

Standard Wellpath Report  
 Sandridge  
 Sec 20 - 33S - 6W, Kansas  
 Harper County  
 Wellbore: Bane 3306 1-20H (Actual)

**Wellbore**

Name	Created	Last Revised
Bane 3306 1-20H (Actual)	3-Jul-2013	22-Jul-2013

**Well**

Name	Government ID	Last Revised
Bane 3306 1-20H		3-Jul-2013

**Slot**

Name	Grid Northing	Grid Easting	Latitude	Longitude	North	East
Bane 3306 1-20H	182370.0000	2149721.0000	N37 9 58.9946	W97 59 10.3667	204.00S	597.99W

**Installation**

Name	Easting	Northing	Coord System Name	North Alignment
Harper County	2150319.0000	182574.0001	KS-S on NORTH AMERICAN DATUM 1927 datum	Grid

**Field**

Name	Easting	Northing	Coord System Name	North Alignment
Sec 20 - 33S - 6W	2150319.0000	182574.0001	KS-S on NORTH AMERICAN DATUM 1927 datum	Grid

**Created By**

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**Comments**

<p>FINAL SURVEYS:          MD 8872 is a projection to bit @ TD</p>
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Sec 20 - 33S - 6W, Kansas  
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**Wellpath (Grid) Report**

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Easting	Northing
0.00	0.00	0.000	0.00	0.00N	0.00E		0.00	2149721.00	182370.00
957.00	1.30	128.800	956.92	6.80S	8.46E	0.14	6.82	2149729.46	182363.20
1415.00	1.10	124.400	1414.82	12.54S	16.14E	0.05	12.58	2149737.14	182357.46
1873.00	0.80	95.100	1872.76	15.31S	22.95E	0.12	15.36	2149743.95	182354.69
2347.00	0.20	129.300	2346.74	16.13S	26.89E	0.14	16.18	2149747.89	182353.87
2821.00	0.70	70.000	2820.72	15.66S	30.25E	0.13	15.72	2149751.25	182354.34
3296.00	0.40	111.200	3295.70	15.27S	34.52E	0.10	15.34	2149755.52	182354.73
3696.00	0.90	194.100	3695.68	18.82S	35.06E	0.23	18.89	2149756.06	182351.18
3739.00	1.00	198.100	3738.68	19.50S	34.86E	0.28	19.58	2149755.86	182350.49
3771.00	2.50	200.900	3770.66	20.42S	34.52E	4.69	20.49	2149755.52	182349.58
3802.00	5.00	194.300	3801.59	22.36S	33.95E	8.17	22.43	2149754.95	182347.64
3834.00	7.50	193.500	3833.40	25.75S	33.11E	7.82	25.82	2149754.11	182344.25
3866.00	10.10	193.200	3865.02	30.51S	31.99E	8.13	30.58	2149752.99	182339.49
3897.00	12.70	189.300	3895.40	36.52S	30.81E	8.74	36.58	2149751.81	182333.48
3929.00	15.60	187.700	3926.43	44.26S	29.67E	9.14	44.32	2149750.67	182325.74
3961.00	18.30	186.600	3957.04	53.51S	28.51E	8.50	53.57	2149749.51	182316.49
3992.00	20.30	187.400	3986.29	63.68S	27.26E	6.51	63.74	2149748.26	182306.32
4024.00	22.10	185.700	4016.13	75.18S	25.95E	5.94	75.23	2149746.95	182294.82
4056.00	24.10	185.800	4045.56	87.67S	24.69E	6.25	87.72	2149745.69	182282.33
4087.00	26.10	184.400	4073.63	100.76S	23.53E	6.73	100.81	2149744.53	182269.23
4119.00	28.30	181.900	4102.09	115.37S	22.74E	7.75	115.41	2149743.74	182254.63
4150.00	30.50	182.300	4129.10	130.57S	22.18E	7.12	130.62	2149743.18	182239.42
4182.00	33.20	180.900	4156.28	147.45S	21.71E	8.75	147.50	2149742.71	182222.55
4214.00	36.30	181.300	4182.57	165.68S	21.36E	9.71	165.73	2149742.36	182204.31
4245.00	38.80	181.600	4207.14	184.57S	20.88E	8.09	184.61	2149741.88	182185.43
4277.00	41.30	182.300	4231.64	205.15S	20.18E	7.94	205.19	2149741.18	182164.85
4309.00	44.20	182.600	4255.13	226.85S	19.25E	9.08	226.89	2149740.25	182143.15
4340.00	46.90	182.100	4276.84	248.96S	18.34E	8.79	248.99	2149739.34	182121.04
4372.00	49.90	182.400	4298.08	272.86S	17.40E	9.40	272.90	2149738.40	182097.13
4404.00	52.50	182.000	4318.13	297.78S	16.45E	8.18	297.82	2149737.45	182072.21
4435.00	55.00	183.200	4336.46	322.75S	15.31E	8.65	322.78	2149736.31	182047.24
4467.00	58.10	183.000	4354.10	349.41S	13.87E	9.70	349.44	2149734.87	182020.58
4498.00	61.20	183.100	4369.76	376.12S	12.44E	10.00	376.15	2149733.44	181993.87
4530.00	63.30	182.500	4384.66	404.40S	11.06E	6.77	404.43	2149732.06	181965.59
4562.00	65.80	182.200	4398.41	433.27S	9.88E	7.86	433.29	2149730.88	181936.72
4593.00	67.30	180.900	4410.75	461.70S	9.11E	6.18	461.72	2149730.11	181908.29
4625.00	69.80	181.700	4422.45	491.47S	8.43E	8.15	491.49	2149729.43	181878.52
4657.00	72.40	181.300	4432.81	521.74S	7.64E	8.21	521.75	2149728.64	181848.25
4688.00	75.30	180.100	4441.43	551.51S	7.28E	10.07	551.52	2149728.28	181818.48
4720.00	78.10	179.300	4448.79	582.64S	7.44E	9.08	582.66	2149728.44	181787.34
4752.00	81.30	179.200	4454.52	614.12S	7.85E	10.00	614.14	2149728.85	181755.87
4783.00	84.30	179.000	4458.40	644.87S	8.34E	9.70	644.89	2149729.34	181725.12
4815.00	87.00	179.700	4460.83	676.77S	8.70E	8.71	676.79	2149729.70	181693.21
4846.00	88.00	179.500	4462.18	707.74S	8.92E	3.29	707.76	2149729.92	181662.24
4878.00	88.30	179.500	4463.21	739.72S	9.19E	0.94	739.74	2149730.19	181630.26
4910.00	88.30	179.400	4464.16	771.71S	9.50E	0.31	771.73	2149730.50	181598.28
4941.00	88.30	178.800	4465.08	802.69S	9.99E	1.93	802.71	2149730.99	181567.29
4973.00	88.60	179.000	4465.95	834.67S	10.60E	1.13	834.69	2149731.60	181535.31
5005.00	88.60	178.900	4466.73	866.66S	11.19E	0.31	866.68	2149732.19	181503.33
5036.00	89.00	178.600	4467.38	897.64S	11.86E	1.61	897.67	2149732.86	181472.34
5068.00	90.70	180.200	4467.46	929.64S	12.20E	7.30	929.66	2149733.20	181440.34
5100.00	91.20	180.200	4466.93	961.63S	12.09E	1.56	961.66	2149733.09	181408.35
5131.00	91.50	180.700	4466.20	992.63S	11.84E	1.88	992.65	2149732.84	181377.36
5140.00	91.10	180.300	4466.00	1001.62S	11.77E	6.28	1001.64	2149732.77	181368.36
5202.00	90.80	181.600	4464.97	1063.60S	10.74E	2.15	1063.62	2149731.74	181306.38
5266.00	90.60	181.500	4464.19	1127.58S	9.01E	0.35	1127.59	2149730.01	181242.40
5357.00	90.80	180.600	4463.08	1218.55S	7.34E	1.01	1218.57	2149728.34	181151.42
5449.00	88.90	179.300	4463.32	1310.55S	7.42E	2.50	1310.56	2149728.42	181059.43
5541.00	89.10	179.400	4464.92	1402.53S	8.46E	0.24	1402.54	2149729.46	180967.45
5632.00	88.80	180.200	4466.59	1493.51S	8.78E	0.94	1493.52	2149729.78	180876.46
5724.00	88.80	179.900	4468.52	1585.49S	8.70E	0.33	1585.50	2149729.70	180784.48
5816.00	89.60	181.600	4469.80	1677.47S	7.50E	2.04	1677.48	2149728.50	180692.50
5907.00	89.00	181.100	4470.91	1768.44S	5.35E	0.86	1768.44	2149726.35	180601.53
5999.00	88.50	180.200	4472.92	1860.41S	4.31E	1.12	1860.41	2149725.31	180509.56
6090.00	90.20	180.000	4473.95	1951.40S	4.15E	1.88	1951.40	2149725.15	180418.57
6182.00	91.00	179.600	4472.99	2043.39S	4.47E	0.97	2043.40	2149725.47	180326.57
6274.00	91.20	180.200	4471.22	2135.37S	4.63E	0.69	2135.38	2149725.63	180234.59
6365.00	90.60	180.000	4469.79	2226.36S	4.47E	0.69	2226.37	2149725.47	180143.60
6457.00	89.80	179.300	4469.47	2318.36S	5.04E	1.16	2318.36	2149726.04	180051.60
6549.00	90.10	180.000	4469.55	2410.36S	5.60E	0.83	2410.36	2149726.60	179959.60
6640.00	90.30	179.200	4469.23	2501.35S	6.23E	0.91	2501.36	2149727.23	179868.60
6732.00	90.90	178.800	4468.27	2593.33S	7.84E	0.78	2593.34	2149728.84	179776.62

All data is in Feet unless otherwise stated  
Coordinates are from Slot and TVD's are from Slot ( Bane 3306 1-20H 0.00ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 179.880 degrees  
Bottom hole distance is 4732.46 Feet on azimuth 179.82 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 22-Jul-2013

Standard Wellpath Report  
Sandridge  
Sec 20 - 33S - 6W, Kansas  
Harper County  
Wellbore: Bane 3306 1-20H (Actual)

**Wellpath (Grid) Report**

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft ]	Easting	Northing
6823.00	91.20	179.800	4466.60	2684.31S	8.95E	1.15	2684.32	2149729.95	179685.64
6915.00	89.80	180.000	4465.80	2776.30S	9.11E	1.54	2776.32	2149730.11	179593.64
7007.00	88.60	180.200	4467.09	2868.29S	8.95E	1.32	2868.30	2149729.95	179501.65
7098.00	88.70	180.000	4469.23	2959.27S	8.79E	0.25	2959.28	2149729.79	179410.68
7193.00	89.10	180.000	4471.05	3054.25S	8.79E	0.42	3054.26	2149729.79	179315.69
7288.00	92.90	181.600	4469.40	3149.20S	7.47E	4.34	3149.21	2149728.47	179220.74
7383.00	91.10	181.800	4466.08	3244.10S	4.65E	1.91	3244.10	2149725.65	179125.84
7478.00	89.40	180.800	4465.67	3339.07S	2.49E	2.08	3339.07	2149723.49	179030.87
7573.00	89.80	179.700	4466.33	3434.07S	2.08E	1.23	3434.06	2149723.08	178935.87
7668.00	89.40	178.500	4466.99	3529.05S	3.57E	1.33	3529.05	2149724.57	178840.88
7762.00	89.00	178.000	4468.30	3623.00S	6.44E	0.68	3623.00	2149727.44	178746.93
7857.00	88.10	178.000	4470.71	3717.91S	9.76E	0.95	3717.92	2149730.76	178652.02
7952.00	89.20	178.300	4472.95	3812.83S	12.82E	1.20	3812.85	2149733.82	178557.10
8047.00	91.50	178.400	4472.37	3907.78S	15.56E	2.42	3907.81	2149736.56	178462.14
8142.00	91.70	178.600	4469.71	4002.71S	18.04E	0.30	4002.74	2149739.04	178367.21
8237.00	91.40	179.400	4467.14	4097.66S	19.70E	0.90	4097.69	2149740.70	178272.26
8332.00	92.60	179.800	4463.83	4192.60S	20.36E	1.33	4192.63	2149741.36	178177.32
8427.00	91.80	181.100	4460.18	4287.52S	19.62E	1.61	4287.56	2149740.62	178082.39
8521.00	90.90	180.700	4457.97	4381.49S	18.14E	1.05	4381.51	2149739.14	177988.43
8616.00	90.90	180.800	4456.47	4476.47S	16.90E	0.11	4476.49	2149737.90	177893.45
8711.00	89.70	180.400	4455.98	4571.46S	15.90E	1.33	4571.48	2149736.90	177798.45
8806.00	91.20	180.400	4455.23	4666.45S	15.24E	1.58	4666.47	2149736.24	177703.46
8822.00	91.20	180.000	4454.90	4682.45S	15.18E	2.50	4682.47	2149736.19	177687.46
8872.00	91.20	180.000	4453.85	4732.43S	15.18E	==>	4732.46	2149736.19	177637.47

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Bottom hole distance is 4732.46 Feet on azimuth 179.82 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 22-Jul-2013

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Harper County  
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