Completion Information

15-129-21576

15-32s-40w

ORIGINAL

CONFIDENTIAL

RECEIVED
STATE CORPORATION COMMISSION
MAR - 5 1999
CONSERVATION DIVISION
Wichita, Kansas

RELEASED
MAR 0 2 2000
FROM CONFIDENT

KCC
MAR 0 2 1999
CONFIDENTIAL

Well Name: Breeding 1-715
Company: Harris Oil and Gas
Location: 15-32s-40w
Morton County Kansas
Date: 1-11-99

ORIGINAL

CONFIDENTIAL TRILOBITE TESTING L.L.C.

OPERATOR : Harris Oil & Gas DATE 12-28-98
WELL NAME: Breeding 1-715 KB 3334.00 ft TICKET NO: 11646 DST #1
LOCATION : 15-32s-40w Morton co.KS GR 3324.00 ft FORMATION:
INTERVAL : 3240.00 To 3298.00 ft TD 3298.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	11058	11058	2347		
SI 60	Range(Psi)	4500.0	4500.0	4995.0	0.0	0.0
SF 60	Clock(hrs)	12	12	alpin		
FS 120	Depth(ft)	3293.0	3293.0	3261.0	0.0	0.0

TIME DATA----------
PF Fr. 2010 to 2040 hr
IS Fr. 2040 to 2140 hr
SF Fr. 2140 to 2240 hr
FS Fr. 2240 to 1240 hr

	Field	1	2	3	4
A. Init Hydro	1565.0	1545.0	1567.0	0.0	0.0
B. First Flow	77.0	76.0	35.0	0.0	0.0
B1. Final Flow	155.0	158.0	160.0	0.0	0.0
C. In Shut-in	556.0	556.0	557.0	0.0	0.0
D. Init Flow	200.0	197.0	167.0	0.0	0.0
E. Final Flow	300.0	303.0	298.0	0.0	0.0
F. Fl Shut-in	556.0	556.0	559.0	0.0	0.0
G. Final Hydro	1554.0	1539.0	1554.0	0.0	0.0
Inside/Outside	i	i	o		

T STARTED 1750 hr
T ON BOTM 2007 hr
T OPEN 2010 hr
T PULLED 1240 hr
T OUT 0325 hr

RECOVERY
Tot Fluid 572.00 ft of 552.00 ft in DC and 20.00 ft in DP
90.00 ft of slightly water cut mud 10% water 90% mud
120.00 ft of watery mud 30% water 70% mud
120.00 ft of muddy water 65% water 35% mud
242.00 ft of water 100% water
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
SALINITY 28000.00 P.P.M. A.P.I. Gravity 0.00

KCC
MAR 02 1999
CONFIDENTIAL

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

Tool Wt.	5000.00 lbs
Wt Set On Packer	26000.00 lbs
Wt Pulled Loose	88000.00 lbs
Initial Str Wt	76000.00 lbs
Unseated Str Wt	79000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.50 in
D.C. Length	552.00 ft
D.P. Length	2712.00 ft

BLOW DESCRIPTION
Initial Flow:
1/4" at open built to 11"
Initial Shut-in:
Bleed off for 1 1/2 mins. no return
Final Flow:
Weak surface blow in 3 mins. built to 10"
Final Shut-in:
Bleed off for 1 min. no return

RELEASED
MAR 02 2000
FROM CONFIDENTIAL

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

Mud Type	Chemical
Weight	9.10 lb/cf
Vis.	43.00 S/L
W.L.	9.20 in3
F.C.	0.00 in
Mud Drop	N
Amt. of fill	0.00 ft
Btm. H. Temp.	100.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	N
Tool Chased	N
Tester	Shane McBride
Co. Rep.	Dan Sommer
Contr.	Allen
Rig #	2
Unit #	
Pump T.	

SAMPLES:
SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONV.

ELL NAME: Breeding 1-715

OCATION : 15-32-40

CKET No. 11646 D.S.T. No. 1 DATE 12-28-98

OTAL TOOL TO BOTTOM OF TOP PACKERS 27

ITERVAL TOOL .....

OTTOM PACKERS AND ANCHOR 27

OTAL TOOL 54

ILL COLLAR ANCHOR IN INTERVAL .....

C. ANCHOR STND.Stands Single Total

P. ANCHOR STND.Stands Single 1 Total 31

OTAL ASSEMBLY 85

C. ABOVE TOOLS.Stands9 Single Total 552

P. ABOVE TOOLS.Stands43 Single Total 2681

OTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3318

OTAL DEPTH 3298

OTAL DRILL PIPE ABOVE K.B. 20

EMARKS:

P.O. SUB	
C.O. SUB 1'	3212
S.I. TOOL 5'	3218
HMV 5'	3223
JARS 5'	3228
SAFETY JOINT 2'	3230
PACKER top	3235
PACKER bottom	3240
DEPTH 3240	
STUBB 1'	3241
ANCHOR 19' perf	3260
1' c.o.	3261
alpine recorder	3261
31' drillpipe	3292
T.C.	
DEPTH	
1' c.o.	3293
ak-1 recorder	3293
BULLNOSE 5' bullplug	3298
T.D.	3298

TEST HISTORY

11646 DST #1 Breeding #1-715 Harris Oil & Gas

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	1567.30
B:	0.00	35.95
C:	30.00	160.04
D:	60.00	557.70
E:	0.00	167.81
F:	59.00	298.81
G:	119.00	559.89
Q:	0.00	1554.10

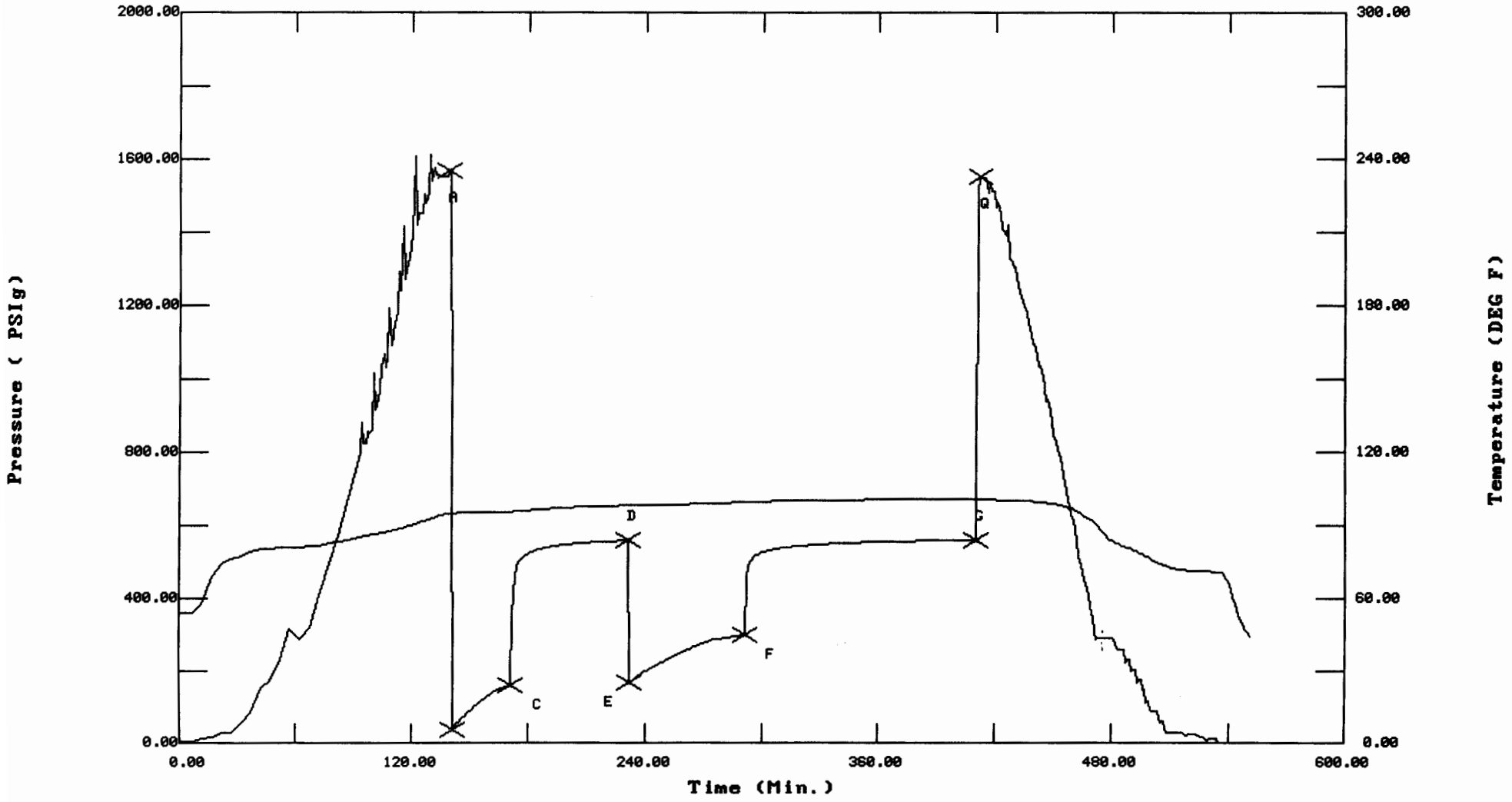
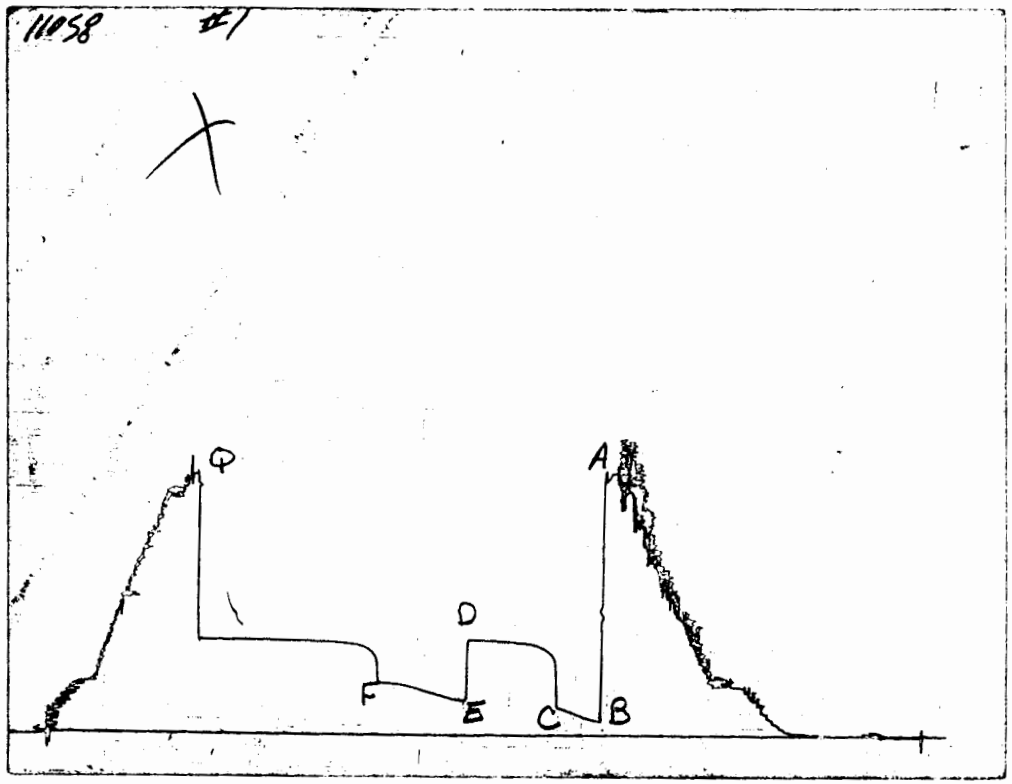


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 11646

Well Name & No. Breeding #1-715 Test No. 1 Date 12-28-98

Company Harris Oil & Gas Zone Tested

Address P.O. 1125, 17th St. Suite 2290, Denver, Colo, 80202 Elevation 3334' KB 3324' GL

Co. Rep / Geo. Dan Sommer Cont. Ahlen #2 Est. Ft. of Pay ___ Por. ___ %

Location: Sec. ___ Twp. ___ Rge. ___ Co. Morton State Ks

No. of Copies Norm. Distribution Sheet (Y, N) ___ Turnkey (Y, N) N Evaluation (Y, N) ___

Interval Tested 3240' 3298' Initial Str Wt./Lbs. 76,000 Unseated Str Wt./Lbs. 79,000

Anchor Length 58' Wt. Set Lbs. 26,000 Wt. Pulled Loose/Lbs. 88,000

Top Packer Depth 3235' Tool Weight 5,000

Bottom Packer Depth 3240' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓

Total Depth 3298' Wt. Pipe Run — Drill Collar Run 552'

Mud Wt. 9.1 LCM 2 Vis. 43 WL 9.2 Drill Pipe Size 4½ XH Ft. Run 2712'

Blow Description 1/4" @ open, built to 11" in.
Bleed off for 1½ min - No return.
Weak surface blow in 3 min, built to 10" in.
Bleed off for 1 min, No return.

Recovery — Total Feet 572 GIP — Ft. in DC 552' Ft. in DP 20'

Rec. 90'	Feet Of	Slitly Water Cut Mud	%gas	%oil	10 %water	90	%mud
Rec. 120	Feet Of	Watery Mud	%gas	%oil	30 %water	70	%mud
Rec. 120	Feet Of	Muddy Water	%gas	%oil	65 %water	35	%mud
Rec. 242	Feet Of	Water	%gas	%oil	100 %water		%mud
Rec. ___	Feet Of	___	%gas	%oil	%water		%mud

BHT 100° °F Gravity — °API D@ — °F Corrected Gravity — °API

RW .341 @ 55 °F Chlorides 28,000 ppm Recovery Chlorides 1400 ppm System

	Alpine [redacted]	[redacted] AK-1			
(A) Initital Hydrostatic Mud	1567	1565	PSI	Recorder No.	2347
(B) First Initial Flow Pressure	35	77	PSI	(depth)	3261'
(C) First Final Flow Pressure	160	155	PSI	Recorder No.	11058
(D) Initial Shut-In Pressure	557	556	PSI	(depth)	3293'
(E) Second Initial Flow Pressure	167	200	PSI	Recorder No.	___
(F) Second Final Flow Pressure	298	300	PSI	(depth)	___
(G) Final Shut-in Pressure	559	556	PSI	Initial Opening	30
(Q) Final Hydrostatic Mud	1554	1554	PSI	Initial Shut-in	60
				Final Flow	60
				Final Shut-in	120

T-On Location 15:45 P.m.
T-Started 17:50 P.m
T-Open 20:10 P.m.
T-Pulled 12:40 A.m.
T-Out 03:25 A.m
T-Off Location ___

Test x 600
Jars x 200
Safety Joint x 50
Straddle ___
Circ. Sub x N/C
Sampler ___
Extra Packer ___
Elec. Rec. x 150
Mileage ___
Other ___
TOTAL PRICE $ 1000

Approved By T. J. Dusker

Our Representative Shane McBride

TRILOBITE TESTING L.L.C.

PERATOR : Harris Oil & Gas Co. DATE 1-4-99
ELL NAME: Breeding "1-715" KB 3340.00 ft TICKET NO: 10998 DST #2
OCATION : 15-32S-40W Morton co. KS GR 3329.00 ft FORMATION: Keyes
NTERVAL : 5420.00 To 5570.00 ft TD 5693.00 ft TEST TYPE: CONV-STRADDLE

ECORDER DATA

Mins		Field	1	2	3	4
PF 105	Rec.	10242	10242	Alpine	13630	
SI 0	Range(Psi)	4100.0	4100.0	5000.0	4625.0	0.0
SF 0	Clock(hrs)	12 HR	12 HR	12 HR	12 HR	
FS 0	Depth(ft)	5564.0	5564.0	5422.0	5690.0	0.0

TIME DATA----------
PF Fr. 2315 to 0020 hr
IS Fr. to hr
SF Fr. to hr
FS Fr. to hr

	Field	1	2	3	4
A. Init Hydro	2761.0	2774.0	2647.0	0.0	0.0
B. First Flow	149.0	158.0	[illegible].0	0.0	0.0
B1. Final Flow	149.0	158.0	66.0	0.0	0.0
C. In Shut-in	0.0	0.0	0.0	0.0	0.0
D. Init Flow	0.0	0.0	0.0	0.0	0.0
E. Final Flow	0.0	0.0	0.0	0.0	0.0
F. Fl Shut-in	0.0	0.0	0.0	0.0	0.0
G. Final Hydro	2725.0	2731.0	2582.0	0.0	0.0
Inside/Outside	O	O	I	S	

T STARTED 2110 hr
T ON BOTM 2312 hr
T OPEN 2315 hr
T PULLED 0230 hr
T OUT 0815 hr

RECOVERY
Tot Fluid 60.00 ft of 60.00 ft in DC and 0.00 ft in DP
60.00 ft of 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
0.00 ft of
SALINITY 920.00 P.P.M. A.P.I. Gravity 0.00

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

Tool Wt.	5300.00 lbs
Wt Set On Packer	40000.00 lbs
Wt Pulled Loose	20000.00 lbs
Initial Str Wt	91000.00 lbs
Unseated Str Wt	100000.00 lbs
Bot Choke	0.75 in
Hole Size	7.78 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	552.00 ft
D.P. Length	4867.00 ft

BLOW DESCRIPTION
Initial Flow:
Weak 1/2" built to 3 1/4" in 30 mins.

Would not rotate. Tried pulling loose. Wall-stuck. Dropped bar after 1 hr. 5 min. flow period. Cir. mud, wait on oil Oil arrived about 3:30 A.M. Spotted 60 bbl. At 1:15 pm. spotted another 70 bbl Di-alog out at 5:00 pm. Wall-stuck 90 ft. above tool. Backed off, came out of hole, picked up jars, went back in & jarred loose. 2:30 AM. 1-6-99.

SAMPLES: None
SENT TO:

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

Mud Type	Chemical
Weight	9.10 lb/cf
Vis.	51.00 S/L
W.L.	8.20 in3
F.C.	0.00 in
Mud Drop Y	10.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	135.00 F
Hole Condition	Sticky
% Porosity	18.00
Packer Size	6.75 in
No. of Packers	4
Cushion Amt.	0.00
Cushion Type	
Reversed Out Y	
Tool Chased N	
Tester	Lanny Saloga
Co. Rep.	Tommy Diseker
Contr.	Allen
Rig #	2
Unit #	
Pump T.	

Test Successful: N

*** TOOL DIAGRAM *** CONV-STRADDLE

ELL NAME: Breeding "1-715"

OCATION : 15-32S-40W

ICKET No. 10998 D.S.T. No. 2 DATE 1-4-99

OTAL TOOL TO BOTTOM OF TOP PACKERS 30

NTERVAL TOOL 30

OTTOM PACKERS AND ANCHOR 25

OTAL TOOL 85

RILL COLLAR ANCHOR IN INTERVAL .....

.C. ANCHOR STND.Stands Single Total

.P. ANCHOR STND.Stands 3 Single 1 Total 218

OTAL ASSEMBLY 303

.C. ABOVE TOOLS.Stands 9 Single Total 552

.P. ABOVE TOOLS.Stands 78 Single Total 4867

OTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5722

OTAL DEPTH 5693

OTAL DRILL PIPE ABOVE K.B. 29

EMARKS:

FLUID SAMPLER DATA

Total Vol.	5000 ML.
Total Vol. Rec.	5000 ML.
Oil	0 ML.
Mud	5000 ML.
Wtr.	0 ML.
Gas	0 CF.
Psi.	30
Bht.	135 F.
Pit RW. 7.5	Ohms at 55 F. 900 PPM.
Rec RW. 7.2	Ohms at 57 F. 920 PPM.
Gravity ---	at -- F.

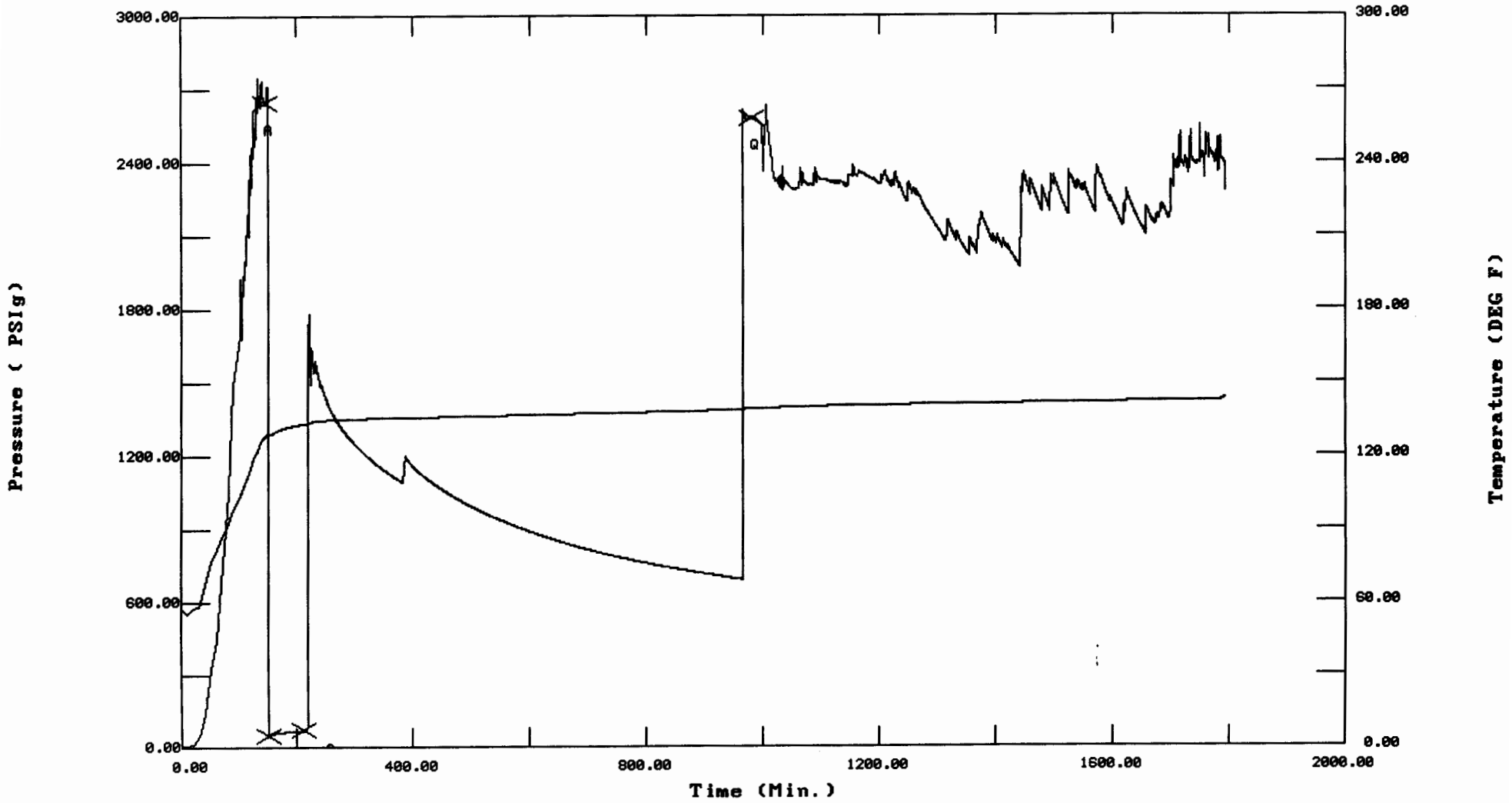
P.O. SUB Cir. sub	5330
C.O. SUB Top of tool	5390
Double pin	5391
S.I. TOOL H&T	5396
Sampler	5399
HMV Sterling	5404
JARS Bowen	5409
SAFETY JOINT Bowen	5411
PACKER Sparton	5416
PACKER Shale	5420
DEPTH	
STUBB Rec. sub	5422
ANCHOR Alpine	5422
Pu. sub	5427
8 ft. perfs	5435
Co. sub	5436
2 stds DP	5561
Co. sub	5562
AK-1	5564
Pu. sub	5567
Blank	5567
3 ft. of packer	5570
T.C.	
DEPTH	
PACKER Sparton "Center"	5570
2 ft. of packer	5572
PACKER Shale	5577
19 ft. perfs	5596
Co. sub	5597
1 std 1 single DP	5690
AK-1	5690
Co. sub	5691
BULLNOSE 2 ft. perf	
T.D.	5693

TEST HISTORY

10998 D.S.T.#2 Breeding "1-715" Harris Oil & Gas Corp.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2647.04
B:	0.00	43.72
C:	62.50	66.73
Q:	0.00	2582.52



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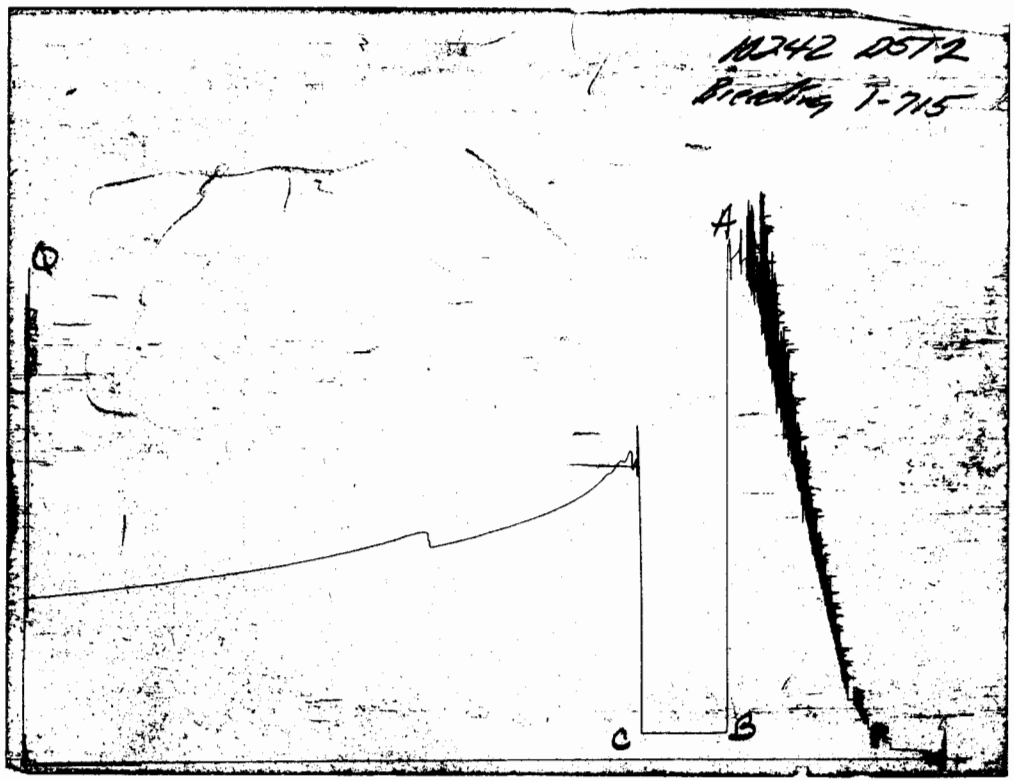

This is a photocopy of the actual AK-1 recorder chart

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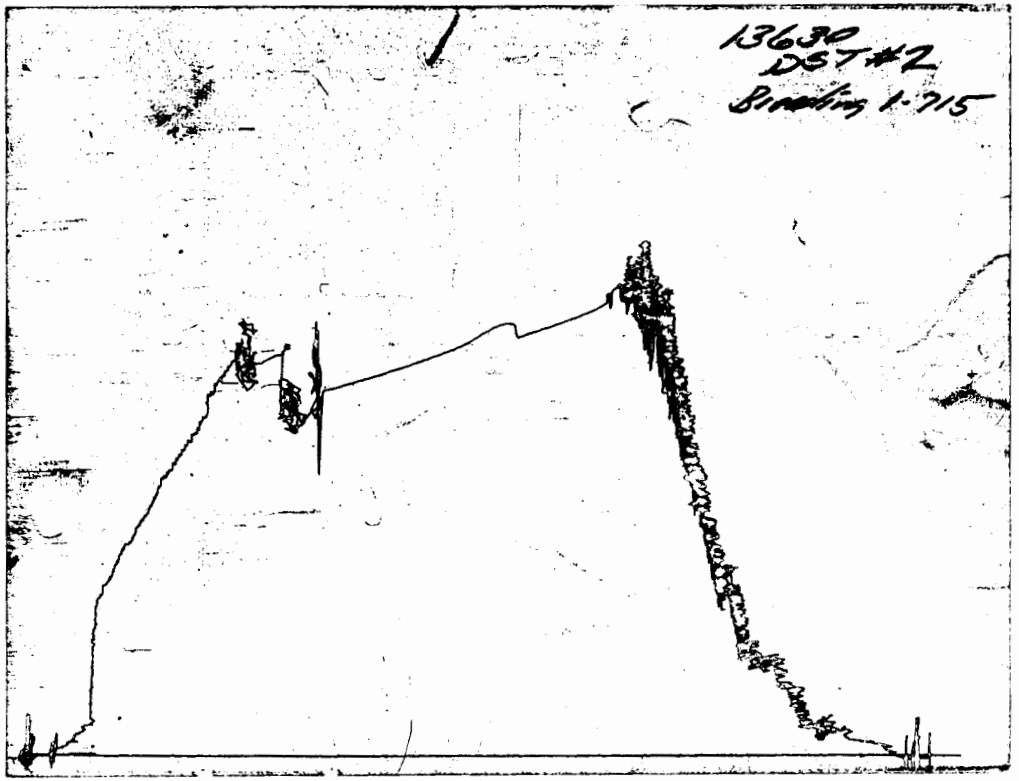


This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 10998 Date 1-4 to 1-6-98

Company Name Harris Oil & Gas

Lease Breeding "1-715" Test No. 2

County Morton Ks. Sec. 15 Twp. 32S Rng. 40W

SAMPLER RECOVERY

Gas 0 C.F. ~~ML~~

Oil 0 ML

Mud 5000 ML

Water 0 ML

Other 0 ML

Pressure 30 PSI

Total Vol. Rec. = 5000 ML

Total Vol. of chamber 5000 ML.

PIT MUD ANALYSIS

Chlorides 900 ppm.

Resistivity 7.5 ohms @ 55 F

Viscosity 51

Mud Weight 9.1

Filtrate 8.2

Other 5# L.C.M.

SAMPLER ANALYSIS

Resistivity 7.2 ohms @ 57 F

Chlorides 920 ppm.

Gravity — corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity — ohms @ — F

Chlorides — ppm.

MIDDLE

Resistivity — ohms @ — F

Chlorides — ppm.

BOTTOM

Resistivity 7.2 ohms @ 57 F

Chlorides 920 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10998

Well Name & No. Breeding "I-715" Test No. 2 Date 1-4-99

Company Harris Oil & Gas Co. Zone Tested Keyes

Address Denver Colo. 80202 Elevation 3340 KB 3329 GL

Co. Rep / Geo. Tommy Dieker Cont. Allen Rig 2 Est. Ft. of Pay 21 Por. 18 %

Location: Sec. 15 Twp. 32 S Rge. 40 W Co. Morton State KS.

No. of Copies Reg Distribution Sheet (Y, N) Harris + Heath Turnkey (Y, N) N. Evaluation (Y, N)

Interval Tested 5420-5570 Initial Str Wt./Lbs. 91,000 Unseated Str Wt./Lbs. 100,000

Anchor Length 150' Tail=123' Tool=30' Wt. Set Lbs. 40,000 Wt. Pulled Loose/Lbs. 20,000

Top Packer Depth 5415 S-Packer 5570 Tool Weight 5,300

Hole Bottom Packer Depth 5420 S-Packer 5575 Hole Size — 7 7/8" Rubber Size — 6 3/4"

Total Depth 5693 Wt. Pipe Run — Drill Collar Run 5552

Mud Wt. 9.1 LCM 5# Vis. 51 WL 8.2 Drill Pipe Size 4½ XH Ft. Run 4867 29 jts

Blow Description Weak ½", built to 3¼" in 30 min. IFP
Weak not rotate "Well-Stuck"
Dropped bar at 12:20. Cir. ends, wait on oil. Oil arrived about 3:30 AM. Spotted oil + wait 60 Min + 70 Min. Got off, and back in, Jarred la

Recovery — Total Feet 60 GIP — Ft. in DC +60 Ft. in DP 0

Rec. 60	Feet Of Mud	%gas	%oil	%water 100	%mud	
Rec.	Feet Of	%gas	%oil	%water	%mud	
Rec.	Feet Of	%gas	%oil	%water	%mud	
Rec.	Feet Of	%gas	%oil	%water	%mud	
Rec.	Feet Of	%gas	%oil	%water	%mud	

BHT 135° °F Gravity — °API D@ — °F Corrected Gravity — °API

RW 2.02 @ 57 °F Chlorides 920 ppm Recovery Chlorides 900 ppm System

(A) Initial Hydrostatic Mud	2761	2647 PSI	Recorder No. 3017 "20=47"	T-Started	9:10 PM
(B) First Initial Flow Pressure	149	43 PSI	(depth) 5422	T-Open	11:15 PM
(C) First Final Flow Pressure	149	66 PSI	Recorder No. 10242	T-Pulled	2:30 AM 1-6
(D) Initial Shut-in Pressure	—	— PSI	(depth) 5564	T-Out	8:15 AM
(E) Second Initial Flow Pressure	—	— PSI	Recorder No. 13630		
(F) Second Final Flow Pressure	—	— PSI	(depth) 5690		
(G) Final Shut-in Pressure	—	— PSI	Initial Opening 105	Test	
(H) Final Hydrostatic Mud	2725	2582 PSI	Initial Shut-in Dropped Bar	Jars	
	AK-1	Alpine	Final Flow —	Safety Joint	
			Final Shut-in —	Straddle	
				Circ. Sub	
				Sampler	
				2 Extra Packer	
				Elect. Rec.	
				2 Stroke Other Retest	
				TOTAL PRICE $	

10492047017

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By Richard Stevenson

Our Representative Tommy Dieker

TRILOBITE TESTING L.L.C.

OPERATOR : Harris Oil & Gas Co. DATE 1-6-99
WELL NAME: Breeding "1-715" KB 3340.00 ft TICKET NO: 10999 DST #3
LOCATION : 15-32S-40W Morton co.KS GR 3329.00 ft FORMATION: Keyes
INTERVAL : 5415.00 To 5570.00 ft TD 5693.00 ft TEST TYPE: CONV-SRADDLE

RECORDER DATA

Mins		Field	1	2	3	4
PF 15	Rec.	10242	10242	Alpine	13630	
SI 60	Range(Psi)	4100.0	4100.0	5000.0	4625.0	0.0
SF 60	Clock(hrs)	12 HR	12 HR	12 HR	12 HR	
FS 120	Depth(ft)	5564.0	5564.0	5417.0	5690.0	0.0

TIME DATA----------
PF Fr. 1955 to 2010 hr
IS Fr. 2010 to 2110 hr
SF Fr. 2110 to 2210 hr
FS Fr. 2210 to 0010 hr

	Field	1	2	3	4
A. Init Hydro	2550.0	2576.0	2463.0	0.0	0.0
B. First Flow	144.0	175.0	45.0	0.0	0.0
B1. Final Flow	149.0	176.0	59.0	0.0	0.0
C. In Shut-in	245.0	271.0	175.0	0.0	0.0
D. Init Flow	158.0	182.0	66.0	0.0	0.0
E. Final Flow	165.0	182.0	76.0	0.0	0.0
F. Fl Shut-in	282.0	313.0	220.0	0.0	0.0
G. Final Hydro	2543.0	2554.0	2447.0	0.0	0.0
Inside/Outside	O	O	I	S	

T STARTED 1720 hr
T ON BOTM 1953 hr
T OPEN 1955 hr
T PULLED 0010 hr
T OUT 0515 hr

RECOVERY
Tot Fluid 120.00 ft of 120.00 ft in Mud 0.00 ft in DP
590.00 ft of Gas in pipe
120.00 ft of Oil & Gas cut Mud 8%Gas 7%Oil 85%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
SALINITY 900.00 P.P.M. A.P.I. Gravity 0.00

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

Tool Wt.	5300.00 lbs
Wt Set On Packer	40000.00 lbs
Wt Pulled Loose	28000.00 lbs
Initial Str Wt	92000.00 lbs
Unseated Str Wt	92000.00 lbs
Bot Choke	0.75 in
Hole Size	7.78 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	506.00 ft
D.P. Length	4896.00 ft

BLOW DESCRIPTION
Initial Flow:
Weak 1" built to 2 1/4" in
8 minutes. Stabilized
Initial Shutin:
No blow back
Final Flow:
Surface blow built to 4" in 60 min
Final Shutin:
No blow back
Remark: Had 492' drill collars plus Weatherfords Jars & subs 14' Total 506'. Ran jars 120' above tool. At 5295'

SAMPLES: None
SENT TO:

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

Mud Type	Chemical
Weight	8.70 lb/c
Vis.	75.00 S/L
W.L.	5.40 in3
F.C.	0.00 in
Mud Drop Y	10.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	134.00 F
Hole Condition	Good
% Porosity	18.00
Packer Size	6.75 in
No. of Packers	4
Cushion Amt.	0.00
Cushion Type	
Reversed Out	N
Tool Chased	N
Tester	Lanny Saloga
Co. Rep.	Tommy Diseker
Contr.	Allen
Rig #	2
Unit #	
Pump T.	

Test Successful: Y

*** TOOL DIAGRAM *** CONV-SRADDLE

VELL NAME: Breeding "1-715"

OCATION : 15-32S-40W

'ICKET No. 10999 D.S.T. No. 3 DATE 1-6-99

'OTAL TOOL TO BOTTOM OF TOP PACKERS 30

NTERVAL TOOL 30

OTTOM PACKERS AND ANCHOR 30

OTAL TOOL 90

RILL COLLAR ANCHOR IN INTERVAL .....

.C. ANCHOR STND.Stands Single Total

.P. ANCHOR STND.Stands 3 Single 1 Total 218

OTAL ASSEMBLY 308

.C. ABOVE TOOLS.Stands 8 Single Total 506

.P. ABOVE TOOLS.Stands 78 Single 1 Total 4896

OTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5710

OTAL DEPTH 5693

OTAL DRILL PIPE ABOVE K.B. 17

EMARKS:

FLUID SAMPLER DATA

Total Vol. 5000 ML.
Total Vol. Rec. 1800 ML.
Oil 90 ML.
Mud 1710 ML.
Wtr. 0 ML.
Gas 2.7 CF.
Psi. 180
Bht. 134 F.
Pit RW. 8.0 Ohms at 53 F. 900 PPM.
Rec RW. 8.6 Ohms at 49 F. 900 PPM.
Gravity -- at -- F.

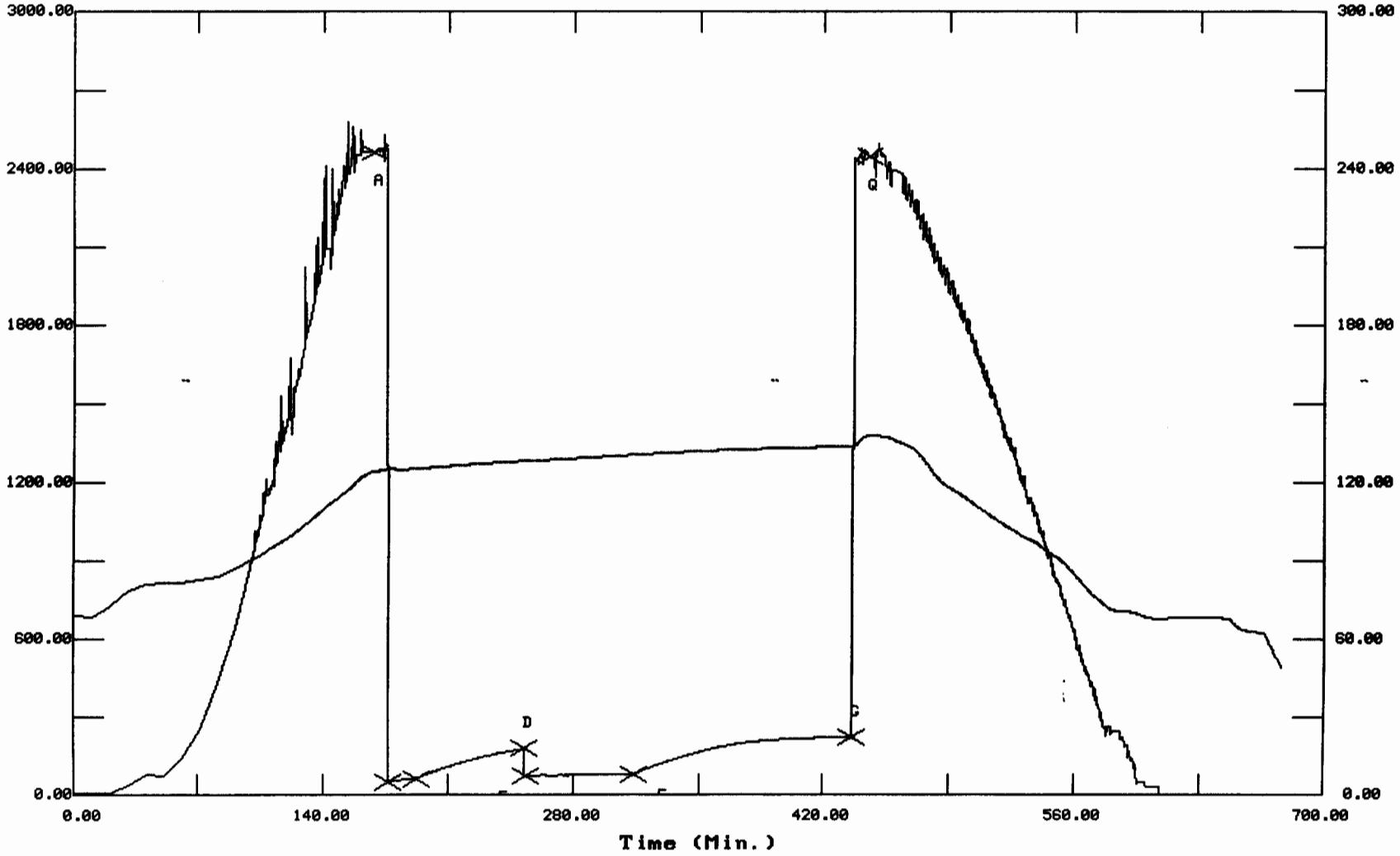
P.O. SUB Cir. sub	5355
C.O. SUB Top of tool	5385
Double pin	5386
S.I. TOOL H&T	5391
Sampler	5394
HMV Sterling	5399
JARS Bowen	5404
SAFETY JOINT Bowen	5406
PACKER Sparton	5411
PACKER Shale	5415
DEPTH	
STUBB Rec. sub	5417
ANCHOR Alpine	5417
Pu. sub	5422
13 ft. perfs	5435
Co. sub	5436
2 stds DP	5561
Co. sub	5562
AK-1	5564
Pu. sub	5567
Blank	5567
3 ft. of packer	5570
T.C.	
DEPTH	
PACKER Sparton "Center"	5570
2 ft. of packer	5572
PACKER Shale	5577
19 ft. perfs	5596
Co. sub	5597
1 std 1 single DP	5690
AK-1	5690
Co. sub	5691
BULLNOSE 2 ft. perf	
T.D.	5693

TEST HISTORY

10999 D.S.T.#3 Breeding "1-715" Harris Oil & Gas Co.

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2463.85
B:	0.00	45.05
C:	15.50	59.91
D:	60.50	175.08
E:	0.00	66.88
F:	60.50	76.35
G:	121.50	220.32
Q:	0.00	2447.47



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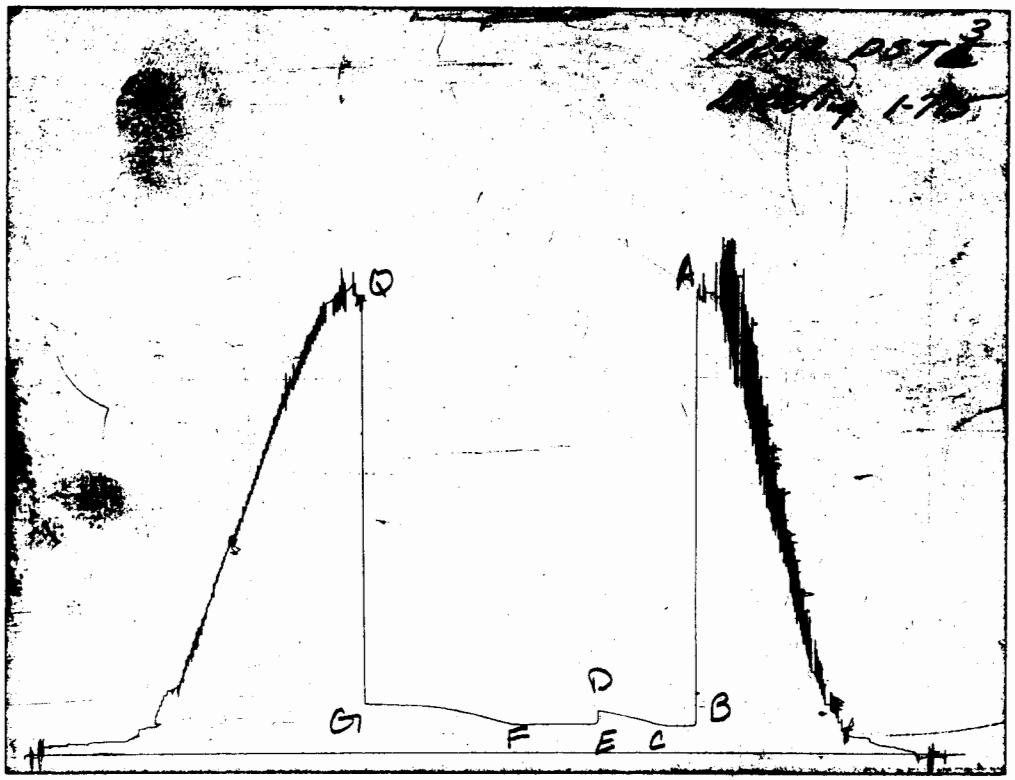

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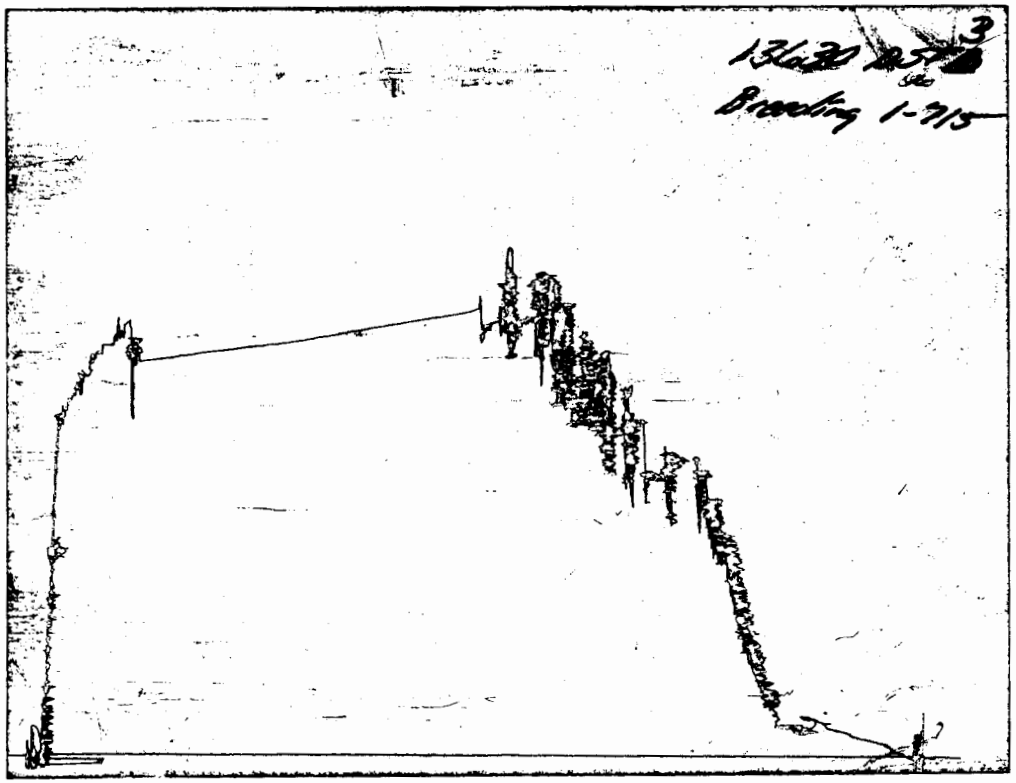

This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 10999 Date 1-6-99

Company Name Harris Oil & Gas

Lease Breeding "1-15" Test No. 3

County Morton KS. Sec. 15 Twp. 32S Rng. 40W

SAMPLER RECOVERY

Gas 2.7 CF ~~ME~~

Oil 90 ML

Mud 1710 ML

Water 0 ML

Other 0 ML

Pressure 180 PSI

Total Vol. Rec. = 1800 ML

Total Vol. hold = 5000 ML.

PIT MUD ANALYSIS

Chlorides 900 ppm.

Resistivity 8.0 ohms @ 53 F

Viscosity 75

Mud Weight 8.7

Filtrate 5.4

Other 4# LoCoMo

SAMPLER ANALYSIS

Resistivity 8.6 ohms @ 49 F

Chlorides 900 ppm.

Gravity ——— corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity ——— ohms @ ——— F

Chlorides ——— ppm.

MIDDLE

Resistivity ——— ohms @ ——— F

Chlorides ——— ppm.

BOTTOM

Resistivity 8.6 ohms @ 49 F

Chlorides 900 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 10999

Well Name & No. Breeding "1-715" Test No. 3 Date 1-6-99

Company Harris Oil & Gas Co. Zone Tested Keyes

Address Denver Colo. 80202 Elevation 3340 KB 3329 GL

Co. Rep / Geo. Tommy Diseker Cont. Allen Rig 2 Est. Ft. of Pay 21 Por. 18 %

Location: Sec. 15 Twp. 32S Rge. 40W Co. Morton State Ks.

No. of Copies Reg. Distribution Sheet (Y, N) Harris & Harold Turnkey (Y, N) N Evaluation (Y, N)

Interval Tested 5415-5570 Initial Str Wt./Lbs. 92,000 Unseated Str Wt./Lbs. 92,000

Anchor Length 155' Tail=123' Tool=30' Wt. Set Lbs. 40,000 Wt. Pulled Loose/Lbs. 28,000

Top Packer Depth 5410 St.P=5570' Tool Weight 5,300

choke Bottom Packer Depth 5415 St.P=5575' Hole Size — 7 7/8" Rubber Size — 6 3/4"

Total Depth 5693 Wt. Pipe Run — Drill Collar Run 506 8 4½" IF Jts & 5 6¼"

Mud Wt. 8.7 LCM 4# Vis. 75 WL 5.4 784' Drill Pipe Size 4½ XH Ft. Run 4896 17 jts

Blow Description Weak 1", built to 2¼ in 8 min. Stabilized. IFP
No blow-back. ISIP
Surface blow, built to 4" in 60 min. FFP
No blow-back. FSIP

Recovery — Total Feet 120 GIP 590 Ft. in DC 120 Ft. in DP 0

Rec. 120	Feet Of Oil & Gas cut Mud	8 %gas	7 %oil	%water	85 %mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT 134 °F Gravity — °API D@ — °F Corrected Gravity — °API

RW 8.6 @ 49 °F Chlorides 900 ppm Recovery Chlorides 900 ppm System

(A) Initial Hydrostatic Mud	2550	2463 PSI	Recorder No.	3017 "16-55"	T-Started 5:20 P.M.
(B) First Initial Flow Pressure	144	45 PSI	(depth)	5417	T-Open 7:55 P.M.
(C) First Final Flow Pressure	149	59 PSI	Recorder No.	10242	T-Pulled 12:10 A.M.
(D) Initial Shut-in Pressure	245	175 PSI	(depth)	5564	T-Out 5:15 A.M.
(E) Second Initial Flow Pressure	158	66 PSI	Recorder No.	13630	
(F) Second Final Flow Pressure	165	76 PSI	(depth)	5690	
(G) Final Shut-in Pressure	282	220 PSI	Initial Opening	15	Test ✓
(H) Final Hydrostatic Mud	2543 AK-1	2447 Alpine PSI	Initial Shut-in	60	Jars ✓
			Final Flow	60	Safety Joint ✓
			Final Shut-in	120	Straddle ✓
					Circ. Sub ✓
					Sampler ✓
					2 Extra Packer ✓
					Elect. Rec ✓
					2 Shale Other Packers ✓
					TOTAL PRICE $

1069655-017

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Approved By

Our Representative Tommy L. Salazar

TRILOBITE TESTING L.L.C.

OPERATOR : Harris Oil & Gas Co. DATE 1-7-99
WELL NAME: Breeding "1-715" KB 3340.00 ft TICKET NO: 11000 DST #4
LOCATION : 15-32S-40W Morton co KS GR 3329.00 ft FORMATION: Morrow
INTERVAL : 5170.00 To 5410.00 ft TD 5693.00 ft TEST TYPE: CONV-STRADDLE

RECORDER DATA

Mins		Field	1	2	3	4
PF 15	Rec.	10242	10242	Alpine	13630	
SI 60	Range(Psi)	4100.0	4100.0	5000.0	4625.0	0.0
SF 60	Clock(hrs)	12 HR	12 HR	12 HR	12 HR	
FS 120	Depth(ft)	5404.0	5404.0	5172.0	5690.0	0.0

TIME DATA----------
PF Fr. 1045 to 1100 hr
IS Fr. 1100 to 1200 hr
SF Fr. 1200 to 1300 hr
FS Fr. 1300 to 1500 hr

	Field	1	2	3	4
A. Init Hydro	2462.0	2489.0	[illegible]	0.0	0.0
B. First Flow	205.0	214.0	62.0	0.0	0.0
B1. Final Flow	205.0	214.0	80.0	0.0	0.0
C. In Shut-in	606.0	624.0	481.0	0.0	0.0
D. Init Flow	240.0	241.0	84.0	0.0	0.0
E. Final Flow	240.0	241.0	113.0	0.0	0.0
F. Fl Shut-in	667.0	688.0	540.0	0.0	0.0
G. Final Hydro	2432.0	2404.0	2318.0	0.0	0.0
Inside/Outside	O	O	I	S	

T STARTED 0830 hr
T ON BOTM 1042 hr
T OPEN 1045 hr
T PULLED 1500 hr
T OUT 2030 hr

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

Tool Wt.	9300.00 lbs
Wt Set On Packer	40000.00 lbs
Wt Pulled Loose	18000.00 lbs
Initial Str Wt	90000.00 lbs
Unseated Str Wt	92000.00 lbs
Bot Choke	0.75 in
Hole Size	7.78 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	506.00 ft
D.P. Length	4647.00 ft

RECOVERY
Tot Fluid 215.00 ft of 215.00 ft in DC and 0.00 ft in DP
4938.00 ft of Gas in pipe
95.00 ft of Oil cut Mud 22%Oil 78%Mud
120.00 ft of Oil cut Gassy Mud 25%Gas 10%Oil 65%Mud
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
0.00 ft of
SALINITY 860.00 P.P.M. A.P.I. Gravity 0.00

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

Mud Type	Chemical
Weight	8.70 lb/c
Vis.	75.00 S/L
W.L.	5.40 in3
F.C.	0.00 in
Mud Drop Y	15.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	135.00 F
Hole Condition	Good
% Porosity	8.00
Packer Size	6.75 in
No. of Packers	4
Cushion Amt.	0.00
Cushion Type	
Reversed Out	N
Tool Chased	N
Tester	Lanny Saloga
Co. Rep.	Tommy Diseker
Contr.	Allen
Rig #	2
Unit #	
Pump T.	

BLOW DESCRIPTION
Initial Flow:
Fair 2" built to 9" in 15 minutes

Initial Shutin:
Strong - bottom of bucket blow back

Final Flow:
Strong immediatley. Gas to surface
in 47 minutes. Gauged 15,500 cf/d

Final Shutin:
1" blow back

Remark: Gas burned
SAMPLES: None
SENT TO:

Test Successful: Y

GAS RECOVERY

COMPANY: Harris Oil & Gas Co. DATE: 1-7-99
WELL NAME: Breeding "1-715" KB Elev: 3340.00 ft TICKET #11000 DST #4
WELL LOCATION: 15-32S-40W GR Elev: 3329.00 ft FORMATION: Morrow
INTERVAL Fr.: 5170.00 To 5410.00 T.D.: 5693.00 ft TEST TYPE: CONV-STRADDLE

GAS RECOVERY MEASURED WITH Merla Orfice

**** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
50	0.50	0	4	12500.0
60	0.50	0	4	12500.0

*** TOOL DIAGRAM *** CONV-STRADDLE

WELL NAME: Breeding "1-715"

LOCATION : 15-32S-40W

TICKET No. 11000 D.S.T. No. 4 DATE 1-7-99

TOTAL TOOL TO BOTTOM OF TOP PACKERS 30

INTERVAL TOOL 31

BOTTOM PACKERS AND ANCHOR 25

TOTAL TOOL 86

DRILL COLLAR ANCHOR IN INTERVAL .....

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands 7 Single 1 Total 467

TOTAL ASSEMBLY 553

D.C. ABOVE TOOLS.Stands 8 Single Total 506

D.P. ABOVE TOOLS.Stands 74 Single 1 Total 4647

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5706

TOTAL DEPTH 5693

TOTAL DRILL PIPE ABOVE K.B. 13

REMARKS:

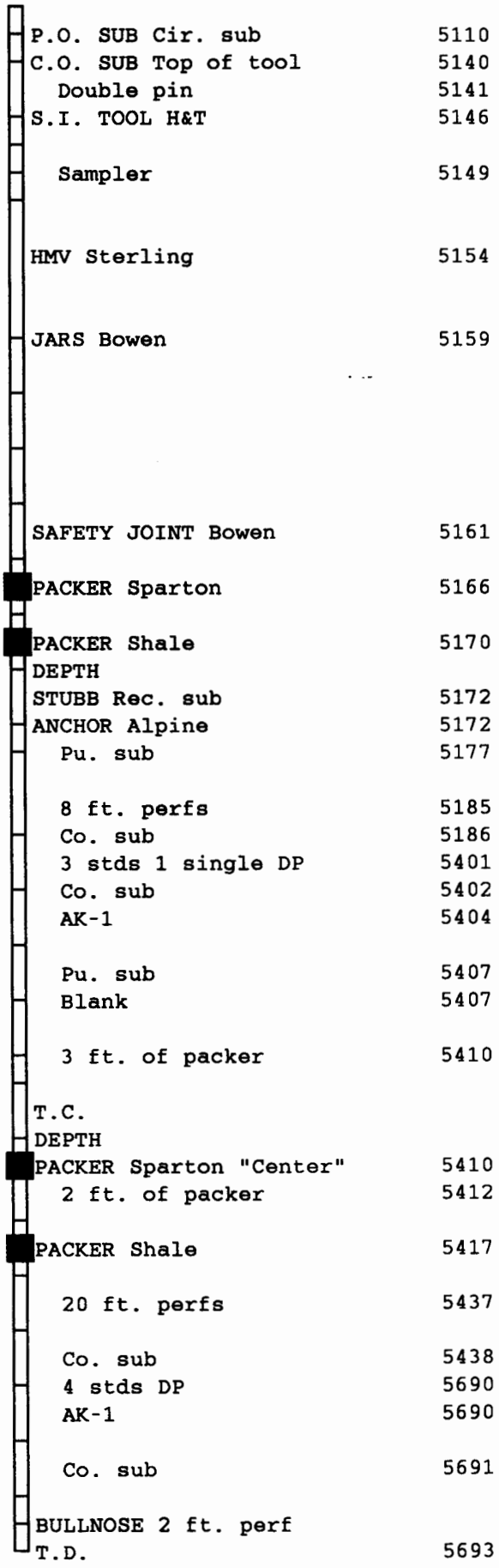
FLUID SAMPLER DATA

Total Vol.	5000	ML.
Total Vol. Rec.	2800	ML.
Oil	336	ML.
Mud	2464	ML.
Wtr.	0	ML.
Gas	6.2	CF.
Psi.	420	
Bht.	135	F.

Pit RW. 8.0 Ohms at 53 F. 900 PPM.

Rec RW. 7.6 Ohms at 57 F. 860 PPM.

Gravity -- at -- F.

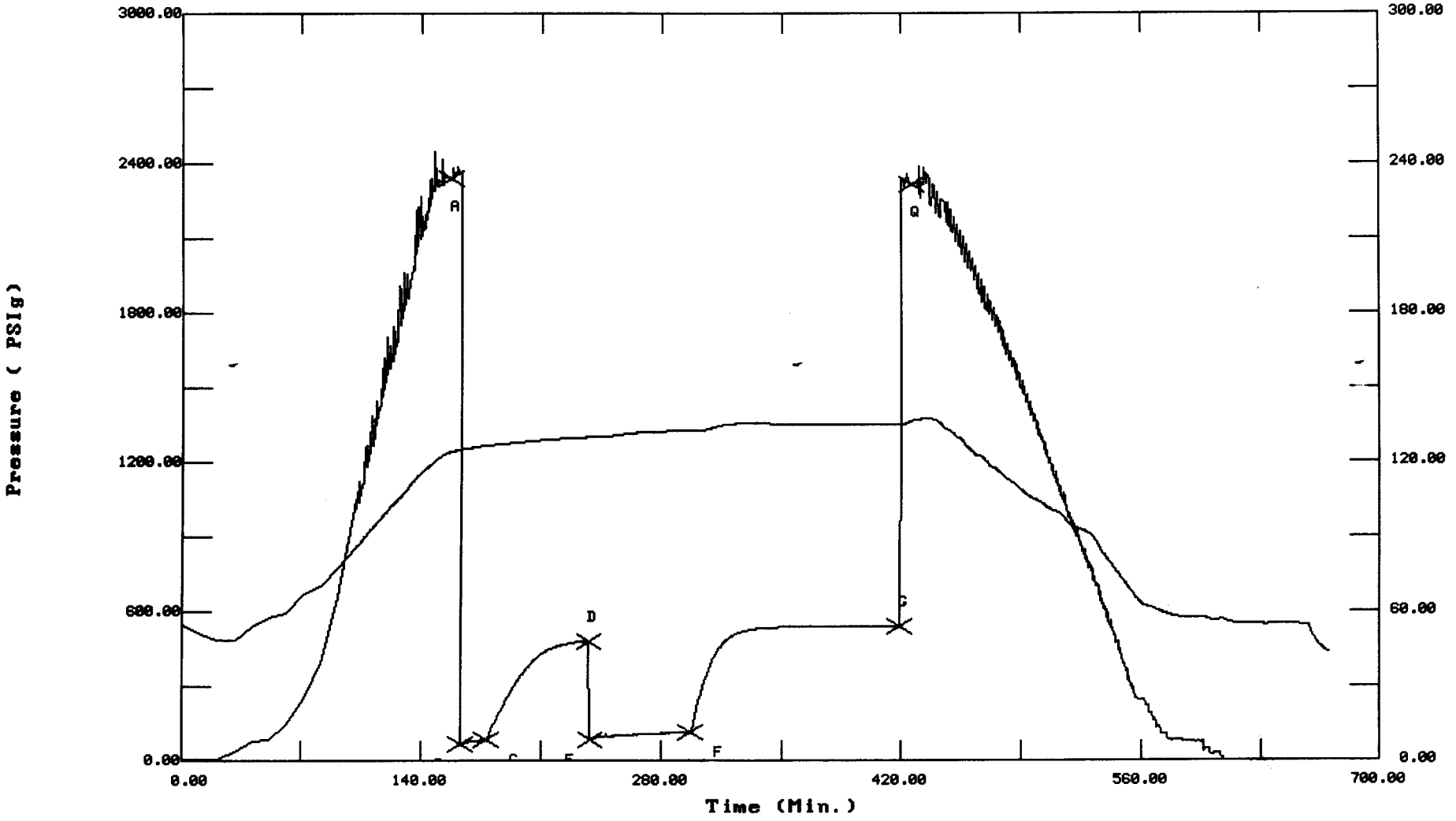


TEST HISTORY

11000 D.S.T.#4 Breeding "1-715" Harris Oil & Gas

Flag Points

	t(Min.)	P(PSIg)
A:	0.00	2340.61
B:	0.00	62.93
C:	15.00	80.89
D:	60.00	481.00
E:	0.00	84.48
F:	58.00	113.96
G:	122.00	540.34
Q:	0.00	2318.68



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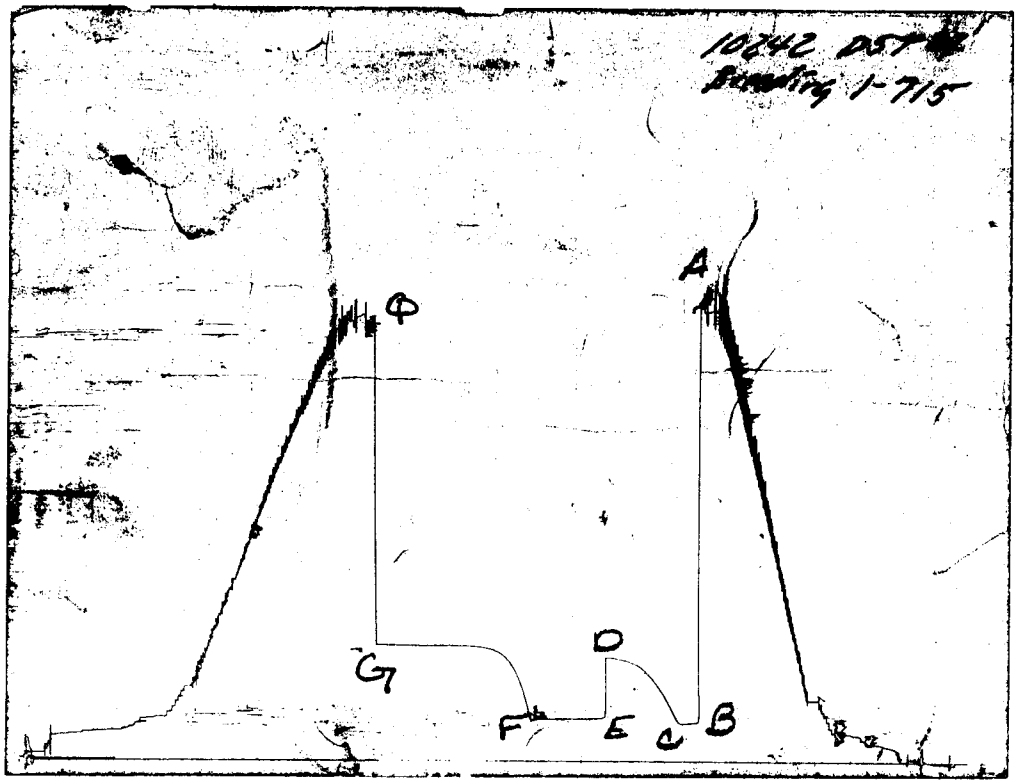

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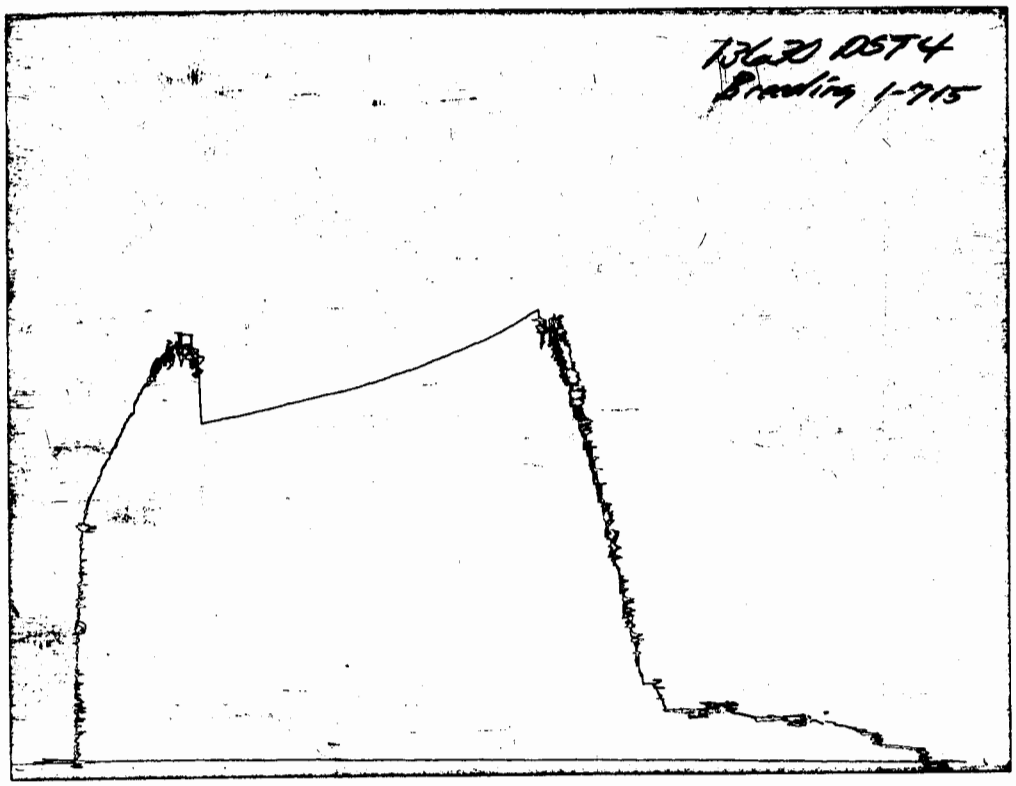

This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

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

GAS VOLUME REPORT

Harris Oil & Gas (OPERATOR) — Breeding "1-715" (WELL NAME AND NO.) — 4 (DST NO.)

GTS 47 min. into F.F.P.

Min.	Ins. of Water PSIG	Orifice Size	CF/D	Min.	F.F.P. Ins. of Water PSIG	Orifice Size	CF/D
				50	4	1/2"	12,500
				60	3.6	"	11,900

Remarks: Gas burned.

01 NCR

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 11000 Date 1-7-99

Company Name Harris Oil & Gas

Lease Breeding "1-15" Test No. 4

County Morton KS. Sec. 15 Twp. 32S Rng. 40W

SAMPLER RECOVERY

Gas 602 ~~CF~~ CC

Oil 336 ML

Mud 2464 ML

Water 0 ML

Other 0 ML

Pressure 420 PSI

Total Vol. Rec. 2800 ML

Total Vol. hold = 5000 ML

PIT MUD ANALYSIS

Chlorides 900 ppm.

Resistivity 8.0 ohms @ 53 F

Viscosity 75

Mud Weight 8.7

Filtrate 5.4

Other 4# L.C.M.

SAMPLER ANALYSIS

Resistivity 706 ohms @ 57 F

Chlorides 860 ppm.

Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

MIDDLE

Resistivity _____ ohms @ _____ F

Chlorides _____ ppm.

BOTTOM

Resistivity 706 ohms @ 57 F

Chlorides 860 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 11000

Well Name & No. Breeding "1-15" Test No. 4 Date 1-7-99

Company Harris Oil & Gas Co. Zone Tested Mccaw "G-2"

Address Denver Colo. 80202 Elevation 3340 KB 3329 GL

Co. Rep / Geo. Tommy Dieker Cont. Allen Rig 2 Est. Ft. of Pay 20 Por. 8 %

Location: Sec. 15 Twp. 32S Rge. 40W Co. Morton State Ks.

No. of Copies Reg Distribution Sheet (Y, N) Y Hawk Turnkey (Y, N) N. Evaluation (Y, N) _____

Interval Tested 5170-5410 Initial Str Wt./Lbs. 90,000 Unseated Str Wt./Lbs. 92,000

Anchor Length 240' Tail=283 Tool=30' Wt. Set Lbs. 40,000 Wt. Pulled Loose/Lbs. 18,000

Top Packer Depth 5165 SLP=5410 Tool Weight 2,300

Bottom Packer Depth 5170 SLP=5445 Hole Size — 7 7/8" Rubber Size — 6 3/4"

Total Depth 5693 Wt. Pipe Run — Drill Collar Run 506 8 & 4¼" WF Jars & Subs

Mud Wt. 8.7 LCM 4# Vis. 25 WL 5.4 Drill Pipe Size 4½ XH Ft. Run 4644' 13' up 7441

Blow Description Fair 2", built to 9" in 15 min. I.F.P.
Strong, OBB blow-back. F.S.I.P.
Strong immed. GTS in 47 min. See Flow Chart. F.F.P.
1" blow-back. F.S.I.P.

Recovery — Total Feet 215 GIP 4938 Ft. in DC 215 Ft. in DP 0

Rec.	95	Feet Of	Oil cut mud	%gas 22	%oil	%water 78	%mud	
Rec.	120	Feet Of	Oil cut heavy mud	%gas 25	%oil 10	%water 65	%mud	
Rec.		Feet Of		%gas	%oil	%water	%mud	
Rec.		Feet Of		%gas	%oil	%water	%mud	
Rec.		Feet Of		%gas	%oil	%water	%mud	

BHT 135 °F Gravity — °API D@ — °F Corrected Gravity — °API

RW 706 @ 57 °F Chlorides 860 ppm Recovery Chlorides 900 ppm System

(A) Initial Hydrostatic Mud	2462	2340	PSI	Recorder No. 3017 "08:02"	T-Started 8:30 A.M.
(B) First Initial Flow Pressure	205	62	PSI	(depth) 5172	T-Open 10:45 A.M.
(C) First Final Flow Pressure	205	80	PSI	Recorder No. 10242	T-Pulled 3:00 P.M.
(D) Initial Shut-in Pressure	606	481	PSI	(depth) 5404	T-Out 8:30 P.M.
(E) Second Initial Flow Pressure	240	84	PSI	Recorder No. 13630	
(F) Second Final Flow Pressure	240	113	PSI	(depth) 5690	
(G) Final Shut-in Pressure	667	540	PSI	Initial Opening 15	Test ✓
(H) Final Hydrostatic Mud	2432	2318	PSI	Initial Shut-in 60	Jars ✓
	AK-1	Alpine		Final Flow 60	Safety Joint ✓
				Final Shut-in 120	Straddle ✓
					Circ. Sub ✓
					Sampler ✓
				2	Extra Packer ✓
					Elect. Rec ✓
				2 Stable Packers	Other ✓
					TOTAL PRICE $

10790802.017

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Approved By T. Dieker

Our Representative Tommy L. Salazar