GROUND WATER QUALITY BUREAU (GWQB)
DISCHARGE PERMIT RENEWAL
EXISTING POTASSIUM MINE FACILITY
Issued under 20.6.2 NMAC

Mine Facility Name:	Mosaic Potash Mine
GWQB Discharge Permit No.:	DP-1399
Permittee Name/Responsible Party:	Mosaic Potash Carlsbad Inc.
Mailing Address:	PO Box 71 Carlsbad, NM 88220
Mine Facility Contact:	John Anderson, (575) 628-6367
Mine Facility Location:	1361 Potash Mines Road Carlsbad, NM 88220
County:	Eddy County
Permitting Action:	Renewal
Effective Date:	[DATE]
Expiration Date:	[DATE]
Draft Date:	September 11, 2025
NMED Permit Contact	Jessica Hubbling, (505) 487-3720
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Justin Ball, Chief
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Date

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

Part A GENERAL INFORMATION

A100 Introduction

A. The New Mexico Environment Department (NMED) issues this Discharge Permit Renewal, DP-1399 (Discharge Permit), to Mosaic Potash Carlsbad Inc. (permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978, §§ 74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Regulations, 20.6.2 NMAC. NMED is issuing this Discharge Permit to control the discharge of water contaminants from the Mosaic Potash Mine for the protection of groundwater and those segments of surface water that are gaining because of groundwater inflow, for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health.

B. Pursuant to this Discharge Permit, the permittee is authorized to discharge a combined maximum of 7,500,000 gallons per day (gpd) of tailings and other fluids from three discharge locations: 1) from the Mosaic Potash Processing Plant Site (Plant Site) to the Salt Stack via a pipeline called the Tailings Main Line, 2) from the Plant Site to an open channel called the West Canyon, and 3) from the Clay Settling Pond (CSP) to Laguna Grande via the Brine Pipeline. The discharge from the Tailings Main Line to the Salt Stack includes tailings, granular salt, clay minerals, and brine. The discharge to the West Canyon contains plant wash water, runoff from the processing facility, and approximately 20,000 gpd of untreated domestic wastewater from restroom facilities. The discharge to Laguna Grande via the Brine Pipeline consists of clarified brine decanted from the CSP.

C. These discharges may move directly or indirectly into groundwater of the State of New Mexico that has an existing concentration of 10,000 mg/L or less of total dissolved solids (TDS) within the meaning of Section 20.6.2.3104 and Subsection A of 20.6.2.3101 NMAC. These discharges may contain water contaminants or toxic pollutants elevated above the standards of 20.6.2.3103 NMAC in compliance with the terms and conditions of this Discharge Permit.

D. The permittee is required to conduct the activities in the Stage 1 Abatement Plan (S1AP), approved on November 18, 2022, extended on November 4, 2024, and extended and modified on June 26, 2025, to investigate TDS, chloride, and sulfate concentrations that exceed groundwater standards of 20.6.2.3103 NMAC in locations downgradient of the Site where the background concentration of groundwater is less than 10,000 mg/L TDS consistent with 20.6.2.4101(A)(1) NMAC.

E. The permittee is authorized to discharge water contaminants pursuant to this Discharge Permit, which requires compliance with Part 20.6.2 NMAC (WQCC Regulations) and is enforceable by NMED.

A101 Applicable Regulations

A. Groundwater quality as observed in monitoring wells required by Section C105 of this Discharge Permit is subject to the criteria of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.

B. The discharge from the facilities regulated pursuant to this Discharge Permit are not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

C. Abatement shall be conducted in accordance with the approved Stage 1 Abatement Plan, including the associated Monitoring Plan, Health and Safety Plan, and Quality Assurance Plan, as well as Sections 20.6.2.4000 through 20.6.2.4115 NMAC, and Part C106 of this Discharge Permit. Pursuant to Paragraph (6) of Subsection C of 20.6.2.4106 NMAC, the requirements associated with the S1AP will remain in effect until NMED approval of a final site investigation report.

A102 Permit Duration

A. Pursuant to WQA 74-6-5(I) and Subsection H of 20.6.2.3109 NMAC, the term of this Discharge Permit is **five (5) years** from its effective date.

B. If the permittee submits an application for renewal in accordance with Subsection G of 20.6.2.3106 NMAC at least 120 days before the permit expires, and the permittee is not in violation of the Discharge Permit on the date of its expiration, then the existing permit shall be administratively continued as approved until the application for renewal has been approved or disapproved.

A103 Terms of Permit Issuance

A. Permit Fees – The permittee shall remit a permit fee payment equal to the applicable permit fee listed in 20.6.2.3114 Table 1 NMAC at the time of Discharge Permit approval. [20.6.2.3114.C and 20.6.2.3114.F NMAC]

B. Transfer of Discharge Permit – Prior to the transfer of any ownership, control, or possession of this permitted facility or any portion thereof, the permittee shall notify the proposed transferee in writing of the existence of this Discharge Permit and include a copy of this Discharge Permit with the notice. The permittee shall deliver or send by certified mail to NMED a copy of the notification and proof that such notification has been received by the proposed transferee. [20.6.2.3111 NMAC]

C. Permit Renewal – To renew this Discharge Permit and to meet the provisions found in 20.6.2.3106.G NMAC, the permittee must submit an application and associated fees for renewal, or renewal and modification, at least 120 days prior to the expiration date of this Discharge Permit.

Part B FACILITY SPECIFIC INFORMATION

B100 History and Facility Description

A. The Mosaic Potash Mine is an underground potash mine that produces potash products including fertilizers used for plant growth and products for animal feed. At the end of 2014, Mosaic discontinued production of muriate of potash (MOP) and continued its K-Mag (langbeinite, K2SO4•2MgSO2) production line. Facilities associated with the mine include approximately 17 miles of underground workings from which potash ore is mechanically extracted then refined at the Plant Site, the Salt Stack consisting of tailings discharged from the Plant Site, the Clay Settling Pond, Laguna Uno, the Laguna Grande Brine Management Area, pipelines, and associated containment dikes. Figure 1 attached to this Discharge Permit shows major facilities at the Mosaic Potash Mine.

B. Mosaic sources water for potash processing from offsite groundwater wells in the La Huerta and Caprock area. Both sources of groundwater have naturally elevated TDS ranging between 3,000 to 10,000 mg/L. Some of this "brackish" water is sold directly, some is combined with plant process outflow brine and sold from Mosaic's brackish water sales system located adjacent to the Mosaic Plant Site. The remainder of this water is used in the processing of potash ore and is then reused or discharged as brine from the facility.

C. There are seven (7) mine shafts associated with the Mosaic Mine, named Mosaic #1 Shaft through Mosaic #7 Shaft (see Figure 1). Shafts #1 through #5 are active, Shafts #6 and #7 are decommissioned. Mosaic #1 Shaft is located at the main plant site and was historically used for production. Today the #1 shaft is used only for ventilation. Mosaic #2 Shaft is located north of the main plant site and is the only ore production shaft. At the Mosaic #2 Shaft, raw ore is hoisted from underground to the surface and is then conveyed roughly 0.5 miles to the main plant for processing. The #2 shaft is also used for conveying personnel and materials, and for ventilation. Mosaic #3 Shaft is located southwest of the main plant and is used for ventilation. This shaft was historically used for production and small pile of residual tailings is present at the Mosaic #3 Shaft from this historical use. Mosaic #4 Shaft is located west of the CSP and is used for ventilation and as an alternate escape route. Mosaic #5 Shaft is the main shaft for transporting personnel and materials into and out of the mine. It is also used for ventilation. Mosaic #6 and #7 Shafts were decommissioned in 2012 and are currently used only for intake ventilation.

D. Tailings from the Plant Site, consisting of brine, coarse salt, and clay, are discharged as a slurry onto the Salt Stack via the Tailings Main Line where coarse salt and some of the clay settles on the Salt Stack. Plant Site wash water, runoff, and domestic wastewater are discharged to the Salt Stack via the West Canyon. Brine and residual clay flowing off the Salt Stack is discharged to the Clay Settling Pond under normal operating conditions, or to Laguna Uno during upset conditions. Following discharge to the Clay Settling Pond (CSP), clarified brine is then conveyed through a 24-inch diameter high density polyethylene pipeline (Brine Pipeline) to Laguna Grande where the brine is diverted into a series of evaporation cells operated by

United Salt and New Mexico Salt for salt harvesting. Prior to construction of the Clay Settling Pond in 2005, the brine and residual clay was discharged to Laguna Uno where residual clay settled out. The brine would flow overland to Laguna Uno and then evaporate or travel by subsurface flow to Laguna Grande. Figure 2 attached to this Discharge Permit shows the Salt Stack and CSP.

E. The southern toe of the Salt Stack is defined by the Salt Stack Contingency Dike (SSCD). Construction of the Salt Stack Contingency Dike was completed in 2011. Salt Stack Dike No. 1 (SD1), located just north of the Salt Stack Contingency Dike was also constructed in 2011 to divert brine flow to the Clay Settling Pond but was undermined by understated flows and is no longer utilized or maintained.

F. In 2009, construction of the Southwest Laguna Grande Dike was completed southwest of Laguna Grande in response to an extreme flood event in 2004 that resulted in the Laguna Grande brine pond expanding to the southwest toward the Pecos River.

G. Several non-engineered earthen structures were constructed on the east margin of the Salt Stack to prevent contaminated stormwater originating on the Salt Stack from flowing into Laguna Uno. Mosaic also constructed two small, non-engineered earthen structures at the southern end of Laguna Uno (the Southwest Laguna Uno dike and the Southeast Laguna Uno dike) to prevent surface flows out of Laguna Uno.

H. On February 6, 2019, a stormwater diversion channel was constructed on the west side of the Salt Stack and CSP to prevent unimpacted stormwater from entering the CSP and divert flows instead to Lindsey Lake.

I. On February 6, 2019, the State of New Mexico Office of the State Engineer approved an application for alteration of the Clay Settling Pond Dike. The alterations included raising the height of the dike to 3,038 feet above mean sea level (amsl) to increase the capacity of the Clay Settling Pond.

J. On October 20, 2021, the permittee was notified by NMED that a Stage 1 Abatement Plan (S1AP) was required for the Mosaic Mine Site to investigate TDS, chloride, and sulfate concentrations that exceed groundwater standards of 20.6.2.3103 NMAC in locations downgradient of the Site where the background concentration of groundwater is less than 10,000 mg/L TDS consistent with Paragraph 1 of Subsection A of 20.6.2.4101 NMAC. On November 18, 2022, NMED approved the S1AP for the Site and site investigations commenced in January 2023. Site investigations are ongoing as of the date of this Discharge Permit and will continue until the permittee completes abatement requirements pursuant to 20.6.2.4000 through 20.6.2.4115 NMAC.

K. On October 28, 2024, the Permittee submitted a request to conduct Additional Characterization Activities associated with S1AP site investigations. On November 4, 2024,

NMED approved the workplan for Additional Characterization Activities and these activities are ongoing as of the date of this Discharge Permit.

B101 Permitting History

A. The Discharge Plan for DP-1399 includes application materials submitted to NMED for renewal of DP-1399 dated May 20, 2016, and materials contained in the administrative record prior to issuance of this Discharge Permit. In addition, the Discharge Plan includes information and materials submitted as part of the original Discharge Plan approved on March 15, 2004, renewed on March 15, 2011, and amended on August 19, 2014, July 14, 2017, November 3, 2023, February 9, 2024.

B102 Facility Location, Groundwater, and Characteristics of the Discharge

A. The mine units regulated pursuant to DP-1399 are located approximately 16 miles east of Carlsbad in Eddy County, New Mexico. The Plant Site is located in Sections 1 and 12, T22S, R29E; The Salt Stack is located in Sections 1, 12, and 13, T22S, R29E and Sections 6, 7, and 18, T22S, R30E; The Clay Settling Pond and Laguna Uno are located in Sections 13, 24, and 25, T22S, R29E and Sections 19 and 30, T22S, R30E. The Brine Pipeline is located in Sections 23, 24, 26, and 35, T22S, R29E, and Sections 2 and 3, T23S, R29E; Laguna Grande is located in Sections 3, 4, 5, 7, 8, 9, 10, 15, 16, 17, 18, 19, 20, 21, 22, and 28, T23S, R29E, and Section 13, T23S, R28E (Figure 1).

B. Depth to groundwater beneath the mine facilities regulated pursuant to this Discharge Permit ranges from 0 to 50 feet. This groundwater has a historical TDS concentration of approximately 3,200 mg/L to approximately 420,000 mg/L.

C. Discharges regulated pursuant to DP-1399 exceed the water quality standards of Section 20.6.2.3103 NMAC for chloride, sulfate, and TDS. The concentration of the Brine Pipeline discharge, based on quarterly monitoring results dated May 22, 2025, is 150,000 mg/L chloride, 27,500 mg/L sulfate, 280,000 mg/L TDS.

B103 Authorized Mine Units

This Discharge Permit contains requirements associated with certain of the following mine units at the Mosaic Potash Mine, as identified in the Discharge Plan and Part B104 of this Discharge Permit.

A. Plant Site – The Plant Site occupies approximately 120 acres located north of the other mine units described in this Discharge Permit. Ore processing occurs at the Plant Site and the facilities include ore bins, a crusher, granulation plant, sizing screens, wash screens, a thickener, dryers, and a belt filter. Support facilities include offices, storage and loading facilities, maintenance shops, a warehouse, and a laboratory. The primary product produced at the Plant Site is a fertilizer known as K-Mag (potassium, magnesium, sulfate).

B. Mine Shafts – Of the seven (7) mine shafts associated with the Mosaic Mine site, Shafts #1 through #5 are active. Shafts #1, #3, and #4 are used only for ventilation. Shafts #6 and #7 are decommissioned and are temporarily capped with plywood on steel grating. There is an inflow of water into #6 Shaft which accumulates in a sump and is pumped approximately once a month into the surrounding abandoned underground workings. No dewatering activities take place within the Mosaic Mine Shafts.

C. Tailings Management Area – The Tailings Management Area (TMA) is where storage and management of tailings occurs and includes the Salt Stack, the Clay Settling Pond, the Brine Pipeline, Laguna Uno, the Laguna Grande Brine Management Area, and associated containment dikes. Figure 3 attached to this Discharge Permit shows the facilities associated with the Tailings Management Area.

1. Salt Stack – The Salt Stack currently covers an area of approximately 1,000 acres as shown on Figure 2. There are two sources of discharge on the Salt Stack: 1) tailings from the Plant Site are discharged from the Tailings Main Line to the top of the Salt Stack, and 2) a combination of fluids from the Plant Site is discharged into an open channel on the west side of the Salt Stack, called the West Canyon. Fluids that are discharged into the West Canyon consist of Plant Site wash water, runoff, and untreated domestic wastewater. Tailings that are deposited on top of the Salt Stack from the Tailings Main Line originate as two separate streams within the Plant Site. The first stream originates at the tailings wash screen and is primarily comprised of coarse salt tailings. The second stream originates at the thickener underflow pump and is comprised of fine salt tailings and insoluble fine particles (mostly clay). The two tailing streams are then combined with makeup brine and discharged to the Salt Stack where coarse salt and some clay settle on the Salt Stack. The makeup brine consists of a combination of fresh water pumped from offsite production wells and salts from the mining operation. Brine and residual clay flowing off the Salt Stack is discharged to the Clay Settling Pond.

   The Salt Stack Contingency Dike (SSCD) limits the southward expansion of the Salt Stack and diverts the brine flowing off the Salt Stack to an open channel decant structure from which the brine can be directed to the Clay Settling Pond or, during upset conditions to Laguna Uno.

2. Clay Settling Pond – The Clay Settling Pond currently covers an area of approximately 150 acres and has a maximum capacity of 1,310 acre-feet. Clay particles settle out of the brine in the Clay Settling Pond. Clarified brine is then decanted from the Clay Settling Pond into the 24-inch Brine Pipeline, which discharges to Laguna Grande. The Clay Settling Pond is constrained topographically on the western extent, by a continuation of the SSCD on the northern extent, and by the Clay Settling Pond Dike on the eastern and southern extents. An emergency spillway, as required by NM OSE, is located on the southwest corner of the CSP at an elevation of 3,034 feet above mean sea level (amsl). In emergency situations, this spillway can be utilized to direct flows to Lindsey Lake to prevent overtopping of the

CSP Dike. Emergency discharges to Lindsey Lake are not authorized by this Discharge Permit and require notification to NMED pursuant to 20.6.2.1203 NMAC.

3. Brine Pipeline – The Brine Pipeline is an approximately 5-mile-long pipeline that conveys clarified brine from the Clay Settling Pond by gravity to the Laguna Grande Brine Management Area. The maximum design flow capacity of the pipeline is 4,880 gallons per minute.

4. Laguna Uno – Laguna Uno is an approximately 1,000-acre natural playa located south of the Salt Stack. Discharge to Laguna Uno from the Clay Settling Pond is prohibited except during upset conditions with NMED approval.

5. Laguna Grande Brine Management Area – Laguna Grande is a natural playa lake that covers an area of approximately 4,500 acres. The Brine Pipeline discharges into the northeast portion of Laguna Grande known as Pond 4. Pond 4 was created by construction of the Pond 4 Dike (Figure 1). The southwest portion of the Laguna Grande Brine Management Area includes several salt harvesting ponds divided by internal dikes. The Southwest Laguna Grande Dike is constructed between the southernmost portion of Laguna Grande and the Pecos River. The purpose of the Southwest Laguna Grande Dike is to contain brine within the Laguna Grande Brine Management Area and prevent surface flows from Laguna Grande from reaching the Pecos River. The low point on the Southwest Laguna Grande Dike and associated infrastructure is at an elevation of 2,963.0 feet amsl.

D. Other Ancillary Facilities and Structures - In addition to the major mine units, there are several support facilities and structures dispersed across the mine. These include water and gas lines, hazardous waste storage areas, haul and access roads, rail sidings, caliche and borrow pits, and mine shaft yards and head frames.

B104 Authorized Discharges

The permittee is authorized to discharge water contaminants in accordance with all applicable system design and operational constraints as described in this Discharge Permit and the Discharge Plan.

A. The permittee is authorized to discharge a combined maximum of 7,500,000 gallons per day (gpd) from the Plant Site to the Salt Stack via the Tailings Main Line and from the Plant Site to the West Canyon. Discharge via the Tailings Main Line is authorized to include coarse salt tailings, fine salt tailings, insoluble clay, and brine. Discharges to the West Canyon are authorized to include Plant Site wash water, runoff, and untreated domestic wastewater from restrooms. The discharge of untreated domestic wastewater is not to exceed 20,000 gpd.

B. The permittee is authorized to discharge comingled fluids from the Southern toe of the Salt Stack into the Clay Settling Pond through the concrete open channel weir constructed through the Salt Stack Contingency Dike. This discharge is authorized to include the combined

flows originating from the Tailings Main Line and the West Canyon, runoff from the Salt Stack, and legacy tailings material mobilized by flows through the Salt Stack.

C. The permittee is authorized to discharge fluids from the CSP to Laguna Uno only under upset conditions and with prior approval from NMED. Upset conditions may include emergency situations, short-term operational conditions that impact the function of the Clay Settling Pond, and during preapproved maintenance as necessary. Prior authorization from NMED to discharge to Laguna Uno is required as stated in C101.A of this Discharge Permit.

D. The permittee is authorized to discharge clarified brine from the Clay Settling Pond via the Brine Pipeline to the Laguna Grande Brine Management Area, at a rate not to exceed the maximum design flow capacity of the Brine Pipeline of 7,000,000 gpd. This discharge is part of the maximum discharge rate of 7,500,000 gpd combined with the discharges from the Tailings Main Line and into the West Canyon. The definition of clarified brine and the threshold of allowable TSS to be discharged through the Bine Pipeline will be established following submission of the TSS Study required in Part C108.E of this Discharge Permit.

E. The permittee is authorized to divert plant process outflow brine from the waste disposal stream to the existing brackish water sales system adjacent to the Main Plant Site.

F. The permittee is authorized to discharge purge water captured from groundwater monitoring wells that exceed 10,000 mg/L TDS, to the Laguna Grande Purge Water Discharge Location (see Figure 1 and Figure 3) where ground and surface water exceed the standards of 20.6.2.3103 NMAC.

G. This Discharge Permit authorizes only those discharges specified herein. Any unauthorized discharges such as spills, leaks, or flows through spillways must be reported to NMED and remediated as required by Section 20.6.2.1203 NMAC and any additional requirements listed in this Discharge Permit.

Part C FACILITY SPECIFIC REQUIREMENTS

The permittee shall conduct the requirements set forth in accordance with the WQCC Regulations of Subsection C of 20.6.2.3106 NMAC and Section 20.6.2.3107 NMAC to ensure compliance with 20.6.2 NMAC.

C100 Tailings Management Area

A. The Salt Stack shall not exceed the land surface area shown in Figure 2 attached to this Discharge Permit, and in accordance with the Mine Plan approved by the BLM in 2024.

B. Stormwater diversion channels and external dikes shall be maintained around the perimeter of the Salt Stack as needed to divert impacted stormwater runoff from the Salt Stack to the Clay Settling Pond and to divert clean stormwater away from the Salt Stack.

C101 Clay Settling Pond

A. The permittee shall notify NMED and request approval prior to discharge to Laguna Uno during upset conditions. The request for approval shall be made within 24 hours in emergency situations and no less than two weeks in advance of planned maintenance or short-term operational conditions that prohibit discharge into or from the Clay Settling Pond. The request shall include a description of the basis for the proposed discharge to Laguna Uno, an estimate of the volume and duration of discharge to Laguna Uno before resumption of normal operation of the clay settling pond, and the most recent water quality data of brine entering and exiting the CSP as required by Part C105.I of this Discharge Permit. Additional monitoring and reporting requirements for all temporary discharges to Laguna Uno will be required pursuant to Part C105.C of this Discharge Permit.

B. The Clay Settling Pond shall not exceed the land surface area shown in Figure 2 attached to this Discharge Permit, and in accordance with the Mine Plan approved by the BLM in 2024. The decant structure must be operated in accordance with Office of the State Engineer Dam Safety Bureau guidelines and such that water levels are maintained low enough to prevent unauthorized discharges.

C102 Brine Pipeline

A. The high-density polyethylene (HDPE) Brine Pipeline shall be operated and maintained as described in the *Engineering Design Report* dated October 2009 and subsequent design changes shown in approved plans dated March 8, 2018.

B. The permittee shall visually inspect all HDPE pipeline segments to Laguna Grande on a monthly basis for evidence of leaks. The permittee will maintain a log of these monthly visual inspections for five years. The visual inspection log must include the date of inspection, name of person completing the inspection and summary of findings. In the event of an unauthorized discharge discovered during a visual inspection, the permittee must report the discharge in accordance with Condition D103.

C103 Stormwater Management

A. The permittee shall inspect all dikes, stormwater conveyance or diversion channels, spillways, and the Clay Settling Pond on a quarterly basis and as soon as practicable after precipitation events that exceed one inch in 24 hours as measured by on Site weather stations (Figure 1), for the following conditions: evidence of damage, indications of potential breaching of dikes, excessive sediment buildup, excessive erosion, or stormwater accumulation that exceeds design capacity (freeboard) or the intended function of the facility. The permittee will

maintain a log of these quarterly and post-precipitation event inspections for five years. The inspection log will include the date of inspection, name of person completing the inspection and summary of findings related to each of the site features and conditions listed in this paragraph. Logs will be included in the semi-annual monitoring reports in accordance with Part C105.K.1. In the event of an unauthorized discharge discovered during one of these quarterly inspections, the permittee must report the discharge in accordance with Condition D103.

C104 Flow Meters

A. The Permittee shall measure and report all discharge volumes using totalizing flow meters or other methods approved by NMED in accordance with 20.6.2.3106 and 20.6.2.3107 NMAC, and Parts C105.B, C, F, G, and H, K, and C108.I of this Discharge Permit (Table 1, Sampling Analytical Suite V).

C105 Monitoring and Reporting

A. Groundwater Monitoring Wells – The permittee shall collect groundwater samples quarterly from monitoring wells LG-1, LG-5, LG-23, LG-25, LG-26, LG-27, LG-28, LG-29, LG-30, LG-31, LG-32, LG-33, LG-34, LG-35, LG-36, LG-37, LG-38A, P-West, P-Central, and P-East, and analyze for dissolved concentrations of the parameters listed in Condition C105.I 1, 2, and 3. The permittee shall also measure the depth to the water table and elevation of the water table amsl. Analytical results and depth to the water table measurements shall be reported as required in Condition C105.K. Table 1 attached to this Discharge Permit provides a summary of monitoring and reporting requirements.

    1. For monitoring wells without data loggers, the permittee shall record the depth to the water table and elevation amsl to the nearest hundredth of a foot (.01) during quarterly sampling.

    2. For monitoring wells with data loggers, daily groundwater elevation shall be plotted on hydrographs. NMED may request the permittee provide additional hydrographs that show hourly readings for periods of time during and after unusually high rainfall events.

    3. For monitoring well LG-27, the permittee may incorporate sampling data from Southwest Salt Malaga Facility (SW Salt) in place of collecting and analyzing separate samples, as applicable.

B. Sampling of Discharges – The permittee shall sample quarterly discharges at the Tailings Main Line, West Canyon, Clay Settling Pond inlet, and Brine Pipeline. The discharges shall be analyzed for dissolved concentrations of the analytes listed in Condition C105.I 1, 2, 4, 5, and 6, as applicable. To ensure a sample is collected each quarter, discharges shall be sampled prior to planned plant shutdowns (cessation of flow) or following resumption of plant operations. Analytical results shall be reported as required in Condition C105.K. Flow volumes

of all discharges shall be measured and recorded at intervals no less than once per week and reported semi-annually as required in Condition C105.K.

C. Laguna Uno – The Permittee shall measure and record the flow volume to Laguna Uno no less than once per week, and report semi-annually as required in Condition C105.K. Flow volume measurements to Laguna Uno will be conducted at all times, including when the CSP flow to the Brine Pipeline is in use and during times of diversion to Laguna Uno.

D. Pecos River Surface Water – The permittee shall collect surface water samples quarterly from Pecos River Sampling Locations 1, 2, 3, and 4 and analyze for dissolved concentrations of the analytes listed in C105.I 1 and 2. Analytical results shall be reported as required in Condition C105.K.

E. Staff Gauges – The permittee shall collect staff gauge readings quarterly from Pecos River Staff Gauges 1, 2, 3, and 4, and Laguna Grande Staff Gauges 3, 4, 5, and 6, and the Southwest Laguna Grande Staff gauge. Results shall be reported as required in Condition C105.K.

F. Brine Sales – The permittee shall sample annually the plant process brine outflow stream and analyze for dissolved concentrations of the analytes listed in Conditions C105.I. Results shall be presented in the semi-annual report following the sample collection. The total volume of brine used shall also be included in each semi-annual report.

G. Purge Water Disposal – The permittee shall capture all water purged during sampling from groundwater monitoring wells with prior sample results that show TDS above 10,000 mg/L and dispose of it at the purge water disposal site. A list of all wells for which purge water was captured and an estimate of the total volume of purge water disposed of at the site shall be included in the summary of activities in the semi-annual reports as required by Condition C105.K.

H. Mine shafts –The permittee shall measure the water level in each shaft (Mosaic Shaft #1 through #7) and report semi-annually as required in Condition C105.K.

I. The permittee shall analyze samples of groundwater, effluent from the Tailings Main Line, effluent discharged to the West Canyon, fluid flows into the CSP, fluid from the Brine Pipeline, and Pecos River water quarterly, and samples of plant process outflow associated with Brine Sales annually, for the parameters listed below and as specified in Table 1.

1. Field parameters (Table 1, Sampling Analytical Suite A): Temperature, pH, and specific conductance. To be collected for all sampling locations.

2. Laboratory Analysis (Table 1, Sampling Analytical Suite B): TDS, sodium, calcium, magnesium, potassium, chloride, sulfate, boron, bromine (as bromide ion Br-), manganese, selenium, iron, alkalinity (reported as CaCO3), specific conductance, and pH. To be collected and analyzed for all sampling locations.

3. Field parameters (Table 1, Sampling Analytical Suite C): Depth to water measurements, top of well casing, and water elevation to the nearest 0.01 foot. To be measured for all groundwater monitoring wells and piezometers.

4. Laboratory Analysis (Table 1, Sampling Analytical Suite D): Total Kjeldahl nitrogen (TKN) and nitrate as nitrogen (NO_3-N). To be sampled at the Tailings Main Line, West Canyon, CSP inlet, and Brine Pipeline discharges, and the plant process outflow stream associated with Brine Sales.

5. Laboratory Analysis (Table 1, Sampling Analytical Suite E): Fecal coliform or E. coli bacteria. To be sampled at the West Canyon, CSP, and Brine Pipeline discharges.

6. Laboratory Analysis (Table 1, Sampling Analytical Suite S): Total Suspended Solids (TSS). To be sampled at the Tailings Main Line, West Canyon, CSP, and Brine Pipeline discharges.

J. Unless otherwise approved in writing by NMED, the permittee shall conduct sampling and analysis in accordance with the most recent edition of the following documents [Subsection B of 20.6.2.3107 NMAC]:

1. American Public Health Association, Standard Methods for the Examination of Water and Wastewater (18th, 19th or current)

2. U.S. Environmental Protection Agency, Methods for Chemical Analysis of Water and Waste

3. U.S. Geological Survey, Techniques for Water Resources Investigations of the U.S. Geological Survey

4. American Society for Testing and Materials, Annual Book of ASTM Standards, Part 31. Water

5. U.S. Geological Survey, et al., National Handbook of Recommended Methods for Water Data Acquisition

6. Federal Register, latest methods published for monitoring pursuant to Resource Conservation and Recovery Act regulations

7. Methods of Soil Analysis: Part 1. Physical and Mineralogical Methods; Part 2. Microbiological and Biochemical Properties; Part 3. Chemical Methods, American Society of Agronomy

8. Brine monitoring shall be conducted according to test procedures approved under Title 40 CFR Part 136.

K. The permittee shall submit monitoring reports to NMED semi-annually that contain all quarterly monitoring data and information collected pursuant to the requirements of this

Discharge Permit and applicable requirements of Section 20.6.2.3107 NMAC. Semi-annual reports are due to NMED by January 31 and July 31 of each year and shall include:

1. A summary of all activities related to the discharges and monitoring conducted during the preceding six months. Required information includes but is not limited to discharges reported as required by Section 20.6.2.1203 NMAC, operational failures, discharge and purge water volumes, shaft water elevation, maintenance, repairs, monitoring well and piezometer installation and abandonment, facility construction, a summary of all flow meters that were installed, repaired, or replaced including a description of any flow meter malfunctions with a statement verifying the repair and description of calibration of the flow meter, timeseries plots of water quality for the period of record for individual wells and constituents, water level trends, groundwater elevation contour maps, transducer data, precipitation data, hydrographs of river stage and Laguna Grande stage, and all water quality data.

2. A single cumulative table in electronic format displaying all water quality data for monitoring locations required by this Discharge Permit. For each monitoring location, the name of the well or sample point shall be entered in the far-left column and the date of the sampling event in the second column. Sampling events, beginning with the earliest event first, shall be entered in subsequent rows with the corresponding field and analytical data shown in columns to the right. Each new sampling event shall be added as an additional row to the existing table. Tabulated electrical conductivity shall include the measured field values and corrected values to 25 degrees Celsius. Any constituent not analyzed for a particular site shall be shown as “NA”, any site not sampled shall be shown as “NS”, and any site not measured for water levels shall be shown as “NM”, each with an associated reason.

3. Electronic copies of field data sheets, signed laboratory analyses, and laboratory QA/QC sheets.

L. The permittee shall submit to NMED groundwater elevation contour map(s) (potentiometric surface maps) on a semi-annual basis. The groundwater elevation contour map(s) shall be of an appropriate scale to show groundwater elevation contours for the area within the monitoring well network. The map shall include land surface topographic contours with appropriate contour intervals and shall include locations and data from all groundwater monitoring wells, and Pecos River and Laguna Grande staff gauge height data.

M. The permittee shall submit to NMED semi-annually information describing intensity (i.e., inches per hour) and duration (i.e., hours) of measurable precipitation events, and daily totalized rainfall measurements from all Mosaic meteorological stations (Figure 1). The permittee shall notify NMED within 24 hours of any storm events with precipitation duration or intensity that may threaten the integrity of berms, dikes, or other containment structures.

C106 Abatement

A. The permittee is required to complete abatement requirements pursuant to 20.6.2.4000 through 20.6.2.4115 NMAC. The permittee is currently under Stage 1 Abatement and shall continue through the abatement process until all tasks are complete. Stage 2 abatement activities will begin after Stage 1 is complete.

B. Pursuant to 20.6.2.4111.A, any modification to the approved abatement activities must receive prior approval in writing from NMED. This includes any modification or omission to sample, well, or boring location, type, or quantity. If monitoring data or other information indicates that abatement is ineffective or is creating unreasonable injury to health, welfare, environment, or property, NMED may require additional modification of the approved abatement activities pursuant to 20.6.2.4111.B NMAC.

C107 Contingency

A. If monitoring of surface or groundwater pursuant to this permit indicates that discharges under this Discharge Permit are causing applicable standards to be exceeded, or causes the extent or magnitude of existing surface or groundwater contamination to significantly increase or change, the permittee shall notify NMED within seven (7) days of discovery and collect a confirmatory sample from the monitoring location(s) within 15 days to confirm the initial sampling results, unless the permittee elects to accept the initial sampling results as an accurate measurement of water quality. Within 60 days of the subsequent sample analysis date, the permittee shall propose measures to ensure that the exceedance of the applicable standard(s) will be mitigated by submitting a corrective action plan to NMED for approval. The corrective action plan shall include a description of the proposed actions to control the source and an associated completion schedule. The plan shall be enacted as approved by NMED. Once invoked (whether during the term of this Discharge Permit, after the term of this Discharge Permit, prior to or during the completion of the Discharge Permit closure plan requirements), this condition shall apply until the permittee has fulfilled the requirements of the corrective action plan and surface or groundwater monitoring confirms for a minimum of eight quarters of consecutive sampling events that the applicable standards are not exceeded. Should the corrective action plan not result in compliance with the standards and requirements set forth in 20.6.2.4103 NMAC within 180 days of confirmed surface or groundwater contamination, the permittee may be required to abate water pollution pursuant to 20.6.2.4000 through 20.6.2.4115 NMAC. [20.6.2.1203 NMAC]

B. In the event that the Site exceeds the authorized discharge volume set in this Discharge Permit, the Permittee shall notify NMED within seven (7) days of the discovery of the discharge volume exceedance. The Permittee shall conduct a physical inspection of the discharge system and all meters/volume measuring devices to detect abnormalities and report the findings to NMED within 30 days of the discovery of the discharge volume exceedance. The Permittee shall correct any abnormalities detected with NMED's

concurrence. If the Permittee does not detect any abnormalities and with NMED's concurrence, the Permittee shall submit a discharge permit modification for the increase in discharge quantity to NMED within 90 days of the discovery of the discharge volume exceedance. The discharge permit modification must include demonstration that the volume increase is sufficient for the design capacity or plans and specifications to upgrade the system to accommodate the discharge volume increase. [Subsection A of 20.6.2.3107 NMAC]

C. In the event that freeboard requirements and operative pond level cannot be maintained in the CSP, the Permittee shall notify NMED within 24 hours. The permittee shall take actions authorized by this Discharge Permit and all applicable local, state, and federal regulations to restore the required freeboard. If the required freeboard cannot be restored within a period of 48 hours following discovery, the Permittee shall submit to NMED for approval a short-term Corrective Action Plan (CAP) that includes proposed actions to be immediately implemented to restore the required freeboard and an associated completion schedule. The short-term corrective action plan shall include a description of the proposed actions to restore the required freeboard. The Permittee shall implement the short-term CAP following approval by NMED. If short-term corrective actions fail to restore the required freeboard, the Permittee shall propose permanent corrective actions in a long-term CAP submitted to NMED within 90 days following failure of the short-term CAP. The long-term corrective action plan shall include a description of the proposed actions to restore the required freeboard and an associated completion schedule. The Permittee shall implement the long-term CAP following approval by NMED. [Subsection A of 20.6.2.3107 NMAC]

D. If NMED or the permittee identifies any other failure of the discharge plan or system not specifically noted in this Discharge Permit that has the potential to impact water quality, NMED may require the permittee to develop and submit to NMED for approval a contingency plan and schedules to address the failure.

C108 Additional Studies and Reports

A. TMA Changes Report – The 2009 Engineering Design Report, Salt Stack Contingency Dike and Salt Dike No. 1 Salt Stack/Clay Settling Area (Golder Report No. 083-81861) describes significant updates to Mosaic's tailings management system and was approved as part of Mosaic's discharge plan in the 2011 DP-1399. To NMED's knowledge, these approved changes have not been implemented. Mosaic's 2016 Renewal Application, 2016 Permit Application Support Document for Renewal of Groundwater Discharge Permit DP-1399 and two documents submitted to the Bureau of Land Management, Mosaic Brine Management Alternatives Report (Golder Report 1780808-5000-3-R-1, April 3, 2019) and Mosaic Potash Operations Brine Management Proposed Action (Golder Report 19132769-003-R-Rev1, July 15, 2020) describe additional evaluation and/or implementation of operational and physical modifications to the tailings management system. Within 120 days of the effective date of this Discharge Permit (by DATE+120) the permittee shall submit to NMED for approval a Report summarizing the results of all such evaluations or investigations. The report shall

include a detailed description of all physical or operational modifications, improvements, or other changes to the tailings management system that have been implemented since 2016, and the efficacy of these changes on the current system. The report should also consider failure analysis for Salt Dike No. 1 (SD1), including an explanation of why the approved tailings management system was not implemented.

B. TMA Improvement Report – Within 100 days following NMED approval of the TMA Changes Report in Part A, the permittee shall submit to NMED for approval a Report describing future improvements in the TMA within 1 year, 5 years, and the life of the mine. This Report should consider 1) the intended design of existing dikes versus the current operation by looking at retention of solids, fluids, and undermined flow, 2) reduction of clay delivered to downstream receptors, 3) improved evaporation and deposition on the Salt Stack, 4) reduction of capacity in the TMA facilities due to past clay deposition, 5) improved mineral extraction within the plant, 6) increased brine reuse and recirculation, and 7) reduction of overall discharges.

C. Domestic Waste Systems – Within 60 days of the effective date of this Discharge Permit (by DATE+60), the permittee shall apply for the appropriate domestic waste permits or provide a technical justification as to why septic systems or other methods cannot be installed and the domestic waste needs to continue to be discharged to the Salt Stack or West Canyon. If domestic waste infrastructure is determined to be required, the permittee shall commence installation of septic systems within 90 days following issuance of the domestic waste permits.

D. Compendium of Shaft Information – Within 120 days of the effective date of this Discharge Permit (by DATE+120), the permittee shall provide a compendium of information on all shafts where the permittee is the owner, state or federal lessee, or otherwise a responsible party, or that overlie or otherwise connect to underground mining areas leased by the permittee. This includes location, date and method of construction, shaft condition, mine levels accessed, shaft integrity studies, downhole investigations, locations of all shaft dewatering wells, historical and current maintenance, and all historical information on leaks or inflows of groundwater into the shaft.

E. Range of TSS in Brine Pipeline Discharge – Within 60 days of the effective date of this Discharge Permit (by DATE+60) the permittee shall submit for NMED approval a plan to determine the typical range of Total Suspended Solids (TSS) in the Brine Pipeline discharge.

F. Stormwater Management Plan – Within 90 days of the effective date of this Discharge Permit (by DATE+90) the permittee shall submit to NMED for approval a comprehensive stormwater management plan that 1) describes how all impacted and unimpacted stormwater is managed on the site, 2) limits run-on of unimpacted stormwater, 3) manages impacted stormwater in a manner which prevents water pollution that may cause an exceedance of the applicable standards, 4) includes descriptions and sizing information of all existing stormwater management structures, and 5) describes the operation and maintenance of the structures with respect to operational water levels, freeboard, and storm water inputs during

normal and heavy precipitation events. The stormwater management plan shall be reviewed and updated as necessary, or at the request of NMED, and submitted to NMED for approval.

G. CSP As-Built Report – Within 30 days of the effective date of this Discharge Permit (by DATE+30) the permittee shall provide to NMED an as-built construction report for the Clay Settling Pond Dike raise and all associated work that includes detailed as-built plans, specifications, description of proper operation with respect to operational water levels and storm inputs, an as-built topographic map of the CSP and surrounding area that includes the stormwater diversion channel, decant structure, Laguna Uno diversion channel, spillway to Lindsey Lake, and construction photographs if available.

H. Southwest Laguna Grande Dike Spillway As-Built Report – Within 30 days of the effective date of this Discharge Permit (by DATE+30) the permittee shall provide to NMED an as-built construction report for the Southwest Laguna Grande Dike Spillway with a topographic map of the Dike and Spillway that includes the surrounding area and the Pecos River, with construction photographs if available.

I. Flow Meter Installation – Within 60 days of the effective date of this Discharge Permit (by DATE+60) the permittee shall submit a plan to install flow meters, or other methods approved by NMED, to measure the total volume of all discharges to the Salt Stack from the Tailings Main Line, to the West Canyon, through the CSP inlet, from the Clay Settling Pond to Laguna Uno, and from the Clay Settling Pond to Lindsey Lake.

J. Full Contaminant Testing – Within the second quarter following the effective date of this Discharge Permit (by DATE/QUARTER), the permittee shall sample and analyze all source water, discharges at the Tailings Main Line, West Canyon, Clay Settling Pond, and Brine Pipeline for all toxic pollutants and contaminants regulated pursuant to Subsection T of 20.6.2.7 NMAC and 20.6.2.3103 NMAC. Samples shall be analyzed using appropriate methods to detect contaminants below the applicable NMAC standard. Results shall be included in the following semi-annual report. Pursuant to Paragraph (1) of Subsection E of 20.6.2.3109 NMAC, sampling requirements for this Discharge Permit may be modified by NMED based upon sampling results.

K. Operations and Maintenance Plan – Within 120 days of the effective date of this Discharge Permit (by DATE+120), the permittee shall submit to NMED for approval a comprehensive Operations and Maintenance Plan (O&M Plan) that includes detailed descriptions of all operations and maintenance at the Site that affect or control the discharges authorized herein. This includes operations and maintenance within the plant that may affect discharges from the Tailings Main Line and into the West Canyon, a description of operation and maintenance of the Salt Stack, CSP, Brine Pipeline, SSCD, SD1, mine shafts, and all stormwater management and water retention structures with minimum freeboard requirements, stormwater capacity (rainfall amount and duration), and a program for routine inspections to monitor, document, and correct distressed areas or elements of mine shafts, tailings, brine

systems, and stormwater management systems including spillways and discharge channels from impoundments.

C109 Closure

A. Closure of the Mosaic Potash Mine shall be in accordance with the closure plan approved by NMED on November 7, 2019.

B. Monitoring and reporting as described in Part C102, C103, C104, and C105 and in the approved closure plan shall continue through closure and post-closure periods.

C. Within 240 days from the effective date of this permit (by DATE+240), the permittee shall submit an updated Closure Plan to NMED and BLM for approval. The updated Closure Plan shall include all applicable items in the current Closure Plan as well as:

1. An accurate description of Mosaic's tailings management and clay settling system currently in use, or reference to a report or document that contains the information.

2. Removal and/or impermeable cover of all tailing deposits, including those at areas outside of the Salt Stack such as the Mosaic #5 and #3 Shafts.

3. Closure of all shafts where the permittee is the owner, state or federal lessee, or otherwise a responsible party, or that overlie or otherwise connect to underground mining areas leased by the permittee.

4. A statement that the permittee shall maintain adequate water rights to implement the Closure Plan, post-closure maintenance and monitoring, and other measures necessary to prevent or abate water contamination as required by Subsection A (11) of 20.6.2.3107 NMAC.

5. An analysis that demonstrates the amount of water required to implement the Closure Plan and post-closure maintenance and monitoring in the event of a forfeiture. The analysis shall also evaluate mechanisms that ensure a sufficient volume of water will be available to the State of New Mexico to implement the Closure Plan in the event of a forfeiture, including but not limited to establishment of a water rights trust or establishment of funds for purchase of water from a municipal source.

C110 Financial Assurance

A. NMED approved a final financial assurance cost estimate on May 19, 2020, and currently holds financial assurance in the amount of $82,067,076 jointly with the BLM. The permittee shall maintain financial assurance in an amount sufficient to cover the cost of a third party to implement the approved closure plan. The financial assurance shall ensure that funds will be

available to implement the closure plan if at any time the permittee is unable, unwilling, or otherwise fails to implement closure of the facility. [20.6.2.3107A(11) NMAC]

B. Financial assurance shall be held and executed in accordance with the Memorandum of Understanding (MOU) between the Bureau of Land Management (BLM) and New Mexico environment Department (NMED) for implementing financial assurance requirements for potash mining operations, effective date May 4, 2020.

C. Within 120 days from NMED and BLM approval of an updated Closure Plan, the permittee shall submit to NMED and BLM for approval an updated cost estimate for closure of the Site that includes all elements in the updated Closure Plan as required by Part C109.C.

D. Within 30 days after NMED and BLM approval of the updated cost estimate, the permittee shall execute an updated financial assurance instrument(s) that meets the requirements of Conditions E of this section. The permittee shall provide NMED with an original signed and notarized copy of each of the financial assurance instrument(s). The instrument(s) shall be maintained until the financial assurance is released in writing by NMED. [Subsection A (11) of 20.6.2.3107 NMAC]

E. The financial assurance, including any revised financial assurance, shall meet the following standard requirements:

1. The financial assurance shall be executed in an amount equal to the NMED and BLM approved closure cost estimate. The closure cost estimate shall include direct costs associated with third party implementation of the closure plan, contingency costs, and NMED oversight and administration costs, including indirect costs.

2. NMED shall be named as the sole beneficiary in the financial assurance instrument(s).

3. The financial assurance instrument(s) shall remain in effect throughout the term of this Discharge Permit, including the post-closure period, and until released in writing by NMED and BLM. The financial assurance shall remain in place at all times, including lapses in Discharge Permit coverage, late Discharge Permit renewal, or temporary shutdown of facilities covered under this Discharge Permit.

4. The financial assurance shall include a provision requiring the financial assurance provider to provide at least 120 days written notice to NMED, BLM, and the permittee prior to cancellation or non-renewal of the financial assurance instrument. The permittee shall obtain an NMED and BLM approved alternate financial assurance mechanism within 60 days of such notice (e.g., standby trust fund or other assurance mechanism meeting the requirements of this section). If the permittee fails to obtain alternate financial assurance within 60 days, the current financial assurance shall become immediately payable to the standby trust fund.

5. If NMED determines that implementation of the closure plan is required and that the

permittee is unable, unwilling, or will otherwise fail to conduct or complete the closure requirements of this Discharge Permit, then NMED may proceed with forfeiture of all or part of the financial assurance. Prior to beginning a forfeiture proceeding, NMED will provide written notice, by certified mail return receipt requested, to the permittee and all financial assurance providers informing them of the determination to forfeit all or a portion of the financial assurance. The written notice will state the reasons for the forfeiture and the amount to be forfeited. The amount shall be based on the total cost of performing closure, including post-closure monitoring and maintenance, in accordance with this Discharge Permit and all applicable laws and regulations. NMED will also advise the permittee and all financial assurance providers of the conditions under which forfeiture may be avoided. Such conditions may include, without limitation, an agreement by the permittee, by a financial assurance provider, or by an NMED-approved third party to perform closure, including post-closure monitoring and maintenance, in accordance with this Discharge Permit and all applicable laws and regulations, as well as a demonstration that such person has the financial ability and technical qualifications to do so. All financial assurance forfeited shall become immediately payable to NMED or as otherwise provided in the approved instrument(s). Forfeited funds shall be used to implement the closure plan. If the forfeited amount is insufficient, the permittee shall be liable for the remaining costs. If the amount forfeited is more than necessary, the excess amount shall be refunded to the person from whom it was collected.

6. All or part of the financial assurance shall be released or modified when NMED and BLM determine that the corresponding closure and post-closure measures covered by the financial assurance have been completed according to the approved closure plan and the requirements of the MOU have been met. [Subsection A (11) of 20.6.2.3107 NMAC]

F. Within 30 days of NMED and BLM approval of additional closure plan revisions or post-closure measures, or upon determination that existing financial assurance is inadequate, the permittee shall submit to NMED and BLM for approval a revised closure cost estimate. Within 30 days of NMED and BLM approval of the revised cost estimate, the permittee shall execute revised financial assurance instruments and submit signed, notarized copies to NMED. [Subsection A (11) of 20.6.2.3107 NMAC]

Part D GENERAL CONDITIONS

General conditions for Discharge Permits issued by the Ground Water Quality Bureau pursuant to 20.6.2 NMAC are listed below.

D100 Enforcement

A. Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the permittee to a civil

enforcement action pursuant to WQA 74-6-10(A) and (B). Such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to the NMSA 1978, Section 74-6-10(C) and 74-6-10.1, civil penalties of up to $15,000 per day of noncompliance may be assessed for each violation of the NMSA 1978, Section 74-6-5, WCC Regulations, or this Discharge Permit, and civil penalties of up to $10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit. The permittee does not waive any argument as to the weight such evidence should be given. [74-6-10 WQA, 74-6-10.1 WQA]

B. Pursuant to NMSA 1978, Section 74-6-10.2(A-F), criminal penalties may be assessed for any person who knowingly violates or knowingly causes or allows another person to:

1. Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or required to be maintained under the WQA;

2. Falsify, tamper with or render inaccurate any monitoring device, method or record required to be maintained under the WQA; or

3. Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation.

D101 General Inspection and Entry Requirements

A. Nothing in this Discharge Permit shall be construed as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other applicable law or regulation. [20.6.2.3107 NMAC, 74-6-9(B) & (E) WQA]

B. The permittee shall allow the Secretary or an authorized representative, upon the presentation of credentials to [20.6.2.3107.D NMAC, 74-6-9(B) & (E) WQA]:

1. Enter at regular business hours or at other reasonable times upon the permittee's premises or other location where records must be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.

2. Inspect and copy, during regular business hours or at other reasonable times, any records required to be kept under the conditions of this Discharge Permit, or under any federal or WQCC regulation.

3. Inspect, at regular business hours or at other reasonable times, any facility, equipment

(including monitoring and control equipment or treatment works), practices or operations regulated or required under this Discharge Permit, or under any federal or WQCC regulation.

4. Sample or monitor, at reasonable times for the purpose of assuring compliance with this Discharge Permit or as otherwise authorized by the WQA, any effluent, water contaminant, or receiving water at any location before or after discharge.

D102 General Record Keeping and Reporting Requirements

A. The permittee shall retain written records at the mine facility of all data and information on monitoring of groundwater, surface water, seepage, and meteorological conditions pursuant to this Discharge Permit including the following:

1. The dates, exact location and times of sampling or field measurements;
2. The name and job title of the person who performed each sample collection or field measurement;
3. The date of the analysis of each sample;
4. The name and address of the laboratory and the name and title of the person that performed the analysis of each sample;
5. The analytical technique or method used to analyze each sample or take each field measurement;
6. The results of each analysis or field measurement, including the raw data;
7. A description of the quality assurance and quality control procedures used.

B. The permittee shall furnish to NMED, within a reasonable time, any documents or other information that NMED requests to determine whether cause exists for modifying, terminating and/or renewing this Discharge Permit or to determine compliance with this Discharge Permit. The permittee shall also furnish to NMED, upon request, copies of documents required to be kept by this Discharge Permit. [20.6.2.3107.D NMAC, 74-6-9 (B) & (E) WQA]

D103 Reporting Requirements for Unauthorized Discharges

A. In the event of a spill or release that is not authorized under this Discharge Permit, the permittee shall initiate the notification and corrective actions as required in 20.6.2.1203 NMAC. The permittee shall take immediate corrective action to contain and remove or mitigate any damage caused by the discharge. Within 24 hours after discovery of the discharge, the permittee shall verbally notify NMED and provide the information required by Paragraph (1) of Subsection A of 20.6.2.1203 NMAC. Within 7 days of discovering the discharge reportable under 20.6.2.1203 NMAC, the permittee shall submit a written report

to NMED verifying the oral notification and providing any additional information or changes. The permittee shall submit a corrective action report within 15 days after discovery of the discharge. [20.6.2.1203 NMAC]

B. As part of the 24-hour spill notification requirements, the permittee shall submit a figure to NMED that clearly displays the location (or locations) of the spill and identifies nearby mine units by the end of the next business day.

C. The permittee shall report to NMED any evidence of damage that threatens the structural integrity of a berm or impoundment, or that may result in an unauthorized discharge within 24 hours of discovery.

D104 Monitoring Well Abandonment

A. The permittee shall submit a written request for NMED approval to amend or modify this Discharge Permit at least 30 days prior to the anticipated destruction or removal of any monitoring wells required by this Discharge Permit. After the permittee receives NMED approval, monitoring well plugging and abandonment shall be completed in accordance with the *Groundwater Discharge Permit Monitoring Well Construction and Abandonment Conditions,* Revision 1.1, March 2011, or according to regulations issued by the Office of the State Engineer in 19.27.7 NMAC, unless an alternate method is approved by NMED and OSE. [20.6.2.3107 NMAC]

B. The request required in Part D104.A shall include the following information:

1. A scaled map showing the location of the monitoring well(s) and the mine units it is intended to monitor;

2. The purpose for plugging and abandoning the monitoring well(s);

3. Details, if available, on the monitoring well(s) including depth-to-water elevation, top-of-casing elevation, construction and lithologic logs;

4. Recent groundwater chemistry results from the monitoring well(s); and

5. For any proposed replacement monitoring well(s), the same details of the proposed replacement well(s) as provided in D104.B.1, D104.B.3, and D104.B.4.

C. In the event that information available to NMED indicates that a groundwater monitoring well is not constructed in a manner consistent with the attachment titled Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines, Revision 1.1, March 2011 (Monitoring Well Guidance), is not located hydrologically downgradient of the discharge location it is intended to monitor, contains insufficient water to effectively monitor groundwater quality, or is not completed in a manner that is protective of groundwater quality, the Permittee shall install a replacement well(s) within 120 days following notification

from NMED and permit approval from OSE. The Permittee shall install replacement wells at locations approved by NMED and completed in accordance with Condition D104.A. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map to NMED within 60 days following well completion. The Permittee shall properly plug and abandon the monitoring well requiring replacement upon completion of the replacement monitoring well. The Permittee shall complete the well plugging and abandonment completed in accordance with Condition D104.A. The Permittee shall submit well abandonment documentation to NMED within 60 days of completion of well plugging activities. [Subsection A of 20.6.2.3107 NMAC]

D105 Modifications and Amendments

A. The permittee shall notify and obtain approval from NMED of a proposed change to the facility or the facility's discharge that would result in a change in the volume discharged, the location of the discharge, or in the amount or character of water contaminants received, treated, or discharged by the facility, prior to implementing such changes. Such changes may require modification or an amendment to this Discharge Permit. [20.6.2.3107.C NMAC, 20.6.2.3109.E NMAC]

B. Pursuant to Subsection E of 20.6.2.3109 NMAC, NMED reserves the right to require a Discharge Permit modification in the event NMED determines that the requirements of 20.6.2 NMAC are being or may be violated, or the standards of Section 20.6.2.3103 NMAC are being or may be violated. This may include a determination that structural controls and/or management practices approved under this Discharge Permit are not protective of groundwater quality and that more stringent requirements are needed to protect groundwater quality.

D106 Compliance with Other Laws

A. Nothing in this Discharge Permit shall be construed in any way as relieving the permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits, or orders. [20.6.2 NMAC]

Table 1 – Monitoring and Reporting Summary for Mosaic Potash Carlsbad Inc, DP-1399

Reporting Schedule		
Reporting Frequency	**Sites**	**Description**
Semi-Annually	All	Monitoring Reports: due January 31 and July 31 of each year

Quarterly Monitoring Schedule					
Sample ID	**Q1**	**Q2**	**Q3**	**Q4**	**Notes**
Groundwater Monitoring Well Network					
LG-1	ABC	ABC	ABC	ABC	
LG-5	ABC	ABC	ABC	ABC	
LG-23	ABC	ABC	ABC	ABC	
LG-25	ABC	ABC	ABC	ABC	
LG-26	ABC	ABC	ABC	ABC	
LG-27	ABC	ABC	ABC	ABC	Incorporate SW Salt data as applicable
LG-28	ABC	ABC	ABC	ABC	
LG-29	ABC	ABC	ABC	ABC	
LG-30	ABC	ABC	ABC	ABC	
LG-31	ABC	ABC	ABC	ABC	
LG-32	ABC	ABC	ABC	ABC	
LG-33	ABC	ABC	ABC	ABC	
LG-34	ABC	ABC	ABC	ABC	
LG-35	ABC	ABC	ABC	ABC	
LG-36	ABC	ABC	ABC	ABC	
LG-37	ABC	ABC	ABC	ABC	
LG-38	ABC	ABC	ABC	ABC	
Laguna Grande Monitoring Locations					
24” HDPE Brine Pipeline	ABDESV	ABDESV	ABDESV	ABDESV	Sample before and after Plant shutdowns
Laguna Grande Staff Gauges 3, 4, 5, 6	W	W	W	W	
SWD Staff Gauge	W	W	W	W	Southwest Laguna Grande Dike
Pecos River Monitoring Locations					
River-1	AB	AB	AB	AB	
River-2	AB	AB	AB	AB	
River-3	AB	AB	AB	AB	
River-4	AB	AB	AB	AB	
Pecos River Staff Gauges 1, 2, 3, 4	W	W	W	W	
Salt Stack Monitoring Locations					
P-East Piezometer	ABC	ABC	ABC	ABC	
P-Central Piezometer	ABC	ABC	ABC	ABC	
P-West Piezometer	ABC	ABC	ABC	ABC	
Tailings Main Line	ABDSV	ABDSV	ABDSV	ABDSV	Sample before and after plant shutdowns
West Canyon	ABDESV	ABDESV	ABDESV	ABDESV	Sample before and after plant shutdowns
Plant Process Outflow Stream (Brine Sales)	ABDV	V	V	V	Sample and report annually
Clay Settling Pond (CSP)	ABDESV	ABDESV	ABDESV	ABDESV	Sample before and after plant shutdowns
Laguna Uno	V	V	V	V	

Sampling Analytical Suites:
A = Field Measurements: Temperature, pH, specific conductance
B = Laboratory Analyses: TDS, Na, Ca, Mg, K, Cl, SO_4, B, Br, Mn, Se, Fe, alkalinity, specific conductivity, pH
C = Depth to water measurements, top of well casing, and water elevation to the nearest 0.01 foot
D = Total Kjeldahl nitrogen (TKN) and nitrate as nitrogen (NO3-N)
E = Fecal coliform or E. coli bacteria
S = Total Suspended Solids (TSS)
W = Stage height/water depth to nearest 0.1 foot
V = Totalizing flow volume

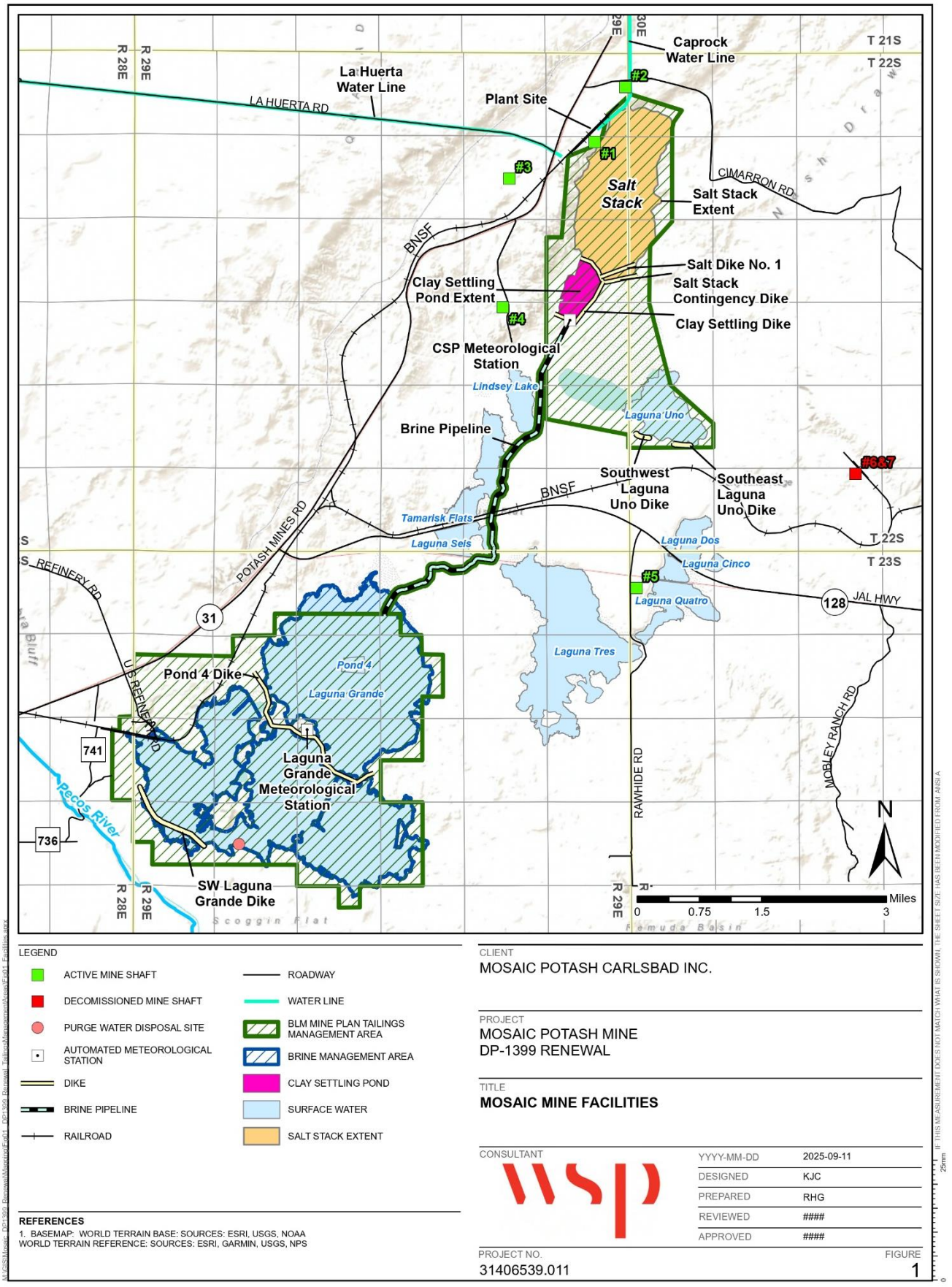
Explanation of Abbreviations and Symbols

Sampling Quarters:	Report Due:
Q1 = January – March	
Q2 = April – June	July 31
Q3 = July – September	
Q4 = October – December	January 31

Sampling Analytes Suite B:
TDS = Total Dissolved Solids
Na = Sodium
Ca = Calcium
Mg = Magnesium
K = Potassium
Cl- = Chloride
$S0_4$ = Sulfate
B = Boron
Br = Bromine (as Bromide ion Br-)
Mn = Manganese
Se = Selenium
Fe = Iron
Alkalinity = ppm as $CaCO_3$

Sampling Analytes Suite D:
Fecal coliform or E. coli bacteria
Total Kjeldahl nitrogen (TKN)
Nitrate as nitrogen (NO3-N)

Facility Maps



LEGEND

- ACTIVE MINE SHAFT
- DECOMMISSIONED MINE SHAFT
- PURGE WATER DISPOSAL SITE
- AUTOMATED METEOROLOGICAL STATION
- DIKE
- BRINE PIPELINE
- RAILROAD
- ROADWAY
- WATER LINE
- BLM MINE PLAN TAILINGS MANAGEMENT AREA
- BRINE MANAGEMENT AREA
- CLAY SETTLING POND
- SURFACE WATER
- SALT STACK EXTENT

REFERENCES

1. BASEMAP: WORLD TERRAIN BASE: SOURCES: ESRI, USGS, NOAA
WORLD TERRAIN REFERENCE: SOURCES: ESRI, GARMIN, USGS, NPS

CLIENT
MOSAIC POTASH CARLSBAD INC.

PROJECT
MOSAIC POTASH MINE
DP-1399 RENEWAL

TITLE
MOSAIC MINE FACILITIES

CONSULTANT
wsp

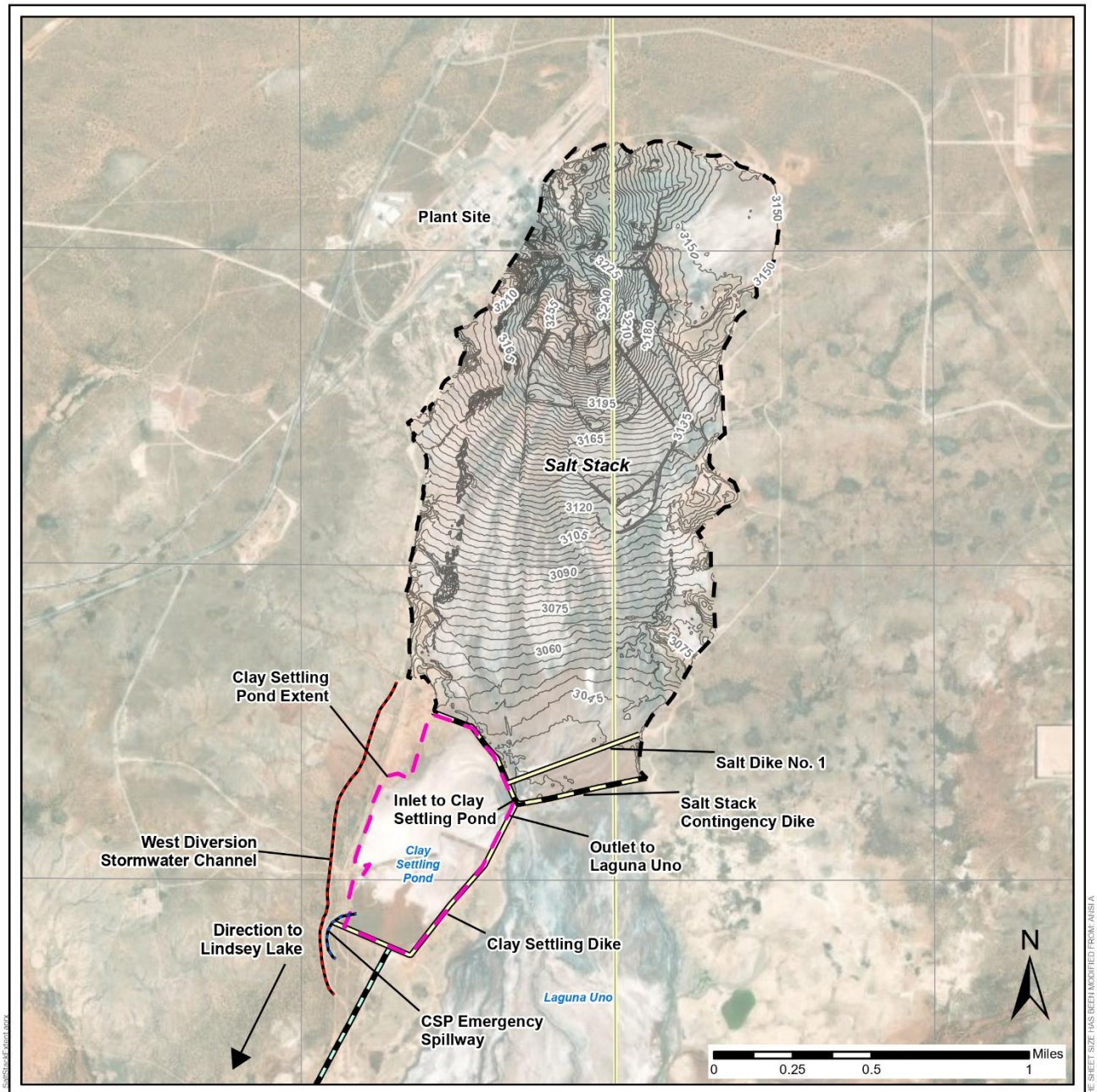
YYYY-MM-DD	2025-09-11
DESIGNED	KJC
PREPARED	RHG
REVIEWED	####
APPROVED	####

PROJECT NO.
31406539.011

FIGURE
1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI A
25mm
0

Facility Maps



LEGEND

- 2017 TOPOGRAPHY
- SALT STACK EXTENT
- CLAY SETTLING POND
- DIKE
- BRINE PIPELINE
- CLAY SETTLING DIKE SPILLWAY
- WEST DIVERSION CHANNEL

REFERENCES

1. BASEMAP: WORLD IMAGERY: MAXAR

CLIENT
MOSAIC POTASH CARLSBAD INC.

PROJECT
MOSAIC POTASH MINE
DP-1399 RENEWAL

TITLE
SALT STACK AND ASSOCIATED INFRASTRUCTURE

CONSULTANT
wsp

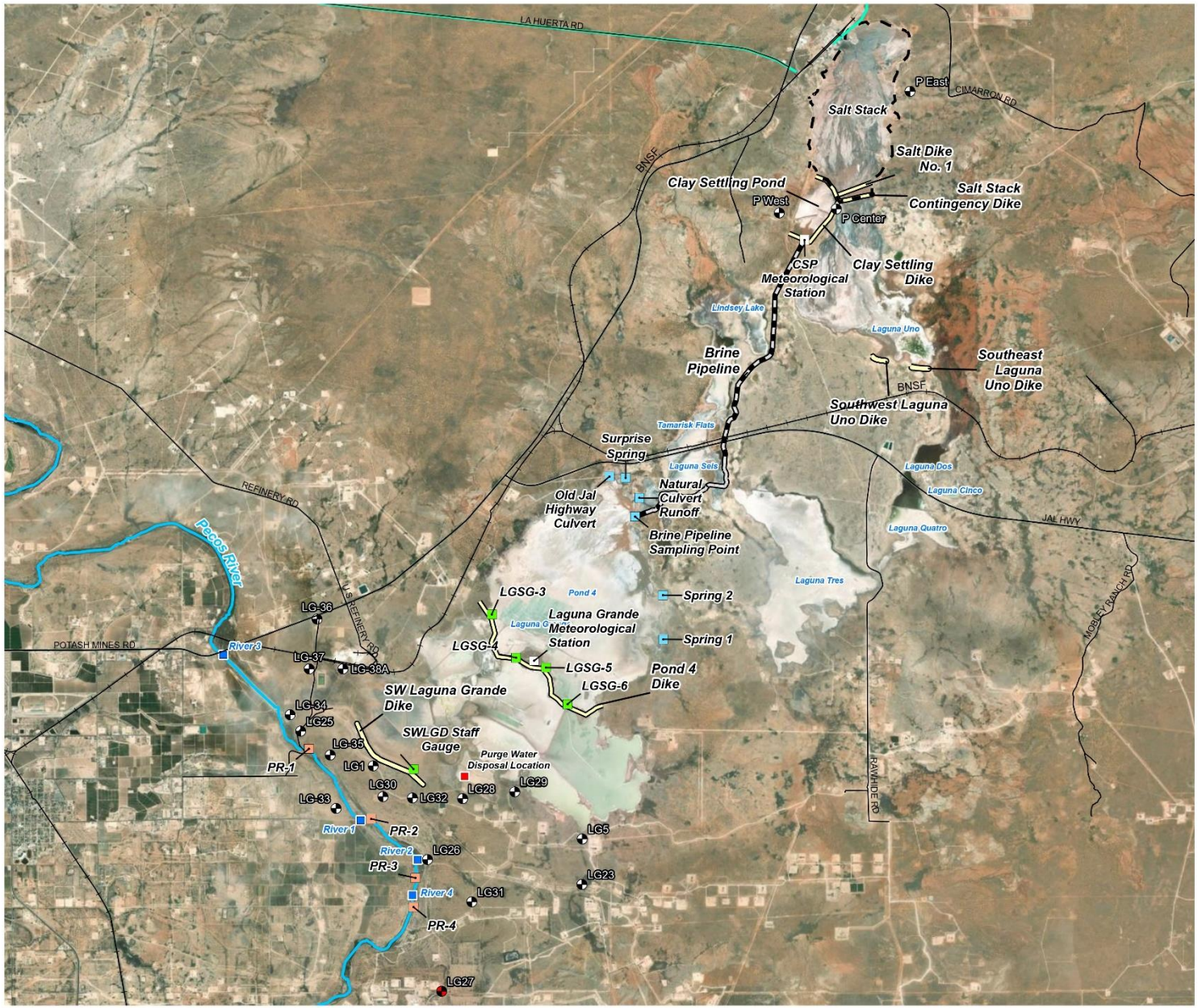
YYYY-MM-DD	2025-09-09
DESIGNED	KJC
PREPARED	RHG
REVIEWED	####
APPROVED	####

PROJECT NO.
31406539.011

FIGURE
2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

A:\GIS\Mosaic_DP1399_Renewal\Mapping\Fig002_DP1399_Renewal_SaltStackExtentFig002_DP1399_Renewal_SaltStackExtent.aprx



LEGEND

- MOSAIC MONITORING WELLS
- SOUTHWEST SALT MONITORING WELLS
- AUTOMATED METEOROLOGICAL STATION
- AUTOMATED STAFF GAUGE - LAGUNA GRANDE
- AUTOMATED STAFF GAUGE - PECOS RIVER
- WATER SAMPLING POINT
- RIVER SURFACE WATER SAMPLE
- PURGE WATER DISPOSAL LOCATION
- RAILROAD
- ROADWAY
- WATER LINE
- BRINE PIPELINE
- DIKES
- PECOS RIVER
- SALT STACK EXTENT

N

0 0.63 1.25 2.5 Miles

REFERENCES
1. BASEMAP: ESRI PROVIDED BASEMAP SERVICE. VIVID. MAXAR. IMAGERY COLLECTED 2020/2021.

CLIENT
MOSAIC POTASH CARLSBAD, INC.

PROJECT
MOSAIC POTASH MINE
DP-1399 RENEWAL

TITLE
MOSAIC DP-1399 MONITORING POINTS AND SITE FEATURES OVERVIEW

CONSULTANT
wsp

YYYY-MM-DD	2025-09-09
DESIGNED	TS
PREPARED	NL
REVIEWED	ML
APPROVED	ML

PROJECT NO.
31406539.0531

FIGURE
3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B