

ORIGINAL

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

API NO. 5-051-24814 - 0000

County Ellis

C-N/2-SE-NE Sec. 18 Twp. 11 Rge. 17 X E W

3630 Feet from (S/N) (circle one) Line of Section

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

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

Lease Name Kollman Well # 12

Field Name Bemis Shutts

Producing Formation Arbuckle

Elevation: Ground 1835 KB 1840

Total Depth 3506' PBDT 3478

Amount of Surface Pipe Set and Cemented at 1088 Feet

Multiple Stage Cementing Collar Used? Yes X 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 2-22-93
(Data must be collected from the Reserve Pit)

Chloride content ppm Fluid volume bbls

Dewatering method used

Location of fluid disposal if hauled offsite:

Operator Name

Lease Name License No.

 Quarter Sec. Twp. S Rng. E/W

County Docket No.

Operator: License # 3613

Name: Hallwood Petroleum, Inc.

Address 4582 So. Ulster Street Parkway
Suite 1700

City/State/Zip Denver, CO 80237

Purchaser: Koch Oil Co.

Operator Contact Person: George Hutton

Phone (316) 792-2756

Contractor: Name: Duke Drilling Company

License: 5929

Wellsite Geologist: Jim Musgrove

Designate Type of Completion

X New Well Re-Entry Workover

X Oil SWD SLOW Temp. Abd.

 Gas ENHR SIGW

 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator:

Well Name:

Comp. Date Old Total Depth

 Deepening Re-perf. Conv. to Inj/SWD

 Plug Back PBDT

 Commingled Docket No.

 Dual Completion Docket No.

 Other (SWD or Inj?) Docket No.

10/26/92 11/03/92 11/13/92

Spud Date Date Reached TD Completion Date

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 *M. M. Ball*

Title Sr. Eng. Tech. Date 1/28/93

Subscribed and sworn to before me this 28 day of January, 1993

Notary Public *Ida M. Christian*

Date Commission Expires 9/1/93

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)

Form ACO-1 (7-91)

RECEIVED
KANSAS CORPORATION COMMISSION
JAN 29 1993
CONSERVATION DIVISION
WICHITA, KS

SIDE TWO

Operator Name Hallwood Petroleum, Inc. Lease Name Kollman Well # 12

Sec. 18 Twp. 11 Rge. 17 East West
 County Ellis

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 Yes No
 (Submit Copy.)

List All E.Logs Run:
 CAL
 CDL/DSN
 Dual Guard Fanxo

<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datums <input type="checkbox"/> Sample		
Name	Top	Datum
Anhydrite	1074	+766
Topeka	2769	-929
Toronto	3018	-1178
Lansing	3043	-1203
Base	3276	-1436
Arbuckle	3337	-1497

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	# Sacks Used	Type and Percent Additives
Surface	12 1/4	8 5/8	23#	1088'	HL	300	2% cc ^{1/4lb/sk} Flocele
					40/60 poz	200	2% cc
Production	7 7/8	5 1/2	15.5#	3505'	common	225	5% EA2 10% salt .75% Halid 322 last 125 sx-5#/sk Gilsonite 1/4#/sk Flocele

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	
	4	3337-9		

TUBING RECORD		Size	Set At	Packer At	Liner Run			
		2 7/8	2392	N/A	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Date of First, Resumed Production, SWD or Inj. 11/14/92		Producing Method <input type="checkbox"/> Flowing <input checked="" 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
	4.5		0		484		0	

Disposition of Gas: **METHOD OF COMPLETION** Production Interval

Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled 3337-9
 (If vented, submit ACO-18.) Other (Specify) _____

ORIGINAL

NO. 283332-5

FORM 1908 R-11

43335 18

WELL NO. - FARM OR LEASE NAME ADJ Kollman		COUNTY Ellis 18-11-17	STATE KS	CITY / OFFSHORE LOCATION	DATE 11-3-92
CHARGE TO Hallwood Pet, Inc		OWNER same		TICKET TYPE (CHECK ONE) SERVICE <input checked="" type="checkbox"/> SALES <input type="checkbox"/>	
ADDRESS P.O. Box 404		CONTRACTOR Duke		LOCATION 1 Hays KS	
CITY, STATE, ZIP Plainville, KS. 67663-0404		SHIPPED VIA 51374 Combo		LOCATION 2	
WELL TYPE 01		WELL PERMIT NO. B-132545		LOCATION 3	
WELL CATEGORY 01		DELIVERED TO S.E. Plainville KS		CODE 25525	
TYPE AND PURPOSE OF JOB 035		ORDER NO.		REFERRAL LOCATION	

As consideration, the above-named Customer agrees to pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists. Invoices payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account. These terms and conditions shall be governed by the law of the state where services are performed or equipment or materials are furnished.

Halliburton warrants only to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY FITTED FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and customer's excessive remedy in any cause of action whether in contract, tort, product liability, breach of warranty or otherwise arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials in their return to Halliburton or, at Halliburton's option, to the allowance to the customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

PRICE REFERENCE	SECONDARY REF OR PART NO.	L O C	ACCOUNT	DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
					QTY	MEAS	QTY	MEAS			
000-117		1		MILEAGE 51374 P.T.	12	mi			2.60	31	20
001-016		1		Pump Service	3,505	FT			1240. ⁰⁰	1240.	00
030-018		1		5 wiper Plug	1	EA	5 1/2	in		60.	00
12 A	825, 205	1		Guide shoe	1	EA	5 1/2	in	121. ⁰⁰	121	00
24 A	815, 19251	1		Insert Float Valve	1	EA			83. ⁰⁰	83.	00
27	815, 19311	1		Fillup unit	1	EA			30. ⁰⁰	30	00
40	807, 93022	1		S-4 cent	6	EA	5 1/2	in	44. ⁰⁰	264	00
019-241		1		Rotating Head	1	EA	5 1/2	in	155. ⁰⁰	155.	00

RECEIVED
KANSAS CORPORATION COMMISSION

JAN 29 1993

CONSERVATION DIVISION
WICHITA, KS

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO.

B-132545

3537. 22

WAS JOB SATISFACTORILY COMPLETED? _____

WAS OPERATION OF EQUIPMENT SATISFACTORY? _____

WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____

X Aven Weaver
CUSTOMER OR HIS AGENT (PLEASE PRINT)

X Aven Weaver
CUSTOMER OR HIS AGENT (SIGNATURE)

WE CERTIFY THAT THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED HAS BEEN COMPLIED WITH IN THE PRODUCTION OF GOODS AND OR WITH RESPECT TO SERVICES FURNISHED UNDER THIS CONTRACT.

A. F. Werth 86101
HALLBURTON OPERATOR

HALLBURTON APPROVAL _____

SUB TOTAL 5521 97

APPLICABLE TAXES WILL BE ADDED ON INVOICE.

BULK MATERIALS DELIVERY AND TICKET CONTINUATION

FOR INVOICE AND
TICKET NO. 283332



ORIGINAL

DATE 11-3-92	CUSTOMER ORDER NO.	WELL NO. AND FARM 12 Kollman	COUNTY Ellis	STATE Ks.
CHARGE TO Hallwood Petroleum, Inc.		OWNER Same	CONTRACTOR Duke Drig.	
MAILING ADDRESS		DELIVERED FROM Hays, Ks.	LOCATION CODE 25525	PREPARED BY D. W. Dobratz
CITY & STATE		DELIVERED TO n/ Hays, Ks.	TRUCK NO. 4604	RECEIVED BY A. J. Werth

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
		L	D		QTY.	MEAS.	QTY.	MEAS.			
504-308	516.00261	1	B	Standard Cement	225				6.56	1476.00	
509-968	516.00158	1	B	Salt Blended & on side	1500	1b			.10	150.00	
507-775	516.00144	1	B	Halad 322 Blended	159	1b			6.30	1001.70	
508-127	890.50131	1	B	Cal Seal B lended W/225	11				19.70	216.70	
508-291	516.00337	1	B	Gilsonite Blended W/125	625	1b			0.35	218.75	
507-210	890.50071	1	B	Flocele Blended W/125	32	1b			1.30	41.60	
<i>Production</i>											
<div style="border: 1px solid black; padding: 5px; transform: rotate(-15deg); display: inline-block;"> RECEIVED KANSAS CORPORATION COMMISSION JAN 29 1993 CONSERVATION DIVISION WICHITA, KS </div>											
		Returned Mileage Charge	TOTAL WEIGHT		LOADED MILES	TON MILES					
		SERVICE CHARGE ON MATERIALS RETURNED						CU. FEET			
500-207		1	B	SERVICE CHARGE			CU. FEET	274	1.15	315.10	
500-306		1	B	Mileage Charge	24,566	12	TON MILES	147,396	.80	117.92	
No. B 132545		CARRY FORWARD TO INVOICE						SUB-TOTAL		3537.77	

WORK ORDER CONTRACT AND PRE-TREATMENT DATA

ATTACH TO INVOICE & TICKET NO. 283332

ORIGINAL

DATE 11-3-92

FORM 1908 R-7

DISTRICT Pratt ks

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: Hallwood Pet. Inc (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. #12 LEASE Kollman SEC. 18 TWP. 11 RANGE 17

FIELD _____ COUNTY Ellis STATE Ks OWNED BY SAME

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____	NEW USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
FORMATION THICKNESS _____ FROM _____ TO _____						
PACKER: TYPE _____ SET AT _____						
TOTAL DEPTH <u>3505'</u> MUD WEIGHT _____						
BORE HOLE _____						
INITIAL PROD: OIL _____ BPD, H ₂ O _____ BPD, GAS _____ MCF						
PRESENT PROD: OIL _____ BPD, H ₂ O _____ BPD, GAS _____ MCF						
	CASING	<u>4</u>	<u>15.5</u>	<u>5 1/2</u>	<u>XB</u>	<u>3504</u>
	LINER					
	TUBING					
	OPEN HOLE			<u>3504</u>	<u>3505</u>	SHOTS/FT.
	PERFORATIONS					
	PERFORATIONS					
	PERFORATIONS					

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED _____
cm 5 1/2 long string w/ 100 sks standard 5% cal seal, 10% salt, 3/4% H-322
125 sks standard, 5% cal seal, 10% salt, 3/4% H-322, 5# 6.1 solids, 1/4# Fluocel/s.
500# SALT for 25 bbls salt flush

F.E. guide shoe 6-cent insert w/ fill up.

CUSTOMER OR HIS AGENT WARRANTS THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

As consideration the above-named Customer agrees: THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

To the Halliburton Corporation, its successors and assigns, the terms and conditions of this contract shall be governed by the current price list, invoices, and the work order. The customer shall be responsible for the payment of all bills rendered by Halliburton within the time specified. The customer shall be responsible for the payment of all taxes, fees, and charges imposed by any governmental authority. The customer shall be responsible for the payment of all costs incurred by Halliburton in the performance of its obligations under this contract. The customer shall be responsible for the payment of all costs incurred by Halliburton in the performance of its obligations under this contract. The customer shall be responsible for the payment of all costs incurred by Halliburton in the performance of its obligations under this contract.

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JAN 29 1993
CONSERVATION DIVISION
WICHITA, KS

SIGNED John Weavering CUSTOMER

DATE 11-3-92

TIME 11-3-92 A.M. PM

ORIGINAL

WELL DATA

FIELD, SEC. 18, TWP. 11, RNG. 17, COUNTY Ellis, STATE KS. FORMATION NAME, TYPE, THICKNESS, PROD. OIL, BPD. WATER, BPD. GAS, MCFD, COMPLETION DATE, MUD TYPE, MUD WT., PACKER TYPE, SET AT, BOTTOM HOLE TEMP., PRESSURE, MISC. DATA, TOTAL DEPTH 3505'

JOB DATA

Table with 4 columns: CALLED OUT, ON LOCATION, JOB STARTED, JOB COMPLETED. Includes dates and times for 11-3-92.

PERSONNEL AND SERVICE UNITS

Table with 3 columns: NAME, UNIT NO. & TYPE, LOCATION. Lists personnel like A. F. Werth, R. Berens, P. Dobratz.

DEPARTMENT, DESCRIPTION OF JOB (5/2 long string), JOB DONE THRU (TUBING, CASING, ANNULUS, TBG./ANN.), CUSTOMER REPRESENTATIVE (X Owen Weathers), HALLIBURTON OPERATOR (A. F. Werth), COPIES REQUESTED.

CEMENT DATA

Table with 7 columns: STAGE, NUMBER OF SACKS, CEMENT, BRAND, BULK SACKED, ADDITIVES, YIELD CU.FT./SK., MIXED LBS./GAL. Includes stages 100 and 125.

PRESSURES IN PSI

VOLUMES

CIRCULATING, BREAKDOWN, AVERAGE, SHUT-IN, HYDRAULIC HORSEPOWER, ORDERED, TREATING, FEET. Includes remarks: 22' shoe joint, Franks Allen, Ron, Don.

Summary, Conservation Division, Wichita, KS, 29 1990

CUSTOMER: Hallwood Pot Inc. LEASE: Kollman. WELL NO. # 12. JOB TYPE: 5/2 Long String. DATE: 11-3-92.

JOB LOG

FORM 2013 R-2

WELL NO. #12 LEASE Kollman TICKET NO. 283332
 CUSTOMER Hallwood Pet, INC PAGE NO. 1
 JOB TYPE s/a L.S. DATE 11-3-92

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GALS)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
1	1330							called out
	1620							On loc. w/ 1- guide shoe, 6- cont. 1- insert w/ fillup assy, 500 [#] salt for 25 BBL salt flush 100 sks standard w/ 5% cal seal 10% salt 3/4% H-32 125 sks standard w/ 5% cal seal 10% salt 3/4% H-32 5 [#] Gilsonite 1/4 [#] Floccle/sk
	1710							setup + Plan Job, Rig Pulling Drill Pipe out of Hole w/ Drill Pipe, Rig up to Run csg
	1800							start csg 15.5 th 1st Joint, shoe Joint 22 nd insert + fillup assy. - 16 cont.
	2030							Casing on Bottom. Hook up to well + air w/ need Hog. Rotate Pipe Hook up to cement well
	2147		25					mix 500 [#] salt for 25 BBL salt flush
	2159		2					250 Pump 2 BBL Fresh water spacer 300 [#] st mix cement 100 sks standard w/ 5% cal seal, 10% salt 3/4% H-322 300 [#] st. mix 125 sks standard 5% cal seal, 10% salt 3/4% H-322 5 [#] Gilsonite + 1/4 [#] Floccle/sk.
	2209							Fin mix wash out Pump Line Release Plug + wire line.
	2211							100 [#] st. Disp. csg. cap B3 BBLs
	2231							100 [#] Plug down tag w/ wire line @ 3485 1/2 1400 [#] Release PST to FRK Dry. Washup Equip. Job complete
	2330							

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 KANSAS CORPORATION COMMISSION
 JAN 29 1993
 CONSERVATION DIVISION
 WICHITA, KS

THANKS
 ALLEN
 ROW
 DOWN.

P.O. BOX 951046
DALLAS, TX 75395-1046
TICKET
203308

HALLIBURTON SERVICES

A Halliburton Company

ORIGINAL

INVOICE NO. 203308 DATE 10/27/1992

INVOICE

WELL LEASE NO./PLANT NAME KOLLMAN 12		WELL/PLANT LOCATION ELLIS		STATE KS	WELL/PLANT OWNER SAME
SERVICE LOCATION HAYS	CONTRACTOR DUKE	JOB PURPOSE CEMENT SURFACE CASING		TICKET DATE 10/27/1992	
ACCT. NO. 355880	CUSTOMER AGENT AVEN WEAVERLING	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA COMPANY TRUCK	FILE NO. 41771

HALLWOOD PETROLEUM, INC.
P.O. BOX 404
PLAINVILLE, KS 67663-0404

DIRECT CORRESPONDENCE TO:
FIRST OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2050
OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
000-117	PRICING AREA - EASTERN AREA1 MILEAGE	12	MI	2.60	31.20
001-016	CEMENTING CASING	1088	FT	900.00	900.00
030-018	CEMENTING PLUG SW, PLASTIC TOP	1	UNT		
40	CENTRALIZER 8-5/8" X 12.25"	8 5/8	IN	130.00	130.00
807.93059		1	EA		
504-316	HALLIBURTON LIGHT W/STANDARD	3	EA	62.00	186.00
504-308	STANDARD CEMENT	300	SK	5.70	1,710.00
506-105	POZMIX A	120	SK	6.06	727.20
509-406	ANHYDROUS CALCIUM CHLORIDE	5920	LB	.048	284.16
507-210	FLOCELE	8	SK	26.50	212.00
500-207	BULK SERVICE CHARGE	75	LB	1.30	97.50
500-306	MILEAGE CMTG MAT DEL OR RETURN	521	CFT	1.15	599.15
		273.450	TMI	.80	218.76
INVOICE SUBTOTAL					5,095.97
DISCOUNT - (BID)					917.24
INVOICE BID AMOUNT					4,178.73
*- KANSAS STATE SALES TAX					167.34
*- HAYS CITY SALES TAX					34.15
INVOICE TOTAL - PLEASE PAY THIS AMOUNT					4,480.22

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STATE CORPORATION COMMISSION

FEB 22 1993
84,350.22

AFFIX JOB TKT

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT.

CONSERVATION DIVISION
Wichita, Kansas



FORM 1906 R-11

WELL NO. - FARM OR LEASE NAME: #12 Kollman
 COUNTY: Ellis
 STATE: K
 CITY / OFFSHORE LOCATION: Hays Ks
 DATE: 10-27-97

CHARGE TO: Hallwood Petroleum
 OWNER: Same
 TICKET TYPE (CHECK ONE): SERVICE SALES NITROGEN JOB YES NO

ADDRESS: [Blank]
 CONTRACTOR: Duke Oil
 LOCATION: 1 Hays Ks
 CODE: 25525

CITY, STATE, ZIP: [Blank]
 SHIPPED VIA: Howeg
 FREIGHT CHARGES: PPD COLLECT
 LOCATION: 2
 CODE: [Blank]

WELL TYPE: 01
 WELL CATEGORY: 01
 WELL PERMIT NO.: B-132530
 DELIVERED TO: NE Hays Ks
 LOCATION: 3
 CODE: [Blank]

TYPE AND PURPOSE OF JOB: 010
 ORDER NO.: [Blank]
 REFERRAL LOCATION: [Blank]

As consideration, the above-named Customer agrees to pay Halliburton in accord with the rates and terms stated in Halliburton's current price lists. Invoices payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable, but never to exceed 15% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account. These terms and conditions shall be governed by the law of the state where services are performed or equipment or materials are furnished.

Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and customer's exclusive remedy in any cause of action (whether in contract, tort, product liability, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

PRICE REFERENCE	SECONDARY REF OR PART NO.	L O C	ACCOUNT	DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT
					QTY	MEAS	QTY	MEAS		
660-117		1		MILEAGE 6.25 PT	12	m			2.60	31.20
800-D11		1		Pump Ch	1088	ft			906.00	900.00
630-018		1		SW Top Plug	1	ea	8 1/2"		130.00	130.00
40	807,93059	1		S-1 Centrif 2 1/2"	3	ea	8 1/2"		53.00	159.00

THIS IS NOT AN INVOICE

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO. B-132530

WAS JOB SATISFACTORILY COMPLETED? _____

WAS OPERATION OF EQUIPMENT SATISFACTORY? _____

WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____

X *[Signature]*
 CUSTOMER OR HIS AGENT (PLEASE PRINT)

X *[Signature]*
 CUSTOMER OR HIS AGENT (SIGNATURE)

WE CERTIFY THAT THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED HAS BEEN COMPLIED WITH IN THE PRODUCTION OF GOODS AND OR WITH RESPECT TO SERVICES FURNISHED UNDER THIS CONTRACT.

[Signature]
 HALLIBURTON OPERATOR

HALLIBURTON APPROVAL

RECEIVED
 STATE CORPORATION COMMISSION
 FEB 22 1998
 CONSERVATION DIVISION
 WICHITA, KANSAS
 APPLICABLE TAXES WILL BE ADDED TO INVOICE

CUSTOMER

**WORK ORDER CONTRACT
 AND PRE-TREATMENT DATA**

ATTACH TO INVOICE & TICKET NO. 283308

FORM 1908 R-7

DISTRICT: Area 11 Ks DATE 10-27-92

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: Hollywood Petroleum (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. # 12 LEASE Kellman SEC. 18 TWP. 11^s RANGE 17^w
 FIELD _____ COUNTY Ellis STATE Ks OWNED BY Same

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____
 FORMATION THICKNESS _____ FROM _____ TO _____
 PACKER TYPE _____ SET AT _____
 TOTAL DEPTH _____ MUD WEIGHT _____
 BORE HOLE _____
 INITIAL PROD.: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF
 PRESENT PROD.: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF

	NEW USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING	14	28.23	8 1/2	KB	1088'	
LINER						
TUBING						
OPEN HOLE			12 1/4	1079	1090	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____
 TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED _____

Case - 8 1/2" log

CUSTOMER OR HIS AGENT WARRANTS THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

As consideration, the above-named Customer agrees: THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

- a) To pay Halliburton in accord with the rates and terms stated in Halliburton's current price list. Invoices are payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event it becomes necessary to employ attorneys to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account.
- b) To defend, indemnify, release and hold harmless Halliburton, its divisions, subsidiaries, parent and affiliated companies and the officers, directors, employees, agents and servants of all of them from and against all claims, liability, expenses, attorneys fees, and costs of defense to the extent permitted by law for:
 1. Damage to property owned by, in the possession of, or leased by Customer, and/or the well owner (if different from Customer), including, but not limited to, surface and subsurface damage. The term "well owner" shall include working and royalty interest owners.
 2. Reservoir, formation, or well loss or damage, subsurface trespass or any action in the nature thereof.
 3. Personal injury or death or property damage (including, but not limited to, damage to the reservoir, formation or well), or any damages whatsoever, growing out of or in any way connected with or resulting from pollution, subsurface pressure, losing control of the well and/or a well blowout or the use of radioactive material.
- The defense, indemnity, release and hold harmless obligations of Customer provided for in this Section b) and Section c) below shall apply to claims or liability even if caused or contributed to by Halliburton's negligence, strict liability, or the unseaworthiness of any vessel owned, operated, or furnished by Halliburton or any defect in the data, products, supplies, materials, or equipment of Halliburton whether in the preparation, design, manufacture, distribution, or marketing thereof, or from a failure to warn any person of such defect. Such defense, indemnity, release and hold harmless obligations of Customer shall not apply where the claims or liability are caused by the gross negligence or willful misconduct of Halliburton. The term "Halliburton" as used in said Sections b) and c) shall mean Halliburton, its divisions, subsidiaries, parent and affiliated companies, and the officers, directors, employees, agents and servants of all of them.
- c) That because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the effectiveness of the products, supplies or materials, nor the results of any treatment or service, nor the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be liable for and Customer shall indemnify Halliburton against any damages arising from the use of such information.
- d) That Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.
- e) That Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, tools or instruments are not recovered, Customer shall pay Halliburton its replacement cost unless such loss is due to the sole negligence of Halliburton. If Halliburton equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repairs unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments damaged in the well, Customer shall, in addition to the foregoing, be fully responsible for loss of or damage to any of Halliburton's equipment, tools or instruments which occurs at any time after delivery to the landing until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.
- f) To waive the provisions of the Deceptive Trade Practices - Consumer Protection Act, to the extent permitted by law.
- g) That this contract shall be governed by the law of the state where services are performed or materials are furnished.
- h) That Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

FEB 22 1993
 CONSERVATION COMMISSION

I HAVE READ AND UNDERSTAND THIS CONTRACT AND I REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER

SIGNED Arvin W. ... CUSTOMER

DATE 10-27-92

TIME 03:15 A.M. PM

We certify that the Fair Labor Standards Act of 1938, as amended, has been complied with in the production of goods and/or with respect to services furnished under this contract.



JOB SUMMARY

HALLIBURTON DIVISION Eastern #1
HALLIBURTON LOCATION Hays, K.

BILLED ON TICKET NO. 283308

WELL DATA

FIELD _____ SEC 18 TWP 11 RNG. 17th COUNTY Ellis STATE Ks

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

PRESENT PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	<u>N</u>					
LINER						
TUBING		<u>See Work Order</u>				
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>10-27-97</u> TIME <u>01:36</u>	DATE <u>10-27-97</u> TIME <u>03:00</u>	DATE <u>10-27-97</u> TIME <u>04:06</u>	DATE _____ TIME _____

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL-API _____

DISPL. FLUID _____ DENSITY _____ LB/GAL-API _____

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL _____ %

ACID TYPE _____ GAL _____ %

ACID TYPE _____ GAL _____ %

SURFACTANT TYPE _____ GAL _____ IN

NE AGENT TYPE _____ GAL _____ IN

FLUID LOSS ADD. TYPE _____ GAL-LB. _____ IN

GELLING AGENT TYPE _____ GAL-LB. _____ IN

FRIC. RED. AGENT TYPE _____ GAL-LB. _____ IN

BREAKER TYPE _____ GAL-LB. _____ IN

BLOCKING AGENT TYPE _____ GAL-LB. _____

PERFPAC BALLS TYPE _____ QTY. _____

OTHER _____

OTHER _____

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>J Becker</u>	<u>113023 Comb</u>	<u>Hays, K.</u>
<u>A Gehl</u>	<u>52684 3472</u>	<u>"</u>
<u>R Rocco</u>	<u>57220 BT 0530</u>	<u>"</u>
<u>D Roberts</u>	<u>11601</u>	<u>"</u>

DEPARTMENT Com + 9 1/2" Sub. Seal

DESCRIPTION OF JOB _____

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE X [Signature]

HALLIBURTON OPERATOR [Signature] COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>300</u>	<u>HLC</u>		<u>B</u>	<u>1/2" Flocc + 2% CC</u>	<u>1.97</u>	<u>12.1</u>
	<u>300</u>	<u>40-LAP</u>		<u>B</u>	<u>No Col + 2% CC</u>	<u>1.08</u>	<u>15.5</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____

HYDRAULIC HORSEPOWER _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET _____ REASON _____

SUMMARY

PRESLUSH: BBL-GAL _____ TYPE _____

LOAD & BKDN: BBL-GAL _____ PAD: BBL-GAL _____

TREATMENT: BBL-GAL _____ DISPL: BBL-GAL 66.73

CEMENT SLURRY: BBL-GAL 143.73

TOTAL VOLUME: BBL-GAL 105.26

REMARKS See Job Log

RECEIVED _____ CORPORATION COMMISSION

FEB 22 1998

CONSERVATION DIVISION
Wichita, Kansas

CUSTOMER Holladay Petroleum
LEASE Kellner
WELL NO. 12
JOB TYPE Com + 9 1/2" Sub. Seal
DATE 10-27-97

HALLIBURTON SERVICES
JOB LOG

WELL NO. #12 LEASE Kollman TICKET NO. 293302
 CUSTOMER Hollywood Petroleum PAGE NO. 1
 JOB TYPE Cont 8 5/8" Surface DATE 10-27-92

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	01:30							Called Out
	03:00							On Loc - Rig Pull DP
	04:15							Spot - Set up Equip - Plan Job Start 8 5/8" Csg in Hole / 3rd Centralizer 2c Baskets
	05:41							Csg in Hole Hook up PCV Manifold
	05:46							Break Circ 7 Rig Pump Hook up r PT
	06:12							400 Start Mix Cont 3000 lb HLC 7/8" Floccs + 2 1/2 CS 2000 lb 40-60 Pci / No Gel + 2 1/2 CS
	06:39							450 Finished Mix Cont Release Plug & Wire Line
	06:44							400 Start Displ
	07:05							750 Finish Displ - Plug @ 1065' Cement Displ Circ
								Thank You John

RECEIVED
 STATE CORPORATION COMMISSION
 FEB 22 1993
 CONSERVATION DIVISION
 Wichita, Kansas

CUSTOMER

INVOICE

HALLIBURTON SERVICES

A Halliburton Company

DALLAS, TX 75395-1040

283332 11/03/1992

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STATE	WELL/PLANT OWNER
KOLLMAN 12		ELLIS		KS	SAME
SERVICE LOCATION		CONTRACTOR	JOB PURPOSE		TICKET DATE
HAYS		DUKE	CEMENT PRODUCTION CASING		11/03/1992
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
355880	AVEN WEAVERLING			COMPANY TRUCK	42252

HALLWOOD PETROLEUM, INC.
P.O. BOX 404
PLAINVILLE, KS 67663-0404

DIRECT CORRESPONDENCE TO
FIRST OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2050
OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
PRICING AREA - EASTERN AREA1					
000-117	MILEAGE	12	MI	2.60	31.20
		1	UNT		
001-016	CEMENTING CASING	3505	FT	1,240.00	1,240.00
		1	UNT		
030-018	CEMENTING PLUG SW, PLASTIC TOP	5.5	IN	60.00	60.00
		1	EA		
12A	GUIDE SHOE - 5 1/2" 8RD THD.	1	EA	121.00	121.00
825.205					
24A	INSERT FLOAT VALVE - 5 1/2" 8RD	1	EA	83.00	83.00
815.19251					
27	FILL-UP UNIT 5 1/2"-6 5/8"	1	EA	30.00	30.00
815.19311					
40	CENTRALIZER 5-1/2" X 7 7/8"	6	EA	44.00	264.00
807.93022					
019-241	CASING SWIVEL W/O WALL CLEANER	1	JOB	155.00	155.00
504-308	STANDARD CEMENT	225	SK	6.56	1,476.00
509-968	SALT	1500	LB	.10	150.00
507-775	HALAD-322	159	LB	6.30	1,001.70
508-127	CAL SEAL	11	SK	19.70	216.70
508-291	GILSONITE BULK	625	LB	.35	218.75
507-210	FLOCELE	32	LB	1.30	41.60
500-207	BULK SERVICE CHARGE	274	CFT	1.15	315.10
500-306	MILEAGE CMTG MAT DEL OR RETURN	147.396	TMI	.80	117.92

INVOICE SUBTOTAL

5,521.97

**DISCOUNT - (BID)
INVOICE BID AMOUNT**

993.91-
4,528.06

*- KANSAS STATE SALES TAX
*- HAYS CITY SALES TAX

INVOICE TOTAL - PLEASE PAY THIS AMOUNT

RECEIVED
STATE CORPORATION COMMISSION
FEB 22 1993
55.55
32134
18.95

APPX JOB TKT

TERMS: INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT.

FORM 1900-R3

PAGE:



HALLIBURTON SERVICES

Denver, Oklahoma 7200

A Division of Halliburton Company

TICKET

NO. 283332-5

PAGE 1 OF 2 PAGES

FORM 1908 R-11

WELL NO.—FARM OR LEASE NAME #17 Kollman		COUNTY Ellis	STATE KS	CITY / OFFSHORE LOCATION	DATE 11-3-92
CHARGE TO Halliburton Acct		OWNER SAME		TICKET TYPE (CHECK ONE) SERVICE <input checked="" type="checkbox"/> SALES <input type="checkbox"/>	
ADDRESS		CONTRACTOR D.K.R.		LOCATION 1 Hwy. KS	NITROGEN JOB YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
CITY, STATE, ZIP		SHIPPED VIA C-710 80 -1774		LOCATION 2	CODE 25225
WELL TYPE 01		WELL CATEGORY 01	WELL PERMIT NO.	DELIVERED TO S.P. Plummer KS	LOCATION 3
TYPE AND PURPOSE OF JOB		ORDER NO. B-177545		REFERRAL LOCATION	

As consideration, the above-named Customer agrees to pay Halliburton in accordance with the terms stated in Halliburton's current price list. Payment is due by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account. These terms and conditions shall be governed by the law of the state whose services are performed or materials are furnished.

Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and customer's exclusive remedy in any cause of action (whether in contract, tort, product liability, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.

PRICE REFERENCE	SECONDARY REF OR PART NO.	L O C	ACCOUNT	DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
					QTY	MEAS	QTY	MEAS			
200-117				MILEAGE 51374 P#	13	mi			2.2	31	20
001-011				Pump service	3525	FL			174.00	1242	00
030-118				5-gal Plug	1 EA	5/8 in				60	00
10A	525 205			honda shoe	1 EA	5/8 in			121.00	121	00
24A	815 19251			Insert Flank Valve	1 EA				82.00	82	00
27	815 19211			F. Plug unit	1 EA				20.00	20	00
47	207 50000			5-4 cost	1 EA	5/8 in			264.00	264	00
619-741				Rotating Head	1 EA	5/8 in			150.00	150	00

ORIGINAL

AS PER ATTACHED BULK MATERIAL DELIVERY TICKET NO.

B-177545

WAS JOB SATISFACTORILY COMPLETED? _____

WAS OPERATION OF EQUIPMENT SATISFACTORY? _____

WAS PERFORMANCE OF PERSONNEL SATISFACTORY? _____

X *[Signature]*
CUSTOMER OR HIS AGENT (PLEASE PRINT)

X *[Signature]*
CUSTOMER OR HIS AGENT (SIGNATURE)

WE CERTIFY THAT THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED HAS BEEN COMPLIED WITH IN THE PRODUCTION OF GOODS AND OR WITH RESPECT TO SERVICES FURNISHED UNDER THIS CONTRACT.

[Signature]
HALLIBURTON OPERATOR

HALLIBURTON APPROVAL

RECEIVED
STATE CORPORATION COMMISSION
FEB 22 1993
CONSERVATION DIVISION
WICHITA, KANSAS
TAXES WILL BE ADDED ON INVOICE

EXTRA COPY

DISTRICT Pratt, Ks

DATE 11-3-92

TO: HALLIBURTON SERVICES YOU ARE HEREBY REQUESTED TO FURNISH EQUIPMENT AND SERVICEMEN TO DELIVER AND OPERATE THE SAME AS AN INDEPENDENT CONTRACTOR TO: Hallwood Pot. Finc (CUSTOMER) AND DELIVER AND SELL PRODUCTS, SUPPLIES, AND MATERIALS FOR THE PURPOSE OF SERVICING

WELL NO. #12 LEASE Koltman SEC. 18 TWP. 11 RANGE 17

FIELD _____ COUNTY Fris STATE Ks OWNED BY same

THE FOLLOWING INFORMATION WAS FURNISHED BY THE CUSTOMER OR HIS AGENT

FORMATION NAME _____ TYPE _____
FORMATION THICKNESS _____ FROM _____ TO _____
PACKER: TYPE _____ SET AT _____
TOTAL DEPTH 3505 MUD WEIGHT _____
BORE HOLE _____
INITIAL PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF
PRESENT PROD: OIL _____ BPD, H₂O _____ BPD, GAS _____ MCF

	NEW USED	WEIGHT	SIZE	FROM	TO	MAX. ALLOW. P.S.I.
CASING	<u>4</u>	<u>15.5</u>	<u>5/2</u>	<u>KB</u>	<u>3504</u>	
LINER						
TUBING						
OPEN HOLE				<u>3504</u>	<u>3505</u>	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

PREVIOUS TREATMENT: DATE _____ TYPE _____ MATERIALS _____

TREATMENT INSTRUCTIONS: TREAT THRU TUBING ANNULUS CASING TUBING/ANNULUS HYDRAULIC HORSEPOWER ORDERED _____
cont 5/2 low string w/ 100 lbs standard 5% cal seal, 10 3/4 salt 3/4 14-322
125 L standard 5% cal seal 10 3/4 salt, 7 1/2 H-322, 5 1/2 6.1 salt, 1/4 14-322
500 salt for 95000 L salt flush
FR. guide shoe, 6-1/2" insert w/ fill up

CUSTOMER OR HIS AGENT WARRANTS THE WELL IS IN PROPER CONDITION TO RECEIVE THE PRODUCTS, SUPPLIES, MATERIALS, AND SERVICES

As consideration, the above-named Customer agrees: THIS CONTRACT MUST BE SIGNED BEFORE WORK IS COMMENCED

- a) To pay Halliburton in accord with the rates and terms stated in Halliburton's current price list. Invoices are payable NET by the 20th of the following month after date of invoice. Upon Customer's default in payment of Customer's account by the last day of the month following the month in which the invoice is dated, Customer agrees to pay interest thereon after default at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event it becomes necessary to employ attorneys to enforce collection of said account, Customer agrees to pay all collection costs and attorney fees in the amount of 20% of the amount of the unpaid account.
- b) To defend, indemnify, release and hold harmless Halliburton, its divisions, subsidiaries, parent and affiliated companies and the officers, directors, employees, agents and servants of all of them from and against any claims, liability, expenses, attorneys fees, and costs of defense to the extent permitted by law for:
 - Damage to property owned by, in the possession of, or leased by Customer, and/or the well owner (if different from Customer), including, but not limited to, surface and subsurface damage. The term "well owner" shall include working and royalty interest owners.
 - Reservoir, formation, or well loss or damage, subsurface trespass or any action in the nature thereof.
 - Personal injury or death or property damage (including, but not limited to, damage to the reservoir, formation or well), or any damages whatsoever, growing out of or in any way connected with or resulting from pollution, subsurface pressure, losing control of the well and/or a well blowout or the use of radioactive material.

The defense, indemnity, release and hold harmless obligations of Customer provided for in this Section b) and Section c) below shall apply to claims or liability even if caused or contributed to by Halliburton's negligence, strict liability, or the unseaworthiness of any vessel owned, operated, or furnished by Halliburton or any defect in the data, products, supplies, materials, or equipment of Halliburton whether in the preparation, design, manufacture, distribution, or marketing thereof, or from a failure to warn any person of such defect. Such defense, indemnity, release and hold harmless obligations of Customer shall not apply where the claims or liability are caused by the gross negligence or willful misconduct of Halliburton. The term "Halliburton" as used in said Sections b) and c) shall mean Halliburton, its divisions, subsidiaries, parent and affiliated companies, and the officers, directors, employees, agents and servants of all of them.
- c) That because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, Halliburton is unable to guarantee the effectiveness of the products, supplies or materials, nor the results of any treatment or service, nor the accuracy of any chart interpretation, research analysis, job recommendation or other data furnished by Halliburton. Halliburton personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Customer agrees that Halliburton shall not be liable for and Customer shall indemnify Halliburton against any damages arising from the use of such information.
- d) That Halliburton warrants only title to the products, supplies and materials and that the same are free from defects in workmanship and materials. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Halliburton's liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, breach of warranty or otherwise) arising out of the sale or use of any products, supplies or materials is expressly limited to the replacement of such products, supplies or materials on their return to Halliburton or, at Halliburton's option, to the allowance to the Customer of credit for the cost of such items. In no event shall Halliburton be liable for special, incidental, indirect, punitive or consequential damages.
- e) That Customer shall, at its risk and expense, attempt to recover any Halliburton equipment, tools or instruments which are lost in the well and if such equipment, tools or instruments are not recovered, Customer shall pay Halliburton its replacement cost unless such loss is due to the sole negligence of Halliburton. If Halliburton equipment, tools or instruments are damaged in the well, Customer shall pay Halliburton the lesser of its replacement cost or the cost of repairs unless such damage is caused by the sole negligence of Halliburton. In the case of equipment, tools or instruments damaged in the well, Customer shall, in addition to the foregoing, be fully responsible for loss of or damage to any of Halliburton's equipment, tools or instruments which occurs at any time after delivery to Customer and until returned to the landing, unless such loss or damage is caused by the sole negligence of Halliburton.
- f) To waive the provisions of the Deceptive Trade Practices - Consumer Protection Act, to the extent permitted by law.
- g) That this contract shall be governed by the law of the state where services are performed or materials are furnished.
- h) That Halliburton shall not be bound by any changes or modifications in this contract, except where such change or modification is made in writing by a duly authorized executive officer of Halliburton.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMER'S AGENT

SIGNED _____ DATE 11-3-92

FEB 22 1993
CONSERVATION DIVISION
KANSAS



JOB SUMMARY

HALLIBURTON DIVISION OKLAHOMA CITY OK.
 HALLIBURTON LOCATION HAYS KS.

BILLED ON TICKET NO. 283332

WELL DATA

FIELD _____ SEC. 18 TWP. 11 RING. 17 COUNTY ELLIS STATE KS

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH 3505'

NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
	<u>15.3</u>	<u>5/2</u>	<u>KB</u>	<u>3504</u>	
			<u>3504</u>	<u>3505</u>	SHOTS/FT.

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLYING TOOL JOINT <u>Insert F. 11 up.</u>	<u>1</u>	<u>Howco</u>
GUIDE SHOE <u>5 1/2</u>	<u>1</u>	<u>Howco</u>
CENTRALIZERS <u>5-4 5/2</u>	<u>6</u>	<u>Howco</u>
BOTTOM PLUG <u>5 1/2</u>	<u>1</u>	<u>Howco</u>
HEAD		
PACKER		
OTHER		

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>11-3-92</u>	DATE <u>11-3-92</u>	DATE <u>11-3-92</u>	DATE <u>11-3-92</u>
TIME <u>1330</u>	TIME <u>1630</u>	TIME <u>1745</u>	TIME <u>2230</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>A. F. Werth 26101</u>	<u>combo</u>	
<u>R. Berens 57223</u>	<u>51374</u>	<u>HAYS KS.</u>
	<u>BIK</u>	
<u>P. Dobratz 60022</u>	<u>4604-8206</u>	<u>HAYS KS.</u>

ORIGINAL

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL-⁰API

DISPL. FLUID _____ DENSITY _____ LB/GAL-⁰API

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL _____ %

SURFACTANT TYPE _____ GAL _____ IN

NE AGENT TYPE _____ GAL _____ IN

FLUID LOSS ADD. TYPE _____ GAL-LB. _____ IN

GELLING AGENT TYPE _____ GAL-LB. _____ IN

FRIC. RED. AGENT TYPE _____ GAL-LB. _____ IN

BREAKER TYPE _____ GAL-LB. _____ IN

BLOCKING AGENT TYPE _____ GAL-LB. _____

PERFPAC BALLS TYPE _____ QTY. _____

OTHER 25 BBL SALT FLUSH 500# SALT

DEPARTMENT CON

DESCRIPTION OF JOB 5/2 long string

JOB DONE THRU: TUBING CASING ANNULUS TBG/ANN.

CUSTOMER REPRESENTATIVE X R. W. ...

HALLIBURTON OPERATOR A. F. Werth

COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>100</u>	<u>standard</u>	<u>Port</u>	<u>B</u>	<u>5% calson, 10% salt, 3/16 H-322</u>	<u>1.32</u>	<u>15.4</u>
	<u>125</u>	<u>standard</u>	<u>Port</u>	<u>B</u>	<u>5% calson, 10% salt, 3/16 H-322, 5% silicate, 1/4" fiscal/pt</u>	<u>1.45</u>	<u>15.2</u>

PRESSURES IN PSI

SUMMARY

VOLUMES

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN. _____ 15-MIN. _____

HYDRAULIC HORSEPOWER _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET _____ REASON shoe joint

PRESLUSH: BBL-GAL _____ TYPE _____

LOAD & BKDN: BBL-GAL _____ PAD: BBL-GAL _____

TREATMENT: BBL-GAL _____ DISPL. BBL-GAL _____

CEMENT SLURRY: BBL-GAL 55.78

TOTAL VOLUME: BBL-GAL _____

REMARKS see Job Log & Unit

CONSERVATION DIVISION
Wichita, Kansas

Thanks Allard, Rose, Dan

RECEIVED
STATE CORPORATION COMMISSION

FEB 22 1993

CUSTOMER Allard Rose Dan
 LEASE Kollman
 WELL NO. 412
 JOB TYPE 5/2 long string
 DATE 11-3-92

JOB LOG

WELL NO. *272* LEASE *Kollman*

TICKET NO. *283332*

CUSTOMER *Hallwood Pet. INC*

PAGE NO. *1*

JOB TYPE *3/2/5*

DATE *11-3-92*

FORM 2013 R-2

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
1	9:30							called out
	16:30							Drill bit w/ 1-gate shoe, 6-1/2" at 1-1/2" vent w/ fill-up ASSY. 500# salt for 25000 salt flush
								100% standard w/ 3/4" ID seal w/ salt 3/4" H 3/2
								100% standard w/ 3/4" ID seal w/ salt 3/4" H 3/2
								100% standard w/ 3/4" ID seal w/ salt 3/4" H 3/2
								100% standard w/ 3/4" ID seal w/ salt 3/4" H 3/2
								100% standard w/ 3/4" ID seal w/ salt 3/4" H 3/2
								100% standard w/ 3/4" ID seal w/ salt 3/4" H 3/2
	17:12							ORIGINAL - Setup - Plain Job, Rig Pulling Drill Pipe out of Hole of Drill Pipe, Rig up Lubricator
	18:00							start casing 15.5" 1st joint, slide joint 22" insert + fill-up ASSY. - 1/2" out.
	20:30							Casing on Bottom Hook up to well + cas w/ dead slug. Rotate Pipe start up to cement well.
	21:47		25					100% standard salt for 25000 salt flush
			2					Pump 2000L Fresh water spacer
	21:59					200		4 mix out
						300		calculated, 100% salt 3/4" H 3/2
						300		st mix 125% standard 5/8" casing 100% salt 3/4" H 3/2
								3/4" Flush / SK
	22:09							Set mix out at Pump 1000 gal Plug + wire line
	22:11					100%		st. D. P. 100% cap. R2 OBL
	22:31					100%		Plug down + try w/ wire line @ 3450' / 2
						1100		Release PSI to tank dry wash up equip
	11:30							job complete

thanks

RECEIVED
STATE CORPORATION COMMISSION
FEB 22 1993
Kollman
OIL FIELD DIVISION

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KOLLMAN #12 Test No. 1 Date 10/29/92
Company HALLWOOD PETROLEUM INC. Zone TOPEKA
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1840
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE RIG #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 2788-2810 Drill Pipe Size 4.5" FH
Anchor Length 22 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 2783 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 2788 Mud Wt. 8.7 lb/Gal.
Total Depth 2810 Viscosity 45 Filtrate 9.6

Tool Open @ 10:00 PM ^{Initial} Blow SLID TOOL 6' TO BOTTOM - BLOW BUILDING TO 3"
BLOW DECREASING TO NO BLOW IN 15 MINUTES
Final Blow NO BLOW-FLUSHED TOOL-GOOD SURGE/NO HELP

Recovery - Total Feet 70 Flush Tool? YES

Rec. 70 Feet of DRILLING MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

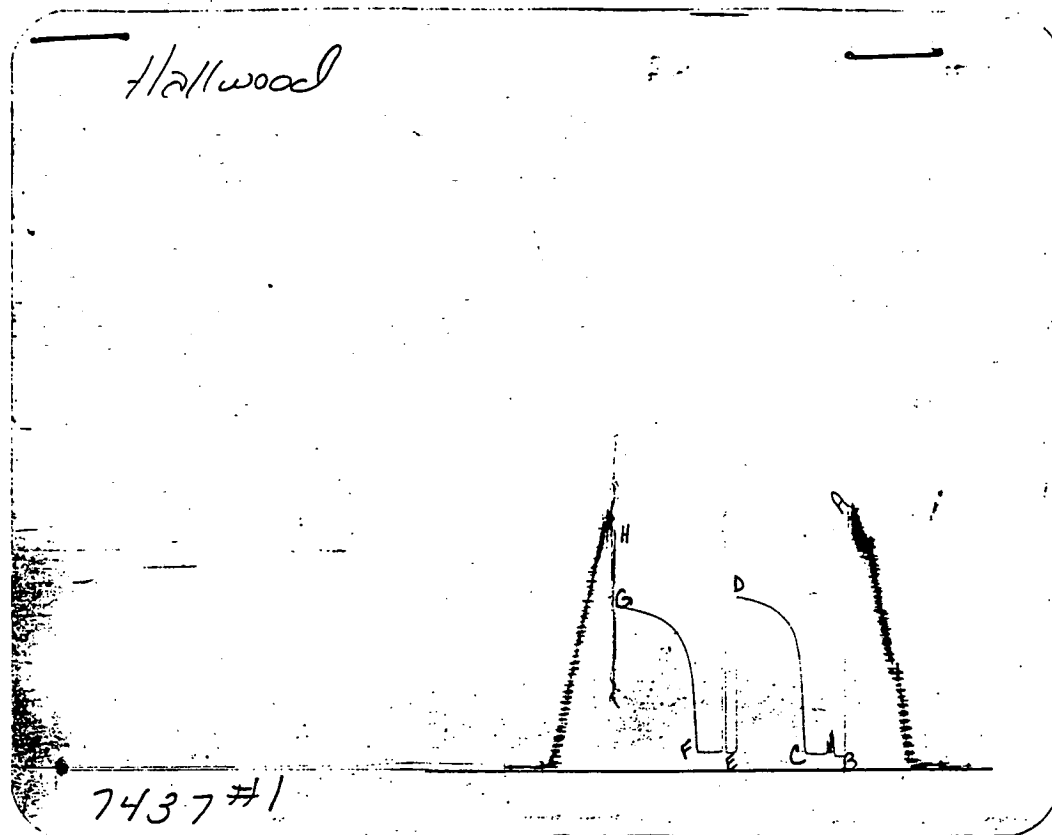
BHT 91 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1431.9 PSI AK1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 18.6 PSI @ (depth) 2792 w / Clock No. 25828
(C) First Final Flow Pressure 42.6 PSI AK1 Recorder No. 7437 Range 4200
(D) Initial Shut-in Pressure 899.4 PSI @ (depth) 2806 w / Clock No. 27567
(E) Second Initial Flow Pressure 53.7 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 53.7 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 850.7 PSI Initial Opening 30 Final Flow 30
(H) Final Hydrostatic Mud 1388.9 PSI Initial Shut-in 4500 Final Shut-in 60

Our Representative DAN BANGLE

KANSAS DIVISION OF OIL & GAS
JAN 29 1993
WICHITA, KS

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1426	1431.9
(B) FIRST INITIAL FLOW PRESSURE	19	18.6
(C) FIRST FINAL FLOW PRESSURE	39	42.6
(D) INITIAL CLOSED-IN PRESSURE	897	899.4
(E) SECOND INITIAL FLOW PRESSURE	49	53.7
(F) SECOND FINAL FLOW PRESSURE	49	53.7
(G) FINAL CLOSED-IN PRESSURE	847	850.7
(H) FINAL HYDROSTATIC MUD	1386	1388.9

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 5554

Well Name & No. Kollman #12 Test No. 1 Date 10-29-92
 Company Hallwood Petro. Inc. Zone Tested Tapeka
 Address 4582 S. Ulster St. Parkway #1700 Denver, Col. Elevation 1840 K.B.
 Co. Rep./Geo. Jim Musgrave Cont. Duke #1 Est. Ft. of Pay _____
 Location: Sec. 18 Twp. 11 Rge. 17 Co. Ellis State Ks
 No. of Copies _____ Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 2788 - 2810 Drill Pipe Size 4.5 FH
 Anchor Length 22 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 2783 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 2788 Wt. Pipe I.D. — 2.7 Ft. Run 631
 Total Depth 2810 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 8.7 lb/gal. Viscosity 45 Filtrate 9.6
 Tool Open @ 10:00 p.m. Initial Blow Slid Tool 6' To bottom - blow building to 3" - blow decreasing to no blow in 15 min.
 Final Blow No blow - Flushed Tool - Good surge - no help

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
<u>70</u>	_____	<input checked="" type="checkbox"/>
Rec. <u>70</u> Feet Of <u>J.M.</u>	%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 91 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5,000 ppm System
 (A) Initial Hydrostatic Mud 1426 PSI Ak1 Recorder No. 13754 Range 4000
 (B) First Initial Flow Pressure 19 PSI @ (depth) 2792 w/Clock No. 25828
 (C) First Final Flow Pressure 39 PSI Ak1 Recorder No. 7437 Range 4200
 (D) Initial Shut-in Pressure 897 PSI @ (depth) 2806 w/Clock No. 27567
 (E) Second Initial Flow Pressure 49 PSI Ak1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 49 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-in Pressure 847 PSI Initial Opening 30 Test _____
 (H) Final Hydrostatic Mud 1386 PSI Initial Shut-in 45 Jars _____

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.

Final Flow 30 Safety Joint _____
 Final Shut-in 60 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____

Approved By _____
 Our Representative Dan Banje

TOTAL PRICE \$ 550

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KOLLMAN #12 Test No. 2 Date 10/31/92
Company HALLWOOD PETROLEUM INC. Zone LKC-"E-F"
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1840
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE RIG #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3098-3125 Drill Pipe Size 4.5" FH
Anchor Length 28 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 3093 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3098 Mud Wt. _____ 9 lb/Gal.
Total Depth 3125 Viscosity 43 Filtrate 10.4

Tool Open @ 1:00 AM Initial Blow WEAK-BUILDING TO 3" SURGING BLOW

Final Blow WEAK SURGING BLOW-BUILDING TO BOTTOM OF BUCKET IN
10 MINUTES

Recovery - Total Feet 20 Flush Tool? NO

Rec. 558 Feet of GAS IN PIPE
Rec. 20 Feet of SLTLY OIL CUT MUD-3%OIL/97%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 98 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1672.3 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 59.8 PSI @ (depth) 3103 w / Clock No. 25828

(C) First Final Flow Pressure 59.8 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 201.4 PSI @ (depth) 3121 w / Clock No. 27567

(E) Second Initial Flow Pressure 59.8 PSI AK1 Recorder No. _____ Range _____

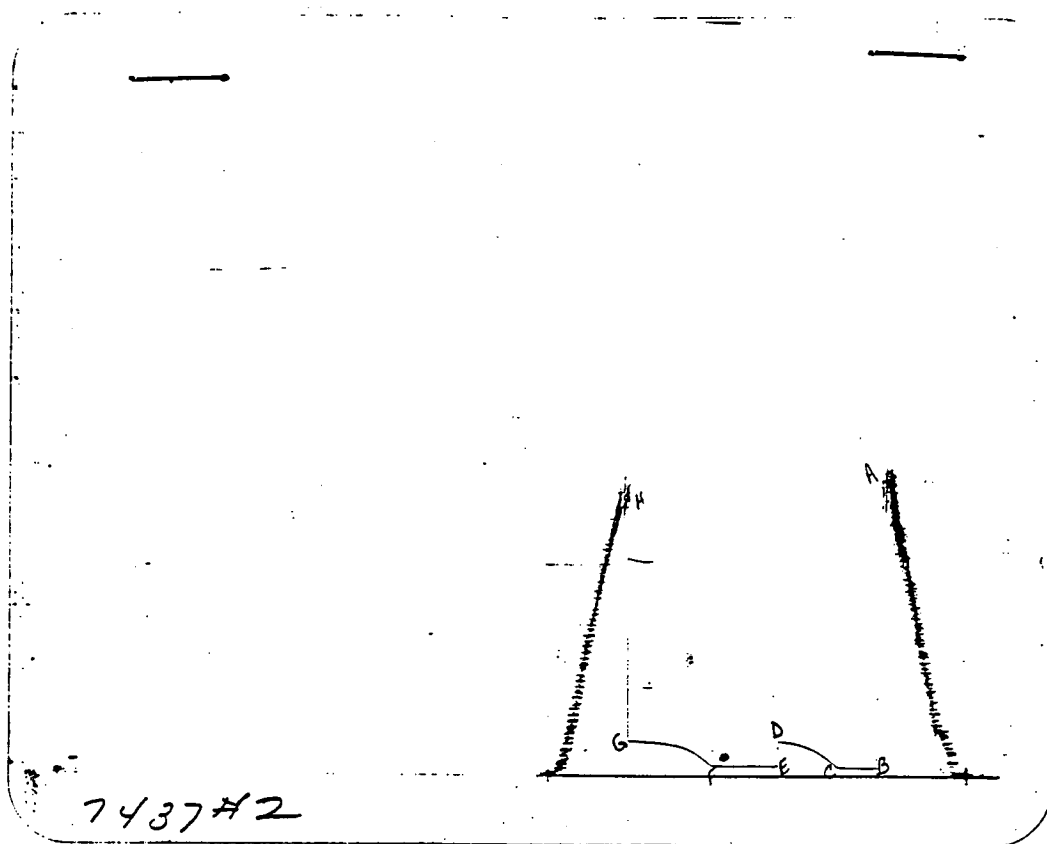
(F) Second Final Flow Pressure 59.8 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 201.4 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1579.6 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1662	1672.3
(B) FIRST INITIAL FLOW PRESSURE	55	59.8
(C) FIRST FINAL FLOW PRESSURE	55	59.8
(D) INITIAL CLOSED-IN PRESSURE	198	201.4
(E) SECOND INITIAL FLOW PRESSURE	55	59.8
(F) SECOND FINAL FLOW PRESSURE	55	59.8
(G) FINAL CLOSED-IN PRESSURE	198	201.4
(H) FINAL HYDROSTATIC MUD	1578	1579.6

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 5555

Well Name & No. <u>Kollman #12</u>	Test No. <u>2</u>	Date <u>10-31-92</u>					
Company <u>Hallwood Petro. Inc.</u>	Zone Tested <u>E-F</u>	<u>h.K.C</u>					
Address _____	Elevation <u>1840 K.B.</u>						
Co. Rep./Geo. <u>Jim Musgrove</u>	Cont. <u>Duke #1</u>	Est. Ft. of Pay _____					
Location: Sec. <u>18</u>	Twp. <u>11</u>	Rge. <u>17</u>	Co. <u>Ellis</u>	State <u>Ks.</u>			
No. of Copies _____	Distribution Sheet _____	Yes _____	No _____	Turnkey _____	Yes _____	No _____	Evaluation _____

Interval Tested <u>3098-3125</u>	Drill Pipe Size <u>4.5 FH</u>
Anchor Length <u>28</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>3093</u>	Hole Size — 77/8" _____ Rubber Size — 63/4" _____
Bottom Packer Depth <u>3098</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>631</u>
Total Depth <u>3125</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>9</u> lb/gal.	Viscosity <u>43</u> Filtrate <u>10.4</u>
Tool Open @ <u>1:00 a.m.</u>	Initial Blow <u>Weak-building to 3" surging blow</u>
Final Blow <u>Weak surging blow-building to B.O.B. in 10 min.</u>	

Recovery — Total Feet <u>20</u>	Feet of Gas In Pipe <u>558</u>	Flush Tool? _____
Rec. <u>20</u> Feet Of <u>517/8 O.C.M.</u>	%gas <u>3</u> %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 <u>98</u> °F	Gravity _____ °API @ _____ °F	Corrected Gravity _____ °API
RW _____ @ _____ °F	Chlorides _____ ppm	Recovery Chlorides <u>5,000</u> ppm System
(A) Initial Hydrostatic Mud <u>1662</u> PSI	AK1 Recorder No. <u>13754</u>	Range <u>4000</u>
(B) First Initial Flow Pressure <u>55</u> PSI	@ (depth) <u>3103</u>	w/Clock No. <u>25828</u>
(C) First Final Flow Pressure <u>55</u> PSI	AK1 Recorder No. <u>7497</u>	Range <u>4200</u>
(D) Initial Shut-in Pressure <u>198</u> PSI	@ (depth) <u>3121</u>	w/Clock No. <u>27567</u>
(E) Second Initial Flow Pressure <u>55</u> PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>55</u> PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-in Pressure <u>198</u> PSI	Initial Opening <u>30</u>	Test _____
(H) Final Hydrostatic Mud <u>1528</u> PSI	Initial Shut-in <u>45</u>	Jars _____

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Approved By Jim Musgrove
Our Representative Don Baner

Final Flow <u>45</u>	Safety Joint _____
Final Shut-in <u>60</u>	Straddle _____
	Circ. Sub _____
	Sampler _____
	Extra Packer _____
	Other _____
	TOTAL PRICE \$ <u>550.00</u>

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KOLLMAN #12 Test No. 3 Date 10/31/92
Company HALLWOOD PETROLEUM INC. Zone LKC-"G"
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1840
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE RIG #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3125-3145 Drill Pipe Size 4.5" FH
Anchor Length 20 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 3120 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3125 Mud Wt. 9.1 lb/Gal.
Total Depth 3145 Viscosity 47 Filtrate 10.4

Tool Open @ 11:30 AM Initial Blow STRONG-BOTTOM OF BUCKET IN 23 MINUTES

Final Blow WEAK-BUILDING TO 1"

Recovery - Total Feet 211 Flush Tool? NO

Rec. 180 Feet of GAS IN PIPE
Rec. 1 Feet of CLEAN OIL
Rec. 210 Feet of WATER
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 100 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.44 @ _____ °F Chlorides 13000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1644.8 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 45.6 PSI @ (depth) 3129 w / Clock No. 25828

(C) First Final Flow Pressure 91.2 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 201.4 PSI @ (depth) 3141 w / Clock No. 27567

(E) Second Initial Flow Pressure 111.3 PSI AK1 Recorder No. _____ Range _____

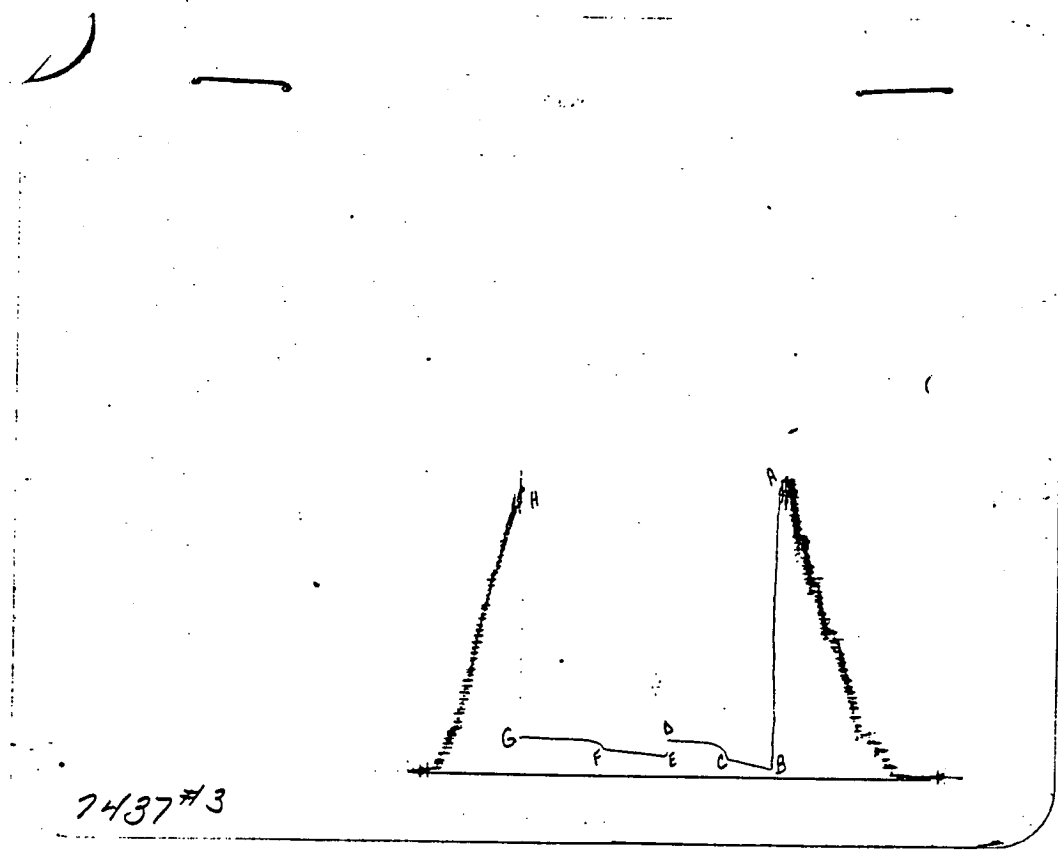
(F) Second Final Flow Pressure 149.8 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 201.4 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1544.7 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1630	1644.8
(B) FIRST INITIAL FLOW PRESSURE	44	45.6
(C) FIRST FINAL FLOW PRESSURE	88	91.2
(D) INITIAL CLOSED-IN PRESSURE	198	201.4
(E) SECOND INITIAL FLOW PRESSURE	110	111.3
(F) SECOND FINAL FLOW PRESSURE	143	149.8
(G) FINAL CLOSED-IN PRESSURE	198	201.4
(H) FINAL HYDROSTATIC MUD	1546	1544.7

TRILOBITE TESTING L.L.C.

P.O. BOX 362 • Hays, Kansas 67601

Test Ticket

No 5556

Well Name & No. Kellman #12 Test No. 3 Date 10-31-92 Boon
Company Hallwood Petro. Inc. Zone Tested 'G' L.L.C.
Address _____ Elevation 1840 K.B.
Co. Rep./Geo. Jim Musgrave Cont. Duke #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11 Rge. 17 Co. Ellis State Ks.
No. of Copies _____ Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3125-3145 Drill Pipe Size 4.5 FH
Anchor Length 20 Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth 3120 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 3125 Wt. Pipe I.D. — 2.7 Ft. Run 6.31
Total Depth 3145 Drill Collar — 2.25 Ft. Run _____
Mud Wt. 9.1 lb/gal. Viscosity 47 Filtrate 10.4
Tool Open @ 11:30 a.m. Initial Blow Strong - B.O.B. in 2.3 min.

Final Blow Weak - building to 1"

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?	% gas	% oil	% water	% mud
<u>211</u>	<u>180</u>	_____				
Rec. <u>1</u> Feet Of <u>C.O.</u>						
Rec. <u>210</u> Feet Of <u>WTR.</u>						
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						

BHT 100 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW .44 @ 80 °F Chlorides 13,000 ppm Recovery Chlorides 6,000 ppm System

- (A) Initial Hydrostatic Mud 1630 PSI AK1 Recorder No. 13754 Range 4000
- (B) First Initial Flow Pressure 44 PSI @ (depth) 3129 w/Clock No. 25828
- (C) First Final Flow Pressure 88 PSI AK1 Recorder No. 7497 Range 4200
- (D) Initial Shut-In Pressure 198 PSI @ (depth) 3141 w/Clock No. 27567
- (E) Second Initial Flow Pressure 110 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 143 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 198 PSI Initial Opening 30 Test _____
- (H) Final Hydrostatic Mud 1546 PSI Initial Shut-in 45 Jars _____

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.

Final Flow 45 Safety Joint _____
Final Shut-in 60 Straddle _____
Circ. Sub _____
Sampler _____

Approved By Jim Musgrave

Our Representative Dan Ranoff

Extra Packer _____

Other _____

TOTAL PRICE \$ _____

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KOLLMAN #12 Test No. 4 Date 11/1/92
Company HALLWOOD PETROLEUM INC. Zone LKC-"H-I-J"
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1840
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE RIG #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3177-3254 Drill Pipe Size 4.5" FH
Anchor Length 77 Wt. Pipe I.D. - 2.7 Ft. Run 569
Top Packer Depth 3172 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3177 Mud Wt. 9.1 lb/Gal.
Total Depth 3254 Viscosity 47 Filtrate 10.4

Tool Open @ 5:10 AM Initial Blow WEAK-BUILDING TO 7" FAIR BLOW

Final Blow WEAK-BUILDING TO 4" FAIR BLOW

Recovery - Total Feet 92 Flush Tool? NO

Rec. 310 Feet of GAS IN PIPE
Rec. 30 Feet of CLEAN OIL
Rec. 62 Feet of OIL CUT MUD-30%OIL/70%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 100 °F Gravity _____ °API @ _____ °F Corrected Gravity 32 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1760.3 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 63.7 PSI @ (depth) 3181 w / Clock No. 25828

(C) First Final Flow Pressure 81.2 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 990.8 PSI @ (depth) 3250 w / Clock No. 27567

(E) Second Initial Flow Pressure 91.2 PSI AK1 Recorder No. _____ Range _____

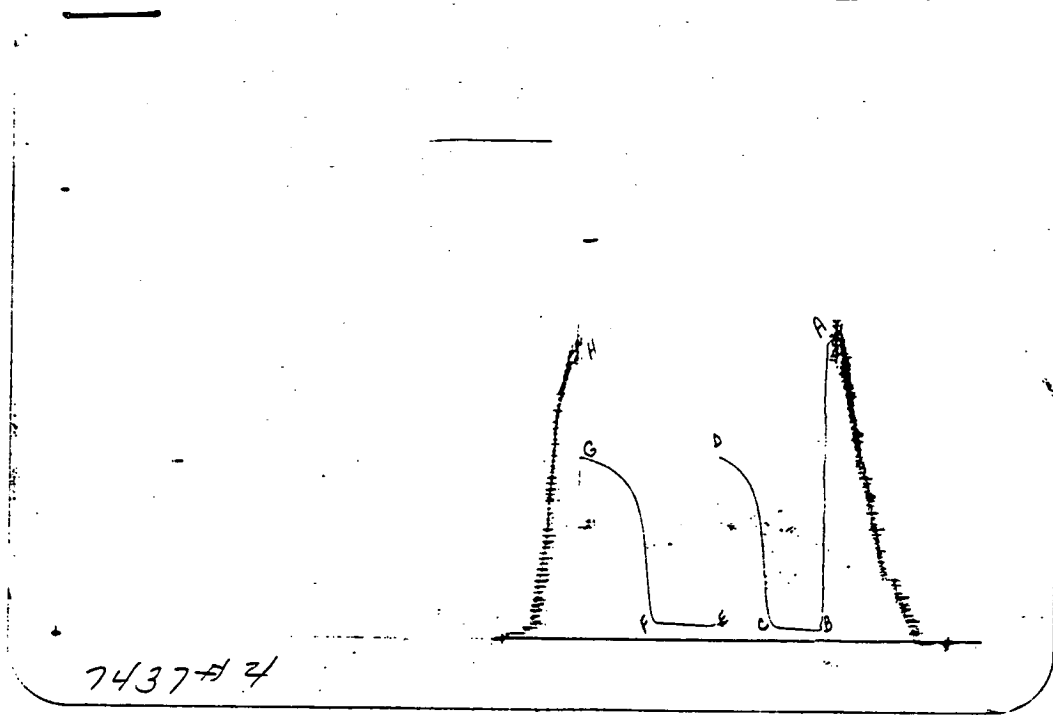
(F) Second Final Flow Pressure 91.2 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 990.8 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1702.3 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1756	1760.3
(B) FIRST INITIAL FLOW PRESSURE	59	63.7
(C) FIRST FINAL FLOW PRESSURE	78	81.2
(D) INITIAL CLOSED-IN PRESSURE	986	990.8
(E) SECOND INITIAL FLOW PRESSURE	88	91.2
(F) SECOND FINAL FLOW PRESSURE	88	91.2
(G) FINAL CLOSED-IN PRESSURE	986	990.8
(H) FINAL HYDROSTATIC MUD	1696	1702.3

CALCULATED RECOVERY ANALYSIS

WEIGHT PIPE

DST #

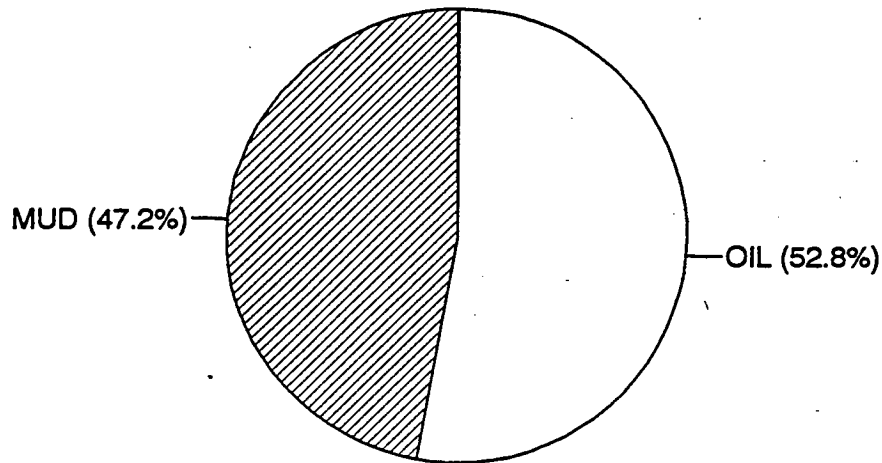
4

TICKET #

5557

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	30	0	0	100	30	0	0	0	0
2	62	0	0	30	18.6	0	0	70	43.4
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	92	0	0	52.826087	48.6	0	0	47.174	43.4

		HRS OPEN	BBL/DAY
BBL OIL=	0.3402	*	1.25
BBL WATER=	0	*	0
BBL MUD=	0.3038		
BBL GAS=	0		



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 5557

Well Name & No. Kellman #12 Test No. 4 Date 11-1-92
Company Hallwood Petro. Inc. Zone Tested H-I-J L.K.C.
Address _____ Elevation 1840 K.B.
Co. Rep./Geo Jim Musgrave Cont. Duke #1 Est. Ft. of Pay 5
Location: Sec. 18 Twp. 11 Rge. 17 Co. Ellis State Ks.
No. of Copies _____ Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3177 - 3254 Drill Pipe Size 4.5 F.H.
Anchor Length 77 Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth 3172 Hole Size — 77/8" _____ Rubber Size — 63/4" _____
Bottom Packer Depth 3177 Wt. Pipe I.D. — 2.7 Ft. Run 569
Total Depth 3254 Drill Collar — 2.25 Ft. Run _____
Mud Wt. 9.1 lb/gal. Viscosity 47 Filtrate 10.4
Tool Open @ 5:10 a.m. Initial Blow Weak-building to 7" fair blow

Final Blow Weak-building to 4" fair blow

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>30</u> Feet Of <u>C.O.</u>	<u>310</u>	
Rec. <u>62</u> Feet Of <u>O.C.M.</u>		
Rec. _____ Feet Of _____		
Rec. _____ Feet Of _____		
Rec. _____ Feet Of _____		

BHT 100 °F Gravity _____ °API @ _____ °F Corrected Gravity 32 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,000 ppm System
(A) Initial Hydrostatic Mud 1756 PSI Ak1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 59 PSI @ (depth) 3181 w/Clock No. 25828
(C) First Final Flow Pressure 78 PSI Ak1 Recorder No. 7437 Range 4200
(D) Initial Shut-In Pressure 986 PSI @ (depth) 3250 w/Clock No. 27567
(E) Second Initial Flow Pressure 88 PSI Ak1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 88 PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure 986 PSI Initial Opening 30 Test _____
(H) Final Hydrostatic Mud 1696 PSI Initial Shut-In 45 Jars _____

Final Flow 45 Safety Joint _____
Final Shut-In 60 Straddle _____
Circ. Sub _____
Sampler _____

Approved By Jim Musgrave
Our Representative Dan B... [Signature]
Printcraft Printers - Hays, KS
Extra Packer _____
Other _____
TOTAL PRICE \$ _____

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KOLLMAN #12 Test No. 5 Date 11/1/92
Company HALLWOOD PETROLEUM INC. Zone ARBUCKLE
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1840
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE RIG #1 Est. Ft. of Pay 4
Location: Sec. 18 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3275-3340 Drill Pipe Size 4.5" FH
Anchor Length 65 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 3270 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3275 Mud Wt. 9.2 lb/Gal.
Total Depth 3340 Viscosity 47 Filtrate 10.8

Tool Open @ 10:17 PM ^{Initial} Blow BOTTOM OF BUCKET IN 2 MINUTES
Final Blow STRONG-BOTTOM OF BUCKET IN 2 MINUTES

Recovery - Total Feet 1785 Flush Tool? NO

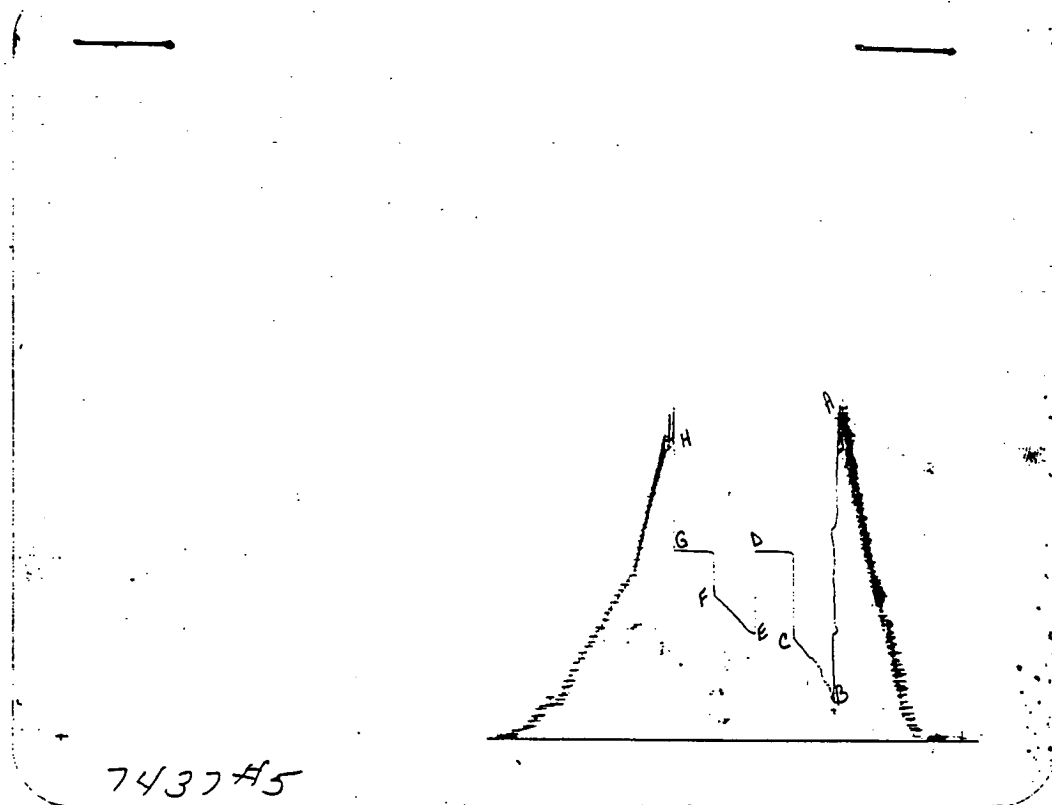
Rec. <u>30</u>	Feet of	<u>GAS IN PIPE</u>
Rec. <u>585</u>	Feet of	<u>MUD & WTR CUT OIL-80%OIL/10%WTR/10%MUD</u>
Rec. <u>240</u>	Feet of	<u>WATER & GAS CUT OIL-20%GAS/60%OIL/20%WTR</u>
Rec. <u>360</u>	Feet of	<u>OIL CUT WATER-10%OIL/90%WATER</u>
Rec. <u>600</u>	Feet of	<u>WATER</u>

BHT 110 °F Gravity _____ °API @ _____ °F Corrected Gravity 34 °API
RW 0.04 @ 82 °F Chlorides 31000 ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1841.3 PSI AK1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 121.4 PSI @ (depth) 3279 w / Clock No. 25828
(C) First Final Flow Pressure 544.6 PSI AK1 Recorder No. 7437 Range 4200
(D) Initial Shut-in Pressure 1010.7 PSI @ (depth) 3336 w / Clock No. 27567
(E) Second Initial Flow Pressure 560.4 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 760.2 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 1010.7 PSI Initial Opening 30 Final Flow 30
(H) Final Hydrostatic Mud 1760.4 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

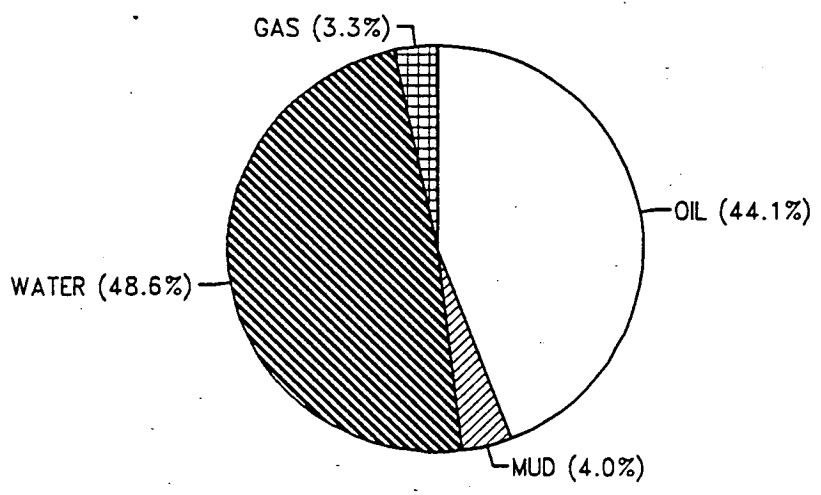
	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1836	1841.3
(B) FIRST INITIAL FLOW PRESSURE	118	121.4
(C) FIRST FINAL FLOW PRESSURE	541	544.6
(D) INITIAL CLOSED-IN PRESSURE	1006	1010.7
(E) SECOND INITIAL FLOW PRESSURE	551	560.4
(F) SECOND FINAL FLOW PRESSURE	758	760.2
(G) FINAL CLOSED-IN PRESSURE	1006	1010.7
(H) FINAL HYDROSTATIC MUD	1756	1760.4

CALCULATED RECOVERY ANALYSIS

DST # 5 TICKET # 5558

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	585	0	0	80	468	10	58.5	10	58.5
PIPE 2	240	20	48	60	144	20	48	0	0
3	329	0	0	10	32.9	90	296.1	0	0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT 1	31	0	0	10	3.1	90	27.9	0	0
PIPE 2	600	0	0	0	0	100	600	0	0
3			0		0		0		0
4			0		0		0		0
DRILL 1			0		0		0		0
COLLAR 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	1785		48		648		1030.5		58.5

	HRS OPEN	BBL/DAY
BBL OIL=	9.192178 *	1 220.61227
BBL WATER=	10.120272 *	242.88653
BBL MUD=	0.83187	
BBL GAS =	0.68256	



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 5558

Well Name & No. <u>Kellman #12</u>	Test No. <u>5</u>	Date <u>11-1-92</u>
Company <u>Hallwood Petro. Inc.</u>	Zone Tested <u>Arbuckle</u>	
Address _____	Elevation <u>1840 K.B.</u>	
Co. Rep./Geo. <u>Jim Musgrave</u>	Cont. <u>Duke #1</u>	Est. Ft. of Pay <u>4</u>
Location: Sec. <u>18</u>	Twp. <u>11</u>	Rge. <u>17</u> Co. <u>Ellis</u> State <u>Ks.</u>
No. of Copies _____	Distribution Sheet _____	Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>3275 - 3340</u>	Drill Pipe Size <u>4.5 FH</u>
Anchor Length <u>65</u>	Top Choke — 1" _____ Bottom Choke — 1/4" _____
Top Packer Depth <u>3270</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>3275</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>631</u>
Total Depth <u>3340</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>9.2</u> lb/gal.	Viscosity <u>47</u> Filtrate <u>10.8</u>
Tool Open @ <u>10:17 p.m.</u> Initial Blow <u>B.O.B. in 2 min.</u>	

Final Blow Strong - B.O.B. in 2 min.

Recovery — Total Feet <u>1785</u>	Feet of Gas in Pipe <u>30</u>	Flush Tool? _____
Rec. <u>585</u> Feet Of <u>M+WTCO</u>	%gas <u>80</u> %oil <u>10</u> %water <u>10</u> %mud _____	
Rec. <u>240</u> Feet Of <u>WTGCO</u>	%gas <u>60</u> %oil <u>20</u> %water _____ %mud _____	
Rec. <u>360</u> Feet Of <u>OCWTC</u>	%gas <u>10</u> %oil <u>90</u> %water _____ %mud _____	
Rec. <u>600</u> Feet Of <u>WT</u>	%gas _____ %oil _____ %water <u>100</u> %mud _____	
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____	

BHT 110 °F Gravity _____ °API @ _____ °F Corrected Gravity 94 °API

RW .04 @ 82 °F Chlorides 31,000 ppm Recovery Chlorides 6,000 ppm System

(A) Initial Hydrostatic Mud <u>1836</u>	PSI Ak1 Recorder No. <u>13754</u>	Range <u>4000</u>
(B) First Initial Flow Pressure <u>118</u>	PSI @ (depth) <u>3279</u>	w/Clock No. <u>25828</u>
(C) First Final Flow Pressure <u>541</u>	PSI Ak1 Recorder No. <u>7437</u>	Range <u>4200</u>
(D) Initial Shut-in Pressure <u>1006</u>	PSI @ (depth) <u>3236</u>	w/Clock No. <u>27567</u>
(E) Second Initial Flow Pressure <u>551</u>	PSI Ak1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>758</u>	PSI @ (depth) _____	w/Clock No. _____
(G) Final Shut-in Pressure <u>1006</u>	PSI Initial Opening <u>30</u>	Test _____
(H) Final Hydrostatic Mud <u>1756</u>	PSI Initial Shut-in <u>30</u>	Jars _____

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.

Final Flow 30 Safety Joint _____
Final Shut-in 30 Straddle _____
Circ. Sub _____
Sampler _____
Extra Packer _____
Other _____

Approved By Jim Musgrave

Our Representative Dan Randle

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name KOLLMAN #12 Test No. 6 Date 11/2/92
Company HALLWOOD PETROLEUM INC. Zone ARBUCKLE
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1840
Co. Rep./Geo. JIM MUSGROVE Cont. DUKE RIG #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3366-3380 Drill Pipe Size 4.5" FH
Anchor Length 14 Wt. Pipe I.D. - 2.7 Ft. Run 631
Top Packer Depth 3361 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3366 Mud Wt. 9.4 lb/Gal.
Total Depth 3380 Viscosity 54 Filtrate 11.2

Tool Open @ 1:07 AM Initial Blow STRONG-BOTTOM OF BUCKET IN 20 SECONDS
Final Blow STRONG-BOTTOM OF BUCKET IN 1 MINUTE

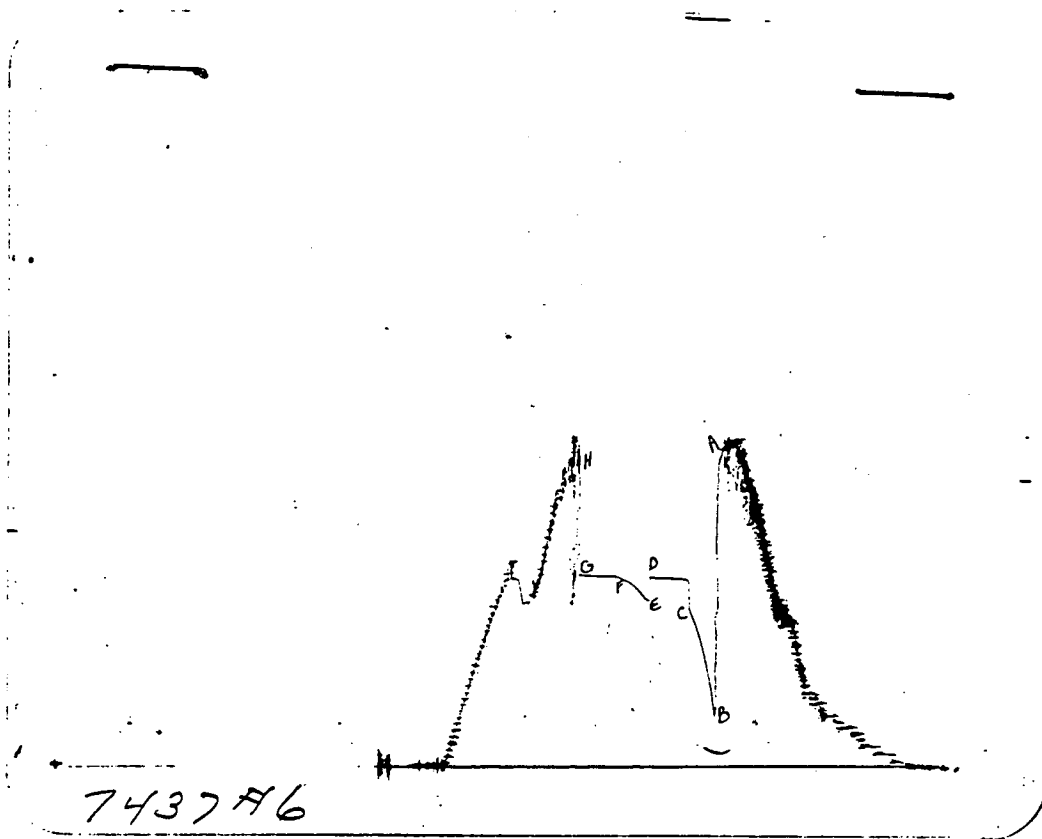
Recovery - Total Feet 2380 Flush Tool? NO
Rec. 2380 Feet of WATER
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 112 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.37 @ 80 °F Chlorides 16000 ppm Recovery Chlorides 6500 ppm System

(A) Initial Hydrostatic Mud 1811.4 PSI AK1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 301.5 PSI @ (depth) 3370 w / Clock No. _____
(C) First Final Flow Pressure 891.2 PSI AK1 Recorder No. 7437 Range 4200
(D) Initial Shut-in Pressure 1044.7 PSI @ (depth) 3376 w / Clock No. _____
(E) Second Initial Flow Pressure 920.3 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 1038.9 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 1048.6 PSI Initial Opening 30 Final Flow 20
(H) Final Hydrostatic Mud 1775.8 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1806	1811.4
(B) FIRST INITIAL FLOW PRESSURE	295	301.5
(C) FIRST FINAL FLOW PRESSURE	887	891.2
(D) INITIAL CLOSED-IN PRESSURE	1046	1044.7
(E) SECOND INITIAL FLOW PRESSURE	917	920.3
(F) SECOND FINAL FLOW PRESSURE	1036	1038.9
(G) FINAL CLOSED-IN PRESSURE	1046	1048.6
(H) FINAL HYDROSTATIC MUD	1776	1775.8

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 5559

Well Name & No. Kollman #12 Test No. 6 Date 11-2-92
Company Hallwood Petro. Inc. Zone Tested Arbuckle
Address _____ Elevation 1840 K.B.
Co. Rep./Geo. Jim Musgrove Cont. Duke #1 Est. Ft. of Pay _____
Location: Sec. 18 Twp. 11 Rge. 17 Co. Ellis State Ks.
No. of Copies _____ Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3366-3380 Drill Pipe Size 4.5 FH
Anchor Length 14 Top Choke — 1" _____ Bottom Choke — 1/4" _____
Top Packer Depth 3361 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 3366 Wt. Pipe I.D. — 2.7 Ft. Run 631
Total Depth 3380 Drill Collar — 2.25 Ft. Run _____
Mud Wt. 9.4 lb/gal. Viscosity 54 Filtrate 11.2
Tool Open @ 1:07 a.m. Initial Blow Strong - B.O.B. in 20 Sec.
Final Blow Strong - B.O.B. in 1 min.

Recovery — Total Feet 2380 Feet of Gas In Pipe _____ Flush Tool? _____

Rec.	Feet Of	% gas	% oil	% water	% mud
<u>2380</u>	<u>WTC.</u>			<u>100</u>	
_____	Feet Of _____	% gas	% oil	% water	% mud
_____	Feet Of _____	% gas	% oil	% water	% mud
_____	Feet Of _____	% gas	% oil	% water	% mud
_____	Feet Of _____	% gas	% oil	% water	% mud

BHT 112 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW .37 @ 80 °F Chlorides 16,000 ppm Recovery Chlorides 6500 ppm System
(A) Initial Hydrostatic Mud 1806 PSI AK1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 295 PSI @ (depth) 3370 w/Clock No. _____
(C) First Final Flow Pressure 887 PSI AK1 Recorder No. 7437 Range 4200
(D) Initial Shut-In Pressure 1046 PSI @ (depth) 3376 w/Clock No. _____
(E) Second Initial Flow Pressure 917 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 1036 PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-In Pressure 1046 PSI Initial Opening 20 Test _____
(H) Final Hydrostatic Mud 1776 PSI Initial Shut-In 30 Jars _____

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Approved By [Signature]
Our Representative [Signature]
Printcraft Printers - Hays, KS

Final Flow 20 Safety Joint _____
Final Shut-In 30 Straddle _____
Circ. Sub _____
Sampler _____
Extra Packer _____
Other _____
TOTAL PRICE \$ _____