

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-144
Revised April 3, 2017

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.
For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☒ Below grade tank registration
☐ Permit of a pit or proposed alternative method
☐ Closure of a pit, below-grade tank, or proposed alternative method
☐ Modification to an existing permit/or registration
☐ Closure plan only submitted for an existing permitted or non-permitted pit, below-grade tank, or proposed alternative method

BGT1

Instructions: Please submit one application (Form C-144) per individual pit, below-grade tank or alternative request

Please 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: Hilcorp Energy Company OGRID #: 372171
Address: 382 Road 3100 Aztec NM 87410
Facility or well name: TITT 2M
API Number: 30-045-38407 OCD Permit Number _____
U/L or Qtr/Qtr K Section 35 Township 31N Range 11W County: San Juan
Center of Proposed Design: Latitude 36.853233 °N Longitude -107.960679 °W NAD83
Surface Owner: ☐ Federal ☐ State ☒ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F, G or J of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Multi-Well Fluid Management Low Chloride Drilling Fluid ☐ yes ☐ no
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

3.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: Max 120 bbl Type of fluid: Produced Water
Tank Construction material: Metal
☐ Secondary containment with leak detection ☒ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness 45 mil ☐ HDPE ☐ PVC ☒ Other LLDPE

4.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

5.
Fencing: Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)
☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
☒ Alternate. Please specify 4' hog wire fence with a single strand of barbed wire or a welded railing on top

6.

Netting: Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)☒ Screen ☐ Netting ☐ Other _____☐ Monthly inspections (If netting or screening is not physically feasible)

7.

Signs: Subsection C of 19.15.17.11 NMAC☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers☒ Signed in compliance with 19.15.16.8 NMAC

8.

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:☒ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC***Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.*****General siting****Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.**- ☐ NM Office of the State Engineer - iWATERS database search; ☐ USGS; ☐ Data obtained from nearby wells☐ Yes ☒ No
☐ NA**Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.**

NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No
☐ NAWithin 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. **(Does not apply to below grade tanks)**

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ NoWithin the area overlying a subsurface mine. **(Does not apply to below grade tanks)**

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ NoWithin an unstable area. **(Does not apply to below grade tanks)**

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ NoWithin a 100-year floodplain. **(Does not apply to below grade tanks)**

- FEMA map

☐ Yes ☐ No**Below Grade Tanks**

Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☒ No

Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☒ No**Temporary Pit using Low Chloride Drilling Fluid** (maximum chloride content 15,000 mg/liter)

Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a occupied 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

☐ Yes ☐ No

Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 100 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Temporary Pit Non-low chloride drilling fluid

Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 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

☐ Yes ☐ No

Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Permanent Pit or Multi-Well Fluid Management Pit

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).

- 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

☐ 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.

- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

10.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

11.

Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ A List of wells with approved application for permit to drill associated with the pit.
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- ☐ Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Climatological Factors Assessment
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Quality Control/Quality Assurance Construction and Installation Plan
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
☐ Emergency Response Plan
☐ Oil Field Waste Stream Characterization
☐ Monitoring and Inspection Plan
☐ Erosion Control Plan
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

13.

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Multi-well Fluid Management Pit
☐ Alternative
- Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method

14.

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

15.

Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 100 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). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
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.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- 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

☐ Yes ☐ No

16.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC
☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

17.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Tammy Jones Title: Operations/Regulatory Tech – Sr.

Signature: Tammy Jones Date: 4/23/2025

e-mail address tajones@hilcorp.com Telephone: (505)324-5185

18.

OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Joel Stone Approval Date: 04/24/2025

Title: Environmental Scientist & Specialist-A OCD Permit Number: BGT1

19.

Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ Closure Completion Date: _____

20.

Closure Method:

- ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

21.

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure for private land only)
☐ Plot Plan (for on-site closures and temporary pits)
☐ Confirmation Sampling Analytical Results (if applicable)
☐ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐ 1927 ☐ 1983

22.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____ Title: Operations/Regulatory Technician – Sr.

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

TITT 2M (BELOW GRADE TANK)

Hilcorp Energy Company requests a variance for the items listed below. The requested variance, per 19.15.17.15.A, provides equal or better protection of fresh water, public health & the environment.

1. Fencing

- Fencing as described in Section 5 under Alternate, Hilcorp will construct all new fences around the below grade tank utilizing 48" steel mesh field-fence (hog-wire) on the bottom with a single strand of barbed wire or a welded railing on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. Below grade tanks will be fenced, regardless of location.

2. Geo-membrane Liner

- The geo-membrane liner consists of a 45-mil flexible LLDPE material manufactured by Brawler Industries, LLC as SuperScrim H45. SuperScrim H45 is manufactured with LLDPE and is 45 mil inch thickness and is reinforced with polyester scrim. The geomembrane liner has a hydraulic conductivity of less than 5×10^{-14} cm/s and is resistant to ultraviolet light, petroleum hydrocarbons, salts and acidic and alkaline solutions. The manufacturer specific sheet is attached.

3. Hilcorp will notify Public Entity Surface Owners by email in lieu of certified mail. Private Entity Surface Owners will still be notified via certified mail.

1743

30-045-23048

DATA SHEET FOR DEEP GROUND BED CATHODIC PROTECTION WELLS
NORTHWESTERN NEW MEXICO

(Submit 3 copies to OCD Aztec Office)

Operator MERIDIAN OIL Location: Unit NW Sec. 36 Twp 31 Rng 11Name of Well/Wells or Pipeline Serviced BEAVER LODGE COM #2A

cps 1376w

Elevation 5885' Completion Date 8/1/79 Total Depth 415' Land Type* N/ACasing, Sizes, Types & Depths 100' OF 8" CASINGIf Casing is cemented, show amounts & types used N/AIf Cement or Bentonite Plugs have been placed, show depths & amounts used
N/A

Depths & thickness of water zones with description of water when possible:

Fresh, Clear, Salty, Sulphur, Etc. WET AT 160' SAMPLE TAKENDepths gas encountered: N/AType & amount of coke breeze used: 44 SACKSDepths anodes placed: 355', 345', 330', 310', 295', 285', 265', 255', 245', 235'Depths vent pipes placed: N/AVent pipe perforations: N/ARemarks: gb #1**RECEIVED**

MAY 31 1991

**OIL CON. DIV.
DIST. 3**

If any of the above data is unavailable, please indicate so. Copies of all logs, including Drillers Log, Water Analyses & Well Bore Schematics should be submitted when available. Unplugged abandoned wells are to be included.

*Land Type may be shown: F-Federal; I-Indian; S-State; P-Fee.
If Federal or Indian, add Lease Number.



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are smallest to largest)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Well Depth	Depth Water	Water Column
SJ 00350		SJAR	SJ	NE	SW	NW	03	30N	11W	233921.0	4081700.0 *	●	46	12	34
SJ 00366		SJAR	SJ	SE	SE	SE	03	30N	11W	235078.0	4080657.0 *	●	33	18	15
SJ 00402		SJAR	SJ			SW	03	30N	11W	233993.0	4081008.0 *	●	32	18	14
SJ 00698		SJAR	SJ	SW	SW	NE	03	30N	11W	234515.0	4081471.0 *	●	44	14	30
SJ 00762		SJAR	SJ		NE	SW	03	30N	11W	234203.0	4081188.0 *	●	47	22	25
SJ 00975		SJAR	SJ		SW	NW	02	30N	11W	235407.0	4081542.0 *	●	60	20	40
SJ 01020		SJAR	SJ		SW	SW	03	30N	11W	233792.0	4080807.0 *	●	27	5	22
SJ 01043		SJAR	SJ	SE	NW	SE	03	30N	11W	234698.0	4081072.0 *	●	50		
SJ 01202		SJAR	SJ	NE	NW	NE	03	30N	11W	234731.0	4082068.0 *	●	35	8	27
SJ 01217		SJAR	SJ		SW	NW	02	30N	11W	235407.0	4081542.0 *	●	60	30	30
SJ 01238		SJAR	SJ		NW	SE	03	30N	11W	234599.0	4081173.0 *	●	95	38	57
SJ 01249		SJAR	SJ		NE	SE	03	30N	11W	234995.0	4081158.0 *	●	52	22	30
SJ 01261		SJAR	SJ	SE	SW	NE	03	30N	11W	234715.0	4081471.0 *	●		20	
SJ 01313		SJAR	SJ			NE	03	30N	11W	234817.0	4081773.0 *	●	70	58	12
SJ 01339		SJAR	SJ	NW	SW	NW	03	30N	11W	233721.0	4081700.0 *	●	40	15	25
SJ 01387		SJAR	SJ		SE	NW	03	30N	11W	234219.0	4081586.0 *	●	40	18	22
SJ 01437		SJAR	SJ			NW	03	30N	11W	234023.0	4081802.0 *	●	40	28	12
SJ 01440		SJAR	SJ	SW	NE	SW	03	30N	11W	234102.0	4081087.0 *	●	41	21	20
SJ 01441		SJAR	SJ	NE	SW	NW	03	30N	11W	233921.0	4081700.0 *	●	48	20	28
SJ 01734		SJAR	SJ		NE	SW	03	30N	11W	234203.0	4081188.0 *	●	33	5	28
SJ 01805		SJAR	SJ			NE	03	30N	11W	234817.0	4081773.0 *	●	35	20	15
SJ 01807		SJAR	SJ		NW	NE	03	30N	11W	234632.0	4081969.0 *	●	50	30	20
SJ 01901		SJAR	SJ	NE	SW	NE	03	30N	11W	234715.0	4081671.0 *	●	60	26	34
SJ 02049		SJAR	SJ		SW	NW	03	30N	11W	233822.0	4081601.0 *	●	26	8	18
SJ 02245		SJAR	SJ	SW	NW	SE	03	30N	11W	234498.0	4081072.0 *	●	66	30	36
SJ 02563		SJAR	SJ	NW	NE	SE	03	30N	11W	234894.0	4081257.0 *	●	96	60	36
SJ 02765		SJAR	SJ		SW	NW	02	30N	11W	235407.0	4081542.0 *	●	54	20	34
SJ 02781		SJAR	SJ	NE	NW	NE	03	30N	11W	234731.0	4082068.0 *	●	48	23	25
SJ 02785		SJAR	SJ	NE	SE	NW	03	30N	11W	234318.0	4081685.0 *	●	31	5	26
SJ 02786		SJAR	SJ	NW	SW	NE	03	30N	11W	234515.0	4081671.0 *	●	51	24	27
SJ 02798		SJAR	SJ	SE	SE	NE	03	30N	11W	235110.0	4081456.0 *	●	80	61	19
SJ 02814		SJAR	SJ	NE	SW	NW	03	30N	11W	233921.0	4081700.0 *	●	31	8	23
SJ 02824		SJAR	SJ	NW	NE	SE	03	30N	11W	234894.0	4081257.0 *	●	70	50	20
SJ 02835		SJAR	SJ	NE	SW	NW	03	30N	11W	233921.0	4081700.0 *	●	26	8	18
SJ 02837		SJAR	SJ	NW	SE	SW	02	30N	11W	235682.0	4080823.0 *	●	150		
SJ 02930		SJAR	SJ	SE	SE	NE	03	30N	11W	235110.0	4081456.0 *	●	81	64	17
SJ 03121		SJAR	SJ	SE	NE	NW	03	30N	11W	234334.0	4081883.0 *	●	36	12	24

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are smallest to largest)

														(In feet)		
POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Well Depth	Depth Water	Water Column	
SJ 03153		SJAR	SJ	NW	NE	SE	03	30N	11W	234894.0	4081257.0 *		80	60	20	
SJ 03239		SJAR	SJ	SW	SW	SW	03	30N	11W	233691.0	4080706.0 *		33	12	21	
SJ 03242		SJAR	SJ	NW	SW	SW	03	30N	11W	233691.0	4080906.0 *		23	9	14	
SJ 03291		SJAR	SJ	NE	SW	SE	03	30N	11W	234682.0	4080873.0 *		38	18	20	
SJ 03454		SJAR	SJ	SE	NE	SE	03	30N	11W	235094.0	4081057.0 *		100			
SJ 03698 POD1		SJAR	SJ	NW	SE	NW	03	30N	11W	234118.0	4081685.0 *		40	5	35	
SJ 03732 POD1		SJAR	SJ	NW	SW	SW	03	30N	11W	233691.0	4080906.0 *		38	9	29	
SJ 03756 POD1		SJAR	SJ	NE	NW	NE	03	30N	11W	234780.3	4082093.7		41	20	21	
SJ 03758 POD1		SJAR	SJ	NE	NW	NE	03	30N	11W	234714.8	4081974.5		49	21	28	
SJ 03765 POD1		SJAR	SJ	NE	NW	NE	03	30N	11W	234729.4	4082014.4		43	20	23	
SJ 03966 POD1		SJAR	SJ	NE	SW	SW	03	30N	11W	233803.4	4080851.3		25	17	8	
SJ 04190 POD1		SJAR	SJ		NE	SE	03	30N	11W	235092.1	4081138.2		50			
SJ 04190 POD2		SJAR	SJ		NE	SE	03	30N	11W	235101.9	4081054.6		140	100	40	
SJ 04227 POD1		SJAR	SJ	SE	NE	SE	03	30N	11W	235057.3	4081002.0		89			
SJ 04263 POD1		SJAR	SJ	SE	SE	NW	03	30N	11W	234294.8	4081464.6		31			

Average Depth to Water: **24 feet**

Minimum Depth: **5 feet**

Maximum Depth: **100 feet**

Record Count: 52

Basin/County Search:

County: SJ

PLSS Search:

Range: 11W

Township: 30N

Section: 1,2,3

* UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Water Column/Average Depth to Water









































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(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are smallest to largest)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Well Depth	Depth Water	Water Column
SJ 00185		SJAR	SJ	NW	SW	NE	35	31N	11W	236266.0	4083111.0	●	54		
SJ 00333		SJAR	SJ	SE	SW	NW	35	31N	11W	235559.0	4083040.0 *	●	30	6	24
SJ 00363		SJAR	SJ	SE	NW	SW	26	31N	11W	235582.0	4084235.0	●	25	5	20
SJ 00371		SJAR	SJ	NE	NW	SW	26	31N	11W	235582.0	4084435.0 *	●	29	9	20
SJ 00494		SJAR	SJ		SE	SE	26	31N	11W	236686.0	4083894.0 *	●	88	60	28
SJ 00561		SJAR	SJ		SW	SE	26	31N	11W	236281.0	4083910.0 *	●	38	20	18
SJ 00562		SJAR	SJ		SW	SE	26	31N	11W	236281.0	4083910.0 *	●	40	20	20
SJ 00591		SJAR	SJ	SE	NW	SW	35	31N	11W	235554.0	4082642.0 *	●	83	54	29
SJ 00610		SJAR	SJ		NE	SE	26	31N	11W	236699.0	4084294.0 *	●	80	50	30
SJ 00631		SJAR	SJ			NE	34	31N	11W	234857.0	4083377.0 *	●	30	11	19
SJ 00632		SJAR	SJ			NE	34	31N	11W	234857.0	4083377.0 *	●	25	7	18
SJ 00656		SJAR	SJ			NE	34	31N	11W	234857.0	4083377.0 *	●	30	8	22
SJ 00659		SJAR	SJ		SW	NE	34	31N	11W	234656.0	4083176.0 *	●	33	11	22
SJ 00660		SJAR	SJ	NW	NW	NE	34	31N	11W	234558.0	4083671.0 *	●	50	30	20
SJ 00661		SJAR	SJ	NW	SW	NE	34	31N	11W	234555.0	4083275.0 *	●	52	32	20
SJ 00675		SJAR	SJ	SW	SE	NW	26	31N	11W	235800.0	4084621.0 *	●	36	22	14
SJ 00705		SJAR	SJ	NW	NW	SW	26	31N	11W	235382.0	4084435.0 *	●	18	8	10
SJ 00713		SJAR	SJ		NE	SE	35	31N	11W	236659.0	4082698.0 *	●	37	19	18
SJ 00926		SJAR	SJ		NW	SE	26	31N	11W	236294.0	4084309.0 *	●	62	32	30
SJ 00939		SJAR	SJ			SW	35	31N	11W	235651.0	4082546.0 *	●	60	30	30
SJ 00939 1		SJAR	SJ		NE	SW	35	31N	11W	235856.0	4082728.0 *	●	60	30	30
SJ 00940		SJAR	SJ		NW	SW	35	31N	11W	235455.0	4082743.0 *	●	64	15	49
SJ 00983		SJAR	SJ			SW	35	31N	11W	235651.0	4082546.0 *	●	110	70	40
SJ 00985		SJAR	SJ		SE	SE	34	31N	11W	235049.0	4082356.0 *	●	40	16	24
SJ 01042		SJAR	SJ		SE	SE	26	31N	11W	236686.0	4083894.0 *	●	100	30	70
SJ 01125		SJAR	SJ	NE	SE	NW	34	31N	11W	234355.0	4083292.0 *	●	59	42	17
SJ 01144		SJAR	SJ	SE	SE	NW	35	31N	11W	235962.0	4083025.0 *	●	55	30	25
SJ 01233		SJAR	SJ		SE	NW	26	31N	11W	235901.0	4084722.0 *	●	49	27	22
SJ 01251		SJAR	SJ		SE	NW	34	31N	11W	234256.0	4083193.0 *	●	79	65	14
SJ 01267		SJAR	SJ		NW	NE	34	31N	11W	234659.0	4083572.0	●	65	45	20
SJ 01319		SJAR	SJ	NE	NE	NE	35	31N	11W	236776.0	4083594.0 *	●		155	
SJ 01519		SJAR	SJ		NE	SE	26	31N	11W	236699.0	4084294.0 *	●	69	47	22
SJ 01533		SJAR	SJ		SE	NW	34	31N	11W	234256.0	4083193.0 *	●	58	40	18
SJ 01545 X		SJAR	SJ		SW	SW	26	31N	11W	235471.0	4083938.0 *	●	27	10	17
SJ 01580		SJAR	SJ	NW	NW	SW	35	31N	11W	235354.0	4082842.0 *	●	65	30	35
SJ 01608		SJAR	SJ			SE	34	31N	11W	234849.0	4082569.0 *	●	48	17	31
SJ 01618		SJAR	SJ		NW	NE	34	31N	11W	234659.0	4083572.0 *	●	28	8	20


























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POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Well Depth	Depth Water	Water Column
SJ 02972		SJAR	SJ	SE	SW	NE	34	31N	11W	234755.0	4083075.0 *		15	5	10
SJ 02984		SJAR	SJ	NW	SE	SE	27	31N	11W	234966.0	4084052.0 *		20		
SJ 03002		SJAR	SJ	SE	NE	SW	34	31N	11W	234352.0	4082687.0 *		22		
SJ 03014		SJAR	SJ	SE	NE	SW	34	31N	11W	234352.0	4082687.0 *		30	5	25
SJ 03016		SJAR	SJ	NW	SW	SE	34	31N	11W	234547.0	4082467.0 *		35		
SJ 03025		SJAR	SJ	SW	NE	SW	34	31N	11W	234152.0	4082687.0 *		22	5	17
SJ 03042		SJAR	SJ	NE	SW	SW	34	31N	11W	233951.0	4082497.0 *		23	6	17
SJ 03045		SJAR	SJ	SE	SE	NW	25	31N	11W	237627.0	4084566.0 *		200		
SJ 03047		SJAR	SJ	SE	NE	NE	34	31N	11W	235161.0	4083455.0 *		19	6	13
SJ 03048		SJAR	SJ	SE	SW	SW	34	31N	11W	233951.0	4082297.0 *		21	4	17
SJ 03065		SJAR	SJ	SW	NE	SW	34	31N	11W	234152.0	4082687.0 *		22	7	15
SJ 03106		SJAR	SJ	NW	SE	NE	34	31N	11W	234957.0	4083258.0 *		25		
SJ 03107		SJAR	SJ	NW	SE	NE	34	31N	11W	234957.0	4083258.0 *		18	8	10
SJ 03126		SJAR	SJ	NW	NW	NW	26	31N	11W	235405.0	4085232.0 *		41	21	20
SJ 03158		SJAR	SJ	NE	SE	NW	26	31N	11W	236000.0	4084821.0 *		280	25	255
SJ 03165		SJAR	SJ	SE	SE	NE	35	31N	11W	236767.0	4082996.0 *		20		
SJ 03166		SJAR	SJ	SE	SE	NE	35	31N	11W	236767.0	4082996.0 *		20		
SJ 03172		SJAR	SJ	NE	NE	NE	34	31N	11W	235161.0	4083655.0 *		19	7	12
SJ 03181		SJAR	SJ	NW	SE	SE	27	31N	11W	234966.0	4084052.0 *		19	10	9
SJ 03183		SJAR	SJ	SE	SE	NE	34	31N	11W	235157.0	4083058.0 *		19	6	13
SJ 03198		SJAR	SJ	NW	SW	SW	25	31N	11W	236989.0	4083976.0 *		600	100	500
SJ 03211		SJAR	SJ	NW	SE	NW	34	31N	11W	234155.0	4083292.0 *		24	14	10
SJ 03220		SJAR	SJ	NW	SW	SW	34	31N	11W	233751.0	4082497.0 *		20	6	14
SJ 03247		SJAR	SJ	NW	SW	SE	27	31N	11W	234562.0	4084068.0 *		70		
SJ 03260		SJAR	SJ	SE	SE	SW	34	31N	11W	234349.0	4082282.0 *		41	3	38
SJ 03316		SJAR	SJ	NW	NW	NE	34	31N	11W	234558.0	4083671.0 *		30	10	20
SJ 03323		SJAR	SJ	SE	NW	SW	26	31N	11W	235582.0	4084235.0 *		30	6	24
SJ 03357		SJAR	SJ	NE	SE	SW	34	31N	11W	234349.0	4082482.0 *		22	6	16
SJ 03371		SJAR	SJ	SW	NW	NW	35	31N	11W	235365.0	4083439.0 *		21	5	16
SJ 03377		SJAR	SJ	SE	NE	SE	34	31N	11W	235152.0	4082656.0 *		20	2	18
SJ 03402		SJAR	SJ	SE	NW	SE	34	31N	11W	234751.0	4082671.0 *		25		
SJ 03448		SJAR	SJ		NW	NE	34	31N	11W	234659.0	4083572.0 *		41	21	20
SJ 03450		SJAR	SJ	SW	SW	SW	25	31N	11W	236989.0	4083776.0 *		144	95	49
SJ 03492		SJAR	SJ	NE	SE	SW	34	31N	11W	234349.0	4082482.0 *		30		
SJ 03493		SJAR	SJ	NE	SE	SW	34	31N	11W	234349.0	4082482.0 *		25	15	10
SJ 03497		SJAR	SJ	SE	NW	SE	34	31N	11W	234751.0	4082671.0 *		30	10	20
SJ 03505		SJAR	SJ	SW	SW	SE	27	31N	11W	234562.0	4083868.0 *		50	14	36
SJ 03540		SJAR	SJ	NW	NE	SE	27	31N	11W	234978.0	4084454.0 *		40	21	19
SJ 03543		SJAR	SJ	SE	SE	NW	35	31N	11W	235962.0	4083025.0 *		61	30	31
SJ 03560		SJAR	SJ	NE	SW	NE	35	31N	11W	236365.0	4083210.0 *		62	32	30

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(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are smallest to largest)

(In feet)

POD Number	Code	Sub basin	County	Q64	Q16	Q4	Sec	Tws	Range	X	Y	Map	Well Depth	Depth Water	Water Column
SJ 03574		SJAR	SJ	SE	NW	SW	35	31N	11W	235554.0	4082642.0 *		100		
SJ 03600		SJAR	SJ	NW	NE	SE	27	31N	11W	234978.0	4084454.0 *		51	39	12
SJ 03609		SJAR	SJ	SE	SE	SW	34	31N	11W	234349.0	4082282.0 *		27	6	21
SJ 03631		SJAR	SJ	NE	SE	SW	34	31N	11W	234349.0	4082482.0 *		27	6	21
SJ 03676		SJAR	SJ	NW	SW	NE	35	31N	11W	236165.0	4083210.0 *		52	19	33
SJ 03697 POD1		SJAR	SJ	SW	NE	SE	26	31N	11W	236598.0	4084193.0 *		80	50	30
SJ 03710 POD1		SJAR	SJ	NE	SW	SW	34	31N	11W	233951.0	4082497.0 *		20	4	16
SJ 03720 POD1		SJAR	SJ	SW	NW	SE	34	31N	11W	234551.0	4082671.0 *		21	6	15
SJ 03739 POD1		SJAR	SJ	NW	SW	SE	34	31N	11W	234547.0	4082467.0 *		25	3	22
SJ 03760 POD1		SJAR	SJ	NW	SE	NW	35	31N	11W	235679.3	4082952.4		43	12	31
SJ 03772 POD1		SJAR	SJ	NW	NE	SE	27	31N	11W	235035.4	4084480.3		41	30	11
SJ 03780 POD1		SJAR	SJ	NE	NW	SW	34	31N	11W	234021.4	4082870.2		28	12	16
SJ 03822 POD1		SJAR	SJ	NW	SW	NE	25	31N	11W	237781.4	4084810.3		220	200	20
SJ 03834 POD1		SJAR	SJ	NE	SW	SE	34	31N	11W	234757.7	4082544.1		28	4	24
SJ 03994 POD1		SJAR	SJ	SE	SE	NE	27	31N	11W	235212.7	4084695.2		27	14	13
SJ 04052 POD1		SJAR	SJ	SE	SE	NE	27	31N	11W	235213.3	4084602.8		28	14	14
SJ 04120 POD1		SJAR	SJ	SW	SW	NE	25	31N	11W	237845.7	4084513.0		220		
SJ 04139 POD1		SJAR	SJ	SE	NE	SW	34	31N	11W	234356.0	4082663.8		19	6	13
SJ 04141 POD1		SJAR	SJ	NE	SW	SW	34	31N	11W	234040.5	4082526.9		28	12	16
SJ 04170 POD1		SJAR	SJ	SE	SE	NE	27	31N	11W	235259.4	4084636.8		35	15	20
SJ 04305 POD1		SJAR	SJ	NW	SE	SE	27	31N	11W	235050.0	4083983.7		40	30	10
SJ 04386 POD1		SJAR	SJ	SW	SW	SE	27	31N	11W	234506.9	4083812.1		87	65	22
SJ 04401 POD1		SJAR	SJ		SE	NE	27	31N	11W	235144.2	4084637.2		55		
SJ 04402 POD1		SJAR	SJ		SE	NE	27	31N	11W	235111.6	4084599.3		55		
SJ 04409 POD1		SJAR	SJ	NW	NW	SW	25	31N	11W	236927.8	4084469.0		100	85	15

Average Depth to Water: **24 feet**

Minimum Depth: **2 feet**

Maximum Depth: **200 feet**

Record Count: 142

Basin/County Search:

County: SJ

PLSS Search:

Range: 11W

Township: 31N

Section: 25,26,27,34,35,36

Hilcorp T1112M Topo Map

Date: 4/23/2025
Scale: 1:24,000 mi
0.0 0.15 0.3 0.45 0.6
N

Regulatory: Water

POD Waters

Hilcorp Boundaries

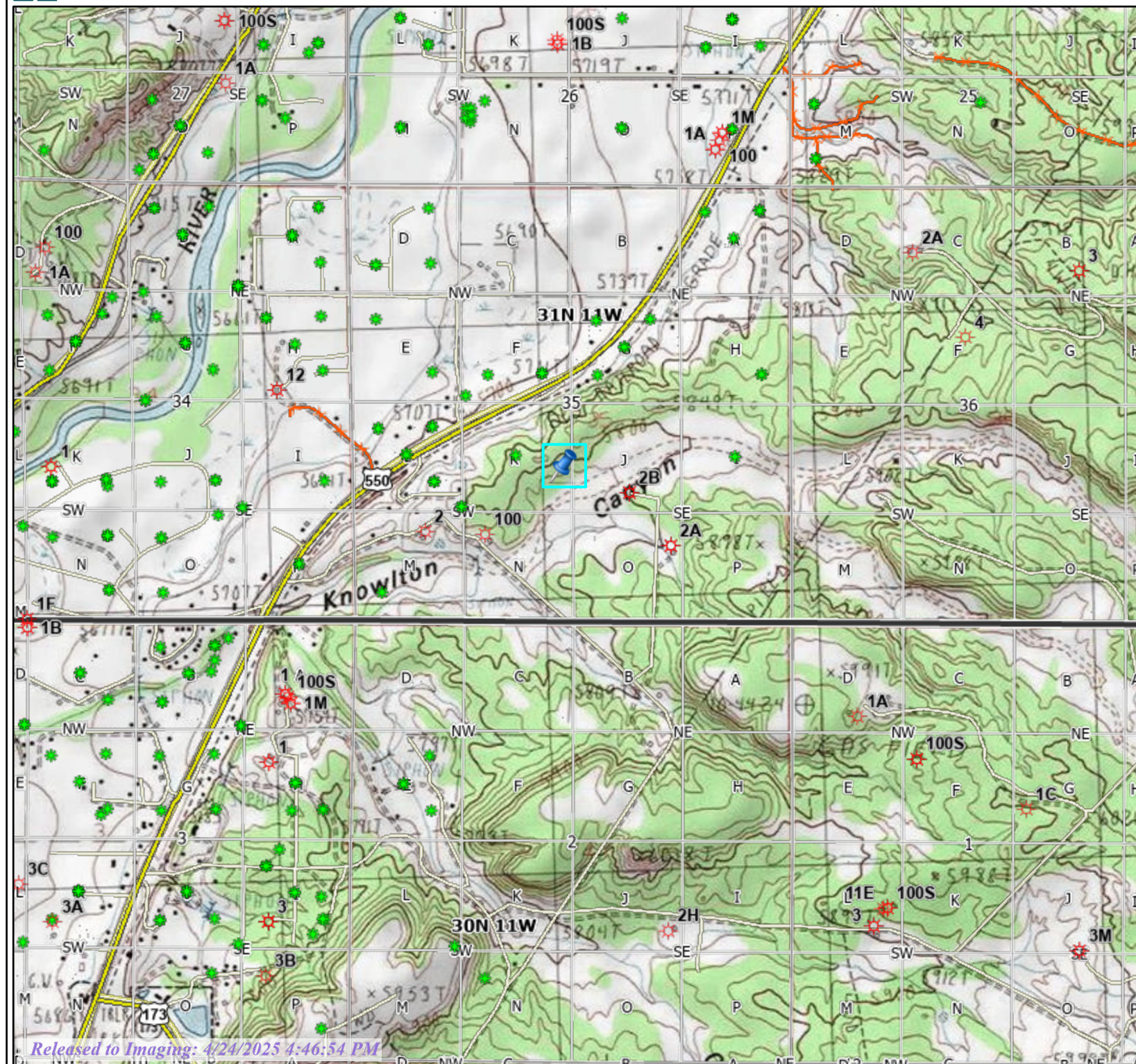
Asset Teams
Supervisor Areas, outline

Townships and Sections



Townships
Sections
Qtr Sections
Unit Letters

Roads and Highways

US Highways





Hilcorp THT 2M - Aerial Map

Date: 4/23/2025
Scale: 1:24,000 mi
0.0 0.15 0.3 0.45 0.6






Regulatory: Water

 POD Waters

Hilcorp Boundaries

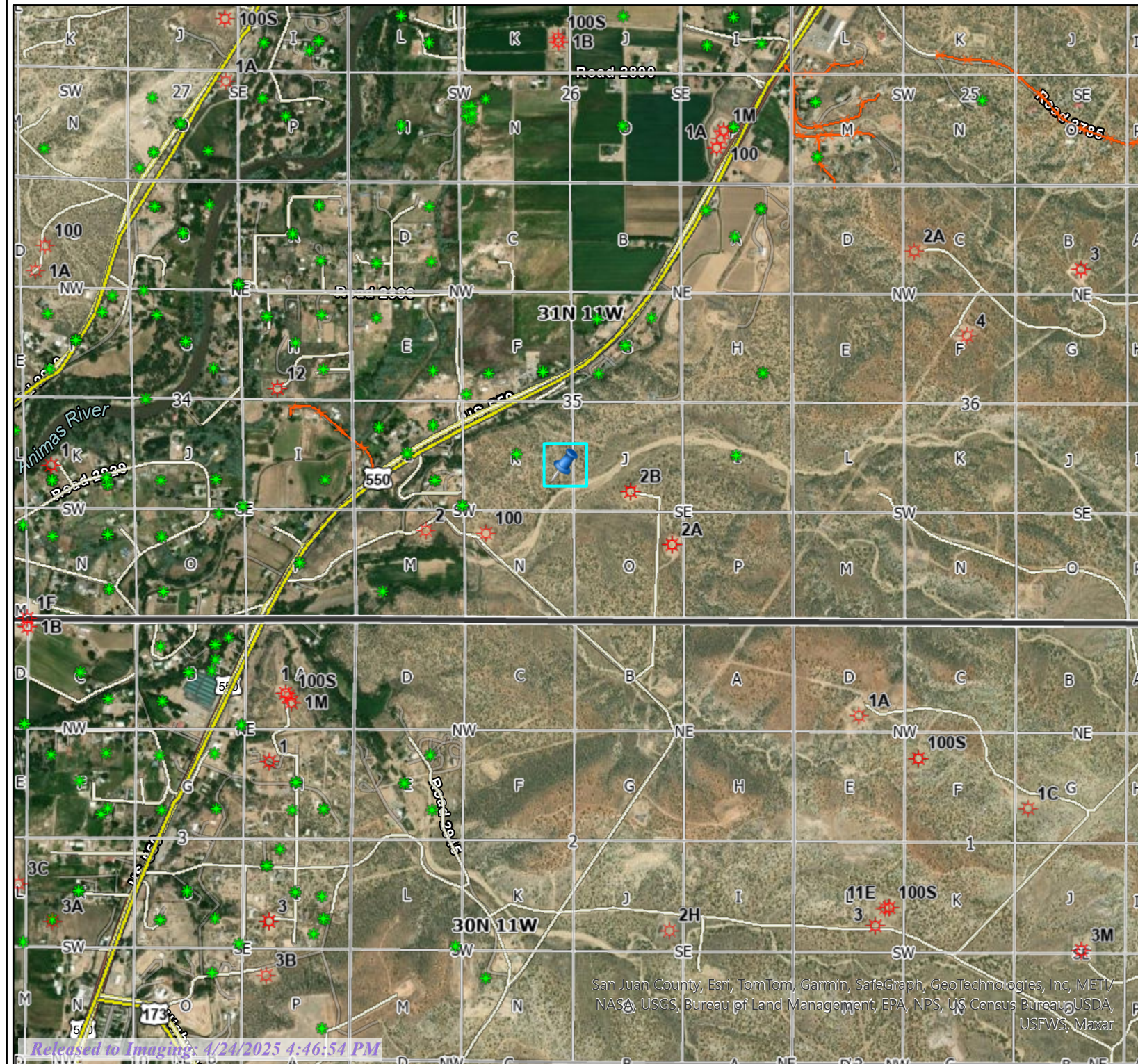
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 Townships
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Roads and Highways

 US Highways



San Juan County, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/
NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA,
USFWS, Maxar

Below Grade Tank (BGT) Siting Criteria and Compliance Demonstrations

Well Name: TITT 2M

1. Depth to groundwater (should not be less than 25 feet):

The nearest recorded well with available water-depth information is the Beaver Lodge Com 2A with groundwater @ 160' as indicated in the Cathodic Data Sheet attached.

The subject well is 95' higher in elevation making depth to groundwater under the tank at 53'.

2. Distance to watercourse (should not be within 100 feet of a continuously flowing watercourse, other significant watercourse, lakebed, sinkhole, wetland or playa lake [measured from the ordinary high-water mark]):

Aerial map attached indicates that there are no lakebeds, sinkholes, playa lakes, or watercourses within 100 feet of the proposed Below Grade Tank.

3. Distance to springs or wells (should not be within 200 feet of a spring or a fresh water well used for public or livestock consumption):

Aerial map attached indicates that the Below Grade Tank will not be within 200 feet of any recorded well or spring.

Hydrogeological report for Kirtland Shale and Fruitland Formation

Regional Geological context:

The combined Kirtland Shale and Fruitland Formation, of Late Cretaceous age (Baltz, 1967; Fassett and Hinds, 1971), crops out inside the margins of the central San Juan Basin. Topography formed on the unit typically varies from rolling to rough, and badlands are commonly developed. Erosion-resistant sandstones commonly cap isolated buttes and hillocks, whereas softer shale units form slopes and broad valleys or flats. The upper part of Kirtland Shale generally forms steep slopes below mesas or buttes that are capped by the overlying erosion-resistant Ojo Alamo Sandstone.

The Ojo Alamo Sandstone of Tertiary age and the McDermott Member of Animas Formation of Late Cretaceous age unconformably overlie the Kirtland Shale (Baltz, 1967; Fassett and Hinds, 1971; Molenaar, 1977). The Kirtland Shale conformably overlies the Fruitland Formation. The Fruitland Formation conformably overlies the Pictured Cliffs Sandstone, and intertonguing locally occurs at the contact.

In general, the combined Kirtland Shale and Fruitland Formation consists of various thicknesses of interbedded and repetitive sequences of non-marine channel sandstone, siltstone, shale, and claystone. Coal beds and carbonaceous shales are common in the Fruitland Formation. The Kirtland Shale does not contain coal and has been divided into three members, which in descending order are the upper shale member, Farmington Sandstone Member, and lower shale member (Bauer, 1916).

Thickness of the combined Kirtland Shale and Fruitland Formation ranges from zero on the east side of the basin, because of pre-Ojo Alamo Sandstone erosion, to a maximum of about 2,000 feet in the northwestern part of the basin (Fassett and Hinds, 1971, Molenaar, 1977). Thickness of the Kirtland Shale ranges from zero in the east to about 1,500 feet in the northwest; the upper shale member, Farmington Sandstone Member, and lower shale member each are as much as 500 feet thick (Fassett and Hinds, 1971; Molenaar, 1977; Stone et al, 1983). The Fruitland Formation ranges in thickness from zero in the east to about 500 feet in the northwest (Fassett and Hinds, 1971) and averages about 300 to 350 feet thick (Molenaar, 1977).

Hydraulic Properties:

Reported Transmissivity and hydraulic conductivity data for the Kirtland Shale and Fruitland Formation are limited to aquifer tests conducted for five wells. The transmissivity determined from these tests ranges from 0.6 to 130 feet squared per day (Stone et al, 1983). The only hydraulic conductivity calculated from the tests is 0.00001 foot per day.

The reported or measured discharge from 12 water wells completed in the Kirtland Shale and Fruitland Formation ranges from 1 to 12 gallons per minute and the median is 3 gallons per minute. The specific capacity of six of these wells ranges from 0.01 to 0.42 gallon per minute per foot of drawdown and the median is 0.03 gallon per minute per foot of drawdown. These tests are most probably of wells that produce drinking water from the Farmington Sandstone Member of the Kirtland Shale. Recently, there has been

extensive exploration for methane gas resources from coal beds in the Fruitland Formation. The current production practice is to complete the well and pump out water to reduce pressure at the coal bed. Because of the poor-quality water and the identification of over-pressured areas in the center of the San Juan Basin at the Colorado-New Mexico State line, a current question among geologists is whether the water is connate (trapped at the time of deposition) or meteoric (originated from recharge on the outcrop).

Some gas and water production is thought to be from both the coal in the Fruitland Formation and sandstone in the underlying Pictured Cliffs Sandstone. Water quality analyses for these two units also show more similarity with each other than with analyses from the overlying Ojo Alamo Sandstone or underlying Cliff House Sandstone aquifers.

References:

- Baltz, E.H., 1967, Stratigraphy and regional tectonic implications of part of Upper Cretaceous rocks, east-central San Juan Basin, New Mexico: USGS Professional Paper 552, 101 p.
- Fassett, J.E., and Hinds, J.S., 1971, Geology and fuel resources of the Fruitland Formation and Kirtland Shale of the San Juan Basin, New Mexico and Colorado: USGS Professional Paper 676, 76 p.
- Molenaar, C.M., 1977, Stratigraphy and depositional history of Upper Cretaceous rocks of the San Juan Basin area, New Mexico and Colorado, with a note on Economic resources, in Fassett, J.E., ed., Guidebook of San Juan Basin III: New Mexico Geological Society, 28th Field Conference, p. 159-166.
- Stone, W.J., Lyford, F.P., Frenzel, P.F., Mizell, N.H., and Padgett, E.T., 1983, Hydrogeology and water resources of San Juan Basin, New Mexico: New Mexico Bureau of Mines and Mineral Resources, Hydrologic Report 6.

Below Grade Tank Design and Construction

In accordance with NMAC 19.15.17 the following information describes the design and construction of below-grade tanks on Hilcorp Energy Company, hereinafter known as HEC, locations. This is HEC's standard procedure for all below grade tanks (BGT). A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

1. HEC will design and construct a properly sized and approved BGT which will contain liquids and should prevent contamination of fresh water to protect the public health and environment.
2. HEC signage will comply with 19.15.17.11.C NMAC.
3. HEC is requesting approval of an alternative fencing to be used on BGT tank locations. HEC requests to utilize 48" steel mesh field-fence (hog-wire) on the bottom with a single strand of barbed wire or a welded railing on top. T-posts shall be installed every 12 feet and corners shall be anchored utilizing a secondary T-post. BGTs will be fenced, regardless of location.
 - a. If the BGT is located within 1000' of an occupied permanent residence, school, hospital, institution or church, HEC will construct A 6' chain link fence with two strands of barbed wire or a welded railing on top. The operator shall ensure that all gates associated with the fence are closed and locked when responsible personnel are not onsite.
4. HEC will construct a screened, expanded metal covering, on the top of the BGT.
5. HEC will ensure that a BGT is constructed of materials resistant to the BGT's particular contents and resistant to damage from sunlight as shown on design drawing and specification sheet.
6. The HEC BGT system will have a properly constructed foundation consisting of a level base free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom as shown on design drawing.
7. HEC shall operate and install the BGT to prevent the collection of surface water run-on. HEC has built in shut off devices that do not allow a BGT to overflow. HEC constructs berms and corrugated retaining walls at least 6" above ground to keep from surface water run-on entering the BGT as shown on the design plan.
8. If HEC needs to modify/retrofit the existing BGT it will meet the below specifications.
9. HEC will construct and use a BGT that does not have double walls. The BGT's side walls will be open for visual inspection for leaks, the BGT's bottom is elevated a minimum of six inches above the underlying ground surface and the BGT is underlain with a geomembrane liner to divert leaked liquid to a location that can be visually inspected.
10. HEC will equip below grade tanks with a properly functioning, automatic high-level shut off control device, as well as manual controls, to prevent overflows.
11. HEC will utilize a geomembrane liner manufactured by Brawler Industries, LLC as SuperScrim H45. SuperScrim H45 is manufactured with LLDPE and is 45 mil inch thickness and is reinforced with polyester scrim. The geomembrane liner has a hydraulic conductivity of less than 5×10^{-14} cm/s and is resistant to ultraviolet light, petroleum hydrocarbons, salts and acidic and alkaline solutions. The manufacturer specific sheet is attached.
12. The general specification for design and construction are attached

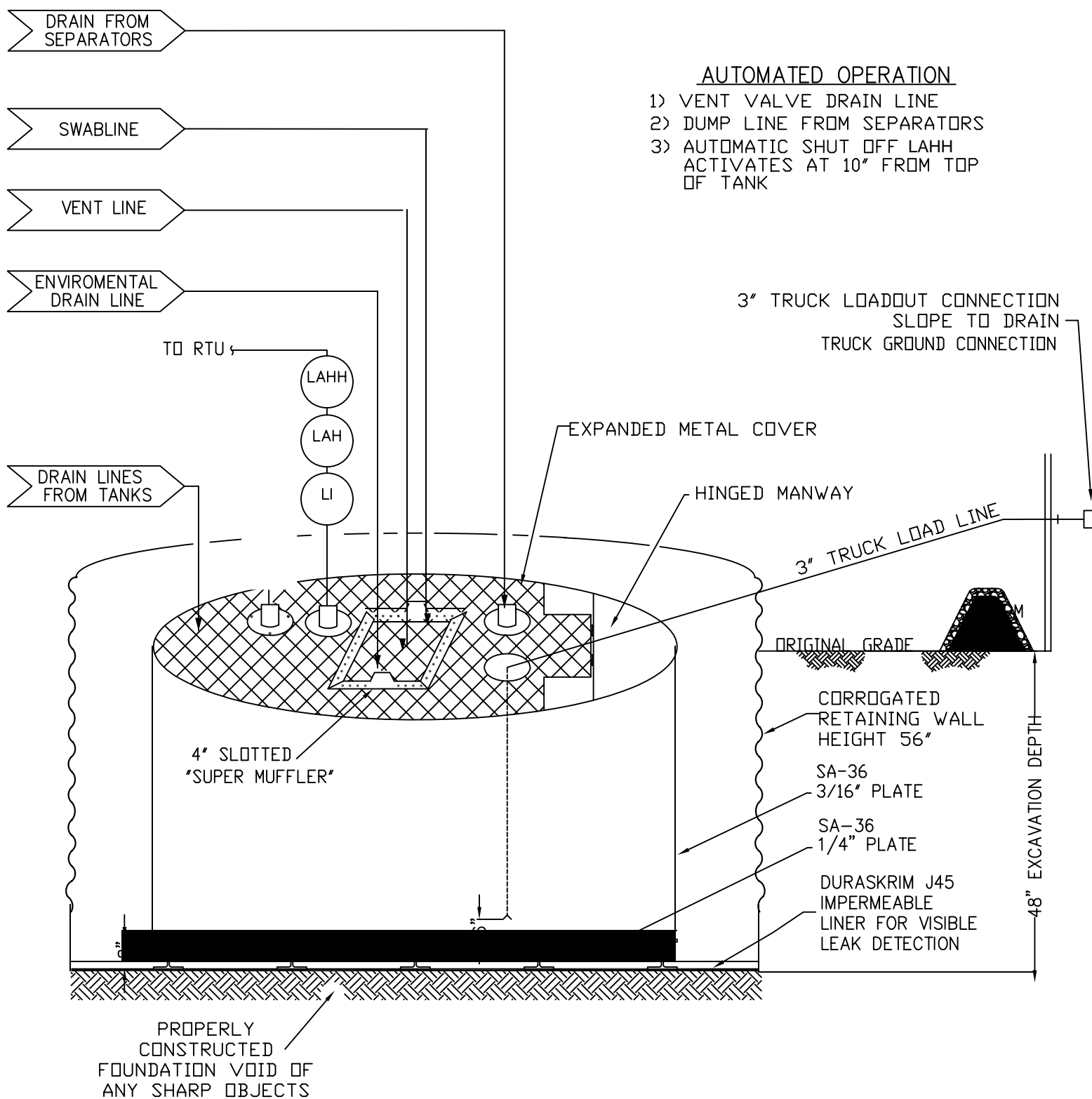
5/13/2024

MANUAL OPERATION

- 1) PRODUCTION TANKS DRAINLINE
- 2) SWABLINE DRAIN LINE
- 3) ENVIROMENTAL DRAIN LINE FROM COMPRESSOR SKID

AUTOMATED OPERATION

- 1) VENT VALVE DRAIN LINE
- 2) DUMP LINE FROM SEPARATORS
- 3) AUTOMATIC SHUT OFF LAHH ACTIVATES AT 10" FROM TOP OF TANK



PRODUCED WATER PIT TANK
 OPEN TOP GRAVITY FLOW TANK
 INTERNALLY COATED WITH
 12-14 MILS AMERON AMERCOAT 385



SuperScrim™ H Product Specifications

This product meets GRI GM 25 Specifications

Properties	Test Method	Frequency	Minimum Average Values		
			H30	H36	H45
Thickness, Nominal (mils) Min. Ave. (mils)	ASTM D5199	Per roll	30 27	36 32	45 40
Weight Nominal (lb/1000, ft ²) Min. Ave. (lb/1000, ft ²)	ASTM D5261	Per roll	140 125	168 151	210 189
Grab Tensile Strength (lb), min. ave. Elongation (%), min. ave.	ASTM D7004 (each direction) (each direction)	30,000 lb	300 25	310 25	320 25
Tongue Tear (lb), min. ave.	ASTM D5884 (each direction)	30,000 lb	130	130	130
Index Puncture (lb), min. ave.	ASTM D4833	30,000 lb	85	103	105
Ply Adhesion (lb), min. ave. ⁽¹⁾	ASTM D6636	30,000 lb	20	25	25
Oxidative Induction Time (OIT) ⁽²⁾ (a) Standard OIT Or (b) High Pressure OIT	ASTM D3895 ASTM D5885	Formulation	>100 >1000	>100 >1000	>100 >1000
Standard Roll Dimensions					
Roll Width ⁽³⁾ , ft			11.83	11.83	11.83
Roll Length ⁽³⁾ , ft			1500	1230	1000
Roll Area, ft ²			17,745	14,551	11,830

⁽¹⁾Alternatively, an acceptable ply adhesion is to have a film tearing bond occur within the sheet material.

⁽²⁾The Manufacturer has the option to select either one of the OIT methods listed to evaluate the antioxidant effectiveness in the geomembrane.

⁽³⁾Roll widths and lengths have a tolerance of $\pm 1\%$

*Custom material thicknesses also available

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This is a preliminary data sheet based upon laboratory testing of initial manufacturing lots and may be changed without notice as additional product testing data becomes available.



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SuperScrim™ WC Product Specifications

Properties	Test Method	Minimum Average Values					
		9 mil	12 mil	16 mil	20 mil	24 mil	30 mil
Weight	D5261	5.4 oz/yd ²	5.7 oz/yd ²	7.2 oz/yd ²	9.6 oz/yd ²	11.5 oz/yd ²	13.4 oz/yd ²
Thickness		9 mil	12 mil	16 mil	20 mil	24 mil	30 mil
Grab Tensile (lbs.)	D751	MD 200 CD 135	MD 210 CD 176	MD 230 CD 210	MD 330 CD 286	MD 352 CD 300	MD 352 CD 300
Mullen Burst	D6241	300 psi	350 psi	400 psi	600 psi	680 psi	780 psi
Accelerated UV Weathering	D4355	>80% after 2000 hrs exposure	>90% after 2000 hrs exposure	>90% after 2000 hrs exposure	>90% after 2000 hrs exposure	>90% after 2000 hrs exposure	>90% after 2000 hrs exposure
Standard Roll Dimensions							
Roll Length ⁽²⁾ , Ft		3,000	3,000	4,000	3,000	2,250	2,250
Roll Width ⁽²⁾ , Ft		12	12	12	12	12	12
Roll Area, Ft ²		36,000	36,000	48,000	36,000	27,000	27,000

⁽¹⁾9 of 10 views shall be Category 1 or 2. No more than 1 view from Category 3.

⁽²⁾Roll widths and lengths have a tolerance of $\pm 1\%$

Custom material thicknesses also available

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**Hilcorp Energy Company
San Juan Basin
Below Grade Tank Maintenance and Operating Plan**

In accordance with Rule 19.15.17 the following information describes the operation and maintenance of a below-grade tank (BGT) on a Hilcorp Energy Company (HEC) location. This is HEC's standard procedure for all BGT's. A separate plan will be submitted for any BGT which does not conform to this plan.

General Plan:

1. HEC will operator and maintain a BGT to contain liquids and solids and maintain the integrity of the liner, liner system and secondary containment system to prevent contamination of fresh water and protect public health and the environmental. HEC will perform an inspection on a monthly basis, install cathodic protection and automatic overflow shutoff devices as seen on the design plan.
2. HEC will not discharge into or store any hazardous waste in the BGT.
3. HEC shall operator and install the BGT to prevent the collection of surface water run-on. HEC has built in shut-off devices that do not all ow a BGT to overflow. HEC constructs berms and corrugated retained walls at least 6" above grade to keep surface water run-on from entering the BGT as shown on the design plan.
4. As per 19.15.17.12.D(3), HEC will inspect the BGT for leakage and damage at least monthly. The operator will document the integrity of each tank at least annually and maintain a written record for 5 years. Inspections may include 1) containment berms adequate and no oil present, 2) tanks had no visible leaks or sign of corrosion, 3) tank valves, flanges, and hatches had no visible leaks and 4) no evidence of significant spillage of produced liquids. HEC shall remove any visible or measurable layer of oil from the fluid surface of the BGT in an effort to prevent significant accumulation of oil overtime.
5. HEC shall maintain adequate freeboard to prevent overtopping of the BGT.
6. If a BGT develops a leak, then HEC shall removal all liquid above the damage or leak within 48 hours of discovery, notify the appropriate division office pursuant to 19.15.29 NMAC and repair the damage or replace BGT as applicable.
7. If HEC discovers a BGT designed in accordance with 19.15.17.11.I(5) has lost integrity the BGT will promptly be drained and removed from service and HEC will follow the approved closure plan. If HEC discovers a retrofitted BGT designed in accordance with 19.15.17.11.I(4)(a-c), does not demonstrate integrity or that the BGT develops any of the conditions identified in Paragraph (5) of Subsection A of 19.15.17.12 NMAC shall repair the damage or close the existing BGT pursuant to the closure requirements of 19.15.17.13 NMAC.
8. If HEC equips or retrofits the existing BGT to comply with Paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, HEC shall visually inspect the area beneath the BGT during the retrofit and document any areas that are wet, discolored or showing other evidence of a release on form C-141. HEC shall measure and report to the division the concentration of contaminants in the wet or discolored soil with respect to the standards set forth in Table I of 19.15.17.13 NMAC. If there is no wet or discolored soil or if the concentration of contaminants in the wet or discolored soil is less than the standard set forth in Table I of 19.15.17.13 NMAC, then HEC will proceed with the closure requirements of 19.15.17.13 NMAC prior to initiating the retrofit or replacement.

**Hilcorp Energy Company
San Juan Asset
Production BGT Closure Plan**

In accordance with Rule 19.15.17.13 NMAC, the following plan describes the general closure requirements of a below-grade tank (BGT) on any Hilcorp Energy Company (HEC) location in the San Juan Asset. This is HEC's standard closure procedure for all BGT's regulated under Rule 19.15.17 NMAC and operated by HEC. For those closures which do not conform to this standard closure plan, a separate BGT specific closure plan will be developed and utilized.

Closure Conditions and Timing for BGT:

- Within 60 days of cessation of operation HEC will:
 - Remove all liquids and sludge and dispose in a division approved manner.
- Within 72 hours or 1 week prior to closure HEC will:
 - Give notice to surface owners by certified mail. For public entities by email as specified on the variance page.
 - Give notice to Division District Office verbal or in writing/email.
- Within 6 months of cessation of operation HEC will:
 - Remove BGT and dispose, recycle, reuse, or reclaim in a division approved manner.
 - Remove unused onsite equipment associated with the BGT.
- Within 60 days of closure HEC will:
 - Send the Division District Office a Closure Report per 19.15.17.13.F (1).

General Plan Requirements:

1. Prior to initiating any BGT closure, except in the case of an emergency, HEC will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or 1 week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner will be notified as soon as practical.
2. Notice of closure will be given to the Division District office between 72 hours and 1 week of the scheduled closure via email or phone. The notification of closure will include the following:
 - a. Operators Name
 - b. Well Name and API Number
 - c. Location
3. All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed of at one of HEC's approved Salt Water Disposal facilities or at a Division District Office approved facility.
4. Solids and sludge's will be shoveled and/or vacuumed out for disposal at one of the Division District Office approved facilities, depending on the proximity of the BGT site: Envirotech Land Farm (Permit #NM-01-011), Industrial Ecosystems Inc. JFJ Land Farm (Permit #NM-01-0010B), and Basin Disposal (Permit #NM-01-005).
5. HEC will obtain prior approval from the Division District Office to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the Division District Office. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liner materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC. Disposal will be at a licensed disposal facility, presently San Juan County Landfill operated by Waste Management under NMED Permit SWM-052426.
6. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure, will be removed.

Revised 3/15/2016

7. Following removal of the tank and any liner material, HEC will test the soils beneath the BGT as follows:
- At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.
 - The laboratory sample shall be analyzed for the constituents listed in Table I of 19.15.17.13.

Table I Closure Criteria for Soils Beneath Below-Grade Tanks, Drying Pads Associated with Closed-Loop Systems and Pits where Contents are Removed			
Depth below bottom of pit to groundwater less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤50 feet	Chloride	EPA 300.0	600 mg/kg
	TPH	EPA SW-846 Method 418.1	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
51 feet-100 feet	Chloride	EPA 300.0	10,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg
> 100 feet	Chloride	EPA 300.0	20,000 mg/kg
	TPH	EPA SW-846 Method 418.1	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8015M	10 mg/kg

*Or other test methods approved by the division

**Numerical limits or natural background level, whichever is greater

(19.15.17.13 NMAC-Ro, 19.15.17.13 NMAC 3/28/2013)

8. If the Division District Office and/or HEC determine there is a release, HEC will comply with 19.15.17.13.C.3b.
9. Upon completion of the tank removal, pursuant to 19.15.17.13.C.3c, if all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, the excavation will be backfilled with non-waste containing earthen material compacted and covered with a minimum of one foot top soil, or background thickness of top soil, whichever is greater. The surface will then be re-contoured to match the native grade, prevent ponding of water, and prevent erosion of cover material.
10. For those portions of the former BGT area no longer required for production activities, HEC will seed the disturbed area in the first favorable growing season following the closure of the BGT. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division District Office approved methods. HEC will notify the Division District Office when reclamation and re-vegetation is complete.

Reclamation of the BGT shall be considered complete when:

- Established vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels.
- Total plant cover is at least 70% of pre-disturbance levels (Excluding noxious weeds) OR
- Pursuant to 19.15.17.13.H.5d HEC will comply with obligations imposed by other applicable federal or tribal agencies in which there re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

Revised 3/15/2016

11. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

Closure Report:

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division District Office Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner and Division District Office)
- Backfilling & cover installation
- Confirmation Sampling Analytical Results
- Application Rate & Seeding techniques
- Photo Documentation of Reclamation

Revised 3/15/2016

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

CONDITIONS

Action 454935

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 454935
	Action Type: [C-144] Below Grade Tank Plan (C-144B)

CONDITIONS

Created By	Condition	Condition Date
joel.stone	The operator shall install, or maintain on site, an oil absorbent boom or other device to contain an unanticipated release.	4/24/2025
joel.stone	All future C-144 Form submittals related to this below-grade tank must include OCD Permit Number: "BGT1" in Section 1 of the C-144 Form.	4/24/2025