

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

Form ACO-1  
September 1999  
Form Must Be Typed

**ORIGINAL**

Operator: License # 32471  
 Name: Sublette Oil Company  
 Address: PO Box 3726  
 City/State/Zip: Fort Smith, AR 72913  
 Purchaser: N/A  
 Operator Contact Person: Charles N. Wohlford  
 Phone: (501) 783-1465  
 Contractor: Name: Abercrombie RTD, Inc.  
 License: 30684  
 Wellsite Geologist: Paul Gunzelman

API NO. 15- 119-21,0210000  
 County: Meade  
105° S - NW - NE - NW Sec. 4 Twp. 33 S R. 30 East  West   
480 Feet from S (N) (circle one) Line of Section  
1650 Feet from E (N) (circle one) Line of Section  
 Footages calculated from Nearest Outside Section Corner:  
 (circle one) NE SE NW SW  
 Lease Name: Amerin Well # 1-4  
 Field Name: Stevens  
 Producing Formation: Dry Hole

RECEIVED  
 STATE CORPORATION COMMISSION  
 MAY 22 2000  
 WICHITA, KANSAS

Designate Type of Completion  
 New Well  Re-Entry  Workover  
 Oil  SWD  SLOW  Temp. Adb.  
 Gas  ENHR  SIGW  
 Dry  Other (Core, WSW, Expl., Cathodic, etc)

Elevation: Ground: 2720' Kelly Bushing: 2725'  
 Total Depth: 2540' PBDT  
 Amount of Surface Pipe Set and Cemented at: 1622 Feet  
 Multiple Stage Cementing Collar Used?  Yes  No  
 If yes, show depth set \_\_\_\_\_ Feet

If Workover/Re-entry: Old Well Info as follows:  
 Operator: \_\_\_\_\_  
 Well Name: \_\_\_\_\_  
 Original Comp. Date: \_\_\_\_\_ Original 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. \_\_\_\_\_  
03/18/00 3/24/00 03/26/00  
 Spud Date Date Reached TD Completion Date

If Alternate II completion, cement circulated from \_\_\_\_\_  
 feet depth to \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.  
**Drilling fluid Management Plan** *PdA, 6-22-00 etc.*  
 (Data must be collected from the Reserve Pit)  
 Chloride content 3,600 ppm Fluid volume 700 bbls  
 Dewatering method used: Evaporation  
 Location of fluid disposal if hauled offsite: \_\_\_\_\_  
 Operator Name \_\_\_\_\_  
 Lease name \_\_\_\_\_ License No. \_\_\_\_\_  
 Quarter \_\_\_\_\_ Sec \_\_\_\_\_ Twp \_\_\_\_\_ S R \_\_\_\_\_ East  West   
 County \_\_\_\_\_ Docket No. \_\_\_\_\_

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information 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 CO-111 form with all temporarily abandoned wells.

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

Signature: [Signature]  
 Title: Vice President Date: 5-8-00  
 Subscribed and sworn to before me this: 8th day of May 2000  
 Notary Public: [Signature]  
 Date Commission Expires: 11-18-01

**K.C.C. OFFICE USE ONLY**

Letter of Confidentiality Attached \_\_\_\_\_  
 If Denied, Yes  Date: \_\_\_\_\_

Wireline Log Received \_\_\_\_\_  
 Geologist Report Received   
 UIC Distribution \_\_\_\_\_  
JKCC

Operator Name Sublette Oil Company Lease Name Amerin Well # 1-4

Sec. 4 Twp. 33 S R. 30  East  West County Meade

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

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:

<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input checked="" type="checkbox"/> Sample
Name	Top	Datum
Lecompton	4316	1577
Heebner SL	4371	1632
Toronto	4386	1647
Lansing	4499	1760
RTD	4540	1801

CASING RECORD  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	9 1/4"	8 5/8"	24#	1622'			

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			
Perforate					
Protect Casing					
Plug Back TD					
Plug Off Zone					

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

TUBING RECORD	Size	Set At	Packer At	Liner Run
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
			N/A	

Date of First, Resumed Production, SWD or Enhr.	Producing Method	Dry Hole
	<input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift	<input checked="" type="checkbox"/> Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls	Gas Mcf	Water Bbls	Gas-Oil Ratio	Gravity
	0	0			

Disposition of Gas:  Vented  Sold  Used on Lease  Open Hole  Perf.  Dually Comp.  Commingled  
(If vented, submit ACO-18.)

METHOD OF COMPLETION  Other (Specify)

Production Interval

ORIGINAL

**MUD-CO** / **SERVICE MUD INC.**

155 North Market, Suite 1050 • Wichita, KS 67202 • 316-264-2814

**DELIVERY TICKET** No **79579**

DATE SHIPPED <b>3-17-00</b>	F. O. B.	PREPAID	FINAL WELL
DELIVERING WAREHOUSE <b>Lamar</b>	WAREHOUSE <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	WELL SITE <input type="checkbox"/>	COLLECT <input type="checkbox"/>	TICKET

SOLD TO <b>Sublette Oil Company</b>	SHIPPED TO <b>Aber. #4</b>	WELL NAME & NO. <b>#1-4 Amerin</b>
ADDRESS	SHIPPED VIA <b>T-39 P-17</b>	COUNTY, STATE <b>Meid, KS</b>
CITY, STATE, ZIP	ORDER NO.	SEC <b>4</b> TWN <b>33</b> RNG <b>30w</b>

PRODUCT	PACKAGE SIZE	QUANTITY	PRICING UNIT	CODE	UNIT PRICE	AMOUNT
1. Mud-Co-Gel	100 #	336	Bag			
2. Salt Clay	#		Bag			
3. Sea Mud	50#		Bag			
4. Mud-Co-Starch	50#		Bag			
5. Lime	50#	12	Bag			
6. Cotton Seed Hulls	50 #	160	Bag			
7. Soda Ash	50# 100#	30	Bag			
8. Caustic Soda	50#	25	Bag	Corrosive UN# 1823,8		
9. Lignite Thinner	50#	20	Bag	EM# 1-800-733-3667		
10. Preservative	50#		Bag			
11. Drispac	50#	3	Bag			
12. Mud Seal	40#		Bag			
13.						
14.						
15.						
16.						
17.						
18.						
19. Spud Load						
20.						
21.						
22.						
23.						
24.						

★★  
AS  
AT

MATERIAL RECEIVED IN GOOD ORDER	TRANSPORTATION CHARGES			SUB TOTAL
	TRUCK #	MILEAGE	FROM	
DATE RECEIVED	@			SALES TAX
<b>3-17-00</b>	@			
PURCHASE AUTHORIZED BY	@			TRANSPORTATION
	TOTAL TRANSPORTATION CHARGES			TOTAL

ROUTING: WHITE - CUSTOMER; BLUE - CUSTOMER RIG; GREEN - WICHITA; GOLD - WICHITA; CANARY - WAREHOUSE



ORIGINAL

# Ricketts Testing, Inc.

No. 1943

DATE 3-24-00  
SEC. S TWN 33 RG 30W  
LEGAL DESCRIPTION H.W. NE-NW

P. O. Box 351  
WELLINGTON, KANSAS 67152  
Phone (316) 326-5830

TEST NO. 1

COMPANY Sublette Oil Co.  
ADDRESS P.O. Box 3726 FT. Smith AR 72913  
LEASE American WELL NO. 1-Y COUNTY MEAD STATE KS  
INVOICES SENT TO: \_\_\_\_\_  
DST COPIES SENT TO: \_\_\_\_\_

GENERAL INFORMATION				PRESSURE DATA & TIME			
				FIELD READINGS		CORRECTED READINGS	
TOOL JT. <u>4 1/2" XH</u>	HOLE SIZE <u>7/8</u>	PACKER O.D. <u>6 3/4</u>		INITIAL HYDROSTATIC	<u>2153</u>		
ELEV. <u>2734 GA</u>	TOTAL DEPTH <u>4509</u>			INITIAL FLOW	<u>19</u> TO		
TESTED FROM <u>11464</u>	TO <u>4509</u>			INITIAL SHUT-IN	<u>19</u>		
ANCHOR LENGTH BELOW <u>45'</u>	BETWEEN			FINAL FLOW	<u>30</u> TO		
TOOL OPEN	A.M. <u>6:29</u>	P.M.		FINAL SHUT-IN	<u>30</u>		
TIME STARTED OFF BOTTOM	A.M. <u>9:44</u>	P.M.		FINAL HYDROSTATIC	<u>2141</u>		
DRLG. CONT. <u>Alconovlon</u>	RIG # <u>4</u>			TOOL OPEN: INITIAL FLOW		HR. <u>30</u>	MIN.
TYPE OF MUD <u>CHEMICAL</u>				INITIAL SHUT-IN		HR. <u>45</u>	MIN.
MUD WT. <u>9.2</u>	VISCOSITY <u>51</u>	WL. <u>9.6</u>	C.C.	FINAL FLOW		HR. <u>60</u>	MIN.
CHLORIDE <u>3500</u>	GRAVITY OIL	B.H. TEMP <u>114°</u>		FINAL SHUT-IN		HR. <u>60</u>	MIN.
LENGTH DRILL COLLAR <u>240</u>	D. <u>2.25</u>			TOP RECORDER NO. <u>13206</u>		BOTTOM RECORDER NO. <u>13565</u>	
LENGTH WEIGHT PIPE	D.						
SUCCESSFUL TEST NO. <u>1</u>	MISRUN NO.						
CHOKES: TOP <u>3/4</u>	BOTTOM <u>3/4</u>						

TYPE BLOW Weak Blow Building to 5" Blow I.F.P.P. & F.F.P.

RECOVERY: 30' mud

EXTRA EQUIPMENT Taps & Safety Joint  
APPROVED BY: Bill Jygant  
TESTER: James [Signature]  
FORMATION TESTED K.C.  
OPERATOR TIME: Thank You

**RICKETTS TESTING, INC.**  
SHALL NOT BE LIABLE FOR ANY DAMAGE OF ANY KIND TO 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 WAS MADE.

	CHARGES
TEST CHARGE	\$ <u>200</u>
EXTRA PACKERS	\$
JARS	\$ <u>225.00</u>
SAFETY JOINT	\$ <u>25</u>
HOOK WALL	\$
MISRUN CHARGE	\$
STAND-BY CHARGE	\$
STRADDLE	\$
CIRCULATING SUB.	\$
MILEAGE	\$
TOTAL	\$ <u>920.00</u>

# MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

ORIGINAL

DRILLING MUD REPORT REPORT NO. 6

DATE 3-24-2000 DEPTH 4509

API WELL NO. STATE COUNTY

OPERATOR Sublette Oil CONTRACTOR Abccrombie RIG NO. 4

ADDRESS \_\_\_\_\_ ADDRESS \_\_\_\_\_ SPUD DATE \_\_\_\_\_

REPORT FOR MR. Bill Ingoet REPORT FOR MR. Gary Fisher SECTION, TOWNSHIP, RANGE 3 18 2000

WELL NAME AND NO. 1-4 Amccin FIELD OR BLOCK NO. \_\_\_\_\_ COUNTY Meade STATE Kansas

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
PRESENT ACTIVITY <u>CFS</u>		SURFACE <u>8 7/8</u> IN. at <u>1622</u> FT.		HOLE PITS <u>360</u> <u>400</u>		PUMP SIZE X IN. <u>6</u> <u>15</u>		ANNULAR VEL. (FT./MIN.) OPPOSITE DP <u>210</u>	
BIT SIZE (IN.) <u>7/8</u>	NO. <u>2</u>	INTERMEDIATE IN. at _____ FT.		TOTAL CIRCULATING VOLUME <u>760</u>		PUMP MAKE <u>Idesco</u>		OPPOSITE COLLAR <u>381</u>	
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>XH</u>	PRODUCTION OR LINER IN. at _____ FT.		IN STORAGE		MODEL <u>Idesco</u>		CIRCULATING PRESSURE PSI _____	
DRILL COLLAR SIZE <u>6 1/4</u>	LENGTH	MUD TYPE <u>Chemical</u>		BBL./MIN. <u>8.5</u> <u>357</u>		STROKE/MIN. <u>58</u>		BOTTOMS UP (MIN.) <u>42</u> SYSTEM TOTAL (MIN.) <u>90</u>	

MUD PROPERTIES		DAILY COST		CUMULATIVE COST	
Time Sample Taken	<u>AM</u> <u>11:30</u>		<u>1082.25/-</u>		<u>6630.44/-</u>
Depth (ft)	<u>4509</u>				
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)	<u>9.2</u>				
Mud Gradient (psi/ft)	<u>478</u>				
Funnel Viscosity (sec/qt) API at _____ °F	<u>51</u>				
Plastic Viscosity cp at _____ °F	<u>16</u>				
Yield Point (lb/100 sq ft)	<u>19</u>				
Gel Strength (lb/100 sq ft) 10 sec/10 min	<u>1327</u>				
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter	<u>10.5</u>				
Filtrate API (ml/30 min)	<u>9.6</u>				
Cake Thickness 32nd in API <input checked="" type="checkbox"/> HP-HT <input type="checkbox"/>	<u>1</u>				
Alkalinity, Mud (P <sub>m</sub> )					
Alkalinity, Filtrate (P <sub>f</sub> /M <sub>f</sub> )	<u>81</u>				
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm	<u>3500</u>				
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)	<u>40</u>				
Sand Content (% by Vol)	<u>7R</u>				
Solids Content (% by Vol)	<u>6.0</u>				
Oil Content (% by Vol)					
Water Content (% by Vol)	<u>94.0</u>				
L.C.M. #/bbl	<u>2.2</u>				
Preservative #/bbl					

MUD PROPERTIES SPECIFICATIONS

WEIGHT 9.2-9.4 VISCOSITY 48-52 FILTRATE 8-10

BY AUTHORITY  OPERATOR'S WRITTEN  DRILLING CONTRACTOR  
 OPERATOR'S REPRESENTATIVE  OTHER

MATERIALS RECOMMENDED

*No treatment is needed*

*Use 48-52 with gel*

*Mud wt 9.2-9.4 g/gal.*

*2.3 g/gal LCM*

*Trip in hole slow*

*break circulation*

*Thanks*

MUD ON HAND/USED		MUD ON HAND/USED	
<u>22</u> <u>85</u>	Premium Gel	<u>2</u>	Drillpac
<u>11</u> <u>6</u>	Soda Ash	<u>16</u> <u>12</u>	C/S Hulls
<u>8</u> <u>7</u>	Caustic Soda		Multi Seal
<u>14</u> <u>1</u>	Super Lig		Cedar Fiber
	Lime		Cello Flake

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE Reid Atkins HOME ADDRESS Colby, KS TELEPHONE 785 462 3412

MOBILE UNIT \_\_\_\_\_ WAREHOUSE LOCATION \_\_\_\_\_ TELEPHONE 510 322 8114

# MUD-CO / SERVICE MUD INC.

100 S. Main, Suite 405 / Wichita, KS 67202 / 316-264-2814

## ORIGINAL

### DRILLING MUD REPORT

REPORT NO. 5

DATE <u>3-23-2000</u>	DEPTH <u>4105</u>
API WELL NO.	STATE COUNTY

OPERATOR <u>Sublette Oil</u>	CONTRACTOR <u>Abercrombie</u>	RIG NO. <u>4</u>
ADDRESS	ADDRESS	SPUD DATE <u>3 18 2000</u>
REPORT FOR MR. <u>Bill Tugot</u>	REPORT FOR MR. <u>Gary Fisher</u>	SECTION, TOWNSHIP, RANGE <u>4 33 30</u>

WELL NAME AND NO. <u>1-4 Ameria</u>	FIELD OR BLOCK NO.	COUNTY <u>Meade</u>	STATE <u>Ks</u>
--	--------------------	------------------------	--------------------

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
PRESENT ACTIVITY <u>1</u>		SURFACE <u>8 5/8</u> IN. at <u>1622</u> FT.		HOLE PITS <u>328</u> <u>400</u>		PUMP SIZE X IN. <u>6</u> <u>15</u>		ANNULAR VEL. (FT./MIN.) OPPOSITE DP. <u>210</u>	
BIT SIZE (IN.) <u>1 7/8</u>	NO. <u>2</u>	INTERMEDIATE IN. at FT.		TOTAL CIRCULATING VOLUME <u>728</u>		PUMP MAKE <u>Ideco</u>		OPPOSITE COLLAR <u>381</u>	
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>XH</u>	PRODUCTION OR LINER IN. at FT.		IN STORAGE		MODEL <u>Ideco</u>		CIRCULATING PRESSURE PSI <u>1150</u>	
DRILL COLLAR SIZE <u>6 1/4</u>	LENGTH <u>511</u>	MUD TYPE <u>Chemical</u>				BBL/STROKE STROKE/MIN <u>.137</u> <u>58</u>		BOTTOMS UP (MIN.) <u>39</u>	
						BBL./MIN. <u>8.5</u>		SYSTEM TOTAL (MIN.) <u>86</u>	

MUD PROPERTIES		DAILY COST	CUMULATIVE COST
Sample from <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit		<u>1013 49/-</u>	<u>5548 19/-</u>
Flowline Temp.ature			
Time Sample Taken	<u>AM</u> <u>9:15</u>		
Depth (ft)	<u>4105</u>		
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)	<u>9.0</u>		
Mud Gradient (psi/ft)	<u>468</u>		
Funnel Viscosity (sec/qt) API at °F	<u>48</u>		
Plastic Viscosity cp at °F	<u>13</u>		
Yield Point (lb/100 sq ft)	<u>18</u>		
Gel Strength (lb/100 sq ft) 10 sec/10 min	<u>10.22</u>		
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter	<u>10.0</u>		
Filtrate API (ml/30 min)	<u>8.0</u>		
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>	<u>1</u>		
Alkalinity, Mud (P <sub>m</sub> )	<u>—</u>		
Alkalinity, Filtrate (P <sub>f</sub> /M <sub>f</sub> )	<u>.71</u>		
Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>4200</u>		
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)	<u>40</u>		
Sand Content (% by Vol)	<u>NR</u>		
Solids Content (% by Vol)	<u>4.6</u>		
Oil Content (% by Vol)	<u>—</u>		
Water Content (% by Vol)	<u>95.4</u>		
L.C.M. #/bbl	<u>2</u>		
Preservative #/bbl	<u>Reined succrol</u>		
<u>inches in last 24 hrs</u>			

MUD PROPERTIES SPECIFICATIONS		
WEIGHT <u>9.2-9.4</u>	VISCOSITY <u>46-52</u>	FILTRATE <u>8-10 cc</u>
BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		

**MATERIALS RECOMMENDED**

Maintain vis 46-52 sec/qt  
 80 bbl water  
 3 soda ash  
 2 caustic  
 1/2 lignite  
 thicken with gel  
 5 qts hulls

Have vis 48+ to log

Run water at sample box and premix if needed for 9.2-9.4 mud wt

12 hr treatment - 1 caustic + chem bbl

2.3 #/bbl LCM

Trip in hole slow + break circulation

Short trip DST #1 or log

Reserve pit 1200 bbls chlor, 32,000 cc. 1640

Thanks

MUD ON HAND/USED		MUD ON HAND/USED	
<u>107</u> <u>59</u>	Premium Gel	<u>2</u>	<u>1</u> Drillpac
<u>17</u> <u>3</u>	Soda Ash	<u>28</u>	<u>8</u> C/S Hulls
<u>15</u> <u>5</u>	Caustic Soda		Multi Seal
<u>15</u>	Super Lig		Cedar Fiber
<u>6</u>	Lime		Cello Flake

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE <u>Reid Atkins</u>	HOME ADDRESS <u>Colby Ks</u>	TELEPHONE <u>185 462 3412</u>
MOBILE UNIT <u>405 100 2441</u>	WAREHOUSE LOCATION <u>Lawrence</u>	TELEPHONE <u>510 334 8114</u>

# MUD-CO SERVICE MUD INC.

155 North Market, Suite 1050 / Wichita, KS 67202 / 316-264-2814

ORIGINAL DRILLING MUD REPORT REPORT NO. 1

DATE 3-22-2000 DEPTH 3635

API WELL NO. STATE COUNTY

OPERATOR Sublette Oil CONTRACTOR Abercrombie RIG NO. 4

ADDRESS Big ADDRESS Big SPUD DATE 3 18 2000

REPORT FOR MR. Bill Tygart REPORT FOR MR. Gary Fisher SECTION, TOWNSHIP, RANGE 4 33 30

WELL NAME AND NO. 1-4 Amerin FIELD OR BLOCK NO. COUNTY Meade STATE Ks.

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
PRESENT ACTIVITY <u>Drilling</u>		SURFACE <u>5/8</u> IN. at <u>1622</u> FT.		HOLE PITS <u>291</u> <u>400</u>		PUMP SIZE X IN. <u>6</u> <u>15</u>		ANNULAR VEL. (FT./MIN.) OPPOSITE DP. <u>189</u>	
BIT SIZE (IN.) <u>7/8</u>	NO. <u>2</u>	INTERMEDIATE IN. at FT.		TOTAL CIRCULATING VOLUME <u>691</u>		PUMP MAKE <u>Ideco</u>		OPPOSITE COLLAR <u>344</u>	
DRILL PIPE SIZE <u>4 1/2</u>	TYPE <u>XH</u>	PRODUCTION OR LINER IN. at FT.		IN STORAGE		MODEL <u>Ideco</u>		CIRCULATING PRESSURE PSI <u>1100</u>	
DRILL COLLAR SIZE <u>6 1/4</u>	LENGTH <u>511</u>	MUD TYPE <u>Chemical-Drill-Pec</u>				BBL/STROKE <u>137</u> STROKE/MIN. <u>56</u>		BOTTOMS UP (MIN.) <u>38</u>	
						BBL./MIN. <u>7.67</u> <u>322</u>		SYSTEM TOTAL (MIN.) <u>90</u>	

Sample from <input type="checkbox"/> Flowline <input type="checkbox"/> Pit		MUD PROPERTIES	
Flowline Temperature	Pit °F		
Time Sample Taken AM <u>PM</u> <u>5:30</u>			
Depth (ft) <u>3635</u>			
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft) <u>8.6</u>			
Mud Gradient (psi/ft) <u>0.447</u>			
Funnel Viscosity (sec/qt) API at °F <u>47</u>			
Plastic Viscosity cp at °F <u>7</u>			
Yield Point (lb/100 sq ft) <u>13</u>			
Gel Strength (lb/100 sq ft) 10 sec/10 min <u>6.15</u>			
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter <u>11.0</u>			
Filtrate API (ml/30 min) <u>10.4</u> -			
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/> <u>1</u>			
Alkalinity, Mud (P <sub>m</sub> ) <u>1</u>			
Alkalinity, Filtrate (P <sub>f</sub> /M <sub>f</sub> ) <u>1.1</u>			
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm <u>4000</u> -			
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb) <u>40</u>			
Sand Content (% by Vol) <u>12</u>			
Solids Content (% by Vol) <u>2.0</u>			
Oil Content (% by Vol) <u>1</u>			
Water Content (% by Vol) <u>98.0</u>			
L.C.M. #/bbl <u>2</u> -			
Preservative #/bbl			

DAILY COST	CUMULATIVE COST
<u>2888.20</u>	<u>4534 70%</u>

**MATERIALS RECOMMENDED**

Maintain vis 42-45 sec/gal

At 4300' raise 50 bbl water

vis 48 sec/gal - 50 bbl mud

thicken with gel

Run water at sample box

for 9.2 g/gal mud wt.

Every 12 hrs - 1 acoustic at chem

2-3 g/gal LCM

Short trip DST

Trip in hole slow

• break circulation

---

When mud wt reaches 9.2 g/gal

Jet + add 160 bbl water

premix slow 3 soda ash

2 acoustic

1/2 lignite

1/2 Drill-Pec

thicken with gel

8 cps hulls

MUD ON HAND/USED		MUD ON HAND/USED	
<u>166</u> <u>211</u>	Premium Gel		P-10L
<u>20</u> <u>10</u>	Soda Ash		PHPA
<u>20</u> <u>5</u>	Caustic Soda	<u>3</u>	Drispac
<u>15</u> <u>5</u>	Super Lig	<u>36</u> <u>107</u>	C/S Hulls
<u>6</u>	Lime		Multi Seal

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY MUD-CO / SERVICE MUD, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE Reid Atkins HOME ADDRESS Colby Ks TELEPHONE 785 482 3412

MOBILE UNIT 1000 WAREHOUSE LOCATION 1000 TELEPHONE 710 221 8114

ORIGINAL

MUD-CO / SERVICE MUD INC.

155 North Market, Suite 1050 / Wichita, KS 67202 / 316-264-2814

DRILLING MUD REPORT

REPORT NO. 3

DATE 3-21-2000 DEPTH 2710

API WELL NO.

STATE COUNTY

OPERATOR

CONTRACTOR

RIG NO.

ADDRESS

ADDRESS

SPUD DATE

REPORT FOR MR.

REPORT FOR MR.

3 18 2000 SECTION, TOWNSHIP, RANGE 4 33 30

WELL NAME AND NO.

FIELD OR BLOCK NO.

COUNTY

STATE

OPERATION

CASING

MUD VOLUME (BBL)

CIRCULATION DATA

PRESENT ACTIVITY

SURFACE

HOLE

PITS

PUMP SIZE

X IN.

ANNULAR VEL. (FT./MIN.)

BIT SIZE (IN.)

NO.

INTERMEDIATE

TOTAL CIRCULATING VOLUME

PUMP MAKE

OPPOSITE DP

DRILL PIPE SIZE

TYPE

PRODUCTION OR LINER

IN STORAGE

MODE

BBL/STROKE

OPPOSITE COLLAR

DRILL COLLAR SIZE

LENGTH

MUD TYPE

BBL./MIN.

STROKE/MIN

CIRCULATING PRESSURE PSI

BOTTOMS UP (MIN.)

SYSTEM TOTAL (MIN.)

Sample from Flowline Pit Flowline Temperature °F

MUD PROPERTIES

DAILY COST

CUMULATIVE COST

Time Sample Taken

AM PM

10:30

Depth (ft)

2710

Weight (ppg) (lb/cu ft)

9.5

Mud Gradient (psi/ft)

494

Funnel Viscosity (sec/qt) API at °F

29

Plastic Viscosity cp at °F

Yield Point (lb/100 sq ft)

Gel Strength (lb/100 sq ft) 10 sec/10 min

pH Strip Meter

7.0

Filtrate API (ml/30 min)

n/c

Cake Thickness 32nd in API HP-HT

Alkalinity, Mud (P<sub>m</sub>)

Alkalinity, Filtrate (P<sub>f</sub>/M<sub>f</sub>)

Salt ppm Chloride ppm

44,000

Calcium ppm Gyp (ppb)

1124

Sand Content (% by Vol)

Solids Content (% by Vol)

6.1

Oil Content (% by Vol)

Water Content (% by Vol)

93.9

L.C.M. #/bbl

12

Preservative #/bbl

MUD ON HAND/USED

Table with 2 columns: Quantity, Description. Rows: 377 40 Premium Gel, 30 Soda Ash, 25 Caustic Soda, 20 Super Lig, 6 Lime connectors

MUD ON HAND/USED

Table with 2 columns: Quantity, Description. Rows: 196 Premium Gel, 3 Soda Ash, 143 7 C/S Hulls, 40 Multi Seal

WEIGHT

VISCOSITY

FILTRATE

9.0-9.4

31-32

n/c

BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED

Handwritten recommendations: Premix for 31-32 vis - 180 bbl water, Control mud wt 9.0-9.4 g/gal, 2950' to 3400' maintain 2 to 3' LCM, Fill tank, 2 pit premix to displace 3600', 180 bbl water, 2 soda, 1 acoustic, 35 gel, 1 lignite, 3 vis cups drill-pee, 4 ops hulls, After mud-up 42-48 vis, 9.0-9.3 mud wt, LCM 2#/bbl.

Thanks

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REPRESENTATIVE

HOME ADDRESS

TELEPHONE

MOBILE UNIT

WAREHOUSE LOCATION

TELEPHONE

Reid Atkins

Colby R's

185 462 3412

# MUD-CO / SERVICE MUD INC.

155 North Market, Suite 1050 / Wichita, KS 67202 / 316-264-2814

# ORIGINAL

DRILLING MUD REPORT

REPORT NO. 2

DATE 3-19-2000 DEPTH 1434

API WELL NO.

STATE COUNTY

OPERATOR

CONTRACTOR

RIG NO.

ADDRESS Sublette Oil

ADDRESS Abercrombie

SPUD DATE

REPORT FOR MR. Big

REPORT FOR MR. Big

3 18 2000  
SECTION, TOWNSHIP, RANGE

WELL NAME AND NO. Bill Tygart

FIELD OR BLOCK NO. Gary Fisher

4 33 30

1-4 Amerin

FIELD OR BLOCK NO.

COUNTY Meade

STATE Ks

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
PRESENT ACTIVITY		SURFACE		HOLE		PUMP SIZE		ANNULAR VEL. (FT./MIN.)	
<u>Dr 19</u>		<u>8 5/8</u> IN. at FT.		<u>115</u> <u>400</u>		<u>6</u> X <u>15</u>		<u>210</u>	
BIT SIZE (IN.) NO.		INTERMEDIATE		TOTAL CIRCULATING VOLUME		PUMP MAKE		OPPOSITE DP	
<u>12 1/8</u> <u>2</u>		IN. at FT.		<u>515</u>		MODEL <u>Idesco</u>		<u>381</u>	
DRILL PIPE SIZE TYPE		PRODUCTION OR LINER		IN STORAGE		BBL/STROKE STROKE/MIN		CIRCULATING PRESSURE PSI	
<u>4 1/2</u> <u>XH</u>		IN. at FT.				<u>176</u> <u>58</u>		<u>800</u>	
DRILL COLLAR LENGTH		MUD TYPE				BBL./MIN.		BOTTOMS UP (MIN.)	
<u>614</u> <u>511</u>		<u>Premix</u>				<u>8.5</u> <u>440</u>		<u>13</u>	
								SYSTEM TOTAL (MIN.)	
								<u>61</u>	

Sample from <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit		MUD PROPERTIES		
Flowline Temperature °F				
Time Sample Taken	<u>AM</u> PM	<u>7:15</u>		
Depth (ft)		<u>1434</u>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>9.6</u>		
Mud Gradient (psi/ft)		<u>499</u>		
Funnel Viscosity (sec/qt) API at °F		<u>41</u>		
Plastic Viscosity cp at °F				
Yield Point (lb/100 sq ft)				
Gel Strength (lb/100 sq ft) 10 sec/10 min		<u>1</u>	<u>1</u>	<u>1</u>
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter		<u>8.0</u>		
Filtrate API (ml/30 min)		<u>n/c</u>		
Cake Thickness 32nd in API <input checked="" type="checkbox"/> HP-HT <input type="checkbox"/>		<u>2</u>		
Alkalinity, Mud (P <sub>m</sub> )		<u>1</u>		
Alkalinity, Filtrate (P <sub>f</sub> /M <sub>f</sub> )		<u>1</u>	<u>1</u>	<u>1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm		<u>3,000</u>		
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>360</u>		
Sand Content (% by Vol)		<u>7R</u>		
Solids Content (% by Vol)		<u>8.9</u>		
Oil Content (% by Vol)				
Water Content (% by Vol)		<u>91.1</u>		
L.C.M. #/bbl		<u>6</u>		
Preservative #/bbl				

DAILY COST	CUMULATIVE COST
<u>1317.75/-</u>	<u>1317.75</u>

MUD PROPERTIES SPECIFICATIONS		
WEIGHT <u>9.0-9.4</u>	VISCOSITY <u>as needed</u>	FILTRATE <u>n/c</u>
BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		

**MATERIALS RECOMMENDED**  
Surface Hole 9.4-10.0 mud wt.  
34-40 vis  
6-8 #/bbl

Drill under surface with water  
Premix as needed - 180 bbl water to clean hole 30 gel  
Control mud wt 9.0-9.4 #/gal  
10M as needed to 2950' then 2-3 #/bbl to 3400'  
Fill frac tank to displace 3600'  
180 bbl water  
2 soda ash  
1 caustic  
35 gel  
1 lignite  
3 vis cups drill-pac  
4 c/s hulls  
After mud-up 42-46 vis

Thanks

MUD ON HAND/USED		MUD ON HAND/USED	
<u>221</u> <u>115</u>	Premium Gel <u>356</u>		P-10L
<u>30</u>	Soda Ash <u>30</u>		PHPA
<u>25</u>	Caustic Soda <u>25</u>	<u>3</u>	Drispac <u>3</u>
<u>20</u>	Super Lig <u>20</u>	<u>110.50</u>	C/S Hulls <u>160</u>
<u>4</u> <u>8</u>	Lime <u>12</u>		Multi Seal

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REPRESENTATIVE	HOME ADDRESS	TELEPHONE
<u>Reid Atkins</u>	<u>Colby Ks</u>	<u>785 462 2412</u>
MOBILE UNIT	WAREHOUSE LOCATION	TELEPHONE
	<u>James P</u>	<u>316 336 8114</u>

FROM :

FAX NO. :

ORIGINAL NOV 30 1999 02:45 PM P1

DRILLING MUD REPORT REPORT NO. 1

MUD-CO / SERVICE MUD INC.

155 North Market, Suite 1050 / Wichita, KS 67202 / 316-264-2814

DATE	3-18-2000	DEPTH	-0-
API WELL NO.		STATE	COUNTY

OPERATOR <i>Sublette Oil Company</i>	CONTRACTOR <i>Abercrombie</i>	RIG NO. <i>4</i>
ADDRESS <i>Rig</i>	ADDRESS <i>Rig</i>	SPUD DATE <i>3-18-2000</i>
REPORT FOR MR. <i>Gary Fisher</i>	REPORT FOR MR. <i>Gary Fisher</i>	SECTION, TOWNSHIP, RANGE <i>4 22 20</i>

WELL NAME AND NO. <i>#1-4 Annwin</i>	FIELD OR BLOCK NO.	COUNTY <i>Neode</i>	STATE <i>Ks</i>
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OPERATION PRESENT ACTIVITY		CASING SURFACE		MUD VOLUME (BBL)		CIRCULATION DATA			
BIT SIZE (IN.) <i>7/8</i>	NO. <i>1</i>	<i>8 3/8</i> IN. at	FT.	HOLE	PITS <i>400</i>	PUMP SIZE <i>6</i>	X	IN. <i>1.5</i>	ANNULAR VEL. (FT./MIN.)
DRILL PIPE SIZE <i>4 1/2</i>	TYPE <i>XH</i>	INTERMEDIATE	FT.	TOTAL CIRCULATING VOLUME		PUMP MAKE <i>Tolson</i>			OPPOSITE DP
DRILL COLLAR SIZE <i>6 3/4</i>	LENGTH <i>511</i>	PRODUCTION OR LINER	FT.	IN STORAGE		MODEL <i>Tolson</i>			OPPOSITE COLLAR
		MUD TYPE <i>Premix</i>				BBL/STROKE <i>1.46</i>			CIRCULATING PRESSURE PSI
						BBL/MIN.			BOTTOMS UP (MIN.)
									SYSTEM TOTAL (MIN.)

Sample from <input type="checkbox"/> Flowline <input type="checkbox"/> Pit	MUD PROPERTIES	DAILY COST	CUMULATIVE COST
Flowline Temperature			

Time Sample Taken	AM	PM
Depth (ft)		
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		
Mud Gradient (psi/ft)		
Funnel Viscosity (sec/qt) API at _____ °F		
Plastic Viscosity cp at _____ °F		
Yield Point (lb/100 sq ft)		
Gel Strength (lb/100 sq ft) 10 sec/10 min	<i>1</i>	<i>1</i>
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter		
Filtrate API (ml/30 min)		
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>		
Alkalinity, Mud (P <sub>m</sub> )		
Alkalinity, Filtrate (P <sub>f</sub> /M <sub>f</sub> )	<i>1</i>	<i>1</i>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg		
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		
Sand Content (% by Vol)		
Solids Content (% by Vol)		
Oil Content (% by Vol)		
Water Content (% by Vol)		
L.C.M. #/bbl		
Preservative #/bbl		

MUD PROPERTIES SPECIFICATIONS			
WEIGHT <i>9.4-10.0</i>	VISCOSITY <i>34-40</i>	FILTRATE <i>ml</i>	<i>20-27</i>
BY AUTHORITY <input type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR		<input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER	

**MATERIALS RECOMMENDED**

*Premix for 34-40 vis - 160 bbl/water  
35 gal \**

*Time to thicken*

*Control mud wt 9.4-10.0 g/gal.*

*6-8 g/gal 20m*

*Possible loss in water sand (480')  
and Glenada (1090'-1200')*

*Drill sands slow and circulate  
2-5 min prior to making connections  
in sand*

*Have vis, mud wt and 20m  
in recommended range prior  
to drilling sand*

*Thanks*

MUD ON HAND/USED	MUD ON HAND/USED
<input type="checkbox"/> Premium Gel	<input type="checkbox"/> P-10L
<input type="checkbox"/> Soda Ash	<input type="checkbox"/> PHPA
<input type="checkbox"/> Caustic Soda	<input type="checkbox"/> Drispac
<input type="checkbox"/> Super Lig	<input type="checkbox"/> C/S Hulls
<input type="checkbox"/> Lime	<input type="checkbox"/> Multi Seal

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REPRESENTATIVE <i>Rain Atkins</i>	HOME ADDRESS <i>Colts, Mo</i>	TELEPHONE <i>785 462 3412</i>
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