

30-025-41771

HOBBS OCD
MAY 15 2018
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A Gyrodata Directional Survey

Field Copy Only, not definitive

for

FASKEN OIL & RANCH

Lease: LAGUNA "16" STATE Well: #5H, 5" DRILLPIPE

Location: NOMAC DRILLING RIG #54, LEA COUNTY, NEW MEXICO

Job Number: MD0714GVC709

Run Date: 18 Jul 2014

Report Generated: 18 Jul 2014 08:30

Surveyor: Jason Solomon

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Hand Held GPS

Survey Latitude: 32.566750 deg. N Longitude: 103.778694 deg. W

Azimuth Correction:

Gyro: -0.30000 deg to Grid North

Depth Reference: Rotary Table

Air Gap (RKB to Ground / RKB to MSL): 21.50

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E

0 TO 12024 FT. RATE GYROSCOPIC VERTICAL CONTINUOUS RUN INSIDE 5" DRILLPIPE

ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO NOMAC DRILLING RIG #54 RKB 21.5 FT.

100.00	0.36	230.66	0.36	100.00	0.3 230.7	0.20 S 0.24 W
200.00	0.37	231.40	0.01	200.00	1.0 230.9	0.60 S 0.74 W
300.00	0.41	229.13	0.04	299.99	1.6 230.6	1.04 S 1.26 W
400.00	0.52	232.65	0.12	399.99	2.4 230.8	1.54 S 1.89 W
500.00	0.52	233.11	0.01	499.99	3.4 231.3	2.09 S 2.62 W
600.00	0.49	234.79	0.04	599.98	4.2 231.9	2.62 S 3.33 W
700.00	0.43	248.61	0.12	699.98	5.0 233.4	3.00 S 4.04 W
800.00	0.35	273.97	0.19	799.98	5.6 236.4	3.12 S 4.69 W
900.00	0.37	275.48	0.02	899.98	6.1 240.1	3.07 S 5.32 W
1000.00	0.37	272.95	0.02	999.97	6.7 243.2	3.02 S 5.97 W
1100.00	0.17	68.99	0.53	1099.97	6.8 244.4	2.95 S 6.15 W
1200.00	0.33	85.21	0.17	1199.97	6.4 243.4	2.87 S 5.72 W
1300.00	0.45	83.46	0.11	1299.97	5.8 240.9	2.80 S 5.04 W
1400.00	0.47	83.29	0.02	1399.97	5.0 237.5	2.71 S 4.25 W
1500.00	0.50	81.20	0.04	1499.96	4.3 232.8	2.59 S 3.42 W
1600.00	0.28	73.48	0.22	1599.96	3.7 228.2	2.46 S 2.75 W
1700.00	0.07	338.09	0.30	1699.96	3.4 227.5	2.33 S 2.54 W
1800.00	0.39	276.31	0.36	1799.96	3.7 232.4	2.23 S 2.90 W
1900.00	0.43	277.66	0.04	1899.96	4.2 239.3	2.14 S 3.61 W
2000.00	0.44	281.74	0.03	1999.95	4.8 245.2	2.02 S 4.36 W

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
2100.00	0.26	302.44	0.22	2099.95	5.3 249.8	1.81 S 4.94 W
2200.00	0.69	71.81	0.88	2199.95	4.8 251.8	1.50 S 4.56 W
2300.00	0.97	76.78	0.30	2299.94	3.4 250.5	1.12 S 3.17 W
2400.00	1.63	83.70	0.68	2399.91	1.2 230.2	0.77 S 0.92 W
2500.00	1.65	84.03	0.02	2499.87	2.0 103.6	0.47 S 1.92 E
2600.00	1.64	83.41	0.02	2599.83	4.8 91.8	0.15 S 4.77 E
2700.00	1.62	80.52	0.08	2699.79	7.6 88.2	0.24 N 7.58 E
2800.00	1.62	69.73	0.30	2799.75	10.3 84.6	0.97 N 10.30 E
2900.00	1.53	43.74	0.71	2899.71	12.8 79.1	2.42 N 12.55 E
3000.00	1.63	36.02	0.24	2999.68	15.0 72.4	4.54 N 14.31 E
3100.00	1.78	33.58	0.16	3099.63	17.5 66.4	6.98 N 16.01 E
3200.00	1.46	37.29	0.33	3199.59	19.9 62.2	9.28 N 17.64 E
3300.00	1.03	56.21	0.59	3299.57	22.0 60.6	10.80 N 19.16 E
3400.00	1.37	36.36	0.53	3399.55	24.0 59.3	12.26 N 20.61 E
3500.00	1.39	36.47	0.03	3499.52	26.2 57.2	14.20 N 22.04 E
3600.00	1.52	42.51	0.20	3599.49	28.6 55.7	16.15 N 23.66 E
3700.00	1.59	43.26	0.07	3699.45	31.3 54.6	18.13 N 25.50 E
3800.00	1.73	49.53	0.23	3799.41	34.2 53.9	20.12 N 27.60 E
3900.00	1.60	60.07	0.33	3899.37	37.1 54.0	21.80 N 29.96 E
4000.00	1.34	65.05	0.29	3999.33	39.6 54.5	22.99 N 32.23 E
4100.00	1.14	95.36	0.67	4099.31	41.5 55.7	23.39 N 34.28 E
4200.00	0.99	99.00	0.16	4199.29	42.9 57.3	23.16 N 36.13 E
4300.00	0.89	97.49	0.10	4299.28	44.2 58.7	22.92 N 37.76 E
4400.00	0.83	114.74	0.27	4399.27	45.2 60.1	22.52 N 39.19 E

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Job Number: MD0714GVC709

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4500.00	0.70	133.34	0.28	4499.26	45.8 61.6	21.80 N 40.29 E
4600.00	0.57	123.56	0.17	4599.25	46.2 62.9	21.10 N 41.15 E
4700.00	0.52	113.39	0.11	4699.25	46.8 63.8	20.64 N 41.99 E
4800.00	0.55	112.38	0.03	4799.24	47.4 64.7	20.28 N 42.85 E
4900.00	0.50	116.36	0.06	4899.24	48.0 65.5	19.90 N 43.68 E
5000.00	0.45	123.19	0.07	4999.24	48.5 66.3	19.50 N 44.39 E
5100.00	0.38	154.77	0.23	5099.23	48.7 67.1	18.99 N 44.86 E
5200.00	0.41	155.61	0.03	5199.23	48.7 67.9	18.37 N 45.15 E
5300.00	0.34	159.67	0.07	5299.23	48.7 68.6	17.77 N 45.40 E
5400.00	0.39	162.88	0.05	5399.23	48.7 69.4	17.16 N 45.60 E
5500.00	0.33	169.45	0.07	5499.23	48.7 70.1	16.55 N 45.76 E
5600.00	0.29	200.15	0.17	5599.22	48.4 70.7	16.02 N 45.72 E
5700.00	0.42	230.22	0.22	5699.22	47.9 71.1	15.54 N 45.35 E
5800.00	0.38	248.71	0.13	5799.22	47.3 71.3	15.19 N 44.76 E
5900.00	0.43	268.11	0.15	5899.22	46.6 71.1	15.05 N 44.07 E
6000.00	0.43	276.21	0.06	5999.21	45.9 70.8	15.08 N 43.32 E
6100.00	0.47	281.44	0.06	6099.21	45.2 70.3	15.20 N 42.55 E
6200.00	0.48	284.55	0.03	6199.21	44.5 69.8	15.39 N 41.74 E
6300.00	0.41	286.30	0.07	6299.21	43.9 69.2	15.59 N 41.00 E
6400.00	0.40	288.68	0.02	6399.20	43.3 68.6	15.81 N 40.33 E
6500.00	0.35	299.62	0.08	6499.20	42.9 68.0	16.07 N 39.73 E
6600.00	0.30	318.48	0.12	6599.20	42.6 67.3	16.42 N 39.29 E
6700.00	0.31	333.09	0.08	6699.20	42.5 66.6	16.86 N 38.99 E
6800.00	0.32	349.70	0.09	6799.20	42.5 65.9	17.37 N 38.82 E

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
6900.00	0.35	347.14	0.04	6899.19	42.7 65.1	17.94 N 38.70 E
7000.00	0.25	350.93	0.10	6999.19	42.8 64.4	18.46 N 38.60 E
7100.00	0.21	358.94	0.06	7099.19	42.9 63.9	18.86 N 38.56 E
7200.00	0.14	358.26	0.07	7199.19	43.1 63.6	19.16 N 38.55 E
7300.00	0.06	117.20	0.18	7299.19	43.1 63.5	19.26 N 38.60 E
7400.00	0.06	87.80	0.03	7399.19	43.2 63.6	19.24 N 38.70 E
7500.00	0.10	173.25	0.11	7499.19	43.2 63.7	19.15 N 38.76 E
7600.00	0.19	197.89	0.11	7599.19	43.1 64.0	18.91 N 38.72 E
7700.00	0.36	210.63	0.18	7699.19	42.7 64.4	18.48 N 38.51 E
7800.00	0.42	214.81	0.07	7799.19	42.1 64.8	17.91 N 38.14 E
7900.00	0.59	207.10	0.17	7899.18	41.4 65.5	17.15 N 37.69 E
8000.00	0.71	189.43	0.23	7999.18	40.7 66.7	16.09 N 37.36 E
8100.00	0.65	186.81	0.07	8099.17	40.1 68.1	14.92 N 37.19 E
8200.00	0.64	182.42	0.05	8199.16	39.6 69.6	13.80 N 37.10 E
8300.00	0.90	176.42	0.27	8299.15	39.2 71.5	12.45 N 37.13 E
8400.00	1.07	161.69	0.30	8399.14	39.0 73.9	10.78 N 37.47 E
8500.00	1.02	143.10	0.34	8499.12	39.4 76.5	9.18 N 38.30 E
8600.00	0.92	136.92	0.14	8599.11	40.2 78.7	7.88 N 39.38 E
8700.00	1.21	127.22	0.34	8699.09	41.3 80.7	6.65 N 40.77 E
8800.00	1.36	122.20	0.19	8799.07	43.0 82.8	5.38 N 42.62 E
8900.00	1.21	121.40	0.15	8899.04	44.7 84.6	4.20 N 44.53 E
9000.00	1.26	130.56	0.20	8999.02	46.4 86.4	2.94 N 46.26 E
9100.00	0.45	128.33	0.81	9099.01	47.4 87.6	1.98 N 47.40 E
9200.00	0.36	71.73	0.39	9199.00	48.0 87.8	1.84 N 48.01 E

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9300.00	0.92	102.92	0.64	9299.00	49.1 88.0	1.76 N 49.09 E
9400.00	0.97	113.23	0.18	9398.98	50.7 88.6	1.24 N 50.65 E
9500.00	1.51	111.39	0.54	9498.96	52.7 89.5	0.43 N 52.65 E
9600.00	1.69	118.06	0.26	9598.92	55.2 90.8	0.74 S 55.18 E
9700.00	1.53	121.23	0.18	9698.88	57.7 92.1	2.13 S 57.62 E
9800.00	1.35	138.86	0.48	9798.85	59.7 93.6	3.71 S 59.54 E
9900.00	2.03	145.13	0.70	9898.81	61.6 95.6	6.05 S 61.33 E
10000.00	2.25	145.53	0.22	9998.74	64.1 98.2	9.12 S 63.45 E
10100.00	1.88	150.00	0.40	10098.67	66.5 100.5	12.15 S 65.38 E
10200.00	1.88	150.72	0.02	10198.62	68.7 102.6	15.01 S 67.01 E
10300.00	1.85	161.98	0.37	10298.57	70.6 104.7	17.98 S 68.31 E
10400.00	2.07	169.80	0.34	10398.51	72.3 107.1	21.29 S 69.13 E
10500.00	2.08	173.97	0.15	10498.44	73.9 109.7	24.87 S 69.64 E
10600.00	1.92	175.61	0.17	10598.38	75.5 112.1	28.35 S 69.96 E
10700.00	1.69	182.05	0.31	10698.33	76.8 114.2	31.49 S 70.03 E
10800.00	1.57	183.64	0.12	10798.29	77.9 116.2	34.33 S 69.89 E
10900.00	1.12	183.46	0.45	10898.26	78.8 117.7	36.67 S 69.75 E
11000.00	1.12	173.55	0.19	10998.24	79.8 119.0	38.62 S 69.80 E
11100.00	1.11	173.65	0.01	11098.23	80.9 120.1	40.55 S 70.02 E
11200.00	1.18	173.00	0.07	11198.21	82.1 121.2	42.53 S 70.25 E
11300.00	0.94	213.81	0.77	11298.19	82.7 122.3	44.23 S 69.92 E
11400.00	1.11	263.23	0.87	11398.18	82.0 123.3	45.02 S 68.50 E
11500.00	1.13	284.87	0.42	11498.16	80.3 124.0	44.88 S 66.59 E
11600.00	1.07	295.06	0.20	11598.14	78.4 124.3	44.23 S 64.79 E

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MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
11700.00	1.23	303.03	0.22	11698.12	76.5 124.5	43.25 S 63.05 E
11800.00	1.07	313.21	0.26	11798.10	74.5 124.4	42.03 S 61.47 E
11900.00	1.21	314.54	0.15	11898.08	72.5 124.1	40.65 S 60.04 E
12000.00	1.51	310.30	0.32	11998.05	70.2 123.8	39.06 S 58.28 E
12024.00	1.55	305.64	0.54	12022.04	69.5 123.8	38.66 S 57.77 E

Final Station Closure: Distance: 69.51 ft Az: 123.79 deg.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-41771	² Pool Code 53560	³ Pool Name Salt Lake; Bone Spring
⁴ Property Code 32342	⁵ Property Name Laguna "16" State	⁶ Well Number 5H
⁷ OGRID No. 151416	⁸ Operator Name Fasken Oil and Ranch, Ltd.	⁹ Elevation 3513' GR

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	20S	32E		330	South	330	West	Lea

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

¹⁶ 	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> 8-6-2014 Signature Date Kim Tyson Printed Name kimt@forl.com E-mail Address		
	¹⁸ SURVEYOR CERTIFICATION <i>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 belief.</i> Date of Survey Signature and Seal of Professional Surveyor:		
	Certificate Number		