

ORIGINAL

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

Operator: License # 6528
Name: R. J. Patrick Operating Company
Address P O Box 1157
326 North Lincoln Avenue
City/State/Zip Liberal, Kansas 67905-1157

Purchaser: Kansas Gas Supply
Operator Contact Person: R. J. Patrick
Phone (316) 624-8483

Contractor: Name: Duke Drilling Company, Inc.
License: 5929
Wellsite Geologist: Marvin Harvey

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: _____
Comp. Date _____ Old Total Depth _____
 Deepening Re-perf. Conv. to Inj/SWD
 Plug Back _____ PBTB
 Commingled _____ Docket No. _____
 Dual Completion _____ Docket No. _____
 Other (SWD or Inj?) _____ Docket No. _____

9-2-2000 9-16-2000 11-17-2000
Spud Date Date Reached TD Completion Date

API No. 15- 033-21122-0000
County Comanche
SE SW NW _____ Sec. 15 Twp. 32 Rge. 19 E
2310 Feet from S (circle one) Line of Section
990 Feet from E (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)
Lease Name Harold Herd Well # 1-15
Field Name Wildcat
Producing Formation Dry Hole
Elevation: Ground 2031 KB 2040
Total Depth 5900 PBTB 5324
Amount of Surface Pipe Set and Cemented at 716 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set _____ Feet
If Alternate II completion, cement circulated from 716
feet depth to surface w/ 400 sx cnt.
Drilling Fluid Management Plan ALT I WHM 7-19-06
(Data must be collected from the Reserve Pit)
Chloride content 7500 ppm Fluid volume 420 bbls
Dewatering method used settled water & Haul
Location of fluid disposal if hauled offsite:
KBW Oil & Gas Company
Operator Name _____
Lease Name Harmon #1 License No. 5993
NW Quarter Sec. 11 Twp. 33 S Rng. 20 E
County Comanche Docket No. 22304

RECEIVED
STATE CORPORATION COMMISSION
NOV 22 2000
Wichita, Kansas
CONSERVATION DIVISION

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, 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 R J Patrick
Title Owner Date 11/21/00
Subscribed and sworn to before me this 21 day of November
2000
Notary Public Jayn Berry
Date Commission Expires 04/04/04

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)

STATE NOTARY PUBLIC
JAYN BERRY
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Expires: 4-4-00

Operator Name R. J. Patrick Operating Company Lease Name Harold Herd Well # 1-15
 Sec. 15 Twp. 32 Rge. 19 East West
 County Comanche County, Kansas

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 enclosed 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
Hubner	4286	-2246
Lansing	4506	-2466
Marmaton	4984	-2944
Cherokee Shale	5115	-3075
Mississippian	5184	-3075
Viola	5858	-3818

List All E.Logs Run:
 dual compensated porosity, dual induction, microresistivity, drlgn. time & geological log, sonic 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	30"	20"		80'	Grout		
surface	12 1/4	8 5/8	24	716	common	400	3%cc
producing	7 7/8	4 1/2	105	5347	Poz Mix	150	18% salt

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input checked="" type="checkbox"/> Perforate	5078 to 5092	common	125	common
<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
2	5282 to 84-5265 to 69-5220 to 36 and 5187 to 91	2000 gal acid 15% Foam Frac	5284 to 5187
		4000#sand-523,000 scf nitrogen	
2	5078 to 80 - 5084 to 92	1500 gal-15% mud acid	5078 to 5092

TUBING RECORD

Size 0 Set At 0 Packer At 0 Liner Run Yes No

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

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

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 dry hole



CEMENTING LOG

ORIGINAL
STAGE NO.

Date 9-2-00 District M.L. Ticket No. 2539
 Company R.T. PATRICK Rig DUKE 4
 Lease HAROLD HEARD Well No. 1-15
 County COMANCHE State KS.
 Location Coldwater CARWASH Field LS-325-11W
3W-1/2S-ES

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 2 5/8 Type T-55 Weight 24 Collar _____

Casing Depths: Top _____ Bottom _____

Drill Pipe: Size 4 1/2 Weight 16.60 Collars X110
 Open Hole: Size 12 1/4 T.D. 716 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 0.637 Lin. ft./Bbl. 1.570
 Open Holes: Bbls/Lin. ft. 1.458 Lin. ft./Bbl. 0.6859
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. 0.735 Lin. ft./Bbl. 1.36037
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:

Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

LEAD: Pump Time _____ hrs. Type ALW + 3% CC
1/4# Flt - Seal Excess 1.36%

Amt. 300 Sks Yield 1.48 ft³/sk Density 12.5 PPG

TAIL: Pump Time _____ hrs. Type CLASS A
2% CC + 2% Gel Excess _____

Amt. 100 Sks Yield 1.34 ft³/sk Density 12.2 PPG

WATER: Lead 10.4 gals/sk Tail 6.5 gals/sk Total _____ Bbls.

Pump Trucks Used 302 - DAVID W.
 Bulk Equip. 301 - JASON T.
358 - JASON T.

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top TRIP Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type Fresh H₂O Amt. 42 Bbls. Weight 8.34 PPG
 Mud Type NATIVE Weight 11 PPG

COMPANY REPRESENTATIVE MARVIN HARCUY CEMENTER LARRY DREILING

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
21:30	300					Line on bottom - Break Circ.
22:00	150		106		6	Pump 300 SX. ALLW + 3% CC
			24		25	1/4# Flt - Seal/SX.
						Pump 100 SX. CLASS A + 3% CC
						2% Gel.
						Release Plug
						Pump + Displace Plug w/ Fresh H ₂ O
						Steady + Rate + 15I
						Slow Rate
23:45	500		42		11	Pump Plug
						Release Plug
						Flt at 4-10
						Cement Plug Circ.

ALLIED CEMENTING CO., INC. ORIGINAL 7539

Federal Tax I.D.# XXXXXXXXXX

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

SERVICE POINT:
med lodge

DATE <u>9-2-60</u>	SEC <u>15</u>	TWP <u>32s</u>	RANGE <u>19w</u>	CALLED OUT <u>3:00 P.M.</u>	ON LOCATION <u>6:00 P.M.</u>	JOB START <u>2:30 A.M.</u>	JOB FINISH <u>4:00 A.M.</u>
HAROLD LEASE <u>Herd</u>		WELL # <u>1-15</u>	LOCATION <u>Coldwater Car Wash</u>			COUNTY <u>Comanche</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)			<u>3w-1/2s-6/8</u>				

CONTRACTOR Duke Dalg
 TYPE OF JOB Surface Csg.
 HOLE SIZE 12/4 T.D. 766
 CASING SIZE 8 5/8 x 24 DEPTH 676
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE 4 1/2 x hole DEPTH 716
 TOOL _____ DEPTH _____
 PRES. MAX 500 MINIMUM 200
 MEAS. LINE _____ SHOE JOINT 42.10
 CEMENT LEFT IN CSG. _____
 PERFS. _____
 DISPLACEMENT Fresh H₂O 42 Bbls

EQUIPMENT

PUMP TRUCK CEMENTER Larry Dreling
 # 302 HELPER David West
 BULK TRUCK _____
 # 301 DRIVER Jason T.
 BULK TRUCK _____
 # 258 DRIVER Jason T.

OWNER R. J. Patrick

CEMENT
 AMOUNT ORDERED 300 SX ALLW + 3% CC
1/4" FLO-SEAL / SX 100 SX CLASS A
3% CC + 2% Gel.

COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 HANDLING _____ @ _____
 MILEAGE _____ @ _____

TOTAL _____

REMARKS:
Pipe on Bottom Break Circ
Pump 300 SX ALLW + 3% CC + 1/4"
FLO-SEAL / SX Pump 100 SX CLASS A
3% CC + 2% Gel Release Plug
Pump + Displace Plug w/ 42 Bbls
Fresh H₂O Pump Plug Release
EST. Flo at Hold Cement Did Circ

SERVICE

DEPTH OF JOB 676
 PUMP TRUCK CHARGE _____
 EXTRA FOOTAGE _____ @ _____
 MILEAGE _____ @ _____
 PLUG 878 TRP _____ @ _____
 _____ @ _____

TOTAL _____

CHARGE TO: R. J. Patrick
 STREET _____
 CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

_____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____

TOTAL _____

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 X [Signature]

X MARVIN HARVEY
 PRINTED NAME

ORIGINAL

ALLIED CEMENTING CO., INC. 7502

Federal Tax I.D. #

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

SERVICE POINT:
Medicine Lodge

DATE <i>9-15-00</i>	SEC. <i>15</i>	TWP. <i>32</i>	RANGE <i>19W</i>	CALLED OUT <i>10:00 pm</i>	ON LOCATION <i>12:30 Am</i>	JOB START <i>6:40 Am</i>	JOB FINISH <i>7:05 Am</i>
BASE <i>Hard</i>		WELL # <i>1-15</i>		LOCATION <i>Coldwater, Car wash</i>		COUNTY <i>Pomona</i>	STATE <i>Ks.</i>
OLD OR NEW (Circle one) <input checked="" type="checkbox"/> OLD				3 y 2 s, 7 into			

CONTRACTOR *Duke #4*

TYPE OF JOB *production*

HOLE SIZE *7 7/8* T.D. *5300'*

CASING SIZE *4 1/2 x 105"* DEPTH *5352*

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRESS. MAX *1000* MINIMUM *100*

MEAS. LINE _____ SHOE JOINT *10'*

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT *95 1/4 Bbls 2% Kcl.*

OWNER *R.J. Bateck Operating Co.*

CEMENT AMOUNT ORDERED

50 bx 50:50:2 + 18% salt + 25% cd. 1/4" foam

25 bx 60:40:6 9 Gal. claps

COMMON _____

POZMIX _____

GEL _____

CHLORIDE _____

HANDLING _____

MILEAGE _____

EQUIPMENT

PUMP TRUCK CEMENTER *Carl B*

#233-302 HELPER *Steve W*

BULK TRUCK

#240-250 DRIVER *Mike R.*

BULK TRUCK

DRIVER

TOTAL _____

REMARKS:

SERVICE

Pipe on bottom. Break circulating.

plug rat + mouse hole w/ 25 x 80:40:6

mix + pump 50 x 50:50:2 cement

wash clean pump + lines

Release plug + disperse with 95 1/4 Bbls

2% Kcl water. Bump plug + float held

DEPTH OF JOB *5352*

PUMP TRUCK CHARGE _____

EXTRA FOOTAGE _____

MILEAGE _____

PLUG *Rubber* _____

TOTAL _____

CHARGE TO: *R.J. Bateck Operating Co.*

STREET _____

CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

TOTAL _____

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TAX _____

TOTAL CHARGE _____

DISCOUNT _____ IF PAID IN 30 DAYS

SIGNATURE *R.J. Bateck*

PRINTED NAME _____



CEMENTING LOG

STAGE NO. _____

Date 11-14-00 District Medicine Lodge Ticket No. 4515
 Company R.T. Patrick Rig _____
 Lease _____ Well No. _____
 County Cornwall State KS
 Location 30, 1/2, 1/2 Field _____

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size _____ Type _____ Weight _____ Collar _____
2 1/2 tubing 4 1/2 casing

Casing Depths: Top _____ Bottom _____

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. .0155 Lin. ft./Bbl. 64.34
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. .0101 Lin. ft./Bbl. 99.37
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From 5072 ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG

LEAD: Pump Time _____ hrs. Type CLASS 2 NEAT
 Excess _____
 Amt. 125 Skys Yield 1.17 ft³/sk Density 15.6 PPG

TAIL: Pump Time _____ hrs. Type _____
 Excess _____
 Amt. _____ Skys Yield 1.17 ft³/sk Density 15.6 PPG
 WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 261-265 skone w.
 Bulk Equip. 258 JASON T.

Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. squeeze millifold
 Disp. Fluid Type Freshwater Amt. 20 Bbls. Weight 834 PPG
 Mud Type _____ Weight _____ PPG

COMPANY REPRESENTATIVE R.T. Patrick

CEMENTER Carl Balding

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
						Big up. 7:30 AM.
						Packer set 4957
						RIFs AT 5072.
9:00	500		14	14	1 1/2	Lead annulus
9:10	1000		24	10	3	Lead tubing + take up rate.
9:18	1000		50	26	3	pump 125 sk cement
9:32						Cement in stop pumps
9:33						wash out pump + lines.
9:34			57 1/2	7 1/2	1 1/2	start displacement
	250		60	2 1/2	1	psi increase
	1250		67	7	5	psi increase
9:52	1250		67 1/2	2 1/2	5	stop pumps
9:58	200-200		67 3/4	4	25	pump 1/2 BBL
10:15	1100		70	4	25	pump 1/2 BBL
10:20	1500					start pump + squeeze to 1500 psi
						Release pressure w/ no return.
						Release packer
10:30	200		105	35	2	Reverse bit w/ 35 BBLs
						pull 5 stands tubing
11:00	500		106	1	25	pull in tubing / 500 psi

FINAL DISP. PRESS. 1500 PSI BUMP PLUG TO _____ PSI BLEEDBACK _____ BBLs. THANK YOU

ALLIED CEMENTING CO., INC.

ORIGINAL
4515

Federal Tax I.D.# [REDACTED]

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

SERVICE POINT:
Medicine Lodge

DATE <u>11-14-00</u>	SEC <u>15</u>	TWP. <u>32S</u>	RANGE <u>7W</u>	CALLED OUT <u>6:30 AM</u>	ON LOCATION <u>7:30 AM</u>	JOB START <u>9:00 AM</u>	JOB FINISH <u>11:00 AM</u>
LEASE <u>Head Head</u>	WELL# <u>1-15</u>	LOCATION <u>Coldwater, Car Wash</u>		COUNTY <u>Franklin</u>	STATE <u>KS</u>		

CONTRACTOR _____
 TYPE OF JOB SPUCC
 HOLE SIZE _____ T.D. _____
 CASING SIZE 4 1/2 x 11 1/2 DEPTH 5352
 TUBING SIZE 2 7/8 x 4.6 DEPTH 4957
 DRILL PIPE _____ DEPTH _____
 TOOL Packer DEPTH 4957
 PRES. MAX 1500 MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. _____
 PERFS. 5072
 DISPLACEMENT 26 1/2 Freshwater

OWNER R.J. Patrick Operating Co.
 CEMENT AMOUNT ORDERED 2005x Class A Neat
used 125 x
 COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 HANDLING _____ @ _____
 MILEAGE _____ @ _____
 TOTAL _____

EQUIPMENT

PUMP TRUCK CEMENTER Carl D.
 # 261-212 HELPER Steve W.
 BULK TRUCK
 # 258 DRIVER Jared T.
 BULK TRUCK
 # _____ DRIVER _____

REMARKS:

Load annular to 500 psi. Take my rate
3.0711-1000 psi pump 125 x Class A Neat
wash out pipe & lines. Displace with
20 lbs freshwater. Squeeze to 1500 psi.
Release pressure. Release packer.
Reverse cut with 35 pump freshwater
pull 5 stands. + shut in tubing w/ 100 psi

SERVICE

DEPTH OF JOB 5072
 PUMP TRUCK CHARGE _____
 EXTRA FOOTAGE _____ @ _____
 MILEAGE _____ @ _____
 PLUG _____ @ _____
Squeeze 11511/10/0 @ _____
 _____ @ _____
 TOTAL _____

CHARGE TO: R.J. Patrick Oper. Co.
 STREET _____
 CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

_____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____

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 _____

PRINTED NAME _____