Initial Application Part I

Received: **08/29/2019**

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

Revised March 23, 2017

RECEIVED: 08/29/2019	REVIEWER:	TYPE: DHC	APP NO: pMAM1924133165

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Geological & Engineering Bureau –
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: Hilcorp Energy Company **OGRID Number:** 372171
Well Name: Lucerne A 2A **API:** 30-045-22504
Pool: Blanco Pictured Cliffs / Wildcat Lewis / Blanco Mesaverde **Pool Code:** 72359/98326/72319

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

DHC-5058

1) **TYPE OF APPLICATION:** Check those which apply for [A]
A. Location – Spacing Unit – Simultaneous Dedication
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]
[I] Commingling – Storage – Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ☐ Offset operators or lease holders
B. ☐ Royalty, overriding royalty owners, revenue owners
C. ☐ Application requires published notice
D. ☐ Notification and/or concurrent approval by SLO
E. ☐ Notification and/or concurrent approval by BLM
F. ☐ Surface owner
G. ☐ For all of the above, proof of notification or publication is attached, and/or,
H. ☒ No notice required

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Thomas Jacques
Print or Type Name

Signature

8/28/2019
Date

832.839.4582
Phone Number

tjacques@hilcorp.com
e-mail Address

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Receipt of Fee Application Payment

PO Number: 9LWBB-190829-C-107A

Payment Date:	8/29/2019 5:47:42 AM
Payment Amount:	$150.00
Payment Type:	Credit Card

Application Type:	Application for administrative approval of a downhole commingle.
Fee Amount:	$150.00
Application Status:	Under OCD Review

OGRID:	372171
First Name:	Priscilla
Last Name:	Shorty
Email:	pshorty@hilcorp.com

IMPORTANT: If you are mailing or delivering your application, you must print and include your receipt of payment as the first page on your application. All mailed and delivered applications must be sent to the following address: 1220 S. St. Francis Dr., Santa Fe, NM 87505. For inquiries, reference the PO Number listed above.

District I
1625 N. French Drive, 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, New Mexico 87505

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
___Single Well
___Establish Pre-Approved Pools
EXISTING WELLBORE
X Yes ___No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company — Operator
382 Road 3100, Aztec, NM 87410 — Address

Lucerne A — Lease
2A — Well No.
P – 09 – 31N – 10W — Unit Letter-Section-Township-Range
San Juan — County

OGRID No. 37217 Property Code 318612 API No. 30-045-22504 Lease Type: X Federal ___State ___Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blanco Pictured Cliffs	WC 31N10W9: Lewis	Blanco Mesaverde
Pool Code	72359	98326	72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2,974'- 3,058'	3,327'- 3,328'	4,478'- 5,614'
Method of Production (Flowing or Artificial Lift)	Artificial Lift	New Zone-Artificial Lift	Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	260 psi	400 psi	200 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1000 BTU	1000 BTU	1000 BTU
Producing, Shut-In or New Zone	Producing	New Zone	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: : 05/2019 Rates: 0.322 BOPD, 35.16 MCFPD, 0.419 BWPD	Date: Rates:	Date: 05/2019 Rates: 0.322 BOPD, 162.3 MCFPD, 0.419 BWPD
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas Will be supplied upon completion	Oil Gas Will be supplied upon completion	Oil Gas Will be supplied upon completion

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes X No
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes ___ No ___

Are all produced fluids from all commingled zones compatible with each other? Yes X No ___

Will commingling decrease the value of production? Yes ___ No X

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes X No ___

NMOCD Reference Case No. applicable to this well: _____

Attachments:
- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Priscilla Shorty TITLE Operations/Regulatory Technician – Sr. DATE 8/26/2019

TYPE OR PRINT NAME Priscilla Shorty TELEPHONE NO. (505) 324-5188

E-MAIL ADDRESS pshorty@hilcorp.com

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

Form C-102
August 1, 2011

Permit 271076

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-22504	98326	WILDCAT 31N10W9: LEWIS
4. Property Code	**5. Property Name**	**6. Well No.**
318612	LUCERNE A	002A
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6173

10. Surface Location

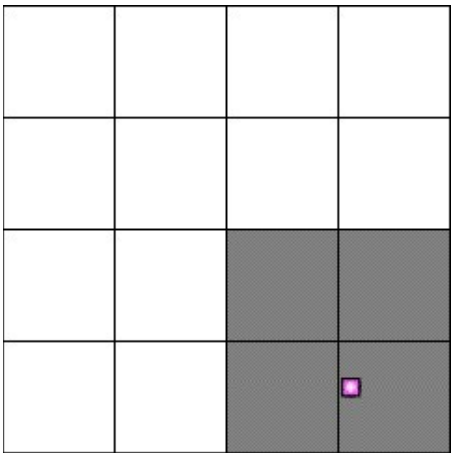
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	9	31N	10W	12	800	S	1180	E	SAN JUAN

11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
157.64			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: Priscilla Shorty
Title: Operations Regulatory Tech - Sr.
Date: 8/13/2019

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: David Kilven
Date of Survey: 3/28/1977
Certificate Number: 1760

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
EL PASO NATURAL GAS COMPANY	LUCERNE A (SF-078389)	2A

Unit Letter	Section	Township	Range	County
P	9	31-N	10-W	SAN JUAN

Actual Footage Location of Well:
800 feet from the SOUTH line and 1180 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6173	P.C. & MESA VERDE	BLANCO PICTURED CLIFFS BLANCO MESA VERDE	157.64 & 316.94 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

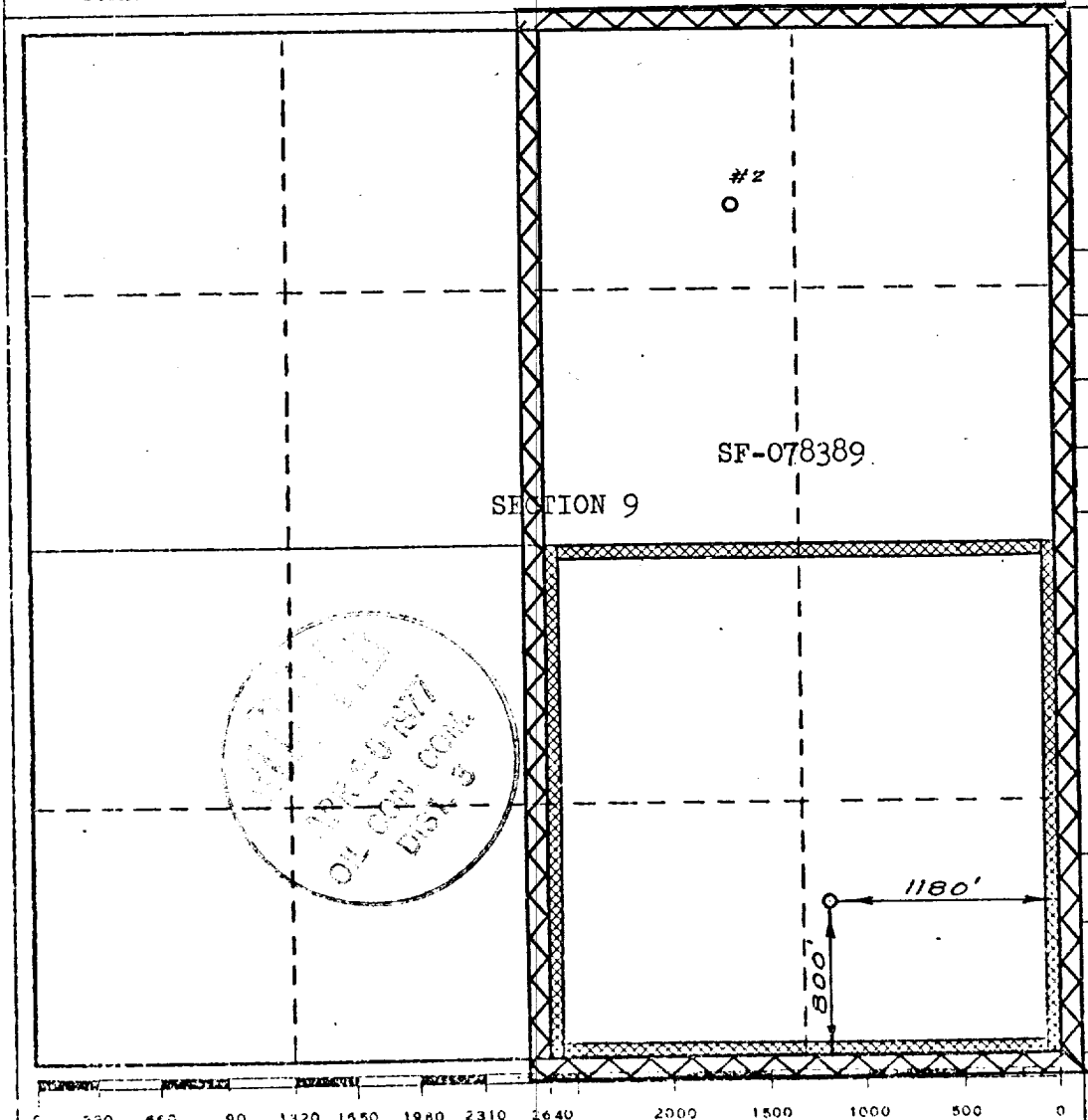
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission. NOTE: THIS PLAT IS REISSUED TO SHOW DUAL COMPLETION. 4-5-77



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Original Signed by
D. G. Brisco

Name

Position

Company

Date

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed
MARCH 28, 1977

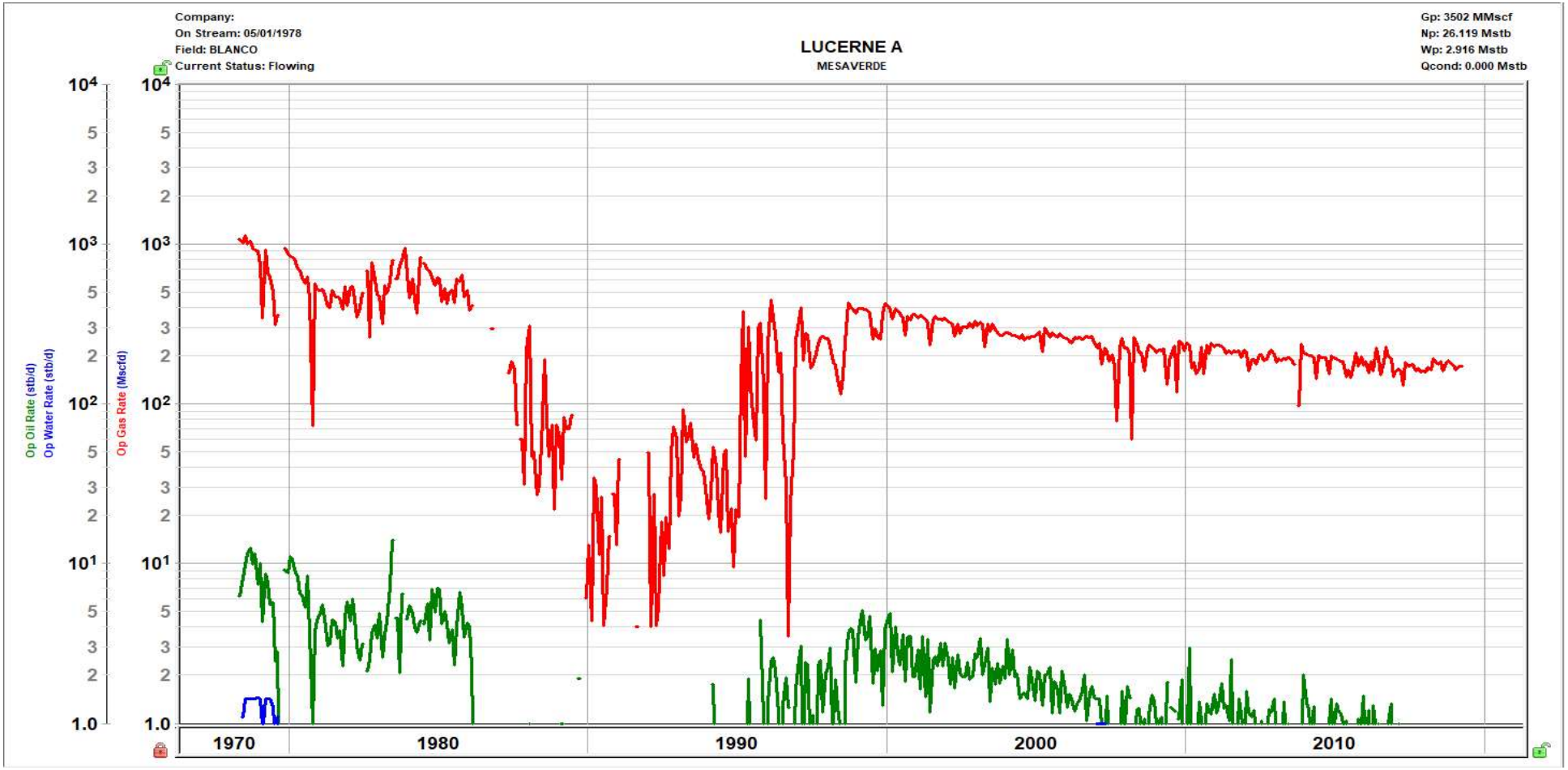
Registered Professional Engineer and/or Land Surveyor

David O. Vincent

Certificate No. 1760

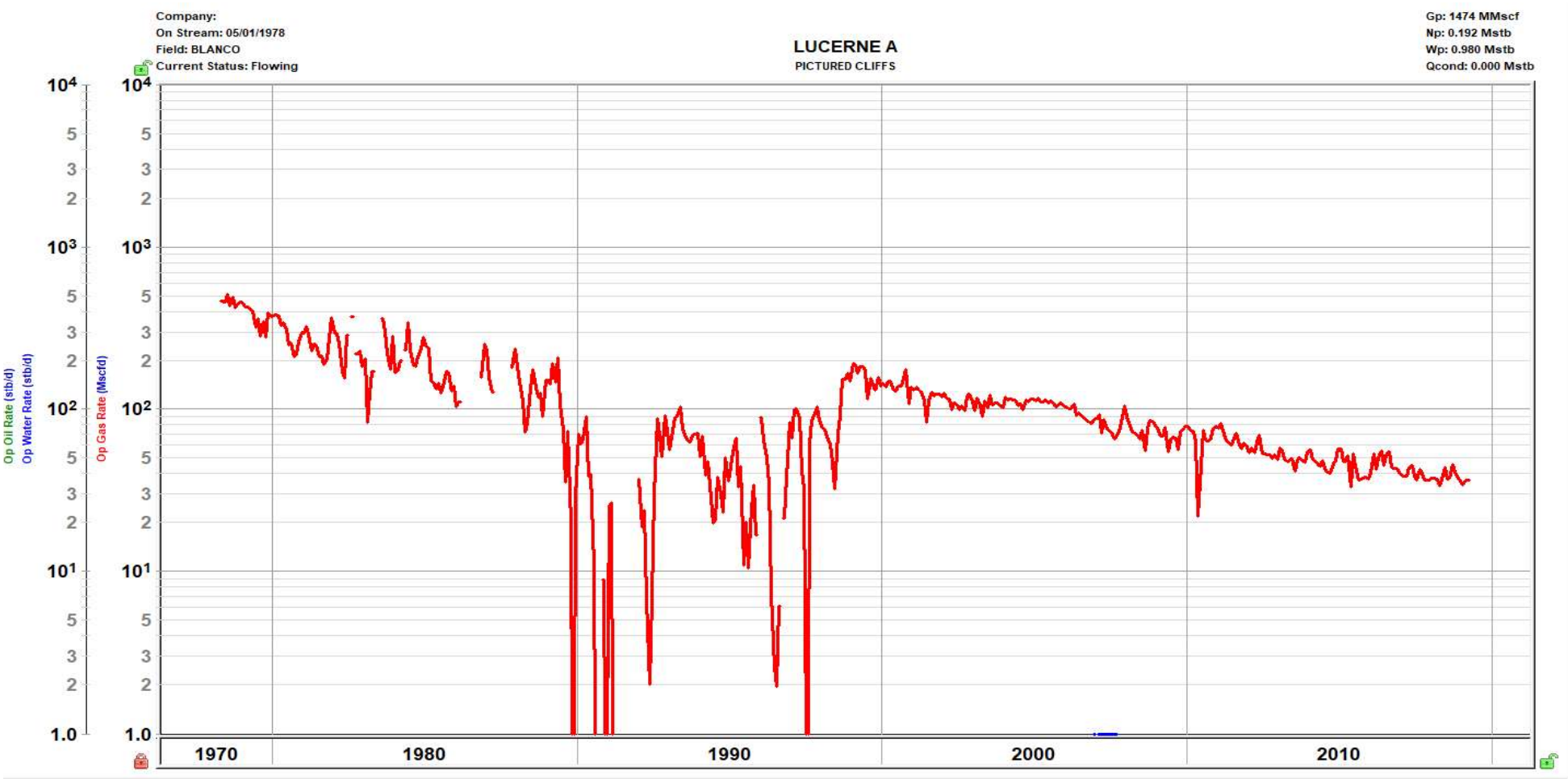
Subtraction Allocation Forecast - LUCERNE A 2A - Mesaverde

Base formations are the Mesaverde and Pictured Cliffs, and the added formation to be trimingled is the Lewis. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceding the forecast will be allocated to the new formation.



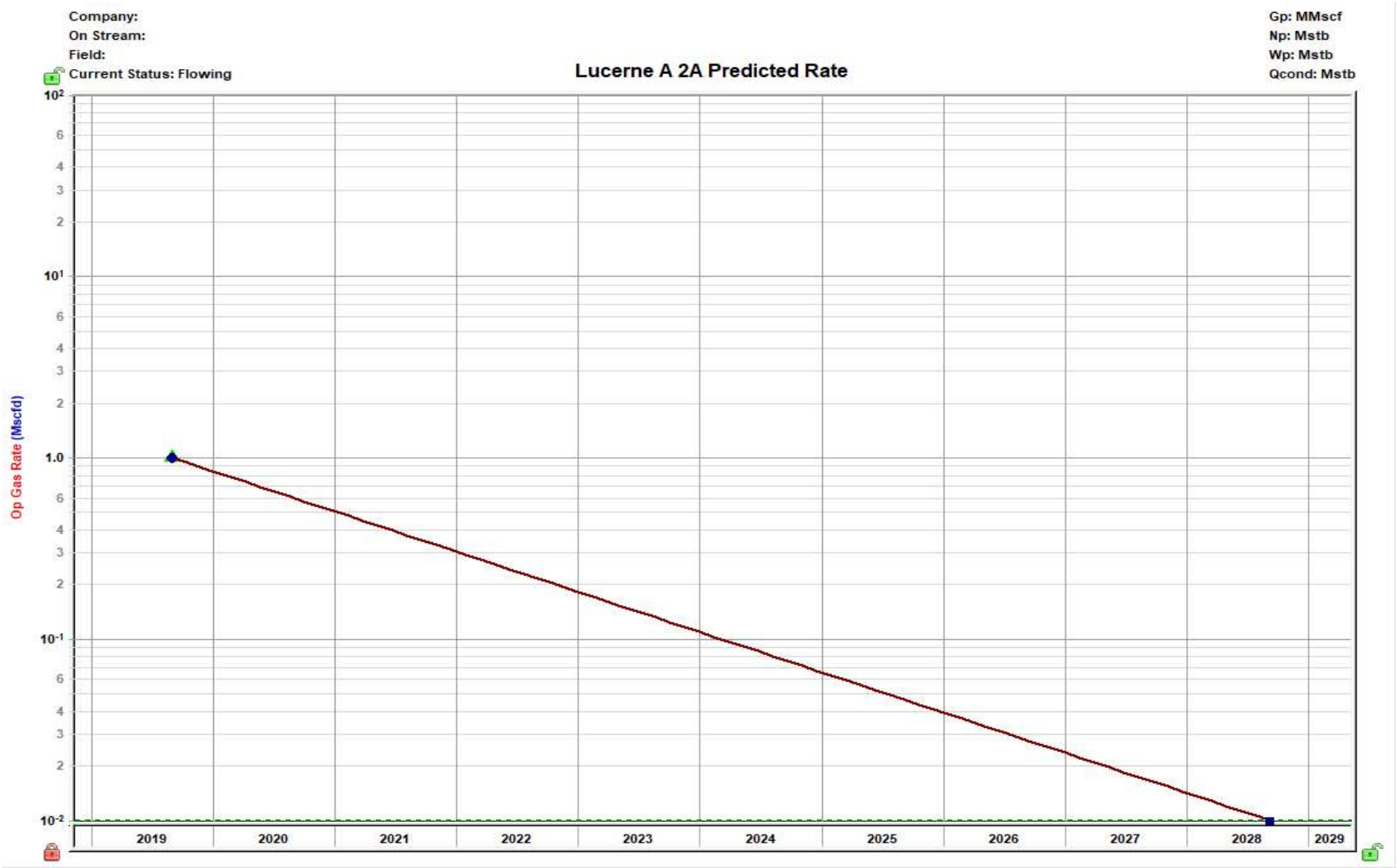
Subtraction Allocation Forecast - LUCERNE A 2A - Pictured Cliffs

Base formations are the Mesaverde and Pictured Cliffs, and the added formation to be trimingled is the Lewis. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceding the forecast will be allocated to the new formation.



Subtraction Allocation Forecast - LUCERNE A 2A

Base formations are the Mesaverde and Pictured Cliffs, and the added formation to be trimingled is the Lewis. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceding the forecast will be allocated to the new formation.



LUCERNE A 2A
30-045-22504

MESAVERDE

Year	Month	Liquid	Gas	Water	Days On
2018	JUL	0	5663	13	31
2018	AUG	20	4968	13	31
2018	SEP	14	5379	13	30
2018	OCT	6	5814	13	31
2018	NOV	13	5423	13	30
2018	DEC	14	5378	13	31
2019	JAN	12	5020	13	31
2019	FEB	22	4696	12	28
2019	MAR	11	5306	13	31

PICTURED CLIFFS

Year	Month	Liquid	Gas	Water	Days On
2018	JUL	0	1147	13	31
2018	AUG	19	1160	13	31
2018	SEP	13	1356	13	30
2018	OCT	7	1257	13	31
2018	NOV	12	1160	13	30
2018	DEC	14	1117	13	31
2019	JAN	12	1050	13	31
2019	FEB	22	1003	12	28
2019	MAR	12	1122	13	31

The forecast for Lewis production has been generated using a type curve of Lewis gas production in the surrounding production trend.

The BHPs of all zones, producing and non-producing, were estimated based upon basin-wide Moving-Domain Material Balance models that have proven to approximate the pressure in the given reservoirs well in this portion of the basin. These models were constructed incorporating reservoir dynamics and physics, historic production, and observed pressure data. Historic commingling operations have proven reservoir fluids are compatible and the higher Lewis reservoir pressure declines very quickly given that tight gas nature of the horizon.

JUSTIFICATION OF ALLOCATION: Hilcorp requests that production for the downhole commingle be allocated using the subtraction method. The base formations are the Mesaverde and Pictured Cliffs, and the added formation to be commingled is the Lewis. The subtraction method applies an average monthly production forecast to the base formation(s) using historic production. All production from this well exceeding the forecast will be allocated to the new formation(s). A fixed percentage based allocation will be submitted after the fourth year of production. See attached documents for production forecast. Oil production will be allocated based on average formation yields from offset wells.

Hilcorp

August 26, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505
Attn: Michael McMillan

Re: C-107-A (Downhole Commingle)
LUCERNE A #002A
API: 30-045-22504
T31N-R10W-Section 9, Unit Letter: P
San Juan County, NM

Mr. McMillan:

Concerning Hilcorp Energy Company's C-107-A application to downhole commingle production in the subject well, this letter serves to confirm the following:

- **All working, royalty and overriding royalty interests are identical** between the BLANCO PICTURED CLIFFS (72359), BLANCO-MESAVERDE (72319) and WILDCAT LEWIS (98326) in the spacing unit(s) dedicated to these formations; being the E/2 (Mesaverde) and SE/4 (Pictured Cliffs & Lewis) of Township 31 North, Range 10 West, Section 9. Therefore, no notice to interest owners is required.
- The spacing unit is comprised of a federal lease. Therefore, pursuant to Subsection C.(1) of 19.15.12.11 NMAC, a copy of the C-107-A has been sent to the BLM as of the date of this letter.

If you have any questions or concerns regarding this matter, please do not hesitate to contact me at the email or number provided below.

Regards,

Hilcorp Energy Company

Robert T. Carlson
Landman
(832) 839-4596
rcarlson@hilcorp.com

Form 3160-5
(June 2015)

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

5. Lease Serial No.
NMSF078389

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
LUCERNE A 2A

2. Name of Operator
HILCORP ENERGY COMPANY
Contact: PRISCILLA SHORTY
E-Mail: pshorty@hilcorp.com

9. API Well No.
30-045-22504-00-D1

3a. Address
1111 TRAVIS STREET
HOUSTON, TX 77002

3b. Phone No. (include area code)
Ph: 505.324.5188

10. Field and Pool or Exploratory Area
BLANCO MESAVERDE
BLANCO PICTURED CLIFFS

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 9 T31N R10W SESE 0800FSL 1180FWL
36.907654 N Lat, 107.882294 W Lon

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			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
BP	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 remove the packer and commingle the subject well according to the attached procedure and current wellbore schematic. The DHC will be submitted prior to any work being performed.

KP

NMOCD
NOV 15 2018
DISTRICT III

Notify NMOCD 24 hrs prior to beginning operations

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #439557 verified by the BLM Well Information System
For HILCORP ENERGY COMPANY, sent to the Farmington
Committed to AFMSS for processing by JACK SAVAGE on 11/06/2018 (19JWS0025SE)

Name *(Printed/Typed)* PRISCILLA SHORTY — Title OPERATIONS REGULATORY TECH

Signature (Electronic Submission) — Date 10/12/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JACK SAVAGE — Title PETROLEUM ENGINEER — Date 11/06/2018

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 Farmington

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 ****

NMOCD

3

HILCORP ENERGY COMPANY
LUCERNE A #2A
DOWNHOLE COMMINGLE SUNDRY

LUCERNE A #2A - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Schematic - Current

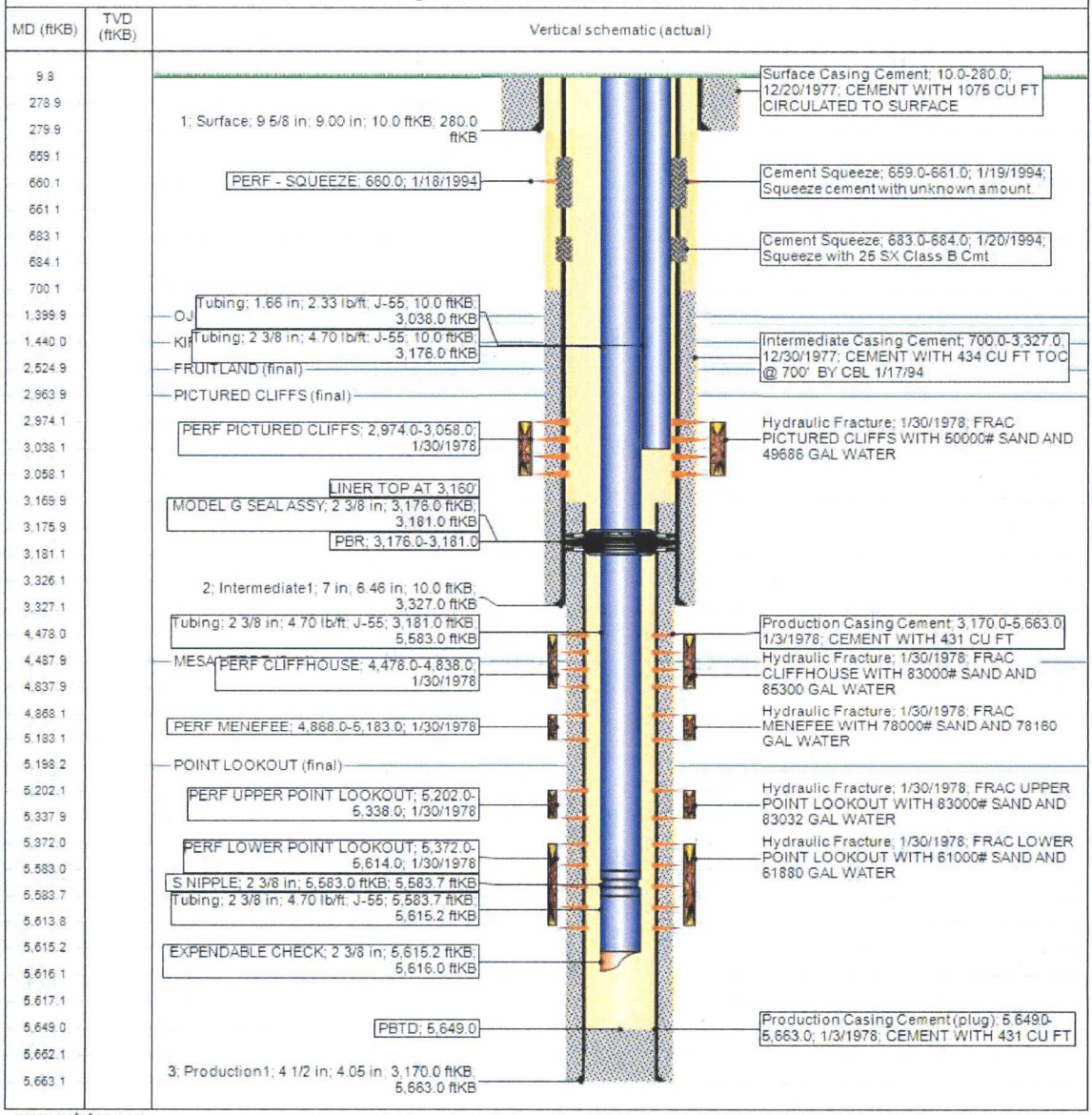
Well Name: LUCERNE A #2A

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004522504	009-031N-010W-P	BLANCO MV (PRO #007	078389	NEW MEXICO	
Original KB/RT Elevation (ft)	**KB/Tubing Hanger Distance (ft)**	**Original Spud Date**	**Rig Release Date**	**PBTD (All) (ftKB)**	**Total Depth All (TVD) (ftKB)**
6,183.00		12/16/1977 00:00	11/28/1995 11:00	Original Hole - 5,649.0	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
FACILITIES	TUBING REPAIR	TUBING REPAIR	11/22/1995	11/29/1995

TD: 5,663.0 — Original Hole, 10/12/2018 10:00:30 AM



Hilcorp Energy Company

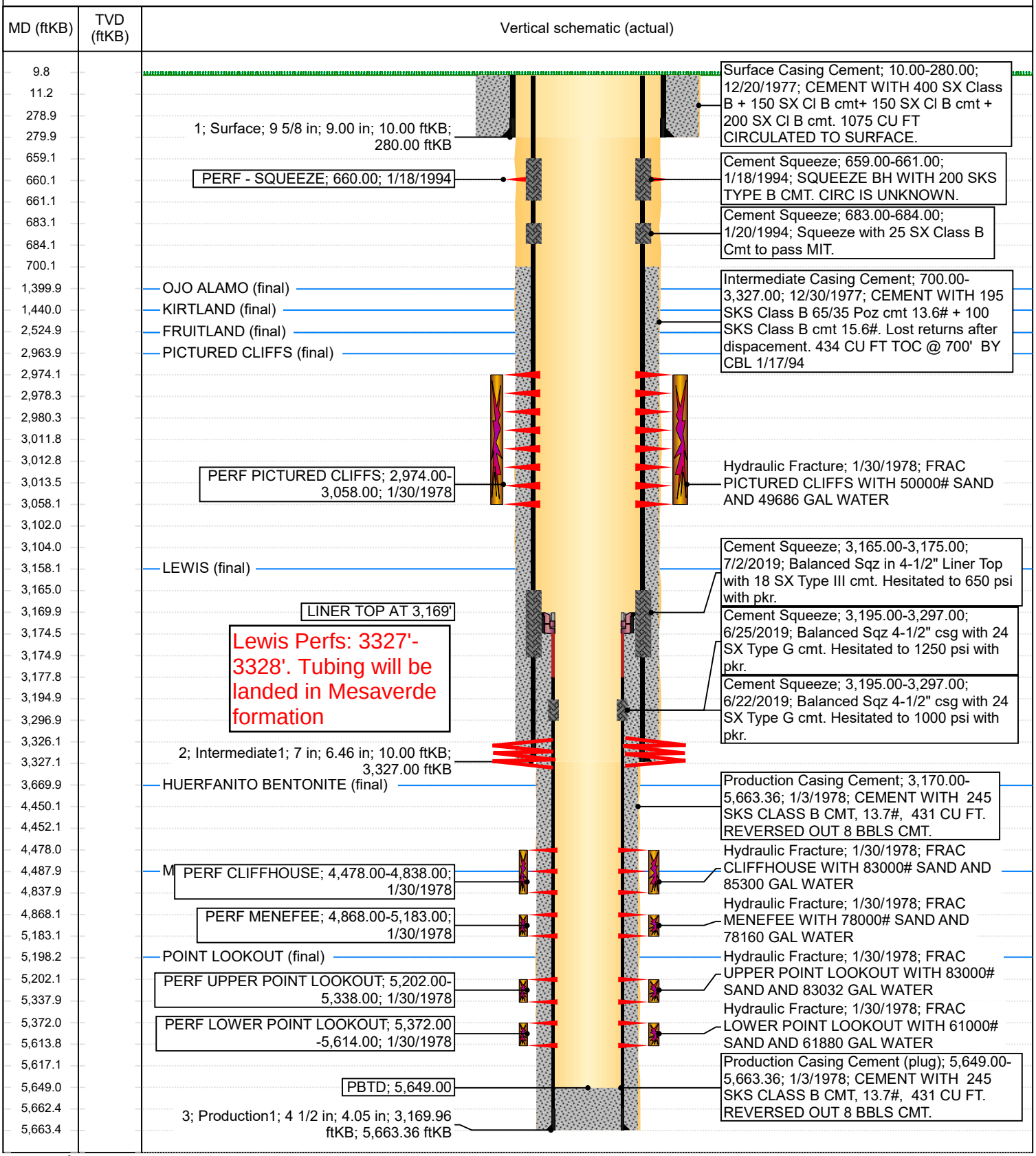
Current Schematic

Well Name: LUCERNE A #2A

API / UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3004522504	009-031N-010W-P	BLANCO MV (PRO #0078	0301	NEW MEXICO	

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
6,173.00	6,183.00	10.00		

Original Hole, 8/26/2019 2:58:18 PM



For the Lucerne A 2A, Hilcorp Energy executed an approved downhole commingle rig project. During the work, the 4-1/2" liner top within the 7" intermediate casing was found to be unable to pass a MIT. In order to seal off the small leak found in the liner hanger, 3 separate cement squeeze treatments were performed. Two types of cement were used and a variety of pumping technics were followed in order to place cement within the liner hanger. All 3 cement attempts failed to seal off this small leak within the wellbore. The liner hanger meets the pressure window within the MIT rules but will not hold a stabilized pressure in the last portion of the charted test.

The 7" intermediate casing ends at 3,327' which is in the middle of the Lewis formation. In assuming the liner hanger leak communicates down to the end of the 7" intermediate casing, Hilcorp Energy would like to make a 1' interval below the bottom of the 7" casing a producing interval and trimingle the wellbore.

Attached are details of the workover.

6/19/2019 – MIRU AWS 753. RU FLOW LINE, CK WHP. SICP 129, SITP SHORT STRING 85, SITP LONG STRING 34, BH 0. BD WELL, ND FLOW TREE, NU BOP, NU OFFSET SPOOL, PT. PULL 1-1/4 HANGER SEAL ASSEMBLY. POH LD 96 JNTS. ND OFFSET SPOOL, CHANGE OUT PIPE RAMS TO 2-3/8, RU FLOW LINE TO FLOW SPOOL, RELEASE LOCKDOWN PINS, PULL HANGER. WORK TBG & PBR PULL LOSE, RU SCAN EQUIP, TOOH TBG. SWI. RD SCAN EQUIP. SDFN.

6/20/2019 - CK WHP, SICP 115, BH 0. BD WELL, PU 4.5 SCRAPER & BIT SUB. SWAP OUT FLOATS, TALLY & RIH W/ 171 JNT TAG @ 5366'. POH & PU 7" SCRAPPER W/ 100 JNT. POH LD SCRAPER. POH. 20 JNT LEFT IN HOLE. SWI.

6/21/2019 - CK WHP, SICP 100, BH 0. BD WELL. FINISH POH W/ 7" SCRAPER. PU 4.5" RBP, RIH SET RBP @ 4450".POH. PU 7" FB PKR, RIH W/ 98 JNTS SET @ 3074". MIT TEST LEAKED 20#/MIN, STAGE IN TESTING, 3105' TEST FAILED, 3138' TEST FAILED. POH W/ 7" PKR. PU 4.5" PKR, RIH & SET PKR @ 3264'. LOAD TBG. PSI UP & PURGE TBG, PSI TEST 100/ MIN. 2 ATTEMPT SAME. RIH W/ 123 JNT SET PKR@ 3867'. LOAD TBG. PSI UP & PURGE PSI TEST HELD 600 PSI FOR 10 MIN, RELEASE PKR. RIH TO 3549', SET PKR. LOAD TBG. PSI UP & PURG TBG. PSI TEST 600 DROP 50 PSI IN 10 MIN. POH 109 JNT TO 3417'. LOAD TBG. PSI & PURGE, PSI TEST 30# /10 MIN S. PULL ABOVE LINER. SWI. SDFN.

6/22/2019 - CK WHP, SICP 100, BH 0. BD WELL. RIH TO 3294'. LOAD TBG & PURGE, PT 620 INCR TO 645. HELD 30 MINS. SET PKR @ 3231'. LOAD TBG PSI & PURGE, PT LEAKED 60# IN 10 MINS. SET @3264'. LOAD TBG PT & PURGE, PSI TEST 65 PSI/10 MIN. RELEASE PKR. PU 4.5" RBP, RIH & SET @ 3258'. POH LD OVERSHOT. RIH W/ 7" PKR, SET @ 3074'. LOAD TBG PT & PURGE, PT LEAKED 90#/MIN. SET PKR @ 3167'. LOAD TBG PT & PURG, PT LEAKED 100 #/MIN. **DISCUSS W/ ENGINEER OF FINDING, CONTACTED OCD & BLM, DISCUSSION LEAD TO CMT SQZ.** RELEASE 7" PKR. POH & LD PKR. PU OVER SHOT. RIH LATCH & RELEASE RBP. POH LD RBP RIH OPEN ENDED TO 3350'. RU & SPOTS & ON TOP OF LOWER RBP @ 4450'. POH. SWI. SDFN.

6/23/2019 - CK WHP, SICP 100, BH 0. BD WELL. RU CMT EQUIP. PUMP 24 SK CLASS G, 1.14 YIELD, 4.96 WATER REQ, 4.8 BBL SLURRY, 2.3 BBL WATER USED. FLUSH W/ 3 BBL DISPLACEMENT. RD CMT LINE. LET VACCUM ON TBG. STOP WAIT 13 MIN. POH. PU 7" FB PKR, RIH & SET PKR @ 3082'. LOAD TBG PURGE, TBG PSI 1000 DROP TO 250 PSI. PSI UP 400 PSI UP DROP 550. PSI UP DROP TO 700, RELEASE PKR. EQUALIZE POH & LD PKR. SWI. SDFN.

6/25/2019 - CK WHP, SICP 148, BH 0. BD WELL. PU 7" TWISTER BIT & BS. RIH & TAG @ 3104'. RU SWIVEL BREAK CIRC. DRILL DOWN. CIRC CLEAN. RD SWIVEL. POH PU 4.5" TWISTER BIT & BITS SUB. RIH & PU SWIVEL, START DRILLING BREAK CIRC. DO TO 3260'. CIRC CLEAN. DRY UP, PUMP 25 BBL BIO WATER. RD SWIVEL. POH & LD 4.5" DO EQUIP. SWI. SDFN.

6/26/2019 - CK WHP, SICP 148, BH 0. BD WELL. PU 7" FB PKR. RIH SET @ 3081'. LOAD TBG & PURGE. PT SQZ FAILED. FALL OFF 130 PSI/MIN. DISCUSS W/ ENGINEER DECIDED TO BLIND SPOT AGAIN, RELEASE PKR. POH. RIH OPENED ENDED TO 3354'. PREP FOR SPOT CMT. RU SLICKLINE. RIH TAG FLUID LEVEL @ 2680. POH RD SLICKLINE. SPOT & RU CMT EQUIP. MIX 24 SK CLASS G CMT, 1.14 YIELD, 4.9 WATER, W/ 4.8 BBL SLURRY, 2.8 BBL MIX WATER DISPLACED 3 BBL. WAIT FOR 13 MIN, NO VACCUM. POH. PU 7" FB PKR. RIH & SET PKR @ 3081'. LOAD & PURGE TBG PSI UP ON SQZ. HELD 30 MIN. RELEASE PKR. POH & LD PKR. SWI. SDFN.

6/27/2019 - CK WHP, SICP 148, BH 0. BD WELL. PU 7" TWISTER BIT & BS. RIH & TAG TOP @ 3117. PU SWIVEL, BREAK CIRC. START DO TO LINER TOP. POH LD BHA. PU 4.5" DO BHA. RIH & TAG TOL. PU SWIVEL BREAK CIRC. START DO TO LINER TOP. POH. LD BHA & PU 7" FB PKR. RIH, SET PKR. LOAD & PURGE, PSI TEST.HAD LEAK OFF 100 PSI 12 MIN. PURGE CHANGE OUT GAUGES PSI UP HAD LEAK 50 PSI 12 MIN, PURGE PSI UP LEAK LOSE 90 PSI IN 30 MIN. RELEASE PSI LET FLUID & PKR SET OVERNIGHT.SWI. SDFN.

6/28/2019 - CK WHP, SICP 135, SITP 0, BH 0. PREP TEST FOR MIT. PREP TEST 60-70 IN 30 MINS PSI. TEST W/ NMOCD 1ST CHART 570 MONITOR PSI 22 MIN FAILED. PSI UP AGAIN 560 MONITOR 17 MINS FAILED. PSI UP AGAIN 560 DROPPING 10#/5MIN, RELEASE PSI. PURGE AIR CK RETURN FLUID NONE, PUMP AIR OUT OF SYSTEM AGAIN PSI UP 560 MONITOR FAILED @ 28 MIN. RELEASE PSI. **DISCUSS W/ ENGINEER GROUP. MIT CHART SENT TO BRANDON POWELL, NMOCD, AND DISCUSSED OVER THE PHONE THE FAILED CHART RESULTS.** RELEASE PKR. POH & LD PKR. PU RBP, RIH & ATTEMPT TO SET RBP. WORKING DOWN HOLE IN HOLE NO LUCK. POH, LD RBP. PU DIFFERENT RBP RIH SET @ 3195'. POH PU FB PKR RIH, SET @ 3082' LOAD & PURGE PT 560 DROP TO 500 IN 4 MIN. RIH TAG UP @ 3127'. SET PKR @ 3114' PT. RELEASED PKR & POH. SWI. SDFWE.

7/1/2019 - CK WHP. SICP- 150 PSI, SITP- 0 PSI, SIBHP- 0 PSI. BWD. TOOH & LD 7" PKR. PU RET TOOL, TIH TO 4 1/2" RBP @ 3195'.TAGGED UP ON 2 1/2' OF FILL. ESTAB CIRC & CO FILL. LATCH RBP. RELEASE & TOOH. LD 4 1/2" RBP. PU 4 1/2" PKR. TIH & SET @ 3198'. PRESS TEST 4 1/2" CSG F/3198' TO 4450' TO 700 PSI & RECORD ON CHART. HELD. RELEASE PKR, TOOH & LD PKR. **ENGINEER SENT BRANDON POWELL, NMOCD, AN EMAIL SUMMARIZING THE 2 CMT SQZ & LINER TOP UNABLE TO PASS MIT. HEC ENGINEER REVIEWED WITH NMOCD, BRANDON POWELL, OVER THE PHONE THE FORMATION TOPS FOR THE WELLBORE.** SWI. SDFN.

7/2/2019 - CK WHP. SICP- 150 PSI, SITP- 0 PSI, SIBHP- 0 PSI. BWD. TIH TO 3224'. RU SLICKLINE. RIH & FIND FL @ 2705'. POOH & RD SLICKLINE. RU DRAKE CMTRS. PUMP CMT PLUG F/3224' T/3100'. W/15 SX TYPE III CMT @ 14.6 PPG RD CMTRS. TOOH. PU 7" PKR. TIH & SET @ 3082'. PERFORM HESITATION SQZ 4X, PRESS UP TO 625 PSI, DROPPED TO 500 PSI IN 15 MIN 3X. ON 4 TH TIME, LOCKED UP. RELEASE PKR. TOOH & LD PKR. WOC. SWI. SDFN.

7/5/2019 - CK WHP, SICP 135, SITP 0, BH 0. PU 7" BIT & BS. RIH TAG CMT @ 3090'. RU SWIVEL, BREAK CIRC. DO & TAG LINER TOP @ 3177'. CIRC CLEAN. RD SWIVEL. POH W/ 7" BIT & BS. PU 4.5" BIT & BS. RIH TAG @ 3177'. RU SWIVEL. BREAK CIRC. DO & DROP OUT OF CMT 3222'. CIRC CLEAN. RD SWIVEL. POH & LD BIT & BS. PU 7" PKR, RIH, SET LOAD & PURGE TBG. PREP FOR MIT TEST MIT W/ NMOCD STATE WITTNESS. PT FAILED. CK SURF EQUIP, OK. RELEASE PKR. SWI SDFWE. **INFORMED BRANDON POWELL, NMOCD, THAT THE MIT DID NOT PASS AND PROPOSED IDEAS FOR A PATH FORWARD ON THE WELLBORE.**

7/8/2019 - CK WHP. SICP- 150 PSI, SITP- 0 PSI, SIBHP- 0 PSI. BWD. RIH & SET PKR @ 3082'. ATT TO PT LINER TOP. TEST FAILED. DROPPED F/700 PSI T/500 PSI IN 30 MIN. RELEASE PKR. TOOH & LD PKR. PU RETRIEVING HEAD. TIH & TAG FILL @ 4269'. 181' OF FILL ON TOP OF RBP. PU RETRIEVING HEAD. CO FILL ABOVE RBP. RELEASE RBP, EQUALIZE & BD WELL. TOOH & LD 4 1/2" RBP. PU 4 1/2" CSG SCRAPER. TIH TO 2900'**. HEC ENGINEER CALLED BRANDON POWELL, NMOCD, AND JOE KILLINS, BLM, TO REVIEW TO CURRENT WELLBORE STATUS AND REQUESTED THAT A 4-1/2" CIPB WILL BE SET ABOVE THE MV PERFS AND A 7" RBP JUST ABOVE THE LINER TOP. THERE WOULD BE NO PLANS TO PRODUCE THE WELL. HEC WOULD HAVE UP TO 90 DAYS TO REVIEW ALL EQUIPMENT AND REMEDIATION METHODS BEFORE RIGGING BACK ONTO THE WELLBORE. THE PLAN FORWARD WAS APPROVED BY BOTH AGENCIES.** SWI. SDFN.

7/9/2019 - CK WHP. SICP- 150 PSI, SITP- 0 PSI, SIBHP- 0 PSI. BWD. CONT TIH W/CSG SCRAPER. TOOH & LD CSG SCRAPER. PU 4 1/2" CIBP. TIH & SET @ 4450'. TOOH & LD SETTING TOOL. PU 7" CSG SCRAPER & TIH TO 3150'. TOOH & LD CSG SCRAPER PU 7" SELECT RBP & TIH. TAG HARD @ 3110'. COULD NOT WORK THRU. SET RBP @ 3102'. TOOH & LD SETTING TOOL. PU PROD BHA. TIH, DRIFTING & LD TBG @ 3013.58' W/SN @ 3011.73' AS FOLLOWS: (1) TBG HANGER 1.0'. (94) JTS 2 3/8" 4.7#, J-55, EUE TBG 2967.35'. (1) 2 3/8" MARKER JT 1.91'. (1) JT 2 3/8" 4.7#, J-55, EUE TBG 31.47'. (1) 2 3/8" X 1.78" SN 1.1'. (1) MULE SHOE .75. ND BOP, NU WH. RD RR AWS 753 @ 17:30 HRS.