



TONEY ANAYA
GOVERNOR

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

July 6, 1983

Mr. Gilbert Quintana
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Re: Step-rate test of Tenneco South Hospah Unit #18
G-12-17N-9W

Dear Gilbert:

I have reviewed the referenced test. It appears that the surface parting pressure is approximately 535 p.s.i. I recommend that this be the injection pressure limit.

If you have any questions, please contact this office.

Yours truly,

A handwritten signature in cursive script, appearing to read "Frank T. Chavez".

Frank T. Chavez
District Supervisor

FTC/ca

Tenneco Oil
Exploration and Production
A Tenneco Company



Rocky Mountain Division

P.O. Box 3249
Englewood, Colorado 80155
(303) 740-4800

Delivery Address:
6061 South Willow Drive
Englewood, Colorado

June 1, 1983

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JUN 6 1983
OIL CON. DIV.
DIST. 3

Oil Conservation Commission
1000 Rio Brazos Road
Aztec, New Mexico 87410

Attention: Frank Chavez

Re: Hospah 18 - Step Rate
Test Results

Gentlemen:

Enclosed please find the following data and results from the step rate test conducted on Hospah 18 on May 11, 1983.

- Step Rate Test Procedure
- Dowell Treating Report
- Bottom Hole Pressure Bomb Data
- Graph of Surface Injection Rate vs. BHP

Plotting corrected bottom-hole pressure (BHP) vs. surface injection rate results in a formation parting pressure of 1242 psi. This corresponds to a frac gradient of .799 psi/ft.

It is therefore concluded that the Upper Hospah formation parting pressure will not be exceeded as long as the surface injection rate is less than or equal to 720 BWIPD (0.5 BPM).

Sincerely,

TENNECO OIL COMPANY

P. A. Doyle
Division Production Engineer
Western Rocky Mountain Division

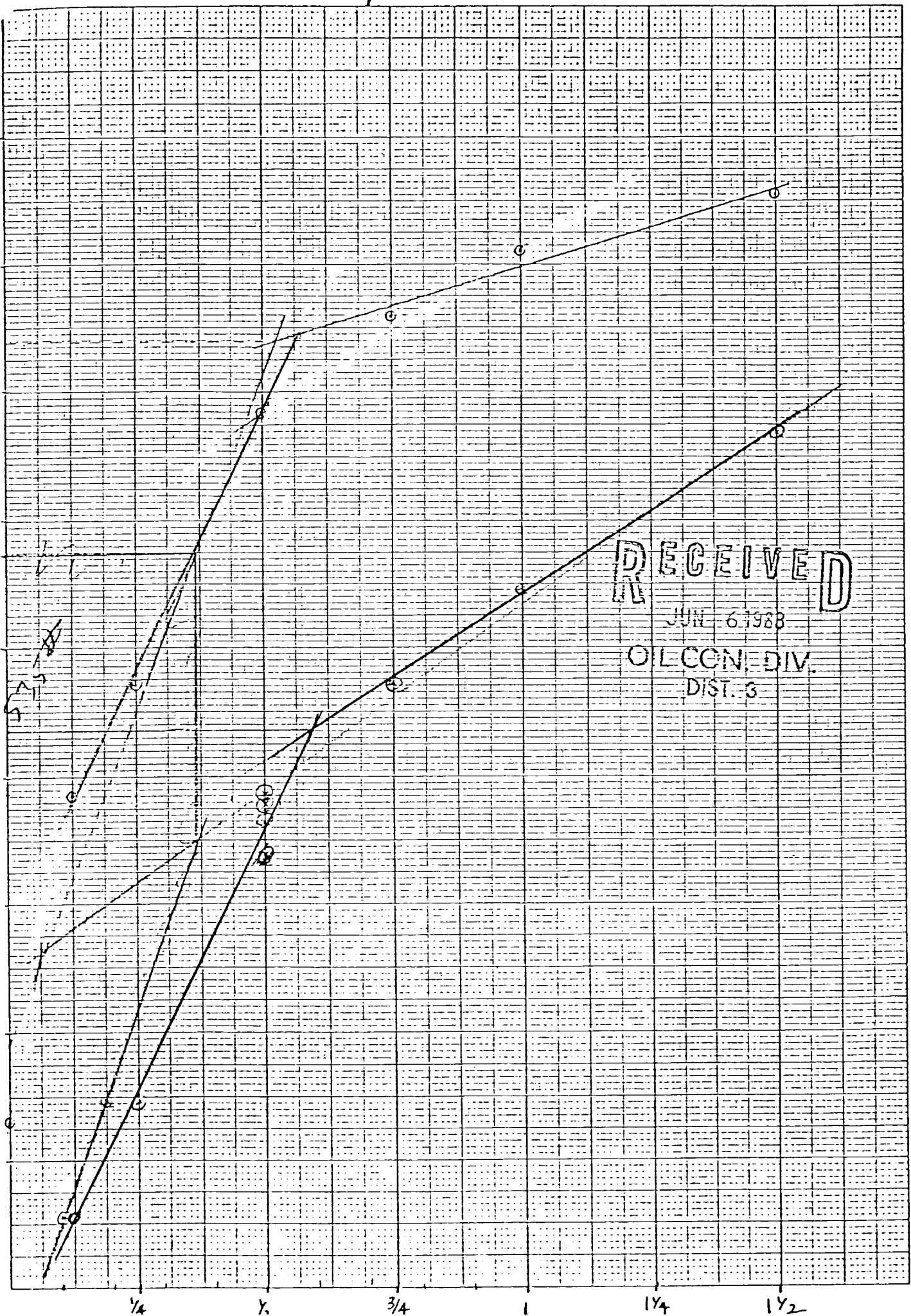
PAD:AMM:sh
Attachment

cc: J. W. Cook
Attn: M. McLean 303-740-2582
Well File

46 1240
Bottom Hole Pressures

20 X 20 TO THE INCH 1 X 10 INCHES
KEUFFNER & ESSER CO. MADE IN U.S.A.

1400
1300
1200
1100
1000
900
800
700
600
500

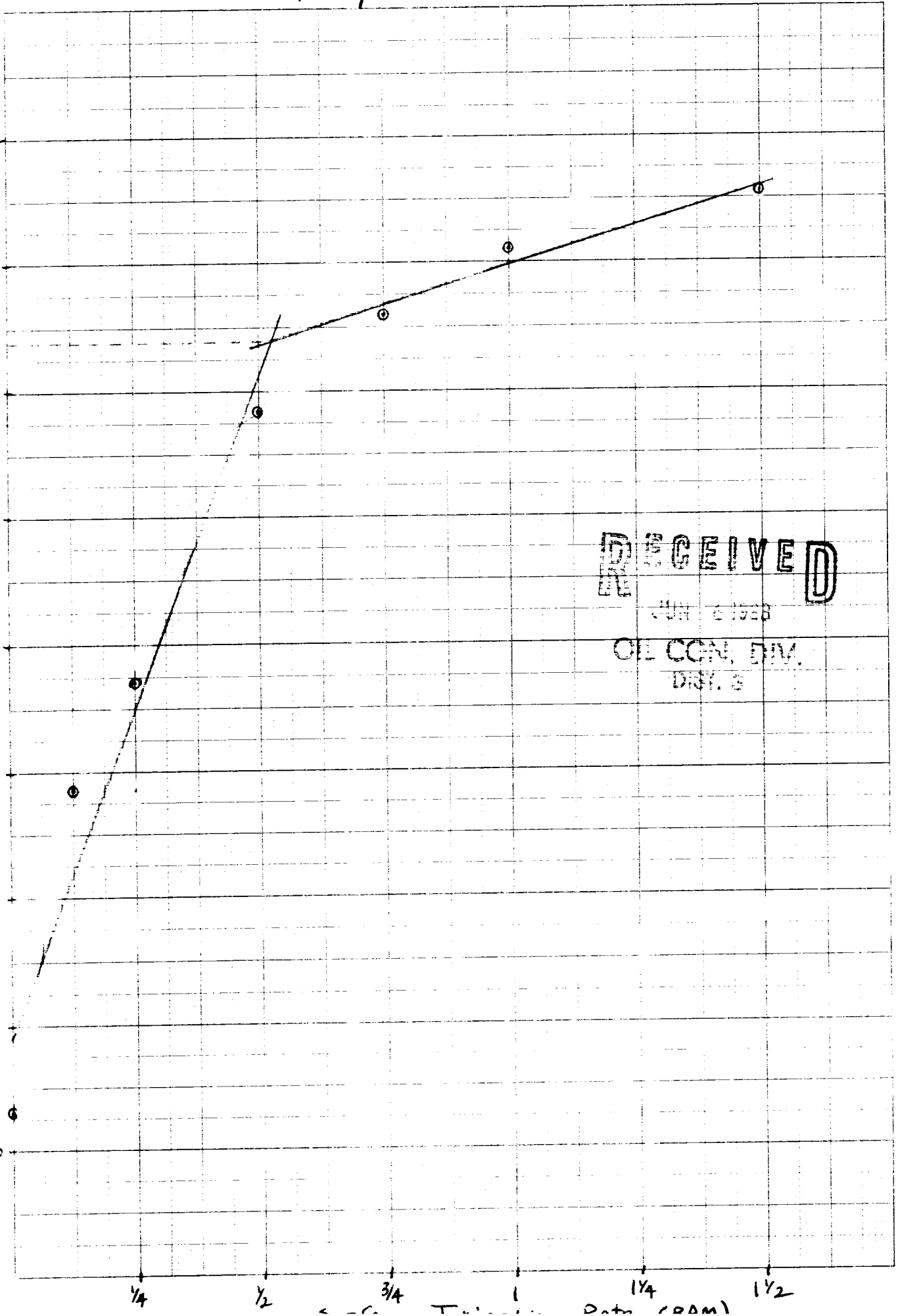


Hospah 18

46 1240
Bottom Hole Pressures

1000
900
800
700
600
500

1400
1300
1200
1100
1000
900
800
700
600
500



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JUN 6 1968

OIL CON. DIV.
DIST. 3

B & R SERVICE, INC.
P.O. BOX 1048
FARMINGTON, NEW MEXICO 87499

TENNECO OIL COMPANY
HOSPAH 18
McKINLEY COUNTY, NEW MEXICO

Bombs Hung @ 1450' G.L.
Static Bottom Hole Pressure-591.2
5-11-83

<u>TIME</u>	<u>PSIG</u>
0 Min	591.2
3 "	642.3
6 "	732.4
9 "	739.7
12 "	749.4
15 "	761.6
18 "	776.2
21 "	785.9
24 "	795.6
27 "	802.9
30 "	812.6
33 "	817.5
36 "	822.4
39 "	827.3
42 "	829.7
45 "	832.1
48 "	837.0
51 "	841.9
54 "	910.0
57 "	919.7
60 "	922.1
63 "	924.6
66 "	924.6
69 "	924.6
72 "	927.0
75 "	927.0
78 "	929.4
81 "	1051.5
84 "	1090.7
87 "	1107.8
90 "	1112.8
93 "	1120.1
96 "	1125.0
99 "	1129.9
102 "	1132.4
105 "	1132.4

<u>TIME</u>	<u>PSIG</u>
108 "	1107.8
111 "	1115.2
114 "	1122.6
117 "	1137.3
120 "	1142.2
123 "	1144.6
126 "	1149.5
129 "	1149.5
132 "	781.0
135 "	1169.1
138 "	1181.4
141 "	1186.3
144 "	1198.5
147 "	1201.0
150 "	1203.4
153 "	1208.3
156 "	1215.7
159 "	1218.1
162 "	1235.3
165 "	1250.0
168 "	1259.8
171 "	1262.3
174 "	1267.2
177 "	1267.2
180 "	1267.2
183 "	1267.2
186 "	1289.2
189 "	1299.0
192 "	1311.3
195 "	1311.3
198 "	1220.6
201 "	1166.7
204 "	1127.5
207 "	1076.0
210 "	1046.6

TENNECO



HOSPAH 18

REPORT NO: 1506-8429

DATE: 5/11/83

MCKINLEY, NEW MEXICO

TIME HH:MM:SS	ELAPSED TIME (MIN)	PUMPER RATE (BPM)	WELHD TOTAL (BBL)	CASING PRESSR (PSI)	TUBING PRESSR (PSI)	DELTA T (MIN)				
08:36:24	14.41	0.0	0	0	6	.43				
08:36:54	14.91	0.0	0	0	6	.94				
08:37:24	15.41	0.0	0	0	4	1.43				
08:37:54	15.91	0.0	0	-0	2	1.93				
08:38:24	16.41	0.0	0	1	0	2.44				
08:38:54	16.91	0.0	0	-1	0	2.93				
08:39:24	17.41	.1	0	-0	0	3.43				
08:39:56	17.94	.1	0	-1	1	3.97				
08:40:24	18.41	.1	0	0	2	4.44				
08:40:54	18.91	.1	0	0	3	4.93				
08:41:24	19.41	.1	0	-0	4	5.44				
08:41:54	19.91	0.0	0	0	6	5.93				
08:42:24	20.41	.4	0	1	6	6.44				
08:42:50	2: FILL TUBING (9BBLs)									
08:42:56	20.95	.4	0	1	12	6.97				
08:43:02	3: STAGE 1; LEASE H2O; [REDACTED]									
08:43:24	21.41	.4	0	2	59	7.43				
08:43:54	21.91	0.0	0	0	80	7.93				
08:44:26	22.44	.1	0	0	50	8.47				
08:44:54	22.91	.1	0	-0	48	8.94				
08:45:18	4: BEGIN INJECTION @ 1/8 BPM									
08:45:24	23.42	.1	25	0	49	9.44				
08:45:54	23.91	.1	0	0	49	9.93				
08:46:24	24.41	.1	0	0	50	10.43				
08:46:54	24.91	.1	0	-0	52	10.93				
08:47:24	25.41	.1	0	0	54	11.43				
08:47:54	25.91	.1	0	0	56	11.93				
08:48:24	26.41	.1	1	-1	58	12.43				
08:48:56	26.94	.1	1	-0	60	12.97				
08:49:26	27.44	.1	1	-0	62	13.47				
08:49:56	27.94	.1	1	-0	64	13.97				
08:50:26	28.44	.1	1	-0	66	14.47				
08:50:54	28.91	.1	1	-0	67	14.93				
08:51:24	29.41	.1	1	-0	68	15.43				
08:51:54	29.91	.1	1	-0	70	15.93				
08:52:24	30.41	.1	1	0	72	16.43				
08:52:54	30.91	.1	1	0	73	16.93				
08:53:24	31.41	.1	1	1	75	17.43				
08:53:54	31.91	.1	1	0	76	17.93				
08:54:24	32.41	.1	1	0	78	18.43				
08:54:54	32.91	.1	1	0	80	18.93				
08:55:24	33.41	.1	1	-1	82	19.43				
08:55:54	33.91	.1	1	0	84	19.93				
08:56:24	34.41	.1	2	0	86	20.44				
08:56:54	34.91	.1	2	1	88	20.94				
08:57:24	35.41	.1	2	0	90	21.43				
08:57:54	35.91	.1	2	0	92	21.94				
08:58:24	36.41	.1	2	0	95	22.44				
08:58:54	36.91	.1	2	-1	97	22.93				
08:59:24	37.41	.1	2	0	98	23.43				
08:59:54	37.91	.1	2	0	99	23.93				
09:00:24	38.41	.1	2	-1	101	24.44				
09:00:54	38.91	.1	2	0	102	24.94				
09:01:24	39.41	.1	2	-1	104	25.43				
FLUID TOTAL:		2 BBLs		PROP TOTAL:		0 LBS		BTM HL TOTAL:		2 BBLs

RECEIVED
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CON. DIV.
DIST. 3

TENNECO



HOSPAH 18

REPORT NO: 1506-8429

DATE: 5/11/83

MCKINLEY, NEW MEXICO

TIME HH:MM:SS	ELAPSD TIME (MIN)	PUMPER RATE (BPM)	WELHD TOTAL (BBL)	CASING PRESSR (PSI)	TUBING PRESSR (PSI)	DELTA T (MIN)				
09:01:56	39.94	.1	2	-1	105	25.97				
09:02:24	40.41	.1	2	1	107	26.43				
09:02:54	40.91	.1	2	1	108	26.93				
09:03:24	41.41	.1	2	0	109	27.43				
09:03:54	41.91	.1	2	-0	111	27.93				
09:04:24	42.41	.1	2	-0	112	28.43				
09:04:54	42.91	.1	3	0	113	28.93				
09:05:24	43.41	.1	3	1	114	29.43				
09:05:54	43.91	.1	3	0	116	29.93				
09:06:24	44.41	.1	3	1	118	30.43				
09:06:54	44.91	.1	3	0	120	30.93				
09:07:26	45.44	.1	3	0	121	31.47				
09:07:56	45.94	.1	3	-0	122	31.97				
09:08:24	46.41	.1	3	1	124	32.43				
09:08:54	46.91	.1	3	0	125	32.93				
09:09:24	47.41	.1	3	0	126	33.43				
09:09:54	47.91	.1	3	0	127	33.93				
09:10:24	48.41	.1	3	-0	129	34.43				
09:10:54	48.91	.1	3	-0	130	34.93				
09:11:24	49.41	.1	3	0	131	35.43				
09:11:54	49.91	.1	3	-0	132	35.93				
09:12:24	50.41	.1	3	0	134	36.43				
09:12:54	50.91	.1	4	-1	134	36.93				
09:13:24	51.41	.1	4	-0	135	37.43				
09:13:54	51.91	.1	4	-1	136	37.93				
09:14:24	52.41	.1	4	-1	137	38.43				
09:14:54	52.91	.1	4	-1	138	38.93				
09:15:26	53.44	.1	4	-0	139	39.47				
09:15:54	53.91	.1	4	0	140	.17				
09:16:24	54.41	.1	4	-0	140	.67				
09:16:54	54.91	.1	4	0	142	1.17				
09:17:24	55.41	.1	4	1	143	1.67				
09:17:54	55.91	.1	4	-0	143	2.17				
09:18:24	56.41	.1	4	-1	144	2.67				
09:18:54	56.91	.1	4	0	145	3.17				
09:19:24	57.41	.1	4	-1	147	3.67				
09:19:54	57.91	.1	4	0	147	4.17				
09:20:24	58.41	.1	4	1	148	4.67				
09:20:56	58.94	.1	5	1	148	5.20				
09:21:26	59.44	.1	5	1	148	5.70				
09:21:56	59.94	.1	5	1	144	6.20				
09:22:26	60.44	.1	5	0	142	6.70				
09:22:56	60.94	.1	5	0	144	7.20				
09:23:26	61.44	.1	5	-0	145	7.70				
09:23:56	61.94	.1	5	-0	146	8.20				
09:24:26	62.44	.1	5	-0	149	8.70				
09:24:56	62.94	.1	5	-0	150	9.20				
09:25:26	63.44	.1	5	-1	148	9.70				
09:25:56	63.94	.1	5	-1	148	10.20				
09:26:26	64.44	.1	5	-1	149	10.70				
09:26:56	64.94	.1	5	-0	149	11.20				
09:27:24	65.41	.1	5	-0	150	11.67				
09:27:56	65.94	.1	5	0	151	12.20				
09:28:24	66.41	.1	5	-0	152	12.67				
FLUID TOTAL:		5 BBLs	PROP TOTAL:		0 LBS	BTM HL TOTAL:		5 BBLs		

TENNECO



HOSPAH 18

REPORT NO: 1506-8429

DATE: 5/11/83

MCKINLEY, NEW MEXICO

TIME HH:MM:SS	ELAPSED TIME (MIN)	PUMPER RATE (BPM)	WELHD TOTAL (BBL)	CASING PRESSR (PSI)	TUBING PRESSR (PSI)	DELTA T (MIN)				
09:28:54	66.91	.1	6	-0	153	13.17				
09:29:24	67.41	.1	6	-1	153	13.67				
09:29:54	67.91	.1	6	0	154	14.17				
09:30:24	68.41	.1	6	0	154	14.67				
09:30:54	68.91	.1	6	-1	155	15.17				
09:31:24	69.41	.1	6	-1	156	15.67				
09:31:26	5: STAGE 2; LEASE H20; [REDACTED]									
09:31:54	69.91	.2	6	0	214	16.17				
09:32:24	70.41	.2	6	0	212	16.67				
09:32:54	70.91	.2	6	-0	218	17.17				
09:33:24	71.41	.2	6	0	222	17.67				
09:33:54	71.91	.2	6	-1	225	18.17				
09:34:24	72.41	.2	6	-1	228	18.67				
09:34:54	72.91	.2	6	-1	230	19.17				
09:35:24	73.41	.2	7	-1	232	19.67				
09:35:54	73.91	.2	7	-1	234	20.17				
09:36:24	74.41	.2	7	-1	236	20.67				
09:36:54	74.91	.2	7	-1	238	21.17				
09:37:24	75.41	.2	7	-0	239	21.67				
09:37:54	75.91	.2	7	-1	240	22.17				
09:38:24	76.41	.2	7	0	241	22.67				
09:38:54	76.91	.2	7	0	241	23.17				
09:39:24	77.41	.2	7	-1	241	23.67				
09:39:54	77.91	.2	7	-1	242	24.17				
09:40:24	78.41	.2	8	-1	241	24.67				
09:40:54	78.91	.2	8	-1	242	25.17				
09:41:24	79.41	.2	8	-1	242	25.67				
09:41:54	79.91	.2	8	-1	241	26.17				
09:42:24	80.41	.2	8	-2	241	26.67				
09:42:54	80.91	.2	8	-0	242	27.17				
09:43:24	81.41	.2	8	-1	242	27.67				
09:43:54	81.91	.2	8	-1	242	28.17				
09:44:24	82.41	.2	8	-0	242	28.67				
09:44:56	82.94	.2	8	-1	243	29.20				
09:45:24	83.41	.2	9	-2	243	29.67				
09:45:54	83.91	.2	9	-3	243	30.17				
09:46:24	84.41	.2	9	-2	242	30.67				
09:46:54	84.91	.2	9	-2	242	31.17				
09:47:24	85.41	.2	9	-2	243	31.67				
09:47:54	85.91	.2	9	0	243	32.17				
09:48:24	86.41	.2	9	-1	243	32.67				
09:48:54	86.91	.2	9	0	244	33.17				
09:49:24	87.41	.2	9	-1	244	33.67				
09:49:54	87.91	.2	9	-1	244	34.17				
09:50:24	88.41	.2	10	0	244	34.67				
09:50:54	88.91	.2	10	0	245	35.17				
09:51:24	89.41	.2	10	-1	246	35.67				
09:51:54	89.91	.2	10	-0	246	36.17				
09:52:24	90.41	.2	10	0	246	36.67				
09:52:54	90.91	.2	10	0	246	37.17				
09:53:24	91.41	.2	10	0	246	37.67				
09:53:54	91.91	.2	10	0	246	38.17				
09:54:24	92.41	.2	10	0	246	38.67				
09:54:54	92.91	.2	10	-0	246	39.17				
FLUID TOTAL:			10 BBLs	PROP TOTAL:		0 LBS	BTM HL TOTAL:		10 BBLs	

TENNECO



HOSPAH 18

REPORT NO: 1506-8429

DATE: 5/11/83

MCKINLEY, NEW MEXICO

TIME HH:MM:SS	ELAPSD TIME (MIN)	PUMPER RATE (BPM)	WELHD TOTAL (BBL)	CASING PRESSR (PSI)	TUBING PRESSR (PSI)	DELTA T (MIN)				
09:55:24	93.41	.2	11	0	247	39.67				
09:55:54	93.91	.2	11	0	247	40.17				
09:56:24	94.41	.2	11	-0	247	40.67				
09:56:54	94.91	.2	11	0	247	41.17				
09:57:24	95.41	.2	11	-1	248	41.67				
09:57:54	95.91	.2	11	-1	248	42.17				
09:58:24	96.41	.2	11	-1	248	42.67				
09:58:54	96.91	.2	11	0	248	43.17				
09:58:54	6: STAGE 3; LEASE H2O; [REDACTED]									
09:59:24	97.41	0.0	11	-2	144	43.67				
09:59:54	97.91	.5	11	0	372	44.17				
10:00:26	98.44	.5	12	0	385	44.70				
10:00:54	98.91	.5	12	-0	394	45.17				
10:01:24	99.41	.5	12	-0	401	45.67				
10:01:54	99.91	.5	12	-1	405	46.17				
10:02:24	100.41	.5	13	-1	408	46.67				
10:02:56	100.94	.5	13	-1	413	47.20				
10:03:24	101.41	.5	13	-1	416	47.67				
10:03:56	101.94	.5	13	0	419	48.20				
10:04:26	102.44	.5	14	0	422	48.70				
10:04:56	102.94	.5	14	-1	424	49.20				
10:05:26	103.44	.5	14	-0	426	49.70				
10:05:56	103.94	.5	15	-1	429	50.20				
10:06:26	104.44	.5	15	-0	430	50.70				
10:06:56	104.94	.5	15	0	432	51.20				
10:07:26	105.44	.5	15	-0	434	51.70				
10:07:56	105.94	.5	16	-0	436	52.20				
10:08:26	106.44	.5	16	0	437	52.70				
10:08:56	106.94	.5	16	-1	439	53.20				
10:09:26	107.44	.5	16	-1	440	53.70				
10:09:56	107.94	.5	17	-2	442	54.20				
10:10:26	108.44	.5	17	-2	443	54.70				
10:10:56	108.94	.5	17	-2	444	55.20				
10:11:26	109.44	.5	17	-2	443	55.70				
10:11:56	109.94	.5	18	-2	443	56.20				
10:12:26	110.44	.5	18	-2	444	56.70				
10:12:56	110.94	.5	18	-2	445	57.20				
10:13:26	111.44	.5	18	-1	447	57.70				
10:13:56	111.94	.5	19	-1	448	58.20				
10:14:26	112.44	.5	19	0	448	58.70				
10:14:56	112.94	.5	19	0	450	59.20				
10:15:26	113.44	.5	19	1	450	59.70				
10:15:56	113.94	.5	20	0	451	60.20				
10:16:26	114.44	.5	20	0	452	60.70				
10:16:56	114.94	.5	20	0	452	61.20				
10:17:08	7: EVENT HIT PERFS									
10:17:26	115.44	.5	20	-0	452	61.70				
10:17:56	115.94	.5	21	0	453	62.20				
10:18:26	116.44	.5	21	-1	454	62.70				
10:18:56	116.94	.5	21	-0	454	63.20				
10:19:26	117.44	.5	21	-0	455	63.70				
10:19:56	117.94	.5	22	0	456	64.20				
10:20:26	118.44	.5	22	-1	456	64.70				
10:20:56	118.94	.5	22	-0	457	65.20				
FLUID TOTAL:		22 BBLs		PROP TOTAL:		0 LBS		BTM HL TOTAL:		22 BBLs

TENNECO



HOSPAH 18

REPORT NO: 1506-8429

DATE: 5/11/83

MCKINLEY, NEW MEXICO

TIME HH:MM:SS	ELAPSD TIME (MIN)	PUMPER RATE (BPM)	WELHD TOTAL (BBL)	CASING PRESSR (PSI)	TUBING PRESSR (PSI)	DELTA T (MIN)				
10:21:26	119.44	.5	22	-0	460	65.70				
10:21:56	119.94	.5	23	-1	460	66.20				
10:22:26	120.44	.5	23	-1	460	66.70				
10:22:56	120.94	.5	23	-1	460	67.20				
10:23:26	121.44	.5	23	-1	463	67.70				
10:23:56	121.94	.5	24	-1	462	68.20				
10:24:26	122.44	.5	24	-2	463	68.70				
10:24:56	122.94	.5	24	-2	462	69.20				
10:25:26	123.44	.5	24	-1	464	69.70				
10:25:38	8: STAGE 4; LEASE H20; [REDACTED]									
10:25:54	123.91	.5	25	-1	462	70.17	Shot down			
10:26:24	124.41	0.0	25	-3	415	70.67				
10:26:54	124.91	0.0	25	-4	383	71.17				
10:27:24	125.41	0.0	25	-4	391	71.67				
10:27:54	125.91	.7	25	-0	461	72.17				
10:28:24	126.41	.7	26	-0	475	72.67	trouble			
10:28:54	126.91	.7	26	-1	464	73.17				
10:29:24	127.41	.5	26	-0	422	73.67				
10:29:54	127.91	.7	26	-0	466	74.17				
10:30:26	128.44	.7	27	0	478	74.70				
10:30:56	128.94	.7	27	-0	484	75.20				
10:31:26	129.44	0.0	27	-4	383	75.70				
10:31:56	129.94	.5	27	-2	444	76.20				
10:32:26	130.44	.5	28	-2	454	76.70				
10:32:56	130.94	.5	28	-1	458	77.20				
10:33:26	131.44	.5	28	-1	461	77.70				
10:33:56	131.94	.5	28	-2	463	78.20				
10:34:26	132.44	.5	29	-2	465	78.70				
10:34:56	132.94	.5	29	-2	467	79.20				
10:35:26	133.44	.5	29	-2	468	79.70				
10:35:56	133.94	.5	29	-2	470	80.20				
10:36:26	134.44	.5	30	-1	470	80.70				
10:36:56	134.94	.5	30	-2	472	81.20				
10:37:26	135.44	.5	30	-2	472	81.70				
10:37:56	135.94	.5	30	-2	474	82.20				
10:38:26	136.44	.5	31	-2	474	82.70				
10:38:54	136.91	.5	31	-2	475	83.17				
10:39:24	137.41	.5	31	-1	476	83.67				
10:39:54	137.91	.5	32	-0	476	84.17				
10:40:24	138.41	.5	32	-1	478	84.67				
10:40:54	138.91	.5	32	-1	478	85.17				
10:41:24	139.41	.5	32	-1	478	85.67				
10:41:54	139.91	.5	33	-2	481	86.17				
10:42:24	140.41	.5	33	-2	480	86.67				
10:42:54	140.91	.5	33	-2	479	87.17				
10:43:24	141.41	.5	33	-2	479	87.67				
10:43:24	9: EVENT HIT PERFS									
10:43:30	10: EVENT HIT PERFS									
10:43:54	141.91	.5	34	-2	479	88.17				
10:44:00	11: PUMPER RATE SOURCE FROM PRIMARY XDUCER TO SECONDARY XDUCER									
10:44:26	142.44	.5	34	-2	480	88.70				
10:44:56	142.94	.5	34	-2	480	89.20				
10:45:26	143.44	.5	34	-2	481	89.70				
10:45:56	143.94	.5	35	-3	482	90.20				
FLUID TOTAL:		35 BBLs		PROP TOTAL:		0 LBS		BTM HL TOTAL:		35 BBLs

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MCKINLEY, NEW MEXICO

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10:46:26	144.44	.5	35	-3	482	90.70				
10:46:56	144.94	.5	35	-2	483	91.20				
10:47:26	145.44	.5	35	-2	484	91.70				
10:47:56	145.94	.5	36	-3	486	92.20				
10:48:26	146.44	.5	36	-3	486	92.70				
10:48:56	146.94	.5	36	-2	486	93.20				
10:49:12	12: SHUT DOWN CHANGE PUMPS, ISIP									
10:49:24	147.41	0.0	36	-5	390	93.67				
10:49:54	147.91	0.0	36	-4	338	94.17				
10:50:24	148.41	.5	36	1	442	94.67				
10:50:54	148.91	.5	37	2	457	95.17				
10:51:24	149.41	.1	37	-1	409	95.67				
10:51:54	149.91	0.0	37	-0	10	96.17				
10:52:24	150.41	0.0	37	-0	9	96.67				
10:52:54	150.91	0.0	37	-1	9	97.17				
10:53:24	151.41	0.0	37	-1	179	97.67				
10:53:56	151.94	0.0	37	0	210	98.20				
10:54:24	152.41	.3	37	0	311	98.67				
10:54:56	152.94	.7	37	2	491	99.20				
10:55:24	153.41	.8	38	2	517	99.67				
10:55:54	153.91	.8	38	2	524	100.17				
10:56:24	154.41	.7	39	1	518	100.67				
10:56:54	154.91	.7	39	2	519	.20				
10:57:24	155.41	.7	39	2	520	.70				
10:57:54	155.91	.8	40	2	524	1.20				
10:58:24	156.41	.7	40	2	524	1.70				
10:58:54	156.91	.8	40	2	534	2.20				
10:59:24	157.41	.8	41	1	531	2.70				
10:59:54	157.91	.8	41	2	535	3.20				
11:00:24	158.41	.8	42	3	539	3.70				
11:00:54	158.91	.8	42	2	540	4.20				
11:01:24	159.41	.8	42	2	541	4.70				
11:01:54	159.91	.8	43	2	543	5.20				
11:02:24	160.41	.8	43	2	545	5.70				
11:02:54	160.91	.8	43	2	545	6.20				
11:03:24	161.41	.8	44	2	549	6.70				
11:03:54	161.91	.8	44	2	548	7.20				
11:04:24	162.41	.8	45	2	552	7.70				
11:04:54	162.91	.8	45	1	553	8.20				
11:05:24	163.41	.7	45	2	551	8.70				
11:05:54	163.91	.7	46	2	550	9.20				
11:06:24	164.41	.7	46	1	549	9.70				
11:06:54	164.91	.7	46	2	550	10.20				
11:07:24	165.41	.8	47	2	556	10.70				
11:07:54	165.91	.8	47	1	555	11.20				
11:08:24	166.41	.7	48	2	554	11.70				
11:08:54	166.91	.7	48	1	554	12.20				
11:09:24	167.41	.7	48	1	554	12.70				
11:09:54	167.91	.7	49	1	554	13.20				
11:10:24	168.41	.7	49	2	556	13.70				
11:10:54	168.91	.7	49	0	559	14.20				
11:11:24	169.41	.7	50	0	559	14.70				
11:11:54	169.91	.7	50	1	559	15.20				
11:12:24	170.41	.7	51	1	560	15.70				
FLUID TOTAL:		51 BBLs	PROP TOTAL:		0 LBS	BTM HL TOTAL:		51 BBLs		

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MCKINLEY, NEW MEXICO

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11:12:54	170.91	.7	51	0	562	16.20				
11:13:24	171.41	.7	51	2	560	16.70				
11:13:56	171.94	.7	52	2	559	17.23				
11:14:24	172.41	.7	52	1	561	17.70				
11:14:56	172.94	.7	52	1	560	18.23				
11:15:24	173.41	.8	53	2	567	18.70				
11:15:56	173.94	.8	53	2	568	19.23				
11:16:26	174.44	.8	54	2	570	19.73				
11:16:54	174.91	.8	54	1	570	20.20				
11:17:26	175.44	.8	54	2	574	20.73				
11:17:54	175.91	.8	55	2	572	21.20				
11:18:26	176.44	.8	55	2	572	21.73				
11:18:56	176.94	.8	56	1	572	22.23				
11:19:26	177.44	.8	56	1	574	22.73				
11:19:54	177.91	.8	56	1	572	23.20				
11:19:54 13: STAGE 5; LEASE H2O; WH RATE= 1 BPM										
11:20:24	178.41	1.0	57	2	607	23.70				
11:20:54	178.91	1.0	57	3	621	24.20				
11:21:26	179.44	1.0	58	2	622	24.73				
11:21:54	179.91	1.0	58	3	630	25.20				
11:22:24	180.41	1.0	59	2	626	25.70				
11:22:54	180.91	1.0	59	3	630	26.20				
11:23:24	181.41	1.0	60	2	632	26.70				
11:23:54	181.91	1.0	60	2	627	27.20				
11:24:24	182.41	1.0	61	2	627	27.70				
11:24:54	182.91	1.0	61	3	632	28.20				
11:25:24	183.41	1.0	62	2	632	28.70				
11:25:54	183.91	1.0	62	2	639	29.20				
11:26:24	184.41	1.0	63	3	637	29.70				
11:26:54	184.91	1.0	63	2	636	30.20				
11:27:24	185.41	1.0	64	3	644	30.70				
11:27:54	185.91	1.0	64	2	639	31.20				
11:28:24	186.41	1.0	65	3	642	31.70				
11:28:48 14: EVENT HIT PERFS										
11:28:54	186.91	1.0	65	2	640	32.20				
11:29:24	187.41	1.0	66	2	638	32.70				
11:29:54	187.91	1.0	66	2	643	33.20				
11:30:26	188.44	1.0	67	3	642	33.73				
11:30:54	188.91	1.0	67	3	641	34.20				
11:31:24	189.41	1.0	68	3	640	34.70				
11:31:54	189.91	1.0	68	3	643	35.20				
11:32:24	190.41	1.0	69	3	642	35.70				
11:32:54	190.91	1.0	69	3	643	36.20				
11:33:26	191.44	1.0	70	2	652	36.73				
11:33:54	191.91	1.0	70	3	648	37.20				
11:34:24	192.41	1.0	71	3	649	37.70				
11:34:56	192.94	1.0	71	4	655	38.23				
11:35:24	193.41	1.0	72	4	655	38.70				
11:35:56	193.94	1.0	72	4	651	39.23				
11:36:26	194.44	1.0	73	3	643	39.73				
11:36:56	194.94	1.0	73	4	652	40.23				
11:37:26	195.44	1.0	74	4	645	40.73				
11:37:56	195.94	1.0	74	4	647	41.23				
11:38:26	196.44	1.0	75	4	650	41.73				
FLUID TOTAL:		75 BBLs	PROP TOTAL:		0 LBS	BTM HL TOTAL:		75 BBLs		

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11:38:56	196.94	1.0	75	4	651	42.23				
11:39:26	197.44	1.0	76	4	656	42.73				
11:39:56	197.94	1.0	76	3	650	43.23				
11:40:26	198.44	1.0	77	4	658	43.73				
11:40:56	198.94	1.0	77	4	651	44.23				
11:41:26	199.44	1.0	78	4	651	44.73				
11:41:56	199.94	1.0	78	4	654	45.23				
11:42:26	200.44	1.0	79	4	657	45.73				
11:42:56	200.94	1.0	80	5	649	46.23				
11:43:26	201.44	1.0	80	4	655	46.73				
11:43:42	15: STAGE 6; LEASE H2O; WH RATE= 1.5 BPM									
11:43:56	201.94	1.0	81	5	648	47.23				
11:44:24	202.41	1.1	81	5	624	47.70				
11:44:54	202.91	1.3	81	6	697	48.20				
11:45:24	203.41	1.5	82	6	744	48.70				
11:45:54	203.91	1.5	83	7	758	49.20				
11:46:24	204.41	1.5	84	7	756	49.70				
11:46:54	204.91	1.5	84	8	745	50.20				
11:47:24	205.41	1.5	85	7	753	50.70				
11:47:54	205.91	1.5	86	7	748	51.20				
11:48:24	206.41	1.5	87	8	744	51.70				
11:48:54	206.91	1.5	87	8	751	52.20				
11:49:24	207.41	1.5	88	7	755	52.70				
11:49:56	207.94	1.5	89	7	752	53.23				
11:50:12	16: EVENT HIT PERFS									
11:50:26	208.44	1.5	90	6	759	53.73				
11:50:56	208.94	1.4	90	7	733	54.23				
11:51:26	209.44	1.5	91	6	780	54.73				
11:51:54	209.91	1.5	92	7	774	55.20				
11:52:18	17: SHUT DOWN									
11:52:25	210.42	1.5	93	7	767	55.71				
11:52:46	210.77	1.5	93	8	769	56.07				
11:52:50	210.84	1.4	93	8	704	56.13				
11:52:56	210.94	0.0	93	4	590	56.23				
11:53:00	211.01	.3	93	4	694	56.30				
11:53:06	211.11	0.0	93	2	560	56.40				
11:53:10	211.17	0.0	93	2	599	56.47				
11:53:16	211.27	0.0	93	3	588	56.57				
11:53:20	211.34	0.0	93	3	580	56.63				
11:53:26	211.44	0.0	93	3	578	56.73				
11:53:30	211.51	0.0	93	3	575	56.80				
11:53:36	211.61	0.0	93	3	572	56.90				
11:53:40	211.67	0.0	93	3	571	56.97				
11:53:46	211.77	0.0	93	2	568	57.07				
11:53:50	211.84	0.0	93	3	566	57.13				
11:53:56	211.94	0.0	93	4	564	57.23				
11:54:00	212.01	0.0	93	3	562	57.30				
11:54:06	212.11	0.0	93	3	560	57.40				
11:54:10	212.17	0.0	93	3	558	57.47				
11:54:16	212.27	0.0	93	4	556	57.57				
11:54:20	212.34	0.0	93	2	555	57.63				
11:54:26	212.44	0.0	93	3	553	57.73				
11:54:30	212.51	0.0	93	2	552	57.80				
11:54:36	212.61	0.0	93	3	549	57.90				
FLUID TOTAL:		93 BBLS		PROP TOTAL:		0 LBS		BTM HL TOTAL:		93 BBLS

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TIME HH:MM:SS	ELAPSD TIME (MIN)	PUMPER RATE (BPM)	WELHD TOTAL (BBL)	CASING PRESSR (PSI)	TUBING PRESSR (PSI)	DELTA T (MIN)				
11:54:41	212.69	0.0	93	3	549	57.98				
11:54:46	212.77	0.0	93	3	546	58.07				
11:54:50	212.84	0.0	93	3	545	58.13				
11:54:56	212.94	0.0	93	2	543	58.23				
11:55:00	213.01	0.0	93	2	542	58.30				
FLUID TOTAL:		93 BBLS	PROP TOTAL:		0 LBS	BTM HL TOTAL:		93 BBLS		