



The Gary-Williams Company

1775 Sherman Street • Suite 1925
Denver, Colorado 80203 • (303) 831-4673

RECEIVED
NOV 1 1993
OIL CON. DIV.
DIST. 3

October 27, 1993

State of Colorado) ss.
County of Denver)

Dave Masse', being first duly sworn, says that the Survey Listing prepared by Baker Hughes Inteq., is the true and correct survey for the Ceja Pelon 27-4H well, located in Sandoval County, New Mexico.

And Further affaint saith not.

Dave Masse'
Dave Masse'

Sworn to before me and subscribed in my presence this 27th day of October, 1993.

My commission expires: 01/21/1996

Joan S. Lucero
Joan S. Lucero
Notary Public

THE GARY-WILLIAMS COMPANY
SEC.27-T21N-R3W/CEJA PELON UNIT #27-4H

CEJA PELON UNIT #27-4H
slot #1
SANDOVAL COUNTY
NEW MEXICO

S U R V E Y L I S T I N G

by
Baker Hughes Inteq

Your ref : CEJA PELON 27-4H
Our ref : svy2722
License :

Date printed : 17-Aug-93
Date created : 23-Jun-93
Last revised : 17-Aug-93

Field is centred on n36 4 0.000,w106 35 0
Structure is centred on n36 4 0.000,w106 35 0

Slot location is n36 4 0.000,w106 35 0.000
Slot Grid coordinates are N 1843645.055, E 401486.384
Slot local coordinates are 0.00 N 0.00 E
Reference North is True North

THE GARY-WILLIAMS COMPANY
SEC.27-T21N-R3W/CEJA PELON UNIT #27-4H,CEJA PELON
SANDOVAL COUNTY,NEW MEXICO

SURVEY LISTING Page 1
Your ref : CEJA PELON 27-4H
Last revised : 17-Aug-93

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	RECTANGULAR DOGLEG COORDINATES Deg/100Ft			Vert Sect
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
3926.00	0.00	0.00	3926.00	0.00 N	0.00 E	0.00	0.00
3965.00	0.57	182.10	3965.00	0.19 S	0.01 W	1.46	-0.17
4030.00	1.12	185.10	4029.99	1.15 S	0.08 W	0.85	-1.02
4093.00	1.50	185.60	4092.98	2.58 S	0.21 W	0.60	-2.27
4104.00	1.62	185.90	4103.97	2.88 S	0.24 W	1.09	-2.53
4131.00	2.00	186.10	4130.96	3.73 S	0.33 W	1.41	-3.27
4161.00	1.26	216.07	4160.94	4.52 S	0.58 W	3.68	-3.89 BHA 1&2 IN
4162.00	1.25	217.60	4161.94	4.54 S	0.59 W	3.68	-3.90
4193.00	3.12	320.10	4192.93	4.16 S	1.34 W	11.62	-3.25
4224.00	7.87	328.10	4223.78	1.70 S	3.00 W	15.48	-0.33
4255.00	12.50	329.10	4254.28	2.98 N	5.85 W	14.94	5.10
4285.00	16.87	332.60	4283.30	9.63 N	9.52 W	14.86	12.68
4315.00	21.00	338.60	4311.67	18.50 N	13.49 W	15.20	22.40
4346.00	24.00	338.10	4340.30	29.53 N	17.87 W	9.70	34.25
4377.00	26.75	339.10	4368.31	41.90 N	22.71 W	8.98	47.52
4408.00	29.50	337.10	4395.65	55.45 N	28.17 W	9.38	62.12
4438.00	33.12	337.10	4421.28	69.81 N	34.24 W	12.07	77.70
4469.00	37.00	338.10	4446.65	86.27 N	41.01 W	12.65	95.50
4499.00	40.87	336.60	4469.98	103.66 N	48.28 W	13.28	114.34
4531.00	44.50	334.10	4493.50	123.37 N	57.34 W	12.52	136.03
4560.00	47.12	336.10	4513.71	142.23 N	66.09 W	10.30	156.81
4574.00	48.25	335.41	4523.14	151.67 N	70.34 W	8.84	167.17 BHA 3 IN
4591.00	49.62	334.60	4534.30	163.28 N	75.76 W	8.84	179.98
4620.00	51.62	335.10	4552.70	183.57 N	85.28 W	7.02	202.39
4651.00	54.12	334.60	4571.42	205.94 N	95.78 W	8.17	227.10
4682.00	57.50	333.60	4588.83	229.00 N	106.99 W	11.22	252.72
4713.00	60.50	332.10	4604.80	252.64 N	119.12 W	10.53	279.25
4742.00	62.75	333.60	4618.58	275.34 N	130.76 W	8.99	304.73
4772.00	65.25	333.60	4631.73	299.49 N	142.74 W	8.33	331.67
4803.00	68.00	334.10	4644.03	325.04 N	155.28 W	8.99	360.10
4835.00	71.50	335.60	4655.10	352.21 N	168.03 W	11.79	390.11
4865.00	75.50	335.60	4663.62	378.40 N	179.92 W	13.33	418.87
4896.00	79.87	336.10	4670.23	406.03 N	192.30 W	14.18	449.15
4911.00	81.68	336.34	4672.64	419.58 N	198.27 W	12.20	463.96 BHA 4 IN
4927.00	83.62	336.60	4674.68	434.12 N	204.61 W	12.20	479.82
4958.00	87.37	336.60	4677.12	462.48 N	216.88 W	12.10	510.72
4988.00	88.00	337.10	4678.33	490.04 N	228.66 W	2.68	540.69
5019.00	86.50	338.10	4679.82	518.67 N	240.46 W	5.81	571.64
5050.00	86.50	338.10	4681.71	547.38 N	252.00 W	0.00	602.56
5081.00	85.75	338.60	4683.80	576.13 N	263.41 W	2.90	633.46
5112.00	85.50	337.60	4686.17	604.81 N	274.94 W	3.32	664.35
5142.00	86.37	337.10	4688.29	632.42 N	286.46 W	3.34	694.27
5173.00	86.87	335.60	4690.12	660.77 N	298.88 W	5.09	725.21
5204.00	86.75	335.60	4691.85	688.96 N	311.66 W	0.39	756.16
5234.00	88.00	335.10	4693.22	716.19 N	324.16 W	4.49	786.13
5265.00	88.00	335.10	4694.30	744.29 N	337.21 W	0.00	817.11
5296.00	87.38	334.60	4695.55	772.33 N	350.37 W	2.57	848.08
5327.00	87.50	335.10	4696.94	800.36 N	363.53 W	1.66	879.04
5358.00	88.12	335.10	4698.12	828.46 N	376.58 W	2.00	910.01

All data is in feet unless otherwise stated
Coordinates from slot #1 and TVD from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 335.94 degrees.
Declination is 11.12 degrees, Convergence is -0.20 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100Ft	Vert Sect	
5388.00	87.87	335.10	4699.17	855.66 N	389.20 W	0.83	939.99	
5418.00	87.50	335.60	4700.38	882.90 N	401.70 W	2.07	969.96	
5432.00	87.21	335.60	4701.03	895.64 N	407.48 W	2.10	983.95	BHA 5 IN
5448.00	86.87	335.60	4701.86	910.19 N	414.08 W	2.10	999.93	
5479.00	86.37	335.60	4703.68	938.37 N	426.86 W	1.61	1030.87	
5510.00	87.75	335.60	4705.27	966.56 N	439.65 W	4.45	1061.83	
5540.00	87.25	335.10	4706.58	993.80 N	452.15 W	2.36	1091.80	
5571.00	86.50	335.10	4708.27	1021.88 N	465.18 W	2.42	1122.75	
5601.00	87.25	335.60	4709.91	1049.11 N	477.68 W	3.00	1152.70	
5632.00	87.00	335.60	4711.46	1077.30 N	490.47 W	0.81	1183.66	
5662.00	87.12	336.60	4713.00	1104.69 N	502.61 W	3.35	1213.62	
5693.00	86.62	336.10	4714.69	1133.05 N	515.02 W	2.28	1244.58	
5724.00	86.00	335.60	4716.69	1161.27 N	527.68 W	2.57	1275.51	
5755.00	85.62	336.10	4718.95	1189.48 N	540.33 W	2.02	1306.43	

All data is in feet unless otherwise stated
Coordinates from slot #1 and TVD from wellhead.
Vertical section is from N 0.00 E 0.00 on azimuth 335.94 degrees.
Declination is 11.12 degrees, Convergence is -0.20 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq

THE GARY-WILLIAMS COMPANY SURVEY LISTING Page 3
 SEC.27-T21N-R3W/CEJA PELON UNIT #27-4H,CEJA PELON Your ref : CEJA PELON 27-4H
 SANDOVAL COUNTY,NEW MEXICO Last revised : 17-Aug-93

				Comments in wellpath
				=====
MD	TVD	Rectangular Coords.		Comment

4161.00	4160.94	4.52 S	0.58 W	BHA 1&2 IN
4574.00	4523.14	151.67 N	70.34 W	BHA 3 IN
4911.00	4672.64	419.58 N	198.27 W	BHA 4 IN
5432.00	4701.03	895.64 N	407.48 W	BHA 5 IN

All data is in feet unless otherwise stated
 Coordinates from slot #1 and TVD from wellhead.
 Bottom hole distance is 1430.52 on azimuth 334.63 degrees from wellhead.
 Vertical section is from N 0.00 E 0.00 on azimuth 335.94 degrees.
 Declination is 11.12 degrees, Convergence is -0.20 degrees.
 Calculation uses the minimum curvature method.
 Presented by Baker Hughes Inteq

THE GARY-WILLIAMS COMPANY
SEC.27-T21N-R3W/CEJA PELON UNIT #27-4H

CEJA PELON UNIT #27-4H
slot #1
SANDOVAL COUNTY
NEW MEXICO

S U R V E Y L I S T I N G

by
Baker Hughes Inteq

Your ref : SIDETRACK
Our ref : svy2731
License :

Date printed : 17-Aug-93
Date created : 1-Jul-93
Last revised : 17-Aug-93

Field is centred on n36 4 0.000,w106 35 0
Structure is centred on n36 4 0.000,w106 35 0

Slot location is n36 4 0.000,w106 35 0.000
Slot Grid coordinates are N 1843645.055, E 401486.384
Slot local coordinates are 0.00 N 0.00 E
Reference North is True North

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100Ft	Vert Sect
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
3926.00	0.00	0.00	3926.00	0.00 N	0.00 E	0.00	0.00
3965.00	0.57	182.10	3965.00	0.19 S	0.01 W	1.46	-0.17
4030.00	1.12	185.10	4029.99	1.15 S	0.08 W	0.85	-1.02
4093.00	1.50	185.60	4092.98	2.58 S	0.21 W	0.60	-2.27
4104.00	1.62	185.90	4103.97	2.88 S	0.24 W	1.09	-2.53
4131.00	2.00	186.10	4130.96	3.73 S	0.33 W	1.41	-3.27
4162.00	1.25	217.60	4161.94	4.54 S	0.59 W	3.68	-3.90
4193.00	3.12	320.10	4192.93	4.16 S	1.34 W	11.62	-3.25
4224.00	7.87	328.10	4223.78	1.70 S	3.00 W	15.48	-0.33
4255.00	12.50	329.10	4254.28	2.98 N	5.85 W	14.94	5.10
4285.00	16.87	332.60	4283.30	9.63 N	9.52 W	14.86	12.68
4315.00	21.00	338.60	4311.67	18.50 N	13.49 W	15.20	22.40
4346.00	24.00	338.10	4340.30	29.53 N	17.87 W	9.70	34.25
4377.00	26.75	339.10	4368.31	41.90 N	22.71 W	8.98	47.52
4408.00	29.50	337.10	4395.65	55.45 N	28.17 W	9.38	62.12
4438.00	33.12	337.10	4421.28	69.81 N	34.24 W	12.07	77.70
4469.00	37.00	338.10	4446.65	86.27 N	41.01 W	12.65	95.50
4499.00	40.87	336.60	4469.98	103.66 N	48.28 W	13.28	114.34
4531.00	44.50	334.10	4493.50	123.37 N	57.34 W	12.52	136.03
4560.00	47.12	336.10	4513.71	142.23 N	66.09 W	10.30	156.81
4591.00	49.62	334.60	4534.30	163.28 N	75.76 W	8.84	179.98
4620.00	51.62	335.10	4552.70	183.57 N	85.28 W	7.02	202.39
4626.00	50.79	334.90	4556.46	187.81 N	87.26 W	14.04	207.07 BHA 6 IN
4649.00	47.62	334.10	4571.49	203.53 N	94.75 W	14.04	224.47
4680.00	44.87	332.10	4592.93	223.49 N	104.87 W	10.02	246.83
4711.00	44.62	329.60	4614.94	242.55 N	115.50 W	5.73	268.56
4741.00	44.87	328.10	4636.25	260.62 N	126.42 W	3.62	289.52
4772.00	45.25	326.70	4658.15	279.11 N	138.24 W	3.42	311.22
4802.00	46.00	328.60	4679.13	297.22 N	149.71 W	5.17	332.44
4833.00	48.62	331.60	4700.15	316.98 N	161.06 W	11.04	355.10
4865.00	52.50	333.10	4720.48	338.86 N	172.52 W	12.65	379.76
4896.00	57.12	333.10	4738.34	361.45 N	183.98 W	14.90	405.06
4915.00	59.74	333.42	4748.28	375.91 N	191.26 W	13.84	421.22 BHA 7 IN
4926.00	61.25	333.60	4753.70	384.48 N	195.53 W	13.84	430.79
4957.00	64.75	336.10	4767.78	409.48 N	207.25 W	13.38	458.40
4988.00	66.75	336.10	4780.51	435.32 N	218.70 W	6.45	486.66
5018.00	69.50	335.10	4791.68	460.67 N	230.21 W	9.67	514.50
5049.00	72.37	334.10	4801.81	487.13 N	242.77 W	9.75	543.78
5080.00	75.12	333.10	4810.49	513.78 N	256.01 W	9.40	573.52
5111.00	78.00	333.10	4817.69	540.67 N	269.65 W	9.29	603.63
5141.00	81.12	333.10	4823.13	566.98 N	282.99 W	10.40	633.09
5172.00	84.50	333.60	4827.00	594.46 N	296.79 W	11.02	663.81
5203.00	87.12	333.60	4829.27	622.15 N	310.53 W	8.45	694.70
5234.00	87.00	333.10	4830.86	649.82 N	324.42 W	1.66	725.63
5247.00	86.84	333.32	4831.56	661.41 N	330.27 W	2.09	738.59 BHA 8 IN
5264.00	86.62	333.60	4832.53	676.59 N	337.85 W	2.09	755.55
5295.00	88.37	334.60	4833.88	704.45 N	351.38 W	6.50	786.50
5325.00	88.50	334.60	4834.70	731.54 N	364.24 W	0.43	816.48
5356.00	88.25	334.60	4835.58	759.53 N	377.54 W	0.81	847.46

All data is in feet unless otherwise stated
Coordinates from slot #1 and TVD from wellhead.
Vertical section is from wellhead on azimuth 335.94 degrees.
Declination is 11.12 degrees, Convergence is -0.20 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq

THE GARY-WILLIAMS COMPANY
SEC.27-T21N-R3W/CEJA PELON UNIT #27-4H,CEJA PELON
SANDOVAL COUNTY,NEW MEXICO

SURVEY LISTING Page 2
Your ref : SIDETRACK
Last revised : 17-Aug-93

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert. Depth	R E C T A N G U L A R C O O R D I N A T E S		Dogleg Deg/100Ft	Vert Sect
5387.00	87.87	335.10	4836.63	787.58 N	390.70 W	2.02	878.44
5417.00	87.75	335.60	4837.78	814.82 N	403.21 W	1.71	908.42
5448.00	88.12	335.10	4838.90	842.98 N	416.13 W	2.00	939.39
5479.00	87.37	334.60	4840.12	871.02 N	429.29 W	2.91	970.36
5509.00	87.12	335.10	4841.56	898.14 N	442.03 W	1.86	1000.32
5540.00	88.50	336.10	4842.74	926.35 N	454.82 W	5.50	1031.30
5571.00	88.62	336.10	4843.52	954.69 N	467.38 W	0.39	1062.29
5601.00	87.87	336.10	4844.44	982.10 N	479.53 W	2.50	1092.28
5632.00	87.12	336.10	4845.80	1010.42 N	492.07 W	2.42	1123.24
5645.00	87.66	336.10	4846.39	1022.29 N	497.34 W	4.17	1136.23 BHA 9 IN
5662.00	88.37	336.10	4846.98	1037.82 N	504.22 W	4.17	1153.22
5693.00	89.00	337.10	4847.69	1066.26 N	516.53 W	3.81	1184.21
5724.00	88.75	337.10	4848.30	1094.82 N	528.59 W	0.81	1215.20
5754.00	88.62	337.10	4848.98	1122.44 N	540.26 W	0.43	1245.18
5785.00	89.31	336.60	4849.54	1150.94 N	552.44 W	2.75	1276.17
5816.00	89.12	337.10	4849.97	1179.44 N	564.63 W	1.72	1307.17
5846.00	89.12	337.10	4850.43	1207.08 N	576.30 W	0.00	1337.16
5877.00	89.75	336.60	4850.74	1235.58 N	588.49 W	2.59	1368.15
5908.00	89.25	336.60	4851.00	1264.03 N	600.80 W	1.61	1399.15
5939.00	88.87	337.10	4851.51	1292.53 N	612.98 W	2.02	1430.14

All data is in feet unless otherwise stated
Coordinates from slot #1 and TVD from wellhead.
Vertical section is from wellhead on azimuth 335.94 degrees.
Declination is 11.12 degrees, Convergence is -0.20 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq

THE GARY-WILLIAMS COMPANY
SEC.27-T21N-R3W/CEJA PELON UNIT #27-4H,CEJA PELON
SANDOVAL COUNTY,NEW MEXICO

SURVEY LISTING Page 3
Your ref : SIDETRACK
Last revised : 17-Aug-93

Comments in wellpath =====				
MD	TVD	Rectangular Coords.		Comment
4626.00	4556.46	187.81 N	87.26 W	BHA 6 IN
4915.00	4748.28	375.91 N	191.26 W	BHA 7 IN
5247.00	4831.56	661.41 N	330.27 W	BHA 8 IN
5645.00	4846.39	1022.29 N	497.34 W	BHA 9 IN

See page 1 for well path diagram

All data is in feet unless otherwise stated
Coordinates from slot #1 and TVD from wellhead.
Bottom hole distance is 1430.52 on azimuth 334.63 degrees from wellhead.
Vertical section is from wellhead on azimuth 335.94 degrees.
Declination is 11.12 degrees, Convergence is -0.20 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes Inteq