ID NO. 427196				Revised March 23, 2017
RECEIVED:	REVIEWER:	TYPE:	APP NO:	
	- Geologi	ABOVE THIS TABLE FOR OCD DIV CO OIL CONSERVA Cal & Engineering ancis Drive, Santa	<b>ATION DIVISION</b> Bureau –	ON NEW VOICE OF THE PARTY OF TH
		RATIVE APPLICATION		
THIS CF	IECKLIST IS MANDATORY FOR A REGULATIONS WHICH RE	LL Administrative Applica Equire processing at the		IVISION RULES AND
Applicant: Hilcorp				Number: <u>372171</u>
Well Name: <u>SAN Л</u>			API: 3003	921946
Pool: BASIN FRUITL	AND COAL		Pool Co	de: <u>71629</u>
		INDICATED BELO	W	TYPE OF APPLICATION
	ATION: Check those Spacing Unit – Simul SL NSP(P)	taneous Dedication		
[Ⅱ] Comm ■ [Ⅲ] Injecti	e only for [1] or [11] hingling – Storage – M DHC   CTB   P on – Disposal – Pressu WFX   PMX   S	LC □PC □O µre Increase – Enha	nced Oil Recovery	FOR OCD ONLY
A. Offset of B. Royalty C. Applica D. Notifica E. Notifica F. Surface G. For all of	REQUIRED TO: Check operators or lease hole, overriding royalty of ation requires publisheation and/or concurrention and/or concurrention and the above, proof of ce required	ders wners, revenue ow ed notice ent approval by SLG ent approval by BLI	ners O M	Notice Complete  Application Content Complete
administrative a understand tha	I hereby certify that approval is accurate t no action will be ta submitted to the Div	and <b>complete</b> to th ken on this applica	ne best of my knowl	edge. I also
Note	e: Statement must be comple	eted by an individual with	managerial and/or supervi	sory capacity.
			01/31/2025	
DAWN NASH-DEAL			Date	
Print or Type Name			505-324-5132	
			Phone Number	
Signature	<del>J</del> 800		DNASH@HILCO	RP.COM
Signature			C Mail Addicss	

Fee

<u>District I</u> 1625 N. French Drive, Hobbs, NM 88240

<u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410

District IV

OGRID No.<u>372171</u>

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

State of New Mexico Energy, Minerals and Natural Resources Department

**Oil Conservation Division** 

API No. <u>3003921946</u> Lease Type: <u>X</u> Federal

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-10/A
Revised August 1, 2011

No

State

APPLICATION TYPE Single Well

Establish Pre-Approved Pools EXISTING WELLBORE

Yes \_

#### Hilcorp Energy Company 382 Road 3100, Aztec, NM 87410 Address SAN JUAN 28-7 UNIT J SEC, 14, T28N, R07W RIO ARRIBA Well No. Unit Letter-Section-Township-Range County

DATA ELEMENT **UPPER ZONE** INTERMEDIATE ZONE **LOWER ZONE** BASIN FRUITLAND COAL BLANCO-MESAVERDE Pool Name 71629 72319 Pool Code EST 2815'-3220' 4869'-5796' Top and Bottom of Pay Section (Perforated or Open-Hole Interval) ARTIFICIAL LIFT ARTIFICIAL LIFT Method of Production (Flowing or Artificial Lift) 187 PSI 592 PSI **Bottomhole Pressure** re 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) Oil Gravity or Gas BTU (Degree API or Gas BTU) 1097 BTU 1262 BTU NEW ZONE PRODUCING Producing, Shut-In or New Zone Date and Oil/Gas/Water Rates of Date: 11/1/2024 Date: Date: Last Production. Rates: Rates: Rates: (Note: For new zones with no production history, Oil: Oil: Oil: 19BBL applicant shall be required to attach production Gas: 1663MCF Gas: Gas: estimates and supporting data.) Water: 0BBL Water: Water: Fixed Allocation Percentage Oil Gas Oil Gas Oil Gas than current or past production, supporting data or % % % % % % explanation will be required.)

#### **ADDITIONAL DATA**

No Are all working, royalty and overriding royalty interests identical in all commingled zones? No N/A If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Are all produced fluids from all commingled zones compatible with each other? No No Will commingling decrease the value of production? 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? No

NMOCD Reference Case No. applicable to this well: Per R-10476-B Order, Hilcorp is exempted from providing notice to owners

#### 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.

\_ Property Code <u>318432</u>

#### 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.

Launnagh Dead **SIGNATURE** \_TITLE\_Operations/Regulatory Technician DATE\_ 01/31/2025

TYPE OR PRINT NAME <u>DAWN NASH-DEAL</u> TELEPHONE NO. (505)324-5132

E-MAIL ADDRESS <u>DNASH@HILCORP.com</u>

# WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Supersedes C-12% Effective 1-1-65

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

Operator			Lease				Well Ho.
EL PASO NATURAL GAS COMPANY			SAN JUAN 28-7 UNIT (SF-079289) 24A				
Unit Letter	Section	Township	Hong		County		
J	174	28N		7¥1	RIO	ARRIBA	
Actual Footage Loca 1700		outh line and	1450	) (02)	from the	East	lla.
Ground Level Elev.	Producing Foir		Pcol	1001	nem the	7,200	Dedicated Acreage:
6479	Mesa V	/erde		Blanco Me	sa Verd	le 🖊	320.00 - Acres
1. Outline the	e acreage dedicat	ed to the subject w	ell by co	lored pencil or	r hachure	marks on th	e plat below.
2. If more th interest an	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 that dated by co	n one lease of di ommunitization, u	fferent ownership is nitization, force-pool	dedicateding, etc?	l to the well, l	have the	interests of	all owners been consoli-
Yes	No If an	swer is "yes;" type (	of consoli	dation		Unitiz	ation
lf answer i	s "no;" list the o	owners and tract desc	riptions ·	which have ac	tually be	en consolida	ited. (lise reverse side of
this form if	necessary.)						
No allowab	le will be assigne	d to the well until al	l interest	s have been c	onsolida	ted (by comi	nunitization, unitization,
forced-pool	ing, or otherwise)	or until a non-standar	d unit, el	iminating sucl	n interes	ts, has been	approved by the Commis-
sion.	· · · · · · · · · · · · · · · · · · ·	<del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>	~~~~	<del>*********</del> *****	~~~~~	×	
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1	i	Ø		1	K	<i>i</i> ).	supervision, and that the same
	i	<b>X</b>	· @-	11,50	}	(1)	nd correct to the best of my
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The near wellbore shut-in bottom hole pressures of the above reservoirs are much lower than the calculated far-field stabilized reservoir pressured due to the low permeability of the reservoirs. Based on pressure transient analysis performed in the San Juan Basin, it would take 7-25 years for shut-in bottom hole pressures to build up to the calculated far-field reservoir pressure. Our observation is that even for areas of high static reservoir pressures, the low permeability of the reservoir rock results in rapid depletion of the near-fracture region, quickly enough that the wells are unable to produce without the aid of a plunger. Given low permeabilities and low wellbore flowing pressures in the above reservoirs, loss of reserves due to cross-flow is not an issue during producing or shut-in periods. Given low shut-in bottom hole pressures, commingling the above reservoirs in this well will not result in shut-in or flowing wellbore pressures in excess of any commingled pool's fracture parting pressure. The pressures provided in the C-107A are based on shut-in bottom hole pressures of offset standalone wells which match expected near-wellbore shut-in bottom hole pressures of this proposed commingled completion.

Shut in pressures were calculated for operated offset standalone wells in each of the zones being commingled in the well in question via the following process:

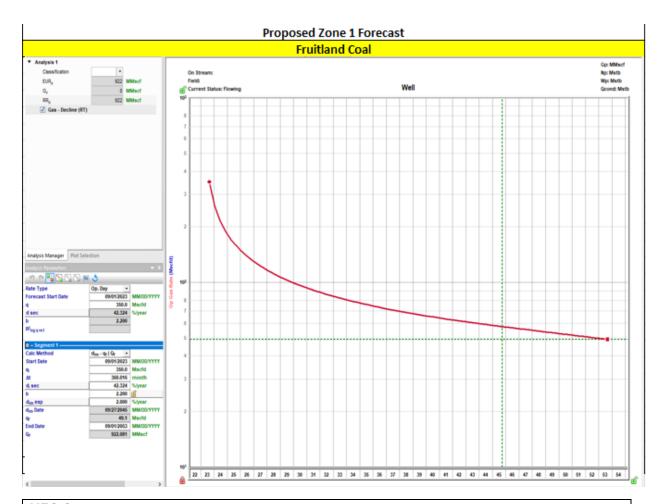
Wells were shut in for 24 hours
 Echometer was used to obtain a fluid level
 Shut in BHP was calculated for the proposed commingled completion

I	ist of wells used to calcul	ate BHPs for the Project:	
3003926781	SAN JUAN 28	3-7 Unit 218E	DK
3003921913	SAN JUAN 28	3-7 UNIT 56A	MV
3003924789	SAN JUAN 2	8-6 Unit 408	FRC
3003925848	SAN JUAN 29	9-7 UNIT 160	PC

I believe each of the reservoirs to be continuous and in a similar state of depletion at this well and at each of the wells from which the pressures are being derived.

**Note:** BTU Data taken from standalone completions in the zone of interest within a 2 mile radius of the well.

A farther radius is used if there is not enough data for a proper statistical analysis.



#### **HEC Comments**

The production forecasts 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.

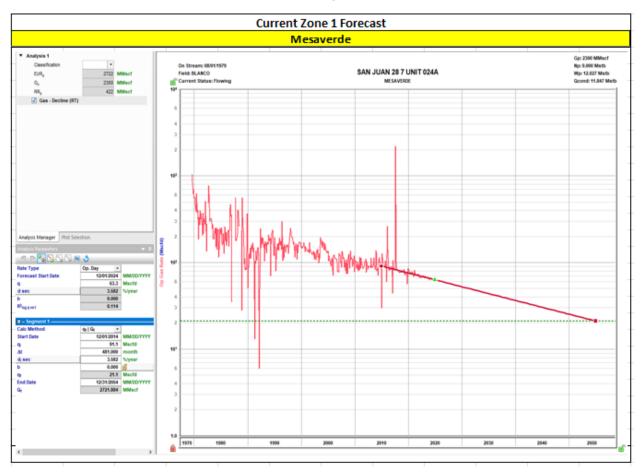
The BHPs of all zones, producing and non-producing, were estimated based upon basinwide Moving-Domain Material Balance models that have proven to approximate the pressure in the given reservoirs well in this portion of the basin. These models were constructed incorporating reservoir dynamics and physics,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

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 base formation forecast will be allocated to the new formation.

After three years production will stabilize. A production average will be gathered during the fourth year and it will be utilized to create a fixed percentage based allocation.



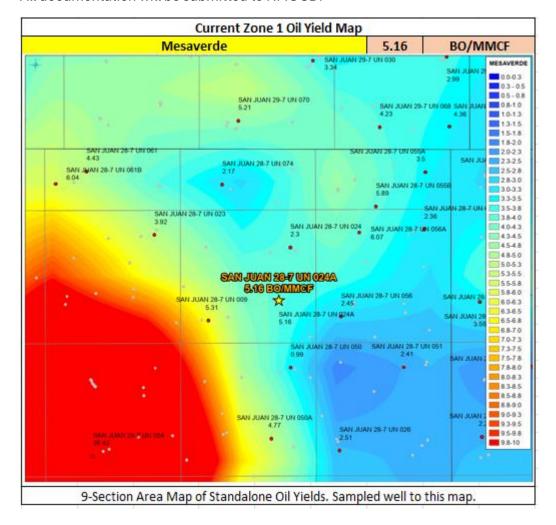
#### Oil Allocation:

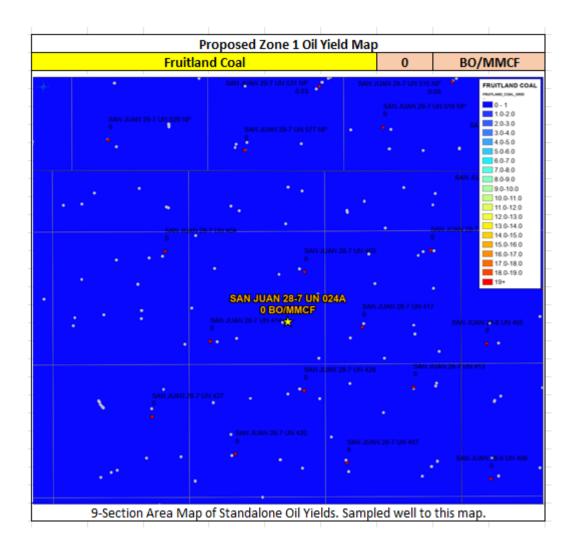
Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years.

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

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
MV	5.16	422	100%
FRC	0.00	922	0%
			100%

All documentation will be submitted to NMOCD.





#### Water Compatibility in the San Juan Basin

- The San Juan basin has productive siliciclastic reservoirs (Pictured Cliffs, Blanco Mesaverde, Basin Mancos, Basin Dakota, etc.) and a productive coalbed methane reservoir (Basin Fruitland Coal).
- These siliciclastic and coalbed methane reservoirs are commingled extensively throughout the basin in many different combinations with no observed damage from clay swelling due to differing formation waters.
- The samples below all show fresh water with low TDS.
- Data taken from standalone completions in the zone of interest within a 2-mile radius of the well. A farther radius is used if there is not enough data for a proper statistical analysis.

Well Name	API	
SAN JUAN 28-7 UN 024A	3003921946	

FRC Offset (	0.38 MILES)	MV Offse	t (4.11 MILES)
API	3003925112	API	3003922063
Property	SAN JUAN 28-7 UNIT 403	Property	SAN JUAN 28-7 UNIT 44A
CationBarium	0.00	CationBarium	0.00
CationBoron		CationBoron	
CationCalcium	2.20	CationCalcium	36.80
CationIron		CationIron	10.90
CationMagnesium		CationMagnesium	0.46
CationManganese		CationManganese	0.15
CationPhosphorus		CationPhosphorus	
CationPotassium		CationPotassium	
CationStrontium	0.00	CationStrontium	0.00
CationSodium		CationSodium	1510.00
CationSilica		CationSilica	
CationZinc		CationZinc	
CationAluminum		CationAluminum	
CationCopper		CationCopper	
CationLead		CationLead	
CationLithium		CationLithium	
CationNickel		CationNickel	
CationCobalt		CationCobalt	
CationChromium		CationChromium	
CationSilicon		CationSilicon	
CationMolybdenum		CationMolybdenum	
AnionChloride	1700.00	AnionChloride	2300.00
AnionCarbonate		AnionCarbonate	0.00
AnionBicarbonate		AnionBicarbonate	195.20
AnionBromide	183.00	AnionBromide	195.20
AnionFluoride		AnionFluoride	
AnionHydroxyl		AnionHydroxyl	
AnionNitrate		AnionNitrate	
	025.60		1001.60
AnionPhosphate AnionSulfate		AnionPhosphate AnionSulfate	1001.60
phField		phField	6.91
		•	7.43
phCalculated TempField	7.01	phCalculated TempField	7.43
TempLab OtherFieldAlkalinity	7001 00	TempLab OtherFieldAlkalinity	305.50
OtherSpecificGravity		OtherFieldAlkalinity OtherSpecificGravity	1.01
		OtherTDS	
OtherTDS OtherCoCO2			3959.00
OtherCaCO3	12113.31	OtherCaCO3	6907.59
OtherConductivity DissolvedCO2	260.00	OtherConductivity DissolvedCO2	410.00
	300.00		410.00
DissolvedO2 DissolvedH2S	40.00	DissolvedO2	15.00
	40.00	DissolvedH2S	15.00
GasPressure	0.00	GasPressure GasCO2	10.00
GasCO2PP	8.00		10.00
GasCO2PP	0.00	GasCO2PP	C 00
GasH2S	0.00	GasH2S	6.00
GasH2SPP		GasH2SPP	
PitzerCaCO3_70		PitzerCaCO3_70	
PitzerBaSO4_70		PitzerBaSO4_70	
PitzerCaSO4_70		PitzerCaSO4_70	
PitzerSrSO4_70		PitzerSrSO4_70	
PitzerFeCO3_70		PitzerFeCO3_70	
PitzerCaCO3_220		PitzerCaCO3_220	
PitzerBaSO4_220		PitzerBaSO4_220	
PitzerCaSO4_220		PitzerCaSO4_220	
PitzerSrSO4_220		PitzerSrSO4_220	
PitzerFeCO3_220		PitzerFeCO3_220	

#### Gas Compatibility in the San Juan Basin

- The San Juan basin has productive siliciclastic reservoirs (Pictured Cliffs, Blanco Mesaverde, Basin Dakota, etc.) and a productive coalbed methane reservoir (Basin Fruitland Coal).
- These siliciclastic and coalbed methane reservoirs are commingled extensively throughout the basin in many different combinations with no observed damage from clay swelling due to differing formation waters or gas composition.
- The samples below all show offset gas analysis varibality by formation is low.

Well Name	API	
SAN JUAN 28-7 UN 024A	3003921946	

FRC Offset (1.90 MILES)		MV Offset (2.50 MILES)	
AssetCode	3003925115	AssetCode	3003907304
AssetName	SAN JUAN 28-7 UNIT 408	AssetName	SAN JUAN 28-7 UNIT 45
CO2	0.00	CO2	0.01
N2	0.01		0.00
C1	0.84	C1	0.88
C2	0.06	C2	0.06
C3	0.05	C3	0.03
ISOC4	0.01	ISOC4	0.01
NC4	0.01	NC4	0.01
ISOC5	0.00	ISOC5	0.00
NC5	0.00	NC5	0.00
NEOC5		NEOC5	
C6		C6	
C6_PLUS	0.01	C6_PLUS	0.00
C7		C7	
C8		C8	
C9		C9	
C10		C10	
AR		AR	
СО		СО	
H2		H2	
02		02	
H20		H20	
H2S	0	H2S	0
HE		HE	
C_O_S		C_O_S	
CH3SH		CH3SH	
C2H5SH		C2H5SH	
CH2S3_2CH3S		CH2S3_2CH3S	
CH2S		CH2S	
C6HV		C6HV	
CO2GPM	0.00	CO2GPM	0.00
N2GPM	0.00	N2GPM	0.00
C1GPM	0.00	C1GPM	0.00
C2GPM		C2GPM	1.64
C3GPM		C3GPM	0.94
ISOC4GPM		ISOC4GPM	0.24
NC4GPM	0.39	NC4GPM	0.17
ISOC5GPM	0.17	ISOC5GPM	0.07
NC5GPM		NC5GPM	0.04
C6_PLUSGPM	0.22	C6_PLUSGPM	0.09

Sundry Print Report

Page 11 of 27

BUREAU OF LAND MANAGEMENT

Well Number: 24A

Well Name: SAN JUAN 28-7 UNIT Well Location: T28N / R7W / SEC 14 /

NWSE / 36.65851 / -107.53816

107.53816 ARRIBA / NM

Type of Well: CONVENTIONAL GAS

WELL

Allottee or Tribe Name:

County or Parish/State: RIO

Lease Number: NMSF079289

Unit or CA Name: SAN JUAN 28-7

UNIT--MV

Unit or CA Number: NMNM78413A

US Well Number: 3003921946 Operator: HILCORP ENERGY

COMPANY

#### **Notice of Intent**

Sundry ID: 2810996

Type of Submission: Notice of Intent

Type of Action: Recompletion

Date Sundry Submitted: 09/09/2024

Time Sundry Submitted: 12:59

Date proposed operation will begin: 09/15/2024

**Procedure Description:** Hilcorp Energy Company requests permission to recomplete the subject well in the Fruitland Coal formation and downhole commingle with the existing Mesaverde formation. Please see the attached procedure, current and proposed wellbore diagram, plat and natural gas management plan. A closed loop system will be used. Hilcorp will contact the FFO Surface group within 90 days after the well has been recompleted, before any interim reclamation work, to conduct the onsite. A reclamation plan will be submitted after the onsite.

#### **Surface Disturbance**

Is any additional surface disturbance proposed?: No

#### **NOI Attachments**

**Procedure Description** 

 $San\_Juan\_28\_7\_Unit\_24A\_FRC\_RC\_NOI\_20240909125842.pdf$ 

Received by OCD: Well ARDE : EXANJUARDE -7 UNIT

Well Location: T28N / R7W / SEC 14 / NWSE / 36.65851 / -107.53816

County or Parish/State: RIO ARRIBA / NM

Page 12 of 27

Well Number: 24A

Type of Well: CONVENTIONAL GAS

Allottee or Tribe Name:

Lease Number: NMSF079289

Unit or CA Name: SAN JUAN 28-7

UNIT--MV

**Unit or CA Number:** NMNM78413A

**US Well Number: 3003921946** 

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: SEP 09, 2024 12:59 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: KENNETH G RENNICK BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5055647742 BLM POC Email Address: krennick@blm.gov

Disposition: Accepted Disposition Date: 09/12/2024

Signature: Kenneth Rennick



#### HILCORP ENERGY COMPANY SAN JUAN 28-7 UN 024A RECOMPLETION SUNDRY

Prepared by:	Matthew Esz	
Preparation Date:	August 30, 2024	

WELL INFORMATION					
Well Name:	SAN JUAN 28-7 UN 024A	State:	NM		
API #:	3003921946	County:	Rio Arriba		
Area:	10	Location:			
Route:	1007	Latitude:			
Spud Date:	May 14, 1979	Longitude:			

#### PROJECT DESCRIPTION

Perforate, fracture, and commingle the Fruitland Coal with the existing Mesa Verde zone.

CONTACTS				
Title	Name	Office Phone #	Cell Phone #	
Engineer	Matthew Esz		770-843-9226	
Area Foreman				
Lead				
Artificial Lift Tech				
Operator				



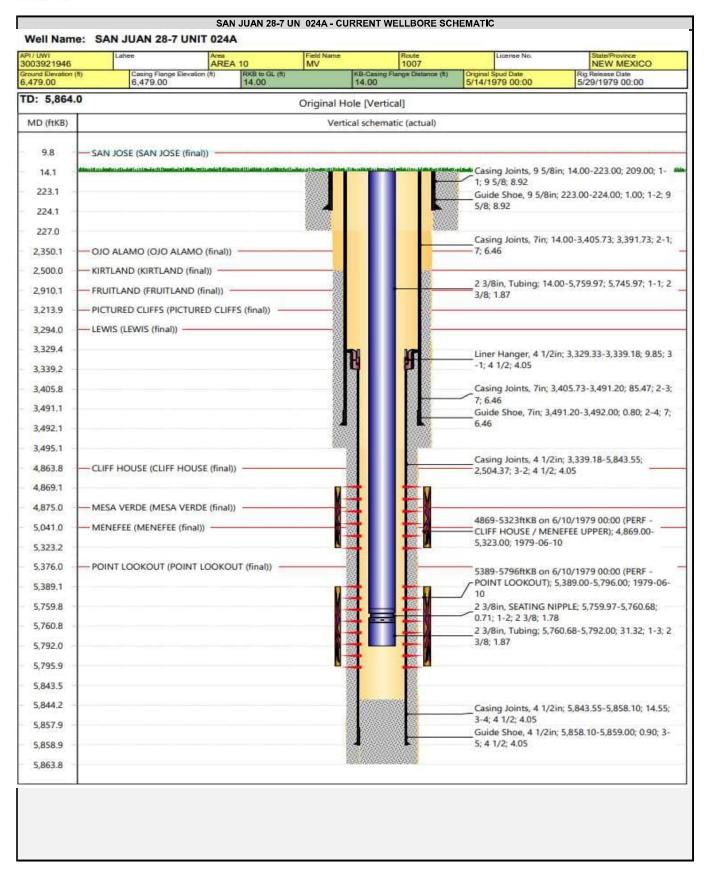
#### HILCORP ENERGY COMPANY SAN JUAN 28-7 UN 024A RECOMPLETION SUNDRY

#### JOB PROCEDURES

- 1. MIRU service rig and associated equipment; test BOP.
- 2. TOOH with 2-3/8" tubing set at 5,792'.
- 3. Set a 4-1/2" plug at +/- 4,844' to isolate the Mesa Verde.
- 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 Fruitland Coal formations (Top Perforation @ 2,815'; Bottom Perforation @ 3,220').
- 8. Nipple down frac stack, nipple up BOP and test.
- 9. TIH with a mill and drill out top isolation plug and Fruitland Coal frac plug.
- 10. Clean out to Mesa Verde isolation plug.
- 11. Drill out Mesa Verde isolation plug and cleanout to PBTD of 5,844'. TOOH.
- 12. TIH and land production tubing. Get a commingled Fruitland Coal/Mesa Verde flow rate.

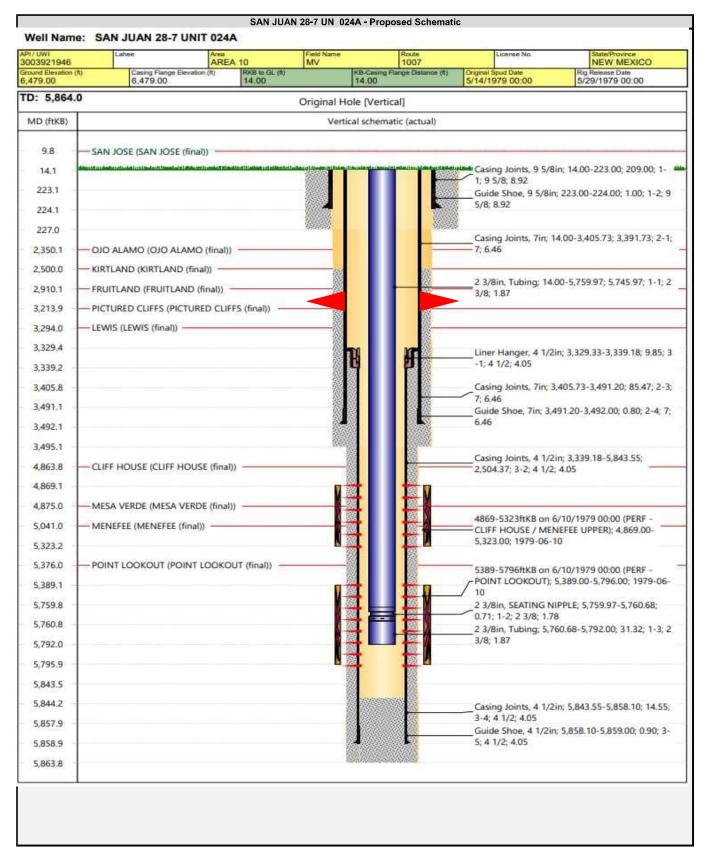


#### HILCORP ENERGY COMPANY SAN JUAN 28-7 UN 024A RECOMPLETION SUNDRY





#### HILCORP ENERGY COMPANY SAN JUAN 28-7 UN 024A RECOMPLETION SUNDRY



District I

District III

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

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 372641

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-039-21946	71629	BASIN FRUITLAND COAL (GAS)
4. Property Code	5. Property Name	6. Well No.
318432	SAN JUAN 28 7 UNIT	024A
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6479

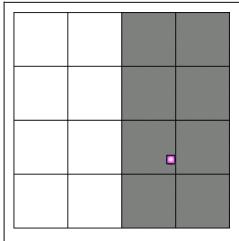
10. Surface Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	J	14	28N	07W		1700	S	1450	E	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 A	Acres 0.00	L	13. Joint or Infill	<u> </u>	14. Consolidatio	n 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**

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 Westen
Title: Operations/Regulatory Tech-Sr.

Date: 9/3/2024

#### 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.

Fred B. Kerr, Jr. Surveyed By: 8/27/1978 Date of Survey: 3950 Certificate Number:

#### 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 E	nergy Compan	у	OGRID:	372171	Date:	9 / 3 /2024
II. Type: ⊠ Original □	☐ Amendment	due to □ 19.15.2	7.9.D(6)(a) NMAC	C □ 19.15.27.9.D(	(6)(b) NMAC □	Other.
If Other, please describe	::					
III. Well(s): Provide the be recompleted from a s					wells proposed to	be drilled or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
San Juan 28-7 Unit 24A	3003921946	J-14-28N-07W	1700' FSL, 1450' FEL	0 bbl/d	350 mcf/d	5 bbl/d
V. Anticipated Schedul proposed to be recomple  Well Name	le: Provide the	following inform		or recompleted w	vell or set of well	
San Juan 28-7 Unit 24A	3003921946		Buile		Buck 1	2024
Jan Jaan 20 7 Onit 24A	3003321340					2021
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 Anticipated Volume of Natural Gas Rate MCF/D Gas for the First Year	

#### 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. $\square$ 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 t	o gather 1	00% of the anticip	pated natural ga
production volume from the well	prior to the date of firs	st production.				

XIII. Line Pressure. Operator $\square$ does $\square$ 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)

$\neg$	Attach Omanate	n'a mlan t		maduation.		to the increa	ased line pressure
	Affach Unerate	nr's mian t	o manage r	aroduction :	in resnonse	to the increa	ised line pressiire

XIV. Confidentiality: $oxdot$ Operat	tor asserts confidentiality p	oursuant to Section 7	71-2-8 NMSA 1978 fo	r the information p	provided in
Section 2 as provided in Paragrapl	h (2) of Subsection D of 19.	15.27.9 NMAC, and	l attaches a full descript	ion of the specific i	nformation
for which confidentiality is asserte	ed and the basis for such ass	sertion.			

(h)

(i)

# Section 3 - Certifications <u>Effective May 25, 2021</u>

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.  $\square$  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: power generation on lease; (a) power generation for grid; **(b)** (c) compression on lease; (d) liquids removal on lease; (e) reinjection for underground storage; **(f)** reinjection for temporary storage; reinjection for enhanced oil recovery; **(g)** 

#### Section 4 - Notices

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

other alternative beneficial uses approved by the division.

fuel cell production; and

- (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 Westen
Printed Name:	Cherylene Weston
Title:	Operations/Regulatory Tech-Sr.
E-mail Address:	cweston@hilcorp.com
Date:	9/3/2024
Phone:	713-289-2615
	OIL CONSERVATION DIVISION
	(Only applicable when submitted as a standalone form)
Approved By:	
Title:	
Approval Date:	
Conditions of Ap	proval:

#### 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.
  - $\circ$  HEC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 1- $\alpha$
- 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.

# 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-5478** 

#### **ORDER**

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

#### **FINDINGS OF FACT**

- 1. Hilcorp Energy Company ("Applicant") submitted a complete application ("Application") to downhole commingle the pools described in Exhibit A ("the Pools") within the well bore of the well identified in Exhibit A ("the Well").
- 2. Applicant proposed a method to allocate the oil and gas production from the Well to each of the Pools that is satisfactory to the OCD and protective of correlative rights.
- 3. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
- 4. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
- 5. An exception to the notification requirements within 19.15.12.11(C)(1)(b) NMAC was granted by the Division within Order R 10476 B.
- 6. To the extent that ownership is identical, Applicant submitted a certification by a licensed attorney or qualified petroleum landman that ownership in the Pools is identical as defined by 19.15.12.7(B) NMAC.
- 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

Order No. DHC-5478 Page 1 of 3

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-3074.
- 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. zero percent (0.0%) shall be allocated to the Basin Fruitland Coal pool (pool ID: 71629); and
  - b. one hundred percent (100.0%) shall be allocated to the Blanco Mesaverde pool (pool ID: 72319).

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 Basin Fruitland Coal pool (pool ID: 71629)
- The current pool(s) are:
  - a. the Blanco Mesaverde pool (pool ID: 72319)

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

Order No. DHC-5478 Page 2 of 3

- 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

GERASIMOS RAZATOS DIRECTOR (ACTING)

Order No. DHC-5478 Page 3 of 3

DATE: 4/2/2025

# State of New Mexico Energy, Minerals and Natural Resources Department

**Exhibit A** 

Order: DHC - 5478

Operator: Hilcorp Operating Company
Well Name: San Juan 28 7 Unit Well No. 24A

Well API: 30-039-21946

**Pool Name: Basin Fruitland Coal** 

Upper Zone Pool ID: 71629 Current: New: X
Allocation: Subtraction Oil: 0.0% Gas: SUBT

Top: 2,815 Bottom: 3,220

Pool Name:

Intermediate Zone Pool ID: Current: New: Allocation: Oil: Gas:

Top: Bottom:

Bottom of Interval within 150% of Upper Zone's Top of Interval:

**Pool Name: Blanco-Mesaverde** 

Pool ID: 72319 Current: X New:

Allocation: Subtraction Oil: 100.0% Gas: SUBT Top: 4,869 Bottom: 5,796

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

**Top of Queen Formation:** 

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 427196

#### **CONDITIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	427196
	Action Type:
	[C-107] Down Hole Commingle (C-107A)

#### CONDITIONS

	Created By	Condition	Condition Date
ſ	llowe	None	3/28/2025