



# Survey Report

**Service Company:**

**Location:** Reno County

**Well:** Geesling 16 #1HXL

**Rig:** Duke #20

**API or UWI:**

**Job Number:** 17060

**State:** Kansas

**Operating Company:** Unit Petroleum

**County:** Reno

**Magnetic Declination:** 4.25

**Country:** U.S.A

**Proposed Azimuth:** 179.55

**Comment**

**North Reference:** TRUE

**Latitude:** 37.78615811

**Longitude:** -98.4141338

## Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
3009.92	2.51	53.39	2974.24	269.61	286.83

## Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
3019.00	2.20	65.20	2983.31	269.80	287.15	46.78	394.01	-267.54	6.32
3051.00	1.90	104.20	3015.29	269.93	288.22	46.88	394.88	-267.66	4.37
3146.00	2.20	132.80	3110.23	268.30	291.08	47.33	395.88	-266.01	1.11
3210.00	3.00	163.20	3174.17	265.87	292.47	47.73	395.25	-263.56	2.45
3242.00	4.70	171.80	3206.10	263.77	292.90	48.00	394.16	-261.46	5.60
3274.00	7.10	175.50	3237.93	260.50	293.24	48.38	392.24	-258.19	7.59
3306.00	9.40	177.00	3269.59	255.91	293.53	48.92	389.43	-253.60	7.22
3337.00	11.40	177.70	3300.08	250.33	293.79	49.57	385.97	-248.01	6.46
3369.00	13.70	179.90	3331.32	243.37	293.92	50.37	381.60	-241.06	7.34
3401.00	15.70	180.70	3362.27	235.26	293.88	51.32	376.44	-232.94	6.28
3433.00	17.40	182.90	3392.94	226.15	293.58	52.39	370.58	-223.83	5.66
3465.00	19.40	184.60	3423.30	216.07	292.91	53.59	363.98	-213.76	6.47
3496.00	21.20	184.30	3452.38	205.35	292.08	54.89	357.04	-203.05	5.82
3528.00	23.20	183.50	3482.00	193.29	291.26	56.43	349.56	-190.99	6.32
3560.00	25.80	182.10	3511.12	180.03	290.62	58.22	341.87	-177.74	8.32
3591.00	28.20	179.80	3538.74	165.96	290.40	60.25	334.48	-163.68	8.44

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
3623.00	30.70	177.70	3566.60	150.24	290.75	62.67	327.27	-147.95	8.45
3655.00	33.80	177.10	3593.66	133.18	291.53	65.45	320.51	-130.89	9.74
3687.00	36.20	178.20	3619.87	114.85	292.28	68.55	314.03	-112.55	7.75
3718.00	38.50	179.20	3644.52	96.04	292.70	71.83	308.06	-93.74	7.67
3749.00	40.60	180.40	3668.42	76.31	292.77	75.39	302.55	-74.01	7.21
3781.00	43.30	180.80	3692.22	54.92	292.54	79.37	297.65	-52.62	8.48
3813.00	45.80	180.50	3715.02	32.47	292.29	83.66	294.08	-30.18	7.84
3846.00	49.50	179.80	3737.25	8.09	292.23	88.41	292.34	-5.79	11.32
3877.00	52.80	179.30	3756.69	-16.05	292.42	93.14	292.86	18.34	10.72
3909.00	54.20	179.20	3775.72	-41.77	292.76	98.12	295.72	44.07	4.38
3941.00	54.40	179.40	3794.40	-67.75	293.07	103.02	300.80	70.05	0.81
3973.00	54.60	179.50	3812.98	-93.80	293.32	107.73	307.96	96.11	0.67
4005.00	54.90	179.20	3831.45	-119.94	293.62	112.22	317.17	122.24	1.21
4037.00	55.10	178.90	3849.80	-146.14	294.05	116.43	328.37	148.45	0.99
4069.00	55.80	179.20	3867.95	-172.50	294.49	120.36	341.29	174.80	2.32
4101.00	57.90	179.70	3885.45	-199.29	294.75	124.06	355.80	201.59	6.69
4132.00	60.30	180.60	3901.37	-225.88	294.67	127.47	371.29	228.19	8.13
4164.00	62.90	180.90	3916.58	-254.03	294.31	130.80	388.77	256.33	8.17
4196.00	65.30	181.50	3930.56	-282.80	293.70	133.92	407.72	285.10	7.69
4228.00	68.80	180.90	3943.04	-312.26	293.09	136.81	428.26	314.55	11.07
4260.00	71.40	180.00	3953.93	-342.35	292.85	139.46	450.51	344.63	8.54
4291.00	73.20	179.90	3963.35	-371.88	292.88	141.78	473.36	374.17	5.81
4324.00	76.50	179.70	3971.98	-403.73	292.99	144.03	498.84	406.01	10.02
4356.00	79.30	179.90	3978.68	-435.01	293.10	146.03	524.54	437.30	8.77
4387.00	82.20	180.40	3983.67	-465.60	293.02	147.82	550.13	467.89	9.49
4419.00	85.20	181.20	3987.18	-497.40	292.57	149.54	577.07	499.69	9.70
4491.00	89.20	181.10	3990.69	-569.29	291.13	152.92	639.41	571.56	5.56
4587.00	90.10	181.00	3991.28	-665.27	289.37	156.49	725.48	667.52	0.94
4682.00	90.90	181.30	3990.45	-760.25	287.46	159.29	812.78	762.48	0.90
4777.00	91.70	181.00	3988.30	-855.20	285.56	161.54	901.62	857.42	0.90
4873.00	92.50	181.00	3984.78	-951.12	283.88	163.38	992.58	953.32	0.83
4968.00	91.80	181.80	3981.21	-1046.03	281.56	164.93	1083.26	1048.20	1.12
5064.00	90.90	181.50	3978.95	-1141.96	278.80	166.28	1175.50	1144.11	0.99
5160.00	92.50	182.10	3976.10	-1237.86	275.79	167.44	1268.21	1239.99	1.78
5255.00	91.90	180.70	3972.46	-1332.76	273.47	168.40	1360.53	1334.87	1.60
5351.00	92.30	183.20	3968.94	-1428.64	270.20	169.29	1453.96	1430.71	2.64
5446.00	90.50	185.20	3966.62	-1523.34	263.25	170.20	1545.92	1525.36	2.83

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
5541.00	88.90	189.20	3967.12	-1617.57	251.34	171.17	1636.98	1619.50	4.53
5637.00	88.70	190.60	3969.13	-1712.12	234.84	172.19	1728.15	1713.91	1.47
5733.00	89.70	190.20	3970.47	-1806.53	217.52	173.13	1819.58	1808.18	1.12
5828.00	90.90	190.30	3969.97	-1900.01	200.61	173.97	1910.57	1901.53	1.27
5860.00	91.30	190.60	3969.35	-1931.48	194.81	174.24	1941.27	1932.95	1.56
5892.00	89.10	191.20	3969.24	-1962.90	188.76	174.51	1971.95	1964.32	7.13
5923.00	89.00	191.30	3969.76	-1993.30	182.71	174.76	2001.65	1994.67	0.46
5955.00	88.20	191.50	3970.54	-2024.65	176.39	175.02	2032.32	2025.98	2.58
5987.00	86.10	191.80	3972.13	-2055.95	169.93	175.27	2062.97	2057.23	6.63
6019.00	86.00	191.70	3974.33	-2087.21	163.43	175.52	2093.60	2088.43	0.44
6051.00	86.40	191.50	3976.45	-2118.49	157.01	175.76	2124.30	2119.66	1.40
6083.00	86.70	191.10	3978.38	-2149.81	150.75	175.99	2155.09	2150.93	1.56
6115.00	87.00	190.80	3980.14	-2181.18	144.69	176.20	2185.97	2182.25	1.32
6210.00	87.60	190.40	3984.61	-2274.45	127.23	176.80	2278.01	2275.38	0.76
6306.00	88.00	190.20	3988.30	-2368.84	110.08	177.34	2371.39	2369.63	0.47
6401.00	87.70	190.30	3991.86	-2462.26	93.18	177.83	2464.02	2462.91	0.33
6465.00	88.40	189.70	3994.04	-2525.25	82.08	178.14	2526.58	2525.81	1.44
6528.00	88.70	189.90	3995.64	-2587.31	71.36	178.42	2588.29	2587.79	0.57
6589.00	89.00	190.90	3996.86	-2647.29	60.35	178.69	2647.98	2647.68	1.71
6651.00	87.80	191.50	3998.59	-2708.09	48.31	178.98	2708.52	2708.38	2.16
6713.00	88.70	191.00	4000.48	-2768.87	36.22	179.25	2769.10	2769.06	1.66
6774.00	88.70	190.20	4001.87	-2828.81	25.00	179.49	2828.92	2828.92	1.31
6834.00	89.70	190.20	4002.71	-2887.85	14.38	179.71	2887.89	2887.88	1.67
6897.00	90.20	190.30	4002.76	-2949.85	3.17	179.94	2949.85	2949.78	0.81
6960.00	89.20	189.30	4003.09	-3011.93	-7.55	180.14	3011.94	3011.77	2.24
7022.00	89.80	189.30	4003.63	-3073.11	-17.57	180.33	3073.16	3072.88	0.97
7082.00	90.00	189.50	4003.74	-3132.30	-27.37	180.50	3132.42	3131.99	0.47
7144.00	89.60	189.00	4003.95	-3193.50	-37.34	180.67	3193.71	3193.10	1.03
7205.00	90.00	188.90	4004.17	-3253.75	-46.83	180.82	3254.09	3253.28	0.68
7270.00	88.20	190.10	4005.19	-3317.85	-57.55	180.99	3318.35	3317.30	3.33
7334.00	88.20	190.40	4007.20	-3380.80	-68.94	181.17	3381.50	3380.15	0.47
7429.00	89.10	190.50	4009.43	-3474.19	-86.16	181.42	3475.26	3473.41	0.95
7525.00	88.70	191.30	4011.28	-3568.44	-104.31	181.67	3569.97	3567.51	0.93
7620.00	89.70	191.40	4012.60	-3661.58	-123.01	181.92	3663.64	3660.50	1.06
7715.00	89.60	190.90	4013.18	-3754.78	-141.38	182.16	3757.44	3753.55	0.54
7811.00	90.10	190.40	4013.44	-3849.13	-159.12	182.37	3852.41	3847.76	0.74
7906.00	90.70	190.40	4012.77	-3942.56	-176.27	182.56	3946.50	3941.06	0.63

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8001.00	89.20	190.30	4012.86	-4036.01	-193.33	182.74	4040.64	4034.37	1.58
8097.00	89.50	189.70	4013.94	-4130.55	-210.00	182.91	4135.88	4128.77	0.70
8192.00	88.70	190.30	4015.44	-4224.09	-226.50	183.07	4230.16	4222.18	1.05
8287.00	88.70	189.00	4017.59	-4317.72	-242.42	183.21	4324.52	4315.69	1.37
8383.00	88.50	190.20	4019.94	-4412.35	-258.42	183.35	4419.91	4410.18	1.27
8478.00	88.40	190.50	4022.51	-4505.77	-275.48	183.50	4514.18	4503.47	0.33
8574.00	88.00	191.30	4025.52	-4599.99	-293.63	183.65	4609.35	4597.54	0.93
8668.00	89.00	191.50	4027.98	-4692.10	-312.20	183.81	4702.48	4689.51	1.08
8791.00	89.60	190.80	4029.49	-4812.77	-335.99	183.99	4824.48	4809.98	0.75
8887.00	88.40	191.40	4031.16	-4906.96	-354.46	184.13	4919.74	4904.02	1.40
8982.00	88.70	192.10	4033.57	-4999.94	-373.80	184.28	5013.89	4996.85	0.80
9078.00	88.80	192.20	4035.66	-5093.76	-394.00	184.42	5108.98	5090.51	0.15
9173.00	91.20	191.40	4035.66	-5186.75	-413.43	184.56	5203.20	5183.34	2.66
9268.00	92.00	190.90	4033.01	-5279.92	-431.79	184.68	5297.54	5276.36	0.99
9364.00	91.60	191.80	4029.99	-5373.99	-450.68	184.79	5392.86	5370.29	1.03
9459.00	90.10	192.00	4028.58	-5466.94	-470.26	184.92	5487.13	5463.08	1.59
9554.00	90.80	191.50	4027.84	-5559.94	-489.61	185.03	5581.46	5555.93	0.91
9650.00	89.70	191.30	4027.42	-5654.05	-508.58	185.14	5676.87	5649.88	1.16
9745.00	90.10	191.10	4027.58	-5747.24	-527.04	185.24	5771.35	5742.92	0.47
9841.00	90.20	192.00	4027.33	-5841.29	-546.26	185.34	5866.78	5836.82	0.94
9936.00	90.50	191.70	4026.75	-5934.27	-565.76	185.45	5961.17	5929.64	0.45
10032.00	88.30	192.20	4027.76	-6028.17	-585.64	185.55	6056.55	6023.39	2.35
10127.00	88.40	192.10	4030.49	-6121.01	-605.63	185.65	6150.90	6116.06	0.15
10223.00	87.60	191.70	4033.84	-6214.89	-625.41	185.75	6246.27	6209.78	0.93
10318.00	87.50	191.10	4037.90	-6307.93	-644.17	185.83	6340.73	6302.67	0.64
10414.00	88.70	190.70	4041.09	-6402.14	-662.31	185.91	6436.31	6396.74	1.32

**Projected Survey**

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
10455.00	88.70	190.70	4042.02	-6442.42	-669.92	185.94	6477.16	6436.96	0.00