TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name PETERSELIE #1-21 Test No. 1 Date 6/15/93

Company ALLEN DRILLING COMPANY Zone CHEROKEE

Address 6565 S DAYTON #3800 ENGLEWOOD CO 80111 Elevation 2248 KB

Co. Rep./Geo. RICH ODONNELL Cont. COMPANY TOOLS RIG #5 Est. Ft. of Pay

Location: Sec. 21 Twp. 20S Rge. 23W Co. NESS State KS

Interval Tested 4347-4381 Drill Pipe Size 4.5" XH

Anchor Length 34 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth 4342 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth 4347 Mud Wt. 9.3 lb/Gal.

Total Depth 4381 Viscosity 44 Filtrate 10.2

Tool Open @ 5:45 AM Initial Blow WEAK BLOW DEAD IN 10 MINUTES

Final Blow NO BLOW -- FLUSHED TOOL & RECEIVED WEAK SURGE THEN DEAD

Recovery - Total Feet 10 Flush Tool? YES

Rec. 10 Feet of DRILLING MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

BHT 117 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 3800 ppm System

(A) Initial Hydrostatic Mud 2165.3 PSI AK1 Recorder No. 13309 Range 4700

(B) First Initial Flow Pressure 36.5 PSI @ (depth) 4350 w / Clock No. 26191

(C) First Final Flow Pressure 36.5 PSI AK1 Recorder No. 13339 Range 4025

(D) Initial Shut-in Pressure 49.5 PSI @ (depth) 4378 w / Clock No. 27573

(E) Second Initial Flow Pressure 49.5 PSI AK1 Recorder No. Range

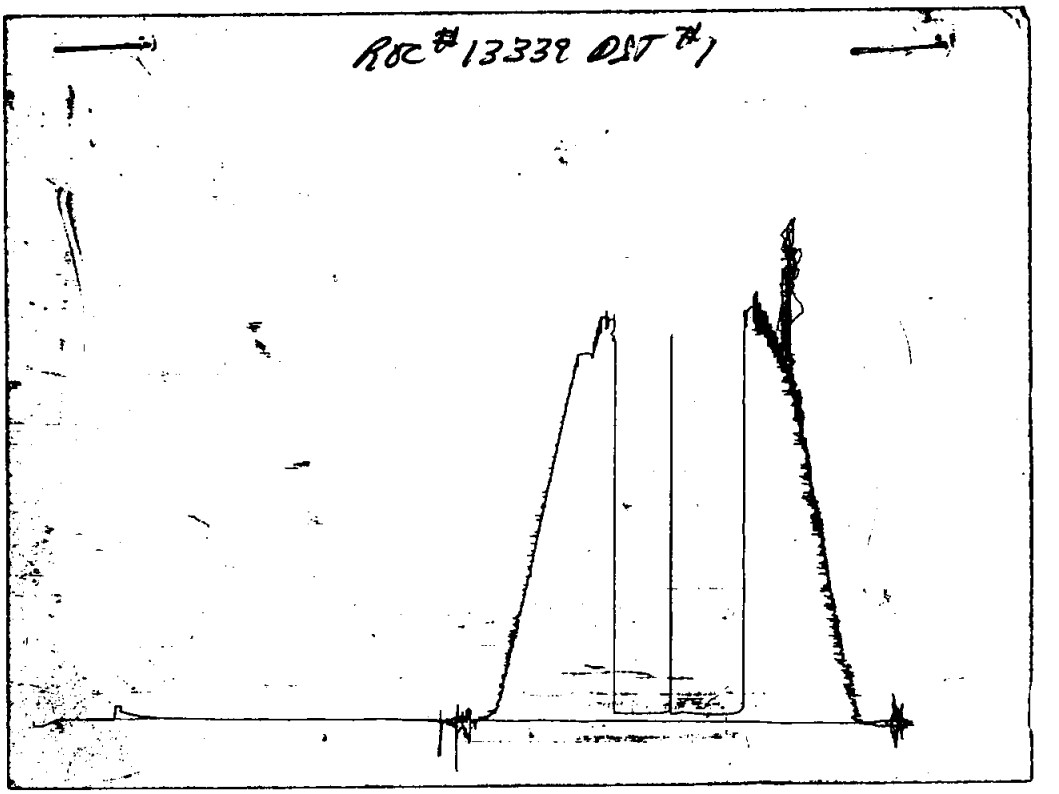
(F) Second Final Flow Pressure 49.5 PSI @ (depth) w / Clock No.

(G) Final Shut-in Pressure 59.8 PSI Initial Opening 15 Final Flow 15

(H) Final Hydrostatic Mud 2139.5 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative JOHN RIEDL

CHART PAGE



This is an actual photograph of recorder chart

		FIELD READING	OFFICE READING
(A)	INITIAL HYDROSTATIC MUD	2153	2165.3
(B)	FIRST INITIAL FLOW PRESSURE	31	36.5
(C)	FIRST FINAL FLOW PRESSURE	31	36.5
(D)	INITIAL CLOSED-IN PRESSURE	34	49.5
(E)	SECOND INITIAL FLOW PRESSURE	34	49.5
(F)	SECOND FINAL FLOW PRESSURE	34	49.5
(G)	FINAL CLOSED-IN PRESSURE	36	59.8
(H)	FINAL HYDROSTATIC MUD	2126	2139.5

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Test Ticket

№ 5938

Well Name & No. PETERSELIE #1-21 Test No. 1 Date 6/15/93

Company ALLEN DRLG CO. Zone Tested CHEROKEE

Address 6565 S DAYTON SUITE 3200 ENGLEWOOD CO 80111 Elevation 2248 K.B.

Co. Rep./Geo. RICH O'DONNELL Cont. COMPANY TOOLS R16 Est. Ft. of Pay

Location: Sec. 21 Twp. 20S Rge. 23W Co. NESS State KS

No. of Copies Distribution Sheet Yes (NO) Turnkey Yes (NO) Evaluation

Interval Tested 4347 - 4381 Drill Pipe Size 4½ XH

Anchor Length 34 FT Top Choke — 1" Bottom Choke — ¾"

Top Packer Depth 4342 Hole Size — 7⅞" Rubber Size — 6¾"

Bottom Packer Depth 4347 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 4381 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.3 lb / gal. Viscosity 44 Filtrate 10.2

Tool Open @ 5:45 A.M Initial Blow WEAK BLOW DEAD IN 10 MINUTES

Final Blow NO BLOW - FLUSHED TOOL - RECEIVED WEAK SURFACE THEN DEAD

Recovery — Total Feet 10 Feet of Gas In Pipe Flush Tool? YES

1.	10	Feet Of	DRILLING MUD	%gas	%oil	%water	%mud
2.		Feet Of		%gas	%oil	%water	%mud
3.		Feet Of		%gas	%oil	%water	%mud
4.		Feet Of		%gas	%oil	%water	%mud
5.		Feet Of		%gas	%oil	%water	%mud

BHT 117 °F Gravity — °API @ — °F Corrected Gravity — °API

— @ — °F Chlorides — ppm Recovery Chlorides 3800 ppm System

Initial Hydrostatic Mud	2153 PSI	AK1 Recorder No.	13309	Range	4700
First Initial Flow Pressure	31 PSI	@ (depth)	4350	w/Clock No.	26191
First Final Flow Pressure	31 PSI	AK1 Recorder No.	13739 ACPO	Range	4025
Initial Shut-In Pressure	34 PSI	@ (depth)	4378	w/Clock No.	27573
Second Initial Flow Pressure	34 PSI	AK1 Recorder No.	—	Range	—
Second Final Flow Pressure	34 PSI	@ (depth)	—	w/Clock No.	—
Final Shut-In Pressure	36 PSI	Initial Opening	~~30~~ 15	Test	V 600
Final Hydrostatic Mud	2126 PSI	Initial Shut-In	30	Jars	V 200
		Final Flow	15	Safety Joint	V 50
		Final Shut-In	30	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	

Approved By Rich O'Donnell

Our Representative John Feud

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name: PETERSELIE #1-21 Test No. 2 Date 6/15/93

Company: ALLEN DRILLING COMPANY Zone CHEROKEE

Address: 6565 S DAYTON #3800 ENGLEWOOD CO 80111 Elevation 2248 KB

Co. Rep./Geo.: RICH ODONNELL Cont. COMPANY TOOLS RIG #5 Est. Ft. of Pay

Location: Sec. 21 Twp. 20S Rge. 23W Co. NESS State KS

Interval Tested: 4347-4391 Drill Pipe Size: 4.5" XH

Anchor Length: 44 Wt. Pipe I.D. - 2.7 Ft. Run

Top Packer Depth: 4342 Drill Collar – 2.25 Ft. Run

Bottom Packer Depth: 4347 Mud Wt.: 9.4 lb/Gal.

Total Depth: 4391 Viscosity: 48 Filtrate: 10.6

Tool Open @ 7:00 PM Initial Blow: WEAK BLOW DEAD IN 10 MINUTES

Final Blow: NO BLOW

Recovery - Total Feet: 8 Flush Tool? NO

Rec. 8 Feet of DRILLING MUD

Rec. Feet of

Rec. Feet of

Rec. Feet of

Rec. Feet of

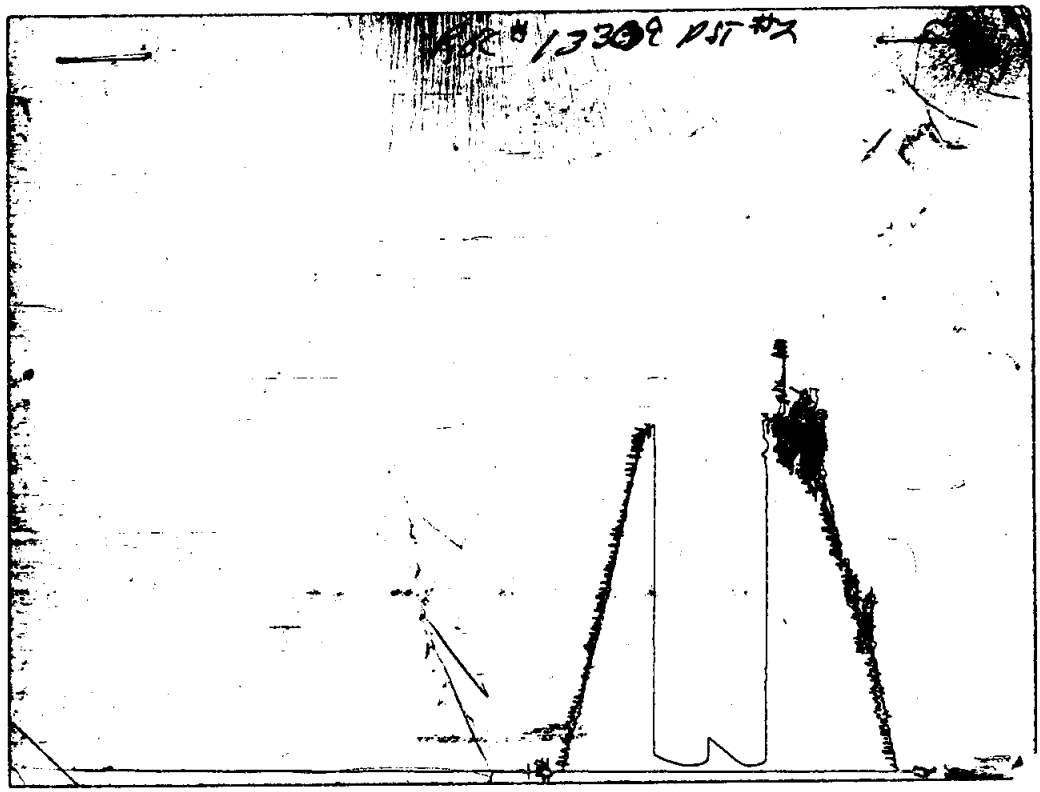
BHT 118 °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud	2169.5 PSI	AK1 Recorder No. 13309	Range 4700
(B) First Initial Flow Pressure	49.5 PSI	@ (depth) 4352	w / Clock No. 26191
(C) First Final Flow Pressure	52.1 PSI	AK1 Recorder No. 13339	Range 4025
(D) Initial Shut-in Pressure	216.4 PSI	@ (depth) 4388	w / Clock No. 27573
(E) Second Initial Flow Pressure	62.4 PSI	AK1 Recorder No.	Range
(F) Second Final Flow Pressure	62.4 PSI	@ (depth)	w / Clock No.
(G) Final Shut-in Pressure	63.4 PSI	Initial Opening 15	Final Flow 15
(H) Final Hydrostatic Mud	2149.5 PSI	Initial Shut-in 30	Final Shut-in 30

Our Representative: JOHN RIEDL

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2163	2169.5
(B) FIRST INITIAL FLOW PRESSURE	46	49.5
(C) FIRST FINAL FLOW PRESSURE	48	52.1
(D) INITIAL CLOSED-IN PRESSURE	207	216.4
(E) SECOND INITIAL FLOW PRESSURE	52	62.4
(F) SECOND FINAL FLOW PRESSURE	52	62.4
(G) FINAL CLOSED-IN PRESSURE	72	63.4
(H) FINAL HYDROSTATIC MUD	2140	2149.5

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Test Ticket

No 5939

Well Name & No. PETERSON #1-21 Test No. 2 Date 6/15/93

Company ALLEN DRLG CO. Zone Tested CHEROKEE

Address 6565 S YOSTON SUITE 3800 ENGLEWOOD CO. Elevation 2248 K.B

Co. Rep./Geo. RICH O DONNELL Cont. CO TOOLS RIG 5 (8611) Est. Ft. of Pay

Location: Sec. 21 Twp. 20S Rge. 23W Co. NESS State KS

No. of Copies Distribution Sheet Yes No Turnkey Yes (No) DLD Evaluation

Interval Tested 4347-4391 Drill Pipe Size 4½ XH

Anchor Length 44 FT Top Choke — 1" Bottom Choke — ¾"

Top Packer Depth 4342 Hole Size — 7⅞" Rubber Size — 6¾"

Bottom Packer Depth 4347 Wt. Pipe I.D. — 2.7 Ft. Run 0

Total Depth 4391 Drill Collar — 2.25 Ft. Run 0

Mud Wt. 9.4 lb/gal. Viscosity 48 Filtrate 10.6

Tool Open @ 3:00 PM Initial Blow WEAK BLOW DEAD IN 10 MINUTES

Final Blow NO BLOW

Recovery — Total Feet 8 Feet of Gas in Pipe — Flush Tool? NO

Rec. 8	Feet Of DRILLING MUD	%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
Rec.	Feet Of	%gas	%oil	%water	%mud

BHT 118 °F Gravity — °API @ — °F Corrected Gravity — °API

RW — @ — °F Chlorides — ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud	2163 PSI	AK1 Recorder No.	13309	Range	4700
(B) First Initial Flow Pressure	46 PSI	@ (depth)	4352	w/Clock No.	2618
(C) First Final Flow Pressure	48 PSI	AK1 Recorder No.	13339	Range	4025
(D) Initial Shut-In Pressure	207 PSI	@ (depth)	4388	w/Clock No.	22573
(E) Second Initial Flow Pressure	52 PSI	AK1 Recorder No.	—	Range	—
(F) Second Final Flow Pressure	52 PSI	@ (depth)	—	w/Clock No.	
(G) Final Shut-In Pressure	72 PSI	Initial Opening	15	Test	V 600
(H) Final Hydrostatic Mud	2140 PSI	Initial Shut-In	30	Jars	V 200
		Final Flow	15	Safety Joint	V 50
		Final Shut-In	30	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Other	

Approved By Rich O'Donnell

Our Representative John Roedl