

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM02889

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
DOS EQUIS 11-14 FEDERAL COM 3H9. API Well No.
30-025-41471-00-X110. Field and Pool, or Exploratory
TRISTE DRAW11. County or Parish, and State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

CIMAREX ENERGY COMPANY OF CO

Contact: TERRI STATHEM

E-Mail: tstatthem@cimarex.com

3a. Address

202 S CHEYENNE AVE. SUITE 1000
TULSA, OK 74103

3b. Phone No. (include area code)

Ph: 432-620-1936

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 11 T24S R32E NENW 330FNL 1980FWL
32.141867 N Lat, 103.385113 W Lon

HOBBS OCD

JUN 20 2016

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

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☒ Other
Change to Original A
PD

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

Cimarex Energy Co. respectfully requests approval to change the BHL, casing design and cement design according to the attached drilling plan, directional plan and C102.

Cimarex proposes drilling a 2 mile horizontal well.

Approved:

BHL: 330' FSL & 1980' FWL, Sec. 11, 24S, 32E

New Proposed:

BHL: 330' FSL 1980' FWL, Sec. 14, 24S, 32E

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

When re-staking the well for a revised BHL an alternate survey company was used and the SHL is revised to the footage calls as determined by the survey company. The SHL did not move, the SHL stake is in place as approved at the onsite.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #341621 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Hobbs
Committed to AFMSS for processing by CHARLES NIMMER on 06/14/2016 (16CN0022SE)

Name (Printed/Typed) TERRI STATHEM

Title MANAGER REGULATORY COMPLIANCE

Signature (Electronic Submission)

Date 06/09/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHARLES NIMMER

Title PETROLEUM ENGINEER

Date 06/16/2016

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

Office Hobbs

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #341621 that would not fit on the form

32. Additional remarks, continued

Cimarex also proposes changing the name of the well to: Dos Equis 11-14 Federal Com #3H.

Please see attached C102, directional plan, & drilling plan for review and approval.

1. Geological Formations

TVD of target 10,860
MD at TD 20,558

Pilot Hole TD N/A
Deepest expected fresh water 1,150

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1150	N/A	
Salt	1470	N/A	
Castille	3430	N/A	
Delaware Sands	4950	Hydrocarbons	
Basal Brushy Canyon	8625	Hydrocarbons	
Bone Spring	8817	Hydrocarbons	
Avalon Shale	9208	Hydrocarbons	
1st Bone Spring	9927	Hydrocarbons	
2nd Bone Spring	10570	Hydrocarbons	

2. Casing Program See COA

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	1250 1200	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.35	3.15	5.59
12 1/4	0	4900 4930	9-5/8"	40.00	J-55	LT&C	1.34	1.51	2.64
8 3/4	0	10383	5-1/2"	17.00	L-80	LT&C	1.27	1.56	1.83
8 3/4	10383	20558	5-1/2"	17.00	L-80	BT&C	1.21	1.49	48.96
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

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	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	582	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	156	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	927	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	289	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	755	10.80	2.35	9.60	17:43	Lead: Tuned Light I Class H
	2176	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	4730	15

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	X	2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram	X	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 1200'	FW Spud Mud	8.30 - 8.80	28	N/C
1200' to 4930'	Brine Water	9.70 - 10.20	30-32	N/C
4930' to 20558'	FW/Cut Brine	8.70 - 9.20	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
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6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD 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
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5195 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.

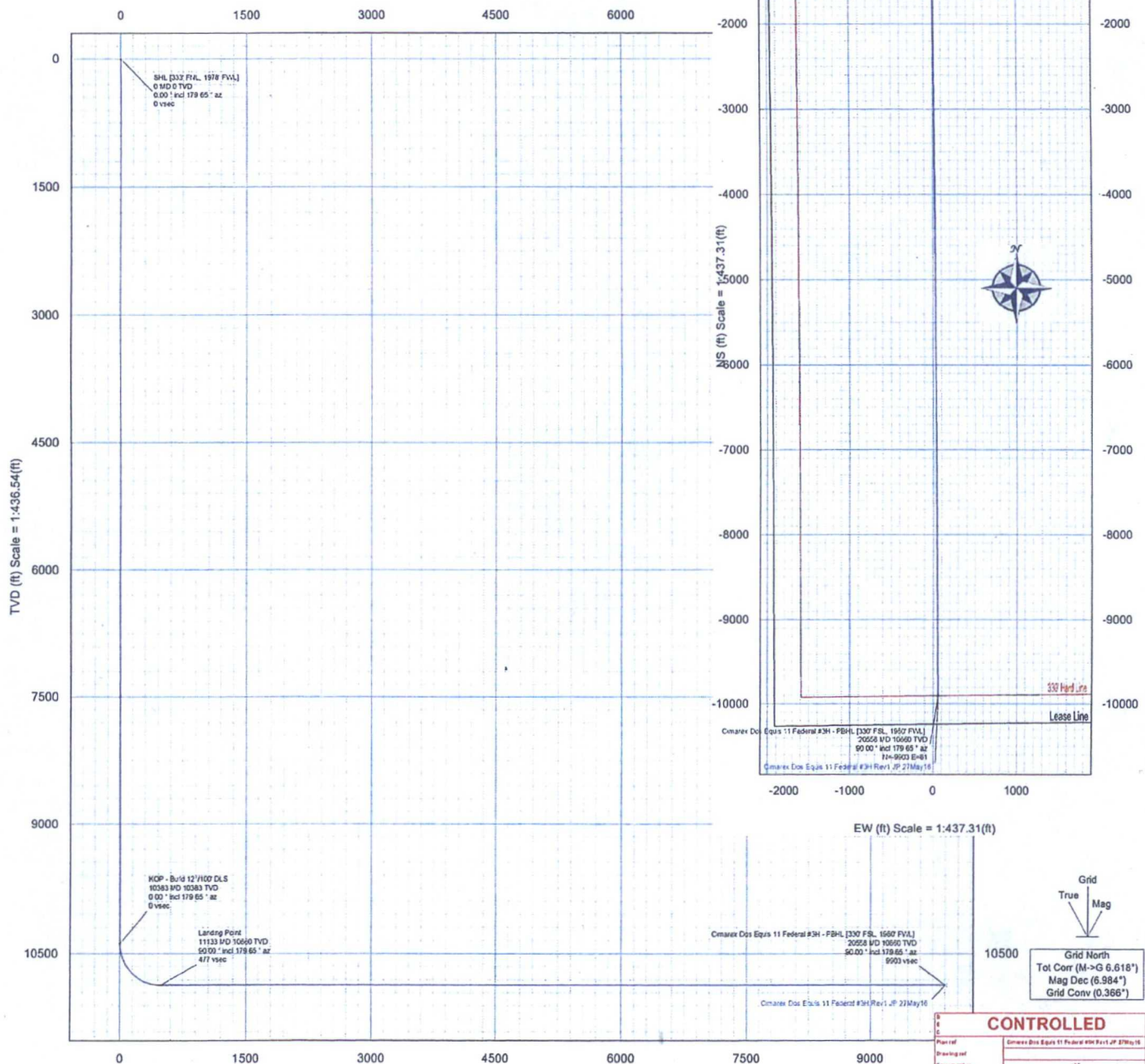
X	H ₂ S is present
X	H ₂ S plan is attached

8. Other Facets of Operation

Borehole: Original Borehole Well: Cimarex Dos Equis 11 Federal # 3H Field: NM Lea County (NAD 83) Structure: Cimarex Dos Equis 11 Federal # 3H

Gravity & Magnetic Parameters: Model: HDGM 2015 Dip: 60.031° Date: 27-May-2016 Surface Location: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 MagDec: 6.984° PB: 48249.84nT Gravity FS: 998.691mg (9.80665 Based) Lat: N 32 14 18.57 Northing: 451173.71US Grid Conv: 0.3658°
 Misc: Cimarex Dos Equis 11 Federal # 3H Rev1 JP 27May16

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)S(-)	E(+)W(-)	DLS
SHL [33° FHL, 1978° FVL]	0.00	0.00	179.65	0.00	0.00	0.00	0.00	
KOP - Build 12°/100' DLS	10382.54	0.00	179.65	10382.54	0.00	0.00	0.00	0.00
Landing Point	11132.54	90.00	179.65	10860.00	477.47	-477.46	2.95	12.00
Cimarex Dos Equis 11 Federal #3H - PBHL [330° FSL, 1980° FVL]	20557.94	90.00	179.65	10860.00	9902.87	-9902.68	61.26	0.00



Cimarex Dos Equis 11 Federal #3H Rev1 JP 27May16 Proposal Geodetic

Report

(Non-Def Plan)

Report Date:

May 27, 2016 - 11:08 AM

Client:

Cimarex

Field:

NM Lea County (NAD 83)

Structure / Slot:

Cimarex Dos Equis 11 Federal #3H / Cimarex Dos Equis 11 Federal #3H

Well:

Cimarex Dos Equis 11 Federal #3H

Borehole:

Original Borehole

UWI / API#:

Unknown / Unknown

Survey Name:

Cimarex Dos Equis 11 Federal #3H Rev1 JP 27May16

Survey Date:

May 27, 2016

Tort / AHD / DDI / ERD Ratio:

90.000 ° / 9902.870 ft / 6.227 / 0.912

Coordinate Reference System:

NAD83 New Mexico State Plane, Eastern Zone, US Feet

Location Lat / Long:

N 32° 14' 18.56969", W 103° 38' 51.21099"

Location Grid NIE Y/X:

N 451173.700 ftUS, E 753369.580 ftUS

CRS Grid Convergence Angle:

0.3658 °

Grid Scale Factor:

0.99996058

Version / Patch:

2.9.365.0

Survey / DLS Computation:

Minimum Curvature / Lubinski

Vertical Section Azimuth:

179.846 ° (Grid North)

Vertical Section Origin:

0.000 ft, 0.000 ft

TVD Reference Datum:

Ground Level

TVD Reference Elevation:

3616.000 ft above MSL

Seabed / Ground Elevation:

3616.000 ft above MSL

Magnetic Declination:

6.984 °

Total Gravity Field Strength:

998.6905mgn (9.80665 Based)

Gravity Model:

DOX

Total Magnetic Field Strength:

48249.940 nT

Magnetic Dip Angle:

60.031 °

Declination Date:

May 27, 2016

Magnetic Declination Model:

HDGM 2015

North Reference:

Grid North

Grid Convergence Used:

0.3658 °

Total Corr Mag North->Grid

6.6184 °

Local Coord Referenced To:

Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL [333' FNL, 1978' FWL]	0.00	0.00	179.65	0.00	0.00	0.00	0.00	N/A	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
KOP - Build 12"/100' DLS	10382.54	0.00	179.65	10382.54	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
Landing Point	11132.54	90.00	179.65	10860.00	477.47	-477.46	2.95	12.00	450696.26	753372.53	N 32 14 13.85	W 103 38 51.21
Cimarex Dos Equis 11												
Federal #3H - PBHL [330' FSL, 1980' FWL]	20557.94	90.00	179.65	10860.00	9902.87	-9902.68	61.26	0.00	441271.43	753430.84	N 32 12 40.58	W 103 38 51.23

Survey Type:

Non-Def Plan

Survey Error Model:

ISWSEA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	20557.945	1/100.000	30.000		NAL_MWD_HDGM	Original Borehole / Cimarex Dos Equis 11 Federal #3H Rev1 JP

Cimarex Dos Equis 11 Federal #3H Rev1 JP 27May16 Proposal Geodetic

Report
(Non-Def Plan)

Report Date: May 27, 2016 - 11:09 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Dos Equis 11 Federal #3H / Cimarex Dos Equis 11 Federal #3H
Well: Cimarex Dos Equis 11 Federal #3H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Dos Equis 11 Federal #3H Rev1 JP 27May16
Survey Date: May 27, 2016
Tort / AHD / DDI / ERD Ratio: 90.000 ° / 9902.870 ft / 6.227 / 0.912
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 14' 18.56969", W 103° 38' 51.21099"
Location Grid N/E Y/X: N 451173.700 ftUS, E 753369.580 ftUS
CRS Grid Convergence Angle: 0.3658 °
Grid Scale Factor: 0.99996058
Version / Patch: 2.9.365.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.646 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: Ground Level
TVD Reference Elevation: 3616.000 ft above MSL
Seabed / Ground Elevation: 3616.000 ft above MSL
Magnetic Declination: 6.984 °
Total Gravity Field Strength: 998.6905mgn (9.80665 Based)
Gravity Model: DOX
Total Magnetic Field Strength: 48249.940 nT
Magnetic Dip Angle: 60.031 °
Declination Date: May 27, 2016
Magnetic Declination Model: HDGM 2015
North Reference: Grid North
Grid Convergence Used: 0.3658 °
Total Corr Mag North->Grid North: 6.6184 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (ft/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [333' FNL, 1978' FWL]	0.00	0.00	179.65	0.00	0.00	0.00	0.00	N/A	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	100.00	0.00	179.65	100.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	200.00	0.00	179.65	200.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	300.00	0.00	179.65	300.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	400.00	0.00	179.65	400.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	500.00	0.00	179.65	500.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	600.00	0.00	179.65	600.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	700.00	0.00	179.65	700.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	800.00	0.00	179.65	800.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	900.00	0.00	179.65	900.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1000.00	0.00	179.65	1000.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1100.00	0.00	179.65	1100.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1200.00	0.00	179.65	1200.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1300.00	0.00	179.65	1300.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1400.00	0.00	179.65	1400.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1500.00	0.00	179.65	1500.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1600.00	0.00	179.65	1600.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1700.00	0.00	179.65	1700.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1800.00	0.00	179.65	1800.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	1900.00	0.00	179.65	1900.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	2000.00	0.00	179.65	2000.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	2100.00	0.00	179.65	2100.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	2200.00	0.00	179.65	2200.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	2300.00	0.00	179.65	2300.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	2400.00	0.00	179.65	2400.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	2500.00	0.00	179.65	2500.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °.′.″)	Longitude (E/W °.′.″)
KOP - Build 12°/100' DLS	8400.00	0.00	179.65	8400.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	8500.00	0.00	179.65	8500.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	8600.00	0.00	179.65	8600.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	8700.00	0.00	179.65	8700.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	8800.00	0.00	179.65	8800.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	8900.00	0.00	179.65	8900.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9000.00	0.00	179.65	9000.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9100.00	0.00	179.65	9100.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9200.00	0.00	179.65	9200.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9300.00	0.00	179.65	9300.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9400.00	0.00	179.65	9400.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9500.00	0.00	179.65	9500.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9600.00	0.00	179.65	9600.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9700.00	0.00	179.65	9700.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	9800.00	0.00	179.65	9800.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
Landing Point	9900.00	0.00	179.65	9900.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	10000.00	0.00	179.65	10000.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	10100.00	0.00	179.65	10100.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	10200.00	0.00	179.65	10200.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	10300.00	0.00	179.65	10300.00	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	10382.54	0.00	179.65	10382.54	0.00	0.00	0.00	0.00	451173.70	753369.58	N 32 14 18.57	W 103 38 51.21
	10400.00	2.10	179.65	10400.00	0.32	-0.32	0.00	12.00	451173.38	753369.58	N 32 14 18.57	W 103 38 51.21
	10500.00	14.10	179.65	10498.82	14.38	-14.38	0.09	12.00	451159.33	753369.67	N 32 14 18.43	W 103 38 51.21
	10600.00	26.10	179.65	10592.56	48.67	-48.67	0.30	12.00	451125.03	753369.88	N 32 14 18.09	W 103 38 51.21
	10700.00	38.10	179.65	10677.12	101.71	-101.70	0.63	12.00	451072.00	753370.21	N 32 14 17.56	W 103 38 51.21
	10800.00	50.10	179.65	10748.81	171.16	-171.16	1.06	12.00	451002.55	753370.64	N 32 14 16.88	W 103 38 51.21
	10900.00	62.10	179.65	10804.49	254.01	-254.01	1.57	12.00	450919.71	753371.15	N 32 14 16.06	W 103 38 51.21
	11000.00	74.10	179.65	10841.73	346.62	-346.61	2.14	12.00	450827.78	753371.72	N 32 14 15.14	W 103 38 51.21
	11100.00	86.10	179.65	10858.90	444.95	-444.94	2.75	12.00	450728.78	753372.33	N 32 14 14.17	W 103 38 51.21
Landing Point	11132.54	90.00	179.65	10860.00	477.47	-477.46	2.95	12.00	450696.28	753372.53	N 32 14 13.85	W 103 38 51.21
	11200.00	90.00	179.65	10860.00	544.92	-544.91	3.37	0.00	450628.81	753372.95	N 32 14 13.18	W 103 38 51.21
	11300.00	90.00	179.65	10860.00	644.92	-644.91	3.99	0.00	450528.81	753373.57	N 32 14 12.19	W 103 38 51.21
	11400.00	90.00	179.65	10860.00	744.92	-744.91	4.61	0.00	450428.82	753374.19	N 32 14 11.20	W 103 38 51.21
	11500.00	90.00	179.65	10860.00	844.92	-844.91	5.23	0.00	450328.83	753374.81	N 32 14 10.21	W 103 38 51.21
	11600.00	90.00	179.65	10860.00	944.92	-944.91	5.85	0.00	450228.83	753375.43	N 32 14 9.22	W 103 38 51.21
	11700.00	90.00	179.65	10860.00	1044.92	-1044.90	6.46	0.00	450128.84	753376.04	N 32 14 8.23	W 103 38 51.21
	11800.00	90.00	179.65	10860.00	1144.92	-1144.90	7.08	0.00	450028.84	753376.66	N 32 14 7.24	W 103 38 51.21
	11900.00	90.00	179.65	10860.00	1244.92	-1244.90	7.70	0.00	449928.85	753377.28	N 32 14 6.25	W 103 38 51.21
	12000.00	90.00	179.65	10860.00	1344.92	-1344.90	8.32	0.00	449828.86	753377.90	N 32 14 5.26	W 103 38 51.21
	12100.00	90.00	179.65	10860.00	1444.92	-1444.90	8.94	0.00	449728.86	753378.52	N 32 14 4.27	W 103 38 51.21
	12200.00	90.00	179.65	10860.00	1544.92	-1544.90	9.56	0.00	449628.87	753379.14	N 32 14 3.28	W 103 38 51.21
	12300.00	90.00	179.65	10860.00	1644.92	-1644.89	10.18	0.00	449528.87	753379.76	N 32 14 2.29	W 103 38 51.21
	12400.00	90.00	179.65	10860.00	1744.92	-1744.89	10.80	0.00	449428.88	753380.37	N 32 14 1.30	W 103 38 51.22
	12500.00	90.00	179.65	10860.00	1844.92	-1844.89	11.41	0.00	449328.89	753380.99	N 32 14 0.31	W 103 38 51.22
	12600.00	90.00	179.65	10860.00	1944.92	-1944.89	12.03	0.00	449228.89	753381.61	N 32 13 59.32	W 103 38 51.22
	12700.00	90.00	179.65	10860.00	2044.92	-2044.89	12.65	0.00	449128.90	753382.23	N 32 13 58.33	W 103 38 51.22
	12800.00	90.00	179.65	10860.00	2144.92	-2144.88	13.27	0.00	449028.91	753382.85	N 32 13 57.35	W 103 38 51.22
	12900.00	90.00	179.65	10860.00	2244.92	-2244.88	13.89	0.00	448928.91	753383.47	N 32 13 56.36	W 103 38 51.22
	13000.00	90.00	179.65	10860.00	2344.92	-2344.88	14.51	0.00	448828.92	753384.09	N 32 13 55.37	W 103 38 51.22
	13100.00	90.00	179.65	10860.00	2444.92	-2444.88	15.13	0.00	448728.92	753384.71	N 32 13 54.38	W 103 38 51.22
	13200.00	90.00	179.65	10860.00	2544.92	-2544.88	15.74	0.00	448628.93	753385.32	N 32 13 53.39	W 103 38 51.22
	13300.00	90.00	179.65	10860.00	2644.92	-2644.87	16.36	0.00	448528.94	753385.94	N 32 13 52.40	W 103 38 51.22
	13400.00	90.00	179.65	10860.00	2744.92	-2744.87	16.98	0.00	448428.94	753386.56	N 32 13 51.41	W 103 38 51.22
	13500.00	90.00	179.65	10860.00	2844.92	-2844.87	17.60	0.00	448328.95	753387.18	N 32 13 50.42	W 103 38 51.22
	13600.00	90.00	179.65	10860.00	2944.92	-2944.87	18.22	0.00	448228.95	753387.80	N 32 13 49.43	W 103 38 51.22
	13700.00	90.00	179.65	10860.00	3044.92	-3044.87	18.84	0.00	448128.96	753388.42	N 32 13 48.44	W 103 38 51.22
	13800.00	90.00	179.65	10860.00	3144.92	-3144.86	19.46	0.00	448028.97	753389.04	N 32 13 47.45	W 103 38 51.22

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	13900.00	90.00	179.65	10860.00	3244.92	-3244.86	20.07	0.00	447928.97	753389.65	N 32 13 46.46	W 103 38 51.22
	14000.00	90.00	179.65	10860.00	3344.92	-3344.86	20.69	0.00	447828.98	753390.27	N 32 13 45.47	W 103 38 51.22
	14100.00	90.00	179.65	10860.00	3444.92	-3444.86	21.31	0.00	447728.98	753390.89	N 32 13 44.48	W 103 38 51.22
	14200.00	90.00	179.65	10860.00	3544.92	-3544.86	21.93	0.00	447628.99	753391.51	N 32 13 43.49	W 103 38 51.22
	14300.00	90.00	179.65	10860.00	3644.92	-3644.86	22.55	0.00	447529.00	753392.13	N 32 13 42.50	W 103 38 51.22
	14400.00	90.00	179.65	10860.00	3744.92	-3744.85	23.17	0.00	447429.00	753392.75	N 32 13 41.51	W 103 38 51.22
	14500.00	90.00	179.65	10860.00	3844.92	-3844.85	23.79	0.00	447329.01	753393.37	N 32 13 40.52	W 103 38 51.22
	14600.00	90.00	179.65	10860.00	3944.92	-3944.85	24.41	0.00	447229.01	753393.98	N 32 13 39.53	W 103 38 51.22
	14700.00	90.00	179.65	10860.00	4044.92	-4044.85	25.02	0.00	447129.02	753394.60	N 32 13 38.54	W 103 38 51.22
	14800.00	90.00	179.65	10860.00	4144.92	-4144.85	25.64	0.00	447029.03	753395.22	N 32 13 37.56	W 103 38 51.22
	14900.00	90.00	179.65	10860.00	4244.92	-4244.84	26.26	0.00	446929.03	753395.84	N 32 13 36.57	W 103 38 51.22
	15000.00	90.00	179.65	10860.00	4344.92	-4344.84	26.88	0.00	446829.04	753396.46	N 32 13 35.58	W 103 38 51.22
	15100.00	90.00	179.65	10860.00	4444.92	-4444.84	27.50	0.00	446729.04	753397.08	N 32 13 34.59	W 103 38 51.22
	15200.00	90.00	179.65	10860.00	4544.92	-4544.84	28.12	0.00	446629.05	753397.70	N 32 13 33.60	W 103 38 51.22
	15300.00	90.00	179.65	10860.00	4644.92	-4644.84	28.74	0.00	446529.06	753398.31	N 32 13 32.61	W 103 38 51.22
	15400.00	90.00	179.65	10860.00	4744.92	-4744.83	29.35	0.00	446429.06	753398.93	N 32 13 31.62	W 103 38 51.22
	15500.00	90.00	179.65	10860.00	4844.92	-4844.83	29.97	0.00	446329.07	753399.55	N 32 13 30.63	W 103 38 51.22
	15600.00	90.00	179.65	10860.00	4944.92	-4944.83	30.59	0.00	446229.07	753400.17	N 32 13 29.64	W 103 38 51.22
	15700.00	90.00	179.65	10860.00	5044.92	-5044.83	31.21	0.00	446129.08	753400.79	N 32 13 28.65	W 103 38 51.22
	15800.00	90.00	179.65	10860.00	5144.92	-5144.83	31.83	0.00	446029.09	753401.41	N 32 13 27.66	W 103 38 51.22
	15900.00	90.00	179.65	10860.00	5244.92	-5244.82	32.45	0.00	445929.09	753402.03	N 32 13 26.67	W 103 38 51.22
	16000.00	90.00	179.65	10860.00	5344.92	-5344.82	33.07	0.00	445829.10	753402.64	N 32 13 25.68	W 103 38 51.22
	16100.00	90.00	179.65	10860.00	5444.92	-5444.82	33.68	0.00	445729.10	753403.26	N 32 13 24.69	W 103 38 51.22
	16200.00	90.00	179.65	10860.00	5544.92	-5544.82	34.30	0.00	445629.11	753403.88	N 32 13 23.70	W 103 38 51.22
	16300.00	90.00	179.65	10860.00	5644.92	-5644.82	34.92	0.00	445529.12	753404.50	N 32 13 22.71	W 103 38 51.22
	16400.00	90.00	179.65	10860.00	5744.92	-5744.81	35.54	0.00	445429.12	753405.12	N 32 13 21.72	W 103 38 51.22
	16500.00	90.00	179.65	10860.00	5844.92	-5844.81	36.16	0.00	445329.13	753405.74	N 32 13 20.73	W 103 38 51.22
	16600.00	90.00	179.65	10860.00	5944.92	-5944.81	36.78	0.00	445229.14	753406.36	N 32 13 19.74	W 103 38 51.22
	16700.00	90.00	179.65	10860.00	6044.92	-6044.81	37.40	0.00	445129.14	753406.97	N 32 13 18.75	W 103 38 51.22
	16800.00	90.00	179.65	10860.00	6144.92	-6144.81	38.01	0.00	445029.15	753407.59	N 32 13 17.76	W 103 38 51.23
	16900.00	90.00	179.65	10860.00	6244.92	-6244.81	38.63	0.00	444929.15	753408.21	N 32 13 16.78	W 103 38 51.23
	17000.00	90.00	179.65	10860.00	6344.92	-6344.80	39.25	0.00	444829.16	753408.83	N 32 13 15.79	W 103 38 51.23
	17100.00	90.00	179.65	10860.00	6444.92	-6444.80	39.87	0.00	444729.17	753409.45	N 32 13 14.80	W 103 38 51.23
	17200.00	90.00	179.65	10860.00	6544.92	-6544.80	40.49	0.00	444629.17	753410.07	N 32 13 13.81	W 103 38 51.23
	17300.00	90.00	179.65	10860.00	6644.92	-6644.80	41.11	0.00	444529.18	753410.69	N 32 13 12.82	W 103 38 51.23
	17400.00	90.00	179.65	10860.00	6744.92	-6744.80	41.73	0.00	444429.18	753411.30	N 32 13 11.83	W 103 38 51.23
	17500.00	90.00	179.65	10860.00	6844.92	-6844.79	42.35	0.00	444329.19	753411.92	N 32 13 10.84	W 103 38 51.23
	17600.00	90.00	179.65	10860.00	6944.92	-6944.79	42.96	0.00	444229.20	753412.54	N 32 13 9.85	W 103 38 51.23
	17700.00	90.00	179.65	10860.00	7044.92	-7044.79	43.58	0.00	444129.20	753413.16	N 32 13 8.86	W 103 38 51.23
	17800.00	90.00	179.65	10860.00	7144.92	-7144.79	44.20	0.00	444029.21	753413.78	N 32 13 7.87	W 103 38 51.23
	17900.00	90.00	179.65	10860.00	7244.92	-7244.79	44.82	0.00	443929.21	753414.40	N 32 13 6.88	W 103 38 51.23
	18000.00	90.00	179.65	10860.00	7344.92	-7344.78	45.44	0.00	443829.22	753415.02	N 32 13 5.89	W 103 38 51.23
	18100.00	90.00	179.65	10860.00	7444.92	-7444.78	46.06	0.00	443729.23	753415.64	N 32 13 4.90	W 103 38 51.23
	18200.00	90.00	179.65	10860.00	7544.92	-7544.78	46.68	0.00	443629.23	753416.25	N 32 13 3.91	W 103 38 51.23
	18300.00	90.00	179.65	10860.00	7644.92	-7644.78	47.29	0.00	443529.24	753416.87	N 32 13 2.92	W 103 38 51.23
	18400.00	90.00	179.65	10860.00	7744.92	-7744.78	47.91	0.00	443429.24	753417.49	N 32 13 1.93	W 103 38 51.23
	18500.00	90.00	179.65	10860.00	7844.92	-7844.77	48.53	0.00	443329.25	753418.11	N 32 13 0.94	W 103 38 51.23
	18600.00	90.00	179.65	10860.00	7944.92	-7944.77	49.15	0.00	443229.26	753418.73	N 32 12 59.95	W 103 38 51.23
	18700.00	90.00	179.65	10860.00	8044.92	-8044.77	49.77	0.00	443129.26	753419.35	N 32 12 58.96	W 103 38 51.23
	18800.00	90.00	179.65	10860.00	8144.92	-8144.77	50.39	0.00	443029.27	753419.97	N 32 12 57.97	W 103 38 51.23
	18900.00	90.00	179.65	10860.00	8244.92	-8244.77	51.01	0.00	442929.27	753420.58	N 32 12 56.98	W 103 38 51.23
	19000.00	90.00	179.65	10860.00	8344.92	-8344.77	51.62	0.00	442829.28	753421.20	N 32 12 56.00	W 103 38 51.23
	19100.00	90.00	179.65	10860.00	8444.92	-8444.76	52.24	0.00	442729.29	753421.82	N 32 12 55.01	W 103 38 51.23
	19200.00	90.00	179.65	10860.00	8544.92	-8544.76	52.86	0.00	442629.29	753422.44	N 32 12 54.02	W 103 38 51.23
	19300.00	90.00	179.65	10860.00	8644.92	-8644.76	53.48	0.00	442529.30	753423.06	N 32 12 53.03	W 103 38 51.23
	19400.00	90.00	179.65	10860.00	8744.92	-8744.76	54.10	0.00	442429.30	753423.68	N 32 12 52.04	W 103 38 51.23
	19500.00	90.00	179.65	10860.00	8844.92	-8844.76	54.72	0.00	442329.31	753424.30	N 32 12 51.05	W 103 38 51.23
	19600.00	90.00	179.65	10860.00	8944.92	-8944.75	55.34	0.00	442229.32	753424.91	N 32 12 50.06	W 103 38 51.23

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
	19700.00	90.00	179.65	10860.00	9044.92	-9044.75	55.95	0.00	442129.32	753425.53	N 32 12 49.07	W 103 38 51.23
	19800.00	90.00	179.65	10860.00	9144.92	-9144.75	56.57	0.00	442029.33	753426.15	N 32 12 48.08	W 103 38 51.23
	19900.00	90.00	179.65	10860.00	9244.92	-9244.75	57.19	0.00	441929.33	753426.77	N 32 12 47.09	W 103 38 51.23
	20000.00	90.00	179.65	10860.00	9344.92	-9344.75	57.81	0.00	441829.34	753427.39	N 32 12 46.10	W 103 38 51.23
	20100.00	90.00	179.65	10860.00	9444.92	-9444.74	58.43	0.00	441729.35	753428.01	N 32 12 45.11	W 103 38 51.23
	20200.00	90.00	179.65	10860.00	9544.92	-9544.74	59.05	0.00	441629.35	753428.63	N 32 12 44.12	W 103 38 51.23
	20300.00	90.00	179.65	10860.00	9644.92	-9644.74	59.67	0.00	441529.36	753429.24	N 32 12 43.13	W 103 38 51.23
	20400.00	90.00	179.65	10860.00	9744.92	-9744.74	60.29	0.00	441429.37	753429.86	N 32 12 42.14	W 103 38 51.23
	20500.00	90.00	179.65	10860.00	9844.92	-9844.74	60.90	0.00	441329.37	753430.48	N 32 12 41.15	W 103 38 51.23

Cimarex Dos

Equis 11

Federal #3H -

PBHL [330' FSL,

1980' FWL]

753430.84

441271.43

N 32 12 40.58

W 103 38 51.23

Survey Type: Non-Def Plan

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

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	20557.945	1/100.000	30.000		NAL_MWD_HDGM	Original Borehole / Cimarex Dos Equis 11 Federal #3H Rev1 JP

Exhibit F – Co-Flex Hose
Dos Equis 11 Federal Com 3
Cimarex Energy Co. of Colorado
11-24S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
Lea County, NM

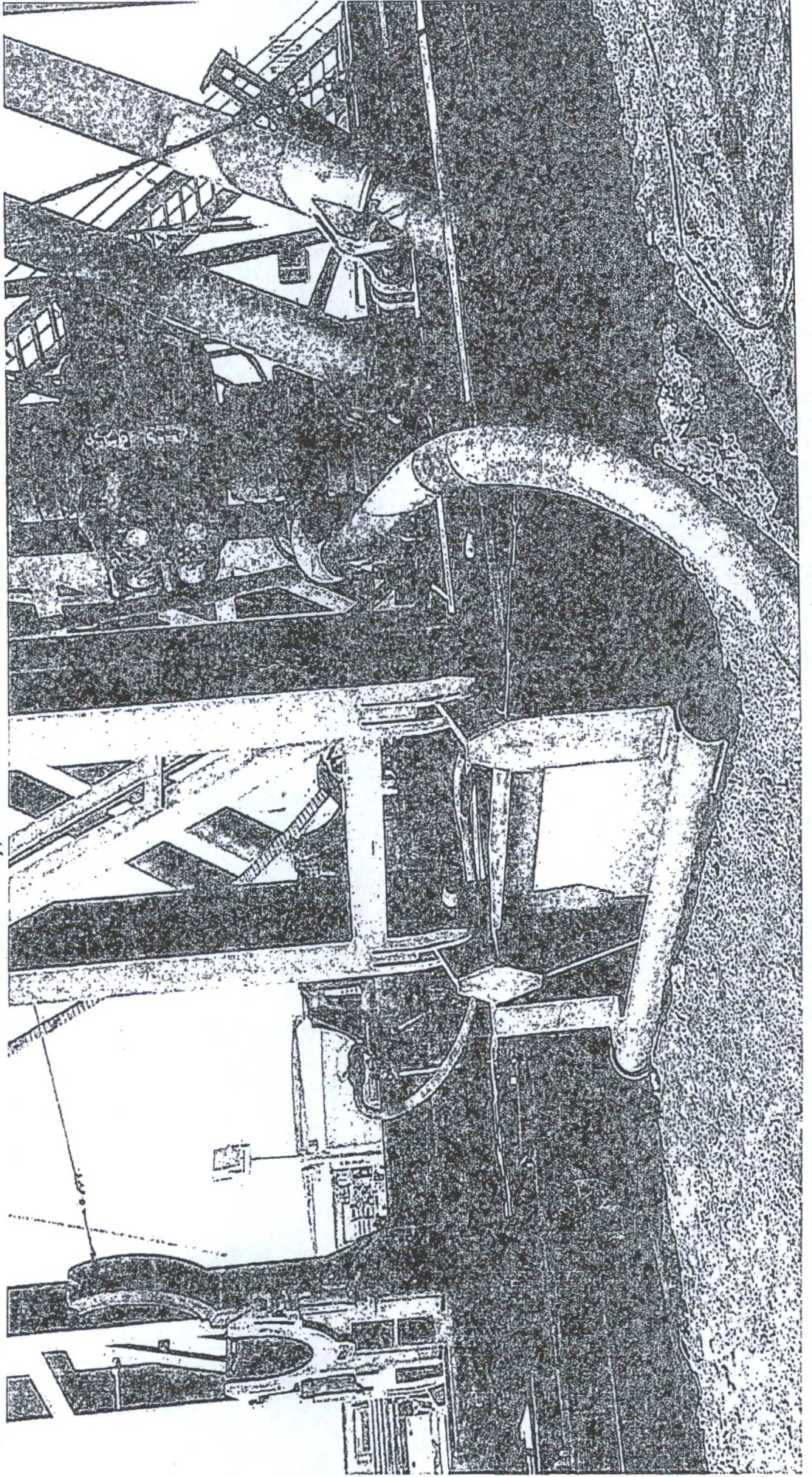


Exhibit F-1 - Co-Flex Hose Hydrostatic Test

Dos Equis 11 Federal Com 3

Cimarex Energy Co. of Colorado

11-24S-32E

SHL 330 FNL & 1980 FWL

BHL 330 FSL & 1980 FWL

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 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE 0 PSI	
COUPLINGS			
Stem Part No. OKC OKC		Ferrule No. OKC OKC	
Type of Coupling: Swage-It			
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
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 Smith</i>	Approved: <i>Levi H. H.</i>	

Exhibit F-1 – Co-Flex Hose Hydrostatic Test

Dos Equis 11 Federal Com 3

Cimarex Energy Co. of Colorado

11-24S-32E

SHL 330 FNL & 1980 FWL

BHL 330 FSL & 1980 FWL

Lea County, NM



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

Pick Ticket #: 94260

Hose Specifications:

Hose Type
C & K
I.D.
4"
Working Pressure
10000 PSI

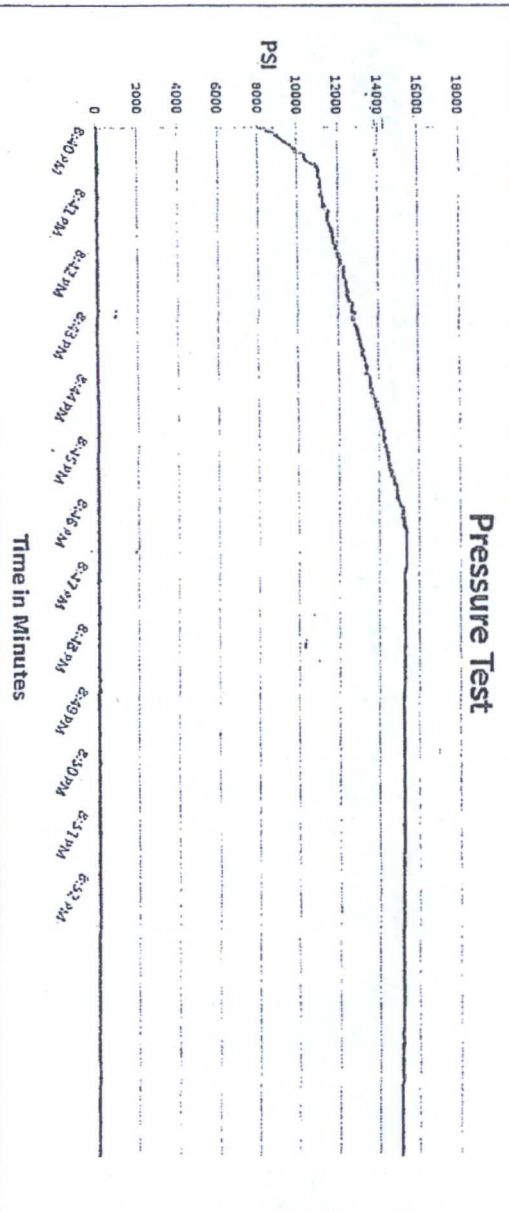
Length
45'
O.D.
6.09"
Burst Pressure
6.09"
Standard Safety Multiplier Applied

Verification

Type of Fittings
41/16 10K
Die Size
6.38"
Hose Serial #
5544

Coupling Method
Swage
Final O.D.
6.25"
Hose Assembly Serial #
79793

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
11 Minutes

Actual Burst Pressure

Peak Pressure
15483 PSI

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

Tested By: Zac McConnell

Approved By: Kim Thomas

[Signature]

[Signature]

Exhibit F-2 - Co-Flex Hose
Dos Equis 11 Federal Com 3
Cimarex Energy Co. of Colorado
11-24S-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
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 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:

David Garcia

Date:

3/8/2011



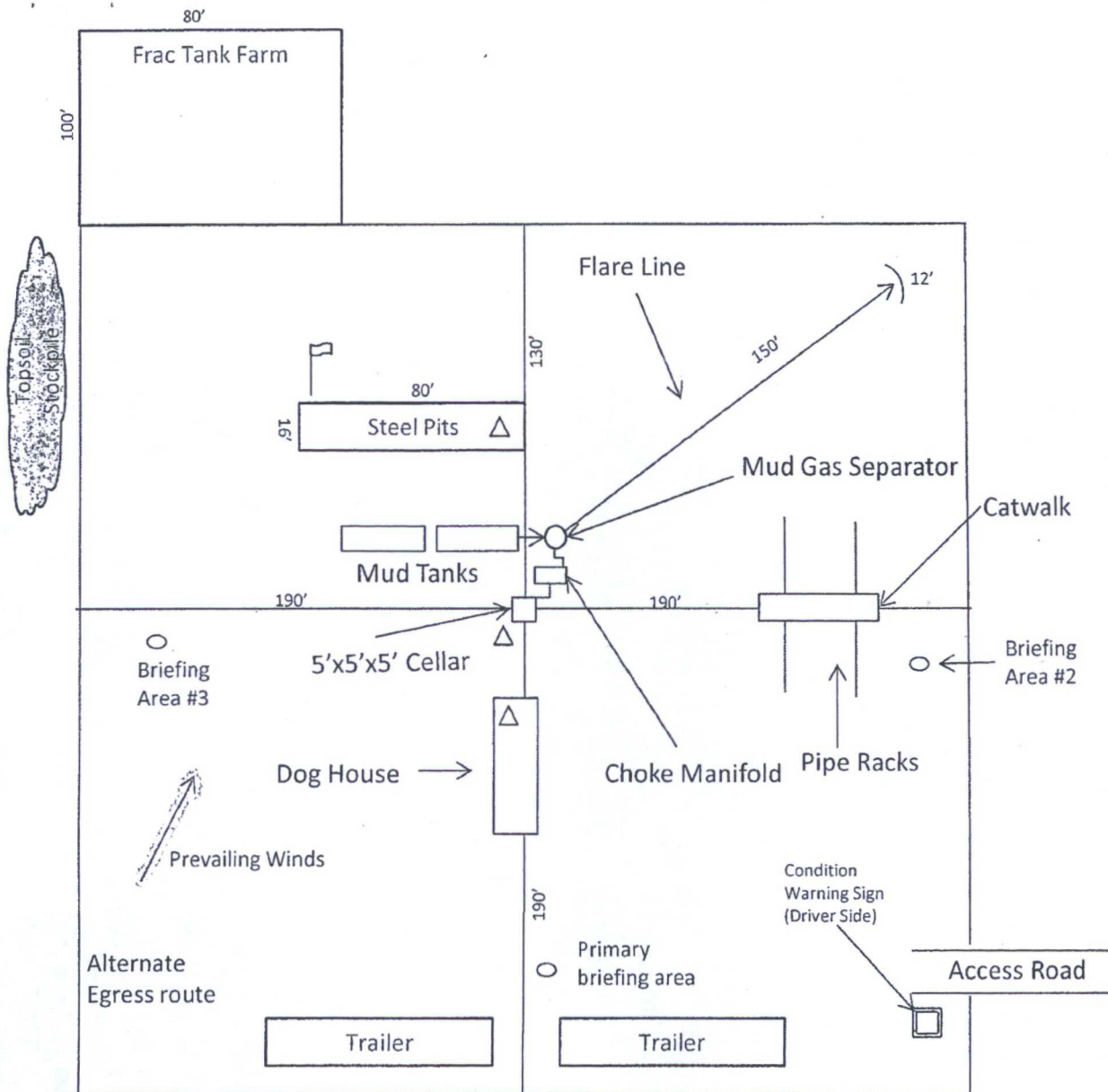
Midwest Hose
& Specialty, Inc.

Exhibit F -3- Co-Flex Hose
Dos Equis 11 Federal Com 3
Cimarex Energy Co. of Colorado
11-245-32E
SHL 330 FNL & 1980 FWL
BHL 330 FSL & 1980 FWL
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 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)



-  Wind Direction Indicators (wind sock or streamers)
- H2S Monitors
-  (alarms at bell nipple and shale shaker)
-  Briefing Areas



Exhibit D – Rig Diagram
Dos Equis 11 Federal Com 3
 Cimarex Energy Co. of Colorado
 11-24S-32E
 SHL 330 FNL & 1980 FWL
 BHL 330 FSL & 1980 FWL
 Lea County, NM

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

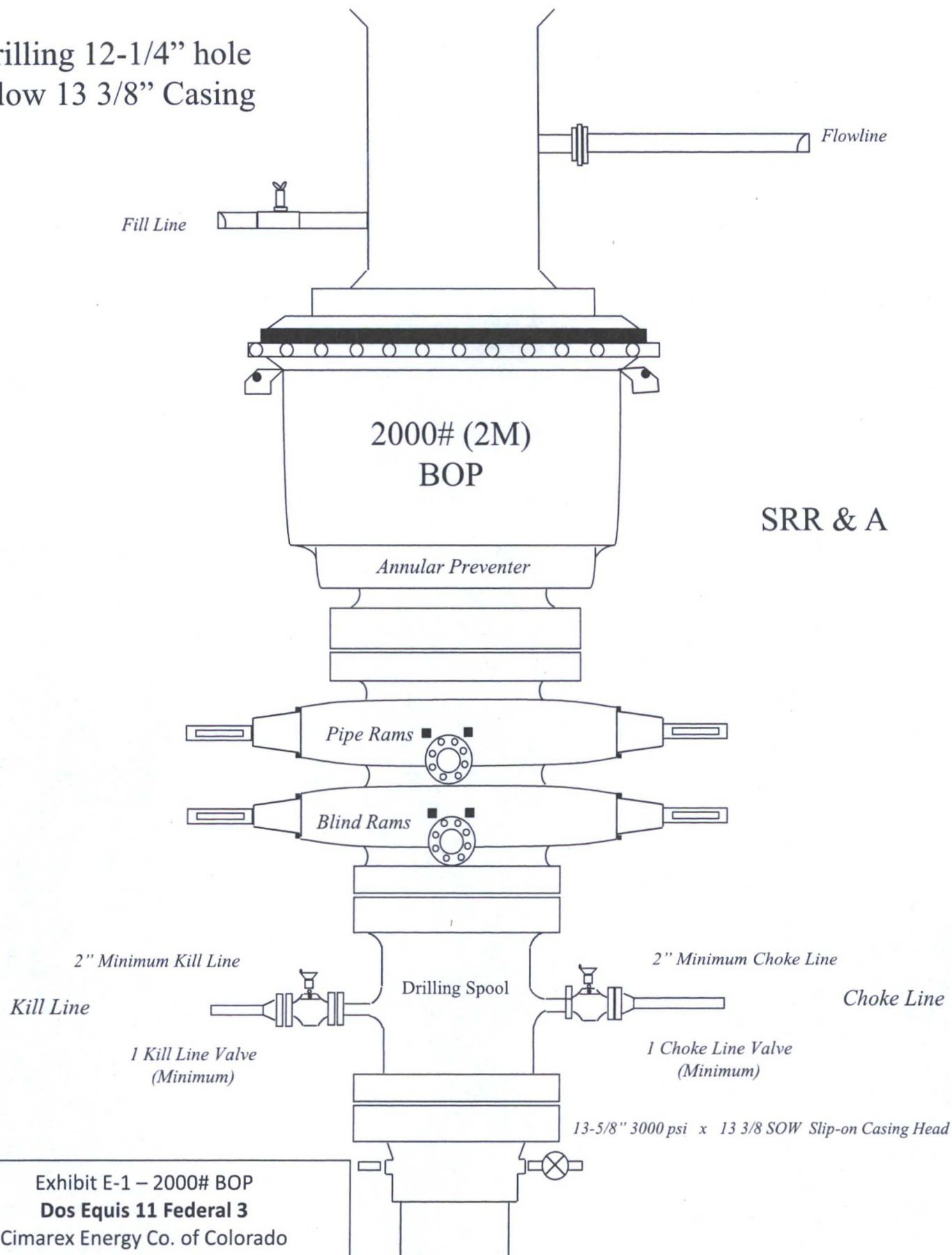


Exhibit E-1 – 2000# BOP
Dos Equis 11 Federal 3
Cimarex Energy Co. of Colorado
Lea County, NM

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

Fill Line

Flowline

3000# (3M)
BOP

Annular Preventer

SRR & A

Pipe Rams

Blind Rams

2" Minimum Kill Line

Kill Line

2 Valves Minimum
(including 1 check valve)

Drilling
Spool

3" minimum choke line

Choke Line

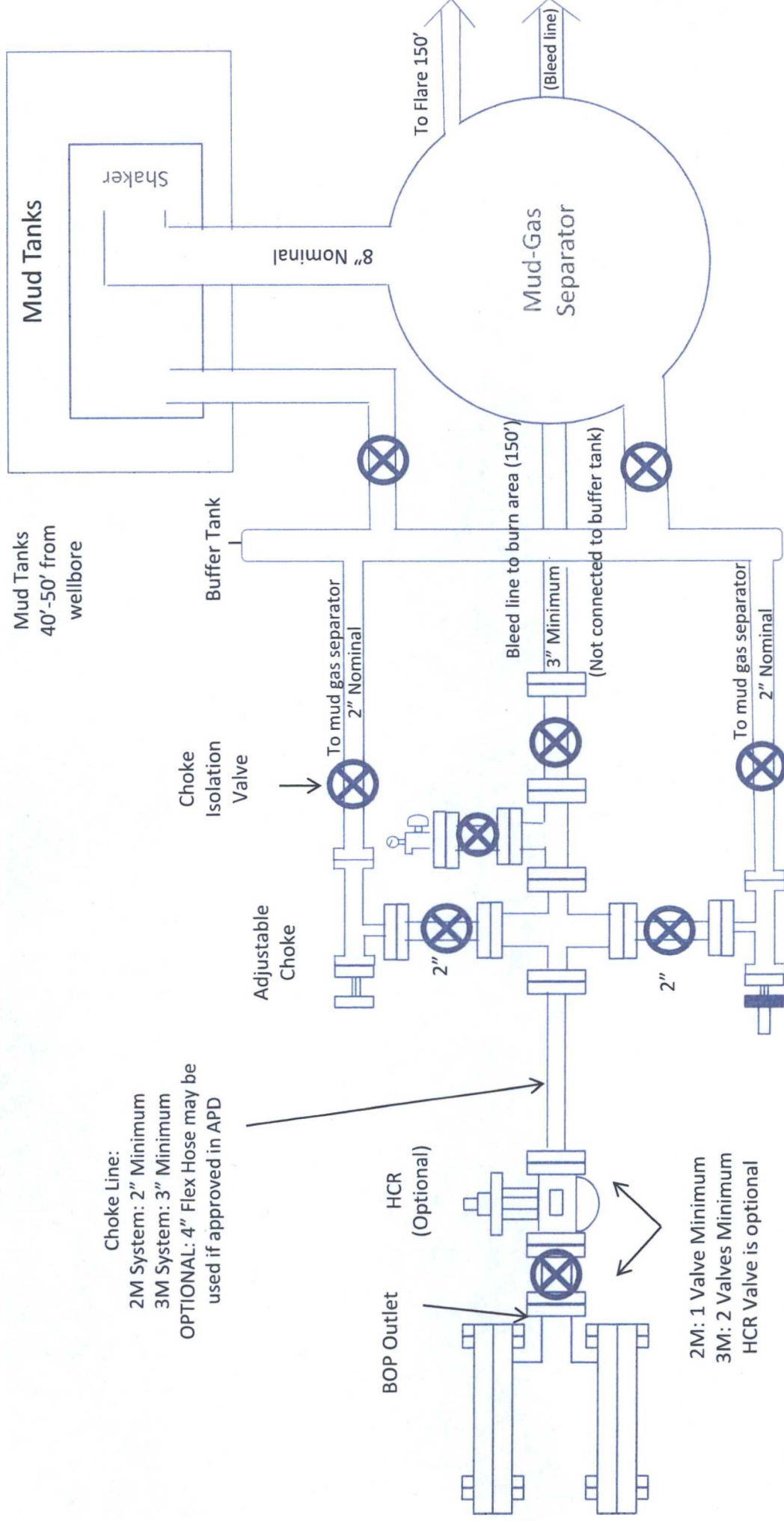
2 Valves Minimum

Wellhead
Assembly

13-5/8" 3000 psi x 11" 5000 psi
Wellhead Assembly

13-5/8" 3000#psi x 13-3/8" SOW Casing Head

Exhibit E-1 – 3000# BOP
Dos Equis 11 Federal 3
Cimarex Energy Co. of Colorado
Lea County, NM



Choke Line:
 2M System: 2" Minimum
 3M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be used if approved in APD

2M: 1 Valve Minimum
 3M: 2 Valves Minimum
 HCR Valve is optional

Drilling Operations Choke Manifold 2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
Dos Equis 11 Federal 3
 Cimarex Energy Co. of Colorado
 Lea County, NM

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CIMAREX ENERGY
LEASE NO.:	NM02889
WELL NAME & NO.:	3H-DOS EQUIS 11-14 FEDERAL COM
SURFACE HOLE FOOTAGE:	330' FNL & 1980' FWL
BOTTOM HOLE FOOTAGE:	330' FSL & 1980' FWL SEC 14
LOCATION:	Section 11, T.17 S., R.31 E., NMPM
COUNTY:	Lea County, New Mexico

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575)393-3612

1. A Hydrogen Sulfide (H₂S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital**

HOBBS OCD

JUN 20 2016

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copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least **8 hours**. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. **DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.**

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Risks:

Possibility of Water Flows in the Bone Spring, Castile, Delaware and Salado.

Possibility of Lost Circulation in the Rustler and Delaware.

H2S has been reported from multiple areas within one-mile from proposed project.

1. The 13 3/8 inch surface casing shall be set at approximately **1250 feet (below the Magenta Dolomite Aquifer, and if salt is encountered, set casing at least 25 feet above the salt)** and cemented to the surface.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9 5/8** inch intermediate casing which shall be set at approximately at **4900** feet is:
- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **5 1/2** inch production casing is:
- ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification **Additional cement may be required since excess was calculated to be 15%.**
4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. **In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).**
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi.**
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after

bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

CLN 061616