

October 21, 2009

Karen Sharp
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

RCVD OCT 23 '09

OIL CONS. DIV.

DIST. 3

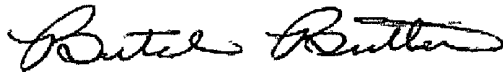
Re: Ojo Encino 21 Federal #1H C-104
30-031-21107

Dear Karen:

Following you will find the completed C-104 and a copy of our final directional survey. We appreciate your help in moving this forward as quickly as possible. Please call me if you have any questions whatsoever.

NSL 6099

Sincerely,



Butch Butler-Manager

Surface Location: 2537/S 2523/W, 21, 20N5W
7" shoe : 1998/S 2515/W 609/M 6584/T 1/6
BHL 566/S 2364/E 7575" 5899"

HOLD C104 FOR AS Drilled C-102



Job Number: 101001740-NM-Nm
 Company: High Plains Operating
 Lease/Well: Ojo Encino 21 Federal #1H
 Location: McKinley County
 Rig Name: United #29
 RKB: 6804
 G.L. or M.S.L.: 6792

State/Country: New Mexico USA
 Declination: 9.82
 Grid: True
 File name: C:\DOCUME~1\PES\DESKTOP\HIGHPL~1\1740.SVY
 Date/Time: 18-Oct-09 / 15:40
 Curve Name: Ojo Encino 21 Federal #1H

Pathfinder Energy

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 168.54
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

RCVD OCT 23 '09
 OIL CONS. DIV.
 DIST. 3

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
485.00	.35	289.66	485.00	.50	-1.39	-.77	1.48	289.66	.07
985.00	.53	270.15	984.98	1.02	-5.15	-2.02	5.25	281.19	.05
1480.00	1.06	222.06	1479.94	-2.38	-10.50	.24	10.77	257.26	.16
1961.00	.97	225.05	1960.86	-8.55	-16.36	5.13	18.47	242.40	.02
2453.00	1.14	219.06	2452.78	-15.30	-22.40	10.54	27.12	235.67	.04
2953.00	1.23	223.96	2952.67	-23.02	-29.26	16.75	37.23	231.80	.03
3453.00	.70	232.67	3452.60	-28.74	-35.41	21.13	45.60	230.94	.11
3953.00	.88	252.43	3952.55	-31.75	-41.50	22.87	52.25	232.58	.06
4453.00	.35	293.41	4452.52	-32.30	-46.56	22.41	56.67	235.25	.13

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
4953.00	.62	233.93	4952.51	-33.29	-50.15	22.66	60.19	236.42	.11
5125.00	.62	233.48	5124.50	-34.39	-51.65	23.44	62.05	236.34	.00
5157.00	.70	236.26	5156.50	-34.60	-51.95	23.59	62.42	236.34	.27
5188.00	.97	206.17	5187.49	-34.94	-52.22	23.87	62.83	236.21	1.63
5220.00	2.37	174.63	5219.48	-35.84	-52.28	24.74	63.39	235.57	5.08
5251.00	4.57	166.01	5250.42	-37.68	-51.92	26.61	64.15	234.03	7.27
5283.00	6.68	169.75	5282.26	-40.75	-51.28	29.75	65.50	231.53	6.69
5314.00	8.53	175.48	5312.99	-44.82	-50.78	33.83	67.73	228.57	6.44
5345.00	10.73	177.41	5343.55	-49.99	-50.47	38.97	71.04	225.27	7.17
5377.00	13.72	178.62	5374.82	-56.76	-50.24	45.65	75.80	221.51	9.38
5409.00	17.06	178.11	5405.67	-65.25	-50.00	54.01	82.20	217.46	10.45
5440.00	20.75	175.95	5434.99	-75.28	-49.46	63.95	90.07	213.31	12.11
5472.00	24.36	172.89	5464.54	-87.48	-48.24	76.15	99.90	208.87	11.86
5503.00	27.52	172.70	5492.42	-100.93	-46.54	89.68	111.15	204.75	10.20
5535.00	30.07	172.92	5520.46	-116.23	-44.61	105.05	124.49	201.00	7.98
5566.00	32.10	173.82	5547.00	-132.12	-42.77	120.99	138.87	197.94	6.72
5598.00	34.12	174.15	5573.81	-149.51	-40.94	138.39	155.01	195.31	6.34
5629.00	36.32	173.38	5599.13	-167.28	-38.99	156.20	171.76	193.12	7.24
5661.00	38.78	172.80	5624.50	-186.64	-36.64	175.63	190.20	191.11	7.77
5692.00	41.59	172.79	5648.18	-206.48	-34.13	195.58	209.28	189.39	9.06
5724.00	44.41	172.69	5671.58	-228.13	-31.38	217.34	230.27	187.83	8.82
5755.00	46.87	173.04	5693.25	-250.12	-28.63	239.44	251.75	186.53	7.98
5787.00	49.24	173.51	5714.64	-273.75	-25.84	263.16	274.97	185.39	7.49
5818.00	51.79	174.35	5734.35	-297.54	-23.31	286.98	298.45	184.48	8.49
5850.00	55.13	174.35	5753.40	-323.12	-20.78	312.55	323.79	183.68	10.44
5881.00	58.56	174.07	5770.35	-348.94	-18.16	338.37	349.41	182.98	11.09
5913.00	60.94	174.17	5786.47	-376.44	-15.33	365.88	376.75	182.33	7.44
5944.00	62.26	174.01	5801.22	-403.56	-12.52	393.02	403.75	181.78	4.28
5976.00	64.10	174.42	5815.65	-431.97	-9.65	421.44	432.08	181.28	5.86
6007.00	66.48	174.55	5828.61	-460.00	-6.94	449.45	460.05	180.86	7.69

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100	
							Distance FT	Direction Deg		
6091-6039.00	69.29	174.11	5840.66 539	-489.50	4.0	-4.01	478.94	489.51	180.47	8.87
71" Sho-6124.00	75.36	173.86	5866.45	-570.00		4.47	559.53	570.02	179.55	7.15
6156.00	77.73	174.40	5873.90	-600.96		7.66	590.50	601.00	179.27	7.59
6188.00	79.76	174.74	5880.14	-632.20		10.63	621.71	632.29	179.04	6.43
6220.00	81.34	174.49	5885.40	-663.62		13.59	653.09	663.76	178.83	5.00
6251.00	84.77	174.69	5889.15	-694.25		16.49	683.69	694.45	178.64	11.08
6282.00	86.61	175.09	5891.48	-725.04		19.24	714.41	725.30	178.48	6.07
6314.00	87.23	174.48	5893.19	-756.86		22.15	746.17	757.19	178.32	2.72
6346.00	85.65	173.01	5895.18	-788.61		25.63	777.98	789.03	178.14	6.74
6377.00	85.65	172.87	5897.53	-819.29		29.43	808.80	819.81	177.94	.45
6409.00	87.05	173.27	5899.57	-850.99		33.28	840.63	851.64	177.76	4.55
6440.00	88.64	172.48	5900.74	-881.72		37.12	871.52	882.51	177.59	5.73
6471.00	91.71	173.02	5900.64	-912.47		41.03	902.43	913.40	177.43	10.06
6502.00	91.71	172.68	5899.72	-943.22		44.89	933.33	944.29	177.28	1.10
6534.00	90.22	173.17	5899.18	-974.97		48.83	965.23	976.19	177.13	4.90
6565.00	90.66	171.40	5898.94	-1005.69		52.99	996.17	1007.08	176.98	5.88
6597.00	90.75	170.17	5898.55	-1037.27		58.11	1028.14	1038.90	176.79	3.85
6628.00	91.54	170.31	5897.93	-1067.82		63.37	1059.12	1069.69	176.60	2.59
6660.00	89.60	168.90	5897.61	-1099.29		69.14	1091.11	1101.46	176.40	7.49
6692.00	86.88	168.05	5898.59	-1130.62		75.53	1123.09	1133.14	176.18	8.90
6723.00	86.88	166.39	5900.28	-1160.81		82.38	1154.03	1163.73	175.94	5.35
6755.00	88.37	165.28	5901.60	-1191.81		90.20	1185.97	1195.22	175.67	5.80
6786.00	89.69	164.24	5902.13	-1221.71		98.35	1216.90	1225.67	175.40	5.42
6818.00	91.71	164.42	5901.74	-1252.52		106.99	1248.81	1257.08	175.12	6.34
6849.00	91.10	163.55	5900.98	-1282.31		115.54	1279.70	1287.50	174.85	3.43
6881.00	91.80	162.60	5900.17	-1312.91		124.85	1311.54	1318.83	174.57	3.69
6912.00	91.19	161.57	5899.36	-1342.40		134.39	1342.33	1349.11	174.28	3.86
6944.00	89.60	159.99	5899.14	-1372.61		144.92	1374.04	1380.24	173.97	7.00
6975.00	89.78	158.67	5899.31	-1401.61		155.86	1404.64	1410.25	173.65	4.30
7007.00	90.66	157.75	5899.18	-1431.33		167.74	1436.12	1441.12	173.32	3.98

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
7039.00	91.01	157.01	5898.72	-1460.86	180.05	1467.51	1471.92	172.97	2.56
7070.00	91.98	156.14	5897.91	-1489.30	192.37	1497.83	1501.67	172.64	4.20
7102.00	91.89	155.77	5896.83	-1518.50	205.40	1529.04	1532.33	172.30	1.19
7133.00	91.89	155.97	5895.81	-1546.78	218.06	1559.27	1562.07	171.98	.64
7164.00	88.99	155.80	5895.57	-1575.07	230.73	1589.51	1591.88	171.67	9.37
7196.00	85.74	154.67	5897.04	-1604.09	244.12	1620.61	1622.56	171.35	10.75
7228.00	87.23	155.20	5899.00	-1633.02	257.65	1651.66	1653.22	171.03	4.94
7259.00	89.25	155.44	5899.95	-1661.18	270.58	1681.82	1683.07	170.75	6.56
7291.00	91.71	156.78	5899.68	-1690.43	283.54	1713.06	1714.05	170.48	8.75
7322.00	90.66	157.44	5899.04	-1718.98	295.60	1743.44	1744.21	170.24	4.00
7354.00	85.03	157.37	5900.25	-1748.49	307.88	1774.81	1775.39	170.01	17.60
7448.00	87.05	157.15	5906.74	-1834.98	344.13	1866.77	1866.96	169.38	2.16
7480.00	89.16	158.34	5907.80	-1864.57	356.24	1898.18	1898.30	169.18	7.57
Straight line projection to TD									
7595.00	89.16	158.34	5909.48	-1971.44	398.68	2011.35	2011.35	168.57	.00