

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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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

<u>FOR OCD ONLY</u>	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	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

Cherylene Weston

 Signature

Date

Phone Number

e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107A
Revised August 1, 2011

District II
811 S. First St., Artesia, NM 88210

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

APPLICATION TYPE
 Single Well
 Establish Pre-Approved Pools
EXISTING WELLBORE
 Yes No

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company 382 Road 3100, Aztec, NM 87410
Operator Address
San Juan 27-5 Unit 170 L-34-27N-R5W Rio Arriba County
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 372171 Property Code 318920 API No. 30-039-20662 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Blanco Mesaverde (Prorated Gas)	Basin Mancos	Basin Dakota (Prorated Gas)
Pool Code	72319	97232	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Estimated 4188' – 5480'	Estimated 6300' – 6975'	7454' – 7650'
Method of Production (Flowing or Artificial Lift)	NEW ZONE	NEW ZONE	ARTIFICIAL LIFT
Bottomhole Pressure <small>(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)</small>	1095 PSI	2015 PSI	1764 PSI
Oil Gravity or Gas BTU <small>(Degree API or Gas BTU)</small>	BTU 1270	BTU 1269	BTU 1118
Producing, Shut-In or New Zone	NEW ZONE	NEW ZONE	PRODUCING
Date and Oil/Gas/Water Rates of Last Production. <small>(Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)</small>	Date: N/A Rates:	Date: N/A Rates:	Date: 5/1/2023 Rates: Gas – 1,774 Mcf Oil – 0 bbl, Water – 5 bbl
Fixed Allocation Percentage <small>(Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)</small>	Oil Gas Please see attachments	Oil Gas Please see attachments	Oil Gas Please see attachments

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes _____ 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 No _____
 Will commingling decrease the value of production? Yes _____ No
 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 No _____
 NMOCD Reference Case No. applicable to this well: R-13764

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 Cherylene Weston TITLE Operations/Regulatory Technician-Sr. DATE 8/07/2023
 TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. (713) 289-2615
 E-MAIL ADDRESS cweston@hilcorp.com

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-20662	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318920	5. Property Name SAN JUAN 27 5 UNIT	6. Well No. 170
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6524

10. Surface Location

UL - Lot L	Section 34	Township 27N	Range 05W	Lot Idn	Feet From 1840	N/S Line S	Feet From 825	E/W Line W	County RIO ARRIBA
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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 320.00	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>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: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 06/27/2023</p>
	<p>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: David Kilven Date of Survey: 2/5/1973 Certificate Number: 1760</p>

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

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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 343728

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-20662	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 318920	5. Property Name SAN JUAN 27 5 UNIT	6. Well No. 170
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6524

10. Surface Location

UL - Lot L	Section 34	Township 27N	Range 05W	Lot Idn	Feet From 1840	N/S Line S	Feet From 825	E/W Line W	County RIO ARRIBA
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	SURVEYOR CERTIFICATION
	<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: David Kilven Date of Survey: 2/5/1973 Certificate Number: 1760</p>

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form O-17a
Supersedes O-12B
Effective 1-1-65

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

Lessee EL PASO NATURAL GAS COMPANY			Lease SAN JUAN 27-5 UNIT (SF-079394)			Acres 170		
Section L	Range 34	Township 27-N	Block 5-W	County RIO ARriba				
Actual Depth (feet) of Well: 1840			Direction SOUTH			Distance 825		
Direction WEST			Depth of casing 320.00			State DAKOTA		
In State Elev. 6524			Basin BASIN DAKOTA			County DAKOTA		

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (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 **Unitization**

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.



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

Drilling Clerk

El Paso Natural Gas Co.

June 12, 1973

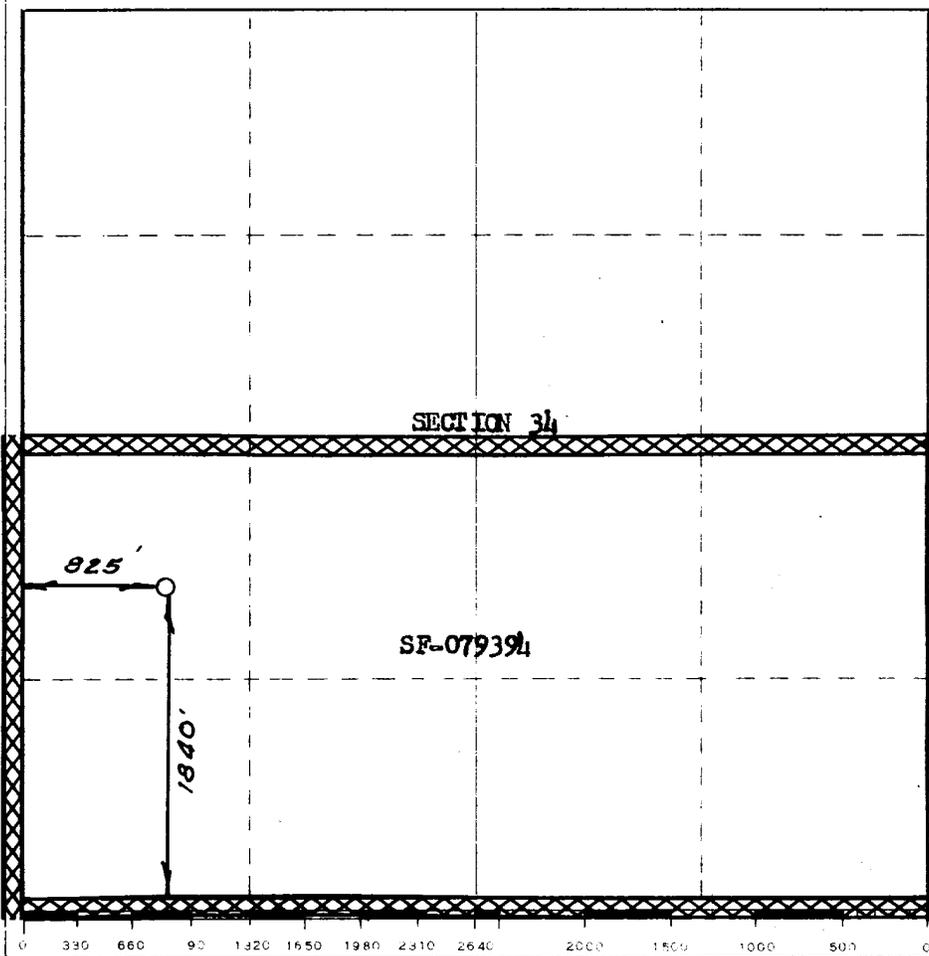
Date

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.

FEBRUARY 5, 1973

Registered Professional Surveyor

David W. Kluen
Certificate No. **1760**



DK	San Juan 27-5 Unit 170 Production Allocation
Date	Mcf/d
Sep-23	97.4
Oct-23	97.1
Nov-23	96.9
Dec-23	96.6
Jan-24	96.4
Feb-24	96.1
Mar-24	95.9
Apr-24	95.7
May-24	95.4
Jun-24	95.2
Jul-24	94.9
Aug-24	94.7
Sep-24	94.5
Oct-24	94.2
Nov-24	94
Dec-24	93.7
Jan-25	93.5
Feb-25	93.3
Mar-25	93
Apr-25	92.8
May-25	92.6
Jun-25	92.3
Jul-25	92.1
Aug-25	91.9
Sep-25	91.6
Oct-25	91.4
Nov-25	91.2
Dec-25	90.9
Jan-26	90.7
Feb-26	90.5
Mar-26	90.2
Apr-26	90
May-26	89.8
Jun-26	89.6
Jul-26	89.3
Aug-26	89.1
Sep-26	88.9
Oct-26	88.6
Nov-26	88.4
Dec-26	88.2
Jan-27	88
Feb-27	87.8
Mar-27	87.5
Apr-27	87.3
May-27	87.1
Jun-27	86.9
Jul-27	86.7
Aug-27	86.4
Sep-27	86.2
Oct-27	86
Nov-27	85.8
Dec-27	85.6
Jan-28	85.3
Feb-28	85.1
Mar-28	84.9
Apr-28	84.7
May-28	84.5
Jun-28	84.3
Jul-28	84
Aug-28	83.8
Sep-28	83.6
Oct-28	83.4
Nov-28	83.2
Dec-28	83
Jan-29	82.8
Feb-29	82.6
Mar-29	82.4
Apr-29	82.2
May-29	81.9
Jun-29	81.7
Jul-29	81.5
Aug-29	81.3
Sep-29	81.1
Oct-29	80.9
Nov-29	80.7
Dec-29	80.5
Jan-30	80.3
Feb-30	80.1
Mar-30	79.9
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Jun-30	79.3
Jul-30	79.1
Aug-30	78.9
Sep-30	78.7

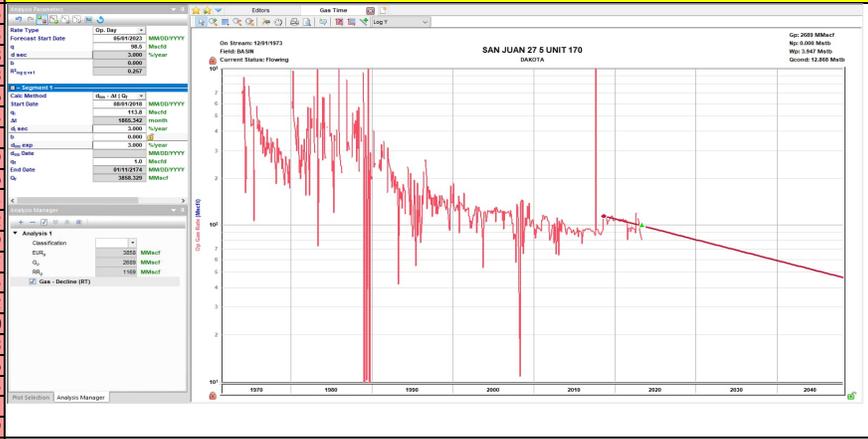
The forecasts for Mancos and Mesaverde production have been generated using type curves of production in the surrounding trend.

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 reservoir 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.

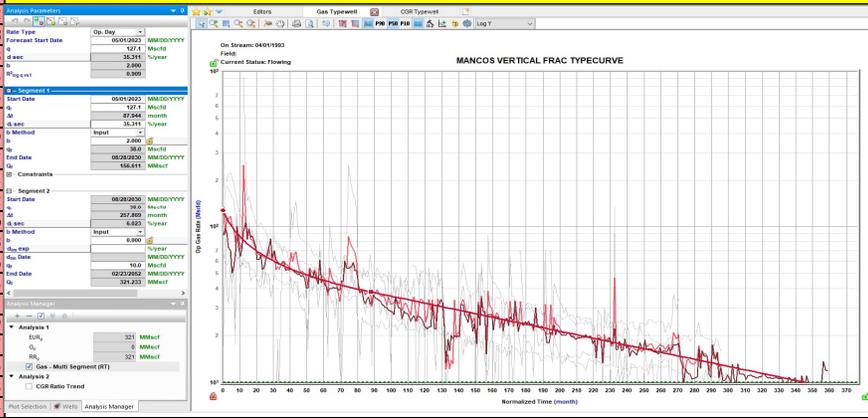
Current Zone 1 Forecast

Dakota



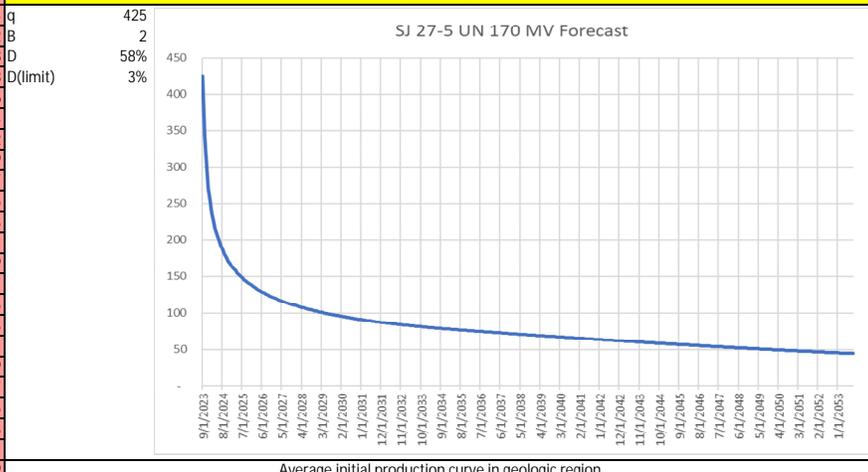
Proposed Zone 1 Forecast

Mancos



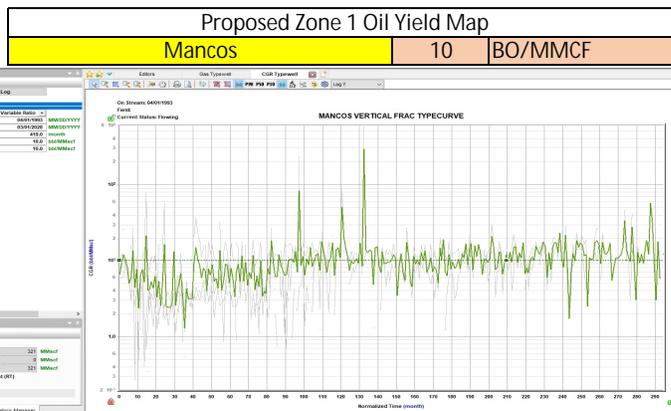
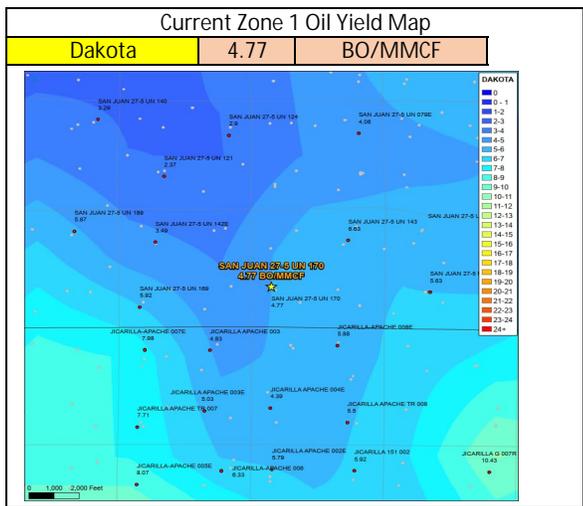
Proposed Zone 2 Forecast

Mesaverde

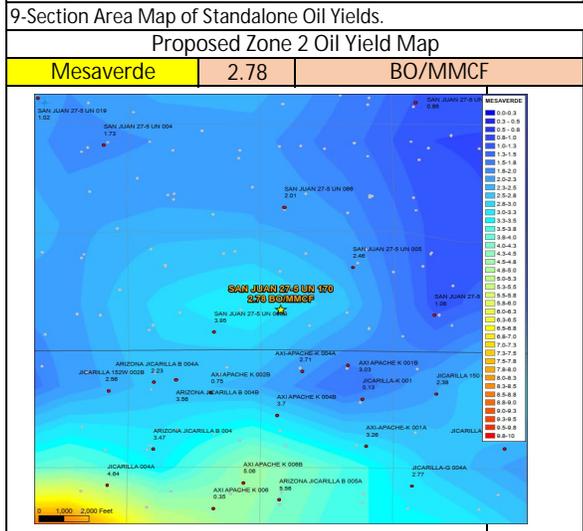


Average initial production curve in geologic region.

Oil Allocation			
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	4.77	1169	49%
MC	10	321	28%
MV	2.78	900	23%
			100%



Average Oil Yield from Vertical Mancos Type Curve.



Well Name: SAN JUAN 27-5 UNIT	Well Location: T27N / R5W / SEC 34 / NWSW / 36.52847 / -107.35143	County or Parish/State: RIO ARRIBA / NM
Well Number: 170	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF079394	Unit or CA Name: SAN JUAN 27-5 UNIT--DK	Unit or CA Number: NMNM78409A
US Well Number: 3003920662	Well Status: Producing Gas Well	Operator: HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2738252

Type of Submission: Notice of Intent

Type of Action: Recompletion

Date Sundry Submitted: 06/27/2023

Time Sundry Submitted: 12:58

Date proposed operation will begin: 08/01/2023

Procedure Description: Hilcorp Energy Company requests permission to recomplete the subject well in the Mancos/Mesaverde and downhole commingle with the existing 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 is not required as the surface is Fee.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

SJ_27_5_Unit_170_MCMV_RC_NOI_20230627125636.pdf

Well Name: SAN JUAN 27-5 UNIT	Well Location: T27N / R5W / SEC 34 / NWSW / 36.52847 / -107.35143	County or Parish/State: RIO ARRIBA / NM
Well Number: 170	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF079394	Unit or CA Name: SAN JUAN 27-5 UNIT--DK	Unit or CA Number: NMNM78409A
US Well Number: 3003920662	Well Status: Producing Gas Well	Operator: HILCORP ENERGY COMPANY

Operator

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

Operator Electronic Signature: CHERYLENE WESTON

Signed on: JUN 27, 2023 12:56 PM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Tech - Sr

Street Address: 1111 TRAVIS STREET

City: HOUSTON

State: TX

Phone: (713) 289-2615

Email address: cweston@hilcorp.com

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: MATTHEW H KADE

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647736

BLM POC Email Address: MKADE@BLM.GOV

Disposition: Approved

Disposition Date: 06/27/2023

Signature: Matthew Kade



HILCORP ENERGY COMPANY
SAN JUAN 27-5 UNIT 170
MANCOS & MESA VERDE RECOMPLETION SUNDRY

JOB PROCEDURES

1. MIRU service rig and associated equipment; test BOP.
2. TOOH with **2-3/8"** tubing set at **7,514'**.
3. Set a **4-1/2"** plug at +/- **7,404'** to isolate the **Dakota**.
4. RU Wireline. Run CBL. Record Top of Cement.
5. Load the hole and pressure test the casing.
6. N/D BOP, N/U frac stack and pressure test frac stack.
7. Perforate and frac the **Basin Mancos** formation (Top Perforation @ **6,300'**; Bottom Perforation @ **6,975'**).
8. Isolate frac stages with a plug.
9. Perforate and frac the **Mesa Verde** formation (Top Perforation @ **4,188'**; Bottom Perforation @ **5,480'**).
- 8 Isolate frac stages with a plug.
9. Nipple down frac stack, nipple up BOP and test.
10. TIH with a mill and drill out top isolation plug and **Mesa Verde/Basin Mancos** frac plugs.
11. Clean out to **Dakota** isolation plug.
12. Drill out **Dakota** isolation plug and cleanout to PBD of **7,681'**. TOOH.
13. TIH and land production tubing. Get a commingled **Dakota/Basin Mancos/Mesa Verde** flow rate.



HILCORP ENERGY COMPANY
SAN JUAN 27-5 UNIT 170
MANCOS & MESA VERDE RECOMPLETION SUNDRY

SAN JUAN 27-5 UNIT 170 - CURRENT WELLBORE SCHEMATIC

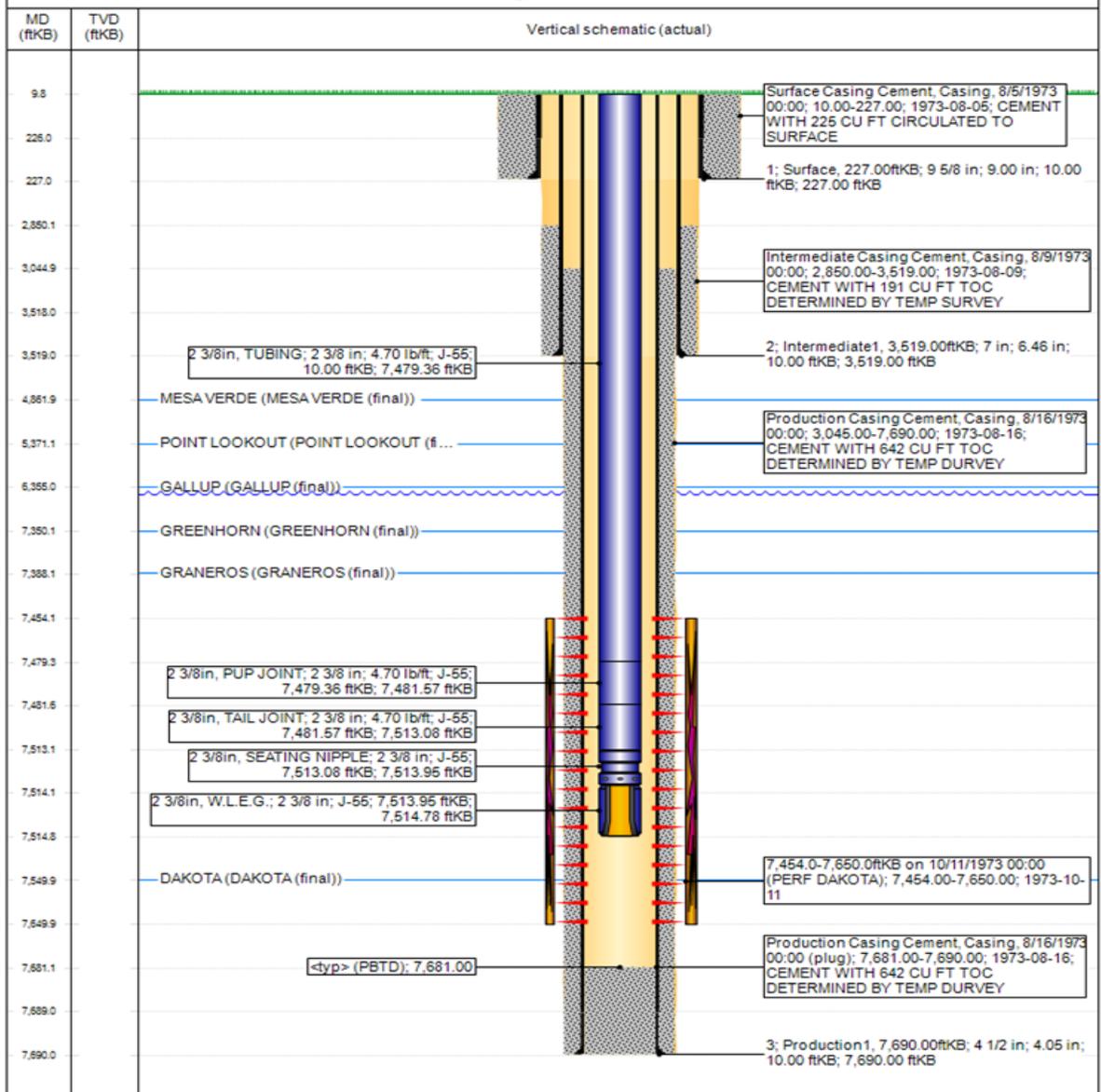


Current Schematic - Version 3

Well Name: **SAN JUAN 27-5 UNIT #170**

API / UWI 3003920662	Surface Legal Location 034-027N-005W-L	Field Name BASIN DAKOTA (PRORATED GAS)	Route 1402	State/Province NEW MEXICO	Well Configuration Type
Ground Elevation (ft) 6,524.00	Original KBRT Elevation (ft) 6,534.00	KB-Ground Distance (ft) 10.00	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)	

Original Hole





HILCORP ENERGY COMPANY
SAN JUAN 27-5 UNIT 170
MANCOS & MESA VERDE RECOMPLETION SUNDRY

SAN JUAN 27-5 UNIT 170 - Proposed Schematic



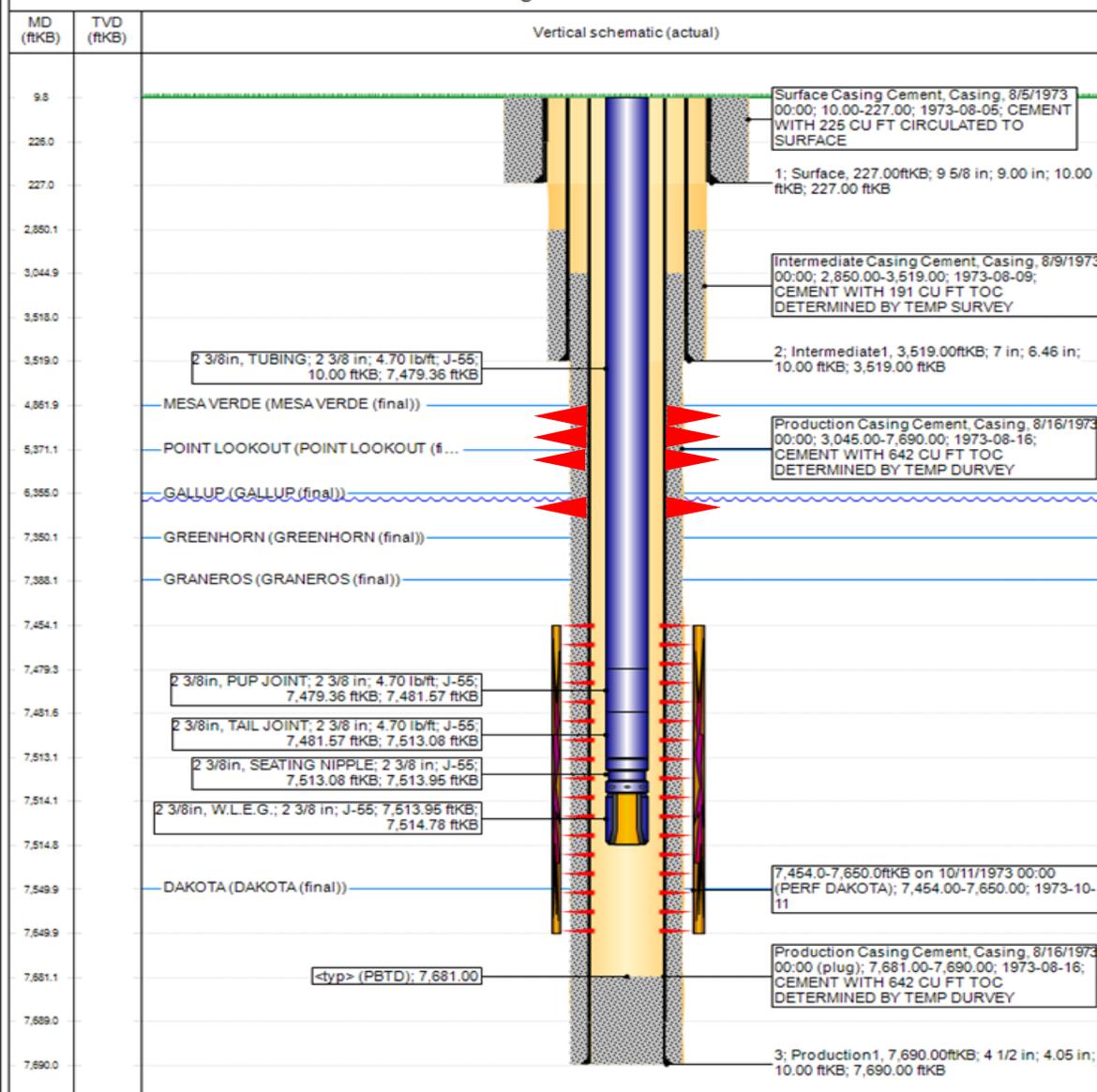
Hilcorp Energy Company

Proposed Schematic

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Original Hole



District I
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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 343728

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-20662	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 318920	5. Property Name SAN JUAN 27 5 UNIT	6. Well No. 170
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11. Bottom Hole Location If Different From Surface

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Energy, Minerals and Natural
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505**

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-20662	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318920	5. Property Name SAN JUAN 27 5 UNIT	6. Well No. 170
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6524

10. Surface Location

UL - Lot L	Section 34	Township 27N	Range 05W	Lot Idn	Feet From 1840	N/S Line S	Feet From 825	E/W Line W	County RIO ARRIBA
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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 320.00	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

	OPERATOR CERTIFICATION
	<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: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 06/27/2023</p>
	SURVEYOR CERTIFICATION
	<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: David Kilven Date of Survey: 2/5/1973 Certificate Number: 1760</p>

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:** 06 / 27 / 2023

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	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
San Juan 27-5 Unit 170	3003920662	L-34-27N-5W	1840' FSL & 825' FWL	1.3	425	0.5

IV. Central Delivery Point Name: Ignacio 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>San Juan 27-5 Unit 170</u>	<u>3003920662</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 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system will will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator does does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

Attach Operator’s plan to manage production in response to the increased line pressure.

XIV. Confidentiality: Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

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>Cherylene Weston</i>
Printed Name: Cherylene Weston
Title: Operations/Regulatory Tech-Sr.
E-mail Address: cweston@hilcorp.com
Date: 06/27/2023
Phone: 713-289-2615
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 recomplete project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recomplete 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 recomplete operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas
 - o 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
 - o This gas capture plan isn't for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompletion
 - o 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.
 - o 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
 - o 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.
 - o 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.
 - o 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
 - o All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
 - o 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.
 - o 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
 - o Measurement equipment is installed to measure the volume of natural gas flared from process piping.
 - o 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.



July 31, 2023

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

Re: C-107A (Downhole Commingle)
San Juan 27-5 Unit 170
API No. 30-039-20662
Section 34, T27N-R05W
Rio Arriba County, NM

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

Interest is not common between the formations listed below:

- Basin Mancos (Pool Code: 97232)
- Basin Dakota (Pool Code: 71599)
- Blanco Mesaverde (Pool Code: 72319)

Order No. R-13764 waives the notice requirement and thus no notices will be sent.

The subject well is located within the bounds of a Federal Unit. Therefore, pursuant to Subsection C.(1) of 19.15.12.11 NMAC, written notice 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 that reads 'Chuck Creekmore'.

Charles E (Chuck) Creekmore
Division Landman
Hilcorp Energy Company
1111 Travis Street, Houston TX 77002
PO Box 61229, Houston TX 77208-
1229 Main: 713/209-2400; Direct:
832/839-4601 Cell: 505/320-9910; Fax:
713/209-2420
ccreekmore@hilcorp.com

From: [McClure, Dean, EMNRD](#) on behalf of [Engineer, OCD, EMNRD](#)
To: [Cheryl Weston](#); [Mandi Walker](#)
Cc: [McClure, Dean, EMNRD](#); [Rikala, Ward, EMNRD](#); [Wrinkle, Justin, EMNRD](#); [Powell, Brandon, EMNRD](#); [Paradis, Kyle Q](#)
Subject: Approved Administrative Order DHC-5326
Date: Friday, September 22, 2023 9:41:40 AM
Attachments: [DHC5326 Order.pdf](#)

NMOCD has issued Administrative Order DHC-5326 which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

Well Name: San Juan 27-5 Unit #170

Well API: 30-039-20662

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: [Cheryl Weston](#)
To: [McClure, Dean, EMNRD](#); [Mandi Walker](#)
Subject: RE: [EXTERNAL] Action ID: 249788; DHC-5326
Date: Friday, September 15, 2023 11:06:52 AM
Attachments: [San Juan 27-5 Unit 170 DHC C-103.pdf](#)

Dean,

Here is the revised DHC Application on a C-103. Please let me know if you have any questions.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Friday, September 15, 2023 9:43 AM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Subject: [EXTERNAL] Action ID: 249788; DHC-5326

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

To whom it may concern (c/o Cheryl Weston for Hilcorp Energy Company),

The Division is reviewing the following application:

Action ID	249788
Admin No.	DHC-5326
Applicant	Hilcorp Energy Company (372171)
Title	San Juan 27-5 Unit #170
Sub. Date	8/8/2023

Please provide the following additional supplemental documents:

- Please provide an amended C-107A with the perforations for the MV corrected. The C-107A has 4188 to 5480 while the C-103E has 4188 to 5630.
- Please provide the newest template describing Hilcorp’s proposed methods of allocation including the split between the MV and MC.

Please provide additional information regarding the following:

-

Additional notes:

-

All additional supplemental documents and information may be provided via email and should be done by replying to this email. The produced email chain will be uploaded to the file for this application.

Please note that failure to take steps to address each of the requests made in this email within 10 business days of receipt of this email may result in the Division rejecting the application requiring the submittal of a new application by the applicant once it is prepared to address each of the topics raised.

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.

Office
District I - (575) 393-6161
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1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-039-20662
5. Indicate Type of Lease STATE [] FEE []
6. State Oil & Gas Lease No. Federal NMSF079394
7. Lease Name or Unit Agreement Name San Juan 27-5 Unit
8. Well Number 170
9. OGRID Number 372171
10. Pool name or Wildcat Blanco MV/BS Mesa GL/Basin DK

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)
1. Type of Well: Oil Well [] Gas Well [x] Other
2. Name of Operator Hilcorp Energy Company
3. Address of Operator 382 Road 3100, Aztec NM 87410
4. Well Location Unit Letter L: 1840 feet from the South line and 825 feet from the West line
Section 34 Township 27N Range 05W NMPM Rio Arriba County
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6524' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:
PERFORM REMEDIAL WORK [] PLUG AND ABANDON []
TEMPORARILY ABANDON [] CHANGE PLANS []
PULL OR ALTER CASING [] MULTIPLE COMPL []
DOWNHOLE COMMINGLE [x]
CLOSED-LOOP SYSTEM []
OTHER: []
SUBSEQUENT REPORT OF:
REMEDIAL WORK [] ALTERING CASING []
COMMENCE DRILLING OPNS. [] P AND A []
CASING/CEMENT JOB []
OTHER: []

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

It is intended to recomplete the subject well in the Basin Mancos (pool 97232) / Blanco Mesaverde (pool 72319) and downhole commingle the existing Basin Dakota (pool 71599) with the Mesaverde and Mancos. The production will be commingled per Oil Conservation Division Order Number 11363. Allocation and methodology will be provided after the well is completed. Commingling will not reduce the value of the production. The Bureau of Land Management has been notified in writing of this application.

Proposed perforations are: MV: 4188' - 5630'; MC: 6300' - 6975'; DK: 7454' - 7650'. These perforations are in TVD.

As referenced in Order # R-13764 interest owners were not re-notified.

Spud Date: [] Rig Release Date: []

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

SIGNATURE Cherylene Weston TITLE Operations/Regulatory Technician Sr. DATE 08/07/2023

Type or print name Cherylene Weston E-mail address: cweston@hilcorp.com PHONE: 713-289-2615

For State Use Only

APPROVED BY: TITLE DATE

Conditions of Approval (if any):

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
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District IV
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 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 343728

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-20662	2. Pool Code 72319	3. Pool Name BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code 318920	5. Property Name SAN JUAN 27 5 UNIT	6. Well No. 170
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6524

10. Surface Location

UL - Lot L	Section 34	Township 27N	Range 05W	Lot Idn	Feet From 1840	N/S Line S	Feet From 825	E/W Line W	County RIO ARRIBA
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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 320.00	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 style="text-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: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 06/27/2023</p> <hr/> <p style="text-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: David Kilven Date of Survey: 2/5/1973 Certificate Number: 1760</p>
--	--

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 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 343728

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-20662	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 318920	5. Property Name SAN JUAN 27 5 UNIT	6. Well No. 170
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6524

10. Surface Location

UL - Lot L	Section 34	Township 27N	Range 05W	Lot Idn	Feet From 1840	N/S Line S	Feet From 825	E/W Line W	County RIO ARRIBA
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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 320.00	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>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: <i>Cherylene Weston</i> Title: Cherylene Weston Date: 06/27/2023</p>
	<p>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: David Kilven Date of Survey: 2/5/1973 Certificate Number: 1760</p>

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form 1-172
Supersedes C-128
Effective 1-1-65

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

Lessee EL PASO NATURAL GAS COMPANY			Lease SAN JUAN 27-5 UNIT (SF-079394)			Acres 170		
Section L	Range 34	Township 27-N	Block 5-W	County RIO ARriba				
Actual Depth of Well 1840			Direction SOUTH			Distance 825		
Direction SOUTH			Direction WEST			Direction WEST		
Actual Depth of Well 6524	Basin DAKOTA			Basin BASIN DAKOTA			Depth of Well 320.00	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (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 **Unitization**

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.



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

Drilling Clerk

El Paso Natural Gas Co.

June 12, 1973

Date

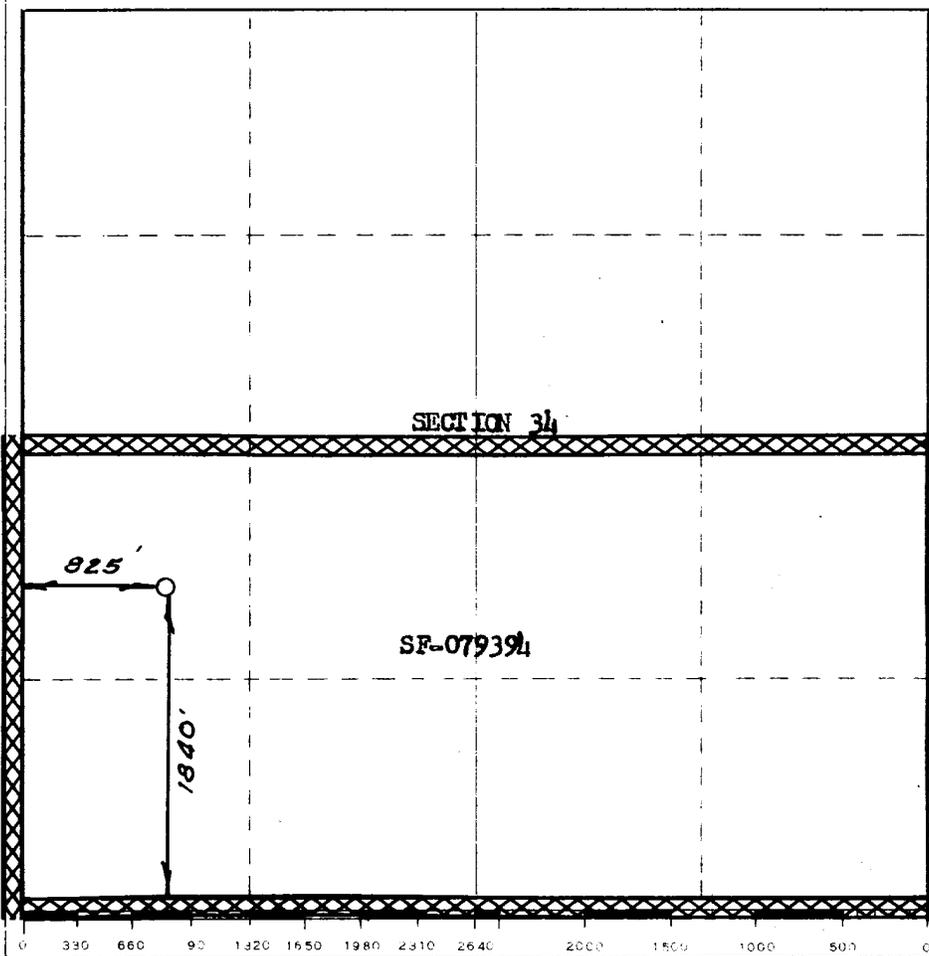
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

FEBRUARY 5, 1973

Registered Professional Surveyor

David W. Kluen

Certificate No. **1760**



San Juan 27-5 Unit 170 Allocation

The forecasts for Mancos and Mesaverde production have been generated using type curves of production in the surrounding 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 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, in conjunction with shut-in pressure build-ups. These models were constructed incorporating reservoir dynamics and physics, historic production, and observed pressure data. Historic commingling operations have proven reservoir fluids are compatible.

Production Allocation Method – Subtraction

Gas Allocation:

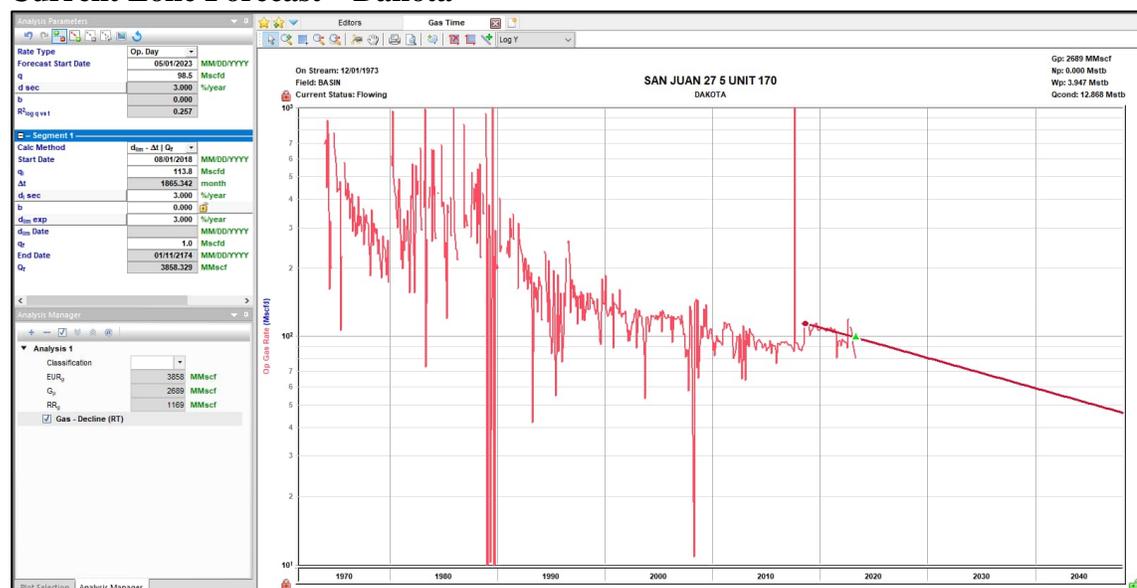
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be trimmed are the Mancos and Mesaverde. The subtraction method applies an average monthly production forecast to the base formation using historic production. All production from this well exceeding the base formation forecasts will be allocated to the new formations.

New zones will be allocated using a fixed allocation. Forecasted rates for MC and MV are based on offsets type curve. The maps show the standalone offsets that were used for type-curves. The split between MC and MV is based on the ratio of forecasted reserves as shown in the table below.

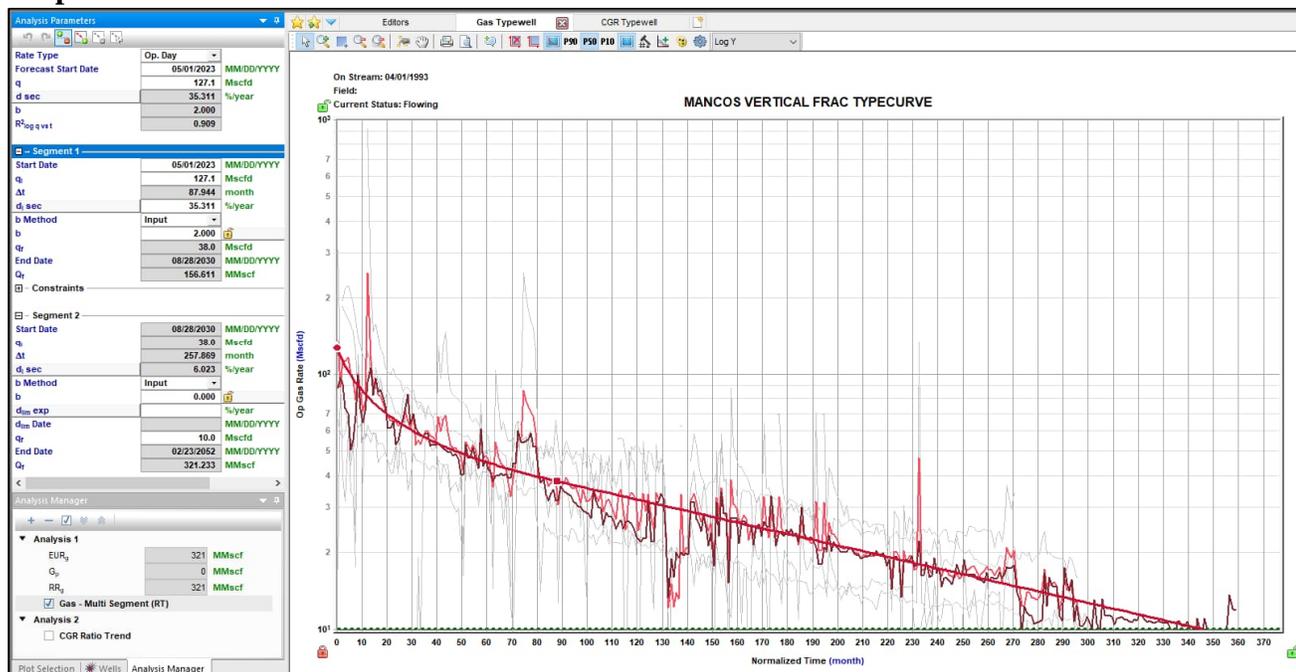
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Mancos	321	26%
Mesaverde	900	74%

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.

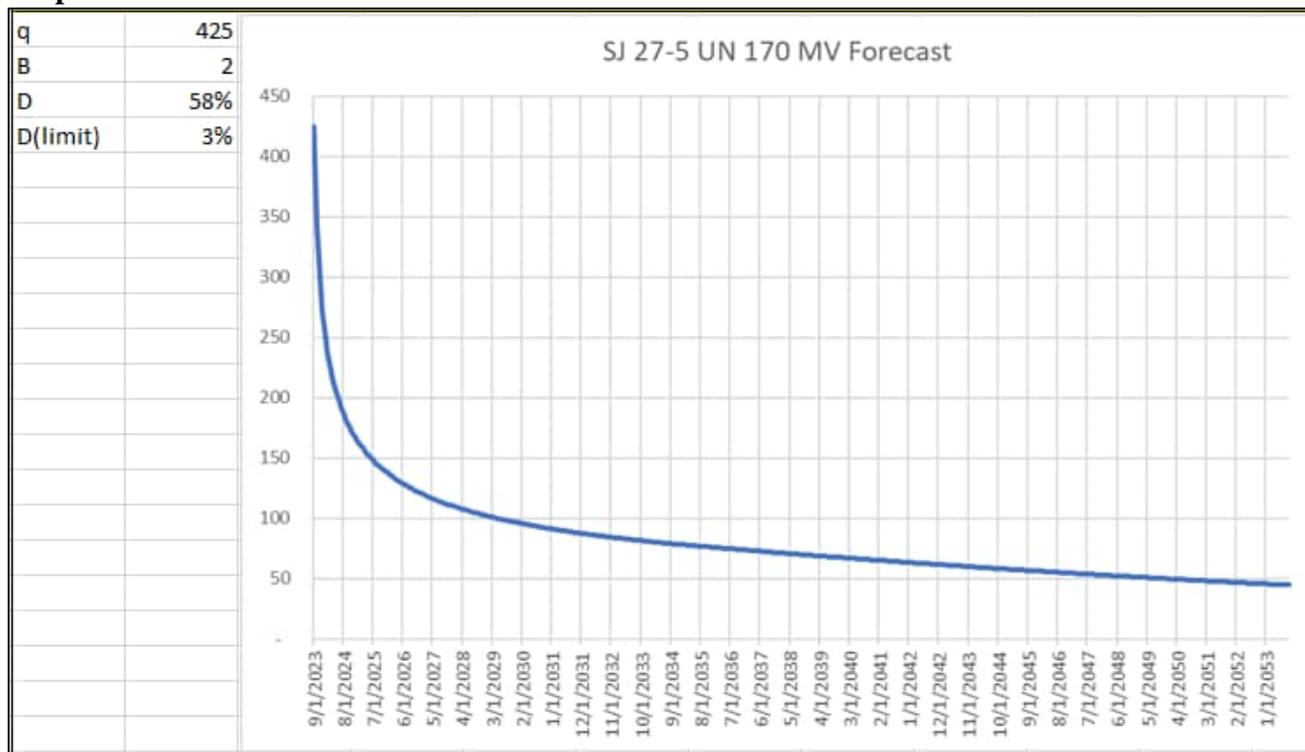
Current Zone Forecast – Dakota



Proposed Zone 1 Forecast - Mancos



Proposed Zone 2 Forecast - Mesaverde



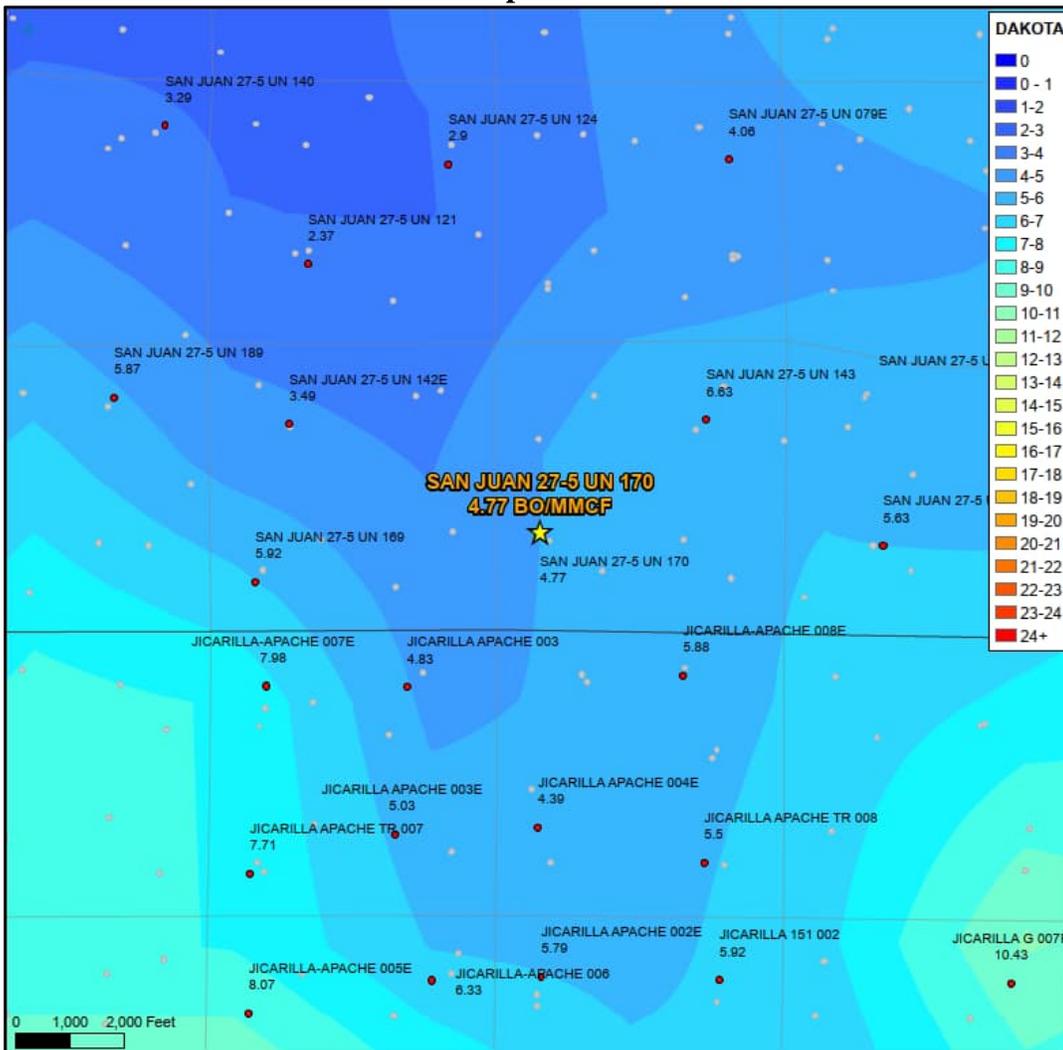
Average initial production curve in geologic region.

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 adjusted as needed based on average formation yields and new fixed gas allocation.

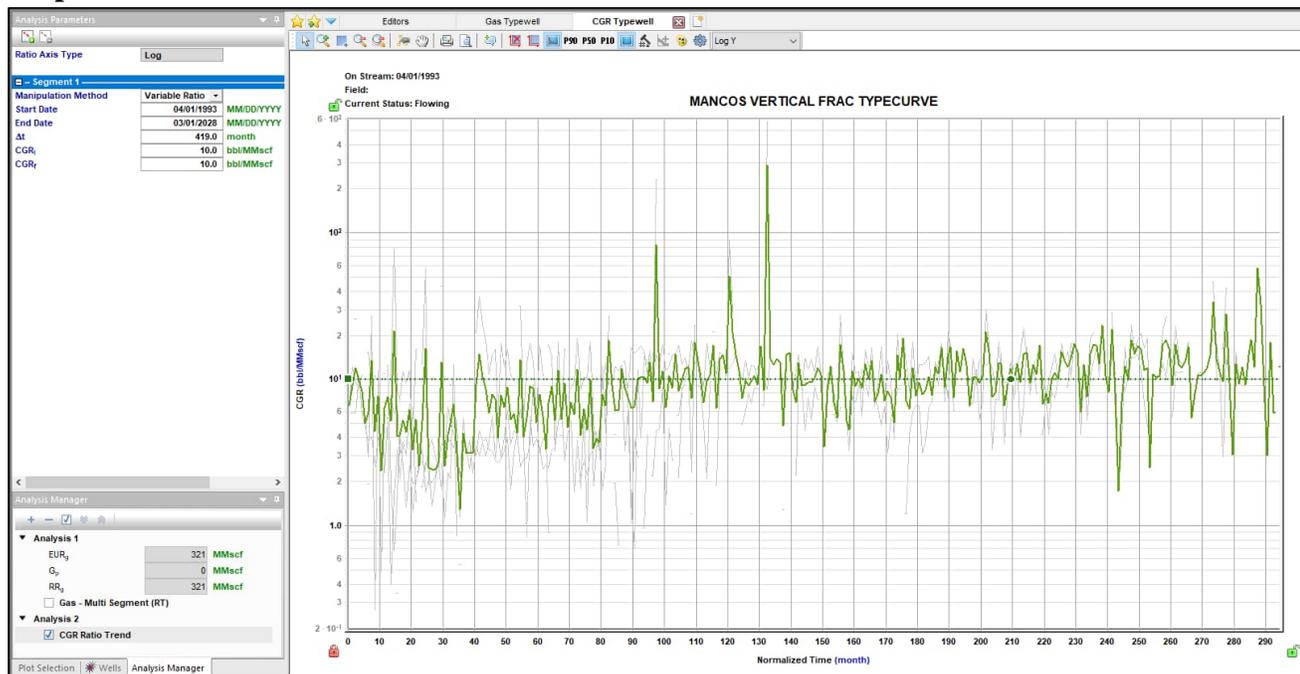
Oil Allocation			
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	4.77	1169	49%
MC	10	321	28%
MV	2.78	900	23%
			100%

Current Zone – Dakota Oil Yield Map



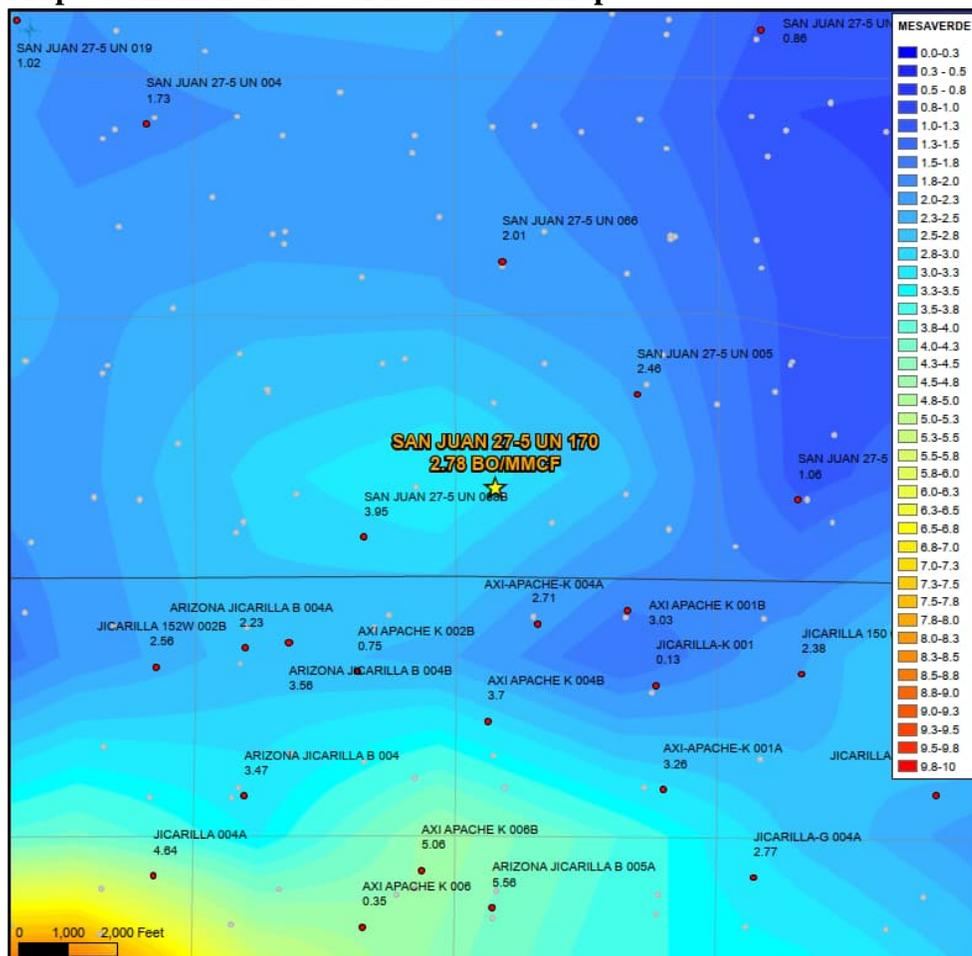
9-Section Area of Standalone Oil Yields. Sampled well to this map.

Proposed Zone 1 – Mancos Oil Yield



Average Oil Yield from Vertical Mancos Type Curve.

Proposed Zone 2 - Mesaverde Oil Yield Map



9-Section Area of Standalone Oil Yields. Sampled well to this map.

**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-5326

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 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.
4. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
5. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
6. An exception to the notification requirements within 19.15.12.11(C)(1)(b) NMAC was granted by the Division within Order R-13764.
7. 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

8. 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.
9. 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.
10. 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.

11. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.
12. 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. 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. twenty-three percent (23%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319);
 - b. twenty-eight percent (28%) shall be allocated to the BASIN MANCOS pool (pool ID: 97232); and
 - c. forty-nine percent (49%) 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 BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
- b. the BASIN MANCOS pool (pool ID: 97232).

The current pool(s) are:

- a. the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

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

- a. seventy-four percent (74%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
- b. twenty-six percent (26%) shall be allocated to the BASIN MANCOS pool (pool ID: 97232).

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.

3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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).
9. 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

DATE: 9/21/2023

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

Order: **DHC-5326**

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

Well Name: **San Juan 27-5 Unit #170**

Well API: **30-039-20662**

Upper Zone	Pool Name: BLANCO-MESAVERDE (PRORATED GAS)	Current:	New: X
	Pool ID: 72319	Oil: 23%	Gas: 74%
	Allocation:	Top: 4,188	Bottom: 5,630
	Interval: Perforations		

Intermediate Zone	Pool Name: BASIN MANCOS	Current:	New: X
	Pool ID: 97232	Oil: 28%	Gas: 26%
	Allocation:	Top: 6,300	Bottom: 6,975
	Interval: Perforations		

Bottom of Interval within 150% of Upper Zone's Top of Interval: **NO**

Lower Zone	Pool Name: BASIN DAKOTA (PRORATED GAS)	Current: X	New:
	Pool ID: 71599	Oil: 49%	Gas:
	Allocation:	Top: 7,454	Bottom: 7,650
	Interval: Perforations		

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 249788

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 249788
	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.	9/22/2023