Form 3160-3
(June 2015)

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

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

HOBBS OCD
DEC 12 2018
RECEIVED

5. Lease Serial No.: NMNM0001917

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.: DOS EQUIS 11-14 FEDERAL COM 4H (322999)

2. Name of Operator: CIMAREX ENERGY COMPANY (215099)

9. API Well No.: 30-025-45413

3a. Address: 600 N. Marienfeld St., Suite 600 Midland OK 79701

3b. Phone No. *(include area code)*: (432)620-1936

10. Field and Pool, or Exploratory: BONE SPRING / TRISTE DRAW BONE S (96603)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NWNW / 470 FNL / 370 FWL / LAT 32.238109 / LONG -103.652759

At proposed prod. zone: SESE / 330 FSL / 360 FWL / LAT 32.21125 / LONG -103.652802

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 11 / T24S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*: 28.3 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 370 feet

16. No of acres in lease: 800

17. Spacing Unit dedicated to this well: 320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 20 feet

19. Proposed Depth: 10795 feet / 20313 feet

20. BLM/BIA Bond No. in file: FED: NMB001188

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3632 feet

22. Approximate date work will start*: 07/01/2018

23. Estimated duration: 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Aricka Easterling / Ph: (918)560-7060	01/17/2018

Title: Regulatory Analyst

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	11/21/2018

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

Application approval 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.

Conditions of approval, if any, are attached.

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.

GCP Rec 12/12/18

APPROVED WITH CONDITIONS

KZ 12/14/18

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/21/2018

AFMSS

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

Application Data Report

11/25/2018

APD ID: 10400025296 **Submission Date:** 01/17/2018

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

Show Final Text

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

APD ID: 10400025296 **Tie to previous NOS?** 10400020159 **Submission Date:** 01/17/2018

BLM Office: CARLSBAD **User:** Aricka Easterling **Title:** Regulatory Analyst

Federal/Indian APD: FED

Lease number: NMNM0001917 **Lease Acres:** 800

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO **APD Operator:** CIMAREX ENERGY COMPANY

Operator letter of designation:

Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY

Operator Address: 600 N. Marienfeld St., Suite 600 **Zip:** 79701

Operator PO Box:

Operator City: Midland **State:** OK

Operator Phone: (432)620-1936

Operator Internet Address: tstathem@cimarex.com

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BONE SPRING **Pool Name:** TRISTE DRAW BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** DOS EQUIS 11-14 FEDERAL COM COM **Number:** W2W2

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 28.3 Miles **Distance to nearest well:** 20 FT **Distance to lease line:** 370 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Dos_Equis_11_14_Fed_Com_4H_C102_Plat_20180115122403.pdf

Well work start Date: 07/01/2018 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Aliquot NWNW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NMNM 0001917	[redacted]	[redacted]	[redacted]
KOP Leg #1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Aliquot NWNW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NMNM 0001917	[redacted]	[redacted]	[redacted]
PPP Leg #1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Aliquot SWSW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NMNM 0002889	[redacted]	[redacted]	[redacted]

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Aliquot SWSW	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NMNM 0002889	[redacted]	[redacted]	[redacted]
BHL Leg #1	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	Aliquot SESE	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	NMNM 0033503	[redacted]	[redacted]	[redacted]

utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Choke Diagram Attachment:

Dos_Equis_11_14_Fed_Com_4H_Choke_2M3M_20180115123325.pdf

BOP Diagram Attachment:

Dos_Equis_11_14_Fed_Com_4H_BOP_2M_20180115123335.pdf

Pressure Rating (PSI): 3M **Rating Depth:** 4900

Equipment: A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.
Requesting Variance? YES

Variance request: Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.
Testing Procedure: A multi-bowl wellhead system will be utilized. After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing string utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Choke Diagram Attachment:

Dos_Equis_11_14_Fed_Com_4H_Choke_2M3M_20180115123400.pdf

BOP Diagram Attachment:

Dos_Equis_11_14_Fed_Com_4H_BOP_3M_20180115123431.pdf

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	Body SF
1	SURFACE	17.5	13.375	NEW	NON API	N	0	1235	0	1235	0	1235	1235	OTHER	48	STC	1.31	3.06	BUOY	5.43	BUOY	5.43

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

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	Body SF
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4900	0	4900	0	4900	4900	J-55	40	LTC	1.35	1.52	BUOY	2.65	BUOY	2.65
3	PRODUCTION	8.75	5.5	NEW	API	N	0	10265	0	10265	0	10265	10265	L-80	17	LTC	1.31	1.61	BUOY	1.84	BUOY	1.84
4	PRODUCTION	8.75	5.5	NEW	API	N	10265	20313	10265	20313	10265	20313	10048	L-80	17	BUTT	1.25	1.53	BUOY	44.06	BUOY	44.06

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Dos_Equis_11_14_Fed_Com_4H_Spec_Sheet_20180115123537.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dos_Equis_11_14_Fed_Com_4H_Casing_Assumptions_20180115135355.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dos_Equis_11_14_Fed_Com_4H_Casing_Assumptions_20180115135335.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

Casing Attachments

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dos_Equis_11_14_Fed_Com_4H_Casing_Assumptions_20180115135345.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dos_Equis_11_14_Fed_Com_4H_Casing_Assumptions_20180115135446.pdf

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	1235	599	1.72	13.5	1029	50	Class C	Bentonite
SURFACE	Tail		0	1235	160	1.34	14.8	214	25	Class C	LCM
INTERMEDIATE	Lead		0	4900	919	1.88	12.9	1727	50	35:65 (Poz:C)	Salt, Bentonite
INTERMEDIATE	Tail		0	4900	286	1.34	14.8	383	25	Class C	LCM
PRODUCTION	Lead		0	10265	513	3.64	10.3	1865	25	Tuned Light	LCM

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		0	10265	2069	1.3	14.2	2689	10	50:50 (Poz:H)	Salt, Bentonite, Fluid Loss, Dispersant, SMS
PRODUCTION	Lead		10265	20313	513	3.64	10.3	1865	25	Tuned Light	LCM
PRODUCTION	Tail		10265	20313	2069	1.3	14.2	2689	10	50:50 (Poz:H)	Salt, Bentonite, Fluid Loss, Dispersant, SMS

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 will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.
Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1235	SPUD MUD	8.3	8.8							
1235	4900	SALT SATURATED	9.7	10.2							
4900	20313	OTHER : FW/Cut Brine	8.5	9							

Section 6 - Test, Logging, Coring

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

No DST Planned

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

CNL,DS,GR

Coring operation description for the well:

n/a

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5052 **Anticipated Surface Pressure:** 2677.1

Anticipated Bottom Hole Temperature(F): 177

Anticipated abnormal pressures, temperatures, or potential geologic hazards? YES

Describe:

Lost circulation may be encountered in the Delaware mountain group. Abnormal pressure as well as hole stability issues may be encountered in the Wolfcamp.

Contingency Plans geoharzards description:

Lost circulation material will be available, as well as additional drilling fluid along with the fluid volume in the drilling rig pit system. Drilling fluid can be mixed on location or mixed in vendor mud plant and trucked to location if needed. Sufficient barite will be available to maintain appropriate mud weight for the Wolfcamp interval.

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Dos_Equis_11_14_Fed_Com_4H_H2S_Plan_20180115140624.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

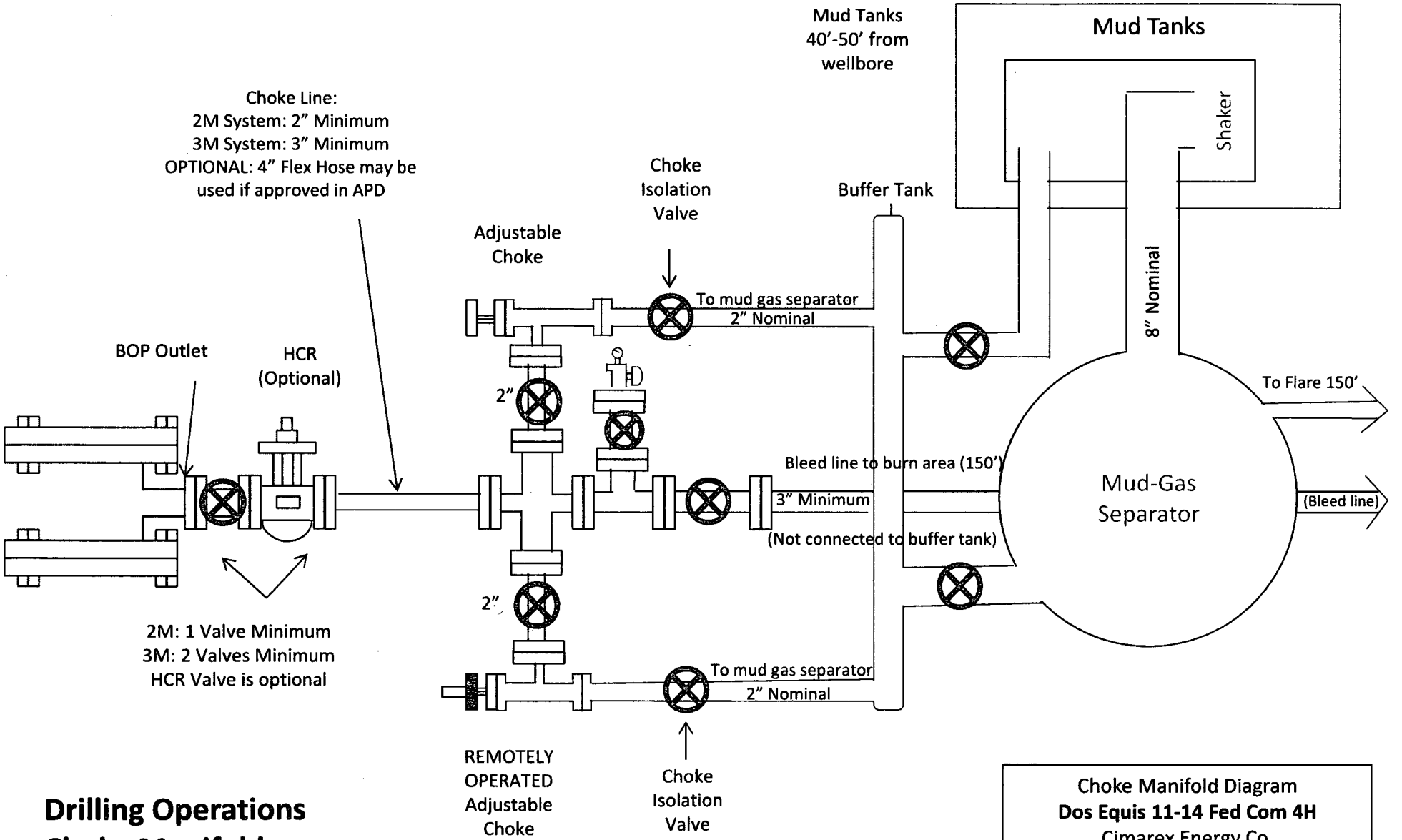
Dos_Equis_11_14_Fed_Com_4H_Directional_Plan_20180116100151.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

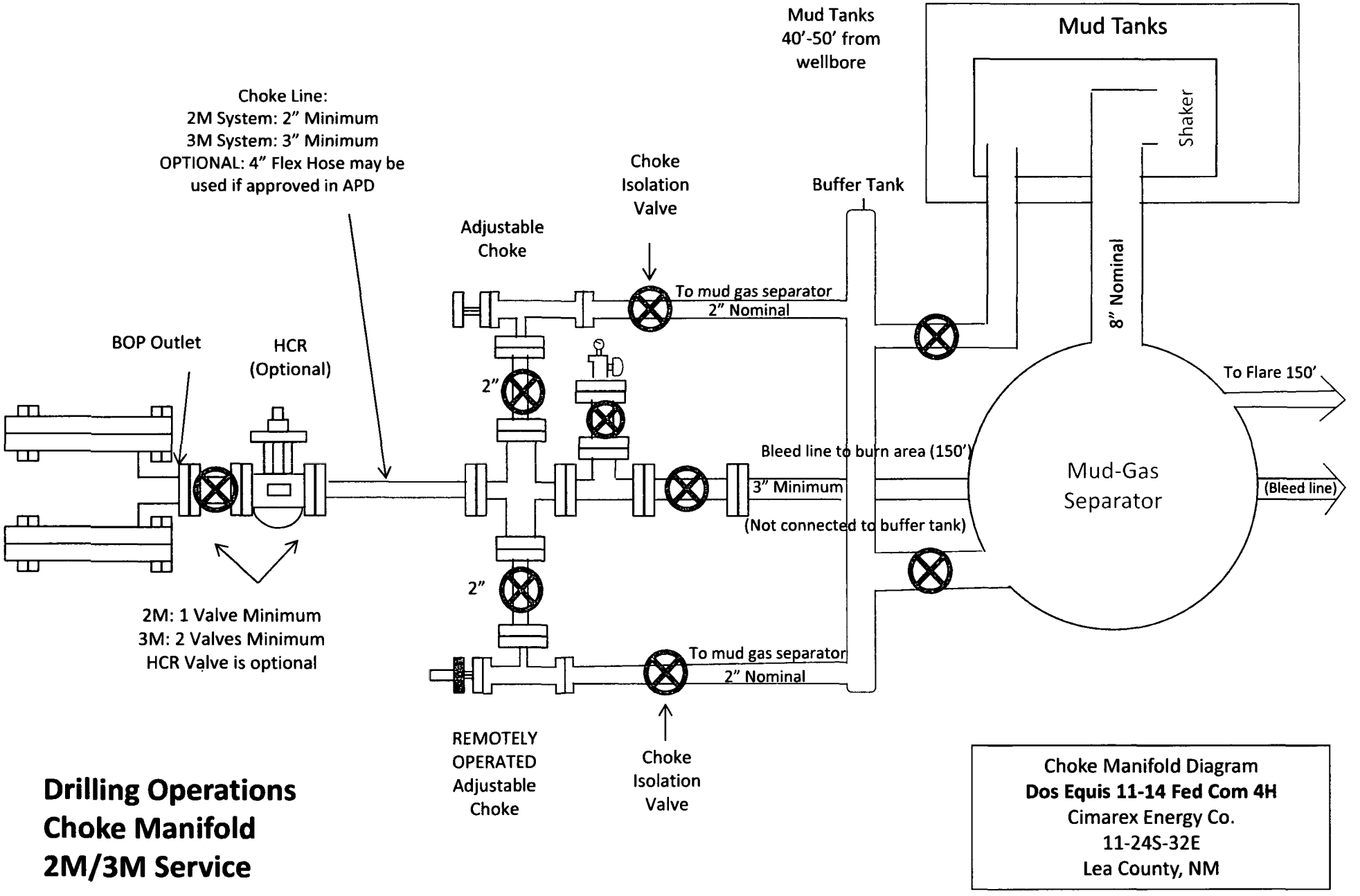
Dos_Equis_11_14_Fed_Com_4H_Anti_Collision_Rpt_20180116100258.pdf
Dos_Equis_11_14_Fed_Com_4H_Drilling_Plan_20180116100259.pdf
Dos_Equis_11_14_Fed_Com_4H_Flex_Hose_20180116100303.pdf
Dos_Equis_11_14_Fed_Com_4H_Gas_Capture_Plan_20180117075317.pdf

Other Variance attachment:



Drilling Operations
Choke Manifold
2M/3M Service

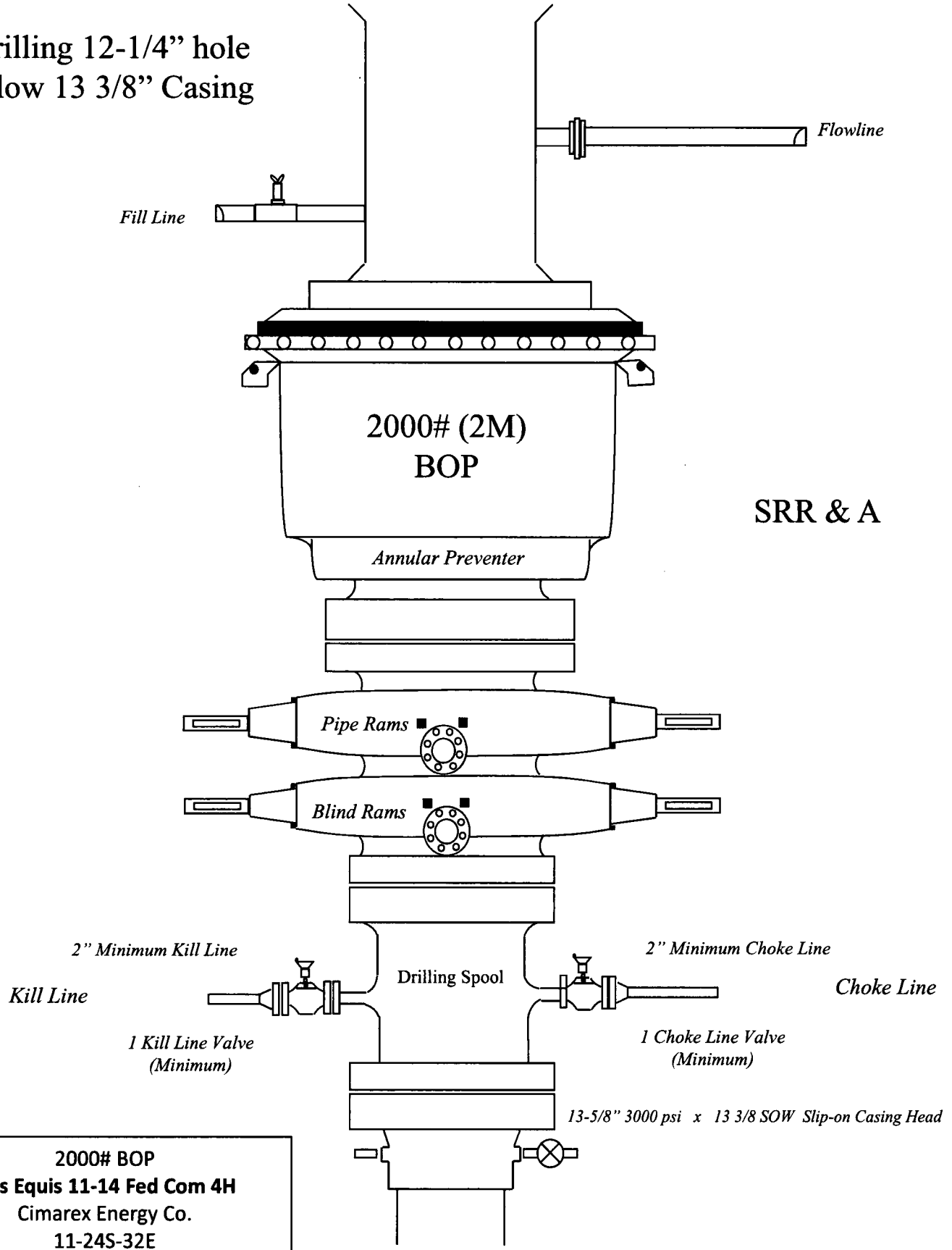
Choke Manifold Diagram
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM



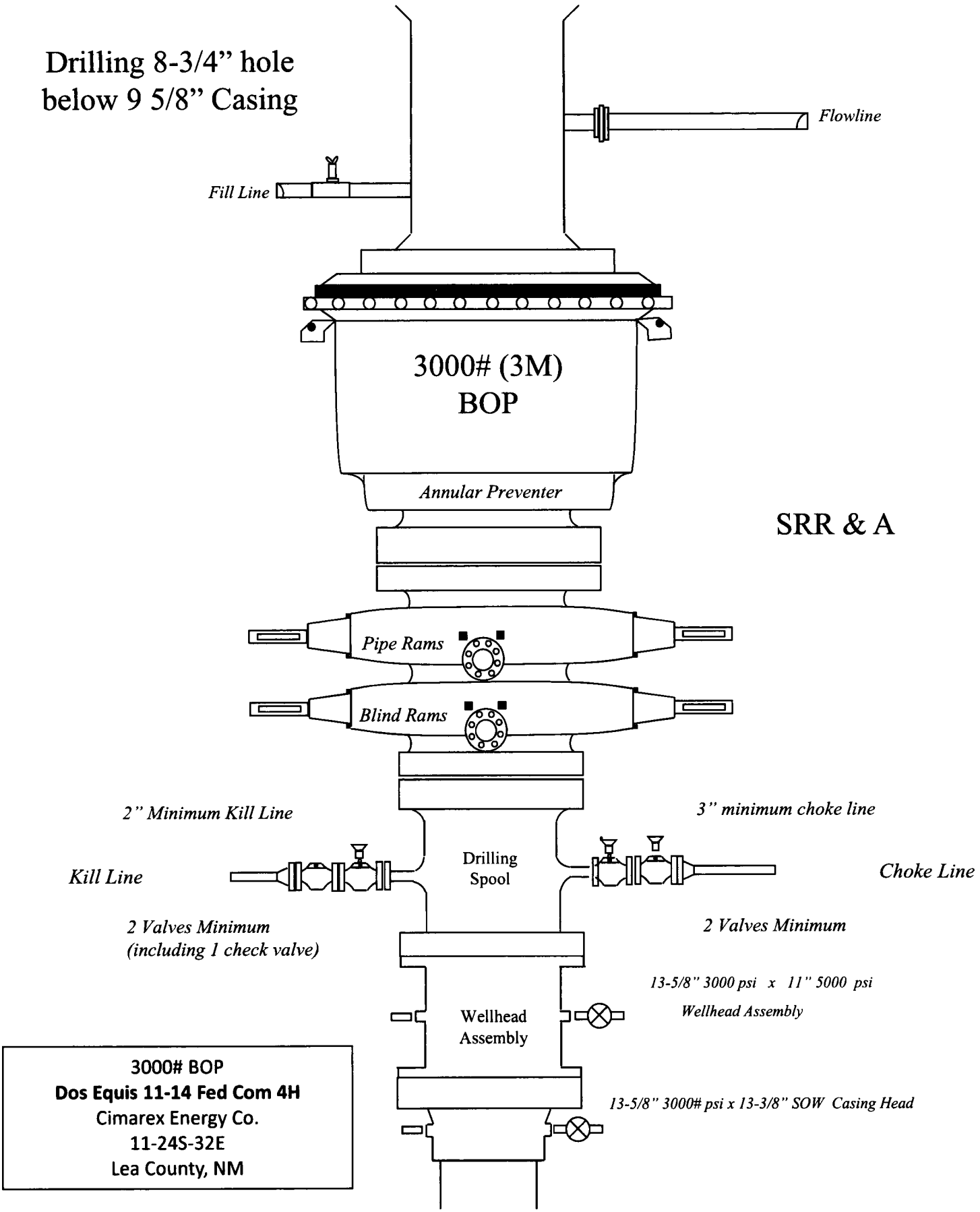
Drilling Operations
Choke Manifold
2M/3M Service

Choke Manifold Diagram
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM

Drilling 12-1/4" hole
below 13 3/8" Casing



2000# BOP
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM


Drilling 8-3/4" hole
below 9 5/8" Casing
Flowline
Fill Line
3000# (3M)
BOP
Annular Preventer
SRR & A
Pipe Rams
Blind Rams
2" Minimum Kill Line
3" minimum choke line
Kill Line
Drilling
Spool
Choke Line
2 Valves Minimum
(including 1 check valve)
2 Valves Minimum
13-5/8" 3000 psi x 11" 5000 psi
Wellhead Assembly
Wellhead
Assembly
13-5/8" 3000# psi x 13-3/8" SOW Casing Head
3000# BOP
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM

Print

EVRAZ

Dos Equis 11-14 Fed Com 4H
Surface Casing Spec Sheet

OCTG Performance Data

Casing Performance

Availability: ERW

Pipe Body Geometry

Outside Diameter:	13.375 in	Inside Diameter:	12.715 in
Wall Thickness:	0.330 in	Cross Section Area:	13.524 sq in
Nominal Weight:	48.00 lb/ft	Drift Diameter:	12.559 in
Plain End Weight:	46.02 lb/ft	Alternate Drift Diameter:	-

Pipe Body Performance

Grade:	H40	Collapse Strength (ERW):	740 psi
Pipe Body Yield Strength:	541000 lbf	Collapse Strength (SMLS):	-

SC Connection

Connection Geometry

	Optimum	Minimum	Maximum
Make Up Torque:	3220 lb·ft	2420 lb·ft	4030 lb·ft
Coupling Outside Diameter:	14.375 in		

Connection Performance

Grade:	H40	Minimum Internal Yield Pressure:	1730 psi
Joint Strength:	322000 lbf		

LC Connection

Connection Geometry

	Optimum	Minimum	Maximum
Make Up Torque:	-	-	-
Coupling Outside Diameter:	14.375 in		

Connection Performance

Grade:	H40	Minimum Internal Yield Pressure:	-
Joint Strength:	-		

BC Connection

Connection Geometry

	Optimum	Minimum	Maximum
Make Up Torque:	-	-	-
Coupling Outside Diameter:	14.375 in		

Connection Performance

Grade:	H40	Minimum Internal Yield Pressure:	-
Joint Strength:	-		

PE Connection

Connection Geometry

	Optimum	Minimum	Maximum
Make Up Torque:	-	-	-
Coupling Outside Diameter:	14.375 in		

Connection Performance

Grade:	H40	Minimum Internal Yield Pressure:	1730 psi
Joint Strength:	-		

Dos Equis 11-14 Fed Com 4H

Casing Assumptions

Casing Program

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1235	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.31	3.06	5.43
12 1/4	0	4900	9-5/8"	40.00	J-55	LT&C	1.35	1.52	2.65
8 3/4	0	10265	5-1/2"	17.00	L-80	LT&C	1.31	1.61	1.84
8 3/4	10265	20313	5-1/2"	17.00	L-80	BT&C	1.25	1.53	44.06
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Dos Equis 11-14 Fed Com 4H

Casing Assumptions

Casing Program

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Dos Equis 11-14 Fed Com 4H

Casing Assumptions

Casing Program

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Dos Equis 11-14 Fed Com 4H

Casing Assumptions

Casing Program

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12 1/4	0	4900	9-5/8"	40.00	J-55	LT&C	1.35	1.52	2.65
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TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

1. Geological Formations

TVD of target 10,795
MD at TD 20,313

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1185	N/A	
Top of Salt	1500	N/A	
Base of Salt	4650	N/A	
Delaware Sands	4920	N/A	
Bone Spring	8750	N/A	
1st Bone Spring Sand	9885	N/A	
2nd Bone Spring Sand	10350	N/A	
Landing Target	10745	N/A	
3rd Bone Spring Carb	10825	N/A	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1235	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.31	3.06	5.43
12 1/4	0	4900	9-5/8"	40.00	J-55	LT&C	1.35	1.52	2.65
8 3/4	0	10265	5-1/2"	17.00	L-80	LT&C	1.31	1.61	1.84
8 3/4	10265	20313	5-1/2"	17.00	L-80	BT&C	1.25	1.53	44.06
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	599	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	160	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	919	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	286	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	513	10.30	3.64	22.18		Lead: Tuned Light + LCM
	2069	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	45
Intermediate	0	44
Production	4700	16

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1235'	FW Spud Mud	8.30 - 8.80	30-32	N/C
1235' to 4900'	Brine Water	9.70 - 10.20	30-32	N/C
4900' to 20313'	FW/Cut Brine	8.50 - 9.00	30-32	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5052 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

X	H2S is present
X	H2S plan is attached

8. Other Facets of Operation

9. Wellhead

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi.

The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

The casing string utilizing steel body pack-off will be tested to 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

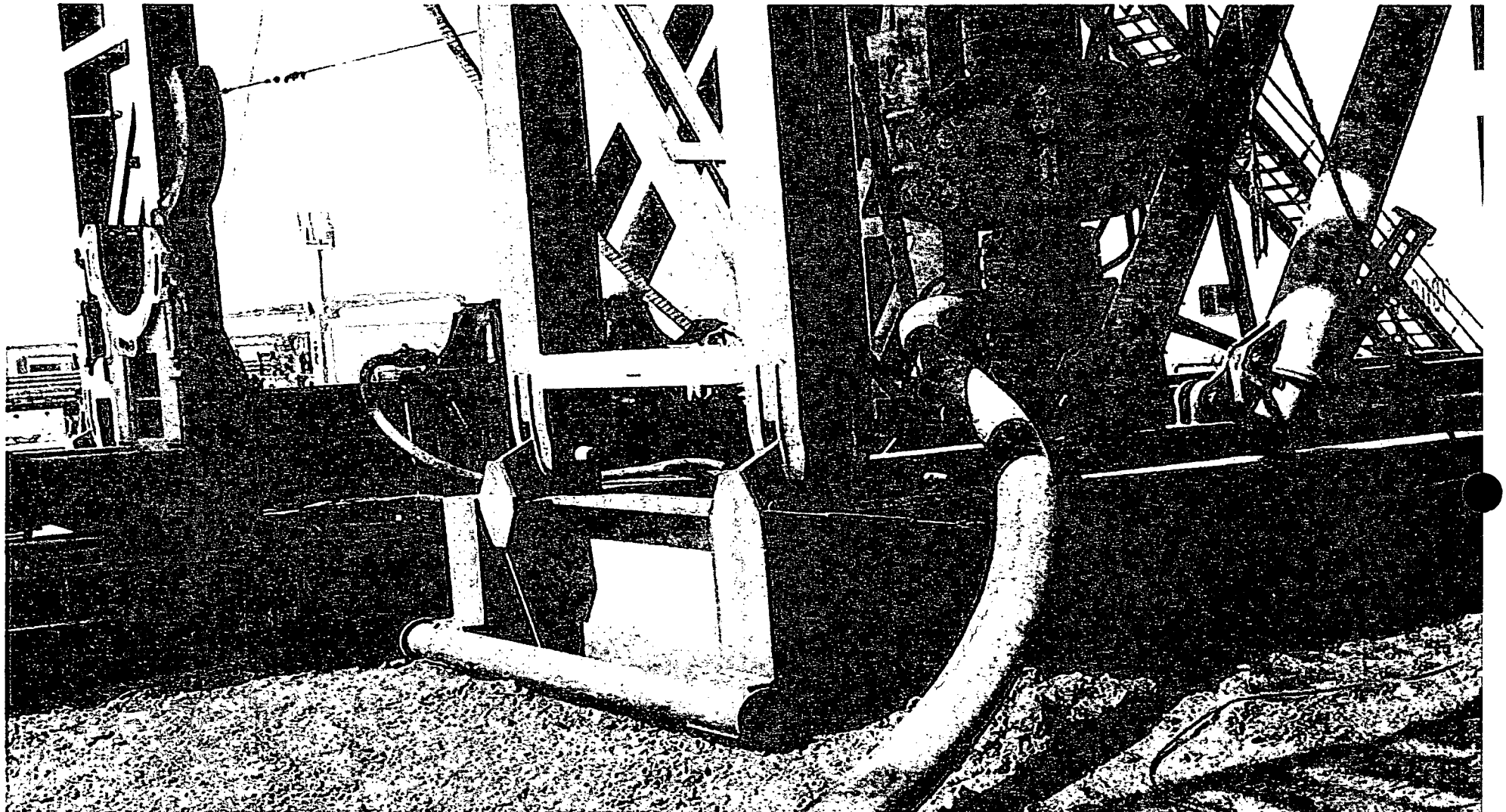
Co-Flex Hose

Dos Equis 11-14 Fed Com 4H

Cimarex Energy Co.

11-24S-32E

Lea County, NM



Co-Flex Hose Hydrostatic Test
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM

Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type:	Hose Length:
Stainless Steel Armor Choke & Kill Hose	45'ft.

I.D.	O.D.
4 INCHES	9 INCHES

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 PSI	15,000 PSI	0 PSI

COUPLINGS

Stem Part No.	Ferrule No.
OKC OKC	OKC OKC
Type of Coupling:	
Swage-It	

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 MIN.	0 PSI

Hose Assembly Serial Number:	Hose Serial Number:
79793	OKC

Comments:

Date:	Tested:	Approved:
3/8/2011	A. Jaime Sosa	

Midwest Hose & Specialty, Inc.

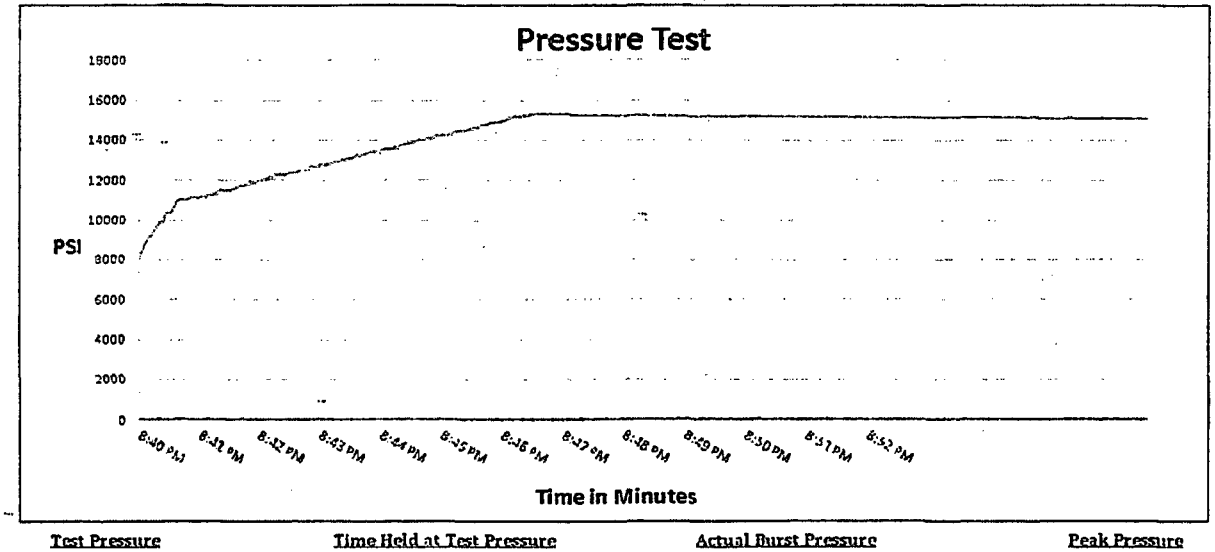
Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

Pick Ticket #: 94260

Hose Specifications		Verification	
Hose Type	**Length**	**Type of Fitting**	**Coupling Method**
C & K	45'	4 1/16 10K	Swage
I.D.	**O.D.**	**Die Size**	**Final O.D.**
4"	6.09"	6.38"	6.25"
Working Pressure	**Burst Pressure**	**Hose Serial #**	**Hose Assembly Serial #**
10000 PSI	Standard Safety Multiplier Applies	5544	79793



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 Minutes		15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Zac Mcconnell*

x

Approved By: *Kim Thomas*

x

Co-Flex Hose Hydrostatic Test
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM

Co-Flex Hose
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM

Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: DEM	**PO** ODYD-271

SPECIFICATIONS

Sales Order 79793	**Dated:** 3/8/2011

We hereby cerify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards

Supplier:
Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041

Comments:

Approved:	**Date:** 3/8/2011

APD ID: 10400025296 **Submission Date:** 01/17/2018

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Dos_Equis_11_14___12_13_Fed_Com_Existing_Road_20180115124310.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Dos_Equis_11_14_Fed_Com_Road_ROW_20180115124335.pdf

[redacted]

ACOE Permit Number(s):

[redacted]

New road access plan attachment:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

[redacted]

Access road engineering design attachment:

[redacted]

Access surfacing type description:

[redacted]

Offsite topsoil source description:

[redacted]

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

[redacted]

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Dos_Equis_11_14_Fed_Com_Road_ROW_20180115124335.pdf

[redacted]

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

ACOE Permit Number(s):

New road access plan attachment:

Access road engineering design attachment:

Access surfacing type description:

Offsite topsoil source description:

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Dos_Equis_11_14_Fed_Com_Road_ROW_20180115124335.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

[redacted]

ACOE Permit Number(s):

[redacted]

New road access plan attachment:

[redacted]

Access road engineering design attachment:

[redacted]

Access surfacing type description:

[redacted]

Offsite topsoil source description:

[redacted]

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

[redacted]

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:

Dos_Equis_11_14_Fed_Com_4H_One_Mile_Radius_Existing_Wells_20180115124352.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

Dos_Equis_11_14_Fed_Com_West_Zone_1_CTB__Battery_layout_20180115124409.pdf
Dos_Equis_11_14_Fed_Com_West_Zone_2_CTB__Battery_layout_20180115124412.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING, SURFACE CASING
Water source type: MUNICIPAL
Describe type:
Source latitude:
Source longitude:
Source datum:
Water source permit type: WATER RIGHT,WATER RIGHT
Permit Number:
Source land ownership: STATE
Water source transport method: PIPELINE,PIPELINE,TRUCKING,TRUCKING
Source transportation land ownership: STATE
Water source volume (barrels): 5000
Source volume (acre-feet): 0.6444655
Source volume (gal): 210000

Water source and transportation map:

Dos_Equis_11_14_Fed_Com_4H_Drilling_Water_Source_Route_20180115124451.pdf

Water source comments:

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:
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: The drilling and testing operations will be conducted on a watered and compacted native soil grade. Soft spots will be covered with scoria, free of large rocks (3" diameter). Upon completion as a commercial producer the location will be covered with scoria, free of large rocks (3" dia.) from an existing privately owned gravel pit.
Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling Fluids, drill cuttings, water and other waste produced from the well during drilling operations.
Amount of waste: 15000 barrels

Waste disposal frequency : Weekly

Safe containment description: n/a

Safe containmant attachment:

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

Disposal location description: Haul to R360 commercial Disposal

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 32500 pounds

Waste disposal frequency : Weekly

Safe containment description: n/a

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Windmill Spraying Service hauls trash to Lea County Landfill

Reserve Pit

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

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 width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

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:

Dos_Equis_11_14_Fed_Com_4H_Wellsite_layout_20180115124627.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** DOS EQUIS 11-14 FEDERAL COM COM

Multiple Well Pad Number: W2W2

Recontouring attachment:

Dos_Equis_11_14_Fed_Com_Interim_Reclaim_20180115124649.pdf

Drainage/Erosion control construction: To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

Drainage/Erosion control reclamation: All disturbed and re-contoured areas would be reseeded according to specifications. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Well pad proposed disturbance (acres): 6.894
Road proposed disturbance (acres): 3.47
Powerline proposed disturbance (acres): 3.835
Pipeline proposed disturbance (acres): 11.3725
Other proposed disturbance (acres): 7.892
Total proposed disturbance: 33.4635

Well pad interim reclamation (acres): 3.538
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 3.538

Well pad long term disturbance (acres): 3.356
Road long term disturbance (acres): 3.47
Powerline long term disturbance (acres): 3.835
Pipeline long term disturbance (acres): 11.3725
Other long term disturbance (acres): 7.892
Total long term disturbance: 29.9255

Disturbance Comments: Flowline: 1252', Gas lift: 1252', Power: 5567', Road: 5039', SWD: 14223' Temp fresh water line: 34380'

Reconstruction method: After well plugging, all disturbed areas would be returned to the original contour or a contour that blends with the surrounding landform including roads unless the surface owner requests that they be left intact. In consultation with the surface owners it will be determined if any gravel or similar materials used to reinforce an area are to be removed, buried, or left in place during final reclamation. Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated. As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching, or fertilizing. Reclamation, Re-vegetation, and Drainage: All disturbed and re-contoured areas would be reseeded using techniques outlined under Phase I and II of this plan or as specified by the land owner. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Topsoil redistribution: Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated.

Soil treatment: As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching or fertilizing.

Existing Vegetation at the well pad:

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used?

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project?

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation?

Seed harvest description:

Seed harvest description attachment:

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:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Monitoring plan description: N/A

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,BUREAU OF LAND MANAGEMENT,STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE

Military Local Office:

USFWS Local Office:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

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,285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,288103 ROW – Salt Water Disposal Pipeline/Facility,288104 ROW – Salt Water Disposal Apln/Fac-FLPMA,289001 ROW- O&G Well Pad,FLPMA (Powerline),Other

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Onsite with BLM (Jeff Robertson) and Cimarex (Barry Hunt) on Sept 12, 2017.

Other SUPO Attachment

Dos_Equis_11_14___12_13_Fed_Com_SWD_ROW_20180115130234.pdf

Dos_Equis_11_14_Fed_Com_4H_Public_Access_20180115130235.pdf

Dos_Equis_11_14_Fed_Com_4H_Flow_Gas_lift_ROW_20180115130234.pdf

Dos_Equis_11_14_Fed_Com_4H_Road_Description_20180115130237.pdf

Dos_Equis_11_14_Fed_Com_4H_SUPO_20180115130237.pdf

Dos_Equis_11_14_Fed_Com_Power_ROW_20180115130239.pdf

Dos_Equis_11_14_Fed_Com_Temp_Fresh_Water_Route_20180115130240.pdf

Cimarex Dos Equis 11-14 Federal Com 4
Surface Use Plan

Upon approval of the Application for Permit to Drill (APD) the following surface use plan of operations will be followed and carried out. The surface use plan outlines the proposed surface disturbance. If any other disturbance is needed after the APD is approved, a BLM sundry notice or right of way application will be submitted for approval prior to any additional surface disturbance.

Existing Roads

- Directions to location - Exhibit A.
- Public access route - Exhibit B.
- Existing access road for the proposed project. Please see Exhibit B and C.
- Cimarex Energy will:
    - Improve and/or maintain existing road(s) condition the same as or better than before the operations began.
    - Provide plans for improvement and /or maintenance of existing roads if requested.
    - Repair or replace damaged or deteriorated structures as needed. Including cattle guards and culverts.
    - Prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.
    - Obtain written BLM approval prior to the application of surfactants, binding agents, or other dust suppression chemicals on the roadways.
- The maximum width of the driving surface will be 18'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

New or Reconstructed Access Roads

Cimarex Energy plans to construct a new off-lease access road

- Length: 5039'
- Width: 30'
- Road Plat - Exhibit D.
- A ROW will be submitted to the BLM for approval.
- Cimarex Energy will complete improvements to the driving surface as needed.
- The maximum width of the driving surface for all roads above will be 18'.
- The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface.
- The ditches will be 1' deep with 3:1 slopes.
- The driving surface will be made of 6" rolled and compacted caliche.
- Cimarex Energy will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

Well Radius Map

Please see Exhibit E for wells within one mile or proposed well SHL and BHL.

Proposed or Existing Production Facility

A new facility will be constructed for this project if the well is productive.

- Dos Equis 11-14 Federal Com West Zone 1 CTB & Zone 2 CTB - Exhibit F
    - Direction to facility
    - Facility pad location layout and cut and fill
    - Facility pad archeological boundary
    - Facility pad flowline corridor
    - Facility pad access road

Gas Pipeline Specifications

- No pipeline proposed. A 3rd party will be laying a gas pipeline to the well. Custody transfer meter will be on pad.

BEGINNING AT THE INTERSECTION OF JAL HIGHWAY/HIGHWAY 128 AND AN EXISTING ROAD TO THE NORTHWEST (LOCATED AT NAD 83 LATITUDE N32.2103° AND LONGITUDE W103.5947°), PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 2.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN LEFT AND PROCEED IN A SOUTHWESTERLY, THEN WESTERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED IN A WESTERLY, THEN SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 1.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN RIGHT AND PROCEED IN A NORTHWESTERLY, THEN SOUTHERLY, THEN SOUTHWESTERLY, THEN SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 179' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF JAL HIGHWAY/HIGHWAY 128 AND AN EXISTING ROAD TO THE NORTHWEST (LOCATED AT NAD 83 LATITUDE N32.2103° AND LONGITUDE W103.5947°) TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 5.1 MILES.

CIMAREX ENERGY CO.

DOS EQUIS 11-14 FEDERAL COM W2W2
NW 1/4 NW 1/4, SECTION 11, T24S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

SURVEYED BY	J.A.V., R.D.	09-23-17	
DRAWN BY	J.A.	10-26-17	

ROAD DESCRIPTION EXHIBIT A

Salt Water Disposal Specifications

- Cimarex plans to construct an off-lease SWD pipeline to service this battery location.
- Please see Exhibit H for proposed pipeline route.
- Two pipelines: 4" Surface poly & 12" Buried poly. Both pipelines follow the same route.
- Length: 14,223'.
- MAOP: 4" line: 120psi; 12" line: 150psi.
- Anticipated working pressure: 4" line: 110psi; 12": 225 psi.
- A ROW application will be submitted to the BLM for the proposed route.

Power Lines

- Cimarex plans to construct an off-lease power line to service the Dos Equis 11-14 Federal Com W2W2 pad & Dos Equis 11-14 Federal Com West Zone 1 CTB & Zone 2 CTB.
- Overhead power line from an existing power source located in the N 1/2 of Sec 11-24S-32E.
- Length: 5,567'.
- Poles: 20
- Specifications: 480 volt, 4 wire, 3 phase.
- Please see Exhibit I for proposed route.
- A ROW application will be submitted to the BLM for the proposed route.

Well Site Location

- Proposed well pad/location layout - Exhibit J.
- Proposed Rig layout - Exhibit K
    - The rig layout, including V-door and flare line may change depending on rig availability. The pad dimensions and orientation will remain the same. No additional disturbance is anticipated if a rig layout change is necessary to accommodate the drilling rig. If additional disturbance is required a sundry notice will be submitted to the BLM for approval.
    - Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in the steel containment pits.
    - Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- Archeological boundary - Exhibit L
- Single well pad
- Pad Size: 500X560
- Construction Material
    - If possible, native caliche will be obtained from the excavation of drill site. The primary way of obtaining caliche will be by "turning over" the location. This means caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2,400 cu yds is the max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:
        - The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
        - An approximate 120' x 120' area is used within the proposed well site to remove caliche.
        - Subsoil is removed and piled alongside the 120' x 120' area within the pad site.
        - When caliche is found, material will be stockpiled within the pad site to build the location and road.
        - Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
        - Once well is drilled, the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in Exhibit J - Layout Diagram.
        - In the event that no caliche is found onsite, caliche will be hauled in from BLM-approved caliche pit in Sec 7-24S-33E or Sec 20-23S-33E.
    - Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in steel containment pits.
- Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements. Exhibit P: Interim Reclamation Diagram.
- There are no known dwellings within 1.5 miles of this location.

Flowlines and Gas Lift Pipelines
All proposed pipelines will be constructed in a 60' ROW corridor.

- Flowlines
  - Cimarex Energy plans to construct on-lease flowlines to service the well.
  - 6" HP steel for oil, gas, and water production.
  - Length: 1,252'.
  - MAOP: 1,500 psi; Anticipated working pressure: 200-300 psi.
  - Please see Exhibit M for proposed on lease route.
- Gas Lift Pipeline
  - Cimarex Energy plans to construct on-lease gas lift pipelines to service the well.
  - 6" HP steel for gas lift.
  - Length: 1,252'.
  - MAOP: 1,500 psi; Anticipated working pressure: 200-300 psi.
  - Please see Exhibit N for proposed on lease route.

Water Resources

- A temporary surface fresh water pipeline(s) will be utilized for this project.
- Cimarex plans to lay the fresh water surface pipeline(s) prior to commencement of the stimulation job.
- 10" lay-flat surface pipeline.
- The surface pipeline(s) will follow the road from a frac pit to the well.
- Length: 34,380'.
- Operating pressure: <140 psi.
- Fresh water will be purchased from a 3rd party.
- Please see Exhibit O for proposed route.

Methods of Handling Waste

- Drilling fluids, produced oil, and water from the well during drilling and completion operations will be stored safely and disposed of properly in a NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around well site will be collected for disposal.
- Human waste and grey water will be contained and disposed of properly at a state approved disposal site.
- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste will be removed and disposed of properly at a state approved disposal site.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Waste Minimization Plan
See Gas Capture Plan.

Ancillary Facilities
No camps or airstrips to be constructed.

Interim and Final Reclamation

- Rehabilitation of the location will start in a timely manner after all proposed drilling wells have been drilled from the pad or if drilling operations have ceased as outlined below:
  - No approved or pending drill permits for wells located on the drill pad
  - No drilling activity for 5 years from the drill pad
- Surfacing materials will be removed and returned to a mineral pit or recycled to repair or build roads and well pads.
- Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.
- Exhibit P illustrates the proposed Surface Reclamation plans after cessation of drilling operations as outlined above.
  - The areas of the location not essential to production facilities and operations will be reclaimed and seeded per BLM requirements.
- Operator will amend the surface reclamation plan if well is a dry hole and/or a single well pad.

Cimarex Dos Equis 11-14 Federal Com
Surface Use Plan

Surface Ownership

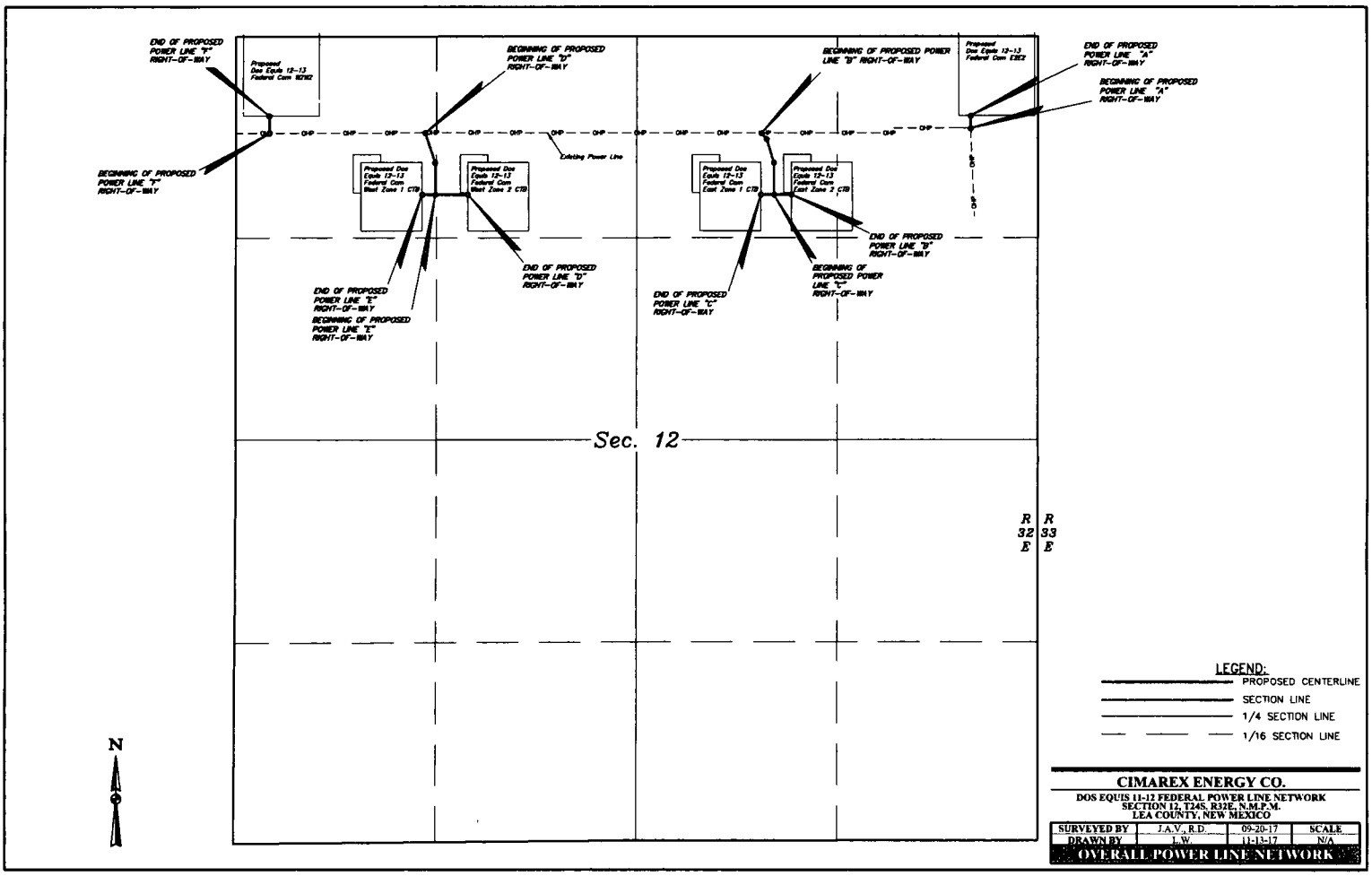
- The wellsite is on surface owned by Bureau of Land Management.
- A copy of Surface Use Agreement has been given to the surface owner.
- The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

Cultural Resource Survey - Archeology

- Cultural Resources Survey will be conducted for the entire project as proposed in the APD and submitted to the BLM for review and approval.

On Site Notes and Information

Onsite Date: 8/29/2017
BLM Personnel on site: Jesse Bassett
Cimarex Energy personnel on site: Barry Hunt
Pertinent information from onsite:



CIMAREX ENERGY CO.

DOS EQUIS 11-12 FEDERAL POWER LINE NETWORK
SECTION 12, T24S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	J.A.V., R.D.	09-20-17	SCALE
DRAWN BY	L.W.	11-13-17	N/A

OVERALL POWER LINE NETWORK

Midwest Hose & Specialty, Inc.

Co-Flex Hose
Dos Equis 11-14 Fed Com 4H
Cimarex Energy Co.
11-24S-32E
Lea County, NM

Specification Sheet
Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium componets.The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unibolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

P.O. Box 96558 – 1421 S.E. 29th St. Oklahoma City, OK 73143 • (405) 670-6718 • Fax: (405) 670-6816

APD ID: 10400025296 **Submission Date:** 01/17/2018

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 11-14 FEDERAL COM **Well Number:** 4H

Well Type: OIL WELL **Well Work Type:** Drill

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3607	1185	1185		USEABLE WATER	No
2	SALADO	2107	1500	1500		NONE	No
3	BASE OF SALT	-1043	4650	4650		NONE	No
4	DELAWARE SAND	-1313	4920	4920		NATURAL GAS,OIL	No
5	BONE SPRING	-5143	8750	8750		NATURAL GAS,OIL	No
6	BONE SPRING 1ST	-6278	9885	9885		NATURAL GAS,OIL	No
7	BONE SPRING 2ND	-6743	10350	10350		NATURAL GAS,OIL	Yes
8	BONE SPRING 3RD	-7218	10825	10825		NATURAL GAS,OIL	No

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 1235

Equipment: A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.
Requesting Variance? YES

Variance request: Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only..
Testing Procedure: A multi-bowl wellhead system will be utilized. After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 3000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 3000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 3000 psi. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

AFMSS

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

Bond Info Data Report

11/25/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001188

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

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:

PWD disturbance (acres):

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?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment: