EXHIBIT 6

PROCESS FLUID MANAGEMENT PLAN FEBRUARY 2021

Thacker Pass Project

Process Fluid Management Plan

February 2021

Submitted to:

Nevada Division of Environmental Protection Bureau of Mining Regulation and Reclamation 901 South Stewart Street, Suite 4001 Carson City, Nevada 89701

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Submitted by:



Table of Contents

1	Intro	oduction and Scope1
	1.1	Site Location1
	1.2	Contact Information / Responsible Parties
	1.3	Past Operations
	1.4	Proposed Operations
	1.5	Site Conditions
		1.5.1 Climate
		1.5.2 Historic Spills and Releases
		1.5.3 Disturbance Areas
2	Met	hods to be used for Monitoring and Controlling Process Fluids6
	2.1	Clay Tailings Filter Stack
	2.2	Reclaim Pond #1
	2.3	Coarse Gangue Stockpile
	2.4	CGS Sediment Pond7
	2.5	Process Plant
	2.6	Mine Facilities9
		2.6.1 Wash Bay10
3	Eval	uation of Conditions in Fluid Management System11
4	Refe	erences12

List of Tables

Table 1: Thacker Pass Project Legal Description	.1
Table 2: Thacker Pass Process Fluid Management Team Contact Information	.2
Table 3: Proposed Disturbance Areas	5
Table 9. Troposed Disturbance Areas	.0

List of Figures

- Figure 1 Location Map
- Figure 2 Thacker Pass Project General Facilities Layout

List of Acronyms

BLM	Bureau of Land Management
BMP	Best Management Practice
CERCLA	Comprehensive Environmental Response, Compensation, Liability, and Recovery Act
CGS	Coarse Gangue Stockpile
CTFS	Clay Tailings Filter Stack
gpm	gallons per minute
HDPE	high-density polyethylene
KVCM	Kings Valley Clay Mine
LNC	Lithium Nevada Corporation
M CY	million cubic yards
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NOI	Notice of Intent
P00	Plan of Operations
Project	Thacker Pass Project
ROM	run-of-mine
SWPPP	Stormwater Pollution Prevention Plan
WPCP	Water Pollution Control Permit
WRSF	waste rock storage facility

1 Introduction and Scope

Lithium Nevada Corporation (LNC) is proposing to develop the Thacker Pass Project (Project). The Project is located in northern Nevada within Humboldt County, approximately 20 miles west-northwest of Orovada, and 62 miles north-northwest of Winnemucca (Figure 1).

This Process Fluid Management Plan has been prepared to provide an overview of site conditions, facilities, and to describe the proposed methods for monitoring and controlling process fluids associated with the fluid management system for the CTFS, CGS, process water ponds and the process plant.

1.1 Site Location

The Project area, defined as the proposed Plan of Operations (POO) boundary (Figure 1), is located between Kings Valley to the west, the Montana Mountains to the north, and the Double H Mountains to the south. The 10,468-acre Project area is located entirely on public lands administered by the Bureau of Land Management (BLM), Humboldt River Field Office. The latitude is: 41° 41' 52.58 north and the longitude: 118° 03' 53.45 west. The Project area's legal description is presented in Table 1.

Township	Range	Section
44 N	34 E	1 and 12
44 N	35 E	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 17
44 N	36 E	7, 8, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 29

Table 1: Thacker Pass Project Legal Description

1.2 Contact Information / Responsible Parties

The Thacker Pass Plant and Mine Management Team will be responsible for updating this plan, ensuring compliance, and preparing modifications to this plan whenever there is a change in construction, operation, or maintenance that affects the management of process fluids. The Process Fluid Management Team is listed in Table 2.

Title	Name	Telephone	E-mail		
General Manager	To Be Determined	To Be Determined	To Be Determined		
Mine Manager	To Be Determined	To Be Determined	To Be Determined		
Environmental Director	Catherine Clark	775-827-3318	catherine.clark@lithiumamericas.com		
VP Legal &Regulatory Affairs	Ted Grandy	801-209-5271	ted.grandy@lithiumamericas.com		
VP Exploration	Randal Burns	775-827-3318	randal.burns@lithiumamericas.com		
Construction Manager	To Be Determined	To Be Determined	To Be Determined		

Table 2: Thacker Pass Process Fluid Management Team Contact Information

The current mailing address for LNC personnel is:

Lithium Nevada Corporation 3685 Lakeside Drive Reno, Nevada 89509

1.3 Past Operations

LNC has permitted and performed mineral exploration activities within the Project area since 2007, including construction of drill sites and access roads. Exploration activities have been conducted in the Project area as part of the Kings Valley Lithium Exploration Project. A portion of the proposed Project disturbance (114 acres) was included in the Kings Valley Clay Mine (KVCM) (BLM Case File Number N91547), which was permitted in 2014 but never developed (LNC 2018). LNC also has three active Notice of Intents (NOI); the Quinn River Valley NOI (N94510), 293 South NOI (N95388) and Far East NOI (N95396). These authorizations, when combined, total less than 200 acres. LNC will be responsible for reclaiming areas that have been previously disturbed by exploration activities.

1.4 Proposed Operations

A complete description of proposed mining and processing operations for the Project are provided in the Thacker Pass Project Plan of Operations and Reclamation Plan (LNC 2019a). The mine and processing plant are scheduled to operate 24 hours per day, 365 days per year; however, this schedule may vary depending on mining, weather and market conditions. The Project will disturb approximately 5,545 acres over the 41-year mine life.

The Project will include the following main infrastructure as shown on Figure 2:

- Development of an open pit mine;
- Concurrent backfill of the open pit using waste rock and coarse gangue material;
- o Construction of two WRSFs for permanent storage of excavated mine waste rock;
- Construction and operation of mine facilities;
- Construction of a Run-of-Mine (ROM) stockpile;
- Construction and operation of an attrition scrubbing process including an ore slurry pipeline;
- Construction of a coarse gangue stockpile;
- o Construction and operation of a lithium processing facility;
- o Construction and operation of a sulfuric acid plant and associated energy production;
- Construction and operation of a Clay Tailings Filter Stack (CTFS);
- Construction and maintenance of haul and secondary roads;
- Construction and maintenance of stormwater management infrastructures (diversions and sediment ponds);
- Construction of three growth media stockpiles;
- o Construction of power transmission lines and distribution;
- Installation of water supply, conveyance pipeline, booster pump stations, and storage infrastructure; and
- Construction of ancillary facilities to support the Project such as septic systems, communication towers, guard shacks, reclaim ponds, monitoring wells, weather station, fiber optic line, buffer areas, and fencing.

LNC will develop the Project in two phases (Phase 1 and Phase 2) over the estimated 41-year mine life. Pending LNC receiving the required authorizations and permits for Phase 1 of the Project, pre-stripping and construction will commence in 2021 with mining production and ore processing estimated to commence in 2022. LNC estimates that it will complete mining and processing activities in 2063, after which, reclamation, site closure activities, and post-closure monitoring will occur for a minimum of five years.

1.5 Site Conditions

1.5.1 Climate

Northern Nevada has a high-desert climate with cold temperatures in the winter and hot temperatures in the summer. A meteorological station has continuously operated in the Project area since 2011. The station collects temperature, precipitation, wind speed and direction, solar radiation, and relative humidity. The temperature recorded at the LNC station from 2011 to 2017 ranged from zero degrees Fahrenheit (°F) to 99°F.

Ecological Resource Consultants, Inc. (ERC) performed a climate analysis for the project area by comparing site precipitation data with regional station data to create synthetic long-term monthly precipitation values. The area is generally dry; and the calculated annual precipitation in the Project area ranged from 5.8 inches to 21.7 inches with a long-term mean annual precipitation of 12.3 inches. The ERC report provides a detailed description of the analysis and summary tables of the results. The report is included in Attachment H of the WPCP application.

1.5.2 Historic Spills and Releases

Any release of a hazardous substance (as defined by NAC 445A.3454) to surface water or other vulnerable source (NAC 445A.3459), must be reported to NDEP as soon as is practicable. Release of non-petroleum hazardous substance exceeding 500 gallons or 4,000 pounds that is discovered in the groundwater shall be reported to the NDEP. Smaller non-petroleum releases greater than 25 gallons or 200 pounds exposed to the soil or other land surfaces, or discovered in at least three cubic yards of soil, shall be reported quarterly on NDEP Form 0390 (Form 1) or equivalent form. According to LNC staff and quarterly report records on file, for the period three years prior to completion of this SWPPP (April 2016 to April 2019) there were no spills of CERCLA reportable quantities, and no spills reported in quarterly reports.

1.5.3 Disturbance Areas

A summary of the authorized disturbance areas, proposed disturbance areas, and proposed total disturbance areas is presented in Table 3. Previously authorized disturbance, as discussed in Section 1.3, is included for the Project.

Facility	Authorized Surface Disturbance (acres)	Existing Disturbance to Date (acres) ¹	Proposed Ultimate 41-Year Disturbance (acres)	Proposed 10-year Disturbance (acres)	Future or Subsequent Phases (acres)
Previous Authorizations ³					
Kings Valley Lithium Exploration Project	75	50.1	0	28.0	0
Kings Valley Clay Mine	114	4.9	0	1.8	0
Quinn River Valley Test Wells NOI	4.4	1.5	0	1.0	0
Far East NOI ²	4.97	3.45	0	0.2	0
Proposed Project					
Mine Pit	0	0	1,099.8	371.1	728.7
West WRSF	0	0	160.7	153.6	7.1
East WRSF	0	0	137.2	96.4	40.8
Mine Facilities, Run-of-Mine Stockpile, Attrition Scrubbing	0	0	48.3	48.3	0
Coarse Gangue Stockpile	0	0	318.3	264.0	54.3
Processing Facility (Lithium and Sulfuric Acid Plant)	0	0	555.3	36.5	518.8
Clay Tailings Filter Stack	0	0	1,166.1	364.6	801.5
Mine Facilities Power Line, Quinn Power Line, and Water Supply	0	0	269.8	269.8	0
Exploration	0	0	150.0	150.0	0
Roads	0	0	173.2	124.6	48.6
Ponds	0	0	70.0	53.4	16.6
Growth Media Stockpiles	0	0	95.1	95.1	0
Inter-Facility Disturbance ⁴	0	0	1,301.2	1,086.1	184.1
Total	198.4	60.0	5,545.0	3144.5	2400.5

Table 3: Proposed Disturbance Areas

Notes:

¹ Disturbance totals as of December 31, 2020.

² As of January 2020, a total of 4.97 acres was permitted under the Far East NOI, of which 3.95 acres is disturbed. Of the 3.95 acres disturbed under the Far East NOI, a total of 3.45 acres is disturbed within the Thacker Pass Project Plan of Operations (a total of 0.5 acre is disturbed within the Thacker North-South Exploration Project Boundary, permitted under a separate permit action N98582).

³ Upon approval of the Thacker Pass Project Plan of Operations (N98596), the Far East NOI (N95396), Kings Valley Clay Mine (N91547), Kings Valley Lithium Exploration Project (N85255), and Quinn River Valley Test Wells NOI (N94510) will be terminated. All existing disturbance will be incorporated into the Thacker Pass Project Plan of Operations permit.

⁴ Includes haul and secondary roads, growth media stockpiles, stormwater infrastructure (diversions and ponds), septic systems, communication towers, guard shacks, reclaim ponds, weather station, fiber optic line, buffer areas, and fencing.

2 Methods to be used for Monitoring and Controlling Process Fluids

The proposed methods for monitoring and controlling process fluids associated with the fluid management system are discussed in sections below for the CTFS, CGS process water ponds and the process plant.

2.1 Clay Tailings Filter Stack

The CTFS footprint will be lined with 80-mil HDPE geomembrane on top of a prepared liner bedding surface with a network of perforated collection pipes placed on the geomembrane surface and overlain by a minimum two-foot thick overliner layer. The tailings will be placed in near horizontal lifts across the pad using a fleet of trucks. Any stormwater runoff or seepage water from the clay tailings will drain through the overliner and into the collection pipes where the solution will be conveyed to a solid outlet pipes in the southeast corner of the pad which then directs the flow into a Parshall Flume to measure the flow rate and subsequently into Reclaim Pond #1. Stormwater outlet pipes located just above the seepage outlet pipe are designed to handle the stormwater runoff flows from a 100-year/24-hour storm event.

2.2 Reclaim Pond #1

All stormwater runoff or seepage flows from the CTFS will drain to Reclaim Pond #1. The pond liner system consists of a primary and secondary geomembrane with a geonet layer between the geomembranes. The primary liner will be 80-mil HDPE double-sided textured geomembrane and the secondary liner will be 60-mil HDPE double-sided textured geomembrane. Any leakage through the primary liner will flow along the geonet to the sump where the leak collection and recovery system (LCRS) is located.

The LCRS is comprised of a two-foot deep gravel-filled sump located at the low point of the pond to allow for collection and recovery of leakage through the primary liner and eliminate the transfer of head from the primary to the secondary liner. A pump sleeve extends from the bottom of the gravel filled sump to the pond crest. A small pump will be inserted into the pump sleeve and solution will be pumped from between the liners back on top of the primary liner. The volume of leakage removed from the sump will be recorded using totalizers. Sampling will be done when the solution is pumped back on top of the primary liner just below the crest of the pond.

The pond has an operating capacity of 9.2 million gallons, can store a 100-year, 24-hour storm event runoff volume of 17.8 million gallons and has 3.6 million gallons of storage available in the top 3 feet of freeboard. The total pond volume to the crest is 30.6 million gallons.

Solution stored below the maximum operating level of the pond will be allowed to evaporate or may be pumped back into the processing circuit through the solution pumpback pipe. The pumpback pipe extends from the Reclaim Pond sump to the crest of the pond and is routed along the crest of the pond and through the stormwater outlet pipe to the south side of the CTFS. The pipe is then routed to the west within the lined area, towards the processing plant. At the western edge of the CTFS the pumpback pipe will be sleeved through a larger secondary containment pipe extending to the sulfuric acid plant where it goes back into the process circuit.

Solution levels in the ponds will be monitored daily using gauging marks painted on the pond liner, having a gauging pole placed in the pond to track solution levels or remote sensors.

The Engineering Design Report and Issued for Construction Drawings for the CTFS are included in Attachment J of the WPCP application.

2.3 Coarse Gangue Stockpile

The CGS footprint will be lined with 12 inches of compacted low hydraulic conductivity soil place in two 6-inch thick compacted lifts. The low hydraulic conductivity soil layer (LHCSL) will have four-inch diameter perforated corrugated polyethylene drainage pipes placed approximately 600 feet apart in the major natural topographical low points (drainages) throughout the facility. The pipes and LHCSL will be overlain by a minimum two-foot thick overliner layer. The coarse gangue will be placed in 50-foot lifts at angle of repose assumed to be 1.5H:1V slope and later regraded to an overall 3H:1V or flatter to be stable under long term post-closure conditions. Any stormwater runoff or seepage water from the coarse gangue will drain through the overliner and into the collection pipes where the solution will drain to two 54-inch culverts crossing the haul road. The culverts will discharge into the 80-mil HDPE geomembrane lined sediment pond. The sediment pond is designed to handle the stormwater runoff flows from a 25-year/24-hour storm event and safely contain flows through the spillway from a 100-year, 24-hour storm event.

2.4 CGS Sediment Pond

All stormwater runoff or seepage flows from the CGS will drain to the CGS Sediment Pond. The pond liner system consists of a single 80-mil HDPE textured geomembrane.

A pump sleeve extends from the bottom of the pond sump in the southeast corner of the pond to the pond crest. A small pump will be inserted into the pump sleeve and solution will be pumped from pond back to the process plant to be used as makeup water. The volume of leakage removed from the pond will be recorded using totalizers. Sampling will be done quarterly.

The pond can handle up to two feet of sediment which totals approximately 34,700 CY and the runoff from a 25-year, 24-hour storm event which totals 13.63 million gallons. The maximum storm flow from a 100-year, 24 hour storm even can pass through the 40-foot wide spillway is two feet deep with 2.5H:1V side slopes and still maintain one foot of freeboard. The volume in the top 3 feet (freeboard) is 3.03 million gallons of storage. The total pond capacity if water was at the crest would be 16.66 million gallons.

Water that drains into the pond will be pumped back into the processing circuit through the solution pumpback pipe. The pumpback pipe extends from the sump to the crest of the pond and is routed along the crest of the pond north side of the process plant.

Solution levels in the ponds will be monitored daily using gauging marks painted on the pond liner or having a gauging pole placed in the pond to track solution levels or remote sensors.

The Engineering Design Report and Issued for Construction Drawings for the CGS are included in Attachment J of the WPCP application.

2.5 Process Plant

The Process Plant will be designed in accordance with the State of Nevada and Humboldt County requirements. Throughout the chemical processing areas in the Process Plant, primary containment includes pipelines, storage tanks, thickeners, and reaction vessels. The secondary containment for the plant consists of containment slabs and walls that can store any leakage from the primary containment infrastructure or from loading reagents. Leakage from the primary containment infrastructure will be collected in secondary containment areas and either returned to the process via a sump/pump arrangement or by vacuum truck. The following process plant areas have been identified as requiring secondary containment.

- 1. Acid Leaching (including Scrubber Area)
- 2. Acid Leaching Sulfuric Acid Storage
- 3. Filter Building
- 4. Filter Tank Farm (including Scrubber Area)
- 5. Conveyor
- 6. Dryers with Conveyor Overhead
- 7. Neutralization and Precipitation
- 8. Ion Exchange
- 9. HCI Acid
- 10. Soda Ash

- 11. North Tank Farm
- 12. Lithium Hydroxide Dryer & Crystallization Areas
- 13. Caustic
- 14. Lithium Carbonate Dryer and Crystallization Areas
- 15. Magnesium Sulfate Feed Filters
- 16. Magnesium Sulfate Crystallization
- 17. ZLD (Sodium/Potassium Sulfate Crystallization)
- 18. Water Treatment
- 19. South Tank Farm
- 20. HRS Acid Area and Washdown Area
- 21. Acid Plant Area
- 22. Acid Plant Sulfuric Acid Storage
- 23. Strong Acid Area
- 24. Turbogenerator and Package Boiler

Kiewit has developed the process facility design and calculated the storage capacities for each containment area based on the size of the largest vessel in that area. The Issued for Construction containment drawings are included in Attachment K of the WPCP application. In general, the following controls apply to the above unit processes.

- Containment within the buildings includes sealed concrete floor slabs and concrete curbs along the building perimeter to prevent leakage and spillage outside of the containment footprint. The floor plans are provided in Attachment K of the WPCP application.
- Any spills will be contained in the secondary containment areas where solution will be pumped from the sumps back into the process circuit or sucked up using a vacuum truck and pumped back into the circuit.
- Areas that do not have rainfall included in the containment calculations will be roofed and areas with rainfall volumes included in the containment calculation will not have a roof.

Operations personnel will perform daily inspections to check for spills and maintain equipment.

2.6 Mine Facilities

The Mine Facilities will be designed in accordance with the State of Nevada and Humboldt County requirements. There are two areas within the Mine Facilities that will require secondary containment which are the Fuel Island and the Equipment Wash Bay wash water containment basins.

Kiewit has developed the containment design and calculated the storage capacities for these containment areas based on the maximum expected liquid volume expected within the containment. The Fuel Island containment was based on 110% of the largest tank inside the area. The Wash Bay wash water containment area was based on the volume of water being used to clean equipment as described further in Section 2.4.1.

The Issued for Construction containment drawings are included in Attachment K of the WPCP application. In general, the following controls apply to the Fuel Island and Equipment Wash Bay.

- Containment within the buildings includes sealed concrete floor slabs and concrete curbs along the building perimeter to prevent leakage and spillage outside of the containment footprint. The floor plans are provided in Attachment K of the WPCP application.
- Any spills in the Fuel Island will be absorbed using spill kits or sucked up using a vacuum truck and taken to a designated petroleum contaminated soil site.
- Water from the Wash Bay will be recycled after passing through settling and filtration systems as described in Section 2.4.1.
- The containment areas are designed to contain runoff from a 100-year, 24-hour storm event in addition to the operational storage requirements.

Operations personnel will perform daily inspections to check for spills and maintain equipment.

2.6.1 Wash Bay

Water used in the wash bay system will be exposed to oils, lubes, and sediments on the equipment/vehicles being cleaned. The wash water will be collected by the slope of the floor of the wash bay, into the first settling basin. The wash water will then flow into the secondary basin, both separating heavy suspended solids by gravity. The secondary basin will contain a floating oil skimmer to remove free oils from the surface of the water. After the secondary basin, water will flow through a weir wall with a screen then to the filtration system where water will be prepped for recycling through the water system in the wash bay.

Capacity is based on the installation of six high-volume nozzles with a flow rate of 240 GPM each. These nozzles are used in the first step of cleaning large equipment for approximately 10-15 minutes. The first basin's capacity is rated to hold the water out of the high-volume nozzles for a minimum of eight pieces of equipment (approximately 2 hours). This capacity also leaves room for 180 minutes of use of the pressure washing system with a flow rate of 6 GPM. This secondary containment provides enough capacity for a mud capacity of 47% in the settling pits. The mine operation plans to clean out the basin before a 40% capacity depending on seasons and weather.

3 Evaluation of Conditions in Fluid Management System

Routine inspections will be performed of the fluid management systems on site where fluid levels are measured and compared with maximum operating limits defined in the engineering design reports and operation plans.

LCRS Protocols

The proposed protocol for determining whether there is any transfer of head from the primary to the secondary liner within the lined ponds is as follows:

- Monitor the head in the LCRS sump and elevation of the solution in the pond;
- If there is no increase in head in the LCRS sump and the head is less than the elevation of the primary liner at the sump, there is no solution flowing into the sump and the sump does not need to be evacuated;
- If there is an increase in head on a daily basis then the following protocols will be performed to determine the real-time inflow into the sump:
 - Measure the head in the sump;
 - Evacuate the sump using a low-flow pump (<0.5gpm) until the sump runs dry (minimum pump operating depth);
 - o Measure the head in the sump immediately after it runs dry and again after eight hours;
 - Calculate the volume of water that has flowed into the sump during the eight-hour period using pre-determined sump height-volumes;
 - Calculate the average inflow into the sump.

The LCRS limitations defined in the NDEP/BMRR Permit Limitations for Leak Detection Systems is 150 gallons per day averaged over a quarter and 50 gpd averaged over a year for double-lined ponds. If the inflow rate exceeds the permit limitations a higher flow pump capable of maintaining the same or greater inflow rate to the sump will be immediately installed in order to eliminate the potential for transfer of head from the primary to the secondary liner. All solutions pumped from the LCRS sump will be discharged back into the pond. NDEP will be notified and a plan to repair the liner will be developed for approval by NDEP.

4 References

Lithium Nevada Corporation (LNC). 2021. Thacker Pass Project Plan of Operations and Reclamation

Plan. February 2021.

Figures





 \sim Nevada DOT Roads \sim Other Roads

Location Map Thacker Pass Project Humboldt County, Nevada FIGURE 1

