USDA, Forest Service **PLAN OF OPERATIONS FOR MINING ACTIVITIES** FS-2800-5 (Rev. 3/08)

ON NATIONAL FOREST SYSTEM LANDS OMB 0596-0022

USE OF THIS FORM IS OPTIONAL! **1st TIME USERS SHOULD DIRECT QUESTIONS REGARDING THIS FORM OR REGULATIONS (36 CFR 228A) TO THE FOREST SERVICE DISTRICT OFFICE NEAREST YOUR AREA OF INTEREST.**

Submitted by:	M. Bl	Director & Officer Clean Nuclear Energy Corp	10/24/2024	
	Signature	Title	Date *(mm/dd/yy)*	
Submitted by:	DocuSigned by: John Glasscock 1EB3805A76C5455...	Principal Cowboy Exploration Inc.	10/24/2024	
	Signature	Title	Date *(mm/dd/yy)*	
Plan Received by:	Jonathan Manning	Geological Engineer, USFS	11/27/2024	
	Signature	Title	Date *(mm/dd/yy)*	

I. GENERAL INFORMATION

A. Name of Mine/Project: October Jinx Project

B. Type of Operation: Lode Mineral Exploration

C. Is this a new operation? Yes

If continuing a previous operation, this plan (☐ replaces/☐ modifies/☐ supplements) a previous plan of operations. *(check one)* _____

D. Proposed start-up date of operation: February 1, 2025

E. Expected total duration of this operation: 2 months, including 3 weeks of active drilling, plus 3 to 4 weeks of aquifer testing, and reclamation

F. If seasonal, expected date of annual reclamation/stabilization close out: N/A

G. Expected date for completion of all required reclamation: 2 weeks after the end of drilling

PRINCIPALS

A. Name, address, and phone number of operator:

Clean Nuclear Energy Corp (herein referred to as Clean Nuclear or Operator)
Attn: Mr. Mike Blady
503-905 Pender St. W
Vancouver, British Columbia, Canada V6C 1L6
(604) 720-3474

B. Name, address, and phone number of authorized field representative (if other than the operator):

Mr. John Glasscock
Project Manager
Clean Nuclear Energy Corp.
PO Box 2498
Laramie, WY 82073
(307) 760-9512

The field representative is authorized to act on behalf of the Operator.

C. Name, address, and phone number of owners of the claims (if different than the operator):

Cowboy Uranium, LLC
PO Box 2498
Laramie, WY 82073
(307) 760-9512

Cowboy Exploration and Development (Cowboy) has optioned the Project claims to Clean Nuclear Energy Corp. Clean Nuclear Energy Corp is acting as the operator for the proposed drilling program and is earning an 90% interest in the claims through cash, share and work commitments. Cowboy is acting as a consultant for the drill program.

The option agreement between Clean Nuclear Energy and Cowboy Uranium is attached in Appendix 1. All of the project claims within the area are listed in Appendix 2.

D. Name, address, and phone number of other lessees, assigns, agents, etc., and briefly describe their involvement with the operation, if applicable:

Not Applicable

III. PROPERTY OR AREA

The October Jinx Project comprises unpatented lode claims located in the Hell Canyon Ranger District of the Black Hills National Forest (BHNF) in Fall River County, South Dakota. The project area is located in Section 25, Township 7 South, Range 2 East, and Section 30,

Township 7 South, Range 3 East of the Black Hills Meridian. The unpatented claims are listed in Appendix 2.

The Project is in close proximity to but outside the Craven Canyon Mineral Withdrawal, which occurs in portions of Section 25, T7S, R2E and Section 30, T7S, R3E as shown in Figure 1.

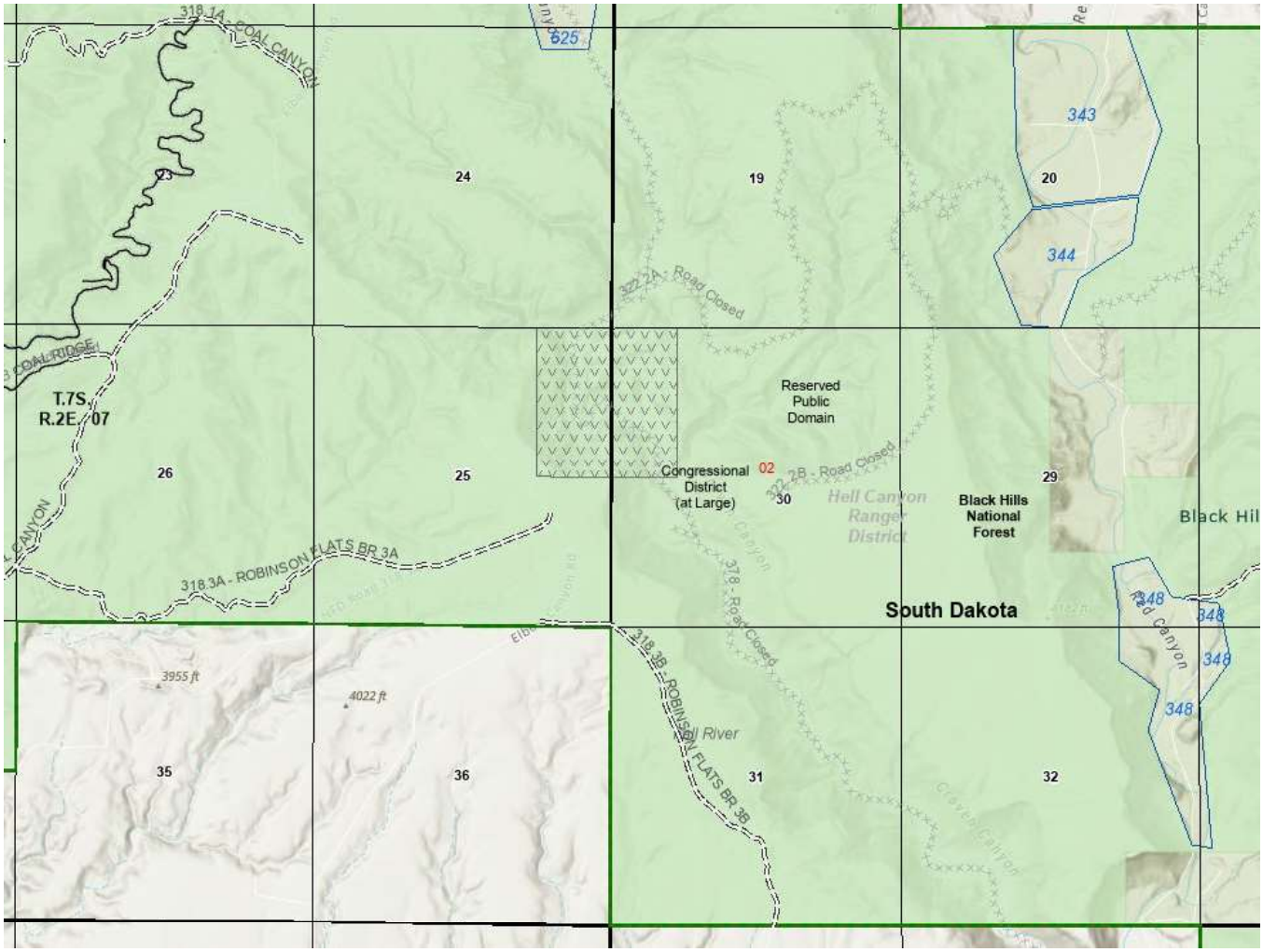

Figure 1. Craven Canyon Mineral Withdrawal Area (provided by J. Manning, BHNF, 2024)

IV. DESCRIPTION OF THE OPERATION

A. Access. ***Show on a map (USGS quadrangle map or a National Forest map, for example) the claim boundaries, if applicable, and all access needs such as roads and trails, on and off the claim. Specify which Forest Service roads will be used, where maintenance or reconstruction is proposed, and where new construction is necessary. For new construction, include construction***

specifications such as widths, grades, etc., location and size of culverts, describe maintenance plans, and the type and size of vehicles and equipment that will use the access routes.

Figure 2 shows the October Jinx Project area and existing principal access roads to the mineral exploration prospect areas where work is proposed. Principal highways and primary Forest Service roads are also depicted.

Elbow Canyon Road provides local access to the project area, and the site will be accessed from the south (Figure 2). The existing access road is adequate for entry to the work area and does not require construction, vegetation removal, or road widening. Clean Nuclear will retain all snags that are not considered a hazard to property or life. Access to individual drill sites will involve using existing two-tracks and trails as well as short distances of overland travel to the drill pad. In sum, the Project includes approximately 1.3 miles of overland travel access; assuming an 8-ft wide travel corridor, approximately 1.26 acres of Project disturbance is associated with overland travel on U.S. Forest Service (USFS) land.

No routine road maintenance is proposed during operation under the Plan. The USFS provides guidance on road usage to protect the roads, and Clean Nuclear will follow the USFS rules and instructions. If using roads by the Operator results in degradation of road conditions on USFS lands, then the Operator commits to performing maintenance, with prior notification and consultation with the USFS, as required to restore the road to preoperational condition.

No new construction of roads, bridges, or culverts will be required for operations under this Plan. Vehicles used in the operation of the Project are listed in Section IV (D) below.

Any unexpected road or trail damage would be repaired as soon as possible. The USFS would be consulted to approve the proposed maintenance and inspect the repair. Contractor equipment would not exceed local road weight restrictions without prior approval by applicable authorities. All existing USFS-authorized improvements including but not limited to fences, roads, trails, gates, and utility lines, are considered protected improvements and should be protected during project implementation. Should any improvement be damaged, the Hell Canyon Ranger District will be contacted, and it must be returned to its original condition as soon as possible. All access routes for equipment and water haulage that are not defined in the Plan of Operations (POO) shall be provided to the USFS for review and approval.

B. Map, Sketch or Drawing. ***Show location and layout of the area of operation. Identify any streams, creeks or springs if known. Show the size and kind of all surface disturbances such as trenches, pits, settling*** **ponds*****, stream channels and runoff diversions, waste dumps, drill pads,***

timber disposal or clearance, etc. Include sizes, capacities, acreage, amounts, locations, materials involved, etc.

Figure 2 shows access to the proposed monitoring well drill sites. Figures 3 and 4 show detailed topography and imagery of the project site. All of the drill sites are listed in Table 1.

Figure 2. Project Location and Access

Drill sites are positioned near Elbow Canyon Road, on relatively flat topography, and in areas that were previously impacted by wildfire and historic uranium exploration in the 1970s and 1980s. After drilling is completed at the drill sites, the pad will be recontoured (if needed), seeded, and mulched during final reclamation, as described in Section V(I).

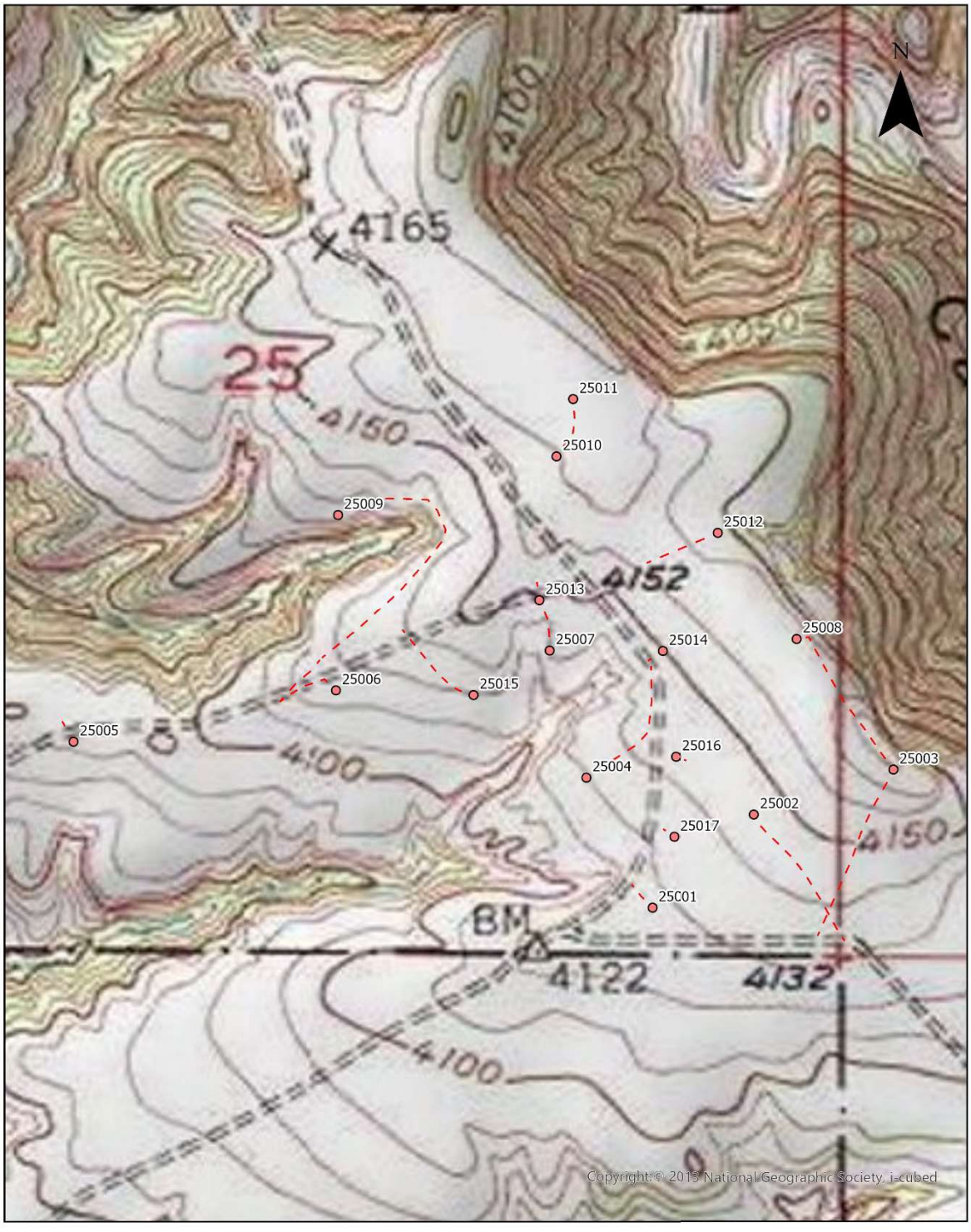

Figure 3. Topographic Map of Proposed Exploration Drill Sites

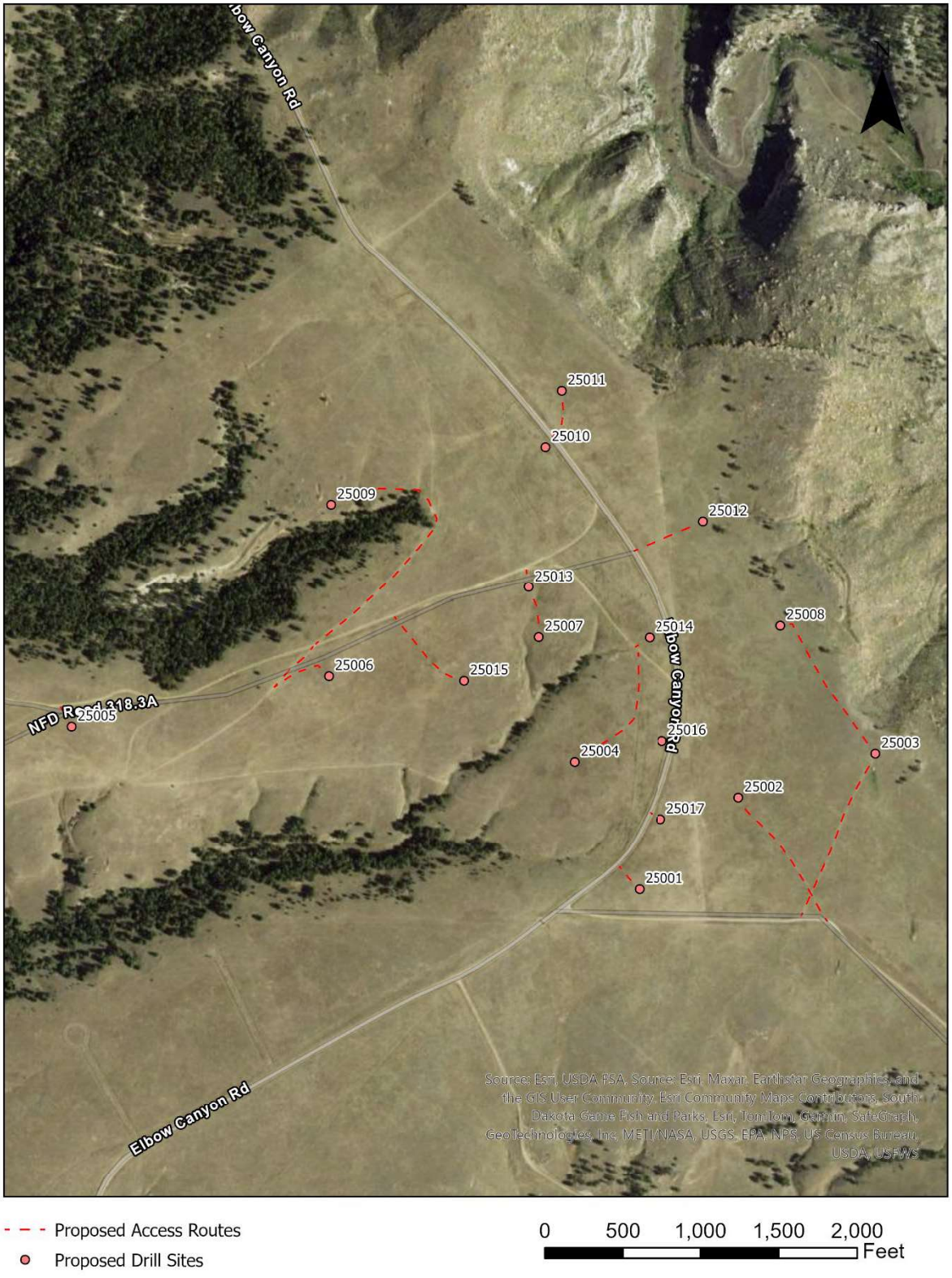

Figure 4. Aerial Photograph of Proposed Exploration Drill Sites

Table 1 Proposed Drill Sites

Hole I.D.	Northing*	Easting	Approximate Collar Elevation (ft)	Approximate Total Depth (ft)
BUC-25001	410365	1073966	4132	500
BUC-25002	410767.6	1074446	4148	500
BUC-25003	410944.2	1075089	4171.5	500
BUC-25004	410967.5	1073689	4132	500
BUC-25005	411228.2	1071360	4093	500
BUC-25006	411410.9	1072565	4128	500
BUC-25007	411550.9	1073547	4139.5	500
BUC-25008	411556.2	1074675	4162.5	500
BUC-25009	412207.5	1072608	4121	500
BUC-25010	412432.6	1073615	4170.5	500
BUC-25011	412688.3	1073701	4177	500
BUC-25012	412055	1074337	4160	600
BUC-25014	411525.9	1074062	4152	600
BUC-25013	411784.5	1073509	4149.5	500
BUC-25015	411363.7	1073191	4130.5	500
BUC-25016	411045.2	1074103	4147	600
BUC-25017	410682.2	1074079	4138	600

*Datum NAD 27 South Dakota South

C. Project Description: ***Describe all aspects of the operation including mining, milling, and exploration methods, materials, equipment, workforce, construction and operation schedule, power requirements, how clearing will be accomplished, topsoil stockpile, waste rock placement, tailings disposal, proposed number of drillholes and depth, depth of proposed suction dredging, and how gravels will be replaced, etc. Calculate production rates of ore. Include justification and calculations for settling pond capacities, and the size of runoff diversion channels.***

Introduction and Geology

The primary purpose of this Plan is to provide documentation and support for a request for authorization of a program of reverse circulation drilling 17 exploration holes test for exploration of subsurface uranium mineralization and to conduct an aquifer characterization study on the October Jinx Project. Seventeen potential drill sites are shown in Figures 3 through 4. Some of the proposed 17 sites may not be used depending on the results of drilling previous holes. One truck, track or skid-mounted drill rig, is planned to be used.

Drill sites will be approximately 60 foot (ft) by 60 ft per drill pad, times 17 drill pads, or 1.4 acres total disturbance. Materials used for the Project would be stored on state lands in Section 36 along Elbow Canyon Road at a 12 ft by 80 ft (0.02 acre) laydown or staging area; the laydown area would not be located on USFS land. Clean Nuclear plans to keep all equipment on site during active drilling, but would use the laydown area for overflow. No fuel or chemicals would be stored at the laydown area. All materials would be removed after completing drilling at a particular drill site.

An estimate of the average required depth of drillholes is 500 ft, based on surface geology and knowledge of local stratigraphy. However, depending on the geology encountered in each hole, the Operator will have equipment to drill to a maximum depth of 700 ft. Each drill site would have a single vertical hole drilled.

The general geology of the area is provided in Figure 5. At the site, the surface geology consists of Cretaceous age Inyan Kara Group, including the upper Fall River Formation, Fuson Shale Member, and Lakota Formation. At depth, the other typical Mesozoic and Paleozoic formations that occur throughout the Black Hills are likely to occur at the Project. The Fall River Formation is between 65 and 125 ft thick, and the Lakota Formation is 200 to 500 ft thick.

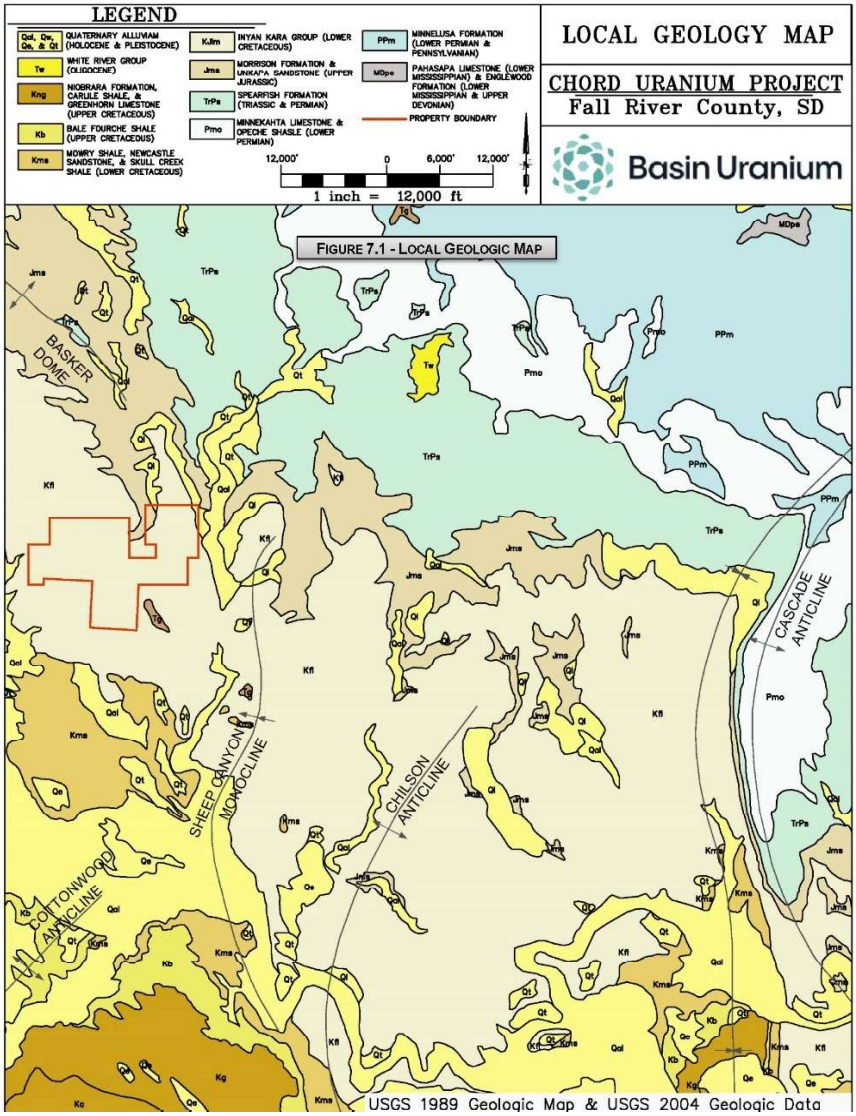

Figure 5. Project Area Geology

Drillholes to test for aquifer characteristics and indications of mineralization are planned to penetrate only the Inyan Kara Group, specifically targeting the Chilson Member of the Lakota Formation.

The Inyan Kara Group is known to be an aquifer throughout the Black Hills. However, water quality varies greatly within and outside of a roll-front uranium deposit. At the project location, uranium mineralization is likely to influence water quality, and the aquifer is unlikely to be a suitable source of drinking water at the Project. Water quality results from the Project area are described in the Report on Water Sampling and Limited Aquifer Testing Chord Project Fall River County, South Dakota by Cohan [1984][1] (included in Appendix 5). Based on data from the site [Cohen 1984], “all ground waters from the Lakota Formation… in the

[1] Cohan, W.T., 1984. Report on Water Sampling and Limited Aquifer Testing Chord Project Fall River County, South Dakota.

vicinity of the orebody contains at least slightly anomalous concentrations of natural uranium or radium 226." Specifically, Lakota Formation monitor wells B4 and B5 within the Chord Project area and a stock well in Craven Canyon had uranium concentrations that exceed current EPA standards of 30 ug/L (72, 64, and 141 ug/L respectively). Monitor well B4 and the Standin Ranch well exceeded drinking water standards for radium of 5 pCi/L (21.8 and 12.9 pCi/L respectively).

Final drillhole closure requirements will prevent cross-aquifer contamination.

The vertical distance of the water table below the surface is not sufficiently defined, though the majority of drilling will occur above the water table. Data from two existing monitoring wells on site indicate the lower portion of the Chilson Member lies within a saturated aquifer [Cohan, 1984[2]].

No petroleum is present in the rocks and is not expected to be encountered on the property.

Access

No construction of new access roads or clearing of trees and other vegetation will be required. Drill sites have been sited to take advantage of gentle topography. The drill sites will require little or no surface modification to accommodate access for the drill rig, water truck, as well as the sump installation for the settling and burial of particulates from drill water. Final closure and reclamation of the site are described in Section V(I). The choice of sites with gentle topography was also preferred to reduce reclamation complexity.

If topsoil can be selectively reclaimed within the drill sites, then the topsoil will be segregated and stockpiled for final closure as described in Section V(I). After completing the drill program and aquifer testing, this Plan proposes to recontour the drill sites and mulch and reseed these areas to improve the affected locations, as described in the following paragraphs and in Section V(I).

The proposed drill sites have been chosen based specifically on geologic potential and minimal operational impacts. The drill site locations along the existing access road will have minimal impact on forest resources and users. Visual impacts will be minimized by selecting drill sites that are not visible from paved roads or permanent structures, as discussed in Section V(D).

Drilling will occur during one or two shifts per day, 5 to 7 days per week. The entire drill program is anticipated to be completed within 1 month, followed by the aquifer testing and reclamation. If drilling is conducted after dark, two portable generator-powered light plants will be used to supply adequate lighting for the work site, as described in Section V5(D). Drilling operations would not occur on the following holidays (as well as weekend days immediately following or proceeding said holiday) because of the potential for increased

[2] **Cohan, W.T. 1984.** *Report on Water Sampling and Limited Aquifer Testing Chord Project*.

traffic and recreational usage: Memorial Day, Fourth of July, and Labor Day. During these pauses in drilling, equipment may remain at the drill sites and staging area.

Drilling Water Supply

Water required for drilling will be sourced from municipal water supplies in Edgemont or Hot Springs or other readily permitted sources off USFS land. Water from distant sources, such as municipal wells, will be delivered by water truck to the drill stie.

Drill water will be stored within the water truck tank at the drill sites and a sump where drill solids will be separated by gravitational settling before reuse. Sumps will be approximately 8 by 15 feet and 4-6 ft deep for each proposed drill pad. Upon a drill site closure, the drill solids will be buried in a sump, then mulched, and seeded, as described in Section V(C and H) below. Contractors will perform drilling and water haulage.

Aquifer Testing Program

This Plan includes installing four new cased groundwater monitoring wells (converted from new exploration holes) and conducting aquifer testing. The primary objective of the aquifer testing program is to determine the aquifer parameters (e.g., transmissivity, storativity, and heterogeneity). Two aquifer pumping tests are planned: a step rate test to determine the maximum pumping rate and a constant rate test. Each test will determine the aquifer parameters according to a theoretical analytical analysis (e.g., Theis).

The following list summarizes the aquifer testing tasks and approximate duration:

- **Well Completion** – Wells will be cased, screened, and completed within 1-2 days after borehole completion.
- **Water Quality Analysis**– A single water quality sample will be collected from the pumped well after the well is completed and purged. A water quality sample would verify the water could be safely disposed of via surface application or help determine other appropriate disposal methods. The laboratory analysis is expected to take approximately 1-3 weeks. Results will be submitted to the USFS and the SD DANR.
- **Water Level Monitoring** – The pumped well and monitoring wells will be fitted with transducers at least 1 week prior to the start of the step rate test. Transducers may be installed at the time wells are completed or may be installed collectively once the pump test is scheduled. This baseline data will measure natural diurnal and barometric pressure related water level fluctuations.
- **Step Rate Test** – A single step rate test is expected to be completed within 1 day. Recovery from the step rate test may be approximately 1-3 days depending on how the aquifer responds and recovers.
- **Constant Rate Test** – A single constant rate aquifer pump test will entail approximately 3 days of pumping followed by 3-7 days of passive recovery measurements. Sufficient time must pass to allow the pumped well to return to

baseline conditions after the step rate test and prior to commencing the constant rate test.

- **Well Plugging and Abandonment** – Any wells not requested to remain open by the USFS will be plugged and abandoned within 12 months following the completion of the aquifer test.

The entire duration of the aquifer testing program would be approximately 3 to 4 weeks, the majority of this time being passive monitoring before and after the pumping portion of the test.

The aquifer test will pump from one monitoring well and include observation at three monitoring wells, all to be completed within the Inyan Kara Aquifer. Tentatively, the four boreholes that could be converted to wells include 25001, 25002, 25004, and 25017, with borehole centrally located amongst the four and likely to serve as the pumping well (see Figure 2). The select exploration boreholes will be converted from open exploration holes to monitoring wells immediately after drilling and before the rig leaves the drill pad by casing the entire well depth with selected screen intervals that will be chosen upon completion and logging of the exploration borehole. The wells will be screened from approximately 400 to 450 ft below the ground surface, though final screened intervals will be chosen based on results of geophysical logging data from the earliest wells drilled. The casing will then be installed and cemented. Pressure testing of the casing will precede the placement of the well screen. Wells will be capped with a pad lock and labelled.

The pump will be placed near the bottom of the pumped well to maximize the available head. The pumping rates will be controlled by varying the discharge at the surface as well as varying the pump speed. A preliminary review of historical data in the area suggests that a rate of 30 to 50 gallons per minute (gpm) can be sustained.

A temporary groundwater use/discharge permit will need to be obtained from the SD DANR before the aquifer test.

Discharge from the pumping well will be measured using instantaneous flow meters. Discharge would be measured and adjusted as needed. Water discharging from the pumped well would be collected in a sump or discharge pit. The discharge pit will be larger than that used for drilling the well, but will be no larger than 50 ft x 50 ft and 4 to 6 ft deep, and will fit within the 60 ft by 60 ft drill pad footprint. The estimated cumulative volume of water that may need to be discharged during the 3-day constant rate test at 30 gpm is approximately 130,000 gallons.

One or more water quality samples would be collected from the pumped well during the aquifer test, and water quality analysis would include a standard suite of anions, cations, and radionuclides.

Three drillholes will be used as monitoring wells. All monitoring wells will be completed within the Inyan Kara Aquifer, similarly to the pumped well. Before starting the aquifer test, the static water level will be measured in the pumped well and each observation monitoring well. Water-level measurements will be taken for approximately 1 week before the aquifer test using transducers. These data will be compared to barometric readings for baseline assessment.

In general, for the constant rate test, the well will be pumped until the cone of depression has sufficiently developed. After the pump is shut off, recovery measurements will immediately commence and continue for approximately the same duration as the pumping test or until approximately 90 to 95 percent of the initial head is recovered. The aquifer might not recover as quickly as it drew down.

Pressure transducers with dataloggers will be used to measure water levels. Each transducer will be set to record at 30-second intervals throughout the pumping and recovery periods. The transducer in the pumping well will either be placed inside a 1-inch polyvinyl chloride (pvc) pipe to avoid tangling the transducer with cables and a drop pipe leading to the pump or tied off to the pump drop pipe, in which case the pump will need to be pulled out to remove the transducer from the pumping well. The pressure transducers will be vented and self-correcting for changes in atmospheric pressure.

The drawdown versus time data for the pumping and recovery phases of the test will be analyzed using appropriate methods with commercial test analysis software.

Clean Nuclear proposes that the four new monitoring wells remain in place, finished with appropriate surface casing and locking caps, for use in potential future water quality and water level monitoring by Clean Nuclear and the USFS. However, if requested, Clean Nuclear will properly plug and abandon the wells after completing the aquifer testing program.

Clean Nuclear can provide the USFS all data related to the aquifer testing, including water quality data, water levels, and interpreted aquifer properties.

Personnel

Personnel required at a drill site during each shift will include the following employees or contactors:

- Driller
- One to three drill helpers
- Geologist
- Water truck driver (part time, as required)
- Consultant to conduct geologic, engineering, or surveying studies on drillholes (as required)

- Drilling and Operator supervisor (occasional)

Plugging and Abandonment

Clean Nuclear commits to following all of the South Dakota laws and statutes concerning drillhole plugging and abandonment and would install a full cement grout where needed, such as in any instance where aquifer cross-contamination is possible. All of the exploration drillholes not converted to permanent monitoring wells will be plugged in accordance with the Administrative Rules of South Dakota (ARSD) 74:11:08 and South Dakota Codified Law (SDCL) 45-6D-33 through 45-6D-34. The drillholes are planned to penetrate the Inyan Kara Group rocks, which are water-bearing units or aquifers in some locations of the Black Hills. If an aquifer is penetrated, the completed exploration drillholes will be plugged from bottom to top using bentonite grout, which complies with the requirements of ARSD 74:11:08:05 and ARSD 74:11:08:05:01 (i.e., requirements for plugging exploration drillholes that penetrate single unconfined aquifers and confined or multiple aquifers). If a confined aquifer is penetrated, the weight of the bentonite grout column will either be sufficient to overcome formation pressure or the hole will be plugged using cement grout. The collar elevations of the planned holes are higher than the static water level to be encountered in the exploration holes; therefore, no natural artesian discharge from drillholes is anticipated.

Records regarding aquifers encountered during drilling and the plugging methods used will be recorded and retained for each exploration hole, and those records will be provided to the South Dakota Department of Agriculture and Natural Resources (DANR) at the end of exploration. All exploration drillholes not converted to USFS monitoring wells are planned to be plugged immediately upon completion while the drill rig is still on the site. If a drillhole temporarily needs to remain open, a temporary surface plug will be emplaced. If a hole needs to remain open for more than 30 days, Clean Nuclear will apply for an alternate plugging schedule to keep the hole open temporarily.

Monitoring wells will remain open until drilling and aquifer testing on adjacent state lands is completed, or approximately 1-year. Clean Nuclear is willing to leave all, some, or none of the proposed wells open for use by the USFS. Clean Nuclear and the USFS will need to come to an agreement on which wells, if any, will remain open prior to the end of the drill program so that undesired wells can be properly plugged and abandoned per state requirements. Only the wells requested by the USFS to be retained as monitoring wells will be permanently retained; all other wells and/or boreholes will be properly plugged and abandoned.

Based on site geology, no voids or karst are expected to be encountered.

No mining or processing of ore or storage of tailings is proposed under this plan.

D. Equipment and Vehicles.

The Project may require the following equipment during active operation:

Motorized:

- Reverse circulation or mud rotary drilling rig with auxiliary compressor
- Two or more pickup trucks
- One water truck (2,000 to 6,000 gallon capacity)
- One small dozer for repositioning the skid-mounted rig (if needed)
- One skid steer

Stationary:

- Portable toilet
- Drill steel
- Drill rod rack storage
- Water line and pumps
- Mud pump and tank for mixing drill mud, grout, and cement for drillhole reclamation
- Waste receptacles clearly labeled for trash and recyclables

Drilling Consumables:

- Diesel fuel used by the drilling rigs will be transported to the drill site in a fuel tank mounted on a pickup truck and transferred to the fuel tank on the drill rig on site. Pickup trucks may use either diesel fuel or gasoline, which will be stored in mounted tanks.
- Gasoline will be used to power water pumps and a generator at the drill site. Gasoline may be stored in portable containers.
- Drill mud bentonite clay will be used as a high-density additive to drill fluid, which increases the viscosity and density of the fluid for increased efficiency of the drilling process and improved recirculation of drill water. No oil or petroleum-based products will be used.
- Grout will be used as a high-viscosity or cemented material to prevent drill water from penetrating the adjacent rock, fix the casing into the hole, or reclaim drillholes upon completion.
- Fuel stored at the drill rig will be placed on a flat platform with a raised berm around the perimeter and then lined with a geomembrane to mitigate a spill or leakage event. The containment area will be sufficiently sized to accommodate a 110 percent spill.

Spill absorbers will also be on site in case of petroleum spills, and equipment will be cleaned before arriving and departing the site, removing all soil, plant parts, seeds, vegetative matter, or other debris that could contain seeds to prevent the spread of noxious weeds into or out of the Project area.

Aquifer Test Equipment:

- PVC well casing

- Water line
- Variable speed pump
- Flow meter
- Pressure transducers with dataloggers and cable
- Generator
- Drop pipe
- Winch
- Water truck

E. Structures

No fixed structures are proposed under this plan.

V. ENVIRONMENTAL PROTECTION MEASURES (SEE 36 CFR 228.8)

A. Air Quality. *Describe measures proposed to minimize impacts on air quality such as obtaining a burning permit for slash disposal or dust abatement on roads.*

The estimated average daily vehicle trips to and from the drill site are three per shift. Vehicles will be required to observe a speed limit of 25 miles per hour (mph) to minimize fugitive dust from vehicle travel on the project's primary and secondary USFS roads. Minimizing the number of trips to the project area will also lower dust generation. No open burning is proposed in this Plan.

All equipment, including vehicles, drill rig, generators, and pumps, will be operated according to the manufacturer’s operating specifications. No equipment modifications will be made to alter the emissions of equipment used on site.

The USFS may require dust abatement measures such as reduced speeds or water spraying if conditions warrant.

B. Water Quality. *State how applicable state and federal water quality standards will be met. Describe measures or management practices to be used to minimize water quality impacts and meet applicable standards.*

There are no domestic wells completed within the roll front uranium deposit targeted by this Project. Domestic wells are located further away from the uranium resource and have different water quality characteristics. Based on the SD DANR water well completion database (see Figure 6), the nearest domestic well is 0.5 miles southeast from the project and is located in Sec 36, T 7S, R 2E; this well is noted a completed in the Fall River

Formation at a total depth of 324 ft. However, there is no residence at this location, and if the well does exist is likely a stock water well. Based on the state database, the second closest domestic well is 1.5 miles west (Section 35, T 7S, R 2E) and is completed to a depth of 396 ft in the Fall River Formation. Similarly, there is no residence at this location and the well is either mislocated in the database or is a stock water well. The nearest residence (located approximately 1.3 miles southwest of the Project) likely has a private domestic well, though the well was not registered with the state. Other residences located further from the Project also are likely to have private domestic wells, though they are similarly undocumented [SD DANR 2024][3].

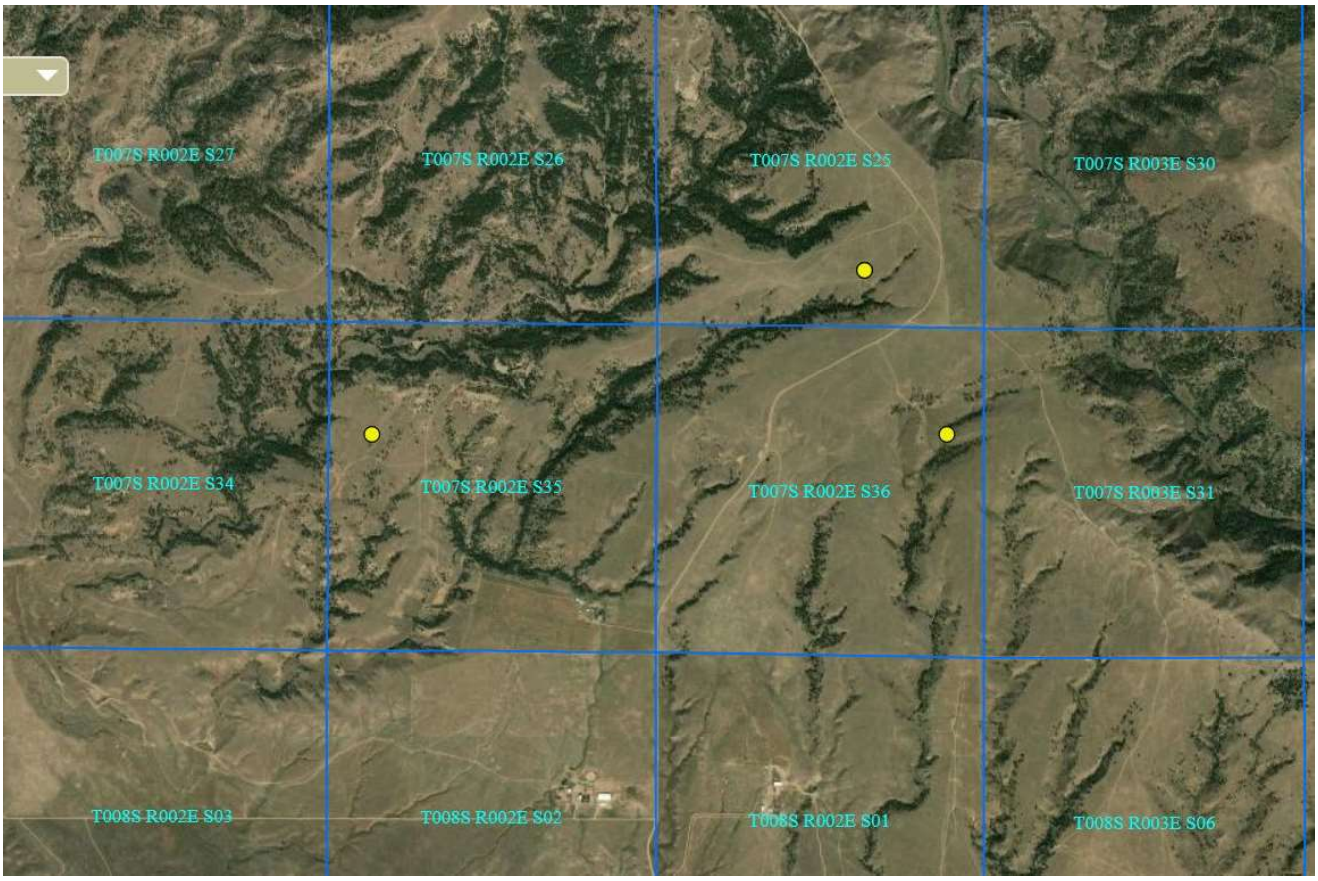

Figure 6. Water Wells in the Project Vicinity [SD DANR, 2024]

1. State whether water is to be used in the operation, and describe the quantity, source, methods and design of diversions, storage, use, disposal, and treatment facilities. Include assumptions for sizing water conveyance or storage facilities.

Water will be used in drilling as a drill lubricant and coolant as well as to evacuate drill cuttings from the drill face. The amount of water to be used will be determined by the

[3] SD DANR, 2024. Water Well Completion Reports, accessed 10/12/24, available at https://apps.sd.gov/nr68welllogs/.

permeability of the geologic formations encountered in a drillhole. Water will be recirculated to the extent possible during drilling.

Water will be transported to the site from private or public sources depending on availability, from a local water well or public source off USFS lands. A water truck will transport water to the site. Water usage is estimated to range from 5,000 to 10,000 gallons per day; however, if circulation of drill water is lost, up to 1,000 gallons per hour may be required until circulation can be reestablished.

Water will be recirculated during drilling whenever possible and placed in a sump so that drill cuttings can be segregated by gravity from the liquid and the fluid can be reused.

During operations, a drill fluid mixture containing water, bentonite, and possibly non-hazardous polymers will be pumped into the drillhole.

Upon completion of each drillhole, the hole will be plugged in accordance with state standards as prescribed in Section V(I) to prevent cross-aquifer contamination.

This Project will require a temporary groundwater discharge permit from the SD DANR before the aquifer test. During the aquifer test, water will be pumped from a single well. Small quantities of water may also be used during setup and testing of the pump equipment. The tentative pumping rate is 30 gpm for 3 days. However, the test could be extended up to 3 days or until a measurable drawdown is observed at the other monitoring wells. Water from the aquifer test will be diverted to a sump and allowed to evaporate or infiltrate. No water will be discharged to surface water sources or drainages. The aquifer test plan is detailed in Section IV(C).

Surface water will be controlled to prevent erosion, as described in Section V(B)(2); the project Stormwater Pollution Prevention Plan (SWPPP) will be finalized before operations. No active or intermittent streams exist near any of the drill sites in which uncontrolled surface water can enter; however, in areas of gentle to moderate slopes near the drillholes, surface water will be contained, as described in Section V(B)(2).

Secondary containment shall accommodate 110 percent capacity to ensure any potential leak is contained and that there is adequate freeboard to accommodate a small precipitation event.

---

2. Describe methods to control erosion and surface water runoff from all disturbed areas, including waste and tailings dumps.

The proposed monitoring well drill sites are located on relatively flat ground with permeable soils; therefore, erosion and surface water runoff are not anticipated. However, if erosion is observed at a site, erosion control logs will be placed up- or downgradient from the drill site

to prevent onflow and runoff of surface water. As necessary, water diversion structures may alternatively be used to divert surface water away from the work site.

In the emergency event that excess drilling water or precipitation fills the sumps, an additional sump downhill from the primary sump(s) would be constructed as approved by the District Ranger; this would allow for infiltration or evaporation in the sump versus land application or overland flow.

Should it become evident that an erosion control component is not performing in the manner necessary to minimize erosion and runoff, drilling operations will be stopped, and corrective measures will be initiated to mitigate the situation.

---

3. Describe proposed surface water and groundwater quality monitoring, if required, to demonstrate compliance with federal or state water quality standards.

No perennial streams or other water bodies are present at or near any of the drill sites; therefore, no surface water sampling is planned.

At this time, the site groundwater quality is based on data from 40 years ago and a single sample collected from a monitoring well (B5) in Section 25 in July 2023. Based on data from well B5 (included in Appendix 5), water is safe to discharge. However, because site groundwater data is limited and dated, a water quality sample will be collected from the pumped well prior to conducting the aquifer testing and any discharge. This water quality sample will also likely be required by the SD DANR as part of the state temporary groundwater use/discharge permit. Additionally, as part of the aquifer test, one or more water quality samples will be obtained from the pumping well during the aquifer test. The water will be analyzed for a suite of parameters, including cations, anions, and radionuclides. The results of the water quality analysis will be reported to the USFS and SD DANR. No additional groundwater monitoring is planned.

---

4. Describe the measures to be used to minimize potential water quality impacts during seasonal closures or for a temporary cessation of operations.

This Project does not include seasonal closures or temporary cessation of operations. There is no surface water present near the work areas. However, temporary mitigation measures such as erosion control logs or diversion structures may be in place during drilling operations and aquifer testing as needed to minimize erosion. The final closure and reclamation of the drill sites are described in Section V(I).

5. If land application is proposed for wastewater disposal, the location and operation of the land application system must be described. Also describe how

vegetation, soil, and surface and groundwater quality will be protected if land application is used.

No land application of wastewater is part of this Plan; however, recirculated water from the drillholes will be settled in a sump, as described in Section V(B)(1). The recirculated water will be reused in drilling after solids are separated by settling. A backhoe or small excavator will be maintained on site to ensure the excavation of the sump can be completed in a timely manner.

During the aquifer tests, water will be contained within a sump.

C. Solid Wastes. ***Describe the quantity and the physical and chemical characteristics of solid waste produced by the operation. Describe how the wastes will be disposed of including location and design of facilities or treated so as to minimize adverse impacts.***

All of the solid wastes generated on site will be transported, as needed, to approved solid waste facilities for disposal except for the drill cuttings recovered by gravity separation in sumps. These cuttings consist of crushed/pulverized rock from the drillhole with a consistency of mud or sand. After separated from the drill water by settling, these solids will reside in a sump at the site and will be buried, mulched, and seeded during final reclamation. Note, the formations expected be encountered during the drill program, from the surface through the Inyan Kara, are not potentially acid generating. All of the drill cuttings will fit into the sump and be buried for disposal. No cuttings will remain on the surface.

Human waste will be managed using portable toilets under contract with a commercial provider. The contractor will undertake the disposal of this waste at a licensed and permitted facility.

D. Scenic Values. ***Describe protection of scenic values such as screening, slash disposal, or timely reclamation.***

Proposed drill sites are located to avoid visibility from paved roads, permanent structures, dwellings, or developed campgrounds.

If drilling occurs during nighttime hours, then portable light plants will be required for work to proceed safely. To minimize stray light and light pollution, a maximum of two directional light plants will be used on a drill site. Directional lighting will generally minimize unnecessary glare by focusing the light downward on the worksite and away from populated areas to reduce stray light. Shielding of the sides and upward will reduce scattered light skyward and laterally.

The project area will be kept clear of trash and debris to reduce the negative visual impacts associated with the drill sites. At the end of the Project, all material not necessary for claim monumentation will be removed. The used area will be maintained to present a clean and orderly appearance. Reclamation will be completed in a timely manner.

E. Fish and Wildlife. ***Describe measures to maintain and protect fisheries and wildlife, and their habitat (includes threatened, endangered, and sensitive species) affected by the operations.***

No fisheries exist in the project vicinity, and no project activities are planned to occur within permanent waterbodies or watercourses. Erosion controls and mitigation of potential runoff into streams are addressed in Sections V(B)(2) and V(B)(4).

Wildlife species with the potential to occur in the project vicinity include small- and medium-sized mammals (e.g., squirrels, coyotes, and deer); large ungulates (e.g., elk); bats; migratory birds; raptors, and some insects. Information related to federally listed threatened, endangered, proposed, and candidate species with the potential to occur in the project vicinity was obtained through the U.S. Fish and Wildlife Service (USFWS) IPaC database [2023]. There are no critical habitats within or adjacent to the project area. Four USFWS-listed endangered species have the potential to occur in the southern Black Hills, including the Northern Long-eared Bat, Tricolored Bat, Red Knot, and Monarch Butterfly.

Any threatened or endangered (T&E) species, R2 sensitive species, or species of state concern located during project implementation would be appropriately managed through coordination with the USFS biologist.

No tree removal activities are planned, and no known bat hibernacula occur within 0.25 mile of a proposed drill site; however, if any bat roots or hibernacula are identified within the Project area, drilling activities would only occur between May 31 and October 1 or at the direction of the USFS. Any newly discovered cave or underground mine locations would be provided to the USFS for further revaluation as potential bat habitat.

No known raptor nests occur within the Project area. If any permitted activity results in the discovery of a raptor nest or defensive behavior by a raptor that suggests a nest may be nearby, Clean Nuclear will vacate the area immediately and notify the USFS biologist as soon as possible. A timing restriction will be placed if an active raptor nest is located.

Open sumps at drill locations would have a barrier around them sufficient to prevent cattle and big game from walking into the sump.

F. Cultural Resources. ***Describe measures for protecting known historical and archeological values, or new sites in the project area.***

During the National Environmental Policy Act (NEPA) process, the USFS and State Historic Preservation Office (SHPO) will be consulted to identify an area of potential effect (APE) and determine what studies in the APE have been historically conducted and what archeological sites may have been identified by past work, if any. A Level 1 archeological records search will be completed by a third-party contractor and submitted to the SHPO and USFS.

Known sites will be located in the field, and project activities will follow the State and USFS recommendations regarding protection of historical and cultural resources. Clean Nuclear will avoid all archaeological sites that have been previously recorded during surveys of the Project vicinity.

If, during the course of project implementation, any historic or archaeological materials are discovered or disturbed, or if unanticipated effects on historic properties are found during project activities, work in the vicinity of the discovery or disturbance will cease. The District Ranger and heritage staff will be contacted immediately so that the agency can take steps to avoid, minimize, or mitigate any adverse effects. The South Dakota State Historic Preservation Office (SD SHPO) and Tribal Historic Preservation Offices (THPOs) that have requested to be a consulting party for the BKNF will be notified within 48 hours of the discovery or disturbance and provided an opportunity to comment, according to 36 CFR §800.13.

The proposed exploration project is not located within the boundary of Craven Canyon and will not encroach upon, damage, or destroy any historic property within Craven Canyon. However, based on the proximity of exploration drilling and SHPO's existing concerns, an abbreviated case report will be required.

G. Hazardous Substances.

1. Identify the type and volume of all hazardous materials and toxic substances which will be used or generated in the operations including cyanide, solvents, petroleum products, mill, process and laboratory reagents.

Diesel, gasoline, and standard petroleum lubricants will be used in this operation. A limited amount of fuel will be contained in the fuel tanks of the equipment used on site. In addition, no more than a total of 5 gallons of petroleum product will be stored in gearboxes of equipment on site. The total estimated volume of fuel contained in the tanks and gearboxes of the equipment on site is outlined below and will be approximately 350 gallons:

- Excavator or backhoe – 40 gallons
- Forklift – 30 gallons
- Water truck – 90 gallons
- Water pump – 5 gallons
- Generator – 5 gallons

- Hydraulic fluid - 50 gallons
- Pickup truck – 30 gallons
- Drill truck – 90 gallons
- Motor oil (1 can) – 5 gallons
- Supplemental Fuel Cans (2) – 3 gallons each, 6 gallons total

2. For each material or substance, describe the methods, volume, and frequency of transport (include type of containers and vehicles), procedures for use of materials or substances, methods, volume, and containers for disposal of materials and substances, security (fencing), identification (signing/labeling), or other special operations requirements necessary to conduct the proposed operations.

No fuel or lubricants will be stored on site. All fuel will be brought to the site in proper petroleum storage containers, via pickup truck. Fuel will most likely be brought to the site daily. The storage and transportation containers will be properly labeled, and the contents will be identified. Fueling will not occur in or immediately adjacent to water sources. Empty fuel containers will be disposed of properly.

3. Describe the measures to be taken for release of a reportable quantity of a hazardous material or the release of a toxic substance. This includes plans for spill prevention, containment, notification, and cleanup.

Fuel stored at the drill rig will be placed on a flat platform with a raised berm around the perimeter then lined with a geomembrane to mitigate a spill or leakage event. The containment area will be sufficiently sized to accommodate a 110 percent spill. Absorbent wipes for cleanup will be used for spill confinement. Small fluid leaks and spills from construction equipment would be promptly cleaned up, and any contaminated soil would be removed and disposed of offsite. Reportable spills would be reported to the USFS and SD DANR. Clean Nuclear will prepare a Health and Safety Plan, including spill control measures, that will be submitted to the USFS before operations commence.

H. Reclamation. *Describe the annual and final reclamation standards based on the anticipated schedule for construction, operations, and project closure. Include such items as the removal of structures and facilities including bridges and culverts, a revegetation plan, permanent containment of mine tailings, waste, or sludges which pose a threat of a release into the environment, closing ponds and eliminating standing water, a final surface shaping plan, and post operations monitoring and maintenance plans.*

The proposed drill sites are located on lands that have been previously disturbed by wildfire and other activities. Final reclamation of the drill sites will include the following elements:

- Drillholes not converted to permanent monitoring wells will be sealed and reclaimed in accordance with ARSD 74:11:08 and SDCL 45-6D-33 through 45-6D-34.
- Drill sites will be recontoured to eliminate excessive rutting regardless of the pre-project condition.
- Drill fluids will be contained in a sump on the Drill Site to allow solids to settle. The solids will ultimately be disposed of in a buried sump before final reclamation.
- Clean Nuclear will initiate revegetation as soon as possible (i.e., not to exceed 6 months) after terminating ground-disturbing activities.
- Overly compacted areas at the drill sites that are not located on an active roadbed will be roughed either manually or mechanically to enhance seeding viability and minimize erosion.
- Areas to be enhanced by reseeding will initially be mulched with locally derived, stockpiled organic-rich amendments or with commercially available certified weed-free mulch. Seeding will be applied in accordance with USFS guidance. The proposed seed mix is provided in Table 2 and is compatible with existing habitat and Natural Resources Conservation Service (NRCS) recommendations. On areas needing immediate establishment of vegetation, non-native, non-aggressive annuals (e.g., wheat, oats, and rye) or sterile species may be used while native perennials are becoming established or when native species are not available (e.g., during drought years or years when wildfires burn large acreages in the United States).

Table 2. Reclamation Seed Mix Table: Recommended by NRCS

Species	Percent of Seed Mix
Sideoats grama	10
Western wheatgrass (*Pascopyrum smithii*)	50
Blue grama	5
Green needlegrass	15
Slender wheatgrass (*Elymus trachycaulus*)	10
Purple prairie clover	2
Little bluestem	8

Application Rate: 14 Pounds Live Seed/Acre

The seed would be tested for noxious weeds, and evidence would be provided to the USFS before the seed is used on National Forest Service (NFS) lands. If mulches are used, they are to be noxious weed free with certification provided to the USFS before use. Weed-free alfalfa seed may be used only when native legume seed is not available and only when there is extensive disturbance associated with road construction or mine reclamation where topsoil is no longer available (Forest Plan Standard 1110).

Clean Nuclear will monitor and assess the progress of reclamation activities, including revegetation and erosion control, for a minimum of 3 yeara. Depending on the success of

the reclamation efforts, additional seeding, weed treatment, or installation of erosion control structures may be required by the Proponent.

Noxious weeds will be managed by Clean Nuclear in adherence with the USFS's current Noxious Weed Control Plan (NWCP). Clean Nuclear will prepare a plan that will include site inspections for noxious weeds and control measures as defined in the NWCP. This Plan will include spraying for weeds 1 year after final reclamation. All drill rigs, excavators, and equipment entering USFS lands would be washed before entry to reduce the potential for spread of noxious weeds onto USFS lands. Revegetation seed would be tested for noxious weeds. All straw wattles used on site to reduce soil erosion would be composed of certified weed-free straw and wrapped in biodegradable material (not plastic or photodegradable material). All natural fibers would be left on site.

I. Fire Prevention. *Describe all procedures that will be followed throughout operations to prevent ignition and spread of fire including tools and prevention measures. Also describe (if any) the burning plan for slash that is not used in reclamation.*

Clean Nuclear will develop an emergency response plan for the Project as part of the site Health and Safety Plan (HASP). This plan will address a number of emergency situations (e.g., fire, injury). Protocols will be included in this plan to direct the on-site contractors' actions if they start a fire or if a fire starts on USFS land within the vicinity of the drill sites.

All vehicles, drill rigs, and other on-site equipment would be inspected as part of daily safety checks and would be equipped with a fire extinguisher, which would also be inspected routinely. Fire tools (e.g., shovels, buckets) shall also be maintained in each vehicle or staged appropriately on site.

Vehicles shall not sit idle for more than 5 minutes and shall not be over vegetation while doing so to reduce fire risk.

Burning: Excess slash and stockpiled brush will not be burned under this Plan.

J. Recreation. *Describe any and all potential effects on recreation resources.*

Few recreation impacts would occur, primarily through minor project-related traffic, noise, and visual impacts. Impacts are expected to be minimal as there are no campgrounds, picnic areas, or non-motorized hiking trails within or adjacent to the October Jinx Project area.

Drilling equipment would use existing motorized trails during project drilling and reclamation. Traffic-related effects on recreation are anticipated to be minimal. Under the Proposed Action, traffic on local roads and trails would increase by approximately three vehicles per shift. Increased traffic congestion on Elbow Canyon Road and National Forest Service Road

318.3A associated with the Project would be minimal and have minimal impact on user access. The Project would have a minimal increase in road dust.

Increased traffic, drilling-related noise, and visual effects of large equipment may temporarily disrupt outdoor-based recreation activities in the Project vicinity, causing recreational users to either be inconvenienced, delay their activities, or temporarily find other locations for these activities. Though Project drilling is expected to take 2 months, drilling operations at an individual platform or specific drill site are temporary and are expected to take approximately one or two days of drilling per hole if there are no technical or weather delays.

Drilling operations would be prohibited on the following holidays (as well as weekend days immediately following or proceeding said holiday) because of the potential for higher traffic and recreational usage: Memorial Day, Fourth of July, and Labor Day. During these pauses in drilling, equipment may remain at the drill sites.

Hunting opportunities during the spring and fall turkey and fall deer and elk seasons may be impacted by noise and game displacement associated with the Project. Birding and photography may be reduced as drilling noise temporarily displaces wildlife.

Signs around the operating site will warn the public of any potential dangers within the Project area (i.e., open holes, hazardous material, and heavy equipment use).

K. Public Access, Safety, and Traffic Control. *Describe how the proposed operations will not compromise public safety and access to open roads as assigned by the current District Travel Management Plan. Be sure to include traffic control measures if needed for equipment mobilization or haul routes.*

Public Access: The right of the public to lawfully use the land encompassed by the boundaries of the mining claims will not be restricted or denied by Clean Nuclear. The rights of the public do not include any activity that interferes with any mineral exploration-related activities without the claimant's consent. Clean Nuclear, in the exercise of this operating Plan, will require that its employees, subleases, contractors, subcontractors, or renters and their employees comply with all conditions of this Plan.

Safety: All operations will be conducted in a safe manner and in compliance with Occupational Safety and Health Administration (OSHA) and applicable local, state and federal requirements and guidelines. Clean Nuclear understands that failure to abide by these regulations will be grounds for termination of approval for the operating Plan by the Forest Service if the failure to comply presents a significant risk to the health, welfare, or safety of the public, agency staff, or operator’s staff.

A site security plan has been developed (see Appendix 4) and will be implemented by Clean Nuclear to maintain site safety and limit the risk of public interference.

Traffic Control: Before initiating the mobilization of equipment into the project area, Clean Nuclear will notify the Hell Canyon District Ranger or other Forest Service representative. Clean Nuclear's sign plan is included in Appendix 3. Signage would be placed on any roads or trails adjacent to drill locations when drilling operations are underway. Safety signage regarding heavy equipment use on the road would be posted throughout the work area to ensure the public is aware of temporary site work.

L. Interim Shutdown Procedures. ***Describe the procedures that will be enacted if and/or when a shutdown period is required.***

No temporary or seasonal interim shutdown periods are anticipated.

M. Inspections.

The Forest Service and Clean Nuclear will agree on a schedule of inspections designed to ensure that the provisions of the operating Plan are followed. If there is uncertainty as to whether there should be an inspection before advancing in operations, the Operator will contact the Forest Service for clearance. It is understood that inspections will normally occur at the USFS's discretion and may include:

- After drill mobilization and before operation
- During operations to ensure all requirements, including fire tools and equipment, are met
- After removal of equipment
- After reseeding

Clean Nuclear and the USFS will monitor and assess the progress of reclamation activities, including revegetation and erosion control, for a minimum of 1 year. Depending on the success of the reclamation efforts, additional seeding, weed treatment, or installing erosion control structures may be required.

VI. FOREST SERVICE EVALUATION OF PLAN OF OPERATIONS

A. Required changes/modifications/special mitigation for plan of operations:

B. Bond. Reclamation of all disturbances connected with this plan of operations is covered by Reclamation Performance Bond No. ___, dated (mm/dd/yy) ___, signed by Todd Christensen (Principal) and ___ (Surety), for the penal sum of ___. This Reclamation Performance Bond is a guarantee of faithful performance with the terms and conditions listed below, and with the reclamation requirements agreed upon in the plan of

operations. This Reclamation Performance Bond also extends to and includes any unauthorized activities conducted in connection with this operation.

The bond amount for this Reclamation Performance Bond was based on a bond calculation worksheet. The bond amount may be adjusted during the term of this proposed plan of operations in response to changes in the operations or to changes in the economy. Both the Reclamation Performance Bond and the bond calculation worksheet are attached to and made part of this plan of operations. Acceptable bond securities (subject to change) include:

1. *Negotiable Treasury bills and notes which are unconditionally guaranteed as to both principle and interest in an amount equal at their par value to the penal sum of the bond; or*
2. *Certified or cashier's check, bank draft, Post Office money order, cash, assigned certificate of deposit, assigned savings account, blanket bond, or an irrevocable letter of credit equal to the penal sum of the bond.*

VII. TERMS AND CONDITIONS

A. If a bond is required, it must be furnished before approval of the plan of operations.

B. Information provided with this plan marked confidential will be treated in accordance with the agency's laws, rules, and regulations.

C. Approval of this plan does not constitute certification of ownership to any person named herein and/or recognition of the validity of any mining claim named herein.

D. Approval of this plan does not relieve me of my responsibility to comply with other applicable state or federal laws, rules, or regulations.

E. If previously undiscovered cultural resources (historic or prehistoric objects, artifacts, or sites) are exposed as a result of operations, those operations will not proceed until notification is received from the Authorized Officer that provisions for mitigating unforeseen impacts as required by 36 CFR 228.4(e) and 36 CFR 800 have been complied with.

F. This plan of operations has been approved for a period of 5 years and 7 months or until *12/15/2029*. A new or revised plan must be submitted in accordance with 36 CFR part 228, subpart A, if operations are to be continued after that time period.

VIII. OPERATING PLAN ACCEPTANCE

I/We have reviewed and agreed to comply with all conditions in this plan of operations including the required changes, modifications, special mitigation, and reclamation requirements.

I/We understand that the bond will not be released until the Authorized Officer in charge gives written approval.

Signature of Operator or Authorized Representative	Date (mm/dd/yy)

IX. OPERATING PLAN APPROVAL

(Name)	(Title)

Signature of (Authorized Officer)	(Date) *(mm/dd/yy)*

Burden and Non-Discrimination Statement

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0022. The time required to complete this information collection is estimated to average 12 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance.

(Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

Appendix 1
Claims Lease Option Agreement
Between Clean Nuclear Energy Corp. and Cowboy Exploration

Appendix 2
Mineral Claims

October Jinx Project Mineral Claims (Page 1 of 2)

Serial Number	Claim	Disposition	Township and Range	Section(s)
MT105284232	**LONG-68 A**	ACTIVE	7S2E	25
			7S3E	30
MT105284233	**LONG-68 B**	ACTIVE	7S2E	25, 36
			7S3E	30, 31
MT105284234	**LONG-68 C**	ACTIVE	7S2E	25
MT105284235	**LONG-68 D**	ACTIVE	7S2E	25, 36
MT105284236	**LONG-68 E**	ACTIVE	7S2E	25
MT105284237	**LONG-68 F**	ACTIVE	7S2E	25, 36
MT105284238	**LONG-68 G**	ACTIVE	7S2E	25
MT105284239	**LONG-68 H**	ACTIVE	7S2E	25, 36
MT105284240	**LONG-68 I**	ACTIVE	7S2E	25
MT105284241	**LONG-68 J**	ACTIVE	7S2E	25, 36
MT105284242	LONG-69	ACTIVE	7S2E	25
MT105284243	**LONG-70**	ACTIVE	7S2E	25, 36
MT105284244	LONG-71	ACTIVE	7S2E	25
MT105284245	**LONG-72**	ACTIVE	7S2E	25, 36
MT105284246	LONG-73	ACTIVE	7S2E	25
MT105284247	LONG-74	ACTIVE	7S2E	25, 36
MT105284248	LONG-75	ACTIVE	7S2E	25, 26
MT105284249	LONG-76	ACTIVE	7S2E	25, 26, 36, 35
MT105284274	LONG-101	ACTIVE	7S2E	24, 25
MT105284275	LONG-102	ACTIVE	7S2E	25
MT105284276	LONG-103	ACTIVE	7S2E	24, 25
MT105284277	LONG-104	ACTIVE	7S2E	25
MT105284278	LONG-105	ACTIVE	7S2E	24, 25
MT105284279	LONG-106	ACTIVE	7S2E	25
MT105284280	LONG-107	ACTIVE	7S2E	24, 25
MT105284281	LONG-108	ACTIVE	7S2E	25
MT105284282	LONG-109	ACTIVE	7S2E	24, 25
MT105284283	LONG-110	ACTIVE	7S2E	25
MT105284284	LONG-111	ACTIVE	7S2E	24, 25
MT105284285	LONG-112	ACTIVE	7S2E	25
MT105284286	LONG-113	ACTIVE	7S2E	23, 24, 25, 26

October Jinx Project Mineral Claims (Page 2 of 2)

Serial Number	Claim	Disposition	Township and Range	Section(s)
MT105284287	LONG-114	ACTIVE	7S2E	25, 26
MT105284197	LONG-32	ACTIVE	7S3E	19, 30
MT105284199	LONG-34	ACTIVE	7S3E	19, 30
MT105284203	LONG-38	ACTIVE	7S3E	19, 30
MT105284205	LONG-40	ACTIVE	7S3E	19, 30
MT105284208	LONG-43	ACTIVE	7S3E	29, 30
MT105284209	LONG-44	ACTIVE	7S3E	030
MT105284210	LONG-45	ACTIVE	7S3E	030
MT105284211	LONG-46	ACTIVE	7S3E	030
MT105284212	LONG-47	ACTIVE	7S3E	030
MT105284213	LONG-48	ACTIVE	7S3E	030
MT105284214	LONG-51	ACTIVE	7S3E	29, 30
MT105284215	LONG-52	ACTIVE	7S3E	29, 30
MT105284216	LONG-53	ACTIVE	7S3E	030
MT105284217	LONG-54	ACTIVE	7S3E	030
MT105284218	LONG-55	ACTIVE	7S3E	030
MT105284219	LONG-56	ACTIVE	7S3E	030
MT105284220	LONG-57	ACTIVE	7S3E	030
MT105284221	LONG-58	ACTIVE	7S3E	030
MT105284222	LONG-59	ACTIVE	7S3E	030
MT105284223	LONG-60	ACTIVE	7S3E	30, 31
MT105284224	LONG-61	ACTIVE	7S3E	030
MT105284225	LONG-62	ACTIVE	7S3E	30, 31
MT105284226	LONG-63	ACTIVE	7S3E	030
MT105284227	LONG-64	ACTIVE	7S3E	30, 31
MT105284228	LONG-65	ACTIVE	7S3E	030
MT105284229	LONG-66	ACTIVE	7S3E	30, 31
MT105284230	LONG-67	ACTIVE	7S3E	030
MT105284231	**LONG-68**	ACTIVE	7S3E	30, 31

Appendix 3
Signage Plan

Clean Nuclear Energy Corp's Traffic Control / Sign Plan

06/2024

DRILLING AND EXPLORATION OPERATIONS SIGNING PLAN

This traffic control sign plan is based on USFS logging and maintenance operations sign plan, modified as appropriate for drilling and exploration activities within the Black Hills National Forest.

All signs will be manufactured & installed as specified in the latest version of the Federal Highway Administration (FHWA) "**Manual on Uniform Traffic Control Devices**" (MUTCD) 2009 MUTCD with Revisions 1 and 2, May 2012 - Knowledge - FHWA MUTCD (dot.gov) and the FS publication "**Standards for Forest Service Signs & Posters**"(EM 7100-15) stelprd3810021.pdf (usda.gov) . Specific information regarding temporary traffic contol can be found in Chapter 4 of the EM 7100-15 or Part 6 of the MUTCD.

SIGN STANDARDS

SHAPE & COLOR: Generally, signs for drilling and exploration operations are considered temporary traffic control and are either diamond-shaped or rectangular. All signs will have a black legend and border on an orange retroreflective background unless shown otherwise. Hand-painted, homemade signs are not acceptable. Fluorescent paint is not reflectorized.

SUBSTRATE: Sign substrate material may be High Density Overlay (HDO) Plywood, Aluminum, Fiberglass

Reinforced Plastic, Corrugated Plastic or Roll-up Fabrics.

LEGEND: All lettering shall be minimum Series "C" alphabet, conforming to Standard Alphabets for Highway Signs. Letter size is also a function of speed - use letter size and word messages as specified in MUTCD and EM-7100-15.

SIGN PLACEMENT

Signs are to be installed in locations as agreed to in this document. All signs are to be removed, covered, or folded when operations are not in progress or the sign message is not applicable. Signs should generally be located on the right-hand side of the roadway. When special emphasis is needed, signs may be placed on both the left and right sides of the road. Sign message shall be clearly visible to road users, mounted on posts or portable sign stands.

SIGN LOCATION

Signs must be located 100-500 feet prior to the temporary traffic control activity based on speed, (both ends if a through road) to warn traffic and allow for adequate perception and

reaction time of the driver as listed in Figure 1: Table 4A.1 (EM7100-15). These numbers are intended for guidance purposes only and should be applied with engineering judgement.

Table 4A.1—Recommended spacing of advance warning signs

Speed limit or prevailing approach speed (mph)	Distance from the TTC activity area to the first sign and between subsequent signs in a series (feet)
25 or less	100
30 to 45	350
45 to 50	500

Refer to the MUTCD, chapter 6C for State and county highways and speeds greater than 50 mph.

Figure 1: Table 4A.1 Recommended Spacing of Advance Warning Signs

SIGN SUPPORTS

POSTS: Signs are to be mounted on separate posts as shown in Figure 2. Supplemental signs such as Speed Advisory plates are to be mounted on the same post as the primary sign. ***Do not mount signs on trees or other signs.*** Posts may be wood, metal, carsonite or similar material and must meet breakaway standards if within the clear zone. Wood posts that are 4 inches by 4 inches or have a cross-sectional area of 24 square inches or smaller are considered to meet breakaway standards when installed in normal soil conditions.

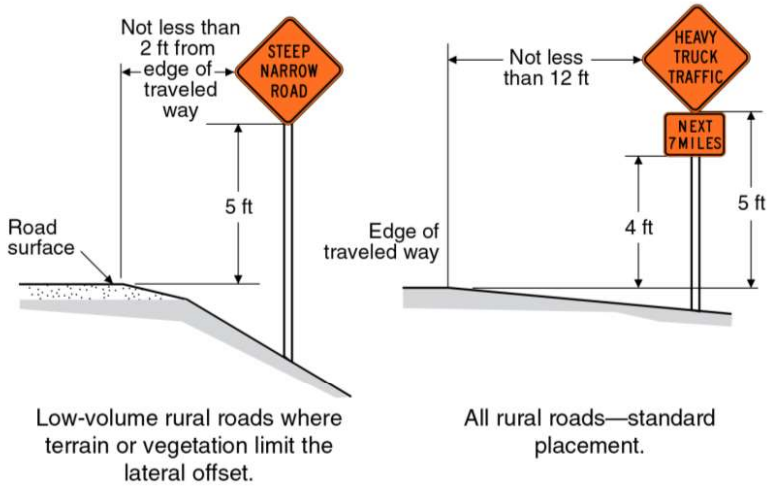

Figure 2. Sign Supports and Location

TEMPORARY/PORTABLE SUPPORTS: Portable supports may be used for short-term, short-duration, and mobile conditions, such as at drill platforms. All portable supports must

meet MUTCD standards, including breakaway. These must be a minimum of 1 foot above the traveled way. Example temporary/portable signs and supports and shown in Figure 3.

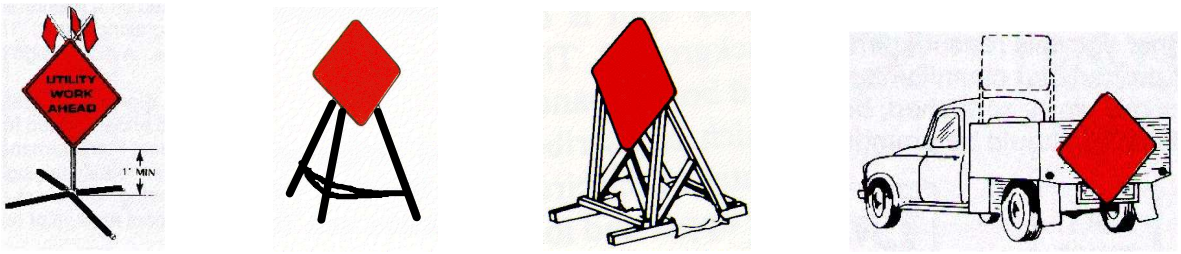

Figure 3: Examples of Temporary/Portable Supports

SIGN SIZES

Sign sizes are dependent on speed of the road and road type as shown in Figure 4 (Table 4-1 EM7100-15). Larger signs may be used whenever necessary for greater legibility or emphasis.

Table 4-1—Temporary Traffic Control sign sizes by road type

Message or Symbol	Sign code or series	Conventional road sign sizes (inches)	Low-volume roads	
			Typical sign sizes (inches) = or >35 mph	Minimum sign sizes (inches) <35 mph
REGULATORY				
TRAFFIC CONTROL POINT	EM-3	30 x 24	30 x 24	30 x 24
WARNING				
LOGGING OPERATIONS	FW11-10a	36 x 36	36 x 36	30 x 30
LOG TRUCKS	FW11-10b	36 x 36	36 x 36	30 x 30
LOG TRUCKS ENTERING ROAD	FW11-10c	36 x 36	36 x 36	30 x 30
HEAVY TRUCK TRAFFIC	FW11-10d	36 x 36	36 x 36	30 x 30

Figure 4: Table 4-1 Temporary Traffic Control Sign Sizes

TYPICAL SIGNS

The signs below in Figure 5 are not a complete listing of signs that may be needed or used. The decision to use a particular traffic control device at a specific location should be made by either an engineering study or application of engineering judgement. Sign numbers are from MUTCD. An 'F' before the sign number indicates a Forest Service sign and the last number indicates sign size, generally in the horizontal direction. The sign sizes in the signs below are for low- volume roads with a speed of less than 35 mph. Larger signs may be used whenever necessary for greater legibility or emphasis.

Additional signs will be placed at and near the drill platform during active operations, including site prepration, drilling, and reclamation (Figure 6).

Figure 5: Typical Road Signs

FW11-10d-30

W20-1-30

W21-3-30

W7-3a-24*

W13-1P-18**

W16-2P-24*

W21-1-30

W21-9-30

W20-3-30

R11-2R

Figure 6: Typical Drilling Area Signs

WARNING SIGN PLACEMENT

Project: October Jinx
Plan of Operations #: _____

Unless otherwise agreed warning signs will be placed at the following locations.

A) *Where drilling and support equipment are using main motorized roads and trails open to the public, signs will be placed warning motorists of increased truck traffic. Signs will be placed at*
   a. *Elbow Canyon Road at the USFS Boundary*
   b. *Elbow Canyon Road at the north end of the October Jinx Project Area*

B) *Signs will be placed at the beginning of system roads and trails where active drilling operations are within 100 feet of roads or trails open to the public, per the current MVUM. If it is a through road or trail, both ends of the road or trail will be signed to the extent where active drilling operations are taking place. If signs required under paragraph A already cover these roads or trails, no additional signs will be needed.*

C) *Caution or Danger – Heavy Equipment Use Ahead or Drilling signs will be placed near active drill platforms and the staging area.*

D) *Any non-gate road closures (e.g., berms, boulders) that are removed as part of Project implementation would be replaced as soon as possible after project operations behind those closures are complete. Reflective signs and orange/white barriers across roads will be used to indicate the road is closed to motorized vehicles and is accessible by permit only.*

Modifications to the signage plan will be discussed with the USFS as work begins. Specific changes may be required based on the unique site and time of year.

Agreement: Clean Nuclear Energy Corp. shall furnish, install and maintain all temporary traffic controls as defined in this document.

_____	_____
FSR / ER Representative	**Clean Nuclear Energy Corp.**
_____	_____
Date	**Date**

Appendix 4
Site Security Plan

Drill Site Security Plan for Mineral Exploration Drilling

Objective: The primary objective of this Drill Site Security Plan is to ensure the safety and security of personnel, equipment, and assets involved in mineral exploration drilling operations.

1. Site Access Control:

- Access to the drill site will be restricted to authorized personnel only.
- All entry points will be clearly marked, and access will be controlled through designated entry gates or checkpoints.
- Visitors and contractors must be pre-approved and escorted while on-site.
- Any road gates that are normally locked should remain locked unless vehicles or equipment are actively passing through them. If a gate is locked upon entry, Clean Nuclear would be required to lock the gate behind them during operations to reduce public access and ensure public safety

2. Personal Identification:

- All personnel accessing the drill site must wear visible identification at all times.
- Identification may include the individual's name, role, and company affiliation.

3. Perimeter Security:

- The drill site perimeter may be secured with flagging to limit unauthorized entry.
- Clean Nuclear personnel will monitor the perimeter regularly to detect any breaches or suspicious activity.
- Surveillance cameras may be installed at strategic locations to enhance perimeter security if necessary.
- Particular attention will be given to drill sumps to prevent animals and birds as well as personnel from falling into one. Open sumps at drill locations would have a barrier around them (e.g., hurricane fencing or something similar) sufficient to prevent cattle and big game from walking into the sump. Open sumps should be covered to the maximum extent possible with material to discourage birds or bats from entering the sumps. This material should be something other than nylon or mesh netting to prevent birds and bats from becoming entangled in the covering

4. Equipment Security:

- All drilling equipment, vehicles, and machinery will be securely parked and immobilized when not in use.
- Locks and immobilization devices will be utilized to prevent unauthorized use or theft of equipment.
- Equipment serial numbers and identification tags will be recorded and monitored to facilitate tracking and recovery in case of theft.

5. Materials Control:

- Drilling materials, fuels, and chemicals will be stored in designated areas with appropriate signage and containment measures.
- Inventory logs will be maintained to track the movement and usage of materials, with regular audits conducted to ensure compliance.

6. Emergency Response Preparedness:

- Emergency response protocols will be established and communicated to all personnel.
- Emergency contact information, including local emergency services and medical facilities, will be posted prominently at the drill site.
- Regular drills and training exercises will be conducted to ensure all personnel are familiar with emergency procedures.

7. Communication Systems:

- Reliable communication systems, including two-way radios and satellite phones, will be provided to all personnel.
- Emergency communication channels will be established to facilitate rapid response in case of emergencies.

8. Environmental Protection Measures:

- Measures will be implemented to minimize the environmental impact of drilling operations, including spill prevention and waste management protocols.
- Environmental monitoring will be conducted regularly to ensure compliance with regulations and minimize ecological disturbances.

9. Reporting and Documentation:

- All security incidents, breaches, or suspicious activities will be reported immediately to designated personnel (Clean Nuclear's Project Manager or delegated representative) and documented for further investigation.
- Incident reports will include details of the event, actions taken, and recommendations for preventive measures.

10. Continuous Improvement:

- The effectiveness of the Drill Site Security Plan will be reviewed annually or as site conditions change and evaluated to identify areas for improvement.
- Feedback from personnel, security audits, and incident investigations will be utilized to refine security protocols and enhance overall security posture.

Conclusion: The implementation of this Drill Site Security Plan will ensure the safety, security, and integrity of mineral exploration drilling operations. By establishing robust security measures and fostering a culture of vigilance among personnel, we aim to mitigate risks and safeguard our assets, personnel, and the surrounding environment.

Appendix 5
Water Quality Results from B5

And

Report on Water Sampling and Limited Aquifer Testing
Chord Project
Fall River County, South Dakota
by W.T. Cohan, 1984