

DRILLING INC. Oil Well Drilling Contractor

Post Office Box 160 Artesia, New Mexico 88211-0160 Office (575) 748-8704 Fax (575) 748-8719

December 26, 2013

HOBBS OCD

FEB 12 2014

30-025-41365

CML Exploration
P.O. Box 890
Snyder, Texas 79550

RECEIVED

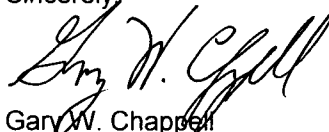
Re: Harris #1
Sec. 8, T-10-S, R-38-E
Lea County, New Mexico

Attn: Nolan Von Roeder

The following is a Deviation Survey on the referenced well in Eddy County, New Mexico:

177' - 0.75°	2835' - 1°	6423' - 2.75°	8795' - 1.5°
426' - 1.75°	3304' - 1°	6611' - 0.75°	8950' - 2°
635' - 2°	3772' - 1°	7078' - 1.75°	9089' - 1.25°
887' - 1°	4086' - 0.75°	7547' - 0.75°	9432' - 1.25°
1175' - 1°	4552' - 0.5°	8017' - 2°	9837' - 4°
1425' - 1.5°	5020' - 0.25°	8357' - 2.25°	9959' - 3°
1924' - 0.75°	5487' - 1.25°	8576' - 3°	
2360' - 1.5°	5955' - 0.75°	8699' - 3.75°	

Sincerely,


Gary W. Chappell
Contracts Manager

STATE OF NEW MEXICO)
COUNTY OF EDDY)

The foregoing was acknowledged before me this 26th day of December, 2013 by Gary W. Chappell.



OFFICIAL SEAL
CHERYL A. BARTLETT
NOTARY PUBLIC STATE OF NEW MEXICO

My commission expires: 4-29-16


NOTARY PUBLIC

MAR 13 2014



Company: CML Exploration
Lease/Well: Harris/No 001
Location: Section 8 Township 10S Range 38E
Rig Name: J W 2
State/County: New Mexico/Lea
Latitude: 33.46, Longitude: -103.07
GRID North is 0.69 Degrees East of True North
VS-Azi: 0.00 Degrees

HOBBS OCD

FEB 12 2014



DRILLOG HA GYRO SURVEY CALCULATIONS

RECEIVED

Filename: gyro survey.ut
Minimum Curvature Method
Report Date/Time: 12/30/2013 / 08:33

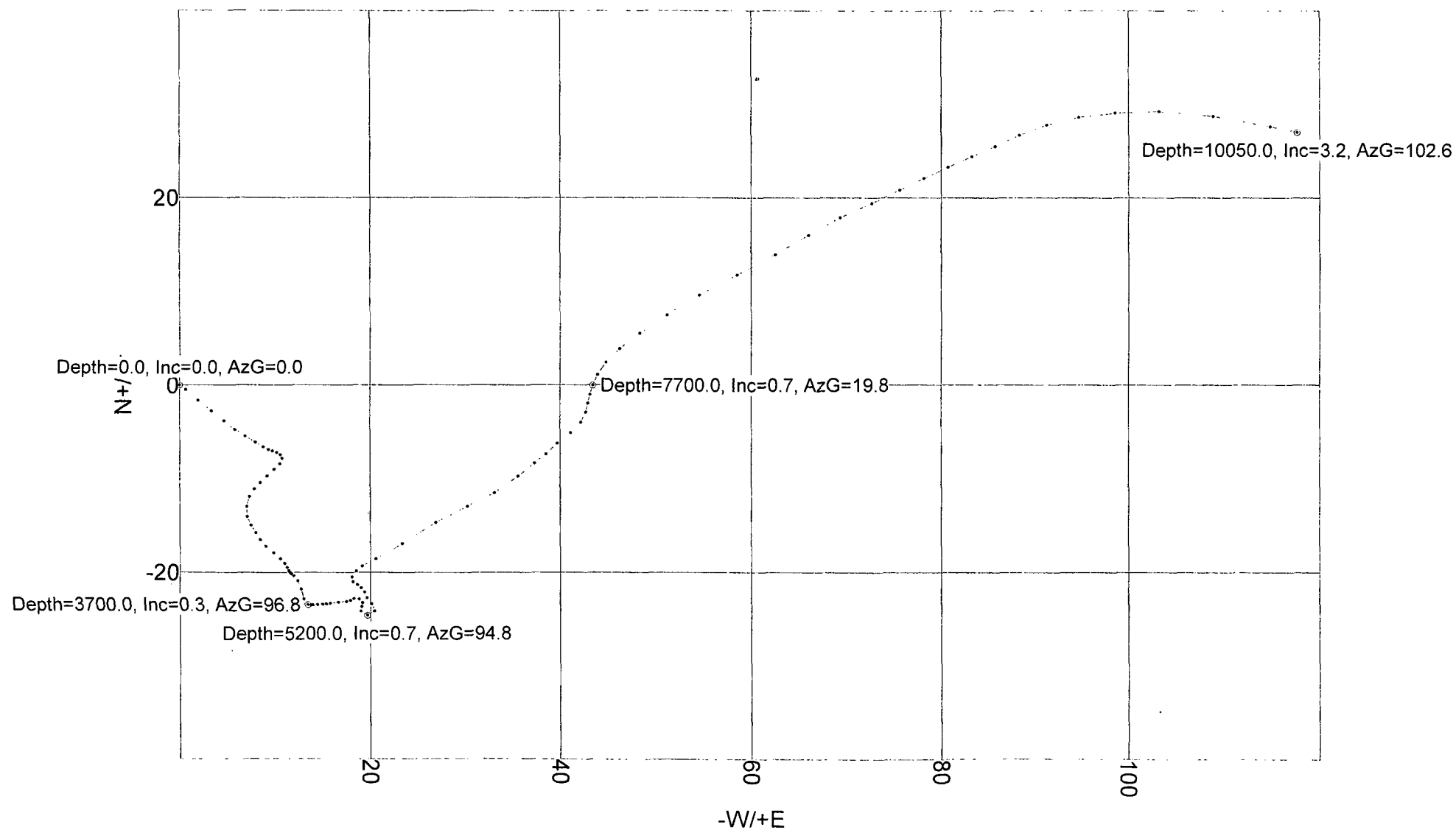
Vaughn Energy Services
West Texas
432-563-5444
Surveyor: Ryan Langley
Harris No 001 / API 30-025-41365

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.94	127.36	100.00	-0.50	0.65	-0.50	0.82	127.36	0.94
200.00	1.06	132.69	199.98	-1.62	1.98	-1.62	2.56	129.29	0.15
300.00	1.01	124.65	299.96	-2.75	3.39	-2.75	4.36	129.07	0.15
400.00	0.95	132.33	399.95	-3.81	4.72	-3.81	6.07	128.87	0.15
500.00	0.71	125.31	499.94	-4.72	5.84	-4.72	7.51	128.95	0.26
600.00	0.78	123.39	599.93	-5.45	6.91	-5.45	8.80	128.27	0.07
700.00	0.66	118.65	699.92	-6.10	7.98	-6.10	10.04	127.39	0.13
800.00	0.45	124.88	799.92	-6.60	8.81	-6.60	11.01	126.85	0.21
900.00	0.23	103.74	899.92	-6.88	9.33	-6.88	11.59	126.39	0.25
1000.00	0.30	109.52	999.92	-7.01	9.77	-7.01	12.03	125.66	0.07
1100.00	0.26	116.18	1099.91	-7.20	10.23	-7.20	12.51	125.15	0.05
1200.00	0.23	122.84	1199.91	-7.41	10.60	-7.41	12.94	124.96	0.04
1300.00	0.34	173.73	1299.91	-7.82	10.80	-7.82	13.34	125.89	0.27
1400.00	0.46	224.62	1399.91	-8.40	10.56	-8.40	13.49	128.51	0.36
1500.00	0.53	225.96	1499.91	-9.00	9.95	-9.00	13.42	132.16	0.07
1600.00	0.60	227.29	1599.90	-9.68	9.23	-9.68	13.37	136.36	0.07
1700.00	0.56	224.64	1699.90	-10.38	8.51	-10.38	13.42	140.67	0.05
1800.00	0.52	222.00	1799.89	-11.06	7.86	-11.06	13.57	144.60	0.05
1900.00	0.59	204.12	1899.89	-11.87	7.35	-11.87	13.96	148.25	0.19

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg - Severity Deg/100
2000.00	0.67	186.25	1999.88	-12.92	7.07	-12.92	14.73	151.31	0.21
2100.00	0.61	166.47	2099.87	-14.02	7.13	-14.02	15.73	153.04	0.23
2200.00	0.55	146.69	2199.87	-14.93	7.52	-14.93	16.72	153.28	0.21
2300.00	0.52	147.16	2299.87	-15.71	8.03	-15.71	17.64	152.94	0.02
2400.00	0.50	147.62	2399.86	-16.46	8.51	-16.46	18.53	152.68	0.02
2500.00	0.57	136.56	2499.86	-17.19	9.08	-17.19	19.44	152.16	0.12
2600.00	0.63	125.49	2599.85	-17.87	9.87	-17.87	20.41	151.09	0.13
2700.00	0.47	138.69	2699.85	-18.50	10.59	-18.50	21.32	150.21	0.20
2800.00	0.31	141.88	2799.84	-19.03	11.03	-19.03	21.99	149.89	0.16
2900.00	0.25	152.60	2899.84	-19.43	11.30	-19.43	22.48	149.82	0.08
3000.00	0.18	153.32	2999.84	-19.77	11.47	-19.77	22.86	149.87	0.07
3100.00	0.13	140.95	3099.84	-20.00	11.62	-20.00	23.13	149.85	0.06
3200.00	0.08	128.58	3199.84	-20.13	11.74	-20.13	23.30	149.75	0.06
3300.00	0.30	130.50	3299.84	-20.34	11.99	-20.34	23.61	149.48	0.22
3400.00	0.52	152.42	3399.84	-20.91	12.40	-20.91	24.31	149.34	0.27
3500.00	0.59	160.69	3499.83	-21.80	12.78	-21.80	25.27	149.62	0.10
3600.00	0.66	168.96	3599.83	-22.85	13.06	-22.85	26.32	150.25	0.11
3700.00	0.34	96.84	3699.83	-23.45	13.47	-23.45	27.04	150.13	0.64
3800.00	0.03	94.73	3799.82	-23.49	13.79	-23.49	27.24	149.58	0.31
3900.00	0.20	89.46	3899.82	-23.49	14.00	-23.49	27.34	149.21	0.17
4000.00	0.37	84.19	3999.82	-23.45	14.49	-23.45	27.57	148.29	0.17
4100.00	0.26	87.62	4099.82	-23.41	15.04	-23.41	27.83	147.28	0.11
4200.00	0.15	81.05	4199.82	-23.38	15.40	-23.38	28.00	146.63	0.11
4300.00	0.37	81.63	4299.82	-23.31	15.85	-23.31	28.19	145.78	0.22
4400.00	0.59	82.21	4399.82	-23.20	16.68	-23.20	28.57	144.27	0.22
4500.00	0.38	88.76	4499.81	-23.12	17.53	-23.12	29.01	142.83	0.22
4600.00	0.17	35.31	4599.81	-22.99	17.95	-22.99	29.17	142.02	0.31
4700.00	0.28	73.23	4699.81	-22.80	18.27	-22.80	29.22	141.29	0.18
4800.00	0.40	111.15	4799.81	-22.85	18.83	-22.85	29.61	140.50	0.25
4900.00	0.32	172.75	4899.81	-23.26	19.19	-23.26	30.15	140.47	0.37
5000.00	0.25	234.34	4999.81	-23.66	19.05	-23.66	30.38	141.16	0.30
5100.00	0.45	164.57	5099.81	-24.17	18.98	-24.17	30.73	141.86	0.43
5200.00	0.65	94.80	5199.80	-24.60	19.65	-24.60	31.49	141.38	0.65
5300.00	0.61	18.22	5299.80	-24.14	20.39	-24.14	31.60	139.82	0.78
5400.00	0.56	301.65	5399.79	-23.38	20.14	-23.38	30.86	139.26	0.72
5500.00	0.45	348.20	5499.79	-22.74	19.64	-22.74	30.05	139.18	0.41
5600.00	0.34	324.76	5599.79	-22.12	19.39	-22.12	29.42	138.76	0.19
5700.00	0.32	317.53	5699.79	-21.68	19.04	-21.68	28.85	138.71	0.05
5800.00	0.29	300.29	5799.78	-21.34	18.63	-21.34	28.33	138.89	0.09
5900.00	0.36	311.89	5899.78	-21.01	18.17	-21.01	27.78	139.13	0.09

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
6000.00	0.42	23.50	5999.78	-20.46	18.09	-20.46	27.31	138.52	0.46
6100.00	0.45	47.35	6099.78	-19.85	18.52	-19.85	27.15	136.98	0.18
6200.00	0.47	51.20	6199.77	-19.33	19.14	-19.33	27.20	135.28	0.04
6300.00	1.39	63.83	6299.76	-18.53	20.55	-18.53	27.67	132.05	0.93
6400.00	2.31	56.45	6399.71	-16.88	23.31	-16.88	28.78	125.91	0.94
6500.00	2.53	59.42	6499.62	-14.65	26.89	-14.65	30.62	118.58	0.26
6600.00	1.77	66.64	6599.55	-12.92	30.21	-12.92	32.85	113.15	0.81
6700.00	1.89	59.24	6699.50	-11.46	33.04	-11.46	34.97	109.13	0.26
6800.00	1.63	50.52	6799.45	-9.72	35.55	-9.72	36.85	105.29	0.37
6900.00	0.89	52.95	6899.42	-8.34	37.27	-8.34	38.19	102.62	0.74
7000.00	0.91	48.11	6999.41	-7.35	38.47	-7.35	39.17	100.81	0.08
7100.00	0.98	46.06	7099.40	-6.23	39.68	-6.23	40.16	98.92	0.08
7200.00	1.05	54.01	7199.38	-5.09	41.04	-5.09	41.35	97.08	0.16
7300.00	0.81	33.72	7299.37	-3.97	42.17	-3.97	42.36	95.37	0.41
7400.00	0.56	13.42	7399.36	-2.90	42.68	-2.90	42.78	93.89	0.34
7500.00	0.55	13.00	7499.36	-1.96	42.90	-1.96	42.95	92.61	0.01
7600.00	0.54	12.59	7599.35	-1.03	43.11	-1.03	43.12	91.37	0.01
7700.00	0.65	19.76	7699.35	-0.04	43.41	-0.04	43.41	90.05	0.14
7800.00	0.77	26.92	7799.34	1.10	43.90	1.10	43.92	88.57	0.15
7900.00	1.04	38.32	7899.33	2.41	44.77	2.41	44.84	86.92	0.32
8000.00	1.31	49.72	7999.31	3.86	46.21	3.86	46.37	85.22	0.35
8100.00	1.75	53.27	8099.27	5.52	48.31	5.52	48.62	83.48	0.45
8200.00	2.19	56.81	8199.21	7.48	51.13	7.48	51.68	81.68	0.46
8300.00	2.46	59.81	8299.13	9.60	54.59	9.60	55.42	80.02	0.29
8400.00	2.72	62.80	8399.03	11.77	58.55	11.77	59.72	78.64	0.30
8500.00	2.48	60.70	8498.92	13.91	62.54	13.91	64.07	77.46	0.26
8600.00	2.24	58.60	8598.84	15.98	66.10	15.98	68.00	76.40	0.26
8700.00	2.13	62.76	8698.77	17.85	69.42	17.85	71.68	75.58	0.19
8800.00	2.03	66.93	8798.70	19.40	72.70	19.40	75.24	75.06	0.18
8900.00	1.76	61.53	8898.65	20.82	75.67	20.82	78.49	74.62	0.32
9000.00	1.49	65.14	8998.61	22.10	78.20	22.10	81.26	74.22	0.29
9100.00	1.68	65.20	9098.57	23.26	80.71	23.26	84.00	73.92	0.19
9200.00	1.49	65.22	9198.53	24.42	83.22	24.42	86.73	73.65	0.19
9300.00	1.63	67.03	9298.49	25.52	85.72	25.52	89.44	73.42	0.15
9400.00	1.67	65.35	9398.45	26.69	88.35	26.69	92.29	73.19	0.06
9500.00	1.95	72.94	9498.40	27.79	91.30	27.79	95.44	73.07	0.37
9600.00	2.08	80.46	9598.34	28.59	94.72	28.59	98.94	73.20	0.30
9700.00	2.37	85.62	9698.26	29.05	98.57	29.05	102.77	73.58	0.34
9800.00	2.99	89.58	9798.15	29.23	103.24	29.23	107.30	74.19	0.65
9900.00	3.55	99.43	9897.99	28.74	108.90	28.74	112.63	75.22	0.79

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
10000.00	3.41	101.88	9997.81	27.62	114.87	27.62	118.15	76.48	0.20
10050.00	3.17	102.64	10047.73	27.01	117.68	27.01	120.74	77.07	0.49





HOBBS OCD

COMPANY : CML EXPLORATION, LLC
LEASE : HARRIS
WELL NO. : # 1
FIELD : SAWYER (S DEV)
COUNTY/STATE : LEA / NEW MEXICO

FEB 12 2014

RECEIVED

TEST DATE : 12/14/13
D.S.T. NO. : 1
TEST TKT. NO. : 27023
INVOICE NO. : 24866
ORDER NO. :

FORMATION : DEVONIAN
INTERVAL (ft) : 12038 TO 12148
TOTAL DEPTH (ft) : 12148
ELEVATION (ft) :
HOLE SIZE (in) : 8.750
DRILL PIPE ID (in) : 3.82
DRILL COLLAR ID(in) : 2.25
DRILL COLLAR feet : 512
ANCHOR LENGTH (ft): 110
TOOL LENGTH (ft) : 56
TOOL O.D. (in) : 5
PACKER SIZE (in) : 7.50

RECORDER DATA
AK-1KUSTER / STELLAR

TOP RECORDER: IN
RECORDER NO. : 40165
CAPACITY (psi): 10000
DEPTH (ft) : 12042
CLOCK NO. : 40165
DURATION (hrs): 99

BOTTOM RECORDER: OUT
RECORDER NO. : 13546
CAPACITY (psi): 8125
DEPTH (ft) : 12148
CLOCK NO. : 24853
DURATION (hrs): 24

MUD PROPERTIES

MUD TYPE : CUT BRINE
MUD WT. (#/gal) : 10.0

WATER LOSS (cc) : 9.00
FILTER CAKE (in) : 1/32
VISCOSITY (sec) : 40

CHLORIDE PPM : 87000
RESISTIVITY(ohm-m): .050

EQUIPMENT DATA

CONVENTIONAL : YES
STRADDLE : NO
SELECTIVE ZONE : NO
SAMPLE CHAMBER : YES
GAS ANALYSIS : NO

ROTARY JARS : YES
NO. OF PACKERS : 2
SAFETY JOINT : YES
CIRCULATING SUB : YES
REVERSED OUT : YES

MULTIFLOW : NO
MILEAGE : NO
OPERATOR TIME : YES
OTHER : YES
STELLAR ELECTRONICS(2)

SUCCESSFUL : YES

PACKER FAILURE : NO

TOOL PLUG : NO

DECIDED NOT TO TEST : NO

FAIL TO REACH BOTTOM : NO

TIME INTERVAL DATA (min)

TOOL OPENED : 2:50 PM

TOTAL TEST TIME: 264

INITIAL FLOW : 31
SECOND FLOW : 59
THIRD FLOW :

INITIAL SHUT-IN: 60
SECOND SHUT-IN : 114
THIRD SHUT IN :

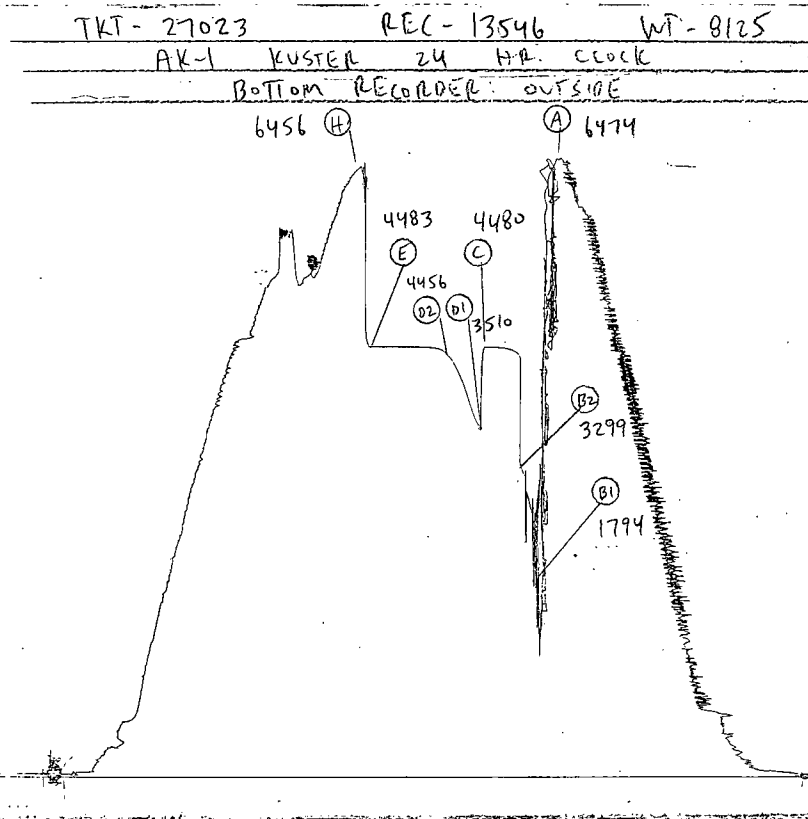
TEST TOOL OPERATOR: CHRIS PERRIN



CML EXPLORATION, LLC

HARRIS # 1
D.S.T. NO. :1

	CORRECTED READING	FIELD READING
A INITIAL HYDROSTATIC:	6425 PSI	6425 PSI
B-1 INITIAL FIRST FLOW :	1748 PSI	2489 PSI
B-2 FINAL FIRST FLOW :	3250 PSI	3192 PSI
C FIRST SHUT-IN :	4432 PSI	4432 PSI
D-1 INITIAL SECOND FLOW:	3461 PSI	3595 PSI
D-2 FINAL SECOND FLOW :	4408 PSI	4427 PSI
E SECOND SHUT-IN :	4434 PSI	4433 PSI
H FINAL HYDROSTATIC :	6407 PSI	6377 PSI



PIPE RECOVERY B.H. TEMP. (deg F) : 187
(RAN 1500 FT. OF FRESH WATER BLANKET)

PULLED TO FLUID @ 10000 FT. & REVERSED TO PIT AN EST;
1147 FT. OF FRESH WATER BLANKET (16.85 BBLS)
8763 FT. OF SULPHUR WATER (123 BBLS)
41,000 MG/L CHLORIDES- .092 OHMS @ 85 DEGREES
90 FT. OF SULPHUR WATER- BELOW CIRC SUB
41,000 MG/L CHLORIDES- .092 OHMS @ 85 DEGREES

SAMPLE CHAMBER

2000 LBS. OF PRESSURE
0.00 CU. FT. OF GAS
2200 CC'S OF SULPHUR WATER
41,000 MG/L CHLORIDES
.092 OHMS @ 85 DEGREES

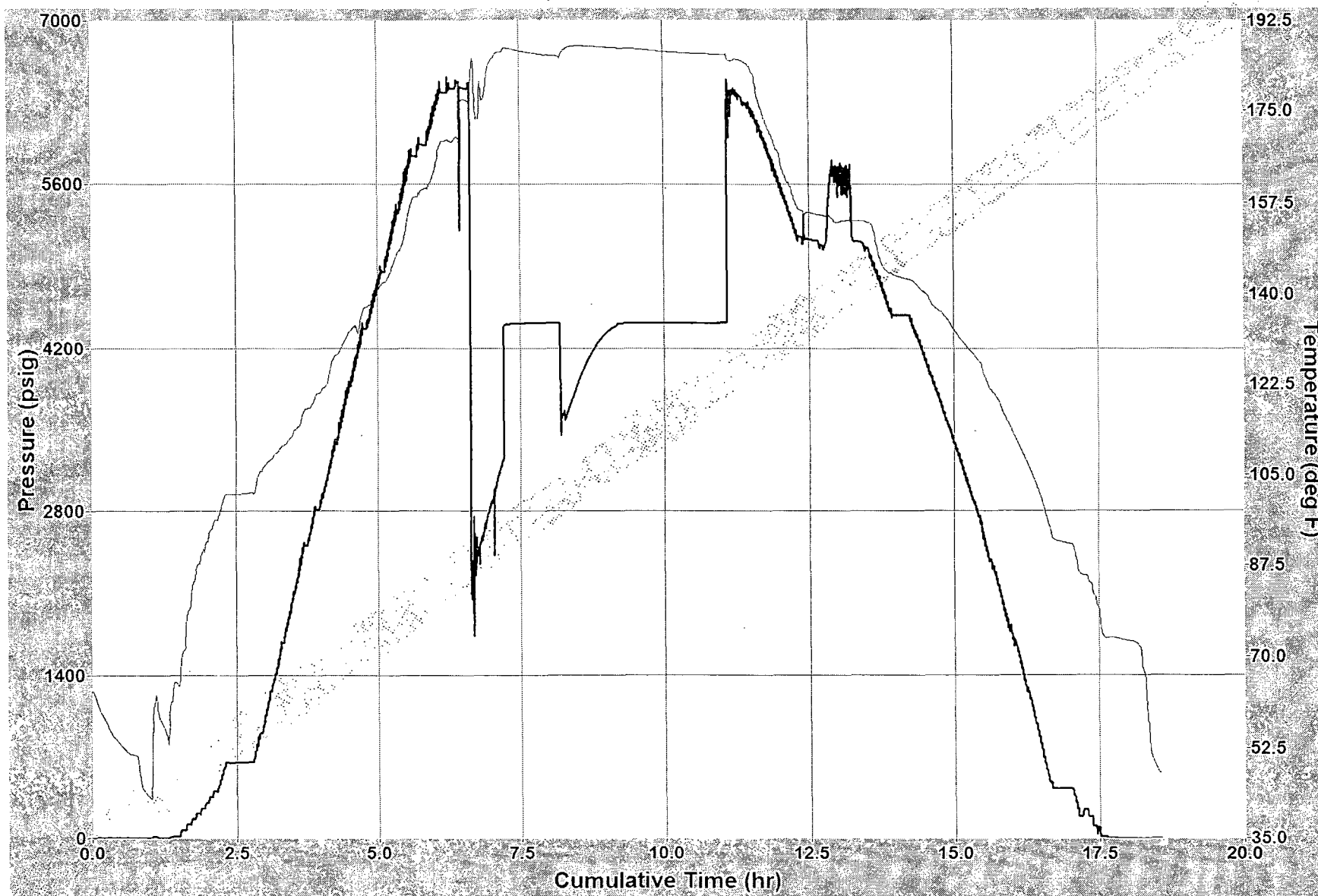
TEST REMARKS

TOOL OPENED WITH A GOOD BLOW (BOTTOM OF BUCKET) IN 1 MIN. & REMAINED THROUGHOUT THE 30 MIN. FIRST FLOW. REOPENED TOOL WITH A GOOD BLOW (BOTTOM OF BUCKET) IN 1 MIN. & REMAINED THROUGHOUT THE 60 MIN. FINAL FLOW PERIOD.



Company Name CML EXPLORATION, LLC
Well Name HARRIS #1
Type of Test DST #1 (12,038-12,148 FT.; DEVONIAN)
Date(s) of Test 12-14-13

RIG TESTERS, INC. RECORDER# 40165





Company Name CML EXPLORATION, LLC
Well Name HARRIS #1
Type of Test DST #1 (12,038-12,148 FT.; DEVONIAN)
Date(s) of Test 12-14-13

RIG TESTERS, INC. RECORDER# 40164





INCREMENTAL PRESSURE DATA

RECORDER NO : 40165

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 12042 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNER) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST FLOW					
.0	.0			1748.40	.00
2.0	2.0			2292.37	543.97
4.0	4.0			2457.50	709.10
6.0	6.0			2493.30	744.90
8.0	8.0			2580.91	832.51
10.0	10.0			2598.50	850.10
12.0	12.0			2709.60	961.20
14.0	14.0			2745.55	997.15
16.0	16.0			2797.58	1049.18
18.0	18.0			2874.90	1126.50
20.0	20.0			2901.00	1152.60
22.0	22.0			2999.87	1251.47
24.0	24.0			3053.40	1305.00
26.0	26.0			3115.43	1367.03
28.0	28.0			3171.77	1423.37
30.0	30.0			3228.20	1479.80
31.2	31.2			3250.40	1502.00

FIRST SHUT-IN					
31.2	31.2	.00	.000	3250.40	.00
32.2	31.2	1.00	32.200	4403.04	1152.64
33.2	31.2	2.00	16.600	4411.48	1161.08
34.2	31.2	3.00	11.400	4415.40	1165.00
35.2	31.2	4.00	8.800	4417.57	1167.17
36.2	31.2	5.00	7.240	4419.13	1168.73
37.2	31.2	6.00	6.200	4420.50	1170.10
38.2	31.2	7.00	5.457	4421.39	1170.99
39.2	31.2	8.00	4.900	4422.38	1171.98
40.2	31.2	9.00	4.467	4422.80	1172.40
41.2	31.2	10.00	4.120	4423.38	1172.98
43.2	31.2	12.00	3.600	4424.20	1173.80
45.2	31.2	14.00	3.229	4425.08	1174.68
47.2	31.2	16.00	2.950	4425.80	1175.40
49.2	31.2	18.00	2.733	4426.50	1176.10
51.2	31.2	20.00	2.560	4427.10	1176.70
54.2	31.2	23.00	2.357	4428.00	1177.60
57.2	31.2	26.00	2.200	4428.48	1178.08
60.2	31.2	29.00	2.076	4429.02	1178.62
63.2	31.2	32.00	1.975	4429.40	1179.00
66.2	31.2	35.00	1.891	4429.80	1179.40
69.2	31.2	38.00	1.821	4430.28	1179.88
72.2	31.2	41.00	1.761	4430.40	1180.00
75.2	31.2	44.00	1.709	4430.90	1180.50
78.2	31.2	47.00	1.664	4431.20	1180.80
81.2	31.2	50.00	1.624	4431.48	1181.08



INCREMENTAL PRESSURE DATA

RECORDER NO : 40165

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 12042 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNOR) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
FIRST SHUT-IN					
84.2	31.2	53.00	1.589	4431.80	1181.40
87.2	31.2	56.00	1.557	4432.02	1181.62
90.2	31.2	59.00	1.529	4432.10	1181.70
91.3	31.2	60.06	1.519	4432.40	1182.00
SECOND FLOW					
91.5	31.4			3461.30	.00
94.5	34.4			3649.20	187.90
97.5	37.4			3623.60	162.30
100.5	40.4			3695.40	234.10
103.5	43.4			3765.90	304.60
106.5	46.4			3834.30	373.00
109.5	49.4			3903.00	441.70
112.5	52.4			3970.60	509.30
115.5	55.4			4029.00	567.70
118.5	58.4			4082.40	621.10
121.5	61.4			4132.40	671.10
124.5	64.4			4181.00	719.70
127.5	67.4			4222.20	760.90
130.5	70.4			4259.00	797.70
133.5	73.4			4291.60	830.30
136.5	76.4			4321.20	859.90
139.5	79.4			4346.40	885.10
142.5	82.4			4367.90	906.60
145.5	85.4			4385.70	924.40
148.5	88.4			4400.20	938.90
150.5	90.4			4408.20	946.90
SECOND SHUT-IN					
150.5	90.4	.00	.000	4408.20	.00
151.5	90.4	1.00	91.420	4423.24	15.04
152.5	90.4	2.00	46.210	4425.03	16.83
153.5	90.4	3.00	31.140	4426.10	17.90
154.5	90.4	4.00	23.605	4426.59	18.39
155.5	90.4	5.00	19.084	4427.17	18.97
156.5	90.4	6.00	16.070	4427.80	19.60
157.5	90.4	7.00	13.917	4428.29	20.09
158.5	90.4	8.00	12.303	4428.60	20.40
159.5	90.4	9.00	11.047	4428.90	20.70
160.5	90.4	10.00	10.042	4429.19	20.99



INCREMENTAL PRESSURE DATA

RECORDER NO : 40165

RECORDER CAPACITY : 10000 psi

RECORDER DEPTH : 12042 ft

ELAPSED TIME ---MIN---	TOTAL FLOW TIME, T ---MIN---	INCREMENTAL SHUT-IN TIME, DT ---MIN---	(T+DT)/DT (HORNOR) -----	PRESSURE ---PSIG---	DELTA P ---PSIG---
SECOND SHUT-IN					
162.5	90.4	12.00	8.535	4429.60	21.40
164.5	90.4	14.00	7.459	4429.97	21.77
166.5	90.4	16.00	6.651	4430.10	21.90
168.5	90.4	18.00	6.023	4430.20	22.00
170.5	90.4	20.00	5.521	4430.38	22.18
173.5	90.4	23.00	4.931	4430.60	22.40
176.5	90.4	26.00	4.478	4430.90	22.70
179.5	90.4	29.00	4.118	4431.10	22.90
185.5	90.4	35.00	3.583	4431.60	23.40
190.5	90.4	40.00	3.261	4431.99	23.79
195.5	90.4	45.00	3.009	4432.40	24.20
200.5	90.4	50.00	2.808	4432.60	24.40
205.5	90.4	55.00	2.644	4432.80	24.60
210.5	90.4	60.00	2.507	4433.00	24.80
215.5	90.4	65.00	2.391	4433.10	24.90
220.5	90.4	70.00	2.292	4433.30	25.10
225.5	90.4	75.00	2.206	4433.40	25.20
230.5	90.4	80.00	2.130	4433.70	25.50
235.5	90.4	85.00	2.064	4433.89	25.69
240.5	90.4	90.00	2.005	4434.00	25.80
245.5	90.4	95.00	1.952	4434.00	25.80
250.5	90.4	100.00	1.904	4434.10	25.90
255.5	90.4	105.00	1.861	4434.20	26.00
260.5	90.4	110.00	1.822	4434.28	26.08
264.5	90.4	114.00	1.793	4434.30	26.10

REMARKS

THE INCREMENTAL DATA, PLOTS & ANALYSIS ARE FROM THE ELECTRONIC RECORDER.
PLEASE REFER TO DERIVATIVE DIAGNOSTICS ANALYSIS FOR FURTHER INFORMATION.
(DST PRESSURE ASCII FILES ARE AVAILABLE BY E-MAIL UPON REQUEST)



	Analysis comments	FINAL SHUT-IN PERIOD	
	Company CML EXPLORATION, LLC Well HARRIS #1	Field SAWYER (S DEV) Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN)	

THE DERIVATIVES INDICATE A HETEROGENEOUS RESERVOIR WITH GOOD PERMEABILITY AND NO (NEGATIVE) SKIN. BOTH SHUT-IN PERIODS HAD ACHIEVED RADIAL FLOW WITH THE FLUCTUATIONS (DIP & RISE) FROM RADIAL BEING INDICATIVE OF A DUAL POROSITY RESPONSE. THIS IS NORMALLY DUE TO VUGULAR / FRACTURED POROSITY WITH-IN INTERVAL TESTED. A REGRESSION VERIFIED MODEL ANALYSIS WAS PERFORMED TO BETTER DETERMINE FORMATION PARAMETERS AND IS REPRESENTED BY A SOLID LINE PLOTTED OVER ACTUAL DATA.

THE FIXED PARAMETERS USED WERE AN EST. 12% POROSITY, 80 FT. OF NET PAY REPORTED AND AN AVERAGE (TIME WEIGHTED) PRODUCTION OF 340 BWPD FOR THE FINAL FLOW PERIOD. THE RATES WERE BASED ON DENSITY OF FLUID RECOVERED VS. FLOWING PRESSURES. THE TOTAL RADIUS OF INVESTIGATION CALCULATED TO APPROX. 516 FT. FROM WELLBORE.



Main results		FINAL SHUT-IN PERIOD
	Company CML EXPLORATION, LLC Well HARRIS #1	Field SAWYER (S DEV) Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN) 
Test date / time 12-14-13 Formation interval 12,038-12,148 FT.; DEVONIAN Perforated interval Gauge type / # STELLAR# 40165 Gauge depth Analyzed by Analysis date / time TEST TYPE Standard Porosity Phi (%) 12 Well Radius rw 0.364583 ft Pay Zone h 80 ft Form. compr. 3E-6 psi-1 Reservoir T 187 °F Reservoir P 4435 psia Fluid type Water Volume Factor B 1.0202 B/STB Viscosity 0.372346 cp Total Compr. ct 5.52365E-6 psi-1 Selected Model Model Option Standard Model Well Vertical, Changing Storage (Fair) Reservoir Two porosity PSS Boundary Infinite Derived & Secondary Parameters		

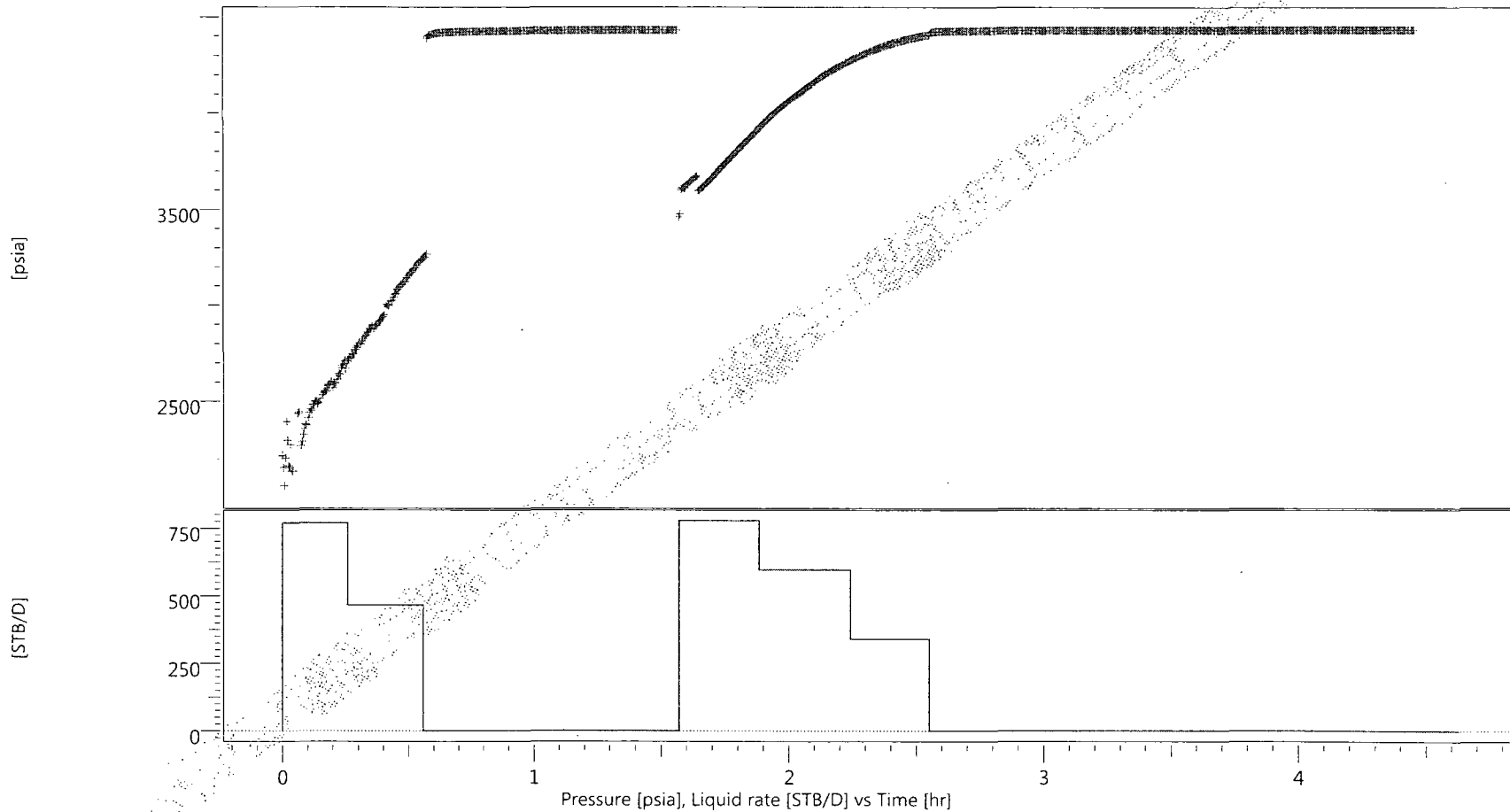
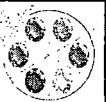


History plot

Analysis 1

Company CML EXPLORATION, LLC
Well HARRIS #1

Field SAWYER (S DEV)
Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN)



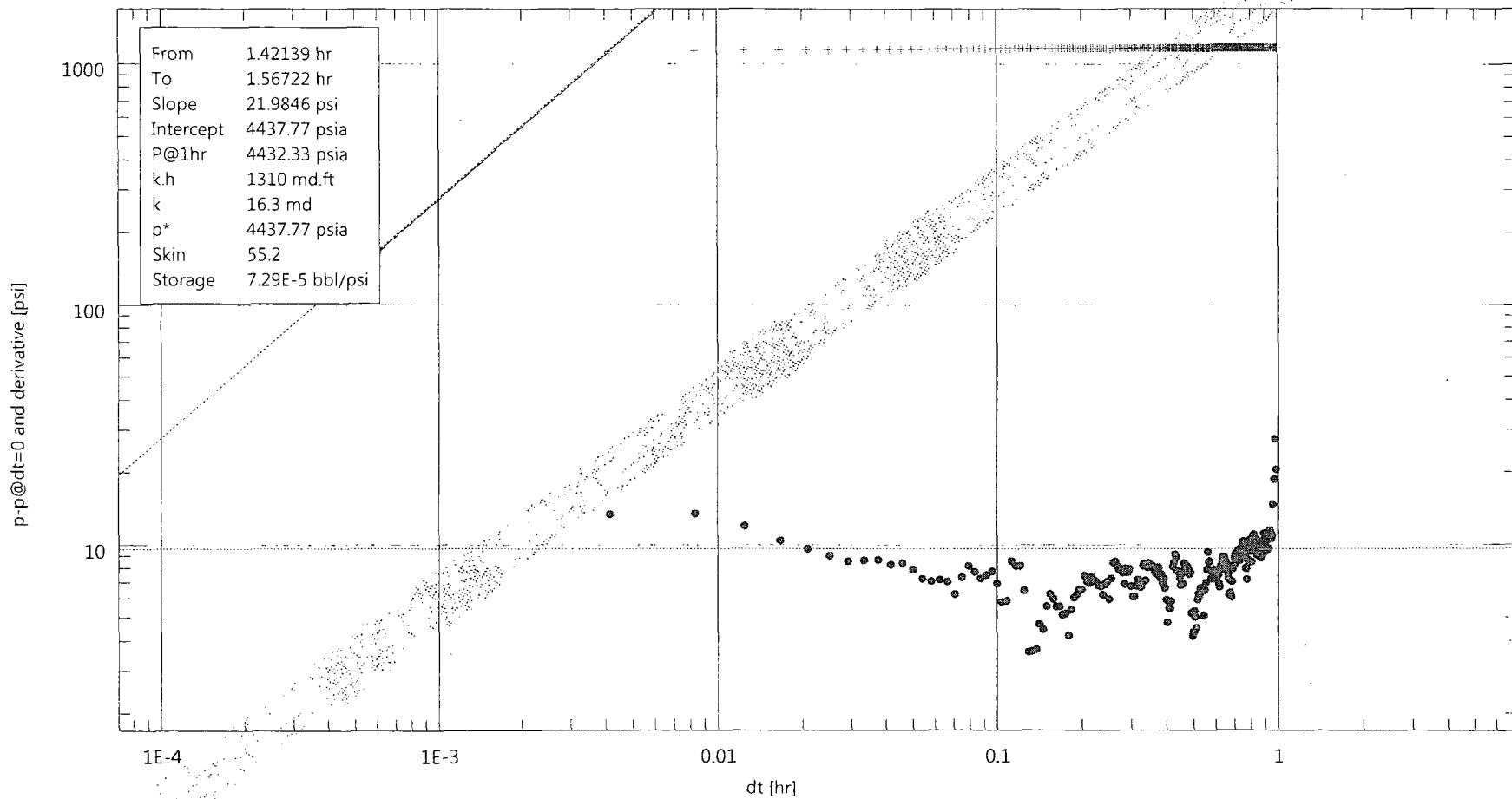


Log-Log plot

INITIAL SHUT-IN PERIOD

Company CML EXPLORATION, LLC
Well HARRIS #1

Field SAWYER (S DEV)
Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN)



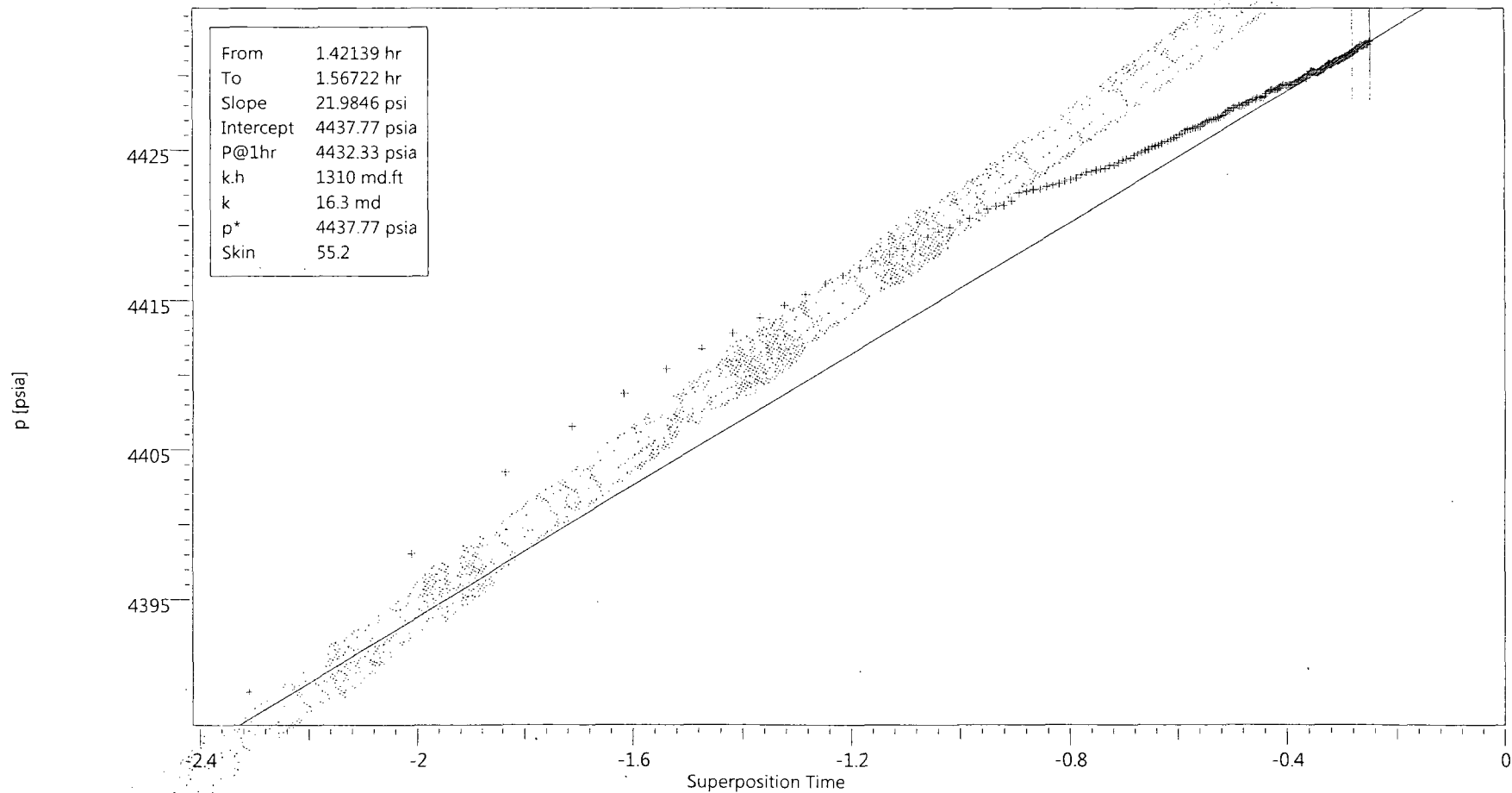
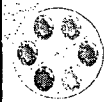


Semi-Log plot

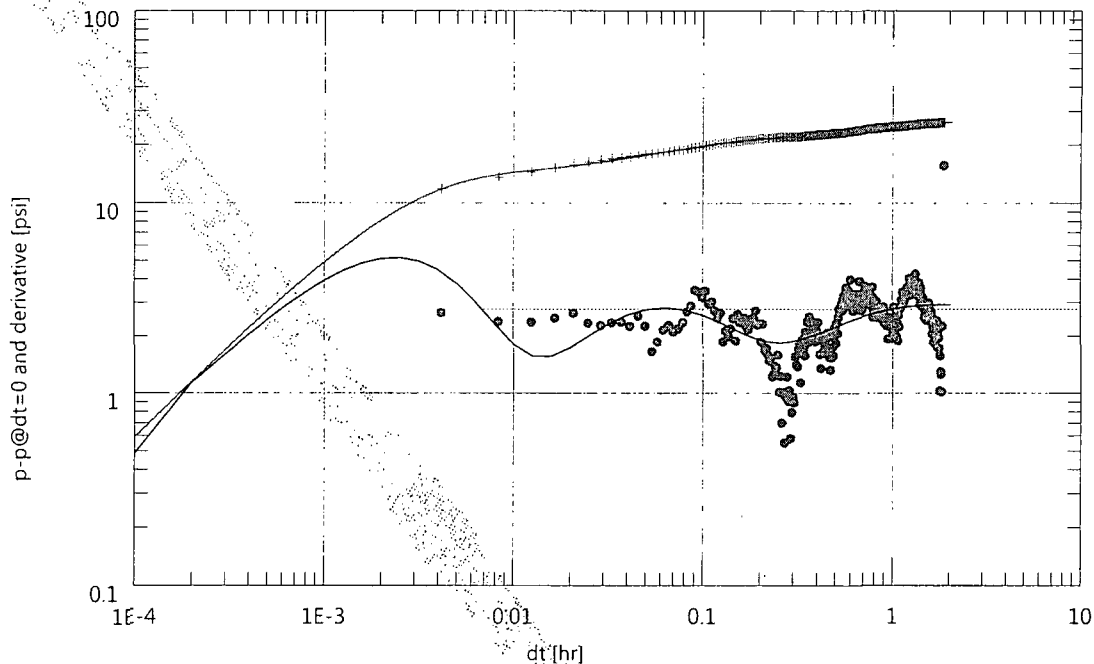
INITIAL SHUT-IN PERIOD

Company CML EXPLORATION, LLC
Well HARRIS #1

Field SAWYER (S DEV)
Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN)

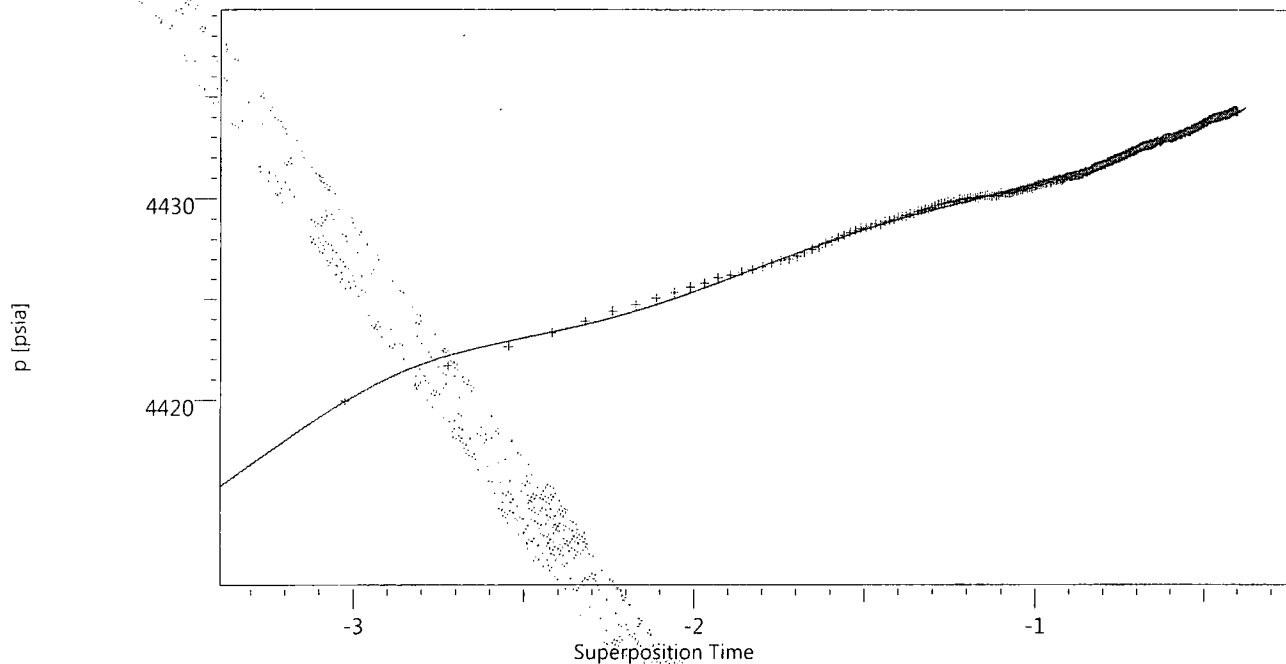


Log-Log plot		FINAL SHUT-IN PERIOD	
Company CML EXPLORATION, LLC		Field SAWYER (S DEV)	
Well HARRIS #1		Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN)	



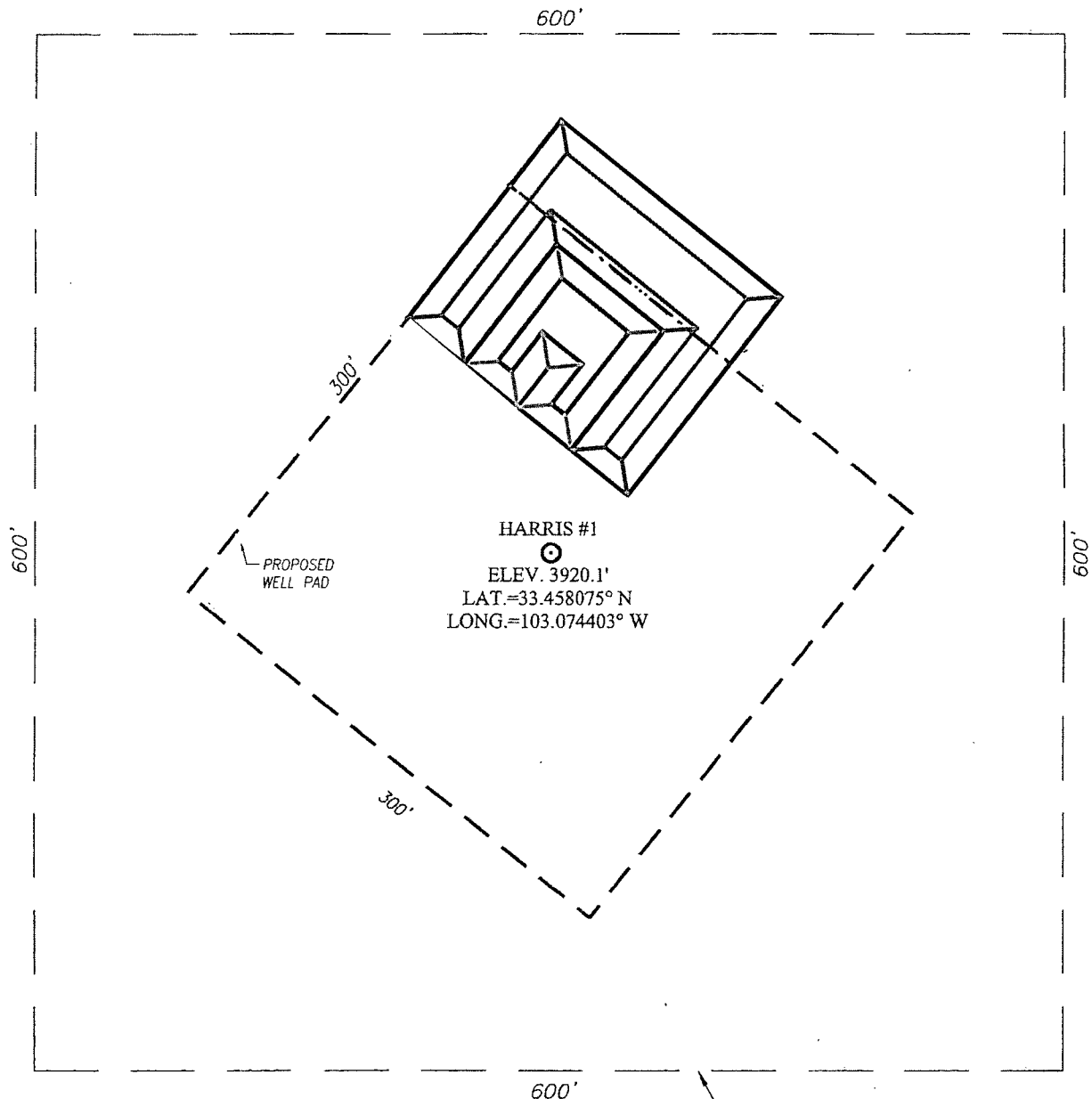
CML1 build-up #2	Derived & Secondary Parameters
Rate 0 STB/D	Rinv 516 ft
Rate change 339.789 STB/D	
P@dt=0 4408.15 psia	
Pi 4436.9 psia	
Smoothing 0.08	
Selected Model	
Model Option Standard Model	
Well Vertical, Changing Storage (Fair)	
Reservoir Two porosity PSS	
Boundary Infinite	
Model Parameters	
Well & Wellbore parameters (HARRIS #1)	
C 0.0363 bbl/psi	
Ci/Cf 0.0661	
delta_t 0.00788 hr	
Skin -2.22	
Reservoir & Boundary parameters	
Pi 4436.9 psia	
k.h 3290 md.ft	
k 41.2 md	
Omega 0.0673	
Lambda 8.69E-6	

	Semi-Log plot	FINAL SHUT-IN PERIOD	
Company CML EXPLORATION, LLC Well HARRIS #1		Field SAWYER (S DEV) Test Name / # DST #1 (12,038-12,148 FT.; DEVONIAN)	



CML1 build-up #2 Rate 0 STB/D Rate change 339.789 STB/D P@dt=0 4408.15 psia Pi 4436.9 psia Smoothing 0.08 Selected Model Model Option Standard Model Well Vertical, Changing Storage (Fair) Reservoir Two porosity PSS Boundary Infinite Model Parameters Well & Wellbore parameters (HARRIS #1) C 0.0363 bbl/psi Ci/Cf 0.0661 delta_t 0.00788 hr Skin -2.22 Reservoir & Boundary parameters Pi 4436.9 psia k.h 3290 md.ft k 41.2 md Omega 0.0673 Lambda 8.69E-6	Derived & Secondary Parameters Rinv 516 ft
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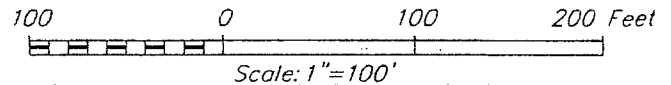
SECTION 8, TOWNSHIP 10 SOUTH, RANGE 38 EAST, N.M.P.M.
LEA COUNTY NEW MEXICO



NOTE:
SEE "LOCATION VERIFICATION MAP"
FOR PROPOSED ROAD LOCATION.

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF HIGHWAY 380 AND ST. LINE RD.
#769, GO NORTH ON ST. RD. #769 APPROX. 14.6 MILES. TURN
LEFT AND GO WEST ON A FARM ROAD 1.5 MILES; TURN SOUTH
FOLLOW ELEC. LINE FOR APPROX. 1 MILE. TURN LEFT AND GO
EAST APPROX. 0.1 MILE. TURN LEFT AND GO NORTHEAST
APPROX. 0.25 MILES TO THE PROPOSED LOCATION.



CML EXPLORATION, LLC

HARRIS #1 WELL
LOCATED 1353 FEET FROM THE SOUTH LINE
AND 1570 FEET FROM THE WEST LINE OF SECTION 8,
TOWNSHIP 10 SOUTH, RANGE 38 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz

Survey Date: 6/14/13	CAD Date: 6/20/13	Drawn By: ACK
W.O. No.: 13110685	Rev: .	Rel. W.O.: Sheet 1 of 1

NORTH

