



PHOENIX

TECHNOLOGY SERVICES USA INC.

3610 Elkins Road, Midland, Texas 79705 T. 432.684.0057 F. 432.686.7964 www.phxtech.com

Celebrating 20 Years of Focused Solutions

30-025-43898

September 7, 2017

Oil Conservation Division
State of New Mexico
1625 N. French Drive
Hobbs, New Mexico 88240

Dear District 1 - Hobbs

Attention: Regulatory Department

Re: Mewbourne Oil
Birdog 20 17 B2FC State Com 1H
Lea County, New Mexico
API #30-025-43898
Job No. 61731

HOBBS OCD
SEP 19 2017
RECEIVED

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. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Noe Garza	1H	0	5,655	9/5/17	9/5/17	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

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



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TECHNOLOGY SERVICES

Company: Mewbourne

Job #: 61731

Well Name: Birdog 20 17 B2FC State Com 1H

County/State: Lea Co., New Mexico

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-43898

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 (°)
2017-09-05	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2017-09-05	5655	1.3	84.77

Projected TD Survey

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

Grid Correction
-0.45

Gyro Operator: Phoenix Technology Services USA Ltd.

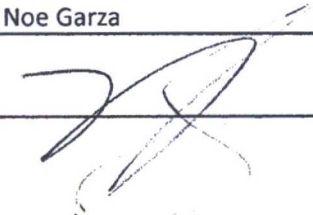
Gyro Supervisor: Angel Guebara

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

Date: 09-05-17

Print Name: Noe Garza

Signature: 



Company: Mewbourne
 Well: Birdog 20 17 B2FC State Com 1H
 Location: Lea Co., New Mexico
 Rig: Patterson 230

Job Number: 61731
 Grid Corr.: -0.45
 Lat: 32.46
 Long: -103.49

Date: 09-05-17
 Calculation Method: Minimum Curvature
 Proposed Azimuth: _____
 RKB - MSL in feet: 25.5
 Tie Into: 4546 QES Survey

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)			
Enter Tie-In Survey on Line 10													
FIELD COPY, NON-DEFINITIVE													
TIE IN	4546	2.30	40.9	0	4545.11	23.77	27.58 N	40.27 E	48.81	55.59	0.23	0.21	0.3
Gyro	4600.00	2.20	44.43	54	4599.07	29.14	29.14 N	41.71 E	50.88	55.06	0.32	-0.19	6.54
	4700.00	1.84	63.02	100	4699.01	31.24	31.24 N	44.48 E	54.35	54.92	0.74	-0.36	18.59
	4800.00	1.86	67.55	100	4798.95	32.59	32.59 N	47.41 E	57.53	55.50	0.15	0.02	4.53
	4900.00	1.92	62.47	100	4898.90	33.98	33.98 N	50.40 E	60.78	56.01	0.18	0.06	-5.08
	5000.00	1.82	45.66	100	4998.85	35.86	35.86 N	53.02 E	64.01	55.92	0.56	-0.10	-16.81
	5100.00	1.58	52.83	100	5098.80	37.81	37.81 N	55.25 E	66.95	55.62	0.32	-0.24	7.17
	5200.00	1.77	45.17	100	5198.76	39.73	39.73 N	57.44 E	69.84	55.33	0.29	0.19	-7.66
	5300.00	1.51	64.21	100	5298.72	41.39	41.39 N	59.73 E	72.67	55.28	0.60	-0.26	19.04
	5400.00	1.18	40.49	100	5398.69	42.75	42.75 N	61.58 E	74.96	55.23	0.64	-0.33	-23.72
	5500.00	1.36	63.10	100	5498.67	44.07	44.07 N	63.31 E	77.14	55.16	0.53	0.18	22.61
	5600.00	0.87	58.17	100	5598.65	45.00	45.00 N	65.01 E	79.07	55.31	0.50	-0.49	-4.93
	5655.00	1.30	84.77	55	5653.64	45.28	45.28 N	65.99 E	80.03	55.54	1.18	0.78	48.36