WESTERN TESTERS

Home Office: Wichita, Kansas 67201

P.O. Box 1599 (316) 262-5861

Company J. A. Allison Lease & Well No. #1 De Vore

Elevation --- Formation Hunter Effective Pay --- Ft. Ticket No. 18333

Date 11/28/82 Sec. 19 Twp. 25S Range 1W County Sedgwick State Kansas

Test Approved by Phil Hart Western Representative Jeff Piotrowski

Formation Test No. 1 Interval Tested from 3776 ft. to 3850 ft. Total Depth 3850 ft.

Packer Depth 3771 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 3776 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 3840 ft. Recorder Number 1565 Cap. 4900

Bottom Recorder Depth (Outside) 3843 ft. Recorder Number 1560 Cap. 4500

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

Drilling Contractor Big Springs Drilling Rig #1 Drill Collar Length - I. D. - in.

Mud Type Chemical Viscosity 39 Weight Pipe Length 420 I. D. 3.2 in.

Weight 9.8 Water Loss 14.8 cc. Drill Pipe Length 3336 I. D. 3.8 in.

Chlorides 1,900 P.P.M. Test Tool Length 20 ft. Tool Size 5½OD in.

Jars: Make - Serial Number - Anchor Length 74 ft. Size 5½OD in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Strong. Gas to surface in forty minutes on initial shut- in. Too small to measure on final flow period.

Recovered 1260 ft. of clean oil 39 Gravity @ 60°

Recovered 180 ft. of very heavy oil cut mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 7:30 A.M. ~~P.M.~~ Time Started Off Bottom 10:00 A.M. ~~P.M.~~ Maximum Temperature 110°

Initial Hydrostatic Pressure			(A) 2025	P.S.I.		
Initial Flow Period	Minutes 30	(B) 173	P.S.I. to	(C) 332	P.S.I.	
Initial Closed In Period	Minutes 45	(D) 1226	P.S.I.			
Final Flow Period	Minutes 30	(E) 445	P.S.I. to	(F) 519	P.S.I.	
Final Closed In Period	Minutes 45	(G) 1054	P.S.I.			
Final Hydrostatic Pressure			(H) 1990	P.S.I.		

WT

WESTERN TESTING CO., INC.
Pressure Data

Date 11/28/82 Test Ticket No. 18333

Recorder No. 1565 Capacity 4900 Location 3840 Ft

Clock No. -- Elevation --- Well Temperature 110 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2025	P.S.I.
B	First Initial Flow Pressure	173	P.S.I.
C	First Final Flow Pressure	332	P.S.I.
D	Initial Closed-in Pressure	1226	P.S.I.
E	Second Initial Flow Pressure	445	P.S.I.
F	Second Final Flow Pressure	519	P.S.I.
G	Final Closed-in Pressure	1054	P.S.I.
H	Final Hydrostatic Mud	1990	P.S.I.

	Time Given	Time Computed
Open Tool	7:30A M	
First Flow Pressure	30 Mins.	30 Mins
Initial Closed-in Pressure	45 Mins.	45 Mins
Second Flow Pressure	30 Mins.	30 Mins
Final Closed-in Pressure	45 Mins.	45 Mins

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	173
P 2	5	233
P 3	10	239
P 4	15	250
P 5	20	277
P 6	25	312
P 7	30	332
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	332
	3	1121
	6	1158
	9	1177
	12	1190
	15	1200
	18	1204
	21	1208
	24	1212
	27	1216
	30	1219
	33	1221
	36	1223
	39	1224
	42	1225
	45	1226

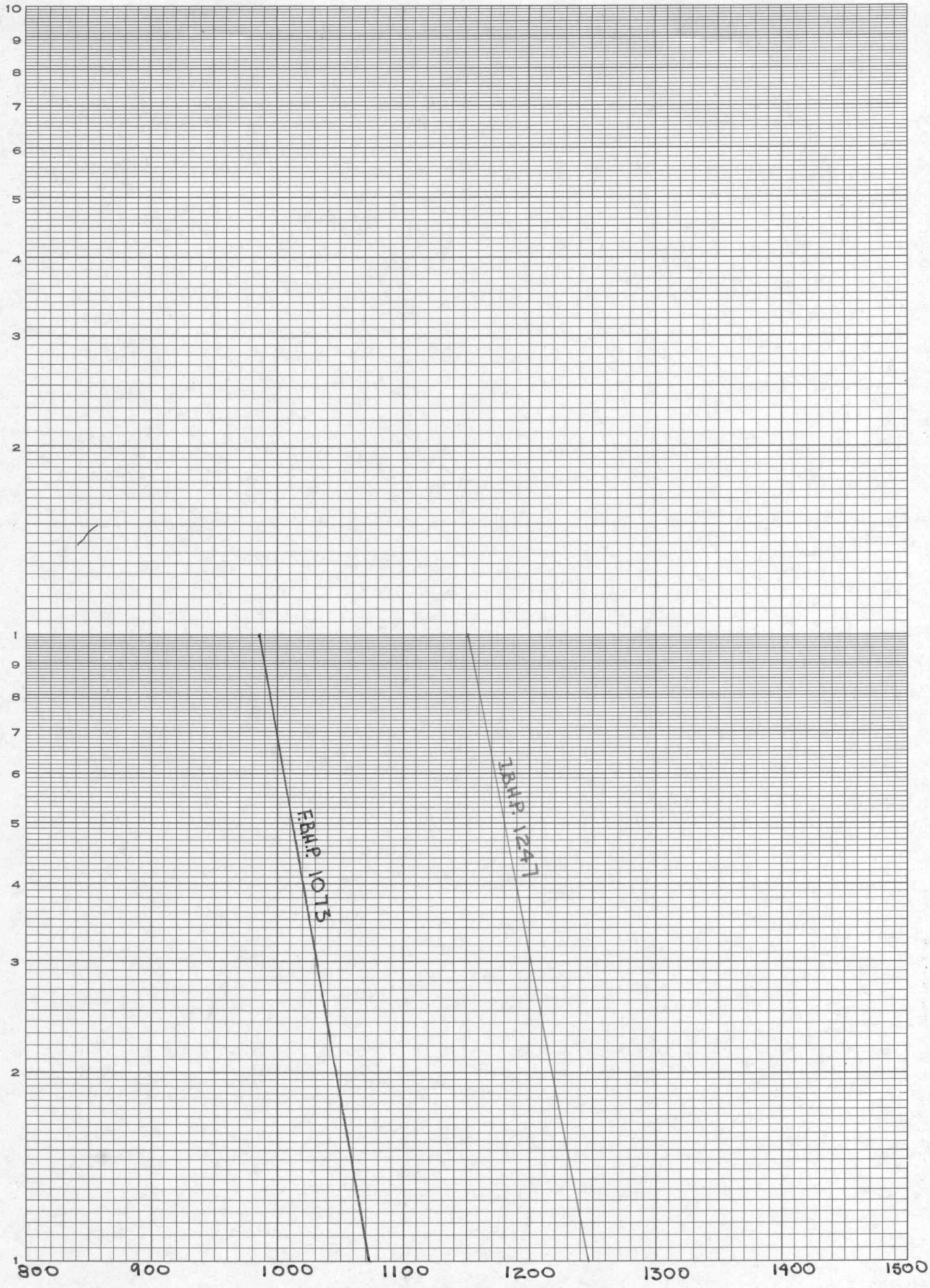
Second Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	445
	5	445
	10	449
	15	463
	20	484
	25	506
	30	519

Final Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	519
	3	990
	6	1010
	9	1021
	12	1030
	15	1034
	18	1037
	21	1040
	24	1043
	27	1045
	30	1047
	33	1049
	36	1051
	39	1052
	42	1053
	45	1054

Kings Extrapolation



EUGENE DIETZGEN CO.
MADE IN U. S. A.

NO. 341-L210 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
2 CYCLES X 10 DIVISIONS PER INCH

Liquid Production

B.T. Gauge Numbers			Ticket Number		18333
Initial Hydrostatic		PRESSURE 2025	Elevation		----- ft.
Final Hydrostatic		1990	Indicated Production	1st Flow	9.10 bbls. day
1st Flow	Initial	Time ---- 173		Total Flow	16.38 bbls. day
	Final	30 332	Drill ~~Collar~~ Weight Pipe Length		420 ft.
Initial Closed In Pressure		45 1226	Drill ~~Collar~~ Weight Pipe I.D.		2.25 in.
2nd Flow	Initial	---- 445	Drill Pipe Factor		.0142 bbls. ft.
	Final	30 519	Hole Size		7.875 in.
Final Closed In Pressure		45 1054	Footage Tested		74 ft.
Extrapolated Static Pressure	Initial	1247 - 1151	Mud Weight		9.8 lbs. gal.
	Final	1073 - 986	Viscosity, Oil or Water		cp
Slope psi/cycle	Initial	96.190	Oil API Gravity		—
	Final	87.072	Water Specific Gravity		—

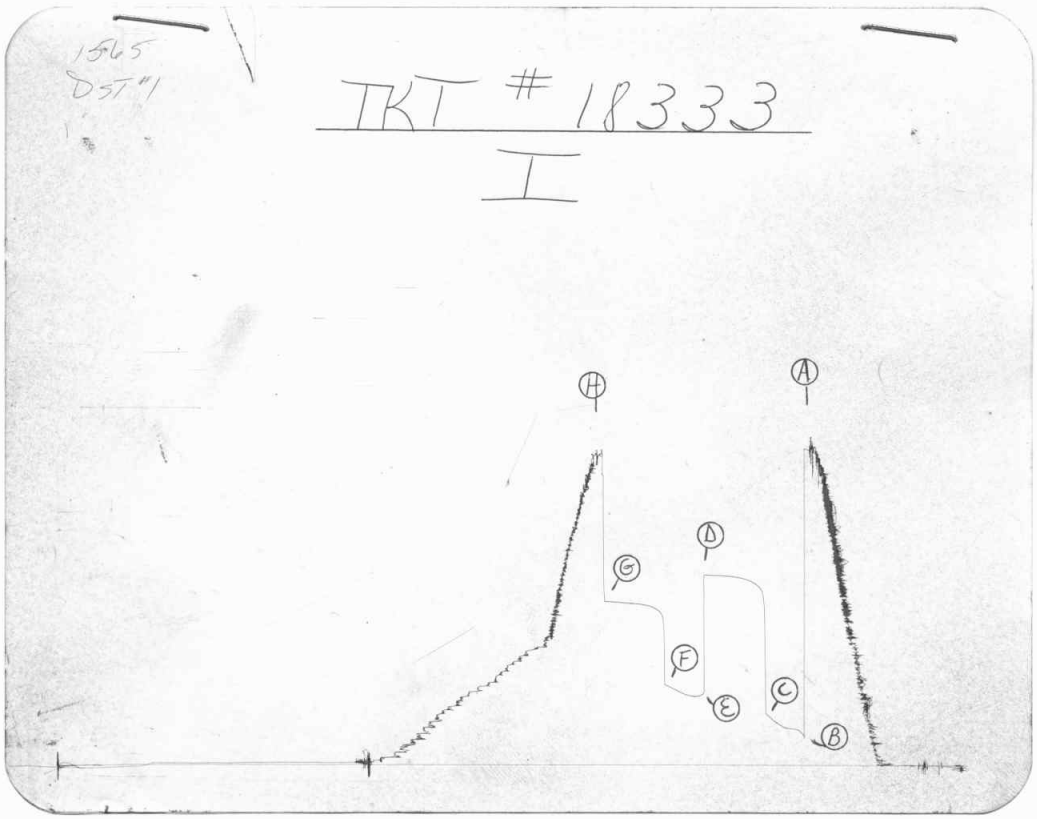
Remarks:

SUMMARY

		Gauge No. Depth	.997	.999	
Product	Equation		INITIAL	FINAL	Units
Production	$Q = \frac{1440\ R}{t}$		436.832	786.567	bbls., day,
Transmissability	$\frac{Kh}{\mu} = \frac{162.6\ Q}{m}$		739.882	1470.066	$\frac{\text{md. ft.}}{\text{cp}}$
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		295.953	588.026	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		147.976	294.0133	md.
	$K_1 = \frac{Kh}{h_1}$		--------	---------	md.
Damage Ratio	$DR = .183\ \frac{Ps - Pf}{m}$		1.744	1.165	—
Theoretical Potential w/Damage Removed	$Q_1 = Q\ DR$		761.929	916.594	bbls. day
Approx. Radius of Investigation	$b \backsimeq \sqrt{Kt}$ or $\sqrt{Kt_0}$		66.628	93.916	ft.
	$b_1 \backsimeq \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		---------	--------	ft.
Potentiometric Surface *	$Pot. = El - GD + 2.319\ Ps$		----------	---------	ft.

NOTICE: These calculations are based upon information furnished by you and taken from Drill Stem Test pressure charts, and are furnished you for your information. In furnishing such calculations and elevations based thereon, Western Testing Co., Inc. is merely expressing its opinion. You agree that Western Testing Co., Inc. makes no warranty express or implied as to the accuracy of such calculations or opinions, and that Western Testing Co., Inc. shall not be liable for any loss or damage, whether due to negligence or otherwise, in connection with such calculations and opinions.

INTERPRETATIONS AND CALCULATIONS



This is an actual photograph of recorder chart.

POINT		PRESSURE Field Reading	Office Reading	
(A)	Initial Hydrostatic Mud	2012	2025	PSI
(B)	First Initial Flow Pressure	173	173	PSI
(C)	First Final Flow Pressure	321	332	PSI
(D)	Initial Closed-in Pressure	1211	1226	PSI
(E)	Second Initial Flow Pressure	433	445	PSI
(F)	Second Final Flow Pressure	519	519	PSI
(G)	Final Closed-in Pressure	1051	1054	PSI
(H)	Final Hydrostatic Mud	2012	1990	PSI

COMPANY J. A. ALLISON LEASE AND WELL NO. #1 DE VORE SEC. 19 TWP. 25S RGE. 1W TEST NO. 1 DATE 11/28/82