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

# Sundry Print Report

11/05/2021

**Well Name:** HILL

**Well Location:** T29N / R8W / SEC 4 / SESW / 36.748993 / -107.682556

**County or Parish/State:** SAN JUAN / NM

**Well Number:** 4

**Type of Well:** CONVENTIONAL GAS WELL

**Allottee or Tribe Name:**

**Lease Number:** NMSF078487

**Unit or CA Name:**

**Unit or CA Number:**

**US Well Number:** 3004523307

**Well Status:** Gas Well Shut In

**Operator:** HILCORP ENERGY COMPANY

## Notice of Intent

**Sundry ID:** 2643017

**Type of Submission:** Notice of Intent

**Type of Action:** Plug and Abandonment

**Date Sundry Submitted:** 11/04/2021

**Time Sundry Submitted:** 11:33

**Date proposed operation will begin:** 11/10/2021

**Procedure Description:** Hilcorp Energy Company requests permission to P&A the subject well per the attached procedures, current and proposed wellbore schematics. The Pre-Disturbance Site Visit was held on 9/22/2021 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**

Plug_and_Abandonment_Procedure___Hill_4_20211104113229.pdf

Hill_4_Reclamation_Plan_20211104113228.pdf

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## Conditions of Approval

**Additional Reviews**

2643017_NOIA_4_3004523307_KR_11052021_20211105095850.pdf

General_Requirement_PxA_20211105095741.pdf

29N08W04NKpc_Hill_4_20211104190130.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:** KANDIS ROLAND

**Signed on:** NOV 04, 2021 11:33 AM

**Name:** HILCORP ENERGY COMPANY

**Title:** Operation Regulatory Tech

**Street Address:** 382 Road 3100

**City:** Farmington **State:** NM

**Phone:** (505) 599-3400

**Email address:** kroland@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:** 11/05/2021

**Signature:** Kenneth Rennick

**Plug and Abandonment - NOI**

**Hill 4**

**API # - 3004523307**

**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.

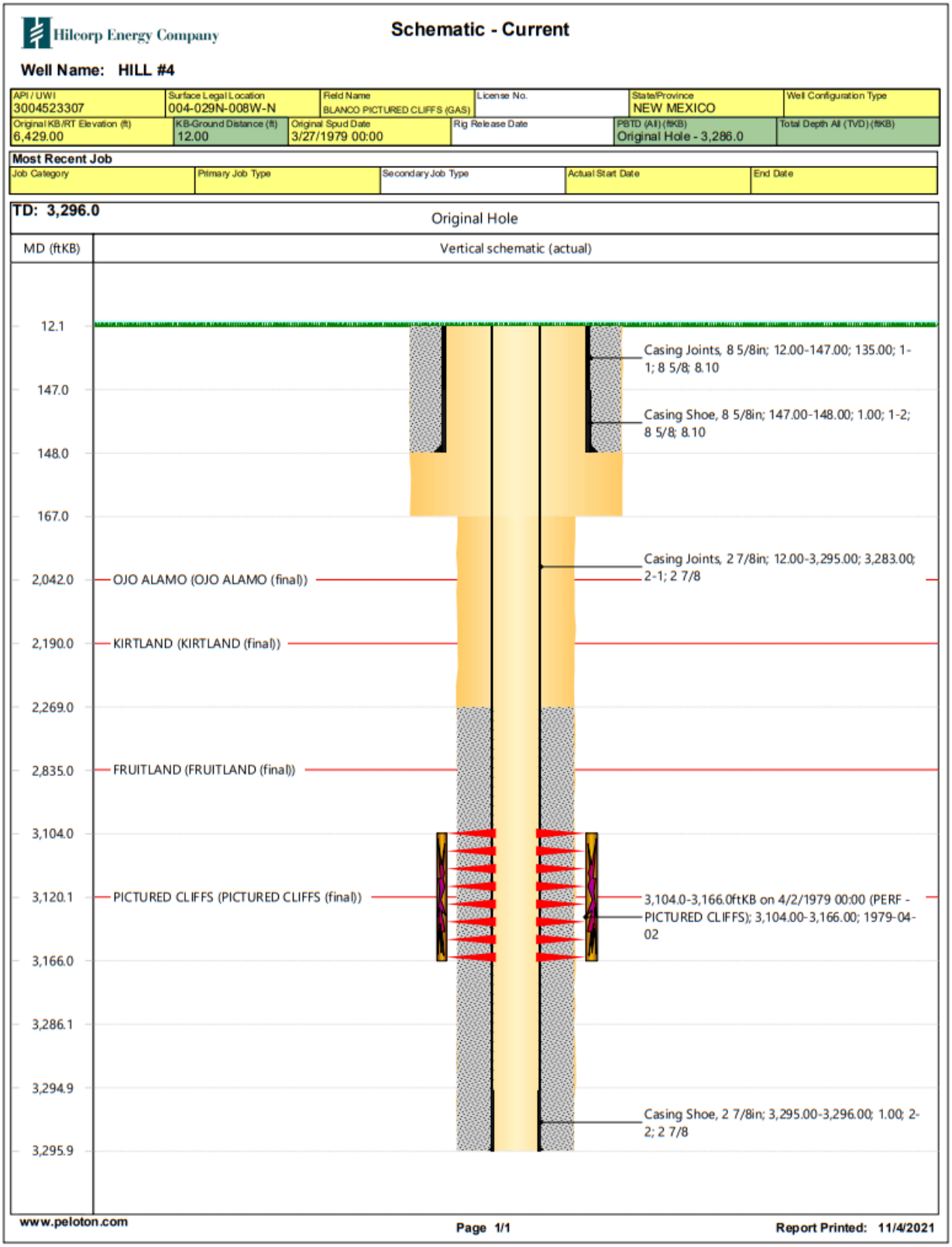
Observe and record pressures across all string daily, prior to beginning operations. **Remember to notify NMOCD 24 hours prior to starting operations on location.**

NOTE: **This procedure is contingent upon P&A sundry approval by NMOCD**. All cement volumes use 100% excess outside pipe and 50' excess inside (100' between pipe or 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.

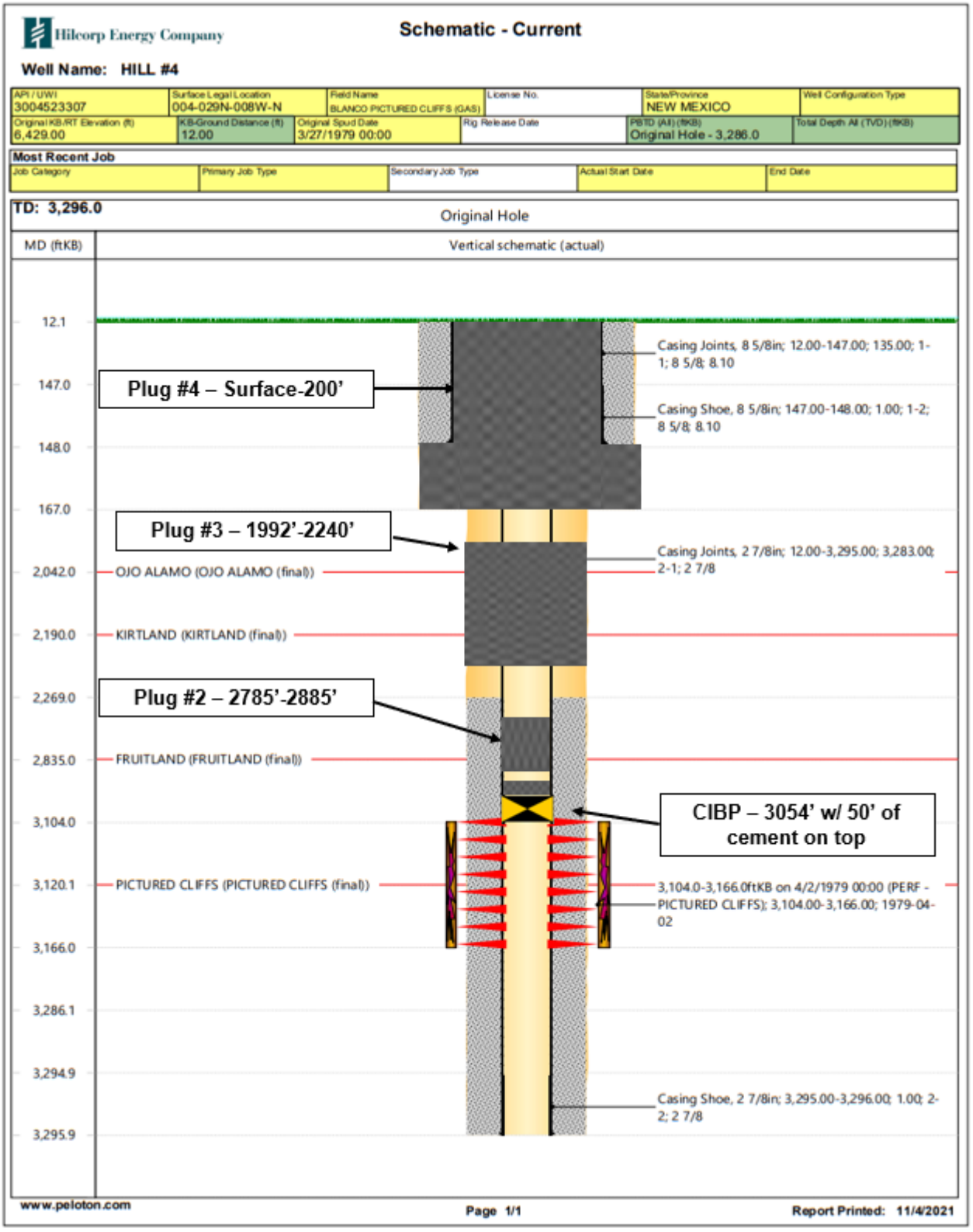
1. This project will use a steel tank to handle waste fluids circulated from the well and cement wash up.
2. Will be using a coil tubing unit and wireline for this procedure. Comply with all NMOCD, BLM, and HEC safety regulations. MIRU and conduct safety meeting for all personnel on location.
3. Record casing and bradenhead pressures. Remove existing piping on casing valve. RU blow lines from casing valves and begin BD casing pressure. Kill well with water as necessary. Ensure well is dead or on a vacuum.
4. ND wellhead and NU BOP. Function test BOP.
5. RU WL and set CIBP at 3054'. Load and roll the hole. PT casing to 500 psi.
6. RU CTU to pump first plug.
7. **Plug #1, 3054' – 3004' (Pictured Cliffs Top: 3120' Pictured Cliffs Perforations: 3104' – 3166')** Mix and pump 2 sacks of Class G cement for 50' on top of the CIBP on coil tubing.
8. Run CBL from 2900' to surface.
9. RU CTU and prepare to pump second plug.
10. **Plug #2, 2885' – 2785' (Fruitland Coal Top: 2835')** Mix and pump 3 sacks of class G cement as an inside plug to cover the Fruitland Coal Top.

11. RU WL and perforate 2-7/8” casing string at 2240’. Establish injection rate.
12. **Plug #3, 2240’ – 1992’ (Kirtland Top: 2190’ Ojo Alamo Top: 2042’)** Mix and pump 95 sacks of Class G cement to cover the Kirtland and Ojo Alamo tops.
13. RU WL and perforate 2-7/8” casing string at 200’. Establish injection rate.
14. **Plug #4, 200’ – Surface (Surface Shoe: 148’)** Mix and pump 78 sacks of Class G cement to cover the surface shoe until we see good returns to surface.
15. RD CTU.
16. Ensure we have no pressure on BHD or intermediate strings before cutting off the wellhead.
17. ND BOP and cut off wellhead below surface casing flange per regulation. Top off w/ cement if needed. Install PxA marker w/ cement to comply w/ regulations.
18. RD, MOL and cut off anchors. Restore location per BLM stipulations.

# Current Schematic



## Proposed Schematic



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

Attachment to notice of
Intention to Abandon

Re: Permanent Abandonment
Well: Hill 4

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

3. The following modifications to your plugging program are to be made:

   a) Bring the top of Plug No. 2 (Fruitland) up to 2700' to cover BLM pick.

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 11/05/2021

# 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.

# BLM FLUID MINERALS
# P&A Geologic Report

**Date Completed:** 11/4/2021

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Well No. Hill #4 (API# 30-045-23307) | | Location | 790 | FSL | & | 1700 | FWL |
| Lease No. NMSF078487 | | Sec. 04 | T29N | | | R08W | |
| Operator Hilcorp Energy Company | | County | San Juan | | State | New Mexico | |
| Total Depth 3299’ | PBTD 3286’ | Formation Pictured Cliffs | | | | | |
| Elevation (GL) 6417’ | | Elevation (KB) 6429’ | | | | | |

| Geologic Formations | Est. Top | Est. Bottom | Log Top | Log Bottom | Remarks |
|---|---|---|---|---|---|
| San Jose Fm | | | | | |
| Nacimiento Fm | | | Surface | 2042 | Fresh water sands |
| Ojo Alamo Ss | | | 2042 | 2190 | Aquifer (fresh water) |
| Kirtland Shale | | | 2190 | 2750 | |
| Fruitland Fm | | | 2750 | 3120 | Coal/Gas/Possible water |
| Pictured Cliffs Ss | | | 3120 | PBTD | Gas |
| Lewis Shale | | | | | |
| Chacra (La Ventana) | | | | | |
| Cliff House Ss | | | | | Water/Possible gas |
| Menefee Fm | | | | | Coal/Ss/Water/Possible O&G |
| Point Lookout Ss | | | | | Probable water/Possible O&G |
| Mancos Shale | | | | | |
| Gallup | | | | | O&G/Water |
| Greenhorn | | | | | |
| Graneros Shale | | | | | |
| Dakota Ss | | | | | O&G/Water |

Remarks:
P & A

- BLM pick for the top of the Fruitland formation varies from Operator pick.
- No CBL on file
- Bring the top of Plug #2 (Fruitland) up to 2700’ to cover BLM pick.
- The plugs proposed in the P&A procedure, with changes as recommended above, will adequately protect any freshwater sands in this well bore.
- Pictured Cliffs perfs at 3104’ – 3166’.

Reference Well:
1) **Formation Tops**
Same

**Prepared by:** *Chris Wenman*

**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

COMMENTS

Action 60490

## COMMENTS

| | |
|---|---|
| Operator:<br>HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | OGRID:<br>372171 |
| | Action Number:<br>60490 |
| | Action Type:<br>[C-103] NOI Plug & Abandon (C-103F) |

**COMMENTS**

| Created By | Comment | Comment Date |
|---|---|---|
| kpickford | KP GEO Review 11/15/2021 | 11/15/2021 |

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**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 60490

## CONDITIONS

| | |
|---|---|
| Operator:<br>HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | OGRID:<br>372171 |
| | Action Number:<br>60490 |
| | Action Type:<br>[C-103] NOI Plug & Abandon (C-103F) |

**CONDITIONS**

| Created By | Condition | Condition Date |
|---|---|---|
| kpickford | Notify NMOCD 24 Hours Prior to beginning operations | 11/15/2021 |
| kpickford | CBL Required | 11/15/2021 |
| kpickford | Adhere to BLM approved plugs and COAs (see GEO report) | 11/15/2021 |