

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

Operator: License # 5293
Name: Helmerich & Payne, Inc.
Address 2606 Fleming
City/State/Zip Garden City, Kansas 67846

Purchaser: _____
Operator Contact Person: Ken Jehlik
Phone (316) 276-3693

Contractor: Name: Cheyenne Drilling
License: 5382
Wellsite Geologist: Ron Nelson

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

If Workover/Reentry: Old Well Info as follows:
Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____
 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back _____ PBD
 Commingled _____ Docket No. _____
 Dual Completion _____ Docket No. _____
 Other (SWD or Inj?) _____ Docket No. _____
3-15-97 3-23-97 3-24-97
Spud Date Date Reached TD Completion Date
P&A

API NO. 15- ^{21,535} 055-22535 0000 **ORIGINAL**
County Finney
- NE - NE - NE Sec. 20 Twp. 25s Rge. 34 E
330 Feet from S(N) (circle one) Line of Section
500 Feet from (E/W) (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
 SE, NW or SW (circle one)
Lease Name Bruegel Well # 1-20
Field Name W/C
Producing Formation None
Elevation: Ground 2966 KB 2976
Total Depth 5500 PBD
Amount of Surface Pipe Set and Cemented at 1900 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 D&A 9/21 8-26-97
(Data must be collected from the Reserve Pit)
Chloride content 1000 ppm Fluid volume 1000 bbls
Dewatering method used Evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name _____
Lease Name _____ License No. _____
_____ Quarter Sec. _____ Twp. _____ 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 Ken Jehlik
Title District Manager Date 03-26-1997

Subscribed and sworn to before me this 26 day of March, 19 97.

Notary Public Judith Richman
Date Commission Expires August 450, 2000

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)

Operator Name Helmerich & Payne, Inc. Lease Name Bruegel Well # 1-20

Sec. 20 Twp. 25S Rge. 34
 East
 West

County Finney

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 Datums Sample
 Name Top Datum

List All E.Logs Run:

GR, DNL, Density, Sonic Microlog,
 Array Induction

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	12 1/4	8 5/8	28	1900	Howcolite Class C	685 150	2% Flocelle 2% CC, 1/4# flocele

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				

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, SWD or Inj. D&A Producing Method Flowing Pumping Gas Lift Other (Explain)

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

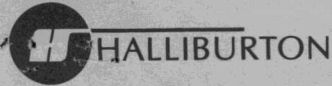
Disposition of Gas: METHOD OF COMPLETION Production Interval
 Vented Sold Used on Lease Open Hole Perf. Dually Comp. Commingled Dry hole
 (If vented, submit ACO-18.) Other (Specify) _____

JOB LOG HAL-2013-C

3-24-97

CUSTOMER H & P	WELL NO. 1-20	LEASE BRIGEL	JOB TYPE 115	TICKET NO. 185709
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0750							Called out
	1130							On Loc. - T.I. H ORIGINAL
								Rig up - Safety Meeting
								Hook up to set 3070' plug (100 sks)
	1307	0-3	10	✓		0/180 ↑		Pump H ₂ O
	1310	3-5	26	✓		190/180 ↓		Pump cement
	1315	5-3	3.2	✓		150/130 ↓		Pump H ₂ O
	1316	3-2	26	✓		130		Pump mud
	1334	2-0		✓		130/0 ↓		Shut down
								Hook up to set 1930' plug (50 sks)
	1413	0-4	10	✓		0/100 ↑		Pump H ₂ O
	1415	4-5	13.3	✓		100		Pump cement
	1418	5	3.2	✓		100		Pump H ₂ O
	1419	5-3	18.3	✓		100		Pump mud
	1426	3-0				10/0 ↓		Shut down
								Hook-up to set 880' plug (40 sks)
	1504	0-4	40	✓		0/100		Pump H ₂ O
	1514	4	10.6	✓		100/30		Pump cement
	1516	4	9.0	✓		30		Pump H ₂ O
	1518	4-0		✓		30/0		Shut down
								Hook-up to set 40' plug (10 sks)
	1610	0-2	10	✓		0/30		Pump H ₂ O
	1615	2	2.6	✓		30		Pump cement
	1616	2	1.0	✓		30/0		Pump H ₂ O
	1617	2-0						Shut down
	1630	0-2	4	✓		0/20		Plug rat @ 15 sks
	1632	2-0		✓		20/0		Shut down
	1640	0-2	2.5	✓		0/20		Plug mouse 10 sks
	1641	2-0		✓		20/0		Shut down
								Thank you! Tom & Jason & CREW



JOB SUMMARY

HALLIBURTON DIVISION MCS CONTINENT
 HALLIBURTON LOCATION LIBERAL KS

BILLED ON TICKET NO. 185709

WELL DATA

FIELD _____ SEC. 20 TWP. 25S RNG. 34W COUNTY FINNEY STATE KS

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING						
LINER						
TUBING	<u>DP</u>	<u>200</u>	<u>4 1/2</u>	<u>KB</u>	<u>3070</u>	
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

CALLS OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>03-24-97</u>	DATE <u>3-24-97</u>	DATE <u>3-24-97</u>	DATE <u>3-24-97</u>
TIME <u>0800</u>	TIME <u>1130</u>	TIME <u>1300</u>	TIME <u>1641</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>Tom Poyer</u>	<u>420044</u>	<u>LIBERAL KS</u>
<u>JASON NICHOLAS</u>	<u>53554</u>	<u>LIBERAL KS</u>
<u>LOU PATTERSON</u>	<u>41152</u>	<u>HUGOTON KS</u>

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB./GAL. °API

DISPL. FLUID _____ DENSITY _____ LB./GAL. °API

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

SURFACTANT TYPE _____ GAL. _____ IN

NE AGENT TYPE _____ GAL. _____ IN

FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN

GELLING AGENT TYPE _____ GAL.-LB. _____ IN

FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN

BREAKER TYPE _____ GAL.-LB. _____ IN

BLOCKING AGENT TYPE _____ GAL.-LB. _____

PERFPAC BALLS TYPE _____ QTY. _____

OTHER _____

OTHER _____

DEPARTMENT CEMENT

DESCRIPTION OF JOB PTA

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE [Signature]

HALLIBURTON OPERATOR Tom Poyer COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1st</u>	<u>100</u>	<u>6% 1/2 X 202</u>		<u>B</u>	<u>6% Cel</u>	<u>1.5</u>	<u>13.1</u>
<u>2nd</u>	<u>50</u>			<u>B</u>			
<u>3rd</u>	<u>40</u>			<u>B</u>			
<u>4th</u>	<u>10</u>			<u>B</u>			
<u>25 2 1/2" 25</u>				<u>B</u>			

PRESSURES IN PSI

SUMMARY

VOLUMES

CIRCULATING _____ DISPLACEMENT _____ PRESLUSH: BBL.-GAL. _____ TYPE _____

BREAKDOWN _____ MAXIMUM _____ LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____

AVERAGE _____ FRACTURE GRADIENT _____ TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. _____

SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN. _____ CEMENT SLURRY: BBL.-GAL. 59

HYDRAULIC HORSEPOWER _____ TOTAL VOLUME: BBL.-GAL. _____

ORDERED _____ AVAILABLE _____ USED _____ REMARKS

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET _____ REASON _____

CUSTOMER

CUSTOMER HANNAK + DAVID

LEASE ROUSE

WELL NO. 1-80

JOB TYPE PTA

DATE 3-24-97

VSCC

2013-C

WELL NO.		LEASE		JOB TYPE		TICKET NO.	
1-20		BRUEGEL		DIO SP.		145705	
TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
			T	C	TUBING	CASING	
0915							Called out - Ready "now"
1230							On Loc. - T.O.H. ORIGINAL
							Safety meeting - Rig up
1405							Run Csg @ 2 7/8" - 1907 ft
1520							On Bottom
1533							Hook up to Circ.
1558							Hook up to cmt.
1602	0-6 1/2	251		✓	↑ 10/130		Pump lead cmt. @ 695 sks
16	6 1/2-6	35		✓	100		Pump tail cmt. @ 150 sks
1645	6-0				↓ 10/0		Shut down - Drop plug
1646	0-6	117		✓	↑ 10/1		Pump Displ. - wash up trk.
1606	6-3			✓	↓ 5/150		Reduce Rate
1710	3-0				↑ 55/1050		Plug Down
1711					↓ 105/0		Release Press - float "hold"

Cement to Surface

Approx: 75 bbl or 204 sks

Thank you!

Tom + Sonny + CREW

1997 MAR 27 A 11:46

RECEIVED
KANSAS CORP COMM



JOB SUMMARY

HALLIBURTON DIVISION
HALLIBURTON LOCATION

Mid Continent
LIBERAL KS

BILLED ON TICKET NO. 185705

WELL DATA

FIELD _____ SEC. 20 TWP. 25S RNG. 34W COUNTY FINNEY STATE KS

FORMATION NAME _____ TYPE _____
 FORMATION THICKNESS _____ FROM _____ TO _____
 INITIAL PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
 PRESENT PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
 COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
 PACKER TYPE _____ SET AT _____
 BOTTOM HOLE TEMP. _____ PRESSURE _____
 MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	U	28	9 5/8	KB	1907	
LINER						
TUBING						
OPEN HOLE						SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

ORIGINAL

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR <u>INSERT/FU 8 7/8</u>	1	Hawco
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS <u>12 1/4</u>	4	
BOTTOM PLUG		
TOP PLUG <u>Sew</u>	1	
HEAD <u>P.C.</u>	1	
PACKER		
OTHER <u>WELL A</u>	1	

CALLER OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>3-16-97</u> TIME <u>0915</u>	DATE <u>3-16-97</u> TIME <u>1230</u>	DATE <u>3-16-97</u> TIME <u>1602</u>	DATE <u>3-16-97</u> TIME <u>1910</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. API
 DISPL. FLUID _____ DENSITY _____ LB/GAL. API
 PROP. TYPE _____ SIZE _____ LB.
 PROP. TYPE _____ SIZE _____ LB.
 ACID TYPE _____ GAL _____ %
 ACID TYPE _____ GAL _____ %
 ACID TYPE _____ GAL _____ %
 SURFACTANT TYPE _____ GAL _____ IN
 NE AGENT TYPE _____ GAL _____ IN
 FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN
 GELLING AGENT TYPE _____ GAL.-LB. _____ IN
 FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN
 BREAKER TYPE _____ GAL.-LB. _____ IN
 BLOCKING AGENT TYPE _____ GAL.-LB. _____
 PERFPAC BALLS TYPE _____ QTY. _____
 OTHER _____
 OTHER _____

DEPARTMENT 5001
 DESCRIPTION OF JOB SET SURFACE PIPE
 JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.
 CUSTOMER REPRESENTATIVE X Phil Ford

HALLIBURTON OPERATOR Tom Payer COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	695	PT HLC		B	2%CC, 1/4%Flucel	2.06	12.3
	150	PT		B	2%CC, 1/4%Flucel	1.32	14.9

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____
 BREAKDOWN _____ MAXIMUM _____
 AVERAGE _____ FRACTURE GRADIENT _____
 SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____
 HYDRAULIC HORSEPOWER _____
 ORDERED _____ AVAILABLE _____ USED _____
 AVERAGE RATES IN BPM _____
 TREATING _____ DISPL. _____ OVERALL _____
 CEMENT LEFT IN PIPE _____
 FEET 37.8 REASON Shoe Joint

VOLUMES

PRESLUSH: BBL.-GAL. _____ TYPE _____
 LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____
 TREATMENT: BBL.-GAL. _____ DISPL. BBL. GAL. (17)
 CEMENT SLURRY: BBL.-GAL. 251 + 35
 TOTAL VOLUME: BBL.-GAL. _____

REMARKS Ont to Surface

CUSTOMER Liberty Bank LEASE 1-1-97 WELL NO. 1-3-2 JOB TYPE CA DATE 3-16-97