Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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.

HOBBS OCD

JUN 10 2019

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM110836

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
FEARLESS 26 FED COM 503H

2. Name of Operator
EOG RESOURCES INCORPORATED
Contact: EMILY FOLLIS
E-Mail: emily_follis@eogresources.com

9. API Well No.
30-025-45505-00-X1

3a. Address
PO BOX 2267
MIDLAND, TX 79702

3b. Phone No. (include area code)
Ph: 432-636-3600

10. Field and Pool or Exploratory Area
WC025G08S253235G-LWR BONE SPF

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 26 T25S R32E NWNE 378FNL 1696FEL
32.107693 N Lat, 103.642540 W Lon

11. County or Parish, State
LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomplete 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

EOG respectfully requests an amendment to our approved APD for this well to reflect changes in the HSU size and BHL. See attached

CHANGE BHL TO : 100 FSL & 1277 FEL

CHANGE HSU TO: 640 Acres

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Carlsbad Field Office
OCD Hobbs

REVISED FOR SERIAL NUMBER CORRECTION 05/08/19

All Previous COAs Still Apply, Except for the Following:

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

Electronic Submission #464623 verified by the BLM Well Information System
For EOG RESOURCES INCORPORATED, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/08/2019 (19PP1814SE)

Name *(Printed/Typed)* BEN HOCHER — Title ENGINEERING ASSOCIATE

Signature (Electronic Submission) — Date 05/08/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JEROMY PORTER — Title PETROLEUM ENGINEER — Date 05/10/2019

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.

(Instructions on page 2)

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

KG

Revisions to Operator-Submitted EC Data for Sundry Notice #464623

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM110836	NMNM110836
Agreement:		
Operator:	EOG RESOURCES INC PO BOX 2267 MIDLAND, TX 79702 Ph: 432-636-3600	EOG RESOURCES INCORPORATED PO BOX 2267 MIDLAND, TX 79702 Ph: 432.686.3689
Admin Contact:	EMILY FOLLIS SR REGULATORY ADMINISTRATOR E-Mail: emily_follis@eogresources.com Ph: 432.636.3600	EMILY FOLLIS SR REGULATORY ADMINISTRATOR E-Mail: emily_follis@eogresources.com Ph: 432-636-3600
Tech Contact:	BEN HOCHER ENGINEERING ASSOCIATE E-Mail: Ben_Hocher@eogresources.com Ph: 432-686-3623	BEN HOCHER ENGINEERING ASSOCIATE E-Mail: ben_hocher@eogresources.com Ph: 432-686-3623
Location: State: County:	 NM LEA COUNTY	 NM LEA
Field/Pool:	97903 LOWER BONE SPRING	WC025G08S253235G-LWR BONE SPR
Well/Facility:	FEARLESS 26 FED COM 503H Sec 26 T25S R32E 378FNL 1696FEL	FEARLESS 26 FED COM 503H Sec 26 T25S R32E NWNE 378FNL 1696FEL 32.107693 N Lat, 103.642540 W Lon

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ **AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1]API Number	[2]Pool Code	[3]Pool Name
30-025-45505	[97903	WC-025 G-08 S253235G; LWR BONE SPRIN

[4]Property Code	[5]Property Name	[6]Well Number
324860	FEARLESS 26 FED COM	503H

[7]OGRID No.	[8]Operator Name	[9]Elevation
7377	EOG RESOURCES, INC.	3401'

[10]Surface Location

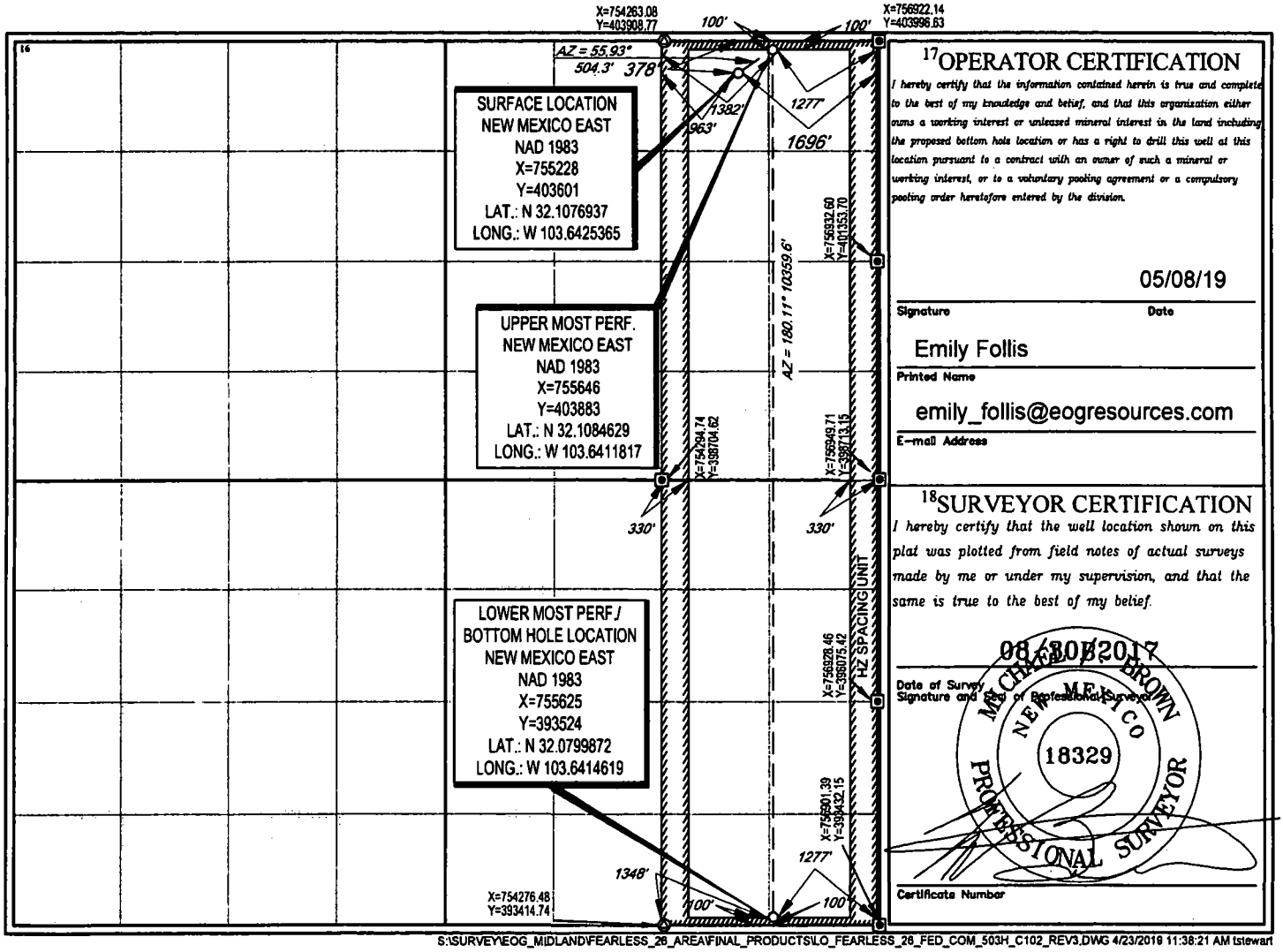
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	26	25-S	32-E	-	378'	NORTH	1696'	EAST	LEA

[11]Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	35	25-S	32-E	-	100'	SOUTH	1277'	EAST	LEA

[12]Dedicated Acres	[13]Joint or Infill	[14]Consolidation Code	[15]Order No.
640.00			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



[16]

[17]OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

05/08/19
Signature Date

Emily Follis
Printed Name

emily_follis@eogresources.com
E-mail Address

[18]SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

08/30/2017
Date of Survey
Signature and Seal of Professional Surveyor

MICHAEL BROWN
NEW MEXICO
18329
PROFESSIONAL SURVEYOR

Certificate Number

S:\SURVEY\EOG_MIDLAND\FEARLESS_26_AREA\FINAL_PRODUCTS\LO_FEARLESS_26_FED_COM_503H_C102_REV3.DWG 4/23/2018 11:38:21 AM tstewart

Revised Permit Information 4/24/2019:

Well Name: Fearless 26 Fed Com #503H

Location:

SHL: 378' FNL & 1696' FEL, Section 26, T-25-S, R-32-E, Lea Co., N.M.
BHL: 100' FSL & 1277' FEL, Section 35, T-25-S, R-32-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
17.5"	0 – 750'	13.375"	54.5#	J-55	STC	1.125	1.25	1.60
12.25"	0 – 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
12.25"	4,000' – 4,600'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.60
8.75"	0' – 21,071'	5.5"	20#	P-110 EC	DWC/C-IS MS	1.125	1.25	1.60

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft^3/sk	Slurry Description
750' 13-3/8"	400	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% $CaCl_2$ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	160	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 550')
4,600' 9-5/8"	710	12.7	2.30	Lead: Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
	350	14.2	1.11	Tail: Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 3,680')
21,071' 5-1/2"	600	10.8	3.4	Lead: Class C + 5% NaCl + 3% Micrbond (TOC @ 4,100')
	2,580	14.2	1.31	Tail: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,390')

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 750'	Fresh - Gel	8.6-8.8	28-34	N/c
750' – 4,600'	Brine	10.0-10.2	28-34	N/c
4,600' – 10,390'	Oil Base	8.7-9.4	58-68	N/c - 6
10,390' – 21,071' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

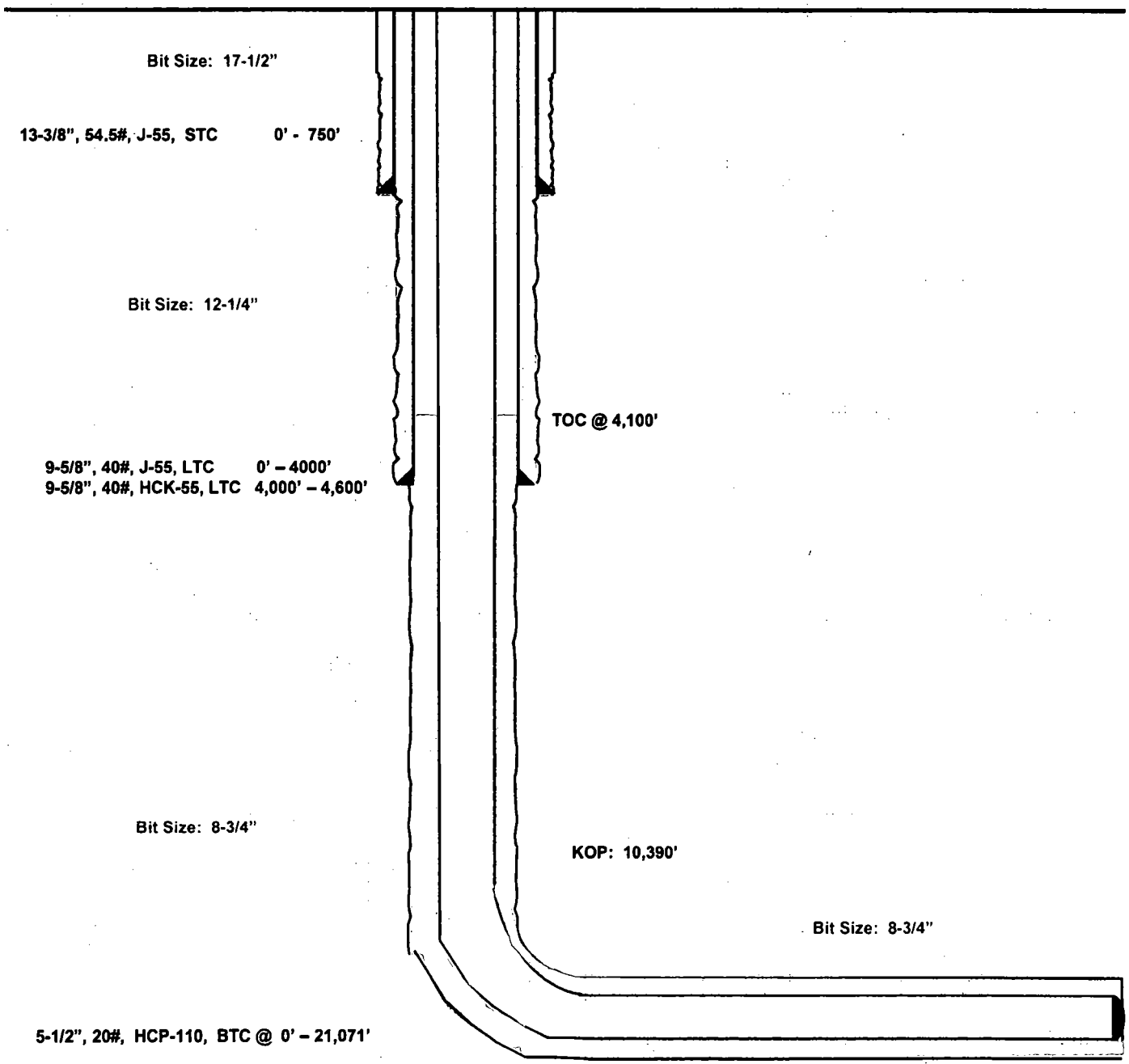
Fearless 26 Fed Com #503H

Lea County, New Mexico
Revised Wellbore 4/24/2019

API: 30-025-45505

378' FNL
1696' FEL
Section 26
T-25-S, R-32-E

KB: 3,426'
GL: 3,401'



Lateral: 21,071' MD, 10,852' TVD
Upper Most Perf:
100' FNL & 1277' FEL Sec. 26
Lower Most Perf:
100' FSL & 1277' FEL Sec. 35
BH Location: 100' FSL & 1277' FEL
Section 35
T-25-S, R-32-E

TECHNICAL SPECIFICATIONS

These specifications are furnished for general information only and are not intended for design purposes. This information is preliminary and may change subject to a final design by VAM-USA Engineering. This is not a controlled document.

DWC/C-IS MS **Casing** **5.500" O.D.** **20.00 lb./ft.** **VST P-110EC**

standard

		Material
VST P-110EC		Grade
125,000		Minimum Yield Strength (psi.)
135,000		Minimum Ultimate Strength (psi.)
		Pipe Dimensions
5.500		Nominal Pipe Body OD (in.)
4.778		Nominal Pipe Body ID (in.)
0.361		Nominal Wall Thickness (in.)
20.00		Nominal Weight (lbs./ft.)
19.83		Plain End Weight (lbs./ft.)
5.828		Nominal Pipe Body Area (sq. in.)
		Pipe Body Performance Properties
729,000		Minimum Pipe Body Yield Strength (lbs.)
12,090		Minimum Collapse Pressure (psi.)
14,360		Minimum Internal Yield Pressure (psi.)
13,100		Hydrostatic Test Pressure (psi.)
		Connection Dimensions
6.115		Connection OD (in.)
4.778		Connection ID (in.)
4.653		Connection Drift Diameter (in.)
4.13		Make-up Loss (in.)
5.828		Critical Area (sq. in.)
100.0		Joint Efficiency (%)
		Connection Performance Properties
729,000	(1)	Joint Strength (lbs.)
26,040	(2)	Reference String Length (ft.) 1.4 Design Factor
728,000	(3)	API Joint Strength (lbs.)
729,000		Compression Rating (lbs.)
12,090		API Collapse Pressure Rating (psi.)
14,360	(4)	API Internal Pressure Resistance (psi.)
104.2		Maximum Uniaxial Bend Rating (degrees/100 ft.)
		Approximated Field End Torque Values
16,600	(5)	Minimum Final Torque (ft.-lbs.)
19,100	(5)	Maximum Final Torque (ft.-lbs.)
21,600	(6)	Connection Yield Torque (ft.-lbs.)

VAM-USA
4424 W. Sam Houston Pkwy, Suite 150
Houston, TX 77041
Phone: (713) 479-3200
Fax: (713) 479-3234
E-mail: VAMUSAsales@na.vallourec.com

(1) Joint Strength is the minimum pipe body yield strength multiplied by the connection critical area.
(2) Reference String Length is the joint strength divided by both the weight in air and the design factor.
(3) API Joint Strength is for reference only. It is calculated from Formulas 42 and 43 in the API Bulletin 5C3.
(4) API Internal Pressure Resistance is calculated from Formulas 31, 32, and 35 in the API Bulletin 5C3.
(5) Torque values are approximated and may be affected by field conditions.
(6) Connection yield torque is not to be exceeded.

Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades v obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advi to obtain current connection specifications and verify pipe mechanical properties for each application.

eog resources

EOG Resources - Midland

Lea County, NM (NAD 83 NME)
Fearless 26 Fed Com
#503H

OH

Plan: Plan #0.2

Standard Planning Report

02 May, 2019

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3426.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Fearless 26 Fed Com				
Site Position:		**Northing:**	403,601.00 usft	**Latitude:**	32° 6' 27.700 N
From:	Map	**Easting:**	755,228.00 usft	**Longitude:**	103° 38' 33.130 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well	#503H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	403,601.00 usft	**Latitude:**	32° 6' 27.700 N
	+E/-W	0.0 usft	**Easting:**	755,228.00 usft	**Longitude:**	103° 38' 33.130 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,401.0 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	9/27/2017	6.95	59.94	47,832.93868313

Design	Plan #0.2				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	177.74	

Plan Survey Tool Program **Date** 5/2/2019

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	21,071.4	Plan #0.2 (OH)	MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,165.9	3.32	51.54	1,165.8	3.0	3.8	2.00	2.00	0.00	51.54	
10,224.0	3.32	51.54	10,208.7	329.0	414.2	0.00	0.00	0.00	0.00	
10,389.9	0.00	0.00	10,374.5	332.0	418.0	2.00	-2.00	0.00	180.00	KOP (Fearless 26 Fe
11,139.9	90.00	180.12	10,852.0	-145.5	417.0	12.00	12.00	-23.98	180.12	
21,071.4	90.00	180.12	10,852.0	-10,077.0	397.0	0.00	0.00	0.00	0.00	PBHL (Fearless 26 Fe

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3426.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	2.00	51.54	1,100.0	1.1	1.4	-1.0	2.00	2.00	0.00
1,165.9	3.32	51.54	1,165.8	3.0	3.8	-2.8	2.00	2.00	0.00
1,200.0	3.32	51.54	1,199.9	4.2	5.3	-4.0	0.00	0.00	0.00
1,300.0	3.32	51.54	1,299.7	7.8	9.8	-7.4	0.00	0.00	0.00
1,400.0	3.32	51.54	1,399.5	11.4	14.4	-10.8	0.00	0.00	0.00
1,500.0	3.32	51.54	1,499.3	15.0	18.9	-14.3	0.00	0.00	0.00
1,600.0	3.32	51.54	1,599.2	18.6	23.4	-17.7	0.00	0.00	0.00
1,700.0	3.32	51.54	1,699.0	22.2	28.0	-21.1	0.00	0.00	0.00
1,800.0	3.32	51.54	1,798.8	25.8	32.5	-24.5	0.00	0.00	0.00
1,900.0	3.32	51.54	1,898.7	29.4	37.0	-27.9	0.00	0.00	0.00
2,000.0	3.32	51.54	1,998.5	33.0	41.6	-31.3	0.00	0.00	0.00
2,100.0	3.32	51.54	2,098.3	36.6	46.1	-34.8	0.00	0.00	0.00
2,200.0	3.32	51.54	2,198.2	40.2	50.6	-38.2	0.00	0.00	0.00
2,300.0	3.32	51.54	2,298.0	43.8	55.2	-41.6	0.00	0.00	0.00
2,400.0	3.32	51.54	2,397.8	47.4	59.7	-45.0	0.00	0.00	0.00
2,500.0	3.32	51.54	2,497.7	51.0	64.2	-48.4	0.00	0.00	0.00
2,600.0	3.32	51.54	2,597.5	54.6	68.7	-51.9	0.00	0.00	0.00
2,700.0	3.32	51.54	2,697.3	58.2	73.3	-55.3	0.00	0.00	0.00
2,800.0	3.32	51.54	2,797.2	61.8	77.8	-58.7	0.00	0.00	0.00
2,900.0	3.32	51.54	2,897.0	65.4	82.3	-62.1	0.00	0.00	0.00
3,000.0	3.32	51.54	2,996.8	69.0	86.9	-65.5	0.00	0.00	0.00
3,100.0	3.32	51.54	3,096.7	72.6	91.4	-68.9	0.00	0.00	0.00
3,200.0	3.32	51.54	3,196.5	76.2	95.9	-72.4	0.00	0.00	0.00
3,300.0	3.32	51.54	3,296.3	79.8	100.5	-75.8	0.00	0.00	0.00
3,400.0	3.32	51.54	3,396.2	83.4	105.0	-79.2	0.00	0.00	0.00
3,500.0	3.32	51.54	3,496.0	87.0	109.5	-82.6	0.00	0.00	0.00
3,600.0	3.32	51.54	3,595.8	90.6	114.1	-86.0	0.00	0.00	0.00
3,700.0	3.32	51.54	3,695.7	94.2	118.6	-89.5	0.00	0.00	0.00
3,800.0	3.32	51.54	3,795.5	97.8	123.1	-92.9	0.00	0.00	0.00
3,900.0	3.32	51.54	3,895.3	101.4	127.7	-96.3	0.00	0.00	0.00
4,000.0	3.32	51.54	3,995.2	105.0	132.2	-99.7	0.00	0.00	0.00
4,100.0	3.32	51.54	4,095.0	108.6	136.7	-103.1	0.00	0.00	0.00
4,200.0	3.32	51.54	4,194.8	112.2	141.3	-106.5	0.00	0.00	0.00
4,300.0	3.32	51.54	4,294.7	115.8	145.8	-110.0	0.00	0.00	0.00
4,400.0	3.32	51.54	4,394.5	119.4	150.3	-113.4	0.00	0.00	0.00
4,500.0	3.32	51.54	4,494.3	123.0	154.8	-116.8	0.00	0.00	0.00
4,600.0	3.32	51.54	4,594.2	126.6	159.4	-120.2	0.00	0.00	0.00
4,700.0	3.32	51.54	4,694.0	130.2	163.9	-123.6	0.00	0.00	0.00
4,800.0	3.32	51.54	4,793.8	133.8	168.4	-127.1	0.00	0.00	0.00
4,900.0	3.32	51.54	4,893.6	137.4	173.0	-130.5	0.00	0.00	0.00
5,000.0	3.32	51.54	4,993.5	141.0	177.5	-133.9	0.00	0.00	0.00
5,100.0	3.32	51.54	5,093.3	144.6	182.0	-137.3	0.00	0.00	0.00
5,200.0	3.32	51.54	5,193.1	148.2	186.6	-140.7	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3426.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	3.32	51.54	5,293.0	151.8	191.1	-144.1	0.00	0.00	0.00
5,400.0	3.32	51.54	5,392.8	155.4	195.6	-147.6	0.00	0.00	0.00
5,500.0	3.32	51.54	5,492.6	159.0	200.2	-151.0	0.00	0.00	0.00
5,600.0	3.32	51.54	5,592.5	162.6	204.7	-154.4	0.00	0.00	0.00
5,700.0	3.32	51.54	5,692.3	166.2	209.2	-157.8	0.00	0.00	0.00
5,800.0	3.32	51.54	5,792.1	169.8	213.8	-161.2	0.00	0.00	0.00
5,900.0	3.32	51.54	5,892.0	173.4	218.3	-164.7	0.00	0.00	0.00
6,000.0	3.32	51.54	5,991.8	177.0	222.8	-168.1	0.00	0.00	0.00
6,100.0	3.32	51.54	6,091.6	180.6	227.4	-171.5	0.00	0.00	0.00
6,200.0	3.32	51.54	6,191.5	184.2	231.9	-174.9	0.00	0.00	0.00
6,300.0	3.32	51.54	6,291.3	187.8	236.4	-178.3	0.00	0.00	0.00
6,400.0	3.32	51.54	6,391.1	191.4	241.0	-181.7	0.00	0.00	0.00
6,500.0	3.32	51.54	6,491.0	195.0	245.5	-185.2	0.00	0.00	0.00
6,600.0	3.32	51.54	6,590.8	198.6	250.0	-188.6	0.00	0.00	0.00
6,700.0	3.32	51.54	6,690.6	202.2	254.5	-192.0	0.00	0.00	0.00
6,800.0	3.32	51.54	6,790.5	205.8	259.1	-195.4	0.00	0.00	0.00
6,900.0	3.32	51.54	6,890.3	209.4	263.6	-198.8	0.00	0.00	0.00
7,000.0	3.32	51.54	6,990.1	213.0	268.1	-202.3	0.00	0.00	0.00
7,100.0	3.32	51.54	7,090.0	216.6	272.7	-205.7	0.00	0.00	0.00
7,200.0	3.32	51.54	7,189.8	220.2	277.2	-209.1	0.00	0.00	0.00
7,300.0	3.32	51.54	7,289.6	223.8	281.7	-212.5	0.00	0.00	0.00
7,400.0	3.32	51.54	7,389.5	227.4	286.3	-215.9	0.00	0.00	0.00
7,500.0	3.32	51.54	7,489.3	231.0	290.8	-219.3	0.00	0.00	0.00
7,600.0	3.32	51.54	7,589.1	234.6	295.3	-222.8	0.00	0.00	0.00
7,700.0	3.32	51.54	7,689.0	238.2	299.9	-226.2	0.00	0.00	0.00
7,800.0	3.32	51.54	7,788.8	241.8	304.4	-229.6	0.00	0.00	0.00
7,900.0	3.32	51.54	7,888.6	245.4	308.9	-233.0	0.00	0.00	0.00
8,000.0	3.32	51.54	7,988.5	249.0	313.5	-236.4	0.00	0.00	0.00
8,100.0	3.32	51.54	8,088.3	252.6	318.0	-239.9	0.00	0.00	0.00
8,200.0	3.32	51.54	8,188.1	256.2	322.5	-243.3	0.00	0.00	0.00
8,300.0	3.32	51.54	8,288.0	259.8	327.1	-246.7	0.00	0.00	0.00
8,400.0	3.32	51.54	8,387.8	263.4	331.6	-250.1	0.00	0.00	0.00
8,500.0	3.32	51.54	8,487.6	267.0	336.1	-253.5	0.00	0.00	0.00
8,600.0	3.32	51.54	8,587.4	270.6	340.6	-256.9	0.00	0.00	0.00
8,700.0	3.32	51.54	8,687.3	274.2	345.2	-260.4	0.00	0.00	0.00
8,800.0	3.32	51.54	8,787.1	277.8	349.7	-263.8	0.00	0.00	0.00
8,900.0	3.32	51.54	8,886.9	281.4	354.2	-267.2	0.00	0.00	0.00
9,000.0	3.32	51.54	8,986.8	285.0	358.8	-270.6	0.00	0.00	0.00
9,100.0	3.32	51.54	9,086.6	288.6	363.3	-274.0	0.00	0.00	0.00
9,200.0	3.32	51.54	9,186.4	292.2	367.8	-277.5	0.00	0.00	0.00
9,300.0	3.32	51.54	9,286.3	295.8	372.4	-280.9	0.00	0.00	0.00
9,400.0	3.32	51.54	9,386.1	299.4	376.9	-284.3	0.00	0.00	0.00
9,500.0	3.32	51.54	9,485.9	303.0	381.4	-287.7	0.00	0.00	0.00
9,600.0	3.32	51.54	9,585.8	306.6	386.0	-291.1	0.00	0.00	0.00
9,700.0	3.32	51.54	9,685.6	310.2	390.5	-294.5	0.00	0.00	0.00
9,800.0	3.32	51.54	9,785.4	313.8	395.0	-298.0	0.00	0.00	0.00
9,900.0	3.32	51.54	9,885.3	317.4	399.6	-301.4	0.00	0.00	0.00
10,000.0	3.32	51.54	9,985.1	321.0	404.1	-304.8	0.00	0.00	0.00
10,100.0	3.32	51.54	10,084.9	324.6	408.6	-308.2	0.00	0.00	0.00
10,200.0	3.32	51.54	10,184.8	328.2	413.2	-311.6	0.00	0.00	0.00
10,224.0	3.32	51.54	10,208.7	329.0	414.2	-312.5	0.00	0.00	0.00
10,300.0	1.80	51.54	10,284.6	331.1	416.9	-314.5	2.00	-2.00	0.00
10,389.9	0.00	0.00	10,374.5	332.0	418.0	-315.3	2.00	-2.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3426.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
KOP (Fearless 26 Fed Com #503H)									
10,400.0	1.22	180.12	10,384.6	331.9	418.0	-315.2	12.00	12.00	0.00
10,425.0	4.22	180.12	10,409.6	330.7	418.0	-314.0	12.00	12.00	0.00
10,450.0	7.22	180.12	10,434.5	328.2	418.0	-311.5	12.00	12.00	0.00
10,475.0	10.22	180.12	10,459.2	324.4	418.0	-307.7	12.00	12.00	0.00
10,500.0	13.22	180.12	10,483.7	319.4	418.0	-302.7	12.00	12.00	0.00
10,525.0	16.22	180.12	10,507.8	313.0	418.0	-296.3	12.00	12.00	0.00
10,550.0	19.22	180.12	10,531.6	305.4	417.9	-288.7	12.00	12.00	0.00
10,575.0	22.22	180.12	10,555.0	296.6	417.9	-279.9	12.00	12.00	0.00
10,600.0	25.22	180.12	10,577.9	286.5	417.9	-269.8	12.00	12.00	0.00
10,625.0	28.22	180.12	10,600.2	275.3	417.9	-258.6	12.00	12.00	0.00
10,650.0	31.22	180.12	10,622.0	262.9	417.9	-246.2	12.00	12.00	0.00
10,675.0	34.22	180.12	10,643.0	249.4	417.8	-232.7	12.00	12.00	0.00
10,700.0	37.22	180.12	10,663.3	234.8	417.8	-218.1	12.00	12.00	0.00
10,725.0	40.22	180.12	10,682.8	219.1	417.8	-202.5	12.00	12.00	0.00
10,750.0	43.22	180.12	10,701.4	202.5	417.7	-185.9	12.00	12.00	0.00
10,775.0	46.22	180.12	10,719.2	184.9	417.7	-168.3	12.00	12.00	0.00
10,792.5	48.32	180.12	10,731.1	172.1	417.7	-155.5	12.00	12.00	0.00
FTP (Fearless 26 Fed Com #503H)									
10,800.0	49.22	180.12	10,736.0	166.4	417.7	-149.8	12.00	12.00	0.00
10,825.0	52.22	180.12	10,751.9	147.1	417.6	-130.5	12.00	12.00	0.00
10,850.0	55.22	180.12	10,766.6	126.9	417.6	-110.4	12.00	12.00	0.00
10,875.0	58.22	180.12	10,780.4	106.0	417.5	-89.5	12.00	12.00	0.00
10,900.0	61.22	180.12	10,793.0	84.4	417.5	-67.9	12.00	12.00	0.00
10,925.0	64.22	180.12	10,804.4	62.2	417.5	-45.7	12.00	12.00	0.00
10,950.0	67.22	180.12	10,814.7	39.4	417.4	-23.0	12.00	12.00	0.00
10,975.0	70.22	180.12	10,823.8	16.1	417.4	0.3	12.00	12.00	0.00
11,000.0	73.22	180.12	10,831.6	-7.6	417.3	24.0	12.00	12.00	0.00
11,025.0	76.22	180.12	10,838.2	-31.7	417.3	48.1	12.00	12.00	0.00
11,050.0	79.22	180.12	10,843.5	-56.1	417.2	72.5	12.00	12.00	0.00
11,075.0	82.22	180.12	10,847.6	-80.8	417.2	97.2	12.00	12.00	0.00
11,100.0	85.22	180.12	10,850.3	-105.6	417.1	122.0	12.00	12.00	0.00
11,125.0	88.22	180.12	10,851.7	-130.6	417.1	146.9	12.00	12.00	0.00
11,139.9	90.00	180.12	10,852.0	-145.5	417.0	161.8	12.00	12.00	0.00
11,200.0	90.00	180.12	10,852.0	-205.6	416.9	221.9	0.00	0.00	0.00
11,300.0	90.00	180.12	10,852.0	-305.6	416.7	321.8	0.00	0.00	0.00
11,400.0	90.00	180.12	10,852.0	-405.6	416.5	421.7	0.00	0.00	0.00
11,500.0	90.00	180.12	10,852.0	-505.6	416.3	521.6	0.00	0.00	0.00
11,600.0	90.00	180.12	10,852.0	-605.6	416.1	621.5	0.00	0.00	0.00
11,700.0	90.00	180.12	10,852.0	-705.6	415.9	721.4	0.00	0.00	0.00
11,800.0	90.00	180.12	10,852.0	-805.6	415.7	821.3	0.00	0.00	0.00
11,900.0	90.00	180.12	10,852.0	-905.6	415.5	921.3	0.00	0.00	0.00
12,000.0	90.00	180.12	10,852.0	-1,005.6	415.3	1,021.2	0.00	0.00	0.00
12,100.0	90.00	180.12	10,852.0	-1,105.6	415.1	1,121.1	0.00	0.00	0.00
12,200.0	90.00	180.12	10,852.0	-1,205.6	414.9	1,221.0	0.00	0.00	0.00
12,300.0	90.00	180.12	10,852.0	-1,305.6	414.7	1,320.9	0.00	0.00	0.00
12,400.0	90.00	180.12	10,852.0	-1,405.6	414.5	1,420.8	0.00	0.00	0.00
12,500.0	90.00	180.12	10,852.0	-1,505.6	414.3	1,520.7	0.00	0.00	0.00
12,600.0	90.00	180.12	10,852.0	-1,605.6	414.1	1,620.7	0.00	0.00	0.00
12,700.0	90.00	180.12	10,852.0	-1,705.6	413.9	1,720.6	0.00	0.00	0.00
12,800.0	90.00	180.12	10,852.0	-1,805.6	413.7	1,820.5	0.00	0.00	0.00
12,900.0	90.00	180.12	10,852.0	-1,905.6	413.5	1,920.4	0.00	0.00	0.00
13,000.0	90.00	180.12	10,852.0	-2,005.6	413.3	2,020.3	0.00	0.00	0.00
13,100.0	90.00	180.12	10,852.0	-2,105.6	413.1	2,120.2	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3426.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.0	90.00	180.12	10,852.0	-2,205.6	412.9	2,220.1	0.00	0.00	0.00
13,300.0	90.00	180.12	10,852.0	-2,305.6	412.7	2,320.1	0.00	0.00	0.00
13,400.0	90.00	180.12	10,852.0	-2,405.6	412.5	2,420.0	0.00	0.00	0.00
13,500.0	90.00	180.12	10,852.0	-2,505.6	412.3	2,519.9	0.00	0.00	0.00
13,600.0	90.00	180.12	10,852.0	-2,605.6	412.1	2,619.8	0.00	0.00	0.00
13,700.0	90.00	180.12	10,852.0	-2,705.6	411.9	2,719.7	0.00	0.00	0.00
13,800.0	90.00	180.12	10,852.0	-2,805.6	411.7	2,819.6	0.00	0.00	0.00
13,900.0	90.00	180.12	10,852.0	-2,905.6	411.5	2,919.5	0.00	0.00	0.00
14,000.0	90.00	180.12	10,852.0	-3,005.6	411.3	3,019.5	0.00	0.00	0.00
14,100.0	90.00	180.12	10,852.0	-3,105.6	411.1	3,119.4	0.00	0.00	0.00
14,200.0	90.00	180.12	10,852.0	-3,205.6	410.9	3,219.3	0.00	0.00	0.00
14,300.0	90.00	180.12	10,852.0	-3,305.6	410.7	3,319.2	0.00	0.00	0.00
14,400.0	90.00	180.12	10,852.0	-3,405.6	410.5	3,419.1	0.00	0.00	0.00
14,500.0	90.00	180.12	10,852.0	-3,505.6	410.3	3,519.0	0.00	0.00	0.00
14,600.0	90.00	180.12	10,852.0	-3,605.6	410.1	3,618.9	0.00	0.00	0.00
14,700.0	90.00	180.12	10,852.0	-3,705.6	409.9	3,718.9	0.00	0.00	0.00
14,800.0	90.00	180.12	10,852.0	-3,805.6	409.7	3,818.8	0.00	0.00	0.00
14,900.0	90.00	180.12	10,852.0	-3,905.6	409.5	3,918.7	0.00	0.00	0.00
15,000.0	90.00	180.12	10,852.0	-4,005.6	409.2	4,018.6	0.00	0.00	0.00
15,100.0	90.00	180.12	10,852.0	-4,105.6	409.0	4,118.5	0.00	0.00	0.00
15,200.0	90.00	180.12	10,852.0	-4,205.6	408.8	4,218.4	0.00	0.00	0.00
15,300.0	90.00	180.12	10,852.0	-4,305.6	408.6	4,318.3	0.00	0.00	0.00
15,400.0	90.00	180.12	10,852.0	-4,405.6	408.4	4,418.3	0.00	0.00	0.00
15,500.0	90.00	180.12	10,852.0	-4,505.6	408.2	4,518.2	0.00	0.00	0.00
15,600.0	90.00	180.12	10,852.0	-4,605.6	408.0	4,618.1	0.00	0.00	0.00
15,700.0	90.00	180.12	10,852.0	-4,705.6	407.8	4,718.0	0.00	0.00	0.00
15,800.0	90.00	180.12	10,852.0	-4,805.6	407.6	4,817.9	0.00	0.00	0.00
15,900.0	90.00	180.12	10,852.0	-4,905.6	407.4	4,917.8	0.00	0.00	0.00
16,000.0	90.00	180.12	10,852.0	-5,005.6	407.2	5,017.7	0.00	0.00	0.00
16,100.0	90.00	180.12	10,852.0	-5,105.6	407.0	5,117.7	0.00	0.00	0.00
16,200.0	90.00	180.12	10,852.0	-5,205.6	406.8	5,217.6	0.00	0.00	0.00
16,300.0	90.00	180.12	10,852.0	-5,305.6	406.6	5,317.5	0.00	0.00	0.00
16,400.0	90.00	180.12	10,852.0	-5,405.6	406.4	5,417.4	0.00	0.00	0.00
16,500.0	90.00	180.12	10,852.0	-5,505.6	406.2	5,517.3	0.00	0.00	0.00
16,600.0	90.00	180.12	10,852.0	-5,605.6	406.0	5,617.2	0.00	0.00	0.00
16,700.0	90.00	180.12	10,852.0	-5,705.6	405.8	5,717.1	0.00	0.00	0.00
16,800.0	90.00	180.12	10,852.0	-5,805.6	405.6	5,817.1	0.00	0.00	0.00
16,900.0	90.00	180.12	10,852.0	-5,905.6	405.4	5,917.0	0.00	0.00	0.00
17,000.0	90.00	180.12	10,852.0	-6,005.6	405.2	6,016.9	0.00	0.00	0.00
17,100.0	90.00	180.12	10,852.0	-6,105.6	405.0	6,116.8	0.00	0.00	0.00
17,200.0	90.00	180.12	10,852.0	-6,205.6	404.8	6,216.7	0.00	0.00	0.00
17,300.0	90.00	180.12	10,852.0	-6,305.6	404.6	6,316.6	0.00	0.00	0.00
17,400.0	90.00	180.12	10,852.0	-6,405.6	404.4	6,416.5	0.00	0.00	0.00
17,500.0	90.00	180.12	10,852.0	-6,505.6	404.2	6,516.5	0.00	0.00	0.00
17,600.0	90.00	180.12	10,852.0	-6,605.6	404.0	6,616.4	0.00	0.00	0.00
17,700.0	90.00	180.12	10,852.0	-6,705.6	403.8	6,716.3	0.00	0.00	0.00
17,800.0	90.00	180.12	10,852.0	-6,805.6	403.6	6,816.2	0.00	0.00	0.00
17,900.0	90.00	180.12	10,852.0	-6,905.6	403.4	6,916.1	0.00	0.00	0.00
18,000.0	90.00	180.12	10,852.0	-7,005.6	403.2	7,016.0	0.00	0.00	0.00
18,100.0	90.00	180.12	10,852.0	-7,105.6	403.0	7,115.9	0.00	0.00	0.00
18,200.0	90.00	180.12	10,852.0	-7,205.6	402.8	7,215.9	0.00	0.00	0.00
18,300.0	90.00	180.12	10,852.0	-7,305.6	402.6	7,315.8	0.00	0.00	0.00
18,400.0	90.00	180.12	10,852.0	-7,405.6	402.4	7,415.7	0.00	0.00	0.00
18,500.0	90.00	180.12	10,852.0	-7,505.6	402.2	7,515.6	0.00	0.00	0.00

Database:	EDM 5000.14	**Local Co-ordinate Reference:**	Well #503H
Company:	EOG Resources - Midland	**TVD Reference:**	KB = 25' @ 3426.0usft
Project:	Lea County, NM (NAD 83 NME)	**MD Reference:**	KB = 25' @ 3426.0usft
Site:	Fearless 26 Fed Com	**North Reference:**	Grid
Well:	#503H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,600.0	90.00	180.12	10,852.0	-7,605.6	402.0	7,615.5	0.00	0.00	0.00
18,700.0	90.00	180.12	10,852.0	-7,705.6	401.8	7,715.4	0.00	0.00	0.00
18,800.0	90.00	180.12	10,852.0	-7,805.6	401.6	7,815.3	0.00	0.00	0.00
18,900.0	90.00	180.12	10,852.0	-7,905.6	401.4	7,915.3	0.00	0.00	0.00
19,000.0	90.00	180.12	10,852.0	-8,005.6	401.2	8,015.2	0.00	0.00	0.00
19,100.0	90.00	180.12	10,852.0	-8,105.6	401.0	8,115.1	0.00	0.00	0.00
19,200.0	90.00	180.12	10,852.0	-8,205.6	400.8	8,215.0	0.00	0.00	0.00
19,300.0	90.00	180.12	10,852.0	-8,305.6	400.6	8,314.9	0.00	0.00	0.00
19,400.0	90.00	180.12	10,852.0	-8,405.6	400.4	8,414.8	0.00	0.00	0.00
19,500.0	90.00	180.12	10,852.0	-8,505.6	400.2	8,514.7	0.00	0.00	0.00
19,600.0	90.00	180.12	10,852.0	-8,605.6	400.0	8,614.7	0.00	0.00	0.00
19,700.0	90.00	180.12	10,852.0	-8,705.6	399.8	8,714.6	0.00	0.00	0.00
19,800.0	90.00	180.12	10,852.0	-8,805.6	399.6	8,814.5	0.00	0.00	0.00
19,900.0	90.00	180.12	10,852.0	-8,905.6	399.4	8,914.4	0.00	0.00	0.00
20,000.0	90.00	180.12	10,852.0	-9,005.6	399.2	9,014.3	0.00	0.00	0.00
20,100.0	90.00	180.12	10,852.0	-9,105.6	399.0	9,114.2	0.00	0.00	0.00
20,200.0	90.00	180.12	10,852.0	-9,205.6	398.8	9,214.1	0.00	0.00	0.00
20,300.0	90.00	180.12	10,852.0	-9,305.6	398.6	9,314.1	0.00	0.00	0.00
20,400.0	90.00	180.12	10,852.0	-9,405.6	398.4	9,414.0	0.00	0.00	0.00
20,500.0	90.00	180.12	10,852.0	-9,505.6	398.2	9,513.9	0.00	0.00	0.00
20,600.0	90.00	180.12	10,852.0	-9,605.6	398.0	9,613.8	0.00	0.00	0.00
20,700.0	90.00	180.12	10,852.0	-9,705.6	397.7	9,713.7	0.00	0.00	0.00
20,800.0	90.00	180.12	10,852.0	-9,805.6	397.5	9,813.6	0.00	0.00	0.00
20,900.0	90.00	180.12	10,852.0	-9,905.6	397.3	9,913.5	0.00	0.00	0.00
21,000.0	90.00	180.12	10,852.0	-10,005.6	397.1	10,013.5	0.00	0.00	0.00
21,071.4	90.00	180.12	10,852.0	-10,077.0	397.0	10,084.8	0.00	0.00	0.00
PBHL (Fearless 26 Fed Com #503H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Fearless 26 Fed C - plan hits target center - Point	0.00	0.00	10,374.5	332.0	418.0	403,933.00	755,646.00	32° 6' 30.959 N	103° 38' 28.245 W
FTP (Fearless 26 Fed C - plan misses target center by 163.4usft at 10792.5usft MD (10731.1 TVD, 172.1 N, 417.7 E) - Point	0.00	0.00	10,852.0	282.0	418.0	403,883.00	755,646.00	32° 6' 30.464 N	103° 38' 28.249 W
PBHL (Fearless 26 Fed - plan hits target center - Point	0.00	0.00	10,852.0	-10,077.0	397.0	393,524.00	755,625.00	32° 4' 47.957 N	103° 38' 29.266 W

eog resources

Lea County, NM (NAD 83 NME)

Fearless 26 Fed Com #503H

Plan #0.2

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.58°

Magnetic Field
Strength: 47632.9nT
Dip Angle: 59.94°
Date: 8/7/2017
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.58°
To convert a Magnetic Direction to a True Direction, Add 6.95° East
To convert a True Direction to a Grid Direction, Subtract 0.37°

WELL DETAILS: #503H

3401.0
KB = 25' @ 3426.0usft

Northing	Easting	Latitude	Longitude
403601.00	755228.00	32° 6' 27.700 N	103° 39' 33.130 W

SECTION DETAILS

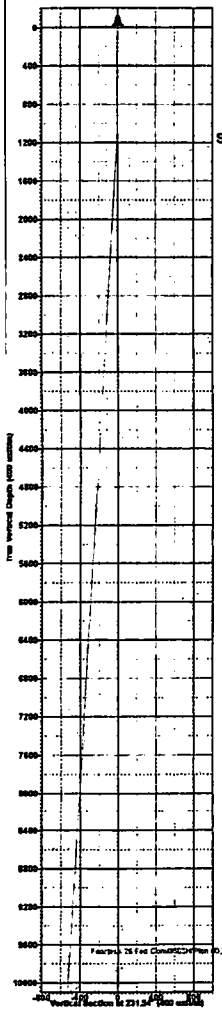
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1000.0	0.00	0.00	1000.0	0.0	0.0	0.00	0.00	0.0	
3	1165.9	3.32	51.54	1165.8	3.0	3.8	2.00	51.54	-2.8	
4	10224.0	3.32	51.54	10208.7	329.0	414.2	0.00	0.00	-312.5	
5	10389.9	0.00	0.00	10374.5	332.0	418.0	2.00	180.00	-315.3	KOP (Fearless 26 Fed Com #503H)
6	11139.9	90.00	180.12	10852.0	-145.5	417.0	12.00	180.12	161.6	
7	21071.4	90.00	180.12	10852.0	-10077.0	397.0	0.00	0.00	10084.8	PBHL (Fearless 26 Fed Com #503H)

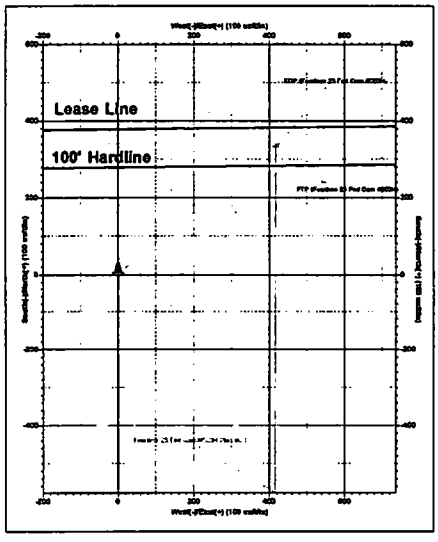
CASING DETAILS

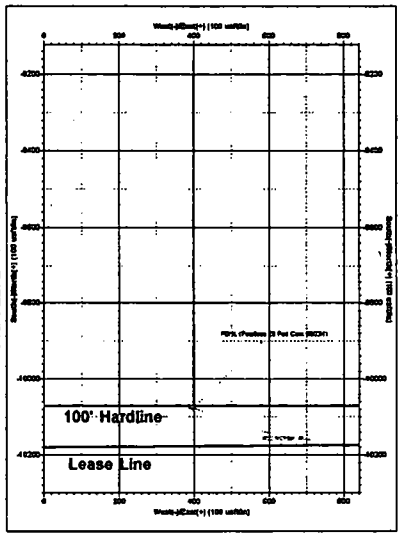
No casing data is available

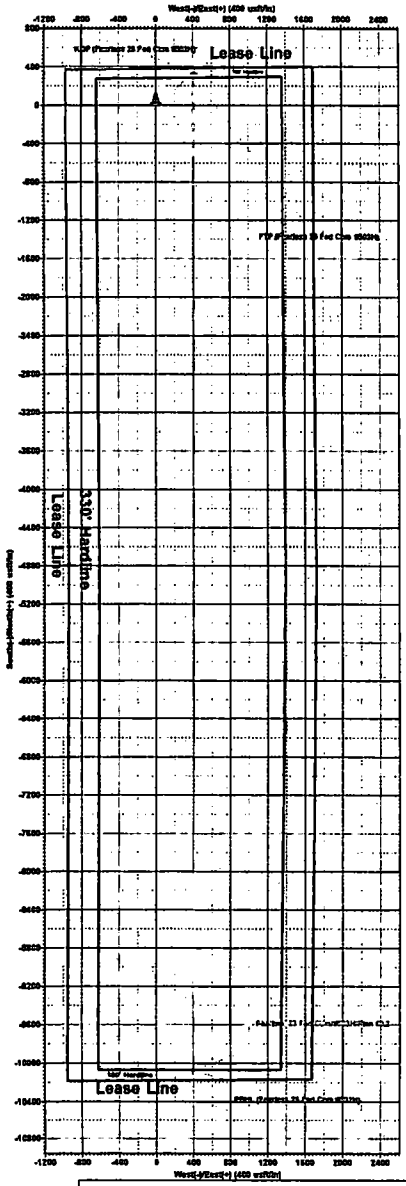
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

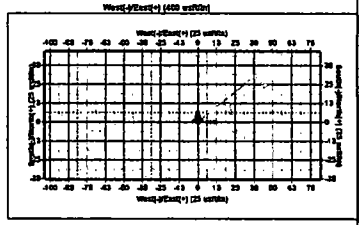
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Fearless 26 Fed Com #503H)	10374.5	332.0	418.0	403933.00	755646.00
PBHL (Fearless 26 Fed Com #503H)	10852.0	-10077.0	397.0	393524.00	755625.00
FTP (Fearless 26 Fed Com #503H)	10852.0	292.0	418.0	403883.00	755646.00

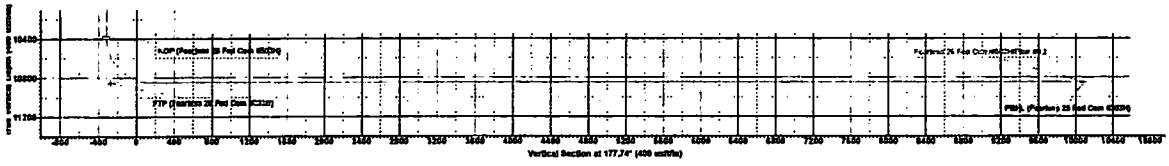


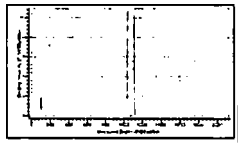












PECOS DISTRICT
DRILLING OPERATIONS
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**EOG RESOURCES INCORPORATED**
LEASE NO.:	**NMNM110836**
WELL NAME & NO.:	**FEARLESS 26 FED COM 503H**
SURFACE HOLE FOOTAGE:	**378'/N & 1696'/E**
BOTTOM HOLE FOOTAGE	**100'/S & 1277'/E**
LOCATION:	**SECTION 26, T25S, R32E, NMPM**
COUNTY:	**LEA**

Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	
Other	☐4 String Area	☐Capitan Reef	☐WIPP

All Previous COAs Still Apply, Except for the Following:

A. CASING

1. The **13 3/8"** surface casing shall be set at approximately **775 feet** (a minimum of 25' into the Rustler Anhydrite and above the salt) and cemented to surface.

   a. **If cement does not circulate to 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 **6 hours** after pumping cement, ideally between 8-10 hours after completing the cement job.

   b. WOC time for a primary cement job will be a minimum of **8 hours** or **500 psi** compressive strength, whichever is greater. This is to include the lead cement.

   c. If cement falls back, remedial cementing will be done prior to drilling out that string.

   d. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 psi compressive strength, whichever is greater.

Set Intermediate at 4650'

2. The minimum required fill of cement behind the **9 5/8"** intermediate casing is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **5-1/2"** production casing is:

    - Cement should tie-back at least **200 feet** into previous string. Operator shall provide method of verification.

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance approved to use a 5M annular. The annular must be tested to full working pressure (5,000 psi).**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed

JJP05102019

GENERAL REQUIREMENTS

1. 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)

   ☒ Chaves and Roosevelt Counties
   Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
   During office hours call (575) 627-0272.
   After office hours call (575)

   ☒ Eddy County
   Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

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

1. 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.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. 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 are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log (one log per well pad is acceptable) 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 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.

A. CASING

1. 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.

2. Wait on cement (WOC) for Potash Areas: 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 for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. 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. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. 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.

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

6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. 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.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. 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 RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
   a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
   b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
   c. Manufacturer representative shall install the test plug for the initial BOP test.
   d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
   e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

5. 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. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

d. 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.

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. This test shall be performed prior to the test at full stack pressure.

g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.