J	1.6	ND	U	1.3	ND	U	1.3	0.53	J	1.4	ND	U	15	ND	U	390
	Cyclohexane	µg/m³	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.5	31	J	16	1800	--	410
	Dibromochloromethane	µg/m³	54	--	0.86	0.73	J	0.71	ND	U	0.71	ND	U	0.74	ND	U	7.9	ND	U	210
	Dichlorodifluoromethane	µg/m³	2.1	J	1.6	1.5	J	1.3	1.2	J	1.3	1.2	J	1.4	ND	U	15	ND	U	390
	Ethanol	µg/m³	ND	U	4.2	4.8	J	3.5	ND	U	3.5	6.3	J	3.6	ND	U	38	620	J	1000
	Ethyl acetate	µg/m³	ND	U	3.3	ND	U	2.7	ND	U	2.7	ND	U	2.8	ND	U	30	ND	U	780
	Ethylbenzene	µg/m³	0.52	J	0.86	0.44	J	0.71	1.3	J	0.71	2.1	J	0.74	ND	U	7.9	ND	U	210
	Hexane	µg/m³	ND	U	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	7.6	J	15	160	J	390
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3.2	1.3	J	2.6	ND	U	2.6	ND	U	2.7	ND	U	29	ND	U	760
	m,p-Xylene	µg/m³	2.9	J	1.7	2.2	J	1.4	6.6	--	1.4	11	--	1.5	ND	U	16	ND	U	410
	Methylene Chloride	µg/m³	2.1	J	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	15	ND	U	390
	Naphthalene	µg/m³	1.7	J	1.6	2.2	--	1.3	1.9	J	1.3	5.6	--	1.3	ND	U	14	ND	U	370
	n-Heptane	µg/m³	ND	U	1.6	ND	U	1.3	0.82	J	1.3	1.4	J	1.4	ND	U	15	ND	U	390
	o-Xylene	µg/m³	0.92	J	0.86	0.70	J	0.71	2.0	J	0.71	3.4	--	0.74	ND	U	7.9	ND	U	210
	Propylene (propene)	µg/m³	ND	U	1.6	0.81	J	1.3	0.62	J	1.3	1.0	J	1.4	7.3	J	15	ND	U	390
	Styrene	µg/m³	ND	U	1.6	ND	U	1.3	ND	U	1.3	ND	U	1.4	ND	U	15	ND	U	390
	Tetrachloroethene	µg/m³	11	--	0.86	6.0	--	0.71	0.37	J	0.71	0.53	J	0.74	ND	U	7.9	ND	U	210
	Tetrahydrofuran	µg/m³	190	--	0.86	7.8	--	0.71	6.0	J	0.71	18	J	0.74	6.2	J	7.9	ND	U	210
	Toluene	µg/m³	2.2	J	0.86	1.6	J	0.71	4.5	--	0.71	7.5	--	0.74	3.4	J	7.9	ND	U	210
	Trichloroethene	µg/m³	4.7	--	0.86	0.50	J	0.71	ND	U	0.71	ND	U	0.74	ND	U	7.9	ND	U	210
	Trichlorofluoromethane	µg/m³	1.1	J	1.6	1.2	J	1.3	0.94	J	1.3	0.94	J	1.4	ND	U	15	ND	U	390
	Vinyl chloride	µg/m³	ND	U	0.86	ND	U	0.71	ND	U	0.71	ND	U	0.74	ND	U	7.9	ND	U	210
	Xylenes, Total	µg/m³	3.8	J	1.7	2.9	J	1.4	8.6	--	1.4	14	--	1.5	ND	U	16	ND	U	410

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106125-025			KAFB-106125-050			KAFB-106125-150			KAFB-106125-250			KAFB-106125-350			KAFB-106125-450		
	Field Sample ID:		SV125-025-202			SV125-050-202			SV125-150-202			SV125-250-202			SV125-350-202			SV125-450-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.47	J	0.77	0.50	J	0.74	0.36	J	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	4.6	ND	U	250
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	4.5	ND	U	240
	1,2,4-trimethylbenzene	µg/m³	15	--	0.77	10	--	0.74	6.8	--	0.71	7.9	--	0.75	30	--	2.4	ND	U	130
	1,2-dibromoethane	µg/m³	ND	U	0.77	ND	U	0.74	ND	U	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	1,2-dichloroethane	µg/m³	ND	U	0.77	0.79	J	0.74	ND	U	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	1,3,5-trimethylbenzene	µg/m³	2.8	--	0.77	2.1	J	0.74	1.5	J	0.71	1.7	J	0.75	6.6	J	2.4	ND	U	130
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	4.5	ND	U	240
	1,4-dioxane	µg/m³	ND	U	0.77	ND	U	0.74	0.39	J	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	2-butanone	µg/m³	3.8	J	1.4	4.9	--	1.4	8.5	--	1.3	1.3	J	1.4	4.8	J	4.5	120	J	240
	2-hexanone	µg/m³	0.85	J	0.77	0.84	J	0.74	0.67	J	0.71	ND	U	0.75	1.0	J	2.4	ND	U	130
	4-methyl-2-pentanone	µg/m³	1.4	J	0.77	0.33	J	0.74	0.55	J	0.71	0.42	J	0.75	ND	U	2.4	ND	U	130
	Acetone	µg/m³	21	J	12	20	J	12	22	J	11	58	--	12	ND	U	38	ND	U	2000
	Benzene	µg/m³	0.46	J	0.77	2.4	--	0.74	2.2	J	0.71	ND	U	0.75	ND	U	2.4	180	J	130
	Bromodichloromethane	µg/m³	41	--	0.77	230	--	0.74	1.0	J	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	Bromoform	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	4.5	ND	U	240
	Carbon disulfide	µg/m³	3.8	J	2.4	8.4	--	2.3	4.5	J	2.3	4.6	J	2.4	15	J	7.6	210	J	410
	Carbon tetrachloride	µg/m³	2.7	--	0.77	15	--	0.74	20	--	0.71	1.1	J	0.75	ND	U	2.4	ND	U	130
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.4	ND	U	1.3	ND	U	1.4	ND	U	4.5	ND	U	240
	Chloroform	µg/m³	380	--	0.77	1300	--	7.4	33	--	0.71	1.3	J	0.75	ND	U	2.4	ND	U	130
	Chloromethane	µg/m³	ND	U	1.4	ND	U	1.4	0.48	J	1.3	ND	U	1.4	1.3	J	4.5	ND	U	240
	Cyclohexane	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	1.4	ND	U	1.5	16	--	4.8	ND	U	260
	Dibromochloromethane	µg/m³	0.63	J	0.77	7.1	--	0.74	ND	U	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	Dichlorodifluoromethane	µg/m³	2.4	J	1.4	2.4	--	1.4	1.5	J	1.3	0.50	J	1.4	ND	U	4.5	ND	U	240
	Ethanol	µg/m³	50	--	3.8	5.8	J	3.6	76	--	3.5	ND	U	3.7	5.5	J	12	ND	U	620
	Ethyl acetate	µg/m³	41	--	2.9	ND	U	2.8	680	--	27	3.0	J	2.9	ND	U	9.1	ND	U	490
	Ethylbenzene	µg/m³	1.0	J	0.77	0.62	J	0.74	0.94	J	0.71	0.50	J	0.75	1.9	J	2.4	ND	U	130
	Hexane	µg/m³	ND	U	1.4	ND	U	1.4	1.5	J	1.3	ND	U	1.4	2.7	J	4.5	ND	U	240
	Isopropyl alcohol (manufacturing-strong	µg/m³	31	--	2.9	1.0	J	2.7	14	--	2.6	ND	U	2.8	ND	U	8.8	ND	U	470
	m,p-Xylene	µg/m³	4.3	J	1.5	3.0	J	1.5	3.5	J	1.4	2.8	J	1.5	9.6	J	4.8	ND	U	260
	Methylene Chloride	µg/m³	1.1	J	1.4	3.1	--	1.4	2.6	--	1.3	ND	U	1.4	ND	U	4.5	ND	U	240
	Naphthalene	µg/m³	4.3	--	1.4	3.2	--	1.3	0.88	J	1.3	2.9	--	1.4	3.2	J	4.3	ND	U	230
	n-Heptane	µg/m³	1.8	J	1.4	0.38	J	1.4	1.6	J	1.3	0.43	J	1.4	ND	U	4.5	ND	U	240
	o-Xylene	µg/m³	1.5	J	0.77	0.99	J	0.74	2.7	--	0.71	1.1	J	0.75	3.0	J	2.4	ND	U	130
	Propylene (propene)	µg/m³	11	--	1.4	1.8	J	1.4	5.1	--	1.3	ND	U	1.4	5.9	J	4.5	ND	U	240
	Styrene	µg/m³	ND	U	1.4	0.51	J	1.4	0.39	J	1.3	ND	U	1.4	ND	U	4.5	ND	U	240
	Tetrachloroethene	µg/m³	4.0	--	0.77	12	--	0.74	16	--	0.71	0.45	J	0.75	ND	U	2.4	ND	U	130
	Tetrahydrofuran	µg/m³	11	--	0.77	58	--	0.74	15	--	0.71	17	--	0.75	14	--	2.4	59	J	130
	Toluene	µg/m³	9.3	--	0.77	2.7	--	0.74	27	--	0.71	2.3	J	0.75	6.5	J	2.4	450	--	130
	Trichloroethene	µg/m³	0.37	J	0.77	2.2	J	0.74	8.0	--	0.71	ND	U	0.75	6.5	J	2.4	ND	U	130
	Trichlorofluoromethane	µg/m³	2.6	--	1.4	1.2	J	1.4	1.9	J	1.3	1.2	J	1.4	ND	U	4.5	ND	U	240
	Vinyl chloride	µg/m³	ND	U	0.77	ND	U	0.74	ND	U	0.71	ND	U	0.75	ND	U	2.4	ND	U	130
	Xylenes, Total	µg/m³	5.9	--	1.5	4.0	J	1.5	6.3	--	1.4	3.9	J	1.5	13	J	4.8	ND	U	260

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106126-025			KAFB-106126-050			KAFB-106126-150			KAFB-106126-250			KAFB-106126-350			KAFB-106126-450		
	Field Sample ID:		SV126-025-202			SV126-050-202			SV126-150-202			SV126-250-202			SV126-350-202			SV126-450-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.62	J	0	0.51	J	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	1,1-dichloroethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	12	ND	U	390
	1,2,4-trichlorobenzene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	11	ND	U	380
	1,2,4-trimethylbenzene	µg/m³	0.49	J	0	0.96	J	0	0.43	J	0	0.54	J	0	ND	U	6	ND	U	200
	1,2-dibromoethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	1,2-dichloroethane	µg/m³	ND	U	0	0.27	J	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	1,3,5-trimethylbenzene	µg/m³	0.44	J	0	0.51	J	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	1,3-butadiene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	11	ND	U	380
	1,4-dioxane	µg/m³	ND	U	0	ND	U	0	2.2	J	0	0.59	J	0	ND	U	6	ND	U	200
	2-butanone	µg/m³	3.0	J	1	11	--	1	3.0	J	1	2.5	J	1	ND	U	11	ND	U	380
	2-hexanone	µg/m³	0.50	J	0	1.7	J	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	4-methyl-2-pentanone	µg/m³	ND	U	0	51	--	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	Acetone	µg/m³	13	J	13	ND	U	12	8.5	J	14	7.2	J	12	ND	U	97	ND	U	3200
	Benzene	µg/m³	1.0	J	0	1.7	J	0	1.3	J	0	1.3	J	0	7.2	J	6	ND	U	200
	Bromodichloromethane	µg/m³	8.1	--	0	48	--	0	0.90	J	0	ND	U	0	ND	U	6	ND	U	200
	Bromoform	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	11	ND	U	380
	Carbon disulfide	µg/m³	ND	U	2	2.5	J	2	6.7	--	2	7.9	--	2	ND	U	19	ND	U	640
	Carbon tetrachloride	µg/m³	7.7	--	0	13	--	0	13	--	0	1.7	J	0	ND	U	6	ND	U	200
	Chloroethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	11	ND	U	380
	Chloroform	µg/m³	130	--	0	330	--	7	19	--	0	0.92	J	0	ND	U	6	ND	U	200
	Chloromethane	µg/m³	ND	U	1	0.48	J	1	0.52	J	1	0.68	J	1	ND	U	11	ND	U	380
	Cyclohexane	µg/m³	ND	U	1	5.9	--	1	ND	U	1	ND	U	1	46	--	12	5700	--	400
	Dibromochloromethane	µg/m³	ND	U	0	1.0	J	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	Dichlorodifluoromethane	µg/m³	2.2	J	1	2.1	J	1	0.93	J	1	0.43	J	1	ND	U	11	ND	U	380
	Ethanol	µg/m³	ND	U	3	420	--	3	16	J	4	ND	U	3	17	J	30	ND	U	980
	Ethyl acetate	µg/m³	ND	U	3	140	--	2	ND	U	3	ND	U	2	ND	U	23	ND	U	770
	Ethylbenzene	µg/m³	0.36	J	0	11	--	0	ND	U	0	0.37	J	0	ND	U	6	ND	U	200
	Hexane	µg/m³	1.1	J	1	3.8	--	1	0.91	J	1	0.72	J	1	11	J	11	1900	--	380
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	2	910	--	27	4.2	J	3	2.0	J	2	180	--	23	ND	U	750
	m,p-Xylene	µg/m³	1.9	J	1	47	--	1	1.5	J	1	1.5	J	1	ND	U	12	ND	U	400
	Methylene Chloride	µg/m³	ND	U	1	6.2	--	1	ND	U	1	ND	U	1	ND	U	11	ND	U	380
	Naphthalene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	11	ND	U	370
	n-Heptane	µg/m³	1.8	J	1	8.6	--	1	1.5	J	1	1.2	J	1	ND	U	11	ND	U	380
	o-Xylene	µg/m³	0.70	J	0	16	--	0	0.56	J	0	0.50	J	0	ND	U	6	ND	U	200
	Propylene (propene)	µg/m³	ND	U	1	200	--	1	1.8	J	1	1.0	J	1	14	J	11	ND	U	380
	Styrene	µg/m³	ND	U	1	6.3	--	1	ND	U	1	ND	U	1	ND	U	11	ND	U	380
	Tetrachloroethene	µg/m³	2.8	--	0	6.8	--	0	2.7	J	0	ND	U	0	ND	U	6	ND	U	200
	Tetrahydrofuran	µg/m³	0.66	J	0	19	--	0	96	--	0	83	--	0	ND	U	6	ND	U	200
	Toluene	µg/m³	4.0	--	0	91	--	0	3.2	--	0	3.3	--	0	4.2	J	6	ND	U	200
	Trichloroethene	µg/m³	0.75	J	0	3.2	--	0	ND	U	0	ND	U	0	3.2	J	6	ND	U	200
	Trichlorofluoromethane	µg/m³	1.1	J	1	1.1	J	1	1.6	J	1	1.2	J	1	ND	U	11	ND	U	380
	Vinyl chloride	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	6	ND	U	200
	Xylenes, Total	µg/m³	2.6	J	1	63	--	1	2.1	J	1	2.0	J	1	ND	U	12	ND	U	400

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106127-025			KAFB-106127-050			KAFB-106127-150			KAFB-106127-250			KAFB-106127-250			KAFB-106127-350		
	Field Sample ID:		SV127-025-202			SV127-050-202			SV127-150-202			SV127-250-202			SV127-250-602			SV127-350-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.45	J	0.77	0.49	J	0.89	ND	U	0.73	ND	U	0.73	ND	U	0.75	ND	U	1.8
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	3.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	3.4
	1,2,4-trimethylbenzene	µg/m³	130	--	0.77	100	--	0.89	120	--	0.73	54	--	0.73	90	--	0.75	13	--	1.8
	1,2-dibromoethane	µg/m³	ND	U	0.77	ND	U	0.89	ND	U	0.73	ND	U	0.73	ND	U	0.75	ND	U	1.8
	1,2-dichloroethane	µg/m³	ND	U	0.77	ND	U	0.89	ND	U	0.73	ND	U	0.73	ND	U	0.75	ND	U	1.8
	1,3,5-trimethylbenzene	µg/m³	28	--	0.77	21	--	0.89	26	--	0.73	11	--	0.73	19	--	0.75	3.1	J	1.8
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	3.4
	1,4-dioxane	µg/m³	0.55	J	0.77	ND	U	0.89	ND	U	0.73	ND	U	0.73	0.50	J	0.75	ND	U	1.8
	2-butanone	µg/m³	19	--	1.4	22	--	1.7	10	--	1.4	3.1	J	1.4	9.5	--	1.4	14	--	3.4
	2-hexanone	µg/m³	13	--	0.77	6.0	--	0.89	7.5	--	0.73	1.6	J	0.73	2.5	--	0.75	1.0	J	1.8
	4-methyl-2-pentanone	µg/m³	1.9	J	0.77	1.0	J	0.89	1.2	J	0.73	ND	U	0.73	1.5	J	0.75	6.0	--	1.8
	Acetone	µg/m³	53	--	12	40	--	14	42	--	12	12	J	12	19	J	12	61	--	29
	Benzene	µg/m³	0.59	J	0.77	1.2	J	0.89	1.4	J	0.73	1.0	J	0.73	1.2	J	0.75	3.9	J	1.8
	Bromodichloromethane	µg/m³	38	--	0.77	77	--	0.89	2.8	--	0.73	ND	U	0.73	0.38	J	0.75	ND	U	1.8
	Bromoform	µg/m³	ND	U	1.4	3.5	--	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	3.4
	Carbon disulfide	µg/m³	1.0	J	2.4	3.9	J	2.8	1.5	J	2.3	3.7	J	2.3	12	--	2.4	2.4	J	5.8
	Carbon tetrachloride	µg/m³	5.1	--	0.77	20	--	0.89	8.1	--	0.73	3.3	--	0.73	3.2	--	0.75	ND	U	1.8
	Chloroethane	µg/m³	ND	U	1.4	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	ND	U	3.4
	Chloroform	µg/m³	430	--	0.77	470	--	8.9	34	--	0.73	2.8	--	0.73	2.8	--	0.75	ND	U	1.8
	Chloromethane	µg/m³	ND	U	1.4	ND	U	1.7	0.42	J	1.4	ND	U	1.4	ND	U	1.4	2.6	J	3.4
	Cyclohexane	µg/m³	1.3	J	1.5	3.0	J	1.8	1.6	J	1.5	0.97	J	1.5	1.1	J	1.5	9.5	J	3.6
	Dibromochloromethane	µg/m³	1.1	J	0.77	20	--	0.89	ND	U	0.73	ND	U	0.73	ND	U	0.75	ND	U	1.8
	Dichlorodifluoromethane	µg/m³	2.4	J	1.4	2.3	J	1.7	0.93	J	1.4	0.72	J	1.4	0.68	J	1.4	ND	U	3.4
	Ethanol	µg/m³	11	J	3.8	7.1	J	4.4	6.8	J	3.6	ND	U	3.5	8.2	J	3.7	300	--	8.9
	Ethyl acetate	µg/m³	ND	U	2.9	ND	U	3.4	7.3	--	2.8	ND	U	2.8	3.3	J	2.9	120	--	6.9
	Ethylbenzene	µg/m³	6.1	--	0.77	9.2	--	0.89	5.0	--	0.73	3.4	--	0.73	5.5	--	0.75	3.7	J	1.8
	Hexane	µg/m³	0.78	J	1.4	2.0	J	1.7	1.2	J	1.4	1.1	J	1.4	1.2	J	1.4	4.5	J	3.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	2.3	J	2.9	2.5	J	3.3	1.6	J	2.7	ND	U	2.7	3.6	J	2.8	280	--	6.7
	m,p-Xylene	µg/m³	27	--	1.5	38	--	1.8	24	--	1.5	17	--	1.5	27	--	1.5	12	J	3.6
	Methylene Chloride	µg/m³	0.97	J	1.4	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	5.9	--	3.4
	Naphthalene	µg/m³	72	--	1.4	42	--	1.6	59	--	1.3	10	J	1.3	37	J	1.4	1.4	J	3.3
	n-Heptane	µg/m³	3.4	--	1.4	11	--	1.7	5.0	--	1.4	4.5	--	1.4	5.8	--	1.4	12	--	3.4
	o-Xylene	µg/m³	12	--	0.77	14	--	0.89	10	--	0.73	5.5	--	0.73	9.0	--	0.75	4.4	J	1.8
	Propylene (propene)	µg/m³	1.4	J	1.4	1.3	J	1.7	1.2	J	1.4	0.80	J	1.4	1.9	J	1.4	37	--	3.4
	Styrene	µg/m³	1.6	J	1.4	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	1.4	1.7	J	3.4
	Tetrachloroethene	µg/m³	2.2	J	0.77	6.8	--	0.89	1.7	J	0.73	0.32	J	0.73	0.40	J	0.75	1.1	J	1.8
	Tetrahydrofuran	µg/m³	1.2	J	0.77	73	--	0.89	1.2	J	0.73	1.2	J	0.73	3.1	--	0.75	1.3	J	1.8
	Toluene	µg/m³	14	--	0.77	31	--	0.89	12	--	0.73	11	--	0.73	17	--	0.75	59	--	1.8
	Trichloroethene	µg/m³	2.1	J	0.77	2.8	J	0.89	ND	U	0.73	ND	U	0.73	ND	U	0.75	0.97	J	1.8
	Trichlorofluoromethane	µg/m³	1.2	J	1.4	1.2	J	1.7	1.4	J	1.4	1.3	J	1.4	1.2	J	1.4	13	--	3.4
	Vinyl chloride	µg/m³	ND	U	0.77	ND	U	0.89	ND	U	0.73	ND	U	0.73	ND	U	0.75	ND	U	1.8
	Xylenes, Total	µg/m³	39	--	1.5	52	--	1.8	34	--	1.5	22	--	1.5	36	--	1.5	16	--	3.6

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106127-450			KAFB-106128-025			KAFB-106128-050			KAFB-106128-150			KAFB-106128-250			KAFB-106128-350		
	Field Sample ID:		SV127-450-202			SV128-025-202			SV128-050-202			SV128-150-202			SV128-250-202			SV128-350-202		
	Sample Date:		4/7/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	72	140	--	0.76	140	--	0.79	160	--	0.8	220	--	62	270	J	320
	1,1-dichloroethane	µg/m³	ND	U	140	ND	U	1.5	ND	U	1.5	ND	U	1.6	ND	U	120	ND	U	610
	1,2,4-trichlorobenzene	µg/m³	ND	U	140	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	120	ND	U	600
	1,2,4-trimethylbenzene	µg/m³	61	J	72	8.3	--	0.76	4.9	--	0.79	5.9	--	0.8	ND	U	62	3800	--	320
	1,2-dibromoethane	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	ND	U	0.8	ND	U	62	ND	U	320
	1,2-dichloroethane	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	ND	U	0.8	ND	U	62	ND	U	320
	1,3,5-trimethylbenzene	µg/m³	ND	U	72	1.8	J	0.76	0.96	J	0.79	1.2	J	0.8	ND	U	62	4100	--	320
	1,3-butadiene	µg/m³	ND	U	140	5.4	--	1.4	3.5	--	1.5	ND	U	1.5	61	J	120	ND	U	600
	1,4-dioxane	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	ND	U	0.8	ND	U	62	ND	U	320
	2-butanone	µg/m³	ND	U	140	1.4	J	1.4	1.4	J	1.5	19	--	1.5	ND	U	120	ND	U	600
	2-hexanone	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	3.2	--	0.8	ND	U	62	ND	U	320
	4-methyl-2-pentanone	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	0.79	J	0.8	ND	U	62	ND	U	320
	Acetone	µg/m³	ND	U	1100	8.8	J	12	13	J	13	80	--	13	ND	U	980	ND	U	5000
	Benzene	µg/m³	64	J	72	2.3	J	0.76	1.4	J	0.79	ND	U	0.8	31	J	62	61000	--	320
	Bromodichloromethane	µg/m³	50	J	72	ND	U	0.76	ND	U	0.79	ND	U	0.8	ND	U	62	ND	U	320
	Bromoform	µg/m³	ND	U	140	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	120	ND	U	600
	Carbon disulfide	µg/m³	ND	U	230	ND	U	2.4	1.7	J	2.5	7.4	--	2.5	ND	U	200	ND	U	1000
	Carbon tetrachloride	µg/m³	ND	U	72	160	--	0.76	180	--	0.79	420	--	0.8	ND	U	62	ND	U	320
	Chloroethane	µg/m³	ND	U	140	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	120	ND	U	600
	Chloroform	µg/m³	430	--	72	9.1	--	0.76	3.2	--	0.79	110	--	0.8	56	J	62	ND	U	320
	Chloromethane	µg/m³	ND	U	140	ND	U	1.4	0.71	J	1.5	0.92	J	1.5	ND	U	120	ND	U	600
	Cyclohexane	µg/m³	520	--	140	6.4	--	1.5	1.0	J	1.6	3.4	J	1.6	48000	--	120	390000	--	630
	Dibromochloromethane	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	ND	U	0.8	ND	U	62	ND	U	320
	Dichlorodifluoromethane	µg/m³	ND	U	140	820	--	14	830	--	15	500	--	200	350	--	120	3300	--	600
	Ethanol	µg/m³	2600	--	350	1.7	J	3.7	ND	U	3.9	4.1	J	3.9	ND	UJ	300	ND	UJ	1500
	Ethyl acetate	µg/m³	130	J	280	ND	U	2.9	ND	U	3	ND	U	3.1	ND	U	240	ND	U	1200
	Ethylbenzene	µg/m³	ND	U	72	0.72	J	0.76	ND	U	0.79	0.74	J	0.8	46	J	62	27000	--	320
	Hexane	µg/m³	ND	U	140	5.3	--	1.4	1.3	J	1.5	ND	U	1.5	12000	--	120	220000	--	6000
	Isopropyl alcohol (manufacturing-strong	µg/m³	300	J	270	ND	U	2.8	ND	U	2.9	ND	U	3	ND	U	230	ND	U	1200
	m,p-Xylene	µg/m³	ND	U	140	4.7	J	1.5	2.2	J	1.6	2.5	J	1.6	110	J	120	140000	--	630
	Methylene Chloride	µg/m³	ND	U	140	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	120	ND	U	600
	Naphthalene	µg/m³	ND	U	130	2.9	--	1.4	1.7	J	1.4	3.2	--	1.5	ND	U	110	ND	U	580
	n-Heptane	µg/m³	ND	U	140	14	--	1.4	2.5	--	1.5	0.46	J	1.5	5000	--	120	320000	--	6000
	o-Xylene	µg/m³	ND	U	72	2.3	J	0.76	0.99	J	0.79	1.0	J	0.8	ND	U	62	49000	--	320
	Propylene (propene)	µg/m³	110	J	140	2.6	--	1.4	2.8	--	1.5	3.5	J	1.5	ND	UJ	120	9500	J	600
	Styrene	µg/m³	ND	U	140	ND	U	1.4	ND	U	1.5	ND	U	1.5	ND	U	120	ND	U	600
	Tetrachloroethene	µg/m³	41	J	72	3.0	--	0.76	3.0	--	0.79	2.7	--	0.8	ND	U	62	ND	U	320
	Tetrahydrofuran	µg/m³	48	J	72	0.67	J	0.76	0.83	J	0.79	18	--	0.8	ND	U	62	ND	U	320
	Toluene	µg/m³	70	J	72	4.1	--	0.76	2.5	J	0.79	1.3	J	0.8	ND	U	62	320000	--	3200
	Trichloroethene	µg/m³	2000	--	72	2.6	--	0.76	5.5	--	0.79	64	--	0.8	ND	U	62	ND	U	320
	Trichlorofluoromethane	µg/m³	ND	U	140	130	--	1.4	120	--	1.5	63	--	1.5	39	J	120	470	J	600
	Vinyl chloride	µg/m³	ND	U	72	ND	U	0.76	ND	U	0.79	ND	U	0.8	ND	U	62	ND	U	320
	Xylenes, Total	µg/m³	ND	U	140	7.0	--	1.5	3.2	J	1.6	3.6	J	1.6	110	J	120	190000	--	630

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106128-450			KAFB-106129-025			KAFB-106129-050			KAFB-106129-150			KAFB-106129-250			KAFB-106129-350		
	Field Sample ID:		SV128-450-202			SV129-025-202			SV129-050-202			SV129-150-202			SV129-250-202			SV129-350-202		
	Sample Date:		4/8/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	1200	2.0	J	0	2.4	J	0	4.0	--	0	4.1	--	0	2.3	J	0
	1,1-dichloroethane	µg/m³	ND	U	2300	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	1,2,4-trichlorobenzene	µg/m³	ND	U	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	1,2,4-trimethylbenzene	µg/m³	3900	--	1200	0.51	J	0	0.93	J	0	1.1	J	0	ND	U	0	ND	U	0
	1,2-dibromoethane	µg/m³	ND	U	1200	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	1,2-dichloroethane	µg/m³	ND	U	1200	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	1,3,5-trimethylbenzene	µg/m³	3100	J	1200	ND	U	0	0.41	J	0	0.49	J	0	ND	U	0	ND	U	0
	1,3-butadiene	µg/m³	1200	J	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	1,4-dioxane	µg/m³	ND	U	1200	ND	U	0	0.30	J	0	0.43	J	0	ND	U	0	ND	U	0
	2-butanone	µg/m³	1300	J	2200	0.68	J	1	1.1	J	1	4.8	J	1	0.95	J	1	ND	U	1
	2-hexanone	µg/m³	ND	U	1200	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	4-methyl-2-pentanone	µg/m³	2900	J	1200	ND	U	0	ND	U	0	1.1	J	0	ND	U	0	ND	U	0
	Acetone	µg/m³	ND	U	19000	6.3	J	14	7.0	J	13	31	--	12	5.7	J	13	ND	U	15
	Benzene	µg/m³	16000	--	1200	1.5	J	0	1.7	J	0	17	--	0	2.6	--	0	1.4	J	0
	Bromodichloromethane	µg/m³	ND	U	1200	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	Bromoform	µg/m³	ND	U	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Carbon disulfide	µg/m³	ND	U	3700	3.5	J	2	1.3	J	2	30	--	2	50	--	2	11	--	2
	Carbon tetrachloride	µg/m³	ND	U	1200	1.9	J	0	2.4	J	0	3.7	--	0	2.5	J	0	1.4	J	0
	Chloroethane	µg/m³	ND	U	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Chloroform	µg/m³	ND	U	1200	0.58	J	0	0.86	J	0	1.1	J	0	0.69	J	0	0.51	J	0
	Chloromethane	µg/m³	ND	U	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Cyclohexane	µg/m³	780000	--	2400	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Dibromochloromethane	µg/m³	ND	U	1200	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	Dichlorodifluoromethane	µg/m³	2900	J	2200	3.2	--	1	3.4	--	1	3.4	--	1	3.2	--	1	4.3	--	1
	Ethanol	µg/m³	ND	UJ	5800	9.0	J	4	5.1	J	3	7.7	J	3	8.4	J	3	ND	U	4
	Ethyl acetate	µg/m³	ND	U	4500	ND	U	3	ND	U	3	3.0	J	2	ND	U	3	ND	U	3
	Ethylbenzene	µg/m³	5700	--	1200	3.3	--	0	0.60	J	0	2.9	--	0	0.42	J	0	ND	U	0
	Hexane	µg/m³	630000	--	2200	1.1	J	1	1.4	J	1	1.1	J	1	1.1	J	1	0.94	J	1
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	4400	1.7	J	3	2.6	J	2	2.9	J	2	ND	U	3	ND	U	3
	m,p-Xylene	µg/m³	150000	--	2400	2.5	J	1	3.3	J	1	13	--	1	1.7	J	1	1.5	J	1
	Methylene Chloride	µg/m³	ND	U	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Naphthalene	µg/m³	ND	U	2100	1.7	J	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	n-Heptane	µg/m³	1400000	--	6700	2.0	J	1	2.5	--	1	1.9	J	1	1.8	J	1	1.5	J	1
	o-Xylene	µg/m³	37000	--	1200	0.78	J	0	1.1	J	0	4.0	--	0	0.50	J	0	0.50	J	0
	Propylene (propene)	µg/m³	14000	J	2200	0.79	J	1	1.1	J	1	1.9	J	1	ND	U	1	1.3	J	1
	Styrene	µg/m³	ND	U	2200	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Tetrachloroethene	µg/m³	ND	U	1200	0.70	J	0	0.75	J	0	1.6	J	0	2.3	J	0	1.5	J	0
	Tetrahydrofuran	µg/m³	ND	U	1200	2.9	--	0	6.4	--	0	2.9	--	0	0.69	J	0	1.5	J	0
	Toluene	µg/m³	71000	--	1200	5.1	--	0	6.3	--	0	73	--	0	3.9	--	0	4.4	--	0
	Trichloroethene	µg/m³	ND	U	1200	ND	U	0	ND	U	0	2.1	J	0	9.8	--	0	9.4	--	0
	Trichlorofluoromethane	µg/m³	590	J	2200	1.1	J	1	1.0	J	1	1.0	J	1	0.67	J	1	0.58	J	1
	Vinyl chloride	µg/m³	ND	U	1200	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	Xylenes, Total	µg/m³	190000	--	2400	3.3	J	1	4.4	J	1	17	--	1	2.1	J	1	2.0	J	1

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106129-450			KAFB-106130-025			KAFB-106130-050			KAFB-106130-150			KAFB-106130-250			KAFB-106130-350		
	Field Sample ID:		SV129-450-202			SV130-025-202			SV130-050-202			SV130-150-202			SV130-250-202			SV130-350-202		
	Sample Date:		4/21/2020			4/22/2020			4/22/2020			4/22/2020			4/22/2020			4/22/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	50	5.3	--	0	5.6	--	0.85	7.2	--	0.89	7.0	--	0.85	1.4	J	0.75
	1,1-dichloroethane	µg/m³	ND	U	97	ND	U	1	ND	U	1.7	ND	U	1.7	ND	U	1.6	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	33	J	50	1.0	J	0	ND	U	0.85	0.51	J	0.89	ND	U	0.85	0.40	J	0.75
	1,2-dibromoethane	µg/m³	22	J	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	ND	U	0.75
	1,2-dichloroethane	µg/m³	ND	U	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	ND	U	0.75
	1,3,5-trimethylbenzene	µg/m³	200	--	50	1.2	J	0	ND	U	0.85	0.47	J	0.89	ND	U	0.85	ND	U	0.75
	1,3-butadiene	µg/m³	ND	U	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	0.53	J	0.75
	2-butanone	µg/m³	120	J	94	1.1	J	1	2.4	J	1.6	0.98	J	1.7	ND	U	1.6	28	--	1.4
	2-hexanone	µg/m³	ND	U	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	1.6	J	0.75
	4-methyl-2-pentanone	µg/m³	ND	U	50	0.52	J	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	0.99	J	0.75
	Acetone	µg/m³	ND	U	790	6.1	J	13	13	J	14	7.7	J	14	6.8	J	13	35	--	12
	Benzene	µg/m³	2300	--	50	0.82	J	0	1.2	J	0.85	2.4	J	0.89	0.61	J	0.85	1.4	J	0.75
	Bromodichloromethane	µg/m³	ND	U	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	ND	U	0.75
	Bromoform	µg/m³	ND	U	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	ND	U	1.4
	Carbon disulfide	µg/m³	200	J	160	21	--	2	1.6	J	2.7	6.1	--	2.8	9.4	--	2.7	21	--	2.4
	Carbon tetrachloride	µg/m³	ND	U	50	1.1	J	0	1.2	J	0.85	1.0	J	0.89	1.4	J	0.85	0.81	J	0.75
	Chloroethane	µg/m³	ND	U	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	0.69	J	1.4
	Chloroform	µg/m³	ND	U	50	0.93	J	0	1.2	J	0.85	ND	U	0.89	0.35	J	0.85	1.4	J	0.75
	Chloromethane	µg/m³	40	J	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	3.2	--	1.4
	Cyclohexane	µg/m³	640	--	100	1.4	J	1	1.2	J	1.7	2.6	J	1.8	ND	U	1.7	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	ND	U	0.75
	Dichlorodifluoromethane	µg/m³	ND	U	94	4.3	--	1	4.6	--	1.6	4.6	--	1.7	2.4	J	1.6	1.8	J	1.4
	Ethanol	µg/m³	ND	U	240	5.0	J	3	ND	U	4.2	ND	U	4.4	ND	U	4.1	7.1	J	3.7
	Ethyl acetate	µg/m³	ND	U	190	ND	U	3	ND	U	3.3	ND	U	3.4	ND	U	3.2	3.2	J	2.9
	Ethylbenzene	µg/m³	130	J	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	0.38	J	0.75
	Hexane	µg/m³	420	--	94	0.60	J	1	1.3	J	1.6	2.4	J	1.7	ND	U	1.6	0.57	J	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	170	J	180	2.0	J	3	1.2	J	3.2	ND	U	3.3	ND	U	3.1	10	--	2.8
	m,p-Xylene	µg/m³	390	--	100	1.7	J	1	1.1	J	1.7	1.9	J	1.8	ND	U	1.7	1.3	J	1.5
	Methylene Chloride	µg/m³	ND	U	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	ND	U	1.4
	Naphthalene	µg/m³	ND	U	91	ND	U	1	ND	U	1.6	ND	U	1.6	ND	U	1.5	ND	U	1.4
	n-Heptane	µg/m³	470	--	94	1.0	J	1	1.5	J	1.6	2.8	J	1.7	0.45	J	1.6	0.60	J	1.4
	o-Xylene	µg/m³	320	--	50	1.8	J	0	0.88	J	0.85	1.3	J	0.89	ND	U	0.85	0.61	J	0.75
	Propylene (propene)	µg/m³	140	J	94	0.63	J	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	4.0	--	1.4
	Styrene	µg/m³	ND	U	94	ND	U	1	ND	U	1.6	ND	U	1.7	ND	U	1.6	ND	U	1.4
	Tetrachloroethene	µg/m³	ND	U	50	2.8	--	0	3.0	--	0.85	8.6	--	0.89	9.4	--	0.85	2.1	J	0.75
	Tetrahydrofuran	µg/m³	61	J	50	ND	U	0	65	--	0.85	5.6	--	0.89	4.0	--	0.85	15	--	0.75
	Toluene	µg/m³	3400	--	50	2.1	J	0	2.1	J	0.85	4.2	--	0.89	1.4	J	0.85	4.6	--	0.75
	Trichloroethene	µg/m³	ND	U	50	4.9	--	0	5.7	--	0.85	4.8	--	0.89	28	--	0.85	5.0	--	0.75
	Trichlorofluoromethane	µg/m³	ND	U	94	1.2	J	1	1.2	J	1.6	1.1	J	1.7	0.92	J	1.6	0.88	J	1.4
	Vinyl chloride	µg/m³	ND	U	50	ND	U	0	ND	U	0.85	ND	U	0.89	ND	U	0.85	ND	U	0.75
	Xylenes, Total	µg/m³	700	--	100	3.6	J	1	2.0	J	1.7	3.3	J	1.8	ND	U	1.7	2.0	J	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106130-450			KAFB-106130-450			KAFB-106131-025			KAFB-106131-055			KAFB-106131-150			KAFB-106131-245		
	Field Sample ID:		SV130-450-202			SV130-450-602			SV131-025-202			SV131-055-202			SV131-150-202			SV131-245-202		
	Sample Date:		4/22/2020			4/22/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	15	ND	U	14	29	--	0.82	32	--	0.73	44	--	0.87	27	--	0.75
	1,1-dichloroethane	µg/m³	ND	U	29	ND	U	28	ND	U	1.6	ND	U	1.4	ND	U	1.7	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	28	ND	U	27	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	8.7	J	15	ND	U	14	7.0	--	0.82	ND	U	0.73	0.64	J	0.87	2.1	J	0.75
	1,2-dibromoethane	µg/m³	ND	U	15	ND	U	14	ND	U	0.82	ND	U	0.73	5.7	--	0.87	ND	U	0.75
	1,2-dichloroethane	µg/m³	ND	U	15	ND	U	14	ND	U	0.82	ND	U	0.73	ND	U	0.87	ND	U	0.75
	1,3,5-trimethylbenzene	µg/m³	7.4	J	15	ND	U	14	2.5	J	0.82	ND	U	0.73	0.48	J	0.87	1.3	J	0.75
	1,3-butadiene	µg/m³	ND	U	28	ND	U	27	1.2	J	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	15	ND	U	14	15	--	0.82	0.46	J	0.73	ND	U	0.87	0.31	J	0.75
	2-butanone	µg/m³	59	J	28	45	J	27	74	--	1.5	5.9	--	1.4	5.2	J	1.6	8.8	--	1.4
	2-hexanone	µg/m³	ND	U	15	ND	U	14	ND	U	0.82	0.53	J	0.73	1.6	J	0.87	1.2	J	0.75
	4-methyl-2-pentanone	µg/m³	14	J	15	22	J	14	34	--	0.82	0.49	J	0.73	ND	U	0.87	0.87	J	0.75
	Acetone	µg/m³	ND	U	230	ND	U	230	640	--	13	43	--	12	21	J	14	47	--	12
	Benzene	µg/m³	1000	--	15	1000	--	14	1.1	J	0.82	1.7	J	0.73	ND	U	0.87	1.2	J	0.75
	Bromodichloromethane	µg/m³	ND	U	15	ND	U	14	ND	U	0.82	ND	U	0.73	ND	U	0.87	ND	U	0.75
	Bromoform	µg/m³	ND	U	28	ND	U	27	ND	U	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4
	Carbon disulfide	µg/m³	71	J	47	68	J	46	150	--	2.6	8.4	--	2.3	5.2	J	2.8	8.0	--	2.4
	Carbon tetrachloride	µg/m³	ND	U	15	ND	U	14	9.7	--	0.82	12	--	0.73	24	--	0.87	27	--	0.75
	Chloroethane	µg/m³	ND	U	28	ND	U	27	ND	U	1.5	0.40	J	1.4	ND	U	1.6	0.59	J	1.4
	Chloroform	µg/m³	ND	U	15	ND	U	14	2.8	--	0.82	1.0	J	0.73	2.1	J	0.87	5.2	--	0.75
	Chloromethane	µg/m³	17	J	28	16	J	27	ND	U	1.5	2.1	J	1.4	0.52	J	1.6	2.7	--	1.4
	Cyclohexane	µg/m³	150	--	30	140	--	29	ND	U	1.6	5.7	--	1.5	ND	U	1.7	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	15	ND	U	14	ND	U	0.82	ND	U	0.73	ND	U	0.87	ND	U	0.75
	Dichlorodifluoromethane	µg/m³	ND	U	28	ND	U	27	120	--	1.5	160	--	1.4	430	--	16	410	--	14
	Ethanol	µg/m³	ND	U	72	98	J	70	130	--	4	21	J	3.6	6.9	J	4.3	8.5	J	3.7
	Ethyl acetate	µg/m³	ND	U	57	ND	U	55	ND	U	3.1	140	--	2.8	ND	U	3.3	ND	U	2.9
	Ethylbenzene	µg/m³	46	J	15	41	J	14	0.96	J	0.82	0.52	J	0.73	ND	U	0.87	ND	U	0.75
	Hexane	µg/m³	87	--	28	83	--	27	ND	U	1.5	4.5	--	1.4	ND	U	1.6	ND	U	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	120	J	55	95	J	53	38	--	3	3.0	J	2.7	1.3	J	3.2	1.2	J	2.8
	m,p-Xylene	µg/m³	110	--	30	98	--	29	6.6	--	1.6	0.89	J	1.5	0.89	J	1.7	1.1	J	1.5
	Methylene Chloride	µg/m³	ND	U	28	ND	U	27	ND	U	1.5	1.8	J	1.4	ND	U	1.6	ND	U	1.4
	Naphthalene	µg/m³	ND	U	27	ND	U	26	0.80	J	1.5	ND	U	1.3	ND	U	1.6	ND	U	1.4
	n-Heptane	µg/m³	53	--	28	39	J	27	ND	U	1.5	1.2	J	1.4	ND	U	1.6	ND	U	1.4
	o-Xylene	µg/m³	36	J	15	33	J	14	2.1	J	0.82	ND	U	0.73	0.44	J	0.87	0.61	J	0.75
	Propylene (propene)	µg/m³	22	J	28	23	J	27	13	--	1.5	1.8	J	1.4	1.2	J	1.6	1.6	J	1.4
	Styrene	µg/m³	ND	U	28	ND	U	27	0.53	J	1.5	ND	U	1.4	ND	U	1.6	ND	U	1.4
	Tetrachloroethene	µg/m³	ND	U	15	ND	U	14	0.40	J	0.82	2.5	--	0.73	0.42	J	0.87	0.48	J	0.75
	Tetrahydrofuran	µg/m³	10	J	15	11	J	14	ND	U	0.82	2.6	--	0.73	7.7	--	0.87	62	--	0.75
	Toluene	µg/m³	1100	--	15	1000	--	14	6.3	--	0.82	13	--	0.73	1.4	J	0.87	1.5	J	0.75
	Trichloroethene	µg/m³	15	J	15	15	J	14	ND	U	0.82	ND	U	0.73	0.46	J	0.87	0.39	J	0.75
	Trichlorofluoromethane	µg/m³	ND	U	28	ND	U	27	14	--	1.5	17	--	1.4	53	--	1.6	54	--	1.4
	Vinyl chloride	µg/m³	ND	U	15	ND	U	14	ND	U	0.82	ND	U	0.73	ND	U	0.87	ND	U	0.75
	Xylenes, Total	µg/m³	150	--	30	130	--	29	8.7	--	1.6	0.89	J	1.5	1.3	J	1.7	1.7	J	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106131-350			KAFB-106131-450			KAFB-106132-025			KAFB-106132-050			KAFB-106132-175			KAFB-106132-250		
	Field Sample ID:		SV131-350-202			SV131-450-202			SV132-025-202			SV132-050-202			SV132-175-202			SV132-250-202		
	Sample Date:		4/15/2020			4/15/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	420	--	0.76	380	--	110	15	--	0.75	20	J	13	36	--	7	12	J	6
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	220	ND	U	1.5	ND	U	26	ND	U	14	ND	U	13
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	1,2,4-trimethylbenzene	µg/m³	1.8	J	0.76	ND	U	110	21	--	0.75	9.6	J	13	4.9	J	7	4.0	J	6
	1,2-dibromoethane	µg/m³	ND	U	0.76	ND	U	110	ND	U	0.75	ND	U	13	ND	U	7	ND	U	6
	1,2-dichloroethane	µg/m³	ND	U	0.76	ND	U	110	ND	U	0.75	ND	U	13	ND	U	7	ND	U	6
	1,3,5-trimethylbenzene	µg/m³	1.2	J	0.76	100	J	110	4.3	--	0.75	ND	U	13	ND	U	7	ND	U	6
	1,3-butadiene	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	1,4-dioxane	µg/m³	0.82	J	0.76	ND	U	110	ND	U	0.75	ND	U	13	ND	U	7	ND	U	6
	2-butanone	µg/m³	1.1	J	1.4	ND	U	210	6.5	--	1.4	ND	U	25	7.1	J	13	8.6	J	13
	2-hexanone	µg/m³	0.34	J	0.76	ND	U	110	1.8	J	0.75	ND	U	13	ND	U	7	ND	U	6
	4-methyl-2-pentanone	µg/m³	ND	U	0.76	ND	U	110	0.51	J	0.75	ND	U	13	ND	U	7	ND	U	6
	Acetone	µg/m³	12	J	12	ND	U	1800	12	J	12	ND	U	210	67	J	110	ND	U	110
	Benzene	µg/m³	1.4	J	0.76	4100	--	110	0.54	J	0.75	ND	U	13	ND	U	7	ND	U	6
	Bromodichloromethane	µg/m³	ND	U	0.76	ND	U	110	ND	U	0.75	ND	U	13	ND	U	7	ND	U	6
	Bromoform	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	Carbon disulfide	µg/m³	15	--	2.4	310	J	360	5.6	--	2.4	ND	U	43	ND	U	22	ND	U	21
	Carbon tetrachloride	µg/m³	13	--	0.76	ND	U	110	7.7	--	0.75	11	J	13	23	--	7	16	J	6
	Chloroethane	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	Chloroform	µg/m³	1.1	J	0.76	ND	U	110	9.2	--	0.75	16	J	13	26	--	7	34	--	6
	Chloromethane	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	Cyclohexane	µg/m³	ND	U	1.5	1500	--	230	ND	U	1.5	ND	U	27	ND	U	14	ND	U	13
	Dibromochloromethane	µg/m³	ND	U	0.76	ND	U	110	ND	U	0.75	ND	U	13	ND	U	7	ND	U	6
	Dichlorodifluoromethane	µg/m³	5100	--	23	7500	--	210	4.4	--	1.4	ND	U	25	4.0	J	13	ND	U	13
	Ethanol	µg/m³	ND	U	3.7	ND	U	550	6.7	J	3.7	ND	U	66	ND	U	34	ND	U	33
	Ethyl acetate	µg/m³	ND	U	2.9	ND	U	430	ND	U	2.9	ND	U	51	ND	U	27	ND	U	26
	Ethylbenzene	µg/m³	0.54	J	0.76	150	J	110	1.6	J	0.75	ND	U	13	ND	U	7	ND	U	6
	Hexane	µg/m³	0.64	J	1.4	630	--	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	2.8	ND	U	420	1.6	J	2.8	ND	U	50	ND	U	26	ND	U	25
	m,p-Xylene	µg/m³	2.3	J	1.5	320	J	230	9.1	--	1.5	ND	U	27	ND	U	14	ND	U	13
	Methylene Chloride	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	Naphthalene	µg/m³	ND	U	1.4	ND	U	210	7.8	--	1.4	ND	U	24	ND	U	13	ND	U	12
	n-Heptane	µg/m³	1.2	J	1.4	970	--	210	0.58	J	1.4	ND	U	25	ND	U	13	ND	U	13
	o-Xylene	µg/m³	0.98	J	0.76	160	J	110	4.4	--	0.75	ND	U	13	ND	U	7	ND	U	6
	Propylene (propene)	µg/m³	6.1	--	1.4	130	J	210	0.67	J	1.4	ND	U	25	ND	U	13	ND	U	13
	Styrene	µg/m³	ND	U	1.4	ND	U	210	ND	U	1.4	ND	U	25	ND	U	13	ND	U	13
	Tetrachloroethene	µg/m³	17	--	0.76	ND	U	110	19	--	0.75	28	J	13	70	--	7	34	--	6
	Tetrahydrofuran	µg/m³	4.1	--	0.76	84	J	110	0.55	J	0.75	ND	U	13	5.4	J	7	320	--	6
	Toluene	µg/m³	5.4	--	0.76	3500	--	110	4.4	--	0.75	ND	U	13	ND	U	7	ND	U	6
	Trichloroethene	µg/m³	0.48	J	0.76	ND	U	110	4200	--	15	8800	--	18	36000	--	70	26000	--	67
	Trichlorofluoromethane	µg/m³	720	--	23	1100	--	210	1.7	J	1.4	ND	U	25	ND	U	13	ND	U	13
	Vinyl chloride	µg/m³	ND	U	0.76	ND	U	110	ND	U	0.75	ND	U	13	ND	U	7	ND	U	6
	Xylenes, Total	µg/m³	3.3	J	1.5	480	J	230	13	--	1.5	ND	U	27	ND	U	14	ND	U	13

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106132-350			KAFB-106132-450			KAFB-106133-025			KAFB-106133-050			KAFB-106133-170			KAFB-106133-250		
	Field Sample ID:		SV132-350-202			SV132-450-202			SV133-025-202			SV133-050-202			SV133-170-202			SV133-250-202		
	Sample Date:		4/14/2020			4/14/2020			4/8/2020			4/8/2020			4/8/2020			4/8/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.96	J	0	0.96	J	0	4.4	--	0.71	4.9	--	0.67	14	--	0.77	13	--	0.71
	1,1-dichloroethane	µg/m³	ND	U	1	3.0	--	1	ND	U	1.4	ND	U	1.3	ND	U	1.5	ND	U	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1	ND	U	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	1,2,4-trimethylbenzene	µg/m³	3.8	--	0	4.7	--	0	11	--	0.71	5.1	--	0.67	13	--	0.77	3.9	J	0.71
	1,2-dibromoethane	µg/m³	ND	U	0	ND	U	0	ND	U	0.71	ND	U	0.67	ND	U	0.77	ND	U	0.71
	1,2-dichloroethane	µg/m³	ND	U	0	1.4	J	0	ND	U	0.71	ND	U	0.67	ND	U	0.77	ND	U	0.71
	1,3,5-trimethylbenzene	µg/m³	0.82	J	0	1.2	J	0	2.3	--	0.71	1.0	J	0.67	2.7	--	0.77	0.72	J	0.71
	1,3-butadiene	µg/m³	ND	U	1	ND	U	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	1,4-dioxane	µg/m³	ND	U	0	ND	U	0	ND	U	0.71	ND	U	0.67	ND	U	0.77	ND	U	0.71
	2-butanone	µg/m³	ND	U	1	14	--	1	7.9	--	1.3	1.6	J	1.3	1.3	J	1.5	2.1	J	1.3
	2-hexanone	µg/m³	ND	U	0	1.7	J	0	1.6	J	0.71	0.45	J	0.67	ND	U	0.77	ND	U	0.71
	4-methyl-2-pentanone	µg/m³	ND	U	0	1.1	J	0	0.53	J	0.71	ND	U	0.67	ND	U	0.77	1.1	J	0.71
	Acetone	µg/m³	ND	U	12	42	--	12	30	--	11	10	J	11	8.2	J	12	16	J	11
	Benzene	µg/m³	1.2	J	0	2.0	J	0	0.41	J	0.71	ND	U	0.67	0.53	J	0.77	1.6	J	0.71
	Bromodichloromethane	µg/m³	ND	U	0	ND	U	0	ND	U	0.71	ND	U	0.67	ND	U	0.77	ND	U	0.71
	Bromoform	µg/m³	ND	U	1	ND	U	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	Carbon disulfide	µg/m³	6.6	--	2	31	--	2	0.99	J	2.3	1.1	J	2.1	14	--	2.5	9.6	--	2.3
	Carbon tetrachloride	µg/m³	1.7	J	0	0.82	J	0	0.55	J	0.71	0.75	J	0.67	4.1	--	0.77	7.6	--	0.71
	Chloroethane	µg/m³	ND	U	1	3.4	--	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	Chloroform	µg/m³	7.1	--	0	2.7	--	0	0.57	J	0.71	0.79	J	0.67	1.5	J	0.77	2.4	--	0.71
	Chloromethane	µg/m³	ND	U	1	15	--	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	Cyclohexane	µg/m³	ND	U	1	ND	U	1	ND	U	1.4	ND	U	1.3	ND	U	1.5	ND	U	1.4
	Dibromochloromethane	µg/m³	ND	U	0	ND	U	0	ND	U	0.71	ND	U	0.67	ND	U	0.77	ND	U	0.71
	Dichlorodifluoromethane	µg/m³	ND	U	1	ND	U	1	2.8	--	1.3	2.9	--	1.3	3.4	--	1.5	2.3	--	1.3
	Ethanol	µg/m³	ND	U	3	5.4	J	3	7.4	J	3.5	ND	U	3.3	ND	U	3.8	85	--	3.5
	Ethyl acetate	µg/m³	ND	U	2	ND	U	2	ND	U	2.7	2.2	J	2.6	ND	U	3	9.6	--	2.7
	Ethylbenzene	µg/m³	ND	U	0	0.79	J	0	0.90	J	0.71	0.35	J	0.67	0.98	J	0.77	0.72	J	0.71
	Hexane	µg/m³	ND	U	1	1.0	J	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	2	5.0	J	2	1.5	J	2.6	ND	U	2.5	ND	U	2.9	58	--	2.6
	m,p-Xylene	µg/m³	1.3	J	1	3.1	J	1	5.1	--	1.4	2.0	J	1.3	5.8	--	1.5	2.5	J	1.4
	Methylene Chloride	µg/m³	ND	U	1	ND	U	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	1.2	J	1.3
	Naphthalene	µg/m³	1.1	J	1	0.65	J	1	1.4	J	1.3	1.2	J	1.2	2.4	--	1.4	1.3	J	1.3
	n-Heptane	µg/m³	ND	U	1	1.1	J	1	1.4	J	1.3	0.73	J	1.3	1.5	J	1.5	2.2	J	1.3
	o-Xylene	µg/m³	0.50	J	0	1.2	J	0	2.2	J	0.71	0.73	J	0.67	1.9	J	0.77	0.89	J	0.71
	Propylene (propene)	µg/m³	0.75	J	1	4.9	--	1	1.1	J	1.3	ND	U	1.3	ND	U	1.5	15	--	1.3
	Styrene	µg/m³	ND	U	1	ND	U	1	ND	U	1.3	ND	U	1.3	ND	U	1.5	ND	U	1.3
	Tetrachloroethene	µg/m³	2.2	J	0	2.2	J	0	5.3	--	0.71	5.0	--	0.67	24	--	0.77	18	J	0.71
	Tetrahydrofuran	µg/m³	11	--	0	34	--	0	2.8	--	0.71	0.97	J	0.67	17	--	0.77	5.8	--	0.71
	Toluene	µg/m³	0.96	J	0	13	--	0	3.3	--	0.71	1.3	J	0.67	4.6	--	0.77	11	J	0.71
	Trichloroethene	µg/m³	670	--	7	910	--	7	83	--	0.71	100	--	0.67	630	--	7.7	1600	J	11
	Trichlorofluoromethane	µg/m³	0.41	J	1	ND	U	1	1.2	J	1.3	1.3	J	1.3	1.4	J	1.5	3.3	--	1.3
	Vinyl chloride	µg/m³	ND	U	0	4.7	--	0	ND	U	0.71	ND	U	0.67	ND	U	0.77	ND	U	0.71
	Xylenes, Total	µg/m³	1.8	J	1	4.3	J	1	7.2	--	1.4	2.7	J	1.3	7.7	--	1.5	3.4	J	1.4

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106133-250			KAFB-106133-350			KAFB-106133-450			KAFB-106134-025			KAFB-106134-050			KAFB-106134-170		
	Field Sample ID:		SV133-250-602			SV133-350-202			SV133-450-202			SV134-025-202			SV134-050-202			SV134-170-202		
	Sample Date:		4/8/2020			4/8/2020			4/8/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		FD			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	13	--	0.7	1.6	J	0.69	ND	U	31	1.1	J	0	1.2	J	0	2.0	J	0
	1,1-dichloroethane	µg/m³	ND	U	1.4	ND	U	1.3	ND	U	59	ND	U	1	ND	U	1	ND	U	1
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	58	ND	U	1	ND	U	1	ND	U	1
	1,2,4-trimethylbenzene	µg/m³	33	--	0.7	3.0	--	0.69	ND	U	31	3.7	--	0	2.0	J	0	6.8	--	0
	1,2-dibromoethane	µg/m³	ND	U	0.7	ND	U	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	1,2-dichloroethane	µg/m³	ND	U	0.7	ND	U	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	1,3,5-trimethylbenzene	µg/m³	6.7	--	0.7	0.62	J	0.69	ND	U	31	1.4	J	0	0.59	J	0	1.6	J	0
	1,3-butadiene	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	58	ND	U	1	ND	U	1	ND	U	1
	1,4-dioxane	µg/m³	0.35	J	0.7	ND	U	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	2-butanone	µg/m³	4.2	J	1.3	3.3	J	1.3	150	J	58	13	--	1	6.6	--	1	19	--	1
	2-hexanone	µg/m³	1.5	J	0.7	0.57	J	0.69	ND	U	31	1.5	J	0	1.6	J	0	ND	U	0
	4-methyl-2-pentanone	µg/m³	0.40	J	0.7	0.40	J	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	Acetone	µg/m³	18	J	11	14	J	11	ND	U	490	91	--	13	30	--	12	49	--	11
	Benzene	µg/m³	2.0	J	0.7	6.0	--	0.69	1100	--	31	0.66	J	0	ND	U	0	0.71	J	0
	Bromodichloromethane	µg/m³	ND	U	0.7	ND	U	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	Bromoform	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	58	ND	U	1	ND	U	1	ND	U	1
	Carbon disulfide	µg/m³	15	--	2.2	15	--	2.2	100	J	97	2.7	J	2	1.0	J	2	10	--	2
	Carbon tetrachloride	µg/m³	6.8	--	0.7	1.7	J	0.69	ND	U	31	0.43	J	0	0.34	J	0	0.64	J	0
	Chloroethane	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	58	1.7	J	1	ND	U	1	ND	U	1
	Chloroform	µg/m³	2.3	--	0.7	3.7	--	0.69	ND	U	31	2.0	J	0	ND	U	0	0.60	J	0
	Chloromethane	µg/m³	0.44	J	1.3	0.92	J	1.3	16	J	58	26	--	1	ND	U	1	0.42	J	1
	Cyclohexane	µg/m³	ND	U	1.4	ND	U	1.4	1500	--	61	ND	U	1	ND	U	1	1.2	J	1
	Dibromochloromethane	µg/m³	ND	U	0.7	ND	U	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	Dichlorodifluoromethane	µg/m³	2.2	--	1.3	0.61	J	1.3	ND	U	58	2.4	J	1	2.4	--	1	2.1	J	1
	Ethanol	µg/m³	9.5	J	3.4	5.6	J	3.4	92	J	150	5.1	J	4	5.7	J	3	5.2	J	3
	Ethyl acetate	µg/m³	ND	U	2.7	ND	U	2.6	ND	U	120	ND	U	3	ND	U	3	2.4	J	2
	Ethylbenzene	µg/m³	2.1	J	0.7	ND	U	0.69	22	J	31	0.94	J	0	ND	U	0	0.56	J	0
	Hexane	µg/m³	0.51	J	1.3	ND	U	1.3	750	--	58	ND	U	1	ND	U	1	1.0	J	1
	Isopropyl alcohol (manufacturing-strong	µg/m³	1.3	J	2.6	ND	U	2.6	ND	U	110	1.7	J	3	1.2	J	2	ND	U	2
	m,p-Xylene	µg/m³	13	--	1.4	1.3	J	1.4	37	J	61	4.8	J	1	1.4	J	1	4.9	--	1
	Methylene Chloride	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	58	ND	U	1	ND	U	1	ND	U	1
	Naphthalene	µg/m³	3.3	--	1.3	ND	U	1.3	ND	U	56	3.0	--	1	ND	U	1	1.0	J	1
	n-Heptane	µg/m³	2.8	--	1.3	0.44	J	1.3	410	--	58	ND	U	1	ND	U	1	0.45	J	1
	o-Xylene	µg/m³	4.0	--	0.7	0.49	J	0.69	24	J	31	2.4	J	0	0.74	J	0	2.3	--	0
	Propylene (propene)	µg/m³	1.1	J	1.3	3.1	--	1.3	160	--	58	2.3	J	1	1.4	J	1	0.83	J	1
	Styrene	µg/m³	ND	U	1.3	ND	U	1.3	ND	U	58	ND	U	1	ND	U	1	ND	U	1
	Tetrachloroethene	µg/m³	18	--	0.7	1.9	J	0.69	ND	U	31	0.75	J	0	1.2	J	0	2.0	J	0
	Tetrahydrofuran	µg/m³	12	--	0.7	11	--	0.69	38	J	31	0.57	J	0	ND	U	0	13	--	0
	Toluene	µg/m³	8.0	--	0.7	2.4	--	0.69	420	--	31	5.0	--	0	0.68	J	0	2.9	--	0
	Trichloroethene	µg/m³	1400	--	11	380	--	11	140	--	31	19	--	0	26	--	0	120	--	0
	Trichlorofluoromethane	µg/m³	1.0	J	1.3	0.40	J	1.3	ND	U	58	1.1	J	1	1.1	J	1	0.92	J	1
	Vinyl chloride	µg/m³	ND	U	0.7	ND	U	0.69	ND	U	31	ND	U	0	ND	U	0	ND	U	0
	Xylenes, Total	µg/m³	17	--	1.4	1.8	J	1.4	61	J	61	7.2	--	1	2.1	J	1	7.2	--	1

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106134-250			KAFB-106134-350			KAFB-106134-350			KAFB-106134-450			KAFB-106135-025			KAFB-106135-050		
	Field Sample ID:		SV134-250-202			SV134-350-202			SV134-350-602			SV134-450-202			SV135-025-202			SV135-050-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			FD			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	1.4	J	0	0.75	J	0	0.75	J	0	ND	U	19	0.46	J	0	1.0	J	0
	1,1-dichloroethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	38	0.99	J	1	ND	U	1
	1,2,4-trichlorobenzene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	ND	U	1	ND	U	1
	1,2,4-trimethylbenzene	µg/m³	2.2	J	0	3.7	J	0	11	J	0	ND	U	19	2.7	--	0	9.9	--	0
	1,2-dibromoethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	ND	U	0	ND	U	0
	1,2-dichloroethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	3.4	--	0	ND	U	0
	1,3,5-trimethylbenzene	µg/m³	0.56	J	0	1.1	J	0	2.8	--	0	50	J	19	0.55	J	0	2.0	J	0
	1,3-butadiene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	0.49	J	1	ND	U	1
	1,4-dioxane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	ND	U	0	ND	U	0
	2-butanone	µg/m³	2.2	J	1	6.0	--	1	3.3	J	1	ND	U	36	3.2	J	1	1.0	J	1
	2-hexanone	µg/m³	ND	U	0	0.81	J	0	ND	U	0	ND	U	19	0.34	J	0	ND	U	0
	4-methyl-2-pentanone	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	5.4	--	0	ND	U	0
	Acetone	µg/m³	10	J	12	20	J	12	ND	U	12	ND	U	310	15	J	11	ND	U	11
	Benzene	µg/m³	0.66	J	0	1.7	J	0	1.6	J	0	400	--	19	1.7	J	0	ND	U	0
	Bromodichloromethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	ND	U	0	ND	U	0
	Bromoform	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	ND	U	1	ND	U	1
	Carbon disulfide	µg/m³	23	--	2	13	--	2	13	--	2	34	J	62	73	--	2	3.2	J	2
	Carbon tetrachloride	µg/m³	0.58	J	0	0.55	J	0	0.52	J	0	ND	U	19	0.64	J	0	0.47	J	0
	Chloroethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	6.4	--	1	ND	U	1
	Chloroform	µg/m³	0.59	J	0	0.91	J	0	0.82	J	0	ND	U	19	0.69	J	0	0.73	J	0
	Chloromethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	19	--	1	ND	U	1
	Cyclohexane	µg/m³	ND	U	1	39	--	1	36	--	1	410	--	39	ND	U	1	ND	U	1
	Dibromochloromethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	ND	U	0	ND	U	0
	Dichlorodifluoromethane	µg/m³	1.9	J	1	1.8	J	1	1.9	J	1	ND	U	36	0.72	J	1	2.1	J	1
	Ethanol	µg/m³	3.4	J	3	11	J	3	9.8	J	3	ND	U	95	5.6	J	3	6.3	J	3
	Ethyl acetate	µg/m³	ND	U	2	31	--	2	ND	U	3	ND	U	74	ND	U	2	5.6	--	2
	Ethylbenzene	µg/m³	ND	U	0	0.99	J	0	0.75	J	0	ND	U	19	1.4	J	0	0.67	J	0
	Hexane	µg/m³	ND	U	1	4.9	--	1	4.0	--	1	370	--	36	0.64	J	1	ND	U	1
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	2	2.5	J	2	ND	U	2	ND	U	72	ND	U	2	ND	U	2
	m,p-Xylene	µg/m³	1.4	J	1	5.5	--	1	7.0	--	1	ND	U	39	4.7	--	1	3.6	J	1
	Methylene Chloride	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	ND	U	1	ND	U	1
	Naphthalene	µg/m³	ND	U	1	0.56	J	1	1.1	J	1	ND	U	35	ND	U	1	2.1	J	1
	n-Heptane	µg/m³	ND	U	1	ND	U	1	0.58	J	1	120	--	36	1.1	J	1	0.56	J	1
	o-Xylene	µg/m³	0.70	J	0	1.9	J	0	3.1	--	0	26	J	19	1.1	J	0	1.2	J	0
	Propylene (propene)	µg/m³	0.71	J	1	ND	U	1	ND	U	1	ND	U	36	3.3	--	1	ND	U	1
	Styrene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	36	ND	U	1	ND	U	1
	Tetrachloroethene	µg/m³	1.6	J	0	0.77	J	0	1.5	J	0	ND	U	19	ND	U	0	0.64	J	0
	Tetrahydrofuran	µg/m³	8.9	--	0	17	--	0	18	--	0	ND	U	19	42	--	0	17	--	0
	Toluene	µg/m³	0.77	J	0	4.9	--	0	3.6	--	0	ND	U	19	3.1	--	0	2.6	--	0
	Trichloroethene	µg/m³	90	--	0	95	--	0	89	--	0	240	--	19	79	--	0	280	--	0
	Trichlorofluoromethane	µg/m³	0.81	J	1	0.72	J	1	0.78	J	1	ND	U	36	0.50	J	1	1.2	J	1
	Vinyl chloride	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	19	5.5	--	0	ND	U	0
	Xylenes, Total	µg/m³	2.1	J	1	7.4	--	1	10	--	1	26	J	39	5.8	--	1	4.7	--	1

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106135-150			KAFB-106135-250			KAFB-106135-250			KAFB-106135-350			KAFB-106135-450			KAFB-106137-025		
	Field Sample ID:		SV135-150-202			SV135-250-202			SV135-250-602			SV135-350-202			SV135-450-202			SV137-025-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			FD			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	2.4	--	0	1.3	J	0	1.3	J	0	0.36	J	0	0.90	J	0	0.49	J	0
	1,1-dichloroethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	1,2,4-trichlorobenzene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	1,2,4-trimethylbenzene	µg/m³	3.1	--	0	7.1	J	0	14	J	0	1.9	J	0	13	--	0	4.3	--	0
	1,2-dibromoethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	1,2-dichloroethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	1,3,5-trimethylbenzene	µg/m³	0.68	J	0	1.5	J	0	2.8	--	0	0.41	J	0	2.7	--	0	0.88	J	0
	1,3-butadiene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	1,4-dioxane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	2-butanone	µg/m³	27	--	1	2.4	J	1	2.9	J	1	5.8	--	1	2.7	J	1	ND	U	1
	2-hexanone	µg/m³	0.49	J	0	ND	U	0	ND	U	0	1.1	J	0	ND	U	0	ND	U	0
	4-methyl-2-pentanone	µg/m³	ND	U	0	ND	U	0	ND	U	0	0.48	J	0	ND	U	0	ND	U	0
	Acetone	µg/m³	23	--	12	6.5	J	11	7.5	J	12	22	J	12	17	J	11	ND	U	12
	Benzene	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	0.70	J	0	ND	U	0
	Bromodichloromethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	Bromoform	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Carbon disulfide	µg/m³	8.9	--	2	6.4	J	2	11	J	2	5.4	--	2	1.8	J	2	ND	U	2
	Carbon tetrachloride	µg/m³	1.6	J	0	0.80	J	0	0.81	J	0	0.55	J	0	0.38	J	0	ND	U	0
	Chloroethane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Chloroform	µg/m³	1.8	J	0	1.7	J	0	1.7	J	0	0.95	J	0	0.60	J	0	0.80	J	0
	Chloromethane	µg/m³	ND	U	1	ND	U	1	0.40	J	1	0.47	J	1	ND	U	1	ND	U	1
	Cyclohexane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	0.90	J	1	ND	U	1
	Dibromochloromethane	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	Dichlorodifluoromethane	µg/m³	2.1	J	1	1.1	J	1	1.1	J	1	0.63	J	1	2.2	J	1	2.3	J	1
	Ethanol	µg/m³	27	--	3	5.2	J	3	6.2	J	3	10	J	3	22	J	3	ND	U	3
	Ethyl acetate	µg/m³	33	--	2	ND	U	2	ND	U	3	ND	U	2	12	--	2	ND	U	3
	Ethylbenzene	µg/m³	ND	U	0	0.47	J	0	0.97	J	0	ND	U	0	1.4	J	0	ND	U	0
	Hexane	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	0.58	J	1	ND	U	1
	Isopropyl alcohol (manufacturing-strong	µg/m³	1.3	J	2	ND	U	2	ND	U	2	ND	U	2	1.3	J	2	ND	U	2
	m,p-Xylene	µg/m³	1.3	J	1	2.8	J	1	5.0	J	1	0.83	J	1	6.3	--	1	1.5	J	1
	Methylene Chloride	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Naphthalene	µg/m³	ND	U	1	0.96	J	1	1.5	J	1	ND	U	1	0.99	J	1	1.6	J	1
	n-Heptane	µg/m³	ND	U	1	0.47	J	1	0.88	J	1	ND	U	1	1.5	J	1	ND	U	1
	o-Xylene	µg/m³	0.47	J	0	0.91	J	0	1.6	J	0	ND	U	0	2.4	--	0	0.48	J	0
	Propylene (propene)	µg/m³	0.79	J	1	ND	U	1	ND	U	1	0.98	J	1	0.96	J	1	ND	U	1
	Styrene	µg/m³	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	Tetrachloroethene	µg/m³	2.6	--	0	1.2	J	0	1.5	J	0	ND	U	0	0.56	J	0	ND	U	0
	Tetrahydrofuran	µg/m³	48	--	0	23	--	0	27	--	0	41	--	0	1.9	J	0	ND	U	0
	Toluene	µg/m³	2.2	J	0	2.0	J	0	3.7	--	0	0.94	J	0	7.0	--	0	1.1	J	0
	Trichloroethene	µg/m³	1500	--	7	430	--	6	470	--	0	40	--	0	200	--	0	ND	U	0
	Trichlorofluoromethane	µg/m³	1.0	J	1	0.62	J	1	0.66	J	1	0.49	J	1	1.2	J	1	1.1	J	1
	Vinyl chloride	µg/m³	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0	ND	U	0
	Xylenes, Total	µg/m³	1.8	J	1	3.7	J	1	6.7	--	1	0.83	J	1	8.6	--	1	2.0	J	1

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106137-050			KAFB-106137-150			KAFB-106137-250			KAFB-106137-350			KAFB-106137-450			KAFB-106139-025		
	Field Sample ID:		SV137-050-202			SV137-150-202			SV137-250-202			SV137-350-202			SV137-450-202			SV139-025-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.52	J	0.81	0.48	J	0.71	0.52	J	0.74	0.51	J	0.79	ND	U	100	20	--	0.76
	1,1-dichloroethane	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.4	ND	U	1.5	ND	U	200	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	ND	U	190	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	1.4	J	0.81	4.1	--	0.71	1.7	J	0.74	1.5	J	0.79	4000	--	100	4.6	--	0.76
	1,2-dibromoethane	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	ND	U	0.79	460	--	100	ND	U	0.76
	1,2-dichloroethane	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	ND	U	0.79	49	J	100	ND	U	0.76
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.81	0.78	J	0.71	0.39	J	0.74	ND	U	0.79	3800	--	100	1.6	J	0.76
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	ND	U	190	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	0.81	ND	U	0.71	0.39	J	0.74	ND	U	0.79	ND	U	100	ND	U	0.76
	2-butanone	µg/m³	0.83	J	1.5	0.60	J	1.3	4.2	J	1.4	2.8	J	1.5	ND	U	190	5.5	--	1.4
	2-hexanone	µg/m³	0.33	J	0.81	ND	U	0.71	0.93	J	0.74	0.80	J	0.79	ND	U	100	0.97	J	0.76
	4-methyl-2-pentanone	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	ND	U	0.79	ND	U	100	ND	U	0.76
	Acetone	µg/m³	7.5	J	13	ND	U	11	16	J	12	11	J	12	ND	U	1600	40	--	12
	Benzene	µg/m³	ND	U	0.81	0.40	J	0.71	0.37	J	0.74	0.67	J	0.79	11000	--	100	ND	U	0.76
	Bromodichloromethane	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	ND	U	0.79	ND	U	100	ND	U	0.76
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	ND	U	190	ND	U	1.4
	Carbon disulfide	µg/m³	3.0	J	2.6	ND	U	2.3	3.2	J	2.4	2.1	J	2.5	98	J	320	6.6	--	2.4
	Carbon tetrachloride	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	0.80	J	0.79	ND	U	100	9.8	--	0.76
	Chloroethane	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	ND	U	190	ND	U	1.4
	Chloroform	µg/m³	0.66	J	0.81	ND	U	0.71	ND	U	0.74	0.92	J	0.79	ND	U	100	1.8	J	0.76
	Chloromethane	µg/m³	ND	U	1.5	ND	U	1.3	0.50	J	1.4	0.43	J	1.5	ND	U	190	1.1	J	1.4
	Cyclohexane	µg/m³	ND	U	1.6	ND	U	1.4	ND	U	1.5	ND	U	1.6	4800	--	200	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	ND	U	0.79	ND	U	100	ND	U	0.76
	Dichlorodifluoromethane	µg/m³	2.8	--	1.5	3.6	--	1.3	3.8	--	1.4	3.7	--	1.5	ND	U	190	2.4	--	1.4
	Ethanol	µg/m³	5.5	J	4	ND	U	3.5	4.8	J	3.6	6.4	J	3.8	ND	U	490	30	--	3.7
	Ethyl acetate	µg/m³	ND	U	3.1	2.9	J	2.7	ND	U	2.8	5.4	--	3	ND	U	390	2.3	J	2.9
	Ethylbenzene	µg/m³	ND	U	0.81	0.43	J	0.71	ND	U	0.74	ND	U	0.79	2900	--	100	0.41	J	0.76
	Hexane	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	1000	--	190	ND	U	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3	ND	U	2.6	ND	U	2.8	ND	U	2.9	200	J	370	3.9	J	2.8
	m,p-Xylene	µg/m³	0.77	J	1.6	2.1	J	1.4	1.1	J	1.5	0.85	J	1.6	69000	--	200	5.5	--	1.5
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	ND	U	190	ND	U	1.4
	Naphthalene	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.4	ND	U	180	0.89	J	1.4
	n-Heptane	µg/m³	ND	U	1.5	0.40	J	1.3	ND	U	1.4	ND	U	1.5	1400	--	190	ND	U	1.4
	o-Xylene	µg/m³	ND	U	0.81	0.66	J	0.71	0.49	J	0.74	ND	U	0.79	35000	--	100	3.3	--	0.76
	Propylene (propene)	µg/m³	ND	U	1.5	ND	U	1.3	0.81	J	1.4	0.98	J	1.5	200	J	190	2.1	J	1.4
	Styrene	µg/m³	ND	U	1.5	ND	U	1.3	ND	U	1.4	ND	U	1.5	ND	U	190	ND	U	1.4
	Tetrachloroethene	µg/m³	ND	U	0.81	0.35	J	0.71	4.6	--	0.74	3.9	--	0.79	ND	U	100	0.92	J	0.76
	Tetrahydrofuran	µg/m³	2.7	--	0.81	0.55	J	0.71	32	--	0.74	8.2	--	0.79	72	J	100	0.80	J	0.76
	Toluene	µg/m³	0.97	J	0.81	1.6	J	0.71	0.99	J	0.74	1.4	J	0.79	30000	--	100	1.8	J	0.76
	Trichloroethene	µg/m³	ND	U	0.81	0.69	J	0.71	1.1	J	0.74	2.3	J	0.79	ND	U	100	0.48	J	0.76
	Trichlorofluoromethane	µg/m³	1.3	J	1.5	1.3	J	1.3	1.3	J	1.4	2.1	J	1.5	ND	U	190	2.2	J	1.4
	Vinyl chloride	µg/m³	ND	U	0.81	ND	U	0.71	ND	U	0.74	ND	U	0.79	ND	U	100	ND	U	0.76
	Xylenes, Total	µg/m³	0.77	J	1.6	2.8	J	1.4	1.6	J	1.5	0.85	J	1.6	100000	--	200	8.8	--	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106139-050			KAFB-106139-050			KAFB-106139-150			KAFB-106139-250			KAFB-106139-350			KAFB-106139-450		
	Field Sample ID:		SV139-050-202			SV139-050-602			SV139-150-202			SV139-250-202			SV139-350-202			SV139-450-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	34	--	0.82	32	--	1.2	410	--	8	510	--	7.3	330	--	7.4	80	--	0.71
	1,1-dichloroethane	µg/m³	ND	U	1.6	ND	U	2.3	ND	U	1.6	ND	U	1.4	ND	U	1.4	0.67	J	1.4
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	1.3
	1,2,4-trimethylbenzene	µg/m³	3.4	J	0.82	12	J	1.2	4.7	--	0.8	2.2	J	0.73	1.9	J	0.74	6.9	--	0.71
	1,2-dibromoethane	µg/m³	ND	U	0.82	ND	U	1.2	ND	U	0.8	ND	U	0.73	ND	U	0.74	ND	U	0.71
	1,2-dichloroethane	µg/m³	ND	U	0.82	ND	U	1.2	ND	U	0.8	0.99	J	0.73	ND	U	0.74	4.1	--	0.71
	1,3,5-trimethylbenzene	µg/m³	1.0	J	0.82	3.7	J	1.2	1.2	J	0.8	0.76	J	0.73	0.70	J	0.74	2.0	J	0.71
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	ND	U	1.4	ND	U	1.4	0.66	J	1.3
	1,4-dioxane	µg/m³	0.84	J	0.82	0.66	J	1.2	ND	U	0.8	ND	U	0.73	ND	U	0.74	0.61	J	0.71
	2-butanone	µg/m³	8.0	--	1.5	3.8	J	2.2	5.1	J	1.5	5.1	--	1.4	2.8	J	1.4	1.1	J	1.3
	2-hexanone	µg/m³	1.8	J	0.82	0.77	J	1.2	0.86	J	0.8	0.70	J	0.73	0.85	J	0.74	ND	U	0.71
	4-methyl-2-pentanone	µg/m³	ND	U	0.82	ND	U	1.2	ND	U	0.8	ND	U	0.73	ND	U	0.74	0.55	J	0.71
	Acetone	µg/m³	80	--	13	21	J	18	ND	U	13	ND	U	12	ND	U	12	5.2	J	11
	Benzene	µg/m³	0.90	J	0.82	ND	U	1.2	0.53	J	0.8	120	--	0.73	34	--	0.74	2.2	J	0.71
	Bromodichloromethane	µg/m³	ND	U	0.82	ND	U	1.2	0.88	J	0.8	1.9	J	0.73	12	--	0.74	4.0	--	0.71
	Bromoform	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	1.3
	Carbon disulfide	µg/m³	42	J	2.6	11	J	3.7	83	--	2.5	14	--	2.3	3.0	J	2.3	66	--	2.3
	Carbon tetrachloride	µg/m³	18	--	0.82	17	--	1.2	220	--	0.8	230	--	0.73	130	--	0.74	120	--	0.71
	Chloroethane	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	0.53	J	1.4	0.40	J	1.4	8.3	--	1.3
	Chloroform	µg/m³	4.0	--	0.82	3.9	--	1.2	190	--	0.8	420	--	0.73	480	--	7.4	52	--	0.71
	Chloromethane	µg/m³	ND	U	1.5	ND	U	2.2	0.43	J	1.5	0.67	J	1.4	ND	U	1.4	46	--	1.3
	Cyclohexane	µg/m³	ND	U	1.6	ND	U	2.3	0.76	J	1.6	27	--	1.5	8.2	--	1.5	ND	U	1.4
	Dibromochloromethane	µg/m³	ND	U	0.82	ND	U	1.2	ND	U	0.8	ND	U	0.73	ND	U	0.74	0.38	J	0.71
	Dichlorodifluoromethane	µg/m³	2.5	J	1.5	2.4	J	2.2	4.0	--	1.5	4.3	--	1.4	2.9	--	1.4	1.5	J	1.3
	Ethanol	µg/m³	8.3	J	4	16	J	5.7	5.2	J	3.9	18	J	3.6	ND	U	3.6	ND	U	3.5
	Ethyl acetate	µg/m³	ND	U	3.1	ND	U	4.5	3.3	J	3.1	44	--	2.8	ND	U	2.8	1.4	J	2.7
	Ethylbenzene	µg/m³	0.59	J	0.82	0.99	J	1.2	0.35	J	0.8	1.1	J	0.73	ND	U	0.74	4.0	--	0.71
	Hexane	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	2.1	J	1.4	0.78	J	1.4	0.97	J	1.3
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3	ND	U	4.3	1.1	J	3	3.1	J	2.7	ND	U	2.7	ND	U	2.6
	m,p-Xylene	µg/m³	3.9	J	1.6	13	J	2.3	4.1	J	1.6	5.0	--	1.5	2.6	J	1.5	18	--	1.4
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	1.3
	Naphthalene	µg/m³	0.86	J	1.5	ND	U	2.1	ND	U	1.5	ND	U	1.3	ND	U	1.3	0.87	J	1.3
	n-Heptane	µg/m³	0.52	J	1.5	0.65	J	2.2	ND	U	1.5	ND	U	1.4	0.39	J	1.4	1.3	J	1.3
	o-Xylene	µg/m³	2.0	J	0.82	6.8	J	1.2	2.1	J	0.8	2.9	--	0.73	1.6	J	0.74	5.0	--	0.71
	Propylene (propene)	µg/m³	0.91	J	1.5	0.92	J	2.2	ND	U	1.5	6.4	--	1.4	1.8	J	1.4	5.4	--	1.3
	Styrene	µg/m³	ND	U	1.5	ND	U	2.2	ND	U	1.5	ND	U	1.4	ND	U	1.4	ND	U	1.3
	Tetrachloroethene	µg/m³	0.43	J	0.82	0.92	J	1.2	1.9	J	0.8	3.0	--	0.73	2.5	--	0.74	3.6	--	0.71
	Tetrahydrofuran	µg/m³	11	--	0.82	12	--	1.2	27	--	0.8	21	--	0.73	7.8	--	0.74	33	--	0.71
	Toluene	µg/m³	2.5	J	0.82	3.8	--	1.2	1.7	J	0.8	100	--	0.73	27	--	0.74	4.6	--	0.71
	Trichloroethene	µg/m³	ND	U	0.82	ND	U	1.2	0.34	J	0.8	7.5	--	0.73	2.7	--	0.74	9.3	--	0.71
	Trichlorofluoromethane	µg/m³	3.1	--	1.5	3.0	J	2.2	39	--	1.5	64	--	1.4	61	--	1.4	7.5	--	1.3
	Vinyl chloride	µg/m³	ND	U	0.82	ND	U	1.2	ND	U	0.8	ND	U	0.73	ND	U	0.74	6.6	--	0.71
	Xylenes, Total	µg/m³	5.9	J	1.6	20	J	2.3	6.1	--	1.6	7.9	--	1.5	4.1	J	1.5	23	--	1.4

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106140-025			KAFB-106140-050			KAFB-106140-150			KAFB-106140-250			KAFB-106140-350			KAFB-106140-450		
	Field Sample ID:		SV140-025-202			SV140-050-202			SV140-150-202			SV140-250-202			SV140-350-202			SV140-450-202		
	Sample Date:		4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020			4/14/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	0.63	J	0.79	0.49	J	0.91	0.37	J	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	1,1-dichloroethane	µg/m³	ND	U	1.5	ND	U	1.8	ND	U	1.5	ND	U	1.5	ND	U	3.9	ND	U	12
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	ND	U	12
	1,2,4-trimethylbenzene	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	1,2-dibromoethane	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	1,2-dichloroethane	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	1,3,5-trimethylbenzene	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	ND	U	12
	1,4-dioxane	µg/m³	ND	U	0.79	ND	U	0.91	40	--	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	2-butanone	µg/m³	4.8	J	1.5	2.5	J	1.7	3.5	J	1.5	14	--	1.5	3.4	J	3.8	270	--	12
	2-hexanone	µg/m³	0.93	J	0.79	ND	U	0.91	0.32	J	0.79	1.4	J	0.79	ND	U	2	ND	U	6.3
	4-methyl-2-pentanone	µg/m³	ND	U	0.79	ND	U	0.91	0.35	J	0.79	0.79	J	0.79	ND	U	2	ND	U	6.3
	Acetone	µg/m³	26	--	12	12	J	15	5.8	J	12	45	--	13	29	J	32	190	J	99
	Benzene	µg/m³	0.59	J	0.79	ND	U	0.91	1.6	J	0.79	0.53	J	0.79	18	--	2	120	--	6.3
	Bromodichloromethane	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	ND	U	12
	Carbon disulfide	µg/m³	6.7	--	2.5	2.5	J	2.9	130	--	2.5	4.3	J	2.5	10	J	6.4	8.5	J	20
	Carbon tetrachloride	µg/m³	3.3	--	0.79	5.0	--	0.91	8.1	--	0.79	3.1	--	0.79	ND	U	2	ND	U	6.3
	Chloroethane	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	ND	U	12
	Chloroform	µg/m³	2.0	J	0.79	4.6	--	0.91	3.2	--	0.79	1.6	J	0.79	ND	U	2	ND	U	6.3
	Chloromethane	µg/m³	0.49	J	1.5	ND	U	1.7	ND	U	1.5	0.86	J	1.5	1.4	J	3.8	3.9	J	12
	Cyclohexane	µg/m³	3.2	J	1.6	ND	U	1.8	ND	U	1.6	ND	U	1.6	17	--	4	79	--	13
	Dibromochloromethane	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	Dichlorodifluoromethane	µg/m³	2.5	--	1.5	2.4	J	1.7	2.4	J	1.5	7.8	--	1.5	12	--	3.8	16	J	12
	Ethanol	µg/m³	16	J	3.8	ND	U	4.5	4.3	J	3.8	5.7	J	3.9	19	J	9.8	ND	U	31
	Ethyl acetate	µg/m³	9.1	--	3	ND	U	3.5	ND	U	3	ND	U	3	ND	U	7.7	ND	U	24
	Ethylbenzene	µg/m³	0.37	J	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	Hexane	µg/m³	2.5	--	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	5.2	J	12
	Isopropyl alcohol (manufacturing-strong	µg/m³	3.3	J	2.9	ND	U	3.4	1.2	J	2.9	2.3	J	2.9	ND	U	7.5	ND	U	23
	m,p-Xylene	µg/m³	1.5	J	1.6	ND	U	1.8	ND	U	1.6	ND	U	1.6	ND	U	4	ND	U	13
	Methylene Chloride	µg/m³	1.4	J	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	ND	U	12
	Naphthalene	µg/m³	ND	U	1.4	ND	U	1.7	ND	U	1.4	ND	U	1.4	ND	U	3.7	ND	U	11
	n-Heptane	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.5	0.55	J	1.5	ND	U	3.8	ND	U	12
	o-Xylene	µg/m³	0.51	J	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	Propylene (propene)	µg/m³	1.4	J	1.5	ND	U	1.7	1.7	J	1.5	2.2	J	1.5	ND	U	3.8	ND	U	12
	Styrene	µg/m³	ND	U	1.5	ND	U	1.7	ND	U	1.5	ND	U	1.5	ND	U	3.8	ND	U	12
	Tetrachloroethene	µg/m³	0.58	J	0.79	0.65	J	0.91	0.69	J	0.79	ND	U	0.79	0.97	J	2	ND	U	6.3
	Tetrahydrofuran	µg/m³	2.5	J	0.79	3.2	--	0.91	21	--	0.79	21	--	0.79	25	--	2	57	--	6.3
	Toluene	µg/m³	6.4	--	0.79	0.50	J	0.91	0.57	J	0.79	1.1	J	0.79	2.4	J	2	22	--	6.3
	Trichloroethene	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	53	--	0.79	ND	U	2	ND	U	6.3
	Trichlorofluoromethane	µg/m³	1.2	J	1.5	1.1	J	1.7	0.67	J	1.5	0.96	J	1.5	1.4	J	3.8	ND	U	12
	Vinyl chloride	µg/m³	ND	U	0.79	ND	U	0.91	ND	U	0.79	ND	U	0.79	ND	U	2	ND	U	6.3
	Xylenes, Total	µg/m³	2.1	J	1.6	ND	U	1.8	ND	U	1.6	ND	U	1.6	ND	U	4	ND	U	13

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		KAFB-106140-450			SVEW-10-410			SVEW-10-410			SVEW-11-410			SVEW-11-410			SVEW-12-410		
	Field Sample ID:		SV140-450-602			SVE10-410-202			SVE10-410-602			SVE11-410-202			SVE11-410-602			SVE12-410-202		
	Sample Date:		4/14/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/15/2020		
	Sample Type:		FD			REG			FD			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	6.8	890	--	4.5	930	--	3.8	ND	U	82	130	J	78	63	--	0.77
	1,1-dichloroethane	µg/m³	ND	U	13	ND	U	8.8	ND	U	7.4	ND	U	160	ND	U	150	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	13	ND	U	8.5	ND	U	7.2	ND	U	150	ND	U	150	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	ND	U	6.8	7.7	J	4.5	24	--	3.8	360	--	82	330	--	78	2.0	J	0.77
	1,2-dibromoethane	µg/m³	ND	U	6.8	ND	U	4.5	ND	U	3.8	ND	U	82	ND	U	78	ND	U	0.77
	1,2-dichloroethane	µg/m³	ND	U	6.8	1.7	J	4.5	1.9	J	3.8	ND	U	82	ND	U	78	ND	U	0.77
	1,3,5-trimethylbenzene	µg/m³	ND	U	6.8	5.0	J	4.5	8.4	J	3.8	530	--	82	440	--	78	0.40	J	0.77
	1,3-butadiene	µg/m³	ND	U	13	ND	U	8.5	ND	U	7.2	ND	U	150	ND	U	150	ND	U	1.4
	1,4-dioxane	µg/m³	ND	U	6.8	ND	U	4.5	ND	U	3.8	ND	U	82	ND	U	78	ND	U	0.77
	2-butanone	µg/m³	340	--	13	6.1	J	8.5	8.1	J	7.2	ND	U	150	57	J	150	10	--	1.4
	2-hexanone	µg/m³	ND	U	6.8	ND	U	4.5	ND	U	3.8	ND	U	82	ND	U	78	0.63	J	0.77
	4-methyl-2-pentanone	µg/m³	ND	U	6.8	ND	U	4.5	ND	U	3.8	ND	U	82	ND	U	78	ND	U	0.77
	Acetone	µg/m³	210	--	110	57	J	72	75	J	60	ND	U	1300	ND	U	1200	16	J	12
	Benzene	µg/m³	100	--	6.8	570	--	4.5	600	--	3.8	8800	--	82	9000	--	78	ND	U	0.77
	Bromodichloromethane	µg/m³	ND	U	6.8	ND	U	4.5	ND	U	3.8	ND	U	82	ND	U	78	ND	U	0.77
	Bromoform	µg/m³	ND	U	13	ND	U	8.5	ND	U	7.2	ND	U	150	ND	U	150	ND	U	1.4
	Carbon disulfide	µg/m³	7.9	J	22	23	J	14	25	--	12	ND	U	260	97	J	250	12	--	2.4
	Carbon tetrachloride	µg/m³	ND	U	6.8	13	J	4.5	13	--	3.8	ND	U	82	ND	U	78	29	--	0.77
	Chloroethane	µg/m³	ND	U	13	ND	U	8.5	ND	U	7.2	ND	U	150	ND	U	150	ND	U	1.4
	Chloroform	µg/m³	ND	U	6.8	5.2	J	4.5	5.3	J	3.8	ND	U	82	ND	U	78	0.62	J	0.77
	Chloromethane	µg/m³	ND	U	13	51	--	8.5	51	--	7.2	65	J	150	72	J	150	ND	U	1.4
	Cyclohexane	µg/m³	68	--	14	47	--	9.1	50	--	7.6	9600	--	160	9600	--	160	ND	U	1.5
	Dibromochloromethane	µg/m³	ND	U	6.8	ND	U	4.5	ND	U	3.8	ND	U	82	ND	U	78	ND	U	0.77
	Dichlorodifluoromethane	µg/m³	14	J	13	8.6	J	8.5	8.8	J	7.2	ND	U	150	ND	U	150	68	--	1.4
	Ethanol	µg/m³	ND	U	33	ND	U	22	ND	U	19	450	J	400	500	J	380	6.1	J	3.8
	Ethyl acetate	µg/m³	ND	U	26	ND	U	17	ND	U	15	ND	U	310	ND	U	300	ND	U	2.9
	Ethylbenzene	µg/m³	ND	U	6.8	46	--	4.5	49	--	3.8	1100	--	82	1100	--	78	ND	U	0.77
	Hexane	µg/m³	ND	U	13	130	--	8.5	130	--	7.2	2600	--	150	2500	--	150	1.2	J	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	25	ND	U	17	ND	U	14	ND	U	300	ND	U	290	ND	U	2.9
	m,p-Xylene	µg/m³	ND	U	14	170	--	9.1	190	--	7.6	8500	--	160	7700	--	160	1.0	J	1.5
	Methylene Chloride	µg/m³	ND	U	13	ND	U	8.5	ND	U	7.2	ND	U	150	ND	U	150	ND	U	1.4
	Naphthalene	µg/m³	ND	U	12	ND	U	8.3	3.2	J	6.9	ND	U	150	ND	U	140	ND	U	1.4
	n-Heptane	µg/m³	ND	U	13	56	--	8.5	58	--	7.2	3400	--	150	3300	--	150	2.5	--	1.4
	o-Xylene	µg/m³	ND	U	6.8	45	--	4.5	49	--	3.8	2500	--	82	2200	--	78	ND	U	0.77
	Propylene (propene)	µg/m³	ND	U	13	15	--	8.5	15	--	7.2	310	--	150	340	--	150	ND	U	1.4
	Styrene	µg/m³	ND	U	13	ND	U	8.5	ND	U	7.2	ND	U	150	ND	U	150	ND	U	1.4
	Tetrachloroethene	µg/m³	ND	U	6.8	13	J	4.5	11	J	3.8	43	J	82	54	J	78	9.9	--	0.77
	Tetrahydrofuran	µg/m³	72	--	6.8	240	--	4.5	260	--	3.8	130	J	82	170	J	78	10	--	0.77
	Toluene	µg/m³	19	J	6.8	2500	--	4.5	2400	--	15	21000	--	82	20000	--	78	1.0	J	0.77
	Trichloroethene	µg/m³	ND	U	6.8	41	--	4.5	41	--	3.8	36	J	82	94	J	78	21	--	0.77
	Trichlorofluoromethane	µg/m³	ND	U	13	2.5	J	8.5	2.5	J	7.2	ND	U	150	ND	U	150	16	--	1.4
	Vinyl chloride	µg/m³	ND	U	6.8	3.6	J	4.5	4.0	J	3.8	ND	U	82	ND	U	78	ND	U	0.77
	Xylenes, Total	µg/m³	ND	U	14	220	--	9.1	230	--	7.6	11000	--	160	9900	--	160	1.0	J	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVEW-13-410			SVMW-01-050			SVMW-01-100			SVMW-01-250			SVMW-01-300			SVMW-02-050		
	Field Sample ID:		SVE13-410-202			SV01-050-202			SV01-100-202			SV01-250-202			SV01-300-202			SV02-050-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	350	73	--	3.9	ND	U	6300	ND	U	1500	1200	--	90	ND	U	2100
	1,1-dichloroethane	µg/m³	ND	U	690	ND	U	7.5	ND	U	12000	ND	U	2900	ND	U	170	ND	U	4000
	1,2,4-trichlorobenzene	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	1,2,4-trimethylbenzene	µg/m³	ND	U	350	2.4	J	3.9	5700	J	6300	ND	U	1500	ND	U	90	ND	U	2100
	1,2-dibromoethane	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	1,2-dichloroethane	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	1,3,5-trimethylbenzene	µg/m³	480	J	350	ND	U	3.9	3900	J	6300	ND	U	1500	ND	U	90	ND	U	2100
	1,3-butadiene	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	1,4-dioxane	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	2-butanone	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	2-hexanone	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	4-methyl-2-pentanone	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Acetone	µg/m³	ND	U	5600	ND	U	61	ND	U	100000	ND	U	24000	ND	U	1400	ND	U	33000
	Benzene	µg/m³	20000	--	350	3.8	J	3.9	140000	--	6300	34000	--	1500	2900	--	90	ND	U	2100
	Bromodichloromethane	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Bromoform	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Carbon disulfide	µg/m³	ND	U	1100	ND	U	12	ND	U	20000	ND	U	4800	ND	U	290	ND	U	6600
	Carbon tetrachloride	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Chloroethane	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Chloroform	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Chloromethane	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Cyclohexane	µg/m³	190000	--	710	1600	--	7.7	1800000	--	13000	1200000	--	3000	24000	--	180	ND	U	4100
	Dibromochloromethane	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Dichlorodifluoromethane	µg/m³	ND	U	660	4.1	J	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Ethanol	µg/m³	ND	U	1700	ND	U	19	ND	U	31000	ND	U	7300	ND	U	440	ND	U	10000
	Ethyl acetate	µg/m³	ND	U	1400	ND	U	15	ND	U	24000	ND	U	5700	ND	U	340	ND	U	7900
	Ethylbenzene	µg/m³	ND	U	350	2.0	J	3.9	12000	J	6300	1200	J	1500	ND	U	90	ND	U	2100
	Hexane	µg/m³	150000	--	660	3.1	J	7.3	2600000	--	12000	910000	--	2800	11000	--	170	ND	U	3900
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	1300	ND	U	14	ND	U	23000	ND	U	5500	ND	U	330	ND	U	7700
	m,p-Xylene	µg/m³	ND	U	710	12	J	7.7	51000	--	13000	ND	U	3000	100	J	180	ND	U	4100
	Methylene Chloride	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Naphthalene	µg/m³	ND	U	640	ND	U	7.1	ND	U	11000	ND	U	2700	ND	U	160	ND	U	3800
	n-Heptane	µg/m³	120000	--	660	9.3	J	7.3	930000	--	12000	680000	--	2800	8100	--	170	ND	U	3900
	o-Xylene	µg/m³	1100	J	350	3.5	J	3.9	17000	J	6300	2600	J	1500	63	J	90	ND	U	2100
	Propylene (propene)	µg/m³	3200	--	660	5.4	J	7.3	5900	J	12000	15000	--	2800	310	--	170	ND	U	3900
	Styrene	µg/m³	ND	U	660	ND	U	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Tetrachloroethene	µg/m³	ND	U	350	2.4	J	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Tetrahydrofuran	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Toluene	µg/m³	3900	--	350	22	--	3.9	140000	--	6300	13000	--	1500	110	J	90	ND	U	2100
	Trichloroethene	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Trichlorofluoromethane	µg/m³	ND	U	660	15	--	7.3	ND	U	12000	ND	U	2800	ND	U	170	ND	U	3900
	Vinyl chloride	µg/m³	ND	U	350	ND	U	3.9	ND	U	6300	ND	U	1500	ND	U	90	ND	U	2100
	Xylenes, Total	µg/m³	1100	J	710	15	J	7.7	68000	--	13000	2600	J	3000	170	J	180	ND	U	4100

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-02-100			SVMW-02-150			SVMW-02-150			SVMW-05-050			SVMW-05-050			SVMW-05-100		
	Field Sample ID:		SV02-100-202			SV02-150-202			SV02-150-602			SV05-050-202			SV05-050-602			SV05-100-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			FD			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	61	--	0.96	60	--	0.97	96	--	1.9
	1,1-dichloroethane	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.9	ND	U	1.9	ND	U	3.6
	1,2,4-trichlorobenzene	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.8	ND	U	1.8	ND	U	3.5
	1,2,4-trimethylbenzene	µg/m³	5100	J	5800	11000	J	6100	14000	J	6100	20	J	0.96	39	J	0.97	13	--	1.9
	1,2-dibromoethane	µg/m³	4300	J	5800	ND	U	6100	ND	U	6100	0.50	J	0.96	1.2	J	0.97	ND	U	1.9
	1,2-dichloroethane	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	1,3,5-trimethylbenzene	µg/m³	4400	J	5800	8800	J	6100	10000	J	6100	13	J	0.96	22	J	0.97	9.7	--	1.9
	1,3-butadiene	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.8	ND	U	1.8	ND	U	3.5
	1,4-dioxane	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	2-butanone	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	4.2	J	1.8	2.0	J	1.8	ND	U	3.5
	2-hexanone	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	4-methyl-2-pentanone	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	0.46	J	0.96	ND	U	0.97	ND	U	1.9
	Acetone	µg/m³	ND	U	92000	ND	U	97000	ND	U	97000	19	J	15	21	J	15	ND	U	30
	Benzene	µg/m³	630000	--	5800	540000	--	6100	600000	--	6100	15	J	0.96	52	J	0.97	25	--	1.9
	Bromodichloromethane	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	Bromoform	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.8	ND	U	1.8	ND	U	3.5
	Carbon disulfide	µg/m³	ND	U	18000	ND	U	19000	ND	U	19000	1.2	J	3.1	7.7	--	3.1	ND	U	5.9
	Carbon tetrachloride	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	0.82	J	0.96	0.84	J	0.97	1.0	J	1.9
	Chloroethane	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.8	ND	U	1.8	ND	U	3.5
	Chloroform	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	Chloromethane	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	0.61	J	1.8	0.71	J	1.8	ND	U	3.5
	Cyclohexane	µg/m³	3100000	--	12000	2100000	--	12000	2200000	--	12000	25	J	1.9	78	J	1.9	680	--	3.7
	Dibromochloromethane	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	Dichlorodifluoromethane	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	4.5	--	1.8	4.5	--	1.8	7.2	--	3.5
	Ethanol	µg/m³	ND	U	28000	ND	U	30000	ND	U	30000	6.7	J	4.7	8.9	J	4.8	ND	U	9.1
	Ethyl acetate	µg/m³	ND	U	22000	ND	U	23000	ND	U	23000	ND	U	3.7	2.9	J	3.7	ND	U	7.2
	Ethylbenzene	µg/m³	62000	--	5800	53000	--	6100	58000	--	6100	23	J	0.96	45	J	0.97	18	--	1.9
	Hexane	µg/m³	2600000	--	11000	2500000	--	12000	2700000	--	12000	19	J	1.8	72	J	1.8	210	--	3.5
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	22000	ND	U	23000	ND	U	23000	2.6	J	3.6	6.6	J	3.6	ND	U	6.9
	m,p-Xylene	µg/m³	300000	--	12000	190000	--	12000	210000	--	12000	120	J	1.9	260	J	1.9	95	--	3.7
	Methylene Chloride	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.8	ND	U	1.8	ND	U	3.5
	Naphthalene	µg/m³	ND	U	11000	ND	U	11000	ND	U	11000	ND	U	1.8	2.9	J	1.8	ND	U	3.4
	n-Heptane	µg/m³	4500000	--	22000	2300000	--	12000	2500000	--	12000	93	J	1.8	290	J	1.8	110	--	3.5
	o-Xylene	µg/m³	56000	--	5800	63000	--	6100	71000	--	6100	39	J	0.96	72	J	0.97	27	--	1.9
	Propylene (propene)	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	2.0	J	1.8	3.6	--	1.8	5.7	J	3.5
	Styrene	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	ND	U	1.8	ND	U	1.8	ND	U	3.5
	Tetrachloroethene	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	1.3	J	0.96	1.3	J	0.97	2.1	J	1.9
	Tetrahydrofuran	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	20	--	0.96	30	--	0.97	1.6	J	1.9
	Toluene	µg/m³	2500000	--	5800	1100000	--	6100	1100000	--	6100	190	J	0.96	500	J	0.97	200	--	1.9
	Trichloroethene	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	Trichlorofluoromethane	µg/m³	ND	U	11000	ND	U	12000	ND	U	12000	6.2	--	1.8	6.0	--	1.8	3.4	J	3.5
	Vinyl chloride	µg/m³	ND	U	5800	ND	U	6100	ND	U	6100	ND	U	0.96	ND	U	0.97	ND	U	1.9
	Xylenes, Total	µg/m³	350000	--	12000	260000	--	12000	290000	--	12000	160	J	1.9	330	J	1.9	120	--	3.7

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-05-230			SVMW-05-290			SVMW-06-050			SVMW-06-100			SVMW-06-100			SVMW-06-252		
	Field Sample ID:		SV05-230-202			SV05-290-202			SV06-050-202			SV06-100-202			SV06-100-602			SV06-252-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	1500	800	--	4.8	32	--	0.74	30	--	0.8	30	--	0.77	ND	U	660
	1,1-dichloroethane	µg/m³	ND	U	2800	ND	U	9.4	ND	U	1.4	ND	U	1.6	ND	U	1.5	ND	U	1300
	1,2,4-trichlorobenzene	µg/m³	ND	U	2700	ND	U	9.1	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	1200
	1,2,4-trimethylbenzene	µg/m³	ND	U	1500	5.0	J	4.8	1.6	J	0.74	2.0	J	0.8	3.3	--	0.77	ND	U	660
	1,2-dibromoethane	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	1,2-dichloroethane	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	ND	U	0.8	ND	U	0.77	660	J	660
	1,3,5-trimethylbenzene	µg/m³	ND	U	1500	3.4	J	4.8	0.84	J	0.74	1.0	J	0.8	1.7	J	0.77	ND	U	660
	1,3-butadiene	µg/m³	ND	U	2700	ND	U	9.1	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	1200
	1,4-dioxane	µg/m³	ND	U	1500	ND	U	4.8	0.42	J	0.74	0.63	J	0.8	ND	U	0.77	ND	U	660
	2-butanone	µg/m³	ND	U	2700	ND	U	9.1	6.7	--	1.4	1.9	J	1.5	1.7	J	1.4	ND	U	1200
	2-hexanone	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	4-methyl-2-pentanone	µg/m³	ND	U	1500	ND	U	4.8	0.66	J	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	Acetone	µg/m³	ND	U	23000	ND	U	77	44	--	12	11	J	13	9.0	J	12	ND	U	11000
	Benzene	µg/m³	9500	--	1500	15	--	4.8	2.5	--	0.74	2.8	J	0.8	6.4	--	0.77	300000	--	660
	Bromodichloromethane	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	Bromoform	µg/m³	ND	U	2700	ND	U	9.1	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	1200
	Carbon disulfide	µg/m³	ND	U	4600	ND	U	15	5.1	--	2.3	1.9	J	2.5	1.4	J	2.4	ND	U	2100
	Carbon tetrachloride	µg/m³	ND	U	1500	31	--	4.8	13	--	0.74	12	--	0.8	12	--	0.77	ND	U	660
	Chloroethane	µg/m³	ND	U	2700	ND	U	9.1	0.79	J	1.4	ND	U	1.5	ND	U	1.4	ND	U	1200
	Chloroform	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	3.4	--	0.8	3.3	--	0.77	ND	U	660
	Chloromethane	µg/m³	ND	U	2700	ND	U	9.1	3.7	--	1.4	0.40	J	1.5	ND	U	1.4	ND	U	1200
	Cyclohexane	µg/m³	770000	--	2900	2700	--	9.7	5.5	--	1.5	8.1	J	1.6	17	--	1.5	73000	--	1300
	Dibromochloromethane	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	Dichlorodifluoromethane	µg/m³	ND	U	2700	23	--	9.1	17	--	1.4	18	--	1.5	18	--	1.4	ND	U	1200
	Ethanol	µg/m³	ND	U	7100	14	J	24	12	J	3.6	ND	J	3.9	ND	U	3.8	ND	U	3200
	Ethyl acetate	µg/m³	ND	U	5600	ND	U	18	4.3	J	2.8	ND	U	3.1	1.9	J	2.9	ND	U	2500
	Ethylbenzene	µg/m³	ND	U	1500	5.0	J	4.8	1.4	J	0.74	1.9	J	0.8	3.7	--	0.77	ND	U	660
	Hexane	µg/m³	750000	--	2700	2000	--	9.1	7.3	--	1.4	8.9	J	1.5	21	--	1.4	11000	--	1200
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	5400	ND	U	18	20	--	2.7	ND	U	3	18	--	2.9	ND	U	2500
	m,p-Xylene	µg/m³	2200	J	2900	27	J	9.7	7.6	--	1.5	10	J	1.6	20	--	1.5	1700	J	1300
	Methylene Chloride	µg/m³	ND	U	2700	ND	U	9.1	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	1200
	Naphthalene	µg/m³	ND	U	2700	ND	U	8.8	ND	U	1.3	ND	U	1.5	0.73	J	1.4	ND	U	1200
	n-Heptane	µg/m³	850000	--	2700	970	--	9.1	11	--	1.4	19	J	1.5	41	--	1.4	660	J	1200
	o-Xylene	µg/m³	840	J	1500	9.2	J	4.8	2.7	--	0.74	3.2	--	0.8	5.6	--	0.77	3900	--	660
	Propylene (propene)	µg/m³	14000	--	2700	14	J	9.1	6.6	--	1.4	0.78	J	1.5	5.0	--	1.4	ND	U	1200
	Styrene	µg/m³	ND	U	2700	ND	U	9.1	ND	U	1.4	ND	U	1.5	ND	U	1.4	ND	U	1200
	Tetrachloroethene	µg/m³	ND	U	1500	13	J	4.8	4.4	--	0.74	1.6	J	0.8	1.5	J	0.77	ND	U	660
	Tetrahydrofuran	µg/m³	ND	U	1500	ND	U	4.8	0.97	J	0.74	0.54	J	0.8	0.81	J	0.77	ND	U	660
	Toluene	µg/m³	17000	--	1500	54	--	4.8	14	--	0.74	19	J	0.8	42	--	0.77	11000	--	660
	Trichloroethene	µg/m³	ND	U	1500	5.2	J	4.8	1.7	J	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	Trichlorofluoromethane	µg/m³	ND	U	2700	4.0	J	9.1	4.1	--	1.4	4.0	--	1.5	3.9	--	1.4	ND	U	1200
	Vinyl chloride	µg/m³	ND	U	1500	ND	U	4.8	ND	U	0.74	ND	U	0.8	ND	U	0.77	ND	U	660
	Xylenes, Total	µg/m³	3100	J	2900	36	--	9.7	10	--	1.5	13	J	1.6	25	--	1.5	5600	--	1300

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-06-302			SVMW-07-050			SVMW-07-100			SVMW-07-150			SVMW-12-150			SVMW-12-250		
	Field Sample ID:		SV06-302-202			SV07-050-202			SV07-100-202			SV07-150-202			SV12-150-202			SV12-250-202		
	Sample Date:		4/21/2020			4/15/2020			4/15/2020			4/15/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	71	--	1.8	ND	U	1700	ND	U	700	17	--	1.7	510	--	8.4	930	--	16
	1,1-dichloroethane	µg/m³	ND	U	3.6	ND	U	3300	ND	U	1400	ND	U	3.4	ND	U	1.6	0.60	J	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	ND	U	1.5
	1,2,4-trimethylbenzene	µg/m³	1.7	J	1.8	ND	U	1700	ND	U	700	ND	U	1.7	3.7	--	0.84	4.3	--	0.79
	1,2-dibromoethane	µg/m³	83	--	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	ND	U	0.79
	1,2-dichloroethane	µg/m³	25	--	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	5.2	--	0.79
	1,3,5-trimethylbenzene	µg/m³	3.1	J	1.8	ND	U	1700	ND	U	700	ND	U	1.7	0.70	J	0.84	1.0	J	0.79
	1,3-butadiene	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	ND	U	1.5
	1,4-dioxane	µg/m³	ND	U	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	ND	U	0.79
	2-butanone	µg/m³	1.4	J	3.5	ND	U	3200	ND	U	1300	3.6	J	3.3	0.71	J	1.6	1.3	J	1.5
	2-hexanone	µg/m³	ND	U	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	0.51	J	0.79
	4-methyl-2-pentanone	µg/m³	ND	U	1.8	1100	J	1700	ND	U	700	1.4	J	1.7	ND	U	0.84	ND	U	0.79
	Acetone	µg/m³	ND	U	29	ND	U	27000	ND	U	11000	24	J	28	6.3	J	13	6.9	J	13
	Benzene	µg/m³	65	--	1.8	7800	--	1700	1700	J	700	1.5	J	1.7	0.96	J	0.84	2.1	J	0.79
	Bromodichloromethane	µg/m³	ND	U	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	ND	U	0.79
	Bromoform	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	ND	U	1.5
	Carbon disulfide	µg/m³	1.7	J	5.8	ND	U	5400	ND	U	2200	ND	U	5.5	2.0	J	2.7	49	--	2.5
	Carbon tetrachloride	µg/m³	38	--	1.8	ND	U	1700	ND	U	700	4.9	J	1.7	34	--	0.84	25	--	0.79
	Chloroethane	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	ND	U	1.5
	Chloroform	µg/m³	7.7	--	1.8	ND	U	1700	ND	U	700	ND	U	1.7	5.2	--	0.84	7.4	--	0.79
	Chloromethane	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	0.72	J	1.5
	Cyclohexane	µg/m³	1800	--	31	480000	--	3400	110000	--	1400	19	--	3.5	2.7	J	1.7	130	--	1.6
	Dibromochloromethane	µg/m³	ND	U	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	ND	U	0.79
	Dichlorodifluoromethane	µg/m³	22	--	3.5	ND	U	3200	ND	U	1300	3.5	J	3.3	33	--	1.6	17	--	1.5
	Ethanol	µg/m³	ND	U	9	ND	U	8300	ND	U	3400	31	J	8.5	5.3	J	4.1	5.7	J	3.9
	Ethyl acetate	µg/m³	ND	U	7	ND	U	6500	ND	U	2700	12	--	6.6	ND	U	3.2	ND	U	3
	Ethylbenzene	µg/m³	1.5	J	1.8	ND	U	1700	ND	U	700	ND	U	1.7	ND	U	0.84	ND	U	0.79
	Hexane	µg/m³	99	--	3.5	560000	--	3200	20000	--	1300	10	--	3.3	ND	U	1.6	1.7	J	1.5
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	6.8	ND	U	6300	ND	U	2600	10	J	6.4	1.5	J	3.1	ND	U	2.9
	m,p-Xylene	µg/m³	11	J	3.7	ND	U	3400	ND	U	1400	ND	U	3.5	1.2	J	1.7	2.5	J	1.6
	Methylene Chloride	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	ND	U	1.5
	Naphthalene	µg/m³	ND	U	3.4	ND	U	3100	ND	U	1300	ND	U	3.2	1.1	J	1.5	1.5	J	1.4
	n-Heptane	µg/m³	8.6	--	3.5	400000	--	3200	1100	J	1300	15	--	3.3	ND	U	1.6	ND	U	1.5
	o-Xylene	µg/m³	12	--	1.8	ND	U	1700	ND	U	700	ND	U	1.7	0.39	J	0.84	0.70	J	0.79
	Propylene (propene)	µg/m³	54	--	3.5	4600	J	3200	ND	U	1300	3.6	J	3.3	1.5	J	1.6	9.4	--	1.5
	Styrene	µg/m³	ND	U	3.5	ND	U	3200	ND	U	1300	ND	U	3.3	ND	U	1.6	ND	U	1.5
	Tetrachloroethene	µg/m³	1.8	J	1.8	ND	U	1700	ND	U	700	0.92	J	1.7	18	--	0.84	11	--	0.79
	Tetrahydrofuran	µg/m³	2.1	J	1.8	ND	U	1700	ND	U	700	0.77	J	1.7	3.5	--	0.84	5.5	--	0.79
	Toluene	µg/m³	21	--	1.8	3300	J	1700	900	J	700	3.9	J	1.7	1.1	J	0.84	2.1	J	0.79
	Trichloroethene	µg/m³	2.0	J	1.8	ND	U	1700	ND	U	700	ND	U	1.7	160	--	0.84	73	--	0.79
	Trichlorofluoromethane	µg/m³	10	--	3.5	ND	U	3200	ND	U	1300	3.8	J	3.3	5.1	--	1.6	4.6	--	1.5
	Vinyl chloride	µg/m³	ND	U	1.8	ND	U	1700	ND	U	700	ND	U	1.7	11	--	0.84	1600	--	16
	Xylenes, Total	µg/m³	23	--	3.7	ND	U	3400	ND	U	1400	ND	U	3.5	1.6	J	1.7	3.2	J	1.6

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-12-350			SVMW-12-450			SVMW-13-150			SVMW-13-250			SVMW-13-350			SVMW-13-450		
	Field Sample ID:		SV12-350-202			SV12-450-202			SV13-150-202			SV13-250-202			SV13-350-202			SV13-450-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	12	--	0.81	1000	--	7.7	1800	--	170	3.9	--	0.75	2.9	--	0.77	1.4	J	0.75
	1,1-dichloroethane	µg/m³	0.47	J	1.6	ND	U	1.5	ND	U	330	ND	U	1.5	0.70	J	1.5	ND	U	1.5
	1,2,4-trichlorobenzene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	320	ND	U	1.4	ND	U	1.4	ND	U	1.4
	1,2,4-trimethylbenzene	µg/m³	6.1	--	0.81	ND	U	0.77	1100	--	170	13	--	0.75	10	--	0.77	9.8	--	0.75
	1,2-dibromoethane	µg/m³	ND	U	0.81	ND	U	0.77	81	J	170	ND	U	0.75	0.92	J	0.77	ND	U	0.75
	1,2-dichloroethane	µg/m³	2.6	--	0.81	0.84	J	0.77	ND	U	170	ND	U	0.75	4.3	--	0.77	1.4	J	0.75
	1,3,5-trimethylbenzene	µg/m³	1.3	J	0.81	ND	U	0.77	1200	--	170	4.8	--	0.75	3.6	--	0.77	6.2	--	0.75
	1,3-butadiene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	320	ND	U	1.4	ND	U	1.4	ND	U	1.4
	1,4-dioxane	µg/m³	0.33	J	0.81	ND	U	0.77	ND	U	170	0.30	J	0.75	0.38	J	0.77	0.85	J	0.75
	2-butanone	µg/m³	9.5	--	1.5	5.6	--	1.5	ND	U	320	4.3	J	1.4	0.94	J	1.4	1.1	J	1.4
	2-hexanone	µg/m³	1.7	J	0.81	0.54	J	0.77	ND	U	170	ND	U	0.75	ND	U	0.77	ND	U	0.75
	4-methyl-2-pentanone	µg/m³	0.51	J	0.81	0.53	J	0.77	ND	U	170	0.67	J	0.75	0.66	J	0.77	ND	U	0.75
	Acetone	µg/m³	46	--	13	36	--	12	ND	U	2700	22	J	12	ND	U	12	5.7	J	12
	Benzene	µg/m³	4.5	--	0.81	19	--	0.77	1100	--	170	1.6	J	0.75	59	--	0.77	8.3	--	0.75
	Bromodichloromethane	µg/m³	ND	U	0.81	ND	U	0.77	ND	U	170	ND	U	0.75	ND	U	0.77	ND	U	0.75
	Bromoform	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	320	ND	U	1.4	ND	U	1.4	ND	U	1.4
	Carbon disulfide	µg/m³	31	--	2.6	36	--	2.5	ND	U	540	14	--	2.4	42	--	2.4	25	--	2.4
	Carbon tetrachloride	µg/m³	3.4	--	0.81	18	--	0.77	ND	U	170	0.46	J	0.75	2.6	--	0.77	2.6	--	0.75
	Chloroethane	µg/m³	29	--	1.5	2.7	--	1.5	73	J	320	ND	U	1.4	27	--	1.4	0.98	J	1.4
	Chloroform	µg/m³	0.50	J	0.81	3.6	--	0.77	ND	U	170	ND	U	0.75	0.44	J	0.77	0.37	J	0.75
	Chloromethane	µg/m³	2.9	--	1.5	3.7	--	1.5	ND	U	320	0.42	J	1.4	29	--	1.4	1.1	J	1.4
	Cyclohexane	µg/m³	8.8	--	1.6	9.6	--	1.5	25000	--	340	1.5	J	1.5	18	--	1.5	590	--	1.5
	Dibromochloromethane	µg/m³	ND	U	0.81	ND	U	0.77	ND	U	170	ND	U	0.75	ND	U	0.77	ND	U	0.75
	Dichlorodifluoromethane	µg/m³	1.0	J	1.5	7.7	--	1.5	ND	U	320	7.8	--	1.4	4.2	--	1.4	3.1	--	1.4
	Ethanol	µg/m³	16	J	4	230	--	3.8	600	J	840	96	--	3.7	13	J	3.8	ND	U	3.7
	Ethyl acetate	µg/m³	ND	U	3.1	5.2	--	3	ND	U	650	ND	U	2.9	7.9	--	2.9	2.6	J	2.9
	Ethylbenzene	µg/m³	0.44	J	0.81	1.1	J	0.77	94	J	170	1.0	J	0.75	3.1	--	0.77	1.4	J	0.75
	Hexane	µg/m³	2.3	J	1.5	22	--	1.5	2500	--	320	ND	U	1.4	6.5	--	1.4	24	--	1.4
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	3	9.0	J	2.9	ND	U	630	3.1	J	2.8	6.7	J	2.9	0.99	J	2.8
	m,p-Xylene	µg/m³	2.5	J	1.6	0.71	J	1.5	2600	--	340	6.2	--	1.5	19	--	1.5	4.0	J	1.5
	Methylene Chloride	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	320	ND	U	1.4	ND	U	1.4	ND	U	1.4
	Naphthalene	µg/m³	1.9	J	1.5	ND	U	1.4	ND	U	310	2.4	--	1.4	2.1	J	1.4	1.1	J	1.4
	n-Heptane	µg/m³	0.68	J	1.5	3.4	--	1.5	1600	--	320	0.71	J	1.4	1.1	J	1.4	0.73	J	1.4
	o-Xylene	µg/m³	0.66	J	0.81	ND	U	0.77	240	J	170	2.2	J	0.75	7.3	--	0.77	1.8	J	0.75
	Propylene (propene)	µg/m³	16	--	1.5	5.5	--	1.5	690	--	320	0.99	J	1.4	8.7	--	1.4	38	--	1.4
	Styrene	µg/m³	ND	U	1.5	ND	U	1.5	ND	U	320	ND	U	1.4	ND	U	1.4	ND	U	1.4
	Tetrachloroethene	µg/m³	2.0	J	0.81	11	--	0.77	ND	U	170	1.5	J	0.75	1.5	J	0.77	0.89	J	0.75
	Tetrahydrofuran	µg/m³	2.1	J	0.81	13	--	0.77	480	J	170	10	--	0.75	140	--	0.77	2.5	--	0.75
	Toluene	µg/m³	2.1	J	0.81	41	--	0.77	830	--	170	6.5	--	0.75	67	--	0.77	14	--	0.75
	Trichloroethene	µg/m³	1.8	J	0.81	36	--	0.77	130	J	170	ND	U	0.75	ND	U	0.77	0.66	J	0.75
	Trichlorofluoromethane	µg/m³	ND	U	1.5	3.5	--	1.5	ND	U	320	1.3	J	1.4	1.8	J	1.4	2.1	J	1.4
	Vinyl chloride	µg/m³	640	--	8.1	210	--	0.77	4100	--	170	9.0	--	0.75	1200	--	7.7	44	--	0.75
	Xylenes, Total	µg/m³	3.1	J	1.6	0.71	J	1.5	2800	--	340	8.4	--	1.5	26	--	1.5	5.9	--	1.5

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-14-150			SVMW-14-250			SVMW-14-350			SVMW-14-450			SVMW-14-450			SVMW-15-150		
	Field Sample ID:		SV14-150-202			SV14-250-202			SV14-350-202			SV14-450-202			SV14-450-602			SV15-150-202		
	Sample Date:		4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/15/2020			4/21/2020		
	Sample Type:		REG			REG			REG			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	160	--	1.2	150	--	1.1	37	--	1.2	1.4	J	1.3	0.76	J	1.3	7.9	--	0.8
	1,1-dichloroethane	µg/m³	ND	U	2.3	ND	U	2.1	1.1	J	2.3	ND	U	2.5	ND	U	2.6	ND	U	1.6
	1,2,4-trichlorobenzene	µg/m³	ND	U	2.2	ND	U	2	ND	U	2.3	ND	U	2.4	ND	U	2.5	ND	U	1.5
	1,2,4-trimethylbenzene	µg/m³	1.4	J	1.2	5.6	--	1.1	2.1	J	1.2	4.0	J	1.3	9.8	--	1.3	3.7	--	0.8
	1,2-dibromoethane	µg/m³	ND	U	1.2	ND	U	1.1	1.2	J	1.2	ND	U	1.3	ND	U	1.3	ND	U	0.8
	1,2-dichloroethane	µg/m³	ND	U	1.2	ND	U	1.1	ND	U	1.2	1.4	J	1.3	1.3	J	1.3	ND	U	0.8
	1,3,5-trimethylbenzene	µg/m³	ND	U	1.2	1.3	J	1.1	0.64	J	1.2	1.1	J	1.3	2.1	J	1.3	1.4	J	0.8
	1,3-butadiene	µg/m³	ND	U	2.2	ND	U	2	ND	U	2.3	ND	U	2.4	ND	U	2.5	ND	U	1.5
	1,4-dioxane	µg/m³	ND	U	1.2	ND	U	1.1	ND	U	1.2	2.1	J	1.3	ND	U	1.3	0.31	J	0.8
	2-butanone	µg/m³	6.4	J	2.2	9.0	--	2	580	--	2.3	30	J	2.4	9.5	J	2.5	2.7	J	1.5
	2-hexanone	µg/m³	1.2	J	1.2	ND	U	1.1	4.1	--	1.2	1.7	J	1.3	4.2	J	1.3	ND	U	0.8
	4-methyl-2-pentanone	µg/m³	ND	U	1.2	ND	U	1.1	1.6	J	1.2	ND	U	1.3	1.4	J	1.3	ND	U	0.8
	Acetone	µg/m³	35	J	18	33	J	17	990	--	19	77	--	20	19	J	21	14	J	13
	Benzene	µg/m³	1.5	J	1.2	1.6	J	1.1	8.2	--	1.2	22	--	1.3	19	--	1.3	5.0	--	0.8
	Bromodichloromethane	µg/m³	ND	U	1.2	ND	U	1.1	ND	U	1.2	ND	U	1.3	ND	U	1.3	ND	U	0.8
	Bromoform	µg/m³	ND	U	2.2	ND	U	2	ND	U	2.3	ND	U	2.4	ND	U	2.5	ND	U	1.5
	Carbon disulfide	µg/m³	3.0	J	3.7	3.0	J	3.4	6.0	J	3.8	50	J	4.1	110	J	4.2	3.0	J	2.5
	Carbon tetrachloride	µg/m³	290	--	1.2	320	--	1.1	47	--	1.2	4.4	--	1.3	2.7	J	1.3	1.8	J	0.8
	Chloroethane	µg/m³	ND	U	2.2	ND	U	2	ND	U	2.3	7.4	--	2.4	6.5	--	2.5	ND	U	1.5
	Chloroform	µg/m³	7.5	--	1.2	8.0	--	1.1	2.3	J	1.2	0.74	J	1.3	ND	U	1.3	0.70	J	0.8
	Chloromethane	µg/m³	2.4	J	2.2	1.6	J	2	3.8	--	2.3	27	--	2.4	17	--	2.5	1.1	J	1.5
	Cyclohexane	µg/m³	3.7	J	2.3	5.4	J	2.1	12	--	2.4	27	--	2.6	23	--	2.7	1.5	J	1.6
	Dibromochloromethane	µg/m³	ND	U	1.2	ND	U	1.1	ND	U	1.2	ND	U	1.3	ND	U	1.3	ND	U	0.8
	Dichlorodifluoromethane	µg/m³	44	--	2.2	55	--	2	720	--	2.3	14	--	2.4	11	--	2.5	6.0	--	1.5
	Ethanol	µg/m³	13	J	5.7	ND	U	5.2	43	--	5.9	21	J	6.2	ND	U	6.5	6.1	J	3.9
	Ethyl acetate	µg/m³	4.6	J	4.5	ND	U	4.1	180	--	4.6	2.3	J	4.9	ND	U	5.1	ND	U	3.1
	Ethylbenzene	µg/m³	ND	U	1.2	0.53	J	1.1	1.4	J	1.2	4.5	--	1.3	4.1	J	1.3	1.2	J	0.8
	Hexane	µg/m³	1.8	J	2.2	7.5	--	2	9.8	--	2.3	17	--	2.4	25	--	2.5	1.3	J	1.5
	Isopropyl alcohol (manufacturing-strong	µg/m³	3.4	J	4.3	ND	U	3.9	380	--	4.5	6.7	J	4.7	ND	U	4.9	ND	U	3
	m,p-Xylene	µg/m³	1.4	J	2.3	4.4	J	2.1	4.3	J	2.4	7.0	J	2.6	9.5	--	2.7	3.9	J	1.6
	Methylene Chloride	µg/m³	ND	U	2.2	ND	U	2	3.6	J	2.3	ND	U	2.4	ND	U	2.5	ND	U	1.5
	Naphthalene	µg/m³	ND	U	2.1	ND	U	1.9	ND	U	2.2	ND	U	2.3	ND	U	2.4	ND	U	1.5
	n-Heptane	µg/m³	3.7	--	2.2	19	--	2	3.3	J	2.3	10	--	2.4	16	--	2.5	1.5	J	1.5
	o-Xylene	µg/m³	0.57	J	1.2	1.3	J	1.1	1.7	J	1.2	1.6	J	1.3	2.0	J	1.3	2.0	J	0.8
	Propylene (propene)	µg/m³	1.9	J	2.2	ND	U	2	67	--	2.3	16	--	2.4	13	--	2.5	0.68	J	1.5
	Styrene	µg/m³	ND	U	2.2	ND	U	2	1.1	J	2.3	ND	U	2.4	ND	U	2.5	ND	U	1.5
	Tetrachloroethene	µg/m³	120	--	1.2	120	--	1.1	38	--	1.2	11	--	1.3	9.4	--	1.3	2.9	--	0.8
	Tetrahydrofuran	µg/m³	410	--	1.2	260	--	1.1	450	--	1.2	67	--	1.3	59	--	1.3	41	--	0.8
	Toluene	µg/m³	3.2	J	1.2	5.9	--	1.1	39	--	1.2	90	--	1.3	77	--	1.3	11	--	0.8
	Trichloroethene	µg/m³	470	--	1.2	540	--	1.1	180	--	1.2	43	--	1.3	30	--	1.3	ND	U	0.8
	Trichlorofluoromethane	µg/m³	8.0	--	2.2	9.3	--	2	52	--	2.3	1.1	J	2.4	0.90	J	2.5	1.3	J	1.5
	Vinyl chloride	µg/m³	ND	U	1.2	0.46	J	1.1	1.4	J	1.2	280	--	1.3	270	--	1.3	ND	U	0.8
	Xylenes, Total	µg/m³	2.0	J	2.3	5.7	J	2.1	6.0	J	2.4	8.6	--	2.6	12	--	2.7	5.9	--	1.6

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-15-250			SVMW-15-350			SVMW-15-450		
	Field Sample ID:		SV15-250-202			SV15-350-202			SV15-450-202		
	Sample Date:		4/21/2020			4/21/2020			4/21/2020		
	Sample Type:		REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m^3	10	--	0.86	ND	U	16	ND	U	570
	1,1-dichloroethane	µg/m^3	0.48	J	1.7	ND	U	30	ND	U	1100
	1,2,4-trichlorobenzene	µg/m^3	ND	U	1.6	ND	U	29	ND	U	1100
	1,2,4-trimethylbenzene	µg/m^3	5.0	--	0.86	ND	U	16	580	J	570
	1,2-dibromoethane	µg/m^3	ND	U	0.86	13	J	16	ND	U	570
	1,2-dichloroethane	µg/m^3	1.6	J	0.86	ND	U	16	ND	U	570
	1,3,5-trimethylbenzene	µg/m^3	1.8	J	0.86	ND	U	16	1100	J	570
	1,3-butadiene	µg/m^3	ND	U	1.6	ND	U	29	ND	U	1100
	1,4-dioxane	µg/m^3	ND	U	0.86	ND	U	16	ND	U	570
	2-butanone	µg/m^3	0.85	J	1.6	ND	U	29	ND	U	1100
	2-hexanone	µg/m^3	ND	U	0.86	ND	U	16	ND	U	570
	4-methyl-2-pentanone	µg/m^3	ND	U	0.86	ND	U	16	ND	U	570
	Acetone	µg/m^3	17	J	14	ND	U	250	9300	J	9100
	Benzene	µg/m^3	7.1	--	0.86	ND	U	16	64000	--	570
	Bromodichloromethane	µg/m^3	ND	U	0.86	ND	U	16	ND	U	570
	Bromoform	µg/m^3	ND	U	1.6	ND	U	29	ND	U	1100
	Carbon disulfide	µg/m^3	12	--	2.7	ND	U	49	ND	U	1800
	Carbon tetrachloride	µg/m^3	3.0	--	0.86	ND	U	16	ND	U	570
	Chloroethane	µg/m^3	11	--	1.6	ND	U	29	ND	U	1100
	Chloroform	µg/m^3	0.57	J	0.86	ND	U	16	ND	U	570
	Chloromethane	µg/m^3	11	--	1.6	32	J	29	ND	U	1100
	Cyclohexane	µg/m^3	16	--	1.7	19000	--	31	590000	--	1100
	Dibromochloromethane	µg/m^3	ND	U	0.86	ND	U	16	ND	U	570
	Dichlorodifluoromethane	µg/m^3	5.3	--	1.6	33	J	29	ND	U	1100
	Ethanol	µg/m^3	ND	U	4.2	ND	U	76	6300	J	2800
	Ethyl acetate	µg/m^3	ND	U	3.3	ND	U	59	ND	U	2200
	Ethylbenzene	µg/m^3	2.2	J	0.86	ND	U	16	700	J	570
	Hexane	µg/m^3	1.6	J	1.6	1200	--	29	510000	--	5400
	Isopropyl alcohol (manufacturing-strong	µg/m^3	ND	U	3.2	ND	U	58	ND	U	2100
	m,p-Xylene	µg/m^3	3.7	J	1.7	ND	U	31	5400	--	1100
	Methylene Chloride	µg/m^3	ND	U	1.6	ND	U	29	ND	U	1100
	Naphthalene	µg/m^3	1.6	J	1.6	ND	U	28	ND	U	1000
	n-Heptane	µg/m^3	1.1	J	1.6	ND	U	29	420000	--	5400
	o-Xylene	µg/m^3	1.9	J	0.86	ND	U	16	3100	--	570
	Propylene (propene)	µg/m^3	16	--	1.6	120	--	29	9600	--	1100
	Styrene	µg/m^3	ND	U	1.6	ND	U	29	ND	U	1100
	Tetrachloroethene	µg/m^3	3.0	--	0.86	ND	U	16	ND	U	570
	Tetrahydrofuran	µg/m^3	8.6	--	0.86	12	J	16	250	J	570
	Toluene	µg/m^3	19	--	0.86	8.2	J	16	28000	--	570
	Trichloroethene	µg/m^3	ND	U	0.86	34	J	16	ND	U	570
	Trichlorofluoromethane	µg/m^3	1.1	J	1.6	ND	U	29	ND	U	1100
	Vinyl chloride	µg/m^3	450	--	8.6	150	--	16	ND	U	570
	Xylenes, Total	µg/m^3	5.6	--	1.7	ND	U	31	8500	--	1100

Table 2-4
Analytical Data in On-Base (Outside the Source Area) Soil Vapor Monitoring Points, Q2 2020

µg/m^3 = microgram per cubic meter
AFB = Air Force Base
ID = identification
KAFB = Kirtland Air Force Base
LOQ = limit of quantitation
ND = not detected
REG = normal field sample
Val Qual = validation qualifier
VOC = volatile organic compound
Shading = detected concentrations above the detection limit
Val Quals based on independent data validation:
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.
-- = Validation qualifier not assigned.

Table 2-5
Analytical Data in On-Base (Inside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVEW-06-060			SVEW-06-060			SVEW-07-160			SVEW-08-260			SVEW-09-460			SVMW-03-050		
	Field Sample ID:		SVE06-060-202			SVE06-060-602			SVE07-160-202			SVE08-260-202			SVE09-460-202			SV03-050-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			FD			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	ND	U	1500	ND	U	1500	94000	--	15000	45	--	10	53	--	10	150	--	2
	1,1-dichloroethane	µg/m³	ND	U	3000	ND	U	3000	ND	U	29000	ND	U	20	ND	U	20	ND	U	4
	1,2,4-trichlorobenzene	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	ND	U	3
	1,2,4-trimethylbenzene	µg/m³	18000	--	1500	30000	--	1500	32000	J	15000	110	--	10	47	--	10	8.1	--	2
	1,2-dibromoethane	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	1,2-dichloroethane	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	1,3,5-trimethylbenzene	µg/m³	6400	--	1500	10000	--	1500	15000	J	15000	47	--	10	20	J	10	5.0	J	2
	1,3-butadiene	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	ND	U	3
	1,4-dioxane	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	2-butanone	µg/m³	36000	--	2900	41000	--	2900	150000	--	28000	70	--	19	32	J	19	3.0	J	3
	2-hexanone	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	4-methyl-2-pentanone	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	Acetone	µg/m³	140000	--	25000	160000	--	24000	ND	U	240000	260	J	160	ND	U	160	26	J	33
	Benzene	µg/m³	170000	--	1500	200000	--	1500	960000	--	15000	1400	--	10	1100	--	10	17	--	2
	Bromodichloromethane	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	Bromoform	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	ND	U	3
	Carbon disulfide	µg/m³	ND	U	4900	ND	U	4900	ND	U	48000	ND	U	32	36	J	32	ND	U	6
	Carbon tetrachloride	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	26	--	2
	Chloroethane	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	ND	U	3
	Chloroform	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	3.4	J	2
	Chloromethane	µg/m³	ND	UJ	2900	ND	UJ	2900	ND	U	28000	5.9	J	19	ND	U	19	ND	U	3
	Cyclohexane	µg/m³	920000	--	3100	1100000	--	3100	3800000	--	30000	1100	--	20	3200	--	20	25	--	4
	Dibromochloromethane	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	Dichlorodifluoromethane	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	2.7	J	3
	Ethanol	µg/m³	14000	J	7600	15000	J	7500	ND	U	73000	ND	U	50	ND	U	50	ND	U	10
	Ethyl acetate	µg/m³	ND	U	5900	ND	U	5900	ND	U	58000	ND	U	39	ND	U	39	ND	U	7
	Ethylbenzene	µg/m³	77000	--	1500	110000	--	1500	130000	--	15000	98	--	10	52	--	10	5.7	J	2
	Hexane	µg/m³	920000	--	2900	930000	--	5800	7900000	--	28000	490	--	19	490	--	19	12	--	3
	Isopropyl alcohol (manufacturing-strong	µg/m³	5400	J	5700	5300	J	5700	ND	U	56000	ND	U	38	ND	U	38	15	J	7
	m,p-Xylene	µg/m³	77000	--	3100	110000	--	3100	280000	--	30000	240	--	20	120	--	20	26	--	4
	Methylene Chloride	µg/m³	ND	U	2900	ND	U	2900	34000	J	28000	ND	U	19	ND	U	19	ND	U	3
	Naphthalene	µg/m³	ND	U	2800	ND	U	2800	ND	U	27000	20	J	19	9.0	J	18	ND	U	3
	n-Heptane	µg/m³	910000	--	2900	980000	--	5800	3200000	--	28000	420	--	19	280	--	19	24	--	3
	o-Xylene	µg/m³	27000	--	1500	39000	--	1500	89000	--	15000	92	--	10	47	--	10	9.2	--	2
	Propylene (propene)	µg/m³	6000	--	2900	7500	--	2900	34000	J	28000	20	J	19	40	--	19	6.2	J	3
	Styrene	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	ND	U	3
	Tetrachloroethene	µg/m³	ND	U	1500	ND	U	1500	27000	J	15000	ND	U	10	ND	U	10	77	--	2
	Tetrahydrofuran	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	Toluene	µg/m³	390000	--	1500	480000	--	1500	1300000	--	15000	370	--	10	170	--	10	40	--	2
	Trichloroethene	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	5.1	J	2
	Trichlorofluoromethane	µg/m³	ND	U	2900	ND	U	2900	ND	U	28000	ND	U	19	ND	U	19	2.2	J	3
	Vinyl chloride	µg/m³	ND	U	1500	ND	U	1500	ND	U	15000	ND	U	10	ND	U	10	ND	U	2
	Xylenes, Total	µg/m³	100000	--	3100	150000	--	3100	370000	--	30000	330	--	20	160	--	20	35	--	4

Table 2-5
Analytical Data in On-Base (Inside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-03-100			SVMW-03-250			SVMW-03-300			SVMW-04-050			SVMW-04-050			SVMW-04-100		
	Field Sample ID:		SV03-100-202			SV03-250-202			SV03-300-202			SV04-050-202			SV04-050-602			SV04-100-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG			REG			FD			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	13000	--	1500	12000	--	1300	5900	--	1000	41000	--	6300	29000	--	4300	13000	--	3000
	1,1-dichloroethane	µg/m³	ND	U	3000	ND	U	2500	ND	U	1900	ND	U	12000	ND	U	8400	ND	U	5800
	1,2,4-trichlorobenzene	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	1,2,4-trimethylbenzene	µg/m³	3500	J	1500	18000	--	1300	35000	--	1000	3000	J	6300	ND	U	4300	13000	--	3000
	1,2-dibromoethane	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	1,2-dichloroethane	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	1,3,5-trimethylbenzene	µg/m³	4800	J	1500	13000	--	1300	15000	--	1000	ND	U	6300	ND	U	4300	7800	J	3000
	1,3-butadiene	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	1,4-dioxane	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	23000	--	6300	15000	--	4300	ND	U	3000
	2-butanone	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	2-hexanone	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	4-methyl-2-pentanone	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Acetone	µg/m³	ND	U	25000	ND	U	20000	ND	U	16000	ND	U	100000	ND	U	68000	ND	U	48000
	Benzene	µg/m³	7100	--	1500	520000	--	1300	180000	--	1000	240000	--	6300	180000	--	4300	820000	--	3000
	Bromodichloromethane	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Bromoform	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	Carbon disulfide	µg/m³	ND	U	4900	ND	U	4000	ND	U	3200	ND	U	20000	ND	U	14000	ND	U	9500
	Carbon tetrachloride	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Chloroethane	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	Chloroform	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Chloromethane	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	Cyclohexane	µg/m³	1300000	--	3100	1500000	--	2500	810000	--	2000	6800	J	13000	4600	J	8600	2100000	--	6000
	Dibromochloromethane	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Dichlorodifluoromethane	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	Ethanol	µg/m³	ND	U	7600	ND	U	6200	ND	U	4900	ND	U	31000	ND	U	21000	ND	U	15000
	Ethyl acetate	µg/m³	ND	U	5900	ND	U	4900	ND	U	3800	ND	U	24000	ND	U	16000	ND	U	11000
	Ethylbenzene	µg/m³	4600	J	1500	98000	--	1300	97000	--	1000	ND	U	6300	ND	U	4300	150000	--	3000
	Hexane	µg/m³	170000	--	2900	1800000	--	12000	630000	--	1900	ND	U	12000	ND	U	8100	1500000	--	11000
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	5700	ND	U	4700	ND	U	3700	ND	U	23000	ND	U	16000	ND	U	11000
	m,p-Xylene	µg/m³	12000	--	3100	300000	--	2500	260000	--	2000	6700	J	13000	3600	J	8600	390000	--	6000
	Methylene Chloride	µg/m³	5000	--	2900	4000	--	2400	2100	J	1900	16000	J	12000	10000	J	8100	4800	J	5600
	Naphthalene	µg/m³	ND	U	2800	ND	U	2300	ND	U	1800	ND	U	12000	ND	U	7900	ND	U	5500
	n-Heptane	µg/m³	66000	--	2900	1300000	--	12000	480000	--	7100	3700	J	12000	ND	U	8100	1500000	--	11000
	o-Xylene	µg/m³	6900	--	1500	95000	--	1300	84000	--	1000	3100	J	6300	ND	U	4300	100000	--	3000
	Propylene (propene)	µg/m³	1800	J	2900	2800	J	2400	1900	J	1900	ND	U	12000	ND	U	8100	6100	J	5600
	Styrene	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	Tetrachloroethene	µg/m³	3500	J	1500	2700	J	1300	1400	J	1000	11000	J	6300	7700	J	4300	3500	J	3000
	Tetrahydrofuran	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Toluene	µg/m³	25000	--	1500	840000	--	6400	470000	--	3800	ND	U	6300	ND	U	4300	1600000	--	6000
	Trichloroethene	µg/m³	ND	U	1500	580	J	1300	ND	U	1000	ND	U	6300	1900	J	4300	ND	U	3000
	Trichlorofluoromethane	µg/m³	ND	U	2900	ND	U	2400	ND	U	1900	ND	U	12000	ND	U	8100	ND	U	5600
	Vinyl chloride	µg/m³	ND	U	1500	ND	U	1300	ND	U	1000	ND	U	6300	ND	U	4300	ND	U	3000
	Xylenes, Total	µg/m³	19000	--	3100	400000	--	2500	340000	--	2000	9700	J	13000	3600	J	8600	500000	--	6000

Table 2-5
Analytical Data in On-Base (Inside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-04-250			SVMW-04-300			SVMW-08-050			SVMW-08-100			SVMW-08-250			SVMW-09-050		
	Field Sample ID:		SV04-250-202			SV04-300-202			SV08-050-202			SV08-100-202			SV08-250-202			SV09-050-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG			REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m³	20000	--	4300	2000	--	300	5200	--	800	1100	--	200	12000	--	2700	6200	--	1300
	1,1-dichloroethane	µg/m³	ND	U	8400	ND	U	590	ND	U	1600	ND	U	400	ND	U	5200	ND	U	2600
	1,2,4-trichlorobenzene	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	1,2,4-trimethylbenzene	µg/m³	2000	J	4300	1000	--	300	2000	J	800	ND	U	200	24000	--	2700	ND	U	1300
	1,2-dibromoethane	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	1,2-dichloroethane	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	1,3,5-trimethylbenzene	µg/m³	ND	U	4300	970	--	300	2200	J	800	ND	U	200	11000	--	2700	ND	U	1300
	1,3-butadiene	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	1,4-dioxane	µg/m³	ND	U	4300	ND	U	300	ND	U	800	590	J	200	ND	U	2700	3200	J	1300
	2-butanone	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	2-hexanone	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	4-methyl-2-pentanone	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Acetone	µg/m³	ND	U	68000	ND	U	4800	ND	U	13000	ND	U	3200	ND	U	43000	ND	U	21000
	Benzene	µg/m³	360000	--	4300	100000	--	300	290000	--	800	ND	U	200	690000	--	2700	ND	U	1300
	Bromodichloromethane	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Bromoform	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	Carbon disulfide	µg/m³	ND	U	14000	ND	U	970	ND	U	2600	ND	U	650	ND	U	8500	ND	U	4200
	Carbon tetrachloride	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Chloroethane	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	Chloroform	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Chloromethane	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	Cyclohexane	µg/m³	1100000	--	8600	200000	--	610	570000	--	1600	ND	U	410	1900000	--	5400	1400	J	2700
	Dibromochloromethane	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Dichlorodifluoromethane	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	Ethanol	µg/m³	ND	U	21000	ND	U	1500	ND	U	3900	ND	U	1000	ND	U	13000	ND	U	6500
	Ethyl acetate	µg/m³	ND	U	16000	ND	U	1200	ND	U	3100	ND	U	780	ND	U	10000	ND	U	5100
	Ethylbenzene	µg/m³	11000	J	4300	300	J	300	5900	--	800	ND	U	200	71000	--	2700	ND	U	1300
	Hexane	µg/m³	1700000	--	8100	170000	--	570	440000	--	1500	ND	U	380	1300000	--	5000	ND	U	2500
	Isopropyl alcohol (manufacturing-strong	µg/m³	ND	U	16000	ND	U	1100	ND	U	3000	ND	U	760	ND	U	9900	ND	U	4900
	m,p-Xylene	µg/m³	48000	--	8600	5600	--	610	78000	--	1600	ND	U	410	230000	--	5400	ND	U	2700
	Methylene Chloride	µg/m³	6800	J	8100	680	J	570	1900	J	1500	430	J	380	4300	J	5000	2300	J	2500
	Naphthalene	µg/m³	ND	U	7900	ND	U	550	ND	U	1500	ND	U	370	ND	U	4900	ND	U	2400
	n-Heptane	µg/m³	1400000	--	8100	170000	--	570	870000	--	6000	150	J	380	870000	--	5000	ND	U	2500
	o-Xylene	µg/m³	16000	--	4300	1800	--	300	28000	--	800	ND	U	200	68000	--	2700	ND	U	1300
	Propylene (propene)	µg/m³	5500	J	8100	830	J	570	1900	J	1500	160	J	380	6600	J	5000	ND	U	2500
	Styrene	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	Tetrachloroethene	µg/m³	5100	J	4300	520	J	300	1300	J	800	310	J	200	3300	J	2700	1700	J	1300
	Tetrahydrofuran	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Toluene	µg/m³	260000	--	4300	5700	--	300	330000	--	800	ND	U	200	1500000	--	2700	1700	J	1300
	Trichloroethene	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Trichlorofluoromethane	µg/m³	ND	U	8100	ND	U	570	ND	U	1500	ND	U	380	ND	U	5000	ND	U	2500
	Vinyl chloride	µg/m³	ND	U	4300	ND	U	300	ND	U	800	ND	U	200	ND	U	2700	ND	U	1300
	Xylenes, Total	µg/m³	63000	--	8600	7400	--	610	110000	--	1600	ND	U	410	300000	--	5400	ND	U	2700

Table 2-5
Analytical Data in On-Base (Inside the Source Area) Soil Vapor Monitoring Points, Q2 2020

	Location ID:		SVMW-09-100			SVMW-09-250			SVMW-09-266		
	Field Sample ID:		SV09-100-202			SV09-250-202			SV09-266-202		
	Sample Date:		4/7/2020			4/7/2020			4/7/2020		
	Sample Type:		REG			REG			REG		
Analytical Method	**Analyte**	**Units**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
VOCs by EPA method TO-15	1,1,2-Trichloro-1,2,2-trifluoroethane	µg/m^3	13000	--	2900	9100	--	2000	9800	--	2200
	1,1-dichloroethane	µg/m^3	ND	U	5700	ND	U	3900	ND	U	4200
	1,2,4-trichlorobenzene	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	1,2,4-trimethylbenzene	µg/m^3	19000	--	2900	4600	J	2000	26000	--	2200
	1,2-dibromoethane	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	1,2-dichloroethane	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	1,3,5-trimethylbenzene	µg/m^3	12000	--	2900	3800	J	2000	12000	--	2200
	1,3-butadiene	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	1,4-dioxane	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	2-butanone	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	2-hexanone	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	4-methyl-2-pentanone	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Acetone	µg/m^3	ND	U	47000	ND	U	32000	ND	U	34000
	Benzene	µg/m^3	860000	--	2900	130000	--	2000	750000	--	2200
	Bromodichloromethane	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Bromoform	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	Carbon disulfide	µg/m^3	ND	U	9300	ND	U	6400	ND	U	6900
	Carbon tetrachloride	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Chloroethane	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	Chloroform	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Chloromethane	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	Cyclohexane	µg/m^3	1600000	--	5900	380000	--	4000	1700000	--	4300
	Dibromochloromethane	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Dichlorodifluoromethane	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	Ethanol	µg/m^3	ND	U	14000	ND	U	9800	ND	U	11000
	Ethyl acetate	µg/m^3	ND	U	11000	ND	U	7700	ND	U	8300
	Ethylbenzene	µg/m^3	110000	--	2900	36000	--	2000	150000	--	2200
	Hexane	µg/m^3	1700000	--	5500	290000	--	3800	2100000	--	24000
	Isopropyl alcohol (manufacturing-strong	µg/m^3	ND	U	11000	ND	U	7400	ND	U	8000
	m,p-Xylene	µg/m^3	320000	--	5900	180000	--	4000	340000	--	4300
	Methylene Chloride	µg/m^3	4500	J	5500	3400	J	3800	3600	J	4100
	Naphthalene	µg/m^3	ND	U	5400	ND	U	3700	ND	U	3900
	n-Heptane	µg/m^3	1800000	--	5500	900000	--	3800	1700000	--	24000
	o-Xylene	µg/m^3	110000	--	2900	46000	--	2000	100000	--	2200
	Propylene (propene)	µg/m^3	6500	J	5500	2300	J	3800	8500	--	4100
	Styrene	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	Tetrachloroethene	µg/m^3	3400	J	2900	2300	J	2000	2500	J	2200
	Tetrahydrofuran	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Toluene	µg/m^3	1800000	--	2900	860000	--	2000	1500000	--	13000
	Trichloroethene	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Trichlorofluoromethane	µg/m^3	ND	U	5500	ND	U	3800	ND	U	4100
	Vinyl chloride	µg/m^3	ND	U	2900	ND	U	2000	ND	U	2200
	Xylenes, Total	µg/m^3	430000	--	5900	230000	--	4000	440000	--	4300

Table 2-5
Analytical Data in On-Base (Inside the Source Area) Soil Vapor Monitoring Points, Q2 2020

µg/m^3 = microgram per cubic meter
AFB = Air Force Base
ID = identification
LOQ = limit of quantitation
ND = not detected
REG = normal field sample
Val Qual = validation qualifier
VOC = volatile organic compound
Shading = detected concentrations above the detection limit
Val Quals based on independent data validation:
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the limit of detection.
-- = Validation qualifier not assigned.

Table 3-1
Groundwater Monitoring Program

Well Location ID	1st Quarter (January-March)	2nd Quarter Semiannual (April-June)	3rd Quarter (July-September)	4th Quarter Annual (October-December)	Former Well Designation and Current Monitoring Well Objective[a]
Newly Added Wells[b]					
KAFB-106S7-451[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
Groundwater Monitoring Wells[b]					
KAFB-106001	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106002	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106003	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal, KAFB-015 Sentinel
KAFB-106004	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal
KAFB-106005[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106006	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106007	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106008	None	BTEX, EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106009[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106010	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106011	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106012R	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, metals, anions, alkalinity, FP	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106013	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal
KAFB-106014	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106015[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106016	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106017	None	BTEX, Naphthalene, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Signal
KAFB-106018	None	BTEX, Naphthalene, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Signal
KAFB-106019	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106020	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106021[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106022[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106023[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106024	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106025[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106026[d]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106027	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106028	None	BTEX, EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106029[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106030[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106031[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106032[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106033[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106034[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106035[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring; Groundwater well paired with KAFB-106228 extraction well
KAFB-106036[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring; Groundwater well paired with KAFB-106228 extraction well

Table 3-1
Groundwater Monitoring Program

Well Location ID	1st Quarter (January-March)	2nd Quarter Semiannual (April-June)	3rd Quarter (July-September)	4th Quarter Annual (October-December)	Former Well Designation and Current Monitoring Well Objective[a]
KAFB-106037[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring; Groundwater well paired with KAFB-106228 extraction well
KAFB-106038	None	BTEX, Naphthalene, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Signal
KAFB-106039	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106040	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106041[c]	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106042[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106043[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106044	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106045	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106046	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106047	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106048	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106049[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106050[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106051[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106052[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106053[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106054[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106055[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106057[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106058[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106059	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106060	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106061	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106062	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106063	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106064	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106065	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106066	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106067	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106068	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106069	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106070[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106071[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106072[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106073	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106074	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106075	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106076	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106077	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106078	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106079[c]	None	BTEX, EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106080	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106081	None	BTEX, EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Source Area
KAFB-106082	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106083	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring

Table 3-1
Groundwater Monitoring Program

Well Location ID	1st Quarter (January-March)	2nd Quarter Semiannual (April-June)	3rd Quarter (July-September)	4th Quarter Annual (October-December)	Former Well Designation and Current Monitoring Well Objective[a]
KAFB-106084	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106085[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106086[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106087[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106088[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106089[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106090[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106091[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106092[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106093[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106094	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106095[c]	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106096	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring
KAFB-106097	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal
KAFB-106098	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal
KAFB-106099	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal
KAFB-106100	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal
KAFB-106101	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal, KAFB-015 Sentinel
KAFB-106102	BTEX, EDB, FP	BTEX, EDB, metals, anions, alkalinity, FP	BTEX, EDB, FP	EDB, VOCs, metals, anions, alkalinity, FP	VA Proximal, KAFB-015 Sentinel
KAFB-106103[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106104[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106105[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106106[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106107[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106149-484[c]	EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106151-484[c]	EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106152-484[c]	EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106153-484[c]	EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106201[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	KAFB-003 Sentinel
KAFB-106202[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	KAFB-003 Sentinel
KAFB-106203[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	KAFB-003 Sentinel
KAFB-106204[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106205[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106206[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106207[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106208[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106209[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106211[e]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106212[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106213[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106214[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106215[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106216[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106217[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106218[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106219[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106220[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106221[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring

Table 3-1
Groundwater Monitoring Program

Well Location ID	1st Quarter (January-March)	2nd Quarter Semiannual (April-June)	3rd Quarter (July-September)	4th Quarter Annual (October-December)	Former Well Designation and Current Monitoring Well Objective[a]
KAFB-106222[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106223[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106224[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106225[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106226[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106227[c]	None	EDB, metals, anions, alkalinity	None	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106229[c,f]	None	EDB	None	EDB	Groundwater well paired with KAFB-106233 extraction well
KAFB-106230[c,d]	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106231[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106232[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106235-438[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106235-472[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106235-501[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106236-436[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106236-470[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106236-499[c]	EDB	EDB, metals, anions, alkalinity	EDB	EDB, VOCs, metals, anions, alkalinity	Former Downgradient Proximal; Current Upgradient Well
KAFB-106240-449[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	VA Proximal
KAFB-106241-428[c]	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106242-418[c]	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106243-425[c]	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Groundwater Monitoring
KAFB-106244-445[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	VA Proximal
KAFB-106245-460[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	KAFB-016 Sentinel
KAFB-106247-450[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Downgradient Proximal (Seasonal)
KAFB-106S1-447[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106S2-451[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106S3-449[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106S4-446[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106S5-446[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106S8-451[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-106S9-447[c]	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	BTEX, EDB, metals, anions, alkalinity	EDB, VOCs, metals, anions, alkalinity	Source Area
KAFB-3411	None	EDB, metals, anions, alkalinity, FP	None	EDB, VOCs, metals, anions, alkalinity, FP	Groundwater Monitoring

Table 3-1
Groundwater Monitoring Program

[a] Monitoring Well Objective:

Downgradient Proximal (Seasonal) Wells—Primarily located north of Ridgecrest Drive SE surrounding the historical EDB plume to the north and east into the distal portion of the GWM network. One well located to the south and east of the Benzene plume. Groundwater flow direction varies seasonally; these wells are downgradient of the EDB plume during part of each year. Analytical data for these wells have been historically below the maximum contaminant level (MCL) for EDB. Sampled every quarter. These wells assist in plume boundary definition.

Former Downgradient Proximal; Current Upgradient Wells—Primarily located north of Ridgecrest Drive SE to the west and north of the historical EDB plume. These wells were previously downgradient of the historical EDB plume, but as groundwater flow direction has shifted, they are currently upgradient. Sampled every quarter.

Groundwater Monitoring Wells—Primarily located north of Ridgecrest Drive SE within the historical footprint of the EDB plume. Analytical data from these wells help to estimate the volume and mass of the EDB plume throughout the GWM network. Sampled in Q2 and Q4 at a minimum, with wells previously designated as newly added sampled every quarter.

KAFB-003 Sentinel Wells—One set of nested wells located west of drinking water production well KAFB-003. Sampled every quarter. These wells help to assess any potential contaminant migration towards KAFB-003.
KAFB-015 Sentinel Wells—One set of nested wells located east of drinking water production well KAFB-015. Sampled every quarter. These wells help to assess any potential contaminant migration towards KAFB-015.
KAFB-016 Sentinel Well—One well located west of drinking water production well KAFB-016. Sampled every quarter. This well helps to assess the potential for contaminant migration towards KAFB-016.
Paired wells—Wells located near a GWM IM extraction well to assess the quality of the water entering the extraction well.
Signal Wells—Three wells located along the south side of Ridgecrest Drive SE to monitor BTEX and provide early indication if the benzene plume is migrating from the source area into the interim measure target area capture zone created by the groundwater extraction wells. Sampled during Q2 and Q4.

Source Area Wells—Primarily located in the Bulk Fuels Facility south of Randolph Road SE and proximal to the spill site on-Base. Sampled during Q2 and Q4 at a minimum, with some sampled every quarter. These wells monitor the higher concentrations of dissolved-phase plumes on-Base.
Veterans Affairs (VA) Proximal Wells—Three sets of nested wells located between the historical EDB plume south of Ridgecrest Drive SE and the Raymond G. Murphy VA Medical Center as a means to observe for potential contaminant migration towards the VA medical campus. Sampled every quarter. These wells provide additional wellhead protection monitoring for the VA supply well.

[b] The groundwater monitoring network consists of 162 wells, 161 wells that are currently sampled under SWMU ST106/SS-111, and one well which will be sampled once water level has risen sufficiently. Select wells are identified for additional or more frequent monitoring of risk-driving constituents. Metals analysis consists of select total metals (arsenic, calcium, lead, potassium, magnesium, and sodium) and select dissolved metals (iron and manganese). Anions analysis consists of bromide, chloride, nitrate/nitrite nitrogen, and sulfate. Field parameters include pH, specific conductivity, dissolved oxygen, oxidation reduction potential, temperature, and turbidity.

Newly Added Wells—Newly added wells can include both existing wells that are added to the GWM network as well as newly installed wells. Newly added GWM wells require a minimum of four quarters of baseline full-suite analytical sampling. These wells have been added to assess the plume boundaries and provide additional water table monitoring due to the rising groundwater elevation.

Groundwater Monitoring Wells—Wells which have completed the minimum four quarters of baseline full-suite analytical sampling. These wells can have any of the objectives described above.

[c] Well sampled with passive sampling methodology; field parameter measurements are not representative and therefore are not collected.

[d] Well was removed from the groundwater monitoring network due to safety concerns after Q2 2016. These concerns were mitigated and sampling resumed in Q4 2019; sampling at this well is considered supplemental to the groundwater monitoring program.

[e] KAFB-106211 will be included for sampling when it has enough saturated water column to deploy passive samplers (former air sparge well).

[f] KAFB-106229 is not formally part of the groundwater monitoring network. However, it gets sampled semiannually for EDB.

BTEX = benzene, toluene, ethylbenzene, and total xylenes
EDB = ethylene dibromide
FP = field parameter
GWM = groundwater monitoring
ID = identification
Q2 = second quarter
Q4 = fourth quarter
SE = Southeast
SWMU = Solid Waste Management Unit
VA = Veterans Affairs
VOC = volatile organic compound

Table 3-2
Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness, Q2 2020

Well Location ID	Reference Elevation Interval (ft AMSL)	Date of Measurement	MRP Elevation (ft AMSL)	Top of Screen (ft AMSL)	Depth to LNAPL[a] (ft MRP)	Depth to Water[a] (ft MRP)	Screen Submergence Depth[b] (ft)	Measured LNAPL Thickness (ft)	LNAPL Elevation (ft AMSL)	Groundwater Elevation Corrected for LNAPL Thickness[c] (ft AMSL)
KAFB-106001[d]	4857/4838	4/16/2020	5344.90	4859	—	466.72	19.18	—	—	4878.18
KAFB-106002	4857	4/14/2020	5342.24	4861	—	464.12	17.12	—	—	4878.12
KAFB-106003	4857	4/14/2020	5340.28	4861	—	462.13	17.15	—	—	4878.15
KAFB-106004	4857	4/14/2020	5345.81	4859	—	467.53	19.28	—	—	4878.28
KAFB-106005	4857	4/16/2020	5346.91	4865	—	468.63	13.28	—	—	4878.28
KAFB-106006	4857	4/15/2020	5351.48	4865	—	473.59	12.89	—	—	4877.89
KAFB-106007	4857	4/15/2020	5349.60	4861	—	471.79	16.81	—	—	4877.81
KAFB-106008	4857	4/16/2020	5351.77	4863	—	473.64	15.13	—	—	4878.13
KAFB-106009	4857	4/16/2020	5348.55	4865	—	470.30	13.24	—	—	4878.25
KAFB-106010	4857	4/15/2020	5343.26	4860	—	465.37	17.89	—	—	4877.89
KAFB-106011	4857	4/15/2020	5353.15	4864	—	475.30	13.85	—	—	4877.85
KAFB-106012R	4857	4/15/2020	5345.00	4877	—	467.11	0.89	—	—	4877.89
KAFB-106013	4857	4/15/2020	5350.62	4861	—	472.65	16.97	—	—	4877.97
KAFB-106014	4857	4/15/2020	5350.22	4861	—	472.25	16.97	—	—	4877.97
KAFB-106015[d]	4857/4838	4/15/2020	5342.44	4855	—	464.51	22.93	—	—	4877.93
KAFB-106016	4857	4/15/2020	5342.43	4864	—	464.44	13.99	—	—	4877.99
KAFB-106017[d]	4857/4838	4/14/2020	5342.52	4857	—	464.96	20.56	—	—	4877.56
KAFB-106018[d]	4857/4838	4/14/2020	5336.31	4857	—	458.57	20.74	—	—	4877.74
KAFB-106019[d]	4857/4838	4/14/2020	5354.62	4859	—	477.06	18.55	—	—	4877.56
KAFB-106020	4857	4/15/2020	5341.05	4859	—	462.88	19.17	—	—	4878.17
KAFB-106021[d]	4857/4838	4/14/2020	5314.33	4856	—	436.31	22.02	—	—	4878.02
KAFB-106022[d]	4857/4838	4/15/2020	5318.06	4856	—	440.15	21.91	—	—	4877.91
KAFB-106023	4857	4/15/2020	5328.76	4856	—	450.85	21.91	—	—	4877.91
KAFB-106024	4857	4/14/2020	5343.55	4863	—	465.78	14.77	—	—	4877.77
KAFB-106025[d]	4857/4838	4/15/2020	5317.28	4852	—	438.86	26.42	—	—	4878.42
KAFB-106026	4857	4/15/2020	5322.68	4857	—	444.00	21.68	—	—	4878.68
KAFB-106027	4857	4/15/2020	5348.62	4864	—	470.83	13.79	—	—	4877.79
KAFB-106028	4857	4/15/2020	5348.89	4863	—	471.09	14.80	—	—	4877.80
KAFB-106029	4857	4/14/2020	5310.94	4860	—	432.42	18.52	—	—	4878.52
KAFB-106030	4838	4/14/2020	5311.03	4842	—	432.54	--	—	—	4878.49
KAFB-106031	4814	4/14/2020	5311.06	4815	—	432.56	--	—	—	4878.50
KAFB-106032	4857	4/15/2020	5317.60	4862	—	439.06	16.54	—	—	4878.54
KAFB-106033	4838	4/15/2020	5317.76	4841	—	439.22	--	—	—	4878.54
KAFB-106034	4814	4/15/2020	5318.63	4817	—	440.06	--	—	—	4878.57
KAFB-106035	4857	4/14/2020	5321.58	4869	—	444.20	8.38	—	—	4877.38
KAFB-106036	4838	4/14/2020	5321.85	4840	—	444.68	--	—	—	4877.17
KAFB-106037	4838	4/14/2020	5322.10	4815	—	445.31	--	—	—	4876.79
KAFB-106038	4857	4/14/2020	5351.61	4870	—	473.93	7.68	—	—	4877.68
KAFB-106039	4838	4/14/2020	5351.32	4840	—	473.74	--	—	—	4877.58
KAFB-106040	4814	4/14/2020	5350.26	4817	—	472.64	--	—	—	4877.62
KAFB-106041	4857	4/15/2020	5324.35	4875	—	445.85	3.50	—	—	4878.50
KAFB-106042	4857	4/15/2020	5324.07	4855	—	445.60	23.47	—	—	4878.47
KAFB-106043	4814	4/15/2020	5324.30	4781	—	445.85	--	—	—	4878.45
KAFB-106044	4838	4/15/2020	5348.79	4841	—	470.97	--	—	—	4877.82
KAFB-106045	4814	4/15/2020	5348.52	4817	—	470.70	--	—	—	4877.82
KAFB-106046	4857	4/14/2020	5352.84	4863	—	475.19	14.65	—	—	4877.65
KAFB-106047	4838	4/14/2020	5352.81	4841	—	475.26	--	—	—	4877.55
KAFB-106048	4814	4/14/2020	5352.58	4817	—	474.99	--	—	—	4877.59
KAFB-106049	4857	4/15/2020	5316.10	4859	—	437.36	19.74	—	—	4878.74
KAFB-106050	4838	4/15/2020	5315.51	4841	—	436.75	--	—	—	4878.76

Table 3-2
Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness, Q2 2020

Well Location ID	Reference Elevation Interval (ft AMSL)	Date of Measurement	MRP Elevation (ft AMSL)	Top of Screen (ft AMSL)	Depth to LNAPL[a] (ft MRP)	Depth to Water[a] (ft MRP)	Screen Submergence Depth[b] (ft)	Measured LNAPL Thickness (ft)	LNAPL Elevation (ft AMSL)	Groundwater Elevation Corrected for LNAPL Thickness[c] (ft AMSL)
KAFB-106051	4814	4/15/2020	5315.78	4815	—	437.06	--	—	—	4878.72
KAFB-106052	4857	4/15/2020	5318.86	4869	—	440.41	9.45	—	—	4878.45
KAFB-106053	4838	4/15/2020	5318.67	4840	—	440.33	--	—	—	4878.34
KAFB-106054	4814	4/15/2020	5318.38	4814	—	439.91	--	—	—	4878.47
KAFB-106055	4857	4/15/2020	5325.09	4859	—	446.87	19.22	—	—	4878.22
KAFB-106057	4838	4/15/2020	5325.46	4841	—	447.22	--	—	—	4878.24
KAFB-106058	4814	4/15/2020	5326.05	4814	—	447.79	--	—	—	4878.26
KAFB-106059	4857	4/15/2020	5347.87	4861	469.91	470.06	16.93	0.15	4877.96	4877.93
KAFB-106060	4838	4/15/2020	5345.32	4842	—	467.53	--	—	—	4877.79
KAFB-106061	4814	4/15/2020	5345.43	4772	—	467.48	--	—	—	4877.95
KAFB-106062	4814	4/14/2020	5351.20	4773	—	473.46	--	—	—	4877.74
KAFB-106063[e]	4838	5/19/2020	5351.86	4844	—	473.91	--	—	—	4877.95
KAFB-106064[e]	4857	5/19/2020	5351.08	4863	—	473.08	15.00	—	—	4878.00
KAFB-106065	4838	4/15/2020	5348.76	4841	—	471.03	--	—	—	4877.73
KAFB-106066	4814	4/15/2020	5349.09	4773	—	471.23	--	—	—	4877.86
KAFB-106067	4857	4/14/2020	5347.50	4862	—	470.01	15.49	—	—	4877.49
KAFB-106068	4814	4/14/2020	5347.23	4767	—	469.79	--	—	—	4877.44
KAFB-106069	4838	4/14/2020	5347.25	4841	—	469.61	--	—	—	4877.64
KAFB-106070	4857	4/16/2020	5318.54	4859	—	440.55	18.99	—	—	4877.99
KAFB-106071	4814	4/16/2020	5320.90	4773	—	442.82	--	—	—	4878.08
KAFB-106072	4838	4/16/2020	5319.29	4844	—	441.04	--	—	—	4878.25
KAFB-106073	4838	4/15/2020	5339.87	4840	—	461.76	--	—	—	4878.11
KAFB-106074	4814	4/15/2020	5340.59	4771	—	462.50	--	—	—	4878.09
KAFB-106075	4857	4/15/2020	5340.50	4860	—	462.47	18.03	—	—	4878.03
KAFB-106076	4857	4/15/2020	5344.92	4865	467.25	467.26	12.67	0.01	4877.67	4877.67
KAFB-106077	4838	4/15/2020	5344.72	4841	—	468.35	--	—	—	4876.37
KAFB-106078	4814	4/15/2020	5344.60	4771	—	467.49	--	—	—	4877.11
KAFB-106079	4857	4/15/2020	5349.67	4863	—	471.91	14.76	—	—	4877.76
KAFB-106080	4838	4/15/2020	5348.48	4843	—	470.45	--	—	—	4878.03
KAFB-106081	4814	4/15/2020	5349.48	4772	—	471.65	--	—	—	4877.83
KAFB-106082	4857	4/14/2020	5335.26	4863	—	457.69	14.57	—	—	4877.57
KAFB-106083	4838	4/14/2020	5335.04	4840	—	457.34	--	—	—	4877.70
KAFB-106084	4814	4/14/2020	5337.94	4768	—	460.14	--	—	—	4877.80
KAFB-106085	4857	4/14/2020	5317.23	4871	—	439.30	6.93	—	—	4877.93
KAFB-106086	4838	4/14/2020	5317.65	4842	—	439.66	--	—	—	4877.99
KAFB-106087	4814	4/14/2020	5316.87	4771	—	438.81	--	—	—	4878.06
KAFB-106088	4857	4/14/2020	5324.27	4864	—	446.65	13.62	—	—	4877.62
KAFB-106089	4838	4/14/2020	5323.54	4842	—	446.33	--	—	—	4877.21
KAFB-106090	4814	4/14/2020	5322.85	4768	—	445.17	--	—	—	4877.68
KAFB-106091	4857	4/15/2020	5314.33	4860	—	436.11	18.22	—	—	4878.22
KAFB-106092	4838	4/15/2020	5314.51	4841	—	436.25	--	—	—	4878.26
KAFB-106093	4814	4/15/2020	5314.62	4771	—	436.33	--	—	—	4878.29
KAFB-106094	4857	4/14/2020	5345.07	4861	—	467.24	16.83	—	—	4877.83
KAFB-106095	4838	4/14/2020	5344.66	4841	—	466.79	--	—	—	4877.87
KAFB-106096	4814	4/14/2020	5345.31	4769	—	467.44	--	—	—	4877.87
KAFB-106097	4838	4/15/2020	5347.74	4842	—	469.59	--	—	—	4878.15
KAFB-106098	4814	4/15/2020	5347.83	4817	—	469.67	--	—	—	4878.16
KAFB-106099	4838	4/14/2020	5342.85	4842	—	464.50	--	—	—	4878.35
KAFB-106100	4814	4/14/2020	5342.85	4817	—	464.52	--	—	—	4878.33
KAFB-106101	4838	4/14/2020	5340.32	4842	—	462.27	--	—	—	4878.05
KAFB-106102	4814	4/14/2020	5340.32	4816	—	462.41	--	—	—	4877.91

Table 3-2
Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness, Q2 2020

Well Location ID	Reference Elevation Interval (ft AMSL)	Date of Measurement	MRP Elevation (ft AMSL)	Top of Screen (ft AMSL)	Depth to LNAPL[a] (ft MRP)	Depth to Water[a] (ft MRP)	Screen Submergence Depth[b] (ft)	Measured LNAPL Thickness (ft)	LNAPL Elevation (ft AMSL)	Groundwater Elevation Corrected for LNAPL Thickness[c] (ft AMSL)
KAFB-106103	4838	4/15/2020	5328.44	4843	—	451.10	--	—	—	4877.34
KAFB-106104	4814	4/16/2020	5328.08	4818	—	450.34	--	—	—	4877.74
KAFB-106105	4838	4/15/2020	5321.96	4838	—	443.65	--	—	—	4878.31
KAFB-106106	4857	4/15/2020	5321.80	4868	—	443.52	10.28	—	—	4878.28
KAFB-106107	4814	4/15/2020	5322.12	4812	—	443.76	--	—	—	4878.36
KAFB-106148-484[f]	4857	4/15/2020	5344.24	4990	—	466.30	-112.30	—	—	4877.94
KAFB-106149-484[f]	4857	4/16/2020	5345.94	4992	—	468.22	-114.28	—	—	4877.72
KAFB-106150-484[f]	4857	4/15/2020	5344.10	4989	466.5	466.88	-111.49	0.38	4877.6	4877.51
KAFB-106151-484[f]	4857	4/16/2020	5345.49	4990	—	468.01	-112.52	—	—	4877.48
KAFB-106152-484[f]	4857	4/16/2020	5347.68	4992	—	469.79	-114.11	—	—	4877.89
KAFB-106153-484[f]	4857	4/16/2020	5348.99	4994	—	471.22	-116.23	—	—	4877.77
KAFB-106154-484[f]	4857	4/15/2020	5347.34	4992	—	469.43	-114.09	—	—	4877.91
KAFB-106155-484[f]	4857	4/15/2020	5347.13	4992	—	469.88	-114.75	—	—	4877.25
KAFB-106156-484[f]	4857	4/15/2020	5341.19	4996	—	463.31	-118.12	—	—	4877.88
KAFB-106201	4857	4/16/2020	5357.00	4867	—	479.55	10.45	—	—	4877.45
KAFB-106202	4838	4/16/2020	5357.80	4838	—	480.58	--	—	—	4877.22
KAFB-106203	4814	4/16/2020	5357.52	4734	—	481.01	--	—	—	4876.51
KAFB-106204	4857	4/14/2020	5332.86	4870	—	454.10	8.76	—	—	4878.76
KAFB-106205	4838	4/14/2020	5333.29	4841	—	454.47	--	—	—	4878.82
KAFB-106206	4814	4/14/2020	5333.46	4740	—	454.61	--	—	—	4878.85
KAFB-106207	4857	4/15/2020	5344.20	4871	—	464.85	8.34	—	—	4879.35
KAFB-106208	4838	4/15/2020	5343.85	4841	—	464.56	--	—	—	4879.29
KAFB-106209	4814	4/15/2020	5343.38	4740	—	463.90	--	—	—	4879.48
KAFB-106211[f]	4857	4/14/2020	5342.51	4905	—	464.62	-27.11	—	—	4877.89
KAFB-106212	4814	4/14/2020	5321.80	4779	—	444.86	--	—	—	4876.94
KAFB-106213	4857	4/14/2020	5325.19	4877	—	447.64	0.55	—	—	4877.55
KAFB-106214	4838	4/14/2020	5325.45	4847	—	447.76	--	—	—	4877.69
KAFB-106215	4814	4/14/2020	5325.77	4779	—	447.99	--	—	—	4877.78
KAFB-106216	4857	4/14/2020	5333.91	4878	—	456.00	-0.09	—	—	4877.91
KAFB-106217	4838	4/14/2020	5333.85	4849	—	455.90	--	—	—	4877.95
KAFB-106218	4814	4/14/2020	5333.64	4782	—	456.05	--	—	—	4877.59
KAFB-106219	4857	4/14/2020	5340.41	4878	—	462.07	0.34	—	—	4878.34
KAFB-106220	4838	4/14/2020	5340.34	4847	—	462.00	--	—	—	4878.34
KAFB-106221	4814	4/14/2020	5340.10	4779	—	461.80	--	—	—	4878.30
KAFB-106222	4857	4/15/2020	5333.24	4875	—	454.87	3.37	—	—	4878.37
KAFB-106223	4838	4/15/2020	5333.96	4846	—	455.46	--	—	—	4878.50
KAFB-106224	4814	4/15/2020	5335.08	4780	—	456.61	--	—	—	4878.47
KAFB-106225	4857	4/15/2020	5326.36	4876	—	448.24	2.12	—	—	4878.12
KAFB-106226	4838	4/15/2020	5327.31	4847	—	448.85	--	—	—	4878.46
KAFB-106227	4814	4/15/2020	5328.09	4780	—	449.62	--	—	—	4878.47
KAFB-106229[d,f]	4857/4838	4/15/2020	5314.31	4883	—	436.02	-4.71	—	—	4878.29
KAFB-106230	4814	4/15/2020	5324.51	4824	—	446.08	--	—	—	4878.43
KAFB-106231	4857	4/14/2020	5327.56	4888	—	448.66	-9.10	—	—	4878.90
KAFB-106232	4814	4/14/2020	5327.20	4824	—	448.22	--	—	—	4878.98
KAFB-106235-438	4857	4/15/2020	5315.67	4878	—	437.29	0.38	—	—	4878.38
KAFB-106235-472	4838	4/15/2020	5315.67	4844	—	437.28	--	—	—	4878.39
KAFB-106235-501	4814	4/15/2020	5315.67	4815	—	437.32	--	—	—	4878.35
KAFB-106236-436	4857	4/15/2020	5316.02	4880	—	437.09	-1.07	—	—	4878.93
KAFB-106236-470	4838	4/15/2020	5316.02	4846	—	437.07	--	—	—	4878.95
KAFB-106236-499	4814	4/15/2020	5316.02	4817	—	437.11	--	—	—	4878.91

Table 3-2
Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness, Q2 2020

Well Location ID	Reference Elevation Interval (ft AMSL)	Date of Measurement	MRP Elevation (ft AMSL)	Top of Screen (ft AMSL)	Depth to LNAPL[a] (ft MRP)	Depth to Water[a] (ft MRP)	Screen Submergence Depth[b] (ft)	Measured LNAPL Thickness (ft)	LNAPL Elevation (ft AMSL)	Groundwater Elevation Corrected for LNAPL Thickness[c] (ft AMSL)
KAFB-106240-449	4857	4/15/2020	5347.57	4899	—	469.49	-20.92	—	—	4878.08
KAFB-106241-428	4857	4/15/2020	5324.06	4896	—	446.42	-18.36	—	—	4877.64
KAFB-106242-418	4857	4/14/2020	5316.15	4898	—	438.20	-20.05	—	—	4877.95
KAFB-106243-425	4857	4/14/2020	5320.57	4896	—	442.84	-18.27	—	—	4877.73
KAFB-106244-445	4857	4/14/2020	5343.51	4898	—	465.30	-19.79	—	—	4878.21
KAFB-106245-460	4857	4/14/2020	5360.90	4897	—	483.36	-19.46	—	—	4877.54
KAFB-106247-450	4857	4/14/2020	5351.60	4901	—	474.03	-23.43	—	—	4877.57
KAFB-106S1-447	4857	4/15/2020	5345.22	4898	—	467.31	-20.09	—	—	4877.91
KAFB-106S2-451	4857	4/15/2020	5352.40	4898	—	474.51	-20.11	—	—	4877.89
KAFB-106S3-449	4857	4/15/2020	5351.01	4899	—	473.59	-21.58	—	—	4877.42
KAFB-106S4-446	4857	4/15/2020	5346.57	4898	—	468.51	-19.94	—	—	4878.06
KAFB-106S5-446	4857	4/16/2020	5343.58	4898	—	465.38	-19.80	—	—	4878.20
KAFB-106S7-451	4857	4/16/2020	5348.88	4898	—	470.87	-19.99	—	—	4878.01
KAFB-106S8-451	4857	4/15/2020	5351.45	4900	—	473.61	-22.16	—	—	4877.84
KAFB-106S9-447	4857	4/16/2020	5345.82	4899	—	468.08	-21.26	—	—	4877.74
KAFB-3411	4857	4/15/2020	5343.49	4863	—	465.54	14.95	—	—	4877.95

[a] See appendix table E-2-1 for corrections to water level and LNAPL depths based on interface probe calibration.

[b] Screen submergence depth is calculated for wells which intersected the water table when they were installed; those located in REI 4857 and 4857/4838. It is the difference between the groundwater elevation corrected for LNAPL thickness and the top of screen elevation. Negative values reflect the length of screen remaining above the water table.

[c] Groundwater elevation corrected for LNAPL thickness was calculated by the following formula: MRP Elevation - Depth to LNAPL/water interface + (LNAPL Thickness * Specific Gravity of Weathered JP4/JP8 Fuel) where the specific gravity of JP4/JP8 fuel is 0.7592. The specific gravity is based on the December 13, 2018 site-specific fuel testing report from PTS Laboratories using LNAPL collected from wells KAFB-106014, KAFB-106059, and KAFB-106079.

[d] Well used in analyses for both REI 4857 and 4838.

[e] Well was not gauged in April due to presence of monitoring equipment. Gauging occurred prior to sampling in May and is presented here for information purposes only. Data was not used in the creation of potentiometric surface maps or for groundwater modeling.

[f] Well not permanently designated in REI listed.

-- = Well was designed with the screened interval fully submerged to capture conditions at depths below the water table
— = LNAPL not detected
AMSL = above mean sea level
ft = foot/feet
ID = identification
JP = jet propellant
LNAPL = light non-aqueous phase liquid
MRP = measurement reference point
Q2 = second quarter
REI = reference elevation interval

Table 3-3
Groundwater Monitoring Wells Sampled in Q2 2020

Location ID	Reference Elevation Interval (ft AMSL)	Well Installation Date[a]	Date Sampled	Screen Interval[b] (ft bgs)	Screen Interval[b] (ft AMSL)	Sampling System	Screen Submerged[c] (Yes/No)?	Estimated Pump Intake Depth[d,e,f] (ft bgs)	Analytical Suite[g]
Reference Elevation Interval 4857 (ft AMSL) Groundwater Monitoring Wells									
KAFB-106001	4857/4838	11/10/2000	4/16/2020	483-508	4859-4834	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106002	4857	3/26/2002	4/17/2020	479-504	4861-4836	Dedicated pump	Yes	492	EDB, metals, anions, alkalinity, FP
KAFB-106003	4857	1/25/2003	4/30/2020	476-501	4861-4836	Portable pump	Yes	478	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106004	4857	1/4/2006	5/5/2020	484-509	4859-4834	Portable pump	Yes	486	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106005	4857	1/22/2007	4/16/2020	479-504	4865-4840	Passive sampler	Yes	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106006	4857	10/31/2007	4/24/2020	484-509	4865-4840	Portable pump	Yes	486	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106007	4857	11/14/2007	4/24/2020	484-509	4861-4836	Portable pump	Yes	486	EDB, metals, anions, alkalinity, FP
KAFB-106008	4857	11/21/2007	4/16/2020	486-511	4863-4838	Passive sampler	Yes	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106009	4857	11/28/2007	4/16/2020	480-505	4865-4840	Passive sampler	Yes	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106010	4857	12/6/2007	4/24/2020	483-508	4860-4835	Portable pump	Yes	485	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106011	4857	9/23/2008	4/17/2020	486-511	4864-4839	Dedicated pump	Yes	499	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106012R	4857	4/22/2014	4/23/2020	466-495	4877-4847	Portable pump	Yes	468	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106013	4857	9/19/2008	5/1/2020	487-512	4861-4836	Portable pump	Yes	489	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106014	4857	10/3/2008	4/24/2020	486-511	4861-4836	Portable pump	Yes	488	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106015	4857/4838	10/14/2008	4/6/2020	485-510	4855-4830	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106016	4857	10/17/2008	4/17/2020	475-500	4864-4839	Dedicated pump	Yes	488	EDB, metals, anions, alkalinity, FP
KAFB-106017	4857/4838	11/19/2008	4/21/2020	482-507	4857-4832	Dedicated pump	Yes	495	BTEX, Naphthalene, EDB, metals, anions, alkalinity, FP
KAFB-106018	4857/4838	11/24/2008	5/8/2020	476-501	4857-4832	Portable pump	Yes	478	BTEX, Naphthalene, EDB, metals, anions, alkalinity, FP
KAFB-106019	4857/4838	12/9/2008	4/23/2020	493-518	4859-4834	Portable pump	Yes	495	EDB, metals, anions, alkalinity, FP
KAFB-106020	4857	12/19/2008	4/28/2020	482-507	4859-4834	Portable pump	Yes	484	EDB, metals, anions, alkalinity, FP
KAFB-106021	4857/4838	6/7/2009	4/6/2020	458-483	4856-4831	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106022	4857/4838	6/12/2009	4/6/2020	462-487	4856-4831	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106023	4857	6/27/2009	4/10/2020	473-498	4856-4831	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106024	4857	8/3/2009	4/20/2020	481-506	4863-4838	Dedicated pump	Yes	494	EDB, metals, anions, alkalinity, FP
KAFB-106025	4857/4838	12/5/2010	4/8/2020	465-490	4852-4827	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106026	4857	4/23/2010	4/10/2020	466-486	4857-4837	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106027	4857	5/1/2010	4/20/2020	481-501	4864-4844	Dedicated pump	Yes	491	EDB, metals, anions, alkalinity, FP
KAFB-106028	4857	5/16/2010	4/10/2020	486-511	4863-4838	Passive sampler	Yes	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106029	4857	6/4/2011	4/6/2020	451-471	4860-4840	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106032	4857	6/24/2011	4/8/2020	456-476	4862-4842	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106035	4857	8/9/2011	4/8/2020	452-482	4869-4839	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106038	4857	8/5/2011	4/22/2020	478-508	4870-4840	Portable pump	Yes	480	BTEX, Naphthalene, EDB, metals, anions, alkalinity, FP
KAFB-106041	4857	6/6/2011	4/9/2020	449-469	4875-4855	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106042	4857	5/31/2011	4/9/2020	469-484	4855-4841	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106046	4857	4/8/2011	4/22/2020	490-510	4863-4843	Dedicated pump	Yes	500	EDB, metals, anions, alkalinity, FP
KAFB-106049	4857	5/13/2011	4/9/2020	457-477	4859-4839	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106052	4857	7/25/2011	4/8/2020	450-480	4869-4839	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106055	4857	6/24/2011	4/7/2020	466-486	4859-4839	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106059	4857	4/7/2011	5/6/2020	483-503	4861-4841	Portable pump	Yes	485	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106064	4857	3/24/2011	5/19/2020	485-505	4863-4843	Bladder pump	Yes	493	BTEX, EDB, metals, anions, alkalinity, FP

Table 3-3
Groundwater Monitoring Wells Sampled in Q2 2020

Location ID	Reference Elevation Interval (ft AMSL)	Well Installation Date[a]	Date Sampled	Screen Interval[b] (ft bgs)	Screen Interval[b] (ft AMSL)	Sampling System	Screen Submerged[c] (Yes/No)?	Estimated Pump Intake Depth[d,e,f] (ft bgs)	Analytical Suite[g]
KAFB-106067	4857	5/11/2011	4/21/2020	485-505	4862-4842	Dedicated pump	Yes	495	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106070	4857	5/23/2011	4/16/2020	460-480	4859-4839	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106075	4857	4/17/2011	4/20/2020	480-500	4860-4840	Dedicated pump	Yes	490	EDB, metals, anions, alkalinity, FP
KAFB-106076	4857	4/8/2011	4/28/2020	480-500	4865-4845	Portable pump	Yes	482	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106079	4857	3/22/2011	4/10/2020	484-504	4863-4843	Passive sampler	Yes	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106082	4857	4/5/2011	4/28/2020	472-492	4863-4843	Portable pump	Yes	474	EDB, metals, anions, alkalinity, FP
KAFB-106085	4857	7/8/2011	4/6/2020	447-477	4871-4841	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106088	4857	6/3/2011	4/9/2020	460-480	4864-4844	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106091	4857	6/4/2011	4/8/2020	454-474	4860-4840	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106094	4857	6/26/2011	4/21/2020	484-504	4861-4841	Dedicated pump	Yes	494	EDB, metals, anions, alkalinity, FP
KAFB-106106	4857	8/10/2011	4/8/2020	454-484	4868-4838	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106149-484	4857	9/16/2011	4/16/2020	354-484	4992-4862	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106151-484	4857	9/30/2011	4/16/2020	355-484	4990-4861	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106152-484	4857	10/7/2011	4/16/2020	355-484	4992-4863	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106153-484	4857	10/27/2011	4/16/2020	355-484	4994-4865	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106201	4857	9/24/2012	4/7/2020	487-517	4867-4837	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106204	4857	8/22/2012	4/7/2020	463-493	4870-4840	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106207	4857	8/22/2012	4/10/2020	473-503	4871-4841	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106213	4857	2/10/2015	4/8/2020	448-478	4877-4847	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106216	4857	2/17/2015	4/7/2020	456-486	4878-4848	Passive sampler	No	--	EDB, metals, anions, alkalinity
KAFB-106219	4857	3/20/2015	4/7/2020	463-493	4878-4848	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106222	4857	1/15/2015	4/7/2020	458-488	4875-4845	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106225	4857	1/19/2015	4/6/2020	450-480	4876-4846	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106229	4857	8/20/2015	4/7/2020	431-531	4883-4783	Passive sampler	No	--	EDB
KAFB-106231	4857	9/15/2015	4/6/2020	440-475	4888-4853	Passive sampler	No	--	EDB, metals, anions, alkalinity
KAFB-106235-438	4857	10/31/2016	4/6/2020	438-463	4878-4853	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106236-436	4857	11/23/2016	4/6/2020	436-461	4880-4855	Passive sampler	No	--	EDB, metals, anions, alkalinity
KAFB-106240-449	4857	6/14/2018	4/9/2020	449-489	4899-4859	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106241-428	4857	8/16/2018	4/9/2020	428-468	4896-4856	Passive sampler	No	--	EDB, metals, anions, alkalinity
KAFB-106242-418	4857	8/23/2018	4/6/2020	418-458	4898-4858	Passive sampler	No	--	EDB, metals, anions, alkalinity
KAFB-106243-425	4857	7/27/2018	4/9/2020	425-465	4896-4856	Passive sampler	No	--	EDB, metals, anions, alkalinity
KAFB-106244-445	4857	7/12/2018	4/9/2020	445-485	4898-4858	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106245-460	4857	9/7/2018	4/9/2020	461-501	4897-4857	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106247-450	4857	3/1/2019	4/9/2020	450-490	4898-4858	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S1-447	4857	2/18/2019	4/9/2020	447-487	4898-4858	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S2-451	4857	11/21/2018	4/9/2020	451-491	4898-4858	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S3-449	4857	11/29/2018	4/10/2020	449-489	4899-4859	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S4-446	4857	11/16/2018	4/9/2020	446-486	4897-4857	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S5-446	4857	11/5/2018	4/16/2020	446-486	4898-4858	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S7-451	4857	2/4/2019	4/16/2020	451-491	4898-4858	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity

Table 3-3
Groundwater Monitoring Wells Sampled in Q2 2020

Location ID	Reference Elevation Interval (ft AMSL)	Well Installation Date[a]	Date Sampled	Screen Interval[b] (ft bgs)	Screen Interval[b] (ft AMSL)	Sampling System	Screen Submerged[c] (Yes/No)?	Estimated Pump Intake Depth[d,e,f] (ft bgs)	Analytical Suite[g]
KAFB-106S8-451	4857	3/1/2019	4/10/2020	451-491	4897-4857	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-106S9-447	4857	11/8/2019	4/16/2020	447-487	4899-4859	Passive sampler	No	--	BTEX, EDB, metals, anions, alkalinity
KAFB-3411	4857	11/10/1999	4/24/2020	477-502	4863-4838	Portable pump	Yes	479	EDB, metals, anions, alkalinity, FP
Reference Elevation Interval 4838 (ft AMSL) Groundwater Monitoring Wells									
KAFB-106030	4838	5/25/2011	4/6/2020	470-485	4842-4827	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106033	4838	6/18/2011	4/8/2020	477-492	4841-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106036	4838	8/5/2011	4/8/2020	482-497	4840-4825	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106037	4838	7/14/2011	4/8/2020	507-522	4815-4800	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106039	4838	7/26/2011	4/22/2020	508-523	4840-4825	Portable pump	Yes	510	EDB, metals, anions, alkalinity, FP
KAFB-106044	4838	1/7/2011	4/20/2020	504-519	4841-4826	Dedicated pump	Yes	512	EDB, metals, anions, alkalinity, FP
KAFB-106047	4838	4/8/2011	4/17/2020	512-527	4841-4826	Dedicated pump	Yes	520	EDB, metals, anions, alkalinity, FP
KAFB-106050	4838	5/2/2011	4/9/2020	474-489	4841-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106053	4838	7/11/2011	4/8/2020	478-493	4840-4825	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106057	4838	6/19/2011	4/7/2020	485-500	4841-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106060	4838	4/16/2011	4/20/2020	503-518	4842-4827	Dedicated pump	Yes	511	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106063	4838	4/8/2011	5/19/2020	505-520	4844-4829	Bladder pump	Yes	511	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106065	4838	5/17/2011	4/22/2020	508-523	4841-4826	Dedicated pump	Yes	516	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106069	4838	5/1/2011	4/23/2020	506-521	4841-4826	Portable pump	Yes	508	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106072	4838	5/1/2011	4/16/2020	475-495	4844-4824	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106073	4838	5/5/2011	4/30/2020	500-515	4840-4825	Portable pump	Yes	502	EDB, metals, anions, alkalinity, FP
KAFB-106077	4838	4/8/2011	4/27/2020	504-519	4841-4826	Portable pump	Yes	506	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106080	4838	4/17/2011	4/23/2020	503-518	4843-4828	Dedicated pump	Yes	511	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106083	4838	4/15/2011	4/28/2020	496-511	4840-4825	Portable pump	Yes	498	EDB, metals, anions, alkalinity, FP
KAFB-106086	4838	6/26/2011	4/6/2020	476-491	4842-4827	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106089	4838	5/23/2011	4/9/2020	482-497	4842-4827	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106092	4838	5/24/2011	4/8/2020	474-489	4841-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106095	4838	6/24/2011	4/29/2020	504-519	4841-4826	Portable pump	Yes	506	EDB, metals, anions, alkalinity, FP
KAFB-106097	4838	4/27/2011	5/1/2020	506-521	4842-4827	Portable pump	Yes	508	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106099	4838	5/12/2011	5/5/2020	501-516	4842-4827	Portable pump	Yes	503	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106101	4838	2/21/2011	5/4/2020	496-511	4842-4826	Portable pump	Yes	498	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106103	4838	6/21/2011	4/10/2020	485-500	4843-4828	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106105	4838	8/19/2011	4/8/2020	484-499	4838-4823	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106202	4838	9/23/2012	4/7/2020	517-532	4838-4823	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106205	4838	8/15/2012	4/7/2020	493-508	4841-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106208	4838	8/16/2012	4/10/2020	503-518	4841-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106214	4838	3/13/2015	4/8/2020	478-493	4847-4833	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106217	4838	2/17/2015	4/7/2020	485-500	4849-4834	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106220	4838	3/20/2015	4/7/2020	493-508	4847-4832	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106223	4838	2/17/2015	4/7/2020	488-503	4846-4831	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106226	4838	2/3/2015	4/6/2020	480-495	4847-4832	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106235-472	4838	10/31/2016	4/6/2020	472-492	4844-4824	Passive sampler	Yes	--	EDB, metals, anions, alkalinity

Table 3-3
Groundwater Monitoring Wells Sampled in Q2 2020

Location ID	Reference Elevation Interval (ft AMSL)	Well Installation Date[a]	Date Sampled	Screen Interval[b] (ft bgs)	Screen Interval[b] (ft AMSL)	Sampling System	Screen Submerged[c] (Yes/No)?	Estimated Pump Intake Depth[d,e,f] (ft bgs)	Analytical Suite[g]
KAFB-106236-470	4838	11/23/2016	4/6/2020	470-490	4846-4826	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
Reference Elevation Interval 4814 (ft AMSL) Groundwater Monitoring Wells									
KAFB-106031	4814	5/25/2011	4/6/2020	496-510	4815-4802	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106034	4814	6/24/2011	4/8/2020	502-517	4817-4802	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106040	4814	7/19/2011	4/23/2020	531-546	4817-4802	Portable pump	Yes	533	EDB, metals, anions, alkalinity, FP
KAFB-106043	4814	5/18/2011	4/9/2020	543-558	4781-4767	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106045	4814	1/17/2011	4/24/2020	528-543	4817-4802	Portable pump	Yes	530	EDB, metals, anions, alkalinity, FP
KAFB-106048	4814	4/8/2011	4/29/2020	536-551	4817-4802	Portable pump	Yes	538	EDB, metals, anions, alkalinity, FP
KAFB-106051	4814	4/26/2011	4/9/2020	501-516	4815-4800	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106054	4814	6/28/2011	4/8/2020	504-519	4814-4799	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106058	4814	6/14/2011	4/9/2020	512-527	4814-4799	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106061	4814	4/8/2011	4/27/2020	573-588	4772-4757	Portable pump	Yes	575	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106062	4814	3/19/2011	4/21/2020	575-590	4773-4758	Dedicated pump	Yes	583	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106066	4814	5/16/2011	4/22/2020	576-591	4773-4758	Dedicated pump	Yes	584	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106068	4814	5/2/2011	4/20/2020	580-595	4767-4752	Dedicated pump	Yes	588	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106071	4814	5/13/2011	4/16/2020	548-563	4773-4758	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106074	4814	4/28/2011	4/30/2020	570-585	4771-4756	Portable pump	Yes	572	EDB, metals, anions, alkalinity, FP
KAFB-106078	4814	4/8/2011	4/21/2020	574-589	4771-4756	Dedicated pump	Yes	582	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106081	4814	4/16/2011	4/29/2020	575-589	4772-4757	Portable pump	Yes	577	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106084	4814	4/5/2011	4/28/2020	566-581	4768-4753	Portable pump	Yes	568	EDB, metals, anions, alkalinity, FP
KAFB-106087	4814	6/19/2011	4/6/2020	546-561	4771-4756	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106090	4814	5/23/2011	4/9/2020	555-570	4768-4753	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106093	4814	5/24/2011	4/8/2020	544-559	4771-4756	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106096	4814	6/7/2011	5/8/2020	576-591	4769-4754	Portable pump	Yes	578	EDB, metals, anions, alkalinity, FP
KAFB-106098	4814	4/17/2011	5/1/2020	531-546	4817-4802	Portable pump	Yes	533	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106100	4814	5/3/2011	5/5/2020	526-541	4817-4802	Portable pump	Yes	528	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106102	4814	3/3/2011	5/4/2020	521-535	4816-4803	Portable pump	Yes	523	BTEX, EDB, metals, anions, alkalinity, FP
KAFB-106104	4814	6/15/2011	4/16/2020	510-525	4818-4803	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106107	4814	8/30/2011	4/8/2020	510-525	4812-4797	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106203	4814	9/9/2012	4/7/2020	620-635	4734-4719	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106206	4814	7/16/2012	4/7/2020	594-608	4740-4725	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106209	4814	8/7/2012	4/10/2020	603-617	4740-4726	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106212	4814	2/25/2015	4/8/2020	543-558	4779-4764	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106215	4814	4/22/2015	4/8/2020	547-562	4779-4764	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106218	4814	5/26/2015	4/7/2020	552-567	4782-4767	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106221	4814	6/18/2015	4/7/2020	561-576	4779-4764	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106224	4814	5/22/2015	4/7/2020	555-570	4780-4765	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106227	4814	5/19/2015	4/6/2020	548-563	4780-4765	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106230	4814	9/1/2015	4/10/2020	501-516	4824-4809	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106232	4814	9/15/2015	4/6/2020	503-518	4824-4809	Passive sampler	Yes	--	EDB, metals, anions, alkalinity
KAFB-106235-501	4814	10/31/2016	4/6/2020	501-521	4815-4795	Passive sampler	Yes	--	EDB, metals, anions, alkalinity

Table 3-3
Groundwater Monitoring Wells Sampled in Q2 2020

Location ID	Reference Elevation Interval (ft AMSL)	Well Installation Date[a]	Date Sampled	Screen Interval[b] (ft bgs)	Screen Interval[b] (ft AMSL)	Sampling System	Screen Submerged[c] (Yes/No)?	Estimated Pump Intake Depth[d,e,f] (ft bgs)	Analytical Suite[g]
KAFB-106236-499	4814	11/23/2016	4/6/2020	499-519	4817-4797	Passive sampler	Yes	--	EDB, metals, anions, alkalinity

Table 3-3
Groundwater Monitoring Wells Sampled in Q2 2020

[a] Well installation date is the date provided in ERPIMS, except where the date in ERPIMS is the start of drilling, in which case the well installation date is the date provided in the well completion diagram submitted to the NMOSE.

[b] Screen interval is rounded to the nearest foot.

[c] Well screens in REI 4857 wells intersected the water table when they were installed and current screen submergence is the result of water table rise. Well screens in REI 4838 and 4814 wells were designed with the screened interval fully submerged to capture conditions at depths below the water table.

[d] Portable equipment sampling depths are estimated to the nearest foot due to slight inaccuracies with the mechanism measuring the pump setting in the field.

[e] Portable pump setting estimated as 2 ft below top of screen if submerged or 2 ft above bottom of screen if not submerged.

[f] Dedicated pump setting estimated as half-way between top and bottom of screen.

[g] The analytical methods for EDB and VOCs (including BTEX) are 8011 and 8260C, respectively. Metals analyses consisted of select total metals (arsenic, calcium, lead, potassium, magnesium, and sodium by analytical Method 6020A/6010C and select and dissolved metals (iron and manganese) (6010C). Anions analysis consisted of bromide by Method 300.0A, chloride by Method 300.0A, nitrate/nitrite nitrogen by Method 353.2, and sulfate by Method 300.0A. Field parameters include pH, specific conductivity, dissolved oxygen, oxidation reduction potential, temperature, and turbidity.

-- = pump intake depth is not applicable for passive samples
AMSL = above mean sea level
bgs = below ground surface
BTEX = benzene, toluene, ethylbenzene, and total xylene
EDB = ethylene dibromide
ERPIMS = Environmental Resources Program Information Management System
FP = field parameters
ft = foot/feet
ID = identification
NMOSE = New Mexico Office of the State Engineer
Q2 = second quarter
REI = reference elevation interval
VOC = volatile organic compound

Table 3-4
Changes in Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness

Well Location ID	Q2 2019			Q4 2019			Q2 2020			Difference between Q2 2020 and Q4 2019		Difference between Q2 2020 and Q2 2019	
	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	LNAPL Thickness (ft)	Groundwater Elevations (ft)	LNAPL Thickness (ft)	Groundwater Elevations (ft)
Reference Elevation Interval 4857 (ft AMSL) Groundwater Monitoring Wells													
KAFB-106001[b]	4/17/2019	0	4875.47	9/30/2019	0	4875.73	4/16/2020	0	4878.18	-	2.45	-	2.71
KAFB-106002	4/17/2019	0	4875.78	9/30/2019	0	4876.02	4/14/2020	0	4878.12	-	2.10	-	2.34
KAFB-106003	4/17/2019	0	4875.79	9/30/2019	0	4876.14	4/14/2020	0	4878.15	-	2.01	-	2.36
KAFB-106004	4/17/2019	0	4875.77	10/1/2019	0	4876.10	4/14/2020	0	4878.28	-	2.18	-	2.51
KAFB-106005	4/19/2019	0	4875.24	9/30/2019	0	4875.71	4/16/2020	0	4878.28	-	2.57	-	3.04
KAFB-106006	4/18/2019	0	4875.17	10/1/2019	0	4875.59	4/15/2020	0	4877.89	-	2.30	-	2.72
KAFB-106007	4/17/2019	0	4875.40	10/1/2019	0	4875.56	4/15/2020	0	4877.81	-	2.25	-	2.41
KAFB-106008	4/18/2019	0	4875.16	9/30/2019	0	4875.57	4/16/2020	0	4878.13	-	2.56	-	2.97
KAFB-106009	4/18/2019	0	4875.22	9/30/2019	0	4875.64	4/16/2020	0	4878.25	-	2.61	-	3.03
KAFB-106010	4/18/2019	0	4875.01	10/1/2019	0	4875.41	4/15/2020	0	4877.89	-	2.48	-	2.88
KAFB-106011	4/17/2019	0	4875.41	9/30/2019	0	4875.51	4/15/2020	0	4877.85	-	2.34	-	2.44
KAFB-106012R	4/17/2019	0	4875.41	9/30/2019	0	4875.57	4/15/2020	0	4877.89	-	2.32	-	2.48
KAFB-106013	4/17/2019	0	4875.41	10/1/2019	0	4875.66	4/15/2020	0	4877.97	-	2.31	-	2.56
KAFB-106014	4/18/2019	0.10	4875.24	9/30/2019	0	4875.60	4/15/2020	0	4877.97	-	2.37	-0.10	2.73
KAFB-106015[b]	4/18/2019	0	4875.12	9/30/2019	0	4874.96	4/15/2020	0	4877.93	-	2.97	-	2.81
KAFB-106016	4/17/2019	0	4875.56	9/30/2019	0	4875.86	4/15/2020	0	4877.99	-	2.13	-	2.43
KAFB-106017[b]	4/17/2019	0	4874.98	9/30/2019	0	4874.99	4/14/2020	0	4877.56	-	2.57	-	2.58
KAFB-106018[b]	4/18/2019	0	4874.82	9/30/2019	0	4875.32	4/14/2020	0	4877.74	-	2.42	-	2.92
KAFB-106019[b]	4/17/2019	0	4875.07	9/30/2019	0	4875.12	4/14/2020	0	4877.56	-	2.44	-	2.49
KAFB-106020	4/18/2019	0	4875.19	10/1/2019	0	4875.75	4/15/2020	0	4878.17	-	2.42	-	2.98
KAFB-106021[b]	4/18/2019	0	4874.99	10/2/2019	0	4875.24	4/14/2020	0	4878.02	-	2.78	-	3.03
KAFB-106022[b,c]	4/18/2019	0	4874.59	9/30/2019	0	4874.80	4/15/2020	0	4877.91	-	3.11	-	3.32
KAFB-106023	4/18/2019	0	4874.96	9/30/2019	0	4875.05	4/15/2020	0	4877.91	-	2.86	-	2.95
KAFB-106024	4/17/2019	0	4875.49	10/1/2019	0	4875.68	4/14/2020	0	4877.77	-	2.09	-	2.28
KAFB-106025[b]	4/18/2019	0	4875.09	9/30/2019	0	4875.44	4/15/2020	0	4878.42	-	2.98	-	3.33
KAFB-106026	NA	NA	NA	NA	NA	NA	4/15/2020	0	4878.68	NA	NA	NA	NA
KAFB-106027	4/17/2019	0	4875.52	9/30/2019	0	4875.75	4/15/2020	0	4877.79	-	2.04	-	2.27
KAFB-106028	4/18/2019	0	4875.00	10/1/2019	0	4875.43	4/15/2020	0	4877.80	-	2.37	-	2.80
KAFB-106029	4/18/2019	0	4875.32	10/2/2019	0	4875.66	4/14/2020	0	4878.52	-	2.86	-	3.20
KAFB-106032	4/18/2019	0	4875.43	10/1/2019	0	4876.02	4/15/2020	0	4878.54	-	2.52	-	3.11
KAFB-106035[c]	4/18/2019	0	4874.28	9/30/2019	0	4874.40	4/14/2020	0	4877.38	-	2.98	-	3.10
KAFB-106038	4/17/2019	0	4875.16	9/30/2019	0	4875.11	4/14/2020	0	4877.68	-	2.57	-	2.52
KAFB-106041	4/17/2019	0	4875.72	10/1/2019	0	4875.55	4/15/2020	0	4878.50	-	2.95	-	2.78
KAFB-106042	4/17/2019	0	4875.68	10/1/2019	0	4875.52	4/15/2020	0	4878.47	-	2.95	-	2.79
KAFB-106046	4/17/2019	0	4875.37	9/30/2019	0	4875.43	4/14/2020	0	4877.65	-	2.22	-	2.28
KAFB-106049	4/17/2019	0	4875.79	10/1/2019	0	4875.87	4/15/2020	0	4878.74	-	2.87	-	2.95
KAFB-106052	4/17/2019	0	4875.52	10/1/2019	0	4875.54	4/15/2020	0	4878.45	-	2.91	-	2.93
KAFB-106055	4/18/2019	0	4875.05	9/30/2019	0	4875.21	4/15/2020	0	4878.22	-	3.01	-	3.17
KAFB-106059	4/18/2019	0.21	4875.26	10/1/2019	0	4875.69	4/15/2020	0.15	4877.93	0.15	2.23	-0.06	2.67
KAFB-106064[d]	NA	NA	NA	NA	NA	NA	5/19/2020	0	4877.17	NA	NA	NA	NA
KAFB-106067	4/17/2019	0	4875.08	9/30/2019	0	4875.19	4/14/2020	0	4877.49	-	2.30	-	2.41
KAFB-106070	4/18/2019	0	4874.59	9/30/2019	0	4874.94	4/16/2020	0	4877.99	-	3.05	-	3.40
KAFB-106075	4/18/2019	0	4875.06	10/1/2019	0	4875.59	4/15/2020	0	4878.03	-	2.44	-	2.97

Table 3-4
Changes in Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness

Well Location ID	Q2 2019			Q4 2019			Q2 2020			Difference between Q2 2020 and Q4 2019		Difference between Q2 2020 and Q2 2019	
	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	LNAPL Thickness (ft)	Groundwater Elevations (ft)	LNAPL Thickness (ft)	Groundwater Elevations (ft)
KAFB-106076	4/18/2019	0.01	4875.03	9/30/2019	0.01	4875.41	4/15/2020	0.01	4877.67	0.00	2.26	0.00	2.64
KAFB-106079	4/18/2019	0.14	4875.07	10/1/2019	0	4875.39	4/15/2020	0	4877.76	-	2.37	-0.14	2.69
KAFB-106082	4/18/2019	0	4874.67	9/30/2019	0	4875.12	4/14/2020	0	4877.57	-	2.45	-	2.90
KAFB-106085	4/18/2019	0	4874.89	9/30/2019	0	4875.28	4/14/2020	0	4877.93	-	2.65	-	3.04
KAFB-106088	4/18/2019	0	4874.68	9/30/2019	0	4874.90	4/14/2020	0	4877.62	-	2.72	-	2.94
KAFB-106091[e]	4/18/2019	0	4874.06	9/30/2019	0	4874.38	4/15/2020	0	4878.22	-	3.84	-	4.16
KAFB-106094	4/17/2019	0	4875.40	9/30/2019	0	4875.57	4/14/2020	0	4877.83	-	2.26	-	2.43
KAFB-106106	4/17/2019	0	4875.43	10/1/2019	0	4875.34	4/15/2020	0	4878.28	-	2.94	-	2.85
KAFB-106148-484	4/18/2019	0	4875.34	10/1/2019	0	4875.62	4/15/2020	0	4877.94	-	2.32	-	2.60
KAFB-106149-484	4/18/2019	0	4875.05	10/1/2019	0	4875.34	4/16/2020	0	4877.72	-	2.38	-	2.67
KAFB-106150-484	4/18/2019	0	4874.92	10/1/2019	0.04	4875.24	4/15/2020	0.38	4877.51	0.34	2.27	0.38	2.59
KAFB-106151-484	4/19/2019	0	4874.76	10/1/2019	0	4875.02	4/16/2020	0	4877.48	-	2.46	-	2.72
KAFB-106152-484	4/19/2019	0	4875.19	10/1/2019	0	4875.42	4/16/2020	0	4877.89	-	2.47	-	2.70
KAFB-106153-484	4/19/2019	0	4875.13	10/1/2019	0	4875.31	4/16/2020	0	4877.77	-	2.46	-	2.64
KAFB-106154-484	4/18/2019	0	4875.28	10/1/2019	0.16	4875.50	4/15/2020	0	4877.91	-0.16	2.41	-	2.63
KAFB-106155-484	4/18/2019	0	4874.69	10/1/2019	0	4874.91	4/15/2020	0	4877.25	-	2.34	-	2.56
KAFB-106156-484	4/18/2019	0	4875.31	10/1/2019	0	4875.63	4/15/2020	0	4877.88	-	2.25	-	2.57
KAFB-106201[f]	4/17/2019	0	4874.90	9/30/2019	0	4874.67	4/16/2020	0	4877.45	-	2.78	-	2.55
KAFB-106204	4/17/2019	0	4876.14	9/30/2019	0	4875.74	4/14/2020	0	4878.76	-	3.02	-	2.62
KAFB-106207	4/19/2019	0	4876.26	9/30/2019	0	4875.97	4/15/2020	0	4879.35	-	3.38	-	3.09
KAFB-106211[g]	4/17/2019	NA	NA	10/1/2019	NA	NA	4/14/2020	0	4877.89	NA	NA	NA	NA
KAFB-106213	4/18/2019	0	4874.59	9/30/2019	0	4874.63	4/14/2020	0	4877.55	-	2.92	-	2.96
KAFB-106216	4/18/2019	0	4874.13	9/30/2019	0	4875.00	4/14/2020	0	4877.91	-	2.91	-	3.78
KAFB-106219	4/17/2019	0	4875.79	10/2/2019	0	4875.11	4/14/2020	0	4878.34	-	3.23	-	2.55
KAFB-106222	4/17/2019	0	4875.72	9/30/2019	0	4875.30	4/15/2020	0	4878.37	-	3.07	-	2.65
KAFB-106225	4/17/2019	0	4875.33	9/30/2019	0	4875.03	4/15/2020	0	4878.12	-	3.09	-	2.79
KAFB-106229[b,e]	4/18/2019	0	4873.87	9/30/2019	0	4874.14	4/15/2020	0	4878.29	-	4.15	-	4.42
KAFB-106231	4/18/2019	0	4875.90	10/2/2019	0	4875.76	4/14/2020	0	4878.90	-	3.14	-	3.00
KAFB-106235-438	4/17/2019	0	4875.38	9/30/2019	0	4875.34	4/15/2020	0	4878.38	-	3.04	-	3.00
KAFB-106236-436	4/17/2019	0	4876.06	9/30/2019	0	4875.93	4/15/2020	0	4878.93	-	3.00	-	2.87
KAFB-106240-449	4/18/2019	0	4875.19	10/1/2019	0	4875.58	4/15/2020	0	4878.08	-	2.50	-	2.89
KAFB-106241-428	4/18/2019	0	4874.52	9/30/2019	0	4874.56	4/15/2020	0	4877.64	-	3.08	-	3.12
KAFB-106242-418	4/18/2019	0	4874.99	10/2/2019	0	4875.19	4/14/2020	0	4877.95	-	2.76	-	2.96
KAFB-106243-425	4/18/2019	0	4874.69	10/1/2019	0	4874.94	4/14/2020	0	4877.73	-	2.79	-	3.04
KAFB-106244-445	4/17/2019	0	4875.66	10/1/2019	0	4875.86	4/14/2020	0	4878.21	-	2.35	-	2.55
KAFB-106245-460	4/17/2019	0	4875.11	9/30/2019	0	4875.07	4/14/2020	0	4877.54	-	2.47	-	2.43
KAFB-106247-450	4/17/2019	0	4875.35	10/2/2019	0	4875.34	4/14/2020	0	4877.57	-	2.23	NA	2.22
KAFB-106S1-447	4/18/2019	0	4875.32	10/1/2019	0	4875.66	4/15/2020	0	4877.91	-	2.25	NA	2.59
KAFB-106S2-451	4/18/2019	0	4875.18	10/1/2019	0	4875.54	4/15/2020	0	4877.89	-	2.35	NA	2.71
KAFB-106S3-449	4/18/2019	0	4874.71	10/1/2019	0	4875.01	4/15/2020	0	4877.42	-	2.41	NA	2.71
KAFB-106S4-446	4/18/2019	0	4875.23	10/1/2019	0	4875.69	4/15/2020	0	4878.06	-	2.37	NA	2.83
KAFB-106S5-446	4/18/2019	0	4875.20	10/1/2019	0	4875.48	4/16/2020	0	4878.20	-	2.72	NA	3.00
KAFB-106S7-451	4/18/2019	0	4875.03	10/1/2019	0	4875.35	4/16/2020	0	4878.01	-	2.66	NA	2.98
KAFB-106S8-451	4/18/2019	0	4875.23	10/1/2019	0	4875.57	4/15/2020	0	4877.84	-	2.27	NA	2.61
KAFB-106S9-447	4/18/2019	0	4874.91	10/1/2019	0	4875.25	4/16/2020	0	4877.74	-	2.49	NA	2.83
KAFB-3411	4/17/2019	0	4875.50	9/30/2019	0	4875.74	4/15/2020	0	4877.95	-	2.21	-	2.45

Table 3-4
Changes in Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness

Well Location ID	Q2 2019			Q4 2019			Q2 2020			Difference between Q2 2020 and Q4 2019		Difference between Q2 2020 and Q2 2019	
	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	LNAPL Thickness (ft)	Groundwater Elevations (ft)	LNAPL Thickness (ft)	Groundwater Elevations (ft)
Reference Elevation Interval 4838 (ft AMSL) Groundwater Monitoring Wells													
KAFB-106030	4/18/2019	0	4875.33	10/2/2019	0	4875.63	4/14/2020	0	4878.49	-	2.86	-	3.16
KAFB-106033	4/18/2019	0	4875.45	10/1/2019	0	4876.04	4/15/2020	0	4878.54	-	2.50	-	3.09
KAFB-106036[c]	4/18/2019	0	4874.10	9/30/2019	0	4874.22	4/14/2020	0	4877.17	-	2.95	-	3.07
KAFB-106037[c]	4/18/2019	0	4873.71	9/30/2019	0	4873.84	4/14/2020	0	4876.79	-	2.95	-	3.08
KAFB-106039	4/17/2019	0	4875.09	9/30/2019	0	4875.03	4/14/2020	0	4877.58	-	2.55	-	2.49
KAFB-106044	4/17/2019	0	4875.54	9/30/2019	0	4875.78	4/15/2020	0	4877.82	-	2.04	-	2.28
KAFB-106047	4/17/2019	0	4875.25	9/30/2019	0	4875.30	4/14/2020	0	4877.55	-	2.25	-	2.30
KAFB-106050	4/17/2019	0	4875.82	10/1/2019	0	4875.90	4/15/2020	0	4878.76	-	2.86	-	2.94
KAFB-106053	4/17/2019	0	4875.41	10/1/2019	0	4875.42	4/15/2020	0	4878.34	-	2.92	-	2.93
KAFB-106057	4/18/2019	0	4875.08	9/30/2019	0	4875.20	4/15/2020	0	4878.24	-	3.04	-	3.16
KAFB-106060	4/17/2019	0	4875.36	9/30/2019	0	4875.50	4/15/2020	0	4877.79	-	2.29	-	2.43
KAFB-106063[d]	NA	NA	NA	NA	NA	NA	5/19/2020	0	4877.95	NA	NA	NA	NA
KAFB-106065	4/17/2019	0	4875.28	10/1/2019	0	4875.42	4/15/2020	0	4877.73	-	2.31	-	2.45
KAFB-106069	4/17/2019	0	4875.20	9/30/2019	0	4875.33	4/14/2020	0	4877.64	-	2.31	-	2.44
KAFB-106072	4/18/2019	0	4874.83	9/30/2019	0	4875.17	4/16/2020	0	4878.25	-	3.08	-	3.42
KAFB-106073	4/18/2019	0	4875.15	10/1/2019	0	4875.65	4/15/2020	0	4878.11	-	2.46	-	2.96
KAFB-106077	4/17/2019	0	4873.93	9/30/2019	0	4874.12	4/15/2020	0	4876.37	-	2.25	-	2.44
KAFB-106080	4/17/2019	0	4875.53	9/30/2019	0	4875.58	4/15/2020	0	4878.03	-	2.45	-	2.50
KAFB-106083	4/18/2019	0	4874.77	10/1/2010	0	4875.21	4/14/2020	0	4877.70	-	2.49	-	2.93
KAFB-106086	4/18/2019	0	4874.92	9/30/2019	0	4875.31	4/14/2020	0	4877.99	-	2.68	-	3.07
KAFB-106089	4/18/2019	0	4874.25	9/30/2019	0	4874.49	4/14/2020	0	4877.21	-	2.72	-	2.96
KAFB-106092[e]	4/18/2019	0	4873.88	9/30/2019	0	4874.18	4/15/2020	0	4878.26	-	4.08	-	4.38
KAFB-106095	4/17/2019	0	4875.41	9/30/2019	0	4875.59	4/14/2020	0	4877.87	-	2.28	-	2.46
KAFB-106097	4/17/2019	0	4875.61	10/1/2019	0	4875.82	4/15/2020	0	4878.15	-	2.33	-	2.54
KAFB-106099	4/17/2019	0	4875.83	10/1/2019	0	4876.17	4/14/2020	0	4878.35	-	2.18	-	2.52
KAFB-106101	4/17/2019	0	4875.69	9/30/2019	0	4876.01	4/14/2020	0	4878.05	-	2.04	-	2.36
KAFB-106103	4/18/2019	0	4874.40	9/30/2019	0	4874.48	4/15/2020	0	4877.34	-	2.86	-	2.94
KAFB-106105	4/17/2019	0	4875.47	10/1/2019	0	4875.37	4/15/2020	0	4878.31	-	2.94	-	2.84
KAFB-106202[f]	4/17/2019	0	4874.66	9/30/2019	0	4874.92	4/16/2020	0	4877.22	-	2.30	-	2.56
KAFB-106205	4/17/2019	0	4876.18	9/30/2019	0	4875.80	4/14/2020	0	4878.82	-	3.02	-	2.64
KAFB-106208	4/17/2018	0	4876.01	9/30/2019	0	4875.93	4/15/2020	0	4879.29	-	3.36	-	3.28
KAFB-106214	4/18/2019	0	4874.71	9/30/2019	0	4874.77	4/14/2020	0	4877.69	-	2.92	-	2.98
KAFB-106217	4/18/2019	0	4875.14	9/30/2019	0	4875.04	4/14/2020	0	4877.95	-	2.91	-	2.81
KAFB-106220	4/17/2019	0	4875.81	10/2/2019	0	4875.10	4/14/2020	0	4878.34	-	3.24	-	2.53
KAFB-106223	4/17/2019	0	4875.76	9/30/2019	0	4875.34	4/15/2020	0	4878.50	-	3.16	-	2.74
KAFB-106226	4/17/2019	0	4875.69	9/30/2019	0	4875.35	4/15/2020	0	4878.46	-	3.11	-	2.77

Table 3-4
Changes in Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness

Well Location ID	Q2 2019			Q4 2019			Q2 2020			Difference between Q2 2020 and Q4 2019		Difference between Q2 2020 and Q2 2019	
	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	LNAPL Thickness (ft)	Groundwater Elevations (ft)	LNAPL Thickness (ft)	Groundwater Elevations (ft)
KAFB-106235-472	4/17/2019	0	4875.43	9/30/2019	0	4875.36	4/15/2020	0	4878.39	-	3.03	-	2.96
KAFB-106236-470	4/17/2019	0	4876.08	9/30/2019	0	4875.96	4/15/2020	0	4878.95	-	2.99	-	2.87
Reference Elevation Interval 4814 (ft AMSL) Groundwater Monitoring Wells													
KAFB-106031	4/18/2019	0	4875.33	10/2/2019	0	4875.62	4/14/2020	0	4878.50	-	2.88	-	3.17
KAFB-106034	4/18/2019	0	4875.45	10/1/2019	0	4876.06	4/15/2020	0	4878.57	-	2.51	-	3.12
KAFB-106040	4/17/2019	0	4875.11	9/30/2019	0	4875.06	4/14/2020	0	4877.62	-	2.56	-	2.51
KAFB-106043	4/17/2019	0	4875.68	10/1/2019	0	4875.52	4/15/2020	0	4878.45	-	2.93	-	2.77
KAFB-106045	4/17/2019	0	4875.57	9/30/2019	0	4875.80	4/15/2020	0	4877.82	-	2.02	-	2.25
KAFB-106048	4/17/2019	0	4875.33	9/30/2019	0	4875.35	4/14/2020	0	4877.59	-	2.24	-	2.26
KAFB-106051	4/17/2019	0	4875.78	10/1/2019	0	4875.86	4/15/2020	0	4878.72	-	2.86	-	2.94
KAFB-106054	4/17/2019	0	4875.55	10/1/2019	0	4875.55	4/15/2020	0	4878.47	-	2.92	-	2.92
KAFB-106058	4/18/2019	0	4875.12	9/30/2019	0	4875.26	4/15/2020	0	4878.26	-	3.00	-	3.14
KAFB-106061	4/17/2019	0	4875.51	9/30/2019	0	4875.65	4/15/2020	0	4877.95	-	2.30	-	2.44
KAFB-106062	4/18/2019	0	4875.12	10/1/2019	0	4875.53	4/14/2020	0	4877.74	-	2.21	-	2.62
KAFB-106066	4/17/2019	0	4875.38	10/1/2019	0	4875.53	4/15/2020	0	4877.86	-	2.33	-	2.48
KAFB-106068	4/17/2019	0	4874.98	9/30/2019	0	4875.11	4/14/2020	0	4877.44	-	2.33	-	2.46
KAFB-106071	4/18/2019	0	4874.74	9/30/2019	0	4875.08	4/16/2020	0	4878.08	-	3.00	-	3.34
KAFB-106074	4/18/2019	0	4875.13	10/1/2019	0	4875.62	4/15/2020	0	4878.09	-	2.47	-	2.96
KAFB-106078	4/17/2019	0	4874.68	9/30/2019	0	4874.84	4/15/2020	0	4877.11	-	2.27	-	2.43
KAFB-106081	4/17/2019	0	4875.35	9/30/2019	0	4875.43	4/15/2020	0	4877.83	-	2.40	-	2.48
KAFB-106084	4/18/2019	0	4874.90	9/30/2019	0	4875.34	4/14/2020	0	4877.80	-	2.46	-	2.90
KAFB-106087	4/18/2019	0	4873.95	9/30/2019	0	4875.34	4/14/2020	0	4878.06	-	2.72	-	4.11
KAFB-106090	4/18/2019	0	4874.73	9/30/2019	0	4874.96	4/14/2020	0	4877.68	-	2.72	-	2.95
KAFB-106093[e]	4/18/2019	0	4874.60	9/30/2019	0	4874.92	4/15/2020	0	4878.29	-	3.37	-	3.69
KAFB-106096	4/17/2019	0	4875.44	9/30/2019	0	4875.64	4/14/2020	0	4877.87	-	2.23	-	2.43
KAFB-106098	4/17/2019	0	4875.60	10/1/2019	0	4875.82	4/15/2020	0	4878.16	-	2.34	-	2.56
KAFB-106100	4/17/2019	0	4875.82	10/1/2019	0	4876.16	4/14/2020	0	4878.33	-	2.17	-	2.51
KAFB-106102	4/17/2019	0	4875.56	9/30/2019	0	4875.90	4/14/2020	0	4877.91	-	2.01	-	2.35
KAFB-106104	4/18/2019	0	4874.51	9/30/2019	0	4874.69	4/16/2020	0	4877.74	-	3.05	-	3.23
KAFB-106107	4/17/2019	0	4875.49	10/1/2019	0	4875.41	4/15/2020	0	4878.36	-	2.95	-	2.87
KAFB-106203[f]	4/17/2019	0	4873.99	9/30/2019	0	4874.83	4/16/2020	0	4876.51	-	1.68	-	2.52
KAFB-106206	4/17/2019	0	4876.20	9/30/2019	0	4875.82	4/14/2020	0	4878.85	-	3.03	-	2.65
KAFB-106209	4/17/2018	0	4876.36	9/30/2019	0	4876.10	4/15/2020	0	4879.48	-	3.38	-	3.12
KAFB-106212[c]	4/18/2019	0	4873.86	9/30/2019	0	4873.99	4/14/2020	0	4876.94	-	2.95	-	3.08
KAFB-106215	4/18/2019	0	4874.82	9/30/2019	0	4874.88	4/14/2020	0	4877.78	-	2.90	-	2.96
KAFB-106218	4/18/2019	0	4874.81	9/30/2019	0	4874.70	4/14/2020	0	4877.59	-	2.89	-	2.78
KAFB-106221	4/17/2019	0	4875.78	10/2/2019	0	4875.09	4/14/2020	0	4878.30	-	3.21	-	2.52

Table 3-4
Changes in Groundwater Elevation and Light Non-Aqueous Phase Liquid Thickness

Well Location ID	Q2 2019			Q4 2019			Q2 2020			Difference between Q2 2020 and Q4 2019		Difference between Q2 2020 and Q2 2019	
	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	Date of Measurement	Measured LNAPL Thickness (ft)	Groundwater Elevation Corrected for LNAPL Thickness (ft AMSL)[a]	LNAPL Thickness (ft)	Groundwater Elevations (ft)	LNAPL Thickness (ft)	Groundwater Elevations (ft)
KAFB-106224	4/17/2019	0	4875.71	9/30/2019	0	4875.32	4/15/2020	0	4878.47	-	3.15	-	2.76
KAFB-106227	4/17/2019	0	4875.63	9/30/2019	0	4875.38	4/15/2020	0	4878.47	-	3.09	-	2.84
KAFB-106230	NA	NA	NA	NA	NA	NA	4/15/2020	0	4878.43	NA	NA	NA	NA
KAFB-106232	4/18/2019	0	4875.98	10/2/2019	0	4875.87	4/14/2020	0	4878.98	-	3.11	-	3.00
KAFB-106235-501	4/17/2019	0	4875.38	9/30/2019	0	4875.32	4/15/2020	0	4878.35	-	3.03	-	2.97
KAFB-106236-499	4/17/2019	0	4876.04	9/30/2019	0	4875.92	4/15/2020	0	4878.91	-	2.99	-	2.87

[a] Groundwater elevation corrected for LNAPL thickness was calculated using the following formula: MRP Elevation - Depth to LNAPL/water interface + (LNAPL Thickness * Specific Gravity of Weathered JP4/JP8 Fuel). A specific gravity of 0.7592 is used, based on the December 13, 2018 site-specific fuel testing report from PTS Laboratories using LNAPL collected from wells KAFB-106014, KAFB-106059, and KAFB-106079.

[b] Well used in analyses for both REI 4857 and 4838.

[c] Well within immediate proximity of groundwater extraction well KAFB-106228, which was pumping during gauging in Q2 2019, Q4 2019, and Q2 2020.

[d] Well was not gauged in April due to presence of monitoring equipment. Gauging occurred prior to sampling in May and is presented here for information purposes only. Data was not used in the creation of potentiometric surface maps or for groundwater modeling.

[e] Well within immediate proximity of groundwater extraction well KAFB-106233, which was pumping during gauging in Q2 2019, Q4 2019, and was off during gauging in Q2 2020.

[f] Well within immediate proximity of drinking water supply well KAFB-003, which was in operation during Q2 2019, Q4 2019, and Q2 2020. While in operation, the pump typically runs from 0700 to 1300 and 2000 to 0100.

[g] KAFB-106211 was dry until Q1 2020.

- = LNAPL not detected in either quarter
AMSL = above mean sea level
ft = foot/feet
ID = identification
JP = jet propellant
LNAPL = light non-aqueous phase liquid
MRP = measurement reference point
NA = not applicable
Q2 = second quarter
Q4 = fourth quarter
REI = reference elevation interval

Table 3-5
Water Quality Field Measurements for Groundwater Monitoring Well Samples, Q2 2020

Well Location ID	Sample Date	Temperature (°C)	pH (S.U.)	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
KAFB-106001	4/16/2020	—	—	—	—	—	—
KAFB-106002	4/17/2020	18.5	7.51	410.6	6.31	303.1	0.31
KAFB-106003	4/30/2020	21.3	7.77	514.8	5.49	181.6	1.51
KAFB-106004	5/5/2020	20.9	7.65	393.2	7.45	166.3	0.39
KAFB-106005	4/16/2020	—	—	—	—	—	—
KAFB-106006	4/24/2020	18.4	7.69	527.8	1.60	-74.6	2.79
KAFB-106007	4/24/2020	21.2	7.88	389.5	4.57	242.2	1.66
KAFB-106008	4/16/2020	—	—	—	—	—	—
KAFB-106009	4/16/2020	—	—	—	—	—	—
KAFB-106010	4/24/2020	20.7	7.13	577	0.80	-196.6	1.11
KAFB-106011	4/17/2020	18.3	7.62	1,050	0.71	291.0	1.12
KAFB-106012R	4/23/2020	23.0	7.40	1,700	6.03	228.7	0.85
KAFB-106013	5/1/2020	21.5	7.79	467.7	1.53	138.1	10.8
KAFB-106014	4/24/2020	19.1	7.19	1,085	1.56	-128.6	4.86
KAFB-106015	4/6/2020	—	—	—	—	—	—
KAFB-106016	4/17/2020	18.9	7.88	346.3	2.86	103.5	3.30
KAFB-106017	4/21/2020	19	7.59	497.4	0.24	-64.8	1.42
KAFB-106018	5/8/2020	19.9	7.57	558	0.59	32.8	3.08
KAFB-106019	4/23/2020	19.8	7.45	1,895	5.27	77.8	36.6
KAFB-106020	4/28/2020	19.3	7.82	583	5.51	271.8	118
KAFB-106021	4/6/2020	—	—	—	—	—	—
KAFB-106022	4/6/2020	—	—	—	—	—	—
KAFB-106023	4/10/2020	—	—	—	—	—	—
KAFB-106024	4/20/2020	20.1	7.57	428.1	0.56	301.7	9.44
KAFB-106025	4/8/2020	—	—	—	—	—	—
KAFB-106026	4/10/2020	—	—	—	—	—	—
KAFB-106027	4/20/2020	18.1	7.84	385.9	3.88	348.4	3.38
KAFB-106028	4/10/2020	—	—	—	—	—	—
KAFB-106029	4/6/2020	—	—	—	—	—	—
KAFB-106030	4/6/2020	—	—	—	—	—	—
KAFB-106031	4/6/2020	—	—	—	—	—	—
KAFB-106032	4/8/2020	—	—	—	—	—	—
KAFB-106033	4/8/2020	—	—	—	—	—	—
KAFB-106034	4/8/2020	—	—	—	—	—	—
KAFB-106035	4/8/2020	—	—	—	—	—	—
KAFB-106036	4/8/2020	—	—	—	—	—	—
KAFB-106037	4/8/2020	—	—	—	—	—	—
KAFB-106038	4/22/2020	19.7	7.68	823	4.07	286.0	2.46
KAFB-106039	4/22/2020	20.9	7.72	689	5.25	244.1	10.7
KAFB-106040	4/23/2020	20.3	7.69	453.9	4.47	345.2	5.12
KAFB-106041	4/9/2020	—	—	—	—	—	—
KAFB-106042	4/9/2020	—	—	—	—	—	—
KAFB-106043	4/9/2020	—	—	—	—	—	—
KAFB-106044	4/20/2020	18.1	7.85	365.1	3.11	331.1	0.52
KAFB-106045	4/24/2020	18.9	7.91	354.0	2.85	348.7	0.47

Table 3-5
Water Quality Field Measurements for Groundwater Monitoring Well Samples, Q2 2020

Well Location ID	Sample Date	Temperature (°C)	pH (S.U.)	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
KAFB-106046	4/22/2020	19.7	7.8	432.7	4.46	202.2	0.50
KAFB-106047	4/17/2020	18.5	7.27	386.8	5.81	324.3	3.40
KAFB-106048	4/29/2020	19.4	7.78	362.2	5.39	166.0	1.88
KAFB-106049	4/9/2020	—	—	—	—	—	—
KAFB-106050	4/9/2020	—	—	—	—	—	—
KAFB-106051	4/9/2020	—	—	—	—	—	—
KAFB-106052	4/8/2020	—	—	—	—	—	—
KAFB-106053	4/8/2020	—	—	—	—	—	—
KAFB-106054	4/8/2020	—	—	—	—	—	—
KAFB-106055	4/7/2020	—	—	—	—	—	—
KAFB-106057	4/7/2020	—	—	—	—	—	—
KAFB-106058	4/9/2020	—	—	—	—	—	—
KAFB-106059	5/6/2020	20.4	6.96	566	0.13	-256.6	7.33
KAFB-106060	4/20/2020	18.6	7.68	792	5.90	295.5	0.42
KAFB-106061	4/27/2020	22.3	7.63	349.3	3.18	138.1	5.99
KAFB-106062	4/21/2020	19.2	7.78	376.0	3.97	141.0	2.57
KAFB-106063[a]	5/19/2020	18.9	6.90	NA	0.13	-168.6	1.98
KAFB-106064[a]	5/19/2020	18.3	6.81	NA	0.05	-193.6	4.84
KAFB-106065	4/22/2020	17.0	7.27	677	0.22	7.7	7.15
KAFB-106066	4/22/2020	17.0	7.84	381.6	4.26	175.6	0.76
KAFB-106067	4/21/2020	18.2	7.33	559.2	0.20	35.9	2.22
KAFB-106068	4/20/2020	18.3	7.57	380.0	4.75	303.4	6.13
KAFB-106069	4/23/2020	20.7	7.59	540.8	2.55	238.6	1.88
KAFB-106070	4/16/2020	—	—	—	—	—	—
KAFB-106071	4/16/2020	—	—	—	—	—	—
KAFB-106072	4/16/2020	—	—	—	—	—	—
KAFB-106073	4/30/2020	20.2	7.67	555	0.84	139.0	1.15
KAFB-106074	4/30/2020	21.8	7.75	450.6	3.44	162.2	1.53
KAFB-106075	4/20/2020	18.3	7.63	629	0.30	158.4	0.62
KAFB-106076	4/28/2020	24.2	7.49	454.2	0.18	-242.7	23.7
KAFB-106077	4/27/2020	21.5	7.78	387.0	3.28	133.2	1.60
KAFB-106078	4/21/2020	19.8	7.82	360.9	1.89	235.6	5.02
KAFB-106079	4/10/2020	—	—	—	—	—	—
KAFB-106080	4/23/2020	18.4	6.99	1,327	0.25	-18.0	1.31
KAFB-106081	4/29/2020	22.0	7.58	350.9	5.08	170.6	1.06
KAFB-106082	4/28/2020	23.6	7.46	582	1.48	127.2	0.39
KAFB-106083	4/28/2020	20.0	7.83	491.4	0.71	97.1	1.52
KAFB-106084	4/28/2020	22.6	7.78	366.0	3.31	150.6	1.25
KAFB-106085	4/6/2020	—	—	—	—	—	—
KAFB-106086	4/6/2020	—	—	—	—	—	—
KAFB-106087	4/6/2020	—	—	—	—	—	—
KAFB-106088	4/9/2020	—	—	—	—	—	—
KAFB-106089	4/9/2020	—	—	—	—	—	—
KAFB-106090	4/9/2020	—	—	—	—	—	—
KAFB-106091	4/8/2020	—	—	—	—	—	—

Table 3-5
Water Quality Field Measurements for Groundwater Monitoring Well Samples, Q2 2020

Well Location ID	Sample Date	Temperature (°C)	pH (S.U.)	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
KAFB-106092	4/8/2020	—	—	—	—	—	—
KAFB-106093	4/8/2020	—	—	—	—	—	—
KAFB-106094	4/21/2020	18.6	7.46	511.4	0.20	59.1	1.48
KAFB-106095	4/29/2020	21.8	7.67	469.9	2.28	148.0	4.39
KAFB-106096	5/8/2020	19.4	7.76	357.5	4.23	134.7	5.11
KAFB-106097	5/1/2020	20.5	7.70	496.2	2.77	134.1	0.96
KAFB-106098	5/1/2020	19.3	7.44	440.1	3.32	165.5	0.73
KAFB-106099	5/5/2020	19.6	7.79	363.8	6.06	164.6	1.23
KAFB-106100	5/5/2020	19.1	7.81	331.4	2.75	162.5	1.18
KAFB-106101	5/4/2020	19.6	7.79	398.9	5.35	158.4	2.91
KAFB-106102	5/4/2020	20.7	7.79	328.3	2.17	160.2	1.28
KAFB-106103	4/10/2020	—	—	—	—	—	—
KAFB-106104	4/16/2020	—	—	—	—	—	—
KAFB-106105	4/8/2020	—	—	—	—	—	—
KAFB-106106	4/8/2020	—	—	—	—	—	—
KAFB-106107	4/8/2020	—	—	—	—	—	—
KAFB-106149-484	4/16/2020	—	—	—	—	—	—
KAFB-106151-484	4/16/2020	—	—	—	—	—	—
KAFB-106152-484	4/16/2020	—	—	—	—	—	—
KAFB-106153-484	4/16/2020	—	—	—	—	—	—
KAFB-106201	4/7/2020	—	—	—	—	—	—
KAFB-106202	4/7/2020	—	—	—	—	—	—
KAFB-106203	4/7/2020	—	—	—	—	—	—
KAFB-106204	4/7/2020	—	—	—	—	—	—
KAFB-106205	4/7/2020	—	—	—	—	—	—
KAFB-106206	4/7/2020	—	—	—	—	—	—
KAFB-106207	4/10/2020	—	—	—	—	—	—
KAFB-106208	4/10/2020	—	—	—	—	—	—
KAFB-106209	4/10/2020	—	—	—	—	—	—
KAFB-106212	4/8/2020	—	—	—	—	—	—
KAFB-106213	4/8/2020	—	—	—	—	—	—
KAFB-106214	4/8/2020	—	—	—	—	—	—
KAFB-106215	4/8/2020	—	—	—	—	—	—
KAFB-106216	4/7/2020	—	—	—	—	—	—
KAFB-106217	4/7/2020	—	—	—	—	—	—
KAFB-106218	4/7/2020	—	—	—	—	—	—
KAFB-106219	4/7/2020	—	—	—	—	—	—
KAFB-106220	4/7/2020	—	—	—	—	—	—
KAFB-106221	4/7/2020	—	—	—	—	—	—
KAFB-106222	4/7/2020	—	—	—	—	—	—
KAFB-106223	4/7/2020	—	—	—	—	—	—
KAFB-106224	4/7/2020	—	—	—	—	—	—
KAFB-106225	4/6/2020	—	—	—	—	—	—
KAFB-106226	4/6/2020	—	—	—	—	—	—
KAFB-106227	4/6/2020	—	—	—	—	—	—

Table 3-5
Water Quality Field Measurements for Groundwater Monitoring Well Samples, Q2 2020

Well Location ID	Sample Date	Temperature (°C)	pH (S.U.)	Spec. Cond. (µS/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
KAFB-106229	4/7/2020	—	—	—	—	—	—
KAFB-106230	4/10/2020	—	—	—	—	—	—
KAFB-106231	4/6/2020	—	—	—	—	—	—
KAFB-106232	4/6/2020	—	—	—	—	—	—
KAFB-106235-438	4/6/2020	—	—	—	—	—	—
KAFB-106235-472	4/6/2020	—	—	—	—	—	—
KAFB-106235-501	4/6/2020	—	—	—	—	—	—
KAFB-106236-436	4/6/2020	—	—	—	—	—	—
KAFB-106236-470	4/6/2020	—	—	—	—	—	—
KAFB-106236-499	4/6/2020	—	—	—	—	—	—
KAFB-106240-449	4/9/2020	—	—	—	—	—	—
KAFB-106241-428	4/9/2020	—	—	—	—	—	—
KAFB-106242-418	4/6/2020	—	—	—	—	—	—
KAFB-106243-425	4/9/2020	—	—	—	—	—	—
KAFB-106244-445	4/9/2020	—	—	—	—	—	—
KAFB-106245-460	4/9/2020	—	—	—	—	—	—
KAFB-106247-450	4/9/2020	—	—	—	—	—	—
KAFB-106S1-447	4/9/2020	—	—	—	—	—	—
KAFB-106S2-451	4/9/2020	—	—	—	—	—	—
KAFB-106S3-449	4/10/2020	—	—	—	—	—	—
KAFB-106S4-446	4/9/2020	—	—	—	—	—	—
KAFB-106S5-446	4/16/2020	—	—	—	—	—	—
KAFB-106S7-451	4/16/2020	—	—	—	—	—	—
KAFB-106S8-451	4/10/2020	—	—	—	—	—	—
KAFB-106S9-447	4/16/2020	—	—	—	—	—	—
KAFB-3411	4/24/2020	20.0	7.87	365.0	3.02	261.1	1.17

[a] Specific conductance not collected at this location.
— = Samples collected via passive sampling methodology; no field water quality measurement available.
°C = degrees Celsius
µS/cm = microSiemens per centimeter
DO = dissolved oxygen
ID = identification
mg/L = milligram per liter
NA = not applicable
mV = millivolt
NTU = nephelometric turbidity unit
ORP = oxidation reduction potential
Spec. Cond. = specific conductivity
S.U. = standard unit

Table 3-6
Groundwater Analytical Results for Newly Added Wells, Q2 2020

			Well Location ID:				KAFB-106S7-451		
			Field Sample ID:				GWS7-451-202		
			Sample Date:				4/16/2020		
			Sample Type:				REG		
			Sample Depth (ft bgs):				475.1		
			Reference Elevation Interval (ft AMSL):				4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**39**	--	7.5
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	**1,200**	--	10
		Ethylbenzene	750	700	15	700	640	--	16
		Toluene	1,000	1,000	1,100	1,000	**1,700**	--	10
		Xylenes, total	620	10,000	190	620	**2,200**	--	40
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	115	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	**4.34**	--	0.103
		Magnesium	NS	NS	NS	NS	19.4	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	**4.65**	--	0.0052
		Potassium	NS	NS	NS	NS	3.85	--	0.375
		Sodium	NS	NS	NS	NS	36.3	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2
		Chloride	250	250	NS	250	34.7	--	3
		Sulfate	600	250	NS	250	ND	U	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as $CaCO_3$)	NS	NS	NS	NS	371	--	6
		Alkalinity, carbonate (as $CaCO_3$)	NS	NS	NS	NS	ND	U	6
		Alkalinity, total (as $CaCO_3$)	NS	NS	NS	NS	371	--	6

Table 3-6
Groundwater Analytical Results for Newly Added Wells, Q2 2020

[a] NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018). For metals, the NMWQCC numeric standard applies to dissolved metals.

[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

[e] Based on the geochemical equilibrium of the site groundwater and previous site data analyses, nitrate/nitrite results represent nitrate concentrations.

µg/L = microgram per liter
AFB = Air Force Base
AMSL = above mean sea level
bgs = below ground surface
$CaCO_3$ = calcium carbonate
CFR = Code of Federal Regulations
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ft = foot (feet)
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
mg/L = milligram per liter
ND = not detected
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
Q2 = second quarter
REG = normal field sample
RSL = regional screening level
Val Qual = validation qualifier
VOC = volatile organic compound
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation

J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.

-- = Validation qualifier not assigned.

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:	KAFB-106001					KAFB-106002			KAFB-106002			KAFB-106003		
			Field Sample ID:	GW001-202					GW002-202			GW002-602			GW003-202		
			Sample Date:	4/16/2020					4/17/2020			4/17/2020			4/30/2020		
			Sample Type:	REG					REG			Field Duplicate			REG		
			Sample Depth (ft bgs):	485					492			492			482		
			Reference Elevation Interval (ft AMSL):	4857 & 4838					4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**2.4**	--	0.38	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	ND	U	0.5
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	ND	U	0.5
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106003			KAFB-106004			KAFB-106005			KAFB-106006		
			Field Sample ID:				GW003-602			GW004-202			GW005-202			GW006-202		
			Sample Date:				4/30/2020			5/5/2020			4/16/2020			4/24/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				482			488.74			482.57			509.68		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.016	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	**12**	J	0.5	**11**	--	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	110	--	0.8	2	--	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	2	--	0.5	0.3	J	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	160	--	2	5	J	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:	KAFB-106007			KAFB-106008			KAFB-106008			KAFB-106009		
			Field Sample ID:	GW007-202			GW008-202			GW008-602			GW009-202		
			Sample Date:	4/24/2020			4/16/2020			4/16/2020			4/16/2020		
			Sample Type:	REG			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):	490			488			488			484.39		
			Reference Elevation Interval (ft AMSL):	4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	**0.71**	--	0.095	**0.72**	--	0.095	0.016	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	**8,900**	--	100	**9,100**	--	100	ND	U	0.5
		Ethylbenzene	750	700	15	700	—	—	—	380	--	16	380	--	16	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	**4,000**	--	10	**4,100**	--	10	ND	U	0.5
		Xylenes, total	620	10,000	190	620	—	—	—	**1,000**	--	40	**1,000**	--	40	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106009			KAFB-106010			KAFB-106010			KAFB-106011		
			Field Sample ID:				GW009-602			GW010-202			GW010-602			GW011-202		
			Sample Date:				4/16/2020			4/24/2020			4/24/2020			4/17/2020		
			Sample Type:				Field Duplicate			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):				484.39			506			506			499		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.013	J	0.019	**0.11**	--	0.019	**0.088**	--	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	**600**	--	3	**610**	--	3	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	150	--	4	160	--	4	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	160	--	3	170	--	3	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	120	--	10	120	--	10	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106012R			KAFB-106013			KAFB-106014			KAFB-106015		
			Field Sample ID:				GW012R-202			GW013-202			GW014-202			GW015-202		
			Sample Date:				4/23/2020			5/1/2020			4/24/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				495			491			491			488.22		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857 & 4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.043	--	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	**86**	--	0.5	—	—	—
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	8	--	0.8	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	1	--	0.5	ND	U	0.5	76	--	0.5	—	—	—
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	16	--	2	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106016			KAFB-106017			KAFB-106018			KAFB-106019		
			Field Sample ID:				GW016-202			GW017-202			GW018-202			GW019-202		
			Sample Date:				4/17/2020			4/21/2020			5/8/2020			4/23/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				488			495			489			498		
			Reference Elevation Interval (ft AMSL):				4857			4857 & 4838			4857 & 4838			4857 & 4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	**0.28**	--	0.019	0.017	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	0.5	J	0.5	ND	U	0.5	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	ND	U	0.8	ND	U	0.8	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	ND	U	2	ND	U	2	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	ND	U	0.5	ND	U	0.5	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	ND	U	2	ND	U	2	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106020			KAFB-106021			KAFB-106022			KAFB-106023		
			Field Sample ID:				GW020-202			GW021-202			GW022-202			GW023-202		
			Sample Date:				4/28/2020			4/6/2020			4/6/2020			4/10/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				484			458.7			462.7			473.74		
			Reference Elevation Interval (ft AMSL):				4857			4857 & 4838			4857 & 4838			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.017	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106024			KAFB-106025			KAFB-106026			KAFB-106027		
			Field Sample ID:				GW024-202			GW025-202			GW026-202			GW027-202		
			Sample Date:				4/20/2020			4/8/2020			4/10/2020			4/20/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				494			465.7			466.7			491		
			Reference Elevation Interval (ft AMSL):				4857			4857 & 4838			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106028			KAFB-106028			KAFB-106029			KAFB-106030		
			Field Sample ID:				GW028-202			GW028-602			GW029-202			GW030-202		
			Sample Date:				4/10/2020			4/10/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				486.7			486.7			451.5			470.2		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**2.9**	J	0.38	**3.1**	J	0.38	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	**1,100**	--	5	**1,100**	--	5	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	190	--	0.8	190	--	0.8	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	180	--	0.5	180	--	0.5	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	42	--	2	42	--	2	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106031			KAFB-106032			KAFB-106033			KAFB-106034		
			Field Sample ID:				GW031-202			GW032-202			GW033-202			GW034-202		
			Sample Date:				4/6/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				496.5			456.7			477.7			502.7		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106035			KAFB-106036			KAFB-106037			KAFB-106037		
			Field Sample ID:				GW035-202			GW036-202			GW037-202			GW037-602		
			Sample Date:				4/8/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			REG			Field Duplicate		
			Sample Depth (ft bgs):				452.83			482.58			507.75			507.75		
			Reference Elevation Interval (ft AMSL):				4857			4838			4838			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**0.093**	--	0.019	**0.063**	--	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106038			KAFB-106039			KAFB-106040			KAFB-106041		
			Field Sample ID:				GW038-202			GW039-202			GW040-202			GW041-202		
			Sample Date:				4/22/2020			4/22/2020			4/23/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				483			513			535			452.3		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	**0.054**	--	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	ND	U	0.8	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	ND	U	2	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	ND	U	2	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106042			KAFB-106043			KAFB-106044			KAFB-106045		
			Field Sample ID:				GW042-202			GW043-202			GW044-202			GW045-202		
			Sample Date:				4/9/2020			4/9/2020			4/20/2020			4/24/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				469.7			543.7			512			533.72		
			Reference Elevation Interval (ft AMSL):				4857			4814			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.032	--	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106046			KAFB-106047			KAFB-106048			KAFB-106049		
			Field Sample ID:				GW046-202			GW047-202			GW048-202			GW049-202		
			Sample Date:				4/22/2020			4/17/2020			4/29/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				500			520			538			457.5		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106050			KAFB-106051			KAFB-106052			KAFB-106053		
			Field Sample ID:				GW050-202			GW051-202			GW052-202			GW053-202		
			Sample Date:				4/9/2020			4/9/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				475.1			501.5			450.3			479.1		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106054			KAFB-106055			KAFB-106057			KAFB-106058		
			Field Sample ID:				GW054-202			GW055-202			GW057-202			GW058-202		
			Sample Date:				4/8/2020			4/7/2020			4/7/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				504.7			466.5			485.6			512.5		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106058			KAFB-106059			KAFB-106060			KAFB-106061		
			Field Sample ID:				GW058-602			GW059-202			GW060-202			GW061-202		
			Sample Date:				4/9/2020			5/6/2020			4/20/2020			4/27/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				512.5			504			511			581		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	0.03	--	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	**2,300**	--	13	ND	U	0.5	ND	U	0.5
		Ethylbenzene	750	700	15	700	—	—	—	580	--	20	ND	U	0.8	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	**1,600**	--	13	ND	U	0.5	1	--	0.5
		Xylenes, total	620	10,000	190	620	—	—	—	**1,800**	--	50	ND	U	2	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106062			KAFB-106063			KAFB-106064			KAFB-106065		
			Field Sample ID:				GW062-202			GW063-202			GW064-202			GW065-202		
			Sample Date:				4/21/2020			5/19/2020			5/19/2020			4/22/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				583			505			485			516		
			Reference Elevation Interval (ft AMSL):				4814			4838			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	UJ	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	**5,700**	--	50	**3,600**	--	25	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	**1,700**	--	8	**1,500**	--	40	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	**18,000**	--	50	380	--	3	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	**5,100**	--	20	**4,700**	--	100	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:	KAFB-106066					KAFB-106067			KAFB-106068			KAFB-106069		
			Field Sample ID:	GW066-202					GW067-202			GW068-202			GW069-202		
			Sample Date:	4/22/2020					4/21/2020			4/20/2020			4/23/2020		
			Sample Type:	REG					REG			REG			REG		
			Sample Depth (ft bgs):	584					495			588			508		
			Reference Elevation Interval (ft AMSL):	4814					4857			4814			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	UJ	0.019	ND	U	0.019	0.014	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	1	--	0.5	ND	U	0.5	0.2	J	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	1	--	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106070			KAFB-106070			KAFB-106071			KAFB-106072		
			Field Sample ID:				GW070-202			GW070-602			GW071-202			GW072-202		
			Sample Date:				4/16/2020			4/16/2020			4/16/2020			4/16/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				460.7			460.7			548.7			475.7		
			Reference Elevation Interval (ft AMSL):				4857			4857			4814			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106073			KAFB-106074			KAFB-106075			KAFB-106076		
			Field Sample ID:				GW073-202			GW074-202			GW075-202			GW076-202		
			Sample Date:				4/30/2020			4/30/2020			4/20/2020			4/28/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				501			572			490			482		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.023	J	0.019	0.024	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	0.6	J	0.5
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	7	--	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	2	--	0.5
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	12	--	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106077			KAFB-106078			KAFB-106079			KAFB-106080		
			Field Sample ID:				GW077-202			GW078-202			GW079-202			GW080-202		
			Sample Date:				4/27/2020			4/21/2020			4/10/2020			4/23/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				506			582			498.78			511		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.012	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	1	--	0.5	**8**	--	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	0.5	J	0.8	3	--	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	3	--	0.5	ND	U	0.5	0.3	J	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106081			KAFB-106082			KAFB-106083			KAFB-106084		
			Field Sample ID:				GW081-202			GW082-202			GW083-202			GW084-202		
			Sample Date:				4/29/2020			4/28/2020			4/28/2020			4/28/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				580			474			498			571		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.022	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	ND	U	0.8	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	0.7	J	0.5	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	ND	U	2	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106085			KAFB-106085			KAFB-106086			KAFB-106087		
			Field Sample ID:				GW085-202			GW085-602			GW086-202			GW087-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				447.2			447.2			476.7			546.7		
			Reference Elevation Interval (ft AMSL):				4857			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106088			KAFB-106088			KAFB-106089			KAFB-106090		
			Field Sample ID:				GW088-202			GW088-602			GW089-202			GW090-202		
			Sample Date:				4/9/2020			4/9/2020			4/9/2020			4/9/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				460.7			460.7			482.26			555.78		
			Reference Elevation Interval (ft AMSL):				4857			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.041	--	0.019	0.041	--	0.019	ND	U	0.036	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:	KAFB-106091			KAFB-106091			KAFB-106092			KAFB-106093		
			Field Sample ID:	GW091-202			GW091-602			GW092-202			GW093-202		
			Sample Date:	4/8/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:	REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):	454.7			454.7			474.7			544.7		
			Reference Elevation Interval (ft AMSL):	4857			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106094			KAFB-106095			KAFB-106096			KAFB-106096		
			Field Sample ID:				GW094-202			GW095-202			GW096-202			GW096-602		
			Sample Date:				4/21/2020			4/29/2020			5/8/2020			5/8/2020		
			Sample Type:				REG			REG			REG			Field Duplicate		
			Sample Depth (ft bgs):				494			505.85			584			584		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	UJ	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106097			KAFB-106098			KAFB-106099			KAFB-106100		
			Field Sample ID:				GW097-202			GW098-202			GW099-202			GW100-202		
			Sample Date:				5/1/2020			5/1/2020			5/5/2020			5/5/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				508			533			503			528		
			Reference Elevation Interval (ft AMSL):				4838			4814			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106101			KAFB-106102			KAFB-106103			KAFB-106104		
			Field Sample ID:				GW101-202			GW102-202			GW103-202			GW104-202		
			Sample Date:				5/4/2020			5/4/2020			4/10/2020			4/16/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				505			526			485.76			510.75		
			Reference Elevation Interval (ft AMSL):				4838			4814			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106105			KAFB-106106			KAFB-106106			KAFB-106107		
			Field Sample ID:				GW105-202			GW106-202			GW106-602			GW107-202		
			Sample Date:				4/8/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):				484.7			454.3			454.3			510.9		
			Reference Elevation Interval (ft AMSL):				4838			4857			4857			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	0.022	J	0.019	0.022	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106149-484			KAFB-106151-484			KAFB-106152-484			KAFB-106153-484		
			Field Sample ID:				GW149-484-202			GW151-484-202			GW152-484-202			GW153-484-202		
			Sample Date:				4/16/2020			4/16/2020			4/16/2020			4/16/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				472			472.19			474.88			474.89		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**78**	--	19	**2.6**	--	0.38	ND	U	0.019	**140**	--	19
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	**1,900**	--	25	**2,100**	--	25	**540**	--	5	**8,300**	--	100
		Ethylbenzene	750	700	15	700	270	--	4	690	--	4	310	--	8	380	--	16
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	**3,300**	--	25	**1,700**	--	25	26	--	0.5	**7,800**	--	100
		Xylenes, total	620	10,000	190	620	**1,200**	--	10	**890**	--	10	320	--	20	**1,700**	--	40

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106201			KAFB-106202			KAFB-106203			KAFB-106204		
			Field Sample ID:				GW201-202			GW202-202			GW203-202			GW204-202		
			Sample Date:				4/7/2020			4/7/2020			4/7/2020			4/7/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				490.35			520.6			623.78			463.2		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106205			KAFB-106206			KAFB-106207			KAFB-106208		
			Field Sample ID:				GW205-202			GW206-202			GW207-202			GW208-202		
			Sample Date:				4/7/2020			4/7/2020			4/10/2020			4/10/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				493.2			594.2			473.7			503.7		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106208			KAFB-106209			KAFB-106212			KAFB-106213		
			Field Sample ID:				GW208-602			GW209-202			GW212-202			GW213-202		
			Sample Date:				4/10/2020			4/10/2020			4/8/2020			4/8/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				503.7			603.7			543.9			451.3		
			Reference Elevation Interval (ft AMSL):				4838			4814			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106214			KAFB-106215			KAFB-106216			KAFB-106217		
			Field Sample ID:				GW214-202			GW215-202			GW216-202			GW217-202		
			Sample Date:				4/8/2020			4/8/2020			4/7/2020			4/7/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				478.95			547.7			461.4			485.7		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106218			KAFB-106219			KAFB-106220			KAFB-106221		
			Field Sample ID:				GW218-202			GW219-202			GW220-202			GW221-202		
			Sample Date:				4/7/2020			4/7/2020			4/7/2020			4/7/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				552.7			466			493.7			561.7		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106222			KAFB-106223			KAFB-106224			KAFB-106225		
			Field Sample ID:				GW222-202			GW223-202			GW224-202			GW225-202		
			Sample Date:				4/7/2020			4/7/2020			4/7/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				461.1			488.5			555.7			453.3		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106225			KAFB-106226			KAFB-106227			KAFB-106229		
			Field Sample ID:				GW225-602			GW226-202			GW227-202			GW229-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/7/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				453.3			480.7			548.7			442.1		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106230			KAFB-106231			KAFB-106232			KAFB-106235-438		
			Field Sample ID:				GW230-202			GW231-202			GW232-202			GW235-438-202		
			Sample Date:				4/10/2020			4/6/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				501.7			453.7			503.7			443.9		
			Reference Elevation Interval (ft AMSL):				4814			4857			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106235-472			KAFB-106235-501			KAFB-106236-436			KAFB-106236-470		
			Field Sample ID:				GW235-472-202			GW235-501-202			GW236-436-202			GW236-470-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				472.7			501.7			441.9			470.7		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	—	—	—	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	—	—	—	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	—	—	—	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	—	—	—	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106236-499			KAFB-106240-449			KAFB-106241-428			KAFB-106242-418		
			Field Sample ID:				GW236-499-202			GW240-449-202			GW241-428-202			GW242-418-202		
			Sample Date:				4/6/2020			4/9/2020			4/9/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				499.7			473.14			452.2			442.24		
			Reference Elevation Interval (ft AMSL):				4814			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	0.015	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	ND	U	0.5	—	—	—	—	—	—
		Ethylbenzene	750	700	15	700	—	—	—	ND	U	0.8	—	—	—	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	ND	U	0.5	—	—	—	—	—	—
		Xylenes, total	620	10,000	190	620	—	—	—	ND	U	2	—	—	—	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106243-425			KAFB-106244-445			KAFB-106245-460			KAFB-106247-450		
			Field Sample ID:				GW243-425-202			GW244-445-202			GW245-460-202			GW247-450-202		
			Sample Date:				4/9/2020			4/9/2020			4/9/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				449.14			469.19			487.77			477.42		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.02	J	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	—	—	—	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	750	700	15	700	—	—	—	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	—	—	—	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	—	—	—	ND	U	2	ND	U	2	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106S1-447			KAFB-106S2-451			KAFB-106S3-449			KAFB-106S4-446		
			Field Sample ID:				GWS1-447-202			GWS2-451-202			GWS3-449-202			GWS4-446-202		
			Sample Date:				4/9/2020			4/9/2020			4/10/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				471.12			478.15			478.91			473.04		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**390**	--	190	**120**	--	19	**35**	J	7.6	ND	U	0.048
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	**7,900**	--	50	**4,900**	--	25	**3,800**	--	25	ND	U	0.5
		Ethylbenzene	750	700	15	700	**710**	--	8	420	--	4	**720**	--	4	ND	U	0.8
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	**9,300**	--	50	**2,500**	--	25	**1,300**	--	3	ND	U	0.5
		Xylenes, total	620	10,000	190	620	**3,300**	--	20	**2,700**	--	10	**2,200**	--	10	ND	U	2

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106S5-446			KAFB-106S8-451			KAFB-106S9-447			KAFB-3411		
			Field Sample ID:				GWS5-446-202			GWS8-451-202			GWS9-447-202			GW3411-202		
			Sample Date:				4/16/2020			4/10/2020			4/16/2020			4/24/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				470.1			478.32			473.7			482		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**11**	--	1.9	**400**	J	76	**35**	--	7.6	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	**1,900**	--	5	**4,400**	--	25	**9,900**	--	100	—	—	—
		Ethylbenzene	750	700	15	700	**1,500**	--	8	210	--	4	**1,100**	--	16	—	—	—
		Naphthalene	30	NS	1.2	30	—	—	—	—	—	—	—	—	—	—	—	—
		Toluene	1,000	1,000	1,100	1,000	**5,200**	--	50	**6,400**	--	25	**12,000**	--	100	—	—	—
		Xylenes, total	620	10,000	190	620	**2,900**	--	20	**2,100**	--	10	**3,400**	--	40	—	—	—

Table 3-7
Groundwater Analytical Results for Organic Compounds for Groundwater Monitoring Wells, Q2 2020

[a] NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018). For metals, the NMWQCC numeric standard applies to dissolved metals.

[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

— = Compound not analyzed for.
µg/L = microgram per liter
AFB = Air Force Base
AMSL = above mean sea level
bgs = below ground surface
CFR = Code of Federal Regulations
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ft = foot (feet)
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
mg/L = milligrams per liter
ND = not detected
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
Q2 = second quarter
REG = normal field sample
RSL = regional screening level
Val Qual = validation qualifier
VOCs = Volatile organic compounds
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation

J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.

-- = Validation qualifier not assigned.

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106001			KAFB-106002			KAFB-106002			KAFB-106003		
			Field Sample ID:				GW001-202			GW002-202			GW002-602			GW003-202		
			Sample Date:				4/16/2020			4/17/2020			4/17/2020			4/30/2020		
			Sample Type:				REG			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):				485			492			492			482		
			Reference Elevation Interval (ft AMSL):				4857 & 4838			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	37.3	--	0.15	38.2	--	0.15	36.7	--	0.15	46.4	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	5.45	--	0.0751	5.81	--	0.0751	5.51	--	0.0751	6.75	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.18	--	0.375	2.45	--	0.375	2.33	--	0.375	2.56	--	0.375
		Sodium	NS	NS	NS	NS	20.1	--	0.5	21.5	--	0.5	20.6	--	0.5	24.5	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0047	--	0.0016	0.0012	J	0.0016	0.0011	J	0.0016	0.0014	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.0003	J	0.00025	ND	U	0.00025	ND	U	0.00025	0.00017	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	10.4	--	1.5	13.8	--	1.5	13.9	--	1.5	21.3	--	1.5
		Sulfate	600	250	NS	250	28.5	--	4.5	34.8	--	4.5	35.4	--	4.5	49.2	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.12	--	0.09	0.65	--	0.09	0.65	--	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	128	--	6	104	--	6	101	--	6	102	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	128	--	6	104	--	6	101	--	6	102	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106003			KAFB-106004			KAFB-106005			KAFB-106006		
			Field Sample ID:				GW003-602			GW004-202			GW005-202			GW006-202		
			Sample Date:				4/30/2020			5/5/2020			4/16/2020			4/24/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				482			488.74			482.57			509.68		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	45.9	--	0.15	37.2	--	0.15	167	--	0.15	54.5	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	0.162	J	0.103
		Magnesium	NS	NS	NS	NS	6.7	--	0.0751	5.57	--	0.0751	29.7	--	0.0751	7.98	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	**1.01**	--	0.0052	**0.89**	--	0.0052
		Potassium	NS	NS	NS	NS	2.58	--	0.375	2.41	--	0.375	4.67	--	0.375	2.6	--	0.375
		Sodium	NS	NS	NS	NS	24.2	--	0.5	20.8	--	0.5	68.6	--	0.5	28.1	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0014	J	0.0016	0.0014	J	0.0016	ND	U	0.0016	0.0018	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00014	J	0.00025	ND	U	0.00025	0.00016	J	0.00025	0.00018	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	3.4	--	2	ND	U	2
		Chloride	250	250	NS	250	21.2	--	1.5	13.2	--	1.5	205	J	15	10.2	--	1.5
		Sulfate	600	250	NS	250	49	--	4.5	33.5	--	4.5	201	--	45	3.1	J	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.96	--	0.09	0.56	--	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	102	--	6	102	--	6	226	--	6	202	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	102	--	6	102	--	6	226	--	6	202	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106007			KAFB-106008			KAFB-106008			KAFB-106009		
			Field Sample ID:				GW007-202			GW008-202			GW008-602			GW009-202		
			Sample Date:				4/24/2020			4/16/2020			4/16/2020			4/16/2020		
			Sample Type:				REG			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):				490			488			488			484.39		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	34.3	--	0.15	107	--	0.15	113	--	0.15	141	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	**4.39**	--	0.103	**4.41**	--	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	4.95	--	0.0751	17.7	--	0.0751	18.6	--	0.0751	20.7	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	**4.72**	--	0.0052	**5**	--	0.0052	0.0055	J	0.0052
		Potassium	NS	NS	NS	NS	2.09	--	0.375	3.15	--	0.375	3.35	--	0.375	3.59	--	0.375
		Sodium	NS	NS	NS	NS	22.7	--	0.5	32.1	--	0.5	33.9	--	0.5	44.3	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0014	J	0.0016	0.01	--	0.0016	ND	U	0.0016	ND	U	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00021	J	0.00025	0.0132	--	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	2.8	--	2
		Chloride	250	250	NS	250	8.4	--	1.5	29.6	--	1.5	27.2	--	1.5	149	--	15
		Sulfate	600	250	NS	250	28.3	--	4.5	ND	U	4.5	ND	U	4.5	183	--	45
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.25	--	0.09	ND	U	0.09	ND	U	0.09	3.6	--	0.18
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	111	--	6	379	--	6	375	--	6	136	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	111	--	6	379	--	6	375	--	6	136	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106009			KAFB-106010			KAFB-106010			KAFB-106011		
			Field Sample ID:				GW009-602			GW010-202			GW010-602			GW011-202		
			Sample Date:				4/16/2020			4/24/2020			4/24/2020			4/17/2020		
			Sample Type:				Field Duplicate			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):				484.39			506			506			499		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	148	--	0.15	62.3	--	0.15	62.6	--	0.15	116	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	0.141	J	0.103	0.142	J	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	21.6	--	0.0751	9.96	--	0.0751	9.99	--	0.0751	16	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	0.0051	J	0.0052	**1.88**	--	0.0052	**1.88**	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.81	--	0.375	2.8	--	0.375	2.81	--	0.375	3.43	--	0.375
		Sodium	NS	NS	NS	NS	46.4	--	0.5	28.5	--	0.5	28.7	--	0.5	35.6	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	ND	U	0.0016	ND	U	0.0016	0.0009	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.00015	J	0.00025	0.00014	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	2.8	--	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	154	--	15	13.3	--	1.5	13.3	--	1.5	91.8	--	60
		Sulfate	600	250	NS	250	204	--	45	20.9	--	4.5	20.9	--	4.5	155	--	18
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	3.5	--	0.18	ND	U	0.09	ND	U	0.09	3.9	--	0.45
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	127	--	6	216	--	6	212	--	6	135	J	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	127	--	6	216	--	6	212	--	6	135	J	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106012R			KAFB-106013			KAFB-106014			KAFB-106015		
			Field Sample ID:				GW012R-202			GW013-202			GW014-202			GW015-202		
			Sample Date:				4/23/2020			5/1/2020			4/24/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				495			491			491			488.22		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857 & 4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	165	--	0.15	42.4	--	0.15	124	--	0.15	42.1	J	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	0.352	--	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	25.3	--	0.0751	6.33	--	0.0751	18.9	--	0.0751	5.43	J	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	0.0046	J	0.0052	**2.9**	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	5.28	--	0.375	2.34	--	0.375	3.79	--	0.375	2.23	J	0.375
		Sodium	NS	NS	NS	NS	72.3	--	0.5	22.1	--	0.5	41.1	--	0.5	20	J	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	0.0013	J	0.0016	ND	U	0.0016	ND	U	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.00039	J	0.00025	0.0003	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	3	--	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	147	J	60	19	--	1.5	84	--	15	18.7	--	1.5
		Sulfate	600	250	NS	250	**312**	J	180	35.5	--	4.5	19.9	--	4.5	28.4	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	4.7	--	0.18	0.7	--	0.09	ND	U	0.09	0.32	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	109	--	6	105	--	6	318	--	6	114	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	109	--	6	105	--	6	318	--	6	114	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106016			KAFB-106017			KAFB-106018			KAFB-106019		
			Field Sample ID:				GW016-202			GW017-202			GW018-202			GW019-202		
			Sample Date:				4/17/2020			4/21/2020			5/8/2020			4/23/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				488			495			489			498		
			Reference Elevation Interval (ft AMSL):				4857			4857 & 4838			4857 & 4838			4857 & 4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	33.4	--	0.15	49	--	0.15	50.5	--	0.15	204	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	0.0454	J	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	4.96	--	0.0751	6.54	--	0.0751	7.74	--	0.0751	27.7	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	**0.217**	--	0.0052	**0.561**	--	0.0052	0.0572	--	0.0052
		Potassium	NS	NS	NS	NS	2.25	--	0.375	2.49	--	0.375	2.67	--	0.375	4.51	--	0.375
		Sodium	NS	NS	NS	NS	20.1	--	0.5	24.8	--	0.5	24.9	--	0.5	53.9	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0014	J	0.0016	0.00087	J	0.0016	ND	U	0.0016	0.0024	--	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	0.00011	J	0.00025	0.00034	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	4.4	--	2
		Chloride	250	250	NS	250	8.6	--	1.5	14	--	1.5	37.4	--	3	**314**	--	150
		Sulfate	600	250	NS	250	29.6	--	4.5	38.6	--	4.5	42.5	--	4.5	**282**	--	45
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.19	--	0.09	ND	U	0.09	ND	U	0.09	1.6	--	0.45
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	102	--	6	140	--	6	113	--	6	83.8	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	102	--	6	140	--	6	113	--	6	83.8	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106020			KAFB-106021			KAFB-106022			KAFB-106023		
			Field Sample ID:				GW020-202			GW021-202			GW022-202			GW023-202		
			Sample Date:				4/28/2020			4/6/2020			4/6/2020			4/10/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				484			458.7			462.7			473.74		
			Reference Elevation Interval (ft AMSL):				4857			4857 & 4838			4857 & 4838			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	59.2	--	0.15	38.5	--	0.15	48.9	J	0.15	35.3	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	0.0486	J	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.38	--	0.0751	4.67	--	0.0751	6.77	J	0.0751	4.73	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	0.0076	J	0.0052	**1.77**	--	0.0052	0.0337	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.49	--	0.375	2.42	--	0.375	2.6	J	0.375	ND	U	0.375
		Sodium	NS	NS	NS	NS	26.6	--	0.5	18.5	--	0.5	25.3	J	0.5	24.1	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.008	--	0.0016	ND	U	0.0016	0.00088	J	0.0016	0.0011	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00014	J	0.00025	0.00019	J	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	26.5	--	1.5	28.4	--	1.5	24.2	--	1.5	12.9	--	1.5
		Sulfate	600	250	NS	250	88.2	--	45	56.5	--	4.5	43.2	--	4.5	33.9	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.55	--	0.09	0.45	--	0.09	ND	U	0.09	0.24	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	111	--	6	97.7	--	6	121	--	6	112	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	111	--	6	97.7	--	6	121	--	6	112	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106024			KAFB-106025			KAFB-106026			KAFB-106027		
			Field Sample ID:				GW024-202			GW025-202			GW026-202			GW027-202		
			Sample Date:				4/20/2020			4/8/2020			4/10/2020			4/20/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				494			465.7			466.7			491		
			Reference Elevation Interval (ft AMSL):				4857			4857 & 4838			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	37.6	--	0.15	58.2	--	0.15	54.5	--	0.15	33.6	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	UJ	0.103	ND	U	0.103	ND	U	0.103	ND	UJ	0.103
		Magnesium	NS	NS	NS	NS	6.11	--	0.0751	8.4	--	0.0751	7.47	--	0.0751	5.1	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.18	--	0.375	3	--	0.375	3.15	--	0.375	2.09	--	0.375
		Sodium	NS	NS	NS	NS	21.1	--	0.5	26.2	--	0.5	26.5	--	0.5	20.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0015	J	0.0016	0.001	J	0.0016	0.00099	J	0.0016	0.0012	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.00046	J	0.00025	0.00009	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	UJ	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	10.3	J	1.5	57.3	--	15	52	--	15	9	--	1.5
		Sulfate	600	250	NS	250	30.4	J	4.5	59	--	4.5	65.6	--	4.5	29.4	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	1.5	--	0.09	1.5	--	0.09	0.53	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	125	--	6	94.8	J	6	87.2	--	6	108	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	125	--	6	94.8	J	6	87.2	--	6	108	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106028			KAFB-106028			KAFB-106029			KAFB-106030		
			Field Sample ID:				GW028-202			GW028-602			GW029-202			GW030-202		
			Sample Date:				4/10/2020			4/10/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				486.7			486.7			451.5			470.2		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	103	--	0.15	105	--	0.15	75	--	0.15	68.7	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	16.2	--	0.0751	16.6	--	0.0751	10.5	--	0.0751	9.11	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	**2.61**	--	0.0052	**2.71**	--	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.46	--	0.375	3.52	--	0.375	2.97	--	0.375	2.8	--	0.375
		Sodium	NS	NS	NS	NS	34.8	--	0.5	35.2	--	0.5	28.1	--	0.5	26.9	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	ND	U	0.0016	0.00074	J	0.0016	0.00088	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.0001	J	0.00025	0.00013	J	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	1.8	J	2	ND	U	2
		Chloride	250	250	NS	250	45.3	--	15	44.7	--	15	60.1	--	15	74.3	--	30
		Sulfate	600	250	NS	250	21.3	--	4.5	17.6	--	4.5	111	--	45	73.9	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	0.15	--	0.09	2	--	0.09	2.1	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	327	--	6	341	--	6	80.9	--	6	79.2	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	327	--	6	341	--	6	80.9	--	6	79.2	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106031			KAFB-106032			KAFB-106033			KAFB-106034		
			Field Sample ID:				GW031-202			GW032-202			GW033-202			GW034-202		
			Sample Date:				4/6/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				496.5			456.7			477.7			502.7		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	62	--	0.15	68.2	--	0.15	62.3	--	0.15	63.1	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.55	--	0.0751	10.3	--	0.0751	9.08	--	0.0751	9.4	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.82	--	0.375	2.89	--	0.375	2.54	--	0.375	2.9	--	0.375
		Sodium	NS	NS	NS	NS	25.5	--	0.5	25.7	--	0.5	20.4	--	0.5	23.9	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00073	J	0.0016	0.001	J	0.0016	0.00072	J	0.0016	0.0011	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	43.8	--	15	63.2	J	15	56.3	--	15	56.9	--	15
		Sulfate	600	250	NS	250	102	--	45	107	--	45	75.5	--	45	96.8	--	45
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.1	--	0.09	1.7	J	0.09	1.6	--	0.09	1.2	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	90.1	--	6	67.7	J	6	79.9	--	6	91.5	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	90.1	--	6	67.7	J	6	79.9	--	6	91.5	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106035			KAFB-106036			KAFB-106037			KAFB-106037		
			Field Sample ID:				GW035-202			GW036-202			GW037-202			GW037-602		
			Sample Date:				4/8/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			REG			Field Duplicate		
			Sample Depth (ft bgs):				452.83			482.58			507.75			507.75		
			Reference Elevation Interval (ft AMSL):				4857			4838			4838			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	43.3	--	0.15	44.1	--	0.15	43.8	--	0.15	41.3	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	6	--	0.0751	6.22	--	0.0751	6.15	--	0.0751	5.82	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	ND	U	0.375	2.33	--	0.375	2.41	--	0.375	2.1	--	0.375
		Sodium	NS	NS	NS	NS	25.3	--	0.5	25.6	--	0.5	25.3	--	0.5	22.5	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00086	J	0.0016	ND	U	0.0016	0.00092	J	0.0016	0.00073	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	15.4	--	1.5	14.2	--	1.5	17.7	--	1.5	16.4	--	1.5
		Sulfate	600	250	NS	250	42.2	--	4.5	41.6	--	4.5	42.2	--	4.5	38.1	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	0.15	--	0.09	0.32	--	0.09	0.35	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	132	--	6	118	--	6	104	--	6	106	J	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	132	--	6	118	--	6	104	--	6	106	J	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106038			KAFB-106039			KAFB-106040			KAFB-106041		
			Field Sample ID:				GW038-202			GW039-202			GW040-202			GW041-202		
			Sample Date:				4/22/2020			4/22/2020			4/23/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				483			513			535			452.3		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	72.3	--	0.15	64.7	--	0.15	43.1	--	0.15	55.2	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	9.98	--	0.0751	8.8	--	0.0751	5.92	--	0.0751	7.53	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.22	--	0.375	2.82	--	0.375	2.58	--	0.375	3.2	--	0.375
		Sodium	NS	NS	NS	NS	32.4	--	0.5	31.1	--	0.5	27.1	--	0.5	25.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00078	J	0.0016	0.00084	J	0.0016	0.00092	J	0.0016	0.0009	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00017	J	0.00025	0.00023	J	0.00025	0.000089	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	1.9	J	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	67.1	J	15	59	--	15	17.5	--	1.5	33.3	--	6
		Sulfate	600	250	NS	250	108	--	45	67.9	--	4.5	42.5	--	4.5	75.8	--	18
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	2.2	J	0.09	1.5	--	0.09	0.45	--	0.09	0.62	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	130	--	6	125	--	6	109	--	6	112	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	130	--	6	125	--	6	109	--	6	112	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106042			KAFB-106043			KAFB-106044			KAFB-106045		
			Field Sample ID:				GW042-202			GW043-202			GW044-202			GW045-202		
			Sample Date:				4/9/2020			4/9/2020			4/20/2020			4/24/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				469.7			543.7			512			533.72		
			Reference Elevation Interval (ft AMSL):				4857			4814			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	56.7	--	0.15	45.9	--	0.15	31.2	--	0.15	31.6	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	UJ	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	7.72	--	0.0751	6.34	--	0.0751	4.71	--	0.0751	4.72	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.07	--	0.375	2.63	--	0.375	2.02	--	0.375	2.03	--	0.375
		Sodium	NS	NS	NS	NS	25.4	--	0.5	23.8	--	0.5	20.2	--	0.5	20.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0009	J	0.0016	0.001	J	0.0016	0.0012	J	0.0016	0.0015	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	40.9	--	6	24.1	--	1.5	8.3	--	1.5	6.5	--	1.5
		Sulfate	600	250	NS	250	73.9	--	18	58.2	--	4.5	28.4	--	4.5	27.2	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1	--	0.09	0.62	--	0.09	0.36	--	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	99.8	--	6	102	--	6	102	--	6	101	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	99.8	--	6	102	--	6	102	--	6	101	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106046			KAFB-106047			KAFB-106048			KAFB-106049		
			Field Sample ID:				GW046-202			GW047-202			GW048-202			GW049-202		
			Sample Date:				4/22/2020			4/17/2020			4/29/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				500			520			538			457.5		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	37.2	--	0.15	36.1	--	0.15	34.5	--	0.15	122	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	5.33	--	0.0751	4.88	--	0.0751	4.71	--	0.0751	17.4	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.16	--	0.375	2.2	--	0.375	1.93	--	0.375	3.79	--	0.375
		Sodium	NS	NS	NS	NS	24	--	0.5	22.4	--	0.5	21.7	--	0.5	31	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0016	0.0017	J	0.0016	0.0012	J	0.0016	0.00083	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.000081	J	0.00025	0.00014	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	21	--	2
		Chloride	250	250	NS	250	8.6	--	1.5	10.9	--	1.5	7.2	--	1.5	116	--	15
		Sulfate	600	250	NS	250	29.4	--	4.5	32	--	4.5	28.5	--	4.5	**255**	--	45
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.35	--	0.09	0.63	--	0.09	0.15	--	0.09	5.2	--	0.45
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	127	--	6	116	--	6	111	--	6	75.7	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	127	--	6	116	--	6	111	--	6	75.7	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106050			KAFB-106051			KAFB-106052			KAFB-106053		
			Field Sample ID:				GW050-202			GW051-202			GW052-202			GW053-202		
			Sample Date:				4/9/2020			4/9/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				475.1			501.5			450.3			479.1		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	55.1	--	0.15	67.5	--	0.15	97.1	--	0.15	70.5	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	7.82	--	0.0751	9.56	--	0.0751	13.7	--	0.0751	10.3	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.95	--	0.375	3.01	--	0.375	3.77	--	0.375	3.25	--	0.375
		Sodium	NS	NS	NS	NS	24.4	--	0.5	26.5	--	0.5	31.6	--	0.5	27.5	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00093	J	0.0016	0.00093	J	0.0016	0.00077	J	0.0016	0.00089	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	1.9	J	2	1.9	J	2	1.9	J	2
		Chloride	250	250	NS	250	45.5	--	15	66.6	--	15	77.3	--	15	64.1	--	15
		Sulfate	600	250	NS	250	71.1	--	4.5	104	--	45	170	--	45	101	--	45
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.3	--	0.09	2	--	0.09	2.8	--	0.09	2.1	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	88.8	--	6	79.1	--	6	85.1	--	6	89.8	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	88.8	--	6	79.1	--	6	85.1	--	6	89.8	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106054			KAFB-106055			KAFB-106057			KAFB-106058		
			Field Sample ID:				GW054-202			GW055-202			GW057-202			GW058-202		
			Sample Date:				4/8/2020			4/7/2020			4/7/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				504.7			466.5			485.6			512.5		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	61.5	--	0.15	62.2	--	0.15	40.3	--	0.15	33.9	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.49	--	0.0751	8.69	--	0.0751	5.57	--	0.0751	4.72	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.21	--	0.375	2.8	--	0.375	2.38	--	0.375	2.16	--	0.375
		Sodium	NS	NS	NS	NS	25.1	--	0.5	29.9	--	0.5	23.8	--	0.5	21	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00075	J	0.0016	ND	U	0.0016	0.0008	J	0.0016	0.0011	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00008	J	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	56.8	--	15	45.2	--	15	12.1	--	1.5	8.9	--	1.5
		Sulfate	600	250	NS	250	56.2	--	4.5	56.8	--	4.5	35	--	4.5	26.6	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.7	--	0.09	ND	U	0.09	ND	U	0.09	0.22	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	88.6	--	6	131	--	6	119	--	6	109	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	88.6	--	6	131	--	6	119	--	6	109	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106058			KAFB-106059			KAFB-106060			KAFB-106061		
			Field Sample ID:				GW058-602			GW059-202			GW060-202			GW061-202		
			Sample Date:				4/9/2020			5/6/2020			4/20/2020			4/27/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				512.5			504			511			581		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	33.7	--	0.15	69.3	J	0.15	77.3	--	0.15	31.6	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	UJ	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	4.72	--	0.0751	11.5	--	0.0751	12	--	0.0751	4.6	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	**2.2**	--	0.0052	0.0262	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.11	--	0.375	2.71	--	0.375	3.26	--	0.375	2.1	--	0.375
		Sodium	NS	NS	NS	NS	21	--	0.5	27	--	0.5	33.5	--	0.5	21.4	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0016	0.00097	J	0.0016	ND	U	0.0016	0.0015	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	0.00029	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	8.1	--	1.5	17.6	--	1.5	20.4	--	1.5	5.7	--	1.5
		Sulfate	600	250	NS	250	24.9	--	4.5	6	--	4.5	43.5	--	4.5	27.9	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.23	--	0.09	ND	U	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	109	--	6	230	--	6	237	--	6	102	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	109	--	6	230	--	6	237	--	6	102	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106062			KAFB-106063			KAFB-106064			KAFB-106065		
			Field Sample ID:				GW062-202			GW063-202			GW064-202			GW065-202		
			Sample Date:				4/21/2020			5/19/2020			5/19/2020			4/22/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				583			505			485			516		
			Reference Elevation Interval (ft AMSL):				4814			4838			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	33.6	--	0.15	154	--	0.15	150	--	0.15	59.1	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	**7.06**	--	0.103	**8.26**	--	0.103	0.13	J	0.103
		Magnesium	NS	NS	NS	NS	4.36	--	0.0751	25.4	--	0.0751	25	--	0.0751	9.63	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	**6.81**	--	0.0052	**7.94**	--	0.0052	**1.22**	--	0.0052
		Potassium	NS	NS	NS	NS	1.92	--	0.375	3.81	--	0.375	4.51	--	0.375	2.89	--	0.375
		Sodium	NS	NS	NS	NS	21.5	--	0.5	42.8	--	0.5	88.6	--	0.5	30.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0016	0.0034	--	0.0016	0.0028	--	0.0016	ND	U	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.00016	J	0.00025	0.00055	--	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	3.2	--	2	2.9	--	2	ND	U	2
		Chloride	250	250	NS	250	7.7	--	1.5	54.6	--	15	47	--	3	19	--	1.5
		Sulfate	600	250	NS	250	27.6	J	4.5	4	J	4.5	ND	U	4.5	36.9	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	ND	U	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	110	--	6	491	J	6	591	J	6	197	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	110	--	6	491	J	6	591	J	6	197	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106066			KAFB-106067			KAFB-106068			KAFB-106069		
			Field Sample ID:				GW066-202			GW067-202			GW068-202			GW069-202		
			Sample Date:				4/22/2020			4/21/2020			4/20/2020			4/23/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				584			495			588			508		
			Reference Elevation Interval (ft AMSL):				4814			4857			4814			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	30.5	--	0.15	60.3	--	0.15	32.4	--	0.15	50.1	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	0.0452	J	0.103	ND	UJ	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	4.25	--	0.0751	8.2	--	0.0751	4.57	--	0.0751	7.12	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	**0.714**	--	0.0052	ND	U	0.0052	0.0267	--	0.0052
		Potassium	NS	NS	NS	NS	2.05	--	0.375	2.66	--	0.375	1.93	--	0.375	2.57	--	0.375
		Sodium	NS	NS	NS	NS	21	--	0.5	28.7	--	0.5	21.1	--	0.5	26.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0016	0.0014	J	0.0016	0.0012	J	0.0016	0.0012	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	0.00011	J	0.00025	0.00022	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	6.9	--	1.5	17.7	--	1.5	8.5	--	1.5	29.9	--	1.5
		Sulfate	600	250	NS	250	28.4	--	4.5	29.7	--	4.5	30.1	--	4.5	39.5	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.088	J	0.09	ND	U	0.09	0.064	J	0.09	0.17	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	115	--	6	178	--	6	109	--	6	122	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	115	--	6	178	--	6	109	--	6	122	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106070			KAFB-106070			KAFB-106071			KAFB-106072		
			Field Sample ID:				GW070-202			GW070-602			GW071-202			GW072-202		
			Sample Date:				4/16/2020			4/16/2020			4/16/2020			4/16/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				460.7			460.7			548.7			475.7		
			Reference Elevation Interval (ft AMSL):				4857			4857			4814			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	42.9	--	0.15	45	--	0.15	33.7	--	0.15	43.7	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	0.0819	J	0.103	0.174	J	0.103	ND	UJ	0.103	0.0704	J	0.103
		Magnesium	NS	NS	NS	NS	5.79	--	0.0751	6.26	--	0.0751	4.52	--	0.0751	5.92	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	0.0878	--	0.0052	0.0746	--	0.0052	ND	U	0.0052	0.109	--	0.0052
		Potassium	NS	NS	NS	NS	2.4	--	0.375	2.57	--	0.375	2.08	--	0.375	2.37	--	0.375
		Sodium	NS	NS	NS	NS	22.6	--	0.5	23.5	--	0.5	21.2	--	0.5	22.9	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00095	J	0.0016	0.00069	J	0.0016	0.00084	J	0.0016	0.00081	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	0.00029	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	22.3	--	1.5	21.7	--	1.5	16.4	--	1.5	19.1	--	1.5
		Sulfate	600	250	NS	250	33.3	--	4.5	31.5	--	4.5	30.4	--	4.5	37.6	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	ND	U	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	120	--	6	120	--	6	106	--	6	124	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	120	--	6	120	--	6	106	--	6	124	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106073			KAFB-106074			KAFB-106075			KAFB-106076		
			Field Sample ID:				GW073-202			GW074-202			GW075-202			GW076-202		
			Sample Date:				4/30/2020			4/30/2020			4/20/2020			4/28/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				501			572			490			482		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	53.2	--	0.15	40.2	--	0.15	63.5	--	0.15	43.5	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	UJ	0.103	0.111	J	0.103
		Magnesium	NS	NS	NS	NS	7.14	--	0.0751	5.27	--	0.0751	9.51	--	0.0751	6.18	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	0.149	--	0.0052	**0.272**	--	0.0052
		Potassium	NS	NS	NS	NS	2.75	--	0.375	2.23	--	0.375	2.96	--	0.375	2.43	--	0.375
		Sodium	NS	NS	NS	NS	25.3	--	0.5	23.5	--	0.5	28.2	--	0.5	23.9	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00095	J	0.0016	0.0014	J	0.0016	ND	U	0.0016	ND	U	0.0016
		Lead	0.015	0.015	0.015	0.015	0.000072	J	0.00025	0.000072	J	0.00025	ND	U	0.00025	0.00052	--	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	32.9	--	15	13.2	--	1.5	54.4	--	15	11.7	--	1.5
		Sulfate	600	250	NS	250	43.9	--	4.5	44.3	--	4.5	54.3	--	4.5	17.2	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	ND	U	0.09	0.73	--	0.09	0.069	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	116	--	6	102	--	6	130	--	6	145	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	116	--	6	102	--	6	130	--	6	145	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106077			KAFB-106078			KAFB-106079			KAFB-106080		
			Field Sample ID:				GW077-202			GW078-202			GW079-202			GW080-202		
			Sample Date:				4/27/2020			4/21/2020			4/10/2020			4/23/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				506			582			498.78			511		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	34	--	0.15	32.1	--	0.15	96.9	--	0.15	131	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	**1.88**	--	0.103	**2.17**	--	0.103
		Magnesium	NS	NS	NS	NS	5.02	--	0.0751	4.23	--	0.0751	17	--	0.0751	22.9	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	**3.49**	--	0.0052	**4.03**	--	0.0052
		Potassium	NS	NS	NS	NS	2.18	--	0.375	1.97	--	0.375	3.28	--	0.375	3.77	--	0.375
		Sodium	NS	NS	NS	NS	21.1	--	0.5	20.7	--	0.5	35	--	0.5	43	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0012	J	0.0016	0.0016	J	0.0016	0.0012	J	0.0016	ND	U	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00012	J	0.00025	0.00048	J	0.00025	0.00018	J	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	3.1	--	2
		Chloride	250	250	NS	250	7.1	--	1.5	7.4	--	1.5	48.7	--	15	124	--	60
		Sulfate	600	250	NS	250	29.6	--	4.5	27.2	--	4.5	55.5	--	4.5	56.2	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.42	--	0.09	ND	U	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	108	--	6	104	--	6	281	--	6	271	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	108	--	6	104	--	6	281	--	6	271	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106081			KAFB-106082			KAFB-106083			KAFB-106084		
			Field Sample ID:				GW081-202			GW082-202			GW083-202			GW084-202		
			Sample Date:				4/29/2020			4/28/2020			4/28/2020			4/28/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				580			474			498			571		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	33.5	--	0.15	60.8	--	0.15	48.5	--	0.15	31.6	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	4.45	--	0.0751	8.69	--	0.0751	6.77	--	0.0751	4.52	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	0.0965	--	0.0052	0.118	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.01	--	0.375	2.8	--	0.375	2.4	--	0.375	2.09	--	0.375
		Sodium	NS	NS	NS	NS	21.2	--	0.5	28.3	--	0.5	25.1	--	0.5	22.2	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00099	J	0.0016	ND	U	0.0016	0.00079	J	0.0016	0.0012	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00008	J	0.00025	ND	U	0.00025	0.000085	J	0.00025	0.000088	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	7.2	--	1.5	39.7	--	15	25.8	--	1.5	7.2	--	1.5
		Sulfate	600	250	NS	250	28	--	4.5	48.6	--	4.5	41.2	--	4.5	28.4	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.08	J	0.09	ND	U	0.09	0.17	--	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	105	--	6	133	--	6	115	--	6	108	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	105	--	6	133	--	6	115	--	6	108	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106085			KAFB-106085			KAFB-106086			KAFB-106087		
			Field Sample ID:				GW085-202			GW085-602			GW086-202			GW087-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				447.2			447.2			476.7			546.7		
			Reference Elevation Interval (ft AMSL):				4857			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	58	J	0.15	57.7	J	0.15	57.3	--	0.15	42.1	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.49	J	0.0751	8.42	J	0.0751	7.67	--	0.0751	5.73	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	0.0108	--	0.0052	0.0073	J	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.92	J	0.375	2.85	J	0.375	2.76	--	0.375	2.33	--	0.375
		Sodium	NS	NS	NS	NS	26.6	J	0.5	26.4	J	0.5	26	--	0.5	23.4	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	ND	U	0.0016	0.00074	J	0.0016	0.0012	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	1.9	J	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	39.4	--	15	46.3	--	15	25.4	--	1.5	19.7	--	1.5
		Sulfate	600	250	NS	250	44.6	--	4.5	52.9	--	4.5	68.2	--	4.5	38.1	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.25	--	0.09	0.25	--	0.09	0.56	--	0.09	0.42	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	109	--	6	108	--	6	106	--	6	97.7	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	109	--	6	108	--	6	106	--	6	97.7	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106088			KAFB-106088			KAFB-106089			KAFB-106090		
			Field Sample ID:				GW088-202			GW088-602			GW089-202			GW090-202		
			Sample Date:				4/9/2020			4/9/2020			4/9/2020			4/9/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				460.7			460.7			482.26			555.78		
			Reference Elevation Interval (ft AMSL):				4857			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	40.2	--	0.15	40.5	--	0.15	37.2	--	0.15	31.1	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	5.56	--	0.0751	5.6	--	0.0751	5.15	--	0.0751	4.38	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	0.0041	J	0.0052
		Potassium	NS	NS	NS	NS	2.34	--	0.375	2.32	--	0.375	2.29	--	0.375	2	--	0.375
		Sodium	NS	NS	NS	NS	22.2	--	0.5	22.3	--	0.5	21.5	--	0.5	20.5	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00083	J	0.0016	0.00088	J	0.0016	0.00097	J	0.0016	0.0011	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	14.5	--	1.5	13.5	--	1.5	13.2	--	1.5	9.7	--	1.5
		Sulfate	600	250	NS	250	39.1	--	4.5	36.9	--	4.5	38.3	--	4.5	29.5	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.38	--	0.09	0.34	--	0.09	0.47	--	0.09	0.052	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	119	--	6	117	--	6	109	--	6	120	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	119	--	6	117	--	6	109	--	6	120	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106091			KAFB-106091			KAFB-106092			KAFB-106093		
			Field Sample ID:				GW091-202			GW091-602			GW092-202			GW093-202		
			Sample Date:				4/8/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			Field Duplicate			REG			REG		
			Sample Depth (ft bgs):				454.7			454.7			474.7			544.7		
			Reference Elevation Interval (ft AMSL):				4857			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	77.3	--	0.15	78.8	--	0.15	79.6	--	0.15	41.8	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	10.8	--	0.0751	11.1	--	0.0751	11.1	--	0.0751	5.83	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.27	--	0.375	3.28	--	0.375	3.28	--	0.375	2.45	--	0.375
		Sodium	NS	NS	NS	NS	29.4	--	0.5	29.9	--	0.5	30.5	--	0.5	27.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0007	J	0.0016	ND	U	0.0016	ND	U	0.0016	0.0011	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	2	J	2	2.1	J	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	72.2	--	15	69.5	--	15	80.2	--	15	33.3	--	15
		Sulfate	600	250	NS	250	114	--	45	110	--	45	103	--	45	45.1	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	2.2	--	0.09	2.3	--	0.09	2.1	--	0.09	0.8	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	94.5	--	6	95.3	--	6	92.5	--	6	98.9	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	94.5	--	6	95.3	--	6	92.5	--	6	98.9	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106094			KAFB-106095			KAFB-106096			KAFB-106096		
			Field Sample ID:				GW094-202			GW095-202			GW096-202			GW096-602		
			Sample Date:				4/21/2020			4/29/2020			5/8/2020			5/8/2020		
			Sample Type:				REG			REG			REG			Field Duplicate		
			Sample Depth (ft bgs):				494			505.85			584			584		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	50	--	0.15	46.9	--	0.15	31.4	--	0.15	30.7	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	0.0414	J	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	6.97	--	0.0751	6.16	--	0.0751	4.46	--	0.0751	4.42	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	**0.314**	--	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.66	--	0.375	2.44	--	0.375	2.05	--	0.375	1.91	--	0.375
		Sodium	NS	NS	NS	NS	25.6	--	0.5	23.7	--	0.5	21.5	--	0.5	21.2	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00082	J	0.0016	0.00084	J	0.0016	0.0015	J	0.0016	0.0016	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	0.00024	J	0.00025	0.00022	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	22.3	--	1.5	28.1	J	1.5	7.6	J	1.5	7	--	1.5
		Sulfate	600	250	NS	250	32.8	--	4.5	36	--	4.5	28.1	--	4.5	27.3	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.069	J	0.09	0.77	--	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	140	--	6	110	--	6	105	--	6	104	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	140	--	6	110	--	6	105	--	6	104	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106097			KAFB-106098			KAFB-106099			KAFB-106100		
			Field Sample ID:				GW097-202			GW098-202			GW099-202			GW100-202		
			Sample Date:				5/1/2020			5/1/2020			5/5/2020			5/5/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				508			533			503			528		
			Reference Elevation Interval (ft AMSL):				4838			4814			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	49	--	0.15	42.5	--	0.15	36.8	--	0.15	32.9	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	6.66	--	0.0751	6.2	--	0.0751	5.51	--	0.0751	4.93	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	0.0032	J	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.77	--	0.375	2.39	--	0.375	2.43	--	0.375	ND	U	0.375
		Sodium	NS	NS	NS	NS	24.9	--	0.5	22.5	--	0.5	21.2	--	0.5	20.1	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00098	J	0.0016	0.0011	J	0.0016	0.00099	J	0.0016	0.0013	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	22	--	1.5	16.5	--	1.5	11.5	--	1.5	7.8	--	1.5
		Sulfate	600	250	NS	250	49	--	4.5	41.2	--	4.5	31.4	--	4.5	27.3	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.86	--	0.09	0.59	--	0.09	0.56	--	0.09	0.055	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	106	--	6	102	--	6	102	--	6	102	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	106	--	6	102	--	6	102	--	6	102	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106101			KAFB-106102			KAFB-106103			KAFB-106104		
			Field Sample ID:				GW101-202			GW102-202			GW103-202			GW104-202		
			Sample Date:				5/4/2020			5/4/2020			4/10/2020			4/16/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				505			526			485.76			510.75		
			Reference Elevation Interval (ft AMSL):				4838			4814			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	41.5	--	0.15	32.7	--	0.15	32.8	--	0.15	31.6	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	6.11	--	0.0751	4.66	--	0.0751	4.43	--	0.0751	4.16	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.56	--	0.375	2.16	--	0.375	ND	U	0.375	2	--	0.375
		Sodium	NS	NS	NS	NS	22.3	--	0.5	19.2	--	0.5	23.2	--	0.5	23.2	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0013	J	0.0016	0.0014	J	0.0016	0.001	J	0.0016	0.004	--	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00016	J	0.00025	0.0001	J	0.00025	ND	U	0.00025	0.0012	--	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	16.7	--	1.5	7.6	--	1.5	9	--	1.5	9.4	--	1.5
		Sulfate	600	250	NS	250	39.6	--	4.5	28	--	4.5	29.5	--	4.5	29.7	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.82	--	0.09	ND	U	0.09	0.072	J	0.09	0.043	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	104	--	6	99.9	--	6	113	--	6	110	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	104	--	6	99.9	--	6	113	--	6	110	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106105			KAFB-106106			KAFB-106106			KAFB-106107		
			Field Sample ID:				GW105-202			GW106-202			GW106-602			GW107-202		
			Sample Date:				4/8/2020			4/8/2020			4/8/2020			4/8/2020		
			Sample Type:				REG			REG			Field Duplicate			REG		
			Sample Depth (ft bgs):				484.7			454.3			454.3			510.9		
			Reference Elevation Interval (ft AMSL):				4838			4857			4857			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	58.9	--	0.15	54.9	--	0.15	56.7	--	0.15	49.4	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	7.99	--	0.0751	7.65	--	0.0751	7.91	--	0.0751	6.89	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.85	--	0.375	2.99	--	0.375	3.06	--	0.375	2.57	--	0.375
		Sodium	NS	NS	NS	NS	25.3	--	0.5	25.7	--	0.5	26.4	--	0.5	24.1	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	0.00092	J	0.0016	0.001	J	0.0016	0.00093	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.0001	J	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	54.3	--	15	46.4	--	15	44.2	--	15	34.6	--	15
		Sulfate	600	250	NS	250	60.6	--	4.5	65.1	--	4.5	60.9	--	4.5	55.8	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.4	--	0.09	ND	U	0.09	1.2	--	0.09	0.72	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	92.1	--	6	99.1	--	6	99.9	J	6	99.5	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	92.1	--	6	99.1	--	6	99.9	J	6	99.5	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106149-484			KAFB-106151-484			KAFB-106152-484			KAFB-106153-484		
			Field Sample ID:				GW149-484-202			GW151-484-202			GW152-484-202			GW153-484-202		
			Sample Date:				4/16/2020			4/16/2020			4/16/2020			4/16/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				472			472.19			474.88			474.89		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	51.2	--	0.15	138	--	0.15	144	--	0.15	110	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	0.416	--	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.1	--	0.0751	21.4	--	0.0751	23.4	--	0.0751	17	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	**3.71**	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.79	--	0.375	3.71	--	0.375	4.08	--	0.375	3.36	--	0.375
		Sodium	NS	NS	NS	NS	26.7	--	0.5	35.5	--	0.5	39.5	--	0.5	34	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0013	J	0.0016	0.0012	J	0.0016	0.00097	J	0.0016	0.0019	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00014	J	0.00025	0.00024	J	0.00025	0.00055	--	0.00025	0.00025	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	2	J	2	ND	U	2
		Chloride	250	250	NS	250	12.6	--	1.5	72.8	--	15	70	--	15	16.1	--	1.5
		Sulfate	600	250	NS	250	ND	U	4.5	192	--	45	5.2	--	4.5	ND	U	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	ND	U	0.09	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	168	--	6	266	--	6	447	--	6	357	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	168	--	6	266	--	6	447	--	6	357	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106201			KAFB-106202			KAFB-106203			KAFB-106204		
			Field Sample ID:				GW201-202			GW202-202			GW203-202			GW204-202		
			Sample Date:				4/7/2020			4/7/2020			4/7/2020			4/7/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				490.35			520.6			623.78			463.2		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	68.7	--	0.15	42.5	--	0.15	38.5	--	0.15	64.6	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	9.13	--	0.0751	5.84	--	0.0751	5.04	--	0.0751	9.12	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.66	--	0.375	2.33	--	0.375	2.23	--	0.375	3.24	--	0.375
		Sodium	NS	NS	NS	NS	30.5	--	0.5	28.9	--	0.5	21.7	--	0.5	33.3	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00069	J	0.0016	0.00088	J	0.0016	0.00087	J	0.0016	0.00098	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	46	--	15	21.1	--	1.5	8.7	--	1.5	57.6	--	15
		Sulfate	600	250	NS	250	113	--	45	39.3	--	4.5	27.7	--	4.5	47.1	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.5	--	0.09	0.64	--	0.09	0.08	J	0.09	1.4	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	109	--	6	103	--	6	117	--	6	101	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	109	--	6	103	--	6	117	--	6	101	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106205			KAFB-106206			KAFB-106207			KAFB-106208		
			Field Sample ID:				GW205-202			GW206-202			GW207-202			GW208-202		
			Sample Date:				4/7/2020			4/7/2020			4/10/2020			4/10/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				493.2			594.2			473.7			503.7		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	52.5	--	0.15	58.5	--	0.15	55.3	--	0.15	49.8	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	7.33	--	0.0751	8.12	--	0.0751	7.5	--	0.0751	6.77	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.17	--	0.375	3.12	--	0.375	2.8	--	0.375	2.74	--	0.375
		Sodium	NS	NS	NS	NS	31.7	--	0.5	33.4	--	0.5	25.5	--	0.5	25.4	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00069	J	0.0016	ND	U	0.0016	0.00073	J	0.0016	0.00077	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	1.9	J	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	38.4	--	15	49.9	--	15	52.9	--	15	43.2	--	15
		Sulfate	600	250	NS	250	51.6	--	4.5	63.8	--	4.5	55.8	--	4.5	55.8	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.88	--	0.09	1.3	--	0.09	1.2	J	0.09	1	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	104	--	6	93.6	--	6	99.2	--	6	98.9	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	104	--	6	93.6	--	6	99.2	--	6	98.9	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106208			KAFB-106209			KAFB-106212			KAFB-106213		
			Field Sample ID:				GW208-602			GW209-202			GW212-202			GW213-202		
			Sample Date:				4/10/2020			4/10/2020			4/8/2020			4/8/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				503.7			603.7			543.9			451.3		
			Reference Elevation Interval (ft AMSL):				4838			4814			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	49.3	--	0.15	35.8	--	0.15	38.8	--	0.15	37.9	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	6.7	--	0.0751	4.87	--	0.0751	5.37	--	0.0751	5.27	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.67	--	0.375	ND	U	0.375	ND	U	0.375	ND	U	0.375
		Sodium	NS	NS	NS	NS	25.1	--	0.5	22.1	--	0.5	26.6	--	0.5	27.2	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00081	J	0.0016	0.0011	J	0.0016	0.00097	J	0.0016	0.00095	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	0.000094	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	44.4	--	15	16.4	--	1.5	21.9	--	1.5	18.1	--	1.5
		Sulfate	600	250	NS	250	56.1	--	4.5	32.5	--	4.5	26.9	--	4.5	33.4	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1	--	0.09	0.2	--	0.09	0.13	--	0.09	0.4	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	98.9	--	6	108	--	6	104	--	6	103	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	98.9	--	6	108	--	6	104	--	6	103	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106214			KAFB-106215			KAFB-106216			KAFB-106217		
			Field Sample ID:				GW214-202			GW215-202			GW216-202			GW217-202		
			Sample Date:				4/8/2020			4/8/2020			4/7/2020			4/7/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				478.95			547.7			461.4			485.7		
			Reference Elevation Interval (ft AMSL):				4838			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	41.3	--	0.15	31.3	--	0.15	58.2	--	0.15	52.1	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	5.69	--	0.0751	4.35	--	0.0751	7.55	--	0.0751	6.58	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.2	--	0.375	1.87	--	0.375	2.55	--	0.375	2.53	--	0.375
		Sodium	NS	NS	NS	NS	26.5	--	0.5	24.1	--	0.5	24.7	--	0.5	25	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00085	J	0.0016	0.001	J	0.0016	0.00072	J	0.0016	0.00076	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.000075	J	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	1.9	J	2	ND	U	2
		Chloride	250	250	NS	250	46.2	--	15	10.3	--	1.5	66.3	--	30	37.2	--	3
		Sulfate	600	250	NS	250	42.7	--	4.5	28.9	--	4.5	40.9	--	4.5	40.6	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.86	--	0.09	ND	U	0.09	1.6	--	0.09	0.85	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	105	--	6	105	--	6	93.5	--	6	109	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	105	--	6	105	--	6	93.5	--	6	109	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106218			KAFB-106219			KAFB-106220			KAFB-106221		
			Field Sample ID:				GW218-202			GW219-202			GW220-202			GW221-202		
			Sample Date:				4/7/2020			4/7/2020			4/7/2020			4/7/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				552.7			466			493.7			561.7		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	35.8	--	0.15	40.8	--	0.15	40.3	--	0.15	35.7	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	4.64	--	0.0751	5.54	--	0.0751	5.35	--	0.0751	4.65	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.25	--	0.375	2.29	--	0.375	2.33	--	0.375	2.07	--	0.375
		Sodium	NS	NS	NS	NS	23.7	--	0.5	21.2	--	0.5	21.3	--	0.5	21.7	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00069	J	0.0016	0.00077	J	0.0016	0.0012	J	0.0016	0.00073	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.000089	J	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	7.6	--	1.5	10	--	1.5	9.1	--	1.5	8.8	--	1.5
		Sulfate	600	250	NS	250	26.8	--	4.5	30.1	--	4.5	29.7	--	4.5	30	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	0.13	--	0.09	0.74	--	0.09	0.062	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	96.4	--	6	106	--	6	116	--	6	111	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	96.4	--	6	106	--	6	116	--	6	111	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106222			KAFB-106223			KAFB-106224			KAFB-106225		
			Field Sample ID:				GW222-202			GW223-202			GW224-202			GW225-202		
			Sample Date:				4/7/2020			4/7/2020			4/7/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				461.1			488.5			555.7			453.3		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	63	--	0.15	51.2	--	0.15	31.7	--	0.15	50.7	J	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.88	--	0.0751	7.22	--	0.0751	4.36	--	0.0751	7.08	J	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.02	--	0.375	2.65	--	0.375	2.15	--	0.375	2.55	J	0.375
		Sodium	NS	NS	NS	NS	32.8	--	0.5	29.2	--	0.5	26.3	--	0.5	24.6	J	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	0.00093	J	0.0016	0.0012	J	0.0016	ND	U	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	67.8	--	6	35.4	--	6	8.5	--	1.5	28.2	--	1.5
		Sulfate	600	250	NS	250	56.8	--	4.5	52.2	--	4.5	27.3	--	4.5	74	--	9
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	3.5	J	0.09	1.4	--	0.09	ND	U	0.09	0.49	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	96.3	--	6	108	--	6	121	--	6	113	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	96.3	--	6	108	--	6	121	--	6	113	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106225			KAFB-106226			KAFB-106227			KAFB-106230		
			Field Sample ID:				GW225-602			GW226-202			GW227-202			GW230-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/10/2020		
			Sample Type:				Field Duplicate			REG			REG			REG		
			Sample Depth (ft bgs):				453.3			480.7			548.7			501.7		
			Reference Elevation Interval (ft AMSL):				4857			4838			4814			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	57	J	0.15	58.4	--	0.15	39.6	--	0.15	46.7	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	7.93	J	0.0751	7.9	--	0.0751	5.32	--	0.0751	6.32	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.92	J	0.375	2.62	--	0.375	2.34	--	0.375	2.65	--	0.375
		Sodium	NS	NS	NS	NS	27.7	J	0.5	27	--	0.5	23.5	--	0.5	23.4	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00085	J	0.0016	0.00069	J	0.0016	0.00096	J	0.0016	0.00098	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	0.00012	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	23.7	--	1.5	37.2	--	15	12	--	1.5	32.9	--	15
		Sulfate	600	250	NS	250	74.5	--	4.5	64.9	--	4.5	37.9	--	4.5	58.4	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	0.42	--	0.09	0.82	--	0.09	0.12	--	0.09	0.88	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	114	--	6	98.2	--	6	108	--	6	97.4	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	114	--	6	98.2	--	6	108	--	6	97.4	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106231			KAFB-106232			KAFB-106235-438			KAFB-106235-472		
			Field Sample ID:				GW231-202			GW232-202			GW235-438-202			GW235-472-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				453.7			503.7			443.9			472.7		
			Reference Elevation Interval (ft AMSL):				4857			4814			4857			4838		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	84.4	J	0.15	48	--	0.15	63.2	--	0.15	55.3	J	0.3
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	11.8	J	0.0751	6.62	--	0.0751	8.87	--	0.0751	7.92	J	0.15
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	3.54	J	0.375	2.5	--	0.375	3.75	--	0.375	3.18	J	0.751
		Sodium	NS	NS	NS	NS	35.7	J	0.5	24.1	--	0.5	27.5	--	0.5	25.8	J	1
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	ND	U	0.0016	0.00082	J	0.0016	0.00095	J	0.0016	0.001	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	2.8	--	2	ND	U	2	2.1	J	2	ND	U	2
		Chloride	250	250	NS	250	166	J	15	29	--	1.5	64.5	--	30	51	J	3
		Sulfate	600	250	NS	250	41.2	--	4.5	47.7	--	4.5	59	--	4.5	61.8	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	3.3	J	0.18	0.69	--	0.09	1.5	--	0.09	1.4	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	77.5	--	6	96.1	--	6	83.6	--	6	85.5	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	77.5	--	6	96.1	--	6	83.6	--	6	85.5	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106235-501			KAFB-106236-436			KAFB-106236-470			KAFB-106236-499		
			Field Sample ID:				GW235-501-202			GW236-436-202			GW236-470-202			GW236-499-202		
			Sample Date:				4/6/2020			4/6/2020			4/6/2020			4/6/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				501.7			441.9			470.7			499.7		
			Reference Elevation Interval (ft AMSL):				4814			4857			4838			4814		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	62.1	--	0.15	52.7	--	0.15	50.1	J	0.15	56.4	J	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	8.49	--	0.0751	7.37	--	0.0751	7.08	J	0.0751	7.89	J	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	2.98	--	0.375	3.18	--	0.375	2.92	J	0.375	3.09	J	0.375
		Sodium	NS	NS	NS	NS	25.8	--	0.5	28.3	--	0.5	23.8	J	0.5	25.6	J	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00091	J	0.0016	0.00092	J	0.0016	0.00097	J	0.0016	0.00086	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00017	J	0.00025	ND	U	0.00025	0.00019	J	0.00025	0.00018	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	41.9	--	3	34.7	--	3	37	--	3	47.5	J	3
		Sulfate	600	250	NS	250	79	--	9	55.8	--	4.5	67.6	--	4.5	61.9	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.1	--	0.09	1.1	J	0.09	0.78	J	0.09	0.73	J	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	87.1	--	6	84.3	--	6	84.2	--	6	84.8	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	87.1	--	6	84.3	--	6	84.2	--	6	84.8	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106240-449			KAFB-106241-428			KAFB-106242-418			KAFB-106243-425		
			Field Sample ID:				GW240-449-202			GW241-428-202			GW242-418-202			GW243-425-202		
			Sample Date:				4/9/2020			4/9/2020			4/6/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				473.14			452.2			442.24			449.14		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	74.4	--	0.15	51.1	--	0.15	121	--	0.15	55.2	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	11.3	--	0.0751	7.11	--	0.0751	17.3	--	0.0751	7.62	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	0.0079	J	0.0052
		Potassium	NS	NS	NS	NS	2.98	--	0.375	2.81	--	0.375	3.83	--	0.375	2.81	--	0.375
		Sodium	NS	NS	NS	NS	26.3	--	0.5	26.6	--	0.5	36.5	--	0.5	27.1	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0013	J	0.0016	0.00079	J	0.0016	0.00092	J	0.0016	0.00096	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	2.3	J	2	ND	U	2
		Chloride	250	250	NS	250	56.6	--	30	26.5	--	3	123	--	60	23.5	--	1.5
		Sulfate	600	250	NS	250	62.4	J	4.5	44.8	--	4.5	244	--	180	47.2	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	1.6	J	0.09	0.2	--	0.09	3.4	--	0.18	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	165	--	6	134	--	6	121	--	6	152	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	165	--	6	134	--	6	121	--	6	152	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106244-445			KAFB-106245-460			KAFB-106247-450			KAFB-106S1-447		
			Field Sample ID:				GW244-445-202			GW245-460-202			GW247-450-202			GWS1-447-202		
			Sample Date:				4/9/2020			4/9/2020			4/9/2020			4/9/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				469.19			487.77			477.42			471.12		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	134	--	0.15	46.4	--	0.15	43.4	--	0.15	119	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.103	ND	U	0.103	0.831	--	0.103
		Magnesium	NS	NS	NS	NS	20.6	--	0.0751	6.71	--	0.0751	6.39	--	0.0751	19.6	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	0.0035	J	0.0052	**3.99**	--	0.0052
		Potassium	NS	NS	NS	NS	4.51	--	0.375	2.32	--	0.375	2.54	--	0.375	3.68	--	0.375
		Sodium	NS	NS	NS	NS	54.6	--	0.5	22.4	--	0.5	24.1	--	0.5	35.1	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00077	J	0.0016	0.00097	J	0.0016	ND	U	0.0016	0.0035	--	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	ND	U	0.00025	0.00026	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2	2.1	J	2
		Chloride	250	250	NS	250	126	--	15	35	--	15	12	--	1.5	29.8	--	3
		Sulfate	600	250	NS	250	**309**	--	45	28.4	--	4.5	33.1	--	4.5	9.8	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	3.8	--	0.09	0.94	--	0.45	—	—	—	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	106	--	6	109	--	6	142	--	6	409	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	106	--	6	109	--	6	142	--	6	409	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106S2-451			KAFB-106S3-449			KAFB-106S4-446			KAFB-106S5-446		
			Field Sample ID:				GWS2-451-202			GWS3-449-202			GWS4-446-202			GWS5-446-202		
			Sample Date:				4/9/2020			4/10/2020			4/9/2020			4/16/2020		
			Sample Type:				REG			REG			REG			REG		
			Sample Depth (ft bgs):				478.15			478.91			473.04			470.1		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	157	--	0.15	150	--	0.15	187	--	0.15	68	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	**8.55**	--	0.103	ND	U	0.103	**1.99**	--	0.103
		Magnesium	NS	NS	NS	NS	26.2	--	0.0751	25.7	--	0.0751	29.5	--	0.0751	11.3	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	**6.01**	--	0.0052	**6.41**	--	0.0052	ND	U	0.0052	**2.2**	--	0.0052
		Potassium	NS	NS	NS	NS	4.23	--	0.375	4.38	--	0.375	5.01	--	0.375	2.9	--	0.375
		Sodium	NS	NS	NS	NS	42.2	--	0.5	41.2	--	0.5	65	--	0.5	27.2	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0024	--	0.0016	0.0055	--	0.0016	ND	U	0.0016	0.0037	--	0.0016
		Lead	0.015	0.015	0.015	0.015	0.00054	--	0.00025	0.00076	--	0.00025	ND	U	0.00025	0.00091	--	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	2.3	J	2	3.2	--	2	2.3	J	2	ND	U	2
		Chloride	250	250	NS	250	125	--	15	140	--	15	208	--	15	23	--	1.5
		Sulfate	600	250	NS	250	19.2	--	4.5	2.7	J	4.5	**342**	--	45	ND	U	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	ND	U	0.09	8	--	0.45	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	388	--	6	443	--	6	100	--	6	264	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	388	--	6	443	--	6	100	--	6	264	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

			Well Location ID:				KAFB-106S8-451			KAFB-106S9-447			KAFB-3411		
			Field Sample ID:				GWS8-451-202			GWS9-447-202			GW3411-202		
			Sample Date:				4/10/2020			4/16/2020			4/24/2020		
			Sample Type:				REG			REG			REG		
			Sample Depth (ft bgs):				478.32			473.7			482		
			Reference Elevation Interval (ft AMSL):				4857			4857			4857		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	158	--	0.15	135	--	0.15	33	--	0.15
		Iron, dissolved	1.0	NS	NS	1.0	0.483	--	0.103	0.283	--	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	24.7	--	0.0751	23.2	--	0.0751	4.96	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	**1.64**	--	0.0052	**3.62**	--	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	4.06	--	0.375	4.04	--	0.375	2.12	--	0.375
		Sodium	NS	NS	NS	NS	39.4	--	0.5	37.5	--	0.5	19.3	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0023	--	0.0016	0.0009	J	0.0016	0.0012	J	0.0016
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	0.0011	--	0.00025	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	U	2	ND	U	2	ND	U	2
		Chloride	250	250	NS	250	12.2	J	1.5	50.7	--	3	7.1	--	1.5
		Sulfate	600	250	NS	250	8.1	J	4.5	50.6	--	4.5	27.8	--	4.5
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	ND	U	0.09	0.12	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as CaCO3)	NS	NS	NS	NS	456	--	6	389	--	6	103	--	6
		Alkalinity, carbonate (as CaCO3)	NS	NS	NS	NS	ND	U	6	ND	U	6	ND	U	6
		Alkalinity, total (as CaCO3)	NS	NS	NS	NS	456	--	6	389	--	6	103	--	6

Table 3-8
Groundwater Analytical Results for Inorganic Compounds for Groundwater Monitoring Wells, Q2 2020

[a] NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018). For metals, the NMWQCC numeric standard applies to dissolved metals.

[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

[e] Based on the geochemical equilibrium of the site groundwater and previous site data analyses, nitrate/nitrite results represent nitrate concentrations.

— = compound not analyzed for
AFB = Air Force Base
AMSL = above mean sea level
bgs = below ground surface
$CaCO_3$ = calcium carbonate
CFR = Code of Federal Regulations
EPA = U.S. Environmental Protection Agency
ft = foot (feet)
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
mg/L = milligram per liter
ND = not detected
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
Q2 = second quarter
REG = normal field sample
RSL = regional screening level
Val Qual = validation qualifier
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.
-- = Validation qualifier not assigned.

Table 3-9
Status of Quarterly Baseline Sampling Newly Added Wells and Summary of Q2 2020 Analytical Results

Well Location ID	Reference Elevation Interval (ft AMSL)	Dates Newly Added Wells Sampled	Number of Quarters Sampled	Remaining Quarters to Complete Baseline	Summary of Analytical Results for Samples Collected During Q2 2020
KAFB-106S7-451[a,b]	4857	4/16/2019, 5/9/2019	1	1	EDB, benzene, toluene, and total xylenes exceeded their respective MCLs. Ethylbenzene was detected below the MCL. Dissolved manganese and dissolved iron exceeded their PSLs.
		8/12/2019	2		
		10/31/2019	3		
		1/9/2020	4		
		4/16/2020	5		
		TBD	6		

[a] This well was sampled for dissolved metals, anions, and alkalinity on May 9, 2019.

[b] During sampling in both the fourth quarter 2019 and first quarter 2020, there was a failure in the sleeve around the passive sampler that resulted in insufficient sample volume for the full suite of analytes. Therefore, to achieve four complete sets of baseline analysis, two additional quarters of baseline sampling will be conducted.

AMSL = above mean sea level
BTEX = benzene, toluene, ethylbenzene, and total xylenes
EDB = ethylene dibromide (1,2-dibromoethane)
ft = foot (feet)
ID = identification
MCL = maximum contaminant level
PSL = project screening level
Q2 = second quarter
TBD = to be determined

Table 3-10
Historical EDB Concentrations

			Analyte:	EDB (1,2-dibromoethane)	
			EPA MCL[a]:	0.05 µg/L	
Well Location ID	**Sample Date**	**Sampling Quarter[b]**	**Result**	**Val Qual**	**LOD**
KAFB-106001[c]	4/16/2020	Q2 2020	**2.4**	--	0.38
	11/1/2019	Q4 2019	**0.76**	--	0.19
	10/30/2018	Q4 2018	**1.2**	--	0.19
	5/2/2018	Q2 2018	**2.6**	--	0.38
KAFB-106002	4/17/2020	Q2 2020	ND	U	0.019
	10/11/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	ND	U	0.019
	10/17/2018	Q4 2018	ND	U	0.019
KAFB-106003	4/30/2020	Q2 2020	ND	U	0.019
	1/17/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/24/2019	Q3 2019	ND	U	0.019
KAFB-106004	5/5/2020	Q2 2020	ND	U	0.019
	1/16/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/12/2019	Q3 2019	ND	U	0.019
KAFB-106005	4/16/2020	Q2 2020	0.016	J	0.019
	1/8/2020	Q1 2020	0.045	--	0.019
	10/30/2019	Q4 2019	**0.10**	J	0.019
	7/31/2019	Q3 2019	**0.11**	--	0.019
KAFB-106006	4/24/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	4/25/2019	Q2 2019	0.035	--	0.019
	11/5/2018	Q4 2018	ND	U	0.019
KAFB-106007	4/24/2020	Q2 2020	ND	U	0.019
	10/18/2019	Q4 2019	ND	U	0.019
	4/24/2019	Q2 2019	ND	U	0.019
	10/25/2018	Q4 2018	ND	U	0.019
KAFB-106008[c]	4/16/2020	Q2 2020	**0.71**	--	0.095
	11/7/2019	Q4 2019	**4.6**	--	1.9
	10/22/2018	Q4 2018	**20**	--	3.8
	4/18/2018	Q2 2018	0.015	J	0.019
KAFB-106009	4/16/2020	Q2 2020	0.016	J	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106010	4/24/2020	Q2 2020	**0.11**	--	0.019
	11/5/2019	Q4 2019	**0.89**	J	0.38
	4/23/2019	Q2 2019	**0.65**	--	0.19
	10/25/2018	Q4 2018	**2.1**	--	0.19
KAFB-106011	4/17/2020	Q2 2020	ND	U	0.019
	10/14/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	0.013	J	0.019
	10/16/2018	Q4 2018	ND	U	0.019
KAFB-106012R	4/23/2020	Q2 2020	ND	U	0.019
	1/14/2020	Q1 2020	ND	U	0.019
	10/18/2019	Q4 2019	ND	U	0.019
	7/24/2019	Q3 2019	ND	U	0.019
KAFB-106013	5/1/2020	Q2 2020	ND	U	0.019
	1/15/2020	Q1 2020	ND	U	0.019
	10/23/2019	Q4 2019	ND	U	0.019
	7/15/2019	Q3 2019	ND	U	0.019
KAFB-106014	4/24/2020	Q2 2020	0.043	--	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	5/1/2019	Q2 2019	**0.1**	--	0.019
	11/5/2018	Q4 2018	**0.29**	--	0.095
KAFB-106015	4/6/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106016	4/17/2020	Q2 2020	ND	U	0.019
	10/11/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	ND	U	0.019
	10/18/2018	Q4 2018	ND	U	0.019
KAFB-106017	4/21/2020	Q2 2020	**0.28**	--	0.019
	10/15/2019	Q4 2019	**0.25**	J	0.095
	4/2/2019	Q2 2019	**0.2**	--	0.019
	10/18/2018	Q4 2018	**0.25**	--	0.019
KAFB-106018	5/8/2020	Q2 2020	0.017	J	0.019
	10/15/2019	Q4 2019	ND	U	0.019
	4/4/2019	Q2 2019	0.038	--	0.019
	10/18/2018	Q4 2018	0.025	J	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD
KAFB-106019	4/23/2020	Q2 2020	ND	U	0.019
	10/16/2019	Q4 2019	**0.052**	--	0.019
	5/1/2019	Q2 2019	0.016	J	0.019
	10/29/2018	Q4 2018	**0.079**	--	0.019
KAFB-106020	4/28/2020	Q2 2020	ND	U	0.019
	10/17/2019	Q4 2019	ND	U	0.019
	5/2/2019	Q2 2019	ND	U	0.019
	11/6/2018	Q4 2018	ND	U	0.019
KAFB-106021	4/6/2020	Q2 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	4/15/2019	Q2 2019	ND	U	0.019
	10/8/2018	Q4 2018	ND	U	0.019
KAFB-106022	4/6/2020	Q2 2020	0.017	J	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	4/15/2019	Q2 2019	0.022	J	0.019
	10/2/2018	Q4 2018	0.038	--	0.019
KAFB-106023	4/10/2020	Q2 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/3/2018	Q4 2018	ND	U	0.019
KAFB-106024	4/20/2020	Q2 2020	ND	U	0.019
	10/16/2019	Q4 2019	ND	U	0.019
	4/3/2019	Q2 2019	ND	U	0.019
	10/17/2018	Q4 2018	ND	U	0.019
KAFB-106025	4/8/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106026[d]	4/10/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	11/12/2015	Q4 2015	0.0214	J	0.0285
	8/17/2015	Q3 2015	0.0199	J	0.0278
KAFB-106027	4/20/2020	Q2 2020	ND	U	0.019
	10/15/2019	Q4 2019	ND	U	0.019
	4/1/2019	Q2 2019	ND	U	0.019
	10/16/2018	Q4 2018	ND	U	0.019
KAFB-106028[e]	4/10/2020	Q2 2020	**2.9**	J	0.38
	4/22/2019	Q2 2019	**0.34**	--	0.095
	10/22/2018	Q4 2018	**13**	--	1.9
	4/12/2018	Q2 2018	**4.0**	--	0.95
KAFB-106029	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106030	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106031	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106032	4/8/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106033	4/8/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106034	4/8/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106035	4/8/2020	Q2 2020	**0.093**	--	0.019
	10/29/2019	Q4 2019	**0.12**	--	0.019
	4/10/2019	Q2 2019	**0.12**	--	0.019
	10/2/2018	Q4 2018	**0.15**	--	0.019
KAFB-106036	4/8/2020	Q2 2020	**0.063**	--	0.019
	10/29/2019	Q4 2019	**0.097**	--	0.019
	4/10/2019	Q2 2019	**0.13**	--	0.019
	10/2/2018	Q4 2018	**0.19**	--	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD
KAFB-106037	4/8/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	**0.15**	--	0.019
	4/10/2019	Q2 2019	**0.13**	--	0.019
	10/2/2018	Q4 2018	**0.099**	--	0.019
KAFB-106038	4/22/2020	Q2 2020	ND	U	0.019
	10/17/2019	Q4 2019	ND	U	0.019
	4/4/2019	Q2 2019	ND	U	0.019
	11/7/2018	Q4 2018	ND	U	0.019
KAFB-106039	4/22/2020	Q2 2020	ND	U	0.019
	10/17/2019	Q4 2019	ND	U	0.019
	4/22/2019	Q2 2019	ND	U	0.019
	11/7/2018	Q4 2018	ND	U	0.019
KAFB-106040	4/23/2020	Q2 2020	ND	U	0.019
	10/16/2019	Q4 2019	ND	U	0.019
	4/22/2019	Q2 2019	ND	U	0.019
	11/7/2018	Q4 2018	ND	U	0.019
KAFB-106041	4/9/2020	Q2 2020	**0.054**	--	0.019
	1/9/2020	Q1 2020	0.049	--	0.019
	10/30/2019	Q4 2019	**0.057**	J	0.019
	8/12/2019	Q3 2019	0.032	--	0.019
KAFB-106042	4/9/2020	Q2 2020	0.032	--	0.019
	10/30/2019	Q4 2019	**0.057**	J	0.019
	4/8/2019	Q2 2019	0.027	J	0.019
	10/2/2018	Q4 2018	0.017	J	0.0095
KAFB-106043	4/9/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/8/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106044	4/20/2020	Q2 2020	ND	U	0.019
	10/15/2019	Q4 2019	ND	U	0.019
	4/1/2019	Q2 2019	ND	U	0.019
	10/16/2018	Q4 2018	ND	U	0.019
KAFB-106045	4/24/2020	Q2 2020	ND	U	0.019
	10/21/2019	Q4 2019	ND	U	0.019
	4/24/2019	Q2 2019	ND	U	0.019
	10/25/2018	Q4 2018	ND	U	0.019
KAFB-106046	4/22/2020	Q2 2020	ND	U	0.019
	10/14/2019	Q4 2019	ND	U	0.019
	4/3/2019	Q2 2019	ND	U	0.019
	10/18/2018	Q4 2018	ND	U	0.019
KAFB-106047	4/17/2020	Q2 2020	ND	U	0.019
	10/14/2019	Q4 2019	ND	U	0.019
	4/3/2019	Q2 2019	ND	U	0.019
	10/17/2018	Q4 2018	ND	U	0.019
KAFB-106048	4/29/2020	Q2 2020	ND	U	0.019
	10/22/2019	Q4 2019	ND	U	0.019
	4/26/2019	Q2 2019	ND	U	0.019
	11/13/2018	Q4 2018	ND	U	0.019
KAFB-106049	4/9/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106050	4/9/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106051	4/9/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106052	4/8/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/8/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106053	4/8/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/8/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106054	4/8/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/8/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	**Sample Date**	**Sampling Quarter[b]**	**Result**	**Val Qual**	**LOD**
KAFB-106055	4/7/2020	Q2 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	4/15/2019	Q2 2019	0.019	J	0.019
	10/4/2018	Q4 2018	0.02	J	0.019
KAFB-106057	4/7/2020	Q2 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	4/15/2019	Q2 2019	0.01	J	0.019
	10/9/2018	Q4 2018	ND	U	0.019
KAFB-106058	4/9/2020	Q2 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	4/15/2019	Q2 2019	0.0095	J	0.019
	10/4/2018	Q4 2018	ND	U	0.019
KAFB-106059	5/6/2020	Q2 2020	0.03	--	0.019
	10/21/2019	Q4 2019	**1.7**	J	0.38
	4/26/2019	Q2 2019	**3.1**	--	0.38
	10/25/2018	Q4 2018	**2.7**	--	0.38
KAFB-106060	4/20/2020	Q2 2020	ND	U	0.019
	10/11/2019	Q4 2019	**0.14**	--	0.019
	4/1/2019	Q2 2019	0.049	--	0.019
	10/23/2018	Q4 2018	ND	U	0.019
KAFB-106061	4/27/2020	Q2 2020	ND	U	0.019
	11/5/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	ND	U	0.019
	10/24/2018	Q4 2018	ND	U	0.019
KAFB-106062	4/21/2020	Q2 2020	ND	UJ	0.019
	10/14/2019	Q4 2019	ND	U	0.019
	4/4/2019	Q2 2019	ND	U	0.019
	10/4/2018	Q4 2018	ND	U	0.019
KAFB-106063[f]	5/19/2020	Q2 2020	ND	U	0.019
	10/4/2018	Q4 2018	**3.6**	J	0.38
	4/10/2018	Q2 2018	**3.7**	--	0.95
	10/24/2017	Q4 2017	ND	U	0.019
KAFB-106064[f]	5/19/2020	Q2 2020	ND	U	0.019
	10/4/2018	Q4 2018	**0.25**	--	0.019
	4/10/2018	Q2 2018	**12**	--	1.9
	10/24/2017	Q4 2017	**62**	--	0.019
KAFB-106065	4/22/2020	Q2 2020	ND	U	0.019
	10/11/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	ND	U	0.019
	10/17/2018	Q4 2018	ND	U	0.019
KAFB-106066	4/22/2020	Q2 2020	ND	U	0.019
	10/10/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	ND	U	0.019
	10/17/2018	Q4 2018	ND	U	0.019
KAFB-106067	4/21/2020	Q2 2020	ND	UJ	0.019
	10/14/2019	Q4 2019	ND	U	0.019
	4/1/2019	Q2 2019	0.027	J	0.019
	10/5/2018	Q4 2018	0.018	J	0.019
KAFB-106068	4/20/2020	Q2 2020	ND	U	0.019
	10/11/2019	Q4 2019	ND	U	0.019
	4/1/2019	Q2 2019	ND	U	0.019
	10/5/2018	Q4 2018	ND	U	0.019
KAFB-106069	4/23/2020	Q2 2020	0.014	J	0.019
	10/16/2019	Q4 2019	ND	U	0.019
	4/30/2019	Q2 2019	0.014	J	0.019
	10/29/2018	Q4 2018	0.044	--	0.019
KAFB-106070	4/16/2020	Q2 2020	ND	U	0.019
	11/1/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.026
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106071	4/16/2020	Q2 2020	ND	U	0.019
	11/1/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106072	4/16/2020	Q2 2020	ND	U	0.019
	11/1/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	0.03	--	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106073	4/30/2020	Q2 2020	ND	U	0.019
	10/17/2019	Q4 2019	ND	U	0.019
	5/2/2019	Q2 2019	0.015	J	0.019
	11/6/2018	Q4 2018	0.012	J	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD
KAFB-106074	4/30/2020	Q2 2020	ND	U	0.019
	10/22/2019	Q4 2019	ND	U	0.019
	4/25/2019	Q2 2019	ND	U	0.019
	11/1/2018	Q4 2018	ND	U	0.019
KAFB-106075	4/20/2020	Q2 2020	0.023	J	0.019
	10/14/2019	Q4 2019	0.034	--	0.019
	4/3/2019	Q2 2019	0.043	--	0.019
	10/23/2018	Q4 2018	0.045	--	0.019
KAFB-106076	4/28/2020	Q2 2020	0.024	J	0.019
	10/16/2019	Q4 2019	0.035	--	0.019
	5/2/2019	Q2 2019	0.047	--	0.019
	10/30/2018	Q4 2018	0.013	J	0.019
KAFB-106077	4/27/2020	Q2 2020	ND	U	0.019
	10/18/2019	Q4 2019	ND	U	0.019
	4/23/2019	Q2 2019	ND	U	0.019
	11/9/2018	Q4 2018	ND	U	0.019
KAFB-106078	4/21/2020	Q2 2020	ND	U	0.019
	10/15/2019	Q4 2019	ND	U	0.019
	4/2/2019	Q2 2019	ND	U	0.019
	10/17/2018	Q4 2018	ND	U	0.019
KAFB-106079[c]	4/10/2020	Q2 2020	0.012	J	0.019
	10/23/2019	Q4 2019	0.027	J	0.019
	10/23/2018	Q4 2018	0.011	J	0.019
	4/16/2018	Q2 2018	0.023	J	0.019
KAFB-106080	4/23/2020	Q2 2020	ND	U	0.019
	10/16/2019	Q4 2019	ND	U	0.019
	4/3/2019	Q2 2019	ND	U	0.019
	10/18/2018	Q4 2018	ND	U	0.019
KAFB-106081	4/29/2020	Q2 2020	ND	U	0.019
	10/18/2019	Q4 2019	ND	U	0.019
	4/24/2019	Q2 2019	ND	U	0.019
	10/18/2018	Q4 2018	ND	U	0.019
KAFB-106082	4/28/2020	Q2 2020	ND	U	0.019
	10/18/2019	Q4 2019	ND	U	0.019
	4/29/2019	Q2 2019	ND	U	0.019
	10/31/2018	Q4 2018	0.016	J	0.019
KAFB-106083	4/28/2020	Q2 2020	0.022	J	0.019
	10/18/2019	Q4 2019	ND	U	0.019
	4/30/2019	Q2 2019	0.026	J	0.019
	10/31/2018	Q4 2018	0.022	J	0.019
KAFB-106084	4/28/2020	Q2 2020	ND	U	0.019
	10/22/2019	Q4 2019	ND	U	0.019
	4/29/2019	Q2 2019	ND	U	0.095
	10/31/2018	Q4 2018	ND	U	0.019
KAFB-106085	4/6/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	0.014	J	0.019
	4/10/2019	Q2 2019	0.014	J	0.019
	10/1/2018	Q4 2018	**0.054**	--	0.019
KAFB-106086	4/6/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106087	4/6/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106088	4/9/2020	Q2 2020	0.041	--	0.019
	11/4/2019	Q4 2019	**0.11**	--	0.019
	4/10/2019	Q2 2019	**0.085**	--	0.019
	10/1/2018	Q4 2018	**0.14**	--	0.019
KAFB-106089	4/9/2020	Q2 2020	ND	U	0.036
	11/4/2019	Q4 2019	**0.064**	--	0.019
	4/10/2019	Q2 2019	**0.058**	--	0.019
	10/1/2018	Q4 2018	0.045	J	0.0095
KAFB-106090	4/9/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106091	4/8/2020	Q2 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/3/2018	Q4 2018	ND	U	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	**Sample Date**	**Sampling Quarter[b]**	**Result**	**Val Qual**	**LOD**
KAFB-106092	4/8/2020	Q2 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.019
	10/3/2018	Q4 2018	ND	U	0.019
KAFB-106093	4/8/2020	Q2 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.019
	10/3/2018	Q4 2018	ND	U	0.019
KAFB-106094	4/21/2020	Q2 2020	ND	UJ	0.019
	10/14/2019	Q4 2019	ND	U	0.019
	4/3/2019	Q2 2019	0.019	J	0.019
	10/16/2018	Q4 2018	0.030	--	0.019
KAFB-106095	4/29/2020	Q2 2020	ND	U	0.019
	10/21/2019	Q4 2019	ND	U	0.019
	5/2/2019	Q2 2019	ND	U	0.019
	11/13/2018	Q4 2018	ND	U	0.019
KAFB-106096	5/8/2020	Q2 2020	ND	U	0.019
	10/10/2019	Q4 2019	ND	U	0.019
	4/1/2019	Q2 2019	ND	U	0.019
	10/16/2018	Q4 2018	ND	U	0.019
KAFB-106097	5/1/2020	Q2 2020	ND	U	0.019
	1/15/2020	Q1 2020	ND	U	0.019
	10/23/2019	Q4 2019	ND	U	0.019
	7/15/2019	Q3 2019	ND	U	0.019
KAFB-106098	5/1/2020	Q2 2020	ND	U	0.019
	1/15/2020	Q1 2020	ND	U	0.019
	10/23/2019	Q4 2019	ND	U	0.019
	7/15/2019	Q3 2019	ND	U	0.019
KAFB-106099	5/5/2020	Q2 2020	ND	U	0.019
	1/16/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/12/2019	Q3 2019	ND	U	0.019
KAFB-106100	5/5/2020	Q2 2020	ND	U	0.019
	1/16/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/12/2019	Q3 2019	ND	U	0.019
KAFB-106101	5/4/2020	Q2 2020	ND	U	0.019
	1/17/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/11/2019	Q3 2019	ND	U	0.019
KAFB-106102	5/4/2020	Q2 2020	ND	U	0.019
	1/17/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/11/2019	Q3 2019	ND	U	0.019
KAFB-106103	4/10/2020	Q2 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/3/2018	Q4 2018	ND	U	0.019
KAFB-106104	4/16/2020	Q2 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/3/2018	Q4 2018	ND	U	0.019
KAFB-106105	4/8/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106106	4/8/2020	Q2 2020	0.022	J	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	0.020	J	0.019
KAFB-106107	4/8/2020	Q2 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106149-484	4/16/2020	Q2 2020	**78**	--	19
	1/9/2020	Q1 2020	**40**	--	9.6
	11/1/2019	Q4 2019	**100**	--	19
	8/13/2019	Q3 2019	**38**	--	9.5
KAFB-106151-484	4/16/2020	Q2 2020	**2.6**	--	0.38
	1/9/2020	Q1 2020	**3.4**	--	0.96
	11/1/2019	Q4 2019	**1.4**	--	0.38
	8/13/2019	Q3 2019	**0.29**	--	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	**Sample Date**	**Sampling Quarter[b]**	**Result**	**Val Qual**	**LOD**
KAFB-106152-484	4/16/2020	Q2 2020	ND	U	0.019
	1/9/2020	Q1 2020	ND	U	0.019
	11/1/2019	Q4 2019	0.043	--	0.019
	8/13/2019	Q3 2019	0.013	J	0.019
KAFB-106153-484	4/16/2020	Q2 2020	**140**	--	19
	1/9/2020	Q1 2020	**460**	--	96
	11/1/2019	Q4 2019	**820**	--	94
	8/12/2019	Q3 2019	**68**	--	38
KAFB-106201	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106202	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106203	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106204	4/7/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/23/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106205	4/7/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	0.022	J	0.019
	10/23/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106206	4/7/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/23/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106207	4/10/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106208	4/10/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106209	4/10/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/31/2019	Q3 2019	ND	U	0.019
KAFB-106212	4/8/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106213	4/8/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106214	4/8/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/16/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106215	4/8/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/2/2018	Q4 2018	ND	U	0.019
KAFB-106216	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106217	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106218	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	**Sample Date**	**Sampling Quarter[b]**	**Result**	**Val Qual**	**LOD**
KAFB-106219	4/7/2020	Q2 2020	ND	U	0.019
	11/5/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/4/2018	Q4 2018	ND	U	0.019
KAFB-106220	4/7/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/4/2018	Q4 2018	ND	U	0.019
KAFB-106221	4/7/2020	Q2 2020	ND	U	0.019
	11/4/2019	Q4 2019	ND	U	0.019
	4/10/2019	Q2 2019	ND	U	0.019
	10/4/2018	Q4 2018	ND	U	0.019
KAFB-106222	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106223	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106224	4/7/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/24/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106225	4/6/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	0.018	J	0.019
	10/1/2018	Q4 2018	**0.17**	--	0.019
KAFB-106226	4/6/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106227	4/6/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/9/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	ND	U	0.019
KAFB-106229	4/7/2020	Q2 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	4/8/2019	Q2 2019	ND	U	0.019
	10/1/2018	Q4 2018	0.011	J	0.019
KAFB-106230[g]	4/10/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	2/4/2016	Q1 2016	0.020	J	0.020
KAFB-106231	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106232	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106235-438	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106235-472	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106235-501	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106236-436	4/6/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019

Table 3-10
Historical EDB Concentrations

Analyte:			EDB (1,2-dibromoethane)		
EPA MCL[a]:			0.05 µg/L		
Well Location ID	**Sample Date**	**Sampling Quarter[b]**	**Result**	**Val Qual**	**LOD**
KAFB-106236-470	4/6/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106236-499	4/6/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/29/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106240-449	4/9/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106241-428	4/9/2020	Q2 2020	0.015	J	0.019
	1/8/2020	Q1 2020	0.021	J	0.017
	10/30/2019	Q4 2019	0.026	J	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106242-418	4/6/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/28/2019	Q4 2019	ND	U	0.019
	7/29/2019	Q3 2019	ND	U	0.019
KAFB-106243-425	4/9/2020	Q2 2020	0.02	J	0.019
	1/6/2020	Q1 2020	0.042	--	0.019
	10/30/2019	Q4 2019	**0.054**	J	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106244-445	4/9/2020	Q2 2020	ND	U	0.019
	1/7/2020	Q1 2020	ND	U	0.019
	10/30/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106245-460	4/9/2020	Q2 2020	ND	U	0.019
	1/8/2020	Q1 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	7/30/2019	Q3 2019	ND	U	0.019
KAFB-106247-450	4/9/2020	Q2 2020	ND	U	0.019
	1/6/2020	Q1 2020	ND	U	0.019
	10/31/2019	Q4 2019	ND	U	0.019
	8/12/2019	Q3 2019	ND	U	0.019
KAFB-106S1-447	4/9/2020	Q2 2020	**390**	--	190
	1/9/2020	Q1 2020	**450**	J	95
	10/31/2019	Q4 2019	**380**	--	95
	8/12/2019	Q3 2019	**480**	--	76
KAFB-106S2-451	4/9/2020	Q2 2020	**120**	--	19
	1/6/2020	Q1 2020	**170**	--	38
	10/31/2019	Q4 2019	**280**	--	96
	8/13/2019	Q3 2019	**160**	--	38
KAFB-106S3-449	4/10/2020	Q2 2020	**35**	J	7.6
	1/9/2020	Q1 2020	**1.5**	--	0.38
	10/31/2019	Q4 2019	**0.80**	--	0.19
	8/13/2019	Q3 2019	**2.6**	--	0.38
KAFB-106S4-446	4/9/2020	Q2 2020	ND	U	0.048
	1/6/2020	Q1 2020	0.026	J	0.019
	10/31/2019	Q4 2019	0.048	--	0.019
	8/13/2019	Q3 2019	0.034	--	0.019
KAFB-106S5-446	4/16/2020	Q2 2020	**11**	--	1.9
	1/9/2020	Q1 2020	**13**	--	3.8
	10/31/2019	Q4 2019	**16**	--	1.9
	8/12/2019	Q3 2019	**12**	--	1.9
KAFB-106S7-451	4/16/2020	Q2 2020	**39**	--	7.5
	1/9/2020	Q1 2020	**2.0**	--	0.38
	10/31/2019	Q4 2019	**2.6**	--	0.38
	8/12/2019	Q3 2019	**22**	--	3.8
KAFB-106S8-451	4/10/2020	Q2 2020	**400**	J	76
	1/6/2020	Q1 2020	**34**	--	9.4
	10/31/2019	Q4 2019	**170**	--	38
	8/12/2019	Q3 2019	**140**	--	38
KAFB-106S9-447	4/16/2020	Q2 2020	**35**	--	7.6
	1/9/2020	Q1 2020	**130**	--	38
	11/1/2019	Q4 2019	**58**	--	9.5
	8/13/2019	Q3 2019	**0.065**	--	0.019
KAFB-3411	4/24/2020	Q2 2020	ND	U	0.019
	10/17/2019	Q4 2019	ND	U	0.019
	4/23/2019	Q2 2019	ND	U	0.019
	10/22/2018	Q4 2018	ND	U	0.019

Table 3-10
Historical EDB Concentrations

[a] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA RSL. For EDB, the EPA MCL and the NMWQCC numeric standard are both 0.05 µg/L.

[b] Data presented includes results from the current quarter where applicable along with the three most recent historical results. The sampling plan is provided in Table 3-1.

[c] This well was not sampled in Q2 2019 due to suspected biofouling in the well.

[d] This well was not sampled between Q4 2015 and Q4 2019 due to security issues.

[e] This well was not sampled in Q4 2019 due to suspected biofouling in the well.

[f] This well was not sampled in 2019 due to the presence of dedicated downhole equipment related to the EDB *in situ* biodegradation pilot test. Monitoring was resumed in 2020, and results will be available in the next report.

[g] This well was not sampled between Q2 2016 and Q4 2019 due to security issues.

µg/L = microgram per liter
AFB = Air Force Base
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
ND = not detected
NMWQCC = New Mexico Water Quality Control Commission
RSL = regional screening level
Val Qual = validation qualifier
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.
-- = Validation qualifier not assigned.

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106001	11/1/2019	Q4 2019	4	--	0.5	ND	U	0.8	11	--	0.5	2	J	2
	10/30/2018	Q4 2018	**6**	--	0.5	0.8	J	0.8	34	--	0.5	6	--	2
	10/31/2017	Q4 2017	1	--	1	ND	U	1	12	--	1	4	--	1
KAFB-106002	10/11/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/25/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106003	4/30/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/17/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	0.3	J	0.5	ND	U	2
	7/24/2019	Q3 2019	ND	U	0.5	ND	U	0.8	0.2	J	0.5	ND	U	2
KAFB-106004	5/5/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/16/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/12/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106005	4/16/2020	Q2 2020	**12**	J	0.5	110	--	0.8	2	--	0.5	160	--	2
	1/8/2020	Q1 2020	**21**	--	0.5	100	--	0.8	4	--	0.5	160	--	2
	10/30/2019	Q4 2019	**30**	--	0.5	83	--	0.8	2	--	0.5	170	--	2
	7/31/2019	Q3 2019	**37**	--	0.5	42	--	0.8	1	--	0.5	95	--	2
KAFB-106006	4/24/2020	Q2 2020	**11**	--	0.5	2	--	0.8	0.3	J	0.5	5	J	2
	11/4/2019	Q4 2019	3	--	0.5	1	--	0.8	3	--	0.5	4	J	2
	4/25/2019	Q2 2019	**22**	--	0.5	0.8	J	0.8	27	--	0.5	5	--	2
	11/5/2018	Q4 2018	**17**	--	0.5	ND	U	0.8	12	--	0.5	ND	U	2
KAFB-106007	10/18/2019	Q4 2019	ND	U	0.5	ND	U	0.8	4	--	0.5	ND	U	2
	10/25/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.5	J	0.5	ND	U	2
	10/26/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106008	4/16/2020	Q2 2020	**8,900**	--	100	380	--	16	**4,000**	--	10	**1,000**	--	40
	11/7/2019	Q4 2019	**3,400**	--	10	230	--	2	950	--	10	480	--	4
	10/22/2018	Q4 2018	**5,800**	--	50	180	J	8	**2,700**	--	5	540	--	20
	10/20/2017	Q4 2017	**2,300**	--	20	120	--	2	**1,700**	--	20	310	--	2
KAFB-106009	4/16/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/8/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/31/2019	Q3 2019	2	--	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106010	4/24/2020	Q2 2020	**600**	--	3	150	--	4	160	--	3	120	--	10
	11/5/2019	Q4 2019	**280**	--	5	190	--	0.8	180	--	0.5	150	--	2
	4/23/2019	Q2 2019	**280**	--	0.5	130	--	0.8	28	--	0.5	40	--	2
	10/25/2018	Q4 2018	**2,300**	--	10	580	--	16	**2,900**	--	10	**1,100**	--	40
KAFB-106011	4/17/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/14/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/2/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/16/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106012R	4/23/2020	Q2 2020	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	1/14/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2019	Q4 2019	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	7/24/2019	Q3 2019	ND	U	0.5	ND	U	0.8	2	--	0.5	ND	U	2

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106013	5/1/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/15/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/23/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/15/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106014	4/24/2020	Q2 2020	**86**	--	0.5	8	--	0.8	76	--	0.5	16	--	2
	11/4/2019	Q4 2019	**15**	--	0.5	20	--	0.8	2	--	0.5	20	--	2
	5/1/2019	Q2 2019	**53**	--	0.5	67	--	0.8	460	--	5	190	--	2
	11/5/2018	Q4 2018	**240**	--	0.5	190	--	0.8	67	--	0.5	89	--	2
KAFB-106015	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106016	10/11/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/26/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106017	4/21/2020	Q2 2020	0.5	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/15/2019	Q4 2019	0.8	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/2/2019	Q2 2019	0.6	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2018	Q4 2018	1	--	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106018	5/8/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/15/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/4/2019	Q2 2019	0.2	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106019	10/16/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/29/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/12/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106020	10/17/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/6/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/9/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106021	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106022	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	0.2	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106023	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106024	10/16/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/26/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106025	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106026[c]	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/12/2015	Q4 2015	ND	U	1	ND	U	1	ND	U	1	ND	U	3
	8/17/2015	Q3 2015	ND	U	1	ND	U	1	ND	U	1	ND	U	3

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106027	10/15/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/16/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/12/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106028	4/10/2020	Q2 2020	**1,100**	--	5	190	--	0.8	180	--	0.5	42	--	2
	4/22/2019	Q2 2019	**220**	--	0.5	130	--	0.8	77	--	0.5	38	--	2
	10/22/2018	Q4 2018	**6,800**	--	100	**1,400**	--	16	**15,000**	--	100	**3,000**	--	40
	10/17/2017	Q4 2017	**9,200**	--	100	**2,800**	--	10	**16,000**	--	100	**3,500**	--	10
KAFB-106029	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106030	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106031	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106032	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106033	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106034	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106035	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106036	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106037	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106038	4/22/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2019	Q4 2019	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	4/4/2019	Q2 2019	ND	U	0.5	ND	U	0.8	63	--	0.5	ND	U	2
	11/7/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.3	J	0.5	ND	U	2
KAFB-106039	10/17/2019	Q4 2019	ND	U	0.5	ND	U	0.8	4	--	0.5	ND	U	2
	11/7/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.5	J	0.5	ND	U	2
	10/9/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106040	10/16/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/7/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.3	J	0.5	ND	U	2
	10/25/2017	Q4 2017	ND	U	1	ND	U	1	0.5	J	1	ND	U	1
KAFB-106041	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/16/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106042	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106043	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106044	10/15/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/16/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/12/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106045	10/21/2019	Q4 2019	ND	U	0.5	ND	U	0.8	3	--	0.5	ND	U	2
	10/25/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.3	J	0.5	ND	U	2
	10/30/2017	Q4 2017	ND	U	1	ND	U	1	0.7	J	1	ND	U	1
KAFB-106046	10/14/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/1/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106047	10/14/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/1/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106048	10/22/2019	Q4 2019	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	11/13/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.4	J	0.5	ND	U	2
	11/1/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106049	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106050	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106051	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106052	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106053	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106054	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106055	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106057	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/9/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106058	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106059	5/6/2020	Q2 2020	**2,300**	--	13	580	--	20	**1,600**	--	13	**1,800**	--	50
	10/21/2019	Q4 2019	**13,000**	--	50	640	--	8	**12,000**	--	50	**2,000**	--	20
	4/26/2019	Q2 2019	**12,000**	--	50	**900**	--	8	**15,000**	--	50	**3,100**	--	20
	10/25/2018	Q4 2018	**17,000**	--	50	**920**	--	8	**20,000**	--	50	**3,100**	--	20
KAFB-106060	4/20/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/11/2019	Q4 2019	0.2	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/1/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/23/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106061	4/27/2020	Q2 2020	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	11/5/2019	Q4 2019	ND	U	0.5	ND	U	0.8	4	--	0.5	ND	U	2
	4/2/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/24/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106062	4/21/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/14/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/4/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106063[d]	5/19/2020	Q2 2020	**5,700**	--	50	**1,700**	--	8	**18,000**	--	50	**5,100**	--	20
	10/4/2018	Q4 2018	**6,400**	--	50	**2,000**	--	8	**20,000**	--	50	**5,700**	--	20
	4/10/2018	Q2 2018	**2,000**	--	10	**710**	--	10	**3,600**	--	100	**1,200**	--	10
	10/24/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106064[d]	5/19/2020	Q2 2020	**3,600**	--	25	**1,500**	--	40	380	--	3	**4,700**	--	100
	10/4/2018	Q4 2018	**3,600**	--	50	**1,200**	--	8	**12,000**	--	50	**3,800**	--	20
	4/10/2018	Q2 2018	**3,800**	--	100	**2,100**	--	100	**15,000**	--	100	**5,900**	--	100
	10/24/2017	Q4 2017	**3,000**	--	10	**850**	--	10	**8,000**	--	100	**3,100**	--	10
KAFB-106065	4/22/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/11/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/2/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2018	Q4 2018	0.2	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106066	4/22/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/10/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/2/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106067	4/21/2020	Q2 2020	1	--	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/14/2019	Q4 2019	1	--	0.5	0.7	J	0.8	ND	U	0.5	ND	U	2
	4/1/2019	Q2 2019	1	--	0.5	2	--	0.8	ND	U	0.5	ND	U	2
	10/5/2018	Q4 2018	**5**	--	0.5	2	--	0.8	0.2	J	0.5	ND	U	2
KAFB-106068	4/20/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/11/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/1/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106069	4/23/2020	Q2 2020	0.2	J	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	10/16/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/30/2019	Q2 2019	ND	U	0.5	ND	U	0.8	0.2	J	0.5	ND	U	2
	10/29/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106070	11/1/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106071	11/1/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106072	11/1/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/5/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106073	10/17/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/6/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/10/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106074	10/22/2019	Q4 2019	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	11/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.3	J	0.5	ND	U	2
	10/10/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106075	10/14/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/23/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/12/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106076	4/28/2020	Q2 2020	0.6	J	0.5	7	--	0.8	2	--	0.5	12	--	2
	10/16/2019	Q4 2019	1	--	0.5	37	--	0.8	ND	U	0.5	100	--	2
	5/2/2019	Q2 2019	4	--	0.5	40	--	0.8	41	--	0.5	100	--	2
	10/30/2018	Q4 2018	1	--	0.5	62	--	0.8	20	--	0.5	180	--	2
KAFB-106077	4/27/2020	Q2 2020	ND	U	0.5	ND	U	0.8	3	--	0.5	ND	U	2
	10/18/2019	Q4 2019	ND	U	0.5	ND	U	0.8	2	--	0.5	ND	U	2
	4/23/2019	Q2 2019	ND	U	0.5	ND	U	0.8	0.5	J	0.5	ND	U	2
	11/9/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.6	J	0.5	ND	U	2
KAFB-106078	4/21/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/15/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/2/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/17/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106079	4/10/2020	Q2 2020	1	--	0.5	0.5	J	0.8	0.3	J	0.5	ND	U	2
	10/23/2019	Q4 2019	**140**	--	0.5	34	--	0.8	66	--	0.5	79	--	2
	10/23/2018	Q4 2018	**1,800**	--	5	200	--	0.8	51	--	0.5	380	--	2
	11/2/2017	Q4 2017	**580**	--	10	200	--	1	140	--	1	610	--	1
KAFB-106080	4/23/2020	Q2 2020	**8**	--	0.5	3	--	0.8	ND	U	0.5	ND	U	2
	10/16/2019	Q4 2019	**170**	--	0.5	9	--	0.8	ND	U	0.5	4	J	2
	4/3/2019	Q2 2019	**8**	--	0.5	5	--	0.8	0.3	J	0.5	ND	U	2
	10/18/2018	Q4 2018	**16**	--	0.5	8	--	0.8	0.2	J	0.5	ND	U	2
KAFB-106081	4/29/2020	Q2 2020	ND	U	0.5	ND	U	0.8	0.7	J	0.5	ND	U	2
	10/18/2019	Q4 2019	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	4/24/2019	Q2 2019	ND	U	0.5	ND	U	0.8	3	--	0.5	ND	U	2
	10/18/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106082	10/18/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/31/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.4	J	0.5	ND	U	2
	10/10/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106083	10/18/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/31/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.6	J	0.5	ND	U	2
	10/10/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106084	10/22/2019	Q4 2019	ND	U	0.5	ND	U	0.8	2	--	0.5	ND	U	2
	10/31/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.5	J	0.5	ND	U	2
	10/10/2017	Q4 2017	ND	U	1	ND	U	1	0.6	J	1	ND	U	1
KAFB-106085	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106086	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106087	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106088	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	0.2	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106089	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106090	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106091	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106092	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106093	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106094	10/14/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/16/2018	Q4 2018	0.3	J	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/11/2017	Q4 2017	1	--	1	0.7	J	1	ND	U	1	ND	U	1
KAFB-106095	10/21/2019	Q4 2019	ND	U	0.5	ND	U	0.8	2	--	0.5	ND	U	2
	11/13/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/11/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106096	10/10/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/16/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/11/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106097	5/1/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/15/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/23/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/15/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106098	5/1/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/15/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/23/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/15/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106099	5/5/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/16/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/12/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106100	5/5/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/16/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/12/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106101	5/4/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/17/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/11/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106102	5/4/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/17/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/11/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106103	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106104	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106105	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106106	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106107	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106149-484	4/16/2020	Q2 2020	**1,900**	--	25	270	--	4	**3,300**	--	25	**1,200**	--	10
	11/1/2019	Q4 2019	**8,200**	--	50	560	--	8	**10,000**	--	50	**2,300**	--	20
	4/16/2019	Q2 2019	**26,000**	--	250	**1,600**	--	400	**33,000**	--	250	**6,000**	--	1,000
	10/3/2018	Q4 2018	**11,000**	--	50	**880**	--	8	**16,000**	--	50	**3,400**	--	20
KAFB-106151-484	4/16/2020	Q2 2020	**2,100**	--	25	690	--	4	**1,700**	--	25	**890**	--	10
	11/1/2019	Q4 2019	**1,100**	--	10	540	--	2	20	--	1	230	--	4
	4/18/2019	Q2 2019	**1,900**	--	10	600	--	16	70	--	1	350	--	4
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106152-484	4/16/2020	Q2 2020	**540**	--	5	310	--	8	26	--	0.5	320	--	20
	11/1/2019	Q4 2019	**1,500**	--	3	330	--	4	850	--	3	360	--	10
	4/18/2019	Q2 2019	**430**	--	5	300	--	8	12	--	0.5	290	--	20
	10/3/2018	Q4 2018	**71**	--	0.5	1	--	0.8	2	--	0.5	17	--	2

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106153-484	4/16/2020	Q2 2020	**8,300**	--	100	380	--	16	**7,800**	--	100	**1,700**	--	40
	11/1/2019	Q4 2019	**9,000**	--	100	400	--	16	**7,100**	--	100	**1,800**	--	40
	4/18/2019	Q2 2019	**9,200**	--	100	440	--	160	**9,100**	--	100	**1,800**	--	400
	10/3/2018	Q4 2018	**4,700**	--	25	54	--	4	**1,400**	--	3	250	--	10
KAFB-106201	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106202	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106203	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/18/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106204	10/23/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106205	10/23/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106206	10/23/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106207	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106208	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106209	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106212	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106213	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106214	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106215	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106216	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106217	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106218	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106219	11/5/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106220	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106221	11/4/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/4/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106222	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106223	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106224	10/24/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106225	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106226	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	0.9	J	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106227	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/3/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106229[e]	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	11/20/2015	Q4 2015	0.376	J	1	ND	U	1	ND	U	1	ND	U	3
KAFB-106230[f]	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	4/7/2016	Q2 2016	ND	U	1	ND	U	1	ND	U	1	ND	U	1
	11/18/2015	Q4 2015	ND	U	1	ND	U	1	ND	U	1	ND	U	3
KAFB-106231	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106232	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/6/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106235-438	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106235-472	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106235-501	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106236-436	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106236-470	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106236-499	10/29/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/1/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1
KAFB-106240-449	4/9/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/7/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	5/9/2019	Q2 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106241-428[e]	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106242-418[e]	10/28/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/8/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106243-425	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/2/2018	Q4 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	9/4/2018	Q3 2018	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106244-445	4/9/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/7/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/30/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/30/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106245-460	4/9/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/8/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	7/30/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106247-450	4/9/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/6/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	8/12/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106S1-447	4/9/2020	Q2 2020	**7,900**	--	50	**710**	--	8	**9,300**	--	50	**3,300**	--	20
	1/9/2020	Q1 2020	**7,800**	--	50	620	--	8	**10,000**	--	50	**2,600**	--	20
	10/31/2019	Q4 2019	**7,000**	--	100	610	--	16	**8,800**	--	100	**2,400**	--	40
	8/12/2019	Q3 2019	**5,700**	--	50	510	--	8	**5,600**	--	50	**2,000**	--	20
KAFB-106S2-451	4/9/2020	Q2 2020	**4,900**	--	25	420	--	4	**2,500**	--	25	**2,700**	--	10
	1/6/2020	Q1 2020	**9,800**	--	50	**880**	--	8	**12,000**	--	50	**4,600**	--	20
	10/31/2019	Q4 2019	**8,300**	--	100	560	--	16	**8,700**	--	100	**3,600**	--	40
	8/13/2019	Q3 2019	**6,000**	--	13	210	--	20	**4,400**	--	13	**1,400**	--	50

Table 3-11
Historical BTEX Concentrations

Analyte:			Benzene			Ethylbenzene			Toluene			Xylenes, Total		
Project Screening Level[a]:			5 µg/L			700 µg/L			1,000 µg/L			620 µg/L		
Well Location ID	Sample Date	Sampling Quarter[b]	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD	Result	Val Qual	LOD
KAFB-106S3-449	4/10/2020	Q2 2020	**3,800**	--	25	**720**	--	4	**1,300**	--	3	**2,200**	--	10
	1/9/2020	Q1 2020	**5,500**	--	25	**1,400**	--	4	**4,900**	--	25	**4,200**	--	10
	10/31/2019	Q4 2019	**4,800**	--	50	**930**	--	8	**3,600**	--	50	**2,800**	--	20
	8/13/2019	Q3 2019	**390**	--	10	22	--	16	19	J	10	180	--	40
KAFB-106S4-446	4/9/2020	Q2 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	1/6/2020	Q1 2020	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	10/31/2019	Q4 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
	8/13/2019	Q3 2019	ND	U	0.5	ND	U	0.8	ND	U	0.5	ND	U	2
KAFB-106S5-446	4/16/2020	Q2 2020	**1,900**	--	5	**1,500**	--	8	**5,200**	--	50	**2,900**	--	20
	1/9/2020	Q1 2020	**1,500**	--	10	**1,600**	--	16	**4,900**	--	10	**3,100**	--	40
	10/31/2019	Q4 2019	**1,300**	--	3	**1,700**	--	40	**3,400**	--	25	**2,500**	--	10
	8/12/2019	Q3 2019	**980**	--	3	**1,400**	--	4	**2,300**	--	25	**1,700**	--	10
KAFB-106S7-451	4/16/2020	Q2 2020	**1,200**	--	10	640	--	16	**1,700**	--	10	**2,200**	--	40
	1/9/2020	Q1 2020	**6,700**	--	50	**1,200**	--	8	**7,700**	--	50	**4,000**	--	20
	10/31/2019	Q4 2019	**5,900**	--	50	**1,200**	--	8	**7,800**	--	50	**4,000**	--	20
	8/12/2019	Q3 2019	**230**	--	3	94	--	4	490	--	3	210	--	10
KAFB-106S8-451	4/10/2020	Q2 2020	**4,400**	--	25	210	--	4	**6,400**	--	25	**2,100**	--	10
	1/6/2020	Q1 2020	**200**	--	0.5	27	--	0.8	470	--	5	160	--	2
	10/31/2019	Q4 2019	**1,800**	--	5	160	--	8	**5,600**	--	50	**1,100**	--	20
	8/12/2019	Q3 2019	**2,200**	--	5	350	--	8	**8,400**	--	50	**2,000**	--	20
KAFB-106S9-447	4/16/2020	Q2 2020	**9,900**	--	100	**1,100**	--	16	**12,000**	--	100	**3,400**	--	40
	1/9/2020	Q1 2020	**7,300**	--	50	**970**	--	8	**11,000**	--	50	**2,700**	--	20
	11/1/2019	Q4 2019	**7,300**	--	50	**1,100**	--	8	**6,900**	--	50	**1,900**	--	20
	8/13/2019	Q3 2019	**2,900**	--	10	630	--	16	**2,700**	--	10	**980**	--	40
KAFB-3411	10/17/2019	Q4 2019	ND	U	0.5	ND	U	0.8	1	--	0.5	ND	U	2
	10/22/2018	Q4 2018	ND	U	0.5	ND	U	0.8	0.5	J	0.5	ND	U	2
	10/30/2017	Q4 2017	ND	U	1	ND	U	1	ND	U	1	ND	U	1

Table 3-11
Historical BTEX Concentrations

[a] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA Tapwater RSL. For benzene, ethylbenzene, and toluene, the project screening level is the EPA MCL. For total xylenes, the project screening level is the NMWQCC numeric standard.

[b] Data presented includes results from the current quarter where applicable along with the three most recent historical results. The sampling plan is provided in Table 3-1.

[c] This well was not sampled between Q4 2015 and Q4 2019 due to security issues.

[d] This well was not sampled in 2019 due to the presence of dedicated downhole equipment related to the EDB *in situ* biodegradation pilot test. Monitoring was resumed in 2020, and results will be available in the next report.

[e] This well has not been sampled three times for these analytes, all historical data from this well is presented here.

[f] This well was not sampled between Q2 2016 and Q4 2019 due to security issues.

µg/L = microgram per liter
AFB = Air Force Base
BTEX = benzene, toluene, ethylbenzene, and total xylenes
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
ND = not detected
NMWQCC = New Mexico Water Quality Control Commission
Q1 = first quarter
Q2 = second quarter
Q3 = third quarter
Q4 = fourth quarter
RSL = regional screening level
Val Qual = validation qualifier
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.
-- = Validation qualifier not assigned.

Table 3-12
Groundwater Monitoring Well Disinfection Sampling Results

		Well Location ID:	KAFB-106005			KAFB-106005			KAFB-106028			KAFB-106028		
		Field Sample ID:	KAFB-106005-WR-pre			KAFB-106005-WR-post			KAFB-106028-WR-pre			KAFB-106028-WR-post		
		Sample Date:	6/29/2020			6/30/2020			6/24/2020			6/29/2020		
		Sample Type:	REG			REG			REG			REG		
Analytical Method	**Analyte**	**Project Screening Level[a]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
Method E300.1 (µg/L)	Bromate	10	ND	U	50	ND	U	50	ND	U	25	ND	U	50
	Chlorite	1,000	ND	U	200	ND	U	200	ND	U	100	ND	U	200
Method E331.0 (µg/L)	Perchlorate	14	0.25	--	0.1	1.6	--	0.1	0.33	--	0.1	1.3	--	0.1

[a] Screening Value based on EPA Safe Drinking Water Act Maximum Contaminant Level for chlorite and bromate (May 2018); and NMED tapwater non-cancer screening value for perchlorate (2018).

µg/L = microgram per liter
AFB = Air Force Base
BFF = Bulk Fuels Facility
EPA = U.S. Environmental Protection Agency
ID = identification
MCL = maximum contaminant level
ND = not detected
NMED= New Mexico Environment Department
REG = normal field sample
RL = Reporting limit
Val Qual = validation qualifier
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation:

U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the reporting limit.
-- = Validation qualifier not assigned.

Table 4-1
Drinking Water Supply Well Analytical Results, Q2 2019

			Location ID:				KAFB-003			KAFB-003			KAFB-003		
			Field Sample ID:				GWK003-2021-1			GWK003-2022			GWK003-2023		
			Sample Date:				4/16/2020			5/5/2020			6/2/2020		
			Sample Type:				REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method E504.1 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.018	ND	U	0.018	ND	U	0.018
BTEX	Method E524.2 (µg/L)	Benzene	5	5	4.6	5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	0.5	ND	U	0.5	ND	U	0.5
Total Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	—	—	—	—	—	—	43	--	0.15
		Iron, dissolved	1.0	NS	NS	1	—	—	—	—	—	—	ND	U	0.1
		Magnesium	NS	NS	NS	NS	—	—	—	—	—	—	5.9	--	0.075
		Manganese, dissolved	0.2	NS	NS	0.2	—	—	—	—	—	—	ND	U	0.0052
		Potassium	NS	NS	NS	NS	—	—	—	—	—	—	2.4	--	0.38
		Sodium	NS	NS	NS	NS	—	—	—	—	—	—	23	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	—	—	—	—	—	—	0.00095	J	0.0016
		Lead	0.015	0.015	0.015	0.015	—	—	—	—	—	—	ND	U	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	—	—	—	—	—	—	ND	UJ	2
		Chloride	250	250	NS	250	—	—	—	—	—	—	24	--	1.5
		Sulfate	600	250	NS	250	—	—	—	—	—	—	31	--	4.5
	Method SM4500S2F (mg/L)	Sulfide	NS	NS	NS	NS	—	—	—	—	—	—	ND	U	1.5
	Method SM4500NH3B/C (mg/L)	Nitrogen, ammonia	NS	NS	NS	NS	—	—	—	—	—	—	ND	U	0.6
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	—	—	—	—	—	—	0.48	--	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as $CaCO_3$)	NS	NS	NS	NS	—	—	—	—	—	—	110	--	6
		Alkalinity, carbonate (as $CaCO_3$)	NS	NS	NS	NS	—	—	—	—	—	—	ND	U	6
		Alkalinity, total (as $CaCO_3$)	NS	NS	NS	NS	—	—	—	—	—	—	110	--	6
Field Parameters		Temperature (°C)	NS	NS	NS	NS	20.3			19.8			21.9		
		Specific Conductance (µS/cm)	NS	NS	NS	NS	428.2			422.0			407.4		
		pH (S.U.)	NS	NS	NS	NS	7.86			7.75			7.74		
		ORP (mV)	NS	NS	NS	NS	202.1			224.3			285.3		
		DO (mg/L)	NS	NS	NS	NS	3.96			4.92			4.33		
		Turbidity (NTU)	NS	NS	NS	NS	0.58			0.18			0.19		

Table 4-1
Drinking Water Supply Well Analytical Results, Q2 2019

							Location ID:	KAFB-015		KAFB-016			KAFB-016		
							Field Sample ID:	GWK015-2023		GWK016-2021-1			GWK016-2022		
							Sample Date:	6/2/2020		4/16/2020			5/5/2020		
							Sample Type:	REG		REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method E504.1 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.018	ND	U	0.018	ND	U	0.018
BTEX	Method E524.2 (µg/L)	Benzene	5	5	4.6	5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	0.5	ND	U	0.5	ND	U	0.5
Total Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	32	--	0.15	—	—	—	—	—	—
		Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	—	—	—	—	—	—
		Magnesium	NS	NS	NS	NS	8.3	--	0.075	—	—	—	—	—	—
		Manganese, dissolved	0.2	NS	NS	0.2	0.025	--	0.0052	—	—	—	—	—	—
		Potassium	NS	NS	NS	NS	7.2	--	0.38	—	—	—	—	—	—
		Sodium	NS	NS	NS	NS	40	--	0.5	—	—	—	—	—	—
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	**0.017**	--	0.0016	—	—	—	—	—	—
		Lead	0.015	0.015	0.015	0.015	0.00011	J	0.00025	—	—	—	—	—	—
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	UJ	2	—	—	—	—	—	—
		Chloride	250	250	NS	250	190	J	150	—	—	—	—	—	—
		Sulfate	600	250	NS	250	31	--	4.5	—	—	—	—	—	—
	Method SM4500S2F (mg/L)	Sulfide	NS	NS	NS	NS	ND	U	1.5	—	—	—	—	—	—
	Method SM4500NH3B/C (mg/L)	Nitrogen, ammonia	NS	NS	NS	NS	ND	U	0.6	—	—	—	—	—	—
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	—	—	—	—	—	—
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as $CaCO_3$)	NS	NS	NS	NS	93	--	6	—	—	—	—	—	—
		Alkalinity, carbonate (as $CaCO_3$)	NS	NS	NS	NS	ND	U	6	—	—	—	—	—	—
		Alkalinity, total (as $CaCO_3$)	NS	NS	NS	NS	93	--	6	—	—	—	—	—	—
Field Parameters		Temperature (°C)	NS	NS	NS	NS	26.6			25.1			25.4		
		Specific Conductance (µS/cm)	NS	NS	NS	NS	468.1			525			514		
		pH (S.U.)	NS	NS	NS	NS	7.84			7.77			7.55		
		ORP (mV)	NS	NS	NS	NS	266.7			201.3			271.3		
		DO (mg/L)	NS	NS	NS	NS	1.20			3.23			1.00		
		Turbidity (NTU)	NS	NS	NS	NS	0.39			0.30			0.37		

Table 4-1
Drinking Water Supply Well Analytical Results, Q2 2019

							Location ID:	KAFB-016		ST106-VA2			ST106-VA2		
							Field Sample ID:	GWK016-2023		GWVA2-2021-1			GWVA2-2022		
							Sample Date:	6/2/2020		4/16/2020			5/5/2020		
							Sample Type:	REG		REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method E504.1 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.018	ND	U	0.018	ND	U	0.017
BTEX	Method E524.2 (µg/L)	Benzene	5	5	4.6	5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	0.5	ND	U	0.5	ND	U	0.5
Total Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	50	--	0.15	—	—	—	—	—	—
		Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	—	—	—	—	—	—
		Magnesium	NS	NS	NS	NS	5.9	--	0.075	—	—	—	—	—	—
		Manganese, dissolved	0.2	NS	NS	0.2	0.0065	J	0.0052	—	—	—	—	—	—
		Potassium	NS	NS	NS	NS	4	--	0.38	—	—	—	—	—	—
		Sodium	NS	NS	NS	NS	31	--	0.5	—	—	—	—	—	—
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	**0.024**	--	0.0016	—	—	—	—	—	—
		Lead	0.015	0.015	0.015	0.015	0.0037	--	0.00025	—	—	—	—	—	—
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	ND	UJ	2	—	—	—	—	—	—
		Chloride	250	250	NS	250	59	J	1.5	—	—	—	—	—	—
		Sulfate	600	250	NS	250	32	--	4.5	—	—	—	—	—	—
	Method SM4500S2F (mg/L)	Sulfide	NS	NS	NS	NS	ND	U	1.5	—	—	—	—	—	—
	Method SM4500NH3B/C (mg/L)	Nitrogen, ammonia	NS	NS	NS	NS	ND	U	0.86	—	—	—	—	—	—
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	ND	U	0.09	—	—	—	—	—	—
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as $CaCO_3$)	NS	NS	NS	NS	94	--	6	—	—	—	—	—	—
		Alkalinity, carbonate (as $CaCO_3$)	NS	NS	NS	NS	ND	U	6	—	—	—	—	—	—
		Alkalinity, total (as $CaCO_3$)	NS	NS	NS	NS	94	--	6	—	—	—	—	—	—
Field Parameters		Temperature (°C)	NS	NS	NS	NS	26.6			22.4			22.0		
		Specific Conductance (µS/cm)	NS	NS	NS	NS	576			442.8			419.5		
		pH (S.U.)	NS	NS	NS	NS	6.95			7.83			7.82		
		ORP (mV)	NS	NS	NS	NS	331.1			216.8			239.7		
		DO (mg/L)	NS	NS	NS	NS	1.17			2.18			2.61		
		Turbidity (NTU)	NS	NS	NS	NS	0.50			0.58			0.16		

Table 4-1
Drinking Water Supply Well Analytical Results, Q2 2019

			Location ID:				ST106-VA2			ST106-VA2			ST106-VA2		
			Field Sample ID:				GWVA2-6022			GWVA2-2023			GWVA2-6023		
			Sample Date:				5/5/2020			6/2/2020			6/2/2020		
			Sample Type:				Field Duplicate			REG			Field Duplicate		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method E504.1 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.018	ND	U	0.018	—	—	—
BTEX	Method E524.2 (µg/L)	Benzene	5	5	4.6	5	ND	U	0.5	ND	U	0.5	—	—	—
		Ethylbenzene	700	700	15	700	ND	U	0.5	ND	U	0.5	—	—	—
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	—	—	—
		Xylenes, total	620	10,000	190	620	ND	U	0.5	ND	U	0.5	—	—	—
Total Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	—	—	—	40	--	0.15	40	--	0.15
		Iron, dissolved	1.0	NS	NS	1	—	—	—	ND	U	0.1	ND	U	0.1
		Magnesium	NS	NS	NS	NS	—	—	—	8	--	0.075	8.1	--	0.075
		Manganese, dissolved	0.2	NS	NS	0.2	—	—	—	ND	U	0.0052	ND	U	0.0052
		Potassium	NS	NS	NS	NS	—	—	—	4.1	--	0.38	4	--	0.38
		Sodium	NS	NS	NS	NS	—	—	—	24	--	0.5	23	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	—	—	—	0.0029	--	0.0016	0.0028	--	0.0016
		Lead	0.015	0.015	0.015	0.015	—	—	—	0.00027	J	0.00025	0.00023	J	0.00025
Anions	Method E300.0 (mg/L)	Bromide	NS	NS	NS	NS	—	—	—	ND	UJ	2	ND	UJ	2
		Chloride	250	250	NS	250	—	—	—	40	--	15	38	J	1.5
		Sulfate	600	250	NS	250	—	—	—	27	--	4.5	26	--	4.5
	Method SM4500S2F (mg/L)	Sulfide	NS	NS	NS	NS	—	—	—	ND	U	1.5	ND	U	1.5
	Method SM4500NH3B/C (mg/L)	Nitrogen, ammonia	NS	NS	NS	NS	—	—	—	ND	U	0.6	ND	U	0.6
	Method E353.2 (mg/L)	Nitrate/Nitrite Nitrogen	10[e]	10[e]	NS	10[e]	—	—	—	ND	U	0.09	ND	U	0.09
Alkalinity	Method SM2320B (mg/L)	Alkalinity, bicarbonate (as $CaCO_3$)	NS	NS	NS	NS	—	—	—	100	--	6	100	--	6
		Alkalinity, carbonate (as $CaCO_3$)	NS	NS	NS	NS	—	—	—	ND	U	6	ND	U	6
		Alkalinity, total (as $CaCO_3$)	NS	NS	NS	NS	—	—	—	100	--	6	100	--	6
Field Parameters		Temperature (°C)	NS	NS	NS	NS	22.0			22.9			22.9		
		Specific Conductance (µS/cm)	NS	NS	NS	NS	419.5			430.6			430.6		
		pH (S.U.)	NS	NS	NS	NS	7.82			7.73			7.73		
		ORP (mV)	NS	NS	NS	NS	239.7			275.4			275.4		
		DO (mg/L)	NS	NS	NS	NS	2.61			1.15			1.15		
		Turbidity (NTU)	NS	NS	NS	NS	0.16			0.45			0.45		

Table 4-1
Drinking Water Supply Well Analytical Results, Q2 2020

[a] NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018).
[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).
[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for non-carcinogens and a 10-5 cancer risk level for carcinogens.
[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC numeric standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.
— = Compound not analyzed for.
µg/L = micrograms per liter
µS/cm = micro siemens per centimeter
ºC = degree Celsius
BFF = Bulk Fuels Facility
BTEX = benzene, toluene, ethylbenzene, and total xylenes
CFR = Code of Federal Regulations
DO = dissolved oxygen
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
GW = groundwater
ID = identification
LOQ = limit of quantitation
MCL = maximum contaminant level
mg/L = milligram per liter
mV = millivolt
ND = nondetect
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
NTU = nephelometric turbidity unit
ORP = oxidation reduction potential
REG = normal field sample
RSL = regional screening level
S.U. = standard units
SWMU = Solid Waste Management Unit
VA = U.S. Department of Veterans Affairs
Val Qual = validation qualifier
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening
Val Quals based on independent data validation:
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOQ.
-- = Validation qualifier not assigned.

Table 5-1
DP-1839 Discharge Permit Terms and Conditions, Operations and Maintenance Plan Cross References

Condition No.	Terms and Conditions	Reference Location in Quarterly Report
15	The Permittee shall ensure the treated effluent conveyance system, i.e., piping, between the GWTS and the UIC well(s) does not leak and shall report any such leakage to the NMED GWQB in accordance with 20.6.2.1203(A) NMAC and copy the NMED HWB.	5.3.4 Effluent Conveyance Line Integrity (not applicable in Q2 2020)
	Within 1 year of the effective date of this Discharge Permit, the Permittee shall demonstrate the structural integrity of the treated effluent conveyance system between the GWTS and KAFB-7.	5.3.4 Effluent Conveyance Line Integrity (not applicable in Q2 2020)
	Prior to testing, the Permittee shall propose for NMED approval the test method to be used.	5.3.4 Effluent Conveyance Line Integrity (not applicable in Q2 2020)
	The results of the mechanical integrity testing shall be submitted to NMED within 60 days of test completion.	5.3.4 Effluent Conveyance Line Integrity (not applicable in Q2 2020)
	The Permittee shall integrity test the treated effluent conveyance system between GWTS and the UIC well(s) prior to submitting a permit renewal application. [20.6.2.3106(C) NMAC, 20.6.2.3107(A) NMAC]	5.3.4 Effluent Conveyance Line Integrity (not applicable in Q2 2020)
17	The Permittee shall conduct the monitoring, operations, and reporting listed below.	5.1 Groundwater Treatment System Operation
	Unless otherwise specified, all periodic monitoring results or general information obtained shall be reported in the forthcoming quarterly report. [20.6.2.3107 NMAC]	5.1 Groundwater Treatment System Operation
18	Unless otherwise approved by NMED, the Permittee shall conduct sampling in accordance with standard industry practice.	5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal
	Sampling in accordance with the most current version of the GWTS Sampling and Analysis Plan (Appendix L of the O&M Plan), which includes sampling locations, procedures, field measurements, quality control samples, handling and custody, analytical methods, quality control, analytical validation, and reporting requirements, satisfies this Condition. [20.6.2.3107(B) NMAC]	5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal
19	The Permittee shall submit quarterly and annual reports to NMED pursuant to the most recent NMED HWB approved Work Plans.	5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal
	The Permittee shall identify the portions of these reports pertaining to this Discharge Permit with a table in the reports that identifies those portions.	Table 5-1 DP-1839 Discharge Permit Terms and Conditions, Operations and Maintenance Plan Cross References
	Quarterly reports shall be submitted as specified below unless otherwise authorized by NMED: • January 1st through March 31st - due by June 30th • April 1st through June 30th - due by September 30th • July 1st through September 30th - due by December 31st • October 1st through December 31st - due by March 31st	Noted
	Annual reporting requirements for the previous year, i.e., January 1 through December 31, shall be reported in the March 31 quarterly report. [20.6.2.3107(A) NMAC]	Noted
20	The Permittee shall monitor the concentration of all COCs listed on Table 2 in GWTS treated effluent. Associated sampling and analysis shall be performed monthly at a minimum.	5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal Table 5-6 Monthly GWTS Performance Analytical Results for Train 1, Q2 2020 Table 5-7 Monthly GWTS Performance Analytical Results for Train 2, Q2 2020
	When groundwater from a new extraction well is first introduced to the GWTS, COC monitoring of the GWTS treated effluent shall occur daily for the first week of treatment, weekly for the first month of treatment, and monthly thereafter.	Not applicable in Q2 2020
	If alterations to, or conditions at, the GWTS result in a potential impact to effluent quality, the Permittee will repeat this sampling sequence as directed by NMED.	No effluent quality impacts Q2 2020
20	A representative sample of GWTS influent and effluent shall be analyzed annually for the constituents identified in Table 3.	Performed in Q3 2019; last reported in Q3 2019; Not applicable to Q2 2020
	A representative sample of GWTS influent and effluent shall be analyzed every 5 years for the constituents identified in Table 4	Performed in Q3 2017; last reported in Q3 2017; Not applicable to Q2 2020
	The first analysis of the 5-year constituent list shall occur in July 2017. Any newly identified constituents detected during the 5-year sampling events will be added to the annual sampling constituent list in Table 3.	Performed in Q3 2017; last reported in Q3 2017; Not applicable to Q2 2020
	All analysis of GWTS influent and effluent shall utilize analytical methods with detection limits that are sufficiently low to allow comparison to the standards included in the above referenced state and federal regulations.	5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal Table 5-6 Monthly GWTS Performance Analytical Results for Train 1, Q2 2020 Table 5-7 Monthly GWTS Performance Analytical Results for Train 2, Q2 2020
	All sampling, analysis, and reporting shall comply with the most recent approved Work Plans. [20.6.2.3107(A) NMAC and 20.6.2.3107(B) NMAC]	5.2 Groundwater Treatment System Performance Monitoring and Ethylene Dibromide Removal

Table 5-1
DP-1839 Discharge Permit Terms and Conditions, Operations and Maintenance Plan Cross References

Condition No.	Terms and Conditions	Reference Location in Quarterly Report
21	The Permittee shall report the volume of treated GWTS effluent discharged to each UIC well each quarter. This report shall include the following:	See Below
	a. Monthly average, maximum, and minimum values for flow rate and volume of treated effluent transferred to each UIC well	Table 5-4 Groundwater Treatment System Injection Well Performance, Q2 2020
	b. The totalized monthly volume of treated effluent transferred to all UIC wells	Table 5-2 Quantities of Groundwater Treated and Discharged, Q2 2020
	c. Monthly average, maximum, and minimum head values of injection water for each UIC well.	Table 5-4 Groundwater Treatment System Injection Well Performance, Q2 2020
	The Permittee shall monitor the GWTS effluent volume utilizing an effluent flow meter installed on the effluent pump skid after the GAC units. Each UIC well shall have a dedicated flowmeter. Flowmeters shall be inspected and calibrated in accordance with the associated manufacturer's recommendations. [20.6.2.3107 NMAC]	Table 5-4 Groundwater Treatment System Injection Well Performance, Q2 2020 Table 5-9 GWTS Routine Maintenance (Monthly Flowmeter Inspection and Annual Calibration Verification)
22	The Permittee shall include the following results and general information in quarterly reports to NMED:	See Below
	a. Any mechanical integrity (tests) conducted on either the GWTS or a UIC well	5.3.3 Non-Routine Maintenance Table 5-10 GWTS Non-Routine Maintenance Items, Q2 2020
	b. Any replacement of GAC media and the associated data that initiated the decision to replace the media	5.3.3 Non-Routine Maintenance Table 5-10 GWTS Non-Routine Maintenance Items, Q2 2020
	c. Any UIC well rehabilitation conducted	5.3.1 Routine Maintenance Activities Table 5-9 GWTS Routine Maintenance Items, Q2 2020 5.3.3 Non-Routine Maintenance Table 5-10 GWTS Non-Routine Maintenance Items, Q2 2020
	d. Any malfunction, repair, or replacement of a flowmeter	5.3.3 Non-Routine Maintenance Table 5-10 GWTS Non-Routine Maintenance Items, Q2 2020
	e. Any additional operational changes with the potential to affect the discharge. [20.6.2.3107 NMAC]	5.3.3 Non-Routine Maintenance Table 5-10 GWTS Non-Routine Maintenance Items, Q2 2020
23	The Permittee shall monitor the groundwater wells in the vicinity of KAFB-7 and in the vicinity of any newly installed UIC well(s) to determine any change to aquifer chemistry that may be the result of injection.	Not applicable in Q2 2020
	This monitoring shall be performed annually, shall conform to the procedures of the most current approved Work Plan, and shall measure the COCs listed in Table 2. This chemistry will be reported in the Annual Report for BFF.	Provided in this Q4 2019 Report; Section 5.2.1.1
	ST-105 Annual Report includes elevation contour mapping and analytical parameters identified in the Stage 2 Abatement Plan.	Reported annually in the ST-105 Annual Report
	The Permittee shall develop a groundwater elevation contour map depicting the groundwater flow direction in the vicinity of each UIC well and report it in the ST-105 Annual Report.	Reported annually in the ST-105 Annual Report Also reported in Q4 of each year, last reported in Q4 2019
	If the chemical quality of the treated groundwater being injected changes over time, NMED may require the Permittee to repeat geochemical modeling (numeric or analytical) to predict the interaction between the treated effluent and receiving groundwater. [20.6.2.3107 NMAC]	Not applicable in Q2 2020
24	The Permittee shall post all reports required by this Discharge Permit on Kirtland AFB's most current website (e.g., https://kirtlandafb.tlisolutions.com/main.aspx.) [20.6.2.3107(A) NMAC]	http://afcec.publicadmin-record.us.af.mil/search.aspx

Table 5-1
DP-1839 Discharge Permit Terms and Conditions, Operations and Maintenance Plan Cross References

Condition No.	Terms and Conditions	Reference Location in Quarterly Report
34	In the event the Permittee proposes a change to the facility or the facility's discharge that would result in a change in the volume discharged; the location of the discharge; or in the amount or character of water contaminants received, treated, or discharged by the facility that differs from the terms and conditions in this Discharge Permit, the Permittee shall notify NMED prior to implementing such changes.	Noted
	The Permittee shall obtain approval (which may require modification of this Discharge Permit) by NMED prior to implementing such changes. [20.6.2.7(P) NMAC, 20.6.2.3107(C) NMAC, 20.6.2.3109(E) and (G) NMAC]	Noted
35	In the event the Permittee proposes to construct or change an existing system such that the quantity or quality of the discharge will change substantially from that authorized by this Discharge Permit, the Permittee shall submit construction plans and specifications to NMED for the proposed system or process unit prior to the commencement of construction.	Noted
	In the event the Permittee implements changes to an existing system authorized by this Discharge Permit which will result in only a minor effect on the quality of the discharge, the Permittee shall report such changes (including the submission of record drawings, where applicable) in the next quarterly report to NMED. [20.6.2.1202(A) and (C) NMAC, New Mexico Statutes Annotated 1978, §§ 61-23-1 through 61-23-32]	Not applicable in Q2 2020

BFF = Bulk Fuels Facility
COC = contaminant of concern
GAC = granular activated carbon
GWTS = groundwater treatment system
GWQB = Groundwater Quality Bureau
HWB = Hazardous Waste Bureau
NMAC = New Mexico Administrative Code
NMED = New Mexico Environment Department
No. = number
O&M = Operation and maintenance
Q2 = second quarter
Q3 = third quarter
Q4 = fourth quarter
UIC = underground injection control

Table 5-2
Groundwater Treatment System Extraction Well Performance, Q2 2020

Well ID	Well Parameter	April	May	June	Q2 (Average)
KAFB-106228	Average Operational Flow Rate[a] (gpm)	143.3	143.1	143.6	143.3
	Flow Rate Range[b] (gpm; min-max)	142.8 - 143.8	142.7 - 143.6	142.5 - 146.3	142.5 - 146.3
	Average Drawdown[c] (ft)	18.7	19.8	20.7	19.7
	Water Level Elevation Range[b] (ft AMSL; min-max)	4860.6 - 4863.7	4859.5 - 4860.6	4858.9 - 4860.1	4858.9 - 4863.7
	Average Specific Capacity[d] (gpm/ft)	7.7	7.2	6.9	7.3
	Average Transmissivity[d] (gpd/ft)	11,559	10,847	10,390	10,931
	Run Time %[e]	99.8%	99.9%	97.2%	99.0%
	Notes	NA	NA	NA	NA
KAFB-106233	Average Operational Flow Rate[a,f] (gpm)	NA	164.5	165.5	165.1
	Flow Rate Range[b] (gpm; min-max)	NA	0.0 - 165.3	0.0 - 166.3	0.0 - 166.3
	Average Drawdown[c] (ft)	NA	38.0	34.7	37.5
	Water Level Elevation Range[b] (ft AMSL; min-max)	NA	4872.1 - 4878.2	4871.8 - 4877.8	4871.8 - 4878.4
	Average Specific Capacity[d] (gpm/ft)	NA	4.6	4.8	4.8
	Average Transmissivity[d] (gpd/ft)	NA	6,870	7,268	7,126
	Run Time %[e]	0.0%	51.2%	83.9%	45.0%
	Notes	Offline[g]	Intermittently Online[g]	Intermittently Online[g]	Intermittently Online[g]
KAFB-106234	Average Operational Flow Rate[a] (gpm)	175.5	174.9	174.7	175.0
	Flow Rate Range[b] (gpm; min-max)	174.1 - 176.1	174.0 - 176.1	174.1 - 176.0	174.0 - 176.1
	Average Drawdown[c] (ft)	28.6	27.6	27.0	27.7
	Water Level Elevation Range[b] (ft AMSL; min-max)	4873.5 - 4875.7	4872.9 - 4873.8	4872.6 - 4873.0	4872.6 - 4875.7
	Average Specific Capacity[d] (gpm/ft)	6.1	6.3	6.5	6.3
	Average Transmissivity[d] (gpd/ft)	9,207	9,499	9,703	9,470
	Run Time %[e]	99.8%	99.9%	100.0%	99.9%
	Notes	NA	NA	NA	NA
KAFB-106239	Average Operational Flow Rate[a] (gpm)	75.6	74.9	72.7	74.4
	Flow Rate Range[b] (gpm; min-max)	73.9 - 78.0	66.0 - 77.8	71.6 - 73.9	66.0 - 78.0
	Average Drawdown[c] (ft)	18.8	17.5	19.4	18.6
	Water Level Elevation Range[b] (ft AMSL; min-max)	4874.9 - 4878.5	4873.9 - 4875.9	4874.0 - 4885.3	4873.9 - 4885.3
	Average Specific Capacity[d] (gpm/ft)	4.0	4.3	3.9	4.1
	Average Transmissivity[d] (gpd/ft)	6,042	6,429	5,863	6,115
	Run Time %[e]	99.8%	100.0%	85.0%	94.9%
	Notes	NA	NA	NA	NA
Combined Extraction Well Totals	Combined Average Operational Flow Rate[h] (gpm)	394.4	472.5	539.9	469.0
	Combined Flow Rate Range (gpm)	392.2 - 397.0	385.2 - 559.9	392.5 - 559.5	385.2 - 559.9
	Run Time %[i]	99.8%	99.9%	100.0%	99.9%

Table 5-2
Groundwater Treatment System Extraction Well Performance, Q2 2020

[a] Flow rate calculation is an average rate that only includes time while the pump was operational; average values were computed from daily values throughout Q2 2020.

[b] Ranges are provided from daily values throughout Q22020.

[c] Average drawdown is calculated from the approximate static water elevation in Q2 2020, only includes time while the pump was operational and does not account for dynamic water elevation increases in the aquifer; average values were computed from daily values throughout Q2 that were obtained from the HMI for all the extraction wells.

[d] Specific capacity and transmissivity average values only include pump run time (i.e., pump down time is not factored into the calculation); average values were computed from daily values throughout Q2.

e Percent run time is calculated when the given well is running at a minimum of 50 gpm; dataset includes readings for every minute throughout Q2.

[f] Due to temporary limited run-time pending maintenance of KAFB-7, the indicated flowrates for KAFB-106233 only apply during periods of active extraction.

[g] KAFB-106233 was offline in April and intermittently online in May and June to maintain water level at the Tijeras Arroyo Golf Course Main Pond.

[h] Combined Average Operation Flow Rate is the average influent flow rate to the GWTS.

[i] The combined extraction well percent run time is based on the percentage of time that water is entering the GWTS from any combination of extraction wells.

% = percent

AMSL = above mean sea level

ft = foot (feet)

gpd = gallon per day
gpm = gallon per minute
GWTS = groundwater treatment system
HMI = human machine interface
ID = identification
max = maximum
min = minimum
NA = not applicable
Q2 = second quarter

Table 5-3
Cumulative Quantities of Groundwater Treated and Discharged through Q2 2020

GWTS Operating Month	Train 1 Total Groundwater Treated (gallons)	Train 2 Total Groundwater Treated (gallons)	Total Groundwater Extracted (gallons)	Treated Groundwater Injected to Injection Well KAFB-7 (gallons)	Treated Groundwater Discharged to the GCMP[a] (gallons)
Totalizing Flowmeter[b]	FE/FIT-3108	FE/FIT-3208	FE/FIT-3108 + FE/FIT-3208	FE/FIT-3108 + FE/FIT-3208	FE/FIT-3108 + FE/FIT-3208
December 2015[c]	17,664,900	0	17,664,900	0	17,664,900
2015 Total	**17,664,900**	**0**	**17,664,900**	**0**	**17,664,900**
January 2016	1,777,200	0	1,777,200	0	1,777,200
February 2016	881,000	0	881,000	181,300	699,700
March 2016	22,168,080	0	22,168,080	1,231,350	20,936,730
April 2016	12,649,920	0	12,649,920	582,570	12,067,350
May 2016	12,090,000	0	12,090,000	0	12,090,000
June 2016	8,850,000	0	8,850,000	0	8,850,000
July 2016	9,940,000	0	9,940,000	0	9,940,000
August 2016	9,400,000	0	9,400,000	0	9,400,000
September 2016	12,980,000	0	12,980,000	0	12,980,000
October 2016	8,300,000	0	8,300,000	0	8,300,000
November 2016	7,200,000	0	7,200,000	2,970,000	4,230,000
December 2016	14,570,100	0	14,570,100	14,501,190	68,910
2016 Total	**120,806,300**	**0**	**120,806,300**	**19,466,410**	**101,339,890**
January 2017	6,089,700	87,300	6,177,000	5,877,600	299,400
February 2017	1,637,100	2,357,400	3,994,500	2,216,600	1,777,900
March 2017	5,551,200	5,705,400	11,256,600	5,172,800	6,083,800
April 2017	7,269,000	6,712,700	13,981,700	2,248,062	11,733,638
May 2017	9,234,900	9,453,700	18,688,600	4,722,563	13,966,037
June 2017	9,706,100	9,055,100	18,761,200	1,592,700	17,168,500
July 2017	13,260,800	10,875,200	24,136,000	3,023,500	21,112,500
August 2017	9,461,200	8,999,500	18,460,700	4,847,500	13,613,200
September 2017	9,734,500	9,227,600	18,962,100	6,752,400	12,209,700
October 2017	8,684,700	12,941,900	21,626,600	14,775,800	6,850,800
November 2017	0	12,513,400	12,513,400	3,734,900	8,778,500
December 2017	0	13,304,300	13,304,300	10,724,700	2,579,600
2017 Total	**80,629,200**	**101,233,500**	**181,862,700**	**65,689,125**	**116,173,575**
January 2018	9,865,000	5,497,700	15,362,700	13,887,700	1,475,000
February 2018	10,785,300	6,786,100	17,571,400	13,765,300	3,806,100
March 2018	11,006,000	7,092,900	18,098,900	9,235,300	8,863,600
April 2018	7,468,200	5,800,700	13,268,900	0[d]	13,268,900

Table 5-3
Cumulative Quantities of Groundwater Treated and Discharged through Q2 2020

GWTS Operating Month	Train 1 Total Groundwater Treated (gallons)	Train 2 Total Groundwater Treated (gallons)	Total Groundwater Extracted (gallons)	Treated Groundwater Injected to Injection Well KAFB-7 (gallons)	Treated Groundwater Discharged to the GCMP[a] (gallons)
May 2018	11,238,400	8,061,600	19,300,000	0[d]	19,300,000
June 2018	14,746,800	10,186,400	24,933,200	0[d]	24,933,200
July 2018	12,038,500	7,901,100	19,939,600	0[d]	19,939,600
August 2018	14,973,100	9,583,900	24,557,000	0[d]	24,557,000
September 2018	9,516,900	7,509,600	17,026,500	0[d]	17,026,500
October 2018	1,572,600	7,288,500	8,861,100	0[d]	8,861,100
November 2018	7,788,300	4,682,900	12,471,200	7,517,100	4,954,100
December 2018	15,521,500	10,282,100	25,803,600	23,080,800	2,722,800
2018 Total	**126,520,600**	**90,673,500**	**217,194,100**	**67,486,200**	**149,707,900**
January 2019	13,105,900	8,431,000	21,536,900	19,494,500	2,042,400
February 2019	12,821,800	8,443,300	21,265,100	13,624,600	7,640,500
March 2019	16,066,200	10,450,300	26,516,500	13,435,900	13,080,600
April 2019	12,729,900	8,472,000	21,201,900	7,170,800	14,031,100
May 2019	12,789,200	10,082,100	22,871,300	5,779,900	17,091,400
June 2019	9,569,300	7,798,200	17,367,500	1,512,500	15,855,000
July 2019	9,153,800	8,748,700	17,902,500	551,100	17,351,400
August 2019	17,091,500	10,580,700	27,672,200	5,494,800	22,177,400
September 2019	12,899,200	7,297,200	20,196,400	2,916,700	17,279,700
October 2019	13,112,400	10,391,900	23,504,300	17,177,900	6,326,400
November 2019	7,060,700	8,546,700	15,607,400	14,525,700	1,081,700
December 2019	7,330,400	8,499,400	15,829,800	15,695,800	134,000
Q4 2019 Total	**27,503,500**	**27,438,000**	**54,941,500**	**47,399,400**	**7,542,100**
2019 Total	**143,730,300**	**107,741,500**	**251,471,800**	**117,380,200**	**134,091,600**
January 2020	9,025,600	10,401,500	19,427,100	18,919,600	507,500
February 2020	6,985,200	8,249,600	15,234,800	12,237,600	2,997,200
March 2020	7,280,800	8,168,800	15,449,600	4,246,900	11,202,700
April 2020	9,547,500	10,804,400	20,351,900	5,110,300	15,241,600
May 2020	10,550,000	8,680,400	19,230,400	395,600	18,834,800
June 2020[e]	12,585,900	7,964,600	20,550,500	0	20,550,500
Q2 2020 Total	**32,683,400**	**27,449,400**	**60,132,800**	**5,505,900**	**54,626,900**
2020 Total[f]	**55,975,000**	**54,269,300**	**110,244,300**	**40,910,000**	**69,334,300**
Cumulative Total	**545,326,300**	**353,917,800**	**899,244,100**	**310,931,935**	**588,312,165**

Table 5-3
Cumulative Quantities of Groundwater Treated and Discharged through Q2 2020

[a] Corrected volumes from human machine interface datasets.

[b] Flowmeters are inspected monthly, see Appendix I-1.

[c] Train 1 treatment volume for December 2015 includes all water treated by the temporary treatment system and water treated by Train 1 during December 2015.

[d] On March 14, 2018 at 0206, the KAFB-7 V-Smart valve hydraulic assembly failed downhole. Repairs to KAFB-7 were completed on November 14, 2018. All treated water between March 14, 2018 and November 15, 2018 was discharged to the GCMP.

[e] Treatment volumes for June 2020 are calculated through June 29, 2020.

[f] Cumulative 2020 total through June 29, 2020.

FE/FIT-3208 = Flowmeter/flow meter transmitter (followed by the component designation)

GCMP = Tijeras Arroyo Golf Course main pond

GWTS = groundwater treatment system

Q2 = second quarter

Table 5-4
Groundwater Treatment System Injection Well Performance, Q2 2020

Well ID	Well Parameter	April	May	June[e]	Q2 (average)
KAFB-7	Average Operational Flow Rate[a] (gpm)	545.5	546.7	--	545.6
	Flow Rate Range[b] (gpm; min-max)	0.0 - 557.65	0.0 - 546.66	--	0.0 - 557.65
	Volume Injected[c] (gal)	5,110,300	395,600	--	2,752,950
	Average Water Level Elevation[d] (ft AMSL)	4894.3	4885.4	--	4890.1
	Water Level Elevation Range[d] (ft AMSL; min-max	4882.7 - 4927.0	4882.62 - 4921.2	--	4882.6 - 4927.0
	Run Time (%)	26.7%	3.2%	0.0%	9.9%
	Notes	NA	NA	NA	NA
GWTS Effluent	Average Operational Flow Rate[a] (gpm)	544.8	611.6	636.7	597.8
	Flow Rate Range[b] (gpm; min-max)	530.5 - 651.3	529.0 - 660.3	533.9 - 662.9	529.0 - 662.9

[a] Flow rate calculation is an average rate that only includes time while the system was operational; average values were computed from SCADA values throughout Q2 2020.

[b] Ranges are provided from SCADA values throughout Q2 2020. KAFB-7 flow rate fluctuates due to surging, etc. and is not consistent with GWTS effluent flow rates.

[c] Volume injected is calculated using totalizer readings from flow meters installed on the GWTS effluent skids. June injection volume calculated through June 29, 2020.

[d] Water level elevation averages and ranges include times when injection wells are not being utilized and data was collected from the SCADA for Q2

[e] KAFB-7 underwent rehabilitation starting on May 27, 2020, and was offline for the entire month of June 2020.

AMSL = above mean sea level
ft = foot (feet)
gal = gallon(s)
gpm = gallons per minute
GWTS = groundwater treatment system
ID = identification
max = maximum
min = minimum
NA = not applicable
SCADA = supervisory control and data acquisition
Q2 = second quarter

Table 5-5
Groundwater Treatment System Ethylene Dibromide Removal, Q2 2020

Treatment Train	Month	Date[a]	Cumulative Volume Extracted (gal)	Monthly Volume Treated (gal)	Influent EDB Concentration (µg/L)[b]	Cumulative Mass of EDB Extracted (mg)	Mass of EDB Removed (mg)[c]
Train 1	April	4/6/2020	514,405,600	9,547,500	ND < 0.019	81,582	0
		4/13/2020	516,182,000		ND < 0.019	81,582	
		4/20/2020	517,961,800		ND < 0.019	81,582	
		4/27/2020	519,807,300		ND < 0.019	81,582	
	May	5/4/2020	522,190,400	10,550,000	ND < 0.019	81,582	0
		5/11/2020	524,516,600		ND < 0.019	81,582	
		5/18/2020	526,880,300		ND < 0.019	81,582	
		5/26/2020	530,007,700		ND < 0.019	81,582	
	June	6/1/2020	532,740,400	12,585,900	ND < 0.019	81,582	0
		6/8/2020	535,951,100		ND < 0.019	81,582	
		6/15/2020	538,978,000		ND < 0.019	81,582	
		6/22/2020	542,381,100		ND < 0.019	81,582	
		6/29/2020	545,326,300		ND < 0.019	81,582	
Train 2	April	4/6/2020	328,615,500	10,804,400	0.010	45,478	245
		4/13/2020	330,779,400		0.010	45,559	
		4/20/2020	332,930,800		0.010	45,641	
		4/27/2020	335,087,000		0.010	45,723	
	May	5/4/2020	337,272,800	8,680,400	0.010	45,805	445
		5/11/2020	339,533,500		0.014	45,925	
		5/18/2020	341,640,300		0.014	46,037	
		5/26/2020	344,100,700		0.014	46,167	
	June	6/1/2020	345,953,200	7,964,600	0.014	46,265	822
		6/8/2020	348,107,200		0.024	46,461	
		6/15/2020	350,145,000		0.024	46,646	
		6/22/2020	352,221,400		0.024	46,835	
		6/29/2020	353,917,800		0.024	46,989	

Table 5-5
Groundwater Treatment System Ethylene Dibromide Removal, Q2 2020

Treatment Train	Month	Date[a]	Cumulative Volume Extracted (gal)	Monthly Volume Treated (gal)	Influent EDB Concentration (µg/L)[b]	Cumulative Mass of EDB Extracted (mg)	Mass of EDB Removed (mg)[c]
Q2 2020 Train 1 Total				32,683,400			0
Q2 2020 Train 2 Total				27,449,400			1,511
Q2 2020 Total				60,132,800			1,511

[a] Monthly date ranges may include dates falling outside of the actual month as weekly human machine interface data retrievals occur every Monday.

[b] The analytical result from the most recent monthly sample is used for the influent EDB concentration (Tables 5-6 and 5-7). Where EDB is non-detect, a concentration of 0 is used for the purpose of mass calculation and is displayed in this table as ND < [LOD].

[c] The mass of EDB removed is the sum of the weekly mass of EDB removed, which is the influent EDB concentration multiplied by the weekly treated volume, which is calculated each Monday from the difference in effluent totalizer readings since the previous Monday.

< = less than
µg/L = microgram per liter
EDB = ethylene dibromide
gal = gallon(s)
LOD = limit of detection
mg = milligram(s)
ND = nondetect
Q2 = second quarter

Table 5-6
Groundwater Treatment System Train 1 Monthly Analytical Results, Q2 2020

			Well Location ID:				GWTS-BFF-INF1			GWTS-BFF-GAC1			GWTS-BFF-EFF1			GWTS-BFF-EFF1		
			Field Sample ID:				GWTS-INF1-040220			GWTS-GAC1-040220			GWTS-EFF1-040220			GWTS-EFF1DUP-040220		
			Sample Date:				4/2/2020			4/2/2020			4/2/2020			4/2/2020		
			Sample Type:				REG			REG			REG			Field Duplicate		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.02
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2
Dissolved Metals	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
Field Parameters		Temperature (°C)	NS	NS	NS	NS	19.7			19.6			19.6			19.6		
		Spec Cond (µS/cm)	NS	NS	NS	NS	593			593			592			592		
		pH (S.U.)	NS	NS	NS	NS	7.78			7.34			7.35			7.35		
		ORP (mV)	NS	NS	NS	NS	372.8			411.2			542.7			542.7		
		DO (mg/L)	NS	NS	NS	NS	6.29			2.39			5.16			5.16		

Table 5-6
Groundwater Treatment System Train 1 Monthly Analytical Results, Q2 2020

			Well Location ID:				GWTS-BFF-INF1			GWTS-BFF-GAC1			GWTS-BFF-EFF1			GWTS-BFF-INF1		
			Field Sample ID:				GWTS-INF1-051120			GWTS-GAC1-051120			GWTS-EFF1-051120			GWTS-INF1-060320		
			Sample Date:				5/11/2020			5/11/2020			5/11/2020			6/3/2020		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2
Dissolved Metals	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.1
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	0.012	--	0.0052
Field Parameters		Temperature (°C)	NS	NS	NS	NS	20			20			20			20.3		
		Spec Cond (µS/cm)	NS	NS	NS	NS	490.7			445.4			487			480.4		
		pH (S.U.)	NS	NS	NS	NS	7.76			7.43			7.46			7.71		
		ORP (mV)	NS	NS	NS	NS	141.4			143			320.7			433.1		
		DO (mg/L)	NS	NS	NS	NS	6.02			3.88			6.41			5.94		

Table 5-6
Groundwater Treatment System Train 1 Monthly Analytical Results, Q2 2020

			Well Location ID:				GWTS-BFF-GAC1			GWTS-BFF-EFF1			GWTS-BFF-EFF1		
			Field Sample ID:				GWTS-GAC1-060320			GWTS-EFF1-060320			GWTS-EFF1DUP-060320		
			Sample Date:				6/3/2020			6/3/2020			6/3/2020		
			Sample Type:				REG			REG			Field Duplicate		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.01	J	0.019	ND	U	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2
Dissolved Metals	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	ND	U	0.1	ND	U	0.1
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052
Field Parameters		Temperature (°C)	NS	NS	NS	NS	20.2			20.3			20.3		
		Spec Cond (µS/cm)	NS	NS	NS	NS	483.7			477.7			477.7		
		pH (S.U.)	NS	NS	NS	NS	7.4			7.31			7.31		
		ORP (mV)	NS	NS	NS	NS	428.8			566.6			566.6		
		DO (mg/L)	NS	NS	NS	NS	3.05			5.7			5.7		

Table 5-6
Groundwater Treatment System Train 1 Monthly Analytical Results, Q2 2020

[a] NMWQCC numeric standards per the New Mexico Administrative Code Title 20.6.2.3101A, Standards for Groundwater of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC, 2018).

[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC numeric standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

µg/L = microgram per liter
µS/cm = microSiemens per centimeter
ºC = degree Celsius
AFB = Air Force Base
DO = dissolved oxygen
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
mg/L= milligram per liter
mV = millivolt
ND = nondetect
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
ORP = oxidation reduction potential
Q2 = second quarter
REG = normal field sample
RSL = regional screening level
Spec Cond = specific conductivity
S.U. = standard unit
Val Qual = validation qualifier
VOC = volatile organic compound

Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level

Val Quals based on independent data validation:

J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.
-- = Validation qualifier not assigned.

Table 5-7
Groundwater Treatment System Train 2 Monthly Analytical Results, Q2 2020

			Well Location ID:				GWTS-BFF-INF2			GWTS-BFF-GAC2			GWTS-BFF-EFF2			GWTS-BFF-INF2		
			Field Sample ID:				GWTS-INF2-040220			GWTS-GAC2-040220			GWTS-EFF2-040220			GWTS-INF2-051120		
			Sample Date:				4/2/2020			4/2/2020			4/2/2020			5/11/2020		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.01	J	0.019	ND	U	0.019	ND	U	0.019	0.014	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2
Dissolved Metals	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.103
		Manganese, dissolved	0.2	NS	NS	0.2	0.0258	--	0.0052	ND	U	0.0052	ND	U	0.0052	0.0071	J	0.0052
Field Parameters		Temperature (°C)	NS	NS	NS	NS	20.1			20			19.9			20.4		
		Spec Cond (µS/cm)	NS	NS	NS	NS	467.3			466.7			465.4			368.8		
		pH (S.U.)	NS	NS	NS	NS	7.73			7.31			7.26			7.71		
		ORP (mV)	NS	NS	NS	NS	604.9			95.6			67.3			163.1		
		DO (mg/L)	NS	NS	NS	NS	5.6			1.49			4.63			4.96		

Table 5-7
Groundwater Treatment System Train 2 Monthly Analytical Results, Q2 2020

			Well Location ID:				GWTS-BFF-GAC2			GWTS-BFF-EFF2			GWTS-BFF-EFF2			GWTS-BFF-INF2		
			Field Sample ID:				GWTS-GAC2-051120			GWTS-EFF2-051120			GWTS-EFF2DUP-051120			GWTS-INF2-060320		
			Sample Date:				5/11/2020			5/11/2020			5/11/2020			6/3/2020		
			Sample Type:				REG			REG			Field Duplicate			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	0.024	J	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2
Dissolved Metals	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.103	ND	U	0.103	ND	U	0.103	ND	U	0.1
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052	ND	U	0.0052	0.0042	J	0.0052
Field Parameters		Temperature (°C)	NS	NS	NS	NS	20.4			20.4			20.4			20.5		
		Spec Cond (µS/cm)	NS	NS	NS	NS	367.5			367.8			367.8			368.3		
		pH (S.U.)	NS	NS	NS	NS	7.32			7.3			7.3			7.67		
		ORP (mV)	NS	NS	NS	NS	14.9			27.8			27.8			670.1		
		DO (mg/L)	NS	NS	NS	NS	1.36			4.19			4.19			5.28		

Table 5-7
Groundwater Treatment System Train 2 Monthly Analytical Results, Q2 2020

			Well Location ID:				GWTS-BFF-GAC2			GWTS-BFF-EFF2		
			Field Sample ID:				GWTS-GAC2-060320			GWTS-EFF2-060320		
			Sample Date:				6/3/2020			6/3/2020		
			Sample Type:				REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.1	0.05	0.075	0.05	0.011	J	0.019	ND	U	0.019
VOCs	Method SW8260C (µg/L)	Benzene	5	5	4.5	5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	700	700	15	700	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2
Dissolved Metals	Method SW6010C (mg/L)	Iron, dissolved	1.0	NS	NS	1	ND	U	0.1	ND	U	0.1
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	ND	U	0.0052
Field Parameters		Temperature (°C)	NS	NS	NS	NS	20.6			20.6		
		Spec Cond (µS/cm)	NS	NS	NS	NS	371			367		
		pH (S.U.)	NS	NS	NS	NS	7.24			7.16		
		ORP (mV)	NS	NS	NS	NS	248.3			189.5		
		DO (mg/L)	NS	NS	NS	NS	0.56			4.89		

Table 5-7
Groundwater Treatment System Train 2 Monthly Analytical Results, Q2 2020

[a] NMWQCC numeric standards per the New Mexico Administrative Code Title 20.6.2.3101A, Standards for Groundwater of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC, 2018).

[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC numeric standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

µg/L = microgram per liter
µS/cm = microSiemens per centimeter
ºC = degree Celsius
AFB = Air Force Base
DO = dissolved oxygen
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
mg/L= milligram per liter
mV = millivolt
ND = nondetect
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
ORP = oxidation reduction potential
Q2 = second quarter
REG = normal field sample
RSL = regional screening level
Spec Cond = specific conductivity
S.U. = standard unit
Val Qual = validation qualifier
VOC = volatile organic compound
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation:

J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.
-- = Validation qualifier not assigned.

Table 5-8
Groundwater Treatment System Routine Maintenance Schedule, Q2 2020

	Frequency			
Maintenance Activity	**Daily**	**Weekly**	**Monthly**	**As Needed**
Recording and inspecting influent, GAC vessel, and effluent skid pressure, flow rate, and totalizer readings from their respective gauges and the human machine interface	X			
Recording extraction well pressure, flow rate, and totalizer readings from the human machine interface	X			
Recording extraction well pressure, flow rate, and totalizer readings from the gauges at the well vaults		X		
Inspecting well control house and recording well control house pressure, flow rate, and totalizer readings		X		
Recording totalizer reading at KAFB-7		X		
Running and inspecting the GWTS air compressor		X		
Inspecting extraction well, conveyance line, and air release valve vaults			X	
Inspecting wellhead and associated equipment of injection well KAFB-7			X	
Inspecting and performing maintenance of flowmeters throughout the system			X	
Inspecting and performing maintenance on actuating valves throughout the system			X	
Performing confined space entries			X	
Gauging extraction well filter pack			X	
Semiannual inspections and maintenance of Tijeras Arroyo Gold Course ponds				X
Logging lockout-tagout entries				X
Logging system shutdowns				X
Emptying storm water runoff flooded vaults				X
Performing air compressor maintenance				X
Cleaning GWTS sumps				X
Draining air release valve containment vessels				X
Grounds keeping including vegetation control				X
Inspecting and cleaning the GWTS Wye-strainer/basket strainer				X
Performing flow meter calibration				X[a]
Greasing pump bearings				X[b]
Changing process pump oil				X[b]
Changing air filter on control room air conditioner				X[b]
Changing bag filters				X[c]
Changing out GAC				X[c]
Disinfection of extraction wells and conveyance lines				X[d]
Testing of alarms and interlocks				X[e]
Cleaning coils and replacing air filter for the Well Control House air conditioner				X[f]
GAC skimming of the lead GAC vessel				X[g]

Table 5-8
Groundwater Treatment System Routine Maintenance Schedule, Q2 2020

[a] Flowmeters are calibrated at a minimum of once per year, but may be calibrated more often as needed.

[b] Changing of process pump oil, greasing pump bearings, and replacing the air filter in the air conditioning unit are required every 3 months, but may be changed more often as needed.

[c] Bag filters are scheduled for change out when the pressure differential across a bag filter vessel exceeds 15 psi and GAC is scheduled for change out when the pressure differential across a GAC vessel exceeds 10 psi.

[d] Disinfection of extraction wells and conveyance lines occurs semiannually or more often as needed.

[e] Testing of alarms and interlocks occurs annually or more often as needed.

[f] Cleaning of the coil and replacing of the air filter are scheduled as quarterly activities, but frequency may be adjusted as necessary.

[g] GAC skimming is performed when the differential pressure in the lead GAC vessel has increased from the operational differential pressure by at least 7 psi.

GAC = granular activated carbon
GWTS = groundwater treatment system
psi = pound per square inch
Q2 = second quarter

Table 5-9
Groundwater Treatment System Non-Routine Maintenance Items, Q2 2020

Date	Extent of Shutdown	Approximate Downtime (hours)	Cause of Shutdown
5/7/2020 - 5/13/2020	Not applicable	Not applicable	Replacement of Train 2 influent skid motor (P-212B) and Train 1 effluent skid motor (P-118)
6/18/2020	Train 2	6	Replaced the Train 2 influent skid motor (P-212B)
6/22/2020 - 6/26/2020	KAFB-106239	100	Rehabilitated KAFB-106239
4/1/2020 - 5/28/2020	KAFB-106233	Not applicable	KAFB-106233 intermittently turned offline to maintain injection well KAFB-7 water level during injection

Q2 = second quarter

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106228			KAFB-106228			KAFB-106228			KAFB-106228		
			Sample Date:				GW228-171			GW228-173			GW228-183			GW228-191		
			Field Sample ID:				3/2/2017			7/27/2017			7/18/2018			1/24/2019		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**0.072**	--	0.019	**0.056**	--	0.019	**0.070**	--	0.019	0.036	--	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	1	—	—	—	ND	U	1	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	1	—	—	—	ND	U	1	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	—	—	—	ND	U	1	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	1	—	—	—	—	—	—	ND	U	2
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	—	—	—	—	—	—	--	--	--	38.4	--	0.1
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.2	—	—	—	ND	U	0.100	ND	U	0.1
		Magnesium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	5.34	--	0.05
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.005	—	—	—	ND	U	0.0025	ND	U	0.0025
		Potassium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	2.22	--	0.375
		Sodium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	25	--	0.5
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	—	—	—	—	—	—	—	—	—	0.001	J	0.0016
		Lead	0.015	0.015	0.015	0.015	—	—	—	—	—	—	—	—	—	0.0011	J	0.0024

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106228			KAFB-106233			KAFB-106233			KAFB-106233		
			Sample Date:				GW228-201			GW233-042517			GW233-173			GW233-183		
			Field Sample ID:				1/14/2020			4/25/2017			7/27/2017			7/18/2018		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.032	--	0.019	**0.090**	--	0.019	0.048	--	0.019	0.034	--	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	1	--	--	--	ND	U	1
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	1	--	--	--	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	1	--	--	--	ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	1	--	--	--	ND	U	1
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	37.7	--	0.150	--	--	--	--	--	--	--	--	--
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.103	ND	U	0.200	--	--	--	ND	U	0.100
		Magnesium	NS	NS	NS	NS	5.45	--	0.0751	--	--	--	--	--	--	--	--	--
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0052	0.0318	--	0.0050	--	--	--	ND	U	0.0025
		Potassium	NS	NS	NS	NS	2.16	--	0.375	--	--	--	--	--	--	--	--	--
		Sodium	NS	NS	NS	NS	25.1	--	0.500	--	--	--	--	--	--	--	--	--
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00096	J	0.0016	--	--	--	--	--	--	--	--	--
		Lead	0.015	0.015	0.015	0.015	0.00017	J	0.00025	--	--	--	--	--	--	--	--	--

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106233			KAFB-106233			KAFB-106234			KAFB-106234		
			Sample Date:				GW233-191			GW233-201			GW234-171			GW234-173		
			Field Sample ID:				1/24/2019			1/14/2020			3/2/2017			7/27/2017		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.013	J	0.019	ND	U	0.019	**0.085**	--	0.019	**0.064**	--	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	1	--	--	--
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	1	--	--	--
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	1	--	--	--
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	1	--	--	--
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	51.8	--	0.1	61.5	--	0.150	--	--	--	--	--	--
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.1	ND	U	0.103	ND	U	0.2	--	--	--
		Magnesium	NS	NS	NS	NS	7.07	--	0.05	9.10	--	0.0751	--	--	--	--	--	--
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025	ND	U	0.0052	ND	U	0.005	--	--	--
		Potassium	NS	NS	NS	NS	2.77	--	0.375	2.89	--	0.375	--	--	--	--	--	--
		Sodium	NS	NS	NS	NS	26.3	--	0.5	29.1	--	0.500	--	--	--	--	--	--
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.00099	J	0.0016	0.0011	J	0.0016	--	--	--	--	--	--
		Lead	0.015	0.015	0.015	0.015	ND	U	0.0024	0.0016	--	0.00025	--	--	--	--	--	--

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106234			KAFB-106234			KAFB-106234			KAFB-106234		
			Sample Date:				GW234-183			GW234-191			GW234-062119			GW234-201		
			Field Sample ID:				7/18/2018			1/24/2019			6/21/2019			1/14/2020		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.050	--	0.019	0.022	J	0.019	0.023	J	0.019	0.017	J	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	1	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	1	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	2	ND	U	2	ND	U	2
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	--	--	--	53.6	--	0.1	--	--	--	54.5	--	0.150
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.100	ND	U	0.1	--	--	--	ND	U	0.103
		Magnesium	NS	NS	NS	NS	--	--	--	7.32	--	0.05	--	--	--	7.64	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	ND	U	0.0025	ND	U	0.0025	--	--	--	ND	U	0.0052
		Potassium	NS	NS	NS	NS	--	--	--	2.76	--	0.375	--	--	--	2.90	--	0.375
		Sodium	NS	NS	NS	NS	--	--	--	26.7	--	0.5	--	--	--	29.1	--	0.500
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	--	--	--	0.00093	J	0.0016	--	--	--	0.00094	J	0.0016
		Lead	0.015	0.015	0.015	0.015	--	--	--	ND	U	0.0024	--	--	--	0.00043	J	0.00025

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106239			KAFB-106239			KAFB-106239			KAFB-106239		
			Sample Date:				GW239-171			GW239-571			GWTS239-181			GWTS239-181		
			Field Sample ID:				1/11/2017			1/11/2017			2/5/2018			2/6/2018		
			Sample Type:				REG			Field Duplicate			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	**0.10**	--	0.019	**0.093**	--	0.019	ND	U	0.019	0.018	J	0.02
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	0.6	J	1	0.6	J	1	ND	U	1	ND	U	1
		Ethylbenzene	750	700	15	700	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	7	--	1	7	--	1	1	--	1	0.9	J	1
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	1	ND	U	1	ND	U	1
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	76.2	--	0.200	75.7	--	0.200	—	—	—	—	—	—
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.200	ND	U	0.200	ND	U	0.2	ND	U	0.2
		Magnesium	NS	NS	NS	NS	11.3	--	0.0500	11.1	--	0.0500	—	—	—	—	—	—
		Manganese, dissolved	0.2	NS	NS	0.2	**0.294**	--	0.0050	**0.296**	--	0.0050	ND	U	0.005	ND	U	0.005
		Potassium	NS	NS	NS	NS	3.17	--	0.500	3.17	--	0.500	—	—	—	—	—	—
		Sodium	NS	NS	NS	NS	34.4	J	0.500	34.1	J	0.500	—	—	—	—	—	—
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0020	0.0011	J	0.0020	—	—	—	—	—	—
		Lead	0.015	0.015	0.015	0.015	ND	U	0.00025	ND	U	0.00025	—	—	—	—	—	—

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106239			KAFB-106239			KAFB-106239			KAFB-106239		
			Sample Date:				GWTS239-181			GWTS239-181			GWTS239-181			GW239-183		
			Field Sample ID:				2/15/2018			2/22/2018			3/1/2018			7/18/2018		
			Sample Type:				REG			REG			REG			REG		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	0.022	J	0.019	0.031	--	0.019	0.026	J	0.019	0.034	--	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Ethylbenzene	750	700	15	700	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Toluene	1,000	1,000	1,100	1,000	ND	U	1	ND	U	1	ND	U	1	ND	U	1
		Xylenes, total	620	10,000	190	620	ND	U	1	ND	U	1	ND	U	1	ND	U	1
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	—	—	—
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.2	ND	U	0.2	ND	U	0.2	ND	U	0.100
		Magnesium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	—	—	—
		Manganese, dissolved	0.2	NS	NS	0.2	0.0099	J	0.005	0.0562	--	0.005	0.118	--	0.005	0.150	--	0.0025
		Potassium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	—	—	—
		Sodium	NS	NS	NS	NS	—	—	—	—	—	—	—	—	—	—	—	—
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	—	—	—	—	—	—	—	—	—	—	—	—
		Lead	0.015	0.015	0.015	0.015	—	—	—	—	—	—	—	—	—	—	—	—

Table 5-10
Historical Extraction Well Analytical Results

			Well Location ID:				KAFB-106239			KAFB-106239			KAFB-106239			KAFB-106239		
			Sample Date:				GW239-191			GW239-591			GW239-201			GW239-601		
			Field Sample ID:				1/24/2019			1/24/2019			1/14/2020			1/14/2020		
			Sample Type:				REG			Field Duplicate			REG			Field Duplicate		
Parameter	**Analytical Method**	**Analyte**	**NMAC NMWQCC[a]**	**EPA MCL[b]**	**EPA RSL[c]**	**Project Screening Level[d]**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**	**Result**	**Val Qual**	**LOD**
EDB	Method SW8011 (µg/L)	1,2-Dibromoethane	0.05	0.05	0.075	0.05	ND	U	0.019	ND	U	0.019	ND	U	0.019	ND	U	0.019
BTEX	Method SW8260C (µg/L)	Benzene	10	5	4.5	5	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Ethylbenzene	750	700	15	700	ND	U	0.8	ND	U	0.8	ND	U	0.8	ND	U	0.8
		Toluene	1,000	1,000	1,100	1,000	ND	U	0.5	ND	U	0.5	ND	U	0.5	ND	U	0.5
		Xylenes, total	620	10,000	190	620	ND	U	2	ND	U	2	ND	U	2	ND	U	2
Metals	Method SW6010C (mg/L)	Calcium	NS	NS	NS	NS	44.1	--	0.1	43.6	--	0.1	44.0	--	0.150	44.4	--	0.150
		Iron, dissolved	1.0	NS	NS	1.0	ND	U	0.1	ND	U	0.1	ND	U	0.103	ND	U	0.103
		Magnesium	NS	NS	NS	NS	6.23	--	0.05	6.15	--	0.05	6.24	--	0.0751	6.54	--	0.0751
		Manganese, dissolved	0.2	NS	NS	0.2	0.135	--	0.0025	0.135	--	0.0025	0.170	--	0.0052	0.167	--	0.0052
		Potassium	NS	NS	NS	NS	2.38	--	0.375	2.37	--	0.375	2.37	--	0.375	2.30	--	0.375
		Sodium	NS	NS	NS	NS	25	--	0.5	24.7	--	0.5	25.7	--	0.500	25.4	--	0.500
	Method SW6020A (mg/L)	Arsenic	0.01	0.01	0.00052	0.01	0.0011	J	0.0016	0.0012	J	0.0016	0.0010	J	0.0016	0.00095	J	0.0016
		Lead	0.015	0.015	0.015	0.015	0.0012	J	0.0024	0.0013	J	0.0024	0.00073	--	0.00025	0.00071	--	0.00025

Table 5-10
Historical Extraction Well Analytical Results

[a] NMWQCC numeric standards per the NMAC Title 20.6.2.3101A, Standards for Ground Water of 10,000 mg/L Total Dissolved Solids Concentration or Less (NMAC 2018). For metals, the NMWQCC numeric standard applies to dissolved metals.

[b] EPA National Primary Drinking Water Regulations, MCLs and Secondary MCLs, Title 40CFR Part 141, 143 (May 2018).

[c] EPA Region 6 RSL for Tapwater (May 2020) for hazard index = 1.0 for noncarcinogens and a 10-5 cancer risk level for carcinogens.

[d] The project screening level was selected to satisfy the requirements of the Kirtland AFB Hazardous Waste Permit Number NM9570024423 as the lowest of (1) NMWQCC numeric standard or (2) EPA MCL. If no NMQWCC standard or MCL exists for any analyte, then the project screening level will be the EPA RSL.

— = Compound not analyzed for
µg/L = microgram per liter
AFB = Air Force Base
BTEX = benzene, toluene, ethylbenzene, and total xylenes
CFR = Code of Federal Regulations
EDB = ethylene dibromide (1,2-dibromoethane)
EPA = U.S. Environmental Protection Agency
ID = identification
LOD = limit of detection
MCL = maximum contaminant level
mg/L = milligrams per liter
ND = not detected
NMAC = New Mexico Administrative Code
NMWQCC = New Mexico Water Quality Control Commission
NS = not specified
REG = normal field sample
RSL = regional screening level
Val Qual = validation qualifier
VOC = volatile organic compound
Shading = detected concentrations above the detection limit
Bold/Shading = reported concentrations exceed the project screening level
Val Quals based on independent data validation
J = Qualifier denotes the analyte was positively identified, but the associated numerical value is estimated.
U = Qualifier denotes the analyte was analyzed but not detected above the detection limit. The value associated with the U-qualifier is the LOD.
-- = Validation qualifier not assigned.

Table 5-11
Plume Volume and Mass Comparison for the Target Capture Zone

Interval	Well		Q4 2016		Q2 2017		Q4 2017	
	From	To	Volume (ft^3)	Mass[a] (grams)	Volume (ft^3)	Mass[a] (grams)	Volume (ft^3)	Mass[a] (grams)
A	Ridgecrest[b]	KAFB-106090	18,450,000	13	4,328,300	2	10,891,000	7
B	KAFB-106090	KAFB-106228	33,142,000	31	33,313,000	26	25,969,000	20
C	KAFB-106228	KAFB-106058	19,645,000	17	32,423,000	28	27,318,000	21
D	KAFB-106058	KAFB-106227	16,209,000	11	1,350,400	1	10,599,000	6
E	KAFB-106227	KAFB-106234	21,380,000	29	11,231,000	19	18,561,000	22
F	KAFB-106234	KAFB-106206	5,836,100	4	6,130,300	6	5,499,400	4
Total A-F[c] (interim remedy TCZ)			**114,662,100**	**104**	**88,776,000**	**82**	**98,837,400**	**80**
Interval	**Well**		**Q2 2018**		**Q4 2018**		**Q2 2019**	
	From	**To**	**Volume (ft^3)**	**Mass[a] (grams)**	**Volume (ft^3)**	**Mass[a] (grams)**	**Volume (ft^3)**	**Mass[a] (grams)**
A	Ridgecrest[b]	KAFB-106090	8,896,200	4	6,275,400	4	7,731,200	4
B	KAFB-106090	KAFB-106228	15,300,000	8	8,242,000	5	8,553,400	4
C	KAFB-106228	KAFB-106058	5,550,900	3	5,762,500	3	5,783,300	3
D	KAFB-106058	KAFB-106227	248,520	0	0	0	0	0
E	KAFB-106227	KAFB-106234	5,841,800	3	6,037,500	4	0	0
F	KAFB-106234	KAFB-106206	963,770	0	2,193,000	1	0	0
Total A-F[c] (interim remedy TCZ)			**36,801,190**	**19**	**28,510,400**	**16**	**22,067,900**	**11**
Interval	**Well**		**Q4 2019**		**Q2 2020**			
	From	**To**	**Volume (ft^3)**	**Mass[a] (grams)**	**Volume (ft^3)**	**Mass[a] (grams)**		
A	Ridgecrest[b]	KAFB-106090	5,660,700	3	2,539,200	1		
B	KAFB-106090	KAFB-106228	8,464,800	4	1,566,100	0.7		
C	KAFB-106228	KAFB-106058	3,607,800	2	536,800	0.2		
D	KAFB-106058	KAFB-106227	750,080	0.3	48,264	0.02		
E	KAFB-106227	KAFB-106234	0	0	0	0		
F	KAFB-106234	KAFB-106206	0	0	0	0		
Total A-F[c] (interim remedy TCZ)			**18,483,380**	**9.1**	**4,690,364**	**2.4**		

Table 5-11
Plume Volume and Mass Comparison for the Target Capture Zone

[a] Mass value assumes a uniform total porosity of 25% for the contaminated thickness of the aquifer.

[b] Ridgecrest Drive SE.

[c] Differences between total and summed interval values are due to rounding errors in the interval values.

% = percent

ft^3 = cubic feet

Q2 = second quarter

Q4 = fourth quarter

TCZ = target capture zone

Table 5-12
Horizontal Capture Analysis for the Target Capture Zone

Sample Period	Capture Interval	Plume		Horizontal Capture		Percent Captured	
		Volume (ft^3)	Mass[a] (grams)	Volume (ft^3)	Mass[a] (grams)	Volume	Mass[a]
2016 Q4	REI 4857	6.57E+07	64	6.57E+07	64	100.0%	100.0%
	REI 4838	4.90E+07	40	4.53E+07	38	92.5%	95.0%
	Total[b]	1.15E+08	104	1.11E+08	102	96.8%	98.1%
2017 Q2	REI 4857	4.75E+07	47	4.75E+07	47	100.0%	100.0%
	REI 4838	4.13E+07	34	4.13E+07	34	100.0%	100.0%
	Total[b]	8.88E+07	82	8.88E+07	82	100.0%	100.0%
2017 Q4	REI 4857	5.30E+07	45	5.30E+07	45	100.0%	100.0%
	REI 4838	4.58E+07	35	4.58E+07	35	100.0%	100.0%
	Total[b]	9.89E+07	80	9.89E+07	80	100.0%	100.0%
2018 Q2	REI 4857	2.24E+07	11	2.24E+07	11	100.0%	100.0%
	REI 4838	1.44E+07	8	1.44E+07	8	100.0%	100.0%
	Total[b]	3.68E+07	19	3.68E+07	19	100.0%	100.0%
2018 Q4	REI 4857	1.92E+07	12	1.92E+07	12	100.0%	100.0%
	REI 4838	9.39E+06	5	9.39E+06	5	100.0%	100.0%
	Total[b]	2.85E+07	17	2.85E+07	17	100.0%	100.0%
2019 Q2	REI 4857	9.65E+06	5	9.65E+06	5	100.0%	100.0%
	REI 4838	1.24E+07	6	1.24E+07	6	100.0%	100.0%
	Total[b]	2.21E+07	11	2.21E+07	11	100.0%	100.0%
2019 Q4	REI 4857	1.02E+07	5	1.02E+07	5	100.0%	100.0%
	REI 4838	8.34E+06	4	8.33E+06	4	99.9%	99.9%
	Total[b]	1.85E+07	9	1.85E+07	9	99.9%	100.0%
2020 Q2	REI 4857	3.63E+06	1.8	3.63E+06	1.8	100.0%	100.0%
	REI 4838	1.09E+06	0.6	1.09E+06	0.6	100.0%	100.0%
	Total[b]	4.72E+06	2.4	4.72E+06	2.4	100.0%	100.0%

Table 5-12
Horizontal Capture Analysis for the Target Capture Zone

[a] Plume mass value assumes a uniform total porosity of 25% for the aquifer.

[b] Differences between total and summed interval values are due to rounding errors in the interval values.

% = percent

ft^3 = cubic feet

Q2 = second quarter

Q4 = fourth quarter

REI = reference elevation interval (feet above mean sea level)

Table 5-13
Extraction Well Horizontal Capture Analysis for the Target Capture Zone

Sample Period	Dissolved EDB Plume Segment North of Ridgecrest	REI 4857				REI 4838			
		Volume		Mass[a]		Volume		Mass[a]	
		Cubic Feet	Percent Captured	Grams	Percent Captured	Cubic Feet	Percent Captured	Grams	Percent Captured
2016 Q4	KAFB-106228 cb	4.27E+07	65.0%	37	57.4%	3.24E+07	66.0%	25	63.0%
	KAFB-106233 cb	0.00E+00	0.0%	0	0.0%	0.00E+00	0.0%	0	0.0%
	KAFB-106234 cb	2.30E+07	35.0%	27	42.6%	1.29E+07	26.0%	12	31.0%
	Total[b]	6.57E+07	100.0%	64	100.0%	4.53E+07	92.0%	38	94.0%
2017 Q2	KAFB-106228 cb	1.27E+07	26.8%	13	27.7%	2.47E+07	59.8%	24	69.0%
	KAFB-106233 cb	1.83E+07	38.5%	10	21.3%	1.44E+07	35.0%	9	26.0%
	KAFB-106234 cb	1.65E+07	34.7%	24	51.1%	2.15E+06	5.2%	2	4.9%
	Total[b]	4.75E+07	100.0%	47	100.0%	4.13E+07	100.0%	34	100.0%
2017 Q4	KAFB-106228 cb	2.86E+07	54.0%	21	46.7%	3.26E+07	71.1%	25	71.4%
	KAFB-106233 cb	3.94E+06	7.4%	2	4.4%	4.30E+06	9.4%	2	5.7%
	KAFB-106234 cb	2.05E+07	38.6%	22	48.9%	8.95E+06	19.5%	8	22.9%
	Total[b]	5.30E+07	100.0%	45	100.0%	4.58E+07	100.0%	35	100.0%
2018 Q2	KAFB-106228 cb	6.86E+06	30.6%	3	31.3%	1.41E+07	97.8%	8	98.2%
	KAFB-106233 cb	8.63E+06	38.6%	4	35.4%	8.19E+01	0.0%	0	0.0%
	KAFB-106234 cb	6.74E+06	30.1%	4	32.4%	3.18E+05	2.2%	0	1.8%
	KAFB-106239 cb	1.58E+05	0.7%	0	0.8%	0.00E+00	0.0%	0	0.0%
	Total[b]	2.24E+07	100.0%	11	100.0%	1.44E+07	100.0%	8	100.0%
2018 Q4	KAFB-106228 cb	6.66E+06	34.8%	4	32.2%	8.49E+06	90.4%	4	90.7%
	KAFB-106233 cb	0.00E+00	0.0%	0	0.0%	0.00E+00	0.0%	0	0.0%
	KAFB-106234 cb	7.42E+06	38.8%	5	41.4%	8.09E+05	8.6%	0	8.4%
	KAFB-106239 cb	5.07E+06	26.4%	3	26.4%	9.62E+04	1.0%	0	0.9%
	Total[b]	1.92E+07	100.0%	12	100.0%	9.39E+06	100.0%	5	100.0%

Table 5-13
Extraction Well Horizontal Capture Analysis for the Target Capture Zone

Sample Period	Dissolved EDB Plume Segment North of Ridgecrest	REI 4857				REI 4838			
		Volume		Mass[a]		Volume		Mass[a]	
		Cubic Feet	Percent Captured	Grams	Percent Captured	Cubic Feet	Percent Captured	Grams	Percent Captured
2019 Q2	KAFB-106228 cb	4.96E+06	51.4%	2	50.4%	8.57E+06	68.9%	4	68.9%
	KAFB-106233 cb	5.08E+03	0.1%	0	0.0%	1.72E+05	1.4%	0	1.0%
	KAFB-106234 cb	0.00E+00	0.0%	0	0.0%	0.00E+00	0.0%	0	0.0%
	KAFB-106239 cb	4.69E+06	48.5%	2	49.6%	3.69E+06	29.7%	2	30.1%
	Total[b]	9.65E+06	100.0%	5	100.0%	1.24E+07	100.0%	6	100.0%
2019 Q4	KAFB-106228 cb	9.37E+06	92.1%	4	90.8%	8.30E+06	99.6%	4	99.7%
	KAFB-106233 cb	0.00E+00	0.0%	0.0	0.0%	0.00E+00	0.0%	0.00	0.0%
	KAFB-106234 cb	2.35E+05	2.3%	0.1	1.9%	3.16E+04	0.4%	0.01	0.3%
	KAFB-106239 cb	5.68E+05	5.6%	0.4	7.4%	0.00E+00	0.0%	0.00	0.0%
	Total[b]	1.02E+07	100.0%	5	100.0%	8.33E+06	100.0%	4	100.0%
2020 Q2	KAFB-106228 cb	2.08E+06	57.4%	0.9	51.3%	9.15E+05	84.3%	0.5	85.3%
	KAFB-106233 cb	0.00E+00	0.0%	0.0	0.0%	0.00E+00	0.0%	0.00	0.0%
	KAFB-106234 cb	0.00E+00	0.0%	0.0	0.0%	0.00E+00	0.0%	0.00	0.0%
	KAFB-106239 cb	1.55E+06	42.6%	0.9	48.7%	1.71E+05	15.7%	0.1	14.8%
	Total[b]	3.63E+06	100.0%	1.8	100.0%	1.09E+06	100.0%	0.6	100.0%

[a] Plume mass value assumes a uniform total porosity of 25% for the aquifer.

[b] Differences between total and summed interval values are due to rounding errors in the interval values.

% = percent

cb = capture basin

EDB = ethylene dibromide (1,2-dibromoethane)

Q2 = second quarter

Q4 = fourth quarter

REI = reference elevation interval (feet above mean sea level)

Table 5-14
Step 3 Target Capture Zone Horizontal Capture Statistics

Component	Evaluation Period	Quarter Total	Estimated Captured	Remainder	Percent of Quarter Captured	Percent of Initial Captured
Target Capture Zone Volume (ft^3)	Q4 2016[a]	1.15E+08	1.11E+08	3.63E+06	96.8%	96.8%
	Q2 2017	8.88E+07	8.88E+07	0.00E+00	100.0%	100.0%
	Q4 2017	9.88E+07	9.89E+07	0.00E+00	100.0%	100.0%
	Q2 2018	3.68E+07	3.68E+07	0.00E+00	100.0%	100.0%
	Q4 2018	2.85E+07	2.85E+07	0.00E+00	100.0%	100.0%
	Q2 2019	2.21E+07	2.21E+07	0.00E+00	100.0%	100.0%
	Q4 2019	1.85E+07	1.85E+07	1.03E+04	99.9%	100.0%
	Q2 2020	4.72E+06	4.72E+06	0.00E+00	100.0%	100.0%
Target Capture Zone Mass (grams)	Q4 2016[a]	103.9	102.0	1.9	98.1%	98.1%
	Q2 2017	81.8	81.8	0.0	100.0%	100.0%
	Q4 2017	79.9	79.9	0.0	100.0%	100.0%
	Q2 2018	18.6	18.6	0.0	100.0%	100.0%
	Q4 2018	16.5	16.5	0.0	100.0%	100.0%
	Q2 2019	11.3	11.3	0.0	100.0%	100.0%
	Q4 2019	9.2	9.2	0.0	100.0%	100.0%
	Q2 2020	2.4	2.4	0.0	100.0%	100.0%

[a] Q4 2016 is the initial evaluation period for comparison purposes

% = percent

ft^3 = cubic feet

Q2 = second quarter evaluation period

Q4 = fourth quarter evaluation period

ne = capture not evaluated by numerical flow model analysis

Table 5-15
Vertical Containment Analysis for the Target Capture Zone

Sample Period	Dissolved EDB Plume Segment North of Ridgecrest Drive SE	Plume		Vertical Containment		Percent Contained	
		Volume (ft^3)	Mass[a] (grams)	Volume (ft^3)	Mass[a] (grams)	Volume	Mass
2016 Q4	Above REI 4838 mid-point	8.31E+07	80	6.35E+07	59	76.3%	73.8%
	Below REI 4838 mid-point	3.15E+07	24	1.73E+07	14	54.8%	58.3%
	Total[b]	1.15E+08	104	8.08E+07	73	70.4%	70.2%
2017 Q2	Above REI 4838 mid-point	5.87E+07	55	5.24E+07	47	89.3%	85.0%
	Below REI 4838 mid-point	3.01E+07	26	2.36E+07	18	78.5%	68.5%
	Total[b]	8.88E+07	82	7.60E+07	65	85.6%	79.9%
2017 Q4	Above REI 4838 mid-point	6.81E+07	58	5.77E+07	48	84.7%	82.8%
	Below REI 4838 mid-point	3.07E+07	22	2.23E+07	15	72.5%	68.2%
	Total[b]	9.89E+07	80	8.00E+07	63	80.9%	78.8%
2018 Q2	Above REI 4838 mid-point	2.24E+07	11	1.44E+07	7	64.4%	63.4%
	Below REI 4838 mid-point	1.44E+07	8	7.99E+06	4	55.3%	51.9%
	Total[b]	3.68E+07	19	2.24E+07	11	60.8%	58.6%
2018 Q4	Above REI 4838 mid-point	1.92E+07	12	1.92E+07	12	100.0%	100.0%
	Below REI 4838 mid-point	9.39E+06	5	9.14E+06	5	97.4%	97.6%
	Total[b]	2.85E+07	17	2.83E+07	16	99.1%	99.3%
2019 Q2	Above REI 4838 mid-point	9.65E+06	5	9.65E+06	5	100.0%	100.0%
	Below REI 4838 mid-point	1.24E+07	6	1.24E+07	6	100.0%	100.0%
	Total[b]	2.21E+07	11	2.21E+07	11	100.0%	100.0%
2019 Q4	Above REI 4838 mid-point	1.02E+07	5	1.02E+07	5	100.0%	100.0%
	Below REI 4838 mid-point	8.34E+06	4	8.34E+06	4	100.0%	100.0%
	Total[b]	1.85E+07	9	1.85E+07	9	100.0%	100.0%

Table 5-15
Vertical Containment Analysis for the Target Capture Zone

2020 Q2	Above REI 4838 mid-point	3.63E+06	1.8	3.63E+06	1.8	99.8%	99.9%
	Below REI 4838 mid-point	1.09E+06	0.6	1.09E+06	0.6	100.0%	100.0%
	Total[b]	4.72E+06	2.4	4.71E+06	2.4	99.9%	99.9%

[a] Plume mass value assumes a uniform total porosity of 25% for the aquifer.

[b] Differences between total and summed interval values are due to rounding errors in the interval values.

% = percent

EDB = ethylene dibromide (1,2-dibromoethane)

ft^3 = cubic feet

Q2 = second quarter

Q4 = fourth quarter

REI = reference elevation interval (feet above mean sea level)

SE = southeast

Table 5-16
Step 3 Target Capture Zone Vertical Capture Statistics

Component	Evaluation Period	Quarter Total	Estimated Captured	Remainder	Percent of Quarter Captured	Percent of Initial Captured
Target Capture Zone Volume (ft^3)	Q4 2016[a]	1.15E+08	8.08E+07	3.39E+07	70.4%	70.4%
	Q2 2017	8.88E+07	7.60E+07	1.28E+07	85.6%	88.9%
	Q4 2017	9.88E+07	8.00E+07	1.88E+07	80.9%	83.6%
	Q2 2018	3.68E+07	2.24E+07	1.44E+07	60.8%	87.4%
	Q4 2018	2.85E+07	2.83E+07	2.48E+05	99.1%	99.8%
	Q2 2019	2.21E+07	2.21E+07	4.41E+03	100.0%	100.0%
	Q4 2019	1.85E+07	1.85E+07	0.00E+00	100.0%	100.0%
	Q2 2020	4.72E+06	4.71E+06	5.75E+03	99.9%	100.0%
Target Capture Zone Mass (grams)	Q4 2016[a]	103.9	73.0	30.9	70.3%	70.3%
	Q2 2017	81.8	65.3	16.5	79.9%	84.1%
	Q4 2017	79.9	63.0	16.9	78.8%	83.7%
	Q2 2018	18.6	10.9	7.7	58.6%	92.6%
	Q4 2018	16.5	16.4	0.1	99.3%	99.9%
	Q2 2019	11.3	11.3	0.0	100.0%	100.0%
	Q4 2019	9.2	9.2	0.0	100.0%	100.0%
	Q2 2020	2.4	2.4	0.0	99.9%	100.0%

[a] Q4 2016 is the initial evaluation period for comparison purposes

% = percent

ft^3 = cubic feet

Q2 = second quarter evaluation period

Q4 = fourth quarter evaluation period

ne = capture not evaluated by numerical flow model analysis

Table 5-17
Summary of Hydraulic Conductivity Assignments

Lithology Zone	Particle Size Range[a] (mm)	Kh Estimation Equation[b]	Range of Equation Calculated Kh (ft/day)	Average Kh Using Median Grain-Size (ft/day)	Assigned Kh (ft/day)
Clay (CL)	.00006 - 0.0039	Hazen	0.002-0.03	0.01	0.01
		Beyer	0.005-0.08	0.03	
		Wang (eq15)	-	-	
Silty-Clayey Sand (SM)	0.00006 - 0.0625	Hazen	0.002-8	1.1	1.5
		Beyer	0.001-10	1.7	
		Wang (eq15)	0.002-8	1.5	
Very Fine Sand (VFS)	0.0625 - 0.125	Hazen	8-32	18	35
		Beyer	11-79	35	
		Wang (eq15)	9-102	37	
Fine Sand (FS)	0.125 - 0.25	Hazen	32-128	72	148
		Beyer	53-316	148	
		Wang (eq15)	35-248	109	
Medium Sand (MS)	0.25 - 0.50	Hazen	128-511	287	632
		Beyer	246-1,264	632	
		Wang (eq15)	138-710	357	
Coarse Sand (CS)	0.50 - 1.00	Hazen	511-2,043	1149	2,686
		Beyer	1,123-5,058	2686	
		Wang (eq15)	553-2,213	1236	

[a] Particle Size Range from Wentworth, C.K. 1922. *A Scale of Grade and Class Terms for Clastic Sediments.* The Journal of Geology 30, No. 5. July-August.

[b] Description of each equation can be found in Wang, J., B. Francois, and P. Lambert. 2017. *Equations for hydraulic conductivity estimation from particle size distribution: A dimensional analysis.* Water Resources Research. September.

- = none given

eq15 = equation 15

ft = foot (feet)

Kh = hydraulic conductivity

mm = millimeter

Table 5-18
Summary of Model Well Assignments

Location ID	Model Assignments					Well Completion Information					
	Extraction Rate[a] (gpm)	Well Radius (in)	Top of Screen Elevation (ft)	Bottom Of Screen Elevation (ft)	Model Layer	Ground Surface Elevation (ft)	Depth to Screen Top (ft)	Depth to Screen Bottom (ft)	Screen Interval (ft)	Pump Capacity (gpm)	Percent of Screen Interval Above A2[b]
KAFB-3[cf]	650	7	4,905	4,460	1 - 48	5,357	452	900	448	650	100%
KAFB-4[g]	0.0	7	4,865	4,365	2 - 48	5,364	494	1000	506	650	100%
KAFB-7[d]	-132	8	4,900	4,496	1; 21-48	5,352	452	950	374	NA	20%
KAFB-14	8.8	8	4,905	4,790	1 - 17	5,324	380	1,000	620	1,500	14%
KAFB-16	0.03	9	4,660	4,640	38 - 39	5,369	710	1,400	690	2,500	3%
KAFB-20[ef]	700	10	4,680	4,560	36 - 47	5,390	710	1,180	380	1,400	50%
KAFB-106228[f]	140	4	4,882	4,782	1 - 19	5,322	440	540	100	150	100%
KAFB-106233[g]	0.0	4	4,884	4,782	1 - 19	5,314	430	532	102	175	100%
KAFB-106234[f]	176	4	4,886	4,786	1 - 18	5,326	440	540	100	175	100%
KAFB-106239[f]	74	4	4,863	4,761	3 - 23	5,333	470	573	103	75	100%
Burton-5	15	7	4,731	4,710	30 - 32	5,343	590	990	360	750	3%

[a] Negative extraction rate indicates injection.

[b] A2 is the uppermost confining unit in the aquifer (AECOM, 2015).

[c] KAFB-3 penetrates but is not screened below A2.

[d] KAFB-7 has two open intervals (16, 372 ft) totaling 388 ft separated by 110 ft of blank liner.

[e] KAFB-20 has three screen intervals (120, 80, 180 ft) totaling 380 ft broken by blank casing lengths of 30 and 60 ft.

[f] Well was running at 100% of pump capacity before gauging.

[g] Well was inactive during the evaluation period.

% = percent

ft = foot (feet)

gpm = gallon per minute

ID = identification

in = inch (inches)

NA = not applicable

AECOM, 2015. Regional Geology and Cross Sections. Technical Memorandum, AECOM December 17. 22 pp.

Table 5-19
Groundwater Monitoring Fit to Observed Data Statistics, Q2 2020

Gauged Wells	Observed Head (ft AMSL) (NAVD88)				Calibration Statistics								
Count	Minimum	Maximum	Difference	10% Difference	RMSD	NRMSD	RSQ	Rmean	Maximum Residual	Minimum Residual	Residual Range	Residual StDev	SEM
187	4,874.82	4,881.33	6.51	0.65	0.34	5%	0.822	0.01	1.10	-0.73	1.82	0.34	0.02

% = percent
AMSL = above mean sea level
ft = foot (feet)
NAVD88 = North American Vertical Datum of 1988
NRMSD = normalized root mean square deviation
Q2 = second quarter
Rmean = mean of the residuals
RMSD = root mean square deviation
RSQ = coefficient of determination (R^2)
SEM = standard error of the mean
StDev = standard deviation

Table 5-20
Step 4 Target Capture Zone Three-Dimensional Capture Statistics

Component	Evaluation Period	Quarter Total	Estimated Captured	Remainder	Percent of Quarter Captured	Percent of Initial Captured
Target Capture Zone Volume (ft^3)	Q4 2016[a]	114,662,100	ne	ne	ne	ne
	Q2 2017	88,776,000	ne	ne	ne	ne
	Q4 2017	98,837,400	ne	ne	ne	ne
	Q2 2018	36,833,122	36,833,122	0	100%	100%
	Q4 2018	28,545,200	26,244,100	2,301,100	92%	98%
	Q2 2019	22,088,000	22,086,530	1,470	100%	100%
	Q4 2019	18,497,000	17,796,100	700,900	96%	99%
	Q2 2020	4,716,800	3,100,430	1,616,370	66%	99%
Target Capture Zone Mass (grams)	Q4 2016[a]	103.9	ne	ne	ne	ne
	Q2 2017	81.8	ne	ne	ne	ne
	Q4 2017	79.9	ne	ne	ne	ne
	Q2 2018	18.6	18.6	0.0	100%	100%
	Q4 2018	16.5	15.1	1.4	91%	99%
	Q2 2019	11.3	11.3	0.0	100%	100%
	Q4 2019	9.2	8.9	0.3	97%	100%
	Q2 2020	2.4	1.5	0.9	64%	99%

[a] Q4 2016 is the initial evaluation period for comparison purposes

% = percent

ft^3 = cubic feet

Q2 = second quarter evaluation period

Q4 = fourth quarter evaluation period

ne = capture not evaluated by numerical flow model analysis

Table 5-21
Comparison of Capture Zone Evaluation Methods for the Target Capture Zone

Sample Period	Dissolved EDB Plume Segment North of Ridgecrest	Step 3: Potentiometric Surface Analysis				Step 4: Numerical Flow Model			
		Volume		Mass[a]		Volume		Mass[a]	
		Cubic Feet	Percent Captured	Grams	Percent Captured	Cubic Feet	Percent Captured	Grams	Percent Captured
2020 Q2	KAFB-106228 cb	3.00E+06	63.6%	1.4	60.0%	2.10E+06	44.5%	0.9	38.4%
	KAFB-106233 cb	0.00E+00	0.0%	0.0	0.0%	0.00E+00	0.0%	0.0	0.0%
	KAFB-106234 cb	0.00E+00	0.0%	0.0	0.0%	0.00E+00	0.0%	0.0	0.0%
	KAFB-106239 cb	1.72E+06	36.4%	1.0	40.0%	9.99E+05	21.2%	0.6	25.4%
	Total[b]	4.72E+06	100.0%	2.4	100.0%	4.72E+06	65.7%	2.4	63.8%

[a] Plume mass value assumes a uniform total porosity of 25% for the aquifer.

[b] Total volume (cubic feet) and mass (grams) are for the entire TCZ. Total percent captured is the percentage of the total volume and mass captured by the extraction well capture basins.

% = percent

cb = capture basin

EDB = ethylene dibromide (1,2-dibromoethane)

Q2 = second quarter

TCZ = target capture zone

Table 5-22
Summary of Target Capture Zone Evaluation

Step	Summary/Conclusions
Step 1: Review site data, site conceptual model, remedy objectives	Completed, all determined to be up-to-date and adequate.
Step 2: Define TCZ	Updated and clearly defined, illustrated on maps. Does not pertain to entire thickness of aquifer. Dissolved ethylene dibromide plume volume and mass have been delineated at and above the Maximum Contaminant Level value in three dimensions. An isolated region concentration rebound around monitoring wells KAFB-106041 has persisted, but the concentration has decreased (0.057 µg/L > 0.054 µg/L). Overall, the TCZ has undergone a 75% reduction in volume and a 74% reduction in mass when compared to Q4 2019 delineation.
Step 3a: Water level maps: Potentiometric Surface Analysis	Analysis is performed within the two reference elevation intervals shown to contain portions of the TCZ. Interpreted capture zone is larger than the TCZ within the Interim Remedy Objective Area in both reference elevation intervals. Analysis estimates 100% capture of the initial TCZ under Q2 2020 conditions.
Step 3b: Water level maps: Vertical Difference Analysis	Analysis is performed across the TCZ area at three distinct elevation intervals at depth within the aquifer. Analysis estimatess containment of greater than 99% of the initial TCZ in the vertical direction under Q2 2020 conditions.
Step 3c: Water level pairs	Inward flow at all pairs along the TCZ boundary within the Interim Remedy Objective Area.
Step 4: Perform Calculations	Simple two-dimensional horizontal capture calculations were performed in 2016 but are not considered to be adequate to represent capture in this system and, therefore, were not updated in this reporting effort.
Step 4b: Groundwater flow modeling with particle tracking	Three-dimensional simulation of groundwater flow based on measured aquifer parameters and current extraction rates, injection rates, and regional flow-field. Particle tracking results indicate capture of greater than 99% of the initial TCZ volume and mass for steady-state pumping at current rates and conditions.
Step 5: Concentration trends	Updated with current water chemistry data and indicates that the plume has not migrated into previously "clean" or previously remediated aquifer. Due to rising water table elevation, this analysis is not strongly relied upon for short-term evaluation of capture.
Step 6: Interpret actual capture and Compare to TCZ	Comparison of capture estimates from Steps 3 and 4 lead to the conclusion that at least 99% of the initial TCZ volume and mass is being contained by IM extraction under Q2 2020 groundwater conditions. In addition, step 5 shows that no plume migration into previously "clean" regions has occurred between assessment periods. Capture evaluation will continue to be performed every second and fourth quarter in order to address changes in capture zones due to changes in aquifer stresses (Interim Remedy and non-Interim Remedy based) and changes in regional flow-field.

Table 5-22
Summary of Target Capture Zone Evaluation

% = percent
µg/L = microgram per liter
gpm = gallon per minute
Q2 = second quarter
Q4 = fourth quarter
TCZ = Target Capture Zone

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H Drinking Water Supply Well Data Quality Evaluation Reports and Data Packages

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APPENDICES (CONCLUDED)

I Groundwater Treatment System Monitoring and Performance Evaluation

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Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

APR 0 2 2020

Colonel Christopher J. King
Vice Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

RE: REQUEST FOR EXTENSION
RESPONSE TO DISAPPROVAL FOR THE
ETHYLENE DIBROMIDE IN-SITU BIODEGRADATION REPORT
BULK FUELS FACILITY SOLID WASTE MANAGEMENT UNIT ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID# NM6213820974
HWB-KAFB-20-001

Dear Colonel King:

Thank you for your letter of March 26, 2020, regarding the NMED Disapproval of the EDB Bioremediation Report for KAFB. Our Disapproval cited several deficiencies in the report as well as several observations concerning the study itself. The intent of the pilot study was not only to determine if the bioaugmentation and biostimulation enhanced EDB biodegradation, but also to ascertain the scalability of the approach and its potential inclusion of this option in any array of feasible remedial alternatives.

At the conclusion of the pilot study many questions remained. It was clear that EDB biodegradation had occurred, but the study also raised other questions concerning breakdown products and the physical design of the wells that are important considerations in any decision to move forward with the technology. This does not represent a failure of the pilot. In fact, it is to be expected that pilots such as this answer the immediate question, provide insights for

future work, and identify additional questions that must be answered before a decision is made on the acceptability of the approach.

We agree, as I mentioned in a follow up e-mail to your staff, that the scope of the pilot was not to determine the extent of LNAPL. However, the presence or absence of LNAPL is very important to the success or failure of biodegradation and was prominently highlighted in the workplan. As you mention, the presence and distribution of LNAPL in the vadose and saturated zones is critical to defining the nature and extent of contamination and evaluating potential corrective measures. Bioremediation can be one potential component of any corrective measure. Understanding the limits of this technology and how the technology could be most efficiently deployed must be a goal during the study phase. Understanding such issues at an early stage will allow us to efficiently and cost effectively proceed to a remedy evaluation and ultimate remedy selection. To that end, our comments in the March 4, 2020 Disapproval included questions and concerns that remain regarding the implementation and potential success of this technology. If some of our comments were misinterpreted by your staff, a teleconference would be helpful to resolve any misunderstandings. Your letter requests a meeting with NMED to discuss the Disapproval. We will reach out to your staff to arrange this teleconference.

Regarding the continuation of monitoring associated with this pilot, I want to acknowledge receipt of the In-Situ Bioremediation Long Term Monitoring Workplan and advise that this plan does not require NMED approval. We hope that you will use the information provided in our March 4, 2020 Disapproval to support the ongoing assessment of the efficacy of bioremediation. Once the results from this continued monitoring effort are available, please submit them as a supplement to the existing Report. This approach should make any extension of time for submittal of the revised report unnecessary. However, in order to assure KAFB has sufficient time to make the necessary changes to the Report and, in light of workload challenges associated with the COVID-19 pandemic, we are extending the due date for a response to our Disapproval to September 18, 2020.

I appreciate your dedication to this project, and we look forward to continued work with you and your staff toward its completion. Should you or your staff have any questions, please contact me at (505) 476-6035.

Sincerely,

Kevin M. Pierard, Chief
Hazardous Waste Bureau

cc: Stephanie Stringer, Director NMED RPD
Colonel David S. Miller, Base Commander KAFB
D. Cobrain, NMED HWB
B. Wear, NMED HWB
M. Suzuki, NMED HWB
L. King EPA Region 6 (6LCRRC)
S. Kottkamp, KAFB
K. Lynnes, KAFB

File: KAFB 2020 Bulk Fuels Facility Spill and Reading

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ENVIRONMENT DEPARTMENT

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James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAY 26 2020

Colonel David S. Miller
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Lt. Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil Engineering Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117

RE: DISAPPROVAL
WORK PLAN FOR SHALLOW SOIL VAPOR SAMPLING, BULK FUELS FACILITY, SOLID WASTE MANAGEMENT UNITS ST-106/SS-111, NOVEMBER 2019
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID # NM9570024423
HWB-KAFB-19-014

Dear Colonel Miller and Colonel Acosta:

The New Mexico Environment Department (NMED) received the U.S. Air Force (Permittee) Kirtland Air Force Base (Facility) *Work Plan for Shallow Soil Vapor Sampling, Bulk Fuels Facility, Solid Waste Management Units ST-106/SS-111, November 2019* (Work Plan), on November 8, 2019. NMED has reviewed the Work Plan and hereby issues this Disapproval with comments. NMED's comments are attached.

The primary technical issue with the Work Plan is that it does not address the areas identified in NMED's February 25, 2019 letter requiring the Work Plan, nor does it follow EPA guidance on conducting shallow soil vapor sampling related to vapor intrusion. NMED and KAFB staff met on May 7th to discuss the Work Plan and the contents of this Disapproval to facilitate the submittal of an approvable revised Work Plan, the results of which are summarized in NMED's comments.

The Permittee must submit a revised Work Plan that corrects all deficiencies noted in this Disapproval. The revised Work Plan must be accompanied by a response letter (also included as an appendix) that details how and where NMED's comments were addressed and cross-references the numbered comments. In addition, the Permittee must submit an electronic redline-strikeout version of the revised Work Plan that shows where all changes were made to the Work Plan. Please submit the revised Work Plan as soon as possible but no later than **August 28, 2020.**

If you have any questions regarding this letter please contact me, or your staff may contact Ben Wear at (505) 476-6041.

Sincerely,

for
Kevin M. Pierard, Chief
Hazardous Waste Bureau

cc: D. Cobrain, NMED HWB
R. Murphy, NMED HWB
B. Wear, NMED HWB
L. King, EPA Region 6 (6LCRRC)
S. Clark, KAFB
K. Lynnes, KAFB

File: KAFB 2020 and Reading

KAFB-19-014

Attachment 1 - NMED Comments

GENERAL COMMENTS

1. **Permittee Response to NMED's July 26, 2019 Rejection Comments**

   NMED Comment: The Permittee must include their Response to Comments (RTCs) in a document appendix for all revised document submittals. While the Permittee submitted the RTCs in a separate electronic file, the RTCs must be included as an appendix to the plan to allow stakeholders and the public easy access when reviewing the document. For all future revised documents submitted to NMED, the Permittee must include the RTCs as an appendix to the document. Please revise the Work Plan accordingly. This was discussed on May 7; KAFB agreed to follow this procedure.

2. **Permittee Response to NMED's July 26, 2019 Rejection Comment #1**

   NMED Comment: Comment #1 of NMED's July 26, 2019 Rejection letter states, "...the pages of the attachments contain no page numbers...In order for NMED to be able provide comments that reference where issues are found, as well as for the public to be able to review the document in the Administrative Record, every page of every document submitted must be numbered appropriately. The Permittee must submit a work plan in the appropriate format, including addition of the appropriate information in the corresponding sections, based on the Permit requirements and must sequentially number every page in the document."

   The Permittee failed to sequentially number all pages of the document as directed by NMED in the Tables section, the Figures Section, and all three appendices of the Work Plan. In addition, the appendices contain tables with no table numbers, figures with no figure numbers, and multiple pages with no page numbers at all. The Permittee must ensure that all submittals, including the revised Work Plan, include sequential page numbers on all pages, and that tables, figures, and appendices are properly numbered. Making this correction will facilitate timely review and precise communication between NMED and KAFB on all documents submitted for review. It will also facilitate references to information in subsequent activities (e.g., review of corrective action documents). Please revise the Work Plan accordingly. This was discussed on May 7; KAFB agreed to follow this procedure.

3. **Well Designations**

   NMED Comment: The Permittee has used multiple designations for wells in the Work Plan. For instance, Section 3.1 of the Work Plan discusses wells KAFB-SV-01, KAFB-SV-02, KAFB-SV-03, etc., while Table 1 of the Work Plan lists these wells as KAFB-106-SV01,

KAFB-106-SV02, KAFB-106-SV03, etc. and Figure 2 of the Work Plan lists these wells as KAFB-106SV01, KAFB-106SV02, KAFB-106SV03, etc. Use of multiple designations inhibits NMED's ability to timely review documents by limiting the search function and causing confusion when searching for data in spreadsheets or databases. This issue is evident in many documents submitted by the Permittee. The Permittee must use the official full designation for each well consistently in the revised Work Plan and in all future documents submitted to NMED. This was discussed on May 7; KAFB agreed to follow this procedure.

4. **Risk Assessment**

NMED Comment: The Permittee referenced a 2017 Risk Assessment throughout the Work Plan. The vapor intrusion pathway portion of the Permittee's 2017 Risk Assessment was not approved; therefore, all references to the results of the risk assessment must be removed from the revised Work Plan. Risk assessment is not appropriate when a site investigation has not yet been completed or where conditions at the site are being manipulated, such as during pilot tests. In addition, preparing and reviewing a premature risk assessment constitutes an ineffective use of resources for both the Air Force and NMED. Discussions between NMED and KAFB on May 7 resulted in both parties agreeing that conducting a risk assessment at this point in the project was neither appropriate nor beneficial. NMED is directing the Permittee to abandon completion of the risk assessment. This does not remove the requirement for the Permittee to investigate the potential for vapor intrusion into buildings and homes near the site. Please revise the Work Plan to remove references to the risk assessment.

5. **Appendices**

NMED Comment: The Permittee included three appendices in the Work Plan that contain historical data tables. Well construction details, purge volumes, and field measurements for existing deeper soil vapor monitoring wells are not useful for siting shallow soil vapor monitoring wells related to vapor intrusion. In addition, including the analytical tables for the entire suite of VOC analytes is not useful. Select prevalent VOCs and annual concentration contour maps would be more appropriate for siting well locations. In addition, the Permittee must develop the investigation by incorporating the direction provided in both NMED's February 25, 2019 letter and EPA's OSWER Publication 9200.2-154, *OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air*, USEPA, June 2015 (EPA VI Guidance) to provide the rationale for the well locations. Failure to follow NMED direction or EPA guidance must be explicitly justified in the revised Work Plan. It is also recommended that the permittee discuss this with NMED in advance of submitting a revised Work Plan.Please remove extraneous data and provide appropriate justification

for proposed well locations in the revised Work Plan. This was discussed on May 7; KAFB agreed to modify the Work Plan.

SPECIFIC COMMENTS

6. **Section 2.2, Site History, page 2-1**

Permittee Statement: "Samples collected for the evaluation of the vapor intrusion pathway were from depths of 15 to 25 feet below ground surface (bgs), which is deeper than the 10-foot depth used by NMED for VISLs. This imparted a high degree of conservatism to the risk characterization."

NMED Comment: The Permittee references data from samples collected from depths of 15 to 25 feet bgs. The data presented in the Work Plan is from samples collected from 25 to 30 feet bgs, not 15 to 25 feet bgs. Please provide an explanation and resolve the discrepancy for accuracy in the revised Work Plan.

In addition, the final statement is not appropriate in a section regarding site history, as only historic facts belong in the background section. This statement must be removed from the Work Plan. Also, please remove references to the risk assessment from the revised Work Plan per Comment 2. This was discussed on May 7; KAFB agreed to follow this procedure.

7. **Section 3.1, Soil Vapor Monitoring Locations, page 3-1**

Permittee Statement: "Four of the proposed SVMP locations (KAFB-SV-01, KAFB-SV-02, KAFB-SV-03, and KAFB-SV-07) were selected to provide shallow soil vapor sample data at sites adjacent to existing vapor point nests having deeper completions."

NMED Comment: NMED's February 25, 2019 letter requiring this Work Plan specifically directed the Permittee to conduct sampling "in the residential area north of Ridgecrest or amid buildings on the VA hospital campus." In addition, the EPA VI Guidance states, "EPA recommends that soil gas samples be taken as close to the areas of interest as possible and preferably from directly beneath the building structure." The EPA Guidance also states, "[d]epending upon the CSM [conceptual site model], sampling of vapors within the utility corridor (or within a sewer, if present) may be warranted to characterize vapor migration in the subsurface..."

The Work Plan proposes only one of the eight wells within approximately 50-feet of a building. Only one is proposed north of Ridgecrest Drive, and it is in a park approximately 130-feet from the nearest home. In addition, there is no mention of utility corridors or other potential conduits in the Work Plan. This indicates that the Permittee has not followed NMED direction or EPA guidance. The Permittee must

follow NMED direction and EPA guidance or provide justification for not doing so. It is recommended that the permittee discuss this with NMED prior to submittal of the revised Work Plan. Please provide a rationale for well siting including a discussion of all potential vapor conduits.

In the revised Work Plan, the Permittee must provide a thorough CSM, propose appropriate sampling locations that address the areas of concern provided by NMED, and follow the direction provided in the EPA VI guidance or provide justification for not doing so.

8. **Section 3.1, Soil Vapor Monitoring Locations, page 3-2**

Permittee Statement: "Proposed SVMP locations were selected carefully to avoid areas in roadways and parking lots with heavy vehicular traffic for the following reasons:

- Potential sources of benzene, toluene, ethylbenzene, and xylenes may exist in shallow soils beneath roadways that could interfere with the objectives of this sampling event.
- Interference from vehicular traffic during the sampling may impact vapor concentrations in shallow soils under certain barometric conditions giving potential false positive results."

NMED Comment: Consistent with NMED direction and EPA's VI Guidance for siting monitoring wells, soil vapor monitoring must include areas where vapors may accumulate in close proximity to buildings or homes. Pavement near buildings or homes, such as in parking lots, provides a semi-impermeable cap above the subsurface which may trap contaminant vapors and cause them to pool. The Permittee must address the concern of vapor contaminants beneath pavement and near buildings and homes and address the issue of contaminant vapor migration through utility corridors. Utility corridors provide a conduit for the transport of contaminant vapors. The Permittee must provide a thorough CSM including maps depicting paved areas and all utility corridors in the areas of concern. The Permittee must also evaluate these maps in conjunction with historic soil vapor data and propose sampling locations that will provide characterization of the subsurface below pavement, as well as the utility corridors between the source area and the buildings of concern, in the revised Work Plan.

9. **Section 6.1, Soil Vapor Sample Collection and Analysis, page 6-1**

Permittee Statement: "The sampling train will also be equipped with an isolation valve positioned between the vacuum pump/field sensors and the SUMMA® canister that will be open during purging to allow for monitoring of purge vapors. This valve will be closed prior to sample collection to ensure that vapor taken into the SUMMA® canister does not flow backwards through the vacuum pump or field sensors."

NMED Comment: The Work Plan must be revised to include the use of a 3-way valve in the location of the "hose barb t-fitting" above the Summa canister in Figure 5. A 3-way valve will ensure that the sample can only be collected from the well side of the sample train and eliminate the possibility of pulling air back from the pump. The proposed separate "isolation" valve is subject to operator error and may lead to the collection of non-representative samples. This was discussed on May 7; KAFB agreed to follow this procedure.

10. Section 6.1, Soil Vapor Sample Collection and Analysis, page 6-1

Permittee Statement: "Based upon calculated volume of the deepest tubing set and sampling train (25 ft x 1/4 in. diameter) and the flow rate of the proposed vacuum pump (0.75 cfm) required to fully purge one bore volume of the tubing is less than one minute. Therefore, the proposed ten minutes of purge time is adequate to purge many bore volumes of the tubing and sample train."

NMED Comment: The proposed 10-minute purge time is excessive and may result in surface air being pulled into the subsurface at shallow sampling point locations. This situation could result in the collection of soil-vapor samples that are not representative of the formation. Therefore, please revise the Work Plan to include purge volumes between one and three bore volumes. This was discussed on May 7; KAFB agreed to follow this procedure.

11. Section 6.4, Reporting, page 6-4

Permittee Statement: "An electronic copy of the validated analytical data will be included. The final report will include:

- Certification by a Facility representative
- Executive Summary, Introduction, and Background Information
- Description of the scope of field sampling activities
- Sampling results included in tables with identifier, date and time of all samples.
- Tables shall also include quality control/quality assurance designation for each sample
- Results of field screening data, in tabular format
- Regulatory criteria
- Description of vapor point construction and lithologic description
- Text summary of data validation procedures and results
- Soil boring logs, as an attachment/appendix
- Specifications for vapor probe construction, as an attachment/appendix
- Survey data, as an attachment/appendix
- Waste disposal documentation, as an attachment/appendix
- Validated analytical data deliverable in electronic format such as Microsoft Excel, Microsoft Access database, or another compatible format.
- Tables, Figures, and Appendices as appropriate

- Conclusions and recommendations"

NMED Comment: Based on prior issues with missing information in submittals, NMED is clarifying what it requires for this and all future submittals. In addition to the information listed above, the Permittee is required to include the following:

- The response to NMED's comments must be included as Appendix A of each document revision.
- Descriptions of all field activities performed for the project must be provided. References to QAPPs, SOPs, or work plans are not acceptable. All deviations from the approved work plan must be discussed and justified in a Deviations section.
- Wells must be consistently referred to by the same name/designation in all sections of the text, all tables, and all figures. The designation must match that provided in the digital analytical data files, as well.
- Sampling data tables must include the LOQ (PQL) and reporting detection limit for each analysis.
- Sampling data tables must include the appropriate screening levels for data comparison.
- Analytical data tables in digital format must include a column that indicates which analytical data report the specific sample information can be found. This link must correspond to the analytical data report file name.
- Data from analyses where the LOQ exceeds the VISL are data quality exceptions and must be identified as such in all tables and figures.
- Analytical data provided in digital format such as Excel or Access files must be provided in a sortable, searchable format. In other words, previous reports have provided digital data in the same format as the tables in the text. These tables are not sortable or searchable. Provide the tables in a standard database format.
- Analytical data packages must be submitted in accordance with Permit Section 6.5.18.2, Laboratory Deliverables.
- All tables, figures, and appendices must be appropriately numbered and titled.
- Every page of every submittal, including all pages within all sections and appendices, must be numbered either sequentially or in some other logical format.

This was discussed on May 7; KAFB agreed to follow this procedure.

12. Appendix A, Historic Benzene Concentrations in off-Base Shallow Soil Vapor Monitoring Points, no page numbers

NMED Comment: The Permittee has presented multiple figures with no figure numbers and inaccurate titles in Appendix A, as well as no indication that these unnumbered pages properly belong in Appendix A or are part of this Work Plan. For instance, each of the five figures in the appendix specifies sample locations at 15-25 feet bgs. The first two figures of the appendix show data for samples collected from 25 and 30 feet bgs. The other three figures of the appendix only show data for samples collected from 25

feet bgs. Two of the figures contain a graphed line for "Soil Vapor Monitoring Points Sealed" with no explanation or indication as to the subject of the reference. The tables in Appendix A include similar issues.

Based on the data provided in the tables, it appears that there were issues with the data quality. Specifically, the majority of the data presented in the EDB table as nondetect had MDLs and/or LOQs that exceed the screening level, some up to four orders of magnitude. Section 6.5.18 of the KAFB RCRA Permit states, "[a]nalyses conducted with detection limits that are greater than applicable background or regulatory cleanup levels as applicable shall be considered data quality exceptions, and the reasons for use of the elevated detection limits shall be reported to the Department; results based on these data quality exceptions may not be accepted by the Department."

The data cannot be used to confirm that concentrations of EDB in soil vapor are below the screening level. This issue potentially masks detections and the data must not be utilized for drawing conclusions or guiding work. The data must be called out in the table (e.g., footnotes, highlighting, etc.). The potential for masking detections must also be discussed in the text of the document in which the data is presented.

Also, the Appendix title, Historic Benzene Concentrations in off-Base Shallow Soil Vapor Monitoring Points, is not accurate. EDB data is presented in the Appendix, as well. Please provide accurate titles for appendices.

The Permittee must correct any discrepancies, provide indications of data quality exceptions in tables and figures, provide table and figure numbers, and include sequential, or otherwise logical, page numbers for all pages in the revised Work Plan. This was discussed on May 7; KAFB agreed to follow this procedure.

13. Appendix B, Second Quarter 2019 off-Base Soil Vapor Monitoring Results, inaccurate page numbers

NMED Comment: The Permittee has presented multiple tables with inappropriate table numbers and inaccurate footers in Appendix B, as well as no indication that these pages are properly part of Appendix B or part of this Work Plan. In addition, for tables presenting analytical data, as Table 2-3 does, include a column showing the appropriate screening levels to which the data were compared. The tables in Appendix B also contain footnote definitions for terms that are not included. Please remove extraneous information from the tables, add screening level data to the analytical table, and provide appropriate table and page numbers in the revised Work Plan. This was discussed on May 7; KAFB agreed to follow this procedure.

14. Appendix C, Soil Vapor Monitoring Location Maps and Summary Analytical Results, April – June 2019, inaccurate page numbers

Col. Miller and Lt. Col. Acosta
BFF-Shallow Soil Vapor Sampling WP
Page 10

NMED Comment: The Permittee has presented figures with inappropriate figure numbers in Appendix C, as well as no indication that these unnumbered pages are properly part of Appendix C or are part of this Work Plan. It is unclear why these figures were included in the Work Plan, because they were only referenced once, but with no discussion or any indication that the Permittee utilized them to aid in selection of the proposed soil vapor monitoring points. Please correct the Appendix and provide a discussion of the purpose of the data provided in the Appendix in the Revised Work Plan. This was discussed on May 7; KAFB agreed to follow this procedure.

NEW MEXICO
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau

2905 Rodeo Park Drive East, Building 1
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Michelle Lujan Grisham
Governor

Howie C. Morales
Lt. Governor

James C. Kenney
Cabinet Secretary

Jennifer J. Pruett
Deputy Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

July 11, 2019

Colonel David S. Miller
Base Commander
377 ABW/CC
2000 Wyoming Blvd SE
Kirtland AFB, NM 87117

Lt. Colonel Wayne J. Acosta
Civil Engineer Office
377 Civil engineer Division
2050 Wyoming Blvd SE, Suite 116
Kirtland AFB, NM 87117

RE: QUARTERLY MONITORING REPORT FOR APRIL-JUNE 2019
BULK FUELS FACILITY SOLID WASTE MANAGEMENT UNITS ST-106/SS-111
KIRTLAND AIR FORCE BASE, NEW MEXICO
EPA ID# NM6213820974
HWB-KAFB-19-017

Dear Colonel Miller and Lt. Colonel Acosta:

The New Mexico Environment Department (NMED) is in receipt of the Kirtland Air Force Base (Permittee) *Quarterly Monitoring Report for April-June 2019, Bulk Fuels Facility, Solid Waste Management Unit ST-106/SS-11* (Report), dated September 2019 and received September 27, 2019.

No revision to the Report is required. NMED's attached comments are intended to provide direction to the Permittee in the preparation of future quarterly monitoring reports. Necessary changes based upon NMED's comments should be incorporated into future reports. The Permittee must ensure that future monitoring reports fully comply with Kirtland Air Force Base KAFB) Hazardous Waste Facility Permit (Permit) Section 6.1.6. Quarterly Progress Reports, Section 6.2.4.1. Quarterly Reporting, and Section 6.2.4.4. Periodic Monitoring Reports. Additional guidance on preparing groundwater monitoring reports can be found in NMED's *General Reporting Requirements for Routine Groundwater Monitoring at RCRA Sites.*

Should you have any questions please Rob Murphy of my staff at robert.murphy@state.nm.us or (505) 476-6022.

Sincerely,

Kevin Pierard

Digitally signed by Kevin Pierard
Date: 2020.07.11 08:25:15 -06'00'

Kevin M. Pierard, Chief
Hazardous Waste Bureau

Attachments I

cc: D. Cobrain, NMED HWB
B. Wear, NMED HWB
L. Andress, NMED HWB
R. Murphy, NMED HWB
L. King EPA Region 6 (6LCRRC)
S. Clark, KAFB
K. Lynnes, KAFB

File: KAFB 2020 Bulk Fuels Facility Spill and Reading

Attachment

Col. Miller and Lt. Acosta
Quarterly Monitoring Report for April-June 2019
Attachment, Page 1 of 4

GENERAL COMMENTS:

1. Monitoring Report Contents

NMED Comment:

Based on issues identified in this Report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable:

a. The response to NMED's comments must be included as Appendix A of each document revision.
b. All field methods for the project must be documented in an appendix, as required by Permit Section 6.2.4.4.11. The documentation must be specific to each monitoring activity, such as soil vapor monitoring, groundwater monitoring, or operation and maintenance of the groundwater treatment system. References to quality assurance project plans (QAPPs), standard operating procedures (SOPs), or work plans are not acceptable. All deviations from approved work plans must be discussed and explained in a Deviations section.
c. Wells must be consistently referred to by the same name/designation in all periodic reports, sections of the text, tables, and figures. The designations must match those provided in the digital analytical data files.
d. Sampling data tables must include the practical quantitation limit (PQL) and listed laboratory report detection limit (RDL) for each analysis.
e. Sampling data tables must include the appropriate screening levels for data comparison.
f. Analytical data tables in digital format must include a column that indicates which analytical data report the specific sample information can be found. This link must correspond to the analytical data report file name.
g. Data quality exceptions, such as when the PQL exceeds the corresponding screening level, must be identified as such in all tables and figures (see Permit Section 6.5.18).
h. Analytical data provided in digital format such as Microsoft Excel or Access files must be provided in a sortable, searchable format. Previous reports have provided digital data in the same format as the printed tables. These tables are not sortable or searchable. Provide the tables in a standard database format.
i. Analytical data packages must be submitted in accordance with KAFB Permit Section 6.5.18.2, Laboratory Deliverables.
j. All tables, figures, and appendices must be appropriately numbered and titled.
k. Every page of every submittal, including all pages within all sections and appendices, must be numbered either sequentially or in some other format acceptable to NMED.

2. Analytical Data Detection and Quantitation Limits

NMED Comment: Many of the analytical data tables presented in the Report list the limit of detection (LOD) for each sample analysis; however, it is not clear if this value represents the laboratory method detection limit or reporting detection limit. Some tables list the LOD and some the limit of quantification (LOQ). The permittee must provide the method detection limit (MDL) in the data tables. In addition, the Permittee must include the reporting detection limit (assuming this is the Permittee's "LOD") and the PQL (assuming this is the Permittee's "LOQ") for each sample analyzed in the data tables.

The Permittee's Quality Assurance Project Plans (QAPPs) indicate that the Permittee is using three different variations of terminology for method reporting limits, including one which seems to be backwards. The Permittee's QAPP for Vadose Zone Treatability Studies Attachment 1, Tables 1-1a, Method Reporting Limits – Drinking Water, 1-1b, Method Report Limits – Soil and Investigation Derived Waste, and 1-1c, Method Reporting Limits – Volatile Organic Compounds in Air, all seemingly use LOQ appropriately (as the PQL), but there is a lack of consistency between the method detection limit and reporting detection limit.

In Table 1-1a, Drinking Water, "MDL" appears to equate to the method detection limit, and "LOD" appears to equate to the reporting detection limit. In Table 1-1b, Soil, "LOD" appears to equate to the method detection limit and "DL" appears to equate to the reporting detection limit. In Table 1-1c, Air, "DL" appears to equate to the method detection limit and "LOD" appears to equate to the reporting detection limit. Based on the fact that the PQL must be greater than the reporting detection limit and the reporting detection limit must be greater than the method detection limit, Table 1-1b, Soil, appears to be wrong. NMED is assuming that similar tables appear in the QAPP for quarterly monitoring.

These issues cause confusion for the reviewer, community stakeholders, and the public, and increases the time required to review submittals from the Permittee. The Permittee must use appropriate and consistent terms for Quality Assurance /Quality Control in all periodic reporting submittals and for all media (e.g., use MDL consistently instead of DL). While NMED does not review or approve QAPPs, the Permittee must assure that they are providing their contractors with the appropriate information to provide appropriate, consistent, and accurate information to NMED. Consistency in reporting by the Permittee will reduce both agency and Air Force internal review times.

SPECIFIC COMMENTS:

3. **Table of Contents, Appendix B, page iv:**

NMED Comment: Appendix B, New Activities Supporting Information, contains well completion reports for four new wells installed and developed in accordance with the NMED-approved 2017 *Work Plan for Vadose Zone Coring, Vapor Monitoring, and Water Supply Sampling*. KAFB Permit Section 6.2.2.1.2, Site Investigations-Investigation Reports,

and Section 6.2.4.3, Reporting Requirements-Investigation Reports, require that the information and data collected from all investigation activities conducted during the quarter be submitted to NMED as separate, stand-alone reports. The Permittee must submit individual reports for all investigation activities conducted in support of the ongoing investigation of the bulk fuels facility spill, rather than submit the information as appendices in quarterly reports.

4. **Section 2.5 Q2 2019 Soil Vapor Data, page 2-4:**

Permittee Statement: "The RCRA permit does not specify cleanup levels for soil vapor. The quarterly reports are not intended to assess risk; the vapor data are used to assess concentration trends. The risk assessment (USACE,2017e) compares vapor concentrations to the vapor intrusion screening levels in the NMED Risk Assessment Guidance for Site Investigations and Remediation. All EDB and benzene concentrations are compared against 3,800 and 3,200 micrograms per cubic meter (µg/m3), respectively. HC concentrations are compared against 1,000 parts per million by volume (ppmv). The comparison concentrations used in this report were determined by historical maximum and minimum soil vapor results to show which SVMPs had relatively high or low concentrations."

NMED Comment: The Permittee must clarify if the comparison values for EDB, benzene, and HC represent the historical maximum or minimum, or some other calculated value so that changes relative to the values can be evaluated. The Permittee must also provide a reference for the historical soil vapor values. The Permittee accurately states that quarterly reports are not intended to assess risk; however, the Permittee must provide a comparison of detected concentrations to a regulatory standard for the purpose of assessing the presence and location of contaminants of concern. NMED's *Risk Assessment Guidance for Site Investigations and Remediation* (2019 and as updated) vapor intrusion screening levels (VISLs) must be used as a first-tier screening assessment.

5. **Section 2.2 Bioventing Pilot Test, page 2-2:**

Permittee Statement: "A bioventing report will be submitted on January 31, 2020 as requested by NMED in a letter dated February 25, 2019 (NMED, 2019). This report will include data collected up to Q4 2019. Data collected after Q4 2019 will be provided in the relevant quarterly monitoring reports. The Q4 2020 Quarterly and Annual Monitoring Report will include results to date, and the final results of the bioventing pilot test will be provided in the Q4 2021 Quarterly and Annual Monitoring Report."

NMED Comment: Bioventing pilot test data is collected each quarter; therefore, the Permittee must provide quarterly data updates in separate quarterly status reports specific to the bioventing pilot study to allow NMED to provide timely adjustment and inputs to the bioventing system. The final results of the bioventing pilot test must be submitted as a stand-alone document rather than as an appendix to the Q4 2021 Quarterly and Annual

Col. Miller and Lt. Acosta
Quarterly Monitoring Report for April-June 2019
Attachment, Page 4 of 4

Monitoring Report.

6. **Section 3.3.1 Sampling Deviations, page 3-3:**

Permittee Statement: "Groundwater samples were not obtained from seven wells in Q2 2019. Three wells (KAFB-106001, KAFB-106008, and KABF-106079) could not be sampled due to suspected biofouling. These wells will be sampled using passive sampling techniques in the future after well rehabilitation is evaluated."

NMED Comment: The Permittee must provide additional information in a subsequent quarterly report on suspected biofouling of wells KAFB-106001, KAFB-106008, and KABF-106079, such as evidence for biofouling, the source of biofouling, and the date when biofouling was first suspected. Well KABF-106079 is less than 1000ft from interim measure extraction well KAFB-106239. Provide information on the potential for suspected biofouling at KAFB-106079 to impact KAFB-106239 and the Groundwater Treatment System. The Permittee must also submit a work plan for evaluating and conducting rehabilitation of the three wells. Use of passive sampling techniques for wells KAFB-106001 and KABF-106079 is contingent upon NMED approval. Because LNAPL was previously detected in well KAFB-106008, use of passive sampling is not appropriate.

7. **Section 3.6.1.1 EDB Analytical Results, page 3-5:**

Permittee Statement: *Five EDB exceedances were from wells north of Ridgecrest Drive SE but none were north of Gibson Boulevard SE.*

NMED Comment: Figures 3-5 and 3-6 present EDB concentrations in groundwater for reference elevation 4857 and 4838, respectively. Both figures depict the northern extent of the EDB plume as being north of Gibson Boulevard SE. The Permittee must revise the statement and figures for accuracy if they are included in future periodic reports.

Common Comment and Response Worksheet (Version 3)

Date	Reviewer		Document Title (version)	Contract/TO Number
7/11/2020	NMED HWB		Quarterly Monitoring Report for April-June 2019 Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111 Kirtland Air Force Base, New Mexico	NMED Permit No. NM9570024423 USACE Contract No. W912DR-12-D-0006
Item	**Section**	**Page**	**Comment**	**Response**
1	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **a.** The response to NMED's comments must be included as Appendix A of each document revision.	Acknowledged. The response to NMED's comments are included as Appendix A-2 of the Q2 2020 Quarterly Report.
2	General Comments	1	**1. Monitoring Report Contents** **NMED Comment**: Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **b.** All field methods for the project must be documented in an appendix, as required by Permit Section 6.2.4.4.11. The documentation must be specific to each monitoring activity, such as soil vapor monitoring, groundwater monitoring, or operation and maintenance of the groundwater treatment system. References to quality assurance project plans (QAPPs), standard operating procedures (SOPs), or work plans are not acceptable. All deviations from approved work plans must be discussed and explained in a Deviations section.	Acknowledged. Given the relatively short time period for response to NMED comments and resubmittal of this report, the AF is respectfully requesting inclusion of the requested appendices in the next quarterly report. Field methods for the project will be provided in an appendix in subsequent quarterly reports. A Deviations section will be included to discuss and explain any deviations from approved work plans for each monitoring activity.
3	General Comments	1	**1. Monitoring Report Contents** **NMED Comment**: Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **c.** Wells must be consistently referred to by the same name/designation in all periodic reports, sections of the text, tables, and figures. The designations must match those provided in the digital analytical data files.	Acknowledged. Wells are referred to consistently throughout this document. Beginning with the Q3 2020 Report, a table will be provided in an Appendix to list any historical changes to well designations that can be used for cross reference purposes.
4	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **d.** Sampling data tables must include the practical quantitation limit (PQL) and listed laboratory report detection limit (RDL) for each analysis.	Acknowledged. Since this project is being performed under a DoD contract, the laboratory is required to use specific DoD Quality Systems Manual (QSM) reporting limit nomenclature when reporting data. However, the DoD nomenclature is comparable to EPA method reporting nomenclature. To clarify for the Q2 2020 report, an analytical data Excel flat file is being provided in an appendix with each sample matrix type to include the PQL (LOQ per DoD), RDL (LOD per DoD) and MDL (DL per DoD). See response to comment 8 below.
5	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **e.** Sampling data tables must include the appropriate screening levels for data comparison.	Acknowledged. Sampling data tables will include the relevant appropriate screening levels.
6	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **f.** Analytical data tables in digital format must include a column that indicates which analytical data report the specific sample information can be found. This link must correspond to the analytical data report file	Acknowledged. Analytical data flat files in Excel are being provided in the appendices (see response to comment 8 below) and include a column which identifies the analytical laboratory data report file name where the specific sample information can be located.

Date	Reviewer		Document Title (version)	Contract/TO Number
			Quarterly Monitoring Report for April-June 2019 **Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111** **Kirtland Air Force Base, New Mexico**	**NMED Permit No. NM9570024423** **USACE Contract No. W912DR-12-D-0006**
7/11/2020	**NMED HWB**			
Item	**Section**	**Page**	**Comment**	**Response**
7	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **g.** Data quality exceptions, such as when the PQL exceeds the corresponding screening level, must be identified as such in all tables and figures (see Permit Section 6.5.18).	Acknowledged. Beginning in the Q3 2020 quarterly report, a discussion and table of PQL exceedances above the corresponding screening level will be included in the Data Quality Evaluation Report appendices to the Quarterly Report. The exceptions will also be noted on figures. Exceedances of the PQL has been provided in the sortable, searchable Excel table to be provided in an appendix in the Q2 2020 report and future reports.
8	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **h.** Analytical data provided in digital format such as Microsoft Excel or Access files must be provided in a sortable, searchable format. Previous reports have provided digital data in the same format as the printed tables. These tables are not sortable or searchable. Provide the tables in a standard database format.	Acknowledged. Beginning in the Q2 2020 quarterly report analytical data tables provided as appendices will also be provided in a sortable, searchable standard database format (Excel). The tables being provided can be found in: Appendix D-3: Soil Vapor Analytical Data Appendix F-4: Groundwater Analytical Data Appendix H-3: Drinking Water Supply Well Analytical Data Appendix I-6: Groundwater Treatment System Performance Analytical Data
9	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **i.** Analytical data packages must be submitted in accordance with KAFB Permit Section 6.5.18.2, Laboratory Deliverables.	Acknowledged. The requirements of KAFB Permit Section 6.5.18.2, Laboratory Deliverables are present in the Level 4 reports that are included in the Laboratory Analytical Appendices.
10	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **j.** All tables, figures, and appendices must be appropriately numbered and titled.	Acknowledged. Tables, figures, and appendices will be appropriately numbered and titled in this document. Headers and footers with appropriate page numbering and titles will be applied to all figures, tables, and appendices.
11	General Comments	1	**1. Monitoring Report Contents** **NMED Comment:** Based on the issues identified in this report and other periodic reports, NMED is providing the following reporting requirements which the Permittee must incorporate into future reports. Permittee is required to include the following as applicable: **k.** Every page of every submittal, including all pages within all sections and appendices, must be numbered either sequentially or in some other format acceptable to NMED.	Acknowledged. See response to item 10 above.
12	General Comments	2	**2. Analytical Data Detection and Quantitation Limits** **NMED Comment:** (Paragraph 1) Many of the analytical data tables presented in the Report list the limit of detection (LOD) for each sample analysis, however, it is not clear if this value represents the laboratory method detection limit or reporting detection limit. Some tables list the LOD and some the limit of quantification (LOQ). The permittee must provide the method detection limit (MDL) in the data tables. In addition, the Permittee must include the reporting detection limit (assuming this is the Permittee's "LOD") and the PQL (assuming this is the Permittee's "LOQ") for each sample analyzed in the data tables.	Acknowledged. As noted in Comment 4 above, the required laboratory reporting is per contract required DoD QSM reporting requirements. For clarification, the DoD DL is equivalent to the EPA MDL; the DoD LOD is equivalent to the EPA RDL; and the DoD LOQ is equivalent to the EPA PQL. To further clarify this we have included an analytical data Excel flat file in an appendix with each sample matrix type to show the specific PQL, RDL and MDL for each sample analyte.

Date	Reviewer		Document Title (version)	Contract/TO Number
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13	General Comments	2	**2. Analytical Data Detection and Quantitation Limits** **NMED Comment:** (Paragraphs 2 and 3) The Permittee's Quality Assurance Project Plans (QAPPs) indicate that the Permittee is using three different variations of terminology for method reporting limits, including one which seems to be backwards. The Permittee's QAPP for Vadose Zone Treatability Studies Attachment 1, Tables 1-1a, Method Reporting Limits – Drinking Water, 1-1b, Method Report Limits – Soil and Investigation Derived Waste, and 1-1c, Method Reporting Limits – Volatile Organic Compounds in Air, all seeming use the LOQ appropriately (as the PQL), but there is a lack of consistency between the method detection limit and reporting detection limit. In Table 1-1a, Drinking Water, "MDL" appears to equate to the method detection limit, and "LOD" appears to equate to the reporting detection limit. In Table 1-1b, Soil, "LOD" appears to equate to the method detection limit and "DL" appears to equate to the reporting detection limit. Based on the fact that the PQL must be greater than the reporting detection limit and the reporting detection limit must be greater than the method detection limit, Table 1-1b, Soil, appears to be wrong. NMED is assuming that similar tables appear in the QAPP for quarterly monitoring.	Acknowledged. The Vadose Zone Treatability QAPP includes method reporting limit tables for TestAmerica, Inc. laboratories for drinking water, soil coring and investigation derived waste, and for soil vapor. It appears on the reporting limit table 1-1b, Soil, the values in the LOD and DL columns were inadvertently switched. It is correct that the LOQ/PQL is greater than the LOD/RDL which is greater than the DL/MDL. The reporting limit tables in the QAPP for the Dissolved-Phase Plume and Groundwater Treatment System Design (quarterly groundwater monitoring), Attachment 1 (Eurofins Lancaster Laboratories) are confirmed to be correct.
14	General Comments	2	**2. Analytical Data Detection and Quantitation Limits** **NMED Comment**: (Paragraph 4) These issues [items 12 and 13 above] cause confusion for the reviewer, community stakeholders, and the public, and increases the time required to review submittals from the Permittee. The Permittee must use appropriate and consistent terms for Quality Assurance/Quality Control in all periodic reporting submittals and for all media (e.g., use MDL consistently instead of DL). While NMED does not review or approve QAPPs, the Permittee must assure that they are providing their contractors with the appropriate information to provide appropriate, consistent, and accurate information to NMED. Consistency in reporting by the Permittee will reduce both agency and Air Force internal review times.	Acknowledged. See responses to items 12 and 13 above.
15	Specific Comments	2/3	**3. Table of Contents, Appendix B, page iv:** **NMED Comment:** Appendix B, New Activities Supporting Information, contains well completion reports for four new wells installed and developed in accordance with the NMED-approved 2017 Work Plan for Vadose Zone Coring, Vapor Monitoring, and Water Supply Sampling. KAFB Permit Section 6.2.2.1.2, Site Investigations – Investigation Reports, and Section 6.2.4.3, Reporting Requirements – Investigation Reports, require that the information and data collected from all investigation activities conducted during the quarter be submitted to NMED as separate, stand-alone reports. The Permittee must submit individual reports for all investigation activities conducted in support of the ongoing investigation of the Bulk Fuels Facility spill, rather than submit the information as appendices in quarterly reports.	Acknowledged. This information was also requested by the NMED to be included in the Source Area Characterization Report based on the comments received for the report. Discussions with NMED will be held to determine the preferred data submittal method.

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16	Specific Comments	3	**4. Section 2.5 Q2 2019 Soil Vapor Data, page 2-4:** **Permittee Statement:** "The RCRA permit does not specify cleanup levels for soil vapor. The quarterly reports are not intended to assess risk; the vapor data are used to assess concentration trends. The risk assessment (USACE, 2017e) compares vapor concentrations to the vapor intrusion screening levels in the NMED Risk Assessment Guidance for Site Investigations and Remediation. All EDB and benzene concentrations are compared against 3,800 and 3,200 micrograms per cubic meter (µg/m3), respectively. HC concentrations are compared against 1,000 parts per million by volume (ppmv). The comparison concentrations used in this report were determined by historical maximum and minimum soil vapor results to show which WVMPs had relatively high or low concentrations." **NMED Comment:** The Permittee must clarify if the comparison values for EDB, benzene, and HC represent the historical maximum or minimum, or some other calculated value so that changes relative to the values can be evaluated. The Permittee must also provide a reference for the historical soil vapor values. The Permittee accurately states that quarterly reports are not intended to assess risk; however, the Permittee must provide a comparison of detected concentrations to a regulatory standard for the purpose of assessing the presence and location of contaminants of concern. NMED's Risk Assessment Guidance for Site Investigations and Remediation (2019 and as updated) vapor intrusion screening levels (VISLs) must be used a first-tier screening assessment.	Acknowledged. In the Q2 2020 report, language will be revised to clarify that the comparison values were set based on a qualitative analysis of soil vapor data in Q2 2016 to help the reader distinguish areas of relatively high or low soil vapor concentrations (Section 2.3). They are not intended to be screening levels, rather their purpose is as a helpful tool for the reader to evaluate trends. While the vapor intrusion screening levels may be an appropriate first-tier screening assessment for the shallowest soil vapor samples (ie, up to 25 ft bgs), they are less appropriate deeper in the vadose zone where there are not vapor intrusion pathways to the ground surface. It is respectfully requested that a teleconference be scheduled with the NMED to discuss relevant regulatory standards against which to screen soil vapor lower than the 25-ft bgs soil vapor monitoring points. Appropriate screening levels will be incorporated in future monitoring reports once the levels have been determined for depths greater than 25 ft bgs.
17	Specific Comments	3	**5. Section 2.2. Bioventing Pilot Test, page 2-2** **Permittee Statement:** "A bioventing report will be submitted on January 31, 2020 as requested by NMED in a letter dated February 25, 2019 (NMED, 2019). This report will include data collected up to Q4 2019. Data collected after Q4 2019 will be provided in the relevant quarterly monitoring reports. The Q4 2020 Quarterly and Annual Monitoring Report will include results to date, and the final results of the bioventing pilot test will be provided in the Q4 2021 Quarterly and Annual Monitoring Report." **NMED Comment:** Bioventing pilot test data is collected each quarter; therefore, the Permittee must provide quarterly data updates in separate quarterly status reports specific to the bioventing pilot study to allow NMED to provide timely adjustment and inputs to the bioventing system. The final results of the bioventing pilot test must be submitted as a stand-alone document rather than as an appendix to the Q4 2021 Quarterly and Annual Monitoring Report.	Acknowledged. Future bioventing reports will be submitted as separate quarterly status reports. The final results of the bioventing pilot test will be submitted as a stand-alone document.

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18	Specific Comments	4	**6. Section 3.3.1 Sampling Deviations, page 3-3** **Permittee Statement:** "Groundwater samples were not obtained from seven wells in Q2 2019. Three wells (KAFB-106001, KAFB-106008, and KAFB-106079) could not be sampled due to suspected biofouling. These wells will be sampled using passive sampling techniques in the future after well rehabilitation is evaluated." **NMED Comment:** The Permittee must provide additional information in a subsequent quarterly report on suspected biofouling of wells KAFB-106001, KAFB-106008, and KAFB-106079, such as evidence for biofouling, the source of biofouling, and the date when biofouling was first suspected. Well KAFB-106079 is less than 1000 ft from interim measure extraction well KAFB-1060239. Provide information on the potential for suspected biofouling at KAFB-106079 to impact KAFB-106239 and the Groundwater Treatment System. The Permittee must also submit a work plan for evaluating and conducting rehabilitation of the three wells. Use of passive sampling techniques for wells KAFB-106001 and KAFB-106079 is contingent upon NMED approval. Because LNAPL was previously detected in well KAFB-106008, use of passive sampling is not appropriate.	Acknowledged. Additional information on suspected biofouling of wells KAFB-106001, KAFB-106008, and KAFB-106079 will be provided in the Q3 2020 quarterly report. Information on biofouling and associated well maintenance will be provided in future quarterly reports. Acknowledged. Standard well disinfection procedures were provided in the O&M Plan (Kirtland AFB. 2016. Operations and Maintenance Plan, Groundwater Treatment System, Bulk Fuels Facility, SWMUs ST-106/SS-111, Kirtland Air Force Base, New Mexico.), which was approved by NMED in a letter dated December 12, 2016 (Correspondence from Kathryn Roberts, Director, Resource Protection Division to Colonel Eric H. Froehlich, Base Commander, Kirtland AFB, New Mexico, and MR. John Pike, Director, Environmental Management Division, 377 MSG, Kirtland AFB, New Mexico, re: Operation and Maintenance Plan, Groundwater Treatment System, Bulk Fuels Facility Solid Waste Management Units ST-106/SS-111, Kirtland Air Force Base, EPA ID No. NM9570024423, HWB-KAFB-13-MISC.) Disinfection of these wells took place in September, 2019 and was reported on in the Q3 2019 quarterly report. Acknowledged. Wells KAFB-106001, KAFB-106079, and KAFB-106008 will be sampled using portable pumps in future monitoring quarters until such time as passive
19	Specific Comments	4	**7. Section 3.6.1.1 EDB Analytical Results, page 3-5** **Permittee Statement:** "Five EDB exceedances were from wells north of Ridgecrest Drive SE but none were north of Gibson Boulevard SE." **NMED Comment:** Figures 3-5 and 3-6 present EDB concentrations in groundwater for reference elevation 4857 and 4838, respectively. Both figures depict the northern extent of the EDB plume as being north of Gibson Boulevard SE. The Permittee must revise the statement and figures for accuracy if they are included in future periodic reports.	Acknowledged. This statement was verified as accurate. While some wells north of Gibson Boulevard SE had EDB detections, there were no EDB exceedances above the EPA MCL of 0.05 µg/L in wells sampled north of Gibson in Q2 2019. Because some of the wells with exceedances were immediately south of Gibson, interpolation of the plume boundary shows the northern boundary extending approximately 100 ft to the north of Gibson. However, no wells located north of Gibson are included within the plume boundary.