

Results of Directional Survey

API number:	30-025-24046		
OGRID:		Operator:	CHEVRON U S A INC
		Property:	NORTH VACUUM ABO WEST UNIT # 13H

surface	ULSTR:	D	28	T	17S	R	34E
				660	FNL	660	FWL

BH Loc	ULSTR:	N	21	T	17S	R	34E
10650	MD	8886.4	TVD	721	FSL	1967	FWL

Top Perf/OH	ULSTR:	D	28	T	17S	R	34E
8592	MD	2877.0	TVD	1013	FNL	704	FWL

Bot Perf/OH	ULSTR:	N	21	T	17S	R	34E
10650	MD	8886.4	TVD	721	FSL	1967	FWL

	MD	N/S	E/W	VD
	8570	-21.08	43.05	859.65
TOP PERFS/OH	8592	-352.61	44.10	2877.02
	8655	-1302.00	47.12	8654.02
	10581	1330.91	1259.78	8887.48
BOT PERFS/OH	10650	1380.91	1307.33	8886.39
	10605	1348.30	1276.32	8887.10

NEXT TO LAST	10581	1330.91	1259.78	8887.48
LAST READING	10605	1348.30	1276.32	8887.10
TD	10650	1380.91	1307.33	8886.39

Surface Location	660	FN	660	FW
Projected BHL	721	FS	1967	FW
Location of				
Top Perfs/OH	1013	FN	704	FW
Bottom Perfs/OH	721	FS	1967	FW

SUMMARY of Subsurface Locations

Surface Location	D-28-17S-34E	660	FN	660	FW	Vert. Depth
Top Perfs/OH	D-28-17S-34E	1013	FN	704	FW	2877.02
Bottom Perfs/OH	N-21-17S-34E	721	FS	1967	FW	8886.39
Projected TD	N-21-17S-34E	721	FS	1967	FW	8886.39

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Daily Survey Report Update

Company: Chevron Field: Lea County, New Mexico Site: North Vacuum Abo West Unit Well: Well #13H-ENE Wellpath: Lateral	Date: 2/24/2011 Co-ordinate(NE) Reference: Well: Well #13H-ENE, Grid North Vertical (TVD) Reference: RKB 4087.0 Section (VS) Reference: Well (0.00N,0.00E,43.42Azi) Survey Calculation Method: Minimum Curvature	Time: 07:15:37 Page: 1 Db: Sybase
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Survey: Survey #2 Company: Scientific Drilling Houston Tool: MWD-SDI;MWD - Standard ISCWSA	Start Date: 2/14/2011 Engineer: Tied-to: From: Survey #1
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Field: Lea County, New Mexico Map System: US State Plane Coordinate System 1983 Geo Datum: GRS 1980 Sys Datum: Mean Sea Level	Map Zone: New Mexico, Eastern Zone Coordinate System: Well Centre Geomagnetic Model: IGRF2010
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Site: North Vacuum Abo West Unit			
Site Position: From: Map Position Uncertainty: 0.00 ft Ground Level: 4076.00 ft	Northing: 659694.00 ft Easting: 775452.00 ft	Latitude: 32 48 40.339 N Longitude: 103 34 16.771 W North Reference: Grid Grid Convergence: 0.413 deg	

Well: Well #13H-ENE Well Position: +N/-S 0.00 ft Position Uncertainty: 0.00 ft	Slot Name: Northing: 659694.00 ft Easting: 775452.00 ft Latitude: 32 48 40.339 N Longitude: 103 34 16.771 W
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Wellpath: Lateral Current Datum: RKB Magnetic Data: 2/7/2011 Field Strength: 49032 nT Vertical Section: Depth From (TVD) ft	Height 4087.00 ft +N/-S ft	Drilled From: Surface Tie-on Depth: 0.00 ft Above System Datum: Mean Sea Level Declination: 7.675 deg Mag Dip Angle: 60.739 deg +E/-W ft Direction bearing	
0.00	0.00	0.00	43.42

Survey										
MD ft	Incl deg	Azim bearing	TVD ft	N/S ft	E/W ft	VS ft	ClsD ft	ClsA bearing	DLS deg/100ft	Tool
8570.00	0.43	343.86	8569.65	-21.08	43.05	14.28	47.93	116.09	0.00	Tie-in SDI Gyro
8655.00	11.90	28.21	8654.02	-13.02	47.12	22.93	48.88	105.45	13.64	MWD-SDI
8684.00	16.04	29.51	8682.16	-6.90	50.51	29.71	50.97	97.78	14.32	MWD-SDI
8715.00	21.00	31.02	8711.54	1.60	55.48	39.30	55.50	88.35	16.07	MWD-SDI
8747.00	28.21	33.86	8740.62	12.81	62.66	52.37	63.95	78.45	22.83	MWD-SDI
8779.00	35.53	35.87	8767.78	26.64	72.34	69.07	77.09	69.78	23.11	MWD-SDI
8810.00	42.20	36.14	8791.90	42.37	83.77	88.35	93.87	63.17	21.52	MWD-SDI
8841.00	49.31	35.25	8813.52	60.39	96.71	110.34	114.02	58.01	23.03	MWD-SDI
8873.00	56.55	36.25	8832.79	81.10	111.62	135.63	137.97	54.00	22.76	MWD-SDI
8905.00	63.41	40.13	8848.80	102.83	128.76	163.20	164.79	51.39	23.86	MWD-SDI
8936.00	70.13	41.16	8861.02	124.43	147.31	191.63	192.83	49.81	21.89	MWD-SDI
8968.00	74.64	40.12	8870.70	147.57	167.17	222.09	222.99	48.56	14.43	MWD-SDI
8999.00	79.56	38.93	8877.62	170.87	186.39	252.23	252.86	47.49	16.31	MWD-SDI
9031.00	84.35	39.49	8882.10	195.42	206.42	283.82	284.25	46.57	15.07	MWD-SDI
9063.00	86.50	39.96	8884.65	219.95	226.80	315.65	315.94	45.88	6.88	MWD-SDI
9094.00	88.02	39.49	8886.13	243.76	246.59	346.55	346.74	45.33	5.13	MWD-SDI
9126.00	90.44	40.07	8886.56	268.35	267.06	378.48	378.60	44.86	7.78	MWD-SDI
9158.00	88.49	39.12	8886.86	293.01	287.46	410.40	410.47	44.45	6.78	MWD-SDI
9190.00	88.35	38.89	8887.74	317.86	307.59	442.29	442.32	44.06	0.84	MWD-SDI
9221.00	88.18	39.45	8888.68	341.89	327.16	473.19	473.20	43.74	1.89	MWD-SDI
9252.00	86.20	42.67	8890.20	365.23	347.49	504.13	504.13	43.57	12.18	MWD-SDI
9284.00	86.06	42.76	8892.36	388.69	369.15	536.05	536.05	43.52	0.52	MWD-SDI
9316.00	87.88	43.31	8894.05	412.04	390.96	568.00	568.00	43.50	5.94	MWD-SDI
9347.00	89.66	43.38	8894.72	434.58	412.23	598.99	598.99	43.49	5.75	MWD-SDI

SUR: D-28-17s-34e, 660/N & 660/W
 BHL: N-21-17s-34e, 721/S & 1967/W
 API # 30-025-24046

Scientific Drilling Houston

Daily Survey Report Update

Company: Chevron Field: Lea County, New Mexico Site: North Vacuum Abo West Unit Well: Well #13H-ENE Wellpath: Lateral	Date: 2/24/2011 Co-ordinate(NE) Reference: Well: Well #13H-ENE, Grid North Vertical (TVD) Reference: RKB 4087.0 Section (VS) Reference: Well (0.00N,0.00E,43.42Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey

MD ft	Incl deg	Azim bearing	TVD ft	N/S ft	E/W ft	VS ft	ClsD ft	ClsA bearing	DLS deg/100ft	Tool
9379.00	89.40	43.04	8894.98	457.90	434.14	630.99	630.99	43.47	1.34	MWD-SDI
9411.00	89.06	42.71	8895.41	481.35	455.91	662.99	662.99	43.45	1.48	MWD-SDI
9443.00	89.43	43.87	8895.83	504.64	477.85	694.99	694.99	43.44	3.80	MWD-SDI
9475.00	90.07	44.11	8895.97	527.67	500.07	726.98	726.98	43.46	2.14	MWD-SDI
9506.00	91.71	44.13	8895.49	549.92	521.65	757.98	757.98	43.49	5.29	MWD-SDI
9537.00	91.58	43.94	8894.60	572.19	543.19	788.96	788.96	43.51	0.74	MWD-SDI
9569.00	91.21	43.92	8893.82	595.23	565.39	820.95	820.95	43.53	1.16	MWD-SDI
9601.00	90.61	43.75	8893.31	618.31	587.54	852.95	852.95	43.54	1.95	MWD-SDI
9632.00	90.00	42.55	8893.15	640.93	608.75	883.94	883.94	43.52	4.34	MWD-SDI
9663.00	90.37	43.20	8893.05	663.65	629.84	914.94	914.94	43.50	2.41	MWD-SDI
9695.00	89.70	43.10	8893.03	686.99	651.72	946.94	946.94	43.49	2.12	MWD-SDI
9726.00	90.10	43.93	8893.08	709.47	673.07	977.94	977.94	43.49	2.97	MWD-SDI
9758.00	89.46	43.32	8893.20	732.64	695.14	1009.94	1009.94	43.50	2.76	MWD-SDI
9790.00	90.23	44.94	8893.29	755.60	717.43	1041.94	1041.94	43.52	5.61	MWD-SDI
9822.00	92.18	44.40	8892.62	778.35	739.92	1073.92	1073.92	43.55	6.32	MWD-SDI
9854.00	92.19	45.38	8891.40	801.01	762.48	1105.89	1105.89	43.59	3.06	MWD-SDI
9885.00	91.21	43.87	8890.48	823.06	784.25	1136.86	1136.87	43.62	5.81	MWD-SDI
9917.00	89.03	43.59	8890.41	846.18	806.37	1168.86	1168.87	43.62	6.87	MWD-SDI
9949.00	88.86	42.82	8891.00	869.50	828.27	1200.86	1200.86	43.61	2.46	MWD-SDI
9980.00	88.22	43.08	8891.79	892.19	849.39	1231.84	1231.85	43.59	2.23	MWD-SDI
10011.00	88.55	42.32	8892.66	914.96	870.40	1262.83	1262.83	43.57	2.67	MWD-SDI
10043.00	89.36	42.07	8893.25	938.66	891.89	1294.82	1294.82	43.54	2.65	MWD-SDI
10075.00	89.13	40.56	8893.67	962.70	913.01	1326.79	1326.79	43.48	4.77	MWD-SDI
10107.00	89.40	40.95	8894.08	986.93	933.90	1358.75	1358.75	43.42	1.48	MWD-SDI
10138.00	90.17	42.06	8894.20	1010.15	954.45	1389.74	1389.74	43.38	4.36	MWD-SDI
10170.00	90.64	42.32	8893.97	1033.86	975.94	1421.73	1421.73	43.35	1.68	MWD-SDI
10202.00	90.77	43.02	8893.58	1057.38	997.62	1453.72	1453.72	43.33	2.22	MWD-SDI
10233.00	91.34	42.81	8893.00	1080.08	1018.73	1484.72	1484.72	43.33	1.96	MWD-SDI
10265.00	91.38	44.12	8892.25	1103.30	1040.73	1516.71	1516.71	43.33	4.09	MWD-SDI
10297.00	91.68	43.94	8891.39	1126.30	1062.97	1548.69	1548.69	43.34	1.09	MWD-SDI
10329.00	89.56	44.50	8891.04	1149.23	1085.28	1580.69	1580.69	43.36	6.85	MWD-SDI
10359.00	88.52	44.25	8891.55	1170.67	1106.26	1610.68	1610.68	43.38	3.57	MWD-SDI
10391.00	90.24	44.77	8891.89	1193.49	1128.69	1642.67	1642.67	43.40	5.62	MWD-SDI
10422.00	91.44	44.43	8891.44	1215.56	1150.45	1673.66	1673.66	43.42	4.02	MWD-SDI
10454.00	92.66	44.17	8890.29	1238.45	1172.79	1705.63	1705.63	43.44	3.90	MWD-SDI
10486.00	91.58	43.82	8889.11	1261.45	1195.00	1737.61	1737.61	43.45	3.55	MWD-SDI
10517.00	90.70	43.01	8888.49	1283.96	1216.30	1768.60	1768.60	43.45	3.86	MWD-SDI
10549.00	91.11	42.17	8887.99	1307.52	1237.95	1800.59	1800.59	43.43	2.92	MWD-SDI
10581.00	90.70	43.88	8887.48	1330.91	1259.78	1832.59	1832.59	43.43	5.49	MWD-SDI
10605.00	91.11	43.23	8887.10	1348.30	1276.32	1856.58	1856.58	43.43	3.20	MWD-SDI
10650.00	91.11	43.23	8886.23	1381.08	1307.14	1901.58	1901.58	43.42	0.00	Projected Depth