

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

15.071.20727.0000

Form ACO-1  
September 1999  
Form Must Be Typed

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

ORIGINAL

Operator: License # 32340  
Name: Bluegrass Energy, Inc.  
Address: 5727 S. Lewis, Suite 700  
City/State/Zip: Tulsa, OK 74105  
Purchaser: Bradshaw Gas  
Operator Contact Person: Mark Repasky  
Phone: (918) 743-8060  
Contractor: Name: Cheyenne Drilling  
License: 5382

Wellsite Geologist: \_\_\_\_\_  
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: 9-18-00  
Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening     Re-perf.     Conv. to Enhr./SWD  
 Plug Back     Plug Back Total Depth  
 Commingled    Docket No. \_\_\_\_\_  
 Dual Completion    Docket No. \_\_\_\_\_  
 Other (SWD or Enhr.?)    Docket No. \_\_\_\_\_  
7/25/00    7/27/00    8/31/00  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 071-207270000  
County: Greeley  
C AC NW Sec. 15 Twp. 20 S. R. 40  East  West  
1320 feet from S /  (circle one) Line of Section  
1320 feet from E /  (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:  
(circle one) NE SE  NW SW  
Lease Name: HARRIS A Well #: 2  
Field Name: Bradshaw  
Producing Formation: Upper Winfield  
Elevation: Ground: 3582 Kelly Bushing: 3588  
Total Depth: 2860 Plug Back Total Depth: 2844  
Amount of Surface Pipe Set and Cemented at 303 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set \_\_\_\_\_ Feet  
If Alternate II completion, cement circulated from 2860'  
feet depth to surface w/ 420 sx cmt.

Drilling Fluid Management Plan ALT 2 JN 12-18-00  
(Data must be collected from the Reserve Pit)  
Chloride content 7000 ppm Fluid volume 9000 bbls  
Dewatering method used evaporation  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License No.: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
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 of 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: Philip J. Wade  
Title: President Date: 9/15/00  
Subscribed and sworn to before me this 15th day of September,  
192000.  
Notary Public: Ken M. Miller  
Date Commission Expires: 9-11-2004

**KCC Office Use ONLY**  
 Letter of Confidentiality Attached  
If Denied, Yes  Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution

X

Operator Name: Bluegrass Energy, Inc. Lease Name: Harris A Well #: 2  
 Sec. 15 Twp. 20 S. R. 40  East  West County: Greeley

**INSTRUCTIONS:** Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach copy of all Electric Wireline Logs surveyed. Attach final geological well site report.

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:

CNL-FDC

DIL

<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Name	Top	Datum
Base Stone Corral	2445	+1144
Upper Winfield	2807	+ 782

**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"	23	303	Class C	1.60 sx	1/4# Flocele
Production	7 7/8"	4 1/2"	10.5#	2860	50/50 FOZ	420	5% Calseal, 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
1	2811' - 2816'	750 gals 15% HCL	2811-2816
		7500 gals 25# gel	2811-2816
		w/11,100 lbs 16/30 sand	

<b>TUBING RECORD</b>	Size 2 3/8	Set At 2825	Packer At N/A	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumerd Production, SWD or Enhr. 8/19/00	Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Estimated Production Per 24 Hours	Oil Bbls. 0	Gas Mcf 115	Water Bbls. 1	Gas-Oil Ratio Gravity 7678

Disposition of Gas **METHOD OF COMPLETION** Production Interval 2811' - 2816'

Vented  Sold  Used on Lease  Open Hole  Perf.  Dually Comp.  Commingled  
 (If vented, Sumit ACO-18.)  Other (Specify)



15.071-20727.0000

ORIGINAL

STATE OF KANSAS - CORPORATION COMMISSION  
MULTIPOINT BACK PRESSURE TEST

FORM CG-1 Rev.

TYPE TEST: <input checked="" type="checkbox"/> Initial		<input type="checkbox"/> Annual		<input type="checkbox"/> Special		TEST DATE: 9-12-00	
COMPANY: BLUEGRASS ENERGY, INC				LEASE: HARRIS 'A'		WELL NO: 2	
COUNTY: GREELEY		LOCATION:		SECTION: 17 TWP: 20S		RNG (E/W): 40W ACRES:	
API WELL NUMBER: 15-071-207270000		RESERVOIR: UPPER WINFIELD		PIPELINE CONNECTION: BGS			
COMPLETION DATE: 8-31-00		PLUG BACK TOTAL LENGTH: 2844		PACKER SET AT: NONE			
CASING SIZE: 4.5 WT: 10.5 ID: 4.052		SET AT: 2860		PERF. TO: 2811-2816			
TUBING SIZE: 2.375 WT: 4.7 ID: 1.995		SET AT:		PERF. TO:			
TYPE COMPLETION (Describe): SINGLE GAS		TYPE FLUID PRODUCTION: WATER					
PRODUCING STRU: Casing		RESERVOIR TEMPERATURE: 106		BAR PRESS - P <sub>2</sub> : 14.4 Psia			
GAS GRAVITY - G <sub>g</sub> : 0.768		% CARBON DIOXIDE:		% NITROGEN:		API GRAVITY OF LIQUID:	
VERTICAL DEPTH (ft): 2813		TYPE METER CORN: Flange		METER RUN SIZE: 2.067"			
REMARKS:							

OBSERVED DATA DURATION OF SHUT-IN 76.0 HR.

DATE No.	ORIFICE SIZE in.	METER PRESSURE psig	DIFF. (P <sub>1</sub> - P <sub>2</sub> ) psig	% CHANG. TEMP	WELL HEAD TEMP	CASING WELLHEAD PRESS		TUBING WELLHEAD PRESS		DURATION HOURS	LIQUID PROD. Bbls.
						psig	(P <sub>1</sub> - P <sub>2</sub> ) psig	psig	psig		
SHUT IN						86.90	101.30			76.0	
1	750	33.8	1.6	80	75.0	85.00	99.40			1.0	0
2	750	34.3	6.3	81	75.0	82.40	96.80			1.0	0
3	750	35.4	20.3	80	75.0	77.30	91.70			1.0	0
4	750	36.9	46.4	82	75.0	70.80	85.20			1.0	0
5											

RATE OF FLOW CALCULATIONS

DATE No.	COEFFICIENT F <sub>0</sub> Mafd	METER PRESSURE psig	DIFF. (P <sub>1</sub> - P <sub>2</sub> ) psig	WELL HEAD TEMP F	FLOWING TEMP FACTOR F <sub>T</sub>	DEVIATION FACTOR F <sub>pv</sub>	RATE OF FLOW Q Mafd	GOR (R 3Ebd)	G <sub>m</sub>	
1	2.7783	48.20	8.78	75.0	1.411	0.9732	1.0055	27.2	None	0.768
2	2.7783	48.70	17.32	75.0	1.411	0.9588	1.0054	54.1	None	0.768
3	2.7783	49.80	31.86	75.0	1.411	0.9732	1.0056	98.7	None	0.768
4	2.7783	51.30	46.39	75.0	1.411	0.9786	1.006	152.3	None	0.768
5										

PRESSURE CALCULATIONS

DATE No.	P <sub>1</sub> psia	P <sub>2</sub> psia	P <sub>0</sub> psia	P <sub>0</sub> (THOUSANDS)	(P <sub>0</sub> ) <sup>2</sup> THOUSANDS	FLOWING POINT		% SHUT-IN $\left[ \frac{P_w - P_2}{P_0 - P_2} \right]$
						(P <sub>0</sub> ) <sup>2</sup> - (P <sub>w</sub> ) <sup>2</sup> THOUSANDS	Q Mafd	
1	99.4	101.3	99.4	10.3	99	38	27.2	97.82
2	96.8	101.3	96.8	10.3	94	80	54.1	94.86
3	91.7	101.3	91.7	10.3	84	183	98.7	89.08
4	85.2	101.3	85.2	10.3	73	295	152.3	81.81
5								

INDICATED WELLHEAD OPEN FLOW (Mafd @ 14.65 psia)  $\eta = 0.8359$

The undersigned authority, on behalf of the Company, certifies that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct. Executed this the 13 day of September, 2000

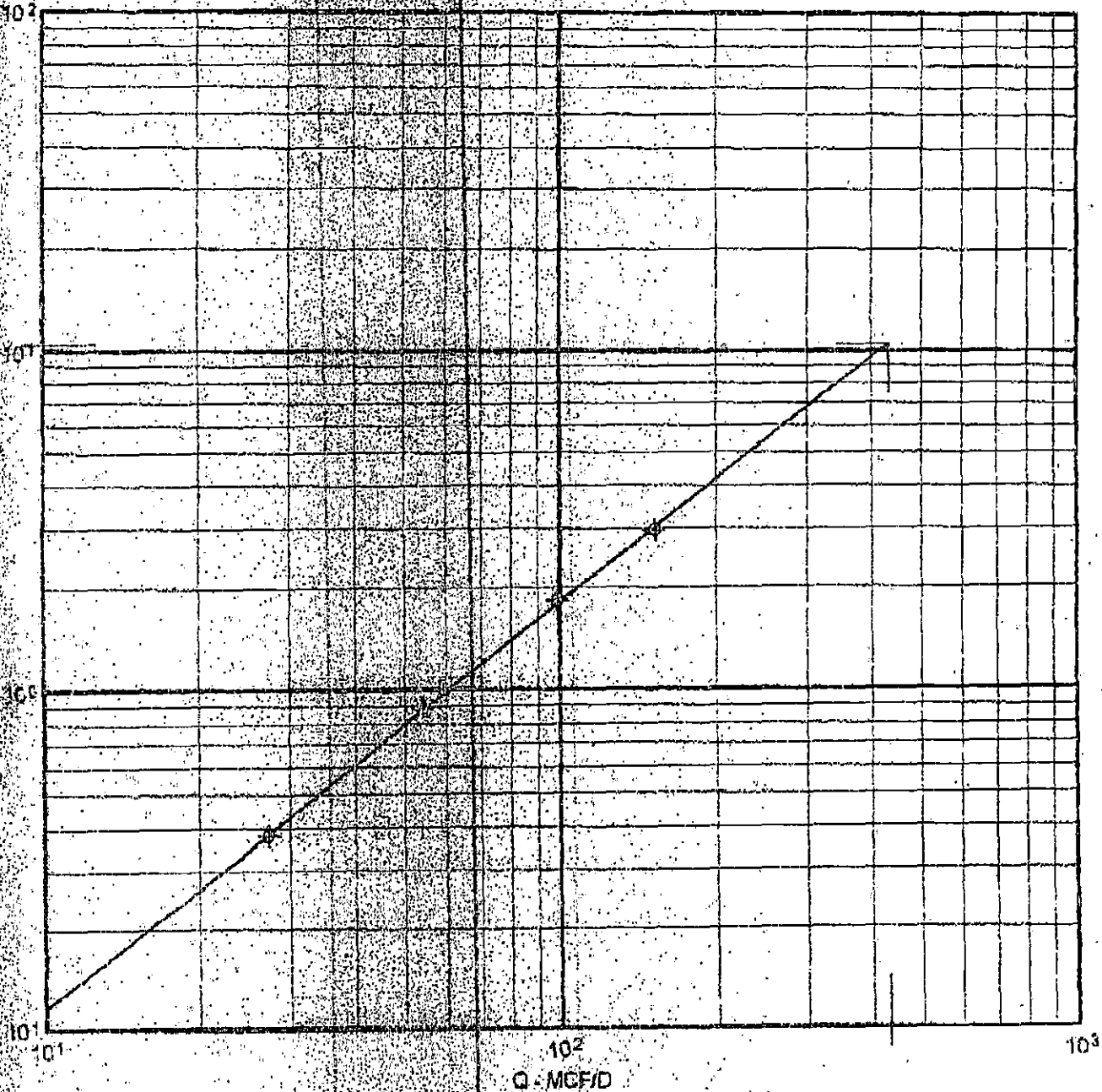
COPY TO KCC WICHITA  
Witness (if any)  
COPY TO KCC DODGE CITY  
For Commission

PRECISION WIRELINE AND TESTING  
For Company  
MARK BROCK  
Checked by (Rev. 10/95)

ORIGINAL

Operator: BLUEGRASS ENERGY, INC.  
Well/Lease Name & No: HARRIS A 2  
API Well Number: 15-071-207270000  
County: GRBELEY

Report Date: September, 13, 2000  
Test Date: 9-12-00  
Sec/Twp/Rge: 17-20S-40W



WHAOF = 431 MCF/D  
(Pc2 - Pw2) = 10.45 (Thousands)

Slope = 1.19e4  
N = 0.8359

KANSAS CORPORATION COMMISSION  
ONE POINT STABILIZED OPEN FLOW OR DELIVERABILITY TEST

Form G-2  
July 1989  
**ORIGINAL**

Well No. **9-13-00** AP# No. **15 -071-207270000**  
 Open Flow  
 Deliverability

Company: **BLUEGRASS ENERGY, INC.** Lease: **HARRIS 'A'** Well Number: **2**

County: **GRELEY** Location: **27** TWP: **20S** RNG (E/W): **40W** Acres Acrefted:

Operator: **BRADSHAW** Operator: **EDDY W. WATFIELD** Gas Gathering Connection: **BCS**

Completion Date: **8-31-00** Plug Depth (ft): **2815** Packer Set at: **NONE**

Gun Size: **4.5** Weight: **10.5** Interval (ft): **4.502** Set at: **2860** Perforations: **2811** To: **2816**

Gun Size: **2.375** Weight: **4.7** Interval (ft): **1.985** Set at: Perforations: To:

Completion (Describe): **SINGLE GAS** Pump Unit or Traveling Plunger? **Yes / No**

Casing thru (Annulus / Tubing): **ANNULUS** % Cement: **100** % Nitrogen: **0** Gas Gravity - G<sub>g</sub>: **.768**

Well Depth (ft): **2815** Casing Type: **FLANGE** (Meter Run) (Proven) Size: **2.067"**

Pressure Buildup: Shut in **9-9** **2000** at **0800** (AM) (PM) Taken: **9-12** **2000** at **1200** (AM) (PM)

Well on Line: Started **9-12** **2000** at **1200** (AM) (PM) Taken: **9-13** **2000** at **1230** (AM) (PM)

**OUTGRAVED SURFACE DATA** Duration of Shut-in **76.0** Hours

Well / Casing	Orifice Size (inches)	Casing Size (inches)	Casing Material	Pressure Differential (psi)	Flow Rate (bbl/d)	Wellhead Pressure (P <sub>wh</sub> ) (psi)	Tubing Wellhead Pressure (P <sub>wh</sub> ) or (P <sub>wh</sub> )		Duration (Hours)	Liquid Produced (Barrels)
							psi	psi		
Flow	.750	34.5	10.9	80	75.0	86.9	101.3		76.0	
						73.6	88.0		24.5	1

**FLOW STREAM ATTRIBUTES**

Flow Coefficient (F <sub>1</sub> ) (C <sub>1</sub> )	Casing Size (inches)	Pressure Differential (psi)	Flow Rate (bbl/d)	Flowing Fluid Gravity (G <sub>g</sub> )
2.7883	48.90	23.09	1.1441	0.9725
				1.0055
				71.6
				NONE
				0.768

**(OPEN FLOW / DELIVERABILITY) CALCULATIONS**

$(P_w)^2 = 10.3$  ;  $(P_w)^2 = 7.8$  ;  $(P_w)^2 = 101.3$  ;  $(P_w)^2 = 0.207$  ;  $(P_w)^2 =$

$(P_w)^2 - (P_w)^2$ or $(P_w)^2 - (P_w)^2$	$(P_w)^2 - (P_w)^2$	Flow Rate (bbl/d)	Wellhead Pressure (psi)	Flowing Fluid Gravity (G <sub>g</sub> )
30.05	2.51	4.011	0.5033	0.836
			0.5043	3.1940
				228.56

Flow: **229** Mdn: **14.65** psi

The undersigned authority, on behalf of the Company, states that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct. Executed on this **13** day of **SEPTEMBER** **2000**.

**COPY TO KCC WICHITA**  
Witness (if any):  
**COPY TO KCC DODGE CITY**  
For Company: **PRECISION WIRELINE & TESTING**  
Marked by: **MARK BROCK**  
Checked by:

ORIGINAL

**PRECISION WIRELINE and TESTING**

P.O. BOX 560  
 LIBERAL, KANSAS 67905-0560  
 316-624-4505  
 CELLULAR: 316-629-0204

PRODUCER BLUEGRASS ENERGY, INC.  
 WELL NAME HARRIS A-2  
 LOCATION 17-20S-40W  
 COUNTY GREELEY STATE KS

CSG 4 1/2 WT 10.5 SET @ 2860 TO 2860 PB 2844 GI 3582  
 TBG 2 3/8 WT 4.7 SET @        SN        PKR        KES 3589  
 PERFS 2811 TO 2816 TO        TO         
 PROVER        METER 2" TAPS FLANGE ORIFICE .750 PCR        TCR         
 GG .768 API        GM        RESERVOIR UPPERMINFIELD

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PRECISION WELL TESTI

09/13/2000 21:32 3156242444

DATE TIME OF READING	ELAP TIME HOURS	WELLHEAD PRESSURE DATA						MEASUREMENT DATA				LIQUIDS		TYPE TEST:	INITIAL ANNUAL	SPECIAL RETEST	ENDING DATE	
		CSG PSIG	Δ P CSG	TBG PSIG	Δ P TBG	BHP PSIG	Δ P BHP	PRESS. PSIG	DIFF.	TEMP	Q MCFD	COND. BBLB.	WATER BBLB.					REMARKS PERTINENT TO TEST DATA QUALITY
SATURDAY 9-9-00																		1000# 250' AUTO PILOT
0800																		WELL SHUT-IN
TUESDAY 9-12-00																		
1200	76.0	86.9																PUMP OFF
1200																		WELL ON 1ST RATE OF MULTI-PF TEST THROUGH METER RUN.
1205		86.0	-0.9					33.7	1.6	90	27							PUMP ON
1210		85.7	-0.3					33.8	1.6	88	27							PUMP ON
1215	.5	85.5	-0.2					31.8	1.5	87	27							PUMP ON
1230		85.3	-0.2					33.7	1.5	87	27							PUMP ON
1245	1.0	85.1	-0.2					33.7	1.6	88	27							PUMP ON
1300		84.0	-0.1					33.6	1.6	89	27	0	0					PUMP ON
1300																		WELL OFF 2ND RATE OF MULTI-PF TEST THROUGH METER RUN.
1305		83.9	-1.1					34.1	6.5	89	55							PUMP ON
1310		83.5	-0.4					34.2	6.6	89	55							PUMP ON
1315		83.2	-0.3					34.2	6.5	89	55							PUMP ON
1330	1.5	83.0	-0.2					34.2	6.5	92	55							PUMP ON
1345		82.7	-0.3					34.2	6.4	94	54							PUMP ON
1400	2.0	82.4	-0.3					34.3	6.3	94	54	0	0					PUMP ON

ORIGINAL



ORIGINAL

Precision WIRELINE & TESTING BLUEGRASS ENERGY, INC. HARRIS A-2

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PRECISION WEL. TESTI

05/13/2000 21:32 314624244

Date Time of Reading	EOP Time Hours	Wellhead Pressure Data						Measurement Data				Liquids		Type Test	Initial Annual	Special Rerest	Ending Date 9-13-00
		Csg Psig	$\Delta P$ Csg	Tbg Psig	$\Delta P$ Tbg	BHP Psig	$\Delta P$ BHP	Press. Psig	DNF.	Temp	D mch/D	Cond bbis	Water bbis				
THURSDAY 9-12-00	(CONT'D)																
1400		WELL ON 3RD. RATE OF MULTI-PT TEST THROUGH METER RUN.															
1405		80.2	- 2.2	PUMP ON				35.2	21.9	92	103						
1410		79.6	- 0.6	PUMP ON				35.2	21.6	90	102						
1415		79.3	- 0.3	PUMP ON				35.3	21.4	90	101						
1430	2.5	78.6	- 0.7	PUMP ON				35.3	20.8	89	100						
1445		78.1	- 0.5	PUMP ON				35.3	20.5	89	99						
1500	3.0	77.3	- 0.4	PUMP ON				35.4	20.3	89	99	0	0				
1500		WELL ON 4TH RATE OF MULTI-PT TEST THROUGH METER RUN.															
1505		74.3	- 3.0	PUMP ON				37.2	51.1	87	160						
1510		73.4	- 0.9	PUMP ON				37.1	49.8	86	158						
1515	3.5	73.1	- 0.3	PUMP ON				37.1	49.2	86	157						
1530		72.1	- 1.0	PUMP ON				37.1	47.9	85	155						
1545		71.2	- 0.9	PUMP ON				37.1	47.0	84	153						
1600	4.0	70.2	- 0.9	PUMP ON				36.9	46.0	83	152	0	0				
1600		WELL ON 5TH RATE OF MULTI-PT TEST THROUGH METER RUN.															
1615		75.0	- 0.9	PUMP ON				36.9	44.0	82	150						
1630		74.1	- 0.9	PUMP ON				36.9	42.0	81	148						
1645		73.2	- 0.9	PUMP ON				36.9	40.0	80	146						
1700		72.3	- 0.9	PUMP ON				36.9	38.0	79	144						
1715		71.4	- 0.9	PUMP ON				36.9	36.0	78	142						
1730		70.5	- 0.9	PUMP ON				36.9	34.0	77	140						
1745		69.6	- 0.9	PUMP ON				36.9	32.0	76	138						
1800		68.7	- 0.9	PUMP ON				36.9	30.0	75	136						
1815		67.8	- 0.9	PUMP ON				36.9	28.0	74	134						
1830		66.9	- 0.9	PUMP ON				36.9	26.0	73	132						
1845		66.0	- 0.9	PUMP ON				36.9	24.0	72	130						
1900		65.1	- 0.9	PUMP ON				36.9	22.0	71	128						
1915		64.2	- 0.9	PUMP ON				36.9	20.0	70	126						
1930		63.3	- 0.9	PUMP ON				36.9	18.0	69	124						
1945		62.4	- 0.9	PUMP ON				36.9	16.0	68	122						
2000		61.5	- 0.9	PUMP ON				36.9	14.0	67	120						
2015		60.6	- 0.9	PUMP ON				36.9	12.0	66	118						
2030		59.7	- 0.9	PUMP ON				36.9	10.0	65	116						
2045		58.8	- 0.9	PUMP ON				36.9	8.0	64	114						
2100		57.9	- 0.9	PUMP ON				36.9	6.0	63	112						
2115		57.0	- 0.9	PUMP ON				36.9	4.0	62	110						
2130		56.1	- 0.9	PUMP ON				36.9	2.0	61	108						
2145		55.2	- 0.9	PUMP ON				36.9	0.0	60	106						
2200	24.5	73.6		PUMP ON				34.5	10.9	90	72	0	1	SPOT			

ORIGINAL



Cementing Service Report

Schlumberger  
Dowell

Customer: CHEYENNE DRILLING Job Number: 20169754

Well: HARRIS A2		Location (legal): 15-20S-40W		Dowell Location: Ulysses, KS		Job Start: 07/25/2000	
Field: BRADSHAW		Formation Name/Type: SURFACE		Deviation: °		Well TVD: 300 ft	
County: GREELY		State/Province: KS		BHP: psi		Well MD: 300 ft	
Rig Name: CHEYENNE 8		Drilled For: Gas		Service Via: Land		Casing/Liner:	
Offshore Zone:		Well Class: New		Well Type: Development		Depth, ft: 307	
Drilling Fluid Type: Bentonite		Max. Density: 9.2 lb/gal		Plastic Viscosity: 35 cp		Tubing/Drill Pipe:	
Service Line: Cementing		Job Type: Cem Surface Casing		Depth, ft: 0		Size, in: 0	
Max. Allowed Tubing Pressure: psi		Max. Allowed Ann. Pressure: psi		Wellhead Connection: 8 5/8 HS&M		Perforations/Open Hole:	
Service Instructions: 8 5/8" surface casing set @ approximately 300' 50 sk lead @ 12.3 ppg 110 sk tail @ 14.8 ppg		Top, ft:		Bottom, ft:		spf:	
		Total Interval: ft		Diameter: in		No. of Shots:	
		Treat Down Casing:		Displacement: 16.4 bbl		Packer Type: None	
		Packer Depth: ft		Tubing Vol.: bbl		Casing Vol.: 19.6 bbl	
		Annular Vol.: 22 bbl		Open Hole Vol.: bbl		Casing Tools:	
Casing/Tubing Secured <input checked="" type="checkbox"/>		1 Hole Volume Circulated prior to Cementing <input type="checkbox"/>		Squeeze Job:		Shoe Type: Guide	
Lift Pressure: 126 psi		Pipe Rotated <input type="checkbox"/>		Pipe Recirculated <input type="checkbox"/>		Shoe Depth: 307 ft	
No. Centralizers: 3		Top Plugs: 1		Bottom Plugs: 0		Stage Tool Type:	
Cement Head Type: Single		Stage Tool Depth: 0 ft		Tool Depth: 0 ft		Tool Type:	
Job Scheduled For: 07/25/2000 17:00		Arrived on Location: 07/25/2000 17:00		Leave Location: 7/25/2000 20:00		Collar Type: Auto-Fill	
		Collar Depth: 265 ft		Sqz Total Vol: 0 bbl			

Time	Cum Vol	Density	Pressure U1	Reset Volume	Top Flowrate	Message	
24 hr Clock	bbbl	ppg	psi	bbbl	bpm		
18:55	0	0	0	0	0	0	START ACQUISITION
18:55	0.	8.78	0.	0.	0.	0	
18:55	0.	8.78	0.	0.	0.	0	Start Pumping Water
18:56	0.093	8.79	9.16	0.093	1.62	0	
18:56	1.79	8.61	87.	1.79	6.1	0	
18:56	3.84	8.56	91.58	3.84	6.12	0	
18:57	5.89	8.74	100.7	5.89	6.12	0	
18:57	7.93	8.71	100.7	7.93	6.1	0	
18:57	9.98	8.63	96.15	9.98	6.12	0	
18:58	12.02	8.78	100.7	12.02	6.07	0	
18:58	14.06	8.87	105.3	14.06	6.12	0	
18:58	16.11	8.85	100.7	16.11	6.12	0	
18:59	16.11	8.85	100.7	16.11	6.12	0	[Reset Volume]=0 bbl
18:59	16.11	8.85	100.7	16.11	6.12	0	Start Mixing Lead Slurry
18:59	18.16	9.97	109.9	0.715	6.07	0	
18:59	20.17	11.46	146.5	2.73	6.04	0	
18:59	22.18	13.1	178.6	4.74	5.98	0	
19:00	24.22	11.95	146.5	6.78	6.1	0	
19:00	26.26	12.43	151.1	8.82	6.1	0	
19:00	28.3	12.09	141.9	10.86	6.1	0	
19:01	30.33	12.24	141.9	12.89	6.04	0	
19:01	32.35	12.78	155.7	14.91	6.04	0	

Well		Field				Service Date		Customer		Job Number
HARRIS #A2		BRADSHAW						CHEYENNE DRILLING		20169754
Time	Cum/Of	Density	Pressure UI	Reset Volume	Test Flowrate			Message		
24 hr Clock	bbbl	ppg	psi	bbbl	bpm					
19:01	34.4	11.84	128.2	16.96	6.12	0	0			
19:02	36.43	13.42	174.	18.99	6.01	0	0			
19:02	36.43	13.42	174.	18.99	6.01	0	0	[Reset Volume]=0 bbl		
19:02	38.46	12.16	128.2	0.	6.1	0	0			
19:02	38.46	12.16	128.2	0.	6.1	0	0	Start Mixing Tail Slurry		
19:02	40.49	13.46	164.8	2.03	6.01	0	0			
19:03	42.52	11.77	109.9	4.06	6.12	0	0			
19:03	44.53	15.16	233.5	6.07	5.96	0	0			
19:03	46.57	13.24	164.8	8.11	6.01	0	0			
19:04	48.58	12.78	151.1	10.12	6.12	0	0			
19:04	50.62	13.04	151.1	12.16	6.07	0	0			
19:04	52.64	14.49	196.9	14.18	5.98	0	0			
19:05	54.65	14.4	192.3	16.19	6.04	0	0			
19:05	56.67	14.05	178.6	18.21	6.04	0	0			
19:05	58.69	14.59	201.5	20.23	5.98	0	0			
19:06	60.7	14.48	192.3	22.24	6.04	0	0			
19:06	62.73	15.07	215.2	24.27	5.98	0	0			
19:06	64.73	15.33	228.9	26.27	6.01	0	0			
19:07	66.75	14.62	192.3	28.29	6.01	0	0			
19:07	68.76	14.85	196.9	30.3	6.01	0	0			
19:07	68.76	14.85	196.9	30.3	6.01	0	0	[Reset Volume]=0 bbl		
19:07	70.8	12.22	132.8	0.411	6.12	0	0			
19:07	70.8	12.22	132.8	0.411	6.12	0	0	Start Displacement		
19:08	72.85	9.59	87.	2.46	6.12	0	0			
19:08	74.9	5.	82.42	4.51	6.1	0	0			
19:08	76.94	5.	91.58	6.55	6.07	0	0			
19:09	78.97	5.	105.3	8.58	6.04	0	0			
19:09	80.99	5.	109.9	10.59	6.01	0	0			
19:09	81.73	5.	36.63	11.33	2.35	0	0			
19:10	82.48	5.	32.05	12.08	2.26	0	0			
19:10	83.24	5.	41.21	12.85	2.26	0	0			
19:10	84.	5.	36.63	13.6	2.24	0	0			
19:11	84.74	5.	45.79	14.35	2.21	0	0			
19:11	85.48	5.	50.37	15.09	2.24	0	0			
19:11	86.23	5.	59.52	15.84	2.24	0	0			
19:12	86.98	5.	64.1	16.59	2.21	0	0			
19:12	87.34	5.	41.21	16.94	0.	0	0			
19:12	87.34	5.	54.95	16.94	0.	0	0			
19:13	87.34	5.	54.95	16.94	0.	0	0			
19:13	87.34	5.	0.	16.94	0.	0	0			
19:13	87.34	5.	-4.58	16.94	0.	0	0			

Post Job Summary									
Average Pump Rates, bpm					Volume of Fluid Injected, bbl				
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2		
5	0	0	6	48	0	15	0		
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density		
250	250	175	250	0		0 bbl	0 lb/gal		
Avg. N2 Percent	Designed Slurry Volume	Displacement	Mix Water Temp	<input checked="" type="checkbox"/> Cement Circulated to Surface? Volume 6 bbl <input type="checkbox"/> Washed Thru Perfs To 0 ft					
0 %	45 bbl	17 bbl	70 °F						
Customer or Authorized Representative			Dowell Supervisor			<input type="checkbox"/> Circulation Lost <input checked="" type="checkbox"/> Job Completed			
Domoso Castillo			Dave Brawley						



**JOB SUMMARY**

TICKET # **777499** ORDER NO 70006 TICKET DATE **July 26, 00**

REGION <b>North America</b>	NWA/COUNTRY <b>MID CONT.</b>	BOA / STATE <b>KANSAS</b>	COUNTY <b>CREELEY</b>
MBU ID / EMP # <b>MCI 0102 188624</b>	EMPLOYEE NAME <b>JOE JACKSON</b>	PSL DEPARTMENT <b>Z1</b>	
LOCATION <b>LIBERAL</b>	COMPANY <b>BRADSHAW ENG. INC</b>	CUSTOMER REP / PHONE <b>MARK RAPASKY</b>	<b>ORIGINAL</b>
TICKET AMOUNT <b>10,213.23</b>	WELL TYPE <b>OIL</b>	API / UWI #	
WELL LOCATION <b>TURBINE</b>	DEPARTMENT <b>S01</b>	JOB PURPOSE CODE <b>035</b>	
LEASE / WELL # <b>HARRIS A-2</b>	SEC / TWP / RNG <b>15-20S-40W</b>		

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
<b>JOE JACKSON 188624</b>			
<b>S. ENGEL</b>			
<b>S. HOWELL 166949</b>			
<b>I. STANLEY 179774</b>			

HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES	HES UNIT NUMBERS	R/T MILES
<b>PLU 452181</b>							
<b>54218-78202</b>							
<b>52947-6611</b>							
<b>53336-6612</b>							

Form Name \_\_\_\_\_ Type: \_\_\_\_\_  
 Form Thickness \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_  
 Packer Type \_\_\_\_\_ Set At \_\_\_\_\_  
 Bottom Hole Temp. \_\_\_\_\_ Pressure \_\_\_\_\_  
 Misc. Data \_\_\_\_\_ Total Depth \_\_\_\_\_

DATE TIME	CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
	<b>7/27/00 0600</b>	<b>7/27/00 1030</b>	<b>7/27/00</b>	<b>7/27/00</b>

**TOOLS AND ACCESSORIES**

TYPE AND SIZE	QTY	MAKE
Float Collar		
Float Shoe		
Guide Shoe	<b>1</b>	<b>HES</b>
Centralizers	<b>5</b>	<b>HES</b>
Bottom Plug		
Top Plug	<b>1</b>	<b>HES</b>
Head	<b>PC 1</b>	<b>HES</b>
Packer	<b>STOPPING 1</b>	<b>HES</b>
Other	<b>NP INSERT 1</b>	<b>HES</b>

**WELL DATA**

	NEW/USED	WEIGHT	SIZE	FROM	TO	MAX ALLOW
Casing	<b>N</b>	<b>10</b>	<b>4 1/2</b>	<b>SURF</b>		
Liner						
Liner						
Tbg/D.P.						
Tbg/D.P.						
Open Hole						<b>SHOTS/FT</b>
Perforations						
Perforations						
Perforations						

**MATERIALS**

Treat Fluid	Density	Lb/Gal
Disp. Fluid	Density	Lb/Gal
Prop Type	Size	Lb.
Prop Type	Size	Lb.
Acid Type	Gal.	%
Acid Type	Gal.	%
Surfactant	Gal	In
NE Agent	Gal	In
Fluid Loss	Gal/Lb	In
Gelling Agent	Gal/Lb	In
Fric. Red.	Gal/Lb	In
Breaker	Gal/Lb	In
Blocking Agent	Gal/Lb	
Perfpac Balls	Qty.	
Other		
Other		
Other		
Other		

HOURS ON LOCATION		OPERATING HOURS		DESCRIPTION OF JOB
DATE	HOURS	DATE	HOURS	
<b>7/27</b>	<b>11.5</b>	<b>7/27</b>	<b>1.5</b>	
<b>TOTAL</b>		<b>TOTAL</b>		

**HYDRAULIC HORSEPOWER**  
 ORDERED \_\_\_\_\_ Avail \_\_\_\_\_ Used \_\_\_\_\_  
**TREATED** \_\_\_\_\_ **AVERAGE RATES IN BPM** \_\_\_\_\_ Overall \_\_\_\_\_  
 Disposition \_\_\_\_\_  
**FEET** **15** **CEMENT LEFT IN PIPE** \_\_\_\_\_ Overall \_\_\_\_\_  
 Reason **SHOE JOINT**

**CEMENT DATA**

STAGE	SACKS	CEMENT	BULK/SKS	ADDITIVES	YIELD	LBS/GAL
<b>1</b>	<b>297</b>	<b>MURCON</b>	<b>B</b>	<b>1/4# FLOCEL</b>	<b>3.02</b>	<b>11.28</b>
<b>2</b>	<b>130</b>	<b>S/SOPBZ 4</b>	<b>B</b>	<b>20% TOTAL GEL, 5% CAL SEAL, 16% HALAD 20#</b> <b>1/4# FLOCEL</b>		

Circulating _____	Displacement _____	Preflush _____	Gal - BBI <b>12</b>	Type <b>MF</b>
Breakdown _____	Maximum _____	Load & Bkdn. _____	Gal - BBI _____	Pad. BBI - Gal _____
Average _____	Frac Gradient _____	Treatment _____	Gal - BBI _____	Disp: BBI - Gal _____
Shut In Instant _____	5 Min _____	Cement Slurr _____	Gal - BBI <b>18.3</b>	
	15 Min _____	Total Volume _____	Gal - BBI <b>15.0 + 2.7</b>	

Frac Ring #1 \_\_\_\_\_ Frac Ring #2 \_\_\_\_\_ Frac Ring #3 \_\_\_\_\_ Frac Ring #4 \_\_\_\_\_  
**THE INFORMATION STATED HEREIN IS CORRECT** CUSTOMER'S REPRESENTATIVE SIGNATURE \_\_\_\_\_

