



Actual Wellpath Report

Sandridge 4J Ranch 3408 3-33H (Unit 310)_Final Surveys.
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Sandridge Energy	Slot	4J Ranch 3408 3-33H (Unit 310)
Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

REPORT SETUP INFORMATION			
Projection System	NAD27 / Lambert Kansas SP, Southern Zone (1502), US feet		
North Reference	Grid	Software System	WellArchitect™ 3.0.0
Convergence at slot	0.19° East	User	Adammic
Scale	1.00005	Report Generated	09/Sep/2013 at 1:38:35 PM
Wellbore last revised	06-16-2013	Database/Source file	intokcapp01

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	2089148.00	134878.00	37°02'12.071"N	98°11'40.592"W
Facility Reference Pt			2089148.00	134878.00	37°02'12.071"N	98°11'40.592"W
Field Reference Pt			2132248.82	161602.28	37°06'34.560"N	98°02'47.460"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Unit 310 (RT) to Facility Vertical Datum	15.00ft
Horizontal Reference Pt	Slot	Unit 310 (RT) to Mean Sea Level	1266.00ft
Vertical Reference Pt	Unit 310 (RT)	Unit 310 (RT) to Mud Line at Slot (4J Ranch 3408 3-33H (Unit 310))	15.00ft
MD Reference Pt	Unit 310 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.63°



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Area	Kansas	Well	SL (220 FSL, 1715 FWL) Sec 33
Field	Harper County, Kansas (Sandridge Energy) NAD27 / Grid	Wellbore	Actual 4J Ranch 3408 3-33H
Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

WELLPATH DATA (141 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
0.00†	0.000	150.750	0.00	0.00	0.00	0.00	2089148.00	134878.00	0.00	
15.00	0.000	150.750	15.00	0.00	0.00	0.00	2089148.00	134878.00	0.00	
500.00	0.250	150.750	500.00	-0.94	-0.92	0.52	2089148.52	134877.08	0.05	
785.00	1.000	150.750	784.98	-3.68	-3.64	2.04	2089150.04	134874.36	0.26	
818.00	0.890	150.750	817.97	-4.16	-4.11	2.30	2089150.30	134873.89	0.33	
910.00	0.850	147.760	909.96	-5.38	-5.31	3.02	2089151.02	134872.69	0.07	
1001.00	0.700	139.960	1000.96	-6.39	-6.31	3.73	2089151.73	134871.69	0.20	
1093.00	0.830	140.400	1092.95	-7.36	-7.25	4.52	2089152.52	134870.75	0.14	
1184.00	0.550	150.570	1183.94	-8.26	-8.14	5.15	2089153.15	134869.86	0.33	
1276.00	0.300	64.380	1275.94	-8.55	-8.42	5.59	2089153.59	134869.58	0.66	
1458.00	0.040	273.150	1457.94	-8.35	-8.21	5.95	2089153.95	134869.79	0.18	
1550.00	0.310	153.970	1549.94	-8.57	-8.43	6.03	2089154.03	134869.57	0.36	
1642.00	0.380	193.340	1641.94	-9.10	-8.95	6.07	2089154.07	134869.05	0.26	
1829.00	0.160	206.930	1828.93	-9.92	-9.79	5.81	2089153.81	134868.21	0.12	
1924.00	0.250	157.580	1923.93	-10.24	-10.10	5.83	2089153.83	134867.90	0.20	
2019.00	1.170	128.580	2018.93	-11.05	-10.90	6.67	2089154.67	134867.10	1.01	
2051.00	1.880	119.930	2050.91	-11.53	-11.36	7.38	2089155.38	134866.64	2.33	
2082.00	2.690	114.890	2081.89	-12.12	-11.92	8.48	2089156.48	134866.08	2.69	
2114.00	3.490	114.220	2113.84	-12.87	-12.64	10.05	2089158.05	134865.36	2.50	
2145.00	4.330	113.180	2144.77	-13.77	-13.48	11.98	2089159.98	134864.52	2.72	
2177.00	5.130	114.610	2176.66	-14.90	-14.56	14.39	2089162.39	134863.44	2.53	
2208.00	5.870	113.400	2207.52	-16.17	-15.76	17.11	2089165.11	134862.24	2.42	
2240.00	5.650	114.480	2239.36	-17.54	-17.06	20.04	2089168.04	134860.93	0.77	
2272.00	5.880	113.650	2271.19	-18.92	-18.38	22.98	2089170.98	134859.62	0.76	
2303.00	6.460	113.890	2302.01	-20.33	-19.72	26.03	2089174.03	134858.28	1.87	
2335.00	6.650	116.690	2333.81	-21.97	-21.28	29.33	2089177.33	134856.72	1.16	
2366.00	6.550	120.830	2364.60	-23.76	-22.99	32.45	2089180.45	134855.01	1.57	
2398.00	6.120	123.530	2396.41	-25.71	-24.87	35.44	2089183.44	134853.13	1.63	
2429.00	6.250	125.630	2427.22	-27.67	-26.77	38.19	2089186.19	134851.23	0.84	
2461.00	6.630	126.830	2459.02	-29.86	-28.89	41.08	2089189.09	134849.11	1.26	
2492.00	6.770	125.000	2489.81	-32.05	-31.01	44.01	2089192.01	134846.99	0.82	
2523.00	7.180	126.590	2520.58	-34.33	-33.21	47.06	2089195.07	134844.79	1.46	
2555.00	7.270	125.030	2552.33	-36.76	-35.57	50.33	2089198.33	134842.43	0.67	
2586.00	7.640	127.470	2583.07	-39.21	-37.94	53.57	2089201.57	134840.05	1.57	
2618.00	8.190	127.480	2614.76	-41.98	-40.63	57.07	2089205.07	134837.37	1.72	
2649.00	7.320	129.620	2645.48	-44.66	-43.23	60.34	2089208.34	134834.77	2.96	
2680.00	6.420	128.980	2676.25	-47.08	-45.58	63.21	2089211.21	134832.42	2.91	
2712.00	7.190	125.990	2708.03	-49.45	-47.88	66.22	2089214.22	134830.12	2.65	
2776.00	7.260	124.620	2771.52	-54.26	-52.53	72.79	2089220.79	134825.47	0.29	
2807.00	7.570	125.060	2802.26	-56.62	-54.82	76.07	2089224.08	134823.18	1.02	
2839.00	8.130	127.390	2833.96	-59.29	-57.40	79.60	2089227.60	134820.59	2.01	
2870.00	8.270	127.290	2864.64	-62.05	-60.08	83.11	2089231.12	134817.91	0.45	
2965.00	7.680	128.300	2958.72	-70.37	-68.16	93.53	2089241.53	134809.84	0.64	
3061.00	7.500	130.050	3053.88	-78.61	-76.17	103.36	2089251.36	134801.83	0.31	
3156.00	7.520	128.610	3148.07	-86.71	-84.03	112.96	2089260.97	134793.96	0.20	



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WELLPATH DATA (141 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
3250.00	7.430	126.530	3241.27	-94.40	-91.49	122.65	2089270.66	134786.51	0.30	
3345.00	7.260	126.970	3335.49	-101.89	-98.76	132.38	2089280.39	134779.24	0.19	
3440.00	7.440	127.590	3429.71	-109.48	-106.12	142.05	2089290.06	134771.88	0.21	
3535.00	8.000	127.410	3523.85	-117.49	-113.89	152.18	2089300.19	134764.11	0.59	
3630.00	7.450	128.940	3617.99	-125.62	-121.77	162.22	2089310.23	134756.22	0.62	
3725.00	7.340	125.350	3712.20	-133.23	-129.16	171.96	2089319.97	134748.84	0.50	
3820.00	7.530	124.500	3806.40	-140.51	-136.19	182.04	2089330.05	134741.80	0.23	
3914.00	7.620	123.040	3899.58	-147.64	-143.08	192.34	2089340.35	134734.91	0.23	
3946.00	7.360	119.400	3931.30	-149.88	-145.24	195.90	2089343.91	134732.75	1.69	
4009.00	7.250	97.970	3993.81	-152.59	-147.77	203.36	2089351.37	134730.22	4.30	
4041.00	8.110	79.920	4025.52	-152.58	-147.66	207.58	2089355.59	134730.33	7.96	
4072.00	9.090	64.440	4056.18	-151.24	-146.22	211.94	2089359.95	134731.77	8.08	
4104.00	10.100	54.640	4087.73	-148.64	-143.50	216.51	2089364.52	134734.49	5.99	
4136.00	11.380	44.800	4119.17	-144.88	-139.64	221.03	2089369.04	134738.35	6.97	
4167.00	13.570	32.900	4149.44	-139.76	-134.42	225.16	2089373.17	134743.58	10.86	
4199.00	15.810	25.140	4180.40	-132.76	-127.32	229.05	2089377.06	134750.68	9.30	
4231.00	18.890	22.630	4210.94	-124.12	-118.59	232.90	2089380.91	134759.41	9.90	
4262.00	21.770	22.370	4240.01	-114.27	-108.64	237.02	2089385.03	134769.36	9.29	
4294.00	23.480	22.430	4269.54	-103.01	-97.25	241.71	2089389.72	134780.74	5.34	
4326.00	24.990	22.950	4298.72	-91.01	-85.14	246.77	2089394.79	134792.86	4.77	
4357.00	26.540	22.890	4326.64	-78.73	-72.73	252.02	2089400.03	134805.27	5.00	
4389.00	28.320	22.060	4355.04	-65.25	-59.10	257.65	2089405.67	134818.89	5.69	
4420.00	30.440	19.600	4382.05	-51.17	-44.89	263.05	2089411.06	134833.11	7.87	
4452.00	32.210	16.440	4409.39	-35.47	-29.07	268.18	2089416.20	134848.93	7.55	
4484.00	34.480	13.150	4436.12	-18.58	-12.07	272.66	2089420.67	134865.93	9.07	
4515.00	36.600	9.660	4461.35	-1.01	5.59	276.21	2089424.22	134883.59	9.46	
4546.00	38.570	7.250	4485.91	17.61	24.29	278.98	2089426.99	134902.29	7.93	
4578.00	40.390	5.200	4510.61	37.78	44.52	281.18	2089429.19	134922.52	6.99	
4609.00	42.560	3.290	4533.84	58.21	64.99	282.69	2089430.70	134942.99	8.10	
4641.00	44.800	2.120	4556.98	80.25	87.06	283.73	2089431.74	134965.07	7.44	
4673.00	46.900	1.020	4579.27	103.18	110.01	284.35	2089432.37	134988.02	7.01	
4704.00	49.950	0.580	4599.84	126.35	133.20	284.67	2089432.69	135011.20	9.90	
4736.00	52.540	0.470	4619.87	151.29	158.15	284.90	2089432.92	135036.16	8.10	
4767.00	54.720	0.400	4638.25	176.24	183.11	285.09	2089433.11	135061.12	7.03	
4798.00	56.810	0.410	4655.69	201.85	208.73	285.27	2089433.29	135086.74	6.74	
4830.00	59.450	0.360	4672.58	229.01	235.91	285.46	2089433.47	135113.92	8.25	
4862.00	62.000	0.320	4688.23	256.91	263.82	285.62	2089433.64	135141.83	7.97	
4893.00	65.220	0.260	4702.01	284.67	291.58	285.76	2089433.78	135169.60	10.39	
4925.00	68.140	359.820	4714.67	314.04	320.97	285.78	2089433.79	135198.98	9.21	
4956.00	70.870	359.450	4725.53	343.07	350.00	285.59	2089433.61	135228.02	8.88	
4988.00	73.970	359.000	4735.19	373.57	380.50	285.18	2089433.20	135258.52	9.78	
5020.00	76.580	358.920	4743.32	404.52	411.44	284.62	2089432.63	135289.46	8.16	
5051.00	78.600	358.710	4749.99	434.79	441.71	283.99	2089432.01	135319.73	6.55	
5083.00	81.040	358.170	4755.64	466.28	473.19	283.13	2089431.15	135351.21	7.80	
5114.00	83.060	357.890	4759.93	496.98	503.87	282.08	2089430.09	135381.90	6.58	



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Facility	4J Ranch 3408 3-33H Sec 33-34S8W		

WELLPATH DATA (141 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
5146.00	84.980	357.650	4763.26	528.80	535.67	280.84	2089428.86	135413.70	6.05	
5241.00	85.100	357.200	4771.48	623.43	630.22	276.59	2089424.60	135508.25	0.49	
5336.00	85.470	357.300	4779.28	718.08	724.79	272.05	2089420.06	135602.83	0.40	
5430.00	85.720	357.240	4786.50	811.77	818.41	267.58	2089415.60	135696.45	0.27	
5462.00	86.580	357.250	4788.65	843.69	850.30	266.05	2089414.06	135728.34	2.69	
5484.00	88.210	357.250	4789.65	865.66	872.25	264.99	2089413.01	135750.29	7.41	
5532.00	90.690	356.950	4790.11	913.64	920.18	262.57	2089410.58	135798.23	5.20	
5593.00	90.560	357.270	4789.45	974.61	981.10	259.49	2089407.50	135859.15	0.57	
5688.00	90.930	357.470	4788.21	1069.58	1075.99	255.13	2089403.14	135954.05	0.44	
5783.00	90.740	356.730	4786.83	1164.54	1170.86	250.33	2089398.34	136048.92	0.80	
5878.00	90.460	356.810	4785.83	1259.48	1265.70	244.97	2089392.99	136143.77	0.31	
5972.00	91.040	358.030	4784.60	1353.45	1359.60	240.74	2089388.75	136237.67	1.44	
6068.00	90.160	358.310	4783.60	1449.44	1455.54	237.68	2089385.69	136333.62	0.96	
6162.00	91.020	357.830	4782.63	1543.43	1549.48	234.51	2089382.52	136427.56	1.05	
6257.00	91.020	357.960	4780.94	1638.41	1644.40	231.02	2089379.03	136522.49	0.14	
6352.00	91.660	359.770	4778.72	1733.38	1739.35	229.14	2089377.15	136617.44	2.02	
6446.00	92.160	359.120	4775.58	1827.31	1833.30	228.23	2089376.24	136711.39	0.87	
6541.00	91.420	358.700	4772.62	1922.27	1928.23	226.42	2089374.44	136806.33	0.90	
6635.00	90.430	357.810	4771.10	2016.25	2022.17	223.56	2089371.57	136900.28	1.42	
6730.00	89.570	357.340	4771.10	2111.23	2117.09	219.54	2089367.55	136995.20	1.03	
6825.00	89.810	358.450	4771.61	2206.22	2212.02	216.05	2089364.06	137090.13	1.20	
6920.00	90.000	358.680	4771.77	2301.22	2306.99	213.67	2089361.69	137185.11	0.31	
7014.00	93.630	358.010	4768.79	2395.16	2400.89	210.96	2089358.97	137279.01	3.93	
7109.00	92.660	357.250	4763.58	2490.00	2495.66	207.04	2089355.05	137373.79	1.30	
7204.00	92.800	357.340	4759.06	2584.86	2590.45	202.56	2089350.57	137468.58	0.18	
7299.00	92.610	357.390	4754.57	2679.74	2685.24	198.20	2089346.21	137563.38	0.21	
7362.00	91.500	357.930	4752.31	2742.68	2748.15	195.63	2089343.64	137626.29	1.96	
7394.00	91.570	356.870	4751.46	2774.67	2780.10	194.18	2089342.19	137658.24	3.32	
7489.00	92.500	356.920	4748.08	2869.56	2874.90	189.03	2089337.04	137753.05	0.98	
7552.00	90.250	358.010	4746.57	2932.52	2937.82	186.25	2089334.26	137815.97	3.97	
7584.00	91.210	358.340	4746.16	2964.52	2969.80	185.23	2089333.24	137847.95	3.17	
7679.00	90.400	358.350	4744.83	3059.51	3064.75	182.49	2089330.50	137942.91	0.85	
7774.00	90.370	357.800	4744.19	3154.50	3159.69	179.30	2089327.30	138037.85	0.58	
7869.00	89.200	357.800	4744.55	3249.49	3254.62	175.65	2089323.66	138132.79	1.23	
7964.00	89.110	357.730	4745.95	3344.47	3349.54	171.94	2089319.95	138227.71	0.12	
8059.00	88.110	358.450	4748.25	3439.43	3444.45	168.78	2089316.79	138322.63	1.30	
8153.00	88.180	358.400	4751.30	3533.38	3538.37	166.20	2089314.21	138416.55	0.09	
8249.00	88.640	358.380	4753.96	3629.35	3634.29	163.50	2089311.51	138512.48	0.48	
8344.00	88.630	358.270	4756.22	3724.32	3729.23	160.72	2089308.73	138607.42	0.12	
8439.00	87.540	357.850	4759.40	3819.26	3824.12	157.51	2089305.52	138702.31	1.23	
8534.00	88.160	358.200	4762.96	3914.19	3918.99	154.24	2089302.25	138797.19	0.75	
8628.00	89.230	358.020	4765.10	4008.16	4012.92	151.14	2089299.15	138891.12	1.15	
8723.00	90.550	358.770	4765.28	4103.15	4107.88	148.48	2089296.49	138986.09	1.60	
8818.00	92.010	359.770	4763.16	4198.12	4202.84	147.27	2089295.28	139081.06	1.86	
8913.00	92.020	0.150	4759.82	4293.04	4297.78	147.20	2089295.21	139176.00	0.40	



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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	DLS [°/100ft]	Comments
9007.00	88.670	357.980	4759.26	4387.01	4391.75	145.67	2089293.68	139269.97	4.25	
9102.00	88.730	358.410	4761.41	4481.98	4486.68	142.68	2089290.68	139364.91	0.46	
9197.00	88.720	358.960	4763.53	4576.96	4581.63	140.50	2089288.50	139459.86	0.58	
9292.00	88.100	357.390	4766.16	4671.92	4676.54	137.47	2089285.48	139554.78	1.78	
9309.00	88.300	357.160	4766.70	4688.90	4693.51	136.67	2089284.67	139571.75	1.79	
9352.00	88.300	357.160	4767.97	4731.87	4736.44	134.54	2089282.54	139614.68	0.00	Actual BHL 9352 MD (4768 TVD) X:2089283 Y:139615 VS:4732 340 FNL 1963 FWL

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
4J Ranch 3408 3-33H BHL		4718.90	4746.76	151.99	2089300.00	139625.00	37°02'59.000"N	98°11'38.525"W	point

WELLPATH COMPOSITION - Ref Wellbore: Actual 4J Ranch 3408 3-33H Ref Wellpath: AWP (Final)				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
15.00	785.00	EMS (Standard)	Rig Surveys	Actual 4J Ranch 3408 3-33H
785.00	9309.00	NaviTrak (Standard)	Inteq MWD	Actual 4J Ranch 3408 3-33H
9309.00	9352.00	Blind Drilling (std)	Projection to bit	Actual 4J Ranch 3408 3-33H