TRILOBITE TESTING L.L.C.

OPERATOR : Hummon Corp. DATE 08-10-99
WELL NAME: Owens #1 KB 2113.00 ft TICKET NO: 12364 DST #1
LOCATION : 28-32s-18w Comanche co KS GR 2100.00 ft FORMATION: Altamont
INTERVAL : 5045.00 To 5062.00 ft TD 5062.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins			Field	1	2	3	4
PF	30	Rec.	10248	10248	2342		
SI	30	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF	30	Clock(hrs)	12 hr	12 hr	batt.		
FS	30	Depth(ft)	5059.0	5059.0	5051.0	0.0	0.0

TIME DATA----------
PF Fr. 1750 to 1820 hr
IS Fr. 1820 to 1850 hr
SF Fr. 1850 to 1920 hr
FS Fr. 1920 to 1950 hr

	Field	1	2	3	4
A. Init Hydro	2452.0	2410.0	2437.0	0.0	0.0
B. First Flow	5.0	12.0	18.0	0.0	0.0
B1. Final Flow	7.0	12.0	23.0	0.0	0.0
C. In Shut-in	1342.0	1334.0	1368.0	0.0	0.0
D. Init Flow	28.0	64.0	24.0	0.0	0.0
E. Final Flow	9.0	13.0	29.0	0.0	0.0
F. Fl Shut-in	1032.0	1032.0	1056.0	0.0	0.0
G. Final Hydro	2380.0	2335.0	2422.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 1548 hr
T ON BOTM 1745 hr
T OPEN 1750 hr
T PULLED 1952 hr
T OUT 2158 hr

RECOVERY
Tot Fluid 10.00 ft of 10.00 ft in DC and 0.00 ft in DP
10.00 ft of Heavy mud.
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of Rw n.c. ohms @ degrees F.
0.00 ft of EST.FT. of PAY----------4
SALINITY 5000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA----------

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	78000.00 lbs
Initial Str Wt	68000.00 lbs
Unseated Str Wt	68000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	236.00 ft
D.P. Length	4795.00 ft

BLOW DESCRIPTION
Initial Flow:
Very weak surface blow died in 12 mins.
Initial Shut-in:
No blow.
Final Flow:
No blow flushed tool 10 mins. into Final Flow no blow
Final Shut-in:
No blow

MUD DATA----------

Mud Type	Chemical
Weight	9.00 lb/cf
Vis.	52.00 S/L
W.L.	8.80 in3
F.C.	0.20 in
Mud Drop	N
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	Good
% Porosity	10.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out	N
Tool Chased	N
Tester	Gary Pevoteaux
Co. Rep.	Arden Ratzlaff
Contr.	Duke Drlg.
Rig #	7
Unit #	
Pump T.	LCM 4#/bl

SAMPLES: none
SENT TO:Caraway/Liberal

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

ELL NAME: Owens #1

OCATION : 28-32s-18w Comanche co KS

ICKET No. 12364 D.S.T. No. 1 DATE 08-10-99

OTAL TOOL TO BOTTOM OF TOP PACKERS 22

NTERVAL TOOL .....

OTTOM PACKERS AND ANCHOR 17

OTAL TOOL 39

RILL COLLAR ANCHOR IN INTERVAL .....

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.Stands Single Total

OTAL ASSEMBLY 39

C. ABOVE TOOLS.Stands 4 Single Total 236

P. ABOVE TOOLS.Stands76 Single Total 4795

OTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5070

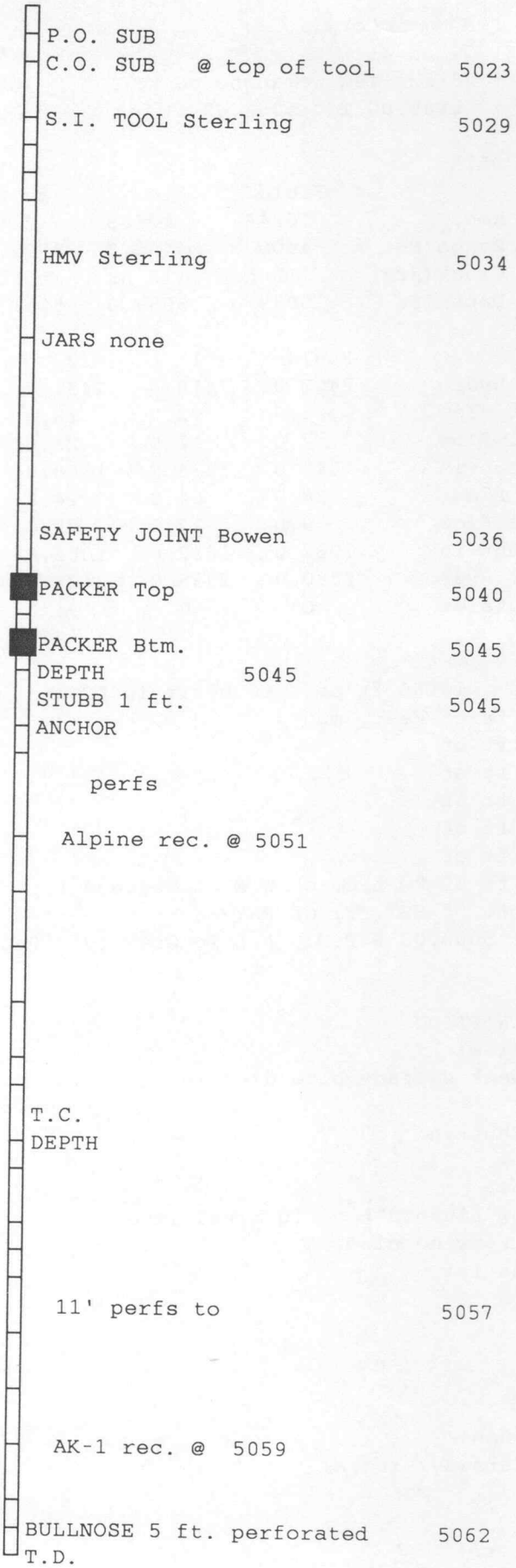
OTAL DEPTH 5062

TAL DRILL PIPE ABOVE K.B. 8

MARKS:
mments:Fax reports to Hummon Corp. early

FLUID SAMPLER DATA (not run)

S---------- cubic ft
L---------- ML.
D---------- ML.
TER---------- ML.
HER----------
ESSURE---------- PSI
---------- ohms @ deg. F.
LORIDES---------- ppm.
AVITY---------- deg.API



TEST HISTORY

12364 DST#1 OWENS #1 HUMMON CORP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2436.84
B:	0.00	18.20
C:	29.50	22.74
D:	29.50	1367.68
E:	0.00	23.99
F:	30.50	29.45
G:	28.50	1055.97
Q:	0.00	2422.48

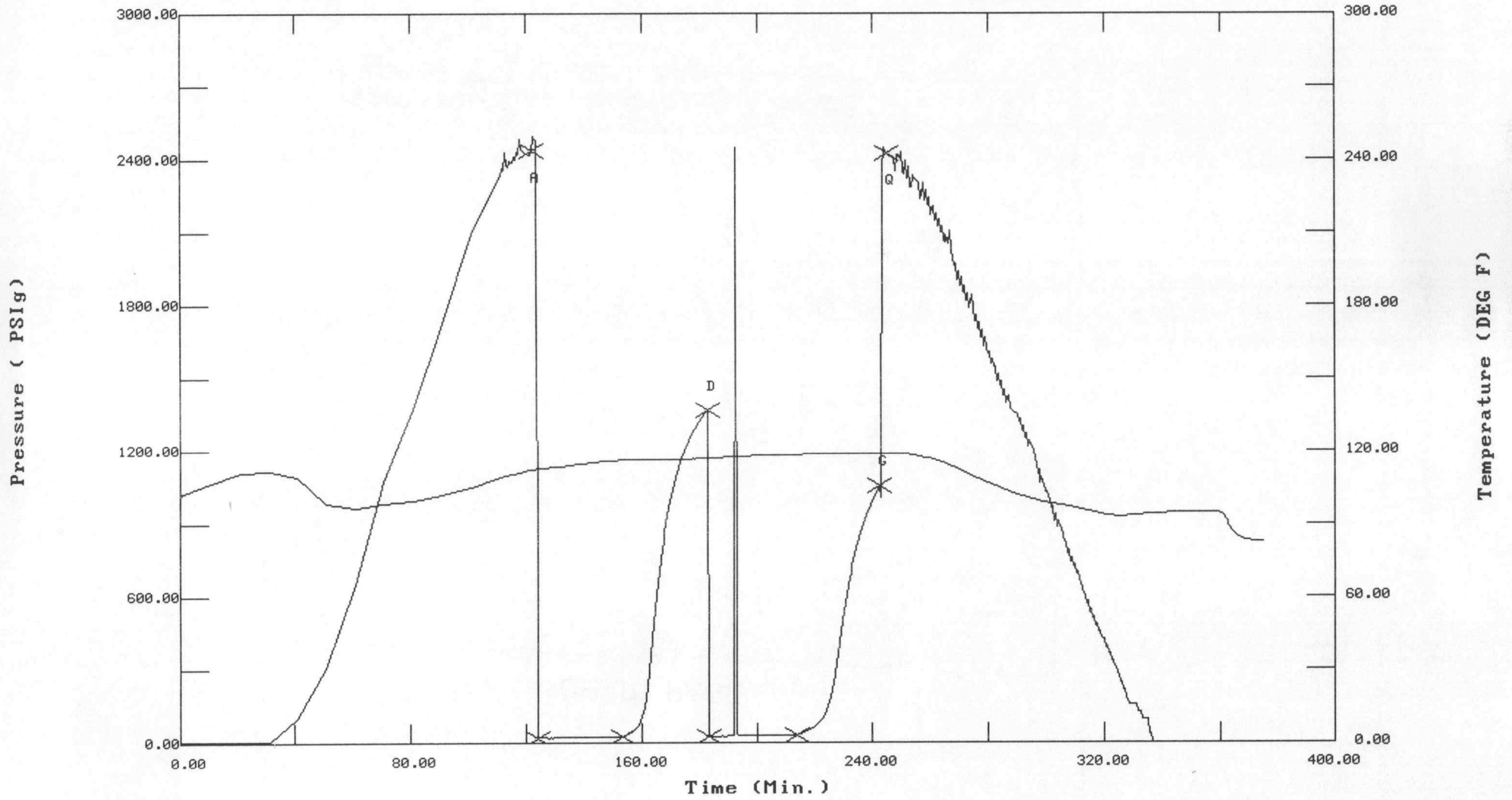
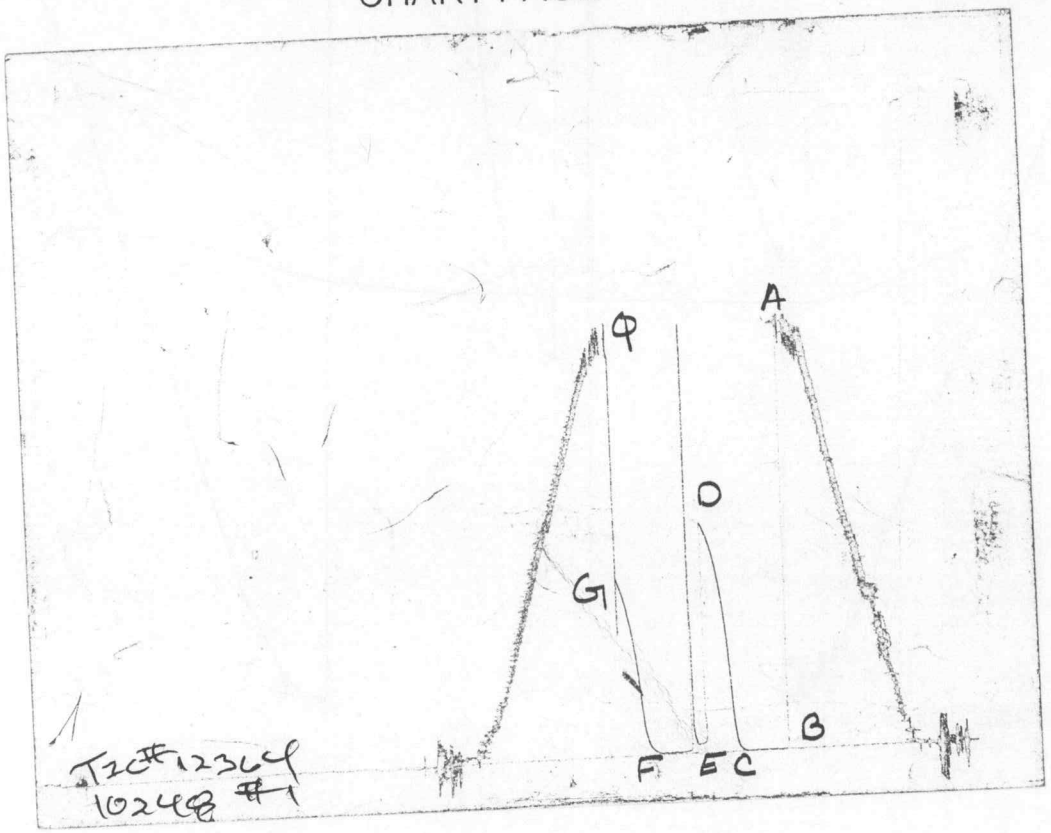


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

OPERATOR : Hummon Corp. DATE 08-11-99
WELL NAME: Owens #1 KB 2108.00 ft TICKET NO: 12365 DST #2
LOCATION : 28-32s-18w Comanche co KS GR 2095.00 ft FORMATION: FT.Scott
INTERVAL : 5119.00 To 5140.00 ft TD 5140.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10248	10248	2342		
SI 60	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF 60	Clock(hrs)	12 hr	12 hr	batt.		
FS 90	Depth(ft)	5137.0	5137.0	5125.0	0.0	0.0

TIME DATA----------
PF Fr. 2245 to 2315 hr
IS Fr. 2315 to 0015 hr
SF Fr. 0015 to 0115 hr
FS Fr. 0115 to 0245 hr

	Field	1	2	3	4
A. Init Hydro	2481.0	2478.0	2372.0	0.0	0.0
B. First Flow	119.0	145.0	109.0	0.0	0.0
B1. Final Flow	112.0	126.0	91.0	0.0	0.0
C. In Shut-in	1745.0	1754.0	1745.0	0.0	0.0
D. Init Flow	119.0	126.0	130.0	0.0	0.0
E. Final Flow	87.0	96.0	81.0	0.0	0.0
F. Fl Shut-in	1804.0	1823.0	1835.0	0.0	0.0
G. Final Hydro	2428.0	2423.0	2433.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 2025 hr
T ON BOTM 2240 hr
T OPEN 2245 hr
T PULLED 0248 hr
T OUT 0455 hr

RECOVERY
Tot Fluid 20.00 ft of 20.00 ft in DC and 0.00 ft in DP
0.00 ft of Gas in all fluid free pipe.
20.00 ft of Heavy mud.
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of Rw n.c. ohms @ degrees F.
0.00 ft of EST.FT. of PAY----------5
SALINITY 5000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA----------

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	85000.00 lbs
Initial Str Wt	70000.00 lbs
Unseated Str Wt	70000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	236.00 ft
D.P. Length	4890.00 ft

MUD DATA----------

Mud Type	Chemical
Weight	9.10 lb/cf
Vis.	50.00 S/L
W.L.	8.80 in3
F.C.	0.20 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	116.00 F
Hole Condition	Good
% Porosity	16.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out N	
Tool Chased N	
Tester	Gary Pevoteaux
Co. Rep.	Arden Ratzlaff
Contr.	Duke Drlg.
Rig #	7
Unit #	
Pump T.	LCM 2#/bl

BLOW DESCRIPTION
Initial Flow:
Strong blow gas to surface in
2 1/2 mins. (see gas volume report)
Initial Shut-in:
Strong blow throughout
Final Flow:
Strong blow (see gas volume report)
Final Shut-in:
Weak blow 2-3"

SAMPLES: gas sample
SENT TO:Caraway/Liberal

Test Successful: Y

GAS RECOVERY

)MPANY: Hummon Corp. DATE: 08-11-99
:LL NAME: Owens #1 KB Elev: 2108.00 ft TICKET #12365 DST #2
:LL LOCATION: 28-32s-18w Comanche co KS GR Elev: 2095.00 ft FORMATION: FT.Scott
ITERVAL Fr.: 5119.00 To 5140.00 T.D.: 5140.00 ft TEST TYPE: CONVENTIONAL

\S RECOVERY MEASURED WITH Adjusting Choke

*** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	21	0	411000.0
20	0.75	22	0	424000.0
30	0.75	21	0	411000.0

*** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	24	0	449000.0
20	0.75	22	0	424000.0
30	0.75	21	0	411000.0
40	0.75	21	0	411000.0
50	0.75	21	0	411000.0
60	0.75	21	0	411000.0

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Owens #1

LOCATION : 28-32s-18w Comanche co KS

TICKET No. 12365 D.S.T. No. 2 DATE 08-11-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 22

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 21

TOTAL TOOL 43

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY 43

D.C. ABOVE TOOLS.Stands 4 Single Total 236

D.P. ABOVE TOOLS.Stands77 Single 1 Total 4890

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5169

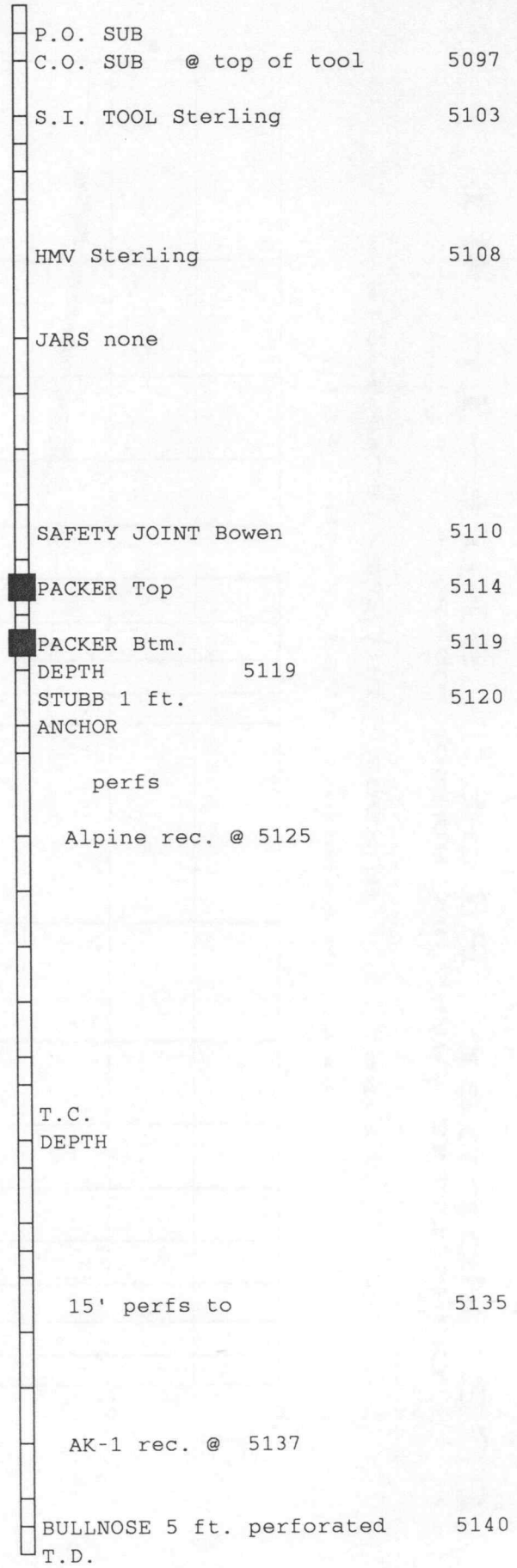
TOTAL DEPTH 5140

TOTAL DRILL PIPE ABOVE K.B. 29

REMARKS:
Comments:Fax reports to Hummon Corp. early AM.

FLUID SAMPLER DATA (not run)

GAS---------- cubic ft
OIL---------- ML.
MUD---------- ML.
WATER---------- ML.
OTHER----------
PRESSURE---------- PSI
Rw ---------- ohms @ deg. F.
CHLORIDES---------- ppm.
GRAVITY---------- deg.API

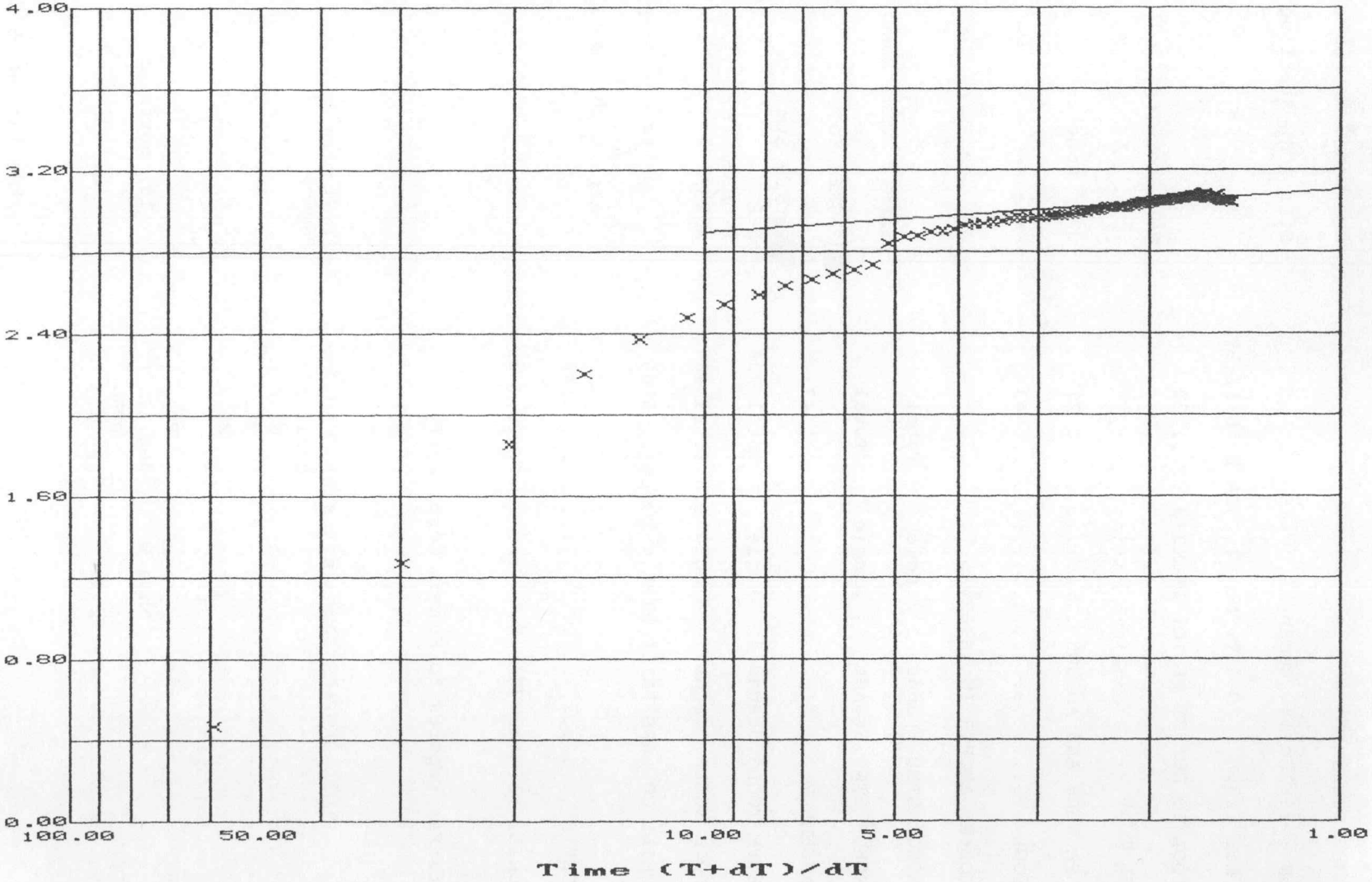


P^2 Horner Plot: shut-in #1

12365 DST#2 OWENS #1 HUMMON CORP.

Slope: 0.2008 PSIg^2/10^6/cycle

Ext. Pressure: 1761.7448 PSIg

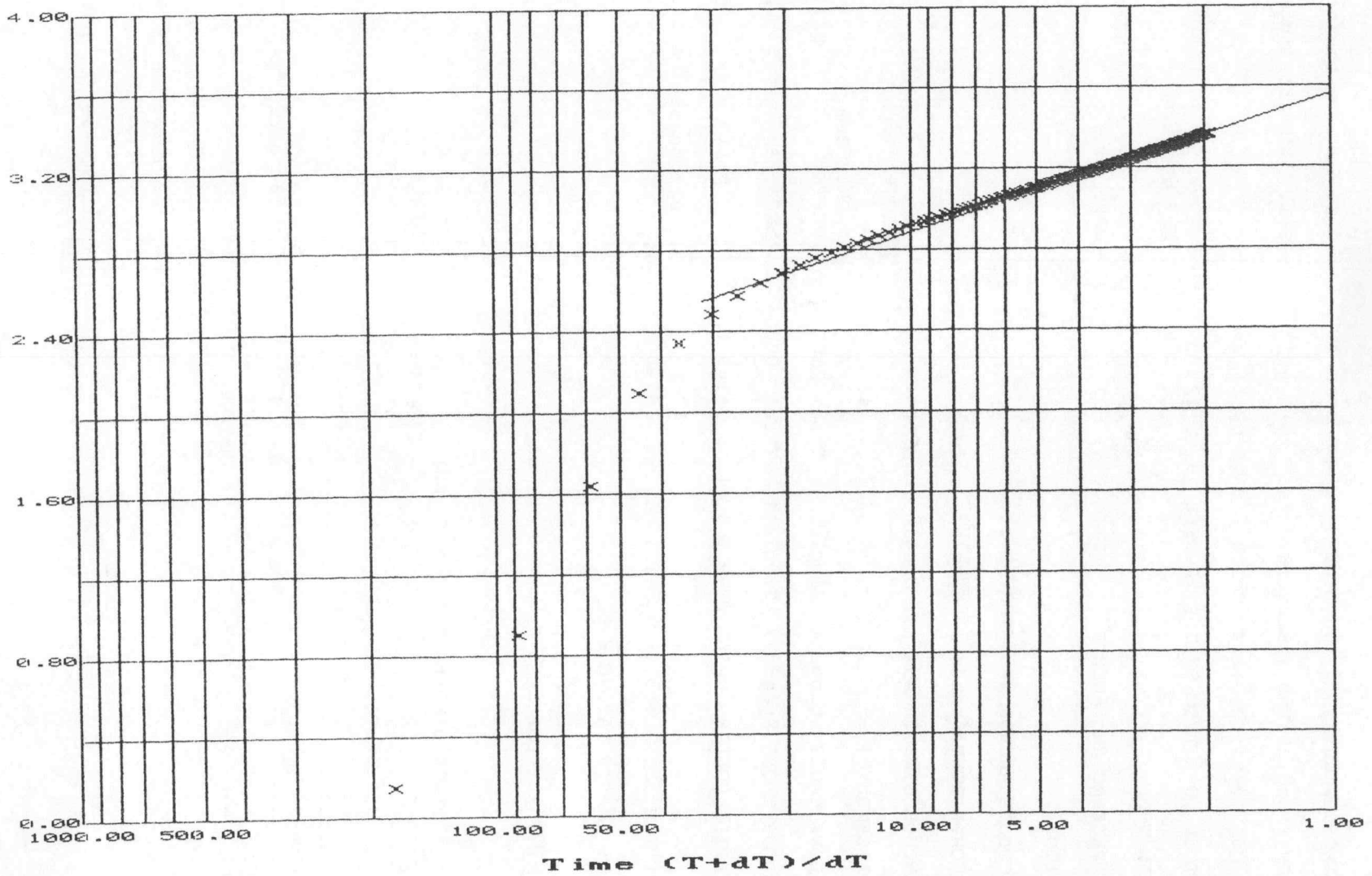


P^2 Horner Plot: shut-in #2

12365 DST#2 OWENS #1 HUMMON CORP.

Slope: 0.6779 PSIg^2/10^6/cycle

Ext. Pressure: 1888.2832 PSIg



*** TOOL DIAGRAM *** CONVENTIONAL

ELL NAME: Owens #1

OCATION : Sec.28 Twp.32s Rg.18w Ks

ICKET No. 12365 D.S.T. No. 2 DATE 08-11-99

OTAL TOOL TO BOTTOM OF TOP PACKERS 22

NTERVAL TOOL .....

OTTOM PACKERS AND ANCHOR 21

OTAL TOOL 43

RILL COLLAR ANCHOR IN INTERVAL .....

.C. ANCHOR STND.Stands Single Total

.P. ANCHOR STND.Stands Single Total

OTAL ASSEMBLY 43

.C. ABOVE TOOLS.Stands 4 Single Total 236

.P. ABOVE TOOLS.Stands77 Single 1 Total 4890

OTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5169

OTAL DEPTH 5140

OTAL DRILL PIPE ABOVE K.B. 29

EMARKS:
omments:Fax reports to Hummon Corp. early
M.

FLUID SAMPLER DATA (not run)

AS---------- cubic ft
IL---------- ML.
UD---------- ML.
ATER---------- ML.
THER----------
RESSURE---------- PSI
w ---------- ohms @ deg. F.
HLORIDES---------- ppm.
RAVITY---------- deg.API

P.O. SUB
C.O. SUB @ top of tool 5097
S.I. TOOL Sterling 5103
HMV Sterling 5108
JARS none
SAFETY JOINT Bowen 5110
PACKER Top 5114
PACKER Btm. 5119
DEPTH 5119
STUBB 1 ft. 5120
ANCHOR
perfs
Alpine rec. @ 5125
T.C.
DEPTH
15' perfs to 5135
AK-1 rec. @ 5137
BULLNOSE 5 ft. perforated 5140
T.D.

GAS RECOVERY

COMPANY: Hummon Corp. DATE: 08-11-99
WELL NAME: Owens #1 KB Elev: 2108.00 ft TICKET #12365 DST #2
WELL LOCATION: Sec.28 Twp.32s Rg.18w Ks GR Elev: 2095.00 ft FORMATION: FT.Scott
INTERVAL Fr.: 5119.00 To 5140.00 T.D.: 5140.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH Adjusting Choke

***** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	21	0	411000.0
20	0.75	22	0	424000.0
30	0.75	21	0	411000.0

***** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.75	24	0	449000.0
20	0.75	22	0	424000.0
30	0.75	21	0	411000.0
40	0.75	21	0	411000.0
50	0.75	21	0	411000.0
60	0.75	21	0	411000.0

TEST HISTORY

12365 DST#2 OWENS #1 HUMMON CORP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2371.62
B:	0.00	109.01
C:	29.00	90.63
D:	59.50	1744.60
E:	0.00	129.91
F:	58.50	81.30
G:	91.00	1835.32
Q:	0.00	2433.31

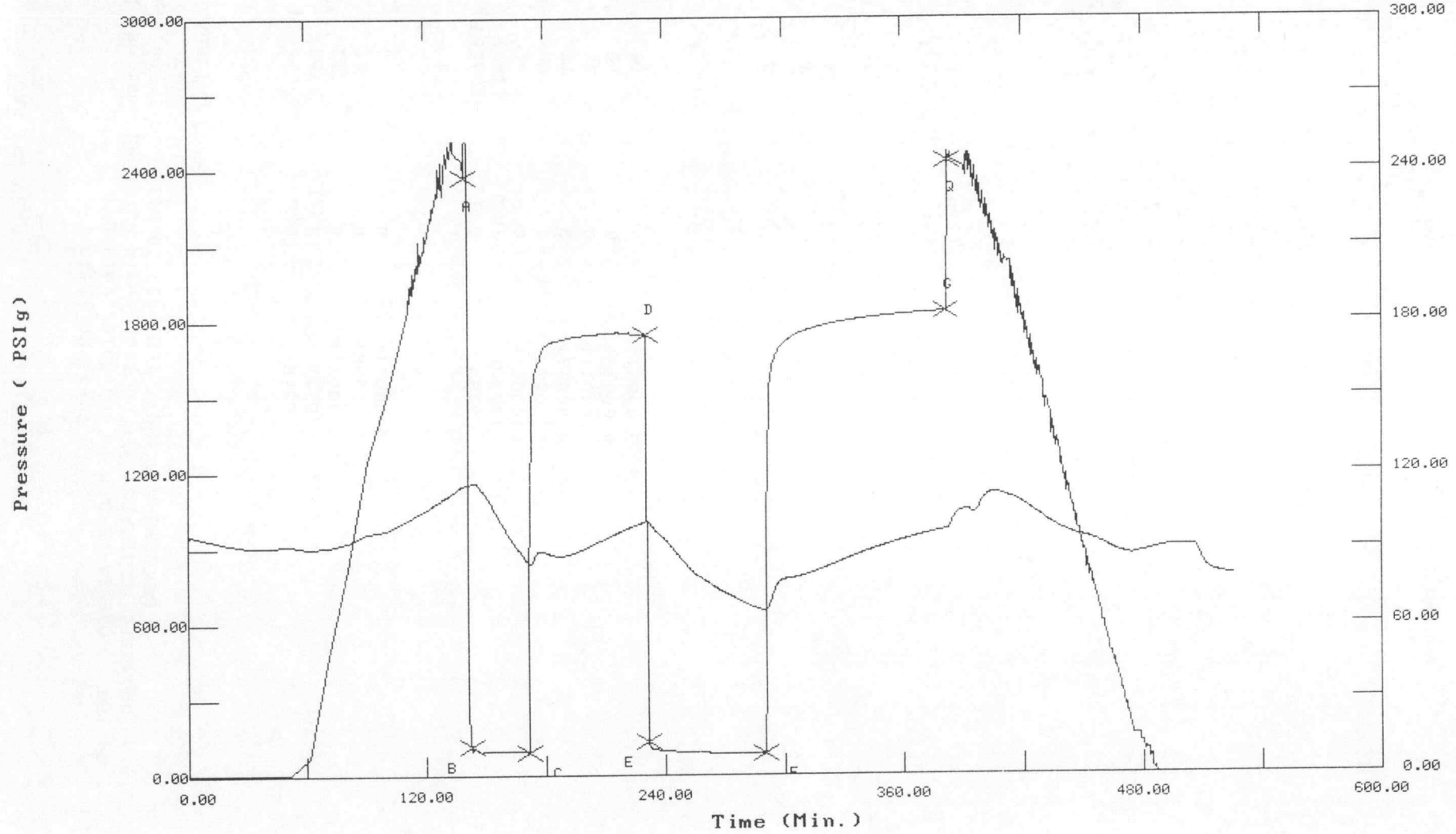
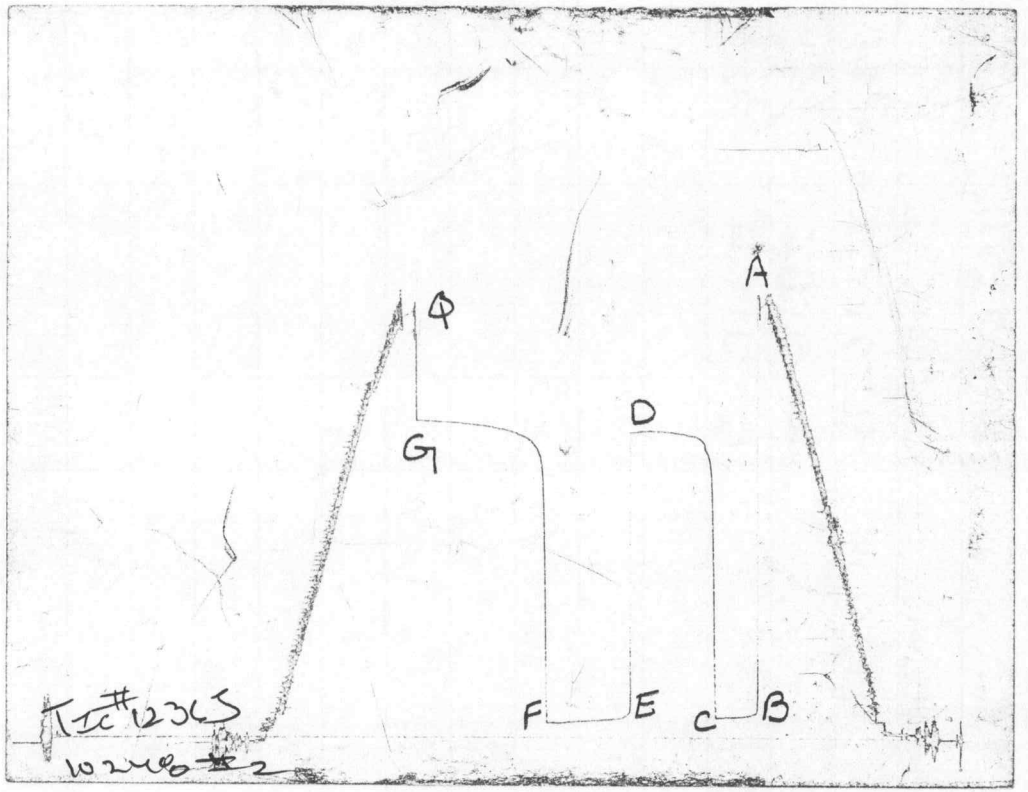


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601 • (913) 625-4778

GAS VOLUME REPORT

Hummon Corp. — OPERATOR

Owens #1 — WELL NAME AND NO.

2 — DST NO.

INITIAL OPEN				FINAL OPEN			
Min.	Ins. of Water PSIG	Orifice Size	MCF/D	Min.	Ins. of Water PSIG	Orifice Size	MCF/D
.5	—	3/4"	GTS	10	24 PSI	3/4"	449
0	21 PSI	3/4"	411	20	22 PSI	3/4"	424
0	22 PSI	3/4"	424	30	21 PSI	3/4"	411
30	21 PSI	3/4"	411	40	21 PSI	3/4"	411
				50	21 PSI	3/4"	411
				60	21 PSI	3/4"	411

Remarks:

NCR

TRILOBITE TESTING L.L.C.

OPERATOR : Hummon Corp. DATE 08-12-99
WELL NAME: Owens #1 KB 2108.00 ft TICKET NO: 12366 DST #3
LOCATION : 28-32s-8w Comanche co KS GR 2095.00 ft FORMATION: Miss.
INTERVAL : 5170.00 To 5224.00 ft TD 5224.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	10248	10248	2342		
SI 60	Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0
SF 60	Clock(hrs)	12 hr	12 hr	batt.		
FS 90	Depth(ft)	5221.0	5221.0	5178.0	0.0	0.0

TIME DATA----------
PF Fr. 1920 to 1950 hr
IS Fr. 1950 to 2050 hr
SF Fr. 2050 to 2150 hr
FS Fr. 2150 to 2320 hr

	Field	1	2	3	4
A. Init Hydro	2514.0	2496.0	2566.0	0.0	0.0
B. First Flow	71.0	77.0	117.0	0.0	0.0
B1. Final Flow	57.0	77.0	81.0	0.0	0.0
C. In Shut-in	1602.0	1595.0	1627.0	0.0	0.0
D. Init Flow	60.0	61.0	108.0	0.0	0.0
E. Final Flow	45.0	48.0	60.0	0.0	0.0
F. Fl Shut-in	1501.0	1501.0	1537.0	0.0	0.0
G. Final Hydro	2470.0	2481.0	2473.0	0.0	0.0
Inside/Outside	O	O	I	T	

T STARTED 1709 hr
T ON BOTM 1916 hr
T OPEN 1920 hr
T PULLED 2320 hr
T OUT 0140 hr

RECOVERY
Tot Fluid 90.00 ft of 90.00 ft in DC and 0.00 ft in DP
0.00 ft of Gas in all fluid free pipe.
90.00 ft of Drilling mud
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of Rw n.c. ohms @ degrees F.
0.00 ft of EST.FT. of PAY----------7
SALINITY 7000.00 P.P.M. A.P.I. Gravity 0.00

TOOL DATA----------

Tool Wt.	2100.00 lbs
Wt Set On Packer	20000.00 lbs
Wt Pulled Loose	80000.00 lbs
Initial Str Wt	71000.00 lbs
Unseated Str Wt	71000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	236.00 ft
D.P. Length	4921.00 ft

BLOW DESCRIPTION
Initial Flow:
Strong blow gas to surface in 4.5 mins. (see gas volume report)
Initial Shut-in:
Weak blow. 1/2 - 1"
Final Flow:
Strong blow (see gas volumre report)
Final Shut-in:
Weak blow 1/2-2"

MUD DATA----------

Mud Type	Chemical
Weight	9.10 lb/cf
Vis.	60.00 S/L
W.L.	12.80 in3
F.C.	0.20 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	114.00 F
Hole Condition	Good
% Porosity	16.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out N	
Tool Chased N	
Tester	Gary Pevoteaux
Co. Rep.	Arden Ratzlaff
Contr.	Duke Drlg.
Rig #	7
Unit #	
Pump T.	LCM 2#/bl

SAMPLES: gas sample
SENT TO:Caraway/Liberal

Test Successful: Y

GAS RECOVERY

MPANY: Hummon Corp. DATE: 08-12-99
LL NAME: Owens #1 KB Elev: 2108.00 ft TICKET #12366 DST #3
LL LOCATION: 28-32s-8w Comanche co KS GR Elev: 2095.00 ft FORMATION: Miss.
TERVAL Fr.: 5170.00 To 5224.00 T.D.: 5224.00 ft TEST TYPE: CONVENTIONAL

S RECOVERY MEASURED WITH Adjusting Choke

*** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	15	0	147000.0
20	0.50	16	0	153000.0
30	0.50	15	0	147000.0

*** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.50	21	0	183000.0
20	0.50	16	0	153000.0
30	0.50	13	0	134000.0
40	0.50	12	0	129000.0
50	0.50	12	0	129000.0
60	0.50	11	0	121000.0

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Owens #1

LOCATION : 28-32s-8w Comanche co KS

TICKET No. 12366 D.S.T. No. 3 DATE 08-12-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 22

INTERVAL TOOL .....

BOTTOM PACKERS AND ANCHOR 24

TOTAL TOOL 46

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single 1 Total 30

TOTAL ASSEMBLY 76

D.C. ABOVE TOOLS.Stands 4 Single Total 236

D.P. ABOVE TOOLS.Stands78 Single Total 4921

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5233

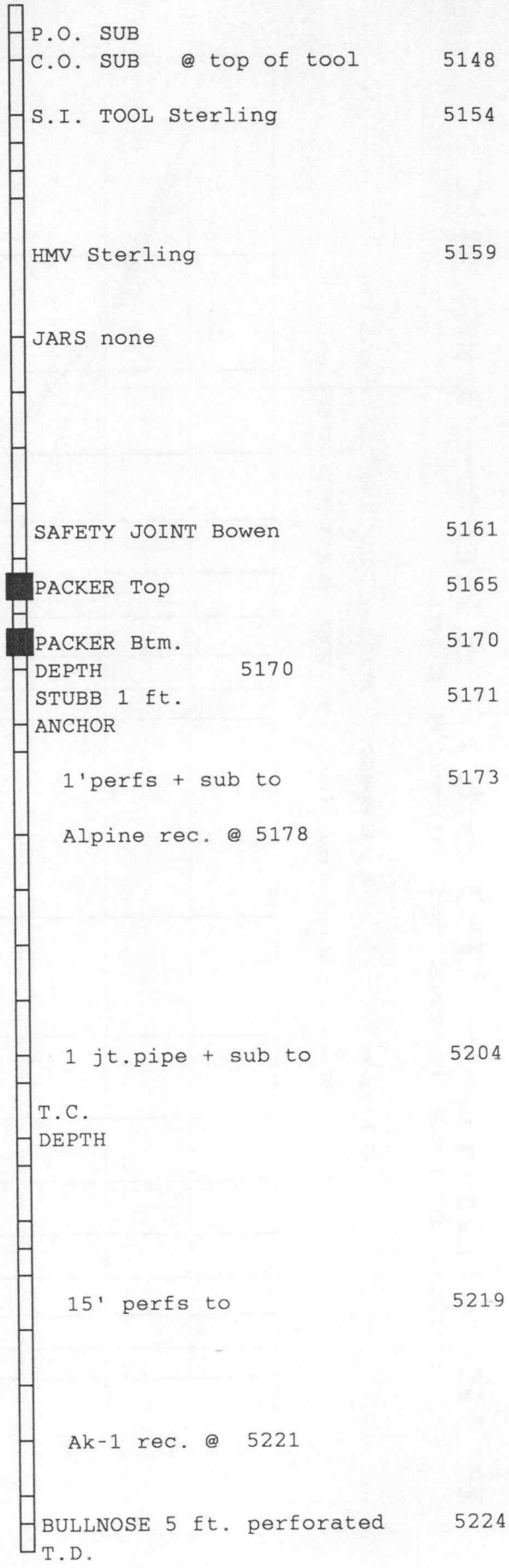
TOTAL DEPTH 5224

TOTAL DRILL PIPE ABOVE K.B. 9

REMARKS:
Comments:Fax reports to Hummon Corp. early AM.

FLUID SAMPLER DATA (not run)

GAS---------- cubic ft
OIL---------- ML.
MUD---------- ML.
WATER---------- ML.
OTHER----------
PRESSURE---------- PSI
Rw ---------- ohms @ deg. F.
CHLORIDES---------- ppm.
GRAVITY---------- deg.API

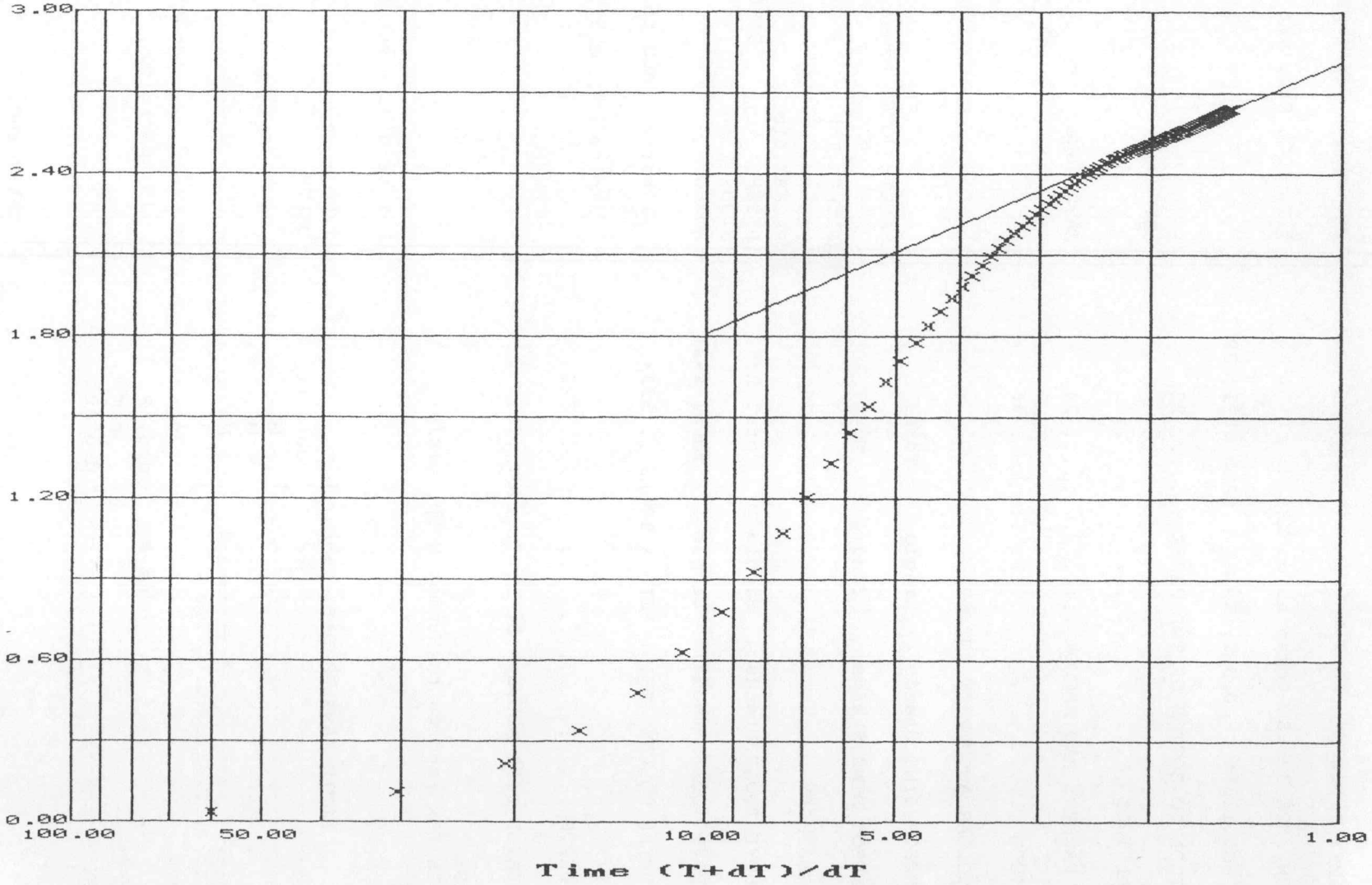


P^2 Horner Plot: shut-in #1

12366 DST#3 OWENS #1 HUMMON CORP.

Slope: 1.0042 PSIg^2/10^6/cycle

Ext. Pressure: 1678.4130 PSIg

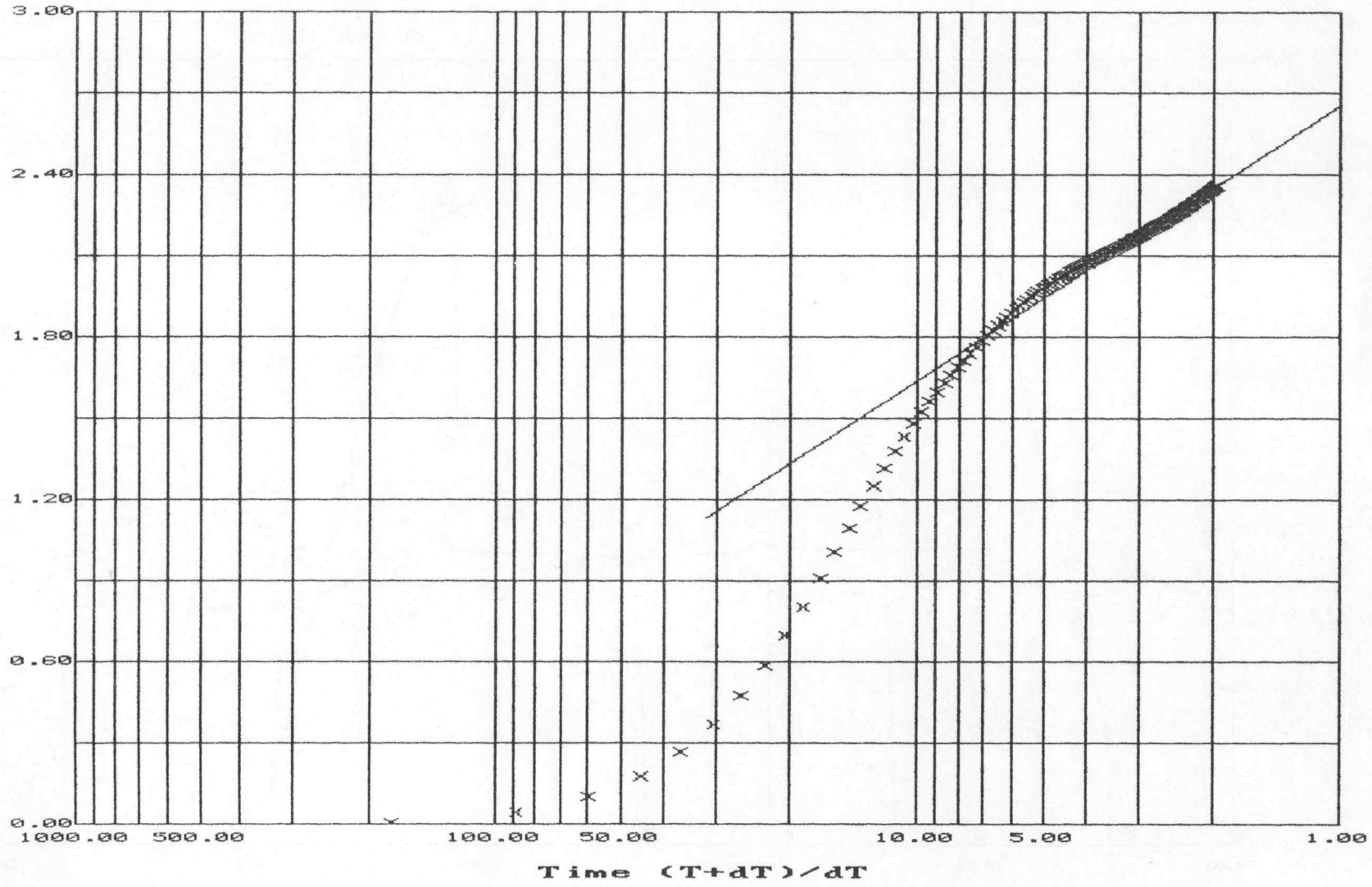


P^2 Horner Plot: shut-in #2

12366 DST#3 OWENS #1 HUMMON CORP.

Slope: 1.0138 PSIg^2/10^6/cycle

Ext. Pressure: 1629.0278 PSIg

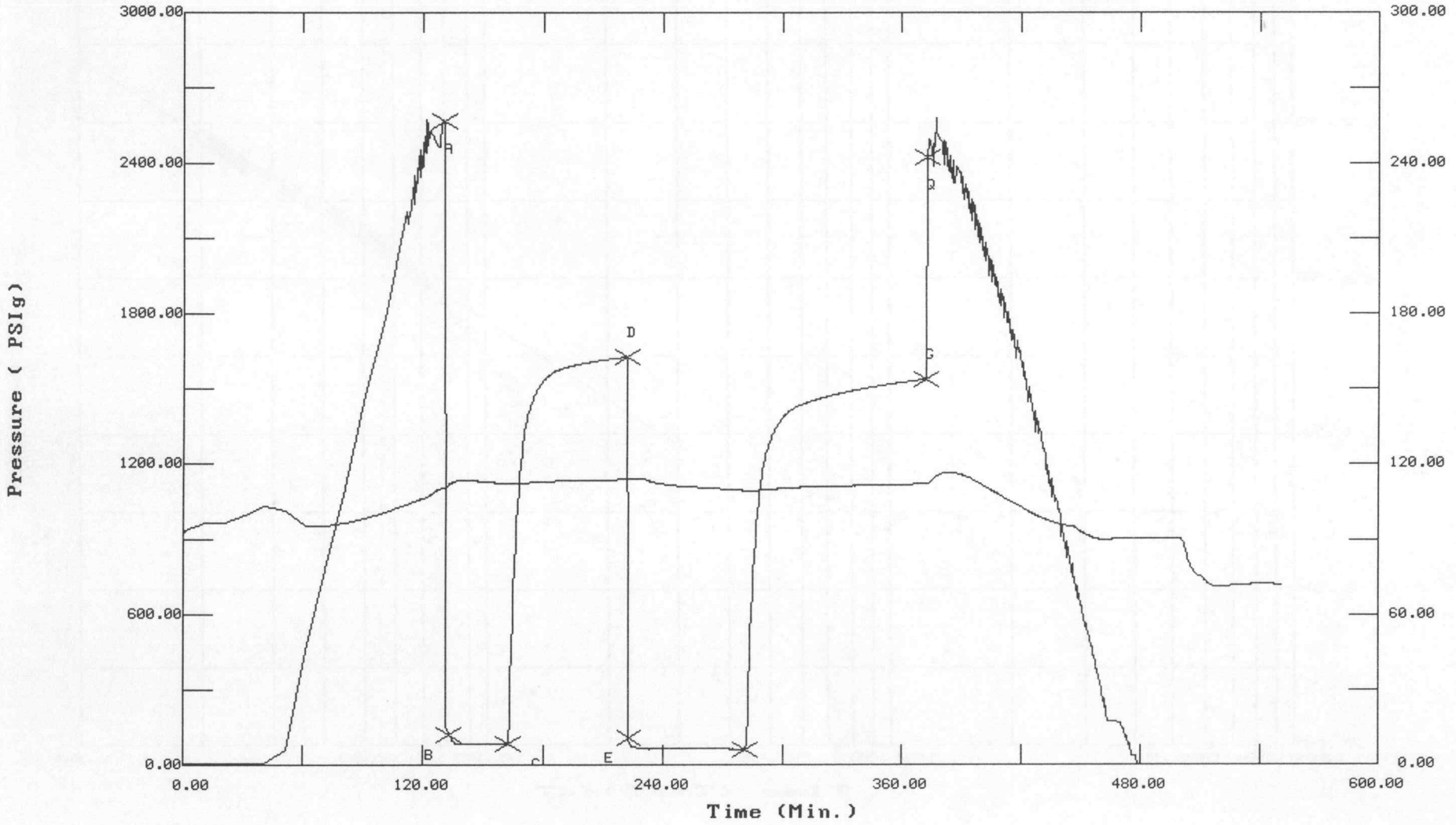


TEST HISTORY

12366 DST#3 OWENS #1 HUMMON CORP.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2566.17
B:	0.00	116.99
C:	29.50	81.15
D:	59.50	1626.68
E:	0.00	107.92
F:	58.50	60.24
G:	90.50	1536.63
Q:	0.00	2422.74





TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601 • (913) 625-4778

GAS VOLUME REPORT

Hummon Corp. — OPERATOR

Owens #1 — WELL NAME AND NO.

3 — DST NO.

INITIAL OPEN				FINAL OPEN			
Min.	Ins. of Water PSIG	Orifice Size	MCF/D	Min.	Ins. of Water PSIG	Orifice Size	MCF/D
.5	~	3/4"	GTS	10	21 PSI	1/2"	183
0	15 PSI	1/2"	147	20	16 PSI	1/2"	153
0	16 PSI	1/2"	153	30	13 PSI	1/2"	134
0	15 PSI	1/2"	147	40	12 PSI	1/2"	129
				50	12 PSI	1/2"	129
				60	11 PSI	1/2"	121

Remarks:

NCR

Operator.....: Hummon Corp.
Well Name.....: Owens #1
DST Number.....: 2

Location.: 28-32s-18w
Test Type: conv
Formation: Fort Scott

Recorder No...: 2342
Recorder Depth: 5125
Test Interval.: 5119-5140

RESERVOIR CALCULATIONS: Gas calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay	4.00 ft
Porosity	10.00 %
Bottom Hole Temp	116.00 F
Specific Gravity	0.680
Z factor	.9972
Compressibility	0.012480 /psi
Viscosity	0.0162 cp
Total Flowing Time	90.00 min.
Flow Rate	411.00 mcf/d
Final Flowing Pressure	81.00 psi
Horner Slope	0.6779 *10^6 psi^2/cycle
Extrapolated Pressure	1888.28 psi
Assumed Drainage Radius	1500.00 ft
Well Bore Radius	3.94 in

RESULTS:

Effective Permeability	2.307188 md
Flow Capacity	9.2288 md.ft
Transmissibility	569.6760 md.ft/cp
Skin Factor	5.1049
Pressure Drop Across Skin	1655.0413 psi
Radius of Investigation	11.9984 ft
Damage Ratio	2.0247
Absolute Open Flow	411.6815 cf/d
Absolute Open Flow W/O Damage	833.5260 cf/d
Estimated Stabilized AOF	206.4011 mcf/d

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L. L. C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	994538	Analyzed:	08/17/99
Sample From:	Owens #1 DST 2	Pressure:	
Producer:	Hummon Corp.	Temperature:	
Date:		Location:	28-32-18
Time:		County:	Comanche
Sampler:		State:	Oklahoma
Source:		Formation:	Ft. Scott

		Mole %	GPM
Helium	He:	0.136	0.000
Hydrogen	H2:	0.009	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	3.137	0.000
Carbon Dioxide	CO2:	0.057	0.000
Methane	C1:	86.217	0.000
Ethane	C2:	4.115	1.101
Propane	C3:	2.911	0.802
Iso Butane	iC4:	0.456	0.149
Normal Butane	nC4:	1.335	0.421
Iso Pentane	iC5:	0.379	0.139
Normal Pentane	nC5:	0.451	0.163
Hexanes Plus	C6+:	0.797	0.348
	TOTAL:	100.000	3.122
	Z Fact:	0.9972	
	SP.GR.:	0.6805	
	BTU (SAT):	1135.2 @ 14.73 psia	
	BTU (DRY):	1155.3 @ 14.73 psia	
	OCTANE RATING:	121.5	

COMMENTS:

0.000

Operator.....: Hummon Corp.
Well Name.....: Owens #1
DST Number.....: 3

Location.: 28-32s-18w
Test Type: conv
Formation: Mississippi

Recorder No...: 2342
Recorder Depth: 5178
Test Interval.: 5170-5224

RESERVOIR CALCULATIONS: Gas calculations based on shut-in #2

RESERVOIR PARAMETERS USED:

Net Pay	7.00 ft
Porosity	16.00 %
Bottom Hole Temp	114.00 F
Specific Gravity	0.622
Z factor	.9978
Compressibility	0.016795 /psi
Viscosity	0.0151 cp
Total Flowing Time	90.00 min.
Flow Rate	121.00 mcf/d
Final Flowing Pressure	60.00 psi
Horner Slope	1.0138 *10^6 psi^2/cycle
Extrapolated Pressure	1629.03 psi
Assumed Drainage Radius	1500.00 ft
Well Bore Radius	3.94 in

RESULTS:

Effective Permeability	0.241220 md
Flow Capacity	1.6885 md.ft
Transmissibility	111.8238 md.ft/cp
Skin Factor	3.5478
Pressure Drop Across Skin	1708.9435 psi
Radius of Investigation	2.7385 ft
Damage Ratio	1.9957
Absolute Open Flow	121.1331 cf/d
Absolute Open Flow W/O Damage	241.7444 cf/d
Estimated Stabilized AOF	30.2407 mcf/d

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L. L. C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, Inc
P. O. Box 2137
Liberal, Kansas 67905
Phone: 316-624-5389
Fax: 316-626-7108

Lab Number:	994539	Analyzed:	08/17/99
Sample From:	Owens #1 DST 3	Pressure:	
Producer:	Hummon Corp.	Temperature:	
Date:		Location:	28-32-18
Time:		County:	Comanche
Sampler:		State:	Oklahoma
Source:		Formation:	Miss

		Mole %	GPM
Helium	He:	0.166	0.000
Hydrogen	H2:	0.006	0.000
Oxygen	O2:	0.000	0.000
Nitrogen	N2:	4.065	0.000
Carbon Dioxide	CO2:	0.135	0.000
Methane	C1:	89.986	0.000
Ethane	C2:	3.526	0.943
Propane	C3:	0.876	0.241
Iso Butane	iC4:	0.206	0.067
Normal Butane	nC4:	0.433	0.137
Iso Pentane	iC5:	0.144	0.053
Normal Pentane	nC5:	0.091	0.033
Hexanes Plus	C6+:	0.366	0.160
	TOTAL:	100.000	1.634
	Z Fact:	0.9978	
	SP.GR.:	0.6221	
	BTU (SAT):	1028.8 @ 14.73 psia	
	BTU (DRY):	1047.0 @ 14.73 psia	
	OCTANE RATING:	122.3	

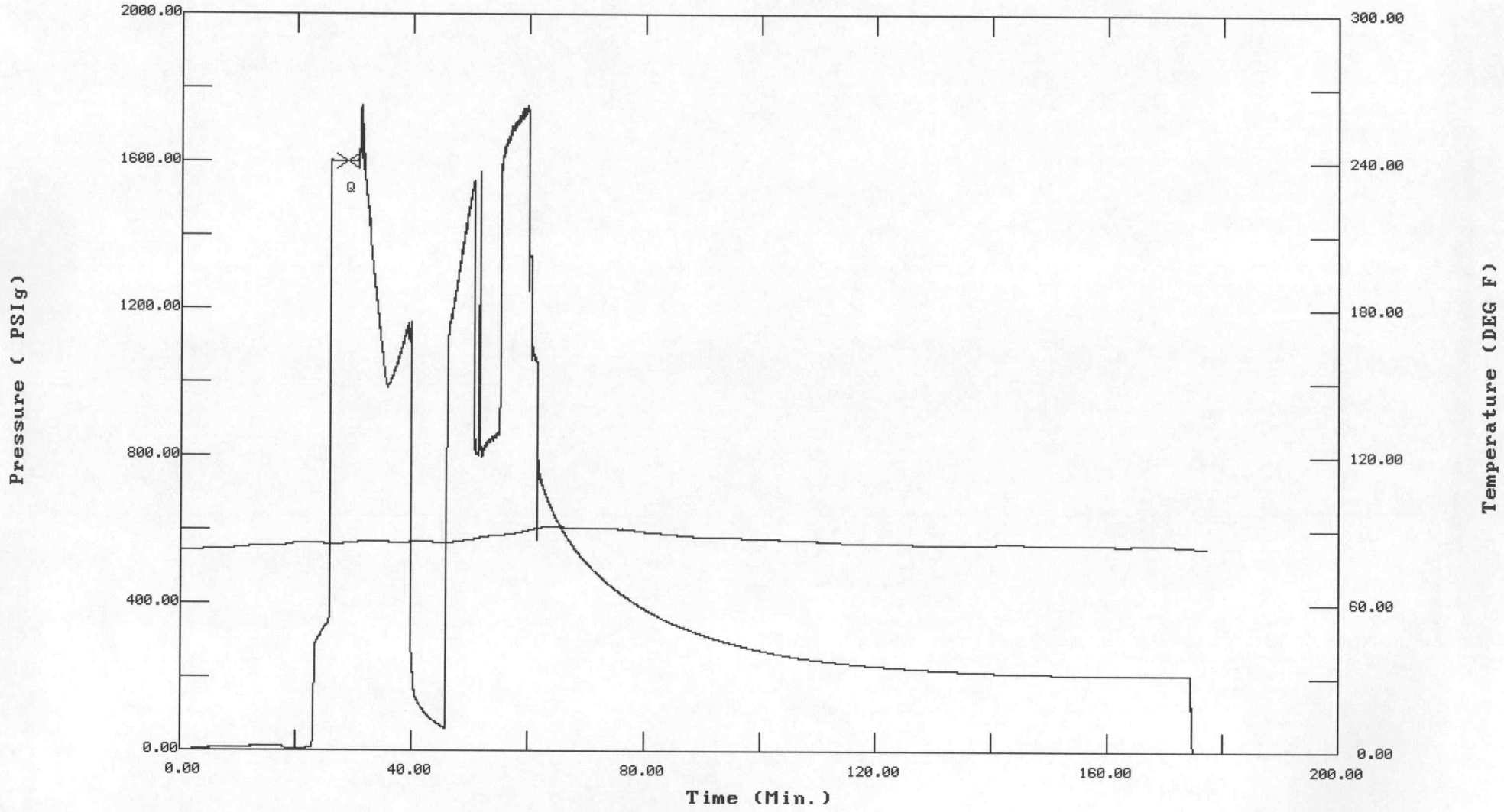
COMMENTS: 0.000

TEST HISTORY

Pres.Test Owens #1 Hummon Corporation

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	1601.04



FieldNotes
Field Measurements

	Date	Clock Time	Comments	Tubing Pres
	yyyy/mm/dd	hh:mm:ss		kPa(g)
1	1999/10/13	12:00:00	On Location	
2		14:05:00	Started Probe	
3		14:31:00	Open Well	1600.00
4		14:35:00	Pump 40 BBL into well	
5		14:44:00	Stop	130.00
6		14:51:00	Start pump 4bbl/min.	
7		14:56:00	2 bbls/min.	820.00
8		15:00:00	4 bbl/min.	
9		15:03:00		1700.00
10		15:05:00	3 bbl/min.	1300.00
11		15:05:30	2 bbls/min.	1090.00
12		15:06:00	Stop	770.00
13		15:21:00		440.00
14		15:36:00		330.00
15		15:51:00		270.00
16		16:06:00		250.00
17		16:21:00		240.00
18		16:36:00		230.00
19		16:51:00		230.00
20		17:00:00	Off line	230.00
21		17:02:00	Stop probe	
22		17:30:00	Off location	

Fast

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Pres.Test Owens #1 Hummon Corporation

DATE: 10/13/99 TIME: 14:04:33 PAGE: 001

Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSIg
1	99/10/13	14:04:34	000:00:01	81.64 DEG F	0.97 PSIg
Print every 100 samples					
27	99/10/13	14:05:00	000:00:27	81.68 DEG F	0.00 PSIg
Started probe					
127	99/10/13	14:06:40	000:02:07	81.67 DEG F	0.34 PSIg
227	99/10/13	14:08:20	000:03:47	81.74 DEG F	3.76 PSIg
327	99/10/13	14:10:00	000:05:27	81.94 DEG F	4.63 PSIg
427	99/10/13	14:11:40	000:07:07	81.95 DEG F	5.55 PSIg
527	99/10/13	14:13:20	000:08:47	82.25 DEG F	6.55 PSIg
627	99/10/13	14:15:00	000:10:27	82.62 DEG F	7.52 PSIg
727	99/10/13	14:16:40	000:12:07	83.02 DEG F	8.42 PSIg
827	99/10/13	14:18:20	000:13:47	83.11 DEG F	9.33 PSIg
927	99/10/13	14:20:00	000:15:27	83.04 DEG F	10.36 PSIg
1027	99/10/13	14:21:40	000:17:07	83.21 DEG F	11.34 PSIg
1127	99/10/13	14:23:20	000:18:47	83.86 DEG F	3.21 PSIg
1227	99/10/13	14:25:00	000:20:27	84.44 DEG F	3.69 PSIg
1327	99/10/13	14:26:40	000:22:07	84.43 DEG F	4.99 PSIg
1427	99/10/13	14:28:20	000:23:47	84.26 DEG F	304.12 PSIg
1527	99/10/13	14:30:00	000:25:27	84.14 DEG F	346.13 PSIg
1587	99/10/13	14:31:00	000:26:27	84.05 DEG F	1601.68 PSIg
Open wel					
1687	99/10/13	14:32:40	000:28:07	84.21 DEG F	1601.17 PSIg
1787	99/10/13	14:34:20	000:29:47	84.60 DEG F	1601.22 PSIg
1827	99/10/13	14:35:00	000:30:27	84.75 DEG F	1606.73 PSIg
Pump 40 bbl into well					
1927	99/10/13	14:36:40	000:32:07	84.99 DEG F	1473.49 PSIg
2027	99/10/13	14:38:20	000:33:47	85.03 DEG F	1215.08 PSIg
2127	99/10/13	14:40:00	000:35:27	84.85 DEG F	989.87 PSIg
2227	99/10/13	14:41:40	000:37:07	84.66 DEG F	1045.01 PSIg
2327	99/10/13	14:43:20	000:38:47	84.70 DEG F	1131.70 PSIg
2367	99/10/13	14:44:00	000:39:27	84.78 DEG F	1109.69 PSIg
Stop					
2467	99/10/13	14:45:40	000:41:07	84.89 DEG F	126.24 PSIg
2567	99/10/13	14:47:20	000:42:47	84.83 DEG F	92.63 PSIg
2667	99/10/13	14:49:00	000:44:27	84.69 DEG F	70.64 PSIg
2767	99/10/13	14:50:40	000:46:07	84.65 DEG F	1115.02 PSIg
2787	99/10/13	14:51:00	000:46:27	84.66 DEG F	1158.20 PSIg
4 bbl/min					
2887	99/10/13	14:52:40	000:48:07	85.11 DEG F	1313.05 PSIg
2987	99/10/13	14:54:20	000:49:47	85.67 DEG F	1483.32 PSIg
3087	99/10/13	14:56:00	000:51:27	86.45 DEG F	804.26 PSIg
2 bbl/min					
3187	99/10/13	14:57:40	000:53:07	87.17 DEG F	838.08 PSIg
3287	99/10/13	14:59:20	000:54:47	87.48 DEG F	861.14 PSIg
3327	99/10/13	15:00:00	000:55:27	87.63 DEG F	1605.25 PSIg
4 bbl/min					
3427	99/10/13	15:01:40	000:57:07	88.17 DEG F	1688.38 PSIg
3527	99/10/13	15:03:20	000:58:47	88.92 DEG F	1721.18 PSIg
3627	99/10/13	15:05:00	001:00:27	89.86 DEG F	1337.98 PSIg
3 bbl/min					
3657	99/10/13	15:05:30	001:00:57	90.12 DEG F	1064.21 PSIg

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Pres.Test Owens #1 Hummon Corporation

DATE: 10/13/99 TIME: 14:04:33 PAGE: 002

Sample	Date	Time	Relative Seconds	Temperature DEG F	Pressure PSIg
2 bbl/min					
3687	99/10/13	15:06:00	001:01:27	90.38 DEG F	708.63 PSIg
Stop					
3787	99/10/13	15:07:40	001:03:07	91.02 DEG F	689.80 PSIg
3887	99/10/13	15:09:20	001:04:47	90.98 DEG F	629.92 PSIg
3987	99/10/13	15:11:00	001:06:27	90.74 DEG F	584.18 PSIg
4087	99/10/13	15:12:40	001:08:07	90.64 DEG F	546.63 PSIg
4187	99/10/13	15:14:20	001:09:47	90.61 DEG F	514.76 PSIg
4287	99/10/13	15:16:00	001:11:27	90.44 DEG F	486.91 PSIg
4387	99/10/13	15:17:40	001:13:07	90.25 DEG F	462.31 PSIg
4487	99/10/13	15:19:20	001:14:47	90.20 DEG F	440.42 PSIg
4587	99/10/13	15:21:00	001:16:27	90.09 DEG F	420.68 PSIg
4687	99/10/13	15:22:40	001:18:07	89.61 DEG F	402.85 PSIg
4787	99/10/13	15:24:20	001:19:47	89.03 DEG F	386.59 PSIg
4887	99/10/13	15:26:00	001:21:27	88.69 DEG F	371.57 PSIg
4987	99/10/13	15:27:40	001:23:07	88.32 DEG F	357.85 PSIg
5087	99/10/13	15:29:20	001:24:47	87.92 DEG F	346.21 PSIg
5187	99/10/13	15:31:00	001:26:27	87.63 DEG F	335.76 PSIg
5287	99/10/13	15:32:40	001:28:07	87.27 DEG F	325.97 PSIg
5387	99/10/13	15:34:20	001:29:47	86.99 DEG F	316.65 PSIg
5487	99/10/13	15:36:00	001:31:27	87.00 DEG F	308.04 PSIg
5587	99/10/13	15:37:40	001:33:07	87.08 DEG F	300.23 PSIg
5687	99/10/13	15:39:20	001:34:47	87.05 DEG F	292.98 PSIg
5787	99/10/13	15:41:00	001:36:27	86.72 DEG F	286.19 PSIg
5887	99/10/13	15:42:40	001:38:07	86.34 DEG F	279.80 PSIg
5987	99/10/13	15:44:20	001:39:47	86.29 DEG F	273.84 PSIg
6087	99/10/13	15:46:00	001:41:27	86.21 DEG F	268.19 PSIg
6187	99/10/13	15:47:40	001:43:07	85.99 DEG F	262.90 PSIg
6287	99/10/13	15:49:20	001:44:47	85.87 DEG F	257.71 PSIg
6387	99/10/13	15:51:00	001:46:27	85.68 DEG F	253.23 PSIg
6487	99/10/13	15:52:40	001:48:07	85.51 DEG F	249.70 PSIg
6587	99/10/13	15:54:20	001:49:47	85.38 DEG F	246.44 PSIg
6687	99/10/13	15:56:00	001:51:27	85.30 DEG F	243.44 PSIg
6787	99/10/13	15:57:40	001:53:07	84.99 DEG F	240.49 PSIg
6887	99/10/13	15:59:20	001:54:47	84.57 DEG F	237.79 PSIg
6987	99/10/13	16:01:00	001:56:27	84.39 DEG F	235.26 PSIg
7087	99/10/13	16:02:40	001:58:07	84.53 DEG F	232.90 PSIg
7187	99/10/13	16:04:20	001:59:47	84.73 DEG F	230.72 PSIg
7287	99/10/13	16:06:00	002:01:27	84.65 DEG F	228.76 PSIg
7387	99/10/13	16:07:40	002:03:07	84.49 DEG F	226.73 PSIg
7487	99/10/13	16:09:20	002:04:47	84.36 DEG F	224.87 PSIg
7587	99/10/13	16:11:00	002:06:27	84.15 DEG F	223.29 PSIg
7687	99/10/13	16:12:40	002:08:07	84.02 DEG F	221.63 PSIg
7787	99/10/13	16:14:20	002:09:47	83.97 DEG F	220.16 PSIg
7887	99/10/13	16:16:00	002:11:27	83.90 DEG F	218.80 PSIg
7987	99/10/13	16:17:40	002:13:07	83.81 DEG F	217.51 PSIg
8087	99/10/13	16:19:20	002:14:47	83.65 DEG F	216.23 PSIg
8187	99/10/13	16:21:00	002:16:27	83.58 DEG F	215.06 PSIg
8287	99/10/13	16:22:40	002:18:07	83.65 DEG F	214.04 PSIg
8387	99/10/13	16:24:20	002:19:47	83.90 DEG F	213.13 PSIg
8487	99/10/13	16:26:00	002:21:27	84.29 DEG F	212.15 PSIg

ALPINE SUBSURFACE ELECTRONICS PROBE DATA LISTING

TEST: Pres.Test Owens #1 Hummon Corporation

DATE: 10/13/99 TIME: 14:04:33 PAGE: 003

Sample	Date	Time	Relative Seconds	Temperature DEG F		Pressure PSIg	
8587	99/10/13	16:27:40	002:23:07	84.39	DEG F	211.44	PSIg
8687	99/10/13	16:29:20	002:24:47	84.25	DEG F	210.74	PSIg
8787	99/10/13	16:31:00	002:26:27	84.12	DEG F	210.01	PSIg
8887	99/10/13	16:32:40	002:28:07	84.16	DEG F	209.37	PSIg
8987	99/10/13	16:34:20	002:29:47	84.11	DEG F	208.87	PSIg
9087	99/10/13	16:36:00	002:31:27	83.92	DEG F	208.35	PSIg
9187	99/10/13	16:37:40	002:33:07	83.87	DEG F	207.97	PSIg
9287	99/10/13	16:39:20	002:34:47	83.90	DEG F	207.57	PSIg
9387	99/10/13	16:41:00	002:36:27	83.84	DEG F	207.23	PSIg
9487	99/10/13	16:42:40	002:38:07	83.84	DEG F	206.91	PSIg
9587	99/10/13	16:44:20	002:39:47	83.74	DEG F	206.74	PSIg
9687	99/10/13	16:46:00	002:41:27	83.56	DEG F	206.56	PSIg
9787	99/10/13	16:47:40	002:43:07	83.53	DEG F	206.42	PSIg
9887	99/10/13	16:49:20	002:44:47	83.62	DEG F	206.38	PSIg
9987	99/10/13	16:51:00	002:46:27	83.79	DEG F	206.40	PSIg
10087	99/10/13	16:52:40	002:48:07	83.86	DEG F	206.48	PSIg
10187	99/10/13	16:54:20	002:49:47	83.76	DEG F	206.57	PSIg
10287	99/10/13	16:56:00	002:51:27	83.61	DEG F	206.69	PSIg
10387	99/10/13	16:57:40	002:53:07	83.40	DEG F	206.94	PSIg
10487	99/10/13	16:59:20	002:54:47	83.05	DEG F	120.57	PSIg
10527	99/10/13	17:00:00	002:55:27	82.90	DEG F	0.00	PSIg
Off line							
10627	99/10/13	17:01:40	002:57:07	82.46	DEG F	0.00	PSIg
10640	99/10/13	17:01:53	002:57:20	82.38	DEG F	0.00	PSIg
End of File							