



JUL 31 2015

30-025-42256

Well Name: RAGIN CAJUN 12 FED 2H

RECEIVED

Sub-Division DELAWARE BASIN	Region DELAWARE BASIN EAST	Field Name RATTLESNAKE (NM)	County LEA	State/Province NM		
Surface Legal Location Sec 12 26S 34E	API/UWI 3002542256	Latitude (°) 32° 3' 1.982" N	Longitude (°) 103° 25' 40.953" W	Orig KB Elevation (ft) 3,301.20	Ground Elev MSL (ft) 3,277.60	KB - GL (ft) 23.60

Wellbores			
Wellbore Name	Parent Wellbore	SAP Well ID	Vertical Section Direction (°)
OH	OH	38189	2.71

Kick Offs & Key Depths			
Date	Type		Top Depth (ftKB)
4/15/2015	Kick Off		8,625.0
Actual Deviation Survey	Definitive?	Proposed?	Proposed Deviation Survey
GYRO AND MWD, Proposed? No	Yes	No	

Deviation Survey					
Date 4/10/2015		Description GYRO AND MWD			
MD Tie In (ftKB)	TVD Tie In (ftKB)	Inclination Tie In (°)	Azimuth Tie In (°)	NSTie In (ft)	EWtie In (ft)

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/10/2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	83.40	0.54	61.06	83.40	0.21	0.19	0.34	0.65	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	176.65	0.63	64.84	176.64	0.68	0.62	1.19	0.10	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	269.90	0.71	68.80	269.89	1.15	1.05	2.20	0.10	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	363.15	0.74	66.72	363.13	1.65	1.49	3.29	0.04	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	456.40	0.91	70.49	456.37	2.19	1.98	4.54	0.19	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	549.65	0.84	81.72	549.61	2.60	2.33	5.91	0.20	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	642.90	0.66	61.22	642.85	3.01	2.68	7.06	0.34	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	736.15	0.65	59.67	736.10	3.58	3.21	7.99	0.02	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	829.40	0.61	52.38	829.34	4.19	3.78	8.84	0.10	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	922.65	0.67	42.65	922.58	4.93	4.48	9.60	0.13	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,015.90	0.72	40.14	1,015.83	5.81	5.33	10.35	0.06	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,109.15	0.60	37.98	1,109.07	6.68	6.16	11.02	0.13	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,202.40	0.44	31.66	1,202.32	7.39	6.85	11.51	0.18	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,295.65	0.42	35.52	1,295.56	7.99	7.44	11.90	0.04	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,388.90	0.38	29.94	1,388.81	8.55	7.98	12.25	0.06	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,482.15	0.41	36.19	1,482.06	9.11	8.52	12.60	0.06	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,575.40	0.46	23.89	1,575.31	9.73	9.13	12.95	0.11	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,668.65	0.50	21.39	1,668.55	10.47	9.85	13.25	0.05	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,761.90	0.46	17.99	1,761.80	11.21	10.59	13.52	0.05	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,855.15	0.43	19.27	1,855.05	11.91	11.27	13.75	0.03	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	1,948.40	0.41	30.56	1,948.30	12.54	11.89	14.03	0.09	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,041.65	0.41	43.80	2,041.54	13.09	12.42	14.43	0.10	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,134.90	0.45	50.81	2,134.79	13.58	12.89	14.95	0.07	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,228.15	0.55	72.19	2,228.04	13.99	13.26	15.66	0.23	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,321.40	0.64	67.77	2,321.28	14.36	13.59	16.57	0.11	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,414.65	0.73	77.29	2,414.53	14.74	13.92	17.63	0.16	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,507.90	0.82	78.07	2,507.77	15.07	14.19	18.86	0.10	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,601.15	0.91	84.99	2,601.01	15.33	14.39	20.25	0.15	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,694.40	1.04	83.62	2,694.24	15.57	14.55	21.83	0.14	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,787.65	1.18	87.09	2,787.48	15.80	14.69	23.63	0.17	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,880.90	1.30	83.27	2,880.70	16.06	14.87	25.64	0.16	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	2,974.15	1.43	88.59	2,973.93	16.32	15.02	27.85	0.19	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,067.40	1.57	86.06	3,067.15	16.55	15.14	30.29	0.17	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,160.65	1.77	85.28	3,160.36	16.89	15.34	33.00	0.22	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,253.90	2.02	83.01	3,253.55	17.35	15.66	36.07	0.28	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,347.15	2.12	86.75	3,346.74	17.80	15.96	39.42	0.18	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,440.40	2.32	87.40	3,439.92	18.16	16.14	43.03	0.22	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,533.65	2.55	85.08	3,533.09	18.61	16.41	46.98	0.27	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,626.90	2.60	82.10	3,626.25	19.27	16.87	51.14	0.15	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,720.15	2.77	80.40	3,719.39	20.14	17.54	55.46	0.20	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,813.40	2.89	83.31	3,812.53	21.01	18.19	60.01	0.20	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,906.65	3.09	88.57	3,905.65	21.57	18.53	64.86	0.36	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	3,999.90	2.97	83.49	3,998.77	22.14	18.86	69.77	0.32	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,093.15	3.04	85.12	4,091.89	22.85	19.35	74.64	0.12	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,186.40	3.43	89.21	4,185.00	23.35	19.60	79.89	0.49	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,279.65	3.46	88.47	4,278.08	23.73	19.71	85.49	0.06	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,372.90	3.69	90.22	4,371.15	24.07	19.77	91.31	0.27	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,466.15	3.92	92.23	4,464.19	24.23	19.64	97.49	0.29	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,559.40	3.97	91.43	4,557.22	24.32	19.43	103.90	0.08	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,652.65	4.52	95.07	4,650.21	24.25	19.03	110.79	0.66	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,745.90	4.25	93.84	4,743.19	24.03	18.47	117.90	0.31	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,839.15	4.40	94.72	4,836.17	23.83	17.95	124.91	0.18	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	4,932.40	4.91	95.04	4,929.12	23.54	17.30	132.45	0.55	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	5,025.65	5.15	92.68	5,022.01	23.38	16.76	140.61	0.34	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	5,118.90	5.33	91.83	5,114.87	23.45	16.42	149.12	0.21	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	5,149.53	5.27	92.41	5,145.37	23.48	16.32	151.94	0.26	GYRO	VAUHG N ENERGY SERVICES
4/10/2015	5,297.00	4.80	95.70	5,292.27	23.20	15.42	164.85	0.37	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,348.00	5.30	91.50	5,343.07	23.13	15.15	169.33	1.22	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,443.00	7.80	85.30	5,437.44	24.06	15.56	180.14	2.73	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,539.00	9.20	85.70	5,532.39	25.84	16.67	194.29	1.46	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,634.00	9.90	89.50	5,626.07	27.22	17.31	210.03	0.99	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,730.00	8.70	86.70	5,720.81	28.44	17.80	225.53	1.34	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,825.00	6.90	83.20	5,814.92	30.14	18.89	238.37	1.96	MWD	LEAM DRILLING SYSTEMS
4/10/2015	5,921.00	6.80	86.50	5,910.24	31.70	19.92	249.77	0.42	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,017.00	7.10	87.20	6,005.53	32.89	20.55	261.37	0.32	MWD	LEAM DRILLING SYSTEMS

AUG 03 2015



Directional Survey

Well Name: RAGIN CAJUN 12 FED 2H

Sub-Division	Region	Field Name	County	State/Province		
DELAWARE BASIN	DELAWARE BASIN EAST	RATTLESNAKE (NM)	LEA	NM		
Surface Legal Location	API/UWI	Latitude (°)	Longitude (°)	Orig KB Elevation (ft)	Ground Elev MSL (ft)	KB - GL (ft)
Sec 12 26S 34E	3002542256	32° 3' 1.982" N	103° 25' 40.953" W	3,301.20	3,277.60	23.60

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/10/2015	6,112.00	7.50	87.10	6,099.76	34.06	21.16	273.42	0.42	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,208.00	6.20	76.70	6,195.08	36.10	22.66	284.72	1.87	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,304.00	6.30	73.70	6,290.51	39.25	25.34	294.83	0.36	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,399.00	5.60	82.00	6,385.00	41.81	27.44	304.42	1.17	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,495.00	5.50	88.60	6,480.55	43.01	28.21	313.66	0.67	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,590.00	7.20	90.40	6,574.96	43.57	28.28	324.16	1.80	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,686.00	7.80	88.50	6,670.14	44.29	28.41	336.69	0.68	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,781.00	8.30	92.30	6,764.21	44.82	28.30	349.99	0.77	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,876.00	8.70	84.80	6,858.17	45.85	28.68	363.99	1.24	MWD	LEAM DRILLING SYSTEMS
4/10/2015	6,972.00	9.30	85.70	6,952.98	47.80	29.92	378.96	0.64	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,068.00	9.80	90.80	7,047.65	49.02	30.38	394.86	1.02	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,163.00	8.50	84.60	7,141.45	50.28	30.93	409.94	1.72	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,258.00	6.50	89.00	7,235.63	51.62	31.69	422.31	2.19	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,354.00	6.50	91.30	7,331.01	52.10	31.66	433.17	0.27	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,449.00	6.20	92.20	7,425.43	52.28	31.34	443.67	0.33	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,544.00	6.60	88.60	7,519.84	52.72	31.27	454.26	0.60	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,640.00	6.60	89.70	7,615.20	53.40	31.44	465.29	0.13	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,735.00	6.60	88.60	7,709.57	54.08	31.60	476.21	0.13	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,831.00	6.40	90.20	7,804.95	54.71	31.72	487.07	0.28	MWD	LEAM DRILLING SYSTEMS
4/10/2015	7,926.00	6.30	95.50	7,899.37	54.69	31.20	497.56	0.63	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,022.00	6.00	85.10	7,994.82	55.10	31.12	507.80	1.20	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,117.00	5.50	81.40	8,089.35	56.65	32.23	517.25	0.65	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,213.00	4.30	89.00	8,184.99	57.78	32.98	525.39	1.42	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,309.00	3.80	85.50	8,280.75	58.41	33.29	532.16	0.58	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,404.00	3.60	91.80	8,375.56	58.86	33.44	538.28	0.48	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,499.00	3.80	92.30	8,470.36	58.93	33.22	544.41	0.21	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,595.00	3.30	99.40	8,566.17	58.63	32.64	550.32	0.69	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,627.00	2.60	89.00	8,598.13	58.57	32.51	551.95	2.75	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,658.00	2.20	43.80	8,629.11	59.06	32.95	553.06	6.07	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,690.00	4.00	8.30	8,661.06	60.64	34.50	553.65	7.97	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,722.00	7.10	0.90	8,692.91	63.72	37.58	553.84	9.92	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,754.00	10.30	0.20	8,724.54	68.56	42.42	553.88	10.01	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,786.00	13.50	359.90	8,755.84	75.15	49.02	553.89	10.00	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,818.00	17.40	0.40	8,786.68	83.66	57.54	553.91	12.19	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,850.00	21.40	0.20	8,816.86	94.28	68.17	553.97	12.50	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,881.00	25.30	0.90	8,845.31	106.56	80.45	554.09	12.61	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,913.00	29.00	0.40	8,873.78	121.15	95.05	554.25	11.58	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,945.00	32.50	0.20	8,901.28	137.49	111.41	554.34	10.94	MWD	LEAM DRILLING SYSTEMS
4/10/2015	8,977.00	36.60	0.90	8,927.63	155.62	129.55	554.52	12.87	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,009.00	40.60	0.90	8,952.63	175.57	149.51	554.83	12.50	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,041.00	44.60	1.80	8,976.18	197.22	171.16	555.35	12.64	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,072.00	47.90	2.30	8,997.62	219.61	193.53	556.15	10.71	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,104.00	51.50	3.00	9,018.31	244.01	217.91	557.28	11.37	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,136.00	53.60	3.20	9,037.77	269.41	243.27	558.66	6.58	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,168.00	55.90	3.60	9,056.24	295.54	269.36	560.21	7.26	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,200.00	58.90	3.70	9,073.48	322.49	296.26	561.93	9.38	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,232.00	61.00	4.10	9,089.50	350.19	323.89	563.81	6.65	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,264.00	62.50	3.70	9,104.65	378.37	352.01	565.73	4.82	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,295.00	63.70	3.20	9,118.67	406.01	379.61	567.39	4.13	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,327.00	65.30	2.90	9,132.45	434.89	408.45	568.93	5.07	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,359.00	66.50	2.50	9,145.51	464.10	437.63	570.30	3.92	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,391.00	67.60	2.20	9,157.99	493.57	467.07	571.51	3.54	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,423.00	69.30	2.20	9,169.74	523.33	496.81	572.65	5.31	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,455.00	71.40	2.20	9,180.50	553.46	526.92	573.81	6.56	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,487.00	74.10	2.70	9,189.99	584.02	557.45	575.12	8.57	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,518.00	76.60	2.90	9,197.83	614.01	587.41	576.58	8.09	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,550.00	79.20	3.20	9,204.54	645.30	618.65	578.25	8.18	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,582.00	81.50	3.60	9,209.90	676.84	650.14	580.12	7.29	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,614.00	83.80	3.70	9,214.00	708.57	681.81	582.14	7.19	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,659.00	86.50	3.70	9,217.80	753.40	726.55	585.03	6.00	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,691.00	87.80	3.60	9,219.39	785.35	758.44	587.07	4.07	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,723.00	88.90	3.40	9,220.31	817.34	790.37	589.02	3.49	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,755.00	90.90	2.90	9,220.37	849.33	822.32	590.78	6.44	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,787.00	92.90	3.00	9,219.31	881.31	854.26	592.42	6.26	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,818.00	93.10	2.90	9,217.69	912.27	885.17	594.02	0.72	MWD	LEAM DRILLING SYSTEMS
4/10/2015	9,914.00	91.40	3.70	9,213.92	1,008.19	980.94	599.54	1.96	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,009.00	89.40	3.40	9,213.25	1,103.17	1,075.75	605.42	2.13	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,105.00	89.60	4.10	9,214.09	1,199.15	1,171.54	611.70	0.76	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,201.00	88.50	3.00	9,215.68	1,295.12	1,267.34	617.64	1.62	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,296.00	89.60	4.60	9,217.26	1,390.09	1,362.11	623.94	2.04	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,392.00	88.80	4.30	9,218.60	1,486.03	1,457.81	631.38	0.89	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,487.00	90.10	3.60	9,219.51	1,581.00	1,552.58	637.93	1.55	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,583.00	90.10	1.80	9,219.34	1,677.00	1,648.47	642.45	1.87	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,678.00	90.00	2.20	9,219.26	1,771.99	1,743.41	645.77	0.43	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,774.00	90.70	2.90	9,218.67	1,867.99	1,839.31	650.04	1.03	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,869.00	91.50	4.10	9,216.85	1,962.96	1,934.11	655.83	1.52	MWD	LEAM DRILLING SYSTEMS
4/10/2015	10,965.00	90.70	2.90	9,215.01	2,058.93	2,029.92	661.69	1.50	MWD	LEAM DRILLING SYSTEMS



Directional Survey

Well Name: RAGIN CAJUN 12 FED 2H

Sub-Division DELAWARE BASIN		Region DELAWARE BASIN EAST		Field Name RATTLESNAKE (NM)		County LEA		State/Province NM	
Surface Legal Location Sec 12 26S 34E		API/UWI 3002542256	Latitude (°) 32° 3' 1.982" N	Longitude (°) 103° 25' 40.953" W	Orig KB Elevation (ft) 3,301.20	Ground Elev MSL (ft) 3,277.60	KB - GL (ft) 23.60		

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	EW (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/10/2015	11,060.00	89.90	2.20	9,214.51	2,153.93	2,124.82	665.92	1.12	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,156.00	88.40	1.60	9,215.93	2,249.90	2,220.75	669.10	1.68	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,251.00	88.50	1.50	9,218.50	2,344.85	2,315.68	671.67	0.15	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,347.00	89.60	2.50	9,220.10	2,440.83	2,411.61	675.02	1.55	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,442.00	89.30	4.40	9,221.01	2,535.81	2,506.43	680.74	2.02	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,538.00	89.30	4.30	9,222.18	2,631.76	2,602.14	688.02	0.10	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,633.00	90.20	3.20	9,222.59	2,726.74	2,696.94	694.23	1.50	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,729.00	89.60	3.00	9,222.76	2,822.74	2,792.80	699.42	0.66	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,824.00	89.90	2.70	9,223.18	2,917.74	2,887.68	704.15	0.45	MWD	LEAM DRILLING SYSTEMS
4/10/2015	11,920.00	91.40	3.00	9,222.09	3,013.73	2,983.55	708.92	1.59	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,015.00	91.10	2.50	9,220.02	3,108.71	3,078.42	713.48	0.61	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,111.00	90.30	1.80	9,218.84	3,204.69	3,174.34	717.08	1.11	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,206.00	91.90	1.80	9,217.02	3,299.66	3,269.27	720.06	1.68	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,302.00	91.70	2.30	9,214.00	3,395.61	3,365.16	723.49	0.56	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,397.00	89.00	2.00	9,213.42	3,490.59	3,460.09	727.06	2.86	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,493.00	89.30	2.30	9,214.85	3,586.58	3,556.01	730.66	0.44	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,588.00	90.30	2.70	9,215.18	3,681.58	3,650.92	734.80	1.13	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,684.00	89.40	2.30	9,215.43	3,777.57	3,746.82	738.99	1.03	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,779.00	90.80	2.50	9,215.26	3,872.57	3,841.74	742.97	1.49	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,875.00	90.90	2.70	9,213.84	3,968.56	3,937.63	747.32	0.23	MWD	LEAM DRILLING SYSTEMS
4/10/2015	12,970.00	87.20	1.60	9,215.42	4,063.52	4,032.53	750.89	4.06	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,066.00	90.10	2.20	9,217.68	4,159.48	4,128.44	754.07	3.08	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,161.00	90.40	2.90	9,217.26	4,254.47	4,223.34	758.29	0.80	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,257.00	91.10	3.40	9,216.01	4,350.46	4,319.19	763.57	0.90	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,352.00	92.00	3.90	9,213.44	4,445.41	4,413.96	769.61	1.08	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,448.00	91.90	4.30	9,210.17	4,541.33	4,509.66	776.47	0.43	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,543.00	92.60	5.00	9,206.44	4,636.20	4,604.27	784.17	1.04	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,639.00	89.80	4.60	9,204.43	4,732.11	4,699.91	792.20	2.95	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,734.00	90.20	5.10	9,204.43	4,827.04	4,794.57	800.23	0.67	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,830.00	87.80	4.30	9,206.10	4,922.96	4,890.22	808.10	2.64	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,884.00	87.10	4.10	9,208.51	4,976.89	4,944.02	812.05	1.35	MWD	LEAM DRILLING SYSTEMS
4/10/2015	13,950.00	87.10	4.10	9,211.85	5,042.78	5,009.77	816.76	0.00	BIT	LEAM DRILLING SYSTEMS