

**Serial # 8524**

Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	604.0	76.46	90.6
	606.0	73.88	90.7
	608.0	46.87	87.5
	610.0	60.46	87.6
	612.0	17.02	77.8
	614.0	42.20	78.8
	616.0	55.05	81.1
	617.0	58.91	82.5

Printing every 4 samples

Serial # 8524				Serial # 8524			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	440.0	1326.43	102.1		522.0	1152.29	98.6
	442.0	1326.40	102.1		524.0	1139.43	97.7
	444.0	1326.34	102.1		526.0	1079.23	97.2
	446.0	1326.28	102.1		528.0	1051.19	96.5
	448.0	1326.20	102.1		530.0	1019.87	96.0
	450.0	1326.14	102.1		532.0	958.90	95.3
	452.0	1326.09	102.1		534.0	887.08	94.4
	454.0	1326.02	102.1		536.0	860.40	93.1
	456.0	1325.95	102.1		538.0	806.17	92.8
	458.0	1325.91	102.1		540.0	774.35	92.4
	460.0	1325.86	102.1		542.0	713.78	92.0
	462.0	1325.84	102.1		544.0	635.62	91.6
	464.0	1328.98	102.1		546.0	618.57	90.7
	466.0	1329.14	102.1		548.0	553.59	90.0
	468.0	1329.36	102.1		550.0	495.02	89.5
	470.0	1329.68	102.1		552.0	469.09	89.2
	472.0	1313.24	102.1		554.0	444.64	88.9
	474.0	1317.84	102.1		556.0	379.95	88.7
	476.0	1320.52	102.1		558.0	355.32	88.3
	478.0	1322.37	102.1		560.0	312.40	88.2
	480.0	1324.05	102.1		562.0	274.79	88.1
	482.0	1328.17	102.1		564.0	254.05	88.1
	484.0	1329.88	102.1		566.0	187.86	88.2
	486.0	1329.54	102.1		568.0	191.23	88.3
	488.0	1329.99	102.1		570.0	185.16	88.3
	490.0	1330.16	102.1		572.0	134.61	88.5
	492.0	1329.85	102.1		574.0	102.67	88.6
	494.0	1333.21	102.1		576.0	104.85	88.9
	496.0	1330.20	102.1		578.0	92.51	89.0
	498.0	1329.16	102.1		580.0	92.17	89.4
	500.0	1446.89	102.1		582.0	106.08	89.6
	502.0	1341.46	102.1		584.0	115.94	89.7
	504.0	1337.75	102.1		586.0	115.60	89.8
	506.0	1336.72	102.1		588.0	114.10	89.8
	508.0	1300.49	102.0		590.0	111.00	89.9
	510.0	1299.54	101.5		592.0	108.48	89.9
	512.0	1264.70	100.7		594.0	108.93	89.9
	514.0	1219.55	100.6		596.0	107.80	89.9
	516.0	1230.02	99.5		598.0	97.36	89.8
	518.0	1230.64	99.5		600.0	92.32	90.0
	520.0	1201.34	98.8		602.0	91.53	90.2

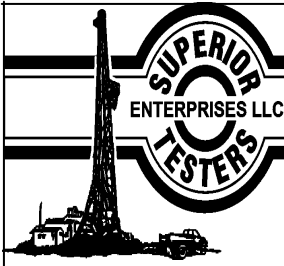
Printing every 4 samples

Serial # 8524				Serial # 8524			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	291.0	1311.21	122.9		358.0	1335.19	102.3
	293.0	1311.70	122.8		360.0	1338.98	102.3
	295.0	1312.08	122.8		362.0	1315.04	102.1
	297.0	1312.47	122.8		364.0	1315.58	102.1
	299.0	1312.87	122.8		366.0	1317.13	102.1
	301.0	1313.17	122.8		368.0	1318.40	102.1
	303.0	1313.56	122.8		370.0	1319.49	102.1
	305.0	1313.95	122.8		372.0	1320.37	102.1
	307.0	1314.18	122.8		374.0	1321.23	102.1
	309.0	1314.36	122.7		376.0	1321.47	102.1
	311.0	1314.78	122.7		378.0	1322.02	102.1
	313.0	1315.30	122.7		380.0	1322.45	102.1
	315.0	1315.14	122.7		382.0	1323.06	102.1
	317.0	1315.61	122.7		384.0	1323.34	102.1
	319.0	1315.70	122.7		386.0	1323.73	102.1
	321.0	1315.75	122.7		388.0	1324.07	102.1
End Shut-In(2)	321.5	1315.76	122.7		390.0	1324.27	102.1
	322.0	1315.69	122.7		392.0	1324.60	102.1
	322.5	1315.48	122.7		394.0	1324.79	102.1
	323.0	1627.22	122.8		396.0	1324.99	102.1
	323.5	1710.48	122.5		398.0	1325.56	102.1
Final Hydro-static	324.0	1772.32	122.4		400.0	1325.69	102.1
	324.5	1830.09	122.3		402.0	1325.80	102.1
	325.0	1822.91	122.3		404.0	1325.88	102.1
	325.5	1820.65	122.4		406.0	1325.92	102.1
	326.0	1818.62	122.4		408.0	1325.98	102.1
	328.0	1823.45	122.5		410.0	1326.02	102.1
	330.0	1794.88	121.9		412.0	1326.07	102.1
	332.0	1777.07	119.8		414.0	1326.15	102.1
	334.0	1778.98	116.1		416.0	1326.22	102.1
	336.0	1764.34	114.7		418.0	1326.31	102.1
	338.0	1717.82	112.8		420.0	1326.38	102.1
	340.0	1621.59	111.9		422.0	1326.43	102.1
	342.0	1631.16	110.5		424.0	1326.46	102.1
	344.0	1529.57	109.4		426.0	1326.48	102.1
	346.0	1491.94	108.0		428.0	1326.48	102.1
	348.0	1481.50	106.5		430.0	1326.49	102.1
	350.0	1422.12	105.1		432.0	1326.50	102.1
	352.0	1362.64	103.8		434.0	1326.49	102.1
	354.0	1286.06	102.8		436.0	1326.49	102.1
	356.0	1331.20	102.3		438.0	1326.46	102.1

Printing every 4 samples

Serial # 8524				Serial # 8524			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	144.5	1200.11	124.9		217.5	847.89	123.3
	146.5	1206.84	125.1		219.5	866.85	123.3
	148.5	1209.21	125.1		221.5	885.29	123.2
	150.5	1210.24	125.0		223.5	903.49	123.2
	152.5	1211.22	124.9		225.5	921.07	123.1
	154.5	1211.99	124.7		227.5	938.05	123.1
	156.5	1212.27	124.6		229.5	954.65	123.0
	158.5	1212.52	124.5		230.5	962.80	123.0
	160.5	1213.34	124.4		231.0	966.70	123.0
	162.5	1213.74	124.3		231.5	970.40	123.0
	164.5	1214.83	124.2		232.0	1205.01	123.0
	166.5	1217.06	124.1		232.5	1213.48	123.0
	168.5	1218.74	124.0		233.0	1218.27	123.1
	170.5	1223.49	123.8		235.0	1234.76	123.1
	172.5	1231.18	123.7		237.0	1247.73	123.1
	174.5	1242.56	123.6		239.0	1257.16	123.1
	176.5	1254.27	123.6		241.0	1264.24	123.1
	178.5	1264.61	123.5		243.0	1270.15	123.1
	180.5	1273.36	123.4		245.0	1275.05	123.1
	182.5	1280.23	123.3		247.0	1279.17	123.1
	184.5	1285.89	123.3		249.0	1282.80	123.0
	186.5	1290.30	123.2		251.0	1285.96	123.0
	187.0	1291.39	123.2		253.0	1288.83	123.0
	187.5	1292.46	123.1		255.0	1291.30	123.0
End Shut-In(1)	188.0	1293.49	123.1		257.0	1293.69	123.0
Open To Flow (2)	188.5	535.51	122.9		259.0	1295.41	123.0
	189.0	542.46	122.9		261.0	1297.40	123.0
	189.5	549.40	123.0		263.0	1298.82	123.0
	191.5	575.98	123.4		265.0	1300.30	123.0
	193.5	600.25	123.6		267.0	1301.68	123.0
	195.5	621.66	123.6		269.0	1302.88	123.0
	197.5	642.58	123.7		271.0	1304.00	122.9
	199.5	664.00	123.8		273.0	1305.06	122.9
	201.5	684.45	123.8		275.0	1305.93	122.9
	203.5	705.18	123.7		277.0	1306.83	122.9
	205.5	726.93	123.7		279.0	1307.66	122.9
	207.5	747.88	123.6		281.0	1308.29	122.9
	209.5	768.50	123.5		283.0	1309.08	122.9
	211.5	789.46	123.5		285.0	1309.54	122.9
	213.5	809.42	123.4		287.0	1310.16	122.9
	215.5	828.81	123.4		289.0	1310.78	122.9

Printing every 4 samples



# DRILL STEM TESTING - DATA LISTING

CAPTIVA

3-22S-16W

445 UNION BLVD SUITE 208 LAKEWOOD CO  
80228

1-3WFYOG

Job Ticket: 17733

DST#: 1

ATTN: CHARLIE STURDAVANT

Test Start: 2012.09.06 @ 11:38:53

Serial # 8524				Serial # 8524			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	1.0	16.42	80.3		96.5	1674.35	107.3
	5.0	15.45	78.2		98.5	1718.86	107.8
	9.0	15.26	76.0		100.5	1725.39	107.9
	13.0	18.48	91.7		102.5	1734.94	108.2
	17.0	27.94	94.6		104.5	1753.57	108.5
	21.0	33.84	96.2		106.5	1772.19	108.6
	25.0	37.78	95.9		108.5	1803.36	109.4
	29.0	46.13	95.4		110.5	1788.89	109.5
	33.0	97.81	96.0		112.5	1814.60	110.3
	37.0	125.53	95.6		114.5	1800.60	110.2
	41.0	148.52	94.1		116.5	1798.77	110.2
	45.0	206.15	92.5		118.5	1797.18	110.2
	49.0	336.35	94.4		120.5	1837.35	110.3
	53.0	462.37	95.1		122.5	1816.14	112.4
	57.0	585.36	96.4		124.5	1811.44	112.9
	60.5	715.26	97.6		126.5	1809.10	112.7
	62.5	747.92	98.6		127.0	1819.52	112.7
	64.5	835.90	99.4		127.5	1837.89	112.8
	66.5	963.72	98.8	Initial Hydro-static	128.0	1842.56	113.2
	68.5	989.78	99.4	Open To Flow (1)	128.5	235.91	115.1
	70.5	1061.70	99.8		129.0	301.20	116.2
	72.5	1147.65	100.5		129.5	333.16	118.3
	74.5	1242.98	101.1		131.5	473.35	122.7
	76.5	1265.05	102.0		133.5	384.12	123.3
	78.5	1437.63	102.8		135.5	389.01	123.8
	80.5	1421.09	103.8		137.5	405.64	123.9
	82.5	1480.13	104.7		139.5	427.03	124.0
	84.5	1722.06	105.5		141.5	451.02	124.1
	86.5	1640.56	106.6		142.0	457.29	124.1
	88.5	1694.42	107.3		142.5	462.58	124.1
	90.5	1680.67	107.3	Shut-In(1)	143.0	468.86	124.1
	92.5	1677.79	107.3		143.5	1187.17	124.5
	94.5	1675.99	107.3		144.0	1195.67	124.7

Printing every 4 samples

<b>Serial # 6806</b>				<b>Serial # 8524</b>			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	598.5	46.80	89.0				
	600.5	40.47	89.8				
	602.5	40.63	89.9				
	604.5	24.41	90.0				
	606.5	24.74	90.0				
	608.5	14.39	88.9				
	610.5	14.23	86.5				
	612.5	13.67	78.1				
	614.5	13.13	77.5				
	616.5	13.15	79.7				
	617.0	13.08	81.6				

Printing every 4 samples

Serial # 6806				Serial # 6806			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	443.0	1306.40	101.3		516.5	1227.94	98.9
	445.0	1306.22	101.3		518.5	1225.64	98.7
	447.0	1306.38	101.3		520.5	1195.62	98.1
	449.0	1306.19	101.3		522.5	1196.64	98.0
	451.0	1305.75	101.3		524.5	1098.99	97.2
	453.0	1305.90	101.3		526.5	1102.96	96.6
	455.0	1305.45	101.3		528.5	1025.91	95.9
	457.0	1305.30	101.3		530.5	1010.51	95.4
	459.0	1305.21	101.3		532.5	930.62	95.0
	461.0	1305.13	101.3		534.5	916.34	93.9
	463.0	1305.10	101.3		536.5	852.53	92.9
	465.0	1308.81	101.3		538.5	823.44	92.3
	467.0	1308.53	101.3		540.5	760.63	91.8
	469.0	1308.65	101.3		542.5	689.45	91.5
	471.0	1308.98	101.3		544.5	668.35	91.0
	473.0	1302.06	101.3		546.5	605.14	90.2
	475.0	1305.11	101.3		548.5	537.98	89.6
	477.0	1306.04	101.3		550.5	479.55	88.9
	479.0	1306.92	101.3		552.5	407.73	88.6
	481.0	1307.17	101.3		554.5	420.81	88.2
	483.0	1312.10	101.3		556.5	391.59	87.9
	485.0	1312.59	101.3		558.5	330.70	87.6
	487.0	1311.42	101.3		560.5	299.54	87.4
	489.0	1311.18	101.3		562.5	247.03	87.3
	491.0	1310.81	101.3		564.5	210.01	87.3
	493.0	1310.16	101.3		566.5	177.14	87.3
	495.0	1314.04	101.3		568.5	138.30	87.4
	497.0	1309.45	101.3		570.5	138.85	87.4
	498.0	1308.34	101.3		572.5	71.00	87.6
	498.5	1308.34	101.3		574.5	93.65	87.6
End Shut-In(3)	499.0	1308.39	101.3		576.5	42.90	88.1
	499.5	1439.14	101.3		578.5	45.73	88.1
	500.0	1438.58	101.3		580.5	24.25	88.6
	500.5	1321.09	101.3		582.5	40.61	89.2
	502.5	1322.30	101.3		584.5	55.68	89.5
	504.5	1317.74	101.3		586.5	57.10	89.5
	506.5	1316.94	101.3		588.5	57.12	89.5
	508.5	1318.30	101.3		590.5	55.53	89.4
	510.5	1291.18	100.8		592.5	53.74	89.2
	512.5	1258.34	100.1		594.5	54.88	88.8
	514.5	1258.52	99.9		596.5	54.80	88.8

Printing every 4 samples

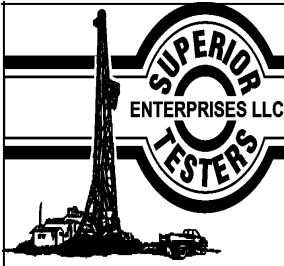
Serial # 6806				Serial # 6806			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	294.0	1288.23	121.4		361.0	1345.00	101.5
	296.0	1288.68	121.4		363.0	1317.92	101.3
	298.0	1288.86	121.3		365.0	1314.73	101.3
	300.0	1289.03	121.3		367.0	1314.03	101.3
	302.0	1288.90	121.2		369.0	1313.75	101.3
	304.0	1289.34	121.2		371.0	1313.86	101.3
	306.0	1289.47	121.2		373.0	1313.65	101.4
	308.0	1289.60	121.1		375.0	1313.53	101.4
	310.0	1289.73	121.1		377.0	1312.74	101.4
	312.0	1289.88	121.0		379.0	1312.47	101.4
	314.0	1290.02	121.0		381.0	1312.28	101.4
	316.0	1290.14	120.9		383.0	1312.05	101.4
	318.0	1290.22	120.9		385.0	1311.81	101.4
	320.0	1290.26	120.9		387.0	1311.57	101.4
	322.0	1290.29	120.8		389.0	1311.42	101.4
	322.5	1290.31	120.8		391.0	1311.13	101.4
End Shut-In(2)	323.0	1290.30	120.8		393.0	1311.01	101.4
	323.5	1290.20	120.8		395.0	1310.40	101.4
	324.0	1674.46	120.9		397.0	1310.21	101.4
	324.5	1818.05	121.0		399.0	1310.01	101.4
	325.0	1804.17	120.9		401.0	1310.10	101.4
Final Hydro-static	325.5	1862.43	120.7		403.0	1310.00	101.4
	326.0	1852.05	120.6		405.0	1309.75	101.4
	326.5	1845.91	120.5		407.0	1309.45	101.4
	327.0	1840.91	120.5		409.0	1309.30	101.4
	329.0	1837.69	120.5		411.0	1308.97	101.4
	331.0	1817.13	119.8		413.0	1308.77	101.4
	333.0	1802.40	117.4		415.0	1308.35	101.4
	335.0	1826.98	115.4		417.0	1308.25	101.4
	337.0	1787.06	114.1		419.0	1308.15	101.4
	339.0	1757.77	112.2		421.0	1308.32	101.4
	341.0	1661.97	111.2		423.0	1307.87	101.4
	343.0	1663.96	109.8		425.0	1307.73	101.3
	345.0	1632.84	108.6		427.0	1307.61	101.3
	347.0	1508.62	107.2		429.0	1307.46	101.3
	349.0	1507.70	105.7		431.0	1307.32	101.3
	351.0	1447.10	104.4		433.0	1307.46	101.3
	353.0	1385.55	103.1		435.0	1306.99	101.3
	355.0	1333.51	102.0		437.0	1306.84	101.3
	357.0	1347.63	101.4		439.0	1306.70	101.3
	359.0	1345.35	101.4		441.0	1306.57	101.3

Printing every 4 samples



Serial # 6806				Serial # 6806			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	145.5	1249.72	124.0		220.0	873.93	122.4
	147.5	1262.27	122.8		222.0	892.01	122.4
	149.5	1268.71	121.9		224.0	910.97	122.3
	151.5	1273.46	122.0		226.0	927.69	122.3
	153.5	1276.37	122.1		228.0	944.56	122.2
	155.5	1278.49	122.0		230.0	960.35	122.1
	157.5	1280.60	121.7		231.5	972.70	122.1
	159.5	1282.44	121.5		232.0	975.76	122.1
	161.5	1283.99	121.4	Shut-In(2)	232.5	979.17	122.0
	163.5	1285.46	121.4		233.0	1239.65	122.1
	165.5	1286.95	121.4		233.5	1246.74	122.2
	167.5	1287.55	121.4		234.0	1250.46	122.3
	169.5	1288.24	121.3		236.0	1258.71	122.3
	171.5	1289.08	121.2		238.0	1263.28	122.4
	173.5	1289.67	121.2		240.0	1266.58	122.4
	175.5	1290.56	121.1		242.0	1269.33	122.4
	177.5	1291.07	121.1		244.0	1271.66	122.4
	179.5	1291.57	121.1		246.0	1273.83	122.4
	181.5	1292.00	121.1		248.0	1275.19	122.4
	183.5	1292.33	121.0		250.0	1276.53	122.3
	185.5	1292.97	121.0		252.0	1277.89	122.3
	187.5	1293.14	121.0		254.0	1278.99	122.3
	188.0	1293.17	121.0		256.0	1280.05	122.3
End Shut-In(1)	188.5	1293.22	121.0		258.0	1280.86	122.2
	189.0	1292.32	121.0		260.0	1281.63	122.2
Open To Flow (2)	189.5	488.52	120.9		262.0	1282.35	122.1
	190.0	495.43	121.5		264.0	1282.94	122.1
	192.0	529.88	122.8		266.0	1283.51	122.0
	194.0	557.03	123.1		268.0	1284.09	122.0
	196.0	592.70	123.2		270.0	1284.60	121.9
	198.0	621.78	123.2		272.0	1285.07	121.9
	200.0	649.44	123.2		274.0	1285.48	121.9
	202.0	675.13	123.1		276.0	1285.78	121.8
	204.0	699.25	123.1		278.0	1286.23	121.8
	206.0	724.29	123.0		280.0	1286.43	121.7
	208.0	747.96	122.9		282.0	1286.71	121.7
	210.0	770.44	122.8		284.0	1287.08	121.6
	212.0	793.09	122.7		286.0	1287.39	121.6
	214.0	814.38	122.7		288.0	1287.61	121.5
	216.0	834.27	122.6		290.0	1287.75	121.5
	218.0	854.92	122.5		292.0	1288.35	121.5

Printing every 4 samples



# DRILL STEM TESTING - DATA LISTING

CAPTIVA

3-22S-16W

445 UNION BLVD SUITE 208 LAKEWOOD CO  
80228

1-3WFYOG

Job Ticket: 17733

DST#: 1

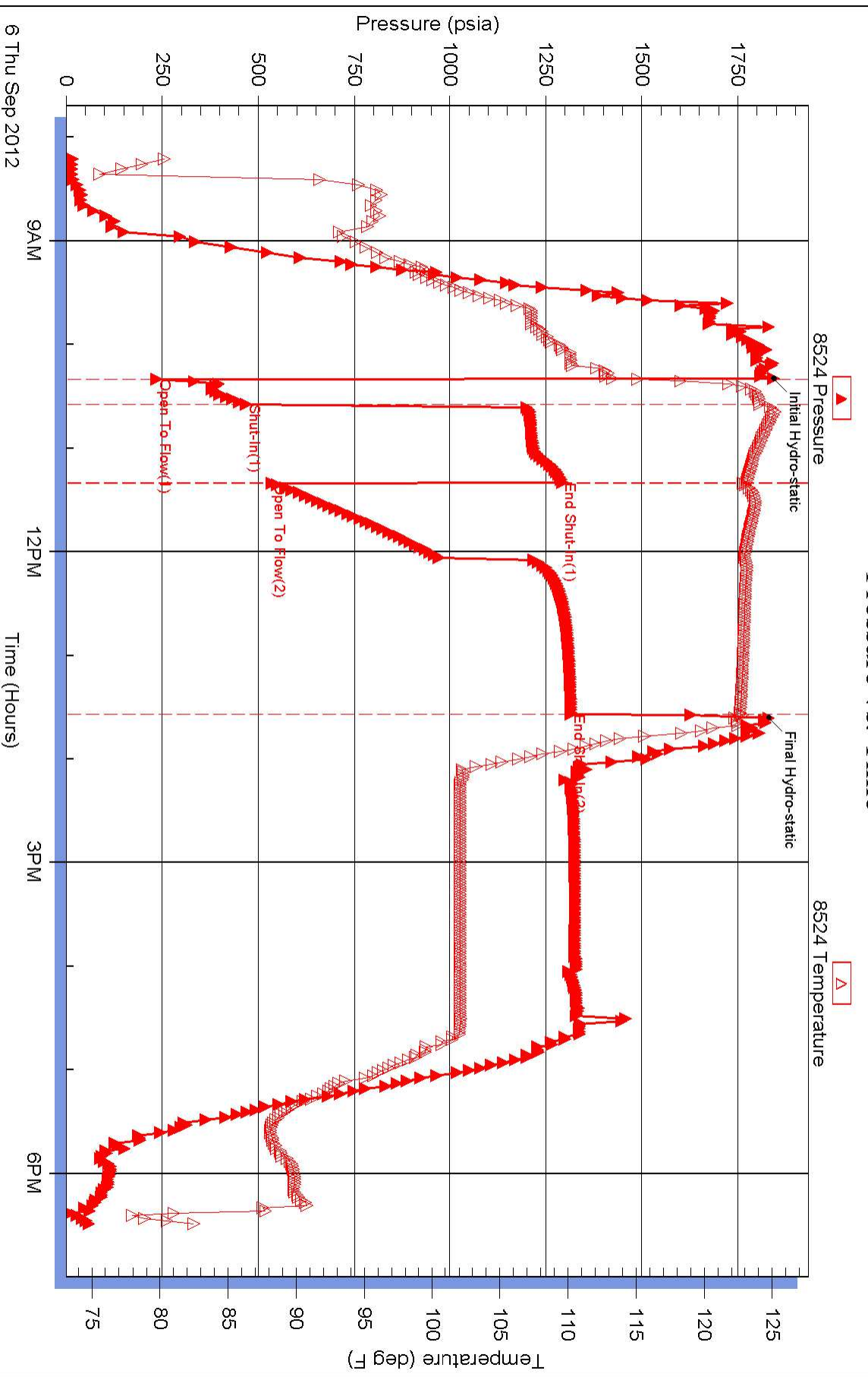
ATTN: CHARLIE STURDAVANT

Test Start: 2012.09.06 @ 11:38:53

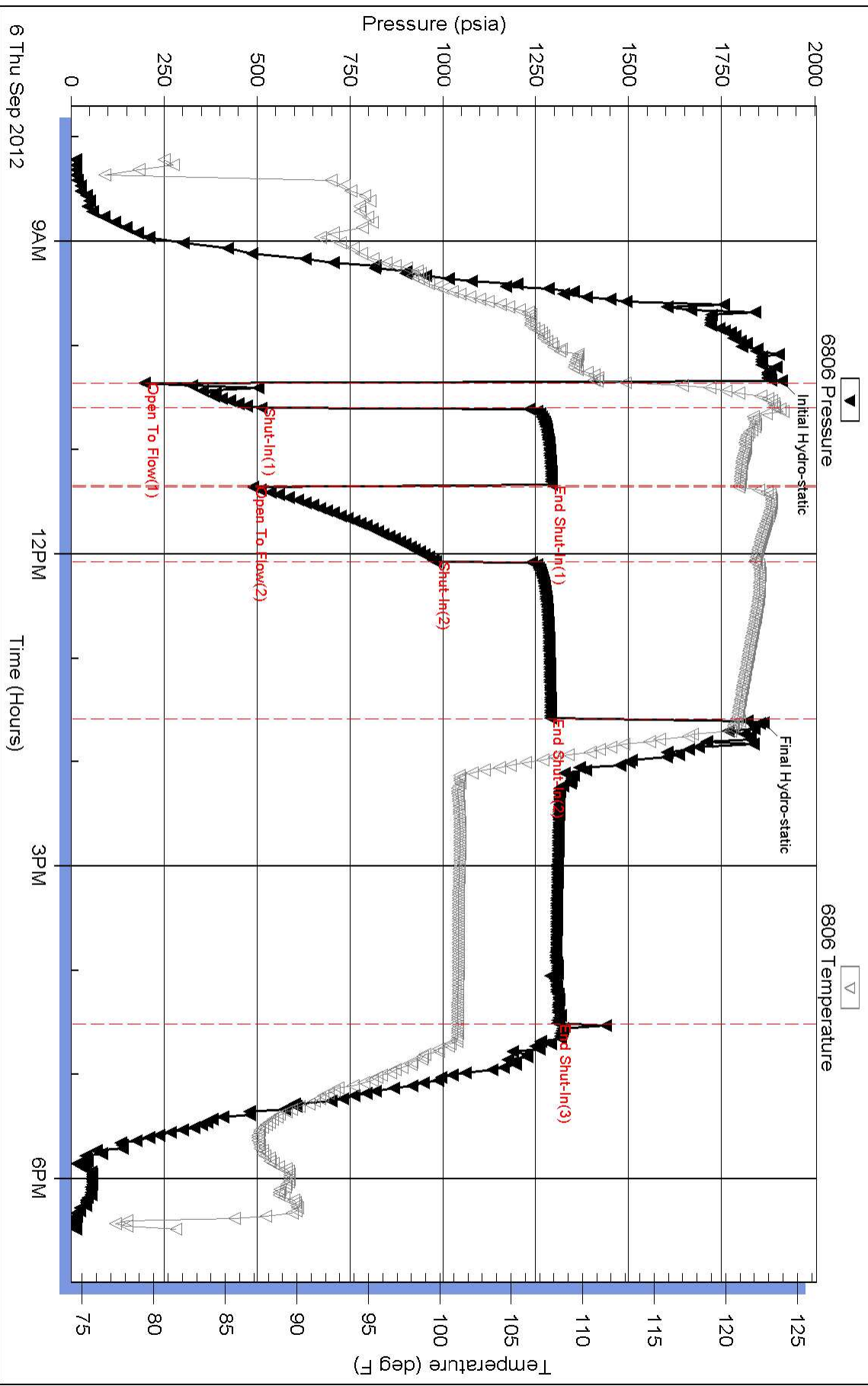
Serial # 6806				Serial # 6806			
Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psia)	Temp. (deg F)
	1.0	13.43	80.7		96.5	1720.05	106.4
	5.0	13.71	80.5		98.5	1739.79	106.7
	9.0	13.63	77.3		100.5	1764.83	107.1
	13.0	16.69	92.4		102.5	1787.31	107.3
	17.0	26.32	93.5		104.5	1802.79	107.3
	21.0	41.52	94.6		106.5	1819.64	107.8
	25.0	50.02	95.1		108.5	1804.37	108.0
	29.0	58.64	94.4		110.5	1843.62	108.5
	33.0	89.02	95.0		112.5	1866.17	108.8
	37.0	117.97	95.3		114.5	1858.67	109.7
	41.0	147.72	94.5		116.5	1857.36	109.6
	45.0	178.05	92.1		118.5	1857.22	109.5
	49.0	302.71	93.0		120.5	1896.99	109.4
	53.0	456.42	94.3		122.5	1878.00	109.9
	57.0	618.04	95.1		124.5	1874.51	110.7
	60.5	705.50	96.2		126.5	1873.25	111.1
	62.5	768.31	97.3		127.5	1890.41	110.9
	64.5	830.54	98.2		128.0	1883.55	110.8
	66.5	899.41	98.7	Initial Hydro-static	128.5	1910.61	111.0
	68.5	986.90	98.2		129.0	1947.46	111.8
	70.5	1047.22	98.8	Open To Flow (1)	129.5	197.18	113.0
	72.5	1200.80	99.2		130.0	275.91	114.8
	74.5	1202.49	100.0		132.0	348.78	118.3
	76.5	1264.94	100.8		134.0	352.49	120.0
	78.5	1324.70	101.5		136.0	391.72	120.5
	80.5	1407.97	102.4		138.0	397.35	122.9
	82.5	1479.66	103.3		140.0	427.01	123.2
	84.5	1754.84	104.3		142.0	455.91	123.4
	86.5	1656.03	105.0		143.0	471.53	123.4
	88.5	1697.46	106.1		143.5	478.69	123.4
	90.5	1722.83	106.4	Shut-In(1)	144.0	510.91	123.4
	92.5	1720.87	106.4		144.5	1233.61	123.8
	94.5	1720.68	106.4		145.0	1243.70	123.9

Printing every 4 samples

### Pressure vs. Time



# Pressure vs. Time





# DRILL STEM TEST REPORT

## FLUID SUMMARY

CAPTIVA

3-22S-16W

445 UNION BLVD SUITE 208 LAKEWOOD CO  
80228

1-3WFOG

Job Ticket: 17733

DST#: 1

ATTN: CHARLIE STURDAVANT

Test Start: 2012.09.06 @ 11:38:53

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.60 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 4500.00 ppm

Filter Cake: 7.60 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2720.00	CLEAN GASSY CUT OIL	36.241

Total Length: 2720.00 ft      Total Volume: 36.241 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

CAPTIVA

**3-22S-16W**

445 UNION BLVD SUITE 208 LAKEWOOD CO  
80228

**1-3WFYOG**

Job Ticket: 17733

**DST#: 1**

ATTN: CHARLIE STURDAVANT

Test Start: 2012.09.06 @ 11:38:53

## Tool Information

Drill Pipe:	Length: 3544.00 ft	Diameter: 3.80 inches	Volume: 49.71 bbl	Tool Weight: 66000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 50.74 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3780.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 ft			
Number of Packers:	2	Diameter: inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3757.00	
Hydraulic Tool	5.00			3762.00	
Jars	6.00			3768.00	
Safety Joint	2.00			3770.00	
Packer	5.00			3775.00	28.00 Bottom Of Top Packer
Packer	5.00			3780.00	
Perforations	5.00			3785.00	
C.O. Sub	0.75			3785.75	
Drill Pipe	31.50			3817.25	
C.O. Sub	0.75			3818.00	
Perforations	37.00			3855.00	
Recorder	1.00			3856.00	
Recorder	1.00			3857.00	
Bullnose	3.00			3860.00	80.00 Bottom Packers & Anchor

**Total Tool Length: 108.00**



# DRILL STEM TEST REPORT

CAPTIVA

3-22S-16W

445 UNION BLVD SUITE 208 LAKEWOOD CO  
80228

1-3WFOG

Job Ticket: 17733

DST#: 1

ATTN: CHARLIE STURDAVANT

Test Start: 2012.09.06 @ 11:38:53

## GENERAL INFORMATION:

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:48:23

Time Test Ended: 21:55:53

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVE

Unit No: 3345

Interval: ft (KB) To ft (KB) (TVD)

Reference Elevations: 1997.00 ft (KB)

Total Depth: 3860.00 ft (KB) (TVD)

1986.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

## Serial #: 8524

Press @ RunDepth: 1315.48 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.09.06

End Date: 2012.09.06

Last Calib.: 2012.09.06

Start Time: 08:11:44

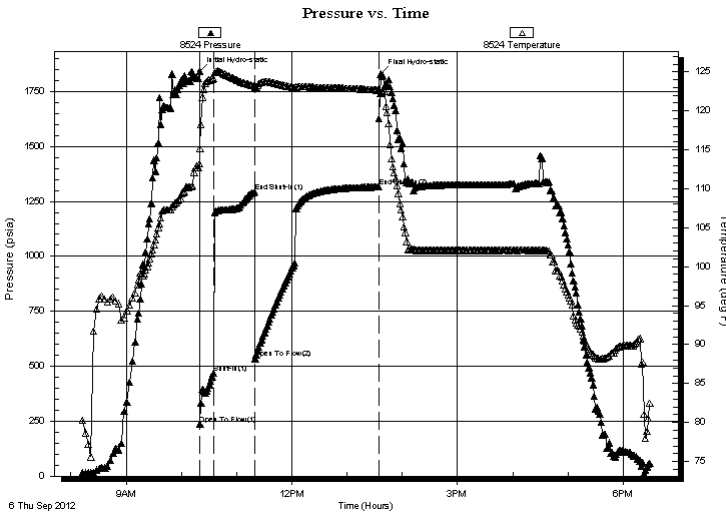
End Time: 18:28:44

Time On Btm: 2012.09.06 @ 10:19:44

Time Off Btm: 2012.09.06 @ 13:36:14

TEST COMMENT: INITIAL OPENING 15MIN GOOD BLOW BOTTOM BUCKET IN 1 MIN  
INITIAL SHUT IN 45 MIN GOOD GAS TO SURFACE IN 40 MINS  
FINAL OPENING 45 MINS GOOD BOTTOM BUCKET IN 4 MINS  
FINAL SHUT 90 IN GOOD BLOW BACK

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1842.56	113.24	Initial Hydro-static
1	235.91	115.14	Open To Flow (1)
15	468.86	124.10	Shut-In(1)
60	1293.49	123.14	End Shut-In(1)
61	535.51	122.87	Open To Flow (2)
195	1315.48	122.65	End Shut-In(2)
197	1830.09	122.26	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
2720.00	CLEAN GASSY CUT OIL	36.24

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)



# DRILL STEM TEST REPORT

CAPTIVA

3-22S-16W

445 UNION BLVD SUITE 208 LAKEWOOD CO  
80228

1-3WFOG

Job Ticket: 17733

DST#: 1

ATTN: CHARLIE STURDAVANT

Test Start: 2012.09.06 @ 11:38:53

## GENERAL INFORMATION:

Formation: **ARBUCKLE**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:48:23

Time Test Ended: 21:55:53

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVE

Unit No: 3345

Interval: ft (KB) To ft (KB) (TVD)

Reference Elevations: 1997.00 ft (KB)

Total Depth: 3860.00 ft (KB) (TVD)

1986.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

## Serial #: 6806

Press @ RunDepth: 979.17 psia @ ft (KB)

Capacity: 5000.00 psia

Start Date: 2012.09.06

End Date: 2012.09.06

Last Calib.: 2012.09.06

Start Time: 08:11:53

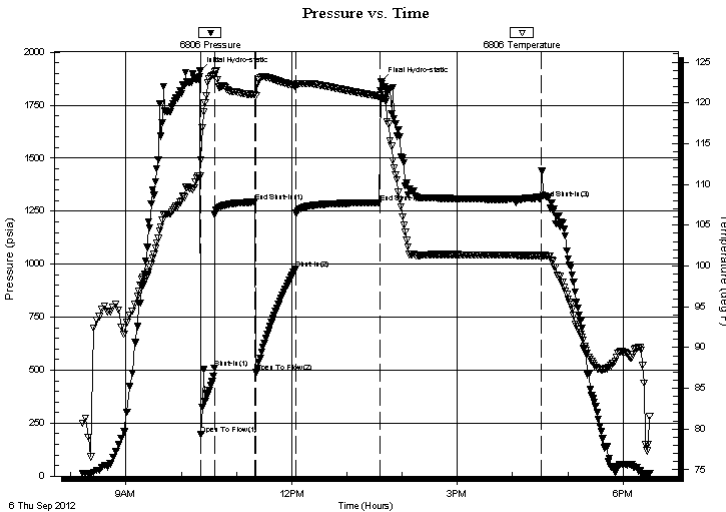
End Time: 18:28:53

Time On Btm: 2012.09.06 @ 10:20:23

Time Off Btm: 2012.09.06 @ 13:37:23

TEST COMMENT: INITIAL OPENING 15MIN GOOD BLOW BOTTOM BUCKET IN 1 MIN  
INITIAL SHUT IN 45 MIN GOOD GAS TO SURFACE IN 40 MINS  
FINAL OPENING 45 MINS GOOD BOTTOM BUCKET IN 4 MINS  
FINAL SHUT 90 IN GOOD BLOW BACK

## PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1910.61	111.00	Initial Hydro-static
1	197.18	112.99	Open To Flow (1)
16	510.91	123.42	Shut-In(1)
60	1293.22	121.00	End Shut-In(1)
61	488.52	120.93	Open To Flow (2)
104	979.17	122.05	Shut-In(2)
195	1290.20	120.81	End Shut-In(2)
197	1862.43	120.69	Final Hydro-static
371	1308.39	101.27	End Shut-In(3)

## Recovery

Length (ft)	Description	Volume (bbl)
2720.00	CLEAN GASSY CUT OIL	36.24

## Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)





## DRILL STEM TEST REPORT

Prepared For: **CAPTIVA**

445 UNION BLVD SUITE 208 LAKEWOOD  
CO 80228

ATTN: CHARLIE STURDAVANT

**1-3WFYOG**

**3-22S-16W**

Start Date: 2012.09.06 @ 11:38:53

End Date: 2012.09.06 @ 21:55:53

Job Ticket #: 17733                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2012.09.06 @ 11:57:56

CAPTIVA  
3-22S-16W  
1-3WFYOG  
DST # 1  
ARBUCKLE  
2012.09.06