



**PHOENIX
TECHNOLOGY SERVICES**

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MAY 21 2018

DISTRICT II-ARTESIA O.C.D.

May 14, 2018

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210

Dear District 2 - Artesia

Re: EOG Resources
Rio Penasco MF Federal #1
Eddy Co., New Mexico
API #30-015-23074
Job No. 62828

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Noe Garza	1	0	6,000	5/11/18	5/11/18	Gyro

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Brittany Carley

Brittany Carley
Operations Administrator

SURVEY CERTIFICATION FORM



PHOENIX
TECHNOLOGY SERVICES

3610 Elkins Road Midland, TX 79705 t:432-684-0057 f: 432-686-7964

Company: EOG

Job #: 62828

Well Name: Rio Penasco MF Federal # 1

County/State: Eddy Co., New Mexico

Survey Instrument Type: North Seek Rate Gyro

API # 30-015-23074

TIE-IN DATA

Measure Depth (ft)	Vertical Depth (ft)	Inclination (°)	Azimuth (°)	N-S Coordinates	E-W Coordinates	Data Source
0	0	0	0	0	0	Surface

First Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2018-05-11	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2018-05-11	6000	4.35	337.59

Projected TD Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
0	0	0	0

Grid Correction
0.07

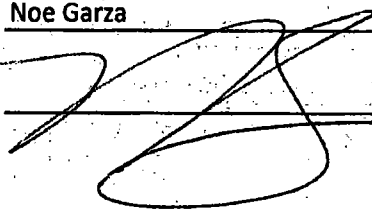
Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Angel Guebara

To the best of my knowledge I certify this survey data to be correct and true

Date: 05-11-18

Print Name: Noe Garza

Signature: 



Company: EOG
 Well: Rio Penasco MF Federal # 1
 Location: Eddy Co., New Mexico
 Rig: Pulling Unit

Job Number: 62828
 Grid Corr.: 0.07
 Lat: 32.677340
 Long: -104.457650
 Grid Ref: NAD 83

Date: 05-11-18
 Calculation Method: Minimum Curvature
 Proposed Azimuth:
 RKB - MSL in feet: Ground
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
FIELD COPY, NON-DEFINITIVE													
Enter Tie-In Survey on Line 10													
TIE IN	0			0	0	0	0	0					
Gyro	100.00	0.08	286.65	100	100.00	0.02	0.02 N	0.07 W	0.07	286.65	0.08	0.08	286.65
	200.00	0.13	252.49	100	200.00	0.01	0.01 N	0.24 W	0.24	271.39	0.08	0.05	-34.16
	300.00	0.21	96.93	100	300.00	-0.05	0.05 S	0.17 W	0.18	253.33	0.33	0.08	-155.56
	400.00	0.93	45.53	100	399.99	0.50	0.50 N	0.59 E	0.77	50.08	0.82	0.72	-51.40
	500.00	0.80	53.58	100	499.98	1.48	1.48 N	1.73 E	2.28	49.53	0.18	-0.13	8.05
	600.00	1.18	56.24	100	599.97	2.47	2.47 N	3.15 E	4.00	51.96	0.38	0.38	2.66
	700.00	0.57	126.98	100	699.96	2.74	2.74 N	4.40 E	5.19	58.13	1.13	-0.61	70.74
	800.00	0.69	110.42	100	799.95	2.23	2.23 N	5.37 E	5.81	67.44	0.22	0.12	-16.56
	900.00	0.62	92.92	100	899.95	1.99	1.99 N	6.47 E	6.77	72.89	0.21	-0.07	-17.50
	1000.00	0.49	81.34	100	999.94	2.03	2.03 N	7.43 E	7.71	74.74	0.17	-0.13	-11.58
	1100.00	0.22	121.29	100	1099.94	1.99	1.99 N	8.02 E	8.27	76.04	0.35	-0.27	39.95
	1200.00	0.72	113.09	100	1199.93	1.65	1.65 N	8.76 E	8.92	79.35	0.50	0.50	-8.20
	1300.00	0.25	94.48	100	1299.93	1.38	1.38 N	9.56 E	9.66	81.76	0.49	-0.47	-18.61
	1400.00	0.44	131.00	100	1399.93	1.11	1.11 N	10.07 E	10.13	83.68	0.28	0.19	36.52
	1500.00	0.45	75.81	100	1499.93	0.96	0.96 N	10.74 E	10.78	84.90	0.41	0.01	-55.19
	1600.00	0.58	121.55	100	1599.92	0.79	0.79 N	11.55 E	11.58	86.08	0.42	0.13	45.74
	1700.00	0.12	69.26	100	1699.92	0.56	0.56 N	12.08 E	12.09	87.33	0.52	-0.46	-52.29
	1800.00	0.29	156.92	100	1799.92	0.37	0.37 N	12.27 E	12.28	88.29	0.31	0.17	87.66
	1900.00	0.37	94.74	100	1899.92	0.11	0.11 N	12.70 E	12.70	89.51	0.35	0.08	-62.18
	2000.00	0.59	105.36	100	1999.92	-0.06	0.06 S	13.51 E	13.51	90.24	0.24	0.22	10.62
	2100.00	0.47	107.91	100	2099.91	-0.32	0.32 S	14.40 E	14.40	91.27	0.12	-0.12	2.55
	2200.00	0.57	85.72	100	2199.91	-0.41	0.41 S	15.29 E	15.29	91.53	0.22	0.10	-22.19
	2300.00	0.35	71.07	100	2299.90	-0.27	0.27 S	16.07 E	16.07	90.97	0.25	-0.22	-14.65
	2400.00	0.36	43.68	100	2399.90	0.06	0.06 N	16.58 E	16.58	89.81	0.17	0.01	-27.39
	2500.00	0.45	43.47	100	2499.90	0.57	0.57 N	17.07 E	17.07	88.09	0.09	0.09	-0.21
	2600.00	0.24	285.61	100	2599.90	0.91	0.91 N	17.13 E	17.16	86.96	0.60	-0.21	242.14
	2700.00	0.38	356.95	100	2699.90	1.30	1.30 N	16.91 E	16.96	85.62	0.38	0.14	71.34
	2800.00	0.52	14.21	100	2799.89	2.07	2.07 N	17.01 E	17.13	83.07	0.19	0.14	-342.74



Company: EOG
 Well: Rio Penasco MF Federal # 1
 Location: Eddy Co., New Mexico
 Rig: Pulling Unit

Job Number: 62828
 Grid Corr.: 0.07
 Lat: 32.677340
 Long: -104.457650
 Grid Ref: NAD 83

Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: Ground
 Tie Into: Surface

Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')	Walk Rate (d/100')
							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	2900.00	0.88	4.10	100	2899.89	3.27	3.27 N	17.17 E	17.48	79.21	0.38	0.36	-10.11
	3000.00	0.82	20.77	100	2999.88	4.71	4.71 N	17.48 E	18.11	74.93	0.25	-0.06	16.67
	3100.00	0.76	21.62	100	3099.87	5.99	5.99 N	17.98 E	18.95	71.56	0.06	-0.06	0.85
	3200.00	0.49	17.90	100	3199.86	7.02	7.02 N	18.36 E	19.65	69.08	0.27	-0.27	-3.72
	3300.00	0.56	11.61	100	3299.86	7.90	7.90 N	18.59 E	20.20	66.96	0.09	0.07	-6.29
	3400.00	0.86	14.58	100	3399.85	9.11	9.11 N	18.87 E	20.96	64.24	0.30	0.30	2.97
	3500.00	0.77	14.56	100	3499.84	10.48	10.48 N	19.23 E	21.90	61.40	0.09	-0.09	-0.02
	3600.00	0.62	10.06	100	3599.83	11.67	11.67 N	19.50 E	22.72	59.10	0.16	-0.15	-4.50
	3700.00	0.68	8.09	100	3699.82	12.79	12.79 N	19.67 E	23.46	56.98	0.06	0.06	-1.97
	3800.00	1.08	5.93	100	3799.81	14.31	14.31 N	19.85 E	24.48	54.21	0.40	0.40	-2.16
	3900.00	1.10	16.09	100	3899.79	16.17	16.17 N	20.22 E	25.89	51.34	0.19	0.02	10.16
	4000.00	1.15	359.63	100	3999.77	18.10	18.10 N	20.48 E	27.33	48.53	0.33	0.05	343.54
	4100.00	1.74	349.16	100	4099.74	20.59	20.59 N	20.18 E	28.84	44.43	0.64	0.59	-10.47
	4200.00	2.26	355.68	100	4199.68	24.05	24.05 N	19.75 E	31.12	39.39	0.57	0.52	6.52
	4300.00	2.28	351.33	100	4299.60	27.98	27.98 N	19.30 E	33.99	34.60	0.17	0.02	-4.35
	4400.00	2.65	346.40	100	4399.51	32.20	32.20 N	18.46 E	37.11	29.83	0.43	0.37	-4.93
	4500.00	3.16	342.70	100	4499.38	37.07	37.07 N	17.10 E	40.83	24.76	0.54	0.51	-3.70
	4600.00	3.82	342.52	100	4599.20	42.88	42.88 N	15.28 E	45.52	19.61	0.66	0.66	-0.18
	4700.00	3.89	352.08	100	4698.97	49.42	49.42 N	13.81 E	51.31	15.61	0.65	0.07	9.56
	4800.00	4.19	334.48	100	4798.73	56.08	56.08 N	11.77 E	57.30	11.85	1.27	0.30	-17.60
	4900.00	4.26	336.49	100	4898.45	62.78	62.78 N	8.71 E	63.38	7.90	0.16	0.07	2.01
	5000.00	4.53	337.92	100	4998.16	69.85	69.85 N	5.74 E	70.08	4.70	0.29	0.27	1.43
	5100.00	4.95	339.55	100	5097.82	77.55	77.55 N	2.75 E	77.60	2.03	0.44	0.42	1.63
	5200.00	4.91	338.04	100	5197.45	85.56	85.56 N	0.35 W	85.56	359.76	0.14	-0.04	-1.51
	5300.00	5.38	338.32	100	5297.04	93.88	93.88 N	3.69 W	93.96	357.75	0.47	0.47	0.28
	5400.00	5.62	339.14	100	5396.58	102.82	102.82 N	7.16 W	103.07	356.01	0.25	0.24	0.82
	5500.00	5.56	340.20	100	5496.11	111.95	111.95 N	10.55 W	112.45	354.62	0.12	-0.06	1.06
	5600.00	5.05	336.22	100	5595.68	120.54	120.54 N	13.96 W	121.34	353.39	0.63	-0.51	-3.98
	5700.00	4.83	334.45	100	5695.31	128.36	128.36 N	17.55 W	129.56	352.21	0.27	-0.22	-1.77
	5800.00	4.64	334.93	100	5794.97	135.82	135.82 N	21.08 W	137.45	351.18	0.19	-0.19	0.48
	5900.00	4.47	336.38	100	5894.65	143.06	143.06 N	24.36 W	145.12	350.34	0.21	-0.17	1.45



Company: EOG
 Well: Rio Penasco MF Federal # 1
 Location: Eddy Co., New Mexico
 Rig: Pulling Unit

Job Number: 62828
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							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	6000.00	4.35	337.59	100	5994.36	150.13	150.13 N	27.37 W	152.61	349.67	0.15	-0.12	1.21

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
 Supersedes C-128
 Effective 1-1-65

All distances must be from the outer boundaries of the Section.

Operator YATES PETROLEUM CORPORATION			Lease Rio Penasco MF Federal		Well No. 1
Unit Letter F	Section 11	Township 19 South	Range 25 East	County Eddy	
Actual Footage Location of Well: 1980 feet from the North line and 1980 feet from the West line					
Ground Level Elev. 3453.8	Protecting Formation MORROW	Pool UNDES. MORROW		Dedicated Acreage 1.00	

RECEIVED

NOV 13 1979

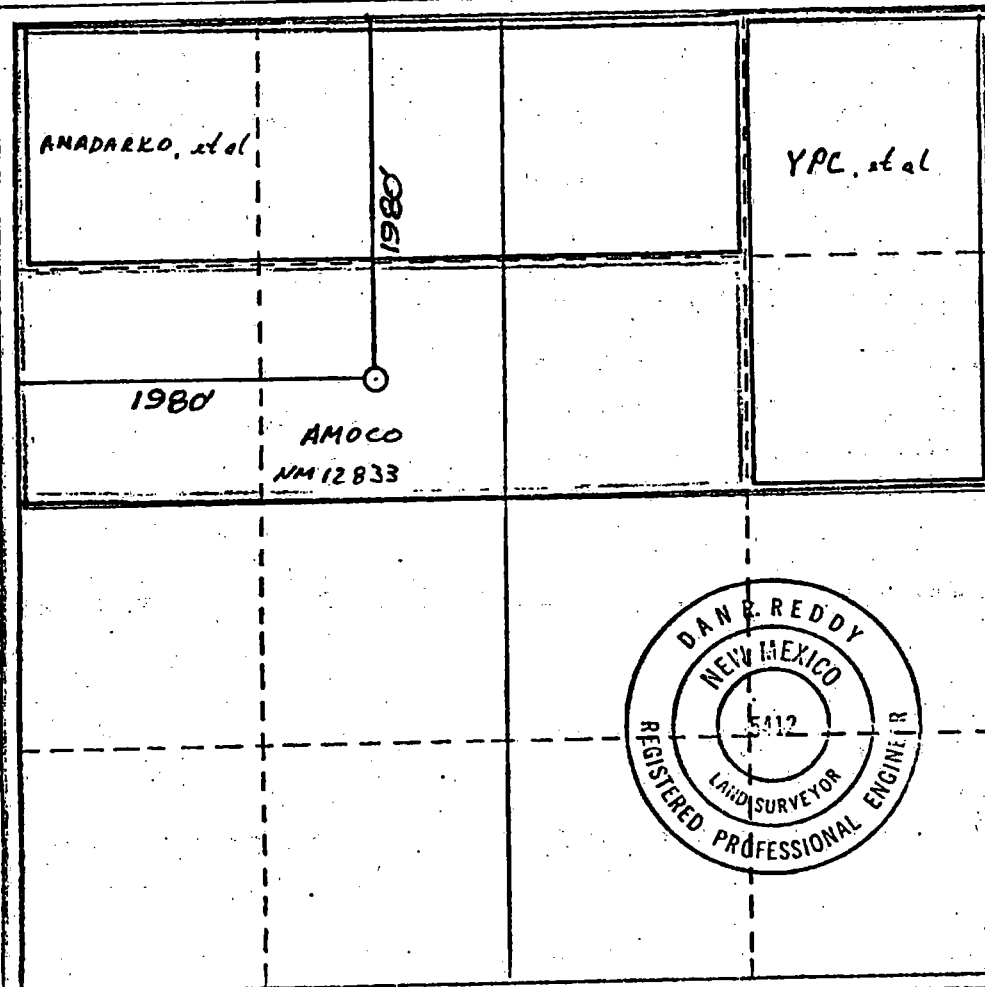
**U.S. GEOLOGICAL SURVEY
 ARTESIA, NEW MEXICO**

1. Outline the acreage dedicated to the subject well by colored pencil or dashure marks on the plat hereto.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of said leases consolidated by communitization, unitization, force-pooling, etc.

☒ Yes ☐ No If answer is "yes," type of consolidation **To Be COMMUNITIZED**

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Gliserio Rodriguez

Name

GLISERIO RODRIGUEZ

Position

GEOGRAPHER

Company

YATES PETROLEUM CORP

Date

11-12-79

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

Date Surveyed

October 27, 1979

Registered Professional Engineer and/or Land Surveyor

Dan R. Reddy

Certificate No.

NM PE&LS #5412

0 300 600 900 1200 1500 1800 2100 2400 2700 3000 3300 3600 3900 4200 4500 4800 5100 5400 5700 6000