

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

**APPLICATION FOR DOWNHOLE COMMINGLING  
SUBMITTED BY HILCORP OPERATING COMPANY**

**ORDER NO. DHC-5489**

**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 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. 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.
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.

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. zero percent (0.0%) shall be allocated to the Basin Fruitland Coal pool (pool ID: 71629); and
  - b. one hundred percent (100%) 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.

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:** 5/7/2025

State of New Mexico  
Energy, Minerals and Natural Resources Department

Exhibit A

Order: DHC - 5489			
Operator: Hilcorp Operating Company			
Well Name: Howell A Well No. 1			
Well API: 30-045-13298			
Upper Zone	Pool Name: Basin Fruitland Coal		
	Pool ID: 71629	Current:	New: X
	Allocation: Subtraction	Oil: 0.0%	Gas: SUBT
		Top: 2,820	Bottom: 3,168
Intermediate Zone	Pool Name:		
	Pool ID:	Current:	New:
	Allocation:	Oil:	Gas:
		Top:	Bottom:
Bottom of Interval within 150% of Upper Zone's Top of Interval:			
Lower Zone	Pool Name: Blanco-Mesaverde		
	Pool ID: 72319	Current: X	New:
	Allocation: Subtraction	Oil: 100.0%	Gas: SUBT
		Top: 4,890	Bottom: 5,550
Bottom of Interval within 150% of Upper Zone's Top of Interval: NO			
Top of Queen Formation:			

Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Applicant:** Hilcorp Energy Company **OGRID Number:** 372171  
**Well Name:** Howell A 1 **API:** 30-045-13298  
**Pool:** Basin Fruitland Coal **Pool Code:** 71629

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]  
 A. Location – Spacing Unit – Simultaneous Dedication  
☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
- B. Check one only for [ I ] or [ II ]  
 [ I ] Commingling – Storage – Measurement  
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM  
 [ II ] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR
- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.  
 A. ☐ Offset operators or lease holders  
 B. ☐ Royalty, overriding royalty owners, revenue owners  
 C. ☐ Application requires published notice  
 D. ☐ Notification and/or concurrent approval by SLO  
 E. ☒ Notification and/or concurrent approval by BLM  
 F. ☐ Surface owner  
 G. ☐ For all of the above, proof of notification or publication is attached, and/or,  
 H. ☒ No notice required

**FOR OCD ONLY**

- ☐ Notice Complete  
☐ Application Content Complete

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

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

Amanda Walker

Print or Type Name

Signature

1/7/2025

Date

346-237-2177

Phone Number

mwalker@hilcorp.com

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  
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company

382 Road 3100, Aztec, NM 87410

OperatorAddress

Howell A

1

G, Sec. 08, T30N, R08W

San Juan

LeaseWell No.Unit Letter-Section-Township-RangeCounty

OGRID No. 372171Property Code 318562API No. 30-045-13298Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal		Blanco Mesaverde
Pool Code	71629		72319
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Est 2820' – 3168'		4890' - 5550'
Method of Production (Flowing or Artificial Lift)	Artificial Lift		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)	35 psi		43 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	914 BTU		1172 BTU
Producing, Shut-In or 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: Rates: Oil: Gas: Water:	Date: Rates: Oil: Gas: Water:	Date: 10/1/2024 Rates: Oil: 0 bbl Gas: 2400 mcf Water: 0 bbl
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	OilGas % %	OilGas % %	OilGas % %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes ☒ No ☐  
Yes ☐ No ☒ N/A

Are all produced fluids from all commingled zones compatible with each other?

Yes ☒ No ☐

Will commingling decrease the value of production?

Yes ☐ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application?

Yes ☒ No ☐

NMOCD Reference Case No. applicable to this well:

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 

TITLE Operations/Regulatory Technician Sr. DATE 1/7/2025

TYPE OR PRINT NAME Amanda Walker

TELEPHONE NO. (346)237-2177

E-MAIL ADDRESS [mwalker@hilcorp.com](mailto:mwalker@hilcorp.com)



COMPANY EL PASO NATURAL GAS COMPANY

Well Name & No. HOWELL # 4-K Lease No. SF-078-578

Location 1600' FROM THE NORTH LINE AND 940' FROM THE EAST LINE.

Being in NW SE NE

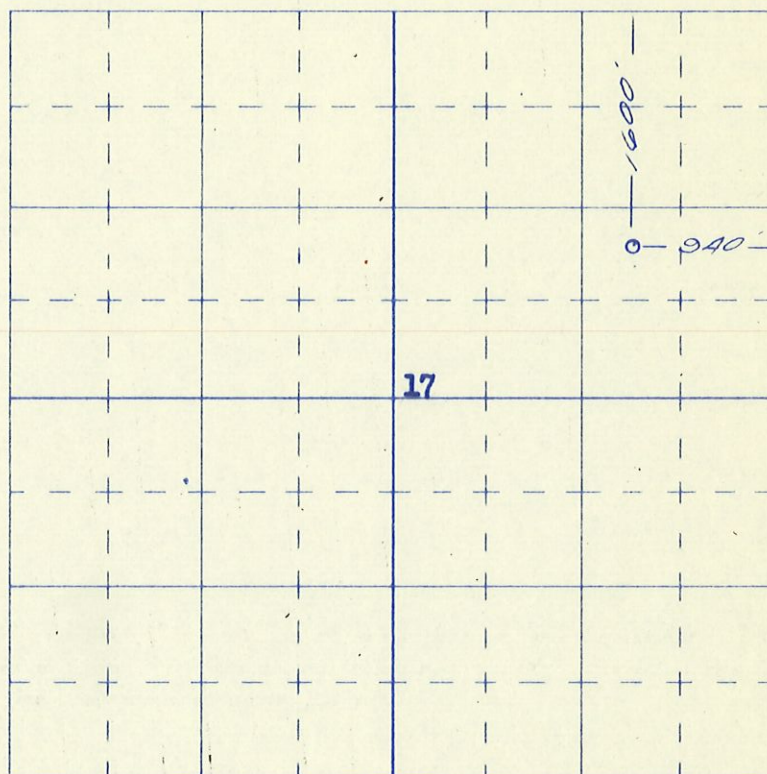
Sec. 17, T 30 N., R 8 W., N.M.P.M., SAN JUAN COUNTY, NEW MEXICO

Ground Elevation 5857.0 UNGRADED

RECEIVED

AUG 25 1955

U. S. GEOLOGICAL SURVEY  
FARMINGTON, NEW MEXICO



Scale -- 4 inches equals 1 mile

Surveyed 24 JUNE, 19 55

This is to certify that the above plat was prepared from field notes of actual 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



*James P. Leese*  
JAMES P. LEESE  
REGISTERED LAND SURVEYOR  
N. MEX. REG. NO. 1463

320 ACRES, N/2 SECTION (PLAT)

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:

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

List of wells used to calculate BHPs for the Project:

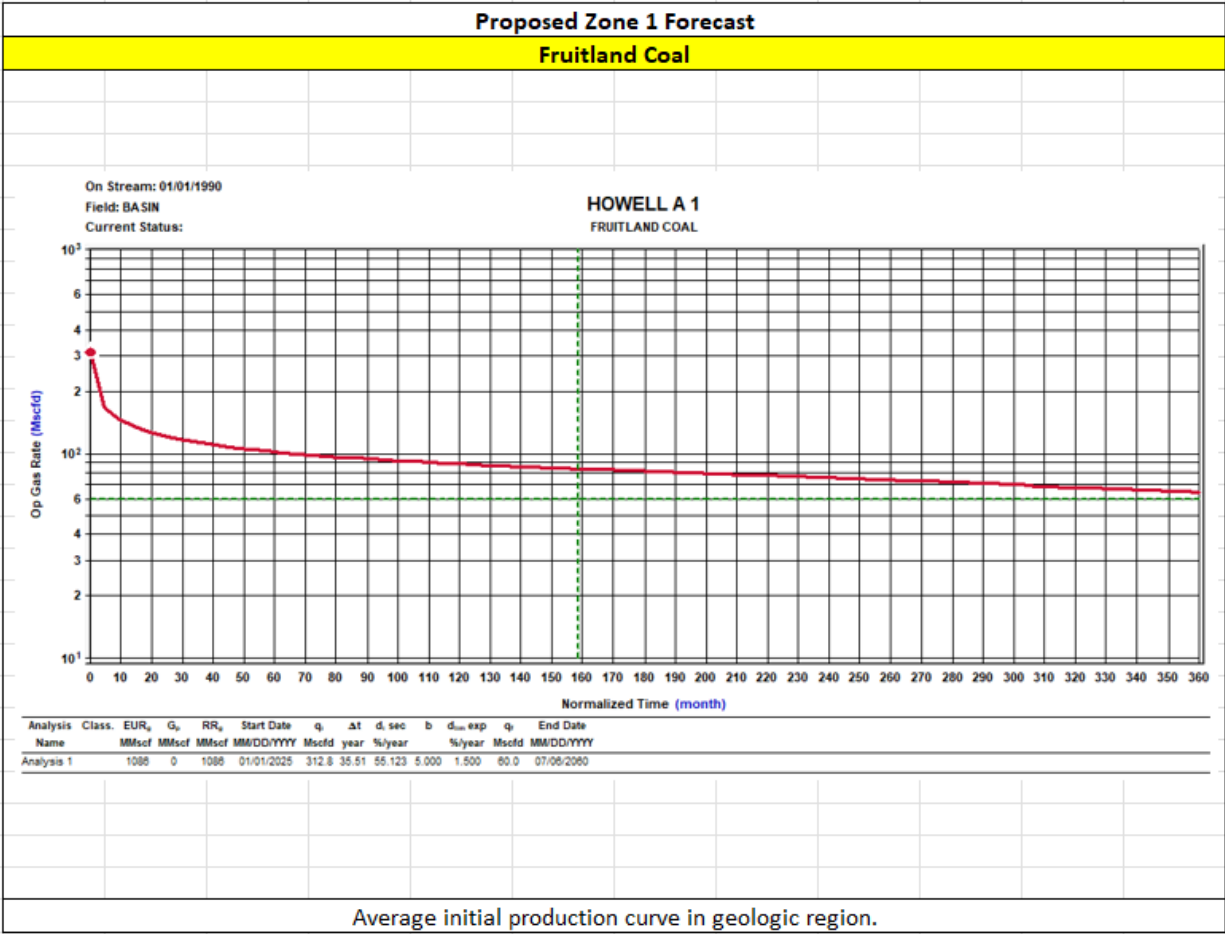
3004527071	DELHI COM 300	FRC
3004521963	DELHI COM 1A	MV

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

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.

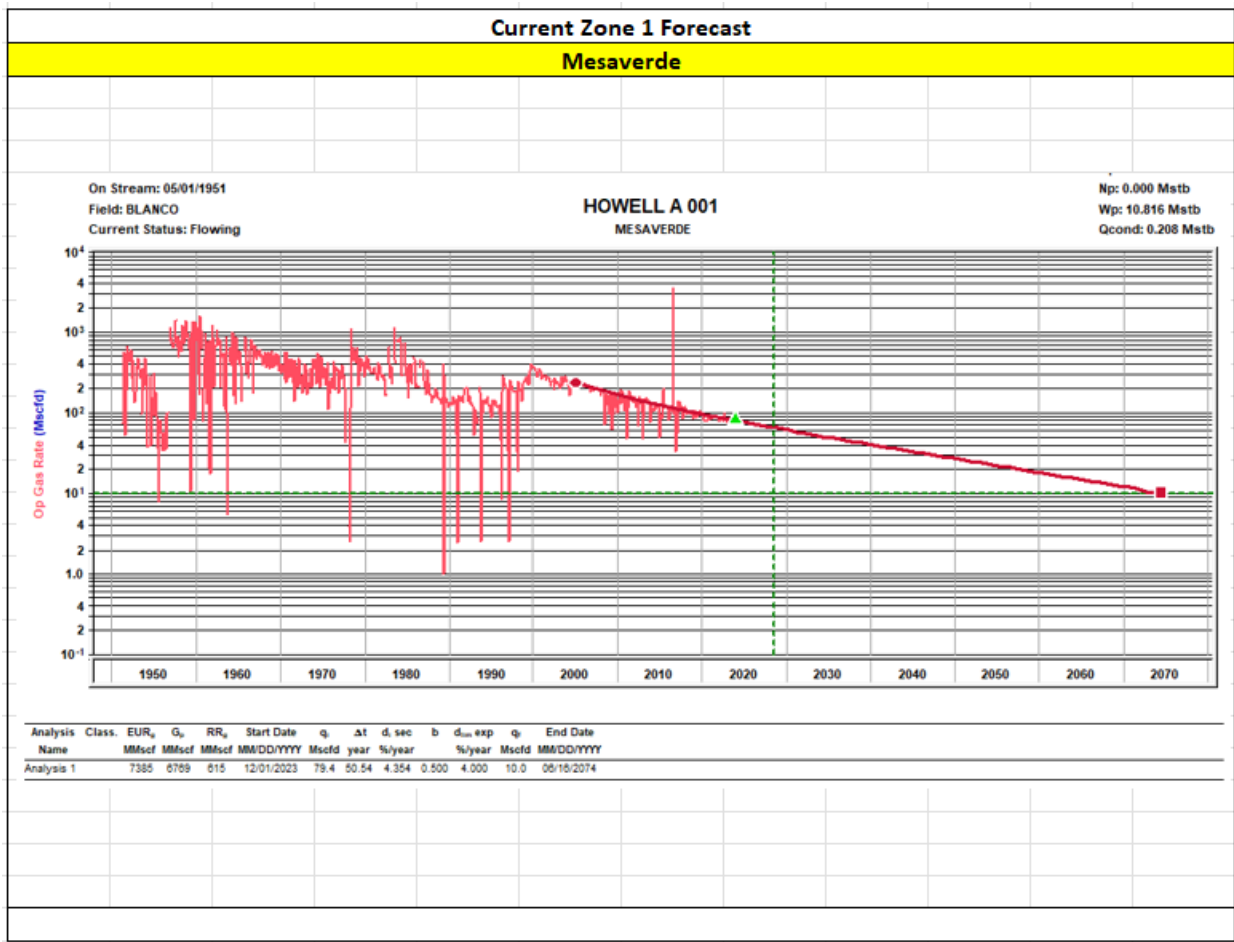
The BHPs of all zones, producing and non-producing, were estimated based upon basinwide Moving-Domain Material Balance models that have proven to approximate the pressure in the given reservoirs well in this portion of the basin. These models were constructed incorporating reservoir dynamics and physics, 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 forecast will be allocated to the new formation.

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.



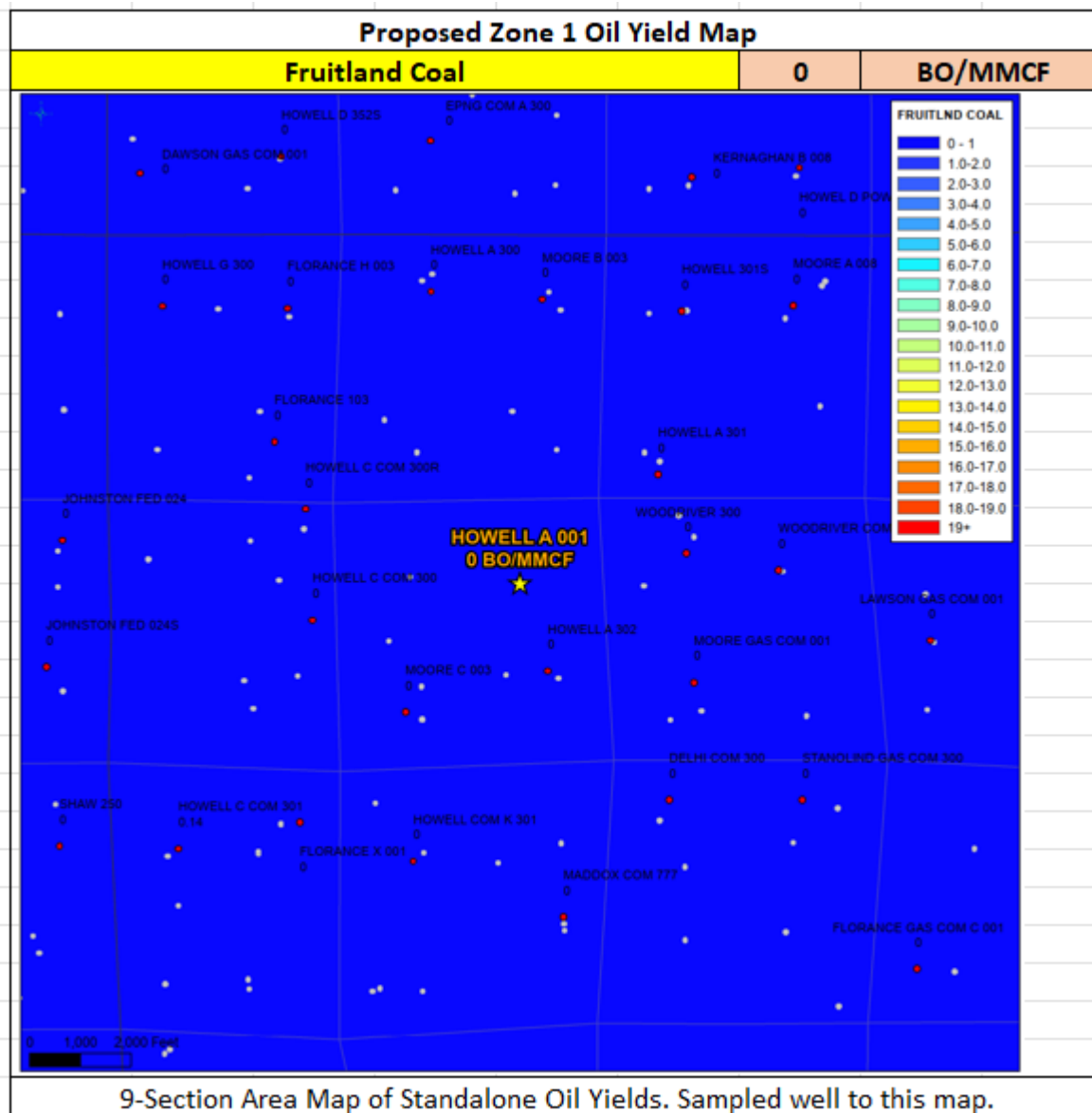
### Oil Allocation:

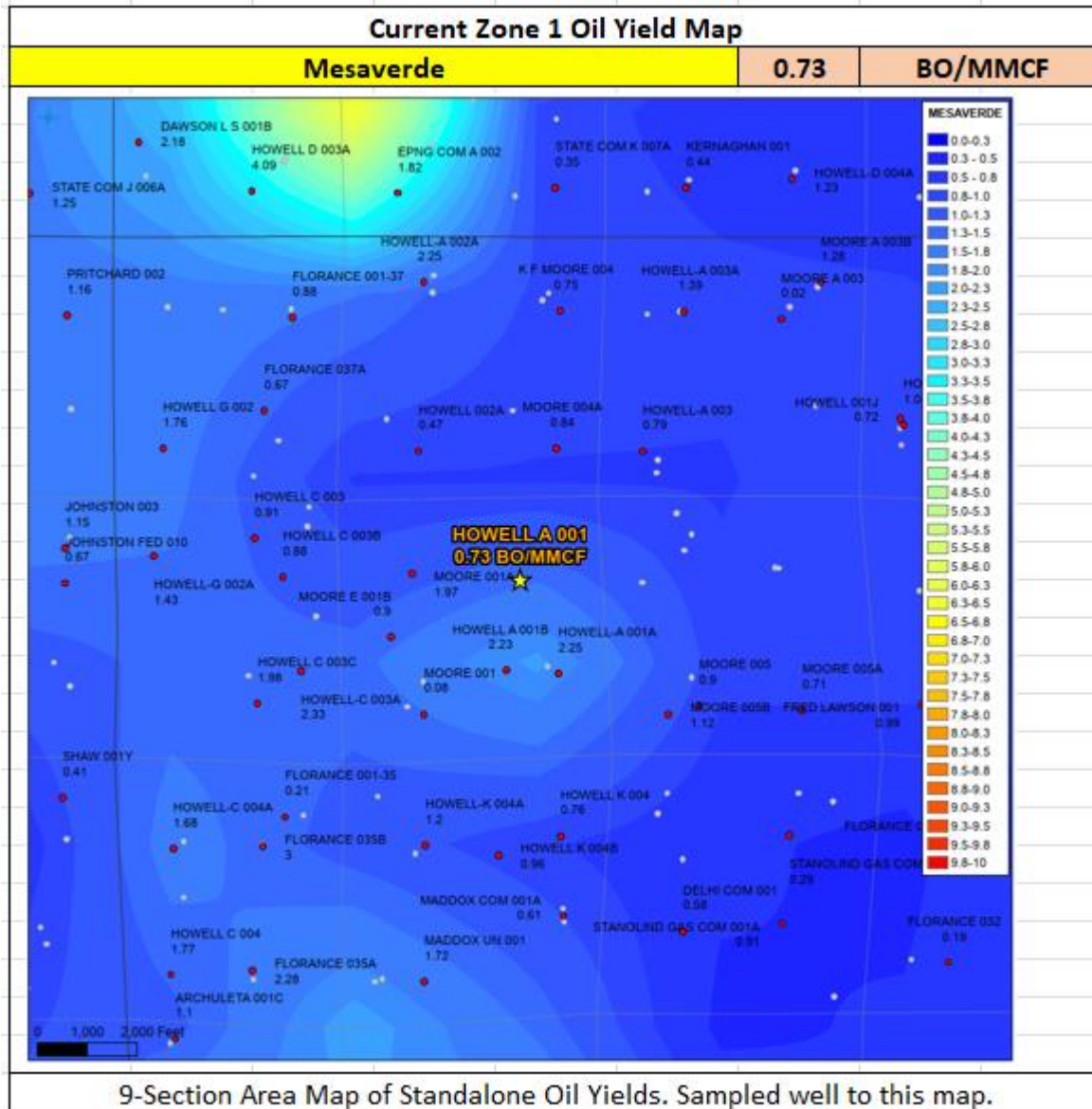
Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years.

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	0.73	615	100%
FRC	0	1086	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 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.

Well Name	HOWELL A 1
API	3004513298

FRC Offset (0.65 Miles)		MV Offset (0.35 Miles)	
API	3004526930	API	3004534737
Property	HOWELL A 301	Property	HOWELL A 1B
CationBarium	11.6	CationBarium	0
CationBoron	4.28	CationBoron	
CationCalcium	21.69	CationCalcium	1.7
CationIron	450.56	CationIron	10.1
CationMagnesium	6.91	CationMagnesium	0.85
CationManganese	6.69	CationManganese	0.1
CationPhosphorus	0.6	CationPhosphorus	
CationPotassium	24.74	CationPotassium	
CationStrontium	6.09	CationStrontium	0
CationSodium	2126.37	CationSodium	2033.9
CationSilica	36.01	CationSilica	
CationZinc	0.12	CationZinc	
CationAluminum	0	CationAluminum	
CationCopper	0	CationCopper	
CationLead	0	CationLead	
CationLithium		CationLithium	
CationNickel		CationNickel	
CationCobalt		CationCobalt	
CationChromium		CationChromium	
CationSilicon	16.83	CationSilicon	
CationMolybdenum		CationMolybdenum	
AnionChloride	1694	AnionChloride	2900
AnionCarbonate		AnionCarbonate	0
AnionBicarbonate	3160	AnionBicarbonate	414.8
AnionBromide		AnionBromide	
AnionFluoride		AnionFluoride	
AnionHydroxyl		AnionHydroxyl	
AnionNitrate		AnionNitrate	
AnionPhosphate	0.6	AnionPhosphate	115
AnionSulfate	4.51	AnionSulfate	20
phField	8	phField	8.06
phCalculated		phCalculated	5.82
TempField	-999	TempField	
TempLab		TempLab	
OtherFieldAlkalinity	98.06	OtherFieldAlkalinity	2395.12
OtherSpecificGravity	1.01	OtherSpecificGravity	1.01
OtherTDS	7549.27	OtherTDS	5134
OtherCaCO3		OtherCaCO3	3599.96
OtherConductivity		OtherConductivity	
DissolvedCO2	0	DissolvedCO2	310
DissolvedO2	0	DissolvedO2	
DissolvedH2S	0	DissolvedH2S	2
GasPressure		GasPressure	
GasCO2		GasCO2	8
GasCO2PP		GasCO2PP	
GasH2S		GasH2S	0
GasH2SPP		GasH2SPP	
PitzerCaCO3_70	1.04	PitzerCaCO3_70	
PitzerBaSO4_70	0.54	PitzerBaSO4_70	
PitzerCaSO4_70	-2.9	PitzerCaSO4_70	
PitzerSrSO4_70	-4.23	PitzerSrSO4_70	
PitzerFeCO3_70	4.34	PitzerFeCO3_70	
PitzerCaCO3_220	1.18	PitzerCaCO3_220	
PitzerBaSO4_220	0.2	PitzerBaSO4_220	
PitzerCaSO4_220	-2.9	PitzerCaSO4_220	
PitzerSrSO4_220	-4.08	PitzerSrSO4_220	
PitzerFeCO3_220	4.63	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 variability by formation is low.

Well Name	HOWELL A 1
API	3004513298

FRC Offset (0.65 Miles)		MV Offset (0.35 Miles)	
AssetCode	3004526930	AssetCode	3004534737
AssetName	HOWELL A 301	AssetName	HOWELL A 1B
CO2	0.18	CO2	0.01
N2	0	N2	0
C1	0.77	C1	0.84
C2	0.03	C2	0.08
C3	0.01	C3	0.03
ISOC4	0	ISOC4	0.01
NC4	0	NC4	0.01
ISOC5	0	ISOC5	0
NC5	0	NC5	0
NEOC5		NEOC5	
C6	0	C6	
C6_PLUS		C6_PLUS	0.01
C7		C7	
C8		C8	
C9		C9	
C10		C10	
AR		AR	
CO		CO	
H2		H2	
O2		O2	
H2O		H2O	
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		CO2GPM	0
N2GPM		N2GPM	0
C1GPM		C1GPM	0
C2GPM		C2GPM	2.1
C3GPM		C3GPM	0.93
ISOC4GPM		ISOC4GPM	0.21
NC4GPM		NC4GPM	0.3
ISOC5GPM		ISOC5GPM	0.13
NC5GPM		NC5GPM	0.1
C6_PLUSGPM		C6_PLUSGPM	0.31

Well Name: HOWELL A	Well Location: T30N / R8W / SEC 8 / SWNE / 36.82809 / -107.69469	County or Parish/State: SAN JUAN / NM
Well Number: 1	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078580	Unit or CA Name:	Unit or CA Number:
US Well Number: 3004513298	Operator: HILCORP ENERGY COMPANY	

Notice of Intent

Sundry ID: 2790403

Type of Submission: Notice of Intent	Type of Action: Recompletion
Date Sundry Submitted: 05/15/2024	Time Sundry Submitted: 05:22
Date proposed operation will begin: 07/01/2024	

**Procedure Description:** Hilcorp Energy Company requests to REVISE the previously approved recomplete NOI to adjust the perforations. Please see the attached revised 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

Howell\_A\_1\_REVISIED\_RC\_NOI\_20240515052220.pdf

Well Number: 1

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF078580

Unit or CA Name:

Unit or CA Number:

US Well Number: 3004513298

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: AMANDA WALKER

Signed on: MAY 15, 2024 05:22 AM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Technician

Street Address: 1111 TRAVIS ST

City: HOUSTON

State: TX

Phone: (346) 237-2177

Email address: MWALKER@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: 05/15/2024

Signature: Matthew Kade



**HILCORP ENERGY COMPANY**  
**HOWELL A 1**  
**FRUITLAND COAL RECOMPLETION SUNDRY**

<b>Prepared by:</b>	Scott Anderson
<b>Preparation Date:</b>	May 14, 2024

WELL INFORMATION			
<b>Well Name:</b>	HOWELL A 1	<b>State:</b>	NM
<b>API #:</b>	3004513298	<b>County:</b>	SAN JUAN
<b>Area:</b>	4	<b>Location:</b>	1650' FNL & 1650' FEL - Unit G - Section 8 - T 030N - R 008W
<b>Route:</b>	0407	<b>Latitude:</b>	36.82809 N
<b>Spud Date:</b>	3/1/1951	<b>Longitude:</b>	-107.69469 W

PROJECT DESCRIPTION	
Isolate the Mesaverde, perforate and stimulate the Fruitland Coal in 1-2 stages via a frac string. Commingle the Fruitland Coal production with the existing Mesa Verde production. Strip facilities if necessary; repair production eqmt as needed, upgrade automation	

CONTACTS			
Title	Name	Office Phone #	Cell Phone #
Engineer	Scott Anderson		248-761-3965
Area Foreman	Colter Faverino		326-9758
Lead	Ramon Florez		599-3479
Artificial Lift Tech	Jesse McDowell		386-8062
Operator	Michael Archuleta		716-0118



**HILCORP ENERGY COMPANY**  
**HOWELL A 1**  
**FRUITLAND COAL RECOMPLETION SUNDRY**

**JOB PROCEDURES**

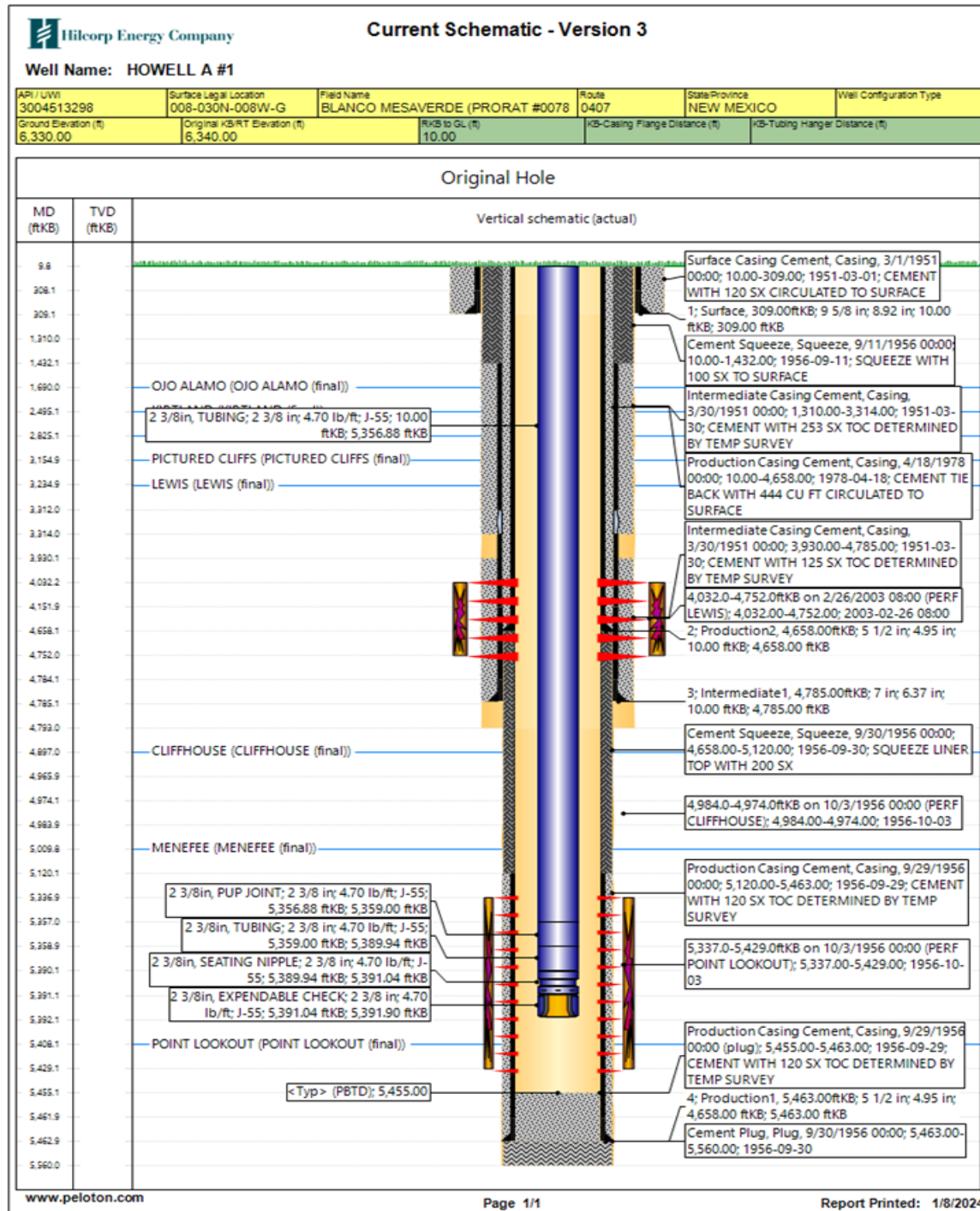
- |                                                                            |                            |                                                                                                                                                                                                          |
|----------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/><br><input checked="" type="checkbox"/> | <b>NMOCD</b><br><b>BLM</b> | <b>Contact OCD 24 hrs prior to MIRU. Record and document all casing pressures daily, including BH, IC (if present) and PC. Comply with all NMOCD, BLM, and HEC safety and environmental regulations.</b> |
|----------------------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
1. MIRU service rig and associated equipment. Pull insert pump and rods
  2. Nipple down wellhead, nipple up and test BOPs per HEC, State, and Federal guidelines.
  3. TOOH with 2-3/8" tubing
  4. Set a **5-1/2" bridge plug @ 3,982'** to isolate the Mesa Verde formation.
  5. Load wellbore with fluid. RU wireline and run a CBL from the BP at 3,982' to surface
  6. RU pressure test truck. Perform a Mechanical Integrity Test on the wellbore above the plug at 3,982'. Chart record the MIT test (Notify BLM and NMOCD +24hr before actual test).
  7. Set a **5-1/2" Base of Frac plug ~50' below the bottom perforation**
  8. RU E-line crew. Perforate the Fruitland Coal. (**Top perforation @ 2,820', Bottom perforation @ 3,168'**).  
 NOTE: perforation interval subject to change based on the results of the CBL run above. All changes will be communicated to the Regulatory Agencies prior to perforating.
  9. Hydrotest frac string to frac pressure. RIH w/ 2-7/8" frac string and packer, **land packer ~50' above the top perf.**
  10. N/D BOP, N/U 10K frac tree and test frac stack to frac pressure.
  11. RU stimulation crew. **Frac the Fruitland Coal in one or two stages.**
  12. Bleed off pressure. Kill well with water, if necessary
  13. MIRU service rig. Nipple down frac stack, nipple up BOP and test.
  14. POOH w/ frac string and packer
  15. Drill out the Base of Frac and Mesaverde Isolation plug. **Clean out to PBTD at 5,455'**
  16. TIH and land 2-3/8" production tubing.
  17. **Flowback well thru flowback separator and sand trap.** Get a commingled Fruitland Coal / Mesa Verde flow rate.





**HILCORP ENERGY COMPANY**  
**HOWELL A 1**  
**FRUITLAND COAL RECOMPLETION SUNDRY**

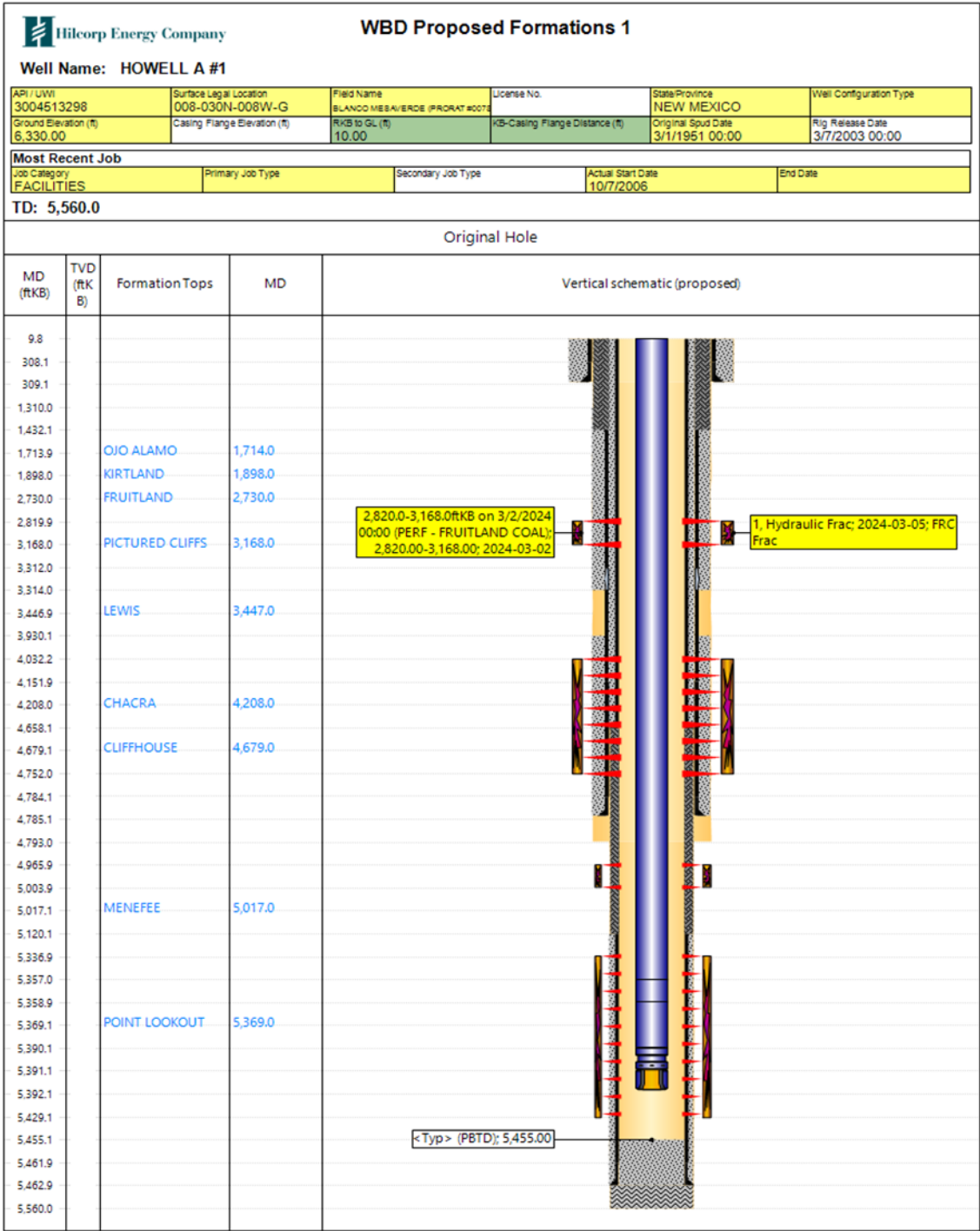
**HOWELL A 1 - CURRENT WELLBORE SCHEMATIC**





HILCORP ENERGY COMPANY  
HOWELL A 1  
FRUITLAND COAL RECOMPLETION SUNDRY

HOWELL A 1 - PROPOSED WELLBORE SCHEMATIC



**District I**

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**District III**

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**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 359791

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1. API Number 30-045-13298	2. Pool Code 71629	3. Pool Name BASIN FRUITLAND COAL (GAS)
4. Property Code 318562	5. Property Name HOWELL A	6. Well No. 001
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6330

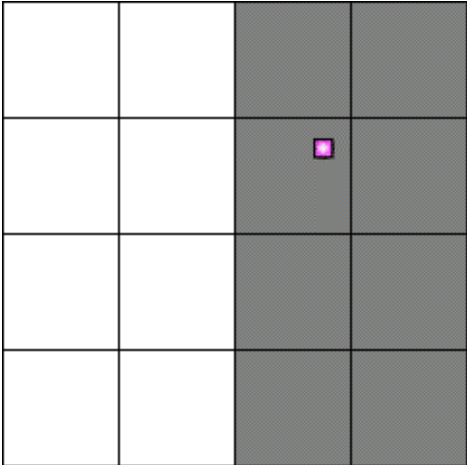
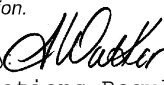
**10. Surface Location**

UL - Lot G	Section 8	Township 30N	Range 08W	Lot Idn	Feet From 1650	N/S Line N	Feet From 1650	E/W Line E	County SAN JUAN
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**11. Bottom Hole Location If Different From Surface**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
12. Dedicated Acres 320.00	13. Joint or Infill			14. Consolidation Code			15. Order No.		

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

	<p style="text-align: center;"><b>OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: </p> <p>Title: Operations Regulatory Tech Sr.</p> <p>Date: 2/15/2024</p> <hr/> <p style="text-align: center;"><b>SURVEYOR CERTIFICATION</b></p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: James Leese</p> <p>Date of Survey: 6/24/1955</p> <p>Certificate Number: 1463</p>
-----------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Submit Electronically  
Via E-permitting

## 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:** 02/15/2024

**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
Howell A 1	30-045-13298	G-08-30N-08W	1650 FNL & 1650 FEL	0	200	1

**IV. Central Delivery Point Name:** Chaco Blanco Processing Plant [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
<u>Howell A 1</u>	<u>30-045-13298</u>					

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

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

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

#### **IX. Anticipated Natural Gas Production:**

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

#### **X. Natural Gas Gathering System (NGGS):**

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

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

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

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

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

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



### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**


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

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Amanda Walker
Title: Operation Regulatory Tech Sr.
E-mail Address: <a href="mailto:mwalker@hilcorp.com">mwalker@hilcorp.com</a>
Date: 2/15/2024
Phone: 346-237-2177
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
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 recomple project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recomple 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 recomple 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
  - o Measurement equipment is installed to measure the volume of natural gas flared from process piping.
  - o When measurement isn't practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

1. Operator has adequate storage and takeaway capacity for wells it chooses to recomplete as the flowlines at the sites are already in place and tied into a gathering system.
2. Operator will flare rather than vent vessel blowdown gas when technically feasible during active and/or planned maintenance to equipment on-site.
3. Operator combusts natural gas that would otherwise be vented or flared, when technically feasible.
4. Operator will shut in wells in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

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

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Phone:(575) 748-1283 Fax:(575) 748-9720

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Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico

Energy, Minerals and Natural Resources

Oil Conservation Division

1220 S. St Francis Dr.

Santa Fe, NM 87505

CONDITIONS

Action 344687

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 344687
	Action Type: [C-103] NOI Recompletion (C-103E)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Notify NMOCD 24 Hours Prior to beginning operations.	5/20/2024
dmcclure	DHC required	5/20/2024
dmcclure	All conducted logs shall be submitted to the Division as a [UF-WL] EP Well Log Submission (WellLog).	5/20/2024
dmcclure	The appropriate compliance officer supervisor shall be consulted and remedial action conducted as directed if the cement sheath around the casing is not adequate to protect the casing and isolate strata from: (a) the uppermost perforation in each added pool to at least 150 feet above that perforation; and (b) the lowermost perforation in each added pool to at least 100 feet below that perforation.	5/20/2024





November 18, 2024

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

Re: Application for Downhole Commingling  
Well: HOWELL A #001  
API: 3004513298  
T30N - R8W - Section 8, Unit Letter: G  
San Juan County, NM

Ladies and Gentlemen:

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

- All working, royalty and overriding royalty interests are identical between the **Blanco Mesaverde (72319)** and **Basin Fruitland Coal (71629)** as such relates to the prescribed spacing unit(s) being the **E/320** and **E/320**, respectively.

Pursuant to Subsection C.(1)(c) of 19.15.12.11, if the spacing unit(s) contains state, federal or tribal lands, Hilcorp will have provided notice via mail or sundry to the State Land Office and/or BLM as of the date of this letter.

If you have any questions or concerns regarding this matter, please do not hesitate to contact me at the email or number provided below.

Regards,

Hilcorp Energy Company

A handwritten signature in blue ink, appearing to read 'R. Carlson'.

Robert T. Carlson  
Sr. Landman  
(832) 839-4596  
[rcarlson@hilcorp.com](mailto:rcarlson@hilcorp.com)

1111 Travis Street Houston, TX 77002  
Phone: (713) 209-2400 Fax: (713) 209-2420

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 417777

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 417777
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
llowe	None	5/6/2025