



PHOENIX

TECHNOLOGY SERVICES USA INC.

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

30-025-43353

Celebrating 20 Years of Focused Solutions

November 3, 2016

HOBBS OCD
NOV 21 2016
RECEIVED

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
Jennings 27 WOAP Fed Com 3H ✓
Lea County, New Mexico
API #30-025-43353
Job No. 60462

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	
Andy Askew	3H	0	11,260	10/24/16	10/24/16	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,

Bobbi Jo Jorgensen

Bobbi Jo Jorgensen
Operations Administrator

K2

SURVEY CERTIFICATION FORM

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



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TECHNOLOGY SERVICES

HOBBS OCD

NOV 21 2016

RECEIVED

Company: Mewbourne Oil

Job #: 60462

Well Name: Jennings 27 WOAP Fed Com 3H

County/State: Lea/ NM

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-43353

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 (°)
2016-10-24	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2016-10-24	11260	2.58	218.86

Projected TD Survey

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

Grid Correction
-0.36

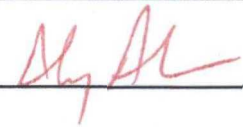
Gyro Operator: Phoenix Technology Services USA Ltd.

Gyro Supervisor: Angel Guebara

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

Date: 10-24-16

Print Name: Andy Askew

Signature: 



Company: Mewbourne Oil
 Well: Jennings 27 WOAP Fed Com 3H
 Location: Lea Co., NM
 Rig: Patterson 231

Job Number: 60462
 Grid Corr.: -0.36
 Lat: 32.10
 Long: -103.65

Date: 10-24-16
 Calculation Method: Minimum Curvature
 Proposed Azimuth:
 RKB - MSL in feet: 24
 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)			
Enter Tie-In Survey on Line 10													
FIELD COPY, NON-DEFINITIVE													
TIE IN	0			0	0	0	0	0					
Gyro	100.00	0.63	241.57	100	100.00	-0.26	0.26 S	0.48 W	0.55	241.57	0.63	0.63	241.57
	200.00	0.70	230.05	100	199.99	-0.92	0.92 S	1.44 W	1.70	237.46	0.15	0.07	-11.52
	300.00	0.74	241.57	100	299.98	-1.62	1.62 S	2.47 W	2.95	236.83	0.15	0.04	11.52
	400.00	0.90	222.21	100	399.97	-2.50	2.50 S	3.57 W	4.36	234.93	0.32	0.16	-19.36
	500.00	1.02	204.97	100	499.96	-3.89	3.89 S	4.47 W	5.93	228.95	0.31	0.12	-17.24
	600.00	1.54	194.14	100	599.93	-6.00	6.00 S	5.17 W	7.93	220.76	0.57	0.52	-10.83
	700.00	1.79	197.21	100	699.89	-8.80	8.80 S	5.96 W	10.63	214.14	0.27	0.25	3.07
	800.00	1.95	202.55	100	799.84	-11.86	11.86 S	7.08 W	13.81	210.83	0.24	0.16	5.34
	900.00	1.86	189.61	100	899.78	-15.03	15.03 S	8.00 W	17.03	208.03	0.44	-0.09	-12.94
	1000.00	2.18	204.59	100	999.72	-18.36	18.36 S	9.06 W	20.48	206.27	0.61	0.32	14.98
	1100.00	0.40	142.92	100	1099.70	-20.37	20.37 S	9.65 W	22.54	205.34	2.02	-1.78	-61.67
	1200.00	0.51	97.61	100	1199.69	-20.71	20.71 S	8.99 W	22.58	203.48	0.36	0.11	-45.31
	1300.00	0.80	65.83	100	1299.69	-20.48	20.48 S	7.92 W	21.96	201.13	0.45	0.29	-31.78
	1400.00	0.82	77.18	100	1399.68	-20.04	20.04 S	6.58 W	21.09	198.19	0.16	0.02	11.35
	1500.00	0.94	85.87	100	1499.66	-19.82	19.82 S	5.07 W	20.46	194.34	0.18	0.12	8.69
	1600.00	1.13	90.12	100	1599.65	-19.76	19.76 S	3.26 W	20.03	189.37	0.20	0.19	4.25
	1700.00	1.41	91.21	100	1699.62	-19.79	19.79 S	1.05 W	19.82	183.02	0.28	0.28	1.09
	1800.00	1.46	86.39	100	1799.59	-19.74	19.74 S	1.46 E	19.79	175.78	0.13	0.05	-4.82
	1900.00	1.53	98.49	100	1899.56	-19.85	19.85 S	4.05 E	20.26	168.48	0.32	0.07	12.10
	2000.00	1.76	102.21	100	1999.52	-20.37	20.37 S	6.87 E	21.50	161.37	0.25	0.23	3.72
	2100.00	1.99	108.36	100	2099.46	-21.25	21.25 S	10.02 E	23.49	154.76	0.31	0.23	6.15
	2200.00	1.75	102.23	100	2199.41	-22.12	22.12 S	13.16 E	25.73	149.25	0.31	-0.24	-6.13
	2300.00	0.91	19.10	100	2299.39	-21.69	21.69 S	14.91 E	26.32	145.49	1.87	-0.84	-83.13
	2400.00	1.75	336.77	100	2399.36	-19.54	19.54 S	14.57 E	24.37	143.29	1.24	0.84	317.67
	2500.00	1.99	324.84	100	2499.31	-16.71	16.71 S	12.97 E	21.15	142.20	0.46	0.24	-11.93
	2600.00	2.23	321.48	100	2599.24	-13.77	13.77 S	10.75 E	17.47	142.01	0.27	0.24	-3.36
	2700.00	2.16	230.56	100	2699.19	-13.45	13.45 S	8.09 E	15.69	148.98	3.13	-0.07	-90.92



Company: Mewbourne Oil
Well: Jennings 27 W0AP Fed Com 3H
Location: Lea Co., NM
Rig: Patterson 231

Job Number: 60462
Grid Corr.: -0.36
Lat: 32.10
Long: -103.65

Calculation Method: Minimum Curvature
Proposed Azimuth:
RKB - MSL in feet: 24
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)			
	2800.00	2.05	223.46	100	2799.13	-15.94	15.94 S	5.40 E	16.83	161.28	0.28	-0.11	-7.10
	2900.00	1.28	220.05	100	2899.08	-18.09	18.09 S	3.45 E	18.42	169.20	0.78	-0.77	-3.41
	3000.00	0.86	285.83	100	2999.07	-18.75	18.75 S	2.01 E	18.85	173.88	1.21	-0.42	65.78
	3100.00	0.77	288.06	100	3099.06	-18.33	18.33 S	0.65 E	18.34	177.97	0.10	-0.09	2.23
	3200.00	0.56	313.64	100	3199.05	-17.79	17.79 S	0.34 W	17.79	181.10	0.36	-0.21	25.58
	3300.00	0.38	348.08	100	3299.05	-17.12	17.12 S	0.76 W	17.14	182.56	0.33	-0.18	34.44
	3400.00	0.83	348.14	100	3399.04	-16.09	16.09 S	0.98 W	16.12	183.49	0.45	0.45	0.06
	3500.00	1.21	42.98	100	3499.03	-14.61	14.61 S	0.41 W	14.62	181.61	1.00	0.38	-305.16
	3600.00	1.97	41.04	100	3598.99	-12.54	12.54 S	1.44 E	12.62	173.46	0.76	0.76	-1.94
	3700.00	2.03	44.55	100	3698.93	-9.98	9.98 S	3.81 E	10.68	159.12	0.14	0.06	3.51
	3800.00	0.80	343.05	100	3798.90	-8.05	8.05 S	4.85 E	9.40	148.95	1.79	-1.23	298.50
	3900.00	1.86	265.65	100	3898.88	-7.51	7.51 S	3.03 E	8.09	158.05	1.86	1.06	-77.40
	4000.00	1.59	251.22	100	3998.83	-8.08	8.08 S	0.09 E	8.08	179.33	0.51	-0.27	-14.43
	4100.00	1.46	198.61	100	4098.80	-9.73	9.73 S	1.63 W	9.87	189.49	1.36	-0.13	-52.61
	4200.00	1.36	153.96	100	4198.78	-12.01	12.01 S	1.51 W	12.10	187.18	1.08	-0.10	-44.65
	4300.00	2.09	168.68	100	4298.73	-14.86	14.86 S	0.63 W	14.87	182.44	0.85	0.73	14.72
	4400.00	2.98	167.73	100	4398.63	-19.19	19.19 S	0.28 E	19.19	179.17	0.89	0.89	-0.95
	4500.00	1.51	162.74	100	4498.55	-22.99	22.99 S	1.22 E	23.02	176.96	1.48	-1.47	-4.99
	4600.00	1.21	140.60	100	4598.52	-25.06	25.06 S	2.28 E	25.16	174.80	0.60	-0.30	-22.14
	4700.00	1.15	140.04	100	4698.50	-26.65	26.65 S	3.60 E	26.89	172.31	0.06	-0.06	-0.56
	4800.00	1.11	156.16	100	4798.48	-28.30	28.30 S	4.63 E	28.68	170.70	0.32	-0.04	16.12
	4900.00	0.82	160.42	100	4898.47	-29.86	29.86 S	5.26 E	30.32	170.00	0.30	-0.29	4.26
	5000.00	0.72	160.69	100	4998.46	-31.13	31.13 S	5.71 E	31.65	169.60	0.10	-0.10	0.27
	5100.00	0.53	163.06	100	5098.45	-32.16	32.16 S	6.05 E	32.73	169.34	0.19	-0.19	2.37
	5200.00	0.45	34.65	100	5198.45	-32.28	32.28 S	6.41 E	32.91	168.77	0.88	-0.08	-128.41
	5300.00	0.27	128.79	100	5298.45	-32.11	32.11 S	6.82 E	32.82	168.01	0.54	-0.18	94.14
	5400.00	0.16	97.83	100	5398.45	-32.27	32.27 S	7.14 E	33.05	167.52	0.16	-0.11	-30.96
	5500.00	0.17	219.63	100	5498.45	-32.41	32.41 S	7.18 E	33.19	167.50	0.29	0.01	121.80
	5600.00	0.40	154.53	100	5598.45	-32.84	32.84 S	7.24 E	33.63	167.57	0.36	0.23	-65.10
	5700.00	0.18	126.42	100	5698.45	-33.24	33.24 S	7.52 E	34.08	167.26	0.26	-0.22	-28.11



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Well: Jennings 27 WOAP Fed Com 3H
Location: Lea Co., NM
Rig: Patterson 231

Job Number: 60462
Grid Corr.: -0.36
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Calculation Method: Minimum Curvature
Proposed Azimuth:
RKB - MSL in feet: 24
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)			
	5800.00	0.21	16.33	100	5798.45	-33.16	33.16 S	7.69 E	34.04	166.94	0.32	0.03	-110.09
	5900.00	0.52	60.97	100	5898.45	-32.77	32.77 S	8.14 E	33.76	166.04	0.40	0.31	44.64
	6000.00	0.64	3.50	100	5998.44	-31.99	31.99 S	8.57 E	33.12	165.00	0.57	0.12	-57.47
	6100.00	0.82	6.26	100	6098.43	-30.72	30.72 S	8.69 E	31.92	164.21	0.18	0.18	2.76
	6200.00	0.66	0.49	100	6198.42	-29.43	29.43 S	8.77 E	30.71	163.41	0.18	-0.16	-5.77
	6300.00	0.68	356.38	100	6298.42	-28.26	28.26 S	8.74 E	29.58	162.82	0.05	0.02	355.89
	6400.00	0.54	346.33	100	6398.41	-27.21	27.21 S	8.59 E	28.54	162.49	0.18	-0.14	-10.05
	6500.00	0.55	280.79	100	6498.41	-26.67	26.67 S	8.00 E	27.84	163.29	0.59	0.01	-65.54
	6600.00	0.57	287.44	100	6598.40	-26.43	26.43 S	7.06 E	27.35	165.05	0.07	0.02	6.65
	6700.00	0.94	286.63	100	6698.40	-26.04	26.04 S	5.80 E	26.68	167.45	0.37	0.37	-0.81
	6800.00	0.47	307.85	100	6798.39	-25.56	25.56 S	4.69 E	25.98	169.60	0.53	-0.47	21.22
	6900.00	0.46	295.19	100	6898.38	-25.13	25.13 S	4.00 E	25.45	170.95	0.10	-0.01	-12.66
	7000.00	0.51	297.59	100	6998.38	-24.76	24.76 S	3.24 E	24.97	172.54	0.05	0.05	2.40
	7100.00	0.65	281.07	100	7098.38	-24.44	24.44 S	2.29 E	24.55	174.64	0.22	0.14	-16.52
	7200.00	0.84	244.36	100	7198.37	-24.65	24.65 S	1.08 E	24.67	177.50	0.50	0.19	-36.71
	7300.00	0.48	202.01	100	7298.36	-25.36	25.36 S	0.26 E	25.36	179.42	0.58	-0.36	-42.35
	7400.00	0.75	306.00	100	7398.36	-25.36	25.36 S	0.43 W	25.36	180.97	0.98	0.27	103.99
	7500.00	0.72	232.03	100	7498.35	-25.36	25.36 S	1.45 W	25.40	183.28	0.88	-0.03	-73.97
	7600.00	0.72	243.63	100	7598.34	-26.03	26.03 S	2.51 W	26.15	185.51	0.15	0.00	11.60
	7700.00	0.52	255.01	100	7698.34	-26.42	26.42 S	3.51 W	26.66	187.57	0.23	-0.20	11.38
	7800.00	0.78	352.77	100	7798.33	-25.87	25.87 S	4.04 W	26.18	188.87	0.99	0.26	97.76
	7900.00	0.36	312.04	100	7898.33	-24.98	24.98 S	4.36 W	25.36	189.89	0.56	-0.42	-40.73
	8000.00	0.46	292.33	100	7998.33	-24.62	24.62 S	4.96 W	25.11	191.39	0.17	0.10	-19.71
	8100.00	0.77	236.80	100	8098.32	-24.83	24.83 S	5.89 W	25.52	193.35	0.64	0.31	-55.53
	8200.00	0.64	196.14	100	8198.31	-25.74	25.74 S	6.61 W	26.57	194.41	0.50	-0.13	-40.66
	8300.00	0.66	220.27	100	8298.31	-26.71	26.71 S	7.14 W	27.65	194.96	0.27	0.02	24.13
	8400.00	0.79	199.78	100	8398.30	-27.80	27.80 S	7.75 W	28.86	195.57	0.29	0.13	-20.49
	8500.00	0.69	182.99	100	8498.29	-29.05	29.05 S	8.01 W	30.14	195.41	0.24	-0.10	-16.79
	8600.00	0.92	211.02	100	8598.28	-30.34	30.34 S	8.46 W	31.50	195.57	0.45	0.23	28.03
	8700.00	1.36	237.47	100	8698.26	-31.67	31.67 S	9.87 W	33.17	197.31	0.67	0.44	26.45



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 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)			
	8800.00	1.41	248.45	100	8798.23	-32.76	32.76 S	12.01 W	34.89	200.14	0.27	0.05	10.98
	8900.00	1.19	236.71	100	8898.21	-33.78	33.78 S	14.03 W	36.58	202.55	0.34	-0.22	-11.74
	9000.00	0.92	225.65	100	8998.19	-34.91	34.91 S	15.47 W	38.18	203.90	0.34	-0.27	-11.06
	9100.00	0.54	196.76	100	9098.18	-35.92	35.92 S	16.18 W	39.40	204.25	0.52	-0.38	-28.89
	9200.00	1.52	262.09	100	9198.17	-36.56	36.56 S	17.63 W	40.58	205.74	1.38	0.98	65.33
	9300.00	1.65	276.07	100	9298.13	-36.59	36.59 S	20.37 W	41.88	209.11	0.41	0.13	13.98
	9400.00	1.07	292.33	100	9398.10	-36.08	36.08 S	22.67 W	42.61	212.14	0.69	-0.58	16.26
	9500.00	1.34	15.79	100	9498.09	-34.60	34.60 S	23.21 W	41.67	213.86	1.62	0.27	-276.54
	9600.00	2.93	45.69	100	9598.02	-31.69	31.69 S	21.07 W	38.05	213.62	1.89	1.59	29.90
	9700.00	4.67	65.06	100	9697.80	-28.19	28.19 S	15.55 W	32.19	208.88	2.14	1.74	19.37
	9800.00	5.08	61.26	100	9797.43	-24.34	24.34 S	7.97 W	25.61	198.14	0.52	0.41	-3.80
	9900.00	5.30	60.42	100	9897.02	-19.93	19.93 S	0.07 W	19.93	180.22	0.23	0.22	-0.84
	10000.00	4.31	59.22	100	9996.67	-15.73	15.73 S	7.17 E	17.29	155.49	1.00	-0.99	-1.20
	10100.00	3.52	58.99	100	10096.44	-12.23	12.23 S	13.03 E	17.87	133.18	0.79	-0.79	-0.23
	10200.00	3.16	64.39	100	10196.27	-9.45	9.45 S	18.15 E	20.46	117.51	0.48	-0.36	5.40
	10300.00	2.98	66.32	100	10296.12	-7.22	7.22 S	23.01 E	24.12	107.41	0.21	-0.18	1.93
	10400.00	2.83	74.07	100	10396.00	-5.50	5.50 S	27.77 E	28.31	101.19	0.42	-0.15	7.75
	10500.00	2.48	77.81	100	10495.89	-4.36	4.36 S	32.26 E	32.55	97.70	0.39	-0.35	3.74
	10600.00	1.47	100.15	100	10595.83	-4.13	4.13 S	35.63 E	35.87	96.61	1.25	-1.01	22.34
	10700.00	0.78	152.48	100	10695.81	-4.96	4.96 S	37.21 E	37.54	97.59	1.17	-0.69	52.33
	10800.00	1.67	201.08	100	10795.79	-6.92	6.92 S	37.00 E	37.64	100.60	1.29	0.89	48.60
	10900.00	2.53	223.79	100	10895.72	-9.88	9.88 S	34.95 E	36.32	105.78	1.18	0.86	22.71
	11000.00	2.85	233.29	100	10995.61	-12.96	12.96 S	31.43 E	33.99	112.40	0.55	0.32	9.50
	11100.00	2.66	237.12	100	11095.50	-15.70	15.70 S	27.49 E	31.66	119.74	0.26	-0.19	3.83
	11200.00	2.43	237.74	100	11195.40	-18.09	18.09 S	23.75 E	29.85	127.31	0.23	-0.23	0.62
	11260.00	2.58	218.86	60	11255.34	-19.82	19.82 S	21.82 E	29.48	132.25	1.39	0.25	-31.47