

15-109-20500

21-12s-33w

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS I #2 Test No. 1 Date 2/27/91
 Company VINTAGE PETROLEUM INC Zone Tested LANS-KS CITY
 Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
 Co. Rep./Geo. MR GREG DEEVERS Cont. VAL ENERGY #1 Est. Ft. of Pay _____
 Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4097-4119
 Anchor Length 22
 Top Packer Depth 4092
 Bottom Packer Depth 4097
 Total Depth 4119

Drill Pipe Size 4.5 XH
 Wt. Pipe I.D. - 2.7 Ft. Run _____
 Drill Collar - 2.25 Ft. Run _____

Mud Wt. 9.1 lb / gal. Viscosity 42 Filtrate 10.4

Tool Open @ 12:56 PM Initial Blow WEAK SURFACE BLOW SLOWLY BUILT TO BOTTOM
(15 MIN)-ISI: BLED OFF BLOW-NO RETURN

Final Blow SURFACE RETURN SLOWLY BUILT TO BOTTOM IN 16 MINUTES

Recovery - Total Feet 645 Flush Tool? _____

Rec. 210 Feet of MUDDY WATER-80%WTR/20%MUD

Rec. 435 Feet of WATER

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 119 °F Gravity 0 °API @ _____ °F Corrected Gravity _____ °API

RW 0.2 @ 72 °F Chlorides 35000 ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud 2033 PSI AK1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 60.3 PSI @ (depth) 4100 w/Clock No. 27567

(C) First Final Flow Pressure 118.5 PSI AK1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 1254 PSI @ (depth) 4114 w/Clock No. 30418

(E) Second Initial Flow Pressure 174.6 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 269.2 PSI @ (depth) _____ w/Clock No. _____

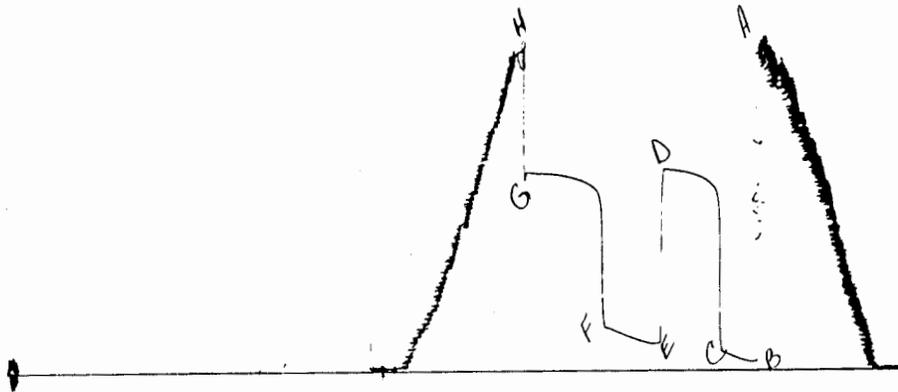
(G) Final Shut-in Pressure 1235.9 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1990.9 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative MR ROD STEINBRINK

TOTAL PRICE \$ 600

DST #1
13309



POINT

This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2023	2033
(B) FIRST INITIAL FLOW PRESSURE	41	60.3
(C) FIRST FINAL FLOW PRESSURE	104	118.5
(D) INITIAL CLOSED-IN PRESSURE	1240	1254
(E) SECOND INITIAL FLOW PRESSURE	145	174.6
(F) SECOND FINAL FLOW PRESSURE	259	269.2
(G) FINAL CLOSED-IN PRESSURE	1230	1235.9
(H) FINAL HYDROSTATIC MUD	2023	1990.9

INITIAL FLOW

REORDER # 13339
DST #1

DT(MIN)	PRESSURE	<> PRESSURE
0	60.3	60.3
3	50.9	-9.399998
6	53	2.099999
9	58.2	5.200001
12	65.4	7.200001
15	73.8	8.400001
18	82.1	8.299996
21	90.4	8.300003
24	99.8	9.400001
27	109.1	9.299996
30	118.5	9.400001

FINAL FLOW

REORDER # 13339
DST #1

DT(MIN)	PRESSURE	<> PRESSURE
0	174.6	174.6
3	162.2	-12.40001
6	162.2	0
9	167.3	5.100006
12	173.6	6.300003
15	181.9	8.299988
18	191.3	9.400009
21	200.6	9.300003
24	210	9.399994
27	220.4	10.39999
30	228.7	8.300003
33	235.9	7.199997
36	244.2	8.300003
39	252.6	8.400009
42	260.9	8.299988
45	269.2	8.300018

AHRENS #2
INITIAL

DST #1
SHUTIN
30 INITIAL FLOW TIME

Slope -202.19 psi/cycle
P * 1,299 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
X	3	1088.3	11	1.041	1088.3
	6	1150.6	6	0.778	62.3
	9	1177.7	4	0.637	27.1
	12	1195.7	4	0.544	18.0
	15	1208.8	3	0.477	13.1
	18	1218.8	3	0.426	10.0
	21	1226.9	2	0.385	8.1
	24	1231.9	2	0.352	5.0
	27	1236.9	2	0.325	5.0
	30	1240.9	2	0.301	4.0
	33	1241.9	2	0.281	1.0
	36	1248	2	0.263	6.1
	39	1250	2	0.248	2.0
	42	1252	2	0.234	2.0
X	45	1254	2	0.222	2.0

AHRENS #2
FINAL

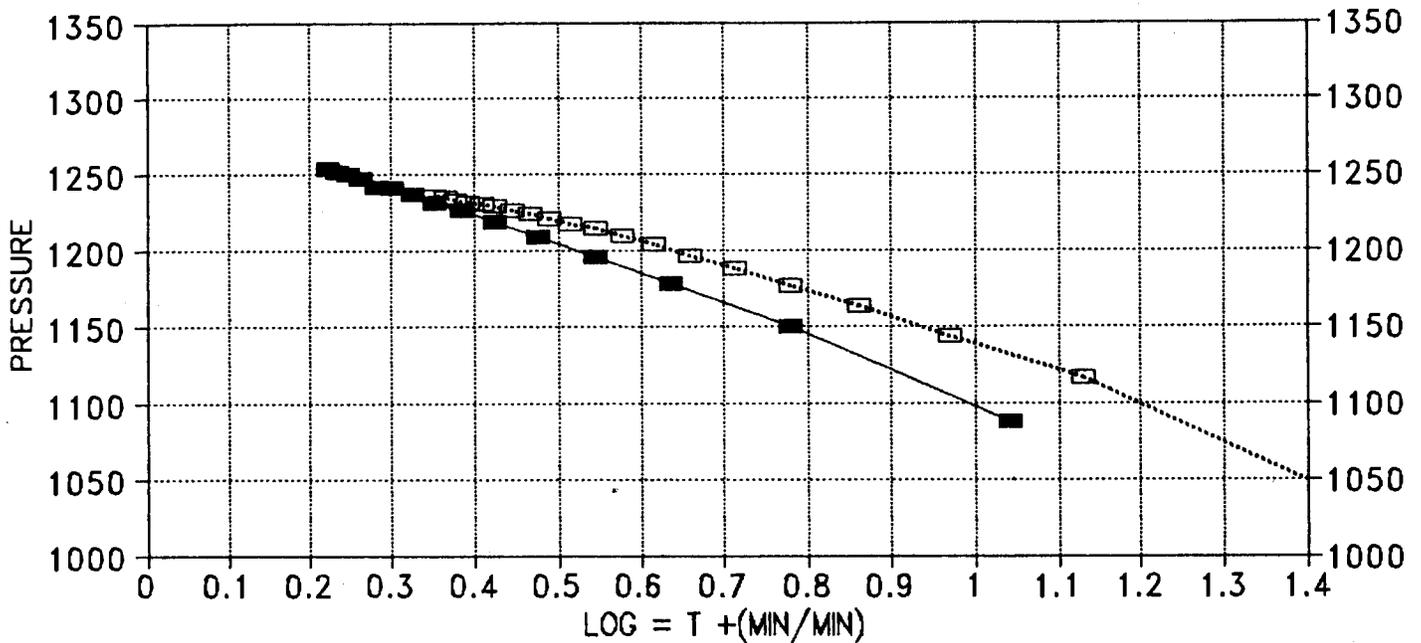
DST #1
SHUTIN
75 TOTAL FLOW TIME

Slope -88.52 psi/cycle
P * 1,267 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	1046.1	26	1.415	1046.1
	6	1116.4	14	1.130	70.3
	9	1144.5	9	0.970	28.1
	12	1163.6	7	0.860	19.1
	15	1176.7	6	0.778	13.1
	18	1187.7	5	0.713	11.0
	21	1196.7	5	0.660	9.0
	24	1203.8	4	0.615	7.1
	27	1209.8	4	0.577	6.0
	30	1214.8	4	0.544	5.0
	33	1217.8	3	0.515	3.0
	36	1220.8	3	0.489	3.0
	39	1223.9	3	0.466	3.1
	42	1226.9	3	0.445	3.0
	45	1228.9	3	0.426	2.0
X	48	1230.9	3	0.409	2.0
	51	1231.9	2	0.393	1.0
	54	1232.9	2	0.378	1.0
	57	1234.9	2	0.365	2.0
X	60	1235.9	2	0.352	1.0

HORNER PLOT

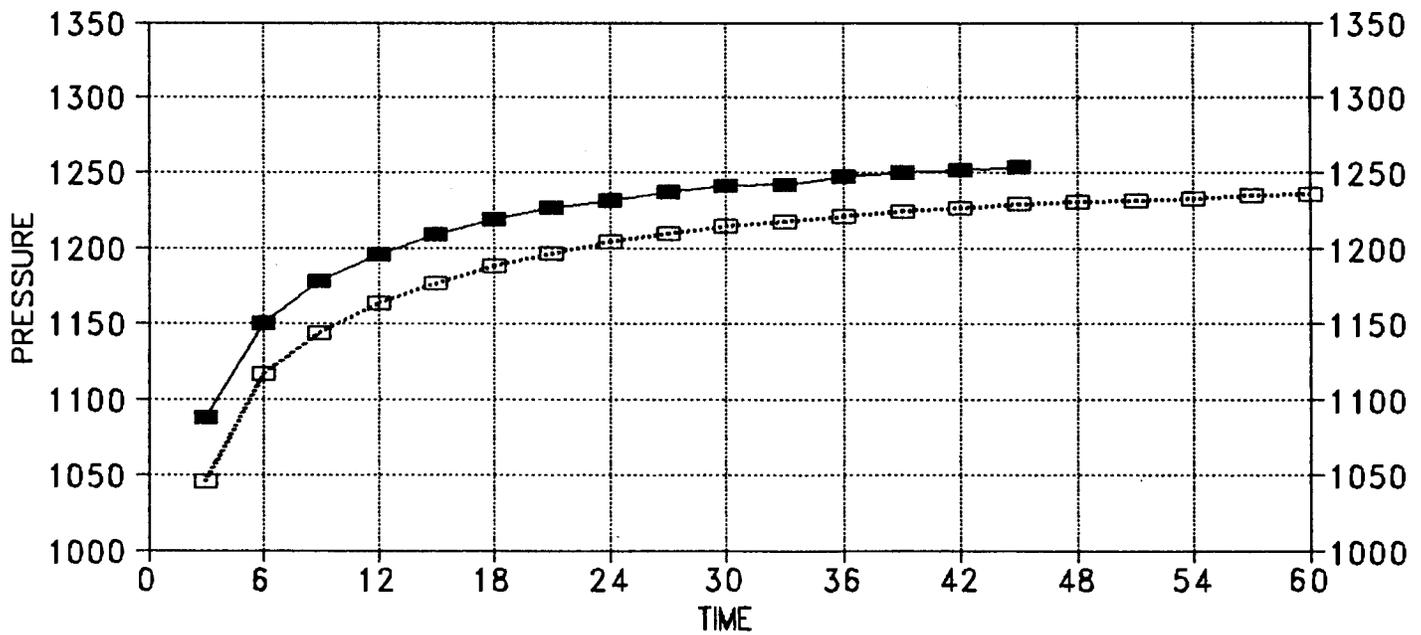
DST #1-AHRENS #2



—■— INITIAL ···□··· FINAL

DELTA T DELTA P

DST #1-AHRENS #2



—■— INITIAL ···□··· FINAL

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

No 3408

Test Ticket

Well Name & No.	Ahrens #2	Test No.	1	Date	2-26-91				
Company	Vintage Petroleum Inc.	Zone Tested	L-(KC)	35'					
Address	4200 One Williams Center Tulsa, OK. 74172	Elevation	3144	(KB)					
Co. Rep./Geo.	Gregg Deevers	cont.	VAL Energy #1	Est. Ft. of Pay					
Location: Sec.	21	Twp.	12 S	Rge.	33 W	Co.	Logan	state	KS.
No. of Copies	5	Distribution Sheet	Yes X	No	Turnkey	Yes X	No	No	Evaluation

Interval Tested	4097 - 4119	Drill Pipe Size	4 1/2" XH	
Anchor Length	22'	Top Choke - 1"	Bottom Choke - 3/4"	
Top Packer Depth	4092	Hole Size - 7 7/8"	Rubber Size - 6 3/4"	
Bottom Packer Depth	4097	Wt. Pipe I.D. - 2.7 Ft. Run		
Total Depth	4119	Drill Collar - 2.25 Ft. Run		
Mud Wt.	9.1	lb/gal.	Viscosity 42	Filtrate 10.4

Tool Open @ 12:56 pm Initial Blow Weak surface blow slowly built to bottom (15 mins)
ISI: Bled off blow - No return.
Final Blow Surface return slowly built to bottom in 16 mins.

Recovery - Total Feet	645	Feet of Gas in Pipe		Flush Tool?	No.
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	210'	Feet Of	MW	%gas	%oil 80 %water 20 %mud
Rec.	Feet Of	%gas	%oil	%water	%mud
Rec.	435'	Feet Of	Water	%gas	%oil 100 %water %mud
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT	119°	°F Gravity		°API @		°F Corrected Gravity		°API	
RW	.20	@	72°	°F chlorides	35,000	ppm Recovery	chlorides	6,500	ppm System
(A) Initial Hydrostatic Mud	2023	PSI	AK1 Recorder No.	13309	Range	4700			
(B) First Initial Flow Pressure	41	PSI	@ (depth)	4100	w/Clock No.	27567			
(C) First Final Flow Pressure	104	PSI	AK1 Recorder No.	13339	Range	4025			
(D) Initial Shut-in Pressure	1240	PSI	@ (depth)	4114	w/Clock No.	30418			
(E) Second Initial Flow Pressure	145	PSI	AK1 Recorder No.		Range				
(F) Second Final Flow Pressure	259	PSI	@ (depth)		w/Clock No.				
(G) Final Shut-in Pressure	1230	PSI	Initial Opening	30	Test	550.00			
(H) Final Hydrostatic Mud	2023	PSI	Initial Shut-in	45	Jars				

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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.

Final Flow	45	Safety Joint	X	50.00
Final Shut-in	60	Straddle		
		Circ. Sub	X	W/C
		Sampler		

Approved By Richard A. Stebbins
Our Representative Bob Steinbrink

Extra Packer _____
Other _____
TOTAL PRICE \$ 600.00

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS I #2 Test No. 2 Date 2/27/91
Company VINTAGE PETROLEUM INC Zone Tested LANS-KS CITY
Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
Co. Rep./Geo. MR GREG DEEVERS Cont. VAL ENERGY #1 Est. Ft. of Pay 5
Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4230-4264 Drill Pipe Size 4.5 XH
Anchor Length 34 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4225 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4230
Total Depth 4264

Mud Wt. 9 lb / gal. Viscosity 47 Filtrate 11

Tool Open @ 9:56 AM Initial Blow VERY WEAK SURFACE BLOW DIED IN 7 MINUTES

Final Blow NO BLOW-FLUSHED TOOL/GOOD SURGE-NO HELP

Recovery - Total Feet 20 Flush Tool? YES

Rec. 20 Feet of DRLG MUD W/ SHOW OF OIL @ TOP.

Rec. _____ Feet of _____

BHT 114 °F Gravity 0 °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud 2126.2 PSI Ak1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 54.1 PSI @ (depth) _____ w/Clock No. 27567

(C) First Final Flow Pressure 43.7 PSI Ak1 Recorder No. 13339 Range 4025

(D) Initial Shut-In Pressure 442.8 PSI @ (depth) 4259 w/Clock No. 30418

(E) Second Initial Flow Pressure 53 PSI Ak1 Recorder No. _____ Range _____

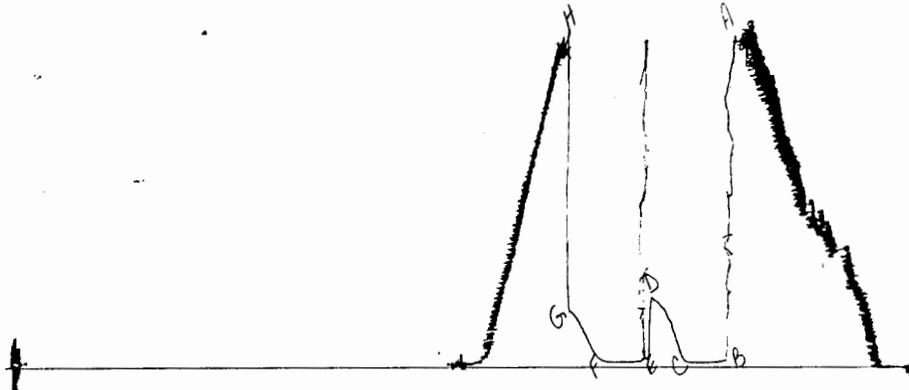
(F) Second Final Flow Pressure 47.8 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-In Pressure 368 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2105.2 PSI Initial Shut-In 30 Final Shut-In 30

Our Representative MR ROD STEINBRINK TOTAL PRICE \$ 600

TST #2
13309



POINT This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2123	2126.2
(B) FIRST INITIAL FLOW PRESSURE	31	54.1
(C) FIRST FINAL FLOW PRESSURE	31	43.7
(D) INITIAL CLOSED-IN PRESSURE	467	442.8
(E) SECOND INITIAL FLOW PRESSURE	31	53
(F) SECOND FINAL FLOW PRESSURE	31	47.8
(G) FINAL CLOSED-IN PRESSURE	353	368
(H) FINAL HYDROSTATIC MUD	2053	2105.2

INITIAL FLOW

RECORDED # 13339
DST #2

DT(MIN)	PRESSURE	< > PRESSURE
0	54.1	54.1
3	46.7	-7.399998
6	44.7	-2
9	43.7	-1
12	43.7	0
15	43.7	0
18	43.7	0
21	43.7	0
24	43.7	0
27	43.7	0
30	43.7	0

FINAL FLOW

RECORDED # 13339
DST #2

DT(MIN)	PRESSURE	< > PRESSURE
0	53	53
3	53	0
6	47.8	-5.200001
9	45.7	-2.099999
12	45.7	0
15	45.7	0
18	46.7	1
21	46.7	0
24	47.8	1.099999
27	47.8	0
30	47.8	0

AHRENS #2
INITIAL

DST #2
SHUTIN
30 INITIAL FLOW TIME

Slope -738.84 psi/cycle
P * 665 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	() PRESSURE
	3	45.7	11	1.041	45.7
	6	61.3	6	0.778	15.6
	9	117.4	4	0.637	56.1
	12	193.3	4	0.544	75.9
	15	259.9	3	0.477	66.6
	18	324.3	3	0.426	64.4
X	21	380.5	2	0.385	56.2
	24	403.3	2	0.352	22.8
	27	428.3	2	0.325	25.0
X	30	442.8	2	0.301	14.5

AHRENS #2
FINAL

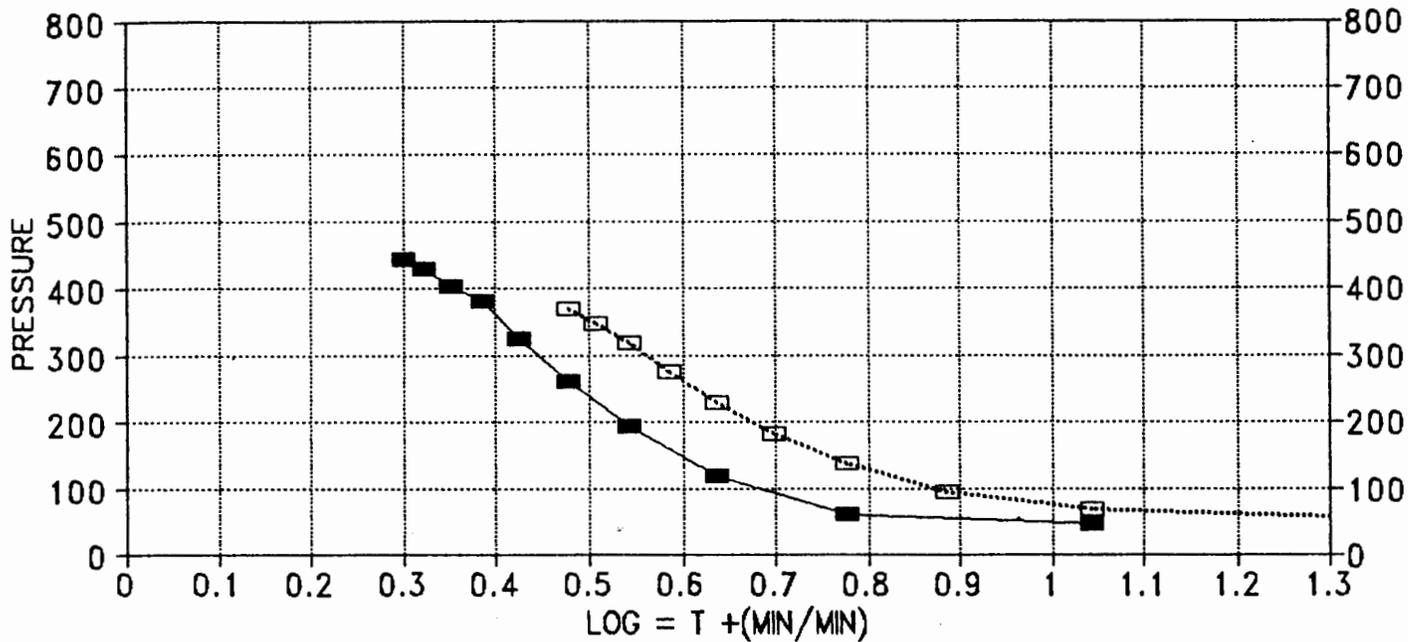
DST #2
SHUTIN
60 TOTAL FLOW TIME

Slope -745.37 psi/cycle
P * 724 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	() PRESSURE
	3	57.1	21	1.322	57.1
	6	68.6	11	1.041	11.5
	9	93.6	8	0.885	25.0
	12	137.2	6	0.778	43.6
	15	180.9	5	0.699	43.7
	18	227.6	4	0.637	46.7
	21	274.4	4	0.586	46.8
X	24	318.1	4	0.544	43.7
	27	347.2	3	0.508	29.1
X	30	368.0	3	0.477	20.8

HORNER PLOT

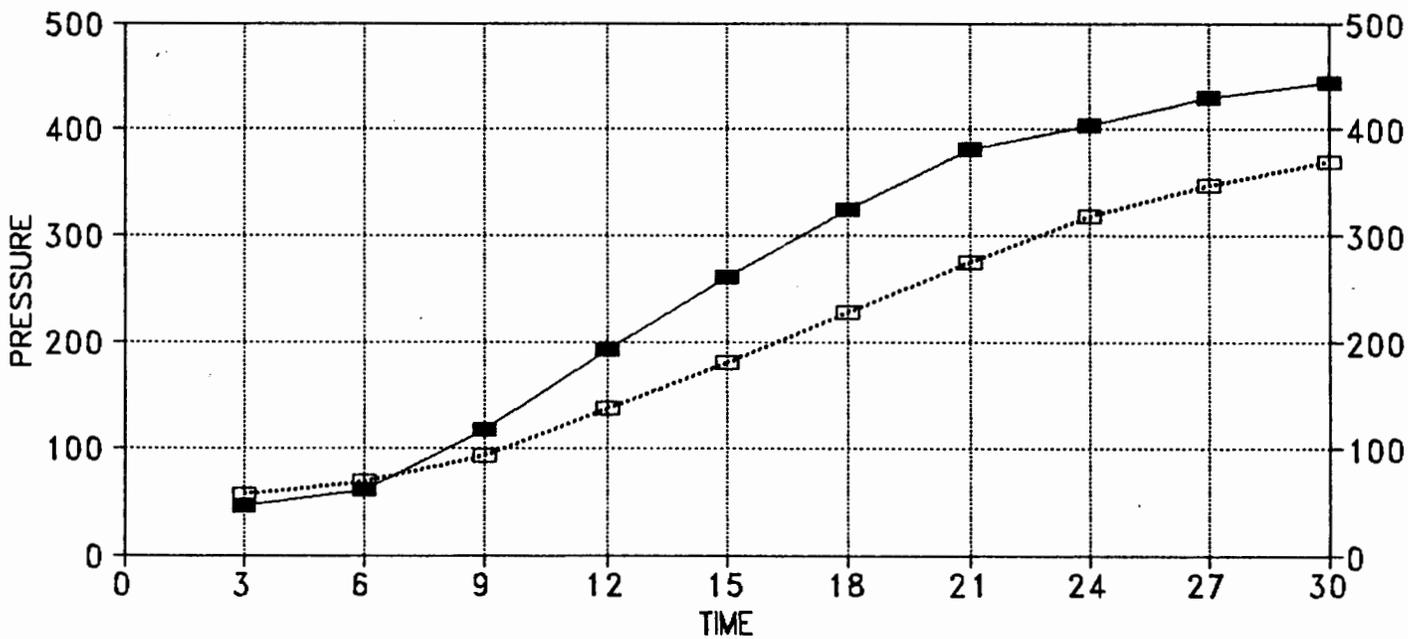
DST #2-AHRENS #2



—■— INITIAL ...□... FINAL

DELTA T DELTA P

DST #2-AHRENS #2



—■— INITIAL ...□... FINAL

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

N^o 3409

Test Ticket

Well Name & No. Ahrens #2 Test No. 2 Date 2-27-91
 Company Vintage Petroleum, Inc. Zone Tested Lans - KC 140'
 Address 4200 One Williams Center Tulsa, OK. 74172 Elevation 3144 (KB)
 Co. Rep./Geo. Gregg/Richard Robba cont. VAL Energy #1 Est. Ft. of Pay 5'
 Location: Sec. 21 Twp. 12 S Rge. 33 W Co. Logan State KS.
 No. of Copies 5 Distribution Sheet Yes X No Turnkey Yes X No _____ Evaluation _____

Interval Tested 4230 - 4264 Drill Pipe Size 4 1/2" XH
 Anchor Length 34' Top Choke — 1" Bottom Choke — 3/4"
 Top Packer Depth 4225 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Bottom Packer Depth 4230 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 4264 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 9.0 lb/gal. Viscosity 47 Filtrate 11.0
 Tool Open @ 9:56 am Initial Blow Very weak surface blow died in 7 mins.

Final Blow No blow - flushed tool/good surge - no help.

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
<u>20'</u>	<u>_____</u>	<u>Yes</u>
Rec. <u>_____</u> Feet Of <u>_____</u>	%gas <u>_____</u> %oil <u>_____</u> %water <u>_____</u> %mud <u>_____</u>	
Rec. <u>20'</u> Feet Of <u>Drlg. Mud</u>	%gas <u>_____</u> %oil <u>_____</u> %water <u>_____</u> %mud <u>_____</u>	
Rec. <u>_____</u> Feet Of <u>w/show of oil @ top</u>	%gas <u>_____</u> %oil <u>_____</u> %water <u>_____</u> %mud <u>_____</u>	
Rec. <u>_____</u> Feet Of <u>_____</u>	%gas <u>_____</u> %oil <u>_____</u> %water <u>_____</u> %mud <u>_____</u>	
Rec. <u>_____</u> Feet Of <u>_____</u>	%gas <u>_____</u> %oil <u>_____</u> %water <u>_____</u> %mud <u>_____</u>	

BHT 114° °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,500 ppm System

(A) Initial Hydrostatic Mud 2123 PSI Ak1 Recorder No. 13309 Range 4700
 (B) First Initial Flow Pressure 31 PSI @ (depth) _____ w/Clock No. 27567
 (C) First Final Flow Pressure 31 PSI AK1 Recorder No. 13339 Range 4025
 (D) Initial Shut-in Pressure 467 PSI @ (depth) 4259 w/Clock No. 30418
 (E) Second Initial Flow Pressure 31 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 31 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-in Pressure 353 PSI Initial Opening 30 Test 550.00
 (H) Final Hydrostatic Mud 2053 PSI Initial Shut-in 30 Jars _____

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Final Flow 30 Safety Joint X 50.00
 Final Shut-in 30 Straddle _____
 Circ. Sub X n/c
 Sampler _____
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ 600.00

Approved By Gary Rowe
 Our Representative Rod Steinbrink

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS I #2 Test No. 3 Date 2/27/91
Company VINTAGE PETROLEUM INC Zone Tested LANS-KS CITY
Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
Co. Rep./Geo. MR GREG DEEVERS cont. VAL ENERGY #1 Est. Ft. of Pay 8
Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4262-4294
Anchor Length 32
Top Packer Depth 4257
Bottom Packer Depth 4262
Total Depth 4294

Drill Pipe Size 4.5 XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____

Mud Wt. 9 lb / gal. Viscosity 44 Filtrate 10.8

Tool Open @ 8:40 PM Initial Blow WEAK SURFACE BLOW SLOWLY BUILT TO 2"
ISI: BLED OFF BLOW-NO RETURN
Final Blow SURFACE RETURN AFTER 1 MINUTE-INCREASED TO 1"
THROUGHOUT

Recovery - Total Feet 150 Flush Tool? NO

Rec. 30 Feet of DRLG MUD W/ SPOTS OF OIL

Rec. 120 Feet of DRLG MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. 114 Feet of _____
BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7200 ppm System

(A) Initial Hydrostatic Mud 2133.2 PSI Ak1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 47.8 PSI @ (depth) 4264 w/Clock No. 27567

(C) First Final Flow Pressure 61.3 PSI AK1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 280.7 PSI @ (depth) 4289 w/Clock No. 30418

(E) Second Initial Flow Pressure 97.7 PSI AK1 Recorder No. _____ Range _____

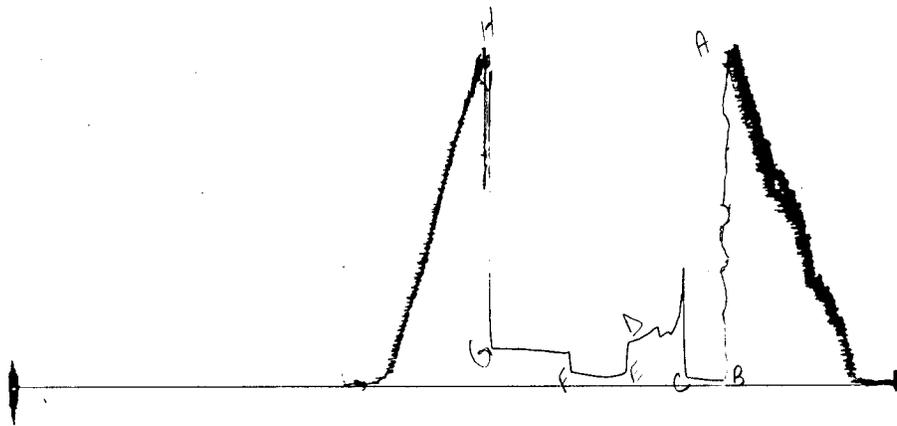
(F) Second Final Flow Pressure 99.8 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 234.9 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2072.1 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative MR ROD STEINBRINK TOTAL PRICE \$ 600

DST#3
13309



POINT This is an actual photograph of recorder chart PRESSURE

POINT	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2103	2133.2
(B) FIRST INITIAL FLOW PRESSURE	20	47.8
(C) FIRST FINAL FLOW PRESSURE	41	61.3
(D) INITIAL CLOSED-IN PRESSURE	259	280.7
(E) SECOND INITIAL FLOW PRESSURE	41	97.7
(F) SECOND FINAL FLOW PRESSURE	72	99.8
(G) FINAL CLOSED-IN PRESSURE	218	234.9
(H) FINAL HYDROSTATIC MUD	2063	2072.1

INITIAL FLOW

RECORDER # 13339
DST #3

DT(MIN)	PRESSURE	() PRESSURE
0	47.8	47.8
3	45.7	-2.099999
6	45.7	0
9	45.7	0
12	47.8	2.099999
15	49.9	2.100002
18	52	2.099999
21	54.1	2.099999
24	57.1	3
27	59.2	2.100002
30	61.3	2.099999

FINAL FLOW

RECORDER # 13339
DST #3

DT(MIN)	PRESSURE	() PRESSURE
0	97.7	97.7
3	85.2	-12.5
6	76.9	-8.299996
9	72.8	-4.099999
12	70.7	-2.100006
15	70.7	0
18	70.7	0
21	71.7	1
24	74.8	3.100006
27	76.9	2.099999
30	81.1	4.199997
33	84.2	3.099999
36	87.3	3.100006
39	91.5	4.199997
42	95.6	4.099999
45	99.8	4.200005

AHRENS #2
INITIAL

DST #3
SHUTIN
30 INITIAL FLOW TIME

Slope psi/cycle
P *

			Log		
	TIME(MIN)	Pws (psi)	Horn T	Horn T	(<) PRESSURE
	3	576.1	11	1.041	576.1
	6	433.4	6	0.778	-142.7
	9	392.9	4	0.637	-40.5
	12	348.2	4	0.544	-44.7
	15	334.7	3	0.477	-13.5
	18	347.2	3	0.426	12.5
	21	324.3	2	0.385	-22.9
	24	324.3	2	0.352	0.0
X	27	364.8	2	0.325	40.5
	30	339.9	2	0.301	-24.9
	33	326.4	2	0.281	-13.5
	36	311.9	2	0.263	-14.5
	39	298.3	2	0.248	-13.6
	42	291.1	2	0.234	-7.2
X	45	280.7	2	0.222	-10.4

Tool was picked up to high causing a partial hydrostatic trap. That is why the pressure is decreasing during this shutin

AHRENS #2
FINAL

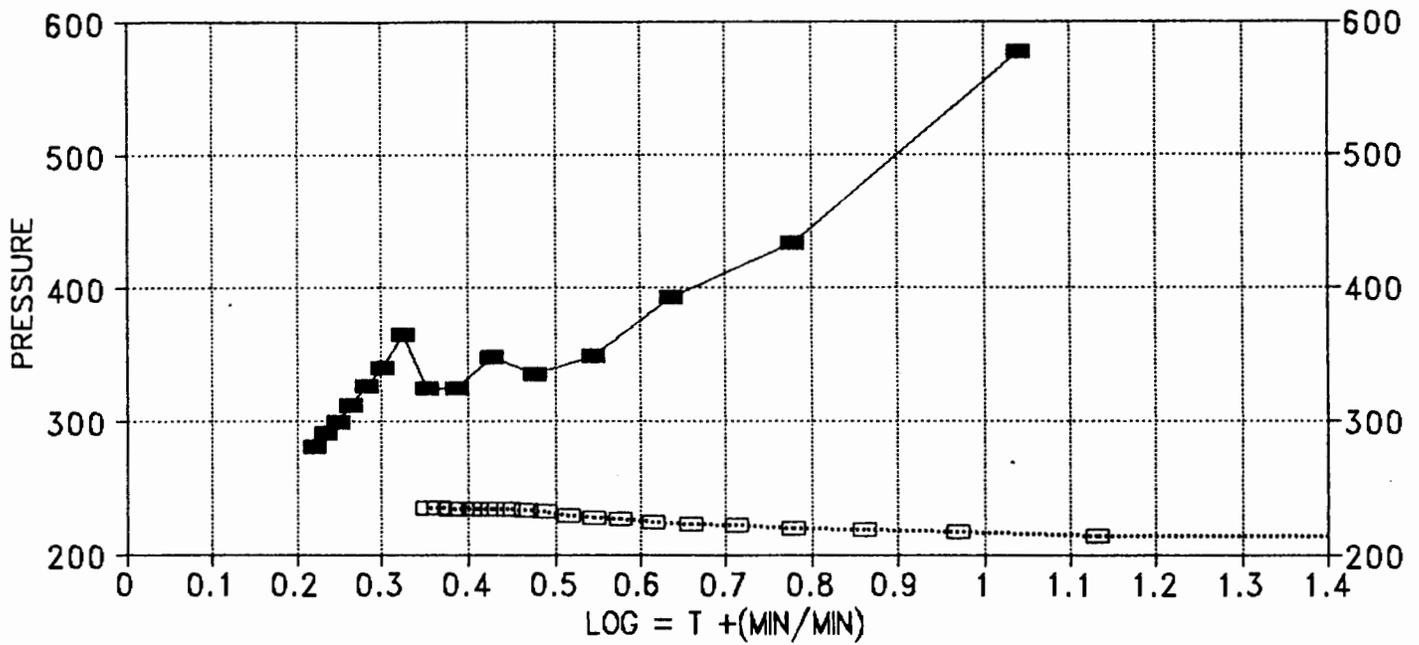
DST #3
SHUTIN
75 TOTAL FLOW

Slope -38.04 psi/cycle
P * 248 psi

			Log		
	TIME(MIN)	Pws (psi)	Horn T	Horn T	(<) PRESSURE
	3	214.1	26	1.415	214.1
	6	214.1	14	1.130	0.0
	9	217.1	9	0.970	3.0
	12	218.3	7	0.860	1.2
	15	219.3	6	0.778	1.0
	18	221.4	5	0.713	2.1
	21	222.5	5	0.660	1.1
	24	224.5	4	0.615	2.0
	27	226.6	4	0.577	2.1
X	30	227.6	4	0.544	1.0
	33	229.7	3	0.515	2.1
	36	231.8	3	0.489	2.1
	39	232.8	3	0.466	1.0
	42	233.8	3	0.445	1.0
	45	233.8	3	0.426	0.0
	48	233.8	3	0.409	0.0
	51	233.8	2	0.393	0.0
	54	233.8	2	0.378	0.0
	57	234.9	2	0.365	1.1
X	60	234.9	2	0.352	0.0

HORNER PLOT

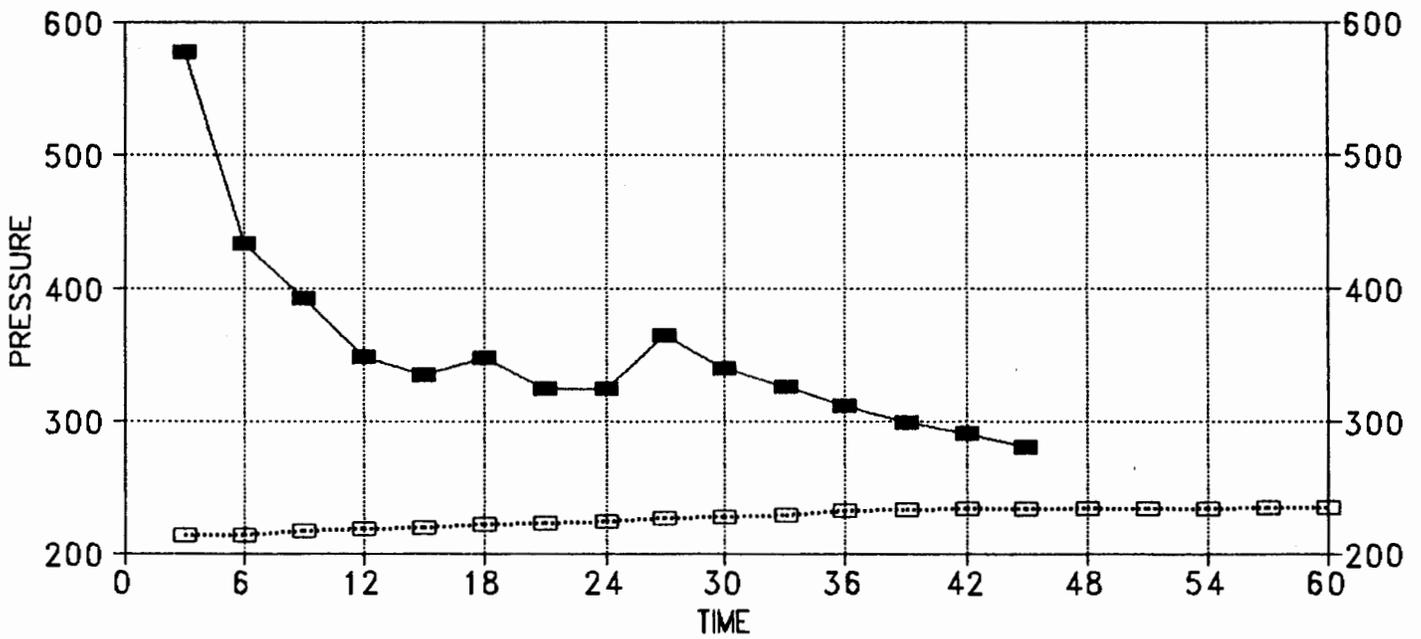
DST #3-AHRENS #2



—■— INITIAL ···□··· FINAL

DELTA T DELTA P

DST #3-AHRENS #2



—■— INITIAL ···□··· FINAL

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

N^o 3410

Test Ticket

Well Name & No.	Ahrens #2	Test No.	3	Date	2-27-91				
Company	Vintage Petroleum, Inc.	Zone Tested	Lans - KC "160"						
Address	4200 One Williams Center	Tulsa, OK. 74172	Elevation	3144	(KB)				
Co. Rep./Geo.	Gregg/Richard Robba	cont.	VAL Energy #1	Est. Ft. of Pay	8'				
Location: Sec.	21	Twp.	12S	Rge.	33 W	co.	Logan	state	KS.
No. of Copies	5	Distribution Sheet	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Turnkey	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Evaluation			

Interval Tested	4262 - 4294	Drill Pipe Size	4 1/2" XH	
Anchor Length	32'	Top Choke - 1"	Bottom Choke - 3/4"	
Top Packer Depth	4257	Hole Size - 7 7/8"	Rubber Size - 6 3/4"	
Bottom Packer Depth	4262	Wt. Pipe I.D. - 2.7 Ft. Run		
Total Depth	4294	Drill Collar - 2.25 Ft. Run		
Mud Wt.	9.0	lb/gal.	Viscosity 44	Filtrate 10.8
Tool Open @	8:40 pm	Initial Blow	Weak surface blow slowly built to 2"	
		ISI:	Bled off blow - No return.	
Final Blow	Surface return after 1 min. increased to 1" throughout.			

Recovery - Total Feet	150'	Feet of Gas in Pipe		Flush Tool?	No		
Rec.	30'	Feet Of	Drlg Mud	%gas	%oil	%water	%mud
Rec.		Feet Of	w/spots of oil	%gas	%oil	%water	%mud
Rec.		Feet Of		%gas	%oil	%water	%mud
Rec.	120'	Feet Of	Drlg. Mud	%gas	%oil	%water	%mud
Rec.		Feet Of		%gas	%oil	%water	%mud

BHT 114° °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7,200 ppm System

- (A) Initial Hydrostatic Mud 2103 PSI Ak1 Recorder No. 13309 Range 4700
- (B) First Initial Flow Pressure 20 PSI @ (depth) 4264 w/Clock No. 27567
- (C) First Final Flow Pressure 41 PSI AK1 Recorder No. 13339 Range 4025
- (D) Initial Shut-In Pressure 259 PSI @ (depth) 4289 w/Clock No. 30418
- (E) Second Initial Flow Pressure 41 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 72 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 218 PSI Initial Opening 30 Test 550.00
- (H) Final Hydrostatic Mud 2063 PSI Initial Shut-In 45 Jars _____

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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.

Final Flow 45 Safety Joint 50.00
Final Shut-In 60 Straddle _____
Circ. Sub n/c
Sampler _____

Approved By Richard A. Robba
Our Representative Rod Steinbrink

Extra Packer _____
Other _____

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS T #2 Test No. 4 Date 2/28/91
Company VINTAGE PETROLEUM INC Zone Tested LANS-KS CITY
Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
Co. Rep./Geo. MR GREG DEEVERS Cont. VAL ENERGY #1 Est. Ft. of Pay 8
Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4294-4342 Drill Pipe Size 4.5 XH
Anchor Length 48 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4289 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4294
Total Depth 4342

Mud Wt. 9.1 lb / gal. Viscosity 48 Filtrate 10.6

Tool Open @ 11:41 AM Initial Blow WEAK SURFACE BLOW DIED IN 25 MINUTES

Final Blow NO RETURN BLOW

Recovery — Total Feet 30 Flush Tool? NO

Rec. 30 Feet of DRLG MUD W/ GOOD SHOW OF OIL @ TOP

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____
BHT 102 °F Gravity 0 °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7200 ppm System

(A) Initial Hydrostatic Mud 2145.3 PSI Ak1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 65.4 PSI @ (depth) 4296 w/Clock No. 27567

(C) First Final Flow Pressure 46.7 PSI AK1 Recorder No. 13339 Range 4025

(D) Initial Shut-In Pressure 348.2 PSI @ (depth) 4337 w/Clock No. 30418

(E) Second Initial Flow Pressure 84.2 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 54.1 PSI @ (depth) _____ w/Clock No. _____

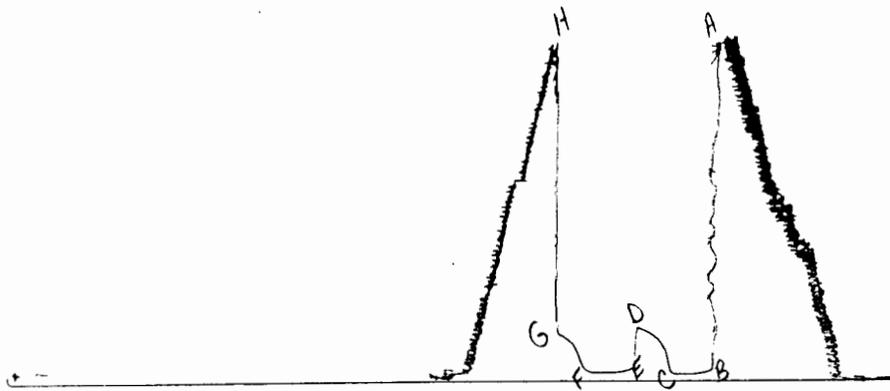
(G) Final Shut-In Pressure 309.8 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2116.2 PSI Initial Shut-In 30 Final Shut-In 30

Our Representative MR ROD STEINBRINK TOTAL PRICE \$ 600

DST #4

13309



POINT This is an actual photograph of recorder chart PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2103	2145.3
(B) FIRST INITIAL FLOW PRESSURE	20	65.4
(C) FIRST FINAL FLOW PRESSURE	20	46.7
(D) INITIAL CLOSED-IN PRESSURE	322	348.2
(E) SECOND INITIAL FLOW PRESSURE	31	84.2
(F) SECOND FINAL FLOW PRESSURE	31	54.1
(G) FINAL CLOSED-IN PRESSURE	280	309.8
(H) FINAL HYDROSTATIC MUD	2073	2116.2

INITIAL FLOW

RECORDER # 13339
DST #4

DT(MIN)	PRESSURE	<> PRESSURE
0	65.4	65.4
3	54.1	-11.3
6	49.9	-4.199997
9	46.7	-3.200001
12	46.7	0
15	46.7	0
18	46.7	0
21	46.7	0
24	46.7	0
27	46.7	0
30	46.7	0.

FINAL FLOW

RECORDER # 13339
DST #4

DT(MIN)	PRESSURE	<> PRESSURE
0	84.2	84.2
3	63.4	-20.8
6	57.1	-6.300003
9	54.1	-3
12	54.1	0
15	54.1	0
18	54.1	0
21	54.1	0
24	54.1	0
27	54.1	0
30	54.1	0

AHRENS #2
INITIAL

DST #4
SHUTIN
30 INITIAL FLOW TIME

Slope -289.05 psi/cycle
P * 435 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	77.9	11	1.041	77.9
	6	178.8	6	0.778	100.9
	9	241.2	4	0.637	62.4
X	12	276.5	4	0.544	35.3
	15	297.3	3	0.477	20.8
	18	311.9	3	0.426	14.6
	21	324.3	2	0.385	12.4
	24	332.6	2	0.352	8.3
	27	342.0	2	0.325	9.4
X	30	348.2	2	0.301	6.2

AHRENS #2
FINAL

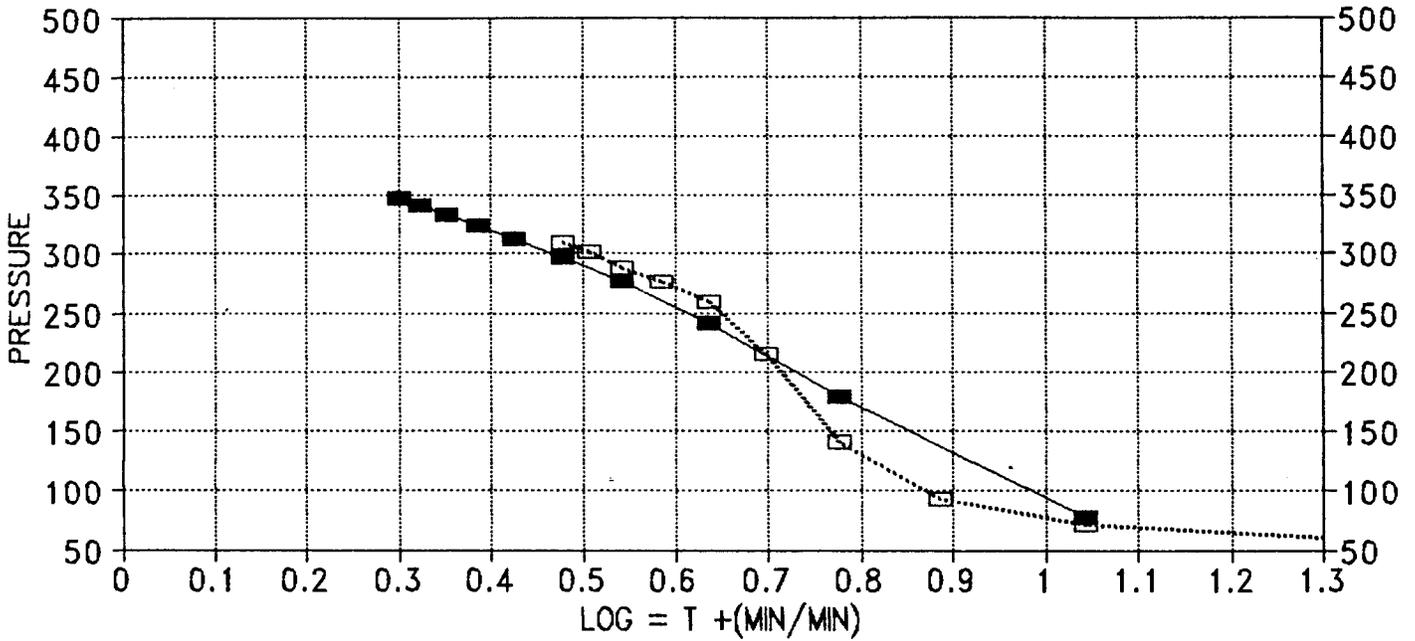
DST #4
SHUTIN
60 TOTAL FLOW TIME

Slope -305.10 psi/cycle
P * 455 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	<> PRESSURE
	3	60.3	21	1.322	60.3
	6	70.7	11	1.041	10.4
	9	92.5	8	0.885	21.8
	12	141.4	6	0.778	48.9
	15	215.1	5	0.699	73.7
	18	258.8	4	0.637	43.7
X	21	276.5	4	0.586	17.7
	24	289.0	4	0.544	12.5
	27	301.5	3	0.508	12.5
X	30	309.8	3	0.477	8.3

HORNER PLOT

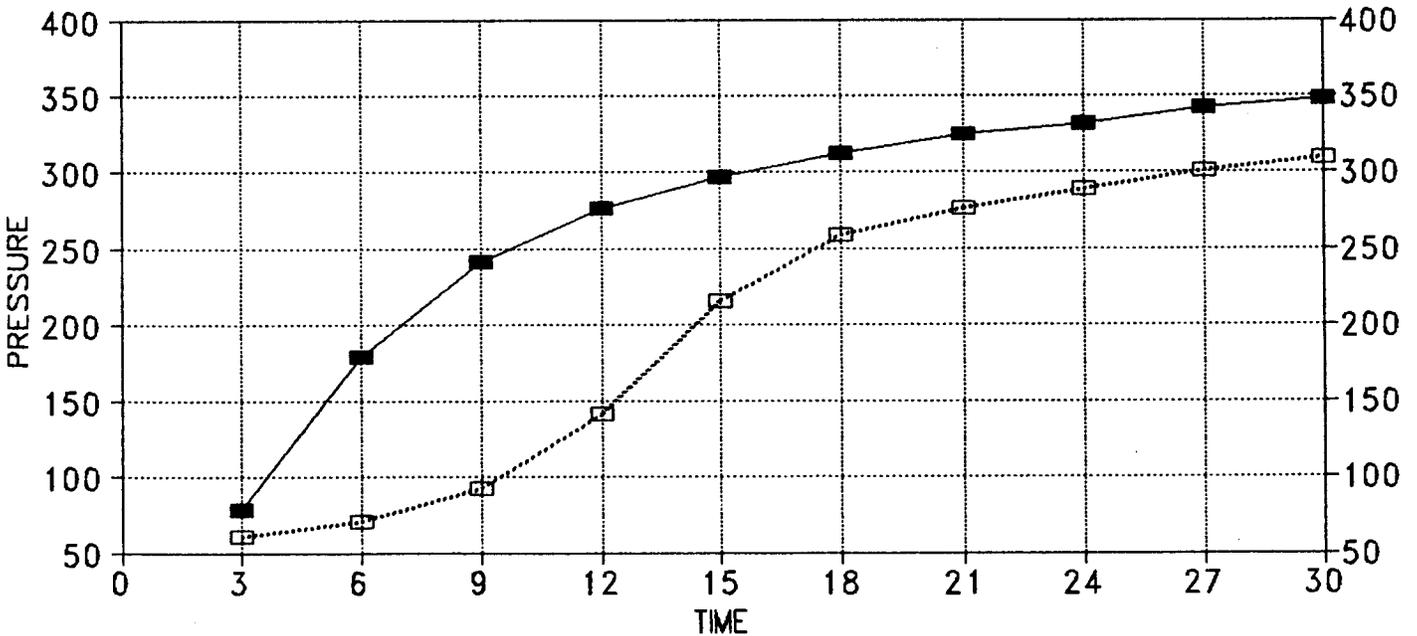
DST #4-AHRENS #2



—■— INITIAL ...□... FINAL

DELTA T DELTA P

DST #4-AHRENS #2



—■— INITIAL ...□... FINAL

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

N^o 3411

Test Ticket

Well Name & No.	Ahrens #2	Test No.	4	Date	2-28-91					
Company	Vintage Petroleum, Inc.	Zone Tested	Lans - KC	180 #	200					
Address	4200 One Williams Center Tulsa, OK, 74172	Elevation	3144	(KB)						
Co. Rep./Geo.	Gregg/Richard Robba cont.	VAL Energy #1	Est. Ft. of Pay	8'						
Location: Sec.	21	Twp.	12 S	Rge.	33 W	Co.	Logan	State	KS.	
No. of Copies	5	Distribution Sheet	Yes	X	No	Turnkey	Yes	X	No	Evaluation

Interval Tested	4294 - 4342	Drill Pipe Size	4 1/2" XH			
Anchor Length	48'	Top Choke - 1"	Bottom Choke - 3/4"			
Top Packer Depth	4289	Hole Size - 7 7/8"	Rubber Size - 6 3/4"			
Bottom Packer Depth	4294	Wt. Pipe I.D. - 2.7 Ft. Run	---			
Total Depth	4342	Drill Collar - 2.25 Ft. Run	---			
Mud Wt.	9.1	lb/gal.	Viscosity	48	Filtrate	10.6
Tool Open @	11:41 am	Initial Blow	Weak surface blow died in 25 mins			

Final Blow No return blow.

Recovery - Total Feet	30'	Feet of Gas in Pipe		Flush Tool?	No.		
Rec.	Feet Of	%gas	%oil	%water	%mud		
Rec.	Feet Of	%gas	%oil	%water	%mud		
Rec.	30'	Feet Of	Drilg. Mud	%gas	%oil	%water	%mud
Rec.	Feet Of	w/good show of oil @ top	%gas	%oil	%water	%mud	
Rec.	Feet Of	%gas	%oil	%water	%mud		

BHT 102° °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7,200 ppm System

- (A) Initial Hydrostatic Mud 2103 PSI AK1 Recorder No. 13309 Range 4700
- (B) First Initial Flow Pressure 20 PSI @ (depth) 4296 w/Clock No. 27567
- (C) First Final Flow Pressure 20 PSI AK1 Recorder No. 13339 Range 4025
- (D) Initial Shut-in Pressure 322 PSI @ (depth) 4337 w/Clock No. 30418
- (E) Second Initial Flow Pressure 31 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 31 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-in Pressure 280 PSI Initial Opening 30 Test 550.00
- (H) Final Hydrostatic Mud 2073 PSI Initial Shut-in 30 Jars _____

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Final Flow 30 Safety Joint X 50.00

Final Shut-in 30 Straddle _____

Circ. Sub X WC

Sampler _____

Extra Packer _____

Other _____

TOTAL PRICE \$ 600.00

Approved By [Signature]

Our Representative Rod Steinbrink

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS I #2 Test No. 5 Date 3/1/91
Company VINTAGE PETROLEUM INC Zone Tested MYRIK STATION
Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
Co. Rep./Geo. MR GREG DEEVERS Cont. VAL ENERGY #1 Est. Ft. of Pay 8
Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4535-4563
Anchor Length 28
Top Packer Depth 4530
Bottom Packer Depth 4535
Total Depth 4563

Drill Pipe Size 4.5 XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____

Mud Wt. 9.3 lb / gal. Viscosity 42 Filtrate 11.2

Tool Open @ 5:50 PM Initial Blow WEAK TO FAIR BLOW BUILT TO BOTTOM IN 17 MINS-
ISI: BLED OFF BLOW - NO RETURN
Final Blow FAIR RETURN BUILT TO BOTTOM IN 14 MINUTES

Recovery - Total Feet 110 Flush Tool? NO

Rec. 180 Feet of GAS IN PIPE

Rec. 60 Feet of VERY GSY MUD CUT OIL-40%GAS/30%OIL/30%MUD

Rec. ERR Feet of ERR

Rec. 50 Feet of SLTLY GSY HVY OIL CUT MUD-5%GAS/40%OIL/55%MUD

Rec. 1 Feet of 0

BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7300 ppm System

(A) Initial Hydrostatic Mud 2294.6 PSI Ak1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 45.7 PSI @ (depth) 4537 w/Clock No. 27567

(C) First Final Flow Pressure 58.2 PSI Ak1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 518.2 PSI @ (depth) 4558 w/Clock No. 30418

(E) Second Initial Flow Pressure 106 PSI Ak1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 80 PSI @ (depth) _____ w/Clock No. _____

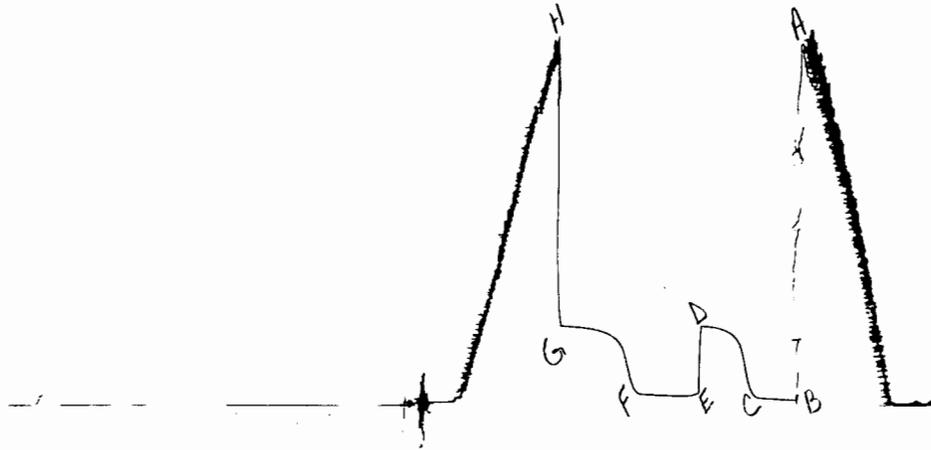
(G) Final Shut-in Pressure 510 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2240.4 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative MR ROD STEINBRINK

TOTAL PRICE \$ 600

DST #5
13339



POINT

This is an actual photograph of recorder chart
PRESSURE

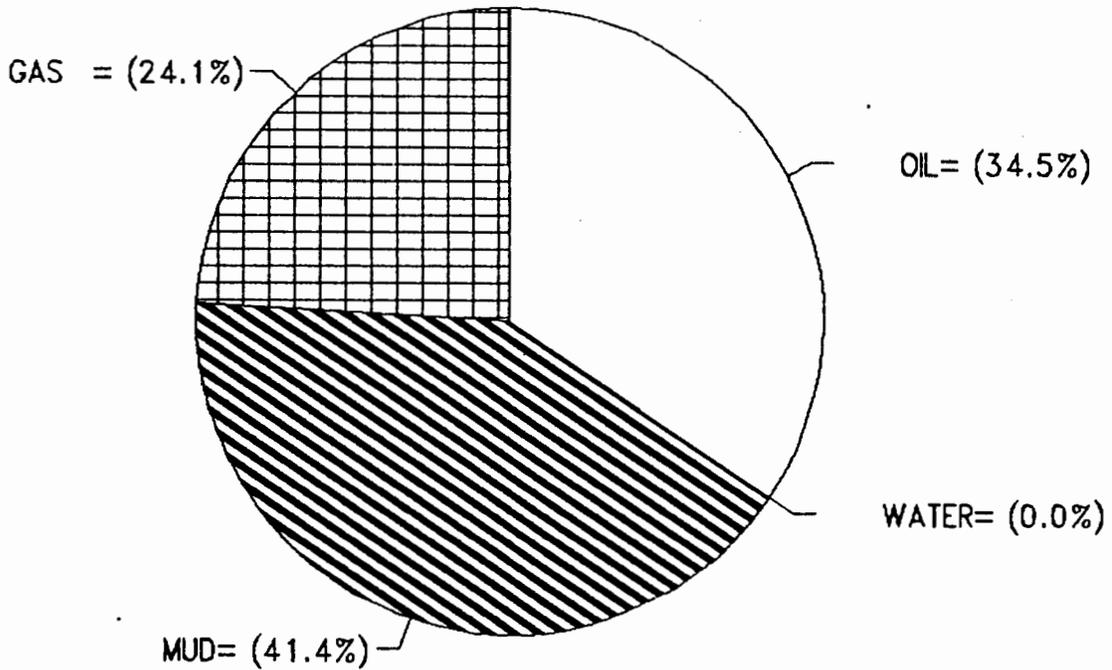
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2243	2294.6
(B) FIRST INITIAL FLOW PRESSURE	31	45.7
(C) FIRST FINAL FLOW PRESSURE	41	58.2
(D) INITIAL CLOSED-IN PRESSURE	499	518.2
(E) SECOND INITIAL FLOW PRESSURE	62	106
(F) SECOND FINAL FLOW PRESSURE	72	80
(G) FINAL CLOSED-IN PRESSURE	499	510
(H) FINAL HYDROSTATIC MUD	2223	2240.4

CALCULATED RECOVERY ANALYSIS

DST # 5 3412 TICKET # 3685

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	50	5	2.5	40	20	0	0	55	27.5
PIPE 2	60	40	24	30	18	0	0	30	18
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
WEIGHT 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1			0		0		0		0
COLLAR 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
TOTAL			26.5		38		0		45.5

HRS OPEN BBL/DAY
 BBL OIL= 0.54036 * 1.25 10.3749
 BBL WATER 0 * 0
 BBL MUD= 0.64701



INITIAL FLOW

RECORDER # 13339
DST #5

DT(MIN)	PRESSURE	() PRESSURE
0	45.7	45.7
3	47.8	2.099999
6	48.8	1
9	49.9	1.100002
12	52	2.099999
15	53	1
18	54.1	1.099999
21	55.1	1
24	56.1	1
27	57.1	1
30	58.2	1.100002

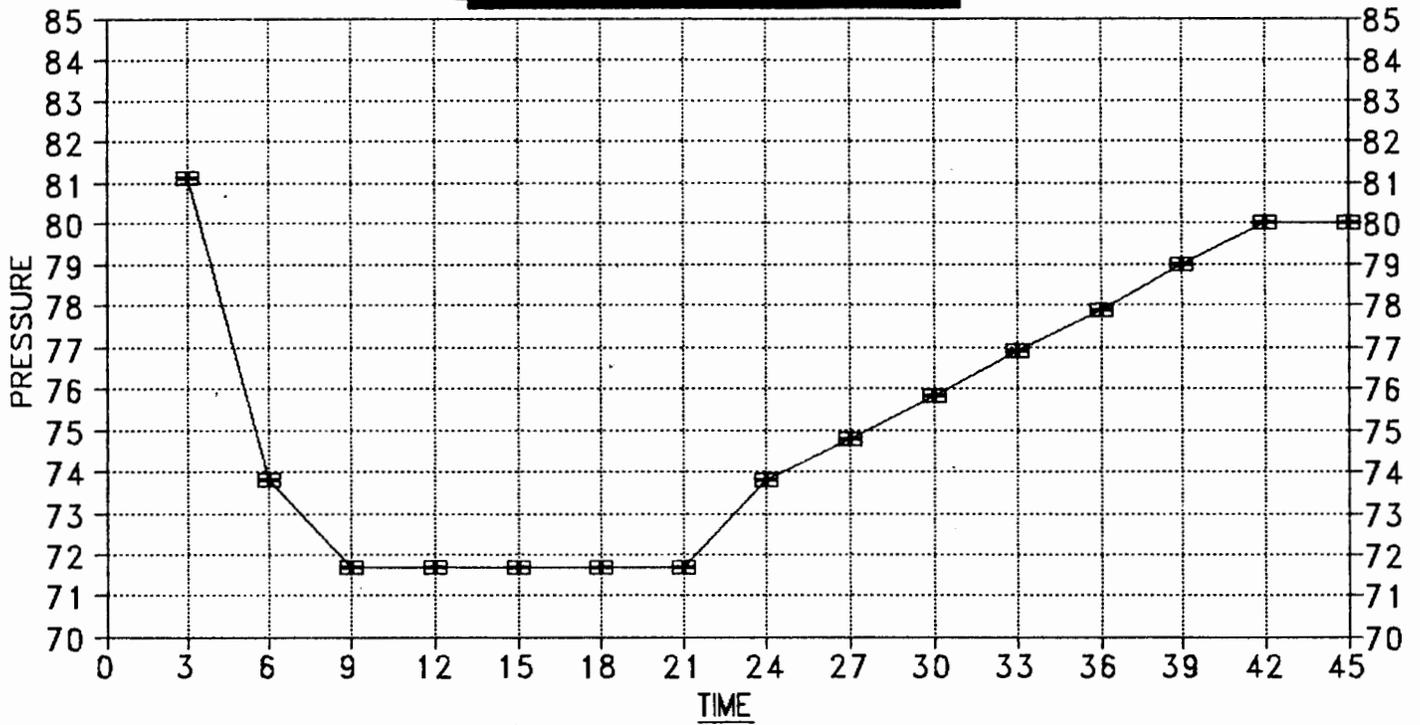
FINAL FLOW

RECORDER # 13339
DST #5

DT(MIN)	PRESSURE	() PRESSURE
0	106	106
3	81.1	-24.9
6	73.8	-7.299996
9	71.7	-2.100006
12	71.7	0
15	71.7	0
18	71.7	0
21	71.7	0
24	73.8	2.100006
27	74.8	1
30	75.8	1
33	76.9	1.099999
36	77.9	1
39	79	1.099999
42	80	1
45	80	0

DELTA T DELTA P

DST #5-FINAL FLOW



AHRENS #2
INITIAL

DST #5
SHUTIN
30 INITIAL FLOW TIME

Slope -289.91 psi/cycle
P * 582 psi

TIME(MIN)	Pws (psi)	Log		(<) PRESSURE
		Horn T	Horn T	
3	61.3	11	1.041	61.3
6	80.0	6	0.778	18.7
9	126.8	4	0.637	46.8
12	206.8	4	0.544	80.0
15	316.0	3	0.477	109.2
18	398.1	3	0.426	82.1
21	440.7	2	0.385	42.6
24	463.6	2	0.352	22.9
27	481.3	2	0.325	17.7
30	492.7	2	0.301	11.4
33	501.0	2	0.281	8.3
X 36	506	2	0.263	5.0
39	511	2	0.248	5.0
42	515	2	0.234	4.0
X 45	518	2	0.222	3.0

AHRENS #2
FINAL

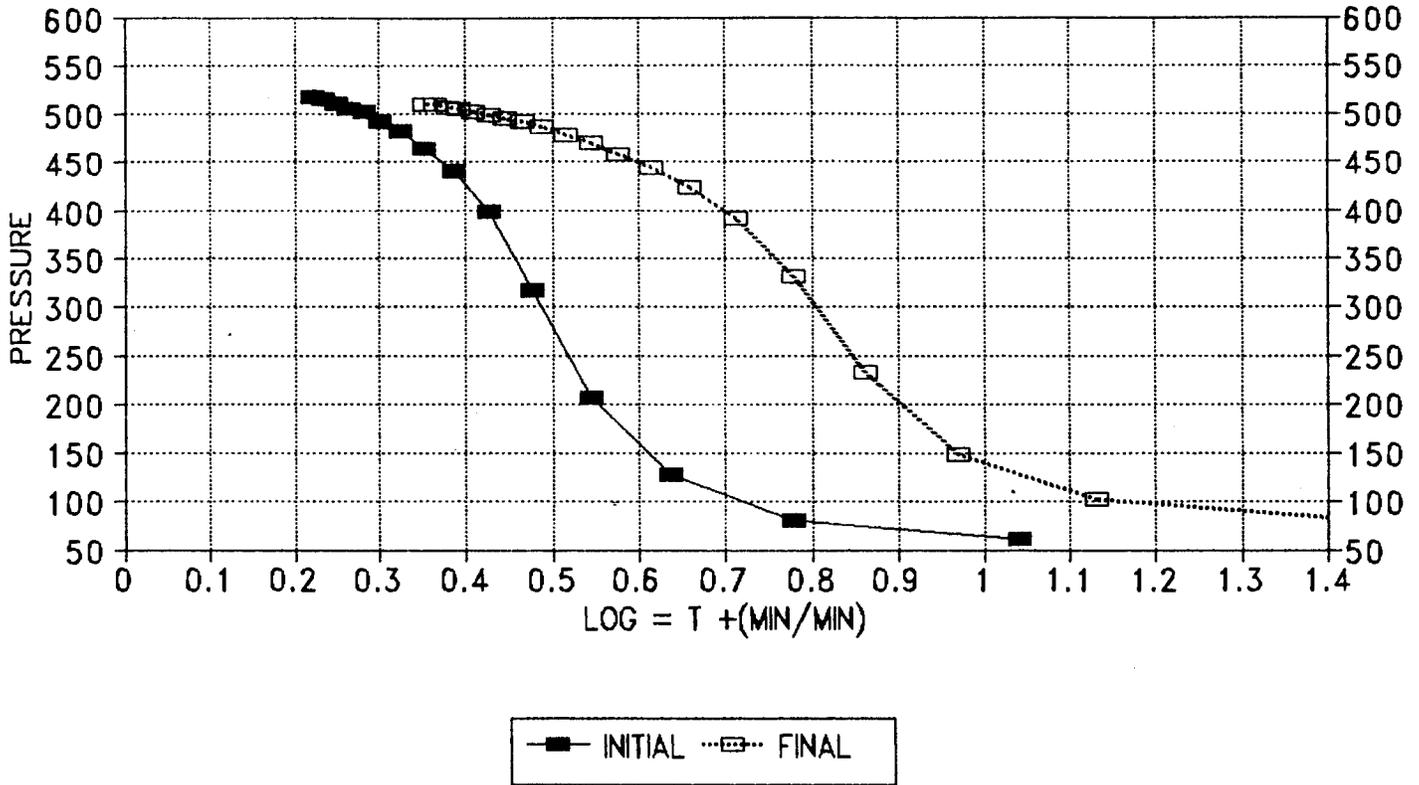
DST #5
SHUTIN
75 TOTAL FLOW TIME

Slope -163.87 psi/cycle
P * 568 psi

TIME(MIN)	Pws (psi)	Log		(<) PRESSURE
		Horn T	Horn T	
3	83.2	26	1.415	83.2
6	101.9	14	1.130	18.7
9	148.6	9	0.970	46.7
12	232.8	7	0.860	84.2
15	330.6	6	0.778	97.8
18	391.9	5	0.713	61.3
21	423.0	5	0.660	31.1
24	442.8	4	0.615	19.8
27	458.4	4	0.577	15.6
30	469.9	4	0.544	11.5
33	478.2	3	0.515	8.3
36	486.5	3	0.489	8.3
39	491.6	3	0.466	5.1
X 42	494.8	3	0.445	3.2
45	499	3	0.426	4.2
48	502	3	0.409	3.0
51	505	2	0.393	3.0
54	507	2	0.378	2.0
57	509	2	0.365	2.0
X 60	510.0	2	0.352	1.0

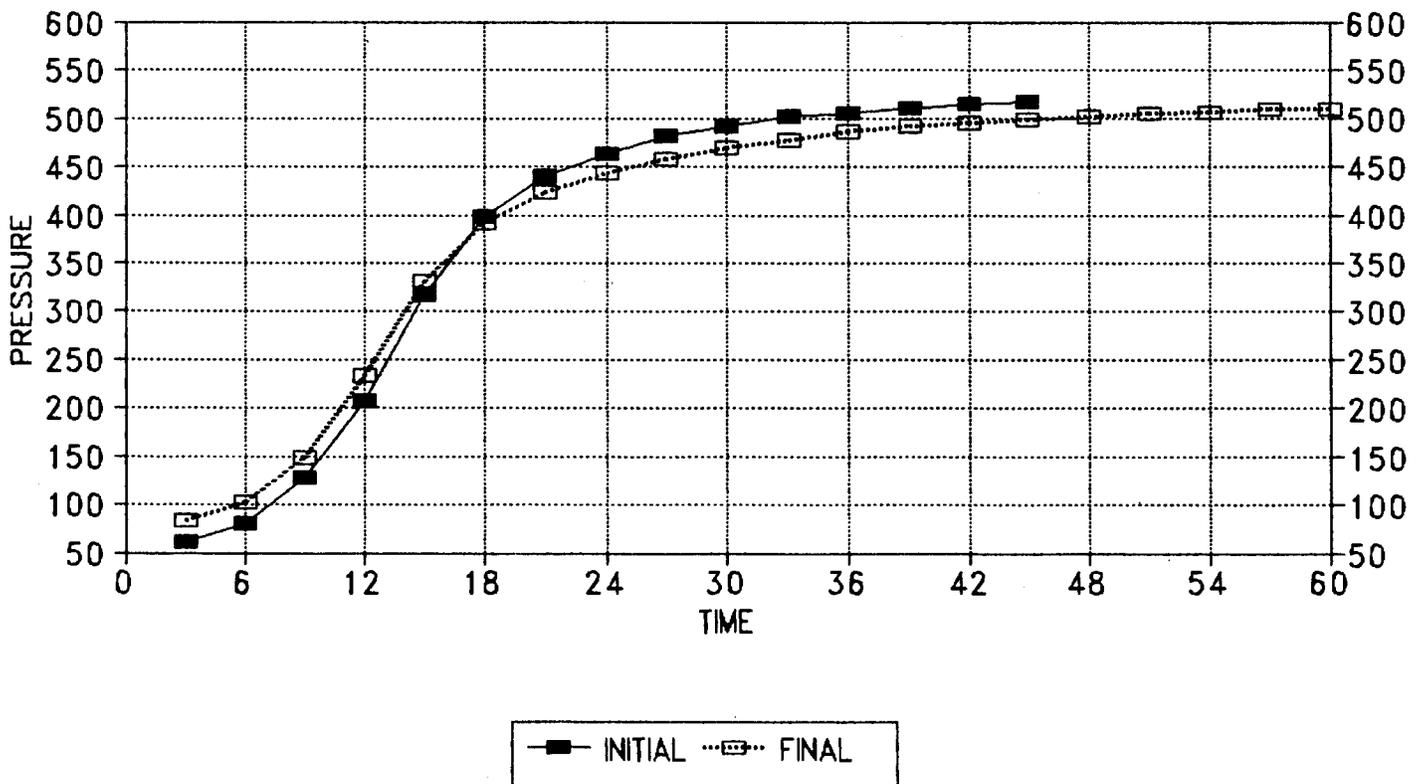
HORNER PLOT

DST #5-AHRENS #2



DELTA T DELTA P

DST #5-AHRENS #2



TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

No 3412

Test Ticket

Well Name & No.	Ahrens #2	Test No.	5	Date	3-1-91					
Company	Vintage Petroleum Inc.	Zone Tested	Myrik Station							
Address	4200 One Williams Center Tulsa, OK 74172	Elevation	3144 (KB)							
Co. Rep./Geo.	Greg/ Richard Robba cont.	VAL Energy #1	Est. Ft. of Pay	8'						
Location: Sec.	21	Twp.	12 S	Rge.	33 W	co.	Logan	state	KS.	
No. of Copies	5	Distribution Sheet	Yes	X	No	Turnkey	Yes	X	No	Evaluation

Interval Tested	4535 - 4563	Drill Pipe Size	4 1/2" x H			
Anchor Length	28'	Top Choke - 1"	Bottom Choke - 3/4"			
Top Packer Depth	4530	Hole Size - 7 7/8"	Rubber Size - 6 3/4"			
Bottom Packer Depth	4535	Wt. Pipe I.D. - 2.7 Ft. Run	---			
Total Depth	4563	Drill Collar - 2.25 Ft. Run	---			
Mud Wt.	9.3	lb/gal.	Viscosity	42	Filtrate	11.2

Tool Open @ 5:50 pm Initial Blow Weak to Fair blow built to bottom in 17 mins.
ISI: Bled off blow - No return
Final Blow Fair return built to bottom in 14 mins.

Recovery - Total Feet	110'	Feet of Gas In Pipe	180'	Flush Tool?	No			
Rec.	50'	Feet Of	SGHOCM	5 %gas	40 %oil	%water	55	%mud
Rec.		Feet Of		%gas	%oil	%water		%mud
Rec.	60'	Feet Of	VGMCO	40 %gas	30 %oil	%water	30	%mud
Rec.		Feet Of		%gas	%oil	%water		%mud
Rec.		Feet Of		%gas	%oil	%water		%mud

BHT 114° °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7,300 ppm System

(A) Initial Hydrostatic Mud	2243	PSI	Ak1 Recorder No.	13309	Range	4700
(B) First Initial Flow Pressure	31	PSI	@ (depth)	4537	w/Clock No.	27567
(C) First Final Flow Pressure	41	PSI	Ak1 Recorder No.	13339	Range	4025
(D) Initial Shut-In Pressure	499	PSI	@ (depth)	4558	w/Clock No.	30418
(E) Second Initial Flow Pressure	62	PSI	Ak1 Recorder No.	---	Range	---
(F) Second Final Flow Pressure	72	PSI	@ (depth)	---	w/Clock No.	---
(G) Final Shut-In Pressure	499	PSI	Initial Opening	30	Test	550.00
(H) Final Hydrostatic Mud	2223	PSI	Initial Shut-In	45	Jars	---

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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.

Final Flow	45	Safety Joint	X	50.00
Final Shut-In	60	Straddle		
		Circ. Sub	X	n/c
		Sampler		
		Extra Packer		
		Other		

Approved By Richard A. Robba
Our Representative Rod Steinbrink

TOTAL PRICE \$ 600.00

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS I #2 Test No. 6 Date 3/2/91
Company VINTAGE PETROLEUM INC Zone Tested FT SCOTT/CHER
Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
Co. Rep./Geo. MR GREG DEEVERS Cont. VAL ENERGY #1 Est. Ft. of Pay 10
Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4563-4621 Drill Pipe Size 4.5 XH
Anchor Length 58 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4558 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4563
Total Depth 4621

Mud Wt. 9.2 lb / gal. Viscosity 48 Filtrate 11.2

Tool Open @ 11:22 PM Initial Blow FAIR TO STRONG BLOW OFF BOTTOM IN 7 MINUTES
ISI: BLED OFF BLOW-SURFACE RETURN BUILT TO 8" THROUGHOUT
Final Blow FAIR RETURN BUILT TO BOTTOM IN 6 MINUTES

Recovery - Total Feet 200 Flush Tool? NO

Rec. 1590 Feet of GAS IN PIPE

Rec. 50 Feet of CLEAN GSY OIL-10%GAS/90%OIL

Rec. 30 Feet of GSY MUD CUT OIL-40%GAS/35%OIL/25%MUD

Rec. 60 Feet of GSY MUD CUT OIL-50%GAS/30%OIL/20%MUD

Rec. 60 Feet of VERY GSY MUD CUT OIL-60%GAS/20%OIL/20%MUD

BHT 116 °F Gravity 35 °API @ 58 °F Corrected Gravity 35.2 °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2283.5 PSI Ak1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 59.2 PSI @ (depth) 4565 w/Clock No. 27567

(C) First Final Flow Pressure 74.8 PSI Ak1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 918.8 PSI @ (depth) 4616 w/Clock No. 30418

(E) Second Initial Flow Pressure 118.5 PSI Ak1 Recorder No. _____ Range _____

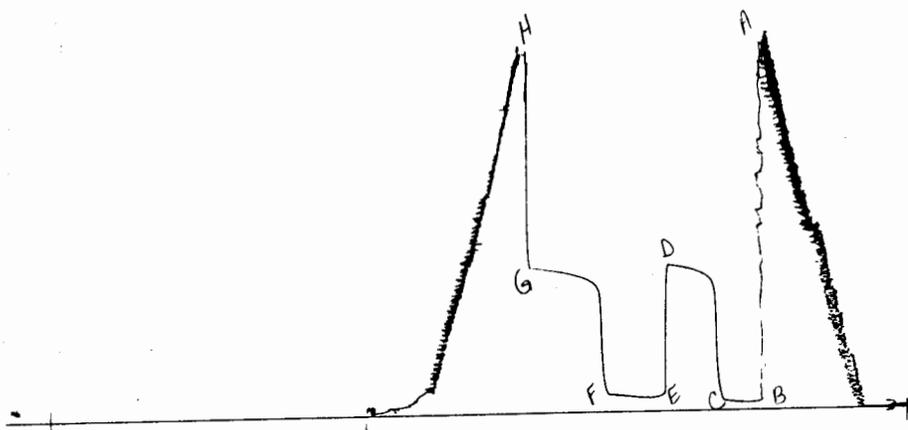
(F) Second Final Flow Pressure 114.3 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 892.7 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 2240.4 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative MR ROD STEINBRINK TOTAL PRICE \$ 600

DST #6
13309



POINT This is an actual photograph of recorder chart
PRESSURE

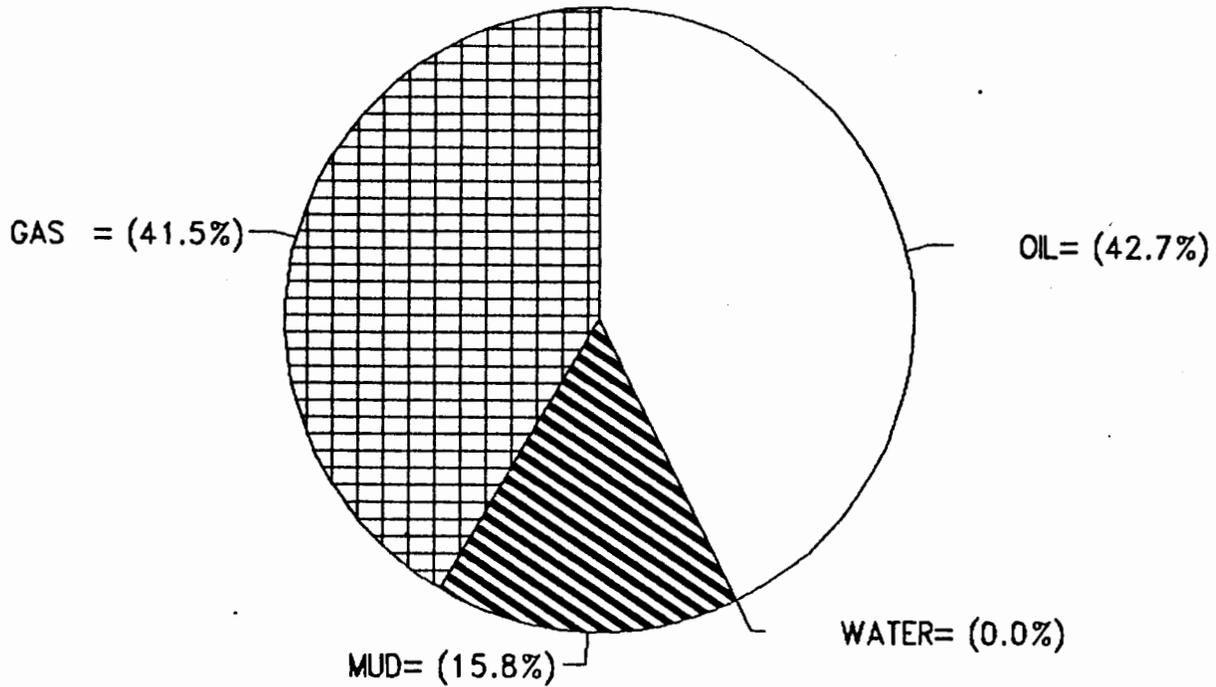
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2243	2283.5
(B) FIRST INITIAL FLOW PRESSURE	41	59.2
(C) FIRST FINAL FLOW PRESSURE	62	74.8
(D) INITIAL CLOSED-IN PRESSURE	909	918.8
(E) SECOND INITIAL FLOW PRESSURE	83	118.5
(F) SECOND FINAL FLOW PRESSURE	93	114.3
(G) FINAL CLOSED-IN PRESSURE	879	892.7
(H) FINAL HYDROSTATIC MUD	2213	2240.4

CALCULATED RECOVERY ANALYSIS

DST # 6 3412 TICKET # 3413

SAMPLE #	TOTAL		GAS		OIL		WATER		MUD	
	FEET	%	FEET	%	FEET	%	FEET	%	FEET	%
DRILL 1	50	10	5	90	45	0	0	0	0	0
PIPE 2	30	40	12	35	10.5	0	0	25	7.5	
3	60	50	30	30	18	0	0	20	12	
4	60	60	36	20	12	0	0	20	12	
5			0		0		0		0	
WEIGHT 1			0		0		0		0	
PIPE 2			0		0		0		0	
3			0		0		0		0	
4			0		0		0		0	
DRILL 1			0		0		0		0	
COLLAR 2			0		0		0		0	
3			0		0		0		0	
4			0		0		0		0	
TOTAL			83		85.5		0		31.5	

HRS OPEN BBL/DAY
 BBL OIL= 1.21581 * 1.25 23.3436
 BBL WATER 0 * 0
 BBL MUD= 0.44793



COMPUTER EVALUATION BY TRILOBITE TESTING
VINTAGE PETROLEUM INC.
REPORT FOR DST#6 FOR THE AHRENS I #2
21-12S-33W LOGAN KS

TEST PARAMETERS

ELEVATION: 3144 KB EST. PAY: 10 FT
DATUM: -1473 ZONE TESTED: FT SCOTT-CHEROKEE
TEST INTERVAL: 4563-4621
RECORDER DEPTH: 4616 TIME INTERVALS: 30-45-45-60
BOTTOM HOLE TEMP: 116 VISCOSITY: 4.715216 CP
HOLE SIZE: 7.875 IN

CALCULATIONS

CUBIC FEET OF GAS IN PIPE: 126.9446
TOTAL FEET OF RECOVERY: 200
BARRELS IN DRILL PIPE: 2.844
GAS OIL RATIO: 44.63594 CU.FT./BBL
BUBBLE POINT PRESSURE: ; 2.396238
TOTAL BARRELS OF RECOVERY: 2.844
API GRAVITY: 35
CORRECTED PIPE FILLUP: 310.5979
UNCORR. INIT. PROD.: 54.6048 BBL/DAY
FLUID GRADIENT: .368
CORR. BARRELS OF RECOVERY: 4.408201 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE: 84.63745 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE
35.17227

INITIAL SLOPE 251.1 PSI/CYCLE
INITIAL P* 975 PSI

FINAL SLOPE 179.28 PSI/CYCLE
FINAL P* 956 PSI

TRANSMISSIBILITY 76.76289 (MD.-FT./CP.)
PERMEABILITY 36.19536 (MD.)
INDICATED FLOW CAPACITY 361.9536 (MD.FT)
PRODUCTIVITY INDEX 8.674206E-02 (BARRELS/DAY/PSI)
DAMAGE RATIO .859165
RADIUS OF INVESTIGATION 52.10232 (FT.)
POTENTIOMETRIC SURFACE 744.9639 (FT.)
DRAWDOWN FACTOR 1.94872 (%)

INITIAL FLOW

RECORDER # 13339
DST #6

DT(MIN)	PRESSURE	< > PRESSURE
0	59.2	59.2
3	59.2	0
6	59.2	0
9	60.3	1.099999
12	62.4	2.100002
15	64.4	2
18	66.5	2.099999
21	68.6	2.099999
24	70.7	2.099999
27	72.8	2.100006
30	74.8	2

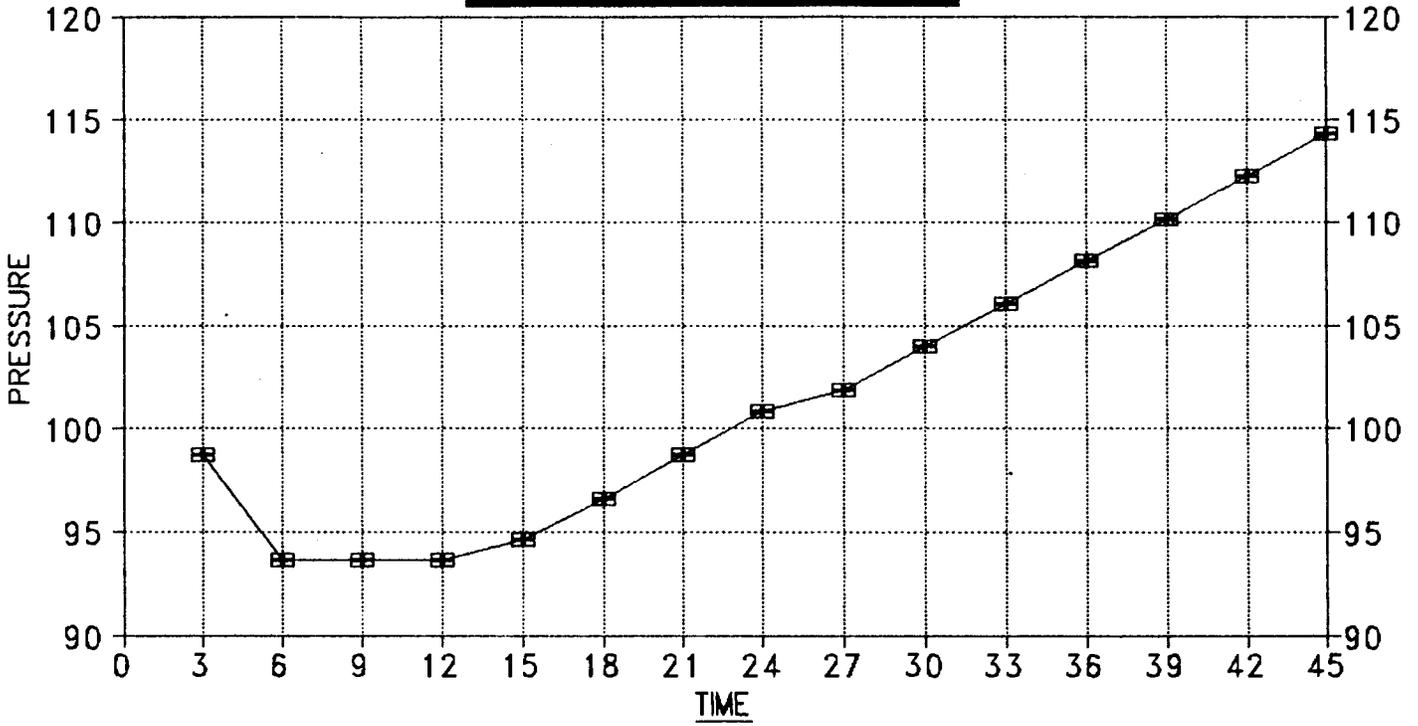
FINAL FLOW

RECORDER # 13339
DST #6

DT(MIN)	PRESSURE	< > PRESSURE
0	118.5	118.5
3	98.7	-19.8
6	93.6	-5.099999
9	93.6	0
12	93.6	0
15	94.6	1
18	96.6	2
21	98.7	2.099999
24	100.8	2.100006
27	101.9	1.099999
30	104	2.099999
33	106	2
36	108.1	2.099999
39	110.2	2.099999
42	112.3	2.100006
45	114.3	2

DELTA T DELTA P

FINAL FLOW-DST #6



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE 35.17227 BBL/DAY

AHRENS #2
INITIAL

DST #6
SHUTIN
30 INITIAL FLOW TIME

Slope -251.10 psi/cycle
P * 975 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	() PRESSURE
	3	91.5	11	1.041	91.5
	6	242.2	6	0.778	150.7
	9	771.5	4	0.637	529.3
X	12	834.6	4	0.544	63.1
	15	854.7	3	0.477	20.1
	18	868.7	3	0.426	14.0
	21	877.7	2	0.385	9.0
	24	884.7	2	0.352	7.0
	27	891.7	2	0.325	7.0
	30	896.8	2	0.301	5.1
	33	901.8	2	0.281	5.0
	36	905.8	2	0.263	4.0
	39	910.8	2	0.248	5.0
X	42	915.8	2	0.234	5.0
	45	918.8	2	0.222	3.0

AHRENS #2
FINAL

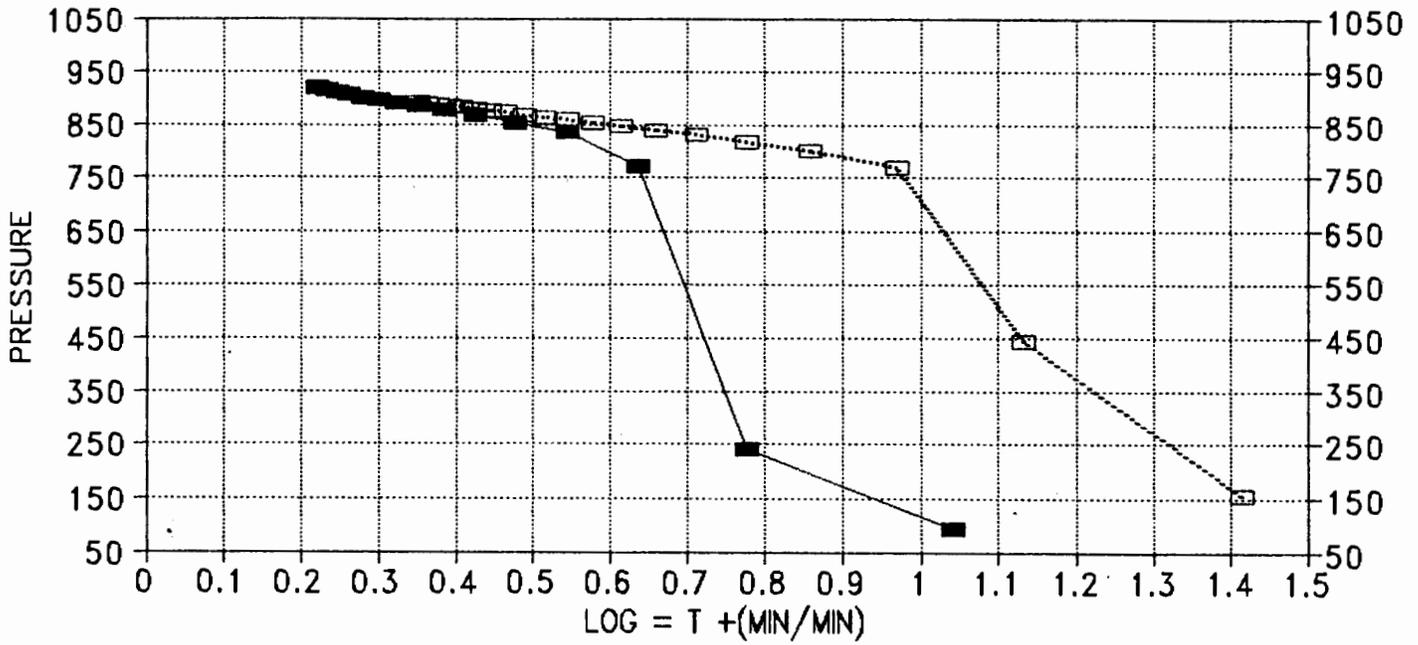
DST #6
SHUTIN
75 TOTAL FLOW TIME

Slope -179.28 psi/cycle
P * 956 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	() PRESSURE
	3	154.8	26	1.415	154.8
	6	442.8	14	1.130	288.0
	9	770.5	9	0.970	327.7
X	12	801.6	7	0.860	31.1
	15	817.6	6	0.778	16.0
	18	831.6	5	0.713	14.0
	21	839.6	5	0.660	8.0
	24	847.7	4	0.615	8.1
	27	853.7	4	0.577	6.0
	30	859.7	4	0.544	6.0
	33	864.7	3	0.515	5.0
	36	868.7	3	0.489	4.0
	39	872.7	3	0.466	4.0
	42	875.7	3	0.445	3.0
	45	879.7	3	0.426	4.0
	48	882.7	3	0.409	3.0
	51	885.7	2	0.393	3.0
	54	888.7	2	0.378	3.0
	57	890.7	2	0.365	2.0
X	60	892.7	2	0.352	2.0

HORNER PLOT

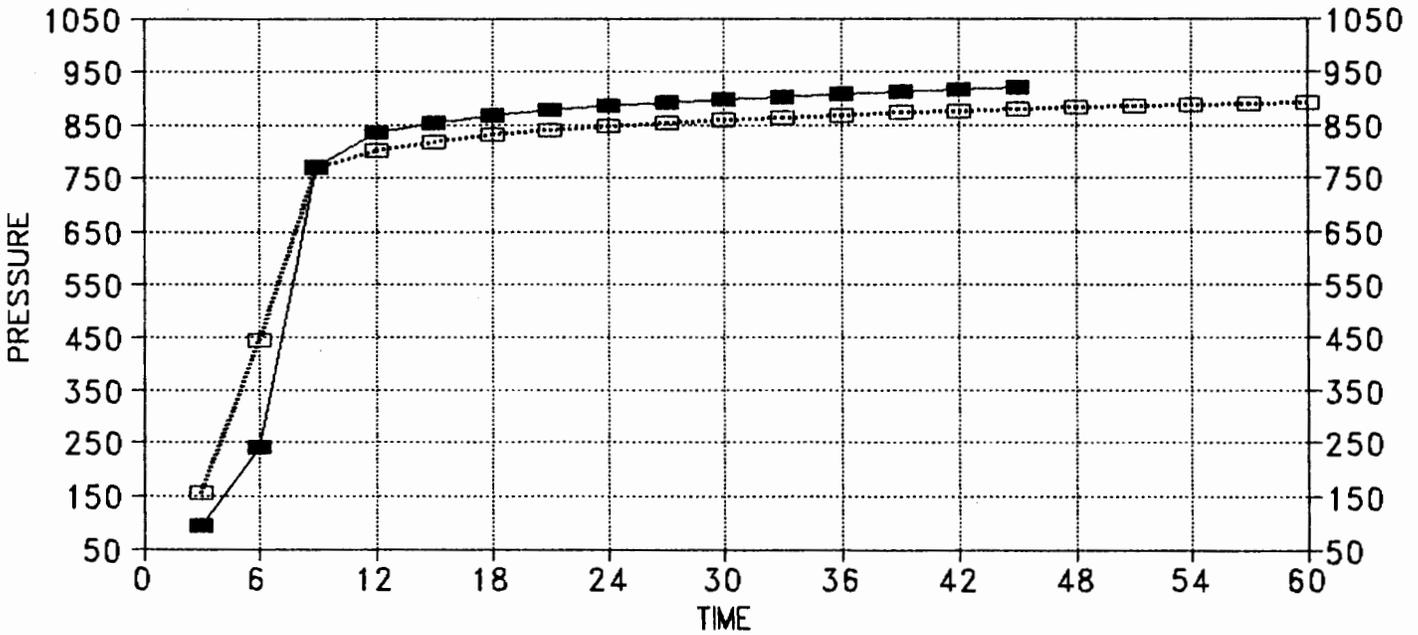
DST #6-AHRENS #2



—■— INITIAL ...□... FINAL

DELTA T DELTA P

DST #6-AHRENS #2



—■— INITIAL ...□... FINAL

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

N^o 3413

Test Ticket

Well Name & No.	<u>Ahrens I #2</u>	Test No.	<u>6</u>	Date	<u>3-2-91</u>				
Company	<u>Vintage Petroleum, Inc.</u>	Zone Tested	<u>Ft. Scott/Cherokee</u>						
Address	<u>4200 One Williams Center Tulsa, OK 74172</u>	Elevation	<u>3144 (KB)</u>						
Co. Rep./Geo.	<u>Greg/Richard Robba</u>	cont.	<u>VAL Energy #1</u>	Est. Ft. of Pay	<u>10'</u>				
Location: Sec.	<u>21</u>	Twp.	<u>12 S</u>	Rge.	<u>33 W</u>	Co.	<u>Logan</u>	state	<u>KS.</u>
No. of Copies	<u>5</u>	Distribution Sheet	Yes <input checked="" type="checkbox"/>	No	Turnkey	Yes <input checked="" type="checkbox"/>	No	Evaluation	

Interval Tested	<u>4563 - 4621</u>	Drill Pipe Size	<u>4 1/2" x H</u>	
Anchor Length	<u>58'</u>	Top Choke - 1"	Bottom Choke - <u>3/4"</u>	
Top Packer Depth	<u>4558</u>	Hole Size - <u>7 7/8"</u>	Rubber Size - <u>6 3/4"</u>	
Bottom Packer Depth	<u>4563</u>	Wt. Pipe I.D. - 2.7 Ft. Run	<u>—</u>	
Total Depth	<u>4621</u>	Drill Collar - 2.25 Ft. Run	<u>—</u>	
Mud Wt.	<u>9.2</u>	lb/gal.	Viscosity <u>48</u>	Filtrate <u>11.2</u>
Tool Open @	<u>11:22 pm</u>	Initial Blow	<u>Fair to strong blow off bottom in 7 mins.</u>	
		ISI:	<u>Bled off blow - surface return built to .8" throughout.</u>	
Final Blow	<u>Fair return built to bottom in 6 mins.</u>			

Recovery - Total Feet	<u>200'</u>	Feet of Gas in Pipe	<u>1590'</u>	Flush Tool?	<u>No</u>
Rec. <u>50'</u>	Feet Of	<u>CGO</u>	<u>10</u> %gas <u>90</u> %oil	%water	%mud
Rec. <u>30'</u>	Feet Of	<u>VGMCO</u>	<u>40</u> %gas <u>35</u> %oil	%water <u>25</u>	%mud
Rec. <u>60'</u>	Feet Of	<u>VGMCO</u>	<u>50</u> %gas <u>30</u> %oil	%water <u>20</u>	%mud
Rec. <u>60'</u>	Feet Of	<u>VGMCO</u>	<u>60</u> %gas <u>20</u> %oil	%water <u>20</u>	%mud
Rec. _____	Feet Of	_____	%gas _____ %oil _____	%water _____	%mud _____

BHT 116° °F Gravity 35 °API @ 58° °F Corrected Gravity 35.2 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud	<u>2243</u>	PSI	AK1 Recorder No.	<u>13309</u>	Range	<u>4700</u>
(B) First Initial Flow Pressure	<u>41</u>	PSI	@ (depth)	<u>4565</u>	w/Clock No.	<u>27567</u>
(C) First Final Flow Pressure	<u>62</u>	PSI	AK1 Recorder No.	<u>13339</u>	Range	<u>4025</u>
(D) Initial Shut-in Pressure	<u>909</u>	PSI	@ (depth)	<u>4616</u>	w/Clock No.	<u>30418</u>
(E) Second Initial Flow Pressure	<u>83</u>	PSI	AK1 Recorder No.	<u>—</u>	Range	<u>—</u>
(F) Second Final Flow Pressure	<u>93</u>	PSI	@ (depth)	<u>—</u>	w/Clock No.	<u>—</u>
(G) Final Shut-in Pressure	<u>879</u>	PSI	Initial Opening	<u>30</u>	Test	<u>550.00</u>
(H) Final Hydrostatic Mud	<u>2213</u>	PSI	Initial Shut-in	<u>45</u>	Jars	<u>—</u>

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Final Flow	<u>45</u>	Safety Joint	<input checked="" type="checkbox"/> <u>50.00</u>
Final Shut-in	<u>60</u>	Straddle	<u>—</u>
		Circ. Sub	<input checked="" type="checkbox"/> <u>n/c</u>
		Sampler	<u>—</u>
		Extra Packer	<u>—</u>
		Other	<u>—</u>

Approved By Richard A. Robba

Our Representative Rod Steinbrink

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AHRENS I #2 Test No. 7 Date 3/3/91
Company VINTAGE PETROLEUM INC Zone Tested JOHNSON
Address 4200 ONE WILLIAMS CNTR TULSA OK Elevation 3144 KB
Co. Rep./Geo. MR GREG DEEVERS Cont. VAL ENERGY #1 Est. Ft. of Pay 8
Location: Sec. 21 Twp. 12S Rge. 33W Co. LOGAN State KANSAS

Interval Tested 4620-4680
Anchor Length 60
Top Packer Depth 4615
Bottom Packer Depth 4620
Total Depth 4680

Drill Pipe Size 4.5 XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run _____

Mud Wt. 9.3 lb / gal. Viscosity 47 Filtrate 10

Tool Open @ 3:03 AM Initial Blow SURFACE BLOW BUILT TO BOTTOM IN 9 MINUTES-
ISI: BLEB OFF BLOW-SURFACE RETURN BUILT TO 1" THROUGHOUT
Final Blow FAIR RETURN BUILT TO BOTTOM IN 6 MINUTES

Recovery - Total Feet 280 Flush Tool? NO

Rec. 40 Feet of GSY OIL CUT MUD-10%GAS/5%OIL/85%MUD

Rec. 60 Feet of GSY OIL CUT MUD-25%GAS/10%OIL/65%MUD

Rec. 180 Feet of VERY GSY OIL CUT MUD-45%GAS/10%OIL/45%MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 104 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3100 ppm System

(A) Initial Hydrostatic Mud 2287.5 PSI Ak1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 75.8 PSI @ (depth) 4623 w/Clock No. 27567

(C) First Final Flow Pressure 113.3 PSI AK1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 821.6 PSI @ (depth) 4675 w/Clock No. 30418

(E) Second Initial Flow Pressure 149.7 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 168.4 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 808.6 PSI Initial Opening 30 Final Flow 45

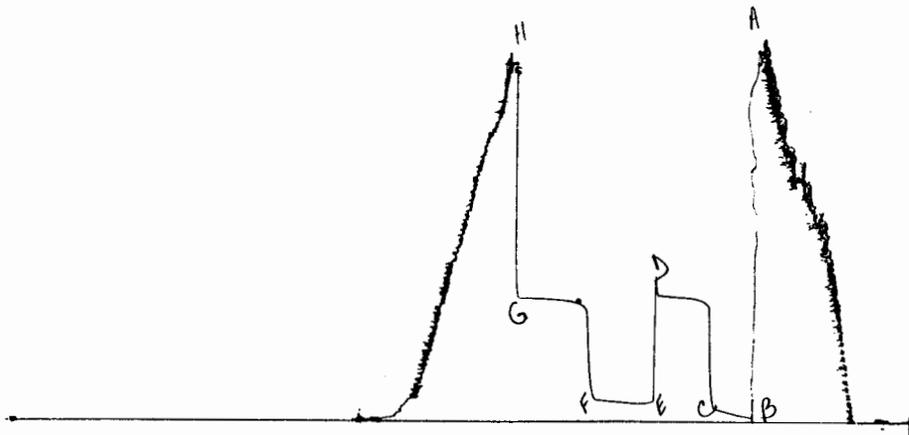
(H) Final Hydrostatic Mud 2237.4 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative MR ROD STEINBRINK

TOTAL PRICE \$ 600

DST #7

13309



POINT This is an actual photograph of recorder chart
PRESSURE

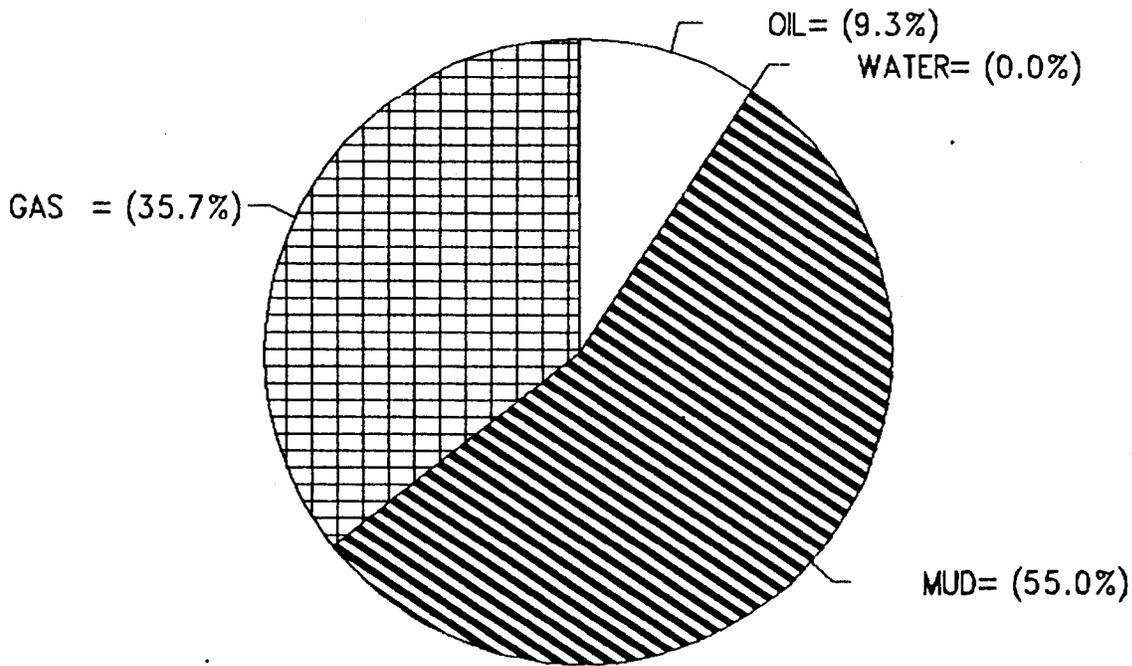
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2323	2287.5
(B) FIRST INITIAL FLOW PRESSURE	52	75.8
(C) FIRST FINAL FLOW PRESSURE	83	113.3
(D) INITIAL CLOSED-IN PRESSURE	799	821.6
(E) SECOND INITIAL FLOW PRESSURE	124	149.7
(F) SECOND FINAL FLOW PRESSURE	145	168.4
(G) FINAL CLOSED-IN PRESSURE	789	808.6
(H) FINAL HYDROSTATIC MUD	2243	2237.4

CALCULATED RECOVERY ANALYSIS

DST # 7 3412 TICKET # 3414

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	40	10	4	5	2	0	0	85	34
PIPE 2	60	25	15	10	6	0	0	65	39
3	180	45	81	10	18	0	0	45	81
4			0		0		0		0
5			0		0		0		0
WEIGHT 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1			0		0		0		0
COLLAR 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
TOTAL			100		26		0		154

HRS OPEN BBL/DAY
 BBL OIL= 0.36972 * 1.25 7.09862
 BBL WATER 0 * 0
 BBL MUD= 2.18988



INITIAL FLOW

REORDER # 13339
DST #7

DT(MIN)	PRESSURE	<> PRESSURE
0	75.8	75.8
3	70.7	-5.100006
6	70.7	0
9	73.8	3.100006
12	79	5.199997
15	83.2	4.199997
18	88.3	5.100006
21	94.6	6.299996
24	101.9	7.300003
27	107	5.099999
30	113.3	6.300003

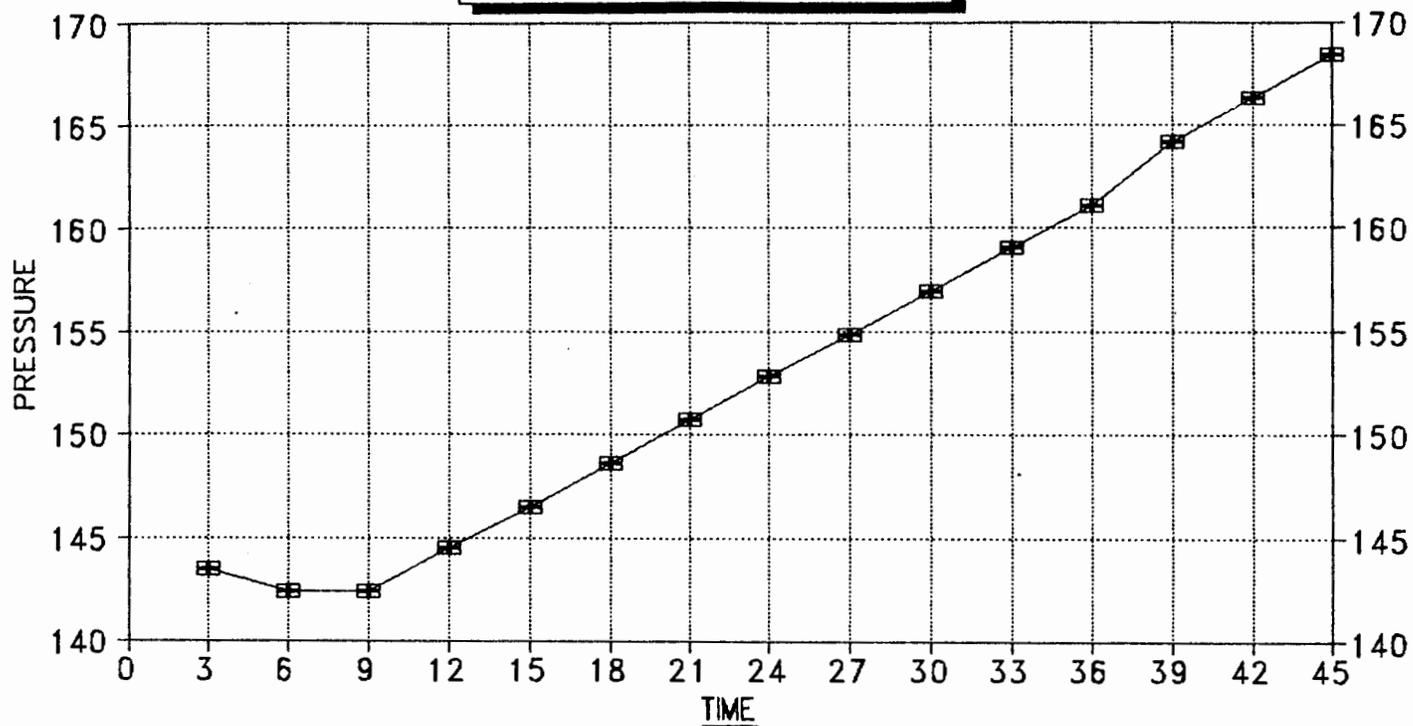
FINAL FLOW

REORDER # 13339
DST #7

DT(MIN)	PRESSURE	<> PRESSURE
0	149.7	149.7
3	143.5	-6.199997
6	142.4	-1.100006
9	142.4	0
12	144.5	2.100006
15	146.5	2
18	148.6	2.100006
21	150.7	2.099991
24	152.8	2.100006
27	154.8	2
30	156.9	2.099991
33	159	2.100006
36	161.1	2.100006
39	164.2	3.099991
42	166.3	2.100006
45	168.4	2.099991

DELTA T DELTA P

FINAL FLOW-DST #7



AHRENS #2
INITIAL

DST #7
SHUTIN
30 INITIAL FLOW TIME

Slope -90.06 psi/cycle
P * 842 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	() PRESSURE
	3	249.5	11	1.041	249.5
X	6	771.5	6	0.778	522.0
	9	787.5	4	0.637	16.0
	12	796.6	4	0.544	9.1
	15	801.6	3	0.477	5.0
	18	806.6	3	0.426	5.0
	21	808.6	2	0.385	2.0
	24	810.6	2	0.352	2.0
	27	812.6	2	0.325	2.0
	30	814.6	2	0.301	2.0
	33	815.6	2	0.281	1.0
	36	816.6	2	0.263	1.0
	39	817.6	2	0.248	1.0
	42	819.6	2	0.234	2.0
X	45	821.6	2	0.222	2.0

AHRENS #2
FINAL

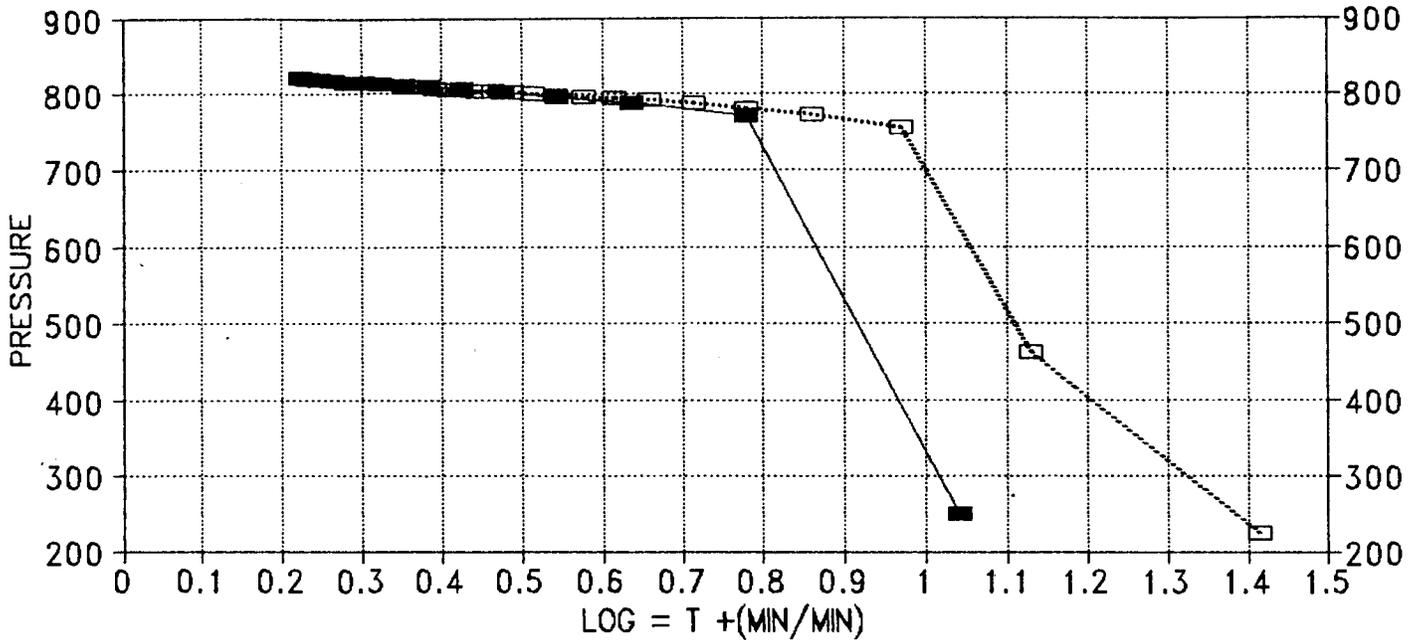
DST #7
SHUTIN
75 TOTAL FLOW TIME

Slope -85.94 psi/cycle
P * 839 psi

	TIME(MIN)	Pws (psi)	Horn T	Log Horn T	() PRESSURE
	3	224.5	26	1.415	224.5
X	6	463.6	14	1.130	239.1
	9	755.5	9	0.970	291.9
	12	772.5	7	0.860	17.0
	15	781.5	6	0.778	9.0
	18	787.5	5	0.713	6.0
	21	791.5	5	0.660	4.0
	24	794.5	4	0.615	3.0
	27	796.6	4	0.577	2.1
	30	798.6	4	0.544	2.0
	33	800.6	3	0.515	2.0
	36	801.6	3	0.489	1.0
	39	802.6	3	0.466	1.0
	42	803.6	3	0.445	1.0
	45	804.6	3	0.426	1.0
	48	805.6	3	0.409	1.0
	51	806.6	2	0.393	1.0
	54	807.6	2	0.378	1.0
	57	808.6	2	0.365	1.0
X	60	808.6	2	0.352	0.0

HORNER PLOT

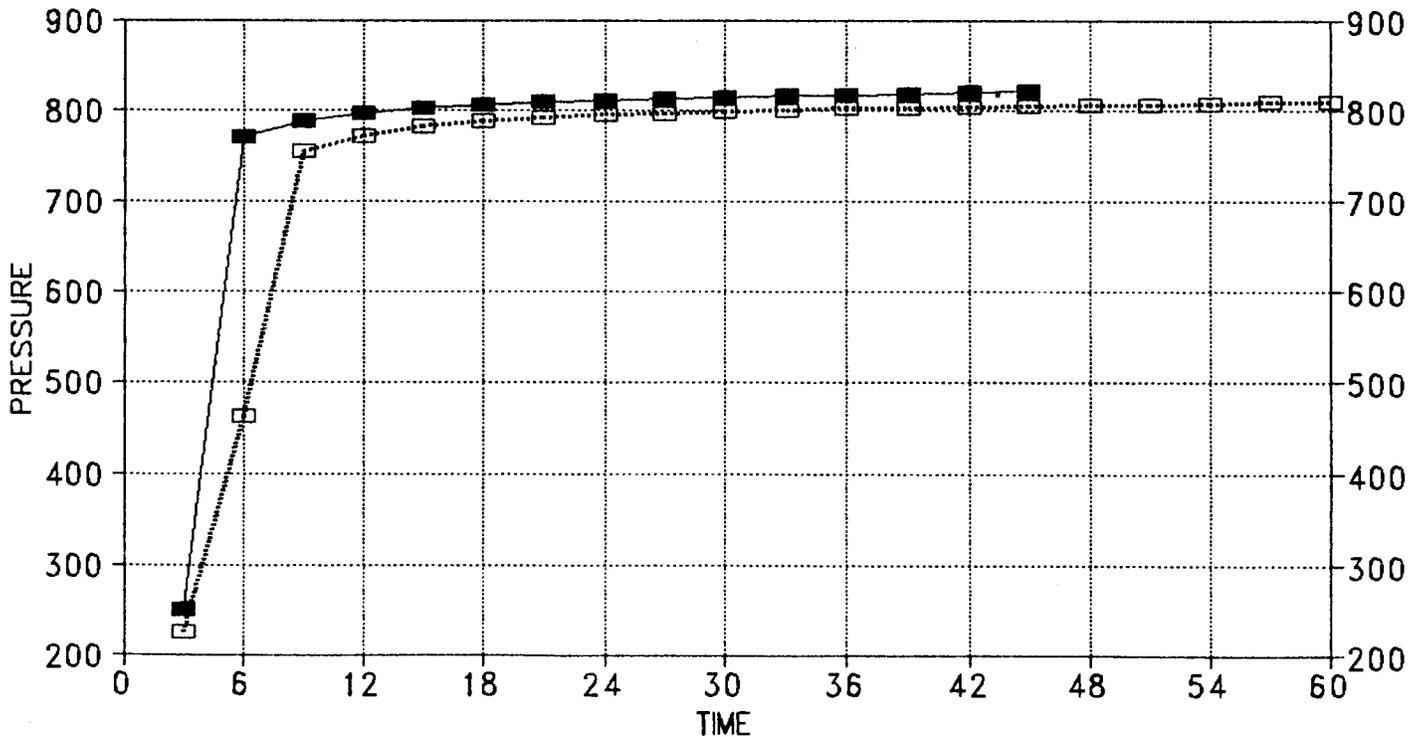
DST #7-AHRENS I #2



—■— INITIAL ···□··· FINAL

DELTA T DELTA P

DST #7-AHRENS I #2



TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

N^o 3414

Test Ticket

Well Name & No.	Ahrens I #2	Test No.	7	Date	3-3-91						
Company	Vintage Petroleum, Inc.	Zone Tested	Johnson								
Address	4200 One Williams Center Tulsa, OK. 74172	Elevation	3144 (KB)								
Co. Rep./Geo.	Greg/Richard Robba cont.	VAL Energy #1	Est. Ft. of Pay	8'							
Location: Sec.	21	Twp.	12 S	Rge.	33 W	co.	Logan	state	KS		
No. of Copies	5	Distribution Sheet	Yes	X	No	Turnkey	Yes	X	No	Evaluation	

Interval Tested	4620 - 4680	Drill Pipe Size	4 1/2" XH		
Anchor Length	60'	Top Choke - 1"	Bottom Choke - 3/4"		
Top Packer Depth	4615	Hole Size - 7 7/8"	Rubber Size - 6 3/4"		
Bottom Packer Depth	4620	Wt. Pipe I.D. - 2.7 Ft. Run			
Total Depth	4680	Drill Collar - 2.25 Ft. Run			
Mud Wt.	9.3 lb/gal.	Viscosity	47	Filtrate	10.0
Tool Open @	3:03 am	Initial Blow	Surface blow built to bottom in 9 mins		
		ISI:	Bled off blow - Surface return, built to 1" throughout.		
Final Blow	Strong return off bottom in 10 mins.				

Recovery - Total Feet	280'	Feet of Gas in Pipe		Flush Tool?	No				
Rec.	40'	Feet Of	GSOCDM	10 %gas	5 %oil	%water	85 %mud		
Rec.		Feet Of		%gas	%oil	%water	%mud		
Rec.	60'	Feet Of	GOCM	25 %gas	10 %oil	%water	65 %mud		
Rec.		Feet Of		%gas	%oil	%water	%mud		
Rec.	180'	Feet Of	VGDCM	45 %gas	10 %oil	%water	45 %mud		
BHT	104°	°F Gravity		°API @		°F Corrected Gravity		°API	
RW		@		°F Chlorides		ppm Recovery	Chlorides	8,100	ppm System
(A) Initial Hydrostatic Mud	2323	PSI	AK1 Recorder No.	13309	Range	4700			
(B) First Initial Flow Pressure	52	PSI	@ (depth)	4623	w/Clock No.	27567			
(C) First Final Flow Pressure	83	PSI	AK1 Recorder No.	13339	Range	4025			
(D) Initial Shut-In Pressure	799	PSI	@ (depth)	4675	w/Clock No.	30418			
(E) Second Initial Flow Pressure	124	PSI	AK1 Recorder No.		Range				
(F) Second Final Flow Pressure	145	PSI	@ (depth)		w/Clock No.				
(G) Final Shut-In Pressure	789	PSI	Initial Opening	30	Test	550.00			
(H) Final Hydrostatic Mud	2243	PSI	Initial Shut-In	45	Jars				

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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.

Final Flow	45	Safety Joint	X	50.00
Final Shut-In	60	Straddle		
		Circ. Sub	X	n/c
		Sampler		
		Extra Packer		
		Other		
		TOTAL PRICE \$		600.00

Approved By Gary Rowe

Our Representative Rod Steinbrink