

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
September 1999
Form Must Be Typed

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

ORIGINAL

Operator: License # 32429
Name: CRAWFORD OIL & GAS, INC.
Address: P. O. Box 51
City/State/Zip: Coldwater, Kansas 67029
Purchaser: EOTT & PRG
Operator Contact Person: Mark Pinnick
Phone: (316) 582-2612
Contractor: Name: DUKE DRILLING CO., INC.
License: 5929
Wellsite Geologist: Jon Christensen
Designate Type of Completion:
 New Well Re-Entry Workover
 Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)
If Workover/Re-entry: Old Well Info as follows:
Operator: _____
Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to Enhr./SWD
 Plug Back Plug Back Total Depth
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Enhr.?) Docket No. _____
5/6/00 5/20/00 5/16/00
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

RECEIVED
STATE CORPORATION COMMISSION

AUG - 9 2000

API No. 15 - 033-21,088 - 0000
County: Comanche
App. C. S/2 NW NW Sec. 7 Twp. 34 S. R. 18 East West
985 feet from S / (circle one) Line of Section
620 feet from E / (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
(circle one) NE SE NW SW
Lease Name: HOFFMAN TRUST Well #: 2
Field Name: Buttermilk East
Producing Formation: Mississippian
Elevation: Ground: 1895' Kelly Bushing: 1906'
Total Depth: 6100' Plug Back Total Depth: 5527
Amount of Surface Pipe Set and Cemented at 635 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set _____ Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sx cmt.
Drilling Fluid Management Plan ALT 1 8/10/12/00
(Data must be collected from the Reserve Pit)
Chloride content 28,000 ppm Fluid volume 600 bbls
Dewatering method used haul off
Location of fluid disposal if hauled offsite:
Operator Name: GORDON KEANE
Lease Name: Harmon License No.: 5993
Quarter NW Sec. 7 Twp. 34 S. R. 18 East West
County: Comanche Docket No.: 22304

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, 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 of 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: Mark Pinnick
Title: Supt. Oper. Date: 8-7-00
Subscribed and sworn to before me this 7th day of Aug.
2000.
Notary Public: Pamela Price
Date Commission Expires: Feb. 29, 2004

NOTARY PUBLIC - State of Kansas
PAMELA PRICE
My Appt. Exp. 2-29-04

KCC Office Use ONLY

Letter of Confidentiality Attached
If Denied, Yes Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution

Operator Name: CRAWFORD OIL & GAS, INC. Lease Name: HOFFMAN TRUST Well #: 2

Sec. 7 Twp. 34 S. R. 18 East West County: Comanche

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>		<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample																																				
Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<table border="0" style="width:100%"> <tr> <td style="width:60%">Name</td> <td style="width:20%">Top</td> <td style="width:20%">Datum</td> </tr> <tr> <td>HEEBNER</td> <td>4324</td> <td></td> </tr> <tr> <td>DRUM</td> <td>4764</td> <td></td> </tr> <tr> <td>STARK SH.</td> <td>4884</td> <td></td> </tr> <tr> <td>SWOPE</td> <td>4899</td> <td></td> </tr> <tr> <td>BASE KC</td> <td>5040</td> <td></td> </tr> <tr> <td>MARMATON</td> <td>5060</td> <td></td> </tr> <tr> <td>ALTAMONT</td> <td>5110</td> <td></td> </tr> <tr> <td>PAWNEE</td> <td>5153</td> <td></td> </tr> <tr> <td>CHEROKEE SH.</td> <td>5196</td> <td></td> </tr> <tr> <td>MISSISSIPPI</td> <td>5296</td> <td></td> </tr> <tr> <td>VIOLA</td> <td>6090</td> <td></td> </tr> </table>	Name	Top	Datum	HEEBNER	4324		DRUM	4764		STARK SH.	4884		SWOPE	4899		BASE KC	5040		MARMATON	5060		ALTAMONT	5110		PAWNEE	5153		CHEROKEE SH.	5196		MISSISSIPPI	5296		VIOLA	6090	
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MISSISSIPPI	5296																																					
VIOLA	6090																																					
Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No																																						
Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Submit Copy)</i>																																						
List All E. Logs Run:																																						
Spectral Density Neutron																																						
High Resolution Induction																																						
Cement Bond																																						

CASING RECORD <input 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	# Sacs Used	Type and Percent Additives
Conductor		20"		40'	10Sk Grout		
Surface	12-1/4"	8-5/8"	24#	635'	Lite Class A	225 200	3%cc 2%gel, 3%cc
Production	7-7/8"	4-1/2"	10.5#	5560'	Premium	140	10%salt, 5%Ka1 seal

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
6 SPF	5298-5302	900 Bbls. H O 300 Sx.sand	
6 SPF	5342-48	170 T CO2	
6SPF	5324-27		

TUBING RECORD		Size <u>2 3/8</u>	Set At <u>5262</u>	Packer At <u>NA</u>	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Enhr. <u>WOPL</u>		Producing Method <input checked="" 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 Mct	Water Bbls.	Gas-Oil Ratio	Gravity
	1	300	30		

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

METHOD OF COMPLETION Open Hole Partially Fully Dually Comp. Commingled Other (Specify) _____

Production Interval 5298'-5327' OA



JOB SUMMARY 4240-1

TICKET #	638128	TICKET DATE	5-23-00
BDA / STATE	KANSAS	COUNTY	SEWARD
PSL DEPARTMENT	SEP	ORIGINAL	
CUSTOMER REP / PHONE	MARK PINNICK		
API / UWI #	15-022-21088		
JOB PURPOSE CODE	624/625		

REGION	North America	NWA/COUNTRY	MIDCON
MBU ID / EMP #	MC110602/106222	EMPLOYEE NAME	V.F. DEWITT
LOCATION	LIBERAL	COMPANY	CORAWFORD
TICKET AMOUNT		WELL TYPE	O2
WELL LOCATION	COMANCHE	DEPARTMENT	SDD16
LEASE / WELL #	LANDMAN TRUST	SEC / TWP / RNG	7-34.5-18W

HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS
REAVEN 101722			
STARK 194652			
CULLINS 106263			

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
420625							
4555							

4. MAX. SERV DEPTH	5. CASING DEPTH	6. CASING SIZE	WEIGHT	GRADE	7. TUBING DEPTH	8. TUBING SIZE	WEIGHT	GRADE
5522	5600	4.5	10.5					
9. BIT SIZE	10. MUD WEIGHT & RESISTIVITY @ BHT	11. MUD TYPE & CHLORIDES (PPM)	12. WELL PRESSURE	13. BOTTOM HOLE TEMP.	<input type="checkbox"/> F <input type="checkbox"/> C			
14. HOLE SIZE	15. DRILLERS DEPTH	16. WELL DEVIATION	17. DEV @ TD					
<input type="checkbox"/> OH <input checked="" type="checkbox"/> CH		<input type="checkbox"/> VERTICAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/> DIRECTIONAL						
18. MAX. DEV.	19. MAX BEND ° / 100'	20. KICKOFF DEPTH	21. MEAS. DEPTH	22. TVD				

23. DATE/TIME CREW NOTIFIED	24. DATE/TIME ARRIVE SHOP	25. DATE/TIME LEAVE SHOP/DOCK	26. DATE/TIME ARRIVE LOCATION	27. DATE/TIME REQUESTED ON LOCATION
5-22-00 @ 1700	5-23-00 @ 430	5-23-00 @ 500	5-23-00 @ 730	5-23-00 @ 730
28. DATE/TIME BEGIN WAITING	29. DATE/TIME END WAITING	30. DATE/TIME RIG-UP	31. DATE/TIME START RIG DOWN	32. DATE/TIME LEAVE LOCATION
		5-23-00 @ 730	5-23-00 @ 1230	5-23-00 @ 1300
33. DATE/TIME RETURN SHOP/DOCK	34. LOST TIME	35. OPERATING TIME	36. SHOP-TO-SHOP / DOCK-TO-DOCK TIME	

37. # OF SUCCESSFUL SERVICES	38. TOTAL SERVICES RUN	MARINE STANDBY OR WAITING			MARINE TRAVEL TIME		
		39. HES LIFT BOAT	40. HES TRUCK	41. HES CREW	42. HES LIFT BOAT	43. HES TRUCK	44. HES CREW

45. # OF CORES REQUESTED	46. # OF CORES ATTEMPTED	47. # CORES RECOVERED	48. # PULL-OFFS	49. MAXIMUM FORM PRESSURE	50. MAXIMUM PRESSURE HYDROSTATIC		
51. # OF SETS	52. # PRESSURE TESTS	53. # FLUID SAMPLES	54. # OF MUD SETS	55. # TIGHT TESTS			
56. TYPE CARRIER	57. CARRIER DIAMETER	58. CHARGE TYPE	59. PHASING	60. GUN POSITION	61. # OF SELECT FIRES		
EXPANDABLE	2 3/4	12.5	60				
62. HOLES/FOOT	63. # OF CARRIERS	64. # OF CHARGE FAILURES	65. PLUG/PACKER TYPE	66. GAUGE RING SIZE	67. SET TOOL TYPE		
65PF	3	0					
66. SET TOOL SIZE	69. JUNK BASKET SIZE	70. DUMP BAILER SIZE	71. TOTAL CEM. HEIGHT	72. TUBING PUNCH SIZE	73. JET/CHEMICAL SIZE	74. FREEPOINT DEPTH	75. # OF SHOTS

78. TOOL/SERIAL #	78. TOOL/SERIAL #	78. TOOL/SERIAL #	78. TOOL/SERIAL #	78. TOOL/SERIAL #	78. TOOL/SERIAL #	78. TOOL/SERIAL #
CAMMA 510 105225	M56 271 107746					
83. TOOL/SERIAL #	83. TOOL/SERIAL #	83. TOOL/SERIAL #	83. TOOL/SERIAL #	83. TOOL/SERIAL #	83. TOOL/SERIAL #	83. TOOL/SERIAL #

INSUR. IGR, ICCI	ENGINEER NO. 1	EMPLOYEE #	%
	Mark Pinnick	106222	100%
	ENGINEER NO. 2	EMPLOYEE #	%
	ENGINEER NO. 3	EMPLOYEE #	%

THE INFORMATION STATED HEREIN IS CORRECT

CUSTOMER'S REPRESENTATIVE SIGNATURE: *Mark Pinnick*

JOB LOG

ORDER NO. 70006

TICKET #	TICKET DATE
BDA / STATE	COUNTY
PSL DEPARTMENT	ORIGINAL
CUSTOMER REP / PHONE	
API / UWI #	JOB PURPOSE CODE

REGION North America	NWA/COUNTRY
MBU ID / EMP #	EMPLOYEE NAME
LOCATION	COMPANY
TICKET AMOUNT	WELL TYPE
WELL LOCATION	DEPARTMENT
LEASE / WELL #	SEC / TWP / RNG

HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
030	0330							called out for job
	0800							on loc. Kit L.D.M.P.
	0810							out of hole with nipple down & kit up cases
	1025							Start 4 1/2 CJA F.E.F.
	1100							brk circ. wire - 1/2 way in hole
	1200							CJA on 130 ft hole w/ 4 1/2 in. wire from
	1211							brk circ. wire
	1212							line to pit
	1220		8					plug run & enable holes.
	1350							thru line back from to pit.
	1354							pd. lost iron
	1356	4.0	12			750		pump mud flush.
	1402	6.5	32			500		pump 14050 from at 15.6'
	1405	0	44			0		shut down pump plug & wash.
	1411	6.0	88			100		pump wire.
	1422	6.5	88			250		67 bbls in lift cm*
	1424	2.0	88			470		83 bbls in 510 yoke.
	1426	2.0	88			470		Lead wire.
	1427	1	88			470		release M1 - plug latched in E Hold, M1
	1430							job over
								Thanks for calling HES.
								TYCP Sean & crew

ALLIED CEMENTING CO., INC.

Federal Tax I.D.# 46-0727860

1383 ORIGINAL

PO. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
med. lodges

DATE <u>5-8-00</u>	SEC <u>347</u>	TWP <u>33S</u>	RANGE <u>18W</u>	CALLED OUT <u>6:00 A.M.</u>	ON LOCATION <u>8:30 A.M.</u>	JOB START <u>11:00 A.M.</u>	JOB FINISH <u>1:30 P.M.</u>
LEASE <u>HOPKINS</u>		WELL # <u>3</u>	LOCATION <u>Buttermilk, 1/2 E. S1/4</u>	COUNTY <u>Pomarche</u>	STATE <u>Ks</u>		
OLD OR NEW (Circle one)							

CONTRACTOR Duke Drilling Co.
 TYPE OF JOB Surface Csg
 HOH SIZE 12 1/4 I.D. 640
 CASING SIZE 8 7/8 X 24 DEPTH 635
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX. 300 MINIMUM 150
 MEAS. LINE _____ SHOE JOINT 44.96
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT Fresh H₂O / 37 1/2 Dis

OWNER Crawford Oil & Gas

CEMENT
 AMOUNT ORDERED 225 ALW + 3% CC
1/4" Flt. Seal. 200SX CLASS A
3% CC + 2% Grt

EQUIPMENT
 PUMP TRUCK CEMENTER LACQ. Drilling
302 HELPER MARK B.
 BULK TRUCK
214 DRIVER DAVID F.
 BULK TRUCK
DRIVER

COMMON <u>A 300</u>	@ <u>6.35</u>	<u>1270.00</u>
POZ MIX _____	@ _____	_____
GEL <u>4</u>	@ <u>9.50</u>	<u>38.00</u>
CHLORIDE <u>14</u>	@ <u>25.00</u>	<u>350.00</u>
ALW <u>225</u>	@ <u>6.00</u>	<u>1350.00</u>
Flt-SEAL <u>56#</u>	@ <u>1.15</u>	<u>64.40</u>
_____	@ _____	_____
_____	@ _____	_____
HANDLING <u>425</u>	@ <u>1.05</u>	<u>446.25</u>
MILEAGE <u>425 X 50</u>	@ <u>.04</u>	<u>170.00</u>

TOTAL \$4410.65

REMARKS:

Pipe on Bottom. Pump Capacity
 Csg. Cement w/ 225 SX ALW +
 3% CC + 1/4 100SX CLASS A + 3% CC
 2% Release Plug Displacement
 37 1/2 Dis Fresh H₂O Pump Plug
 Shot In Run 80' 1" Cement w/ 100SX
 CLASS 3% CC + 2% Gel. Cement Circ
 to Surface

SERVICE

DEPTH OF JOB <u>635'</u>		
PUMP TRUCK CHARGE <u>0-300'</u>		<u>470.00</u>
EXTRA FOOTAGE <u>335'</u>	@ <u>.43</u>	<u>144.05</u>
MILEAGE <u>50</u>	@ <u>2.85</u>	<u>142.50</u>
PLUG TRP <u>878"</u>	@ <u>90.00</u>	<u>90.00</u>
_____	@ _____	_____
_____	@ _____	_____

TOTAL \$846.55

CHARGE TO: Duke Drilling Co.
 STREET P.O. Box 828
 CITY Great Bend STATE KANSAS ZIP 67536

FLOAT EQUIPMENT

I- Baffle Plate	@ <u>45.00</u>	<u>45.00</u>
II- Basket	@ <u>150.00</u>	<u>300.00</u>
_____	@ _____	_____
_____	@ _____	_____

TOTAL \$345.00

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.

TAX 0
 TOTAL CHARGE \$5602.20
 DISCOUNT 1120.44 IF PAID IN 30 DAYS
\$4481.76
 X JOE LIVINGSTON
 PRINTED NAME

SIGNATURE X Joe Livingston

OPERATOR : Crawford Oil & Gas Inc. DATE 5-15-2000
 WELL NAME: Hoffman Trust #2 KB 1906.00 ft TICKET NO: 12542 DST # 1
 LOCATION : 7-34s-18w Comanche co KS GR 1895.00 ft FORMATION: Mississippi
 INTERVAL : 5307.00 To 5354.00 ft TD 5354.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	13278	13278	2357			PF Fr. 1110 to 1140 hr
SI 45 Range (Psi)	4400.0	4400.0	5000.0	0.0	0.0	IS Fr. 1140 to 1225 hr
SF 60 Clock (hrs)	12HR	12HR	ELECT			SF Fr. 1225 to 1325 hr
FS 90 Depth (ft)	5351.0	5351.0	5308.0	0.0	0.0	FS Fr. 1325 to 1455 hr

	Field	1	2	3	4	
A. Init Hydro	2548.0	2562.0	2567.0	0.0	0.0	T STARTED 0851 hr
B. First Flow	132.0	142.0	20.0	0.0	0.0	T ON BOTM 1108 hr
B1. Final Flow	121.0	113.0	16.0	0.0	0.0	T OPEN 1110 hr
C. In Shut-in	275.0	275.0	271.0	0.0	0.0	T PULLED 1455 hr
D. Init Flow	132.0	134.0	10.0	0.0	0.0	T OUT 1800 hr
E. Final Flow	121.0	111.0	15.0	0.0	0.0	
F. Fl Shut-in	429.0	415.0	410.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2548.0	2562.0	2536.0	0.0	0.0	Tool Wt. 1800.00 lbs
Inside/Outside	I	I	I			Wt Set On Packer 25000.00 lbs
						Wt Pulled Loose 10000.00 lbs
						Initial Str Wt 70000.00 lbs
						Unseated Str Wt 78000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.78 in
						D Col. ID 2.25 in
						D. Pipe ID 3.80 in
						D.C. Length 120.00 ft
						D.P. Length 5177.00 ft

RECOVERY

Tot Fluid 10.00 ft of 10.00 ft in DC and 0.00 ft in DP
 2275.00 ft of Gas in pipe.
 10.00 ft of Drilling mud
 0.00 ft of 100% mud
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of

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

BLOW DESCRIPTION

Initial Flow:
 Strong blow. Bottom of bucket in 30 seconds.
 Initial Shut-In:
 No blow back.
 Final Flow:
 Strong blow. Bottom of bucket immediately. Decreased slightly.
 Final Shut-In:
 No blow back.

CONSERVATION DIVISION
 Wichita, Kansas

AUG - 9 2000

RECEIVED
 STATE CORPORATION COMMISSION

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/cf
Vis.	50.00 S/L
W.L.	8.20 in3
F.C.	0.00 in
Mud Drop Y	30.0 ft
Amt. of fill	0.00 ft
Btm. H. Temp.	121.00 F
Hole Condition	Good
% Porosity	12.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out N	
Tool Chased N	
Tester	Brad Bortz
Co. Rep.	Jon Christensen
Contr.	Duke
Rig #	5
Unit #	
Pump T.	

SAMPLES: None
 SENT TO:

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Hoffman Trust #2

LOCATION : 7-34s-18w Comanche co KS

TICKET No. 12542 D.S.T. No. 1 DATE 5-15-2000

TOTAL TOOL TO BOTTOM OF TOP PACKERS 27

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 47

TOTAL TOOL 74

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY

D.C. ABOVE TOOLS.Stands 2 Single Total 120

D.P. ABOVE TOOLS.Stands 83 Single Total 5177

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 5371

TOTAL DEPTH 5354

TOTAL DRILL PIPE ABOVE K.B. 17

REMARKS:

P.O. SUB Cir sub.	5220
C.O. SUB Top of tool	5280
Double pin	5281
S.I. TOOL Sterling	5286
HMV Sterling	5291
JARS Sterling	5296
SAFETY JOINT Sterling	5298
PACKER Sparton	5303
PACKER Sparton	5307
DEPTH	
1 Ft.	5308
ANCHOR Alpine	5308
Pu. sub	5313
AK-1	5351
8 Ft. perms	5321
31 Ft. jt. pipe	5352
BULLNOSE 2 Ft. perms.	
T.D.	5354

TEST HISTORY

12542 DST #1 Hoffman Trust #2 Crawford Oil & Gas Inc.

Flag Points

t(Min.) P(PSig)

A:	0.00	2567.04
B:	0.00	20.65
C:	29.00	16.51
D:	44.75	271.43
E:	0.00	10.08
F:	59.50	15.57
G:	92.00	410.56
Q:	0.00	2536.31

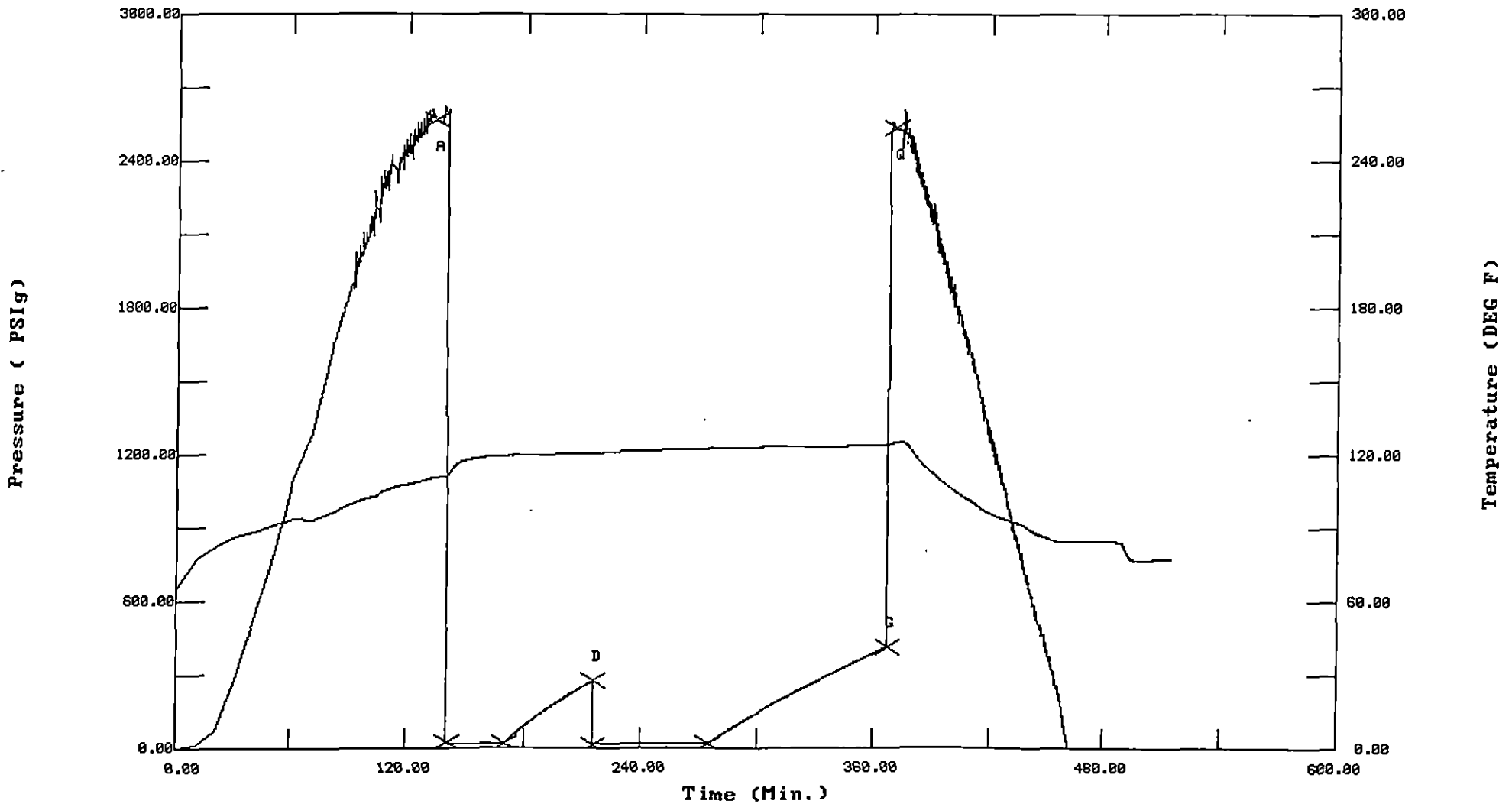
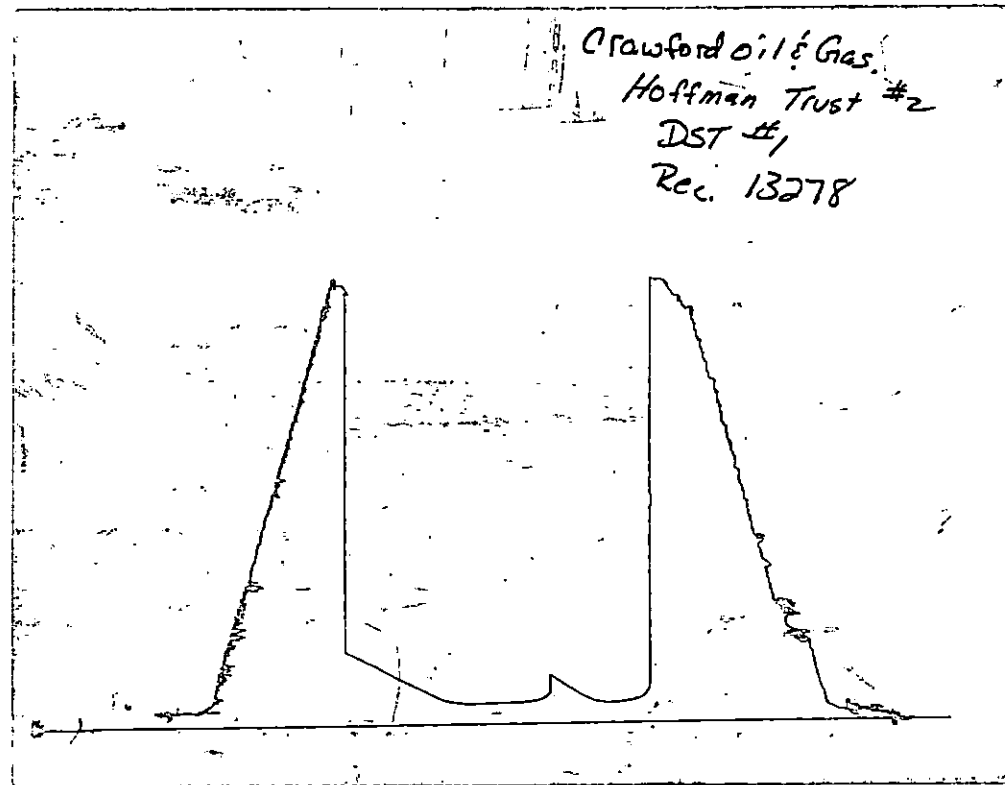


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N^o 12542

Well Name & No. <u>Hoffman Trust #2</u>	Test No. <u>1</u>	Date <u>5-15-2000</u>
Company <u>Crawford oil & Gas Inc.</u>	Zone Tested <u>Mississippi</u>	
Address <u>Po. Box 454 Mooreland ok, 73843</u>	Elevation <u>1906</u> KB <u>1895</u> GL	
Co. Rep / Geo. <u>Jon Christensen</u>	Cont. <u>Duke #5</u>	Est. Ft. of Pay <u>17</u> Por. <u>12</u> %
Location: Sec. <u>7</u> Twp. <u>34S</u> Rge. <u>18W</u>	Co. <u>Comanche</u>	State <u>Ks</u>
No. of Copies <u>R</u>	Distribution Sheet (Y, N) <u>R</u>	Turnkey (Y, N) <u>—</u> Evaluation (Y, N) <u>—</u>

Interval Tested 5307-5354 Initial Str Wt./Lbs. 70,000 Unseated Str Wt./Lbs. 78,000
 Anchor Length 47' 1-34 DP. 27' tool Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 10,000
 Top Packer Depth 5302 Tool Weight 1,800
 Bottom Packer Depth 5307 Hole Size 7 7/8" — Rubber Size 6 3/4" —
 Total Depth 5354 Wt. Pipe Run — Drill Collar Run 120'
 Mud Wt. 9.2 LCM 2nd Vis. 50 WL 8.2 Drill Pipe Size 4 1/2 XH Ft. Run 5177 17' up
 Blow Description Strong blow O.B.B. in 30 sec I.F.P.

No Blow back I.S.T.P.
Strong Blow O.B.B. Immediately decreased slightly F.F.P.
No Blow back F.S.T.P.

Recovery — Total Feet <u>10'</u>	GIP <u>2275</u>	Ft. in DC <u>10</u>	Ft. in DP <u>—</u>
Rec. <u>10'</u> Feet Of <u>Orig mud</u>	%gas	%oil	%water <u>100</u> %mud
Rec. _____ Feet Of _____	%gas	%oil	%water _____ %mud
Rec. _____ Feet Of _____	%gas	%oil	%water _____ %mud
Rec. _____ Feet Of _____	%gas	%oil	%water _____ %mud

BHT 121° °F Gravity — °API D@ — °F Corrected Gravity — °API
 RW — @ — °F Chlorides — ppm Recovery Chlorides 5,900 ppm System

(A) Initial Hydrostatic Mud	AK-1 <u>2548</u>	Alpine <u>2567</u>	PSI Recorder No. <u>2357</u>	T-On Location <u>6:00 Am</u>
(B) First Initial Flow Pressure	<u>132</u>	<u>20</u>	PSI (depth) <u>5308'</u>	T-Started <u>8:51 Am</u>
(C) First Final Flow Pressure	<u>121</u>	<u>16</u>	PSI Recorder No. <u>13278</u>	T-Open <u>11:10 Am</u>
(D) Initial Shut-in Pressure	<u>275</u>	<u>271</u>	PSI (depth) <u>5351</u>	T-Pulled <u>2:55 Pm</u>
(E) Second Initial Flow Pressure	<u>132</u>	<u>10</u>	PSI Recorder No. <u>—</u>	T-Out <u>6:00 Pm</u>
(F) Second Final Flow Pressure	<u>121</u>	<u>15</u>	PSI (depth) <u>—</u>	T-Off Location <u>7:00 Pm</u>
(G) Final Shut-in Pressure	<u>429</u>	<u>410</u>	PSI Initial Opening <u>30</u>	Test <input checked="" type="checkbox"/>
(Q) Final Hydrostatic Mud	<u>2548</u>	<u>2536</u>	PSI Initial Shut-in <u>45</u>	Jars <input checked="" type="checkbox"/>
			Final Flow <u>60</u>	Safety Joint <input checked="" type="checkbox"/>
			Final Shut-in <u>90</u>	Straddle _____
				Circ. Sub <input checked="" type="checkbox"/>
				Sampler _____
				Extra Packer _____
				Elec. Rec. <input checked="" type="checkbox"/>
				Mileage _____
				Other _____

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

Approved By Jon Christensen
 Our Representative Brad Bortz

TOTAL PRICE \$ _____

TRILOBITE TESTING L.L.C.

OPERATOR : Crawford Oil & Gas Inc. DATE 05-18-000
 WELL NAME: Hoffman Trust #2 KB 1906.00 ft TICKET NO: 12798 DST #2
 LOCATION : 7-34s-18w Comanche co KS GR 1895.00 ft FORMATION: Viola
 INTERVAL : 6087.00 To 6150.00 ft TD 6150.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10248	10248	2342			PF Fr. 1730 to 1800 hr
SI 45 Range(Psi)	4400.0	4400.0	4995.0	0.0	0.0	IS Fr. 1800 to 1845 hr
SF 60 Clock(hrs)	12 hr	12 hr	batt.			SF Fr. 1845 to 1945 hr
FS 90 Depth(ft)	6095.0	6095.0	6147.0	0.0	0.0	FS Fr. 1945 to 2115 hr

	Field	1	2	3	4	
A. Init Hydro	3090.0	3071.0	3053.0	0.0	0.0	T STARTED 1445 hr
B. First Flow	46.0	49.0	24.0	0.0	0.0	T ON BOTM 1725 hr
B1. Final Flow	46.0	38.0	21.0	0.0	0.0	T OPEN 1730 hr
C. In Shut-in	216.0	194.0	188.0	0.0	0.0	T PULLED 2115 hr
D. Init Flow	48.0	38.0	18.0	0.0	0.0	T OUT 0010 hr
E. Final Flow	48.0	34.0	25.0	0.0	0.0	
F. Fl Shut-in	395.0	390.0	388.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	2978.0	3009.0	2943.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I	T		Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 97000.00 lbs
						Initial Str Wt 82000.00 lbs
						Unseated Str Wt 82000.00 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 120.00 ft
						D.P. Length 5947.00 ft

RECOVERY

Tot Fluid 20.00 ft of 20.00 ft in DC and 0.00 ft in DP
 100.00 ft of Gas in pipe.
 20.00 ft of Drilling mud
 0.00 ft of 100% mud
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of
 0.00 ft of Rw n.c. ohms @ degrees F.
 0.00 ft of EST.FT. of PAY-----7
 SALINITY 6000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:
 Weak bow. Slow increase to 3".

Initial Shut-In:
 No blow.

Final Flow:
 Fair blow. 4 - 8".

Final Shut-In:
 No blow.

SAMPLES: none
 SENT TO: Caraway/Liberal

MUD DATA-----

Mud Type	Chemical
Weight	9.40 lb/cf
Vis.	59.00 S/L
W.L.	8.00 in3
F.C.	0.20 in
Mud Drop N	
Amt. of fill	1.00 ft
Btm. H. Temp.	131.00 F
Hole Condition	good
% Porosity	10.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 N
Cushion Type	None
Reversed Out N	
Tool Chased N	
Tester	Gary Pevoteaux
Co. Rep.	Jon Christensen
Contr.	Duke Drlg.
Rig #	5
Unit #	
Pump T.	LCM 6 #/bl

Test Successful: Y

TEST HISTORY

12798 DST#2 HOFFMAN TRUST #2 CRAWFORD OIL & GAS, INC.

Flag Points

t(Min.) PK PSIG

A:	0.00	3052.61
B:	0.00	23.99
C:	30.50	20.81
D:	45.00	188.24
E:	0.00	17.70
F:	59.50	25.42
G:	92.50	388.24
Q:	0.00	2943.09

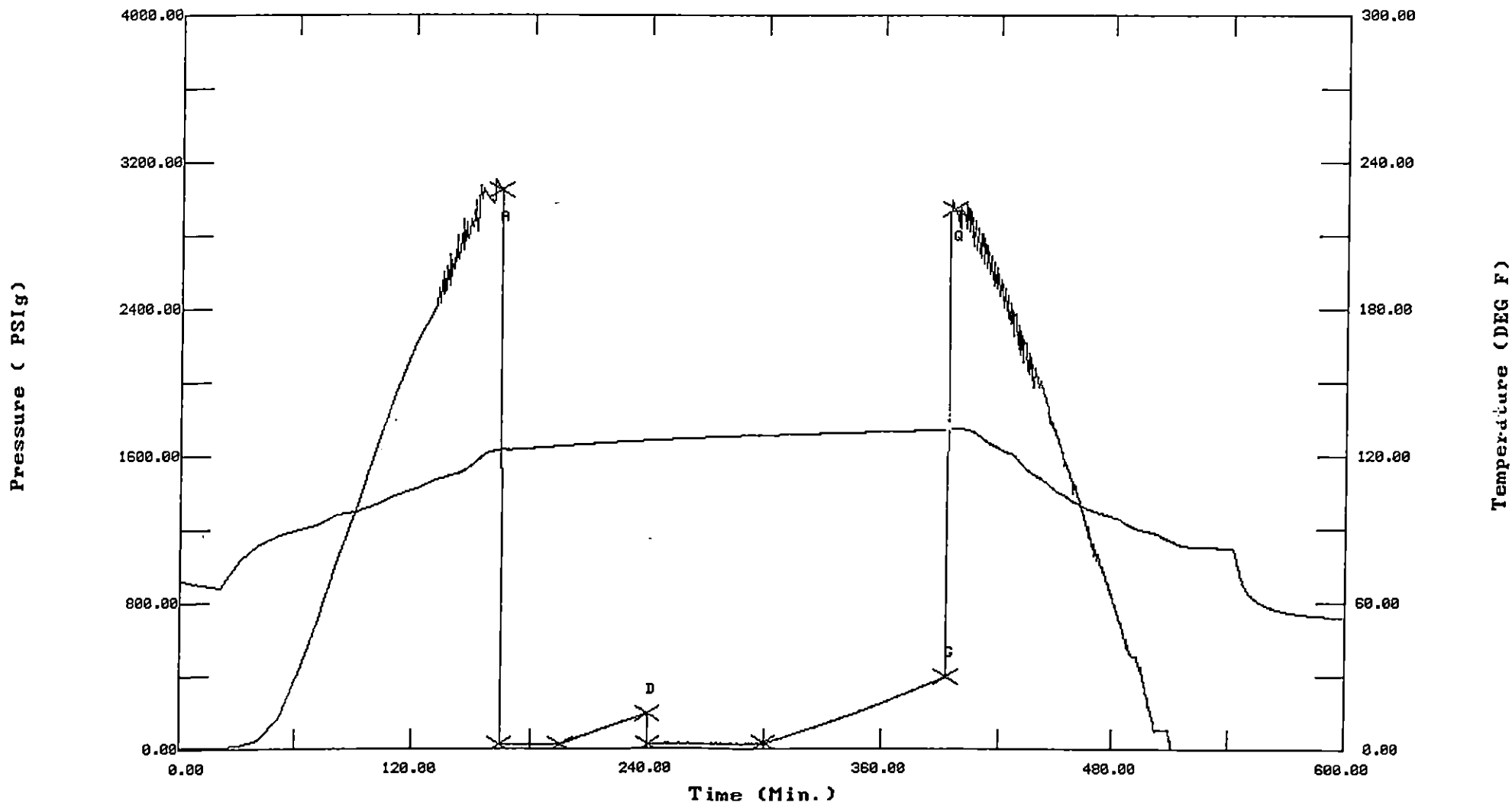
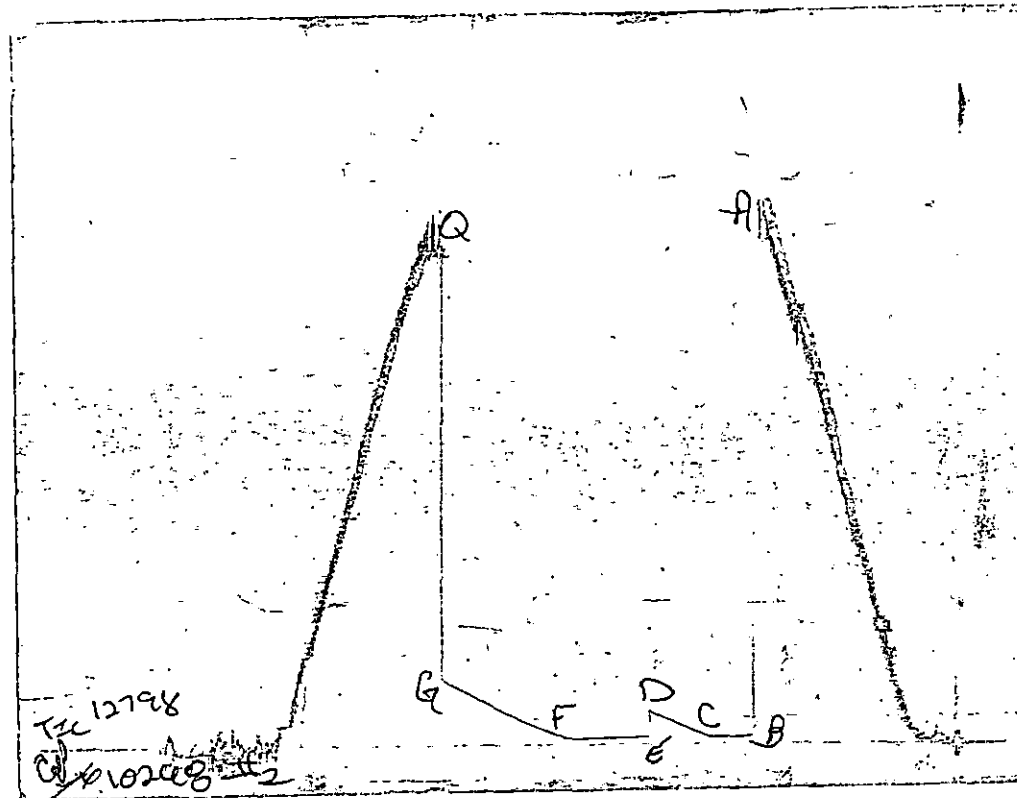


CHART PAGE



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

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

#2 Test Ticket

No 12798

Hoffman Trust

Well Name & No. Hoffman Trust Test No. 2 Date 5-18-2000
 Company Crawford Oil & Gas Inc. Zone Tested Viola
 Address P.O. Box 51, Caldwellwater Ks. 67029 Elevation 1906 KB 1895 GL
 Co. Rep / Geo. Jon Christensen Cont. Duke Dyle # 5 Est. Ft. of Pay 7 Por. %
 Location: Sec. 7 Twp. 34S Rge. 18W Co. Cornucache State Ks.
 No. of Copies 5 Distribution Sheet (Y, N) N Turnkey (Y, N) yes Evaluation (Y, N)

Interval Tested 6087 - 6150' Initial Str Wt./Lbs. 82000 Unseated Str Wt./Lbs. 82000
 Anchor Length 63' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 97000
 Top Packer Depth 6082' Tool Weight 2100 #
 Bottom Packer Depth 6087' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓
 Total Depth 6150' Wt. Pipe Run None Drill Collar Run 120'
 Mud Wt. 9.4 LCM 6# Vis. 59 WL Pr. Occ. Drill Pipe Size 4 1/2" x 11 Ft. Run 5947'
 Blow Description IF: Weak below, slow increase to 3"
ISI: No blow.
FF: Fair blow. 4 - 8" FSI: No blow

Recovery — Total Feet 20 GIP 100 Ft. in DC 20 Ft. in DP
 Rec. 20 Feet Of Oreg. Mud %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
 Rec. Feet Of %gas %oil %water %mud
 BHT 131 °F Gravity N/A °API D@ °F Corrected Gravity N/A °API
 RW N.C. @ °F Chlorides 6000 ppm Recovery Chlorides 6000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	3050	3053		3342	1245
(B) First Initial Flow Pressure	46	24		(depth) 6095'	T-Started 1445
(C) First Final Flow Pressure	46	21		Recorder No. 10248	T-Open 1730
(D) Initial Shut-In Pressure	216	189		(depth) 6147'	T-Pulled 2115
(E) Second Initial Flow Pressure	48	18		Recorder No. <u> </u>	T-Out 0010
(F) Second Final Flow Pressure	48	25		(depth) <u> </u>	T-Off Location 0115
(G) Final Shut-in Pressure	395	388		PSI Initial Opening 30	Test <u>✓</u> 900 ⁰⁰
(Q) Final Hydrostatic Mud	2978	2943		PSI Initial Shut-in 45	Jars <u>✓</u> 200 ⁰⁰
				Final Flow 60	Safety Joint <u>✓</u> 300 ⁰⁰
				Final Shut-in 90	Straddle <u> </u>
					Circ. Sub <u> </u>
					Sampler <u> </u>
					Extra Packer <u> </u>
					Elec. Rec. <u>✓</u> 150 ⁰⁰
					Mileage <u> </u>
					Other <u> </u>
					TOTAL PRICE \$ <u>1300⁰⁰</u>

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 Our Representative Cary Christensen