

ORIGINAL

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

API NO. 15-007-225850000

County Barber County, Kansas

SE - NE - NW - Sec. 15 Twp. 35 Rge. 15 XX ^E_W

1100 Feet from S (N) (circle one) Line of Section

2400 Feet from E (W) (circle one) Line of Section

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

Lease Name State Line Well # 1-15

Field Name Unnamed

Producing Formation Mississippi

Elevation: Ground 1618' KB 1626'

Total Depth 5167' PBDT 5130'

Amount of Surface Pipe Set and Cemented at 263 Feet

Multiple Stage Cementing Collar Used? Yes X No

If yes, show depth set Feet

Alternate II completion, cement circulated from

feet depth to w/ sx cmt.

Drilling Fluid Management Plan A.H. 1, 2-18-99 U.C.

(Data must be collected from the Reserve Pit)

Chloride content 4000 ppm Fluid volume 2000 bbls

Dewatering method used Evaporation

Location of fluid disposal if hauled offsite:

Operator Name Molz

Lease Name License No. 6006

NW Quarter Sec. 29 Twp. 32 S Rng. 10 W

County Barber Docket No. CD # 11804

Operator: License # 32210

Name: Harry Spring Operating

Address P.O. Box 1788

City/State/Zip Ardmore, Oklahoma 73402-

1788

Purchaser: Westana/Eött

Operator Contact Person: Harry A. Spring

Phone (580) 226-3800

Contractor: Name: Duke Drilling Co., Inc.

License: 5929

Wellsite Geologist: Mike Pollob

Designate Type of Completion

New Well Re-Entry Workover

Oil SWD SOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover:

Operator:

Well Name:

Comp. Date Old Total Depth

Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBDT
 Commingled Docket No.
 Dual Completion Docket No.
 Other (SWD or Inj?) Docket No.

10-07-98 10-14-98 10-15-98
Spud Date Date Reached TD Completion Date

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 [Signature]

Title Owner Date 2-10-99

Subscribed and sworn to before me this 15th day of February, 19 99.

Notary Public Loida Hamilton

Date Commission Expires April 13, 2002

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)

ORIGINAL
Operator Name Harry Spring Operating

SIDE TWO
Lease Name State Line Well # 1-15
County Barber County, Kansas

Sec. 15 Twp. 35 Rge. 15
 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.)
List All E.Logs Run: Dual Ind, CNL-Den, Micro

Log Formation (Top), Depth and Datum Sample
Name KB 1626 Top Datum
B. Heebner Shale 4100' (-2474)
Lancing Kansas City 4280' (-2654)
Cherokee 4956' (-3330)
Mississippi 4984' (-3358)

CASING RECORD <input 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
Surface	14-1/4"	10-3/4"	32#	263'	60/40 Poz	210	3%cc 2%gel
Production	7-7/8"	4-1/2"	10.5#	5160'	ASC	150	1#/sk floseal 5#/sk kolseal

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		Acid, Fracture, Shot, Cement Squeeze Record	
	Specify Footage of Each Interval Perforated		(Amount and Kind of Material Used) Depth	
2	4988' - 96,	5006' - 11,	5016' - 22,	Frac w/ 60,000 gal 30 Q
	5026' - 38,	5042' - 50,	5058' - 70	CO2 Foam w/ 116,000# 20-40 sd

TUBING RECORD		Size	Set At	Packer At	Liner Run			
		2 3/8"	4948'	4948'	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Date of First, Resumed Production, SWD or Inj.			Producing Method					
1-13-99			<input checked="" 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	Ncf	Water	Bbls.	Gas-Oil Ratio	Gravity
	11		259		0		23,545	22

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

ALLIED CEMENTING CO., INC. 7678

Federal Tax I.D.# 48-0727800

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

15-007-22585-0000

SERVICE POINT: Medicine

DATE 10-7-98	SBC 15	TWP 35S	RANGE 13W	CALLED OUT 5:00 P.M.	ON LOCATION 7:00 A.M.	JOB START 9:00 P.M.	JOB FINISH 12:00 A.M.
LEASE # <u>1111</u>	WELL # <u>1-15</u>	LOCATION <u>Hartner Co. 17/4W-1/2 S/E</u>	COUNTY <u>Barber</u>	STATE <u>Ks</u>			
OLD OR NEW (Circle one)							

CONTRACTOR <u>Duke Ddg Co</u>	OWNER _____
TYPE OF JOB <u>Surface CSG</u>	
HOLE SIZE <u>14 3/4</u>	I.D. <u>26 1/4</u>
CASING SIZE <u>10 3/4 x</u>	DEPTH <u>263'</u>
TUBING SIZE _____	DEPTH _____
DRILL PIPE _____	DEPTH _____
TOOL _____	DEPTH _____
PRES. MAX <u>200</u>	MINIMUM <u>100</u>
MEAS. LINE _____	SHOE JOINT _____
CEMENT LEFT IN CSG <u>1.5</u> <u>By Request</u>	
PERF. # _____	
DISPLACEMENT <u>2 SBHS Fresh H₂O</u>	
EQUIPMENT	
PUMP TRUCK # <u>343</u> CEMENTER <u>Harry Dearing</u>	
HELPER <u>Justin Hart</u>	
BULK TRUCK # <u>301</u> DRIVER <u>Maack Boudant</u>	
DRIVER _____	
	TOTAL _____

REMARKS: <u>Pipe on Bottom - Break C.M.</u>	SERVICE _____
<u>mix 2 bags Class 150 cement</u>	DEPTH OF JOB <u>263</u>
<u>3% CaCl₂ + 2% Gel Cement In</u>	PUMP TRUCK CHARGE _____
<u>Stop Pumps Release Plug</u>	EXTRA FOOTAGE _____
<u>Pump Displace Plug w/ 2 SBHS</u>	MILEAGE _____
<u>Fresh H₂O. Shift In Cement</u>	PLUG <u>wood cup</u>
<u>Wire to Surface</u>	
	TOTAL _____

CHARGE TO: <u>Duke Ddg Co</u>	TOTAL _____
STREET _____	FLOAT EQUIPMENT
CITY _____ STATE _____ ZIP _____	_____

	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 John J. Armbruster JOHN J. ARMBRUSTER
PRINTED NAME



15-007-22585-0000
CEMENTING LOG

STAGE NO.

Date 10-7-98 District medaloh Ticket No. 7478
 Company Duke #2 No. 1-15
 Lease State line Well No. 1-15
 County Baker State KS
 Location Harden, 17 1/4 W 1/2 S 35-15 Field 15-35-15

CEMENT DATA:
 Cement Type _____ Amt. _____ Slit Yield _____ ft³/sk Density _____ PPG

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 10 3/4 Type _____ Weight 32.75 Collar _____

LEAD: Pump Time _____ hrs. Type _____ Excess _____
 Amt. _____ Slit Yield _____ ft³/sk Density _____ PPG
 TAIL: Pump Time _____ hrs. Type Class A Excess _____
 Amt. 210 Slit Yield 1.26 ft³/sk Density 14.8 PPG
 WATER: Lead _____ gal/sk Tail 36 gal/sk Total 28 Bbls

Casing Depth: Top _____ Bottom _____

Pump Trucks Used 343 Just a Hart
 Bulk Equip. 301 mark Broydick

Drill Pipe Size 4 1/2 Weight 16.0 Collars x-hole
 Open Hole Size 14 3/4 T.D. 263 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 1009 Lin. ft./Bbl. 9.91
 Open Hole: Bbls/Lin. ft. 2113 Lin. ft./Bbl. 4.7316
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. 0991 Lin. ft./Bbl. 10.0923
 Perforations: From _____ ft. to _____ ft. Amt. _____

Float Equip: Manufacturer _____ Shoe Type _____ Depth _____
 Float Type _____ Depth _____
 Centralizers: Quantity _____ Plug Top Wood Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type Fresh H₂O Amt. 25 Bbls. Weight 234 PPG
 Mud Type Chemical Weight 91 PPG

COMPANY REPRESENTATIVE John Ambruster

CEMENTER Dally Clinking

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
9:10						Pipe on Bottom Break
9:15	150		7		7/2	Start H ₂ O source
9:16	150		43		6	mix + pump 210 sls, 60/40 + 2% gel
9:30						Cement In Stop Dumps
	75		10		4	Release Plug
	100		15		4 1/2	Start Fresh H ₂ O Displa
	150		22		3	Slight DST Increase
9:45	152		25		3	slow Rate
						Stop Dumps Displa In
						shut In
						Cement Circ to surface ✓

FINAL DISP. PRESS: _____ PSI BUMP PLUG TO _____ PSI BLEEDBACK _____ BBLs

ALLIED CEMENTING CO., INC. 7659

Federal Tax I.D.# 48-0727880

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

SERVICE POINT: Medicine Lodge
15-007-22585-0000

DATE <u>10-15-94</u>	SEC. <u>15</u>	TWP. <u>35S</u>	RANG. <u>15W</u>	CALLED OUT <u>3:00 AM</u>	ON LOCATION <u>6:30 AM</u>	JOB START <u>10:00 AM</u>	JOB FINISH <u>10:50 AM</u>
LEASE <u>tan line</u>		WELL # <u>1-15</u>	LOCATION <u>HARDYNA 12 1/2 W, 2 3/4 N</u>		COUNTY <u>Barber</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Duke Rig #2 OWNER HARRY A Spring

TYPE OF JOB Production

HOLE SIZE 7 1/8 I.D.

CASING SIZE 4 1/2 x 10.5 DEPTH 5162.52 CEMENT AMOUNT ORDERED 25 cu 60:40:6

TUBING SIZE _____ DEPTH _____ 150 sq ASC + 5" gal-steel + 4" fl-steel

DRILL PIPE _____ DEPTH _____ 500 Gal. Mud-clean

TOOL _____ DEPTH _____

PRES. MAX 1200 MINIMUM 100 COMMON _____ @ _____

MEAS. LINE _____ SHOE JOINT 36.36 POZMIX _____ @ _____

CEMENT LEFT IN CSG. _____ ORL _____ @ _____

PERFS. _____ CHLORIDE _____ @ _____

DISPLACEMENT 83 88ls Freshwater

EQUIPMENT

PUMP TRUCK CRMENTER Carl Balding

256-265 HELPER Shane Winsor

BULK TRUCK _____ HANDLING _____ @ _____

259-314 DRIVER John Kelley MILEAGE _____ @ _____

BULK TRUCK _____ TOTAL _____

_____ DRIVER _____

REMARKS:

Run on bottom, break circulation by big pump 10 1/2 hrs
 Freshwater flush below bottom plug pump 2 1/2 hrs
 500 gal
 2 pumps, lead top plug pump 3 fresh water
 plug bottom plug 10:40, 2 switch valves
 pump 150 sq ASC + 5" gal-steel + 4" fl-steel
 2 pumps + switch valves, wash up pump valves, switch valves
 Release top plug. Dig this with 3 1/2 hrs fresh water
 Pump plug + float held

SERVICE

DEPTH OF JOB 5162

PUMP TRUCK CHARGE _____

EXTRA FOOTAGE _____ @ _____

MILEAGE _____ @ _____

PLUG TOP Rubber _____ @ _____

Bottom Rubber _____ @ _____

TOTAL _____

CHARGE TO: HARRY A Spring

STREET _____

CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

1- Guide Shoe _____ @ _____

1- AFU Float Collar _____ @ _____

1- Centralizers _____ @ _____

1- Basket _____ @ _____

1- stop ring _____ @ _____

1- thread lock kit _____ @ _____

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 [Signature]

Harry A Spring
 PRINTED NAME



15-007-22585-0000
CEMENTING LOG

STAGE NO.

Date 10-15-99 District Med-Jodge Ticket No. 9659
 Company HARRY A SPRING No. Dulse 2
 Lease STATE LINE Well No. 1-15
 County Wacker State KANSAS
 Location HARDYNER 19 1/2 W 8 Y0 Field 15-350-15W

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 4 1/2 Type _____ Weight 10.5 Collar _____

Casing Depth: Top RB Bottom 5162

Drill Pipe: Size _____ Weight _____ Collar _____
 Open Hole: Size 7 1/4 T.O. _____ ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbl/Lin. ft. 0.159 Lin. ft./Bbl. 6.270
 Open Holes: Bbl/Lin. ft. 0.112 Lin. ft./Bbl. 8.929
 Drill Pipe: Bbl/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbl/Lin. ft. 0.046 Lin. ft./Bbl. 21.739
 Bbl/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: 1500lb Freshwater = 12 1/2 1/2" Dia. 1/2" long
 Amt. _____ Slu Yield _____ H²/sk Density _____ PPG _____

LEAD: Pump Time _____ hrs. Type CC-Red
 Excess _____
 Amt. 25 Slu Yield 1.28 H²/sk Density 1.12 PPG _____

TAIL: Pump Time _____ hrs. Type ACC + 2 1/2 1/2" Dia.
4 Flo-Seal Excess _____
 Amt. 110 Slu Yield 1.57 H²/sk Density 1.4 PPG _____
 WATER: Lead 2.8 gals/sk Tail 1.23 gals/sk Total _____ Bbls. _____

Pump Trucks Used 251-263 Shane
 Bulk Equip. 259-314 John Nelling

Float Equip: Manufacturer Leavell
 Shoe: Type Regular Endo shoe Depth 211
 Float: Type SPV float collar Depth 211
 Centralizers: Quantity 1 Plug Top 1/2" Dia. Btm. 1/2" Dia.
 Stage Collars 1 Basket 1 Stop
 Special Equip. _____
 Disp. Fluid Type Freshwater Amt. 53 Bbls. Weight _____ PPG _____
 Mud Type _____ Weight _____ PPG _____

COMPANY REPRESENTATIVE HARRY A SPRING

CEMENTER Carl Belding

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls/Min.	
6:30						on location + rig up
10:08	200		10	10	5	Run in bottom break line
	200		12	2	4	Run in 15' 1/2" fresh water line
	200		13	3	5	Stop pump + lead the kibber pipe
	200		27	12	5	Run 3' 1/2" Freshwater + special packer
10:18						Switch valves + pump 2500 10' 1/2" in annulus
10:24	200		69	42	5 1/2	Switch valves
10:31						Mix + pump 1500 3' 1/2" + 3' 1/2" in annulus
						Reposition stop pump switch valves
						pump + lines
10:34						Switch valves + Release + also
						Start Freshwater Displacement
10:36	100	86	12		6	Steady Rate
10:38	100	101	15		6	Freshwater thru shoe
10:40	100	113	12		6	Mud-chase thru shoe
	135				4	Annulus thru shoe
10:43	250	127	14		4	Slow Rate
	250	147	20		3	See Lift Pressure
	600	152	5		3	Slow Rate
10:50	1200					Displacement in
						Annulus also
						Release pressure + float hole

FINAL DISP. PRESS: 690 PSI BUMP PLUG TO 1200 PSI BLEEDBACK 1/4 BBLs. THANK YOU