Form 3160 - 3 (March 2012)		HOBBS JUL 1 REC	0CD 1 2018	FORM OMB 1	APPROV	37
UNITED STATES DEPARTMENT OF THE J		DEC	EIVE	Expires C 5. Lease Serial No.,	October 31,	2014
BUREAU OF LAND MAN	AGEMENT			NMNM019142 < 6. If Indian, Allotee	or Tribe	Name //
APPLICATION FOR PERMIT TO	DRILL OF	R REENTER				$\leq$
la. Type of work: DRILL REENTE	ER.			7 If Unit or CA Agre 8. Lease Name and	$\sim$	ame and No. 
lb. Type of Well: 🗹 Oil Well 🗌 Gas Well 🗌 Other	🖌 Si	ngle Zone 🔲 Multip	ple Zone	RIO BLANCO 4-33		омън
2. Name of Operator DEVON ENERGY PRODUCTION COM	IPANY LP	(6137)		9. API Well-No. 30-02	s_y	4962
3a. Address 333 West Sheridan Avenue Oklahoma City Ok	3b. Phone No (405)552-6	). (include area code) 6571		10 Field and Pool, or 1 WC-025 G-06 S22	-	
<ol> <li>Location of Well (Report location clearly and in accordance with an At surface SWNE / 2567 FNL / 1343 FEL / LAT 32.3338</li> </ol>	•			11. Sec., T. R. M. or B	ik. and Su	rvey or Area
At surface Swine / 250/ FNL / 1545 FEL / LAT 32.5556 At proposed prod. zone NENE / 330 FNL / 380 FEL / LAT 3			158	SEC 4 / T23S / R3	4E / NM	P
14. Distance in miles and direction from nearest town or post office*				12. County or Parish LEA		13. State NM
15. Distance from proposed* location to nearest 73 feet property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of a 560.12	icres in lease	17. Spacin 240	g Unit dedicated to this	well	
18. Distance from proposed location* to nearest well, drilling, completed, 3207 feet applied for, on this lease, ft.	19. Propose 10150 fee	d Depth t / 17524 feet	20. BLM/I FED: CO	BIA Bond No. on file D1104		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3398 feet	22. Approxi 06/20/201	mate date work will sta 18	rt*	23. Estimated duratio 45 days	n	
	$\sim$	chments		L		
The following, completed in accordance with the requirements of Onshor	e Oil and Gas					
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>		Item 20 above).	-	ns unless covered by an	existing b	ond on file (see
3. A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).	Lands, the	5. Operator certific 6. Such other site BLM.		ormation and/or plans as	may be r	equired by the
25. Signature (Electronic Submission)	1	(Printed/Typed) ecca Deal / Ph: (405	5)228-8429	9	Date 01/04/2	2018
Title	1.000		,			
Regulatory Compliance Professional Approved by (Signature) (Electronic Submission)		(Printed/Typed) topher Walls / Ph: (	575)234-2	234	Date 05/04/	/2018
Title Petroleum Engineer	Office	LSBAD		<u> </u>	L	
Application approval does not warrant or certify that the applicant hold conduct operations thereon, Conditions of approval if any, are attached.	s legal or equi	itable title to those righ	ts in the sub	ject lease which would e	entitle the a	applicantto
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as	time for any p to any matter v	erson knowingly and within its jurisdiction.	willfully to n	nake to any department of	or agency	of the United
(Continued on page 2) 6 CP dec 07/11/18	ED WI	TH CONDITI	ONS	*(Inst K2///	ruction:	s on page 2)
<b>N</b> <sup>1</sup>		05/04/2019				

K2/11/18

## **INSTRUCTIONS**

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

The Privacy Act of 1974 and regulation in 43 CFR 2:48(d) provide that you be furnished the following information in connection with information required by this application.

NOTICES

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts. ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

(Continued on page 3)

(Form 3160-3, page 2)

# **Additional Operator Remarks**

#### Location of Well

1. SHL: SWNE / 2567 FNL / 1343 FEL / TWSP: 23S / RANGE: 34E / SECTION: 4 / LAT: 32.3338558 / LONG: -103.4708602 ( TVD: 9 feet, MD: 0 feet ) PPP: SESE / 330 FSL / 380 FEL / TWSP: 22S / RANGE: 34E / SECTION: 33 / LAT: 32.33527 / LONG: -103.46774 ( TVD: 10145 feet, MD: 10521 feet ) BHL: NENE / 330 FNL / 380 FEL / TWSP: 22S / RANGE: 34E / SECTION: 33 / LAT: 32.3545134 / LONG: -103.46774 ( TVD: 10150 feet, MD: 17524 feet )

### **BLM Point of Contact**

Name: Judith Yeager Title: Legal Instruments Examiner Phone: 5752345936 Email: jyeager@blm.gov

#### **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# APD Print Report 05/07/2018

APD ID: 10400025685

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP Well Name: RIO BLANCO 4-33 FED COM Well Type: OIL WELL Submission Date: 01/04/2018

STATISTICS OF STREET, S

Sr.S.

Well Number: 5H Well Work Type: Drill

Federal/Indian APD: FED

Highlighted deter reflects the most recent chempes

1

Show Final Text

# Application

Section 1 - General

APD ID:	10400025685	Tie to previous NOS?	Submission Date: 01/04/	2018
<b>BLM Office:</b>	CARLSBAD	User: Rebecca Deal	Title: Regulatory Compliance	
Federal/India	an APD: FED	Is the first lease penetrate	Professional d for production Federal or Indian? FED	
Lease numb	er: NMNM019142	Lease Acres: 560.12		
Surface acco	ess agreement in place?	Allotted?	Reservation:	
Agreement i	n piace? NO	Federal or Indian agreeme	nt:	
Agreement r	number:			
Agreement r	name:			
Keep applica	ation confidential? YES			
Permitting A	gent? NO	APD Operator: DEVON EN	ERGY PRODUCTION COMPANY LP	
Operator let	ter of designation:			

# **Operator Info**

<b>Operator Organization Name: DE</b>	VON ENERGY PRODUCTION	ON COMPANY LP
Operator Address: 333 West She	ridan Avenue	<b>7</b> : 70400
Operator PO Box:		<b>Zip</b> : 73102
Operator City: Oklahoma City	State: OK	
Operator Phone: (405)552-6571		
<b>Operator Internet Address:</b>		

# **Section 2 - Well Information**

Well in Master Development Plan? EXISTING	Mater Development Plan name: Gaucho 1 MDP
Well in Master SUPO? NO	Master SUPO name:
Well in Master Drilling Plan? NO	Master Drilling Plan name:

Operator Name: DEVON ENERGY PR	ODUCTION CON	MPANY LP		
Well Name: RIO BLANCO 4-33 FED CO	М	Well Number: 5H		
<b>Well Name:</b> RIO BLANCO 4-33 FED CO	M	Well Number: 5H		Well API Number:
Field/Pool or Exploratory? Field and Po	loc	Field Name: WC-025 G S223421L: BONE SPRI		Pool Name: BONE SPRING
s the proposed well in an area contain	ning other mine		-	IL
Describe other minerals:				
s the proposed well in a Helium produ	uction area? N	Use Existing Well Pad	? NO	New surface disturbance?
Type of Well Pad: MULTIPLE WELL		Multiple Well Pad Nam	e: RIO	Number: 5H, 39H
Vell Class: HORIZONTAL		BLANCO 4-33 PAD Number of Legs: 1		
Well Work Type: Drill				
Nell Type: OIL WELL				
Describe Well Type:				
Well sub-Type: INFILL				
Describe sub-type:				
Distance to town:	Distance to ne	arest well: 3207 FT	Distanc	e to lease line: 73 FT
Reservoir well spacing assigned acres	s Measurement	: 240 Acres		
Well plat: RIO_BLANCO_4_33_FED	_COM_5H_C10	2_signed_201801021330	49.pdf	
Nell work start Date: 06/20/2018		Duration: 45 DAYS		

# **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Survey number:

#### Aliquot/Lot/Tract Lease Number EW Indicator NS Indicator Longitude Elevation ease Type EW-Foot Meridian NS-Foot Section Latitude County Range State Twsp Ž Q FNL Aliquot SHL 256 134 FEL 235 34E 4 32.33385 NEW NEW F NMNM 339 0 LEA 0 . SWNE<sup>58</sup> MEXI MEXI 019142 8 7 3 103.4708 Leg 602 co CO #1 KOP Aliquot NEW NEW F NMNM 970 962 50 FSL 380 FEL 22S 34E 33 32.33383 -LEA 103.4677 MEXI MEXI 019142 622 4 4 SESE Leg 4 со со 6 #1

Vertical Datum: NAVD88

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

		r	[		ł	<u> </u>	1	1	1					_	1		· · · · ·	
	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	QM	۵۸T
PPP	330	FSL	380	FEL	22S	34E	33	Aliquot	32.33527	-	LEA	NEW	NEW	F	NMNM	-	105	101
Leg								SESE		103.4677		MEXI			019142	674	21	45
#1										4		co	co			7		
EXIT	330	FNL	380	FEL	22S	34E	33	Aliquot	32.35451	-	LEA	NEW	NEW	F	NMNM	-	175	101
Leg								NENE	34	103.4677		MEXI			019143	675	24	50
#1										158		co	co			2		
BHL	330	FNL	380	FEL	22S	34E	33	Aliquot	32.35451	-	LEA	NEW	NEW	F	NMNM	-	175	101
Leg								NENE	34	103.4677		MEXI	MEXI		019143	675	24	50
#1										158		co	co			2		

# Drilling Plan

# Section 1 - Geologic Formations

and a second final product of the second			Measured			Producing
Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	and the second se
UNKNOWN	3398	0	0	OTHER : Surface	NONE	No
RUSTLER	1997	1475	1475	SANDSTONE	NONE	No
TOP SALT	1232	2240	2240	SALT	NONE	No
BASE OF SALT	-1085	4557	4557	SALT	NONE	No
DELAWARE	-1668	5140	5140	SANDSTONE	NONE	No
BRUSHY CANYON	-3728	7200	7200	SANDSTONE	NATURAL GAS,OIL	No
BONE SPRINGS	-5033	8505	8505	LIMESTONE	NATURAL GAS,OIL	No
BONE SPRING 1ST	-6055	9527	9527	SANDSTONE	NATURAL GAS,OIL	No
BONE SPRING 2ND	-6513	9985	9985	SANDSTONE	NATURAL GAS,OIL	Yes
-	UNKNOWN RUSTLER TOP SALT BASE OF SALT DELAWARE BRUSHY CANYON BONE SPRINGS BONE SPRING 1ST	UNKNOWN3398RUSTLER1997TOP SALT1232BASE OF SALT-1085DELAWARE-1668BRUSHY CANYON-3728BONE SPRINGS-5033BONE SPRING 1ST-6055	UNKNOWN33980RUSTLER19971475TOP SALT12322240BASE OF SALT-10854557DELAWARE-16685140BRUSHY CANYON-37287200BONE SPRINGS-50338505BONE SPRING 1ST-60559527	UNKNOWN         3398         0         0           RUSTLER         1997         1475         1475           TOP SALT         1232         2240         2240           BASE OF SALT         -1085         4557         4557           DELAWARE         -1668         5140         5140           BRUSHY CANYON         -3728         7200         7200           BONE SPRINGS         -5033         8505         8505           BONE SPRING 1ST         -6055         9527         9527	UNKNOWN339800OTHER : SurfaceRUSTLER199714751475SANDSTONETOP SALT123222402240SALTBASE OF SALT-108545574557SALTDELAWARE-166851405140SANDSTONEBRUSHY CANYON-372872007200SANDSTONEBONE SPRINGS-503385058505LIMESTONEBONE SPRING 1ST-605595279527SANDSTONE	UNKNOWN3398000OTHER : SurfaceNONERUSTLER199714751475SANDSTONENONETOP SALT123222402240SALTNONEBASE OF SALT-108545574557SALTNONEDELAWARE-166851405140SANDSTONENONEBRUSHY CANYON-372872007200SANDSTONENATURAL GAS,OILBONE SPRINGS-503385058505LIMESTONENATURAL GAS,OILBONE SPRING 1ST-605595279527SANDSTONENATURAL GAS,OIL

Section 2 - Blowout Prevention

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

#### Pressure Rating (PSI): 3M

Rating Depth: 5150

**Equipment:** BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.

**Testing Procedure:** A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

#### **Choke Diagram Attachment:**

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_3M\_BOPE\_CK\_20171220101540.pdf

#### **BOP Diagram Attachment:**

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_3M\_BOPE\_CK\_20171220101559.pdf

#### Pressure Rating (PSI): 3M

Rating Depth: 10150

**Equipment:** OP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

#### Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.

**Testing Procedure:** A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

#### **Choke Diagram Attachment:**

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_3M\_BOPE\_CK\_20171220101704.pdf

#### **BOP Diagram Attachment:**

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_3M\_BOPE\_CK\_20171220101723.pdf

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

# Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	LC
1	SURFACE	20	16.0	NEW	API	N	0	600	0	600			600	J-55			1.12 5	1	BUOY	1.6	BUOY	1.
2	OTHER	18.1 25	16.0	NEW	API	N	600	2270	600	2270	-7874	-9474	1670	J-55	-	OTHER - BTC	1.12 5	1	BUOY	1.6	BUOY	1.
	INTERMED IATE	13.5	11.875	NEW	API	N	0	3500	0	3500	-7874	- 12874		oth Er		1	1.12 5	1	BUOY	1.6	BUOY	1.
4	P'	10.6 25	8.625	NEW	API	N	0	5150	0	5150	1	- 12874		OTH ER	32	LTC	1.12 5	1	BUOY	1.6	BUOY	1.
1	PRODUCTI ON	7.87 5	5.5	NEW	API	N	0	17524	0	10150	-7874	-7939	17524	<del>P-</del> 110			1.12 5	1	BUOY	1.6	BUOY	1.

#### Casing Attachments

Casing ID: 1

String Type: SURFACE

**Inspection Document:** 

Spec Document:

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Surf\_Csg\_Ass\_20180102133627.pdf

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Casing Attachn	nents			
Casing ID:	2	String Type:OTHER	- Surface	
Inspection	Document:			
Spec Docur	nent:			
Tapered Str	ing Spec:			
Casing Des	ign Assumpt	ions and Worksheet(s):		
RIO_E	BLANCO_4_3	3_FED_COM_5H_Surf_Csg_A	ss_20180102133713.pdf	
Casing ID:	3	String Type: INTERMEDIATE		
Inspection	Document:			
Spec Docu	nent:			
Tapered Str	ing Spec:			
Casing Des	ign Assumpt	ions and Worksheet(s):		
RIO_E	BLANCO_4_3	3_FED_COM_5H_Int_Csg_Ass	_20180102133723.pdf	
Casing ID:	4	String Type:INTERMEDIATE		
Inspection	Document:			
Spec Docu	nent:			
Tapered St	ing Spec:			
Casing Des	ign Assumpt	ions and Worksheet(s):		
RIO_E	BLANCO_4_3	3_FED_COM_5H_Int_Csg_Ass	_20180102133747.pdf	

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

#### **Casing Attachments**

Casing ID: 5 String Type: PRODUCTION

**Inspection Document:** 

Spec Document:

Tapered String Spec:

#### Casing Design Assumptions and Worksheet(s):

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Prod\_Csg\_Ass\_20180102133809.pdf

Section	Section 4 - Cement												
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives		
SURFACE	Lead		0	0	0	0	0	0		SEE ATTACHED DRILLING CONTINGENCY	N/A		

OTHER	Lead	0	1770	1692	1.73	13.5	2927	75	С	100% Class C Cement: 4% BWOC Bentonite + 0.125 lbs/sack Poly-E- Flake
OTHER	Tail	1770	2270	328	1.33	14.8	436	75	С	0.125 lbs/sack Poly-E- Flake
INTERMEDIATE	Lead	0	3000	696	1.87	12.9	1302	50	с	Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sks Poly-E-Flake
INTERMEDIATE	Tail	3000	3500	157	1.33	14.8	209	50	С	0.125 lbs/sks Poly-R- Flake
INTERMEDIATE	Lead	0	4650	587	1.96	12.5	1151	25	с	Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 Ibs/sack Poly-E-Flake

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		4650	5150	112	1.18	15.6	132	25	С	0.125 lbs/sks Poly-R- Flake
PRODUCTION	Lead		4650	9704	338	2.81	11	950	10	NEOCEM	N/A
PRODUCTION	Tail		9704	1752 4	678	1.47	13.2	997	10	NEOCOM	N/A

# Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

# **Circulating Medium Table**

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	H	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1600	WATER-BASED MUD	8.4	8.5				2			
1600	5000	SALT SATURATED	9.8	10				2			
5000	2112 6	LSND/GEL	8.4	9				12			

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

# Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GRMWD from TD to from KOP. Cement bond logs will be run in vertical to determine top of cement. Stated logs run will be in the Completion Report and submitted to the BLM.

List of open and cased hole logs run in the well:

CALIPER, CBL, DS, GR, MUDLOG

Coring operation description for the well: N/A

#### **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 4750

Anticipated Surface Pressure: 2517

Anticipated Bottom Hole Temperature(F): 160

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

**Contingency Plans geoharzards description:** 

**Contingency Plans geohazards attachment:** 

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Rio\_Blanco\_4\_33\_Fed\_Com\_5H\_H2S\_Plan\_20180104103813.pdf

# **Section 8 - Other Information**

#### Proposed horizontal/directional/multi-lateral plan submission:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_ACReport\_20180102134933.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Dir\_Svy\_20180102134934.pdf

#### Other proposed operations facets description:

MULTI-BOWL VERBIAGE MULTI-BOWL WELLHEAD CLOSED-LOOP DESIGN PLAN DIRECTIONAL SURVEY ANTICOLLISION PLAN DRILLING CONTINGENCY ALTERNATIVE DRILLING PLAN AFMSS INPUTS ALTERNATE DRILLING CONTINGENCY ANNULAR VARIANCE REQUEST AND SCHEMATIC SPUDDER RIG GCP FORM CO-FLEX SPEC SHEET

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

#### Other proposed operations facets attachment:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Spudder\_Rig\_Info\_20180102135029.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Clsd\_Loop\_20180102135040.pdf Rio\_Blanco\_4\_33\_Fed\_Com\_5H\_GCP\_20180104103509.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Drlg\_Contingency\_20180104121952.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Drlg\_Contingency\_Alternate\_20180104152509.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Drlg\_Plan\_\_\_Alternate\_20180104152510.pdf Rio\_Blanco\_4\_33\_FEd\_Com\_5H\_Drlg\_Summary\_w\_Alt\_Design\_20180104152511.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_MB\_Verb\_3M\_20180305082550.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_11.875\_71.80\_Q125\_HDL\_20180305084710.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_4\_STRING\_WH\_SCHEM\_20180307061342.pdf

#### Other Variance attachment:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Co\_flex\_20180102135050.pdf

SUPO

# **Section 1 - Existing Roads**

Will existing roads be used? YES

Existing Road Map:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Access\_Rd\_20180102135340.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

#### ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

**Existing Road Improvement Attachment:** 

# Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES
New Road Map:
RIO_BLANCO_4_33_FED_COM_5H_New_Access_Rd_20180102135419.pdf
New road type: LOCAL

Length: 204.6 Feet Width (ft.): 30

Max slope (%): 6

Width (10.). 50

Max grade (%): 4

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Army Corp of Engineers (ACOE) permit required? NO
ACOE Permit Number(s):
New road travel width: 14
New road access erosion control: Water Drainage Ditch
New road access plan or profile prepared? YES
New road access plan attachment:
RIO_BLANCO_4_33_FED_COM_5H_New_Access_Rd_20180102135507.pdf
Access road engineering design? YES
Access road engineering design attachment:
RIO_BLANCO_4_33_FED_COM_5H_New_Access_Rd_20180102135518.pdf
Access surfacing type: OTHER
Access topsoil source: ONSITE
Access surfacing type description: Caliche
Access onsite topsoil source depth: 6
Offsite topsoil source description:
Onsite topsoil removal process: See attached Interim reclamation diagram.
Access other construction information:
Access miscellaneous information:
Number of access turnouts: Access turnout map:
Drainage Control
New road drainage crossing: OTHER
Drainage Control comments: Water Drainage Ditch
Road Drainage Control Structures (DCS) description: N/A
Road Drainage Control Structures (DCS) attachment:
Access Additional Attachments
Additional Attachment(s):
Section 3 - Location of Existing Wells
Existing Wells Map? YES
Attach Well map:
RIO_BLANCO_4_33_FED_COM_5H_OneMile_20180102135618.pdf
Existing Wells description:
Annas (al. Data) 05/04/0040

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

# Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** Part of Gaucho 1 MDP. Four Attachments - CTB Plat, Electric, Flowline, Pad Access Road. Battery Connects will be handled by a third party. **Production Facilities map:** 

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_CTB\_Plat\_20180104104638.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Electric\_20180104104641.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Flowline\_20180104104643.pdf RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Pad\_Access\_Rd\_20180104104649.PDF

#### Section 5 - Location and Types of Water Supply

#### Water Source Table

Water source use type: STIMULATION

Describe type:

Source latitude:

Source datum:

Water source permit type: OTHER

Source land ownership: FEDERAL

Water source transport method: PIPELINE

Source transportation land ownership: FEDERAL

Water source volume (barrels): 202500

Source volume (gal): 8505000

Source volume (acre-feet): 26.100851

Water source type: RECYCLED

Source longitude:

Water source and transportation map:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Water\_Map\_20180102135712.pdf

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance. New water well? NO

### New Water Well Info

Well latitude:	Well Longitude:	Well datum:
Well target aquifer:		
Est. depth to top of aquifer(ft):	Est thickness of aquifer:	
Aquifer comments:		

Well Name: RIO BLANCO 4-33 FED COM

#### Well Number: 5H

#### Aquifer documentation:

Well depth (ft):	Well casing type:
Well casing outside diameter (in.):	Well casing inside diameter (in.):
New water well casing?	Used casing source:
Drilling method:	Drill material:
Grout material:	Grout depth:
Casing length (ft.):	Casing top depth (ft.):
Well Production type:	Completion Method:
Water well additional information:	
State appropriation permit:	
Additional information attachment:	

# Section 6 - Construction Materials

Construction Materials description: Dirt fill and caliche will be used to construct well pad. Caliche Location Map attached.

#### Construction Materials source location attachment:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_CALICHE\_20180102140428.pdf

# Section 7 - Methods for Handling Waste

#### Waste type: FLOWBACK

Waste content description: Average produced BWPD over the flowback period (first 30 days of production).

Amount of waste: 1300 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: RECYCLE Disposal location ownership: STATE

Disposal type description:

**Disposal location description:** All produced water will be recycled at our North Gaucho water reuse facility. Any excess water that cannot be recycled will be sent to one of our 3 SWD's (Caballo 9 St 1, Rio Blanco 33 Fed 2, Rio Blanco 4 Fed Com 3) or to OWL (third-party; state tie-in).

#### Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

FACILITY Disposal type description:

Disposal location description: Various disposal locations in Lea and Eddy counties.

Waste type: PRODUCED WATER

Waste content description: Average produced BWPD over the first year of production.

Amount of waste: 475 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: RECYCLE Disposal location ownership: STATE

Disposal type description:

**Disposal location description:** All produced water will be recycled at our North Gaucho water reuse facility. Any excess water that cannot be recycled will be sent to one of our 3 SWD's (Caballo 9 St 1, Rio Blanco 33 Fed 2, Rio Blanco 4 Fed Com 3) or to OWL (third-party; state tie-in).

Waste type: DRILLING

Waste content description: Water and oil based cuttings

Amount of waste: 1910 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL FACILITY Disposal type description:

Disposal location description: All cutting will be disposed of at R360, Sundance, or equivalent.

 Reserve Pit being used? NO

 Temporary disposal of produced water into reserve pit?

 Reserve pit length (ft.)
 Reserve pit width (ft.)

 Reserve pit depth (ft.)
 Reserve pit volume (cu. yd.)

 Is at least 50% of the reserve pit in cut?

 Reserve pit liner

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Cuttings area width (ft.)

Cuttings area volume (cu. yd.)

Reserve pit liner specifications and installation description

#### Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.)

Cuttings area depth (ft.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

#### **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: NO Ancillary Facilities attachment:

Comments:

**Section 9 - Well Site Layout** 

Well Site Layout Diagram:

RIO BLANCO 4 33 FED COM 5H Well Layout 20180104105205.pdf

Comments:

#### Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: RIO BLANCO 4-33 PAD

Multiple Well Pad Number: 5H, 39H

**Recontouring attachment:** 

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Interim\_Recl\_20180102140652.pdf

**Drainage/Erosion control construction:** All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable. **Drainage/Erosion control reclamation:** Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

	/
Well pad interim reclamation (acres): 6.276	Well pad long term disturbance (acres): 1.993
Road interim reclamation (acres): 0	Road long term disturbance (acres): 0.141
<b>Powerline interim reclamation (acres):</b> 0	Powerline long term disturbance
Pipeline interim reclamation (acres): 0	Pipeline long term disturbance
Other interim reclamation (acres): 0	(acres): 0.525 Other long term disturbance (acres): 0
Total interim reclamation: 6.276	Total long term disturbance: 2.659
	6.276 Road interim reclamation (acres): 0 Powerline interim reclamation (acres): 0 Pipeline interim reclamation (acres): 0 Other interim reclamation (acres): 0

**Disturbance Comments:** 

**Reconstruction method:** Operator will use Best Management Practices"BMP" to mechanically recontour to obtain the desired outcome.

**Topsoil redistribution:** Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.

**Soil treatment:** Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.

Existing Vegetation at the well pad: Shinnery, yucca, grasses and mesquite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Seed Management					
Seed Table					
Seed type:	Seed source:				
Seed name:					
Source name:	Source address:				
Source phone:					
Seed cultivar:					
Seed use location:					
PLS pounds per acre:	Proposed seeding season:				
Seed Summary	Total pounds/Acre:				
Seed Type Pounds/Acre					
Seed reclamation attachment:					
<b>Operator Contact/Responsible Offic</b>	ial Contact Info				
First Name: TRAVIS	Last Name: PHIBBS				
Phone: (575)748-9929	Email: TRAVIS.PHIBBS@DVN.COM				
Seedbed prep:					
Seed BMP:					
Seed method:					
Existing invasive species? NO					
Existing invasive species treatment description:					
Existing invasive species treatment attachment:					
Weed treatment plan description: Maintain weeds on an as need basis.					
Weed treatment plan attachment:					
Monitoring plan description: Monitor as needed.					
Monitoring plan attachment:					
Success standards: N/A					
Pit closure description: N/A					
Pit closure attachment:					

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Section 11 - Surface Ownership					
Disturbance type: EXISTING ACCESS ROAD					
Describe:					
Surface Owner: BUREAU OF LAND MANAGEMENT, PRIVATE OWNERSHIP					
Other surface owner description:					
BIA Local Office:					
BOR Local Office:					
COE Local Office:					
DOD Local Office:					
NPS Local Office:					
State Local Office:					
Military Local Office:					
USFWS Local Office:					
Other Local Office:					
USFS Region:					
USFS Forest/Grassland: USFS Ranger District					

Disturbance type: PIPELINE

**Describe:** 

Surface Owner: BUREAU OF LAND MANAGEMENT, PRIVATE OWNERSHIP

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

#### USFS Region:

USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT, PRIVATE OWNERSHIP

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

**USFWS Local Office:** 

Other Local Office:

USFS Region:

USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: NEW ACCESS ROAD Describe: Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP Other surface owner description: BIA Local Office: BOR Local Office: COE Local Office: DOD Local Office:

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

State Local Office:		
Military Local Office:		
USFWS Local Office:		
Other Local Office:		
USFS Region:		
USFS Forest/Grassland:	USFS Ranger District:	

# Section 12 - Other Information

#### Right of Way needed? YES

Use APD as ROW? YES

**ROW Type(s):** 281001 ROW - ROADS,288100 ROW - O&G Pipeline,288101 ROW - O&G Facility Sites,288103 ROW - Salt Water Disposal Pipeline/Facility,289001 ROW- O&G Well Pad,FLPMA (Powerline),Other

# **ROW Applications**

SUPO Additional Information: Part of Gaucho 1 MDP. Use a previously conducted onsite? YES

,

# Previous Onsite information: May 9, 2016

# Other SUPO Attachment

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Grading\_Plan\_20180102140957.pdf

PWD

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

# Section 1 - General

Would you like to address long-term produced water disposal? NO

# Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO Produced Water Disposal (PWD) Location: PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

PWD disturbance (acres):

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP Well Name: RIO BLANCO 4-33 FED COM Well Number: 5H Lined pit bond number: Lined pit bond amount: Additional bond information attachment: Section 3 - Unlined Pits Would you like to utilize Unlined Pit PWD options? NO Produced Water Disposal (PWD) Location: PWD surface owner: **PWD** disturbance (acres): Unlined pit PWD on or off channel: Unlined pit PWD discharge volume (bbl/day): Unlined pit specifications: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Unlined pit precipitated solids disposal schedule: Unlined pit precipitated solids disposal schedule attachment: Unlined pit reclamation description: Unlined pit reclamation attachment: Unlined pit Monitor description: Unlined pit Monitor attachment: Do you propose to put the produced water to beneficial use? Beneficial use user confirmation: Estimated depth of the shallowest aquifer (feet): Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected? **TDS lab results:** Geologic and hydrologic evidence: State authorization: Unlined Produced Water Pit Estimated percolation: Unlined pit: do you have a reclamation bond for the pit? Is the reclamation bond a rider under the BLM bond? Unlined pit bond number: Unlined pit bond amount: Additional bond information attachment:

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Section 4 - Injection	
Would you like to utilize Injection PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Injection PWD discharge volume (bbl/day):	
Injection well mineral owner:	
Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	Injection well API number:
Injection well new surface disturbance (acres):	
Minerals protection information:	
Mineral protection attachment:	
Underground Injection Control (UIC) Permit?	
UIC Permit attachment:	
Section 5 - Surface Discharge	
Would you like to utilize Surface Discharge PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Surface discharge PWD discharge volume (bbl/day):	
Surface Discharge NPDES Permit?	
Surface Discharge NPDES Permit attachment:	
Surface Discharge site facilities information:	
Surface discharge site facilities map:	
Section 6 - Other	
Would you like to utilize Other PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Other PWD discharge volume (bbl/day):	
Other PWD type description:	

Approval Date: 05/04/2018

Page 23 of 25

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

### Bond Info

Bond InformationFederal/Indian APD: FEDBLM Bond number: CO1104BIA Bond number:Do you have a reclamation bond? NOIs the reclamation bond a rider under the BLM bond?Is the reclamation bond a RLM or Forest Service?BLM reclamation bond number:Forest Service reclamation bond number:Forest Service reclamation bond attachment:Reclamation bond number:Reclamation bond number:Reclamation bond number:Additional reclamation bond rider amount:Additional reclamation bond rider amount:

Operator Certification

# **Operator Certification**

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Rebecca DealTitle: Regulatory Compliance ProfessionalStreet Address: 333 West Sheridan AvenueCity: Oklahoma CityState: OKPhone: (405)228-8429

Email address: Rebecca.Deal@dvn.com

**Zip:** 73102

Signed on: 01/04/2018

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

Zip: 88210

# Field Representative

Representative Name: Travis PhibbsStreet Address: 6488 Seven Rivers HwyCity: ArtesiaState: NMPhone: (575)748-9929

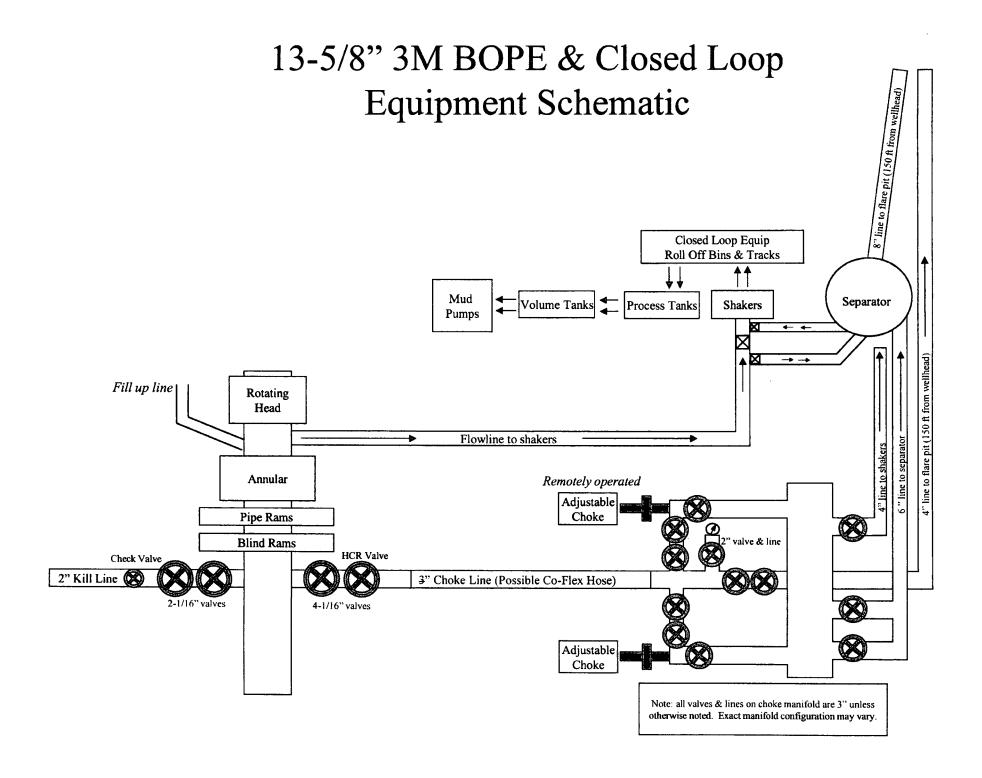
Email address: travis.phibbs@dvn.com

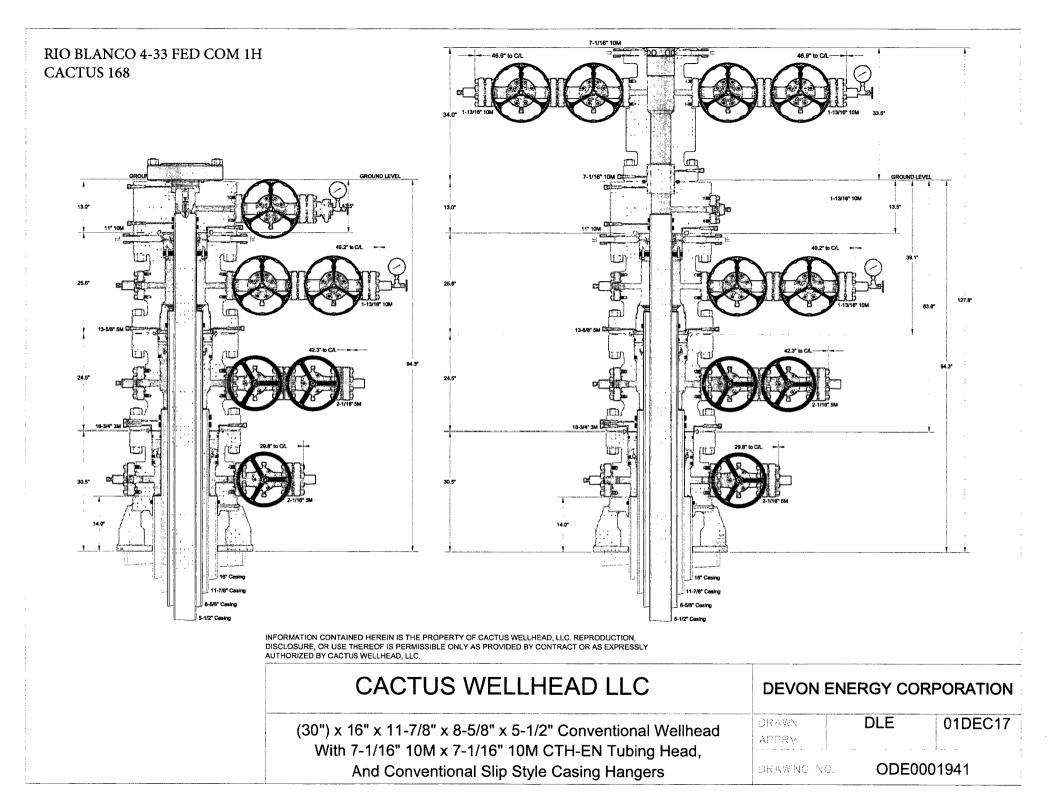
# Payment Info

# Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 266UQ8KD





# HOBBS OCD

JUL 112018

A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 aftereceiveD installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

Well Name: RIO BLANCO 4-33 FED COM

Well Number: 5H

#### Well Site Layout Diagram:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Well\_Layout\_20180104105205.pdf

#### Recontouring attachment:

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Interim\_Recl\_20180102140652.pdf

#### **Other SUPO Attachment:**

RIO\_BLANCO\_4\_33\_FED\_COM\_5H\_Grading\_Plan\_20180102140957.pdf

# **Produced Water Disposal**

Bonds