

15-124

OCD Hobbs

Form 3160-3
(March 2012)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD

OCT 16 2015

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

5. Lease Serial No.
NMNM26079

6. If Indian, Allottee or Tribe Name

[H]

1a. Type of work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone8. Lease Name and Well No.
Streetcar 15 Fed 5H

[315310]

2. Name of Operator EOG Resources, Inc.

9. API Well No.

30-025- 42878

3a. Address P.O. Box 2267 Midland, TX 79702

3b. Phone No. (include area code)

432-686-3689

10. Field and Pool, or Exploratory

Red Hills; Upper Bone Spring Shale

[9-900]

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

At surface 250' FSL & 2215' FWL, SESW (N), Sec 15, 25S, 33E

At proposed prod. zone 230' FNL & 2398' FWL, NENW (C), Sec 15

UNORTHODOX
LOCATION11. Sec., T. R. M. or Blk. and Survey or Area
Section 15, T25S, R33E14. Distance in miles and direction from nearest town or post office*
Approximately +/- 30 miles Southwest from Jal, NM12. County or Parish
Lea13. State
NM15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

250' SL, 330' PP

16. No. of acres in lease
64017. Spacing Unit dedicated to this well
160 ac.18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

504' frm 4H

19. Proposed Depth
14198' MD, 9400' TVD20. BLM/BIA Bond No. on file
NM 230821. Elevations (Show whether DF, KDB, RT, GL, etc.)
3363' GL22. Approximate date work will start*
07/01/201523. Estimated duration
25 days

24. Attachments

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

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

25. Signature

[Signature: Stan Wagner]

Name (Printed/Typed)
Stan Wagner

Date

1/23/15

Title

Regulatory Specialist

Approved by (Signature)

[Signature: Stephen J. Caffey]

Name (Printed/Typed)

Date

OCT 07 2015

Title

FOR

FIELD MANAGER

Office

BLM-CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.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.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ
10/16/15

Witness Surface Casing

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

OCT 19 2015

**EOG RESOURCES, INC.
STRECAR 15 FED NO. 5H**

HOBBS OGD

OCT 16 2015

RECEIVED

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,112'
Top of Salt	1,465'
Base of Salt / Top Anhydrite	4,825'
Base Anhydrite	5,035'
Lamar	5,035'
Bell Canyon	5,060'
Cherry Canyon	6,130'
Brushy Canyon	7,610'
Bone Spring Lime	9,230'
TD	9,400'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	6,130'	Oil
Brushy Canyon	7,610'	Oil
Bone Spring Lime	9,230'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13.375" casing at 1,145' and circulating cement back to surface.

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
17.5"	0 - 1,145'	13.375"	54.5#	J55	STC	1.125	1.25	1.60
12.25"	0-4,000'	9.625"	40#	J55	LTC	1.125	1.25	1.60
12.25"	4,000' - 5,000'	9.625"	40#	HCK55	LTC	1.125	1.25	1.60
8.75"	0'-14,198'	5.500"	17#	P110 or HCP110	LTC	1.125	1.25	1.60

1140'

**EOG RESOURCES, INC.
STREECAR 15 FED NO. 5H**

Cementing Program:

Depth	No. Sacks	Wt. lb/gal	Yld Ft ³ /ft	Mix Water Gal/sk	Slurry Description
1160' 13-3/8" 1,145'	600	13.5	1.73	9.13	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ surface)
	300	14.8	1.34	6.34	Tail: Class C + 0.005 pps Static Free + 2% CaCl ₂ + 0.25 pps CelloFlake + 0.005 gps FP-6L
9-5/8" 5,000'	1000	12.7	2.22	12.38	Lead: Class 'C' + 1.50% R-3 + 0.25 lb/sk Cello-Flake + 2.0% Sodium Metasilicate + 10% Salt + 0.005 lb/sk Static Free (TOC @ surface)
	200	14.8	1.32	6.33	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
5-1/2" 14,198'	375	10.8	3.67	21.7	Lead: 60:40:0 Class 'C' + 15.00 lb/sk BA-90 + 4.00% MPA-5 + 3.00% SMS + 5.00% A-10 + 1.00% BA-10A + 0.80% ASA-301 + 2.90% R-21 + 8.00 lb/sk LCM-1 + 0.005 lb/sk Static Free (TOC @ 4500')
	400	11.8	2.38	13.25	Middle: 50:50:10 Class 'H' + 0.80% FL-52 + 0.45% ASA-301 + 0.40% SMS + 2.00% Salt + 3.00 lb/sx LCM-1 + 0.20% R-21 + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
	1425	14.2	1.28	5.75	Tail: 50:50:2 Class 'H' + 0.65% FL-52 + 0.20% CD-32 + 0.15% SMS + 2.00% Salt + 0.10% R-3 + 0.005 lb/sk Static Free

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

See COA Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a double ram-type (10,000 psi WP) preventer and an annular preventer (5000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

See COA 3000 psi BOPE is adequate for this application. Due to the 3000 psi BOPE requirement no FIT tests are planned.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 2000/ 250 psig and the annular preventer to 2000/ 250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

EOG RESOURCES, INC.
STRECAR 15 FED NO. 5H

Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000/ 250 psig and the annular preventer to 3000/ 250 psig. The intermediate casing will be tested to 2000 psi for 30 minutes.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,145'	Fresh Water Gel	8.6-8.8	28-34	N/c
1,145' - 5,000'	Saturated Brine	10.0-10.2	28-34	N/c
5,000' - 8,908'	Fresh Water	8.4-8.6	28-34	N/c
8,908' - 14,198'	Cut Brine Water	9.0-9.5	28-34	N/c
Lateral				

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

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

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

**EOG RESOURCES, INC.
STREECAR 15 FED NO. 5H**

8. LOGGING, TESTING AND CORING PROGRAM:

See Open-hole logs are not planned for this well.

COST GR-CCL Will be run in cased hole during completions phase of operations.

**9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND
POTENTIAL HAZARDS:**

See
COST The estimated bottom-hole temperature (BHT) at TD is 154 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4070 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

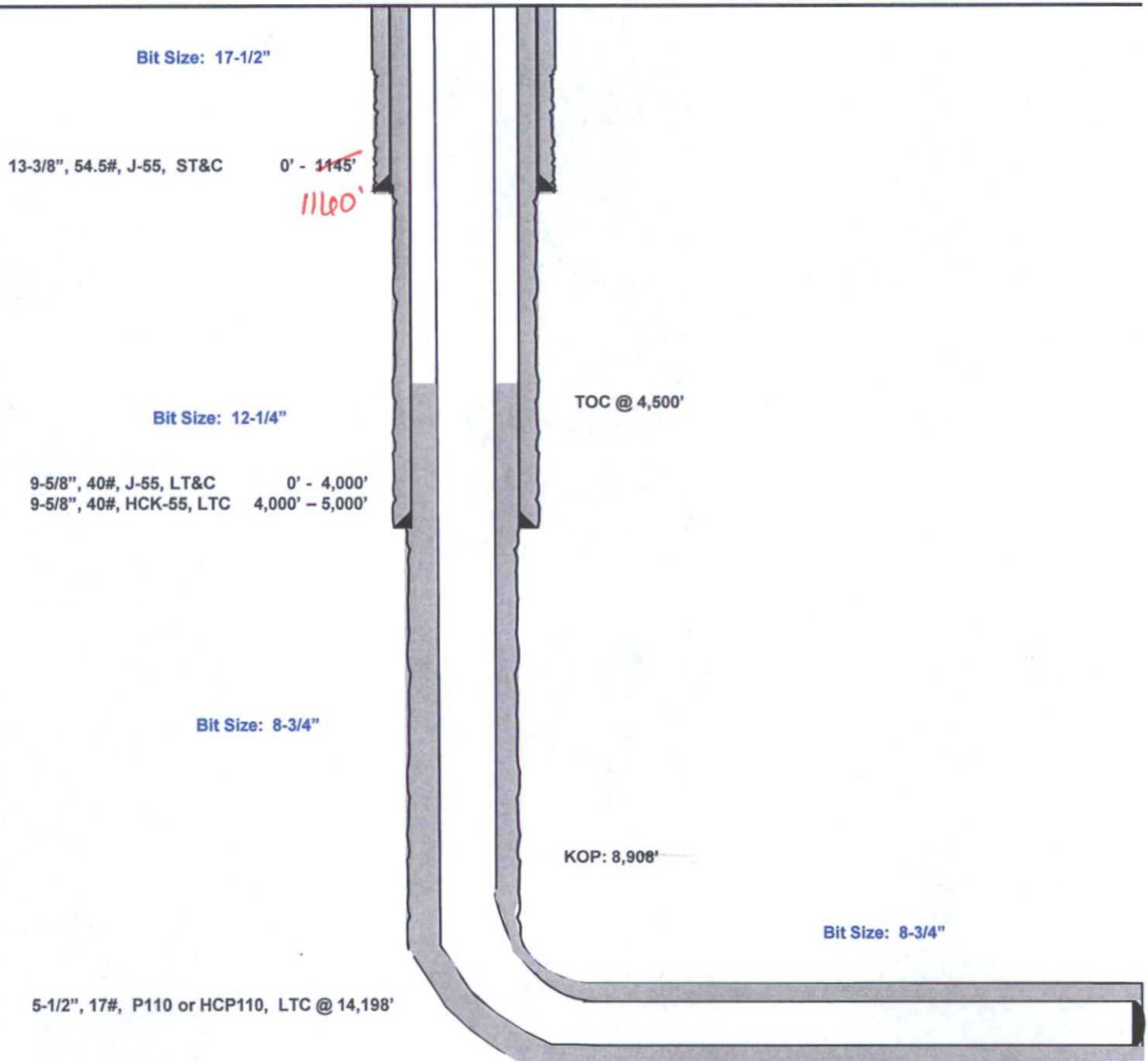
The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

Streetcar 15 Fed #5H
Lea County, New Mexico
Proposed Wellbore

250' FSL
2215' FWL
Section 15
T-25-S, R-33-E

API: 30-025-*****

KB: 3,393'
GL: 3,363'



Lateral:
14,198' MD, 9,400' TVD
Upper Most Perf:
330' FSL & 2398' FWL
Lower Most Perf:
330' FNL & 2398' FWL
BH Location: 230' FNL & 2398' FWL
Section 15
T-25-S, R-33-E



Lea County, NM (NAD 27 NME)

Streetcar 15 Fed #5H

Cactus 123

Plan #3

PROJECT DETAILS: Lea County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #5H

Ground Level: 3363.0
KB = 30 @ 3393.0usft (Cactus 123)
Easting: 739051.00 Latitude: 32° 7' 25.893 N Longitude: 103° 33' 40.170 W

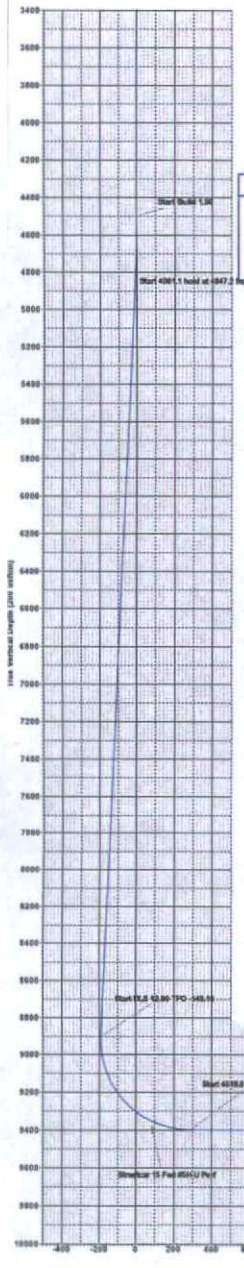
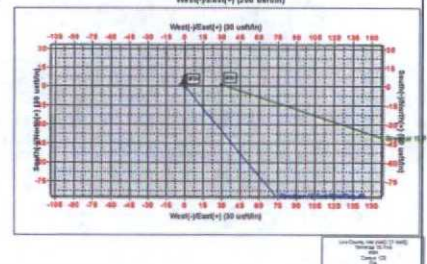
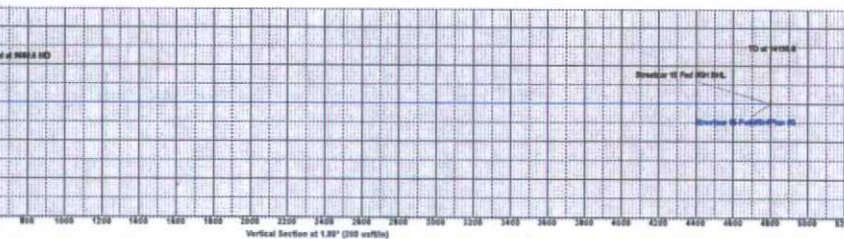
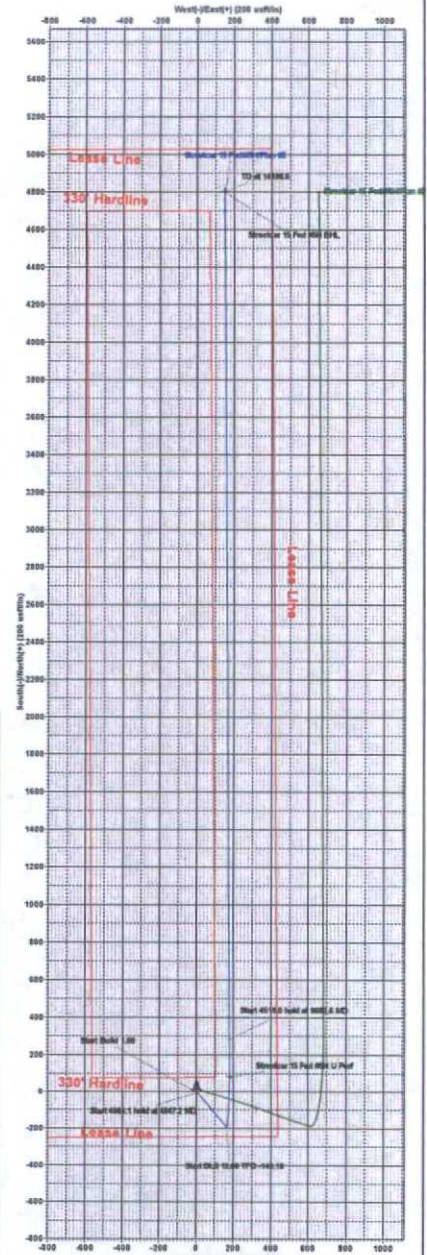
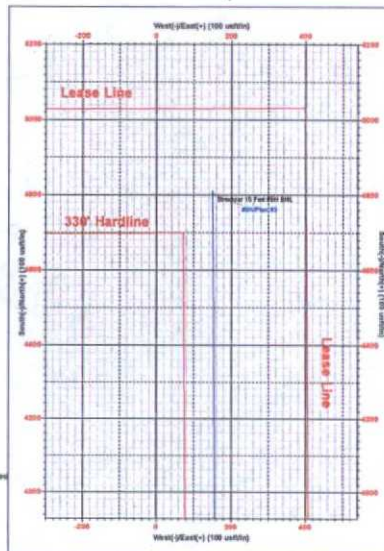
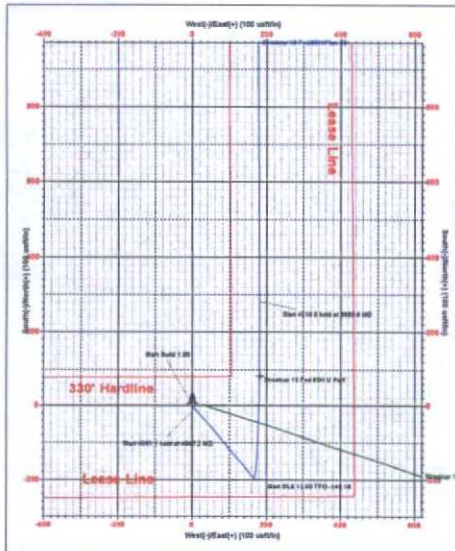
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSecl	Target	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0		
2	4500.0	0.00	0.00	4500.0	0.0	0.0	0.00	0.00	0.0		
3	4847.2	3.47	139.82	4847.0	-8.0	6.8	1.00	139.82	-7.8		
4	8908.4	3.47	139.82	8908.7	-196.0	165.5	0.00	0.00	-190.7		
5	8890.6	80.00	359.61	8400.0	281.1	181.6	12.00	-145.16	386.7		
6	14198.6	80.00	359.61	8400.0	4799.0	161.0	0.00	0.00	4801.4	Streetcar 15 Fed #5H BHL	

CASING DETAILS
No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting
Streetcar 15 Fed #5H BHL	8400.0	4799.0	161.0	414438.00	739202.00
Streetcar 15 Fed #5H U Perf	8400.0	82.0	183.0	409721.00	739234.00



Scale: 1 inch = 100 feet
Date: 10/1/2014
Drawn: J. L. Smith
Checked: J. L. Smith



EOG Resources - Midland

Lea County, NM (NAD 27 NME)

Streetcar 15 Fed

#5H

OH

Plan: Plan #3

Standard Survey Report

09 January, 2015



EOG Resources, Inc. Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #5H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Streetcar 15 Fed		
Site Position:		Northing:	414,879.00 usft
From:	Map	Easting:	737,408.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 8' 17.863 N
		Longitude:	103° 33' 58.840 W
		Grid Convergence:	0.41 °

Well	#5H		
Well Position	+N/-S	0.0 usft	Northing: 409,639.00 usft
	+E/-W	0.0 usft	Easting: 739,051.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 7' 25.893 N
		Longitude:	103° 33' 40.170 W
		Ground Level:	3,363.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF201014	5/15/2014	7.22
			Dip Angle (°)
			60.02
			Field Strength (nT)
			48,266

Design	Plan #3		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.0	0.0	0.0
			Direction (°)
			1.80

Survey Tool Program	Date 1/8/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
0.0	14,198.6 Plan #3 (OH)		MWD
			Description
			MWD - Standard

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



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #5H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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)
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	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	1.00	139.82	4,600.0	-0.7	0.6	-0.6	1.00	1.00	0.00
4,700.0	2.00	139.82	4,700.0	-2.7	2.3	-2.6	1.00	1.00	0.00
4,800.0	3.00	139.82	4,799.9	-6.0	5.1	-5.8	1.00	1.00	0.00
4,847.2	3.47	139.82	4,847.0	-8.0	6.8	-7.8	1.00	1.00	0.00
4,900.0	3.47	139.82	4,899.7	-10.5	8.8	-10.2	0.00	0.00	0.00
5,000.0	3.47	139.82	4,999.5	-15.1	12.8	-14.7	0.00	0.00	0.00
5,100.0	3.47	139.82	5,099.3	-19.7	16.7	-19.2	0.00	0.00	0.00
5,200.0	3.47	139.82	5,199.1	-24.4	20.6	-23.7	0.00	0.00	0.00



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #5H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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	3.47	139.82	5,299.0	-29.0	24.5	-28.2	0.00	0.00	0.00
5,400.0	3.47	139.82	5,398.8	-33.6	28.4	-32.7	0.00	0.00	0.00
5,500.0	3.47	139.82	5,498.6	-38.2	32.3	-37.2	0.00	0.00	0.00
5,600.0	3.47	139.82	5,598.4	-42.9	36.2	-41.7	0.00	0.00	0.00
5,700.0	3.47	139.82	5,698.2	-47.5	40.1	-46.2	0.00	0.00	0.00
5,800.0	3.47	139.82	5,798.0	-52.1	44.0	-50.7	0.00	0.00	0.00
5,900.0	3.47	139.82	5,897.9	-56.8	47.9	-55.2	0.00	0.00	0.00
6,000.0	3.47	139.82	5,997.7	-61.4	51.8	-59.7	0.00	0.00	0.00
6,100.0	3.47	139.82	6,097.5	-66.0	55.7	-64.2	0.00	0.00	0.00
6,200.0	3.47	139.82	6,197.3	-70.6	59.7	-68.7	0.00	0.00	0.00
6,300.0	3.47	139.82	6,297.1	-75.3	63.6	-73.2	0.00	0.00	0.00
6,400.0	3.47	139.82	6,396.9	-79.9	67.5	-77.7	0.00	0.00	0.00
6,500.0	3.47	139.82	6,496.8	-84.5	71.4	-82.2	0.00	0.00	0.00
6,600.0	3.47	139.82	6,596.6	-89.1	75.3	-86.7	0.00	0.00	0.00
6,700.0	3.47	139.82	6,696.4	-93.8	79.2	-91.2	0.00	0.00	0.00
6,800.0	3.47	139.82	6,796.2	-98.4	83.1	-95.7	0.00	0.00	0.00
6,900.0	3.47	139.82	6,896.0	-103.0	87.0	-100.2	0.00	0.00	0.00
7,000.0	3.47	139.82	6,995.8	-107.7	90.9	-104.7	0.00	0.00	0.00
7,100.0	3.47	139.82	7,095.7	-112.3	94.8	-109.2	0.00	0.00	0.00
7,200.0	3.47	139.82	7,195.5	-116.9	98.7	-113.7	0.00	0.00	0.00
7,300.0	3.47	139.82	7,295.3	-121.5	102.6	-118.2	0.00	0.00	0.00
7,400.0	3.47	139.82	7,395.1	-126.2	106.5	-122.8	0.00	0.00	0.00
7,500.0	3.47	139.82	7,494.9	-130.8	110.5	-127.3	0.00	0.00	0.00
7,600.0	3.47	139.82	7,594.7	-135.4	114.4	-131.8	0.00	0.00	0.00
7,700.0	3.47	139.82	7,694.5	-140.0	118.3	-136.3	0.00	0.00	0.00
7,800.0	3.47	139.82	7,794.4	-144.7	122.2	-140.8	0.00	0.00	0.00
7,900.0	3.47	139.82	7,894.2	-149.3	126.1	-145.3	0.00	0.00	0.00
8,000.0	3.47	139.82	7,994.0	-153.9	130.0	-149.8	0.00	0.00	0.00
8,100.0	3.47	139.82	8,093.8	-158.6	133.9	-154.3	0.00	0.00	0.00
8,200.0	3.47	139.82	8,193.6	-163.2	137.8	-158.8	0.00	0.00	0.00
8,300.0	3.47	139.82	8,293.4	-167.8	141.7	-163.3	0.00	0.00	0.00
8,400.0	3.47	139.82	8,393.3	-172.4	145.6	-167.8	0.00	0.00	0.00
8,500.0	3.47	139.82	8,493.1	-177.1	149.5	-172.3	0.00	0.00	0.00
8,600.0	3.47	139.82	8,592.9	-181.7	153.4	-176.8	0.00	0.00	0.00
8,700.0	3.47	139.82	8,692.7	-186.3	157.4	-181.3	0.00	0.00	0.00
8,800.0	3.47	139.82	8,792.5	-190.9	161.3	-185.8	0.00	0.00	0.00
8,908.4	3.47	139.82	8,900.7	-196.0	165.5	-190.7	0.00	0.00	0.00
8,925.0	2.32	106.40	8,917.3	-196.4	166.1	-191.1	12.00	-6.91	-200.86
8,950.0	3.22	43.26	8,942.3	-196.1	167.1	-190.7	12.00	3.59	-252.53
8,975.0	5.77	22.20	8,967.2	-194.4	168.1	-189.0	12.00	10.21	-84.26
9,000.0	8.62	14.46	8,992.0	-191.4	169.0	-186.0	12.00	11.38	-30.97
9,025.0	11.54	10.57	9,016.6	-187.1	169.9	-181.7	12.00	11.69	-15.53
9,050.0	14.50	8.25	9,041.0	-181.6	170.8	-176.1	12.00	11.82	-9.29



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #5H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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)
9,075.0	17.47	6.70	9,065.0	-174.8	171.7	-169.3	12.00	11.88	-6.20
9,100.0	20.45	5.59	9,088.6	-166.7	172.6	-161.2	12.00	11.91	-4.44
9,125.0	23.43	4.75	9,111.8	-157.4	173.4	-151.9	12.00	11.93	-3.35
9,150.0	26.42	4.10	9,134.5	-146.9	174.2	-141.3	12.00	11.95	-2.63
9,175.0	29.41	3.56	9,156.6	-135.2	175.0	-129.6	12.00	11.96	-2.13
9,200.0	32.40	3.12	9,178.0	-122.4	175.8	-116.8	12.00	11.97	-1.77
9,225.0	35.39	2.75	9,198.8	-108.5	176.5	-102.9	12.00	11.97	-1.50
9,250.0	38.38	2.42	9,218.8	-93.5	177.2	-87.9	12.00	11.97	-1.29
9,275.0	41.38	2.14	9,238.0	-77.5	177.8	-71.8	12.00	11.98	-1.13
9,300.0	44.37	1.89	9,256.3	-60.5	178.4	-54.8	12.00	11.98	-1.01
9,325.0	47.37	1.66	9,273.7	-42.5	178.9	-36.9	12.00	11.98	-0.90
9,350.0	50.37	1.45	9,290.1	-23.7	179.5	-18.1	12.00	11.98	-0.82
9,375.0	53.36	1.27	9,305.6	-4.1	179.9	1.6	12.00	11.99	-0.75
9,400.0	56.36	1.09	9,320.0	16.4	180.3	22.0	12.00	11.99	-0.70
9,425.0	59.36	0.93	9,333.3	37.5	180.7	43.2	12.00	11.99	-0.65
9,450.0	62.35	0.78	9,345.4	59.4	181.0	65.0	12.00	11.99	-0.61
9,475.0	65.35	0.63	9,356.5	81.8	181.3	87.5	12.00	11.99	-0.58
9,500.0	68.35	0.49	9,366.3	104.8	181.5	110.4	12.00	11.99	-0.55
9,525.0	71.34	0.36	9,374.9	128.3	181.7	133.9	12.00	11.99	-0.53
9,550.0	74.34	0.24	9,382.3	152.1	181.8	157.8	12.00	11.99	-0.51
9,575.0	77.34	0.11	9,388.4	176.4	181.9	182.0	12.00	11.99	-0.50
9,600.0	80.34	359.99	9,393.2	200.9	181.9	206.5	12.00	11.99	-0.48
9,625.0	83.33	359.87	9,396.8	225.6	181.9	231.3	12.00	11.99	-0.48
9,650.0	86.33	359.75	9,399.0	250.5	181.8	256.1	12.00	11.99	-0.47
9,675.0	89.33	359.64	9,400.0	275.5	181.7	281.1	12.00	11.99	-0.47
9,680.6	90.00	359.61	9,400.0	281.1	181.6	286.7	12.00	11.99	-0.47
9,700.0	90.00	359.61	9,400.0	300.5	181.5	306.1	0.00	0.00	0.00
9,800.0	90.00	359.61	9,400.0	400.5	180.8	406.0	0.00	0.00	0.00
9,900.0	90.00	359.61	9,400.0	500.5	180.2	505.9	0.00	0.00	0.00
10,000.0	90.00	359.61	9,400.0	600.5	179.5	605.9	0.00	0.00	0.00
10,100.0	90.00	359.61	9,400.0	700.5	178.8	705.8	0.00	0.00	0.00
10,200.0	90.00	359.61	9,400.0	800.5	178.1	805.7	0.00	0.00	0.00
10,300.0	90.00	359.61	9,400.0	900.5	177.4	905.6	0.00	0.00	0.00
10,400.0	90.00	359.61	9,400.0	1,000.5	176.8	1,005.6	0.00	0.00	0.00
10,500.0	90.00	359.61	9,400.0	1,100.5	176.1	1,105.5	0.00	0.00	0.00
10,600.0	90.00	359.61	9,400.0	1,200.5	175.4	1,205.4	0.00	0.00	0.00
10,700.0	90.00	359.61	9,400.0	1,300.5	174.7	1,305.3	0.00	0.00	0.00
10,800.0	90.00	359.61	9,400.0	1,400.5	174.1	1,405.3	0.00	0.00	0.00
10,900.0	90.00	359.61	9,400.0	1,500.5	173.4	1,505.2	0.00	0.00	0.00
11,000.0	90.00	359.61	9,400.0	1,600.5	172.7	1,605.1	0.00	0.00	0.00
11,100.0	90.00	359.61	9,400.0	1,700.5	172.0	1,705.1	0.00	0.00	0.00
11,200.0	90.00	359.61	9,400.0	1,800.5	171.3	1,805.0	0.00	0.00	0.00
11,300.0	90.00	359.61	9,400.0	1,900.5	170.7	1,904.9	0.00	0.00	0.00



EOG Resources, Inc.

Survey Report

Company:	EOG Resources - Midland	Local Co-ordinate Reference:	Well #5H
Project:	Lea County, NM (NAD 27 NME)	TVD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Site:	Streetcar 15 Fed	MD Reference:	KB = 30 @ 3393.0usft (Cactus 123)
Well:	#5H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3	Database:	EDM 5000.1 Single User Db

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)
11,400.0	90.00	359.61	9,400.0	2,000.5	170.0	2,004.8	0.00	0.00	0.00
11,500.0	90.00	359.61	9,400.0	2,100.5	169.3	2,104.8	0.00	0.00	0.00
11,600.0	90.00	359.61	9,400.0	2,200.5	168.6	2,204.7	0.00	0.00	0.00
11,700.0	90.00	359.61	9,400.0	2,300.5	167.9	2,304.6	0.00	0.00	0.00
11,800.0	90.00	359.61	9,400.0	2,400.5	167.3	2,404.5	0.00	0.00	0.00
11,900.0	90.00	359.61	9,400.0	2,500.5	166.6	2,504.5	0.00	0.00	0.00
12,000.0	90.00	359.61	9,400.0	2,600.5	165.9	2,604.4	0.00	0.00	0.00
12,100.0	90.00	359.61	9,400.0	2,700.5	165.2	2,704.3	0.00	0.00	0.00
12,200.0	90.00	359.61	9,400.0	2,800.5	164.6	2,804.2	0.00	0.00	0.00
12,300.0	90.00	359.61	9,400.0	2,900.5	163.9	2,904.2	0.00	0.00	0.00
12,400.0	90.00	359.61	9,400.0	3,000.5	163.2	3,004.1	0.00	0.00	0.00
12,500.0	90.00	359.61	9,400.0	3,100.5	162.5	3,104.0	0.00	0.00	0.00
12,600.0	90.00	359.61	9,400.0	3,200.4	161.8	3,204.0	0.00	0.00	0.00
12,700.0	90.00	359.61	9,400.0	3,300.4	161.2	3,303.9	0.00	0.00	0.00
12,800.0	90.00	359.61	9,400.0	3,400.4	160.5	3,403.8	0.00	0.00	0.00
12,900.0	90.00	359.61	9,400.0	3,500.4	159.8	3,503.7	0.00	0.00	0.00
13,000.0	90.00	359.61	9,400.0	3,600.4	159.1	3,603.7	0.00	0.00	0.00
13,100.0	90.00	359.61	9,400.0	3,700.4	158.5	3,703.6	0.00	0.00	0.00
13,200.0	90.00	359.61	9,400.0	3,800.4	157.8	3,803.5	0.00	0.00	0.00
13,300.0	90.00	359.61	9,400.0	3,900.4	157.1	3,903.4	0.00	0.00	0.00
13,400.0	90.00	359.61	9,400.0	4,000.4	156.4	4,003.4	0.00	0.00	0.00
13,500.0	90.00	359.61	9,400.0	4,100.4	155.7	4,103.3	0.00	0.00	0.00
13,600.0	90.00	359.61	9,400.0	4,200.4	155.1	4,203.2	0.00	0.00	0.00
13,700.0	90.00	359.61	9,400.0	4,300.4	154.4	4,303.2	0.00	0.00	0.00
13,800.0	90.00	359.61	9,400.0	4,400.4	153.7	4,403.1	0.00	0.00	0.00
13,900.0	90.00	359.61	9,400.0	4,500.4	153.0	4,503.0	0.00	0.00	0.00
14,000.0	90.00	359.61	9,400.0	4,600.4	152.3	4,602.9	0.00	0.00	0.00
14,100.0	90.00	359.61	9,400.0	4,700.4	151.7	4,702.9	0.00	0.00	0.00
14,198.6	90.00	359.61	9,400.0	4,799.0	151.0	4,801.4	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	Longitude
Streetcar 15 Fed #5H U	0.00	0.00	9,400.0	82.0	183.0	409,721.00	739,234.00	32° 7' 26.692 N	103° 33' 38.035 W
- hit/miss target									
- Shape									
- plan misses target center by 39.9usft at 9492.3usft MD (9363.4 TVD, 97.7 N, 181.5 E)									
- Point									
Streetcar 15 Fed #5H B1	0.00	0.00	9,400.0	4,799.0	151.0	414,438.00	739,202.00	32° 8' 13.372 N	103° 33' 38.014 W
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Checked By: _____ Approved By: _____ Date: _____

Exhibit 1

EOG Resources

5M BOPE

Rig Floor

1. 13 5/8" Rotating Head
2. NOV 13 5/8" 5,000 PSI WP GK Annular Preventor
3. 13 5/8" Cameron Type "U" 10,000 PSI WP Ram Preventors
4. 2 1/16" - 10,000 PSI WP Check Valve
5. 10,000 PSI WP - 1502 Union to kill line
6. 2 1/16" - 10,000 PSI WP Manual Valves
7. 13 5/8" 3,000 PSI WP x 13 5/8" 5,000 PSI WP Spacer Spool
8. 4 1/16" 10,000 PSI WP HCR Valve
9. 4 1/16" 10,000 PSI WP Manual Valve
10. 6" OD x 3" ID 10,000 PSI WP Steel Armoured Flex Choke Line
11. DSA - 13 5/8" 10,000 PSI WP x 13 5/8" 5,000 PSI WP
12. Mud Cross - 13 5/8" 10,000 PSI WP
13. Blind Rams
14. Pipe Rams
15. 13 5/8" Cameron Type "U" 10,000 PSI WP Pipe Rams
16. Flow Line
17. 2" Fill Line

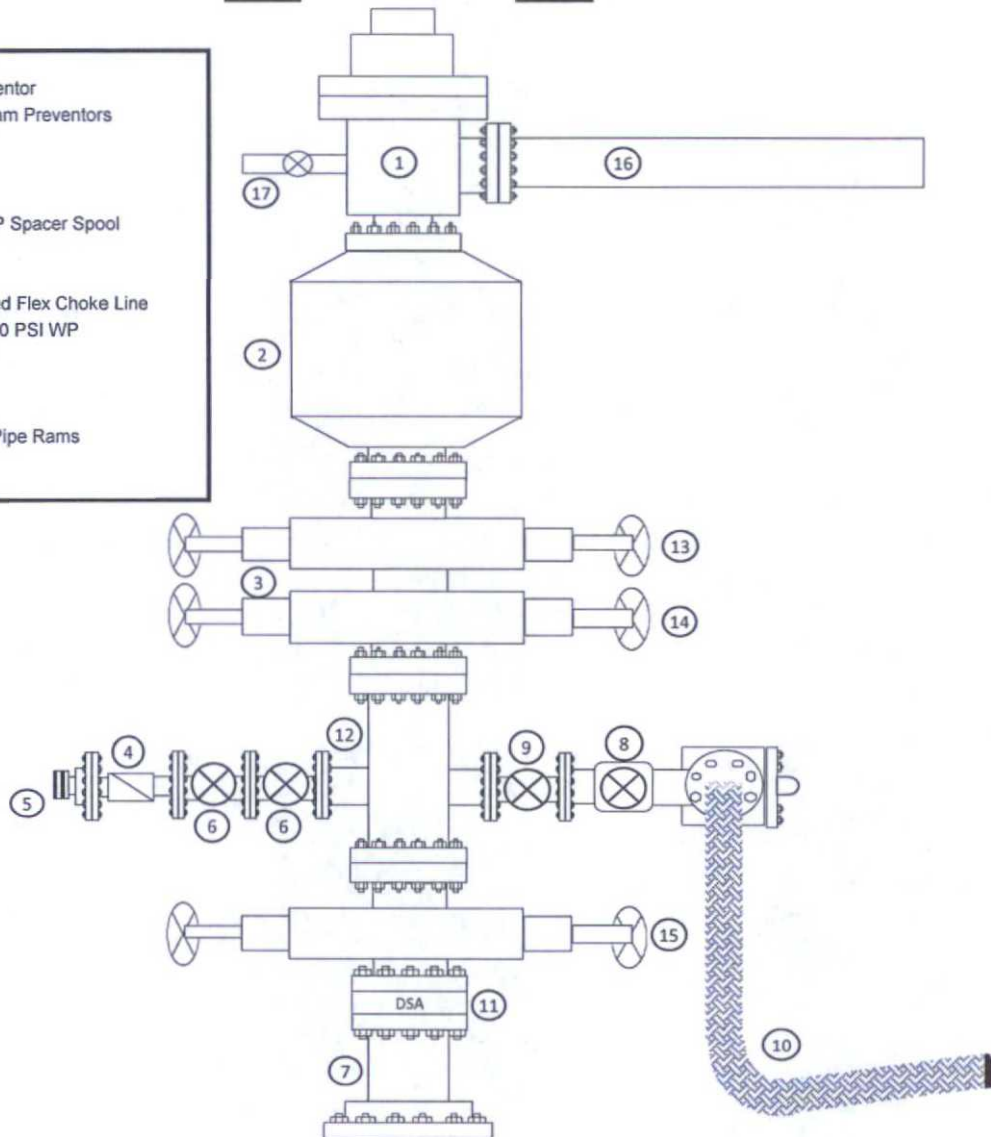
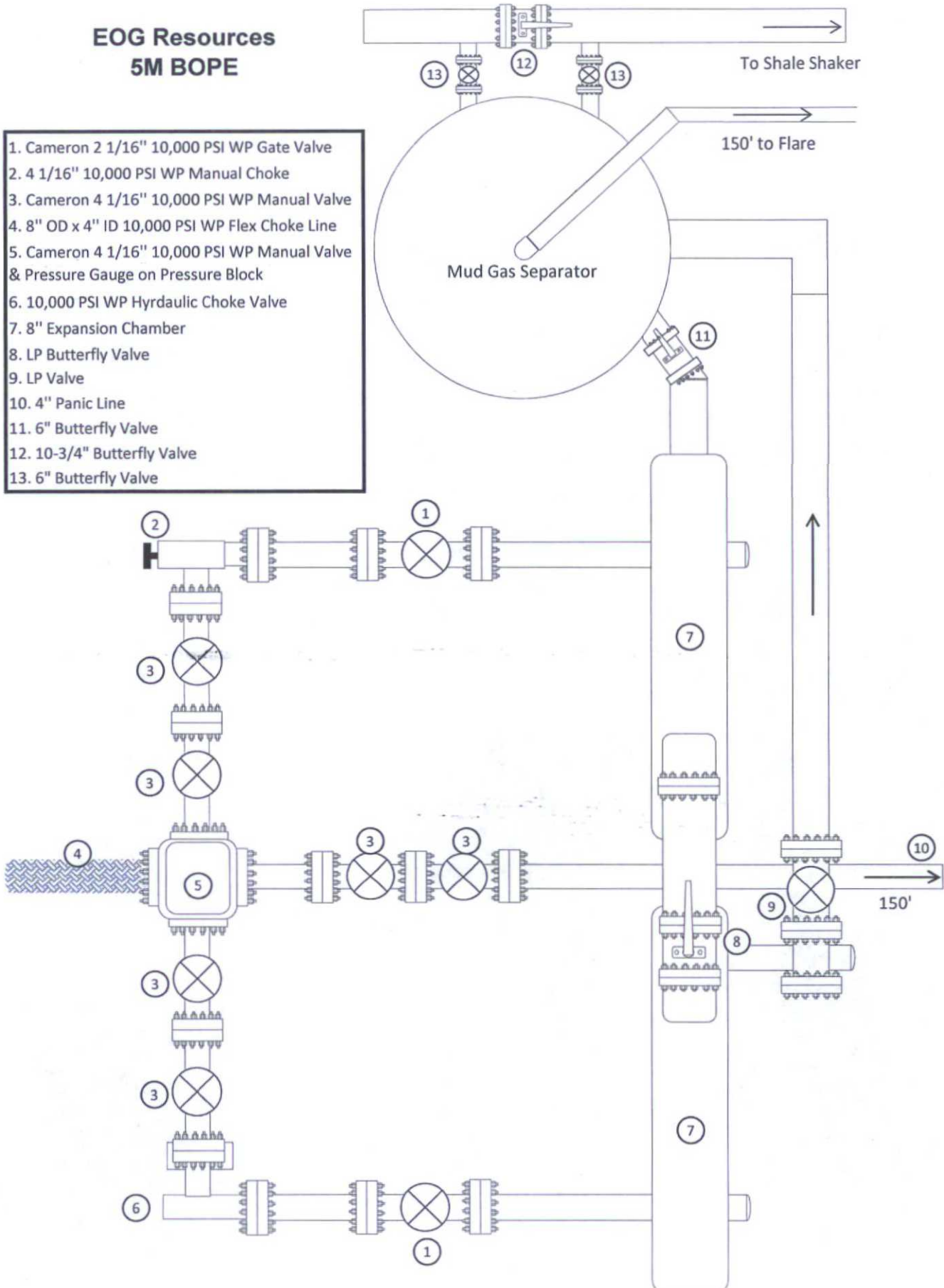


Exhibit 1a

EOG Resources 5M BOPE

1. Cameron 2 1/16" 10,000 PSI WP Gate Valve
2. 4 1/16" 10,000 PSI WP Manual Choke
3. Cameron 4 1/16" 10,000 PSI WP Manual Valve
4. 8" OD x 4" ID 10,000 PSI WP Flex Choke Line
5. Cameron 4 1/16" 10,000 PSI WP Manual Valve & Pressure Gauge on Pressure Block
6. 10,000 PSI WP Hyrdraulic Choke Valve
7. 8" Expansion Chamber
8. LP Butterfly Valve
9. LP Valve
10. 4" Panic Line
11. 6" Butterfly Valve
12. 10-3/4" Butterfly Valve
13. 6" Butterfly Valve



Manufacturer: Midwest Hose & Specialty

Serial Number: SN#90067

Length: 35'

Size: OD = 8" ID = 4"

Ends: Flanges Size: 4-1/16"

WP Rating: 10,000 psi Anchors required by manufacturer: No

M I D W E S T
HOSE AND SPECIALTY INC.

INTERNAL HYDROSTATIC TEST REPORT			
Customer: CACTUS		P.O. Number: RIG #123 Asset # M10761	
HOSE SPECIFICATIONS			
Type: CHOKER LINE		Length: 35'	
I.D. 4" INCHES		O.D. 8" INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE PSI	
COUPLINGS			
Type of End Fitting 4 1/16 10K FLANGE			
Type of Coupling: SWEDGED		MANUFACTURED BY MIDWEST HOSE & SPECIALTY	
PROCEDURE			
<i>Hose assembly pressure tested with water at ambient temperature.</i>			
TIME HELD AT TEST PRESSURE 1 MIN.		ACTUAL BURST PRESSURE: 0 PSI	
COMMENTS: SN#90067 M10761 Hose is covered with stainless steel armour cover and wrapped with fire resistant vermiculite coated fiberglass insulation rated for 1500 degrees complete with lifting eyes			
Date: 6/6/2011	Tested By: BOBBY FINK		Approved: MENDI JACKSON



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: CACTUS

SALES ORDER# 90067

Hose Specifications

Hose Type
C & K

Length
35'

I.D.
4"

O.D.
8"

Working Pressure
10000 PSI

Burst Pressure
Standard Safety Multiplier Applies

Verification

Type of Fitting
4 1/16 10K

Coupling Method
Swage

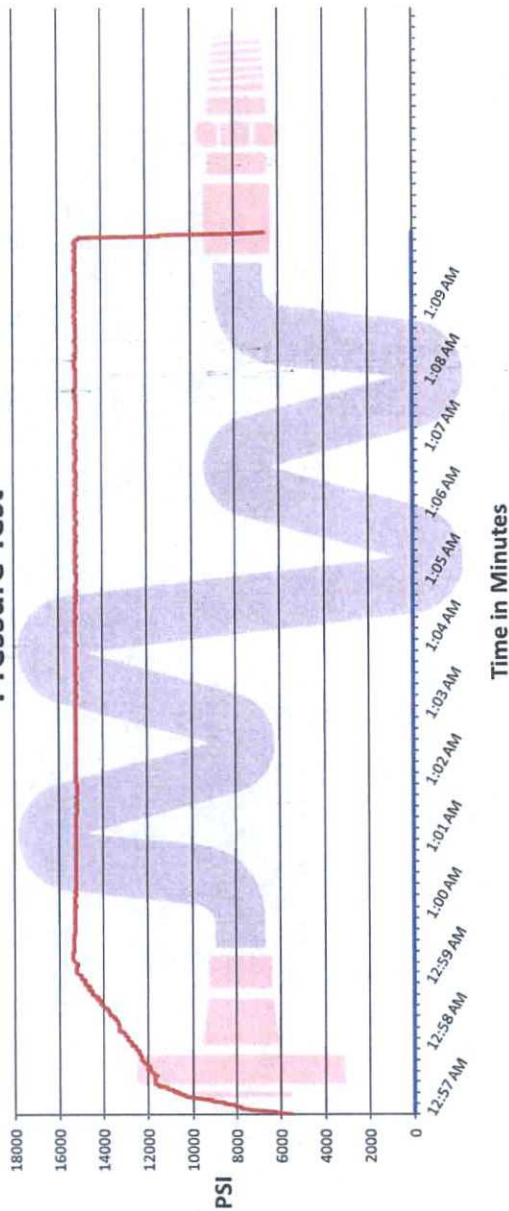
Die Size
6.62"

Final O.D.
6.68"

Hose Serial #

Hose Assembly Serial #
90067

Pressure Test



Test Pressure
15000 PSI

Time Held at Test Pressure
11 1/4 Minutes

Actual Burst Pressure

Peak Pressure
15439 PSI

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

Tested By: Bobby Fink

Approved By: Mendi Jackson

Mendi Jackson