



PHOENIX

TECHNOLOGY SERVICES USA INC.

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

30-025-43249

Celebrating 20 Years of Focused Solutions

September 11, 2017

Oil Conservation Division
State of New Mexico
1625 N. French Drive
District 1 - Hobbs
Hobbs, New Mexico 88240

Attention: Regulatory Department

Re: Legacy Reserves
Hamon A Fed Com 8H
Lea County, New Mexico
API # 30-025-43249
Job No. 61718

HOBBS OCD
SEP 25 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	
Andy Askew	8H	0	5,384	9/1/17	9/1/17	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: Legacy

Job #: 61718

Well Name: Hamon A Fed Com 8H

County/State: Lea / NM

Survey Instrument Type: North Seek Rate Gyro

API # 30-025-43249

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 (°)
2017-09-01	0	0	0

Last Survey

Date	Depth (ft)	Inclination (°)	Azimuth (°)
2017-09-01	5384	58.64	118.54

Projected TD Survey

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

Grid Correction
-0.4

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: 9-2-17

Print Name: Andy Askew

Signature:



Company: Legacy
 Well: Hamon A Fed Com 8H
 Location: Lea Co., NM
 Rig: McVay 4

Job Number: 61718
 Grid Corr.: -0.40
 Lat: 32.59
 Long: -103.59

Date: 09-01-17
 Calculation Method: Minimum Curvature
 Proposed Azimuth:
 RKB - MSL in feet: 18
 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	0.29	106.25	100	100.00	-0.07	0.07 S	0.24 E	0.25	106.25	0.29	0.29	106.25
	200.00	0.36	110.74	100	200.00	-0.25	0.25 S	0.78 E	0.82	107.97	0.07	0.07	4.49
	300.00	0.32	111.63	100	300.00	-0.47	0.47 S	1.33 E	1.41	109.31	0.04	-0.04	0.89
	400.00	0.15	78.24	100	400.00	-0.54	0.54 S	1.72 E	1.80	107.52	0.21	-0.17	-33.39
	500.00	0.24	79.25	100	499.99	-0.48	0.48 S	2.05 E	2.11	103.08	0.09	0.09	1.01
	600.00	0.33	10.76	100	599.99	-0.16	0.16 S	2.31 E	2.32	93.85	0.33	0.09	-68.49
	700.00	0.44	55.46	100	699.99	0.35	0.35 N	2.68 E	2.71	82.68	0.31	0.11	44.70
	800.00	0.36	112.72	100	799.99	0.44	0.44 N	3.29 E	3.32	82.36	0.39	-0.08	57.26
	900.00	0.78	77.60	100	899.98	0.47	0.47 N	4.24 E	4.27	83.73	0.53	0.42	-35.12
	1000.00	0.55	65.79	100	999.98	0.81	0.81 N	5.35 E	5.41	81.40	0.27	-0.23	-11.81
	1100.00	0.43	79.44	100	1099.97	1.07	1.07 N	6.15 E	6.25	80.09	0.17	-0.12	13.65
	1200.00	0.67	86.40	100	1199.97	1.18	1.18 N	7.11 E	7.20	80.57	0.25	0.24	6.96
	1300.00	0.11	1.83	100	1299.97	1.31	1.31 N	7.69 E	7.80	80.32	0.67	-0.56	-84.57
	1400.00	0.37	114.23	100	1399.97	1.28	1.28 N	7.99 E	8.09	80.92	0.42	0.26	112.40
	1500.00	0.77	134.48	100	1499.96	0.67	0.67 N	8.76 E	8.79	85.61	0.44	0.40	20.25
	1600.00	0.61	41.15	100	1599.96	0.60	0.60 N	9.59 E	9.61	86.40	1.01	-0.16	-93.33
	1700.00	0.61	37.30	100	1699.95	1.43	1.43 N	10.27 E	10.37	82.09	0.04	0.00	-3.85
	1800.00	0.45	38.31	100	1799.95	2.16	2.16 N	10.83 E	11.05	78.73	0.16	-0.16	1.01
	1900.00	0.26	256.87	100	1899.95	2.42	2.42 N	10.86 E	11.12	77.46	0.67	-0.19	218.56
	2000.00	0.09	20.18	100	1999.95	2.44	2.44 N	10.66 E	10.94	77.12	0.32	-0.17	-236.69
	2100.00	0.33	215.06	100	2099.94	2.28	2.28 N	10.52 E	10.77	77.80	0.42	0.24	194.88
	2200.00	0.26	80.01	100	2199.94	2.08	2.08 N	10.58 E	10.78	78.88	0.55	-0.07	-135.05
	2300.00	0.37	62.53	100	2299.94	2.27	2.27 N	11.09 E	11.32	78.45	0.14	0.11	-17.48
	2400.00	0.35	64.18	100	2399.94	2.55	2.55 N	11.65 E	11.93	77.66	0.02	-0.02	1.65
	2500.00	0.40	141.35	100	2499.94	2.41	2.41 N	12.15 E	12.38	78.78	0.47	0.05	77.17
	2600.00	1.58	140.95	100	2599.92	1.07	1.07 N	13.23 E	13.28	85.39	1.18	1.18	-0.40
	2700.00	3.34	127.20	100	2699.83	-1.77	1.77 S	16.42 E	16.52	96.14	1.84	1.76	-13.75



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							N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)			
	2800.00	3.74	105.23	100	2799.64	-4.38	4.38 S	21.89 E	22.32	101.32	1.40	0.40	-21.97
	2900.00	4.95	86.72	100	2899.36	-4.99	4.99 S	29.34 E	29.77	99.66	1.84	1.21	-18.51
	3000.00	5.99	71.28	100	2998.90	-3.07	3.07 S	38.59 E	38.72	94.55	1.79	1.04	-15.44
	3100.00	6.98	83.19	100	3098.27	-0.68	0.68 S	49.57 E	49.57	90.78	1.67	0.99	11.91
	3200.00	7.31	92.53	100	3197.49	-0.24	0.24 S	61.96 E	61.96	90.22	1.21	0.33	9.34
	3300.00	9.33	98.44	100	3296.44	-1.71	1.71 S	76.33 E	76.35	91.28	2.19	2.02	5.91
	3400.00	10.54	101.94	100	3394.94	-4.79	4.79 S	93.30 E	93.42	92.94	1.35	1.21	3.50
	3500.00	11.10	103.44	100	3493.16	-8.92	8.92 S	111.61 E	111.97	94.57	0.63	0.56	1.50
	3600.00	12.76	106.09	100	3591.00	-14.22	14.22 S	131.59 E	132.35	96.17	1.75	1.66	2.65
	3700.00	13.39	108.61	100	3688.41	-20.97	20.97 S	153.17 E	154.60	97.80	0.85	0.63	2.52
	3800.00	14.04	111.06	100	3785.55	-29.03	29.03 S	175.47 E	177.85	99.39	0.87	0.65	2.45
	3900.00	15.47	112.98	100	3882.26	-38.59	38.59 S	199.06 E	202.77	100.97	1.51	1.43	1.92
	4000.00	16.69	116.37	100	3978.34	-50.18	50.18 S	224.21 E	229.76	102.62	1.54	1.22	3.39
	4100.00	18.07	116.66	100	4073.78	-63.52	63.52 S	250.94 E	258.85	104.20	1.38	1.38	0.29
	4200.00	19.52	116.59	100	4168.44	-77.95	77.95 S	279.74 E	290.40	105.57	1.45	1.45	-0.07
	4300.00	21.38	117.54	100	4262.13	-93.86	93.86 S	310.84 E	324.71	106.80	1.89	1.86	0.95
	4400.00	23.42	118.53	100	4354.58	-111.78	111.78 S	344.47 E	362.15	107.98	2.07	2.04	0.99
	4500.00	25.70	119.32	100	4445.53	-131.90	131.90 S	380.84 E	403.03	109.10	2.30	2.28	0.79
	4600.00	29.01	119.88	100	4534.34	-154.60	154.60 S	420.78 E	448.28	110.17	3.32	3.31	0.56
	4700.00	32.49	120.13	100	4620.26	-180.17	180.17 S	465.05 E	498.73	111.18	3.48	3.48	0.25
	4800.00	36.17	120.12	100	4702.83	-208.47	208.47 S	513.82 E	554.50	112.08	3.68	3.68	-0.01
	4900.00	40.11	119.86	100	4781.47	-239.33	239.33 S	567.30 E	615.72	112.87	3.94	3.94	-0.26
	5000.00	44.17	119.74	100	4855.60	-272.66	272.66 S	625.51 E	682.36	113.55	4.06	4.06	-0.12
	5100.00	48.17	119.47	100	4924.84	-308.29	308.29 S	688.22 E	754.12	114.13	4.00	4.00	-0.27
	5200.00	52.70	119.05	100	4988.52	-345.95	345.95 S	755.47 E	830.91	114.60	4.54	4.53	-0.42
	5300.00	56.23	118.74	100	5046.63	-385.26	385.26 S	826.70 E	912.06	114.99	3.54	3.53	-0.31
	5384.00	58.64	118.54	84	5091.84	-419.19	419.19 S	888.83 E	982.72	115.25	2.88	2.87	-0.24