Initial Application Part I

Received: **08/09/2019**

This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete

Revised March 23, 2017

RECEIVED: 08/09/2019	REVIEWER: MAM	TYPE: DHC	APP NO: pMAM1922147982

ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

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

ADMINISTRATIVE APPLICATION CHECKLIST

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

Applicant: Hilcorp Energy Company **OGRID Number:** 372171
Well Name: Sheets 4E **API:** 30-045-33892
Pool: Basin Fruitland Coal / Basin Dakota **Pool Code:** 71629 / 71599

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

DHC-5040

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.

Thomas Jacques
Print or Type Name

Signature

8/8/2019
Date

832.839.4582
Phone Number

tjacques@hilcorp.com
e-mail Address

Received by OCD: 8/9/2019 8:24:21 AM

State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Receipt of Fee Application Payment

PO Number: RMQO2-190809-C-107A

Payment Date:	8/9/2019 8:26:00 AM
Payment Amount:	$150.00
Payment Type:	Credit Card

Application Type:	Application for administrative approval of a downhole commingle.
Fee Amount:	$150.00
Application Status:	Under OCD Review

OGRID:	372171
First Name:	Priscilla
Last Name:	Shorty
Email:	pshorty@hilcorp.com

IMPORTANT: If you are mailing or delivering your application, you must print and include your receipt of payment as the first page on your application. All mailed and delivered applications must be sent to the following address: 1220 S. St. Francis Dr., Santa Fe, NM 87505. For inquiries, reference the PO Number listed above.

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

Sheets — Lease
#004E — Well No.
L 28 31N 09W — Unit Letter-Section-Township-Range
San Juan — County

OGRID No. 372171 Property Code 318729 API No. 3004533892 Lease Type: _X_Federal ____State ____Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	BASIN FRUITLAND COAL		BASIN DAKOTA
Pool Code	71629		71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2828'-3017'		7370'-7522'
Method of Production (Flowing or Artificial Lift)	New Zone		Plunger 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)	150 psi		200 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1000 BTU		1000 BTU
Producing, Shut-In or New Zone	New Zone		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: N/A Rates:	Date: Rates:	Date: 5/2019 Rates: 0 BO, 1197 MCF, 45 BW
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 Will be supplied upon completion	Oil Gas	Oil Gas Will be supplied upon completion

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes__X___No_____
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes_____ 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 Priscilla Shorty TITLE Operations/Regulatory Technician – Sr. DATE 8/8/2019

TYPE OR PRINT NAME Priscilla Shorty TELEPHONE NO. (505) 324-5188

E-MAIL ADDRESS pshorty@hilcorp.com

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

COPY

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045- 33892	71599	Basin Dakota

[4] Property Code	[5] Property Name	[6] Well Number
7504	SHEETS	4E

[7] OGRID No.	[8] Operator Name	[9] Elevation
14538	BURLINGTON RESOURCES OIL & GAS COMPANY LP	6187

[10] Surface Location

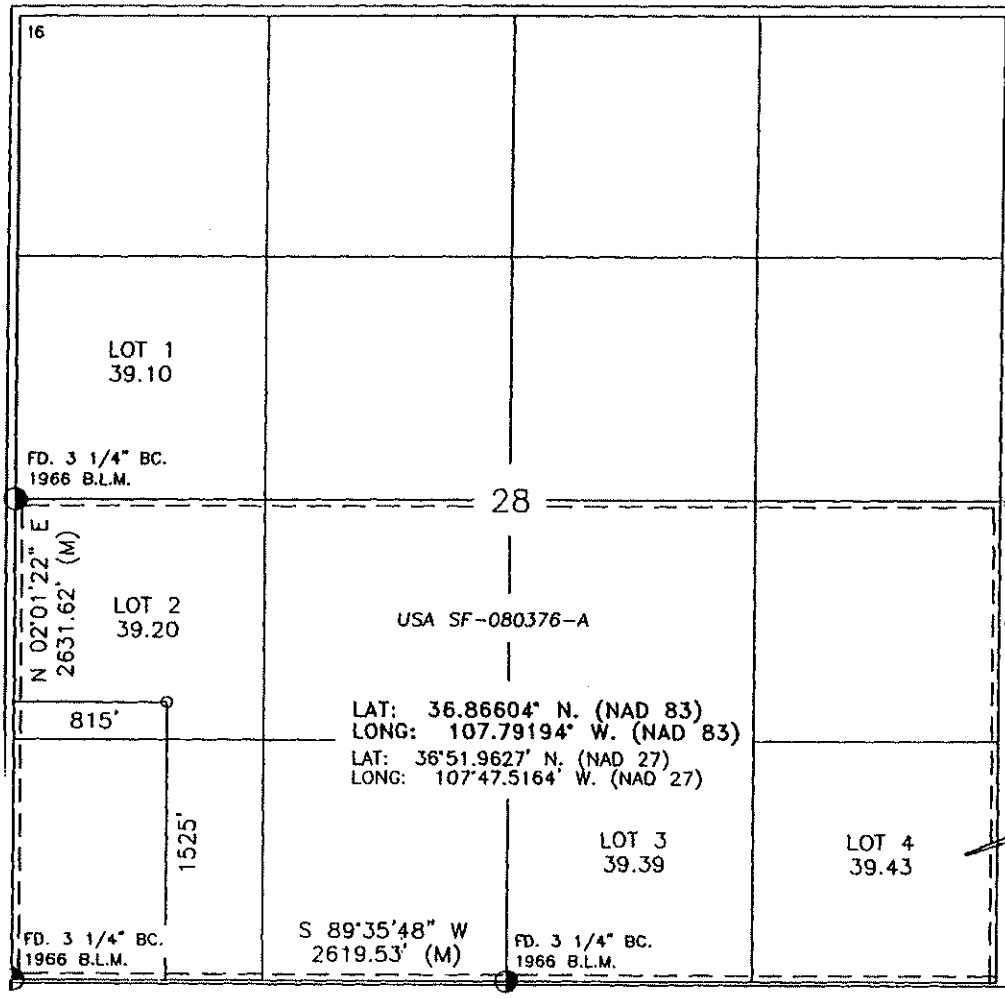
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	28	31-N	9-W	2	1525	SOUTH	815	WEST	SAN JUAN

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L									

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
DK 318.20ac. S2			

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



17 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 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.

Signature Date

Philana Thompson
Printed Name

Regulatory Analyst

18 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.

JUNE 13, 2006
Date of Survey

Signature & Seal of Professional Surveyor:

JOHN A. VUKONICH
NEW MEXICO
14831
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number

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 270019

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-045-33892	71629	BASIN FRUITLAND COAL (GAS)
4. Property Code	**5. Property Name**	**6. Well No.**
318729	SHEETS	004E
7. OGRID No.	**8. Operator Name**	**9. Elevation**
372171	HILCORP ENERGY COMPANY	6187

10. Surface Location

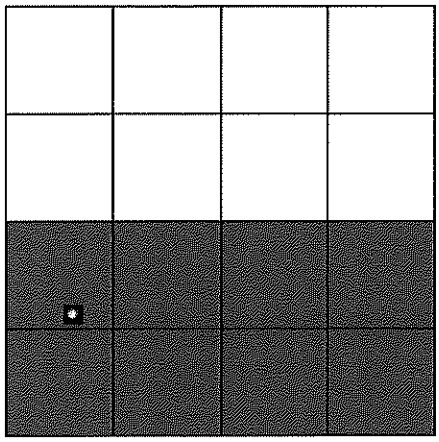
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
L	28	31N	09W	2	1525	S	815	W	SAN JUAN

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.
318.02			

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: Priscilla Shorty
Title: Operations Regulatory Tech - Sr.
Date: 07/18/2019

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: John Vukonich
Date of Survey: 6/17/2006
Certificate Number: 14831

Discussion of Pressures

Reservoir	Bottom Hole Pressure
Basin Fruitland Coal	150 psi
Basin Dakota	200 psi

The pressure provided is the near wellbore shut in bottom hole pressure of the Basin Dakota. The near wellbore shut in bottom hole pressure is much lower than the far field stabilized reservoir pressure calculated with moving domain material balance 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 pressure, the low permeability of the reservoir rock results in rapid depletion of the near-fracture region quickly enough that the wells are unable produce without the aid of a plunger. Given low permeability and low wellbore flowing pressure in the Basin Dakota and Basin Fruitland Coal, loss of reserves due to cross-flow is not an issue during producing or shut-in periods. Given the low shut-in bottom hole pressures, commingling the Basin Dakota and Basin Fruitland Coal in this well will not result in shut-in or flowing wellbore pressures in excess of any commingled pool's fracture parting pressure.

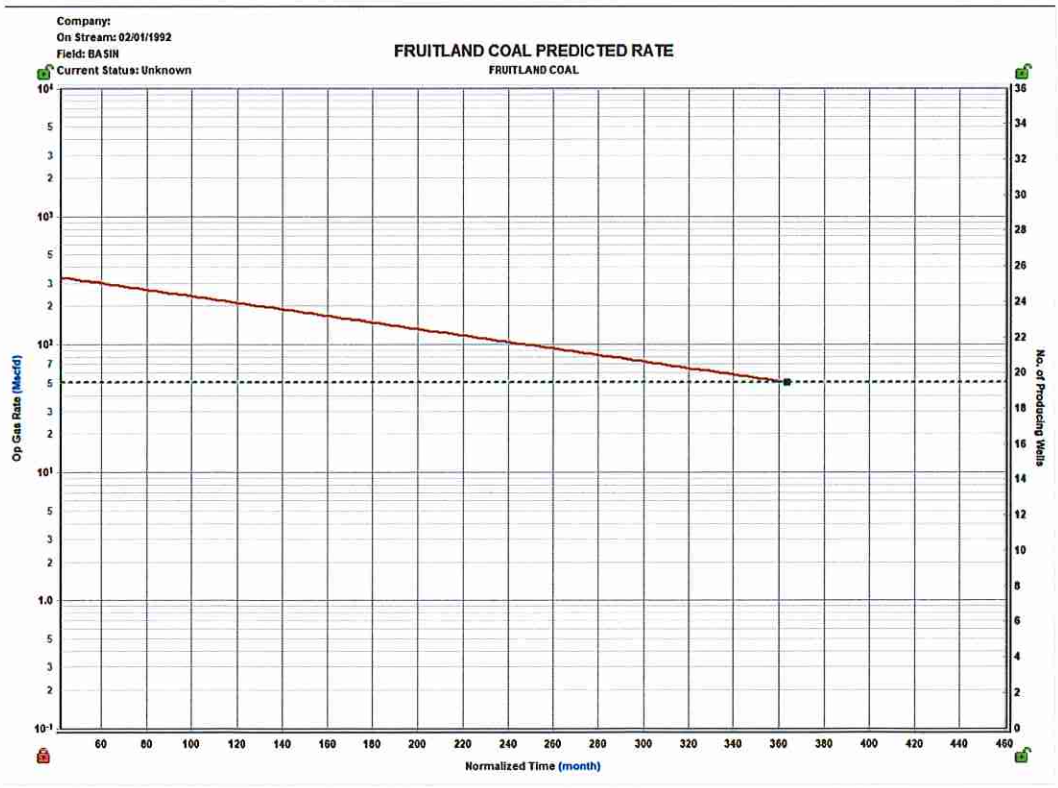
John Brown 8/7/19

John Brown

Hilcorp San Juan Reservoir Engineer

Sheets #4E Basin Dakota Forecast

Sheets #4E Predicted Basin Fruitland Coal Forecast



The Sheets #4E predicted Basin Fruitland Coal rate is based on type well and volumetric analysis of offset Basin Fruitland Coal producers. The reservoir fluids of the commingled completions are compatible.

JUSTIFICATION OF ALLOCATION: Hilcorp requests that production for the downhole commingle be allocated using the subtraction method. The base formations is the Basin Dakota and the added formation to be commingled is the Basin Fruitland Coal. The subtraction method applies an average monthly production forecast to the base formation(s) using historic production. All production from this well exceeding the forecast will be allocated to the new formation(s). A fixed percentage based allocation will be submitted after the fourth year of production. See attached documents for production forecast. The Basin Fruitland Coal will not produce oil. All oil produced will be allocated to the Basin Dakota.

Historical Production

Basin Dakota

	Oil (BBLS)	Gas (MCF)	Water (BBLS)
Dec-18	0	1181	45
Jan-19	0	1118	45
Feb-19	0	1034	41
Mar-19	0	1192	45
Apr-19	0	1152	43
May-19	0	1197	45

Hilcorp

August 8, 2019

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

Re: C-107-A (Downhole Commingle)
Sheets 004E
API: 30-045-33892
T31N-R9W-Section 28, Unit Letter: L
San Juan County, NM

Mr. McMillan:

Concerning Hilcorp Energy Company's C-107-A 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 Basin Dakota (71599) and Basin Fruitland Coal (71629) in the spacing unit dedicated to these formations; being the S/2 (318.02 acres) of Township 31 North, Range 9 West, Section 28. Therefore, no notice to interest owners is required.
- The spacing unit is comprised of a federal lease. Therefore, pursuant to Subsection C.(1) of 19.15.12.11 NMAC, a copy of the C-107-A has been sent to the BLM as of the date of this letter.

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

Regards,

Hilcorp Energy Company

Robert T. Carlson
Landman
(832) 839-4596
rcarlson@hilcorp.com

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMSF080376A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
SHEETS 4E

2. Name of Operator
HILCORP ENERGY COMPANY
Contact: PRISCILLA SHORTY
E-Mail: pshorty@hilcorp.com

9. API Well No.
30-045-33892

3a. Address
382 ROAD 3100
AZTEC, NM 87410

3b. Phone No. (include area code)
Ph: 505-324-5188

10. Field and Pool or Exploratory Area
BASIN DAKOTA

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 28 T31N R09W Mer NMP NWSW 1525FSL 815FWL

11. County or Parish, State
SAN JUAN COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Hilcorp Energy Company requests permission to recomplete the subject well in the Fruitland Coal and downhole commingle with the existing Dakota formation. Attached is the procedure, wellbore diagram, plat, and gas capture plan. A DHC application will be filed and approved prior to commingling. A closed loop system will be used. Interim reclamation will be performed after surface disturbing activities.

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #474471 verified by the BLM Well Information System
For HILCORP ENERGY COMPANY, sent to the Farmington

Name *(Printed/Typed)* PRISCILLA SHORTY — Title OPERATIONS REGULATORY TECH

Signature (Electronic Submission) — Date 07/22/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office _____

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.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

HILCORP ENERGY COMPANY
SHEETS 4E
FRUITLAND COAL RECOMPLETION SUNDRY

SHEETS 4E - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

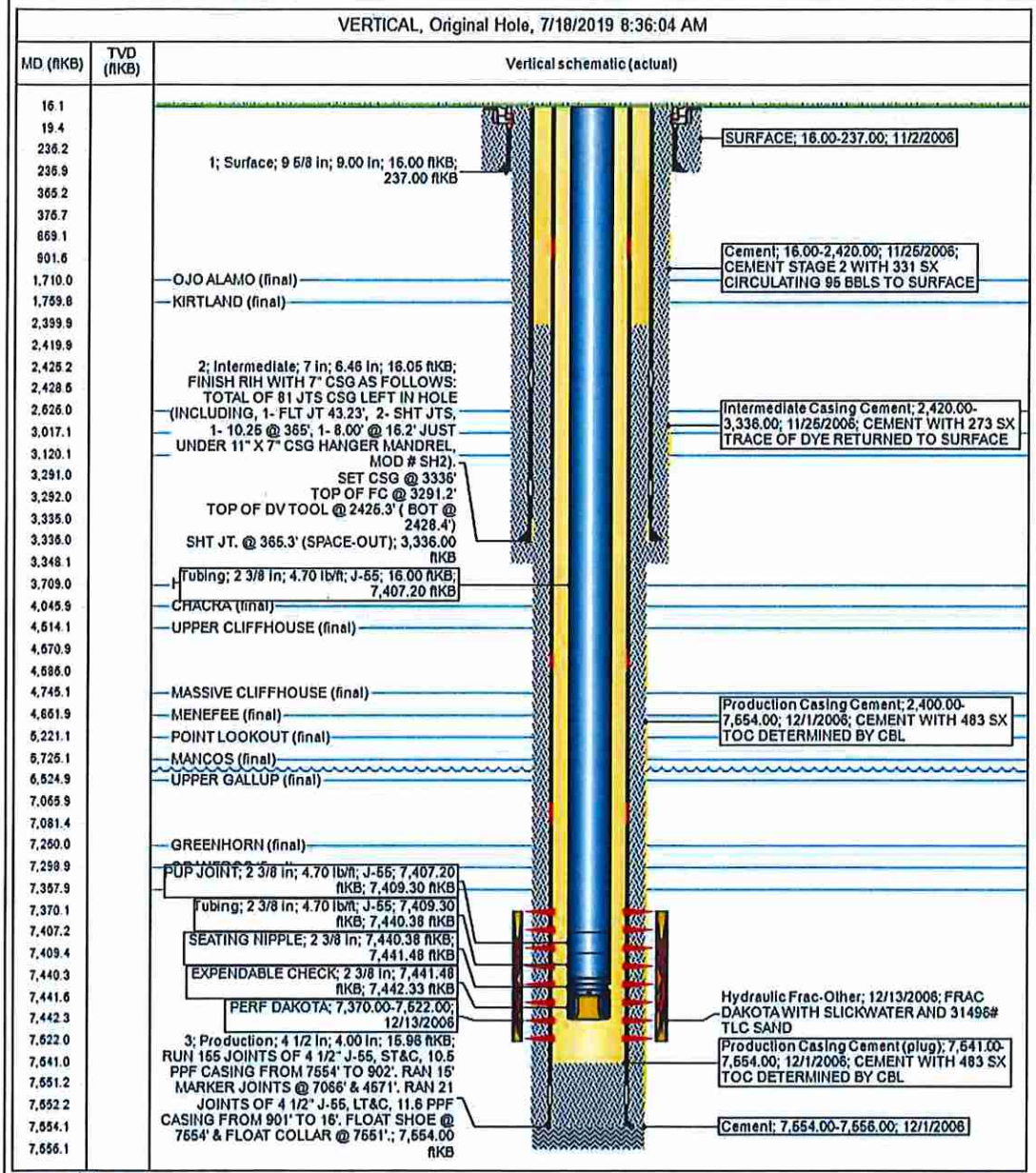
Current Schematic

Well Name: SHEETS #4E

API / UWI	Surface Legal Location	Field Name	Route	State/Province	Well Configuration Type
3004533892	028-031N-009W-L	BASIN DAKOTA (PRORATED GAS)	0408	NEW MEXICO	VERTICAL

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
6,187.00	6,203.00	16.00		

VERTICAL, Original Hole, 7/18/2019 8:36:04 AM



HILCORP ENERGY COMPANY
SHEETS 4E
FRUITLAND COAL RECOMPLETION SUNDRY

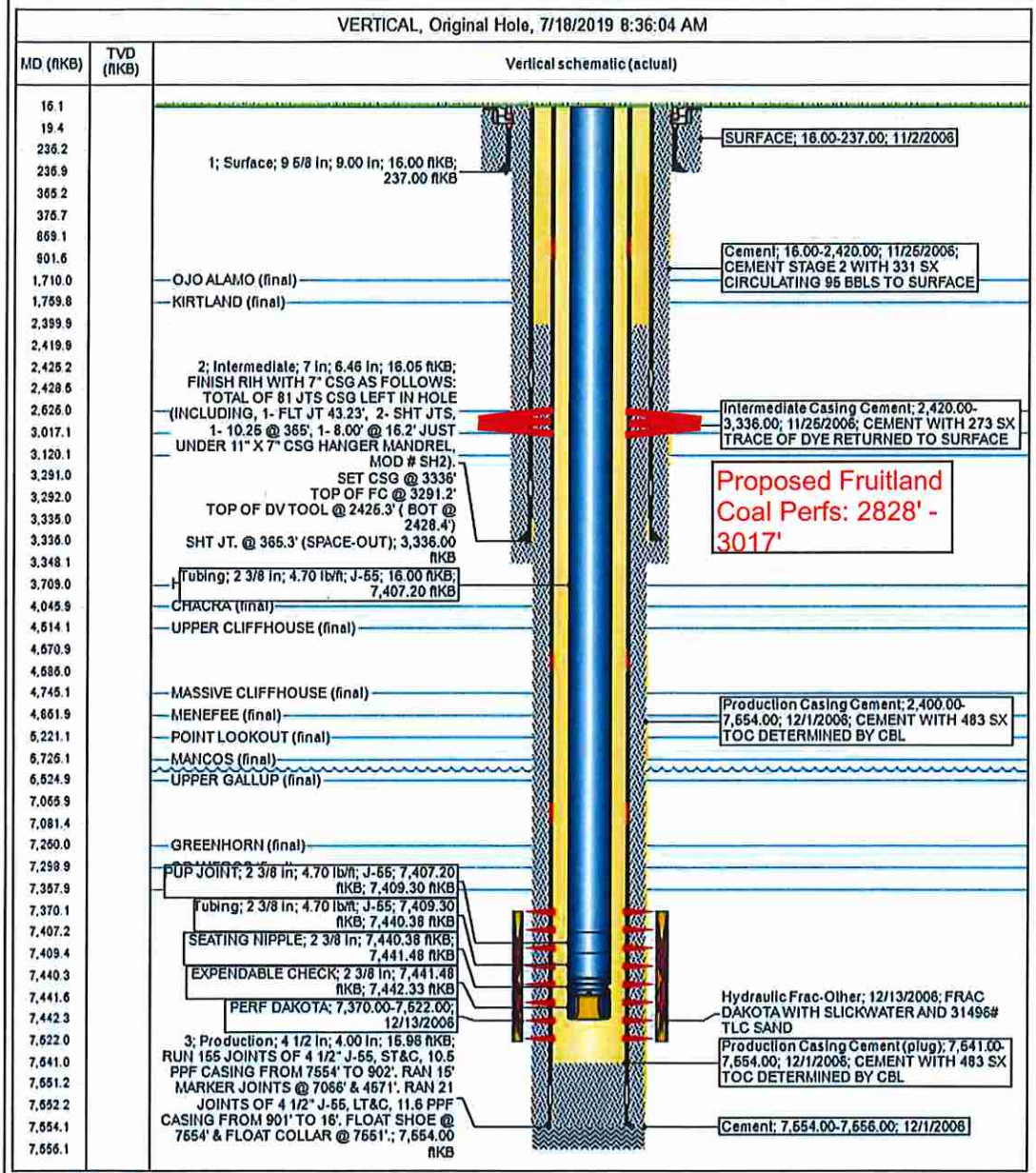
SHEETS 4E - CURRENT WELLBORE SCHEMATIC

Hilcorp Energy Company

Proposed Schematic

Well Name: SHEETS #4E

API / UWI	Surface Legal Location	Field Name	Route	State Province	Well Configuration Type
3004533892	028-031N-009W-L	BASIN DAKOTA (PRORATED GAS)	0408	NEW MEXICO	VERTICAL

Ground Elevation (ft)	Original KB/RT Elevation (ft)	KB-Ground Distance (ft)	KB-Casing Flange Distance (ft)	KB-Tubing Hanger Distance (ft)
6,187.00	6,203.00	16.00		

VERTICAL, Original Hole, 7/18/2019 8:36:04 AM