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 District II – (575) 748-1283  
 811 S. First St., Artesia, NM 88210  
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 1000 Rio Brazos Rd., Aztec, NM 87410  
 District IV – (505) 476-3460  
 1220 S. St. Francis Dr., Santa Fe, NM  
 87505

State of New Mexico  
 Energy, Minerals and Natural Resources

Form C-103  
 Revised July 18, 2013

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/>		WELL API NO. 30-045-38407
2. Name of Operator Hilcorp Energy Company		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
3. Address of Operator 382 Road 3100, Aztec, NM 87410		6. State Oil & Gas Lease No.
4. Well Location Unit Letter <u>K</u> : <u>1855</u> feet from the <u>South</u> line and <u>2630</u> feet from the <u>West</u> line Section <u>35</u> Township <u>030N</u> Range <u>011W</u> NMPM County <u>SAN JUAN</u>		7. Lease Name or Unit Agreement Name TITT
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 5790' GL		8. Well Number 2M
9. OGRID Number 372171		10. Pool name or Wildcat Blanco Mesaverde / Basin Dakota

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
DOWNHOLE COMMINGLE <input checked="" type="checkbox"/>	P AND A <input type="checkbox"/>
CLOSED-LOOP SYSTEM <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: <input type="checkbox"/> SIDETRACK	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

It is intended to drill and complete the subject well in the Blanco Mesaverde (pool 72319) and Basin Dakota (pool 71599). The production will be commingled per Oil Conservation Division Order Number 11363. Commingling will not reduce the value of the production.

**Proposed perforations are: ~MV 4,100' – 4,960'; ~DK 6,700' – 7,000'. These perforations are in TVD.**

Hilcorp Energy will use a spinner method using the attached procedure. We will run this procedure after initial completion, 3 months, 6 months and 12 months to ensure allocations are stabilizing. Annual spinners will be ran until the allocations have stabilized, at which point a fixed allocation will be provided.

**Interest is common, no notification is necessary.**

Spud Date:

Rig Release Date:

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 1/10/2025

Type or print name Cherylene Weston E-mail address: cweston@hilcorp.com PHONE: 713-289-2615

**For State Use Only**

APPROVED BY: [Signature] TITLE Petroleum Engineer DATE 04/02/25  
 Conditions of Approval (if any)

### CONDITIONS OF APPROVAL

If an alteration is made to the Well or a condition within the Well changes which may cause the allocation of production to the Pools as approved within this Permit to become inaccurate, then no later than sixty (60) days after that event, the Operator shall submit Form C-103 to the OCD Engineering Bureau describing the event and include a revised allocation plan. If OCD denies the revised allocation plan, this Permit shall terminate on the date of such action.

If the downhole commingling of the Pools reduces the value of the oil and gas production to less than if it had remained segregated, no later than sixty (60) days after the decrease in value has occurred the Operator shall submit a new downhole commingling application to OCD to amend this Permit to remove the pool that caused the decrease in value. If the Operator fails to submit a new application, this Permit shall terminate on the following day, and if OCD denies the application, this Permit shall terminate on the date of such action.

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

The Operator shall utilize production logs to allocate gas production from the Well to each of the Pools. Once the gas allocation is determined, the Operator shall then consider the gas oil ratio for each pool to allocate oil production from the Well to each of the Pools. The Operator shall conduct a production log:

- a. following the initial completion;
- b. three (3) months after the initial completion;
- c. six (6) months after the initial completion;
- d. twelve (12) months after the initial completion;
- e. annually thereafter until the allocation has stabilized; and
- f. additionally, as directed by OCD.

No later than ninety (90) days after conducting each production log, the Operator shall submit a Form C-103 to the OCD Engineering Bureau that includes the results of the production log and the oil and gas allocations for each of the Pools. Upon request from OCD, the Operator shall provide documentation supporting the allocations and if OCD determines that the allocations are inaccurate, the Operator shall proceed as directed by OCD.

Once the allocations have stabilized, the Operator shall submit a Form C-103 to the OCD Engineering Bureau that includes a tabulation of the oil and gas allocation following each of the conducted production logs and a proposed fixed percentage for allocating the oil and gas production from the Well to each of the Pools. If OCD approves the proposed fixed percentage, then the Operator shall allocate accordingly. If OCD denies the proposed fixed percentage, then the Operator shall continue conducting annual production logs.

A production log shall consist of either using a turbine/spinner flowmeter to determine the stabilized flow rate from each of the Pools under normal operating conditions or by another method OCD has specifically approved.

C-102  Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department  OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION

API Number 30-045-38407	Pool Code 72319	Pool Name BLANCO MESAVERDE
Property Code 319229	Property Name TITT	Well Number 2M
OGRID No. 372171	Operator Name HILCORP ENERGY COMPANY	Ground Level Elevation 5790'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

Surface Location

UL K	Section 35	Township 31N	Range 11W	Lot	Feet from N/S Line 1855' SOUTH	Feet from E/W Line 2630' WEST	Latitude 36.853199 °N	Longitude -107.960404 °W	County SAN JUAN
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Bottom Hole Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
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Dedicated Acres 320.00	Penetrated Spacing Unit: S/2 - Section 35, T31N, R11W	Infill or Defining Well Infill	Defining Well API 30-045-30675	Overlapping Spacing Unit <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Consolidation Code C
Order Numbers			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No		

Kick Off Point (KOP)

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

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

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
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Unitized Area or Area of Uniform Interest	Spacing Unit Type <input type="checkbox"/> Horizontal <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Directional	Ground Floor Elevation 5790'
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<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</p> <p><u>Cherylene Weston</u> 11/25/2024 Signature Date</p> <p>Cherylene Weston, Operations/Regulatory Tech-Sr. Printed Name</p> <p>cweston@hilcorp.com E-mail Address</p>	<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <div></div> <p>JASON C. EDWARDS</p> <p>Signature and Seal of Professional Surveyor</p> <p>Certificate Number 15269 Date of Survey NOVEMBER 8, 2024</p>
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C-102  Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department  OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION

API Number <b>30-045-38407</b>	Pool Code 71599	Pool Name BASIN DAKOTA
Property Code 319229	Property Name TITT	Well Number 2M
OGRID No. 372171	Operator Name HILCORP ENERGY COMPANY	Ground Level Elevation 5790'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal

Surface Location

UL K	Section 35	Township 31N	Range 11W	Lot	Feet from N/S Line 1855' SOUTH	Feet from E/W Line 2630' WEST	Latitude 36.853199 °N	Longitude -107.960404 °W	County SAN JUAN
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Bottom Hole Location

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Dedicated Acres 320.00	Penetrated Spacing Unit: S/2 - Section 35, T31N, R11W	Infill or Defining Well Infill	Defining Well API 30-045-30675	Overlapping Spacing Unit <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Consolidation Code C
Order Numbers			Well setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No		

Kick Off Point (KOP)

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

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Unitized Area or Area of Uniform Interest	Spacing Unit Type <input type="checkbox"/> Horizontal <input checked="" type="checkbox"/> Vertical <input type="checkbox"/> Directional	Ground Floor Elevation 5790'
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## REVENUE ALLOCATION PROCEDURE

### DAKOTA/MESAVERDE WELLS

- 1.) Frac and flowback the Dakota formation
- 2.) Frac and flowback and clean up Mesaverde formation
- 3.) Stabilize MV flow up casing against area line pressure
- 4.) Record a MV flow rate through a choke using an orifice meter
- 5.) Drill out bridge plug over DK formation
- 6.) Cleanup DK formation
- 7.) Run Spinner production profile across Dakota formation
- 8.) Add MV flow rate from previous test to DK flow rate from spinner to get total flow
- 9.) Allocation is based upon MV or DK rates as a percentage of total flow

Once allocation is established, it will be used for the life of the well. Below is a summary of how the testing is performed.

### **Field Test (Spinner Method)**

#### ***Summary***

This example covers the procedure used to allocate production using the spinner method with field tests. This method was used by ConocoPhillips prior to the Burlington Resources acquisition and has been chosen as the preferred allocation method on all future Mesaverde/ Dakota commingled wells. The allocation is based on two separate tests. The first is a stabilized rate test on the Mesaverde up the casing-tubing annulus with line pressure simulated by a choke at the surface. The second test is performed by running a production log over the Dakota interval. The rate from each layer is used in a simple calculation to determine the contribution percentage.

#### ***Procedure***

Allocation testing is performed after the well has been completed. A composite bridge plug is normally located above the DK and a composite frac plug is sometimes located within the MV.

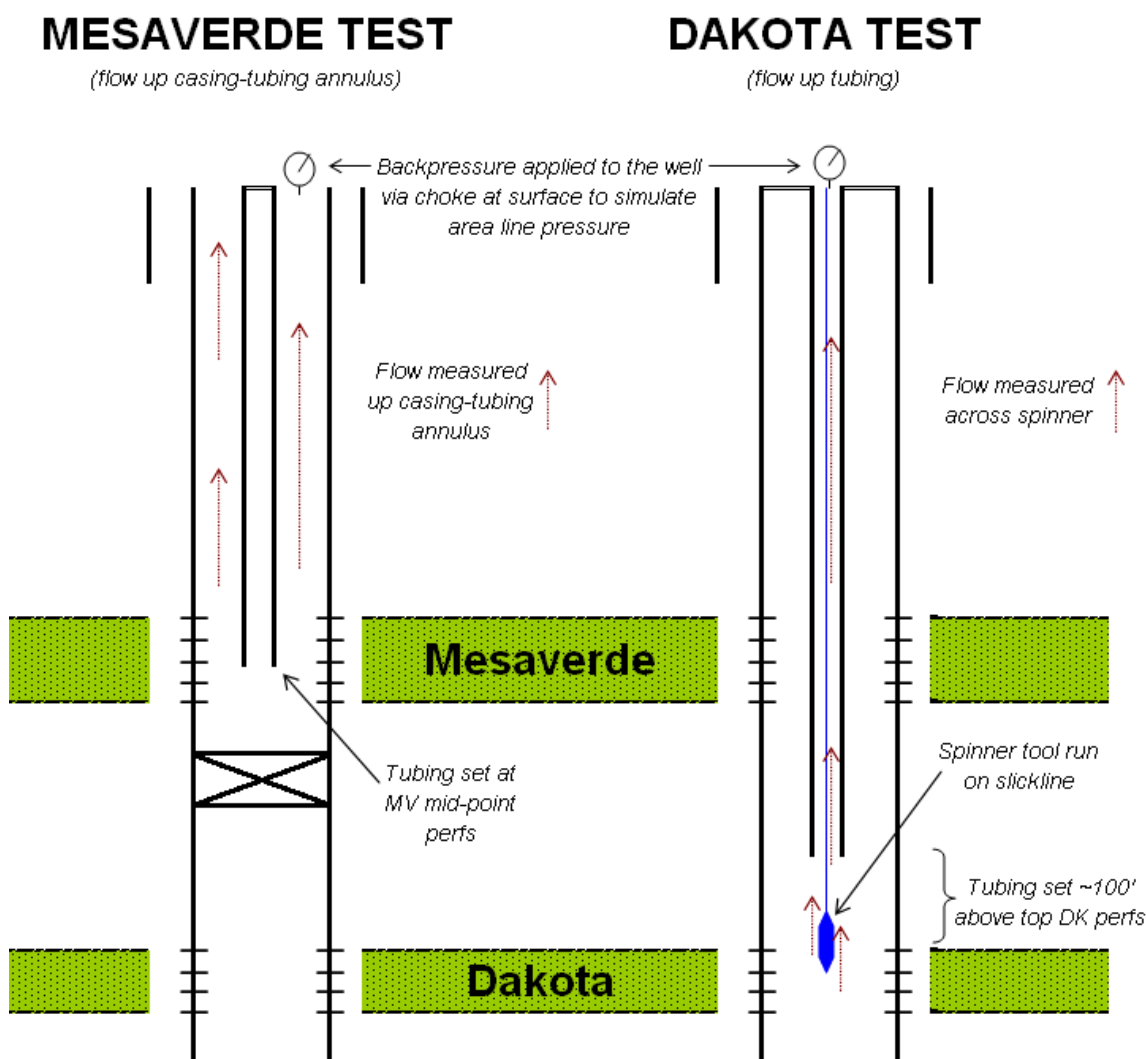
The first step in testing the MV is drilling out the plugs and cleaning out the well. Once water and sand volumes reach acceptable levels (less than 5 bph), the tubing is set at the mid-point of MV perfs. The well is then opened to flow up the casing-tubing annulus with a positive choke at the surface to simulate a back-pressure on the well. The MV is tested for a minimum of 4 hours or until pressure stabilizes. Tubing and casing pressures are reported every 15 minutes and when pressure is the same three times then it is considered stabilized. Metered gas, water, and condensate rates and volumes are all documented as well as testing conditions (tubing location, choke size, pressures).

After the MV has been tested, the composite drill plug over the DK is drilled out and the well is cleaned out to PBTD. Once the water and sand volumes reach acceptable levels (less than 5

bph), the bottom-hole assembly is configured and the tubing is landed approximately 100 feet above the DK perfs. A slickline or wireline unit is used to run the production loggings tools. The logging tools are lowered to the bottom perfs and the DK interval is logged while the well is producing up the tubing against a choke. Once again, the well is tested for a minimum of 4 hours or until the pressure has stabilized. The log is run across the entire DK interval to 50 feet above the top DK perforation. The log data is interpreted by the service company and returned to the completions group within a few days.

The stabilized MV rate is combined with the stabilized DK rate to come up with a total well production rate. The ratio of the MV rate to the total rate is used as the MV allocation percentage and the same is done for the DK. An example test and corresponding calculations are included in the report.

## Diagram



### Example- San Juan 31-6 Unit 40G

After the MV has been cleaned up and the well has stabilized, the MV is tested at 1,306 Mcfd (see report below). The test was performed up the tubing-casing annulus (4.5" casing/ 2.38" tubing) with a ½" choke at surface. The stabilized flowing casing pressure was 198 psi, which is similar to line pressure in the area.

Time Log						
Start Time	End Time	Cum Dsr (Hrs)	Op Code	Op Sub-C	Time P.N.T	Operation
06:00	07:00	1.00	RPCO...	SFTY	P	ROAD CREW TO LOCATION HOLD PJSM
07:00	10:00	4.00	RPCO...	TRIP	P	POOH W/ 3 7/8" MILL TH W/ RBP SET @ 6068'
10:00	11:00	5.00	RPCO...	FCO	P	BLOW WELL TO UNLOAD KILL FLUID
11:00	15:00	9.00	RPCO...	PRDT	P	PERFORATIONS 5087' - 6006' 2 3/8" TBNG SET @ 5580' TEST IS TO ATMOSPHERE ON 1/2" CHOKE FCP = 198 PSI SITP = 0 PSI PRODUCTION = 1306 MCF BBL OIL/DAY = 0 BBL WATER/DAY = 0 NO SAND WITNESSED BY: JOSE FRIAS
15:00	16:00	10.00	RPCO...	FCO	P	BLOW DOWN WELL OPEN PIPE RAMS BLOW WELL
16:00	04:00	22.00	RPCO...	FCO	P	BLOW WELL W/ NIGHT CREW
Well Fluids						
Plus		Note		To (bbl)	From (bbl)	Non-renew (bbl)
Zone						
Observation Cards (BST, STOP, etc)						
Company		No. Rpts		Comment		
Safety Meetings / Operational Checks						
Time	Type		Description			
07:00	Pre-Job Safety Meeting		WELLSITE PJSM			
Page 1/2			Report Printed: 4/11/2008			

Stabilized MV  
Production Rate

Figure 1: Pulled from WellView Initial Completion Report

The DK is then cleaned up and the logging tools are run. The reports from ProTechnics show a total rate from the DK equal to 584 Mcfd (see report below). The test was performed at a flowing tubing pressure of 125 psi with a ½" choke at surface.


 <b>Completion Profile Analysis</b>				
Results				
The following table summarizes the production from each producing interval				
GAS / WATER PRODUCTION PROFILE				
Flow Rates Reported at STP				
Zone Intervals	Q-Water	Op-Water	Percent of Total	Q-Gas
feet	BFPD	BFPD		MCFD
Surface to 7860	2 bpd		100 %	584 Mcf/d

Figure 2: Pulled from Protechnics Report, pg. 6

The allocation is calculated as follows and an allocation form is completed for the well. See Appendix for allocation form, WellView report, and ProTechnics report including production logs.

MV Rate	1306	% MV= 1306/1890=	69%
DK Rate	584	% DK= 584/1890=	31%
Total Rate	1890		

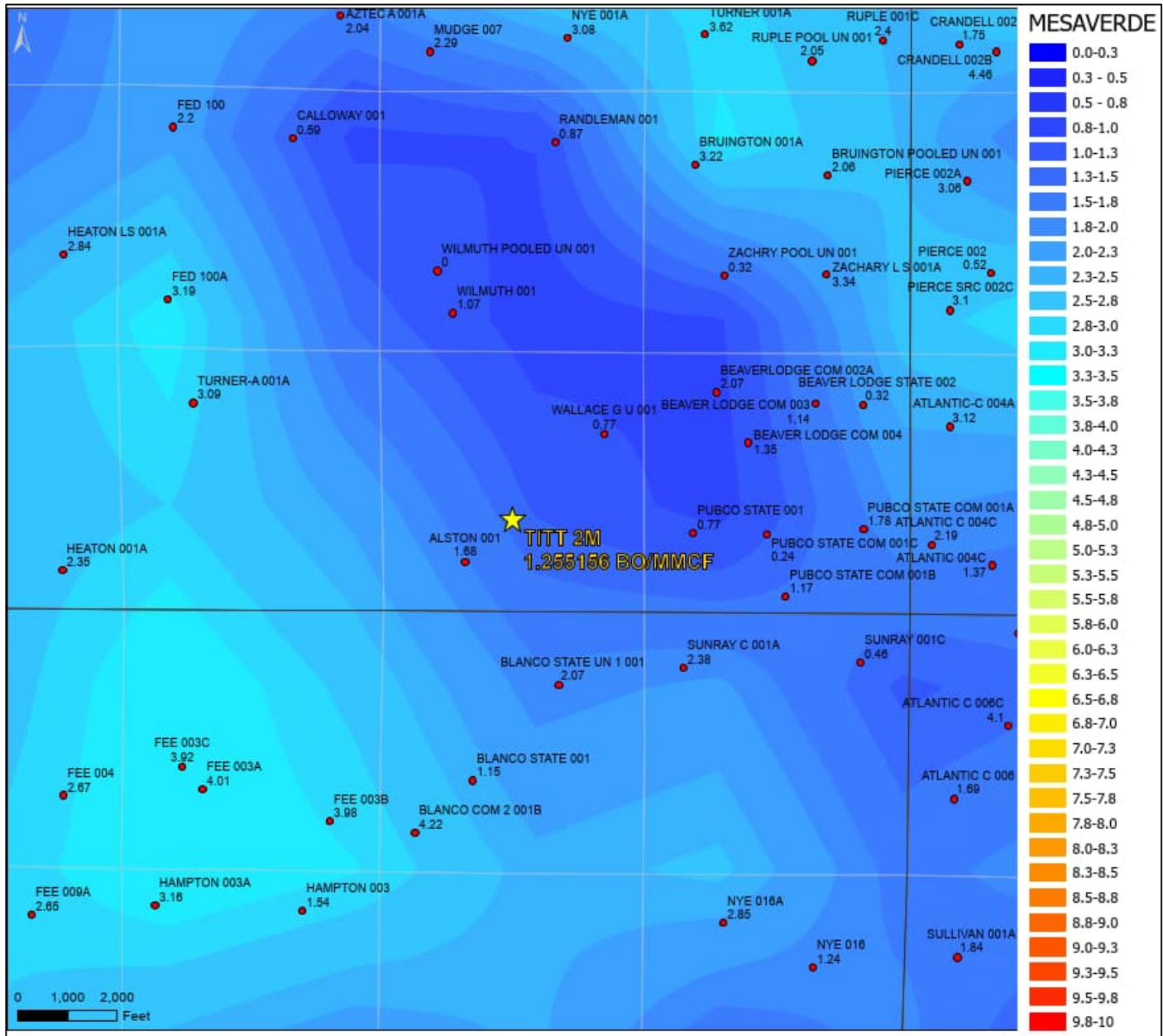


## Oil Allocation:

Oil production will be allocated utilizing GOR in terms of oil yield based on actual production from offset Dakota and Mesaverde wells. Once gas allocation split is obtained from spinner, oil yield values will be applied to get final oil allocation split.

## MESAVERDE OIL YIELD MAP

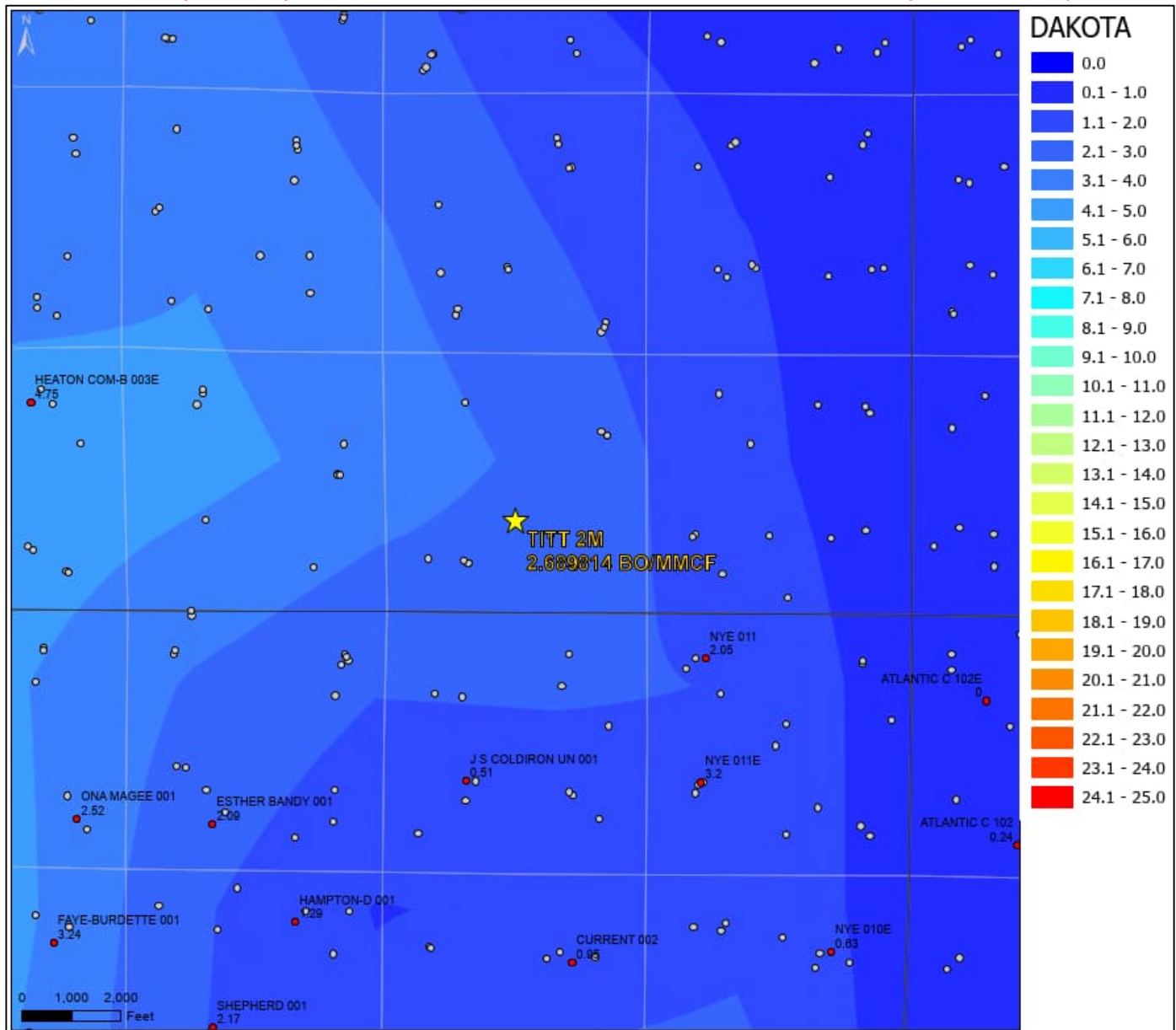
**\*\*Condensate Yield (BBL/MMCF) - Based on all DK wells and MV wells. Not filtered to standalones - incorporates allocated production.**





**DAKOTA OIL YIELD MAP**

**\*\*Condensate Yield (BBL/MMCF) - Based on all DK wells and MV wells. Not filtered to standalones - incorporates allocated production.**





April 2, 2025

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

**Re: C-103 (Downhole Commingle)  
Titt 2M  
API No. 30-045-38407  
K-35, T30N-R11W  
San Juan County, NM**

Gentlemen:

Concerning Hilcorp Energy Company's C-103 application to downhole commingle production in the subject well, this letter serves to confirm the following:

All working, royalty and overriding royalty interests are identical between the Blanco Mesaverde (Pool Code: 72319) and Basin Dakota (Pool Code: 71599) in the spacing units dedicated to these formations. Therefore, no notice to interest owners is required.

The spacing unit contains a Federal Lease. Therefore, pursuant to Subsection C.(1) of 19.15.12.11 NMAC, written notice has been sent to the Bureau of Land Management as of the date of this letter.

If you have any questions or concerns, please contact the undersigned using the information provided below.

Sincerely,

By: HILCORP ENERGY COMPANY,  
Its General Partner

A handwritten signature in blue ink, appearing to read 'Carson Parker Rice', is written over a horizontal line.

Carson Parker Rice  
Landman – San Juan Basin  
Hilcorp Energy Company  
1111 Travis Street  
Houston, Texas 77002  
713-757-7108 Direct  
Email: carice@hilcorp.com

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

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 419613

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 419613
	Action Type: [C-107] Down Hole Commingle (C-107A)

CONDITIONS

Created By	Condition	Condition Date
llowe	None	4/2/2025