

**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-5530

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. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools, provided evidence a copy of the Application was given to each person, and those persons either submitted a written waiver or did not file an objection to the Application.
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. To the extent that ownership is diverse, Applicant identified all owners of interest in the Pools and provided evidence the application was given to those persons in accordance with 19.15.12.11(C)(1)(b) 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-1097.
3. Applicant shall allocate oil and gas production to the new pool(s) equal to the total oil and gas production from the Well minus the projected oil and gas production from the current pool(s) as described in Exhibit A until a different plan to allocate oil and gas production is approved by OCD.

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.

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);
- b. ninety nine percent (99%) shall be allocated to the Blanco Mesaverde pool (pool ID: 72319); and
- c. one percent (1.0%) shall be allocated to the Basin Dakota pool (pool ID: 71599).

Applicant shall allocate gas production to the new pool(s) equal to the total gas production from the Well minus the projected gas production from the current pool(s) until a different plan to allocate gas production is approved by OCD. The new pool(s) are:

- a. the Basin Fruitland Coal pool (pool ID: 71629);

The current pool(s) are:

- a. the Blanco Mesaverde pool (pool ID: 72319); and
- b. the Basin Dakota pool (pool ID: 71599).

Until a different plan to allocate gas production is approved by OCD, of the projected gas production allocated to the current pools:

- a. sixty two percent (62%) shall be allocated to the Blanco Mesaverde pool (pool ID: 72319); and
- b. thirty eight percent (38%) shall be allocated to the Basin Dakota pool (pool ID: 71599).

Applicant shall calculate the oil and gas production average during the fourth year after the commencement of commingling, which shall be used to establish a fixed percentage of the total oil and gas production that shall be allocated to each of the Pools ("fixed percentage allocation plan"). No later than ninety (90) days after the fourth year, Applicant shall submit a Form C-103 to the OCD Engineering Bureau that includes the fixed percentage allocation plan and all data used to determine it. If Applicant fails to do so, this Order shall terminate on the following day. If OCD denies the fixed percentage allocation plan, this Order shall terminate on the date of such action. If OCD approves the percentage allocation plan with or without modifications, then the approved percentage allocation plan shall be used to determine oil and gas allocation starting on the date of such action until the Well is plugged and abandoned.

4. If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Order to become inaccurate, then no later than sixty (60) days after that event, Applicant shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Order shall terminate on the date of such action.
5. If any of the pools being commingled is prorated, or the Well's production has been restricted by an OCD order in any manner, the allocated production from each producing pool in the commingled well bore shall not exceed the top oil or gas allowable rate for a well in that pool or rate restriction applicable to the well.
6. If the Well is deepened, then no later than forty-five (45) days after the Well is deepened, Applicant shall conduct and provide logs to OCD that are sufficient for OCD to determine which pool(s) each new completed interval of the Well will produce from.
7. If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred Applicant shall submit a new downhole commingling application to OCD to amend this Order to remove the pool that caused the decrease in value. If Applicant fails to submit a new application, this Order shall terminate on the following day, and if OCD denies the application, this Order shall terminate on the date of such action.

8. If a completed interval of the Well is altered from what is submitted within the Application as identified in Exhibit A, then no later than sixty (60) days after the alteration, Applicant shall submit Form C-103 to the OCD Engineering Bureau detailing the alteration and completed interval.
9. If OCD determines that Applicant has failed to comply with any provision of this Order, OCD may take any action authorized by the Oil and Gas Act or the New Mexico Administrative Code (NMAC).
10. OCD retains jurisdiction of this matter and reserves the right to modify or revoke this Order as it deems necessary.

**STATE OF NEW MEXICO
OIL CONSERVATION DIVISION**



**ALBERT CHANG
DIVISION DIRECTOR**

DATE: 9/20/2025

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

Order: DHC-5530				
Operator: Hilcorp Energy Company				
Well Name: Barnes LS Well No. 8N				
Well API: 30-045-31254				
Upper Zone	Pool Name: Basin Fruitland Coal			
	Pool ID: 71629	Current:		New: X
	Allocation: Subtraction	Oil: 0.0%		Gas: SUBT
		Top: 2,723	Bottom: 3,058	
Intermediate Zone	Pool Name: Blanco Mesaverde			
	Pool ID: 72319	Current: X		New:
	Allocation: Fixed Percent	Oil: 99.0%		Gas: 62.0%
		Top: 4,798	Bottom: 5,592	
Bottom of Interval within 150% of Upper Zone's Top of Interval:				NO
Lower Zone	Pool Name: Basin Dakota			
	Pool ID: 71599	Current: X		New:
	Allocation: Fixed Percent	Oil: 1.0%		Gas: 38.0%
		Top: 7,621	Bottom: 7,810	
Bottom of Interval within 150% of Upper Zone's Top of Interval:				NO
Top of Queen Formation:				

Revised March 23, 2017

ID NO. 424566

DHC - 5530

RECEIVED: 01/24/25	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: Barnes LS 8N **API:** 30-045-31254
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

10/1/2024

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

Operator

Address

Barnes LS

8N

P Sec 26, T32N, R11W

San Juan

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 372171Property Code 328148API No. 30-045-31254Lease Type: XFederalStateFee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal	Blanco Mesaverde	Basin Dakota
Pool Code	71629	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Est 2723' – 3058'	4798' – 5592'	7621' – 7810'
Method of Production (Flowing or Artificial Lift)	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)	71 psi	115 psi	145 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	946 BTU	1211 BTU	1087 BTU
Producing, Shut-In or New Zone	New Zone	Producing	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: 7/1/2024 Rates: Oil: 0 bbl Gas: 1804 mcf Water: 0 bbl	Date: 7/1/2024 Rates: Oil: 1 bbl Gas: 1106 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?

Yes No X

If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes X No

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

Yes X No

Will commingling decrease the value of production?

Yes No X

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

Yes X No

NMOCD Reference Case No. applicable to this well:

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

Amanda Walker

TITLE

Operations/Regulatory Technician Sr.

DATE

10/1/2024

TYPE OR PRINT NAME

Amanda Walker

TELEPHONE NO.

346.237.2177

E-MAIL ADDRESS

mwalker@hilcorp.com

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-31254	² Pool Code 71599 & 72319	³ Pool Name BASIN DAKOTA & BLANCO MESA UGARS
⁴ Property Code 000300	⁵ Property Name BARNES LS	⁶ Well Number # 8N
⁷ OGRID No. 000778	⁸ Operator Name BP AMERICA PRODUCTION COMPANY	⁹ Elevation 6301

¹⁰ Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	26	32 N	11 W		730	SOUTH	1100	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	26	32 N	11 W		770	SOUTH	1974	EAST	SAN JUAN
¹² Dedicated Acres 320	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

<div data-bbox="86 982 1055 1957"> <p>16</p> <p>5041(R)</p> <p>26</p> <p>770'</p> <p>1974'</p> <p>1100'</p> <p>730'</p> <p>5041(R)</p> </div>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mary Corley</i> Signature MARY CORLEY Printed Name Sr. Regulatory Analyst Title 10-28-2001 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>September 24, 2002 Date of Survey</p> <p><i>GARY D. VANN</i> Signature and Seal of Professional Surveyor</p> <p>GARY D. VANN NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number</p>

(R) - BLM Record

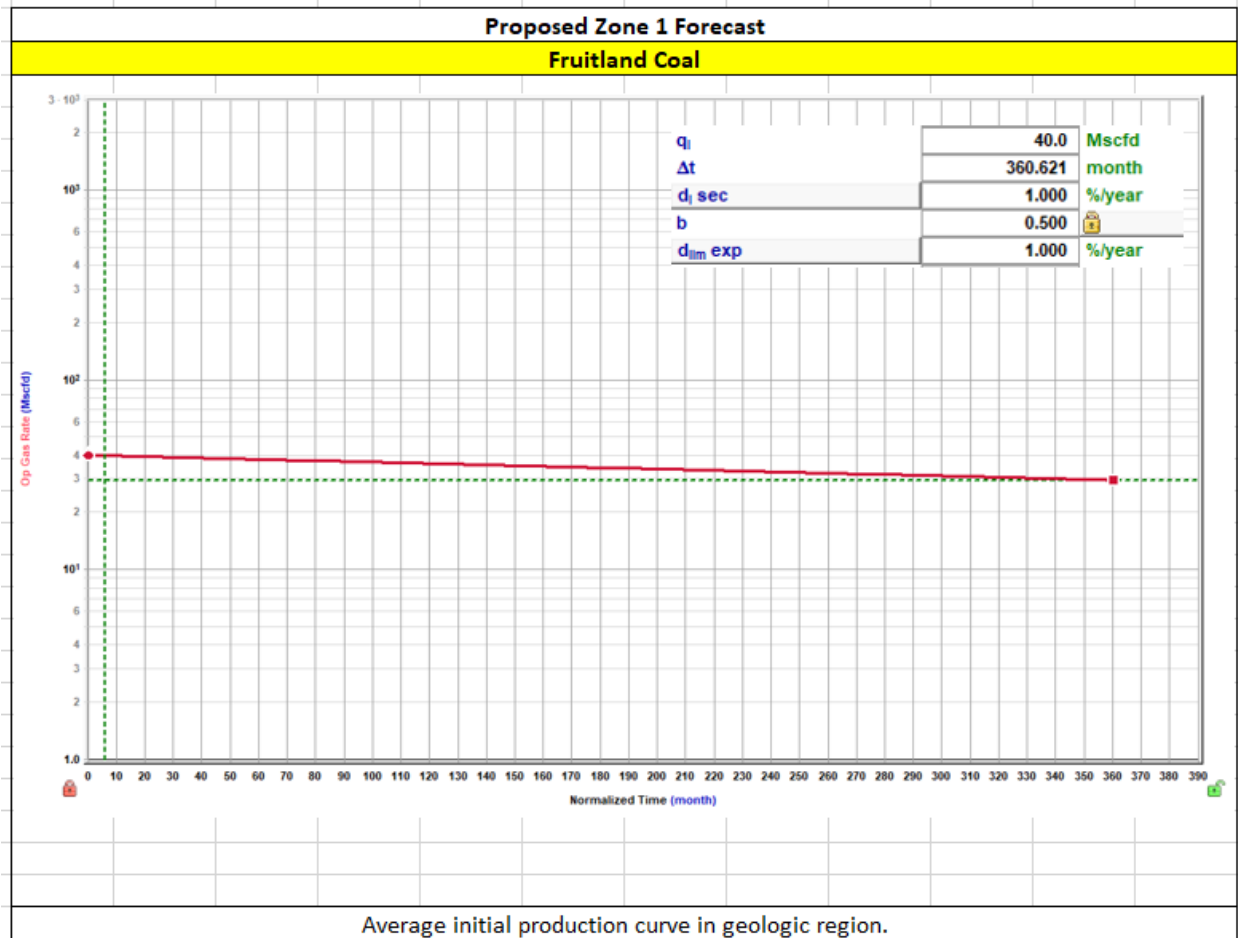
The near wellbore shut-in bottom hole pressures of the above reservoirs are much lower than the calculated far-field stabilized reservoir pressured due to the low permeability of the reservoirs. Based on pressure transient analysis performed in the San Juan Basin, it would take 7-25 years for shut-in 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:			
3004531582	SCOTT COM 103	FRC	
3004511180	STATE COM M 9	MV	
3004534094	DAVIS 9F	DK	
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
<p>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.</p> <p>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.</p>

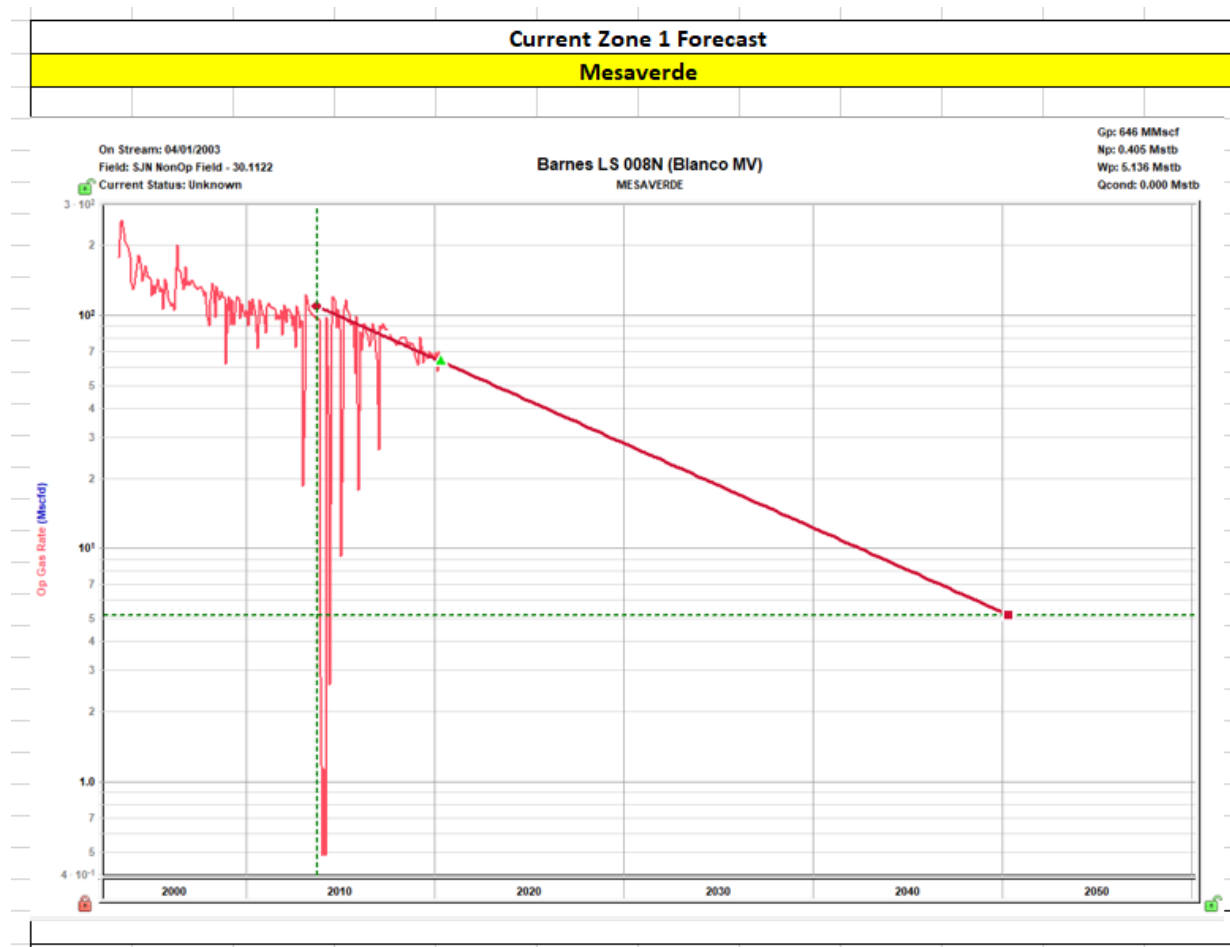
Production Allocation Method - Subtraction

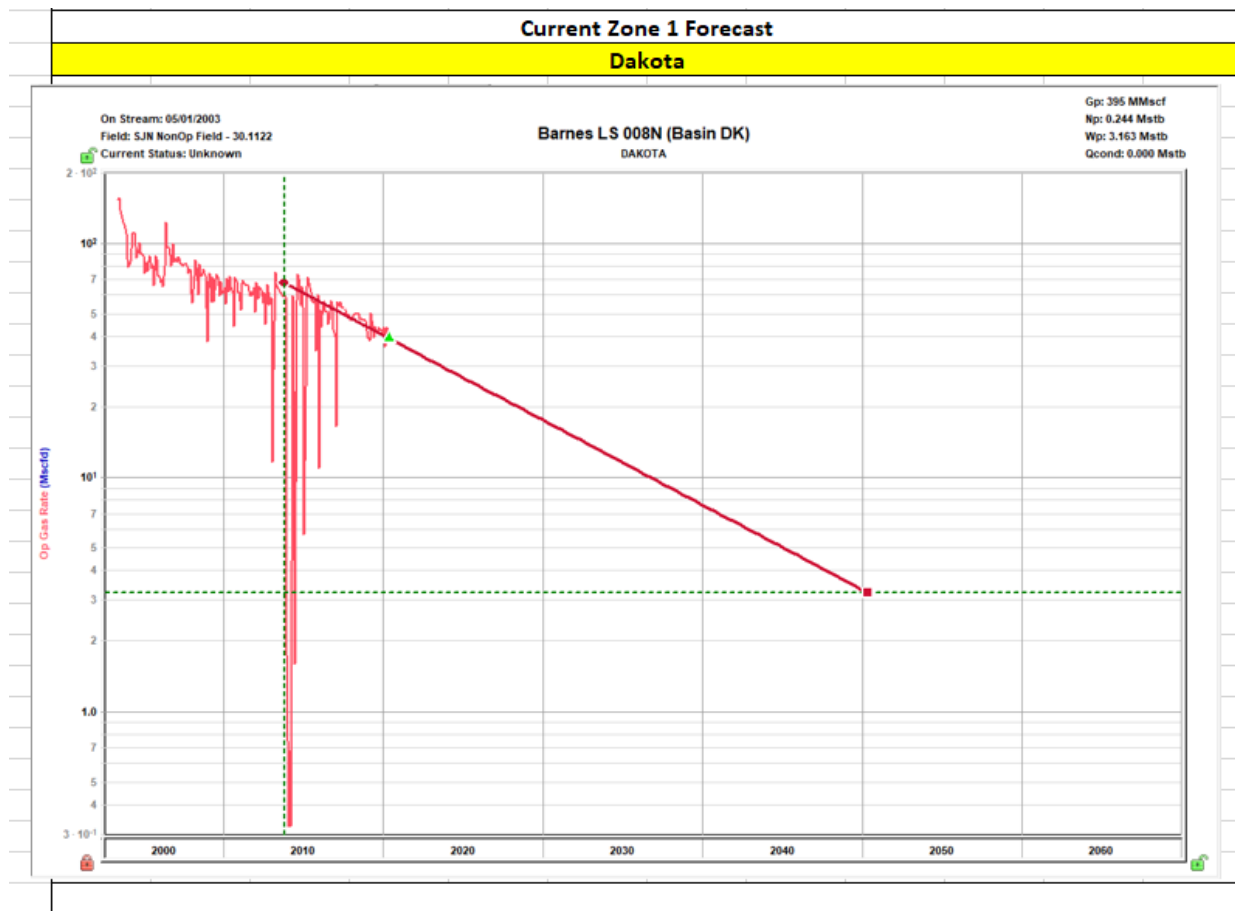
Gas Allocation:

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

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

Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 62% (MV) 38% (DK) while the subtraction method is being used to determine the allocation to the new zone.





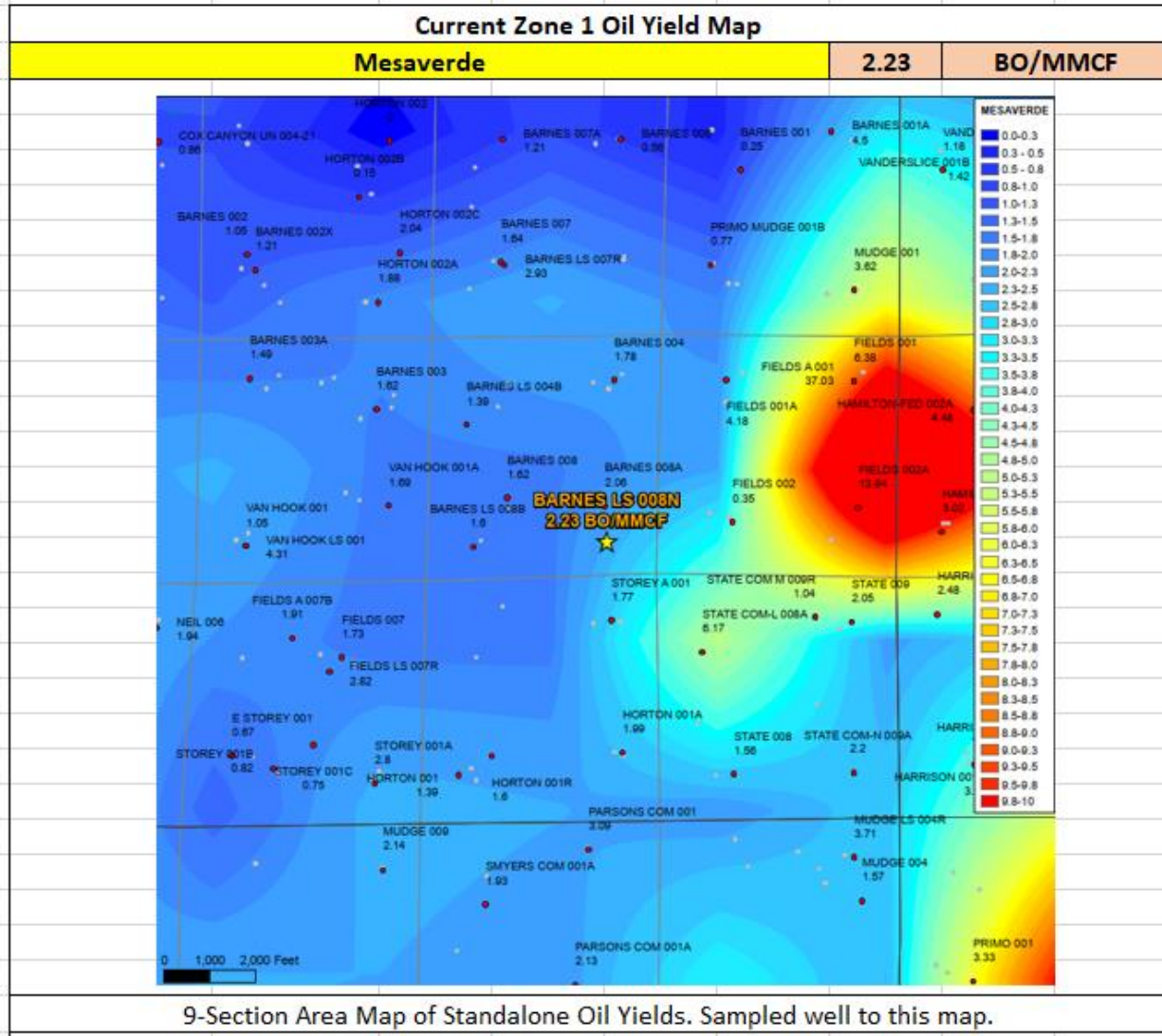
Oil Allocation:

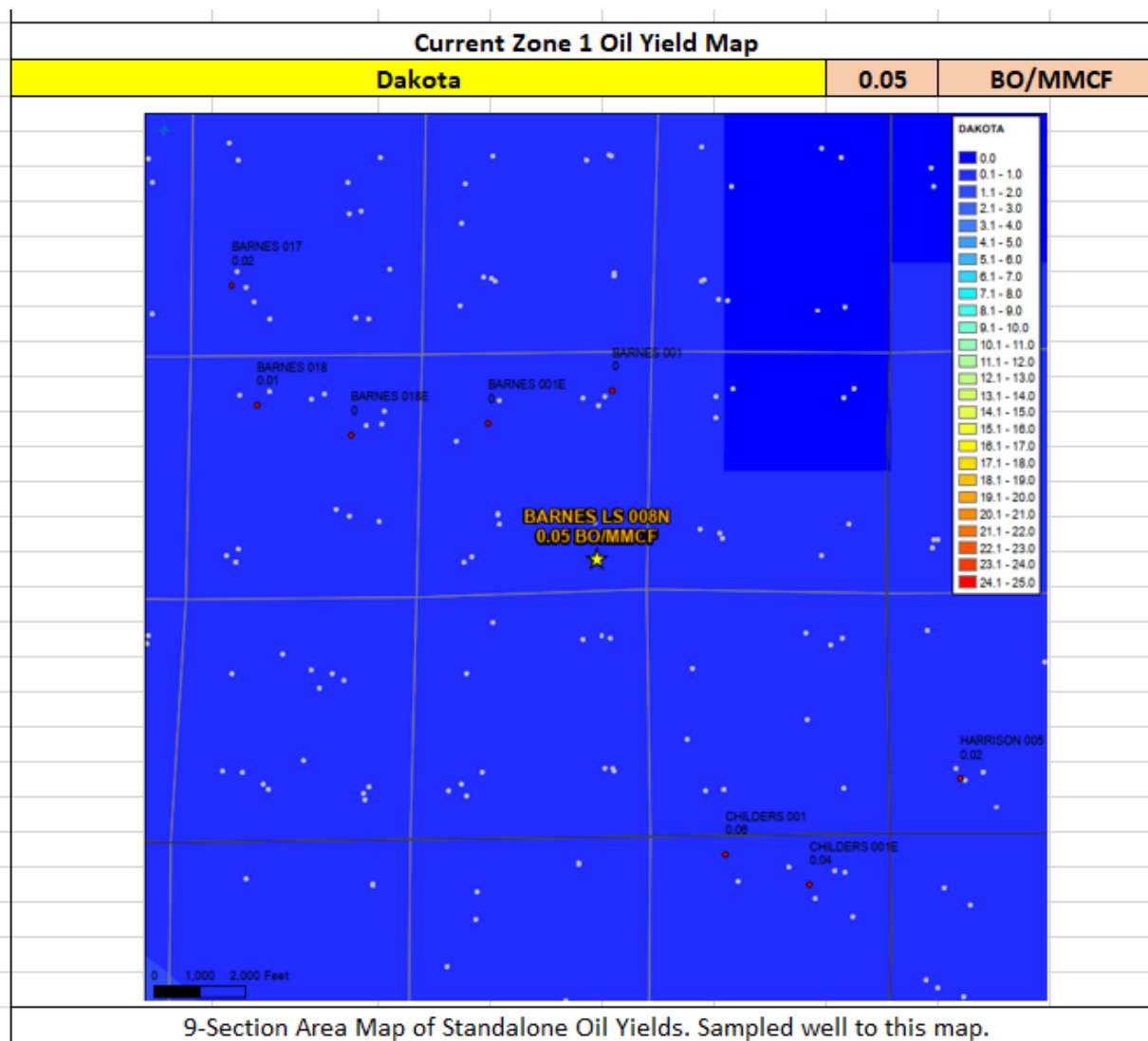
Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years.

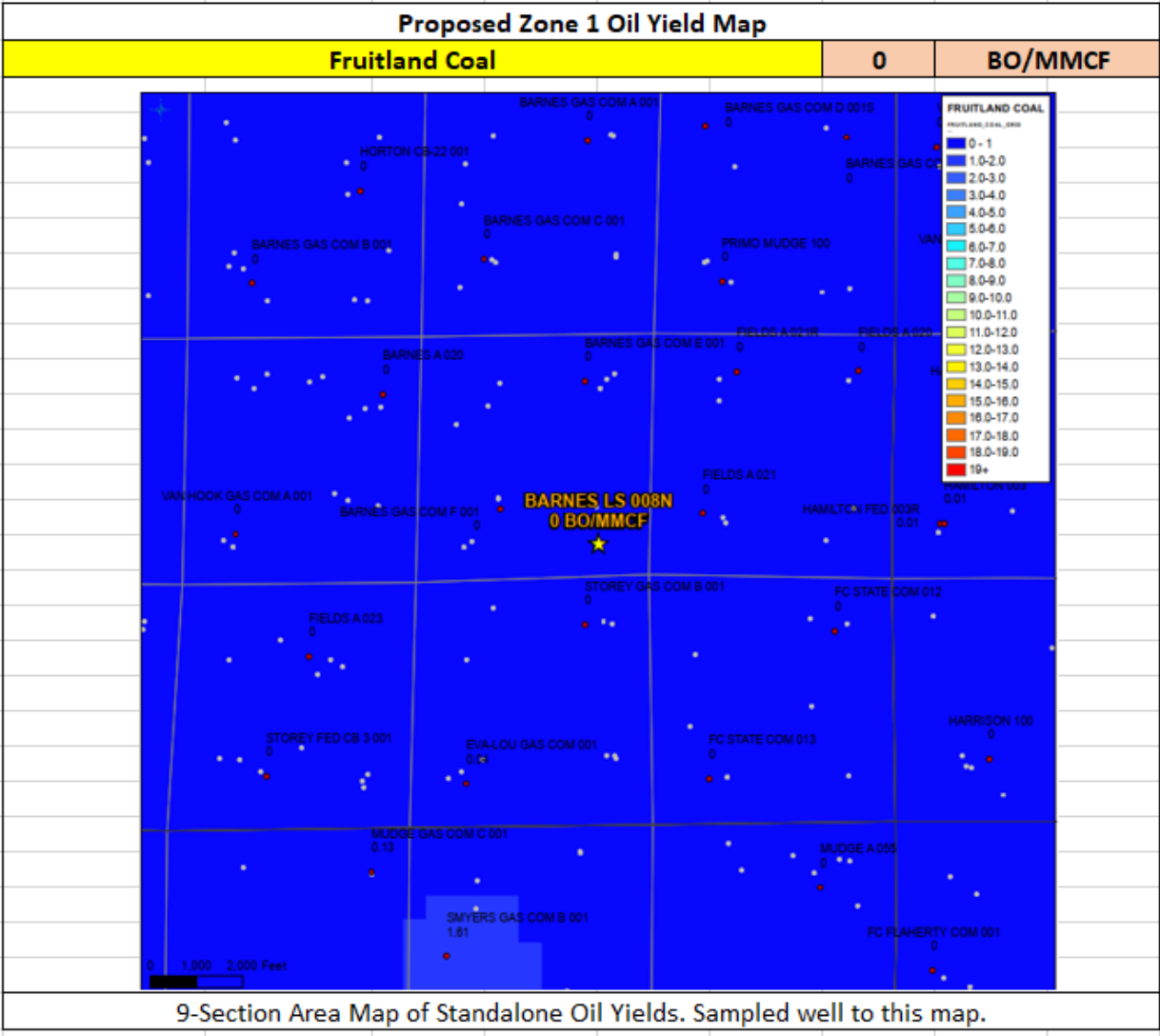
After 4 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
MV	2.23	255	99%
FRC	0	379	0%
DK	0.05	158	1%
			100%

All documentation will be submitted to NMOCD.







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.
- 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
BARNES LS 008N	3004531254

FRC Offset (1 mile)		MV Offset (1.1 miles)		DK Offset (2 miles)	
--	3004527524	--	3004511118	--	3004530477
--	FC STATE COM 12	--	STATE COM L 8	--	HARRISON 5
N2	0.07	N2	0.14	N2	0.17
CO2	5.19	CO2	2.75	CO2	2.87
C1	90.63	C1	82.79	C1	95.22
C2	2.29	C2	7.84	C2	1.38
C3	1.09	C3	3.19	C3	0.29
IC4	0.2	IC4	0.6	IC4	0.02
NC4	0.22	NC4	0.96	NC4	0.01
IC5	0.08	IC5	0.4	IC5	0.01
NC5	0.05	NC5	0.3	NC5	0
C6_PLUS	0	C6_PLUS	0	C6_PLUS	0
C7	0	C7	0	C7	0
C8	0	C8	0	C8	0
C9	0	C9	0	C9	0
C10	0	C10	0	C10	0
AR	0	AR	0	AR	0
CO	0	CO	0	CO	0
H2	0	H2	0	H2	0
O2	0	O2	0	O2	0
H2O	0	H2O	0	H2O	0
H2S	0	H2S	0	H2S	0
HE	0	HE	0	HE	0
C_O_S	0	C_O_S	0	C_O_S	0
CH3SH	0	CH3SH	0	CH3SH	0
C2H5SH	0	C2H5SH	0	C2H5SH	0
CH2S3_2CH3S	0	CH2S3_2CH3S	0	CH2S3_2CH3S	0
CH2S	0	CH2S	0	CH2S	0
C6HV	0	C6HV	0	C6HV	0
CO2GPM	0	CO2GPM	0	CO2GPM	0
N2GPM	0	N2GPM	0	N2GPM	0
C1GPM	0	C1GPM	0	C1GPM	0
C2GPM	0	C2GPM	2.1	C2GPM	0
C3GPM	0	C3GPM	0.88	C3GPM	0
ISOC4GPM	0	ISOC4GPM	0.2	ISOC4GPM	0
NC4GPM	0	NC4GPM	0.3	NC4GPM	0
ISOC5GPM	0	ISOC5GPM	0.14	ISOC5GPM	0
NC5GPM	0	NC5GPM	0.11	NC5GPM	0
C6_PLUSGPM	0	C6_PLUSGPM		C6_PLUSGPM	0

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.

- 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
BARNES LS 008N	3004531254

FRC Offset (1 mile)		MV Offset (1.1 miles)		DK Offset (2 miles)	
--	3004527524	--	3004511118	--	3004530477
--	FC STATE COM 12	--	STATE 8	--	HARRISON 5
Avg(CationBarium)	9.51	Avg(CationBarium)	0	Avg(CationBarium)	0.1
Avg(CationBoron)	2.15	Avg(CationBoron)	0	Avg(CationBoron)	0
Avg(CationCalcium)	16.55	Avg(CationCalcium)	2.94	Avg(CationCalcium)	2.74
Avg(CationIron)	283.43	Avg(CationIron)	18.04	Avg(CationIron)	90.84
Avg(CationMagnesium)	4.11	Avg(CationMagnesium)	0.39	Avg(CationMagnesium)	0.79
Avg(CationManganese)	5.21	Avg(CationManganese)	0.13	Avg(CationManganese)	0.94
Avg(CationPhosphorus)	107.71	Avg(CationPhosphorus)	0	Avg(CationPhosphorus)	0
Avg(CationPotassium)	3.41	Avg(CationPotassium)	0	Avg(CationPotassium)	0
Avg(CationStrontium)	3.37	Avg(CationStrontium)	3.12	Avg(CationStrontium)	0.04
Avg(CationSodium)	1386.61	Avg(CationSodium)	258.36	Avg(CationSodium)	44.72
Avg(CationSilica)	30.79	Avg(CationSilica)	0	Avg(CationSilica)	0
Avg(CationZinc)	1.69	Avg(CationZinc)	0	Avg(CationZinc)	0
Avg(CationAluminum)	0	Avg(CationAluminum)	0	Avg(CationAluminum)	0
Avg(CationCopper)	0	Avg(CationCopper)	0	Avg(CationCopper)	0
Avg(CationLead)	0	Avg(CationLead)	0	Avg(CationLead)	0
Avg(CationLithium)	0	Avg(CationLithium)	0	Avg(CationLithium)	0
Avg(CationNickel)	0	Avg(CationNickel)	0	Avg(CationNickel)	0
Avg(CationCobalt)	0	Avg(CationCobalt)	0	Avg(CationCobalt)	0
Avg(CationChromium)	0	Avg(CationChromium)	0	Avg(CationChromium)	0
Avg(CationSilicon)	14.39	Avg(CationSilicon)	0	Avg(CationSilicon)	0
Avg(CationMolybdenum)	0	Avg(CationMolybdenum)	0	Avg(CationMolybdenum)	0
Avg(AnionChloride)	1220.86	Avg(AnionChloride)	240	Avg(AnionChloride)	2.62
Avg(AnionCarbonate)	0	Avg(AnionCarbonate)	0	Avg(AnionCarbonate)	0
Avg(AnionBicarbonate)	1616.5	Avg(AnionBicarbonate)	286.6	Avg(AnionBicarbonate)	122
Avg(AnionBromide)	0	Avg(AnionBromide)	0	Avg(AnionBromide)	0
Avg(AnionFluoride)	0	Avg(AnionFluoride)	0	Avg(AnionFluoride)	0
Avg(AnionHydroxyl)	0	Avg(AnionHydroxyl)	0	Avg(AnionHydroxyl)	0
Avg(AnionNitrate)	0	Avg(AnionNitrate)	0	Avg(AnionNitrate)	0
Avg(AnionPhosphate)	8.15	Avg(AnionPhosphate)	0	Avg(AnionPhosphate)	0
Avg(AnionSulfate)	10.51	Avg(AnionSulfate)	1	Avg(AnionSulfate)	3.65
Avg(phField)	7.47	Avg(phField)	6.8	Avg(phField)	7
Avg(phCalculated)	0	Avg(phCalculated)	0	Avg(phCalculated)	0
Avg(TempField)	81.2	Avg(TempField)	90	Avg(TempField)	83.1
Avg(TempLab)	0	Avg(TempLab)	0	Avg(TempLab)	0
Avg(OtherFieldAlkalinity)	61.09	Avg(OtherFieldAlkalinity)	0	Avg(OtherFieldAlkalinity)	0
Avg(OtherSpecificGravity)	1.01	Avg(OtherSpecificGravity)	1	Avg(OtherSpecificGravity)	1
Avg(OtherTDS)	4834.38	Avg(OtherTDS)	810.58	Avg(OtherTDS)	268.44
Avg(OtherCaCO3)	0	Avg(OtherCaCO3)	0	Avg(OtherCaCO3)	0
Avg(OtherConductivity)	11196.19	Avg(OtherConductivity)	1266.53	Avg(OtherConductivity)	419.43
Avg(DissolvedCO2)	59	Avg(DissolvedCO2)	16	Avg(DissolvedCO2)	150
Avg(DissolvedO2)	0	Avg(DissolvedO2)	0	Avg(DissolvedO2)	0
Avg(DissolvedH2S)	0.43	Avg(DissolvedH2S)	0.85	Avg(DissolvedH2S)	0.85
Avg(GasPressure)	70	Avg(GasPressure)	30	Avg(GasPressure)	115
Avg(GasCO2)	0	Avg(GasCO2)	0	Avg(GasCO2)	1
Avg(GasCO2PP)	0	Avg(GasCO2PP)	0	Avg(GasCO2PP)	1.15
Avg(GasH2S)	0	Avg(GasH2S)	0	Avg(GasH2S)	0
Avg(GasH2SPP)	0	Avg(GasH2SPP)	0	Avg(GasH2SPP)	0
Avg(PitzerCaCO3_70)	0.04	Avg(PitzerCaCO3_70)	-1.93	Avg(PitzerCaCO3_70)	-2.09
Avg(PitzerBaSO4_70)	0.78	Avg(PitzerBaSO4_70)	-3.03	Avg(PitzerBaSO4_70)	-0.85
Avg(PitzerCaSO4_70)	-1.95	Avg(PitzerCaSO4_70)	-4.89	Avg(PitzerCaSO4_70)	-4.27
Avg(PitzerSrSO4_70)	-3.32	Avg(PitzerSrSO4_70)	-3.19	Avg(PitzerSrSO4_70)	-4.37
Avg(PitzerFeCO3_70)	3.75	Avg(PitzerFeCO3_70)	0.62	Avg(PitzerFeCO3_70)	0
Avg(PitzerCaCO3_220)	0.5	Avg(PitzerCaCO3_220)	-0.53	Avg(PitzerCaCO3_220)	-1.28
Avg(PitzerBaSO4_220)	0.33	Avg(PitzerBaSO4_220)	-3.61	Avg(PitzerBaSO4_220)	-1.38
Avg(PitzerCaSO4_220)	0.52	Avg(PitzerCaSO4_220)	-4.6	Avg(PitzerCaSO4_220)	-4.12
Avg(PitzerSrSO4_220)	-3.12	Avg(PitzerSrSO4_220)	-2.73	Avg(PitzerSrSO4_220)	-4.15
Avg(PitzerFeCO3_220)	3.76	Avg(PitzerFeCO3_220)	2.3	Avg(PitzerFeCO3_220)	0

Well Name: BARNES LS COM	Well Location: T32N / R11W / SEC 26 / SESE / 36.571 / -107.573	County or Parish/State: SAN JUAN / NM
Well Number: 8N	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078039	Unit or CA Name: BARNES LS	Unit or CA Number: NMNM108340, NMNM73329
US Well Number: 3004531254	Operator: HILCORP ENERGY COMPANY	

Notice of Intent

Sundry ID: 2814125

Type of Submission: Notice of Intent

Type of Action: Recompletion

Date Sundry Submitted: 09/27/2024

Time Sundry Submitted: 09:12

Date proposed operation will begin: 11/01/2024

Procedure Description: Hilcorp Energy Company requests permission to recomplete the subject well in the Fruitland Coal and downhole commingle with the existing Mesaverde. 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. Note: FC CA/JOA will be requested

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

BARNES_LS_8N_FRC_NOI_20240927094529.pdf

Well Name: BARNES LS COM

Well Location: T32N / R11W / SEC 26 /
SESE / 36.571 / -107.573County or Parish/State: SAN
JUAN / NM

Well Number: 8N

Type of Well: CONVENTIONAL GAS
WELL

Allottee or Tribe Name:

Lease Number: NMSF078039

Unit or CA Name: BARNES LS

Unit or CA Number:
NMNM108340, NMNM73329

US Well Number: 3004531254

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: OCT 01, 2024 06:04 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: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 10/02/2024

Signature: Kenneth Rennick



**HILCORP ENERGY COMPANY
BARNES LS 8N
FRUITLAND COAL RECOMPLETE SUNDRY
API 3004531254**

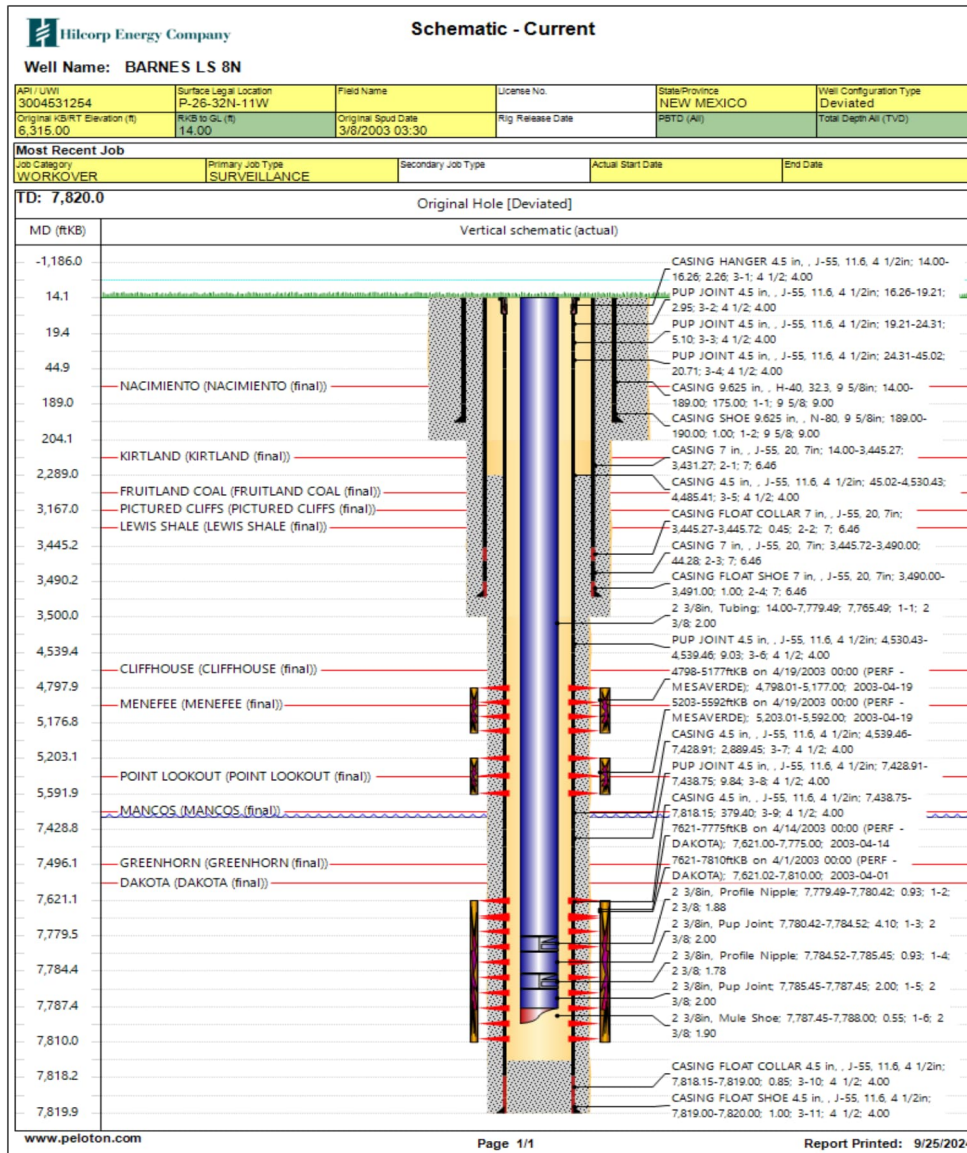
JOB PROCEDURES

1. MIRU workover rig and associated equipment; NU and test BOP.
2. TOOH with tubing.
3. Set a plug within 50' of the top **Mesaverde** perforation **(4,798')** for zonal isolation.
4. Load hole with fluid, RU WL and run CBL to verify TOC. Review results with operations engineer and regulatory agencies.
5. **Perform MIT on casing with NMOCD witness** (notify NMOCD 24+ hours before test) and submit results to regulatory group.
6. **If frac'ing down casing:** pressure test casing to frac pressure.
7. RU WL. Perforate the **Fruitland Coal**. Top perforation @ **2,723'**, bottom perforation @ **3,058'**.
8. **If frac'ing down frac string:** RIH w/ frac string and packer.
9. ND BOP, NU frac stack. Pressure test frac stack to frac pressure. Pressure test frac string (if applicable) to frac pressure. RDMO.
10. RU stimulation crew. Frac the **Fruitland Coal** in one or more stages. Set plugs in between stages, if necessary.
11. MIRU workover rig and associated equipment; NU and test BOP.
12. **If frac was performed down frac string:** POOH w/ frac string and packer.
13. TIH with mill and clean out to isolation plug.
14. Mill out isolation plug. Cleanout to PBTD. TOOH with cleanout assembly.
15. TIH and land production tubing. Flowback the well. Return well to production as a **Fruitland Coal/Mesaverde/Dakota Producer**.



**HILCORP ENERGY COMPANY
BARNES LS 8N
FRUITLAND COAL RECOMPLETE SUNDRY**

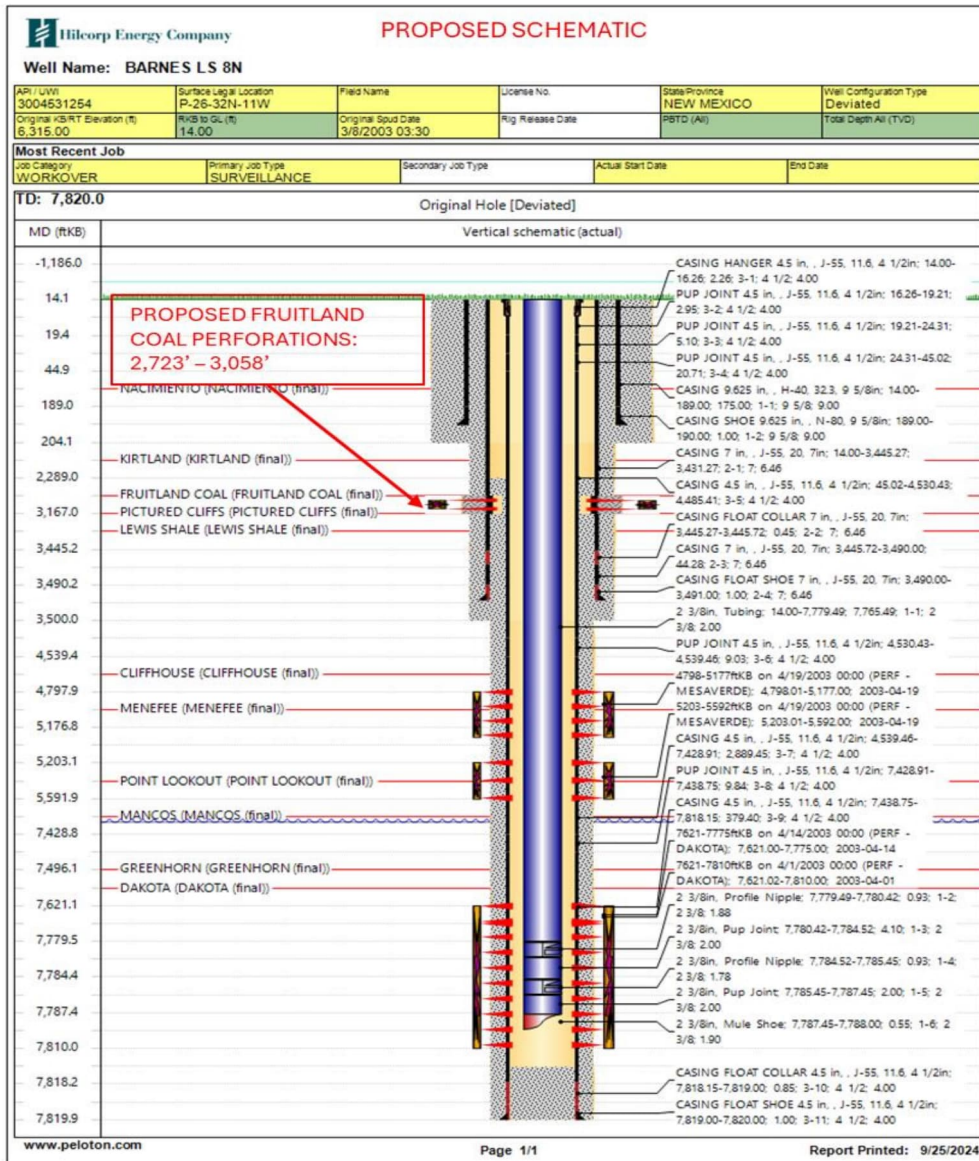
BARNES LS 8N - CURRENT WELLBORE SCHEMATIC





**HILCORP ENERGY COMPANY
BARNES LS 8N
FRUITLAND COAL RECOMPLETE SUNDRY**

BARNES LS 8N - PROPOSED WELLBORE SCHEMATIC



Santa Fe Main Office Phone: (505) 476-3441 Fax: (55) 476-3462 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	C-102 Revised July 9, 2024 Submit Electronically via OCD Permitting
		Submittal Type: <input type="checkbox"/> Initial Submittal <input type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION

API Number 30-045-31254	Pool Code 71629	Pool Name Basin Fruitland Coal
Property Code 328148	Property Name Barnes LS	Well Number 8N
OGRID No. 372171	Operator Name Hilcorp Energy Company	Ground Level Elevation 6301
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL P	Section 26	Township 32N	Range 11W	Lot	Ft. from N/S 730' S	Ft. from E/W 1100' E	Latitude 36.9510384	Longitude -107.9546509	County San Juan
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Bottom Hole Location

UL O	Section 26	Township 32N	Range 11W	Lot	Ft. from N/S 770' S	Ft. from E/W 1974' E	Latitude 36.951375	Longitude -107.957461	County San Juan
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Dedicated Acres 320	Infill or Defining Well Infill	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
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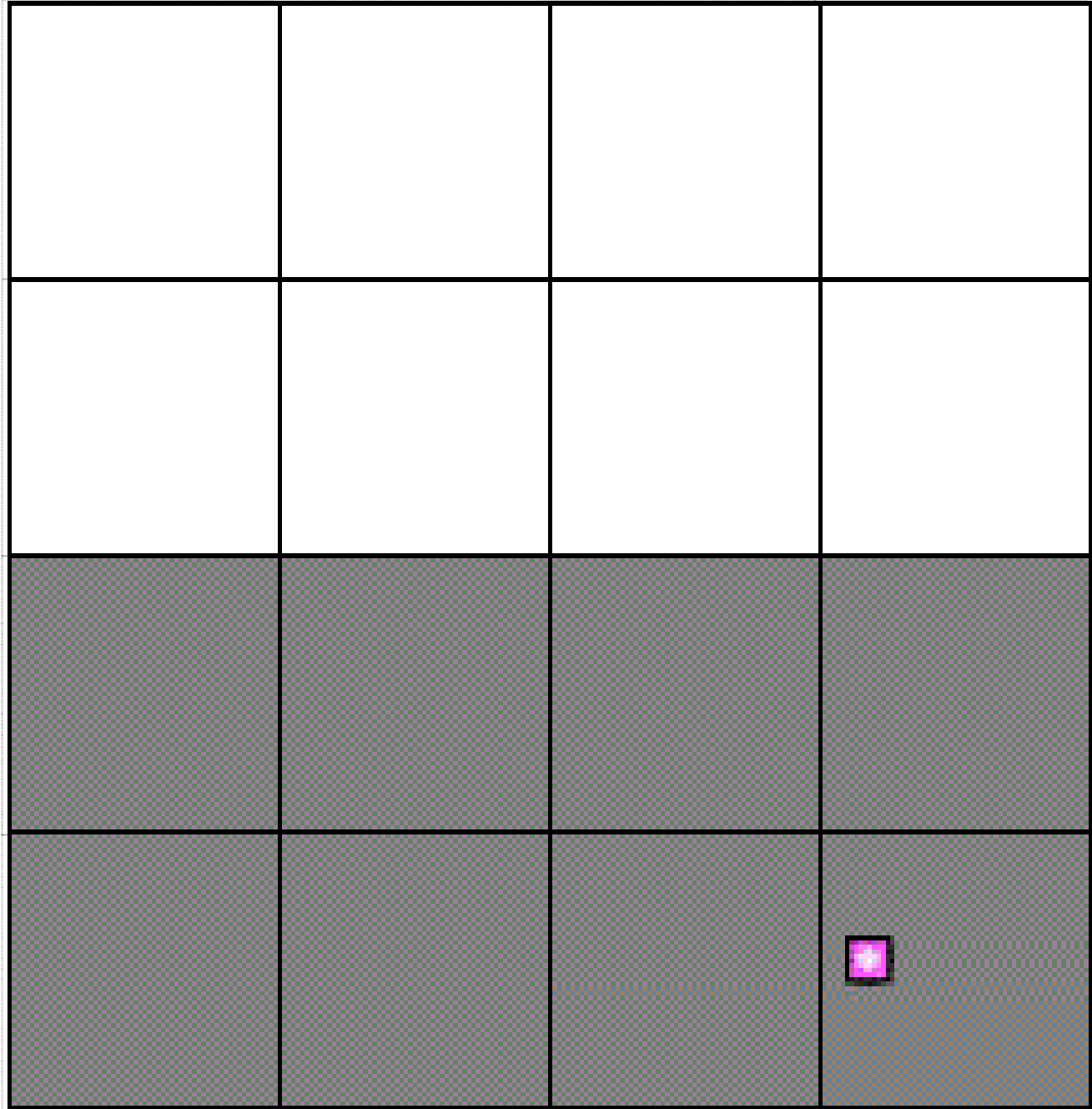
Unitized Area or Area of Uniform Interest	Spacing Unit Type <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation:
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OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>  Signature 9/27/2024 Date Amanda Walker Printed Name mwalker@hilcorp.com Email Address	SURVEYOR CERTIFICATIONS <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> Gary D. Vann Signature and Seal of Professional Surveyor 7016 Certificate Number September 24, 2002 Date of Survey
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Note: 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.

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



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:** 9/27/2024

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
Barnes LS 8N	30-045-31254	P-26-32N-11W	730 FSL 1100 FEL	0	40	0

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>Barnes LS 8N</u>	<u>30-045-31254</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: Operations Regulatory Tech Sr.
E-mail Address: mwalker@hilcorp.com
Date: 9/27/2024
Phone: 346.237.2177
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

Hilcorp Energy Company (HEC or Operator) production facilities include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool of our recompleting project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recompleting 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 recompleting 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 recompleting
 - Flowlines will be routed for flowback fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
 - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations
 - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
 - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
 - HEC will not vent or flare except during the approved activities listed in NMAC 19.15.27.8 (D) 1-4.
5. Subsection (E) Performance standards
 - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
 - If a flare is utilized during production operations it will have a continuous pilot and is located more than 100 feet from any known well or storage tanks.
 - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.

6. Subsection (F) Measurement or estimation of vented and flared natural gas
 - Measurement equipment is installed to measure the volume of natural gas flared from process piping.
 - When measurement isn't practicable, estimation of vented and flared natural gas will be completed as noted in 19.15.27.8 (F) 5-6.

VIII. Best Management Practices:

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



January 9, 2025

Mailed Certified with Electronic Return Receipt

To: All Interest Owners

RE: Application to Downhole Commingle Production
Well: Barnes LS 008N
API: 30-045-31254
Section 26, Township 32 North, Range 11 West
San Juan County, New Mexico

Ladies and Gentlemen:

Hilcorp Energy Company ("Hilcorp"), as Operator of the subject well, has filed application with the New Mexico Oil Conservation Division ("NMOCD") for approval to downhole commingle production from the **Basin Fruitland Coal**, a formation Hilcorp soon intends to perforate, with existing production from the **Blanco Mesaverde** and **Basin Dakota** formations. This letter and the application copy enclosed serve to provide you, an owner in one or more of the aforementioned formations, with written notice as prescribed by Subsection C of 19.15.12.11 New Mexico Administrative Code.

No action is required by you unless you wish to pursue a formal protest.

Any objections or requests for hearing must be submitted to the NMOCD's Santa Fe office, in writing, within twenty (20) days from the date the NMOCD receives the subject application.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Carson Parker Rice'.

Carson Parker Rice
Landman
713.757.7108
carice@hilcorp.com

CPR:dpk
Enclosures

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

Barnes LS

8N

P Sec 26, T32N, R11W

San Juan

LeaseWell No.Unit Letter-Section-Township-RangeCounty

OGRID No. 372171Property Code 328148API No. 30-045-31254Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal	Blanco Mesaverde	Basin Dakota
Pool Code	71629	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	Est 2723' – 3058'	4798' – 5592'	7621' – 7810'
Method of Production (Flowing or Artificial Lift)	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)	71 psi	115 psi	145 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	946 BTU	1211 BTU	1087 BTU
Producing, Shut-In or New Zone	New Zone	Producing	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: 7/1/2024 Rates: Oil: 0 bbl Gas: 1804 mcf Water: 0 bbl	Date: 7/1/2024 Rates: Oil: 1 bbl Gas: 1106 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 ☐

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:

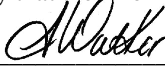
C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
Production curve for each zone for at least one year. (If not available, attach explanation.)
For zones with no production history, estimated production rates and supporting data.
Data to support allocation method or 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 10/1/2024

TYPE OR PRINT NAME Amanda WalkerTELEPHONE NO. 346.237.2177

E-MAIL ADDRESS mwalker@hilcorp.com

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-31254	² Pool Code 71599 & 72319	³ Pool Name BASIN DAKOTA & BLANCO MESA UGARS
⁴ Property Code 000300	⁵ Property Name BARNES LS	⁶ Well Number # 8N
⁷ OGRID No. 000778	⁸ Operator Name BP AMERICA PRODUCTION COMPANY	⁹ Elevation 6301

¹⁰ Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	26	32 N	11 W		730	SOUTH	1100	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	26	32 N	11 W		770	SOUTH	1974	EAST	SAN JUAN

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

<div data-bbox="89 982 1055 1957"> <p>16</p> <p>5041(R)</p> <p>26</p> <p>BHL</p> <p>1974'</p> <p>770'</p> <p>730'</p> <p>1100'</p> <p>5041(R)</p> </div>	<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mary Corley</i> Signature MARY CORLEY Printed Name Sr. Regulatory Analyst Title 10-28-2001 Date</p>
	<p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>September 24, 2002 Date of Survey</p> <p><i>GARY D. VANN</i> Signature and Seal of Professional Surveyor</p> <p>GARY D. VANN NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number</p>

(R) - BLM Record

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.

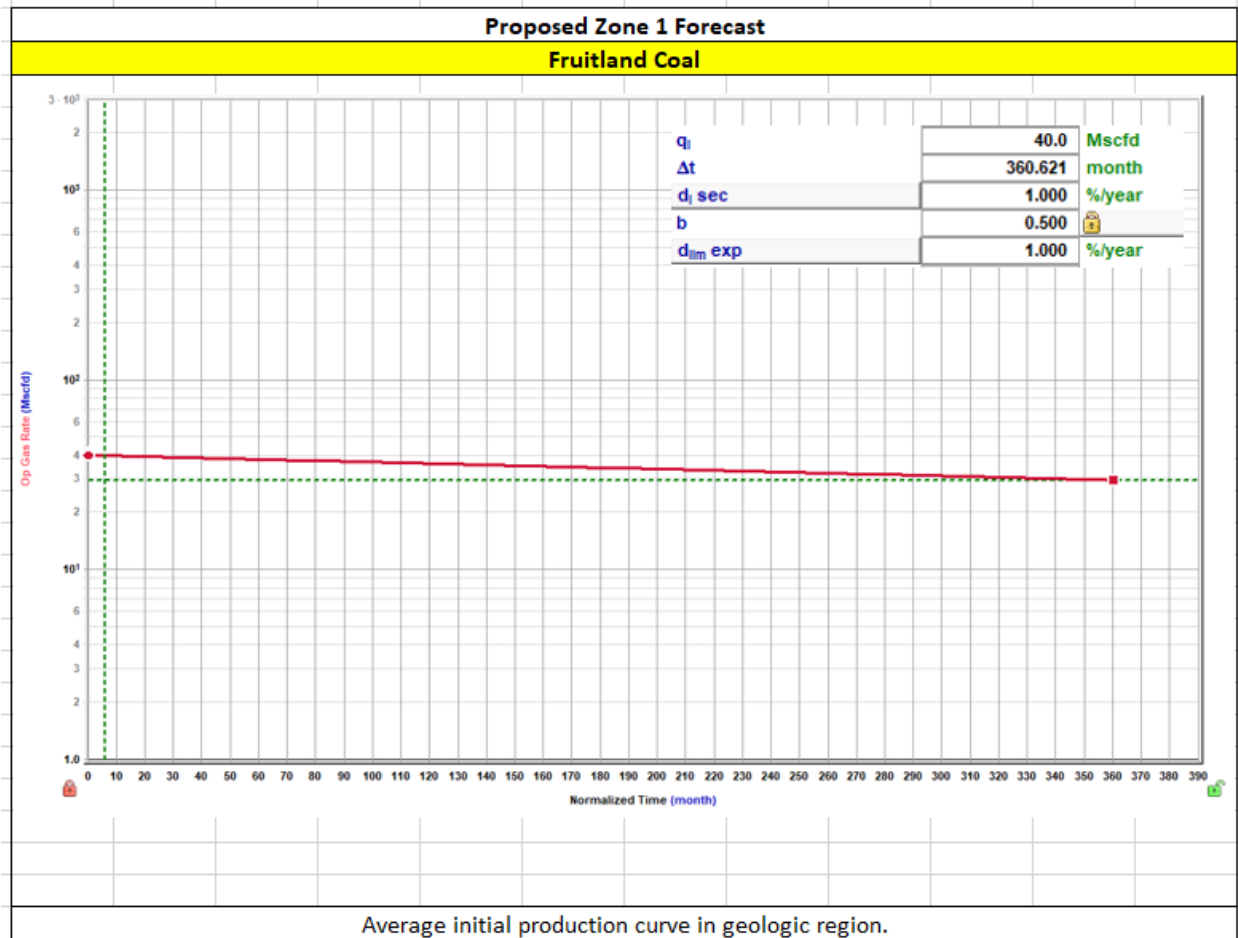
Shut in pressures were calculated for operated offset standalone wells in each of the zones being commingled in the well in question via the following process:

- 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:			
3004531582	SCOTT COM 103	FRC	
3004511180	STATE COM M 9	MV	
3004534094	DAVIS 9F	DK	
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
<p>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.</p> <p>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.</p>

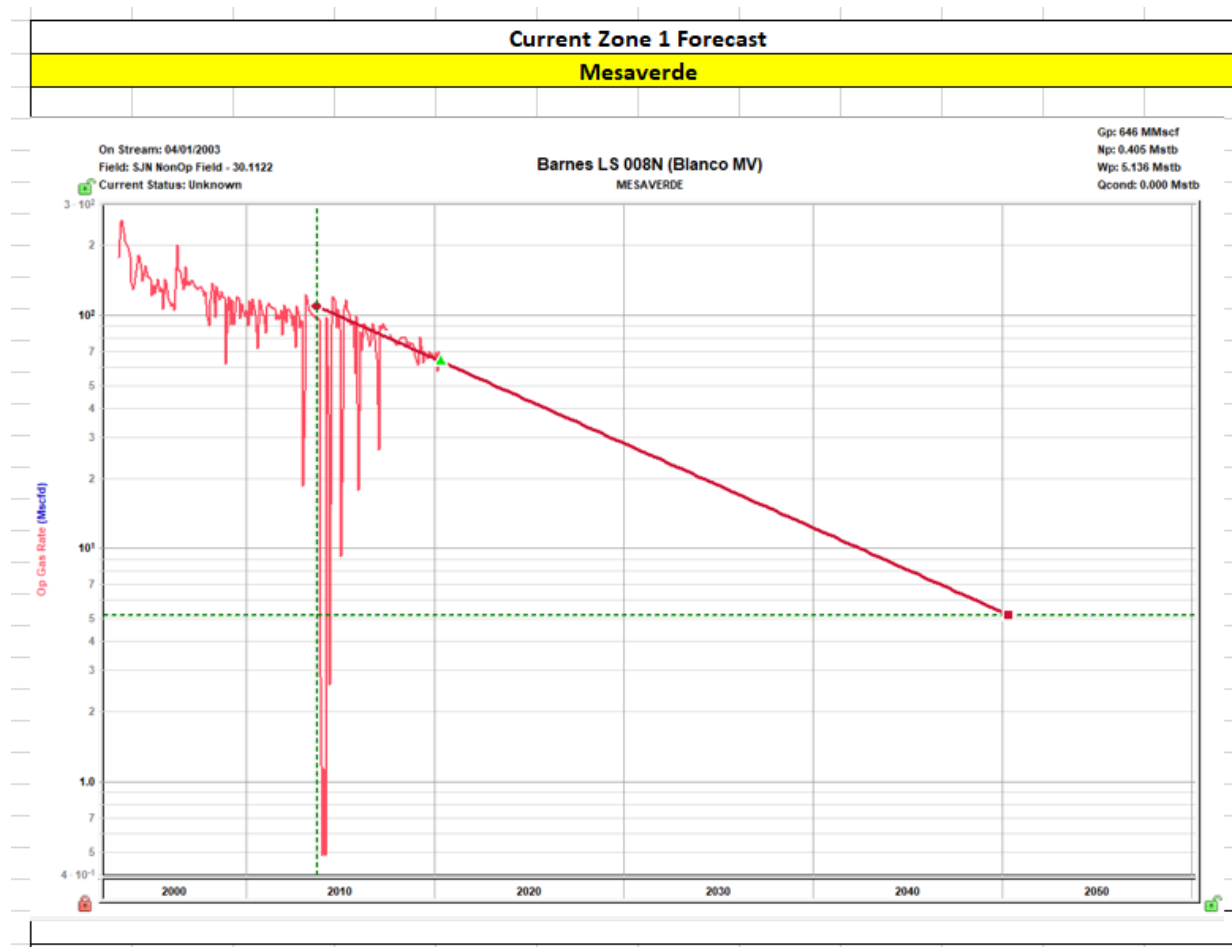
Production Allocation Method - Subtraction

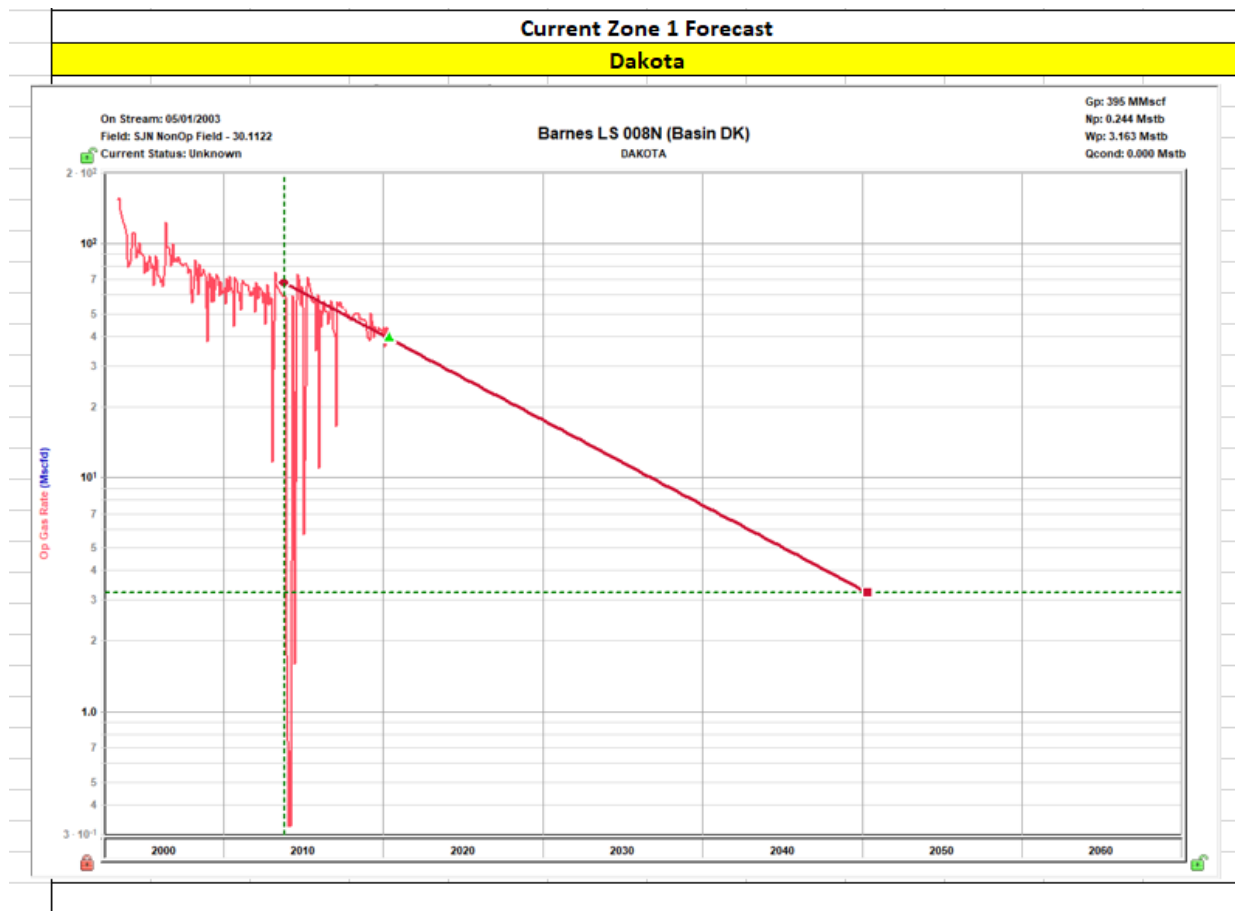
Gas Allocation:

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

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

Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 62% (MV) 38% (DK) while the subtraction method is being used to determine the allocation to the new zone.





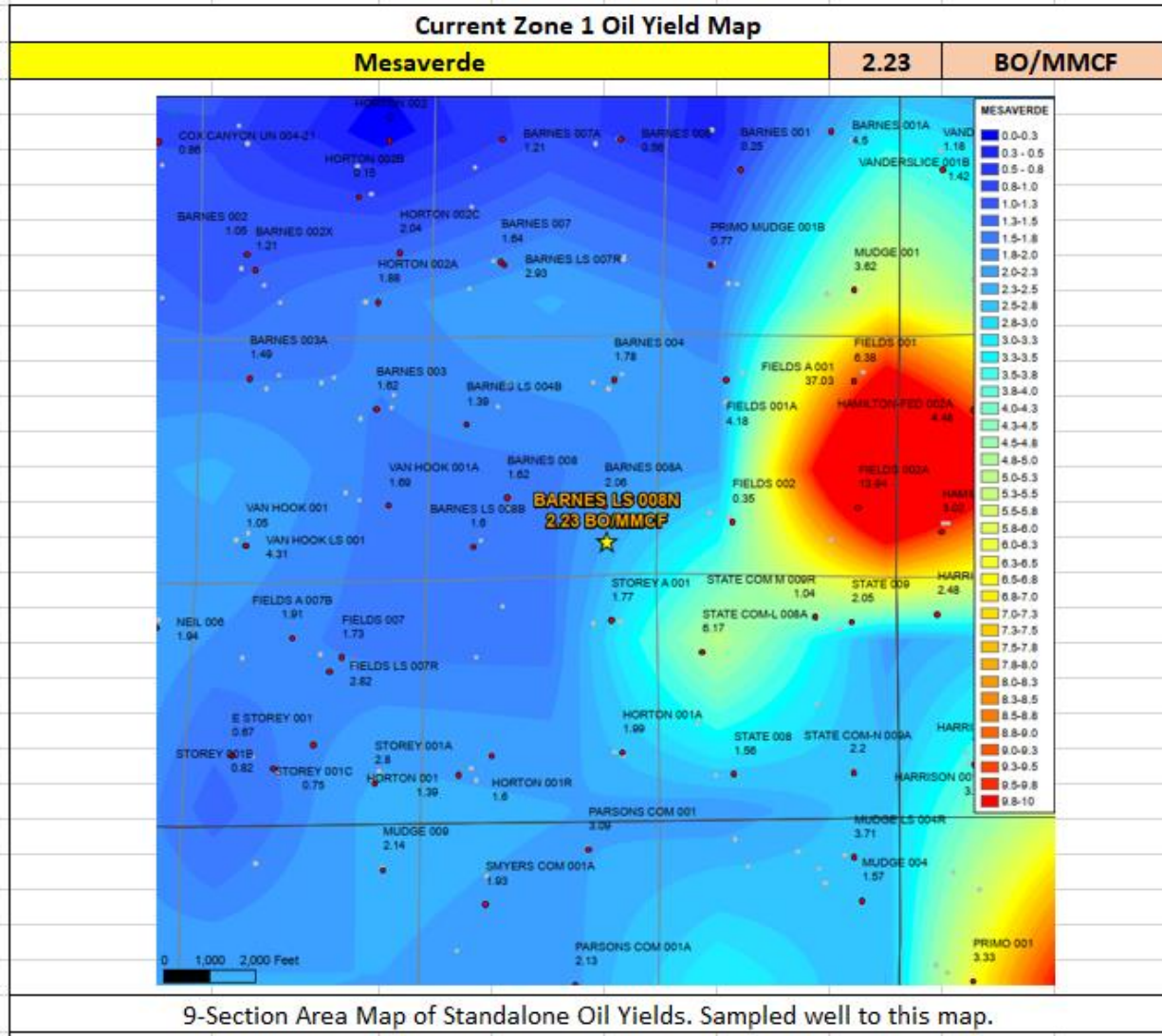
Oil Allocation:

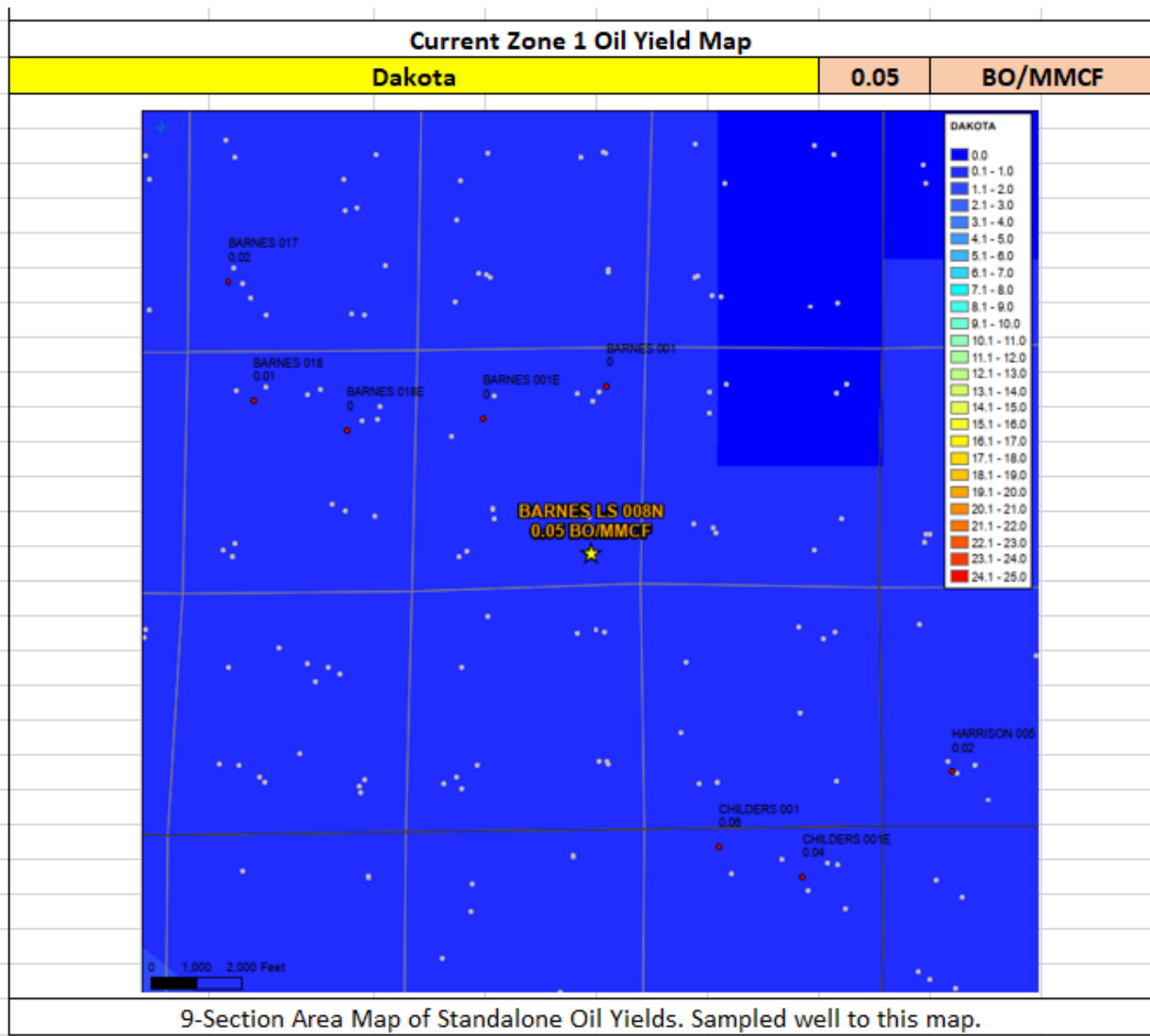
Oil production will be allocated based on average formation yields from offset wells and will be a fixed rate for 4 years.

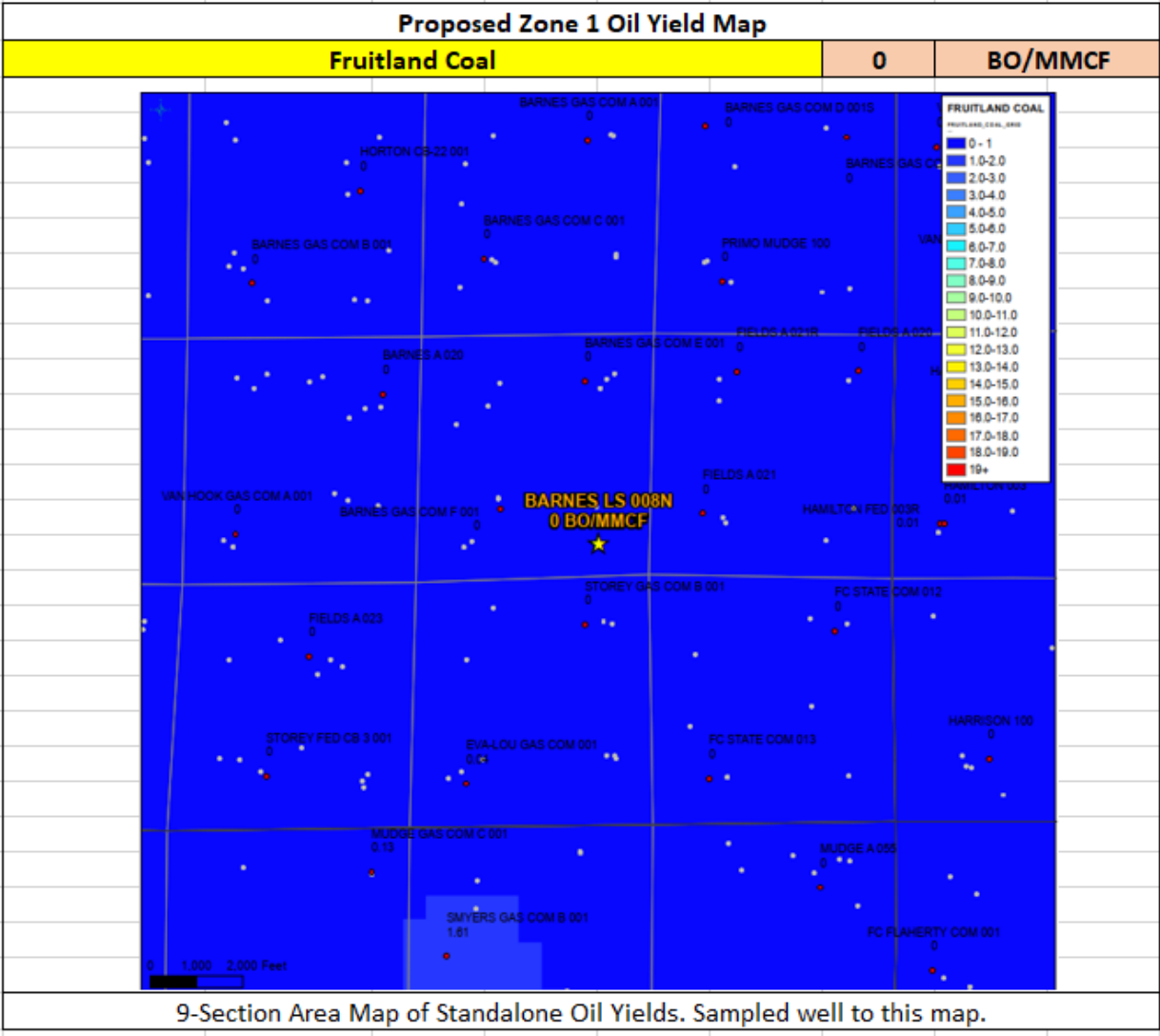
After 4 years oil will be reevaluated and adjust as needed based on average formation yields and new fixed gas allocation.

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
MV	2.23	255	99%
FRC	0	379	0%
DK	0.05	158	1%
			100%

All documentation will be submitted to NMOCD.







Certified Number	Sender	Recipient	Date Mailed	Delivery Status
92148969009997901654821888	Dani Kuzma	MICHELLE BLANKENSHIP, IKAV ENERGY, 1199 MAIN AVENUE, DURANGO, CO, 81301 Code: STOREY B LS 4M	1/9/2025	Signature Pending
92148969009997901842633354	Dani Kuzma	, XTO ENERGY INC, , DALLAS, TX, 75284- 0791 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633361	Dani Kuzma	, OFFICE OF NATURAL RESOURCES REVENUE, LAKEWOOD ACCTG CENT ONSHORE, DENVER, CO, 80225-0627 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633378	Dani Kuzma	, CROSS TIMBERS ENERGY LLC, C/O DRILLINGINFO MAIL, FORT WORTH, TX, 76102 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633385	Dani Kuzma	, MITZI ANN HENDERSON EASLEY, , AUSTIN, TX, 78727 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633392	Dani Kuzma	, SUSAN H RITTER, , AUSTIN, TX, 78746 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633408	Dani Kuzma	, BETSY H BRYANT, , GEORGETOWN, TX, 78628 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633415	Dani Kuzma	, WARREN AMERICAN OIL COMPANY, , TULSA, OK, 74147-0372 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633422	Dani Kuzma	, LOGOS RESOURCES II LLC, , FARMINGTON, NM, 87401 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633439	Dani Kuzma	, FRANCES R CUSACK, , AUSTIN, TX, 78732 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633446	Dani Kuzma	, SYLVESTER FRANCIS CUSACK II, , DALLAS, TX, 75382-2984 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633453	Dani Kuzma	, RAYMOND JOHN CUSACK JR, , DALLAS, TX, 75382 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633460	Dani Kuzma	, ELLIOTT-HALL COMPANY, , OGDEN, UT, 84415 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633477	Dani Kuzma	, ELLIOTT INDUSTRIES, , SANTA FE, NM, 87504 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633484	Dani Kuzma	, JAMES T BUCHENAU LIV TR UNDER REVOC, TRUST AGMT 9 13 1994, PLANO, TX, 75025-2810 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633491	Dani Kuzma	, SDH 2009 INVESTMENTS LP, , DALLAS, TX, 75225 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633507	Dani Kuzma	, LYNDA LANKFORD SMYTHE GST TRUST, LYNDA LANKFORD SMYTHE TRUSTEE, KEMAH, TX, 77565 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633514	Dani Kuzma	, JANINA LANKFORD WALKER GST TRUST, JANINA LANKFORD WALKER TRUSTEE, FORT WORTH, TX, 76107 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending

92148969009997901842633521	Dani Kuzma	, VICTORIA ZIMMERMAN REV LIV TR DTD, 6 1 2011 and VICTORIA ZIMMERMAN TTEE, PLANO, TX, 75025-2829 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633538	Dani Kuzma	, ENDURING RESOURCES IV, LLC, , CENTENNIAL, CO, 80111 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633545	Dani Kuzma	, JASON NEAL WILLIAMS AND LINDA LOU, WILLIAMS FAMILY TRUST, HENDERSON, NV, 89074-4111 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633552	Dani Kuzma	, GWYNDLON CLAYBROOK, , BRECKENRIDGE, TX, 76424-1719 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633569	Dani Kuzma	, LEON LEE WILLIAMS, , MIAMI, TX, 79059 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633576	Dani Kuzma	, BECKY ANN HOLMES, , SONORA, TX, 76950 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633583	Dani Kuzma	, MARTHA KIMBERLY MANN, , COLORADO CITY, TX, 79512 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633590	Dani Kuzma	, ROBERT WALTER LUNDELL, , HOUSTON, TX, 77063-2318 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633606	Dani Kuzma	, LINDA JEANNE LUNDELL LINDSEY, , NACOGDOCHES, TX, 75963 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633613	Dani Kuzma	, CLAUDIA MARCIA LUNDELL GILMER, , GEORGETOWN, TX, 78628 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633620	Dani Kuzma	, GB SAFEWAY PROPERTY LTD, , KERRVILLE, TX, 78028 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633637	Dani Kuzma	, SIMCOE, LLC, ATTN MICHELLE BLANKENSHIP, DURANGO, CO, 81301 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending
92148969009997901842633644	Dani Kuzma	, HENRIETTA SCHULTZ INHERITANCE, PARTNERSHIP LP, DALLAS, TX, 75229 Code: BARNES LS 8N DHC	1/9/2025	Signature Pending

BALLANTINE

COMMUNICATIONS

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO

County of San Juan

Odele Jensen, the undersigned, authorized Representative of the Tri-City Record, on oath states that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Law of 1937, that payment therefore has been made of assessed as court cost; and that the notice, copy of which is hereto attached, was published in said paper in the regular daily edition, for 1 time(s) on the following date(s):

1/13/2025

Sworn and subscribed before me, a notary public in and for the county of La Plata and the State of Colorado, 1/13/2025.

Notary Public

PRICE: 96.94

Statement to come at the end of the month.

ACCOUNT NUMBER: **109863**

CASSANDRA RAMIREZ
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20234009147
MY COMMISSION EXPIRES MARCH 09, 2027

COPY OF ADVERTISEMENT

26065

Notice by Hilcorp Energy Company for Downhole Commingling, San Juan County, New Mexico. Pursuant to Paragraph (2) of Subsection C of 19.15.12.11 NMAC, Hilcorp Energy Company, as Operator, has filed form C-107A with the New Mexico Energy, Minerals and Natural Resources Department – Oil Conservation Division (NMOCD) seeking administrative approval to downhole commingle new production from the Basin-Fruitland Coal Pool (71629) with existing production from the Blanco Mesaverde Pool (72319) and the Basin Dakota Pool (71599) in the Barnes LS 008N well (API No. 30-045-31254) located in Unit P, Section 26, Township 32 North, Range 11 West, NMPM, San Juan County, New Mexico. Commingling will not reduce the value of production. Allocation method to be determined upon completion of this project. This notice is intended for certain unlocatable royalty interest owners in the aforementioned well for which certified mail delivery is not possible. Should you (the interest owner for

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

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oed/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 424566

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 424566
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
llowe	None	9/17/2025