

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

EOG Resources Inc.

3a. Address

P.O. Box 2267 Midland, Texas 79702

3b. Phone No. (include area code)

432.686.3689

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

**1949' FNL & 586' FEL, U/L H
Sec 22, T16S, R24E**

5. Lease Serial No

NMM 108950

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Colorado A 22 Fed 2H

9. API Well No.

30-015-34711

10. Field and Pool, or Exploratory Area

Cottonwood Creek; WC, West

11. County or Parish, State

Eddy NM

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

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|---|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other <u>Spud & casing test</u> |
| ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

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

8/16/07 TD @ 8370'

Ran 190 jts 5 1/2", 17 #, N-80 casing set @ 8350'.

**8/17/07 Cemented w/ 530 sx 50/50 POZ C, 11.9 ppg, 2.34 yield; 745 sx 50/50 POZ C, 14.2 ppg, 1.37 yield.
Circulated 150 sx to surface. Released rig.**

8/28/07 MIRU for completion.

Step rate tested casing to 7000 psi for 30 min. Test good.

Perforate from 7545' to 8264', 0.42", 32 holes.

Frac w/ 72 bbls 15% HCL acid, 529 bbls XL gel, 67000 lbs 100 mesh sand, 75000 lbs 30/50 sand, 30000 lbs 20/40 sand, 5827 bbls load water.

Perforated from 6565' to 7260', 0.42", 32 holes.

Frac w/ 72 bbls 15% HCL acid, 616 bbls XL gel, 67000 lbs 100 mesh sand, 75000 lbs 30/50 sand, 30000 lbs 20/40 sand, 6062 bbls load water.

8/29/07 Perforated from 5550' to 6320', 0.42", 32 holes.

Frac w/ 72 bbls 15% HCL acid, 663 bbls XL gel, 67000 lbs 100 mesh sand, 75000 lbs 30/50 sand, 30000 lbs 20/40 sand, 6007 bbls load water.

Perforated from 4625' to 5340', 0.42", 32 holes.

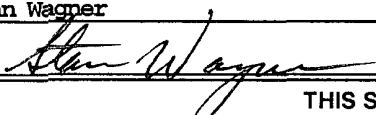
14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Stan Wagner

Title

Regulatory Analyst

Signature



Date **9/11/07**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
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8/29/07 Frac w/ 72 bbls 15% HCL acid, 1005 bbls XL gel, 76584 lbs 100 mesh sand, 85567 lbs 30/50 sand, 40949 lbs 20/40 sand, 6545 bbls load water.

Flow back.

8/30/07 RIH w/ 2 3/8" production tubing set @ 4862'.

Flow back.

8/31/07 Turned to sales.

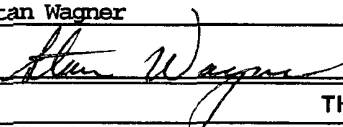
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DIRECTIONAL SURVEY REPORT

EOG RESOURCES

COLORADO A22 FED COM #2H

EDDY COUNTY, NEW MEXICO

PREPARED BY: CODY MEBANE

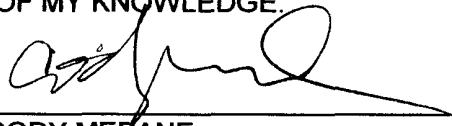
Pathfinder Energy Services, Inc.
6213 W. County Road 112 • Midland, TX • 79706
(432)681-6000

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) WESLEY TEETER
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 8/10/07 TO 8/16/07
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

EOG RESOURCES
COLORADO A22 FED COM #2H
EDDY COUNTY, NM
RIG: MCVAY #8
9. SURVEY CERTIFIED FROM: 4055 TO 8293 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 3963.9 FEET ON A BEARING OF 271.10 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 8370 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



CODY MEBANE
M/LWD SERVICE COORDINATOR

PATHFINDER
ENERGY SERVICES
DIRECTIONAL SURVEY INFORMATION

FAXED AUG 17 2007

APPROVED AUG 20 2007

Prepared By: WESLEY TEETER CODY MEBANE

Name of Client: EOG RESOURCES
COLORADO A22 FED COM #2H
EDDY CO. NM
Attention: _____

☐ Directional Only Job OR ☒ Logging Job

Name(s) of Persons Performing Surveys:

A) WESLEY TEETER D) _____
B) CHUCK HARPER E) _____
C) HAFA DONARUMMA F) _____

Positions of Said Persons: Surveyors / Field Engineers: Other _____

Date(s) Survey was Performed: From 8/10/2007 To 8/16/2007

Type of Survey Performed: (Specify if other than MWD) _____

IDENTIFICATION OF WELL:

Client:	<u>EOG RESOURCES</u>	Rig Name:	<u>MC VAY #8</u>
Well No.:	<u>COLORADO A22 FED COM #2H</u>	API No.:	<u>30-015-34711</u>
Location:	<u>EDDY CO. NM</u>	Job No.:	<u>101006652 WT-WT</u>
State:	<u>NM</u>		

TEXAS RAILROAD COMMISSION INFORMATION:

Field: COTTONWOOD CREEK; WOLFCAMP WEST

Abstract No.: _____
Well Plat Survey Co.: _____

Surveys Performed From 4055 Feet TO 8293 Feet

MMS / ASCII / LAS Diskette Filename: _____

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOW THE WELL TO BE DISPLACED AT 3963.9
FEET ON A BEARING OF 271.10 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT
A PROJECTED DEPTH OF 8370 FEET, ARE TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE.

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 08/09/2007
Date Completed: 08/16/2007

EOG RESOURCES, INC.
COLORADO A22 FED COM #2H
EDDY COUNTY, NM
Rig:McVAY 8
PathFinder Office Supervisor: CODY MEBANE
PathFinder Field Engineers:W.TEETER
C.HARPER
H.DONARUMMA

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.54.36.0576 N LON:104.34.10.0524 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 427534.3449 Y: 694856.6475
North Aligned To:GRID NORTH
Total Magnetic Correction: 8.67° EAST TO GRID
Vertical Section Plane: 270.79
Survey Vert. Reference: 19.00' Kelly Bushing To Ground
Altitude:3631.00' Ground To MSL

Measured Depth	8370.00	(feet)
Inclination	91.01	(deg)
Azimuth	269.92	(deg)
True Vertical Depth	4454.64	(feet)
Vertical Section	3963.84	(feet)
Survey X cord	423571.31	(feet)
Survey Y cord	694932.52	(feet)
Survey Lat	32.91019950 N	(deg)
Survey Lon	104.58237282 W	(deg)
Rectangular Corr. N/S	76.08 N	(feet)
Rectangular Corr. E/W	3963.17 W	(feet)
Closure Distance	3963.90	(feet)
Direction of Closure	271.10	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

EOG RESOURCES, INC.

COLORADO A22 FED COM #2H

EDDY COUNTY, NM

Rig:McVAY 8

PathFinder Office Supervisor: CODY MEBANE

PathFinder Field Engineers: W.TEETER

C.HARPER

H.DONARUMMA

Survey Calculations by RX5 V5.11E using Minimum Curvature

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.54.36.0576 N LON:104.34.10.0524 W

Reference:NAD27 new mexico east Transverse Mercator

Ref GRID Coord: X: 427534.3449 Y: 694856.6475

North Aligned To:GRID NORTH

Total Magnetic Correction: 8.67° EAST TO GRID

Vertical Section Plane: 270.79

Survey Vert. Reference: 19.00' Kelly Bushing To Ground

Altitude:3631.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
TIE IN TO SCIENTIFIC GYRO @ 4081' MD.										
4000.00	2.06	41.76	3999.34	0.00	6.42	37.28 N	5.91 W	37.75@	350.99	0.00
THE FOLLOWING ARE PATHFINDER SURVEYS.										
4055.00	2.29	59.91	4054.30	55.00	4.83	38.57 N	4.30 W	38.81@	353.64	1.31
4087.00	1.76	5.42	4086.28	32.00	4.24	39.38 N	3.70 W	39.55@	354.63	5.98
4118.00	4.04	312.77	4117.25	31.00	5.02	40.59 N	4.46 W	40.84@	353.73	10.60
4150.00	7.39	300.29	4149.08	32.00	7.65	42.40 N	7.06 W	42.98@	350.54	11.11
4182.00	11.08	296.51	4180.66	32.00	12.21	44.81 N	11.59 W	46.28@	345.49	11.68
4214.00	14.42	297.39	4211.87	32.00	18.55	48.02 N	17.88 W	51.24@	339.57	10.46
4245.00	17.76	298.71	4241.65	31.00	26.18	52.06 N	25.46 W	57.96@	333.94	10.84
4278.00	21.02	298.80	4272.78	33.00	35.85	57.33 N	35.06 W	67.21@	328.55	9.88
4310.00	24.27	297.65	4302.31	32.00	46.79	63.15 N	45.92 W	78.08@	323.98	10.25
4342.00	27.44	295.54	4331.10	32.00	59.35	69.39 N	58.40 W	90.69@	319.91	10.31
4373.00	30.78	296.38	4358.18	31.00	73.00	75.99 N	71.96 W	104.65@	316.56	10.85
4405.00	34.73	297.89	4385.09	32.00	88.50	83.90 N	87.36 W	121.12@	313.84	12.60
4436.00	38.87	299.28	4409.90	31.00	104.92	92.79 N	103.65 W	139.12@	311.83	13.62
4468.00	42.91	300.56	4434.09	32.00	123.21	103.24 N	121.80 W	159.67@	310.29	12.89
4500.00	47.31	301.87	4456.67	32.00	142.75	115.00 N	141.18 W	182.09@	309.16	14.05
4532.00	50.74	299.80	4477.65	32.00	163.66	127.37 N	161.92 W	206.01@	308.19	11.78
4564.00	55.31	295.68	4496.90	32.00	186.45	139.23 N	184.55 W	231.18@	307.03	17.59
4596.00	57.77	289.14	4514.55	32.00	211.25	149.38 N	209.21 W	257.07@	305.53	18.70
4628.00	60.41	283.08	4531.00	32.00	237.72	156.98 N	235.57 W	283.08@	303.68	18.22
4659.00	64.37	278.60	4545.37	31.00	264.75	162.12 N	262.54 W	308.56@	301.70	18.08
4691.00	69.38	275.87	4557.94	32.00	293.98	165.81 N	291.73 W	335.56@	299.61	17.51

PathFinder Energy Services, Inc.

Survey Report

EOG RESOURCES, INC.
COLORADO A22 FED COM #2H
EDDY COUNTY, NM
RIG:McVAY 8

Page 02/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets		Closure Dist Dir		DLS (dg/100ft)
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	(dg/100ft)
4720.00	73.95	273.35	4567.06	29.00	321.44	168.02 N	319.16 W	360.68@	297.76	17.79
4754.00	80.46	270.88	4574.59	34.00	354.57	169.23 N	352.27 W	390.81@	295.66	20.41
4786.00	85.47	270.72	4578.50	32.00	386.32	169.67 N	384.01 W	419.83@	293.84	15.66
4818.00	89.43	270.38	4579.93	32.00	418.28	169.98 N	415.97 W	449.36@	292.23	12.42
4850.00	93.39	270.33	4579.14	32.00	450.26	170.18 N	447.96 W	479.19@	290.80	12.38
4880.00	94.62	269.96	4577.04	30.00	480.19	170.25 N	477.88 W	507.31@	289.61	4.28
4975.00	93.83	269.94	4570.05	95.00	574.92	170.17 N	572.62 W	597.37@	286.55	0.83
5071.00	92.77	269.54	4564.52	96.00	670.74	169.73 N	668.46 W	689.68@	284.25	1.18
5167.00	93.39	269.83	4559.36	96.00	766.58	169.21 N	764.32 W	782.83@	282.48	0.71
5262.00	89.25	267.50	4557.17	95.00	861.46	166.99 N	859.24 W	875.32@	281.00	5.00
5357.00	92.86	268.59	4555.42	95.00	956.32	163.75 N	954.16 W	968.11@	279.74	3.97
5453.00	91.54	267.77	4551.74	96.00	1052.15	160.71 N	1050.03 W	1062.26@	278.70	1.62
5548.00	92.51	267.09	4548.38	95.00	1146.93	156.45 N	1144.88 W	1155.52@	277.78	1.25
5643.00	93.21	266.93	4543.64	95.00	1241.60	151.50 N	1239.63 W	1248.85@	276.97	0.76
5742.00	90.84	264.88	4540.14	99.00	1340.17	144.43 N	1338.30 W	1346.07@	276.16	3.16
5837.00	93.12	266.36	4536.86	95.00	1434.71	137.18 N	1432.96 W	1439.51@	275.47	2.86
5933.00	92.24	265.31	4532.37	96.00	1530.25	130.22 N	1528.60 W	1534.14@	274.87	1.43
6028.00	93.91	267.07	4527.28	95.00	1624.80	123.91 N	1623.24 W	1627.97@	274.37	2.55
6124.00	92.77	268.40	4521.68	96.00	1720.50	120.13 N	1719.00 W	1723.20@	274.00	1.82
6220.00	92.07	268.60	4517.63	96.00	1816.33	117.62 N	1814.88 W	1818.69@	273.71	0.76
6315.00	91.89	268.60	4514.35	95.00	1911.21	115.30 N	1909.80 W	1913.28@	273.45	0.19
6411.00	91.63	268.79	4511.40	96.00	2007.10	113.11 N	2005.73 W	2008.92@	273.23	0.34
6507.00	91.54	268.84	4508.74	96.00	2103.00	111.13 N	2101.67 W	2104.61@	273.03	0.11
6602.00	91.89	268.99	4505.90	95.00	2197.91	109.33 N	2196.61 W	2199.33@	272.85	0.40
6697.00	90.92	268.45	4503.57	95.00	2292.82	107.21 N	2291.56 W	2294.06@	272.68	1.17
6793.00	91.19	268.62	4501.80	96.00	2388.73	104.75 N	2387.51 W	2389.81@	272.51	0.33
6889.00	92.24	268.41	4498.93	96.00	2484.61	102.27 N	2483.43 W	2485.54@	272.36	1.12

PathFinder Energy Services, Inc.

Survey Report

EOG RESOURCES, INC.
 COLORADO A22 FED COM #2H
 EDDY COUNTY, NM
 RIG:McVAY 8

Page 03/03

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets		Closure Dist Dir		DLS (dg/100ft)
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	(dg/100ft)
7081.00	91.10	267.61	4493.33	192.00	2676.30	95.60 N	2675.23 W	2676.94@	272.05	0.72
7177.00	91.71	267.48	4490.98	96.00	2772.11	91.49 N	2771.11 W	2772.62@	271.89	0.65
7274.00	92.33	268.61	4487.56	97.00	2868.94	88.18 N	2868.00 W	2869.35@	271.76	1.33
7370.00	91.80	268.06	4484.10	96.00	2964.79	85.40 N	2963.89 W	2965.12@	271.65	0.79
7466.00	92.95	269.25	4480.12	96.00	3060.63	83.15 N	3059.78 W	3060.91@	271.56	1.72
7562.00	91.10	269.10	4476.73	96.00	3156.53	81.76 N	3155.71 W	3156.76@	271.48	1.93
7658.00	92.33	270.49	4473.86	96.00	3252.47	81.42 N	3251.66 W	3252.68@	271.43	1.93
7755.00	89.96	268.01	4471.92	97.00	3349.40	80.15 N	3348.61 W	3349.57@	271.37	3.54
7849.00	93.47	269.68	4469.11	94.00	3443.29	78.26 N	3442.54 W	3443.43@	271.30	4.14
7946.00	93.39	270.17	4463.30	97.00	3540.10	78.13 N	3539.36 W	3540.22@	271.26	0.51
8041.00	91.19	269.11	4459.51	95.00	3635.00	77.53 N	3634.28 W	3635.10@	271.22	2.57
8136.00	88.99	268.75	4459.36	95.00	3729.94	75.76 N	3729.25 W	3730.02@	271.16	2.35
8232.00	92.68	271.11	4457.96	96.00	3825.90	75.64 N	3825.22 W	3825.97@	271.13	4.56
8293.00	91.01	269.92	4456.00	61.00	3886.86	76.19 N	3886.18 W	3886.93@	271.12	3.36
STRAIGHT LINE PROJECTION TO BIT @ 8370' MD.										
8370.00	91.01	269.92	4454.64	77.00	3963.84	76.08 N	3963.17 W	3963.90@	271.10	0.00

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

EOG RESOURCES, INC.
COLORADO A 22 FEDERAL # 2H
EDDY Co, NEW MEXICO
Rig:McVAY 8

Thu Aug 02 15:09:43 2007

Coordinates

Latitude: 32.910016 N (32 deg. 54 min. 36.0558 sec.)
Longitude: 104.569459 W (-104 deg. 34 min. 10.0506 sec.)
Elevation: 3631.00 feet.
Calculation Date: Aug/02/2007

Magnetic Calculations

Model: IGRF2005
Dip Angle: 60.7469 degrees
Total Magnetic Field: 0.49321 gauss
Magnetic Declination: 8.542228 degrees
Horizontal Intensity: 0.241014 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.542228 Degr

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 427534.4980 feet
Y: 694856.4653 feet
True to Grid: (convergence) 0.128292 degrees
Magnetic to Grid: 8.670520 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 8.670520 Degr.

PathFinder Energy Services, Inc.

Electro Magnetic Error Report

Thu Aug 02 15:11:31 2007

Job #: 101006652 WT-WT

Customer Name: EOG RESOURCES, INC.

Well Name: COLORADO A 22 FEDERAL # 2H

M/LWD Run #: 0

Electro Magnetic Units Below Magnetometers:	3000.00
Electro Magnetic Units Above Magnetometers:	3500.00
Distance Above Magnetometers:	63.70
Incline:	90.00
Direction:	89.53
Horizontal Intensity:	0.241
Maximum Error:	0.750
Distance Below Magnetometers:	38.300

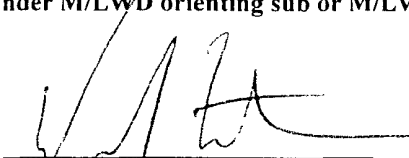
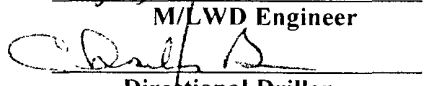
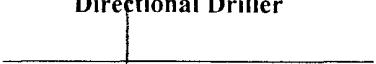
R-TOOL: PULSER
TCM
UGS
BMS
HDAS

Recommended Distance Below Magnetometers: 38.0842
Recommended Error: 0.750
Actual Error: 0.744

RAW DATA FOR BACK UP STATIC SEQUENCE MANDATORY

This assembly requires 60.00 feet of additional non-mag spacing above the M/LWD monel and 11.00 feet of additional non-mag spacing below the PathFinder M/LWD orienting sub or M/LWD float sub to yield an error of .75 degree(s) or less in direction.

5/9/07
Date


M/LWD Engineer

Directional Driller

Company Representative

The above calculations are based on empirical data. The estimated error is based on average values of electromagnetic units. This estimated error is to be used only as a guide. PathFinder uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed. PathFinder does not warrant the accuracy of such information or interpretations. PathFinder will not, except in the case of gross or willful negligence on its part, be liable or responsible for loss, cost, damages or expenses incurred or sustained by anyone as a result of any interpretations.

FINDER

ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	EOG RESOURCES		
LEASE / WELL No.:	COLORADO A22 FED COM #2H		
WELL LOCATION	EDDY CO. NM		
COUNTY / STATE / COUNTRY	EDDY	NM	USA
RIG:	MC VAY #8		
ADJ WELL No.	30-015-04741		
JOB No.	101008852 WT-WT		
P O AFE No.	108432		
DIRECTIONAL COMPANY:	PATHFINDER ENERGY SERVICES		

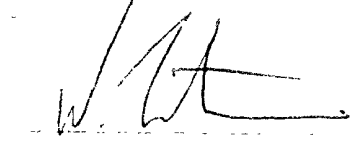
WELL SITE INFORMATION

MAGNETIC DECLINATION			
GRID SYSTEM	NAD 83		
PROPOSED DRIFT DIRECTION	270.79		
WATER DEPTH	100		

TIE-IN DATA

MEASURED DEPTH	4000		
TRUE VERTICAL DEPTH	3998.24		
RECTANGULAR COORDINATE (N/E/S)	27.29		
SURVEY CALCULATION METHOD	WAVE	MC 14	RT ☐ RT ☐

KICK OFF DEPTH: 1081 TOTAL DEPTH: 3410.00

Directional Driller: 

DATE: 8/9/07

PATHFINDER

ENERGY SERVICES

MAGNETIC DECLINATION / TOOLFACE OFFSET WORKSHEET

Client	EOG RESOURCES	LWD Run No	1
Tool	30. GRADUATE PEG 1/2" DIA	OTA No	
Location	FOXY CO. TX	HOLES No	128
Log	MC MAY #2	TR. PLANT	
HOLES	10. 105824 1/2" DIA		

Magnetic Declination:

GRID SYSTEM USED	☒ TRUE ☐ UTM ☐ LAMBERT ☐ ZONE	NIA EAST	
X =	427534.488	Y =	584656.4655
SITE LATITUDE	32 9 100.6 N	SITE LONGITUDE	104 54 59 W
Magnetic Declination			
On Wall Flat	8 67052	Directional Driller Approval	
LWD Calculated:	8 67052	LWD Engineers Approval	
Agreed Upon:	8 67	Supervisor Approval	

ToolFace Offset Calculation:

1. Lay out the tool face offset on the M/LWD tool.
2. Measure the distance from the M/LWD tool to the motor scribe line.
3. Measure the distance from the M/LWD tool to the motor scribe line in a clockwise direction looking down hole.
4. Measure the circumference of the tool.
5. Calculate Tool Face Offset using

$$\text{TOOL FACE OFFSET} = \frac{\text{Distance from M/LWD to Motor}}{\text{Circumference}} \times 360^\circ$$

ToolFace Offset Using Protractor:

1. Hook protractor onto the M/LWD tool.
2. Read Tool Face Offset from top of protractor where the motor scribe line intersects protractor.
3. If motor scribe line does not intersect protractor flip protractor over and repeat steps 1 and 2.

OTF Estimate	0	OTF Calculated	0	OTF Protractor	0
Offset Tool Face Used =	0	M/LWD Engineer #1		M/LWD Engineer #2	
		Directional Driller			