



Weatherford
Wft Survey Report X Y's.



Weatherford

39950

30015-46213

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SEP 10 2013
NMCCD ARTESIA

Company: COG Operating Date: 1/28/2013 Time: 06:08:00 Page: 1
Field: Eddy Co, NM (Nad27) Co-ordinate(NE) Reference: Well: Burkett 16 State #16H, Grid North
Site: Burkett 16 State #16H Vertical (TVD) Reference: SITE 3867.5
Well: Burkett 16 State #16H Section (VS) Reference: Well (0.00N,0.00E,269.80Azi)
Wellpath: Upper Lat Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Wft Svy Upper Lat Start Date: 1/21/2013
Company: Weatherford Engineer: Russell W. Joyner
Tool: MWD/MWD - Standard Tied-to: User Defined

Site: Burkett 16 State #16H

Site Position: Northing: 669245.90 ft Latitude: 32 50 20.358 N
From: Map Easting: 642018.10 ft Longitude: 103 52 15.402 W
Position Uncertainty: 0.00 ft North Reference: Grid
Ground Level: 3849.00 ft Grid Convergence: 0.25 deg

Well: Burkett 16 State #16H Slot Name:
Well Position: +N/-S 0.00 ft Northing: 669245.90 ft Latitude: 32 50 20.358 N
+E/-W 0.00 ft Easting: 642018.10 ft Longitude: 103 52 15.402 W
Position Uncertainty: 0.00 ft

Wellpath: Upper Lat Drilled From: Lower Lat
Current Datum: SITE Height 3867.50 ft Tie-on Depth: 5248.00 ft
Magnetic Data: 1/25/2013 Above System Datum: Mean Sea Level
Field Strength: 48818 nT Declination: 7.57 deg
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
ft ft ft deg
0.00 0.00 0.00 269.80

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
5100.00	0.25	153.74	5099.80	-13.16	-15.84	0.00	15.89	669232.74	642002.26	Tie On VES First Wft Svy
5227.00	12.27	293.00	5225.85	-8.12	-28.19	9.81	28.22	669237.78	641989.91	
5259.00	15.18	290.02	5256.93	-5.35	-35.26	9.36	35.27	669240.55	641982.84	
5291.00	18.48	282.57	5287.56	-2.81	-44.15	12.30	44.16	669243.09	641973.95	
5322.00	20.96	281.10	5316.74	-0.68	-54.38	8.16	54.39	669245.22	641963.72	
5354.00	23.88	281.06	5346.32	1.67	-66.36	9.13	66.35	669247.57	641951.74	
5386.00	25.92	279.78	5375.34	4.10	-79.61	6.59	79.60	669250.00	641938.49	
5418.00	28.68	276.85	5403.77	6.20	-94.13	9.59	94.11	669252.10	641923.97	
5450.00	32.69	275.10	5431.29	7.89	-110.37	12.84	110.34	669253.79	641907.73	
5482.00	36.52	274.94	5457.62	9.48	-128.47	11.97	128.43	669255.38	641889.63	
5513.00	40.22	274.82	5481.92	11.11	-147.64	11.94	147.60	669257.01	641870.46	
5545.00	43.32	275.18	5505.79	12.97	-168.87	9.72	168.82	669258.87	641849.23	
5577.00	47.00	274.63	5528.35	14.91	-191.47	11.56	191.42	669260.81	641826.63	
5609.00	50.58	273.90	5549.43	16.70	-215.48	11.32	215.42	669262.60	641802.62	
5640.00	54.28	272.25	5568.33	18.00	-240.01	12.66	239.94	669263.90	641778.09	
5672.00	57.32	272.30	5586.31	19.05	-266.45	9.50	266.38	669264.95	641751.65	
5704.00	60.03	272.36	5602.95	20.17	-293.76	8.47	293.69	669266.07	641724.34	
5736.00	63.47	272.24	5618.09	21.30	-321.92	10.76	321.85	669267.20	641696.18	
5768.00	66.02	271.20	5631.74	22.16	-350.85	8.49	350.77	669268.06	641667.25	
5800.00	68.22	270.58	5644.18	22.62	-380.32	7.10	380.24	669268.52	641637.78	
5831.00	71.63	270.03	5654.82	22.77	-409.44	11.13	409.35	669268.67	641608.66	
5863.00	75.00	269.59	5664.01	22.67	-440.08	10.61	440.00	669268.57	641578.02	
5895.00	75.42	269.51	5672.18	22.43	-471.02	1.33	470.94	669268.33	641547.08	
5927.00	78.30	269.60	5679.45	22.19	-502.18	9.00	502.10	669268.09	641515.92	
5958.00	82.28	270.05	5684.68	22.09	-532.73	12.92	532.65	669267.99	641485.37	
5990.00	84.39	270.14	5688.39	22.15	-564.51	6.60	564.43	669268.05	641453.59	
6022.00	86.15	270.16	5691.03	22.23	-596.40	5.50	596.32	669268.13	641421.70	
6053.00	88.74	270.10	5692.41	22.30	-627.37	8.36	627.29	669268.20	641390.73	
6084.00	89.93	269.86	5692.77	22.29	-658.37	3.92	658.28	669268.19	641359.73	
6116.00	90.63	269.96	5692.62	22.24	-690.37	2.21	690.28	669268.14	641327.73	



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Wft Survey Report X Y's.

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Company: COG Operating
Field: Eddy Co, NM (Nad27)
Site: Burkett 16 State #16H
Well: Burkett 16 State #16H
Wellpath: Upper Lat

Date: 1/28/2013 Time: 06:08:00 Page: 2
Co-ordinate(NE) Reference: Well: Burkett 16 State #16H, Grid North
Vertical (TVD) Reference: SITE 3867.5
Section (VS) Reference: Well (0.00N,0.00E,269.80Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
6148.00	90.91	270.30	5692.19	22.31	-722.36	1.38	722.28	669268.21	641295.74	
6179.00	91.47	270.29	5691.54	22.47	-753.36	1.81	753.27	669268.37	641264.74	
6211.00	92.03	270.80	5690.56	22.77	-785.34	2.37	785.25	669268.67	641232.76	
6243.00	91.89	270.55	5689.47	23.15	-817.32	0.90	817.23	669269.05	641200.78	
6339.00	91.68	271.17	5686.48	24.59	-913.26	0.68	913.17	669270.49	641104.84	
6435.00	91.12	271.84	5684.13	27.11	-1009.20	0.91	1009.10	669273.01	641008.90	
6530.00	91.40	270.85	5682.05	29.34	-1104.15	1.08	1104.04	669275.24	640913.95	
6626.00	90.70	270.42	5680.29	30.41	-1200.12	0.86	1200.01	669276.31	640817.98	
6719.00	88.88	270.31	5680.63	31.00	-1293.12	1.96	1293.00	669276.90	640724.98	
6814.00	88.88	269.64	5682.48	30.96	-1388.10	0.71	1387.98	669276.86	640630.00	
6910.00	88.32	268.26	5684.83	29.20	-1484.05	1.55	1483.94	669275.10	640534.05	
7005.00	88.81	268.45	5687.21	26.47	-1578.98	0.55	1578.88	669272.37	640439.12	
7101.00	90.77	268.28	5687.56	23.73	-1674.94	2.05	1674.84	669269.63	640343.16	
7196.00	91.75	268.35	5685.47	20.94	-1769.87	1.03	1769.79	669266.84	640248.23	
7228.00	91.47	268.19	5684.57	19.97	-1801.84	1.01	1801.76	669265.87	640216.26	
7322.00	92.31	268.36	5681.47	17.15	-1895.75	0.91	1895.68	669263.05	640122.35	
7418.00	91.33	267.74	5678.42	13.88	-1991.64	1.21	1991.58	669259.78	640026.46	
7514.00	91.54	267.79	5676.02	10.14	-2087.54	0.22	2087.49	669256.04	639930.56	
7609.00	91.12	267.72	5673.81	6.42	-2182.44	0.45	2182.41	669252.32	639835.66	
7704.00	90.49	268.60	5672.48	3.37	-2277.38	1.14	2277.36	669249.27	639740.72	
7800.00	92.52	271.11	5669.96	3.12	-2373.34	3.36	2373.31	669249.02	639644.76	
7895.00	91.47	271.08	5666.65	4.94	-2468.26	1.11	2468.23	669250.84	639549.84	
7991.00	91.47	270.74	5664.19	6.46	-2564.22	0.35	2564.18	669252.36	639453.88	
8086.00	89.72	269.96	5663.20	7.04	-2659.21	2.02	2659.16	669252.94	639358.89	
8182.00	89.65	269.30	5663.73	6.42	-2755.20	0.69	2755.16	669252.32	639262.90	
8277.00	89.93	269.30	5664.08	5.26	-2850.19	0.29	2850.16	669251.16	639167.91	
8373.00	91.82	269.84	5662.61	4.54	-2946.17	2.05	2946.14	669250.44	639071.93	
8469.00	92.17	267.57	5659.27	2.37	-3042.09	2.39	3042.06	669248.27	638976.01	
8562.00	91.96	267.89	5655.92	-1.31	-3134.95	0.41	3134.94	669244.59	638883.15	
8658.00	91.40	267.39	5653.10	-5.26	-3230.83	0.78	3230.83	669240.64	638787.27	Last Wft Svy
8714.00	91.07	267.10	5651.90	-7.95	-3286.75	0.78	3286.76	669237.95	638731.35	Proj. To Bit

Annotation

MD ft	TVD ft	
5100.00	5099.80	Tie On VES
5227.00	5225.85	First Wft Svy
8658.00	5653.10	Last Wft Svy
8714.00	5651.90	Proj. To Bit