

Results of Directional Survey

HORIZONTAL LATERAL 01

API number:	30-005-29114		
OGRID:		Operator:	MARSHALL & WINSTON INC
		Property:	CAPROCK 35 STATE # 1H

surface	ULSTR:	M	35		T 14S		R 31E
			660	FSL		330	FWL

BH Loc	ULSTR:	P	35		T 14S		R 31E
			692	FSL		1310	FEL
						3970	FWL

Top Perf/OH	ULSTR:	M	35		T 14S		R 31E
			9105			663	FSL
						813	FWL

Bot Perf/OH	ULSTR:	P	35		T 14S		R 31E
			12267			692	FSL
						1310	FEL
						3970	FWL

	MD	N/S	E/W	VD
	9050	2.80	427.62	8763.36
TOP PERFS/OH	9105	3.43	482.60	8764.22
	9156	4.01	533.59	8765.02
	12203	32.15	3575.66	8910.66
BOT PERFS/OH	12267	31.77	3639.66	8911.16
	12235	31.96	3607.66	8910.91

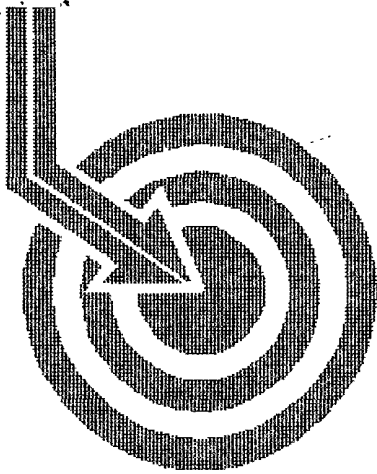
NEXT TO LAST	12203	32.15	3575.66	8910.66
LAST READING	12235	31.96	3607.66	8910.91
TD	12267	31.77	3639.66	8911.16

Surface Location	660	FS	330	FW
Projected BHL	692	FS	3970	FW
Location of				
Top Perfs/OH	663	FS	813	FW
Bottom Perfs/OH	692	FS	3970	FW

SUMMARY of Subsurface Locations

Surface Location	M-35-14S-31E	660	FS	330	FW	Vert. Depth
Top Perfs/OH	M-35-14S-31E	663	FS	813	FW	8764.22
Bottom Perfs/OH	P-35-14S-31E	692	FS	3970	FW	8911.16
Projected TD	P-35-14S-31E	692	FS	3970	FW	8911.16

MAR 21 2012



Scientific Drilling

HOBBS OCD

MAR 16 2012

RECEIVED

MARSHALL & WINSTON

Field: Wildcat
Site: Chaves County, NM
Well: Caprock 35 State #1H
Wellpath: VH - Job #32K0310200
Survey: 03/20/10

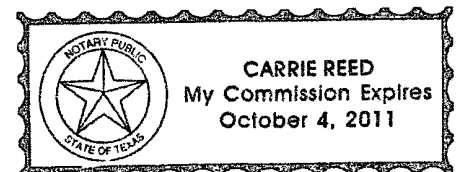
SUR: M-35-14s-31e, 660/S & 330/W
BHL: P-35-14s-31e, 692/S & 3970/W
API# 30-005-29114

This survey is correct to the best of my knowledge and is supported by actual field data.

[Signature]
Company Representative

Notarized this date 13th of April, 2010.

Carrie Reed
Notary Signature
County of Midland
State of Texas





Scientific Drilling International Inc.

Survey Report

Company: MARSHALL & WINSTON Field: Wjldcat Site: Chaves County, NM Well: Caprock 35 State #1H Wellpath: VH - Job #32K031020ϕ	Date: 3/25/2010 Time: 15:12:49 Page: 1 Co-ordinate(NE) Reference: Site: Chaves County, NM, Grid North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,89.58Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Survey: 03/20/10 KSRG 0'-8339' Company: Scientific Drilling Internatio Tool: KSRG, Keeper Gyro	Start Date: 3/20/2010 Engineer: Garza/Williams/Renteria Tied-to: From Surface
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Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ClsD ft	ClsA deg
0.0	0.00	359.71	0.0	0.0	0.0	0.0	0.00	0.0	0.00
100.0	0.32	216.84	100.0	-0.2	-0.2	-0.2	0.32	0.3	216.84
200.0	0.30	192.49	200.0	-0.4	-0.7	-0.4	0.13	0.8	209.13
300.0	0.39	207.27	300.0	-0.6	-1.3	-0.6	0.13	1.4	205.60
400.0	0.50	188.63	400.0	-0.8	-2.0	-0.8	0.18	2.2	202.48
500.0	0.47	190.39	500.0	-1.0	-2.8	-1.0	0.03	3.0	198.83
600.0	0.61	190.48	600.0	-1.2	-3.8	-1.1	0.14	3.9	196.82
700.0	0.37	183.76	700.0	-1.3	-4.6	-1.3	0.25	4.8	195.24
800.0	0.49	187.92	800.0	-1.4	-5.3	-1.3	0.12	5.5	194.00
900.0	0.44	190.16	900.0	-1.5	-6.1	-1.5	0.05	6.3	193.36
1000.0	0.35	194.92	1000.0	-1.7	-6.8	-1.6	0.10	7.0	193.25
1100.0	0.31	191.56	1100.0	-1.8	-7.4	-1.7	0.04	7.6	193.26
1200.0	0.18	182.02	1200.0	-1.9	-7.8	-1.8	0.14	8.0	192.98
1300.0	0.16	179.78	1300.0	-1.9	-8.1	-1.8	0.02	8.3	192.56
1400.0	0.12	152.60	1400.0	-1.8	-8.3	-1.8	0.08	8.5	191.90
1500.0	0.06	66.68	1500.0	-1.7	-8.4	-1.7	0.13	8.6	191.17
1600.0	0.11	38.72	1600.0	-1.6	-8.3	-1.6	0.06	8.5	190.57
1700.0	0.10	67.18	1700.0	-1.5	-8.2	-1.4	0.05	8.3	189.76
1800.0	0.32	48.27	1800.0	-1.2	-8.0	-1.1	0.23	8.1	188.00
1900.0	0.95	69.11	1900.0	-0.2	-7.5	-0.1	0.66	7.5	181.06
2000.0	1.12	68.82	1999.9	1.5	-6.9	1.5	0.17	7.0	167.28
2100.0	1.11	68.92	2099.9	3.3	-6.2	3.4	0.01	7.0	151.34
2200.0	0.88	60.15	2199.9	4.9	-5.4	4.9	0.28	7.3	137.70
2300.0	0.84	68.77	2299.9	6.2	-4.8	6.3	0.14	7.9	127.22
2400.0	0.78	64.81	2399.9	7.5	-4.2	7.6	0.08	8.7	119.09
2500.0	0.72	64.15	2499.9	8.7	-3.7	8.8	0.06	9.5	112.63
2600.0	0.56	66.47	2599.9	9.8	-3.2	9.8	0.16	10.3	108.04
2700.0	0.54	66.74	2699.9	10.6	-2.8	10.7	0.02	11.0	104.74
2800.0	0.46	69.61	2799.9	11.4	-2.5	11.5	0.08	11.7	102.19
2900.0	0.41	66.66	2899.9	12.2	-2.2	12.2	0.05	12.4	100.23
3000.0	0.25	35.51	2999.9	12.6	-1.9	12.6	0.23	12.8	98.45
3100.0	0.29	349.07	3099.9	12.7	-1.4	12.7	0.22	12.8	96.51
3200.0	0.37	347.89	3199.9	12.6	-0.9	12.6	0.08	12.6	94.02
3300.0	0.30	315.74	3299.9	12.3	-0.4	12.3	0.20	12.3	91.78
3400.0	0.29	316.29	3399.9	12.0	0.0	12.0	0.01	12.0	90.06
3500.0	0.34	329.41	3499.9	11.7	0.4	11.7	0.09	11.7	87.90
3600.0	0.28	316.44	3599.9	11.3	0.9	11.3	0.09	11.4	85.67
3700.0	0.28	296.91	3699.9	11.0	1.1	10.9	0.09	11.0	84.02
3800.0	0.30	295.07	3799.9	10.5	1.4	10.5	0.02	10.6	82.57
3900.0	0.31	286.04	3899.9	10.0	1.6	10.0	0.05	10.1	81.17
4000.0	0.31	281.15	3999.8	9.5	1.7	9.5	0.03	9.6	79.94
4100.0	0.32	293.96	4099.8	9.0	1.8	9.0	0.07	9.1	78.34
4200.0	0.33	304.64	4199.8	8.5	2.1	8.5	0.06	8.7	75.91
4300.0	0.41	313.18	4299.8	8.0	2.5	8.0	0.10	8.4	72.36
4400.0	0.44	322.79	4399.8	7.5	3.1	7.5	0.08	8.1	67.57
4500.0	0.40	311.23	4499.8	7.0	3.6	7.0	0.09	7.9	62.57
4600.0	0.41	319.38	4599.8	6.5	4.1	6.5	0.06	7.7	57.54
4700.0	0.38	325.24	4699.8	6.1	4.7	6.1	0.05	7.6	52.39
4800.0	0.16	277.75	4799.8	5.8	5.0	5.7	0.30	7.6	49.14



Scientific Drilling International Inc.

Survey Report

Company: MARSHALL & WINSTON Field: Wildcat Site: Chaves County, NM Well: Caprock 35 State #1H Wellpath: VH - Job #32K0310201	Date: 3/25/2010 Time: 15:12:49 Page: 2 Co-ordinate(NE) Reference: Site: Chaves County, NM, Grid North Vertical (TVD) Reference: SITE 0.0 Section (VS) Reference: Well (0.00N,0.00E,89.58Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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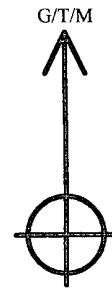
Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	CisD ft	CisA deg
4900.0	0.21	258.14	4899.8	5.4	4.9	5.4	0.08	7.3	47.62
5000.0	0.23	311.18	4999.8	5.1	5.0	5.1	0.20	7.1	45.28
5100.0	0.02	113.99	5099.8	5.0	5.2	4.9	0.25	7.1	43.80
5200.0	0.08	143.28	5199.8	5.0	5.1	5.0	0.06	7.1	44.48
5300.0	0.12	154.79	5299.8	5.1	4.9	5.1	0.04	7.1	45.84
5400.0	0.14	207.28	5399.8	5.1	4.7	5.1	0.12	6.9	46.97
5500.0	0.26	263.17	5499.8	4.8	4.6	4.8	0.22	6.6	46.17
5600.0	0.27	287.00	5599.8	4.4	4.6	4.3	0.11	6.4	43.09
5700.0	0.25	302.07	5699.8	4.0	4.8	3.9	0.07	6.2	39.17
5800.0	0.24	304.60	5799.8	3.6	5.1	3.6	0.01	6.2	35.24
5900.0	0.45	297.60	5899.8	3.1	5.4	3.1	0.21	6.2	29.68
6000.0	0.57	281.80	5999.8	2.3	5.6	2.2	0.18	6.1	21.48
6100.0	0.70	286.41	6099.8	1.2	5.9	1.1	0.14	6.0	10.98
6200.0	0.73	283.74	6199.8	0.0	6.2	-0.1	0.04	6.2	359.50
6300.0	0.77	290.01	6299.8	-1.3	6.6	-1.3	0.09	6.8	348.86
6400.0	0.77	285.61	6399.8	-2.5	7.0	-2.6	0.06	7.5	339.85
6500.0	0.73	278.78	6499.8	-3.8	7.3	-3.9	0.10	8.3	332.19
6600.0	0.73	283.21	6599.8	-5.1	7.6	-5.1	0.06	9.1	325.94
6700.0	0.69	296.51	6699.8	-6.2	8.0	-6.3	0.17	10.1	321.83
6800.0	0.70	299.94	6799.8	-7.3	8.5	-7.3	0.04	11.3	319.36
6900.0	0.69	295.43	6899.8	-8.3	9.1	-8.4	0.06	12.4	317.29
7000.0	0.55	296.73	6999.7	-9.3	9.6	-9.4	0.14	13.4	315.61
7100.0	0.57	285.04	7099.7	-10.2	9.9	-10.3	0.12	14.3	313.98
7200.0	0.62	273.48	7199.7	-11.2	10.1	-11.3	0.13	15.2	311.74
7300.0	0.53	275.21	7299.7	-12.2	10.2	-12.3	0.09	16.0	309.55
7400.0	0.35	276.01	7399.7	-13.0	10.2	-13.1	0.18	16.6	308.07
7500.0	0.15	103.33	7499.7	-13.2	10.2	-13.3	0.50	16.8	307.70
7600.0	0.19	117.16	7599.7	-12.9	10.1	-13.0	0.06	16.5	307.99
7700.0	0.16	131.92	7699.7	-12.7	10.0	-12.7	0.05	16.2	308.07
7800.0	0.15	107.88	7799.7	-12.4	9.8	-12.5	0.07	15.9	308.20
7900.0	0.21	75.82	7899.7	-12.1	9.8	-12.2	0.11	15.7	308.90
8000.0	0.35	90.33	7999.7	-11.6	9.9	-11.7	0.16	15.3	310.16
8100.0	0.39	79.02	8099.7	-11.0	9.9	-11.1	0.08	14.9	311.93
8200.0	0.48	78.85	8199.7	-10.3	10.1	-10.3	0.09	14.4	314.34
8300.0	0.69	99.31	8299.7	-9.2	10.1	-9.3	0.29	13.7	317.22
8339.0	0.84	75.53	8338.7	-8.7	10.1	-8.8	0.89	13.4	318.91



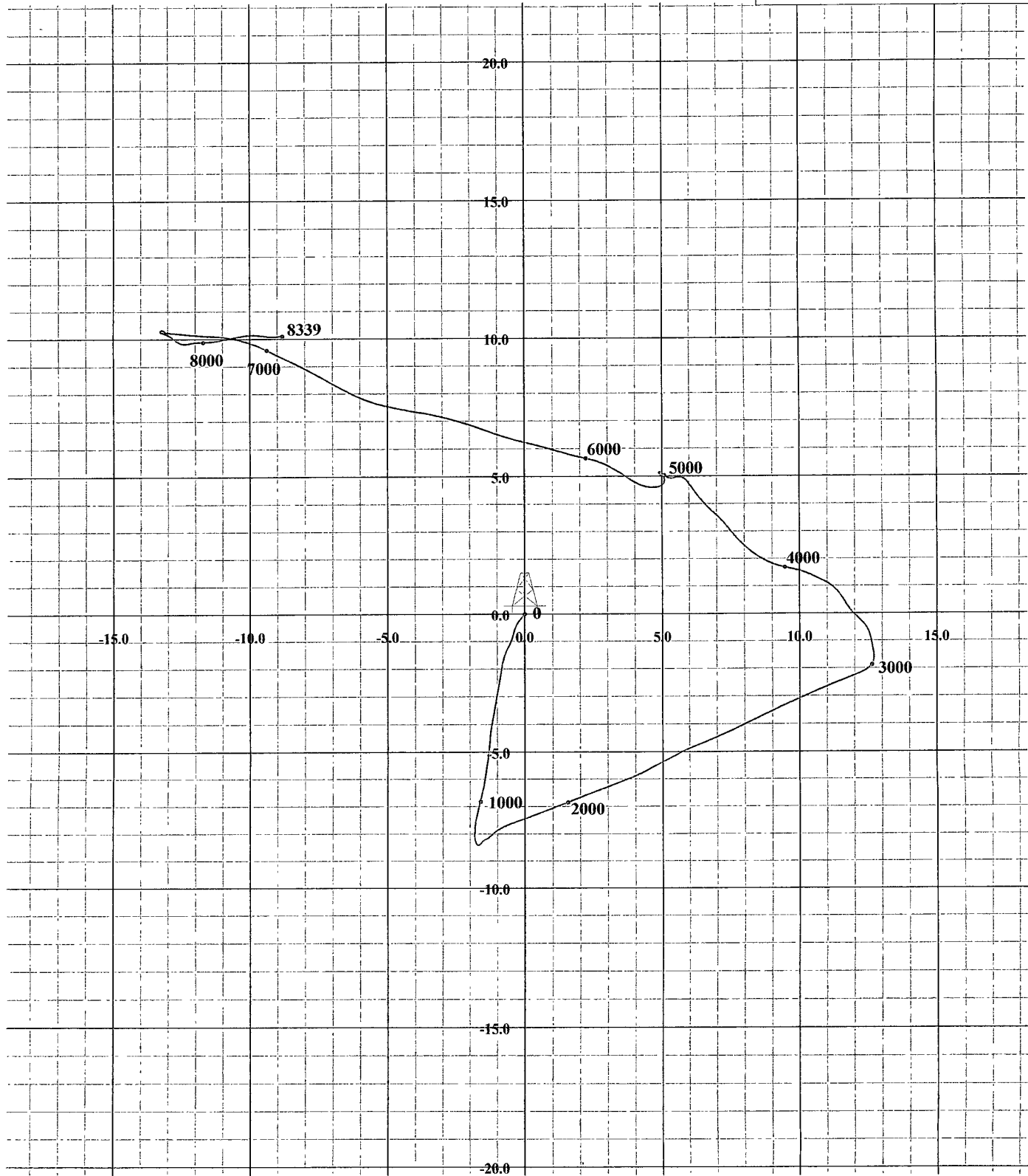
Scientific
Drilling

Field: Wildcat
Site: Chaves County, NM
Well: Caprock 35 State #1H
Survey: 03/20/10



Azimuths to Grid North
True North 0 00°
Magnetic North 0 00°
Magnetic Field
Dip Angle. 0 00°
Date: 3/25/2010
Model igrf2000

South(-)/North(+) [5ft/in]



West(-)/East(+) [5ft/in]

Marshall & Winston, INC

Location: Chaves County, NM
 Field: (Caprock) Sec 35, T14S, R31E
 Facility: Caprock State 35 No. 1H

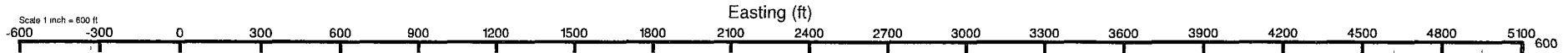
Slot: No. 1H SHL
 Well: No 1H
 Wellbore: No. 1H PWB

Plot reference wellpath vs Plan #1 vs Actual <FINAL>

True vertical depths are referenced to Rig on No 1H SHL (RT)	Grid System NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 1H SHL (RT)	North Reference Grid north
Rig on No 1H SHL (RT) to Mean Sea Level 4420 feet	Scale True distance
Mean Sea Level to Mud line (Facility Caprock State 35 No 1H) -4402 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by Victor Hernandez on 4/5/2010



Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%/100ft)	VS (ft)
Tie On	8339.00	0.840	75.530	8338.71	10.11	-8.82	0.00	-8.74
EST. KOP	8392.00	0.840	89.000	8391.70	10.21	-8.05	0.37	-7.98
END OF CURVE	8986.41	90.001	89.713	8768.08	12.20	373.88	15.00	373.96
No 1H PBHL	13235.67	90.001	89.713	8768.00	33.50	4623.09	0.00	4623.21

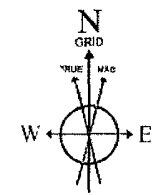
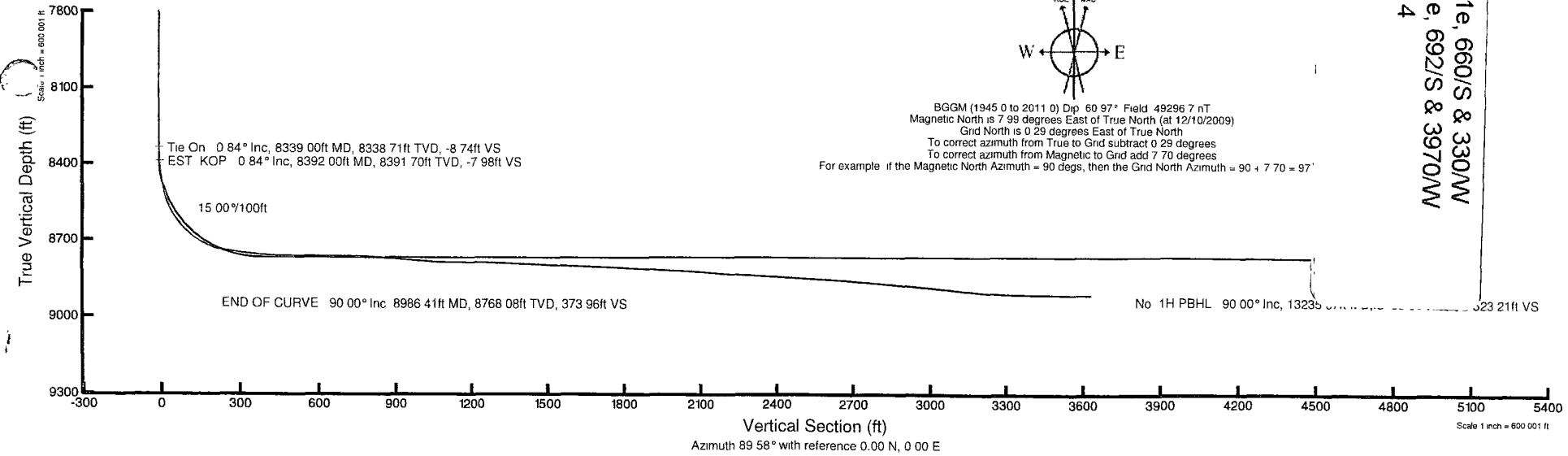


Tie On 8338 71ft TVD, 10 11ft N, 8 82ft W
 EST KOP 8391 70ft TVD, 10 21ft N, 8 05ft W

No. 1H SHL 660' FSL 330' FWL
 END OF CURVE 8768 08ft TVD, 12 20ft N, 373 88ft E
 No 1H PBHL 8768 00ft TVD, 33 50ft N, 4623 09ft E
 No 1H PBHL 660' FSL 330' FEL

Northing (ft)

SUR: M-35-14s-31e, 660/S & 330/W
 BHL: P-35-14s-31e, 692/S & 3970/W
 API# 30-005-29114



BGGM (1945 0 to 2011 0) Dip 60 97° Field 49296 7 nT
 Magnetic North is 7 99 degrees East of True North (at 12/10/2009)
 Grid North is 0 29 degrees East of True North
 To correct azimuth from True to Grid subtract 0 29 degrees
 To correct azimuth from Magnetic to Grid add 7 70 degrees
 For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7 70 = 97°

Tie On 0 84° Inc, 8339 00ft MD, 8338 71ft TVD, -8 74ft VS
 EST KOP 0 84° Inc, 8392 00ft MD, 8391 70ft TVD, -7 98ft VS

15 00%/100ft

END OF CURVE 90 00° Inc, 8986 41ft MD, 8768 08ft TVD, 373 96ft VS

No 1H PBHL 90 00° Inc, 13235 67ft MD, 8768 00ft TVD, 4623 09ft VS

Azimuth 89 58° with reference 0.00 N, 0 00 E

Scale 1 inch = 600.001 ft

Actual Wellpath Report

No. 1H AWP

Page 1 of 9

REFERENCE WELLPATH IDENTIFICATION

Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.99994	Report Generated	4/5/2010 at 9:34:32 AM
Convergence at slot	0.29° East	Database/Source file	WA_Midland/No. 1H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	663606.40	747573.60	33°03'14.389"N	103°47'57.720"W
Facility Reference Pt			663606.40	747573.60	33°03'14.389"N	103°47'57.720"W
Field Reference Pt			663606.40	747573.60	33°03'14.389"N	103°47'57.720"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1H SHL (RT) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 1H SHL (RT) to Mean Sea Level	4420.00ft
Vertical Reference Pt	Rig on No. 1H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.58°

Actual Wellpath Report

No. 1H AWP

Page 2 of 9

INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWP
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
0.00	0.000	216.840	0.00	0.00	0.00	0.00	663606.40	747573.60	33°03'14.389"N	103°47'57.720"W	0.00
100.00	0.320	216.840	100.00	-0.17	-0.22	-0.17	663606.23	747573.38	33°03'14.387"N	103°47'57.722"W	0.32
200.00	0.300	192.490	200.00	-0.40	-0.70	-0.39	663606.01	747572.90	33°03'14.382"N	103°47'57.725"W	0.13
300.00	0.390	207.270	300.00	-0.61	-1.26	-0.60	663605.80	747572.34	33°03'14.377"N	103°47'57.727"W	0.13
400.00	0.500	188.630	399.99	-0.84	-1.99	-0.83	663605.57	747571.61	33°03'14.370"N	103°47'57.730"W	0.18
500.00	0.470	190.390	499.99	-0.99	-2.83	-0.96	663605.44	747570.77	33°03'14.361"N	103°47'57.732"W	0.03
600.00	0.610	190.480	599.99	-1.16	-3.76	-1.14	663605.26	747569.84	33°03'14.352"N	103°47'57.734"W	0.14
700.00	0.370	183.760	699.98	-1.29	-4.60	-1.25	663605.15	747569.00	33°03'14.344"N	103°47'57.735"W	0.25
800.00	0.490	187.920	799.98	-1.37	-5.35	-1.33	663605.07	747568.25	33°03'14.336"N	103°47'57.736"W	0.12
900.00	0.440	190.160	899.98	-1.50	-6.15	-1.46	663604.94	747567.45	33°03'14.328"N	103°47'57.738"W	0.05
1000.00	0.350	194.920	999.97	-1.66	-6.82	-1.61	663604.79	747566.78	33°03'14.322"N	103°47'57.740"W	0.10
1100.00	0.310	191.560	1099.97	-1.79	-7.38	-1.74	663604.66	747566.22	33°03'14.316"N	103°47'57.741"W	0.04
1200.00	0.180	182.020	1199.97	-1.86	-7.80	-1.80	663604.60	747565.80	33°03'14.312"N	103°47'57.742"W	0.14
1300.00	0.160	179.780	1299.97	-1.86	-8.10	-1.80	663604.60	747565.50	33°03'14.309"N	103°47'57.742"W	0.02
1400.00	0.120	152.600	1399.97	-1.82	-8.33	-1.76	663604.64	747565.27	33°03'14.307"N	103°47'57.741"W	0.08
1500.00	0.060	66.680	1499.97	-1.72	-8.41	-1.66	663604.74	747565.19	33°03'14.306"N	103°47'57.740"W	0.13
1600.00	0.110	38.720	1599.97	-1.61	-8.31	-1.55	663604.85	747565.29	33°03'14.307"N	103°47'57.739"W	0.06
1700.00	0.100	67.180	1699.97	-1.47	-8.20	-1.41	663604.99	747565.40	33°03'14.308"N	103°47'57.737"W	0.05
1800.00	0.320	48.270	1799.97	-1.18	-7.98	-1.12	663605.28	747565.62	33°03'14.310"N	103°47'57.734"W	0.23
1900.00	0.950	69.110	1899.96	-0.19	-7.50	-0.14	663606.26	747566.10	33°03'14.315"N	103°47'57.722"W	0.66
2000.00	1.120	68.820	1999.95	1.50	-6.85	1.55	663607.95	747566.75	33°03'14.321"N	103°47'57.703"W	0.17
2100.00	1.110	68.920	2099.93	3.32	-6.15	3.36	663609.76	747567.45	33°03'14.328"N	103°47'57.681"W	0.01
2200.00	0.880	60.150	2199.91	4.89	-5.42	4.93	663611.33	747568.18	33°03'14.335"N	103°47'57.663"W	0.28
2300.00	0.840	68.770	2299.90	6.25	-4.77	6.28	663612.68	747568.83	33°03'14.342"N	103°47'57.647"W	0.14
2400.00	0.780	64.810	2399.89	7.55	-4.22	7.58	663613.98	747569.38	33°03'14.347"N	103°47'57.632"W	0.08
2500.00	0.720	64.150	2499.88	8.73	-3.65	8.76	663615.16	747569.95	33°03'14.353"N	103°47'57.618"W	0.06
2600.00	0.560	66.470	2599.88	9.75	-3.18	9.78	663616.17	747570.42	33°03'14.357"N	103°47'57.606"W	0.16
2700.00	0.540	66.740	2699.87	10.64	-2.80	10.66	663617.06	747570.80	33°03'14.361"N	103°47'57.595"W	0.02
2800.00	0.460	69.610	2799.87	11.45	-2.48	11.47	663617.86	747571.12	33°03'14.364"N	103°47'57.586"W	0.08
2900.00	0.410	66.660	2899.86	12.15	-2.20	12.17	663618.57	747571.40	33°03'14.367"N	103°47'57.577"W	0.05



Actual Wellpath Report

No. 1H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWP
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

Depth [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
3000.00	0.250	35.510	2999.86	12.61	-1.88	12.63	663619.02	747571.72	33°03'14.370"N	103°47'57.572"W	0.23
3100.00	0.290	349.070	3099.86	12.69	-1.45	12.70	663619.10	747572.15	33°03'14.374"N	103°47'57.571"W	0.22
3200.00	0.370	347.890	3199.86	12.58	-0.89	12.59	663618.99	747572.71	33°03'14.380"N	103°47'57.572"W	0.08
3300.00	0.300	315.740	3299.86	12.33	-0.38	12.34	663618.74	747573.22	33°03'14.385"N	103°47'57.575"W	0.20
3400.00	0.290	316.290	3399.86	11.98	-0.01	11.98	663618.38	747573.59	33°03'14.388"N	103°47'57.580"W	0.01
3500.00	0.340	329.410	3499.86	11.66	0.43	11.65	663618.05	747574.03	33°03'14.393"N	103°47'57.583"W	0.09
3600.00	0.280	316.440	3599.85	11.34	0.86	11.33	663617.73	747574.46	33°03'14.397"N	103°47'57.587"W	0.09
3700.00	0.280	296.910	3699.85	10.96	1.15	10.95	663617.35	747574.75	33°03'14.400"N	103°47'57.592"W	0.09
3800.00	0.300	295.070	3799.85	10.50	1.37	10.49	663616.89	747574.97	33°03'14.402"N	103°47'57.597"W	0.02
3900.00	0.310	286.040	3899.85	10.01	1.55	10.00	663616.40	747575.15	33°03'14.404"N	103°47'57.603"W	0.05
4000.00	0.310	281.150	3999.85	9.48	1.68	9.47	663615.87	747575.28	33°03'14.405"N	103°47'57.609"W	0.03
4100.00	0.320	293.960	4099.85	8.96	1.85	8.95	663615.35	747575.45	33°03'14.407"N	103°47'57.615"W	0.07
4200.00	0.330	304.640	4199.85	8.47	2.12	8.46	663614.86	747575.72	33°03'14.410"N	103°47'57.621"W	0.06
4300.00	0.410	313.180	4299.84	7.98	2.53	7.96	663614.36	747576.13	33°03'14.414"N	103°47'57.627"W	0.10
4400.00	0.440	322.790	4399.84	7.49	3.08	7.47	663613.87	747576.68	33°03'14.419"N	103°47'57.632"W	0.08
4500.00	0.400	311.230	4499.84	7.00	3.62	6.97	663613.37	747577.22	33°03'14.425"N	103°47'57.638"W	0.09
4600.00	0.410	319.380	4599.84	6.51	4.12	6.48	663612.88	747577.72	33°03'14.430"N	103°47'57.644"W	0.06
4700.00	0.380	325.240	4699.83	6.09	4.66	6.06	663612.45	747578.26	33°03'14.435"N	103°47'57.649"W	0.05
4800.00	0.160	277.750	4799.83	5.76	4.96	5.73	663612.13	747578.56	33°03'14.438"N	103°47'57.653"W	0.30
4900.00	0.210	258.140	4899.83	5.45	4.94	5.41	663611.81	747578.54	33°03'14.438"N	103°47'57.656"W	0.08
5000.00	0.230	311.180	4999.83	5.12	5.03	5.08	663611.48	747578.63	33°03'14.439"N	103°47'57.660"W	0.20
5100.00	0.020	113.990	5099.83	4.98	5.16	4.94	663611.34	747578.76	33°03'14.440"N	103°47'57.662"W	0.25
5200.00	0.080	143.280	5199.83	5.04	5.09	5.00	663611.40	747578.69	33°03'14.439"N	103°47'57.661"W	0.06
5300.00	0.120	154.790	5299.83	5.12	4.94	5.09	663611.49	747578.54	33°03'14.438"N	103°47'57.660"W	0.04
5400.00	0.140	207.280	5399.83	5.11	4.74	5.08	663611.48	747578.34	33°03'14.436"N	103°47'57.660"W	0.12
5500.00	0.260	263.170	5499.83	4.83	4.60	4.80	663611.20	747578.20	33°03'14.435"N	103°47'57.664"W	0.22
5600.00	0.270	287.000	5599.83	4.38	4.65	4.35	663610.75	747578.25	33°03'14.435"N	103°47'57.669"W	0.11
5700.00	0.250	302.070	5699.83	3.97	4.83	3.94	663610.33	747578.43	33°03'14.437"N	103°47'57.674"W	0.07
5800.00	0.240	304.600	5799.83	3.61	5.06	3.58	663609.98	747578.66	33°03'14.439"N	103°47'57.678"W	0.01
5900.00	0.450	297.600	5899.83	3.10	5.37	3.06	663609.46	747578.97	33°03'14.442"N	103°47'57.684"W	0.21

Actual Wellpath Report

No. 1H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

ID	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
6000.00	0.570	281.800	5999.82	2.26	5.65	2.22	663608.62	747579.25	33°03'14.445"N	103°47'57.694"W	0.18
6100.00	0.700	286.410	6099.81	1.19	5.92	1.15	663607.55	747579.52	33°03'14.448"N	103°47'57.706"W	0.14
6200.00	0.730	283.740	6199.81	-0.01	6.25	-0.06	663606.34	747579.85	33°03'14.451"N	103°47'57.721"W	0.04
6300.00	0.770	290.010	6299.80	-1.26	6.63	-1.31	663605.09	747580.23	33°03'14.455"N	103°47'57.735"W	0.09
6400.00	0.770	285.610	6399.79	-2.53	7.04	-2.58	663603.82	747580.64	33°03'14.459"N	103°47'57.750"W	0.06
6500.00	0.730	278.780	6499.78	-3.81	7.32	-3.86	663602.54	747580.92	33°03'14.462"N	103°47'57.765"W	0.10
6600.00	0.730	283.210	6599.77	-5.06	7.56	-5.11	663601.29	747581.16	33°03'14.464"N	103°47'57.780"W	0.06
6700.00	0.690	296.510	6699.77	-6.21	7.97	-6.27	663600.13	747581.57	33°03'14.468"N	103°47'57.794"W	0.17
6800.00	0.700	299.940	6799.76	-7.28	8.55	-7.34	663599.06	747582.15	33°03'14.474"N	103°47'57.806"W	0.04
6900.00	0.690	295.430	6899.75	-8.34	9.11	-8.41	663597.99	747582.71	33°03'14.480"N	103°47'57.819"W	0.06
7000.00	0.550	296.730	6999.74	-9.31	9.59	-9.38	663597.02	747583.19	33°03'14.485"N	103°47'57.830"W	0.14
7100.00	0.570	285.040	7099.74	-10.22	9.93	-10.29	663596.11	747583.53	33°03'14.488"N	103°47'57.841"W	0.12
7200.00	0.620	273.480	7199.73	-11.24	10.09	-11.31	663595.09	747583.69	33°03'14.490"N	103°47'57.853"W	0.13
7300.00	0.530	275.210	7299.73	-12.24	10.17	-12.31	663594.09	747583.77	33°03'14.490"N	103°47'57.864"W	0.09
7400.00	0.350	276.010	7399.73	-13.00	10.24	-13.08	663593.32	747583.84	33°03'14.491"N	103°47'57.873"W	0.18
7500.00	0.150	103.330	7499.73	-13.18	10.24	-13.25	663593.15	747583.84	33°03'14.491"N	103°47'57.875"W	0.50
7600.00	0.190	117.160	7599.73	-12.90	10.14	-12.98	663593.42	747583.74	33°03'14.490"N	103°47'57.872"W	0.06
7700.00	0.160	131.920	7699.73	-12.65	9.97	-12.73	663593.67	747583.57	33°03'14.488"N	103°47'57.869"W	0.05
7800.00	0.150	107.880	7799.72	-12.43	9.84	-12.50	663593.90	747583.43	33°03'14.487"N	103°47'57.867"W	0.07
7900.00	0.210	75.820	7899.72	-12.13	9.84	-12.20	663594.20	747583.44	33°03'14.487"N	103°47'57.863"W	0.11
8000.00	0.350	90.330	7999.72	-11.64	9.88	-11.71	663594.69	747583.48	33°03'14.488"N	103°47'57.857"W	0.16
8100.00	0.390	79.020	8099.72	-11.00	9.95	-11.07	663595.33	747583.55	33°03'14.488"N	103°47'57.850"W	0.08
8200.00	0.480	78.850	8199.72	-10.26	10.09	-10.33	663596.07	747583.69	33°03'14.490"N	103°47'57.841"W	0.09
8300.00	0.690	99.310	8299.71	-9.25	10.08	-9.32	663597.08	747583.68	33°03'14.489"N	103°47'57.829"W	0.29
8339.00	0.840	75.530	8338.71	-8.74	10.11	-8.82	663597.59	747583.71	33°03'14.490"N	103°47'57.823"W	0.89
8447.00	7.500	114.700	8446.37	-1.58	7.36	-1.64	663604.76	747580.96	33°03'14.462"N	103°47'57.739"W	6.36
8478.00	10.800	120.000	8476.97	2.75	5.06	2.72	663609.12	747578.66	33°03'14.439"N	103°47'57.688"W	10.98
8510.00	14.300	117.400	8508.20	8.84	1.74	8.83	663615.22	747575.34	33°03'14.406"N	103°47'57.617"W	11.08
8542.00	19.300	114.800	8538.83	17.12	-2.30	17.14	663623.54	747571.30	33°03'14.366"N	103°47'57.519"W	15.80
8574.00	24.900	112.800	8568.47	28.11	-7.13	28.16	663634.56	747566.47	33°03'14.317"N	103°47'57.390"W	17.65



Actual Wellpath Report

No. 1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
8606.00	30.400	108.200	8596.80	41.98	-12.27	42.07	663648.47	747561.33	33°03'14.266"N	103°47'57.227"W	18.43
8637.00	35.900	103.500	8622.75	58.25	-16.85	58.38	663664.77	747556.75	33°03'14.220"N	103°47'57.036"W	19.57
8669.00	41.500	96.800	8647.73	77.90	-20.30	78.05	663684.45	747553.30	33°03'14.184"N	103°47'56.805"W	21.83
8701.00	47.400	90.000	8670.57	100.23	-21.56	100.39	663706.78	747552.04	33°03'14.171"N	103°47'56.542"W	23.67
8733.00	52.700	84.800	8691.12	124.72	-20.40	124.87	663731.26	747553.20	33°03'14.181"N	103°47'56.255"W	20.72
8765.00	59.600	82.700	8708.94	151.14	-17.49	151.27	663757.66	747556.11	33°03'14.209"N	103°47'55.944"W	22.24
8796.00	66.800	81.600	8722.91	178.55	-13.71	178.66	663785.05	747559.89	33°03'14.245"N	103°47'55.622"W	23.44
8828.00	73.200	82.300	8733.85	208.34	-9.50	208.42	663814.80	747564.10	33°03'14.285"N	103°47'55.272"W	20.11
8860.00	78.700	84.500	8741.61	239.19	-5.94	239.24	663845.63	747567.66	33°03'14.318"N	103°47'54.910"W	18.43
8891.00	81.700	86.100	8746.89	269.65	-3.44	269.68	663876.06	747570.16	33°03'14.342"N	103°47'54.552"W	10.93
8923.00	82.600	87.600	8751.26	301.31	-1.70	301.33	663907.71	747571.90	33°03'14.357"N	103°47'54.180"W	5.43
8955.00	83.300	87.400	8755.19	333.05	-0.32	333.06	663939.44	747573.28	33°03'14.369"N	103°47'53.807"W	2.27
8987.00	83.700	87.600	8758.81	364.82	1.07	364.82	663971.20	747574.67	33°03'14.381"N	103°47'53.434"W	1.40
9019.00	85.800	88.400	8761.74	396.67	2.18	396.67	664003.04	747575.78	33°03'14.391"N	103°47'53.060"W	7.02
9050.00	88.200	89.300	8763.36	427.63	2.80	427.62	664033.99	747576.40	33°03'14.395"N	103°47'52.696"W	8.27
9156.00	90.000	89.400	8765.02	533.61	4.01	533.59	664139.96	747577.61	33°03'14.402"N	103°47'51.451"W	1.70
9188.00	89.900	90.100	8765.05	565.61	4.15	565.59	664171.96	747577.75	33°03'14.402"N	103°47'51.075"W	2.21
9219.00	89.800	90.400	8765.13	596.60	4.01	596.59	664202.95	747577.61	33°03'14.399"N	103°47'50.711"W	1.02
9251.00	90.000	90.200	8765.19	628.60	3.84	628.59	664234.95	747577.44	33°03'14.396"N	103°47'50.335"W	0.88
9283.00	89.900	90.100	8765.22	660.60	3.76	660.59	664266.95	747577.36	33°03'14.393"N	103°47'49.959"W	0.44
9312.00	90.000	89.400	8765.24	689.60	3.89	689.59	664295.95	747577.49	33°03'14.393"N	103°47'49.619"W	2.44
9345.00	89.900	89.200	8765.27	722.60	4.29	722.59	664328.94	747577.89	33°03'14.395"N	103°47'49.231"W	0.68
9377.00	89.400	89.200	8765.47	754.60	4.74	754.58	664360.94	747578.34	33°03'14.398"N	103°47'48.855"W	1.56
9409.00	88.300	89.700	8766.11	786.59	5.04	786.58	664392.93	747578.64	33°03'14.399"N	103°47'48.479"W	3.78
9441.00	87.300	89.800	8767.34	818.57	5.18	818.55	664424.90	747578.78	33°03'14.399"N	103°47'48.103"W	3.14
9473.00	86.200	89.900	8769.15	850.51	5.27	850.50	664456.85	747578.87	33°03'14.398"N	103°47'47.728"W	3.45
9504.00	85.300	90.000	8771.45	881.43	5.29	881.41	664487.76	747578.89	33°03'14.397"N	103°47'47.365"W	2.92
9536.00	85.400	89.900	8774.04	913.32	5.32	913.31	664519.65	747578.92	33°03'14.396"N	103°47'46.990"W	0.44
9568.00	85.300	89.300	8776.64	945.22	5.54	945.20	664551.54	747579.14	33°03'14.396"N	103°47'46.616"W	1.89
9600.00	85.200	89.100	8779.29	977.11	5.99	977.09	664583.43	747579.59	33°03'14.399"N	103°47'46.241"W	0.70

Actual Wellpath Report

No. 1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
9632.00	85.300	89.000	8781.94	1009.00	6.52	1008.97	664615.31	747580.12	33°03'14.403"N	103°47'45.866"W	0.44
9664.00	86.200	89.100	8784.31	1040.91	7.05	1040.88	664647.22	747580.65	33°03'14.406"N	103°47'45.491"W	2.83
9696.00	87.600	89.100	8786.04	1072.86	7.55	1072.83	664679.16	747581.15	33°03'14.410"N	103°47'45.116"W	4.37
9728.00	89.100	89.100	8786.96	1104.84	8.05	1104.81	664711.14	747581.65	33°03'14.413"N	103°47'44.740"W	4.69
9759.00	89.400	89.100	8787.37	1135.84	8.54	1135.81	664742.13	747582.14	33°03'14.416"N	103°47'44.376"W	0.97
9791.00	89.300	89.300	8787.73	1167.83	8.98	1167.80	664774.13	747582.58	33°03'14.419"N	103°47'44.000"W	0.70
9823.00	89.400	89.400	8788.09	1199.83	9.35	1199.80	664806.12	747582.95	33°03'14.421"N	103°47'43.624"W	0.44
9855.00	89.500	89.500	8788.40	1231.83	9.66	1231.79	664838.12	747583.25	33°03'14.423"N	103°47'43.248"W	0.44
9887.00	88.900	89.600	8788.85	1263.83	9.91	1263.79	664870.11	747583.51	33°03'14.423"N	103°47'42.872"W	1.90
9918.00	88.800	89.600	8789.47	1294.82	10.12	1294.78	664901.10	747583.72	33°03'14.424"N	103°47'42.508"W	0.32
9950.00	87.800	89.700	8790.42	1326.81	10.32	1326.77	664933.08	747583.92	33°03'14.424"N	103°47'42.133"W	3.14
9982.00	87.600	89.900	8791.70	1358.78	10.43	1358.74	664965.06	747584.03	33°03'14.424"N	103°47'41.757"W	0.88
10013.00	87.700	89.900	8792.97	1389.75	10.48	1389.71	664996.03	747584.08	33°03'14.423"N	103°47'41.393"W	0.32
10045.00	87.800	89.800	8794.23	1421.73	10.57	1421.69	665028.00	747584.17	33°03'14.422"N	103°47'41.017"W	0.44
10077.00	87.400	89.700	8795.57	1453.70	10.71	1453.66	665059.97	747584.31	33°03'14.422"N	103°47'40.642"W	1.29
10109.00	87.800	89.600	8796.91	1485.67	10.90	1485.63	665091.94	747584.50	33°03'14.422"N	103°47'40.266"W	1.29
10140.00	87.900	89.600	8798.07	1516.65	11.12	1516.61	665122.92	747584.72	33°03'14.423"N	103°47'39.902"W	0.32
10172.00	87.900	89.600	8799.24	1548.63	11.34	1548.59	665154.89	747584.94	33°03'14.423"N	103°47'39.526"W	0.00
10204.00	87.800	89.700	8800.45	1580.61	11.54	1580.56	665186.87	747585.14	33°03'14.423"N	103°47'39.151"W	0.44
10236.00	88.100	89.800	8801.59	1612.59	11.68	1612.54	665218.84	747585.28	33°03'14.423"N	103°47'38.775"W	0.99
10268.00	88.200	89.900	8802.62	1644.57	11.76	1644.53	665250.82	747585.36	33°03'14.422"N	103°47'38.399"W	0.44
10300.00	88.000	90.100	8803.68	1676.55	11.76	1676.51	665282.81	747585.36	33°03'14.421"N	103°47'38.024"W	0.88
10331.00	88.100	90.000	8804.74	1707.53	11.73	1707.49	665313.79	747585.33	33°03'14.419"N	103°47'37.660"W	0.46
10363.00	88.100	89.900	8805.80	1739.51	11.76	1739.47	665345.77	747585.36	33°03'14.418"N	103°47'37.284"W	0.31
10394.00	87.400	89.600	8807.02	1770.49	11.90	1770.45	665376.74	747585.50	33°03'14.417"N	103°47'36.920"W	2.46
10426.00	87.000	89.300	8808.58	1802.45	12.20	1802.41	665408.70	747585.80	33°03'14.419"N	103°47'36.544"W	1.56
10458.00	86.800	88.700	8810.31	1834.40	12.76	1834.36	665440.64	747586.36	33°03'14.423"N	103°47'36.169"W	1.97
10489.00	86.800	88.100	8812.04	1865.35	13.63	1865.30	665471.58	747587.22	33°03'14.430"N	103°47'35.806"W	1.93
10521.00	86.700	87.800	8813.86	1897.28	14.77	1897.23	665503.51	747588.37	33°03'14.439"N	103°47'35.430"W	0.99
10553.00	86.900	87.900	8815.64	1929.22	15.97	1929.15	665535.43	747589.57	33°03'14.450"N	103°47'35.055"W	0.70

Actual Wellpath Report

No. 1H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
10585.00	86.900	87.900	8817.37	1961.16	17.14	1961.08	665567.36	747590.74	33°03'14.460"N	103°47'34.680"W	0.00
10617.00	86.900	88.400	8819.10	1993.10	18.17	1993.02	665599.30	747591.77	33°03'14.468"N	103°47'34.305"W	1.56
10649.00	87.000	89.000	8820.81	2025.05	18.89	2024.97	665631.24	747592.49	33°03'14.474"N	103°47'33.929"W	1.90
10681.00	87.000	89.500	8822.48	2057.01	19.31	2056.92	665663.19	747592.91	33°03'14.476"N	103°47'33.554"W	1.56
10713.00	87.100	89.500	8824.13	2088.96	19.59	2088.88	665695.15	747593.19	33°03'14.477"N	103°47'33.179"W	0.31
10745.00	85.900	89.400	8826.08	2120.90	19.90	2120.82	665727.08	747593.50	33°03'14.479"N	103°47'32.803"W	3.76
10777.00	85.100	89.200	8828.59	2152.80	20.29	2152.71	665758.98	747593.89	33°03'14.481"N	103°47'32.429"W	2.58
10808.00	85.600	89.300	8831.10	2183.70	20.69	2183.61	665789.87	747594.29	33°03'14.483"N	103°47'32.066"W	1.64
10840.00	87.000	89.600	8833.17	2215.63	21.00	2215.54	665821.80	747594.60	33°03'14.485"N	103°47'31.690"W	4.47
10872.00	87.200	89.900	8834.79	2247.59	21.14	2247.50	665853.76	747594.74	33°03'14.485"N	103°47'31.315"W	1.13
10903.00	87.100	89.800	8836.33	2278.55	21.22	2278.46	665884.72	747594.82	33°03'14.484"N	103°47'30.951"W	0.46
10935.00	87.200	90.000	8837.92	2310.51	21.27	2310.42	665916.68	747594.87	33°03'14.483"N	103°47'30.576"W	0.70
10967.00	87.000	90.100	8839.54	2342.47	21.25	2342.38	665948.63	747594.85	33°03'14.481"N	103°47'30.200"W	0.70
10999.00	87.000	90.200	8841.21	2374.43	21.16	2374.34	665980.59	747594.76	33°03'14.478"N	103°47'29.825"W	0.31
11030.00	87.100	90.400	8842.81	2405.38	21.00	2405.29	666011.54	747594.60	33°03'14.475"N	103°47'29.461"W	0.72
11062.00	87.000	90.200	8844.46	2437.34	20.83	2437.25	666043.50	747594.43	33°03'14.472"N	103°47'29.086"W	0.70
11094.00	87.000	89.800	8846.13	2469.29	20.83	2469.21	666075.45	747594.43	33°03'14.470"N	103°47'28.710"W	1.25
11125.00	87.100	89.300	8847.73	2500.25	21.08	2500.17	666106.41	747594.68	33°03'14.471"N	103°47'28.347"W	1.64
11157.00	86.900	89.000	8849.40	2532.21	21.55	2532.12	666138.36	747595.15	33°03'14.474"N	103°47'27.971"W	1.13
11189.00	86.900	88.800	8851.13	2564.16	22.16	2564.07	666170.31	747595.76	33°03'14.479"N	103°47'27.596"W	0.62
11221.00	87.000	88.400	8852.83	2596.11	22.95	2596.01	666202.25	747596.54	33°03'14.485"N	103°47'27.220"W	1.29
11252.00	87.000	87.900	8854.46	2627.06	23.94	2626.95	666233.19	747597.54	33°03'14.493"N	103°47'26.857"W	1.61
11283.00	87.000	88.100	8856.08	2658.00	25.02	2657.89	666264.12	747598.62	33°03'14.502"N	103°47'26.493"W	0.64
11315.00	86.500	88.200	8857.89	2689.94	26.06	2689.82	666296.05	747599.65	33°03'14.511"N	103°47'26.118"W	1.59
11346.00	85.500	88.500	8860.06	2720.86	26.95	2720.73	666326.96	747600.55	33°03'14.518"N	103°47'25.755"W	3.37
11378.00	85.300	88.600	8862.62	2752.75	27.75	2752.62	666358.85	747601.35	33°03'14.524"N	103°47'25.380"W	0.70
11410.00	85.400	88.700	8865.22	2784.64	28.51	2784.51	666390.73	747602.10	33°03'14.530"N	103°47'25.006"W	0.44
11442.00	85.400	88.500	8867.78	2816.53	29.28	2816.39	666422.62	747602.88	33°03'14.536"N	103°47'24.631"W	0.62
11474.00	85.100	88.500	8870.43	2848.42	30.12	2848.27	666454.49	747603.72	33°03'14.543"N	103°47'24.256"W	0.94
11505.00	85.100	88.400	8873.08	2879.30	30.95	2879.15	666485.37	747604.55	33°03'14.549"N	103°47'23.894"W	0.32

Actual Wellpath Report

No. 1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

WELLPATH DATA (204 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]
11537.00	85.100	88.600	8875.81	2911.17	31.79	2911.02	666517.24	747605.39	33°03'14.556"N	103°47'23.519"W	0.62
11569.00	84.900	88.800	8878.60	2943.05	32.51	2942.89	666549.11	747606.11	33°03'14.562"N	103°47'23.145"W	0.88
11600.00	85.100	89.200	8881.31	2973.93	33.05	2973.77	666579.98	747606.65	33°03'14.565"N	103°47'22.782"W	1.44
11632.00	85.200	89.200	8884.01	3005.81	33.50	3005.65	666611.86	747607.09	33°03'14.568"N	103°47'22.407"W	0.31
11664.00	84.900	89.500	8886.77	3037.69	33.86	3037.53	666643.74	747607.46	33°03'14.570"N	103°47'22.033"W	1.32
11696.00	84.800	89.900	8889.64	3069.56	34.03	3069.40	666675.61	747607.62	33°03'14.570"N	103°47'21.658"W	1.28
11728.00	84.900	89.800	8892.52	3101.43	34.11	3101.27	666707.48	747607.71	33°03'14.569"N	103°47'21.284"W	0.44
11759.00	85.100	90.000	8895.22	3132.32	34.16	3132.15	666738.36	747607.76	33°03'14.568"N	103°47'20.921"W	0.91
11791.00	85.100	90.600	8897.95	3164.20	34.00	3164.03	666770.24	747607.59	33°03'14.565"N	103°47'20.546"W	1.87
11822.00	84.800	90.700	8900.68	3195.07	33.65	3194.91	666801.11	747607.24	33°03'14.560"N	103°47'20.184"W	1.02
11854.00	86.000	90.200	8903.25	3226.96	33.40	3226.81	666833.01	747606.99	33°03'14.556"N	103°47'19.809"W	4.06
11886.00	86.600	89.900	8905.31	3258.90	33.37	3258.74	666864.94	747606.97	33°03'14.554"N	103°47'19.434"W	2.10
11918.00	87.500	90.000	8906.96	3290.85	33.40	3290.70	666896.89	747606.99	33°03'14.552"N	103°47'19.058"W	2.83
11950.00	88.600	90.000	8908.05	3322.83	33.40	3322.68	666928.87	747606.99	33°03'14.551"N	103°47'18.683"W	3.44
11981.00	89.100	90.300	8908.67	3353.82	33.31	3353.67	666959.86	747606.91	33°03'14.548"N	103°47'18.319"W	1.88
12013.00	89.500	90.700	8909.06	3385.82	33.03	3385.67	666991.86	747606.63	33°03'14.544"N	103°47'17.943"W	1.77
12044.00	89.600	90.600	8909.30	3416.81	32.68	3416.66	667022.85	747606.28	33°03'14.539"N	103°47'17.579"W	0.46
12076.00	89.700	90.200	8909.50	3448.81	32.46	3448.66	667054.85	747606.06	33°03'14.535"N	103°47'17.203"W	1.29
12108.00	89.400	90.000	8909.75	3480.81	32.40	3480.66	667086.85	747606.00	33°03'14.533"N	103°47'16.827"W	1.13
12139.00	89.400	90.100	8910.08	3511.80	32.38	3511.66	667117.84	747605.97	33°03'14.531"N	103°47'16.463"W	0.32
12171.00	89.500	90.200	8910.38	3543.80	32.29	3543.66	667149.84	747605.89	33°03'14.529"N	103°47'16.087"W	0.44
12203.00	89.500	90.300	8910.66	3575.80	32.15	3575.66	667181.83	747605.75	33°03'14.526"N	103°47'15.711"W	0.31
12235.00	89.600	90.400	8910.91	3607.79	31.96	3607.66	667213.83	747605.56	33°03'14.522"N	103°47'15.335"W	0.44
12263.00	89.600	90.400	8911.11	3635.79	31.76	3635.65	667241.83	747605.36	33°03'14.519"N	103°47'15.006"W	0.00

Actual Wellpath Report

No. 1H AWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Marshall & Winston, INC	Slot	No. 1H SHL
Area	Chaves County, NM	Well	No. 1H
Field	(Caprock) Sec 35, T14S, R31E	Wellbore	No. 1H AWB
Facility	Caprock State 35 No. 1H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 1H PBHL		8768.00	33.50	4623.09	668229.20	747607.10	33°03'14.485"N	103°47'03.405"W	point

WELLPATH COMPOSITION Ref Wellbore: No. 1H AWB Ref Wellpath: No. 1H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8339.00	Generic gyro - continuous (Standard)	GYRO <100 - 8339>	No. 1H AWB
8339.00	12235.00	NaviTrak (Standard)	MWD <8447 - 12235>	No. 1H AWB
12235.00	12263.00	Blind Drilling (std)	Projection to bit	No. 1H AWB