

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 4767

Name: Ritchie Exploration, Inc.

Address 125 N. Market - Suite 1000

City/State/Zip Wichita, Kansas 67202

Purchaser: _____

Operator Contact Person: Lisa Thimmesch

Phone (316) 267-4375

Contractor: Name: Duke Drilling Co., Inc.

License: 5929

Wellsite Geologist: Bob Mathiesen

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD S10W Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator: RELEASED *ALL*

Well Name: OCT 6 1998 *AUG 2 8*

Comp. Date _____ Old Total Depth _____

Deepening No. part. _____ Conv. to Inj/SWD
 Plug Back _____ PBTB
 Commingled _____ Docket No. _____
 Dual Completion _____ Docket No. _____
 Other (SWD or Inj?) Docket No. _____

08-02-96 08-12-96 08-13-96

Spud Date Date Reached TD Completion Date

API NO. 15-025-21148 0000

County Clark County, Kansas

C - SW - SW Sec. 31 Twp. 34S Rgo. 22 XX ^E

660 Feet from S/W (circle one) Line of Section

660 Feet from EXW (circle one) Line of Section

Footages Calculated from NE (circle one) Outside Section Corner:
NE, SE, NW or SW (circle one)

Lease Name Arnold Ranch Well # 1

Field Name _____

Producing Formation _____

Elevation: Ground 1865 KB 1878

Total Depth 5800' PBTB 5850'

Amount of Surface Pipe Set and Cemented at 730.87 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated _____

feet depth to _____ w/ 8-30-96 _____

Drilling Fluid Management Plan ACT
(Data must be collected from the Reserve Pit)

Chloride content 9,000 ppm Fluid volume 17,700 bbls

Dewatering method used triple

Location of fluid disposal if hauled _____

Operator Name Advantage Resources

Lease Name Hardy B-1 License No. 6927

Quarter Sec. 24 Twp. 28S S Rng. 18W E/W

County Kiowa Docket No. D-27,161

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature [Signature]

Title President Date 8/20/96

Subscribed and sworn to before me this 20th day of August 19 96

Notary Public Lisa Thimmesch

Date Commission Expires _____

LISA THIMMESCH
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 8-21-99

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)

Operator Name Ritchie Exploration, Inc. Lesse Name Arnold Ranch Well # 1
 Sec. 31 Twp. 34S Rge. 22 East West
 County Clark County, Kansas

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No (Attach Additional Sheets.)
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No
 Electric Log Run (Submit Copy.) Yes No

Log Formation (Top), Depth and Datum Sample Name Top Datum

See attached sheet

List All E.Logs Run:
 Compensated Neutron Comp Photo Density Log
 Array Induction Shallow Focused Electric Log

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Conductor		20"		64'		6	
Surface	12-1/4"	8-5/8"	24#	730.87'	150# 150# 90		Class A 3%CC, 2% gel Lite 3%CC, 1/4# Floose Lite 3%CC, 1/4# Flosl

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth

PLEASE KEEP THIS INFORMATION CONFIDENTIAL

TUBING RECORD		Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SMD or Inj.	Producing Method				<input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval _____

RITCHIE EXPLORATION, INC.

125 N. Market - Suite 1000
Wichita, Kansas 67202-1775
316-267-4375 FAX 316-267-3026

ORIGINAL

#1 Arnold Ranch
SW SW
Section 31-34S-22W
Clark County, Kansas
API# 15-025-21,148
Elevation: 1866' GL 1879' KB

CONFIDENTIAL

DRILLING REPORT

RELEASED

OCT 6 1998

Log Tops	
Heebner	4303'(-2424)
Lansing	4502'(-2623)
Stark	5022'(-3143)
B/KC	5103'(-3224)
Marmaton	5164'(-3285)
Upr Cher	5336'(-3457)
B/Inola	5481'(-3602)
Morrow Sd	5563'(-3684)
Miss	5579'(-3700)
LTD	5800'(-3921)

FROM CONFIDENTIAL

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INFORMATION /
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CC
AUG 28
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DST #1 from 5509' to 5610' (Morrow Sand). Recovered 1100' gas in pipe and 70' mud.
IFP:39-52#/45"; ISIP:451#/60";
FFP:46-57#/60"; FSIP:1089#/90".

DST #2 from 5446' to 5508' Straddle test (Inola). Recovered 20' mud.
IFP:41-51#/30"; ISIP:114#/30";
FFP:54-56#30"; FSIP:101#/30".

RECEIVED
KANSAS CORP
1988 AUG 30 AM 11:21

ALLIED CEMENTING CO., INC.

4105

CONFIDENTIAL

ORIGINAL

REMIT TO: P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:

WEDGEMAN LODGE
8-3-96

DATE <u>8-3-96</u>	SEC <u>3</u>	TWP. <u>34S</u>	RANGE <u>22W</u>	CALLED OUT <u>8:15 PM</u>	ON LOCATION <u>11:30 AM</u>	JOB START <u>2:50 AM</u>	JOB FINISH <u>4:15 AM</u>
LEASE <u>ARNOLD RANCH</u>	WELL # <u>1-31</u>	LOCATION <u>ARNOLD 13S, 1/2E, 1/2N, 1 1/2 NE</u>	COUNTY <u>CLARR</u>	STATE <u>KANSAS</u>			

CONTRACTOR DUKE DRUG #7
 TYPE OF JOB SURFACE
 HOLE SIZE 12 1/4" T.D. 731'
 CASING SIZE 8 1/8" 23# DEPTH 729'
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX 750# MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 46.53'
 CEMENT LEFT IN CSG. _____
 PERFS. _____

OWNER RETCHIE EXPL. INC.
 CEMENT
 AMOUNT ORDERED 275# ALW + 3% CACZ + 1/4# F-5
150# CLASS A + 3% CACZ + 2% BEL
USED 245# ALW

COMMON	<u>150</u>	@	<u>6.10</u>	<u>915.00</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>9.50</u>	<u>28.50</u>
CHLORIDE	<u>13</u>	@	<u>28.00</u>	<u>364.00</u>
ALW	<u>245</u>	@	<u>5.65</u>	<u>1384.25</u>
FLO-SEAL	<u>61#</u>	@	<u>1.15</u>	<u>70.15</u>
		@		
		@		
HANDLING	<u>425</u>	@	<u>1.05</u>	<u>446.25</u>
MILEAGE	<u>80</u>	@	<u>.04</u>	<u>1360.00</u>

EQUIPMENT AUG 2 8
 PUMP TRUCK CEMENTER K. BRUNDAOT
 # 258-265 HELPER C. BALDING
 BULK TRUCK # 257-251 DRIVER J. HOCT
 BULK TRUCK # _____ DRIVER _____

OCT 6 1998 TOTAL \$4568.15

REMARKS:

FROM CONFIDENTIAL SERVICE

RUN 8 1/8" CG TO 729' PUMP CG
VOLUME START LEAD - 150# ALW +
3% CACZ + 1/4# FLO-SEAL, 150# CLASS A
+ 3% CACZ + 2% BEL, DISPOSE AUG TO
683' WITH 45# BBL - FOOT HELD

DEPTH OF JOB 729'
 PUMP TRUCK CHARGE 0-300' 445.00
 EXTRA FOOTAGE 429' @ .41 175.89
 MILEAGE 80 @ 2.85 228.00
 PLUG 1-8 1/8" TRP @ 90.00 90.00

TOP OUT WITH 90# ALW + 3% CACZ + 1/4# F-5

TOTAL \$938.89

CHARGE TO RETCHIE EXPLORATION, INC.
 STREET 125 N. MARKET, ST. 1000
 CITY WICHITA STATE KANSAS ZIP 67202

FLOAT EQUIPMENT

<u>2 - CENTRALIZERS</u>	@	<u>61.00</u>	<u>122.00</u>
<u>2 - BASKETS</u>	@	<u>200.00</u>	<u>400.00</u>
<u>1 - AFU INSERT</u>	@	<u>358.00</u>	<u>358.00</u>
	@		

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 is listed. The above work was
 done to satisfaction and supervision of owner agent or
 contractor. I have read & understand the "TERMS AND
 CONDITIONS" listed on the reverse side.

TOTAL \$890.00

SIGNATURE X [Signature]

TAX _____
 TOTAL CHARGE \$6387.04
 DISCOUNT \$958.05 IF PAID IN 30 DAYS
 NET \$5428.99

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Allied" shall mean Allied Cementing Co., Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

—**TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "ALLIED" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing, in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "ALLIED," refunded directly to "CUSTOMER." For purposes of this paragraph, ALLIED and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

—**ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the terms of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and for attorney's fees.

—**PRICES AND TAXES:** All merchandise listed in "ALLIED'S" current price schedule are F.O.B. ALLIED'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by ALLIED shall be added to the quoted prices charged to CUSTOMER.

—**TOWING CHARGES:** ALLIED will make a reasonable attempt to get to and from each job site using its own equipment. Should ALLIED be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by ALLIED, will be charged to and paid by CUSTOMER.

—**PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay ALLIED for the expenses incurred by ALLIED as a result of the cancellation.

—**DEADHAUL, CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charge as set forth in ALLIED'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

—**SERVICE CONDITIONS AND LIABILITIES:** 1. ALLIED carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond ALLIED'S control, ALLIED shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless ALLIED, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with ALLIED'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of ALLIED or its employees.

2. With respect to any of ALLIED'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to ALLIED at the landing, CUSTOMER shall either recover the lost item without cost to ALLIED or reimburse ALLIED the current replacement cost of the item unless the loss or damage results from the sole negligence of ALLIED or its employees.

3. ALLIED does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. ALLIED warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. ALLIED'S obligation under this warranty is expressly limited to repair, replacement, or allowance for credit, at its option, for any merchandise which is determined by ALLIED to be defective. THIS IS THE SOLE WARRANTY OF ALLIED AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and ALLIED shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by ALLIED of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by ALLIED or any interpretation of tests, meter readings, chart information, analysis of research, or recommendations made by ALLIED, unless the inaccuracy or incorrectness is caused by the wilful misconduct or gross negligence of ALLIED or its employees in the preparation or furnishing of such facts, information or data.

(C) Work done by ALLIED shall be under the direct supervision and control of the CUSTOMER or his agent and ALLIED will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

CONFIDENTIAL

WELL NAME: Arnold Ranch #1
COMPANY: Ritchie Exploration
LOCATION: 31-34S-22W
Clark County Kansas
DATE: 08/12/96

KCC

AUG 28

CONFIDENTIAL

**PLEASE KEEP THIS
INFORMATION
CONFIDENTIAL**

15-025-21148

ORIGINAL

RELEASED

OCT 6 1998

FROM CONFIDENTIAL

TRILOBITE TESTING L.L.C.

OPERATOR : Ritchie Exploration Inc.
 WELL NAME: Arnold Ranch #1
 LOCATION : 31-34S-22W, Clark Cty KS
 INTERVAL : 5509.00 To 5610.00 ft

DATE 8/10/96

KB 1879.00 ft TICKET NO: 9027 DST #1
 GR 1866.00 ft FORMATION: Morrow
 TD 5610.00 ft TEST TYPE: CONV.

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 45	Rec.	11038	11038	3024			PF Fr. 0010 to 0055 hr
SI 60	Range (Psi)	5075.0	5075.0	4995.0	0.0	0.0	IS Fr. 0055 to 0155 hr
SF 60	Clock (hrs)	12	12	Alpin			SF Fr. 0155 to 0255 hr
FS 90	Depth (ft)	5607.0	5607.0	5521.0	0.0	0.0	FS Fr. 0255 to 0425 hr

	Field	1	2	3	4	
A. Init Hydro	2735.0	2718.0	2766.0	0.0	0.0	T STARTED 2140 hr
B. First Flow	41.0	63.0	39.0	0.0	0.0	T ON BOTM 0008 hr
B1. Final Flow	41.0	66.0	53.0	0.0	0.0	T OPEN 0010 hr
C. In Shut-in	416.0	432.0	451.0	0.0	0.0	T PULLED 0425 hr
D. Init Flow	41.0	60.0	47.0	0.0	0.0	T OUT 0700 hr
E. Final Flow	41.0	60.0	57.0	0.0	0.0	
F. Fl Shut-in	1033.0	1066.0	1090.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2696.0	2684.0	2725.0	0.0	0.0	Tool Wt. 18000.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 25000.00 lbs

RECOVERY

Tot Fluid 70.00 ft of 70.00 ft in DC and 0.00 ft in DP
 1140.00 ft of Gas in pipe
 70.00 ft of Drilling mud

Initial Str Wt 75000.00 lbs
 Unseated Str Wt 80000.00 lbs
 Bot Choke 0.75 in
 Hole Size 7.88 in
 D Col. ID 2.25 in
 D. Pipe ID 3.80 in
 D.C. Length 186.00 ft
 D.P. Length 5332.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow -
 Fair to strong blow, bottom of bucket
 in 15 min

Initial Shutin -
 No blow back

Final Flow -
 Strong blow, bottom of bucket in 2 min

Final Shutin -
 Weak blow built to 5"

MUD DATA-----
 Mud Type Chemical
 Weight 9.10 lb/
 Vis. 48.00 S/L
 W.L. 9.60 in3
 F.C. 0.00 in
 Mud Drop Y 10.0 ft

Amt. of fill 0.00 ft
 Btm. H. Temp. 121.00 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 TOM HORACEK
 Co. Rep. BOB MATHIESEN
 Contr. Duke Drlg.
 Rig # 7
 Unit #
 Pump T.

SAMPLES: No
 SENT TO:

Test Successful: Y

TEST HISTORY

9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

Flag Points

t(Min.) P(PSIg)

A:	0.00	2765.73
B:	0.00	39.08
C:	41.00	52.74
D:	61.00	451.22
E:	0.00	46.51
F:	60.00	57.06
G:	90.00	1089.83
Q:	0.00	2724.85

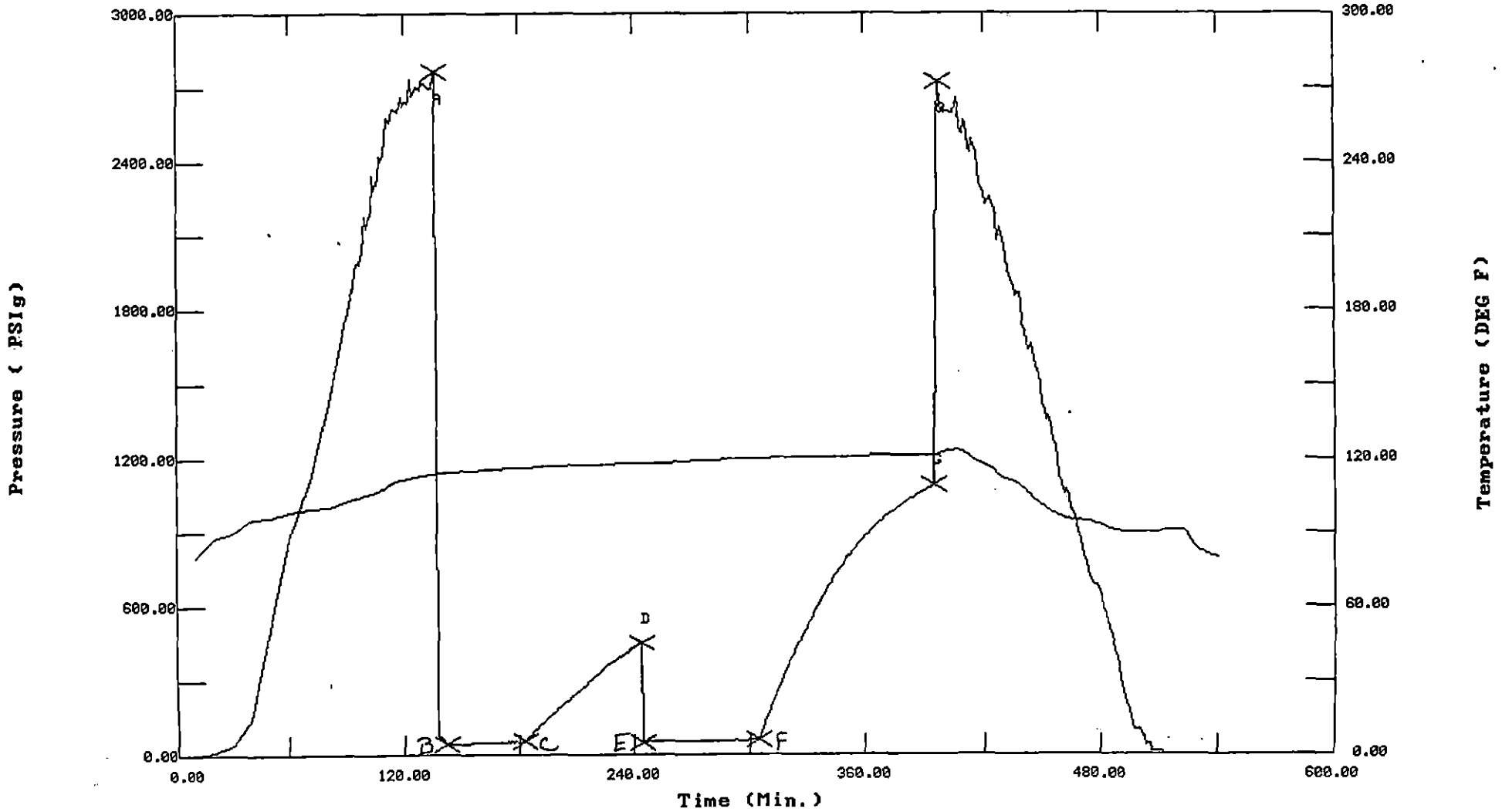
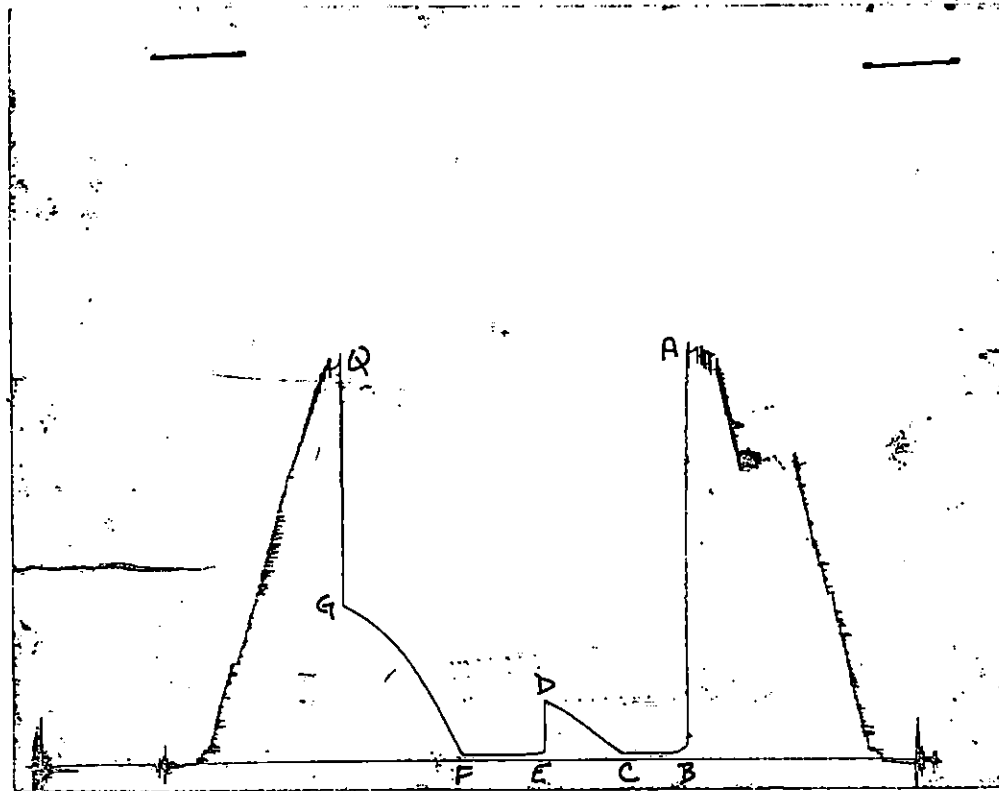


CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

DATE: 08/10/96 TIME: 21:59:49

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P^2/10^6
***** Initial Hydro.	136.00	2765.7	0.0	114.06		
***** Start Flow 1	0.00	39.1	0.0	114.40		
	1.00	39.5	0.4	114.47		
	2.00	39.6	0.5	114.53		
	3.00	40.3	1.2	114.60		
	4.00	40.6	1.5	114.66		
	5.00	40.7	1.7	114.74		
	6.00	41.5	2.4	114.81		
	7.00	41.6	2.5	114.87		
	8.00	41.9	2.8	114.93		
	9.00	42.3	3.2	114.99		
	10.00	42.6	3.5	115.05		
	11.00	42.6	3.5	115.11		
	12.00	42.8	3.7	115.17		
	13.00	43.6	4.5	115.23		
	14.00	43.9	4.8	115.29		
	15.00	43.2	4.2	115.35		
	16.00	43.5	4.4	115.39		
	17.00	45.8	6.7	115.45		
	18.00	45.2	6.1	115.50		
	19.00	45.0	5.9	115.55		
	20.00	44.7	5.6	115.60		
	21.00	45.7	6.6	115.65		
	22.00	46.8	7.7	115.69		
	23.00	47.9	8.9	115.74		
	24.00	45.1	6.1	115.79		
	25.00	47.2	8.1	115.83		
	26.00	48.0	9.0	115.88		
	27.00	45.4	6.4	115.92		
	28.00	47.7	8.6	115.95		
	29.00	45.9	6.8	116.00		
	30.00	46.5	7.5	116.04		
	31.00	47.2	8.2	116.09		
	32.00	49.3	10.2	116.12		
	33.00	46.9	7.9	116.16		
	34.00	48.7	9.7	116.20		
	35.00	47.6	8.5	116.24		
	36.00	48.7	9.6	116.28		
	37.00	48.6	9.5	116.31		
	38.00	49.5	10.4	116.36		
	39.00	47.3	8.2	116.39		
	40.00	50.1	11.0	116.43		
***** End Flow 1	41.00	52.7	13.7	116.47		
***** Start Shutin 1	0.00	52.7	0.0	116.47	0.0000	0.003
	1.00	61.6	8.9	116.50	42.0000	0.004
	2.00	69.8	17.1	116.55	21.5000	0.005
	3.00	77.8	25.1	116.58	14.6667	0.006
	4.00	85.7	33.0	116.61	11.2500	0.007
	5.00	93.5	40.8	116.65	9.2000	0.009
	6.00	101.3	48.5	116.69	7.8333	0.010
	7.00	108.9	56.2	116.72	6.8571	0.012

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

DATE: 08/10/96

TIME: 21:59:49

Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
8.00	116.5	63.8	116.76	6.1250	0.014
9.00	124.0	71.3	116.80	5.5556	0.015
10.00	131.3	78.6	116.83	5.1000	0.017
11.00	138.5	85.7	116.87	4.7273	0.019
12.00	145.6	92.9	116.90	4.4167	0.021
13.00	152.8	100.0	116.94	4.1538	0.023
14.00	159.9	107.1	116.97	3.9286	0.026
15.00	167.0	114.2	117.00	3.7333	0.028
16.00	174.0	121.3	117.03	3.5625	0.030
17.00	181.0	128.3	117.06	3.4118	0.033
18.00	187.9	135.2	117.08	3.2778	0.035
19.00	194.8	142.1	117.11	3.1579	0.038
20.00	201.6	148.9	117.13	3.0500	0.041
21.00	208.5	155.8	117.16	2.9524	0.043
22.00	215.3	162.6	117.20	2.8636	0.046
23.00	222.4	169.7	117.22	2.7826	0.049
24.00	229.2	176.5	117.25	2.7083	0.053
25.00	236.0	183.3	117.28	2.6400	0.056
26.00	242.7	189.9	117.31	2.5769	0.059
27.00	249.3	196.6	117.33	2.5185	0.062
28.00	255.9	203.1	117.34	2.4643	0.065
29.00	262.5	209.8	117.38	2.4138	0.069
30.00	269.3	216.6	117.40	2.3667	0.073
31.00	276.1	223.3	117.43	2.3226	0.076
32.00	282.9	230.2	117.45	2.2812	0.080
33.00	289.9	237.2	117.47	2.2424	0.084
34.00	296.9	244.2	117.51	2.2059	0.088
35.00	303.7	251.0	117.52	2.1714	0.092
36.00	310.3	257.6	117.54	2.1389	0.096
37.00	316.9	264.2	117.58	2.1081	0.100
38.00	323.4	270.7	117.60	2.0789	0.105
39.00	330.3	277.5	117.62	2.0513	0.109
40.00	337.0	284.2	117.65	2.0250	0.114
41.00	343.8	291.1	117.66	2.0000	0.118
42.00	350.5	297.8	117.68	1.9762	0.123
43.00	357.3	304.6	117.71	1.9535	0.128
44.00	362.9	310.2	117.73	1.9318	0.132
45.00	367.9	315.1	117.76	1.9111	0.135
46.00	372.7	320.0	117.78	1.8913	0.139
47.00	377.6	324.9	117.80	1.8723	0.143
48.00	382.6	329.9	117.82	1.8542	0.146
49.00	387.6	334.9	117.85	1.8367	0.150
50.00	392.7	339.9	117.87	1.8200	0.154
51.00	397.7	345.0	117.89	1.8039	0.158
52.00	402.8	350.1	117.92	1.7885	0.162
53.00	408.0	355.3	117.94	1.7736	0.166
54.00	413.2	360.4	117.95	1.7593	0.171
55.00	418.5	365.7	117.98	1.7455	0.175
56.00	423.7	371.0	117.99	1.7321	0.180
57.00	429.2	376.5	118.02	1.7193	0.184
58.00	434.6	381.9	118.03	1.7069	0.189

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

DATE: 08/10/96 TIME: 21:59:49

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	59.00	440.3	387.6	118.06	1.6949	0.194
	60.00	446.0	393.2	118.08	1.6833	0.199
***** End Shut-in 1	61.00	451.2	398.5	118.10	1.6721	0.204
***** Start Flow 2	0.00	46.5	0.0	118.13		
	1.00	46.2	-0.3	118.13		
	2.00	48.4	1.9	118.13		
	3.00	49.0	2.4	118.12		
	4.00	49.6	3.1	118.12		
	5.00	49.7	3.1	118.12		
	6.00	49.8	3.3	118.14		
	7.00	50.1	3.6	118.15		
	8.00	50.3	3.8	118.18		
	9.00	50.7	4.2	118.21		
	10.00	50.2	3.7	118.23		
	11.00	50.6	4.0	118.26		
	12.00	51.2	4.7	118.29		
	13.00	50.7	4.2	118.33		
	14.00	51.5	4.9	118.36		
	15.00	51.0	4.5	118.39		
	16.00	50.9	4.4	118.43		
	17.00	51.3	4.8	118.48		
	18.00	51.0	4.5	118.55		
	19.00	51.8	5.3	118.64		
	20.00	51.4	4.9	118.72		
	21.00	52.3	5.7	118.79		
	22.00	52.0	5.5	118.87		
	23.00	51.7	5.2	118.93		
	24.00	51.6	5.1	118.99		
	25.00	52.2	5.7	119.04		
	26.00	52.6	6.1	119.09		
	27.00	52.5	6.0	119.13		
	28.00	52.1	5.5	119.17		
	29.00	52.4	5.9	119.20		
	30.00	52.4	5.9	119.24		
	31.00	51.9	5.4	119.27		
	32.00	52.3	5.8	119.30		
	33.00	52.9	6.4	119.33		
	34.00	52.6	6.0	119.37		
	35.00	52.7	6.2	119.40		
	36.00	52.7	6.2	119.44		
	37.00	52.7	6.2	119.48		
	38.00	52.8	6.3	119.52		
	39.00	53.4	6.9	119.56		
	40.00	53.4	6.9	119.60		
	41.00	53.9	7.4	119.63		
	42.00	53.2	6.7	119.66		
	43.00	53.4	6.9	119.70		
	44.00	53.5	7.0	119.72		
	45.00	53.8	7.3	119.75		
	46.00	53.5	6.9	119.77		
	47.00	53.6	7.1	119.80		

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

DATE: 08/10/96

TIME: 21:59:49

Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P^2/10^6
48.00	54.8	8.3	119.83		
49.00	53.6	7.1	119.86		
50.00	54.0	7.5	119.87		
51.00	54.2	7.7	119.89		
52.00	54.4	7.9	119.92		
53.00	54.4	7.9	119.94		
54.00	54.0	7.5	119.95		
55.00	54.8	8.3	119.97		
56.00	55.3	8.8	119.99		
57.00	55.2	8.7	120.02		
58.00	55.4	8.9	120.03		
59.00	56.4	9.9	120.06		
60.00	57.1	10.6	120.08		
***** End Flow 2					
***** Start Shutin 2	0.00	57.1	0.0	120.08	0.0000
	1.00	83.4	26.4	120.09	102.0000
	2.00	106.4	49.3	120.11	51.5000
	3.00	127.8	70.8	120.14	34.6667
	4.00	148.5	91.4	120.15	26.2500
	5.00	168.5	111.5	120.18	21.2000
	6.00	188.1	131.0	120.19	17.8333
	7.00	207.3	150.2	120.22	15.4286
	8.00	226.1	169.0	120.23	13.6250
	9.00	244.7	187.6	120.24	12.2222
	10.00	263.0	205.9	120.26	11.1000
	11.00	281.0	224.0	120.27	10.1818
	12.00	298.9	241.8	120.28	9.4167
	13.00	316.6	259.5	120.29	8.7692
	14.00	334.1	277.1	120.30	8.2143
	15.00	351.5	294.4	120.32	7.7333
	16.00	368.6	311.6	120.33	7.3125
	17.00	385.7	328.7	120.34	6.9412
	18.00	402.6	345.5	120.36	6.6111
	19.00	419.3	362.2	120.36	6.3158
	20.00	435.9	378.8	120.37	6.0500
	21.00	452.2	395.2	120.39	5.8095
	22.00	468.4	411.4	120.40	5.5909
	23.00	484.4	427.4	120.41	5.3913
	24.00	500.3	443.3	120.43	5.2083
	25.00	516.1	459.0	120.43	5.0400
	26.00	531.7	474.6	120.45	4.8846
	27.00	547.2	490.2	120.46	4.7407
	28.00	562.4	505.4	120.47	4.6071
	29.00	577.6	520.5	120.48	4.4828
	30.00	592.3	535.2	120.49	4.3667
	31.00	607.0	550.0	120.51	4.2581
	32.00	621.3	564.3	120.52	4.1562
	33.00	635.2	578.2	120.53	4.0606
	34.00	649.0	592.0	120.54	3.9706
	35.00	662.7	605.6	120.56	3.8857
	36.00	676.1	619.1	120.57	3.8056
	37.00	689.5	632.4	120.58	3.7297

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

DATE: 08/10/96

TIME: 21:59:49

Time	Pressure PSI _g	delta P PSI _g	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
38.00	702.8	645.8	120.59	3.6579	0.494
39.00	715.9	658.9	120.62	3.5897	0.513
40.00	728.7	671.6	120.62	3.5250	0.531
41.00	739.8	682.7	120.62	3.4634	0.547
42.00	751.0	693.9	120.64	3.4048	0.564
43.00	762.0	705.0	120.65	3.3488	0.581
44.00	773.0	715.9	120.66	3.2955	0.597
45.00	783.8	726.7	120.68	3.2444	0.614
46.00	794.0	736.9	120.69	3.1957	0.630
47.00	803.9	746.9	120.71	3.1489	0.646
48.00	813.8	756.7	120.72	3.1042	0.662
49.00	823.6	766.5	120.73	3.0612	0.678
50.00	833.4	776.3	120.74	3.0200	0.694
51.00	843.0	785.9	120.75	2.9804	0.711
52.00	852.4	795.3	120.76	2.9423	0.727
53.00	861.7	804.6	120.78	2.9057	0.742
54.00	870.8	813.8	120.79	2.8704	0.758
55.00	879.9	822.8	120.80	2.8364	0.774
56.00	888.9	831.8	120.81	2.8036	0.790
57.00	897.8	840.7	120.82	2.7719	0.806
58.00	906.6	849.5	120.84	2.7414	0.822
59.00	914.5	857.4	120.84	2.7119	0.836
60.00	921.9	864.8	120.86	2.6833	0.850
61.00	929.2	872.1	120.86	2.6557	0.863
62.00	936.3	879.3	120.88	2.6290	0.877
63.00	943.4	886.3	120.88	2.6032	0.890
64.00	950.3	893.2	120.90	2.5781	0.903
65.00	956.9	899.9	120.91	2.5538	0.916
66.00	963.6	906.5	120.92	2.5303	0.928
67.00	970.2	913.1	120.93	2.5075	0.941
68.00	976.7	919.6	120.94	2.4853	0.954
69.00	983.0	926.0	120.95	2.4638	0.966
70.00	989.3	932.3	120.96	2.4429	0.979
71.00	995.5	938.5	120.98	2.4225	0.991
72.00	1001.6	944.6	120.98	2.4028	1.003
73.00	1007.4	950.3	121.00	2.3836	1.015
74.00	1012.8	955.8	121.00	2.3649	1.026
75.00	1018.2	961.2	121.01	2.3467	1.037
76.00	1023.6	966.6	121.01	2.3289	1.048
77.00	1028.9	971.9	121.03	2.3117	1.059
78.00	1034.1	977.0	121.05	2.2949	1.069
79.00	1039.2	982.2	121.06	2.2785	1.080
80.00	1044.2	987.1	121.07	2.2625	1.090
81.00	1049.1	992.0	121.07	2.2469	1.101
82.00	1053.8	996.8	121.08	2.2317	1.111
83.00	1058.4	1001.4	121.10	2.2169	1.120
84.00	1062.9	1005.9	121.10	2.2024	1.130
85.00	1067.4	1010.3	121.12	2.1882	1.139
86.00	1071.8	1014.7	121.13	2.1744	1.149
87.00	1076.2	1019.2	121.14	2.1609	1.158
88.00	1080.7	1023.7	121.15	2.1477	1.168

 ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9027 DST #1 Arnold Ranch #1 Ritchie Exp. Inc.

DATE: 08/10/96

TIME: 21:59:49

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** End Shut-in 2	89.00	1085.3	1028.2	121.15	2.1348	1.178
	90.00	1089.8	1032.8	121.16	2.1222	1.188
***** Final Hydro.	397.00	2724.9	0.0	121.49		

*** TOOL DIAGRAM *** CONV.

WELL NAME: Arnold Ranch #1
 LOCATION : 31-34S-22W
 TICKET No. 9027 D.S.T. No. 1 DATE 8/10/96
 TOTAL TOOL TO BOTTOM OF TOP PACKERS 20
 INTERVAL TOOL
 BOTTOM PACKERS AND ANCHOR 40
 TOTAL TOOL 60
 RILL COLLAR ANCHOR IN INTERVAL
 .C. ANCHOR STND.Stands1 Single Total 61
 .P. ANCHOR STND.Stands Single Total
 TOTAL ASSEMBLY 121
 .C. ABOVE TOOLS.Stands3 Single Total 186
 .P. ABOVE TOOLS.Stands87 Single 1 Total 5332
 TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5639
 TOTAL DEPTH 5610
 TOTAL DRILL PIPE ABOVE K.B. 29

REMARKS:

P.O. SUB	
C.O. SUB	5489
S.I. TOOL	5495
HMV Hyd. Tool	5500
JARS N/A	
SAFETY JOINT N/A	
PACKER	5504
PACKER	5509
DEPTH 5509	
STUBB Perf 6 ft.	5515
ANCHOR Pick up sub 5 ft.	5520
Alpine Rec. @	5521
Perf 5 ft.	5525
Perf 5 ft.	5530
Perf 5 ft.	5535
Perf 5 ft.	5540
Perf 2 ft.	5542
T.C.	
DEPTH	
C.O. sub 1 ft	5543
D.C. 61 ft	5604
C.O. sub 1 ft.	5605
AK-1 recorder	5607
BULLNOSE Bull plug 5 ft	
T.D.	5610

TRILOBITE TESTING L.L.C.

OPERATOR : Ritchie Exploration Inc
 WELL NAME: Arnold Ranch #1
 LOCATION : 31-34S-22W, Clark Cty KS
 INTERVAL : 5446.00 To 5508.00 ft

DATE 8/12/96
 KB 1879.00 ft TICKET NO: 9028 DST #2
 GR 1866.00 ft FORMATION: Cherokee
 TD 5800.00 ft TEST TYPE: CONV./STRADDLE

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF 30	Rec.	5495	5495	3024	11038		PF Fr. 1240 to 1310 hr
SI 30	Range (Psi)	4200.0	4200.0	4995.0	5075.0	0.0	IS Fr. 1310 to 1340 hr
SF 30	Clock (hrs)	12	12	Alpin	12		SF Fr. 1340 to 1410 hr
FS 30	Depth (ft)	5500.0	5500.0	5488.0	5797.0	0.0	FS Fr. 1410 to 1440 hr

	Field	1	2	3	4	
A. Init Hydro	2668.0	2668.0	2736.0	2779.0	0.0	T STARTED 1050 hr
B. First Flow	89.0	90.0	42.0	0.0	0.0	T ON BOTM 1238 hr
B1. Final Flow	89.0	90.0	51.0	0.0	0.0	T OPEN 1240 hr
C. In Shut-in	145.0	137.0	115.0	0.0	0.0	T PULLED 1440 hr
D. Init Flow	101.0	94.0	54.0	0.0	0.0	T OUT 1700 hr
E. Final Flow	89.0	90.0	57.0	0.0	0.0	
F. Fl Shut-in	112.0	121.0	102.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2584.0	2576.0	2631.0	2619.0	0.0	Tool Wt. 20000.00 lbs
Inside/Outside	O	O	I	T		Wt Set On Packer 25000.00 lbs

RECOVERY

Tot Fluid 20.00 ft of 20.00 ft in DC and 0.00 ft in DP
 20.00 ft of Drilling mud

Initial Str Wt	76000.00 lbs
Unseated Str Wt	80000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	186.00 ft
D.P. Length	5270.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow -
 Weak blow, built to 1"

Final Flow -
 No blow

MUD DATA-----	
Mud Type	Chemical
Weight	9.30 lb/c
Vis.	56.00 S/L
W.L.	11.20 in3
F.C.	0.00 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	119.00 F
Hole Condition	Good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	3
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	TOM HORACEK
Co. Rep.	BOB MATHIESON
Contr.	Duke Drlg.
Rig #	7
Unit #	
Pump T.	

SAMPLES: No
 SENT TO:

Test Successful: Y

TEST HISTORY

9828 DST #2 Aronld Ranch #1 Ritchie Exp. Inc.

Flag Points

t(Min.) P(PSIg)

A:	0.00	2735.91
B:	0.00	41.64
C:	29.00	51.09
D:	31.00	114.52
E:	0.00	54.48
F:	29.00	56.84
G:	30.00	101.74
Q:	0.00	2630.64

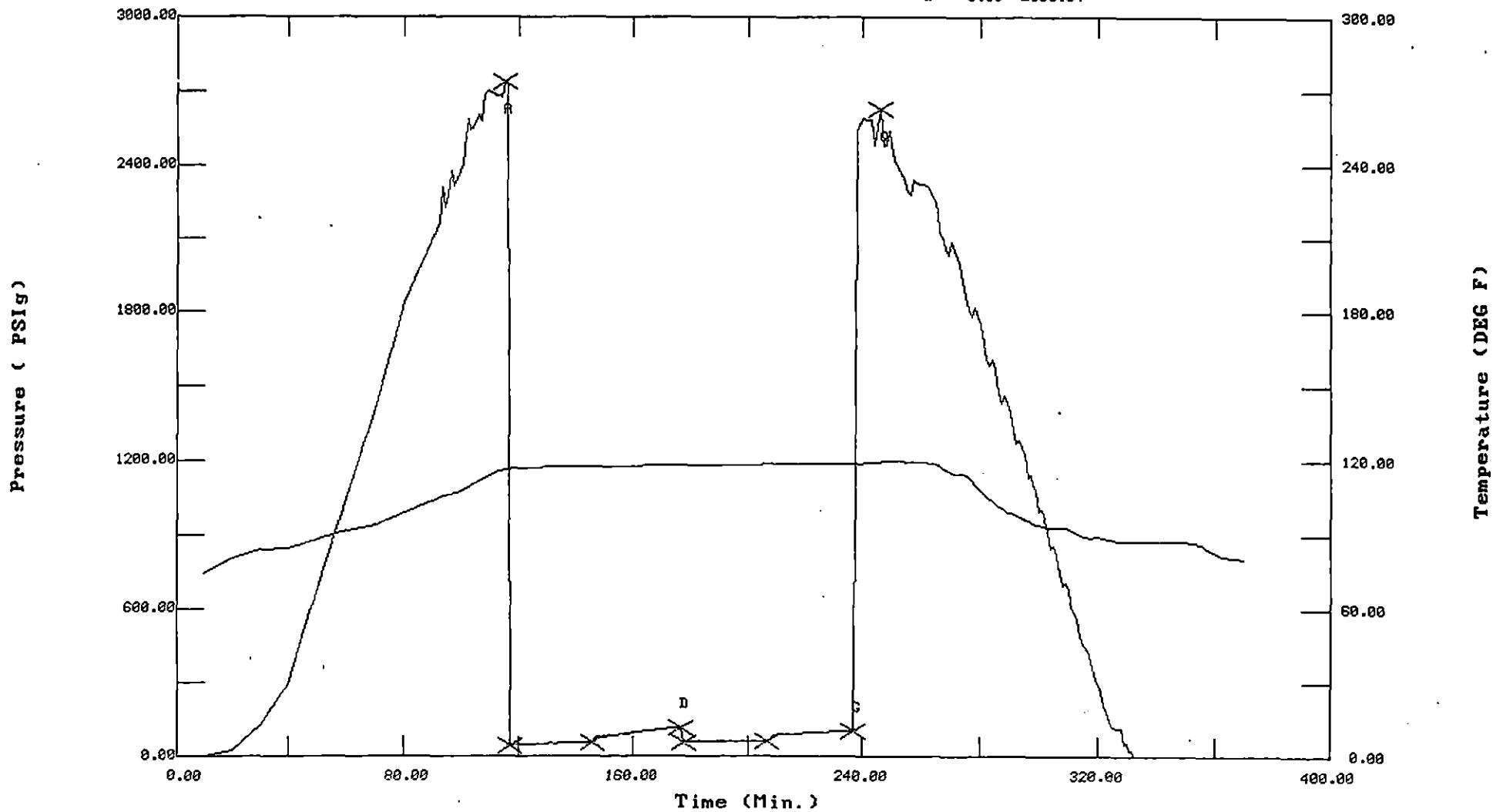
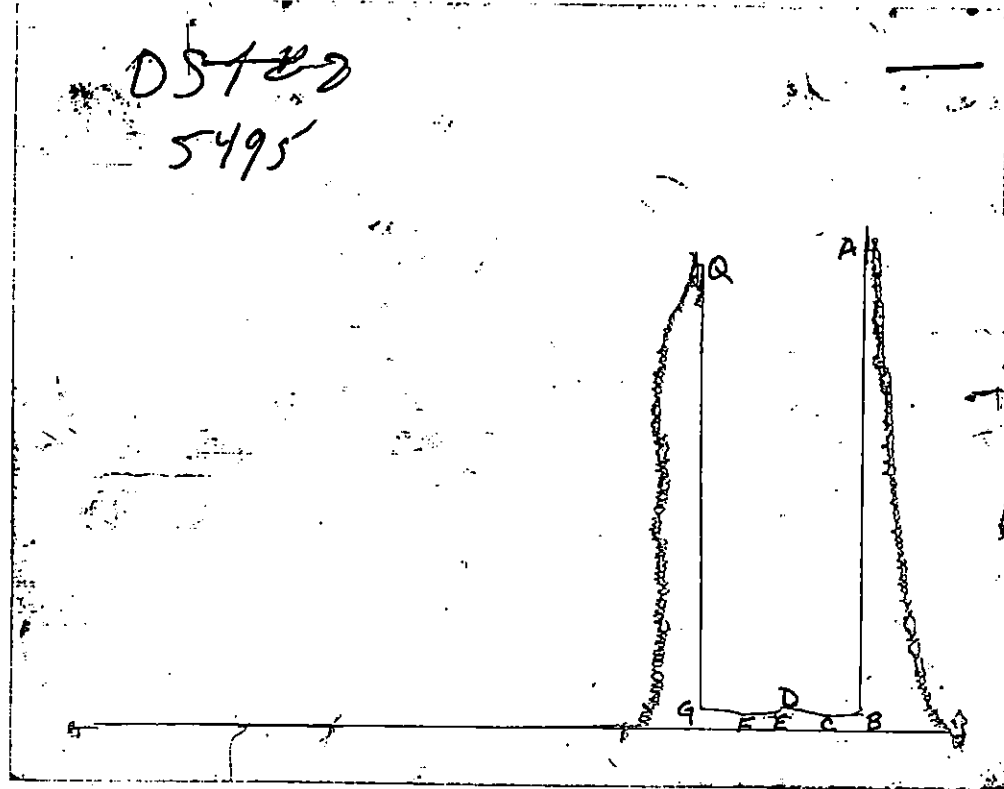
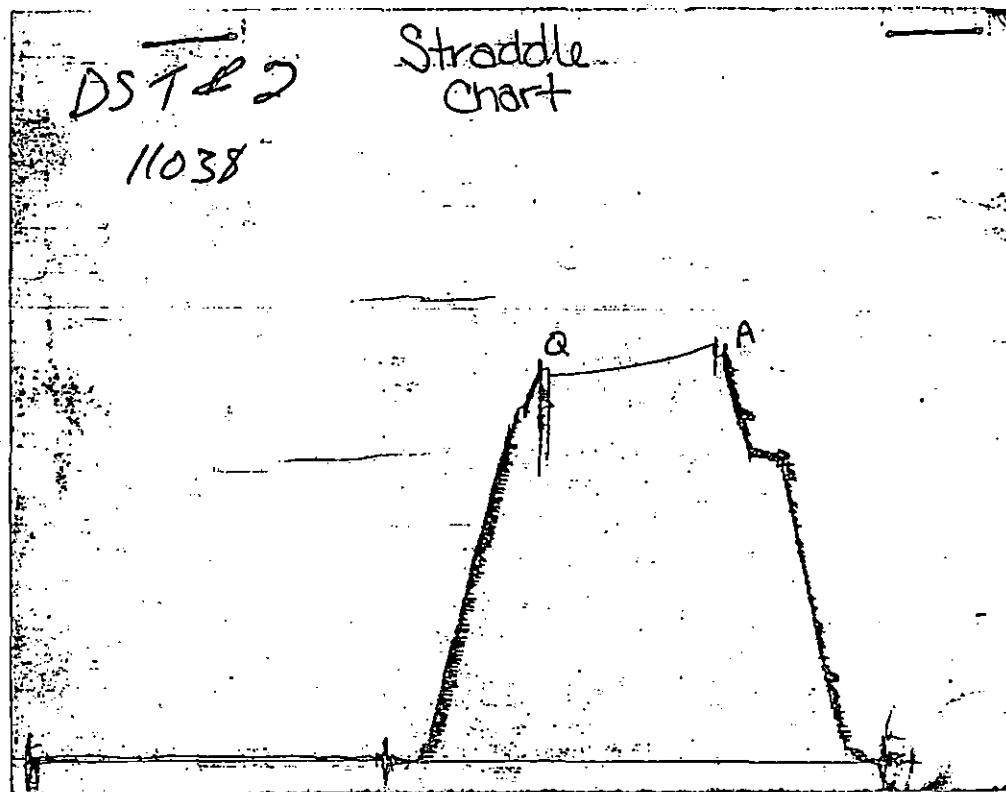


CHART PAGE



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

CHART PAGE



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

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9028 DST #2 Aronld Ranch #1 Ritchie Exp. Inc.

DATE: 08/12/96 TIME: 10:47:26

	Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
***** Initial Hydro.	115.00	2735.9	0.0	116.07		
***** Start Flow 1	0.00	41.6	0.0	116.60		
	1.00	42.1	0.5	116.71		
	2.00	44.0	2.4	116.79		
	3.00	44.7	3.1	116.85		
	4.00	45.3	3.7	116.91		
	5.00	45.6	3.9	116.96		
	6.00	46.5	4.9	117.01		
	7.00	46.5	4.9	117.05		
	8.00	47.1	5.5	117.09		
	9.00	47.2	5.6	117.14		
	10.00	47.4	5.8	117.17		
	11.00	47.6	5.9	117.20		
	12.00	47.7	6.0	117.23		
	13.00	48.3	6.7	117.25		
	14.00	48.7	7.0	117.27		
	15.00	48.6	7.0	117.30		
	16.00	48.5	6.9	117.32		
	17.00	49.1	7.5	117.33		
	18.00	49.2	7.6	117.35		
	19.00	49.8	8.1	117.37		
	20.00	49.9	8.3	117.39		
	21.00	50.0	8.3	117.41		
	22.00	50.2	8.6	117.43		
	23.00	50.3	8.7	117.44		
	24.00	50.4	8.8	117.47		
	25.00	50.6	8.9	117.49		
	26.00	51.2	9.6	117.51		
	27.00	50.7	9.1	117.52		
	28.00	51.0	9.3	117.53		
***** End Flow 1	29.00	51.1	9.5	117.55		
***** Start Shutin 1	0.00	51.1	0.0	117.55	0.0000	0.003
	1.00	72.3	21.2	117.55	30.0000	0.005
	2.00	73.9	22.9	117.57	15.5000	0.005
	3.00	75.5	24.4	117.59	10.6667	0.006
	4.00	77.0	25.9	117.61	8.2500	0.006
	5.00	78.5	27.4	117.62	6.8000	0.006
	6.00	80.0	28.9	117.64	5.8333	0.006
	7.00	81.4	30.3	117.66	5.1429	0.007
	8.00	82.8	31.7	117.68	4.6250	0.007
	9.00	84.2	33.1	117.69	4.2222	0.007
	10.00	85.7	34.6	117.71	3.9000	0.007
	11.00	87.1	36.0	117.72	3.6364	0.008
	12.00	88.5	37.4	117.74	3.4167	0.008
	13.00	89.8	38.8	117.76	3.2308	0.008
	14.00	91.3	40.2	117.78	3.0714	0.008
	15.00	92.7	41.6	117.79	2.9333	0.009
	16.00	94.0	42.9	117.80	2.8125	0.009
	17.00	95.4	44.3	117.81	2.7059	0.009
	18.00	96.8	45.7	117.83	2.6111	0.009
	19.00	98.1	47.0	117.85	2.5263	0.01

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9028 DST #2 Aronld Ranch #1 Ritchie Exp. Inc.

DATE: 08/12/96

TIME: 10:47:26

	Time	Pressure PSIg	delta P PSIg	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
	20.00	99.5	48.4	117.86	2.4500	0.01
	21.00	100.9	49.8	117.88	2.3810	0.010
	22.00	102.2	51.1	117.90	2.3182	0.010
	23.00	103.6	52.5	117.90	2.2609	0.011
	24.00	105.0	53.9	117.93	2.2083	0.011
	25.00	106.3	55.2	117.94	2.1600	0.011
	26.00	107.7	56.6	117.94	2.1154	0.012
	27.00	109.1	58.0	117.96	2.0741	0.012
	28.00	110.5	59.4	117.97	2.0357	0.012
	29.00	111.8	60.7	117.98	2.0000	0.012
	30.00	113.2	62.1	118.00	1.9667	0.013
***** End Shut-in 1	31.00	114.5	63.4	118.01	1.9355	0.013
***** Start Flow 2	0.00	54.5	0.0	118.03		
	1.00	55.1	0.6	118.03		
	2.00	55.3	0.8	118.04		
	3.00	55.1	0.6	118.05		
	4.00	55.4	1	118.05		
	5.00	55.5	1.0	118.08		
	6.00	55.6	1.1	118.09		
	7.00	55.7	1.2	118.12		
	8.00	55.9	1.4	118.12		
	9.00	55.7	1.2	118.14		
	10.00	56.1	1.6	118.16		
	11.00	56.2	1.8	118.18		
	12.00	56.3	1.8	118.19		
	13.00	56.2	1.7	118.21		
	14.00	56.1	1.7	118.23		
	15.00	56.2	1.7	118.24		
	16.00	56.3	1.8	118.25		
	17.00	56.3	1.8	118.28		
	18.00	56.3	1.8	118.29		
	19.00	56.2	1.7	118.31		
	20.00	56.4	1.9	118.33		
	21.00	56.2	1.7	118.35		
	22.00	56.2	1.7	118.37		
	23.00	56.4	1.9	118.38		
	24.00	56.5	2.0	118.39		
	25.00	56.4	1.9	118.39		
	26.00	56.8	2.3	118.40		
	27.00	56.8	2.3	118.40		
	28.00	56.8	2.4	118.42		
***** End Flow 2	29.00	56.8	2.4	118.43		
***** Start Shutin 2	0.00	56.8	0.0	118.43	0.0000	0.003
	1.00	62.0	5.1	118.43	59.0000	0.004
	2.00	82.3	25.4	118.44	30.0000	0.007
	3.00	84.0	27.1	118.45	20.3333	0.007
	4.00	84.9	28.1	118.45	15.5000	0.007
	5.00	85.8	29.0	118.48	12.6000	0.007
	6.00	86.6	29.7	118.48	10.6667	0.007
	7.00	87.3	30.5	118.49	9.2857	0.008
	8.00	88.0	31.1	118.49	8.2500	0.008

ALPINE SUBSURFACE ELECTRONICS PROBE INCREMENTS LISTING

TEST: 9028 DST #2 Aronld Ranch #1 Ritchie Exp. Inc.

DATE: 08/12/96

TIME: 10:47:26

Time	Pressure PSig	delta P PSig	Temp. DEG F	(T+dT)/dT	P ² /10 ⁶
9.00	88.6	31.8	118.51	7.4444	0.008
10.00	89.3	32.4	118.51	6.8000	0.008
11.00	89.9	33.1	118.52	6.2727	0.008
12.00	90.5	33.6	118.53	5.8333	0.008
13.00	91.1	34.3	118.54	5.4615	0.008
14.00	91.8	34.9	118.54	5.1429	0.008
15.00	92.3	35.5	118.55	4.8667	0.009
16.00	93.0	36.1	118.56	4.6250	0.009
17.00	93.6	36.7	118.57	4.4118	0.009
18.00	94.2	37.4	118.59	4.2222	0.009
19.00	94.9	38.1	118.59	4.0526	0.009
20.00	95.6	38.7	118.60	3.9000	0.009
21.00	96.2	39.4	118.60	3.7619	0.009
22.00	96.9	40.0	118.61	3.6364	0.009
23.00	97.5	40.7	118.62	3.5217	0.01
24.00	98.1	41.2	118.63	3.4167	0.01
25.00	98.7	41.8	118.63	3.3200	0.01
26.00	99.3	42.4	118.65	3.2308	0.01
27.00	99.9	43.0	118.65	3.1481	0.01
28.00	100.5	43.7	118.66	3.0714	0.010
29.00	101.1	44.3	118.67	3.0000	0.010
30.00	101.7	44.9	118.68	2.9333	0.010
***** End Shut-in 2					
***** Final Hydro.	246.00	2630.6	0.0	119.59	

*** TOOL DIAGRAM *** CONV./STRADDLE

WELL NAME: Arnold Ranch #1

LOCATION : 31-34S-22W

TICKET No. 9028 D.S.T. No. 2 DATE 8/12/96

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL 27

TOTAL PACKERS AND ANCHOR 296

TOTAL TOOL 343

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STAND.Stands Single Total

D.P. ANCHOR STAND.Stands Single 1 Total 31

TOTAL ASSEMBLY 374

D.C. ABOVE TOOLS.Stands3 Single Total 186

D.P. ABOVE TOOLS.Stands85 Single 1 Total 5270

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5830

TOTAL DEPTH 5800

TOTAL DRILL PIPE ABOVE K.B. 30

REMARKS:

P.O. SUB	
C.O. SUB	5426
S.I. TOOL	5432
HMV	5437
JARS N/A	
SAFETY JOINT N/A	
PACKER	5441
PACKER	5446
DEPTH 5446	
STUBB Perf 3 ft.	5449
ANCHOR C.O. sub 1 ft.	5450
D.P. 31 ft.	5481
C.O. sub 1 ft.	5482
Pick up sub 5 ft.	5487
Alpine Rec. @	5488
Perf 5 ft.	5492
Perf 5 ft.	5497
AK-1 Rec. @	5500
Perf 5 ft.	5502
Perf 1 ft.	5503
T.C. Blank Off sub 1 ft	5504
DEPTH 5504	
PACKER 4 ft.	5508
Perf 1 ft.	5509
Perf 5 ft.	5514
C.O. sub 1 ft	5515
D.P. 279 ft.	5794
C.O. sub 1 ft.	5795
AK-1 recorder	5797
BULLNOSE Bull plug 5 ft.	
T.D.	5800