MAY 28 2019 PM02:48

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
05/28/2019	MAM	DHC	pMAM1914853644

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: McClanahan 20E **API:** 30-045-24106
Pool: Blanco MesaVerde **Pool Code:** 72319

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

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.

5/28/19
Date

Christine Brock
Print or Type Name

505-324-5155
Phone Number

Christine Brock
Signature

cbrock@hilcorp.com
e-mail Address

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

McClanahan 20E — Lease
20E — Well No.
UL F (SENW) – Sec. 13, T28N, R10W — Unit Letter-Section-Township-Range
San Juan — County

OGRID No. 372171 Property Code 318622 API No. 30-045-24106 Lease Type: _X_Federal ___State ___Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	BLANCO MESAVERDE (GAS)	ARMENTA GALLUP	BASIN DAKOTA (PRORATED GAS)
Pool Code	72319	2290	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3585'- 4760' - Estimated	5452'-5770'	6329'- 6497'
Method of Production (Flowing or 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)	1315 psi	1297 psi	1399 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1325	BTU 1225	BTU 1285
Producing, Shut-In or New Zone	NEW ZONE	PRODUCING	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: Rates:	Date: 3/1/2019 Rates: 680 MCF – GAS 15 BBL - OIL 7 BBL - WATER	Date: 3/1/2019 Rates: 1379 MCF – GAS 2 BBL - OIL 7 BBL - WATER
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 Christine Brock TITLE Operation/Regulatory Tech DATE 5/28/19

TYPE OR PRINT NAME Christine Brock TELEPHONE NO. (505) 324-5155

E-MAIL ADDRESS cbrock@hilcorp.com

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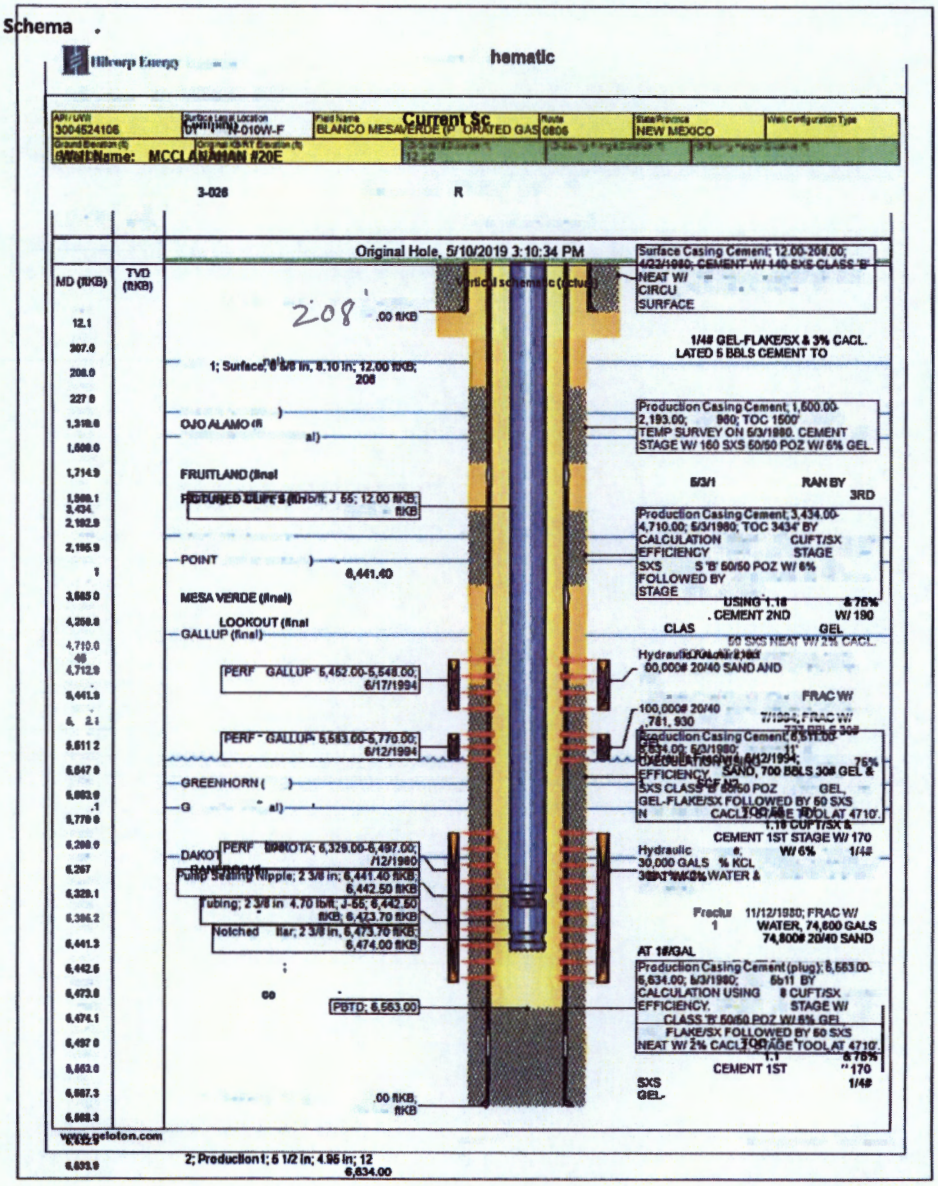
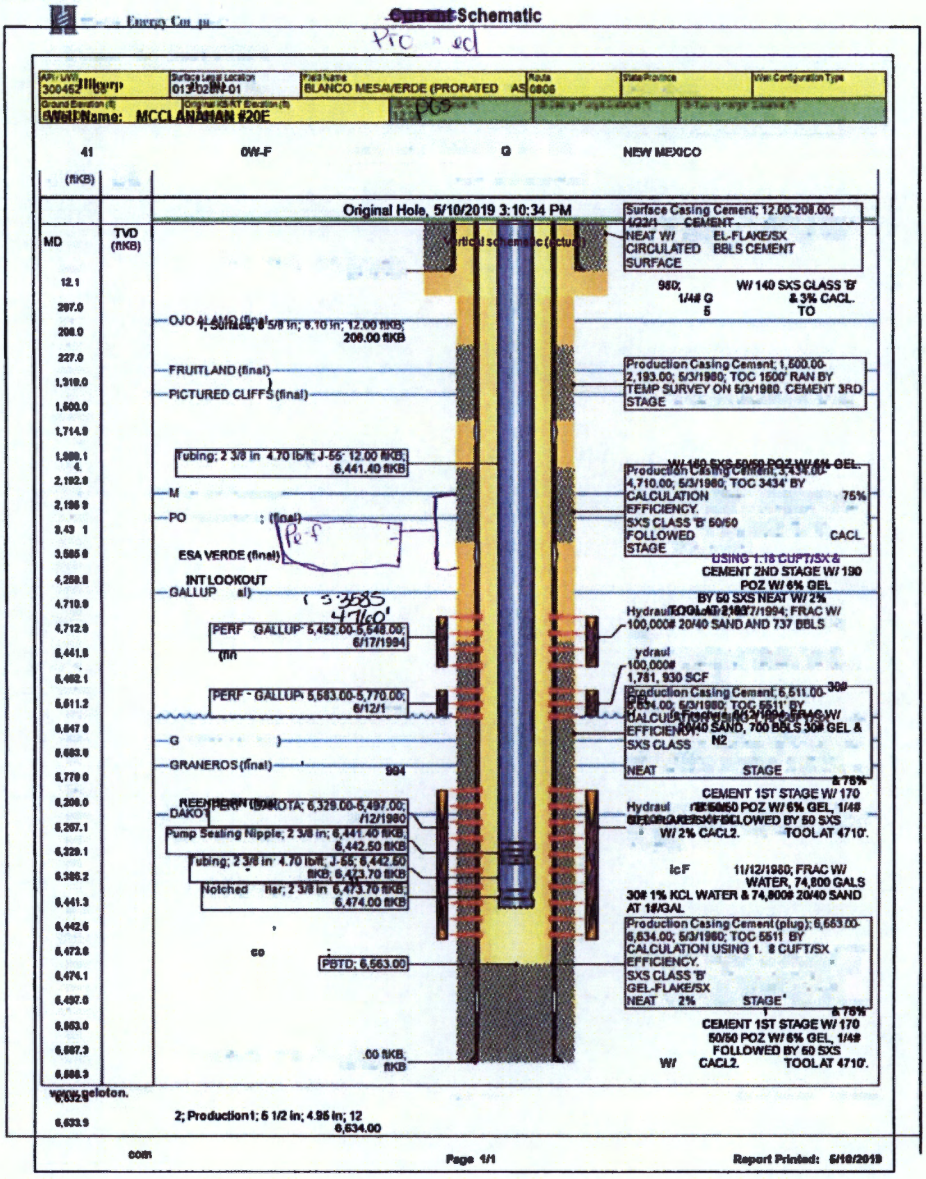
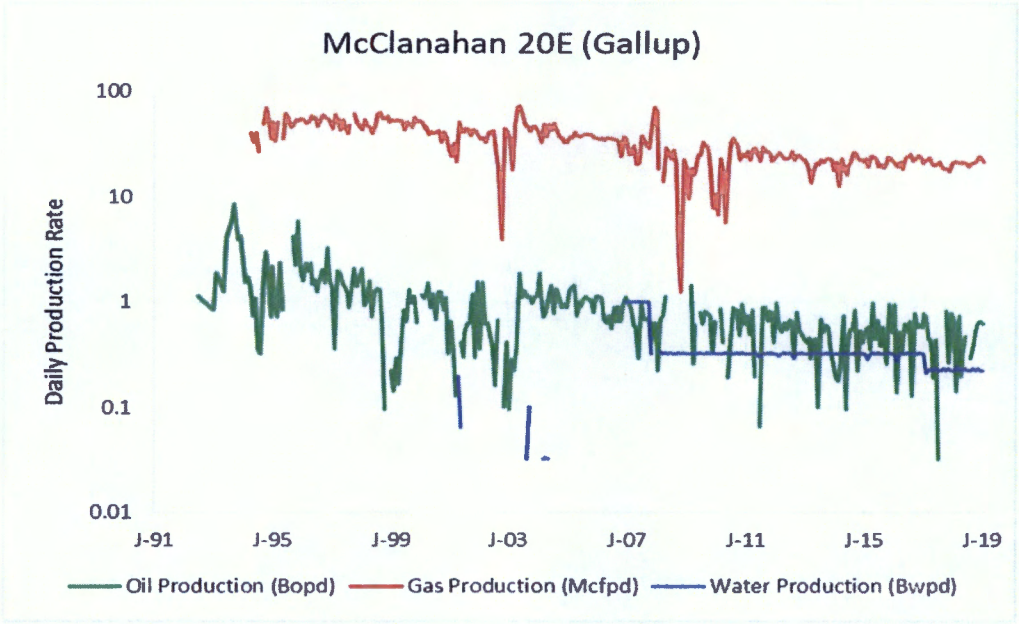
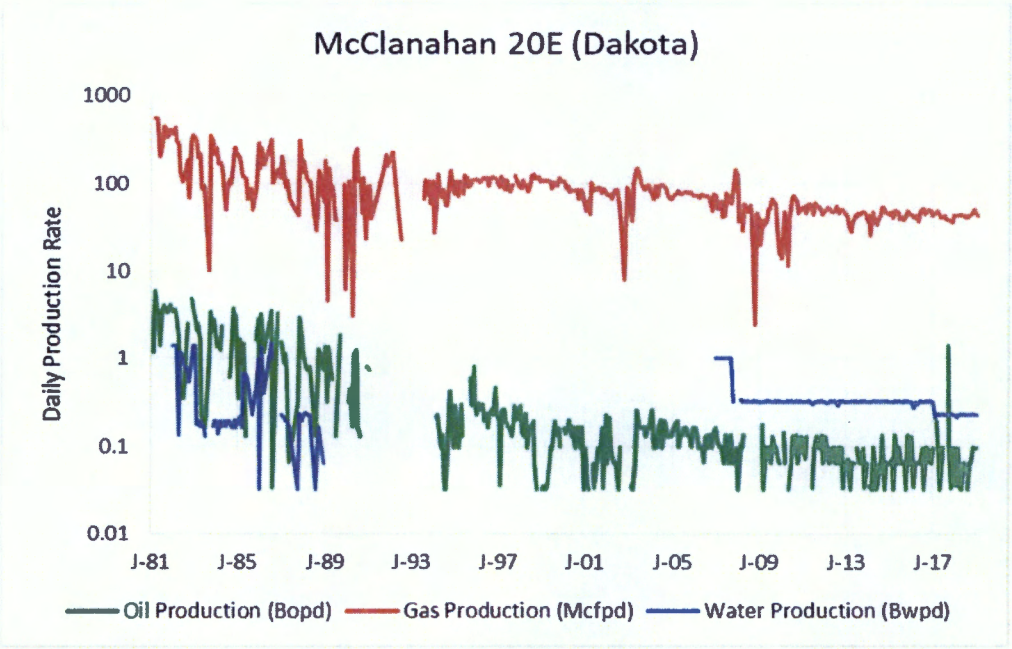
Wellbore Schema .

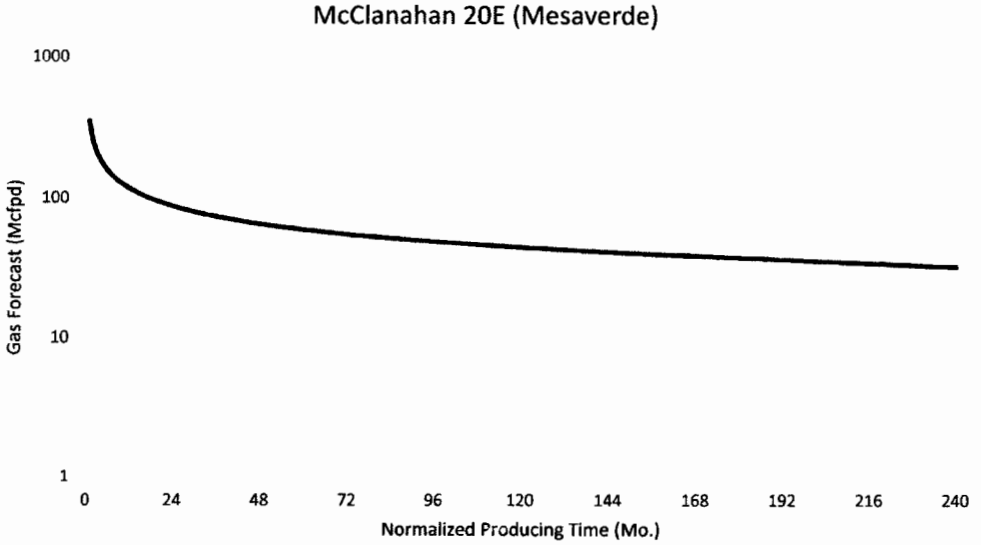


Wellbore Schematic:




McClanahan 20E (Gallup)
Daily Production Rate
100
10
1
0.1
0.01
J-91
J-95
J-99
J-03
J-07
J-11
J-15
J-19
Oil Production (Bopd)
Gas Production (Mcfpd)
Water Production (Bwpd)


McClanahan 20E (Dakota)
Daily Production Rate
1000
100
10
1
0.1
0.01
J-81
J-85
J-89
J-93
J-97
J-01
J-05
J-09
J-13
J-17
Oil Production (Bopd)
Gas Production (Mcfpd)
Water Production (Bwpd)



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

These zones are proposed to be commingled because the application of dual completions impedes the ability to produce the shallow zone without artificial lift and the deeper zones with reduced artificial lift efficiency. All horizons will require artificial lift due to low bottomhole pressure (BHP) and permeability.

ng-

The BHPs of all zones, producing and non-producing, were estimated based upon basinwide Movi 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 MV reservoir pressure declines very quickly given the tight gas nature of the horizon.

McClanahan 12E – Production Allocation Method

Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formations are the Dakota and Gallup and the added formation to be commingled is the Mesaverde. The subtraction method applies an average monthly production forecast to the base formations using historic production. All production from this well exceeding the forecast will be allocated to the new formation. After 3 years production will stabilize. A production average will be gathered during the 4th year and will be utilized to create a fixed percentage based allocation. Oil production will be allocated based on average formation yields from offset wells. All documentation will be submitted to the Aztec NMOCD office.

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

5. Lease Serial No.
SF-079634

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.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

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

1. Type of Well
[ ] Oil Well [X] Gas Well [ ] Other

8. Well Name and No.
McClanahan 20E

2. Name of Operator
Hilcorp Energy Company

9. API Well No.
30-045-24106

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

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

10. Field and Pool or Exploratory Area
Blanco MV/Armenta GL/Basin DK

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
Surface Unit F (SENW) 1840' FNL & 1660' FWL, Sec. 13, T28N, R10W

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			
[X] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Subsequent Report	[ ] Casing Repair	[ ] New Construction	[X] Recomplete	[ ] Other
	[ ] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] 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 Company plans to recomplete the subject well in the Mesaverde formation and downhole commingle with the existing Gallup and Dakota. Attached is the MV C102, recomplete procedure & wellbore schematic. The DHC application will be submitted and approved prior to commingling. A closed loop system will be utilized. Interim reclamation will be performed after surface disturbing activities.

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Christine Brock Title **Operations/Regulatory Technician - Sr.**

Signature Christine Brock Date 5/17/19

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.

(Instruction on page 2)

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 267592

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-24106	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318622	MCCLANAHAN	020E
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	5777

10. Surface Location

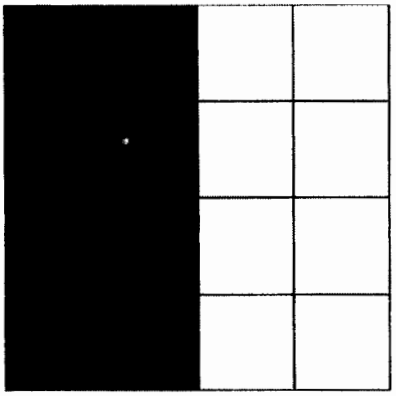
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
F	13	28N	10W		1840	N	1660	W	SAN JUAN

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.
320.00 W/2			

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: Christine Brock
Title: Operation/Regulatory Tech SR.
Date: 5/17/2019

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: Fred B. Kerr
Date of Survey: 10/31/1979
Certificate Number: 3950

HILCORP ENERGY COMPANY

McClanahan 20E

MESA VERDE RECOMPLETION NOI

API#: 30-045-24106

JOB PROCEDURES

1. MIRU Service rig and associated equipment, test BOP. Check Bradenhead pressures daily and record throughout the recomplete project. Notify NMOCD and BLM if any anomalous pressures changes occur on the Bradenhead.
2. TOOH w/ 2 3/8" tubing set at 6474'.
3. Set initial CIBP at 5450' or deeper (no higher than 50' above existing perforations)
4. Perform MIT from initial CBP, providing 24 hr notice to BLM and NMOCD. Once completed, review and submit the MIT charted test results to both the NMOCD and BLM If the MIT fails, discuss and gain approval with both the NMOCD and BLM with a plan of action to remediate the wellbore. Perform a 2nd MIT once remediated.
5. Run CBL and submit it to NMOCD and BLM.
    a. If CBL confirms calculated cement coverage, then a remediation plan will be submitted to agencies for approval in order to provide adequate cement coverage.
6. Optionally set bridge plug below intended recomplete interval.
7. ND BOP, NU frac stack. Pressure test the production casing or frac string and frac stack to maximum frac pressure. The pressure test will not exceed 85% of the internal yield pressure rating of the primary treatment string.
8. Perforate and frac the Mesa Verde within 3585'-4760'.
9. Optionally set a kill plug above recomplete interval for casing fracs.
10. ND the frac stack, NU the BOP and test.
11. MU and TIH with a mill. Tag and drill out the top isolation plug and Mesa Verde frac plugs if applicable.
12. Clean out the wellbore to the top of the Dakota isolation plug.
13. Once water and sand rates are acceptable, drill out the Dakota isolation plug and cleanout to PBTD of 6563'. TOOH.
14. TIH and land production tubing. Get a trimmingled Dakota/Gallup/MV flow rate.

Hilcorp

May 17, 2019

New Mexico Oil Conservation Division
Attn: Adrienne Sandoval
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: McClanahan 020E (30-045-24 06)
Common Ownership in All Depths
San Juan County, New Mexico

Mrs. Sandoval:

In the subject well, Hilcorp plans to downhole trimmingle existing pay from the Armenta-Gallup and Basin-Dakota formations with potential pay from the Blanco-Mesaverde formation. In accordance with Subsection C of 19.15.12.11 New Mexico Administrative Code, we have concluded that ownership is the same between all three aforementioned pools. Therefore, this letter serves as Hilcorp Energy's statement that ownership is common throughout all depths in the subject well

This letter represents a good faith effort to adhere with applicable notification requirements. Hilcorp appreciates the opportunity to enhance production from the subject well.

Please contact Brad Pearson by email at bpearson@hilcorp.com or by phone at 713-289-2793 with any questions you may have.

Regards,

B. Pearson

Landman
Hilcorp Energy Company
713-289-2793

Encl.

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 5/17/2019

☒ Original

Operator & OGRID No.: **Hilcorp Energy Company 372171**

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location	Footages	Expected MCF/D	Flared or Vented	Comments
McClanahan 20E	3004524106	F, 13, 28N, 10W	1840' FNL, 1660' FWL	325	Vented	

Gathering System and Pipeline Notification

This is a recompletion of a producing gas well. Gas production, sales and transportation infrastructure is already in place. The gas is dedicated to Harvest and will be connected to their gathering system located in San Juan County, New Mexico. Gas from these wells will be processed at Kutz Processing Plant located in Sec._13_, Twn._28N_, Rng._11W_, _San Juan_County, New Mexico.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be routed to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Harvest system at that time. Based on current information, it is Hilcorp's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

ADMINISTRATIVE ORDER DHC-783

Meridian Oil, Inc.
P.O. Box 4289
Farmington, NM 87499-4289

Attention: P. M. Pippin

McClanahan Well No. 20E
Unit F, Section 13, Township 28 North, Range 10 West, NMPM, San Juan County, New Mexico.
Basin Dakota & Armenta Gallup Pools

Dear Ms. Bradfield:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations to permit the subject well to commingle production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such downhole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and any Division Order which authorized the dual completion and required separation of the two zones is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C-4., total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by Division Rules and Regulations or by the gas allowable for each respective prorated pool as printed in the Division's San Juan Basin Gas Proration Schedule.

In accordance with the provisions of Rule 303-C, the supervisor of the Aztec District Office of the Oil Conservation Division shall determine the proper allocation of production from the subject well following its completion.

The Director of the Division shall require the subject well to be shut in should the subject gas proration unit become overproduced in the Basin-Dakota Gas Pool in accordance with the terms and conditions of Rule 11(b)(2) of the General Rules for the prorated Gas Pools in New Mexico as promulgated by Order No. R-8170, as amended.

Pursuant to Rule 303-C-5, the commingling authority granted by the order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Approved at Santa Fe, New Mexico on this 5th day of February, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Aztec
US Bureau of Land Management - Farmington