

CONFIDENTIAL

ORIGINAL

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1
September 1999
Form Must Be Typed

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

Operator: License # 5364
 Name: BEREN CORP
 Address: P O Box 20380
 City/State/Zip: Wichita, KS 67208
 Purchaser: _____
 Operator Contact Person: Jeremy Ensz
 Phone: (316) 265-3311
 Contractor: Name: BEREDCO
 License: 5147
 Wellsite Geologist: William Bynog
 Designate Type of Completion:
 New Well ___ Re-Entry ___ Workover
 ___ Oil ___ SWD ___ SIOW ___ Temp. Abd.
 ___ Gas ___ ENHR ___ SIGW
 Dry ___ Other (Core, WSW, Expl., Cathodic, etc)
 If Workover/Re-entry: Old Well Info as follows:
 Operator: _____
 Well Name: _____
 Original Comp. Date: _____ Original Total Depth: _____
 ___ Deepening ___ Re-perf. ___ Conv. to Enhr./SWD
 ___ Plug Back ___ Plug Back Total Depth
 ___ Commingled Docket No. _____
 ___ Dual Completion Docket No. _____
 ___ Other (SWD or Enhr.?) Docket No. _____
 5/4/2006 5/13/2006
 Spud Date or Date Reached TD Completion Date or
 Recompletion Date Recompletion Date

KCC

JUN 29 2006

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API No. 15 - 063-21625 -00-00
 County: Gove
50' N C SE NE Sec. 36 Twp. 14 S. R. 30 East West
1930' FNL _____ feet from S / N (circle one) Line of Section
660' FEL _____ feet from E / W (circle one) Line of Section
 Footages Calculated from Nearest Outside Section Corner:
 (circle one) NE SE NW SW
 Lease Name: Coberly B Well #: 3
 Field Name: Lundgren
 Producing Formation: _____
 Elevation: Ground: 2656' Kelly Bushing: 2667'
 Total Depth: 4390' Plug Back Total Depth: _____
 Amount of Surface Pipe Set and Cemented at 274 Feet
 Multiple Stage Cementing Collar Used? Yes No
 If yes, show depth set _____ Feet
 If Alternate II completion, cement circulated from _____
 feet depth to _____ w/ _____ sx cmt.
 Drilling Fluid Management Plan PA Alt II Ntt 07-1-08
 (Data must be collected from the Reserve Pit)
 Chloride content 3000 ppm Fluid volume 730 bbls
 Dewatering method used _____
 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 of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

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

Signature: [Signature]
 Title: Reservoir Engineering Tech Date: 06-28-2006
 Subscribed and sworn to before me this 29th day of June
2006.
 Notary Public: [Signature]
 Date Commission Expires: Aug 10, 2007

KCC Office Use ONLY

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

**RECEIVED
JUL 05 2006**

KCC WICHITA

**DIANA E PLOTNER
NOTARY PUBLIC
STATE OF KANSAS**
 My Appt. Exp. 8/10/07

BEREXCO INC.

06/29/07

June 29, 2006

Kansas Corporation Commission
Oil & Gas Conservation Division
130 S. Market, Room 2078
Wichita, KS 67202

KCC
JUL 29 2006
CONFIDENTIAL


RE: Request for Confidentiality
Coberly B #3
50' N C-SE NE
Section 36- 14S- 30W
Gove County, Kansas
API # 15-063-21625

Gentlemen;

BEREXCO, INC. requests that the enclosed information be held confidential for one year per K.A.R. Rule 82-3-107 (e).

Please do not hesitate to contact me if you have any questions.

Sincerely,



William B Lamb
Reservoir Engineering Tech
BEREXCO, INC.
316-265-3311
bill@berexco.com

Encls: Form ACO-1 (Original & 2 copies)
Form CP-4
Cementing Ticket (Surface Casing)
Cementing Ticket (Well Plugging)
Microlog
Dual Compensated Porosity Log
Dual Induction Log
Geologist's Report
DST Report (#1, #2, #3, #4 & #5)

RECEIVED
JUL 05 2006
KCC WICHITA

Operator Name: BEREN CORP Lease Name: Coberly B Well #: 3
 Sec. 36 Twp. 14 S. R. 30 East West County: Gove

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	2086'	+581
Electric Log Run <i>(Submit Copy)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner	3678'	-1011
List All E. Logs Run:		LKC	3712'	-1045
		BKC	4042'	-1375
		Marmaton	4058'	-1391
		Fort Scott	4212'	-1545
		Mississippi	4314'	-1647

CNL, DIL, Microlog

CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4"	8-5/8"	20	270'	common	180	2% gel, 3% CC

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	n/a			

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
	n/a	n/a	

TUBING RECORD		Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or Enhr.		Producing Method				
Estimated Production Per 24 Hours		Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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

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

Production Interval _____

RECEIVED
 JUL 05 2006
 KCC WICHITA

ALLIED CEMENTING CO., INC. 23742

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

JUN 29 2006

SERVICE POINT: Oakley

CONFIDENTIAL

DATE <u>5-13-06</u>	SEC. <u>36</u>	TWP. <u>14^s</u>	RANGE <u>30^w</u>	CALLED OUT	ON LOCATION <u>8:00 PM</u>	JOB START <u>9:45 PM</u>	JOB FINISH <u>Midnite</u>
LEASE <u>Coberly #3</u>				LOCATION <u>Gove 108-6W-1 1/2 S</u>	COUNTY <u>Gove</u>	STATE <u>Kan</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Beredco Drils #10

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 4390'

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4" ~~4 1/2"~~ DEPTH _____

TOOL 4" DEPTH 2085

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

OWNER Same

CEMENT AMOUNT ORDERED 190 SKS @ 6% Gel, 1/4" Flo-Seal

COMMON	<u>114 SKS</u>	@	<u>11⁰⁰</u>	<u>1,254⁰⁰</u>
POZMIX	<u>76 SKS</u>	@	<u>5²⁰</u>	<u>395²⁰</u>
GEL	<u>10 SKS</u>	@	<u>15⁰⁰</u>	<u>150⁰⁰</u>
CHLORIDE		@		
ASC		@		
<u>Flo-Seal 48#</u>		@	<u>1⁸⁰</u>	<u>86⁴⁰</u>
RECEIVED				
JUL 05 2006				
KCC WICHITA				
HANDLING	<u>202 SKS</u>	@	<u>1⁷⁰</u>	<u>343⁴⁰</u>
MILEAGE	<u>7 1/2 per SK mile</u>			<u>650⁴⁴</u>
TOTAL				<u>2,879⁴⁴</u>

EQUIPMENT

PUMP TRUCK # 102 CEMENTER Walt HELPER Tarrad

BULK TRUCK # 399 DRIVER Alan

BULK TRUCK # _____ DRIVER _____

REMARKS:

25 SKS @ 2085'
100 SKS @ 1150'
40 SKS @ 320'
10 SKS @ 40'
15 SKS in R.H.

CHARGE TO: Beren Corp

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			<u>825⁰⁰</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>46-miles</u>	@	<u>5⁰⁰</u> <u>230⁰⁰</u>
MANIFOLD		@	
TOTAL <u>1,055⁰⁰</u>			

PLUG & FLOAT EQUIPMENT

<u>1- D.H. Plug 8 5/8</u>	@	<u>35⁰⁰</u>
	@	
	@	
	@	
	@	
TOTAL <u>35⁰⁰</u>		

To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Charles Schupp

PRINTED NAME

ALLIED CEMENTING CO., INC. 23972

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

JUN 29 2006

SERVICE POINT:
OKLEY

CONFIDENTIAL

DATE <u>5-4-06</u>	SEC. <u>36</u>	TWP. <u>14S</u>	RANGE <u>30W</u>	CALLED OUT	ON LOCATION <u>12:45AM</u>	JOB START <u>5:00AM</u>	JOB FINISH <u>5:30AM</u>
LEASE <u>COBERLY "B"</u>	WELL# <u>3</u>	LOCATION <u>GOVE 105-50-1/2S-W 30</u>		COUNTY <u>GOVE</u>	STATE <u>KS</u>		
OLD OR <u>(NEW)</u> (Circle one)							

CONTRACTOR BERENCO RIG # 10

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4" T.D. 275'

CASING SIZE 8 3/8" DEPTH 270'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15'

PERFS. _____

DISPLACEMENT 16 1/4 BBL

OWNER SAME

CEMENT AMOUNT ORDERED 180 SKs com 3% CC 2% GEL

COMMON	<u>180 SKs</u>	@	<u>11%</u>	<u>1980</u>
POZMIX		@		
GEL	<u>3 SKs</u>	@	<u>15%</u>	<u>45</u>
CHLORIDE	<u>6 SKs</u>	@	<u>42%</u>	<u>252</u>
ASC		@		
RECEIVED				
JUL 05 2006				
KCC WICHITA				
HANDLING	<u>189 SKs</u>	@	<u>17%</u>	<u>321</u>
MILEAGE	<u>74 PER SK / MILE</u>			<u>608</u>
TOTAL				<u>3206</u>

EQUIPMENT

PUMP TRUCK CEMENTER TERRY

191 HELPER WAYNE

BULK TRUCK DRIVER KELLY

377

BULK TRUCK DRIVER _____

REMARKS:

CEMENT did CIRC.

THANK YOU

CHARGE TO: BEREN CORP.

STREET _____

CITY _____ STATE _____ ZIP _____

SERVICE

DEPTH OF JOB	<u>270'</u>		
PUMP TRUCK CHARGE			<u>735</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>46 MF</u>	@	<u>5%</u> <u>230</u>
MANIFOLD		@	
TOTAL <u>965</u>			

PLUG & FLOAT EQUIPMENT

<u>3 1/2 SURFACE plug</u>			<u>55</u>
	@		
	@		
	@		
	@		
TOTAL <u>55</u>			

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE Maurice B. Julian

PRINTED NAME _____

MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT

REPORT NO. 2

DATE 5-3-2014 DEPTH 1630

API WELL NO. STATE COUNTY

OPERATOR <u>Reeco</u>		CONTRACTOR <u>Reeco</u>		RIG NO. <u>11</u>	
ADDRESS		ADDRESS		SPUD DATE <u>5-3-14</u>	
REPORT FOR MR.		REPORT FOR MR.		SECTION, TOWNSHIP, RANGE <u>16 14 30</u>	

WELL NAME AND NO. <u>3-B C-30</u>		FIELD OR BLOCK NO.	COUNTY <u>Osage</u>	STATE <u>Kansas</u>
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OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
PRESENT ACTIVITY <u>Drill</u>		SURFACE		HOLE PITS		PUMP SIZE X IN.		ANNULAR VEL. (FT./MIN.)	
BIT SIZE (IN.) NO. <u>7/8 2</u>		INTERMEDIATE		TOTAL CIRCULATING VOLUME <u>500</u>		PUMP MAKE		OPPOSITE DP <u>124</u>	
DRILL PIPE SIZE TYPE <u>4 1/2 4H</u>		PRODUCTION OR LINER		IN STORAGE		MODEL <u>Idcon</u>		OPPOSITE COLLAR <u>344</u>	
DRILL COLLAR LENGTH SYSTEM <u>6 1/4 498</u>		MUD TYPE <u>Reeco</u>		BBL/MIN. <u>137</u>		STROKE/MIN. <u>11</u>		CIRCULATING PRESSURE PSI <u>900</u>	
BBL/MIN. <u>7.17</u>								BOTTOMS UP (MIN.) <u>16</u>	
								SYSTEM TOTAL (MIN.) <u>18</u>	

Sample from <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit	MUD PROPERTIES	DAILY COST <u>810.37</u>	CUMULATIVE COST <u>810.37</u>
Flowline Temperature °F			

Time Sample Taken	(AM) PM	<u>2:10</u>		MUD PROPERTIES SPECIFICATIONS		
Depth (ft)		<u>1630</u>		WEIGHT	VISCOSITY	FILTRATE
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>8.6</u>		<u>1000 cc water</u>		
Mud Gradient (psi/ft)		<u>0.147</u>		BY AUTHORITY <input checked="" type="checkbox"/> OPERATOR'S WRITTEN <input type="checkbox"/> DRILLING CONTRACTOR <input type="checkbox"/> OPERATOR'S REPRESENTATIVE <input type="checkbox"/> OTHER		
Funnel Viscosity (sec/qt) API at _____ °F		<u>27</u>		MATERIALS RECOMMENDED		
Plastic Viscosity cp at _____ °F		<u>7</u>		<i>[Handwritten Recommendations]</i>		
Yield Point (lb/100 sq ft)		<u>11</u>				
Gel Strength (lb/100 sq ft) 10 sec/10 min		<u>11</u>	<u>11</u>			
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter		<u>10</u>				
Filtrate API (ml/30 min)		<u>16</u>				
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>		<u>1</u>				
Alkalinity, Mud (P _m)		<u>11</u>				
Alkalinity, Filtrate (P _f /M _f)		<u>11</u>	<u>11</u>			
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm		<u>11</u>	<u>11</u>			
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>410</u>				
Sand Content (% by Vol)		<u>20</u>				
Solids Content (% by Vol)		<u>20</u>				
Oil Content (% by Vol)		<u>20</u>				
Water Content (% by Vol)		<u>78.1</u>				
L.C.M. #/bbl		<u>20</u>				
Preservative #/bbl		<u>20</u>				

MUD ON HAND/USED		MUD ON HAND/USED	
<u>31</u>	Premium Gel <u>32</u>	<u>5</u>	Drillpac <u>5</u>
<u>16</u>	Soda Ash <u>35</u>	<u>1400</u>	C/S Hulls <u>1</u>
<u>19</u>	Caustic Soda <u>19</u>		Multi Seal
<u>20</u>	Super Lig <u>20</u>		Cedar Fiber
<u>1</u>	Lime <u>6</u>		Cello Flake

[Handwritten notes and recommendations, including '1000 cc water', '1000 cc cement slurry', '1000 cc bentonite', '1000 cc dispersant', '1000 cc defoamer', '1000 cc scale inhibitor', '1000 cc biocide', '1000 cc corrosion inhibitor', '1000 cc lost circulation material', '1000 cc lost circulation additive', '1000 cc lost circulation agent', '1000 cc lost circulation material', '1000 cc lost circulation additive', '1000 cc lost circulation agent']

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>David H. ...</u>	HOME ADDRESS <u>...</u>	TELEPHONE <u>...</u>
MOBILE UNIT <u>785 294 2441</u>	WAREHOUSE LOCATION <u>...</u>	TELEPHONE <u>...</u>

MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT REPORT NO. 3

DATE 3-6-20 DEPTH 2995

API WELL NO. STATE COUNTY

OPERATOR B. McCoy CONTRACTOR B. McCoy RIG NO. 1

ADDRESS _____ ADDRESS _____ SPUD DATE 2-3-11

REPORT FOR MR. _____ REPORT FOR MR. _____ SECTION, TOWNSHIP, RANGE 36 14 30

WELL NAME AND NO. 2-B Ciba FIELD OR BLOCK NO. _____ COUNTY Bone STATE Ks

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA			
PRESENT ACTIVITY <u>Drilling</u>		SURFACE IN. at <u>274</u> FT.		HOLE PITS <u>283</u> <u>400</u>		PUMP SIZE X IN. <u>L</u> <u>14</u>		ANNULAR VEL. (FT./MIN.) OPPOSITE DP <u>184</u>	
BIT SIZE (IN.) NO. <u>7 7/8</u>		INTERMEDIATE IN. at _____ FT.		TOTAL CIRCULATING VOLUME <u>223</u>		PUMP MAKE MODEL <u>1100</u>		OPPOSITE COLLAR <u>124</u>	
DRILL PIPE SIZE TYPE <u>1 1/2</u> <u>XH</u>		PRODUCTION OR LINER IN. at _____ FT.		IN STORAGE		BBL/STROKE STROKE/MIN <u>137</u> <u>26</u>		CIRCULATING PRESSURE PSI <u>950</u>	
DRILL COLLAR LENGTH SIZE <u>1 1/4</u> <u>428</u>		MUD TYPE <u>Premium</u>				BBL/MIN. <u>227</u>		BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.) <u>21</u>	

Sample from Flowline Pit Flowline Temp.ature _____ °F

MUD PROPERTIES DAILY COST 2120 CUMULATIVE COST 2922

Time Sample Taken	(AM) PM	<u>7:40</u>		
Depth (ft)				
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>9.0</u>		
Mud Gradient (psi/ft)		<u>4.68</u>		
Funnel Viscosity (sec/qt) API at _____ °F		<u>29</u>		
Plastic Viscosity cp at _____ °F		<u>1</u>		
Yield Point (lb/100 sq ft)		<u>1</u>		
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>7.0</u>		
Filtrate API (ml/30 min)		<u>110</u>		
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>		<u>2</u>		
Alkalinity, Mud (P _m)		<u>1</u>		
Alkalinity, Filtrate (P _f /M _f)		<u>1</u>	<u>1</u>	<u>1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm		<u>1900</u>		
Calcium <input checked="" type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>225</u>		
Sand Content (% by Vol)				
Solids Content (% by Vol)		<u>4.0</u>		
Oil Content (% by Vol)				
Water Content (% by Vol)		<u>64.0</u>		
L.C.M. #/bbl		<u>11</u>		
Preservative #/bbl				

MUD PROPERTIES SPECIFICATIONS

WEIGHT 9.4 VISCOSITY _____ FILTRATE _____

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

MATERIALS RECOMMENDED

Handwritten notes:

1. 100 lb of ...
2. ...
3. ...
4. ...
5. ...
6. ...
7. ...
8. ...
9. ...
10. ...

MUD ON HAND/USED		MUD ON HAND/USED	
<u>185</u>	<u>126</u>	<u>4</u>	<u>1</u>
<u>20</u>	<u>5</u>	<u>74</u>	<u>6</u>
<u>14</u>	<u>5</u>		
<u>15</u>	<u>5</u>		
<u>1</u>			

Premium Gel
Soda Ash
Caustic Soda
Super Lig
Lime

Drillpac
C/S Hulls
Multi Seal
Cedar Fiber
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 Mike Haring HOME ADDRESS City St TELEPHONE 316-264-2814

MOBILE UNIT 316-264-2814 WAREHOUSE LOCATION City St TELEPHONE 316-264-2814

MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT

REPORT NO. 1

DATE 7-20-02 DEPTH 2460

API WELL NO. STATE COUNTY

OPERATOR <u>Brown</u>	CONTRACTOR <u>Brown</u>	RIG NO. <u>11</u>
ADDRESS <u>Brown</u>	ADDRESS <u>Brown</u>	SPUD DATE <u>7-20-02</u>
REPORT FOR MR.	REPORT FOR MR.	SECTION, TOWNSHIP, RANGE <u>18 14 30</u>

WELL NAME AND NO. 2-5-1-1 FIELD OR BLOCK NO. 1 COUNTY Cherokee STATE KS

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <u>Drilling</u>		SURFACE IN. at <u>244</u> FT.		HOLE PITS <u>244</u> <u>400</u>		PUMP SIZE X IN. <u>2</u> <u>11</u>	ANNULAR VEL. (FT./MIN.) OPPOSITE DP <u>124</u>
BIT SIZE (IN.) NO. <u>7 7/8</u> <u>2</u>		INTERMEDIATE IN. at FT.		TOTAL CIRCULATING VOLUME <u>617</u>		PUMP MAKE	OPPOSITE COLLAR <u>244</u>
DRILL PIPE SIZE TYPE <u>1 7/8</u> <u>API</u>		PRODUCTION OR LINER IN. at FT.		IN STORAGE		MODEL <u>11000</u>	CIRCULATING PRESSURE PSI <u>90</u>
DRILL COLLAR SIZE LENGTH <u>2 1/4</u> <u>498</u>		MUD TYPE <u>Clay</u>				BBL/STROKE STROKE/MIN <u>1.17</u> <u>16</u>	BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.) <u>36</u> <u>22</u>

Sample from Flowline Pit Flowline Temp. 97 MUD PROPERTIES DAILY COST 2017.49 CUMULATIVE COST 4940.26

Time Sample Taken	AM <u>7:15</u> PM	Depth (ft)	<u>2460</u>
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)	<u>9.2</u>	Mud Gradient (psi/ft)	<u>4.83</u>
Funnel Viscosity (sec/qt) API at <u>31</u> °F		Plastic Viscosity cp at <u>16</u> °F	
Yield Point (lb/100 sq ft)	<u>19</u>	Gel Strength (lb/100 sq ft) 10 sec/10 min	<u>1237</u> 1 1
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter	<u>9.5</u>	Filtrate API (ml/30 min)	<u>8.8</u>
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>	<u>1</u>	Alkalinity, Mud (P _m)	<u>7</u> 1 1
Alkalinity, Filtrate (P _f /M _f)	<u>7</u> 1 1	Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>2200</u>
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)	<u>10</u>	Sand Content (% by Vol)	<u>1.2</u>
Solids Content (% by Vol)	<u>1.7</u>	Oil Content (% by Vol)	
Water Content (% by Vol)	<u>91.3</u>	L.C.M. #/bbl	<u>10000</u>
Preservative #/bbl			

MUD PROPERTIES SPECIFICATIONS
WEIGHT 9.2 VISCOSITY 45-50 FILTRATE 8.8
BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR
 OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED
15 lb cement
1 lb soda ash
1/2 lb lignite
Use 45-50 50/60
10-100 mesh
3-50 mesh
1 caustic
1/2 lignite
1/2-1-11-11
GI

MUD ON HAND/USED	MUD ON HAND/USED
<u>74</u> <u>111</u> Premium Gel	<u>3</u> <u>1</u> Drillpac
<u>15</u> <u>5</u> Soda Ash	<u>74</u> <u>20</u> C/S Hulls
<u>10</u> <u>4</u> Caustic Soda	
<u>11</u> <u>2</u> Super Lig	
<u>1</u> Lime	

10-100 mesh
3-50 mesh
1 caustic
1/2 lignite
1/2-1-11-11
GI

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>Paul Atherton</u>	HOME ADDRESS <u>Paul Atherton</u>	TELEPHONE <u>316-264-2814</u>
MOBILE UNIT <u>316-264-2814</u>	WAREHOUSE LOCATION <u>Paul Atherton</u>	TELEPHONE <u>316-264-2814</u>

MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT REPORT NO. 5

DATE 5-8-2012 DEPTH 2790

API WELL NO. STATE COUNTY

OPERATOR <u>Beaco</u>	CONTRACTOR <u>Beaco</u>	RIG NO. <u>10</u>
ADDRESS	ADDRESS	SPUD DATE
REPORT FOR MR.	REPORT FOR MR.	SECTION, TOWNSHIP, RANGE <u>5 2 6</u>

WELL NAME AND NO. 3 B Curbu FIELD OR BLOCK NO. COUNTY Good STATE Ks

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <u>1st</u>	SURFACE	HOLE	PITS	PUMP SIZE X IN.	ANNULAR VEL. (FT./MIN.)	OPPOSITE DP	
BIT SIZE (IN.) <u>7/8</u>	IN. at <u>271</u> FT.	<u>294</u>	<u>100</u>	<u>6</u> X <u>11</u>	<u>189</u>		
NO.	INTERMEDIATE	TOTAL CIRCULATING VOLUME		PUMP MAKE	OPPOSITE COLLAR		
<u>245</u>	IN. at	<u>687</u>		MODEL <u>1000</u>	<u>344</u>		
DRILL PIPE SIZE TYPE <u>1 1/2</u> <u>4H</u>	PRODUCTION OR LINER	IN STORAGE		BBL/STROKE STROKE/MIN	CIRCULATING PRESSURE PSI		
DRILL COLLAR LENGTH SIZE <u>6 1/4</u> <u>498</u>	IN. at			<u>137</u> <u>26</u>	BOTTOMS UP (MIN.)		
	MUD TYPE <u>Chemical</u>			BBL/MIN. <u>1.57</u>	SYSTEM TOTAL (MIN.)		<u>90-</u>

Sample from Flowline Pit Flowline Temp. ture °F MUD PROPERTIES DAILY COST -0- CUMULATIVE COST 7940.26

Time Sample Taken	AM <u>9:45</u> PM		
Depth (ft)	<u>2790</u>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)	<u>9.2</u>		
Mud Gradient (psi/ft)	<u>1.178</u>		
Funnel Viscosity (sec/qt) API at _____ °F	<u>12</u>		
Plastic Viscosity cp at _____ °F	<u>14</u>		
Yield Point (lb/100 sq ft)	<u>18</u>		
Gel Strength (lb/100 sq ft) 10 sec/10 min	<u>10/11</u> <u>1</u> <u>1</u>		
pH <input checked="" type="checkbox"/> Strip <input type="checkbox"/> Meter	<u>9.5</u>		
Filtrate API (ml/30 min)	<u>5.8</u>		
Cake Thickness 32nd in API <input checked="" type="checkbox"/> HP-HT <input type="checkbox"/>	<u>1</u>		
Alkalinity, Mud (P _m)			
Alkalinity, Filtrate (P _f /M _f)	<u>11</u> <u>1</u> <u>1</u>		
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm	<u>3200</u>		
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)	<u>80</u>		
Sand Content (% by Vol)	<u>7.0</u>		
Solids Content (% by Vol)	<u>6.1</u>		
Oil Content (% by Vol)			
Water Content (% by Vol)	<u>62.9</u>		
L.C.M. #/bbl	<u>10ACE</u>		
Preservative #/bbl			

MUD PROPERTIES SPECIFICATIONS WEIGHT 92.94 VISCOSITY 45-50 FILTRATE 10

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

MATERIALS RECOMMENDED

Vis 45 50 50/60

100 200 300

3.000g

1.0000g

1/2 1/4 1/8

1/2 1/4 1/8

100 200 300

5 4 1 1

Light mud up 2200'

with water at 2700'

1000 2000 3000

MUD ON HAND/USED	MUD ON HAND/USED
<u>77</u> Premium Gel	<u>3</u> Drillpac
<u>15</u> Soda Ash	<u>74</u> C/S Hulls
<u>10</u> Caustic Soda	
<u>11</u> Super Lig	
<u>1</u> Lime	

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>David Baker</u>	HOME ADDRESS <u>Osage</u>	TELEPHONE <u>785 962 2412</u>
MOBILE UNIT <u>316 264 2811</u>	WAREHOUSE LOCATION <u>215 2</u>	TELEPHONE <u>785 962 2412</u>

MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT

REPORT NO. 1

DATE 2-9 2011 DEPTH 3900

API WELL NO. STATE COUNTY

OPERATOR Bowser CONTRACTOR Bowser RIG NO. 10

ADDRESS Bowser ADDRESS Bowser SPUD DATE 5 3 11

REPORT FOR MR. Leiker REPORT FOR MR. Leiker SECTION, TOWNSHIP, RANGE 14 14 21

WELL NAME AND NO. 2-5 Caboch FIELD OR BLOCK NO. 14 COUNTY Bar STATE Kansas

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <u>DSI 2</u>		SURFACE IN. at <u>274</u> FT.		HOLE PITS <u>292</u>		PUMP SIZE X IN. <u>4 1/2</u>	ANNULAR VEL. (FT./MIN.) <u>187</u>
BIT SIZE (IN.) NO. <u>1 7/8</u> <u>2</u>		INTERMEDIATE IN. at FT.		TOTAL CIRCULATING VOLUME <u>600</u>		PUMP MAKE	OPPOSITE DP <u>44</u>
DRILL PIPE SIZE TYPE <u>4 1/2</u> <u>211</u>		PRODUCTION OR LINER IN. at FT.		IN STORAGE		MODEL <u>1100</u>	OPPOSITE COLLAR <u>44</u>
DRILL COLLAR SIZE <u>1 1/4</u> <u>108</u>		MUD TYPE <u>Chemical</u>				BBL/STROKE STROKE/MIN <u>1.7</u> <u>34</u>	CIRCULATING PRESSURE PSI
						BBL/MIN <u>7.67</u>	BOTTOMS UP (MIN.) <u>38</u>
							SYSTEM TOTAL (MIN.) <u>90</u>

Sample from Flowline Pit Flowline Temp. °F

MUD PROPERTIES DAILY COST 47 CUMULATIVE COST 1987.26

Time Sample Taken	AM	PM		
Depth (ft)			<u>3900</u>	
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)			<u>9.3</u>	
Mud Gradient (psi/ft)			<u>183</u>	
Funnel Viscosity (sec/qt) API at °F			<u>44</u>	
Plastic Viscosity cp at °F			<u>12</u>	
Yield Point (lb/100 sq ft)			<u>14</u>	
Gel Strength (lb/100 sq ft) 10 sec/10 min			<u>816</u>	<u>1</u> <u>1</u>
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter			<u>9.0</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 _m)				
Alkalinity, Filtrate (P _f /M _f)			<u>4</u>	<u>1</u> <u>1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg			<u>2400</u>	
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)			<u>80</u>	
Sand Content (% by Vol)			<u>10</u>	
Solids Content (% by Vol)			<u>6.8</u>	
Oil Content (% by Vol)				
Water Content (% by Vol)			<u>93.2</u>	
L.C.M. #/bbl			<u>70ACT</u>	
Preservative #/bbl				

MUD PROPERTIES SPECIFICATIONS

WEIGHT 9.3 VISCOSITY 46-50 FILTRATE 8.0

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

MATERIALS RECOMMENDED

Reise + materials vis 46-50

1st add 100 gal water

show 2 bags

2 cubic

1/2 1 quart

1/2 drill pipe

thicker with gel

Agitated mud at 209.4'

with water at 4000'

prevent cement

100 gal water

MUD ON HAND/USED		MUD ON HAND/USED	
<u>74</u>	Premium Gel	<u>3</u>	Drillpac
<u>14</u>	Soda Ash	<u>70</u>	C/S Hulls
<u>10</u>	Caustic Soda	<u>4</u>	Multi Seal
<u>11</u>	Super Lig		Cedar Fiber
<u>1</u>	Lime		Cello Flake

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REPRESENTATIVE Paul Hill HOME ADDRESS Paul Hill TELEPHONE 316 264 2814

MOBILE UNIT 316 264 2814 WAREHOUSE LOCATION Paul Hill TELEPHONE 316 264 2814

MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT

REPORT NO. 7

DATE 5-10-16 DEPTH 3992

API WELL NO. STATE COUNTY

OPERATOR <u>Bowyer</u>	CONTRACTOR <u>Bowyer</u>	RIG NO. <u>10</u>
ADDRESS	ADDRESS	SPUD DATE <u>5-8-16</u>
REPORT FOR MR. <u>Bowyer</u>	REPORT FOR MR. <u>Bowyer</u>	SECTION, TOWNSHIP, RANGE <u>26 14 20</u>

WELL NAME AND NO. 2-13 C-10-14 FIELD OR BLOCK NO. 1 COUNTY Go. Co. STATE Kansas

OPERATION		CASING		MUD VOLUME (BBL)		CIRCULATION DATA	
PRESENT ACTIVITY <u>OST</u>		SURFACE <u>9 3/4</u> IN. at <u>274</u> FT.		HOLE <u>300</u> PITS		PUMP SIZE X IN. <u>6</u> X <u>1 1/2</u>	ANNULAR VEL. (FT./MIN.) <u>184</u>
BIT SIZE (IN.) <u>7 1/2</u>	NO. <u>2</u>	INTERMEDIATE		TOTAL CIRCULATING VOLUME <u>700</u>		PUMP MAKE	OPPOSITE DP <u>244</u>
DRILL PIPE SIZE <u>1 1/2</u>	TYPE <u>2 1/4</u>	IN. at FT.		IN STORAGE		MODEL <u>John</u>	OPPOSITE COLLAR <u>244</u>
DRILL COLLAR SIZE <u>1 1/4</u>	LENGTH <u>48</u>	PRODUCTION OR LINER				BBL/STROKE STROKE/MIN <u>137</u> <u>56</u>	CIRCULATING PRESSURE PSI
		IN. at FT.				BBL/MIN <u>741</u>	BOTTOMS UP (MIN.) <u>39</u>
		MUD TYPE <u>Chemical</u>					SYSTEM TOTAL (MIN.) <u>91</u>

Sample from Flowline Pit Flowline Temp. °F MUD PROPERTIES DAILY COST 855.92 CUMULATIVE COST 5823.18

Time Sample Taken	(AM) PM	<u>8:45</u>		
Depth (ft)		<u>3992</u>		
Weight <input checked="" type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>9.2</u>		
Mud Gradient (psi/ft)		<u>1183</u>		
Funnel Viscosity (sec/qt) API at <u> </u> °F		<u>45</u>		
Plastic Viscosity cp at <u> </u> °F		<u>13</u>		
Yield Point (lb/100 sq ft)		<u>16</u>		
Gel Strength (lb/100 sq ft) 10 sec/10 min		<u>1122</u>	<u>1</u>	<u>1</u>
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter		<u>9.0</u>		
Filtrate API (ml/30 min)		<u>96</u>		
Cake Thickness 32nd in API <input type="checkbox"/> HP-HT <input type="checkbox"/>		<u>1</u>		
Alkalinity, Mud (P _m)		<u>5</u>	<u>1</u>	<u>1</u>
Alkalinity, Filtrate (P _f /M _f)		<u>5</u>	<u>1</u>	<u>1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride <input type="checkbox"/> ppm <input type="checkbox"/> gpg		<u>2700</u>		
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>80</u>		
Sand Content (% by Vol)		<u>70</u>		
Solids Content (% by Vol)		<u>67</u>		
Oil Content (% by Vol)		<u> </u>		
Water Content (% by Vol)		<u>923</u>		
L.C.M. #/bbl		<u>2300</u>		
Preservative #/bbl		<u> </u>		

MUD PROPERTIES SPECIFICATIONS

WEIGHT <u>9.2-9.4</u>	VISCOSITY <u>46-50</u>	FILTRATE <u>10</u>
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BY AUTHORITY OPERATOR'S WRITTEN DRILLING CONTRACTOR OPERATOR'S REPRESENTATIVE OTHER

MATERIALS RECOMMENDED

Vis 46-50 suph
100-110 ml/30 min
2-3% clay
2-3% water
1% lignite
45-50 lb/cu ft
11.5-12.5 sp/ft

Controlled at 9.2-9.4
with water at 11.5-12.5

2000-2300

MUD ON HAND/USED		MUD ON HAND/USED	
<u>42</u>	<u>22</u>	<u>2</u>	<u>1</u>
<u>11</u>	<u>3</u>	<u>69</u>	<u>2</u>
<u>8</u>	<u>2</u>		
<u>10</u>	<u>1</u>		
<u>1</u>			

Premium Gel
Soda Ash
Caustic Soda
Super Lig
Lime

Drillpac
C/S Hulls
Multi Seal
Cedar Fiber
Cello Flake

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REPRESENTATIVE <u>David Williams</u>	HOME ADDRESS <u> </u>	TELEPHONE <u>462-346</u>
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MUD-CO / SERVICE MUD INC.

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

DRILLING MUD REPORT

REPORT NO. 9

DATE 5-11-2016 DEPTH 4186'

API WELL NO.

STATE COUNTY

OPERATOR Benson

CONTRACTOR Benson

RIG NO. 110

ADDRESS

ADDRESS

SPUD DATE 5-9-16

REPORT FOR MR. S. Benson

REPORT FOR MR. S. Benson

SECTION, TOWNSHIP, RANGE 26 11 22

WELL NAME AND NO. 3-B Ch 1

FIELD OR BLOCK NO. 1

COUNTY Butler

STATE Ks

OPERATION		CASING	
PRESENT ACTIVITY <u>DST</u>		SURFACE	
BIT SIZE (IN.) <u>7/8</u>	NO. <u>2</u>	IN. at <u>311</u>	FT. <u></u>
DRILL PIPE SIZE <u>4 1/2</u>		INTERMEDIATE	
TYPE <u>XH</u>		IN. at <u></u>	FT. <u></u>
DRILL COLLAR SIZE <u>2 1/2</u>		PRODUCTION OR LINER	
LENGTH <u>198</u>		IN. at <u></u>	FT. <u></u>
MUD TYPE <u>Water</u>			

MUD VOLUME (BBL)	
HOLE PITS	<u>214 400'</u>
TOTAL CIRCULATING VOLUME	<u>617</u>
IN STORAGE	

CIRCULATION DATA			
PUMP SIZE X IN.	<u>1 1/2</u>	ANNULAR VEL. (FT./MIN.)	<u>187</u>
PUMP MAKE	<u>11</u>	OPPOSITE DP	<u>241</u>
MODEL	<u>J-Lucas</u>	OPPOSITE COLLAR	<u>241</u>
BBL/STROKE	<u>137</u>	STROKE/MIN	<u>56</u>
BBL/MIN.	<u>7.11</u>	CIRCULATING PRESSURE PSI	<u>200</u>
		BOTTOMS UP (MIN.)	<u>34</u>
		SYSTEM TOTAL (MIN.)	<u>26</u>

Sample from Flowline Pit
Flowline Temp Pit Temp

MUD PROPERTIES

DAILY COST 406 32%

CUMULATIVE COST 6229 50%

Time Sample Taken	AM PM		
Depth (ft)	<u>AM</u>	<u>8:30</u>	<u>4186</u>
Weight <input type="checkbox"/> (ppg) <input type="checkbox"/> (lb/cu ft)		<u>9.7</u>	
Mud Gradient (psi/ft)		<u>1.182</u>	
Funnel Viscosity (sec/qt) API at <u>25</u> °F		<u>119</u>	
Plastic Viscosity cp at <u>25</u> °F		<u>14</u>	
Yield Point (lb/100 sq ft)		<u>17</u>	
Gel Strength (lb/100 sq ft) 10 sec/10 min		<u>1150</u>	<u>1 1</u>
pH <input type="checkbox"/> Strip <input type="checkbox"/> Meter		<u>10.5</u>	
Filtrate API (ml/30 min)		<u>80</u>	
Cake Thickness 32nd in API <input checked="" type="checkbox"/> HP-HT <input type="checkbox"/>		<u>1</u>	
Alkalinity, Mud (P _m)		<u>11</u>	<u>1 1</u>
Alkalinity, Filtrate (P _f /M _f)		<u>11</u>	<u>1 1</u>
Salt <input type="checkbox"/> ppm <input type="checkbox"/> Chloride <input type="checkbox"/> ppm		<u>3400</u>	
Calcium <input type="checkbox"/> ppm <input type="checkbox"/> Gyp (ppb)		<u>10</u>	
Sand Content (% by Vol)		<u>1.0</u>	
Solids Content (% by Vol)		<u>7.6</u>	
Oil Content (% by Vol)		<u>1</u>	
Water Content (% by Vol)		<u>92.4</u>	
L.C.M. #/bbl		<u>TRACE</u>	
Preservative #/bbl			

MUD PROPERTIES SPECIFICATIONS

WEIGHT	VISCOSITY	FILTRATE
<u>9.7</u>	<u>46-50</u>	<u>11</u>

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

MATERIALS RECOMMENDED

Maintain vis 46-50
 Don't let it go below 40
 10-100-100
 7-500g
 1-cocaster
 46-19-16
 46-100-100
 1-100-100
 61

Cylinder 1 - B 1 1/2"
 with water at 400-100

1000-1-1-1
 1-1-1-1-1

MUD ON HAND/USED

<u>15324</u>	
<u>92</u>	
<u>12</u>	
<u>91</u>	
<u>1</u>	

Premium Gel 135
 Soda Ash
 Caustic Soda
 Super Lig
 Lime

MUD ON HAND/USED

<u>2</u>	
<u>17</u>	

Drillpac
 C/S Hulls
 Multi Seal
 Cedar Fiber
 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	HOME ADDRESS	TELEPHONE
<u>Rod Albin</u>	<u>2001 W</u>	<u>765 462 2412</u>
MOBILE UNIT	WAREHOUSE LOCATION	TELEPHONE
<u>107 624 8741</u>	<u>2001 W</u>	<u>765 462 2412</u>

MUD-CO

SERVICE MUD INC.

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

DRILLING MUD REPORT

REPORT NO. 98

DATE 5-12-2006 DEPTH 4234

API WELL NO. STATE COUNTY

OPERATOR, CONTRACTOR, RIG NO., ADDRESS, REPORT FOR MR., SECTION, TOWNSHIP, RANGE

WELL NAME AND NO., FIELD OR BLOCK NO., COUNTY, STATE

OPERATION, CASING, MUD VOLUME, CIRCULATION DATA, PRESENT ACTIVITY, SURFACE, HOLE, PITS, PUMP SIZE, ANNULAR VEL., BIT SIZE, INTERMEDIATE, TOTAL CIRCULATING VOLUME, PUMP MAKE, OPPOSITE DP, DRILL PIPE SIZE, TYPE, PRODUCTION OR LINER, IN STORAGE, MODEL, OPPOSITE COLLAR, DRILL COLLAR LENGTH, MUD TYPE, BBL/STROKE, STROKE/MIN, CIRCULATING PRESSURE PSI, BOTTOMS UP (MIN.), SYSTEM TOTAL (MIN.)

MUD PROPERTIES, DAILY COST, CUMULATIVE COST

MUD PROPERTIES SPECIFICATIONS, WEIGHT, VISCOSITY, FILTRATE, BY AUTHORITY, MATERIALS RECOMMENDED

MUD ON HAND/USED table with columns for material names and quantities.

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