1RF-480 - LOE AST Containment Facility ID [fVV2207537919] C-147/Modification Conditions of Approval

[373910] Franklin Mountain Energy
May 26, 2022

~~February~~ Revised May 2022

C-147 Permit Package for LOE Recycling Facility and AST Containment Section 24 T25S R35E, Lea County

Transmittal Letter
C-147 Form
Operations and Closure Plans
Siting Criteria Demonstration Text and Figures
Appendix Well Logs
Appendix Site Photos

View to the southwest showing an existing fresh water AST near the proposed recycling facility. Note the common Anas Rubberis in the western portion of the water. Netting on the proposed produced water containment will prevent this duck or other avian species from contact with stored produced water.

Prepared for:
Franklin Mountain Energy LLC
44 Cook Street Suite 1000
Denver, CO 80206

Prepared by:
R.T. Hicks Consultants, Ltd.
901 Rio Grande NW Suite F-142
Albuquerque, New Mexico 87104

R. T. HICKS CONSULTANTS, LTD.

901 Rio Grande Blvd NW ▲ Suite F-142 ▲ Albuquerque, NM 87104 ▲ 505.266.5004 ▲ Since 1996

May 5, 2022

Mr. Mike Bratcher
NMOCD - District 2, Supervisor
811 S. First St.
Artesia, NM 88210
Via E-Mail

Ms. Victoria Venegas
NMOCD - District 2
811 S. First St.
Artesia, NM 88210
Via E-Mail

RE: Franklin Mountain Energy, LLC 60,000 bbl LOE AST Containment Permit
Section 24 T25S R35E, Lea County
C-147 and REVISED Siting Criteria Demonstration

Dear Mr. Bratcher and Ms. Venegas:

On behalf of Franklin Mountain Energy, LLC (FME), R.T. Hicks Consultants is pleased submit a REVISED permit (Volume 1) for the above-referenced recently approved project. FME moved the location of the AST about 2000 feet southeast to better accommodate the recycling of produced water.

Please note that the REVISED siting criteria demonstration:

- evaluates the new recycling area that includes the proposed AST Containment and the treatment/recycling facility
- demonstrates that the USGS erroneously attributed depth to groundwater measurements to different wells within a well pair located about 4000 feet north of the proposed AST. Unraveling these data took a few hours and we hope that the text on pages 3-4 of the Siting Criteria Demonstration is clear. Please contact me if you have questions concerning the depth to groundwater at the site.
- FME will determine the exact location of the AST within the project area after drilling at the site is completed.
- Shows changes to the text from the previously approved permit in redline to ease review of this revised permit.

FME will resubmit Volume 1 of the permit application to OCD via the OCD.Online portal as Volume 2 remains unchanged.

Volume 1 contains:

- The revised C-147 Form
- Our demonstration that the location meets all siting criteria in the Rule and the location meets the specified setback criteria,
- Documentation of our foot survey to check that all setback criteria are met (we did visit this area during the original inspection),
- Operation and Maintenance Plan and Closure Plan that are consistent with the Rule and previously approved by OCD.

In compliance with 19.15.34.10 of the Rule, this submission is copied to the owner of the surface upon which the containments will be constructed.

If you have any questions or concerns regarding this permit or the attached C-147, please contact me. As always, we appreciate your work ethic and diligence.

Sincerely,
R.T. Hicks Consultants

Randall T. Hicks PG
Principal

Copy: Franklin Mountain Energy, LLC
Alan Barker, Alan.Barker@nglep.com

r@rthicksconsult.com

Subject: RE: WWS - Permit Package

From: sean wwstanks.com <sean@wwstanks.com>
Sent: Tuesday, February 15, 2022 4:06 PM
To: lindsey wwstanks.com <lindsey@wwstanks.com>; r@rthicksconsult.com
Subject: Re: WWS - Permit Package

In reference to the panel drawing, our original engineering design was for the 40,000 BBL curve but after further analysis the engineers approve the existing curve design to actually be used up to 60,000 BBL since the radius of the panels is such a slight difference at that point. Also upon further analysis that same panel could also be used up to 80,000 BBLs but with an additional pad panel added to bottom.
Please let me know if there is anything else you need.

Sean Lovelace
President
307-267-1878
www.wwstanks.com

C-147

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-147
Revised April 3, 2017

Recycling Facility and/or Recycling Containment

Type of Facility: ☒ Recycling Facility ☒ Recycling Containment*****

Type of action: ☒ Permit ☐ Registration
☒ Modification ☐ Extension
☐ Closure ☐ Other (explain) _____

*** At the time C-147 is submitted to the division for a Recycling Containment, a copy shall be provided to the surface owner.**

Be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.

Operator: __Franklin Mountain Energy LLC_ _____(For multiple operators attach page with information) OGRID #:_373910 _____

Address: __ 44 Cook Street Suite 1000, Denver, CO 80206_____

Facility or well name (include API# if associated with a well): _LOE AST Containment_____

OCD Permit Number: ____RF-480_____(For new facilities the permit number will be assigned by the district office)

U/L or Qtr/Qtr _P _ Section ____24_____ Township ____25S____ Range __35E_____ County: ___Lea_____

Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.

☐ **Recycling Facility:**

Location of recycling facility (if applicable): Latitude ___32.1097418_____ Longitude _____-103.314817___Approx____ NAD83

Proposed Use: ☒ Drilling* ☒ Completion* ☒ Production* ☒ Plugging *

The re-use of produced water may NOT be used until fresh water zones are cased and cemented

☐ Other, ***requires permit for other uses. Describe use, process, testing, volume of produced water and ensure there will be no adverse impact on groundwater or surface water.***

☒ Fluid Storage

☒ Above ground tanks ☒ Recycling containment ☐ Activity permitted under 19.15.17 NMAC explain type_____

☐ Activity permitted under 19.15.36 NMAC explain type:_____ ☐ Other explain _____

☐ For multiple or additional recycling containments, attach design and location information of each containment

☐ **Closure Report (required within 60 days of closure completion):** ☐ Recycling Facility Closure Completion Date:_____

3.

☒ **Recycling Containment:**

☐ Annual Extension after initial 5 years (attach summary of monthly leak detection inspections for previous year)

Center of Recycling Containment (if applicable): Latitude _ ___32.1193_____ Longitude _____-103.314300 Approx_____ NAD83

☐ For multiple or additional recycling containments, attach design and location information of each containment

☐ Lined ☐ Liner type: Thickness _See Drawings_____mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____

☐ String-Reinforced

Liner Seams: ☒ Welded ☐ Factory ☐ Other _____ Volume: _60,000_____bbl Dimensions: L_____ x W_____ x D_____

☐ Recycling Containment Closure Completion Date:_____

4.

Bonding:

☒ Covered under bonding pursuant to 19.15.8 NMAC per 19.15.34.15(A)(2) NMAC **(These containments are limited to only the wells owned or operated by the owners of the containment.)**

☐ Bonding in accordance with 19.15.34.15(A)(1). Amount of bond $_____ **(work on these facilities cannot commence until bonding amounts are approved)**

☐ Attach closure cost estimate and documentation on how the closure cost was calculated.

5.

Fencing:

☒ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☐ Alternate. Please specify__ _____

6.

Signs:

☒ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☐ Signed in compliance with 19.15.16.8 NMAC

7.

Variances:

Justifications and/or demonstrations that the proposed variance will afford reasonable protection against contamination of fresh water, human health, and the environment.

Check the below box only if a variance is requested:

☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval. If a Variance is requested, include the variance information on a separate page and attach it to the C-147 as part of the application.

If a Variance is requested, it must be approved prior to implementation.

8.

Siting Criteria for Recycling Containment

Instructions: The applicant must provide attachments that demonstrate compliance for each siting criteria below as part of the application. Potential examples of the siting attachment source material are provided below under each criteria.

General siting	
Ground water is less than 50 feet below the bottom of the Recycling Containment.	
NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells FIGURE 2	☐ Yes ☒ No ☐ NA
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. FIGURE 3 - Written confirmation or verification from the municipality; written approval obtained from the municipality	☐ Yes ☒ No ☐ NA
Within the area overlying a subsurface mine. FIGURE 4 - Written confirmation or verification or map from the NM EMNRD-Mining and Minerals Division	☐ Yes ☒ No
Within an unstable area. FIGURE 5 - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; topographic map	☐ Yes ☒ No
Within a 100-year floodplain. FEMA map FIGURE 6	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). FIGURE 7 - Topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; aerial photo; satellite image FIGURE 8	☐ Yes ☒ No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. FIGURES 1 AND 7 - NM Office of the State Engineer - iWATERS database search; visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 500 feet of a wetland. FIGURE 9 - US Fish and Wildlife Wetland Identification map; topographic map; visual inspection (certification) of the proposed site	☐ Yes ☒ No

9.
Recycling Facility and/or Containment Checklist:
Instructions: Each of the following items must be attached to the application. Indicate, by a check mark in the box, that the documents are attached.

- ☒ Design Plan - based upon the appropriate requirements.
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements.
- ☒ Closure Plan - based upon the appropriate requirements.
- ☒ Site Specific Groundwater Data -
- ☒ Siting Criteria Compliance Demonstrations –
- ☒ **Certify that notice of the C-147 (only) has been sent to the surface owner(s)**

10.
~~Operator Application Certification~~:
I hereby certify that the information and attachments submitted with this application are true, accurate and complete to the best of my knowledge and belief.

Name (Print): ___Travis Hutchinson_____ Title: _____Director of Facilities Engineering_____
Signature:___Travis Hutchinson_____ Date: _____5/3/2022_____
e-mail address:___ thutchinson@fmellc.com_____ ____ Telephone: __720 837 0893 (cell) 720 414 7864_____

11.
OCD Representative Signature: Victoria Venegas **Approval Date:** 05/26/2022
Title: Environmental Specialist **OCD Permit Number:** **1RF-480 - Facility ID [fVV2207537919]**
☒ OCD Conditions
☒ Additional OCD Conditions on Attachment

OPERATIONS AND CLOSURE PLANS

Operations and Maintenance Plan
Above Ground Tank Containment (AST)

General Specifications

This plan provides additional protocols to cause the proposed recycling containments (AST Containments) to conform to NMOCD Rules.

The operator will maintain and operate the recycling containments and facility in accordance with the following plan to contain liquids and maintain the integrity of the liner to prevent contamination of fresh water and protect public health and the environment.

- The operator will use the treated produced water in the containments for drilling, completion (stimulation), producing or processing oil or gas or both. If other uses are planned, the operator will notify the OCD though the submission of a modified C-147.
- For all exploration and production operations that use produced water, the operator will conduct these activities in a manner consistent with hydrogen sulfide gas provisions in 19.15.11 NMAC or NORM provisions in 19.15.35 NMAC, as applicable.
- The operator will address all releases from the recycling and re-use of produced water in accordance with 19.15.29 NMAC.
- The operator will not discharge into or store any hazardous waste in the recycling containments, but they may hold fluids such was freshwater, brackish water, recycled and treated water, water generated by oil or gas processing facilities, or other waters that are gathered for well drilling or completion. The recycling facility will not be used for the disposal of produced water. The operator will maintain the containments free of miscellaneous solid waste or debris.
- The operator will verify that no oil is on the surface of the contained fluid. If oil is observed, the oil shall be removed using an absorbent boom or other device and properly disposed at an approved facility. An absorbent boom or other device will be maintained on site.
- The operator will install and use a header and diverter described in the design/construction plan in

19.15.34.10 B
Recycling containments may hold produced water for use in connection with drilling, completion, producing or processing oil or gas or both.

19.15.34.8 A
(5) All operations in which produced water is used shall be conducted in a manner consistent with hydrogen sulfide gas provisions in 19.15.11 NMAC or NORM provisions in 19.15.35 NMAC, as applicable.

19.15.34.8 A
(6) All releases from the recycling and re-use of produced water shall be handled in accordance with 19.15.29 NMAC.

19.15.34.10 B
Recycling containments may hold produced water for use in connection with drilling, completion, producing or processing oil or gas or both. Such fluids may include fresh water, brackish water, recycled and treated water, fluids added to water to facilitate well drilling or completion, water produced with oil and gas, flowback from operations, water generated by an oil or gas processing facility or other waters that are gathered for well drilling or completion but may not include any hazardous waste.

19.15.34.9 G
Recycling facilities may not be used for the disposal of produced water.

19.15.34.13 B
(1) The operator shall remove any visible layer of oil from the surface of the recycling
(7) The operator shall install, or maintain on site, an oil absorbent boom or other device to contain an unanticipated release.

19.15.34.13 B
(3) The injection or withdrawal of fluids from the containment shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.

order to prevent damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes during injection or withdrawal of liquids.

- Pursuant to an approved variance, the operator will maintain at least 2-feet of freeboard in each AST containment. Under extenuating circumstances, which will be noted on the inspection log as described below, the operator may temporarily exceed the freeboard mandate.
- If the liner develops a leak or if any penetration of the liner occurs above the liquid's surface, then the operator will repair the damage or initiate replacement of the liner within 48 hours of discovery or will seek a variance from the division district office within this time period.
- If visible inspection suggests that the liner developed a leak or if any penetration of the liner occurs below the liquid's surface, then the operator will remove all liquid above the damage or leak line within 48 hours of discovery. The operator will also notify the district division office within this same 48 hours of the discovery and repair the damage or replace the liner.
- In the event of a leak due to a hole in the liner, the following steps will be followed:
    1. If the source of the fluid is uncertain, comparative field tests may need to be performed on both the water in the containment and that which may have been released (e.g. pH, conductance, and chloride).
    2. If the fluid is found to be coming from the containment, determine the location from which the leak is originating.
    3. Mark the point where the water is coming out of the tank.
    4. Locate the puncture or hole in the liner.
    5. Empty the containment to the point of damage in liner.
    6. Clean area of liner that needs to be repaired.

19.15.34.13 B
(2) The operator shall maintain at least three feet of freeboard at each containment.

19.5.34.13 B
(4) If the containment's primary liner is compromised above the fluid's surface, the operator shall repair the damage or initiate replacement of the primary liner within 48 hours of discovery or seek an extension of time from the division district office.
(5) If the primary liner is compromised below the fluid's surface, the operator shall remove all fluid above the damage or leak within 48 hours of discovery, notify the division district office and repair the damage or replace the primary liner.

7. Cut out piece of material (patch or tape) to overlay liner.
8. Either weld the patch to the injured area in the liner or apply tape over the rupture.
9. Make sure rupture is completely covered.
10. Monitor as needed.

The operator will inspect and remove, as necessary, surface water run-on accumulated in the secondary containment

Monitoring, Inspections, and Reporting

The containment will contain enough produced water to prevent any shifting of the liner. Weekly inspections shall occur when there is 1-foot depth or more of produced water in the containment. Monthly inspections shall occur when there is less than 1-foot depth of produced water in the containment, as well as when the ASTs are emptied and prior to refilling. An inspection log will be maintained by the operator and will be made available to the division upon request. Inspection may include: freeboard monitoring, leak detection, identifying potential hazards that may have developed, change in site conditions or if the contents of the containment change from the initial use.
An "Inspection Form" to be filled out during these routine inspections.

The "AST Visual Inspection Checklist" form to be filled out by the operator during periodic inspections. The form provides a list of observations that will enable early detection of uneven tank panel settlement, soil settlement, liner damage, insufficient liner slack, or leaks. The form is
reproduced at the end of this section.

The form "Tank Panel Visual Inspection Check Sheet" will be used by the operator to inspect individual containment panels and connections titled.

Monitoring and Inspection Checklist (routine weekly or monthly inspections):

- Visually inspect the liner. If a liner's integrity is compromised, or if any penetration of the liner occurs below the water surface, then the operator will notify the appropriate Division district office within 48 hours (phone or email).
- Inspect the system for injection or withdrawal of liquids from the ASTs and document that the design prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes is working appropriately.
- Inspect the water surface for visible oil.
- Measure the freeboard.
- Inspect the secondary containment berm around the ASTs to check for erosion and collection of surface water run-on.
- If H2S is a documented potential issue with the containment, measure H2S concentrations on the down-wind side of the facility when produced water is present.
- Inspect the secondary containment for evidence of damage and monitor for leakage.
- Inspect the netting for damage or failure. If netting is jeopardized, repair of the netting shall occur within 48 hours.
- At least monthly, inspect netting (may not be used if Mega Blaster Pro avian deterrent is used) for dead wildlife, including migratory birds. Operator shall report the discovery of a dead animal to the appropriate wildlife agency and to the district within 30 days of discovery. Further prevention measures may be required.
- If observed conditions indicate a potential tank failure is imminent, the vicinity will be immediately cleared and the AST will be drained.

19.15.34.12 E
Netting. The operator shall ensure that a recycling containment is screened, netted or otherwise protective of wildlife, including migratory birds. The operator shall on a monthly basis inspect for and, within 30 days of discovery, report the discovery of dead migratory birds or other wildlife to the appropriate wildlife agency and to the division district office in order to facilitate assessment and implementation of measures to prevent incidents from reoccurring.

Cessation of Operations

If less than 20% of the total fluid capacity is utilized every six months, beginning from the first withdraw, operation of the facility has ceased and the division district office will be notified. The division district may grant an extension not to exceed six months to determine the cessation of operations.

19.15.34.13 C
A recycling containment shall be deemed to have ceased operations if less than 20% of the total fluid capacity is used every six months following the first withdrawal of produced water for use. The operator must report cessation of operations to the appropriate division district office. The appropriate division district office may grant an extension to this determination of cessation of operations not to exceed six months.

Operations and Maintenance Plan
Above Ground Tank Containment (AST)

The operator will remove all fluids from the recycling facility within 60 days of cessation of operations. An extension, not to exceed 2 months, may be granted by the district division for the removal of fluids from the facility.
The breakdown of the containments follows the reverse order of the setup steps presented in the set-up manual

19.15.34.14 A
Once the operator has ceased operations, the operator shall remove all fluids within 60 days and close the containment within six months from the date the operator ceases operations from the containment for use. The division district office may grant an extension for the removal of all fluids not to exceed two months.

Inspection Form

Date: _____

Franklin Mountain Energy - LOE AST Containment

Tank ID: _____

Weekly inspection/Fluid level must be maintained > 1 foot

Fluid Level: _____ Tank contents: _____

Inspection Task	Results		Remarks, Observations, and/or Remedial Actions
Visible Oil on Surface	☐ None Observed	☐ Yes, Describe Action	
	An absorbent boom or similar device is located on site to remove visible oil from surface.		
At least 2 ft of freeboard	☐ Yes	☐ No, Measure Freeboard	
Evidence of surface water run-on	☐ None Observed	☐ Yes, Describe	
	Check for excessive erosion of perimeter berms.		
Birds or wildlife in net or screen	☐ None Observed	☐ Yes, Describe	
	Within 30 days of discovery (immediately if federally protected species, report dead birds or wildlife to the appropriate agency (USFWS, NMDGF) and to NMOCD district division office.		
Damage to netting or screen	☐ None Observed	☐ Yes, Describe	
Rupture of Liner	☐ None Observed	☐ Yes, Describe	
	If rupture is above fluid level, repair within 48 hours. If below fluid level, remove fluid above within 48 hours, notify NMOCD district division office, and repair. Immediately notify BLM of any leak		
Clips or clamps properly securing liner	☐ Yes	☐ No, Describe	
If low level, enough liner slack on panel wall	☐ Yes	☐ No, Describe	
Uneven gaps between panels	☐ None Observed	☐ Yes, Describe	
Signs of tank settlement	☐ None Observed	☐ Yes, Describe	

LOE AST Containment

Erosion of soil surrounding tank (10 ft radius)	☐ None Observed	☐ Yes, Describe	
Running water on the ground	☐ None Observed	☐ Yes, Describe	
Unusual ponding of fluid inside berm	☐ None Observed	☐ Yes, Describe	
	Field test (pH, Cl-, conductance, etc.) ponded fluid and compare to fluid in tank. If tank is determined as the source, locate and repair rupture within 48 hours. Notify NMOCD district division office and repair. Immediately notify BLM.		
Rust or corrosion on panels, stairs, or hardware	☐ None Observed	☐ Yes, Describe	
Damage to any hardware	☐ None Observed	☐ Yes, Describe	

Additional Observations or Actions: _____

Inspected by: _____

Closure Plan

The containments are expected to contain a small volume of solids, the majority of which will be windblown sand and dust with some mineral precipitates from the water.

The operator will notify the division district (phone or email) before initiating closure of the containments and/or facility.

Excavation and Removal Closure Plan – Protocols and Procedures

1. Residual fluids in the containments will be sent to disposal at a division-approved facility.
2. The operator will remove all solid contents and transfer those materials to the following division-approved facility:
   Disposal Facility Name: R360
   Permit Number NM 01-0006
3. If possible, geomembrane textiles and liners that exhibit good integrity may be recycled for use as an under liner of tank batteries or other use as approved by OCD.
4. Disassemble the recycling containment infrastructure according to manufacturer's recommendations
5. After the disassemble of the containments and removal of the contents and liners, soils beneath the tanks will be tested as follows
   a. Collect a five-point (minimum) composite from beneath the liner to include any obviously stained or wet soils, or any other evidence of impact from the containments for laboratory analyses for the constituents listed in Table I of 19.15.34.14 NMAC.
   b. If any concentration is higher than the parameters listed in Table I, additional delineation may be required, and closure activities will not proceed without Division approval.
   c. If all constituents' concentrations are less than or equal to the parameters listed in Table I, then the operator will backfill the facility as necessary using non-waste containing, uncontaminated, earthen material and proceed to reclaim the surface to pre-existing conditions.

19.15.34.14 B
The operator shall close a recycling containment by first removing all fluids, contents and synthetic liners and transferring these materials to a division approved facility.

19.15.34.14 C
The operator shall test the soils beneath the containment for contamination with a five-point composite sample which includes stained or wet soils, if any, and that sample shall be analyzed for the constituents listed in Table I below.
(1) If any contaminant concentration is higher than the parameters listed in Table I, the division may require additional delineation upon review of the results and the operator must receive approval before proceeding with closure.
(2) If all contaminant concentrations are less than or equal to the parameters listed in Table I, then the operator can proceed to backfill with non-waste containing, uncontaminated, earthen material.

Closure Plan
Above Ground Tank Containment (AST)

Closure Documentation

Within 60 days of closure completion, the operator will submit a closure report (Form C-147) to the District Division, with necessary attachments to document all closure activities are complete, including sampling results and details regarding backfilling and capping as necessary.

In the closure report, the operator will certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in the closure plan.

19.15.34.14 D
Within 60 days of closure completion, the operator shall submit a closure report on form C-147, including required attachments, to document all closure activities including sampling results and the details on any backfilling, capping or covering, where applicable. The closure report shall certify that all information in the report and attachments is correct and that the operator has complied with all applicable closure requirements and conditions specified in division rules or directives.

Reclamation and Re-vegetation

The operator will reclaim the surface to safe and stable pre-existing conditions that blends with the surrounding undisturbed area. "Pre-existing conditions" may include a caliche well pad that existed prior to the construction of the recycling containment and that supports active oil and gas operations.

Areas not reclaimed as described herein due to their use in production or drilling operations will be stabilized and maintained to minimize dust and erosion.

For all areas disturbed by the closure process that will not be used for production operations or future drilling, the operator will

1. Replace topsoils and subsoils to their original relative positions
2. Grade so as to achieve erosion control, long-term stability and preservation of surface water flow patterns
3. Reseed in the first favorable growing season following closure

Federal, state trust land, or tribal lands may impose alternate reclamation and re-vegetation obligations that provide equal or better protection of fresh water, human health, and the environment. Re-vegetation and reclamation plans imposed by the surface owner will be outlined in communications with the OCD.

The operator will notify the division when the site meets the surface owner's requirements or exhibits a uniform vegetative cover that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds. The operator will notify the Division when reclamation and revegetation is complete.

19.15.34.14 E
Once the operator has closed the recycling containment, the operator shall reclaim the containment's location to a safe and stable condition that blends with the surrounding undisturbed area. Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area shall then be reseeded in the first favorable growing season following closure of a recycling containment. The operator shall substantially restore the impacted surface area to the condition that existed prior to the construction of the recycling containment.

19.15.34.14 G
The re-vegetation and reclamation obligations imposed by federal, state trust land or tribal agencies on lands managed by those agencies shall supersede these provisions and govern the obligations of any operator subject to those provisions, provided that the other requirements provide equal or better protection of fresh water, human health and the environment.

19.15.34.14 F
Reclamation of all disturbed areas no longer in use shall be considered complete when all ground surface disturbing activities at the site have been completed, and a uniform vegetative cover has been established that reflects a life-form ratio of plus or minus fifty percent (50%) of pre-disturbance levels and a total percent plant cover of at least seventy percent (70%) of pre-disturbance levels, excluding noxious weeds.

SITING CRITERIA DEMONSTRATION

Distance to Groundwater

Figure 1, Figures 2a-2c, and the discussion below demonstrates that groundwater (fresh water as defined by NMOCD Rules) at the location is greater than 100 feet beneath the area of interest that will include the location of the recycling containment.

Figure 1 is a topographic map that shows:

1. The February LOE Containment area identified by the red circle and the modified LOE location that is the subject of this revised submittal is the blue stippled polygon. Within this acre area will be the proposed AST Containment identified in the C-147. The environmental setback distances (200, 300, 500, 1000 feet) are also shown around the project area.
2. Water wells from the OSE database as a blue triangle inside colored circles that indicate well depth. OSE wells are often mislocated in the WATERS database as older wells are plotted in the center of the quarter, quarter, quarter, of the Section Township and Range. Additionally, the OSE database can include locations of proposed wells (i.e. permit applications). The permit data that show "no date" or "DTW=0" are existing wells or permits only. We did not inspect all of these locations by foot or by Google Earth. We believe several of these locations are active wells.
3. Water wells from the USGS database as large triangles color-coded to the formation from which the well draws water.
4. Water wells, which are not documented in the public databases but were identified by field inspection or other published reports as colored squares (Misc. well database).
5. The depth-to-water from the most recent available measurement for each well is provided adjacent to the well symbol.

Figure 2a is a geologic/topographic map showing:

1. The LOE Recycling Facility and Containment area identified by the blue stippled polygon with the surface elevation noted.
2. Water wells measured by the USGS, the year of the measurement and the calculated elevation of the groundwater surface.
3. Water wells measured by professionals and documented in published reports or by staff of Hicks Consultants (Misc.).

Geology

Quaternary Age eolian and piedmont deposits (Qe/Qp on Figure 2a) are the dominant exposed material in the area. These deposits are a thin covering of the underlying Triassic upper Chinle Formation (Tr cu) that is exposed in the northeast quadrant of Figure 2a. Quaternary Piedmont deposits are present within many of the drainages and between drainage, such as the location of the LOE Recycling project area. These Quaternary deposits can be more than 100 feet thick, and host perched water-bearing zone overlying the Chinle red beds. In this area, we believe the Ogallala Formation or re-worked Ogallala that is known as Quaternary Older Alluvium (not present on Figure 2a) may underlie the Piedmont deposits.

The red beds of the upper Chinle (aka Dockum Group) are dominantly red clay/silt with interbedded thin sandstone units that can transmit usable groundwater. The base of the Chinle is the Santa Rosa Sandstone and is the principal bedrock aquifer of the area. The Ogallala

Formation (To) and Piedmont deposits are primarily sand with some clay, silt and gravel, and often capped by caliche.

Based on information from Ground-Water Report 6 (GWR-6) *Geology and Ground-Water Conditions in Southern Lea County, New Mexico* by Alexander Nicholson and Alfred Clebsch (1961), the top of the red beds (upper Chinle Formation) in the area of the LOE containment is about ~~3050~~ 3030 feet above sea level (see Figure 2b), which corresponds to a depth from ground surface of about (~~3105~~3079-3050=) 29~~55~~ feet. Because groundwater elevation at the LOE site is about 2800 feet asl (see Groundwater Data, below), the base of Quaternary and/or Tertiary alluvial deposits are ~~about 300~~more than 200 feet higher than the groundwater surface, and therefore not saturated. However, within and near some drainages, the data demonstrate that alluvium (Qp) is saturated.

The Appendix Well Logs contains several driller's logs from the OSE files. One well log of interest is CP-624. This well lies about 3 miles upstream from the LOE site and 2000 feet east of Antelope Draw. Two producing water wells in the Draw (Misc-294 and USGS-15013) are also about 3-3.5 miles upstream from the LOE site. CP-624 penetrated 110 feet of sand that overlays the Chinle Red Bed. The total depth of the well is 510 feet, and the boring did not yield sufficient water to make a well. The driller deemed this boring a dry hole. CP-624 plots near the 3200 foot elevation contour, which places the well about 35 feet higher than Antelope Wash to the west. The depth to water in the two wells drilled near the draw is about 75 feet in 1970 and 1991. We conclude that the wells in Antelope Draw pump water from the Quaternary Piedmont or reworked Ogallala within a paleo-channel incised into the Tertiary/Quaternary erosional surface of the Chinle. At the location of CP-624, the upper (erosional) surface of the red bed clay is higher than the water table observed in the Draw. Any of the thin and discontinuous sandstones of the Chinle penetrated from 110 fee to TD (510 feet) did not yield sufficient water (if any) to cause completion of a well.

Well CP-1170, which lies almost two miles due east of the LOE recycling project area, is a producing water well (formally a windmill now powered by an electric pump). The driller's log suggests the Chinle Red Beds were penetrated at a depth of 502 feet. Figure 2b does not present any data in this area for the top surface of the red beds. Based upon our experience in the area and the driller's log, we suggest the thickness of the alluvium is about 320 feet. The driller reports a groundwater surface of 270 feet and a Rock/Sand unit (320-335 feet deep) producing 17 GPM, which allows us to conclude that the contact between the Triassic and overlying alluvium is between 305-320 feet deep. Thus, in this area, like at well CP-1170, the alluvium does not produce sufficient water for a supply well.

The last well log of interest is CP-858 (POD 2) in the Appendix Well Logs, which is about 2 miles southeast of the LOE site. As shown in Figure 2a, this location is south of the area mapped as Quaternary Piedmont (Qp) deposits. The well log suggests to us that the Triassic Chinle is penetrated at 80 feet and groundwater encountered at 282 feet in the gray silty sand unit.
3029

All of these data permit a conclusion that the uppermost groundwater beneath the LOE site is probably found in the Triassic Chinle and the alluvium of Antelope Wash and/or any Piedmont deposits are unsaturated.

Groundwater Data

We relied upon the most recent data measured by the USGS, published data, and measurements by Hicks Consultants to create the water table elevation map shown in Figures 2a and 2c. Water level data from the OSE database rely upon observed water levels by drillers during the completion of the water well. The OSE dataset provides some useful data in certain areas but were not used to generate groundwater elevations for Figure 2a. Based upon our field survey and examination of Google Earth images, we are confident that the wells shown in Figure 2 are located within ¼ mile of the plotted point.

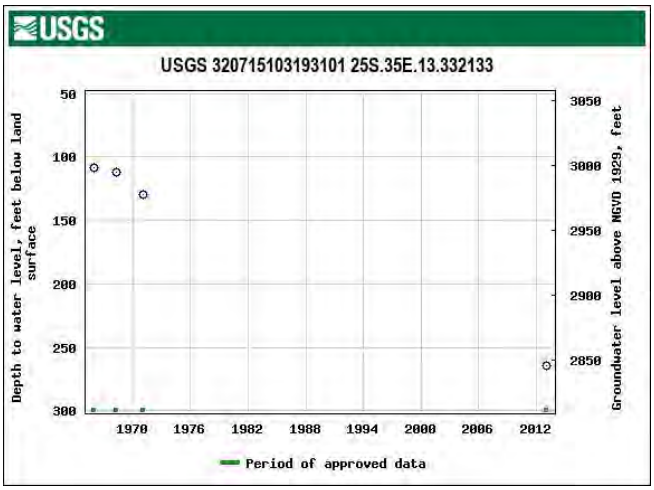
The closest mapped water well to the LOE facility is USGS-14772. It is not visible on any Google Earth images and could not be found during our 2022 foot survey. This well is more likely one of a two-well cluster shown in Figure SP8 (Appendix Site Photos). One of the of two open cased holes was converted to a windmill and later still to the pumped well in Figure SP8. As shown on Figures 1 and Figure 2c, USGS-14778, Misc-297 and Misc-295 are at the same location. Most likely, these three well names and USGS-14772 all refer to two actual wells.

The data from Open File Report 95 is in the table below (Section 13 wells) and the USGS data follows.

T	R	Sec.Quad.	Desc.	Elev.	TD	DTW	Form.	Date
25.35.		3.23331	Windmill	3219	122	107.99	Ogll	Dec.9,1970
		10.22324	Stock	3179	84	74.34	Ogll	Dec.9,1970
		13.33241	Open cased hole	3108	249	130	Trcl	Jan.14,1971
		13.33444	Open cased hole	3106	238	218.63	Trcl	Jan.14,1971

The two open cased holes measured on January 14,1971 are in the southwest ¼ of the southwest ¼ of Section 13 and according to the description above, lie within the same ½ acre. Misc-295 reports a depth to water of 130 feet and depth to water in Misc-297 is 218.6 feet. We agree with OF-95 that Misc-297 draws water from the Triassic rocks. However, we suggest that Misc-295 is completed in the Quaternary Piedmont deposits that are saturated due to seepage from Antelope Draw rather than Triassic rocks.

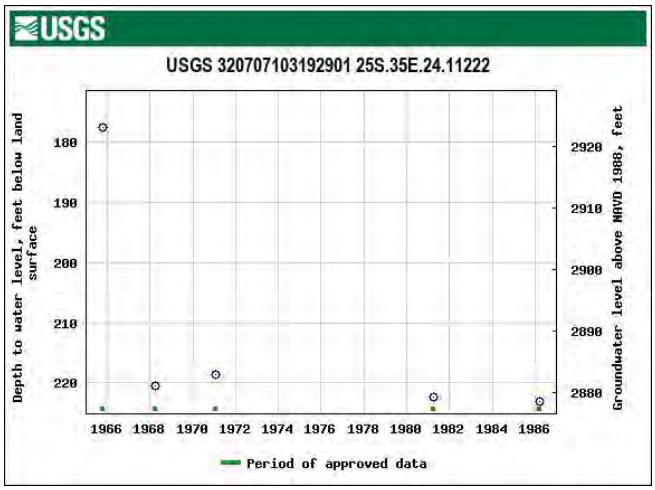
USGS data from the 2-well cluster north of the LOE AST Containment site is presented below.



USGS 320715103193101
25S.35E.13.332133
AKA USGS-14778

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°07'22.9", Longitude 103°19'31.8"
NAD83
Land-surface elevation 3,108.20 feet above NGVD29
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Chinle Formation (231CHNL) local aquifer.

The graph presents static water depths that range from about 108 to 130 feet between 1965 and January 14, 1971; the same date as reported in OF-95. In 2013, the depth to water measurement under pumping conditions is 264.28 feet. Compare these data with the graph of USGS-14772, below.



USGS 320707103192901
25S.35E.24.11222
AKA USGS-14772

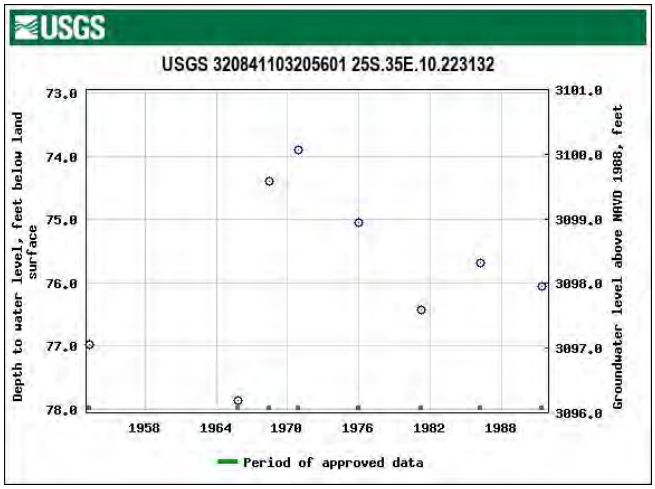
Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32° 07' 07", Longitude 103°19'29" NAD27
Land-surface elevation 3,101 feet above NAVD88
The depth of the well is 606 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Santa Rosa Sandstone (231SNRS) local aquifer.

In this graph, one water depth measurement in October 1965 is 177.4 feet and the remaining measurements are around 220 feet below surface. The measurement in the USGS data correspond to the 1971 depth reported in OF-95, 218.63 feet. We suspect the data from 1965 may be erroneous as a 43 foot water level decline over 3 years seems unlikely. The USGS data identify all measurements as static, not pumping.

We are convinced that the USGS measured water levels in the two open cased wells identified in Open File Report 95 and that some data was attributed to the wrong well in the graphs. Both USGS graphs contain data consistent with both water bearing formations. One of these wells draws water from the Piedmont deposits (Misc-295) with depths to groundwater around 100 feet and the other is completed in the underlying Triassic Chinle "red beds" that have a depth to water exceeding 200 feet (Misc-297). In our 2022 investigation we found no evidence of a well or open casing with the location identified as USGS-14472 (Figures 1 and 2c). We believe this measurement point is incorrectly located in the database and is the same well as Misc-297 shown

in Figure SP8. The 2013 pumping measurement in USGS- 14778 (264.28 depth) is from the windmill (now a solar pumping well) that draws water from the Chinle.

Our evaluation permits a conclusion that shallow groundwater in the Piedmont deposits ~~most likely~~might underlie~~s~~ the LOE recycling site. Unlike the former location discussed in the February submission, which was about 1000 feet from Antelope Draw, the proposed new location is about 2500 feet from Antelope Draw and 1800 feet from the unnamed ephemeral stream east of the new location. Groundwater in the Piedmont deposits is ~~also~~ present upstream from the 2-well cluster discussed above. Data from USGS-15013 (below), shows variations of the groundwater surface in the Piedmont deposits between about 1955 and 1991. Over this 35-year period, water levels fluctuated by only 4 feet. This data is logical and supports our contention that the 1965 data from USGS-14772 is erroneous.



USGS 320841103205601
25S.35E.10.223132
AKA- USGS-15013
Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°08'41", Longitude 103°20'56" NAD27
Land-surface elevation 3,174 feet above NAVD88
The depth of the well is 84 feet below land surface.
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

As indicated above, the proximity of the LOE AST Containment to Antelope Draw ~~strongly~~ suggests that the Piedmont deposits ~~are~~ may be saturated in this area. Examination of Figure 2c allows us to provide an excellent estimation of the depth to groundwater perched on the red beds of the Chinle. The elevation of shallow groundwater at USGS-15013 and Misc-294 is essentially 3100 feet in 1971. About 11,000 feet downstream at the shallow open casing measuring point records groundwater elevation of 2978 feet in 1971. The hydraulic gradient is 122/11000 = 0.011. Using this gradient, the elevation of shallow water near the LOE AST, which is about ~~4300~~ 6000 feet downstream from the 3-well cluster is about 2978- (~~4300~~ 6000*0.011) = 2978- ~~47~~ 66 feet = ~~2931~~ 2912 feet above sea level. Given the elevation at the LOE AST site, the depth to the water table aquifer, if present, ~~groundwater~~ is (~~3105~~ 3079- 2912 ~~2931~~=) ~~174~~ 167 feet. We do not believe that the groundwater surface in the Piedmont deposits have risen since the last measurements in the late 1980s.

In summary, we believe the four wells plotted on Figure 1 and Figure 2c about ~~0.75~~1.1 miles upstream from the LOE Containment site are actually two wells:

1. The active pumping well we visited on foot in 2022
   (data from this well is recorded as USGS-14778 and USGS-14772 and Misc-297).
2. An open casing now plugged adjacent to the pumping well measuring shallow groundwater within the Piedmont deposits. Data from this well was also identified as

14778 or 14772. This well is one of the two wells identified in Open File Report 95 and is Misc-295.

We conclude the depth to groundwater at the LOE AST site is greater than 100 feet.

Distance to Municipal Boundaries and Fresh Water Fields

Figure 3 demonstrates that the LOE facility is not within incorporated municipal boundaries or within defined municipal fresh water well fields covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- The closest municipality is Jal, NM approximately 7 miles to the east of the LOE project area
- The closest public well fields belong to the City of Jal. One is within Jal and the second is about 4.5 miles south of the LOE recycling project area.

Distance to Subsurface Mines

Figure 4 and our general reconnaissance of the LOE area demonstrate that the nearest mines are caliche pits. This location is not within an area overlying a subsurface mine.

- The nearest mapped caliche pit is ~~are~~ about ~~2.5 miles~~700 feet west a~~nd 2.25 miles southeast~~ of the recycling project area.
- There are no subsurface mines in the area shown in Figure 4.

Note the labeled "Dirt Tank" southeast of the proposed recycling area as it is referenced ~~below~~in the discussion of surface water, below.

Distance to High or Critical Karst Areas

Figure 5 shows the LOE recycling project area is not within mapped zone of high or critical with respect to BLM Karst areas.

- The proposed containments are located within a "low" potential karst area.
- The nearest medium potential karst area is located approximately 12 miles west of the proposed recycling facility. No mapped high or critical karst potential lies within the area of Figure 5.
- We observed no evidence of solution voids or unstable ground near the site during the field inspection.

Distance to 100-Year Floodplain

Figure 6 demonstrates that the LOE recycling project area is within Zone D as designated by the Federal Emergency Management Agency with respect to the Flood Insurance Rate 100-Year Floodplain.

- FEMA describes the location as an area with possible but undetermined flood hazards. No flood hazard analysis has been conducted.
- Our field inspection and examination of the topography permits a conclusion that the location is not within any floodplain and has low risk for flooding.
- The nearest mapped flood hazard lies within the City of Jal

Distance to Surface Water

Figure 7 shows Antelope Draw as an intermittent stream mapped by the USGS about 1700 feet west of the proposed LOE recycling area. The site visit and photographs demonstrate that the recycling project area is not within 300 feet of a continuously flowing watercourse or 200-feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark) or spring.

In addition to Antelope Draw, the closest mapped water bodies are Lake/Ponds southeast of the site (Dirt Tank shown on Figure 4).

Distance to Permanent Residence or Structures

Figure 8 and the site visit demonstrates that the location is not within 1000 feet from an occupied permanent residence, school, hospital, institution, church, or other structure in existence at the time of initial application.

- The nearest structures are tank batteries and well pads shown in Appendix Site Photos
- No residences or other structures are in the area.

Distance to Non-Public Water Supply

Figures 1 and 7 demonstrates that the LOE recycling project is not within 500 horizontal feet of a spring or fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.

- Figure 1 shows the locations of all area water wells, active or plugged.
- The nearest water well is USGS-14778, which is located about 4200 feet north of the recycling facility area.
- There are no domestic water wells located within 1,000 feet of the area of interest.
- No springs were identified within the mapping area (see Figure 7)

Distance to Wetlands

Figure 9 demonstrates the LOE location is not within 300 feet of mapped wetlands using the New Mexico database.

- The nearest designated wetland is a freshwater pond (excavated "Dirt Tank" shown on Figure 4) about ~~1 mile~~2000 feet southeast
- Natural wetlands (e.g. freshwater ponds) are not observed in the area – all are excavated stock tanks within drainages.
- The USA wetlands database does not provide accurate information for most of New Mexico. For example, the USA database maps a riverine wetland within Antelope Draw and our site visit and photographs demonstrate this drainage does not contain any wetlands.

SITING CRITERIA DEMONSTRATION FIGURES

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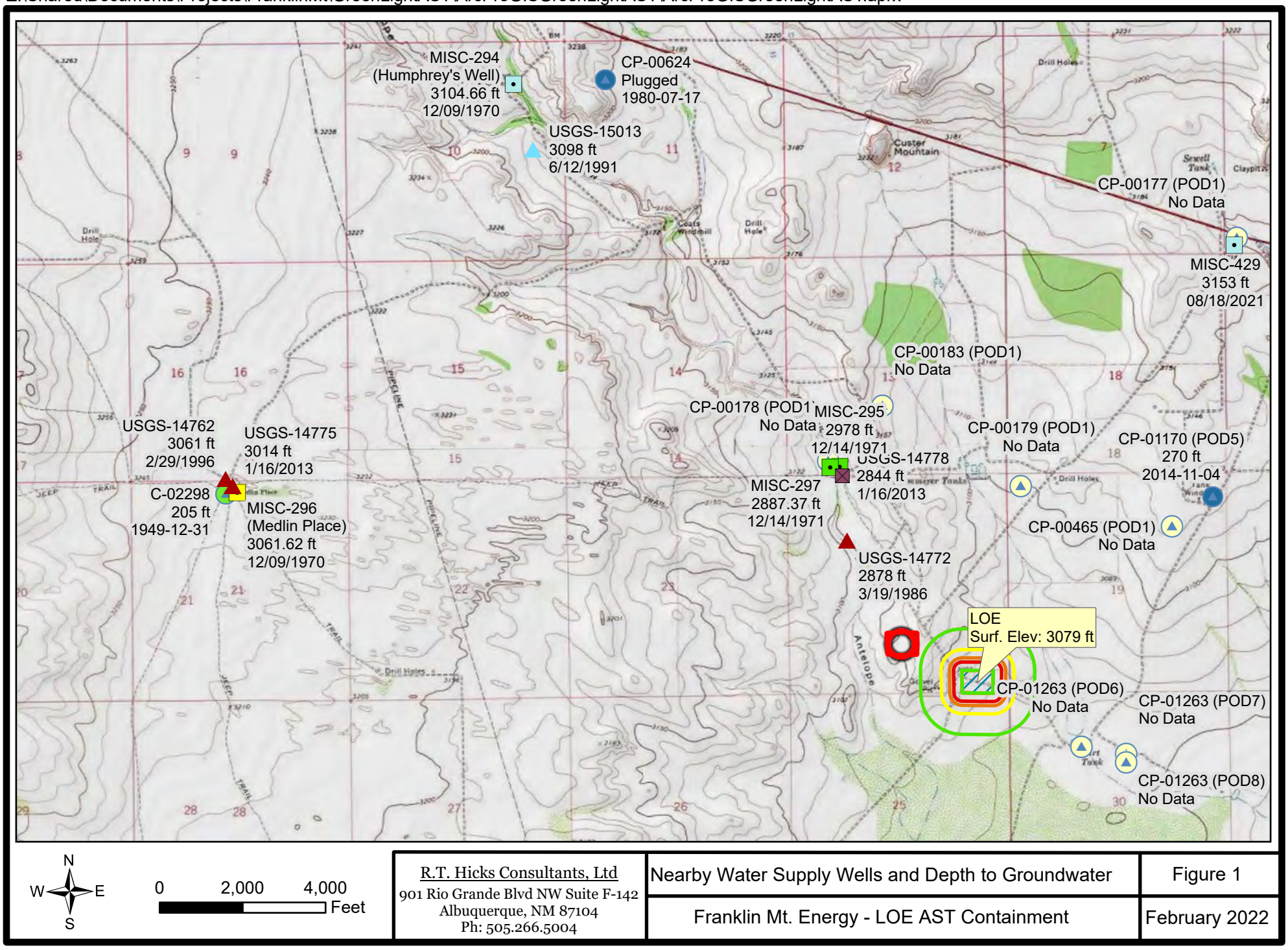

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearby Water Supply Wells and Depth to Groundwater	Figure 1
	Franklin Mt. Energy - LOE AST Containment	February 2022

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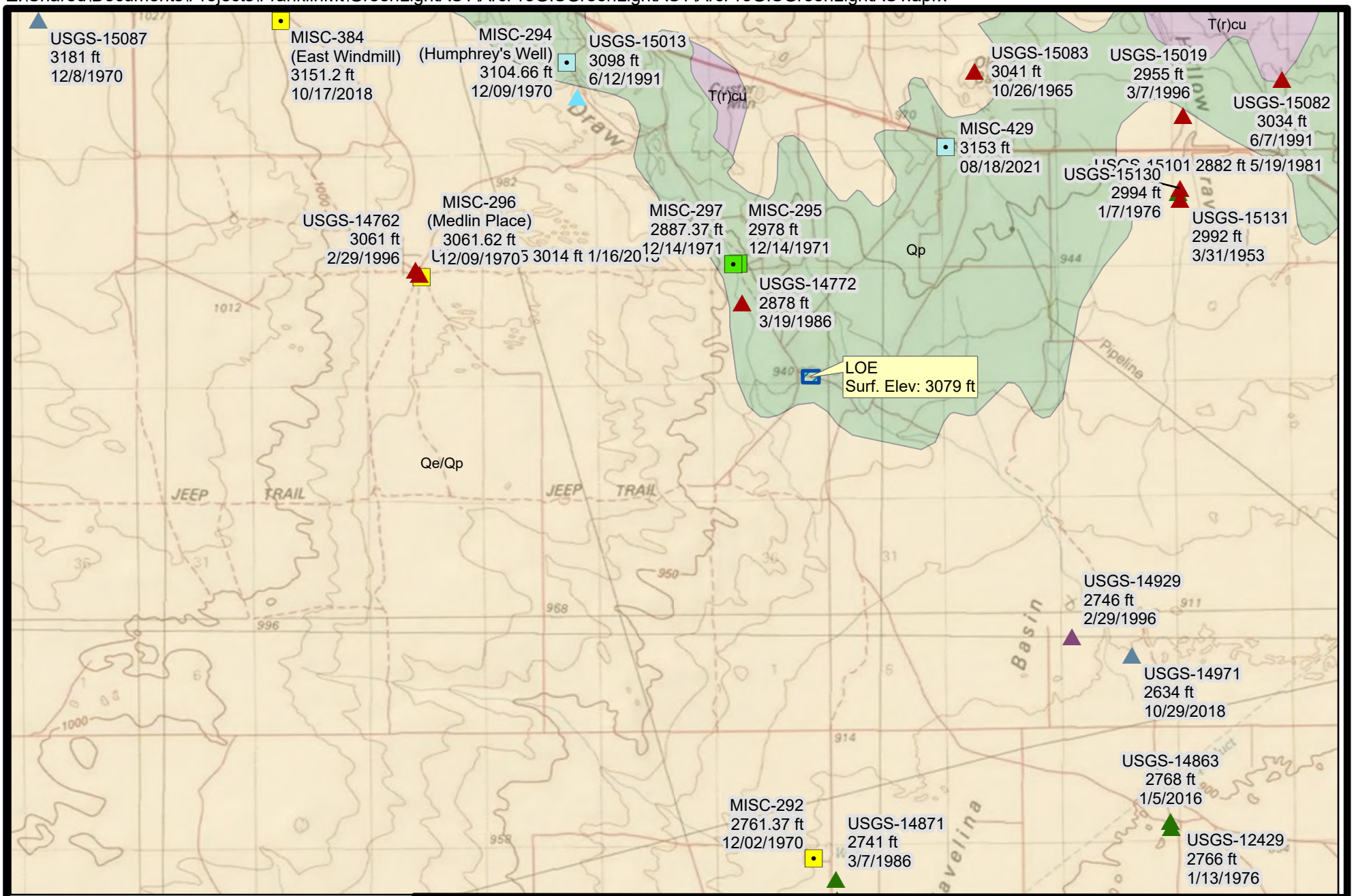

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Groundwater Surface Elevation and Geology	Figure 2a
	Franklin Mt. Energy - LOE AST Containment	Feb 2022

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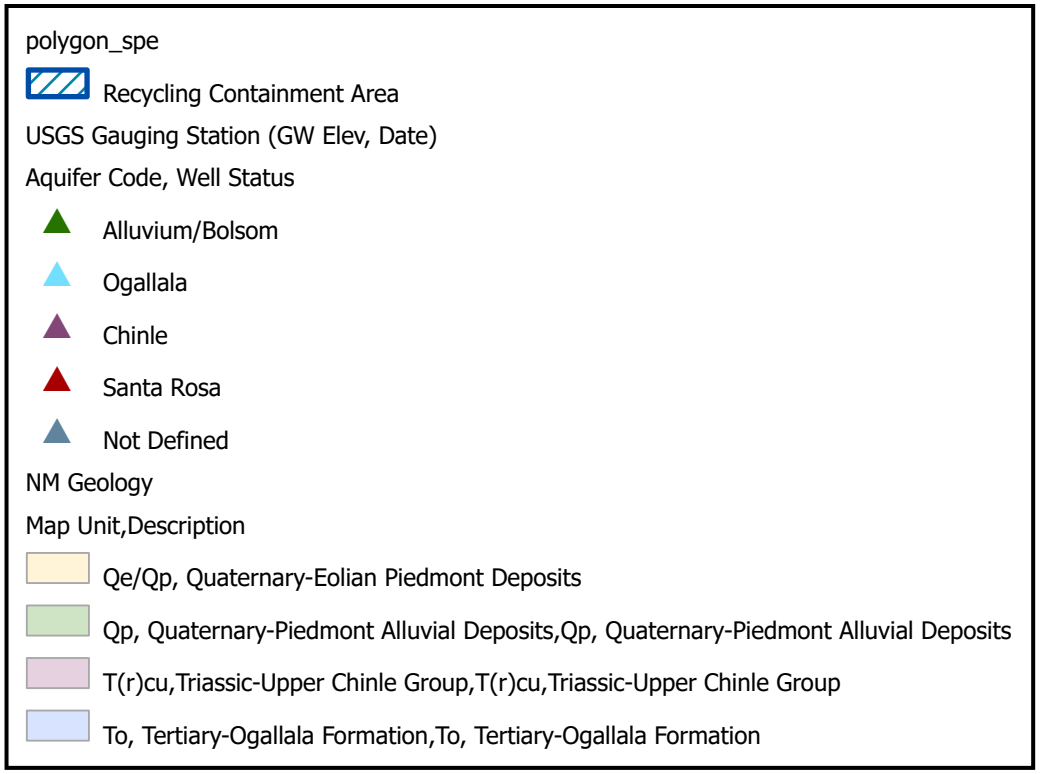

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Figure 1 and 2 Legend	Figures 1 & 2
	Franklin Mt. Energy - LOE AST Containment	Feb 2022

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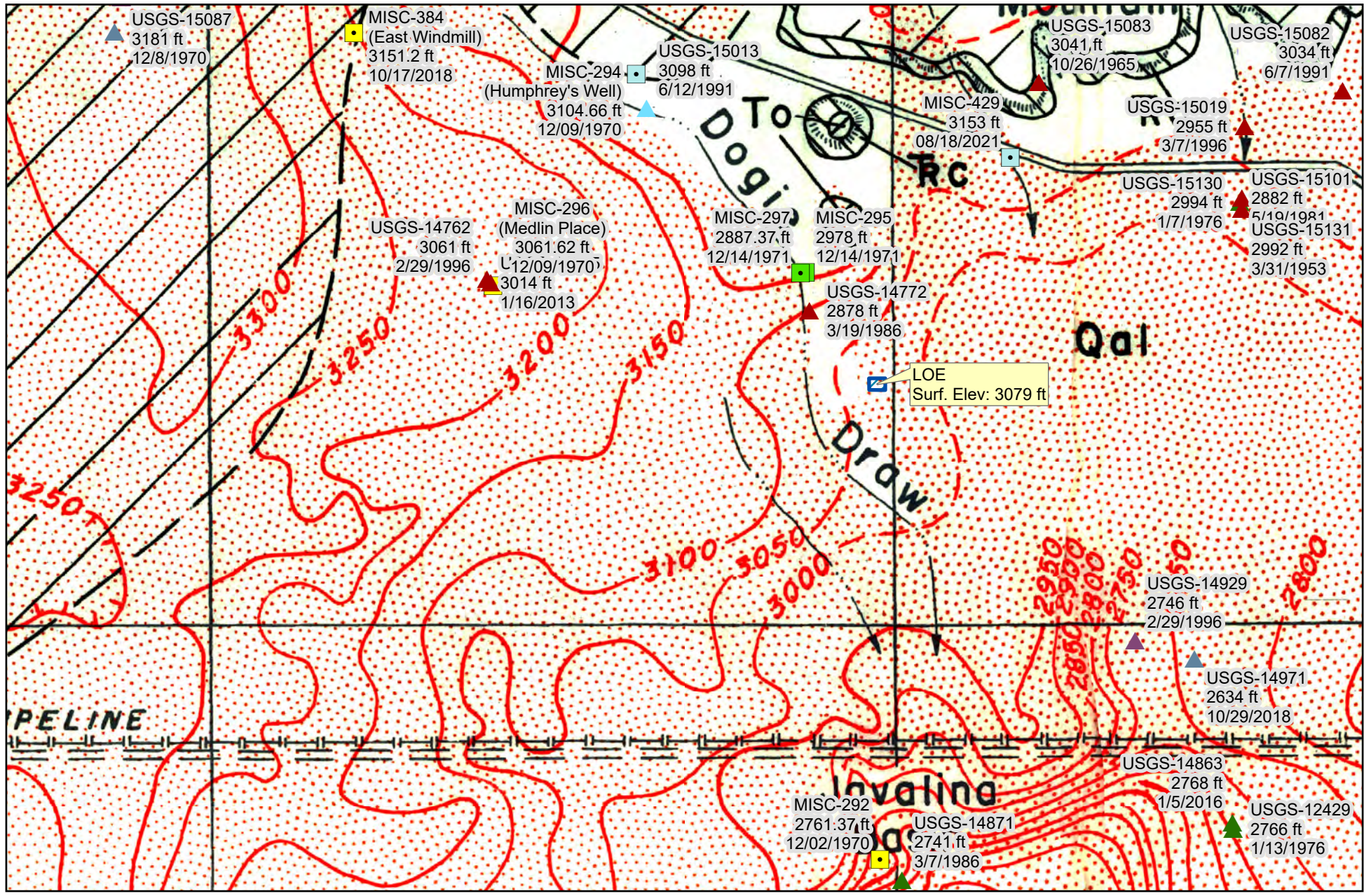

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R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Groundwater Surface Elevation and Red Bed Surface	Figure 2b
	Franklin Mt. Energy - LOE AST Containment	Feb 2022

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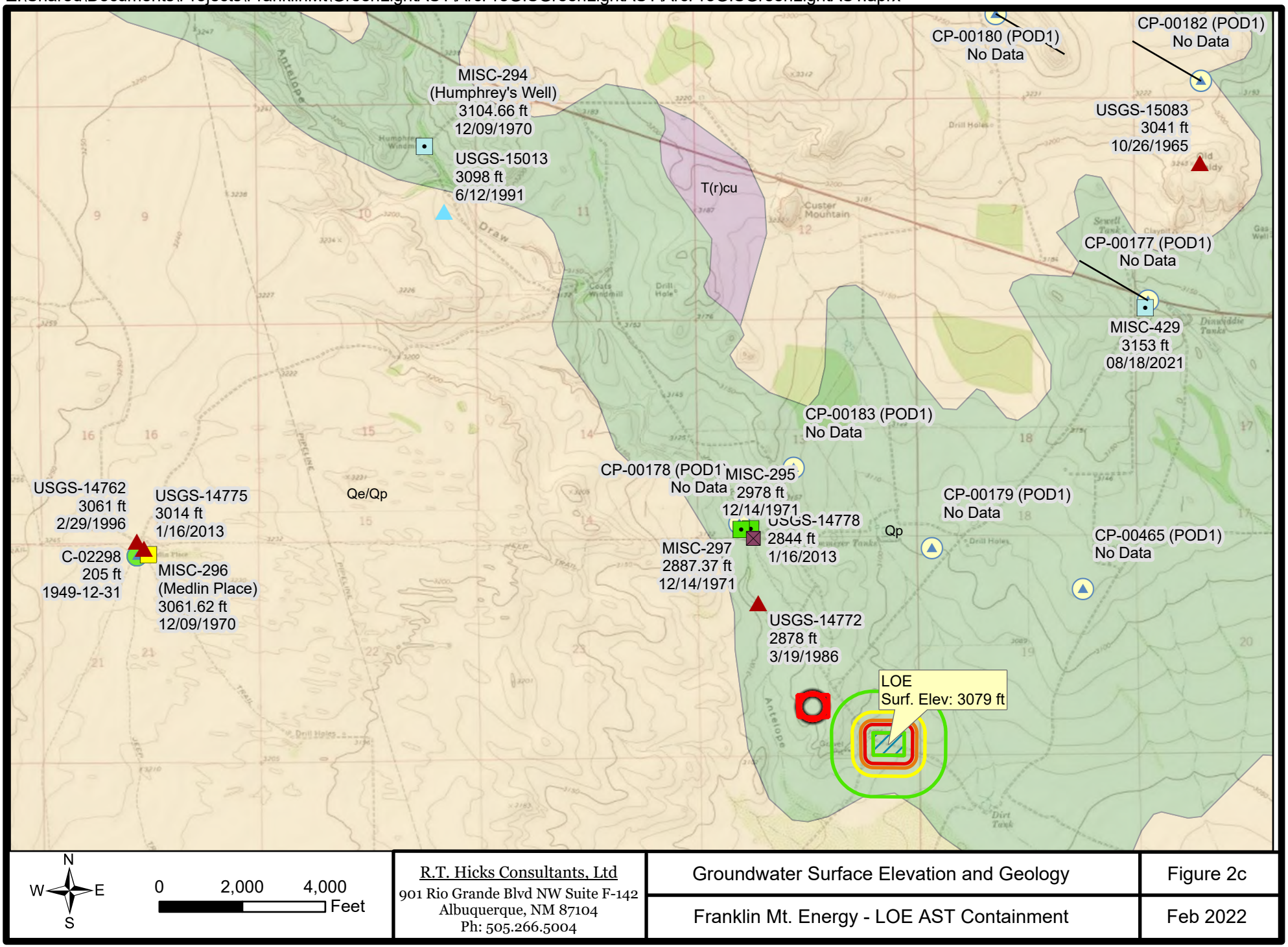

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Groundwater Surface Elevation and Geology	Figure 2c
	Franklin Mt. Energy - LOE AST Containment	Feb 2022

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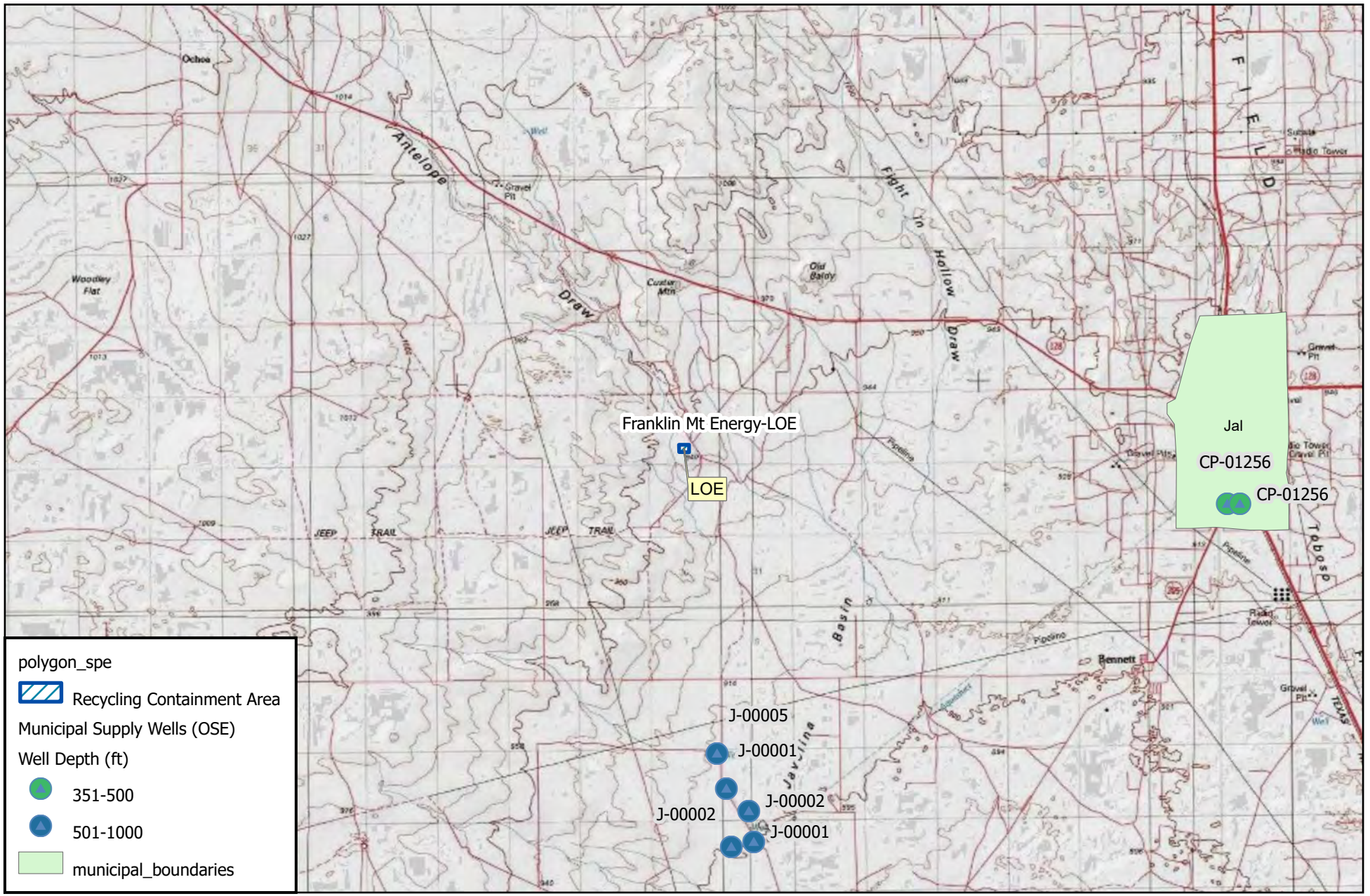

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearby Municipal Boundaries and Well Fields	Figure 3
	Franklin Mt. Energy - LOE AST Containment	February 2022

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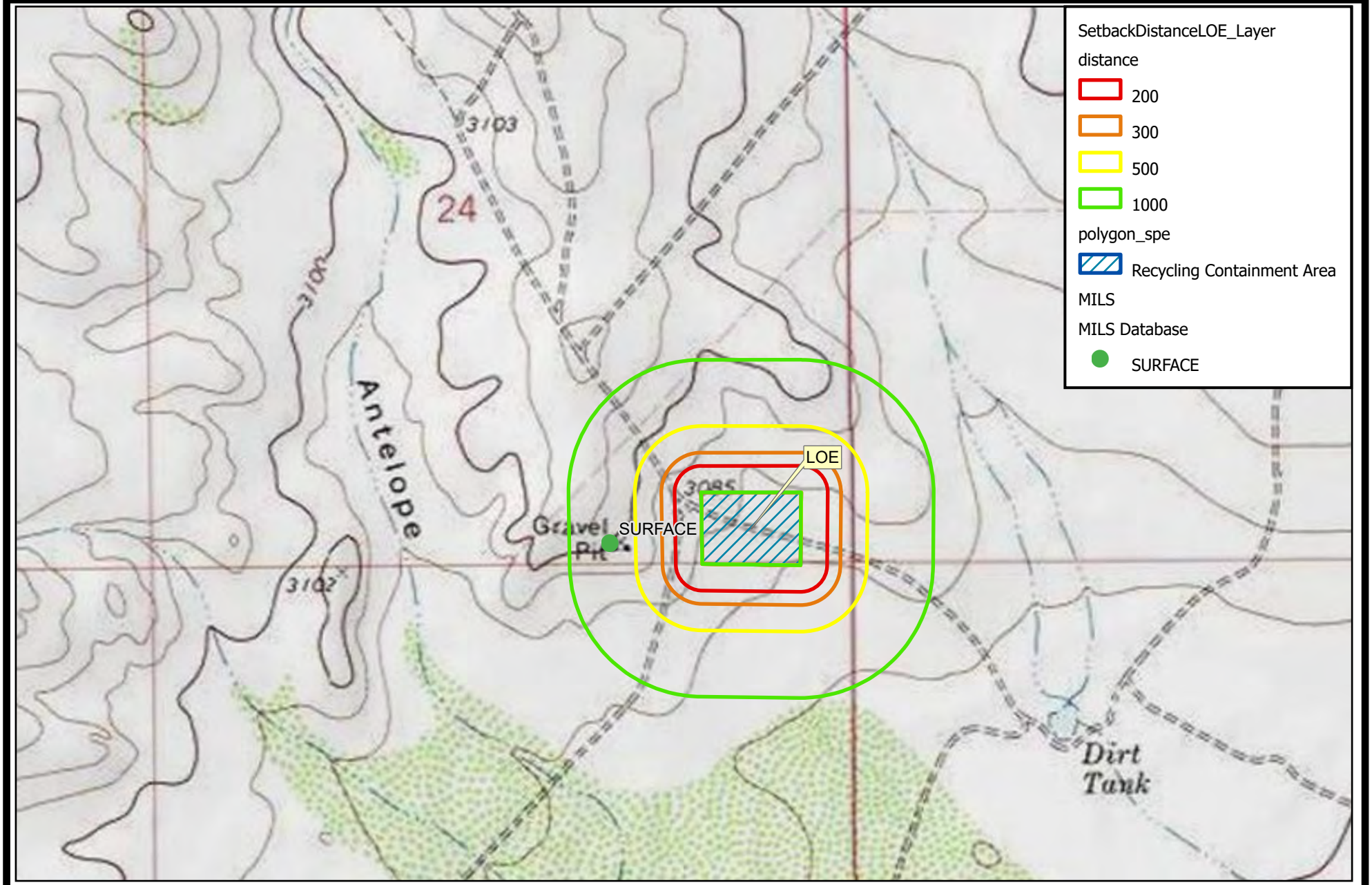

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	Nearby Mines	Figure 4
	Franklin Mt Energy - LOE AST Containment	February 2022

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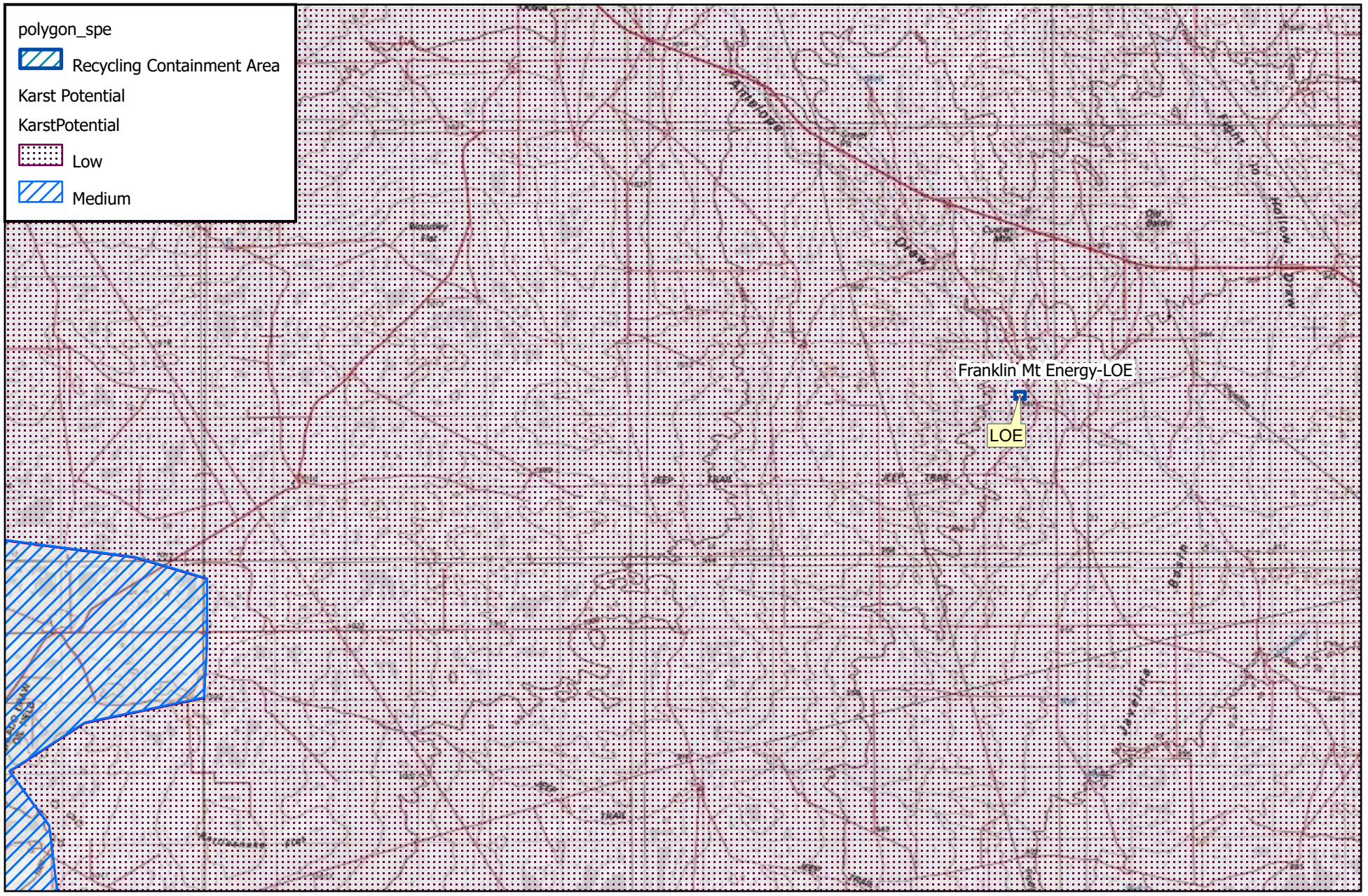

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	BLM Mapped Karst Potential	Figure 5
	Franklin Mt. Energy - LOE AST Containment	February 2022

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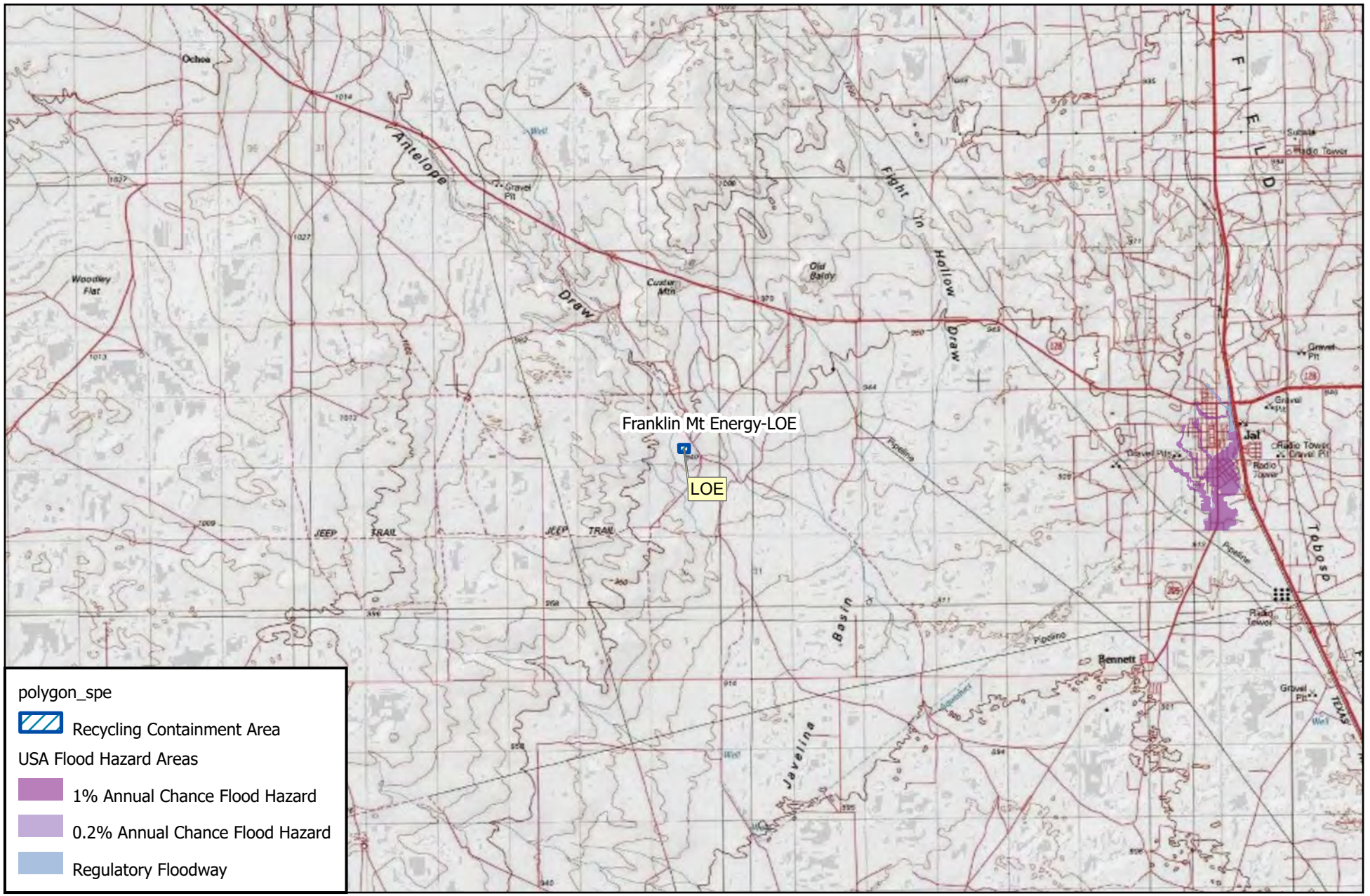

R.T. Hicks Consultants, Ltd 901 Rio Grande Blvd NW Suite F-142 Albuquerque, NM 87104 Ph: 505.266.5004	FEMA Flood Potential	Figure 6
	Franklin Mt. Energy - LOE AST Containment	February 2022

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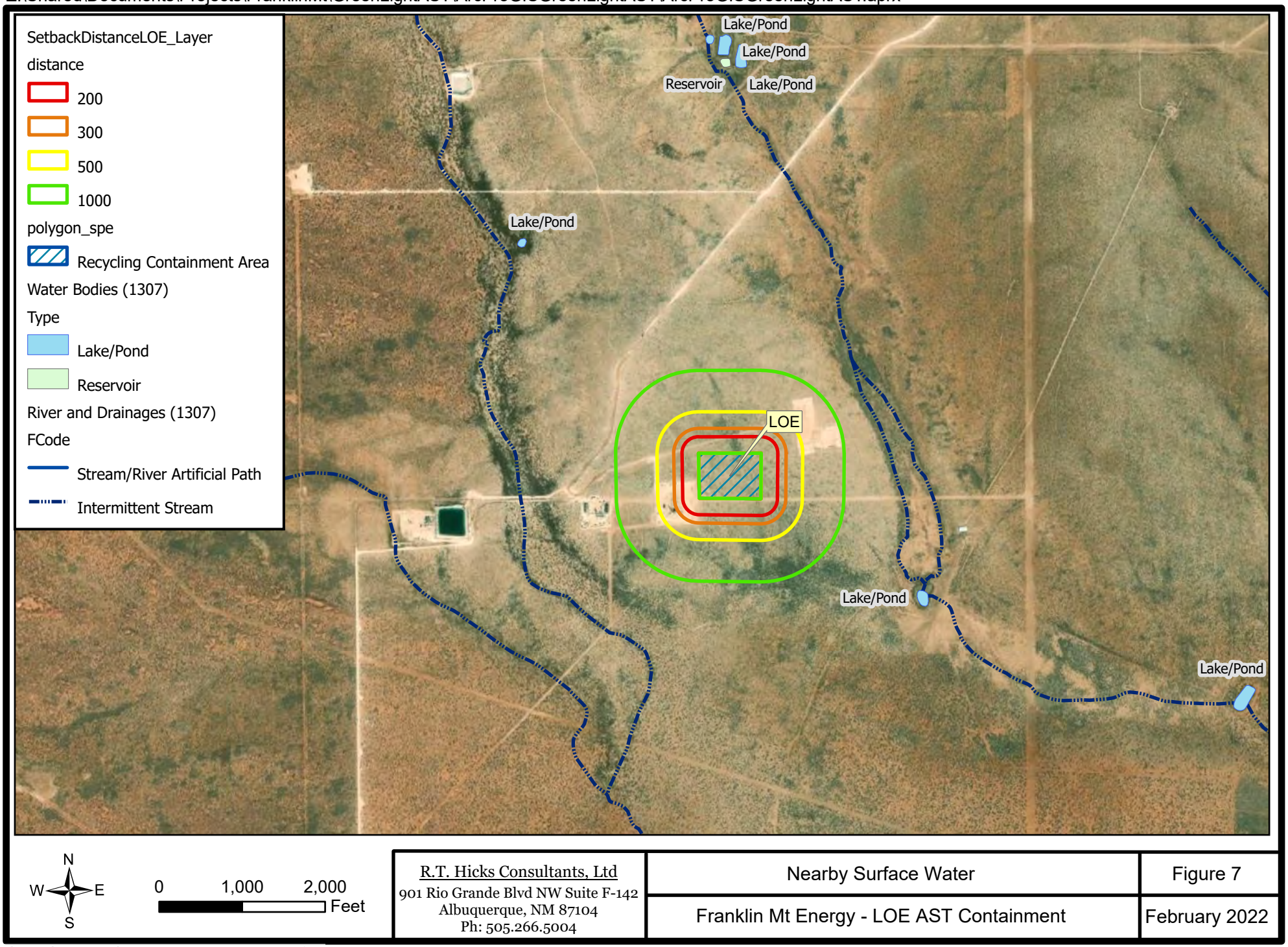

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Nearby Surface Water	Figure 7
Franklin Mt Energy - LOE AST Containment	February 2022

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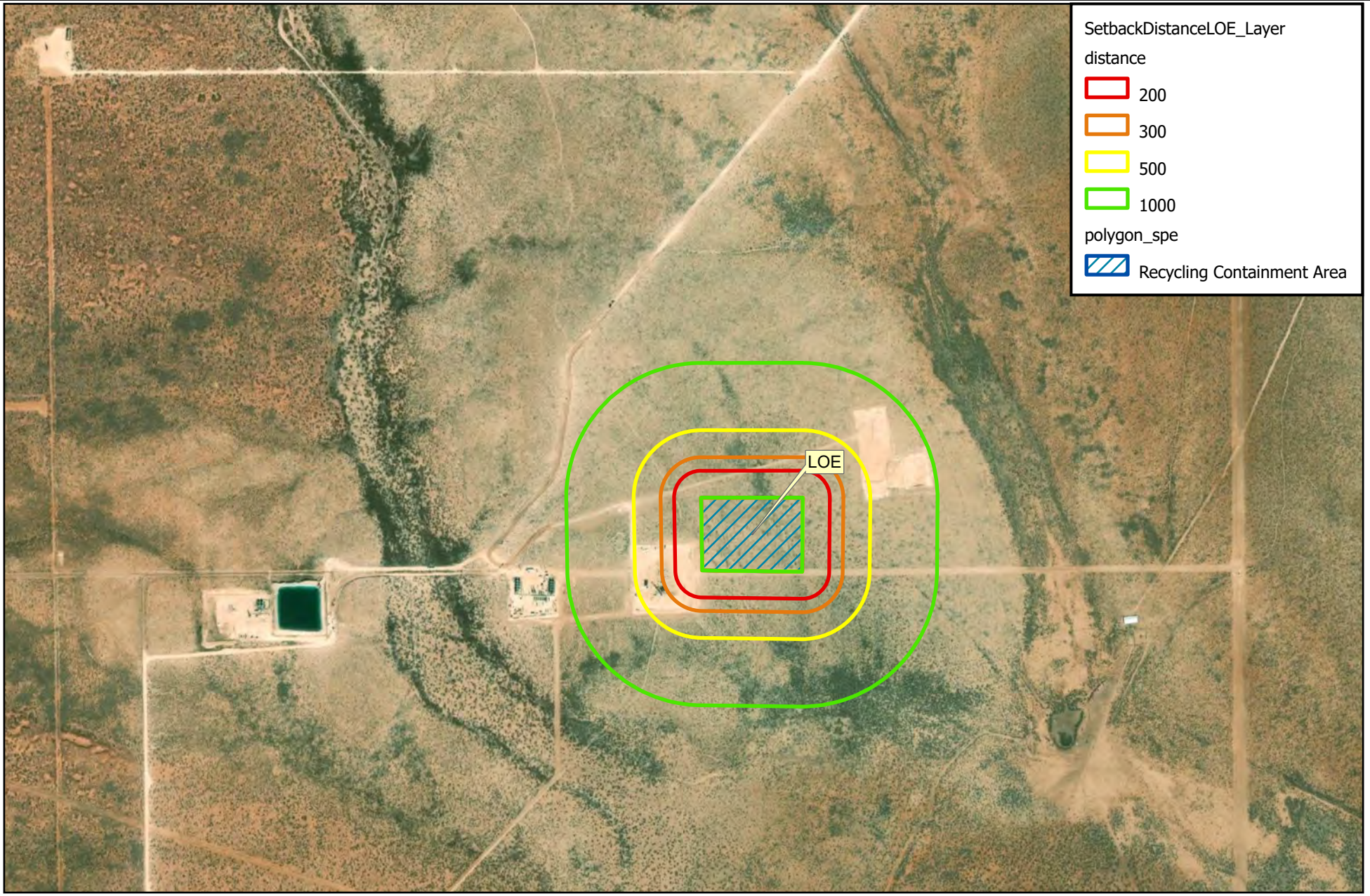

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Nearby Structures	Figure 8
Franklin Mt Energy - LOE AST Containment	February 2022

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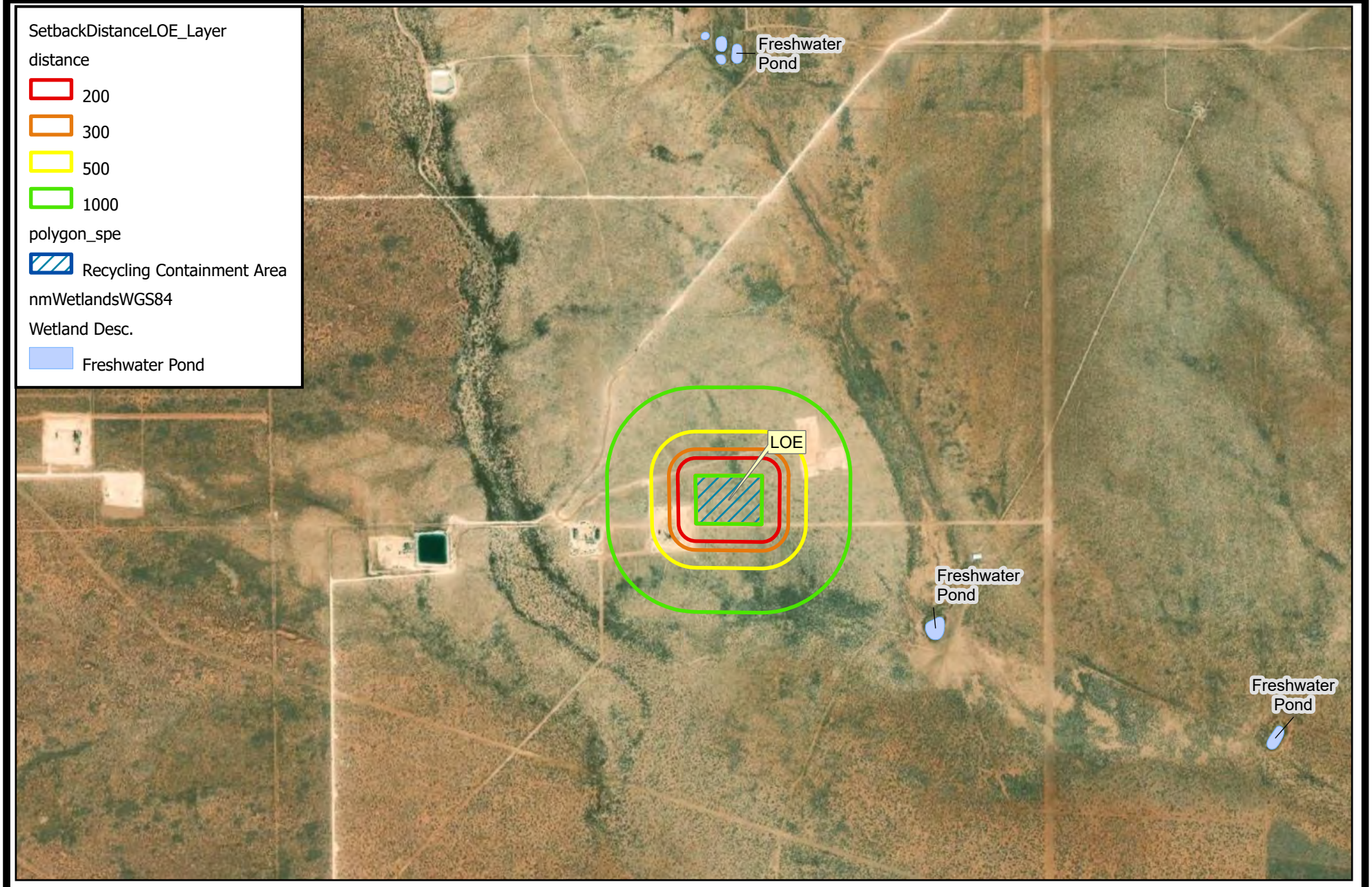

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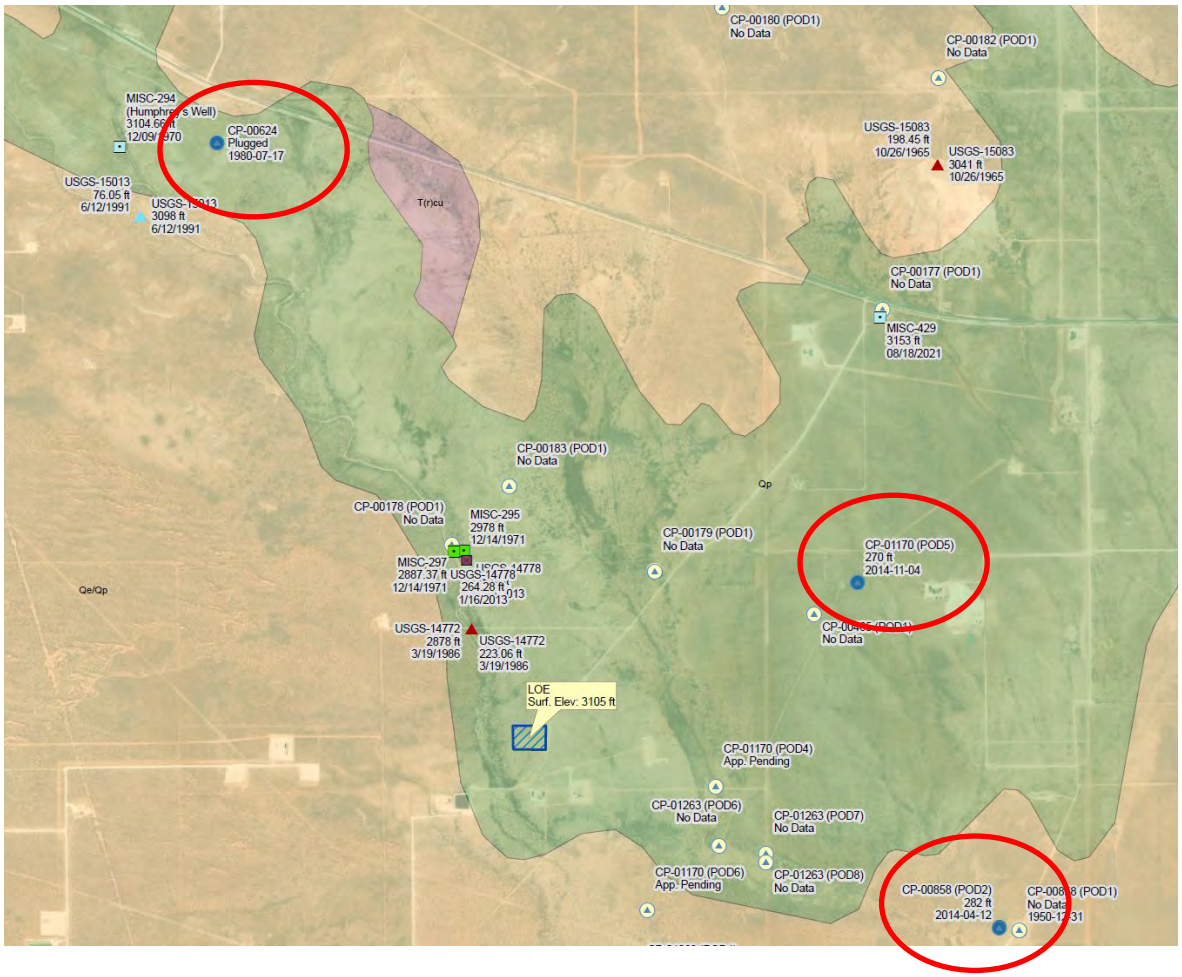
Ph: 505.266.5004

Nearby Mapped NM Wetlands	Figure 9
Franklin Mt Energy - LOE AST Containment	February 2022

APPENDIX WELL LOGS

APPENDIX WELL LOGS



Revised June 1972

STATE ENGINEER OFFICE

WELL RECORD

FIELD FACE

Section 1. GENERAL INFORMATION

(A) Owner of well Florida Oil and Gas Co. Owner's Well No. Reno Comm.# 1
Street or Post Office Address 900 Vaughn Bldg.
City and State Midland, Texas 79701

Well was drilled under Permit No. CP-624 and is located in the:
1200'FNL 1200'FWL
a. SE ¼ NW ¼ NW ¼ ¼ of Section 11 Township 25S Range 35E N.M.P.M.

b. Tract No. _____ of Map No. _____ of the _____

c. Lot No. _____ of Block No. _____ of the _____
Subdivision, recorded in Lea County.

d. X= _____ feet, Y= _____ feet, N.M. Coordinate System _____ Zone in the _____ Grant.

(B) Drilling Contractor Abbott Bros. License No. WD-46
Address P.O. Box 637, Hobbs, New Mexico 88240

Drilling Began 7/14/80 Completed 7/17/80 Type tools Cable Size of hole 8 in.

Elevation of land surface or _____ at well is _____ ft. Total depth of well 510 ft.

Completed well is [X] shallow [ ] artesian. Depth to water upon completion of well DRY HOLE ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet From	Depth in Feet To	Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
			DRY HOLE	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet Top	Depth in Feet Bottom	Length (feet)	Type of Shoe	Perforations From	Perforations To

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet From	Depth in Feet To	Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement

Section 5. PLUGGING RECORD

Plugging Contractor Abbott Bros.
Address P.O. Box 637,Hobbs, New Mexico
Plugging Method Ruble,cement plug at top,covered w/dirt.
Date Well Plugged 7/17/80
Plugging approved by:

State Engineer Representative

No.	Depth in Feet Top	Depth in Feet Bottom	Cubic Feet of Cement
1			
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received July 23, 1980

Quad _____ FWL _____ FSL _____

File No. CP-624 Use OWD Location No. 25.35.11.11444

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	110	110	Fine sand
110	190	80	Red clay
190	210	20	Blue clay
210	510	300	Red clay
			DRY HOLE

'80 JUL 22 AM 8 32

STATE ENGINEER OFFICE
ROSWELL, N. M.

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Murrell Abbott
Driller

H.B

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All questions, except Section 5, shall be answered as completely and accurately as possible when any well is drilled for any purpose. If this form is used as a plugging record, only Section 1(a) and Section 6 need be completed.

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

2014 APR 21 AM 10:06

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): CP-858 POD 2	OSE FILE NUMBER(S):
WELL OWNER NAME(S): DINWIDDIE CATTLE, LLC.	PHONE (OPTIONAL): 575-631-0385
WELL OWNER MAILING ADDRESS: P.O. BOX 963	CITY: CAPITAN STATE: NM ZIP: 88354

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	5	53.6	N
LONGITUDE	103	17	10.92	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS - PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2.5 MI SOUTH OF HWY 128 @ MILE MKR 47, LEA COUNTY. NW 1/4 NW1/4 SE1/4 S29 T25S R36E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD~~311~~ 331	PHILLIP STEWART	STEWART BROTHERS DRLG. CO.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
04-07-14	04-12-14	600'	605'	282'

COMPLETED WELL IS: ○ ARTESIAN ○ DRY HOLE ◉ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT):

DRILLING FLUID: ○ AIR ◉ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ◉ ROTARY ○ HAMMER ○ CABLE TOOL ○ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
+2	260	12.25	LCS BLANK	WELDED	6.125	.25	NA
260	580	12.25	LCS SCREEN	WELDED	6.125	.25	.040
580	600	12.25	LCS BLANK	WELDED	6.125	.25	.NA

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	222	12.25	NEAT CEMENT	135	TREMIE
222	232	12.25	BENTONITE PELLETS	5.25	TREMIE
232	600	12.25	PREMIER SILICA SAND	210	TREMIE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-858	POD NUMBER	2	TRN NUMBER	60A615
LOCATION	25S.36E.29.4.1.3				PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	80	80	RED SILT TO PINK SILT AND (ALLUVIAL)	○ Y ◉ N	
80	130	50	LITE GRAY SILTY AND CLAY	○ Y ◉ N	
130	160	30	RED CLAYEY SILT	○ Y ◉ N	
160	190	30	LITE GRAY CLAYEY SILT	○ Y ◉ N	
190	230	40	LITE GRAY SILTY CLAY	○ Y ◉ N	
230	280	50	BROWN SILTY CLAY	○ Y ◉ N	
280	290	10	GRAY SILTY SAND	◉ Y ○ N	
290	370	80	RED TO BROWN SILTONE WITH SMALL GRVL	◉ Y ○ N	
370	530	160	TAN SAND FINE TO COURSE	◉ Y ○ N	
530	560	30	GRAY LILTSTONE WITH SOME GRVL	◉ Y ○ N	
560	605	45	PINK TO RED SILTY SHALE	○ Y ◉ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

2019 APR 21 AM 10:06

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ◉ AIR LIFT ○ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 30

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

GABE ARMIJO, DON TAYLOR, JOE SANCHEZ

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Phillip D. Stewart / Phillip D. Stewart — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

4-17-14 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	CP-858	POD NUMBER	2	TRN NUMBER	604615
LOCATION	25S.36E.29.4.1.3				PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NUMBER (WELL NUMBER): 5	OSE FILE NUMBER(S): CP-1170
WELL OWNER NAME(S): Beckham Ranch Inc.	PHONE (OPTIONAL): 706-5659
WELL OWNER MAILING ADDRESS: 3904 Jesse James Ct	CITY: Carlsbad STATE: NM ZIP: 88220

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	07	16	N
LONGITUDE	103	17	51	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

SE1/4, NE1/4, NE1/4, SECTION19, TOWNSHIP25S, RANGE36E

2. DRILLING & CASING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1607	LUIS A. (TONY) DURAN	DURAN DRILLING

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
10-28-14	11-04-14	506	505	270

COMPLETED WELL IS: ○ ARTESIAN ○ DRY HOLE ◉ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT):

DRILLING FLUID: ○ AIR ○ MUD ADDITIVES – SPECIFY: DRILLING MUD

DRILLING METHOD: ◉ ROTARY ○ HAMMER ○ CABLE TOOL ○ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	200	12	STEEL	STEEL PERF	8	1/4	-
200	505	12	STEEL PERF	STEEL	8	1/4	1/8

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
~~0~~	~~20~~	~~12~~	~~20 BGS 80 LBS CEMENT~~		~~MIXER~~
~~20~~	~~505~~	~~12~~	~~32 YARDS 1/4 GRAVEL~~		

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	POD NUMBER	TRN NUMBER
CP-1170	5	525599

25S.36E.19.2.2.4

Commercial

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	1	1	TOP SOIL	○ Y ◉ N	
1	2	1	CALICHE	○ Y ◉ N	
2	36	34	CLAY & ROCK MIX	○ Y ◉ N	
36	305	269	SAND	○ Y ◉ N	
305	320	15	CLAY	○ Y ◉ N	
320	335	15	ROCK & SAND MIX	◉ Y ○ N	17
335	365	30	ROCK & CLAY	○ Y ◉ N	
365	420	55	ROCK SAND MIX	◉ Y ○ N	8
420	454	34	CLAY	○ Y ◉ N	
454	463	9	SAND	◉ Y ○ N	10
463	502	39	CLAY	○ Y ◉ N	
502	505	3	RED BED	○ Y ◉ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	
				○ Y ○ N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA: ○ PUMP ○ AIR LIFT ◉ BAILER ○ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 35

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:
LUIS A. (TONY) DURAN

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Luis R. Duran Luis A. Duran — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

11/04/14 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/08/2012)

FILE NUMBER	POD NUMBER	TRN NUMBER
CP-1170	5	525599

25S.36E.19.2.2.4

APPENDIX SITE PHOTOGRAPHS

APPENDIX SITE PHOTOGRAPHS

Figure SP1 View west of tank battery and production pads that will be the site of the recycling facility and AST Storage Containment.

Figure SP2 – View toward location from east of Antelope Draw showing the nature of the vegetation near the proposed site and the most pronounced rill that channels stormwater to the Draw. 32.111725 -103.322839

Figure SP-3 View upstream (northwest) in the center of Antelope Draw due west of proposed LOE recycling facility and AST Containment.
32.111867, -103.323783

Figure SP4 View to east/southeast from center of Antelope Draw (same location as above) to tank battery and working pads that will house the LOE recycling facility and AST Containment.

Figure SP5 View west toward Antelope Draw showing nature of vegetation and landscape. Small rill that directs stormwater flow the draw is in foreground. 32.113206 -103.322289

Figure SP6 View north from lease road showing center of Antelope Draw about 3000 feet north (upstream) of proposed AST Containment location. 32.118806 -103.325583

Figure SP7 View south of the “dirt tanks” southeast of the proposed AST Containment Location (see Figure xxx of Siting Criteria). 32.123872 -103.314531

Figure SP8 – View north of pumping well (Misc-297) and plugged casing to the right of the steel fence (Misc-295). USGS data suggest that the pumping well was gauged by the USGS in 2013 and the data recorded as well USGS 14778 (see Figure 2a and 2c) but gauging data from 1965-1971 from the plugged well (Misc-295) was also recorded as USGS-14778. The mis-location and mixed gauging results in the USGS database are explained in the text of this submission.

Venegas, Victoria, EMNRD

From: Venegas, Victoria, EMNRD
Sent: Thursday, May 26, 2022 11:36 AM
To: Rachael Overbey; Travis Hutchinson; Tim.Jurco@nglep.com
Cc: r@rthicksconsult.com; Enviro, OCD, EMNRD
Subject: 1RF-480 - LOE AST Containment Facility ID [fVV2207537919]. Modification. Conditions of Approval.
Attachments: C-147 Modification. 1RF-480 - LOE AST Containment Facility ID [fVV2207537919].pdf

1RF-480 - LOE AST Containment Facility ID [fVV2207537919]. Modification. Conditions of Approval

NMOCD has reviewed the recycling containment permit modification application and related documents, submitted by [373910] Franklin Mountain Energy LLC on May 10, 2022, for 1RF-480 - LOE AST Containment Facility ID [fVV2207537919]. The form C-147 and the permit modification documents for the 1RF-480 - LOE AST Containment Facility ID [fVV2207537919] is approved with the following conditions of approval:

- The purpose of this permit is for oil and gas activities regulated under the NMAC 19.15.34.3 STATUTORY AUTHORITY: 19.15.34 NMAC is adopted pursuant to the Oil and Gas Act, Paragraph (15) of Section 70-2-12(B) NMSA 1978, which authorizes the division to regulate the disposition of water produced or used in connection with the drilling for or producing of oil and gas or both and Paragraph (21) of Section 70-2-12(B) NMSA 1978 which authorizes the regulation of the disposition of nondomestic wastes from the exploration, development, production or storage of crude oil or natural gas.
- The approved modification for a new location for 1RF-480 - LOE AST Containment Facility ID [fVV2207537919], consisting of one (1) AST of 60,000.00 bbl of capacity is: Unit Letter P, Section 24, Township 25S, Range 35E, Lea County, New Mexico.
- [373910] Franklin Mountain Energy LLC shall construct, operate, maintain, close, and reclaim the 1RF-480 - LOE AST Containment Facility ID [fVV2207537919, in compliance with 19.15.34 NMAC.
- Water reuse and recycling from 1RF-480 - LOE AST Containment Facility ID [fVV2207537919] is limited to wells owned or operated by [373910] Franklin Mountain Energy LLC.
- 1RF-480 - LOE AST Containment Facility ID [fVV2207537919] is approved for five years of operation from the date of permit application. 1RF-480 - LOE AST Containment Facility ID [fVV2207537919] permit expires on March 7, 2027. If [373910] Franklin Mountain Energy LLC wishes to extend operations past five years, an annual permit extension request must be submitted using an OCD form C-147 through OCD Online by February 7, 2027.
- 1RF-480 - LOE AST Containment Facility ID [fVV2207537919] will comply with all conditions of approval and variances per NMOCD email on 3/22/2022.

Please reference number 1RF-480 - LOE AST Containment Facility ID [fVV2207537919] in all future communications.
Regards,

Victoria Venegas ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
(575) 909-0269 | Victoria.Venegas@state.nm.us
http://www.emnrd.state.nm.us/OCD/

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 105565

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 105565
	Action Type: [C-147] Water Recycle Long (C-147L)

CONDITIONS

Created By	Condition	Condition Date
vvenegas	NMOCD has reviewed and approved the recycling containment permit modification application and related documents, submitted by [373910] Franklin Mountain Energy LLC on May 10, 2022, for 1RF-480 - LOE AST Containment Facility ID [fVV2207537919]. • The approved modification for a new location for 1RF-480 - LOE AST Containment Facility ID [fVV2207537919], consisting of one (1) AST of 60,000.00 bbl of capacity is: Unit Letter P, Section 24, Township 25S, Range 35E, Lea County, New Mexico.	5/26/2022