STATE OF KANSAS
STATE CORPORATION COMMISSION
130 S. Market, Room 2078
Wichita, KS 67202

WELL PLUGGING RECORD
K.A.R.-82-3-117

TYPE OR PRINT
NOTICE: Fill out completely and return to Cons. Div. office within 30 days.

API NUMBER 15-163-23,201-00-00
LEASE NAME Amrein #1
WELL NUMBER #1
1980 Ft. from S Section Line
1650 Ft. from E Section Line
SEC. 33 TWP. 8S RGE. 19 (E) or (W)
COUNTY Rooks
Date Well Completed 5-29-98
Plugging Commenced 6-24-98
Plugging Completed 6-24-98

LEASE OPERATOR Decab Company
ADDRESS 1202 Hickory Victoria Ks 67671
PHONE#( ) OPERATORS LICENSE NO.
Character of Well oil
(Oil, Gas, D&A, SWD, Input, Water Supply Well)

The plugging proposal was approved on 6-24-98. (date)
by Carl Gosdow (KCC District Agent's Name).
Is ACO-1 filed? Yes If not, is well log attached? Yes
Producing Formation Kc. Depth to Top 3193 Bottom 3361 T.D. 3448

Show depth and thickness of all water, oil and gas formations.

OIL, GAS OR WATER RECORDS				CASING RECORD		
Formation	Content	From	To	Size	Put in	Pulled out
		262'		8 5/8		0
		3438'		5 1/2		30'

Describe in detail the manner in which the well was plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same and depth placed, from feet to feet each set.

40 SK cement w/ 200# Hulls 16 SKs Gel 100 SKs cement w/ 250# Hulls Circ. OFF w/ 10 SKs cement Bhd. 50# Hulls Down 5½ Casing 8⅝ Backside Mixed 25 SKs cement Hole Stayed Full

Name of Plugging Contractor L & M well Servicing Inc License No. 31172
Address P.O Box 528 Russell Ks 67665
NAME OF PARTY RESPONSIBLE FOR PLUGGING FEES:
STATE OF ____ COUNTY OF ____, ss.

RECEIVED
OCT 05 1998
CONSERVATION DIVISION
10/2/98

(Employee of Operator) or (Operator) of above-described well, being first duly sworn on oath, says: That I have knowledge of the facts statements, and matters herein contained and the log of the above-described well as filed that the same are true and correct, so help me God.

(Signature) Arnold Michaelis
(Address) P.O. Box 528 Russell Ks

SUBSCRIBED AND SWORN TO before me this 30th day of Sept., 19 98

NOTARY PUBLIC - State of Kansas
TERESA L. MAJOR
My Appt. Exp. 5-20-99

Teresa L. Major
Notary Public

My Commission Expires: 5-20-99

Form CP-4
Revised 05-88

JAY-LAN CORPORATION

207 West 12th Street • Hays, Kansas 67601 • (913) 628-1316

No. 4002

6-8-92, 19

Decab Oil Co.

ORDERED BY

ESS

ORDER NO.

LEASE Amrein WELL NO. #1 WORK STARTED 6:30 COMPLETED 1:30

PULLED JTS.	PULLED FT.	PULLED DESCRIPTION	EQUIPMENT	RUN JTS.	RUN FT.	RUN DESCRIPTION
			Anchor	1		2 7/8 x 5 1/2 Baker Ten (Prod)
			Perf.	1		2 7/8 x 3' blacBK per sub
			Working Barrel			
			Hold Down			
			Tubing	106		2 7/8
			Tubing Subs			
			Standing Valve			
			Traveling Valve			
			Pumps	1		2 x 1 1/2 x 18 RHW.T. + 2' x 3/4 sub
			Rods	130		3/4
			Rods			
			Rod Subs	2		10' - 4' x 3/4
			Polish Rod	1		1 1/4 x 16 x 3/4
			Liner	1		1 1/2 x 6'
No.		Kind	Balls and Seats			
No.		Kind	Cups			

SERVICES	Hours	Per Hour	Amount
Unit and Power Tools Rig #5 S.D.	5 1/2	$	$
Operator Francis A. Kreutzer	6 1/2	$	$
Labor Willie Barnes Gary Erickson	13	$	$
POWER TONGS CIRCULATING HEAD		$	$
PLUG PACKER		$	$
			$
		TAX	
		TOTAL	

REMARKS: Runn R & D, T, R, Finish Run Tub Set Packer & Wait on Rods, Run Pump & Rods Space out Well & Set in Stuffing Box. T.D. M.D.

RECEIVED 8/24/92
STATE CORPORATION COMMISSION

RECORD #	G/L A/C	SC	LEASE #	WELL #	AMOUNT	G/L A/C	SC	LEASE #	WELL #	AMOUNT

AUG 24 1992
CONSERVATION DIVISION
Wichita, Kansas

Interstate Printers - Hays, KS

15-163-23201-00-00

By

Phone 913-483-2627, Russell, Kansas
Phone 316-793-5861, Great Bend, Kansas

PRODUCTION

Phone Plainville 913-434-2812
Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

2289

Home Office P. O. Box 31 Russell, Kansas 67665

New

Date	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish
5-14-92	33	8	19				6:45 AM

Lease Amrein Well No. 1 Location Zurich 5S N 2 W County Rooks State KS

Contractor Emphasis #5

Type Job Production String

Hole Size	7 7/8	T.D.	3446
Csg.	5 1/2	Depth	~~3444~~ 3439
Tbg. Size		Depth	
Drill Pipe		Depth	
Tool		Depth	
Cement Left in Csg.		Shoe Joint	15.00
Press Max.		Minimum	
Meas Line		Displace	
Perf.			

Owner

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Dekalb Co

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.

X Larry Langhofer

500 gal WFR-2 CEMENT

Amount Ordered 375 Lite 150 ASC

Consisting of

Common

Poz. Mix

Gel.

Chloride

Quickset

Sales Tax

Handling

Mileage

Sub Total

Total

EQUIPMENT

	No.		
Pumptrk	133	Cementer	Dave
		Helper	Jerold
Pumptrk	146	Cementer	
		Helper	Mark
		Driver	Joe
Bulktrk	213		
Bulktrk		Driver	

DEPTH of Job

Reference: Pump trk chg
2.50 Per mile
5 1/2 Rubber plug

Sub Total

Tax

Total

Floating Equipment 5 1/2
1 Basket Shoe (Arrow)
1 Baker Insert
2 Baskets
2 Centralizers

Remarks: Cement Circulated
Witness: [illegible]
Tool Pusher Larry Langhofer
[illegible] Dave Funk 62 #77
Basket on 1st [illegible], cent on 1,3,5,7, #77

Float Held

RECEIVED
STATE CORPORATION COMMISSION
AUG 24 1992
CONSERVATION DIVISION
Wichita, Kansas

15-163-23201-00-00

8/24/92

Phone 913-483-2627, Russell, Kansas
Phone 316-793-5861, Great Bend, Kansas

Phone Plainville 913-434-2812
Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC. 2042

Home Office P. O. Box 31 Russell, Kansas 67665

Date	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish
5-7-92	27	6S	19W	3:00 PM.	5:30 PM.	7:00 PM.	7:30 PM

Lease Amoco Well No. 1 Location Zurich S/2 N 1/2 W County Rooks State Ks.

Contractor Emphasis Oil Operations Rig #6

Type Job Set Surface Pipe

Hole Size	12¼"	T.D.	265'
Csg.	8⅝"	Depth	262'
Tbg. Size		Depth	
Drill Pipe		Depth	
Tool		Depth	
Cement Left In Csg.	15'	Shoe Joint	
Press Max.		Minimum	
Meas Line	X	Displace	X
Perf.			

EQUIPMENT

	No.		
Pumptrk	191	Cementer	Gary H.
		Helper	Wayne M.
Pumptrk	No.	Cementer	
		Helper	
		Driver	Joe S.
Bulktrk	1213		
Bulktrk		Driver	

DEPTH of Job

Reference			
#1	Pumptruck - surface		380.00
#18	mileage @ 2.00/mi.		
	1 - 8⅝" wooden plug		
		Sub. Total	
		Tax	
		Total	

Remarks: Cement Circulated.

Owner Same

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Decab Company

Street Box 609

City Hays State Ks. 67601

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.

X Larry Lamb

CEMENT

Amount Ordered 150 sks 40/60 poz 2% gel 3% c.c.

Consisting of

Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	
Sales Tax	
Handling @ 1.00/sk.	
Mileage @ .04 1/sk/mi.	
Sub Total	
Total	

Floating Equipment Thanks

RECEIVED
STATE CORPORATION COMMISSION
AUG 24 1992
CONSERVATION DIVISION
Wichita, Kansas

15-163-23201-00-00

8/24/92

Russell, Kansas
861, Great Bend, Kansas

Phone Plainville 913-434-2812
Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

2296

Home Office P. O. Box 31 — Russell, Kansas 67665

New

Date	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish
5-22-92							1:30PM

Lease	Well No.	Location	County	State
Amrein	1	Zurich 5½N ½W	Rooks	Ks

Contractor Leons Cable Tools

Type Job Squeez

Owner

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Hole Size		T.D.
Csg.	5½	Depth
Tbg. Size	2"	Depth
Drill Pipe		Depth
Tool	Brad Ol'	Depth 3410
Cement Left in Csg.		Shoe Joint
Press Max.		Minimum
Meas Line		Displace
Perf.		

Charge To Dekab

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.

X Ed Harley Jarrel

EQUIPMENT

Pumptrk No. 153	Cementer	Arlin
	Helper	Dave
	Driver	Jerald
Pumptrk No.	Cementer	
	Helper	
	Driver	
Bulktrk 160	Driver	Paul
Bulktrk	Driver	

CEMENT

Amount Ordered 100 60 40 3 % Cmnd

Consisting of Used 35

Common		
Poz. Mix		
Gel.		
Chloride		
Quickset		
	Sales Tax	
Handling		
Mileage		
	Sub Total	
	Total	

Floating Equipment

DEPTH of Job

Reference: Pump trk chg 2 e Per mile

	Sub Total
	Tax
	Total

Remarks: Injection Rate = 3BBl @ 1200 PSI
Mixed 150 sk wtr Cement followed by 20 straight
Squeezed @ 2500 PSI wasted out 20-25'
tested @ 300 PSI & Held

FORM 4

TOTAL

15-163-23201-00-00

RCVD 8/24/92

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

15-163-23201-00-00

Well Name AMREIN #1 Test No. 1 Date 5/11/92

Company DECAB COMPANY Zone LKC-"A-B-C"

Address BOX 609 HAYS KANSAS 67601 Elevation 1996

Co. Rep./Geo. RON NELSON Cont. EMPHASIS RIG #6 Est. Ft. of Pay 7

Location: Sec. 33 Twp. 8S Rge. 19W Co. ROOKS State KS

Interval Tested 3178-3240 Drill Pipe Size 4.5 XH

Anchor Length 62 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 3173 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 3178 Mud Wt. 9 lb/Gal.

Total Depth 3240 Viscosity 41 Filtrate 10.4

Tool Open @ 9:05 AM Initial Blow WEAK-BUILDING TO STRONG - OFF BOTTOM OF BUCKET IN 11 MINUTES

Final Blow WEAK-BUILDING TO STRONG-OFF BOTTOM OF BUCKET IN 23 MINUTES

Recovery - Total Feet 332 Flush Tool? NO

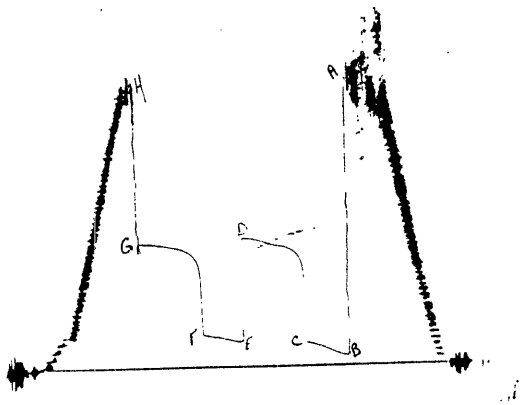
Rec.	154	Feet of	GAS IN PIPE
Rec.	30	Feet of	CLEAN OIL
Rec.	120	Feet of	OIL CUT MUD-40%OIL/60%MUD
Rec.	62	Feet of	SLTLY OIL CUT MUD-5%OIL/95%MUD
Rec.	120	Feet of	MUDDY WATER-95%WTR/5%MUD

BHT 108 °F Gravity ____ °API @ ____ °F Corrected Gravity 40 °API

RW 0.06 @ 86 °F Chlorides 36000 ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud	1643.9 PSI	AK1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	62.0 PSI	@ (depth)	3182	w / Clock No.	8179
(C) First Final Flow Pressure	117.1 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-in Pressure	715.4 PSI	@ (depth)	3236	w / Clock No.	31152
(E) Second Initial Flow Pressure	144.6 PSI	AK1 Recorder No.		Range	
(F) Second Final Flow Pressure	181.1 PSI	@ (depth)		w / Clock No.	
(G) Final Shut-in Pressure	702.5 PSI	Initial Opening	30	Final Flow	30
(H) Final Hydrostatic Mud	1587.9 PSI	Initial Shut-in	45	Final Shut-in	45

Our Representative DAN BANGLE



7437#1

This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1686	1643.9
(B) FIRST INITIAL FLOW PRESSURE	78	62
(C) FIRST FINAL FLOW PRESSURE	118	117.1
(D) INITIAL CLOSED-IN PRESSURE	719	715.4
(E) SECOND INITIAL FLOW PRESSURE	147	144.6
(F) SECOND FINAL FLOW PRESSURE	187	181.1
(G) FINAL CLOSED-IN PRESSURE	709	702.5
(H) FINAL HYDROSTATIC MUD	1586	1587.9

15-163-23201-00-00 ORIGINAL

COMPUTER EVALUATION BY TRILOBITE TESTING, L.L.C.

DECAB COMPANY AMREIN #1 DST 1

33 8S 19W ROOKS KS

ELEVATION:	1996	KB	EST. PAY	7	FT
DATUM:	-3183		ZONE TESTED:	LKC-"A-B-C"	
TEST INTERVAL:	3178-3240		TIME INTERVALS:	30-45-30-45	
RECORDER DEPTH:	3182		VISCOSITY:	5.224	CP
BOTTOM HOLE TEMP:	108		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	12.30			
TOTAL FEET OF RECOVERY:	332.00	CORRECTED PIPE FILLUP:	507.283	
TOTAL BARRELS OF RECOVERY:	4.72	CORR. BARRELS OF RECOVERY:	7.210	BBL
BARRELS IN DRILL PIPE:	4.72	API GRAVITY:	40	
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.357	
BARRELS IN DRILL COLLARS:	0.00			
GAS OIL RATIO:	2.6044	CU.FT/BBL		
BUBBLE POINT PRESSURE:	23.241			
UNCORRECTED INITIAL PRODUCTION:			113.30	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			173.03	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			38.776	

INITIAL SLOPE	224.80	PSI/CYCLE	FINAL SLOPE	163.09	PSI/CYCLE
INITIAL P*	765	PSI	FINAL P*	763	PSI

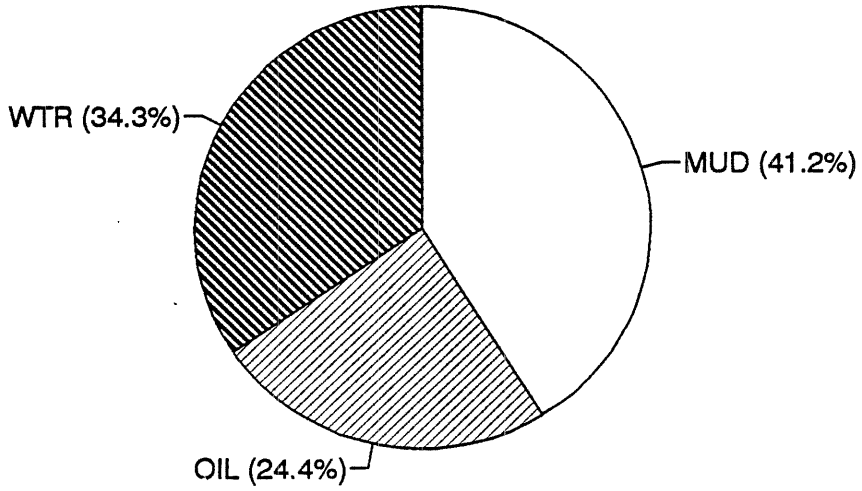
TRANSMISSIBILITY	172.51	(MD.-FT./CP.)
PERMEABILITY	128.75	(MD.)
INDICATED FLOW CAPACITY	901.23	)MD.FT)
PRODUCTIVITY INDEX	0.19	(BARRELS/DAY/PSI)
DAMAGE RATIO	0.65	
RADIUS OF INVESTIGATION	87.89	(FT,)
POTENTIOMETRIC SURFACE	-1413.73	(FT.)
DRAWDOWN FACTOR	0.361	(%)

CALCULATED RECOVERY ANALYSIS DRILL PIPE

DST # 1 TICKET 4764

SAMPLE	TOTAL	GAS		OIL		WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	30	0	0	100	30	0	0	0	0
2	120	0	0	40	48	0	0	60	72
3	62	0	0	5	3.1	0	0	95	58.9
4	120	0	0	0	0	95	114	5	6
5			0		0		0		0
TOTAL	332	0	0	24.4	81.1	34.337349	114	41.2	136.9

			HRS	BBL/DAY
BBL OIL=	1.153242	*	1	27.678
BBL WATER=	1.62108	*		38.906
BBL MUD=	1.946718			
BBL GAS	0			



15-163-23201-00-00

FINAL

INITIAL FLOW

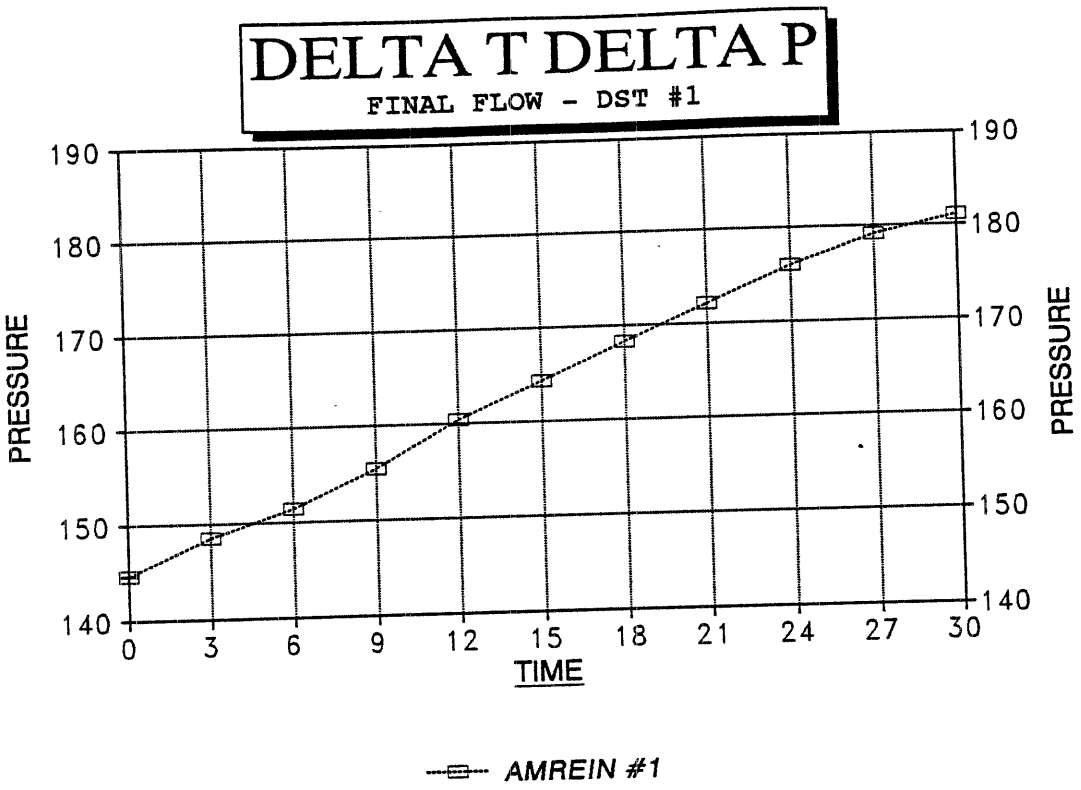
RECORDER 13754 DST # 1

TIME(MIN)	PRESSURE	<>PRESSURE
0	62	62
3	64.9	2.9
6	68.9	4
9	74.8	5.9
12	81.6	6.8
15	87.6	6
18	93.5	5.9
21	100.3	6.8
24	108.2	7.9
27	111.2	3
30	117.1	5.9

FINAL FLOW

RECORDER # 13754 DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
0	144.6	144.6
3	148.6	4
6	151.5	2.9
9	155.5	4
12	160.4	4.9
15	164.3	3.9
18	168.3	4
21	172.2	3.9
24	176	3.8
27	179.1	3.1
30	181.1	2



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE: 38.776

15-163-23201-00-00 ORIGINAL

AMREIN #1
INITIAL

DST #1
SHUTIN
30 FLOW TIME

Slope 224.80 psi/cycle
P * 765 psi

	Pws (psi)	Log Horn T <> PRESSURE	Horn T
3	539.5	1.041	539.5	11
6	616.5	0.778	77.0	6
9	642.2	0.637	25.7	4
12	655.1	0.544	12.9	4
15	664.0	0.477	8.9	3
18	671.9	0.426	7.9	3
21	680.8	0.385	8.9	2
24	686.7	0.352	5.9	2
27	691.6	0.325	4.9	2
X 30	697.6	0.301	6.0	2
33	701.5	0.281	3.9	2
36	705.5	0.263	4.0	2
39	709.4	0.248	3.9	2
42	713.4	0.234	4.0	2
X 45	715.4	0.222	2.0	2

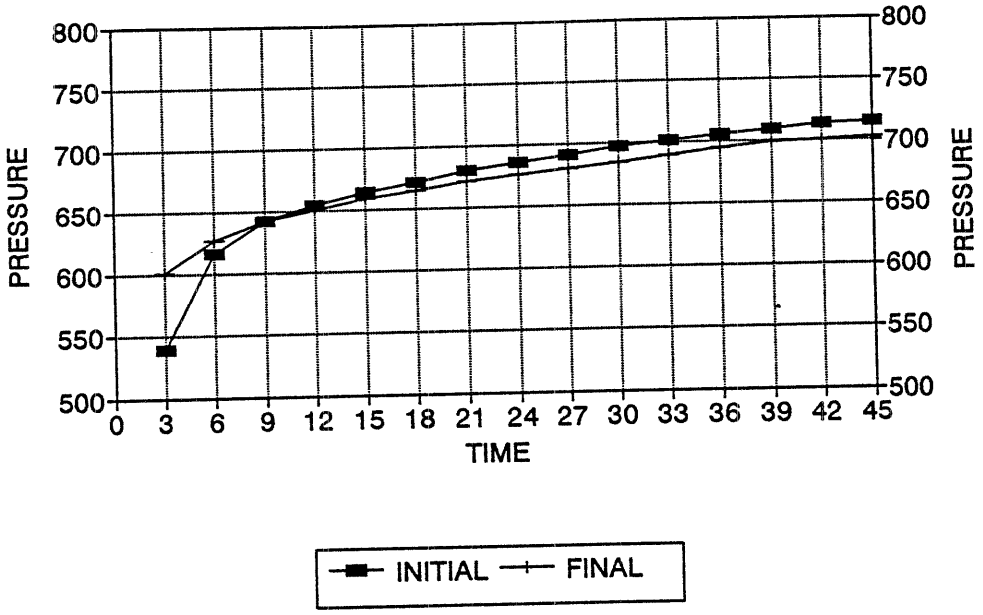
AMREIN #1
FINAL

DST #1
SHUTIN
60 TOTAL FLOW TIME

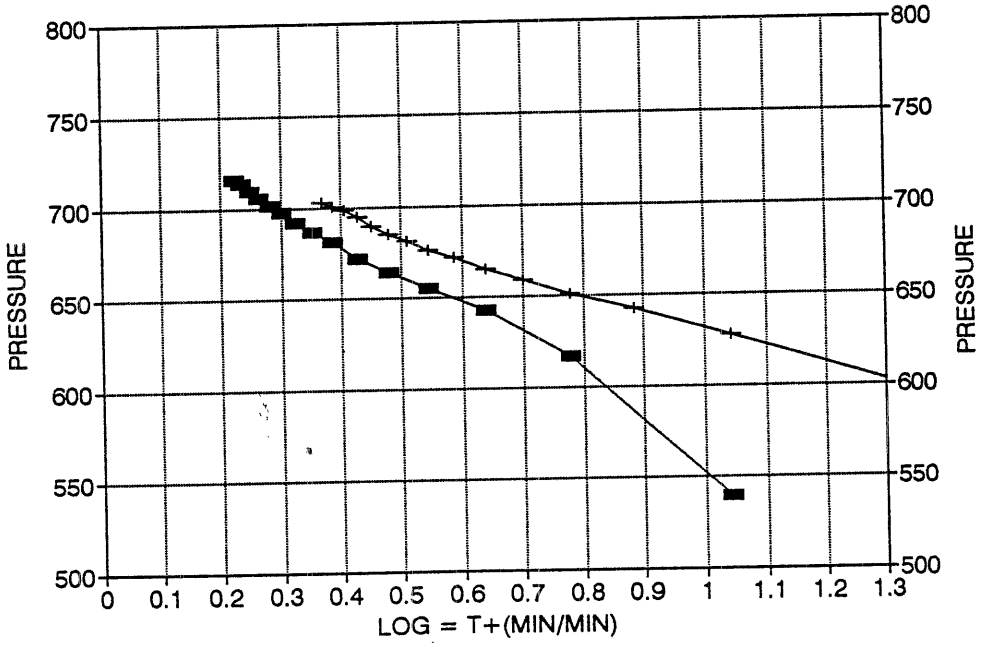
Slope 163.09 psi/cycle
P * 763 psi

TIME(MIN)	Pws (psi)	Log Horn T <> PRESSURE	Horn T
3	600.7	1.322	600.7	21
6	627.4	1.041	26.7	11
9	642.2	0.885	14.8	8
12	651.1	0.778	8.9	6
15	659.0	0.699	7.9	5
18	665.0	0.637	6.0	4
21	671.9	0.586	6.9	4
24	675.8	0.544	3.9	4
27	680.8	0.508	5.0	3
X 30	684.7	0.477	3.9	3
33	689.7	0.450	5.0	3
36	694.6	0.426	4.9	3
39	698.6	0.405	4.0	3
42	700.5	0.385	1.9	2
X 45	702.5	0.368	2.0	2

AMREIN #1 / DST #1
DELTA T DELTA P



HORNER PLOT



15-163-23201-00-00

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Test Ticket

№ 4764

Well Name & No. Amrein #1 Test No. 1 Date 5-11-92

Company Decab Co. Zone Tested A-C L.K.C.

Address Box 609, Hays, Ks. 67601 Elevation 1996 K.B

Co. Rep./Geo. Ron Nelson Cont. Emphasis #6 Est. Ft. of Pay 7

Location: Sec. 33 Twp. 8 Rge. 19 Co. Rooks State Ks.

No. of Copies 2 Distribution Sheet ____ Yes X No Turnkey ____ Yes X No X Evaluation

Interval Tested 3178-3240 Drill Pipe Size 4.5 XH

Anchor Length 62 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 3173 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 3178 Wt. Pipe I.D. — 2.7 Ft. Run ____

Total Depth 3240 Drill Collar — 2.25 Ft. Run ____

Mud Wt. 9 lb / gal. Viscosity 41 Filtrate 10.4

Tool Open @ 9:05 A.M. Initial Blow Weak-building To Strong-off bottom of bucket in 11 min.

Final Blow Weak-building To Strong-off bottom of bucket in 23min.

Recovery — Total Feet 332 Feet of Gas in Pipe 154 Flush Tool? ____

Rec. 30	Feet Of C.O	%gas	100 %oil	%water		%mud
Rec. 120	Feet Of O-C.M	%gas	40 %oil	%water	60	%mud
Rec. 62	Feet Of Slty O.C.M	%gas	5 %oil	%water	95	%mud
Rec. 120	Feet Of mdy WTR.	%gas	%oil	95 %water	5	%mud
Rec. ____	Feet Of ____	%gas	%oil	%water		%mud

BHT 108 °F Gravity ____ °API @ ____ °F Corrected Gravity 40 °API

RW .06 @ 86 °F Chlorides 36,000 ppm Recovery Chlorides 4,000 ppm System

(A) Initial Hydrostatic Mud	1686 PSI	AK1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	78 PSI	@ (depth)	3182	w/Clock No.	8179
(C) First Final Flow Pressure	118 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	719 PSI	@ (depth)	3236	w/Clock No.	3115-2
(E) Second Initial Flow Pressure	147 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	187 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	709 PSI	Initial Opening	30	Test	550.00
(H) Final Hydrostatic Mud	1586 PSI	Initial Shut-In	45	Jars	____
		Final Flow	30	Safety Joint	____
		Final Shut-In	45	Straddle	____
				Circ. Sub	____
				Sampler	____
				Extra Packer	____
				Other	Circulating Tool

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.

Approved By Tom Youngren

Our Representative Dan

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name: AMREIN #1 Test No. 2 Date 5/11/92

Company: DECAB COMPANY Zone LKC-"E-F-G"

Address: BOX 609 HAYS KANSAS 67601 Elevation 1996

Co. Rep./Geo.: RON NELSON Cont. EMPHASIS RIG #6 Est. Ft. of Pay

Location: Sec. 33 Twp. 8S Rge. 19W Co. ROOKS State KS

Interval Tested: 3251-3300

Anchor Length: 49

Top Packer Depth: 3246

Bottom Packer Depth: 3251

Total Depth: 3300

Drill Pipe Size: 4.5 XH

Wt. Pipe I.D. - 2.7 Ft. Run:

Drill Collar – 2.25 Ft. Run:

Mud Wt.: 9.2 lb/Gal.

Viscosity: 43 Filtrate: 10.4

Tool Open @: 11:07 PM Initial Blow: WEAK - BUILDING TO 6" FAIR BLOW

Final Blow: WEAK-BUILDING TO 2"

Recovery - Total Feet: 150 Flush Tool?: NO

Rec. 5 Feet of CLEAN OIL

Rec. 145 Feet of MUDDY WATER

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 109 °F Gravity °API @ °F Corrected Gravity °API

RW 0.04 @ 85 °F Chlorides 32000 ppm Recovery Chlorides 3000 ppm System

(A) Initial Hydrostatic Mud 1704.5 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 62.3 PSI @ (depth) 3255 w / Clock No. 8179

(C) First Final Flow Pressure 85.6 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 734.9 PSI @ (depth) 3296 w / Clock No. 31152

(E) Second Initial Flow Pressure 94.5 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 102.3 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 684.5 PSI Initial Opening 45 Final Flow 45

(H) Final Hydrostatic Mud 1620.4 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative: DAN BANGLE

15-163-23201-00-00

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 4765

Well Name & No. Amrein #1 Test No. 2 Date 5-11-92

Company Decab Co. Zone Tested 'E-F-G' L.K.C.

Address _____ Elevation 1996 K.B.

Co. Rep./Geo. Ron Nelson Cont. Emphasis #6 Est. Ft. of Pay _____

Location: Sec. 33 Twp. 8 Rge. 19 Co. Rooks State Ks.

No. of Copies 2 Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation

Interval Tested 3251 - 3300 Drill Pipe Size 4.5 XH

Anchor Length 49 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3246 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3251 Wt. Pipe I.D. — 2.7 Ft. Run _____

Total Depth 3300 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9.2 lb / gal. Viscosity 43 Filtrate 10.4

Tool Open @ 11:07 P.M. Initial Blow Weak - building to 6" fair blow

Final Blow Weak - building to 2"

Recovery — Total Feet 150 Feet of Gas in Pipe _____ Flush Tool? _____

Rec. 5	Feet Of C.O.	%gas	%oil	%water	%mud
Rec. 145	Feet Of mdy wtr.	%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 109 °F Gravity _____ °API @ _____ °F Corrected Gravity 38 °API

RW .04 @ 85 °F Chlorides 32,000 ppm Recovery Chlorides 3,000 ppm System

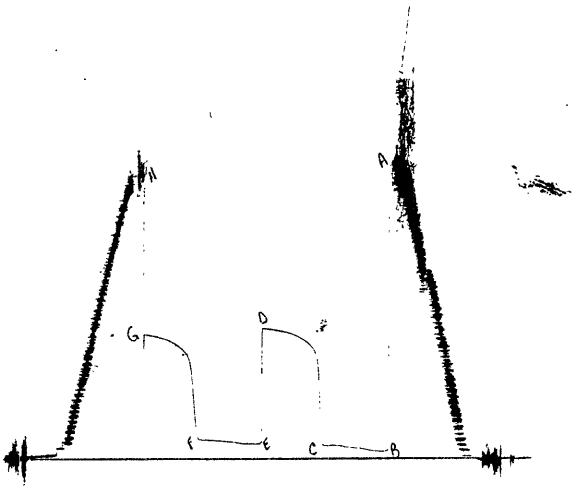
(A) Initial Hydrostatic Mud	1696 PSI	AK1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	59 PSI	@ (depth)	3255	w/Clock No.	8179
(C) First Final Flow Pressure	78 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	729 PSI	@ (depth)	3296	w/Clock No.	31152
(E) Second Initial Flow Pressure	88 PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	98 PSI	@ (depth)	_____	w/Clock No.	_____
(G) Final Shut-In Pressure	679 PSI	Initial Opening	45	Test	_____
(H) Final Hydrostatic Mud	1616 PSI	Initial Shut-In	45	Jars	_____
		Final Flow	45	Safety Joint	_____
		Final Shut-In	45	Straddle	_____
				Circ. Sub	_____
				Sampler	_____
				Extra Packer	_____
				Other	_____
				TOTAL PRICE $	550.00

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.

Approved By _____

Our Representative Ron

CHART PAGE



74/37 #12

This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1696	1704.5
(B) FIRST INITIAL FLOW PRESSURE	59	62.3
(C) FIRST FINAL FLOW PRESSURE	78	85.6
(D) INITIAL CLOSED-IN PRESSURE	729	734.9
(E) SECOND INITIAL FLOW PRESSURE	88	94.5
(F) SECOND FINAL FLOW PRESSURE	98	102.3
(G) FINAL CLOSED-IN PRESSURE	679	684.5
(H) FINAL HYDROSTATIC MUD	1616	1620.4

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

15-163-23201-00-00

Well Name AMREIN #1 Test No. 3 Date 5/12/92

Company DECAB COMPANY Zone LKC-"I-J"

Address BOX 609 HAYS KANSAS 67601 Elevation 1996

Co. Rep./Geo. RON NELSON Cont. EMPHASIS RIG #6 Est. Ft. of Pay

Location: Sec. 33 Twp. 8S Rge. 19W Co. ROOKS State KS

Interval Tested 3330-3370 Drill Pipe Size 4.5 XH

Anchor Length 40 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 3325 Drill Collar -- 2.25 Ft. Run

Bottom Packer Depth 3330 Mud Wt. 9 lb/Gal.

Total Depth 3370 Viscosity 49 Filtrate 8

Tool Open @ 1:34 PM Initial Blow WEAK-BUILDING TO STRONG-BOTTOM OF BUCKET IN 12 MINUTES

Final Blow WEAK-BUILDING TO 8" FAIR BLOW

Recovery - Total Feet 392 Flush Tool? NO

Rec. 2 Feet of CLEAN OIL

Rec. 390 Feet of WATER

Rec. Feet of 0

Rec. Feet of

Rec. Feet of 0

BHT 109 °F Gravity °API @ °F Corrected Gravity °API

RW 0.06 @ 86 °F Chlorides 38000 ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1705.6 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 22.5 PSI @ (depth) 3334 w / Clock No. 8179

(C) First Final Flow Pressure 94.5 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 771.2 PSI @ (depth) 3366 w / Clock No. 31152

(E) Second Initial Flow Pressure 115.6 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 184.9 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 755.2 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1640.9 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative DAN BANGLE

CHART PAGE

This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1696	1705.6
(B) FIRST INITIAL FLOW PRESSURE	19	22.5
(C) FIRST FINAL FLOW PRESSURE	88	94.5
(D) INITIAL CLOSED-IN PRESSURE	768	771.2
(E) SECOND INITIAL FLOW PRESSURE	108	115.6
(F) SECOND FINAL FLOW PRESSURE	177	184.9
(G) FINAL CLOSED-IN PRESSURE	749	755.2
(H) FINAL HYDROSTATIC MUD	1636	1640.9

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

15-163-23201-00-00

ORIGINAL

Test Ticket

№ 4766

Well Name & No. Amrein #1 Test No. 3 Date 5-12-92

Company Decab Co. Zone Tested J-I L.KC.

Address _____ Elevation 1996 K.B.

Co. Rep./Geo. Ron Nelson Cont. Emphasis #6 Est. Ft. of Pay _____

Location: Sec. 33 Twp. 8 Rge. 19 Co. Rooks State Ks

No. of Copies 2 Distribution Sheet _____ Yes ✓ No Turnkey _____ Yes ✓ No _____ Evaluation

Interval Tested 3330 - 3370 Drill Pipe Size 4.5 XH

Anchor Length 40 Top Choke — 1" _____ Bottom Choke — ¾" _____

Top Packer Depth 3325 Hole Size — 7⅞" _____ Rubber Size — 6¾" _____

Bottom Packer Depth 3330 Wt. Pipe I.D. — 2.7 Ft. Run _____

Total Depth 3370 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9 lb / gal. Viscosity 49 Filtrate 8

Tool Open @ 1:34 PM. Initial Blow Weak - building to strong - B.O.B in 12 min.

Final Blow Weak - building to 8" fair blow

Recovery — Total Feet 392 Feet of Gas in Pipe _____ Flush Tool? _____

Rec. 2	Feet Of C.O	%gas	%oil	%water	%mud
Rec. 390	Feet Of WTR.	%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 109 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW .06 @ 86 °F Chlorides 38,000 ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud	1696 PSI	AK1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	19 PSI	@ (depth)	3334	w/Clock No.	8179
(C) First Final Flow Pressure	88 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	768 PSI	@ (depth)	3366	w/Clock No.	31552
(E) Second Initial Flow Pressure	108 PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	127 PSI	@ (depth)	_____	w/Clock No.	_____
(G) Final Shut-In Pressure	749 PSI	Initial Opening	30	Test	_____
(H) Final Hydrostatic Mud	1636 PSI	Initial Shut-In	45	Jars	_____
		Final Flow	30	Safety Joint	_____
		Final Shut-In	45	Straddle	_____
				Circ. Sub	_____
				Sampler	_____
				Extra Packer	_____
				Other	_____
				TOTAL PRICE $	_____

Approved By _____

Our Representative _____

Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name AMREIN #1 Test No. 4 Date 5/13/92

Company DECAB COMPANY Zone ARBUCKLE

Address BOX 609 HAYS KANSAS 67601 Elevation 1996

Co. Rep./Geo. RON NELSON Cont. EMPHASIS RIG #6 Est. Ft. of Pay

Location: Sec. 33 Twp. 8S Rge. 19W Co. ROOKS State KS

Interval Tested 3429-3436 Drill Pipe Size 4.5 XH

Anchor Length 7 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 3424 Drill Collar — 2.25 Ft. Run

Bottom Packer Depth 3429 Mud Wt. 9 lb/Gal.

Total Depth 3436 Viscosity 49 Filtrate 8

Tool Open @ 3:13 AM Initial Blow STRONG-BOTTOM OF BUCKET IN 30 SECONDS

Final Blow STRONG - BOTTOM OF BUCKET IN 15 SECONDS

Recovery - Total Feet 2480 Flush Tool? NO

Rec. 120 Feet of GAS IN PIPE

Rec. 1240 Feet of OIL & MUD CUT WTR-25%OIL/40%WTR/35%MUD

Rec. 310 Feet of OIL & SLTLY MUD CUT WTR-20%OIL/75%WTR/5%MUD

Rec. 620 Feet of SLTLY OIL CUT WTR-5%OIL/95%WTR

Rec. 310 Feet of WATER

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

RW 0.07 @ 82 °F Chlorides 28000 ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1833.7 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 336.9 PSI @ (depth) 3420 w / Clock No. 8179

(C) First Final Flow Pressure 921.4 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 1117.8 PSI @ (depth) 3432 w / Clock No. 31152

(E) Second Initial Flow Pressure 997.6 PSI AK1 Recorder No. Range

(F) Second Final Flow Pressure 1116.9 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 1116.9 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1760.2 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Test Ticket 15-163-23208-00-00 No. 4767

Well Name & No. Amrein #1 Test No. 4 Date 5-13-92

Company Decab Co. Zone Tested Arbuckle

Address Elevation 1996 K.B

Co. Rep./Geo. Ron Nelson Cont. Emphasis #6 Est. Ft. of Pay

Location: Sec. 33 Twp. 8 Rge. 19 Co. Rooks State Ks

No. of Copies 2 Distribution Sheet ____ Yes ✓ No Turnkey ____ Yes ✓ No ____ Evaluation

Interval Tested 3429 - 3436 Drill Pipe Size 4.5 XH

Anchor Length 7 Top Choke — 1" ____ Bottom Choke — ¾" ____

Top Packer Depth 3424 Hole Size — 7⅞" ____ Rubber Size — 6¾" ____

Bottom Packer Depth 3429 Wt. Pipe I.D. — 2.7 Ft. Run ____

Total Depth 3436 Drill Collar — 2.25 Ft. Run ____

Mud Wt. 9 lb / gal. Viscosity 49 Filtrate 8

Tool Open @ 3:13 A.M. Initial Blow Strong - B.O.B in 30 sec.

Final Blow Strong - B.O.B. in 15 Sec.

Recovery — Total Feet 2480 Feet of Gas in Pipe 120 Flush Tool? ____

Rec. 1240	Feet Of	O+MC WTR.	%gas 25	%oil 40	%water 35	%mud
Rec. 310	Feet Of	O+Slty MC WTR	%gas 20	%oil 75	%water 5	%mud
Rec. 620	Feet Of	Slty O.C WTR.	%gas 5	%oil 95	%water	%mud
Rec. 310	Feet Of	WTR	%gas	%oil	100 %water	%mud
Rec. ____	Feet Of	____	%gas	%oil	%water	%mud

BHT 114 °F Gravity ____ °API @ ____ °F Corrected Gravity 38 °API

RW .07 @ 82 °F Chlorides 28,000 ppm Recovery Chlorides 5000 ppm System

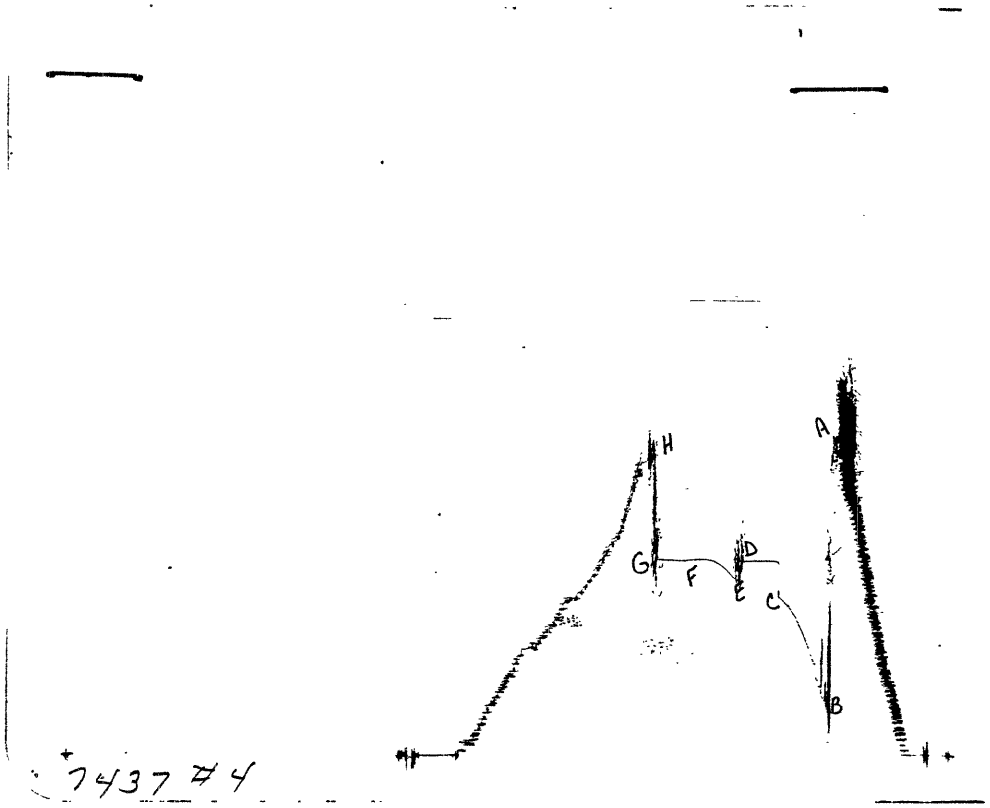
(A) Initial Hydrostatic Mud	1820 PSI	AK1 Recorder No.	13754	Range	4000
(B) First Initial Flow Pressure	330 PSI	@ (depth)	3420	w/Clock No.	8179
(C) First Final Flow Pressure	915 PSI	AK1 Recorder No.	7437	Range	4200
(D) Initial Shut-In Pressure	1104 PSI	@ (depth)	3432	w/Clock No.	31152
(E) Second Initial Flow Pressure	999 PSI	AK1 Recorder No.	____	Range	____
(F) Second Final Flow Pressure	1114 PSI	@ (depth)	____	w/Clock No.	____
(G) Final Shut-In Pressure	1114 PSI	Initial Opening	30	Test	____
(H) Final Hydrostatic Mud	1757 PSI	Initial Shut-In	30	Jars	____
		Final Flow	30	Safety Joint	____
		Final Shut-In	30	Straddle	____
				Circ. Sub	____
				Sampler	____
				Extra Packer	____
				Other	____
				TOTAL PRICE $	____

Approved By ____

Our Representative ____

Printcraft Printers - Hays, KS

CHART PAGE



This is an actual photograph of recorder chart

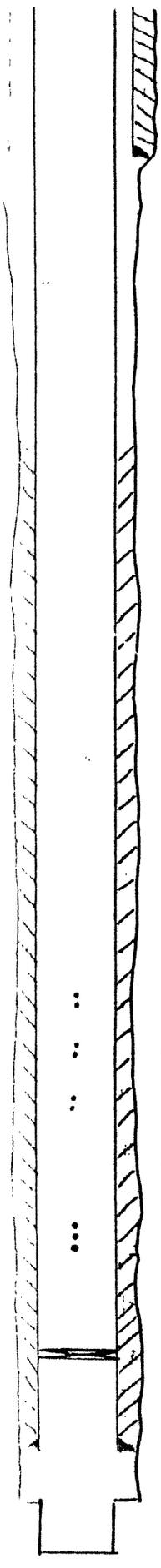
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1820	1833.7
(B) FIRST INITIAL FLOW PRESSURE	330	336.9
(C) FIRST FINAL FLOW PRESSURE	915	921.4
(D) INITIAL CLOSED-IN PRESSURE	1104	1117.8
(E) SECOND INITIAL FLOW PRESSURE	999	997.6
(F) SECOND FINAL FLOW PRESSURE	1114	1116.9
(G) FINAL CLOSED-IN PRESSURE	1114	1116.9
(H) FINAL HYDROSTATIC MUD	1757	1760.2

CHRONOLOGY 5/29/92

DECAB Co.
AHREIN No. 1
S/2-NW-SE Sec. 33-8S-19W
ROOKS CO. KANSAS

Ele: Gl. 1991' A.S.L.

15-163-23201-00-00



8 5/8" Surf. Csg. @ 262'
Cement circulated.

825' Top good cement.

Pf. 2 Shts. @ 3193' 'A'

Pf. 2 Shts. @ 3229' 'C'

Pf. 2 Shts. @ 3267' 'E'

Pf. 8 Shts. @ 3359-61' 'J'

Cast Iron BP @3410'

5 1/2" Used casing (375 Sx)
set @ 3438' Cement circulated

Rotary TD 3446'

Cable Tool TD 3448'

5/20/92 Rig up Cable tool rig. Mercury wireline Co. ran Sonic cement bond log. Found very poor bond around casing shoe, also lite cement had settled back to 800'. (from Surface) Swab Casing dry to 3300', start drilling cement and cleaning out casing. Cleaned out to 3445 in basket shoe.

5/21/92 Finish drilling thru basket shoe, had 5' hole below shoe. Hole filled to 900' from surface with water, only slight rainbow show of oil. Swab test 70 BF/H from 1100' from surface. Mercury wireline Co. Rerun Sonic Bond Log to bottom to confirm poor cement around shoe joint. Cement job gave way after cementing casing. (No bonding from 3410 to 3438). Drilled 1 Ft. of new hole to pick up bottom sample. (Shale and Dolomite)

5/22/92 Ran tubing and packer, set @ 3420' and cement open hole with 35 Sx 60/40 Poz. Had to stage, Arbuckle took cement on strong vacuum. Squeeze to 2500#, wash out to 3436'. Shut down over week end.

5/26/92 Drill out squeeze job. Drilled to 3445' before water broke in again. Swab test 30 BF/H from 2500' very slight show of oil. Mercury Wireline set CI bridge plug @ 3410' Swab down dry, Perf. 8 Shts. 3359 To 3361' good show of oil natural. one hour test 1 1/2 barrel of oil.

5/27/92 80' of oil in hole over night, SERFCO treat with 500 Gal. 15% Non-E acid. 400# Max. pressure. Recover load and test 7 B/F per Hr. 20% oil. 4 Hour test declined to 6 B/F 13% oil. 5th Hr. 6 B/f 8% oil.

5/28/92 Over night had 1450' water less than 3% oil. Perf. 2 Shts. @ 3193, 2 Shts @ 3229' and 2 Shts @ 3267' Set Retrievable BP @ 3280' Treat with 1500 Gal 15% Non-E acid all zones together limited entry using Perf ball sealers, good pressure changes when sealers lodged. Recovered load and test 1st Hr. 11 B/f 18% oil, fluid declined 4 th Hr. 8½ B/f 16% oil.

5/29/92 Found 1400' fluid in hole over night with 150' oil on top. Pulled retrievable BP and rigged down cable tools, will set pumping unit to test further.

15-163-23201-00-00

RON NELSON

CONSULTING PETROLEUM GEOLOGIST
212 EAST 5th ST.
HAYS, KANSAS 67601
PHONE: 913-628-3449

GEOLOGIC REPORT LOG

COMPANY DECAB CO.
15-051-24820

WELL AMREIN #1

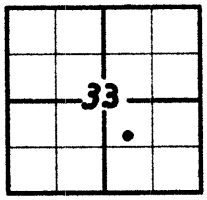
FIELD WEBSTER

LOCATION S/2 - NW-SE

SEC. 33 TWP. 8S RGE. 19W

COUNTY ROOKS

STATE KANSAS



PRODUCTION LKC - ARB

ELEVATION KB 1996'
DF
GL 1991'

Drilling Measured From: KB

Samples Saved From 2900 To: TD

Drilling Time From 2800 To: TD

Samples Examined From: 2900 To: TD

Geological Supervision From 2900 To Total Depth

Wellsite Geologist RON NELSON

Electrical Surveys MERCURY WIRELINE - RAG

OPERATOR Decab Co.

CONTRACTOR EMPHASIS Rig 6

COMM: 5-7-92 COMP:

CASING RECORD

SURF: 8⅝"@ 262' PROD: 5½"@ 3438'

TOTAL DEPTH DRILLERS: 3446'

TOTAL DEPTH LOG 3447'

RECEIVED
FEB 17
CONSERVATION DIVISION
Wichita, Kansas

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE TOP	ELECTRIC LOG TOP	SUB-SEA DATUM	STRUCTURAL POSITION
TOP ANHYDRITE	1414'	1411	+585	-3
BASE ANHYDRITE	1453'	1449	+546	-3
TOPEKA	2940'	2941'	-945	NA
HEEBNER	3146'	3147	-1150	-7
TORONTO	3173'	3175	-1178	NA
LKC	3188'	3192	-1194	-12
BKC	3391'	3393	-1397	NA
ARBUCKLE	3428'	3428	-1432	-5

REFERENCE WELL FOR STRUCTURE #2 FIDELIS NE-SW-SE 33-8-19