

Well Name: MERCILESS 13 FED COM	Well Location: T25S / R32E / SEC 13 / NENE /	County or Parish/State:
Well Number: 724H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM110835	Unit or CA Name:	Unit or CA Number:
US Well Number:	Well Status: Approved Application for Permit to Drill	Operator: EOG RESOURCES INCORPORATED

Notice of Intent

Type of Submission: Notice of Intent	Type of Action Other
Date Sundry Submitted: 03/11/2021	Time Sundry Submitted: 02:28
Date proposed operation will begin: 04/07/2021	
Procedure Description: EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes: Update casing program to current design	

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

- Procedure Description
- Wellhead_9.675_in_20210311142807.pdf
 - Merciless_13_Fed_Com_724H_Wall_Plot_20210311142807.pdf
 - Merciless_13_Fed_Com_724H_Planning_Report_20210311142758.pdf
 - Merciless_13_Fed_Com_724H_Permit_Info___Rev_Casing_3.10.2021_20210311142757.pdf
 - 10_M_Choke_Manifold_20210311142748.pdf
 - EOG_BLM_10M_Annular_Variance___9.675_in_20210311142748.pdf
 - Co_Flex_Hose_Test_Chart_20210311142747.pdf
 - Co_Flex_Hose_Certification_20210311142747.pdf
 - 10_M_BOP_Diagram_13.375_in_20210311142747.pdf
 - 7.625in_29.70_P110HC_FXL_20210311142747.pdf
 - 5.750in_21_ppf___0.375in_Wall___VST_P110EC_VAM_SFC_SC_w_MTS_CDS_USA_20210311142747.pdf

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10_M_BOP_Diagram_9.675_in_20210311142747.pdf

5.750in_21_ppf__0.375in_Wall__L_80_VAM_TOP_SC80_CDS_USA_20210311142747.pdf

5.50in_20_ppf_P110_ICY_TXP_20210311142746.pdf

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature:	Signed on:
Name: EOG RESOURCES INCORPORATED	
Title: Regulatory Specialist	
Street Address: 5509 CHAMPIONS DRIVE	
City: MIDLAND	State: TX
Phone: (432) 848-9161	
Email address: Star_Harrell@eogresources.com	

Field Representative

Representative Name: STAR HARRELL		
Street Address: 5509 CHAMPIONS DRIVE		
City: MIDLAND	State: TX	Zip: 79706
Phone: (432)848-9161		
Email address: Star_Harrell@eogresources.com		

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752342234	BLM POC Email Address: cwalls@blm.gov
Disposition: Sundry Returned	Disposition Date: 04/08/2021
Signature: null	

Revised Permit Information 3/10/2021:

Well Name: Merciless 13 Fed Com #724H

Location:

SHL: 251' FNL & 487' FEL, Section 13, T-25-S, R-32-E, Lea Co., N.M.

BHL: 2540' FNL & 660' FEL, Section 24, 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
12.25"	0' – 1,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,126'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 6,238'	5.75"	21.8#	EP-110	VAM TOP SC80	1.125	1.25	1.60
6.75"	6,238' – 9,645'	5.75"	21.8#	EP-110	VAM SFC	1.125	1.25	1.60
6.75"	9,645' – 20,103'	5.5"	20#	P110-ICY	TXP BTC	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-3/4" and 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-3/4" and 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

Cement Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /sk	Slurry Description
1,000' 9-5/8"	290	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 800')
11,126' 7-5/8"	460	14.2	1.11	1 st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,172')
	1,230	14.8	1.5	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,103' 5-1/2"	820	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,626')

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

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated TOC at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement will be verified by Echo-meter.

EOG will include the final fluid top verified by Echo-meter and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,000'	Fresh - Gel	8.6-8.8	28-34	N/c
1,000' – 11,126'	Brine	10.0-10.2	28-34	N/c
11,126' – 12,060'	Oil Base	8.7-9.4	58-68	N/c - 6
12,060' – 20,103' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

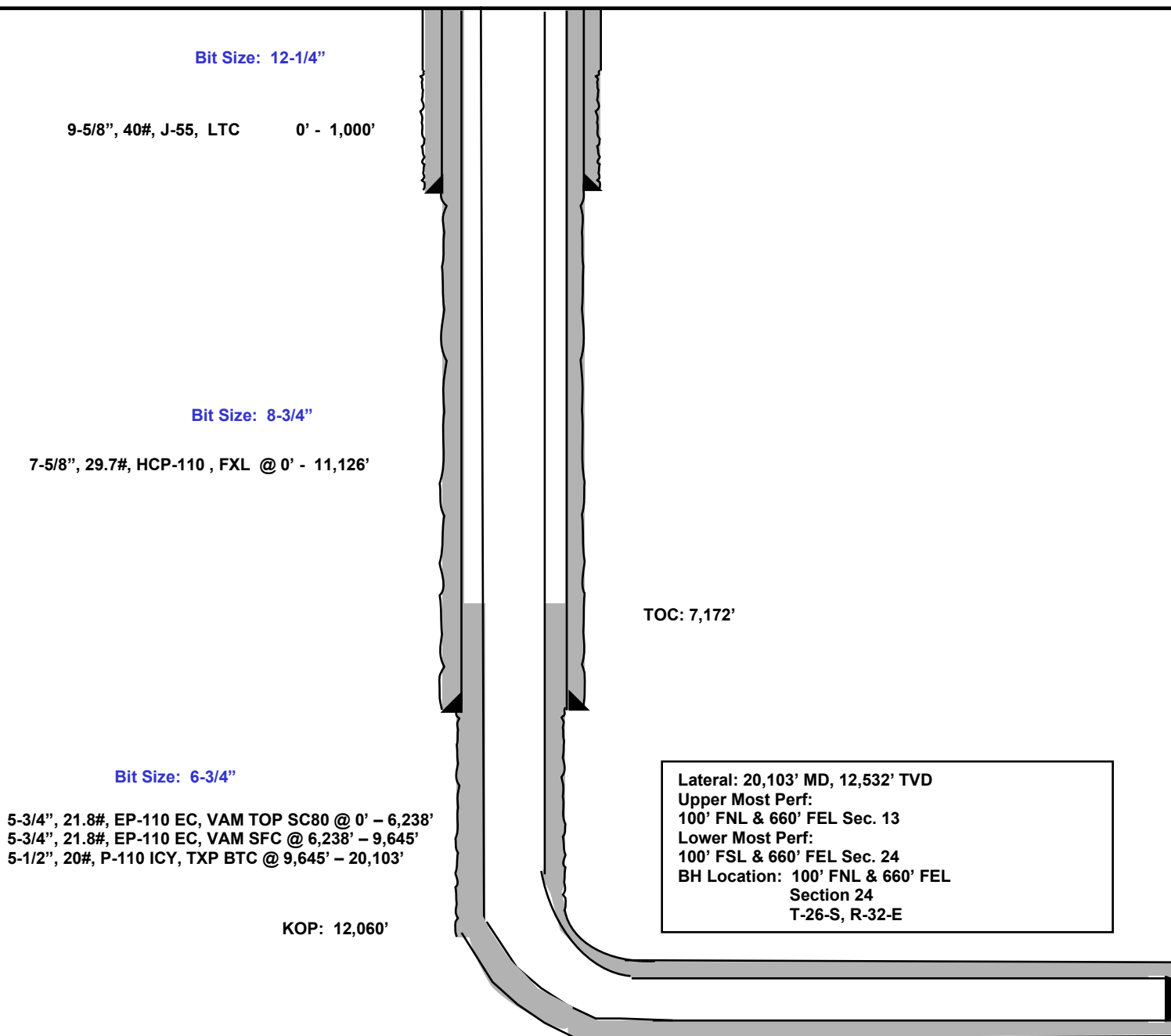
Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

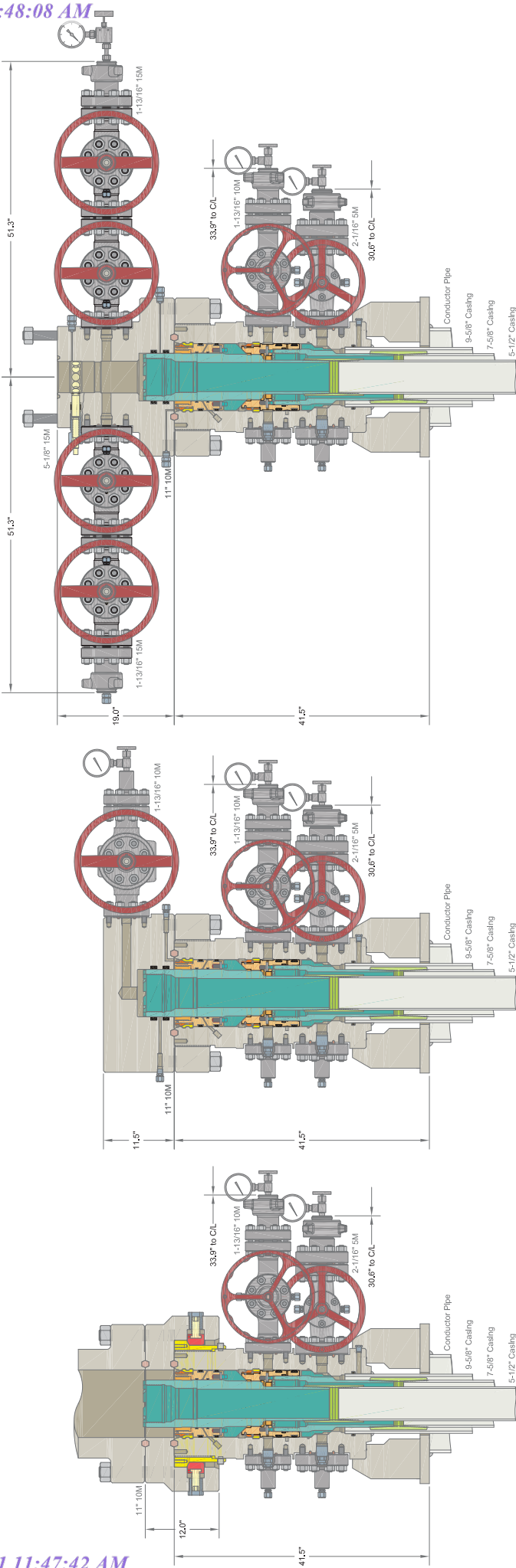
251' FNL
487' FEL
Section 13
T-25-S, R-32-E

Revised Wellbore

KB: 3,518'
GL: 3,493'

API: 30-025-47679





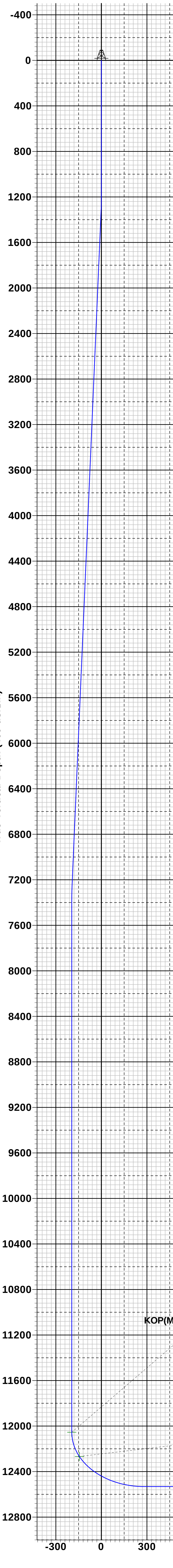
ALL DIMENSIONS APPROXIMATE

EOG RESOURCES DELAWARE			
DRAWN	DLE	23OCT18	
APPRV			
DRAWING NO.	HBE00000010		

CACTUS WELLHEAD LLC

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-SF SOW Wellhead System
With 11" 10M x 5-1/8" 15M CMT-DBLHPS-SB Tubing Head,
Mandrel Hangers, Quick Connect Drilling Adapter And TA Cap

INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION,
DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY
AUTHORIZED BY CACTUS WELLHEAD, LLC.



Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.33°

Magnetic Field
Strength: 47631.8nT
Dip Angle: 59.94°
Date: 11/19/2019
Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.33°
To convert a Magnetic Direction to a True Direction, Add 6.71° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com #724H

Plan #0.1

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

WELL DETAILS: #724H

KB = 25 @ 3518.0usft 3493.0

Northing	Easting	Latitude	Longitude
414364.00	761682.00	32° 8' 13.789 N	103° 37' 17.268 W

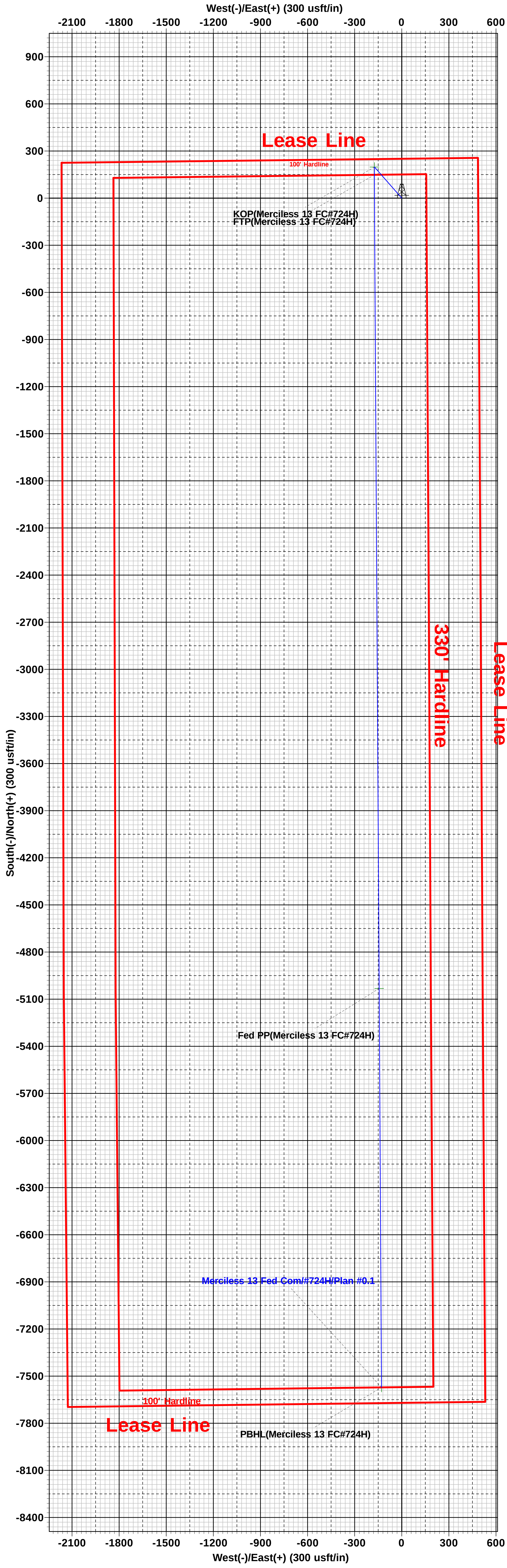
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
3	1324.8	2.50	318.69	1324.8	2.0	-1.8	2.00	318.69	-2.0	
4	7252.9	2.50	318.69	7247.2	196.0	-172.2	0.00	0.00	-193.0	
5	7377.7	0.00	0.00	7372.0	198.0	-174.0	2.00	180.00	-195.0	
6	12060.2	0.00	0.00	12054.5	198.0	-174.0	0.00	0.00	-195.0	KOP(Merciless 13 FC#724H)
7	12280.7	26.46	180.00	12267.2	148.0	-174.0	12.00	180.00	-145.0	FTP(Merciless 13 FC#724H)
8	12810.2	90.00	179.66	12531.9	-279.5	-172.2	12.00	-0.38	282.3	
9	17562.8	90.00	179.66	12532.0	-5032.0	-144.0	0.00	0.00	5033.7	Fed PP(Merciless 13 FC#724H)
10	20102.9	90.00	179.66	12532.0	-7572.0	-129.0	0.00	0.00	7573.1	PBHL(Merciless 13 FC#724H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Merciless 13 FC#724H)	12054.5	198.0	-174.0	414562.00	761508.00
FTP(Merciless 13 FC#724H)	12267.2	148.0	-174.0	414512.00	761508.00
Fed PP(Merciless 13 FC#724H)	12532.0	-5032.0	-144.0	409332.00	761538.00
PBHL(Merciless 13 FC#724H)	12532.0	-7572.0	-129.0	406792.00	761553.00





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com

#724H

OH

Plan: Plan #0.1

Standard Planning Report

19 November, 2019



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	Merciless 13 Fed Com					
Site Position:		Northing:	414,304.00 usft	Latitude:	32° 8' 13.472 N	
From:	Map	Easting:	757,406.00 usft	Longitude:	103° 38' 7.002 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	#724H					
Well Position	+N/-S	60.0 usft	Northing:	414,364.00 usft	Latitude:	32° 8' 13.789 N
	+E/-W	4,276.0 usft	Easting:	761,682.00 usft	Longitude:	103° 37' 17.268 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,493.0 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/19/2019	6.71	59.94	47,631.84661568

Design	Plan #0.1				
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	180.98	

Plan Survey Tool Program	Date	11/19/2019			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,102.9	Plan #0.1 (OH)	MWD	
				OWSG MWD - Standard	



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,324.8	2.50	318.69	1,324.8	2.0	-1.8	2.00	2.00	0.00	318.69	
7,252.9	2.50	318.69	7,247.2	196.0	-172.2	0.00	0.00	0.00	0.00	
7,377.7	0.00	0.00	7,372.0	198.0	-174.0	2.00	-2.00	0.00	180.00	
12,060.2	0.00	0.00	12,054.5	198.0	-174.0	0.00	0.00	0.00	0.00	KOP(Merciless 13 FC
12,280.7	26.46	180.00	12,267.2	148.0	-174.0	12.00	12.00	81.65	180.00	FTP(Merciless 13 FC
12,810.2	90.00	179.66	12,531.9	-279.5	-172.2	12.00	12.00	-0.06	-0.38	
17,562.8	90.00	179.66	12,532.0	-5,032.0	-144.0	0.00	0.00	0.00	0.00	Fed PP(Merciless 13
20,102.9	90.00	179.66	12,532.0	-7,572.0	-129.0	0.00	0.00	0.00	0.00	PBHL(Merciless 13 F



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	318.69	1,300.0	1.3	-1.2	-1.3	2.00	2.00	0.00
1,324.8	2.50	318.69	1,324.8	2.0	-1.8	-2.0	2.00	2.00	0.00
1,400.0	2.50	318.69	1,399.9	4.5	-4.0	-4.4	0.00	0.00	0.00
1,500.0	2.50	318.69	1,499.8	7.8	-6.8	-7.7	0.00	0.00	0.00
1,600.0	2.50	318.69	1,599.7	11.0	-9.7	-10.9	0.00	0.00	0.00
1,700.0	2.50	318.69	1,699.6	14.3	-12.6	-14.1	0.00	0.00	0.00
1,800.0	2.50	318.69	1,799.5	17.6	-15.5	-17.3	0.00	0.00	0.00
1,900.0	2.50	318.69	1,899.4	20.9	-18.3	-20.5	0.00	0.00	0.00
2,000.0	2.50	318.69	1,999.3	24.1	-21.2	-23.8	0.00	0.00	0.00
2,100.0	2.50	318.69	2,099.2	27.4	-24.1	-27.0	0.00	0.00	0.00
2,200.0	2.50	318.69	2,199.1	30.7	-27.0	-30.2	0.00	0.00	0.00
2,300.0	2.50	318.69	2,299.0	33.9	-29.8	-33.4	0.00	0.00	0.00
2,400.0	2.50	318.69	2,398.9	37.2	-32.7	-36.7	0.00	0.00	0.00
2,500.0	2.50	318.69	2,498.8	40.5	-35.6	-39.9	0.00	0.00	0.00
2,600.0	2.50	318.69	2,598.8	43.8	-38.5	-43.1	0.00	0.00	0.00
2,700.0	2.50	318.69	2,698.7	47.0	-41.3	-46.3	0.00	0.00	0.00
2,800.0	2.50	318.69	2,798.6	50.3	-44.2	-49.5	0.00	0.00	0.00
2,900.0	2.50	318.69	2,898.5	53.6	-47.1	-52.8	0.00	0.00	0.00
3,000.0	2.50	318.69	2,998.4	56.8	-50.0	-56.0	0.00	0.00	0.00
3,100.0	2.50	318.69	3,098.3	60.1	-52.8	-59.2	0.00	0.00	0.00
3,200.0	2.50	318.69	3,198.2	63.4	-55.7	-62.4	0.00	0.00	0.00
3,300.0	2.50	318.69	3,298.1	66.7	-58.6	-65.6	0.00	0.00	0.00
3,400.0	2.50	318.69	3,398.0	69.9	-61.4	-68.9	0.00	0.00	0.00
3,500.0	2.50	318.69	3,497.9	73.2	-64.3	-72.1	0.00	0.00	0.00
3,600.0	2.50	318.69	3,597.8	76.5	-67.2	-75.3	0.00	0.00	0.00
3,700.0	2.50	318.69	3,697.7	79.7	-70.1	-78.5	0.00	0.00	0.00
3,800.0	2.50	318.69	3,797.6	83.0	-72.9	-81.8	0.00	0.00	0.00
3,900.0	2.50	318.69	3,897.5	86.3	-75.8	-85.0	0.00	0.00	0.00
4,000.0	2.50	318.69	3,997.4	89.6	-78.7	-88.2	0.00	0.00	0.00
4,100.0	2.50	318.69	4,097.3	92.8	-81.6	-91.4	0.00	0.00	0.00
4,200.0	2.50	318.69	4,197.2	96.1	-84.4	-94.6	0.00	0.00	0.00
4,300.0	2.50	318.69	4,297.1	99.4	-87.3	-97.9	0.00	0.00	0.00
4,400.0	2.50	318.69	4,397.0	102.6	-90.2	-101.1	0.00	0.00	0.00
4,500.0	2.50	318.69	4,496.9	105.9	-93.1	-104.3	0.00	0.00	0.00
4,600.0	2.50	318.69	4,596.9	109.2	-95.9	-107.5	0.00	0.00	0.00
4,700.0	2.50	318.69	4,696.8	112.4	-98.8	-110.7	0.00	0.00	0.00
4,800.0	2.50	318.69	4,796.7	115.7	-101.7	-114.0	0.00	0.00	0.00
4,900.0	2.50	318.69	4,896.6	119.0	-104.6	-117.2	0.00	0.00	0.00
5,000.0	2.50	318.69	4,996.5	122.3	-107.4	-120.4	0.00	0.00	0.00
5,100.0	2.50	318.69	5,096.4	125.5	-110.3	-123.6	0.00	0.00	0.00
5,200.0	2.50	318.69	5,196.3	128.8	-113.2	-126.9	0.00	0.00	0.00



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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	2.50	318.69	5,296.2	132.1	-116.1	-130.1	0.00	0.00	0.00	
5,400.0	2.50	318.69	5,396.1	135.3	-118.9	-133.3	0.00	0.00	0.00	
5,500.0	2.50	318.69	5,496.0	138.6	-121.8	-136.5	0.00	0.00	0.00	
5,600.0	2.50	318.69	5,595.9	141.9	-124.7	-139.7	0.00	0.00	0.00	
5,700.0	2.50	318.69	5,695.8	145.2	-127.6	-143.0	0.00	0.00	0.00	
5,800.0	2.50	318.69	5,795.7	148.4	-130.4	-146.2	0.00	0.00	0.00	
5,900.0	2.50	318.69	5,895.6	151.7	-133.3	-149.4	0.00	0.00	0.00	
6,000.0	2.50	318.69	5,995.5	155.0	-136.2	-152.6	0.00	0.00	0.00	
6,100.0	2.50	318.69	6,095.4	158.2	-139.1	-155.9	0.00	0.00	0.00	
6,200.0	2.50	318.69	6,195.3	161.5	-141.9	-159.1	0.00	0.00	0.00	
6,300.0	2.50	318.69	6,295.2	164.8	-144.8	-162.3	0.00	0.00	0.00	
6,400.0	2.50	318.69	6,395.1	168.1	-147.7	-165.5	0.00	0.00	0.00	
6,500.0	2.50	318.69	6,495.1	171.3	-150.6	-168.7	0.00	0.00	0.00	
6,600.0	2.50	318.69	6,595.0	174.6	-153.4	-172.0	0.00	0.00	0.00	
6,700.0	2.50	318.69	6,694.9	177.9	-156.3	-175.2	0.00	0.00	0.00	
6,800.0	2.50	318.69	6,794.8	181.1	-159.2	-178.4	0.00	0.00	0.00	
6,900.0	2.50	318.69	6,894.7	184.4	-162.1	-181.6	0.00	0.00	0.00	
7,000.0	2.50	318.69	6,994.6	187.7	-164.9	-184.8	0.00	0.00	0.00	
7,100.0	2.50	318.69	7,094.5	191.0	-167.8	-188.1	0.00	0.00	0.00	
7,200.0	2.50	318.69	7,194.4	194.2	-170.7	-191.3	0.00	0.00	0.00	
7,252.9	2.50	318.69	7,247.2	196.0	-172.2	-193.0	0.00	0.00	0.00	
7,300.0	1.55	318.69	7,294.3	197.2	-173.3	-194.2	2.00	-2.00	0.00	
7,377.7	0.00	0.00	7,372.0	198.0	-174.0	-195.0	2.00	-2.00	0.00	
7,400.0	0.00	0.00	7,394.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,494.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,594.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,694.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,794.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,894.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,994.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,094.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,194.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,294.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,394.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,494.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,594.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,694.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,794.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,894.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,994.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,094.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,194.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,294.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,394.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,494.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,594.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,694.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,794.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,894.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,994.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,094.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,194.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,294.3	198.0	-174.0	-195.0	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,394.3	198.0	-174.0	-195.0	0.00	0.00	0.00	



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
10,500.0	0.00	0.00	10,494.3	198.0	-174.0	-195.0	0.00	0.00	0.00
10,600.0	0.00	0.00	10,594.3	198.0	-174.0	-195.0	0.00	0.00	0.00
10,700.0	0.00	0.00	10,694.3	198.0	-174.0	-195.0	0.00	0.00	0.00
10,800.0	0.00	0.00	10,794.3	198.0	-174.0	-195.0	0.00	0.00	0.00
10,900.0	0.00	0.00	10,894.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,000.0	0.00	0.00	10,994.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,100.0	0.00	0.00	11,094.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,194.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,300.0	0.00	0.00	11,294.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,400.0	0.00	0.00	11,394.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,500.0	0.00	0.00	11,494.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,600.0	0.00	0.00	11,594.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,700.0	0.00	0.00	11,694.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,800.0	0.00	0.00	11,794.3	198.0	-174.0	-195.0	0.00	0.00	0.00
11,900.0	0.00	0.00	11,894.3	198.0	-174.0	-195.0	0.00	0.00	0.00
12,000.0	0.00	0.00	11,994.3	198.0	-174.0	-195.0	0.00	0.00	0.00
12,060.2	0.00	0.00	12,054.5	198.0	-174.0	-195.0	0.00	0.00	0.00
12,075.0	1.78	180.00	12,069.3	197.8	-174.0	-194.8	12.00	12.00	0.00
12,100.0	4.78	180.00	12,094.3	196.3	-174.0	-193.3	12.00	12.00	0.00
12,125.0	7.78	180.00	12,119.1	193.6	-174.0	-190.6	12.00	12.00	0.00
12,150.0	10.78	180.00	12,143.8	189.6	-174.0	-186.6	12.00	12.00	0.00
12,175.0	13.78	180.00	12,168.2	184.3	-174.0	-181.3	12.00	12.00	0.00
12,200.0	16.78	180.00	12,192.3	177.7	-174.0	-174.7	12.00	12.00	0.00
12,225.0	19.78	180.00	12,216.0	169.8	-174.0	-166.8	12.00	12.00	0.00
12,250.0	22.78	180.00	12,239.3	160.8	-174.0	-157.8	12.00	12.00	0.00
12,275.0	25.78	180.00	12,262.1	150.5	-174.0	-147.5	12.00	12.00	0.00
12,280.7	26.46	180.00	12,267.2	148.0	-174.0	-145.0	12.00	12.00	0.00
12,300.0	28.78	179.97	12,284.3	139.0	-174.0	-136.0	12.00	12.00	-0.17
12,325.0	31.78	179.93	12,305.9	126.4	-174.0	-123.4	12.00	12.00	-0.14
12,350.0	34.78	179.90	12,326.8	112.7	-174.0	-109.7	12.00	12.00	-0.12
12,375.0	37.78	179.88	12,347.0	97.9	-173.9	-94.9	12.00	12.00	-0.10
12,400.0	40.78	179.86	12,366.3	82.1	-173.9	-79.1	12.00	12.00	-0.09
12,425.0	43.78	179.84	12,384.8	65.3	-173.9	-62.3	12.00	12.00	-0.08
12,450.0	46.78	179.82	12,402.4	47.5	-173.8	-44.6	12.00	12.00	-0.07
12,475.0	49.78	179.80	12,419.0	28.9	-173.7	-25.9	12.00	12.00	-0.06
12,500.0	52.78	179.79	12,434.7	9.4	-173.7	-6.4	12.00	12.00	-0.06
12,525.0	55.78	179.77	12,449.3	-10.9	-173.6	13.9	12.00	12.00	-0.05
12,550.0	58.78	179.76	12,462.8	-32.0	-173.5	34.9	12.00	12.00	-0.05
12,575.0	61.78	179.75	12,475.2	-53.7	-173.4	56.6	12.00	12.00	-0.05
12,600.0	64.78	179.74	12,486.4	-76.0	-173.3	78.9	12.00	12.00	-0.04
12,625.0	67.78	179.73	12,496.5	-98.9	-173.2	101.8	12.00	12.00	-0.04
12,650.0	70.78	179.72	12,505.3	-122.3	-173.1	125.2	12.00	12.00	-0.04
12,675.0	73.78	179.71	12,512.9	-146.1	-173.0	149.0	12.00	12.00	-0.04
12,700.0	76.78	179.70	12,519.3	-170.3	-172.9	173.2	12.00	12.00	-0.04
12,725.0	79.78	179.69	12,524.4	-194.7	-172.7	197.6	12.00	12.00	-0.04
12,750.0	82.78	179.68	12,528.2	-219.4	-172.6	222.3	12.00	12.00	-0.04
12,775.0	85.78	179.67	12,530.6	-244.3	-172.4	247.2	12.00	12.00	-0.04
12,800.0	88.78	179.66	12,531.8	-269.3	-172.3	272.2	12.00	12.00	-0.04
12,810.2	90.00	179.66	12,531.9	-279.5	-172.2	282.3	12.00	12.00	-0.04
12,900.0	90.00	179.66	12,531.9	-369.3	-171.7	372.1	0.00	0.00	0.00
13,000.0	90.00	179.66	12,531.9	-469.3	-171.1	472.1	0.00	0.00	0.00
13,100.0	90.00	179.66	12,531.9	-569.3	-170.5	572.1	0.00	0.00	0.00
13,200.0	90.00	179.66	12,531.9	-669.3	-169.9	672.1	0.00	0.00	0.00
13,300.0	90.00	179.66	12,531.9	-769.3	-169.3	772.0	0.00	0.00	0.00



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)
13,400.0	90.00	179.66	12,532.0	-869.3	-168.7	872.0	0.00	0.00	0.00
13,500.0	90.00	179.66	12,532.0	-969.3	-168.1	972.0	0.00	0.00	0.00
13,600.0	90.00	179.66	12,532.0	-1,069.3	-167.5	1,072.0	0.00	0.00	0.00
13,700.0	90.00	179.66	12,532.0	-1,169.3	-167.0	1,171.9	0.00	0.00	0.00
13,800.0	90.00	179.66	12,532.0	-1,269.3	-166.4	1,271.9	0.00	0.00	0.00
13,900.0	90.00	179.66	12,532.0	-1,369.3	-165.8	1,371.9	0.00	0.00	0.00
14,000.0	90.00	179.66	12,532.0	-1,469.3	-165.2	1,471.9	0.00	0.00	0.00
14,100.0	90.00	179.66	12,532.0	-1,569.3	-164.6	1,571.8	0.00	0.00	0.00
14,200.0	90.00	179.66	12,532.0	-1,669.3	-164.0	1,671.8	0.00	0.00	0.00
14,300.0	90.00	179.66	12,532.0	-1,769.2	-163.4	1,771.8	0.00	0.00	0.00
14,400.0	90.00	179.66	12,532.0	-1,869.2	-162.8	1,871.7	0.00	0.00	0.00
14,500.0	90.00	179.66	12,532.0	-1,969.2	-162.2	1,971.7	0.00	0.00	0.00
14,600.0	90.00	179.66	12,532.0	-2,069.2	-161.6	2,071.7	0.00	0.00	0.00
14,700.0	90.00	179.66	12,532.0	-2,169.2	-161.0	2,171.7	0.00	0.00	0.00
14,800.0	90.00	179.66	12,532.0	-2,269.2	-160.4	2,271.6	0.00	0.00	0.00
14,900.0	90.00	179.66	12,532.0	-2,369.2	-159.8	2,371.6	0.00	0.00	0.00
15,000.0	90.00	179.66	12,532.0	-2,469.2	-159.2	2,471.6	0.00	0.00	0.00
15,100.0	90.00	179.66	12,532.0	-2,569.2	-158.6	2,571.6	0.00	0.00	0.00
15,200.0	90.00	179.66	12,532.0	-2,669.2	-158.0	2,671.5	0.00	0.00	0.00
15,300.0	90.00	179.66	12,532.0	-2,769.2	-157.4	2,771.5	0.00	0.00	0.00
15,400.0	90.00	179.66	12,532.0	-2,869.2	-156.9	2,871.5	0.00	0.00	0.00
15,500.0	90.00	179.66	12,532.0	-2,969.2	-156.3	2,971.5	0.00	0.00	0.00
15,600.0	90.00	179.66	12,532.0	-3,069.2	-155.7	3,071.4	0.00	0.00	0.00
15,700.0	90.00	179.66	12,532.0	-3,169.2	-155.1	3,171.4	0.00	0.00	0.00
15,800.0	90.00	179.66	12,532.0	-3,269.2	-154.5	3,271.4	0.00	0.00	0.00
15,900.0	90.00	179.66	12,532.0	-3,369.2	-153.9	3,371.4	0.00	0.00	0.00
16,000.0	90.00	179.66	12,532.0	-3,469.2	-153.3	3,471.3	0.00	0.00	0.00
16,100.0	90.00	179.66	12,532.0	-3,569.2	-152.7	3,571.3	0.00	0.00	0.00
16,200.0	90.00	179.66	12,532.0	-3,669.2	-152.1	3,671.3	0.00	0.00	0.00
16,300.0	90.00	179.66	12,532.0	-3,769.2	-151.5	3,771.2	0.00	0.00	0.00
16,400.0	90.00	179.66	12,532.0	-3,869.2	-150.9	3,871.2	0.00	0.00	0.00
16,500.0	90.00	179.66	12,532.0	-3,969.2	-150.3	3,971.2	0.00	0.00	0.00
16,600.0	90.00	179.66	12,532.0	-4,069.2	-149.7	4,071.2	0.00	0.00	0.00
16,700.0	90.00	179.66	12,532.0	-4,169.2	-149.1	4,171.1	0.00	0.00	0.00
16,800.0	90.00	179.66	12,532.0	-4,269.2	-148.5	4,271.1	0.00	0.00	0.00
16,900.0	90.00	179.66	12,532.0	-4,369.2	-147.9	4,371.1	0.00	0.00	0.00
17,000.0	90.00	179.66	12,532.0	-4,469.2	-147.3	4,471.1	0.00	0.00	0.00
17,100.0	90.00	179.66	12,532.0	-4,569.2	-146.8	4,571.0	0.00	0.00	0.00
17,200.0	90.00	179.66	12,532.0	-4,669.2	-146.2	4,671.0	0.00	0.00	0.00
17,300.0	90.00	179.66	12,532.0	-4,769.2	-145.6	4,771.0	0.00	0.00	0.00
17,400.0	90.00	179.66	12,532.0	-4,869.2	-145.0	4,871.0	0.00	0.00	0.00
17,500.0	90.00	179.66	12,532.0	-4,969.2	-144.4	4,970.9	0.00	0.00	0.00
17,562.8	90.00	179.66	12,532.0	-5,032.0	-144.0	5,033.7	0.00	0.00	0.00
17,600.0	90.00	179.66	12,532.0	-5,069.2	-143.8	5,070.9	0.00	0.00	0.00
17,700.0	90.00	179.66	12,532.0	-5,169.2	-143.2	5,170.9	0.00	0.00	0.00
17,800.0	90.00	179.66	12,532.0	-5,269.2	-142.6	5,270.9	0.00	0.00	0.00
17,900.0	90.00	179.66	12,532.0	-5,369.2	-142.0	5,370.8	0.00	0.00	0.00
18,000.0	90.00	179.66	12,532.0	-5,469.2	-141.4	5,470.8	0.00	0.00	0.00
18,100.0	90.00	179.66	12,532.0	-5,569.2	-140.8	5,570.8	0.00	0.00	0.00
18,200.0	90.00	179.66	12,532.0	-5,669.2	-140.2	5,670.7	0.00	0.00	0.00
18,300.0	90.00	179.66	12,532.0	-5,769.2	-139.6	5,770.7	0.00	0.00	0.00
18,400.0	90.00	179.66	12,532.0	-5,869.2	-139.0	5,870.7	0.00	0.00	0.00
18,500.0	90.00	179.66	12,532.0	-5,969.2	-138.4	5,970.7	0.00	0.00	0.00
18,600.0	90.00	179.66	12,532.0	-6,069.2	-137.8	6,070.6	0.00	0.00	0.00



Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well #724H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25 @ 3518.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25 @ 3518.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#724H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

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)	
18,700.0	90.00	179.66	12,532.0	-6,169.2	-137.2	6,170.6	0.00	0.00	0.00	
18,800.0	90.00	179.66	12,532.0	-6,269.2	-136.6	6,270.6	0.00	0.00	0.00	
18,900.0	90.00	179.66	12,532.0	-6,369.2	-136.1	6,370.6	0.00	0.00	0.00	
19,000.0	90.00	179.66	12,532.0	-6,469.2	-135.5	6,470.5	0.00	0.00	0.00	
19,100.0	90.00	179.66	12,532.0	-6,569.2	-134.9	6,570.5	0.00	0.00	0.00	
19,200.0	90.00	179.66	12,532.0	-6,669.2	-134.3	6,670.5	0.00	0.00	0.00	
19,300.0	90.00	179.66	12,532.0	-6,769.2	-133.7	6,770.5	0.00	0.00	0.00	
19,400.0	90.00	179.66	12,532.0	-6,869.2	-133.1	6,870.4	0.00	0.00	0.00	
19,500.0	90.00	179.66	12,532.0	-6,969.2	-132.5	6,970.4	0.00	0.00	0.00	
19,600.0	90.00	179.66	12,532.0	-7,069.2	-131.9	7,070.4	0.00	0.00	0.00	
19,700.0	90.00	179.66	12,532.0	-7,169.2	-131.3	7,170.4	0.00	0.00	0.00	
19,800.0	90.00	179.66	12,532.0	-7,269.2	-130.7	7,270.3	0.00	0.00	0.00	
19,900.0	90.00	179.66	12,532.0	-7,369.2	-130.1	7,370.3	0.00	0.00	0.00	
20,000.0	90.00	179.66	12,532.0	-7,469.1	-129.5	7,470.3	0.00	0.00	0.00	
20,102.9	90.00	179.66	12,532.0	-7,572.0	-129.0	7,573.1	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		
- hit/miss target										
- Shape								Longitude		
KOP(Merciless 13 FC#7 - plan hits target center - Point	0.00	0.00	12,054.5	198.0	-174.0	414,562.00	761,508.00	32° 8' 15.760 N 103° 37' 19.277 W		
FTP(Merciless 13 FC#72 - plan hits target center - Point	0.00	0.00	12,267.2	148.0	-174.0	414,512.00	761,508.00	32° 8' 15.265 N 103° 37' 19.281 W		
Fed PP(Merciless 13 FC - plan hits target center - Point	0.00	0.00	12,532.0	-5,032.0	-144.0	409,332.00	761,538.00	32° 7' 24.005 N 103° 37' 19.330 W		
PBHL(Merciless 13 FC# - plan hits target center - Point	0.00	0.00	12,532.0	-7,572.0	-129.0	406,792.00	761,553.00	32° 6' 58.869 N 103° 37' 19.350 W		

10,000 PSI BOP Annular Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

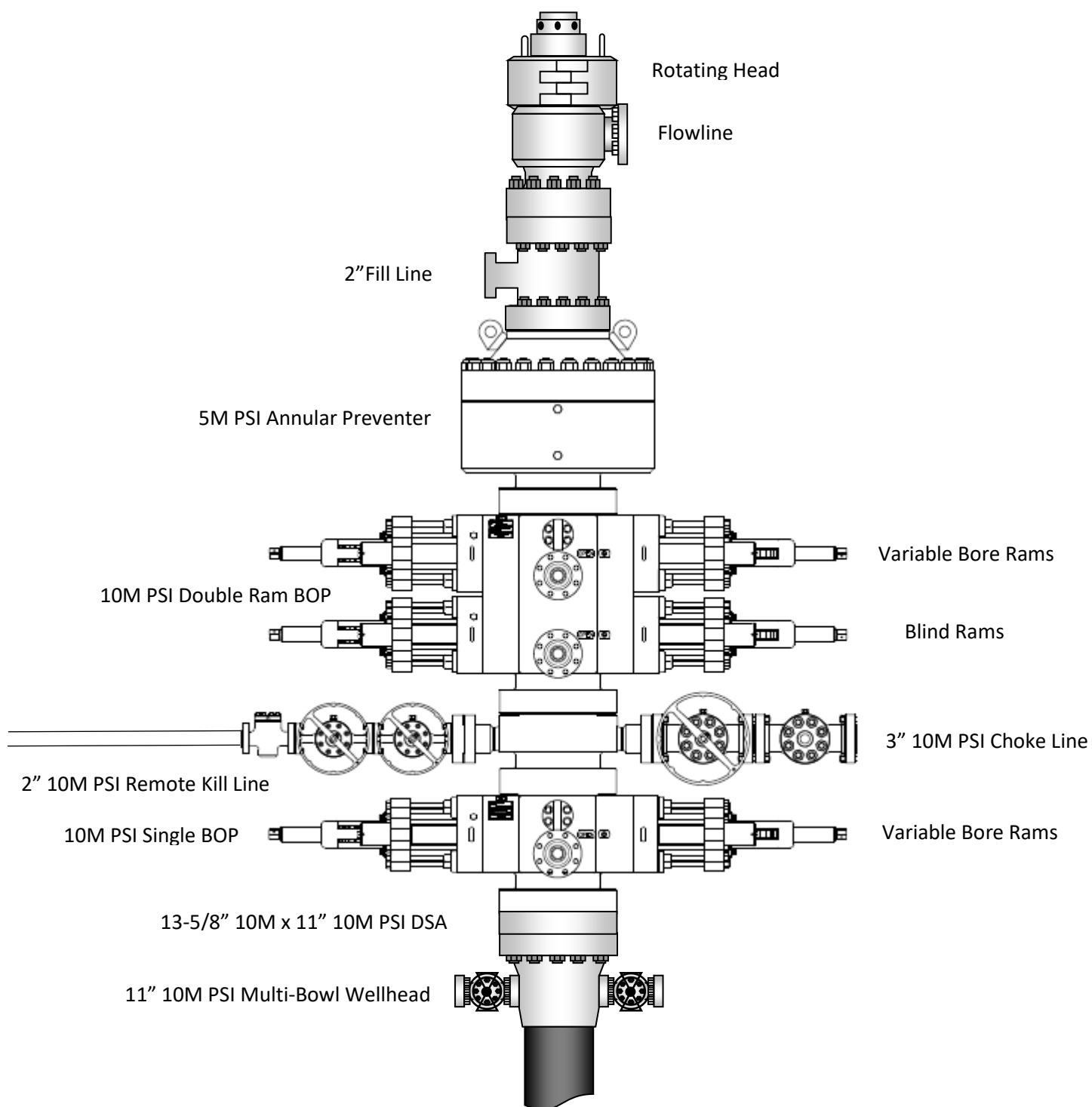
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

9-7/8" & 8-3/4" Intermediate Hole Section 10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500 – 8.000"	Annular	5M	-	-
Mud Motor	6.750 – 8.000"	Annular	5M	-	-
Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

6-3/4" Production Hole Section 10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500 – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources 11" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

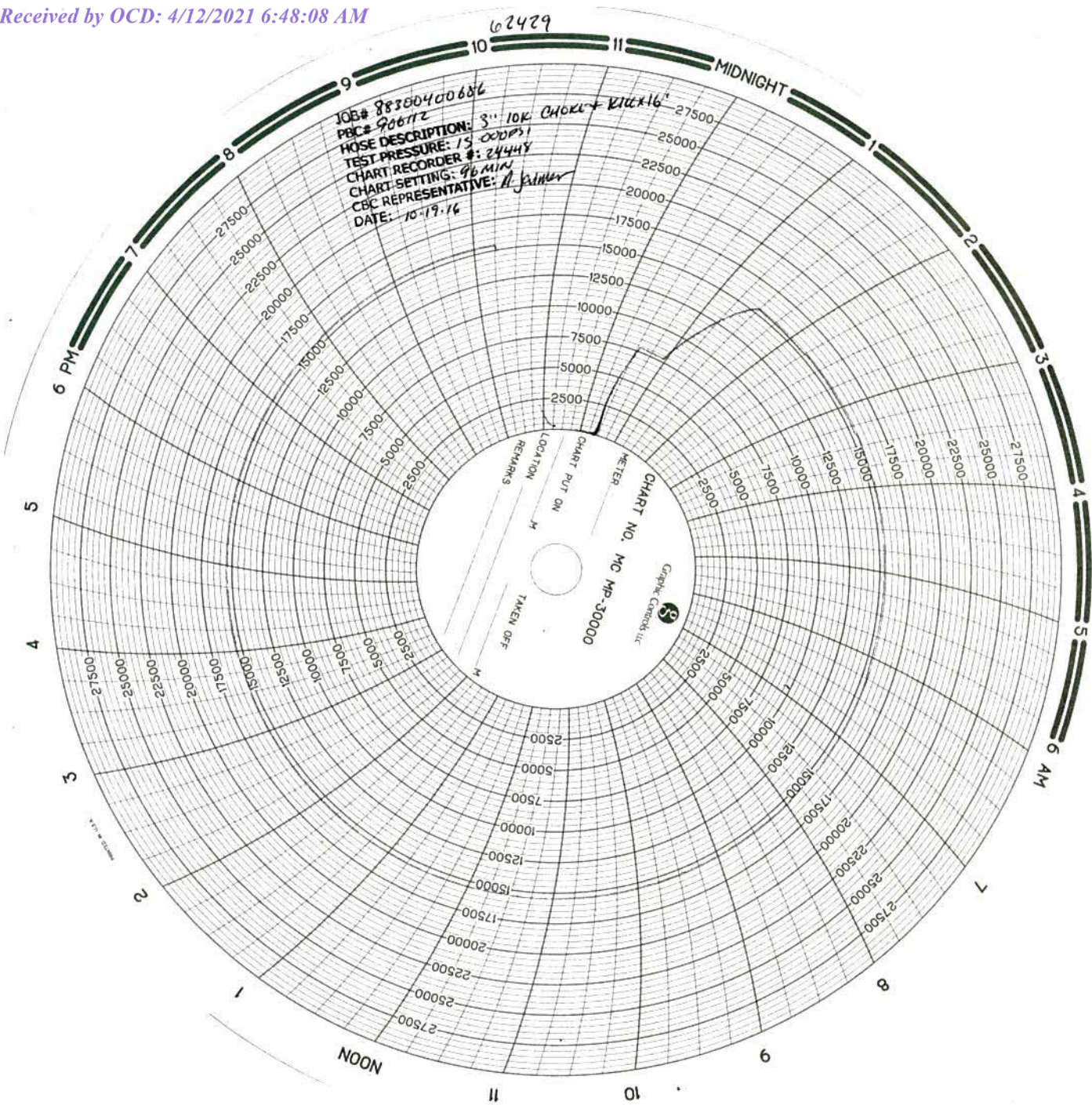
General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
 - a. Perform flowcheck, if flowing:
 - b. Sound alarm (alert crew)
 - c. Stab full opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams.
 - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams.
 - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP and SICP

- ii. Pit gain
 - iii. Time
 - h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario.
 - c. If impossible to pick up high enough to pull the string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
 - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan



Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial
--------------------------	-----------------------------

Hose Serial #	62429	Date of Manufacture	05/2012
Hose I.D.	3"	Working Pressure	10000PSI
Hose Type	Choke and Kill	Test Pressure	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange	End B: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX154	Seal Face: BX154
Length Before Hydro Test: 16'	Length After Hydro test: 16'

Conclusion: Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62429 is suitable for continued service.

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 months (or during installation/removal)

Annual: In-situ pressure test

Initial 5 years service: Major inspection

2nd Major inspection: 8 / 10 years of service

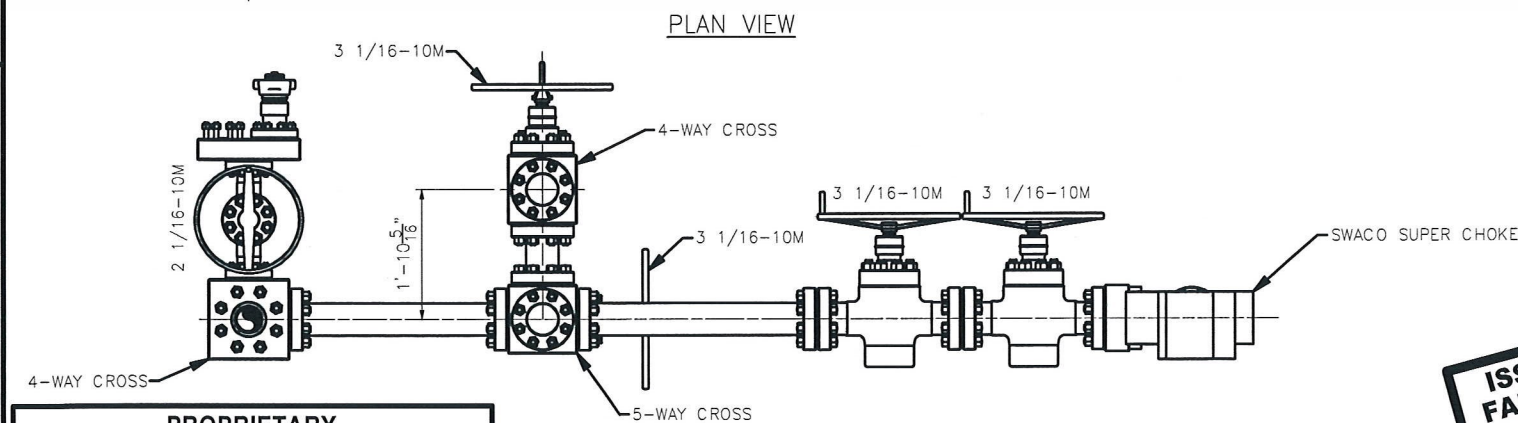
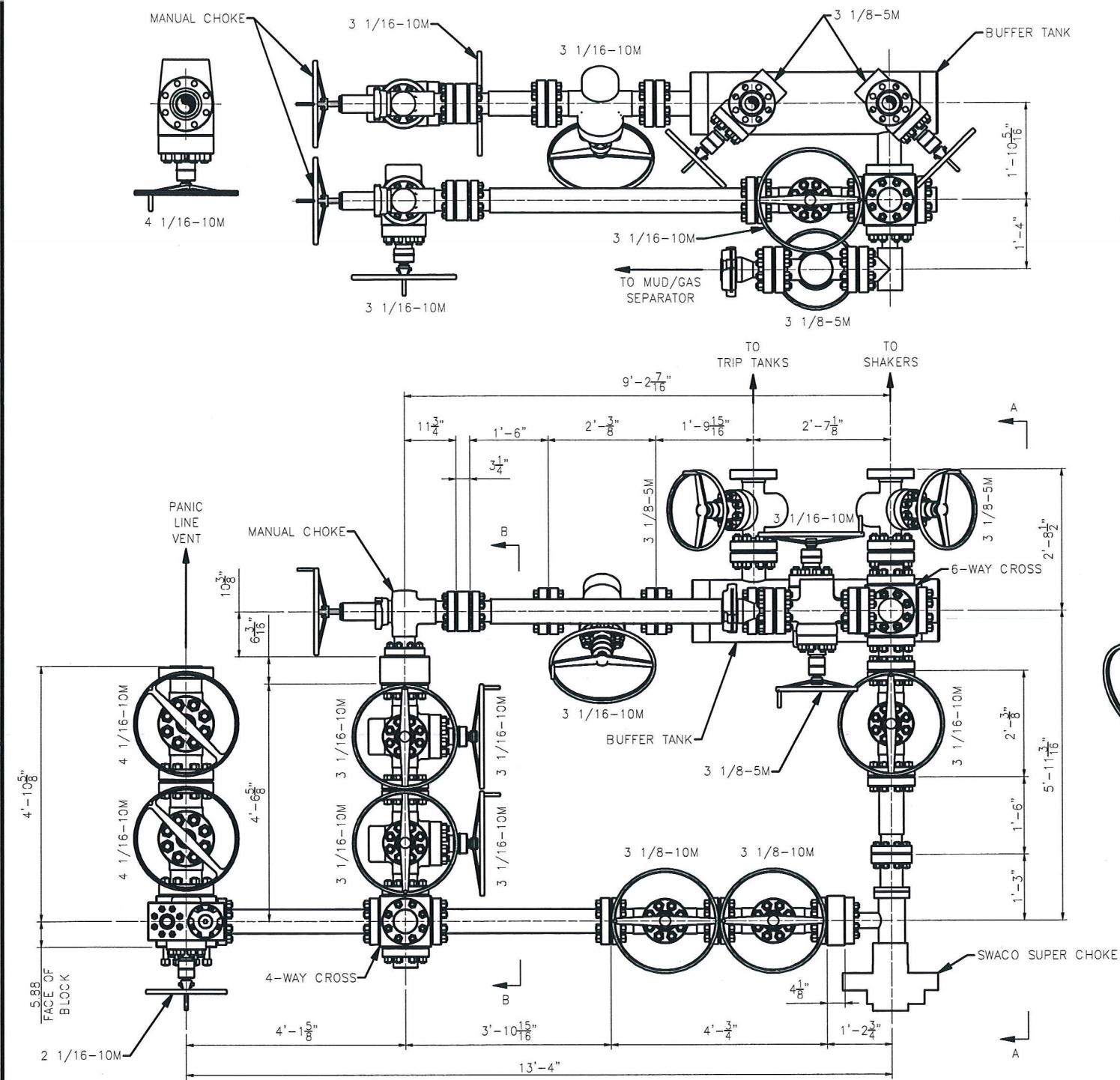
(Detailed description of test regime available upon request, ISS-059 Rev 04)

****NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 10/25/2016

Checked By: Jeremy Mckay
Date: 10/25/2016
QF97

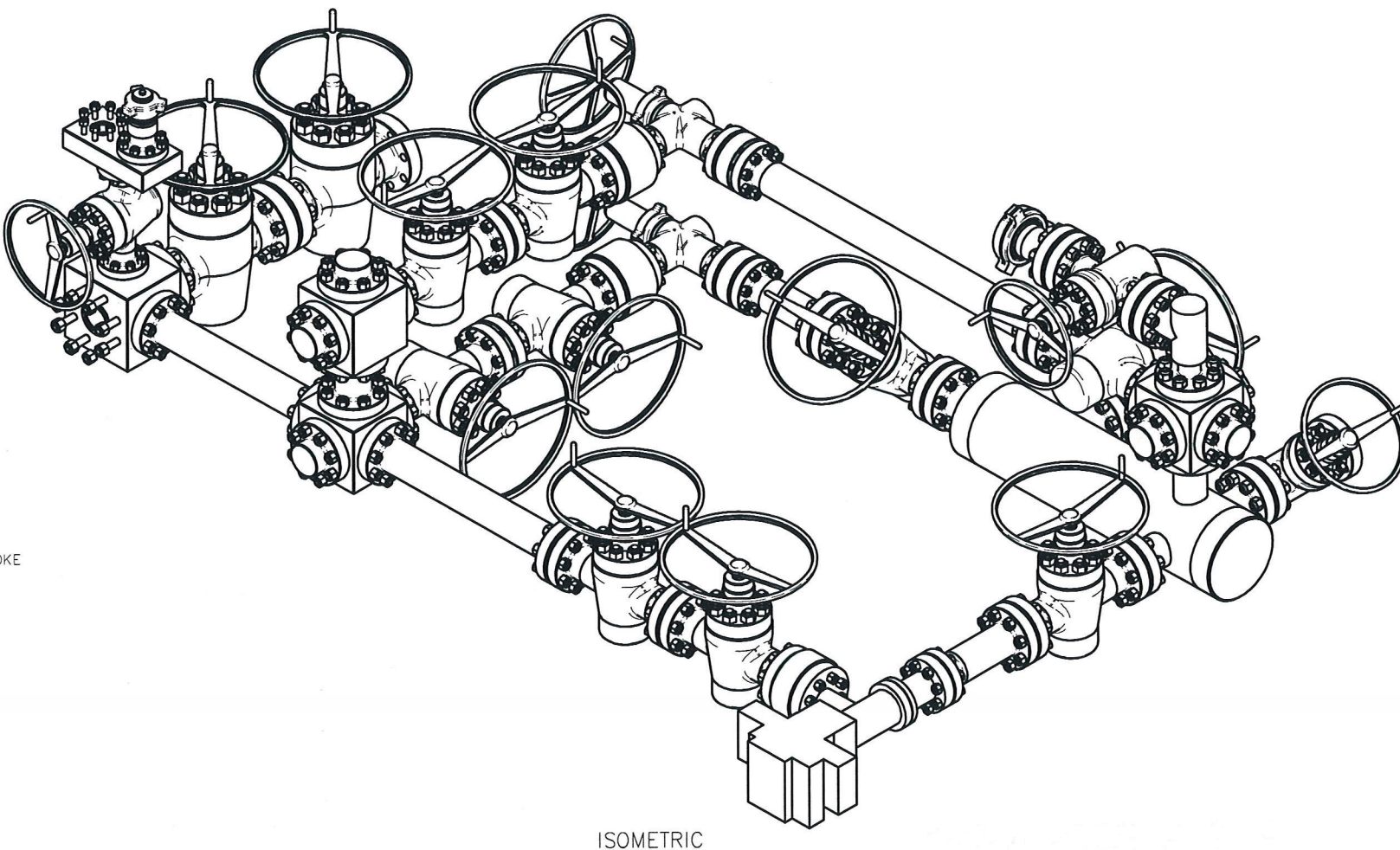
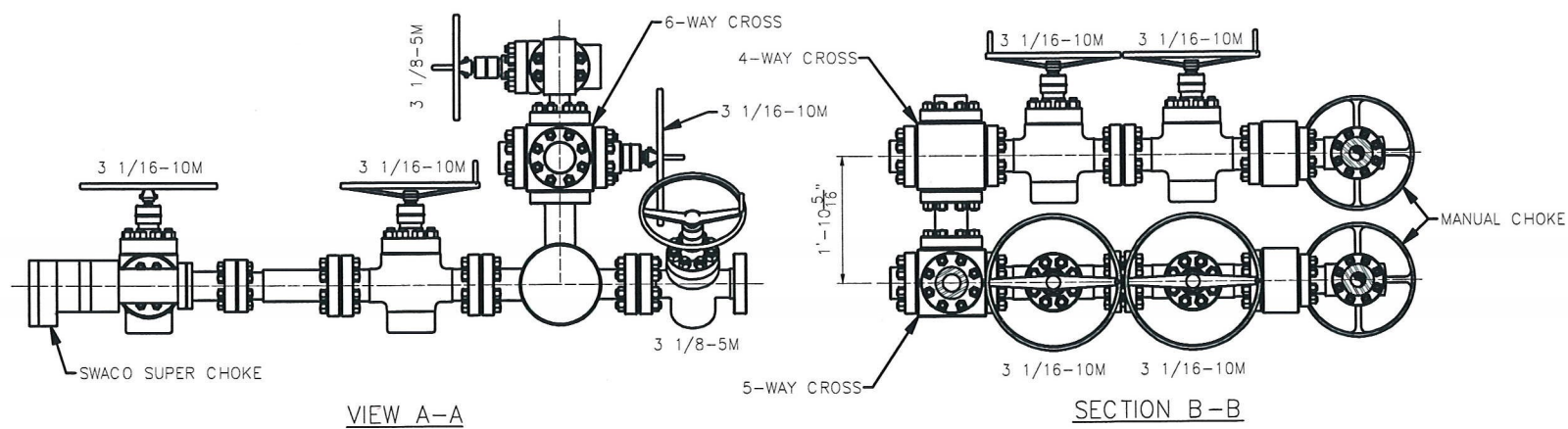
Page 1 of 1



PROPRIETARY

THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISTRIBUTED OR DISCLOSED IN ANY MANNER, WITHOUT THE PRIOR, WRITTEN CONSENT OF A DULY AUTHORIZED OFFICER OF HELMERICH & PAYNE INT'L DRILLING CO.

ISSUED FOR FABRICATION
February-10-2014
DRAFTSMAN *MWL*
ENGINEER *JSK*



STANDARD TOLERANCES (UNLESS NOTED)			
1. FABRICATION DIMENSIONS:	A-0" TO 24"	± 1/16"	
	B-24" TO 120"	± 1/8"	
	C-OVER 120"	± 1/4"	
2. MACHINED DIMENSIONS:	A-ANGULAR	± .30"	
	B-LINEAR (EXPRESSED AS FRACTION)	± .015	
	C-LINEAR (EXPRESSED TO ONE DECIMAL)	± .1	
	D-LINEAR (EXPRESSED TO TWO DECIMALS)	± .015	
	E-LINEAR (EXPRESSED TO THREE DECIMALS)	± .005	

REV		DATE	DESCRIPTION	BY

TITLE:		HELMERICH & PAYNE INTERNATIONAL DRILLING CO.		
CUSTOMER:		H&P		
PROJECT:		3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A.		
DRAWN:	MWL	DATE:	2/10/2014	DWG. NO.:
SCALE:	3/4"=1'-0"	SHEET:	1 OF 1	HP-D1254

Exhibit 1
EOG Resources
13-5/8" 10M PSI BOP Stack

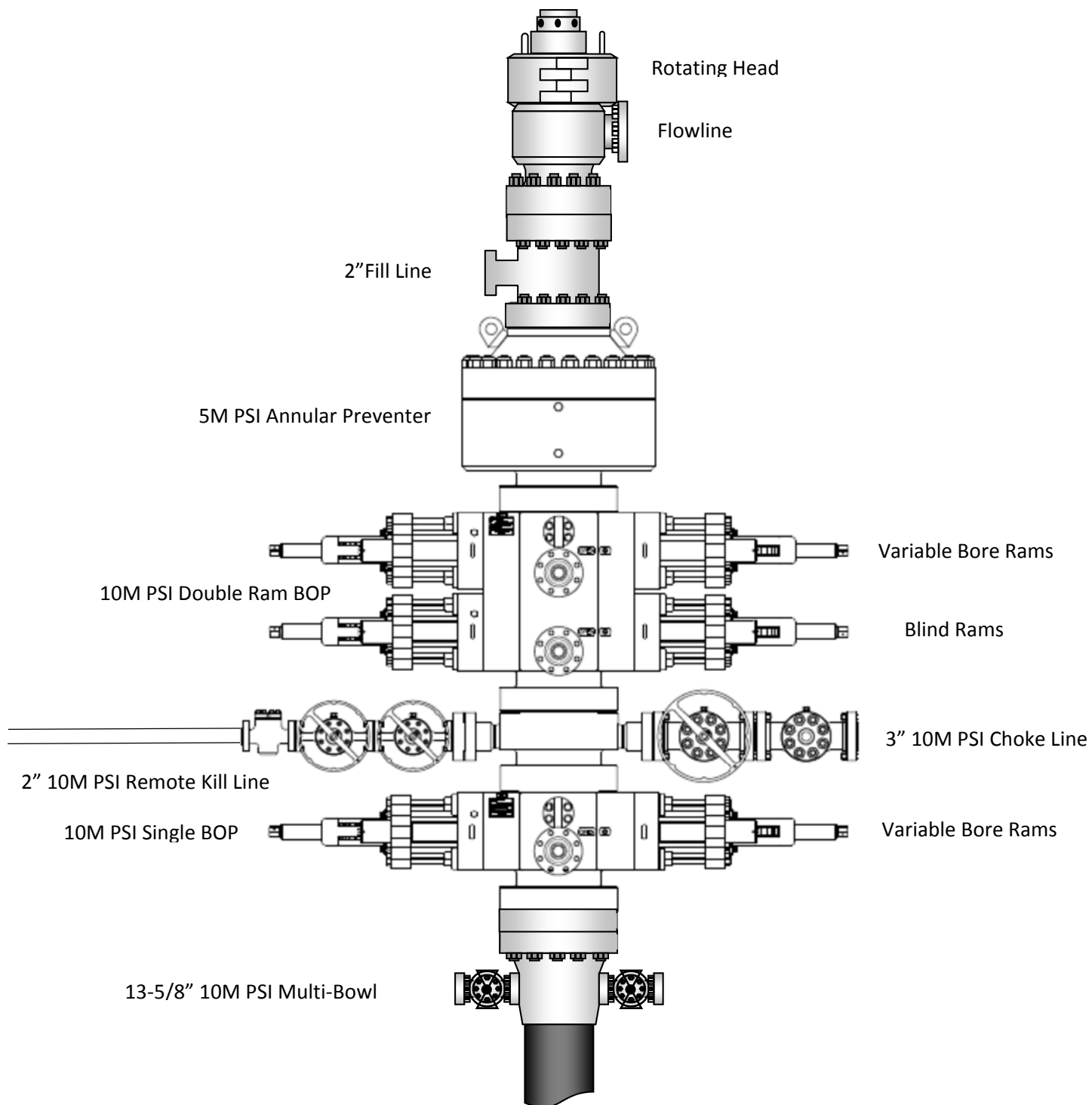
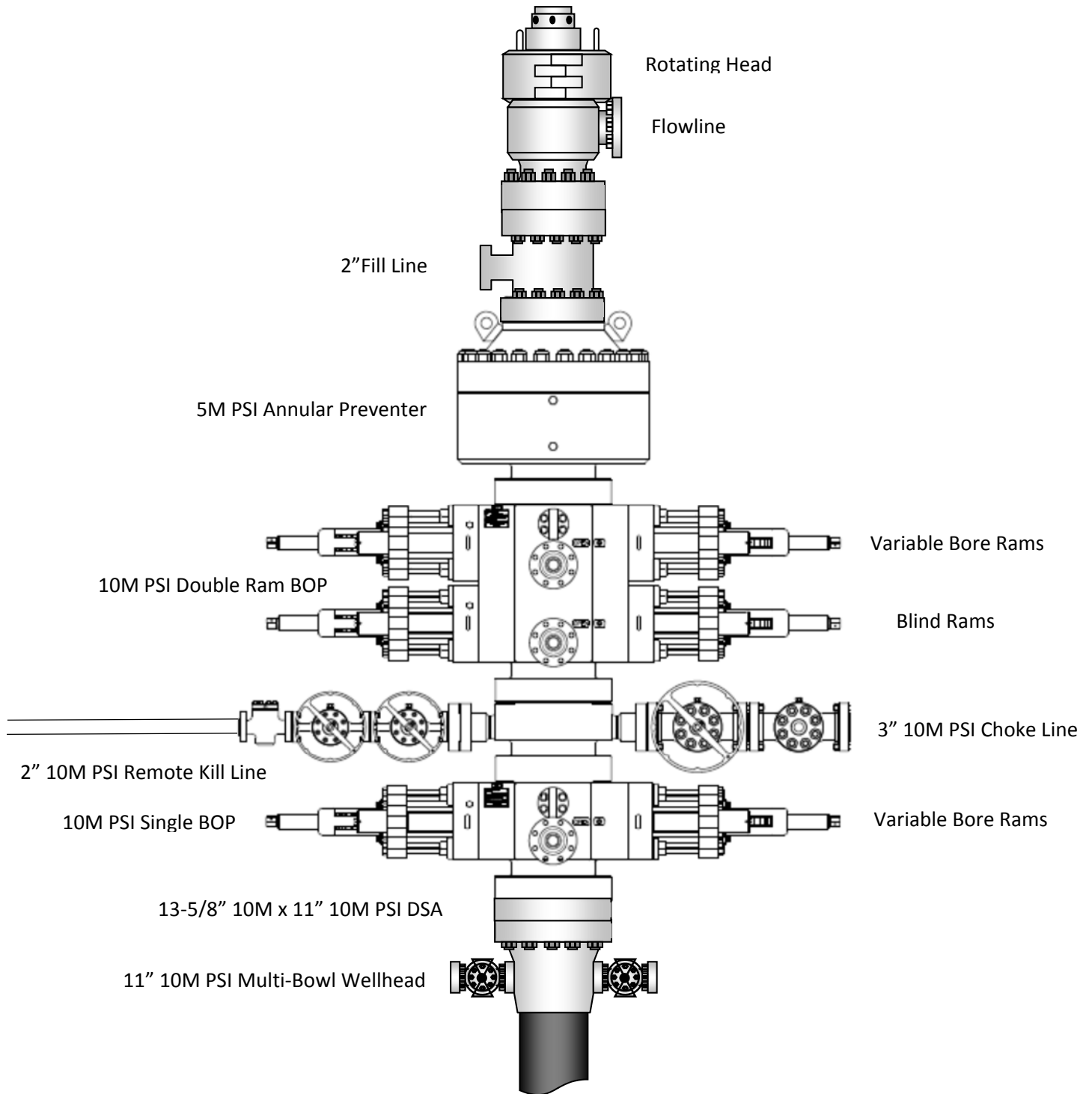


Exhibit 1

EOG Resources

11" 10M PSI BOP Stack



Metal One Corp. Metal One	MO-FXL Connection Data Sheet		Page	MCTP
			Date	3-Nov-16
			Rev.	0

MO-FXL

Geometry

Imperial

S.I.

Pipe Body

Grade	P110HC *1		P110HC *1	
Pipe OD (D)	7 5/8	in	193.68	mm
Weight	29.70	lb/ft	44.25	kg/m
Actual weight	29.04		43.26	kg/m
Wall Thickness (t)	0.375	in	9.53	mm
Pipe ID (d)	6.875	in	174.63	mm
Pipe body cross section	8.537	in ²	5,508	mm ²
Drift Dia.	6.750	in	171.45	mm

Connection

Box OD (W)	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Make up Loss	4.219	in	107.16	mm
Box Critical Area	5.714	in ²	3686	mm ²
Joint load efficiency	70	%	70	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			

Performance

Performance Properties for Pipe Body

S.M.Y.S. *1	1,067	kips	4,747	kN
M.I.Y.P. *1	10,760	psi	74.21	MPa
Collapse Strength *1	7,360	psi	50.76	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
 M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body
 *1 Based on VSB P110HC (YS=125~140ksi)

Performance Properties for Connection

Tensile Yield load	747 kips (70% of S.M.Y.S.)
Min. Compression Yield	747 kips (70% of S.M.Y.S.)
Internal Pressure	8,610 psi (80% of M.I.Y.P.)
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	40

Recommended Torque

Min.	15,500	ft-lb	21,000	N-m
Opti.	17,200	ft-lb	23,300	N-m
Max.	18,900	ft-lb	25,600	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

Note : Operational Max. torque can be applied for high torque application

The diagram illustrates the MO-FXL connection geometry. It shows a vertical pipe section with a threaded box end. Key dimensions and areas are labeled: 'Make up loss' is the length of the threaded section; 'Box critical area' is the area of the box end; 'Pin critical area' is the area of the pin end; 'd' is the pin ID; and 'D' is the box OD. Arrows indicate the direction of measurement for each parameter.

For the latest performance data, always visit our website: www.tenaris.com

March 10 2017



Connection: TenarisXP® BTC
Casing/Tubing: CAS
Coupling Option: REGULAR

Size: 5.500 in.
Wall: 0.361 in.
Weight: 20.00 lbs/ft
Grade: P110-ICY
Min. Wall Thickness: 87.5 %



PIPE BODY DATA

GEOMETRY			
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft
Nominal ID	4.778 in.	Wall Thickness	0.361 in.
Plain End Weight	19.83 lbs/ft	Standard Drift Diameter	4.653 in.
		Special Drift Diameter	N/A

PERFORMANCE

Body Yield Strength	729 x 1000 lbs	Internal Yield	14360 psi
Collapse	12100 psi	SMYS	125000 psi

TENARISXP® BTC CONNECTION DATA

GEOMETRY			
Connection OD	6.100 in.	Coupling Length	9.450 in.
Critical Section Area	5.828 sq. in.	Threads per in.	5.00
		Connection ID	4.766 in.
		Make-Up Loss	4.204 in.

PERFORMANCE

Tension Efficiency	100 %	Joint Yield Strength	729 x 1000 lbs
Structural Compression Efficiency	100 %	Structural Compression Strength	729 x 1000 lbs
External Pressure Capacity	12100 psi	Internal Pressure Capacity ⁽¹⁾	14360 psi
		Structural Bending ⁽²⁾	104 °/100 ft

ESTIMATED MAKE-UP TORQUES⁽³⁾

Minimum	11540 ft-lbs	Optimum	12820 ft-lbs
		Maximum	14100 ft-lbs

OPERATIONAL LIMIT TORQUES

Operating Torque	22700 ft-lbs	Yield Torque	25250 ft-lbs
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BLANKING DIMENSIONS

Blanking Dimensions

(1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 23644

CONDITIONS OF APPROVAL

Operator:	EOG RESOURCES INC	P.O. Box 2267	Midland, TX79702	OGRID:	7377	Action Number:	23644	Action Type:	C-103A
OCD Reviewer									Condition
pkautz									None