

Tekton Energy

Well Name: **Kodak 12 #7-3-28-270-4-NH**

Surface Location: Kodak Pad Sec.27-T6N-R67W

North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

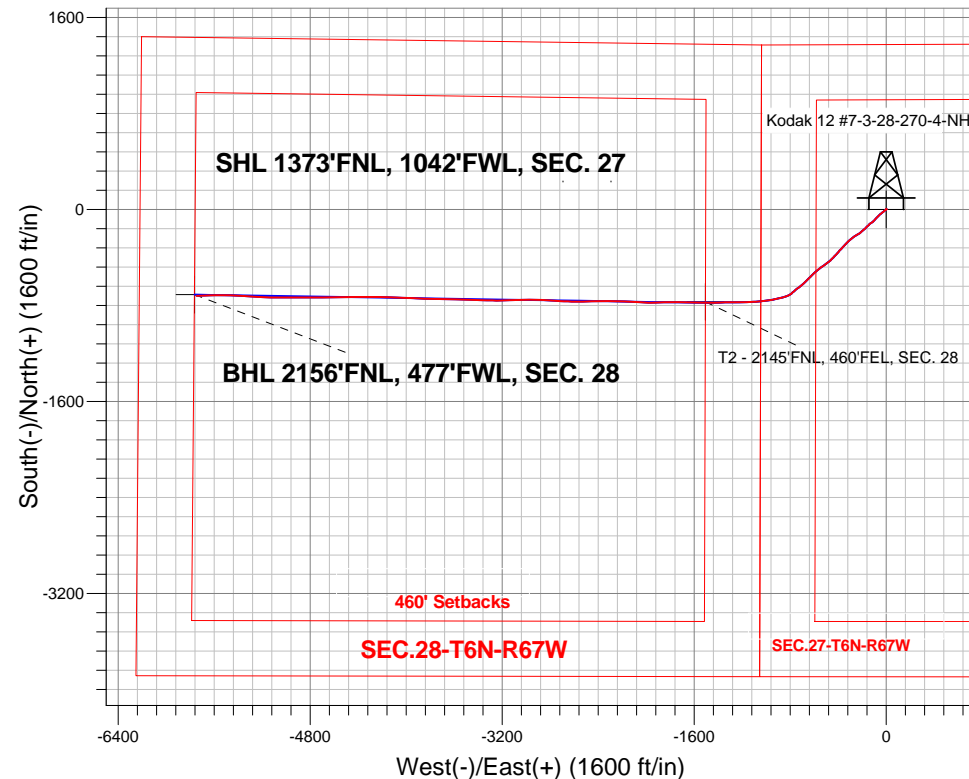
Ground Elevation: 4769.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1411521.05	3171021.63	40.461400	-104.885380	
RKB - 22.5' WELL @ 4791.5ft (RKB - 22.5')						

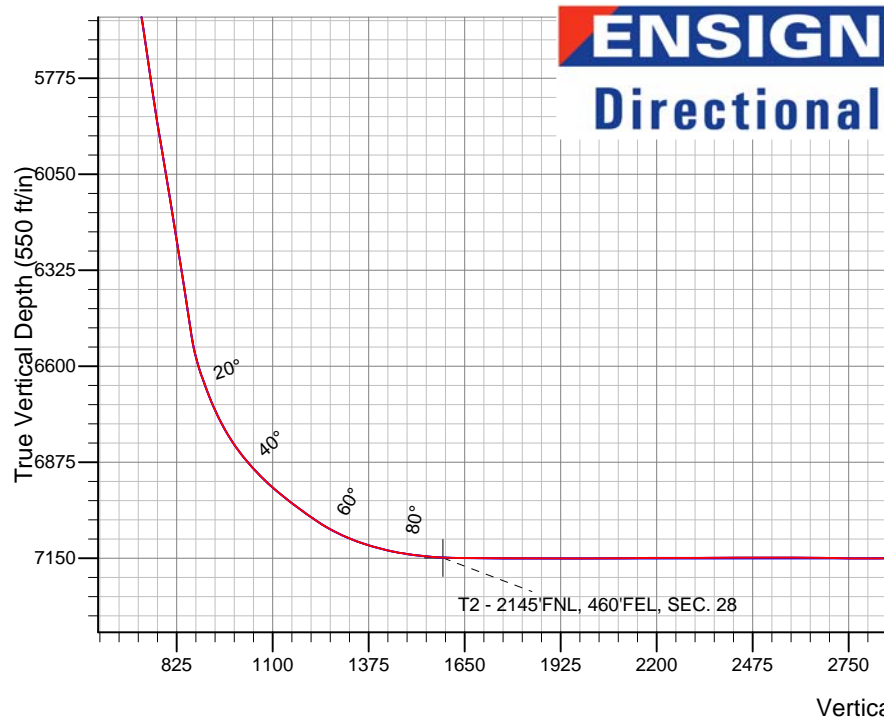
FINAL SURVEY

Projected Bottom Hole Location

11900'MD 7147'TVD 721'S & 5746'W of SHL
90.5 degree Incl @ 268.0 degree AZM



ENSIGN
Directional



Kodak Pad Sec.27-T6N-R67W
Kodak 12 #7-3-28-270-4-NH
Wellbore #1
7:42, February 13 2014

ANNOTATIONS

No annotation data is available.

LEGEND

- Kodak 12 #7-3-28-270-4-NH, Wellbore #1, Plan #6 (2-7-14) V0
- Wellbore #1
- Survey #1

BHL 2156'FNL, 477'FWL, SEC. 28



Tekton Energy

SEC.27-T6N-R67W

Kodak Pad Sec.27-T6N-R67W

Kodak 12 #7-3-28-270-4-NH

Wellbore #1

Survey: Survey #1

Standard Survey Report

13 February, 2014

Company:	Tekton Energy	Local Co-ordinate Reference:	Well Kodak 12 #7-3-28-270-4-NH
Project:	SEC.27-T6N-R67W	TVD Reference:	WELL @ 4791.5ft (RKB - 22.5')
Site:	Kodak Pad Sec.27-T6N-R67W	MD Reference:	WELL @ 4791.5ft (RKB - 22.5')
Well:	Kodak 12 #7-3-28-270-4-NH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,012.0	8.50	232.00	1,009.9	-24.5	-29.6	32.4	1.74	1.70	2.66	
1,108.0	10.80	231.60	1,104.6	-34.4	-42.3	46.1	2.40	2.40	-0.42	
1,202.0	11.90	225.70	1,196.7	-46.7	-56.1	61.4	1.70	1.17	-6.28	
1,294.0	10.80	227.40	1,286.9	-59.1	-69.2	75.9	1.25	-1.20	1.85	
1,386.0	11.50	221.30	1,377.2	-71.8	-81.6	89.8	1.49	0.76	-6.63	
1,478.0	10.80	219.90	1,467.4	-85.3	-93.2	102.9	0.82	-0.76	-1.52	
1,571.0	10.60	227.10	1,558.8	-97.9	-105.1	116.2	1.45	-0.22	7.74	
1,663.0	10.50	235.00	1,649.3	-108.4	-118.1	130.5	1.57	-0.11	8.59	
1,755.0	11.00	235.30	1,739.7	-118.2	-132.2	145.7	0.55	0.54	0.33	
1,847.0	9.40	224.60	1,830.2	-128.6	-144.7	159.3	2.69	-1.74	-11.63	
1,939.0	9.70	223.20	1,920.9	-139.6	-155.3	171.2	0.41	0.33	-1.52	
2,032.0	9.80	225.10	2,012.6	-150.9	-166.3	183.4	0.36	0.11	2.04	
2,124.0	8.70	229.70	2,103.4	-160.9	-177.1	195.4	1.44	-1.20	5.00	
2,219.0	9.90	228.80	2,197.2	-170.9	-188.7	208.2	1.27	1.26	-0.95	
2,312.0	10.40	229.50	2,288.7	-181.6	-201.1	221.8	0.55	0.54	0.75	
2,406.0	11.80	231.50	2,380.9	-193.1	-215.1	237.1	1.54	1.49	2.13	
2,501.0	12.90	239.00	2,473.7	-204.6	-231.8	255.1	2.05	1.16	7.89	
2,595.0	12.50	238.20	2,565.4	-215.4	-249.4	273.9	0.46	-0.43	-0.85	
2,689.0	11.10	234.10	2,657.5	-226.1	-265.4	291.1	1.74	-1.49	-4.36	
2,782.0	11.20	235.20	2,748.7	-236.5	-280.1	306.9	0.25	0.11	1.18	
2,877.0	10.20	230.80	2,842.0	-247.1	-294.2	322.2	1.36	-1.05	-4.63	
2,970.0	10.50	225.10	2,933.5	-258.3	-306.6	335.8	1.15	0.32	-6.13	
3,064.0	9.80	222.90	3,026.1	-270.2	-318.1	348.7	0.85	-0.74	-2.34	
3,158.0	9.90	223.00	3,118.7	-281.9	-329.0	361.0	0.11	0.11	0.11	
3,251.0	9.60	227.80	3,210.3	-293.0	-340.2	373.5	0.93	-0.32	5.16	
3,344.0	10.10	224.10	3,302.0	-304.0	-351.6	386.2	0.87	0.54	-3.98	
3,440.0	9.80	222.50	3,396.5	-316.1	-363.0	398.9	0.42	-0.31	-1.67	
3,535.0	10.70	221.60	3,490.0	-328.7	-374.3	411.7	0.96	0.95	-0.95	
3,630.0	11.70	221.10	3,583.2	-342.5	-386.5	425.5	1.06	1.05	-0.53	
3,725.0	12.30	220.20	3,676.1	-357.5	-399.4	440.1	0.66	0.63	-0.95	
3,819.0	13.10	226.00	3,767.8	-372.6	-413.5	456.0	1.60	0.85	6.17	
3,912.0	12.00	224.40	3,858.6	-386.8	-427.9	471.9	1.24	-1.18	-1.72	
4,006.0	10.60	221.10	3,950.8	-400.3	-440.4	486.0	1.64	-1.49	-3.51	
4,101.0	10.60	223.60	4,044.2	-413.2	-452.2	499.3	0.48	0.00	2.63	
4,195.0	10.20	226.90	4,136.6	-425.2	-464.2	512.7	0.76	-0.43	3.51	
4,290.0	9.80	232.70	4,230.2	-435.8	-476.8	526.5	1.14	-0.42	6.11	
4,383.0	10.00	234.80	4,321.8	-445.2	-489.7	540.4	0.44	0.22	2.26	
4,477.0	9.00	233.20	4,414.5	-454.4	-502.2	554.0	1.10	-1.06	-1.70	
4,570.0	9.80	232.20	4,506.2	-463.6	-514.3	567.1	0.88	0.86	-1.08	
4,664.0	10.00	236.60	4,598.8	-473.0	-527.4	581.3	0.83	0.21	4.68	
4,759.0	10.60	235.00	4,692.3	-482.5	-541.5	596.4	0.70	0.63	-1.68	
4,852.0	9.80	231.10	4,783.8	-492.4	-554.6	610.7	1.14	-0.86	-4.19	
4,946.0	9.30	230.90	4,876.5	-502.2	-566.8	623.9	0.53	-0.53	-0.21	
5,039.0	9.50	231.80	4,968.3	-511.7	-578.6	636.8	0.27	0.22	0.97	
5,133.0	9.50	229.00	5,061.0	-521.6	-590.6	649.9	0.49	0.00	-2.98	
5,227.0	10.60	227.10	5,153.6	-532.6	-602.8	663.3	1.22	1.17	-2.02	
5,321.0	8.80	220.60	5,246.2	-543.9	-613.8	675.7	2.24	-1.91	-6.91	
5,417.0	8.60	228.30	5,341.1	-554.2	-623.9	687.0	1.23	-0.21	8.02	
5,509.0	9.80	225.50	5,431.9	-564.3	-634.6	698.9	1.39	1.30	-3.04	
5,604.0	11.70	227.30	5,525.3	-576.5	-647.5	713.1	2.03	2.00	1.89	
5,699.0	11.00	222.00	5,618.4	-589.8	-660.6	727.8	1.32	-0.74	-5.58	
5,794.0	10.90	222.20	5,711.7	-603.2	-672.7	741.4	0.11	-0.11	0.21	
5,888.0	10.10	229.40	5,804.1	-615.1	-685.0	755.0	1.63	-0.85	7.66	
5,983.0	10.50	231.30	5,897.6	-626.0	-698.0	769.3	0.55	0.42	2.00	

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Project:	SEC.27-T6N-R67W	TVD Reference:	WELL @ 4791.5ft (RKB - 22.5')
Site:	Kodak Pad Sec.27-T6N-R67W	MD Reference:	WELL @ 4791.5ft (RKB - 22.5')
Well:	Kodak 12 #7-3-28-270-4-NH	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,077.0	11.50	229.70	5,989.8	-637.4	-711.9	784.4	1.11	1.06	-1.70
6,172.0	10.60	233.80	6,083.1	-648.7	-726.1	800.0	1.26	-0.95	4.32
6,267.0	10.60	232.50	6,176.5	-659.1	-740.1	815.1	0.25	0.00	-1.37
6,361.0	10.60	231.60	6,268.9	-669.8	-753.8	830.0	0.18	0.00	-0.96
6,455.0	11.00	226.20	6,361.2	-681.3	-767.0	844.5	1.16	0.43	-5.74
6,549.0	10.60	230.20	6,453.5	-693.1	-780.1	859.0	0.90	-0.43	4.26
6,596.0	9.80	227.40	6,499.8	-698.6	-786.4	865.9	2.00	-1.70	-5.96
6,644.0	13.20	232.50	6,546.8	-704.7	-793.7	873.9	7.39	7.08	10.63
6,691.0	17.80	239.00	6,592.1	-711.6	-804.2	885.1	10.45	9.79	13.83
6,737.0	20.60	244.10	6,635.5	-718.8	-817.5	899.2	7.09	6.09	11.09
6,784.0	21.40	253.10	6,679.4	-724.9	-833.1	915.5	7.06	1.70	19.15
6,830.0	24.30	255.40	6,721.8	-729.7	-850.3	933.1	6.60	6.30	5.00
6,877.0	27.90	255.20	6,764.0	-735.0	-870.3	953.6	7.66	7.66	-0.43
6,925.0	32.20	257.50	6,805.6	-740.6	-893.7	977.5	9.27	8.96	4.79
6,972.0	37.00	257.10	6,844.2	-746.5	-919.7	1,004.0	10.22	10.21	-0.85
7,019.0	41.30	259.40	6,880.7	-752.5	-948.7	1,033.6	9.66	9.15	4.89
7,066.0	44.70	261.90	6,915.0	-757.7	-980.4	1,065.6	8.09	7.23	5.32
7,112.0	48.40	262.80	6,946.7	-762.1	-1,013.5	1,099.0	8.17	8.04	1.96
7,159.0	51.90	264.50	6,976.8	-766.1	-1,049.3	1,135.1	7.95	7.45	3.62
7,206.0	53.50	267.00	7,005.3	-768.9	-1,086.6	1,172.4	5.43	3.40	5.32
7,253.0	54.80	268.20	7,032.8	-770.5	-1,124.7	1,210.4	3.45	2.77	2.55
7,301.0	59.20	267.70	7,058.9	-771.9	-1,164.9	1,250.5	9.21	9.17	-1.04
7,348.0	64.50	268.00	7,081.1	-773.4	-1,206.3	1,291.8	11.29	11.28	0.64
7,395.0	69.60	270.10	7,099.4	-774.1	-1,249.5	1,334.8	11.60	10.85	4.47
7,442.0	73.40	270.10	7,114.3	-774.1	-1,294.1	1,379.0	8.09	8.09	0.00
7,490.0	76.40	268.70	7,126.8	-774.6	-1,340.4	1,425.0	6.85	6.25	-2.92
7,537.0	81.00	268.00	7,136.0	-775.9	-1,386.5	1,470.9	9.90	9.79	-1.49
7,584.0	82.90	268.20	7,142.6	-777.4	-1,433.0	1,517.3	4.06	4.04	0.43
7,636.0	86.70	270.70	7,147.3	-777.9	-1,484.8	1,568.7	8.74	7.31	4.81
7,657.0	87.44	270.88	7,148.4	-777.6	-1,505.7	1,589.4	3.62	3.52	0.88
T2 - 2145'FNL, 460'FEL, SEC. 28									
7,731.0	90.04	271.53	7,150.0	-776.1	-1,579.7	1,662.7	3.62	3.52	0.87
7,826.0	90.04	271.53	7,150.0	-773.5	-1,674.7	1,756.6	0.00	0.00	0.00
7,923.0	89.87	268.95	7,150.1	-773.1	-1,771.6	1,852.9	2.67	-0.18	-2.66
8,018.0	89.52	268.51	7,150.6	-775.2	-1,866.6	1,947.4	0.59	-0.37	-0.46
8,112.0	90.04	269.77	7,150.9	-776.6	-1,960.6	2,040.8	1.45	0.55	1.34
8,206.0	90.84	274.05	7,150.2	-773.5	-2,054.5	2,133.7	4.63	0.85	4.55
8,300.0	89.69	272.65	7,149.8	-768.0	-2,148.4	2,226.1	1.93	-1.22	-1.49
8,395.0	90.75	270.83	7,149.4	-765.1	-2,243.3	2,320.0	2.22	1.12	-1.92
8,489.0	89.87	269.62	7,148.9	-764.8	-2,337.3	2,413.3	1.59	-0.94	-1.29
8,583.0	90.75	269.17	7,148.4	-765.8	-2,431.3	2,506.7	1.05	0.94	-0.48
8,678.0	89.34	269.14	7,148.3	-767.2	-2,526.3	2,601.1	1.48	-1.48	-0.03
8,772.0	88.72	270.84	7,149.9	-767.2	-2,620.3	2,694.4	1.92	-0.66	1.81
8,866.0	89.96	273.03	7,151.0	-764.0	-2,714.2	2,787.2	2.68	1.32	2.33
8,961.0	91.45	273.07	7,149.8	-759.0	-2,809.1	2,880.8	1.57	1.57	0.04
9,055.0	90.31	273.31	7,148.4	-753.7	-2,902.9	2,973.3	1.24	-1.21	0.26
9,150.0	89.52	268.87	7,148.5	-751.9	-2,997.9	3,067.3	4.75	-0.83	-4.67
9,244.0	89.96	267.36	7,148.9	-755.0	-3,091.8	3,160.9	1.67	0.47	-1.61
9,338.0	89.96	268.52	7,149.0	-758.4	-3,185.7	3,254.5	1.23	0.00	1.23
9,432.0	89.16	270.83	7,149.7	-758.9	-3,279.7	3,347.9	2.60	-0.85	2.46
9,527.0	89.60	271.97	7,150.8	-756.6	-3,374.7	3,441.9	1.29	0.46	1.20
9,622.0	90.92	272.47	7,150.3	-752.9	-3,469.6	3,535.6	1.49	1.39	0.53
9,716.0	88.64	270.69	7,150.7	-750.3	-3,563.6	3,628.6	3.08	-2.43	-1.89
9,811.0	89.43	271.85	7,152.3	-748.2	-3,658.5	3,722.6	1.48	0.83	1.22

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Survey									
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9,905.0	89.87	270.72	7,152.9	-746.1	-3,752.5	3,815.6	1.29	0.47	-1.20
10,000.0	89.96	272.78	7,153.0	-743.2	-3,847.5	3,909.4	2.17	0.09	2.17
10,094.0	90.75	272.69	7,152.4	-738.7	-3,941.3	4,002.1	0.85	0.84	-0.10
10,189.0	90.66	271.35	7,151.2	-735.4	-4,036.3	4,095.9	1.41	-0.09	-1.41
10,283.0	87.85	271.26	7,152.5	-733.2	-4,130.2	4,188.9	2.99	-2.99	-0.10
10,377.0	89.78	270.60	7,154.4	-731.7	-4,224.2	4,282.0	2.17	2.05	-0.70
10,472.0	89.69	270.84	7,154.9	-730.5	-4,319.2	4,376.1	0.27	-0.09	0.25
10,566.0	89.87	270.76	7,155.2	-729.2	-4,413.2	4,469.2	0.21	0.19	-0.09
10,660.0	90.22	269.62	7,155.1	-728.9	-4,507.2	4,562.5	1.27	0.37	-1.21
10,755.0	89.43	268.01	7,155.4	-730.9	-4,602.2	4,657.0	1.89	-0.83	-1.69
10,849.0	90.75	268.47	7,155.3	-733.7	-4,696.1	4,750.6	1.49	1.40	0.49
10,944.0	90.04	269.76	7,154.6	-735.2	-4,791.1	4,845.0	1.55	-0.75	1.36
11,038.0	91.63	270.79	7,153.3	-734.8	-4,885.1	4,938.3	2.02	1.69	1.10
11,132.0	89.78	270.35	7,152.1	-733.8	-4,979.1	5,031.4	2.02	-1.97	-0.47
11,227.0	87.67	270.06	7,154.2	-733.5	-5,074.0	5,125.6	2.24	-2.22	-0.31
11,321.0	89.60	272.00	7,156.5	-731.8	-5,168.0	5,218.7	2.91	2.05	2.06
11,415.0	90.92	273.55	7,156.0	-727.3	-5,261.9	5,311.3	2.17	1.40	1.65
11,510.0	93.03	274.36	7,152.8	-720.7	-5,356.6	5,404.5	2.38	2.22	0.85
11,605.0	91.63	271.60	7,148.9	-715.8	-5,451.4	5,498.0	3.26	-1.47	-2.91
11,700.0	89.87	269.42	7,147.6	-714.9	-5,546.3	5,592.1	2.95	-1.85	-2.29
11,794.0	90.13	268.15	7,147.6	-716.9	-5,640.3	5,685.6	1.38	0.28	-1.35
11,825.0	90.48	268.04	7,147.5	-717.9	-5,671.3	5,716.5	1.18	1.13	-0.35
11,900.0	90.48	268.04	7,146.9	-720.5	-5,746.2	5,791.2	0.00	0.00	0.00
BHL 2145'FNL, 460'FWL, SEC. 28									

Checked By: _____	Approved By: _____	Date: _____
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