11-463

OCD-ARTESIA

Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM100554

1a. Type of Work: [X] DRILL [ ] REENTER

6. If Indian, Allotee or Tribe Name:

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

7. Unit or CA Agreement Name and No.:

2. Name of Operator: EOG Resources Inc. (7377)

8. Lease Name and Well No.: WBD 27 Federal 1 (38685)

3a. Address: P.O. Box 2267 Midland, Texas 79702

3b. Phone No. (include area code): 432-686-3689

9. API Well No.: 30-015- 39170

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

At surface: 95' FNL & 710' FEL, U/L A

10. Field and Pool, or Exploratory: Brushy Draw; Delaware, North (38085)

At proposed prod. zone: 400' FNL & 710' FEL, U/L A

11. Sec., T., R., M., or Blk. and Survey or Area: Sec 27, T25S, R29E

14. Distance in miles and direction from nearest town or post office*: Approximately 12.6 miles Southeast from Malaga, NM

12. County or Parish: Eddy

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
95'	2240	40

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
	6000' TVD 6018' MD	NM 2308

21. Elevations (Show whether DF, KDB, RT, GL, etc.	22. Approximate date work will start*	23. Estimated duration
3047' GL	5/1/2011	15 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.

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

25. Signature	Name (Printed/Typed)	Date
Stan Wagner	Stan Wagner	02/16/2011

Title: Regulatory Analyst

Approved by (Signaure)	Name (Printed/Typed)	Date
/s/ James A. Amos		JUN 10 2011

Title	Office
FIELD MANAGER	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)

Approval Subject to General Requirements & Special Stipulations Attached

RECEIVED
JUN 15 2011
NMOCD ARTESIA

Carlsbad Controlled Water Basin

KZ 07/05/11

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Permit Information:

Well Name: WBD 27 Federal No. 1

Location:

SL: 95' FNL & 710' FEL, Section 27, T-25-S, R-29-E, Eddy Co., N.M.
BHL: 400' FNL & 710' FEL, Section 27, T-25-S, R-29-E, Eddy Co., N.M.

Casing Program:

See COA

Bit Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
14.75"	0 – ~~675'~~ 700	11.750"	42.0#	H40	STC	1.125	1.25	1.60
11.00"	0-3,100'	8.625"	32.0#	J55	LTC	1.125	1.25	1.60
7.875"	0– 6,018'	5.500"	17.0#	N80	LTC	1.125	1.25	1.60

Cement Program: See COA

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Slurry Description
~~675'~~	325	14.8	1.32	Class C + 0.005 pps Static Free + 2% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L (TOC @ surface)
3,100'	350	12.7	2.01	Lead: Class C + 2% SMS + 0.8% R-3 + 0.25 pps CelloFlake + 0.005 pps Static Free + 10% Salt (TOC @ surface)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
6,018'	375	11.8	2.38	Lead: 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 (TOC @ surface)
	275	14.2	1.28	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 25% excess

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – ~~675'~~ 700	Fresh – Gel	8.6-8.8	28-34	N/c
~~675'~~ – 3,100'	Brine	10.0-10.2	28-34	N/c
3,100' – 6,018'	Fresh Water	8.4 – 8.6	28 - 34	N/c

WBD 27 Federal #1

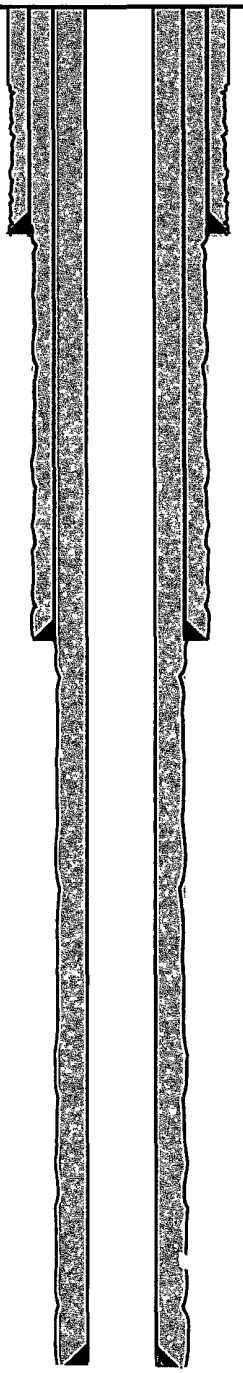
Eddy County, New Mexico

95' FNL
710' FEL
Section 27
T-25-S, R-29-E

Proposed Wellbore

API: 30-015-******

KB: 3,066.9'
GL: 3,047.9'



Bit Size: 14-3/4"

11-3/4", 42#, H-40, STC 0' - ~~675~~ 760

Bit Size: 11"

8-5/8", 32#, J-55, LTC 0' - 3,100'

Bit Size: 7-7/8"

5-1/2", 17#, N-80, LTC @ 11,904'

TD 6,018'

BH Location: 400' FNL & 710' FEL
Section 27
T-25-S, R-29-E

EOG RESOURCES, INC.
WBD 27 FEDERAL NO. 1

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	650'
Top of Salt	680'
Base of Salt	2,925'
Lamar	3,130'
Bell Canyon	3,155'
Cherry Canyon	4,030'
TD	6,018'

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

Upper Permian Sands	0- 400'	Fresh Water
Lamar	3,130'	Oil
Bell Canyon	3,155'	Oil
Cherry Canyon	4,030'	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 11.750" casing at 675' and circulating cement back to surface.

4. CASING PROGRAM - NEW

See COA

Bit Size	Interval	Csg OD	Weight	Grade	Conn	DF_{min} Collapse	DF_{min} Burst	DF_{min} Tension
14.75"	0 – ~~675~~ 700	11.750"	42.0#	H40	STC	1.125	1.25	1.60
11.00"	0-3,100'	8.625"	32.0#	J55	LTC	1.125	1.25	1.60
7.875"	0– 6,018'	5.500"	17.0#	N80	LTC	1.125	1.25	1.60

Cementing Program: See COA

Depth	No. Sacks	Wt. ppg	Yld Ft^3/ft	Slurry Description
675'	325	14.8	1.32	Class C + 0.005 pps Static Free + 2% $CaCl_2$ + 0.25 pps CelloFlake + 0.005 gps FP-6L (TOC @ surface)
3,100'	350	12.7	2.01	Lead: Class C + 2% SMS + 0.8% R-3 + 0.25 pps CelloFlake + 0.005 pps Static Free + 10% Salt (TOC @ surface)
	200	14.8	1.32	Tail: Class 'C' + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
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	275	14.2	1.28	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 25% excess

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000 psi WP). The BOP equipment will be hydraulically operated and will be equipped with blind rams on bottom and drill pipe rams on top. All BOP equipment will be tested in accordance with Onshore Oil & Gas order No. 2. Prior to drilling out of the surface casing, the BOP's will be tested to 2000/250 psig. Before drilling out of the intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/ 250 psig and the annular preventer to 2500/ 250 psig.

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 not be installed prior to the setting and cementing of the 8-5/8" casing string, but will be installed prior to drilling out of the 8-5/8" casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

The well will be drilled to TD with a combination of fresh water and brine water. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – ~~675'~~ 700'	Fresh – Gel	8.6-8.8	28-34	N/c
~~675'~~ – 3,100'	Brine	10.0-10.2	28-34	N/c
3,100' – 6,018'	Fresh Water	8.4 – 8.6	28 - 34	N/c

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) A mud logging unit will be continuously monitoring drill penetration rate and hydrocarbon shows from 3,100' to TD.

(D) H_2S monitoring and detection equipment will be utilized from 675' to TD.

8. LOGGING, TESTING AND CORING PROGRAM: See COA

Open-hole logging is possible in the 7-7/8" hole section. The possible logging suite for this hole section is listed below:

NGT–CNL–LDT w/ Pe — From TD to previous casing shoe. At casing pull GR – Neutron to surface.

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

The estimated bottom hole temperature (BHT) at TD is 125 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2600 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.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately two weeks. An additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

eog resources

EOG Resources, Inc.

Eddy County
WBD "27" Federal
#1H
OH

Plan: Design #1

Pathfinder X & Y Planning Report

09 February, 2011

PATHFINDER®
A Schlumberger Company

Company:	EOG Resources, Inc	**Local Co-ordinate Reference:**	Well #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 3065.90usft (Original Well Elev)
Site:	WBD "27" Federal	**MD Reference:**	WELL @ 3065 90usft (Original Well Elev)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000 1 Single User Db

Project Eddy County

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 WBD "27" Federal

Site Position:		**Northing:**	403,129.400 usft	**Latitude:**	32° 6' 28.025 N
From:	Map	**Easting:**	613,895.600 usft	**Longitude:**	103° 57' 55 771 W
Position Uncertainty:	0 00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.20 °

Well #1H

Well Position	**+N/-S**	0.00 usft	**Northing:**	403,129 400 usft	**Latitude:**	32° 6' 28.025 N
	+E/-W	0.00 usft	**Easting:**	613,895.600 usft	**Longitude:**	103° 57' 55.771 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,047.90 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	02/08/11	7.79	60 04	48,576

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0 00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0 00	0.00	179.53

Survey Tool Program **Date** 02/08/11

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	6,018.41	Design #1 (OH)	MWD	MWD - Standard

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Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0 00	3,065.90	0.00	0.00	0.00	0.00	403,129.40	613,895.60
100.00	0.00	0.00	100.00	2,965 90	0.00	0.00	0 00	0.00	403,129 40	613,895.60
200.00	0.00	0.00	200 00	2,865 90	0.00	0.00	0.00	0.00	403,129.40	613,895.60
300 00	0 00	0.00	300.00	2,765 90	0 00	0.00	0.00	0.00	403,129 40	613,895.60
400.00	0.00	0.00	400.00	2,665 90	0 00	0.00	0.00	0.00	403,129 40	613,895 60
500.00	0.00	0 00	500.00	2,565.90	0.00	0.00	0.00	0.00	403,129.40	613,895.60
600.00	0 00	0 00	600.00	2,465 90	0.00	0.00	0.00	0 00	403,129.40	613,895.60
700.00	0.00	0.00	700.00	2,365 90	0 00	0.00	0 00	0.00	403,129 40	613,895.60
800 00	1.00	179.53	799.99	2,265.91	-0.87	0.01	0.87	1.00	403,128.53	613,895.61
900.00	2 00	179 53	899.96	2,165.94	-3 49	0 03	3.49	1 00	403,125.91	613,895.63
1,000.00	3.00	179 53	999.86	2,066.04	-7.85	0.06	7 85	1.00	403,121 55	613,895.66
1,100.00	4.00	179.53	1,099.68	1,966 22	-13 96	0 11	13.96	1 00	403,115.44	613,895 71
1,200 00	5 00	179.53	1,199.37	1,866 53	-21.80	0.18	21.80	1 00	403,107 60	613,895 78
1,280.00	5.80	179.53	1,279.01	1,786 89	-29.33	0.24	29.33	1.00	403,100 07	613,895.84
1,300.00	5 80	179.53	1,298.91	1,766 99	-31 35	0.26	31 35	0.00	403,098.05	613,895.86
1,400 00	5.80	179 53	1,398.40	1,667.50	-41 46	0 34	41.46	0.00	403,087.94	613,895.94
1,500.00	5.80	179.53	1,497.88	1,568.02	-51.56	0.42	51.56	0.00	403,077 84	613,896.02
1,600.00	5 80	179.53	1,597 37	1,468.53	-61.67	0 51	61 67	0 00	403,067.73	613,896.11
1,700 00	5.80	179.53	1,696.86	1,369.04	-71.77	0 59	71.78	0.00	403,057 63	613,896 19
1,800 00	5.80	179 53	1,796.35	1,269.55	-81.88	0.67	81.88	0.00	403,047.52	613,896.27
1,900.00	5.80	179.53	1,895 84	1,170.06	-91 98	0.75	91.99	0.00	403,037.42	613,896.35
2,000.00	5.80	179.53	1,995.32	1,070 58	-102 09	0 84	102.09	0.00	403,027.31	613,896.44
2,100 00	5.80	179 53	2,094.81	971.09	-112 19	0.92	112 20	0.00	403,017 21	613,896.52
2,200.00	5.80	179.53	2,194 30	871.60	-122.30	1 00	122.30	0.00	403,007 10	613,896.60
2,300 00	5.80	179.53	2,293 79	772 11	-132.40	1.09	132 41	0.00	402,997.00	613,896.69
2,400.00	5.80	179.53	2,393.28	672 62	-142 51	1 17	142.51	0.00	402,986.89	613,896.77
2,500.00	5.80	179 53	2,492.76	573 14	-152 61	1 25	152 62	0.00	402,976 79	613,896 85

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #1H
Project:	Eddy County	**TVD Reference:**	WELL @ 3065.90usft (Original Well Elev)
Site:	WBD "27" Federal	**MD Reference:**	WELL @ 3065.90usft (Original Well Elev)
Well:	#1H	**North Reference:**	Grid
Wellbore:	OH	**Survey Calculation Method:**	Minimum Curvature
Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,600.00	5 80	179 53	2,592.25	473.65	-162 72	1.33	162 73	0 00	402,966 68	613,896.93
2,700.00	5.80	179 53	2,691 74	374.16	-172.83	1.42	172.83	0 00	402,956.57	613,897.02
2,800.00	5.80	179.53	2,791 23	274.67	-182.93	1.50	182.94	0.00	402,946.47	613,897.10
2,900.00	5.80	179.53	2,890.72	175.18	-193.04	1.58	193.04	0.00	402,936.36	613,897 18
3,000.00	5.80	179.53	2,990.20	75.70	-203.14	1.67	203.15	0.00	402,926 26	613,897.27
3,100 00	5.80	179.53	3,089.69	-23.79	-213 25	1 75	213 25	0.00	402,916.15	613,897.35
3,200 00	5.80	179.53	3,189.18	-123.28	-223 35	1 83	223 36	0 00	402,906 05	613,897.43
3,300.00	5.80	179 53	3,288.67	-222 77	-233 46	1 92	233.47	0.00	402,895.94	613,897 52
3,400.00	5 80	179 53	3,388 16	-322 26	-243.56	2.00	243.57	0 00	402,885.84	613,897 60
3,500.00	5.80	179 53	3,487 65	-421.75	-253 67	2 08	253.68	0.00	402,875 73	613,897.68
3,600.00	5.80	179.53	3,587 13	-521.23	-263.77	2 16	263.78	0.00	402,865.63	613,897.76
3,700.00	5.80	179.53	3,686.62	-620.72	-273.88	2.25	273 89	0 00	402,855 52	613,897.85
3,800.00	5.80	179.53	3,786 11	-720.21	-283.98	2.33	283 99	0.00	402,845.42	613,897.93
3,900 00	5 80	179 53	3,885.60	-819.70	-294 09	2.41	294.10	0.00	402,835.31	613,898.01
4,000 00	5.80	179.53	3,985.09	-919.19	-304.19	2.50	304.20	0.00	402,825 21	613,898.10
4,014 99	5.80	179 53	4,000.00	-934.10	-305 71	2 51	305 72	0 00	402,823.69	613,898 11
4,100.00	5.55	179 53	4,084.59	-1,018 69	-314 12	2.58	314.13	0.29	402,815.28	613,898.18
4,200.00	5 26	179.53	4,184.15	-1,118.25	-323 54	2.65	323 55	0.29	402,805 86	613,898.25
4,300.00	4.97	179.53	4,283.75	-1,217.85	-332 46	2.73	332 48	0.29	402,796.94	613,898.33
4,400.00	4.68	179.53	4,383.39	-1,317 49	-340.88	2.80	340.89	0.29	402,788.52	613,898.40
4,500 00	4.39	179 53	4,483 08	-1,417.18	-348 79	2.86	348.81	0.29	402,780.61	613,898.46
4,600.00	4.10	179 53	4,582.80	-1,516 90	-356 20	2 92	356.21	0 29	402,773.20	613,898.52
4,700.00	3.81	179.53	4,682.57	-1,616.67	-363.10	2.98	363.12	0.29	402,766.30	613,898 58
4,800.00	3 52	179 53	4,782 36	-1,716.46	-369 50	3.03	369.52	0 29	402,759 90	613,898.63
4,900.00	3.23	179.53	4,882 19	-1,816.29	-375.40	3.08	375.41	0.29	402,754 00	613,898.68
5,000.00	2 94	179.53	4,982.04	-1,916.14	-380 78	3 12	380.80	0.29	402,748 62	613,898.72
5,100.00	2 65	179 53	5,081.92	-2,016.02	-385 67	3.16	385.68	0.29	402,743.73	613,898.76

Company:	EOG Resources, Inc.	**Local Co-ordinate Reference:**	Well #1H
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Design:	Design #1	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
5,200 00	2.36	179.53	5,181 83	-2,115 93	-390 04	3.20	390.06	0.29	402,739 36	613,898.80
5,300.00	2.07	179 53	5,281.75	-2,215.85	-393 91	3 23	393.93	0.29	402,735.49	613,898.83
5,400.00	1.78	179.53	5,381.69	-2,315.79	-397 28	3.26	397.29	0.29	402,732.12	613,898.86
5,500.00	1.49	179.53	5,481.65	-2,415.75	-400 14	3.28	400 15	0.29	402,729.26	613,898.88
5,600.00	1.20	179.53	5,581.63	-2,515.73	-402 49	3 30	402.50	0.29	402,726 91	613,898.90
5,700.00	0.91	179 53	5,681 61	-2,615.71	-404 34	3.32	404.35	0.29	402,725.06	613,898.92
5,800 00	0 62	179.53	5,781 60	-2,715.70	-405 68	3 33	405 69	0.29	402,723.72	613,898.93
5,900 00	0.33	179 53	5,881 60	-2,815 70	-406 51	3.33	406.53	0 29	402,722.89	613,898.93
6,000.00	0.04	179 53	5,981.59	-2,915.69	-406.84	3 34	406 86	0 29	402,722.56	613,898.94
6,014.99	0 00	0.00	5,996.59	-2,930.69	-406 85	3 34	406 86	0 29	402,722.55	613,898.94
6,018.41	0.00	0 00	6,000.00	-2,934.10	-406.85	3 34	406 86	0 00	402,722.55	613,898.94

Checked By: _____ Approved By: _____ Date: _____

eog resources

PROJECT DETAILS: Eddy County
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
Local North: Grid

G
T M

Azimuths to Grid North
True North: -0.20°
Magnetic North: 7.59°

Magnetic Field
Strength: 48575.5snT
Dip Angle: 60.04°
Date: 02/08/2011
Model: IGRF200510

PATHFINDER
A Schlumberger Company

Project: Eddy County
Site: WBD "27" Federal
Well: #1H
Wellbore: OH
Plan: Design #1 (#1H/OH)

SECTION DETAILS

	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
	700 00	0 00	0 00	700 00	0 00	0 00	0 00	0 00	0 00	
	1280 00	5 80	179 53	1279 01	-29 33	0 24	1 00	179 53	29 33	
	4014 99	5 80	179 53	4000 00	-305 71	2 51	0 00	0 00	305 72	
	~~5601.27~~	0 00	0 00	5996 59	-406 85	3 34	0 29	180 00	406 86	
6618.41	~~6018.41~~	0 00	0 00	6000 00	-406 85	3 34	0 00	0 00	406 86	

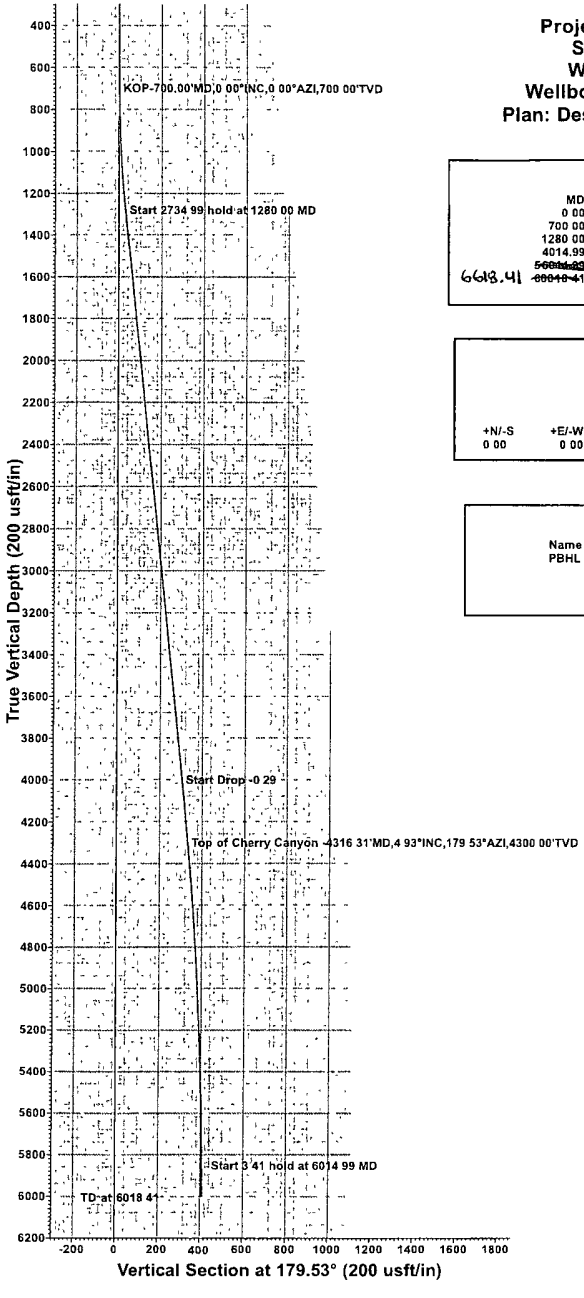
WELL DETAILS: #1H

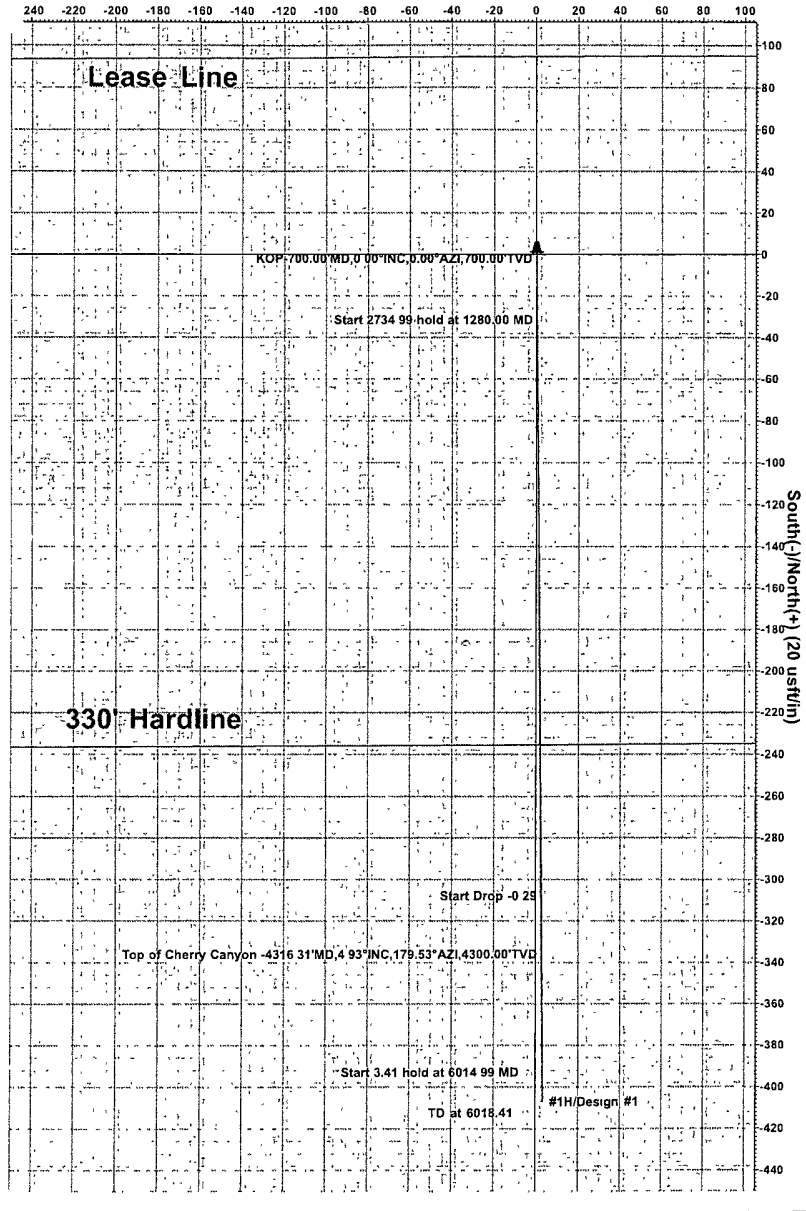
Ground Elevation 3047 90
RKB Elevation: WELL @ 3065 90usft (Original Well Elev)
Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	403129 400	613895 600	32° 6' 28 025 N	103° 57' 55.771 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL (WBD27#1	000 00	-305 00	2 50	402824 400	613898 100	Point

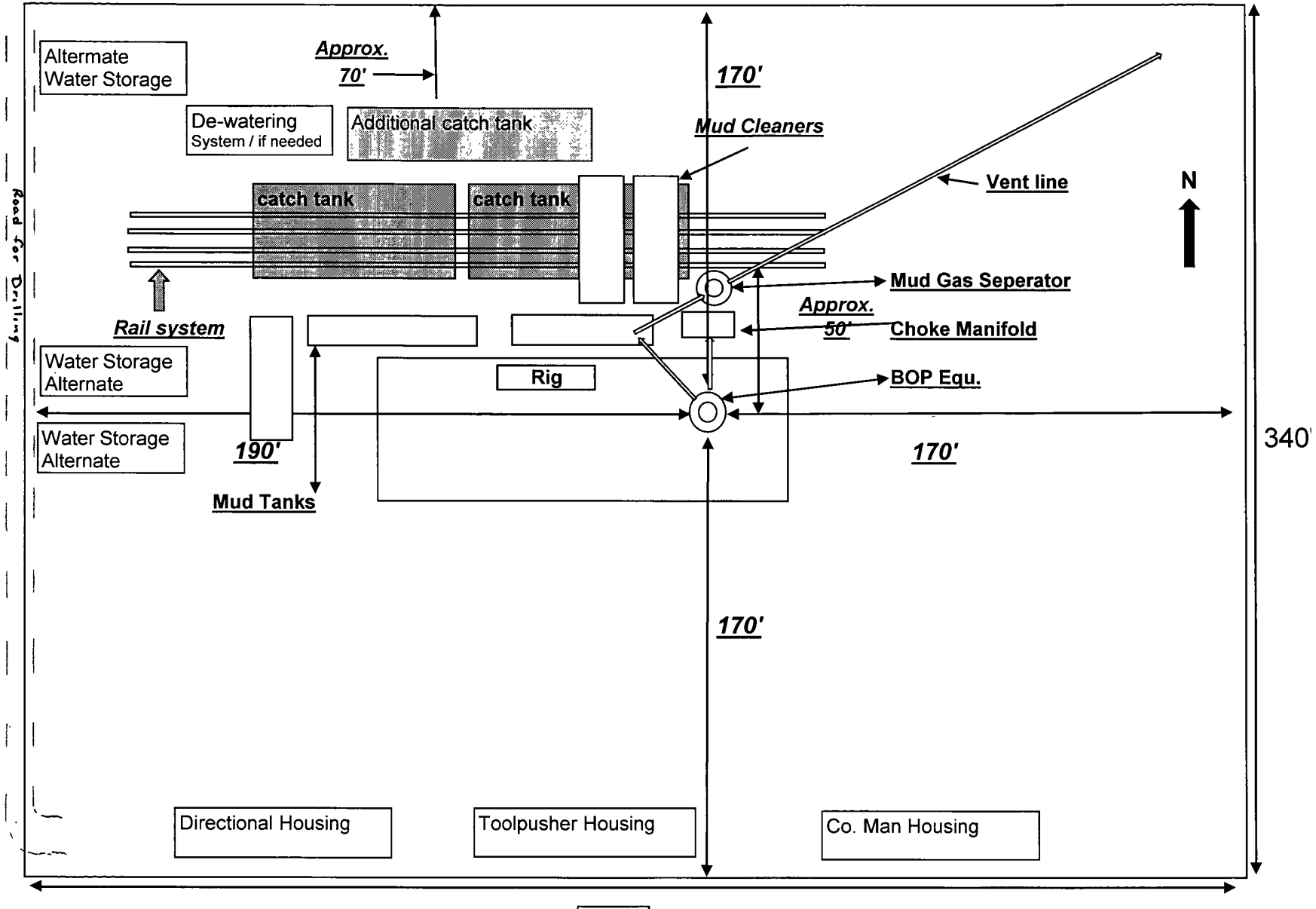




Plan Design #1 (#1H/OH)
Created By Nate Bingham Date 10 54, February 10 2011

Road is apart of the pad. TEN

EXHIBIT 4
WBD 27 Federal 1



EOG Resources / Closed Loop Location Design Plan
McVay Rig
6/30/2008

Not to scale

EOG RESOURCES, INC.
WBD 27 FED 1

ATTACHMENT TO EXHIBIT #1

1. Wear ring to be properly installed in head.

2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1.

3. All fittings to be flanged

4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.

5. All choke and fill lines to be securely anchored especially ends of choke lines.

6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

7. Kelly cock on kelly.

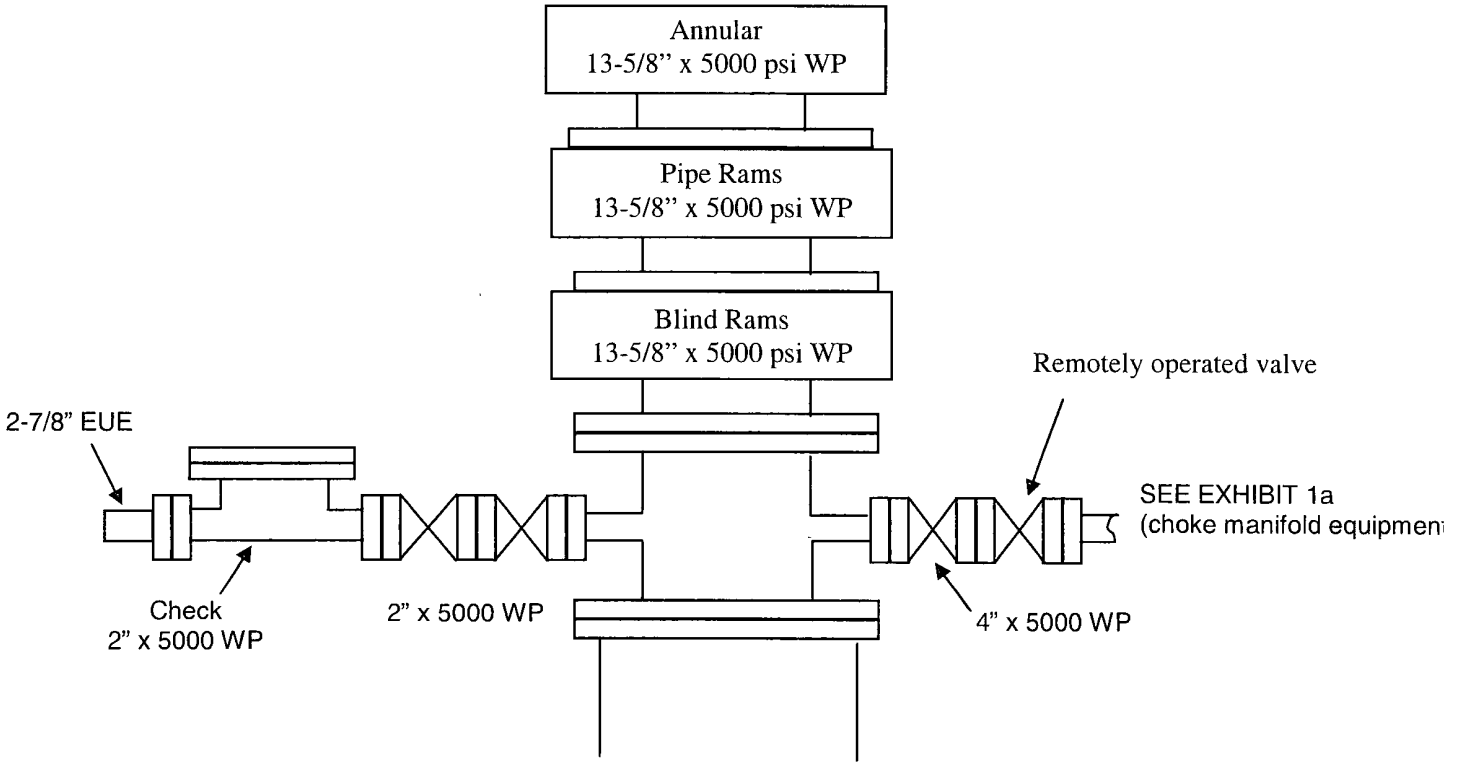
8. Extension wrenches and hand wheels to be properly installed.

9. Blow out preventer control to be located as close to driller's position as feasible.

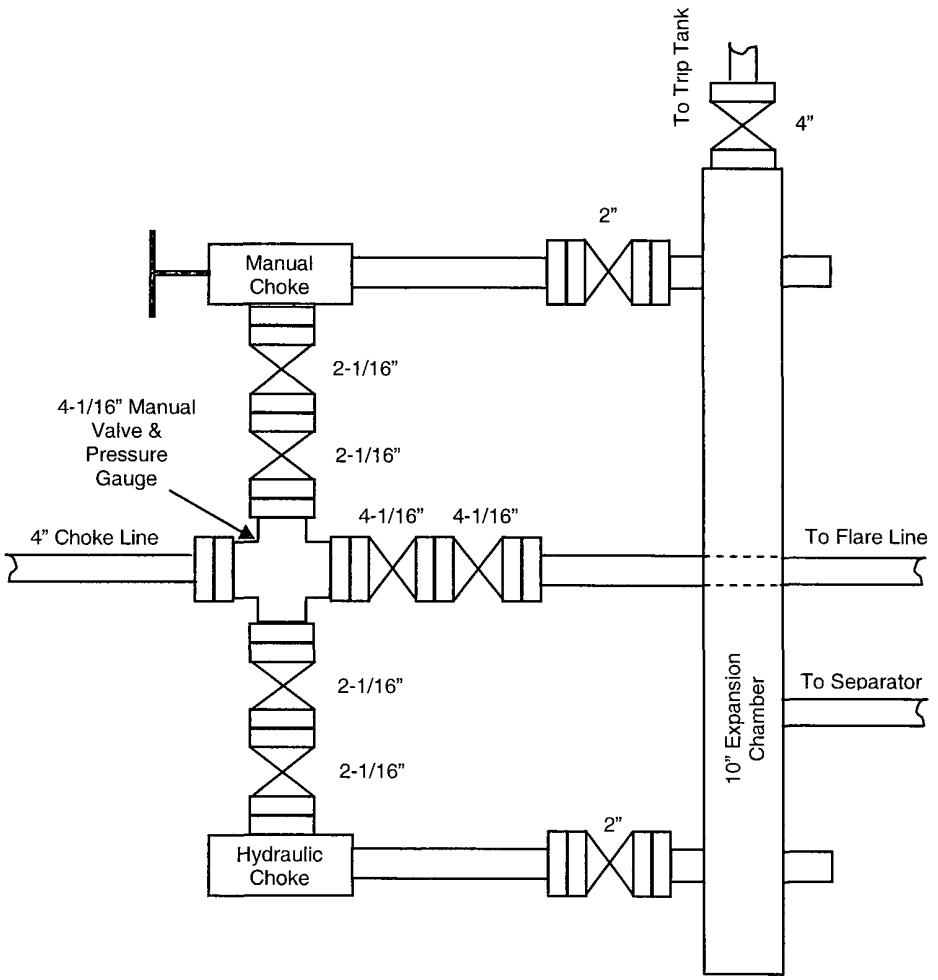
10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EXHIBIT 1

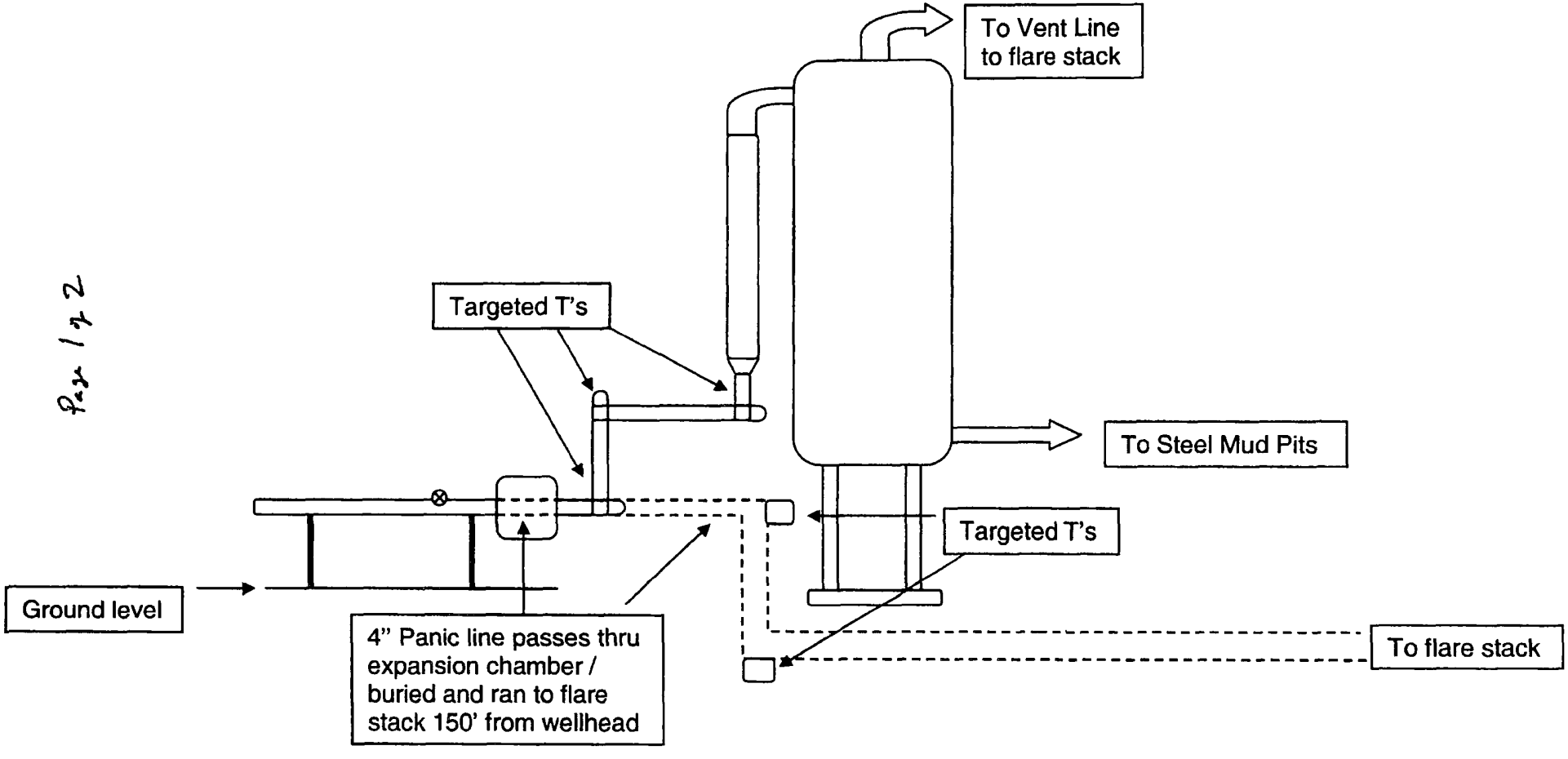
EOG Resources
WBD 27 Federal No. 1



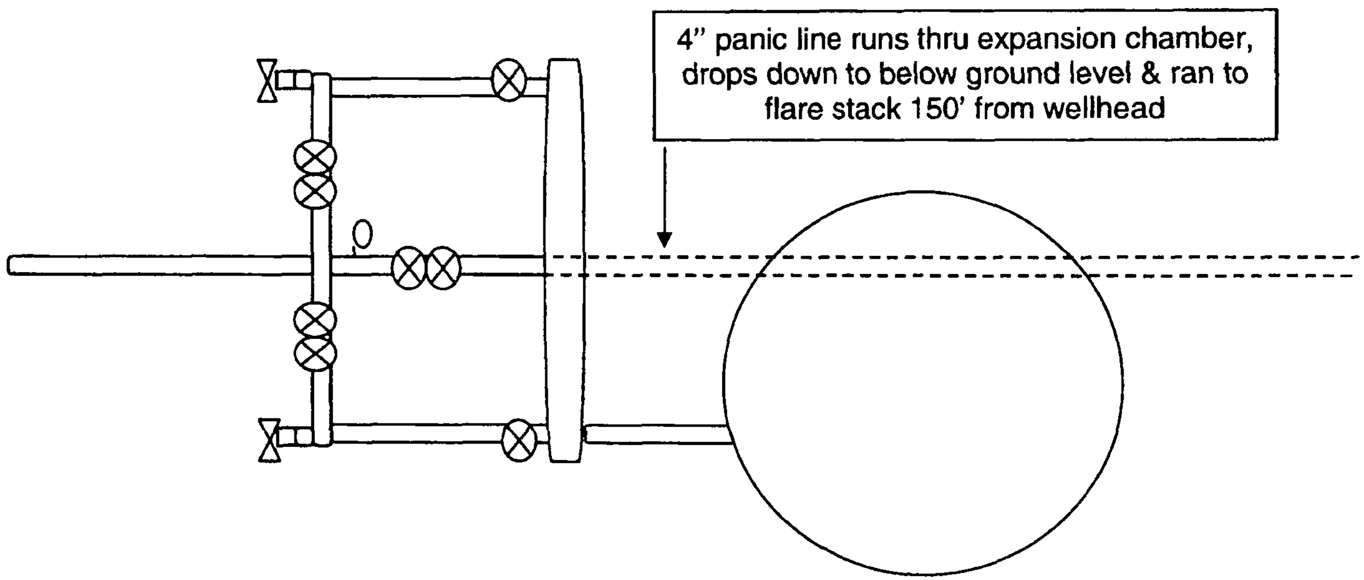
EXIBIT 1a
EOG Resources, Inc.
5M Choke Manifold Equipment



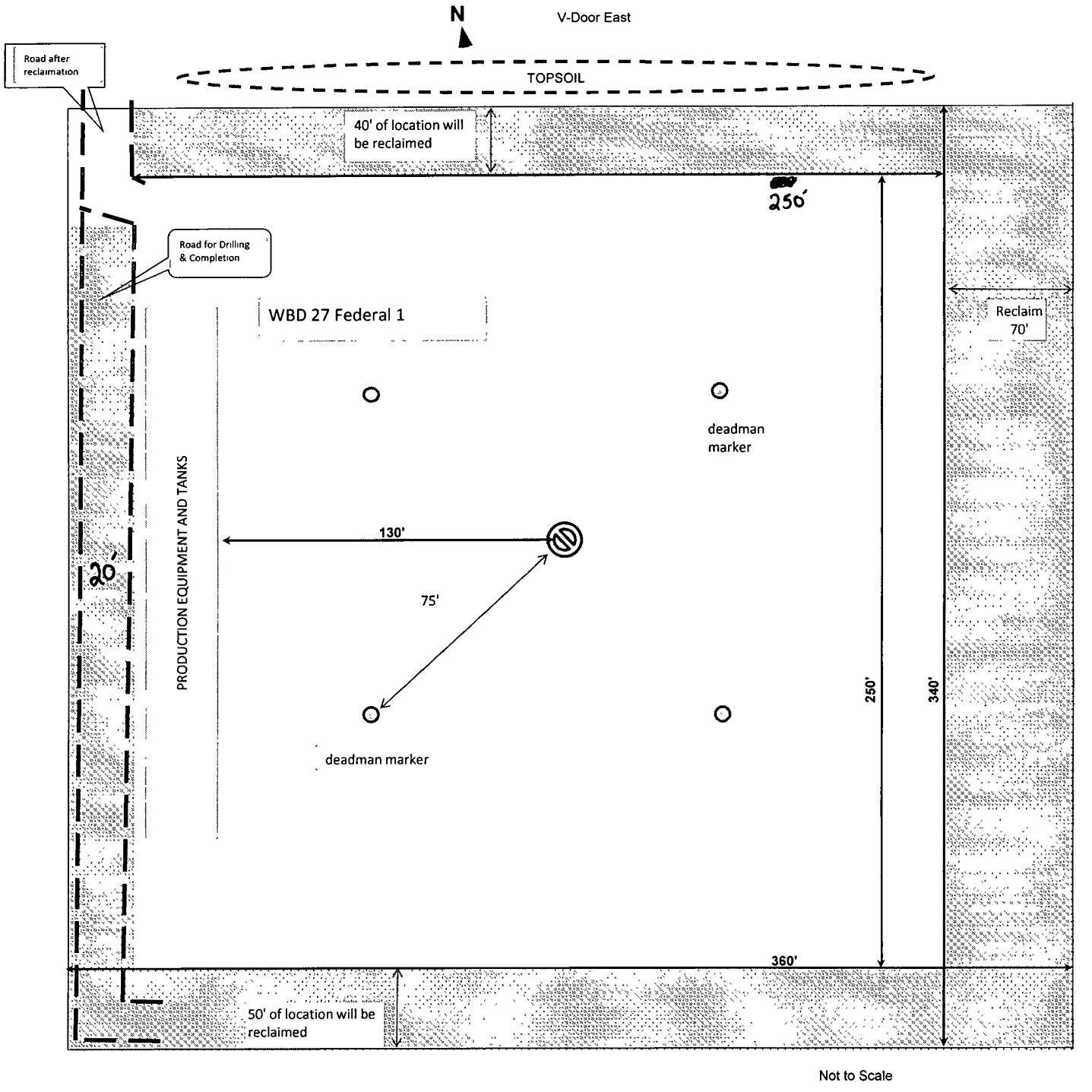
Profile View of Piping from Choke Manifold to the Mud Gas Separator



Aerial View of the Piping from the Choke Manifold to the Mud Gas Separator



Page 2 of 2


N
V-Door East
Road after reclaimation
TOPSOIL
40' of location will be reclaimed
250'
Road for Drilling & Completion
WBD 27 Federal 1
Reclaim 70'
deadman marker
PRODUCTION EQUIPMENT AND TANKS
130'
20'
75'
250'
340'
deadman marker
360'
50' of location will be reclaimed
Not to Scale

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator EOG RESOURCES INC OGRID # 7377

38685 Well Name & # WBD 27 FEDERAL #1 Surface Type (F) (S) (P)

Location: UL A Sect 27 Twnship 25 s, RNG 25 e, Sub-surface Type (F) (S) (P)

A 27 25 -25

A. Date C101 rec'd ____/____/____ C101 reviewed ____/____/____

B. 1. Check mark, Information is OK on Forms:
OGRID X, BONDING FED PROP CODE X, ~~WELL #~~ X, ~~SIGNATURE~~ X

2. Inactive Well list as of : 7/5/11 # wells 43, # Inactive wells 0

a. District Grant APD but see number of inactive wells:
No letter required X; Sent Letter to Operator ____, to Santa Fe ____

3. Additional Bonding as of: 7/11/11

a. District Denial because operator needs addition bonding:
No Letter required X; Sent Letter to Operator ____, To Santa Fe____

b. District Denial because of Inactive well list and Financial Assurance:
No Letter required X; Sent Letter to Operator ____, To Santa Fe ___

C. C102 YES___, NO ___, Signature ___

1. Pool BRUSHY DRAW; DELAWARE NORTH 8085, Code ____

a. Dedicated acreage 40, What Units A

b. SUR. Location Standard ____: Non-Standard Location X NSL Standard X

c. Well shares acres: Yes ___, No ___, # of wells ____ plus this well #____

2. 2nd. Operator in same acreage, Yes_____, No _____
Agreement Letter _____, Disagreement letter_____

3. Intent to Directional Drill Yes ____, No ___

a. Dedicated acreage 40, What Units A

b. Bottomhole Location Standard X, Non-Standard Bottomhole _____

4. Downhole Commingle: Yes_____, No X

a. Pool #2_____,Code_____, Acres_____
Pool #3_____, Code _____, Acres _____
Pool #4_____, Code_____, Acres_____

5. POTASH Area Yes _____, No X

D. Blowout Preventer Yes X No _____,

E. H2S Yes X, ~~No~~ _____,

F. C144 Pit Registration Yes _____, No _____, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes _____, No X, NSL #_____
2. Non-Standard Proration: Yes_____, No X, NSP # _____
3. Simultaneous Dedication: Yes _____, No X, SD # _____
Number of wells _____ Plus #_____
4. Injection order Yes _____, No X; PMX #_____ or WFX #_____
5. SWD order Yes _____, NO X; SWD # _____
6. DHC from SF_____; DHC-HOB_____; Holding_____

7. OCD Approval Date 07/05/11 API #30-015-39170

8. Reviewers KB