

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

Operator: License # 32119
Name: Northern Natural Gas
Address P.O. Box 178

City/State/Zip Cunningham, KS 67035
Purchaser: N/A
Operator Contact Person: Dan Dobbins
Phone (316) 298-5111
Contractor: Name: Pratt Well Service
License: 5893
Wellsite Geologist: None

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

If Workover: Gas Storage
Operator: Northern Natural Gas
Well Name: Conley 20-41
Comp. Date 8-3-78 Old Total Depth 4015'
 CEMENTED LINER IN PLACE
 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBDT
 Commingled Docket No.
 Dual Completion Docket No.
 Other (SWD or Inj?) Docket No.

7-8-97 7-19-97 10-16-97
 Date OF START Date Reached TD Completion Date OF
OF WORKOVER WORKOVER

API NO. 15- 095-20741-0001
County Kingman
E/2 - NW - SW - Sec. 20 Twp. 27S Rge. 19 X E
1903 Feet from S (circle one) Line of Section
900 Feet from E (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)
Lease Name Conley Well # 20-41
Field Name Cunningham
Producing Formation Simpson/Viola
Elevation: Ground 1691 KB 1700
Total Depth 4090 PBDT 4074
Amount of Surface Pipe Set and Cemented at 1388 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set Feet
If Alternate II completion, cement circulated from Surface
feet depth to 1387 w/ 650 sx cmt.

Drilling Fluid Management Plan REWORK JK 2-16-98
(Data must be collected from the Reserve Pit)
Chloride content 14,000 ppm Fluid volume 220 bbls
Dewatering method used N/A
Location of fluid disposal if hauled offsite:
Operator Name Geary Mud Disposal
Lease Name Gray License No. 284168
 Quarter Sec. 15 Twp. 14N ~~XXX~~ Rng. 7W ~~XXX~~
County Garfield Docket No. 284168

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 Dan Dobbins
Title Sr. Reservoir Analyst Date 12-16-97
Subscribed and sworn to before me this 16th day of December, 1997.
Notary Public Karen J. Collins
Date Commission Expires January 25, 1999

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

RC012-19-97

1-28-99

SIDE TWO

Operator Name Northern Natural Gas Lease Name Conley Well # 20-41

Sec. 20 Twp. 27S Rge. 10 East West County Kingman

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:
Cement Bond Log
Dual Induction Laterolog
Compensated Density Dual Spaced Neutron Log

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
Viola	3924	-2224
Simpson	4020	-2320

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
Conductor	20"	13 3/8"	48	98	Common	125	-----
Surface	12 1/4"	8 5/8"	24	1388	Reg Poz	650	18% Salt 3% CC
Production	7 7/8"	5 1/2"	15 1/2	4015	Reg Poz	850	5# Gil, 4% Ge 1/4# Flocele

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose: Set Liner	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	3977-4090	Standard	25	5# Gil, 18% Salt, 1/4# Flocele, Calseal

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)		Depth
4	3924-3960		4000 Gal. 15% SGA		3930
4	4020-4040		300 Gal. 10% SGA		4025

TUBING RECORD		Size	Set At	Packer At	Liner Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
		2 3/8"	4009	3975				
Date of First, Resumed Production, SWD or Inj. Storage Well			Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)					
Estimated Production Per 24 Hours	Oil	Bbls.	Gas	Mcf	Water	Bbls.	Gas-Oil Ratio	Gravity
N/A								

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 _____

CUSTOMER COPY



REMIT TO:
P.O. BOX 951046
DALLAS, TX 75395-1046
Corporate FIN 73-0271280

INVOICE

HALLIBURTON ENERGY SERVICES, INC.

INVOICE NO.	DATE
219286	07/12/1997

WELL LEASE NO./PROJECT	WELL/PROJECT LOCATION	STATE	OWNER
CONLEY 20-41	KINGMAN	KS	SANE
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
PRATT	PRATT WELL SERVICE	SHOWN BELOW	07/12/1997
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER
24280	ART HERRICK		L 4420 7 008
			SHIPPED VIA
			COMPANY TRUCK
			FILE NO.
			27059

DIRECT CORRESPONDENCE TO:

NORTHERN NATURAL GAS CO
BOX 17A
CUNNINGHAM, KS 67035

1102 E. 6TH
HAYS KS 67601
913-625-3431

REFERENCE NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
RIGGING AREA - MID CONTINENT					
JOB PURPOSE - CEMENT PRODUCTION LINER					
000-117	MILEAGE CEMENTING ROUND TRIP	36	MI	3.20	115.20
		1	UNT		
009-407	CEMENTING LINERS/SHORT CASING	4015	FT	2,019.00	2,019.00
009-019		1	UNT		
504-306	CEMENT - STANDARD	50	SK	10.83	541.50
508-291	GILSONITE BULK	125	LB	.50	62.50
509-968	SALT	300	LB	.17	51.00
507-775	HALAD-322	14	LB	7.70	107.80
507-970	D-AIR 1, POWDER	6	LB	3.65	21.90
509-406	ANHYDROUS CALCIUM CHLORIDE	1	SK	46.90	46.90
507-210	FLOCLE	6	LB	1.90	11.40
508-127	CAL SEAL GO	1	SK	28.00	28.00
500-207	BULK SERVICE CHARGE	61	CFT	1.55	94.55
500-306	MILEAGE CNTG MAT DEL OR RETURN	47.43	MI	1.10	110.00MM

JOB PURPOSE SUBTOTAL

3,209.75

INVOICE SUBTOTAL

3,209.75

DISCOUNT - (BID)

641.95

INVOICE BID AMOUNT

2,567.80

*- KANSAS STATE SALES TAX

125.84

*- PRATT COUNTY SALES TAX

25.60

1997 DEC 19 11:39

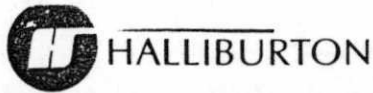
KANSAS CORP COMM RECEIVED

Simpson Project 543828 LF

INVOICE TOTAL - PLEASE PAY THIS AMOUNT

52,719.32

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer agrees to pay attorney fees of 20% of the unpaid account, plus all collection and court costs.



HALLIBURTON

HALLIBURTON ENERGY SERVICES

TICKET CONTINUATION

CUSTOMER COPY

TICKET No. *211211*

FORM 1911 R-10

CUSTOMER *North Hill RR* WELL *Conley 204* DATE *11/19/19* PAGE *2* OF *2*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
54-309	5/16 19201	1			Standard Cement	53	10			1.75	92.25
57-291	5/16 19201	1			Portland P/H 1 1/2" SK	135	10			45	607.50
57-768	7/16 19201	1			Salt P/H 1 1/2"	30	10			1.71	51.30
57-779	5/16 19201	1			H. L. 1-302 P/H 6 1/2"	14	10			7.14	100.96
57-910	7/16 19201	1			D-Air 1 P/H .25 SK	1	10			21	21.00
57-410	7/16 19201	1			Columbian Cement P/H 1 1/2"	1	10			46.00	46.00
57-21	7/16 19201	1			Fiscalia P/H .25 SK	6	10			1.87	11.22
57-121	8/16 19201	1			Cement P/H 5 1/2"	1	10			21.00	21.00
						Total of TAL = 1000.00					
ORIGINAL											
RECEIVED KANSAS CORP COMM 1917 DEC 19 1:39											
502-209		1			SERVICE CHARGE	CUBIC FEET		11		1.75	19.25
502-336		1			MILEAGE CHARGE	TOTAL WEIGHT	LOADED MILES	TON MILES	19		

No. B 338366

CONTINUATION TOTAL 110.00

TICKET #	TICKET DATE
BDA / STATE	COUNTY
PSL DEPARTMENT	
CUSTOMER REP / PHONE	
API / UWI #	
DEPARTMENT	JOB PURPOSE CODE
SEC / TWP / RNG	

REGION North America	NWA/COUNTRY
MBU ID / EMP #	EMPLOYEE NAME
LOCATION	COMPANY
TICKET AMOUNT	WELL TYPE
WELL LOCATION	DEPARTMENT
LEASE / WELL #	SEC / TWP / RNG

HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS	HES EMP NAME/EMP#/(EXPOSURE HOURS) HRS
ORIGINAL			

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
	0830							CALLED OUT
	1930							ON LOCATION AFTER JOB ON STEFFEN LEAD
	2007	2 1/2	0			450		RUN PRE-FLUSH
			20					FINISH FLUSH
	2023	2 1/2	0			300		MIXING CMT. (25 BBS GA-2) PUMPING
			6.99					FINISH CMT
								SHUT IN WELL
								FLUSH LINES
	2030	2 1/2	0					START JOB
	2039		18.7			750		MAX PSI SHUT DOWN MAX VOL
								RELEASE
								KNOWLEDGE WASH UP TRIC RACK UP
	2205							OFF LOC.
RECEIVED KANSAS CORP. DIV. 19 DEC 19 11:39								