

BHP • BU • PI • DD • GWT • RFS • GOR • FL • TS

EFTELLER, INC.

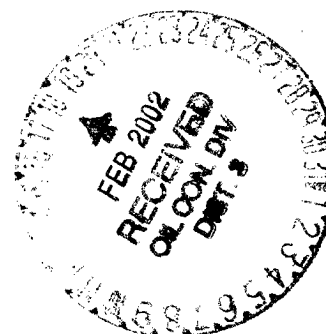
reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO
GRAND JUNCTION, COLORADO

P. O. Box 1198
Farmington, New Mexico 87499
(505) 325-1731

Midland Fax (915) 694-7602
Farmington Fax (505) 325-1148
Grand Junction Fax (970) 241-7634

RICHARDSON OPERATING COMPANY



SALTY DOG NO. 1

FEBRUARY 15, 2002

Serving the Permian Basin & Rocky Mountain Area

Test Type	STEP RATE TEST
Date of Test	2-15-02
Producing Interval	
Recorder Depth	3080'
Recorder Position	3080'
Shut In Date	Start: 2-15-2002
	Stop: 2-15-2002
	Duration: 10 HOURS
Bottom Hole Temperature	99 DEGREES

Gauge Identification

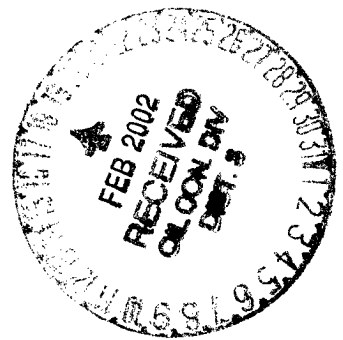
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Gauge Manufacturer ..... MICRO-SMART SYSTEMS
Serial Number ..... 154
Model Number ..... SP2000
Pressure Range .....
Battery Type .....
Calibration I.D. ....
Last Calibration ..... 12/17/ 1
```

Gauge Setup Parameters

```

Probe Set Up Time ..... 2/15/ 2    7:41: 0
Time Delay to First Reading ....
Test Type Selection ..... STEP RATE TEST
Test Duration Selection ..... 10 HOURS

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COMPANY: RICHARDSON OPERATING COMPANY

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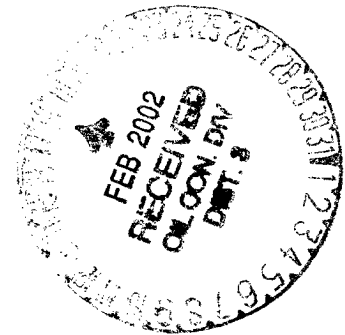
WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

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02/15	07:44:00	3.0000	.01	59.57	.00	
02/15	07:45:00	4.0000	.01	58.88	.00	
02/15	07:46:00	5.0000	.01	58.19	.00	
02/15	07:47:00	6.0000	.01	57.49	.00	
02/15	07:48:00	7.0000	.01	56.81	.00	
02/15	07:49:00	8.0000	.01	56.25	.00	
02/15	07:50:00	9.0000	.01	55.66	.00	
02/15	07:51:00	10.0000	.01	55.10	.00	
02/15	07:52:00	11.0000	.01	54.58	.00	
02/15	07:53:00	12.0000	.01	54.08	.00	
02/15	07:54:00	13.0000	.01	53.58	.00	
02/15	07:55:00	14.0000	.01	53.08	.00	
02/15	07:56:00	15.0000	.01	52.60	.00	
02/15	07:57:00	16.0000	.01	52.16	.00	
02/15	07:58:00	17.0000	.01	51.73	.00	
02/15	07:59:00	18.0000	.01	51.28	.00	
02/15	08:00:00	19.0000	.01	50.88	.00	
02/15	08:01:00	20.0000	.01	50.50	.00	
02/15	08:02:00	21.0000	.01	50.13	.00	
02/15	08:03:00	22.0000	.01	49.75	.00	
02/15	08:04:00	23.0000	.01	49.40	.00	
02/15	08:05:00	24.0000	.01	49.07	.00	
02/15	08:06:00	25.0000	.01	48.74	.00	
02/15	08:07:00	26.0000	.01	48.40	.00	
02/15	08:08:00	27.0000	.01	47.78	.00	
02/15	08:09:00	28.0000	.01	47.09	.00	
02/15	08:10:00	29.0000	.01	46.38	.00	
02/15	08:11:00	30.0000	.01	45.69	.00	
02/15	08:12:00	31.0000	.01	45.02	.00	
02/15	08:13:00	32.0000	.01	44.45	.00	
02/15	08:14:00	33.0000	.01	43.88	.00	
02/15	08:15:00	34.0000	.01	43.31	.00	
02/15	08:16:00	35.0000	.01	42.83	.00	
02/15	08:17:00	36.0000	.01	42.41	.00	
02/15	08:18:00	37.0000	.01	41.99	.00	
02/15	08:19:00	38.0000	.01	41.57	.00	
02/15	08:20:00	39.0000	.01	41.25	.00	
02/15	08:21:00	40.0000	.01	41.03	.00	
02/15	08:22:00	41.0000	.01	40.81	.00	
02/15	08:23:00	42.0000	.01	40.59	.00	
02/15	08:24:00	43.0000	.01	40.43	.00	
02/15	08:25:00	44.0000	.01	40.31	.00	
02/15	08:26:00	45.0000	.01	40.20	.00	
02/15	08:27:00	46.0000	.01	40.08	.00	
02/15	08:28:00	47.0000	.01	40.00	.00	
02/15	08:29:00	48.0000	.01	39.93	.00	
02/15	08:30:00	49.0000	.01	39.86	.00	
02/15	08:31:00	50.0000	.01	39.79	.00	
02/15	08:32:00	51.0000	.01	39.73	.00	
02/15	08:33:00	52.0000	2.24	39.90	2.23	
02/15	08:34:00	53.0000	752.22	40.12	749.99	
02/15	08:35:00	54.0000	808.89	40.34	56.66	
02/15	08:36:00	55.0000	1001.99	42.45	193.10	
02/15	08:37:00	56.0000	1274.94	47.03	272.95	
02/15	08:38:00	57.0000	1567.20	51.64	292.26	
02/15	08:39:00	58.0000	1824.20	56.26	257.00	
02/15	08:40:00	59.0000	2075.83	62.46	251.63	
02/15	08:41:00	60.0000	2091.70	67.05	15.87	
02/15	08:42:00	61.0000	2093.81	71.66	2.10	
02/15	08:43:00	62.0000	2094.44	76.29	.63	
02/15	08:44:00	63.0000	2094.90	78.42	.47	
02/15	08:45:00	64.0000	2095.27	79.51	.36	
02/15	08:46:00	65.0000	2095.37	80.58	.10	
02/15	08:47:00	66.0000	2095.32	81.67	-.04	



COMPANY: RICHARDSON OPERATING COMPANY

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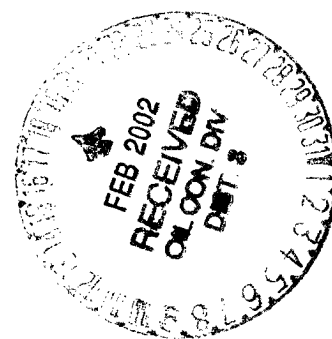
WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

Date MM/DD	Time hh:mm:ss	Test Time mm:ss	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
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02/15	08:49:00	68.0000	2095.36	82.53	.03	
02/15	08:50:00	69.0000	2095.41	82.84	.05	
02/15	08:51:00	70.0000	2095.45	83.16	.04	
02/15	08:52:00	71.0000	2095.50	83.35	.05	
02/15	08:53:00	72.0000	1945.07	84.45	-150.42	
02/15	08:54:00	73.0000	1735.40	85.53	-209.68	
02/15	08:55:00	74.0000	1420.90	86.61	-314.49	
02/15	08:56:00	75.0000	1097.25	87.04	-323.65	
02/15	08:57:00	76.0000	817.79	84.17	-279.46	
02/15	08:58:00	77.0000	747.42	81.31	-70.38	
02/15	08:59:00	78.0000	734.30	78.46	-13.11	
02/15	09:00:00	79.0000	.85	73.23	-733.45	
02/15	09:01:00	80.0000	2.65	68.72	1.80	
02/15	09:02:00	81.0000	2.04	64.23	-.61	
02/15	09:03:00	82.0000	1.34	59.75	-.70	
02/15	09:04:00	83.0000	.66	56.86	-.67	
02/15	09:05:00	84.0000	.13	55.23	-.53	
02/15	09:06:00	85.0000	.11	53.60	-.02	
02/15	09:07:00	86.0000	.10	51.97	-.02	
02/15	09:08:00	87.0000	.08	51.09	-.02	
02/15	09:09:00	88.0000	.07	50.57	-.01	
02/15	09:10:00	89.0000	.06	50.03	-.01	
02/15	09:11:00	90.0000	.05	49.51	-.01	
02/15	09:12:00	91.0000	.04	49.18	-.01	
02/15	09:13:00	92.0000	.04	48.95	-.00	
02/15	09:14:00	93.0000	.03	48.72	-.00	
02/15	09:15:00	94.0000	.03	48.49	-.00	
02/15	09:16:00	95.0000	.03	48.33	-.00	
02/15	09:17:00	96.0000	.01	48.22	-.02	
02/15	09:18:00	97.0000	.01	48.11	.00	
02/15	09:19:00	98.0000	.01	48.01	.00	
02/15	09:20:00	99.0000	.01	47.93	.00	
02/15	09:21:00	100.0000	.01	47.90	.00	
02/15	09:22:00	101.0000	.01	47.86	.00	
02/15	09:23:00	102.0000	.01	47.82	.00	
02/15	09:24:00	103.0000	.01	47.81	.00	
02/15	09:25:00	104.0000	.01	47.82	.00	
02/15	09:26:00	105.0000	.01	47.83	.00	
02/15	09:27:00	106.0000	.01	47.85	.00	
02/15	09:28:00	107.0000	.01	47.88	.00	
02/15	09:29:00	108.0000	.01	47.90	.00	
02/15	09:30:00	109.0000	.01	47.94	.00	
02/15	09:31:00	110.0000	.01	47.97	.00	
02/15	09:32:00	111.0000	.01	48.01	.00	
02/15	09:33:00	112.0000	.01	48.04	.00	
02/15	09:34:00	113.0000	.01	48.07	.00	
02/15	09:35:00	114.0000	.01	48.11	.00	
02/15	09:36:00	115.0000	.01	48.13	.00	
02/15	09:37:00	116.0000	.01	48.16	.00	
02/15	09:38:00	117.0000	.01	48.18	.00	
02/15	09:39:00	118.0000	.01	48.21	.00	
02/15	09:40:00	119.0000	.01	48.23	.00	
02/15	09:41:00	120.0000	.01	48.26	.00	
02/15	09:42:00	121.0000	.01	48.29	.00	
02/15	09:43:00	122.0000	.01	48.31	.00	
02/15	09:44:00	123.0000	793.96	48.33	793.95	
02/15	09:45:00	124.0000	857.79	49.74	63.83	
02/15	09:46:00	125.0000	1175.06	51.15	317.27	
02/15	09:47:00	126.0000	1482.17	52.56	307.11	
02/15	09:48:00	127.0000	1805.07	56.92	322.90	
02/15	09:49:00	128.0000	2088.69	62.10	283.62	
02/15	09:50:00	129.0000	2090.77	67.31	2.08	
02/15	09:51:00	130.0000	2092.61	72.54	1.84	
02/15	09:52:00	131.0000	2093.45	75.72	.83	



COMPANY: RICHARDSON OPERATING COMPANY

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WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

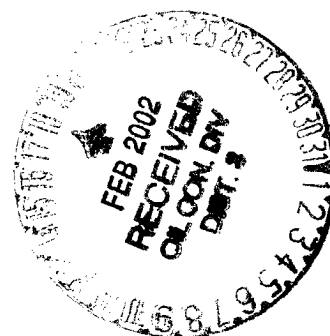
WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/15	09:53:00	132.0000	2094.25	77.37	.80	
02/15	09:54:00	133.0000	2094.52	79.02	.26	
02/15	09:55:00	134.0000	2094.51	80.67	-.01	
02/15	09:56:00	135.0000	2094.50	81.51	-.01	
02/15	09:57:00	136.0000	2094.64	82.00	.14	
02/15	09:58:00	137.0000	2094.67	82.47	.02	
02/15	09:59:00	138.0000	2094.66	82.98	-.00	
02/15	10:00:00	139.0000	2094.68	83.25	.02	
02/15	10:01:00	140.0000	2094.70	83.44	.02	
02/15	10:02:00	141.0000	2094.74	83.61	.04	
02/15	10:03:00	142.0000	2094.76	83.79	.03	
02/15	10:04:00	143.0000	2094.80	83.89	.04	
02/15	10:05:00	144.0000	2094.83	83.97	.03	
02/15	10:06:00	145.0000	2094.86	84.05	.02	
02/15	10:07:00	146.0000	2094.89	84.13	.04	
02/15	10:08:00	147.0000	2094.90	84.19	.00	
02/15	10:09:00	148.0000	2094.92	84.24	.02	
02/15	10:10:00	149.0000	2094.93	84.28	.01	
02/15	10:11:00	150.0000	2094.94	84.32	.01	
02/15	10:12:00	151.0000	2094.95	84.36	.00	
02/15	10:13:00	152.0000	2094.97	84.38	.02	
02/15	10:14:00	153.0000	2094.96	84.41	-.01	
02/15	10:15:00	154.0000	2094.97	84.44	.01	
02/15	10:16:00	155.0000	2094.96	84.46	-.01	
02/15	10:17:00	156.0000	2094.96	84.49	.01	
02/15	10:18:00	157.0000	2094.97	84.51	.00	
02/15	10:19:00	158.0000	2094.97	84.54	.00	
02/15	10:20:00	159.0000	2094.95	84.55	-.02	
02/15	10:21:00	160.0000	2094.94	84.58	-.01	
02/15	10:22:00	161.0000	2094.96	84.60	.02	
02/15	10:23:00	162.0000	2094.95	84.62	-.01	
02/15	10:24:00	163.0000	2094.97	84.63	.01	
02/15	10:25:00	164.0000	2094.98	84.66	.01	
02/15	10:26:00	165.0000	2094.96	84.68	-.02	
02/15	10:27:00	166.0000	2094.97	84.71	.01	
02/15	10:28:00	167.0000	2094.95	84.72	-.02	
02/15	10:29:00	168.0000	2094.95	84.74	.01	
02/15	10:30:00	169.0000	2094.97	84.75	.01	
02/15	10:31:00	170.0000	2094.96	84.77	-.01	
02/15	10:32:00	171.0000	2096.50	84.76	1.54	
02/15	10:33:00	172.0000	2095.45	85.00	-1.05	
02/15	10:34:00	173.0000	2099.16	85.22	3.72	
02/15	10:35:00	174.0000	2098.25	85.46	-.91	
02/15	10:36:00	175.0000	2098.59	86.63	.34	
02/15	10:37:00	176.0000	2098.63	88.19	.04	
02/15	10:38:00	177.0000	2099.90	89.75	1.27	
02/15	10:39:00	178.0000	2100.89	91.32	.99	
02/15	10:40:00	179.0000	2101.42	92.68	.54	
02/15	10:41:00	180.0000	2101.70	93.67	.28	
02/15	10:42:00	181.0000	2102.79	94.67	1.09	
02/15	10:43:00	182.0000	2103.48	95.66	.69	
02/15	10:44:00	183.0000	2104.69	96.33	1.22	
02/15	10:45:00	184.0000	2104.71	96.80	.01	
02/15	10:46:00	185.0000	2105.00	97.26	.29	
02/15	10:47:00	186.0000	2105.76	97.73	.76	
02/15	10:48:00	187.0000	2105.78	98.00	.02	
02/15	10:49:00	188.0000	2106.52	98.20	.74	
02/15	10:50:00	189.0000	2107.26	98.38	.74	
02/15	10:51:00	190.0000	2107.29	98.56	.03	
02/15	10:52:00	191.0000	2108.36	98.67	1.07	
02/15	10:53:00	192.0000	2107.13	98.72	-1.24	
02/15	10:54:00	193.0000	2109.68	98.78	2.55	
02/15	10:55:00	194.0000	2115.89	98.84	6.21	
02/15	10:56:00	195.0000	2117.63	98.89	1.74	
02/15	10:57:00	196.0000	2115.47	98.85	-2.15	

BEGAN PUMPING

END RATE #1 - .140 BPM



COMPANY: RICHARDSON OPERATING COMPANY

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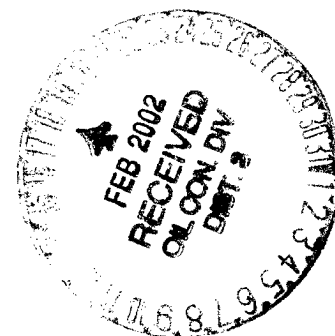
WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
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02/15	10:59:00	198.0000	2125.80	98.78	3.54	
02/15	11:00:00	199.0000	2129.91	98.67	4.11	
02/15	11:01:00	200.0000	2127.96	98.48	-1.96	
02/15	11:02:00	201.0000	2132.50	98.29	4.55	
02/15	11:03:00	202.0000	2132.53	98.11	.02	END RATE #2 - .609 BPM
02/15	11:04:00	203.0000	2134.84	97.88	2.31	
02/15	11:05:00	204.0000	2138.19	97.65	3.35	
02/15	11:06:00	205.0000	2139.09	97.42	.91	
02/15	11:07:00	206.0000	2138.78	97.19	-.31	
02/15	11:08:00	207.0000	2150.40	96.95	11.62	
02/15	11:09:00	208.0000	2148.90	96.66	-1.51	
02/15	11:10:00	209.0000	2155.12	96.37	6.22	
02/15	11:11:00	210.0000	2158.76	96.08	3.65	
02/15	11:12:00	211.0000	2161.77	95.69	3.01	
02/15	11:13:00	212.0000	2164.69	95.20	2.92	
02/15	11:14:00	213.0000	2167.33	94.71	2.65	
02/15	11:15:00	214.0000	2169.98	94.22	2.65	
02/15	11:16:00	215.0000	2172.66	93.64	2.68	
02/15	11:17:00	216.0000	2174.00	93.04	1.34	
02/15	11:18:00	217.0000	2171.27	92.43	-2.73	END RATE #3 - 1.124 BPM
02/15	11:19:00	218.0000	2170.84	91.83	-.43	
02/15	11:20:00	219.0000	2173.82	91.21	2.97	
02/15	11:21:00	220.0000	2178.56	90.57	4.75	
02/15	11:22:00	221.0000	2183.18	89.93	4.61	
02/15	11:23:00	222.0000	2192.96	89.29	9.78	
02/15	11:24:00	223.0000	2196.78	88.60	3.82	
02/15	11:25:00	224.0000	2201.24	87.71	4.46	
02/15	11:26:00	225.0000	2205.96	86.83	4.73	
02/15	11:27:00	226.0000	2208.39	85.94	2.42	
02/15	11:28:00	227.0000	2214.39	84.94	6.00	
02/15	11:29:00	228.0000	2213.90	83.88	-.49	
02/15	11:30:00	229.0000	2217.21	82.83	3.31	
02/15	11:31:00	230.0000	2221.34	81.78	4.13	
02/15	11:32:00	231.0000	2221.37	80.79	.02	
02/15	11:33:00	232.0000	2225.67	79.68	4.30	END RATE #4 - 1.627 BPM
02/15	11:34:00	233.0000	2228.59	78.63	2.92	
02/15	11:35:00	234.0000	2230.01	77.58	1.42	
02/15	11:36:00	235.0000	2232.11	76.54	2.10	
02/15	11:37:00	236.0000	2236.63	75.57	4.52	
02/15	11:38:00	237.0000	2245.78	74.60	9.16	
02/15	11:39:00	238.0000	2252.63	73.63	6.84	
02/15	11:40:00	239.0000	2258.09	72.71	5.46	
02/15	11:41:00	240.0000	2262.98	71.84	4.90	
02/15	11:42:00	241.0000	2266.66	70.97	3.67	
02/15	11:43:00	242.0000	2270.20	70.10	3.54	
02/15	11:44:00	243.0000	2273.97	69.31	3.78	
02/15	11:45:00	244.0000	2276.09	68.57	2.12	
02/15	11:46:00	245.0000	2278.62	67.83	2.53	
02/15	11:47:00	246.0000	2281.97	67.09	3.35	
02/15	11:48:00	247.0000	2283.80	66.40	1.83	END RATE #5 - 2.104 BPM
02/15	11:49:00	248.0000	2284.64	65.78	.84	
02/15	11:50:00	249.0000	2286.98	65.17	2.34	
02/15	11:51:00	250.0000	2288.50	64.54	1.52	
02/15	11:52:00	251.0000	2290.95	64.00	2.45	END RATE #6 - 2.633 BPM
02/15	11:53:00	252.0000	2309.47	63.52	18.52	
02/15	11:54:00	253.0000	2319.26	63.04	9.79	
02/15	11:55:00	254.0000	2325.92	62.56	6.66	
02/15	11:56:00	255.0000	2331.87	62.10	5.96	
02/15	11:57:00	256.0000	2334.68	61.67	2.81	
02/15	11:58:00	257.0000	2337.35	61.24	2.67	
02/15	11:59:00	258.0000	2331.42	60.80	-5.93	
02/15	12:00:00	259.0000	2326.30	60.38	-5.12	
02/15	12:01:00	260.0000	2325.41	59.98	-.90	
02/15	12:02:00	261.0000	2326.43	59.58	1.02	



COMPANY: RICHARDSON OPERATING COMPANY

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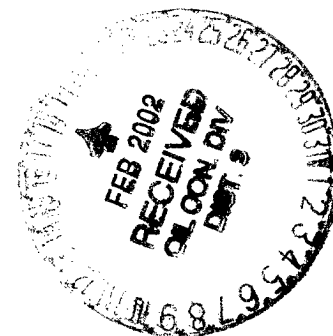
WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

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02/15	12:03:00	262.0000	2328.68	59.17	2.25	
02/15	12:04:00	263.0000	2328.68	58.84	.00	
02/15	12:05:00	264.0000	2328.71	58.56	.03	
02/15	12:06:00	265.0000	2329.53	58.28	.82	
02/15	12:07:00	266.0000	2330.90	58.00	1.37	END RATE #7 - 3.144 BPM
02/15	12:08:00	267.0000	2341.53	57.79	10.62	
02/15	12:09:00	268.0000	2348.06	57.59	6.53	
02/15	12:10:00	269.0000	2350.34	57.40	2.28	
02/15	12:11:00	270.0000	2357.00	57.20	6.66	
02/15	12:12:00	271.0000	2362.98	57.01	5.97	
02/15	12:13:00	272.0000	2365.81	56.81	2.83	
02/15	12:14:00	273.0000	2368.37	56.62	2.56	
02/15	12:15:00	274.0000	2370.93	56.42	2.56	
02/15	12:16:00	275.0000	2375.27	56.22	4.34	
02/15	12:17:00	276.0000	2378.09	56.05	2.82	
02/15	12:18:00	277.0000	2380.51	55.87	2.42	
02/15	12:19:00	278.0000	2379.78	55.70	-.73	
02/15	12:20:00	279.0000	2380.56	55.50	.79	
02/15	12:21:00	280.0000	2381.19	55.34	.63	
02/15	12:22:00	281.0000	2383.19	55.18	2.00	END RATE #8 - 3.630 BPM
02/15	12:23:00	282.0000	2393.53	55.02	10.34	
02/15	12:24:00	283.0000	2399.04	54.94	5.51	
02/15	12:25:00	284.0000	2399.47	54.90	.43	
02/15	12:26:00	285.0000	2405.78	54.86	6.31	
02/15	12:27:00	286.0000	2409.35	54.83	3.57	
02/15	12:28:00	287.0000	2410.87	54.79	1.52	
02/15	12:29:00	288.0000	2411.72	54.75	.85	
02/15	12:30:00	289.0000	2412.29	54.69	.57	
02/15	12:31:00	290.0000	2412.29	54.65	.00	
02/15	12:32:00	291.0000	2411.83	54.54	-.46	
02/15	12:33:00	292.0000	2409.57	54.41	-2.26	
02/15	12:34:00	293.0000	2408.96	54.27	-.61	
02/15	12:35:00	294.0000	2412.72	54.13	3.76	
02/15	12:36:00	295.0000	2414.17	53.99	1.45	
02/15	12:37:00	296.0000	2414.15	53.89	-.02	END RATE #9 - 4.064 BPM
02/15	12:38:00	297.0000	2420.03	53.78	5.88	
02/15	12:39:00	298.0000	2414.89	53.67	-5.15	
02/15	12:40:00	299.0000	2412.33	53.58	-2.55	
02/15	12:41:00	300.0000	2412.39	53.48	.05	
02/15	12:42:00	301.0000	2417.91	53.39	5.52	
02/15	12:43:00	302.0000	2415.90	53.29	-2.00	
02/15	12:44:00	303.0000	2418.83	53.19	2.93	
02/15	12:45:00	304.0000	2419.95	53.13	1.13	
02/15	12:46:00	305.0000	2421.49	53.08	1.54	
02/15	12:47:00	306.0000	2422.61	53.01	1.13	
02/15	12:48:00	307.0000	2421.67	52.99	-.95	
02/15	12:49:00	308.0000	2421.13	52.97	-.54	
02/15	12:50:00	309.0000	2419.77	52.96	-1.36	
02/15	12:51:00	310.0000	2418.28	52.94	-1.49	
02/15	12:52:00	311.0000	2416.93	52.90	-1.35	END RATE #10 - 4.610 BPM
02/15	12:53:00	312.0000	2443.46	52.93	26.52	
02/15	12:54:00	313.0000	2424.29	52.96	-19.17	
02/15	12:55:00	314.0000	2428.66	52.98	4.37	
02/15	12:56:00	315.0000	2432.71	53.08	4.05	
02/15	12:57:00	316.0000	2432.73	53.20	.02	
02/15	12:58:00	317.0000	2423.27	53.33	-9.46	
02/15	12:59:00	318.0000	2431.41	53.46	8.14	
02/15	13:00:00	319.0000	2431.39	53.56	-.02	
02/15	13:01:00	320.0000	2431.30	53.72	-.09	
02/15	13:02:00	321.0000	2430.38	53.86	-.92	
02/15	13:03:00	322.0000	2430.32	54.01	-.06	
02/15	13:04:00	323.0000	2430.61	54.20	.29	
02/15	13:05:00	324.0000	2431.06	54.38	.45	
02/15	13:06:00	325.0000	2428.63	54.57	-2.43	
02/15	13:07:00	326.0000	2430.73	54.75	2.09	END RATE #11 - 5.199 BPM



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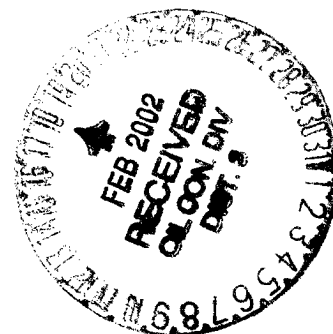
WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

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02/15	13:09:00	328.0000	2436.48	55.00	1.17	
02/15	13:10:00	329.0000	2435.19	55.10	-1.28	
02/15	13:11:00	330.0000	2436.63	55.22	1.44	
02/15	13:12:00	331.0000	2434.81	55.30	-1.82	
02/15	13:13:00	332.0000	2437.36	55.40	2.54	
02/15	13:14:00	333.0000	2435.25	55.50	-2.10	
02/15	13:15:00	334.0000	2435.62	55.59	.36	
02/15	13:16:00	335.0000	2435.99	55.67	.37	
02/15	13:17:00	336.0000	2436.03	55.70	.04	
02/15	13:18:00	337.0000	2439.23	55.74	3.20	
02/15	13:19:00	338.0000	2439.76	55.77	.53	
02/15	13:20:00	339.0000	2439.76	55.78	.00	
02/15	13:21:00	340.0000	2438.10	55.80	-1.66	
02/15	13:22:00	341.0000	2439.33	55.81	1.23	END RATE #12 - 5.699 BPM
02/15	13:23:00	342.0000	2442.88	55.82	3.55	
02/15	13:24:00	343.0000	2444.24	55.84	1.36	
02/15	13:25:00	344.0000	2445.32	55.85	1.09	
02/15	13:26:00	345.0000	2446.82	55.86	1.50	
02/15	13:27:00	346.0000	2446.40	55.88	-.42	
02/15	13:28:00	347.0000	2446.35	55.90	-.05	
02/15	13:29:00	348.0000	2447.60	55.95	1.24	
02/15	13:30:00	349.0000	2447.98	56.00	.38	
02/15	13:31:00	350.0000	2448.00	56.05	.02	
02/15	13:32:00	351.0000	2447.64	56.12	-.36	
02/15	13:33:00	352.0000	2448.41	56.22	.77	
02/15	13:34:00	353.0000	2449.32	56.31	.91	
02/15	13:35:00	354.0000	2451.59	56.41	2.27	END RATE #13 - 6.139 BPM
02/15	13:36:00	355.0000	2451.57	56.50	-.02	
02/15	13:37:00	356.0000	2451.54	56.58	-.03	
02/15	13:38:00	357.0000	2456.38	56.67	4.83	
02/15	13:39:00	358.0000	2456.40	56.75	.02	
02/15	13:40:00	359.0000	2456.02	56.82	-.38	
02/15	13:41:00	360.0000	2457.35	56.89	1.33	
02/15	13:42:00	361.0000	2459.09	56.96	1.74	
02/15	13:43:00	362.0000	2460.15	57.03	1.06	
02/15	13:44:00	363.0000	2461.20	57.11	1.05	
02/15	13:45:00	364.0000	2461.69	57.21	.49	
02/15	13:46:00	365.0000	2462.74	57.31	1.04	
02/15	13:47:00	366.0000	2464.19	57.41	1.45	
02/15	13:48:00	367.0000	2465.51	57.49	1.32	
02/15	13:49:00	368.0000	2464.57	57.45	-.94	
02/15	13:50:00	369.0000	2466.24	57.41	1.66	
02/15	13:51:00	370.0000	2466.94	57.38	.70	
02/15	13:52:00	371.0000	2466.91	56.94	-.02	END RATE #14 - 6.628 BPM
02/15	13:53:00	372.0000	2484.25	56.69	17.34	
02/15	13:54:00	373.0000	2463.47	56.44	-20.78	
02/15	13:55:00	374.0000	2463.53	56.20	.07	
02/15	13:56:00	375.0000	2464.92	56.29	1.38	
02/15	13:57:00	376.0000	2472.39	56.12	7.47	
02/15	13:58:00	377.0000	2476.04	55.94	3.65	
02/15	13:59:00	378.0000	2475.45	55.77	-.59	
02/15	14:00:00	379.0000	2475.42	55.28	-.02	
02/15	14:01:00	380.0000	2474.22	54.74	-1.20	
02/15	14:02:00	381.0000	2474.20	54.23	-.02	
02/15	14:03:00	382.0000	2475.60	53.69	1.41	
02/15	14:04:00	383.0000	2474.18	53.28	-1.42	
02/15	14:05:00	384.0000	2473.25	52.99	-.94	
02/15	14:06:00	385.0000	2474.09	52.70	.84	
02/15	14:07:00	386.0000	2472.87	52.42	-1.22	END RATE #15 - 7.128 BPM
02/15	14:08:00	387.0000	2474.21	52.22	1.34	
02/15	14:09:00	388.0000	2478.52	52.10	4.31	
02/15	14:10:00	389.0000	2479.13	51.98	.61	
02/15	14:11:00	390.0000	2479.09	51.85	-.03	
02/15	14:12:00	391.0000	2476.23	51.78	-2.87	



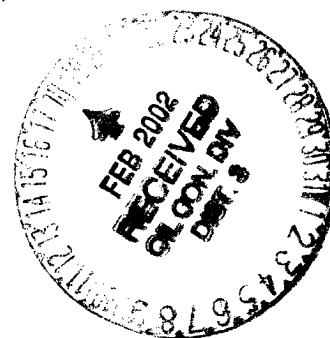
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DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

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02/15	14:13:00	392.0000	2475.42	51.76	-.81	
02/15	14:14:00	393.0000	2476.78	51.76	1.37	
02/15	14:15:00	394.0000	2474.47	51.74	-2.32	
02/15	14:16:00	395.0000	2473.49	51.78	-.98	
02/15	14:17:00	396.0000	2474.43	51.82	.94	
02/15	14:18:00	397.0000	2474.38	51.87	-.05	
02/15	14:19:00	398.0000	2474.65	51.91	.27	
02/15	14:20:00	399.0000	2472.57	51.96	-2.08	
02/15	14:21:00	400.0000	2474.47	52.00	1.89	
02/15	14:22:00	401.0000	2474.85	52.04	.39	END RATE #16 - 7.635 BPM
02/15	14:23:00	402.0000	2479.90	52.08	5.04	
02/15	14:24:00	403.0000	2479.90	52.13	.00	
02/15	14:25:00	404.0000	2479.92	52.19	.02	
02/15	14:26:00	405.0000	2479.26	52.24	-.66	
02/15	14:27:00	406.0000	2482.51	52.30	3.25	
02/15	14:28:00	407.0000	2483.29	52.38	.78	
02/15	14:29:00	408.0000	2484.46	52.49	1.17	
02/15	14:30:00	409.0000	2466.34	52.60	-18.12	
02/15	14:31:00	410.0000	2459.85	52.71	-6.49	
02/15	14:32:00	411.0000	2468.81	52.83	8.96	
02/15	14:33:00	412.0000	2469.16	52.96	.35	
02/15	14:34:00	413.0000	2472.24	53.08	3.08	
02/15	14:35:00	414.0000	2472.26	53.20	.02	
02/15	14:36:00	415.0000	2472.66	53.32	.40	
02/15	14:37:00	416.0000	2472.00	53.52	-.66	END RATE #17 - 8.178 BPM
02/15	14:38:00	417.0000	2474.23	53.72	2.22	
02/15	14:39:00	418.0000	2477.54	53.92	3.31	
02/15	14:40:00	419.0000	2477.56	54.15	.02	
02/15	14:41:00	420.0000	2478.77	54.42	1.21	
02/15	14:42:00	421.0000	2480.95	54.69	2.18	
02/15	14:43:00	422.0000	2480.25	54.96	-.69	
02/15	14:44:00	423.0000	2482.99	55.22	2.73	
02/15	14:45:00	424.0000	2480.26	55.46	-2.73	
02/15	14:46:00	425.0000	2469.06	55.69	-11.20	
02/15	14:47:00	426.0000	2478.65	55.92	9.58	
02/15	14:48:00	427.0000	2479.36	56.12	.71	
02/15	14:49:00	428.0000	2479.69	56.27	.33	
02/15	14:50:00	429.0000	2481.66	56.42	1.97	
02/15	14:51:00	430.0000	2482.40	56.57	.74	
02/15	14:52:00	431.0000	2480.69	56.71	-1.71	END RATE #18 - 8.611 BPM
02/15	14:53:00	432.0000	2483.08	56.83	2.40	
02/15	14:54:00	433.0000	2483.83	56.96	.75	
02/15	14:55:00	434.0000	2486.36	57.09	2.53	
02/15	14:56:00	435.0000	2482.20	57.21	-4.16	
02/15	14:57:00	436.0000	2485.12	57.36	2.93	
02/15	14:58:00	437.0000	2485.10	57.50	-.02	
02/15	14:59:00	438.0000	2486.06	57.65	.96	
02/15	15:00:00	439.0000	2488.04	57.78	1.98	
02/15	15:01:00	440.0000	2483.33	57.90	-4.71	
02/15	15:02:00	441.0000	2487.10	58.02	3.76	
02/15	15:03:00	442.0000	2486.35	58.13	-.74	
02/15	15:04:00	443.0000	2487.66	58.24	1.31	
02/15	15:05:00	444.0000	2489.13	58.30	1.47	
02/15	15:06:00	445.0000	2487.05	58.36	-2.08	
02/15	15:07:00	446.0000	2487.97	58.43	.92	
02/15	15:08:00	447.0000	2489.88	58.18	1.91	
02/15	15:09:00	448.0000	2492.67	57.82	2.79	
02/15	15:10:00	449.0000	2492.45	57.46	-.22	
02/15	15:11:00	450.0000	2496.33	57.10	3.88	
02/15	15:12:00	451.0000	2495.40	56.81	-.94	
02/15	15:13:00	452.0000	2494.68	56.61	-.71	
02/15	15:14:00	453.0000	2494.10	56.42	-.58	
02/15	15:15:00	454.0000	2495.16	56.23	1.06	
02/15	15:16:00	455.0000	2494.66	56.15	-.50	
02/15	15:17:00	456.0000	2495.36	56.12	.70	



COMPANY: RICHARDSON OPERATING COMPANY

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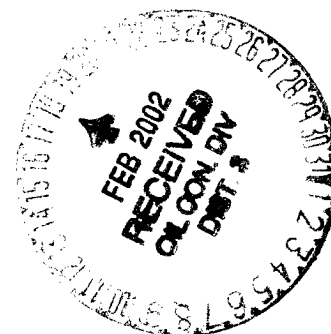
WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

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02/15	15:19:00	458.0000	2493.20	56.06	-2.58	
02/15	15:20:00	459.0000	2492.79	56.06	-.41	
02/15	15:21:00	460.0000	2494.02	56.06	1.23	
02/15	15:22:00	461.0000	2494.00	56.05	-.02	END RATE #20 - 9.710 BPM
02/15	15:23:00	462.0000	2494.03	56.04	.03	
02/15	15:24:00	463.0000	2496.51	56.00	2.49	
02/15	15:25:00	464.0000	2496.57	55.92	.05	
02/15	15:26:00	465.0000	2494.96	55.84	-1.61	
02/15	15:27:00	466.0000	2500.20	55.76	5.24	END RATE #19 - 9.127 BPM
02/15	15:28:00	467.0000	2498.87	55.68	-1.32	
02/15	15:29:00	468.0000	2499.30	55.65	.43	
02/15	15:30:00	469.0000	2498.22	55.62	-1.08	
02/15	15:31:00	470.0000	2498.22	55.58	.00	
02/15	15:32:00	471.0000	2498.27	55.59	.05	
02/15	15:33:00	472.0000	2499.03	55.64	.76	
02/15	15:34:00	473.0000	2502.29	55.69	3.26	
02/15	15:35:00	474.0000	2502.29	55.74	.00	
02/15	15:36:00	475.0000	2500.71	55.83	-1.58	
02/15	15:37:00	476.0000	2499.96	55.95	-.75	END RATE #21 - 10.107 BPM
02/15	15:38:00	477.0000	2500.85	56.07	.89	
02/15	15:39:00	478.0000	2505.02	56.19	4.17	
02/15	15:40:00	479.0000	2506.25	56.20	1.23	
02/15	15:41:00	480.0000	2506.23	55.90	-.02	
02/15	15:42:00	481.0000	2509.06	55.56	2.83	
02/15	15:43:00	482.0000	2510.46	55.25	1.40	
02/15	15:44:00	483.0000	2507.11	54.87	-3.35	
02/15	15:45:00	484.0000	2507.66	54.60	.56	
02/15	15:46:00	485.0000	2509.87	54.32	2.20	
02/15	15:47:00	486.0000	2507.14	54.05	-2.72	
02/15	15:48:00	487.0000	2508.87	53.90	1.73	
02/15	15:49:00	488.0000	2507.68	53.82	-1.19	
02/15	15:50:00	489.0000	2511.13	53.75	3.46	
02/15	15:51:00	490.0000	2510.08	53.67	-1.05	
02/15	15:52:00	491.0000	2510.06	53.66	-.02	
02/15	15:53:00	492.0000	2504.61	53.68	-5.46	
02/15	15:54:00	493.0000	2512.25	53.70	7.65	
02/15	15:55:00	494.0000	2511.01	53.73	-1.25	
02/15	15:56:00	495.0000	2513.86	53.76	2.86	
02/15	15:57:00	496.0000	2515.18	53.85	1.32	
02/15	15:58:00	497.0000	2515.13	53.94	-.05	
02/15	15:59:00	498.0000	2505.65	54.03	-9.48	
02/15	16:00:00	499.0000	2503.38	54.18	-2.27	
02/15	16:01:00	500.0000	2508.93	54.28	5.55	
02/15	16:02:00	501.0000	2505.18	54.38	-3.75	
02/15	16:03:00	502.0000	2506.23	54.47	1.05	
02/15	16:04:00	503.0000	2505.27	54.47	-.96	
02/15	16:05:00	504.0000	2506.64	54.46	1.37	
02/15	16:06:00	505.0000	2506.62	54.45	-.02	
02/15	16:07:00	506.0000	2503.78	54.44	-2.84	
02/15	16:08:00	507.0000	2505.69	54.45	1.91	
02/15	16:09:00	508.0000	2505.02	54.42	-.67	
02/15	16:10:00	509.0000	2505.45	54.40	.42	
02/15	16:11:00	510.0000	2506.00	54.38	.56	
02/15	16:12:00	511.0000	2506.81	54.15	.81	
02/15	16:13:00	512.0000	2462.65	53.88	-44.17	
02/15	16:14:00	513.0000	2452.53	53.61	-10.11	
02/15	16:15:00	514.0000	2447.89	53.34	-4.64	
02/15	16:16:00	515.0000	2444.28	53.17	-3.61	
02/15	16:17:00	516.0000	2441.29	53.15	-2.99	
02/15	16:18:00	517.0000	2438.57	53.12	-2.72	
02/15	16:19:00	518.0000	2435.98	53.09	-2.58	
02/15	16:20:00	519.0000	2433.63	53.15	-2.36	
02/15	16:21:00	520.0000	2431.36	53.29	-2.26	
02/15	16:22:00	521.0000	2429.24	53.42	-2.12	



COMPANY: RICHARDSON OPERATING COMPANY

PAGE 9 OF 9

WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

Date MM/DD	Time hh:mm:ss	Test Time mmmmmmmm.mmmmm	Pressure Psig	Temp Deg F	deltaP Psi	Comment Ga. Press Ref. to 14.7 Psi Atm.
02/15	16:23:00	522.0000	2427.25	53.56	-1.99	
02/15	16:24:00	523.0000	2425.25	53.72	-2.00	
02/15	16:25:00	524.0000	2423.38	53.92	-1.88	
02/15	16:26:00	525.0000	2421.50	54.10	-1.88	
02/15	16:27:00	526.0000	2419.75	54.29	-1.75	
02/15	16:28:00	527.0000	2418.15	54.49	-1.60	
02/15	16:29:00	528.0000	2416.40	54.69	-1.75	
02/15	16:30:00	529.0000	2414.79	54.89	-1.61	
02/15	16:31:00	530.0000	2413.18	55.09	-1.61	
02/15	16:32:00	531.0000	2411.57	55.29	-1.61	
02/15	16:33:00	532.0000	2410.10	55.50	-1.48	
02/15	16:34:00	533.0000	2382.51	55.71	-27.59	
02/15	16:35:00	534.0000	2224.63	55.92	-157.88	
02/15	16:36:00	535.0000	2067.41	56.22	-157.22	
02/15	16:37:00	536.0000	1715.05	56.42	-352.37	
02/15	16:38:00	537.0000	1375.78	56.61	-339.27	
02/15	16:39:00	538.0000	1094.97	56.81	-280.81	
02/15	16:40:00	539.0000	1041.90	56.22	-53.06	
02/15	16:41:00	540.0000	36.60	56.51	-1005.31	
02/15	16:42:00	541.0000	.01	56.78	-36.59	
02/15	16:43:00	542.0000	.01	57.07	.00	
02/15	16:44:00	543.0000	.01	57.77	.00	
02/15	16:45:00	544.0000	.01	58.02	.00	
02/15	16:46:00	545.0000	.01	58.22	.00	
02/15	16:47:00	546.0000	.01	58.44	.00	
02/15	16:48:00	547.0000	.01	58.08	.00	
02/15	16:49:00	548.0000	.01	57.55	.00	
02/15	16:50:00	549.0000	.01	56.99	.00	
02/15	16:51:00	550.0000	.01	56.45	.00	

TANDEM INSTRUMENTS OFF BOTTOM



 *
 * EVENT SUMMARY *
 *

COMPANY : RICHARDSON OPERATING COMPANY

PAGE : B1

WELL NAME : SALTY DOG NO. 1

DATE : 02/16/02

WELL LOCATION : SAN JUAN COUNTY, NM

FILE REF: F154216.DAT

Date MM/DD	Time hh:mm:ss	Test Time mmmmmm.mmmmm	Key Event	Pressure Psig	Temp Deg F
02/15	10:31:00	170.0000	BEGAN PUMPING	2094.96	84.77
02/15	10:47:00	186.0000	END RATE #1 - .140 BPM	2105.76	97.73
02/15	11:03:00	202.0000	END RATE #2 - .609 BPM	2132.53	98.11
02/15	11:18:00	217.0000	END RATE #3 - 1.124 BPM	2171.27	92.43
02/15	11:33:00	232.0000	END RATE #4 - 1.627 BPM	2225.67	79.68
02/15	11:48:00	247.0000	END RATE #5 - 2.104 BPM	2283.80	66.40
02/15	11:52:00	251.0000	END RATE #6 - 2.633 BPM	2290.95	64.00
02/15	12:07:00	266.0000	END RATE #7 - 3.144 BPM	2330.90	58.00
02/15	12:22:00	281.0000	END RATE #8 - 3.630 BPM	2383.19	55.18
02/15	12:37:00	296.0000	END RATE #9 - 4.064 BPM	2414.15	53.89
02/15	12:52:00	311.0000	END RATE #10 - 4.610 BPM	2416.93	52.90
02/15	13:07:00	326.0000	END RATE #11 - 5.199 BPM	2430.73	54.75
02/15	13:22:00	341.0000	END RATE #12 - 5.699 BPM	2439.33	55.81
02/15	13:37:00	356.0000	END RATE #13 - 6.139 BPM	2451.54	56.58
02/15	13:52:00	371.0000	END RATE #14 - 6.628 BPM	2466.91	56.94
02/15	14:07:00	386.0000	END RATE #15 - 7.128 BPM	2472.87	52.42
02/15	14:22:00	401.0000	END RATE #16 - 7.635 BPM	2474.85	52.04
02/15	14:37:00	416.0000	END RATE #17 - 8.178 BPM	2472.00	53.52
02/15	14:52:00	431.0000	END RATE #18 - 8.611 BPM	2480.69	56.71
02/15	15:22:00	461.0000	END RATE #20 - 9.710 BPM	2494.00	56.05
02/15	15:27:00	466.0000	END RATE #19 - 9.127 BPM	2500.20	55.76
02/15	15:37:00	476.0000	END RATE #21 - 10.107 BPM	2499.96	55.95
02/15	16:33:00	532.0000	TANDEM INSTRUMENTS OFF BOTTOM	2410.10	55.50



RICHARDSON OPERATING COMPANY

Pressure vs dt

SALTY DOG NO. 1
SAN JUAN COUNTY, NM
F154216.DAT

TEFTELLER, INC.
2-15-02
STEP RATE TEST

