Toltec Mesa Resources LLC

7823 Quintana Dr. NE, Albuquerque, New Mexico| (505)238-4770 | newcomer.b.tmr@gmail.com

September 12, 2022

Holland Shepherd
Program Manager
Mining Act Reclamation Program
Mining and Minerals Division - Energy, Minerals and Natural Resources Department
Wendell Chino Building
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

sent via email: holland.shepherd@state.nm.us

RE: TRANSMITTAL OF APPLICATION FOR MINIMAL IMPACT EXPLORATION PERMIT FOR CEBOLLETA PROJECT, CIBOLA COUNTY, NEW MEXICO

Dear Holland:

Toltec Mesa Resources LLC (TMR), acting as agent for American Future Fuel Corporation (Future Fuel) and Luke Montaine (Chief Executive Officer), is submitting the attached application package for a minimal impact exploration permit for the Cebolleta Project, Cibola County, New Mexico.

Included with this package, but mailed under separate cover, is a check for $500 for the application fee.

Sincerely,
Toltec Mesa Resources LLC

Bob Newcomer
Principal Consultant

Encl. minimal impact exploration permit application package

cc: DJ Ennis, Reclamation Specialist (via email: david.ennis@state.nm.us) w/attach.
Clint Chisler, Reclamation Soil Scientist (via email: clint.chisler@state.nm.us) w/attach.
Luke Montaine, CEO (via email: lmontaine@gmail.com) w/attach.
Anna Hicken, Director (via email: ahicken@geomaxconsulting.com) w/attach.

PART 3
MINIMAL IMPACT EXPLORATION OPERATION

PERMIT APPLICATION

Accompanying instructions for this permit application are available from MMD, and on MMD webpage:

http://www.emnrd.state.nm.us/MMD/MARP/MARPApplicationandReportingForms.htm

Send 6 copies of the completed application to:

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
Director
Mining and Minerals Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505
Telephone: (505) 476-3400

Webpage: www.emnrd.state.nm.us/MMD/index.htm

CHECK OFF LIST TO DETERMINE YOUR PROJECT'S STATUS AS A MINIMAL IMPACT EXPLORATION OPERATION:

☐ Yes ☒ No My project **will exceed 1000 cubic yards of excavation**, per permit.

☐ Yes ☒ No Surface disturbances for constructed roads, drill pads and mud pits **will exceed 5 acres** total for my project.

☐ Yes ☒ No My project is located in or is expected to have a direct surface impact on wetlands, springs, perennial or intermittent streams, lakes, rivers reservoirs or riparian areas.

☐ Yes ☒ No My project is located in designated critical habitat areas as determined in accordance with the federal Endangered Species Act of 1973 or in areas determined by the Department of Game and Fish likely to result in an adverse impact on an endangered species designated in accordance with the Wildlife Conservation Act, Sections 17-2-37 through 17-2-46 NMSA 1978 or by the State Forestry Division for the Endangered Plants Act, section 75-6-1 NMSA 1978.

☐ Yes ☒ No My project is located in an area designated as Federal Wilderness Area,

Wilderness Study Area, Area of Critical Environmental Concern, or an area within the National Wild and Scenic River System.

☐ Yes ■ No My project is located in a known cemetery or other burial ground.

☐ Yes ■ No My project is located in an area with cultural resources listed on either the National Register of Historic Places or the State Register of Cultural Properties.

☐ Yes ■ No My project will or is expected to have a direct impact on ground water that has a total dissolved solids concentration of less than 10,000 mg/L, except exploratory drilling intersecting ground water may be performed as a minimal impact operation.

☐ Yes ■ No My project is expected to use or using cyanide, mercury amalgam, heap leaching or dump leaching in its operations.

☐ Yes ■ No My project is expected to result in point or non-point source surface or subsurface releases of acid or other toxic substances from the permit area.

☐ Yes ■ No My project requires a variance from any part of the Mining Act Rules as part of the permit application.

If you answer yes to any of the above questions, your project does not qualify as a minimal impact exploration operation.

Confidential Information

☐ Yes ■ No Is any of the information submitted in this application considered by the applicant to be confidential in nature? If yes, please provide this information separately and marked as "confidential."

Timeline

- Exploration applications must be provided no less than 45 days prior to the anticipated date of operations desired by the applicant.
- Renewal applications shall be filed at least 30 days preceding expiration of the current permit. Permits are valid for one year.
- Approved permit is valid for one year from the date of approval.

SECTION 1 – OPERATOR INFORMATION (§304.D.1)

Project Name: Cebolleta

Nearest Town To Project: Seboyetta, New Mexico

Applicant Name and Contact Information (entity obligated under the Mining Act):

Name: American Future Fuel Corporation (aka Future Fuel)

Address: c/o American Future Fuel Corporation (Elephant Capital Corp.)
800-119 W. Hastings St.,
Vancouver, BC V6E 3T5 CA

Office Phone: +1(604)760-8755 Cell Phone: +1(604)760-8755

Fax Number: N/A Email: lmontaine@gmail.com

Name of On-Site Contact, Representative, or Consultant:

Name: Bob Newcomer (Consultant)

Address: dba Toltec Mesa Resources LLC
7823 Quintana Dr NE
Albuquerque, NM 87109

Office Phone: (505)238-4770 Cell Phone: (505)238-4770

Fax Number: N/A Email: newcomer.b.tmr@gmail.com

SECTION 2 – RIGHT TO ENTER INFORMATION (§302.D.1)

A. Describe or attach copies of documents that give the applicant the right to enter the property to conduct the exploration and reclamation, include: lease agreements, access agreements, right of way agreements, surface owner agreements, and claim numbers, if applicable.

American Future Fuel Corporation (Future Fuel) and their rights to enter/access and conduct mineral exploration and reclamation on a tract of land (the Tract) are included in the attached summary and documents [Attachment A]. Future Fuel's lease was originally held by Neutron Energy, Inc. and was then assigned by Neutron to Cibola Resources, LLC under an assignment agreement [see Attachment A]. Cibola was a subsidiary of Neutron, and enCore Energy Corp acquired Neutron. enCore then transferred ownership of Cibola to Elephant Capital Corporation pursuant to the a purchase agreement [Attachment A]. Evolving Gold Corporation, which is currently a public company, then acquired Elephant Capital pursuant to a purchase agreement [Attachment A] and changed its name to American Future Fuel Corporation.

Attachment A

B. List the names and addresses of surface and mineral ownership within the proposed permit area. If the mineral is federal mineral, indicate as federal mineral, but provide the name of the claim holder or lease holder.

Surface Estate Owner(s):

Name	Address	Phone #
☐ U.S. BLM		
☐ U.S. Forest Service		
☐ State of NM		
■ Private/Corporate	Kilino Marquez, President La Merced del Pueblo de Cebolleta (Cebolleta Land Grant)	(505)639-3081
☐ Other		

Name: _____ _____

Lease Holder(s) of Surface Estate (if applicable):

Name	Address	Phone #
_____	_____	_____
	_____	
_____	_____	_____
	_____	

Mineral Estate Owner(s):

Name	Address	Phone #
☐ Bureau of Land Management	_____	_____
	_____	
☐ US Forest Service	_____	_____
	_____	
☐ State of NM	_____	_____
	_____	
☐ Claim/Lease Holder	_____	_____
Name: _____	_____	
Claim Numbers: _____		
☐ Claim/Lease Holder	_____	_____
Name: _____	_____	
Claim Numbers: _____		
■ Private/Corporate	Kilino Marquez, President	(505)639-3081
	La Merced del Pueblo de Cebolleta (Cebolleta Land Grant)	
	HC 77, Box 6	
	Seboyetta, NM 87014	

C. Has a Cultural Resource Survey been performed on the site? ■ Yes ☐ No

If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:

A 100 percent pedestrian field survey for cultural resources was performed for the entire project area on July 29, 2022 (NMCRIS No. 150814) by a Okun Consulting permitted by the New Mexico Historic Preservation Division to perform an archaeological survey. The archaeological survey was conducted to comply with §18-6-8.1 of the New Mexico Cultural Properties Act of 1969 and its implementing regulations under NMAC Title 4 Chapter 10 §7.9A. A confidential copy of the survey report, which includes the report author, title, date, and report number, is submitted with this application.

Attachment B

D. Has a wildlife survey or vegetation survey been performed for the permit area?

■ Yes ☐ No If yes, please provide the author, title, date and report number, and include a copy of the survey with this application, if possible:

A biological evaluation survey was performed for the entire project area by Rocky Mountain Ecology and is submitted with this application.

Additionally, Cedar Creek Associates completed a study of this area in June 2006 for Cibola Resources. They described the area in and around the previously disturbed St Anthony Mine Area as primarily bottomlands with a small area of Juniper Scrub. The report described bottomland vegetation as follows: Dominant taxa were Blue Grama (Bouteloua gracillis), Galleta (Hilaria jamesii), Alkali Sacaton (Sporobolus airodes) and Four Wing Saltbush (Atriplex canescens). Other species present included; Side-oats Grama (Bouteloua curtipendula), Western wheatgrass (Agropyron smithii), Russian Thistle (Salsola tragus) and Broom snakeweed (Guttierrezia sarothrae). Perennial grasses made up 65.9% and shrubs comprised 25.0% of the plant composition, annual forb composition is only 9%, while perennial and biennial forbs contribute a neglible (1.3%) to the composition and annual grasses were not encountered.

An important finding was "bare ground exposure was a significant 49.58%." and Juniper Scrub was described as follows: Dominant taxa were Blue Grama (Bouteloua gracillis), New Mexico feathergrass (Stipa neomexicana) and Bigelow sage (Artemesia bigloveii). Other species identified included; Broom snakeweed (Guttierrezia sarothrae), winterfat (Ceratoides lanata), Galleta (Hilaria jamesii) and Buckwheat (Erigeron sp.). Perennial grasses contributed 61.35% to the plant composition with shrubs contributing 33.42% while forbs (perennial and annual) contributed 5.22%. Bare Ground exposure was 53.62%.

Both zones had scattered cacti populations such as Pricklypear Cactus (Opuntia polyacantha) and Walkingstick Cactus (Opuntia sponosior), while the Juniper Scrub zone had scattered Oneseed Juniper (Juniper monosperma).

Attachment C

SECTION 3 – MAPS AND PROJECT LOCATION (§302.D.2)

A. Project Location: the project area is within the unplatted lands of the Cebolleta Land Grant, northeastern Cibola County, New Mexico. It is approximately 4.7 miles southeast of Seboyetta, New Mexico. The mapped location is shown in Attachment D.

B. Legal Description: No township and range data are available for the permit area, because the project is in an uplatted portion of the Cebolleta Land Grant, Cibola County, New Mexico. The area immediately south of the permit area consists of parts of Section 19 T11N R5W and Section 24 T11N R4W.

List the drill hole/exploration name and the GPS coordinates for each site.

I.D. Number	Northing / Latitude	Easting / Longitude
22-CEB-001	3,894,291.10	289,293.39
22-CEB-002	3,894,260.91	289,314.45
22-CEB-003	3,894,177.47	289,268.36
22-CEB-004	3,894,173.89	289,455.10

I.D. Number	Northing / Latitude	Easting / Longitude

Coordinate system used to collect GPS data points:

- ■ NAD83 Geographic
- ☐ NAD83 UTM Zone 13 (or 12)
- ☐ WGS 1984
- ☐ NAD27 Geographic
- ☐ NAD27 UTM Zone 13 (or 12)
- ☐ Other: _____

C. Maps (see application form instructions for examples of maps to be included):

Are topographic maps included with the application that show the following items:

■ Yes – The boundary of the proposed exploration project Permit Area

■ Yes – The proposed exploration locations (i.e., borehole locations)

■ Yes – Existing roads, new roads and overland travel routes

■ Yes ☐ N/A – Areas of proposed road improvement

Attachments E (Package of Maps for the Project)

Maps or figures included with the application showing the approximate dimensions and locations of drill pads and other disturbances:

■ Yes – Drill pad dimensions and constructed drill pad locations

Attachments E

D. Provide detailed driving directions to access the site:

The site is accessed by driving from the turnoff south of Seboyetta east on Highway 1 [Marquez Road] to the turnoff to Indian Service Route 52, then south for approximately 2.5 miles. Taking an un-named and existing road west approximately 0.2 miles to the turnoff to the "new" road access to drill locations and pads. (See Attachment E)

SECTION 4 – EXPLORATION DESCRIPTION (§302.D.3 & 4)

A. Anticipated exploration: Start Date: October 1, 2022 End Date: September 30, 2023

B. List the mineral(s)/element(s) to be explored for: Uranium

C. Proposed method(s) of exploration:

■ **Air drilling (air rotary, coring, etc.):**

4 # of holes 320-340 Depth (ft.) 5.25 Diameter (in.)

2 # of drill pads _____ Length (ft.) _____ Width (ft.)

Will drill pads be graded/bladed or overland: ■ Graded/bladed ☐ Overland

Will drill pads need some mechanical leveling (grading/blading): ■ Yes ☐ No

Approx. Weight of Drill Rig (lbs.) 75,000 Number of Axles: 3

Total length of drill stem that can be carried on the rig: _____

Is a support pipe truck anticipated? ■ Yes ☐ No 25,000 Weight (lbs.)

Weight of support compressor (lbs.): _____ Trailer mounted? _____

Anticipated Drilling Contractor: Stewart Brothers Drilling License No. 331

Drilling method is by coring methods, NQ or NQTK size in a 5-inch diam hole. Anticipated largest drill rig that would be used is a Gardner Denver 15W [3 axle] (or similar). A smaller rig would be used if available. Other potential support would include a pipe trailer, pickup truck for drillers, pickup truck for geologist, and a water truck. If drill fluid circulation is needed, it would be provide in above-ground tanks closed-loop circulation tanks.

☐ **Mud/fluid drilling: N/A**

_____ # of holes _____ Depth (ft.) _____ Diameter (in.)

_____ # of drill pads _____ Length (ft.) _____ Width (ft.)

Will drill pads be graded/bladed or overland: ☐ Graded/bladed Overland

☐

Will drill pads need some mechanical leveling (grading/blading): ☐ Yes ☐ No

Will a closed loop system be used, or will mud/fluid pits be used?_____

If mud/fluid pits are proposed:

_____# of pits _____Length (ft.) _____Width (ft.) _____Depth (ft.)

Anticipated excavating equipment:_____

How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):

_____

Will mud pits be lined?: ☐ Yes ☐ No

If yes, proposed material to line the mud pits: _____

Approx. Weight of Drill Rig (lbs.)_____ Number of Axles:_____

Anticipated Drilling Contractor: _____License No._____

☐ **Test pits / exploratory trenches: N/A**

_____# of pits _____Length (ft.) _____Width (ft.) _____Depth (ft.)

Anticipated excavating equipment:_____

How will excavating equipment be transported to the site (i.e., driven, low-boy, etc.):

☐ **Other methods of exploration** (i.e., cuts, shafts, tunnels, adits, declines, blasting, etc.). Indicate method and details:

Other than an access road and the areas of the drill pads, no excavations or surface disturbances are intended.

TOTAL ACREAGE TO BE DISTURBED DUE TO DRILL PADS = 4.2 acres
(to convert to acres, multiply total square footage of drill pads by 0.0000229)

D. Disposal of drill cuttings

If this exploration project is for uranium or other radioactive elements/minerals, applicant agrees to perform a gamma radiation survey at each drill site prior to, and after, exploration activities. Applicant/Owner/Operator agrees to restore gamma radiation levels at each drill site to pre-exploration levels. ■ **Yes** ☐ No ☐ N/A

Will excess drill cuttings be buried at each drill site location or within a single disposal pit?
■ At each drill pad location ☐ Within a single disposal pit

These will be core holes so cuttings will very limited and will be incorporated in the reclamation.

If a single disposal pit is proposed, please provide the following:

Description or GPS coordinates of the proposed cuttings disposal pit location:

Dimensions of the single proposed cuttings disposal pit (length, width, and depth): N/A

_____Length (ft.) _____Width (ft.) _____Depth (ft.)

TOTAL ACREAGE TO BE DISTURBED DUE TO DISPOSAL PIT = _____acres
(to convert to acres, multiply total square footage of disposal pit by 0.0000229)

E. Other Supporting Equipment (check all that apply):

■	4x4 Trucks/Vehicles	Quantity:	1 @ 6,000 lbs
■	Water Truck	Weight (lbs.):	1 @ 20,000 lbs loaded
■	Geophysical Truck	Weight (lbs.):	1 @ 6,000 lbs
☐	Pipe Truck (rig support)	Weight (lbs.):	
■	Bulldozer	Type:	1 @ 17,400 lbs
☐	Backhoe	Type:	
☐	Trackhoe	Type:	
■	Scaper/Grader	Type:	
■	Trailers	Quantity/Type:	Camp style, 2 axle
☐	Portable Toilet	Quantity:	Standard porta-potty
	Other	List:	

F. Roads and Overland Travel:

The area encompassed by this permit and immediately adjacent areas have been extensively explored (drilled and mined) from the 1950s through to the mid-1980s. Because of this, there is an extensive network of existing roads which will be used for primary access. Remnants of previous mining and mineral exploration disturbances are still present in many areas. In accessing the proposed drillhole sites, it will be necessary to create a short two-track road from an existing road to and between the drill pads, but it is expected this will simply consist of flagging the route to indicate the path to take and restrict travel to these paths. No unnecessary clearing of vegetation will take place. Maps showing the anticipated access are included in Attachment E.

List of new roads to be constructed for this exploration project:

Description of *NEW* Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
L = 300 feet, W = 12 feet L x W x (0.0000229) = 0.10 acres There is no planned installation of culverts as part of the road building.			
TOTAL ACRES DISTURBED BY NEW ROAD CONSTRUCTION :			0.10

Describe how new roads will be constructed: bulldozer

List for extension or widening of existing roads:

Description of Modification to *EXISTING* Roads	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
No modifications of existing roads are anticipated.			
TOTAL ACRES DISTURBED BY ROAD IMPROVEMENTS :			0

Describe how existing roads will be extended or widened:

List for routes of overland travel:

Description of *OVERLAND TRAVEL* Routes	Length (ft.)	Width (ft.)	Total Acres (length x width x 0.0000229)
Overland travel, if used is included in the 'new' road section.			
TOTAL ACRES DISTURBED BY OVERLAND TRAVEL :			0

G. Support Facilities

Describe (location and size) any support facility disturbances (equipment staging, equipment and material storage and/or lay down areas, vehicle parking, temporary housing and/or trailers) to be created or situated on the site during exploration operations.

- Drill shack or trailer
- Portable toilet
- Water tank

H. **Total Acreage to be disturbed by project 4.3 acres**
(include all disturbed acreage from drill pads, cuttings disposal pit, new roads, improved roads and overland travel routes)

SECTION 5 – CHEMICAL USE (§302.D.4)

A. Check any and all chemicals that will be used for this project. See MSDS sheets in Attachment F.

☐	Drilling Mud (i.e., EZ Mud)	Type/Quantity:
■	Diesel Fuel	Quantity: Fuel in vehicles (unkown, <300 gals)
■	Down-hole Lubricants	Type/Quantity: Small quantities
☐	Lost Circulation Materials	Type/Quantity:
■	Oils/Grease	Quantity: In vehicles/small quantity containers
■	Gasoline	Quantity: Fuel in vehicles (unknown, <300 gals)
■	Hydraulic Fluid	Quantity: In bulldozer and other equipment (unknown
■	Ethylene Glycol	Quantity: In radiators (unknown)
■	Cement	Type/Quantity: Unknown, for hole plugging
■	Water	Source: In water truck and drinking water
■	Bentonite	Quantity: Pellets in buckets, for hole plugging
☐	Fertilizer	Type/Quantity:
☐	Other	Type/Quantity:
☐		
☐		

No toxic or hazardous materials will be used during the exploration program other than small quantities of fuels and lubricants used by any motor vehicle. All materials used in the drilling process will be non-toxic and will not contaminate groundwater, surface water or aquifers using the proposed methods of management.

B. Describe, in detail, a plan for the containment, use and disposal of all chemicals listed above:

All containment in tanks or other appropriate containers.

C. Describe where equipment fueling/refueling will occur:

Offsite.

D. Describe how hazardous material spills/leaks will be handled:

Bermed, excavated and removed for disposal at an approved facility; any spills will be managed consistent with State and federal regulations; NMED would be notified immediately.

E. Identify spill cleanup materials that will be kept on-site (check all that apply):

- ■ Bentonite clay or cat litter
- ■ Adsorbent pads, rolls, mats, socks, pillows, dikes, etc.
- ☐ Drum or barrel for containing contaminated soil/adsorbent materials
- ■ Other/list: Impacted soils will be removed and disposed of
- ☐ Other/list: _____
- ☐ Other/list: _____

F. Applicant/owner/representative agrees to immediately notify the State of New Mexico immediately of any spills of hazardous materials (see page 1 of this application for phone numbers to notify): ■ **Yes** ☐ No

SECTION 6 – GROUNDWATER/SURFACE WATER INFORMATION (§302.D.5)

A. Provide an estimate of depth to ground water and the total dissolved solids (TDS) concentration.

Depth to groundwater (ft.): > 250 TDS concentration (mg/L): 500 to 1500

Describe the source of this information:

The area of exploration is Area I of the Cebolleta project (Figure 2. in Wilton, 2017). The holes will all be collared in the lower part of the Cretaceous Mancos Shale and Dakota Sandstone. Holes will be drilled into the Cretaceous-Jurassic Jackpile member [of the Morrison Formation] and deeper Jurassic Morrison Formation units [Recapture, Westwater Canyon, Brushy Basin members].

Wilton, T. 2017. Uranium deposits at the Cebolleta project, Laguna mining district, Cibola County, New Mexico. New Mexico Geology. V. 39. N. 1. pp. 1-10.

Much of the geologic section that will be explored is exposed in the St. Anthony open pit mine to the southeast of the proposed drill holes. Seepage from these units and surface water has formed a small pit lake in mine. The proximity of the mine to the proposed drill holes has likely influence on the hydraulic heads in the water-bearing units exposed in the pit walls (particularly the Jackpile sandstone). Therefore, the pit lake may provide a rough estimate of the water level in the Jackpile sandstone. The surface elevation of the collars is about 6,100 feet and the pit bottom elevation is about 5,850 feet. The estimated depth to water in the drill holes would be the difference, or 250 feet.
The nature of groundwater in these units has been described in Baldwin and Rankin (1994).

Baldwin, J.A. and Rankin, D.R. 1994. Hydrogeology of Cibola County, New Mexico. U.S. Geological Survey. Water-Resources Investigation Report 94-4178.

The water quality in the Jackpile sandstone is expected to be like what has been reported for the Westwater Canyon and other member of the Jurassic Morrison Formation in the Paguate area. Baldwin and Rankin (1994) report total dissolved solids concentrations ranging from 500 to 1500 mg/L; these waters tend to be sodium-bicarbonate sulfate waters with dissolved sodium concentrations ranging from 150 to 450 mg/L and sulfate concentrations ranging from 190 to 480 mg/L. Since the groundwater encountered is expected to be in mineralized zones, concentrations, particularly of sulfate may be higher than those reported.

B. Will dewatering activities be conducted: ☐ Yes ■ No

If yes, please describe:

C. Is groundwater anticipated to be encountered during exploration: ■ **Yes** ☐ No

If YES:

Have you completed Form WR-07 (Application for permit to drill a well with no consumptive use of water) and mailed it to the District Office of the State Engineer? ■ Yes

The OSE will be notified immediately and Form WR-07 submitted with the approval of the permit.

Have you completed Form WD-08 (Well plugging plan of operations) and mailed it to the District Office of the State Engineer? ■ Yes

The OSE will be notified immediately and Form WR-08 submitted by the driller, with the approval of the permit and coordination with the drilling contractor.

Attachment G (copies of the completed WR-07 and WD-08 forms)

Final details will be added to these forms and they will be provided to the OSE with the approval of the permit and coordination with the drilling contractor.

D. Exploration Borehole Abandonment

Dry Boreholes

☐ Dry hole abandonment (option 1): 100% bentonite pellets/chips (i.e. HOLEPLUG® manufactured by Baroid Industrial Products), dropped from surface then hydrated in place according to the manufacturer's recommendations, emplaced from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.Dry hole abandonment (option 2): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.

☐ Dry hole abandonment (option 3): Cement + 6% bentonite slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.

☐ Dry hole abandonment (option 4): High-density bentonite clay (≥ 20% active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

☐ Dry hole abandonment (option 5): Other materials / describe and justify use:

Wet Boreholes

■ Wet hole abandonment (option 1): Neat cement slurry, mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 2 feet of the original ground surface, followed by 2 feet of topsoil/topdressing.

☐ Wet hole abandonment (option 2): High-density bentonite clay (≥ 20% active solids; i.e. QUIK-GROUT® manufactured by Baroid Industrial Products), mixed according to the manufacturer's recommendations, emplaced with a tremie pipe from total depth to within 12 feet of the original ground surface, followed by 10 feet of neat cement, followed by 2 feet of topsoil/topdressing.

☐ Wet hole abandonment (option 3): Other sealing material approved by the Office of the

State Engineer. Describe and include well plugging plan approval by the State Engineer:

D. Applicant agrees to contain any water produced from the exploration borehole at the drill site and acknowledges that discharge of this water to a watercourse may be a violation of the Federal Clean Water Act: ■ Yes ☐ No

E. Is any drilling proposed to occur within the channel of any perennial, intermittent, or ephemeral streams? ☐ Yes ■ No

Holes/pads would be located at a minimum of 100 feet from an 'active' channel and would be field fit, if necessary based on site conditions.

F. Is any drilling anticipated to occur within 100 feet of any perennial, intermittent, or ephemeral streams? ☐ Yes ■ No

SECTION 7 – RECLAMATION & OPERATION PLAN (§302.D.6 AND 302.I.K)

A. Salvage/Preservation of Topsoil

Before any grading/blading or similar activities occur in relation to this project, operator agrees to salvage and preserve all topsoil and topdressing for use in future reclamation of this project ■ Yes ☐ No

Describe how topsoil will be salvaged prior to initiation of exploration activities (check all that apply):

☐ N/A – no construction work will occur, therefore no soil salvage is needed.
■ Excavated from drill pads and stored at each drill pad
■ Excavated from road improvements/construction and stored adjacent to road
☐ Excavated from mud/fluid pits and storage at each pit
☐ Other, describe:

B. Erosion Control

Describe the best management practices that will be implemented to control erosion:

■ Silt fencing Location: Perimeter of the drill pad disturbance area; field fit

■ Straw waddles Location: In areas sensitive to potential for focused flow; field fit

☐ Straw bales Location:

☐ Ditches/swales Location:

☐ Berms/dikes/dams Location:

☐ Sediment basins Location:

☐ Other or N/A Type/Location:

C. Wildlife Protection / Noxious Weed Prevention

Will the perimeter of drill pits be fenced to prevent wildlife entrapment? ☐ Yes ☐ No N/A
No excavated drill pits are anticipated; above grade pits will be used if needed

Proposed pit perimeter fence material: _____

Describe how the pit perimeter fencing will be installed and secured (i.e., T-posts, wooden stakes, etc.): _____

Will at least one side of the interior of the drill pits be sloped at 3:1 as a ramp for wildlife escape? ☐ Yes ☐ No N/A
No excavated drill pits are anticipated; above grade pits will be used if needed

If No, will another type of constructed escape ramp be installed? Describe:

Applicant/Owner/Operator commits to pressure-washing or steam-clean all equipment prior to entering the permit area: ■ Yes ☐ No

D. Reclamation Details

Describe in general how re-contouring of the surface to match the neighboring surface topography.

The ground is relatively flat, but it will be gently sloped to allow drainage consistent with the natural topography.

Reclamation Plan

The upper six to twelve inches of native soil will be salvaged during road, pad and pit construction following any necessary grubbing of shrubs. Along new roads, topsoil will be windrowed along the alignment. For drill pad construction, the topsoil will be segregated by pushing it to a field-determined location adjacent to the pad. Salvaged topsoil will be placed in a suitable location so it won't be mixed with subsoil materials that will excavated as part of pit and pad development.

All areas where vegetation is disturbed, including roadways constructed for the project, will be reclaimed using the following methods:

- Follow any grading needed to return the terrain to stable surface including pit backfilling, topsoil will be pushed out over the disturbance to achieve a consistent thickness across the site.
- All disturbed areas that experienced heavy vehicular traffic including temporary access roads will be ripped to at least one-foot depth to relieve compaction. Other disturbed areas shall be scarified by harrow, chisel or another device to at least six-inches depth to prepare a suitable seedbed. Where possible, ripping will be conducted on the contour to minimize erosion. Ripping is

expected to create a roughened surface that provides micro-sites for seedling establishment and reduces concentrated overland flow and erosion.

- Ripping and other seedbed preparation procedures will be conducted when surface and subsurface soil moisture conditions are dry to avoid compaction.
- All areas to be reclaimed will be seeded with a mixture of native grass species adapted to the area. Seed will be certified weed-free. Table 1 lists the species and their application rate in pounds Pure Live Seed per Acre (PLS/ac).

TABLE 1
RECLAMATION SEED MIX FOR THE
CEBOLLETA MINIMAL IMPACT EXPLORATION PERMIT

Common Name	Prefered Variety	lbs PLS/ac	% of Mix
Alkali sacaton	Salado	2.0	20
Western wheatgrass	Arriba, Barton	16.0	30
Galleta (Caryopsis)	Viva	4.0	10
Blue grama	Lovington, Hachita, Alma	3.0	15
Bottlebrush squirreltail	Available species	5.0	10
Spike muhly	El Vado	2.0	5
Fourwing saltbush	Rincon, Santa Rita	1.0	5
Winterfat	Hatch	1.0	5
		TOTAL	100

- Future Fuel may need to substitute or eliminate seed species listed in Table 1 if a proposed species is unavailable or adjust the seeding rates in order to accommodate variations in seeding methods and/or field conditions. MMD will be notified if changes in the seed mix are required to request concurrence.
- Seeding will occur between late May through early July prior to the summer monsoonal rains.
- Seed will be planted using a rangeland drill or similar equipment. If seed is broadcast instead of drilled, the seeding rate will be doubled, and areas will be raked with a chain- or tire-harrow to lightly cover the seed and achieve good soil-seed contact.
- Weed-free straw, hay, or native grass mulch shall be uniformly spread across the seeded areas at the rate of 2 tons per acre and crimped to fix it in place.

Describe how the reclamation of portals, adits, drilling fluid/mud and/or waste pits, shafts, ponds, roads and other disturbances will be performed:

The surface will be roughened or ripped and seeded, the same way as the drill pads (see previous section). No earthwork is expected to be necessary.

E. Reclamation Timeline

Applicant/Owner/Operator commits to reclamation of the disturbed area as soon as possible following the completion or abandonment of the exploration operation, unless the disturbed area is included within a complete permit application for a new mining permit:

■ Yes ☐ No

Anticipated Start of Reclamation:

☒ 0-30 days after completion of drilling
☐ 31-60 days after completion of drilling
☐ Other/specify:

SECTION 8 – PERMIT FEES AND FINANCIAL ASSURANCE (§302.I.2 AND 5)

A. Financial assurance must be posted with Mining and Minerals Division prior to approval of this application. The acceptable forms of financial assurance are surety bonds, letters of credit, and certificates of deposit. Provide an estimate of, and an instrument for, the proposed financial assurance required by Subpart 3.

☐ Surety Bond
☐ Letter of Credit
☒ Cash Account / Certificate of Deposit

☐ Estimated amount of financial assurance: _____

Or

■ Applicant will provide the amount of financial assurance calculated by MMD.

B. Attach the permit fees as determined pursuant to Subpart 2. The application fee for a minimal impact exploration permit is $500.00.

☐ Money Order/Cashier's Check
☒ Check

Check Number : 1172 [mailed under separate cover]

Financial Institution: Sandia Laboratory Federal Credit Union

SECTION 9 – CERTIFICATION REQUIREMENT (§302.I.3 & 4)

I certify that I have personally examined and am familiar with the information submitted herein and based on my inquiry of those individuals responsible for obtaining the information; I believe the submitted information is true, accurate, and complete. I agree to comply with the reclamation requirements set forth in this permit application and related correspondence, the New Mexico Mining Act and the Rules. Further, I certify that I am not in violation of any other obligation under the New Mexico Mining Act or the Rules adopted pursuant to that Act and I allow the Director to enter the permit area, without delay, for the purposes of conducting inspections during exploration and reclamation.

Signature of Permittee or Authorized Agent: _____

Name (type or print): Robert Newcomer dba Toltec Mesa Resources LLC

Title/Position: Consultant

Date: September 12, 2022

ATTACHMENT C

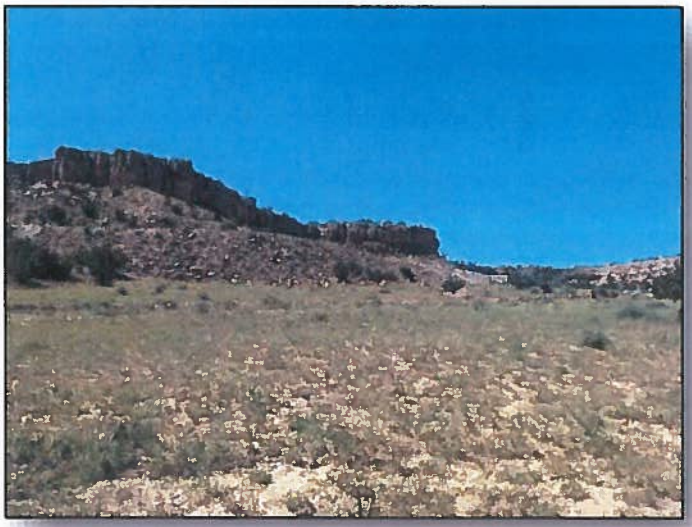
BIOLOGICAL SURVEY

BIOLOGICAL EVALUATION

PROPOSED MINIMAL IMPACT EXPLORATION PROJECT

Prepared for:
Future Fuel Corporation
1920-1177 W Hastings St. | Vancouver, BC V6E 2K3

Prepared by:
Rocky Mountain Ecology, LLC
P.O. Box 45193 | Rio Rancho, NM 87174



Signed By: _____
Clayton P. Bowers – Rocky Mountain Ecology LLC

Date: August 2, 2022

Approved By: _____
Clint Chisler – Permit Lead, Mining and Minerals Division, EMNRD

Date: _____

Table of Contents

I. Introduction and Proposed Action

Future Fuel Corporation (FFC) proposes to engage in exploratory drilling activities to support uranium exploration within Cibola County, New Mexico (Figure 1). The proposed drilling locations are amongst scattered historic uranium mines that have been abandoned, in an area located within a prolific mineral belt north of Laguna, NM. FFC anticipates disturbance on up to 5 acres (ac) of land to support the exploratory drilling on unplatted lands within the Cebolleta Land Grant (Figures 2 & 3). FFC intends to apply for the minimal impact permit with the New Mexico Mining and Minerals Division at the conclusion of environmental and cultural due diligence.

Rocky Mountain Ecology, LLC (RME) has been contracted to prepare this Biological Evaluation (BE) in compliance with Section 7 of the Endangered Species Act (ESA) (19 U.S.C. 1536 (c), 50 CFR 402.12 (F) and 402.14 (c)) and other relevant Federal laws and regulations. This BE discloses and analyzes impacts associated with access routes and drilling operations as proposed by FFC.

Project Location

The Cebolleta Uranium Project is located approximately 5 miles southeast of Seboyeta, NM. It is located on private lands associated with the Cebolleta Land Grant in Cibola County, New Mexico. The project area can be located on the Moquino, NM U.S. Geological Survey 7.5-minute topographic map. From Seboyeta, access to the site can be gained from an existing county road and then on unmaintained private two-track roads.

Project Activities

The purpose of the Proposed Action is to allow FFC to test for the viability of a uranium mine in the proposed permit area, which would include the development of a short access route to two proposed drill pad locations. Four drill hole locations would be drilled to an approximate depth of 400 feet (ft) (Figure 3). All site disturbance would be minimized to the extent possible. FFC intends to acquire a Minimal Impact Permit with the New Mexico Mining and Minerals Division (MMD) to cover the proposed exploratory drilling activities. Less than 5 ac would be disturbed as part of the proposed action. Future expansion and development would likely occur as needed.

The need for the action is to develop the uranium resource, which is a reliable, clean and safe energy source. This BE has been prepared to analyze impacts and determine effects of the Proposed Action on federally proposed, threatened and endangered species, and NM state listed species. Specifically, this BE would provide knowledge regarding protected species, and assist the proponent in determining if formal consultation with the U.S. Fish and Wildlife Service (USFWS) is prudent. This document would also aid in determining if the Proposed Action would lead toward the federal listing of any state listed species or federal candidate species on the Endangered Species Act of 1973 as amended.

II. Methods

The Endangered Species Act of 1973 (ESA) requires the evaluation of potential impacts on federally-listed species and their critical habitat. The USFWS, the New Mexico Department of Game and Fish (NMDGF) and the NM Rare Plant Technical Council (NMRPTC) databases were reviewed to determine potential occurrence of state listed and federal proposed, threatened, and endangered species in the project area. Specifically, the USFWS New Mexico Ecological Services website (http://ecos.fws.gov/) was verified for federally-listed flora and fauna species (Project Code: 2022-0069134 – Appendix B; USDI 2022). The NM Rare Plants website (http://nmrareplants.unm.edu) was searched for information on potential sensitive flora species within Cibola County (NMRPTC 1999). Habitat associations and species descriptions for the targeted species were derived from these websites, and their habitat requirements were then compared to the habitat found in the project area to identify which species were likely to occur. Species considered unlikely to occur and for which suitable habitat does not exist within the project area, were removed from further consideration. A list of target species—those species that are likely to occur or have potential habitat within the project area—was developed from these comprehensive lists prior to the biological survey.

A 100-percent pedestrian biological survey of the project area was conducted by Clay Bowers, a RME qualified biologist (hereafter referred to as the biological survey). The biological survey was conducted on July 26, 2022 from 10:30 am to 2:00 pm Mountain Daylight Time (MDT). During the survey, air temperature was 80 degrees Fahrenheit (°F) with partly cloudy skies and calm winds. During the biological survey, searches for the presence of noxious weeds as defined by the New Mexico Department of Agriculture (NMDA) and for the presence of potential wetlands and waters of the U.S. as defined by the U.S. Army Corps of Engineers (USACE) were also conducted.

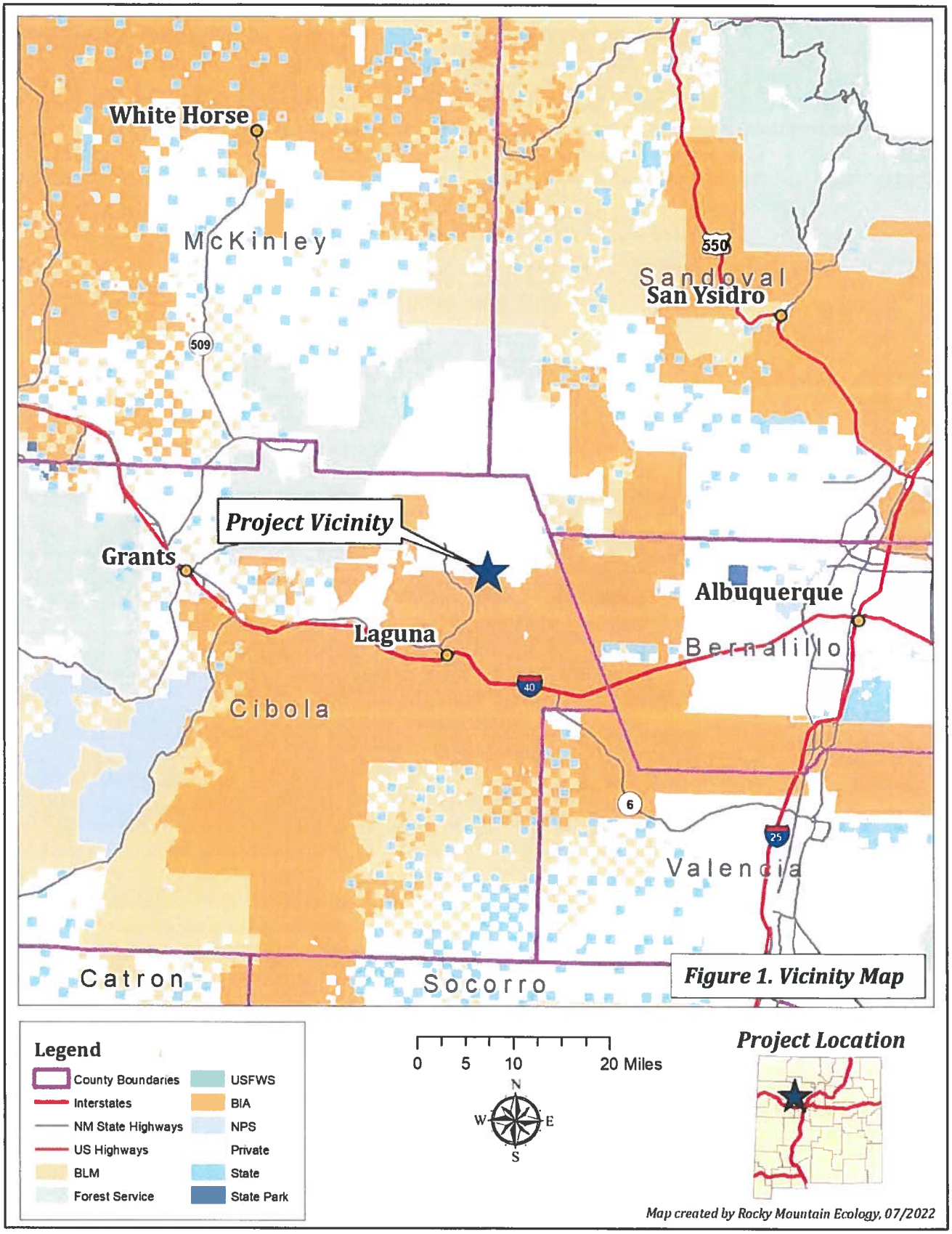


Figure 1. Vicinity Map

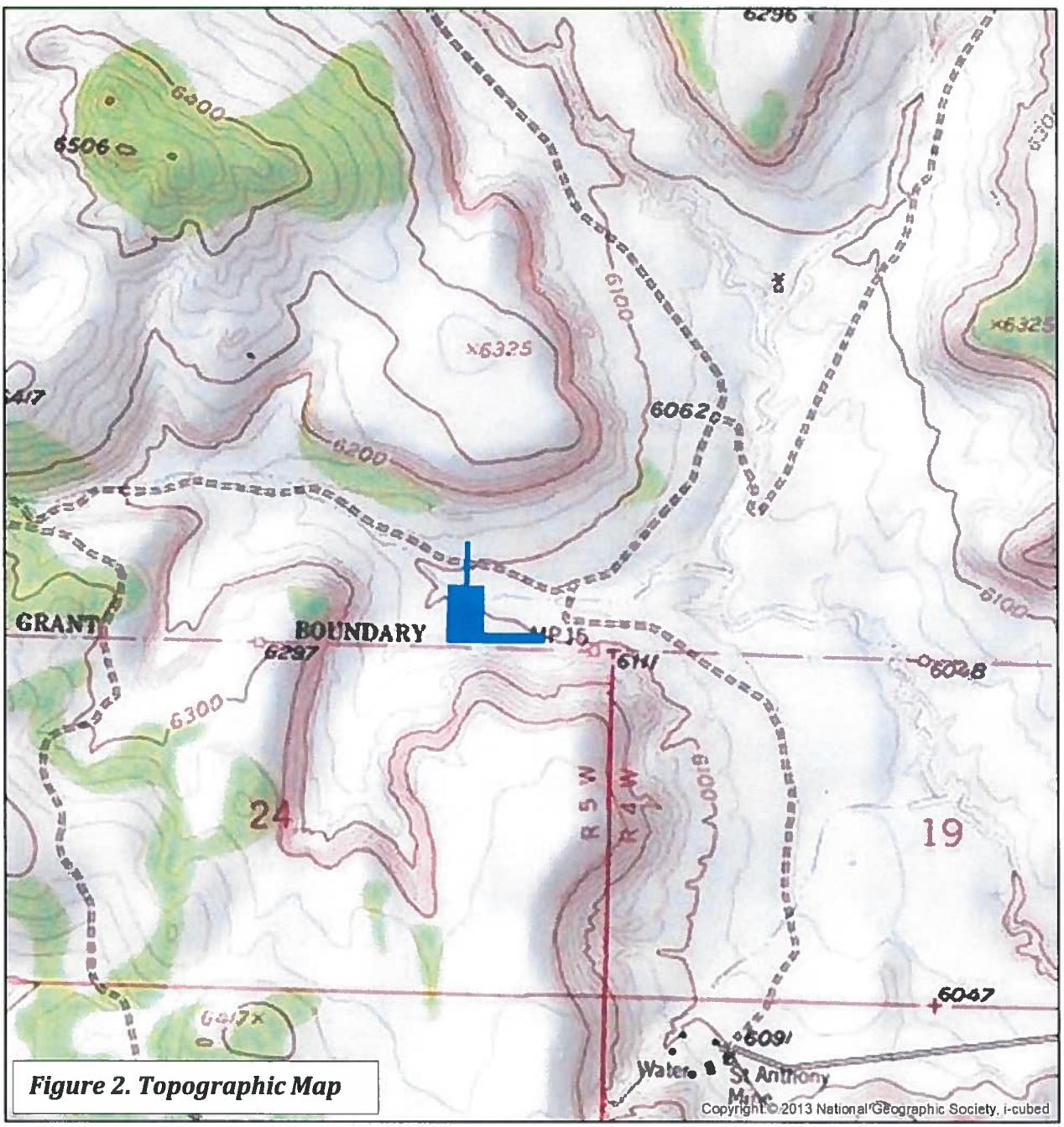


Figure 2. Topographic Map

Legend

Mining Activity Limits

0 0.15 0.3 0.6 Miles

N W E S

Project Location

Map Created by Rocky Mountain Ecology, LLC 07/2022

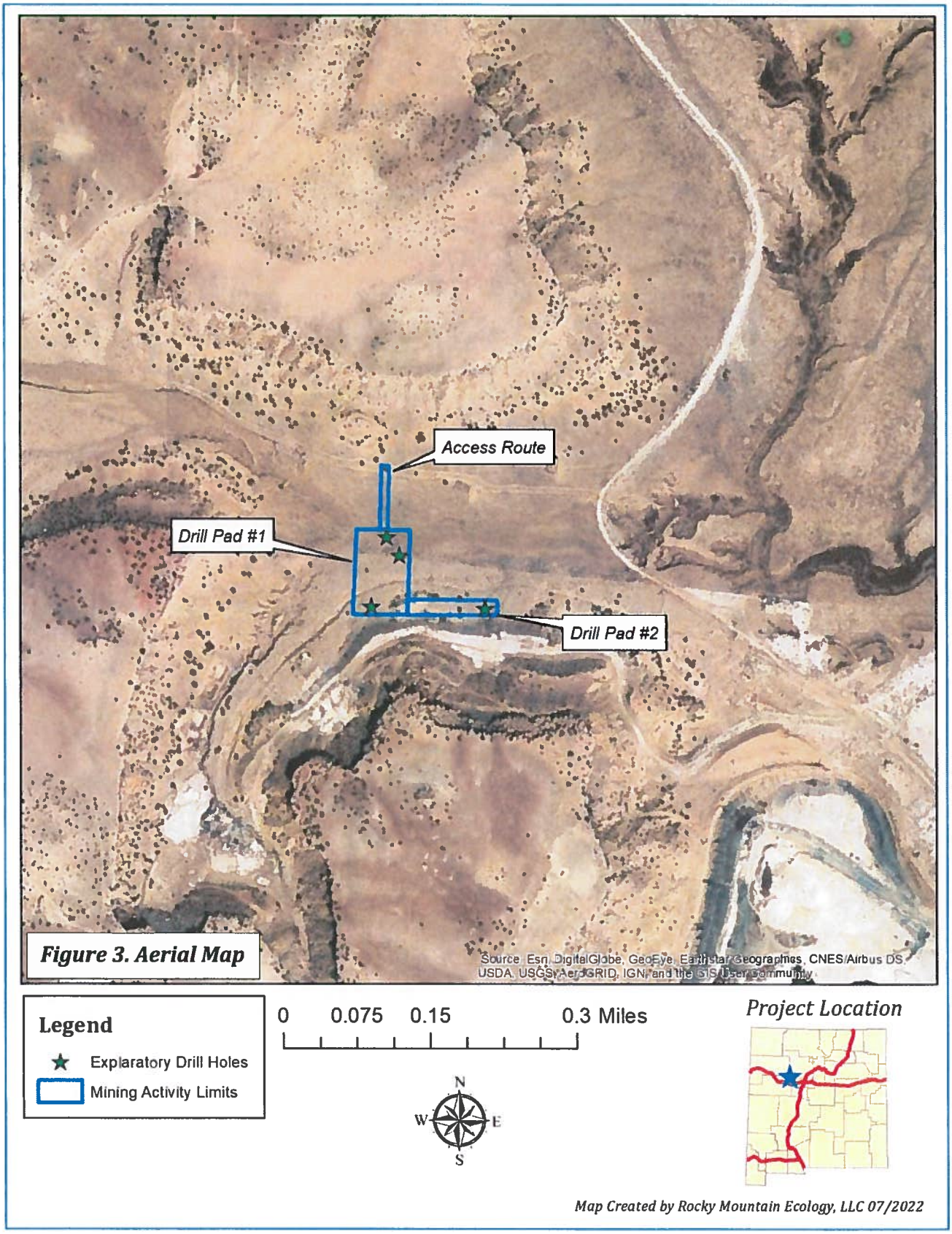


Figure 3. Aerial Map

III. Environment and Existing Conditions

The elevation of the project area occurs at approximately 6,040 feet above sea level. Topography in the immediate project area is generally flat with a slight eastern aspect. Within the southern limits of the project area, an abrupt outcrop of banded sandstone rises up from the adjacent landform. The surrounding landscape is defined by highly incised drainages with prominent tablelands (mesas) dominating the viewshed. Average temperatures in the general area range from a minimum of 19.4 °F in December to a maximum of 90.1 °F in July. Annual precipitation averages 9.9 inches (WRCC 2022).

Physiogeography

The project area is located within the Semiarid Tablelands sub-region of the Arizona/New Mexico Plateau ecoregion (Griffith et al. 2006), which includes mesas, plateaus, valleys and canyons formed from gentle dipping sedimentary rocks. Bedrock exposures are common in the subregion along with loose stands of scattered pinon-juniper forests. The surrounding area has been subject to historic uranium mining activities which have been decommissioned. The primary use of the general area is livestock grazing.

Soils

The project area occurs in the Grants Mineral Belt of New Mexico, which contains approximately 37 percent of all Uranium produced in the United States (Dahlkamp 2010). Soil types were identified as determined by the Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2022). Soils in the proposed project area are classified by two major types: Skyvillage-Rock outcrop-Bond complex (52 percent of area (uplands)), and Sparank-San Mateo complex (48 percent of area (lowlands)). The composition of these respective soils is as follows. The Skyvillage series has a parent material of eolian deposits derived of sandstone and occurs on mesas and benches on 3 – 40 percent slopes. These soils are well drained and have no frequency of flooding or ponding. The Sparank series has a parent material of fan alluvium derived from shale, sandstone and siltstone, and occurs on floodplains, drainageways and alluvial fans on 0-5 percent slopes. These soils are well drained and have no frequency of ponding and occasional frequency of flooding (NRCS 2022).

Vegetation

The project area is located within the Juniper Savanna vegetation community (Dick-Peddie 1993). The project area is divided into two landform types: the uplands which contain a less robust herbaceous component, and the lowlands which contain dense grasses and forbs due to the presence of an active ephemeral flowpath. The lowlands in the project area consist of a heavy community of alkali sacaton (*Sporobolus airodes*) and lovegrass (*Eragrostis* spp.), which densely cover the flowpath that bisects the project area due to increased soil moisture. Other dominant herbaceous species noted during the biological survey include galleta grass (*Pleuraphis jamesii*) and amaranth (*Amaranthus palmeri*). Trees and shrubs are limited to few and scattered one-seed juniper (*Juniperus monosperma*), four-wing saltbush (*Atriplex canecsens*) and tree cholla (*Cylindropuntia imbricata*). Other species documented at the site include big sagebrush (*Artemsia*

tridentata), rabbitbrush (*Chrysothamnus nauseosus*), wolfberry (*Lycium torreyi*), prickly pear (*Opuntia macrocentra*), thinleaf yucca (*Yucca glauca*), snakeweed (*Gutierrezia sarothrae*), curlycup gumweed (*Grindelia squarrosa*), cocklebur (*Xanthium strumarium*), scarlet globemallow (*Sphaeralcea coccinea*), Adonis blazingstar (*Mentzelia multiflora*), silverleaf nightshade (*Solanum elaeagnifolium*), Russian thistle (*Salsola kali*), annual sunflower (*Helianthus annuus*), Rocky Mountain zinnia (*Zinnia grandiflora*), showy milkweed (*Asclepias speciosa*), spectaclepod (*Dimorphocarpa wislizeni*), spotted spurge (*Euphorbia maculata*), western wheatgrass (*Pascopyrum smithii*), vine mesquite (*Panicum obtusum*), blue grama (*Bouteloua gracilis*) and Indian ricegrass (*Oryzopsis hymenoides*). Overall, vegetation density and diversity at the site is high and vegetation condition was noted as moderate to high quality.

Noxious and Invasive Weeds

No state listed noxious weeds, as defined by the NMDA were identified within the 5-acre parcel (NMDA 2020). Surface disturbance activities associated with the proposed project could create potential for the establishment and spread of noxious weeds and invasive, non-native species. Invasive, non-native species can outcompete and displace native vegetation resulting in altered wildlife habitat use. Salt cedar (*Tamarix* spp.) and field bindweed (*Convolvulus arvensis*) were noted to occur near but outside the project area.

Rare Plants

No New Mexico rare plants as listed by the NMRPTC were located during the biological survey.

Wildlife

Overall vertebrate species were not abundant at the project area during the biological survey. Wildlife typical of the general area include coyotes (*Canis latrans*), desert cottontails (*Sylvilagus audubonii*), common ravens (*Corvus corax*), turkey vultures (*Cathartes aura*), bull snakes (*Pituophis catenifer sayi*), and whiptail lizards (*Cnemidophorus* spp.). Wildlife observed during the biological survey include mourning doves (*Zenaida macroura*), black-tailed jackrabbits (*Lepus californicus*), bank swallows (*Riparia riparia*), common ravens and whiptail lizards. No raptors or signs of raptor use were observed during the biological survey. No bird nests or ground burrows were observed during the biological survey. Notably, cliff habitat with suitable nesting strata occurs immediately adjacent to the project area to the north and south. Though outside of the project area, these areas were scanned with binoculars for nesting activity with negative results. It is possible these areas could be established as nesting sites prior to the onset of project activities.

Wetlands and Waterways

The Clean Water Act (CWA) of 1972 regulates activities that have the potential to impact Waters of the U.S. (WOUS). Section 404 of the CWA regulates discharge of dredged and fill materials within the ordinary high water mark (OHWM) of WOUS, and is administered by the USACE. Section 401 of the CWA regulates water quality and, for the purposes of the

project, is administered by the New Mexico Environment Department (NMED), Surface Water Quality Bureau (SWQB).

Prior to the biological survey, the National Wetland Inventory (NWI) website was accessed to determine potential wetland presence within the project area, and indicated that a riverine wetland occurs in the project area. However, during the biological survey, the project area was evaluated for the presence of wetland indicators (e.g., hydrophytic vegetation or wetland hydrology) and no wetlands were located. An ephemeral flowpath flows west to east across the project area in the northern portion of the proposed Drill Pad #1. The flowpath is a highly braided, wide (~80 ft) and shallow (~1 ft). with multiple low flow channels and a robust herbaceous vegetative component. Recent significant monsoon moisture highlighted the feature as it was evident that multiple flow events had recently occurred. Downstream and outside of the project area, the feature abruptly headcuts and confluences with the Arroyo del Valle, which eventually converges with the Rio Puerco, a USACE jurisdictional waterway. Therefore, the subject unnamed waterway within the project area could be *potentially considered* a jurisdictional waterway.

IV. Threatened, endangered, and proposed species being considered

Federally listed species (Table 1) from the project area were obtained from the USFWS Information, Planning, and Conservation System (IPaC; USFWS 2022). The project area does not contain critical habitat for any federally listed species. Potential effects of the Proposed Action on threatened, endangered, and proposed species are analyzed in this section.

Table 1. Federally listed species for the project area, as of 29 July, 2022.

Species	Legal Status	Habitat Present	Habitat not Present	Habitat Present but not Affected	Does not Occur in Area	Comments
Birds (3)						
Southwestern willow flycatcher (*Empidonax traillii extimus*)	Endangered		X			Riparian habitat requirement not present at project site. No further analysis required.
Mexican spotted owl (*Strix occidentalis lucida*)	Threatened		X			Mixed-conifer or pine-oak woodland habitat not present within project area. No further analysis required.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	Threatened		X			Riparian woodland habitat not present at project site. No further analysis required.

Species	Legal Status	Habitat Present	Habitat not Present	Habitat Present but not Affected	Does not Occur in Area	Comments
Plants (2)						
Zuni fleabane (*Erigeron rhizomatus*)	Threatened		X			Herbaceous perennial that prefers clay hillsides with shale soils in piñon-juniper woodlands from 7,300 to 8,000 feet elevation (USFWS 1988). The project area occurs below the lower elevational threshold for the species. Further, no individuals were located during the biological survey. No further analysis required.
Pecos sunflower (*Helianthus paradoxus*)	Threatened		X			Occupies wetland and riparian habitats, salt marshes, and the periphery of inland salt lakes. These habitat requirements are not present at the site. No further analysis required.

V. Special status species being considered

Special status species (Table 2) include State threatened and endangered species with potential habitat in the project area, in addition to federal candidate species. Potential effects on these species of the Proposed Action are analyzed in this section.

Table 2. Special status species for the project area.

Species	Legal Status	Habitat Present	Habitat not Present	Habitat Present but not Affected	Does not Occur in Area	Comments
Mammals (1)						
Spotted bat (*Euderma maculatum*)	NM State Threatened			X		Forages throughout woodlands, montane meadows, shrublands, and grasslands. Roosts in

Species	Legal Status	Habitat Present	Habitat not Present	Habitat Present but not Affected	Does not Occur in Area	Comments
						crevices and cracks in cliffs (BISON-M 2022). Roosting habitat is present in the adjacent nearby cliffs to the north and south of the project area. Drilling activities could displace roosting bats from the area. However, given the expansive availability of roosting habitat in the surrounding area, this is not considered to be a significant impact. No impact to foraging bats would occur as no work would occur at night. Therefore, given the above information, implementation of the Proposed Action may impact individuals, but would not impact regional habitat or spotted bat population trends.
Birds (3)						
Bald eagle (*Haliaeetus leucocephalus*)	NM State Threatened		X			Found in a variety of habitats near rivers, large streams and lakes. No waterbodies are present in the general vicinity of the project area. No further analysis required.
American peregrine falcon (*Falco peregrinus anatum*)	NM State Threatened	X				Steep, sheer cliffs overlooking woodlands, riparian areas or other habitats supporting avian prey species in abundance. Analysis Required.
Gray vireo (*Vireo vicinior*)	NM State Threatened		X			Occurs in dense stands of mixed piñon, juniper and oak scrub associations, usually with a well-developed grass

Species	Legal Status	Habitat Present	Habitat not Present	Habitat Present but not Affected	Does not Occur in Area	Comments
						component. No dense stands of piñon, juniper or oak associations exist within the project area.
Insects (1)						
Monarch Butterfly (*Danaus plexippus*)	USFWS Candidate		X			Found in various habitats including forests, woodland, and grassland habitats where suitable forage (i.e., milkweed) is present. Suitable habitat for the species is absent from the project area. While individuals may occasionally traverse the project area, impacts to individuals or associated habitat are not anticipated from the proposed action. No further analysis required.

VI. Potential for Effects

Federally endangered, threatened, and proposed species

Due to the lack of federal critical habitat, general habitat or occurrence within the project area, there was a no effect determination for the federally endangered, threatened, and proposed species analyzed in the BA section (Table 1). Those species include: Southwestern willow flycatcher, Mexican spotted owl, Western yellow-billed cuckoo, Pecos sunflower and Zuni fleabane.

Special status species

Due to the lack of general habitat or occurrence within the project area, four of the five special status species received a no impact determination. Those species include: spotted bat, bald eagle, gray vireo and monarch butterfly.

The following special status species require further analysis:

- American peregrine falcon

AMERICAN PEREGRINE FALCON

Assessments of the American peregrine falcon presence/absence were conducted during the biological survey; however, extensive, species-specific surveys for falcons were not conducted. These subspecies normally nest in steep vertical cliffs in a variety of vegetation

types with prey abundance apparently being a major limiting factor. Cliff habitat occurs nearby and adjacent to the project area, which could serve as future suitable nesting habitat. Further, the entire project area and surrounding landscape could serve as suitable foraging habitat.

Impact Evaluation

Roosting and nesting habitat occurs within the cliffs that occur to the immediate north and south of the project area. These areas were scanned with binoculars during the biological survey for evidence of raptor nests with no detections. However, should falcons establish a nest in these areas prior to the onset of project activities, impacts in the form of displacement (to roosting birds) or abandonment (to nests) could occur. Therefore, it is recommended that a raptor nest survey occur prior to the commencement of project activities. In addition, as the entire area is potential foraging habitat, the proposed action could directly affect the foraging options for peregrine falcons due to work activities and disturbance of foraging habitat within the project area footprint; however, foraging falcons would likely use adjacent areas that were void of construction activities. Further, no indirect impacts to this species are anticipated. Provided that a nest survey with negative results take place prior to the onset of project activites, individuals would not likely be adversely impacted by the project, nor would it result in a trend towards federal listing or loss of population viability. Should nesting falcons be discovered prior to onset of project activities, it is recommended that FFC consult with the NMDGF for a mitigation plan.

VII. Determination Summary

The Proposed Acton will have the following effects/impacts:

- The Proposed Acton will have no effect on the following federally listed species: southwestern willow flycatcher, Mexican spotted owl, western yellow-billed cuckoo, Pecos sunflower and Zuni fleabane for the following reasons: 1) the project area does not contain the necessary habitat or prey base; or 2) the analyzed species do not occur within the project area.

  The Proposed Action will have no impact on the following special status species: spotted bat, bald eagle, gray vireo and monarch butterfly for the following reasons: 1) the project area does not contain the necessary habitat or prey base; or 2) the analyzed species do not occur in the project area.

- The Proposed Action may impact individuals, but is not likely to impact habitat or population trends the American peregrine falcon (State NM Threatened) for the following reasons: 1) nesting/forage habitat could be impacted by the Proposed Action, however given the small scale of the project, coupled with the availability of adjacent, suitable and expansive habitat, this impact is not anticipated, 2) no peregrine falcons were observed during the biological survey, 3), a pre-construction nesting survey to confirm lack of species/nest presence could be carried out immediately prior to construction activities to mitigate any impacts to the species, and 4) any displaced

species would be expected to occupy adjacent similar habitat, which is widely available in the region.

VIII. Summary and Conclusions

Exploratory drilling activities in the proposed expansion area could impact up to 5 acres of vegetation. This impact is considered insignificant given that similar vegetation occurs expansively in the surrounding landscape. A new access road would be constructed to access the area, however vehicular traffic would be confined to the active corridor.

The Proposed Action will have temporary and permanent effects on wildlife. During drilling activities, larger mammals and birds may choose to leave and/or avoid the area, while individual small mammals and reptiles may be displaced. These impacts are considered discountable given the extremely small footprint of the project area when compared to the availability of expansive adjacent habitat. Any wildlife that does utilize the project area would be expected to shift their patterns to adjacent, undisturbed and suitable habitat. No bird nests were found during the biological survey. However, cliff habitat that harbors suitable nesting habitat occurs immediately adjacent to the north and south of the project area. It is recommended that a qualified biologist survey these areas for raptor nests prior to the onset of project activities. If nesting raptors are located, it is recommended that FFC consult with the NMDGF to mitigate potential impacts.

No wetlands occur within the project area. A potentially jurisdictional ephemeral waterway bisects the project area in the vicinity of Drill Pad #1. At the time of the survey, this feature was noted to have recently conveyed several large flow events, which eventually has fluvial connection and input to the Rio Puerco, a jurisdictional waterway. It is recommended that FFC consider consultation with the USACE regarding potential impacts to this feature prior to disturbance.

Ultimately, no federally listed species were determined to have the potential for occurring at or near the project area. Of the five special status species analyzed, four were determined to have no potential for occurring within or near the project area. A no effect determination was made for all federally threatened or endangered species due to lack of critical habitat, general habitat, or occurrence in the project area. A no impact determination was made for four special status species in the project area due to the lack of general habitat or occurrence in the project area. A determination of may impact individuals, but is not likely to impact habitat or population trends was made for the American peregrine falcon.

IX. Literature Cited

[BISON-M]. 2022. Biota Information System of New Mexico. Species booklet No. 050095 Spotted bat. Accessed 29 July 2022. Available online: *http://www.bison-m.org*

Dahlkamp, F. J. 2010. Uranium Deposits of the World. USA and Latin America. Springer – Verlag Berlin Heidelberg Publications. 520 pp.

Dick-Peddie, W.A. 1993. New Mexico Vegetation: Past, Present, and Future. UNM Press.

Griffith, G.E., Omernik, J.M., McGraw, M.M., Jacobi, G.Z., Canavan, C.M., Schrader, T.S., Mercer, D., Hill, R., and Moran, B.C., 2006. *Ecoregions of New Mexico* (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey (map scale 1:1,400,000).

NMDA. 2020. New Mexico Department of Agriculture. New Mexico Noxious Weed List. Update June 2020. https://www.nmda.nmsu.edu/wp-content/uploads/2020/07/Weed-List-memo-and-weed-list-2020.pdf

[NRCS]. 2022. Natural Resources Conservation Service. U.S. Department of Agriculture. Soil survey of Cibola County Area, New Mexico. Accessed 27 July 2022. Available online: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

New Mexico Rare Plant Technical Council (NMRPTC). 1999. New Mexico Rare Plants. Albuquerque, NM: New Mexico Rare Plants Home Page. http://nmrareplants.unm.edu (Version 15 March 2001).

[USFWS]. 2022. U.S. Fish and Wildlife Service. IPaC – Information, Planning, and Conservation System; Natural Resources of Concern for Cibola County, NM. Available at: http://ecos.fws.gov/ipac/gettingStarted/map. Project Code: 2022-0069134. Accessed 29 July 2022.

[USFWS]. U.S. Fish and Wildlife Service. 1988. Zuni fleabane (*Erigeron rhizomatus*) recovery plan. U.S. Fish and Wildlife Service, New Mexico Ecological Service Field Office, Albuquerque, New Mexico.

[WRCC]. Western Regional Climate Center. 2022. Laguna, New Mexico (294719). Accessed 28 July 2022. Available online: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?nm4719

Appendices

Appendix A: Photographs

Photo 1. Beginning of proposed access road, facing south.

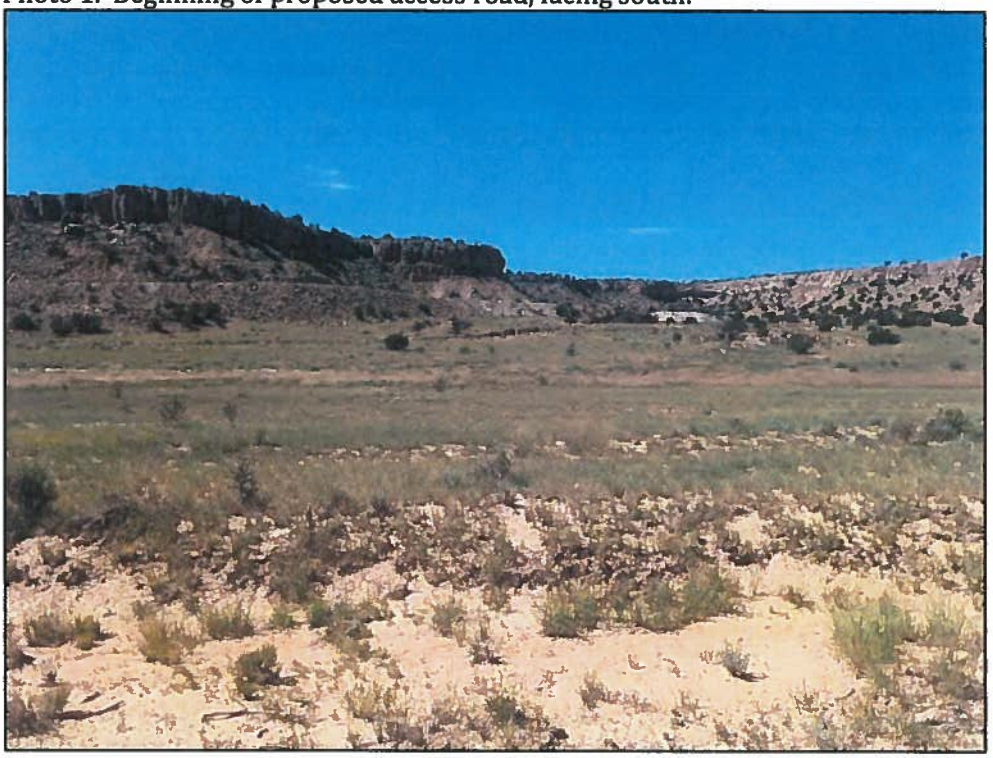


Photo 2: End of proposed access road, facing north.

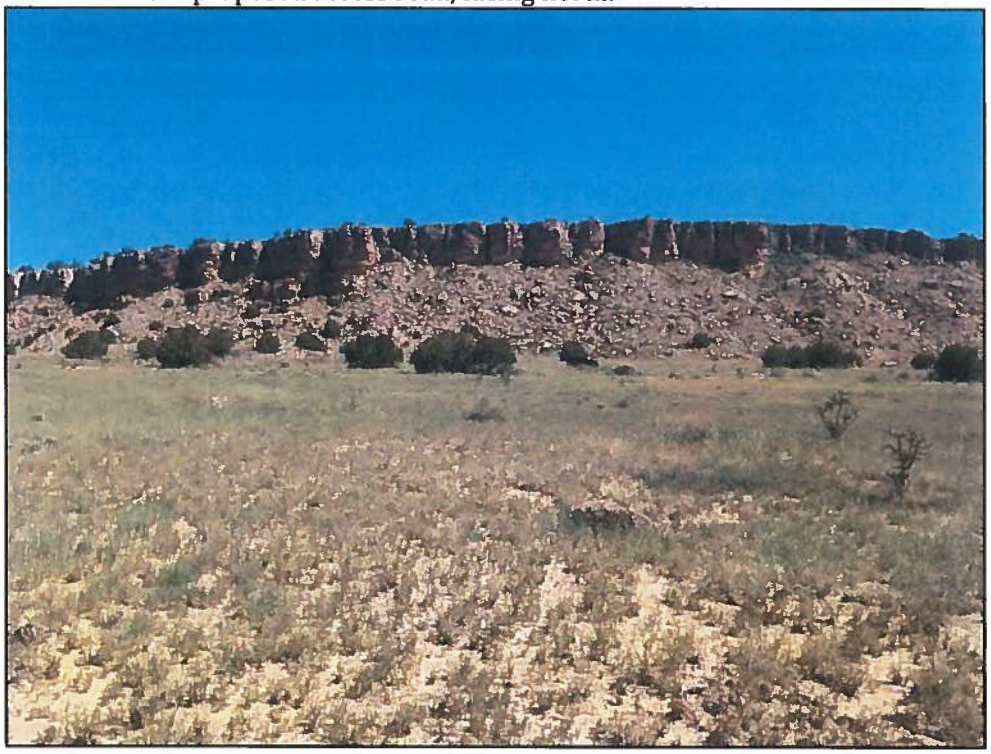


Photo 3. Drill Pad #1, facing east. Note robust herbaceous component associated with ephemeral waterway.

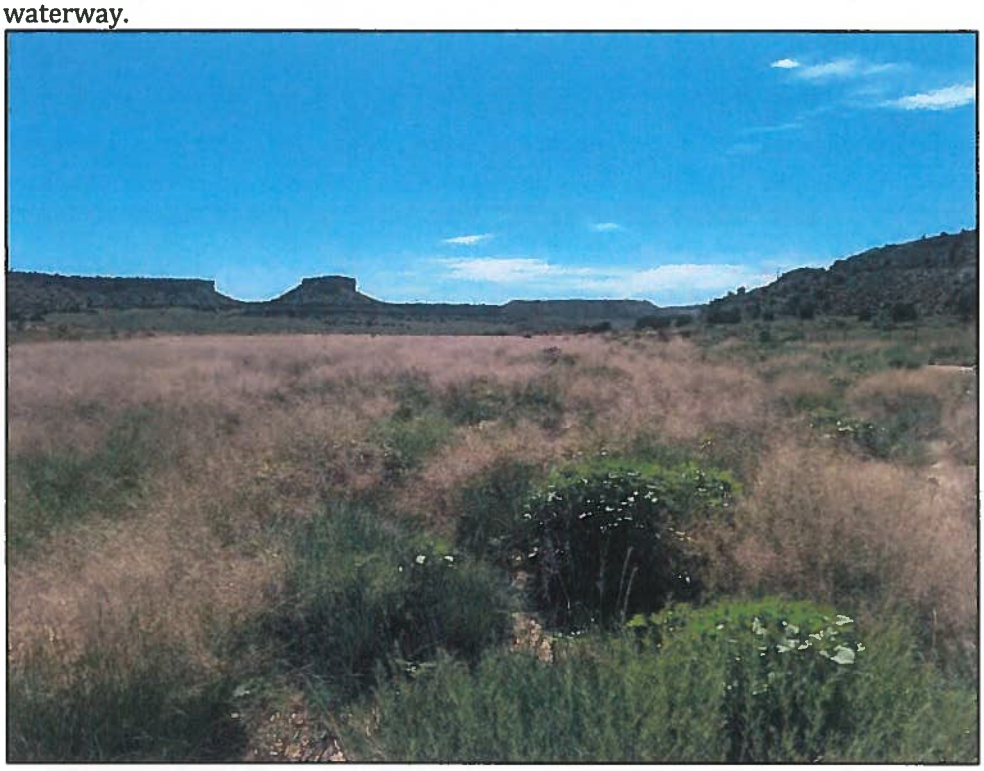


Photo 4. Drill Pad #1, facing south. Note nearby cliff features.

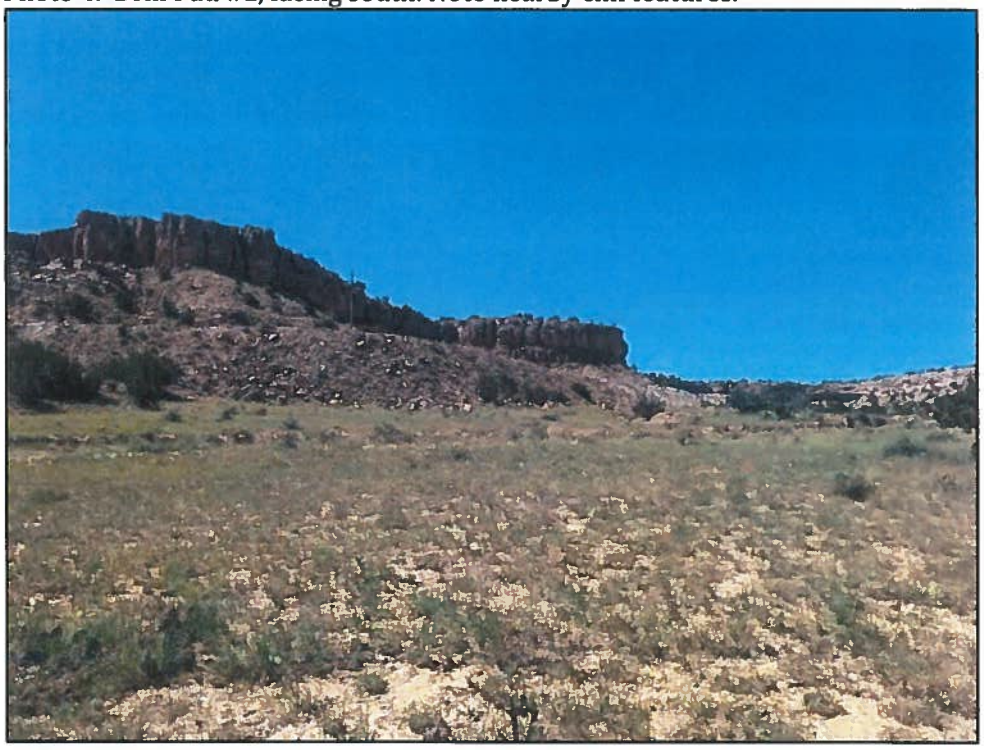


Photo 5. Drill Pad #1, facing north. Note nearby cliff features.

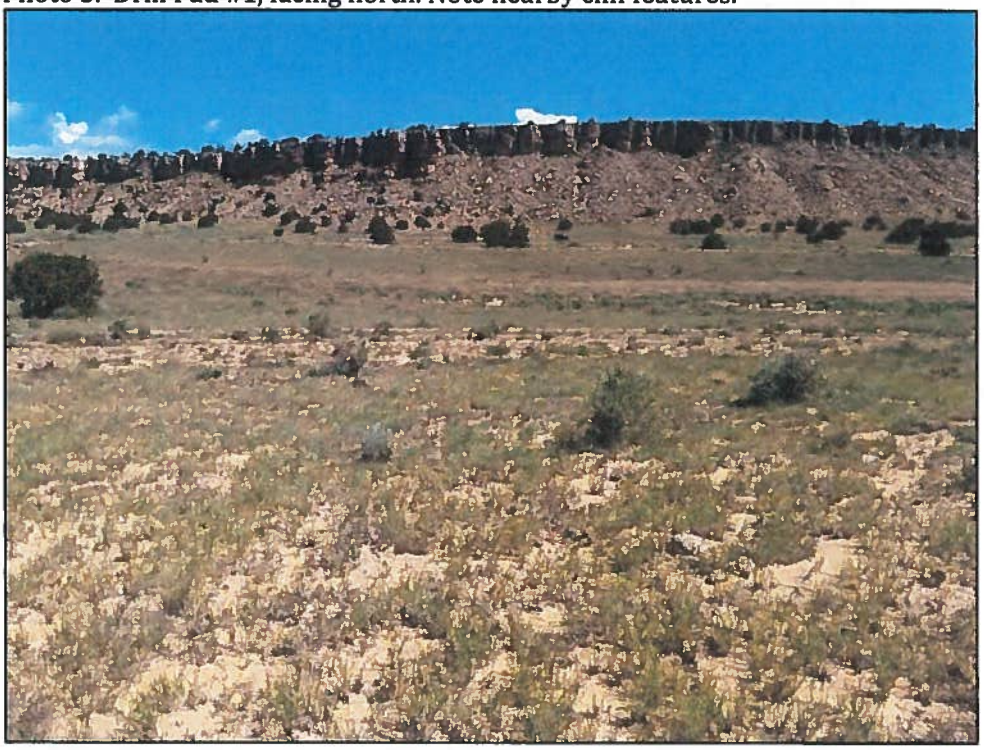


Photo 6. Drill Pad #2, facing east.

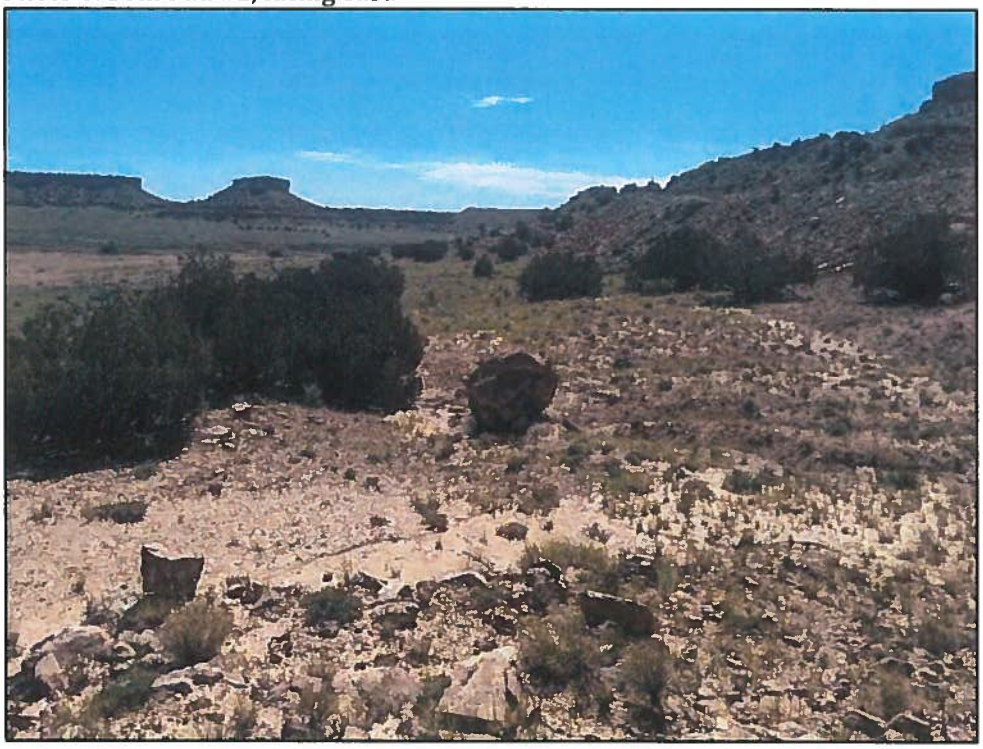


Photo 7. Drill Pad #2, facing west.

Appendix B: USFWS IPaC Species Consultation List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
Phone: (505) 346-2525 Fax: (505) 346-2542

In Reply Refer To:
Project Code: 2022-0069134
Project Name: Cebolleta Uranium Project

July 29, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668(c)). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area, and to recommend some conservation measures that can be included in your project design.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the ESA is to provide a means whereby threatened and endangered species and

the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (NEPA; 42 USC 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico State agencies. These lists, along with species information, can be found at the following websites.

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program: https://www.emnrd.nm.gov/sfd/rare-plants/

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html, integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

In addition to responsibilities to protect threatened and endangered species under the ESA, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 CFR 10.12 and 16 USC 668(a)). For more information regarding these Acts see https://www.fenws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a Federal nexus) or a Bird/Eagle Conservation Plan (when there is no Federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php. We also recommend review of the Birds of Conservation Concern list (https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php) to fully evaluate the effects to the birds at your site. This list identifies migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent top conservation priorities for the Service, and are potentially threatened by disturbance, habitat impacts, or other project development activities.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 thereby provides additional protection for both migratory birds and migratory bird habitat. Please visit https://www.fws.gov/migratorybirds/pdf/management/executiveordertoprotectmigratorybirds.pdf for information

regarding the implementation of Executive Order 13186.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State protected and at-risk species fish, wildlife, and plants.

For further consultation with the Service we recommend submitting inquiries or assessments electronically to our incoming email box at nmesfo@fws.gov, where it will be more promptly routed to the appropriate biologist for review.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
(505) 346-2525

Project Summary

Project Code: 2022-0069134
Project Name: Cebolleta Uranium Project
Project Type: Subsurface Exploration - Other Energy
Project Description: Future Fuel Corporation (FFC) proposes to establish and operate a uranium mine within Cibola County, New Mexico (Figure 1). The proposed mine is amongst scattered historic uranium mines that have been abandoned, which are located within a prolific mineral belt north of Laguna, NM. FFC proposes to permit <5 acres (ac) of land for mining activities on unplatted lands within the Cebolleta Land Grant (Figures 2 & 3). FFC intends to apply for the permit with the New Mexico Mining and Minerals Division at the conclusion of environmental and cultural due diligence.

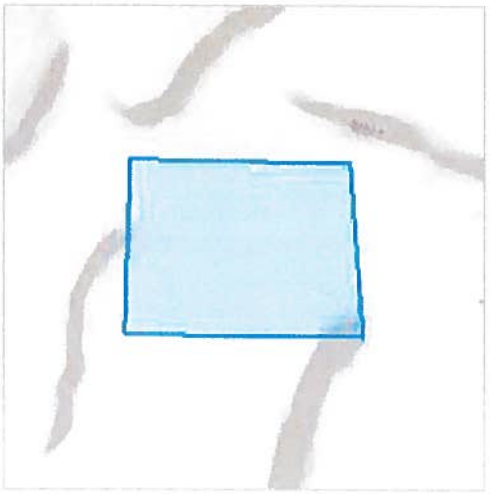
Rocky Mountain Ecology, LLC (RME) has been contracted to prepare this Biological Evaluation (BE) in compliance with Section 7 of the Endangered Species Act (ESA) (19 U.S.C. 1536 (c), 50 CFR 402.12 (F) and 402.14 (c)) and other relevant Federal laws and regulations. This BE discloses and analyzes impacts associated with access routes and mining operations as proposed by FFC.

The Cebolleta Uranium Project is located approximately 5 miles southeast of Seboyeta, NM. It is located on private lands associated with the Cebolleta Land Grant in Cibola County, New Mexico. The project area can be located on the Moquino, NM U.S. Geological Survey 7.5-minute topographic map.

The purpose of the Proposed Action is to allow FFC to mine uranium from the proposed permit area. FFC intends to enter into a Minimal Impact Permit with the New Mexico Mining and Minerals Division (MMD) to cover the proposed mining activities.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@35.1705441,-107.31879251279113,14z



Counties: Cibola County, New Mexico

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Pecos (=puzzle, =paradox) Sunflower *Helianthus paradoxus*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7211	
Zuni Fleabane *Erigeron rhizomatus*	Threatened
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5700	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

■ probability of presence ■ breeding season | survey effort — no data

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

IPaC User Contact Information

Agency: New Mexico Energy, Minerals, and Natural Resources Department
Name: Clay Bowers
Address: P.O. Box 45193
City: Rio Rancho
State: NM
Zip: 87174
Email bowers@rockymountainecology.com
Phone: 5756393883

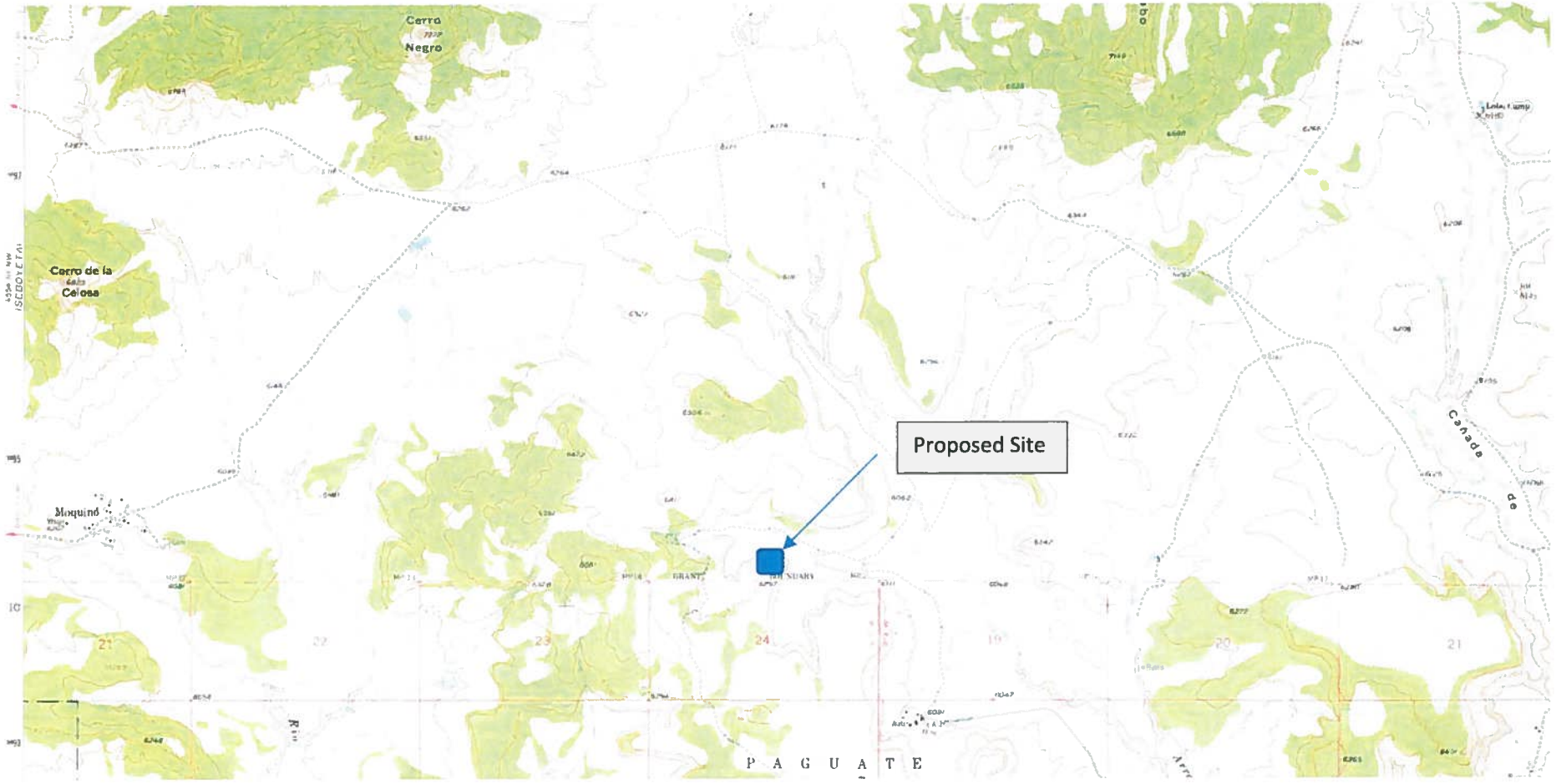
Lead Agency Contact Information

Lead Agency: New Mexico Energy, Minerals, and Natural Resources Department

ATTACHMENT D

PROJECT LOCATION

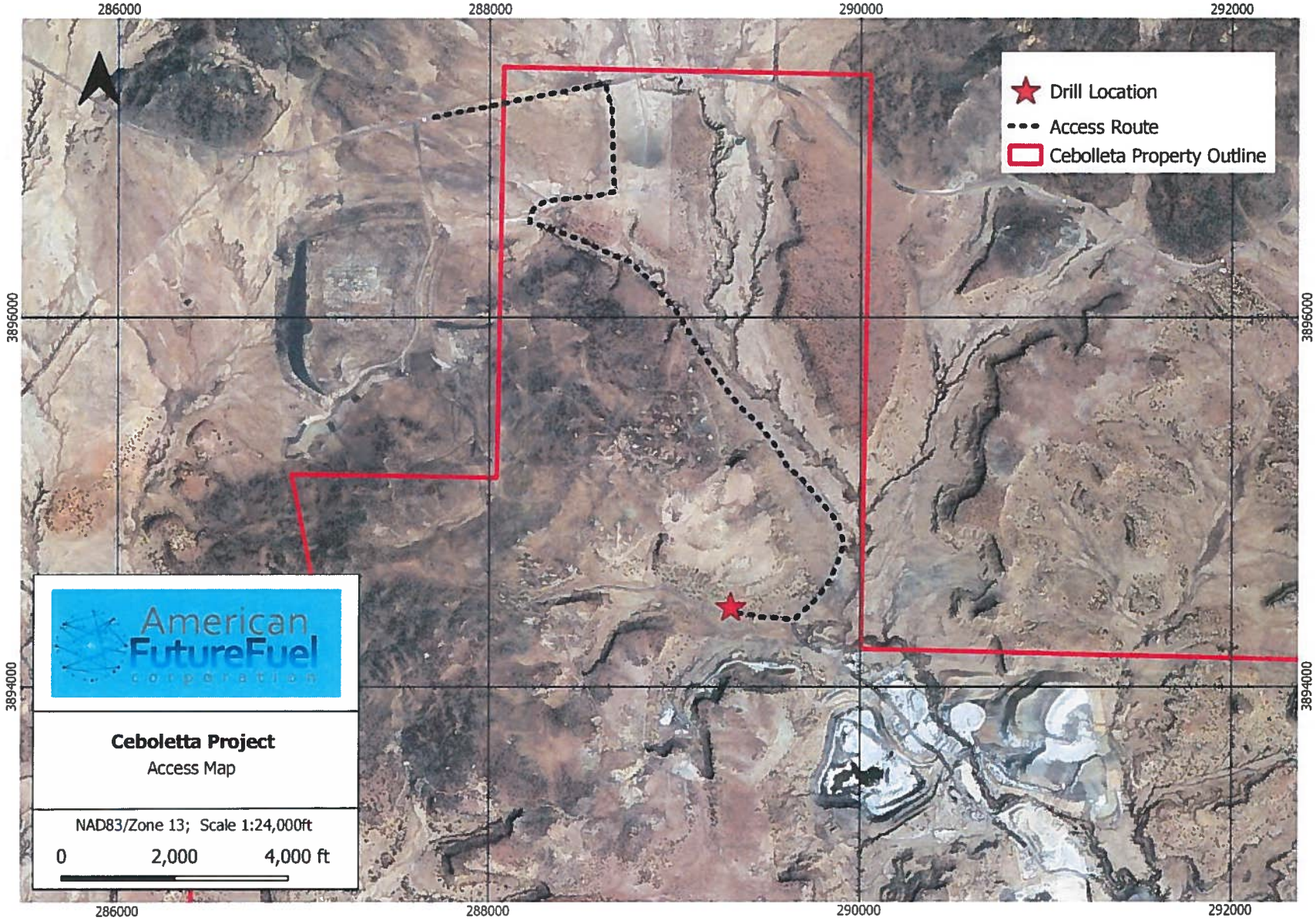

Seboyeta
State Route 279
Bibo
Paguate, NM 87040
30 min
21 miles
Paguate
LAGUNA PUEBLO
Laguna
Mesita

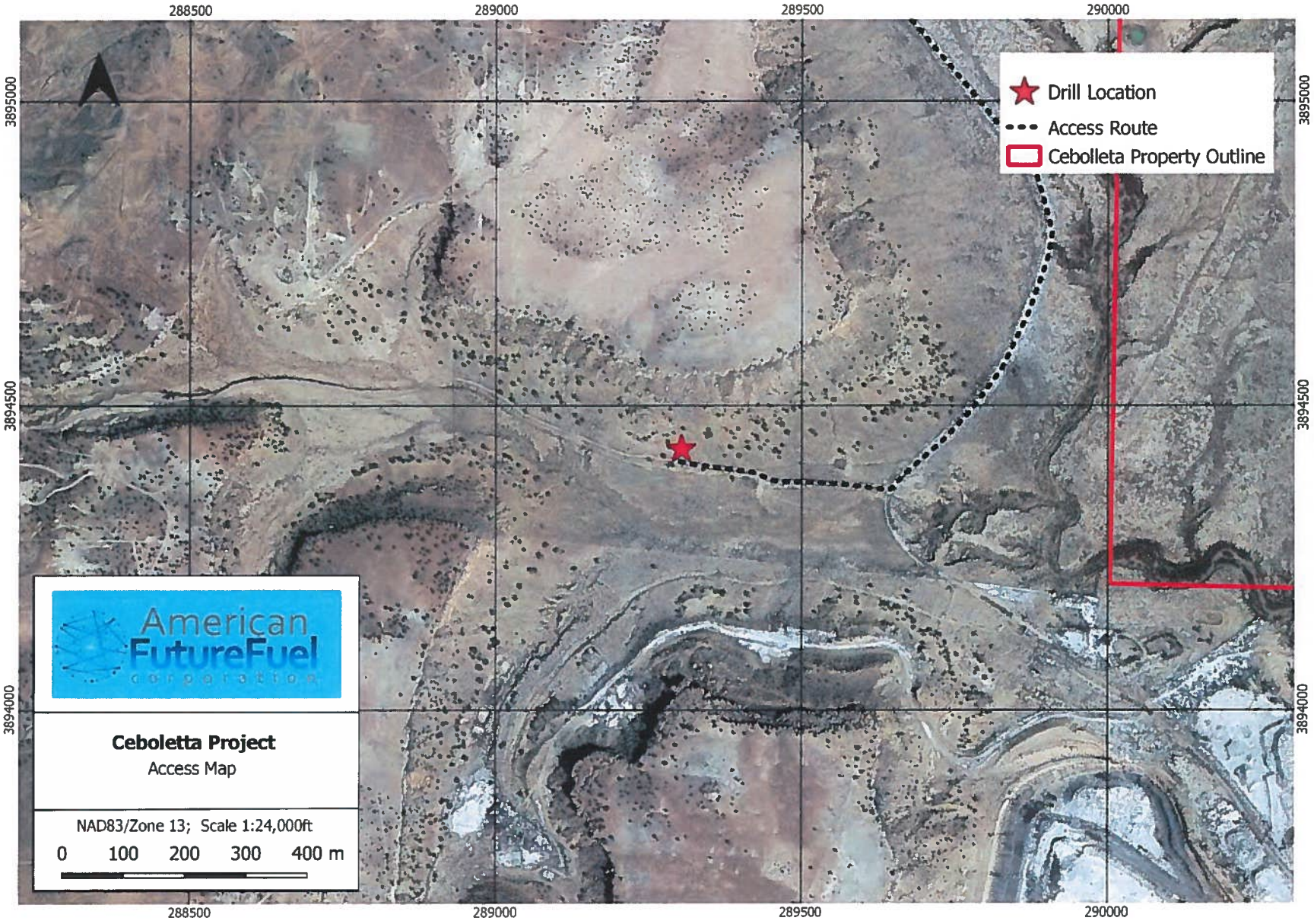


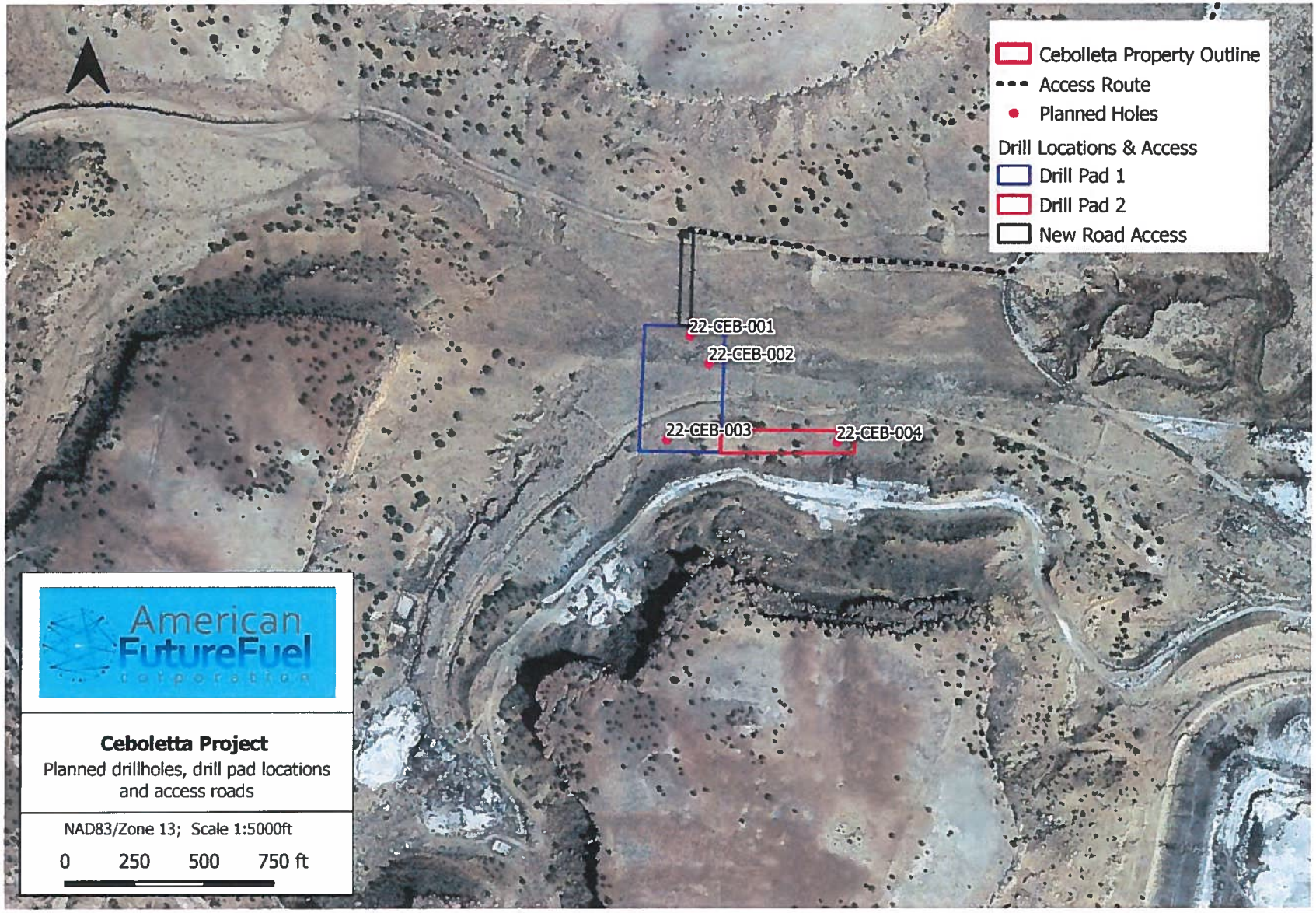
Modified from USGS Moquino 1:24,000 topographic map (1957)

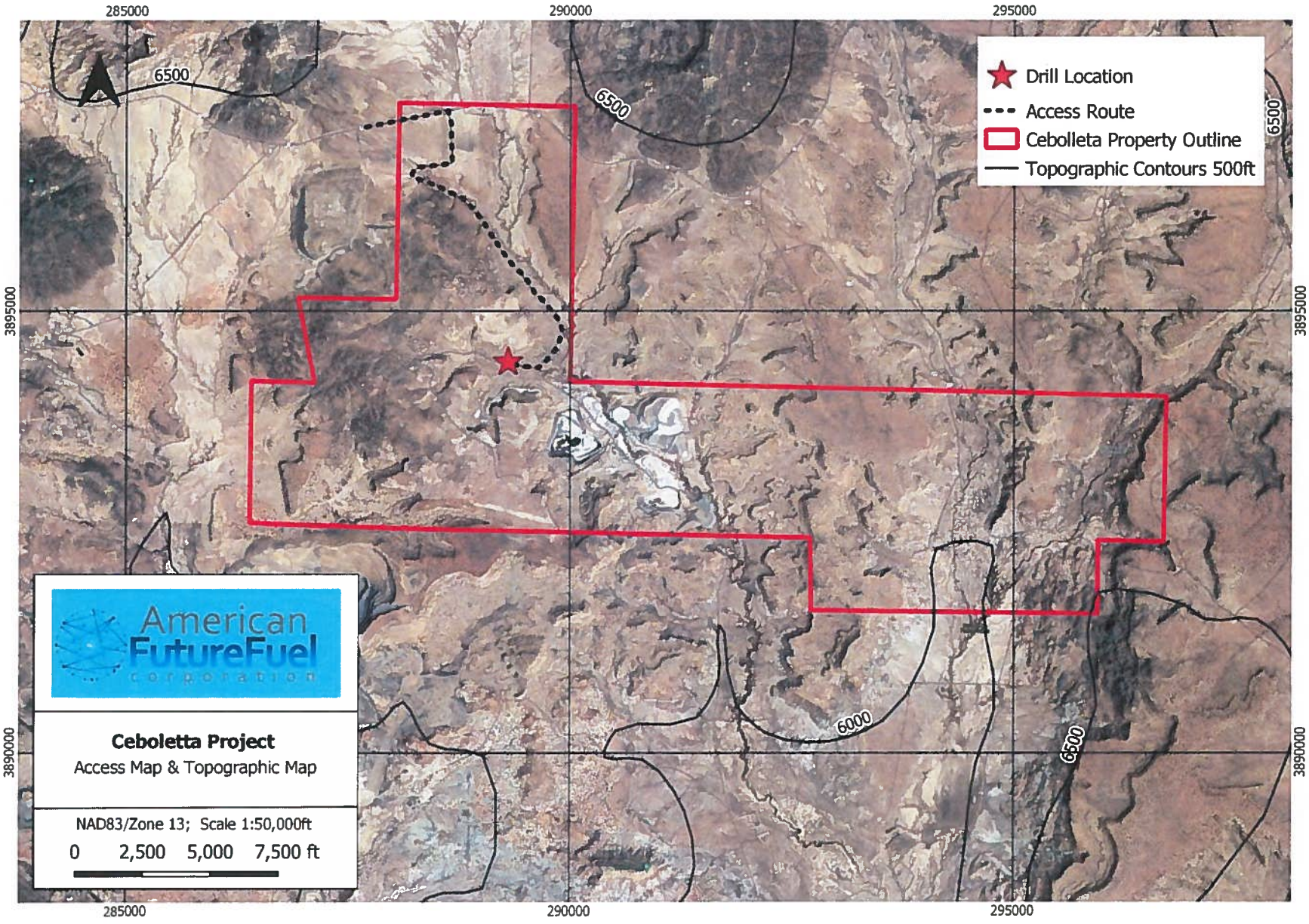
ATTACHMENT E

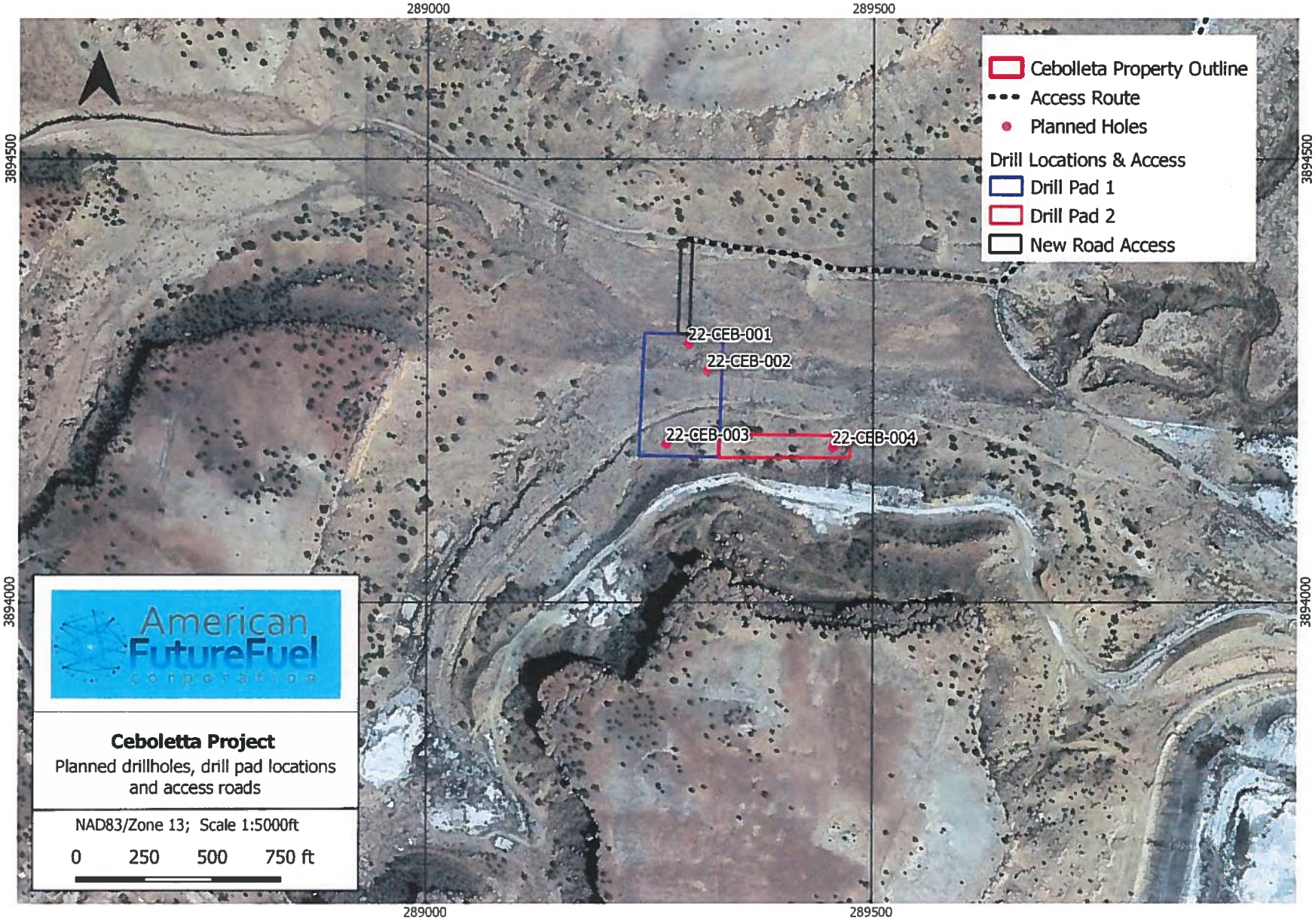
DRILL HOLE LOCATION MAPS


286000
288000
290000
292000
3896000
3894000
Drill Location
Access Route
Cebolleta Property Outline
American FutureFuel corporation
Ceboletta Project
Access Map
NAD83/Zone 13; Scale 1:24,000ft
0
2,000
4,000 ft


288500
289000
289500
290000
3895000
3894500
3894000
Drill Location
Access Route
Cebolleta Property Outline
American FutureFuel corporation
Ceboletta Project
Access Map
NAD83/Zone 13; Scale 1:24,000ft
0 100 200 300 400 m


Cebolleta Property Outline
Access Route
Planned Holes
Drill Locations & Access
Drill Pad 1
Drill Pad 2
New Road Access
22-CEB-001
22-CEB-002
22-CEB-003
22-CEB-004
American FutureFuel corporation
Ceboletta Project
Planned drillholes, drill pad locations and access roads
NAD83/Zone 13; Scale 1:5000ft
0 250 500 750 ft


285000
290000
295000
3895000
3890000
6500
6000
Drill Location
Access Route
Cebolleta Property Outline
Topographic Contours 500ft
American FutureFuel corporation
Ceboletta Project
Access Map & Topographic Map
NAD83/Zone 13; Scale 1:50,000ft
0 2,500 5,000 7,500 ft


289000
289500
3894500
3894000
Cebolleta Property Outline
Access Route
Planned Holes
Drill Locations & Access
Drill Pad 1
Drill Pad 2
New Road Access
22-CEB-001
22-CEB-002
22-CEB-003
22-CEB-004
American FutureFuel corporation
Ceboletta Project
Planned drillholes, drill pad locations and access roads
NAD83/Zone 13; Scale 1:5000ft
0 250 500 750 ft

MISCELLANEOUS SUPPORTING INFORMATION

Financial Assurance Calculation

Cebolleta Project

Diamond Drill Hole Abandonment

Hole ID	Dry Footage		Plugging FA	Wet Footage		Plugging FA	Total Footage		Total FA
22-CEB-001	250	$	3,500.00	70	$	980.00	320	$	4,480.00
22-CEB-002	250	$	3,500.00	75	$	1,050.00	325	$	4,550.00
22-CEB-003	250	$	3,500.00	90	$	1,260.00	340	$	4,760.00
22-CEB-004	250	$	3,500.00	90	$	1,260.00	340	$	4,760.00
							Total	**$**	**18,550.00**

Estimated Per Foot Costs for Plugging and Abandoning at Different Total Hole Depths

dry hole	$14 per ft	hydrated bentonite chips to 12 ft from surface; 12 ft to surface cement plug
wet hole 10-500 ft	$14 per ft	cemented placed with tremie pipe/bottom to top of water-bearing zone (top of Jackpile sandstone)
wet holes 501-1000 ft		
wet holes >1001 ft		

Assumptions:

1. a three (3)- inch diameter drill hole, a 10% loss of plugging mud and a 40% add-on to cover indirect costs
2. all holes will be plugged and abandoned in accordance with Office of State Engineer Rules and Regulations and MMD requirements specified in the attached pl
3. Depth to water is estimated to be 250 feet across the permit area

Reclaim 4.6 Acres of Disturbance Cost Estimate

	Acres	Cost/Acre		
first	1.0	$ 8,900.00	$	8,900.00
subsequent	3.3	$ 4,900.00	$	16,170.00
Total	4.3	**Total**	**$**	**25,070.00**

Total Financial Assurance **$** **43,620.00**

footnotes:
for hole plugging - used the recommended $14/ft in Guidance for Estimating Reclamation Costs for Part 3 - Minimal Impact Exploration Permit Applications
for reclamation of disturbed acreage - used the recommendations in Guidance for Estimating Reclamation Costs for Part 3 - Minimal Impact Exploration Permit Applications

File No.

NEW MEXICO OFFICE OF THE STATE ENGINEER

WR-07 APPLICATION FOR PERMIT TO DRILL

A WELL WITH NO WATER RIGHT

(check applicable box):

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

Purpose:	☐ Pollution Control And/Or Recovery	☐ Ground Source Heat Pump
☐ Exploratory Well (Pump test)	☐ Construction Site/Public Works Dewatering	☒ Other(Describe): Exploration Drill Hole
☐ Monitoring Well	☐ Mine Dewatering	

A separate permit will be required to apply water to beneficial use regardless if use is consumptive or nonconsumptive.

☒ Temporary Request - Requested Start Date: 9-1-2022 Requested End Date: 8-31-2023

Plugging Plan of Operations Submitted? ☒ Yes ☐ No

1. APPLICANT(S)

Name: American Future Fuel Corporation	Name: Bob Newcomer
Contact or Agent: check here if Agent ☐ Luke Montaine	Contact or Agent: check here if Agent ☒ Toltec Mesa Resources LLC
Mailing Address: 800-119 W Hastings St.	Mailing Address: 7823 Quintana Dr NE
City: Vancouver BC V6E 3T5	City: Albuquerque
State: Zip Code:	State: NM Zip Code: 87109
Phone: +1(604)760-8755 ☐ Home ☒ Cell Phone (Work):	Phone: (505)238-4770 ☐ Home ☒ Cell Phone (Work):
E-mail (optional): lmontaine@gmail.com	E-mail (optional): newcomer.b.tmr@gmail.com

FOR OSE INTERNAL USE Application for Permit, Form WR-07, Rev 11/17/16

File No.:	Trn. No.:	Receipt No.:
Trans Description (optional):		
Sub-Basin:	PCW/LOG Due Date:	

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

Location Required: Coordinate location must be reported in NM State Plane (NAD 83), UTM (NAD 83), or Latitude/Longitude (Lat/Long - WGS84).
District II (Roswell) and District VII (Cimarron) customers, provide a PLSS location in addition to above.

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

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

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

Well Number (if known):	X or Easting or Longitude:	Y or Northing or Latitude:	Provide if known: -Public Land Survey System (PLSS) (*Quarters or Halves , Section, Township, Range)* OR - Hydrographic Survey Map & Tract; OR - Lot, Block & Subdivision; OR - Land Grant Name
22-CEB-001	289,293.39	3,894,291.10	Cebolleta Land Grant
22-CEB-002	289,314.45	3,894,260.91	Cebolleta Land Grant
22-CEB-003	289,268.36	3,894,177.47	Cebolleta Land Grant
22-CEB-004	289,455.10	3,894,173.89	Cebolleta Land Grant

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

Other description relating well to common landmarks, streets, or other:
West of Indian Service Road 52

Well is on land owned by: Cebolleta Land Grant

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

Approximate depth of well (feet): 340	Outside diameter of well casing (inches): N/A
Driller Name: Stewart Brothers Drilling	Driller License Number: 331

3. **ADDITIONAL STATEMENTS OR EXPLANATIONS**

This application is for 4 mineral exploration boreholes that will extend below the water table. They will be plugged and abandoned when completed.

FOR OSE INTERNAL USE — Application for Permit, Form WR-07

File No.:	Trn No.:

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

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

ACKNOWLEDGEMENT

I, We (name of applicant(s)), Luke Montaine
Print Name(s)

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

Applicant Signature

Applicant Signature

ACTION OF THE STATE ENGINEER

This application is:

☐ approved ☐ partially approved ☐ denied

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

Witness my hand and seal this _____ day of _____ 20 _____ , for the State Engineer,

_____, State Engineer

By: _____
Signature

_____
Print

Title: _____
Print

FOR OSE INTERNAL USE

Application for Permit, Form WR-07

File No.:	Trn No.:

WELL PLUGGING PLAN OF OPERATIONS

NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging.

I. FILING FEE: There is no filing fee for this form.

II. GENERAL / WELL OWNERSHIP:

Existing Office of the State Engineer POD Number (Well Number) for well to be plugged: RG

Name of well owner: American Future Fuel Corporation (Luke Montaine)

Mailing address: 800-119 Hastings St. Vancouver, BC V6E 3T5 Canada

City: _____ State: _____ Zip code: _____

Phone number: +1(604)760-8755 E-mail: lmontaine@gmail.com

III. WELL DRILLER INFORMATION:

Well Driller contracted to provide plugging services: Stewart Brothers Drilling

New Mexico Well Driller License No.: 331 Expiration Date: _____

IV. WELL INFORMATION:

Note: A copy of the existing Well Record for the well to be plugged should be attached to this plan.

1) GPS Well Location: Latitude: _____deg, _____ min, _____ sec
Longitude: _____deg, _____min, _____sec, WGS84
☐ Check if seconds are decimal format.

2) Reason(s) for plugging well:

Exploration drill hole - plugged at end of drilling program;

3) Was well used for any type of monitoring program? No If yes, please use section VII of this form to detail what hydrogeologic parameters were monitored. If the well was used to monitor contaminated or poor quality water, authorization from the New Mexico Environment Department may be required prior to plugging.

4) Does the well tap brackish, saline, or otherwise poor quality water? unknown If yes, provide additional detail, including analytical results and/or laboratory report(s):

5) Static water level: 240 est feet below land surface / feet above land surface (circle one)

6) Depth of the well: 340 feet

7) Inside diameter of innermost casing: _____inches.

8) Casing material: _____

9) The well was constructed with:

☐ an open-hole production interval, state the open interval: _____

☐ a well screen or perforated pipe, state the screened interval(s): _____

10) What annular interval surrounding the artesian casing of this well is cement-grouted? _____

11) Was the well built with surface casing? _____If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? _____ If yes, please describe:

12) Has all pumping equipment and associated piping been removed from the well? _____If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.

V. DESCRIPTION OF PLANNED WELL PLUGGING:

Note: If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed diagram of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such as geophysical logs, that are necessary to adequately describe the proposal.

1) Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology proposed for the well:

Cement grout will be placed via a tremie pipe from the bottom of the hole to the surface.

2) Will well head be cut-off below land surface after plugging? N/A

VI. PLUGGING AND SEALING MATERIALS:

Note: The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant

1) For plugging intervals that employ cement grout, complete and attach Table A.

2) For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.

3) Theoretical volume of grout required to plug the well to land surface: _____

4) Type of Cement proposed: _____

5) Proposed cement grout mix: _____gallons of water per 94 pound sack of Portland cement.

6) Will the grout be: _____batch-mixed and delivered to the site

_____ mixed on site

7) Grout additives requested, and percent by dry weight relative to cement:

8) Additional notes and calculations:

VII. ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):

VIII. SIGNATURE:

I, _____, say that I have carefully read the foregoing Well Plugging Plan of Operations and any attachments, which are a part hereof; that I am familiar with the rules and regulations of the State Engineer pertaining to the plugging of wells and will comply with them, and that each and all of the statements in the Well Plugging Plan of Operations and attachments are true to the best of my knowledge and belief.

_____ _____

Signature of Applicant Date

IX. ACTION OF THE STATE ENGINEER:

This Well Plugging Plan of Operations is:

_____ Approved subject to the attached conditions.
_____ Not approved for the reasons provided on the attached letter.

Witness my hand and official seal this _____day of _____, _____

Tom Blaine P.E., New Mexico State Engineer

By: _____

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			
Bottom of proposed interval of grout placement (ft bgl)			
Theoretical volume of grout required per interval (gallons)			
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			
Mixed on-site or batch-mixed and delivered?			
Grout additive 1 requested			
Additive 1 percent by dry weight relative to cement			
Grout additive 2 requested			
Additive 2 percent by dry weight relative to cement			

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			
Bottom of proposed sealant of grout placement (ft bgl)			
Theoretical volume of sealant required per interval (gallons)			
Proposed abandonment sealant (manufacturer and trade name)			

1.0 CONTACTS LIST SUMMARY

1.1 Emergency Contacts

Contact	Number
Ambulance	911
Fire	911
Police	911
American Future Fuel Corporation - Contact	
Cibola General Hospital	505-287-4446

Hospital name	Address	Phone	Level of Care Available
Cibola General Hospital	1016 Roosevelt Ave., Grants, NM 87020	505-287-4446	Emergency

Route: from State Route 279 south of Seboyeta to I40, then west to Grants, New Mexico.

1.2 Future Fuel Corp. Contacts

	Name	Office Name	Office	Cell
Project Manager				
Field Staff				
Project Director				

1.3 Missed Check-in Contacts

	Name	Phone	Cell
Project Manager			
Project Director			

1.4 Client and Site Contacts

	Number
Site field cell phone	
Nearest office	
Phone	
Fax	

Role	Name	Number
Contact person on site		
Client safety contact		
Company reports to		
overall site supervisor:		

2.0 PROJECT DETAILS

Project		Start Date		End Date	
Project Title	Cebolleta Project Exploration				
Client Name	American Future Fuel Corporation				

Brief description of project and scope of works (include any hazardous activities, if known)

Additional Comments

3.0 TEAM

Name	Office	Contact number (cell phone)	Office Phone	Role

Project Manager (PM)

- Appoint a competent site supervisor and alternate. For sites with multiple projects/disciplines at work, coordinate with the overall site supervisor
- Oversee/develop hazard controls including work instructions and
- Assign only adequately trained and competent Employees to the project

Field Staff

- Inspect your worksite and equipment before starting work
- Apply the controls outlined in this HaSEP
- Look out for the safety of yourself and others
- Report unsafe acts, conditions and incidents to the site supervisor

4.0 SITE LOCATION DETAILS

4.1 Site Location Details

Project location map

Route: Site to Indian Service Road 52, then north to Road no. 1, then west to State Route 279, left on 279 to I40, then west to Grants, New Mexico.

4.1.1 *Site Description*

Site Name	Cebolleta Exploration Site			
Address	N/A			
Coordinates				
Description	Open space land with multiple drilling pads and access roads.			
Access info	Access is provided by a well-maintained gravel road from the north.			
HSE Induction / orientation provider	☐Consultant	☐Client	☐Contractor	
Site Contact Numbers	**Field cell phone**		**Satellite phone**	
	Other			

4.2 Welfare / Hygiene Facilities

The following issues should be considered when planning welfare provision including: the work to be carried out; the associated health risks; duration and number of different locations; number of people working at different locations and distances from welfare facilities.
Describe the project's welfare facilities below:

Facility	**Yes**	**No**	**Describe alternate arrangements:**
Toilets available?	☐	☐	
Smoking permitted on site?	No (grass fire concerns)		
Location where smoking is permitted	In designated areas.		

5.0 CHECK-IN SYSTEM

5.1 Check-in contacts

	Primary	**Secondary**
Name		
Phone/Email		
Check-in frequency*		
By phone	☐	☐
By SMS	☐	☐

5.2 Missed Check-in Procedure

Within 2 hours of missed check-in time:

1. Attempt to contact Employee
2. Contact accommodation or other project personnel to determine last contact with Employee
3. Notify Project Manager.
4. Project manager to determine timing of further action, based on project details.

Within 4 hours of scheduled call-in time:

1. Contact client and request assistance to locate Employee.
2. Notify Project Director, Office Manager, and local authorities (as appropriate)
3. Initiate Crisis Response Plan (as appropriate)

6.0 RISK REGISTER

6.1 Risk Register

Header key:

- PA: Persons Affected
- IC: Initial Consequence
- IL: Initial Likelihood
- IR: Initial Risk
- RC: Residual Consequence
- RL: Residual Likelihood
- RR: Residual Risk
- AC: Additional controls

Risk Group	Initial Risk	Hazard	PA	IC	IL	IR	Controls	RC	RL	RR	AC
General	Driving Vehicle (Rental/Fleet)	Driving Vehicle	Employee	4	2	8	Follow Motor Vehicles and Driving on Company Business (SWP 24). Perform a vehicle inspection prior to working. Do not drive in adverse weather or when fatigued. Equip vehicle used for on-site work with fire extinguisher and first aid kit. If any safety concerns are identified, the vehicle must not be used. For fleet vehicles, report vehicle deficiencies to the Operations Manager as soon as they are noticed. The Operations Manager, or his/her delegate, will arrange for maintenance of the vehicle.	2	2	4	
General	Hand Tool Inspection	Using Properly Maintained Tools	Employee	4	3	12	Inspect all tools before each use. Check handles and heads on hammers, sledges, shovels, picks, mattocks, and other such tools for splinters, soundness, and adequate sharpness. Clearly label damaged tools "Out of Service". It may be necessary to cut cords or render unusable to prevent inadvertent use of a damaged tool.	2	2	4	

HEALTH AND SAFETY ENVIRONMENT PLAN (HASEP)

Risk Group	Initial Risk	Hazard	PA	IC	IL	IR	Controls	RC	RL	RR	AC
General	Knives, Saws, or Sharp Tools	Cuts	Employee	4	3	12	Use the right cutting tool for the job. When using utility knives, use those with a spring loaded self-retracting blade. The use of cutting tools with blades longer than 4 inches in length must be approved by your OM. Always cut away from your body. Cut samples on clean, dry surfaces. Never cut anything placed in your hand. Dull tools can be more hazardous that sharp ones. Properly maintain and store all knives and blades.	2	2	4	
General	Heat (SWP 04)	Heat stroke, heat stress, sunburn	Employee	4	3	12	Work in shaded areas, or provide barrier to give shelter from the sun. Schedule work to allow workers to acclimatize. Schedule work to cooler times of the day. Increase the frequency and lengths of break periods. Provide a cool, shady place to take breaks. Assign extra workers or slow down the pace. Drink plenty of fluids. Make water and sports drinks available. Use a buddy system; check each other frequently for signs of heat stress (e.g. disorientation, lack of sweat, fatigue). Assess each worker for factors that may contribute to early onset of heat stress. Wear hats and light-colored loose clothing. Cooling vests may be required. Consider the additional stress load caused by PPE such as Tyvek coveralls. If someone is suffering from heat-related illness: - Move the person to a cool area, maybe the air-conditioned vehicle. - Give the person small amounts of cool (not cold) water. - DO NOT leave the person unattended.- Immediately seek qualified medical assistance if the person does not recover or their condition worsens.	3	2	6	

HEALTH AND SAFETY ENVIRONMENT PLAN (HASEP)

Risk Group	Initial Risk	Hazard	PA	IC	IL	IR	Controls	RC	RL	RR	AC
Work Environment	Dust (or airborne particles) - On-site	Exposure to dust	Employee	3	4	12	Determine the type of dust(s) present at the project site. Dusts to consider when assessing this hazard include silica, cement, diesel particulates, Bentonite, asbestos, and heavy metals. It may be necessary to conduct an industrial hygiene survey of the site to determine if dust concentrations are above nuisance levels. Develop a control plan to minimize exposures. Determine the source of the dust and if possible institute engineering controls to reduce levels. Controls could include, applying water or dust suppression liquids, ventilation system with dust capture and working upwind of the source. Use respiratory protection and eye protection, if required.	2	3	6	
Unique Issues	Bees, wasps	Bees, wasps	Employee	3	3	9	Follow Biological Exposure Risk SWP 3. Check the area for nests. Do not disturb nests. Wear light-colored clothing and cover as much of the body as possible. Avoid perfumed soaps, shampoos, and deodorants. Don't wear cologne or perfume. Avoid flowering plants when possible. Keep work areas clean. Social wasps thrive in places where humans discard food. Remain calm and still if a single stinging insect is flying around. (Swatting at an insect may cause it to sting.) If you are attacked by several stinging insects at once, run to get away from them. (Bees release a chemical when they sting, which may attract other bees.) Employees with a history of severe allergic reactions to insect bites or stings should consider carrying an epinephrine auto injector (EpiPen).	3	1	3	

HEALTH AND SAFETY ENVIRONMENT PLAN (HASEP)

Risk Group	Initial Risk	Hazard	PA	IC	IL	IR	Controls	RC	RL	RR	AC
Unique Issues	Snakes - Potential Encounters	Snakes - Potential Encounters	Employee	3	3	9	Do not handle snakes (even those that appear to be dead). Wear boots, leather gloves (when appropriate), long pants, and long-sleeved shirts to reduce the potential for envenomation. Tread heavily - vibrations can alert snakes to your presence and give them time to move away. Never place hands or feet where you cannot see them and always look closely when near hollow logs, piles of wood or trash, boulders, and pipes. When possible, ask the client to clear long grass. Where this is not practical, plan your route to avoid excessively overgrown areas. Consider wearing snake gaiters in dense vegetation.	3	2	6	
Unique Issues	Spiders	Spiders	Employee	2	3	6	Follow Biological Exposure Risk SWP 3. Do not place bare hands in hollow logs or under piles of wood or trash. Be cautious inside manholes and other confined spaces. Wear leather gloves or similar when handling these items. If boots or clothing removed, check them prior to putting them back on for the presence of spiders. Keep your tetanus boosters up-to-date (every 10 years). Spider bites can become infected with tetanus spores. Bites by most spiders result in local swelling only. If bitten: 1. Remain calm. 2. Clean the area with soap and water. 3. Apply ice to relieve swelling and pain. 4. Elevate bite area, if possible. 5. Seek medical assistance. If possible, collect the spider or remains of spider to facilitate identification.	2	2	4	
General	Plant Sampling	Injury or Loss	Employee/ Local Habitat	4	3	12	Limit the sample size collected to what is needed for the task. Use appropriate sampling equipment and handling techniques. At the conclusion of the survey, all flagging tape must be removed from the area.	1	2	2	

HEALTH AND SAFETY ENVIRONMENT PLAN (HASEP)

Risk Group	Initial Risk	Hazard	PA	IC	IL	IR	Controls	RC	RL	RR	AC
General	Slips, Trips, and Falls	Slips, trips and falls	Employee	4	3	12	Follow Slips, Trips, and Falls SWP 14. Use care and attention when walking. Before starting work, conduct a survey of the area looking for uneven ground, mud, water, loose material or other conditions that could cause slips, trips, or falls. Establish level pedestrian footpaths avoiding slippery surfaces wherever possible. Relay identified hazards to others working at the site. Wear footwear appropriate to the tasks and identified hazards. Footwear should be in good condition and provide effective traction and ankle support.	2	2	4	
General	Changing Weather Conditions	Changing Weather Conditions	Employee	4	3	12	Assess forecasted weather conditions before beginning work. Postpone activities if weather conditions are not favorable. Remain vigilant at all times and continually re-assess weather conditions. Consider carrying a weather radio with spare batteries. Know how to contact the local weather resources. If weather conditions deteriorate, stop work and seek shelter as necessary. Understand who is responsible for suspending work due to extreme weather conditions.	3	2	6	
Unique Issues	Snakes - Bites - Response	Snakes - Bites - Response	Employee	3	3	9	Follow Biological Exposure Risk SWP 3 for specific response measures to snake bites.	3	2	6	

7.0 PERSONAL PROTECTIVE EQUIPMENT

Item	Required	Provided by	Provided by Client	Specific Requirement
Gloves				
Disposable	☐	☐	☐	
Head Protection				
Hard Hat	☐	☐	☐	
High Visibility Clothing				
Yellow	☐	☐	☐	
Safety Footwear				
Safety boots	☐	☐	☐	
Eye Protection				
Impact resistant safety goggles or glasses	☐	☐	☐	

8.0 INCIDENT AND EMERGENCY MANAGEMENT

8.1 First Aid Arrangements

Method of communication	**Phone**	
	Radio channel	
Location of first aid kit	Field Truck	
First Aider(s)		

9.0 HSE PLAN CONTROL

It is the responsibility of the Project Manager to ensure that this HaSEP is prepared and the contents communicated at the pre-start / toolbox meeting to all project staff, or subcontractor, with a copy held on site.The HaSEP has been reviewed or prepared by the Project Manager.

If the project site is remote from the home office, this HaSEP is to be reviewed and approved by the local office whether in another country, province or city.

Role	Name (printed)	Date	Signature
Prepared by			
Reviewed by			
Approved by			

9.1 Sign-off

Signing below indicates you have read and agree to comply with the information contained in this document.

Date	Name	Company	Signature