eceived by OCD: 2/9/2024 10:17:42	AM State of New Me	exico	D110 5050	Form C-103 of I
Office <u>District I</u> – (575) 393-6161	Energy, Minerals and Natu	ral Resources	DHC-5352	Revised July 18, 2013
1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> – (575) 748-1283	OH CONCERNATION	BHUGION	WELL API NO.	9-07051
811 S. First St., Artesia, NM 88210 District III – (505) 334-6178	OIL CONSERVATION 1220 South St. Fran		5. Indicate Type of I	
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 87		STATE	FEE
<u>District IV</u> – (505) 476-3460 1220 S. St. Francis Dr., Santa Fe, NM 87505	6. State Oil & Gas L Federal NI	ease No. MSF078640		
SUNDRY NOTI	7. Lease Name or Ur	nit Agreement Name		
(DO NOT USE THIS FORM FOR PROPODIFFERENT RESERVOIR. USE "APPLIC	San Juan	28-7 Unit		
PROPOSALS.)  1. Type of Well: Oil Well	8. Well Number 132			
2. Name of Operator	Gas Well  Other		9. OGRID Number	
Hilcorp Energy Company				2171
3. Address of Operator 382 Road 3100, Aztec, NI	M 87410		10. Pool name or Wi	ldcat Blanco Mesaverde
4. Well Location	7 07410		Dasin Mancos / 1	Bianco iviesaverue
	eet from the South line and 1550	) feet from the W	est line	
	Township 27N Range 07			o Arriba
	11. Elevation (Show whether DR,	, RKB, RT, GR, etc.		
	6647'	GL		
12 Charle	Appropriate Box to Indicate N	latura of Nation	Papart or Other De	to.
12. CHECK F	appropriate box to indicate in	ature of Notice,	Report of Other Da	ua
NOTICE OF IN			SEQUENT REPO	
PERFORM REMEDIAL WORK	PLUG AND ABANDON   CHANGE PLANC	REMEDIAL WOR		TERING CASING
TEMPORARILY ABANDON DULL OR ALTER CASING	CHANGE PLANS ☐ MULTIPLE COMPL ☐	COMMENCE DR CASING/CEMEN		AND A
PULL OR ALTER CASING DOWNHOLE COMMINGLE	MOLTIPLE COMPL	CASING/CEIVIEN	1306	
CLOSED-LOOP SYSTEM				
	RECOMPLETE	OTHER:		
	leted operations. (Clearly state all pork). SEE RULE 19.15.7.14 NMAC ompletion.			
It is intended to recomplete the subject commingle the existing Basin Dakot Conservation Division Order Number will not reduce the value of the produce the value of the v	a (pool 71599) with the Mancos and re 11363. Allocation and methodology	d Mesaverde. The gogy will be provide	production will be come d after the well is comp	mingled per Oil leted. Commingling
-			-	
Proposed perforations are: MV 481	θ' – 5887'; MC 5887' – 7302'; DK	7418' - 7566'. <b>Th</b>	ese perforations are in	TVD.
As referred to in Order # R-13681 in	terest owners were not re-notified.			
				1
Spud Date:	Rig Release Da	ate:		
I hereby certify that the information	above is true and complete to the be	est of my knowledg	ge and belief.	
SIGNATURE Cherylene Wes	ston TITLE Opera	ations/Regulatory T	Cechnician Sr. DATE	E <u>02/08/2024</u>
	*	-		
Type or print name Cherylene W	eston E-mail address	:: cweston@hilcor	p.com PHONE:	713-289-2615
For State Use Only	***			
APPROVED BY: Dean	Mollure TITLE Petrol	leum Engineer	DATE	03/15/2024
Conditions of Approval (if any):		<u>_</u>		

#### CONDITIONS OF APPROVAL

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 Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator 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 Permit shall terminate on the date of such action.

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 the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.

If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.

The Operator 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, the Operator 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 the Operator fails to do so, this Permit shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Permit 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.

# San Juan 28-7 Unit 132 Allocation

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

These zones are proposed to be commingled because the application of dual completions impedes the ability to produce the shallow zone without artificial lift and the deeper zones with reduced artificial lift efficiency. All horizons will require artificial lift due to low bottomhole pressure (BHP) and permeability.

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

# **Production Allocation Method – Subtraction**

#### **Gas Allocation:**

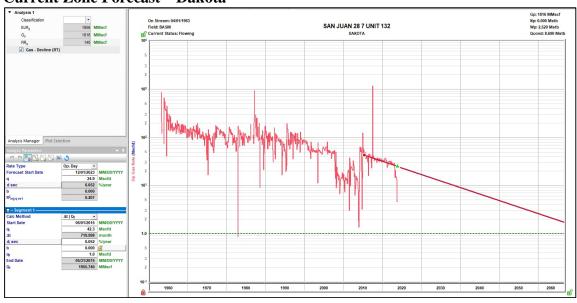
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Dakota and the added formations to be trimmingled are the Mancos and Mesaverde. The subtraction method applies an average monthly production forecast to the 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.

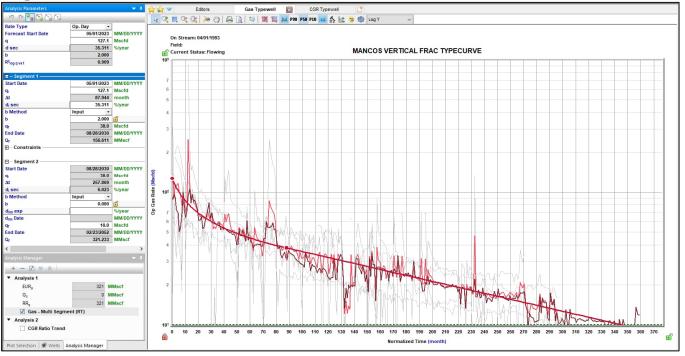
Formation	Formation Remaining Reserves (MMcf)	
Mancos	321	35%
Mesaverde	607	65%

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.

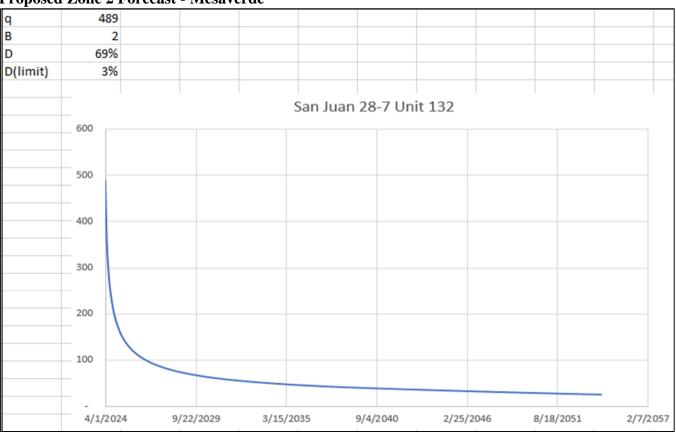
# Current Zone Forecast - Dakota



# **Proposed Zone 1 Forecast - Mancos**



# **Proposed Zone 2 Forecast - Mesaverde**



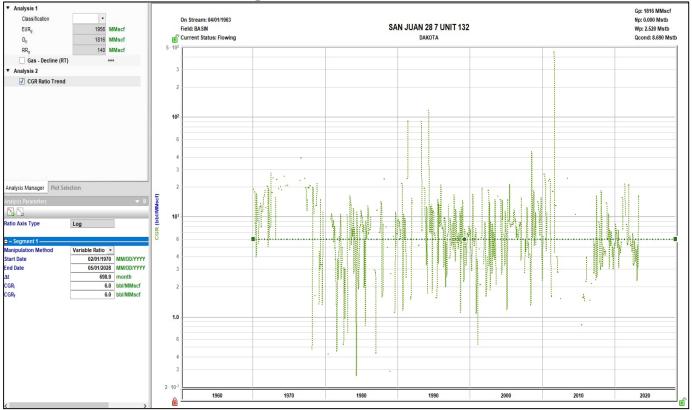
Average initial production curve in geologic region.

# 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 needd based on average formation yields and new fixed gas allocation.

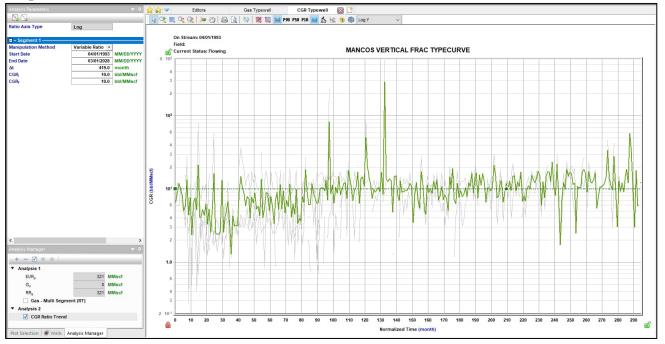
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
DK	6.00	140	16%
MC	10.00	321	63%
MV	1.73	607	21%





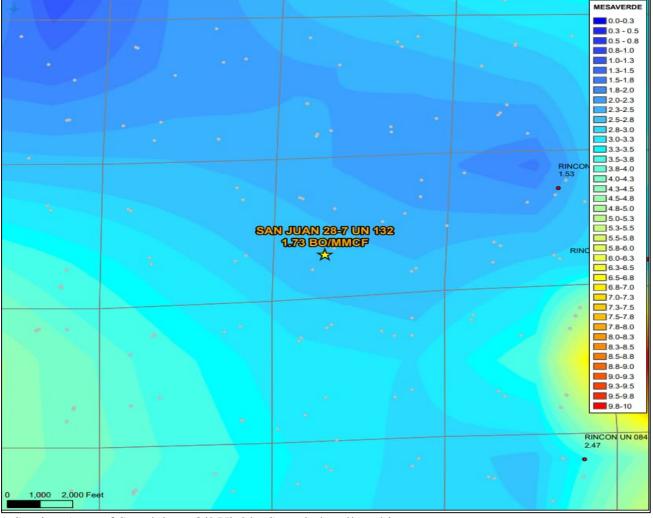
9-Section Area of Standalone Oil Yields. Sampled well to this map.

# 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.

District I

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

<u>District II</u> 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 358213

# WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name								
30-039-07051	72319	BLANCO-MESAVERDE (PRORATED GAS)								
4. Property Code	5. Property Name	6. Well No.								
318432	SAN JUAN 28 7 UNIT	132								
7. OGRID No.	8. Operator Name	9. Elevation								
372171	HILCORP ENERGY COMPANY	6647								

#### 10. Surface Location

	UL - Lot	Section		Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
-	K		15	27N	07W		1650	S	1550	W	RIO
-											ARRIBA

#### 11. Bottom Hole Location If Different From Surface

U	L - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12	12. Dedicated Acres 320.00		13. Joint or Infill		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 Weston

Title: Operations/Regulatory Tech-Sr.

Date: 1/5/2024

# **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: Russell H. McNeace

Date of Survey: 10/15/1962

Certificate Number:

District I

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

<u>District II</u> 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 358213

# WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name							
30-039-07051	97232	BASIN MANCOS							
4. Property Code	5. Property Name	6. Well No.							
318432	SAN JUAN 28 7 UNIT	132							
7. OGRID No.	8. Operator Name	9. Elevation							
372171	HILCORP ENERGY COMPANY	6647							

#### 10. Surface Location

	UL - Lot	Т	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
-	k		15	27N	07W		1650	S	1550	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 Acres 320.00				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 Weston

Title: Operations/Regulatory Tech-Sr.

Date: 1/5/2024

# **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: Russell H. McNeace

Date of Survey: 10/15/1962

Certificate Number:

Forn: C-128 (6-57)

#### NEW MEXICO OIL CONSERVATION COMMISSION

Well Location and Acreage Dedication Plat

IPM inc
tion

Section B.

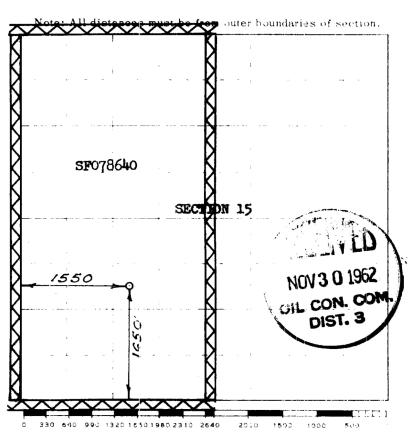
This is to certify that the information in Section A above is true and complete to the best of my knowledge and belief.

# ORIGINAL SIGNED H.E. McANALLY (Representative)

Box 990

(Address)

Farmington, New Mexico



Scale 4 inches equal 1 mile

This is to certify that the above plat was prepared from field notes of acreas surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.

(Seal)

Farmington, New Mexico

Date Surveyed OCTOBER 15, 1962

Registered Professional Engineer and for Land Surveyor

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 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 313041

# **CONDITIONS**

Operator:	OGRID:
HILCORP ENERGY COMPANY	372171
1111 Travis Street	Action Number:
Houston, TX 77002	313041
	Action Type:
	[C-107] Down Hole Commingle (C-107A)

#### CONDITIONS

Created By	Condition	Condition Date
dmcclure	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 Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator 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 Permit shall terminate on the date of such action.	3/15/2024
dmcclure	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 the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.	3/15/2024
dmcclure	If a completed interval of the Well is altered from what is submitted within this application, then no later than sixty (60) days after the alteration, the Operator shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.	3/15/2024
dmcclure	The Operator 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, the Operator 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 the Operator fails to do so, this Permit shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Permit shall terminate on the date of such action. If OCD approves the percentage allocation plan with or without modifications, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.	3/15/2024