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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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

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

_____ Date

_____ Print or Type Name

_____ Phone Number

Cherylene Weston
_____ Signature

_____ e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
____Single Well
____Establish Pre-Approved Pools
EXISTING WELLBORE
_X_Yes ____No

APPLICATION FOR DOWNHOLE COMMINGLING

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

San Juan 27-5 Unit 97 — Lease
Well No.
M-31-27N-R5W — Unit Letter-Section-Township-Range
Rio Arriba County — County

OGRID No. 372171 Property Code 318920 API No. 30-039-06785 Lease Type: _X_ Federal ____State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Mancos	Blanco Mesaverde (Prorated Gas)	Basin Dakota (Prorated Gas)
Pool Code	97232	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Estimated 6432' – 6863'	Estimated 4650' – 5700'	7316' – 7537'
Method of Production (Flowing or Artificial Lift)	NEW ZONE	NEW ZONE	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)	1064 PSI	2015 PSI	1631 PSI
Oil Gravity or Gas BTU (Degree API or Gas BTU)	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. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: N/A Rates:	Date: N/A Rates:	Date: 5/1/2023 Rates: Gas - 1,969 Mcf Oil – 2 bbl, Water – 85 bbl
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 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__X___
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes_____ No__X___

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: _____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 8/03/2023

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. (713) 289-2615

E-MAIL ADDRESS cweston@hilcorp.com

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

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

Form C-102
August 1, 2011

Permit 343567

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-06785	97232	BASIN MANCOS
4. Property Code	**5. Property Name**	**6. Well No.**
318920	SAN JUAN 27-5 UNIT	097
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6479

10. Surface Location

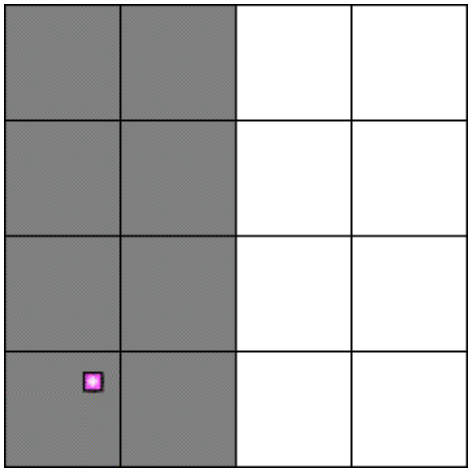
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	31	27N	05W		1000	S	1000	W	RIO ARRIBA

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
319.08			

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



OPERATOR CERTIFICATION

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

E-Signed By: Cherylene Weston
Title: Cherylene Weston, Ops/Regulatory Tech-Sr.
Date: 06/26/2023

SURVEYOR CERTIFICATION

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

Surveyed By: David Kilven
Date of Survey: 5/27/1965
Certificate Number: 1760

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

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

Form C-102
August 1, 2011

Permit 274389

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-06785	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318920	SAN JUAN 27 5 UNIT	097
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6479

10. Surface Location

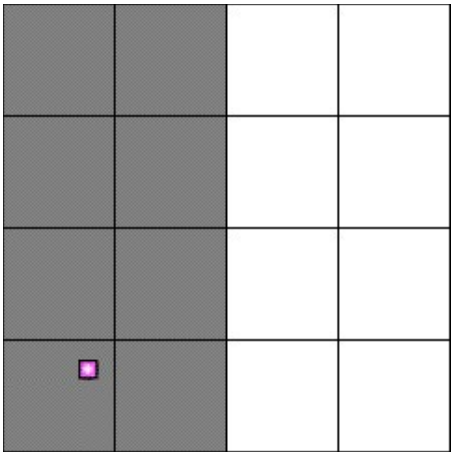
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	31	27N	05W		1000	S	1000	W	RIO ARRIBA

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
319.08 W/2			

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



OPERATOR CERTIFICATION

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

E-Signed By: Etta Trujillo
Title: Operations/Regulatory Tech Sr
Date: 12/17/2019

SURVEYOR CERTIFICATION

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

Surveyed By: David Kilven
Date of Survey: 5/27/1965
Certificate Number: 1760

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

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

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

Operator	Lease	Well No.
EL PASO NATURAL GAS COMPANY	SAN JUAN 27-5 UNIT SF-079367	97

Unit Letter	Section	Township	Range	County
M	31	27-N	5-W	RIO ARRIBA

Actual Footage Location of Well:
1000 feet from the SOUTH line and 1000 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6479	DAKOTA	BASIN DAKOTA	319.08 Acres

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

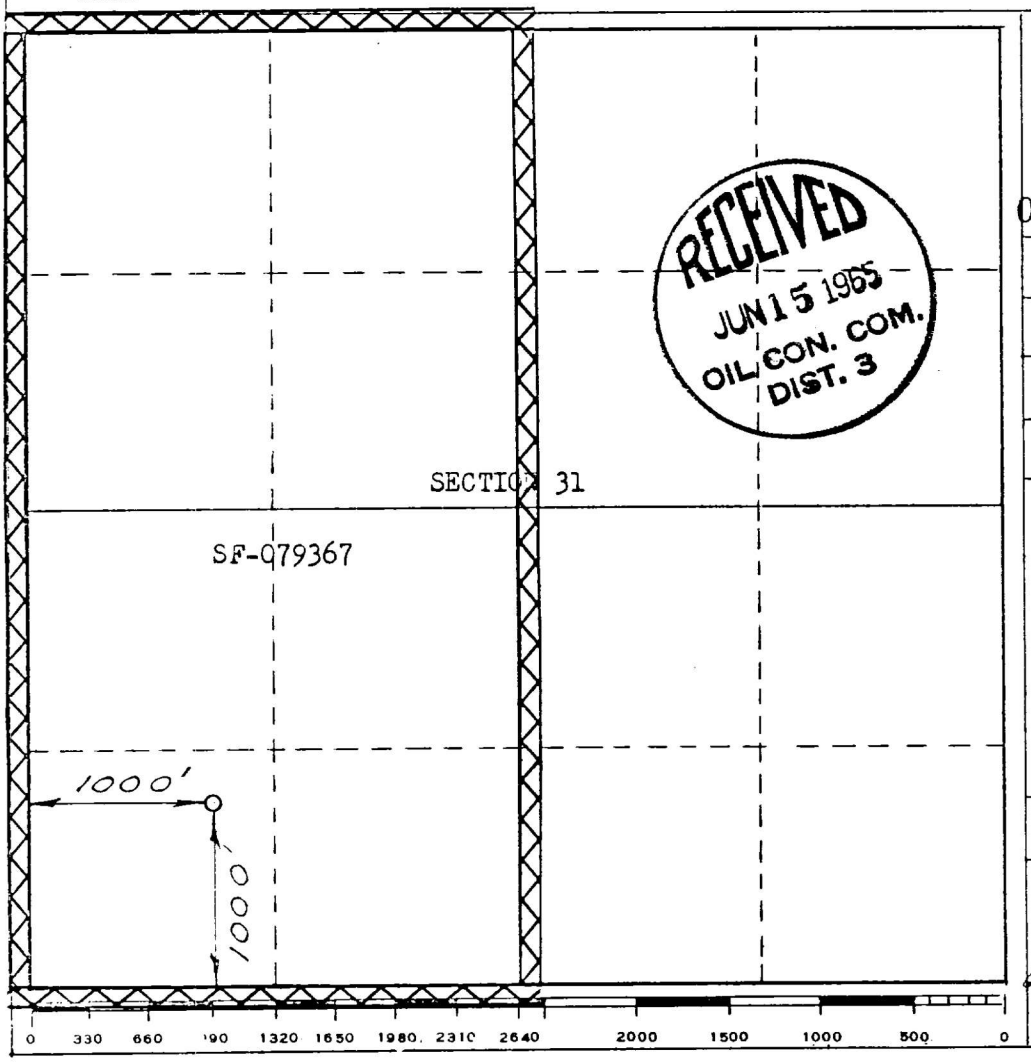
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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

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



RECEIVED
JUN 15 1965
OIL CON. COM.
DIST. 3

CERTIFICATION

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

ORIGINAL SIGNED E. S. OBELY

Name: Petroleum Engineer

Position: El Paso Natural Gas Company

Company: June 11, 1965

Date

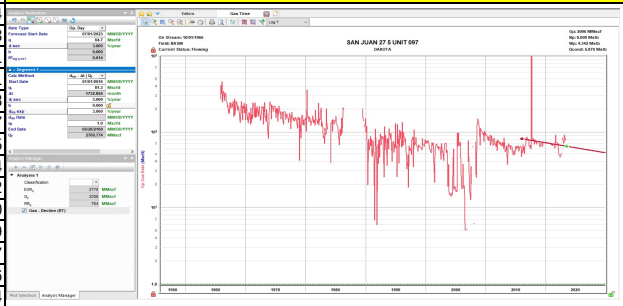
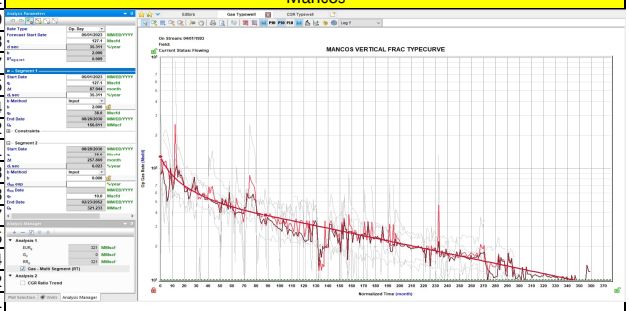
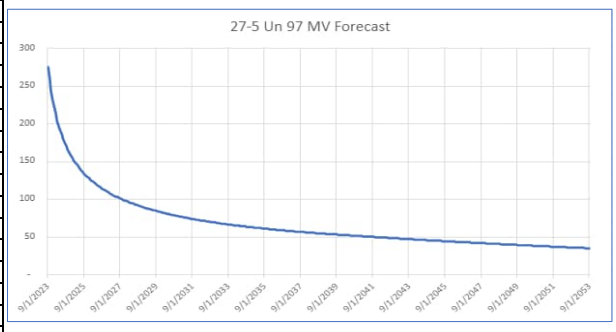
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: MAY 27, 1965

Registered Professional Engineer and/or Land Surveyor

Certificate No. 1760

San Juan 27-5 Unit 97 Allocation

Date	DK Mcfd	HEC Comments
Sep-23	64.3	The forecasts for Mancos and Mesaverde production have been generated using type curves of production in the surrounding trend.
Oct-23	64.1	
Nov-23	64	
Dec-23	63.8	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.
Jan-24	63.7	
Feb-24	63.5	
Mar-24	63.3	
Apr-24	63.2	
May-24	63	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.
Jun-24	62.9	
Jul-24	62.7	
Aug-24	62.5	
Sep-24	62.4	
Oct-24	62.2	
Nov-24	62.1	
Dec-24	61.9	
Jan-25	61.7	Current Zone 1 Forecast
Feb-25	61.6	Dakota
Mar-25	61.4	
Apr-25	61.3	
May-25	61.1	
Jun-25	61	
Jul-25	60.8	
Aug-25	60.7	
Sep-25	60.5	
Oct-25	60.4	
Nov-25	60.2	
Dec-25	60	
Jan-26	59.9	
Feb-26	59.7	
Mar-26	59.6	
Apr-26	59.4	
May-26	59.3	Proposed Zone 1 Forecast
Jun-26	59.1	Mancos
Jul-26	59	
Aug-26	58.8	
Sep-26	58.7	
Oct-26	58.5	
Nov-26	58.4	
Dec-26	58.2	
Jan-27	58.1	
Feb-27	58	
Mar-27	57.8	
Apr-27	57.7	
May-27	57.5	
Jun-27	57.4	
Jul-27	57.2	
Aug-27	57.1	
Sep-27	56.9	Proposed Zone 2 Forecast
Oct-27	56.8	Mesaverde
Nov-27	56.6	q 275
Dec-27	56.5	B 2
Jan-28	56.4	D 38%
Feb-28	56.2	D(limit) 3%
Mar-28	56.1	
Apr-28	55.9	
May-28	55.8	
Jun-28	55.6	
Jul-28	55.5	
Aug-28	55.4	
Sep-28	55.2	
Oct-28	55.1	
Nov-28	54.9	
Dec-28	54.8	
Jan-29	54.7	
Feb-29	54.5	
Mar-29	54.4	
Apr-29	54.3	
May-29	54.1	
Jun-29	54	
Jul-29	53.8	
Aug-29	53.7	
Sep-29	53.6	
Oct-29	53.4	
Nov-29	53.3	
Dec-29	53.2	
Jan-30	53	
Feb-30	52.9	
Mar-30	52.8	
Apr-30	52.6	
May-30	52.5	
Jun-30	52.4	
Jul-30	52.2	
Aug-30	52.1	

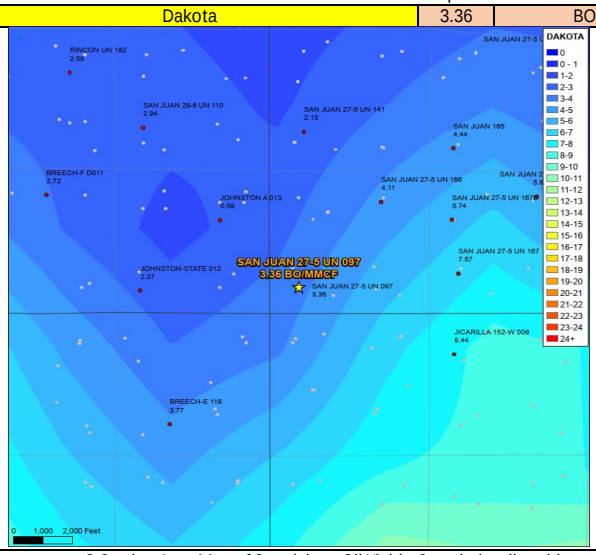
Sep-30	52

Average initial production curve in geologic region.

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	3.36	764	34%
MC	10	321	42%
MV	2.51	749	25%
			100%

Current Zone 1 Oil Yield Map

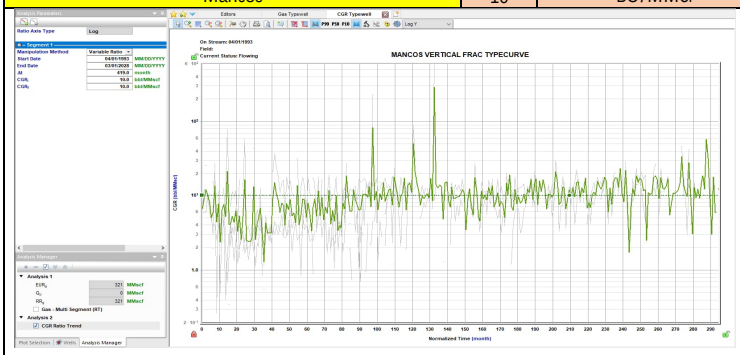
Dakota	3.36	BO/MMCF



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

Proposed Zone 1 Oil Yield Map

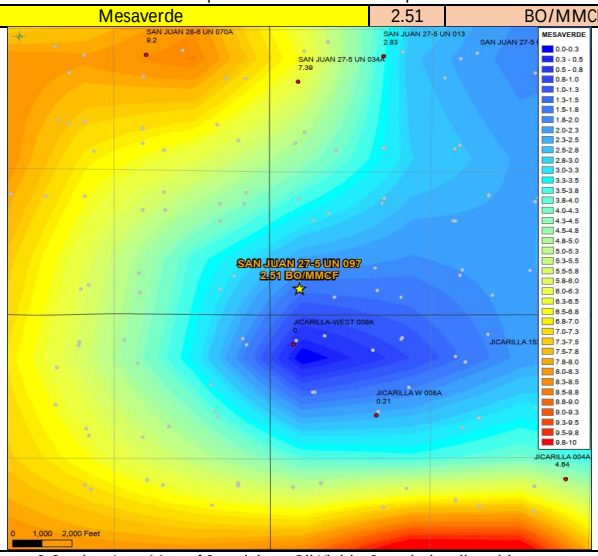
Mancos	10	BO/MMCF



Average Oil Yield from Vertical Mancos Type Curve.

Proposed Zone 2 Oil Yield Map

Mesaverde	2.51	BO/MMCF



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

Well Name: SAN JUAN 27-5 UNIT

Well Location: T27N / R5W / SEC 31 / SWSW / 36.52625 / -107.40598

County or Parish/State: RIO ARRIBA / NM

Well Number: 97

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF079367

Unit or CA Name: SAN JUAN 27-5 UNIT--DK

Unit or CA Number: NMNM78409A

US Well Number: 3003906785

Well Status: Producing Gas Well

Operator: HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2738125

Type of Submission: Notice of Intent

Type of Action: Recompletion

Date Sundry Submitted: 06/27/2023

Time Sundry Submitted: 09:36

Date proposed operation will begin: 08/01/2023

Procedure Description: Hilcorp Energy would like to revise the recomplete NOI that was approved on 1/8/2020. Hilcorp Energy company requests permission to recomplete the subject well in the Mesaverde and Mancos formations and downhole commingle with the existing Dakota. Please see the attached procedure, current and proposed wellbore diagrams, plats and natural gas management plan.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

San_Juan_27_5_Unit_97_Amended_NOI_20230627093502.pdf

Well Name: SAN JUAN 27-5 UNIT	**Well Location:** T27N / R5W / SEC 31 / SWSW / 36.52625 / -107.40598	**County or Parish/State:** RIO ARRIBA / NM
Well Number: 97	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMSF079367	**Unit or CA Name:** SAN JUAN 27-5 UNIT--DK	**Unit or CA Number:** NMNM78409A
US Well Number: 3003906785	**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 09:35 AM

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 97
MANCOS/ MESAVERDE RECOMPLETION SUNDRY

JOB PROCEDURES

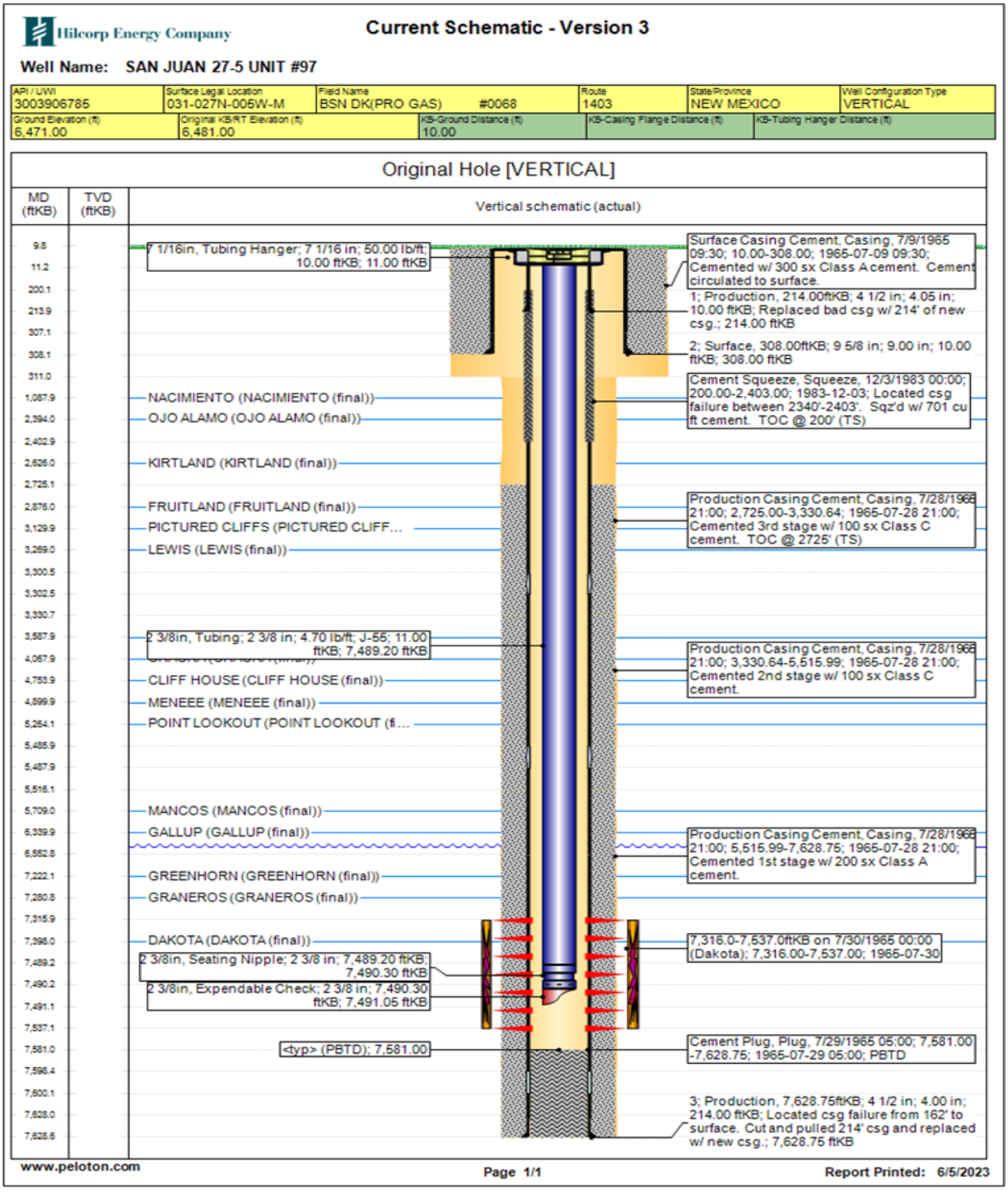
1. MIRU service rig and associated equipment; test BOP.
2. TOOH with **2-3/8"** tubing set at **7,491'**.
3. Set a **4-1/2"** plug at +/- **7,266'** to isolate the **Dakota**.
4. RU Wireline. Run CBL. Record Top of Cement.
5. Load the hole and pressure test the casing.
6. N/D BOP, N/U frac stack and pressure test frac stack.
7. Perforate and frac the Mancos formation (top perforation @ **6,432'**, bottom perforation @ **6,863'**)
8. Isolate frac stages with a plug.
9. Perforate and frac the **Mesa Verde** formation (Top Perforation @ **4,650'**; Bottom Perforation @ **5,700'**).

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 & Mancos** frac plugs.
11. Clean out to **Dakota** isolation plug.
12. Drill out **Dakota** isolation plug and cleanout to PBTD of **7,581'**. TOOH.
13. TIH and land production tubing. Get a trimmingled **Dakota/Mancos/Mesa Verde** flow rate.

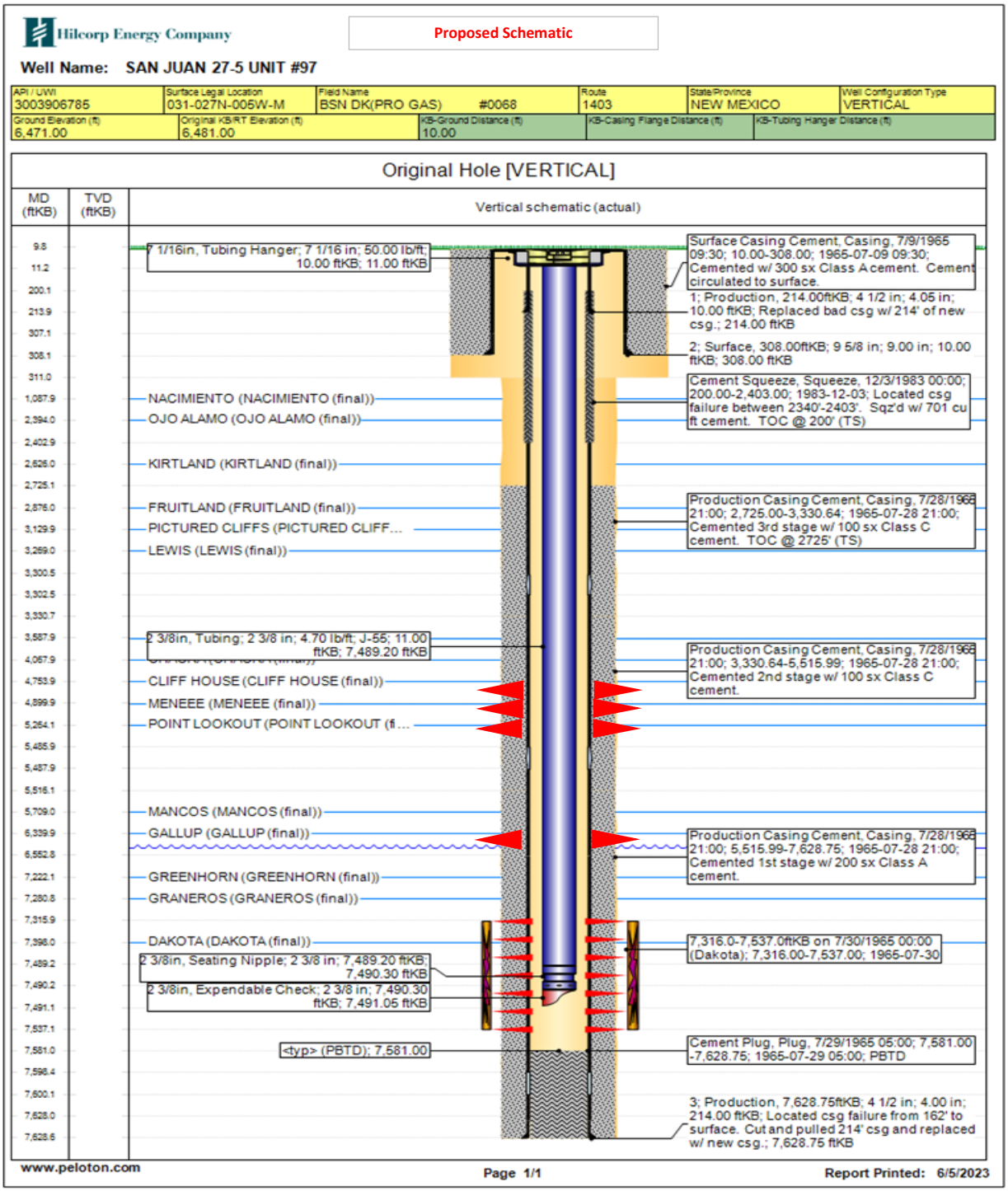
HILCORP ENERGY COMPANY
SAN JUAN 27-5 UNIT 97
MANCOS/MESAVERDE RECOMPLETION SUNDRY

SAN JUAN 27-5 UNIT 97 - CURRENT WELLBORE SCHEMATIC



HILCORP ENERGY COMPANY
SAN JUAN 27-5 UNIT 97
MANCOS/MESAVERDE RECOMPLETION SUNDRY

SAN JUAN 27-5 UNIT 97 - Proposed Schematic



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

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

Form C-102
August 1, 2011

Permit 274389

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-06785	72319	BLANCO-MESAVERDE (PRORATED GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318920	SAN JUAN 27 5 UNIT	097
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6479

10. Surface Location

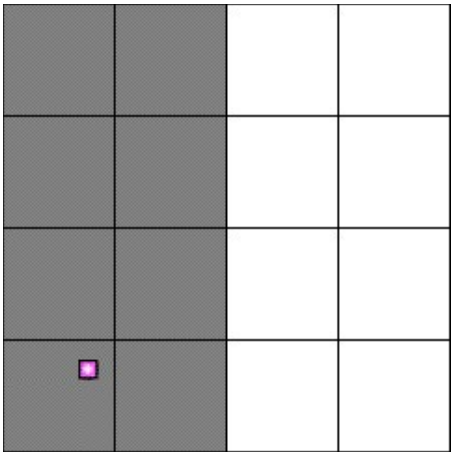
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	31	27N	05W		1000	S	1000	W	RIO ARRIBA

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
319.08 W/2			

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



OPERATOR CERTIFICATION

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

E-Signed By: Etta Trujillo
Title: Operations/Regulatory Tech Sr
Date: 12/17/2019

SURVEYOR CERTIFICATION

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

Surveyed By: David Kilven
Date of Survey: 5/27/1965
Certificate Number: 1760

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

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

Form C-102
August 1, 2011

Permit 343567

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-06785	97232	BASIN MANCOS
4. Property Code	**5. Property Name**	**6. Well No.**
318920	SAN JUAN 27-5 UNIT	097
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6479

10. Surface Location

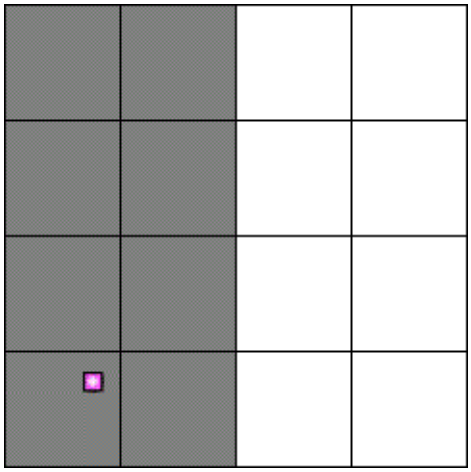
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	31	27N	05W		1000	S	1000	W	RIO ARRIBA

11. Bottom Hole Location If Different From Surface

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

12. Dedicated Acres	13. Joint or Infill	14. Consolidation Code	15. Order No.
319.08			

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



OPERATOR CERTIFICATION

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

E-Signed By: Cherylene Weston
Title: Cherylene Weston, Ops/Regulatory Tech-Sr.
Date: 06/26/2023

SURVEYOR CERTIFICATION

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

Surveyed By: David Kilven
Date of Survey: 5/27/1965
Certificate Number: 1760

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 / 22 / 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 97	3003906785	M-31-27N-5W	1000' FSL & 1000' FWL	2.3	450	0.5p

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
San Juan 27-5 Unit 97	**3003906785**	**N/A**	**N/A**	**N/A**	**N/A**	**Not Yet Scheduled**

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: *Cherylene Weston*
Printed Name: Cherylene Weston
Title: Operations/Regulatory Tech-Sr.
E-mail Address: cweston@hilcorp.com
Date: 06/22/2023
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
   - 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 recompletion
   - 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

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 97
API No. 30-039-06785
Section 31, 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

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: Cheryl Weston
To: McClure, Dean, EMNRD
Subject: [EXTERNAL] RE: San Juan 27-5 Unit 97 DHC C-107A (Action ID: 248386)
Date: Monday, August 7, 2023 11:34:08 AM
Attachments: San Juan 27-5 Unit 97 DHC C-107A.pdf

Dean,

My apologies, but this is the correct page to use instead. I used the wrong reference case number on the submittal. It should have been **R-13764** for San Juan 27-5 Unit wells that have Mancos commingling with Mesaverde and Dakota.

Thanks,
Cheryl Weston

From: Cheryl Weston
Sent: Friday, August 4, 2023 2:14 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: San Juan 27-5 Unit 97 DHC C-107A (Action ID: 248386)

Dean,

I noticed an error on the C-107A form and have corrected it (upper and intermediate formations were switched).

Would you kindly replace Page 2 of the C-107A packet with the attached?

Thank you,

Cheryl Weston

From: Cheryl Weston
Sent: Friday, August 4, 2023 1:59 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: San Juan 27-5 Unit 97 DHC C-107A (Action ID: 248386)

Dean,

Good afternoon. The above DHC C-107A was filed today. Hilcorp would like to frac this well during the week of August 21st, if approval is obtained in time.

PO Number: **UUDQS-230804-C-107A**

Thank you,

Cheryl L. Weston
San Juan East/South Regulatory
1111 Travis Street
Houston, TX 77002
Ofc: 713-289-2615
cweston@hilcorp.com

District I
1625 N. French Drive, Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
____Single Well
____Establish Pre-Approved Pools
EXISTING WELLBORE
_X_Yes ____No

APPLICATION FOR DOWNHOLE COMMINGLING

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

San Juan 27-5 Unit 97 — Lease
Well No.
M-31-27N-R5W — Unit Letter-Section-Township-Range
Rio Arriba County — County

OGRID No. 372171 Property Code 318920 API No. 30-039-06785 Lease Type: _X_ 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 4650' – 5700'	Estimated 6432' – 6863'	7316' – 7537'
Method of Production (Flowing or Artificial Lift)	NEW ZONE	NEW ZONE	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)	2015 PSI	1064 PSI	1631 PSI
Oil Gravity or Gas BTU (Degree API or Gas BTU)	BTU 1269	BTU 1270	BTU 1118
Producing, Shut-In or New Zone	NEW ZONE	NEW ZONE	PRODUCING
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: N/A Rates:	Date: N/A Rates:	Date: 5/1/2023 Rates: Gas - 1,969 Mcf Oil – 2 bbl, Water – 85 bbl
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 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__X___
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes_____ No__X___

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: _____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 8/03/2023

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. (713) 289-2615

E-MAIL ADDRESS cweston@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 O
Subject: Approved Administrative Order DHC-5322
Date: Friday, September 22, 2023 9:51:09 AM
Attachments: DHC5322 Order.pdf

NMOCD has issued Administrative Order DHC-5322 which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

Well Name: San Juan 27-5 Unit #97
Well API: 30-039-06785

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

San Juan 27-5 Unit 97 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:

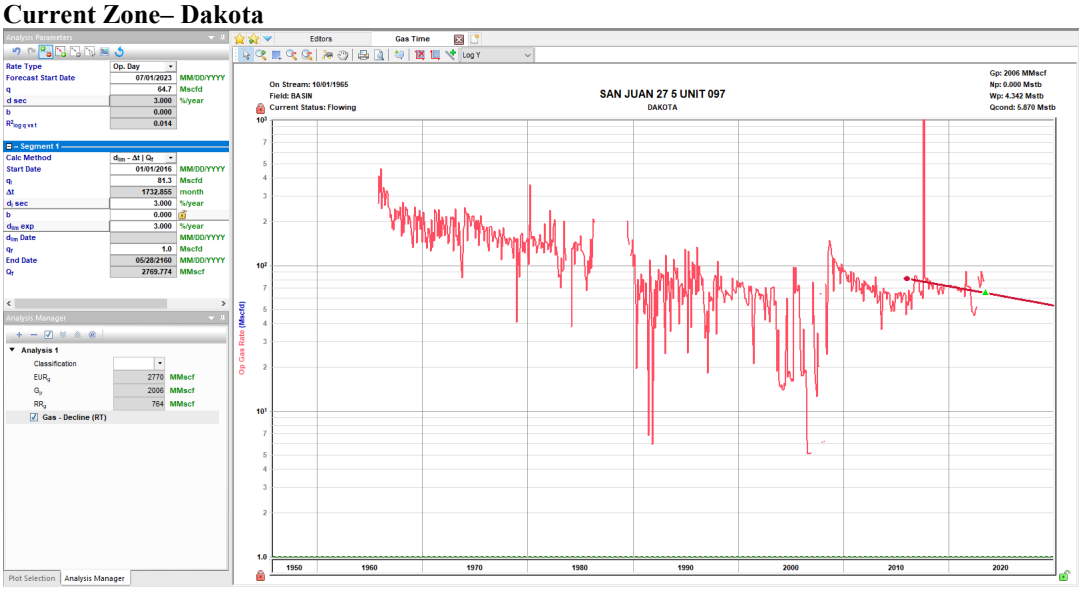
Production for the downhole trimmingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled are the Mancos and Mesaverde. The subtraction method applies an average monthly production forecast to the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

New zones (MC/MV) 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.

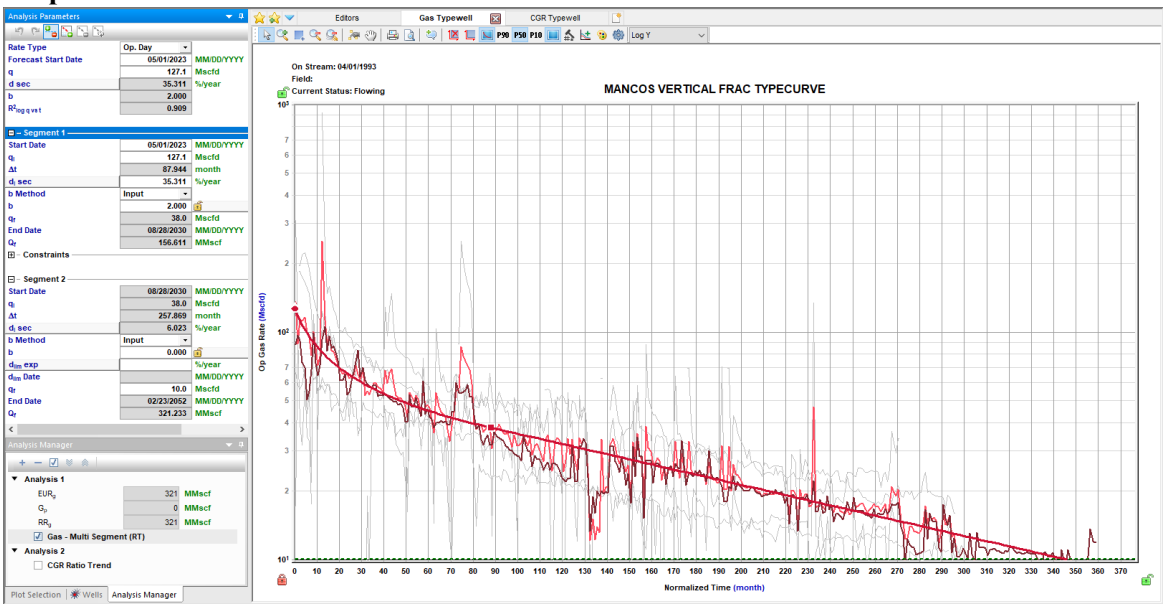
Formation	Forecasted Reserves (MMcf)	% Gas Allocation
Mancos	321	30%
Mesaverde	749	70%

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– Dakota

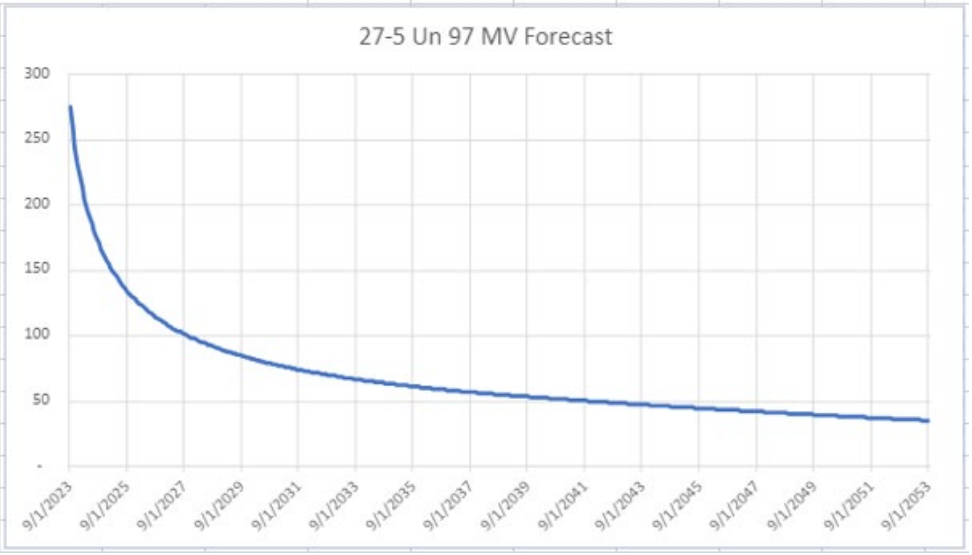


Proposed Zone 1 Forecast - Mancos



Proposed Zone 2 Forecast – Mesaverde

q	275
B	2
D	38%
D(limit)	3%

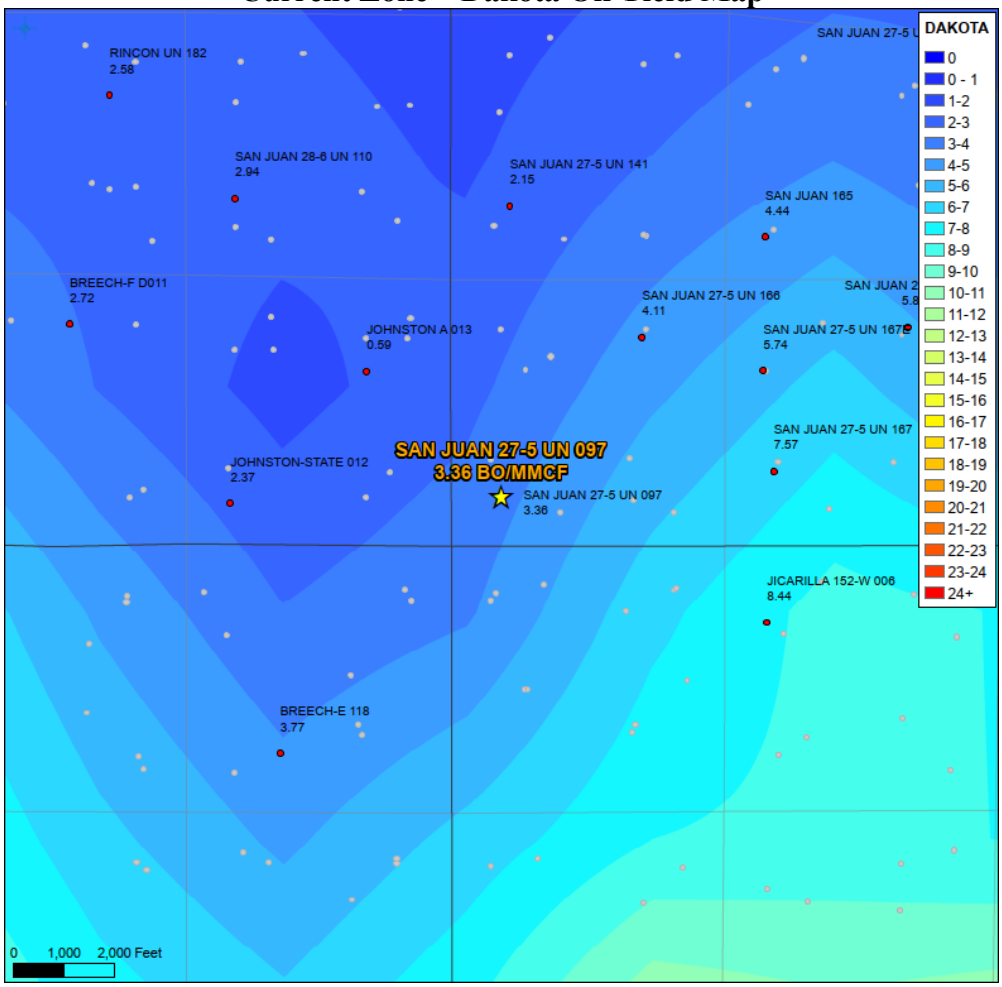


Oil Allocation:

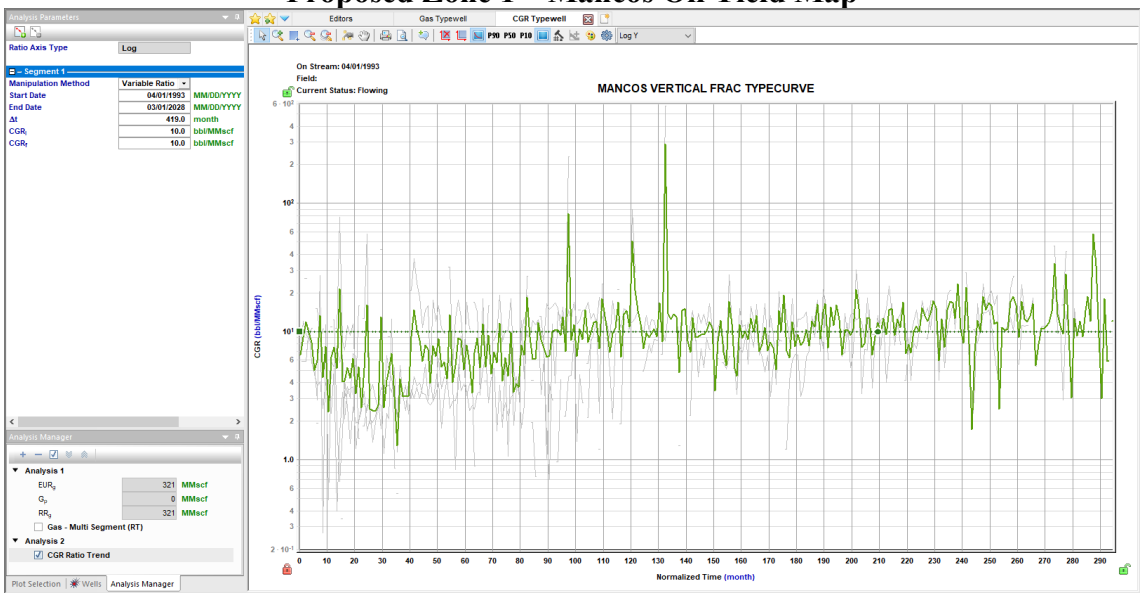
Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years. After 4 years oil will be reevaluated and adjusted as needed based on average formation yields and new fixed gas allocation.

Formation	Yield (bbl/MM)	Remaining or Forecasted Reserves (MMcf)	% Oil Allocation
DK	3.36	764	34%
MC	10	321	42%
MV	2.51	749	25%

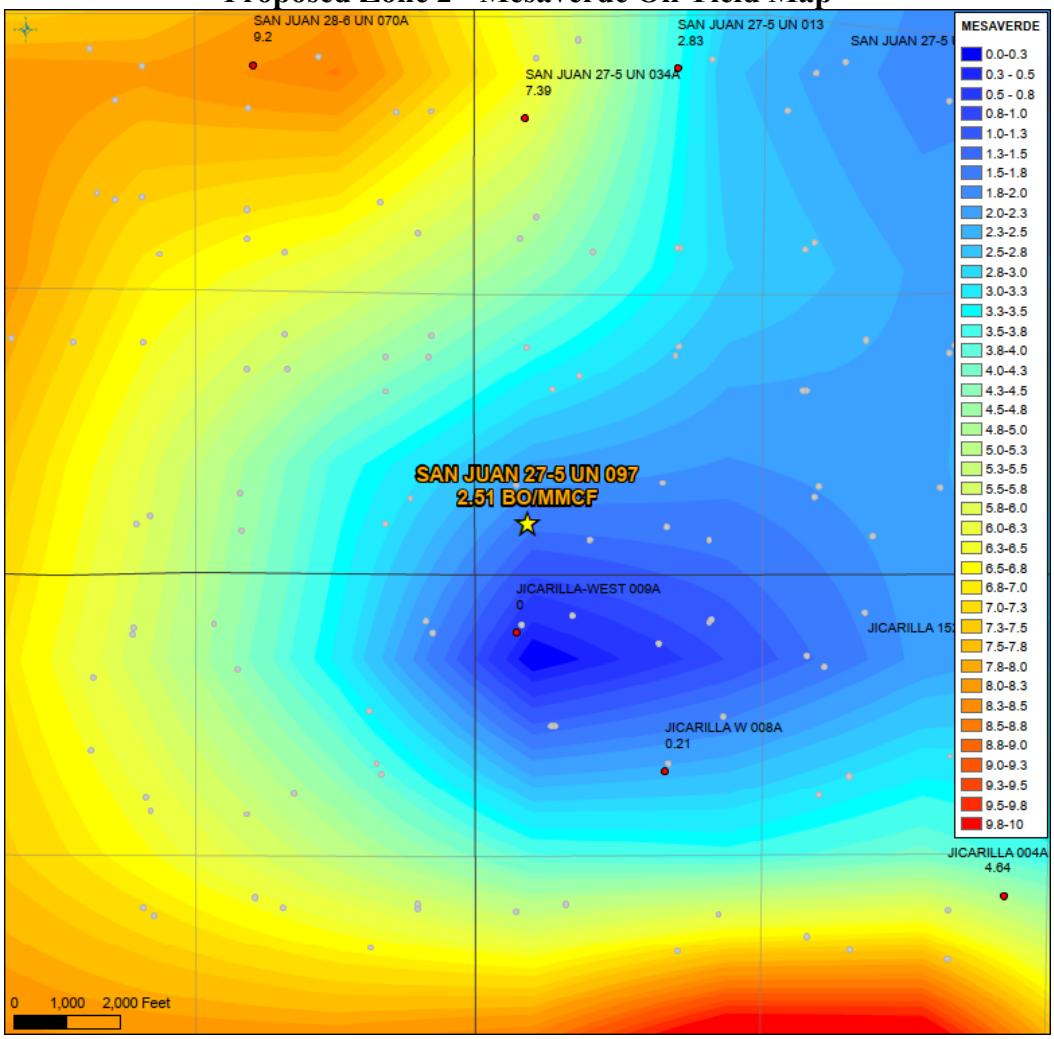
Current Zone – Dakota Oil Yield Map



Proposed Zone 1 – Mancos Oil Yield Map



Proposed Zone 2 - Mesaverde Oil Yield Map



From: Ray Brandhurst
To: Cheryl Weston; McClure, Dean, EMNRD
Cc: Mandi Walker
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322
Date: Thursday, September 14, 2023 2:51:58 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

Hey Dean,

Thanks for your time and assistance during our recent discussion and for your ongoing support throughout this recompletion campaign. Your insights and guidance have been invaluable.

As we discussed, I'd like to provide some additional details regarding the type curves and data selection process for your records:

1. **Type Curve Generation**: The type curves we presented were generated using Harmony software. In this software, the standard presentation format involves displaying individual well curves in gray as a background reference, while the average of the selected wells is highlighted in red in the foreground. The type curve itself is fitted to this red average line. Additionally, we limited the type curve's projection to a 30-year horizon.

2. **Mancos Well Selection**: For the Mancos formation, we selected five specific wells throughout the neighboring townships. These wells were chosen because they had standalone Mancos production that provided reliable data for our allocation analysis.

3. **Mesaverde Well Selection**: In contrast, the Mesaverde formation had a more extensive dataset. To create Mesaverde type curves, we used wells from the nine sections surrounding the recompletion well. This broader data pool allowed for a well specific analysis.

4. **Allocation of Zones**: The allocation of resources between the two new zones, Mesaverde and Mancos, was determined based on a fixed percentage. This allocation ratio was generated based on the ratio of forecasted reserves.

Once again, I want to emphasize that we are fully committed to transparency and compliance with all relevant regulations. If you or your team have any further questions or would ever benefit from additional information or backstory, please don't hesitate to reach out by phone or email at any time. We greatly value your feedback and look forward to moving forward with your approval.

Thanks,

Ray Brandhurst, P.E.
San Juan East Reservoir Engineer
Hilcorp Energy Company
713-757-5224 office
713-476-2843 cell

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Thursday, September 14, 2023 10:04 AM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>; Ray Brandhurst <rbrandhurst@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

Yes, that works for us as well.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Thursday, September 14, 2023 9:59 AM
To: Cheryl Weston <cweston@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>; Ray Brandhurst <rbrandhurst@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

I should be available in another hour or so if that works for you and Ray. (10:00 AM MST)

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Thursday, September 14, 2023 8:41 AM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

We, Ray Brandhurst and I, can call you at 10:00 (9:00 am MST). Will that work for you? This is the ownership in the new formations to be commingled.

Mancos Owners

Owner	Working Interest
Harrington Southwest Energy LP	8.3333330%
Tierra Pobre LLC	1.6666670%
Chappell Family Tr UTA June 4 98	1.6666670%
Harco Limited Partnership	1.6666670%
Tempe Limited Partnership	1.6666670%
Hilcorp San Juan, LP	84.9999990%
Total:	100.0000000%

Mesaverde Owners

Owner	Working Interest
Roy G & Opal Barton Sr Rev Tr	0.0356920%
Providence Minerals LLC	0.1070780%
Jabco LLP	0.1799820%
Dugan Production Corp	0.1070780%
Omimex Petroleum	4.1661190%
T H McElvain Oil & Gas LLP	1.0536910%
Harrington Southwest Energy LP	5.0354280%
J&M Raymond LTD	0.0892320%
Ruth Zimmerman Trust	0.0356930%
Harco Limited Partnership	0.0780460%
Tempe Limited Partnership	0.0780460%
Tinmil A NM LLC	0.0224980%
Thomas P Tinnin	0.0224980%
Mar Oil & Gas Corporation	0.2549470%
Navatex Energy LP	0.1349860%
Chappell Family Tr UTA June 4 98	0.0780450%
Langdon D Harrison Revoc Trust B	0.1751010%
Rio Arribagas LTD	0.1754820%
Rio Arriba Limited Partnership	0.0356930%
Tierra Pobre LLC	0.0780460%
SIMCOE LLC	6.2489180%
JHPOOL Resources LLC	0.0494950%
Hilcorp San Juan, LP	81.7582060%

Total:	**100.0000000%**

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Thursday, September 14, 2023 9:17 AM
To: Cheryl Weston <cweston@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Cheryl,

Please note that while I'm not in disagreement that Hilcorp's ownership is relatively similar, nothing has been presented regarding the rest of the ownership. However, because of the diverse way in which allocation is being done between the formations, it does seem unlikely that the rest of the ownership is similar.

My most recent question regarding allocation is not answered by what Hilcorp has provided to date.

I have a question below regarding the Mancos type curve. For ease, that question is regarding the presented data. There seems to be highlighted red production data with grey production data in the background. Is the highlighted red production data the average of the 5 wells normalized for time from which the type curve was generated?

Additionally, reference is made that the type curve was generated from offset MC production. However, each of the 5 wells used to generate it are wells in which at first glance the MC is downhole commingled with other pools. Considering that the split of 70% and 30% is computed with exact numbers, it suggests that perhaps the MC production was being derived from a fixed percentage from each of the 5 wells. As such, one of my questions is how was that MC production data derived which was then used to create the type curve? Having said that, thinking about it again, since the MV type curve was created from different wells, I guess I'm unsure how precisely the numbers 321 and 749 were generated such that the computation is exactly 0.7 and 0.3. Regardless, I still have my original question as to how the MC production was derived since the generated data is only as good as the allocation method used to derive it.

I'm wondering if a meeting including Hilcorp's engineering may be the most efficient manner to proceed. Please let me know your thoughts on this and suggest some dates and times for the meeting if you are in agreement.

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Thursday, September 14, 2023 7:42 AM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

Good morning. Please see the below comments from Land and Engineer. Does the verbiage on page 1 of the Allocation answer your question on the 70/30 split?

We have also put together offset maps for the Mancos and Mesaverde, if that will help with your review.

Thanks,
Cheryl

From: Olivia Gilmour Olivia.Gilmour@hilcorp.com
Sent: Wednesday, September 13, 2023 5:05 PM

To: Ray Brandhurst rbrandhurst@hilcorp.com; Cheryl Weston cweston@hilcorp.com; Chuck Creekmore ccreekmore@hilcorp.com
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Hi Cheryl,

There is not a large difference % wise between the Mancos and Mesaverde:

MC WI= 0.849999
MC NRI= 0.70124996

MV WI= 0.81758206
MV NRI= 0.6816592

The Mancos ownership is on a lease level. There is a difference in the working interest owners in the Mancos vs Mesaverde.

Please let me know if you require any additional information.

Thanks,

Olivia Gilmour
Associate Landman – San Juan East
Hilcorp Energy Company
O: (713) 289-2642

From: Ray Brandhurst <rbrandhurst@hilcorp.com>
Sent: Wednesday, September 13, 2023 4:57 PM
To: Cheryl Weston <cweston@hilcorp.com>; Olivia Gilmour <Olivia.Gilmour@hilcorp.com>; Chuck Creekmore <ccreekmore@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Cheryl, this language should answer Dean's question:

"Production for the downhole trimmingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled 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 (MC/MV).

New zones (MC/MV) 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	Forecasted Reserves (MMcf)	% Gas Allocation
Mancos	321	30%
Mesaverde	749	70%

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.

Thanks,

Ray Brandhurst, P.E.
San Juan East Reservoir Engineer
Hilcorp Energy Company
713-757-5224 office
713-476-2843 cell

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Wednesday, September 13, 2023 4:49 PM

To: Ray Brandhurst <rbrandhurst@hilcorp.com>; Olivia Gilmour <Olivia.Gilmour@hilcorp.com>; Chuck Creekmore <ccreekmore@hilcorp.com>
Subject: Fwd: [EXTERNAL] Action ID: 248386; DHC-5322

Ray,

Please see Dean's latest comments on the allocation. He wants a description of how the 70/30 split was derived.

Olivia/Chuck,

Is our Mancos interest much different than the MV? The MC is going to be on a lease basis, right?

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Wednesday, September 13, 2023 4:36 PM
To: Cheryl Weston <cweston@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

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

Cheryl,

With consideration that the Mancos is on lease basis it seems unlikely that the non Hilcorp interest is similar between it and the Mesaverde. Please correct this assumption if it is incorrect.

Within the supplemental information is what is labeled as a “Mancos Vertical Frac Typecurve”. There appears to be some primary production depicted in red which initially makes me wonder if this is a production curve for an individual well, but then there is also what appears to be some production data in the back ground in grey. Was the curve produced from the average of the 5 wells listed below normalized for time? If so, how was the mancos production broke out of the total production of the wells as it appears at first glance that each of the wells had the MV GP DK downhole commingled? Based off the numbers for the MC and MV coming out to be exactly 0.3 and 0.7, I wonder if each of the downhole commingled wells used had the same fixed percentage allocation method?

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Wednesday, September 13, 2023 2:50 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

The MV and DK are on separate PA’s and the Mancos is on lease basis.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Wednesday, September 13, 2023 3:42 PM
To: Cheryl Weston <cweston@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>

Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

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

Cheryl,

I think the template looks fine now, as I think Hilcorp's intent is clear.

Is it accurate to say that the MV is being allocated to one PA and then the Mancos and Gallup are being allocated to another PA? If so are the PAs relatively similar in the areas they cover? While it appears that Hilcorp's interest is relatively similar, I'm unsure if the other 20% of WI and 30% of non-WI is also similar.

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Wednesday, September 13, 2023 2:03 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: FW: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

See below comments from the Engineer. Also, here is the revised Template. Please let me know if this will work. Mandi assisted us with the format, based on an approved C-107A that is similar to this one. We inadvertently were not using the correct one.

Thank you,
Cheryl

From: Ray Brandhurst <rbrandhurst@hilcorp.com>
Sent: Tuesday, September 12, 2023 4:50 PM
To: Cheryl Weston <cweston@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

The 70-30 fixed percentage was created by allocating expected reserves from type curves to each new zone. The forecast for Mancos production has been generated using a type curve of frac'd vertical Gallup/Mancos/El Vado gas production in the surrounding production trend. The wells included in the Type Curve are:

- 30039262610000
- 30039252080000
- 30039237580001
- 30039310900000
- 30039206690000

The forecast for Mesaverde production was generated using a type curve of Mesaverde completions done in the surrounding nine-section area since 2000.

For San Juan 27-5 Unit 97, HEC ownership is expected to be as follows:

Formation	WI	NRI
Mesaverde	0.81758206	0.6816592
Gallup/Mancos/El Vado	0.84999999	0.70124996

Thanks,

Ray Brandhurst, P.E.
San Juan East Reservoir Engineer
Hilcorp Energy Company
713-757-5224 office
713-476-2843 cell

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Tuesday, September 12, 2023 4:15 PM
To: Ray Brandhurst <rbrandhurst@hilcorp.com>
Subject: Fwd: [EXTERNAL] Action ID: 248386; DHC-5322

See below comments from Dean.

Get Outlook for iOS

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Tuesday, September 12, 2023 4:13:19 PM
To: Cheryl Weston <cweston@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

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

Cheryl,

The table for the gas is good, but I do need a description in the text regarding how the 70/30 split was derived. I'm assuming a type curve was created from near by wells for each pool and those type curves are what is included below the table. If this is the case, please include language to that effect as I cannot use my speculation to determine what Hilcorp's intent is.

Additionally and assuming that my above speculation is correct, I may need more detail regarding how the type curves were derived. I guess to know how in depth we need to get, my question is how diverse is the ownership between the MC and MV? As in is the MC part of a PA similar to the PA for the MV?

The oil side should be good.

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Tuesday, September 12, 2023 2:32 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

Here is the updated template. Let me know if you agree with it now? If so, I will do the same for the others.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Tuesday, September 12, 2023 1:27 PM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

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

Cheryl,

How does Hilcorp intend to allocate production between the MV and MC formations?

Gas Allocation:
Production for the downhole trimmingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled 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 (MC/MV).

If Hilcorp intends to allocate oil based off a fixed percentage, I will need to see that fixed percentage. Based off your email below, does Hilcorp not intend to use a fixed percentage? If so, then what method is Hilcorp proposing to allocate oil production to each pool? The statement below will need to be amended if it is incorrect as it seems to imply a fixed percentage.

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.

Formation	Yield	
Dakota	3.36	bbl/mmscf
Mancos	10.00	bbl/mmscf
Mesaverde	2.51	bbl/mmscf

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Monday, September 11, 2023 11:36 AM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>; Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

The "fixed percentage allocation" verbiage was removed, as it is not applicable to this well. The Dakota oil allocation format was also corrected.

See attached and let me know if you have any questions.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Friday, September 8, 2023 9:22 AM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Cheryl,

Reference is made to a fixed percentage for allocation of gas between the MV and MC pools. However, I do not see where that fixed percent was provided within the supplemental document.

Historic offset wells will be used to create a fixed allocation split for the new formations (MC/MV). 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.

There seems to be a conflict within the proposed oil allocation. The table would seem to indicate that a fixed percentage for each pool is

being proposed, but the writeup indicates that the subtraction method shall be used. Please confirm how Hilcorp is proposing to allocate oil production from this well. I believe this same typo was included in another application in the recent past; you may wish to go ahead and make this correction to your template for future applications.

Oil Allocation:
Oil will be allocated on a subtraction basis from current production in the Dakota.

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
Dakota	3.36	764	34%
Mancos	10	321	41%
Mesaverde	2.51	749	25%

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Thursday, September 7, 2023 9:31 AM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>; Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

Please see attached revised Allocation backup and C-107A form that reflects the recent perf range changes for MC and MV. The approved perf range change NOI is attached for reference.

Let me know if you have any questions.

Thanks,
Cheryl

From: McClure, Dean, EMNRD Dean.McClure@emnrd.nm.gov
Sent: Thursday, August 31, 2023 5:59 PM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Cheryl,

I will need a summary paragraph describing the allocation that Hilcorp is proposing. For instance, I assume that Hilcorp wishes to assign a fixed percent to the Oil and then use subtraction to allocate gas between the old and new pools. I also assume that Hilcorp wishes to switch to a fixed percentage for gas after 4 years. However, none of this is stated as such within the application and additionally the method of how to allocate between the 2 new pools is not detailed.

Hilcorp's normal DHC template includes this paragraph (hence why I made the speculations above), however, you will need to include some additional language regarding how to allocate between the two new pools. I speculate that this part of the template got left out of this application by accident.

I didn't compare to see if the new applications have something different, but one of the old applications has the following language included:

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 Mesaverde and the added formation to be commingled is the Fruitland Coal. The subtraction method applies an average monthly production forecast to the base formation 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 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.

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

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Thursday, August 31, 2023 10:23 AM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>; Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 248386; DHC-5322

Dean,

Please see the attached:

1. Revised C-107A form; Top/Bottom Pay Section matches revised perf ranges for MC and MV.
2. Allocation with oil included.

Let me know if you need anything else.

Thanks,

Hilcorp

Cheryl L. Weston
San Juan South (8-10)/East Regulatory
1111 Travis Street
Houston, TX 77002
Ofc: 713-289-2615
cweston@hilcorp.com

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Wednesday, August 30, 2023 5:49 PM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Subject: [EXTERNAL] Action ID: 248386; DHC-5322

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

The Division is reviewing the following application:

Action ID	248386

Admin No.	DHC-5322
Applicant	Hilcorp Energy Company (372171)
Title	San Juan 27 5 Unit 97
Sub. Date	8/4/2023

Please provide the following additional supplemental documents:

-

Please provide additional information regarding the following:

- Please provide the proposed allocation method summary.
- Presumably Hilcorp may wish to amend the C-107A to include the additional ranges approved under the latest C-103E; if so please provide an amended C-107A.

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.

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.

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.

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.

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-5322**

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. This Order supersedes Order DHC-5078.

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. twenty-four and six tenths percent (24.6%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319);
   b. forty-one and nine tenths percent (41.9%) shall be allocated to the BASIN MANCOS pool (pool ID: 97232); and
   c. thirty-three and five tenths percent (33.5%) 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 percent (70%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
   b. thirty percent (30%) 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.

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

DATE: 9/21/2023

DYLAN M. FUGE
DIRECTOR

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

	Order:	DHC-5322		
	Operator:	Hilcorp Energy Company (372171)		
	Well Name:	San Juan 27-5 Unit #97		
	Well API:	30-039-06785		
Upper Zone	Pool Name:	BLANCO-MESAVERDE (PRORATED GAS)		
	Pool ID:	72319	Current:	New: X
	Allocation:		Oil: 24.6%	Gas: 70%
	Interval:	Perforations	Top: 3,300	Bottom: 5,700
Intermediate Zone	Pool Name:	BASIN MANCOS		
	Pool ID:	97232	Current:	New: X
	Allocation:		Oil: 41.9%	Gas: 30%
	Interval:	Perforations	Top: 5,850	Bottom: 6,863
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	NO		
Lower Zone	Pool Name:	BASIN DAKOTA (PRORATED GAS)		
	Pool ID:	71599	Current: X	New:
	Allocation:		Oil: 33.5%	Gas:
	Interval:	Perforations	Top: 7,316	Bottom: 7,537
	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 248386

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 248386
	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