Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: _____ **OGRID Number:** _____
Well Name: _____ **API:** _____
Pool: _____ **Pool Code:** _____

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

_____ Date

_____ Print or Type Name

_____ Phone Number

Cherylene Weston
_____ Signature

_____ 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
__X__Yes ____No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company — Operator
382 Road 3100, Aztec, NM 87410 — Address

Grenier A — Lease
3M — Well No.
D-34-30N-R10W — Unit Letter-Section-Township-Range
San Juan — County

OGRID No. 372171 Property Code 318536 API No. 30-045-25833 Lease Type: __X__Federal ____State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal	Aztec Pictured Cliffs	Blanco Mesaverde	Basin Dakota
Pool Code	71629	71280	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2,258- 2,529' Estimated	2,530'-2,585' Estimated	4,226'-4,902'	6,888'-7,174'
Method of Production (Flowing or Artificial Lift)	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)	100 PSI	75 PSI	200 PSI	115 PSI
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1094 BTU	1117 BTU	1252 BTU	1100 BTU
Producing, Shut-In or New Zone	NEW ZONE	NEW ZONE	Producing Zone	Producing Zone
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:	Date: Rates:	Date: 12/1/2023 Rates: Oil-0 bbl, Gas-0 Mcf, Water-0 bbl	Date: 12/1/2023 Rates: Oil-0 bbl, Gas-0 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.)	Oil % Gas %	Oil % Gas %	Oil % Gas %	Oil % Gas %

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 Cherylene Weston TITLE Operations/Regulatory Tech-Sr. DATE 03/13/2024

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. 713-289-2615

E-MAIL ADDRESS cweston@hilcorp.com

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-102
August 1, 2011

Permit 353069

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-25833	71280	AZTEC PICTURED CLIFFS (GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318536	GRENIER A	003M
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6049

10. Surface Location

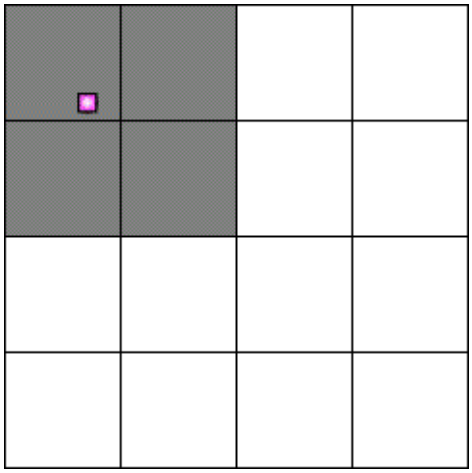
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	34	30N	10W		1110	N	930	W	SAN JUAN

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	13. Joint or Infill	14. Consolidation Code	15. Order No.
160.00			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: Cherylene Weston
Title: Cherylene Weston
Date: 10/31/2023

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred B. Kerr, Jr.
Date of Survey: 8/24/1983
Certificate Number: 3950

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
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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 332811

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-25833	71629	BASIN FRUITLAND COAL (GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318536	GRENIER A	003M
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6049

10. Surface Location

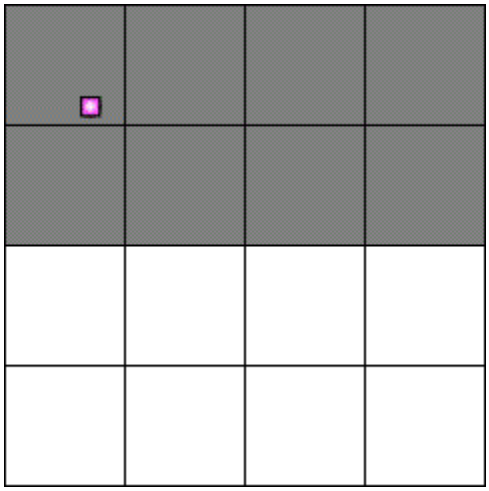
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	34	30N	10W		1110	N	930	W	SAN JUAN

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	13. Joint or Infill	14. Consolidation Code	15. Order No.
318.34			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By:
Title: Operations Regulatory Tech Sr.
Date: 1/19/2023

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred B Kerr Jr
Date of Survey: 8/24/1983
Certificate Number: 3950

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

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

Operator	Lease	Well No.
Southland Royalty Company	Grenier "A"	3M

Unit Letter	Section	Township	Range	County
D	34	30N	10W	San Juan

Actual Footage Location of Well:
1110 feet from the North line and 930 feet from the West line

Ground Level Elev:	Producing Formation	Pool	Dedicated Acreage:
6049' GL	Mesaverde	Blanco	N ~~320~~ 318.34 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

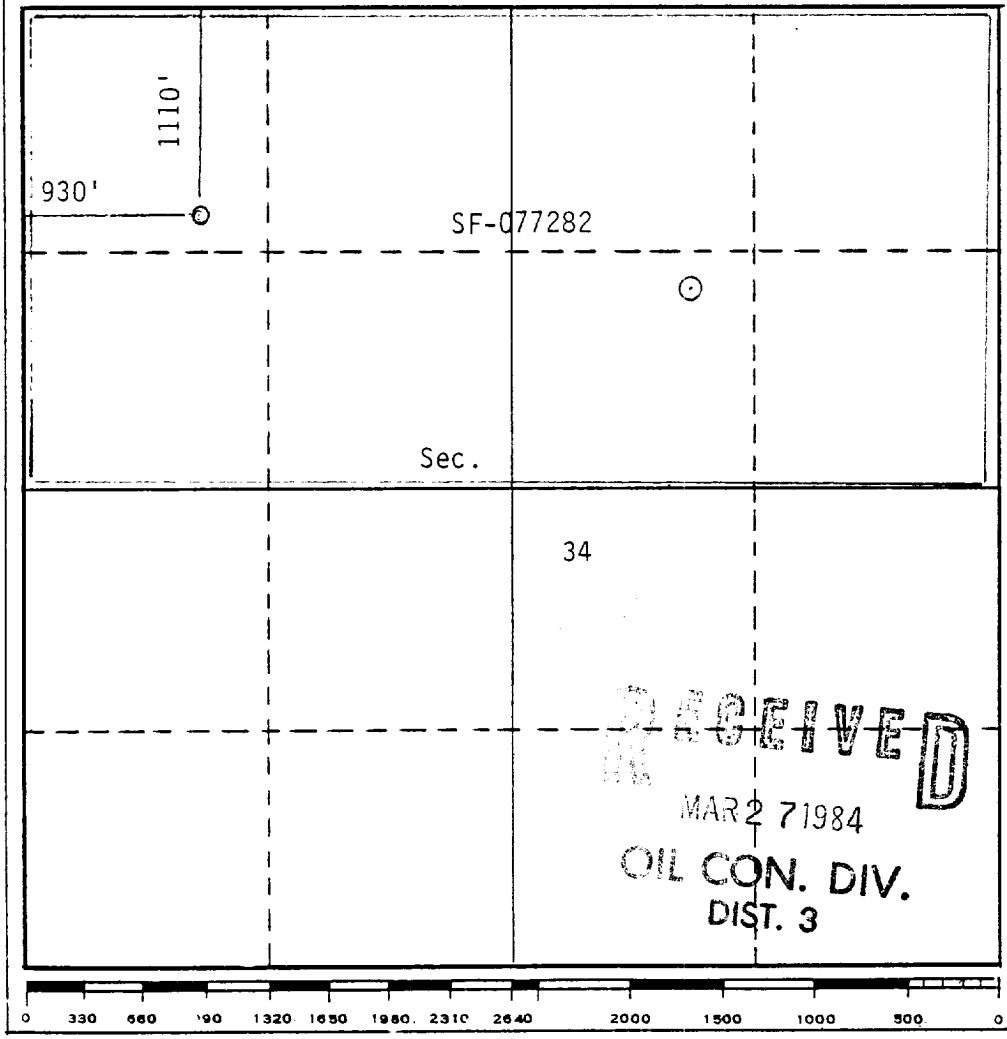
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



1" = 1000'

RECEIVED
MAR 27 1984
OIL CON. DIV.
DIST. 3

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name: R. E. Fielder

Position: District Production Manager

Company: Southland Royalty Company

Date: March 26, 1984

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 knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-78

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

Operator	Lease	Well No.
SOUTHLAND ROYALTY COMPANY	GRENIER "A"	3M

Unit Letter	Section	Township	Range	County
D	34	30N	10W	San Juan

Actual Footage Location of Well:
1110 feet from the North line and 930 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
6049' GL	Dakota	Basin	~~320~~ 318.34 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

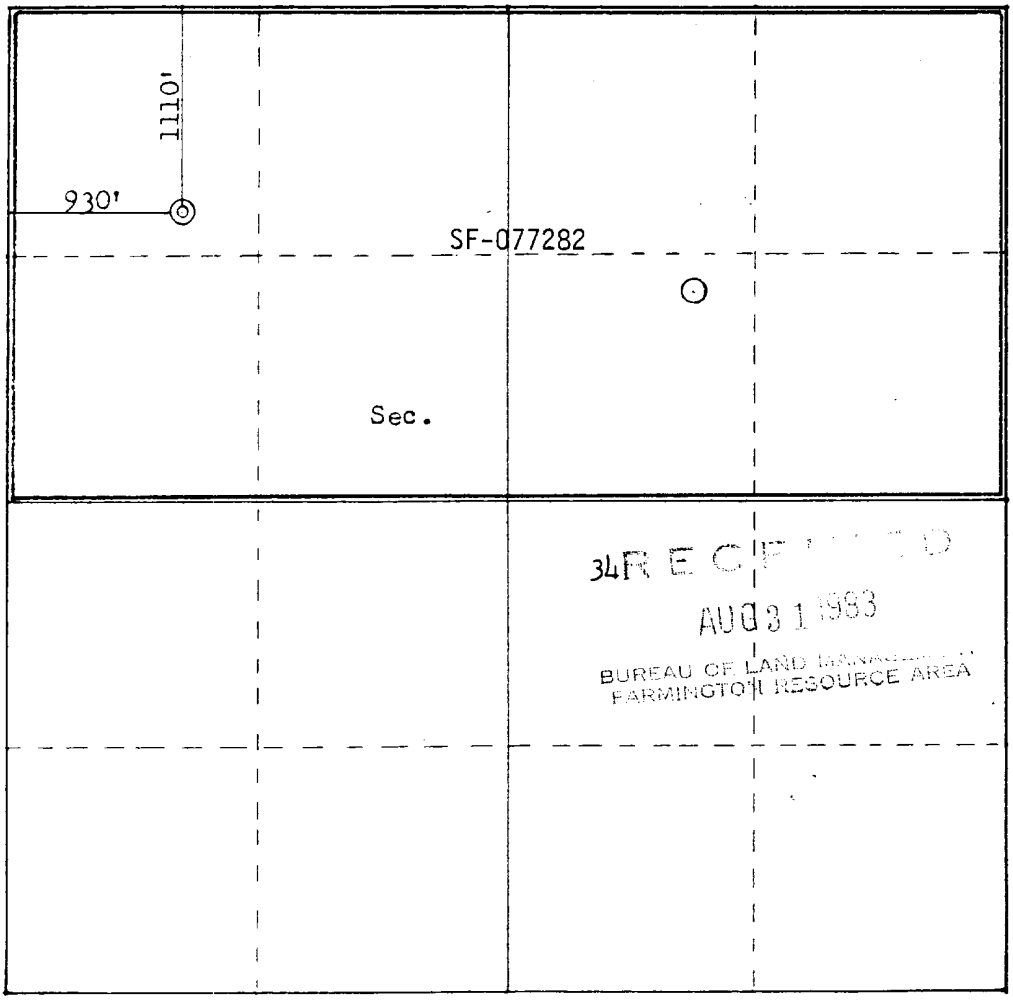
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

RECEIVED
BLM
OIL CON. DIV.
DIST. 3



Scale: 1"=1000'

CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

R. E. Fielder

Name: R. E. Fielder

Position: District Engineer

Company: Southland Royalty Company

Date: August 29, 1983

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 knowledge and belief.

Date Surveyed: Re-issued August 24, 1983

Registered Professional Engineer and Land Surveyor

Fred B. Kerr Jr.

Certificate No. 3950

FORM 24-11

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.

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.

Grenier A 3M Production Allocation

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

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

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 formations to be commingled is the Pictured Cliffs & Fruitland Coal. The subtraction method applies an average monthly production forecast to the base formations using historic production. All production exceeding the base formation forecasts will be allocated to the new formations.

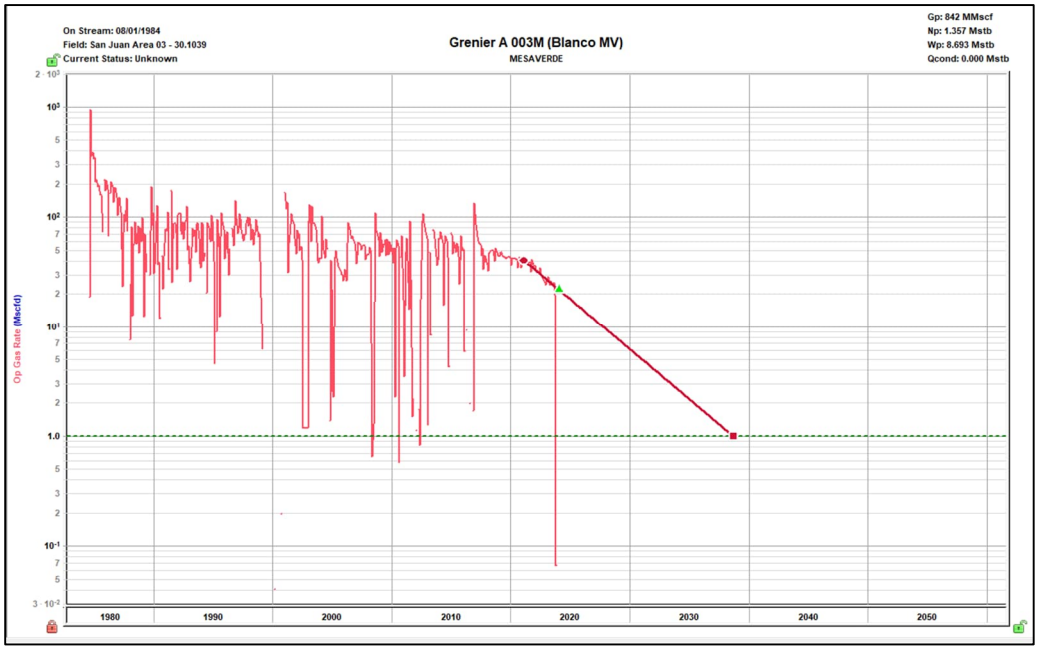
Hilcorp intends to continue to allocate the projected base production on the same fixed percentages to the following pools 58% (MV), 42% (DK) while the subtraction method is being used to determine the allocation to the new zone.

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

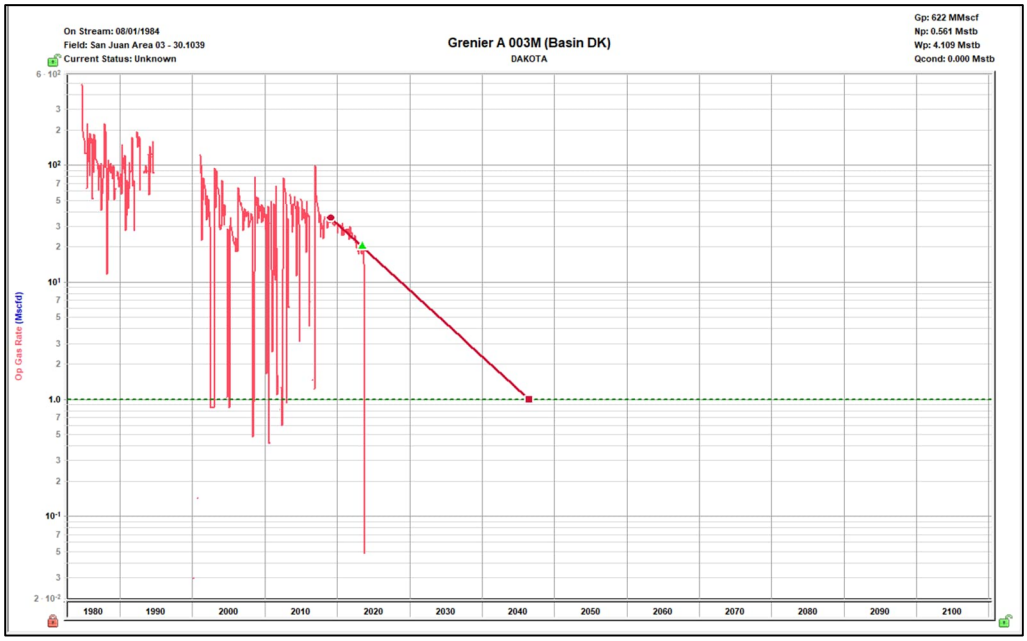
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Pictured Cliffs	188	19%
Fruitland Coal	825	81%

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.

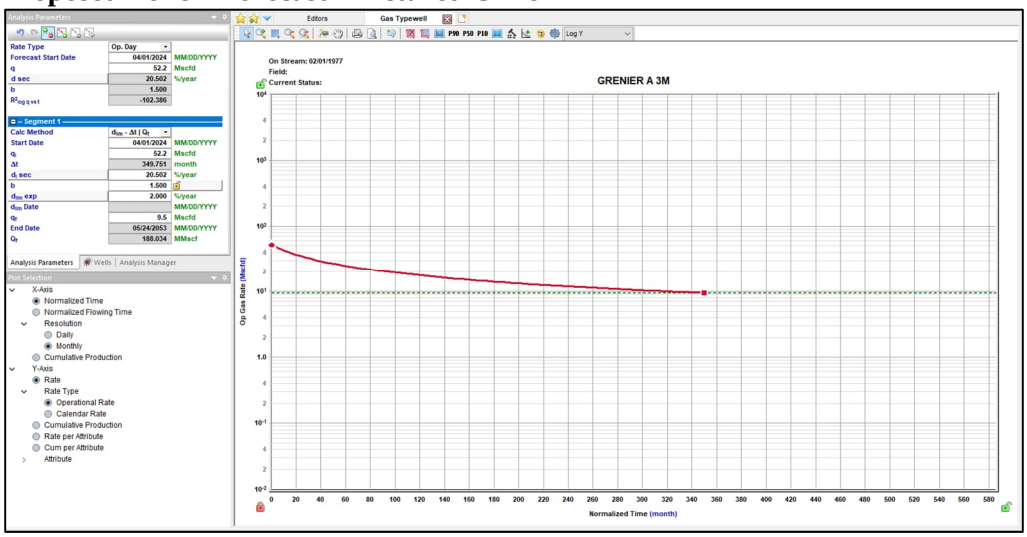
Current Zone 1 Forecast – Mesaverde



Current Zone 2 Forecast – Dakota

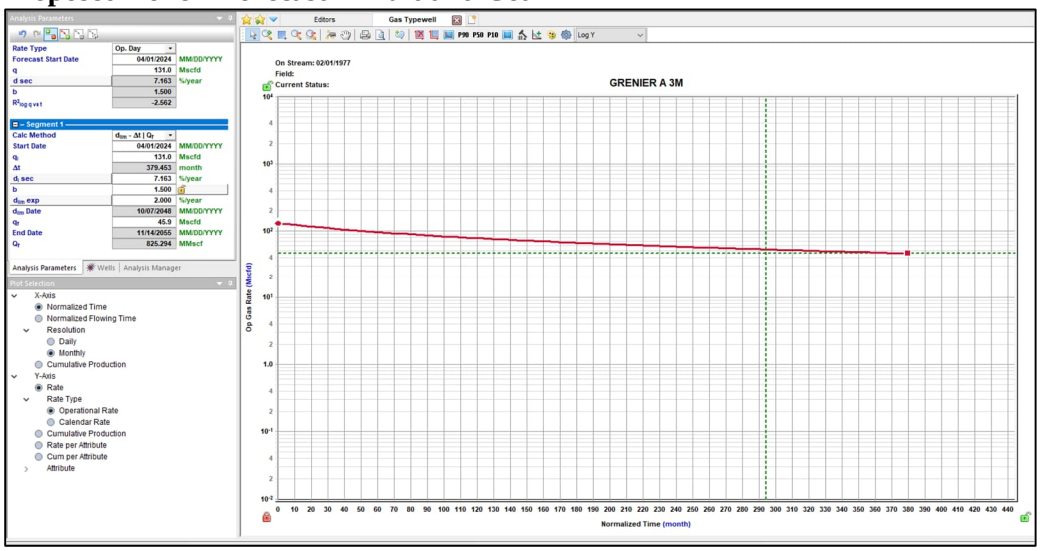


Proposed Zone 1 Forecast – Pictured Cliffs



Average initial production curve in geologic region.

Proposed Zone 2 Forecast – Fruitland Coal



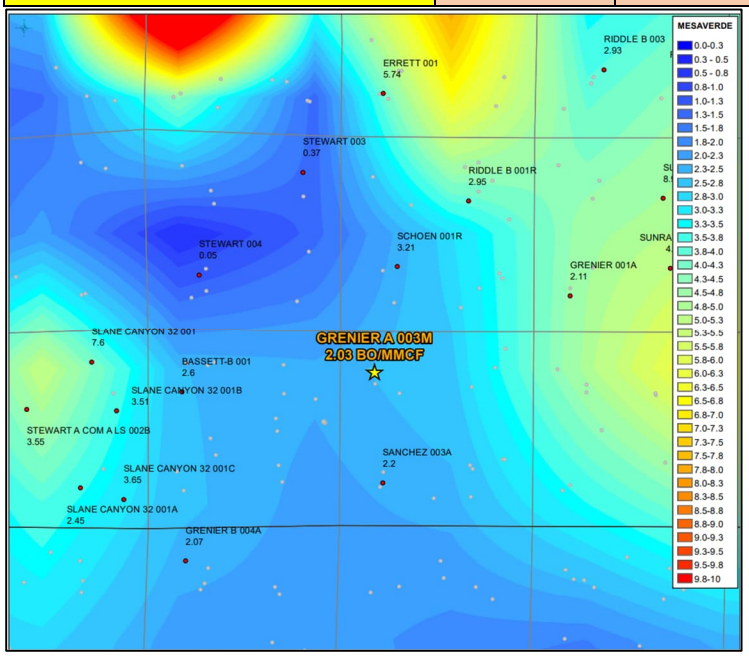
Oil Allocation:

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

Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation
MV	2	36	1.8%
DK	1	54	1.3%
PC	21	188	96.9%
FRC	0	825	0.0%

Current Zone 1 – Mesaverde Oil Yield Map

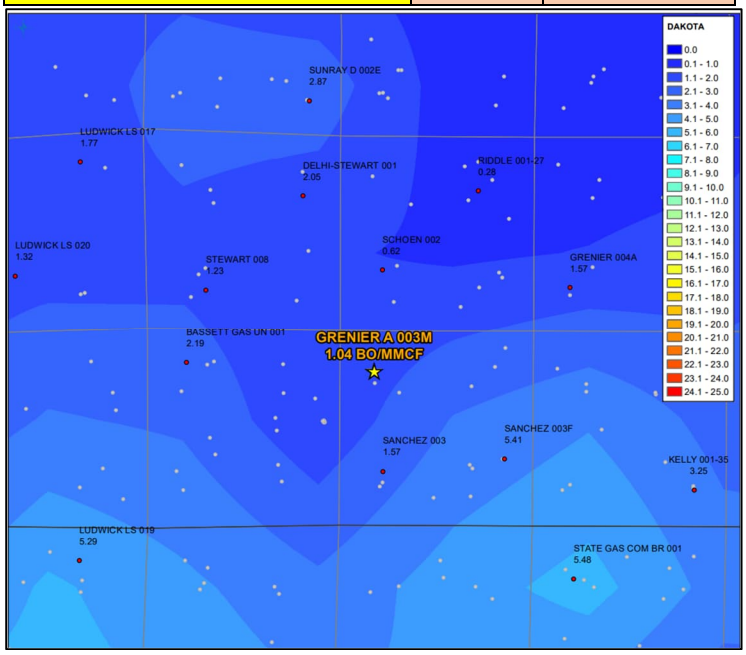
MV	2	BO/MMCF



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

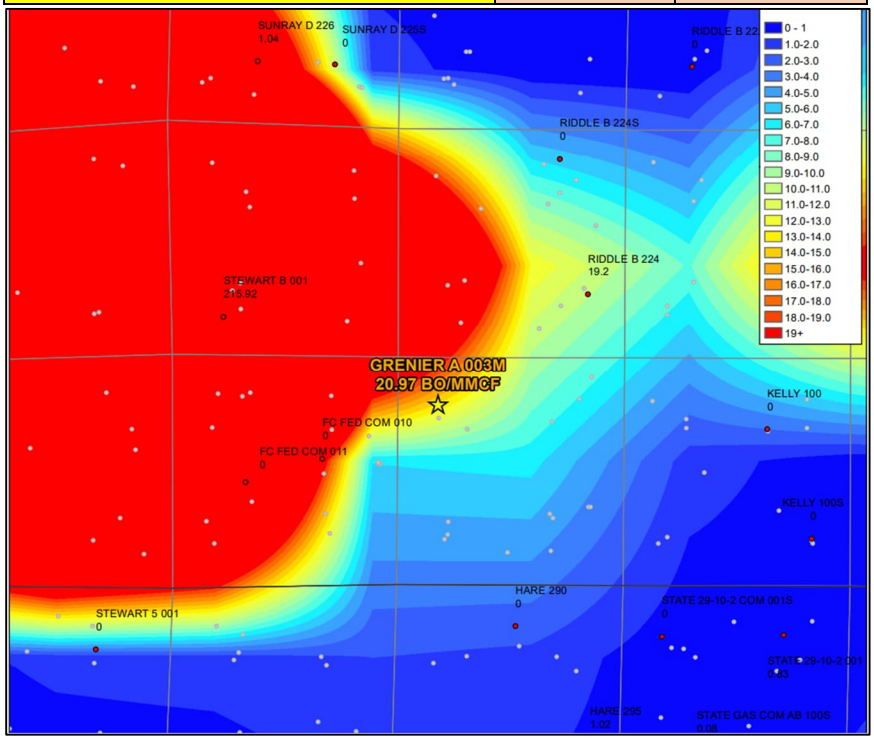
Current Zone 2 – Dakota Oil Yield Map

DK	1	BO/MMCF



Proposed Zone 1 – Pictured Cliffs Oil Yield Map

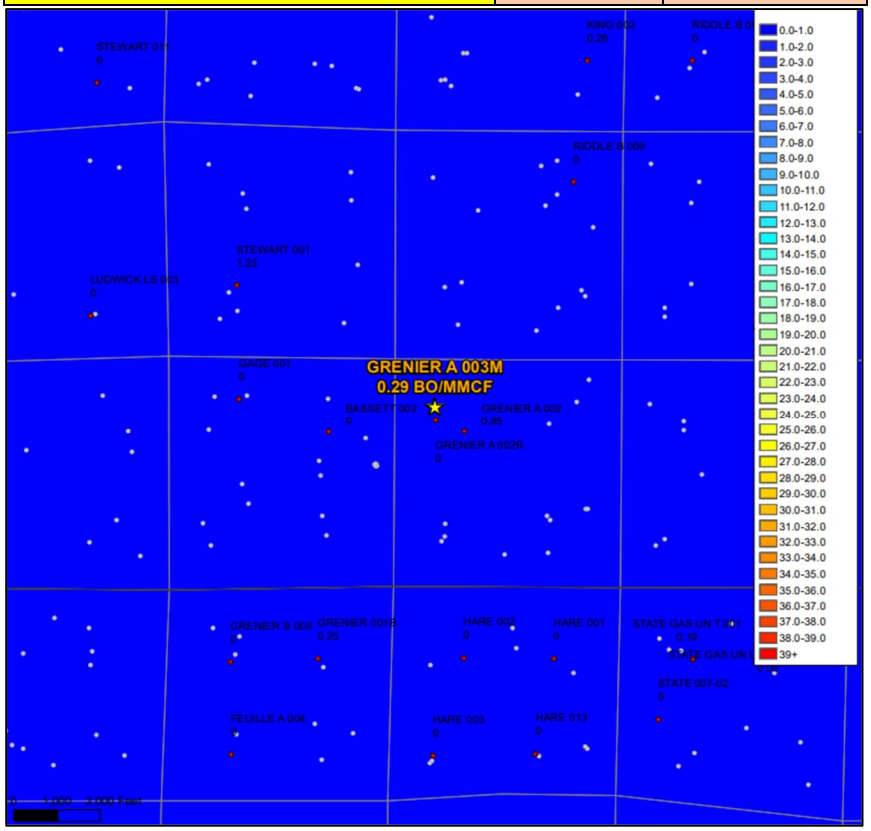
Pictured Cliffs	21	BO/MMCF



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

Proposed Zone 2 – Fruitland Coal Oil Yield Map

Fruitland Coal	0	BO/MMCF



Supplemental Information:

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:

TRIEB FEDERAL COM 2B	3004530140	FRC
HARE SRC 1	3004508787	PC
SUNRAY B 1F	3004534494	DK
TRIEB FEDERAL COM 2E	3004524064	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.

Gas Compatibility in the San Juan Basin

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

Well Name	API
GRENIER A 03M	3004525833

FRC Offset		PC Offset		DK Offset		MV Offset	
AssetCode	3004508682	AssetCode	3004520860	AssetCode	3004534494	AssetCode	3004524064
AssetName	FEUILLE A 1	AssetName	LUDWICK LS 25	AssetName	SUNRAY B 1F	AssetName	TRIEB FEDERAL COM 2E
CO2	0.01	CO2	0	CO2	0.01	CO2	0.01
N2	0	N2	0	N2	0	N2	0
C1	0.87	C1	0.86	C1	0.89	C1	0.8
C2	0.07	C2	0.07	C2	0.06	C2	0.1
C3	0.03	C3	0.03	C3	0.03	C3	0.05
ISOC4	0.01	ISOC4	0.01	ISOC4	0.01	ISOC4	0.01
NC4	0.01	NC4	0.01	NC4	0.01	NC4	0.01
ISOC5	0	ISOC5	0	ISOC5	0	ISOC5	0
NC5	0	NC5	0	NC5	0	NC5	0
NEOC5		NEOC5		NEOC5		NEOC5	
C6		C6		C6		C6	
C6_PLUS	0	C6_PLUS	0.01	C6_PLUS	0	C6_PLUS	0.01
C7		C7		C7		C7	
C8		C8		C8		C8	
C9		C9		C9		C9	
C10		C10		C10		C10	
AR		AR		AR		AR	
CO		CO		CO		CO	
H2		H2		H2		H2	
O2		O2		O2		O2	
H20		H20		H20		H20	
H2S		H2S		H2S		H2S	
HE		HE		HE		HE	
C_O_S		C_O_S		C_O_S		C_O_S	
CH3SH		CH3SH		CH3SH		CH3SH	
C2H5SH		C2H5SH		C2H5SH		C2H5SH	
CH2S3_2CH3S		CH2S3_2CH3S		CH2S3_2CH3S		CH2S3_2CH3S	
CH2S		CH2S		CH2S		CH2S	
C6HV		C6HV		C6HV		C6HV	
CO2GPM	0	CO2GPM	0	CO2GPM	0	CO2GPM	0
N2GPM	0	N2GPM	0	N2GPM	0	N2GPM	0
C1GPM	0	C1GPM	0	C1GPM	0	C1GPM	0
C2GPM	1.77	C2GPM	2	C2GPM	1.49	C2GPM	2.69
C3GPM	0.77	C3GPM	0.95	C3GPM	0.76	C3GPM	1.41
ISOC4GPM	0.18	ISOC4GPM	0.21	ISOC4GPM	0.21	ISOC4GPM	0.29
NC4GPM	0.23	NC4GPM	0.3	NC4GPM	0.2	NC4GPM	0.44
ISOC5GPM	0.11	ISOC5GPM	0.13	ISOC5GPM	0.09	ISOC5GPM	0.16
NC5GPM	0.08	NC5GPM	0.1	NC5GPM	0.06	NC5GPM	0.13
C6_PLUSGPM	0.2	C6_PLUSGPM	0.25	C6_PLUSGPM	0.16	C6_PLUSGPM	0.33

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	API
GRENIER A 03M	3004525833

FRC Offset		PC Offset		DK Offset		MV Offset	
API	3004508787	API	3004508787	API	3004533882	API	3004526737
Property	HARE SRC 1	Property	HARE SRC 1	Property	HOUCK 3F	Property	SANCHEZ 3A
CationBarium	0.5	CationBarium	0.5	CationBarium	0	CationBarium	1.9
CationBoron		CationBoron		CationBoron		CationBoron	
CationCalcium	52	CationCalcium	52	CationCalcium	5.15	CationCalcium	143
CationIron	13	CationIron	13	CationIron	75.15	CationIron	370
CationMagnesium	22	CationMagnesium	22	CationMagnesium	0.59	CationMagnesium	56
CationManganese	0.5	CationManganese	0.5	CationManganese	0.41	CationManganese	24.1
CationPhosphorus		CationPhosphorus		CationPhosphorus		CationPhosphorus	
CationPotassium		CationPotassium		CationPotassium		CationPotassium	
CationStrontium	0.5	CationStrontium	0.5	CationStrontium	0.2	CationStrontium	39
CationSodium	23.22	CationSodium	23.22	CationSodium	99.09	CationSodium	9642.21
CationSilica		CationSilica		CationSilica		CationSilica	
CationZinc		CationZinc		CationZinc		CationZinc	
CationAluminum		CationAluminum		CationAluminum		CationAluminum	
CationCopper		CationCopper		CationCopper		CationCopper	
CationLead		CationLead		CationLead		CationLead	
CationLithium		CationLithium		CationLithium		CationLithium	
CationNickel		CationNickel		CationNickel		CationNickel	
CationCobalt		CationCobalt		CationCobalt		CationCobalt	
CationChromium		CationChromium		CationChromium		CationChromium	
CationSilicon		CationSilicon		CationSilicon		CationSilicon	
CationMolybdenum		CationMolybdenum		CationMolybdenum		CationMolybdenum	
AnionChloride	76	AnionChloride	76	AnionChloride	102.11	AnionChloride	15060
AnionCarbonate	0	AnionCarbonate	0	AnionCarbonate	0	AnionCarbonate	0
AnionBicarbonate	61	AnionBicarbonate	61	AnionBicarbonate		AnionBicarbonate	305
AnionBromide		AnionBromide		AnionBromide		AnionBromide	
AnionFluoride		AnionFluoride		AnionFluoride		AnionFluoride	
AnionHydroxyl	0	AnionHydroxyl	0	AnionHydroxyl	0	AnionHydroxyl	0
AnionNitrate		AnionNitrate		AnionNitrate		AnionNitrate	
AnionPhosphate		AnionPhosphate		AnionPhosphate		AnionPhosphate	
AnionSulfate	110	AnionSulfate	110	AnionSulfate	0	AnionSulfate	108
phField	7.41	phField	7.41	phField	6.95	phField	6.53
phCalculated		phCalculated		phCalculated		phCalculated	
TempField	47	TempField	47	TempField	59.2	TempField	35
TempLab		TempLab		TempLab		TempLab	
OtherFieldAlkalinity		OtherFieldAlkalinity		OtherFieldAlkalinity		OtherFieldAlkalinity	
OtherSpecificGravity	0	OtherSpecificGravity	0	OtherSpecificGravity	1	OtherSpecificGravity	0
OtherTDS	358.72	OtherTDS	358.72	OtherTDS	476.94	OtherTDS	25749.21
OtherCaCO3		OtherCaCO3		OtherCaCO3		OtherCaCO3	
OtherConductivity	560.5	OtherConductivity	560.5	OtherConductivity	745.22	OtherConductivity	40233.14
DissolvedCO2	3	DissolvedCO2	3	DissolvedCO2	90	DissolvedCO2	53
DissolvedO2		DissolvedO2		DissolvedO2		DissolvedO2	
DissolvedH2S	0	DissolvedH2S	0	DissolvedH2S	0.58	DissolvedH2S	0
GasPressure	100	GasPressure	100	GasPressure	50	GasPressure	100
GasCO2	0	GasCO2	0	GasCO2	2	GasCO2	0
GasCO2PP	0	GasCO2PP	0	GasCO2PP	1	GasCO2PP	0
GasH2S	0	GasH2S	0	GasH2S	0	GasH2S	0
GasH2SPP	0	GasH2SPP	0	GasH2SPP	0	GasH2SPP	0
PitzerCaCO3_70	-0.77	PitzerCaCO3_70	-0.77	PitzerCaCO3_70		PitzerCaCO3_70	-1
PitzerBaSO4_70	1.26	PitzerBaSO4_70	1.26	PitzerBaSO4_70		PitzerBaSO4_70	0.67
PitzerCaSO4_70	-1.57	PitzerCaSO4_70	-1.57	PitzerCaSO4_70		PitzerCaSO4_70	-2.24
PitzerSrSO4_70	-1.91	PitzerSrSO4_70	-1.91	PitzerSrSO4_70		PitzerSrSO4_70	-1.12
PitzerFeCO3_70		PitzerFeCO3_70		PitzerFeCO3_70		PitzerFeCO3_70	
PitzerCaCO3_220	0.03	PitzerCaCO3_220	0.03	PitzerCaCO3_220		PitzerCaCO3_220	-0.27
PitzerBaSO4_220	0.72	PitzerBaSO4_220	0.72	PitzerBaSO4_220		PitzerBaSO4_220	0.11
PitzerCaSO4_220	-1.44	PitzerCaSO4_220	-1.44	PitzerCaSO4_220		PitzerCaSO4_220	-2.16
PitzerSrSO4_220	-1.7	PitzerSrSO4_220	-1.7	PitzerSrSO4_220		PitzerSrSO4_220	-1
PitzerFeCO3_220		PitzerFeCO3_220		PitzerFeCO3_220		PitzerFeCO3_220	

Well Name: GRENIER A	**Well Location:** T30N / R10W / SEC 34 / NWNW / 36.77289 / -107.87695	**County or Parish/State:** SAN JUAN / NM
Well Number: 3M	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMSF077282	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3004525833	**Well Status:** Producing Gas Well	**Operator:** HILCORP ENERGY COMPANY

Notice of Intent

Sundry ID: 2778645

Type of Submission: Notice of Intent

Type of Action: Recompletion

Date Sundry Submitted: 03/08/2024

Time Sundry Submitted: 12:08

Date proposed operation will begin: 05/01/2024

Procedure Description: Revised NOI: Hilcorp Energy Company requests permission to recomplete the subject well in the Fruitland Coal / Pictured Cliffs formations and downhole commingle with the existing Mesaverde/Dakota formations. Please see the attached procedure, current and proposed wellbore diagram, plats and natural gas management plan. A closed loop system will be used. A pre-reclamation onsite is not required as the surface is Fee.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Grenier_A_3_M__2nd_Rev_NOI_FRCPC_RC_20240308120709.pdf

Well Name: GRENIER A	**Well Location:** T30N / R10W / SEC 34 / NWNW / 36.77289 / -107.87695	**County or Parish/State:** SAN JUAN / NM
Well Number: 3M	**Type of Well:** CONVENTIONAL GAS WELL	**Allottee or Tribe Name:**
Lease Number: NMSF077282	**Unit or CA Name:**	**Unit or CA Number:**
US Well Number: 3004525833	**Well Status:** Producing Gas Well	**Operator:** HILCORP ENERGY COMPANY

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: CHERYLENE WESTON

Signed on: MAR 08, 2024 12:07 PM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Tech - Sr

Street Address: 1111 TRAVIS STREET

City: HOUSTON **State:** TX

Phone: (713) 289-2615

Email address: CWESTON@HILCORP.COM

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 03/08/2024

Signature: Kenneth Rennick

HILCORP ENERGY COMPANY
GRENIER A 3M
FRUITLAND COAL RECOMPLETE SUNDRY
API 3004525833

JOB PROCEDURES

1. Well Was previously Wellbore Prepped in 2023. See Current Schematic within procedure. CBL on File dated 9-27-23. MIT Witnessed 9-28-23
2. **If frac'ing down casing:** pressure test casing to frac pressure.
3. RU WL. Perforate the Pictured Cliffs. Top perforation @ **2,530'**, bottom perforation @ **2,585'**.
4. **If frac'ing down frac string:** RIH w/ frac string and packer. Set packer within 50' of top perforation.
5. NU frac stack. Pressure test frac stack to frac pressure. Pressure test frac string (if applicable) to frac pressure. RDMO.
6. RU stimulation crew. Frac the Pictured Cliffs in one or more stages. Set plugs in between stages, if necessary.
7. RU WL. Perforate the **Fruitland Coal.** Top perforation @ **2,258'**, bottom perforation @ **2,529'**.
8. Frac the Fruitland Coal in one or more stages. Set plugs in between stages, if necessary.
9. MIRU workover rig and associated equipment; NU and test BOP.
10. **If frac was performed down frac string:** POOH w/ frac string and packer.
11. TIH with mill and clean out to isolation plug.
12. Pending C107A approval, mill out isolation plug. Cleanout to PBTD. TOOH with cleanout assembly.
13. TIH and land production tubing. Flow back the well. Return well to production as Fruitland Coal/ Pictured Cliffs/ Mesaverde/Dakota Producer.

Hilcorp

HILCORP ENERGY COMPANY
GRENIER A 3M
FRUITLAND COAL RECOMPLETE SUNDRY

GRENIER A 3M - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Schematic - Current

Well Name: GRENIER A #3M

API / UWI	Surface Legal Location	Field Name	License No.	State/Province	Well Configuration Type
3004525833	034-030N-010W-D	BSN DK(PRO GAS) #0068		NEW MEXICO	
Original KB/RT Elevation (ft)	**RKB to GL (ft)**	**Original Spud Date**	**Rig Release Date**	**PBTD (All)**	**Total Depth All (TVD)**
6,062.50	13.50	1/2/1984 00:00	3/17/2006 13:30	Original Hole - 7,042.5	

Most Recent Job

Job Category	Primary Job Type	Secondary Job Type	Actual Start Date	End Date
Capital Workover	RECOMPLETION		9/26/2023	

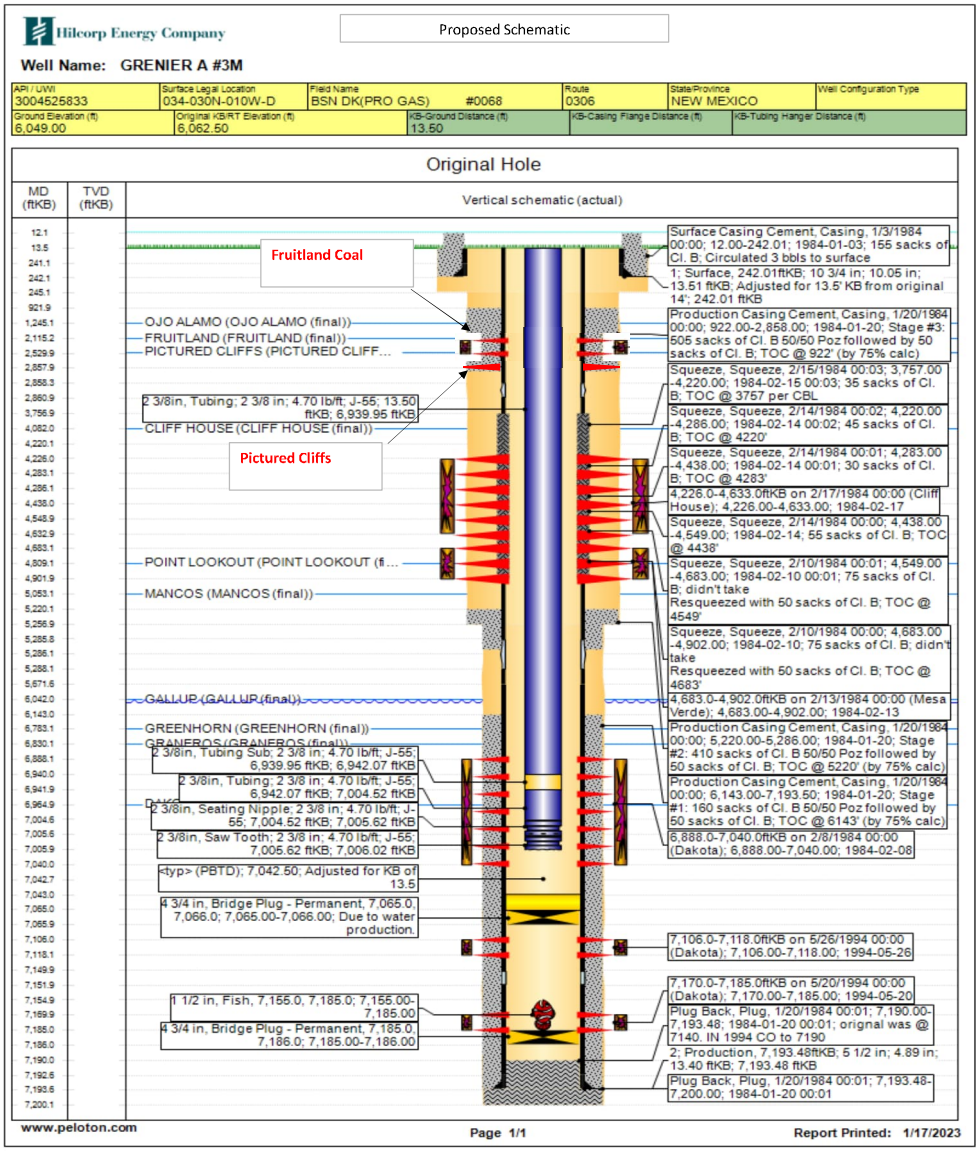
TD: 7,200.0 — Original Hole — Vertical schematic (actual)

MD (ftKB)	
13.5	Casing Joints, 10 3/4in; 13.51-241.01; 227.50; 1-1; 10 3/4; 10.05
242.1	Shoe, 10 3/4in; 241.01-242.01; 1.00; 1-2; 10 3/4; 10.05
921.9	
2,115.2	OJO ALAMO (OJO ALAMO (final))
	FRUITLAND (FRUITLAND (final))
2,594.2	PICTURED CLIFFS (PICTURED CLIFFS (final))
	Casing Joints, 5 1/2in; 13.40-2,858.33; 2,844.93; 2-1; 5 1/2; 4.95
2,857.9	
2,860.9	Stage Tool, 5 1/2in; 2,858.33-2,860.73; 2.40; 2-2; 5 1/2; 4.95
4,082.0	CLIFF HOUSE (CLIFF HOUSE (final))
	Casing Joints, 5 1/2in; 2,860.73-5,285.62; 2,424.89; 2-3; 5 1/2; 4.95
4,180.1	
4,226.0	
4,286.1	4,226.0-4,633.0ftKB on 2/17/1984 00:00 (Cliff House); 4,226.00-4,633.00; 1984-02-17
4,548.9	
4,683.1	4,683.0-4,902.0ftKB on 2/13/1984 00:00 (Mesa Verde); 4,683.00-4,902.00; 1984-02-13
4,901.9	POINT LOOKOUT (POINT LOOKOUT (final))
5,220.1	MANCOS (MANCOS (final))
5,285.8	Stage Tool, 5 1/2in; 5,285.62-5,288.02; 2.40; 2-4; 5 1/2; 4.95
5,288.1	Casing Joints, 5 1/2in; 5,288.02-5,671.58; 383.56; 2-5; 5 1/2; 4.95
6,042.0	GALLUP (GALLUP (final))
6,783.1	GREENHORN (GREENHORN (final))
	Casing Joints, 5 1/2in; 5,671.58-7,150.05; 1,478.47; 2-6; 5 1/2; 4.89
6,888.1	GRANEROS (GRANEROS (final))
7,040.0	DAKOTA (DAKOTA (final))
	6,888.0-7,040.0ftKB on 2/8/1984 00:00 (Dakota); 6,888.00-7,040.00; 1984-02-08
7,043.0	
7,065.9	7,106.0-7,118.0ftKB on 5/26/1994 00:00 (Dakota); 7,106.00-7,118.00; 1994-05-26
7,118.1	Float Collar, 5 1/2in; 7,150.05-7,151.85; 1.80; 2-7; 5 1/2; 4.89
7,151.9	Casing Joints, 5 1/2in; 7,151.85-7,192.48; 40.63; 2-8; 5 1/2; 4.89
7,169.9	7,170.0-7,185.0ftKB on 5/20/1994 00:00 (Dakota); 7,170.00-7,185.00; 1994-05-20
7,186.0	
7,192.6	Guide Shoe, 5 1/2in; 7,192.48-7,193.48; 1.00; 2-9; 5 1/2; 4.89
7,200.1	

www.peloton.com — Page 1/1 — Report Printed: 3/7/2024

HILCORP ENERGY COMPANY
GRENIER A 3M
FRUITLAND COAL RECOMPLETE SUNDRY

GRENIER A 3M - PROPOSED WELLBORE SCHEMATIC



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-102
August 1, 2011

Permit 332811

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-25833	71629	BASIN FRUITLAND COAL (GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318536	GRENIER A	003M
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6049

10. Surface Location

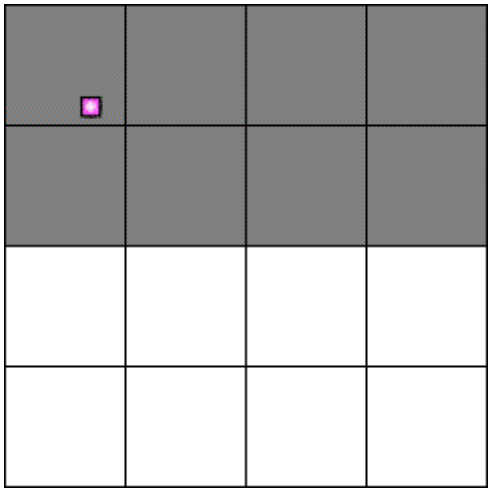
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	34	30N	10W		1110	N	930	W	SAN JUAN

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	13. Joint or Infill	14. Consolidation Code	15. Order No.
318.34			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By:
Title: Operations Regulatory Tech Sr.
Date: 1/19/2023

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred B Kerr Jr
Date of Survey: 8/24/1983
Certificate Number: 3950

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
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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 353069

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-25833	2. Pool Code 71280	3. Pool Name AZTEC PICTURED CLIFFS (GAS)
4. Property Code 318536	5. Property Name GRENIER A	6. Well No. 003M
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6049

10. Surface Location

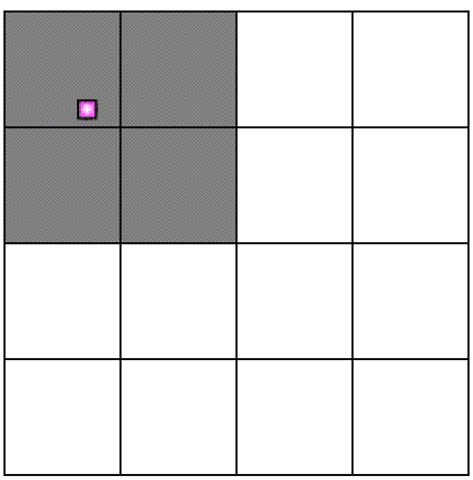
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	34	30N	10W		1110	N	930	W	SAN JUAN

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	13. Joint or Infill	14. Consolidation Code	15. Order No.
160.00			

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



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

E-Signed By: *Cherylene Weston*
Title: Cherylene Weston
Date: 10/27/2023

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Surveyed By: Fred B. Kerr, Jr.
Date of Survey: 8/24/1983
Certificate Number: 3950

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Hilcorp Energy Company **OGRID:** 372171 **Date:** 3/8/2024 .

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
Grenier A 3M	3004525833	D-34-30N-10W	1110' FNL & 930' FWL	0	124	1

IV. Central Delivery Point Name: Kutz Gas 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
Grenier A 3M	**3004525833**	**N/A**	**N/A**	**N/A**	**N/A**	**2024**

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: Cherylene Weston
Title: Operations/Regulatory Tech-Sr.
E-mail Address: cweston@hilcorp.com
Date: 3/8/2024
Phone: 713-289-2615

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 recomplete project. HEC will utilize flowback separation equipment and production separation equipment designed and built to industry specifications after the recomplete to optimize gas capture and send gas to sales or flare based on analytical composition. HEC operates facilities that are typically one-well facilities. Production separation equipment is upgraded prior to well being completed, if determined to be undersized or inadequate. This equipment is already on-site and tied into our sales gas lines prior to the recomplete operations.

VII. Operational Practices:

1. Subsection (A) Venting and Flaring of Natural Gas
   - HEC understands the requirements of NMAC 19.15.27.8 which outlines that the venting and flaring of natural gas during drilling, completion or production operations that constitutes waste as defined in 19.15.2 are prohibited.
2. Subsection (B) Venting and Flaring during drilling operations
   - This gas capture plan isn't for a well being drilled.
3. Subsection (C) Venting and flaring during completion or recompletion
   - Flowlines will be routed for flowback fluids into a completion or storage tank and if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
4. Subsection (D) Venting and flaring during production operations
   - At any point in the well life (completion, production, inactive) an audio, visual and olfactory inspection be performed at prescribed intervals (weekly or monthly) pursuant to Subsection D of 19.15.27.8 NMAC, to confirm that all production equipment is operating properly and there are no leaks or releases.
   - Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.
   - 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.

Hilcorp

March 20, 2024

Mailed Certified / Return Receipt Requested

To: ALL INTEREST OWNERS

RE: Application to Downhole Commingle Production
Well: Grenier A 3M
API: 30-045-25833
Township 30 North, Range 10 West, Section 34
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 for approval to downhole commingle production from the **Fruitland Coal and Pictured Cliffs**, formations Hilcorp soon intends to perforate, with existing production from the **Mesaverde and 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 file an objection to this application.

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,

Carson Rice
Landman – San Juan North

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
__X__Yes ____No

APPLICATION FOR DOWNHOLE COMMINGLING

Hilcorp Energy Company (Operator) | 382 Road 3100, Aztec, NM 87410 (Address)

Grenier A (Lease) | 3M (Well No.) | D-34-30N-R10W (Unit Letter-Section-Township-Range) | San Juan (County)

OGRID No. 372171 Property Code 318536 API No. 30-045-25833 Lease Type: __X__Federal ____State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Basin Fruitland Coal	Aztec Pictured Cliffs	Blanco Mesaverde	Basin Dakota
Pool Code	71629	71280	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2,258- 2,529' Estimated	2,530'-2,585' Estimated	4,226'-4,902'	6,888'-7,174'
Method of Production (Flowing or Artificial Lift)	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)	100 PSI	75 PSI	200 PSI	115 PSI
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1094 BTU	1117 BTU	1252 BTU	1100 BTU
Producing, Shut-In or New Zone	NEW ZONE	NEW ZONE	Producing Zone	Producing Zone
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:	Date: Rates:	Date: 12/1/2023 Rates: Oil-0 bbl, Gas-0 Mcf, Water-0 bbl	Date: 12/1/2023 Rates: Oil-0 bbl, Gas-0 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.)	Oil % Gas %	Oil % Gas %	Oil % Gas %	Oil % Gas %

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 Cherylene Weston TITLE Operations/Regulatory Tech-Sr. DATE 03/13/2024

TYPE OR PRINT NAME Cherylene Weston TELEPHONE NO. 713-289-2615

E-MAIL ADDRESS cweston@hilcorp.com

Certified Number	Sender	Recipient	Date Mailed	Delivery Status
9214896900999790183391938 2	Brenda Guzman	, OFFICE OF NATURAL RESOURCES REVENUE, LAKEWOOD ACCTG CENT ONSHORE, DENVER, CO, 80225-0627 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391939 9	Brenda Guzman	, JEANNE A DAVIS TRUST, JEANNE A DAVIS TRUSTEE, TYLER, TX, 75710-1461 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391940 5	Brenda Guzman	, CEJA ROYALTIES LTD, , TYLER, TX, 75710-1360 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391941 2	Brenda Guzman	, JULIANNA COLE REID, , RICHMOND, VA, 23221 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391942 9	Brenda Guzman	, JOSEPH D REID JR, , SARASOTA, FL, 34231 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391943 6	Brenda Guzman	, JOSHUA HAUSER, , WESTFIELD, IN, 46074 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391944 3	Brenda Guzman	, PHILIP G DEMEREE, , SCOTTSDALE, AZ, 85258 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391945 0	Brenda Guzman	, ELISE GHOLSON, , IMBODEN, AR, 72434 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391946 7	Brenda Guzman	, STEVE JACOB HOUSTON, , CLYDE HILL, WA, 98004 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391947 4	Brenda Guzman	, MADISON CAPITAL ENERGY INCOME FUND, III LP, MADISON, WI, 53719 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391948 1	Brenda Guzman	, LINDA STROBEL LIFE TENANT, , POWAY, CA, 92064 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391949 8	Brenda Guzman	, T J TINGLEY, , POST FALLS, ID, 83854 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391950 4	Brenda Guzman	, TERA ELIZABETH JEFFRIES, , KIRBYVILLE, MO, 65676 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391951 1	Brenda Guzman	, ASHTON N KOONS IRREV TR, ZIA TRUST INC TTEE, ALBUQUERQUE, NM, 87190 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391952 8	Brenda Guzman	, THOMAS E KOONS IRREV TR, ZIA TRUST INC TTEE, ALBUQUERQUE, NM, 87190 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391953 5	Brenda Guzman	, JAY GOTTSTEIN TRUST NOV 11 1992, J JOSEPH MORRIS TRUSTEE, LEES SUMMIT, MO, 64064-1445 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391954 2	Brenda Guzman	, GRAHAM L GOTTSTEIN, , CLYDE HILL, WA, 98004 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391955 9	Brenda Guzman	, ALISON A GOTTSTEIN, , CLYDE HILL, WA, 98004 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391956 6	Brenda Guzman	, MANSFIELD FAMILY 2001 REV TR, DTD 10 12 01 BENJAMIN J MANSFIELD and, RENO, NV, 89503 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391957 3	Brenda Guzman	, KIRSTEN KOONS REHORN IRREV TR, ZIA TRUST INC TTEE, ALBUQUERQUE, NM, 87190 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391958 0	Brenda Guzman	, SCOTT BRIGHTBILL, , SAN DIEGO, CA, 92128 Code: Grenier A 3M DHC	3/20/2024	Signature Pending
9214896900999790183391959 7	Brenda Guzman	, LISA DANIELLE KUHN, , POWAY, CA, 92064 Code: Grenier A 3M DHC	3/20/2024	Signature Pending

9214896900999790183391960 3	Brenda Guzman	, STEPHEN BRIGHTBILL, , MERIDIAN, ID, 83646 Code: Grenier A 3M DHC	3/20/2024	**Signature Pending**
9214896900999790183391961 0	Brenda Guzman	, EDWIN R DEGENHARDT, and DAWN C DEGENHARDT, MADISON, WI, 53719 Code: Grenier A 3M DHC	3/20/2024	**Signature Pending**
9214896900999790183391962 7	Brenda Guzman	, METINA INVESTMENTS LLC, , AUSTIN, TX, 78746 Code: Grenier A 3M DHC	3/20/2024	**Signature Pending**
9214896900999790183391963 4	Brenda Guzman	, SAN JUAN BASIN TRUST, , BARTLESVILLE, OK, 74006-7500 Code: Grenier A 3M DHC	3/20/2024	**Signature Pending**

From: McClure, Dean, EMNRD on behalf of Engineer, OCD, EMNRD
To: Mandi Walker; Cheryl Weston
Cc: McClure, Dean, EMNRD; Lowe, Leonard, EMNRD; Rikala, Ward, EMNRD; Wrinkle, Justin, EMNRD; Powell, Brandon, EMNRD; Paradis, Kyle O; dmankiew@blm.gov
Subject: Approved Administrative Order DHC-5328-A
Date: Thursday, May 30, 2024 5:19:29 PM
Attachments: DHC5328A Order.pdf

NMOCD has issued Administrative Order DHC-5328-A which authorizes Hilcorp Energy Company (372171) to downhole commingle production within the following well:

Well Name: **Grenier A #3M**
Well API: **30-045-25833**

The administrative order is attached to this email and can also be found online at OCD Imaging.

Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

LocaliQ
Texas/New Mexico
GANNETT

PO Box 631667 Cincinnati, OH 45263-1667

AFFIDAVIT OF PUBLICATION

Hilcorp Energy
Hilcorp Energy
382 Rd 3100
Aztec NM 87410

STATE OF WISCONSIN, COUNTY OF BROWN

The Farmington Daily Times, a daily newspaper published in the city of Farmington, San Juan County, State of New Mexico, and personal knowledge of the facts herein state and that the notice hereto annexed was Published in said newspapers in the issue:

03/22/2024

and that the fees charged are legal.
Sworn to and subscribed before on 03/22/2024

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-107-A 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 Gas Pool (71629) and Aztec Pictured Cliffs Gas Pool (71280) with existing production from the Blanco-Mesaverde Gas Pool (72319) and Basin Dakota Gas Pool (71599) in GRENIER A 3M well (API No. 30-045-25833) located in Unit D, Section 34, Township 30 North, Range 10 West, NMPM, San Juan County, New Mexico. Commingling will not reduce the value of production. The allocation of production between zones will occur via subtraction method. This notice is intended for certain unlocatable interest owners in the aforementioned well for which certified mail delivery is not possible. Should you (the interest owner for which this notice is intended) have an objection, you must notify the NMOCD in writing within twenty (20) days from the date of this publication. Thereafter, the matter may be set for hearing with the NMOCD in Santa Fe, NM, wherein your attendance and testimony would be required.
9983129, Daily Times, March 22, 2024

Kiegan Moran
Legal Clerk

Notary, State of WI, County of Brown

10-28-24
My commission expires

Publication Cost:	$87.30		
Order No:	9983129	# of Copies:	
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PO #:			

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

RYAN SPELLER
Notary Public
State of Wisconsin

From: Cheryl Weston
To: McClure, Dean, EMNRD; Lowe, Leonard, EMNRD
Cc: Mandi Walker
Subject: FW: [EXTERNAL] Action ID: 326004; DHC-5328-A
Date: Thursday, May 23, 2024 1:28:38 PM
Attachments: image001.png
Grenier A 3M Allocation.pdf

Dean,

Please see the corrected allocation pages. The Reservoir Engineer did change out the GOR maps from what was originally submitted.

Let me know if you have any questions.

Thanks,
Cheryl

From: Griffin Selby <Griffin.Selby@hilcorp.com>
Sent: Thursday, May 23, 2024 12:54 PM
To: Cheryl Weston <cweston@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 326004; DHC-5328-A

Yes, that allocation is for the new added zones is correct. Table to show:

NEW RESERVES		
PC	188	19%
FRC	825	81%
	1013	

The GOR maps are correct. If they were swapped on original application, that was an error. The most recent maps submitted are the correct ones.

I reattached the DHC workbook, these have the water and gas samples for every zone. I did not change anything though from what was submitted on the updated workbook on 5/21. Let me know if I am misunderstanding something there.

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Thursday, May 23, 2024 9:42 AM
To: Griffin Selby <Griffin.Selby@hilcorp.com>
Subject: FW: [EXTERNAL] Action ID: 326004; DHC-5328-A

Griffin,

Please see the attached DHC allocation form that was submitted after your revisions. I'm not sure what Dean is referring to on the highlighted text below. I corrected the gas allocation

table. Don't know how I ended up putting 17% & 75% (it was late at night). The gas and water analysis were also on the supplemental submitted.

Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Wednesday, May 22, 2024 2:15 PM
To: Cheryl Weston <cweston@hilcorp.com>; Lowe, Leonard, EMNRD <Leonard.Lowe@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 326004; DHC-5328-A

Cheryl,

It appears that the proposed allocation of gas between PC and FLC has been altered within the supplemental document to be 17% and 75%. However, the originally proposed allocation of 19% and 81% seems more appropriate based off the remaining reserves. Additionally, with consideration to 17% and 75% not summing to 100%, I would assume that Hilcorp wishes to maintain its initial proposal of 19% and 81% for these formations. Please confirm this is correct.

Please confirm that the correct GOR map is being used for the PC and FLC. Based off the original application packet, it appears that in the supplemental, the GOR map for these two pools may be swapped.

Additionally, it appears that the amended water samples may have been left off of the supplemental documents; please provide them.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Tuesday, May 21, 2024 10:45 PM
To: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>; Lowe, Leonard, EMNRD <Leonard.Lowe@emnrd.nm.gov>
Cc: Mandi Walker <mwalker@hilcorp.com>

Subject: FW: [EXTERNAL] Action ID: 326004; DHC-5328-A

Dean/Leonard:

Please see below response from Hilcorp reservoir engineer and revised allocation documents. Let me know if you need anything else.

Thanks,
Cheryl

From: Griffin Selby <Griffin.Selby@hilcorp.com>
Sent: Tuesday, May 21, 2024 9:10 AM
To: Cheryl Weston <cweston@hilcorp.com>; Sikandar Khan <Sikandar.Khan@hilcorp.com>; Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 326004; DHC-5328-A

Cheryl,

The DHC workbook is updated with new GOR maps. When we QC'd the data points Dean was referring to, we found that the Stewart B #1 was incorrectly high and was causing the map to be incorrect as well. All data points and maps should now be correct and respective data tables/maps are corrected.

H2S values for all zones are zero, and values are updated in the attached updated workbook.

The water sample for the FRC is updated in the attached book with the correct sample well.

Let me know if there are any additional questions.

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Wednesday, May 15, 2024 5:18 PM
To: Griffin Selby <Griffin.Selby@hilcorp.com>; Sikandar Khan <Sikandar.Khan@hilcorp.com>; Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: FW: [EXTERNAL] Action ID: 326004; DHC-5328-A

Griffin,

See below request from Dean.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Wednesday, May 15, 2024 5:13 PM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Cc: Lowe, Leonard, EMNRD <Leonard.Lowe@emnrd.nm.gov>
Subject: [EXTERNAL] Action ID: 326004; DHC-5328-A

To whom it may concern (c/o Cheryl Weston for Hilcorp Energy Company),

The Division is reviewing the following application:

Action ID	**326004**
Admin No.	DHC-5328-A
Applicant	Hilcorp Energy Company (372171)
Title	Grenier A #3M
Sub. Date	3/22/2024

Please provide the following additional supplemental documents:

-

Please provide additional information regarding the following:

- Based upon the GOR map for the PC, it appears that a yield of 20.97 bbl per MMCF is being projected for this well. This seems largely based upon what the well depicted as the Stewart B #1 well. However, there seems to be 2 wells depicted that have a higher projected yield than this well and seem to indicate a yield of 0 on the map. Please provide additional information regarding these nearby wells including their API numbers and why the GOR map seems to indicate they have made no oil despite being projected to have a yield greater than 19 bbl per MMCF. Additionally, please recalculate the proposed fixed oil percentage considering that the FLC GOR map seems to indicate a yield of 0.29 bbl per MMCF rather than the used value of 0. Once recalculated, please provide an amended table.
- Please provide the quantity of H2S in the gas sample for each pool.
- For the table with water samples, it appears that the PC well was used twice and is listed as the FLC offset. Please provide an amended table which includes the FLC offset and its water sample.

Additional notes:

-

All additional supplemental documents and information may be provided via email and should be done by replying to this email. The produced email chain will be uploaded to the file for this application.

Please note that failure to take steps to address each of the requests made in this email within 10 business days of receipt of this email may result in the Division rejecting the application requiring the submittal of a new application by the applicant once it is prepared to address each of the topics raised.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

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From: Cheryl Weston
To: McClure, Dean, EMNRD; Lowe, Leonard, EMNRD
Cc: Mandi Walker
Subject: FW: [EXTERNAL] Action ID: 326004; DHC-5328-A
Date: Tuesday, May 21, 2024 10:46:07 PM
Attachments: Grenier A 3M Allocation.pdf

Dean/Leonard:

Please see below response from Hilcorp reservoir engineer and revised allocation documents. Let me know if you need anything else.

Thanks,
Cheryl

From: Griffin Selby <Griffin.Selby@hilcorp.com>
Sent: Tuesday, May 21, 2024 9:10 AM
To: Cheryl Weston <cweston@hilcorp.com>; Sikandar Khan <Sikandar.Khan@hilcorp.com>; Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: RE: [EXTERNAL] Action ID: 326004; DHC-5328-A

Cheryl,

The DHC workbook is updated with new GOR maps. When we QC'd the data points Dean was referring to, we found that the Stewart B #1 was incorrectly high and was causing the map to be incorrect as well. All data points and maps should now be correct and respective data tables/maps are corrected.

H2S values for all zones are zero, and values are updated in the attached updated workbook.

The water sample for the FRC is updated in the attached book with the correct sample well.

Let me know if there are any additional questions.

From: Cheryl Weston <cweston@hilcorp.com>
Sent: Wednesday, May 15, 2024 5:18 PM
To: Griffin Selby <Griffin.Selby@hilcorp.com>; Sikandar Khan <Sikandar.Khan@hilcorp.com>; Jackson Lancaster <Jackson.Lancaster@hilcorp.com>
Cc: Mandi Walker <mwalker@hilcorp.com>
Subject: FW: [EXTERNAL] Action ID: 326004; DHC-5328-A

Griffin,

See below request from Dean.

Thanks,
Cheryl

From: McClure, Dean, EMNRD <Dean.McClure@emnrd.nm.gov>
Sent: Wednesday, May 15, 2024 5:13 PM
To: Cheryl Weston <cweston@hilcorp.com>; Mandi Walker <mwalker@hilcorp.com>
Cc: Lowe, Leonard, EMNRD <Leonard.Lowe@emnrd.nm.gov>
Subject: [EXTERNAL] Action ID: 326004; DHC-5328-A

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

To whom it may concern (c/o Cheryl Weston for Hilcorp Energy Company),

The Division is reviewing the following application:

Action ID	**326004**
Admin No.	DHC-5328-A
Applicant	Hilcorp Energy Company (372171)
Title	Grenier A #3M
Sub. Date	3/22/2024

Please provide the following additional supplemental documents:

-

Please provide additional information regarding the following:

- Based upon the GOR map for the PC, it appears that a yield of 20.97 bbl per MMCF is being projected for this well. This seems largely based upon what the well depicted as the Stewart B #1 well. However, there seems to be 2 wells depicted that have a higher projected yield than this well and seem to indicate a yield of 0 on the map. Please provide additional information regarding these nearby wells including their API numbers and why the GOR map seems to indicate they have made no oil despite being projected to have a yield greater than 19 bbl per MMCF. Additionally, please recalculate the proposed fixed oil percentage considering that the FLC GOR map seems to indicate a yield of 0.29 bbl per MMCF rather than the used value of 0. Once recalculated, please provide an amended table.
- Please provide the quantity of H2S in the gas sample for each pool.
- For the table with water samples, it appears that the PC well was used twice and is listed as the FLC offset. Please provide an amended table which includes the FLC offset and its water sample.

Additional notes:

-

All additional supplemental documents and information may be provided via email and should be done by replying to this email. The produced email chain will be uploaded to the file for this application.

Please note that failure to take steps to address each of the requests made in this email within 10 business days of receipt of this email may result in the Division rejecting the application requiring the submittal of a new application by the applicant once it is prepared to address each of the topics raised.

Dean McClure
Petroleum Engineer, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
(505) 469-8211

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.

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.

Grenier A 3M Production Allocation

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

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

Production Allocation Method – Subtraction

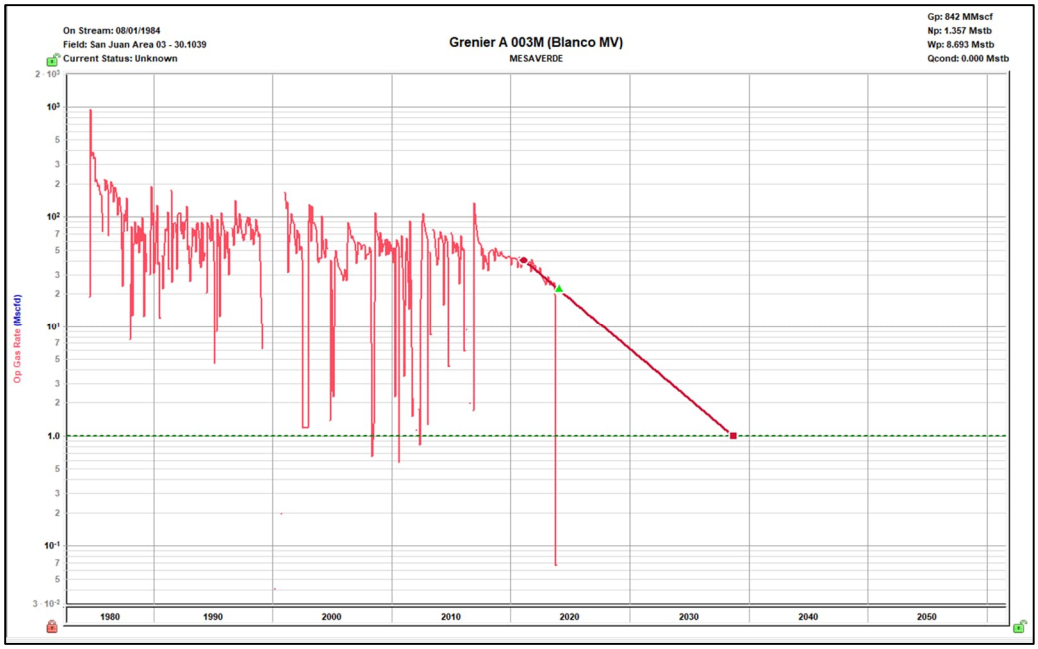
Gas Allocation:
Production for the downhole commingle will be allocated using the subtraction method in agreement with local agencies. The base formation is the Mesaverde/Dakota and the added formations to be commingled is the Pictured Cliffs & Fruitland Coal. The subtraction method applies an average monthly production forecast to the base formations using historic production. All production exceeding the base formation forecasts will be allocated to the new formations.

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

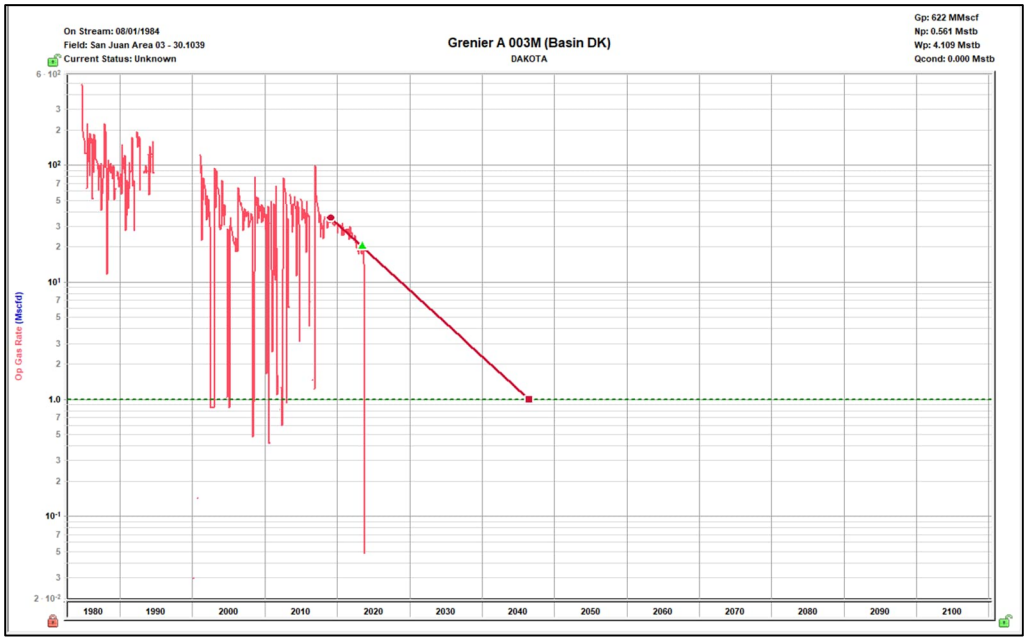
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Pictured Cliffs	188	19%
Fruitland Coal	825	81%

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.

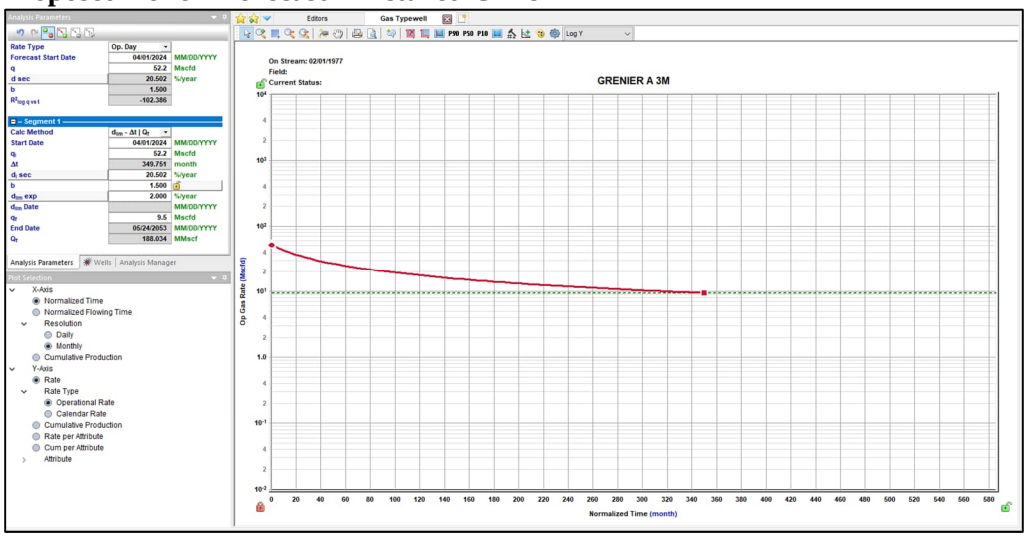
Current Zone 1 Forecast – Mesaverde



Current Zone 2 Forecast – Dakota

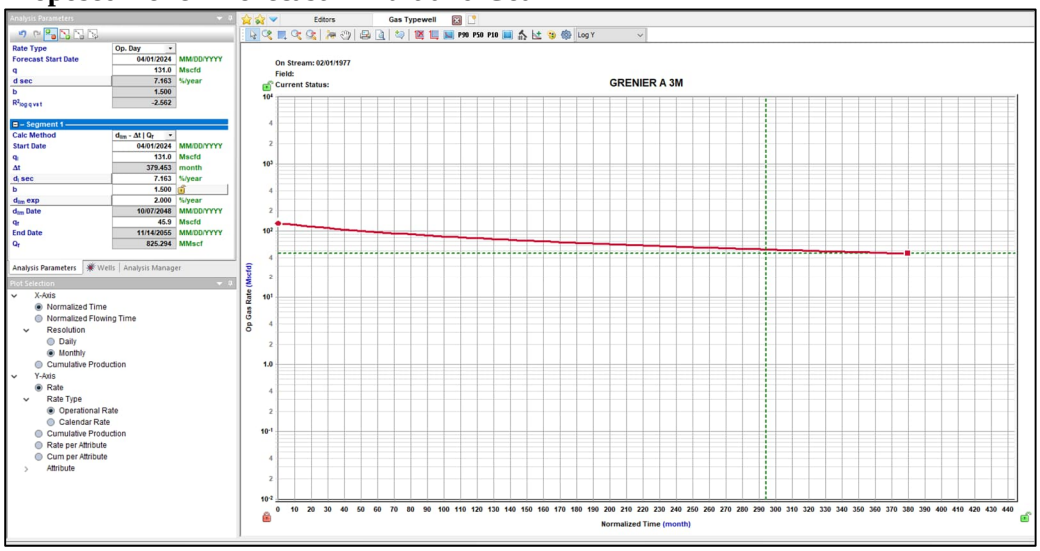


Proposed Zone 1 Forecast – Pictured Cliffs



Average initial production curve in geologic region.

Proposed Zone 2 Forecast – Fruitland Coal

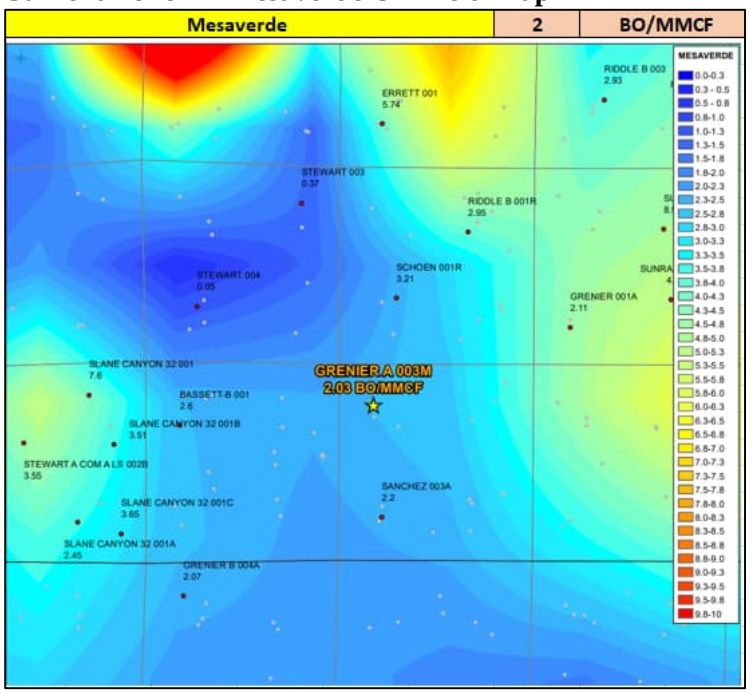


Oil Allocation:

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

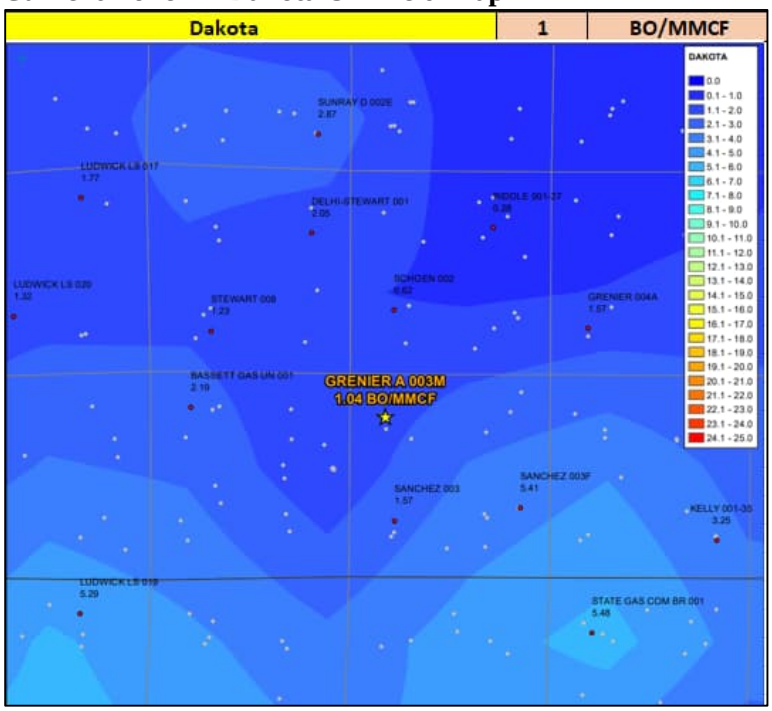
Formation	Yield (bbl/MM)	Remaining Reserves (MMcf)	% Oil Allocation	% Gas
MV	2	36	36.5%	3%
DK	1	54	27.4%	5%
PC	0.29	188	27.7%	17%
FRC	0.02	825	8.4%	75%

Current Zone 1 – Mesaverde Oil Yield Map

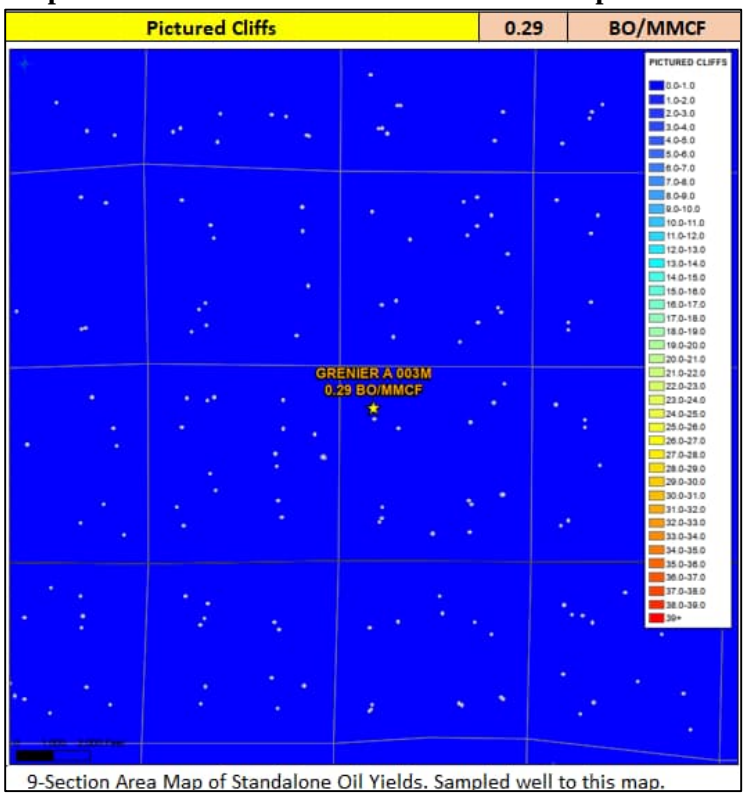


9-Section Area Map of Standalone Oil Yields. Sampled well to this map.

Current Zone 2 – Dakota Oil Yield Map

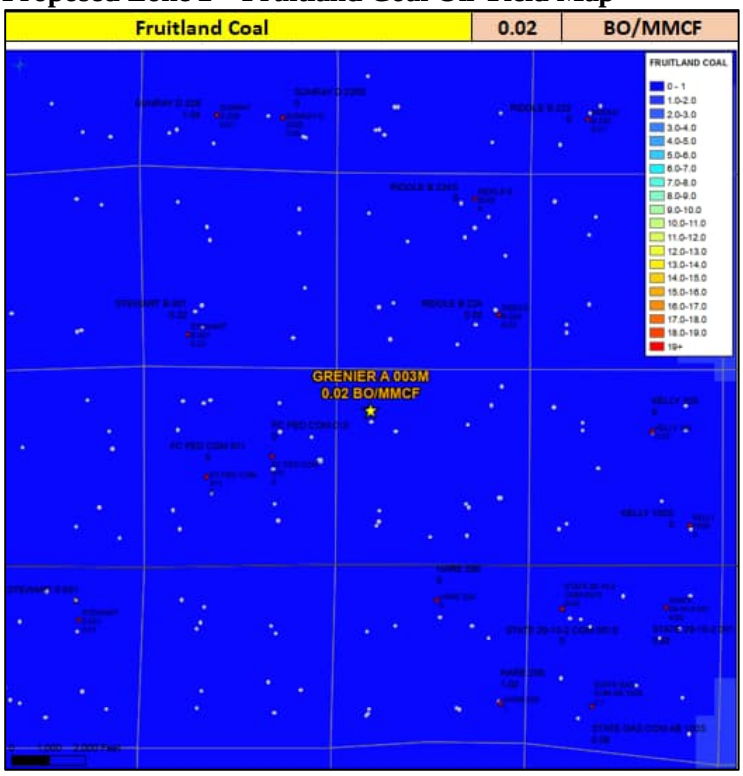


Proposed Zone 1 – Pictured Cliffs Oil Yield Map



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

Proposed Zone 2 – Fruitland Coal Oil Yield Map



Supplemental Information:

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:

TRIEB FEDERAL COM 2B	3004530140	FRC
HARE SRC 1	3004508787	PC
SUNRAY B 1F	3004534494	DK
TRIEB FEDERAL COM 2E	3004524064	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.

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	API
GRENIER A 03M	3004525833

FRC Offset		PC Offset		DK Offset		MV Offset	
API	3004533749	API	3004508787	API	3004533882	API	3004526737
Property	KELLY 100	Property	HARE SRC 1	Property	HOUCK 3F	Property	SANCHEZ 3A
CationBarium	0.5	CationBarium	0.5	CationBarium	0	CationBarium	1.9
CationBoron		CationBoron		CationBoron		CationBoron	
CationCalcium	62	CationCalcium	52	CationCalcium	5.15	CationCalcium	143
CationIron	98	CationIron	13	CationIron	75.15	CationIron	370
CationMagnesium	19	CationMagnesium	22	CationMagnesium	0.59	CationMagnesium	56
CationManganese	0.5	CationManganese	0.5	CationManganese	0.41	CationManganese	24.1
CationPhosphorus		CationPhosphorus		CationPhosphorus		CationPhosphorus	
CationPotassium		CationPotassium		CationPotassium		CationPotassium	
CationStrontium	0.5	CationStrontium	0.5	CationStrontium	0.2	CationStrontium	39
CationSodium	156.51	CationSodium	23.22	CationSodium	99.09	CationSodium	9642.21
CationSilica		CationSilica		CationSilica		CationSilica	
CationZinc		CationZinc		CationZinc		CationZinc	
CationAluminum		CationAluminum		CationAluminum		CationAluminum	
CationCopper		CationCopper		CationCopper		CationCopper	
CationLead		CationLead		CationLead		CationLead	
CationLithium		CationLithium		CationLithium		CationLithium	
CationNickel		CationNickel		CationNickel		CationNickel	
CationCobalt		CationCobalt		CationCobalt		CationCobalt	
CationChromium		CationChromium		CationChromium		CationChromium	
CationSilicon		CationSilicon		CationSilicon		CationSilicon	
CationMolybdenum		CationMolybdenum		CationMolybdenum		CationMolybdenum	
AnionChloride	262	AnionChloride	76	AnionChloride	102.11	AnionChloride	15060
AnionCarbonate	0	AnionCarbonate	0	AnionCarbonate	0	AnionCarbonate	0
AnionBicarbonate	110	AnionBicarbonate	61	AnionBicarbonate		AnionBicarbonate	305
AnionBromide		AnionBromide		AnionBromide		AnionBromide	
AnionFluoride		AnionFluoride		AnionFluoride		AnionFluoride	
AnionHydroxyl	0	AnionHydroxyl	0	AnionHydroxyl	0	AnionHydroxyl	0
AnionNitrate		AnionNitrate		AnionNitrate		AnionNitrate	
AnionPhosphate		AnionPhosphate		AnionPhosphate		AnionPhosphate	
AnionSulfate	110	AnionSulfate	110	AnionSulfate	0	AnionSulfate	108
phField	7.24	phField	7.41	phField	6.95	phField	6.53
phCalculated		phCalculated		phCalculated		phCalculated	
TempField	60	TempField	47	TempField	59.2	TempField	35
TempLab		TempLab		TempLab		TempLab	
OtherFieldAlkalinity		OtherFieldAlkalinity		OtherFieldAlkalinity		OtherFieldAlkalinity	
OtherSpecificGravity	0	OtherSpecificGravity	0	OtherSpecificGravity	1	OtherSpecificGravity	0
OtherTDS	819.01	OtherTDS	358.72	OtherTDS	476.94	OtherTDS	25749.21
OtherCaCO3		OtherCaCO3		OtherCaCO3		OtherCaCO3	
OtherConductivity	1279.7	OtherConductivity	560.5	OtherConductivity	745.22	OtherConductivity	40233.14
DissolvedCO2	8	DissolvedCO2	3	DissolvedCO2	90	DissolvedCO2	53
DissolvedO2		DissolvedO2		DissolvedO2		DissolvedO2	
DissolvedH2S	0	DissolvedH2S	0	DissolvedH2S	0.58	DissolvedH2S	0
GasPressure	100	GasPressure	100	GasPressure	50	GasPressure	100
GasCO2	0	GasCO2	0	GasCO2	2	GasCO2	0
GasCO2PP	0	GasCO2PP	0	GasCO2PP	1	GasCO2PP	0
GasH2S	0	GasH2S	0	GasH2S	0	GasH2S	0
GasH2SPP	0	GasH2SPP	0	GasH2SPP	0	GasH2SPP	0
PitzerCaCO3_70	-0.66	PitzerCaCO3_70	-0.77	PitzerCaCO3_70		PitzerCaCO3_70	-1
PitzerBaSO4_70	1.12	PitzerBaSO4_70	1.26	PitzerBaSO4_70		PitzerBaSO4_70	0.67
PitzerCaSO4_70	-1.64	PitzerCaSO4_70	-1.57	PitzerCaSO4_70		PitzerCaSO4_70	-2.24
PitzerSrSO4_70	-2.05	PitzerSrSO4_70	-1.91	PitzerSrSO4_70		PitzerSrSO4_70	-1.12
PitzerFeCO3_70		PitzerFeCO3_70		PitzerFeCO3_70		PitzerFeCO3_70	
PitzerCaCO3_220	0.14	PitzerCaCO3_220	0.03	PitzerCaCO3_220		PitzerCaCO3_220	-0.27
PitzerBaSO4_220	0.56	PitzerBaSO4_220	0.72	PitzerBaSO4_220		PitzerBaSO4_220	0.11
PitzerCaSO4_220	-1.52	PitzerCaSO4_220	-1.44	PitzerCaSO4_220		PitzerCaSO4_220	-2.16
PitzerSrSO4_220	-1.86	PitzerSrSO4_220	-1.7	PitzerSrSO4_220		PitzerSrSO4_220	-1
PitzerFeCO3_220		PitzerFeCO3_220		PitzerFeCO3_220		PitzerFeCO3_220	

Gas Compatibility in the San Juan Basin

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

Well Name	API
GRENIER A 03M	3004525833

FRC Offset		PC Offset		DK Offset		MV Offset	
AssetCode	3004508682	AssetCode	3004520860	AssetCode	3004534494	AssetCode	3004524064
AssetName	FEUILLE A 1	AssetName	LUDWICK LS 25	AssetName	SUNRAY B 1F	AssetName	TRIEB FEDERAL COM 2E
CO2	0.01	CO2	0	CO2	0.01	CO2	0.01
N2	0	N2	0	N2	0	N2	0
C1	0.87	C1	0.86	C1	0.89	C1	0.8
C2	0.07	C2	0.07	C2	0.06	C2	0.1
C3	0.03	C3	0.03	C3	0.03	C3	0.05
ISOC4	0.01	ISOC4	0.01	ISOC4	0.01	ISOC4	0.01
NC4	0.01	NC4	0.01	NC4	0.01	NC4	0.01
ISOC5	0	ISOC5	0	ISOC5	0	ISOC5	0
NC5	0	NC5	0	NC5	0	NC5	0
NEOC5		NEOC5		NEOC5		NEOC5	
C6		C6		C6		C6	
C6_PLUS	0	C6_PLUS	0.01	C6_PLUS	0	C6_PLUS	0.01
C7		C7		C7		C7	
C8		C8		C8		C8	
C9		C9		C9		C9	
C10		C10		C10		C10	
AR		AR		AR		AR	
CO		CO		CO		CO	
H2		H2		H2		H2	
O2		O2		O2		O2	
H20		H20		H20		H20	
H2S	0	H2S	0	H2S	0	H2S	0
HE		HE		HE		HE	
C_O_S		C_O_S		C_O_S		C_O_S	
CH3SH		CH3SH		CH3SH		CH3SH	
C2H5SH		C2H5SH		C2H5SH		C2H5SH	
CH2S3_2CH3S		CH2S3_2CH3S		CH2S3_2CH3S		CH2S3_2CH3S	
CH2S		CH2S		CH2S		CH2S	
C6HV		C6HV		C6HV		C6HV	
CO2GPM	0	CO2GPM	0	CO2GPM	0	CO2GPM	0
N2GPM	0	N2GPM	0	N2GPM	0	N2GPM	0
C1GPM	0	C1GPM	0	C1GPM	0	C1GPM	0
C2GPM	1.77	C2GPM	2	C2GPM	1.49	C2GPM	2.69
C3GPM	0.77	C3GPM	0.95	C3GPM	0.76	C3GPM	1.41
ISOC4GPM	0.18	ISOC4GPM	0.21	ISOC4GPM	0.21	ISOC4GPM	0.29
NC4GPM	0.23	NC4GPM	0.3	NC4GPM	0.2	NC4GPM	0.44
ISOC5GPM	0.11	ISOC5GPM	0.13	ISOC5GPM	0.09	ISOC5GPM	0.16
NC5GPM	0.08	NC5GPM	0.1	NC5GPM	0.06	NC5GPM	0.13
C6_PLUSGPM	0.2	C6_PLUSGPM	0.25	C6_PLUSGPM	0.16	C6_PLUSGPM	0.33

Grenier A 3M Production Allocation

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

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

Production Allocation Method – Subtraction

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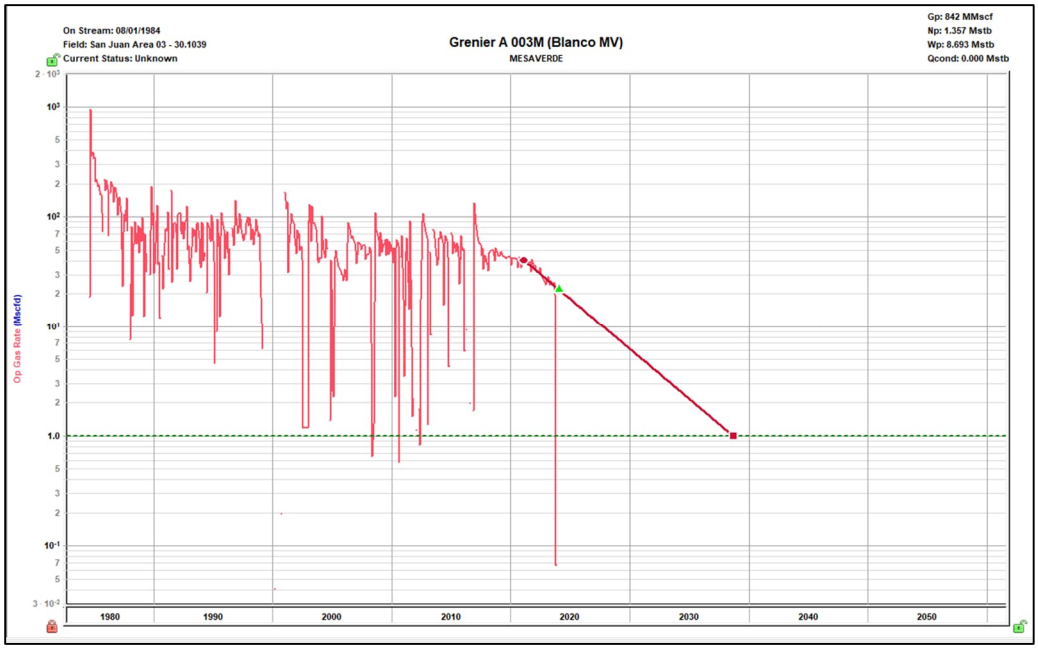
New zones will be allocated using a fixed allocation. Forecasted rates for PC/FRC are based on offsets type curve. The maps show the standalone offsets that were used for type-curves. The split between PC/FRC is based on the ratio of forecasted reserves as shown in the table below.

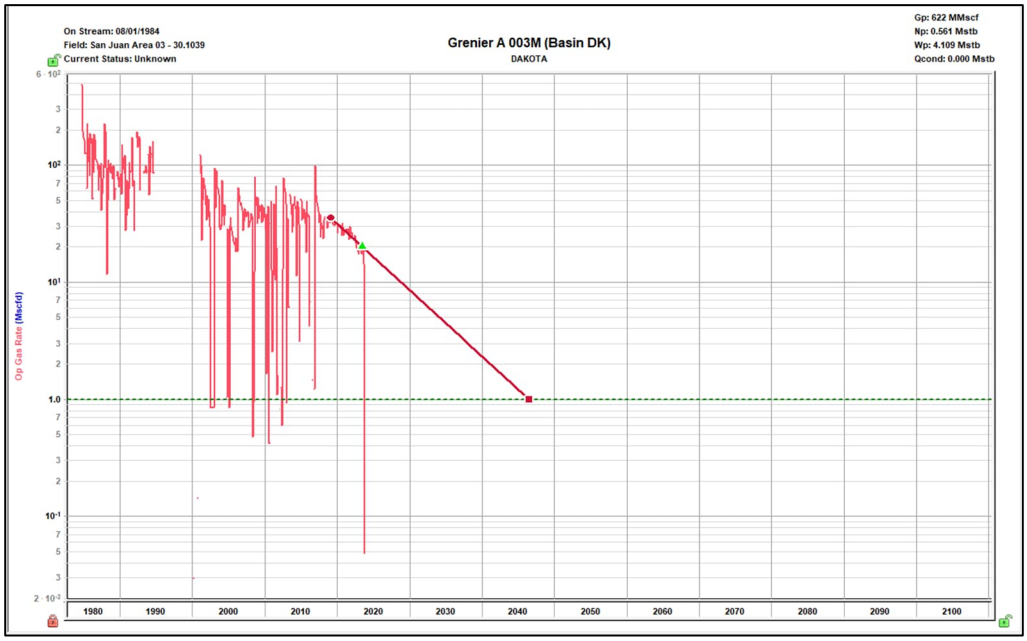
Formation	Remaining Reserves (MMcf)	% Gas Allocation
Pictured Cliffs	188	17%
Fruitland Coal	825	75%

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.

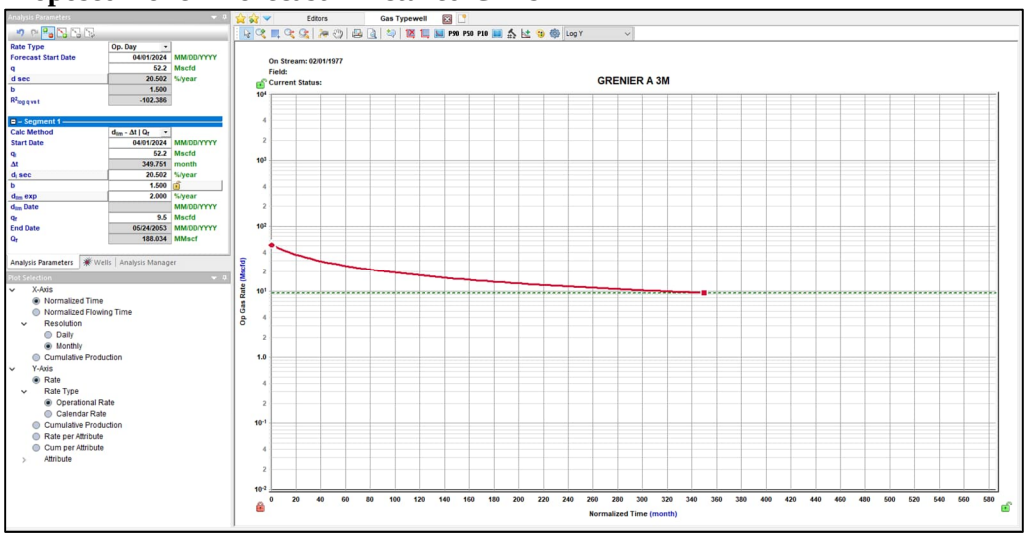
Current Zone 1 Forecast – Mesaverde



Current Zone 2 Forecast – Dakota

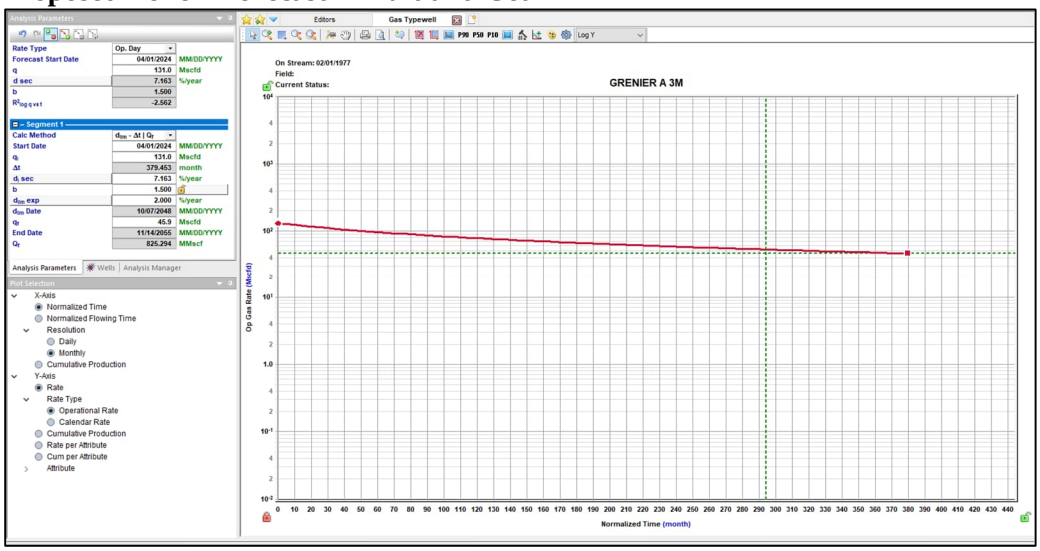


Proposed Zone 1 Forecast – Pictured Cliffs



Average initial production curve in geologic region.

Proposed Zone 2 Forecast – Fruitland Coal



Oil Allocation:

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

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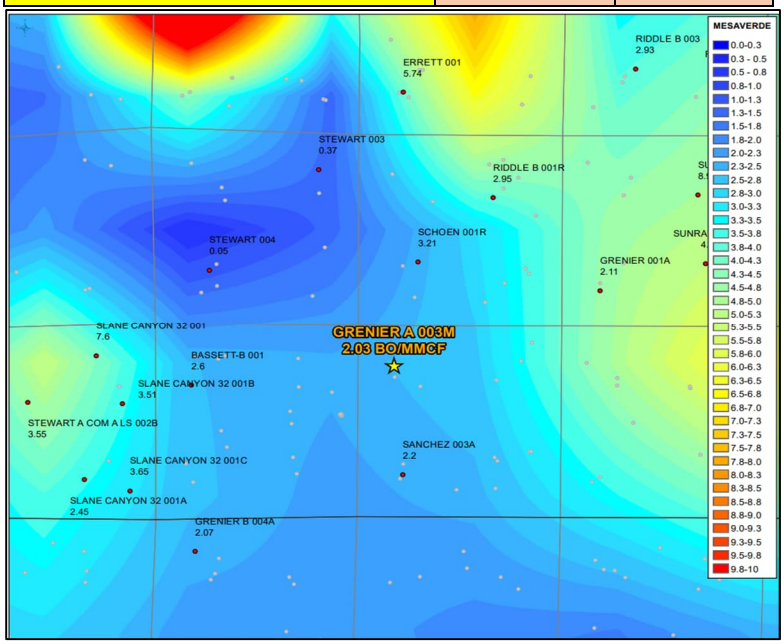
MV	2	36	36.5%	3%
DK	1	54	27.4%	5%
PC	0.29	188	27.7%	17%
FRC	0.02	825	8.4%	75%

Current Zone 1 – Mesaverde Oil Yield Map

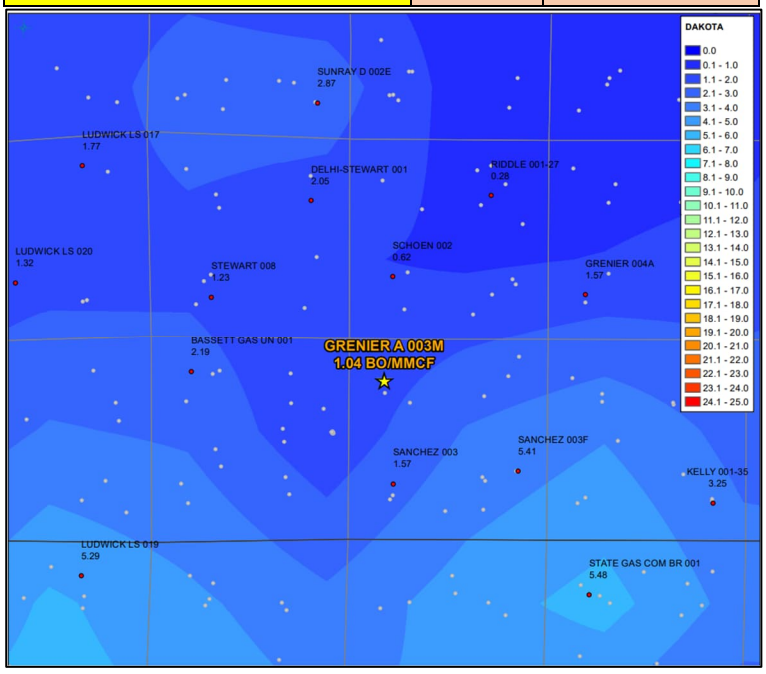
MV	2	BO/MMCF



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

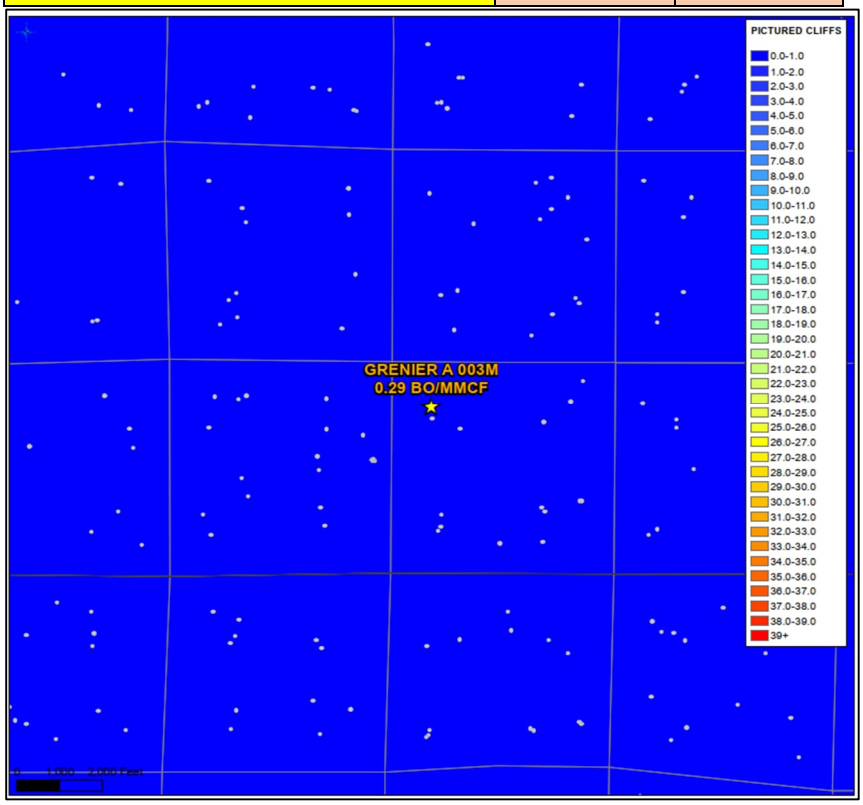
Current Zone 2 – Dakota Oil Yield Map

DK	1	BO/MMCF



Proposed Zone 1 – Pictured Cliffs Oil Yield Map

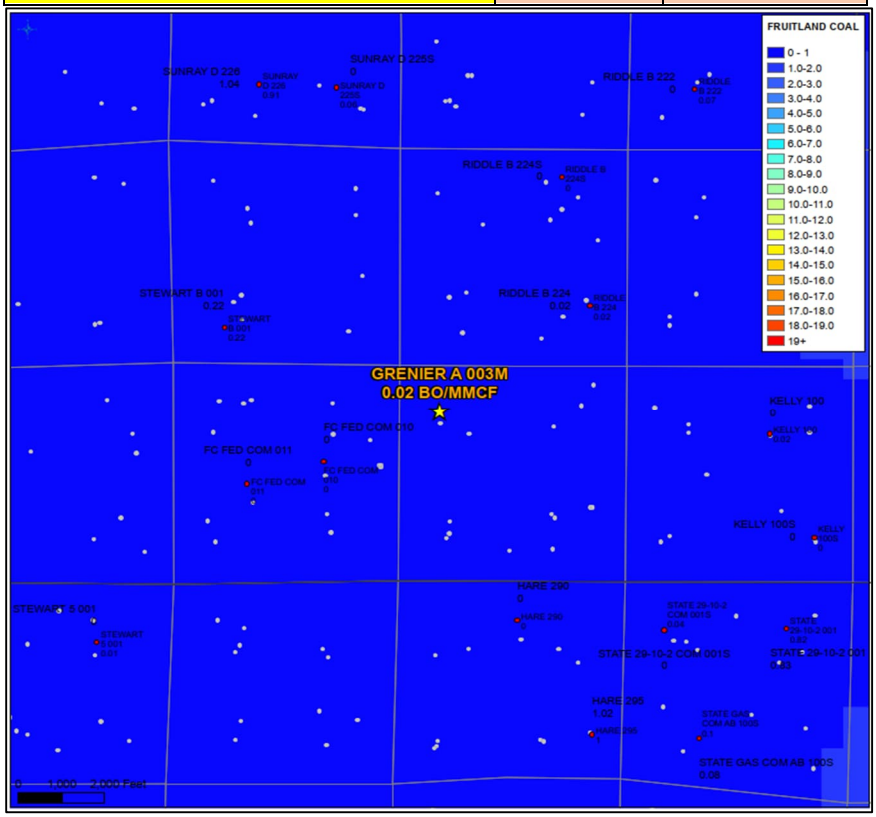
Pictured Cliffs	0.29	BO/MMCF



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

Proposed Zone 2 – Fruitland Coal Oil Yield Map

Fruitland Coal	0.02	BO/MMCF



Supplemental Information:

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:

TRIEB FEDERAL COM 2B	3004530140	FRC
HARE SRC 1	3004508787	PC
SUNRAY B 1F	3004534494	DK
TRIEB FEDERAL COM 2E	3004524064	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.

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-5328-A**

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 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.
4. Applicant has certified that all produced fluids from all the Pools are compatible with each other.
5. Applicant has certified that downhole commingling the Pools will not decrease the value of the oil and gas production.
6. 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.
7. Applicant provided notice of the Application to the Bureau of Land Management ("BLM") or New Mexico State Land Office ("NMSLO"), as applicable.

CONCLUSIONS OF LAW

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

in excess of the commingled pool's fracture parting pressure in accordance with 19.15.12.11(A)(3) NMAC.

11. Applicant's proposed method of allocation, as modified herein, complies with 19.15.12.11(A)(8) NMAC.

12. 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.

13. 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-5328.

3. Applicant shall allocate a fixed percentage of the oil production from the Well to each of the Pools until a different plan to allocate oil production is approved by OCD. Of the oil production from the Well:
   a. eight and four tenths percent (8.4%) shall be allocated to the BASIN FRUITLAND COAL (GAS) pool (pool ID: 71629);
   b. twenty-seven and seven tenths percent (27.7%) shall be allocated to the AZTEC PICTURED CLIFFS (GAS) pool (pool ID: 71280);
   c. thirty-six and five tenths percent (36.5%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
   d. twenty-seven and four tenths percent (27.4%) shall be allocated to the BASIN DAKOTA (PRORATED GAS) 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 (GAS) pool (pool ID: 71629); and
   b. the AZTEC PICTURED CLIFFS (GAS) pool (pool ID: 71280).

   The current pool(s) are:
   a. the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
   b. the BASIN DAKOTA (PRORATED GAS) pool (pool ID: 71599).

   Until a different plan to allocate gas production is approved by OCD, of the gas production allocated to the new pools:
   a. eighty-one percent (81%) shall be allocated to the BASIN FRUITLAND COAL (GAS) pool (pool ID: 71629); and
   b. nineteen percent (19%) shall be allocated to the AZTEC PICTURED CLIFFS (GAS) pool (pool ID: 71280).

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

a. fifty-eight percent (58%) shall be allocated to the BLANCO-MESAVERDE (PRORATED GAS) pool (pool ID: 72319); and
b. forty-two percent (42%) shall be allocated to the BASIN DAKOTA (PRORATED GAS) 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

DATE: 5/30/24

DYLAN M. FUGE
DIRECTOR (ACTING)

State of New Mexico
Energy, Minerals and Natural Resources Department

Exhibit A

	Order:	DHC-5328-A		
	Operator:	Hilcorp Energy Company (372171)		
	Well Name:	Grenier A #3M		
	Well API:	30-045-25833		
Upper Zone	Pool Name:	BASIN FRUITLAND COAL (GAS)		
	Pool ID:	71629	Current:	New: X
	Allocation:		Oil: 8.4%	Gas: 81.0%
			Top: 2,258	Bottom: 2,529
Intermediate Zone	Pool Name:	AZTEC PICTURED CLIFFS (GAS)		
	Pool ID:	71280	Current:	New: X
	Allocation:		Oil: 27.7%	Gas: 19.0%
			Top: 2,530	Bottom: 2,585
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	YES		
Intermediate Zone	Pool Name:	BLANCO-MESAVERDE (PRORATED GAS)		
	Pool ID:	72319	Current: X	New:
	Allocation:		Oil: 36.5%	Gas: 58.0%
			Top: 4,226	Bottom: 4,902
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	NO		
Lower Zone	Pool Name:	BASIN DAKOTA (PRORATED GAS)		
	Pool ID:	71599	Current: X	New:
	Allocation:		Oil: 27.4%	Gas: 42.0%
			Top: 6,888	Bottom: 7,174
	Bottom of Interval within 150% of Upper Zone's Top of Interval:	NO		

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District II
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Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 326004
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Please review the content of the order to ensure you are familiar with the authorities granted and any conditions of approval. If you have any questions regarding this matter, please contact me.	5/30/2024