Addendum to Minimum Site Assessment

Fairview Station

1626 N. Riverside Drive

Española, Rio Arriba County, New Mexico

October 27, 2014

Terracon Project No. 66127029.3

Prepared for:

Mr. José C. Roybal c/o Ms. Lucille Roybal, P.E.

Albuquerque, New Mexico

Prepared by:

Terracon Consultants, Inc.

Albuquerque, New Mexico

October 27, 2014

Ms. Lucille Roybal, P.E.
2312 Via Seville Court NE
Albuquerque, New Mexico 87104
P: (972) 284-6655

Re: Addendum to Minimum Site Assessment
Fairview Station
1626 N. Riverside Drive
Espanola, Rio Arriba County, New Mexico
Facility I.D. # – 28779
Release I.D. # - 4657
Work Plan I.D. # 17029
Terracon Project No. 66127029.3

Dear Ms. Roybal:

Terracon Consultants, Inc. (Terracon) is pleased to submit this Addendum to Minimum Site Assessment (MSA) report for the above referenced site. This investigation was performed in accordance with Terracon's Work Plan dated February 5, 2014, which was approved by the New Mexico Environment Department Petroleum Storage Tank Bureau on February 18, 2014.

We appreciate the opportunity to perform these services for you. Please contact Mark Hillier at (505) 797-4287 if you have questions regarding the information provided in the report.

Sincerely,
Terracon Consultants, Inc.

Missy A. Halick
Project Manager

Mark R. Hillier, P.G. (TX)
Department Manager

Attachments

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APPENDICES

ADDENDUM TO MINIMUM SITE ASSESSMENT
FAIRVIEW STATION
1626 N. RIVERSIDE DRIVE
ESPAÑOLA, RIO ARRIBA COUNTY, NEW MEXICO

Facility I.D. # - 28779 Release I.D. # - 4657 Work Plan I.D. # - 17029

Terracon Project No. 66127029.3

October 27, 2014

EXECUTIVE SUMMARY

The former Fairview Station is located at 1626 N. Riverside Drive, Española, Rio Arriba County, New Mexico (the Site). The Site was initially developed as a gas station in the 1970s. As part of a Minimum Site Assessment (MSA), Terracon Consultants, Inc. (Terracon) subcontracted the installation of soil borings and monitoring wells on January 31 and February 1, 2013. Five soil borings were advanced on the site to depths ranging from 25 feet to 30 feet below grade surface (bgs). Soil boring B-1, advanced in the northeast corner of the UST hold, soil boring B-2, advanced adjacent to the former location of the northeast dispenser, and soil boring B-3, advanced south of the dispenser islands, were converted to permanent groundwater monitoring wells MW-1, MW-2 and MW-3, respectively. The general lithology observed during soil boring advancement consisted of interbedded sand and clay. Non-aqueous phase liquid (NAPL) was detected in the three monitoring wells installed at the site and Terracon recommended the installation of additional monitoring wells to delineate the horizontal extent of groundwater contaminants exceeding Water Quality Control Commission (WQCC) standards.

To further delineate the extent of NAPL, Terracon subcontracted the advancement of five soil borings and subsequent conversion to permanent groundwater monitoring wells on October 23, and October 24, 2013. One soil boring was advance off site and four soil borings were advanced on the site to depths ranging from 25 feet to 28 feet below grade surface (bgs) by a New Mexico licensed water well driller. Soil boring MW-4 was advanced near the eastern site boundary, soil boring MW-5 was advanced near the southern site boundary, soil boring MW-6 was advanced near the northwest site corner, soil boring MW-7 was advanced near the western site boundary, and soil boring MW-8 was advanced north of the site on property occupied by a Dairy Queen restaurant. Subsequent to advancement, the soil borings were converted to permanent, two-inch diameter, groundwater monitoring wells. The results of sampling and analysis indicated that the eastern extent of groundwater contaminants exceeding WQCC standards had been defined. However, NAPL was observed in monitoring well MW-8 (the northernmost well) and the extent of dissolved phase contaminants exceeding WQCC standards remained undefined. The results of this investigation were documented in Terracon's Addendum to Minimum Site Assessment dated December 23, 2013.

The purpose of this AMSA was to further delineate the extent of NAPL and dissolved phase contaminants. Between July 18 and August 21, 2014, Terracon subcontracted the advancement of six soil borings and the subsequent conversion to permanent monitoring wells. The six soil borings were advanced off-site to depths ranging from 24 to 30 feet below grade surface (bgs). Soil boring B-9 was advanced in the western portion of the Dairy Queen parking lot, near the

location of fuel dispensers associated with a historical off-site gas station. Soil boring B-10 was advanced near the southwest corner of the Dairy Queen property. Soil boring B-11 was advanced along the southern Dairy Queen boundary and east of previously installed MW-8. Soil boring B-12 was advanced west of the site, across Riverside Drive in the northeast portion of the Giant gas station property. Soil boring B-13 was advanced on undeveloped property adjacent south of the site. Based on the observed impact at the location of soil boring B-9, contingent soil boring MW-14 was advanced in the western portion of the northern Dairy Queen property. The soil borings were converted to permanent groundwater monitoring wells: MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14, respectively. The general lithology observed during soil boring advancement consisted of interbedded sand, silt, and clay.

The soil and groundwater samples collected from the six borings and monitoring well were submitted for laboratory analysis for total petroleum hydrocarbons (TPH), benzene, toluene, ethyl benzene, total xylenes (BTEX), methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), polycyclic aromatic hydrocarbons (PAHs) and/or total lead. The off-site soils in the vicinity of soil borings MW-9, MW-10, MW-11, MW-13, and MW-14 have been impacted by a release of gasoline and exhibit concentrations of BTEX, MTBE and/or naphthalene at concentrations that exceed NMED Tier 1 Soil Concentrations Protective of Groundwater dated March 13, 2000. In addition, NAPL was observed in monitoring wells MW-11 and MW-14 and groundwater samples collected from monitoring wells MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 exhibited concentrations of benzene that exceed the New Mexico Water Quality Control Commission (WQCC) standards.

Based on the results of this AMSA, Terracon recommends the installation of additional off-site monitoring wells to delineate the horizontal extent of NAPL and groundwater exceeding WQCC standards, and interim removal of NAPL from the on- and off-site site monitoring wells.

1.0 CHRONOLOGY OF EVENTS

- 1970s – Site initially developed with the Fairview Station operating two USTs.
- December 1, 1988 – The two original USTs are removed from the site with no releases reported. The Fairview Station is temporarily closed pending installation of replacement USTs.
- August 7, 1989 – Two 8,000-gallon and one 10,000-gallon gasoline UST and four dispensers are installed at the site.
- July 5, 2012 – The three on-site USTs and associated piping and dispensers are removed. Field observations indicate a release has occurred.
- August 6, 2012 – The NMED PSTB issues a release confirmation letter to Mr. José C. Roybal, the site owner.
- November 16, 2012 - Terracon submits a MSA Work Plan to the PSTB.

- December 13, 2012 – NMED PSTB approves Terracon's MSA Work Plan.
- January 31, 2012 – Terracon mobilizes to the site to conduct MSA field activities.
- March 12, 2013 – Terracon submits the MSA to the NMED PSTB.
- June 21, 2013 – Mr. José C. Roybal, the site owner, is notified by the NMED PSTB that the on-site facility is in compliance with all requirements and provisions of regulations adopted by the board under Subsection C of Section 74-4-4 NMSA 1978.
- August 2, 2013 – Terracon submits an AMSA Work Plan to the PSTB.
- August 23, 2013 – NMED PSTB approves Terracon's AMSA Work Plan and assigns Work Plan ID No. 16836.
- October 23, 2013 – Terracon mobilizes to the site to conduct AMSA field activities.
- December 23, 2013 – Terracon submits this AMSA to the NMED PSTB.
- February 5, 2014 – Terracon submits an second AMSA Work Plan to the NMED PSTB.
- February 18, 2014 – NMED PSTB approves Terracon's second AMSA Work Plan and assigns Work Plan ID No. 17029.
- July 18, 2014 – Terracon mobilizes to the site to conduct additional AMSA field activities.
- August 21, 2014 – Terracon mobilizes to the site to conduct additional AMSA field activities.
- October 13, 2014 – Terracon submits this AMSA to the NMED PSTB.

2.0 BACKGROUND

2.1 Site Description

Site Name	Fairview Station, Facility ID#: 28779
Site Location/Address	1626 N. Riverside Drive, Española, Rio Arriba County, New Mexico
General Site Description	An approximate 0.5-acre tract of land developed with an approximate 600 square-foot (SF) former gas station building

A topographic map depicting the site location is included as Exhibit 1, and a site diagram is included as Exhibit 3 of Appendix A.

2.2 Description of Historical UST Systems

The original UST system was reportedly removed from the site in December 1988 and releases were not reported at the time of the UST system removal. According to the PSTB database, five

USTs have been removed from the site. Based on this information and the documented removal of three USTs in 2012, two USTs are assumed to have originally been in use at the site.

One 10,000-gallon gasoline and two 8,000-gallon gasoline USTs were installed in the north-central portion of the site in August 1989 and were removed in July 2012. Four dispensers associated with the USTs were located southwest of the UST tank basin. It is our understanding, based upon an NMED PSTB Inspection Report for the site dated July 5, 2012, that the USTs were constructed of steel and were equipped with cathodic protection. The associated piping was constructed of fiberglass. The dispensers were connected using steel flexes with cathodic protection. The USTs and piping system were reportedly free of holes or other visible damage at the time of removal.

Based on recent reviews of historical aerial photographs, a gas station appears to have occupied the property adjoining the site to the north (currently developed with a Dairy Queen restaurant) from at least 1961 through 1970. Two above-ground storage tanks (ASTs) appear to have been located along the southern property boundary with two dispensers located in the western portion of the property. This off-site facility does not appear to have been registered with the NMED and records for the facility have not been identified.

2.3 Site Geology and Hydrogeology

2.3.1 Local Geology

Based on our review of the *Preliminary Geologic Map of San Juan Pueblo Quadrangle*, prepared by Daniel J. Koning and Kim Manley (August 2003), the site is located on Younger Quaternary Alluvium. A portion of the geologic map is included as Exhibit 2 in Appendix A. This formation consists of sand, silt and mud, silty sand, gravelly sand, and sandy gravel that underlie modern valley floors. Beds are mostly planar to lenticular to channel-shaped, and laminated to very thin- to thick-bedded. Gravel is commonly clast-supported, poorly sorted, rounded to subangular, and generally consists of pebbles and cobbles. Sand is very fine- to very coarse-grained, subangular to subrounded, and poorly to well sorted. Texture and composition of sediment depends on source area drainage. Weakly consolidated to loose, but silt and mud beds may be moderately consolidated. Basal contact not generally exposed, but drilling and seismic data also indicate that this unit overlies older (perhaps Pleistocene-age) sandy gravels deposited by the ancestral Rio Grande.

Based on stratigraphy encountered during on-site drilling, the shallow geology of the site consists of:

- Interbedded sand, silt, and clay with some silt from approximately the surface to approximately 22 feet bgs;
- Well-graded sand with some gravel from approximately 22 feet bgs to the terminus of the six borings.

2.3.2 Local Hydrogeology

Based on Terracon's review of a document titled *General Geology and Ground Water Conditions in the Truchas-Española-Velarde Area of Rio Arriba County, New Mexico*, by R. L. Borton with the OSE (1974), the Rio Grande appears to be a gaining stream in the vicinity of the site with a general gradient direction toward the west in the vicinity of the site. Groundwater elevation data collected during the most recent gauging event conducted on October 3, 2014 from the fourteen monitoring wells installed on and off site indicated that the direction of groundwater flow at the site is toward the south-southwest at an approximate gradient of 0.012 ft/ft.

During monitoring well gauging activities conducted on October 3, 2014 NAPL was detected in monitoring wells MW-1, MW-2, MW-3, MW-6, MW-8, MW-11, and MW-14 at thicknesses ranging from 0.04 feet to 2.95 feet. A correction factor of 0.729, commonly accepted as the density of gasoline, was used for the purpose of correcting the static groundwater elevation in these wells. The actual density of the NAPL observed in the wells has not been evaluated and differences in density from the assumed value would affect the calculated groundwater gradient direction. Static groundwater levels (corrected for NAPL thickness) were measured at depths ranging from 14.48 feet bgs to 16.78 feet bgs on October 3, 2014.

2.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, our client, as set forth in our proposal and were not intended to be in strict conformance with ASTM E1903-97.

2.5 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this AMSA. Subsurface conditions may vary from those encountered at specific borings or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

2.6 Reliance

This report has been prepared for the exclusive use of Ms. Lucille Roybal, P.E. and the NMED PSTB, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Ms. Lucille Roybal, P.E. and Terracon. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, AMSA report, and Terracon's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed in writing.

3.0 SITE INVESTIGATION

3.1 Soil Assessment

Terracon's soil assessment activities were conducted on July 18-22, 2014 and on August 21, 2014. Buried utilities were located in accordance with state regulations prior to drilling activities. In addition, well permits were obtained from the Office of the State Engineer (OSE) prior to monitor well installation. In accordance with the approved Work Plan, soil boring MW-9 was advanced in the western portion of the off-site Dairy Queen property (near the former off-site dispensers), soil boring MW-10 was advanced in the southwest corner of the Dairy Queen property boundary, soil boring MW-11 was advanced along the southern Dairy Queen property boundary (near the former off-site ASTs), soil boring MW-12 was advanced west of Riverside Drive in the northeast portion of the Giant gas station property, soil boring MW-13 was advanced in the undeveloped property adjacent south of the site, and soil boring MW-14 was advanced near the northwest corner of the Dairy Queen property. Exhibit 3 in Appendix A is a site diagram that indicates the approximate locations of the soil borings in relation to the pertinent structures and general site boundaries.

Drilling services were performed by a State of New Mexico licensed well driller using a truck-mounted hollow stem auger (HSA) rig under the supervision of a Terracon field environmental professional. Soil samples were collected using five-foot core barrels. Drilling equipment was cleaned using an Alconox® wash and potable water rinse prior to beginning the project and before beginning each soil boring. Sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before collecting each soil sample.

Soil samples were collected continuously and observed to document soil lithology, color, moisture content and sensory evidence of environmental impact. The soil samples were field-screened using a photoionization detector (PID) to indicate the presence of volatile organic compounds (VOCs).

The general soil lithology encountered during sample collection consisted of the following:

- Interbedded sand, silt, and clay with some silt from approximately the surface to approximately 22 feet bgs;
- Well-graded sand with some gravel from approximately 22 feet bgs to the terminus of the six borings.

Detailed lithologic descriptions are presented on the soil boring logs included in Appendix B and are consistent with fluvial and alluvial deposits. Cross-sections depicting the soils encountered at the site are included as Exhibit 4 and Exhibit 5 in Appendix A.

3.2 Extent of Soil Contamination

Terracon's soil sampling program involved submitting one soil sample from each soil boring for laboratory analysis of TPH using EPA SW-846 Method 8015B; BTEX, MTBE, and EDC using EPA SW-846 Method 8260B; and EDB using SW-846 Method 504.1 (modified). The soil samples were preserved in the field using methanol kits supplied by the analytical laboratory. Based on the results of TPH analyses, the soil sample collected from soil boring MW-11, exhibiting the highest gasoline range organics (GRO) and diesel range organics (GRO) TPH results, was additionally analyzed for PAHs using EPA SW-846 Method 8270C and for lead using EPA SW-846 Method 6010B. The soil samples were generally collected from the zone exhibiting the highest PID reading. Soil sample intervals for each boring are presented in the table of soil sample analytical results (Table 1) in Appendix C and on the lithologic boring logs included in Appendix B. A cumulative summary of the PID readings for all soil borings is presented in Table 4 in Appendix C.

The soil samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler which was secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis.

The soil samples collected from soil borings MW-9, MW-10, MW-11, MW-13, and MW-14 exhibited concentrations of BTEX exceeding the Tier 1 Soil Concentrations Protective of Groundwater (SCPGs). In addition, the soil sample collected from soil boring MW-14 exhibited EDB and EDC concentrations exceeding the applicable Tier 1 SCPGs and the soil sample collected from soil boring MW-11 exhibited a naphthalene concentration exceeding the applicable Tier 1 SCPG. The laboratory reporting limits for benzene, MTBE, EDB and EDC were above the applicable Tier 1 SCPGs in each of the samples analyzed. Soil sample laboratory results are summarized in Table 1 included in Appendix C. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E. A soil concentration map is provided as Exhibit 6 in Appendix A.

Based on the Tier 1 SCPG exceedances for the soil samples collected from soil borings MW-13 and MW-14, the extent of soil contamination exceeding Tier 1 SCPGs has not been delineated to the north and south of the source area. Based on the laboratory results of soil samples collected from soil boring MW-12 and previously installed soil boring MW-4, the extent of soil contamination exceeding Tier 1 SCPGs has been delineated to the west and east of the source area. Based on the elevated PID readings encountered in the soil samples collected from soil boring MW-9, releases from dispensers from the historical off-site gas station have comingled with the on-site release.

3.3 Groundwater Assessment

Subsequent to advancement, soil borings MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 were converted to permanent two-inch diameter monitoring wells. The monitoring wells were completed using the following methodology:

- Installation of 15 feet of 2-inch diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap;
- Installation of 8-11 feet of 2-inch diameter, threaded, flush joint PVC riser pipe to the surface;
- Addition of a pre-sieved 10/20-grade annular silica sand pack from the bottom of the boring to approximately 2 feet above the top of the well screen;
- Addition of 2 feet of hydrated bentonite seal above the sand pack filter zone;
- Addition of a slurry mixture of powdered bentonite and Portland cement to the near surface;
- Installation of an 8-inch diameter, circular, bolt-down, steel, monitoring well cover with locking well cap inset in a flush-mount, concrete well pad.

A New Mexico licensed land surveyor was contracted to survey the top of casing of the five monitoring wells horizontally and vertically. The horizontal data was provided in New Mexico State Plane coordinates to an accuracy of 0.001 foot and the vertical data was provided in elevation above mean sea level to an accuracy of 0.01 foot. The west side of the top of casings was surveyed at each well location. The surveyor's report is provided in Appendix D. Monitoring well construction details are presented on the soil boring logs for the monitoring wells included in Appendix B. The depth to groundwater measurements and NAPL thickness data are presented in Table 3 in Appendix C.

Subsequent to installation, each monitoring well was gauged with an interface meter to evaluate the presence of NAPL. NAPL was not identified in the monitoring wells immediately after installation. The four monitoring wells were developed by surging and removing groundwater with a new, disposable, polyethylene bailer until the groundwater was relatively free of fine-grained sediment or until the wells contained less than one foot of groundwater. Approximately 20 gallons of groundwater were removed from each of the six monitoring wells during

development activities. This development water was discharged in an impervious surface on the site and allowed to evaporate in accordance with NMED-PSTB guidance.

On July 18-22, 2014, monitoring wells MW-9, MW-10, MW-11 and MW-13 were purged by removing three well volumes of water with a new disposable bailer prior to sampling. On August 21, 2014, monitoring wells MW-12 and MW-14 were purged using the same method. Subsequent to purging and recharge, groundwater samples were collected from each of these monitoring wells using a new disposable polyethylene bailer. The groundwater samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler which was secured with a custody seal. The sample cooler and completed chain-of-custody form were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analysis.

3.4 Extent of Groundwater Contamination

Based on the results of laboratory analyses, the groundwater samples collected from monitoring wells MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 exhibited concentrations of benzene exceeding New Mexico Water WQCC standards. In addition, the groundwater samples collected from monitoring wells MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 exhibited concentrations of toluene, ethyl benzene, total xylenes, MTBE, EDC, naphthalene, 1-methylnaphthalene and/or total lead exceeding New Mexico Water WQCC standards.

Groundwater sample laboratory results are summarized in Table 2 in Appendix C. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E. A groundwater concentration map is provided as Exhibit 7 in Appendix A.

Based on depth to groundwater data and NAPL thickness data collected on October 3, 2014 from the seven off-site monitoring wells and the seven on-site monitoring wells and the top of casing elevation data provided by the land surveyor, the groundwater flow direction at the site was calculated to flow toward the south-southwest at approximately 0.012 ft/ft. A correction factor of 0.729, commonly accepted as the density of gasoline, was used for the purpose of correcting the static groundwater elevation in these wells. The actual density of the NAPL observed in the wells has not been evaluated and differences in density from the assumed value would affect the calculated groundwater gradient direction. Static groundwater levels (corrected for NAPL thickness) were measured at depths ranging from 14.48 to 16.78 feet bgs on October 3, 2013. A groundwater gradient map is provided as Exhibit 8 in Appendix A and a NAPL thickness map is provided as Exhibit 9 in Appendix A.

Based on the WQCC standard exceedances in the groundwater sample collected from monitoring wells MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 and the presence of NAPL in monitoring wells MW-11 and MW-14, the extent of groundwater contamination exceeding WQCC standards has not been defined to the north and south of the source area. In addition, the extent of NAPL has not been defined to the north.

4.0 AMENDMENTS / UNANTICIPATED SITE CONDITIONS

Unanticipated site conditions were not encountered during Terracon's assessment activities.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Six off-site soil borings (MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14) were advanced at the Fairview Station facility located at 1626 N. Riverside Drive in Española, Rio Arriba County, New Mexico. Subsequent to completion, the six soil borings were converted to permanent two-inch diameter monitoring wells.

Based on the results of Terracon's assessment activities, Terracon concludes the following:

- The off-site soils in the vicinity of soil borings MW-9, MW-10, MW-11, MW-13, and MW-14 have been impacted by a release of gasoline and exhibit concentrations of BTEX, MTBE and/or naphthalene at concentrations that exceed Tier 1 SCPGs.
- The depth to groundwater at the site ranged from 14.48 to 16.78 feet bgs on October 3, 2014 with a gradient toward the south-southwest at approximately 0.012 ft/ft.
- Groundwater samples collected from monitoring wells MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 exhibited concentrations of benzene that exceed the New Mexico WQCC standards.
- The groundwater samples collected from monitoring wells MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 exhibited concentrations of toluene, ethyl benzene, total xylenes, MTBE, EDC, naphthalene, 1-methylnaphthalene and/or total lead exceeding New Mexico Water WQCC standards.
- Approximately 2.57 feet of NAPL was encountered in monitoring well MW-8 during gauging activities conducted on October 3, 2014.
- Based on the historical aerial photographs and the results of this assessment, releases from the property adjacent north of the site may have comingled with the on-site release.

Based on the results of this MSA, Terracon recommends the following:

- The installation of additional monitoring wells to delineate the horizontal extent of NAPL and groundwater exhibiting WQCC standard exceedances
- Interim removal of NAPL from the on-site monitoring wells

6.0 STATEMENT OF FAMILIARITY

This report was prepared by Mr. Mark R. Hillier, P.G. and was reviewed by Mr. Mark R. Hillier, P.G. whom is personally familiar with the information submitted in this report and the attached documents and attests that it is true and complete.

Prepared by:

Missy A. Halick

Signature 

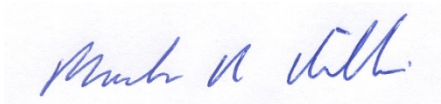
Affiliation: Terracon Consultants, Inc.

Title: Project Manager

Date: October 27, 2014

Supervised by:

Mark R. Hillier, P.G. (TX #4454)

Signature: 

Affiliation: Terracon Consultants, Inc.

Title: Office Manager

Date: October 27, 2014

7.0 REFERENCES

NMED PSTB Regulations, 20.5 NMAC, 2013

All Storage Tank List, NMED PSTB, 2013

Inspection Report, NMED PSTB, July 5, 2012

USGS Topographic Map, San Juan Pueblo, New Mexico Quadrangle, 1977

General Geology and Ground Water Conditions in the Truchas-Espanola-Velarde area of Rio Arriba County, New Mexico, R. L. Borton, 1974

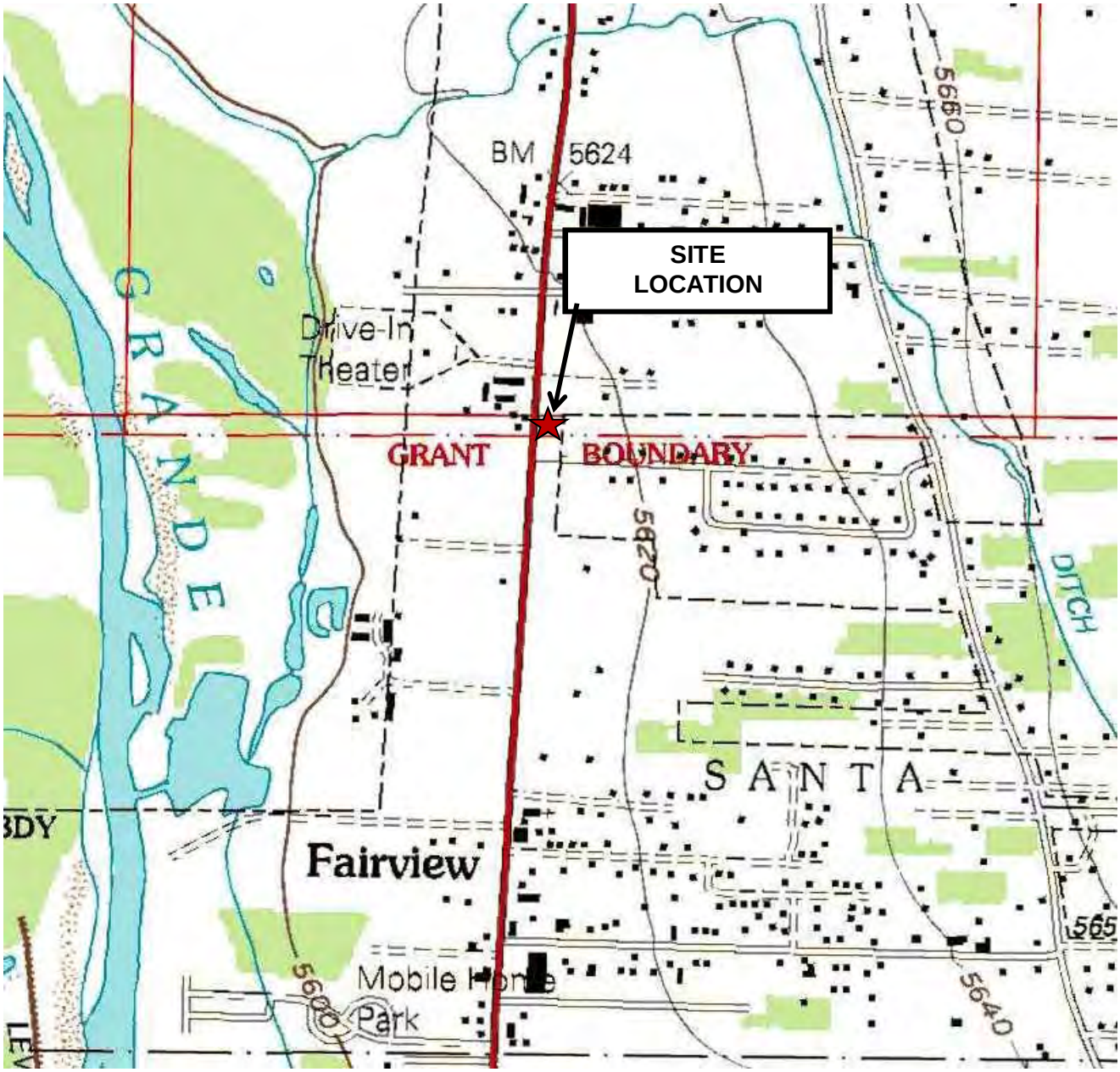
Preliminary Geologic Map of San Juan Pueblo Quadrangle, Daniel J. Koning and Kim Manley, August 2003

New Mexico Office of the State Engineer Water Rights Reporting System database, 2013

Historical aerial photographs dated 1961, 1969, 1970 and 1991

APPENDIX A

Figures

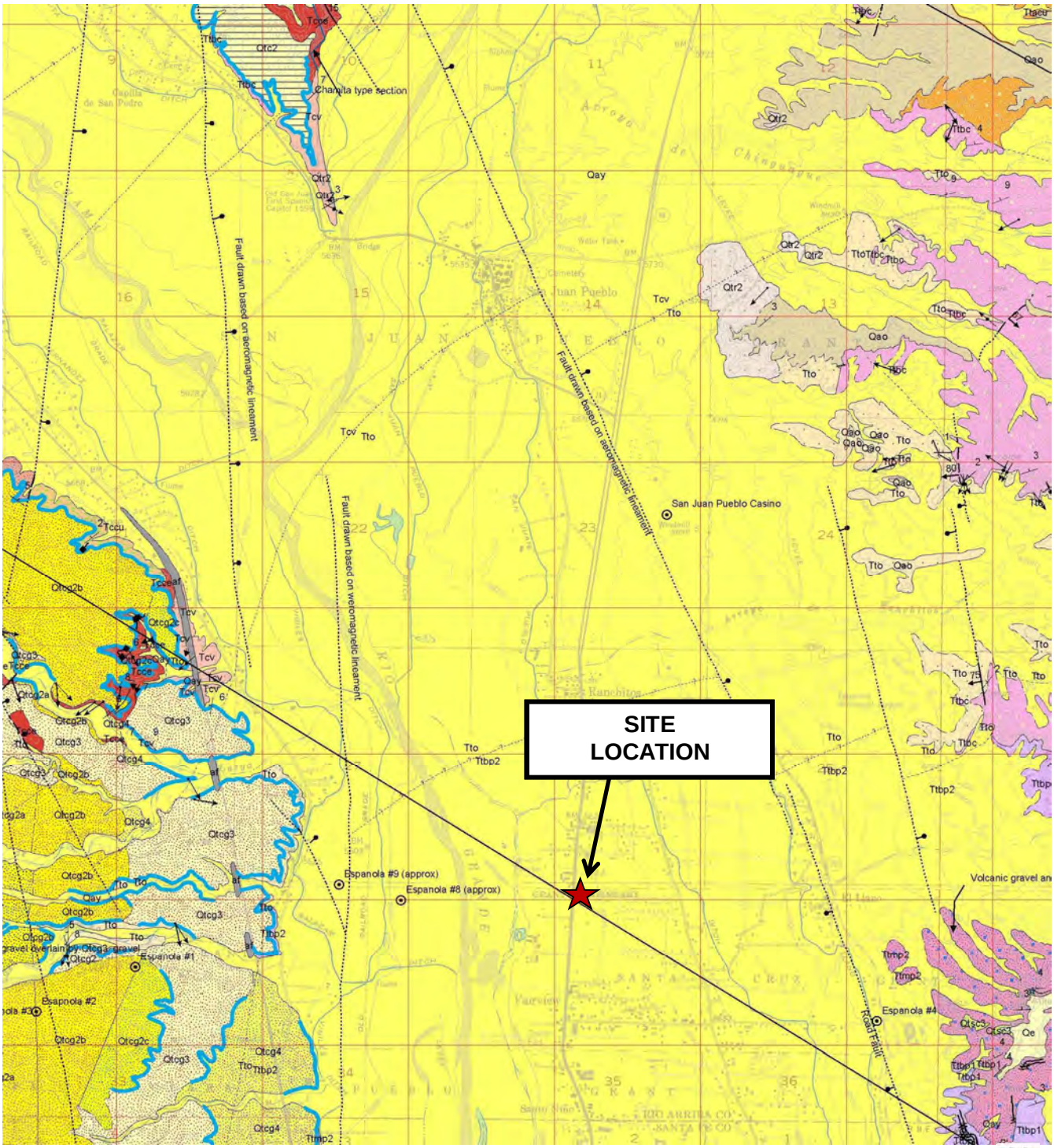


N

USGS San Juan Pueblo, NM published 1977 (1:24,000)

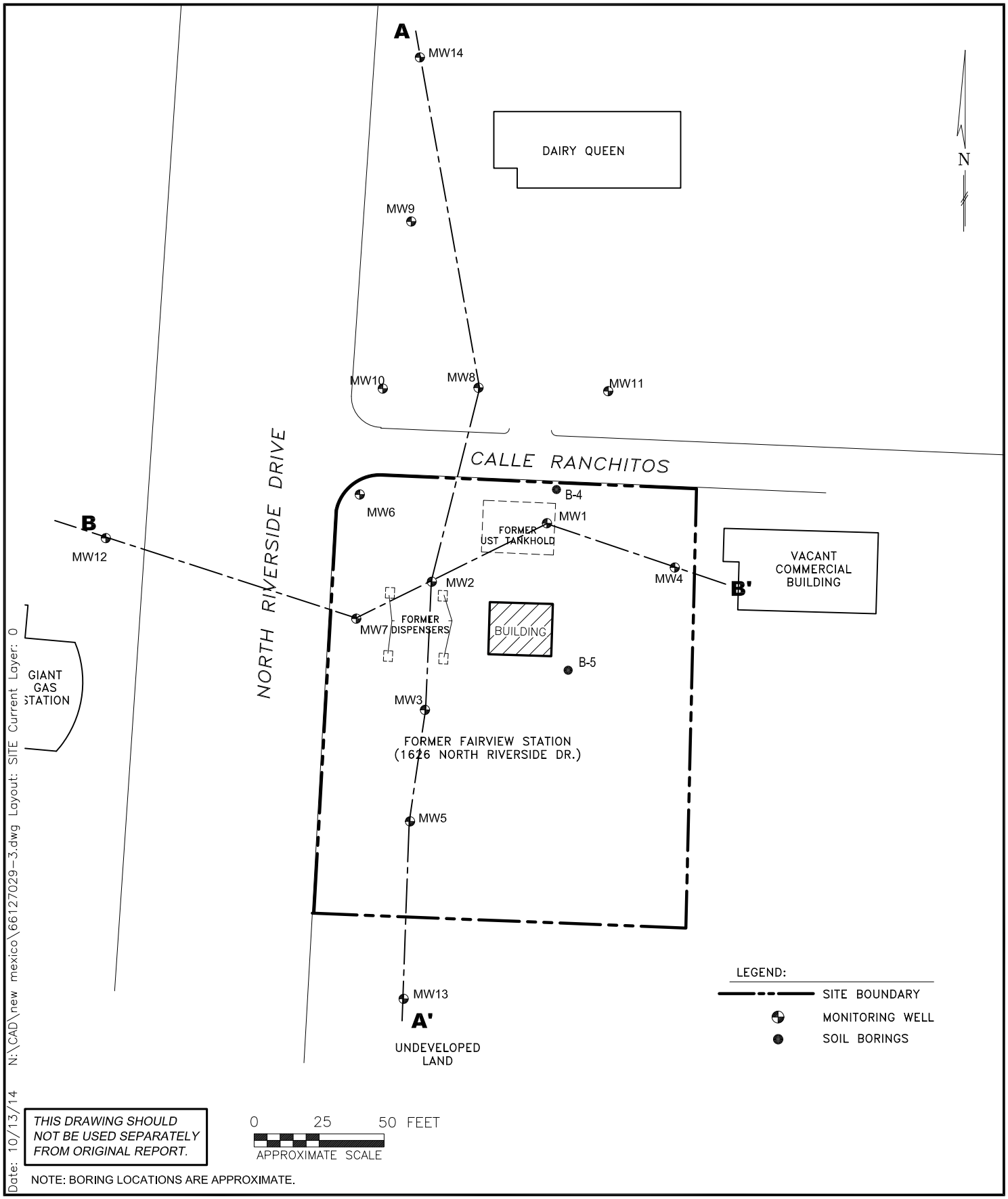
DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: MRH	Project No. 66127029.3	Terracon Consulting Engineers & Scientists	SITE TOPOGRAPHIC MAP
Drawn by: JAS	Scale: 1 ≅ 1,000	4905 Hawkins, NE Albuquerque, New Mexico 87109	FAIRVIEW STATION 1626 NORTH RIVERSIDE DRIVE ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO
Checked by: MRH	File Name:	PH. (505) 797-4287 FAX. (505) 797-4288	EXHIBIT 1
Approved by: MRH	Date: 3/6/13		



Map Source: Preliminary Geologic Map of the San Juan Pueblo Quadrangle, May 2003

Project Manager: MRH	Project No. 66127029.3	Terracon Consulting Engineers & Scientists	SITE GEOLOGIC MAP	EXHIBIT
Drawn by: JAS	Scale: 1 ≅ 3,400	4905 Hawkins, NE Albuquerque, New Mexico 87109	FAIRVIEW STATION 1626 NORTH RIVERSIDE DRIVE ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO	2
Checked by: MRH	File Name:	PH. (505) 797-4287 FAX. (505) 797-4288		
Approved by: MRH	Date: 3/6/13			



Date: 10/13/14 N:\CAD\new mexico\66127029-3.dwg Layout: SITE Current Layer: 0

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH

Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/13/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
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SITE DIAGRAM

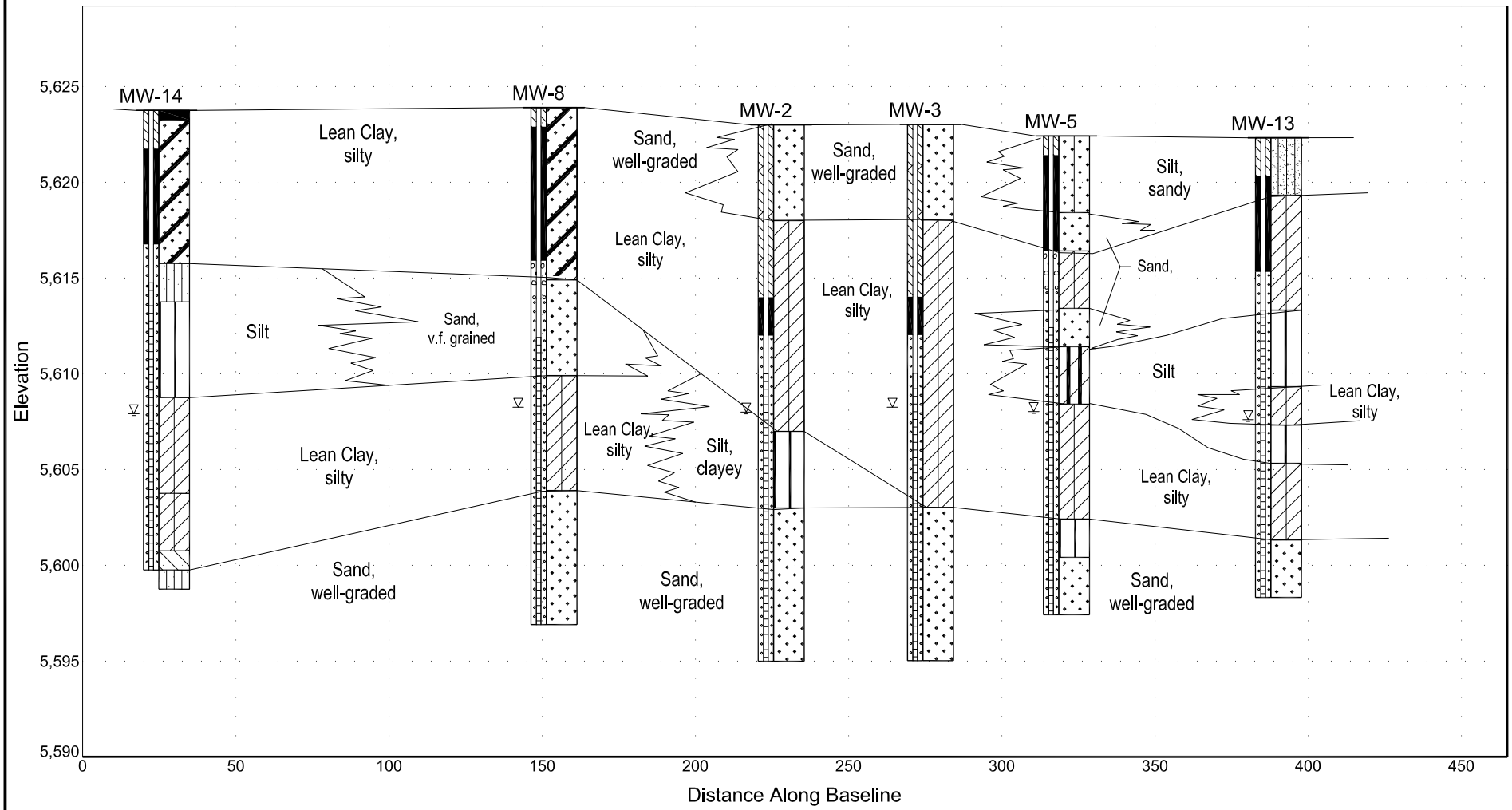
FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT 3

Date: 10/13/14 N:\CAD\new mexico\66127029-3.dwg Layout: AA' REVISED Current Layer: -NO PLOT

A

A'



▽ STATIC GROUNDWATER LEVEL (10-3-14)

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: ALL BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH

Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/13/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
PH. (505) 797-4287 FAX. (505) 797-4288

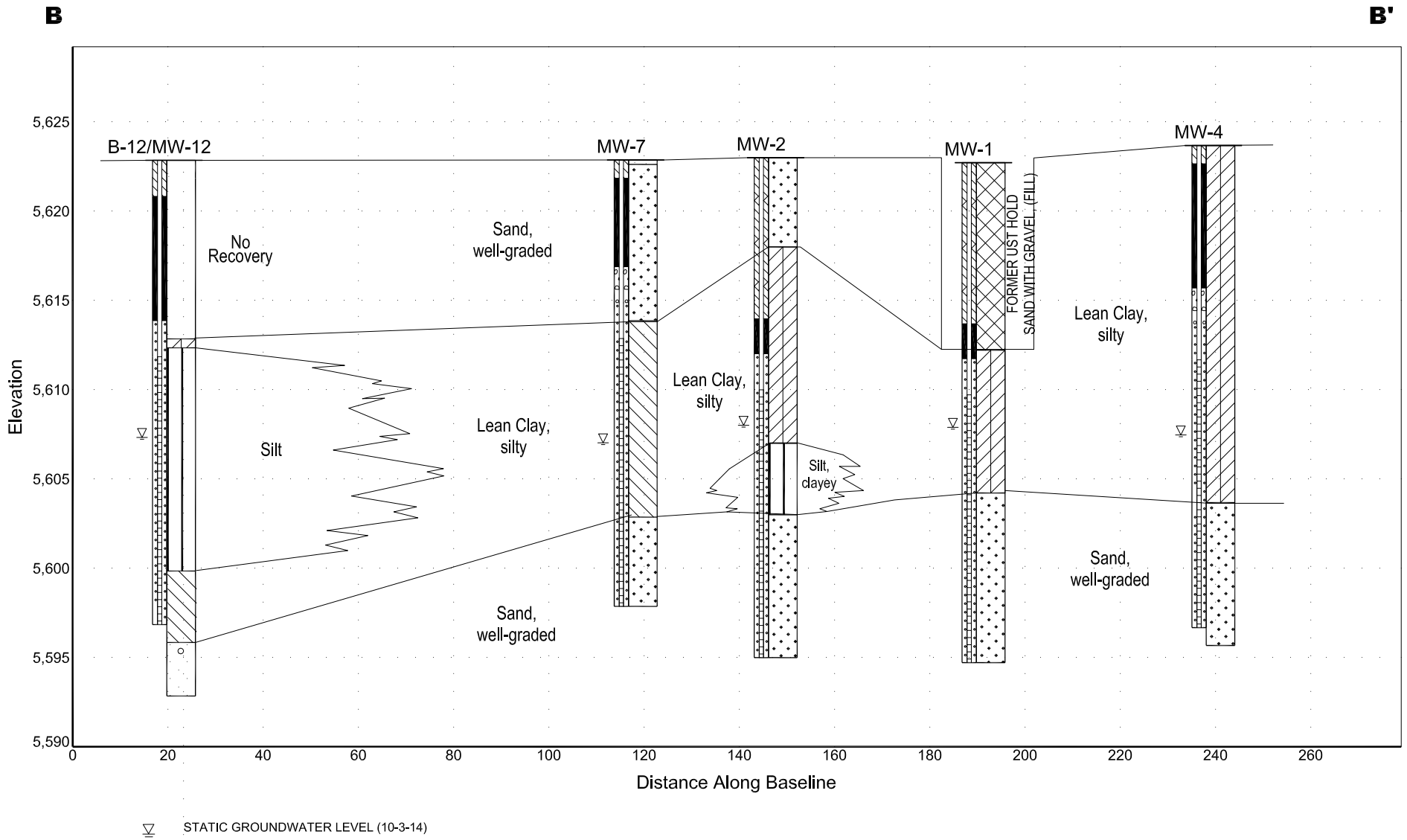
SOIL CROSS SECTION

FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT

4

Date: 10/13/14 N:\CAD\new mexico\66127029-3.dwg Layout: BB' REVISED Current Layer: -NO PLOT



THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: ALL BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH

Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/13/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
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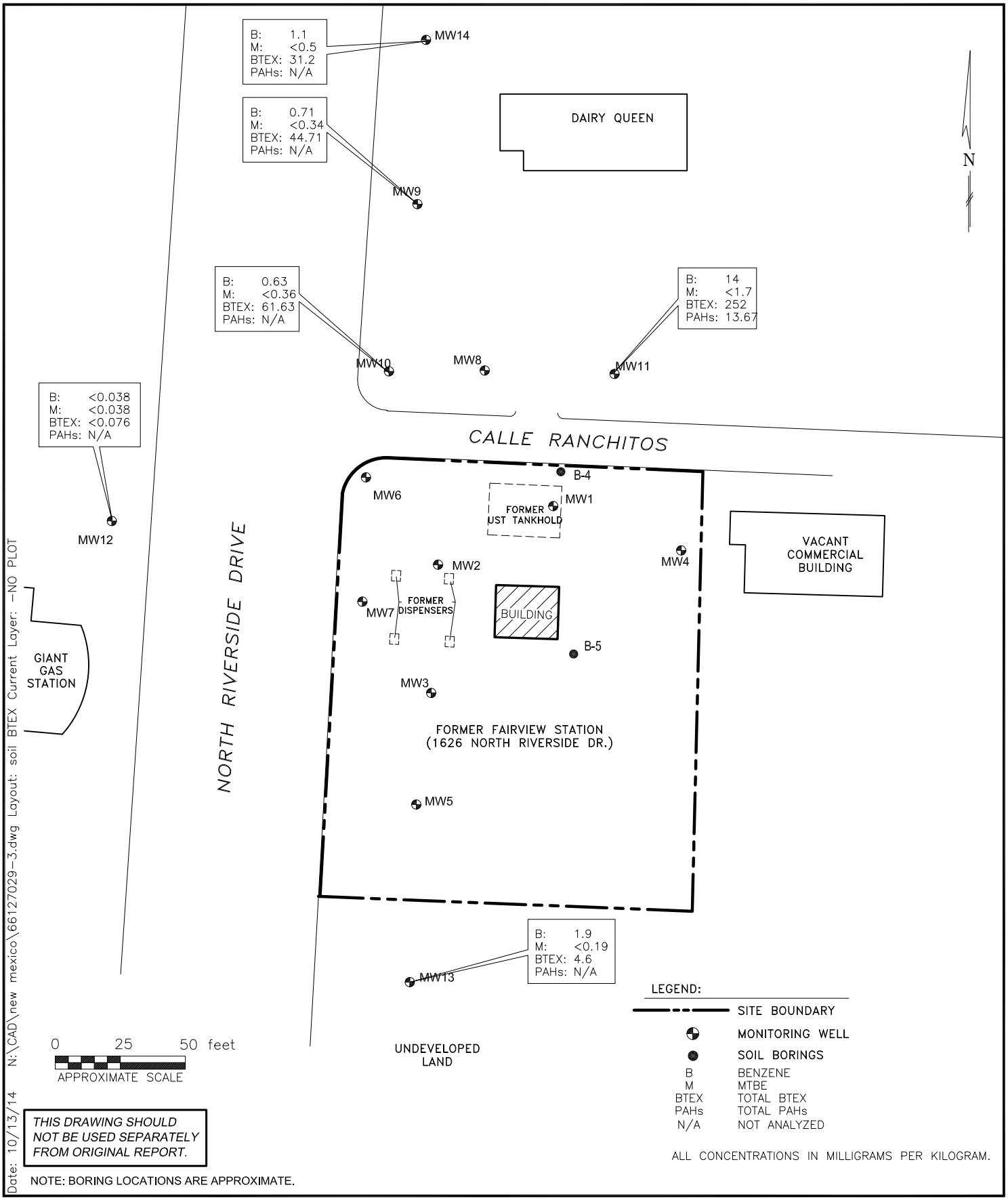
SOIL CROSS SECTION

FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT 5



Date: 10/13/14 N:\CAD\new mexico\66127029-3.dwg Layout: soil BTEX Current Layer: -NO PLOT

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH

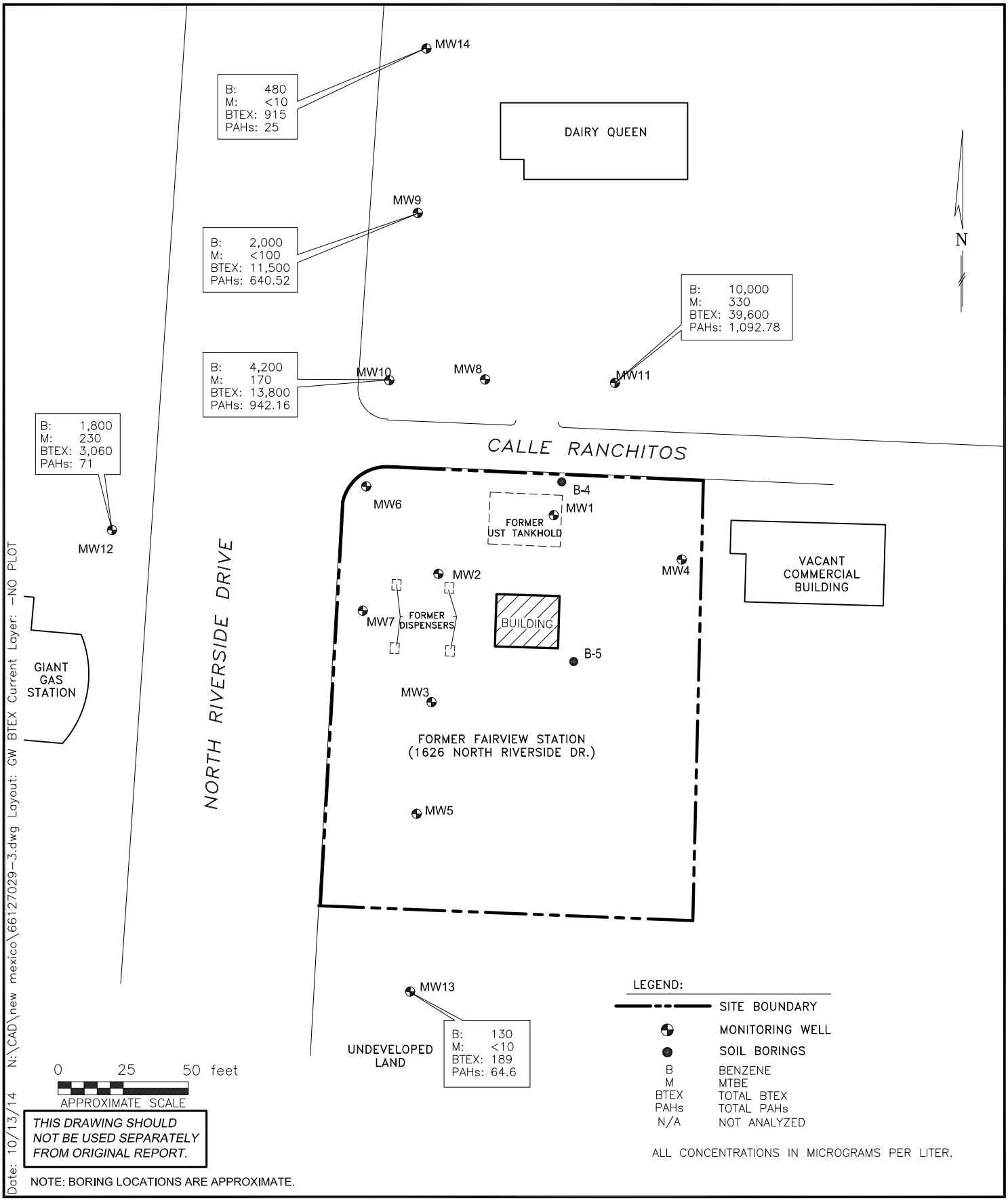
Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/13/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
PH. (505) 797-4287 FAX. (505) 797-4288

SOIL CONCENTRATION MAP

FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT 6



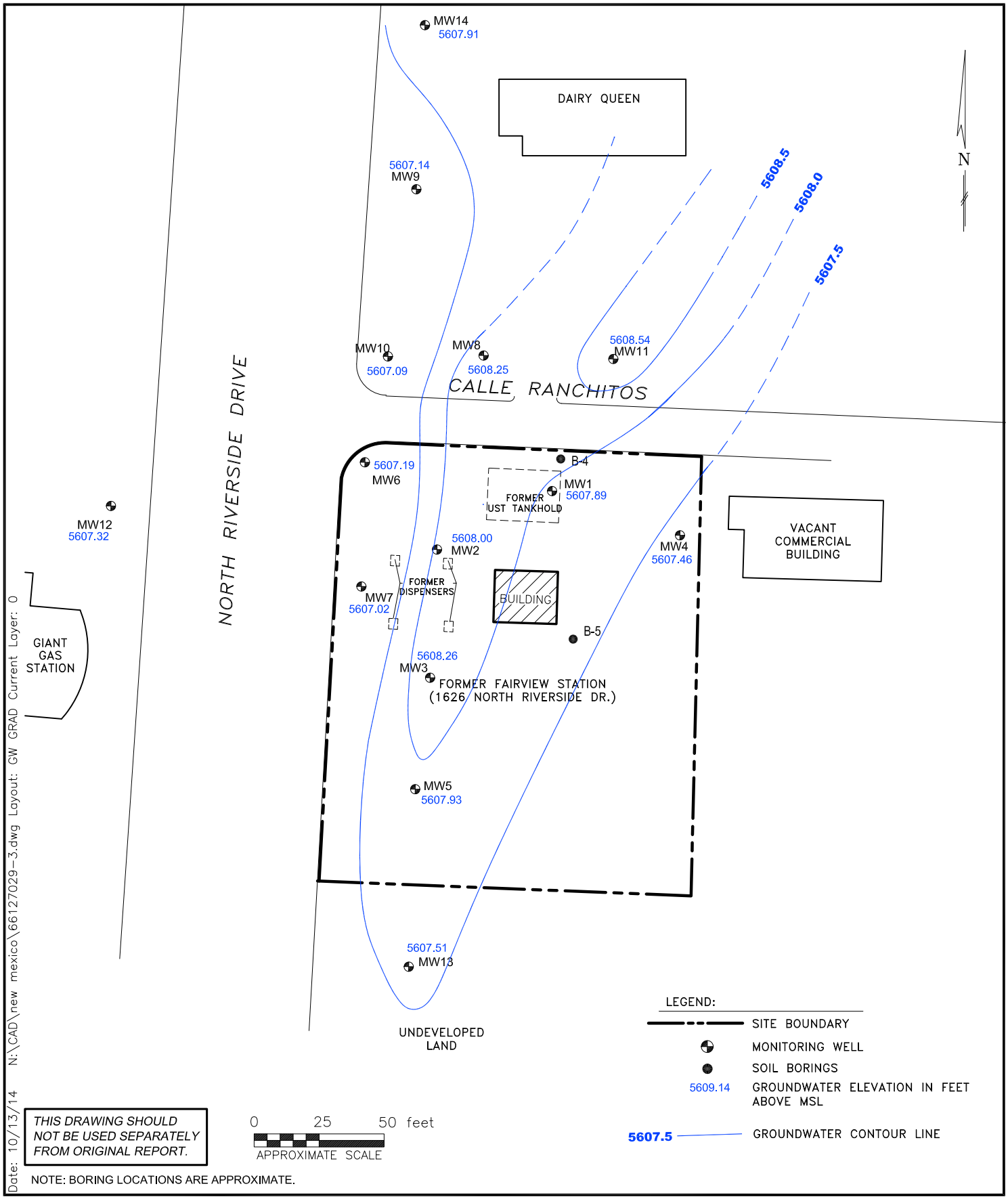
Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH
Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/13/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
PH. (505) 797-4287 FAX. (505) 797-4288

GROUNDWATER CONCENTRATION MAP

FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT 7



Date: 10/13/14 N:\CAD\new mexico\66127029-3.dwg Layout: GW GRAD Current Layer: 0

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH

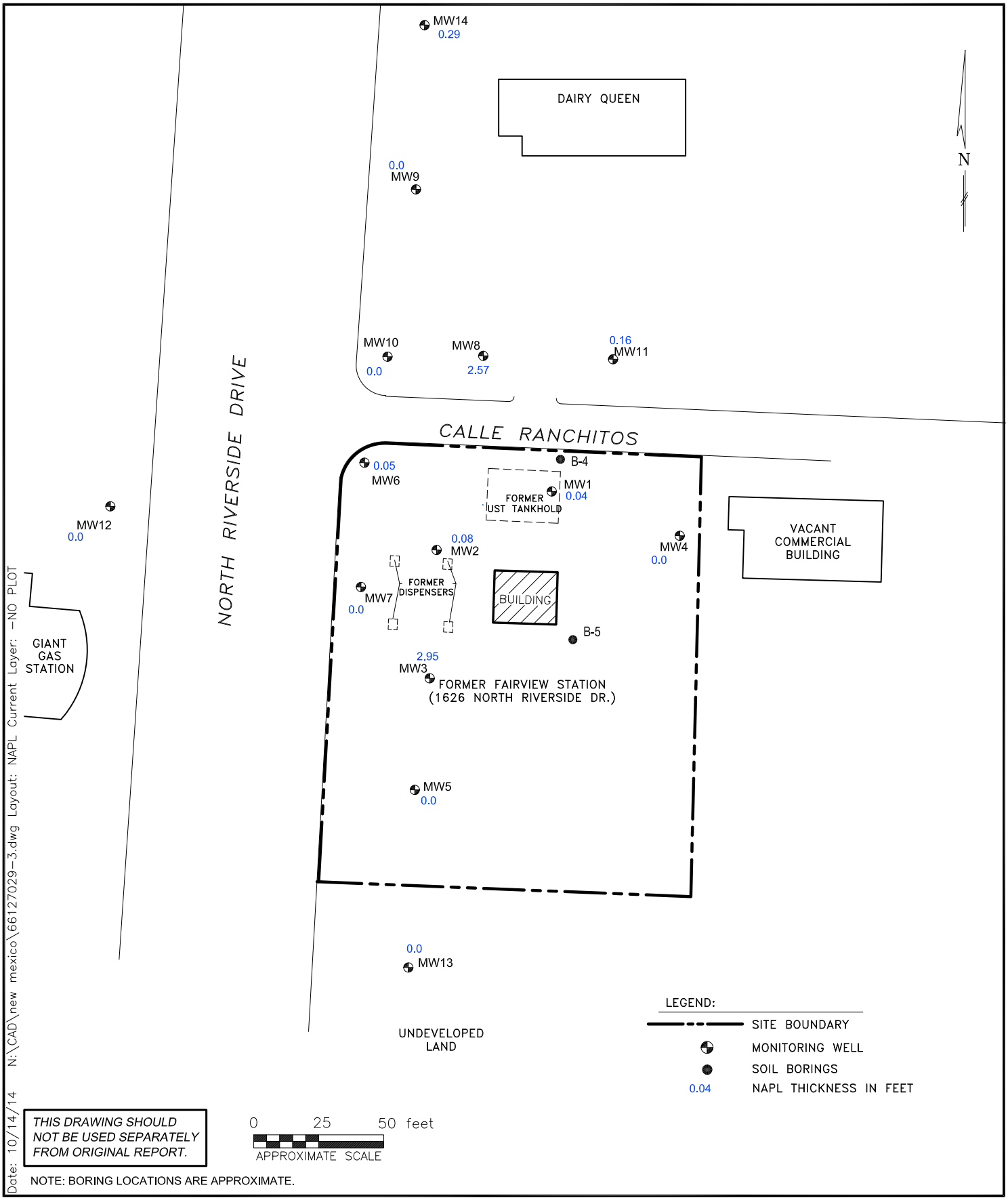
Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/13/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
PH. (505) 797-4287 FAX. (505) 797-4288

GROUNDWATER GRADIENT MAP 10-9-14

FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT 8



Date: 10/14/14 N:\CAD\new mexico\66127029-3.dwg Layout: NAPL Current Layer: -NO PLOT

THIS DRAWING SHOULD NOT BE USED SEPARATELY FROM ORIGINAL REPORT.

NOTE: BORING LOCATIONS ARE APPROXIMATE.

Project Mngr:	MH
Drawn By:	JJD
Checked By:	MH
Approved By:	MH

Project No.	66127029.1
Scale:	AS SHOWN
Date:	10/14/14

Terracon
Consulting Engineers and Scientists
4905 Hawkins NE Albuquerque, New Mexico 87109
PH. (505) 797-4287 FAX. (505) 797-4288

NAPL THICKNESS MAP

FAIRVIEW STATION
1626 NORTH RIVERSIDE DRIVE
ESPANOLA, RIO ARRIBA COUNTY, NEW MEXICO

EXHIBIT 9

APPENDIX B

Boring Logs and Well Permits

BORING LOG NO. B-9/MW-9

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

LOCATION: West parking lot of Dairy Queen

DEPTH	GRAPHIC LOG		INSTALLATION DETAILS	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PID	DRY UNIT WEIGHT (pcf)
0.5		**ASPHALT**							
		LEAN CLAY (CL), dark brown, moist, hydrocarbon odor						4000+	
								-	
				5				4000+	
7.0		-strands of gray							
		SILT (ML), brown, moist, hydrocarbon odor						4000+	
		-becomes very fine sandy silt for two feet						-	
				10					
		-calcareous fissures						4000+	
								2430	
				15	▽			4000+	
18.5								4000+	
		POORLY GRADED SAND WITH SILT (SP-SM), brown, and dark green sand crystals, moist, hydrocarbon odor						650	
21.0				20					
		WELL GRADED SAND WITH GRAVEL (SW), brown, wet, hydrocarbon odor			▽			-	
								-	
25.0				25				762	
		Boring Terminated at 25 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *While Drilling*

▽ *After Drilling*

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 7/21/2014 | Boring Completed: 7/21/2014

Drill Rig: CME-75 | Driller: Enviro-Drill

Project No.: 66127029.3 | Exhibit: B-9

BORING LOG NO. B-10/MW-10

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

LOCATION: Southwest corner of Dair Queen

DEPTH	GRAPHIC LOG		INSTALLATION DETAILS	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PID	DRY UNIT WEIGHT (pcf)
1.7		**SILT (ML)**, brown, moist						0.6	
9.0		**LEAN CLAY (CL)**, brown, moist, no hydrocarbon odor		5				-	
								0.0	
								0.0	
14.0		**SANDY SILT (ML)**, fine grained, brown, moist, no hydrocarbon odor		10				-	
								0.0	
								0.0	
20.0		**LEAN CLAY (CL)**, brown, moist, no hydrocarbon odor		15	▽			4000+	
								4000+	
								4000+	
25.0		**WELL GRADED SAND WITH GRAVEL (SW)**, gray, moist, hydrocarbon odor -becomes wet		20	▽			4000+	
								-	
		Boring Terminated at 25 Feet		25					

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *While Drilling*

▽ *After Drilling*

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 7/21/2014 | Boring Completed: 7/21/2014

Drill Rig: CME-75 | Driller: Eviro-Drill

Project No.: 66127029.3 | Exhibit: B-10

BORING LOG NO. B-11/MW-11

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

LOCATION: South Dairy Queen boundary, east of driveway entrace

DEPTH	GRAPHIC LOG		INSTALLATION DETAILS	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PID	DRY UNIT WEIGHT (pcf)
0.4		**SILT (ML)**, brown, moist							
		LEAN CLAY (CL), brown, moist, no hydrocarbon odor						0.0	
								-	
				5				0.0	
7.0		**SILT (ML)**, brown, moist, no hydrocarbon odor						0.0	
								-	
				10				0.0	
		-becomes gray						8.1	
				15	▽			4000+	
17.0		**LEAN CLAY (CL)**, brown, moist, calcarious fissures, hydrocarbon odor						4000+	
		-becomes wet			▽			4000+	
21.0		**WELL GRADED SAND WITH GRAVEL (SW)**, brown, wet, hydrocarbon odor		20				1690	
								-	
25.0		***Boring Terminated at 25 Feet***		25					

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

▽ *While Drilling*

▽ *After Drilling*

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 7/22/2014 | Boring Completed: 7/22/2014

Drill Rig: CME-75 | Driller: Enviro-Drill

Project No.: 66127029.3 | Exhibit: B-11

BORING LOG NO. B-12/MW-12

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

LOCATION: On the northeast corner of Murphy's Express

DEPTH		PID	DRY UNIT WEIGHT (pcf)
1.0	**SILTY GRAVEL WITH SAND**, brown, 3/4-inch base course, moist		
	No Recovery	5.8	
		no recovery	
		no recovery	
		no recovery	
10.0		no recovery	
10.5	**LEAN CLAY (CL)**, brown, moist		
	SILT (ML), brown, moist	2.6	
		2.0	
		1.0	
		3.0	
		3.6	
23.0		1.1	
	CALICHE (CL), dark brown, with white calcarous material	2.4	
27.0		2.4	
	WELL GRADED SAND WITH GRAVEL (SW), grayish-brown, wet		

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While Drilling

After Drilling

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 8/21/2014 | Boring Completed: 8/21/2014

Drill Rig: CME-75 | Driller: Enviro-Drill

Project No.: 66127029.3 | Exhibit: B-12

BORING LOG NO. B-12/MW-12

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

GRAPHIC LOG	LOCATION: On the northeast corner of Murphy's Express DEPTH		DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PID	DRY UNIT WEIGHT (pcf)
SW	**WELL GRADED SAND WITH GRAVEL (SW)**, grayish-brown, wet *(continued)* 30.0		30				1.1	
	Boring Terminated at 30 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While Drilling

After Drilling

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 8/21/2014 | Boring Completed: 8/21/2014

Drill Rig: CME-75 | Driller: Enviro-Drill

Project No.: 66127029.3 | Exhibit: B-12

BORING LOG NO. B-13/MW-13

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

LOCATION: In the field south of Fairview Station

DEPTH	Description	PID
3.0	**SANDY SILT (ML)**, brown, moist, no hydrocarbon odor	6.6
9.0	**LEAN CLAY (ML)**, brown, moist, no hydrocarbon odor	7.2, 5.7, 4.6
13.0	**SILTY CLAY (CL-ML)**, brown, moist, no hydrocarbon odor	6.2, 16.0
15.0	**LEAN CLAY (CL)**, brown, moist, no hydrocarbon odor	-
17.0	**SILTY CLAY (CL-ML)**, brown, moist, hydrocarbon odor	2390
21.0	**LEAN CLAY (CL)**, brown, moist, hydrocarbon odor	4000+, 4000+
24.0	**WELL GRADED SAND (SW)**, grayish-brown, wet	102, 41.4
	at 24 Feet	

INSTALLATION DETAILS

DEPTH (Ft.): 5, 10, 15, 20

WATER LEVEL OBSERVATIONS

SAMPLE TYPE

FIELD TEST RESULTS

PID

DRY UNIT WEIGHT (pcf)

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While Drilling

After Drilling

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 7/18/2014 | Boring Completed: 7/18/2024

Drill Rig: CME-75 | Driller: Enviro-Drill

Project No.: 66127029.3 | Exhibit: B-13

BORING LOG NO. B-14/MW-14

PROJECT: Fairview Station

CLIENT: Ms. Lucille Roybal
2312 Bia Seville Court NE

SITE: 1626 North Riverside Drive
Espanola, New Mexico

Albuquerque, New Mexico

LOCATION: On the northwest corner of Fairview Station

DEPTH		INSTALLATION DETAILS	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	PID	DRY UNIT WEIGHT (pcf)
0.5	**ASPHALT**							
	SANDY LEAN CLAY (CL), brown, moist						0.0	
							no recovery	
			5				0.0	
8.0							0.0	
	SANDY SILT (ML), brown, moist							
10.0							0.1	
	SILT (ML), brown, moist		10				0.0	
							3.0	
	-becomes dark brown, hydrocarbon odor							
15.0							no recovery	
	LEAN CLAY (CL), brown, moist, very firm, hydrocarbon odor		15				4000+	
20.0							4000+	
	CALICHE (CL), brown, with white calcarous material, moist, hydrocarbon odor		20				4000+	
23.0								
24.0	**LEAN CLAY WITH GRAVEL (CL)**, dark brown, wet, hydrocarbon odor						43.0	
25.0	**SANDY SILT (ML)**, brown, wet, hydrocarbon odor		25					
	Boring Terminated at 25 Feet							

Stratification lines are approximate. In-situ, the transition may be gradual.

Advancement Method:
Hollow stem auger

Abandonment Method:
Borings backfilled with cement-bentonite grout upon completion.

See Exhibit B for description of field procedures

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix B for explanation of symbols and abbreviations.

Notes:

WATER LEVEL OBSERVATIONS

While Drilling

After Drilling

Terracon
4905 Hawkins, NE
Albuquerque, New Mexico

Boring Started: 8/21/2014 | Boring Completed: 8/21/2014

Drill Rig: CME-75 | Driller: Enviro-Drill

Project No.: 66127029.3 | Exhibit: B-14

HCL-52359 #30

File No. RG-93769

NEW MEXICO OFFICE OF THE STATE ENGINEER

APPLICATION FOR PERMIT TO DRILL A WELL WITH NO CONSUMPTIVE USE OF WATER

(check applicable box):

For fees, see State Engineer website: http://www.ose.state.nm.us/

Purpose:	☐ Pollution Control And / Or Recovery	☐ Geo-Thermal
☐ Exploratory	☐ Construction Site De-Watering	☐ Other (Describe):
☒ Monitoring	☐ Mineral De-Watering	

A separate permit will be required to apply water to beneficial use.

☐ Temporary Request - Requested Start Date: Requested End Date:

Plugging Plan of Operations Submitted? ☐ Yes ☒ No

1. APPLICANT(S)

Name: Jose C. Roybal	Name:
Contact or Agent: check here if Agent ☑ Lucille Roybal	Contact or Agent: check here if Agent ☐
Mailing Address: 2312 Via Seville Ct. NW	Mailing Address:
City: Albuquerque	City:
State: New Mexico Zip Code: 87104	State: Zip Code:
Phone: (505) 980-4678 ☐ Home ☑ Cell Phone (Work): (505) 284-6655	Phone: ☐ Home ☐ Cell Phone (Work):
E-mail (optional): lmroybal@sundia.gov	E-mail (optional):

2014 MAR 25 PM 1:26

FOR OSE INTERNAL USE — Application for Permit, Form wr-07, Rev 8/25/11

File Number: RG-93769	Trn Number: 543821
Trans Description (optional):	
Sub-Basin:	
PCW/LOG Due Date: 3-28-15	

2. WELL(S) Describe the well(s) applicable to this application.

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84)

☐ NM State Plane (NAD83) (Feet) ☐ NM West Zone ☐ NM East Zone ☐ NM Central Zone

☐ UTM (NAD83) (Meters) ☐ Zone 12N ☐ Zone 13N

☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

Well Number (if known):	X or Easting or Latitude:	Y or Northing or Longitude:	Optional: Complete boxes labeled "Other" below with PLSS (Public Land Survey System, i.e. Quarters, Section, Township, Range); Hydrographic Survey Map & Tract; Lot, Block & Subdivision; OR Land Grant Name if known.
MW-9	36°01'01.3"	106°03'50.7"	
MW-10	36°01'0.7"	106°03'51.1"	
MW-11	36°01'0.7"	106°03'50.0"	
MW-12	36°01'0.0"	106°03'52.5"	
MW-13	36°00'58.3"	106°03'51.0"	

NOTE: If more well locations need to be described, complete form WR-08 (Attachment 1 – POD Descriptions)
Additional well descriptions are attached: ☒ Yes ☐ No If yes, how many 1

Other description relating well to common landmarks, streets, or other: The wells will be installed in the vicinity of the intersection of N. Riverside Dr. and Calle Ranchitos in Espanola, New Mexico.

Well is on land owned by: Dairy Queen of Espanola

Well Information: NOTE: If more than one (1) well needs to be described, provide attachment. Attached? ☐ Yes ☐ No
If yes, how many_____

Approximate depth of well (feet):	Outside diameter of well casing (inches):
Driller Name:	Driller License Number:

3. ADDITIONAL STATEMENTS OR EXPLANATIONS

The wells are being installed to delineate groundwater impacts of gasoline and will be monitored for at least one year. The wells will be additional PODs for RG-93769

FOR OSE INTERNAL USE Application for Permit, Form wr-07

File Number: RG-93769 Trn Number: 543621

NEW MEXICO OFFICE OF THE STATE ENGINEER

ATTACHMENT 1
POINT OF DIVERSION (POD) DESCRIPTIONS

This Attachment is to be completed if more points of diversion need to be described on an Application or Declaration.

☐ **Surface Point of Diversion(s)** ☒ **Well(s)**

Name of ditch, acequia, or spring:

Stream or water course:

Tributary of:

POD Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84)

☐ NM State Plane (NAD83) (Feet)
☐ NM West Zone
☐ NM East Zone
☐ NM Central Zone

☐ UTM (NAD83) (Meters)
☐ Zone 12N
☐ Zone 13N

☒ Lat/Long (WGS84) (to the nearest 1/10th of second)

POD Number (if known): Please also indicate if POD is Move-To or Move-From.	**X or Easting or Latitude:**	**Y or Northing or Longitude:**	**Optional: Complete below with PLSS (Public Land Survey System, i.e. Quarters, Section, Township, Range); Hydrographic Survey Map & Tract; Lot, Block & Subdivision; OR Land Grant Name if known.**
POD #: MW-14 ☐ To ☐ From	36°01'02.1"	106°03'50.7"	
POD #: ☐ To ☐ From			
POD #: ☐ To ☐ From			
POD #: ☐ To ☐ From			
POD #: ☐ To ☐ From			
POD #: ☐ To ☐ From			
POD #: ☐ To ☐ From			

2014 MAR 25 PM 1:26

FOR OSE INTERNAL USE

Form wr-08
POD DESCRIPTIONS - ATTACHMENT 1

File Number: RG-93769 Trn Number: 543821

Trans Description (optional):

4. SPECIFIC REQUIREMENTS: The applicant must include the following, as applicable to each well type. Please check the appropriate boxes, to indicate the information has been included and/or attached to this application:

Exploratory:	**Pollution Control and/or Recovery:**	**Construction Dewatering:**	**Mine De-Watering:**
☐ Include a description of any proposed pump test, if applicable.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for the pollution control or recovery operation. ☐ The estimated maximum period of time for completion of the operation. ☐ The annual diversion amount. ☐ The annual consumptive use amount. ☐ The maximum amount of water to be diverted and injected for the duration of the operation. ☐ The method and place of discharge. ☐ The method of measurement of water produced and discharged. ☐ The source of water to be injected. ☐ The method of measurement of water injected. ☐ The characteristics of the aquifer. ☐ The method of determining the resulting annual consumptive use of water and depletion from any related stream system. ☐ Proof of any permit required from the New Mexico Environment Department. ☐ An access agreement if the applicant is not the owner of the land on which the pollution plume control or recovery well is to be located.	☐ Include a description of the proposed dewatering operation, ☐ The estimated duration of the operation, ☐ The maximum amount of water to be diverted, ☐ A description of the need for the dewatering operation, and, ☐ A description of how the diverted water will be disposed of.	☐ Include a plan for pollution control/recovery, that includes the following: ☐ A description of the need for mine dewatering. ☐ The estimated maximum period of time for completion of the operation. ☐ The source(s) of the water to be diverted. ☐ The geohydrologic characteristics of the aquifer(s). ☐ The maximum amount of water to be diverted per annum. ☐ The maximum amount of water to be diverted for the duration of the operation. ☐ The quality of the water. ☐ The method of measurement of water diverted. ☐ The recharge of water to the aquifer. ☐ Description of the estimated area of hydrologic effect of the project. ☐ The method and place of discharge. ☐ An estimation of the effects on surface water rights and underground water rights from the mine dewatering project. ☐ A description of the methods employed to estimate effects on surface water rights and underground water rights. ☐ Information on existing wells, rivers, springs, and wetlands within the area of hydrologic effect.
Monitoring: ☑ Include the reason for the monitoring well, and, ☑ The duration of the planned monitoring.		**Geo-Thermal:** ☐ Include a description of the geothermal heat exchange project, ☐ The amount of water to be diverted and re-injected for the project, ☐ The time frame for constructing the geothermal heat exchange project, and, ☐ The duration of the project. ☐ Preliminary surveys, design data, and additional information shall be included to provide all essential facts relating to the request.	

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Jose C Roybal Lucille Roybal
Print Name(s)

affirm that the foregoing statements are true to the best of (my, our) knowledge and belief.

Jose C Roybal
Applicant Signature

Lucille Roybal
Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☒ approved ☐ partially approved ☐ denied

provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare and further subject to the attached conditions of approval.

Witness my hand and seal this 28th day of March 20 14, for the State Engineer.

SCOTT A. VERHINES P.E.
STATE ENGINEER, State Engineer

By: Rico J. Blea
Signature

Rico J. Blea
Print

Title: Water Resource Specialists / District III
Print

FOR OSE INTERNAL USE Application for Permit, Form wr-07

File Number: R6- 93769	Trn Number: 543 421

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL

4 No water shall be appropriated and beneficially used under this permit.

6 The well shall be plugged upon completion of the permitted use, and a plugging report shall be filed with the State Engineer within 10 days.

B The well shall be drilled by a driller licensed in the State of New Mexico in accordance with Section 72-12-12 New Mexico Statutes Annotated.

C Driller's well record must be filed with the State Engineer within 20 days after the well is drilled or driven. Well record forms will be provided by the State Engineer upon request.

G If artesian water is encountered, all rules and regulations pertaining to the drilling and casing of artesian wells shall be complied with.

LOG The Point of Diversion RG 93769 POD 10 must be completed and the Well Log filed on or before 03/28/2015.

LOG The Point of Diversion RG 93769 POD 11 must be completed and the Well Log filed on or before 03/28/2015.

LOG The Point of Diversion RG 93769 POD 12 must be completed and the Well Log filed on or before 03/28/2015.

LOG The Point of Diversion RG 93769 POD 13 must be completed and the Well Log filed on or before 03/28/2015.

Trn Desc: RG 93769 File Number: RG 93769
Trn Number: 543821

NEW MEXICO STATE ENGINEER OFFICE
PERMIT TO EXPLORE

SPECIFIC CONDITIONS OF APPROVAL (Continued)

LOG The Point of Diversion RG 93769 POD 14 must be completed and the Well Log filed on or before 03/28/2015.

LOG The Point of Diversion RG 93769 POD 9 must be completed and the Well Log filed on or before 03/28/2015.

ACTION OF STATE ENGINEER

Notice of Intention Rcvd:	Date Rcvd. Corrected:
Formal Application Rcvd: 03/25/2014	Pub. of Notice Ordered:
Date Returned - Correction:	Affidavit of Pub. Filed:

This application is approved provided it is not exercised to the detriment of any others having existing rights, and is not contrary to the conservation of water in New Mexico nor detrimental to the public welfare of the state; and further subject to the specific conditions listed previously.

Witness my hand and seal this 28 day of Mar A.D., 2014

Scott A. Verhines, P.E., State Engineer

By: Rico Blea
Rico Blea

Trn Desc: RG 93769

File Number: RG 93769
Trn Number: 543821

Locator Tool Report

General Information:

Application ID:29 Date: 03-28-2014 Time: 08:53:17

WR File Number: RG-93769
Purpose: OTHER

Applicant First Name: JOSE ROYBAL
Applicant Last Name: MW-9

GW Basin: RIO GRANDE
County: RIO ARRIBA

Critical Management Area Name(s): WATERS USE ONLY; SUBBASIN - NRG
Special Condition Area Name(s): NONE
Land Grant Name: SAN JUAN PUEBLO

PLSS Description (New Mexico Principal Meridian):

PLSS description is not available for this location.

Coordinate System Details:

Geographic Coordinates:

Latitude:	36 Degrees	1 Minutes	1.3 Seconds	N
Longitude:	106 Degrees	3 Minutes	50.9 Seconds	W

Universal Transverse Mercator Zone: 13N

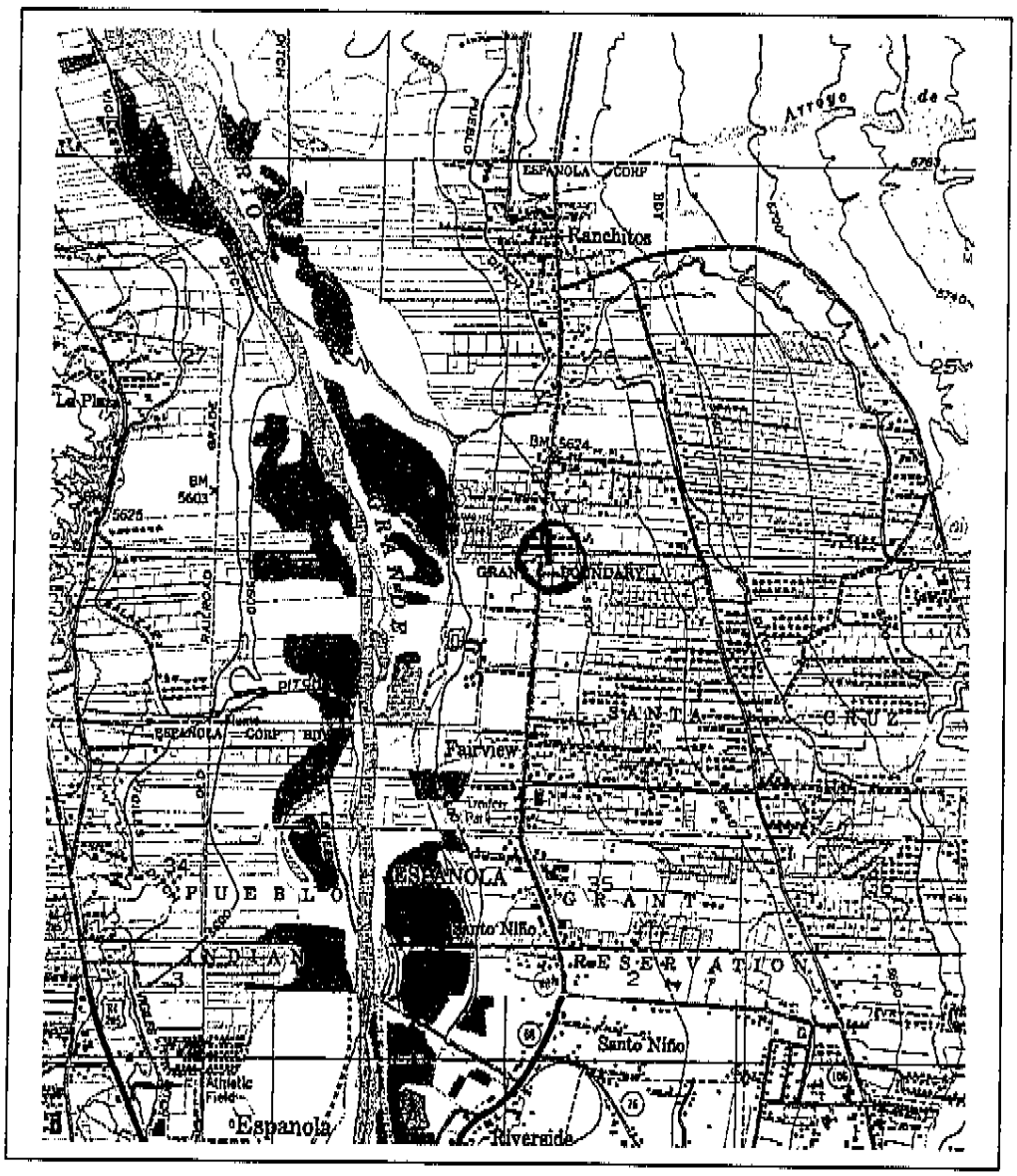
NAD 1983(92) (Meters)	N: 3,986,361	E: 404,111
NAD 1983(92) (Survey Feet)	N: 13,078,585	E: 1,325,820
NAD 1927 (Meters)	N: 3,986,157	E: 404,160
NAD 1927 (Survey Feet)	N: 13,077,917	E: 1,325,983

State Plane Coordinate System Zone: New Mexico Central

NAD 1983(92) (Meters)	N: 556,418	E: 516,753
NAD 1983(92) (Survey Feet)	N: 1,825,515	E: 1,695,379
NAD 1927 (Meters)	N: 556,399	E: 169,206
NAD 1927 (Survey Feet)	N: 1,825,452	E: 555,135

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RG-93769 Scale: 1:30,132

Northing/Easting: UTM83(92) (Meter): N: 3,986,361 E: 404,111

Northing/Easting: SPCS83(92) (Feet): N: 1,825,515 E: 1,695,379

GW Basin: Rio Grande

Print Date: 03/28/2014

MW-9

Locator Tool Report

General Information:

Application ID:29 Date: 03-28-2014 Time: 08:51:18

WR File Number: RG-93769
Purpose: OTHER

Applicant First Name: JOSE ROYBAL
Applicant Last Name: MW-10

GW Basin: RIO GRANDE
County: RIO ARRIBA

Critical Management Area Name(s): WATERS USE ONLY: SUBBASIN - NRG
Special Condition Area Name(s): NONE
Land Grant Name: SAN JUAN PUEBLO

PLSS Description (New Mexico Principal Meridian):

PLSS description is not available for this location.

Coordinate System Details:

Geographic Coordinates:

Latitude:	36 Degrees	1 Minutes	0.7 Seconds	N
Longitude:	106 Degrees	3 Minutes	51.1 Seconds	W

Universal Transverse Mercator Zone: 13N

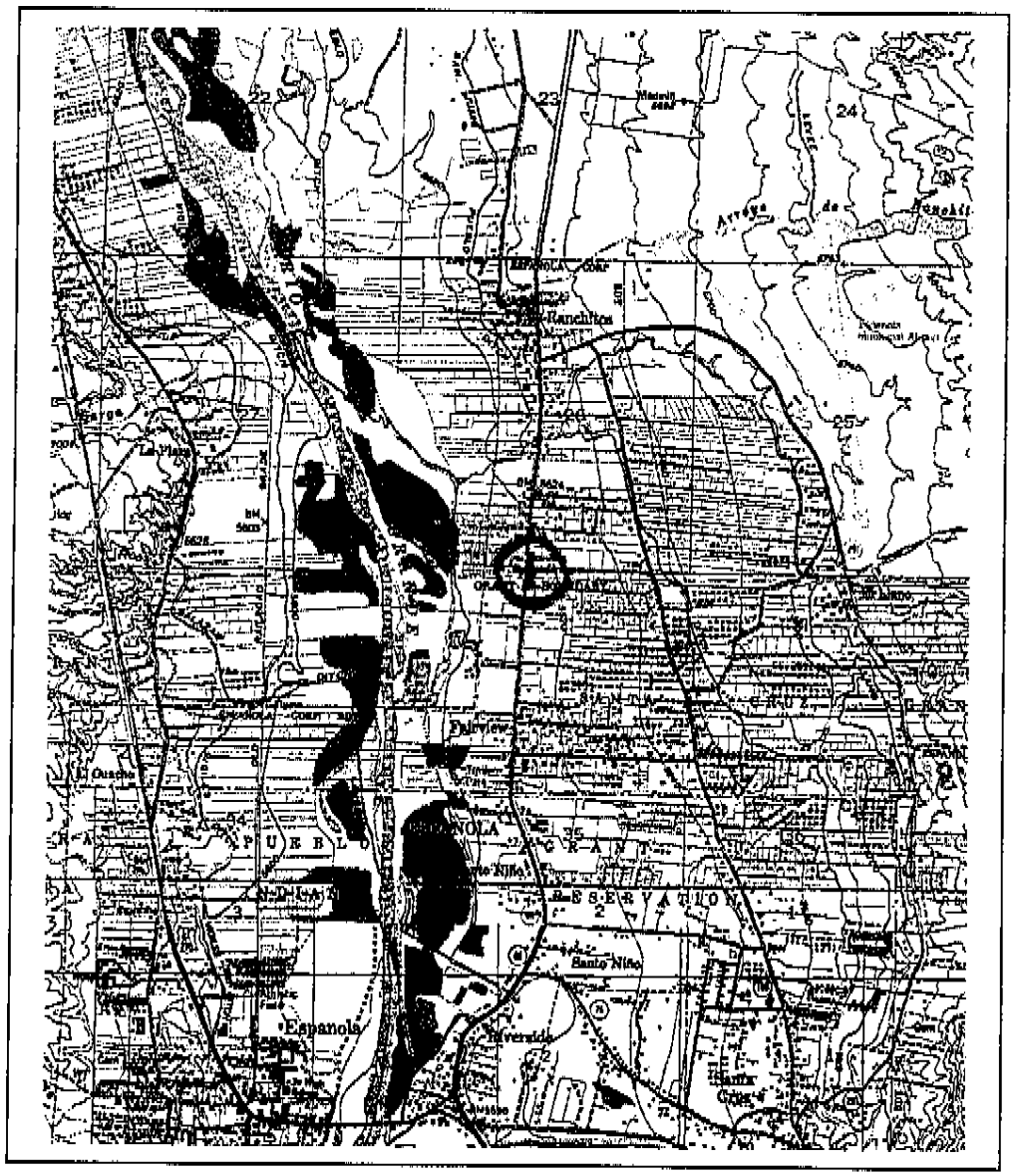
NAD 1983(92) (Meters)	N: 3,986,342	E: 404,105
NAD 1983(92) (Survey Feet)	N: 13,078,525	E: 1,325,802
NAD 1927 (Meters)	N: 3,986,139	E: 404,155
NAD 1927 (Survey Feet)	N: 13,077,857	E: 1,325,966

State Plane Coordinate System Zone: New Mexico Central

NAD 1983(92) (Meters)	N: 556,400	E: 516,748
NAD 1983(92) (Survey Feet)	N: 1,825,454	E: 1,695,363
NAD 1927 (Meters)	N: 556,380	E: 169,201
NAD 1927 (Survey Feet)	N: 1,825,392	E: 555,119

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RG-93769 Scale: 1:37,967

Northing/Easting: UTM83(92) (Meter): N: 3,986,342 E: 404,105

Northing/Easting: SPCS83(92) (Feet): N: 1,825,454 E: 1,695,363

GW Basin: Rio Grande

Print Date: 03/28/2014

MW-10

Locator Tool Report

General Information:

Application ID:29 Date: 03-28-2014 Time: 08:50:01

WR File Number: RG-93769
Purpose: OTHER

Applicant First Name: JOSE ROYBAL
Applicant Last Name: MW-11

GW Basin: RIO GRANDE
County: RIO ARRIBA

Critical Management Area Name(s): WATERS USE ONLY: SUBBASIN - NRG
Special Condition Area Name(s): NONE
Land Grant Name: SAN JUAN PUEBLO

PLSS Description (New Mexico Principal Meridian):

PLSS description is not available for this location.

Coordinate System Details:

Geographic Coordinates:

Latitude:	36 Degrees	1 Minutes	0.7 Seconds	N
Longitude:	106 Degrees	3 Minutes	50.0 Seconds	W

Universal Transverse Mercator Zone: 13N

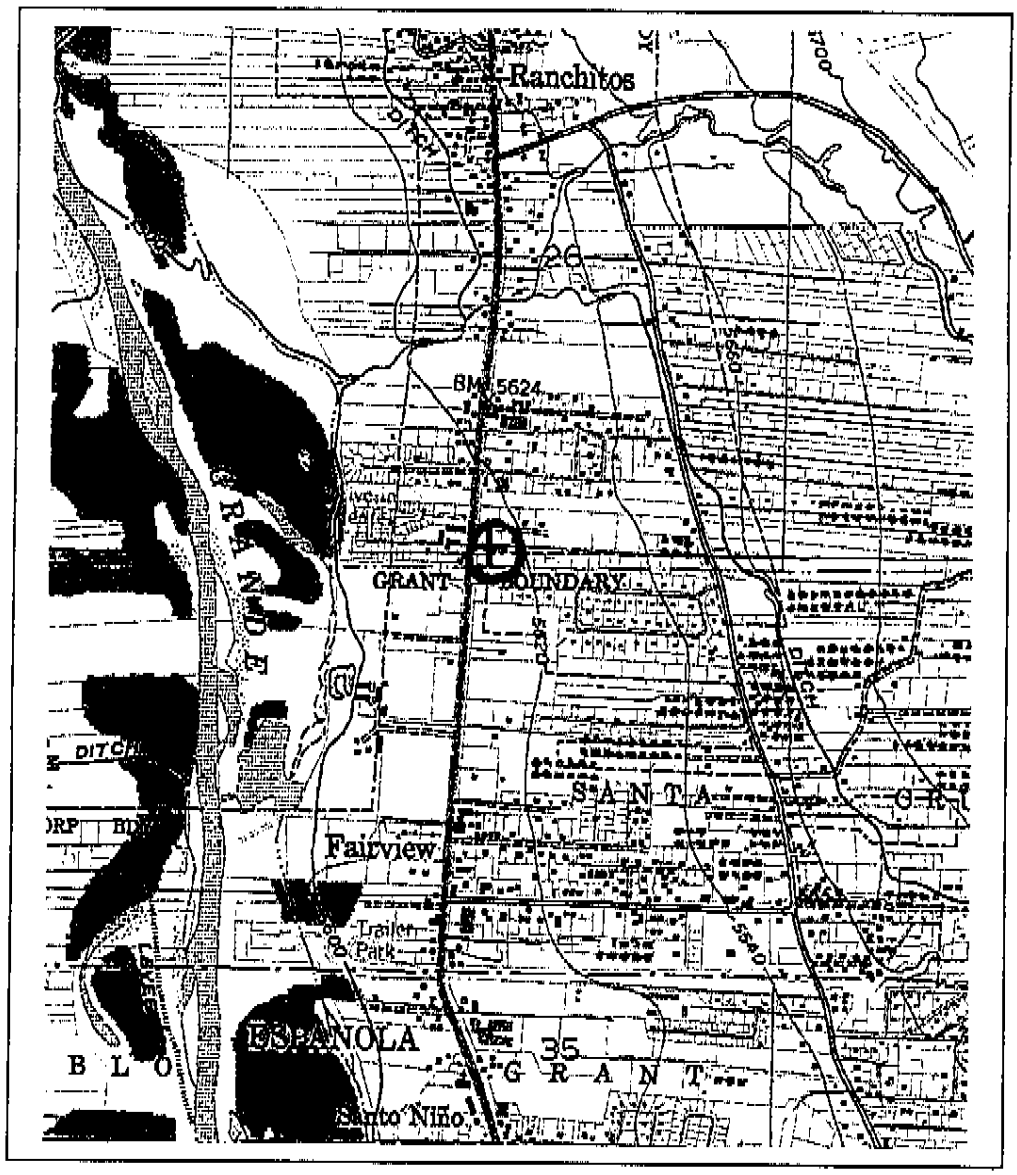
NAD 1983(92) (Meters)	N: 3,986,342	E: 404,133
NAD 1983(92) (Survey Feet)	N: 13,078,524	E: 1,325,893
NAD 1927 (Meters)	N: 3,986,138	E: 404,183
NAD 1927 (Survey Feet)	N: 13,077,856	E: 1,326,056

State Plane Coordinate System Zone: New Mexico Central

NAD 1983(92) (Meters)	N: 556,400	E: 516,775
NAD 1983(92) (Survey Feet)	N: 1,825,454	E: 1,695,453
NAD 1927 (Meters)	N: 556,381	E: 169,228
NAD 1927 (Survey Feet)	N: 1,825,392	E: 555,209

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RG-93769 Scale: 1:20,088

Northing/Easting: UTM83(92) (Meter): N: 3,986,342 E: 404,133

Northing/Easting: SPCS83(92) (Feet): N: 1,825,454 E: 1,695,453

GW Basin: Rio Grande

Print Date: 03/28/2014

MW-11

Locator Tool Report

General Information:

Application ID:29 Date: 03-28-2014 Time: 08:48:43

WR File Number: RG-93769
Purpose: OTHER

Applicant First Name: JOSE ROYBAL
Applicant Last Name: MW-12

GW Basin: RIO GRANDE
County: RIO ARRIBA

Critical Management Area Name(s): WATERS USE ONLY: SUBBASIN - NRG
Special Condition Area Name(s): NONE
Land Grant Name: SAN JUAN PUEBLO

PLSS Description (New Mexico Principal Meridian):

PLSS description is not available for this location.

Coordinate System Details:

Geographic Coordinates:

Latitude:	36 Degrees	0 Minutes	60.0 Seconds	N
Longitude:	106 Degrees	3 Minutes	52.5 Seconds	W

Universal Transverse Mercator Zone: 13N

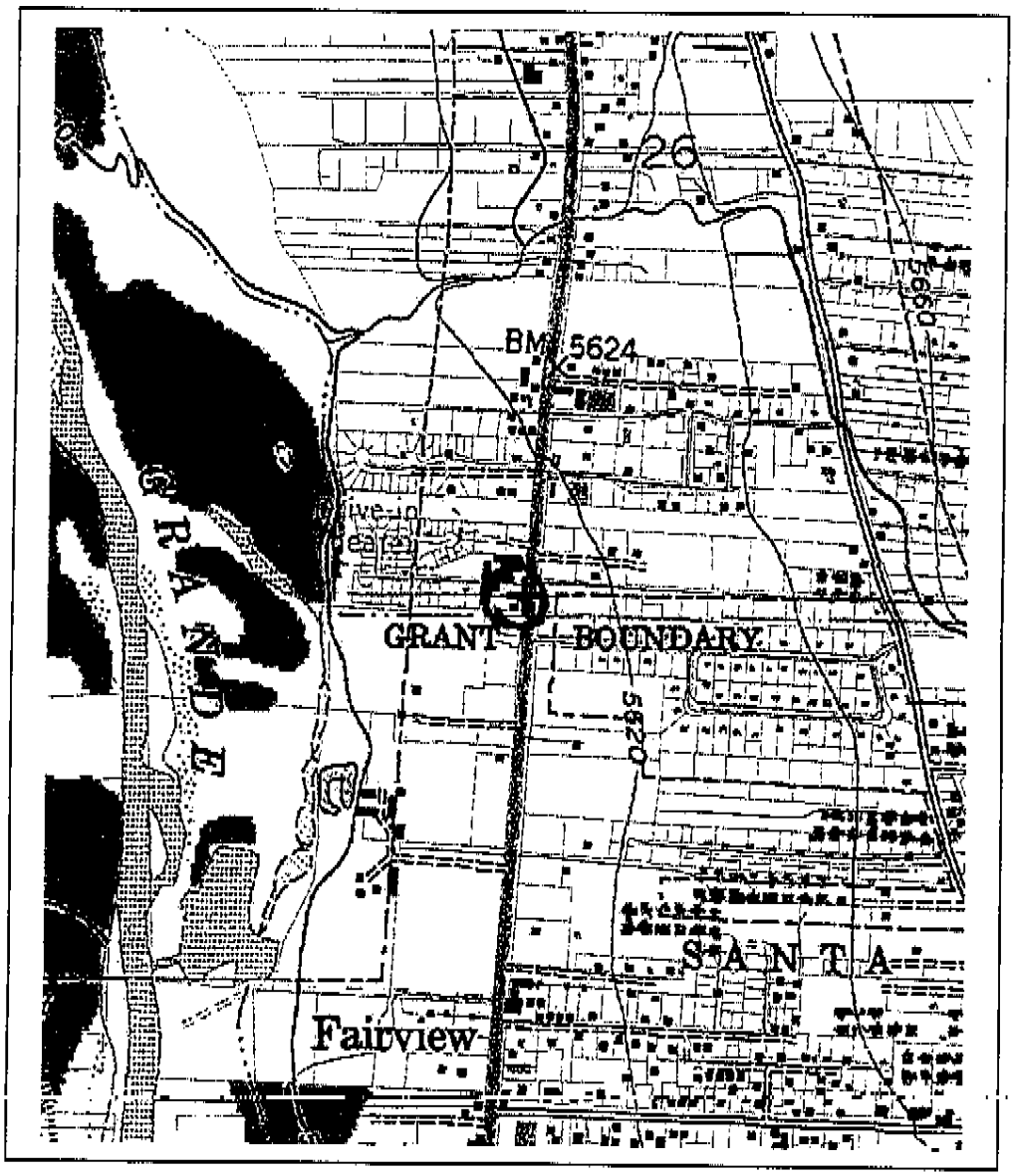
NAD 1983(92) (Meters)	N: 3,986,321	E: 404,070
NAD 1983(92) (Survey Feet)	N: 13,078,455	E: 1,325,687
NAD 1927 (Meters)	N: 3,986,117	E: 404,120
NAD 1927 (Survey Feet)	N: 13,077,787	E: 1,325,850

State Plane Coordinate System Zone: New Mexico Central

NAD 1983(92) (Meters)	N: 556,378	E: 516,713
NAD 1983(92) (Survey Feet)	N: 1,825,383	E: 1,695,248
NAD 1927 (Meters)	N: 556,359	E: 169,166
NAD 1927 (Survey Feet)	N: 1,825,321	E: 555,004

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RG-93769 Scale: 1:13,371

Northing/Easting: UTM83(92) (Meter): N: 3,986,321 E: 404,070

Northing/Easting: SPCS83(92) (Feet): N: 1,825,383 E: 1,695,248

GW Basin: Rio Grande

Print Date: 03/28/2014

MW-12

Locator Tool Report

General Information:

Application ID:29 Date: 03-28-2014 Time: 08:47:52

WR File Number: RG-93769
Purpose: OTHER

Applicant First Name: JOSE ROYBAL
Applicant Last Name: MW-13

GW Basin: RIO GRANDE
County: RIO ARRIBA

Critical Management Area Name(s): WATERS USE ONLY: SUBBASIN - NRG
Special Condition Area Name(s): NONE
Land Grant Name: SANTA CRUZ

PLSS Description (New Mexico Principal Meridian):

PLSS description is not available for this location.

Coordinate System Details:

Geographic Coordinates:

Latitude:	36 Degrees	0 Minutes	58.3 Seconds	N
Longitude:	106 Degrees	3 Minutes	51.0 Seconds	W

Universal Transverse Mercator Zone: 13N

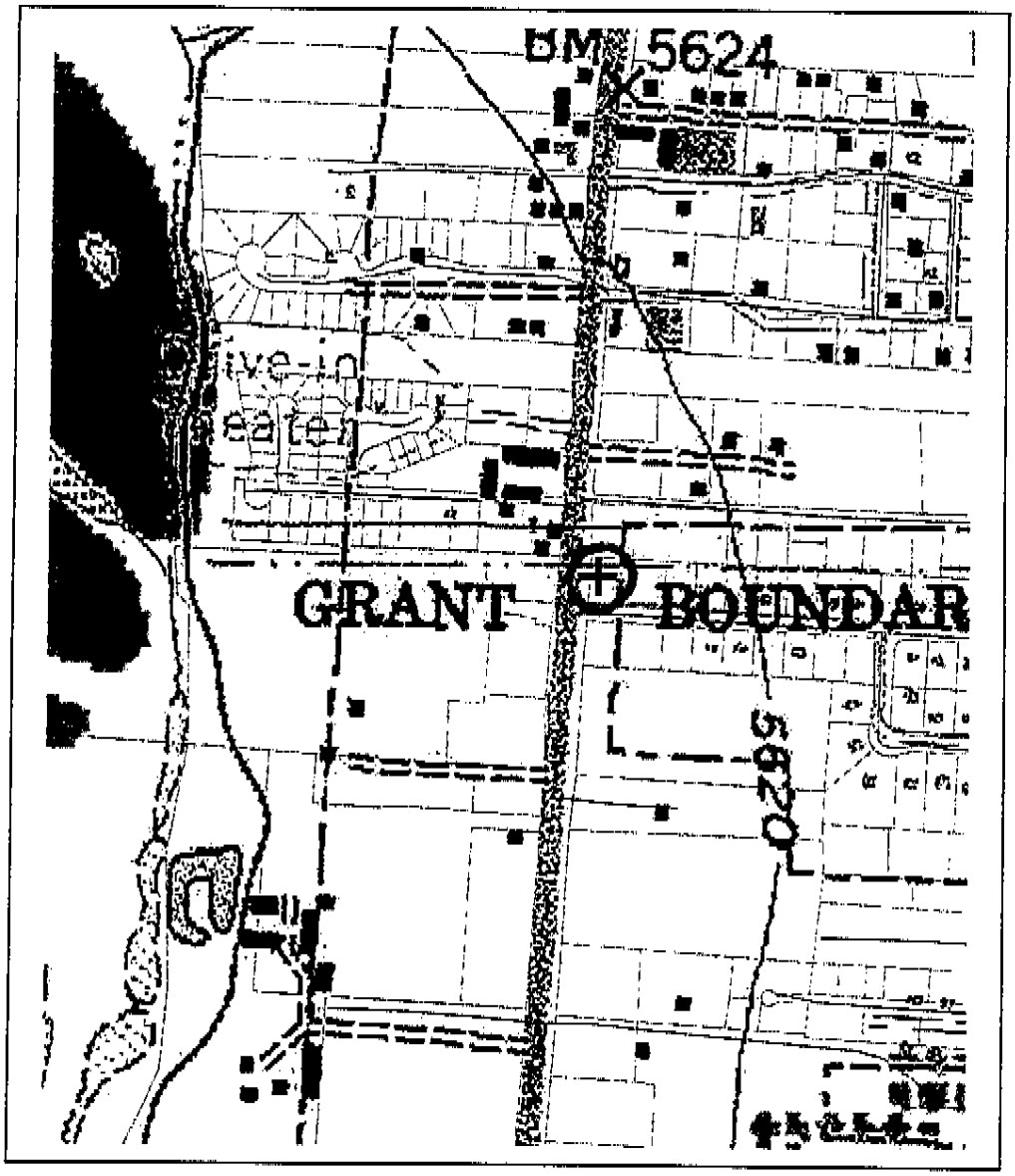
NAD 1983(92) (Meters)	N: 3,986,268	E: 404,107
NAD 1983(92) (Survey Feet)	N: 13,078,282	E: 1,325,808
NAD 1927 (Meters)	N: 3,986,065	E: 404,157
NAD 1927 (Survey Feet)	N: 13,077,614	E: 1,325,972

State Plane Coordinate System Zone: New Mexico Central

NAD 1983(92) (Meters)	N: 556,326	E: 516,750
NAD 1983(92) (Survey Feet)	N: 1,825,212	E: 1,695,372
NAD 1927 (Meters)	N: 556,307	E: 169,203
NAD 1927 (Survey Feet)	N: 1,825,149	E: 555,128

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RG-93769 Scale: 1:7,007

Northing/Easting: UTM83(92) (Meter): N: 3,986,268 E: 404,107

Northing/Easting: SPCS83(92) (Feet): N: 1,825,212 E: 1,695,372

GW Basin: Rio Grande

Print Date: 03/28/2014

MW-13

Locator Tool Report

General Information:

Application ID:29 Date: 03-28-2014 Time: 08:45:43

WR File Number: RG-93769
Purpose: OTHER

Applicant First Name: JOSE ROYBAL
Applicant Last Name: MW-14

GW Basin: RIO GRANDE
County: RIO ARRIBA

Critical Management Area Name(s): WATERS USE ONLY: SUBBASIN - NRG
Special Condition Area Name(s): NONE
Land Grant Name: SAN JUAN PUEBLO

PLSS Description (New Mexico Principal Meridian):

PLSS description is not available for this location.

Coordinate System Details:

Geographic Coordinates:

Latitude:	36 Degrees	1 Minutes	2.1 Seconds	N
Longitude:	106 Degrees	3 Minutes	50.9 Seconds	W

Universal Transverse Mercator Zone: 13N

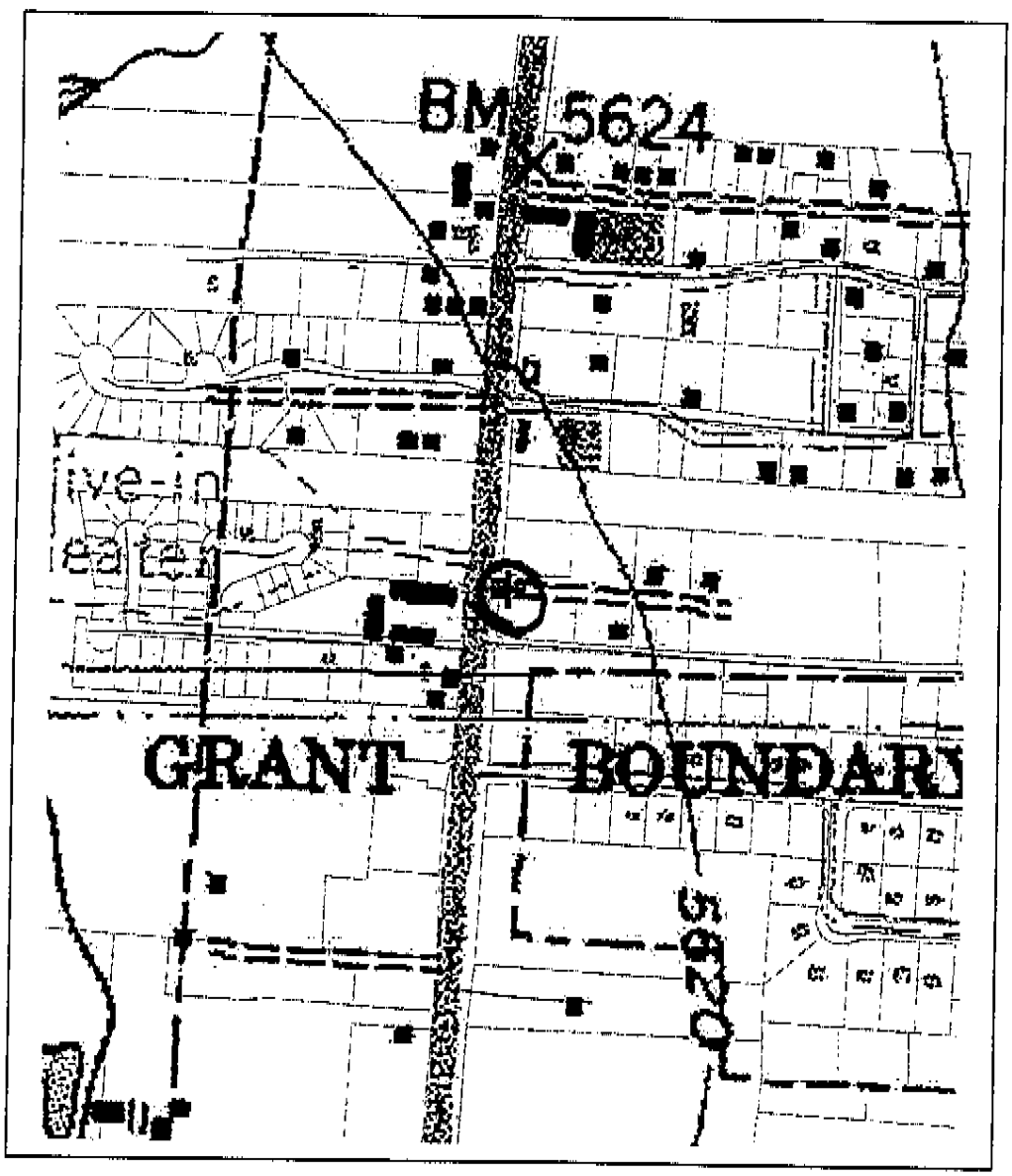
NAD 1983(92) (Meters)	N: 3,986,385	E: 404,111
NAD 1983(92) (Survey Feet)	N: 13,078,666	E: 1,325,820
NAD 1927 (Meters)	N: 3,986,182	E: 404,161
NAD 1927 (Survey Feet)	N: 13,077,998	E: 1,325,984

State Plane Coordinate System Zone: New Mexico Central

NAD 1983(92) (Meters)	N: 556,443	E: 516,753
NAD 1983(92) (Survey Feet)	N: 1,825,596	E: 1,695,379
NAD 1927 (Meters)	N: 556,424	E: 169,205
NAD 1927 (Survey Feet)	N: 1,825,533	E: 555,135

NEW MEXICO OFFICE OF STATE ENGINEER

Locator Tool Report



WR File Number: RG-93769 Scale: 1:5,958

Northing/Easting: UTM83(92) (Meter): N: 3,986,385 E: 404,111

Northing/Easting: SPCS83(92) (Feet): N: 1,825,596 E: 1,695,379

GW Basin: Rio Grande

Print Date: 03/28/2014

MW-14

Scott A. Verhines, P.E.
State Engineer

Santa Fe Office
PO BOX 25102
SANTA FE, NM 87504-5102

STATE OF NEW MEXICO

Trn Nbr: 543821
File Nbr: RG 93769

OFFICE OF THE STATE ENGINEER

Mar. 28, 2014

JOSE ROYBAL
2312 VIA SEVILLE CT NW
ALBUQUERQUE, NM 87104

Greetings:

Enclosed is your copy of the above numbered permit that has been approved subject to the conditions set forth on the approval page. In accordance with the conditions of approval, the well can only be tested for 10 cumulative days, and the well is to be plugged on or before 03/28/2015, unless a permit to use the water is acquired from this office.

A Well Record & Log (OSE Form wr-20) shall be filed in this office within twenty (20) days after completion of drilling, but no later than 03/28/2015.

Appropriate forms can be downloaded from the OSE website www.ose.state.nm.us or will be mailed upon request.

Sincerely,

Rico Blea
Rico Blea
(505)827-6120

Enclosure

explore

APPENDIX C

Summary Tables
Table 1 – Soil Sample Analytical Results
Table 2 – Groundwater Sample Analytical Results
Table 3 - NAPL Thickness and Groundwater Elevations

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS - BTEX/MTBE/EDC (8260B), EDB (504.1), PAHs (8270C), Lead (6010B) and TPH (8015B)

Fairview Station - Facility # 28779, Relese ID# 4657

1626 N. Riverside Drive, Espanola, New Mexico

Terracon Project No. 66127029

Sample I.D.	Sample Depth (ft)	Sample Date	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	EDB (µg/Kg)	EDC (mg/Kg)	PAHs[1] (mg/Kg)	Lead (mg/Kg)	TPH (TX1005 Rev. 3) (mg/Kg)		
												MRO	DRO	GRO
B-1/MW-1	15'	01/31/13	27	84	44	170	<2.5	<2.5	<2.5	NA[2]	NA	<48	350	1,800
B-2/MW-2	12.5'	01/31/13	6.0	19	12	51	2.5	<1.0	<1.0	NA	NA	<50	64	540
B-3/MW-3	17.5'	02/01/13	21	48	18	77	1.6	<1.0	<1.0	NA	NA	<49	85	970
B-4	22.5'	02/01/13	13	77	54	240	2.0	<1.0	<1.0	Naphthalene - 13 1-Methylnaphthalene - 9.2 2-Methylnaphthalene - 18 Fluorene - 0.079 Phenanthrene - 0.11 Fluoranthene - 0.026	2.8	<50	830	2,300
B-5	7.5'	02/01/13	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050	<0.050	NA	NA	<48	<9.7	<5.0
MW-4	7.5' - 10'	10/23/13	<0.050	<0.050	<0.050	<0.10	<0.050	<0.050	<0.050	NA	NA	<50	33	<10
MW-5	15' - 17.5'	10/23/13	<2.5	4.7	10	40	<2.5	<2.5	<2.5	NA	NA	<50	210	350
MW-6	12.5' - 15'	10/23/13	<1.0	8.0	16	59	<1.0	<1.0	<1.0	NA	NA	<51	380	720
MW-7	10' - 12.5'	10/24/13	5.1	76	61	280	<2.5	<2.5	<2.5	Naphthalene - 12 1-Methylnaphthalene - 7.7 2-Methylnaphthalene - 14 Fluorene - 0.026 Phenanthrene - 0.037	5.6	<500	1,100	2,300
MW-8	17.5' - 20'	10/24/13	13	30.0	11	43	1.9	<0.25	<0.25	NA	NA	<50	51	570
MW-9	16' - 18'	07/21/14	0.71	<0.34	9	35	<0.34	<0.5	<0.34	NA	NA	<49	130	780
MW-10	18' - 20'	07/21/14	0.63	11	11	39	<0.36	<0.5	<0.36	NA	NA	<49	150	70
MW-11	18' - 20'	07/22/14	14	65	33	140	<1.7	<0.5	<1.7	Naphthalene - 4.5 1-Methylnaphthalene - 2.1 2-Methylnaphthalene - 7.0 Phenanthrene - 0.065	5.2	<50	380	2,300
MW-12	24' - 26'	08/21/14	<0.038	<0.038	<0.038	<0.076	<0.038	<0.099	<0.019	NA	1.2	<50	<9.9	<3.8
MW-13	18' - 20'	07/18/14	1.9	<0.19	1.4	1.3	<0.19	<0.50	<0.19	NA	NA	<50	19	50
MW-14	20' - 22'	08/21/14	1.1	8.0	3.1	19	<0.5	6.7	0.42	NA	2	<50	54	700
Tier 1 Soil Concentrations Protective of Groundwater			0.02	2.09	17.23	2.91	0.04	0.0001	0.01	Total Naphthalene - 0.68 1-Methylnaphthalene - NP[3] 2-Methylnaphthalene - NP Fluorene - 196.12 Phenanthrene - 270.07 Fluoranthene - 1,247.59	53.08			

1 - Only consitiuents detected above laboratory reporting limits are listed

2 - NA = Not analyzed for this constituent

3 - NP = Not Published

TABLE 2

GROUNDWATER SAMPLE ANALYTICAL RESULTS - BTEX/MTBE/EDC (8260B), EDB (8011/504.1), PAHs (8270C), Disolved Lead (6010B) and TPH (8015B)

Fairview Station - Facility # 28779, Relese ID# 4657
1626 N. Riverside Drive, Espanola, New Mexico
Terracon Project No. 66127029

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	EDB (µg/L)	EDC (µg/L)	PAHs[1] (µg/L)	Dissolved Lead (mg/L)	TPH (TX1005 Rev. 3) (mg/Kg)		
											MRO	DRO	GRO
MW-1	02/04/13	16,000	21,000	3,700	14,000	3,900	<10	64	Naphthalene - 630 1-Methylnaphthalene - 190 2-Methylnaphthalene - 350 Acenaphthene - 1.4 Fluorene - 1.4 Phenanthrene - 1.3	0.0035	<5.0	10	140
MW-2	02/04/13	**Not Sampled Due to NAPL**											
MW-3	02/04/13	**Not Sampled Due to NAPL**											
MW-4	10/29/13	<1.0	<1.0	<1.0	<2.0	31	<0.01	8.8	Naphthalene - 0.72	<0.005	NA	NA	NA
MW-5	10/29/13	4,300	1,100	740	2,000	540	<0.01	44	Naphthalene - 130 1-Methylnaphthalene - 36 2-Methylnaphthalene - 69	<0.005	NA	NA	NA
MW-6	10/29/13	10,000	23,000	3,100	13,000	110	<0.01	<50	Naphthalene - 450 1-Methylnaphthalene - 92 2-Methylnaphthalene - 170	<0.005	NA	NA	NA
MW-7	10/29/13	7,700	7,400	1,700	8,900	3,500	<0.01	<50	Naphthalene - 370 1-Methylnaphthalene - 88 2-Methylnaphthalene - 180	<0.005	NA	NA	NA
MW-8	10/29/13	**Not Sampled Due to NAPL**											
MW-9	07/21/14	2,000	1,100	1,800	6,600	<100	<0.01	<100	Naphthalene - 330 1-Methylnaphthalene - 110 2-Methylnaphthalene - 200 Acenaphthene - 0.52	0.014	NA	NA	NA
MW-10	07/22/14	4,200	5,900	2,700	10,000	170	<0.01	<100	Naphthalene - 470 1-Methylnaphthalene - 160 2-Methylnaphthalene - 310 Acenaphthene - 0.94 Fluorene - 0.64 Phenanthrene - 0.58	0.084	NA	NA	NA
MW-11	07/22/14	10,000	16,000	2,600	11,000	330	<0.01	<100	Naphthalene - 540 1-Methylnaphthalene - 190 2-Methylnaphthalene - 360 Acenaphthene - 0.94 Fluorene - 0.94 Phenanthrene - 0.90	0.088	NA	NA	NA
MW-12	08/21/14	1,800	110	340	810	230	<0.01	<10	Naphthalene - 50 1-Methylnaphthalene - 8 2-Methylnaphthalene - 13	0.130	NA	NA	NA
MW-13	07/18/14	130	<10	35	24	<10	<0.01	<10	Naphthalene - 9.6 1-Methylnaphthalene - 20 2-Methylnaphthalene - 35	0.062	NA	NA	NA
MW-14	08/21/14	480	210	65	160	<10	2.3	84	Naphthalene - 18 1-Methylnaphthalene - 3.7 2-Methylnaphthalene - 3.3	0.020	NA	NA	NA
WQCC Standards		10	750	750	620	100	0.1	10	PAHs (Naphthalene + 1-Methylnaphthalene + 2-Methylnaphthalene) - 30 Acenaphthene - not published Fluorene - not published Phenanthrene - not published	0.05	*Not Applicable*		

1 - Only consitiuents detected above laboratory reporting limits are listed

2 - NA = Not analyzed for this constituent

TABLE 3
GROUND WATER AND NAPL MEASUREMENTS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Monitor Well	Gauging Date	Total Depth From TOC[1] (feet)	Screened Interval (feet)	Top of Casing Elevation (feet)	Depth to Groundwater From TOC (feet)	Depth to NAPL (feet)	NAPL Thickness (feet)	NAPL Removed (gallons)	Cumulative NAPL Removed (gallons)	Groundwater Elevation[2] (feet)
MW-1	2/1/2013	28	13-28	5622.71	not measured	not measured		0.0	0.0	
	2/4/2013			5622.71	not measured	not measured		0.0	0.0	
	2/27/2013			5622.71	14.40	14.06	0.34	0.0	0.0	5608.56
	6/3/2013			5622.71	14.20	13.92	0.28	0.5	0.5	5608.71
	6/27/2013			5622.71	14.80	14.43	0.37	0.1	0.6	5608.18
	7/10/2013			5622.71	14.45	14.21	0.24	0.0	0.6	5608.43
	10/29/2013			5622.71	15.25	13.36	1.89	1.5	2.1	5608.84
	11/12/2013			5622.71	15.83	15.37	0.46	0.3	2.4	5607.22
	11/26/2013			5622.71	14.90	13.82	1.08	0.3	2.7	5608.60
	10/3/2014			5622.71	14.85	14.81	0.04	0.0	2.7	5607.89
MW-2	2/1/2013	28	13-28	5622.99	not measured	not measured		4.5	4.5	
	2/4/2013			5622.99	not measured	not measured		5.0	9.5	
	2/27/2013			5622.99	18.56	13.11	5.45	0.0	9.5	5608.40
	6/3/2013			5622.99	17.39	13.42	3.97	4.5	14.0	5608.49
	6/27/2013			5622.99	18.20	13.98	4.22	3.0	17.0	5607.87
	7/10/2013			5622.99	17.50	13.67	3.83	2.5	19.5	5608.28
	10/29/2013			5622.99	18.68	12.66	6.02	3.5	23.0	5608.70
	11/12/2013			5622.99	19.40	14.34	5.06	2.8	25.8	5607.28
	11/26/2013			5622.99	18.56	12.95	5.61	3.0	28.8	5608.52
	4/2/2014			5622.99	17.94	13.12	4.82	4.0	32.8	5608.56
	4/3/2014			5622.99	16.22	13.73	2.49	2.5	35.3	5608.59
	4/4/2014			5622.99	15.12	14.21	0.91	0.3	35.6	5608.53
	10/3/2014			5622.99	15.05	14.97	0.08	0.0	35.6	5608.00

TABLE 3 Con't.

GROUND WATER AND NAPL MEASUREMENTS

Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Monitor Well	Gauging Date	Total Depth From TOC[1] (feet)	Screened Interval (feet)	Top of Casing Elevation (feet)	Depth to Groundwater From TOC (feet)	Depth to NAPL (feet)	NAPL Thickness (feet)	NAPL Removed (gallons)	Cumulative NAPL Removed (gallons)	Groundwater Elevation[2] (feet)
MW-3	2/1/2013	28	13-28	5623.02	not measured	not measured				
	2/4/2013			5623.02	not measured	not measured		2.0	2.5	
	2/27/2013			5623.02	16.69	13.80	2.89	0.0	2.5	5608.44
	6/3/2013			5623.02	17.57	13.46	4.11	4.5	7.0	5608.45
	6/27/2013			5623.02	18.33	13.88	4.45	3.5	10.5	5607.93
	7/10/2013			5623.02	17.68	13.70	3.98	3.0	13.5	5608.24
	10/29/2013			5623.02	19.46	12.50	6.96	7.0	20.5	5608.63
	11/12/2013			5623.02	20.62	13.19	7.43	5.0	25.5	5607.82
	11/26/2013			5623.02	19.02	13.02	6.00	4.3	29.8	5608.37
	4/2/2014			5623.02	18.20	13.12	5.08	5.0	34.8	5608.52
	4/3/2014			5623.02	23.75	23.55	0.20	3.0	37.8	5599.42
	4/4/2014			5623.02	16.86	13.72	3.14	3.0	40.8	5608.45
	10/3/2014			5623.02	16.91	13.96	2.95	0.0	40.8	5608.26
MW-4	10/29/2013	27	12-27	5623.67	14.13	14.13	0.00	0.0		5609.54
	11/12/2013			5623.67	15.12	15.12	0.00	0.0		5608.55
	11/26/2013			5623.67	15.20	15.20	0.00	0.0		5608.47
	10/3/2014			5623.67	16.21	16.21	0.00	0.0		5607.46
MW-5	10/29/2013	25	10-25	5622.41	13.77	13.77	0.00	0.0		5608.64
	11/12/2013			5622.41	13.93	13.93	0.00	0.0		5608.48
	11/26/2013			5622.41	14.07	14.07	0.00	0.0		5608.34
	10/3/2014			5622.41	14.48	14.48	0.00	0.0		5607.93
MW-6	10/29/2013	25	10-25	5622.80	13.97	13.97	0.00	0.0		5608.83
	11/12/2013			5622.80	14.40	14.39	0.01	0.0		5608.41
	11/26/2013			5622.80	14.33	14.31	0.02	0.0		5608.48
	10/3/2014			5622.80	15.65	15.60	0.05	0.0		5607.19

TABLE 3 Con't.

GROUND WATER AND NAPL MEASUREMENTS

Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Monitor Well	Gauging Date	Total Depth From TOC[1] (feet)	Screened Interval (feet)	Top of Casing Elevation (feet)	Depth to Groundwater From TOC (feet)	Depth to NAPL (feet)	NAPL Thickness (feet)	NAPL Removed (gallons)	Cumulative NAPL Removed (gallons)	Groundwater Elevation[2] (feet)
MW-7	10/29/2013	25	10-25	5622.86	14.17	14.17	0.00	0.0		5608.69
	11/12/2013			5622.86	14.62	14.62	0.00	0.0		5608.24
	11/26/2013			5622.86	14.50	14.50	0.00	0.0		5608.36
	10/3/2014			5622.86	15.84	15.84	0.00	0.0		5607.02
MW-8	10/29/2013	27	12-27	5623.90	17.35	13.80	3.55	2.5	2.5	5609.14
	11/12/2013			5623.90	21.03	14.49	6.54	3.0	5.5	5607.64
	11/26/2013			5623.90	18.30	14.05	4.25	3.5	9.0	5608.70
	4/2/2014			5623.90	16.92	14.50	2.42	2.5	11.5	5608.74
	4/3/2014			5623.90	15.84	14.85	0.99	1.0	12.5	5608.78
	4/4/2014			5623.90	15.54	15.06	0.48	0.3	12.8	5608.71
	10/3/2014			5623.90	17.52	14.95	2.57	0.0	12.8	5608.25
MW-9	10/3/2014	25	8-23	5623.83	16.69	16.69	0.00	0.0		5607.14
MW-10	10/3/2014	25	10-25	5623.87	16.78	16.78	0.00	0.0		5607.09
MW-11	10/3/2014	25	9-24	5624.13	15.71	15.55	0.16	0.0		5608.54
MW-12	10/3/2014	30	11-26	5622.84	15.52	15.52	0.00	0.0		5607.32
MW-13	10/3/2014	24	9-24	5622.32	14.81	14.81	0.00	0.0		5607.51
MW-14	10/3/2014	25	9-24	5623.75	16.05	15.76	0.29	0.0		5607.91

1 - TOC = Top-of-Casing elevation above mean sea level surveyed by a NM Licensed Surveyor.

2 - Product density value of 0.729 used for purpose of calculating water column overburden.

TABLE 4
SOIL BORING PHOTOIONIZATION DETECTOR READINGS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Soil Boring	Date	Depth (feet)	PID Reading
B-1/MW-1	1/31/2013	0-2.5	0.0
		2.5-5.0	0.0
		5.0-7.5	1.1
		7.5-10.0	0.0
		10.0-12.5	188
		12.5-15.0	>4,000
		15.0-17.5	>4,000
		17.5-20.0	>4,000
		20.0-22.5	318
		22.5-25.0	118
		25.0-28.0	not measured
B-2/MW-2	1/31/2013	0.0-1.0	26.3
		1.0-2.0	65.5
		2.0-5.0	not measured
		5.0-7.5	848
		7.5-10.0	2,810
		10.0-12.5	>4,000
		12.5-15.0	1,930
		15.0-17.5	>4,000
		17.5-21.0	>4,000
		21.0-23.5	not measured
		23.5-25.0	not measured
		25.0-28.0	not measured
B-3/MW-3	2/1/2013	0.0-1.0	37.3
		1.0-2.5	66.1
		2.5-5.0	1.2
		5.0-7.5	360
		7.5-10.0	871
		10.0-12.5	326
		12.5-15.0	<4,000
		15.0-17.5	<4,000
		17.5-20.0	not measured
		20.0-22.5	818
		22.5-25.0	247
		25.0-28.0	1700

TABLE 4 con't.
SOIL BORING PHOTOIONIZATION DETECTOR READINGS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Soil Boring	Date	Depth (feet)	PID Reading
B-4	2/1/2013	0-2.5	18.9
		2.5-5.0	132
		5.0-7.5	329
		7.5-10.0	464
		10.0-12.5	not measured
		12.5-15.0	45
		15.0-17.5	2200
		17.5-20.0	<4,000
		20.0-22.5	<4,000
		22.5-25.0	242
		25.0-28.0	not measured
		28.0-30.0	not measured
B-5	2/1/2013	0-2.5	28.4
		2.5-5.0	8.9
		5.0-7.5	152
		7.5-10.0	30.9
		10.0-12.5	8.9
		12.5-15.0	5.8
		15.0-17.5	17.4
		17.5-20.0	15.5
		20.0-22.5	2,670
		22.5-25.0	17.5
MW-4	10/23/2013	0-2.5	0.0
		2.5-5.0	38.8
		5.0-7.5	21.1
		7.5-10.0	82.9
		10.0-12.5	not measured
		12.5-15.0	not measured
		15.0-17.5	not measured
		17.5-20.0	not measured
		20.0-22.5	not measured
		22.5-25.0	not measured
		25.0-28.0	not measured

TABLE 4 con't.
SOIL BORING PHOTOIONIZATION DETECTOR READINGS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Soil Boring	Date	Depth (feet)	PID Reading
MW-5	10/23/2013	0.0-2.0	0.0
		2.0-4.0	0.0
		4.0-6.0	0.0
		6.0-8.0	0.0
		8.0-10.0	0.0
		10.0-12.0	0.0
		12.0-14.0	not measured
		14.0-16.0	<4,000
		16.0-18.0	259
		18.0-20.0	43.6
		20.0-22.0	24.7
		22.0-24.0	not measured
		24.0-25.0	not measured
MW-6	10/23/2013	0.0-2.0	0.0
		2.0-4.0	0.0
		4.0-6.0	25.7
		6.0-8.0	131
		8.0-10.0	<4,000
		10.0-12.0	<4,000
		12.0-14.0	<4,000
		14.0-16.0	1,960
		16.0-18.0	720
		18.0-20.0	294
		20.0-22.0	not measured
		22.0-24.0	not measured
		24.0-25.0	not measured
MW-7	10/24/2013	0.0-2.0	232
		2.0-4.0	236
		4.0-6.0	2320
		6.0-8.0	3990
		8.0-10.0	<4,000
		10.0-12.0	<4,000
		12.0-14.0	<4,000
		14.0-16.0	1530
		16.0-18.0	389
		18.0-20.0	261
		20.0-22.0	not measured
		22.0-24.0	not measured
		24.0-25.0	not measured

TABLE 4 con't.
SOIL BORING PHOTOIONIZATION DETECTOR READINGS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Soil Boring	Date	Depth (feet)	PID Reading
MW-8	10/24/2013	0.0-2.0	1.8
		2.0-4.0	35.8
		4.0-6.0	24.5
		6.0-8.0	103
		8.0-10.0	92.5
		10.0-12.0	1,560
		12.0-14.0	3,280
		14.0-16.0	<4,000
		16.0-18.0	3,136
		18.0-20.0	211
		20.0-22.0	132
		22.0-24.0	not measured
		24.0-26.0	not measured
		26.0-27.0	not measured
B-9/MW-9	10/3/2014	0.0-2.0	<4,000
		2.0-4.0	not measured
		4.0-6.0	<4,000
		6.0-8.0	<4,000
		8.0-10.0	<4,000
		10.0-12.0	<4,000
		12.0-14.0	2,430
		14.0-16.0	<4,000
		16.0-18.0	<4,000
		18.0-20.0	650
		20.0-22.0	not measured
		22.0-24.0	not measured
		24.0-25.0	762
B-10/MW-10	7/21/2014	0.0-2.0	0.6
		2.0-4.0	not measured
		4.0-6.0	0.0
		6.0-8.0	0.0
		8.0-10.0	not measured
		10.0-12.0	0.0
		12.0-14.0	0.0
		14.0-16.0	<4,000
		16.0-18.0	<4,000
		18.0-20.0	<4,000
		20.0-22.0	<4,000
		22.0-24.0	not measured
		24.0-25.0	not measured

TABLE 4 con't.
SOIL BORING PHOTOIONIZATION DETECTOR READINGS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive

Soil Boring	Date	Depth (feet)	PID Reading
B-11/MW-11	10/3/2014	0.0-2.0	0.0
		2.0-4.0	not measured
		4.0-6.0	0.0
		6.0-8.0	0.0
		8.0-10.0	not measured
		10.0-12.0	0.0
		12.0-14.0	8.1
		14.0-16.0	<4,000
		16.0-18.0	<4,000
		18.0-20.0	<4,000
		20.0-22.0	1,690
		22.0-24.0	not measured
		24.0-25.0	not measured
B-12/MW-12	8/21/2014	0.0-2.0	5.8
		2.0-4.0	not measured
		4.0-6.0	not measured
		6.0-8.0	not measured
		8.0-10.0	not measured
		10.0-12.0	2.6
		12.0-14.0	2.0
		14.0-16.0	1.0
		16.0-18.0	3.0
		18.0-20.0	3.6
		20.0-22.0	1.1
		22.0-24.0	2.4
		24.0-26.0	2.4
		26.0-28.0	1.1
		28.0-30.0	not measured
B-13/MW-13	7/18/2014	0.0-2.0	6.6
		2.0-4.0	7.2
		4.0-6.0	5.7
		6.0-8.0	4.6
		8.0-10.0	6.2
		10.0-12.0	16
		12.0-14.0	not measured
		14.0-16.0	2,390
		16.0-18.0	<4,000
		18.0-20.0	<4,000
		20.0-22.0	102
		22.0-24.0	41.4

TABLE 4 con't.
SOIL BORING PHOTOIONIZATION DETECTOR READINGS
Fairview Station - Facility # 28779, Relese ID# 4657, WP ID# 16613
1626 N. Riverside Drive
1626 N. Riverside Drive, Espanola, New Mexico

Soil Boring	Date	Depth (feet)	PID Reading
B-14MW-14	8/21/2014	0.0-2.0	0.0
		2.0-4.0	not measured
		4.0-6.0	0.0
		6.0-8.0	0.0
		8.0-10.0	0.1
		10.0-12.0	0.0
		12.0-14.0	3.0
		14.0-16.0	not measured
		16.0-18.0	<4,000
		18.0-20.0	<4,000
		20.0-22.0	<4,000
		22.0-24.0	43.0
		24.0-25.0	not measured

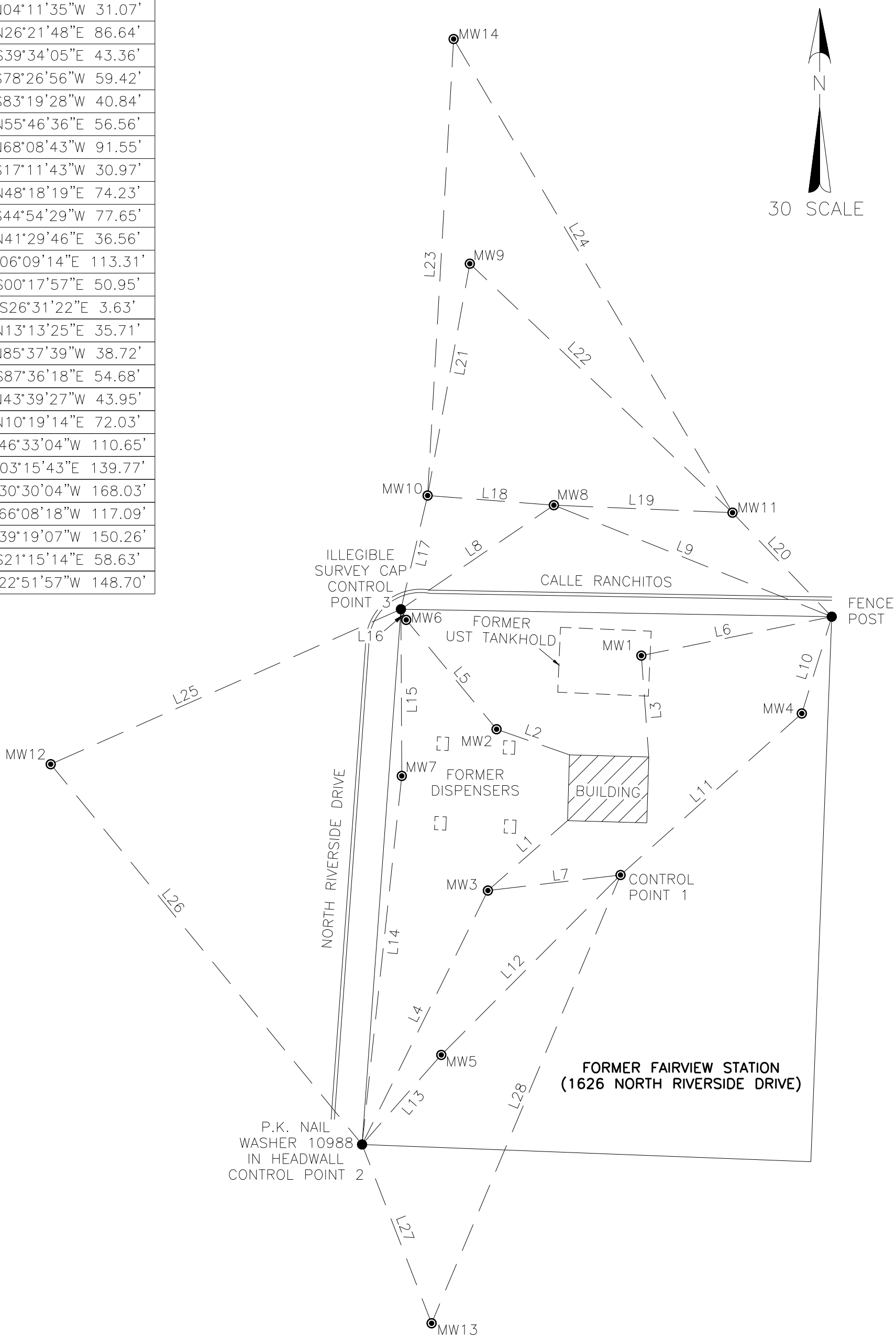
APPENDIX D

Monitoring Well Survey Data

MONITOR WELL SURVEY

LINE TABLE

LINE	BEARING & DISTANCE
L1	S48°44'40"W 32.40'
L2	N70°38'49"W 23.65'
L3	N04°11'35"W 31.07'
L4	N26°21'48"E 86.64'
L5	S39°34'05"E 43.36'
L6	S78°26'56"W 59.42'
L7	S83°19'28"W 40.84'
L8	N55°46'36"E 56.56'
L9	N68°08'43"W 91.55'
L10	S17°11'43"W 30.97'
L11	N48°18'19"E 74.23'
L12	S44°54'29"W 77.65'
L13	N41°29'46"E 36.56'
L14	N06°09'14"E 113.31'
L15	S00°17'57"E 50.95'
L16	S26°31'22"E 3.63'
L17	N13°13'25"E 35.71'
L18	N85°37'39"W 38.72'
L19	S87°36'18"E 54.68'
L20	N43°39'27"W 43.95'
L21	N10°19'14"E 72.03'
L22	N46°33'04"W 110.65'
L23	N03°15'43"E 139.77'
L24	N30°30'04"W 168.03'
L25	S66°08'18"W 117.09'
L26	N39°19'07"W 150.26'
L27	S21°15'14"E 58.63'
L28	S22°51'57"W 148.70'



SKETCH NO. 13065-2

HORIZONTAL DATUM IS NEW MEXICO STATE PLANE COORDINATES CENTRAL ZONE (3002). VALUES FOR CONTROL POINT 1 WERE OBTAINED FROM A FOUR (4) HOUR STATIC OBSERVATION USING A TOPCON GR-3 GLOBAL POSITIONING SYSTEM (GPS). THE OBSERVATIONS WERE SUBMITTED TO NGS AND FOLLOWING VALUES WERE RETURNED IN AN NGS OPUS SOLUTION REPORT.

POINT DESIGNATION	NORTHING	EASTING	ELEVATION
CONTROL POINT 1	1825340.421	1695422.675	5623.39
MONITOR WELL 1	1825409.173	1695426.257	5622.71
MONITOR WELL 2	1825386.590	1695381.991	5622.99
MONITOR WELL 3	1825337.298	1695379.440	5623.02
MONITOR WELL 4	1825389.793	1695478.099	5623.67
MONITOR WELL 5	1825285.429	1695367.859	5622.41
MONITOR WELL 6	1825418.399	1695357.139	5622.80
MONITOR WELL 7	1825370.705	1695355.782	5622.86
MONITOR WELL 8	1825453.463	1695402.285	5623.90
MONITOR WELL 9	1825527.276	1695376.583	5623.83
MONITOR WELL 10	1825456.415	1695363.679	5623.87
MONITOR WELL 11	1825451.178	1695456.917	5624.13
MONITOR WELL 12	1825374.288	1695248.428	5622.84
MONITOR WELL 13	1825203.404	1695364.893	5622.32
MONITOR WELL 14	1825595.956	1695371.632	5623.75

ELEVATIONS WERE TAKEN AT THE TOP OF A 2 INCH PVC PIPE OR METAL SLEEVE ON THE EXTREME WEST EDGE.
ELEVATIONS ARE NAD 83

I, LARRY L. STERLING, A REGISTERED NEW MEXICO PROFESSIONAL SURVEYOR, REGISTRATION NO. 11010, CERTIFY THAT I CONDUCTED THIS SURVEY IN THE FIELD ON FEBRUARY 22, 2013, NOVEMBER 15, 2013 AND SEPTEMBER 26, 2014, THAT THE DATA AND SKETCH PROVIDED HEREON ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

LARRY L. STERLING, NMPS NO. 11010
19480 US HIGHWAY 84-285
SUITE A
HERNANDEZ, NEW MEXICO 87537-5021
(505) 753-4171

APPENDIX E

Laboratory Analytical Reports

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 01, 2014

Mark Hillier

Terracon
4905 Hawkins, NE
Albuquerque, NM 87109
TEL: (505) 715-0375
FAX (505) 797-4288

RE: Fairview Station OrderNo.: 1407A34

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 8 sample(s) on 7/22/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1407A34**
Date Reported: **8/1/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW9-(16-18)
Project: Fairview Station
Collection Date: 7/21/2014 11:10:00 AM
Lab ID: 1407A34-001
Matrix: MEOH (SOIL)
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1 MODIFIED: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.50		µg/Kg	1	7/23/2014 3:11:43 PM	14380
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	130	9.9		mg/Kg	1	7/25/2014 10:27:31 AM	14414
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2014 10:27:31 AM	14414
Surr: DNOP	95.1	57.9-140		%REC	1	7/25/2014 10:27:31 AM	14414
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	780	34		mg/Kg	10	7/23/2014 11:08:43 AM	R20101
Surr: BFB	193	80-120	S	%REC	10	7/23/2014 11:08:43 AM	R20101
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **cadg**	
Methyl tert-butyl ether (MTBE)	ND	0.34		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
Benzene	0.71	0.34		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
1,2-Dichloroethane (EDC)	ND	0.34		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
Toluene	ND	0.34		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
Ethylbenzene	9.0	0.34		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
Xylenes, Total	35	0.68		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
1,2-Dibromoethane (EDB)	ND	0.34		mg/Kg	10	7/24/2014 12:38:11 AM	R20082
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	10	7/24/2014 12:38:11 AM	R20082
Surr: 4-Bromofluorobenzene	80.7	70-130		%REC	10	7/24/2014 12:38:11 AM	R20082
Surr: Dibromofluoromethane	90.9	70-130		%REC	10	7/24/2014 12:38:11 AM	R20082
Surr: Toluene-d8	94.1	70-130		%REC	10	7/24/2014 12:38:11 AM	R20082

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW9
Project: Fairview Station
Collection Date: 7/21/2014 12:50:00 PM
Lab ID: 1407A34-002
Matrix: AQUEOUS
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	7/29/2014 9:57:00 AM	14471
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **ELS**	
Lead	0.014	0.0050		mg/L	1	7/25/2014 11:37:11 AM	14385
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	330	5.0		µg/L	10	7/25/2014 11:50:45 AM	14406
1-Methylnaphthalene	110	5.0		µg/L	10	7/25/2014 11:50:45 AM	14406
2-Methylnaphthalene	200	5.0		µg/L	10	7/25/2014 11:50:45 AM	14406
Acenaphthylene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Acenaphthene	0.52	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Fluorene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Phenanthrene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Anthracene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Fluoranthene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Pyrene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Benz(a)anthracene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Chrysene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Benzo(b)fluoranthene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Benzo(k)fluoranthene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Benzo(a)pyrene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	7/24/2014 3:59:20 PM	14406
Surr: N-hexadecane	50.7	23.5-135		%REC	1	7/24/2014 3:59:20 PM	14406
Surr: Benzo(e)pyrene	54.9	28.8-149		%REC	1	7/24/2014 3:59:20 PM	14406
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	2000	100		µg/L	100	7/24/2014 4:16:59 AM	R20100
Toluene	1100	100		µg/L	100	7/24/2014 4:16:59 AM	R20100
Ethylbenzene	1800	100		µg/L	100	7/24/2014 4:16:59 AM	R20100
Methyl tert-butyl ether (MTBE)	ND	100		µg/L	100	7/24/2014 4:16:59 AM	R20100
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	7/24/2014 4:16:59 AM	R20100
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	7/24/2014 4:16:59 AM	R20100
Xylenes, Total	6600	150		µg/L	100	7/24/2014 4:16:59 AM	R20100
Surr: 1,2-Dichloroethane-d4	83.6	70-130		%REC	100	7/24/2014 4:16:59 AM	R20100
Surr: 4-Bromofluorobenzene	83.4	70-130		%REC	100	7/24/2014 4:16:59 AM	R20100
Surr: Dibromofluoromethane	89.4	70-130		%REC	100	7/24/2014 4:16:59 AM	R20100
Surr: Toluene-d8	91.6	70-130		%REC	100	7/24/2014 4:16:59 AM	R20100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW10 (18-20)
Project: Fairview Station
Collection Date: 7/21/2014 3:00:00 PM
Lab ID: 1407A34-003
Matrix: MEOH (SOIL)
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1 MODIFIED: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.50		µg/Kg	1	7/23/2014 3:27:07 PM	14380
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	150	9.9		mg/Kg	1	7/25/2014 11:32:13 AM	14414
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/25/2014 11:32:13 AM	14414
Surr: DNOP	102	57.9-140		%REC	1	7/25/2014 11:32:13 AM	14414
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	70	3.6		mg/Kg	1	7/23/2014 2:00:44 PM	R20101
Surr: BFB	158	80-120	S	%REC	1	7/23/2014 2:00:44 PM	R20101
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **cadg**	
Methyl tert-butyl ether (MTBE)	ND	0.36		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
Benzene	0.63	0.36		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
1,2-Dichloroethane (EDC)	ND	0.36		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
Toluene	11	0.36		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
Ethylbenzene	11	0.36		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
Xylenes, Total	39	0.72		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
1,2-Dibromoethane (EDB)	ND	0.36		mg/Kg	10	7/24/2014 1:06:56 AM	R20082
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	10	7/24/2014 1:06:56 AM	R20082
Surr: 4-Bromofluorobenzene	81.8	70-130		%REC	10	7/24/2014 1:06:56 AM	R20082
Surr: Dibromofluoromethane	97.1	70-130		%REC	10	7/24/2014 1:06:56 AM	R20082
Surr: Toluene-d8	102	70-130		%REC	10	7/24/2014 1:06:56 AM	R20082

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW10
Project: Fairview Station
Collection Date: 7/22/2014 9:10:00 AM
Lab ID: 1407A34-004
Matrix: AQUEOUS
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	7/29/2014 10:12:14 AM	14471
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **ELS**	
Lead	0.084	0.0050		mg/L	1	7/25/2014 11:38:52 AM	14385
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	470	10		µg/L	20	7/25/2014 12:13:59 PM	14406
1-Methylnaphthalene	160	10		µg/L	20	7/25/2014 12:13:59 PM	14406
2-Methylnaphthalene	310	10		µg/L	20	7/25/2014 12:13:59 PM	14406
Acenaphthylene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Acenaphthene	0.94	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Fluorene	0.64	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Phenanthrene	0.58	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Anthracene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Fluoranthene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Pyrene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Benz(a)anthracene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Chrysene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Benzo(b)fluoranthene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Benzo(k)fluoranthene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Benzo(a)pyrene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	7/24/2014 4:22:32 PM	14406
Surr: N-hexadecane	54.9	23.5-135		%REC	1	7/24/2014 4:22:32 PM	14406
Surr: Benzo(e)pyrene	53.8	28.8-149		%REC	1	7/24/2014 4:22:32 PM	14406
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	4200	100		µg/L	100	7/24/2014 4:44:52 AM	R20100
Toluene	5900	100		µg/L	100	7/24/2014 4:44:52 AM	R20100
Ethylbenzene	2700	100		µg/L	100	7/24/2014 4:44:52 AM	R20100
Methyl tert-butyl ether (MTBE)	170	100		µg/L	100	7/24/2014 4:44:52 AM	R20100
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	7/24/2014 4:44:52 AM	R20100
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	7/24/2014 4:44:52 AM	R20100
Xylenes, Total	10000	150		µg/L	100	7/24/2014 4:44:52 AM	R20100
Surr: 1,2-Dichloroethane-d4	84.5	70-130		%REC	100	7/24/2014 4:44:52 AM	R20100
Surr: 4-Bromofluorobenzene	85.4	70-130		%REC	100	7/24/2014 4:44:52 AM	R20100
Surr: Dibromofluoromethane	87.7	70-130		%REC	100	7/24/2014 4:44:52 AM	R20100
Surr: Toluene-d8	91.2	70-130		%REC	100	7/24/2014 4:44:52 AM	R20100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW11 (18-20)
Project: Fairview Station
Collection Date: 7/22/2014 10:50:00 AM
Lab ID: 1407A34-005
Matrix: MEOH (SOIL)
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1 MODIFIED: EDB						Analyst:	**LRW**
1,2-Dibromoethane	ND	0.50		µg/Kg	1	7/23/2014 3:42:35 PM	14380
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	380	10		mg/Kg	1	7/25/2014 11:53:45 AM	14414
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/25/2014 11:53:45 AM	14414
Surr: DNOP	98.3	57.9-140		%REC	1	7/25/2014 11:53:45 AM	14414
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**DJF**
Gasoline Range Organics (GRO)	2300	67		mg/Kg	20	7/24/2014 8:40:11 PM	R20111
Surr: BFB	207	80-120	S	%REC	20	7/24/2014 8:40:11 PM	R20111
EPA METHOD 8310: PAHS						Analyst:	**SCC**
Naphthalene	4.5	0.49		mg/Kg	2	8/1/2014 7:31:46 AM	14506
1-Methylnaphthalene	2.1	0.25		mg/Kg	1	7/31/2014 2:24:29 PM	14506
2-Methylnaphthalene	7.0	1.2		mg/Kg	5	8/1/2014 8:04:47 AM	14506
Acenaphthylene	ND	0.25		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Acenaphthene	ND	0.25		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Fluorene	ND	0.030		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Phenanthrene	0.065	0.015		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Anthracene	ND	0.015		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Fluoranthene	ND	0.020		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Pyrene	ND	0.025		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Benz(a)anthracene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Chrysene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Benzo(b)fluoranthene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Benzo(k)fluoranthene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Benzo(a)pyrene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Dibenz(a,h)anthracene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Benzo(g,h,i)perylene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Indeno(1,2,3-cd)pyrene	ND	0.0099		mg/Kg	1	7/31/2014 2:24:29 PM	14506
Surr: Benzo(e)pyrene	130	44-142		%REC	1	7/31/2014 2:24:29 PM	14506
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Lead	5.2	0.26		mg/Kg	1	7/31/2014 12:31:47 PM	14496
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**cadg**
Methyl tert-butyl ether (MTBE)	ND	1.7		mg/Kg	50	7/24/2014 1:35:35 AM	R20082
Benzene	14	1.7		mg/Kg	50	7/24/2014 1:35:35 AM	R20082
1,2-Dichloroethane (EDC)	ND	1.7		mg/Kg	50	7/24/2014 1:35:35 AM	R20082
Toluene	65	1.7		mg/Kg	50	7/24/2014 1:35:35 AM	R20082
Ethylbenzene	33	1.7		mg/Kg	50	7/24/2014 1:35:35 AM	R20082
Xylenes, Total	140	3.3		mg/Kg	50	7/24/2014 1:35:35 AM	R20082

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW11 (18-20)
Project: Fairview Station
Collection Date: 7/22/2014 10:50:00 AM
Lab ID: 1407A34-005
Matrix: MEOH (SOIL)
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **cadg**	
1,2-Dibromoethane (EDB)	ND	1.7		mg/Kg	50	7/24/2014 1:35:35 AM	R20082
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	50	7/24/2014 1:35:35 AM	R20082
Surr: 4-Bromofluorobenzene	85.9	70-130		%REC	50	7/24/2014 1:35:35 AM	R20082
Surr: Dibromofluoromethane	98.9	70-130		%REC	50	7/24/2014 1:35:35 AM	R20082
Surr: Toluene-d8	98.0	70-130		%REC	50	7/24/2014 1:35:35 AM	R20082

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW11
Project: Fairview Station
Collection Date: 7/22/2014 1:00:00 PM
Lab ID: 1407A34-006
Matrix: AQUEOUS
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	7/29/2014 10:27:36 AM	14471
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **ELS**	
Lead	0.088	0.0050		mg/L	1	7/25/2014 11:46:33 AM	14385
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	540	10		µg/L	20	7/25/2014 12:37:13 PM	14406
1-Methylnaphthalene	190	10		µg/L	20	7/25/2014 12:37:13 PM	14406
2-Methylnaphthalene	360	10		µg/L	20	7/25/2014 12:37:13 PM	14406
Acenaphthylene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Acenaphthene	0.94	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Fluorene	0.94	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Phenanthrene	0.90	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Anthracene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Fluoranthene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Pyrene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Benz(a)anthracene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Chrysene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Benzo(b)fluoranthene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Benzo(k)fluoranthene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Benzo(a)pyrene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	7/24/2014 4:45:45 PM	14406
Surr: N-hexadecane	56.6	23.5-135		%REC	1	7/24/2014 4:45:45 PM	14406
Surr: Benzo(e)pyrene	55.4	28.8-149		%REC	1	7/24/2014 4:45:45 PM	14406
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	10000	100		µg/L	100	7/24/2014 5:40:40 AM	R20100
Toluene	16000	1000		µg/L	1E	7/24/2014 6:02:45 PM	R20122
Ethylbenzene	2600	100		µg/L	100	7/24/2014 5:40:40 AM	R20100
Methyl tert-butyl ether (MTBE)	330	100		µg/L	100	7/24/2014 5:40:40 AM	R20100
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	7/24/2014 5:40:40 AM	R20100
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	7/24/2014 5:40:40 AM	R20100
Xylenes, Total	11000	150		µg/L	100	7/24/2014 5:40:40 AM	R20100
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	100	7/24/2014 5:40:40 AM	R20100
Surr: 4-Bromofluorobenzene	90.9	70-130		%REC	100	7/24/2014 5:40:40 AM	R20100
Surr: Dibromofluoromethane	90.4	70-130		%REC	100	7/24/2014 5:40:40 AM	R20100
Surr: Toluene-d8	89.9	70-130		%REC	100	7/24/2014 5:40:40 AM	R20100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: Trip Blank
Project: Fairview Station
Collection Date:
Lab ID: 1407A34-007
Matrix: TRIP BLANK
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	7/29/2014 10:43:05 AM	14471
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	ND	1.0		µg/L	1	7/24/2014 3:49:09 AM	R20100
Toluene	ND	1.0		µg/L	1	7/24/2014 3:49:09 AM	R20100
Ethylbenzene	ND	1.0		µg/L	1	7/24/2014 3:49:09 AM	R20100
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/24/2014 3:49:09 AM	R20100
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/24/2014 3:49:09 AM	R20100
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/24/2014 3:49:09 AM	R20100
Xylenes, Total	ND	1.5		µg/L	1	7/24/2014 3:49:09 AM	R20100
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	1	7/24/2014 3:49:09 AM	R20100
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	1	7/24/2014 3:49:09 AM	R20100
Surr: Dibromofluoromethane	89.6	70-130		%REC	1	7/24/2014 3:49:09 AM	R20100
Surr: Toluene-d8	92.6	70-130		%REC	1	7/24/2014 3:49:09 AM	R20100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MeOH Blank
Project: Fairview Station
Collection Date:
Lab ID: 1407A34-008
Matrix: MEOH BLAN
Received Date: 7/22/2014 4:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **cadg**	
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
Benzene	ND	0.050		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
Toluene	ND	0.050		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
Xylenes, Total	ND	0.10		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/24/2014 2:04:17 AM	R20082
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%REC	1	7/24/2014 2:04:17 AM	R20082
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	7/24/2014 2:04:17 AM	R20082
Surr: Dibromofluoromethane	88.2	70-130		%REC	1	7/24/2014 2:04:17 AM	R20082
Surr: Toluene-d8	89.5	70-130		%REC	1	7/24/2014 2:04:17 AM	R20082

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14380**	SampType:	**MBLK**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**PBS**	Batch ID:	**14380**	RunNo:	**20085**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584009**	Units:	**µg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.50								

Sample ID	**LCS-14380**	SampType:	**LCS**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**LCSS**	Batch ID:	**14380**	RunNo:	**20085**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584010**	Units:	**µg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	1.1	0.50	1.000	0	111	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14471**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**14471**	RunNo:	**20204**					
Prep Date:	**7/29/2014**	Analysis Date:	**7/29/2014**	SeqNo:	**587444**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-14471**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**14471**	RunNo:	**20204**					
Prep Date:	**7/29/2014**	Analysis Date:	**7/29/2014**	SeqNo:	**587445**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.10	0.010	0.1000	0	102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14414**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**14414**		RunNo:	**20106**				
Prep Date:	**7/24/2014**	Analysis Date:	**7/24/2014**		SeqNo:	**584672**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.9		10.00		89.1	57.9	140			

Sample ID	**LCS-14414**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**14414**		RunNo:	**20106**				
Prep Date:	**7/24/2014**	Analysis Date:	**7/24/2014**		SeqNo:	**584673**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	105	68.6	130			
Surr: DNOP	4.6		5.000		91.5	57.9	140			

Sample ID	**1407A34-001AMS**	SampType:	**MS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**MW9-(16-18)**	Batch ID:	**14414**		RunNo:	**20127**				
Prep Date:	**7/24/2014**	Analysis Date:	**7/25/2014**		SeqNo:	**585595**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	140	9.9	49.26	130.6	21.2	40.1	152			S
Surr: DNOP	5.1		4.926		104	57.9	140			

Sample ID	**1407A34-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**MW9-(16-18)**	Batch ID:	**14414**		RunNo:	**20127**				
Prep Date:	**7/24/2014**	Analysis Date:	**7/25/2014**		SeqNo:	**585596**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	130	10	49.90	130.6	-10.5	40.1	152	11.8	32.1	S
Surr: DNOP	4.9		4.990		97.4	57.9	140	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14359 MK**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID: **R20101**			RunNo: **20101**				
Prep Date:		Analysis Date: **7/23/2014**			SeqNo: **584415**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		86.3	80	120			

Sample ID	**LCS-14359 MK**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID: **R20101**			RunNo: **20101**				
Prep Date:		Analysis Date: **7/23/2014**			SeqNo: **584416**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	71.7	134			
Surr: BFB	940		1000		93.9	80	120			

Sample ID	**MB-14392 MK**	SampType: **MBLK**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID: **R20111**			RunNo: **20111**				
Prep Date:		Analysis Date: **7/24/2014**			SeqNo: **584855**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.2	80	120			

Sample ID	**LCS-14392 MK**	SampType: **LCS**			TestCode: **EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID: **R20111**			RunNo: **20111**				
Prep Date:		Analysis Date: **7/24/2014**			SeqNo: **584856**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	25.00	0	129	71.7	134			
Surr: BFB	1100		1000		109	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **mb-14359**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R20082**	RunNo: **20082**
Prep Date: **7/22/2014**	Analysis Date: **7/23/2014**	SeqNo: **584300** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.050								
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
1,2-Dibromoethane (EDB)	ND	0.050								
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.2	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		90.8	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.3	70	130			
Surr: Toluene-d8	0.47		0.5000		93.2	70	130			

Sample ID **lcs-14359**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R20082**	RunNo: **20082**
Prep Date: **7/22/2014**	Analysis Date: **7/23/2014**	SeqNo: **584307** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.050	1.000	0	84.4	70	130			
Toluene	0.82	0.050	1.000	0	81.6	60.1	120			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.8	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.46		0.5000		92.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **5mL-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R20100**	RunNo: **20100**
Prep Date:	Analysis Date: **7/23/2014**	SeqNo: **584292** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.4	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		86.2	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.0	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R20100**	RunNo: **20100**
Prep Date:	Analysis Date: **7/23/2014**	SeqNo: **584294** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.5	70	130			
Toluene	19	1.0	20.00	0	93.3	80	120			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.8	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.9	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.8	70	130			
Surr: Toluene-d8	9.2		10.00		92.3	70	130			

Sample ID **5mL-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R20122**	RunNo: **20122**
Prep Date:	Analysis Date: **7/24/2014**	SeqNo: **585066** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.9	70	130			
Surr: 4-Bromofluorobenzene	9.0		10.00		89.6	70	130			
Surr: Dibromofluoromethane	9.0		10.00		89.8	70	130			
Surr: Toluene-d8	9.5		10.00		95.4	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R20122**	RunNo: **20122**
Prep Date:	Analysis Date: **7/24/2014**	SeqNo: **585067** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**100ng lcsb**	SampType:	**LCS**	TestCode:	**EPA Method 8260: Volatiles Short List**
Client ID:	**LCSW**	Batch ID:	**R20122**	RunNo:	**20122**
Prep Date:		Analysis Date:	**7/24/2014**	SeqNo:	**585067**
Units:	**µg/L**				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	21	1.0	20.00	0	103	80	120			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		87.9	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		89.5	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.3	70	130			
Surr: Toluene-d8	9.3		10.00		93.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **mb-14406**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBW**	Batch ID: **14406**	RunNo: **20118**
Prep Date: **7/24/2014**	Analysis Date: **7/24/2014**	SeqNo: **584863** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.50								
1-Methylnaphthalene	ND	0.50								
2-Methylnaphthalene	ND	0.50								
Acenaphthylene	ND	0.50								
Acenaphthene	ND	0.50								
Fluorene	ND	0.50								
Phenanthrene	ND	0.50								
Anthracene	ND	0.50								
Fluoranthene	ND	0.50								
Pyrene	ND	0.50								
Benz(a)anthracene	ND	0.50								
Chrysene	ND	0.50								
Benzo(b)fluoranthene	ND	0.50								
Benzo(k)fluoranthene	ND	0.50								
Benzo(a)pyrene	ND	0.50								
Dibenz(a,h)anthracene	ND	0.50								
Benzo(g,h,i)perylene	ND	0.50								
Indeno(1,2,3-cd)pyrene	ND	0.50								
Surr: N-hexadecane	55		87.60		62.4	23.5	135			
Surr: Benzo(e)pyrene	13		20.00		64.4	28.8	149			

Sample ID **lcs-14406**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSW**	Batch ID: **14406**	RunNo: **20118**
Prep Date: **7/24/2014**	Analysis Date: **7/24/2014**	SeqNo: **584864** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	13	0.50	20.00	0	65.3	43.1	99.5			
1-Methylnaphthalene	13	0.50	20.00	0	64.7	44.3	107			
2-Methylnaphthalene	13	0.50	20.00	0	63.5	42.2	102			
Acenaphthylene	14	0.50	20.00	0	71.5	46.3	109			
Acenaphthene	15	0.50	20.00	0	74.3	47.4	111			
Fluorene	14	0.50	20.00	0	71.7	46.2	106			
Phenanthrene	15	0.50	20.00	0	77.0	48.7	115			
Anthracene	15	0.50	20.00	0	72.8	47.8	113			
Fluoranthene	15	0.50	20.00	0	76.1	46.7	110			
Pyrene	14	0.50	20.00	0	68.4	48.4	108			
Benz(a)anthracene	13	0.50	20.00	0	67.1	42.9	118			
Chrysene	15	0.50	20.00	0	74.0	28.8	117			
Benzo(b)fluoranthene	13	0.50	20.00	0	65.9	47.3	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **lcs-14406**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSW**	Batch ID: **14406**	RunNo: **20118**
Prep Date: **7/24/2014**	Analysis Date: **7/24/2014**	SeqNo: **584864** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	14	0.50	20.00	0	69.2	46	113			
Benzo(a)pyrene	14	0.50	20.00	0	70.6	53.1	96.1			
Dibenz(a,h)anthracene	16	0.50	20.00	0	79.9	44.3	115			
Benzo(g,h,i)perylene	14	0.50	20.00	0	69.0	44.4	121			
Indeno(1,2,3-cd)pyrene	14	0.50	20.00	0	71.7	47.5	115			
Surr: N-hexadecane	48		87.60		54.7	23.5	135			
Surr: Benzo(e)pyrene	12		20.00		60.3	28.8	149			

Sample ID **lcsd-14406**	SampType: **LCSD**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSS02**	Batch ID: **14406**	RunNo: **20118**
Prep Date: **7/24/2014**	Analysis Date: **7/24/2014**	SeqNo: **584865** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	13	0.50	20.00	0	64.9	43.1	99.5	0.614	20	
1-Methylnaphthalene	13	0.50	20.00	0	65.3	44.3	107	0.923	26.8	
2-Methylnaphthalene	12	0.50	20.00	0	61.2	42.2	102	3.69	23.8	
Acenaphthylene	14	0.50	20.00	0	71.7	46.3	109	0.279	28.6	
Acenaphthene	15	0.50	20.00	0	73.8	47.4	111	0.675	27	
Fluorene	15	0.50	20.00	0	75.1	46.2	106	4.63	25.7	
Phenanthrene	15	0.50	20.00	0	75.6	48.7	115	1.83	20	
Anthracene	15	0.50	20.00	0	75.0	47.8	113	2.98	21.2	
Fluoranthene	17	0.50	20.00	0	83.1	46.7	110	8.79	21.8	
Pyrene	15	0.50	20.00	0	76.1	48.4	108	10.7	31.1	
Benz(a)anthracene	16	0.50	20.00	0	78.2	42.9	118	15.3	26.6	
Chrysene	18	0.50	20.00	0	88.2	28.8	117	17.5	21.2	
Benzo(b)fluoranthene	15	0.50	20.00	0	77.0	47.3	110	15.5	20	
Benzo(k)fluoranthene	13	0.50	20.00	0	64.9	46	113	6.41	21	
Benzo(a)pyrene	15	0.50	20.00	0	76.5	53.1	96.1	8.02	24.8	
Dibenz(a,h)anthracene	18	0.50	20.00	0	87.7	44.3	115	9.31	26	
Benzo(g,h,i)perylene	15	0.50	20.00	0	76.0	44.4	121	9.66	20	
Indeno(1,2,3-cd)pyrene	15	0.50	20.00	0	77.0	47.5	115	7.13	20	
Surr: N-hexadecane	48		87.60		54.9	23.5	135	0	0	
Surr: Benzo(e)pyrene	13		20.00		63.0	28.8	149	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **MB-14506**	SampType: **MBLK**	TestCode: **EPA Method 8310: PAHs**
Client ID: **PBS**	Batch ID: **14506**	RunNo: **20260**
Prep Date: **7/30/2014**	Analysis Date: **7/31/2014**	SeqNo: **589183** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.25								
1-Methylnaphthalene	ND	0.25								
2-Methylnaphthalene	ND	0.25								
Acenaphthylene	ND	0.25								
Acenaphthene	ND	0.25								
Fluorene	ND	0.030								
Phenanthrene	ND	0.015								
Anthracene	ND	0.015								
Fluoranthene	ND	0.020								
Pyrene	ND	0.025								
Benz(a)anthracene	ND	0.010								
Chrysene	ND	0.010								
Benzo(b)fluoranthene	ND	0.010								
Benzo(k)fluoranthene	ND	0.010								
Benzo(a)pyrene	ND	0.010								
Dibenz(a,h)anthracene	ND	0.010								
Benzo(g,h,i)perylene	ND	0.010								
Indeno(1,2,3-cd)pyrene	ND	0.010								
Surr: Benzo(e)pyrene	0.55		0.5000		110	44	142			

Sample ID **LCS-14506**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS**	Batch ID: **14506**	RunNo: **20260**
Prep Date: **7/30/2014**	Analysis Date: **7/31/2014**	SeqNo: **589193** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	1.4	0.25	2.000	0	69.4	43.1	105			
1-Methylnaphthalene	1.2	0.25	2.000	0	57.8	39	98.6			
2-Methylnaphthalene	1.1	0.25	2.000	0	53.7	33.5	99.5			
Acenaphthylene	1.6	0.25	2.000	0	78.2	46.8	109			
Acenaphthene	1.2	0.25	2.000	0	61.2	37.8	101			
Fluorene	0.12	0.030	0.2000	0	59.8	41.8	98.6			
Phenanthrene	0.083	0.015	0.1006	0	82.8	42.3	118			
Anthracene	0.076	0.015	0.1006	0	75.0	43.7	107			
Fluoranthene	0.15	0.020	0.2006	0	75.5	44.9	114			
Pyrene	0.15	0.025	0.2000	0	77.2	37	109			
Benz(a)anthracene	0.016	0.010	0.02000	0	78.8	42.2	121			
Chrysene	0.078	0.010	0.1006	0	77.0	43.4	104			
Benzo(b)fluoranthene	0.021	0.010	0.02500	0	85.0	46.3	128			
Benzo(k)fluoranthene	0.011	0.010	0.01250	0	90.0	44.8	128			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **LCS-14506**	SampType: **LCS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **LCSS**	Batch ID: **14506**	RunNo: **20260**
Prep Date: **7/30/2014**	Analysis Date: **7/31/2014**	SeqNo: **589193** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(a)pyrene	0.010	0.010	0.01250	0	82.0	38.3	117			
Dibenz(a,h)anthracene	0.020	0.010	0.02500	0	82.0	45.2	114			
Benzo(g,h,i)perylene	0.021	0.010	0.02500	0	84.0	39.5	121			
Indeno(1,2,3-cd)pyrene	0.042	0.010	0.05002	0	83.0	51.7	114			
Surr: Benzo(e)pyrene	0.59		0.5000		117	44	142			

Sample ID **1407A34-005AMS**	SampType: **MS**	TestCode: **EPA Method 8310: PAHs**
Client ID: **MW11 (18-20)**	Batch ID: **14506**	RunNo: **20260**
Prep Date: **7/30/2014**	Analysis Date: **7/31/2014**	SeqNo: **589810** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	4.0	0.24	1.918	4.174	-9.56	14.7	128			ES
1-Methylnaphthalene	2.5	0.24	1.918	2.100	20.6	31.1	125			S
2-Methylnaphthalene	5.2	0.24	1.918	5.907	-38.3	24.7	119			ES
Acenaphthylene	2.3	0.24	1.918	0	119	32	136			
Acenaphthene	0.70	0.24	1.918	0	36.3	24.7	121			
Fluorene	0.079	0.029	0.1918	0	41.0	34.9	126			
Phenanthrene	0.092	0.014	0.09645	0.06487	28.2	33.8	139			S
Anthracene	0.048	0.014	0.09645	0	50.0	37.8	144			
Fluoranthene	0.097	0.019	0.1923	0	50.6	36.3	128			
Pyrene	0.098	0.024	0.1918	0	51.1	26.7	127			
Benz(a)anthracene	0.012	0.0096	0.01918	0.001233	56.1	30.9	132			
Chrysene	0.055	0.0096	0.09645	0.007647	49.0	29.3	126			
Benzo(b)fluoranthene	0.012	0.0096	0.02397	0	51.0	29.3	139			
Benzo(k)fluoranthene	ND	0.0096	0.01198	0.0004933	49.9	27.8	147			
Benzo(a)pyrene	ND	0.0096	0.01198	0.0007400	47.8	27.7	134			
Dibenz(a,h)anthracene	0.012	0.0096	0.02397	0	50.0	28.7	136			
Benzo(g,h,i)perylene	0.013	0.0096	0.02397	0.003207	42.6	28.1	131			
Indeno(1,2,3-cd)pyrene	0.027	0.0096	0.04796	0	56.0	34	136			
Surr: Benzo(e)pyrene	0.43		0.4794		89.6	44	142			

Sample ID **1407A34-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 8310: PAHs**
Client ID: **MW11 (18-20)**	Batch ID: **14506**	RunNo: **20260**
Prep Date: **7/30/2014**	Analysis Date: **7/31/2014**	SeqNo: **589811** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	5.0	0.25	1.978	4.174	41.3	14.7	128	22.3	29.3	E
1-Methylnaphthalene	2.3	0.25	1.978	2.100	9.30	31.1	125	8.80	20	S
2-Methylnaphthalene	5.7	0.25	1.978	5.907	-8.15	24.7	119	10.5	20	ES
Acenaphthylene	2.0	0.25	1.978	0	99.9	32	136	14.3	22.6	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID **1407A34-005AMSD** SampType: **MSD** TestCode: **EPA Method 8310: PAHs**

Client ID: **MW11 (18-20)** Batch ID: **14506** RunNo: **20260**

Prep Date: **7/30/2014** Analysis Date: **7/31/2014** SeqNo: **589811** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.69	0.25	1.978	0	35.0	24.7	121	0.671	20	
Fluorene	0.086	0.030	0.1978	0	43.5	34.9	126	9.03	20	
Phenanthrene	0.13	0.015	0.09951	0.06487	66.3	33.8	139	34.8	27.6	R
Anthracene	0.059	0.015	0.09951	0	59.6	37.8	144	20.8	29.2	
Fluoranthene	0.12	0.020	0.1984	0	61.1	36.3	128	21.8	29.2	
Pyrene	0.12	0.025	0.1978	0	61.8	26.7	127	21.9	28.6	
Benz(a)anthracene	0.014	0.0099	0.01978	0.001233	66.3	30.9	132	17.9	26.1	
Chrysene	0.066	0.0099	0.09951	0.007647	58.4	29.3	126	18.0	26.6	
Benzo(b)fluoranthene	0.015	0.0099	0.02473	0	60.0	29.3	139	19.3	27.9	
Benzo(k)fluoranthene	ND	0.0099	0.01236	0.0004933	62.0	27.8	147	0	27.7	
Benzo(a)pyrene	ND	0.0099	0.01236	0.0007400	60.0	27.7	134	0	28.3	
Dibenz(a,h)anthracene	0.015	0.0099	0.02473	0	61.0	28.7	136	22.9	28.8	
Benzo(g,h,i)perylene	0.017	0.0099	0.02473	0.003207	56.0	28.1	131	23.9	28.7	
Indeno(1,2,3-cd)pyrene	0.034	0.0099	0.04948	0	69.0	34	136	23.9	29.3	
Surr: Benzo(e)pyrene	0.54		0.4946		109	44	142	0	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14496**	SampType:	**MBLK**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**PBS**	Batch ID:	**14496**	RunNo:	**20278**					
Prep Date:	**7/30/2014**	Analysis Date:	**7/31/2014**	SeqNo:	**589427**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.25								

Sample ID	**LCS-14496**	SampType:	**LCS**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**LCSS**	Batch ID:	**14496**	RunNo:	**20278**					
Prep Date:	**7/30/2014**	Analysis Date:	**7/31/2014**	SeqNo:	**589428**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	24	0.25	25.00	0	94.7	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407A34**

01-Aug-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14385**	SampType:	**MBLK**	TestCode:	**EPA 6010B: Total Recoverable Metals**					
Client ID:	**PBW**	Batch ID:	**14385**	RunNo:	**20142**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/25/2014**	SeqNo:	**585646**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID	**LCS-14385**	SampType:	**LCS**	TestCode:	**EPA 6010B: Total Recoverable Metals**					
Client ID:	**LCSW**	Batch ID:	**14385**	RunNo:	**20142**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/25/2014**	SeqNo:	**585648**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	1.0	0.010	1.000	0	100	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

ENVIRONMENTAL ANALYSIS LABORATORY

4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: TER-Alb | Work Order Number: 1407A34 | RcptNo: 1

Received by/date: 07/22/14

Logged By: **Ashley Gallegos** 7/22/2014 4:00:00 PM

Completed By: **Ashley Gallegos** 7/22/2014 4:41:50 PM

Reviewed By: 07/23/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: N/A
(<2 or >12 unless noted)
Adjusted? No
Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.6	Good	Not Present			

Chain-of-Custody Record

Client: Terracon

Mailing Address: 4905 Hawkins St NE ABQ NM

Phone #: 505-797-4287

email or Fax#: mchillier@terracon.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other ______

☐ EDD (Type) ______

Turn-Around Time:
☑ Standard ☐ Rush ______

Project Name: Fairview Station

Project #: 66127029.3

Project Manager: Mark Hillier

Sampler: Julie Smith

On Ice: ☑ Yes ☐ No

Sample Temperature: 5.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1407A34	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + ~~TPH (Gas only)~~	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	EDB & EDC by 8260 low	Lead by SW846 6010B			Air Bubbles (Y or N)
7/21/14	1110	Soil	MW9-(16-18)	3		-001		X	X			*						X	**			
7/21/14	1250	GW	MW9	6		-002		X				X						X	X			
7/21/14	1500	Soil	MW10 (18-20)	3		-003		X	X			*						X	**			
7/22/14	0910	GW	MW10	6		-004		X				X						X	X			
7/22/14	1050	Soil	MW11 (18-20)	3		-005		X	X			*						X	**			
7/22/14	1300	GW	MW11	6		-006		X				X						X	X			
			Trip Blank	3		-007		X										X				
			MeOH Blank	1		-008						X						X				

07/23/14

Date	Time	Relinquished by	Received by	Date	Time
7/22/14	1600	[signature]	[signature]	07/22/14	1600

Remarks: * If Elevated TPH DRO Concentrations are detected, Analyze the highest for PAHs.
** If Elevated TPH GRO Concentrations are detected, Analyze for lead

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 28, 2014

Mark Hillier

Terracon
4905 Hawkins, NE
Albuquerque, NM 87109
TEL: (505) 715-0375
FAX (505) 797-4288

RE: Fairview Station OrderNo.: 1407891

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/18/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW-13 (18-20)
Project: Fairview Station
Collection Date: 7/18/2014 10:45:00 AM
Lab ID: 1407891-001 **Matrix:** SOIL **Received Date:** 7/18/2014 3:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1 MODIFIED: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.50		µg/Kg	1	7/23/2014 2:25:16 PM	14380
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	19	9.9		mg/Kg	1	7/22/2014 12:32:18 PM	14323
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/22/2014 12:32:18 PM	14323
Surr: DNOP	73.7	57.9-140		%REC	1	7/22/2014 12:32:18 PM	14323
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	50	19		mg/Kg	5	7/23/2014 1:01:04 AM	R20059
Surr: BFB	90.8	80-120		%REC	5	7/23/2014 1:01:04 AM	R20059
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **cadg**	
Methyl tert-butyl ether (MTBE)	ND	0.19		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
Benzene	1.9	0.19		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
1,2-Dichloroethane (EDC)	ND	0.19		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
Toluene	ND	0.19		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
Ethylbenzene	1.4	0.19		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
Xylenes, Total	1.3	0.38		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
1,2-Dibromoethane (EDB)	ND	0.19		mg/Kg	5	7/22/2014 1:11:58 PM	R20071
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	5	7/22/2014 1:11:58 PM	R20071
Surr: 4-Bromofluorobenzene	83.0	70-130		%REC	5	7/22/2014 1:11:58 PM	R20071
Surr: Dibromofluoromethane	103	70-130		%REC	5	7/22/2014 1:11:58 PM	R20071
Surr: Toluene-d8	106	70-130		%REC	5	7/22/2014 1:11:58 PM	R20071

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW-13
Project: Fairview Station
Collection Date: 7/18/2014 12:45:00 PM
Lab ID: 1407891-002
Matrix: AQUEOUS
Received Date: 7/18/2014 3:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	7/22/2014 7:50:51 PM	14360
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **ELS**	
Lead	0.062	0.0050		mg/L	1	7/25/2014 11:35:29 AM	14385
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	9.6	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
1-Methylnaphthalene	20	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
2-Methylnaphthalene	35	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Acenaphthylene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Acenaphthene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Fluorene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Phenanthrene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Anthracene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Fluoranthene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Pyrene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Benz(a)anthracene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Chrysene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Benzo(b)fluoranthene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Benzo(k)fluoranthene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Benzo(a)pyrene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	7/23/2014 1:51:17 PM	14341
Surr: N-hexadecane	65.5	23.5-135		%REC	1	7/23/2014 1:51:17 PM	14341
Surr: Benzo(e)pyrene	65.2	28.8-149		%REC	1	7/23/2014 1:51:17 PM	14341
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **KJH**	
Benzene	130	10		µg/L	10	7/24/2014 6:08:45 AM	R20100
Toluene	ND	10		µg/L	10	7/24/2014 6:08:45 AM	R20100
Ethylbenzene	35	10		µg/L	10	7/24/2014 6:08:45 AM	R20100
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	7/24/2014 6:08:45 AM	R20100
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	7/24/2014 6:08:45 AM	R20100
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	7/24/2014 6:08:45 AM	R20100
Xylenes, Total	24	15		µg/L	10	7/24/2014 6:08:45 AM	R20100
Surr: 1,2-Dichloroethane-d4	85.1	70-130		%REC	10	7/24/2014 6:08:45 AM	R20100
Surr: 4-Bromofluorobenzene	89.4	70-130		%REC	10	7/24/2014 6:08:45 AM	R20100
Surr: Dibromofluoromethane	86.4	70-130		%REC	10	7/24/2014 6:08:45 AM	R20100
Surr: Toluene-d8	93.0	70-130		%REC	10	7/24/2014 6:08:45 AM	R20100

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14380**	SampType:	**MBLK**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**PBS**	Batch ID:	**14380**	RunNo:	**20085**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584009**	Units:	**µg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.50								

Sample ID	**LCS-14380**	SampType:	**LCS**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**LCSS**	Batch ID:	**14380**	RunNo:	**20085**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584010**	Units:	**µg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	1.1	0.50	1.000	0	111	70	130			

Sample ID	**1407891-001AMS**	SampType:	**MS**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**MW-13 (18-20)**	Batch ID:	**14380**	RunNo:	**20085**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584012**	Units:	**µg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	1.0	0.50	0.9972	0.2156	82.0	75.4	144			

Sample ID	**1407891-001AMSD**	SampType:	**MSD**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**MW-13 (18-20)**	Batch ID:	**14380**	RunNo:	**20085**					
Prep Date:	**7/23/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584036**	Units:	**µg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	1.0	0.50	1.000	0.2156	81.2	75.4	144	0.490	20	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14360**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**14360**	RunNo:	**20056**					
Prep Date:	**7/22/2014**	Analysis Date:	**7/22/2014**	SeqNo:	**582941**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-14360**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**14360**	RunNo:	**20056**					
Prep Date:	**7/22/2014**	Analysis Date:	**7/22/2014**	SeqNo:	**583007**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.097	0.010	0.1000	0	97.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14323**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**14323**		RunNo:	**20022**				
Prep Date:	**7/21/2014**	Analysis Date:	**7/21/2014**		SeqNo:	**581855**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.6		10.00		76.2	57.9	140			

Sample ID	**LCS-14323**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**14323**		RunNo:	**20022**				
Prep Date:	**7/21/2014**	Analysis Date:	**7/21/2014**		SeqNo:	**581965**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.1	68.6	130			
Surr: DNOP	4.5		5.000		89.7	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14325 MK**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**R20059**	RunNo:	**20059**					
Prep Date:		Analysis Date:	**7/22/2014**	SeqNo:	**583538**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	840		1000		83.7	80	120			

Sample ID	**LCS-14325 MK**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**R20059**	RunNo:	**20059**					
Prep Date:		Analysis Date:	**7/22/2014**	SeqNo:	**583539**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	95.7	71.7	134			
Surr: BFB	920		1000		92.2	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R20039**	RunNo: **20039**
Prep Date:	Analysis Date: **7/21/2014**	SeqNo: **582893** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		101	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		97.0	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R20039**	RunNo: **20039**
Prep Date:	Analysis Date: **7/21/2014**	SeqNo: **582894** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		101	70	130			
Surr: Toluene-d8	0.47		0.5000		93.4	70	130			

Sample ID **mb-14325**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R20071**	RunNo: **20071**
Prep Date: **7/21/2014**	Analysis Date: **7/22/2014**	SeqNo: **583403** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.050								
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
1,2-Dibromoethane (EDB)	ND	0.050								
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.1	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.4	70	130			
Surr: Dibromofluoromethane	0.43		0.5000		86.3	70	130			
Surr: Toluene-d8	0.43		0.5000		86.6	70	130			

Sample ID **lcs-14325**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R20071**	RunNo: **20071**
Prep Date: **7/21/2014**	Analysis Date: **7/22/2014**	SeqNo: **583404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.050	1.000	0	88.9	70	130			
Toluene	0.90	0.050	1.000	0	89.5	60.1	120			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.6	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**lcs-14325**	SampType:	**LCS**	TestCode:	**EPA Method 8260B: Volatiles Short List**
Client ID:	**LCSS**	Batch ID:	**R20071**	RunNo:	**20071**
Prep Date:	**7/21/2014**	Analysis Date:	**7/22/2014**	SeqNo:	**583404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.0	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		91.2	70	130			
Surr: Toluene-d8	0.45		0.5000		90.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID **5mL-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R20100**	RunNo: **20100**
Prep Date:	Analysis Date: **7/23/2014**	SeqNo: **584292** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		89.4	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		86.2	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.0	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R20100**	RunNo: **20100**
Prep Date:	Analysis Date: **7/23/2014**	SeqNo: **584294** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.5	70	130			
Toluene	19	1.0	20.00	0	93.3	80	120			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.8	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.9	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.8	70	130			
Surr: Toluene-d8	9.2		10.00		92.3	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID **mb-14341**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBW**	Batch ID: **14341**	RunNo: **20084**
Prep Date: **7/22/2014**	Analysis Date: **7/23/2014**	SeqNo: **584117** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.50								
1-Methylnaphthalene	ND	0.50								
2-Methylnaphthalene	ND	0.50								
Acenaphthylene	ND	0.50								
Acenaphthene	ND	0.50								
Fluorene	ND	0.50								
Phenanthrene	ND	0.50								
Anthracene	ND	0.50								
Fluoranthene	ND	0.50								
Pyrene	ND	0.50								
Benz(a)anthracene	ND	0.50								
Chrysene	ND	0.50								
Benzo(b)fluoranthene	ND	0.50								
Benzo(k)fluoranthene	ND	0.50								
Benzo(a)pyrene	ND	0.50								
Dibenz(a,h)anthracene	ND	0.50								
Benzo(g,h,i)perylene	ND	0.50								
Indeno(1,2,3-cd)pyrene	ND	0.50								
Surr: N-hexadecane	50		87.60		57.1	23.5	135			
Surr: Benzo(e)pyrene	14		20.00		69.7	28.8	149			

Sample ID **lcs-14341**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSW**	Batch ID: **14341**	RunNo: **20084**
Prep Date: **7/22/2014**	Analysis Date: **7/23/2014**	SeqNo: **584123** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	11	0.50	20.00	0	54.8	43.1	99.5			
1-Methylnaphthalene	12	0.50	20.00	0	61.6	44.3	107			
2-Methylnaphthalene	11	0.50	20.00	0	56.6	42.2	102			
Acenaphthylene	13	0.50	20.00	0	66.3	46.3	109			
Acenaphthene	13	0.50	20.00	0	66.6	47.4	111			
Fluorene	14	0.50	20.00	0	68.7	46.2	106			
Phenanthrene	15	0.50	20.00	0	75.8	48.7	115			
Anthracene	15	0.50	20.00	0	75.8	47.8	113			
Fluoranthene	16	0.50	20.00	0	77.8	46.7	110			
Pyrene	15	0.50	20.00	0	76.9	48.4	108			
Benz(a)anthracene	16	0.50	20.00	0	78.8	42.9	118			
Chrysene	17	0.50	20.00	0	86.5	28.8	117			
Benzo(b)fluoranthene	15	0.50	20.00	0	77.3	47.3	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**lcs-14341**	SampType:	**LCS**	TestCode:	**EPA Method 8270C: PAHs**					
Client ID:	**LCSW**	Batch ID:	**14341**	RunNo:	**20084**					
Prep Date:	**7/22/2014**	Analysis Date:	**7/23/2014**	SeqNo:	**584123**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	15	0.50	20.00	0	76.7	46	113			
Benzo(a)pyrene	15	0.50	20.00	0	76.1	53.1	96.1			
Dibenz(a,h)anthracene	17	0.50	20.00	0	84.9	44.3	115			
Benzo(g,h,i)perylene	14	0.50	20.00	0	71.1	44.4	121			
Indeno(1,2,3-cd)pyrene	15	0.50	20.00	0	73.5	47.5	115			
Surr: N-hexadecane	51		87.60		58.6	23.5	135			
Surr: Benzo(e)pyrene	13		20.00		63.2	28.8	149			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1407891**

28-Jul-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14385**	SampType:	**MBLK**	TestCode:	**EPA 6010B: Total Recoverable Metals**				
Client ID:	**PBW**	Batch ID:	**14385**	RunNo:	**20142**				
Prep Date:	**7/23/2014**	Analysis Date:	**7/25/2014**	SeqNo:	**585646**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID	**LCS-14385**	SampType:	**LCS**	TestCode:	**EPA 6010B: Total Recoverable Metals**				
Client ID:	**LCSW**	Batch ID:	**14385**	RunNo:	**20142**				
Prep Date:	**7/23/2014**	Analysis Date:	**7/25/2014**	SeqNo:	**585648**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	1.0	0.010	1.000	0	100	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: TER-Alb | Work Order Number: 1407891 | RcptNo: 1

Received by/date: CJ 07/18/14

Logged By: **Lindsay Mangin** 7/18/2014 3:10:00 PM

Completed By: **Lindsay Mangin** 7/18/2014 3:17:52 PM

Reviewed By: IO 07/21/14

Chain of Custody

IO 07/21

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)

Adjusted? no

Checked by: CS

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Not Present			

Chain-of-Custody Record

Client: Terracon Consultants

Mailing Address: 4905 Hawkins St NE
ABQ NM 87109

Phone #: 505-797-4287

email or Fax#: mr hillier @ terracon.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☑ Standard ☐ Rush _____

Project Name: FAIRVIEW STATION

Project #: 66127029.3

Project Manager: MIKE HILLIER

Sampler: Julie Smith

On Ice: ☑ Yes ☐ No

Sample Temperature: 3.3°

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1407891	BTEX + MTBE + TMB's (8021)	BTEX + MTBE	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	EDB & EDC by 8260B	Lead SW846,6020B (TAL)			Air Bubbles (Y or N)
7/18/14	1045	SOIL	MW-13 (18-20)	3		-001		X	X			*						X	*			
7/18/14	1245	GW	MW-13	8		-002		X				X						X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/18/14	1510		Celina Sim	07/18/14	15:10
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:
* IF Elevated TPH DRO CONCENTRATIONS ARE DETECTED, Analyze the highest for PAHs.
** IF Elevated TPH GRO CONCENTRATIONS are detected, ANALYZE FOR LEAD.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

September 15, 2014

Mark Hillier

Terracon
4905 Hawkins, NE
Albuquerque, NM 87109
TEL: (505) 715-0375
FAX (505) 797-4288

RE: Fairview Station OrderNo.: 1408C64

Dear Mark Hillier:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/22/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW14 (20-22)
Project: Fairview Station
Collection Date: 8/21/2014 10:45:00 AM
Lab ID: 1408C64-001 **Matrix:** SOIL **Received Date:** 8/22/2014 8:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1 MODIFIED: EDB						Analyst:	**LRW**
1,2-Dibromoethane	6.7	0.50		µg/Kg	5	8/26/2014 2:22:22 PM	14965
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	54	9.9		mg/Kg	1	8/26/2014 5:42:41 PM	14936
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/26/2014 5:42:41 PM	14936
Surr: DNOP	83.6	57.9-140		%REC	1	8/26/2014 5:42:41 PM	14936
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	700	100		mg/Kg	20	8/29/2014 7:01:03 PM	R20898
Surr: BFB	171	80-120	S	%REC	20	8/29/2014 7:01:03 PM	R20898
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Lead	2.0	0.49		mg/Kg	2	9/3/2014 9:59:00 AM	15073
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**RAA**
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	8/29/2014 4:44:53 PM	R20912
Benzene	1.1	0.50		mg/Kg	10	8/29/2014 4:44:53 PM	R20912
1,2-Dichloroethane (EDC)	0.42	0.25		mg/Kg	10	8/29/2014 4:44:53 PM	R20912
Toluene	8.0	0.50		mg/Kg	10	8/29/2014 4:44:53 PM	R20912
Ethylbenzene	3.1	0.50		mg/Kg	10	8/29/2014 4:44:53 PM	R20912
Xylenes, Total	19	1.0		mg/Kg	10	8/29/2014 4:44:53 PM	R20912
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	10	8/29/2014 4:44:53 PM	R20912
Surr: 4-Bromofluorobenzene	87.3	70-130		%REC	10	8/29/2014 4:44:53 PM	R20912
Surr: Dibromofluoromethane	95.1	70-130		%REC	10	8/29/2014 4:44:53 PM	R20912
Surr: Toluene-d8	96.4	70-130		%REC	10	8/29/2014 4:44:53 PM	R20912

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW14
Project: Fairview Station
Collection Date: 8/21/2014 3:30:00 PM
Lab ID: 1408C64-002
Matrix: AQUEOUS
Received Date: 8/22/2014 8:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	2.3	0.20		µg/L	20	8/26/2014 7:17:57 AM	14934
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **ELS**	
Lead	0.020	0.0050		mg/L	1	8/26/2014 12:25:07 PM	14938
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	18	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
1-Methylnaphthalene	3.7	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
2-Methylnaphthalene	3.3	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Acenaphthylene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Acenaphthene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Fluorene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Phenanthrene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Anthracene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Fluoranthene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Pyrene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Benz(a)anthracene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Chrysene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Benzo(b)fluoranthene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Benzo(k)fluoranthene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Benzo(a)pyrene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	8/26/2014 2:44:43 PM	14955
Surr: N-hexadecane	60.0	29.9-83.2		%REC	1	8/26/2014 2:44:43 PM	14955
Surr: Benzo(e)pyrene	64.9	22.6-106		%REC	1	8/26/2014 2:44:43 PM	14955
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	480	10		µg/L	10	8/26/2014 4:24:55 PM	R20817
Toluene	210	10		µg/L	10	8/26/2014 4:24:55 PM	R20817
Ethylbenzene	65	10		µg/L	10	8/26/2014 4:24:55 PM	R20817
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	8/26/2014 4:24:55 PM	R20817
1,2-Dichloroethane (EDC)	84	10		µg/L	10	8/26/2014 4:24:55 PM	R20817
Xylenes, Total	160	15		µg/L	10	8/26/2014 4:24:55 PM	R20817
Surr: 1,2-Dichloroethane-d4	165	70-130	S	%REC	10	8/26/2014 4:24:55 PM	R20817
Surr: 4-Bromofluorobenzene	104	70-130		%REC	10	8/26/2014 4:24:55 PM	R20817
Surr: Dibromofluoromethane	98.0	70-130		%REC	10	8/26/2014 4:24:55 PM	R20817
Surr: Toluene-d8	87.2	70-130		%REC	10	8/26/2014 4:24:55 PM	R20817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW12 (24'26')
Project: Fairview Station
Collection Date: 8/21/2014 3:15:00 PM
Lab ID: 1408C64-003
Matrix: SOIL
Received Date: 8/22/2014 8:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1 MODIFIED: EDB						Analyst:	**LRW**
1,2-Dibromoethane	ND	0.099		µg/Kg	1	8/26/2014 2:38:00 PM	14965
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst:	**BCN**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/26/2014 6:12:43 PM	14936
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/26/2014 6:12:43 PM	14936
Surr: DNOP	87.2	57.9-140		%REC	1	8/26/2014 6:12:43 PM	14936
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	8/29/2014 7:29:43 PM	R20898
Surr: BFB	92.7	80-120		%REC	1	8/29/2014 7:29:43 PM	R20898
EPA METHOD 6010B: SOIL METALS						Analyst:	**ELS**
Lead	1.2	0.52		mg/Kg	2	9/3/2014 10:01:31 AM	15073
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**RAA**
Methyl tert-butyl ether (MTBE)	ND	0.038		mg/Kg	1	8/28/2014 9:17:39 PM	R20889
Benzene	ND	0.038		mg/Kg	1	8/28/2014 9:17:39 PM	R20889
1,2-Dichloroethane (EDC)	ND	0.019		mg/Kg	1	8/28/2014 9:17:39 PM	R20889
Toluene	ND	0.038		mg/Kg	1	8/28/2014 9:17:39 PM	R20889
Ethylbenzene	ND	0.038		mg/Kg	1	8/28/2014 9:17:39 PM	R20889
Xylenes, Total	ND	0.076		mg/Kg	1	8/28/2014 9:17:39 PM	R20889
Surr: 1,2-Dichloroethane-d4	85.9	70-130		%REC	1	8/28/2014 9:17:39 PM	R20889
Surr: 4-Bromofluorobenzene	81.9	70-130		%REC	1	8/28/2014 9:17:39 PM	R20889
Surr: Dibromofluoromethane	79.6	70-130		%REC	1	8/28/2014 9:17:39 PM	R20889
Surr: Toluene-d8	91.2	70-130		%REC	1	8/28/2014 9:17:39 PM	R20889

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
O	RSD is greater than RSDlimit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2.
RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Terracon
Client Sample ID: MW12
Project: Fairview Station
Collection Date: 8/21/2014 5:00:00 PM
Lab ID: 1408C64-004
Matrix: AQUEOUS
Received Date: 8/22/2014 8:36:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	8/25/2014 6:08:42 PM	14934
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **ELS**	
Lead	0.13	0.010		mg/L	1	8/26/2014 12:26:56 PM	14938
EPA METHOD 8270C: PAHS						Analyst: **JDC**	
Naphthalene	50	1.0		µg/L	2	8/26/2014 4:25:47 PM	14955
1-Methylnaphthalene	8.0	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
2-Methylnaphthalene	13	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Acenaphthylene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Acenaphthene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Fluorene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Phenanthrene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Anthracene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Fluoranthene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Pyrene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Benz(a)anthracene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Chrysene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Benzo(b)fluoranthene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Benzo(k)fluoranthene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Benzo(a)pyrene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Dibenz(a,h)anthracene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Benzo(g,h,i)perylene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Indeno(1,2,3-cd)pyrene	ND	0.50		µg/L	1	8/26/2014 3:54:15 PM	14955
Surr: N-hexadecane	67.2	29.9-83.2		%REC	1	8/26/2014 3:54:15 PM	14955
Surr: Benzo(e)pyrene	65.7	22.6-106		%REC	1	8/26/2014 3:54:15 PM	14955
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	1800	100		µg/L	100	8/26/2014 5:54:02 PM	R20817
Toluene	110	10		µg/L	10	8/26/2014 6:23:43 PM	R20817
Ethylbenzene	340	10		µg/L	10	8/26/2014 6:23:43 PM	R20817
Methyl tert-butyl ether (MTBE)	230	10		µg/L	10	8/26/2014 6:23:43 PM	R20817
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	8/26/2014 6:23:43 PM	R20817
Xylenes, Total	810	15		µg/L	10	8/26/2014 6:23:43 PM	R20817
Surr: 1,2-Dichloroethane-d4	169	70-130	S	%REC	10	8/26/2014 6:23:43 PM	R20817
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	8/26/2014 6:23:43 PM	R20817
Surr: Dibromofluoromethane	103	70-130		%REC	10	8/26/2014 6:23:43 PM	R20817
Surr: Toluene-d8	86.0	70-130		%REC	10	8/26/2014 6:23:43 PM	R20817

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14965**	SampType:	**MBLK**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**PBS**	Batch ID:	**14965**	RunNo:	**20796**					
Prep Date:	**8/26/2014**	Analysis Date:	**8/26/2014**	SeqNo:	**605224**	Units:	**µg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.10								

Sample ID	**LCS-14965**	SampType:	**LCS**	TestCode:	**EPA Method 504.1 Modified: EDB**					
Client ID:	**LCSS**	Batch ID:	**14965**	RunNo:	**20796**					
Prep Date:	**8/26/2014**	Analysis Date:	**8/26/2014**	SeqNo:	**605235**	Units:	**µg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.96	0.10	1.000	0	95.5	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14934**	SampType:	**MBLK**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**PBW**	Batch ID:	**14934**	RunNo:	**20768**					
Prep Date:	**8/25/2014**	Analysis Date:	**8/25/2014**	SeqNo:	**604660**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-14934**	SampType:	**LCS**	TestCode:	**EPA Method 8011/504.1: EDB**					
Client ID:	**LCSW**	Batch ID:	**14934**	RunNo:	**20768**					
Prep Date:	**8/25/2014**	Analysis Date:	**8/25/2014**	SeqNo:	**604661**	Units:	**µg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.092	0.010	0.1000	0	92.0	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14936**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**14936**		RunNo:	**20785**				
Prep Date:	**8/25/2014**	Analysis Date:	**8/26/2014**		SeqNo:	**605044**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	7.8		10.00		78.3	57.9	140			

Sample ID	**LCS-14936**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**14936**		RunNo:	**20785**				
Prep Date:	**8/25/2014**	Analysis Date:	**8/26/2014**		SeqNo:	**605198**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	82.4	68.6	130			
Surr: DNOP	4.0		5.000		79.9	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-15023 MK**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**R20898**	RunNo:	**20898**					
Prep Date:		Analysis Date:	**8/29/2014**	SeqNo:	**608485**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	80	120			

Sample ID	**LCS-15023 MK**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**R20898**	RunNo:	**20898**					
Prep Date:		Analysis Date:	**8/29/2014**	SeqNo:	**608486**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	110	65.8	139			
Surr: BFB	1000		1000		102	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID **MB-14886 MK**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **R20889**	RunNo: **20889**
Prep Date: **8/21/2014**	Analysis Date: **8/28/2014**	SeqNo: **608133** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.050								
Benzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.40		0.5000		80.9	70	130			
Surr: 4-Bromofluorobenzene	0.43		0.5000		86.3	70	130			
Surr: Dibromofluoromethane	0.40		0.5000		80.6	70	130			
Surr: Toluene-d8	0.46		0.5000		92.6	70	130			

Sample ID **LCS-14886 MK**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **R20889**	RunNo: **20889**
Prep Date: **8/21/2014**	Analysis Date: **8/28/2014**	SeqNo: **608134** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	101	70	130			
Toluene	0.98	0.050	1.000	0	98.3	70	130			
Surr: 1,2-Dichloroethane-d4	0.42		0.5000		83.2	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		80.2	70	130			
Surr: Dibromofluoromethane	0.41		0.5000		82.1	70	130			
Surr: Toluene-d8	0.45		0.5000		89.1	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605745** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	16		10.00		164	70	130			S
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605746** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	70	130			
Toluene	18	1.0	20.00	0	91.7	80	120			
Surr: 1,2-Dichloroethane-d4	16		10.00		158	70	130			S
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.0		10.00		90.4	70	130			

Sample ID **1408c64-002a ms**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW14**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605755** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	700	10	200.0	483.7	109	70	130			
Toluene	400	10	200.0	208.3	97.6	67.5	123			
Surr: 1,2-Dichloroethane-d4	160		100.0		165	70	130			S
Surr: 4-Bromofluorobenzene	100		100.0		101	70	130			
Surr: Dibromofluoromethane	110		100.0		106	70	130			
Surr: Toluene-d8	92		100.0		91.6	70	130			

Sample ID **1408c64-002a msd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW14**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605756** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID **1408c64-002a msd**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW14**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605756** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	650	10	200.0	483.7	83.0	70	130	7.61	20	
Toluene	350	10	200.0	208.3	72.6	67.5	123	13.2	20	
Surr: 1,2-Dichloroethane-d4	160		100.0		157	70	130	0	0	S
Surr: 4-Bromofluorobenzene	110		100.0		108	70	130	0	0	
Surr: Dibromofluoromethane	99		100.0		98.9	70	130	0	0	
Surr: Toluene-d8	85		100.0		85.2	70	130	0	0	

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605759** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	16		10.00		156	70	130			S
Surr: 4-Bromofluorobenzene	9.4		10.00		94.2	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.0		10.00		90.4	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R20817**	RunNo: **20817**
Prep Date:	Analysis Date: **8/26/2014**	SeqNo: **605761** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	19	1.0	20.00	0	96.6	80	120			
Surr: 1,2-Dichloroethane-d4	16		10.00		156	70	130			S
Surr: 4-Bromofluorobenzene	9.8		10.00		98.3	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.3		10.00		93.1	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID **lcs-14955**	SampType: **LCS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **LCSW**	Batch ID: **14955**	RunNo: **20795**
Prep Date: **8/26/2014**	Analysis Date: **8/26/2014**	SeqNo: **605561** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	14	0.50	20.00	0	70.6	37.5	104			
1-Methylnaphthalene	15	0.50	20.00	0	73.5	39.4	108			
2-Methylnaphthalene	14	0.50	20.00	0	71.3	40.5	98.2			
Acenaphthylene	16	0.50	20.00	0	77.7	43.6	103			
Acenaphthene	15	0.50	20.00	0	74.6	42.1	104			
Fluorene	15	0.50	20.00	0	76.5	45.7	105			
Phenanthrene	16	0.50	20.00	0	79.2	52.6	104			
Anthracene	16	0.50	20.00	0	81.2	52.8	104			
Fluoranthene	15	0.50	20.00	0	75.6	53.4	109			
Pyrene	15	0.50	20.00	0	72.6	44.9	108			
Benz(a)anthracene	15	0.50	20.00	0	72.8	45.1	110			
Chrysene	15	0.50	20.00	0	72.7	40.1	131			
Benzo(b)fluoranthene	15	0.50	20.00	0	73.0	49.9	105			
Benzo(k)fluoranthene	15	0.50	20.00	0	73.0	49.4	103			
Benzo(a)pyrene	15	0.50	20.00	0	74.9	49	100			
Dibenz(a,h)anthracene	18	0.50	20.00	0	88.5	52.9	115			
Benzo(g,h,i)perylene	15	0.50	20.00	0	74.6	43.6	107			
Indeno(1,2,3-cd)pyrene	14	0.50	20.00	0	71.1	47.6	102			
Surr: N-hexadecane	51		87.60		58.2	29.9	83.2			
Surr: Benzo(e)pyrene	13		20.00		64.0	22.6	106			

Sample ID **1408C64-002Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **MW14**	Batch ID: **14955**	RunNo: **20795**
Prep Date: **8/26/2014**	Analysis Date: **8/26/2014**	SeqNo: **605564** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	31	0.50	20.00	18.12	65.3	45	110			
1-Methylnaphthalene	18	0.50	20.00	3.720	70.6	45	110			
2-Methylnaphthalene	18	0.50	20.00	3.280	72.1	45	110			
Acenaphthylene	15	0.50	20.00	0	76.4	45	110			
Acenaphthene	15	0.50	20.00	0	73.0	45	110			
Fluorene	15	0.50	20.00	0	74.7	45	110			
Phenanthrene	18	0.50	20.00	0	90.7	45	110			
Anthracene	18	0.50	20.00	0	90.0	45	110			
Fluoranthene	17	0.50	20.00	0	85.6	45	110			
Pyrene	17	0.50	20.00	0	83.0	45	110			
Benz(a)anthracene	16	0.50	20.00	0	80.6	45	110			
Chrysene	15	0.50	20.00	0	76.9	45	110			
Benzo(b)fluoranthene	15	0.50	20.00	0	75.8	45	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID **1408C64-002Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **MW14**	Batch ID: **14955**	RunNo: **20795**
Prep Date: **8/26/2014**	Analysis Date: **8/26/2014**	SeqNo: **605564** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	16	0.50	20.00	0	81.5	45	110			
Benzo(a)pyrene	15	0.50	20.00	0	76.0	45	110			
Dibenz(a,h)anthracene	19	0.50	20.00	0	93.0	45	110			
Benzo(g,h,i)perylene	15	0.50	20.00	0	75.2	45	110			
Indeno(1,2,3-cd)pyrene	15	0.50	20.00	0	73.4	45	110			
Surr: N-hexadecane	47		87.60		53.5	29.9	83.2			
Surr: Benzo(e)pyrene	12		20.00		58.3	22.6	106			

Sample ID **1408C64-002Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **MW14**	Batch ID: **14955**	RunNo: **20795**
Prep Date: **8/26/2014**	Analysis Date: **8/26/2014**	SeqNo: **605565** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	36	0.50	20.00	18.12	88.3	45	110	13.7	20	
1-Methylnaphthalene	22	0.50	20.00	3.720	89.6	45	110	19.3	20	
2-Methylnaphthalene	20	0.50	20.00	3.280	85.0	45	110	13.6	20	
Acenaphthylene	18	0.50	20.00	0	89.5	45	110	15.8	20	
Acenaphthene	18	0.50	20.00	0	87.5	45	110	18.1	20	
Fluorene	19	0.50	20.00	0	94.9	45	110	23.8	20	R
Phenanthrene	19	0.50	20.00	0	93.4	45	110	2.93	20	
Anthracene	18	0.50	20.00	0	89.4	45	110	0.669	20	
Fluoranthene	18	0.50	20.00	0	89.7	45	110	4.68	20	
Pyrene	17	0.50	20.00	0	83.2	45	110	0.241	20	
Benz(a)anthracene	17	0.50	20.00	0	82.9	45	110	2.81	20	
Chrysene	16	0.50	20.00	0	82.0	45	110	6.42	20	
Benzo(b)fluoranthene	17	0.50	20.00	0	84.9	45	110	11.3	20	
Benzo(k)fluoranthene	15	0.50	20.00	0	76.6	45	110	6.20	20	
Benzo(a)pyrene	16	0.50	20.00	0	82.3	45	110	7.96	20	
Dibenz(a,h)anthracene	19	0.50	20.00	0	96.8	45	110	4.00	20	
Benzo(g,h,i)perylene	16	0.50	20.00	0	81.4	45	110	7.92	20	
Indeno(1,2,3-cd)pyrene	15	0.50	20.00	0	76.9	45	110	4.66	20	
Surr: N-hexadecane	54		87.60		61.1	29.9	83.2	0	0	
Surr: Benzo(e)pyrene	12		20.00		61.4	22.6	106	0	0	

Sample ID **mb-14955**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBW**	Batch ID: **14955**	RunNo: **20795**
Prep Date: **8/26/2014**	Analysis Date: **8/26/2014**	SeqNo: **605566** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID **mb-14955**	SampType: **MBLK**	TestCode: **EPA Method 8270C: PAHs**
Client ID: **PBW**	Batch ID: **14955**	RunNo: **20795**
Prep Date: **8/26/2014**	Analysis Date: **8/26/2014**	SeqNo: **605566** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1-Methylnaphthalene	ND	0.50								
2-Methylnaphthalene	ND	0.50								
Acenaphthylene	ND	0.50								
Acenaphthene	ND	0.50								
Fluorene	ND	0.50								
Phenanthrene	ND	0.50								
Anthracene	ND	0.50								
Fluoranthene	ND	0.50								
Pyrene	ND	0.50								
Benz(a)anthracene	ND	0.50								
Chrysene	ND	0.50								
Benzo(b)fluoranthene	ND	0.50								
Benzo(k)fluoranthene	ND	0.50								
Benzo(a)pyrene	ND	0.50								
Dibenz(a,h)anthracene	ND	0.50								
Benzo(g,h,i)perylene	ND	0.50								
Indeno(1,2,3-cd)pyrene	ND	0.50								
Surr: N-hexadecane	49		87.60		55.9	29.9	83.2			
Surr: Benzo(e)pyrene	11		20.00		57.1	22.6	106			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-15073**	SampType:	**MBLK**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**PBS**	Batch ID:	**15073**	RunNo:	**20954**					
Prep Date:	**9/2/2014**	Analysis Date:	**9/3/2014**	SeqNo:	**609815**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.25								

Sample ID	**LCS-15073**	SampType:	**LCS**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**LCSS**	Batch ID:	**15073**	RunNo:	**20954**					
Prep Date:	**9/2/2014**	Analysis Date:	**9/3/2014**	SeqNo:	**609816**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	23	0.25	25.00	0	94.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1408C64**

15-Sep-14

Client: Terracon

Project: Fairview Station

Sample ID	**MB-14938**	SampType:	**MBLK**	TestCode:	**EPA 6010B: Total Recoverable Metals**					
Client ID:	**PBW**	Batch ID:	**14938**	RunNo:	**20813**					
Prep Date:	**8/25/2014**	Analysis Date:	**8/26/2014**	SeqNo:	**605616**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID	**LCS-14938**	SampType:	**LCS**	TestCode:	**EPA 6010B: Total Recoverable Metals**					
Client ID:	**LCSW**	Batch ID:	**14938**	RunNo:	**20813**					
Prep Date:	**8/25/2014**	Analysis Date:	**8/26/2014**	SeqNo:	**605617**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.49	0.0050	0.5000	0	98.0	80	120			

Sample ID	**LCS Spike Check**	SampType:	**LCS**	TestCode:	**EPA 6010B: Total Recoverable Metals**					
Client ID:	**LCSW**	Batch ID:	**14938**	RunNo:	**20813**					
Prep Date:	**8/25/2014**	Analysis Date:	**8/26/2014**	SeqNo:	**605619**	Units:	**mg/L**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.47	0.0050	0.5000	0	93.4	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: TER-Alb | Work Order Number: 1408C64 | RcptNo: 1

Received by/date: AT 08/22/14

Logged By: **Anne Thorne** 8/22/2014 8:36:00 AM Anne Thorne

Completed By: **Anne Thorne** 8/25/2014 Anne Thorne

Reviewed By: 08/25/14

Chain of Custody

1. Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	Client		

Log In

4. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
6. Sample(s) in proper container(s)?	Yes ☑	No ☐	
7. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
8. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
9. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
10. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
11. Were any sample containers received broken?	Yes ☐	No ☑	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
13. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
14. Is it clear what analyses were requested?	Yes ☑	No ☐	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.7	Good	Not Present			

Chain-of-Custody Record

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: Terracon Consultants

Mailing Address: 4905 Hawkins Rd NE ABQ, NM 87109

Phone #: 505-797-4287

email or Fax#: mrhillier@terracon.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other _____

☐ EDD (Type) _____

☑ Standard ☐ Rush _____

Project Name: ~~Tate~~ Fairview Station

Project #: 64127029.3

Project Manager: Mark Hillier

Sampler: Julie Smith

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.7

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1408C64	BTEX + MTBE + TMB's (8021)	BTEX + MTBE ~~TPH (Gas only)~~	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	EDB & EDC by 8260B 504.1	Lead by SW846 6010B		Air Bubbles (Y or N)
8/21/14	1045	SOIL	MW14(20-22)	3		-001		X	X			See below						X	See below		
8/21/14	1530	GW	MW14	6		-002		X				X						X	X		
8/21/14	1515	SOIL	MW12(24-26)	3		-003		X	X			See below						X	See below		
8/21/14	1700	GW	MW12	6		-004		X				X						X	X		

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/22/14	830			08/22/14	0836
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks: PAHs = If elevated TPH DRO Concentrations are detected, Analyze the highest for PAHs

Lead: If elevated TPH GRO concentrations are detected, analyze for lead.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

*QC Sample is with MW14

APPENDIX F

Health and Safety Plan

Terracon

SAFETY AND HEALTH PLAN
PETROLEUM HYDROCARBON CONTAMINATION ANTICIPATED

PROJECT NAME: Former Fuel Station

LOCATION: 1626 North Riverside Drive, Espanola, New Mexico

TERRACON PROJECT NUMBER: 66127029.3

START DATE: July 18, 2014

1.0 APPLICABILITY

This Safety and Health Plan (Plan) will be used exclusively for Terracon projects involving:

- UST Removals (UST Addendum required)
- Intrusive Investigations
- Remedial Assessments
- Site Remediation
- Spill Control/Emergency Response

where petroleum hydrocarbons (gasoline, diesel fuel, waste oils, fuel oils, petroleum based hydraulic fluids, etc.) are the only known contaminants of concern. If contaminants other than petroleum hydrocarbons are known or suspected, the Project Manager will contact the Corporate Safety and Health Manager to arrange for development of a site and contaminant-specific Safety and Health Plan.

Subcontractors engaged in project activity at this site will comply applicable provisions of the Occupational Safety and Health Act of 1970, the safety and health requirements set forth in Occupational Safety and Health Administration regulation 29 CFR 1910.120, where applicable, and any applicable state, city or local safety codes. Each subcontractor will be responsible for supplying a Competent Person to oversee drilling work at this project site. The drilling subcontractor has primary responsibility for utilizing equipment and work practices necessary to protect the safety of the subcontractor's employees engaged in this project.

The subcontractor will maintain an orderly and safe work area around drilling/excavation equipment to minimize the potential for accidents. In addition, the subcontractor shall provide whatever safety barricades or warning devices are deemed necessary by Terracon to prevent accidents or injury to field personnel and the general public.

Subcontractors engaged on this project site may utilize this site Safety and Health Plan for their employees, or each subcontractor may develop and utilize their own site Safety and Health Plan provided the provisions of the subcontractor's site Safety and Health Plan are at least as stringent as the requirements contained in this Plan. Decisions regarding equivalence of safety and health requirements shall be made by Terracon Project Manager and Corporate Safety and Health

Manager. Adoption of this Site Safety and Health Plan by subcontract employers shall not relieve any site subcontractor for the responsibility for the health and safety of its employees.

2.0 SAFETY AND HEALTH ADMINISTRATION

The Project Manager is ultimately responsible for seeing that work on this project is performed in accordance with the safety and health provisions contained in this Plan. The designated Site Safety and Health Officer (SSO) will monitor compliance with this Plan during field activities. All field team members engaged in project activities will be required to sign the "Acknowledgment of Instruction" form included with this Plan. The SSO will maintain a copy of this Plan on site for the duration of project activities.

Terracon and subcontractor task leaders will be responsible for:

- Providing subordinate personnel a copy of this Plan, and briefing them on its content.
- Enforcing the applicable provisions of this Plan.
- Inspecting and maintaining equipment in compliance with applicable federal, state or local safety regulations.
- Enforcement of corrective actions.
- Investigation of accidents or injuries.

The following individuals will be responsible for implementation and enforcement of the Plan:

TITLE	NAME	PHONE
Project Manager:	Mark R. Hillier	505-797-4287
Terracon Safety and Health Manager:	Gary K. Bradley, CSP, CHMM	913-599-6886
Site Safety and Health Officer:	Mark R. Hillier	505-797-4287
Terracon Task Leader(s):	Julie A. Smith	505-205-7077
Subcontractor Task Leader:	Rodney Hammer	505-857-9876

If hazardous conditions develop during the course of project activity, the SSO in conjunction with the Terracon Corporate Safety and Health Manager, will coordinate actions required to safeguard site personnel and members of the general public. Additional safety measures will be verbally communicated to all project personnel, recorded in writing and appended to this Plan.

3.0 MEDICAL SURVEILLANCE REQUIREMENTS

All Terracon personnel participating in this project shall be enrolled in a health monitoring program in accordance with the provisions of OSHA 29 CFR 1910.120 and 1910.134. Each project participant shall be certified by a Doctor of Medicine as fit for respirator and semi-permeable/impermeable protective equipment use. All personnel shall have received an environmental physical examination within one year prior to the start of project activities.

4.0 EMPLOYEE TRAINING REQUIREMENTS

All Terracon personnel must have completed 40 hour Hazardous Waste Operations Training and at least three days of supervised field activity per the requirements of OSHA 29 CFR 1910.120. In addition, a current 8-hour annual refresher training certificate will be required for all personnel. Training certificates for all project personnel will be maintained by the Corporate Safety and Health Manager and/or the SSO at the project command center.

Prior to the start of site activities, the SSO will conduct a pre-project safety and health briefing for all project participants. The personnel responsible for project safety and health will be addressed, as will site history, scope of work, site control measures, emergency procedures and site communications. The briefing will address site contaminants, air monitoring protocols, action levels for upgrade/downgrade of personal protective equipment and level of personal protective equipment to be employed for each project task.

Safety and health briefings will be presented by the SSO at the start of each work day. In addition to a general review of the proposed daily activity and safety requirements, the results of previous air monitoring and any procedural changes will be addressed.

5.0 RESPIRATORY PROTECTION PROGRAM

The purpose of the Terracon respiratory protection program is to prevent personnel exposure to airborne contaminants in excess of established permissible exposure limits/threshold limit values. All respirators employed by Terracon personnel will be NIOSH approved. Cartridges and filters for air purifying respirators will be appropriate for the contaminant(s) of concern. Cartridge/filter selection will be made by the Terracon Corporate Safety and Health Manager. Project personnel required to wear respiratory protection will be medically cleared for respirator use, trained and successfully fit tested in accordance with OSHA 29 CFR 1910.134. Personnel required to wear supplied air respirators will demonstrate competence in donning/doffing and inspecting the equipment prior to job assignment. All project tasks requiring the use of supplied air respirators will require properly equipped backup personnel ("buddy system").

At a minimum, air purifying respirator cartridges will be changed daily prior to use. More frequent change of respirator cartridges will be based on the results of site air monitoring. Under no circumstances will air purifying respirators be used in areas deficient in oxygen (<19.5%), in areas classified as immediately dangerous to life and health (IDLH) or in areas where contaminants have not been characterized.

Respirators will be inspected and required fit checks will be performed prior to use, and any necessary repairs will be made before proceeding to the project site. Respirators will be sanitized daily after use.

6.0 SITE HISTORY/SCOPE OF SERVICES

Preliminary information obtained from the client indicates that this project site may be contaminated with petroleum hydrocarbons. The personal protective equipment and direct reading air monitoring protocols specified below are designed to prevent personnel exposure to contamination in excess of permissible exposure limits.

6.1 Scope of Services

X Soil/Groundwater Sampling

X Soil Boring (Drill Rig)

___ Remedial System Installation

___ Other (_____)

___ Soil Boring (Hand Auger)

___ UST Removal *(requires tank removal addendum)*

X Monitoring Well Installation

7.0 HAZARD ASSESSMENT

7.1 Chemical Hazards

Soils/groundwater at this project site may be contaminated with petroleum hydrocarbons. Benzene is the most significant health hazard contained in petroleum blends and typically comprises less than 1% of regular grade gasoline. Specific health hazard information on petroleum compounds and their most health-significant volatile fractions are provided below. Additional health-hazard information may be found in the chemical product information sheets attached to this Plan. Personnel engaged in monitoring well sampling are advised that organic vapors from contaminated groundwater can collect in wells and be displaced by bailers. Personnel are advised to approach monitoring wells from the upwind side, remove the cap and allow the well to vent momentarily prior to sampling. Keep breathing zone to the upwind side of wells during bailing activities.

BENZENE

Permissible Exposure Limit
1 ppm OSHA PEL
5 ppm OSHA 10 min Ceiling
0.5 ppm OSHA Action Level

Benzene is a central nervous system depressant and an eye and skin irritant. Poisoning may cause hemorrhages and immunosuppression. A relationship has been discovered between

benzene exposure and leukemia. Benzene is regulated as an occupational carcinogen. Acute exposure may cause dizziness, excitation, weakness, headache, giddiness, breathlessness and chest constriction.

TOLUENE

Permissible Exposure Limit
50 ppm ACGIH TLV
(Skin Absorbable)

Toluene is an eye, skin and mucous membrane irritant and a central nervous system depressant. Poisoning may affect the liver and kidneys. Prolonged exposure may affect the heart and blood. The ingestion of alcoholic beverages may enhance the toxic effects of toluene. Symptoms of exposure include respiratory tract irritation, headache, dizziness and eye irritation. Toluene may be absorbed to the bloodstream via skin contact.

ETHYL BENZENE

Permissible Exposure Limit
100 ppm OSHA PEL

Ethyl benzene is a skin, eye and mucous membrane irritant. It is moderately toxic by ingestion and slightly toxic by skin absorption. Ethyl benzene is a central nervous system depressant. Poisoning may affect the liver. Symptoms of exposure may include a sense of chest constriction and nervous disorders. Skin contact may result in first and second degree burns. The odor can be detected at 140 ppm ant irritation occurs at 200 ppm.

XYLENE

Permissible Exposure Limit
100 ppm OSHA PEL

Xylene is a mild eye and mucous membrane irritant, primary skin irritant and a central nervous system depressant. Ingestion causes severe gastrointestinal upset and creates an aspiration hazard. Chronic inhalation results in symptoms that resemble acute poisoning, but are more severe systemically.

GASOLINE

Permissible Exposure Limit
300 ppm ACGIH TLV

Gasoline is irritating to the skin, eyes and mucous membranes. Dermatitis may result from prolonged contact with the liquid. Gasoline acts as a central nervous system depressant. Exposure may cause staggering gait, slurred speech and mental confusion. Gasoline exposure may affect the liver, kidneys and spleen. Absorption of alkyl lead antiknock compounds

contained in many gasolines poses an additional health concern, especially where there is prolonged skin contact.

DIESEL FUEL (No. 2-D)

Permissible Exposure Limit
400 ppm OSHA PEL (As petroleum distillates/naphtha)

Diesel fuel is a skin and mucous membrane irritant and a central nervous system depressant. Poisoning may affect the liver and kidneys. Skin contact may result in drying and cracking of the skin.

FUEL OIL (No. 6)

Permissible Exposure Limit
400 ppm OSHA PEL (as petroleum distillates/naphtha)
0.2 mg/m^3 OSHA PEL (Coal Tar Pitch Volatiles, "PNA's")

Fuel oil No. 6, or "Bunker Fuel", may be irritating to the eyes and skin. Poisoning may affect the liver, kidneys and digestive system. This substance is likely to contain polynuclear aromatic hydrocarbons (PNA's), some of which are considered carcinogenic. PNA's present a skin contact hazard. Avoid skin contact with potentially contaminated site materials.

7.2 Physical Hazards

Activities to be performed on site may involve drilling equipment and materials. Personnel should be aware that as personal protective equipment increases, dexterity and visibility may be impacted and performing some tasks may be more difficult. Tape all loose protective clothing to avoid entanglement in rotating equipment. Before drilling proceeds, underground utilities must be located and marked. Other drilling safety precautions to be observed during this assessment include the following:

- All personnel working around drill rigs will be familiarized with emergency shut-down procedures and the position of "kill" switches.
- No loose fitting clothing, jewelry or unsecured long hair is permitted near the rig.
- Keep hands and feet away from all moving parts while drilling is in progress. Shovel auger cuttings with long handled shovel. *DO NOT* use hands or feet.
- Daily inspection of all ropes, cables and moving parts is mandatory.
- A first aid kit and fire extinguisher will be immediately available at all times.
- All drill crews shall consist of at least two persons.

- No drilling is permitted during impeding electrical storms, tornadoes or when rain creates a hazardous work environment.

- A minimum horizontal and vertical clearance distance of **10 feet** must be maintained between the drill rig and overhead power lines; use spotters to help rig operator maneuver the vehicle when near overhead power lines.

  Other physical hazards which may be present on this project site include:

  - Back injuries due to improper lifting - Use proper lifting techniques. Lift with the legs, not the back. Keep loads close to the body and avoid twisting. Loads heavier than 50 pounds (lbs) require a second person or mechanical device for lifting. Use mechanical devices such as drum dollies, hand trucks, and tool hoists (for lifting augers) to lift or move heavy loads whenever possible.

  - Ergonomic Stress - Lift carefully with load close to body with the legs taking most of the weight. Get help with lifts greater than 40 lbs. When working with a heavy tool or object, keep legs under the load and do not overreach or twist to the side. Reposition body to be more square to the load and work. Push loads, rather than pull, whenever feasible. Do not persist with lifting when the load is too heavy. Use a mechanical lifting aid or have a coworker assist with the lift. Rotate repetitive tasks to avoid soft-tissue fatigue.

  - Falls From Elevated Surfaces - Protect employees from falling off surfaces that have a side or an edge that is 6 ft or more above a lower level. Provide a safety harness and shock-absorbing lifeline or adequate fall protection where applicable. Employees must wear them when working 6 ft or higher above the platform or main work deck. Install either a guardrail system or fall arrest system that conforms to 29 CFR 1926.502 (d) and is approved by the American National Standards Institute.

  - Fire and Explosion - Make ABC fire extinguishers accessible in the work area. Store flammables in Underwriter's Laboratory and Occupational Safety and Health Administration (OSHA) approved metal safety cans equipped with spark arrestors. Store flammable containers more than 50 ft from possible ignition sources. Keep exhaust equipment powered by internal combustion engines well away from flammables and combustibles. Secure hot work permits/approvals before welding or cutting. Store and use compressed gases in a safe manner. Never refuel equipment (e.g., generators) while it is in operation or hot enough to ignite fuel vapors. Conspicuously mark operations that pose fire hazards "No Smoking" or "Open Flames." Remove trash, weeds, and unnecessary combustibles from the Exclusion Zone (EZ). Transfer of potentially flammable liquids will be conducted with intrinsically safe pumping equipment. Drums will be bonded and grounded prior to transfer of potentially flammable liquids.

  - Vehicles - Obey all site traffic signs and speed limits. Seat belts must be functional and in use during operation of any site vehicles (including rentals). Operator shall regularly

inspect the vehicle for defective parts, such as brakes, controls, motor, chassis and drives. Always be aware and stay alert to traffic around the work area.

- Inclement Weather – The project may be shutdown by the SSO during the following inclement weather conditions: poor visibility; precipitation severe enough to impair safe movement or travel; lightning in the immediate area; steady winds in excess of 40 mph; or, other conditions as determined by the SSO or Corporate Safety and Health Manager. Work will resume when the conditions are deemed safe by the SSO.

- Noise - Wear hearing protection when speech becomes difficult to understand at a distance of 10 ft and while standing within 20 to 25 ft from heavy equipment, pneumatic power tools, steam cleaners, and other equipment in operation that can generate more than 85 decibels (A-weighted scale) (dBA).

- Slips, Trips, and Falls - Clear work area of obstructions and debris before setting up. Alter work areas as necessary to provide a safe, reasonably level area. All walking and working surfaces shall continually be inspected and maintained to be free of slip, trip, and fall hazards. Keep platforms, stairs, and immediate work areas clear. Do not allow oil, grease, or excessive mud to accumulate in these areas. Eliminate slip, trip, and fall hazards or identify them clearly with caution tape, barricades, or equivalent means. Store loose or light material and debris in designated areas or containers. Secure tools, materials, and equipment subject to displacement or falling.

- Traffic Control - If site activities interrupt the normal flow of pedestrian or vehicular traffic, barricades and warning signs which comply with the Manual on Uniform Traffic Control Devices and/or State or local ordinances will be erected around affected equipment. Safety orange work vests will be worn by personnel working within 10 feet of any active roadway. All borings or partially completed groundwater monitoring wells will be adequately covered and/or barricaded if left unattended for any period of time.

8.0 SITE CONTROL

An Exclusion Zone, Contaminant Reduction Zone and a Support Zone will be established whenever project activities require Level C or Level B personal protective equipment. Defined access and egress points will be established and personnel will enter only through those points.

As permitted by site topography, the area within a 50 foot radius of a drill rig and 100 foot radius of UST removal excavation shall be considered the Exclusion Zone. Only those personnel designated by the Project Manager/SSO are allowed to enter the Exclusion Zone. Where practical, or where their use will prevent public injury, temporary signs or barricade fencing will be established to define the Exclusion Zone. ABSOLUTELY NO SMOKING WILL BE PERMITTED WITHIN THE EXCLUSION OR CONTAMINANT REDUCTION ZONES ON ANY PETROLEUM CONTAMINATED SITE.

If unauthorized personnel attempt to enter the exclusion zone, the SSO will verbally inform the individual(s) to leave the project site. If unauthorized individuals refuse to leave the Exclusion Zone or are considered in danger or pose danger to project personnel, the SSO will cease

project activities (i.e., shut down drill rigs, excavation equipment, etc.) and notify the client representative or the local police of the situation. Site activities will not resume until unauthorized personnel have left the project site.

9.0 AIR MONITORING AND SITE ACTION LEVELS

This air monitoring protocol is designed to prevent personnel exposure to airborne contaminants in excess of established permissible exposure limits. The results of field air monitoring will be used to determine the continued adequacy of initial personal protective equipment.

Air monitoring equipment required for petroleum contaminated sites will include the following:

- **Photoionization Detector**

Task Leader(s) will be knowledgeable in the operation of the photoionization detector. A manual on the operation of the PID and the appropriate calibration kit will be mobilized to the project site with the instrument. Photoionization detectors will be calibrated under field conditions *each day* prior to use. Task Leaders are instructed to consult the manufacturer's specifications for appropriate calibration gas and calibration techniques.

A photoionization detector (PID) will be used to determine approximate hydrocarbon vapor concentrations in the BREATHING ZONE of site personnel. Continuous breathing zone air monitoring will be conducted during initial phases of intrusive activities (i.e., boring, excavation). If PID readings are less than 10 ppm, monitoring may be conducted at intervals of 10 minutes. If initial PID readings exceed 10 ppm, or if hydrocarbon odors become evident upon during auger advancement, continuous breathing zone air monitoring will be conducted..

If sustained PID readings in the breathing zone exceed 25 ppm, personnel will upgrade to respiratory protection as outlined below. Personnel will remain in air purifying respirators until the photoionization detector readings in the breathing zone have fallen and stabilized below 25 ppm.

9.1 Site Action Levels

Instrument	Level D/D Mod	Level C	Site Evacuation
PID	**< 25 ppm**	**> 25 ppm**	**> 300 ppm**

The Action Levels indicated above are for air in the breathing zone and NOT applicable to vapor above containerized soil samples. The Action Levels are established to prevent exposure to airborne petroleum hydrocarbon vapors in excess of established exposure limits. Although the Action Levels indicated for Site Evacuation are within the protective capacity of the respirator cartridges specified below, personnel will evacuate to the UPWIND side of the site if the continuous breathing zone vapor concentrations exceed these limits. The SSO will contact the Corporate Safety and Health Manager for discussion and re-evaluation of personal protective equipment and air monitoring requirements if airborne contamination exceeds Site

Evacuation Action Levels. In the event that site evacuation is required, a modification of this safety and health plan will be issued with contingencies for combustible gas monitoring and upgrading to Level B personal protective equipment.

THIS PLAN IS NOT VALID FOR LEVEL B SITE ACTIVITIES.

10.0 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

The air monitoring regimen identified above will allow initial project activity to begin in **LEVEL D** personal protective equipment to include:

- **Hard Hat**
- **Chemically Protective Safety Boots (Hazmax, other as approved by S&H Mgr.)**
- **Nitrile, Neoprene Rubber or Silver Shield Outer Gloves**
- **Nitrile or Latex Inner Liners**
- **Safety Eye Wear (ANSI Z-87 approved)**
- **Hearing Protection (if within 10 feet of drill rigs, concrete coring or other equipment which impairs normal conversation at < 5 feet.)**

If petroleum saturated soils and potential splashing conditions develop during the course of the assessment, personnel will upgrade to **LEVEL D MODIFIED** personal protective equipment. Level D Modified personal protective equipment ensemble consists of the above, plus:

- **Polylaminated Tyvek Coveralls**
- **Tape Sleeves/Legs to Gloves and Boots**

If air monitoring exceeds Action Level specified for upgrade to **LEVEL C** personal protective equipment, personnel will don:

- **Full Face Air Purifying Respirator**
- **Equipped with Combination Organic Vapor/Acid Gas/HEPA Cartridges**

11.0 DECONTAMINATION

Equipment decontamination is necessary on all petroleum hydrocarbon sites. Personnel decontamination for projects below personal protective Level C will consist of washing off safety footwear, proper cleaning or disposal of outer and inner gloves and thorough washing of face, arms and hands. A full body shower will be required as soon as possible upon leaving the

project site. For projects involving Level C personal protective equipment, a decontamination station will be established and the following procedures enforced.

11.1 Personal Decontamination

Personnel will establish a decontamination station on the interface of the Exclusion Zone. A Contaminant Reduction Zone will be established and will extend 10 feet beyond from the decontamination station.

- Two Wash Tubs
- Scrub Brush
- Plastic Bags
- Water and Alconox Detergent

The wash tub on the exclusion zone side of the site will contain a solution of water and Alconox detergent; the second wash tub will contain clean rinse water. Personnel decontamination will consist primarily of detergent washing and rinsing of reusable exterior protective gear. Coveralls will be removed by turning the clothing inside out.

Personnel may not leave the contaminant reduction zone without proceeding through the decontamination sequence described below. Decontamination station will consist of:

- Wash work gloves, boots and polylaminated protective coveralls,
- Rinse work gloves, boots and coveralls,
- Remove tape at wrists and ankles,
- Remove protective coveralls,
- Remove respirator
- Dispose of spent cartridges; wash and rinse respirator
- Remove outer gloves
- Remove inner gloves

Expendable personal protective equipment will be placed in plastic trash bags, sealed and disposed of per client agreement. Decontamination solutions will be containerized or disposed of as arranged by Project Manager.

11.2 Equipment Decontamination

Decontamination of equipment will be performed to limit the migration of contaminants off-site. All equipment will be cleaned prior to site entry to remove grease, oil and encrusted soil.

Decontamination of large equipment will consist of physically removing gross contamination with shovels, brushes etc. followed by detergent and water high pressure wash with a clean water rinse. The Project Manager is responsible for determining if decontamination solutions must be containerized. If so, a decontamination sump or polyethylene sheeting and fluid containers will be mobilized and established in the decontamination area. Decontamination of hand samplers and similar small equipment will be performed at a designated location within the Contaminant Reduction Zone. Decontamination of such equipment will consist of detergent solution wash and clean water rinse.

12.0 SITE COMMUNICATIONS

Communication between personnel within the Exclusion Zone will be via verbal communication or hand signals. Visual contact between members of task teams should be possible throughout the course of project activities. Contact with the SSO will be through direct verbal communication. The following hand signals will be used by personnel wherever respiratory protection and/or equipment noise limit verbal communication.

Signal	Meaning
Thumbs Up	OK, all is well
Grab throat with both hands	Can't breathe
Shake head, thumbs down	NO, negative
Point right (when facing equipment operator)	Move/steer left
Point left when facing equipment operator)	Move/steer right
Grab partner's wrist	Leave area immediately

13.0 EMERGENCY RESPONSE PROCEDURES

The Project Manager is responsible for obtaining and recording the following emergency information prior to site mobilization:

Location of Nearest Telephone:

Nearest Hospital/Clinic: Espanola Hospital Phone: 505-753-7111

Estimated Drive Time: 8 minutes

Directions From Site: (ATTACH SITE DIAGRAM) Riverside south to Fairview west to Hwy 285 south to Spruce St. west to hospital

Ambulance:	**911**
Fire Department:	**911**
Police:	**911**
Poison Control Center:	**1-800-222-1222**

Project Manager:	**Mark Hillier 505-797-4287**
Safety and Health Manager:	**(913) 599-6886**
Client Contact:	**Mark Hillier 505-797-4287**

13.1 Personal Injury

The SSO and at least one other individual on site will be appropriately trained to administer first aid. A certificate issued by the American Red Cross, National Safety Council or equivalent will be considered acceptable.

For minor injuries, such as cuts, burns, exhaustion, heat cramps, insect stings, etc., the affected employee will be removed to an uncontaminated area. The SSO or other designated employee trained in first aid procedures will administer appropriate first aid. If the injury warrants additional medical attention, the affected employee will be properly decontaminated and transported to the nearest hospital or emergency medical facility.

For more serious injuries the Site Safety Officer or designee will summon an ambulance to the project site. No attempt will be made by Terracon personnel to move the victim, without the aid and/or instructions of qualified medical personnel.

Where air monitoring indicates the absence of toxic gases or vapors, the ambulance will be directed to the affected employee. If site conditions warrant and as time permits, the wheels of the ambulance will be decontaminated with high pressure wash. The SSO or designee will accompany the ambulance to the medical facility, and provide guidance concerning additional decontamination which may be required for the injured employee, ambulance or attendants.

Whenever an injury occurs on sites with contamination requiring personal protective equipment greater than Level D modified, a minimum of two employees will don appropriate equipment and proceed to the victim. An ambulance will be called immediately. If the extent of injuries permit, the injured employee will be removed to fresh air. Appropriate first aid will be administered.

If rescuer(s) assess that the victim cannot be removed without a stretcher or other specialized equipment, the victim will be removed at the earliest possible moment by appropriately attired Terracon personnel with the direction and/or assistance of qualified medical response personnel. The injured employee will be immediately decontaminated and transported to the nearest medical facility. A crew member designated by the SSO will inform the ambulance crew of contaminants of concern and provide assistance with additional decontamination if required.

13.2 Evacuation and Shutdown Procedures

The SSO will establish and notify site personnel of emergency "rally" points. In the event of a site emergency, personnel will immediately exit the site and assemble at the designated rally

point. Evacuation routes will be dependent on site topography and wind conditions. The routes will be selected and presented by the SSO daily prior to site activity.

If emergency evacuation becomes necessary, the SSO will sound the emergency alarm (e.g. support vehicle horn or compressed air horn). Personnel will safely shutdown all electrical and mechanical equipment and quickly proceed to closest designated rally point. The SSO will then account for each crew member on site.

In the event that a Terracon employee does not report to the designated rally point within 5 minutes of the evacuation alarm, the SSO will perform an immediate assessment of site conditions. If site conditions do not pose an immediate hazard to life or health, the SSO will initiate search and rescue efforts utilizing two crew members attired in appropriate personal protective equipment.

14.0 HEAT STRESS

14.1 Level D/D Modified PPE

Whenever ambient temperature exceeds 70 degrees F and personal protective equipment requirements are Level D or Level D modified, the following heat stress monitoring and preventive measures will be implemented.

At least one gallon of water will be available for each field employee during each day of site activity. The designated Site Safety Officer and one designee will observe personnel for signs of heat stress (excessive perspiration, flushed skin, nausea, etc.).

If such signs are observed, affected workers will be required to leave the contaminant zone, loosen protective clothing and rest. During the rest period affected personnel will drink at least one 8 oz. glass of cool water. Pulse will be checked at the beginning of the rest period. Personnel will not return to work until pulse rate is less than 90.

14.2 Level C, B or A PPE

In addition to the above precautions, the following procedures will be implemented whenever the ambient temperature exceed 70 degrees F and personal protective equipment requirements are Level C or above. Ambient temperature will be measured with a dry bulb thermometer and percent cloud cover will be estimated:

1.0 = No Clouds
0.75 = 25% Clouds
0.5 = 50% Clouds
0.25 = 75% Clouds
0.0 = 100% Clouds).

Calculate the adjusted temperature using the following formula:

ADJUSTED TEMPERATURE = 13(% CLOUD COVER) + DRY TEMPERATURE

Rest regimens and physiological monitoring (oral temperature and radial pulse) will be implemented at frequencies dependent upon adjusted temperature.

Adjusted Temperature	Rest Period/Monitoring Frequency
90+	After 15 minutes
87.5-90	After 30 minutes
82.5-87.4	After 60 minutes
77.5-82.5	After 90 minutes
70.5-77.4	After 120 minutes

Employees will return to work only after oral temperature is below 99.7 degrees F and pulse rate < 90. Fluid replacement will be encouraged during each rest period. The use of stimulants and alcoholic beverages in off hours will be discouraged.

15.0 COLD STRESS

Persons working outdoors in low temperatures, especially at or below freezing are subject to cold stress. Exposure to extreme cold for a short time can cause severe injury to the surface of the body or result in profound generalized cooling which, in extreme cases, can lead to coma and death. Areas of the body which have high surface area, such as fingers, toes and ears are most susceptible.

Protective clothing generally does not provide protection against cold stress. In many instances it may increase susceptibility due to excessive perspiration which can rapidly cool the body when exposed to cold, windy conditions. The greatest incremental increase in wind chill occurs when a wind of 5 mph increases to 10 mph. And, because water conducts heat approximately 240 times faster than air, the body will cool rapidly when chemical protective equipment is removed if undergarments are saturated with perspiration.

Whenever ambient temperatures are expected to be below freezing, Terracon personnel will consult the cold stress section of the Terracon Safety and Health Policy and Procedures Manual to re-familiarize themselves with signs, symptoms and treatment of cold injuries. Thermal boot, glove and hard hat liners will be mandatory for all personnel conducting field activities in ambient temperatures below freezing.

Terracon

SAFETY AND HEALTH Plan
for
PETROLEUM HYDROCARBON CONTAMINATION

TERRACON

Date: July 18, 2014

Rev: 12/05

ACKNOWLEDGMENT OF INSTRUCTION

All Terracon personnel are required to sign the following acknowledgment of instruction form prior to conducting project activities. This acknowledgment is not a waiver. It is the primary method used in compiling environmental experience and contaminant exposure records for Terracon personnel. Upon written request, a copy of your environmental work record will be provided by the Corporate Safety and Health Manager.

I understand that this project involves the investigation of a project site with potential petroleum hydrocarbon contamination. I have read this Safety and Health Plan and have received instructions for safe work practices, personal protective equipment and air monitoring requirements. I further understand that if I encounter unanticipated contamination I am to leave the site and immediately notify the Project Manager and Corporate Safety and Health Manager of conditions discovered.

PROJECT NAME: FAIRVIEW STATION

TERRACON JOB #: 66127029.3

Name (Please Print)	Signature	Date
Julie Smith		7-18-14 & 7/21/14
Christian Ortiz		7-18-14
Juan Ronquillo		7-18-14
JUAN BARRAZA		07-21-14

PERSONAL PROTECTIVE EQUIPMENT UTILIZED:

__X___ **LEVEL D** _____ **LEVEL D MOD.** ____ **LEVEL C**

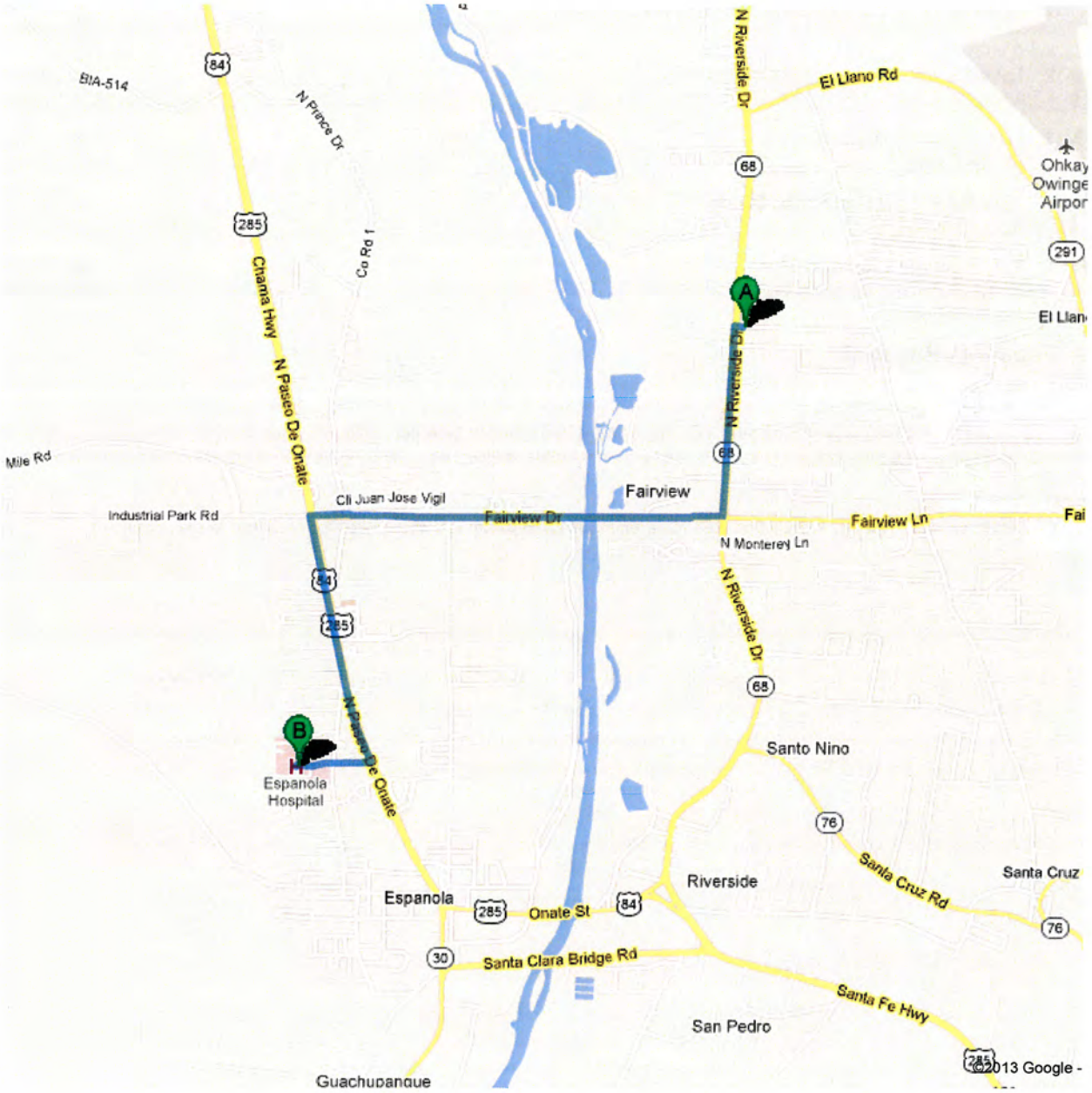
Safety briefing performed by: Julie Smith Date: 7/18/14

PETROLEUM CONTAMINANT(S): _____ _____ _____

AIR MONITORING RESULTS (Attach separate page if required.)

Google

Directions to Espanola Hospital
Espanola, NM
2.9 mi – about **8 mins**



A Cll Ranchitos

	1. Head **west** on **Cll Ranchitos** toward **N Riverside Dr**	go 131 ft total 131 ft
	2. Take the 1st left onto **N Riverside Dr** About 2 mins	go 0.6 mi total 0.6 mi
	3. Turn right onto **Fairview Dr** About 2 mins	go 1.3 mi total 1.9 mi
	4. Turn left onto **N Paseo De Onate** About 2 mins	go 0.8 mi total 2.7 mi
	5. Turn right onto **Spruce St** Destination will be on the right About 56 secs	go 0.2 mi total 2.9 mi

B **Espanola Hospital**
Espanola, NM

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.