

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
-----------	-----------	-------	---------

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: _____ OGRID Number: _____
 Well Name: _____ API: _____
 Pool: _____ Pool Code: _____

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

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

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

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.

 Print or Type Name

 Date

 Signature

 Phone Number

 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

382 ROAD 3100, Aztec NM 87410

Operator

Address

Largo Federal

1

UL K – Sec. 34, T29N, R9W

San Juan

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 372171

Property Code 318604

API No. 30-045-07645

Lease Type: X Federal ____State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	OTERO CHACRA (GAS)	BLANCO MESAVERDE (PRORATED GAS)	BASIN DAKOTA (PRORATED GAS)
Pool Code	82329	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	3000’ – 3700’ - Estimated	3809’-4499’	6491’- 6694’
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)	1200 psi	1067 psi	1432 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1200	BTU 1300	BTU 1250
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: N/A Rates:	Date: 11/1/2021 Rates: 918 MCF – GAS 6 BBL – Oil 42 BBL - Water	Date: 11/1/2021 Rates: 1376 MCF – GAS 13 BBL – Oil 59 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?
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes_X No____
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_Kandis Roland

TITLE Operation/Regulatory Tech

DATE 1/31/2022

TYPE OR PRINT NAME_Kandis Roland

TELEPHONE NO. (713) 757-5246

E-MAIL ADDRESS_kroland@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

Form C-102
August 1, 2011

Permit 306816

State of New Mexico
Energy, Minerals and Natural
Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-07645	2. Pool Code 82329	3. Pool Name OTERO CHACRA (GAS)
4. Property Code 318604	5. Property Name LARGO FEDERAL	6. Well No. 001
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 5781

10. Surface Location

UL - Lot K	Section 34	Township 29N	Range 09W	Lot Idn	Feet From 1450	N/S Line S	Feet From 1450	E/W Line W	County 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 160.00 SW/4			13. Joint or Infill		14. Consolidation Code			15. Order No.	

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

	<p align="center">OPERATOR CERTIFICATION</p> <p><i>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.</i></p> <p>E-Signed By: Kandis Roland Title: Regulatory Tech Date: 1/17/2022</p>
	<p align="center">SURVEYOR CERTIFICATION</p> <p><i>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.</i></p> <p>Surveyed By: Ernest V. Echohawk Date of Survey: 4/29/2019 Certificate Number: 3602</p>

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

SECTION A.

DATE APRIL 30, 1965OPERATOR Southern Union Production Company LEASE FEDERAL LARGOWELL NO. 1 UNIT LETTER K SECTION 34 TOWNSHIP 29 North RANGE 9 West NMPMLOCATED 1450 FEET FROM South LINE, 1450 FEET FROM West LINECOUNTY San Juan G. L. ELEVATION 5781 DEDICATED ACREAGE 320 ACRESNAME OF PRODUCING FORMATION DAKOTA & MESAVARDE POOL Basin Dakota & Blanco Mesaverde1. IS THE OPERATOR THE ONLY OWNER* IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES XX NO

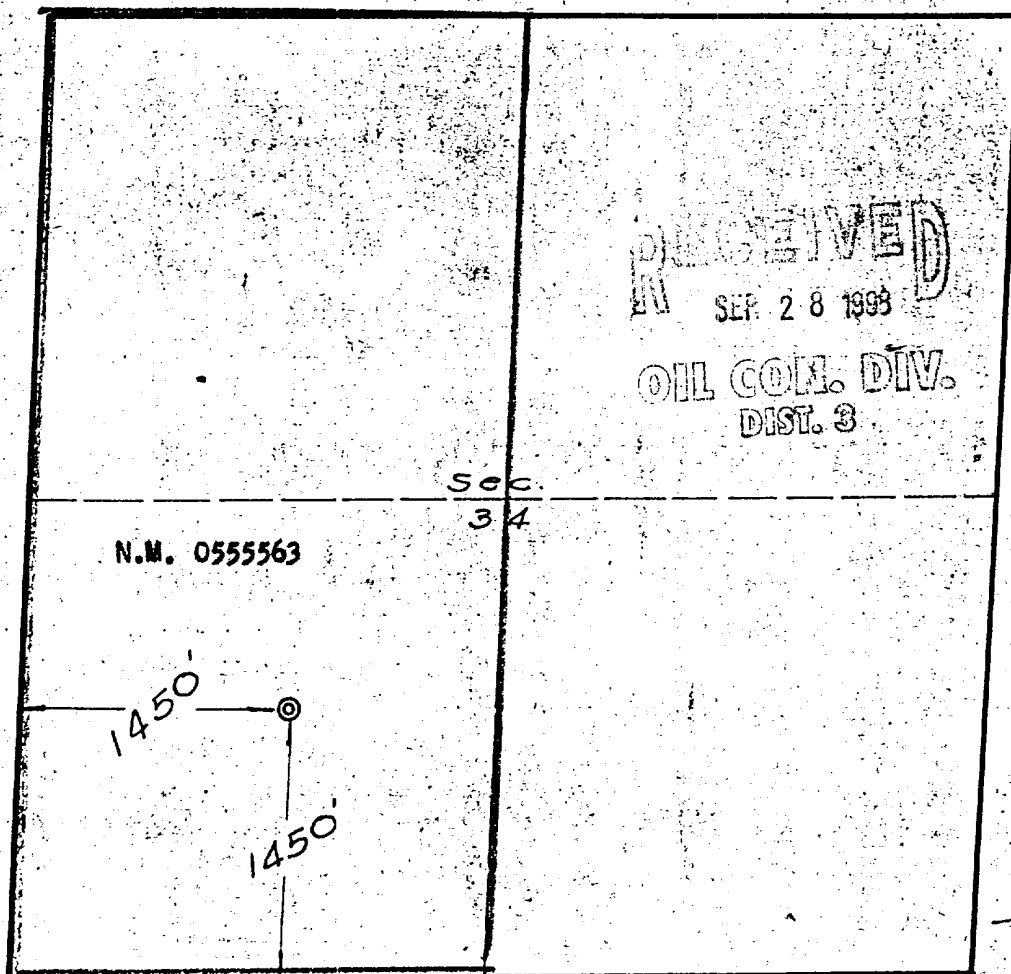
2. IF THE ANSWER TO QUESTION ONE IS "NO," HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES NO IF ANSWER IS "YES," TYPE OF CONSOLIDATION

3. IF THE ANSWER TO QUESTION TWO IS "NO," LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

OWNER

LAND DESCRIPTION

SECTION B.



THIS IS TO CERTIFY THAT THE INFORMATION IN SECTION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SOUTHERN UNION PRODUCTION CO.

(OPERATOR)

Gilbert D. Noland Jr.
GILBERT D. NOLAND, JR.

P. O. Box 808
FARMINGTON, NEW MEXICO
(ADDRESS)

THIS IS TO CERTIFY THAT THE WELL LOCATION SHOWN ON THE PLAT IN SECTION B WAS PLOTTED FROM FIELD NOTES OF ANNUAL SURVEYS MADE BY ME UNDER MY SUPERVISION AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE SURVEYED April 29, 1965

FOUR STATES ENGINEERING CO.

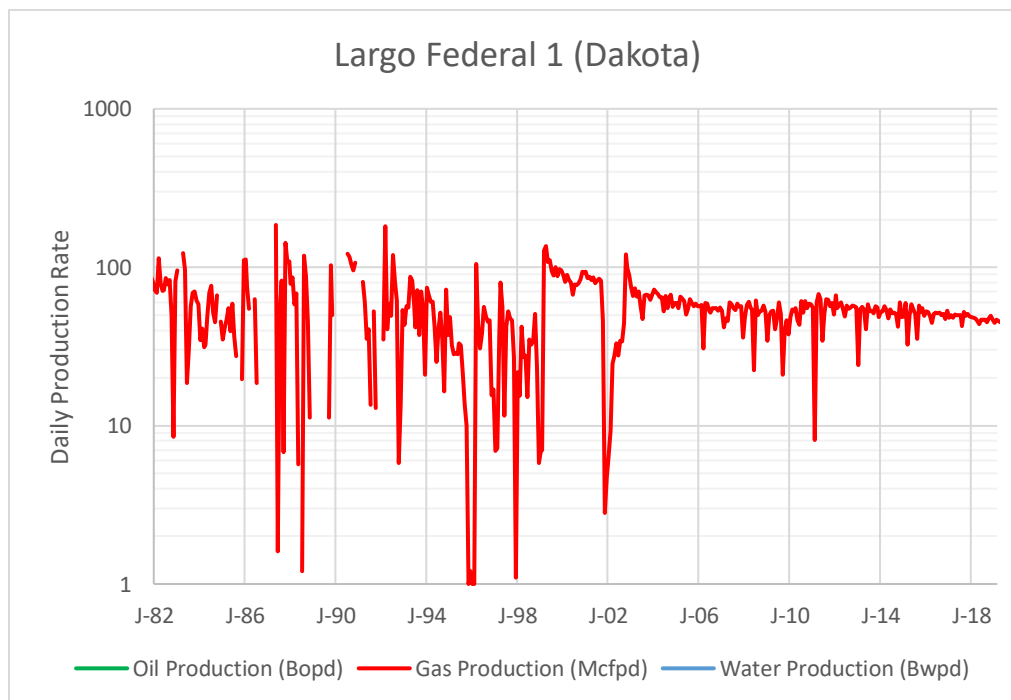
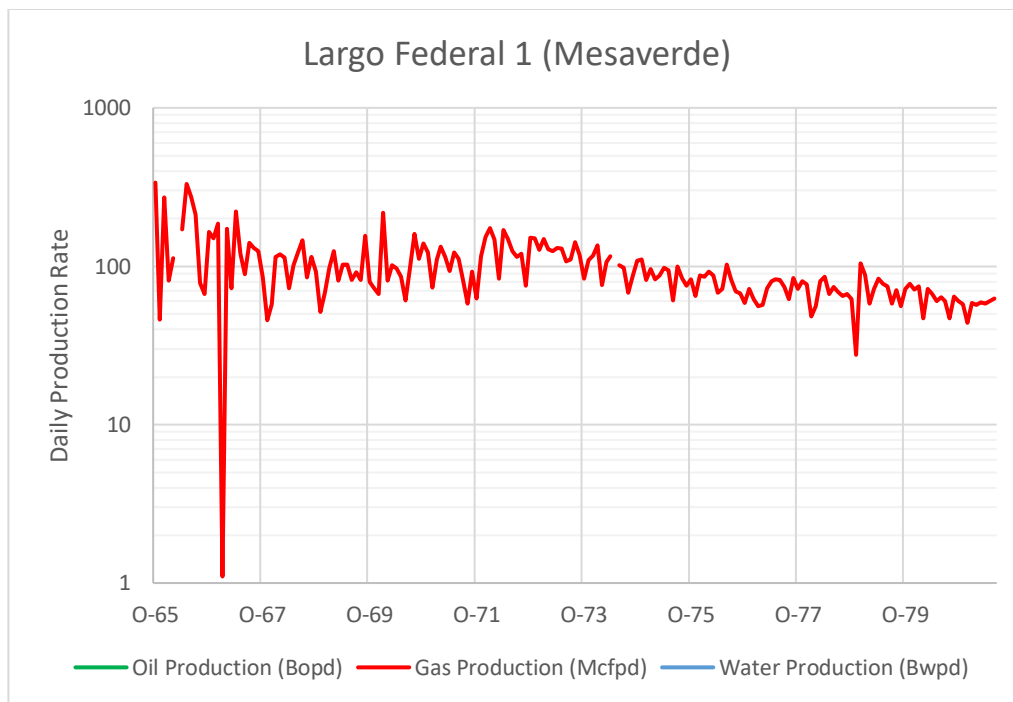
FARMINGTON, NEW MEXICO

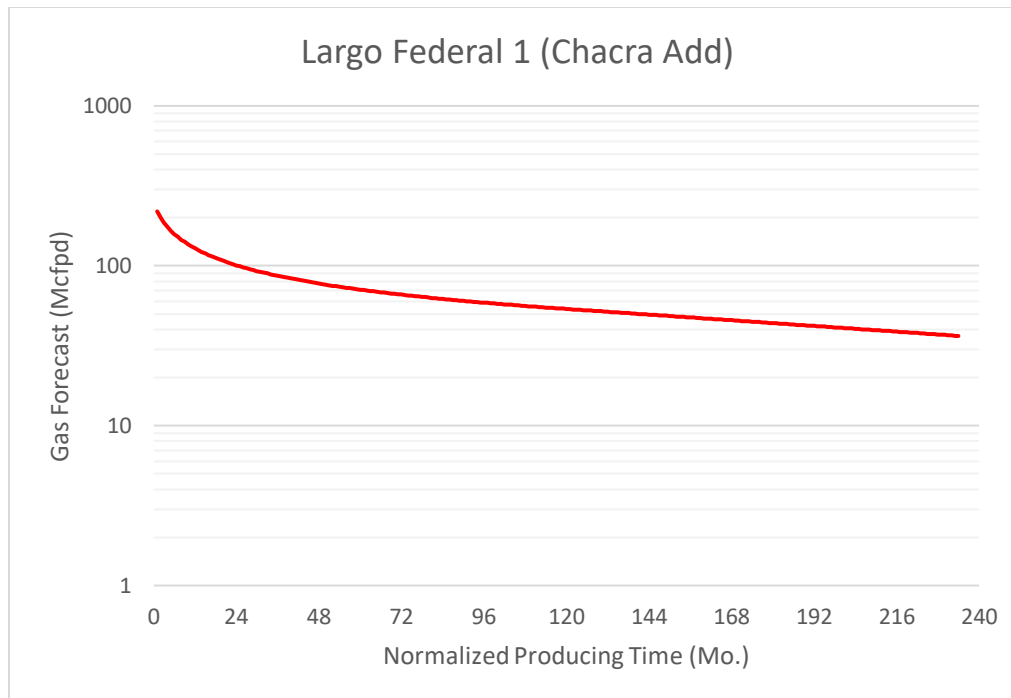
Emmett A. Cochran
REGISTERED ENGINEER OR LAND SURVEYOR

CERTIFICATE NO. 3602

Std. cor., U.S.G.L.O.
survey, 1916

Scale, 1" = 1000'





The forecast for Chacra production has been generated using a type curve of CH 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.

The BHPs of all zones, producing and non-producing, were estimated based upon basinwide 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.

Largo Federal 1 – Production Allocation Method

Production for the downhole trimmingle will be allocated using the subtraction method in agreement with local agencies. The base formations are the Dakota and Mesaverde and the added formation to be trimmingle is the Chacra. 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.



January 26, 2022

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

Re: C-107-A (Downhole Commingle)
Largo Federal No. 001
API No. 30-045-07645
K-34, T29N-R09W
San Juan County, NM

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 Otero Chacra (Pool Code: 82329), Blanco Mesaverde (Pool Code: 72319) and Basin Dakota (Pool Code: 71599) in the spacing units dedicated to these formations; being the W/2 of Township 29 North, Range 9 West, Section No. 34. Therefore, no notice to interest owners is required.

The spacing unit is partially 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 Bureau of Land Management as of the date of this letter.

If you have any questions or concerns, please contact the undersigned using the information provided below.

Sincerely,

By: HILCORP ENERGY COMPANY,
Its General Partner

A handwritten signature in blue ink, appearing to read 'Carson Parker Rice'.

Carson Parker Rice
Landman – San Juan Basin
Hilcorp Energy Company
1111 Travis Street
Houston, Texas 77002
713-757-7108 Direct
Email: carice@hilcorp.com

Well Name: LARGO	Well Location: T29N / R9W / SEC 34 / NESW / 36.67935 / -107.7729	County or Parish/State: SAN JUAN / NM
Well Number: 1	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM0555563	Unit or CA Name:	Unit or CA Number:
US Well Number: 3004507645	Well Status: Producing Gas Well	Operator: HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2652909

Type of Submission: Notice of Intent	Type of Action: Recompletion
Date Sundry Submitted: 01/18/2022	Time Sundry Submitted: 07:25
Date proposed operation will begin: 02/01/2022	

Procedure Description: Hilcorp Energy Company requests permission to recomplete the subject well in the Chacra and downhole commingle with the existing Mesaverde and Dakota. Please see the attached procedure, current and proposed wellbore diagram, plat and natural gas management plan. A closed loop system will be used. A pre-reclamation site visit was held on 1/14/2022 with Bob Switzer/BLM. The reclamation plan is attached.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

- Procedure Description
- Largo_Federal_1_CH_C_102_Plat_20220118072038.pdf
 - Largo_Federal_1_NGMP_20220118072038.pdf
 - Largo_Federal_1_RC_NOI_Procedure_20220118072038.pdf
 - Largo_Federal_1_Reclamation_Plan_20220118072038.pdf

Well Name: LARGO	Well Location: T29N / R9W / SEC 34 / NESW / 36.67935 / -107.7729	County or Parish/State: SAN JUAN / NM
Well Number: 1	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM0555563	Unit or CA Name:	Unit or CA Number:
US Well Number: 3004507645	Well Status: Producing Gas Well	Operator: HILCORP ENERGY COMPANY

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: JAN 18, 2022 07:25 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: 01/27/2022
Signature: Kenneth Rennick	

Largo Federal #1

034-029N-009W-K

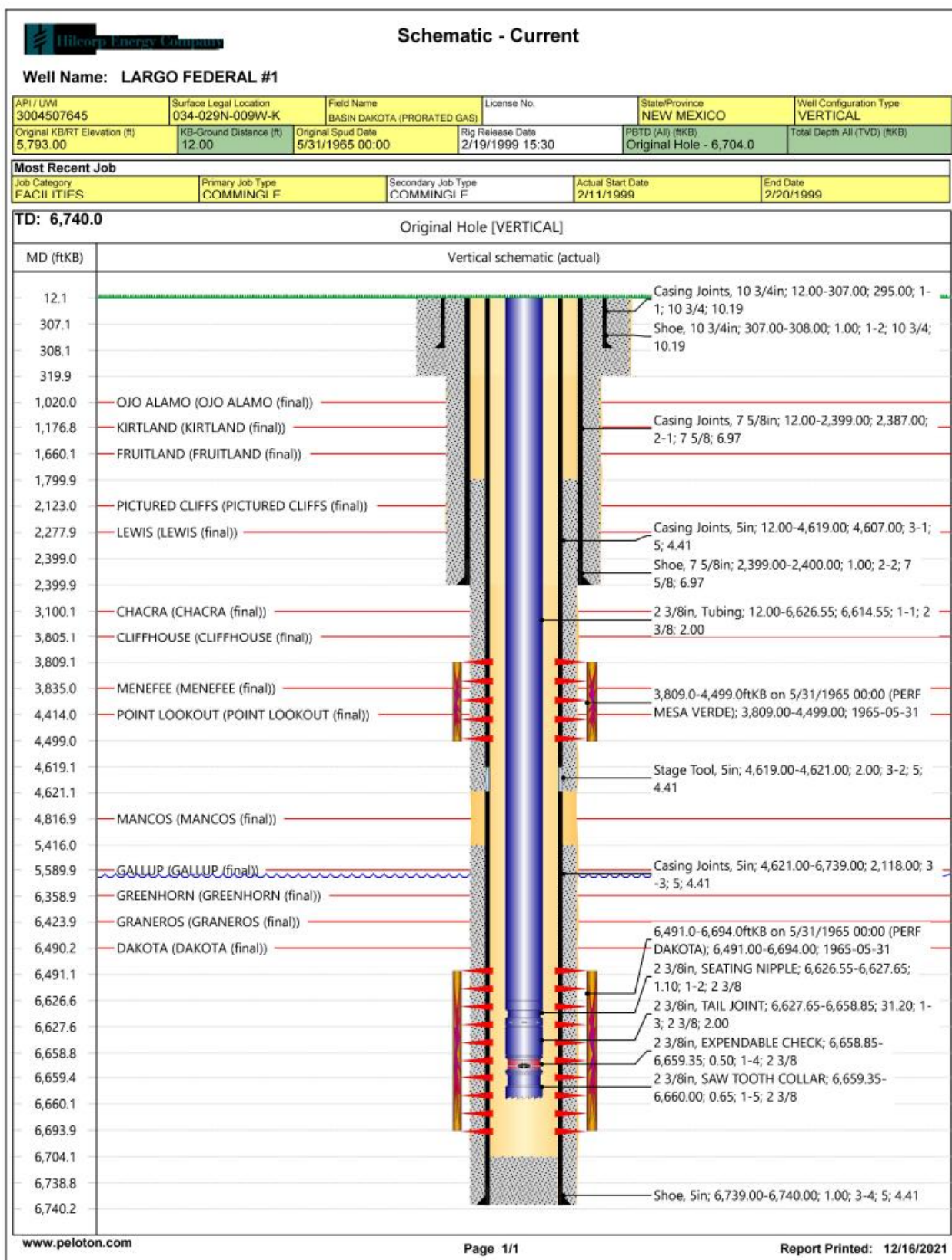
API#: 3004507645

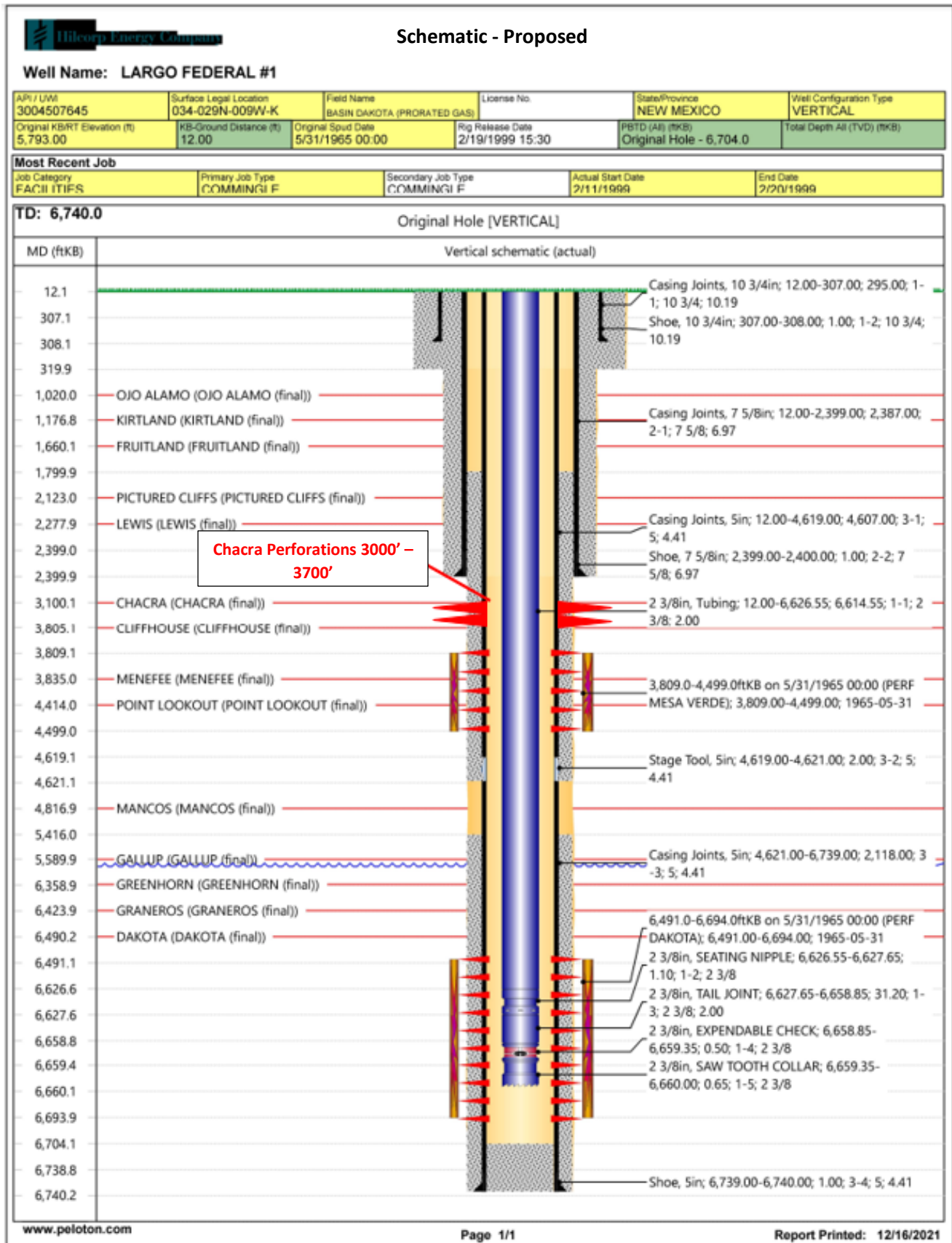
Chacra Recompletion Procedure

12/16/2021

Procedure:

1. MIRU service rig and associated equipment.
2. Test BOP's
3. TOO H w/ 2-3/8" tubing currently set with EOT at 6,660'.
4. Set a CIBP to isolate the Mesa Verde and Dakota perforations @ +/- 3,759'.
5. Load the hole.
6. Run CBL to verify TOC at 1800'.
7. Pressure test casing to maximum fracture pressure.
8. ND BOP's. NU frac stack and test same to maximum fracture pressure.
9. RDMO service rig.
10. MIRU frac spread.
11. Perforate and frac the Chacra from 3,000 to 3,700'. RDMO frac spread.
12. MIRU service rig.
13. Test BOP's.
14. PU mill and RIH to clean out to Mesa Verde/Dakota isolation plug.
15. When water and sand rates are acceptable, flow test the Chacra.
16. Drill out Mesa Verde/Dakota isolation plug and TOO H.
17. TIH and land production tubing. Obtain a commingled flow rate.
18. ND BOP's, NU production tree.
19. RDMO service rig & turn well over to production.





State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description **Effective May 25, 2021**

I. Operator: Hilcorp Energy Company **OGRID:** 372171 **Date:** 1/17/2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipat ed Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Largo Federal 1	3004507645	K-34-29N-9W	1450' FSL & 1450' FWL	0	230	2

IV. Central Delivery Point Name: Chaco Processing Plant [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
<u>Largo Federal 1</u>	<u>3004507645</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>Not Yet Scheduled</u>

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: <i>Kandis Roland</i>
Printed Name: Kandis Roland
Title: Operations/Regulatory Tech Sr.
E-mail Address: kroland@hilcorp.com
Date: 1/17/2022
Phone: 713-757-5246
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

Hilcorp Energy Company (HEC or Operator) production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool of our recompleting project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recompleting to optimize gas capture and send gas to sales or flare based on analytical composition. HEC operates facilities that are typically one-well facilities. Production separation equipment is upgraded prior to well being completed, if determined to be undersized or inadequate. This equipment is already on-site and tied into our sales gas lines prior to the recompleting operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas
 - HEC understands the requirements of NMAC 19.15.27.8 which outlines that the venting and flaring of natural gas during drilling, completion or production operations that constitutes waste as defined in 19.15.2 are prohibited.
2. Subsection (B) Venting and Flaring during drilling operations
 - This gas capture plan isn't for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompleting
 - Flowlines will be routed for flowback fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
 - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations
 - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
 - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
 - HEC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 1-4.
5. Subsection (E) Performance standards
 - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
 - If a flare is utilized during production operations it will have a continuous pilot and is located more than 100 feet from any known well or storage tanks.
 - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.

6. Subsection (F) Measurement or estimation of vented and flared natural gas
 - Measurement equipment is installed to measure the volume of natural gas flared from process piping.
 - When measurement isn't practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

1. Operator has adequate storage and takeaway capacity for wells it chooses to recomplete as the flowlines at the sites are already in place and tied into a gathering system.
2. Operator will flare rather than vent vessel blowdown gas when technically feasible during active and/or planned maintenance to equipment on-site.
3. Operator combusts natural gas that would otherwise be vented or flared, when technically feasible.
4. Operator will shut in wells in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

Hilcorp Energy
Recomplete Reclamation Plan
Largo Federal 1
API: 30-045-07645
T29N-R9W-Sec.34-K
LAT: 36.67935 LONG: -107.7729
Footage: 1450' FSL & 1450' FWL
San Juan County, NM

1. PRE- RECLAMATION SITE INSPECTION

A pre-reclamation site inspection was completed with Bob Switzer from the BLM and Eufracio Trujillo, Hilcorp Energy SJ South Construction Foreman, on January 14, 2022.

2. LOCATION RECLAMATION PROCEDURE

1. Reclamation work will begin in spring period.
2. All trash and debris will be removed within a 25' buffer outside of the location disturbance during reclamation.
3. Brush hog location and fence off area for disturbance.
4. Reclaim all disturbed area being used for recompletion activities.
5. Reestablish teardrop on location.
6. Fix road going into location pad.
7. Reclaim areas used to the locations to the South of pad as TUA's

3. SEEDING PROCEDURE

1. A Pinion/Juniper seed mix with some Sage will be used for all reclaimed and disturbed areas of the well pad(s) 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.

4. WEED MANAGEMENT

1. No action is required at this time for weed management, no noxious weeds were identified during this onsite.

From: [McClure, Dean, EMNRD](#) on behalf of [Engineer, OCD, EMNRD](#)
To: [Kandis Roland](#); [Mandi Walker](#)
Cc: [McClure, Dean, EMNRD](#); [Wrinkle, Justin, EMNRD](#); [Powell, Brandon, EMNRD](#); [Paradis, Kyle O](#)
Subject: Approved Administrative Order DHC-5182
Date: Friday, March 3, 2023 2:35:31 PM
Attachments: [DHC5182 Order.pdf](#)

NMOCD has issued Administrative Order DHC-5182 which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

Well Name: **Largo Federal #1**

Well API: **30-045-07645**

The administrative order is attached to this email and can also be found online at OCD Imaging.

Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: [Justin Nall](#)
To: [McClure, Dean, EMNRD](#); [Kandis Roland](#)
Cc: [Mandi Walker](#)
Subject: RE: [EXTERNAL] downhole commingling application DHC-5182
Date: Monday, July 11, 2022 2:25:20 PM

Dean,

After doing some digging into how Burlington allocated their oil, there was some well history that was mistakenly missed on my part. I didn't catch that it had previously been a dual string completion that was metered separately from 1966-1998. Since in this case we have proof of production metered by zone, I propose to honor the separately-metered oil yields for the MV and DK and calculate the oil split using remaining reserves and the updated yields. This would give us the following oil yields:

MV cum production (separately metered) through 7/1998: 799.8 MMCF, 4,687 BO, **5.86**

BBL/MMCF Oil Yield

DK cum production (separately metered) through 7/1998: 1,224.7 MMCF, 11,812 BO, **9.64**

BBL/MMCF Oil Yield

Using these updated yields, the oil allocation table would be:

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	9.64	452	73%
MV	5.86	268	26%
CH	0.06	560	1%

This split is fairly similar to Burlington's historical 71.5%/28.4% oil allocation. If you are okay with this methodology, we can update the application with these values. Please let me know if you have any questions about this.

Here are links to some of this information in the state files:

[Proof of dual string completion](#)

[Burlington commingle documentation with historical production](#)

Thank you!

Justin Nall

Sr. Reservoir Engineer – San Juan South

O: 346-237-2231

From: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>

Sent: Monday, July 11, 2022 1:36 PM

To: Kandis Roland <kroland@hilcorp.com>

Cc: Mandi Walker <mwalker@hilcorp.com>; Justin Nall <jnall@hilcorp.com>

Subject: RE: [EXTERNAL] downhole commingling application DHC-5182

Kandis,

Considering the magnitude of deviation of oil share between the MC and DK from what was approved in DHC-2119, please confirm that Hilcorp's proposed oil allocation is correct. Was Burlington incorrect in their allocation? Is the change due to differing reservoir conditions now versus in 1999? Are the perms in a similar horizon to what Hilcorp's GOR map is built from?

Dean McClure

Petroleum Engineer, Oil Conservation Division

New Mexico Energy, Minerals and Natural Resources Department

(505) 469-8211

From: Kandis Roland <kroland@hilcorp.com>

Sent: Friday, July 8, 2022 12:31 PM

To: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>

Cc: Mandi Walker <mwalker@hilcorp.com>; Justin Nall <jnall@hilcorp.com>

Subject: RE: [EXTERNAL] downhole commingling application DHC-5182

Dean,

Please see attached for requested information.

Thanks,

Kandis Roland

HILCORP ENERGY

San Juan East/South Regulatory

713.757.5246

kroland@hilcorp.com

From: McClure, Dean, EMNRD <Dean.McClure@state.nm.us>

Sent: Friday, July 1, 2022 11:55 AM

To: Kandis Roland <kroland@hilcorp.com>

Cc: Mandi Walker <mwalker@hilcorp.com>

Subject: [EXTERNAL] downhole commingling application DHC-5182

Ms. Roland,

I am reviewing downhole commingling application DHC-5182 which involves the commingling of pools within the well bore of the Largo Federal #1 well (30-045-07645) and is operated by Hilcorp Energy Company (372171).

Please submit the following:

- Known or estimated oil gravities for each pool
- Proposed oil allocation including supporting documentation

My speculation is that the intent to allocate the historically projected gas production for the currently producing pools is in agreement with DHC-2119; that being 40% to the Mesaverde and 60% to the Dakota. Please confirm this is correct or diversly provide the proposed allocation for these pools.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

The information contained in this email message is confidential and may be legally privileged and is intended only for the use of the individual or entity named above. If you are not an intended recipient or if you have received this message in error, you are hereby notified that any dissemination, distribution, or copy of this email is strictly prohibited. If you have received this email in error, please immediately notify us by return email or telephone if the sender's phone number is listed above, then promptly and permanently delete this message.

While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening, or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

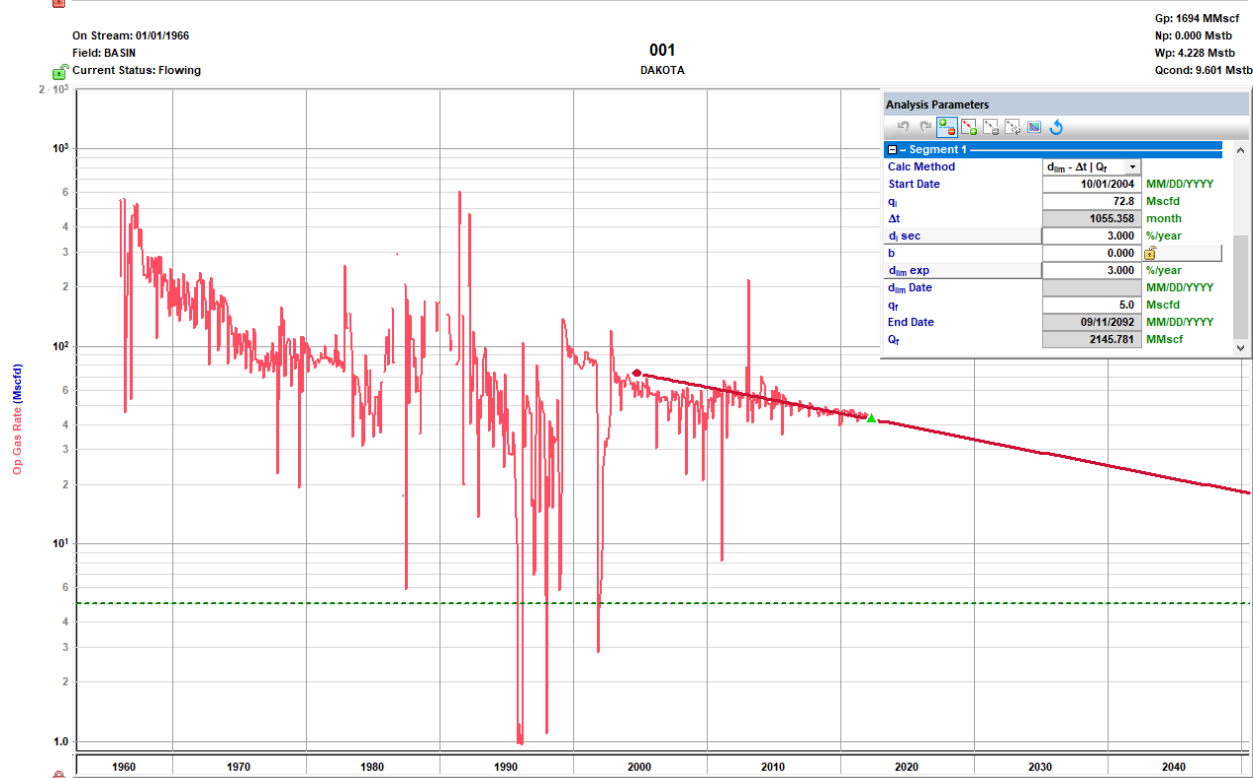
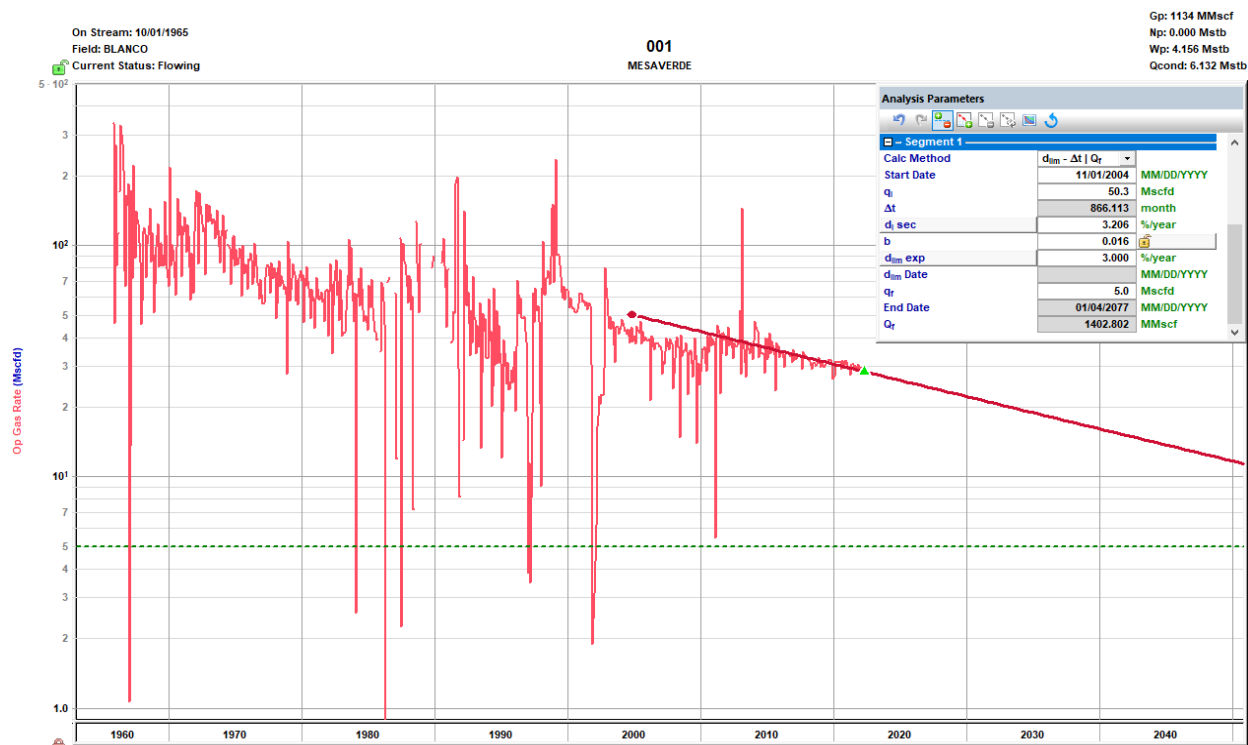
The information contained in this email message is confidential and may be legally privileged and is intended only for the use of the individual or entity named above. If you are not an intended recipient or if you have received this message in error, you are hereby notified that any dissemination, distribution, or copy of this email is strictly prohibited. If you have received this email in error, please immediately notify us by return email or telephone if the sender's phone number is listed above, then promptly and permanently delete this message.

While all reasonable care has been taken to avoid the transmission of viruses, it is the responsibility of the recipient to ensure that the onward transmission, opening, or use of this message and any attachments will not adversely affect its systems or data. No responsibility is accepted by the company in this regard and the recipient should carry out such virus and other checks as it considers appropriate.

Production Allocation Method - Subtraction - Largo Federal 1

Gas Allocation:

Production for the downhole trimmingle will be allocated using the subtraction method in agreement with local agencies. The base formations are the Dakota & Mesaverde and the added formation to be trimmingle is the Chacra. 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.



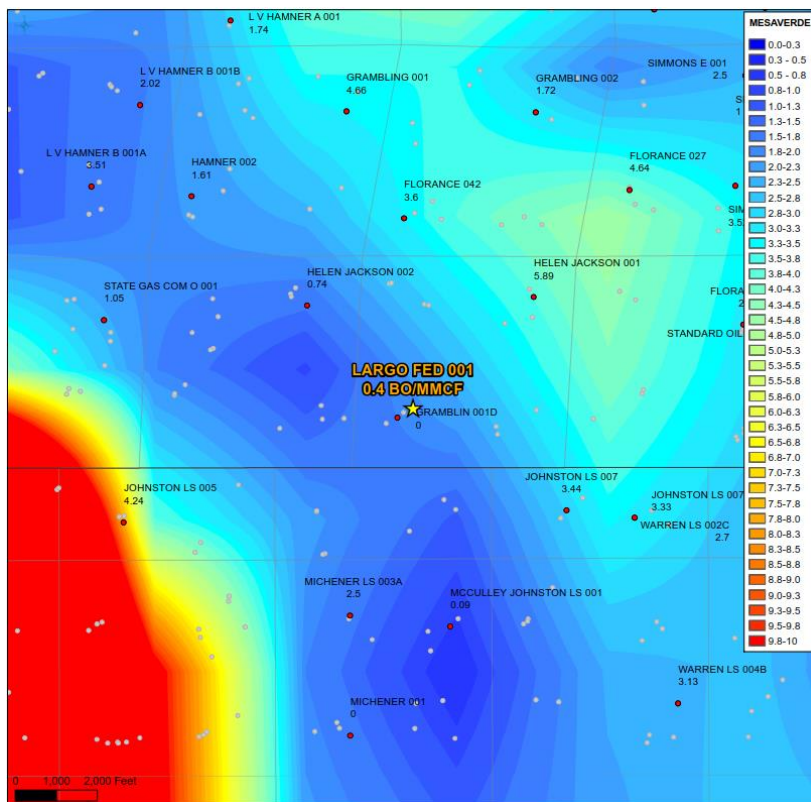
Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 60% (Dakota) 40% (Mesaverde) while the subtraction method is being used to determine the allocation to the new zone.

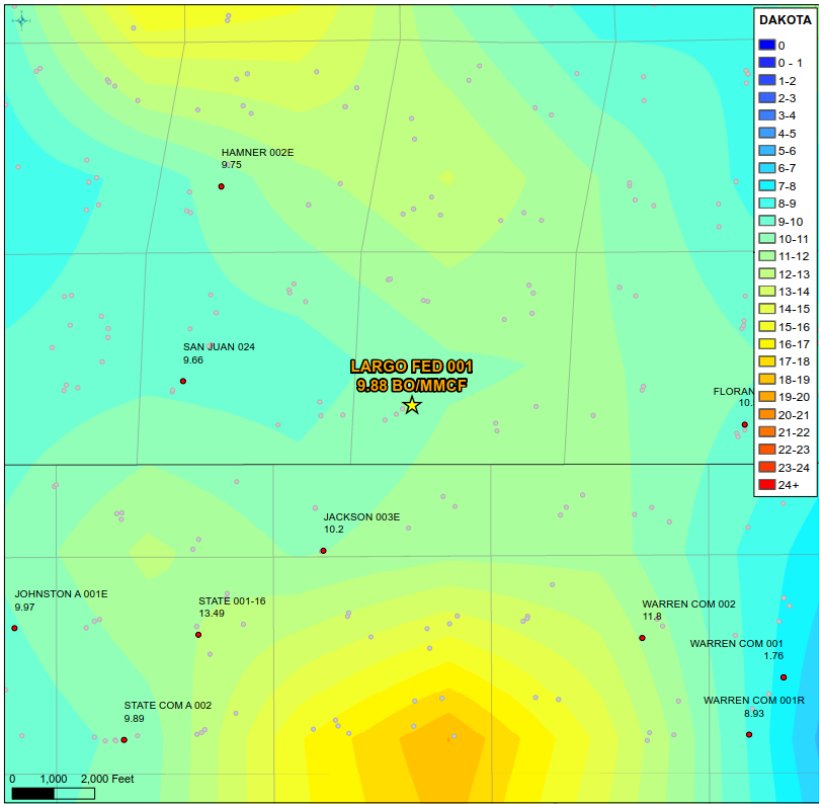
Oil Allocation:

Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years.

After 4 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	9.88	452	97%
MV	0.4	268	2%
CH	0.06	560	1%





NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
<http://emnr.state.nm.us/ocd/District III/3district.htm>

GARY E. JOHNSON
Governor

Jennifer A. Salisbury
Cabinet Secretary

March 8, 1999

Ms Peggy Bradfield
Burlington Res O&G Co
PO Box 4289
Farmington NM 87499

Re: Largo Federal #1, K-34-29N-09W, DHC, API# 30-045-07645

Dear Ms. Bradfield:

Your recommended allocation of commingled production for the referenced well is hereby accepted as follows:

	Gas	Oil
Mesaverde	40%	29%
Dakota	60%	71%

Yours truly,

Ernie Busch
District Geologist/Deputy O&G Inspector

EB/mk

cc: BLM Farmington-Jim Lovato
NMOCD Santa Fe-David Catanach
well file

Lrgo fed 1. dhc

BURLINGTON RESOURCES

February 15, 1999

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RECEIVED
FEB 17 1999
OIL CON. DIV.
DIST. 3

Re: Largo Federal #1
K Section 34, T-29-N, R-9-W
30-045-07345

Gentlemen:

Attached is a copy of the allocation for the commingling of the subject well. DHC-2119 was issued for this well

Gas:	Mesa Verde	39.51%
	Dakota	60.49%
Oil:	Mesa Verde	28.41%
	Dakota	71.59%

These allocations are based on historic production. Please let me know if you have questions on this matter.

Sincerely,



Peggy Bradfield
Regulatory/Compliance Administrator

Xc: NMOCD - Santa Fe
Bureau of Land Management - Farmington

3535 East 30th, Post Office Box 4289, Farmington, NM 87499 505-326-9727 Fax: 505-599-4046

Largo Federal #1
Sec.34, T29N R9W
San Juan County, New Mexico

Production Allocation Based On Cumulative Production Through 07/98

	Cumulative Production		% Allocation	
	MCF	Bbl Oil	% Gas	% Oil
Mesa Verde	799,863	4,687	39.51%	28.41%
Dakota	1,224,727	11,812	60.49%	71.59%
Total	2,024,590	16,499	100.00%	100.00%

Gas Allocation:

Mesa Verde (Total Mesa Verde Production) 799,863 MCF

 (Total Combined Production) 2,024,590 MCF = **39.51%**

Dakota (Total Dakota Production) 1224727 MCF

 (Total Combined Production) 2024590 MCF = **60.49%**

Oil Allocation:

Mesa Verde (Total Mesa Verde Production) 4,687 Bbl Oil

 (Total Combined Production) 16,499 Bbl Oil = **28.41%**

Dakota (Total Dakota Production) 11,812 Bbl Oil

 (Total Combined Production) 16,499 Bbl Oil = **71.59%**

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION FOR DOWNHOLE COMMINGLING
SUBMITTED BY HILCORP ENERGY COMPANY**

ORDER NO. DHC-5182

ORDER

The Director of the New Mexico Oil Conservation Division (“OCD”), having considered the application and the recommendation of the Engineering Bureau, issues the following Order.

FINDINGS OF FACT

1. Hilcorp Energy Company (“Applicant”) submitted a complete application (“Application”) to downhole commingle the pools described in Exhibit A (“the Pools”) within the well bore of the well identified in Exhibit A (“the Well”).
2. Applicant proposed a method to allocate the oil and gas production from the Well to each of the Pools that is satisfactory to the OCD and protective of correlative rights.
3. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
4. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
5. To the extent that ownership is identical, Applicant submitted a certification by a licensed attorney or qualified petroleum landman that ownership in the Pools is identical as defined by 19.15.12.7(B) NMAC.
6. Applicant provided notice of the Application to the Bureau of Land Management (“BLM”) or New Mexico State Land Office (“NMSLO”), as applicable.

CONCLUSIONS OF LAW

7. OCD has jurisdiction to issue this Order pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11, 70-2-12, 70-2-16, 70-2-17, and 19.15.12 NMAC.
8. The downhole commingling of the Pools is common, or Applicant has provided evidence that the fluids are compatible and will not damage the Pools in accordance with 19.15.12.11(A)(1) NMAC.
9. The bottom perforation of the lower zone is within one hundred fifty percent (150%) of the depth of the top perforation in the upper zone or Applicant has provided evidence that the proposed commingling of the Pools shall not result in shut-in or flowing well bore pressure in excess of the commingled pool’s fracture parting pressure in accordance with 19.15.12.11(A)(3) NMAC.

10. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.
11. By granting the Application with the conditions specified below, this Order prevents waste and protects correlative rights, public health, and the environment.

ORDER

1. Applicant is authorized to downhole commingle the Pools described in Exhibit A within the well bore of the well identified in Exhibit A.
2. This Order supersedes Order DHC-2119.
3. Applicant shall allocate a fixed percentage of the oil production from the Well to each of the Pools until a different plan to allocate oil production is approved by OCD. Of the oil production from the Well:
 - a. one percent (1%) shall be allocated to the OTERO CHACRA (GAS) pool (pool ID: 82329);
 - b. twenty-six percent (26%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
 - c. seventy-three percent (73%) shall be allocated to the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

Applicant shall allocate gas production to the new pool(s) equal to the total gas production from the Well minus the projected gas production from the current pool(s) until a different plan to allocate gas production is approved by OCD. The new pool(s) are:

- a. the OTERO CHACRA (GAS) pool (pool ID: 82329).

The current pool(s) are:

- a. the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
- b. the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

Until a different plan to allocate gas production is approved by OCD, of the projected gas production allocated to the current pools:

- a. forty percent (40%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
- b. sixty percent (60%) shall be allocated to the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

Applicant shall calculate the oil and gas production average during the fourth year after the commencement of commingling, which shall be used to establish a fixed percentage of the total oil and gas production that shall be allocated to each of the Pools ("fixed percentage allocation plan"). No later than ninety (90) days after the fourth year, Applicant shall submit a Form C-103 to the OCD Engineering Bureau that includes the fixed percentage allocation plan and all data used to determine it. If Applicant fails to do so, this Order shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Order shall terminate on the date of such action. If OCD approves the percentage allocation plan with or without modifications, then the approved percentage allocation plan shall be used to

determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.

4. If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Order to become inaccurate, then no later than sixty (60) days after that event, Applicant shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Order shall terminate on the date of such action.
5. If any of the pools being commingled is prorated, or the Well's production has been restricted by an OCD order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.
6. If the Well is deepened, then no later than forty-five (45) days after the Well is deepened, Applicant shall conduct and provide logs to OCD that are sufficient for OCD to determine which pool(s) each new completed interval of the Well will produce from.
7. If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred Applicant shall submit a new downhole commingling application to OCD to amend this Order to remove the pool that caused the decrease in value. If Applicant fails to submit a new application, this Order shall terminate on the following day, and if OCD denies the application, this Order shall terminate on the date of such action.
8. If a completed interval of the Well is altered from what is submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after the alteration, Applicant shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.
9. If OCD determines that Applicant has failed to comply with any provision of this Order, OCD may take any action authorized by the Oil and Gas Act or the New Mexico Administrative Code (NMAC).
10. OCD retains jurisdiction of this matter and reserves the right to modify or revoke this Order as it deems necessary.

**STATE OF NEW MEXICO
OIL CONSERVATION DIVISION**



DYLAN M. FUGE
DIRECTOR (ACTING)

DATE: 3/3/23

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

Order: **DHC-5182**

Operator: **Hilcorp Energy Company (372171)**

Well Name: **Largo Federal #1**

Well API: **30-045-07645**

Upper Zone	Pool Name: OTERO CHACRA (GAS)		
	Pool ID: 82329	Current:	New: X
	Allocation:	Oil: 1%	Gas:
	Interval: Perforations	Top: 3,000	Bottom: 3,700
Intermediate Zone	Pool Name: BLANCO-MESAVERDE (PRORATED GAS)		
	Pool ID: 72319	Current: X	New:
	Allocation:	Oil: 26%	Gas: 40%
	Interval: Perforations	Top: 3,809	Bottom: 4,499
Bottom of Interval within 150% of Upper Zone's Top of Interval: YES			
Lower Zone	Pool Name: BASIN DAKOTA (PRORATED GAS)		
	Pool ID: 71599	Current: X	New:
	Allocation:	Oil: 73%	Gas: 60%
	Interval: Perforations	Top: 6,491	Bottom: 6,694
Bottom of Interval within 150% of Upper Zone's Top of Interval: NO			

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 76941

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 76941
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.	3/3/2023