



1724-B Townhurst Dr, Houston, Tx 77043
(713) 827-8302
www.nevisenergy.com

Job Number: 205-145

Company: BHEP / Mallon Oil

Lease/Well: Jicarilla 29-02-21 #2

Location: Rio Arriba County

Rig Name: Key 44

RKB:

G.L. or M.S.L.: API #30-039-27460

State/Country: New Mexico

Declination: 10.22° East (Grid)

Grid:

File name: N:\BLACKH-1\2005\5-145J-1\290221#2.SVY

Date/Time: 02-Oct-06 / 16:44

Curve Name: Final NMOCD Filing

API #30-039-27460

TIC 29-2-21 #2

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WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 90.00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

SURF: 640 FN
46

1975 FE (21)
3263

MP 686 FN

1288 FW (22)

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
Tie in w/ Gyro Survey									
3470.00	2.44	108.30	3468.90	20.90	35.90	20.90	41.54	30.21	.00
First Nevis MWD Survey									
3520.00	27.50	66.20	3516.86	32.67	40.30	32.67	51.88	39.03	51.48
3536.00	37.10	71.80	3530.37	40.66	43.30	40.66	59.40	43.19	62.79
3568.00	55.60	75.00	3552.37	62.77	49.79	62.77	80.12	51.58	58.25
3599.00	74.30	76.40	3565.44	89.87	56.67	89.87	106.25	57.76	60.46
3611.00	81.30	75.30	3567.97	101.24	59.54	101.24	117.45	59.54	59.02
3628.00	88.00	73.90	3569.56	117.54	64.03	117.54	133.85	61.42	40.25
3658.00	95.20	76.10	3568.72	146.49	71.79	146.49	163.13	63.89	25.09
3690.00	97.50	79.80	3565.18	177.58	78.43	177.58	194.13	66.17	13.55
3721.00	99.90	82.70	3560.49	207.87	83.09	207.87	223.86	68.21	12.06
3753.00	101.50	86.90	3554.54	239.17	85.95	239.17	254.14	70.23	13.83
3784.00	101.90	88.40	3548.26	269.50	87.19	269.50	283.25	72.07	4.91
3816.00	102.20	89.10	3541.58	300.79	87.87	300.79	313.36	73.71	2.34
3847.00	102.40	89.80	3534.97	331.07	88.16	331.07	342.61	75.09	2.30
3878.00	101.90	90.50	3528.45	361.38	88.08	361.38	371.96	76.30	2.73
3910.00	101.30	90.80	3522.01	392.72	87.73	392.72	402.40	77.41	2.09
3941.00	100.70	91.20	3516.10	423.15	87.20	423.15	432.04	78.36	2.31
3973.00	100.30	91.50	3510.27	454.60	86.46	454.60	462.75	79.23	1.55
4004.00	99.90	91.50	3504.83	485.11	85.66	485.11	492.62	79.99	1.29
4036.00	99.90	91.90	3499.33	516.62	84.72	516.62	523.52	80.69	1.23
4067.00	99.80	91.90	3494.03	547.15	83.71	547.15	553.52	81.30	.32
4099.00	99.90	91.90	3488.55	578.66	82.66	578.66	584.53	81.87	.31
4130.00	99.90	91.50	3483.22	609.18	81.76	609.18	614.65	82.36	1.27
4162.00	100.10	91.50	3477.67	640.69	80.93	640.69	645.78	82.80	.62
4194.00	100.50	91.50	3471.94	672.16	80.11	672.16	676.92	83.20	1.25
4225.00	100.70	92.20	3466.24	702.62	79.13	702.62	707.06	83.57	2.31
4257.00	98.40	91.90	3460.93	734.15	78.00	734.15	738.28	83.94	7.25
4288.00	95.70	92.60	3457.13	764.89	76.79	764.89	768.73	84.27	8.99
4320.00	93.30	92.60	3454.62	796.76	75.34	796.76	800.31	84.60	7.50
4351.00	91.10	91.90	3453.43	827.71	74.13	827.71	831.02	84.88	7.45
4413.00	90.40	91.90	3452.62	889.67	72.07	889.67	892.58	85.37	1.13
4476.00	90.10	92.90	3452.34	952.61	69.43	952.61	955.14	85.83	1.66
4540.00	90.40	91.20	3452.06	1016.57	67.14	1016.57	1018.78	86.22	2.70



Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	Vertical Section FT	N-S FT	E-W FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
4603.00	92.20	90.50	3450.63	1079.54	66.21	1079.54	1081.57	86.49	3.07
4666.00	92.20	89.80	3448.21	1142.49	66.04	1142.49	1144.40	86.69	1.11
4729.00	92.40	90.10	3445.69	1205.44	66.10	1205.44	1207.25	86.86	.57
4791.00	93.10	90.80	3442.71	1267.37	65.61	1267.37	1269.07	87.04	1.60
4854.00	91.70	91.20	3440.07	1330.30	64.51	1330.30	1331.86	87.22	2.31
4917.00	90.10	91.90	3439.08	1393.27	62.81	1393.27	1394.68	87.42	2.77
4980.00	90.80	92.60	3438.59	1456.22	60.34	1456.22	1457.47	87.63	1.57
5043.00	87.80	93.60	3439.36	1519.11	56.93	1519.11	1520.18	87.85	5.02
5106.00	88.20	93.60	3441.56	1581.95	52.98	1581.95	1582.84	88.08	.63
5170.00	88.90	93.60	3443.18	1645.80	48.96	1645.80	1646.53	88.30	1.09
5233.00	89.40	93.60	3444.11	1708.67	45.00	1708.67	1709.26	88.49	.79
5296.00	89.90	94.00	3444.50	1771.53	40.83	1771.53	1772.00	88.68	1.02
5359.00	90.30	94.30	3444.39	1834.37	36.27	1834.37	1834.72	88.87	.79
5422.00	90.80	94.70	3443.78	1897.17	31.33	1897.17	1897.43	89.05	1.02
5486.00	91.00	95.00	3442.78	1960.93	25.92	1960.93	1961.10	89.24	.56
5548.00	92.20	94.70	3441.04	2022.68	20.68	2022.68	2022.79	89.41	2.00
5611.00	91.70	93.60	3438.90	2085.48	16.12	2085.48	2085.54	89.56	1.92
5674.00	92.20	93.30	3436.76	2148.33	12.33	2148.33	2148.37	89.67	.93
5737.00	92.70	93.30	3434.06	2211.17	8.71	2211.17	2211.18	89.77	.79
5800.00	93.40	92.60	3430.71	2273.99	5.47	2273.99	2274.00	89.86	1.57
5863.00	93.10	93.30	3427.14	2336.81	2.23	2336.81	2336.81	89.95	1.21
5922.00	92.00	92.90	3424.52	2395.66	-.95	2395.66	2395.66	90.02	1.98
5989.00	92.40	92.60	3421.94	2462.54	-4.17	2462.54	2462.54	90.10	.75
6052.00	92.70	92.60	3419.14	2525.41	-7.02	2525.41	2525.42	90.16	.48
6115.00	91.30	92.60	3416.94	2588.30	-9.88	2588.30	2588.32	90.22	2.22
6177.00	88.90	91.50	3416.83	2650.26	-12.09	2650.26	2650.29	90.26	4.26
6240.00	89.00	91.50	3417.99	2713.23	-13.74	2713.23	2713.26	90.29	.16
6303.00	89.00	91.90	3419.09	2776.19	-15.61	2776.19	2776.23	90.32	.63
6367.00	90.30	92.90	3419.48	2840.13	-18.29	2840.13	2840.19	90.37	2.56
6430.00	90.80	93.30	3418.87	2903.03	-21.70	2903.03	2903.12	90.43	1.02
6493.00	92.20	93.60	3417.22	2965.90	-25.49	2965.90	2966.01	90.49	2.27
6556.00	94.00	94.00	3413.82	3028.66	-29.66	3028.66	3028.81	90.56	2.93
6618.00	94.80	94.30	3409.06	3090.32	-34.13	3090.32	3090.51	90.63	1.38
6681.00	95.20	94.00	3403.57	3152.91	-38.67	3152.91	3153.15	90.70	.79
6744.00	95.40	94.00	3397.75	3215.49	-43.05	3215.49	3215.78	90.77	.32

Last Nevis MWD Survey									
6752.00	94.50	94.00	3397.06	3223.44	-43.60	3223.44	3223.74	90.78	11.25
Survey Projected to TD									
6792.00	94.50	94.00	3393.92	3263.22	-46.39	3263.22	3263.55	90.81	.00