

HOBBS OCD

OCT 31 2013

Form 3160-3
(March 2012)

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Split Estate

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work ☒ DRILL ☐ REENTER		7. If Unit or CA Agreement, Name and No.	
1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8. Lease Name and Well No. <40201> Dos Equis 13 Federal Com #2 H	
2. Name of Operator Cimarex Energy Co.		9. API Well No. 30-025-41480	
3a. Address 600 N. Marienfield St. Ste. 600 Midland Tx 79071	3b. Phone No. (include area code) 432-571-7800	10. Field and Pool, or Exploratory Triple X; Bone Spring West <96674>	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 280 FNL & 2080 FEL At proposed prod. Zone 330 FSL & 1980 FEL		11. Sec., T. R. M. or Blk. and Survey and Area 13, 24s, 32e	
14. Distance in miles and direction from nearest town or post office* Jal NM is 26 miles to the southeast of location		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) 280'	16. No of acres in lease NM0553642= 0 acres 400 NM0553548= 0 acres 320	17. Spacing Unit dedicated to this well 160	
18. Distance from proposed* location to nearest well; drilling, completed, applied for, on this lease, ft. 839' to the Dos Equis 13 Fed Com #3 well.	19. Proposed Depth Pilot Hole TD: N/A 15,500 MD 11,085 TVD	20. BLM/BIA Bond No. on File NM2575; NMB000835	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3576 GR	22. Approximate date work will start* 11/1/13	23. Estimated duration 35 days	

UNORTHODOX
LOCATION

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

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

25. Signature <i>Hope Knauls</i>	Name (Printed/Typed) Hope Knauls	Date 8/14/13
Title Regulatory Compliance		

Approved By (Signature) <i>/s/ James Stovall</i>	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date OCT 25 2013
Title FIELD MANAGER		

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.

APPROVAL FOR TWO YEARS.

Title 18 U.S.S. 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.

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

Carlsbad Controlled Water Basin

NOV 05 2013

Application to Drill
Dos Equis 13 Federal Com #24
 Cimarex Energy Co.
 UL: B, Sec. 13, 24s, 32e
 Lea Co., NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1. Location: SHL 280 FNL & 2080 FEL
 BHL 330 FSL & 1980 FEL

2. Elevation Above Sea Level: 3,576' GR

3. Geologic Name of Surface Formation: Quaternary Alluvium Deposits

4. Drilling Tools and Associated Equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal

5. Proposed Drilling Depth: 15,500 MD 11,085 TVD Pilot Hole TD: N/A

6. Estimated Tops of Geological Markers:

Formation	Est Top	Bearing
Rustler	1185	N/A
Salt	1320	N/A
Castille	3430	N/A
Base Last Salt	4710	N/A
Lamar	4950	N/A
Bell Canyon	5000	N/A
Brushy Canyon	7340	N/A
Basal Brushy Canyon	8660	N/A
Bone Spring	8900	N/A
Avalon Shale	9050	N/A
1st BSS	10050	N/A
2nd BSS	10690	N/A
3rd BSS Carbonate	11175	N/A

7. Possible Mineral Bearing Formation: Shown above

7A. OSE Ground Water Estimated Depth: 200'

8. Casing Program:

Name	Casing Depth From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Open Hole Size (Inches)	Casing Size (Inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	BHP (psig)	Anticipated Mud Weight (ppg)	Collapse SF at Full Evacuation (1.125)	Collapse SF at 1/3 Evacuation (1.125)	Burst SF (1.125)	Cumulative Air Weight	Cumulative Bouyed Weight (lbs)	Bouyant Tension (SF (1.8))
Surface	0	1235	1235	17 1/2	13-3/8"	48.00	H-40	ST&C	New	555	8.3	1.39		3.11	59,280	51,768	6.22
Intermediate	0	4980	4980	12 1/4	9-5/8"	40.00	N-80	BT&C	New	2241	10.0		1.61	2.57	199,200	168,788	5.43
Production	0	10608	10608	8 3/4	5-1/2"	17.00	P-110	LT&C	New	2549	9.0	1.51		4.17	188,445	162,552	2.74
Production	10608	15500	11085	8 3/4	5-1/2"	17.00	P-110	BT&C	New	4988	9.0	1.44		2.13	8,109	6,995	78.06

8A. Casing Design and Casing Loading Assumptions:

Surface	Tension	A 1.8 design factor with effects of buoyancy: 8.30 ppg.
	Collapse	A 1.125 design factor with full internal evacuation and a collapse force equal to a 8.30 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Intermediate	Tension	A 1.8 design factor with effects of buoyancy: 10.00 ppg.
	Collapse	A 1.125 design factor evacuated 1/3 TVD of next casing string with a collapse force equal to a 10.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.
Production	Tension	A 1.8 design factor with effects of buoyancy: 9.00 ppg.
	Collapse	A 1.125 design factor with full internal evacuation of next casing string with a collapse force equal to a 9.00 ppg mud gradient.
	Burst	A 1.125 design with a surface pressure equal to the fracture gradient at setting depth less gas gradient to surface.

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 Cimarex Energy Co.
 UL: B, Sec. 13, 24s, 32e
 Lea Co., NM

9. Cementing Program:

Casing Type	Type	Sacks	Yield	Weight	Cubic Feet	Cement Blend
Surface	Lead	784	1.75	13.50	1372	Class C + Bentonite + Calcium Chloride + LCM
	Tail	160	1.34	14.80	214	Class C + LCM
	TOC: 0		85% Excess		Centralizers per Onshore Order 2.III.B.1f	
Intermediate	Lead	1122	1.88	12.90	2109	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
	Tail	291	1.34	14.80	389	Class C + retarder + LCM
	TOC: 0		81% Excess			
Production	Lead	696	2.40	11.90	1670	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder
	Tail	1374	1.24	14.50	1703	50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder
	TOC: 4780 <i>See COA</i>		25% Excess		No centralizers planned in the lateral section. 1 every jt from EOC to KOP. 1 every 4th joint from KOP to 500' inside previous casing.	

Cement volumes will be adjusted depending on hole size

9a. Proposed Drilling Plan:

Pilot Hole TD: No Pilot KOP: 10,608' EOC: 11,358'

Set Surface and Intermediate casing strings. Drill production hole to KOP. Continue drilling lateral through the curve to TD. Run prod casing & cement.

10. Pressure Control Equipment:

Exhibit "E-1". A BOP consisting of two rams with blind rams and pipe rams, and one annular preventer. Below the surface casing, a 2M system will be used. Below the intermediate casing, a 3M system will be used. See attachments for BOP and choke manifold diagrams. 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 cock 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.

BOP and associated equipment will be installed, used, maintained, and tested in a manner necessary to assure well control and shall be in place and operational prior to drilling the surface casing shoe. The Annular Preventer shall be functioned at least weekly. The pipe and blind rams will be operated each trip. No abnormal pressure or temperature is expected while drilling.

BOPS will be tested by an independent service company. The ram preventers, choke manifold, and safety valves will be tested as follows: On the surface casing, pressure tests will be made to 250 psi low and 2000 psi high. On the intermediate casing, pressure tests will be made to 250 psi low and 3000 psi high.

The Annular Preventer will be tested to 250 psi low and 1000 psi high on the surface casing, and 250 low and 1500 high on the intermediate casing.

See COA
 Cimarex Energy Co. of Colorado requests a variance to drill this well using a co-flex line between the BOP and choke manifold.

Certification for proposed co-flex hose is attached (please see Exhibit F, F-1, F-2, F-3). 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.

See COA
11. Proposed Mud Circulating System:

Depth	Mud Weight	Visc	Fluid Loss	Type Mud
0' to 1235' <i>1275'</i>	8.30	28	NC	FW Spud Mud
1235' to 4980' <i>4950'</i>	10.00	30-32	NC	Brine Water
4980' to 15500'	9.00	30-32	NC	FW/Cut Brine

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.

The Mud Monitoring System is an electronic Pason System satisfying requirements of Onshore Order 1.

Application to Drill
Dos Equis 13 Federal Com #2 H
Cimarex Energy Co.
UL: B, Sec. 13, 24s, 32e
Lea Co., NM

12. Testing, Logging and Coring Program:

- A. Mud logging program: 2 man unit from 4980 to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL /GR -- Inter. Csg to TD
CNL /GR -- Surf to Inter. Csg
- C. No DSTs or cores are planned at this time
- D. CBL w/ CCL from as far as gravity will let it fall to TOC

13. Potential Hazards:

See
20A No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H₂S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H₂S Safety package on all wells, attached is an "H₂S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP: 4989 psi

Estimated BHT: 168°

14. Construction and Drilling:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.

Drilling expected to take: 35 days.

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15. Other Facets of Operations:

If production casing is run an additional 30 days will be required to complete and construct surface facilities.

Bell Canyon pay will be perforated and stimulated.

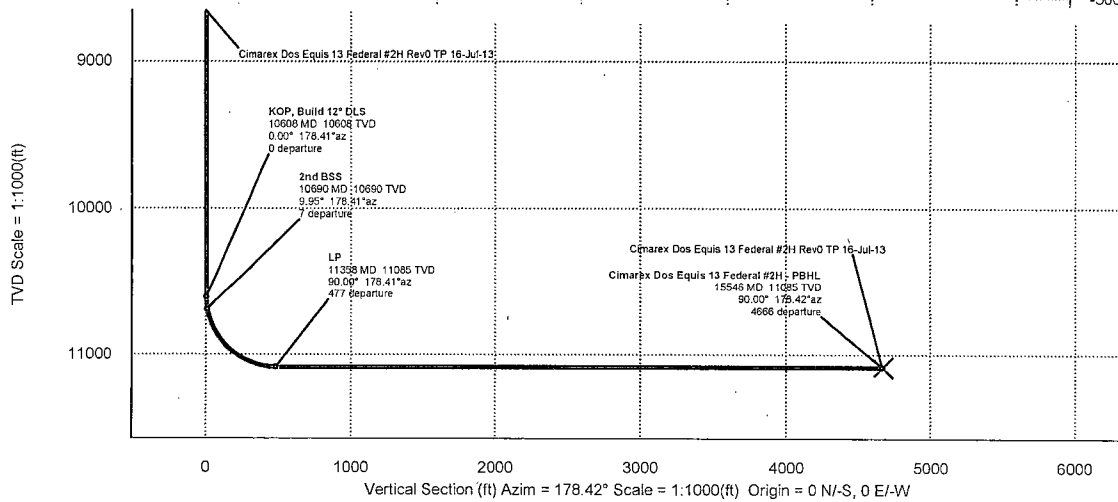
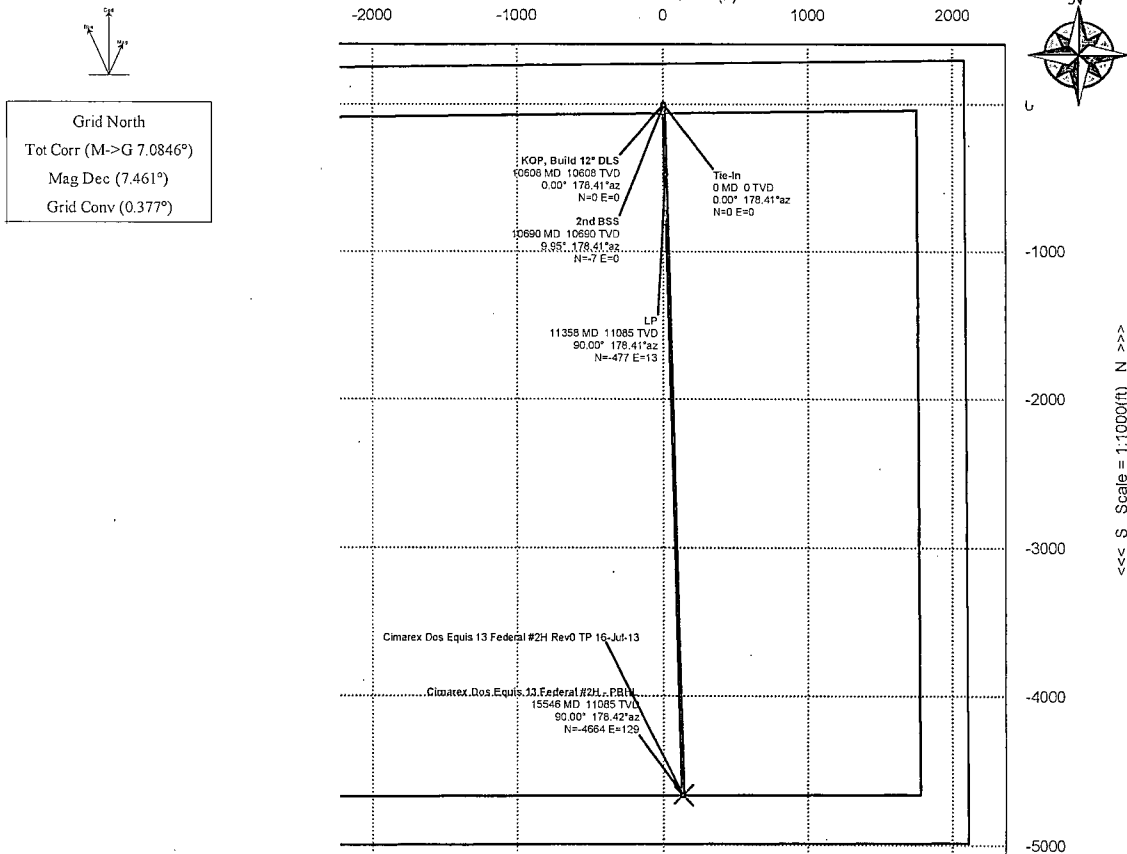
The proposed well will be tested and potentialized as **Oil**



Cimarex Energy

PATHFINDER
A Schlumberger Company

WELL	Dos Equis 13 Federal #2H	FIELD	NM Lea County (NAD 83)	STRUCTURE	Cimarex Dos Equis 13 Federal
Magnetics Parameters Model: ICGM 2012	Dip: 69.230° Mag Dec: 7.461°	Date: July 16, 2013 PS: 48365.in7	Surface Location Lat: N 31° 13' 27.132" Lon: W 103° 37' 35.411"	NAD83 New Mexico State Plane, Eastern Zone, US Feet Northing: 4460171.00 NUS Easting: 739914.00 EUS Grid Corner: 0.377° Scale Factor: 0.99998381	Miscellaneous Ref: Dos Equis 13 Federal #2H Plan: Cimarex Dos Equis 13 Federal #2H TVD Ref: Ground Level (3597ft above MSL) Date: 03/16/2013



Critical Points

Critical Point	MD	INCL	AZIM	TVD	YSEC	N(+) / S(-)	E(+) / W(-)	DLS
Tie-In	0.00	0.00	178.42	0.00	0.00	0.00	0.00	
9 5/8 Casing Point	4900.00	0.00	178.42	4900.00	0.00	0.00	0.00	0.00
KOP, Build 12° DLS	10607.50	0.00	178.42	10607.50	0.00	0.00	0.00	0.00
2nd BSS	10690.42	9.95	178.42	10690.00	7.18	-7.18	0.20	12.00
LP	11357.56	90.00	178.42	11085.00	477.50	-477.32	13.21	12.00
Cimarex Dos Equis 13 Federal #2H - PBHL	15546.31	90.00	178.42	11085.00	4666.26	-4664.48	128.90	0.00



Cimarex Dos Equis 13 Federal #2H Rev0 TP 16-Jul-13 Proposal Report 100' Interpolated (Def Plan)



Report Date: August 14, 2013 - 04:26 PM
Client: Cimarex Energy
Field: NM Lea County (NAD 83)
Structure / Slot: TBD / Dos Equis 13 Federal #2H
Well: Dos Equis 13 Federal #2H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Dos Equis 13 Federal #2H Rev0 TP 16-Jul-13
Survey Date: July 16, 2013
Tort / AHD / DDI / ERD Ratio: 90.004 ° / 4666.259 ft / 5.770 / 0.421
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 13' 27.13163", W 103° 37' 35.41112"
Location Grid N/E Y/X: N 446017.900 ftUS, E 759914.000 ftUS
CRS Grid Convergence Angle: 0.3769 °
Grid Scale Factor: 0.99996381

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 178.417 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3597.000 ft above MSL
Seabed / Ground Elevation: 3597.000 ft above MSL
Magnetic Declination: 7.461 °
Total Gravity Field Strength: 998.4688mgn (9.80665 Based)
Total Magnetic Field Strength: 48368.937 nT
Magnetic Dip Angle: 60.080 °
Declination Date: July 16, 2013
Magnetic Declination Model: BGGM 2012
North Reference: Grid North
Grid Convergence Used: 0.3769 °
Total Corr Mag North->Grid North: 7.0846 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
Tie-In	0.00	0.00	178.42	0.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	N/A
	100.00	0.00	178.42	100.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	200.00	0.00	178.42	200.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	300.00	0.00	178.42	300.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	400.00	0.00	178.42	400.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	500.00	0.00	178.42	500.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	600.00	0.00	178.42	600.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	700.00	0.00	178.42	700.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	800.00	0.00	178.42	800.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	900.00	0.00	178.42	900.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1000.00	0.00	178.42	1000.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1100.00	0.00	178.42	1100.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1200.00	0.00	178.42	1200.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1300.00	0.00	178.42	1300.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1400.00	0.00	178.42	1400.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1500.00	0.00	178.42	1500.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1600.00	0.00	178.42	1600.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1700.00	0.00	178.42	1700.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1800.00	0.00	178.42	1800.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	1900.00	0.00	178.42	1900.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2000.00	0.00	178.42	2000.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2100.00	0.00	178.42	2100.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2200.00	0.00	178.42	2200.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2300.00	0.00	178.42	2300.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2400.00	0.00	178.42	2400.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2500.00	0.00	178.42	2500.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2600.00	0.00	178.42	2600.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2700.00	0.00	178.42	2700.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2800.00	0.00	178.42	2800.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	2900.00	0.00	178.42	2900.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
	8500.00	0.00	178.42	8500.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	8600.00	0.00	178.42	8600.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	8700.00	0.00	178.42	8700.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	8800.00	0.00	178.42	8800.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	8900.00	0.00	178.42	8900.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9000.00	0.00	178.42	9000.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9100.00	0.00	178.42	9100.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9200.00	0.00	178.42	9200.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9300.00	0.00	178.42	9300.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9400.00	0.00	178.42	9400.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9500.00	0.00	178.42	9500.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9600.00	0.00	178.42	9600.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9700.00	0.00	178.42	9700.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9800.00	0.00	178.42	9800.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	9900.00	0.00	178.42	9900.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10000.00	0.00	178.42	10000.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10100.00	0.00	178.42	10100.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10200.00	0.00	178.42	10200.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10300.00	0.00	178.42	10300.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10400.00	0.00	178.42	10400.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10500.00	0.00	178.42	10500.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10600.00	0.00	178.42	10600.00	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
KOP, Build 12° DLS	10607.50	0.00	178.42	10607.50	0.00	0.00	0.00	446017.90	759914.00	N 32 13 27.13	W 103 37 35.41	0.00	0.00	0.00
	10700.00	11.10	178.42	10699.42	8.93	-8.93	0.25	446008.97	759914.25	N 32 13 27.04	W 103 37 35.41	8.93	178.42	12.00
	10800.00	23.10	178.42	10794.83	38.28	-38.27	1.06	445979.64	759915.06	N 32 13 26.75	W 103 37 35.40	38.28	178.42	12.00
	10900.00	35.10	178.42	10882.05	86.82	-86.79	2.40	445931.12	759916.40	N 32 13 26.27	W 103 37 35.39	86.82	178.42	12.00
	11000.00	47.10	178.42	10957.27	152.43	-152.38	4.22	445865.53	759918.22	N 32 13 25.62	W 103 37 35.37	152.43	178.42	12.00
	11100.00	59.10	178.42	11017.21	232.25	-232.16	6.42	445785.74	759920.42	N 32 13 24.83	W 103 37 35.35	232.25	178.42	12.00
	11200.00	71.09	178.42	11059.24	322.79	-322.66	8.93	445695.25	759922.93	N 32 13 23.94	W 103 37 35.33	322.79	178.42	12.00
	11300.00	83.09	178.42	11081.54	420.08	-419.92	11.62	445597.99	759925.62	N 32 13 22.98	W 103 37 35.31	420.08	178.42	12.00
LP	11357.56	90.00	178.42	11085.00	477.50	-477.32	13.21	445540.60	759927.21	N 32 13 22.41	W 103 37 35.29	477.50	178.42	12.00
	11400.00	90.00	178.42	11085.00	519.94	-519.75	14.38	445498.17	759928.38	N 32 13 21.99	W 103 37 35.28	519.94	178.42	0.00
	11500.00	90.00	178.42	11085.00	619.94	-619.71	17.15	445398.22	759931.15	N 32 13 21.00	W 103 37 35.26	619.94	178.42	0.00
	11600.00	90.00	178.42	11085.00	719.94	-719.67	19.91	445298.26	759933.91	N 32 13 20.01	W 103 37 35.23	719.94	178.42	0.00
	11700.00	90.00	178.42	11085.00	819.94	-819.63	22.68	445198.30	759936.68	N 32 13 19.02	W 103 37 35.21	819.94	178.42	0.00
	11800.00	90.00	178.42	11085.00	919.94	-919.59	25.44	445098.34	759939.44	N 32 13 18.03	W 103 37 35.19	919.94	178.42	0.00
	11900.00	90.00	178.42	11085.00	1019.94	-1019.55	28.21	444998.38	759942.21	N 32 13 17.04	W 103 37 35.16	1019.94	178.42	0.00
	12000.00	90.00	178.42	11085.00	1119.94	-1119.52	30.97	444898.43	759944.97	N 32 13 16.05	W 103 37 35.14	1119.94	178.42	0.00
	12100.00	90.00	178.42	11085.00	1219.94	-1219.48	33.74	444798.47	759947.74	N 32 13 15.06	W 103 37 35.11	1219.94	178.42	0.00
	12200.00	90.00	178.42	11085.00	1319.94	-1319.44	36.50	444698.51	759950.50	N 32 13 14.07	W 103 37 35.09	1319.94	178.42	0.00
	12300.00	90.00	178.42	11085.00	1419.94	-1419.40	39.27	444598.55	759953.27	N 32 13 13.08	W 103 37 35.06	1419.94	178.42	0.00
	12400.00	90.00	178.42	11085.00	1519.94	-1519.36	42.03	444498.59	759956.03	N 32 13 12.09	W 103 37 35.04	1519.94	178.42	0.00
	12500.00	90.00	178.42	11085.00	1619.94	-1619.33	44.80	444398.64	759958.79	N 32 13 11.11	W 103 37 35.01	1619.94	178.42	0.00
	12600.00	90.00	178.42	11085.00	1719.94	-1719.29	47.56	444298.68	759961.56	N 32 13 10.12	W 103 37 34.99	1719.94	178.42	0.00
	12700.00	90.00	178.42	11085.00	1819.94	-1819.25	50.32	444198.72	759964.32	N 32 13 9.13	W 103 37 34.96	1819.94	178.42	0.00
	12800.00	90.00	178.42	11085.00	1919.94	-1919.21	53.09	444098.76	759967.08	N 32 13 8.14	W 103 37 34.94	1919.94	178.42	0.00
	12900.00	90.00	178.42	11085.00	2019.94	-2019.17	55.85	443998.80	759969.85	N 32 13 7.15	W 103 37 34.92	2019.94	178.42	0.00
	13000.00	90.00	178.42	11085.00	2119.94	-2119.13	58.61	443898.85	759972.61	N 32 13 6.16	W 103 37 34.89	2119.94	178.42	0.00
	13100.00	90.00	178.42	11085.00	2219.94	-2219.10	61.38	443798.89	759975.37	N 32 13 5.17	W 103 37 34.87	2219.94	178.42	0.00
	13200.00	90.00	178.42	11085.00	2319.94	-2319.06	64.14	443698.93	759978.14	N 32 13 4.18	W 103 37 34.84	2319.94	178.42	0.00
	13300.00	90.00	178.42	11085.00	2419.94	-2419.02	66.90	443598.97	759980.90	N 32 13 3.19	W 103 37 34.82	2419.94	178.42	0.00
	13400.00	90.00	178.42	11085.00	2519.94	-2518.98	69.66	443499.01	759983.66	N 32 13 2.20	W 103 37 34.79	2519.94	178.42	0.00
	13500.00	90.00	178.42	11085.00	2619.94	-2618.94	72.42	443399.06	759986.42	N 32 13 1.21	W 103 37 34.77	2619.94	178.42	0.00
	13600.00	90.00	178.42	11085.00	2719.94	-2718.91	75.19	443299.10	759989.18	N 32 13 0.22	W 103 37 34.74	2719.94	178.42	0.00
	13700.00	90.00	178.42	11085.00	2819.94	-2818.87	77.95	443199.14	759991.95	N 32 12 59.23	W 103 37 34.72	2819.94	178.42	0.00

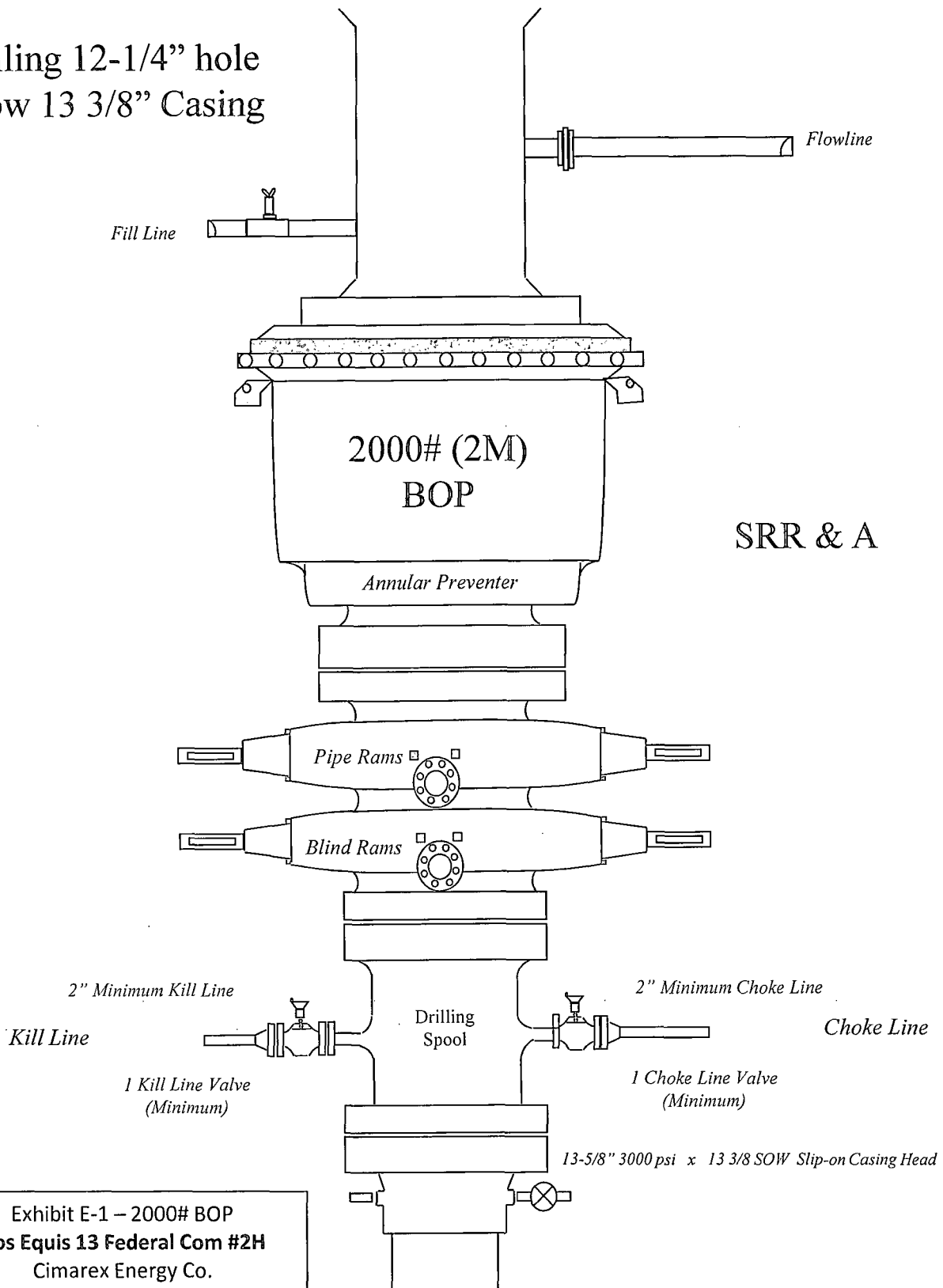
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS ("/100ft)
	13800.00	90.00	178.42	11085.00	2919.94	-2918.83	80.71	443099.18	759994.71	N 32 12 58.24	W 103 37 34.70	2919.94	178.42	0.00
	13900.00	90.00	178.42	11085.00	3019.94	-3018.79	83.47	442999.22	759997.47	N 32 12 57.26	W 103 37 34.67	3019.94	178.42	0.00
	14000.00	90.00	178.42	11085.00	3119.94	-3118.75	86.23	442899.27	760000.23	N 32 12 56.27	W 103 37 34.65	3119.94	178.42	0.00
	14100.00	90.00	178.42	11085.00	3219.94	-3218.71	88.99	442799.31	760002.99	N 32 12 55.28	W 103 37 34.62	3219.94	178.42	0.00
	14200.00	90.00	178.42	11085.00	3319.94	-3318.68	91.75	442699.35	760005.75	N 32 12 54.29	W 103 37 34.60	3319.94	178.42	0.00
	14300.00	90.00	178.42	11085.00	3419.94	-3418.64	94.51	442599.39	760008.51	N 32 12 53.30	W 103 37 34.57	3419.94	178.42	0.00
	14400.00	90.00	178.42	11085.00	3519.94	-3518.60	97.28	442499.43	760011.27	N 32 12 52.31	W 103 37 34.55	3519.94	178.42	0.00
	14500.00	90.00	178.42	11085.00	3619.94	-3618.56	100.04	442399.48	760014.03	N 32 12 51.32	W 103 37 34.52	3619.94	178.42	0.00
	14600.00	90.00	178.42	11085.00	3719.94	-3718.52	102.80	442299.52	760016.79	N 32 12 50.33	W 103 37 34.50	3719.94	178.42	0.00
	14700.00	90.00	178.42	11085.00	3819.94	-3818.49	105.56	442199.56	760019.55	N 32 12 49.34	W 103 37 34.47	3819.94	178.42	0.00
	14800.00	90.00	178.42	11085.00	3919.94	-3918.45	108.31	442099.60	760022.31	N 32 12 48.35	W 103 37 34.45	3919.94	178.42	0.00
	14900.00	90.00	178.42	11085.00	4019.94	-4018.41	111.07	441999.64	760025.07	N 32 12 47.36	W 103 37 34.43	4019.94	178.42	0.00
	15000.00	90.00	178.42	11085.00	4119.94	-4118.37	113.83	441899.69	760027.83	N 32 12 46.37	W 103 37 34.40	4119.94	178.42	0.00
	15100.00	90.00	178.42	11085.00	4219.94	-4218.33	116.59	441799.73	760030.59	N 32 12 45.38	W 103 37 34.38	4219.94	178.42	0.00
	15200.00	90.00	178.42	11085.00	4319.94	-4318.30	119.35	441699.77	760033.35	N 32 12 44.39	W 103 37 34.35	4319.94	178.42	0.00
	15300.00	90.00	178.42	11085.00	4419.94	-4418.26	122.11	441599.81	760036.11	N 32 12 43.41	W 103 37 34.33	4419.94	178.42	0.00
	15400.00	90.00	178.42	11085.00	4519.94	-4518.22	124.87	441499.85	760038.86	N 32 12 42.42	W 103 37 34.30	4519.94	178.42	0.00
	15500.00	90.00	178.42	11085.00	4619.94	-4618.18	127.63	441399.89	760041.62	N 32 12 41.43	W 103 37 34.28	4619.94	178.42	0.00
Cimarex Dos Equis 13 Federal #2H - PBHL	15546.31	90.00	178.42	11085.00	4666.26	-4664.48	128.90	441353.60	760042.90	N 32 12 40.97	W 103 37 34.27	4666.26	178.42	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	10607.000	1/100.000	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Cimarex Dos Equis 13 Federal #2H Rev0 TP 16-
	10607.000	15546.314	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Dos Equis 13 Federal #2H Rev0 TP 16-

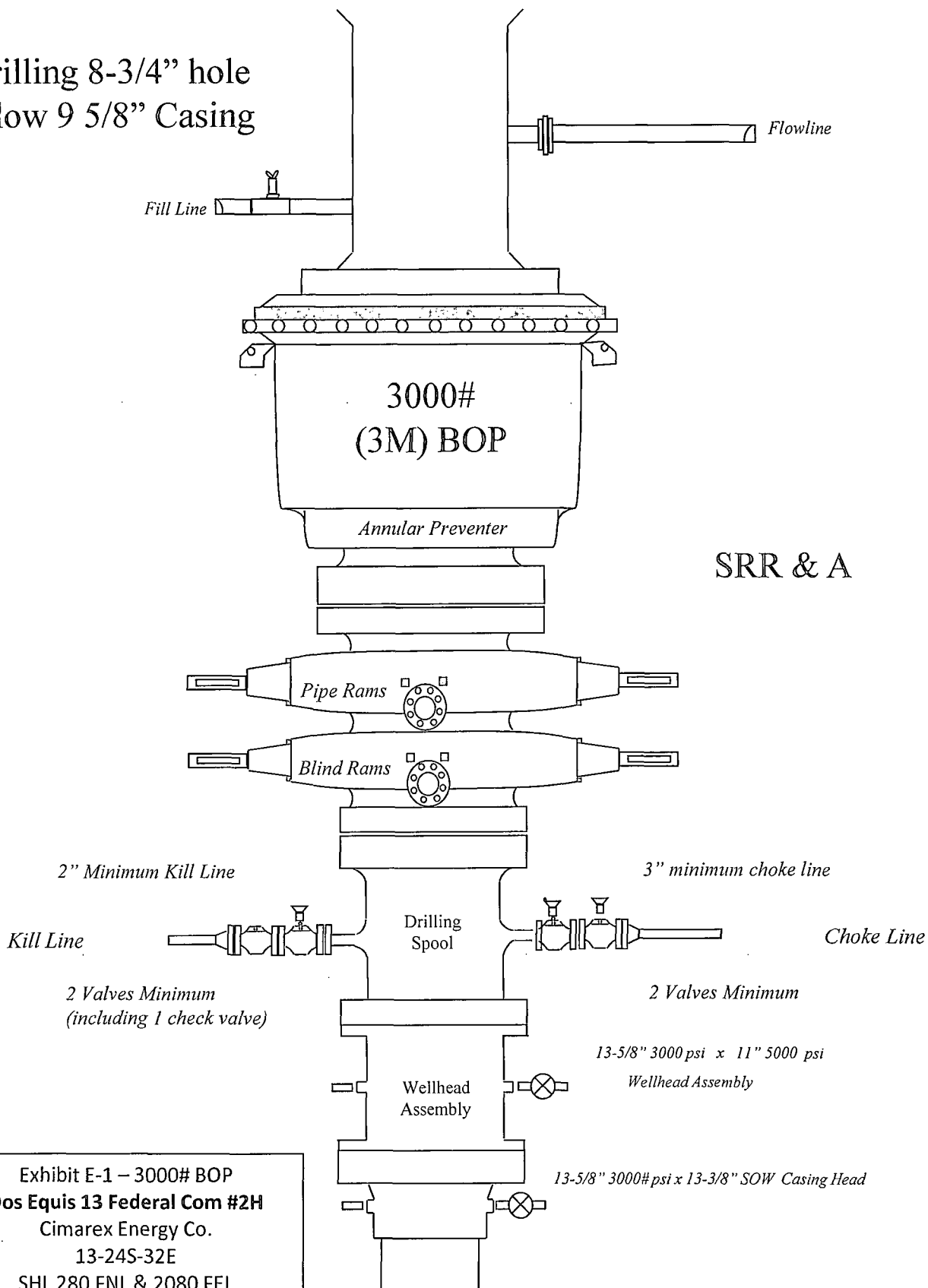
Drilling 12-1/4" hole
below 13 3/8" Casing



SRR & A

Exhibit E-1 – 2000# BOP
Dos Equis 13 Federal Com #2H
Cimarex Energy Co.
13-24S-32E
SHL 280 FNL & 2080 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM

Drilling 8-3/4" hole
below 9 5/8" Casing



SRR & A

Exhibit E-1 – 3000# BOP
Dos Equis 13 Federal Com #2H
Cimarex Energy Co.
13-24S-32E
SHL 280 FNL & 2080 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM

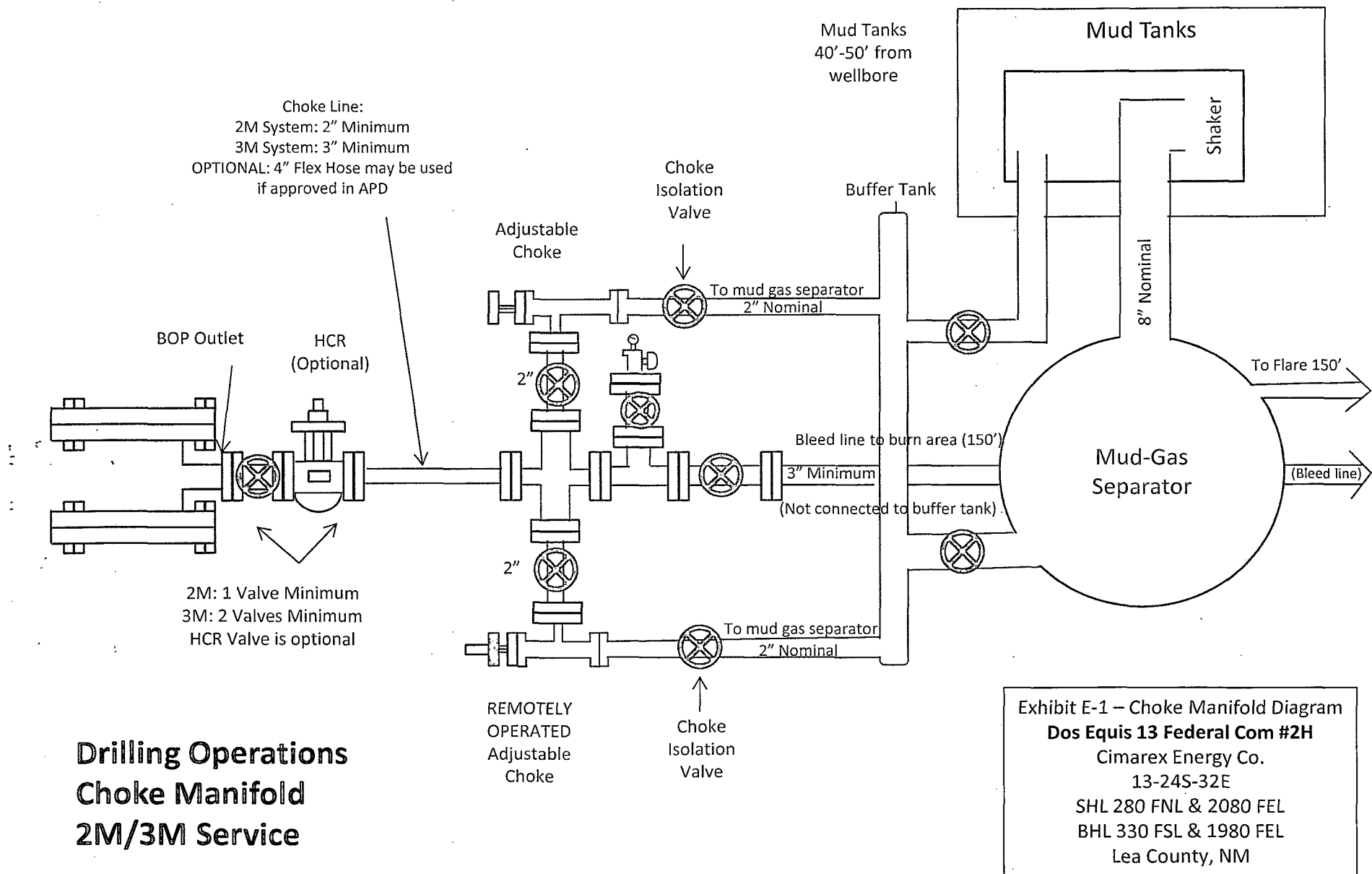


Exhibit F-1 - Co-Flex Hose Hydrostatic Test

Dos Equis 13 Federal Com #2H

Cimarex Energy Co.

13-24S-32E

SHL 280 FNL & 2080 FEL

BHL 330 FSL & 1980 FEL

Lea County, NM



Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT			
Customer: Oderco Inc		P.O. Number: odyd-271	
HOSE SPECIFICATIONS			
Type:	Stainless Steel Armor Choke & Kill Hose		Hose Length: 45'ft.
I.D.	4 INCHES	O.D.	9 INCHES
WORKING PRESSURE	TEST PRESSURE		BURST PRESSURE
10,000 PSI	15,000 PSI		0 PSI
COUPLINGS			
Stem Part No. OKC OKC		Ferrule No. OKC OKC	
Type of Coupling: Swage-It			
PROCEDURE			
<u>Hose assembly pressure tested with water at ambient temperature.</u>			
TIME HELD AT TEST PRESSURE 15 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
Hose Assembly Serial Number: 79793		Hose Serial Number: OKC	
Comments:			
Date: 3/8/2011	Tested: <i>A. James Jones</i>		Approved: <i>Kevin Lee</i>

March 3, 2011

Internal Hydrostatic Test Graph



Midwest Hose
& Specialty, Inc.

Customer: Houston

Pick Ticket #: 94260

Midwest Hose
& Specialty, Inc.

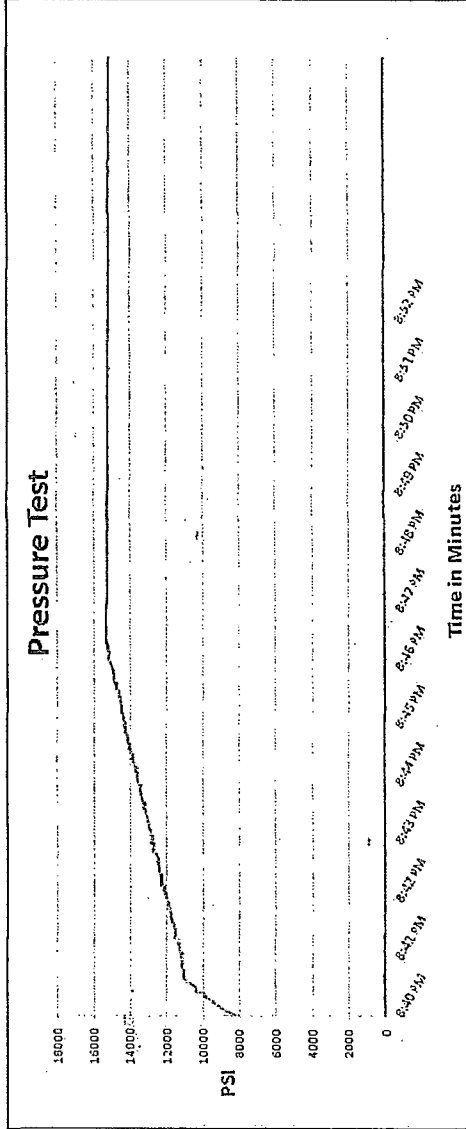
Hose Specifications

Hose Type: C&K
ID: 4"
Working Pressure: 18000 PSI
Length: 45'
OD: 6.09"
Burst Pressure: Standard Safety/Multiplier Applies

Verification

Type of Fittings: 41/1610K
Die Size: 6.30"
Hose Serial #: 5544
Coupling Method: Swage
Final O.D.: 6.25"
Hose Assembly Serial #: 79793

Exhibit F-1 – Co-Flex Hose Hydrostatic Test
Dos Equis 13 Federal Com #2H
Cimarex Energy Co.
13-24S-32E
SHL 280 FNL & 2080 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

Actual Burst Pressure
15483 PSI

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

Tested By: Zac Micconell

Approved By: Kim Thomas

[Signature]

[Signature]

Exhibit F-2 - Co-Flex Hose
Dos Equis 13 Federal Com #2H
Cimarex Energy Co.
13-24S-32E
SHL 280 FNL & 2080 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:		PO
DEM		ODYD-271
SPECIFICATIONS		
Sales Order	Dated:	
79793	3/8/2011	
We hereby certify 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: <i>James Garcia</i>		Date: 3/8/2011



Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Dos Equis 13 Federal Com #2H
Cimarex Energy Co.
13-24S-32E
SHL 280 FNL & 2080 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM

Specification Sheet Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. 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 vermiculite 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, unbolt 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)

Exhibit F – Co-Flex Hose
Dos Equis 13 Federal Com #2H
Cimarex Energy Co.
13-24S-32E
SHL 280 FNL & 2080 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM

