

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 9/5/2019

Well information:

30-045-24842 PAN AMERICAN FEDERAL GAS COM B #001E
HILCORP ENERGY COMPANY

Application Type:

P&A Drilling/Casing Change Location Change

Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)

Other:

Conditions of Approval:

- Notify NMOCD 24hrs prior to beginning operations.
- In addition to BLM COAs, ensure the following tops are covered:
- 5,705'-5,605'. OCD Gallup pick @ 5,655'
 - 3,780'-3,680'. OCD Mesaverde pick @ 3,730'
 - 2,800'-2,700'. OCD Chacra pick @ 2,750'
 - 1,870'-1,770'. OCD Fruitland pick @ 1,820'.
 - 810'-585'. OCD Kirtland pick @ 760'. Ojo Alamo pick @ 635'.

A handwritten signature in blue ink, appearing to read "Adrienne Sandoval", is written over a horizontal line.

NMOCD Approved by Signature

11/25/19
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMSF078144
2. Name of Operator HILCORP ENERGY COMPANY Contact: CHERYLENE WESTON E-Mail: cweston@hilcorp.com		6. If Indian, Allottee or Tribe Name
3a. Address 1111 TRAVIS STREET HOUSTON, TX 77002	3b. Phone No. (include area code) Ph: 505-564-0779	7. If Unit or CA/Agreement, Name and/or No. SW45
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 31 T30N R11W SWNE 1710FNL 1660FEL 36.771286 N Lat, 108.027954 W Lon		8. Well Name and No. PAN AMERICAN FEDERAL GAS COM B 1E
		9. API Well No. 30-045-24842-00-S1
		10. Field and Pool or Exploratory Area AZTEC PICTURED CLIFFS BASIN DAKOTA
		11. County or Parish, State SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Please see attached.

NMOCD

NOV 14 2019

DISTRICT III

14. I hereby certify that the foregoing is true and correct. Electronic Submission #482032 verified by the BLM Well Information System For HILCORP ENERGY COMPANY, sent to the Farmington Committed to AFMSS for processing by ALBERTA WETHINGTON on 09/09/2019 (19AMW0592SE)	
Name (Printed/Typed) CHERYLENE WESTON	Title OPERATIONS/REGULATORY TECH SR.
Signature (Electronic Submission)	Date 09/05/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>JOE KILLINS</u>	Title <u>ENGINEER</u>	Date <u>11/12/2019</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office <u>Farmington</u>

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

AV

**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: Pan Am Federal B #1E

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. Run and submit electronic copy of a CBL for verification to the following addresses: jkillins@blm.gov , jhoffman@blm.gov and Brandon.Powell@state.nm.us . Based on CBL results inside/outside plugs and volumes will be adjusted accordingly. Please review the General Requirements document to ensure volumes meet required excess inside and outside casing.
4. BLM pick top of Chacra: 3190 ft. Add plug or modify Plug #5 to cover 3140-3240 ft.
5. BLM pick top Mancos: 4794 ft. Add a plug or modify Plug #3 to cover 4744 – 4844 ft.

**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 H₂S.

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
Geologic Report**

Date Completed: 11/7/2019

Well No.	Pan American Federal Gas COM B #1E	Location	1710	FNL &	1660	FEL
Lease No.	NMSF078144	Sec.	31	T30N		R11W
Operator	Hilcorp Energy Company	County	San Juan	State	New Mexico	
Total Depth	6700	PBTD	6680	Formation	Dakota	
Elevation (GL)	5837	Elevation (KB)	5850			

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm					Surface/Fresh water sands
Nacimiento Fm			Surface	732	Fresh water sands
Ojo Alamo Ss			732	800	Aquifer (fresh water)
Kirtland Shale			800	1520	
Fruitland Fm			1520	2061	Coal/Gas/Possible water
Pictured Cliffs Ss			2061	2116	Gas
Lewis Shale			2116	3190	
Chacra			3190	3730	
Cliff House Ss			3730	3808	Water/Possible gas
Menefee Fm			3808	4407	Coal/Ss/Water/Possible O&G
Point Lookout Ss			4407	4794	Probable water/Possible O&G
Mancos Shale			4794	5655	
Gallup			5655	6470	O&G/Water
Graneros Shale			6470	6520	
Dakota Ss			6520	PBTD	O&G/Water

Remarks:

P & A

- BLM geologist's pick for the top of the Kirtland and Lewis formations varies from operator's.
- Log analysis of reference well #2 (attached worksheet) indicates the Nacimiento and Ojo Alamo sands investigated contain fresh water ($\leq 5,000$ ppm TDS).
- Please ensure that the tops of the Dakota, Gallup, Mancos, Mesaverde (Cliff House), Pictured Cliffs, Fruitland, and Kirtland Formations, as well as the entire Ojo Alamo fresh water aquifer identified in this report are isolated by proper placement of cement plugs. This will protect the fresh water sands in this well bore.

Reference Well:

- | | |
|---|-------------------|
| 1) Same | Fm. Tops |
| 2) Southland Royalty
Cooper #3E
1810' FSL, 860' FEL
Sec. 6, T29N, R11W
GL 5777', KB 5789' | Water
Analysis |

Prepared by: Chris Wenman

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.
NMSF078144

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well
 Oil Well Gas Well Other

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.
Pan American Federal Gas Com B 1E

2. Name of Operator
Hilcorp Energy Company

9. API Well No.
30-045-24842

3a. Address
382 Road 3100, Aztec, NM 87410

3b. Phone No. (include area code)
505-599-3400

10. Field and Pool or Exploratory Area
Aztec Pictured Cliffs / Basin Dakota

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Surface Unit G (SWNE), 1710' FNL & 1660' FEL, Sec. 31, T30N, R11W

11. Country or Parish, State
San Juan, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	_____
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	_____

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Hilcorp Energy requests permission to P&A the subject well per the attached procedure. The Pre-Disturbance Site Visit was held on 7/18/2019 with Bob Switzer/BLM. The Re-Vegetation Plan is attached. A Closed Loop system will be used.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
Cherylene Weston

Title **Operations/Regulatory Technician - Sr.**

Signature *Cherylene Weston* Date **7-23-19**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office _____

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.

PLUG AND ABANDONMENT PROCEDURE

July 22, 2019

Pan Am Federal B #1E

Basin Dakota / Aztec PC

1710' FNL & 1660' FEL, Section 31, T30N, R11W,
San Juan County, NM API 30-045-24842

Note: All cement volumes use 100% excess outside pipe and 50' excess inside pipe. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class G, mixed at 15.8 ppg with a 1.15 cf/sx yield.

1. This project will use a steel tank to handle waste fluids circulated from the well and cement wash up.
2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.

3. Rods: Yes , No , Unknown
Tubing: Yes , No , Unknown , Size 2-3/8", Length 2092'
Packer: Yes , No , Unknown , Type
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.

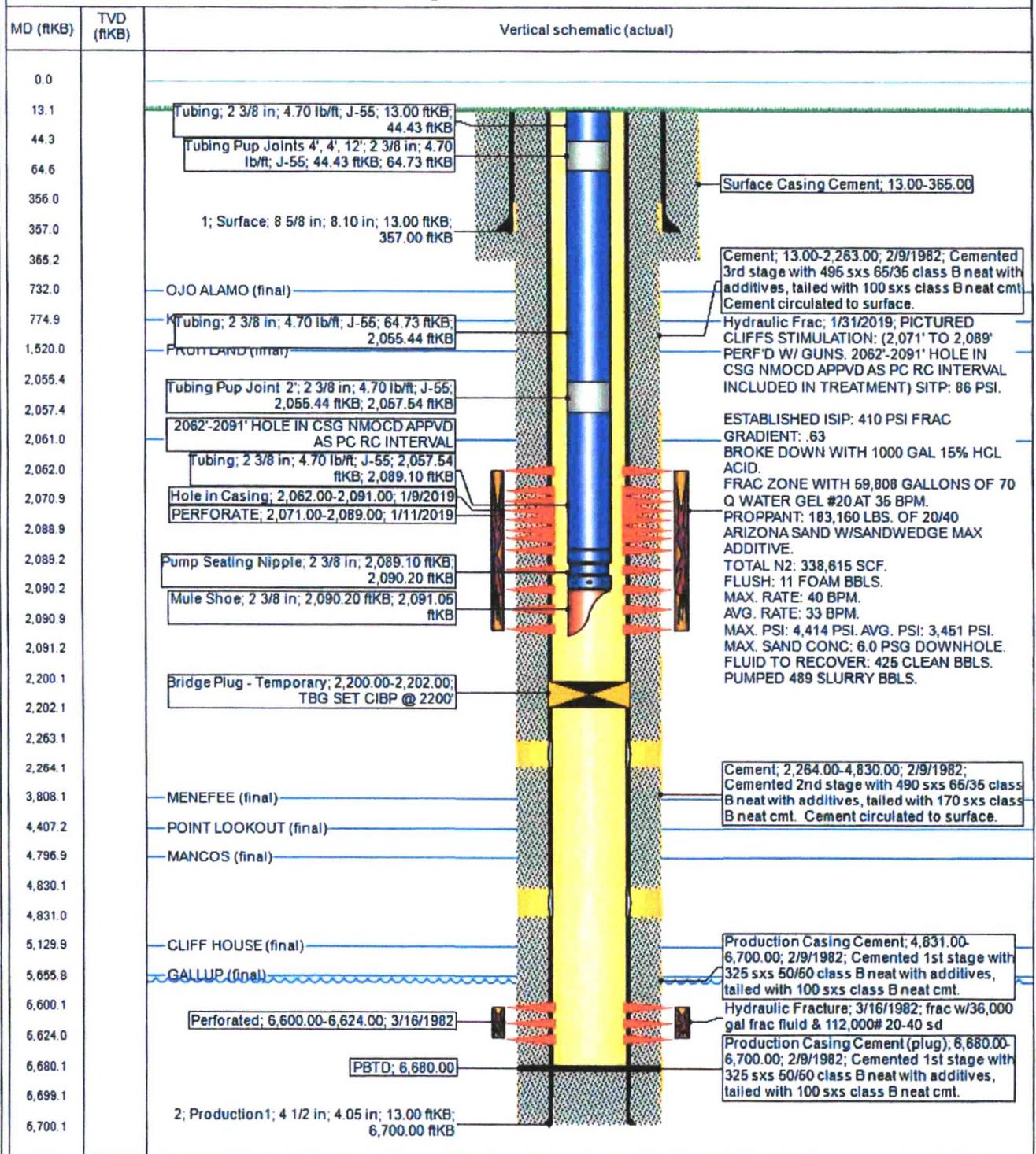
Note: Production tubing will be removed and CIBP @ 2200' will need to be drilled out prior to beginning cementing.

4. **Plug #1 (Dakota perforations and top, 6650' – 6450')**: TIH with gauge ring and RIH to 6650'. RIH w/ 4.5" CR and set at 6650'. Load casing with water and circulate well clean. Mix 18 sxs Class G cement (Excess due to open P/C perms). PUH.
5. **Plug #2 (Gallup top, 5506' – 5406')**: Mix and pump 18 sxs Class G cement (Excess due to open P/C perms) and spot a balanced plug inside casing to cover the Gallup top. PUH.
6. **Plug #3 (Mancos top, 4457' – 4357')**: Mix and pump 18 sxs Class G cement (Excess due to open P/C perms) and spot a balanced plug inside casing to cover the Mancos top. PUH.
7. **Plug #4 (Mesaverde top, 3858' – 3758')**: Mix and pump 18 sxs Class G cement (Excess due to open P/C perms) and spot a balanced plug inside casing to cover the Mesaverde top. PUH.
8. **Plug #5 (Chacra top, 2850' – 2750')**: Mix and pump 18 sxs Class G cement (Excess due to open P/C perms) and spot a balanced plug inside casing to cover the Chacra top. PUH.
9. **Plug #6 (Pictured Cliffs Interval and Fruitland top, 2011'- 1557')**: Set CR @ 2011'. Mix and pump 40 sxs Class G cement and spot a balanced plug inside casing to cover the PC interval and Fruitland top. PUH.
10. **Plug #7 (Kirtland and Ojo Alamo tops, 825' – 590')**: Mix and pump 23 sxs Class G cement and spot a balanced plug inside casing to cover the Kirtland/Ojo Alamo tops. PUH.
11. **Plug #8 (8-5/8" casing shoe, 425' – 0')**: Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 34 sxs cement and spot a balanced plug from 425' to surface, circulate good cement out casing valve. TOH and LD tubing. Shut well in and WOC. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing and annulus from the squeeze holes to surface. Shut in well and WOC.
12. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. Cut off anchors and clean up location. Restore location per BLM stipulations.

Well Name: PAN AMERICAN FEDERAL GAS COM B #1E

API UWI 3004624842	Surface Legal Location T30N-R11W-S31	Field Name Basin Dakota	Route 0701	State/Province New Mexico	Well Configuration Type Vertical
Ground Elevation (ft) 6,837.00	Original KBRT Elevation (ft) 6,860.00	KB-Ground Distance (ft) 13.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	

Vertical, Original Hole, 7/22/2019 12:14:13 PM

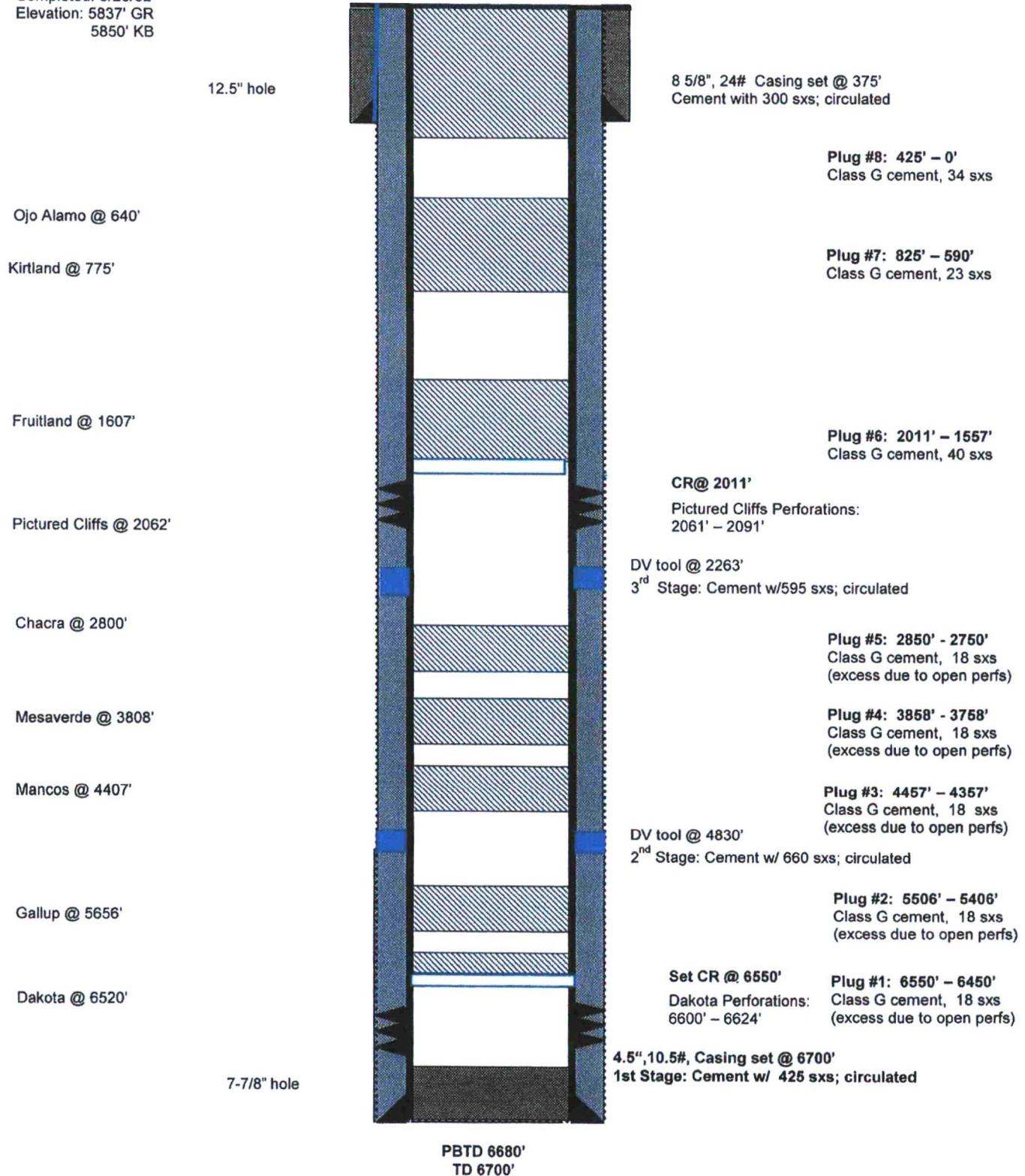


Pan Am Federal B #1E Proposed P&A

Basin Dakota / Aztec PC
1710' FNL & 1660' FEL, Section 31, T30N, R11W, NMPM
San Juan County, New Mexico
API# 30-045-24842

Today's Date: 7/10/19

Spud: 1/27/82
Completed: 3/20/82
Elevation: 5837' GR
5850' KB



PBDT 6680'
TD 6700'

Hilcorp Energy
P&A final Reclamation Plan
Pan American Federal Gas Com B 1E
API: 30-045-24842
T30N-R11W-Sec. 31-Unit G
LAT: 36.771323 LONG: -108.027959
Footage: 1710' FNL & 1660' FEL
San Juan County, NM

1. PRE- RECLAMATION SITE INSPECTION

A pre-reclamation site inspection was completed with Bob Switzer from the BLM and Eufrazio Trujillo, Hilcorp Energy SJ South Construction Foreman on July 18, 2019.

2. LOCATION RECLAMATION PROCEDURE

1. Reclamation work will begin in summer/ fall time period.
2. Well pad is twinned with the Pan American Federal Gas Com B 2.
3. Removal of all equipment and flowlines.
4. Below Grade Tank will be sampled and tested. It will be closed after approval has been given.
5. All trash and debris will be removed within a 50' buffer outside of the location disturbance during reclamation.
6. Rip compacted soil and walk down entire well pad.
7. Remove gravel from berms and where equipment was installed.
8. Pull soil from fill slope and push to cut slope. Recontour in shallow swales or slit traps to create rolling terrain that matches natural drainage features to limit erosion.
9. Create drainage diversion on the well pad to reclaim area disturbed on twin pad.

3. ACCESS ROAD RECLAMATION PROCEDURE

1. The main lease access will be bladed in from foreign operated well.
2. No reclaim will be needed at this time for access road due to well pad being twinned.

4. SEEDING PROCEDURE

1. A Pinion/Juniper seed mix will be used for all reclaimed and disturbed areas of the well pad and 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 action is required at this time for weed management, no noxious weeds were identified during this onsite.