



00204795

Liberty Testers
12845 Tumbleweed Dr.
Sterling, Colo. 80751

303 - 522 - 7025

NOV. 26, 1981

SUNDANCE OIL CO.
NICKERSON #1-18 DST #1 TICKET #1011
WLED COUNTY CO.

INTERVAL: 6495' - 6517'

INCREMENTAL READING DATA

RECORDER NO. 10228 @ 6510'

Initial Flow (10 min)
(min) Pressure (psi)

0	728
10	920

Final Flow (60 min)
(min) Pressure (psi)

0	1014
60	1596

Initial Shut-in (30 min)

(5 min-intervals)

0	920
5	1678
10	1688
15	1691
20	1693
25	1694
30	1695

Final Shut-in (90 min)

(5 min intervals)

0	1596
10	1688
10	1690
15	1691
20	1691
25	1692
30	1692
35	1692
40	1692
45	1692
50	1692
55	1692
60	1692
65	1693
70	1693
75	1693
80	1693
85	1693
90	1693

LYNES, INC.

Sampler Report

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DEC 18 1981

COLO. OIL & GAS CONS. COMM.

Sundance Oil Co. Date 11-27-81
Name & No. Nickerson #1-18 Ticket No. 35814
Well State Colorado
Interval 5934-5984' DST No. 3

Total Volume of Sampler: 2150 cc.

Total Volume of Sample: 2150 cc.

Pressure in Sampler: 82 psig

Oil: None cc.

Water: None cc.

Mud: 2150 cc.

Gas: None cu. ft.

Other: None

Sample R.W.: 2.0 @ 75°F = 2750 ppm. Cl.

Resistivity

Take Up Water @ of Chloride Content ppm.

Add Pit Sample 2.1 @ 60°F of Chloride Content 3100 ppm.

Gas/Oil Ratio Gravity °API @ °F

Where was sample drained On location

Remarks:

18-7N-58W

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Date 11-27-81		Ticket Number 1012		DEC 18 1981		FLUID SAMPLE DATA	
Kind of Job STRADDLE DST		TESTER T. MICHEL		WITNESS MR. BIFANI		SAMPLER PRESSURE 0	
Drilling Contractor GEAR DRILLING CO.		EQUIPMENT & HOLE DATA		Recovery: Cu. Ft. Gas 0		P.S.I.G. at Surface	
Formation Tested D SAND		Elevation 4825		cc. Oil 0		cc. Water 0	
Net Productive Interval 16		All Depths Measured From KB		cc. Mud 2000		Tot. Liquid cc. 2000	
Total Depth 6590		Main Hole/Casing Size 7 7/8"		Gravity		° API @ °F.	
Drill Collar Length 435		I.D. 2.25"		Gas/Oil Ratio		cu. ft./bbl.	
Drill Pipe Length 5938		I.D. 3.826"		RESISTIVITY		CHLORIDE CONTENT	
Packer Depth(s) 6409-6418-6434		Depth Tester Valve 6391		Recovery Water		@ °F. ppm	
Cushion		TYPE AMOUNT NONE		Recovery Mud 2.60 @ 65 °F. 2500 ppm		Recovery Mud Filtrate @ °F. ppm	
Recovered 100 Feet of MUD		Depth Back Pres. Valve NONE		Mud Pit Sample 2.30 @ 55 °F. 3500 ppm		Mud Pit Sample Filtrate 1.80 @ 55 °F. 4000 ppm	
Recovered Feet of		Surface Choke 3/8"		Mud Weight 9.8 vis 75 cp			
Recovered Feet of		Bottom Choke 3/4"					
Recovered Feet of							
Recovered Feet of							
Remarks OPEN FOR A 10 MIN INITIAL FLOW, WITH A WEAK BLOW, INCREASING TO A 1/2" WATER BLOW IN 10 MIN. CLOSED FOR 30 MIN. OPEN FOR A 60 MIN FINAL FLOW, WITH A WEAK BLOW OF 1/4" THEN DIED IN 10 MIN. LEFT FOR THE REST OF THE 60 MIN FINAL FLOW. CLOSED FOR A 120 MIN FINAL SHUT IN.							
TEMPERATURE		Gauge No. 10228		Gauge No. 10229		TIME	
Depth: Ft.		Depth: 6431 Ft.		Depth: 6451 Ft.			
Hour Clock		12 Hour Clock		12 Hour Clock			
Est. °F.		Blanked Off YES		Blanked Off YES		Tool A.M.	
Actual 158°F.		Pressures		Pressures		Opened 12:00 P.M.	
Field		Office		Field		Office	
Initial Hydrostatic		3262 3259		3268		Reported Minutes	
Flow Initial		108 79		BLEED OFF UNDER		Computed Minutes	
Flow Final		108 113		STRADDLE PACKER			
Closed in		2216 2220				10 12	
Flow Initial		126 123				30 27	
Flow Final		108 113				60 62	
Closed in		1799 1798				120 117	
Final Hydrostatic		3244 3210		3220			

Legal Location Sec. 18 T 7N R 58W

Lease Name NICKERSON

Well No. 1-18

Test No. 2

6418' - 6434'

Tested Interval

County WELD

State COLO.

Lease Owner/Company Name SUNDANCE OIL CO.

PRODUCTION TEST DATA

Box 12486
Houston, TX 77017

DEC 18 1981

COLO. OIL & GAS CONS. COMM.
Flow No 1

Director Gear Drilling Co.
1
SE-SE
18
7 N
59 W
Wildcat
Weld
Colorado
1825' "K.B."
Niobrara

Top Choke 1" COLO. 01
Bottom Choke 3/4"
Size Hole 7 7/8"
Size Rat Hole --
Size & Wt. D. P. 4 1/2" 16.60
Size Wt. Pipe --
I. D. of D. C. 2 1/4"
Length of D. C. 365'
Total Depth 6590'
Interval Tested 5934'-5984'
Type of Test Inflate
Straddle

Flow No. 1	10	Min.
Shut-in No. 1	30	Min.
Flow No. 2	60	Min.
Shut-in No. 2	120	Min.
Flow No. 3	--	Min.
Shut-in No. 3	--	Min.

Bottom	
Hole Temp.	180°F
Mud Weight	9.3
Gravity	--
Viscosity	32

Tool opened @ 1:45 PM

Outside Recorder

PRD Make Kuster K-3
No. 6584 Cap. 8000 @ 5944'

Press	Corrected
Initial Hydrostatic A	2631
Final Hydrostatic K	2631
Initial Flow B	57
Final Initial Flow C	205
Initial Shut-in D	228
Second Initial Flow E	138
Second Final Flow F	157
Second Shut-in G	186
Third Initial Flow H	--
Third Final Flow I	--
Third Shut-in J	--

Lynes Dist.: Casper, Wyoming
Our Tester: Dan Bodell
Witnessed By: Don Willison

Well Flow - Gas No Oil No Water No
RECOVERY IN PIPE: 20' Drilling mud = .09 bbl.

Bottom Sample R.W.: 2.1 @ 70°F = 2800 ppm. Cl.

34 description:

1st flow: Tool opened with a very weak blow; died in 1 minute and remained thru flow period.

2nd flow: Tool opened with a weak blow; died in less than 1 minute and remained thru flow period.

Incremental breakdown of shut-in curves are not practical for Horner extrapolations.

Operator	Sundance Oil Co.
	1776 Lincoln St., Suite 910
Address	Denver, Co. 802043

Well Name and No.	Nickerson #1-18
Ticket No.	35814

Date 11-27-81

DST No.	No. Final Copies
3	5

DST No. 3

SUNDANCE OIL CO.---NICKERSON 1-18 ---DST #2---TICKET# 1012

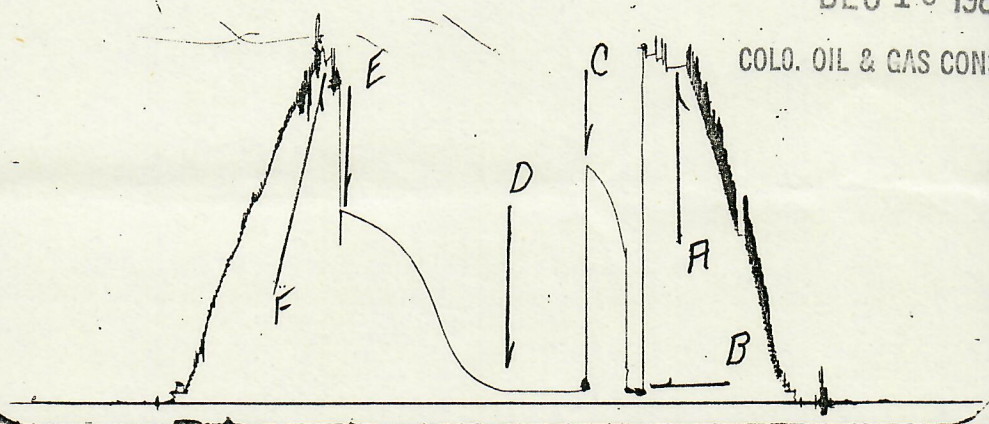
BOTTOM CHART BLANKED OFF IN FLOW STREAM---GAUGE # 10228

A---I HYDRO---	3259	psi	-	D---F FLOW---	113	psi
B---I FLOW----	79	"		E---FSIP-----	1798	"
C---ISIP-----	2220	"		F---F HYDRO---	3210	"

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COLO. OIL & GAS CONS. COM.



PRESSURE

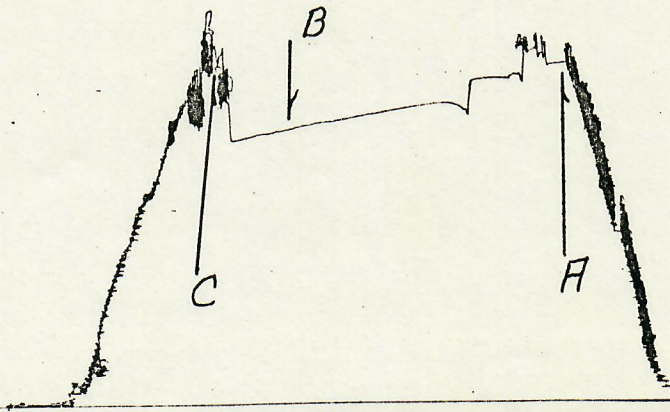
TIME

THESE ARE REPRODUCTIONS FROM DST CHARTS

SUNDANCE OIL CO.---NICKERSON 1-18 ---DST # 2---TICKET # 1012

CHART BLANKED OFF UNDER STRADDLE PACKER---GAUGE # 10229

A---I HYDRO---	3268	psi
B---BLEED OFF UNDER STRADDLE PACKER---	2454	psi
C---F HYDRO---	3220	psi



18-7N-58W

Liberty Testers
12845 Tumbleweed Dr.
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303 - 522 - 7025

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NOV. 27, 1981 OIL & GAS CONS. COMM.

SUNDANCE OIL CO.
NICKERSON #1-18 DST #2 TICKET #1012
WELD COUNTY CO.

INTERVAL: 6418' - 6434'

INCREMENTAL READING DATA

RECORDER NO. 10228 @ 6431'

Initial Flow (12 min)
(min) Pressure (psi)

0	79
12	113

Final Flow (62 min)
(min) Pressure (psi)

0	123
10	109
20	107
30	109
40	111
50	112
60	113
62	113

Initial Shut-in (27 min)

0	113
5	1675
10	1898
15	2034
20	2124
25	2199
27	2220

Final Shut-in (117 min)

0	113
5	132
10	159
15	192
20	230
25	283
30	351
35	456
40	587
45	757
50	932
55	1090
60	1223
65	1322
70	1410
75	1480
80	1544
85	1595
90	1639
95	1675
100	1708
105	1738
110	1766
115	1792
117	1798

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18-7N-58W

Date 11-26-81		Ticket Number 1011		FLUID SAMPLE DATA			
Kind of Job STRADDLE DST		COLO. OIL & GAS CONS. COMM.		Sampler Pressure 0 P.S.I.G. at Surface			
Tester T. MICHEL		Witness MR. BIFANI		Recovery: Cu. Ft. Gas 0			
Drilling Contractor GEAR DRILLING CO.				cc. Oil 0			
				cc. Water			
				cc. Mud 2000			
				Tot. Liquid cc. 2000			
EQUIPMENT & HOLE DATA				Gravity _____ ° API @ _____ °F.			
Formation Tested J SAND				Gas/Oil Ratio _____ cu. ft./bbl.			
Elevation 4825 Ft.				RESISTIVITY			
Net Productive Interval 22 Ft.				CHLORIDE CONTENT			
All Depths Measured From KB				Recovery Water 2.20 @ 55 °F. 3500 ppm			
Total Depth 6585 Ft.				Recovery Mud _____ @ _____ °F. _____ ppm			
Main Hole/Casing/Size 7 7/8"				Recovery Mud Filtrate _____ @ _____ °F. _____ ppm			
Drill Collar Length 435 I.D. 2.25"				Mud Pit Sample _____ @ _____ °F. _____ ppm			
Drill Pipe Length 6015 I.D. 3.826"				Mud Pit Sample Filtrate 1.80 @ 55 °F. 4000 ppm			
Packer Depth(s) 6489-6495-6517 Ft.				Mud Weight 9.8 vis 75 cp			
Depth Tester Valve 6471 Ft.							
Cushion		TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke	
			NONE	NONE	3/8"	3/4"	
Recovered		180 Feet of MUDDY WATER					
Recovered		3461 Feet of WATER R.W. 2.20 @ 55° 3500 PPM					
Recovered		Feet of					
Recovered		Feet of					
Remarks		OPEN FOR A 10 MIN INITIAL FLOW, WITH A WEAK BLOW, INCREASING TO BOTTOM OF BUCKET IN 2 MIN. THEN INCREASED TO 2 PSI IN 10 MIN. CLOSED FOR 30 MIN. OPEN FOR A 60 MIN FINAL FLOW, WITH A WEAK BLOW, INCREASING TO BOTTOM OF BUCKET IN 2 MIN. THEN INCREASED TO 2 PSI IN 50 MIN. THEN STARTED TO DECREASE TO 6 OZ IN 60 MIN. CLOSED FOR 90 MIN FINAL SHUT IN.					
TEMPERATURE	Gauge No.	Gauge No.	10228	Gauge No.	10229	TIME	
	Depth:	Depth:	6510 Ft.	Depth:	6530 Ft.		
Est.	Hour Clock	Hour Clock	12	Hour Clock	12	Tool XXXX	
	Blanked Off	Blanked Off	YES	Blanked Off	YES	Opened 11:00 P.M.	
Actual 159 °F.	Pressures		Pressures		Pressures		Opened A.M.
	Field	Office	Field	Office	Field	Office	Bypass 2.10 XXXX
Initial Hydrostatic			3316	3280		3290	Reported Minutes
First Period Flow	Initial		869	728	BLEED OFF UNDER		Computed Minutes
	Final		923	920	STRADDLE PACKER		
	Closed in		1689	1695	1838		10
Second Period Flow	Initial		1014	1014			30
	Final		1598	1596			60
	Closed in		1708	1693			90
Final Hydrostatic			3118	3191	3201		

PRODUCTION TEST DATA

Lease Name

Well No.

Test No.

Tested Interval

Lease Owner/Company Name

NICKERSON

1-18

1

6495' - 6517'

SUNDANCE OIL CO.

Legal Location Sec. - Twp. - Rng. SEC 18 T 7N R 58W

Field Area

STOUT

County WELD

State COLO

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C 18 1981

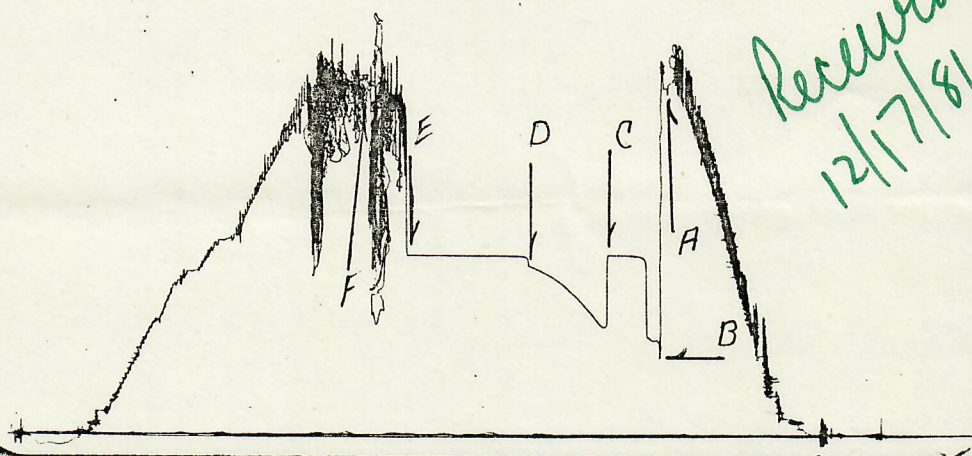
& GAS CONS. COMM.

SUNDANCE OIL CO.---NICKERSON 1-18---DST #1---TICKET # 1011

BOTTOM CHART BLANKED OFF IN FLOW STREAM---GAUGE # 10228 COLO.

A---I HYDRO---3280 psi D---F FLOW---1596 psi
 B---I FLOW---728 " E---FSIP---1693 "
 C---ISIP---1695 " F---F HYDRO---3191 "

*Received
12/17/81*



PRESSURE

TIME

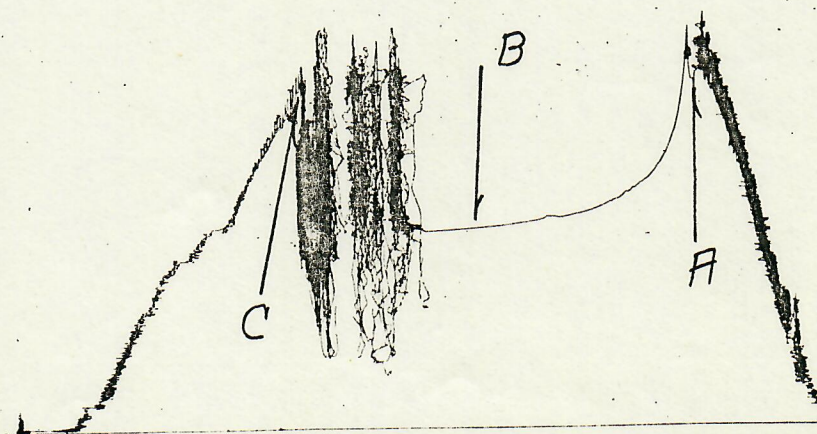
THESE ARE REPRODUCTIONS FROM DST CHARTS

DVR	
FJP	
HMM	
JM	
LAB	
RES	
COM	

SUNDANCE OIL CO.---NICKERSON 1-18---DST #1---TICKET # 1011

CHART BLANKED OFF UNDER STRADDLE PACKER---GAUGE # 10229

A---I HYDRO---3290 psi
 B---BLEED OFF UNDER STRADDLE PACKER---1838 psi
 C---F HYDRO---3201 psi

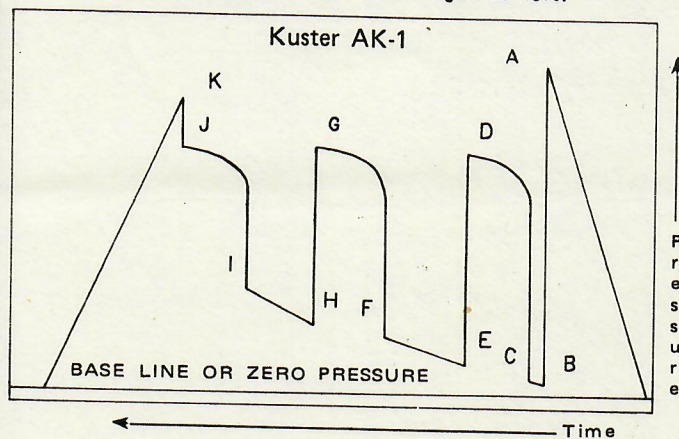


GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

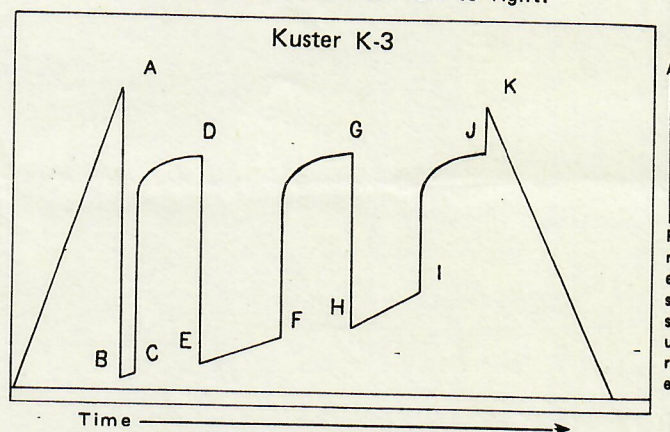
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In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

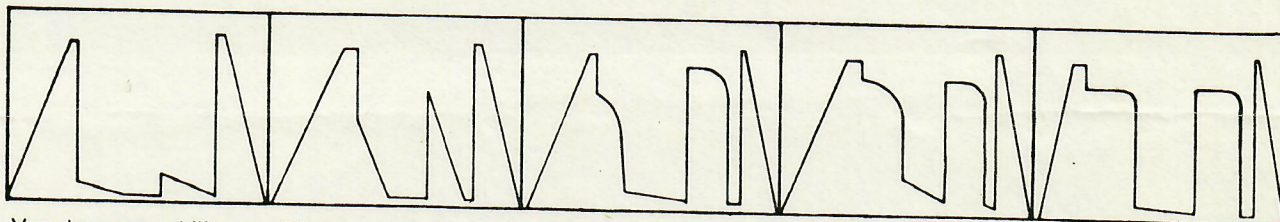
AK-1 recorders. Read from right to left.



K-3 recorders. Read from left to right.



- A — Initial Hydrostatic
- B — First Initial Flow
- C — First Final Flow
- D — Initial Shut-in
- E — Second Initial Flow
- F — Second Final Flow
- G — Second Shut-in
- H — Third Initial Flow
- I — Third Final Flow
- J — Third Shut-in
- K — Final Hydrostatic



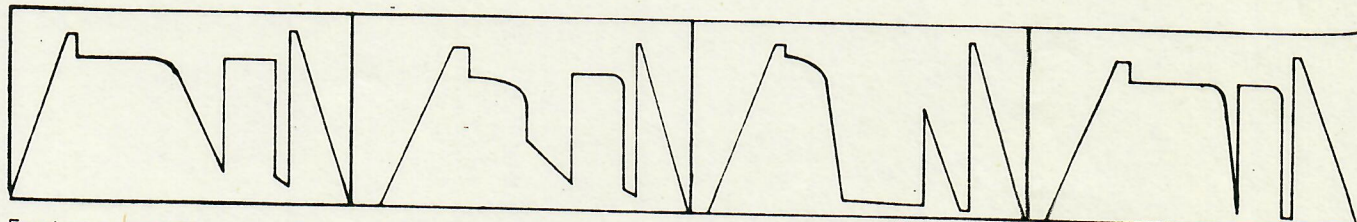
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200 ft.

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.