Received by OCD: 10/15/2019 12:39:04 PM

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

APPLICATION OF HILCORP ENERGY COMPANY FOR DOWNHOLE COMMINGLING IN ITS GRAMBLING C 3B WELL, SAN JUAN COUNTY, NEW MEXICO.

CASE	NO.

APPLICATION

Hilcorp Energy Company, ("Hilcorp") (OGRID No. 372171), through its undersigned counsel, hereby files this application with the Oil Conservation Division for approval to downhole commingle production from the Basin-Dakota Gas Pool (Pool Code 71599) and Blanco-Mesaverde Gas Pool (Pool Code 72319) with production from the Basin-Fruitland Coal Gas Pool (Pool Code 71629) within the wellbore of its **Grambling C 3B Well** (API 30-045-33131). In support of this application, Hilcorp states:

- 1. Hilcorp is the operator of the **Grambling C 3B Well** (API 30-045-33131), which is at a standard location 1,800 feet from the south line and 660 feet from the east line (Unit I) in Section 12, Township 30 North, Range 10 West, NMPM, San Juan County, New Mexico. The well is currently simultaneously dedicated to standard 296-acre, more or less, spacing units within the Basin-Dakota and Blanco-Mesaverde Pools comprised of the E/2 of said Section 12.
- 2. Hilcorp proposes to re-complete the well within the Fruitland formation and simultaneously dedicate it to a standard 296-acre, more or less, spacing unit in the Basin-Fruitland Coal Gas Pool (Pool Code 71629) comprised of the E/2 of said Section 12.
- 3. The ownership of the mineral estate is identical between the existing spacing unit within the Basin-Dakota and Blanco-Mesaverde Pools and the proposed Basin-Fruitland Coal Gas

spacing unit. Accordingly, notification of this application and hearing is not required. *See* 19.15.4.12(A)(6) NMAC.

- 4. Applicant filed an application on Form C-107-A seeking administrative approval to downhole commingle. *See Exhibit A*, attached. The Division informed Hilcorp that the application must be heard before a Division Examiner at a hearing pursuant to 19.15.12.11(C)(1)(d) NMAC.
- 5. In accordance with Division regulation 19.15.12.11 NMAC, Hilcorp will establish at hearing the following criteria necessary for approval:
 - a. the fluids from each pool proposed for downhole commingling are compatible and combining the fluids will not damage the pools;
 - downhole commingling will not jeopardize the efficiency of present or future secondary recovery operations in the pools to be commingled;
 - c. downhole commingling will not result in shut-in or flowing wellbore pressures in excess of any commingled pool's fracture parting pressure;
 - d. downhole commingling will not result in the permanent loss of reserves due to cross-flow in the well bore;
 - e. 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;
 - f. downhole commingling will not reduce the value of the total remaining production; and
 - g. correlative rights will not be violated;
- 6. Applicant proposes that gas production from the commingled pools be allocated using a subtraction method to be proposed at the hearing in this matter, and that production of

condensate be allocated only to the Dakota and Mesaverde formations using the existing allocation.

7. Approval is in the best interest of conservation, the prevention of waste, and the protection of correlative rights.

WHEREFORE, Hilcorp Energy Company requests that this application be set before an Examiner of the Oil Conservation Division on November 14, 2019, and, after notice and hearing as required by law, that the Division enter an order granting this Application.

Respectfully submitted,

HOLLAND & HART LLP

By:

Michael H. Feldewert

Adam G. Rankin

Julia Broggi

Kaitlyn A. Luck

Post Office Box 2208

Santa Fe, NM 87504

505-998-4421

505-983-6043 Facsimile

mfeldewert@hollandhart.com

agrankin@hollandhart.com

jbroggi@hollandhart.com

kaluck@hollandhart.com

ATTORNEYS FOR HILCORP ENERGY COMPANY

Case No.

Application of Hilcorp Energy Company for Downhole Commingling in its Grambling C 3B Well, San Juan County, New Mexico. Pursuant to 19.15.12.11 NMAC, applicant seeks an order authorizing it to downhole commingle production from the Basin-Dakota Gas Pool (Pool Code 71599) and Blanco-Mesaverde Gas Pool (Pool Code 72319) with production from the Basin-Fruitland Coal Gas Pool (Pool Code 71629) within the wellbore of its Grambling C 3B Well (API 30-045-33131) which is at a standard location 1,800 feet from the south line and 660 feet from the east line (Unit I) in Section 12, Township 30 North, Range 10 West, NMPM, San Juan County, New Mexico. The Grambling C 3B Well is currently simultaneously dedicated to standard 296-acre, more or less, spacing units within the Basin-Dakota and Blanco-Mesaverde Pools comprised of the E/2 of said Section 12. Hilcorp proposes to re-complete the well within the Fruitland formation and simultaneously dedicate it to a standard 296-acre, more or less, spacing unit in the Basin-Fruitland Coal Gas Pool (Pool Code 71629) comprised of the E/2 of said Section 12. Said area is approximately 9 miles east, of Aztec, NM.

RECEIVED;	REVIEWER:	TYPE:	APP NO:	
		ABOVE THIS TABLE FOR OCD DR	AISION RISE ONTA	
	- Geologia	O OIL CONSERVA cal & Engineering ancis Drive, Santo	ATION DIVISION Bureau –	
	ADMINISTR	ATIVE APPLICATION	ON CHECKLIST	
THIS C	CHECKLIST IS MANDATORY FOR AL REGULATIONS WHICH REG	L ADMINISTRATIVE APPLICA QUIRE PROCESSING AT THE (TIONS FOR EXCEPTIONS DIVISION LEVEL IN SANT	TO DIVISION RULES AND A FE
Applicant: Hilcorr				RID Number: <u>372171</u>
Well Name: Gramb	oling C 3B Coal / Blanco Mesaverde / B	lagin Dakota		3004533131
POOI. Dasin Fruntand	Coal / Blatico Mesaverde / E	basin Dakota	Pool	Code: <u>71629/72319/71599</u>
SUBMIT ACCURA	ATE AND COMPLETE INF			THE TYPE OF APPLICATION
		INDICATED BELO	W	
	CATION: Check those v - Spacing Unit - Simulto ISL \square NSP _{(PRC}	aneous Dedication	1	lsd
[1] Comr [[11] Injec	ne only for [1] or [11] ningling – Storage – Me DHC CTB PL tion – Disposal – Pressur WFX PMX SW	C 🗌 PC 🔲 OI re Increase – Enha	nced Oil Recov	
A. Offset A. Royalt C. Applic D. Notific E. Surface G. For all	REQUIRED TO: Check to perators or lease hold by, overriding royalty ow ation requires published ation and/or concurred to a tion and/or concurred owner of the above, proof of ice required	lers rners, revenue owr d notice nt approval by SLC nt approval by BLA) M	FOR OCD ONLY Notice Complete Application Content Complete
administrative of understand the	: I hereby certify that the approval is accurate and the action will be taken as submitted to the Divis	nd complete to th en on this applicat	e best of my kn	owledge. I also
Not	e: Statement must be complete	ed by an individual with n	nanagerial and/or su	pervisory capacity,
Thomas Jacques			8/26/2019 Date	
Thomas Jacques Print or Type Name			24.0	
Thin or type name	Λ		832.839.4582	
Shore D			Phone Number	
Strongture	m		tjacques@hilco	orp.com

District 1 1625 N, French Drive, Hobbs, NM 88240 District II 811 S. First St., Arresia, NM 88210 District III

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107A Revised August 1, 2011

Oil Conservation Division 1220 South St. Francis Dr.

- 1	\PPLICATI	ION TYPE	
Sin	gle Well		
Est	ablish Pre-A	Approved P	ools
E	CISTING W	ÉLLBORE	:
	1/	31-	

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505		DOWNHOLE COMMINGLING	EXISTING WELLBORE G YesNo
Hilcorp Energy Company		Aztec, NM 87410	
Operator		ddress	
Grambling C Lease	#003B 12-30N- Well No, Unit Lette	-10W r-Section-Township-Range	San Juan County
OGRID No. 372171 Property C	Code <u>318534</u> API No. <u>3004533</u>	Lease Type: X Federal	StateFee
DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	BASIN FRUITLAND COAL	BLANCO-MESAVERDE	BASIN DAKOTA
Pool Code	71629	72319	71599
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2765'-2977'	3998'-5568'	7341'-7538'
Method of Production (Flowing or Artificial Lift)	New Zone	Plunger Lift	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	200 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1000 BTU	1000 BTU	1000 BTU
Producing, Shut-In or New Zone	New Zone	Producing	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production	Date: N/A	Date: 6/2019	Date: 6/2019
estimates and supponing data.)	Rates:	Rates: 0 BO, 2303 MCF, 14 BW	Rates: 0 BO, 1135 MCF, 15 BW
Fixed Allocation Percentage (Note: If allocation is based upon something other	Oil Gas	Oil Gas	Oil Gas
than current or past production, supporting data or explanation will be required.)	Will be supplied upon completion	Will be supplied upon completion	Will be supplied upon completion
	ADDITIO	NAL DATA	***************************************
Are all working, royalty and overriding If not, have all working, royalty and over			Yes_X No Yes No
Are all produced fluids from all commit	ngled zones compatible with each	other?	YesX No
Will commingling decrease the value of	f production?		Yes No_ <u>X</u> _
if this well is on, or communitized with, or the United States Bureau of Land Ma			Yes_X No
NMOCD Reference Case No. applicable	e to this well:		
Attachments: C-102 for each zone to be comming Production curve for each zone for a For zones with no production histor. Data to support allocation method Notification list of working, royalty Any additional statements, data or d	at least one year. (If not available, y, estimated production rates and : r formula. and overriding royalty interests for	, attach explanation.) supporting data. or uncommon interest cases.	
	PRE-APPRO	OVED POOLS	
If application is t	o establish Pre-Approved Pools, t	he following additional information wi	ill be required:
ist of other orders approving downhole ist of all operators within the proposed Proof that all operators within the propo Bottomhole pressure data.	Pre-Approved Pools		
hereby certify that the information	above is true and complete to	the best of my knowledge and belie	ef.
SIGNATURE WULL	TITLE (Operations/Regulatory Technician	Sr. DATE <u>8/26/2019</u>
YPE OR PRINT NAME Amanda		PHONE NO. (505)324.5122	

E-MAIL ADDRESS mwalker@hilcorp.com

EXHIBIT A

District I PO Box 1980, Hobbs, NM 88241-1980

District II PO Drawer DD, Artesia, NM 88211-0719

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District IV PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 2005 JUN -1 PM 12 06

Form C-10 Revised February 21, 199 Instructions on bac Submit to Appropriate District Offic

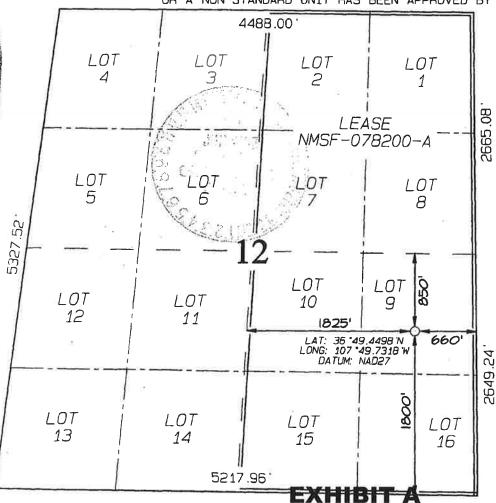
State Lease - 4 Copie Fee Lease - 3 Copie

AMENDED REPORT

RECEIVED WELL LOCATION AND ACREAGE TOEDICATION PLAT

1 A	PI Numbe			*Pool Co	de		'Pool Nam	е	
30-04	53	3131	723	19/7159	9 I	Blanco Mesave	rde/Basin Da	kota	
*Property	Code				*Proper	ty Name		• 1	Vell Number
7056	, !				GRAMBI	_ING C		{	3B
'OGRID N	Vo .				*Operato	or Name	-		Elevation
14538			BURLI	NGTON F	RESOURCES	OIL & GAS C	OMPANY, LP		5287
					¹⁰ Surface	Location			
UL or lot no.	Sect ion	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	12	30N	10W		1800	SOUTH	660	EAST	SAN JUAN
		11 BC	ttom	Hole L	ocation :	If Different	From Surf	ace	
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 0-4					13 Joint or Infill	¹⁴ Consolidation Code	55 Order No.		
12 Oedicated Acres MV/DK 29	6 E/2				Some or mill	Coreplication code	Urdan NO	- 1	
NO ALLOW		ILL BE AS	SIGNE	D TO TH	IS COMPLET	ION UNTIL ALL	INTERESTS H	AVE BEEN CO	NSOLIDATED

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 trances Signature Frances Bond Printed Name Regulatory Specialist 3 - 29-05 Date 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. Date of Survey: MARCH 7, 2005 Signature and Seal of Professional Surveyor SEON C. EDWARDS SEN MEXICO PROFESSION. SAMETOR Certificate Number 15269

8/26/2019 OCD Permitting

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

1220 S. St Francis Dr. **Santa Fe, NM 87505**

Energy, Minerals and Natural Resources Oil Conservation Division

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-045-33131	2. Pool Code 71629	3, Pool Name BASIN FRUITLAND COAL (GAS)
4. Property Code 318534	5. Property Name GRAMBLING C	6. Well No. 003B
7. OGRID No. 372171	8. Operator Name HILCORP ENERGY COMPANY	9. Elevation 6287

10. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
1	12	30N	10W	. 9	1800	S	660	E	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 A 296			13. Joint or Infill		14. Consolidatio	n Code		15, Order No.	

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

OPERATOR CERTIFICATION

Form C-102

August 1, 2011

Permit 271548

1/1

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: Amunda Wulker

Title: Operations / Regulatory Tech Sr.

Date: 8/26/2019

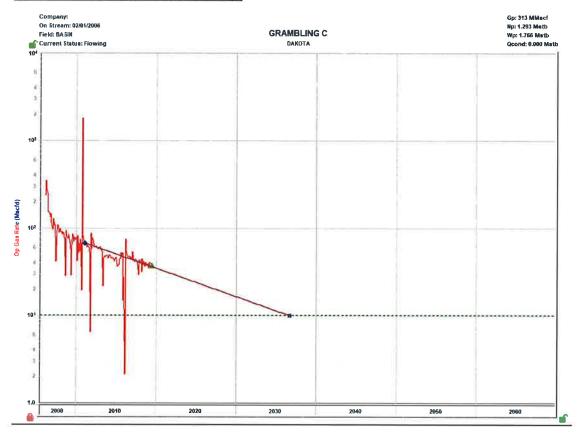
SURVEYOR CERTIFICATION

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.

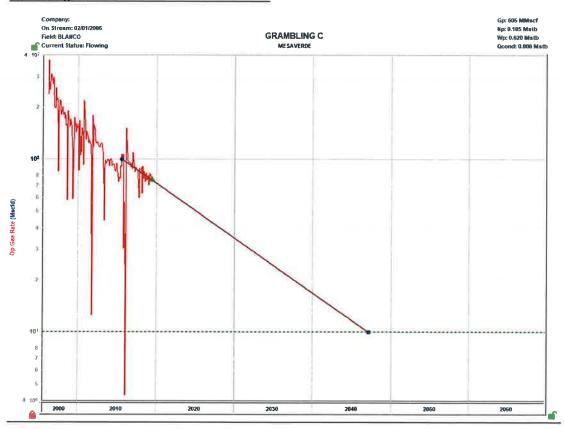
Jason Edwards Surveyed By: 3/7/2005 Date of Survey:

Certificate Number: 15269

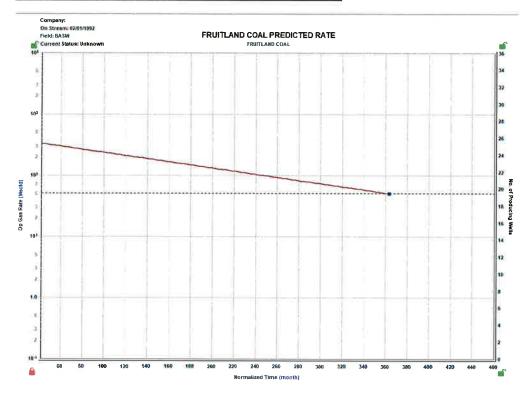
Grambling C #3B Basin Dakota Forecast



Grambling C #3B Blanco-Mesaverde Forecast



Grambling C #3B Predicted Basin Fruitland Coal Forecast



The Grambling C #3B 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 are the Blanco-Mesaverde and 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 Blanco-Mesaverde and Basin Dakota using the current allocation formula.

Historical Production

Basin Dakota

	Oil (BBLS)	Gas (MCF)	Water (BBLS)
Jan-19	0	1076	15
Feb-19	40	1637	14
Mar-19	11	1257	15
Apr-19	11	1177	15
May-19	25	1147	15
Jun-19	0	1135	15

Blanco Mesaverde

	Oil (BBLS)	Gas (MCF)	Water (BBLS)
Jan-19	0	2186	15
Feb-19	0	2085	13
Mar-19	0	2551	15
Apr-19	0	2389	14
May-19	0	2329	15
Jun-19	0	2303	14

Discussion of Pressures

Reservoir	Bottom Hole Pressure
Basin Fruitland Coal	150 psi
Blanco-Mesaverde	200 psi
Basin Dakota	200 psi

The pressures provided are the near wellbore shut in bottom hole pressures of the Blanco-Mesaverde and 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, Blanco-Mesaverde 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, Blanco-Mesaverde 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

Hilcorp San Juan Reservoir Engineer





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

Attn: Michael McMillan

Re: C-107-A (Downhole Commingle)

GRAMBLING C #003B API: 30-045-33131

T30N-R10W-Section 12, Unit Letter: I

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 Blanco Mesaverde (72319), Basin Dakota (71599) and Basin Fruitland Coal (71629) in the spacing unit dedicated to these formations; being the E/2 of Township 30 North, Range 10 West, Section 12. 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

rearlson@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, 201

SUNDRY NOTICES AND REPORTS ON WELLS

5. Lease Serial No. NMSF078200A

abandoned we		6. If Indian, Allottee or Tribe Name					
SUBMIT IN	7. If Unit or CA/Agreement, Name and/or No.						
1. Type of Well ☐ Oil Well ☐ Gas Well ☒ Otl	8. Well Name and No. GRAMBLING C 3B						
Name of Operator HILCORP ENERGY COMPAN	9. API Well No. 30-045-33131						
3a. Address 1111 TRAVIS ST. HOUSTON, TX 77002		No. (include area code) 324-5122	,	10. Field and Pool or Exploratory Area BASIN FRUITLAND COAL			
4. Location of Well (Footage, Sec., T	C., R., M., or Survey Description)			11. County or Parish, S	tate		
Sec 12 T30N R10W Mer NMF		SAN JUAN COUNTY, NM					
12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA							
TYPE OF SUBMISSION		ТҮРЕ О	TYPE OF ACTION				
Notice of Intent ■ Notice of Intent Notice of Inten	☐ Acidize ☐ De	eepen	☐ Producti	on (Start/Resume)	☐ Water Shut-Off		
_	☐ Alter Casing ☐ Hydraulic Fracturing ☐ Re		■ Reclama	ntion	■ Well Integrity		
☐ Subsequent Report ☐ Casing Repair ☐		ew Construction	Recomp	lete	Other		
☐ Final Abandonment Notice			☐ Tempora	porarily Abandon			
			☐ Water D	isposal			
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 Mesaverde/Dakota. Please see the attached procedure, wellbore diagram, plat and gas capture plan. A closed loop system will be used. Interim reclamation will be performed after surface disturbing activities using the following attached plan.							
14. I hereby certify that the foregoing is true and correct. Electronic Submission #480416 verified by the BLM Well Information System For HILCORP ENERGY COMPANY, sent to the Farmington							
Nama (Brinto d/Trans) ABAAAID A		-					
Name (Printed/Typed) AMANDA	WALKER	Title OPERA	FIONS REG	ULATORY TECH			
Signature (Electronic S	ubmission)	Date 08/26/20)19				
	THIS SPACE FOR FEDER	AL OR STATE (OFFICE US	iE			
Approved By	. = . = . = . = . = . = .	Title			Date		
Conditions of approval, if any, are attached ertify that the applicant holds legal or equi which would entitle the applicant to conduct	 Approval of this notice does not warrant or itable title to those rights in the subject lease ct operations thereon. 	Office					
itle 18 U.S.C. Section 1001 and Title 43 U.States any false, fictitious or fraudulent st	J.S.C. Section 1212, make it a crime for any patternants or representations as to any matter y	person knowingly and within its jurisdiction	willfully to mal	ce to any department or ag	gency of the United		

(Instructions on page 2)



HILCORP ENERGY COMPANY GRAMBLING C 3B FRUITLAND COAL RECOMPLETION SUNDRY

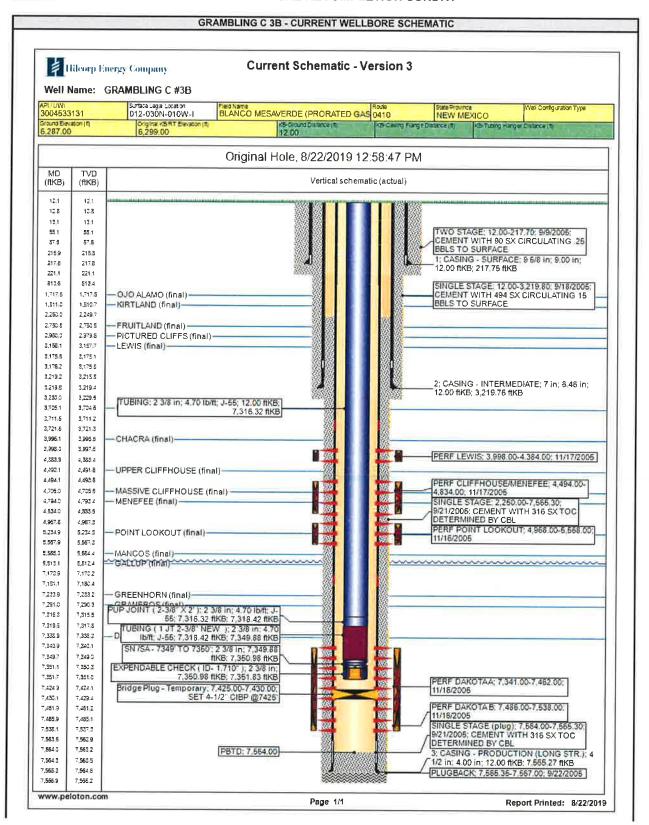


EXHIBIT A



HILCORP ENERGY COMPANY GRAMBLING C 3B FRUITLAND COAL RECOMPLETION SUNDRY

