

TRILOBITE TESTING COMPANY, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SIGWING #1 Test No. 1 Date 1/15/92
Company ARGENT ENERGY INC Zone Tested LWR TOPEKA
Address 110 S MAIN #410 WICHITA KS 67202-3745 Elevation 1882
Co. Rep./Geo. RICK HARRIS Cont. SHIELDS DRLG Est. Ft. of Pay _____
Location: Sec. 1 Twp. 6S Rge. 18W Co. ROOKS State KS

Interval Tested 2927-2971 Drill Pipe Size 4.5 FH
Anchor Length 44 Wt. Pipe I.D. - 2.7 Ft. Run 976
Top Packer Depth 2922 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 2927
Total Depth 2971

Mud Wt. 9.9 lb / gal. Viscosity 44 Filtrate 8.8

Tool Open @ 11:08 Initial Blow WEAK 1/2" BLOW BUILDING TO 9"

Final Blow VERY WEAK 1/4" BLOW BUILDING TO 2"

Recovery — Total Feet 190 Flush Tool? NO

Rec. 70 Feet of WATERY MUD

Rec. 120 Feet of MUDDY WATER

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 85 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.58 @ 58.6 °F Chlorides 13000 ppm Recovery Chlorides 1500 ppm System

(A) Initial Hydrostatic Mud 1510.2 PSI Ak1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 32.2 PSI @ (depth) 2934 w/Clock No. 17640

(C) First Final Flow Pressure 51.2 PSI Ak1 Recorder No. 24174 Range 3350

(D) Initial Shut-in Pressure 1037.3 PSI @ (depth) 2970 w/Clock No. 8698

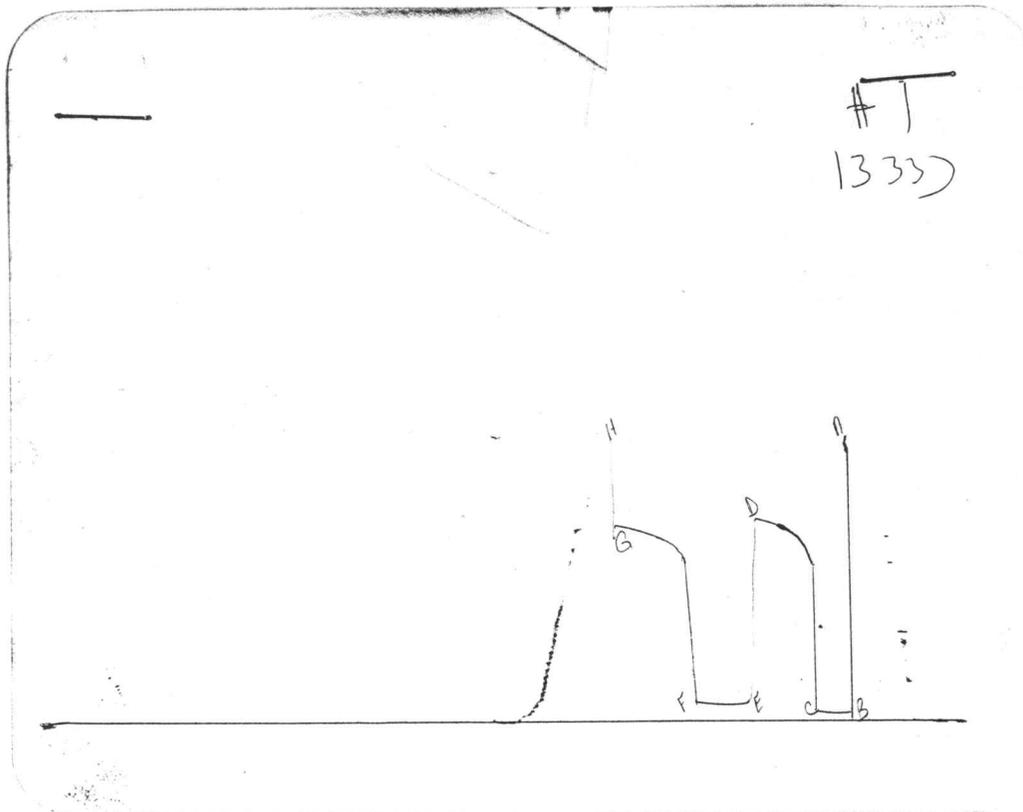
(E) Second Initial Flow Pressure 71.2 PSI Ak1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 93.2 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 998.2 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1485.3 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON TOTAL PRICE \$ 600



POINT

This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1504	1510.2
(B) FIRST INITIAL FLOW PRESSURE	30	32.2
(C) FIRST FINAL FLOW PRESSURE	49	51.2
(D) INITIAL CLOSED-IN PRESSURE	1035	1037.3
(E) SECOND INITIAL FLOW PRESSURE	69	71.2
(F) SECOND FINAL FLOW PRESSURE	89	93.2
(G) FINAL CLOSED-IN PRESSURE	995	998.2
(H) FINAL HYDROSTATIC MUD	1484	1485.3

Test Ticket

No 4733

Well Name & No. Sigwing #1 Test No. 1 Date 1-15-91
 Company Arco Energy Zone Tested Lower Topelco
 Address 110 S Main St Wichita Ks 67202-3745 Elevation 1882
 Co. Rep./Geo. Rick Harris cont. Shields Est. Ft. of Pay _____
 Location: Sec. 1 Twp. 6s Rge. 18w Co. Rooks State Ks
 No. of Copies 5 Distribution Sheet _____ Yes X No Turnkey _____ Yes X No _____ Evaluation _____

Interval Tested 2927 - 2971 Drill Pipe Size 4 1/2 FH
 Anchor Length 44 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 2922 Hole Size — 77/8" _____ Rubber Size — 63/4" _____
 Bottom Packer Depth 2927 Wt. Pipe I.D. — 2.7 Ft. Run 976
 Total Depth 2971 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 9.9 lb/gal. Viscosity 44 Filtrate 8.8
 Tool Open @ 11:08 Initial Blow weak 3/4" blow building to 9"

Final Blow very weak 1/2" blow building to 2"

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
<u>190</u>	<u>-</u>	<u>N</u>
Rec. <u>70</u> Feet Of <u>watery mud</u>	%gas _____ %Oil _____ %water _____ %mud _____	
Rec. <u>120</u> Feet Of <u>Muddy water</u>	%gas _____ %Oil _____ %water _____ %mud _____	
Rec. _____ Feet Of _____	%gas _____ %Oil _____ %water _____ %mud _____	
Rec. _____ Feet Of _____	%gas _____ %Oil _____ %water _____ %mud _____	
Rec. _____ Feet Of _____	%gas _____ %Oil _____ %water _____ %mud _____	

BHT 85 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW .58 @ 5816 OF Chlorides 13,000 ppm Recovery Chlorides 1500 ppm System

- (A) Initial Hydrostatic Mud 1504 PSI Ak1 Recorder No. 13337 Range 3975
- (B) First Initial Flow Pressure 30 PSI @ (depth) 2934 w/Clock No. 17640
- (C) First Final Flow Pressure 49 PSI Ak1 Recorder No. 24174 Range 3350
- (D) Initial Shut-In Pressure 1035 PSI @ (depth) 2970 w/Clock No. 8698
- (E) Second Initial Flow Pressure 69 PSI Ak1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 89 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 995 PSI Initial Opening 30 Test X
- (H) Final Hydrostatic Mud 1484 PSI Initial Shut-In 45 Jars _____

TRILOBITE TESTING COMPANY SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUBSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 45 Safety Joint X
 Final Shut-In 60 Straddle _____
 Circ. Sub _____
 Sampler _____

Approved By _____
 Our Representative Pat [Signature]

Extra Packer _____
 Other _____

TRILOBITE TESTING COMPANY, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SIGWING #1 Test No. 2 Date 1/16/92
Company ARGENT ENERGY INC Zone Tested LKC-70'-100'
Address 110 S MAIN #410 WICHITA KS 67202-3745 Elevation 1882
Co. Rep./Geo. RICK HARRIS Cont. SHIELDS DRLG Est. Ft. of Pay _____
Location: Sec. 1 Twp. 6S Rge. 18W Co. ROOKS State KS

Interval Tested 3126-3165 Drill Pipe Size 4.5 FH
Anchor Length 39 Wt. Pipe I.D. - 2.7 Ft. Run 976
Top Packer Depth 3121 Drill Collar — 2.25 Ft. Run _____
Bottom Packer Depth 3126
Total Depth 3165

Mud Wt. 9.6 lb / gal. Viscosity 47 Filtrate 11.2

Tool Open @ 10:39 AM Initial Blow WEAK 1/2" BLOW DECREASING & DIED IN 25 MIN

Final Blow NO BLOW

Recovery — Total Feet 15 Flush Tool? NO

Rec. 15 Feet of MUD W/ FEW OIL SPOTS

Rec. _____ Feet of GOOD SHOW IN TOOL

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 86 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 1570.4 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 42.2 PSI @ (depth) 3131 w/Clock No. 25810

(C) First Final Flow Pressure 48.2 PSI AK1 Recorder No. 24174 Range 3350

(D) Initial Shut-in Pressure 615.2 PSI @ (depth) 3164 w/Clock No. 17639

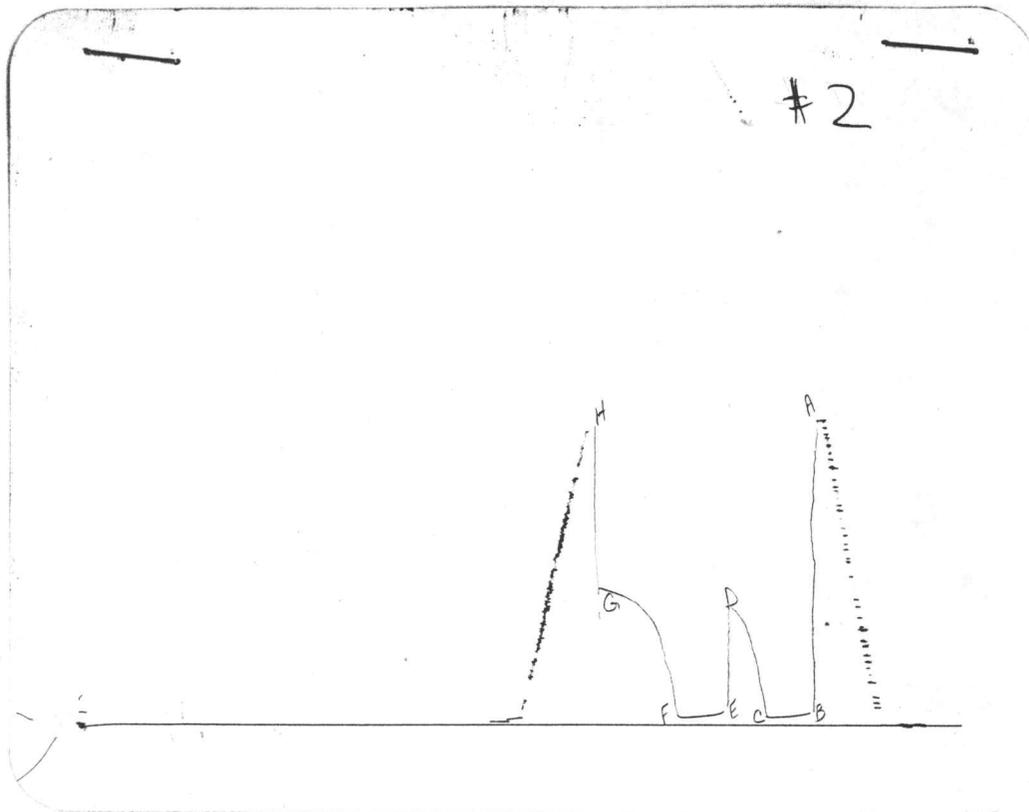
(E) Second Initial Flow Pressure 51.2 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 51.2 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 693.4 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1555.4 PSI Initial Shut-in 30 Final Shut-in 60

Our Representative PAUL SIMPSON TOTAL PRICE \$ 600



POINT This is an actual photograph of recorder chart PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1562	1570.4
(B) FIRST INITIAL FLOW PRESSURE	39	42.2
(C) FIRST FINAL FLOW PRESSURE	45	48.2
(D) INITIAL CLOSED-IN PRESSURE	612	615.2
(E) SECOND INITIAL FLOW PRESSURE	49	51.2
(F) SECOND FINAL FLOW PRESSURE	49	51.2
(G) FINAL CLOSED-IN PRESSURE	691	693.4
(H) FINAL HYDROSTATIC MUD	1553	1555.4

TRILOBITE TESTING COMPANY

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Test Ticket

No 4734

Well Name & No. <u>Sigwing #1</u>	Test No. <u>2</u>	Date <u>1-16-91</u>					
Company <u>Argent Energy</u>	Zone Tested <u>LKC-70-100</u>						
Address <u>110 S Main #510 Wichita Ks 67202-3745</u>	Elevation <u>1882</u>						
Co. Rep./Geo. <u>Rick Harry</u>	cont. <u>Shields</u>	Est. Ft. of Pay _____					
Location: Sec. <u>1</u>	Twp. <u>6s</u>	Rge. <u>18w</u>	Co. <u>Rooks</u>	state <u>Ks</u>			
No. of Copies <u>5</u>	Distribution Sheet _____	Yes _____	No _____	Turnkey _____	Yes _____	No _____	Evaluation _____

Interval Tested <u>3126-3165</u>	Drill Pipe Size <u>4 1/2 FIt</u>
Anchor Length <u>39</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>3121</u>	Hole Size — 77/8" _____ Rubber Size — 63/4" _____
Bottom Packer Depth <u>3126</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>976</u>
Total Depth <u>3165</u>	Drill Collar — 2.25 Ft. Run _____
Mud Wt. <u>9.6</u> lb/gal.	Viscosity <u>47</u> Filtrate <u>11.2</u>
Tool Open @ <u>10:39 AM</u> Initial Blow <u>weak 1/2" blow decreasing + died in 2.5</u>	
<u>Minutes</u>	
Final Blow <u>no blow</u>	

Recovery — Total Feet <u>15</u>	Feet of Gas in Pipe _____	Flush Tool? _____
Rec. <u>15</u> Feet Of	<u>Mud w/ few oil spots</u>	%gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet Of	<u>good show in tool</u>	%gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet Of		%gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet Of		%gas _____ %oil _____ %water _____ %mud _____
Rec. _____ Feet Of		%gas _____ %oil _____ %water _____ %mud _____

BHT 86 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

- (A) Initial Hydrostatic Mud 1562 PSI Ak1 Recorder No. 13337 Range 3975
- (B) First Initial Flow Pressure 39 PSI @ (depth) 3131 w/Clock No. 25810
- (C) First Final Flow Pressure 45 PSI Ak1 Recorder No. 24174 Range 3350
- (D) Initial Shut-In Pressure 612 PSI @ (depth) 3164 w/Clock No. 17639
- (E) Second Initial Flow Pressure 49 PSI Ak1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 49 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 691 PSI Initial Opening 30 Test x
- (H) Final Hydrostatic Mud 1553 PSI Initial Shut-In 30 Jars _____

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Final Flow 30 Safety Joint x

Final Shut-In 60 Straddle _____

Approved By [Signature]
Our Representative Paul Simpson

Sampler _____
Extra Packer _____
Other _____

TRILOBITE TESTING COMPANY, L.L.C.

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Drill-Stem Test Data

Well Name SIGWING #1 Test No. 3 Date 1/16/92
Company ARGENT ENERGY INC Zone Tested LKC-160'
Address 110 S MAIN #410 WICHITA KS 67202-3745 Elevation 1882
Co. Rep./Geo. RICK HARRIS Cont. SHIELDS DRLG Est. Ft. of Pay _____
Location: Sec. 1 Twp. 6S Rge. 18W Co. ROOKS State KS

Interval Tested 3195-3222 Drill Pipe Size 4.5 FH
Anchor Length 27 Wt. Pipe I.D. - 2.7 Ft. Run 976
Top Packer Depth 3190 Drill Collar — 2.25 Ft. Run _____
Bottom Packer Depth 3195
Total Depth 3222

Mud Wt. 9.5 lb / gal. Viscosity 40 Filtrate 11.8

Tool Open @ 11:11 PM Initial Blow WEAK 1/4" BLOW BUILDING TO 1"

Final Blow WEAK SURFACE BLOW

Recovery — Total Feet 50 Flush Tool? NO

Rec. 2 Feet of CLEAN OIL

Rec. 48 Feet of MUDDY WATER

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 91 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.33 @ 56.2 °F Chlorides 26000 ppm Recovery Chlorides 2500 ppm System

(A) Initial Hydrostatic Mud 1574.4 PSI Ak1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 22.2 PSI @ (depth) 3197 w/Clock No. 17640

(C) First Final Flow Pressure 32.2 PSI AK1 Recorder No. 24174 Range 3350

(D) Initial Shut-in Pressure 958.4 PSI @ (depth) 3221 w/Clock No. 25810

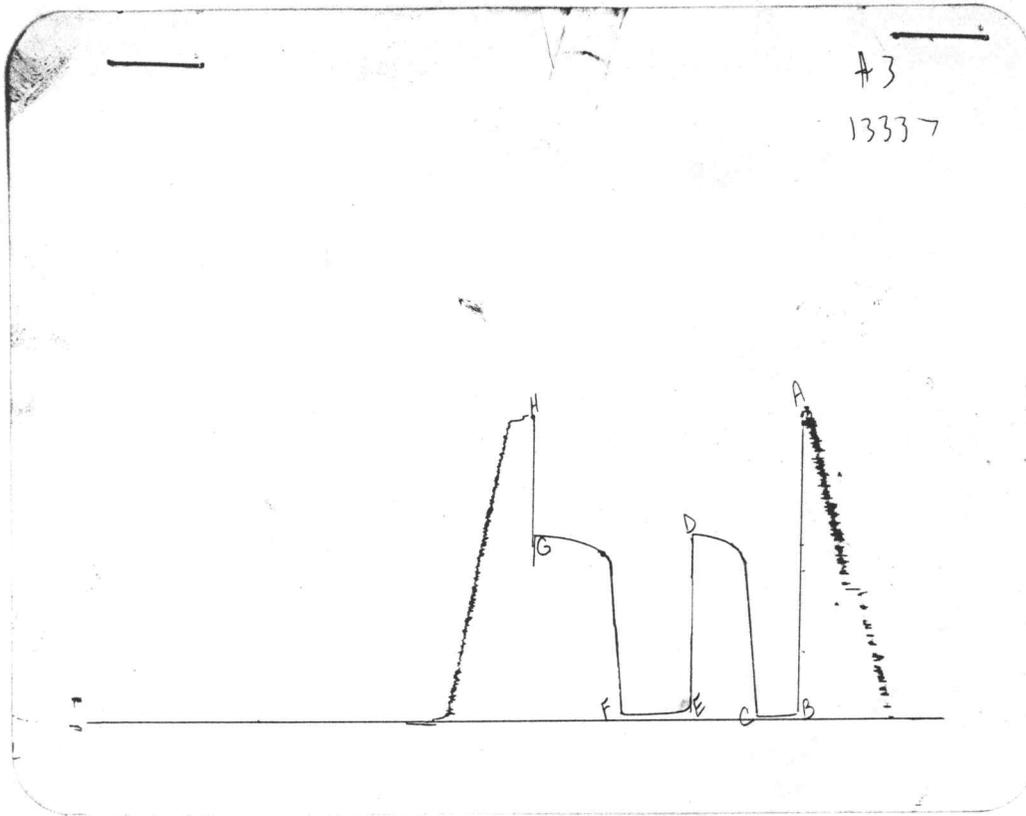
(E) Second Initial Flow Pressure 51.2 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 60.3 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 970.4 PSI Initial Opening 30 Final Flow 45

(H) Final Hydrostatic Mud 1564.8 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative PAUL SIMPSON TOTAL PRICE \$ 600



POINT

This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1572	1574.4
(B) FIRST INITIAL FLOW PRESSURE	20	22.2
(C) FIRST FINAL FLOW PRESSURE	30	32.2
(D) INITIAL CLOSED-IN PRESSURE	956	958.4
(E) SECOND INITIAL FLOW PRESSURE	49	51.2
(F) SECOND FINAL FLOW PRESSURE	57	60.3
(G) FINAL CLOSED-IN PRESSURE	966	970.4
(H) FINAL HYDROSTATIC MUD	1562	1564.8

TRILOBITE TESTING COMPANY

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Test Ticket

No 4735

Well Name & No. Sigwing #1 Test No. 3 Date 1-16-92
 Company Argent Energy Zone Tested LKC 160'
 Address _____ Elevation 1882
 Co. Rep./Geo. Rick Harris cont. Shields Est. Ft. of Pay _____
 Location: Sec. 1 Twp. 6s Rge. 18w Co. Rooks State Ks
 No. of Copies _____ Distribution Sheet _____ Yes _____ NO Turnkey _____ Yes _____ NO _____ Evaluation _____

Interval Tested 3195-3222 Drill Pipe Size 4 1/2 FH
 Anchor Length 27 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 3190 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 3195 Wt. Pipe I.D. — 2.7 Ft. Run 976
 Total Depth 3222 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 9.5 lb/gal. Viscosity 40 Filtrate 11.8
 Tool Open @ 11:11 PM Initial Blow weak ku" blow building to 1"
 Final Blow weak surface blow

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?	%gas	%oil	%water	%mud
Rec. <u>2</u> Feet Of <u>clean oil</u>						
Rec. <u>48</u> Feet Of <u>Muddy water</u>					<u>60</u>	<u>40</u>
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						
Rec. _____ Feet Of _____						

BHT 91 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW .33 @ 56.2 °F Chlorides 26,000 ppm Recovery Chlorides 2,500 ppm System
 (A) Initial Hydrostatic Mud 1572 PSI AK1 Recorder No. 13337 Range 3975
 (B) First Initial Flow Pressure 20 PSI @ (depth) 3197 w/Clock No. 17640
 (C) First Final Flow Pressure 30 PSI AK1 Recorder No. 24174 Range 3350
 (D) Initial Shut-In Pressure 956 PSI @ (depth) 3221 w/Clock No. 25810
 (E) Second Initial Flow Pressure 49 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 57 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-In Pressure 966 PSI Initial Opening 30 Test X
 (H) Final Hydrostatic Mud 1562 PSI Initial Shut-In 45 Jars _____

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Final Flow 45 Safety Joint X
 Final Shut-In 60 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ _____

Approved By [Signature]

Our Representative Paul Simpson