eceived by OCP to Appropriate bisin 1940	7 - <b>5475</b> tate of New Me	exico pLE	L25072646	542 Form C-103
Office District I – (575) 393-6161	Energy, Minerals and Natu			Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240			WELL API NO.	
<u>District II</u> – (575) 748-1283	OIL CONSERVATION	DIVISION		039-22033
811 S. First St., Artesia, NM 88210 District III – (505) 334-6178	1220 South St. Fran		5. Indicate Type of	
1000 Rio Brazos Rd., Aztec, NM 87410			STATE	FEE
<u>District IV</u> – (505) 476-3460	Santa Fe, NM 87	/505	6. State Oil & Gas	
1220 S. St. Francis Dr., Santa Fe, NM 03/2 87505	26/24		Federal I	NMSF078503A
	S AND REPORTS ON WELLS		7. Lease Name or	Unit Agreement Name
(DO NOT USE THIS FORM FOR PROPOSAL				8 11 11 11 11
DIFFERENT RESERVOIR. USE "APPLICAT"	ION FOR PERMIT" (FORM C-101) FO	OR SUCH	San Ju	an 29-7 Unit
PROPOSALS.)  1. Type of Well: Oil Well Gas	s Well 🛛 Other		8. Well Number	116
2. Name of Operator	s well		9. OGRID Numbe	ar .
Hilcorp Energy Company				372171
3. Address of Operator			10. Pool name or	
382 Road 3100, Aztec, NM 8	37410			/ Blanco Mesaverde
4. Well Location				
	from the South line and 1250	feet from the Wes	t line	
	riship 29N Range 07			Die Amilee
				Rio Arriba
	1. Elevation (Show whether DR, 6273'			
ID NO. 22 (012	0273	UL		
ID NO. 326812	' D A L P A N	· CN · D	. 0.1 D	
12. Check Appr	opriate Box to Indicate Na	ture of Notice, R	eport or Other D	ata
NOTICE OF INTE	NTION TO:	SUR	SEQUENT REF	ORT OF:
	LUG AND ABANDON	REMEDIAL WORK		ALTERING CASING
	<del></del>	COMMENCE DRI		P AND A
	<del></del>			P AND A
<del></del> -	IULTIPLE COMPL	CASING/CEMENT	「JOB ∐	
DOWNHOLE COMMINGLE				
CLOSED-LOOP SYSTEM	COMPLETE	OTHER:		
OTHER: RE  13. Describe proposed or completed	COMPLETE  operations (Clearly state all pe		rive pertinent dates	including actimated data
of starting any proposed work).				
proposed completion or recompl		Tor Wintiple Comp	pictions. Attach we	noore diagram or
proposed compression or recomp.				
It is intended to recomplete the subject we	ell in the Basin Mancos (pool 97	7232) and the Blanc	o Mesaverde (pool	72319) and downhole
commingle the existing Basin Dakota (po				
Conservation Division Order Number 129				
will not reduce the value of the production				
•	S		C	11
Proposed perforations are: MV 4500' – 5	5635'; MC 5635' – 7118'; DK 7	209' - 7389'. <b>Thes</b> e	e perforations are i	n TVD.
As referred to in Order # R-13681 interes	t owners were not re-notified.			
				_
G ID	D' D I D			
Spud Date:	Rig Release Date	e:		
				_
I hereby certify that the information abov	e is true and complete to the bes	t of my knowledge	and belief.	
SIGNATURE Cherylene Westo	n mm r		1	T 02/14/2024
SIGNATURE CHERYTENE VVESTO	TITLE Operat	ions/Regulatory Tec	chnician Sr. DA'I	E <u>02/14/2024</u>
Type or print name Cherylene Weston	F-mail address	cweston@hilcorp.	COM PHONE.	713-289-2615
For State Use Only		ewestone incorp.	r none:	115-407-4015
zor saw oscomj				
APPROVED BY:	TITLE		DATI	<b>∃</b>
Conditions of Approval (if any):				
* * * * * * * * * * * * * * * * * * * *				

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 358342

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name						
30-039-22033	72319	BLANCO-MESAVERDE (PRORATED GAS)						
4. Property Code	5. Property Name	6. Well No.						
318713	SAN JUAN 29 7 UNIT	116						
7. OGRID No.	8. Operator Name	9. Elevation						
372171	HILCORP ENERGY COMPANY	6273						

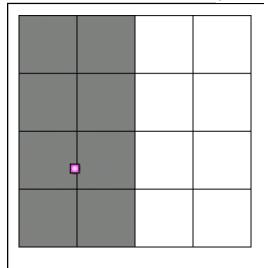
#### 10. Surface Location

ſ	UL - Lot	Т	Section	Township	Range	Lot ldn	Feet From	N/S Line	Feet From	E/W Line	County
-	I	Κĺ	30	29N	07W		1800	S	1250	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 A	Acres 5.88		13. Joint or Infill		14. Consolidation	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 Weston
Title: Operations/Regulatory Tech-Sr.

Date: 1/24/2024

#### **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.

Surveyed By: Fred B. Kerr, Jr.

Date of Survey: 4/9/1979

Certificate Number: 3950

Form C-102 August 1, 2011

Permit 358342

#### 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

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-039-22033	2. Pool Code 97232	3. Pool Name BASIN MANCOS
4. Property Code 318713	5. Property Name SAN JUAN 29 7 UNIT	6. Well No. 116
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6273

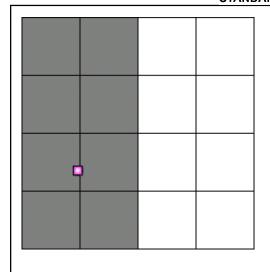
#### 10. Surface Location

Γ	UL - Lot	Section		Township	Range	Lot ldn	Feet From	N/S Line	Feet From	E/W Line	County
-	۲		30	29N	07W		1800	S	1250	W	RIO
1											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 246			13. Joint or Infill		14. Consolidation	n Code		15. Order No.	

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#### **OPERATOR CERTIFICATION**

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E-Signed By: Cherylene Weston

Title: Operations/Regulatory Tech-Sr.

Date: 1/24/2024

#### **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.

Surveyed By:

Fred B. Kerr, Jr.

Date of Survey:

4/9/1979

Certificate Number:

3950

## 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	(CE 078502 A) Well No.							
EL PASO NATURAL GAS COMPA		SAN JUAN 29-7								
Unit Letter Section To	29N	Romge 7W	Rio Arriba							
Actual Footage Location of Well:  1800 feet from the Sou	.+1	320	Mark							
1800 feet from the SOU Ground Level Elev: Producing Format		1250 fee	t from the West line  Dedicated Acreage:							
6273 Dakota		Basin Da								
	d to the subject w	ell by colored pencil	or hachure marks on the plat below.							
	<ol> <li>Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</li> <li>If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</li> </ol>									
dated by communitization, uni	tization, force-pool	ing. etc?	have the interests of all owners been consoli-							
X Yes No If answ	wer is "yes;" type	of consolidation	Unitization							
If answer is "no," list the ow this form if necessary.)	vners and tract des	criptions which have a	ctually been consolidated. (Use reverse side of							
l ·	to the well until al	l interests have been	consolidated (by communitization, unitization,							
			ch interests, has been approved by the Commis-							
sion.										
			CERTIFICATION							
₩ !	×									
· 🕅	×		I hereby certify that the information con-							
⊠ ¹	×	!	tained herein is true and complete to the							
⊠ t	×	•	best of my knowledge and belief.							
⊠ i	Ø	; {	d. B. Dusco							
Ø L	_ 🛛		Name Drilling Clerk							
₩ ;	Ø		Position							
8 .	×		El Paso Natural Gas Co.							
SF-078503-A	×	; 	Company April 26, 1979							
	×		Date							
Sec.	×	l								
Š										
<b>X</b>	Ø	CELLIED!	I hereby certify that the well location							
<b>[3</b> ]	30	VI LIA F	shown on this plat was plotted from field							
[X] ¹	×	Mr. Wall	notes of actual surveys made by me o							
12501	Ø	1	under my supervision, and that the same							
N T	<b>⊠</b>		is true and correct to the best of my							
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× I	×	i	Date Surveyed							
	Ø	1 .	April 9, 1979							
1 800	×	l .	Registered Professional Engineer and Land Surveyor							
X ' T	Ø	1	and Land Surveyor							
<b>8</b> ! !	13	1	Fred B. Kerr Vr.							
	XXX		Certificate No.							
Released to Imaging: 4/2/2025 8:53:00	AM • Z		3950							

#### San Juan 29-7 Unit 116 Allocation

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.

#### <u>Production Allocation Method – Subtraction</u>

#### **Gas Allocation:**

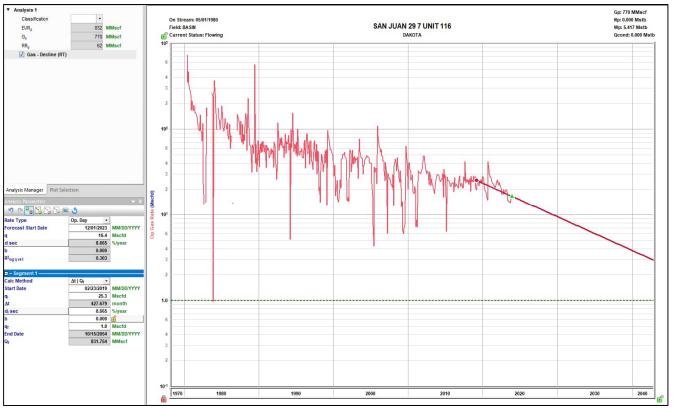
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be commingled are the Mancos and Mesaverde. The subtraction method applies an average monthly production forecast to the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

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

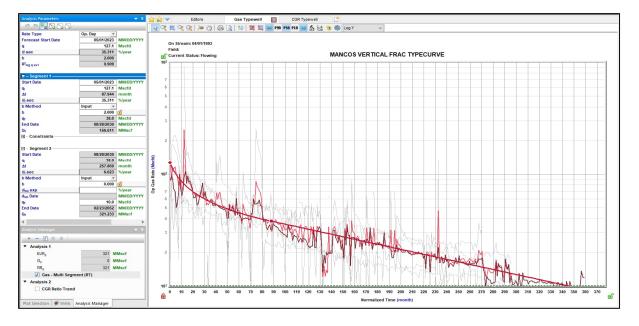
Formation	Remaining Reserves (MMcf)	% Gas Allocation		
Mancos	321	20%		
Mesaverde	1259	80%		

After 3 years production will stabilize. A production average will be gathered during the 4<sup>th</sup> year and will be utilized to create a fixed percentage-based allocation.

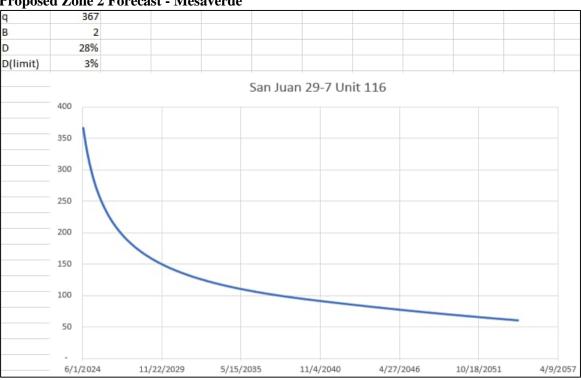
#### Current Zone Forecast - Dakota



**Proposed Zone 1 Forecast - Mancos** 



Proposed Zone 2 Forecast - Mesaverde



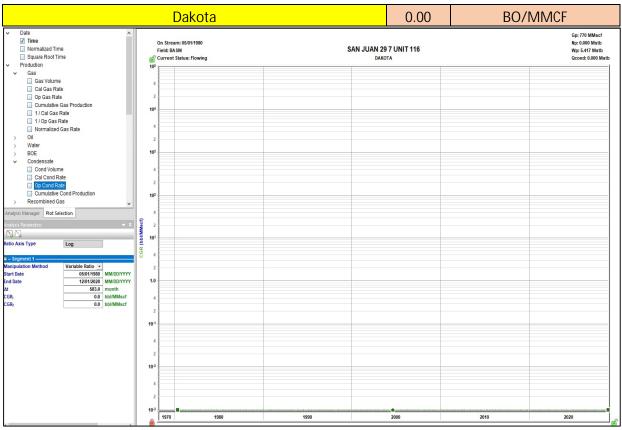
Average initial production curve in geologic region.

#### Oil Allocation:

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

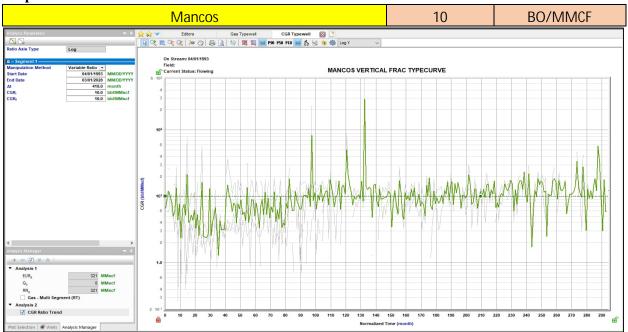
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	0.00	62	0%
MC	10.00	321	47%
MV	2.83	1259	53%

Current Zone - Dakota Oil Yield Map



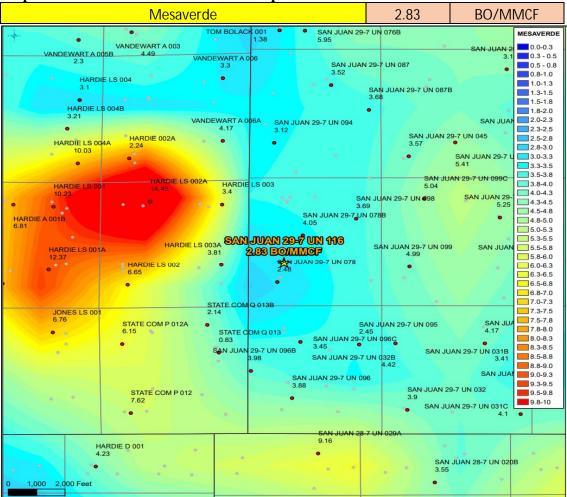
9-Section Area of Standalone Oil Yields. Sampled well to this map.

#### Proposed Zone 1 - Mancos Oil Yield



Average Oil Yield from Vertical Mancos Type Curve.

Proposed Zone 2 - Mesaverde Oil Yield Map



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

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

### APPLICATION FOR DOWNHOLE COMMINGLING SUBMITTED BY HILCORP ENERGY CO.

**ORDER NO. DHC-5475** 

#### **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 Corporation ("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-13681.
- 6. Applicant provided notice of the Application to the Bureau of Land Management ("BLM") or New Mexico State Land Office ("NMSLO"), as applicable.

#### **CONCLUSIONS OF LAW**

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

Order No. DHC-5475 Page 1 of 3

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

#### **ORDER**

- 1. Applicant is authorized to downhole commingle the Pools described in Exhibit A within the well bore of the well identified in Exhibit A.
- 2. 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. fifty three percent (53.0%) shall be allocated to the Blanco-Mesaverde pool (pool ID: 72319);
  - b. forty seven percent (47.0%) shall be allocated to the Basin Mancos pool (pool ID: 97232);
  - c. zero percent (0.0%) shall be allocated to the Basin Dakota (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 pool (pool ID: 72319); and
- b. the Basin Mancos pool (pool ID: 97232).

The current pool(s) are:

a. the Basin Dakota 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. eighty percent (80.0%) shall be allocated to the Blanco Mesaverde pool (pool ID: 72319); and
- b. twenty percent (20.0%) 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

Order No. DHC-5475 Page 2 of 3

- or without modifications, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.
- 3. If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Order to become inaccurate, then no later than sixty (60) days after that event, Applicant shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Order shall terminate on the date of such action.
- 4. If any of the pools being commingled is prorated, or the Well's production has been restricted by an OCD order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.
- 5. If the Well is deepened, then no later than forty-five (45) days after the Well is deepened, Applicant shall conduct and provide logs to OCD that are sufficient for OCD to determine which pool(s) each new completed interval of the Well will produce from.
- 6. If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred Applicant shall submit a new downhole commingling application to OCD to amend this Order to remove the pool that caused the decrease in value. If Applicant fails to submit a new application, this Order shall terminate on the following day, and if OCD denies the application, this Order shall terminate on the date of such action.
- 7. If a completed interval of the Well is altered from what is submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after the alteration, Applicant shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.
- 8. If OCD determines that Applicant has failed to comply with any provision of this Order, OCD may take any action authorized by the Oil and Gas Act or the New Mexico Administrative Code (NMAC).
- 9. OCD retains jurisdiction of this matter and reserves the right to modify or revoke this Order as it deems necessary.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

GERASIMOS RAZATOS DIRECTOR (ACTING) **DATE:** 4/2/2025

Order No. DHC-5475 Page 3 of 3

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

#### **Exhibit A**

Order: DHC - 5475

Operator: Hilcorp Energy Company (372171)
Well Name: San Juan 29 7 Unit Well No. 116

Well API: 30-039-22033

Pool Name: Blanco - MesaVerde (Prorated Gas)

Upper Zone Pool ID: 72319 Current: New: X
Allocation: Oil: 53.00% Gas: 80.0%

Top: 4,500 Bottom: 5,635

**Pool Name: Basin Mancos** 

Intermediate Zone Pool ID: 97232 Current: New: X
Allocation: Oil: 47.00% Gas: 20.0%

Top: 5,635 Bottom: 7,118

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

**Pool Name: Basin Dakota** 

Pool ID: 71599 Current: X New:

Allocation: Oil: 0.00% Gas: SUBT

Top: 7,209

Bottom: 7,389

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

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 326812

#### **CONDITIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	326812
	Action Type:
	[C-107] Down Hole Commingle (C-107A)

#### CONDITIONS

E		Condition	Condition Date
	llowe	None	3/13/2025