

SIDE ONE

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

API NO. 15- 093-21,182-0000 FROM CONFIDENTIAL

CONFIDENTIAL

Operator: License # 5393

Name: A. L. Abercrombie, Inc.

Address 150 N. Main, Suite 801

City/State/Zip Wichita, KS 67202

Purchaser: Koch Oil Co.

Operator Contact Person: Jerry A. Langrehr

Phone (316) 262-1841

Contractor: Name: Abercrombie RTD, Inc.

License: 30684

Wellsite Geologist: R. E. McCann

Designate Type of Completion

X New Well Re-Entry Workover

X Oil SWD Temp. Abd.

Gas Inj Delayed Comp.

Dry Other (Core, Water Supply, etc.)

If ~~OWNED~~ old well info as follows:

Operator: N/A

Well Name:

Comp. Date Old Total Depth

Drilling Method:

X Mud Rotary Air Rotary Cable

5-7-91 5-20-91 7-6-91

Spud Date Date Reached TD Completion Date

County Kearny

E/2 NE NW Sec. 3 Twp. 21s Rge. 35 y West

4620' Ft. North from Southeast Corner of Section

2970' Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

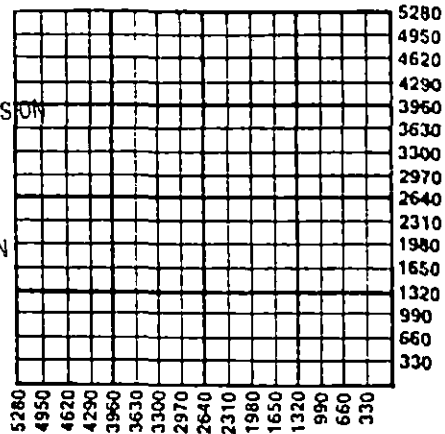
Lease Name Crist Well # 1

Field Name unknown

Producing Formation Marmaton

Elevation: Ground 3153' KB 3158'

Total Depth 5075' PBD 4625'



10-1-91

Amount of Surface Pipe Set and Cemented at 247' Feet

Multiple Stage Cementing Collar Used? X Yes No

If yes, show depth set 1412' Feet

If Alternate II completion, cement circulated from 1412'

feet depth to surface w/ 375 sx cmt.

RECEIVED  
STATE CORPORATION COMMISSION  
SEP 03 1991  
9-03-91  
CONSERVATION DIVISION  
Wichita, Kansas

**INSTRUCTIONS:** This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 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 drillers time log 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. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

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 Jack K. Wharton

Title Vice President Date 8-23-91

Subscribed and sworn to before me this 23rd day of August 19 91.

Notary Public Angela Woodard

Date Commission Expires March 20, 1993

K.C.C. OFFICE USE ONLY		
F	<input checked="" type="checkbox"/>	Letter of Confidentiality Attached
C	<input checked="" type="checkbox"/>	Wireline Log Received
C	<input type="checkbox"/>	Drillers Timelog Received
Distribution		
<input checked="" type="checkbox"/>	KCC	<input type="checkbox"/> SWD/Rep
<input type="checkbox"/>	KGS	<input type="checkbox"/> Plug
<input type="checkbox"/>		<input type="checkbox"/> NGPA
<input type="checkbox"/>		<input type="checkbox"/> Other
(Specify)		

ANGELA WOODARD  
State of Kansas  
My Appt. Exp. Mar. 20, 1993

**SIDE TWO**

Operator Name A. L. Abercrombie, Inc. Lease Name Crist Well # 1  
 Sec. 3 Twp. 21S Rge. 35  East  West  
 County Kearny

**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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Attach Additional Sheets.)  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No  Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy.)  DSTs on attached sheet.	<p style="text-align: center;"><b>Formation Description</b></p> <p><input checked="" type="checkbox"/> Log <input type="checkbox"/> Sample</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Top</th> <th style="text-align: left;">Bottom</th> </tr> </thead> <tbody> <tr><td>Heebner</td><td>3940'</td><td>(-782')</td></tr> <tr><td>Lansing</td><td>3994'</td><td>(-836')</td></tr> <tr><td>BKC</td><td>4449'</td><td>(-1291')</td></tr> <tr><td>Marmaton</td><td>4481'</td><td>(-1323')</td></tr> <tr><td>Beymer Zone</td><td>4566'</td><td>(-1408')</td></tr> <tr><td>Johnson Zone</td><td>4596'</td><td>(-1438')</td></tr> <tr><td>Cherokee Shale</td><td>4608'</td><td>(-1450')</td></tr> <tr><td>Morrow Shale</td><td>4810'</td><td>(-1652')</td></tr> <tr><td>Chester Sand</td><td>4874'</td><td>(-1760')</td></tr> <tr><td>St. Gene</td><td>4900'</td><td>(-1742')</td></tr> </tbody> </table>	Name	Top	Bottom	Heebner	3940'	(-782')	Lansing	3994'	(-836')	BKC	4449'	(-1291')	Marmaton	4481'	(-1323')	Beymer Zone	4566'	(-1408')	Johnson Zone	4596'	(-1438')	Cherokee Shale	4608'	(-1450')	Morrow Shale	4810'	(-1652')	Chester Sand	4874'	(-1760')	St. Gene	4900'	(-1742')
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**CASING RECORD** LTD 5077'

New  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 1/2"	8 5/8"	28#	247'	60-40posmix	150	2% gel
Production		5 1/2"	14#	4702.14'	50-50posmix Common	75 250	2%gel 7#gilsinit WP-29
D.V. Tool				1412'	Lightweight	375	

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	4573'-4576'	Acid 500 gallons 15% INS	4626'

**TUBING RECORD**

Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
------	--------	-----------	--

Date of First Production	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 State Test	Oil 71.5 Bbls.	Gas Mcf	Water 5.84 Bbls. Gas-Oil Ratio Gravity

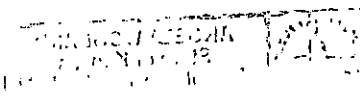
Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

**METHOD OF COMPLETION**

Open Hole  Perforation  Dually Completed  Commingled

Other (Specify) \_\_\_\_\_

Production Interval 4573-4576



SEP 0 5

RELEASED

CONFIDENTIAL

OCT 0 7 1992

FROM CONFIDENTIAL

CRIST #1  
Approx. E/2 NE NW  
Sec. 3-21S-35W  
Kearney Co., KS

DRILL STEM TESTS FOR ACO-1

DST #1 4405'-4422'  
30-45-60-60  
IFP weak to strong bottom of bucket 9 min.  
FFP weak to strong bottom of bucket 50 min.  
Rec. 1115' total fluid recovery  
450' CGO 10% gas, 90% oil  
187' SOCWM 30% water, 5% oil, 65% mud  
478' MW/SSO 85% water, 10% mud, 5% oil  
IFPs 79-261 ISIP 1180  
FFPs 307-509 FSIP 1177

DST #2 4447'-4510' (Marmaton)  
30-30-30-30  
Weak blow 10" and died  
Rec. 10' mud  
IFPs 63-63 ISIP 68  
FFPs 66-68 FSIP 72

DST #3 4508'-4550'  
30-45-60-45  
IF Strong blow bottom of bucket  
FF Strong blow bottom of bucket 10"  
Rec. 2700' GIP  
1885' CGO  
15' HOCM  
IFPs 143-339 ISIP 1156  
FFPs 402-597 FSIP 1132

DST #4 4560'-4585'  
30-45-60-45  
IF Fair to strong - bottom of bucket 4"  
FF Fair to strong - bottom of bucket 8"  
Rec. 1706' GIP, 824' total fluid, 448' CGO 35°,  
94' HOGCMW (5% gas, 10% oil, 10% mud, 75% water)  
282' SOMGCW (90% water, 5% mud, 5% oil)  
IFPs 110-226 ISIP 1156  
FFPs 264-368 FSIP 1132

DST #5 4592'-4620' (Johnson Zone)  
30-30-45-30  
Weak blow 6 minutes and died 1st open weak blow throughout 2nd open  
Rec. 15' OCM (4% oil)  
IFPs 165-1033 ISIP None  
FFPs 61-63 FSIP 81  
(Tool appeared to be plugged on 1st open period and ISIP not valid)

DST #6 4690'-4720' (Cherokee Limestone)  
30-30-30-30  
Weak blow 20", died  
Rec. 20' OCM (4% oil)  
IFPs 44-53 ISIP 111  
FFPs 53-53 FSIP 90

DST #7 4765'-4805' (Atoka)  
30-45-30-45  
Weak blow throughout  
Rec. 30' SOCM  
IFPs 49-52 ISIP 1172  
FFPs 60-62 FSIP 1097

DST #8 4804'-4880' (Chester Sand)  
30-45-60-45  
Strong blow throughout  
Rec. 2725' fluid, 220' OCM, 190' mud  
with scum oil, 185' watery mud, 2130'  
slight muddy water  
IFPs 250-712 ISIP 1172  
FFPs 786-1075 FSIP 1172

RECEIVED  
STATE CORPORATION COMMISSION  
SEP 0 3 1991  
CONSERVATION DIVISION  
Wichita, Kansas

Phone 913-483-2627, Russell, Kansas

Phone Plainville 913-434-2812

Phone 316-793-5861, Great Bend, Kansas

Phone Ness City 913-798-3843

# ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31

Russell, Kansas 67665

NO 1484

ORIGINAL

CONFIDENTIAL

MAY 29 1992

New

Date	5-7-91	Sec.	3	Twp.	21	Range	35	Called Out	7:00 PM	On Location	10:00 PM	Job Start	11:30 PM	Finish	11:45
Lease	Crust	Well No.	1			Location	Scott City south to friend blkt. 17 West S. side.			County	Kearney.		State	Ne.	
Contractor	Abercrombie, R.T.D.														
Type Job	Surface														
Hole Size	12 1/4			T.D.	248'										
Csg.	8 5/8			Depth	247'										
Tbg. Size				Depth											
Drill Pipe				Depth											
Tool				Depth											
Cement Left in Csg.	15'			Shoe Joint											
Press Max.				Minimum											
Meas Line	ND			Displace	✓ 15.1 bbl										
Perf.															

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

Charge To A.T. Abercrombie R.T.D. Inc.

Street **RELEASED**

City Ne. State Ne.

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

Purchase Order No. **FROM CONFIDENTIAL**

x W. C. Craig

**CEMENT**

Amount Ordered 150 AX 60/40 2% gel 3% cc

Consisting of

Common  
 Poz. Mix  
 Gel.  
 Chloride  
 Quickset

**RECEIVED**  
 STATE COMMISSION

Handling **SEP 03 1991** Sales Tax

Mileage **CONSERVATION DIVISION**  
 Wichita, Kansas

Sub Total  
 Total

Floating Equipment

#101-3250

Rig # 5

END

## EQUIPMENT

<u>New City</u>	No.	Cementer	
Pumptrk	<u>158</u>	Helper	
	No.	Cementer	<u>J.D.</u>
Pumptrk		Helper	<u>Bob</u>
		Driver	<u>KEITH</u>
Bulktrk	<u>116</u>	Driver	

## DEPTH of Job

Reference:	<u>Pump trk charge</u>	
	<u>Mileage</u>	
	<u>1 8 5/8 TWP</u>	
	Sub Total	
	Tax	
	Total	

Remarks: Cement did circulate.  
1 bbl cement.

Thank you.

## GENERAL TERMS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

2. More specifically:

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

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

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



P.O. Box 4442  
Houston, Tx. 77210

KOU

SEP 05

MAY 29 1991

REMIT TO: P.O. Box 100806, Houston, TX. 77212

CONFIDENTIAL

**SERVICE OPERATIONS CONTRACT**

TERMS NET 30 DAYS FROM DATE OF CONTRACT

CUSTOMER ACCOUNT NO.		DIST NAME <i>Dakley</i>		NEW WELL <input checked="" type="checkbox"/>	WELL TYPE <i>2</i>	SERVICE CONTRACT NO. <b>609844</b>	
CUSTOMER <i>AL Abaccambie Inc</i>		DIST NUMBER <i>585</i>		WELL NO. <i>1</i>	LEASE NAME & FEDERAL OFFSHORE LEASE NO. <i>Crist</i>		
ADDRESS				COUNTY/PARISH <i>Keokuk</i>	CODE	STATE <i>KS</i>	CODE
CITY		STATE	ZIP	FIELD NAME <i>3-21<sup>s</sup>-35<sup>w</sup></i>		CITY CODE	
AUTHORIZED BY: <i>Bill Sales</i> (Please Print)			ORDER NO.	WELL OWNER		MTA CODE	
STAGE NO.	JOB CODE	WORKING DEPTH <i>4702</i>	FT	PUMPING EQUIPMENT		TIME (A OR P)	DATE
TOTAL PREV. GALS.		1 SURFACE <input type="checkbox"/>	2 INTERMEDIATE <input type="checkbox"/>	3 PRODUCTION <input checked="" type="checkbox"/>	4 REMEDIAL <input type="checkbox"/>	TRUCK CALLED	MM DD YY <i>11 01 91</i>
TOTAL MEAS. DEPTH <i>5075</i> FT.		SIZE HOLE <i>7 7/8</i>	DEPTH <i>5075</i>	FT	ARRIVED AT JOB	<i>11:24:51 A</i>	<i>15 21 19 91</i>
AVG. PSI. <i>800</i>		SIZE & WT. CASING <i>5 3/8</i>	DEPTH <i>4702</i>	FT	START OPERATION	<i>16:25:14</i>	<i>15 21 19 91</i>
MAX. PSI. <i>2000</i>		SIZE & WT. DRILL PIPE OR TUBING	DEPTH	FT	FINISH OPERATION	<i>11:00:01 A</i>	<i>15 21 19 91</i>
MAX. BPM <i>6</i>		PACKER DEPTH	FLUID PUMPED	MILES FROM STATION TO WELL <i>74</i>	SALESMAN NUMBER	RELEASED	
CUSTOMER INSTRUCTIONS FOR DISPOSAL OF RETURNED CEMENT							
OCT 07 1992							
FROM CONFIDENTIAL							
REMARKS							

**RECEIVED**  
KANSAS CORPORATION COMMISSION

SEP 12 1991

\*102-6725

CONSERVATION DIVISION  
WICHITA, KS

1352-08

Crist #1

**CONTRACT CONDITIONS:** (This contract must be signed before the job is commenced or merchandise is delivered)

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of BJ SERVICES.

PRICE BOOK *01*

SIGNED: *W.C. Craig*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

PRICE BOOK REF. NO.	QUANTITY	DESCRIPTION	UNIT PRICE	UM	PRICE EXTENSION
11011010131216	1	Price of Job	1260.00	ea	1260 00
1101101151011	1	2nd Stage	950.00	ea	950 00
11011018101015	74	PTM <i>Dakley</i>	2.35	ea	173 90
11014110151014	581	Class A	6.75	sk	3921 75
11014115101118	194	Poz-mix	3.62	sk	702 28
11014218101815	425	BA-29	9.00	16	3825 00
11014210111415	2500	Gr-1	.14	16	350 00
11014115101812	550	Kol Seal	.33	16	181 50
11014214101015	47	CD-31	3.87	16	181 89
11014115101318	400	Salt	.11	16	44 00

SERVICE REPRESENTATIVE *Wm Fitzgerald*

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: *W.C. Craig*  
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

CHECK IF CONTINUATION IS USED  
CUSTOMER: This is not an invoice - This Service Operations Contract is subject to review and correction by our Accounting Department.



P.O. Box 4442  
Houston, Texas 77210

# CEMENTING LOG

STAGE NO. \_\_\_\_\_

ORIGINAL

SEP 05

CONFIDENTIAL

Date 5-20-91 District Oakley Ticket No. 600244  
 Company Al Abramovic Rig Abc #5  
 Lease Crist Well No. 1  
 County Keokuk State KS  
 Location Trical 14W- S/Side Field \_\_\_\_\_

CEMENT DATA:  
 2nd Stage  
 Spacer Type: Lite (65:35:6)  
 Amt. 450 Skys Yield 1.94 ft<sup>3</sup>/sk Density 12.7 PPG

CASING DATA. PTA  Squeeze   
 Surface  Intermediate  Production  Liner   
 Size 5 1/2 Type \_\_\_\_\_ Weight 14 Collar \_\_\_\_\_

LEAD: Pump Time \_\_\_\_\_ hrs. Type 50:50:2  
74200-31 7" l/sk Excess \_\_\_\_\_  
 Amt. 75 Skys Yield 1.06 ft<sup>3</sup>/sk Density 14.5 PPG

TAIL: Pump Time \_\_\_\_\_ hrs. Type A RA-29  
 Excess \_\_\_\_\_  
 Amt. 250 Skys Yield 1.14 ft<sup>3</sup>/sk Density 15 PPG

WATER: Lead 4.4 gals/sk Tail 5.45 gals/sk Total \_\_\_\_\_ Bbls.

Casing Depths: Top \_\_\_\_\_ Bottom NO. 0 7 1552

Pump Trucks Used 6463  
 Bulk Equip. 2750 - 2752 + 272

RELEASED

FROM: CONFIDENTIAL

Drill Pipe: Size \_\_\_\_\_ Weight \_\_\_\_\_ Collars \_\_\_\_\_  
 Open Hole: Size \_\_\_\_\_ T.D. \_\_\_\_\_ ft. P.B. to \_\_\_\_\_ ft.

CAPACITY FACTORS:  
 Casing: Bbls/Lin. ft. .0244 Lin. ft./Bbl. 40.9  
 Open Holes: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Drill Pipe: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Annulus: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Perforations: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Amt. \_\_\_\_\_

Float Equip: Manufacturer Baker + Arrow + Gemco  
 Shoe: Type Cement Depth 4702  
 Float Type Flo-Lin Depth 4673  
 Centralizers: Quantity 4 Plugs Top \_\_\_\_\_ Btm \_\_\_\_\_  
 Stage Collars Baker DV set @ 1414  
 Special Equip. 4-Cent Buckets 40-Scraper  
 Disp. Fluid Type H<sub>2</sub>O + Mud Amt. \_\_\_\_\_ Bbls. Weight \_\_\_\_\_ PPG  
 Mud Type \_\_\_\_\_ Weight \_\_\_\_\_ PPG

COMPANY REPRESENTATIVE Bill Sales

CEMENTER Fitz

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
12:45	am					On Location & Set up trucks
3:00	am					Permit & Safety Meeting
6:25	am					Run Float Equipment
7:45						Circulate
7:50						500 gal Salt Flush
7:53						Lead
8:01						Trail
8:06						Washout pump & lines
8:30						Release plug & Displace To Insert Plug Down
9:00						Release & Insert Oil Hold
9:15						Drop Duct
9:25						Open DV & Circulate Hole
9:30						Cement Kat hole & Menechals
						Mix 2nd Stage Cement
						Release plug on the run
10:00						Plug Down & Close DV @ 1500 PSI
						DV Oil Hold
						Cement Oil Circulate

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CONSERVATION DIVISION  
WICHITA, KS



RELEASED KCC

SERVICE OPERATIONS CONTRACT CONTINUATION

SEP 05 OCT 07 1992

CONTRACT NO. 609844

DATE OF JOB: 5/21/91 DISTRICT: Oakley AUTHORIZED BY: Bill Sotke  
 CUSTOMER: A L Abercrombie Inc

PRICE BOOK 01

PRICE BOOK REF. NO	QUANTITY	DESCRIPTION	UNIT PRICE	U/M	PRICE EXTENSION
10181810101011	775	Dryage	1.10	sk	852 50
11019410111011	2701	Per Ton Mile 36.5 Tons	.75	Tm	2025 75
11014019161010	1	5 1/2 Cement Guide Shoe (B)	124.00		124 00
11014019161010	1	5 1/2 Flexifill Insert (A)	188.00		188 00
11014019161010	1	Thread Loc (B)	22.80		22 80
11014019161010	42	5 1/2 Centralizers (B)	46.75		1973 00
11014019161010	21	5 1/2 Scratchers (B)	21.80		457 80
11014019161010	4	5 1/2 Centralizer-Basket (Gemeco)	188.20		752 80
11014019161010	1	5 1/2 DV Tool (B)	3135.00		3135 00
					19243 47
		20% Discount			3848 69
					15394 78

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 WICHITA, KS

SERVICE REPRESENTATIVE: Wm Fitzgerald THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: W.C. Craig

CHECK IF CONTINUATION IS USED (WELL' OWNER, OPERATOR, CONTRACTOR OR AGENT)  
 CUSTOMER: This is not an invoice - This Service Operations Contract is subject to review and correction by our Accounting Department.