



STATE OF NEVADA  
 COMMISSION ON MINERAL RESOURCES  
**DIVISION OF MINERALS**  
 400 W. King Street, Suite 106  
 Carson City, Nevada 89703  
 (775) 684-7040 | Fax (775) 684-7052  
<http://minerals.nv.gov>

Date Received _____
County _____
NDOM Permit Number _____ FOR DIVISION USE ONLY

**DISSOLVED MINERAL RESOURCE EXPLORATION WELL PERMIT APPLICATION**

Applicant/Operator Name: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State/Prov.: \_\_\_\_\_  
 Country: \_\_\_\_\_ Zip Code: \_\_\_\_\_

hereby makes application for a dissolved mineral resource exploration well permit.

(if applicant is a corporation, show state and date of incorporation; if a partnership, list names of partners.)

Well Name \_\_\_\_\_

This application is for a:  New Exploration Well  Borehole to Well Conversion  
 Permit Extension (NDOM Permit # \_\_\_\_\_) (Indicate below any changes to original permit)

Permit Extension Reason:

Applicant is:  Land Owner  Lease/Claim Holder

Land Status (choose one):

Federal (BLM, USFS, etc...)

Mining Claim: NMC# \_\_\_\_\_

Project Name: \_\_\_\_\_ NVN# \_\_\_\_\_

Non Federal

APN#: \_\_\_\_\_ Land Owner: \_\_\_\_\_

Bond Type: \_\_\_\_\_ Issued by: \_\_\_\_\_

Amount: \_\_\_\_\_ Number: \_\_\_\_\_

Groundwater Basin Name and Number

Area With Limitations?

	<input type="checkbox"/> Y	<input type="checkbox"/> N
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(Well proposed to be drilled within areas with limitations may require Blowout Prevention Equipment, per NAC 534B)

Location of Well:

County: \_\_\_\_\_

\_\_\_\_\_ ¼ of the \_\_\_\_\_ ¼ of \_\_\_\_\_ Sec., Township \_\_\_\_\_  N  S, Range \_\_\_\_\_ E

UTM East: _____	or Longitude: _____
UTM North: _____	Latitude: _____
<input type="checkbox"/> NAD83	<input type="checkbox"/> WGS84
<i>M.D.B. &amp; M.</i>	

Drilling Contractor (if known): \_\_\_\_\_  
Address: \_\_\_\_\_  
City, State Zip: \_\_\_\_\_

Purpose of Well: \_\_\_\_\_  
Drill Rig Type: \_\_\_\_\_  
Surface Hole Diameter: \_\_\_\_\_ Casing Size/Length: \_\_\_\_\_  
Expected Total Depth: \_\_\_\_\_ Casing Weight/Gauge: \_\_\_\_\_  
Casing Schedule/Grade \_\_\_\_\_

Blowout Prevention Equipment Rating:  None  2000 psi  3000 psi  5000 psi

Fluid Management Plan (NAC 534B):

(Describe Here or Attach Additional Pages)

Contamination Prevention/Cementing Plan (NAC 534B):

(Describe Here or Attach Additional Pages, must include Well Schematic)

Flow Monitoring and Plugging Plan (NAC 534B):

(Describe Here or Attach Additional Pages)

Drilling will commence approximately on: \_\_\_\_\_

Signature of Applicant/Agent: \_\_\_\_\_  
Printed Name/Title: \_\_\_\_\_  
Date: \_\_\_\_\_

*An application submitted without a signature and date will not be considered for approval.*

-----Attach \$1,000.00 Application Fee Per NAC 534B-----

**----- TO BE COMPLETED BY DIVISION -----**

**CONDITIONS OF PERMIT**

1. All permittees must comply with appropriate sections of the Dissolved Mineral Resource Regulations of the Division of Minerals and with applicable rules and regulations of state and federal agencies.
2. For a well located on non-federal land, a bond in an amount determined by the Division to be necessary to properly plug the well in accordance with NAC 534B must be included.
3. Well Permit Expires two (2) years from date of approval.
4. See attached Conditions of Approval.
5. Send any required reports to: ..... [ndom@minerals.nv.gov](mailto:ndom@minerals.nv.gov)
6. Additional Conditions/Comments

A.	
B.	
C.	

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal, and local agencies.

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**PERMIT APPROVAL**

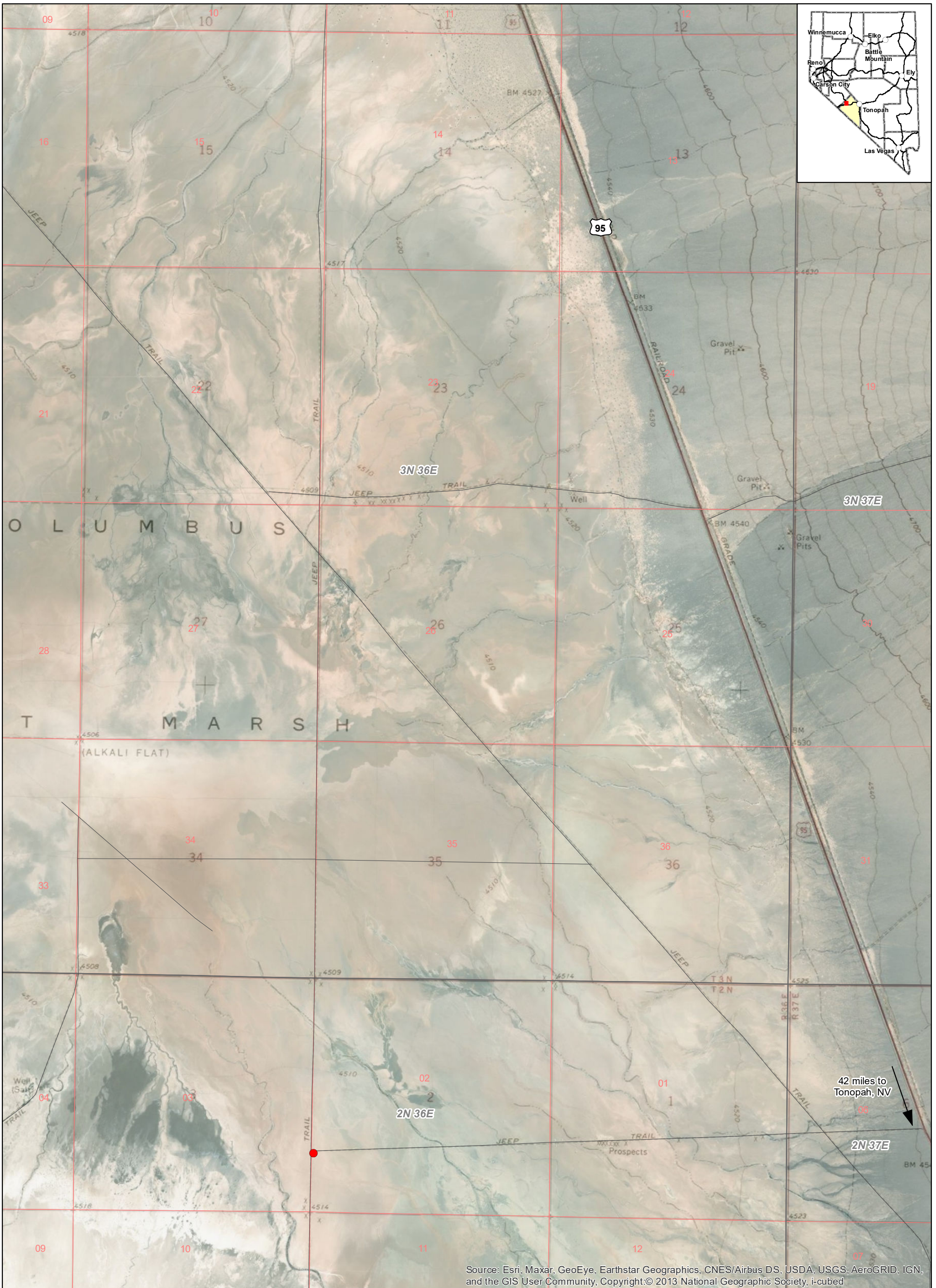
Approved \_\_\_\_\_ with the conditions noted above.  
Date

Permit Number \_\_\_\_\_

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Administrator  
Division of Minerals

Attachment 1  
Figure and Figure and  
Test Well Schematic



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Copyright © 2013 National Geographic Society, i-cubed

**Explanation**

- Planned Drill Site (1)
- Existing Road

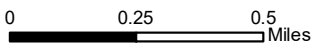
Land Status: All BLM

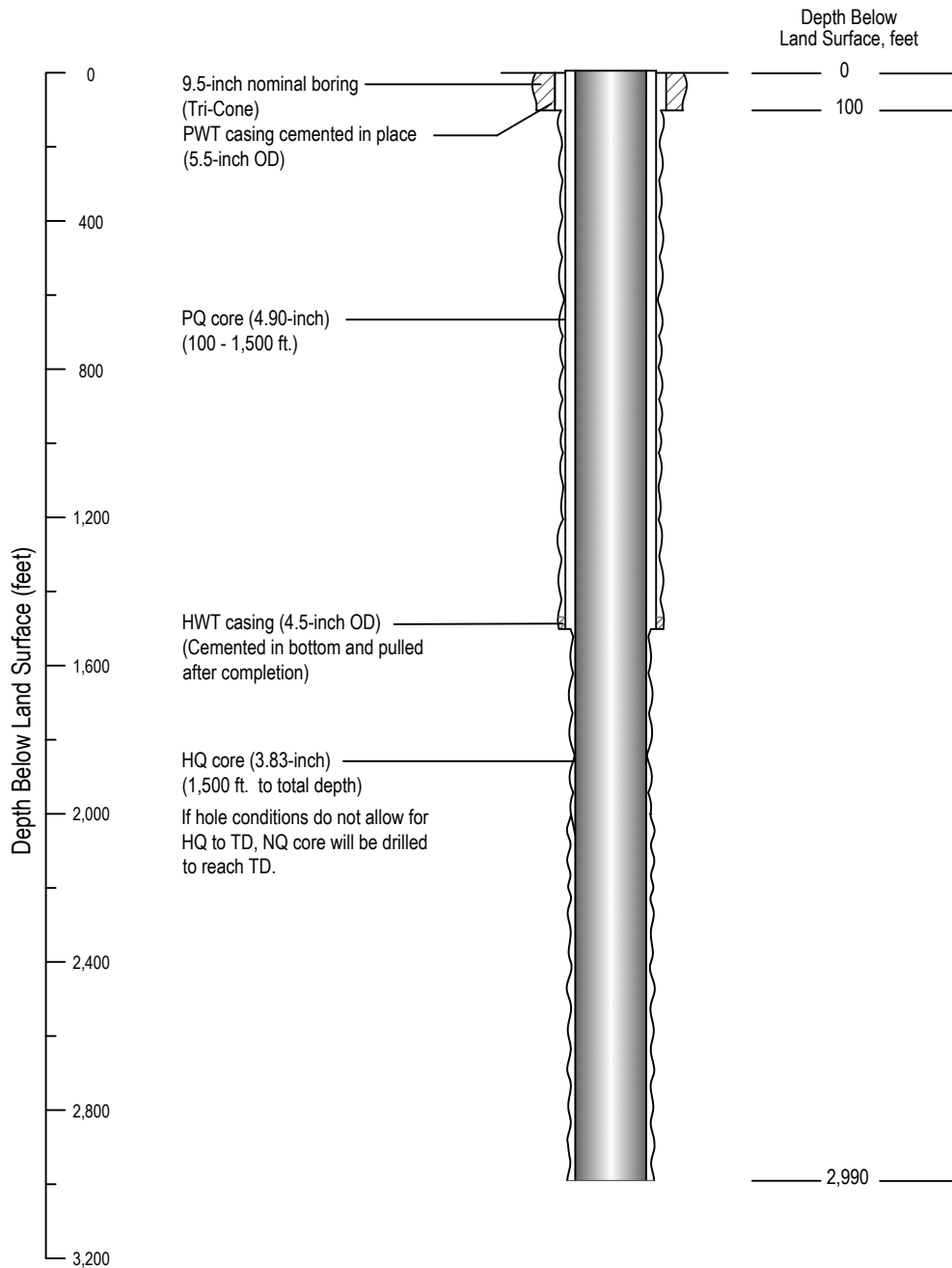
**PILOT PEAK LLC**

COLUMBUS BASIN EXPLORATION PROJECT

Project Location, Access,  
and Land Status  
(Planned Site #3)

Label: Figure 1	Drawn By: JDB
Date: 02/11/2022	Project No.: 2449.01
Base Map: USGS 7.5' quads: Coaldale, Rock Hill	
File Name: 2449_01G_ColumbusBasin_NDOM.mxd	





Note: Lithium exploration boring packed and sampled every 100 feet.

**Figure xx. Schematic Diagram of Lithium Exploration Boring**

Attachment 2  
Additional Details for the Drilling of  
Pilot Peak, LLC's Columbus Basin  
Exploration Project

## Additional Details for ETW#3 at Pilot Peak LLC’s Columbus Basin Project

### **Project Description:**

Pilot Peak LLC (PPL) is proposing to conduct exploration drilling and groundwater chemistry characterization from the planned aquifer Exploration Test Well #3 (ETW), which will be accessed from an existing network of access routes, as shown on the figure in Attachment 1. The ETW is proposed to be drilled to a Total Depth of 2,990 feet.

**Table 1 – Proposed ETW #1 Location**

Site Name	Easting (NAD 83, Zone 11)	Northing (NAD 83, Zone 11)
ETW#3	416,617	4,212,293

### **Proposed Exploration Disturbance:**

Disturbance will include existing access routes, drill site, and sump complexes within the drill site disturbance footprint. The drill site will be constructed with the approximate disturbance dimensions of 133 feet long by 110 feet wide. Up to three sumps will be constructed in sequence with the individual dimensions (including the material piles) of 50 feet long by 20 feet wide with a total sump volume of 150 cubic yards. The sumps will be constructed within the corresponding drill site disturbance footprint to contain drill cuttings and manage drilling fluids. Only existing access roads will be disturbed during the Project. The location of the ETW, existing access, and planned surface disturbance are shown on the figure in Attachment 1.

The Standardized Reclamation Cost Estimator, Version 1.4.1 Build 17b, and including 2021 cost data was used to generate the required reclamation cost estimate (RCE) for ETW abandonment, along with other (total) surface disturbance included in the Notice for the Project, as submitted to the Bureau of Land Management, Tonopah Field Office (BLM).

### **Description of Planned Operations:**

PPL will address the requirements detailed below per (NAC 534B.160 1.(a) through 2.(d) as applicable for the proposed ETW.

#### **Fluid Management Plan (NAC 534B):**

Drill cuttings and mud will be maintained within the mud system of the rig. Multiple sumps will be constructed within the drill site disturbance footprint to contain drill cuttings and manage drilling fluids. Best Management Practices (BMPs) for sediment control will be utilized during construction, operation, and reclamation to minimize sedimentation from disturbed areas.



*Contamination Prevention/Cementing Plan (NAC 534B.160.):*

The first 100 feet of the ETW will be 9.5 inches wide with a 5.5-inch diameter conductor casing set and cemented in place with neat cement to surface. Depth to water in the basin has been measured in existing borings at a depth of approximately ten feet below ground surface. The proposed cased depth of 100 feet was determined from prior experience the drillers have in Columbus Basin and this depth of casing will address following factors of ETW stability: The surface casing will control formation fluids and protect groundwater. This casing plan ensures that casing will be set below all known or reasonably estimated levels of good quality water, protect such fresh-water aquifers and prevent blowouts or uncontrolled flows. The 4.5-inch diameter HWT casing will be installed from 1,500 feet to surface and temporarily cemented from 1,500-1,490 feet bgs to limit washout and allow the casing to be pulled once the hole is completed and ready for abandonment.

From 1,500 feet bgs to the maximum TD of 2,990 feet, the borehole will be drilled to a diameter of 3.83 inches. To isolate zones of varying water quality and prevent migration of formation fluids between disparate aquifers, PPL will take several preventative measures including utilizing bentonite clay-based drilling mud. PPL and its contractors will consistently monitor the flow of fluid to ensure no remedial measures are required after drilling operations have begun to prevent unwanted vertical migration of formation fluid.

PPL will maintain close communication with the Nevada Division of Minerals (NDOM) in real-time, all learnings from drill cutting analysis and wireline logging analysis and will cooperate in the event NDOM recommends any immediate remedial or corrective measures be taken during the drilling process. Finally, PPL is willing to abandon the well pursuant to Nevada Administrative Code (NAC) 534B.180 in an expediated fashion if vertical migration of formation fluid between discrete zones ultimately does not warrant or allow for the boring to be kept open longer than a brief period. PPL is committed to working closely with the relevant regulatory authorities in all respects and will heed the advice of the authorities with respect to any corrective/remedial measures and/or expedited abandonment timelines ultimately required by the authorities before the ETW is drilled.

*Flow Monitoring and Plugging Plan (NAC 534B.180):*

Water extracted during the drilling process will be managed in the sump; the volume will be estimated and recorded. After completion of the ETW, water volume will be recorded based on the sump volumes. Upon completion of the testing and analysis of dissolved mineral resource potential, the ETW will be promptly abandoned pursuant to NAC 534B.180. All necessary reports and documentation will be provided to the relevant regulatory authorities as soon as practicable and, in all cases, within the permissible timeline.

*Surface & Groundwater – Erosion Prevention and Control*

PPL will conduct exploration operations in a manner that minimizes soil erosion. Equipment will not be operated when ground conditions are such that excessive resource damage or increased

sediment transport will occur. BMPs for sediment control will be utilized as needed during construction, operation, and reclamation to minimize sedimentation of disturbed areas. Sediment control structures will include, but not be limited to, fabric and/or certified weed-free straw bale filter fences, siltation or filter berms, mud sumps and down gradient drainage channels to prevent unnecessary or undue degradation to the environment. Sediment traps (sumps), constructed within the drill site footprints, will be used to settle and contain drill cuttings, and manage drilling fluids. Weed-free straw bales and silt fences will be placed strategically around sumps and drill site footprint, as necessary to capture sediment.

#### Surface & Groundwater – Stormwater and Control

Sediment controls such as straw or hay bales, filter fences or other controls will be implemented as necessary. Where straw or hay bales are required, only certified, weed-free product will be used.

While not anticipated due to the environment and generally flat terrain, stormwater controls will be constructed or installed where necessary to prevent or minimize erosion and sedimentation. Drainage structures will consist of, but not be limited to, water bars, borrow ditches, and contour furrows sized to handle maximum seasonal water flows. Disturbed areas will be broadcast-seeded with an approved weed-free seed mix to reduce erosion immediately after construction. Once an area has been revegetated, notices and/or signs may be posted to allow vegetation to establish while reducing or restricting vehicular traffic.

#### Drilling Effluent Management

Drilling fluid products used during drilling and abandonment operations will be contained and deposited in tanks with overflow to sumps to ensure environmental protection.

Overflow and mud sumps for drill water, fluids, and cuttings will be excavated within the limit of the drill site using a backhoe. Anticipated sump dimensions, including the material piles, will be up to 50 feet long by 20 feet wide with a total sump volume of 150 cubic yards. One end of each sump will be sloped to provide egress for wildlife and/or other animals.

Sumps will be backfilled after completion of drilling. If mud tanks are cleaned at the site, the contents will be contained in the sump and covered with backfilled soil materials.

#### Drill Hole Abandonment

Drill holes will be plugged in accordance with Nevada State and administering agency standards and will be done consistent with the definitions in NAC 534B.180 for abandonment. The abandonment costs are calculated in the RCE included with the NOtice. The active ETW will be abandoned prior to PPL leaving the active drill site.

### Solid & Hazardous Substances

Non-hazardous Project-related exploration refuse will be collected in approved trash bins and/or containers and hauled from the site by PPL or their contractors for disposal at an approved landfill on a regular basis. The bins and/or containers will be equipped with lids. Debris that may have a hazardous characteristic, residue, or fluids, will not be disposed of in the trash bins. To minimize impacts during precipitation events, trash bins will be regularly inspected for leaks and the lids will remain closed except when depositing debris. The trash bins will not contain materials that may attract wildlife (food items, etc.) and will be emptied on a regular basis.

Hazardous substances employed for the Project will include diesel fuel, gasoline, hydraulic fluid and lubricating grease. Approximately 300 gallons of diesel fuel and gasoline will be stored in fuel delivery systems on drill rigs and support vehicles. Approximately 50 pounds of lubricating grease and 35 gallons of hydraulic fluid will be stored on each drill rig or transported by drill trucks. Transportation of these materials will be conducted in accordance with applicable regulatory guidelines.

### Schedule for the Project and Reclamation

Drilling success will determine the reclamation schedule. Disturbance will be reclaimed at the earliest opportunity unless economically viable resources are identified. PPL estimates that drilling, sampling, and abandonment activities will be completed in approximately one month per site, for a total of approximately three months for all three sites.

Earthwork and revegetation activities are limited by the time of year during which such activities can be effectively implemented. Site conditions and/or yearly climatic variations may require that this schedule be modified to achieve revegetation success. Reclamation activities will be coordinated with the BLM as necessary. Monitoring of revegetation success will be conducted annually for a minimum of three years or until revegetation standards have been met.

### Drill Hole Plugging Procedures

The exploration drill hole will be plugged in accordance with Nevada regulations as described in NAC 534B.180, or NAC 534B.170 if artesian conditions are encountered. A drill rig with appropriate support equipment will be used to abandon the drill holes before the drill rig leaves the active drill site.

### Resource Logging Plan

During the drilling process, PPL will deploy a suite of wireline logging tools to effectively analyze and record the depth, thickness and character of the different strata penetrated and the location of the water-bearing strata. PPL will submit the results of these analyses to the relevant regulatory authorities in a timely fashion and in accordance with all regulatory requirements.