

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

API NO. 15- 189-22340-0000
County Stevens **ORIGINAL**

Operator: License # 32119
Name: Northern Natural Gas
Address Route 1, Box 17

City/State/Zip Hugoton, KS 67951

- NW $\frac{1}{4}$ - NW $\frac{1}{4}$ - NW $\frac{1}{4}$ Sec. 26 Twp. 33S Rge. 37W X W
300' Feet from S (circle one) Line of Section
400' Feet from E/W (circle one) Line of Section

Purchaser: _____
Operator Contact Person: Mike Livesay
Phone (316) 544-5013
Contractor: Name: McLean, H.L. Drilling
License: 09322
Wellsite Geologist: _____

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

Lease Name Rectifier Well # #1
Field Name Rectifier

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

Producing Formation _____
Elevation: Ground _____ KB _____
Total Depth 320' PBTD _____
Amount of Surface Pipe Set and Cemented at 120' 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.

If Workover:
Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____
 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBTD
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____
4-26-00 8-8-00
Spud Date Date Reached TD Completion Date

Drilling Fluid Management Plan Alt 3-Dlog - 8/26/09
(Data must be collected from the Reserve Pit)

Chloride content _____ ppm Fluid volume _____ bbls
Dewatering method used _____

Location of fluid disposal if hauled offsite:
Dilloco Fluid Service, Inc.
513 West 4th Street Hugoton, KS 67951
Operator Name _____

Lease Name _____ License No. _____
_____ Quarter Sec. _____ Twp. _____ S Rng. _____ E/W
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 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 Cindy Cowan
Title _____ Date 8-17-2000
Subscribed by Patsy Vance _____ day of August
17th
Notary Public _____
Date Commission Expires May 30, 2001

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

RECEIVED
STATE CORPORATION COMMISSION
Form ACO-1 (7-91)

AUG 21 2000

CONSERVATION DIVISION
Wichita, Kansas

Operator Name Northern Natural Gas Lease Name Rectifier Well # 41

Sec. 26 Twp. 33S Rge. 37W East West County Stevens

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
(Attach Additional Sheets.)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No
(Submit Copy.)

List All E.Logs Run:

Log Formation (Top), Depth and Datum Sample

Name Rectifier 41 Top 41 Datum 41

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
	17 1/2"	10"		120'	Neat	125	Portland w/ water

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth		Type of Cement	#Sacks Used	Type and Percent Additives
	Top	Bottom			
<input type="checkbox"/> Perforate					
<input type="checkbox"/> Protect Casing					
<input type="checkbox"/> Plug Back TD					
<input type="checkbox"/> Plug Off Zone					

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

TUBING RECORD Size Set At Packer At Liner Run Yes No

Date of First, Resumed Production, SMD or Inj. Producing Method Flowing Pumping Gas Lift Other (Explain)

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

Disposition of Gas: METHOD OF COMPLETION Production Interval

Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled

(If vented, submit ACO-18.) Other (Specify)

JOB NO. _____

FACILITY/LINE _____

ORIGINAL

CLIENT Northern Natural Gas

DRILLING CONTRACTOR McLean's C P Installation, Inc.

SUBJECT Deep Well

DEPTH 320' DIA. 9 7/8" CASING 120' STATE Kassas COUNTY Stevens DATE _____

TYPE BACKFILL Loresco SC2 ANODE DESCRIPTION (1) set (15) 4"x80" graphite anodes

REMARKS: Agreement Number: 965005014 Work Offer #: 00404062
Test Voltage: 13.4

DEPTH FT.	GEOLOGICAL DRILLING LOG	ELECTRICAL LOG				ANODE NO.	ANODE DEPTH	FINAL PLACEMENT		
		VOLT	AMP	OHM				VOLT	AMP COKE	OHM
0'-5'	Top Soil	.5			130'					
5'-15'	Dirt	.5			140'					
15'-35'	Sandy Tan Clay	.4			150'					
35'-55'	Sandy clay	.5			160'					
55'-240'	Sandy Clay/w small gravel	.5			170'					
240'-320'	Red Sandy Clay	.5			180'					
		.5			190'					
		.4			200'					
		.5			210'					
		.4			220'					
		.3			230'					
		.8			240'					
		1.2			250'					
		.6			260'					
		1.2			270'					
		1.2			280'					
		1.1			290'					
		1.0			300'					
		.9			310'					
		.9			320'					

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 AUG 21 2000
 CONSERVATION DIVISION
 Wichita, Kansas



35571

Rt. 3 / 303 South Rd. I
Olysses, Kansas 67880
316) 356-2110

Box 142
Colby, Kansas 67701
(913) 462-7432

CUSTOMER'S ORDER NO. _____ DATE 8-7 2000

OLD TO Mr. Lantz

ADDRESS _____

DRIVER	CASH	CHARGE	ON ACCT.		
<u>AB</u>		<input checked="" type="checkbox"/>		<u>HT</u>	
QTY.	DESCRIPTION			PRICE	AMOUNT
	YDS	SACK CONCRETE			
		% CALCIUM CHLORIDE			
		OZ WRDA			
		OZ AIRE			
		<u>125 sack cement</u>			
		MILE HAUL			
		LBS OR % ROCK			
		HOT WATER			
<u>X</u>		SERV CHG ORD OF 1 TO 3 YDS			<u>15</u>
		WAITING TIME			
		TAX			
	YDS				
	MI HAUL				
RECEIVED BY NO. 100	<u>[Signature]</u>			TOTAL	

All claims and returned goods MUST be accompanied by this bill.

ALL PURCHASES MADE ON CREDIT DURING THE MONTH ARE DUE AND PAYABLE BY THE 10th OF THE FOLLOWING MONTH. ANY BALANCE NOT PAID BY THE 25th DAY OF THE FOLLOWING MONTH SHALL BE SUBJECT TO A FINANCE CHARGE COMPUTED AT A PERIODIC RATE OF 1½% PER MONTH, OR A MINIMUM CHARGE OF 50¢. THIS IS AN ANNUAL PERCENTAGE RATE OF 18%.

RECEIVED
STATE CORPORATION COMMISSION

AUG 21 2000

CONSERVATION DIVISION
Wichita, Kansas

COPY

DILCO FLUID SERVICE, INC.

513 West 4th Street
 PO Drawer 190
 Hugoton, KS 67951
 316-544-2929

DATE	INVOICE #
07/31/2000	2442

ORIGINAL

BILL TO
MCLEANS C. P. 4520 ST. HWY 136 AMARILLO, TX 79108

TERMS	PROJECT

QUANTITY	DESCRIPTION	RATE	AMOUNT
3.5	APCO 1E-1S - HUGOTON 8-7 VACUUM BT TO CLEAN OUT PIT KS Sales Tax		

RECEIVED
 STATE CORPORATION COMMISSION

AUG 21 2000

CONSERVATION DIVISION
 Wichita, Kansas

Interest rate of 1½% per month on unpaid balance
 if not paid in 30 days.

COPY

DILCO FLUID SERVICE, INC.

513 West 4th Street
 PO Drawer 190
 Hugoton, KS 67951
 316-544-2929

DATE	INVOICE #
08/11/2000	2494

ORIGINAL

BILL TO
MCLEANS C. P. 4520 ST. HWY 136 AMARILLO, TX 79108

PO NO	TERMS	PROJECT

QUANTITY	DESCRIPTION	RATE	AMOUNT
5 160	APCO 1E - 1S - HUGOTON 8-8 VACUUM TRUCK TO EMPTY PIT - 160 BBLs TO DISPOSAL DISPOSAL FEE KS Sales Tax		

RECEIVED
 STATE CORPORATION COMMISSION

 AUG 21 2000

 CONSERVATION DIVISION
 Wichita, Kansas

Interest rate of 1½% per month on unpaid balance
 if not paid in **30 days.**

COPY

DILLCO FLUID SERVICE, INC.

513 West 4th Street
 PO Drawer 190
 Hugoton, KS 67951
 316-544-2929

ORIGINAL

DATE	INVOICE #
08/07/2000	2405

BILL TO
MCLEANS C. P. 4520 ST. HWY 136 AMARILLO, TX 79108

PG NO.	TERMS	PROJECT

QUANTITY	DESCRIPTION	RATE	AMOUNT
5	8-4 VACUUM TRANSPORT KS Sales Tax		

RECEIVED
 STATE CORPORATION COMMISSION
 AUG 21 2000
 CONSERVATION DIVISION
 Wichita, Kansas

COPY

Interest rate of 1½% per month on unpaid balance
 if not paid in 30 days.