U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

03/30/2022

Well Name: HARGRAVE

Well Location: T27N / R10W / SEC 16 / SESE / 36.579773 / -107.896912

County or Parish/State: SAN JUAN / NM

Well Number: 3

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF077382

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004506466

Well Status: Gas Well Shut In

Operator: HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2653617

Type of Submission: Notice of Intent

Type of Action: Plug and Abandonment

Date Sundry Submitted: 01/21/2022

Time Sundry Submitted: 06:13

Date proposed operation will begin: 02/01/2022

Procedure Description: Hilcorp Energy Company requests permission to P&A the subject well per the attached procedure, current & proposed wellbore schematics. The Pre-Disturbance Site Visit was held on 1/19/2022 with Bob Switzer/BLM. The Re-Vegetation Plan is attached. A closed loop system will be used.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Hargrave_3_P_A_NOI_20220121061305.pdf

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Operator: HILCORP ENERGY COMPANY

Conditions of Approval

Additional Reviews

Hargrave_3_Geo_Rpt_20220330094710.pdf

Authorized Officer

General_Requirement_PxA_20220330112946.pdf

2653617_NOIA_3_3004506266_KR_03302022_20220330112934.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: AMANDA WALKER

Signed on: JAN 21, 2022 06:13 AM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Technician

Street Address: 1111 TRAVIS ST.

City: HOUSTON **State:** TX

Phone: (346) 237-2177

Email address: mwalker@hilcorp.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 03/30/2022

Signature: Kenneth Rennick

Plug and Abandonment - NOI

Hargrave 3

API # - 3004506466

Procedure:

Hold PJSM prior to beginning any and all operations. Properly document all operations via the JSA process. Ensure that all personnel onsite abide by HEC safety protocol, including PPE, housekeeping, and standard guidelines.

Verify cathodic protection is off and wellhead instrumentation is properly disconnected from the wellhead. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.

Verify there is no H2S present prior to beginning operations. If any H2S is present, take the necessary actions to ensure that the location is safe prior to beginning operations.

Observe and record pressures across all string daily, prior to beginning operations. **Remember to notify NMOCD 24 hours prior to starting operations on location.**

NOTE: **This procedure is contingent upon P&A sundry approval by NMOCD**. All cement volumes use 100% excess outside pipe and 50' excess inside (unless otherwise stated). All cement will be Class G, mixed at 15.8 ppg w/ a 1.15 cf/sx yield. The stabilizing wellbore fluid will be an 8.3 ppg fluid, sufficient to balance all exposed formation pressures.

Temperature surveys indicate TOC on both the 5.5" and 2-7/8" strings is at similar depths between the Fruitland and Kirtland tops.

1. This project will use a steel tank to handle waste fluids circulated from the well and cement wash up.
2. Test anchors if not using a base beam. Comply with all NMOCD, BLM, and HEC safety regulations. MIRU and conduct safety meeting for all personnel on location.
3. Record casing, tubing, and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary. Ensure well is dead or on a vacuum.
4. POOH with 1.66" tubing, stand back to use as work string.
5. RUWL and RIH with 2.875" CIBP, set plug at 1860'. POOH RDWL.
6. **Plug #1, 1860' – 1830' (PC Top: 1866')**
7. RIH work string to CIBP and circulate 30' of cement on plug.
8. Fill and roll hole with water to run CBL, POOH.
9. RUWL and run CBL from 1830' to surface. RDMO WL
10. Circulate plug mud from to 1430'
11. **Plug #2, 1430' – 1330' (Fruitland Top: 1380')**
12. Circulate cement plug from 1430' to 1330' (0.58 bbl)

13. Circulate plug mud to 1058’
14. **Plug #3, 1058’-833’ (Kirtland Top: 1008’ Ojo Alamo Top:883’)**
15. RUWL, perforate at 1058’, RDMO WL.
16. RIH to 833’ with work string.
17. Bullhead 25.6 bbl cmt (12.8 bbl +100% excess)
18. Displace tubing volume to make TOC 833’
19. Circulate plug mud to 163’
20. POOH with work string
21. **Plug #3, 163’ - Surface (Surface Shoe: 113’)**
22. RUWL and perforate at 163’, RDMO WL
23. Attempt to establish circulation through perforations to bradenhead and 5.5” annulus with fresh water.
24. Circulate cement to surface and fill 2.875” ID (9.3 bbl volume to fill, 18.6 bbl minimum to be pumped)
25. ND BOP and cut off wellhead below surface casing flange per regulation. Top off w/cement if needed. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location.

Hilcorp Energy Company

Schematic - Current

Well Name: HARGRAVE #3

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004506466	016-027N-010W-P	FULCHER KUTZ PC (GAS		NEW MEXICO	

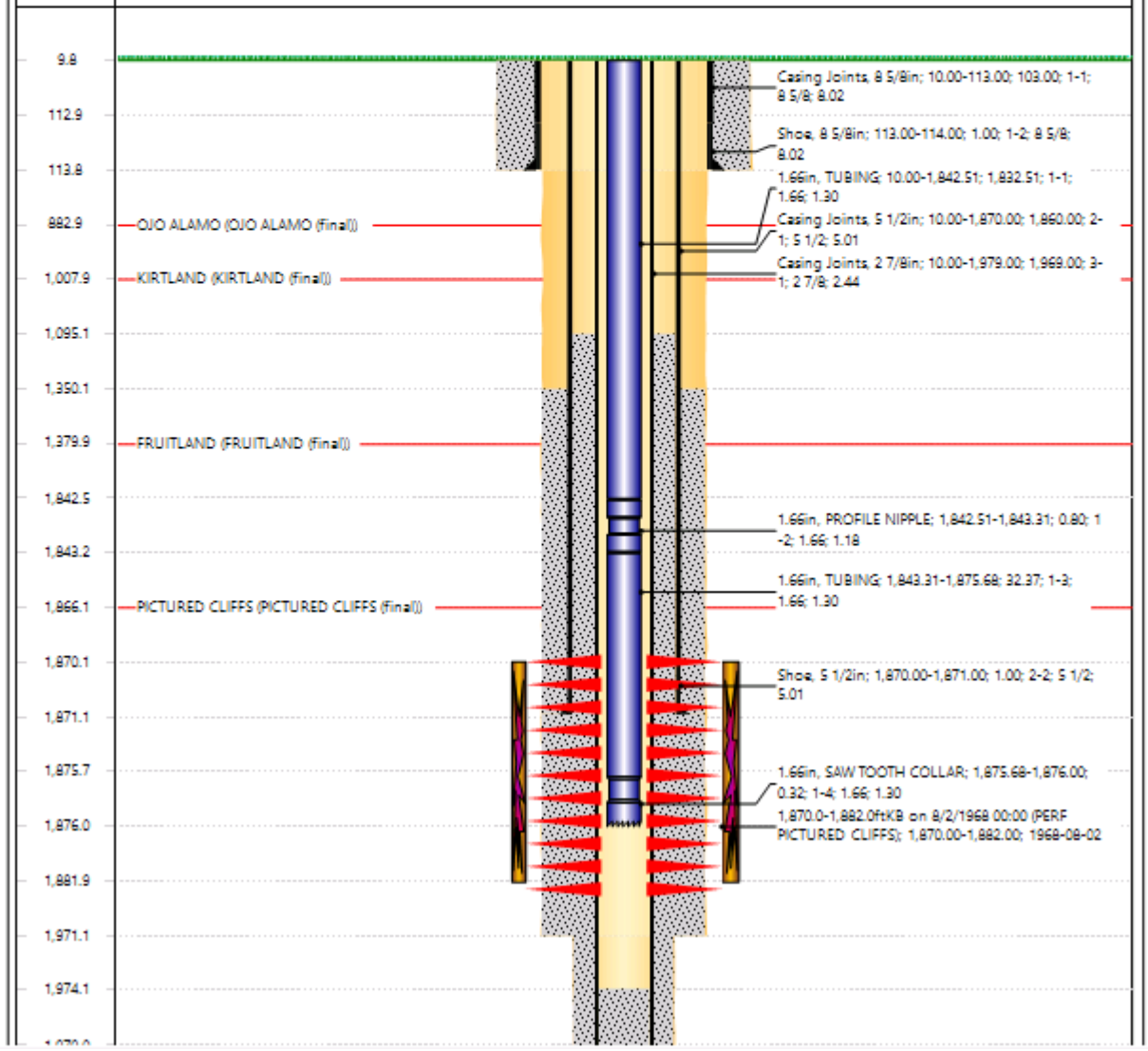
Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	Original Spud Date	Rig Release Date	PBTD (All) (ftKB)	Total Depth All (TVD) (ftKB)
5,062.00	10.00	11/30/1950 00:00	4/8/1999 19:30	Original Hole - 1,974.0	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
WELL INTERVENTION	RESTIMULATION		2/12/1999	4/9/1999

TD: 1,980.0

Original Hole



Hilcorp Energy Company

Proposed

Well Name: HARGRAVE #3

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004506466	016-027N-010W-P	FULCHER KUTZ PC (GAS		NEW MEXICO	

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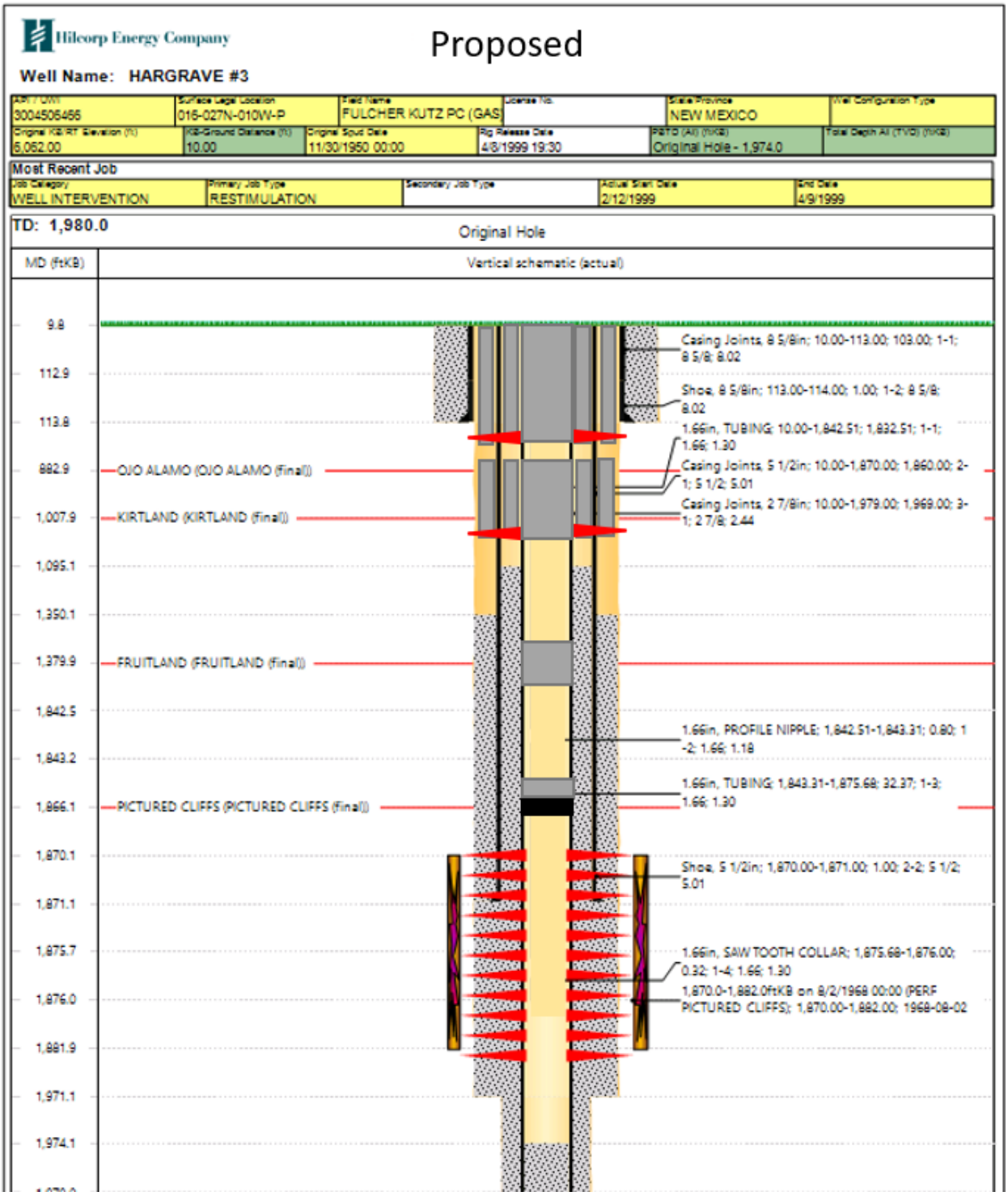
Original Hole



Hilcorp Energy
P&A Final Reclamation Plan
Hargrave 3
API: 30-045-06466
T27N-R10W-Sec. 16-Unit P
LAT: 36.57069 LONG: -107.89523 NAD 27
Footage: 990' FSL & 1150' FEL
San Juan County, NM

1. **PRE- RECLAMATION SITE INSPECTION**

   A pre-reclamation site inspection was completed with Bob Switzer from the BLM and Eufracio Trujillo, Hilcorp Energy SJ South Construction Foreman on January 19, 2022.

2. **LOCATION RECLAMATION PROCEDURE**

   1. Reclamation work will begin in spring/summer.
   2. Removal of all equipment, anchors, line drip, and flowlines.
   3. BGT will be sampled and closed after results are shown to be clear.
   4. All trash and debris will be removed within a 50' buffer outside of the location disturbance during reclamation.
   5. Rip compacted soil and walk down disturbed portion of well pad.
   6. Use Northern edges to fill in BGT after it passes to help with contouring of location.
   7. Remove all gravel from berms, pads, and meter run. This gravel will be used on the lease road surfaces near the well pad.
   8. Harvest will remove meter run. We will barricade around Harvest riser.

3. **ACCESS ROAD RECLAMATION PROCEDURE**

   1. Reclaiming of road will not be necessary as main lease road runs directly through pad.
   2. A bar ditch will be installed on northern edge of the road through the location to keep traffic off of pad.

4. **SEEDING PROCEDURE**

   1. A Badlands seed mix mixed with some sage will be used for all reclaimed and disturbed areas of the well pad and sides of lease road.
   2. Drill seed will be done where applicable, and all other disturbed areas will be broadcast seeded and harrowed. Broadcast seeding will be applied at a double the rate of seed.
   3. Timing of the seeding will be when the ground is not frozen or saturated.

5. **WEED MANAGEMENT**

   1. No noxious weeds were identified during this onsite.

GENERAL REQUIREMENTS FOR PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES FARMINGTON FIELD OFFICE

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

4.6 **A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.**

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.

5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.

5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.

5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.

6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H_2S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

AFMSS 2 Sundry ID 2653617

Attachment to notice of Intention to Abandon

Well: Hargrave 3

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."

2. The following modifications to your plugging program are to be made:
   a) Bring the top of the Pictured Cliffs plug to 1810'. Note a minimum of 50' of cement is required on top of the CIBP at 1860', not 30'.
   b) Run the Fruitland plug from 1503' to 1353' to cover the BLM pick (1453').
   c) Run the Kirtland/ Ojo Alamo plug 1168' to 728' to cover the BLM picks (828' Ojo Alamo; 1118' Kirtland).

3. Farmington Office is to be notified at least 24 hours before the plugging operations commence at (505) 564-7750.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.

K. Rennick 3/30/2022

BLM - FFO - Geologic Report

Date Completed 3/29/2022

Well No.	Hargrave	# 3	Surf. Loc.	990	FSL	1150	FEL
			Sec.	16	T27N		R10W
Lease No.	NMSF077382						
Operator	Hilcorp Energy Co		County	San Juan		State	New Mexico
TD	1980	PBTD 1980	Formation	Fulcher Kutz Pictured Cliffs			
Elevation	GL	6145	Elevation	Est. KB	6157		

Geologic Formations	Est. tops	Subsea Elev.	Remarks
Nacimiento Fm.	Surface	5959	Fresh water sands
Ojo Alamo Ss	828	5329	Aquifer (fresh water)
Kirtland Fm.	1118	5039	
Fruitland Fm.	1453	4704	Coal/gas/possible water
Pictured Cliffs Ss	1978	4179	Probable water
Lewis Shale	2178	3979	

Remarks:

- Vertical wellbore - all fm. tops are TVD from KB

-Bring the top of the Pictured Cliffs plug to 1810', including excess.

-Run the Fruitland plug from 1503' to 1353', including excess, to cover the BLM pick.

-Run the Kirtland/Ojo Alamo plug from 1168' to 728', including excess,to cover the BLM pick.

-Please note that H2S is present in low levels in the Gallup and Dakota within 1 mile of the location.

Reference Well:

Hilcorp Energy Co
RP Hargrave K # 1
1650' FNL, 990 FWL
Sec 23, T27N, R10W
GL= 6145', KB= 6157'

Prepared by: Walter Gage

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 94364

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 94364
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
kpickford	CBL required	3/31/2022
kpickford	Notify NMOCD 24 Hours Prior to beginning operations	3/31/2022
kpickford	Adhere to BLM approved COAs and plugs. See GEO report.	3/31/2022