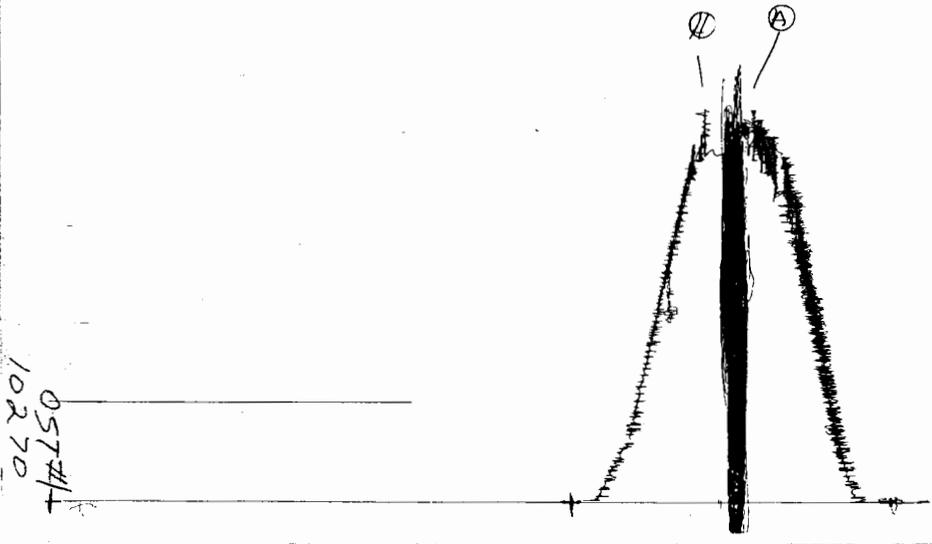


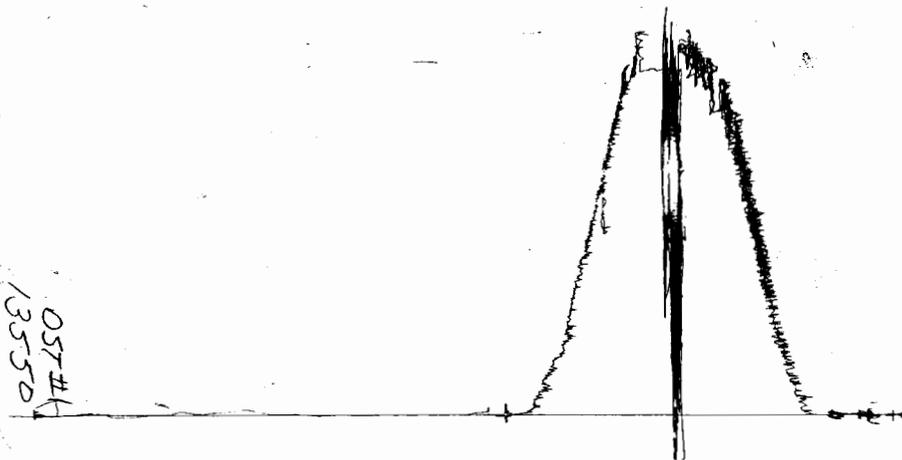
KT 18962

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KT 18962

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P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC. *MS 5/28/93*  
FORMATION TESTING TICKET N° 18963

Elevation 2087 KB Formation Arbuckle Eff. Pay      Ft

District GT. Bend Date 2-10-93 Customer Order No.     

COMPANY NAME Allen Drilling Company

ADDRESS 6565 S. DAYTON - SUITE 3800 Englewood, Colorado 80111

LEASE AND WELL NO. Decker "C" #5-18 COUNTY BARTON STATE Ks Sec 18 Twp 20<sup>s</sup> Rge 15<sup>w</sup>

Mail Invoice To SAME Co. Name Address No. Copies Requested Reg

Mail Charts To SAME Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 3763 ft. to 3771 ft. Total Depth 3771 ft.

Packer Depth 3758 ft. Size 6 7/8 in. Packer Depth      ft. Size      in.

Packer Depth 3763 ft. Size 6 7/8 in. Packer Depth      ft. Size      in.

Depth of Selective Zone Set     

Top Recorder Depth (Inside) 3765 ft. Recorder Number 10270 Cap. 4150

Bottom Recorder Depth (Outside) 3768 ft. Recorder Number 13550 Cap. 4175

Below Straddle Recorder Depth      ft. Recorder Number      Cap.     

Drilling Contractor Allen Drilling Drill Collar Length      I. D.      in

Mud Type Chemical Viscosity 47 Weight Pipe Length      I. D.      in

Weight 9.4 Water Loss 10.4 cc. Drill Pipe Length 3743 I. D. 3.8 in

Chlorides 8,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in

Jars: Make      Serial Number      Anchor Length 8 ft. Size 5 1/2 in

Did Well Flow?      Reversed Out      Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in

Blow: IF - FF

Recovered 360 ft. of mud

Recovered      ft. of     

Recovered      ft. of     

Recovered      ft. of     

Recovered      ft. of PACKER FAILURE FEB 16 1993

Chlorides      P.P.M. Sample Jars used      Remarks:     

Time On Location      A.M. P.M. Time Pick Up Tool 3:00 A.M. P.M. Time Off Location      A.M. P.M.

Time Set Packer(s) 4:50 A.M. P.M. Time Started Off Bottom 5:10 A.M. P.M. Maximum Temperature     

Initial Hydrostatic Pressure      (A) 2021 P.S.I.

Initial Flow Period      Minutes (B)      P.S.I. to (C)      P.S.I.

Initial Closed In Period      Minutes (D)      P.S.I.

Final Flow Period      Minutes (E)      P.S.I. to (F)      P.S.I.

Final Closed In Period      Minutes (G)      P.S.I.

Final Hydrostatic Pressure      (H) 1908 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

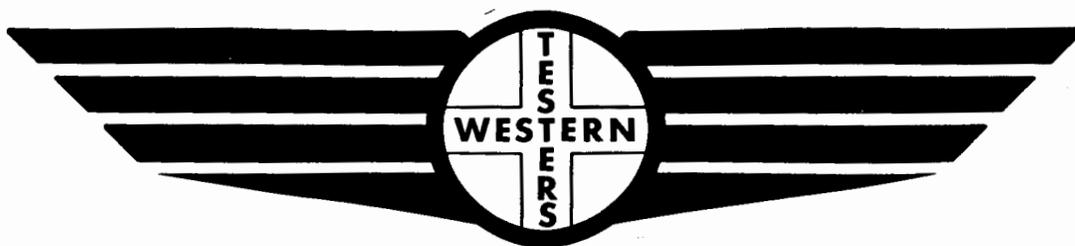
Test Approved By      Signature of Customer or his authorized representative

Western Representative Ray Schwager Thank you

FIELD INVOICE

Open Hole Test	\$
Misrun	<input checked="" type="checkbox"/>
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$
Telecopier	\$
TOTAL	<input checked="" type="checkbox"/>

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. DECKERT C #5-18 SEC. 18 TWP. 20S RGE. 15W TEST NO. 1 DATE 2/10/93

DST REPORT

GENERAL INFORMATION

DATE : 2/10/93	TICKET : 18963
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : DECKERT C
WELL : 5-18 TEST: 1	GEOLOGIST: ?
ELEVATION: 2087 KB	FORMATION: ARBUCKLE
SECTION : 18	TOWNSHIP : 20S
RANGE : 15W COUNTY: BARTON	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3763.00 ft	TO: 3771.00 ft	TVD: 3771.0 ft
DEPTH OF SELECTIVE ZONE:	TEST TYPE: OIL	
DEPTH OF RECORDERS: 3765.0 ft	3768.0 ft	
TEMPERATURE: 0.0		
DRILL COLLAR LENGTH: 0.0 ft	I.D.:	0.000 in
WEIGHT PIPE LENGTH : 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 3743.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 8.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE : 0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE : 7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH: 3758.0 ft	SIZE:	6.630 in
PACKER DEPTH: 3763.0 ft	SIZE:	6.630 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN DRLG RIG 4	VISCOSITY : 47.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 10.400 cc
WEIGHT : 9.400 ppg	
CHLORIDES : 8000 ppm	SERIAL NUMBER:
JARS-MAKE :	REVERSED OUT?: NO
DID WELL FLOW?: NO	

COMMENTS

Comment

PACKER FAILURE

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
560.0	0.0	0.0	0.0	100.0	MUD

RATE INFORMATION

OIL VOLUME: 0.0000 STB	TOTAL FLOW TIME: No Events Created
GAS VOLUME: 0.0000 SCF	AVERAGE OIL RATE: 0.0000 STB/D
MUD VOLUME: 7.8548 STB	AVERAGE WATER RATE: 0.0000 STB/D
WATER VOLUME: 0.0000 STB	
TOTAL FLUID : 7.8548 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 0.00

Description	Duration	p1	p End
INITIAL FLOW	0.00	0.00	0.00
INITIAL SHUT-IN	0.00		0.00
FINAL FLOW	0.00	0.00	0.00
FINAL SHUT-IN	0.00		0.00

FINAL HYDROSTATIC PRESSURE: 0.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2021.00

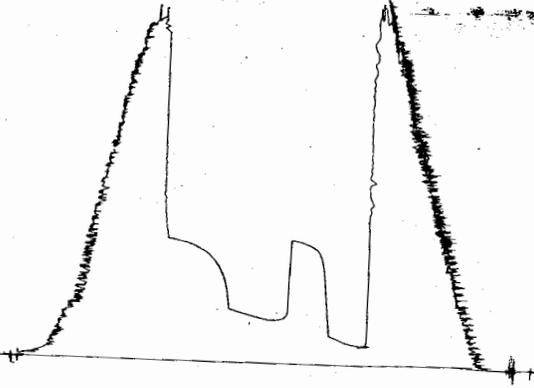
Description	Duration	p1	p End
INITIAL FLOW	0.00	0.00	0.00
INITIAL SHUT-IN	0.00		3.00

FINAL HYDROSTATIC PRESSURE: 1908.00

JK+18964

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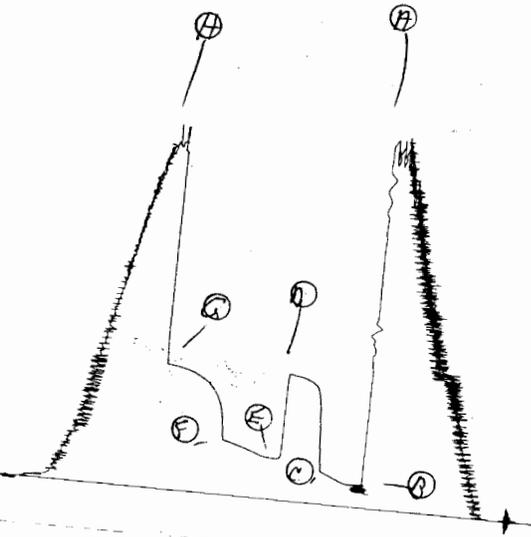
OST#2  
13550



JK+18964

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OST#2  
10270





WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No 18964

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2087 KB Formation Arbuckle Eff. Pay      Ft.

District GT Bend Date 2-10-93 Customer Order No.     

COMPANY NAME Allen Drilling Company

ADDRESS 6565 S. DAYTON - SUITE 3800 Englewood, Colorado 80111

LEASE AND WELL NO. Deeheet "C" #5-18 COUNTY BARTON STATE Ks Sec. 18 Twp. 20<sup>s</sup> R. 15<sup>w</sup>

Mail Invoice To: SAME Co. Name      Address      No. Copies Requested Reg

Mail Charts To: SAME Co. Name      Address      No. Copies Requested Reg

Formation Test No. 2 Interval Tested From 3720 ft. to 3771 ft. Total Depth 3771 ft.

Packer Depth 3715 ft. Size 6 7/8 in. Packer Depth      ft. Size      in.

Packer Depth 3720 ft. Size 6 7/8 in. Packer Depth      ft. Size      in.

Depth of Selective Zone Set     

Top Recorder Depth (Inside) 3727 ft. Recorder Number 10270 Cap. 4150

Bottom Recorder Depth (Outside) 3730 ft. Recorder Number 13550 Cap. 4175

Below Straddle Recorder Depth      ft. Recorder Number      Cap.     

Drilling Contractor Allen Drilling Drill Collar Length      I. D.      in.

Mud Type Chemical Viscosity 50 Weight Pipe Length      I. D.      in.

Weight 9.4 Water Loss 9.2 cc. Drill Pipe Length 3700 I. D. 3.8 in.

Chlorides 8000 P.P.M. Test Tool Length 20 ft. Tool Size 5/2 in.

Jars: Make      Serial Number      Anchor Length 51 ft. Size 5/2 in.

Did Well Flow?      Reversed Out      Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7/8 in. Tool Joint Size 4 1/2 X 11 in.

Blow: IF - WEAK building TO A STRONG Blow in 2 min  
FF - WEAK building TO A STRONG Blow in 3 min

Recovered 280 ft. of Muddy WATER

Recovered 300 ft. of WATER

Recovered      ft. of     

Recovered      ft. of     

Recovered      ft. of     

FEB 16 1993

Chlorides 31000 P.P.M. Sample Jars used 3 Remarks:     

Time On Location 12:00 A.M. Time Pick Up Tool 1:30 P.M. Time Off Location      A.M.

Time Set Packer(s) 9:10 A.M. Time Started Off Bottom 11:40 P.M. Maximum Temperature 117 °

Initial Hydrostatic Pressure      (A) 1931 P.S.I.

Initial Flow Period 30 Minutes (B) 104 P.S.I. to (C) 166 P.S.I.

Initial Closed In Period 30 Minutes (D) 697 P.S.I.

Final Flow Period 45 Minutes (E) 218 P.S.I. to (F) 291 P.S.I.

Final Closed In Period 45 Minutes (G) 676 P.S.I.

Final Hydrostatic Pressure      (H) 1890 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By      Signature of Customer or his authorized representative

Western Representative Ray Schwager Thank you

FIELD INVOICE

Open Hole Test  \$  
Misrun \$  
Straddle Test \$  
Jars \$  
Selective Zone \$  
Safety Joint \$  
Standby \$  
Evaluation \$  
Extra Packer \$  
Circ. Sub. \$  
Mileage \$  
Fluid Sampler \$  
Extra Charts \$  
Insurance \$  
Telecopier \$  
TOTAL

**WESTERN TESTING CO., INC.**  
**Pressure Data**

Date 2-10-92

Test Ticket No. 18964

Recorder No. 10220

Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.

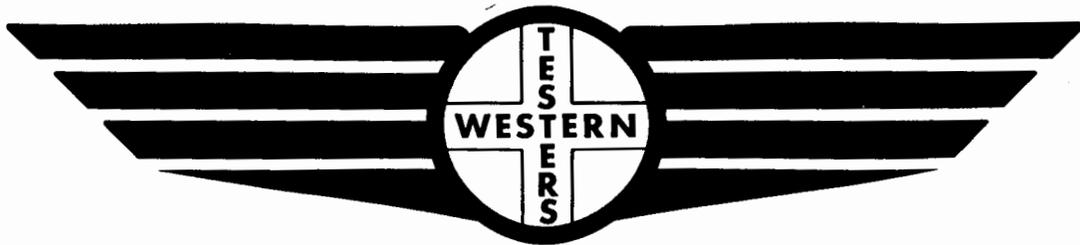
Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1946</u>	P.S.I.		M
B First Initial Flow Pressure	<u>119</u>	P.S.I.	Mins. <u>50</u>	Mins.
C First Final Flow Pressure	<u>176</u>	P.S.I.	Mins. <u>50</u>	Mins.
D Initial Closed-in Pressure	<u>687</u>	P.S.I.	Mins. <u>45</u>	Mins.
E Second Initial Flow Pressure	<u>227</u>	P.S.I.	Mins. <u>45</u>	Mins.
F Second Final Flow Pressure	<u>299</u>	P.S.I.		
G Final Closed-in Pressure	<u>679</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1882</u>	P.S.I.		

**PRESSURE BREAKDOWN**

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes						
P 1	<u>119</u>	0	<u>176</u>	0	<u>227</u>	0	<u>299</u>	0
P 2	<u>5</u>	5	<u>227</u>	3	<u>5</u>	5	<u>429</u>	3
P 3	<u>119</u>	10	<u>575</u>	6	<u>227</u>	10	<u>510</u>	6
P 4	<u>128</u>	15	<u>624</u>	9	<u>227</u>	15	<u>545</u>	9
P 5	<u>145</u>	20	<u>650</u>	12	<u>248</u>	20	<u>574</u>	12
P 6	<u>159</u>	25	<u>662</u>	15	<u>260</u>	25	<u>600</u>	15
P 7	<u>176</u>	30	<u>671</u>	18	<u>271</u>	30	<u>616</u>	18
P 8		35	<u>678</u>	21	<u>280</u>	35	<u>628</u>	21
P 9		40	<u>682</u>	24	<u>292</u>	40	<u>639</u>	24
P10		45	<u>685</u>	27	<u>299</u>	45	<u>647</u>	27
P11		50	<u>687</u>	30		50	<u>657</u>	30
P12		55		33		55	<u>662</u>	33
P13		60		36		60	<u>667</u>	36
P14		65		39		65	<u>671</u>	39
P15		70		42		70	<u>676</u>	42
P16		75		45		75	<u>679</u>	45
P17		80		48		80		48
P18		85		51		85		51
P19		90		54		90		54
P20		95		57		95		57
		100		60		100		60

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. DECKERT C #5-18 SEC. 18 TWP. 20S RGE. 15W TEST NO. 2 DATE 2/10/93

DST REPORT

GENERAL INFORMATION

DATE : 2/10/93  
CUSTOMER : ALLEN DRILLING COMPANY  
WELL : 5-18 TEST: 2  
ELEVATION: 2087 KB  
SECTION : 18  
RANGE : 15W COUNTY: BARTON  
GAUGE SN#: 10270 RANGE : 4150  
TICKET : 18964  
LEASE : DECKERT C  
GEOLOGIST: ?  
FORMATION: ARBUCKLE  
TOWNSHIP : 20S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3720.00 ft TO: 3771.00 ft TVD: 3771.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 3727.0 ft 3730.0 ft  
TEMPERATURE: 117.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 3700.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 51.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 3715.0 ft SIZE: 6.630 in  
PACKER DEPTH: 3720.0 ft SIZE: 6.630 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN DRLG RIG 4  
MUD TYPE : CHEMICAL VISCOSITY : 50.00 cp  
WEIGHT : 9.400 ppg WATER LOSS: 9.200 cc  
CHLORIDES : 8000 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG  
BLOW IN 2 MINUTES. FINAL FLOW PERIOD WEAK BLOW  
BUILDING TO A STRONG BLOW IN 3 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
280.0	0.0	0.0	50.0	50.0	MUDDY WATER
300.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 31000 P.P.M.

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	75.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	1.9637 STB	AVERAGE WATER RATE:	156.1975 STB/D
WATER VOLUME:	6.1716 STB		
TOTAL FLUID :	8.1353 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1931.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	104.00	166.00
INITIAL SHUT-IN	30.00		697.00
FINAL FLOW	45.00	218.00	291.00
FINAL SHUT-IN	45.00		676.00

FINAL HYDROSTATIC PRESSURE: 1890.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1946.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	119.00	176.00
INITIAL SHUT-IN	30.00		687.00
FINAL FLOW	45.00	227.00	299.00
FINAL SHUT-IN	45.00		679.00

FINAL HYDROSTATIC PRESSURE: 1882.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 2/10/93	TICKET	: 18964
CUSTOMER	: ALLEN DRILLING COMPANY	LEASE	: DECKERT C
WELL	: 5-18	TEST:	2
ELEVATION:	2087 KB	GEOLOGIST:	?
SECTION	: 18	FORMATION:	ARBUCKLE
RANGE	: 15W	COUNTY:	BARTON
GAUGE SN#:	10270	RANGE	: 4150
		STATE	: KS
		CLOCK	: 12

INITIAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	119.00	119.00
5.00	119.00	0.00
10.00	119.00	0.00
15.00	128.00	9.00
20.00	145.00	17.00
25.00	159.00	14.00
30.00	176.00	17.00

INITIAL SHUT IN

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	327.00	327.00	0.00
6.00	575.00	248.00	0.00
9.00	631.00	56.00	0.00
12.00	653.00	22.00	0.00
15.00	663.00	10.00	0.00
18.00	671.00	8.00	0.00
21.00	678.00	7.00	0.00
24.00	682.00	4.00	0.00
27.00	685.00	3.00	0.00
30.00	687.00	2.00	0.00

FINAL FLOW

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	227.00	227.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

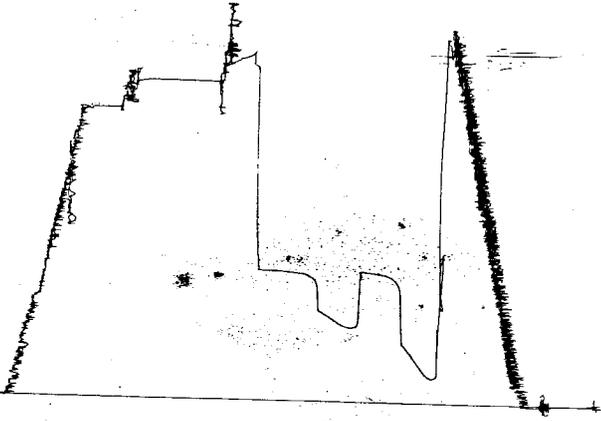
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	227.00	0.00
10.00	227.00	0.00
15.00	233.00	6.00
20.00	248.00	15.00
25.00	260.00	12.00
30.00	271.00	11.00
35.00	280.00	9.00
40.00	293.00	13.00
45.00	299.00	6.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	429.00	429.00	0.00
6.00	510.00	81.00	0.00
9.00	545.00	35.00	0.00
12.00	574.00	29.00	0.00
15.00	600.00	26.00	0.00
18.00	616.00	16.00	0.00
21.00	628.00	12.00	0.00
24.00	639.00	11.00	0.00
27.00	647.00	8.00	0.00
30.00	657.00	10.00	0.00
33.00	663.00	6.00	0.00
36.00	667.00	4.00	0.00
39.00	671.00	4.00	0.00
42.00	676.00	5.00	0.00
45.00	679.00	3.00	0.00

JK 18965

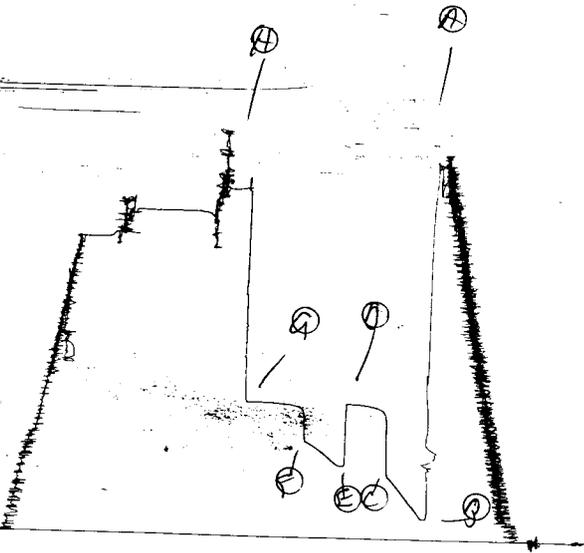
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05743  
13550

JK 18965

7



05743  
10220



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 18965

P. O. BOX 1599 PHONE (316) 262-5861 WICHITA, KANSAS 67201

Elevation 2087 KB Formation Arbuckle Eff. Pay - Ft.

District G.T. Bend Date 2-16-93 Customer Order No. -

COMPANY NAME Allen Drilling Company

ADDRESS 6565 S. DAYTON SUITE 3800 Englewood, Colorado 80111

LEASE AND WELL NO. DECKERT C 45-18 COUNTY BARTON STATE KS Sec 18 Twp 20 S Rge 15 W

Mail Invoice To SAME Co. Name Address No. Copies Requested Reg

Mail Charts To SAME Address No. Copies Requested Reg

Formation Test No. 3 Interval Tested From 3772 ft. to 3781 ft. Total Depth 3781 ft.

Packer Depth 3767 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Packer Depth 3772 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3775 ft. Recorder Number 10270 Cap. 4150

Bottom Recorder Depth (Outside) 3778 ft. Recorder Number 13550 Cap. 4175

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor ALLEN DRILLING Mud Type Chemical Viscosity 48

Weight 9.3 Water Loss 9.6 cc. Drill Collar Length - I. D. - in.

Chlorides 8,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make - Serial Number - Anchor Length 9 ft. Size 5 1/2 in.

Did Well Flow? - Reversed Out - Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7/8 in. Tool Joint Size 4 1/2 X H in.

Blow: IF - WEAK TO A STRONG BLOW IN 2 MIN FF - STRONG BLOW THROUGHOUT

Recovered 900 ft. of WATER

Recovered - ft. of -

Chlorides 30000 P.P.M. Sample Jars used 2 Remarks: -

FEB 16 1993

Time On Location 12:00 P.M. Time Pick Up Tool 7:30 A.M. Time Off Location - P.M.

Time Set Packer(s) 8:50 A.M. Time Started Off Bottom 11:05 A.M. Maximum Temperature 118°

Initial Hydrostatic Pressure (A) 1890 P.S.I.

Initial Flow Period Minutes 30 (B) 83 P.S.I. to (C) 322 P.S.I.

Initial Closed In Period Minutes 30 (D) 707 P.S.I.

Final Flow Period Minutes 30 (E) 364 P.S.I. to (F) 499 P.S.I.

Final Closed In Period Minutes 45 (G) 707 P.S.I.

Final Hydrostatic Pressure (H) 1859 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: Signature of customer or his authorized representative

Western Representative: Roy Schwager Thank you

FIELD INVOICE

Table with 2 columns: Item and Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.

**WESTERN TESTING CO., INC.**  
**Pressure Data**

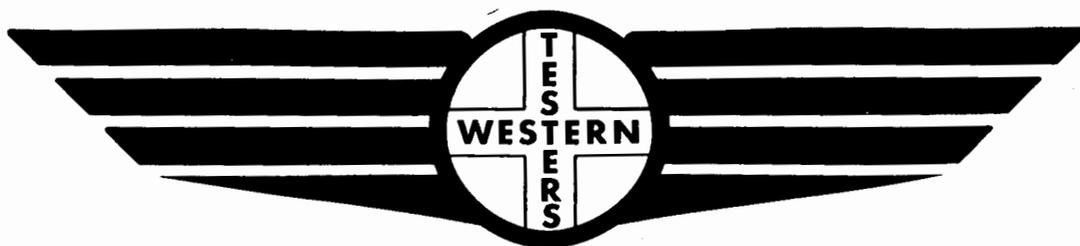
Date 2-10-92 Test Ticket No. 18965  
 Recorder No. 10220 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure	P.S.I.	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud	<del>1957</del> 1957	P.S.I.	_____	M	_____
B First Initial Flow Pressure	109	P.S.I.	First Flow Pressure	_____ Mins.	30 _____ Mins.
C First Final Flow Pressure	255	P.S.I.	Initial Closed-in Pressure	_____ Mins.	30 _____ Mins.
D Initial Closed-in Pressure	726	P.S.I.	Second Flow Pressure	_____ Mins.	30 _____ Mins.
E Second Initial Flow Pressure	291	P.S.I.	Final Closed-in Pressure	_____ Mins.	45 _____ Mins.
F Second Final Flow Pressure	517	P.S.I.			
G Final Closed-in Pressure	727	P.S.I.			
H Final Hydrostatic Mud	1792	P.S.I.			

**PRESSURE BREAKDOWN**

Point Mins.	First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes	Press.	Point Minutes
P 1 0	109	0	255	0
P 2 5	119	3	680	3
P 3 10	167	6	699	6
P 4 15	204	9	707	9
P 5 20	255	12	713	12
P 6 25	298	15	717	15
P 7 30	255	18	721	18
P 8 35		21	722	21
P 9 40		24	724	24
P10 45		27	725	27
P11 50		30	726	30
P12 55		33		33
P13 60		36		36
P14 65		39		39
P15 70		42		42
P16 75		45		45
P17 80		48		48
P18 85		51		51
P19 90		54		54
P20 95		57		57
100		60		60

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. DECKERT C #5-18 SEC. 18 TWP. 20S RGE. 15W TEST NO. 3 DATE 2/10/93

DST REPORT

GENERAL INFORMATION

DATE	: 2/10/93	TICKET	: 18965		
CUSTOMER	: ALLEN DRILLING COMPANY	LEASE	: DECKERT C		
WELL	: 5-18	TEST: 3	GEOLOGIST: ?		
ELEVATION	: 2087 KB	FORMATION	: ARBUCKLE		
SECTION	: 18	TOWNSHIP	: 20S		
RANGE	: 15W	COUNTY: BARTON	STATE	: KS	
GAUGE SN#	: 10270	RANGE	: 4150	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM:	3772.00 ft	TO:	3781.00 ft	TVD:	3781.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	3775.0 ft		3778.0 ft		
TEMPERATURE:	118.0				
DRILL COLLAR LENGTH:	0.0 ft	I.D.:	0.000 in		
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in		
DRILL PIPE LENGTH :	3752.0 ft	I.D.:	3.800 in		
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in		
ANCHOR LENGTH :	9.0 ft	ANCHOR SIZE:	5.500 in		
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in		
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5XH		
PACKER DEPTH:	3767.0 ft	SIZE:	6.630 in		
PACKER DEPTH:	3772.0 ft	SIZE:	6.630 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in		

MUD INFORMATION

DRILLING CON. :	ALLEN DRLG RIG 4	VISCOSITY :	48.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.600 cc
WEIGHT :	9.300 ppg	SERIAL NUMBER:	
CHLORIDES :	8000 ppm	REVERSED OUT?:	NO
JARS-MAKE :			
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BLOW BUILDING TO A STRONG BLOW IN 2 MINUTES. FINAL FLOW PERIOD STRONG BLOW THROUGHOUT.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
900.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 30000 P.P.M.

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.0000	STB	AVERAGE WATER RATE:	302.9693	STB/D
WATER VOLUME:	12.6237	STB			
TOTAL FLUID :	12.6237	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1890.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	83.00	322.00
INITIAL SHUT-IN	30.00		707.00
FINAL FLOW	30.00	364.00	499.00
FINAL SHUT-IN	45.00		707.00

FINAL HYDROSTATIC PRESSURE: 1859.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1937.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	109.00	335.00
INITIAL SHUT-IN	30.00		726.00
FINAL FLOW	30.00	391.00	517.00
FINAL SHUT-IN	45.00		727.00

FINAL HYDROSTATIC PRESSURE: 1793.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 2/10/93	TICKET	: 18965
CUSTOMER	: ALLEN DRILLING COMPANY	LEASE	: DECKERT C
WELL	: 5-18	TEST:	3
ELEVATION:	2087 KB	GEOLOGIST:	?
SECTION	: 18	FORMATION:	ARBUCKLE
RANGE	: 15W	TOWNSHIP	: 20S
GAUGE SN#:	10270	STATE	: KS
		CLOCK	: 12
		COUNTY:	BARTON
		RANGE	: 4150

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	109.00	109.00
5.00	119.00	10.00
10.00	167.00	48.00
15.00	204.00	37.00
20.00	255.00	51.00
25.00	298.00	43.00
30.00	335.00	37.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	680.00	680.00	0.00
6.00	699.00	19.00	0.00
9.00	707.00	8.00	0.00
12.00	713.00	6.00	0.00
15.00	717.00	4.00	0.00
18.00	721.00	4.00	0.00
21.00	723.00	2.00	0.00
24.00	724.00	1.00	0.00
27.00	725.00	1.00	0.00
30.00	726.00	1.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	391.00	391.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

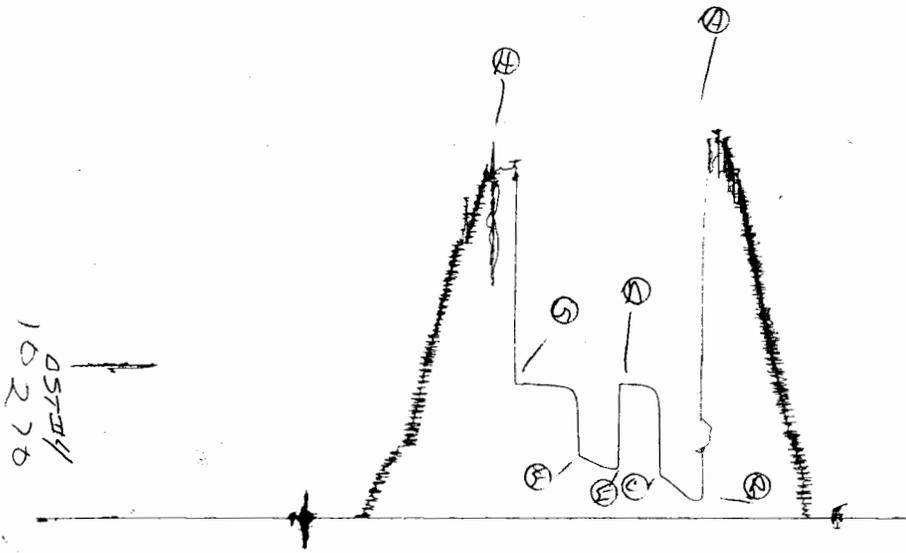
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	394.00	3.00
10.00	419.00	25.00
15.00	449.00	30.00
20.00	478.00	29.00
25.00	499.00	21.00
30.00	517.00	18.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	694.00	694.00	0.00
6.00	710.00	16.00	0.00
9.00	714.00	4.00	0.00
12.00	718.00	4.00	0.00
15.00	721.00	3.00	0.00
18.00	723.00	2.00	0.00
21.00	724.00	1.00	0.00
24.00	725.00	1.00	0.00
27.00	725.00	0.00	0.00
30.00	725.00	0.00	0.00
33.00	726.00	1.00	0.00
36.00	726.00	0.00	0.00
39.00	727.00	1.00	0.00
42.00	727.00	0.00	0.00
45.00	727.00	0.00	0.00

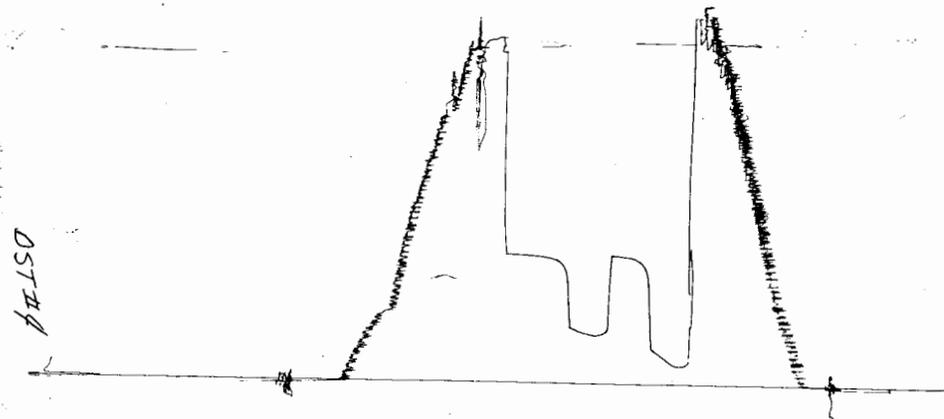
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WESTERN TESTING CO., INC.  
FORMATION TESTING

TICKET No 18966

P. O. BOX 1599 PHONE (316) 262-5861  
WICHITA, KANSAS 67201

Elevation 2087 KB Formation Arbuckle Eff. Pay      Ft.

District GT. Bend Date 2-11-93 Customer Order No.     

COMPANY NAME Allen Drilling Company

ADDRESS 6565 S. Dayton Suite 3800 Englewood, Colorado 80111

LEASE AND WELL NO. Decker C# 5-18 COUNTY Barton STATE Ko Sec 18 Twp. 20<sup>s</sup> Rge. 15<sup>w</sup>

Mail Invoice To Same Co. Name Address No. Copies Requested Req

Mail Charts To Same Address No. Copies Requested Req

Formation Test No. 4 Interval Tested From 3788 ft. to 3792 ft. Total Depth 3792 ft.

Packer Depth 3778 ft. Size 6 7/8 in. Packer Depth      ft. Size      in.

Packer Depth 3788 ft. Size 6 7/8 in. Packer Depth      ft. Size      in.

Depth of Selective Zone Set     

Top Recorder Depth (Inside) 3784 ft. Recorder Number 10270 Cap. 4150

Bottom Recorder Depth (Outside) 3787 ft. Recorder Number 13550 Cap. 4175

Below Straddle Recorder Depth      ft. Recorder Number      Cap.     

Drilling Contractor Allen delg rig 4 Drill Collar Length      I. D.      in.

Mud Type Chemical Viscosity 60 Weight Pipe Length      I. D.      in.

Weight 9.3 Water Loss 12 cc. Drill Pipe Length 3763 I. D. 3.8 in.

Chlorides 9000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make      Serial Number      Anchor Length 9 ft. Size 5 1/2 in.

Did Well Flow? gas Reversed Out      Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x H in.

Blow: IF - STRONG Blow Throughout

FF - STRONG Blow gas to surface

Recovered 30' ft. of Heavy oil & gas cut water mud 20% oil 10% gas 30% water 40% mud

Recovered 60 ft. of Heavy oil & gas cut muddy water 30% oil 12% gas 38% water 20% mud

Recovered 60 ft. of Muddy gassy oil water cut 50% oil 20% gas 25% water 5% mud

Recovered 120 ft. of Oil & gas cut water 10% oil 25% gas 65% water

Recovered 540 ft. of WATER

Chlorides 31000 P.P.M. Sample Jars used 6 Remarks: GAS SURFACED ON INITIAL SHUT-IN

Time On Location      A.M. P.M. Time Pick Up Tool 10:40 AM P.M. Time Off Location 6:00 AM P.M.

Time Set Packer(s) 12:30 PM Time Started Off Bottom 2:45 PM Maximum Temperature 118°

Initial Hydrostatic Pressure (A) 1931 P.S.I.

Initial Flow Period Minutes 30 (B) 93 P.S.I. to (C) 229 P.S.I.

Initial Closed In Period Minutes 30 (D) 728 P.S.I.

Final Flow Period FEB 16 1993 Minutes 30 (E) 260 P.S.I. to (F) 343 P.S.I.

Final Closed In Period Minutes 45 (G) 728 P.S.I.

Final Hydrostatic Pressure (H) 1900 P.S.I.

COMPANY TERMS

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All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By      Signature of Customer or his authorized representative

Western Representative Ray Schwager Thank you

FIELD INVOICE

Open Hole Test	\$
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$
Telecopier	\$
TOTAL	\$



**WESTERN TESTING CO., INC.**  
**Pressure Data**

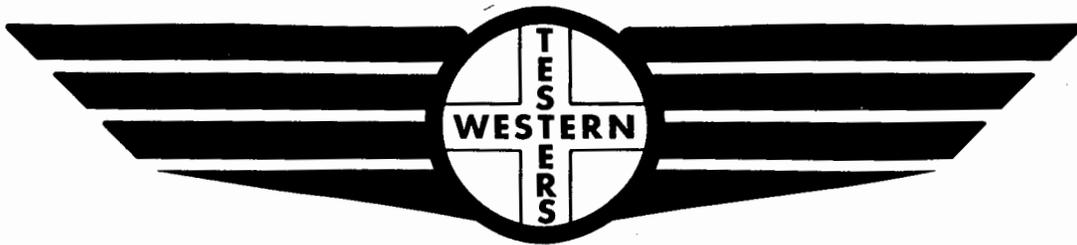
Date 2-11-52 Test Ticket No. 1896dp  
 Recorder No. 12520 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1958</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>95</u> P.S.I.	First Flow Pressure	Mins <u>20</u>	Mins.
C First Final Flow Pressure	<u>227</u> P.S.I.	Initial Closed-in Pressure	Mins <u>20</u>	Mins.
D Initial Closed-in Pressure	<u>225</u> P.S.I.	Second Flow Pressure	Mins <u>20</u>	Mins.
E Second Initial Flow Pressure	<u>270</u> P.S.I.	Final Closed-in Pressure	Mins <u>78</u>	Mins.
F Second Final Flow Pressure	<u>222</u> P.S.I.			
G Final Closed-in Pressure	<u>222</u> P.S.I.			
H Final Hydrostatic Mud	<u>1884</u> P.S.I.			

**PRESSURE BREAKDOWN**

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes						
P 1 0	<u>95</u>	0	<u>227</u>	0	<u>270</u>	0	<u>222</u>	0
P 2 5	<u>95</u>	3	<u>209</u>	3	<u>270</u>	3	<u>224</u>	3
P 3 10	<u>108</u>	6	<u>285</u>	6	<u>275</u>	6	<u>289</u>	6
P 4 15	<u>129</u>	9	<u>204</u>	9	<u>289</u>	9	<u>201</u>	9
P 5 20	<u>172</u>	12	<u>211</u>	12	<u>204</u>	12	<u>209</u>	12
P 6 25	<u>202</u>	15	<u>218</u>	15	<u>222</u>	15	<u>214</u>	15
P 7 30	<u>227</u>	18	<u>222</u>	18	<u>222</u>	18	<u>216</u>	18
P 8 35		21	<u>224</u>	21		21	<u>217</u>	21
P 9 40		24	<u>225</u>	24		24	<u>218</u>	24
P10 45		27	<u>5</u>	27		27	<u>219</u>	27
P11 50		30	<u>225</u>	30		30	<u>220</u>	30
P12 55		33		33		33	<u>221</u>	33
P13 60		36		36		36	<u>222</u>	36
P14 65		39		39		39	<u>5</u>	39
P15 70		42		42		42		42
P16 75		45		45		45	<u>222</u>	45
P17 80		48		48		48	<u>222</u>	48
P18 85		51		51		51		51
P19 90		54		54		54		54
P20 95		57		57		57		57
100		60		60		60		60

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. DECKERT C #5-18 SEC. 18 TWP. 20S RGE. 15W TEST NO. 4 DATE 2/11/93

DST REPORT

GENERAL INFORMATION

DATE : 2/11/93  
CUSTOMER : ALLEN DRILLING COMPANY  
WELL : 5-18 TEST: 4  
ELEVATION: 2087 KB  
SECTION : 18  
RANGE : 15W COUNTY: BARTON  
GAUGE SN#: 10270 RANGE : 4150  
TICKET : 18966  
LEASE : DECKERT C  
GEOLOGIST: JEFF ZOLLER  
FORMATION: ARBUCKLE  
TOWNSHIP : 20S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3783.00 ft TO: 3792.00 ft TVD: 3792.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 3784.0 ft 3787.0 ft  
TEMPERATURE: 118.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 3763.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 9.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 3778.0 ft SIZE: 6.630 in  
PACKER DEPTH: 3783.0 ft SIZE: 6.630 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN DRLG RIG 4  
MUD TYPE : CHEMICAL  
WEIGHT : 9.300 ppg  
CHLORIDES : 9000 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO  
VISCOSITY : 60.00 cp  
WATER LOSS: 12.000 cc  
SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

STRONG BLOW THROUGHOUT INITIAL FLOW PERIOD.  
STRONG BLOW ON FINAL FLOW PERIOD. GAS TO SURFACE  
ON INITIAL FLOW PERIOD SEE ATTACHED SHEET FOR

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

GAS MEASUREMENTS.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
30.0	20.0	10.0	30.0	40.0	H. OIL & GAS C/WATERY MUD
60.0	30.0	12.0	38.0	20.0	H. OIL & GAS C/WATERY MUD
60.0	50.0	20.0	25.0	5.0	M. GASSY OIL WATER CUT
120.0	10.0	25.0	65.0	0.0	OIL & GAS CUT WATER
540.0	0.0	0.0	100.0	0.0	WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 31000 PPM
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.9257 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	4.1112 SCF	AVERAGE OIL RATE:	26.2890 STB/D
MUD VOLUME:	0.3787 STB	AVERAGE WATER RATE:	228.8111 STB/D
WATER VOLUME:	9.3247 STB		
TOTAL FLUID :	10.6292 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1931.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	93.00	229.00
INITIAL SHUT-IN	30.00		728.00
FINAL FLOW	30.00	260.00	343.00
FINAL SHUT-IN	45.00		728.00

FINAL HYDROSTATIC PRESSURE: 1900.00

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1958.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	95.00	227.00
INITIAL SHUT-IN	30.00		725.00
FINAL FLOW	30.00	270.00	333.00
FINAL SHUT-IN	48.00		722.00

FINAL HYDROSTATIC PRESSURE: 1884.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 2/11/93	TICKET : 18966
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : DECKERT C
WELL : 5-18                      TEST: 4	GEOLOGIST: JEFF ZOLLER
ELEVATION: 2087 KB	FORMATION: ARBUCKLE
SECTION : 18	TOWNSHIP : 20S
RANGE : 15W                      COUNTY: BARTON	STATE : KS
GAUGE SN#: 10270                      RANGE : 4150	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	95.00	95.00
5.00	95.00	0.00
10.00	108.00	13.00
15.00	139.00	31.00
20.00	172.00	33.00
25.00	202.00	30.00
30.00	227.00	25.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	609.00	609.00	0.00
6.00	685.00	76.00	0.00
9.00	704.00	19.00	0.00
12.00	711.00	7.00	0.00
15.00	718.00	7.00	0.00
18.00	722.00	4.00	0.00
21.00	724.00	2.00	0.00
24.00	725.00	1.00	0.00
27.00	725.00	0.00	0.00
30.00	725.00	0.00	0.00

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	270.00	270.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	270.00	0.00
10.00	275.00	5.00
15.00	289.00	14.00
20.00	306.00	17.00
25.00	322.00	16.00
30.00	333.00	11.00

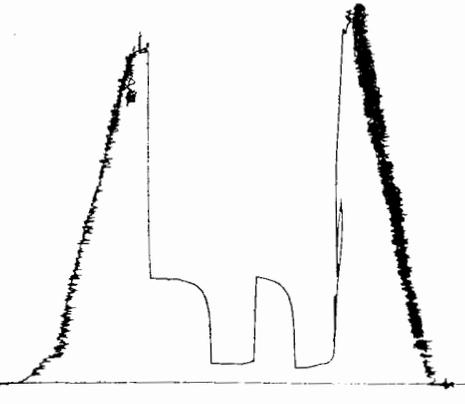
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	634.00	634.00	0.00
6.00	689.00	55.00	0.00
9.00	701.00	12.00	0.00
12.00	709.00	8.00	0.00
15.00	714.00	5.00	0.00
18.00	716.00	2.00	0.00
21.00	717.00	1.00	0.00
24.00	718.00	1.00	0.00
27.00	719.00	1.00	0.00
30.00	720.00	1.00	0.00
33.00	721.00	1.00	0.00
36.00	722.00	1.00	0.00
39.00	722.00	0.00	0.00
42.00	722.00	0.00	0.00
45.00	722.00	0.00	0.00
48.00	722.00	0.00	0.00

JK+ 18967

0

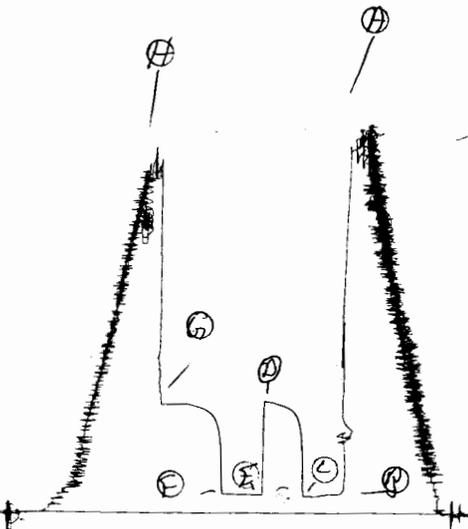
OST#5  
13350



JK+ 18967

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OST#5  
10270





WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET No 18967

P. O. BOX 1599 WICHITA, KANSAS 67201 PHONE (316) 262-5861

Elevation 2087 KB Formation Arbuckle Eff. Pay Ft

District GT. Bend Date 2-12-93 Customer Order No.

COMPANY NAME Allen Drilling Company

ADDRESS 6565 S. DAYTON - Suite 3800 Englewood, Colorado 80111

LEASE AND WELL NO. Ockert 2 #5-18 COUNTY BARTON STATE KS Sec 18 Twp 20 Rge 15

Mail Invoice To SAMP Co. Name Address No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 5 Interval Tested From 3794 ft. to 3802 ft. Total Depth 3802 ft.

Packer Depth 3789 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Packer Depth 3794 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3796 ft. Recorder Number 10270 Cap. 4150

Bottom Recorder Depth (Outside) 3799 ft. Recorder Number 13550 Cap. 4175

Below Straddle Recorder Depth Recorder Number Cap.

Drilling Contractor ALLEN Dril rig 4 Drill Collar Length I. D. in.

Mud Type Chemical Viscosity 60 Weight Pipe Length I. D. in.

Weight 9.3 Water Loss 12 cc. Drill Pipe Length 3774 I. D. 3.8 in.

Chlorides 9000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 8 ft. Size 5 1/2 in.

Did Well Flow GAS Reversed Out Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7/8 in. Tool Joint Size 4 1/2 x H in.

Blow IF - STRONG BLOW GAS TO SURFACE in 6 min

FF - GAS TO SURFACE

Recovered 75 ft. of HEAVY OIL GAS cut mud 33% oil 22% GAS 5% WATER 40% mud

Recovered 60 ft. of HEAVY OIL GAS cut muddy WATER 20% oil 18% GAS 18% mud 44% WATER

Recovered 60 ft. of HEAVY OIL cut muddy WATER 20% oil 5% mud 75% WATER

Recovered 60 ft. of WATER w/sum of oil

Recovered ft. of

Chlorides 29000 P.P.M. Sample Jars used 4 Remarks: FEB 16 1993

Time On Location 1:25 P.M. Time Pick Up Tool 12:00 P.M. Time Off Location P.M.

Time Set Packer(s) 1:25 P.M. Time Started Off Bottom 3:40 P.M. Maximum Temperature 119°

Initial Hydrostatic Pressure (A) 1931 P.S.I.

Initial Flow Period Minutes 30 (B) 83 P.S.I. to (C) 22 P.S.I.

Initial Closed In Period Minutes 30 (D) 593 P.S.I.

Final Flow Period Minutes 30 (E) 83 P.S.I. to (F) 93 P.S.I.

Final Closed In Period Minutes 45 (G) 572 P.S.I.

Final Hydrostatic Pressure (H) 1869 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Signature of Customer or his authorized representative

Western Representative Ray Schwager Thank you

FIELD INVOICE

Table with 2 columns: Item Name, Amount. Includes Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, TOTAL.



**No 4263**

**GAS FLOW REPORT**

Date 2-12-93 Ticket 18967 Company Allen Delg Co.  
Well Name and No. Decker "C" #5-18 Dst No. 5 Interval Tested 3794-3802  
County BARTON State Ks Sec. 18 Twp. 20<sup>s</sup> Rg. 15<sup>w</sup>

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
<b>PRE FLOW</b> <i>GAS TO SURFACE IN 6 min</i>					
10	5 Lb.	3/4"			175,000 CFPD
20	3.5 Lb.	"			144,000 "
30	2 Lb.	"			108,000 "

**SECOND FLOW**

10	2 Lb.	3/4"			108,000 CFPD
20	1 Lb.	"			76,000 "
30	1 Lb.	"			76,000 "

**GAS BOTTLE**

Serial No. \_\_\_\_\_ Date Bottle Filled \_\_\_\_\_ Date to be Invoiced \_\_\_\_\_

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME \_\_\_\_\_

Authorized by \_\_\_\_\_

**WESTERN TESTING CO., INC.**  
**Pressure Data**

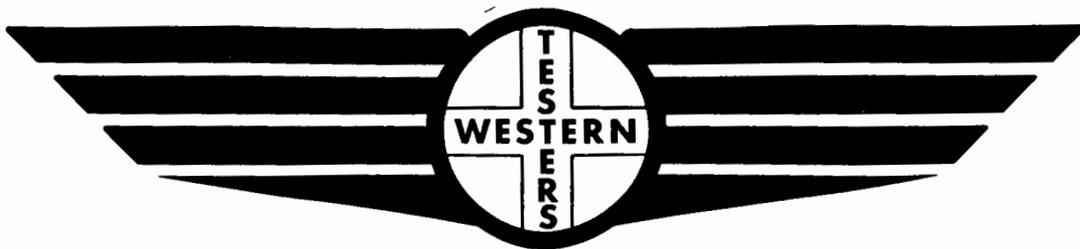
Date 2-12-92 Test Ticket No. 18967  
 Recorder No. 10270 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1966</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>109</u> P.S.I.	First Flow Pressure	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>99</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>30</u>	Mins.
D Initial Closed-in Pressure	<u>612</u> P.S.I.	Second Flow Pressure	Mins. <u>30</u>	Mins.
E Second Initial Flow Pressure	<u>106</u> P.S.I.	Final Closed-in Pressure	Mins. <u>48</u>	Mins.
F Second Final Flow Pressure	<u>110</u> P.S.I.			
G Final Closed-in Pressure	<u>592</u> P.S.I.			
H Final Hydrostatic Mud	<u>1846</u> P.S.I.			

**PRESSURE BREAKDOWN**

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Breakdown: _____ Inc.	of <u>3</u> mins. and a final inc. of <u>0</u> Min.
	Press.	Point Minutes						
P 1 0	<u>109</u>	0	<u>99</u>	0	<u>106</u>	0	<u>110</u>	0
P 2 5	<u>109</u>	3	<u>471</u>	3	<u>106</u>	3	<u>389</u>	3
P 3 10	<u>109</u>	6	<u>532</u>	6	<u>106</u>	6	<u>497</u>	6
P 4 15	<u>105</u>	9	<u>561</u>	9	<u>106</u>	9	<u>524</u>	9
P 5 20	<u>101</u>	12	<u>528</u>	12	<u>107</u>	12	<u>551</u>	12
P 6 25	<u>99</u>	15	<u>582</u>	15	<u>108</u>	15	<u>568</u>	15
P 7 30	<u>99</u>	18	<u>592</u>	18	<u>110</u>	18	<u>526</u>	18
P 8 35		21	<u>601</u>	21		21	<u>584</u>	21
P 9 40		24	<u>607</u>	24		24	<u>588</u>	24
P10 45		27	<u>610</u>	27		27	<u>592</u>	27
P11 50		30	<u>612</u>	30		30		30
P12 55		33		33		33		33
P13 60		36		36		36		36
P14 65		39		39		39		39
P15 70		42		42		42		42
P16 75		45		45		45		45
P17 80		48		48		48		48
P18 85		51		51		51		51
P19 90		54		54		54		54
P20 95		57		57		57		57
100		60		60		60		60

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. DECKERT C #5-18 SEC. 18 TWP. 20S RGE. 15W TEST NO. 5 DATE 2/12/93

DST REPORT

GENERAL INFORMATION

DATE : 2/12/92  
CUSTOMER : ALLEN DRILLING COMPANY  
WELL : 5-18 TEST: 5  
ELEVATION: 2087 KB  
SECTION : 18  
RANGE : 15W COUNTY: BARTON  
GAUGE SN#: 10270 RANGE : 4150  
TICKET : 18967  
LEASE : DECKERT C  
GEOLOGIST: JEFF ZOLLER  
FORMATION: ARBUCKLE  
TOWNSHIP : 20S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3794.00 ft TO: 3802.00 ft TVD: 3802.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 3796.0 ft 3799.0 ft  
TEMPERATURE: 119.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 3774.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 8.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 3789.0 ft SIZE: 6.630 in  
PACKER DEPTH: 3794.0 ft SIZE: 6.630 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN DRLG RIG 4  
MUD TYPE : CHEMICAL VISCOSITY : 60.00 cp  
WEIGHT : 9.300 ppg WATER LOSS: 12.000 cc  
CHLORIDES : 9000 ppm  
JARS-MAKE :  
DID WELL FLOW?: NO SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

STRONG BLOW THROUGHOUT INITIAL FLOW PERIOD.  
GAS TO SURFACE IN 6 MINUTES ON INITIAL FLOW PERIOD  
GAS TO SURFACE ON FINAL FLOW PERIOD. SEE ATTACHED

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

SHEET FOR GAS MEASUREMENTS.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
75.0	33.0	22.0	5.0	40.0	H. OIL & GAS CUT MUD
60.0	20.0	18.0	44.0	18.0	H. OIL & GAS C/MUDDY WTR.
60.0	20.0	0.0	75.0	5.0	H. OIL C/MUDDY WATER
60.0	0.0	0.0	100.0	0.0	WATER W/SCUM OF OIL.
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.6838 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	2.1501 SCF	AVERAGE OIL RATE:	26.5297 STB/D
MUD VOLUME:	0.6144 STB	AVERAGE WATER RATE:	50.1215 STB/D
WATER VOLUME:	1.8957 STB		
TOTAL FLUID :	3.1938 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1931.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	83.00	72.00
INITIAL SHUT-IN	30.00		593.00
FINAL FLOW	30.00	83.00	93.00
FINAL SHUT-IN	45.00		572.00
FINAL HYDROSTATIC PRESSURE:	1869.00		

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1966.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	109.00	99.00
INITIAL SHUT-IN	30.00		612.00
FINAL FLOW	30.00	106.00	110.00
FINAL SHUT-IN	48.00		593.00

FINAL HYDROSTATIC PRESSURE: 1846.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 2/12/92	TICKET : 18967
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : DECKERT C
WELL : 5-18                      TEST: 5	GEOLOGIST: JEFF ZOLLER
ELEVATION: 2087 KB	FORMATION: ARBUCKLE
SECTION : 18	TOWNSHIP : 20S
RANGE : 15W                      COUNTY: BARTON	STATE : KS
GAUGE SN#: 10270                      RANGE : 4150	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.750	5 PSIG	175000 SCF/D
20 MIN.	MERLA	0.750	3.5 PSIG	144000 SCF/D
30 MIN.	MERLA	0.750	2 PSIG	108000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.750	2 PSIG	108000 SCF/D
20 MIN.	MERLA	0.750	1 PSIG	76000 SCF/D
30 MIN.	MERLA	0.750	1 PSIG	76000 SCF/D

**PRESSURE TRANSIENT REPORT**

**GENERAL INFORMATION**

DATE : 2/12/92	TICKET : 18967
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : DECKERT C
WELL : 5-18 TEST: 5	GEOLOGIST: JEFF ZOLLER
ELEVATION: 2087 KB	FORMATION: ARBUCKLE
SECTION : 18	TOWNSHIP : 20S
RANGE : 15W COUNTY: BARTON	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

**INITIAL FLOW**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	109.00	109.00
5.00	109.00	0.00
10.00	109.00	0.00
15.00	105.00	-4.00
20.00	101.00	-4.00
25.00	99.00	-2.00
30.00	99.00	0.00

**INITIAL SHUT IN**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	471.00	471.00	0.00
6.00	532.00	61.00	0.00
9.00	561.00	29.00	0.00
12.00	578.00	17.00	0.00
15.00	583.00	5.00	0.00
18.00	592.00	9.00	0.00
21.00	601.00	9.00	0.00
24.00	607.00	6.00	0.00
27.00	610.00	3.00	0.00
30.00	612.00	2.00	0.00

**FINAL FLOW**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	106.00	106.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

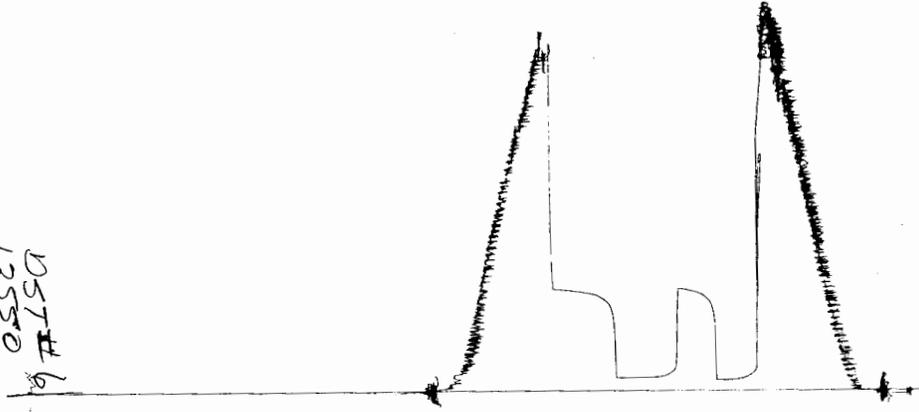
<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	106.00	0.00
10.00	106.00	0.00
15.00	106.00	0.00
20.00	107.00	1.00
25.00	108.00	1.00
30.00	110.00	2.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	389.00	389.00	0.00
6.00	497.00	108.00	0.00
9.00	531.00	34.00	0.00
12.00	551.00	20.00	0.00
15.00	568.00	17.00	0.00
18.00	576.00	8.00	0.00
21.00	584.00	8.00	0.00
24.00	588.00	4.00	0.00
27.00	593.00	5.00	0.00
30.00	593.00	0.00	0.00
33.00	593.00	0.00	0.00
36.00	593.00	0.00	0.00
39.00	593.00	0.00	0.00
42.00	593.00	0.00	0.00
45.00	593.00	0.00	0.00
48.00	593.00	0.00	0.00

JKT 18968  
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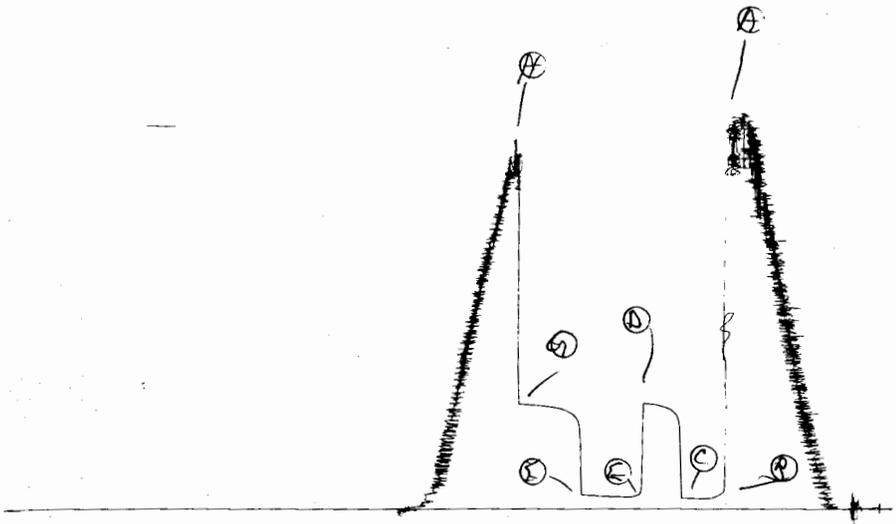
DST# 6  
13550



JKT 18968

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DST# 6  
16270





WESTERN TESTING CO., INC.
FORMATION TESTING

LAST No 18968

P. O. BOX 1599 PHONE (316) 262-5861
WICHITA, KANSAS 67201

Elevation 2087 KB Formation Arbuckle Eff. Pay Ft.

District GT. Bend Date 2-12-93 Customer Order No.

COMPANY NAME Allen Drilling Company GIB 16

ADDRESS 6565 S. Dayton Suite 3800 Englewood, Colorado 80111

LEASE AND WELL NO. DECKLET C#518 COUNTY BARTON STATE KS Sec. 18 Twp 20 Rge. 15

Mail Invoice To SAME Co. Name Address No. Copies Requested Reg

Mail Charts To SAME Co. Name Address No. Copies Requested Reg

Formation Test No. 6 Interval Tested From 3804 ft. to 3814 ft. Total Depth 3814 ft.

Packer Depth 3999 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Packer Depth 3804 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3808 ft. Recorder Number 10270 Cap. 4150

Bottom Recorder Depth (Outside) 3811 ft. Recorder Number 13550 Cap. 4175

Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor ALLEN Drig rig 4 Drill Collar Length - I. D. - in.

Mud Type Chemical Viscosity 56 Weight Pipe Length - I. D. - in.

Weight 9.3 Water Loss 10.4 cc. Drill Pipe Length 3784 I. D. 3.8 in.

Chlorides 10000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make - Serial Number - Anchor Length 10 ft. Size 5 1/2 in.

Did Well Flow? GAS Reversed Out - Surface Choke Size 4 in. Bottom Choke Size 4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 in.

Blow: IF - STRONG BLOW GAS TO SURFACE IN 5 MIN

FF - GAS TO SURFACE

Recovered 55 ft. of OIL GAS CUT WATERY MUD 12% OIL 7% GAS 13% WATER 68% MUD

Recovered 60 ft. of HEAVY OIL GAS CUT MUDDY WATER 15% OIL 20% GAS 45% WATER 20% MUD

Recovered 60 ft. of OIL CUT WATER 4% OIL 2% MUD 94% WATER

Recovered - ft. of

Recovered - ft. of

Chlorides 28000 P.P.M. Sample Jars used 3 Remarks: FEB 16 1993

Time On Location 12:00 P.M. Time Pick Up Tool 1:35 P.M. Time Off Location - P.M.

Time Set Packer(s) 3:05 P.M. Time Started Off Bottom 5:35 A.M. Maximum Temperature 120

Initial Hydrostatic Pressure (A) 1941 P.S.I.

Initial Flow Period Minutes 30 (B) 62 P.S.I. to (C) 52 P.S.I.

Initial Closed In Period Minutes 30 (D) 551 P.S.I.

Final Flow Period Minutes 45 (E) 52 P.S.I. to (F) 62 P.S.I.

Final Closed In Period Minutes 45 (G) 551 P.S.I.

Final Hydrostatic Pressure (H) 1900 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Signature of Customer or his authorized representative

Western Representative Ray Schwager Thank you

FIELD INVOICE

Table with 2 columns: Item Name and Amount. Items include Open Hole Test, Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL.



**No 4264**

**GAS FLOW REPORT**

Date 2-12-93 Ticket 18968 Company Allen DRLg Co  
 Well Name and No. DECKERT "C" #5-18 Dst No. 6 Interval Tested 3804-3814  
 County BARTON State KO Sec. 18 Twp. 20<sup>s</sup> Rg. 15<sup>w</sup>

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
<b>PRE FLOW</b> <i>gas to surface in 5 min</i>					
10	3.5 Lb.	1/2"			64,000 CFPD
20	4 Lb.	"			86,300 "
30	5 Lb.	"			78,100 "

**SECOND FLOW**

10	5 Lb.	1/2"			78,100 CFPD
20	4 Lb.	"			68,800 "
30	3 Lb.	"			59,200 "
40	2.5 Lb.	"			53,400 "

**GAS BOTTLE**

Serial No. \_\_\_\_\_ Date Bottle Filled \_\_\_\_\_ Date to be Invoiced \_\_\_\_\_

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME \_\_\_\_\_

Authorized by \_\_\_\_\_

**WESTERN TESTING CO., INC.**  
**Pressure Data**

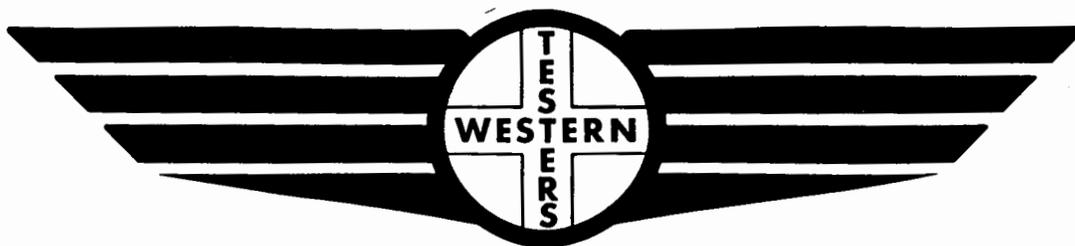
Date 1-12-52 Test Ticket No. 18968  
 Recorder No. 10220 Capacity \_\_\_\_\_ Location \_\_\_\_\_ Ft.  
 Clock No. \_\_\_\_\_ Elevation \_\_\_\_\_ Well Temperature \_\_\_\_\_ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1922</u>	P.S.I.		M
B First Initial Flow Pressure	<u>60</u>	P.S.I.	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>60</u>	P.S.I.	Mins. <u>30</u>	Mins.
D Initial Closed-in Pressure	<u>520</u>	P.S.I.	Mins. <u>45</u>	Mins.
E Second Initial Flow Pressure	<u>69</u>	P.S.I.	Mins. <u>51</u>	Mins.
F Second Final Flow Pressure	<u>77</u>	P.S.I.		
G Final Closed-in Pressure	<u>564</u>	P.S.I.		
H Final Hydrostatic Mud	<u>1902</u>	P.S.I.		

**PRESSURE BREAKDOWN**

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>60</u>	0	<u>60</u>	0	<u>69</u>	0	<u>77</u>
P 2 5		3	<u>384</u>	5		3	<u>474</u>
P 3 10		6	<u>499</u>	10		6	<u>474</u>
P 4 15		9	<u>527</u>	15		9	<u>504</u>
P 5 20		12	<u>540</u>	20	<u>69</u>	12	<u>524</u>
P 6 25		15	<u>551</u>	25	<u>71</u>	15	<u>530</u>
P 7 30	<u>60</u>	18	<u>556</u>	30	<u>72</u>	18	<u>540</u>
P 8 35		21	<u>560</u>	35	<u>75</u>	21	<u>547</u>
P 9 40		24	<u>564</u>	40	<u>76</u>	24	<u>550</u>
P10 45		27	<u>567</u>	45	<u>77</u>	27	<u>558</u>
P11 50		30	<u>570</u>	50		30	<u>558</u>
P12 55		33		55		33	<u>558</u>
P13 60		36		60		36	<u>560</u>
P14 65		39		65		39	<u>562</u>
P15 70		42		70		42	<u>562</u>
P16 75		45		75		45	<u>564</u>
P17 80		48		80		48	
P18 85		51		85		51	<u>564</u>
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

# FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

COMPANY ALLEN DRILLING COMPANY LEASE & WELL NO. DECKERT C #5-18 SEC. 18 TWP. 20 RGE. 15 TEST NO. 6 DATE 2/12/93

DST REPORT

GENERAL INFORMATION

DATE : 2/12/92  
CUSTOMER : ALLEN DRILLING COMPANY  
WELL : 5-18 TEST: 6  
ELEVATION: 2087 KB  
SECTION : 18  
RANGE : 15W COUNTY: BARTON  
GAUGE SN#: 10270 RANGE : 4150  
TICKET : 18968  
LEASE : DECKERT C  
GEOLOGIST: JEFF ZOLLER  
FORMATION: ARBUCKLE  
TOWNSHIP : 20S  
STATE : KS  
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3804.00 ft TO: 3814.00 ft TVD: 3814.0 ft  
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL  
DEPTH OF RECORDERS: 3808.0 ft 3811.0 ft  
TEMPERATURE: 120.0  
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in  
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in  
DRILL PIPE LENGTH : 3784.0 ft I.D.: 3.800 in  
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in  
ANCHOR LENGTH : 10.0 ft ANCHOR SIZE: 5.500 in  
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in  
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH  
PACKER DEPTH: 3799.0 ft SIZE: 6.630 in  
PACKER DEPTH: 3804.0 ft SIZE: 6.630 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in  
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : ALLEN DRLG RIG 4  
MUD TYPE : CHEMICAL VISCOSITY : 56.00 cp  
WEIGHT : 9.300 ppg WATER LOSS: 10.400 cc  
CHLORIDES : 10000 ppm  
JARS-MAKE :  
DID WELL FLOW?: YES SERIAL NUMBER:  
REVERSED OUT?: NO

COMMENTS

Comment

STRONG BLOW THROUGHOUT INITIAL FLOW PERIOD.  
GAS TO SURFACE IN 5 MINUTES ON INITIAL FLOW PERIOD  
GAS TO SURFACE ON FINAL FLOW PERIOD. SEE ATTACHED

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

SHEET FOR GAS MEASUREMENTS.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
55.0	12.0	7.0	13.0	68.0	OIL & GAS C/WATERY MUD
60.0	15.0	20.0	45.0	20.0	H. OIL & GAS C/MDDY WATER
60.0	4.0	0.0	94.0	2.0	OIL C/WATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 28000 PPM
0.0	0.0	0.0	0.0	0.0	

RATE INFORMATION

OIL VOLUME:	0.2525 STB	TOTAL FLOW TIME:	75.0000 min.
GAS VOLUME:	1.2483 SCF	AVERAGE OIL RATE:	10.5032 STB/D
MUD VOLUME:	0.7097 STB	AVERAGE WATER RATE:	32.3569 STB/D
WATER VOLUME:	1.2701 STB		
TOTAL FLUID :	2.2323 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1941.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	62.00	52.00
INITIAL SHUT-IN	30.00		551.00
FINAL FLOW	45.00	52.00	62.00
FINAL SHUT-IN	45.00		551.00

FINAL HYDROSTATIC PRESSURE: 1900.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1973.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	60.00	60.00
INITIAL SHUT-IN	30.00		570.00
FINAL FLOW	45.00	69.00	77.00
FINAL SHUT-IN	51.00		564.00

FINAL HYDROSTATIC PRESSURE: 1902.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 2/12/92	TICKET : 18968
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : DECKERT C
WELL : 5-18                      TEST: 6	GEOLOGIST: JEFF ZOLLER
ELEVATION: 2087 KB	FORMATION: ARBUCKLE
SECTION : 18	TOWNSHIP : 20S
RANGE : 15W                      COUNTY: BARTON	STATE : KS
GAUGE SN#: 10270                      RANGE : 4150	CLOCK : 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.500	3.5 PSIG	64000 SCF/D
20 MIN.	MERLA	0.500	6.0 PSIG	86300 SCF/D
30 MIN.	MERLA	0.500	5.0 PSIG	78100 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN.	MERLA	0.500	5.0 PSIG	78100 SCF/D
20 MIN.	MERLA	0.500	4.0 PSIG	68800 SCF/D
30 MIN.	MERLA	0.500	3.0 PSIG	59200 SCF/D
40 MIN.	MERLA	0.500	2.5 PSIG	53400 SCF/D

**PRESSURE TRANSIENT REPORT**

**GENERAL INFORMATION**

DATE : 2/12/92	TICKET : 18968
CUSTOMER : ALLEN DRILLING COMPANY	LEASE : DECKERT C
WELL : 5-18 TEST: 6	GEOLOGIST: JEFF ZOLLER
ELEVATION: 2087 KB	FORMATION: ARBUCKLE
SECTION : 18	TOWNSHIP : 20S
RANGE : 15W COUNTY: BARTON	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12

**INITIAL FLOW**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	60.00	60.00
5.00	60.00	0.00
10.00	60.00	0.00
15.00	60.00	0.00
20.00	60.00	0.00
25.00	60.00	0.00
30.00	60.00	0.00

**INITIAL SHUT IN**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	384.00	384.00	0.00
6.00	499.00	115.00	0.00
9.00	527.00	28.00	0.00
12.00	540.00	13.00	0.00
15.00	551.00	11.00	0.00
18.00	556.00	5.00	0.00
21.00	560.00	4.00	0.00
24.00	564.00	4.00	0.00
27.00	567.00	3.00	0.00
30.00	570.00	3.00	0.00

**FINAL FLOW**

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	69.00	69.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	69.00	0.00
10.00	69.00	0.00
15.00	69.00	0.00
20.00	69.00	0.00
25.00	71.00	2.00
30.00	73.00	2.00
35.00	75.00	2.00
40.00	76.00	1.00
45.00	77.00	1.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	343.00	343.00	0.00
6.00	474.00	131.00	0.00
9.00	504.00	30.00	0.00
12.00	521.00	17.00	0.00
15.00	530.00	9.00	0.00
18.00	540.00	10.00	0.00
21.00	547.00	7.00	0.00
24.00	550.00	3.00	0.00
27.00	553.00	3.00	0.00
30.00	555.00	2.00	0.00
33.00	558.00	3.00	0.00
36.00	560.00	2.00	0.00
39.00	562.00	2.00	0.00
42.00	563.00	1.00	0.00
45.00	564.00	1.00	0.00
48.00	564.00	0.00	0.00
51.00	564.00	0.00	0.00