

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

API NO. 15- 151-21-267 0001

County Pratt

NW - NW - SW -      Sec. 8 Twp. 28S Rge. 11 X W

2200 Feet from S (circle one) Line of Section

400 Feet from E (circle one) Line of Section

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

Lease Name Goyen Well # 8-41

Field Name Cunningham

Producing Formation Viola/Simpson

Elevation: Ground 1786 KB 1794

Total Depth 4460 PBDT 4447

Amount of Surface Pipe Set and Cemented at 1590 Feet

Multiple Stage Cementing Collar Used? X Yes      No

If yes, show depth set 2195 Feet

If Alternate II completion, cement circulated from     

feet depth to      w/      sx cmt.

Drilling Fluid Management Plan REWORK 9/11-14-97  
(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. 14 N & Rng. 7W          

County Garfield, OK Docket No. 284168

Operator: License # 32199

Name: Northern Natural Gas

Address P.O. Box 178

City/State/Zip Cunningham, KS 67035

Purchaser: Storage Well

Operator Contact Person: Dan Dobbins

Phone (316) 257-5146

Contractor: Name: Pratt Well Service

License: 5893

Wellsite Geologist: None

Designate Type of Completion

     New Well      Re-Entry X Workover

     Oil      SWD      SICW      Temp. Abd.

     Gas      ENHR      SIGW

     Dry X Other (Core, WSW, Expl., Cathodic, etc)

     Gas Storage

If Workovers:

Operator: Northern Natural Gas

Well Name: Goyen 8-41

Comp. Date 4-25-83 Old Total Depth 4365

X Deepening X Re-perf.      Conv. to Inj/SWD

     Plug Back      PBDT

XXX Commingled      Docket No.     

     Dual Completion      Docket No.     

     Other (SWD or Inj?) Docket No.     

7-24-97 7-31-97 8-7-97

     Date of START Date Reached TD Completion Date of  
OF WORKOVER OF WORKOVER

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.

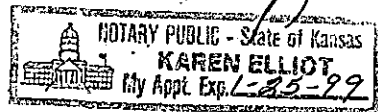
Signature Dan Dobbins

Title Sr. Reservoir Analyst Date 11/5/97

Subscribed and sworn to before me this 5th day of November 19 97.

Notary Public Karen Elliot

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)

SIDE TWO

10112190

Operator Name Northern Natural Gas Lease Name Goyen Well # 8-41

Sec. 8 Twp. 28S Rge. 11 County Pratt

East  
 West

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.)

Log Formation (Top), Depth and Datum  Sample

Name	Top	Datum
Viola	4282	-2488
Simpson	4392	-2598

List All E.Logs Run: Cement Bond Log  
Dual Induction Laterlog  
Compensated Density Dual Spaced Neutron Log

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
Conductor	20"	13.375"	48#/ft	181'	Common	200	3% CC.25 #/sk Flowseal
Surface	12.25"	8.625"	24#/ft	1589'	50-50-Poz	800	3% cc .25 #/sk Flowseal
Intermediate	7.875"	5.5"	15.5#/ft	4355'	Lite	875	6% Gel 10# Gisonite 6% Halad 9, 18% Salt .75% CF

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose: Set Liner	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
Perforate Protect Casing Plug Back TD Plug Off Zone	4341-4459	Standard	25	5# Gil., 18% NaCl .25 Flocele 5% 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	4282-4292	1,000 gals. 15% HCL	4282
4	4282-4322		
4	4392-4406		

TUBING RECORD Size 2.875 Set At 4362 Packer At 4362 Liner Run  Yes  No

Date of First, Resumed Production, SWD or Inj. \_\_\_\_\_ Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)  
Storage Well - Viola/Simpson OB

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

Disposition of Gas: METHOD OF COMPLETION INJECTION Production Interval

Vented  Sold  Used on Lease  Open Hole  Perf.  Dually Comp.  Commingled 4282'-4292'  
(If vented, submit ACO-18.)  Other (Specify) \_\_\_\_\_ 4292'-4322'  
4392'-4406'



Natural gas. Electricity.  
Endless possibilities.™

November 7, 1997

Kansas Corporation Commission  
130 South Market #2078  
Wichita, KS 67202-3802

RE: Form AC0-1

Please find enclosed the completion reports for the Glenn 19-11, McClellan 29-21, Prentice 30-24, and Goyen 8-41 in our storage field. The cementing tickets and electrical logs are also included. There will not be any geologist well report filed as we did not have a geologist on site for the well deepening.

If you need more information please call me at 316-257-5146 or 316-298-5111.

Thanks,

A handwritten signature in cursive script that reads "Dan Dobbins".

Dan Dobbins  
Sr. Reservoir Analyst

RECEIVED  
STATE CORPORATION COMMISSION

NOV 12 1997

CONSERVATION DIVISION  
Wichita, Kansas

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

ORIGINAL

INVOICE



HALLIBURTON ENERGY SERVICES, INC.

INVOICE NO.	DATE
307886	08/01/1997

WELL LEASE NO./PROJECT		WELL/PROJECT LOCATION		STATE	OWNER
COYEN 8-41		PRATT		KS	SAME
SERVICE LOCATION		CONTRACTOR	JOB PURPOSE		TICKET DATE
PRATT		PRATT WELL SERVICE	SHOWN BELOW		08/01/1997
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
634280	W A HERRICK		L 4420 7 008	COMPANY TRUCK	28096

ORIGINAL

NORTHERN NATURAL GAS CO  
BOX 178  
CUNNINGHAM, KS 67035

DIRECT CORRESPONDENCE TO:  
1102 E. 8TH  
HAYS KS 67601  
913-625-3431

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
JOB PURPOSE - CEMENT PRODUCTION LINER					
000-117	MILEAGE CEMENTING ROUND TRIP	36	MI	3.20	115.20
		1	UNT		
000-119	MILEAGE FOR CREW	36	MI	1.95	70.20
		1	UNT		
009-407	CEMENTING LINERS/SHORT CASING	4460	FT	2,019.00	2,019.00
009-019		1	UNT		
504-308	STANDARD CEMENT	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	FLOCELE	6	LB	1.90	11.40
508-127	CAL SEAL 60	1	SK	28.00	28.00
500-207	BULK SERVICE CHARGE	61	CFT	1.55	94.55
500-306	MILEAGE CMTG MAT DEL OR RETURN	47.43	TMI	1.18	110.00MN
JOB PURPOSE SUBTOTAL					3,279.95
INVOICE SUBTOTAL					3,279.95
DISCOUNT-(BID)					655.99-
INVOICE BID AMOUNT					2,623.96
*- KANSAS STATE SALES TAX					125.84
*- PRATT COUNTY SALES TAX					25.68
INVOICE TOTAL - PLEASE PAY THIS AMOUNT					\$2,775.48

RECEIVED  
STATE CORPORATION COMMISSION

NOV 12 1997

CONSERVATION DIVISION  
W. H. H. H. H. H.

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.



CHARGE TO: Northern Natl. Gas Co  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

CUSTOMER COPY  
 No. \_\_\_\_\_  
 TICKET **307886 - 7**  
 PAGE 1 OF 2

SERVICE LOCATIONS 1. <u>Pratt KS</u>	WELL/PROJECT NO. <u>S-41</u>	LEASE <u>Goyen</u>	COUNTY/PARISH <u>Pratt</u>	STATE <u>KS</u>	CITY/OFFSHORE LOCATION	DATE <u>8-1-97</u>	OWNER <u>Same</u>
2. _____	TICKET TYPE <input checked="" type="checkbox"/> SERVICE	NITROGEN JOB? <input type="checkbox"/> YES <input type="checkbox"/> NO	CONTRACTOR <u>P.W.S.</u>	RIG NAME/NO. <u>#31</u>	SHIPPED VIA <u>Howe</u>	DELIVERED TO <u>Loc</u>	ORDER NO.
3. _____	<input type="checkbox"/> SALES	<input type="checkbox"/> NO	WELL TYPE <u>OS</u>	WELL CATEGORY <u>OZ</u>	JOB PURPOSE <u>OSS</u>	WELL PERMIT NO.	WELL LOCATION <u>Land</u>
4. _____	REFERRAL LOCATION	INVOICE INSTRUCTIONS					

JOB PURPOSE	PRICE REFERENCE	SECONDARY REFERENCE/PART NUMBER	ACCOUNTING	DESCRIPTION	QTY.	U/M.	QTY.	U/M.	UNIT PRICE	AMOUNT
	<u>000-417</u>			<u>MILEAGE 53387# RD TP</u>	<u>36</u>	<u>mi</u>			<u>3 20</u>	<u>15 20</u>
	<u>000-419</u>			<u>40042# RD TP Crew mileage</u>	<u>36</u>	<u>mi</u>			<u>1 95</u>	<u>10 20</u>
	<u>009-407</u>	<u>009-019</u>		<u>Pump Charge / Trk</u>	<u>4460</u>	<u>ft</u>	<u>6 hrs</u>		<u>2019</u>	<u>1 -</u>
<b>ORIGINAL</b>										
RECEIVED STATE CORPORATION COMMISSION NOV 12 1997 CONSERVATION DIVISION Topeka, Kansas										
				<u>B 3338371</u>						<u>10 15</u> <u>10 15</u>

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

DATE SIGNED: 8-1-97 TIME SIGNED: 11:30  A.M.  P.M.

do not require IPC (Instrument Protection).  Not offered

TYPE LOCK	SUB SURFACE SAFETY VALVE WAS: <input type="checkbox"/> PULLED & RETURN <input type="checkbox"/> PULLED <input type="checkbox"/> RUN			PAGE TOTALS
BEAN SIZE	TYPE OF EQUALIZING SUB.	CASING PRESSURE		FROM CONTINUATION PAGE(S)
DEPTH	TUBING SIZE	TUBING PRESSURE	WELL DEPTH	
SPACERS	TREE CONNECTION	TYPE VALVE		SUB-TOTAL: APPLICABLE TAXES WILL BE ADDED ON INVOICE

**3280 15**  
**3279 95**

**CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES** The customer hereby acknowledges receipt of the materials and services listed on this ticket.

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT): W.A. McRae  
 CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE): [Signature]  
 HALLIBURTON OPERATOR/ENGINEER: David L Scott EMP # B9475  
 HALLIBURTON APPROVAL: D.L. Scott



TICKET CONTINUATION

CUSTOMER COPY

TICKET No. 307886

HALLIBURTON ENERGY SERVICES

FORM 1911 R-10

CUSTOMER: NORTHEAST NATURAL GAS WELL: GOVEAL 8-11 DATE: 8-1-99 PAGE: 2 OF: 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	WELL		DATE		UNIT PRICE	AMOUNT
		LOC	ACCT	DF		QTY.	U/M	QTY.	U/M		
504-302	576 00261	1			STANDARD CEMENT - MUMI	25	SKS			10.22	541.50
508-221	576 00339	1			SIXSUNITE - BAW 5 <sup>#</sup> /SK	125	AKS			50	62.50
509-962	576 00152	1			SALT BAW 18 <sup>90</sup>	300	AKS			1.70	51.00
509-225	576 00144	1			HMMU-327 BAW .60	14	AKS			7.50	105.00
509-900	70 15264	1			D-AIR-1 BAW .25 <sup>90</sup>	6	AKS			3.65	21.90
509-406	890 50812	1			CARCINOL CHURCH BAW 1 <sup>90</sup>	19	AKS	1	SK	46.80	46.80
509-210	890 50021	1			FROCKLE BAW .25 <sup>#</sup> /SK	6	AKS			1.90	11.40
508-120	890 50131	1			CALSEN BAW 5 <sup>90</sup>	1	SK			2800	2800
LOANED OIL TRUCK #4192/0486 - FRONT											
ORIGINAL											
RECEIVED											
STATE CONSERVATION COMMISSION											
NOV 12 1997											
CONSERVATION DIVISION											
Wichita, Kansas											
509-200		1			SERVICE CHARGE						
509-304		1									
MILEAGE CHARGE						TOTAL WEIGHT		LOADED MILES		CUBIC FEET	
						5250		18		61	
								4242		135	
								MINIMUM		94.55	
										110.00	

No. B 338371

CONTINUATION TOTAL 1076.55  
1076.55



JOB LOG 4239-5

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

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 (SEC)(GAL)	PUMPS		PRESS. (psi)		JOB DESCRIPTION / REMARKS
				T	C	Tbg	Csg	
	0800							Called Out
	1000							On Loc Safety mtg
								T.O.H. w/under reamer
								T.I.H. w/Liner & Hanger
								Liner on Bottom Circ w/Rig 45min
								Rig up Howco
	1925	2.5	18	✓		600		Pump 12% KCL preflush
	1931	2.5	3	✓		650		H2O Spacer
	1935	2.5	6.9	✓		700		Mix & Pump 0.55Ks (mt @ 14.7 pp9
	1940	5	10					Close In & wash pump + line
	1941							Release Tbg Plug
	1942	2.5		✓		100		St Disp w/H2O
	1947	2.5	15	✓		490		Lifting Cmt
	1949	2.5	19.5	✓		620		Sheared Liner Plug (Continue Pumping
	1950	2	20.3	✓		2600		Plug Down Release psi Float held
								Pull out of Liner Good Circ
								T.O.H. w/D.P.
								Job Complete
								Thank you
								Scotty
								Chart Did not work



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September 26, 1997

Jim Hemmen  
Kansas Corporation Commission  
130 South Market #2078  
Wichita, KS 67202-3802

RECEIVED  
KANSAS CORP COM  
1997 SEP 29 1:52

RE: Schematic for Liners at Cunningham

Please find enclosed a schematic for a typical completion in the Cunningham Storage field on our deepening project. If you need more information please call me at 316-257-5146 or 316-298-5111.

Thanks,

A handwritten signature in cursive script that reads "Dan Dobbins".

Dan Dobbins  
Sr. Reservoir Analyst



