



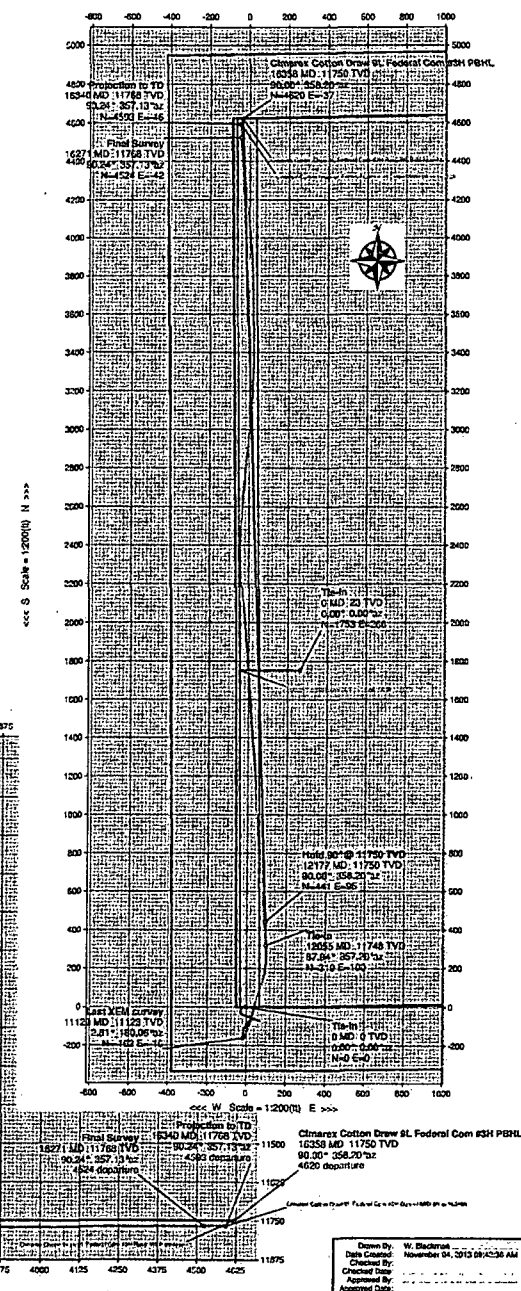
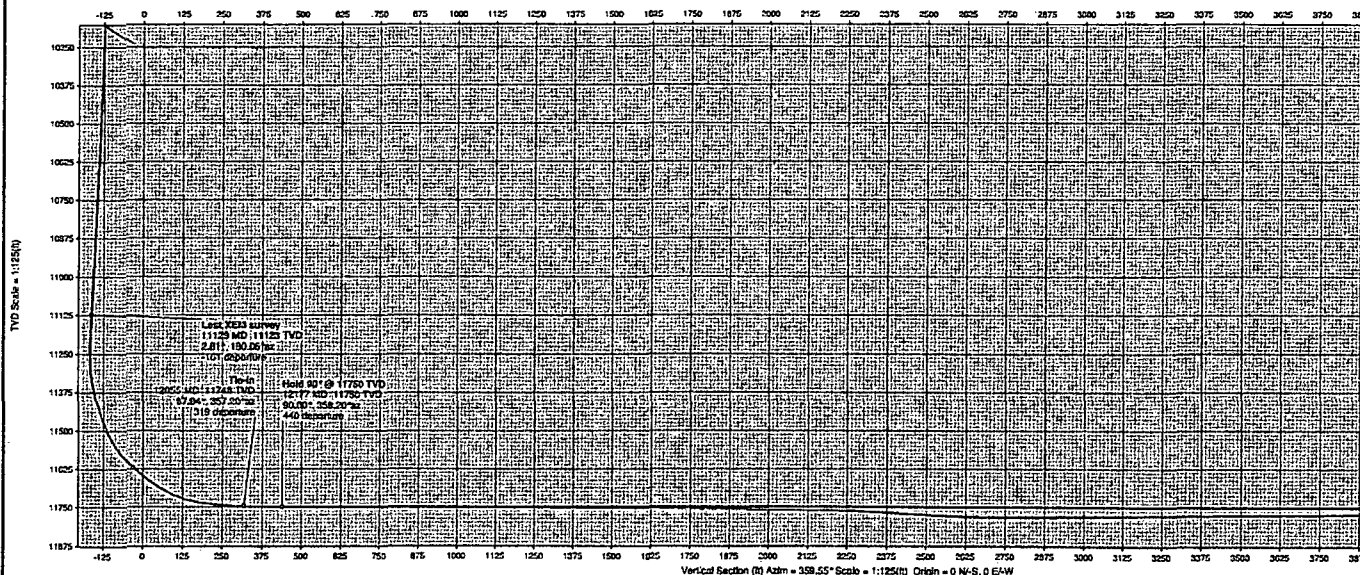
WELL	Cotton Draw 9L Federal Corn #3H	FIELD	NM Lea County	STRUCTURE	Scandrift Eagle
Magnetic Permutation		Geologic Location	NAD83 New Mexico State Plane, Eastern Zone, UTM Feet 447670 NAD83 Easting: 624500 711770 NAD83 Northing: 141400 Scale Feet: 0.999943	Abscissa/Easting	
Block# 1	#SCNH 2513	Date November 04, 2013	Lat W 30 4 14.778 Long E 101 41 14.547	Sect	Cottons Cotton Draw 9L Field#03H/NR/CN/NE40E above MSL)
Dip	40.81 P	Pitch		Tran	Panel 2W/2E Sec-35
Mag Dev	7.45°	Decl	62527.4MT	Elev	7265' - August 10, 2013

RECEIVED



Grid North
Tot Corr (M->G 7.1035°)
Mag Dec (7.447°)
Grid Conv (0.344°)

Comments	Critical Points															
	Survey MS(ft)	Inclination(deg)	Azimuth(deg)	TVD(ft)	Sub-Seal TVD	US(ft)	NS(ft)	EW(ft)	Latitude(deg)	Longitude(deg)	Easting(US)	Northing(US)	Closure(ft)	Closure Azimuth(deg)	DLS'(x100ft)	Tool Face(deg)
SHL Camarox Cotton Draw 9L Federal Cam #3H	0.00	0.00	0.00	0.00	-3454.00	0.00	0.00	0.00	N 32 8 18.778	W 103 41 14.547	741277.30	414739.50	0.00	0.00		335.67
Tie-in	12055.00	87.94	357.20	11747.82	8263.82	318.70	319.50	89.85	N 32 8 21.833	W 103 41 13.363	741377.15	415058.98	334.74	17.36	1.56	25.90
Hold 90° at 11750 TVD	12176.53	90.00	358.20	11750.00	8266.00	440.14	440.90	94.97	N 32 8 23.135	W 103 41 13.412	741372.27	415160.38	451.01	12.16	1.88	-90.00
Camarox Cotton Draw 9L Federal Cam #3H PBHL	16357.69	90.00	358.20	11750.00	8266.00	4620.14	4620.00	36.50	N 32 9 4.495	W 103 41 14.649	741240.80	419338.28	4620.14	359.55	0.00	



DEC 22 2014



Cimarex Cotton Draw 9L Federal Com #3H Gyro+MWD 0ft to 16340ft Survey Report (Def Survey)



Report Date: November 11, 2013 - 10:37 AM
 Client: Cimarex
 Field: NM Lea County (NAD 83)
 Structure / Slot: Scandril Eagle / Cimarex Cotton Draw 9L Federal Com #3H
 Well: Cimarex Cotton Draw 9L Federal Com #3H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Cotton Draw 9L Federal Com #3H Gyro+MWD 0ft to 16340ft
 Survey Date: October 21, 2013
 Tort / AHD / DDI / ERD Ratio: 192.931 ° / 5111.400 ft / 6.136 / 0.434
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 8' 18.77771", W 103° 41' 14.54692"
 Location Grid N/E Y/X: N 414739.500 ftUS, E 741277.300 ftUS
 CRS Grid Convergence Angle: 0.3436 °
 Grid Scale Factor: 0.99995488

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 359.548 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: RKB
 TVD Reference Elevation: 3454.000 ft above MSL
 Seabed / Ground Elevation: 3429.000 ft above MSL
 Magnetic Declination: 7.451 °
 Total Gravity Field Strength: 998.4770mgn (9.80665 Based)
 Total Magnetic Field Strength: 48301.883 nT
 Magnetic Dip Angle: 60.015 °
 Declination Date: October 21, 2013
 Magnetic Declination Model: BGGM 2013
 North Reference: Grid North
 Grid Convergence Used: 0.3436 °
 Total Corr Mag North->Grid North: 7.1077 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
Tie-In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	335.67M
	286.00	0.31	335.67	286.00	0.71	0.70	-0.32	0.77	335.67	0.11	295.46M
	438.00	0.62	295.46	437.99	1.44	1.43	-1.23	1.89	319.35	0.28	277.97M
	528.00	1.58	277.97	527.98	1.84	1.81	-2.90	3.42	302.04	1.12	274.58M
	621.00	2.11	274.58	620.93	2.18	2.13	-5.88	6.25	289.92	0.58	271.86M
	712.00	2.42	271.86	711.86	2.40	2.33	-9.47	9.75	283.80	0.36	269.97M
	804.00	2.29	269.97	803.78	2.49	2.39	-13.24	13.46	280.22	0.16	270.59M
	876.00	2.11	270.59	875.73	2.53	2.40	-16.01	16.19	278.53	0.25	212.36M
	1035.00	1.41	212.36	1034.66	0.94	0.78	-19.98	20.00	272.23	1.14	210.16M
	1131.00	1.49	210.16	1130.63	-1.13	-1.30	-21.24	21.28	266.50	0.10	213.15M
	1227.00	1.41	213.15	1226.60	-3.19	-3.37	-22.52	22.77	261.49	0.11	210.38M
	1323.00	1.41	210.38	1322.57	-5.19	-5.37	-23.76	24.36	257.25	0.07	207.57M
	1418.00	1.41	207.57	1417.54	-7.22	-7.42	-24.89	25.97	253.40	0.07	202.69M
	1514.00	1.49	202.69	1513.51	-9.41	-9.62	-25.92	27.65	249.64	0.15	203.26M
	1610.00	1.49	203.26	1609.48	-11.70	-11.92	-26.89	29.41	246.10	0.02	198.95M
	1705.00	1.58	198.95	1704.44	-14.07	-14.29	-27.81	31.26	242.80	0.15	196.89M
	1801.00	1.49	196.89	1800.41	-16.51	-16.74	-28.60	33.14	239.66	0.11	189.29M
	1896.00	1.41	189.29	1895.38	-18.84	-19.07	-29.15	34.83	236.80	0.22	183.09M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	1992.00	1.41	183.09	1991.35	-21.18	-21.42	-29.40	36.37	233.93	0.16	173.95M
	2087.00	1.41	173.95	2086.32	-23.51	-23.75	-29.34	37.75	231.02	0.24	169.86M
	2181.00	1.41	169.86	2180.29	-25.80	-26.03	-29.01	38.98	228.10	0.11	164.99M
	2277.00	1.41	164.99	2276.26	-28.11	-28.34	-28.50	40.19	225.16	0.12	154.35M
	2373.00	1.49	154.35	2372.23	-30.38	-30.60	-27.65	41.25	222.10	0.29	143.06M
	2468.00	1.58	143.06	2467.20	-32.55	-32.76	-26.33	42.03	218.79	0.33	133.78M
	2563.00	1.71	133.78	2562.16	-34.60	-34.79	-24.52	42.56	215.18	0.31	124.16M
	2659.00	1.89	124.16	2658.11	-36.49	-36.67	-22.18	42.86	211.17	0.37	114.67M
	2754.00	2.02	114.67	2753.06	-38.10	-38.25	-19.36	42.87	206.85	0.37	114.45M
	2850.00	2.11	114.45	2849.00	-39.56	-39.69	-16.21	42.87	202.22	0.09	113.66M
	2945.00	2.11	113.66	2943.93	-41.01	-41.11	-13.02	43.13	197.57	0.03	109.88M
	3041.00	2.11	109.88	3039.87	-42.34	-42.42	-9.74	43.53	192.93	0.14	110.67M
	3136.00	2.29	110.67	3134.80	-43.64	-43.69	-6.32	44.14	188.23	0.19	109.57M
	3232.00	2.42	109.57	3230.72	-45.02	-45.04	-2.62	45.12	183.32	0.14	108.87M
	3328.00	2.50	108.87	3326.63	-46.41	-46.40	1.28	46.42	178.42	0.09	113.79M
	3423.00	2.68	113.79	3421.53	-48.01	-47.97	5.27	48.25	173.73	0.30	108.69M
	3519.00	2.90	108.69	3517.42	-49.72	-49.65	9.62	50.57	169.03	0.35	106.58M
	3615.00	2.81	106.58	3613.30	-51.21	-51.10	14.18	53.03	164.49	0.14	108.78M
	3710.00	2.90	106.78	3708.18	-52.68	-52.54	18.69	55.76	160.42	0.15	105.97M
	3808.00	3.21	105.97	3806.04	-54.28	-54.09	23.67	59.04	156.37	0.35	102.06M
	3902.00	2.42	102.06	3899.93	-55.45	-55.23	28.14	61.99	153.00	0.86	102.58M
	3997.00	2.50	102.58	3994.84	-56.35	-56.10	32.13	64.65	150.20	0.09	104.56M
	4093.00	2.68	104.56	4090.74	-57.40	-57.12	36.34	67.70	147.53	0.21	110.58M
	4189.00	2.99	110.58	4186.62	-58.88	-58.56	40.86	71.41	145.10	0.45	115.77M
	4284.00	3.38	115.77	4281.48	-61.01	-60.65	45.70	75.94	143.00	0.51	114.58M
	4380.00	3.52	114.58	4377.30	-63.51	-63.11	50.93	81.09	141.10	0.16	115.77M
	4454.00	3.52	115.77	4451.16	-65.47	-65.04	55.04	85.20	139.76	0.10	119.28M
	4578.00	3.38	119.28	4574.94	-68.97	-68.48	61.66	92.15	138.00	0.20	118.58M
	4674.00	2.29	118.58	4670.82	-71.30	-70.79	65.81	96.65	137.09	1.14	93.66M
	4769.00	1.10	93.66	4765.78	-72.29	-71.75	68.38	99.12	136.38	1.45	294.58M
	4864.00	0.70	294.58	4860.77	-72.11	-71.57	68.77	99.25	136.14	1.86	296.69M
	4960.00	1.41	296.69	4956.76	-71.32	-70.79	67.18	97.59	136.50	0.74	279.68M
	5055.00	0.62	279.68	5051.74	-70.70	-70.18	65.63	96.09	136.92	0.88	288.78M
	5150.00	0.62	288.78	5146.73	-70.44	-69.93	64.63	95.23	137.25	0.10	278.45M
	5246.00	0.40	278.45	5242.73	-70.22	-69.71	63.81	94.51	137.53	0.25	305.08M
	5341.00	0.48	305.08	5337.73	-69.93	-69.44	63.16	93.86	137.71	0.23	285.88M
	5437.00	0.40	285.88	5433.73	-69.60	-69.11	62.51	93.19	137.87	0.17	273.35M
	5533.00	0.52	273.35	5529.72	-69.48	-69.00	61.75	92.59	138.17	0.16	274.45M
	5628.00	0.62	274.45	5624.72	-69.41	-68.93	60.81	91.92	138.58	0.11	280.56M
	5724.00	0.62	280.56	5720.71	-69.27	-68.80	59.78	91.14	139.01	0.07	274.76M
	5818.00	0.79	274.76	5814.70	-69.11	-68.65	58.63	90.28	139.50	0.20	295.68M
	5915.00	0.79	295.68	5911.70	-68.75	-68.30	57.36	89.20	139.98	0.30	293.95M
	6010.00	0.79	293.95	6006.69	-68.20	-67.75	56.17	88.01	140.34	0.03	284.78M
	6106.00	0.88	284.78	6102.68	-67.73	-67.30	54.86	86.82	140.82	0.17	291.15M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	6202.00	0.88	291.15	6198.67	-67.26	-66.84	53.46	85.59	141.35	0.10	290.58M
	6297.00	0.70	290.58	6293.66	-66.79	-66.38	52.23	84.46	141.80	0.19	290.89M
	6393.00	0.70	290.89	6389.65	-66.36	-65.96	51.14	83.46	142.22	0.00	277.57M
	6488.00	0.62	277.57	6484.64	-66.08	-65.69	50.08	82.60	142.68	0.18	291.46M
	6583.00	0.70	291.46	6579.64	-65.79	-65.41	49.03	81.75	143.14	0.19	304.29M
	6677.00	0.48	304.29	6673.63	-65.35	-64.97	48.17	80.89	143.45	0.27	289.48M
	6772.00	0.79	289.48	6768.63	-64.90	-64.53	47.23	79.97	143.80	0.37	289.48M
	6866.00	0.79	289.48	6862.62	-64.46	-64.10	46.01	78.90	144.33	0.00	297.98M
	6961.00	0.88	297.96	6957.61	-63.89	-63.54	44.74	77.71	144.85	0.16	295.06M
	7056.00	1.01	295.06	7052.59	-63.18	-62.84	43.34	76.34	145.41	0.15	294.36M
	7151.00	0.88	294.36	7147.58	-62.52	-62.19	41.92	75.00	146.02	0.14	280.25M
	7245.00	0.88	280.25	7241.57	-62.08	-61.76	40.55	73.88	146.71	0.23	279.07M
	7340.00	0.88	279.07	7336.56	-61.82	-61.52	39.11	72.90	147.55	0.02	267.69M
	7435.00	0.88	267.69	7431.55	-61.73	-61.43	37.66	72.06	148.49	0.18	267.88M
	7529.00	0.88	267.88	7525.54	-61.77	-61.49	36.22	71.36	149.50	0.00	247.95M
	7624.00	1.01	247.95	7620.52	-62.10	-61.83	34.72	70.91	150.69	0.37	254.85M
	7719.00	0.88	254.85	7715.51	-62.59	-62.33	33.24	70.64	151.93	0.18	247.56M
	7814.00	0.88	247.56	7810.50	-63.05	-62.80	31.86	70.42	153.10	0.12	242.15M
	7908.00	1.10	242.15	7904.49	-63.74	-63.50	30.39	70.40	154.42	0.25	239.65M
	8003.00	1.19	239.65	7999.47	-64.65	-64.42	28.73	70.54	155.96	0.11	235.96M
	8098.00	1.32	235.96	8094.44	-65.75	-65.53	26.98	70.87	157.63	0.16	239.58M
	8193.00	1.41	229.58	8189.42	-67.10	-66.90	25.18	71.49	159.38	0.19	233.76M
	8287.00	1.51	233.76	8283.39	-68.57	-68.39	23.30	72.25	161.18	0.16	228.09M
	8382.00	1.58	228.09	8378.35	-70.17	-70.00	21.32	73.18	163.06	0.18	226.55M
	8477.00	1.49	226.55	8473.32	-71.88	-71.73	19.45	74.31	164.83	0.10	220.49M
	8571.00	1.41	220.49	8567.29	-73.58	-73.45	17.81	75.57	166.37	0.18	228.97M
	8666.00	1.41	228.97	8662.26	-75.23	-75.10	16.17	76.82	167.85	0.22	222.77M
	8761.00	1.80	222.77	8757.22	-77.07	-76.96	14.27	78.28	169.49	0.45	212.75M
	8856.00	1.80	212.75	8852.18	-79.41	-79.31	12.45	80.29	171.08	0.33	201.56M
	8950.00	2.02	201.56	8946.12	-82.18	-82.10	11.04	82.84	172.34	0.46	253.49M
	9045.00	1.89	253.49	9041.07	-84.17	-84.10	8.93	84.57	173.94	1.81	196.36M
	9140.00	2.29	196.36	9136.02	-86.42	-86.37	6.89	86.64	175.44	2.14	210.25M
	9235.00	2.50	210.25	9230.94	-90.02	-89.98	5.31	90.13	176.62	0.65	212.58M
	9329.00	2.50	212.58	9324.85	-93.50	-93.48	3.17	93.53	178.05	0.11	206.38M
	9425.00	2.42	206.38	9420.76	-97.06	-97.06	1.15	97.06	179.32	0.29	206.16M
	9520.00	2.11	206.16	9515.69	-100.41	-100.42	-0.52	100.42	180.29	0.33	208.16M
	9614.00	2.42	208.16	9609.61	-103.70	-103.72	-2.22	103.75	181.22	0.34	208.65M
	9709.00	2.02	208.65	9704.54	-106.93	-106.96	-3.96	107.04	182.12	0.42	223.65M
	9804.00	2.99	223.65	9799.45	-110.17	-110.22	-6.48	110.41	183.36	1.22	221.67M
	9899.00	2.02	221.67	9894.36	-113.19	-113.27	-9.30	113.65	184.69	1.02	211.57M
	9992.00	2.20	211.57	9987.30	-115.92	-116.01	-11.33	116.56	185.58	0.44	189.38M
	10087.00	1.89	189.38	10082.24	-119.01	-119.11	-12.54	119.77	186.01	0.89	178.87M
	10181.00	1.89	178.87	10176.19	-122.09	-122.19	-12.76	122.86	185.96	0.37	178.87M
	10276.00	1.89	178.87	10271.13	-125.22	-125.32	-12.70	125.97	185.78	0.00	171.58M

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	10371.00	1.80	171.58	10366.09	-128.26	-128.37	-12.45	128.97	185.54	0.26	178.56M
	10466.00	2.20	178.56	10461.03	-131.57	-131.67	-12.18	132.23	185.29	0.49	190.08M
	10561.00	2.68	190.08	10555.94	-135.57	-135.67	-12.52	136.25	185.27	0.72	192.06M
	10656.00	2.90	192.06	10650.83	-140.10	-140.21	-13.42	140.85	185.47	0.25	194.87M
	10751.00	2.50	194.87	10745.72	-144.45	-144.56	-14.45	145.28	185.71	0.44	181.38M
	10845.00	2.42	181.38	10839.64	-148.41	-148.53	-15.02	149.29	185.78	0.62	189.07M
	10940.00	2.90	189.07	10934.54	-152.78	-152.91	-15.45	153.69	185.77	0.63	179.36M
	11034.00	2.68	179.36	11028.42	-157.32	-157.45	-15.80	158.24	185.73	0.55	180.06M
Last XEM survey	11129.00	2.81	180.06	11123.32	-161.87	-162.00	-15.78	162.77	185.56	0.14	179.03M
	11187.00	2.65	179.03	11181.25	-164.64	-164.77	-15.76	165.52	185.46	0.29	175.9M
	11218.00	2.45	175.90	11212.22	-166.01	-166.14	-15.70	166.88	185.40	0.79	101.91M
	11250.00	1.16	101.91	11244.21	-166.77	-166.89	-15.33	167.59	185.25	7.51	43.84M
	11281.00	3.95	43.84	11275.17	-166.07	-166.19	-14.28	166.80	184.91	11.22	36.02M
	11313.00	7.34	36.02	11307.02	-163.64	-163.74	-12.32	164.20	184.30	10.84	31.84M
	11344.00	9.64	31.84	11337.67	-159.85	-159.93	-9.78	160.23	183.50	7.68	38.36L
	11376.00	12.55	21.87	11369.08	-154.37	-154.43	-7.08	154.59	182.62	10.86	16.45L
	11408.00	15.96	18.24	11400.09	-146.98	-147.02	-4.40	147.08	181.72	11.01	3.6L
	11439.00	17.23	17.97	11429.79	-138.59	-138.60	-1.65	138.61	180.68	4.10	10.64R
	11470.00	20.35	19.65	11459.14	-129.17	-129.16	1.58	129.17	179.30	10.21	5.79R
	11502.00	23.68	20.49	11488.80	-117.94	-117.89	5.70	118.03	177.23	10.45	2.41L
	11533.00	27.79	20.12	11516.72	-105.35	-105.27	10.37	105.78	174.38	13.27	7.14L
	11565.00	32.62	19.00	11544.37	-90.23	-90.10	15.74	91.47	170.09	15.20	12.82L
	11596.00	37.06	17.33	11569.81	-73.44	-73.28	21.25	76.30	163.83	14.65	8.27L
	11628.00	41.69	16.32	11594.54	-54.06	-53.85	27.12	60.29	153.27	14.61	12.86L
	11659.00	46.75	14.74	11616.75	-33.28	-33.02	32.89	46.61	135.12	16.70	6.79L
	11691.00	49.50	14.31	11638.10	-10.27	-9.96	38.86	40.12	104.37	8.65	10.35R
	11722.00	52.91	15.09	11657.52	13.05	13.41	45.00	46.95	73.41	11.17	27.84R
	11754.00	56.72	17.48	11675.96	38.09	38.50	52.34	64.97	53.66	13.38	8.17R
	11786.00	60.67	18.13	11692.59	64.04	64.52	60.70	88.59	43.25	12.47	3.41L
	11817.00	64.62	17.87	11706.83	90.16	90.71	69.21	114.09	37.34	12.76	11.37L
	11849.00	70.15	16.69	11719.13	118.28	118.90	77.97	142.19	33.26	17.61	19.6L
	11880.00	75.44	14.75	11728.29	146.71	147.40	85.99	170.64	30.26	18.08	31.13L
	11912.00	80.26	11.81	11735.03	177.09	177.83	93.16	200.76	27.65	17.54	64.24L
	11944.00	82.45	7.29	11739.84	208.24	209.02	98.40	231.03	25.21	15.55	62.84L
	11975.00	84.63	3.06	11743.33	238.88	239.69	101.18	260.17	22.89	15.27	61.49L
	12007.00	86.80	359.08	11745.72	270.78	271.59	101.77	290.03	20.54	14.13	65.93L
	12028.00	87.56	357.38	11746.76	291.74	292.55	101.13	309.54	19.07	8.86	25.33L
	12055.00	87.94	357.20	11747.82	318.70	319.50	99.85	334.74	17.36	1.56	28.88L
	12132.00	89.11	356.56	11749.80	395.59	396.36	95.66	407.74	13.57	1.73	52.34L
	12226.00	89.55	355.99	11750.90	489.43	490.15	89.55	498.27	10.35	0.77	53.62L
	12321.00	89.69	355.80	11751.53	584.24	584.91	82.75	590.73	8.05	0.25	82.14L
	12416.00	89.90	354.28	11751.87	678.94	679.55	74.54	683.62	6.26	1.62	82.24R
	12510.00	90.14	356.04	11751.83	772.66	773.21	66.61	776.07	4.92	1.89	178.36L
	12605.00	89.79	356.03	11751.89	867.48	867.98	60.04	870.06	3.96	0.37	36.87R

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
	12699.00	90.07	356.24	11752.01	961.31	961.77	53.70	963.27	3.20	0.37	96.44R
	12794.00	90.00	356.86	11751.95	1056.18	1056.59	47.99	1057.68	2.60	0.66	78.31R
	12889.00	90.24	358.02	11751.75	1151.12	1151.50	43.74	1152.33	2.18	1.25	105.42L
	12984.00	89.52	355.41	11751.95	1245.99	1246.33	38.30	1246.92	1.76	2.85	74.18L
	13078.00	89.69	354.81	11752.60	1339.71	1339.99	30.29	1340.33	1.29	0.66	90L
	13172.00	89.69	354.59	11753.11	1433.37	1433.58	21.61	1433.75	0.86	0.23	74.14R
	13266.00	90.48	357.37	11752.97	1527.18	1527.34	15.02	1527.42	0.56	3.07	138.23L
	13361.00	89.45	356.45	11753.02	1622.07	1622.20	9.90	1622.23	0.35	1.45	164.75L
	13456.00	88.90	356.30	11754.39	1716.92	1717.00	3.89	1717.01	0.13	0.60	82.75L
	13551.00	88.97	355.75	11756.16	1811.72	1811.76	-2.69	1811.76	359.91	0.58	3.99L
	13645.00	89.83	355.69	11757.14	1905.51	1905.49	-9.71	1905.51	359.71	0.92	117.33L
	13740.00	88.90	353.89	11758.19	2000.17	2000.09	-18.33	2000.17	359.47	2.13	36.76R
	13835.00	89.69	354.48	11759.36	2094.74	2094.59	-27.96	2094.77	359.24	1.04	126.17R
	13929.00	88.93	355.52	11760.50	2188.44	2188.22	-36.15	2188.52	359.05	1.37	129.66R
	14023.00	87.63	357.09	11763.32	2282.24	2281.98	-42.21	2282.37	358.94	2.17	109.94R
	14118.00	86.35	0.64	11768.31	2377.09	2376.81	-44.09	2377.22	358.94	3.97	90R
	14212.00	86.35	2.70	11774.29	2470.83	2470.58	-41.35	2470.92	359.04	2.19	40.1R
	14307.00	87.87	3.98	11779.08	2565.49	2565.29	-35.82	2565.54	359.20	2.09	39.76R
	14402.00	88.94	4.87	11781.73	2660.11	2659.97	-28.50	2660.12	359.39	1.46	41R
	14497.00	90.24	6.00	11782.41	2754.60	2754.53	-19.50	2754.60	359.59	1.81	90L
	14591.00	90.24	5.60	11782.01	2848.04	2848.05	-10.00	2848.07	359.80	0.43	76.72L
	14686.00	90.45	4.71	11781.44	2942.59	2942.67	-1.47	2942.67	359.97	0.96	84.2L
	14781.00	90.52	4.02	11780.64	3037.25	3037.39	5.77	3037.39	0.11	0.73	75.55L
	14875.00	90.69	3.36	11779.64	3130.99	3131.19	11.81	3131.21	0.22	0.73	94.7L
	14970.00	90.62	2.51	11778.56	3225.82	3226.05	16.68	3226.10	0.30	0.90	108.99L
	15065.00	90.41	1.90	11777.70	3320.72	3320.98	20.33	3321.04	0.35	0.68	83.4L
	15159.00	90.55	0.69	11776.92	3414.67	3414.95	22.46	3415.02	0.38	1.30	102.01L
	15254.00	90.45	0.22	11776.09	3509.65	3509.94	23.21	3510.02	0.38	0.51	76.93L
	15349.00	90.58	359.66	11775.23	3604.64	3604.94	23.11	3605.01	0.37	0.61	91.8L
	15443.00	90.55	358.71	11774.31	3698.64	3698.92	21.78	3698.99	0.34	1.01	91.73L
	15538.00	90.52	357.72	11773.42	3793.61	3793.87	18.82	3793.92	0.28	1.04	88.31L
	15633.00	90.55	356.70	11772.53	3888.52	3888.75	14.19	3888.78	0.21	1.07	96L
	15727.00	90.41	355.37	11771.74	3982.34	3982.52	7.69	3982.53	0.11	1.42	81.51L
	15822.00	90.58	354.23	11770.92	4077.01	4077.13	-0.92	4077.13	359.99	1.21	100.21L
	15917.00	90.38	353.12	11770.13	4171.50	4171.54	-11.38	4171.56	359.84	1.19	93.81R
	16011.00	90.31	354.17	11769.56	4265.00	4264.96	-21.79	4265.02	359.71	1.12	83.66R
	16106.00	90.41	355.07	11768.96	4359.65	4359.54	-30.69	4359.65	359.60	0.95	102.45R
	16200.00	90.24	355.84	11768.43	4453.41	4453.24	-38.14	4453.41	359.51	0.84	90R
Final Survey	16271.00	90.24	357.13	11768.13	4524.30	4524.11	-42.49	4524.31	359.46	1.82	HS
Projection to TD	16340.00	90.24	357.13	11767.85	4593.24	4593.02	-45.95	4593.25	359.43	0.00	

Survey Type: Def Survey

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)	TF (°)
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Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	25.000	Act Stns	30.000	30.000	SLB_MWD-POOR-Depth Only	Original Borehole / Cimarex Cotton Draw 9L Federal Com #3H
	25.000	11129.000	Act Stns	30.000	30.000	SLB_MWD-POOR	Original Borehole / Cimarex Cotton Draw 9L Federal Com #3H
	11129.000	16271.000	Act Stns	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Cotton Draw 9L Federal Com #3H
	16271.000	16340.000	Act Stns	30.000	30.000	SLB_BLIND+TREND	Original Borehole / Cimarex Cotton Draw 9L Federal Com #3H

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOC District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☐ Permit ☒ Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1. Operator: Cimarex Energy Co. OGRID #: 215099
Address: 600 N. Marienfeld Street, Suite 600, Midland, TX 79701
Facility or well name: Cotton Draw 9L, Federal 3H
API Number: 30-025-41451 OCD Permit Number: _____
U/L or Qtr/Qtr M Section 9 Township 25S Range 32E County: Lea
Center of Proposed Design: Latitude 32° 09' 04.51" Longitude 103° 44' 14.64" NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2. ☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Operation: ☒ Drilling a new well ☐ Workover of Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

HOBBSOCD

3. **Signs:** Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC

DEC 22 2014

4. **Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

RECEIVED

5. **Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: R360 Disposal Facility Permit Number: NMNM-01-0006
Disposal Facility Name: _____ Disposal Facility Permit Number: _____
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☐ No
Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6. **Operator Application Certification:**
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): _____ Title: _____
Signature: _____ Date: _____
e-mail address: _____ Telephone: _____

7. **OCD Approval:** ☐ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____ Approval Date: _____

Title: _____ OCD Permit Number: _____

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ Closure Completion Date: 11/11/2013

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: R360 Disposal Facility Permit Number: NM-01-0006

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☒ No

Required for impacted areas which will not be used for future service and operations:

- ☐ Site Reclamation (Photo Documentation)
- ☐ Soil Backfilling and Cover Installation
- ☐ Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Gloria Garza Title: Regulatory Analyst

Signature: Gloria Garza Date: 1/10/2014

e-mail address: ggarza@cimarex.com Telephone: 432-620-1963

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMLC061873B
2. Name of Operator CIMAREX ENERGY COMPANY OF CO Contact: GLORIA GARZA E-Mail: ggarza@cimarex.com		6. If Indian, Allottee or Tribe Name
3a. Address 600 NORTH MARIENFELD STREET, SUITE 600 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432.571.7800 HOBBSOCD	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 9 T25S R32E SWSW 330FSL 3890FWL 32.081877 N Lat, 103.411454 W Lon DEC 22 2014		8. Well Name and No. COTTON DRAW 9L FEDERAL 3
		9. API Well No. 30-025-41451-00-X1
		10. Field and Pool, or Exploratory WILDCAT
		11. County or Parish, and State LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

11/15/13 ETOC @ 5500'.
11/16/13 Run tracer log.
11/19/13 Mix & pump 700 sx 50/50 POZ C, 11.9 ppg, 2.46 yld. WOC 72 hrs.
11/22/13 Run RCBL/CCL ? TOC @ 290'. Test csg to 9500# for 30 mins. OK.
11/23/13 to
11/27/13 Perf Bone Spring @ 11750-16310', .42, 384 holes. Frac w/ 1755578 gals total fluid;
2738507# sand.
11/28/13 Mill out plugs. CO to PBTD @ 16310'. Flowback well.
12/8/13 RIH w/ 2-3/8" tbg & pkr & set @ 11205'. GLV set @ 2022, 3330, 4082, 4770, 5491, 6180,
6868, 7557, 8278, 8999, 9720, 10441, 11162'. Turn well to production.

14. I hereby certify that the foregoing is true and correct. Electronic Submission #231237 verified by the BLM Well Information System For CIMAREX ENERGY COMPANY OF CO, sent to the Hobbs Committed to AFMSS for processing by JOHNNY DICKERSON on 01/10/2014 (14JLD1077SE)	
Name (Printed/Typed) GLORIA GARZA	Title REGULATORY COMPLIANCE
Signature (Electronic Submission)	Date 01/07/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	JAMES A AMOS Title SUPERVISORY EPS	Date 01/11/2014
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Operator Copy

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMLC061873B
2. Name of Operator CIMAREX ENERGY COMPANY OF CO Contact: DEYSI FAVELA Email: dfavela@cimarex.com		6. If Indian, Allottee or Tribe Name
3a. Address 600 NORTH MARIENFELD STREET, SUITE 600 MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-620-1964	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 9 T25S R32E SWSW 330FSL 3890FWL 32.081877 N Lat, 103.411454 W Lon		8. Well Name and No. COTTON DRAW 9L FEDERAL 3
		9. API Well No. 30-025-41451-00-X1
		10. Field and Pool, or Exploratory WILDCAT
		11. County or Parish, and State LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

10/20/13 Spud Well

10/21/13 TD 17 1/2" Surface Hole @ 850'

Ran 13 3/8 48# H-40 ST&C csg @ 850'

Mix & Pump Lead cmt: 500 sxs of Class C cmt, 13.5 ppg, 1.75 yld. Tail cmt: 250 sxs of Class C cmt, 14.8 ppg, 1.34 yld. Circ 245 sxs of cmt to surface. WOC 24+ hrs.

10/22/13 Test csg up to 1250 psi for 30 min, ok.

10/25/13 TD 12 1/4" Hole @ 4510'

Ran 9 5/8" 40#, J-55 LT&C csg @ 4510'.

Mix & Pump Lead cmt: 1050 sxs of Class C cmt, 12.9 ppg, 1.92 yld. Tail cmt: 300 sxs of Class C cmt, 14.8 ppg, 1.33 yld. Circ 275 sxs of cmt to surface. WOC 24+ hrs.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #230242 verified by the BLM Well Information System
For CIMAREX ENERGY COMPANY OF CO, sent to the Hobbs
Committed to AFMSS for processing by JOHNNY DICKERSON on 01/10/2014 (14JLD1052SE)

Name (Printed/Typed) DEYSI FAVELA	Title DRILLING TECHNICIAN
Signature (Electronic Submission)	Date 12/20/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ACCEPTED	JAMES A AMOS Title SUPERVISORY EPS	Date 01/11/2014
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		
Office Hobbs		

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #230242 that would not fit on the form

32. Additional remarks, continued

10/26/13 Test csg to 1500 psi for 30 min. ok.
11/08/13 TD Well @ 16,340'.
11/10/13 Ran 5 1/2" P-110 BT&C/LT&C @ 16340'.
11/11/13 Mix & Pump Lead cmt: 610 sxs of Class C cmt, 10.8 ppg, 3.67 yld. Tail cmt: 1670 sxs of class H cmt, 14.2 ppg, 1.3 yld. WOC. Rig Release.
11/22/13 ETOC 290'. Test csg to 9500 psi for 30 min, ok.