

## CONFIDENTIAL

DST TEST, TEST #2

ARCO ALASKA

KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT

NORTH SLOPE, ALASKA

REC'D  
OCS DISTRICT OFFICE

OCT 15 1992

tab2.rpt

MINERALS MANAGEMENT SERVICE  
ANCHORAGE, ALASKAGENERAL AND RESERVOIR DATA  
FILE: a2.bd

JOB: A350

ANALYST: KIM THORNTON

GAUGE: HP SRO

WELL TYPE: OIL

STD.PRES.BASE,PSI

14.650

ATMOSPHERIC PRES., PSI

14.650

TEST STARTED:  
SEPTEMBER 30, 1992TEST ENDED:  
OCTOBER 4, 1992DATE OF ANALYSIS:  
October 5, 1992DATE OF START OF PRODUCTION  
YEAR= 92 MONTH= 9 DAY= 30  
HOUR= 8.00000 MIN= 43 SEC= 30

EFF. WELL DEPTH, FT.

8368.0

WELLBORE DIA., IN.

12.250

TOP OF PERFS, FT.

6584.0

CASING I.D., IN.

8.531

BOTTOM OF PERFS, FT.

6668.0

TUBING I.D., IN.

2.000

RATIO - TVD/MEAS.DEPTH:

1.000

TUBING O.D., IN.

3.500

GAUGE DEPTH, FT.

6223.0

TUBING LENGTH, FT.

6498.0

PRESSURE DATUM, FT.

6223.0

PACKER DEPTH, FT.

6466.0

AVG. RESERVOIR DEPTH, FT.

6626.0

INT.RES.PRES., PSIG

3000.00

RESERVOIR TEMP., DEG. F

114.0

NET THICKNESS, FT.

55.0

RES.POROSITY, PCT

20.000

RES.WATER SAT., PCT

30.000

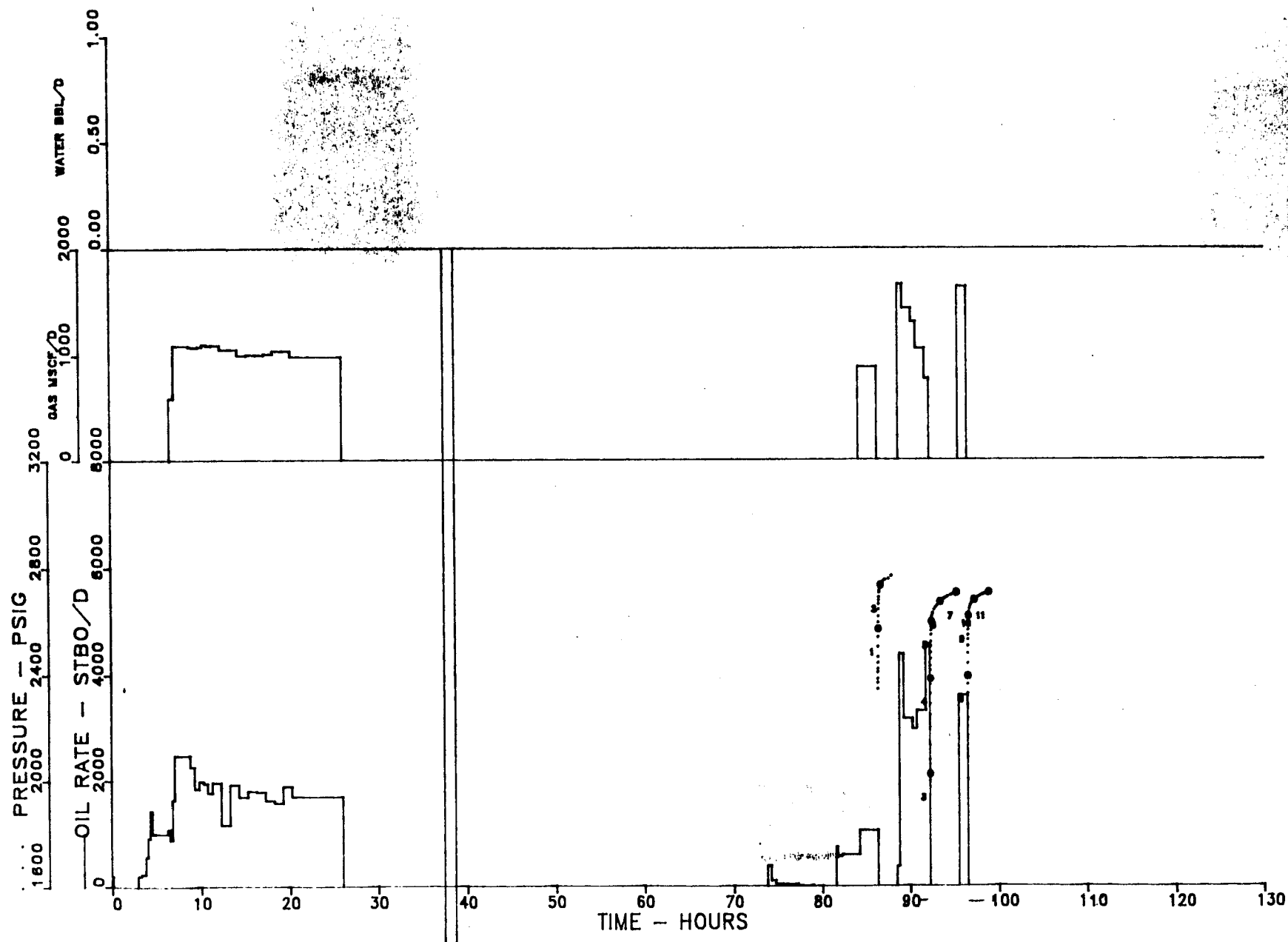
RELEASED TO PUBLIC FILE  
DATE NOV 1992

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KUVIUM #1 WELL

BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

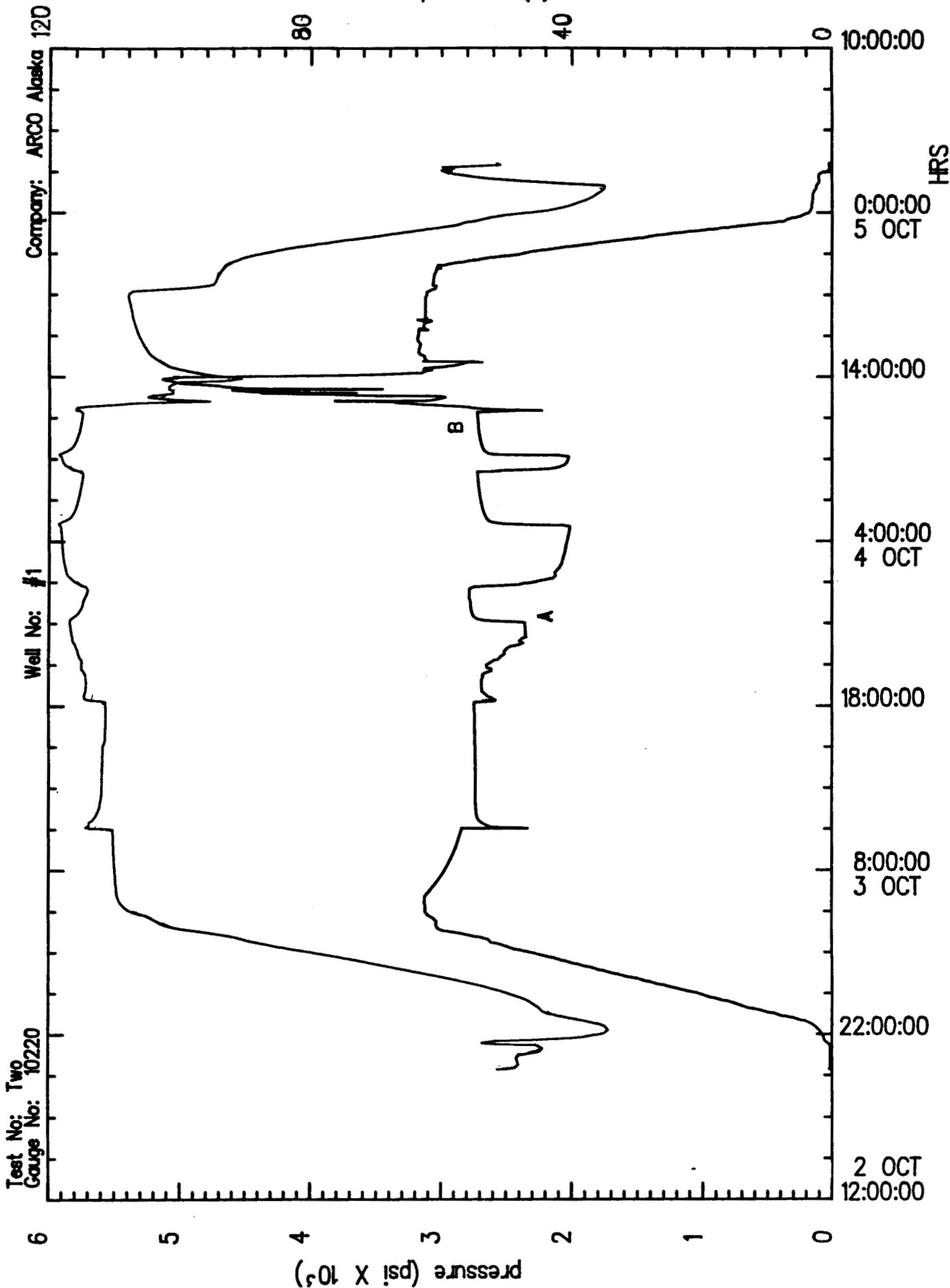
PRESSURES, RATES, AND RATIOS

FILE: a2.bd

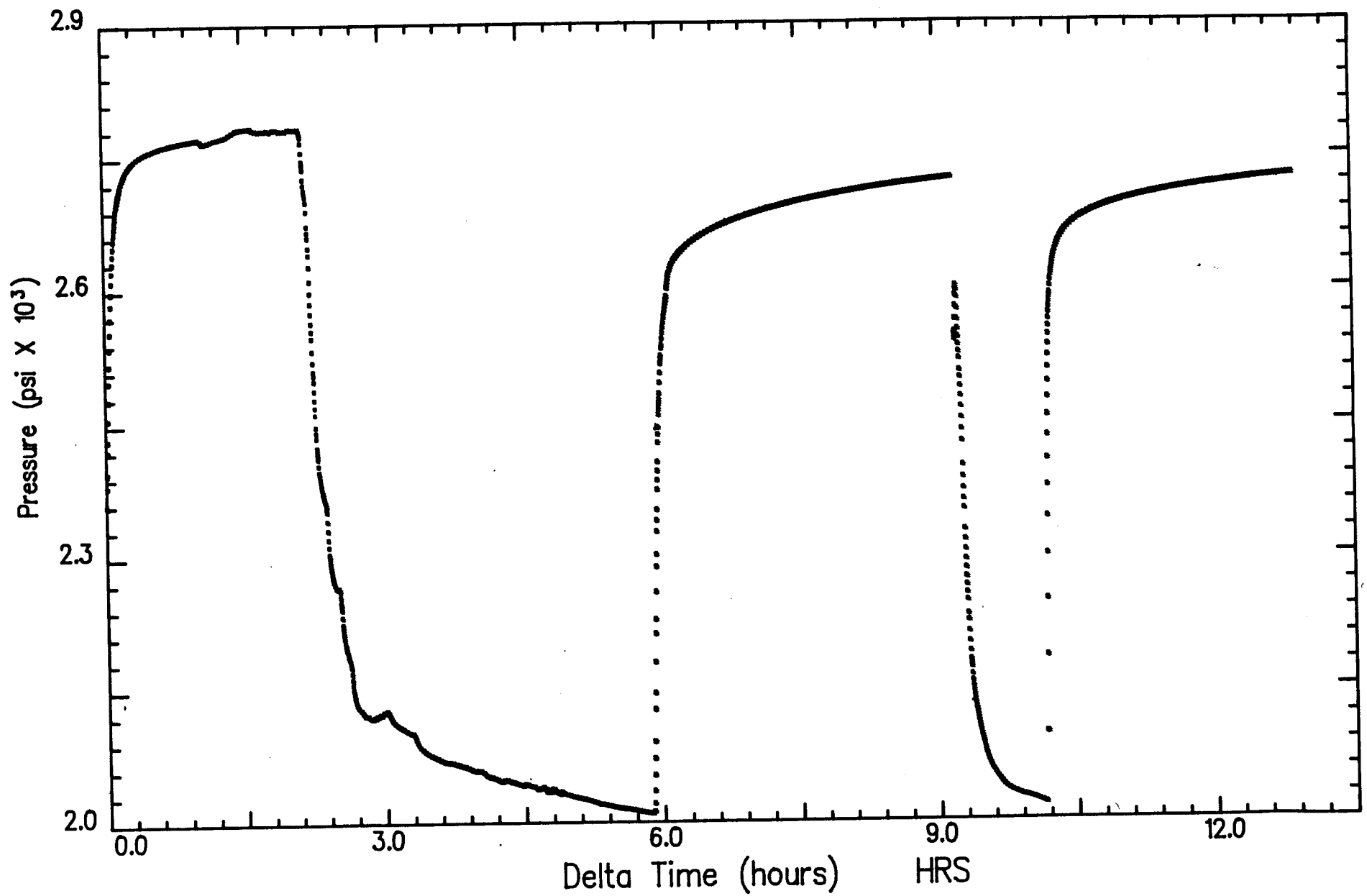


temperature (F)

# Pressure/Temperature History



# Pressure Vs Delta Time



Date: 03-Oct-92

Ticket No: 018037

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2ND CLEAR UP  
FEED UP  
WAX RATE

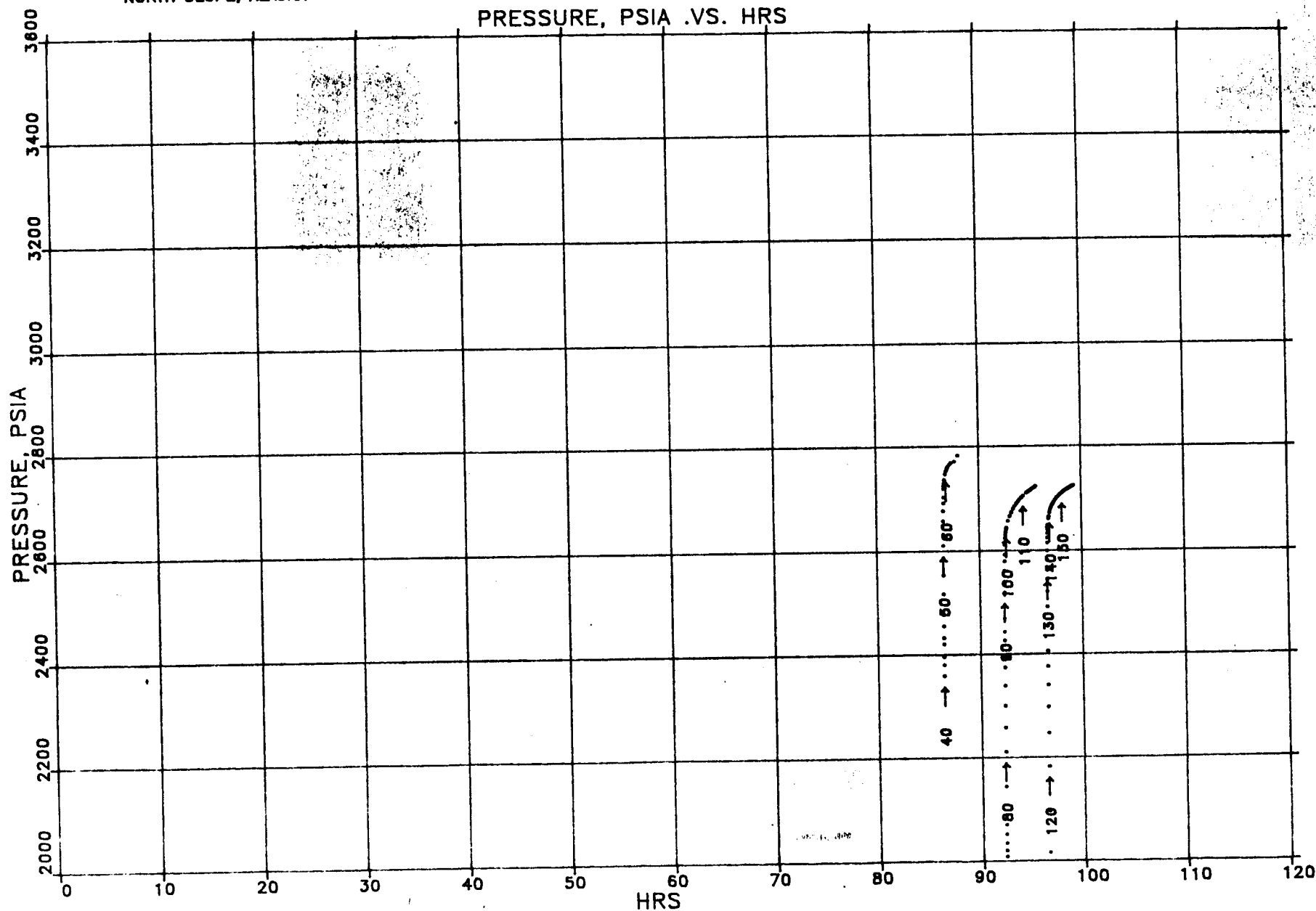
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NORTH SLOPE, ALASKA

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a2.a

a.pvt

PRESSURE, PSIA .VS. HRS

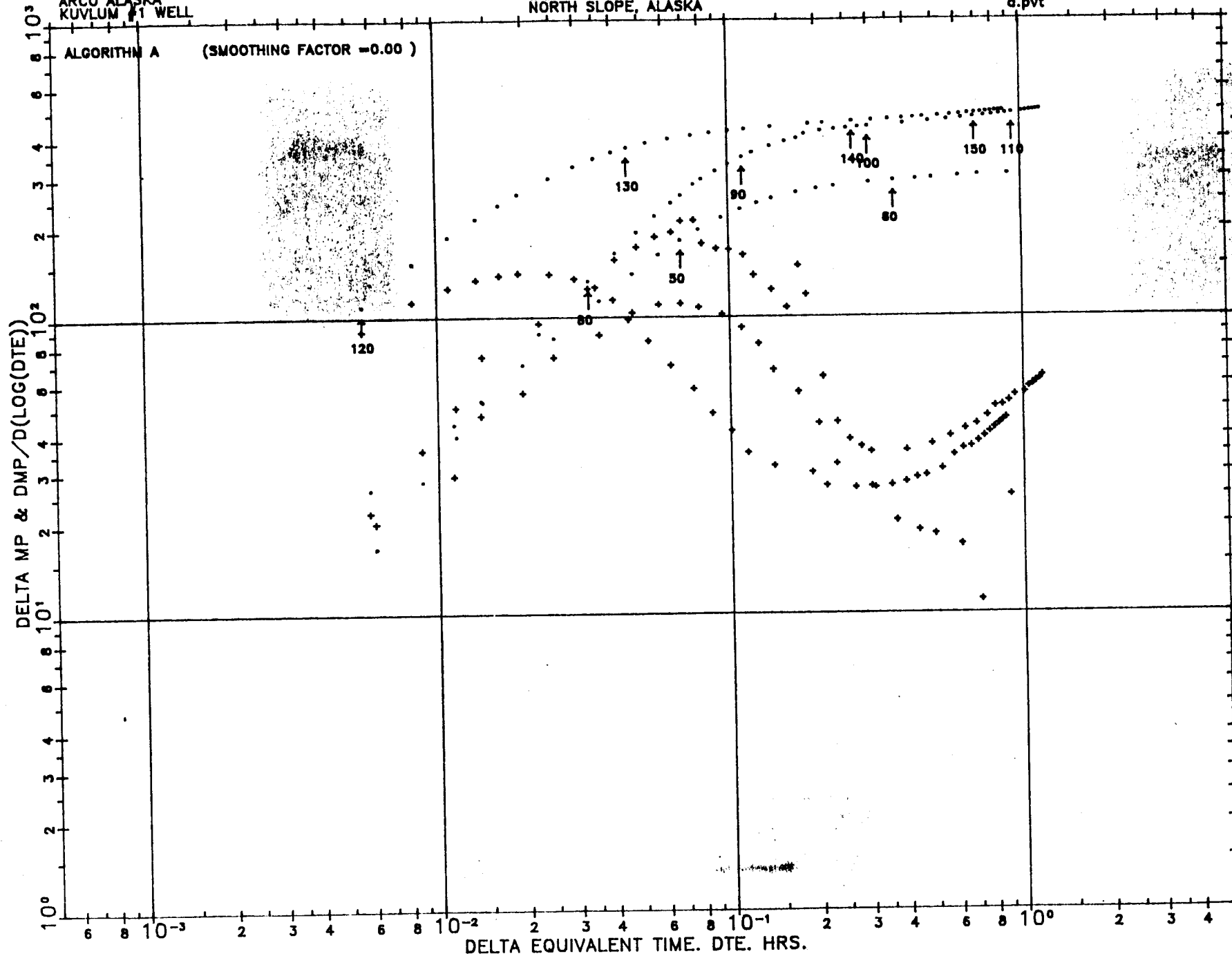


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KUVLUM #1 WELL

BLANK FORMATION  
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NORTH SLOPE, ALASKA

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ALGORITHM A (SMOOTHING FACTOR =0.00 )



3-BUILDUPS OVERLAPPED

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ARCO ALASKA  
KUVLUM #1 WELL

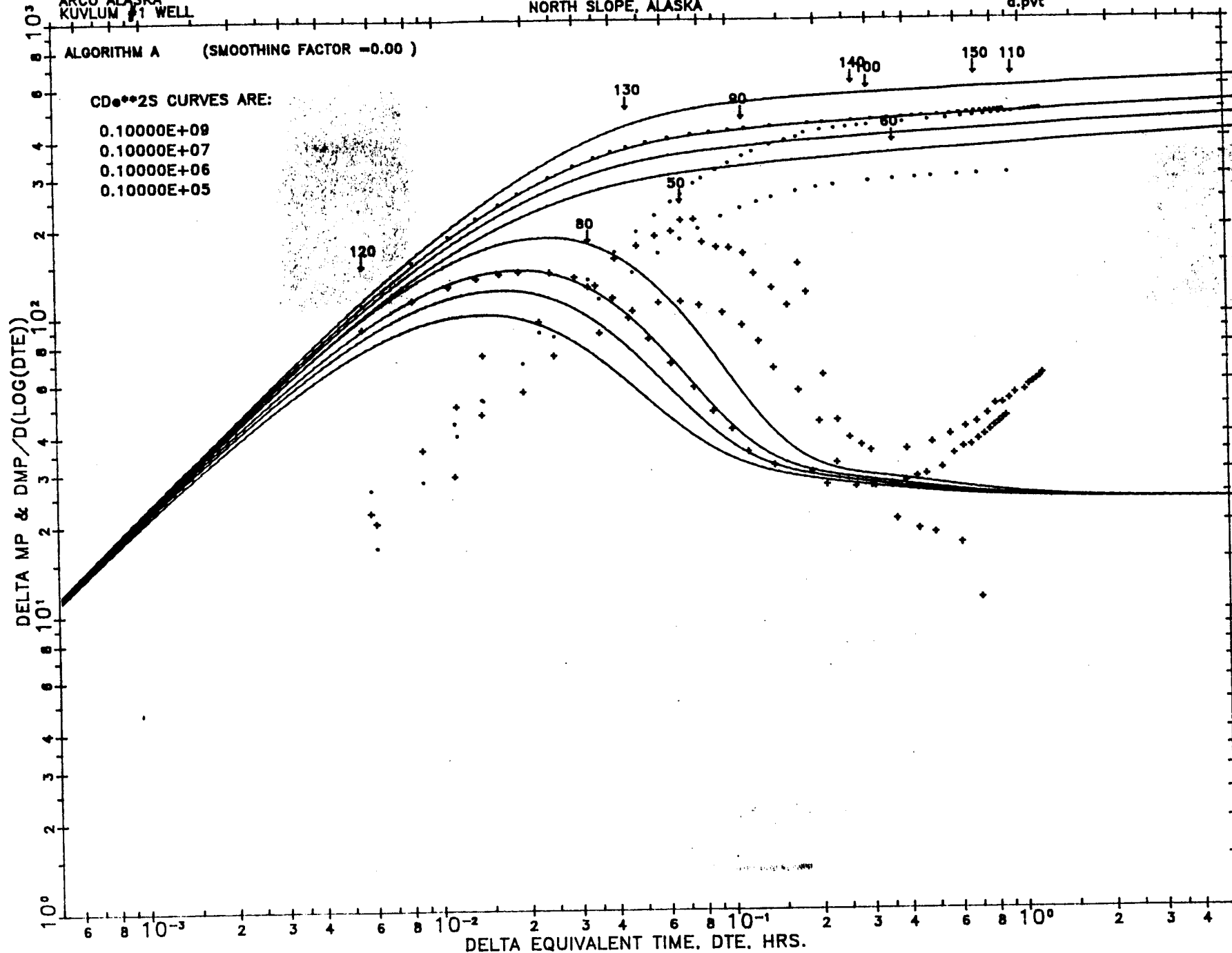
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

a2.bd  
a2.a  
a.pvt

ALGORITHM A (SMOOTHING FACTOR =0.00)

CD\*\*2S CURVES ARE:

0.10000E+09  
0.10000E+07  
0.10000E+06  
0.10000E+05



MATCH OF LAST BUILD UP

COND BUILDUP  
MIDDLE TIME

DST TEST, TEST #2

a2.a

ARCO ALASKA

a2.bd

KUVLUM #1 WELL

a.pvt

BLANK FORMATION

WILD CAT

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NORTH SLOPE, ALASKA

HALLIBURTON RESERVOIR SERVICES  
LINEAR REGRESSION ANALYSIS  
LINE SOURCE RADIAL FLOW MODEL

VARIABLE RATE CASE WITH EQUIVALENT REAL TIME  
DY VS. DQ\*LOG(DTE)  
LAMINAR FLOW IN RESERVOIR

BASIC DATA:  
-----

RESERVOIR FLUID . . . . .	OIL	
INITIAL PRESSURE. . . . .	3014.65	PSIA
INITIAL M(PI). . . . .	1501.4	PSIA/CP
BASE PRESSURE. . . . .	14.65	PSIA
RESERVOIR TEMPERATURE. . . . .	114.0	DEG.F.
OIL VOLUME FACTOR. . . . .	1.305	RB/STB
FLUID VISCOSITY. . . . .	1.055	CP.
TOTAL COMPRESSIBILITY. . . . .	69.958	V/MMV/PSI
NET THICKNESS. . . . .	55.0	FT.
EFFECTIVE POROSITY. . . . .	20.00	%
WELLBORE RADIUS. . . . .	0.5	FT.
LAST FLOW RATE. . . . .	4561.0	STBO/D
LAST FLOW PRESSURE. . . . .	2008.16	PSIA

ANALYSIS RESULTS:  
-----

AVG. DIFF. BETWEEN MEAS. AND CALC. PRESS . . . . .	0.21	PSIA
DELTA M(P) INTERCEPT. . . . .	0.1	PSIA/CP
CALCULATED PRESSURE INTERCEPT. . . . .	2744.37	PSIA
EFFECTIVE PERMEABILITY. . . . .	163.347	MD.
SKIN EFFECT. . . . .	1.665	
PRESS. DECREASE DUE TO SKIN. . . . .	183.77	PSIA
COMPLETION EFFICIENCY. . . . .	76.84	%
TRANSIENT RADIUS. . . . .	93.4	FT.
AT TRANSIENT TIME OF. . . . .	0.878	HRS.
INITIAL OIL IN PLACE. . . . .	832.1	STB/AF



DST TEST, TEST #2

a2.a

ARCO ALASKA

a2.bd

KUVLUM #1 WELL

a.pvt

BLANK FORMATION  
WILD CAT

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NORTH SLOPE, ALASKA

CALCULATED AND MEASURED PRESSURES

POINT NO.	TIME HRS	MEAS.PRES. PSIA	CALC.PRES. PSIA	PRES.DIFF. PSI
98	92.55	2635.52	2635.53	-0.02
99	92.58	2640.00	2639.88	0.13
100	92.62	2643.55	2643.45	0.10
101	92.78	2656.54	2656.86	-0.32
102	92.95	2666.15	2666.35	-0.20
103	93.11	2673.53	2673.22	0.31

RECORD BUILD  
LATE TIME

DST TEST, TEST #2 a2.a  
ARCO ALASKA a2.bd  
KUVLUM #1 WELL a.pvt  
BLANK FORMATION  
WILD CAT lr2end2.rpt  
NORTH SLOPE, ALASKA

HALLIBURTON RESERVOIR SERVICES  
LINEAR REGRESSION ANALYSIS  
LINE SOURCE RADIAL FLOW MODEL

VARIABLE RATE CASE WITH EQUIVALENT REAL TIME  
DY VS. DQ\*LOG(DTE)  
LAMINAR FLOW IN RESERVOIR

BASIC DATA:

RESERVOIR FLUID . . . . .	OIL	
INITIAL PRESSURE . . . . .	3014.65	PSIA
INITIAL M(PI) . . . . .	1501.4	PSIA/CP
BASE PRESSURE . . . . .	14.65	PSIA
RESERVOIR TEMPERATURE . . . . .	114.0	DEG.F.
OIL VOLUME FACTOR . . . . .	1.305	RB/STB
FLUID VISCOSITY . . . . .	1.055	CP.
TOTAL COMPRESSIBILITY . . . . .	69.958	V/MMV, PSI
NET THICKNESS . . . . .	55.0	FT.
EFFECTIVE POROSITY . . . . .	20.00	%
WELLBORE RADIUS . . . . .	0.5	FT.
LAST FLOW RATE . . . . .	4561.0	STBO/D
LAST FLOW PRESSURE . . . . .	2008.16	PSIA

ANALYSIS RESULTS:

AVG. DIFF. BETWEEN MEAS. AND CALC. PRESS . . . . .	0.25	PSIA
DELTA M(P) INTERCEPT . . . . .	0.1	PSIA/CP
CALCULATED PRESSURE INTERCEPT . . . . .	2778.69	PSIA
EFFECTIVE PERMEABILITY . . . . .	103.889	MD.
SKIN EFFECT . . . . .	-0.498	
PRESS. INCREASE DUE TO SKIN . . . . .	88.96	PSIA
COMPLETION EFFICIENCY . . . . .	110.38	%
TRANSIENT RADIUS . . . . .	149.1	FT.
AT TRANSIENT TIME OF . . . . .	3.301	HRS.
INITIAL OIL IN PLACE . . . . .	832.1	STB, AF

DST TEST, TEST #2

a2.a

ARCO ALASKA

a2.bd

KUVLUM #1 WELL

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BLANK FORMATION  
WILD CAT

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NORTH SLOPE, ALASKA

CALCULATED AND MEASURED PRESSURES

POINT NO.	TIME HRS	MEAS.PRES. PSIA	CALC.PRES. PSIA	PRES.DIFF. PSI
108	93.94	2698.14	2697.74	0.40
109	94.11	2701.65	2701.61	0.04
110	94.28	2704.96	2705.14	-0.18
111	94.62	2710.64	2710.96	-0.32
112	94.78	2713.09	2713.38	-0.29
113	94.95	2715.54	2715.74	-0.21
114	95.11	2717.71	2717.80	-0.10
115	95.28	2719.85	2719.79	0.06
116	95.45	2721.74	2721.51	0.23
117	95.53	2722.78	2722.41	0.37

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BLANK FORMATION WILD CAT	radmch.rpt
NORTH SLOPE, ALASKA	

LOG-LOG TYPE CURVE ANALYSIS  
RADIAL FLOW, INFINITE HOMOGENEOUS RESERVOIR  
EQUIVALENT REAL TIME CASE, DTE

## BASIC DATA:

RESERVOIR FLUID	- - - - -	OIL
DERIVATIVE ALGORITHM	- - - - -	A
AVERAGE RESERVOIR PRESSURE, PSIA	- - - - -	2723.52
OIL VOLUME FACTOR, RB/STB	- - - - -	1.327
RESERVOIR TEMPERATURE, DEG.F	- - - - -	114.0
PRESSURE BASE, PSI	- - - - -	14.65
RESERVOIR FLUID VISCOSITY, CP	- - - - -	1.008
TOTAL COMPRESSIBILITY, V/MMV/PSI	- - - - -	12.2704
RESERVOIR NET THICKNESS, FT	- - - - -	55.0
RESERVOIR EFFECTIVE POROSITY, PERCENT	- - - - -	20.0
WELLBORE RADIUS, FT	- - - - -	0.510
OIL FLOW RATE, STBO/D	- - - - -	3600.0

## MATCH DATA:

TYPE CURVE PD	- - - - -	10.979
DATA PLOT, D(MP), PSIA/CP	- - - - -	0.517282E+03
TYPE CURVE TD/CD	- - - - -	2014.486
DATA PLOT, DTE, HRS	- - - - -	0.405428E+01
CDE2S	- - - - -	0.76759E+06

## RESULTS:

ABSOLUTE PERMEABILITY, MATRIX, MD	- - - - -	196.236
STORAGE CONSTANT, C, CU.FT./PSI	- - - - -	0.03572
STORAGE VOLUME, VW, CU.FT.	- - - - -	2910.31
DIMENSIONLESS STORAGE CONSTANT, CD	- - - - -	161.656
SKIN EFFECT, S	- - - - -	4.133

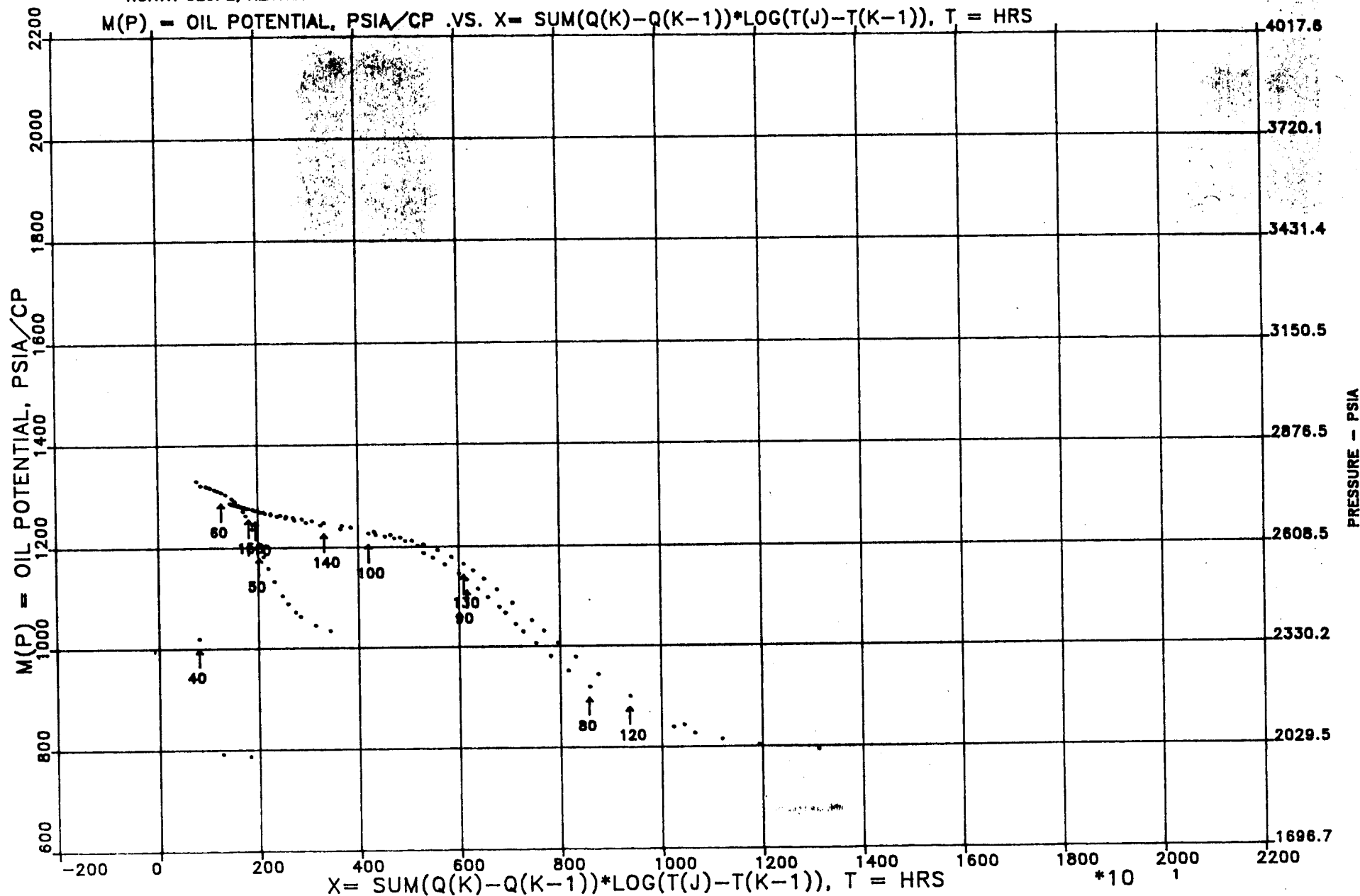
MOD. HORNER PLOT OF 3BU'  
FIRST CLEANUP OUT OF SIN.

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a2.a

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WELL BUILD UP  
DIE TIME

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WILD CAT lr2lm.rpt  
NORTH SLOPE, ALASKA

HALLIBURTON RESERVOIR SERVICES  
LINEAR REGRESSION ANALYSIS  
LINE SOURCE RADIAL FLOW MODEL

VARIABLE RATE CASE WITH EQUIVALENT REAL TIME  
DY VS. DQ\*LOG(DTE)  
LAMINAR FLOW IN RESERVOIR

BASIC DATA:  
-----

RESERVOIR FLUID . . . . .	OIL	
INITIAL PRESSURE. . . . .	3014.65	PSIA
INITIAL M(PI). . . . .	1501.4	PSIA/CP
BASE PRESSURE. . . . .	14.65	PSIA
RESERVOIR TEMPERATURE. . . . .	114.0	DEG.F.
OIL VOLUME FACTOR. . . . .	1.306	RB/STB
FLUID VISCOSITY. . . . .	1.054	CP.
TOTAL COMPRESSIBILITY. . . . .	69.730	V/MMV/PSI
NET THICKNESS. . . . .	55.0	FT.
EFFECTIVE POROSITY. . . . .	20.00	%
WELLBORE RADIUS. . . . .	0.5	FT.
LAST FLOW RATE. . . . .	3600.0	STBO/D
LAST FLOW PRESSURE. . . . .	2015.32	PSIA

ANALYSIS RESULTS:  
-----

AVG. DIFF. BETWEEN MEAS. AND CALC. PRESS . . . . .	0.38	PSIA
DELTA M(P) INTERCEPT. . . . .	0.1	PSIA/CP
CALCULATED PRESSURE INTERCEPT. . . . .	2749.51	PSIA
EFFECTIVE PERMEABILITY. . . . .	168.554	MD.
SKIN EFFECT. . . . .	3.904	
PRESS. DECREASE DUE TO SKIN. . . . .	322.24	PSIA
COMPLETION EFFICIENCY. . . . .	58.40	%
TRANSIENT RADIUS. . . . .	71.7	FT.
AT TRANSIENT TIME OF. . . . .	0.597	HRS.
INITIAL OIL IN PLACE. . . . .	831.7	STB/AF

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a2.a

ARCO ALASKA

a2.bd

KUVLUM #1 WELL

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BLANK FORMATION

WILD CAT

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NORTH SLOPE, ALASKA

CALCULATED AND MEASURED PRESSURES

POINT NO.	TIME HRS	MEAS.PRES. PSIA	CALC.PRES. PSIA	PRES.DIFF. PSI
137	96.68	2648.37	2649.04	-0.67
138	96.75	2660.34	2659.88	0.47
139	96.78	2664.45	2663.97	0.48
140	96.87	2672.40	2672.21	0.19
141	96.94	2677.72	2677.77	-0.06
142	97.03	2682.29	2682.49	-0.20
143	97.12	2686.33	2686.56	-0.23

THIRD BUILD UP  
LATE TIME

DST TEST, TEST #2

a2.a

ARCO ALASKA

a2.bd

KUVLUM #1 WELL

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BLANK FORMATION

WILD CAT

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NORTH SLOPE, ALASKA

HALLIBURTON RESERVOIR SERVICES  
LINEAR REGRESSION ANALYSIS  
LINE SOURCE RADIAL FLOW MODEL

VARIABLE RATE CASE WITH EQUIVALENT REAL TIME  
DY VS.  $DQ \cdot \log(DTE)$   
LAMINAR FLOW IN RESERVOIR

BASIC DATA:

RESERVOIR FLUID . . . . .	OIL	
INITIAL PRESSURE. . . . .	3014.65	PSIA
INITIAL M(P) . . . . .	1501.4	PSIA/CP
BASE PRESSURE. . . . .	14.65	PSIA
RESERVOIR TEMPERATURE. . . . .	114.0	DEG.F.
OIL VOLUME FACTOR. . . . .	1.306	RB/STB
FLUID VISCOSITY. . . . .	1.054	CP.
TOTAL COMPRESSIBILITY. . . . .	69.730	V/MMV/PSI
NET THICKNESS. . . . .	55.0	FT.
EFFECTIVE POROSITY. . . . .	20.00	%
WELLBORE RADIUS. . . . .	0.5	FT.
LAST FLOW RATE. . . . .	3600.0	STBO/D
LAST FLOW PRESSURE. . . . .	2015.32	PSIA

ANALYSIS RESULTS:

AVG. DIFF. BETWEEN MEAS. AND CALC. PRESS . . . . .	0.13	PSIA
DELTA M(P) INTERCEPT. . . . .	0.1	PSIA/CP
CALCULATED PRESSURE INTERCEPT. . . . .	2775.02	PSIA
EFFECTIVE PERMEABILITY. . . . .	109.935	MD.
SKIN EFFECT. . . . .	1.080	
PRESS. DECREASE DUE TO SKIN. . . . .	140.42	PSIA
COMPLETION EFFICIENCY. . . . .	82.98	%
TRANSIENT RADIUS. . . . .	149.2	FT.
AT TRANSIENT TIME OF. . . . .	2.717	HRS.
INITIAL OIL IN PLACE. . . . .	831.7	STB/AF



DST TEST, TEST #2

a2.a

ARCO ALASKA

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KUVLUM #1 WELL

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NORTH SLOPE, ALASKA

CALCULATED AND MEASURED PRESSURES

POINT NO.	TIME HRS	MEAS.PRES. PSIA	CALC.PRES. PSIA	PRES.DIFF. PSI
150	98.11	2710.61	2710.41	0.20
151	98.28	2713.15	2713.17	-0.02
152	98.45	2715.46	2715.58	-0.12
153	98.61	2717.51	2717.66	-0.15
154	98.78	2719.51	2719.63	-0.11
155	98.95	2721.28	2721.32	-0.04
156	99.11	2722.94	2722.87	0.07
157	99.23	2724.11	2723.94	0.17

PRESSURE TIME DATA  
LAST 3 FLOW & SI PERIODS

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KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

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TIME - PRESSURE DATA

FILE: a2.bd

COUNT	SEQ.NO	YR	MO	DA	HOUR	MIN	SEC	HOURS FROM STRT. OF PROD	B.H.PRES PSIA	B.H.TEMP DEG.F	W.H.PRES PSIA	W.H.TEMP DEG.F
1	1	92	10	3	23.0000	5	14	86.3622	2358.468	0.000	0.000	0.000
2	2	92	10	3	23.0000	5	25	86.3653	2379.983	0.000	0.000	0.000
3	3	92	10	3	23.0000	5	35	86.3681	2395.683	0.000	0.000	0.000
4	4	92	10	3	23.0000	5	55	86.3736	2420.672	0.000	0.000	0.000
5	5	92	10	3	23.0000	6	5	86.3764	2433.008	0.000	0.000	0.000
6	6	92	10	3	23.0000	6	25	86.3819	2456.397	0.000	0.000	0.000
7	7	92	10	3	23.0000	6	45	86.3875	2478.256	0.000	0.000	0.000
8	8	92	10	3	23.0000	7	25	86.3986	2517.837	0.000	0.000	0.000
9	9	92	10	3	23.0000	8	5	86.4097	2553.687	0.000	0.000	0.000
10	10	92	10	3	23.0000	8	45	86.4208	2584.343	0.000	0.000	0.000
11	11	92	10	3	23.0000	9	25	86.4319	2610.020	0.000	0.000	0.000
12	12	92	10	3	23.0000	10	5	86.4431	2631.436	0.000	0.000	0.000
13	13	92	10	3	23.0000	11	5	86.4597	2657.141	0.000	0.000	0.000
14	14	92	10	3	23.0000	12	5	86.4764	2676.727	0.000	0.000	0.000
15	15	92	10	3	23.0000	13	5	86.4931	2691.794	0.000	0.000	0.000
16	16	92	10	3	23.0000	14	5	86.5097	2703.219	0.000	0.000	0.000
17	17	92	10	3	23.0000	16	5	86.5431	2719.186	0.000	0.000	0.000
18	18	92	10	3	23.0000	18	5	86.5764	2729.446	0.000	0.000	0.000
19	19	92	10	3	23.0000	20	5	86.6097	2736.392	0.000	0.000	0.000
20	20	92	10	3	23.0000	25	15	86.6958	2747.052	0.000	0.000	0.000
21	21	92	10	3	23.0000	30	5	86.7764	2752.917	0.000	0.000	0.000
22	22	92	10	3	23.0000	35	35	86.8681	2757.169	0.000	0.000	0.000
23	23	92	10	3	23.0000	40	25	86.9486	2760.605	0.000	0.000	0.000
24	24	92	10	3	23.0000	50	25	87.1153	2765.472	0.000	0.000	0.000
25	25	92	10	4	0.0000	0	5	87.2764	2768.859	0.000	0.000	0.000
26	26	92	10	4	0.0000	20	15	87.6125	2771.439	0.000	0.000	0.000
27	27	92	10	4	0.0000	40	15	87.9458	2782.987	0.000	0.000	0.000
28	28	92	10	4	4.0000	57	33	92.2342	2008.157	0.000	0.000	0.000
29	29	92	10	4	4.0000	57	45	92.2375	2020.167	0.000	0.000	0.000
30	30	92	10	4	4.0000	57	55	92.2403	2034.538	0.000	0.000	0.000
31	31	92	10	4	4.0000	58	5	92.2431	2051.977	0.000	0.000	0.000
32	32	92	10	4	4.0000	58	15	92.2458	2070.729	0.000	0.000	0.000
33	33	92	10	4	4.0000	58	25	92.2486	2089.609	0.000	0.000	0.000
34	34	92	10	4	4.0000	58	55	92.2569	2144.526	0.000	0.000	0.000
35	35	92	10	4	4.0000	59	35	92.2681	2211.305	0.000	0.000	0.000
36	36	92	10	4	5.0000	0	5	92.2764	2258.464	0.000	0.000	0.000
37	37	92	10	4	5.0000	0	35	92.2847	2300.523	0.000	0.000	0.000
38	38	92	10	4	5.0000	1	5	92.2931	2338.988	0.000	0.000	0.000
39	39	92	10	4	5.0000	1	35	92.3014	2373.920	0.000	0.000	0.000
40	40	92	10	4	5.0000	1	55	92.3069	2394.808	0.000	0.000	0.000
41	41	92	10	4	5.0000	2	25	92.3153	2426.941	0.000	0.000	0.000

DST TEST, TEST #2  
 ARCO ALASKA  
 KUVLUM #1 WELL  
 BLANK FORMATION  
 WILD CAT  
 NORTH SLOPE, ALASKA

tab2.rpt

TIME - PRESSURE DATA  
 FILE: a2.bd

COUNT	SEQ. NO	YR	MO	DA	HOUR	MIN	SEC	HOURS FROM STRT. OF PROD	B.H. PRES PSIA	B.H. TEMP DEG. F	W.H. PRES PSIA	W.H. TEMP DEG. F
42	42	92	10	4	5.0000	2	45	92.3208	2443.953	0.000	0.000	0.000
43	43	92	10	4	5.0000	3	25	92.3319	2470.547	0.000	0.000	0.000
44	44	92	10	4	5.0000	4	5	92.3431	2494.184	0.000	0.000	0.000
45	45	92	10	4	5.0000	4	55	92.3569	2519.743	0.000	0.000	0.000
46	46	92	10	4	5.0000	5	35	92.3681	2536.194	0.000	0.000	0.000
47	47	92	10	4	5.0000	6	55	92.3903	2561.188	0.000	0.000	0.000
48	48	92	10	4	5.0000	8	15	92.4125	2579.362	0.000	0.000	0.000
49	49	92	10	4	5.0000	9	25	92.4319	2591.710	0.000	0.000	0.000
50	50	92	10	4	5.0000	10	15	92.4458	2610.617	0.000	0.000	0.000
51	51	92	10	4	5.0000	12	15	92.4792	2623.438	0.000	0.000	0.000
52	52	92	10	4	5.0000	14	15	92.5125	2630.405	0.000	0.000	0.000
53	53	92	10	4	5.0000	16	15	92.5458	2635.517	0.000	0.000	0.000
54	54	92	10	4	5.0000	18	25	92.5819	2640.004	0.000	0.000	0.000
55	55	92	10	4	5.0000	20	25	92.6153	2643.546	0.000	0.000	0.000
56	56	92	10	4	5.0000	30	15	92.7792	2656.539	0.000	0.000	0.000
57	57	92	10	4	5.0000	40	25	92.9486	2666.145	0.000	0.000	0.000
58	58	92	10	4	5.0000	50	15	93.1125	2673.531	0.000	0.000	0.000
59	59	92	10	4	6.0000	0	25	93.2819	2679.928	0.000	0.000	0.000
60	60	92	10	4	6.0000	10	5	93.4431	2685.191	0.000	0.000	0.000
61	61	92	10	4	6.0000	20	55	93.6236	2690.150	0.000	0.000	0.000
62	62	92	10	4	6.0000	30	25	93.7819	2694.413	0.000	0.000	0.000
63	63	92	10	4	6.0000	40	5	93.9431	2698.140	0.000	0.000	0.000
64	64	92	10	4	6.0000	50	5	94.1097	2701.650	0.000	0.000	0.000
65	65	92	10	4	7.0000	0	25	94.2819	2704.964	0.000	0.000	0.000
66	66	92	10	4	7.0000	20	25	94.6153	2710.637	0.000	0.000	0.000
67	67	92	10	4	7.0000	30	5	94.7764	2713.086	0.000	0.000	0.000
68	68	92	10	4	7.0000	40	25	94.9486	2715.535	0.000	0.000	0.000
69	69	92	10	4	7.0000	50	15	95.1125	2717.705	0.000	0.000	0.000
70	70	92	10	4	8.0000	0	35	95.2847	2719.849	0.000	0.000	0.000
71	71	92	10	4	8.0000	10	15	95.4458	2721.740	0.000	0.000	0.000
72	72	92	10	4	8.0000	15	35	95.5347	2722.781	0.000	0.000	0.000
73	73	92	10	4	9.0000	14	35	96.5181	2015.315	0.000	0.000	0.000
74	74	92	10	4	9.0000	14	45	96.5208	2096.383	0.000	0.000	0.000
75	75	92	10	4	9.0000	14	55	96.5236	2182.712	0.000	0.000	0.000
76	76	92	10	4	9.0000	15	5	96.5264	2247.010	0.000	0.000	0.000
77	77	92	10	4	9.0000	15	15	96.5292	2297.973	0.000	0.000	0.000
78	78	92	10	4	9.0000	15	25	96.5319	2339.937	0.000	0.000	0.000
79	79	92	10	4	9.0000	15	35	96.5347	2375.356	0.000	0.000	0.000
80	80	92	10	4	9.0000	15	45	96.5375	2405.612	0.000	0.000	0.000
81	81	92	10	4	9.0000	16	5	96.5431	2454.631	0.000	0.000	0.000
82	82	92	10	4	9.0000	16	25	96.5486	2492.213	0.000	0.000	0.000

DST TEST, TEST #2  
 ARCO ALASKA  
 KUVLUM #1 WELL  
 BLANK FORMATION  
 WILD CAT  
 NORTH SLOPE, ALASKA

tab2.rpt

PRODUCTION DATA  
 FILE: a2.bd

COUNT	SEQ. NO.	YR	MO	DA	HOUR	MIN	SC	HOURS FM PROD. STRT	OIL PROD	GAS PROD	WTR. PROD	CUMLTIVE OIL, STB	CUMLTIVE GAS, MSCF	CUMLTIVE WATER, BBL
									STB/DAY AVERAGE	MSCF/DAY AVERAGE	BBL/DAY AVERAGE			
42	42	92	10	4	1.000000	15	0	88.52500	0.000000	0.000000	0.000000	1752.34	906.52	-79.00
43	43	92	10	4	1.000000	30	0	88.77500	360.0000	0.000000	0.000000	1756.09	906.52	-79.00
44	44	92	10	4	2.000000	0	0	89.27500	4380.000	1664.000	0.000000	1847.34	941.19	-79.00
45	45	92	10	4	3.000000	0	0	90.27500	3160.000	1436.000	0.000000	1979.01	1001.02	-79.00
46	46	92	10	4	3.000000	30	0	90.77500	2960.000	1310.000	0.000000	2040.67	1028.31	-79.00
47	47	92	10	4	4.000000	30	0	91.77500	3310.000	1060.000	0.000000	2178.59	1072.48	-79.00
48	48	92	10	4	4.000000	57	33	92.23417	4561.000	771.0000	0.000000	2265.85	1087.23	-79.00
49	49	92	10	4	8.000000	15	35	95.53472	0.000000	0.000000	0.000000	2265.85	1087.23	-79.00
50	50	92	10	4	9.000000	14	35	96.51806	3600.000	1640.000	0.000000	2413.35	1154.42	-79.00
51	51	92	10	4	11.00000	57	35	99.2347	0.000000	0.000000	0.000000	2413.35	1154.42	-79.00

DST TEST, TEST #2  
ARCO ALASKA  
KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

tab2.rpt

RATE HISTORY  
OF ENTIRE WELL

PRODUCTION DATA  
FILE: a2.bd

SEQ.	OIL PROD	GAS PROD	WTR. PROD	CUMLTIVE	CUMLTIVE	CUMLTIVE												
COUNT	NO.	YR	MO	DA	HOUR	MIN	SC	PROD. STRT	STB/DAY	HOURS FM	AVERAGE	MSCF/DAY	AVERAGE	BBL/DAY	AVERAGE	OIL, STB	GAS, MSCF	WATER, BBL
1	1	92	9	30	8.000000	53	15	0.162500	200.0000	0.000000	200.0000	0.000000	0.000000	0.000000	0.000000	1.35	0.00	0.00
2	2	92	9	30	11.000000	40	0	2.941667	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.35	0.00	0.00
3	3	92	9	30	12.000000	0	0	3.275000	200.0000	0.000000	200.0000	0.000000	0.000000	0.000000	0.000000	4.13	0.00	0.00
4	4	92	9	30	12.000000	30	0	3.775000	240.0000	0.000000	240.0000	0.000000	0.000000	0.000000	0.000000	9.13	0.00	0.00
5	5	92	9	30	12.000000	45	0	4.025000	560.0000	0.000000	560.0000	0.000000	0.000000	0.000000	0.000000	14.97	0.00	0.00
6	6	92	9	30	13.000000	0	0	4.275000	920.0000	0.000000	920.0000	0.000000	0.000000	0.000000	0.000000	24.55	0.00	0.00
7	7	92	9	30	13.000000	15	0	4.525000	1440.000	0.000000	1440.000	0.000000	0.000000	0.000000	0.000000	39.55	0.00	0.00
8	8	92	9	30	13.000000	30	0	4.775000	1000.000	0.000000	1000.000	0.000000	0.000000	0.000000	0.000000	49.97	0.00	0.00
9	9	92	9	30	15.000000	0	0	6.275000	1000.000	0.000000	1000.000	0.000000	0.000000	0.000000	0.000000	112.47	0.00	0.00
10	10	92	9	30	15.000000	15	0	6.525000	1080.000	0.000000	1080.000	0.000000	0.000000	0.000000	0.000000	123.72	0.00	0.00
11	11	92	9	30	15.000000	30	0	6.775000	880.0000	0.000000	880.0000	588.0000	0.000000	0.000000	0.000000	132.88	6.13	0.00
12	12	92	9	30	15.000000	45	0	7.025000	1640.000	0.000000	1640.000	588.0000	0.000000	0.000000	0.000000	149.97	12.25	0.00
13	13	92	9	30	17.000000	30	0	8.775000	2480.000	0.000000	2480.000	1094.000	0.000000	0.000000	0.000000	330.80	92.02	0.00
14	14	92	9	30	18.000000	0	0	9.275000	2260.000	0.000000	2260.000	1078.000	0.000000	0.000000	0.000000	377.88	114.48	0.00
15	15	92	9	30	18.000000	30	0	9.775000	1840.000	0.000000	1840.000	1073.000	0.000000	0.000000	0.000000	416.22	136.83	0.00
16	16	92	9	30	19.000000	0	0	10.27500	1980.000	0.000000	1980.000	1085.000	0.000000	0.000000	0.000000	457.47	159.44	0.00
17	17	92	9	30	19.000000	30	0	10.77500	1940.000	0.000000	1940.000	1107.000	0.000000	0.000000	0.000000	497.88	182.50	0.00
18	18	92	9	30	20.000000	0	0	11.27500	1760.000	0.000000	1760.000	1092.000	0.000000	0.000000	0.000000	534.55	205.25	0.00
19	19	92	9	30	21.000000	0	0	12.27500	1960.000	0.000000	1960.000	1099.500	0.000000	0.000000	0.000000	616.22	251.06	0.00
20	20	92	9	30	22.000000	0	0	13.27500	1160.000	0.000000	1160.000	1055.000	0.000000	0.000000	0.000000	664.55	295.02	0.00
21	21	92	9	30	23.000000	0	0	14.27500	1920.000	0.000000	1920.000	1055.000	0.000000	0.000000	0.000000	744.55	338.98	0.00
22	22	92	10	1	0.000000	0	0	15.27500	1690.000	0.000000	1690.000	999.000	0.000000	0.000000	0.000000	814.97	380.60	0.00
23	23	92	10	1	1.000000	0	0	16.27500	1800.000	0.000000	1800.000	1007.000	0.000000	0.000000	0.000000	889.97	422.56	0.00
24	24	92	10	1	2.000000	0	0	17.27500	1780.000	0.000000	1780.000	1002.700	0.000000	0.000000	0.000000	964.13	464.34	0.00
25	25	92	10	1	3.000000	0	0	18.27500	1620.000	0.000000	1620.000	1014.000	0.000000	0.000000	0.000000	1031.63	506.59	0.00
26	26	92	10	1	4.000000	0	0	19.27500	1572.000	0.000000	1572.000	1043.500	0.000000	0.000000	0.000000	1097.13	550.07	0.00
27	27	92	10	1	5.000000	0	0	20.27500	1890.000	0.000000	1890.000	1041.000	0.000000	0.000000	0.000000	1175.88	593.45	0.00
28	28	92	10	1	10.000000	45	30	26.03333	1698.000	0.000000	1698.000	983.700	0.000000	0.000000	0.000000	1583.28	829.47	0.00
29	29	92	10	1	22.000000	7	0	37.39167	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1583.28	829.47	0.00
30	30	92	10	1	23.000000	28	0	38.70833	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1583.28	829.47	-79.00
31	31	92	10	3	10.000000	38	30	73.88333	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1583.28	829.47	-79.00
32	32	92	10	3	11.000000	0	0	74.27500	383.0000	0.000000	383.0000	0.000000	0.000000	0.000000	0.000000	1589.53	829.47	-79.00
33	33	92	10	3	11.000000	30	0	74.77500	100.0000	0.000000	100.0000	0.000000	0.000000	0.000000	0.000000	1591.62	829.47	-79.00
34	34	92	10	3	14.000000	0	0	77.27500	32.00000	0.000000	32.00000	0.000000	0.000000	0.000000	0.000000	1594.95	829.47	-79.00
35	35	92	10	3	15.000000	43	0	78.99167	5.800000	0.000000	5.800000	0.000000	0.000000	0.000000	0.000000	1595.37	829.47	-79.00
36	36	92	10	3	18.000000	21	0	81.62500	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1595.37	829.47	-79.00
37	37	92	10	3	18.000000	30	0	81.77500	733.0000	0.000000	733.0000	0.000000	0.000000	0.000000	0.000000	1599.95	829.47	-79.00
38	38	92	10	3	19.000000	0	0	82.27500	560.0000	0.000000	560.0000	0.000000	0.000000	0.000000	0.000000	1611.61	829.47	-79.00
39	39	92	10	3	21.000000	0	0	84.27500	595.0000	0.000000	595.0000	0.000000	0.000000	0.000000	0.000000	1661.20	829.47	-79.00
40	40	92	10	3	23.000000	5	14	86.36222	1048.000	0.000000	1048.000	886.2000	0.000000	0.000000	0.000000	1752.34	906.52	-79.00
41	41	92	10	4	0.000000	40	15	87.94583	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1752.34	906.52	-79.00

**CONFIDENTIAL**

*Last 6 hr. of  
build-up profile*

DST TEST

a.a

ARCO ALASKA

a.bd

KUVLUM #1 WELL

REG. DISTRICT  
OCS DISTRICT OFFICE

a.pvt

BLANK FORMATION  
WILD CAT

OCT 15 1992

lr2.rpt

NORTH SLOPE, ALASKA

MINERALS MANAGEMENT SERVICE  
ANCHORAGE, ALASKA

HALLIBURTON RESERVOIR SERVICES  
LINEAR REGRESSION ANALYSIS  
LINE SOURCE RADIAL FLOW MODEL

VARIABLE RATE CASE WITH EQUIVALENT REAL TIME  
DY VS. DQ\*LOG(DTE)  
LAMINAR FLOW IN RESERVOIR

BASIC DATA:

RESERVOIR FLUID	OIL	
INITIAL PRESSURE	3014.65	PSIA
INITIAL M(P)	1501.4	PSIA/CP
BASE PRESSURE	14.65	PSIA
RESERVOIR TEMPERATURE	114.0	DEG.F.
OIL VOLUME FACTOR	1.327	RB/STB
FLUID VISCOSITY	1.008	CP
TOTAL COMPRESSIBILITY	12.268	V/MMV/PSI
NET THICKNESS	55.0	FT.
EFFECTIVE POROSITY	20.00	%
WELLBORE RADIUS	0.5	FT.
LAST FLOW RATE	1698.0	STB/D
LAST FLOW PRESSURE	2434.20	PSIA

ANALYSIS RESULTS:

AVG. DIFF. BETWEEN MEAS. AND CALC. PRESS	0.36	PSIA
DELTA M(P) INTERCEPT	0.1	PSIA/CP
CALCULATED PRESSURE INTERCEPT	2806.12	PSIA
EFFECTIVE PERMEABILITY	69.626	MD.
SKIN EFFECT	-2.710	
PRESS. INCREASE DUE TO SKIN	238.20	PSIA
COMPLETION EFFICIENCY	161.77	%
TRANSIENT RADIUS	497.9	FT.
AT TRANSIENT TIME OF	9.575	HRS.
INITIAL OIL IN PLACE	818.4	STB/AF

*Last 6 hr. of  
Build up profile*

DST TEST

a.a

ARCO ALASKA

a.bd

KUVLUM #1 WELL

a.pvt

BLANK FORMATION  
WILD CAT

1r2.rpt

NORTH SLOPE, ALASKA

CALCULATED AND MEASURED PRESSURES

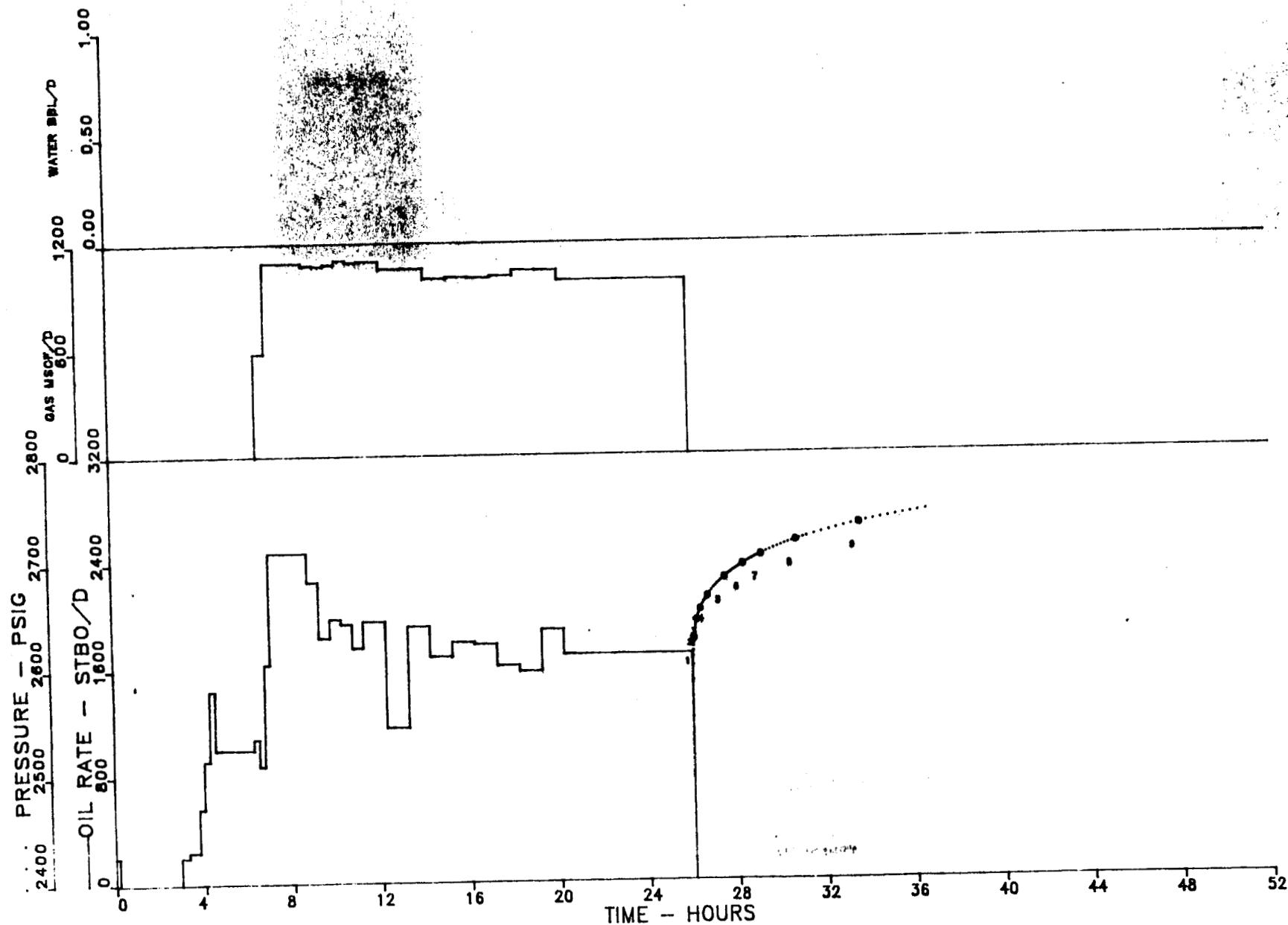
POINT NO.	TIME HRS	MEAS.PRES. PSIA	CALC.PRES. PSIA	PRES.DIFF. PSI
100	29.61	2723.14	2722.40	0.74
101	29.78	2724.57	2724.04	0.53
102	29.94	2725.95	2725.61	0.34
103	30.11	2727.28	2727.10	0.19
104	30.28	2728.58	2728.52	0.06
105	30.44	2729.83	2729.88	-0.05
106	30.61	2731.03	2731.18	-0.15
107	30.78	2732.20	2732.42	-0.22
108	30.94	2733.33	2733.62	-0.29
109	31.11	2734.43	2734.77	-0.34
110	31.28	2735.49	2735.88	-0.38
111	31.61	2737.54	2737.97	-0.43
112	31.94	2739.48	2739.92	-0.43
113	32.28	2741.32	2741.74	-0.41
114	32.61	2743.07	2743.44	-0.37
115	32.94	2744.74	2745.04	-0.30
116	33.28	2746.33	2746.56	-0.22
117	33.61	2747.86	2747.98	-0.13
118	33.94	2749.32	2749.33	-0.01
119	34.28	2750.72	2750.61	0.10
120	34.61	2752.07	2751.83	0.24
121	34.94	2753.38	2752.99	0.39
122	35.28	2754.61	2754.09	0.51
123	35.61	2755.80	2755.15	0.65

DST TEST  
ARCO ALASKA  
KUVLUM #1 WELL

BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

FILE: a.bd

PRESSURES, RATES, AND RATIOS





DST TEST a.a  
 ARCO ALASKA a.bd  
 KUVLUM #1 WELL a.pvt  
 BLANK FORMATION  
 WILD CAT lr2.rpt  
 NORTH SLOPE, ALASKA

HALLIBURTON RESERVOIR SERVICES  
 LINEAR REGRESSION ANALYSIS  
 LINE SOURCE RADIAL FLOW MODEL

VARIABLE RATE CASE WITH EQUIVALENT REAL TIME  
 DY VS.  $DQ \cdot \log(DTE)$   
 LAMINAR FLOW IN RESERVOIR

BASIC DATA:

RESERVOIR FLUID . . . . .	OIL	
INITIAL PRESSURE. . . . .	3014.65	PSIA
INITIAL M(Pi). . . . .	1501.4	PSIA/CP
BASE PRESSURE. . . . .	14.65	PSIA
RESERVOIR TEMPERATURE. . . . .	114.0	DEG.F.
OIL VOLUME FACTOR. . . . .	1.327	RB/STB
FLUID VISCOSITY. . . . .	1.008	CP.
TOTAL COMPRESSIBILITY. . . . .	12.268	V/MV/PSI
NET THICKNESS. . . . .	55.0	FT.
EFFECTIVE POROSITY. . . . .	20.00	%
WELLBORE RADIUS. . . . .	0.5	FT.
LAST FLOW RATE. . . . .	1698.0	STBO/D
LAST FLOW PRESSURE. . . . .	2434.20	PSIA

ANALYSIS RESULTS:

AVG. DIFF. BETWEEN MEAS. AND CALC. PRESS . . . . .	0.04	PSIA
DELTA M(P) INTERCEPT. . . . .	0.1	PSIA/CP
CALCULATED PRESSURE INTERCEPT. . . . .	2738.45	PSIA
EFFECTIVE PERMEABILITY. . . . .	173.329	MD.
SKIN EFFECT. . . . .	1.304	
PRESS. DECREASE DUE TO SKIN. . . . .	45.79	PSIA
COMPLETION EFFICIENCY. . . . .	85.27	%
TRANSIENT RADIUS. . . . .	147.3	FT.
AT TRANSIENT TIME OF. . . . .	0.275	HRS.
INITIAL OIL IN PLACE. . . . .	818.4	STB/AF

DST TEST

ARCO ALASKA

KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT

bd.rpt

NORTH SLOPE, ALASKA

GENERAL AND RESERVOIR DATA

FILE: a.bd

JOB: A350

ANALYST: KIM THORNTON

GAUGE: HP SRO

WELL TYPE: OIL

STD.PRES.BASE,PSI

14.650

ATMOSPHERIC PRES., PSI

14.650

TEST STARTED:

SEPTEMBER 30, 1992

TEST ENDED:

OCTOBER 1, 1992

DATE OF ANALYSIS:

october 1, 1992DDDDD

DATE OF START OF PRODUCTION

YEAR= 92

MONTH= 8 DAY= 30

HOUR= 8.00000 MIN= 43 SEC= 30

EFF. WELL DEPTH,FT.

8368.0

WELLBORE DIA.,IN.

12.250

TOP OF PERFS,FT.

6584.0

CASING I.D.,IN.

8.535

BOTTOM OF PERFS,FT.

6668.0

TUBING I.D.,IN.

2.784

RATIO - TVD/MEAS.DEPTH:

1.000

TUBING O.D.,IN.

3.500

GAUGE DEPTH,FT.

6230.0

TUBING LENGTH,FT.

6498.0

PRESSURE DATUM,FT.

6230.0

PACKER DEPTH,FT.

6466.0

AVG.RESERVOIR DEPTH,FT.

6628.0

INT.RES.PRES.,PSIG

3000.00

RESERVOIR TEMP.,DEG.F

114.0

NET THICKNESS,FT.

55.0

RES.POROSITY,PCT

20.000

RES.WATER SAT.,PCT

30.000

# Middle Time Points

DST TEST

a.a

ARCO ALASKA

a.bd

KUVLUM #1 WELL

a.pvt

BLANK FORMATION  
WILD CAT

lr2.rpt

NORTH SLOPE, ALASKA

## CALCULATED AND MEASURED PRESSURES

POINT NO.	TIME HRS	MEAS.PRES. PSIA	CALC.PRES. PSIA	PRES.DIFF. PSI
39	26.13	2644.07	2644.09	-0.02
40	26.13	2645.58	2645.54	0.02
41	26.14	2646.91	2646.88	0.03
42	26.16	2649.30	2649.27	0.03
43	26.18	2651.37	2651.36	0.01
44	26.19	2653.19	2653.21	-0.02
45	26.21	2654.84	2654.88	-0.04
46	26.22	2656.34	2656.39	-0.05
47	26.24	2657.73	2657.77	-0.05
48	26.26	2659.02	2659.05	-0.03
49	26.28	2660.22	2660.22	0.00
50	26.29	2661.36	2661.32	0.04
51	26.31	2662.43	2662.35	0.08

DST TEST  
ARCO ALASKA  
KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

a.bd

a.a

a.pvt

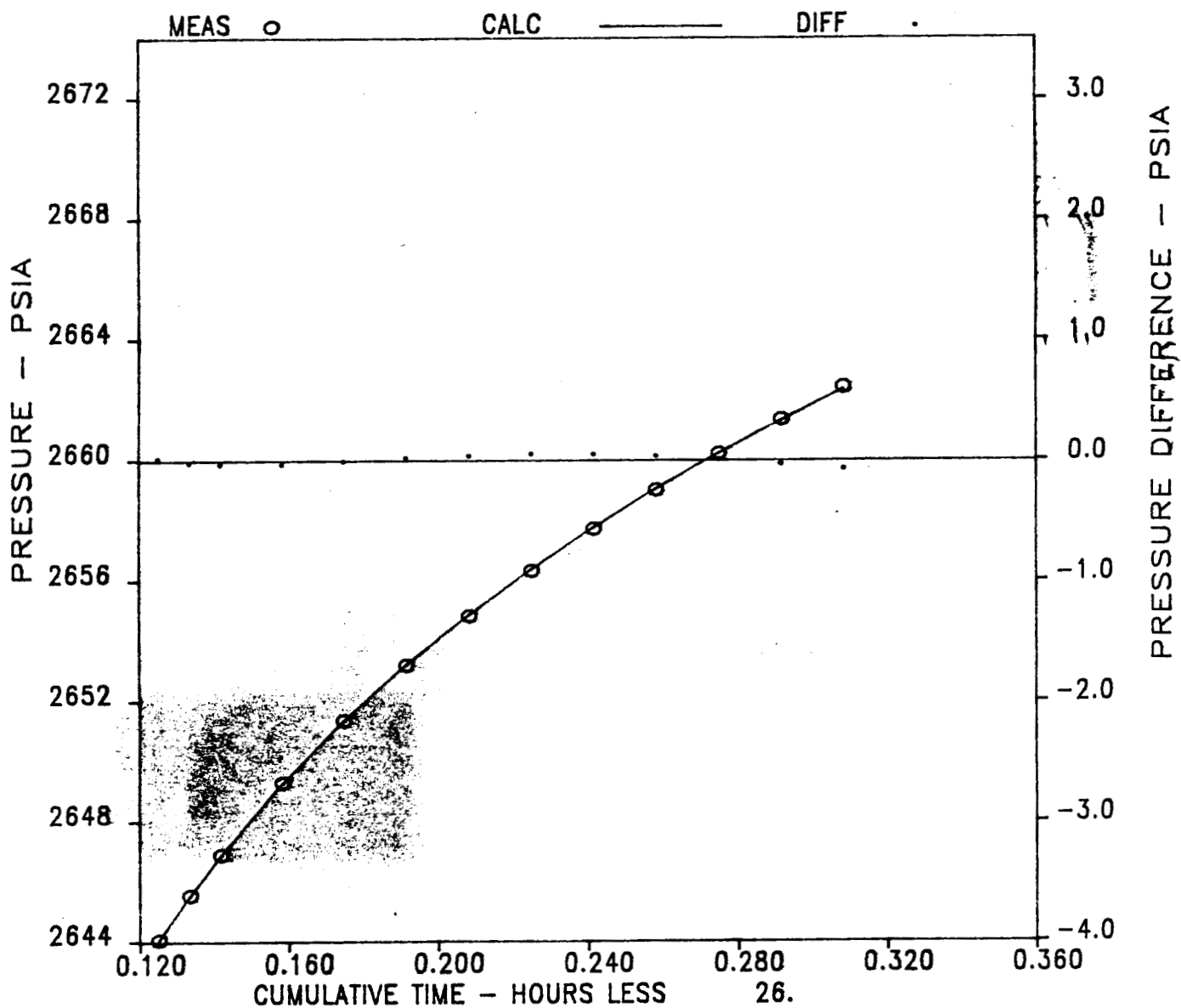
### RADIAL FLOW ANALYSIS

CERTAIN POINTS IN THE INTERVAL

39THRU

51

### CALCULATED VS MEASURED PRESSURES



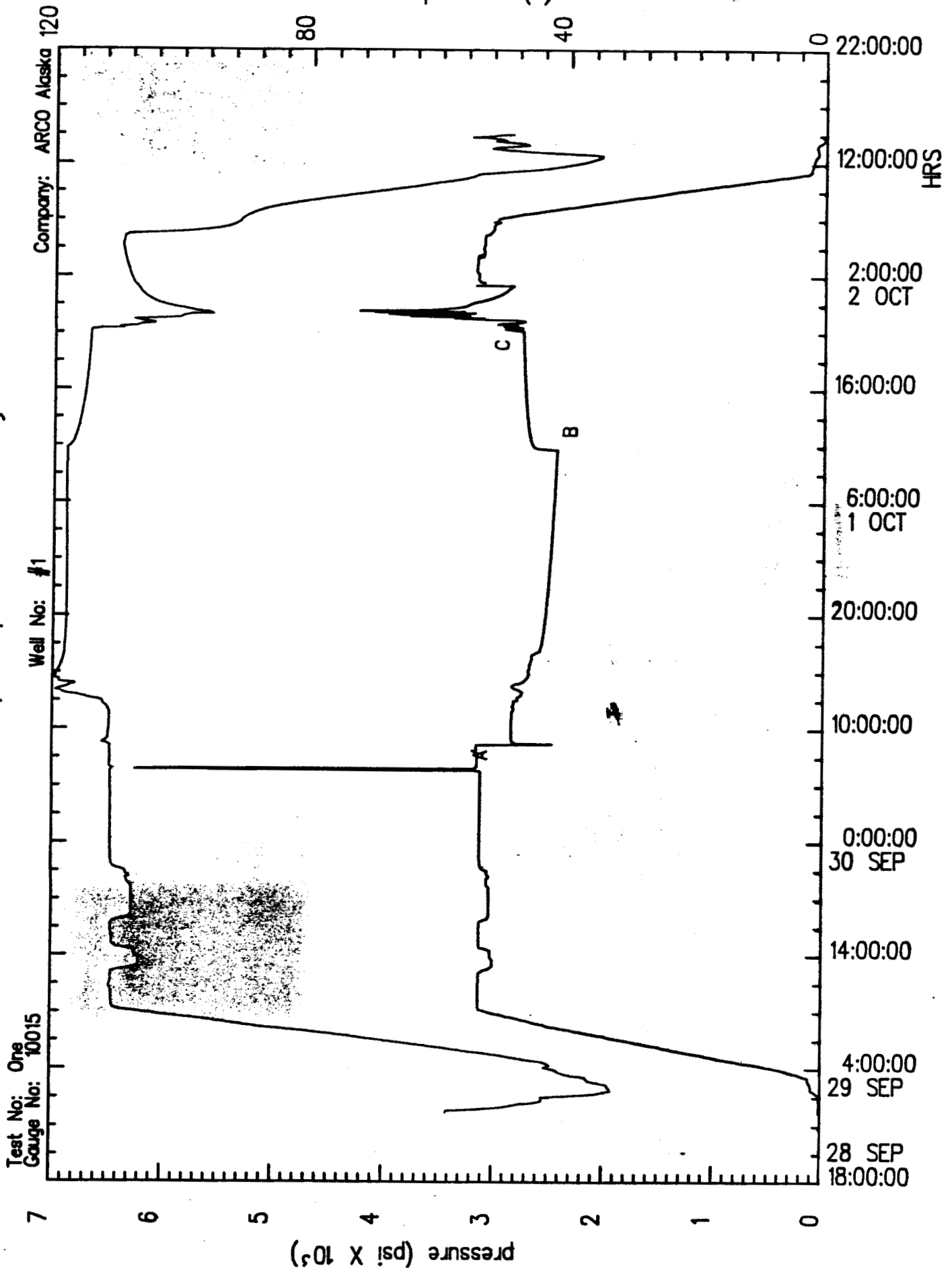
Date:

Ticket No: 018035

Page No: 1.5

temperature (F)

# Pressure/Temperature History



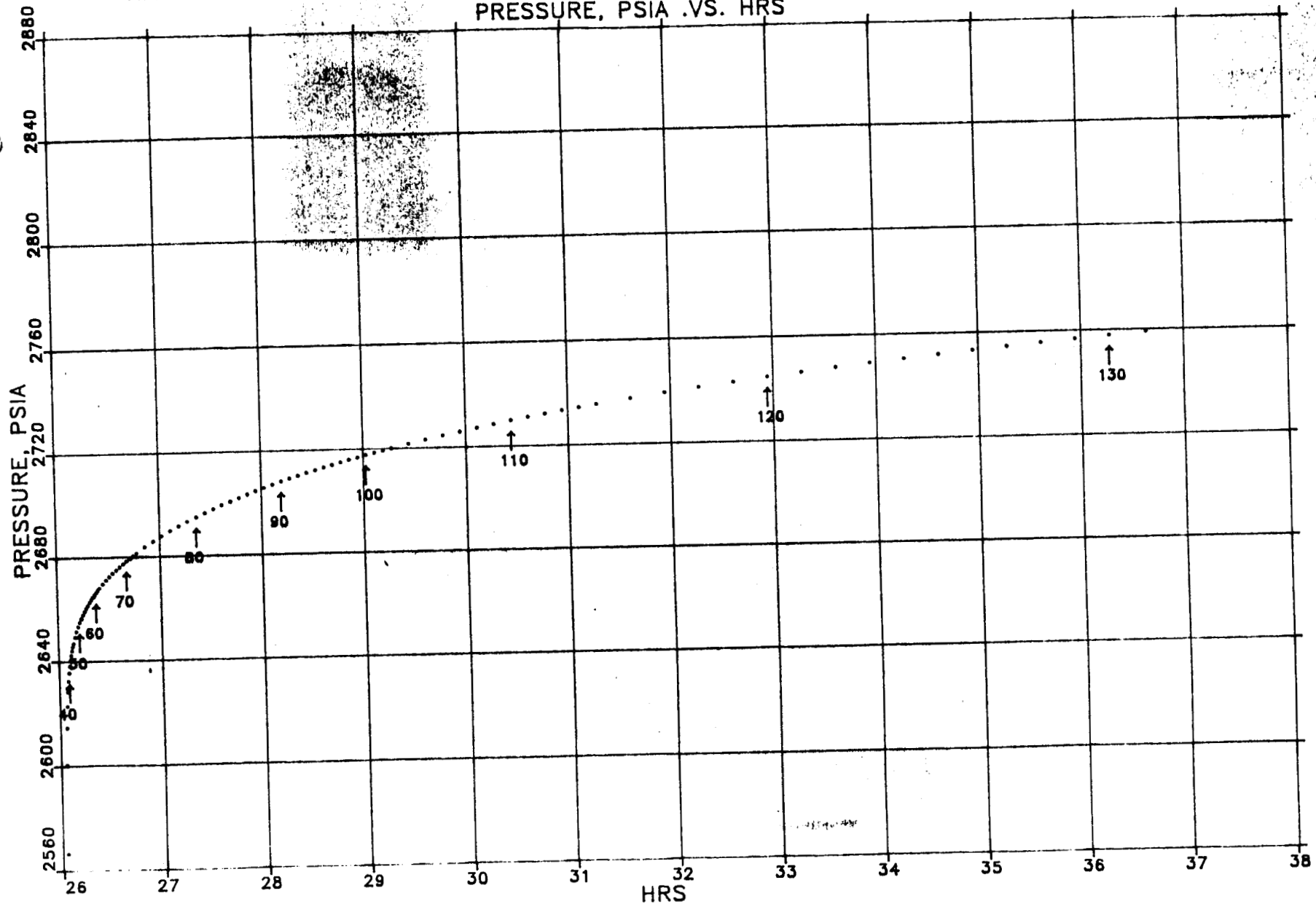
DST TEST  
ARCO ALASKA  
KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

a.bd

a.a

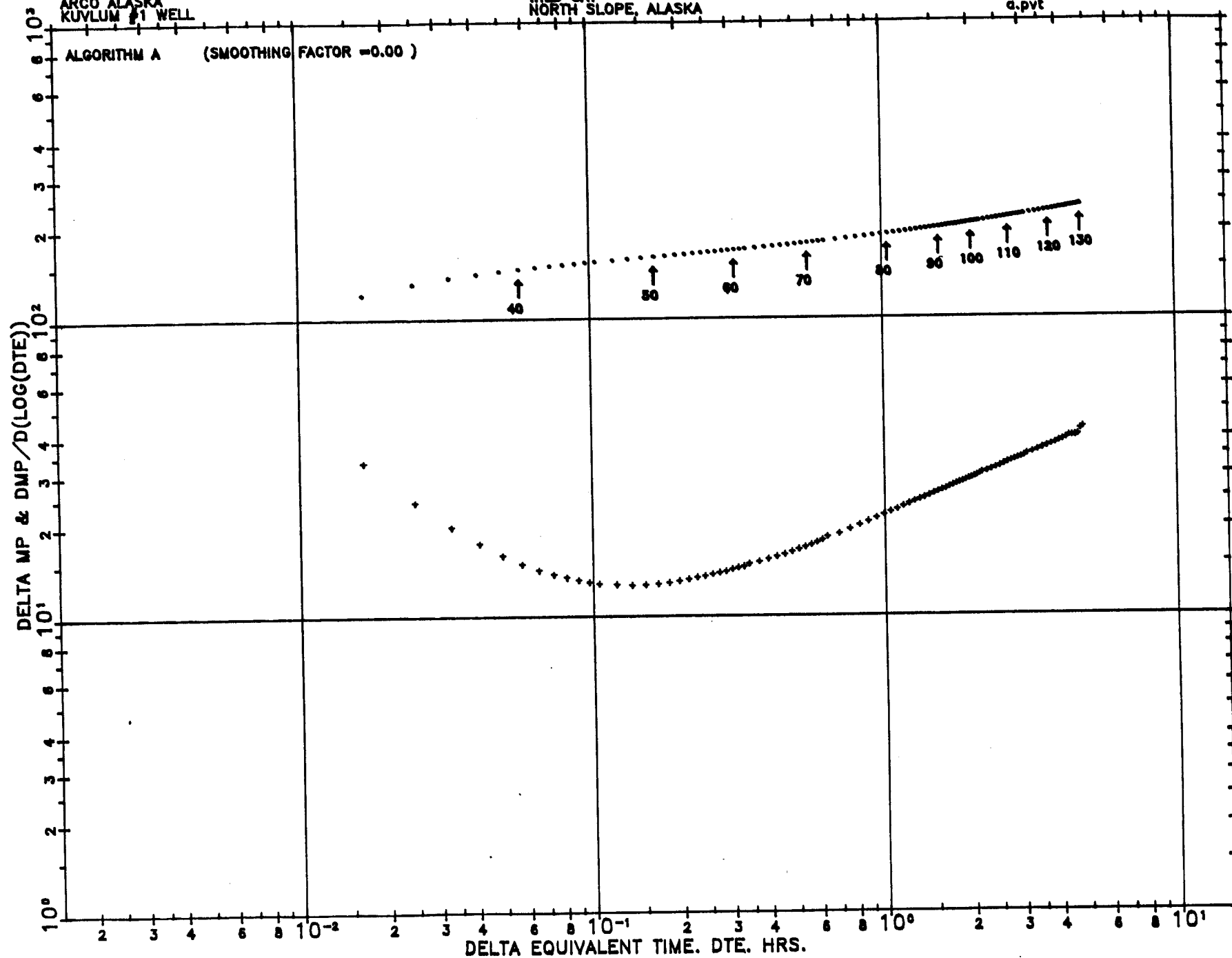
a.pvt

PRESSURE, PSIA .VS. HRS



a.bd  
a.a  
a.pvt

(SMOOTHING FACTOR =0.00 )

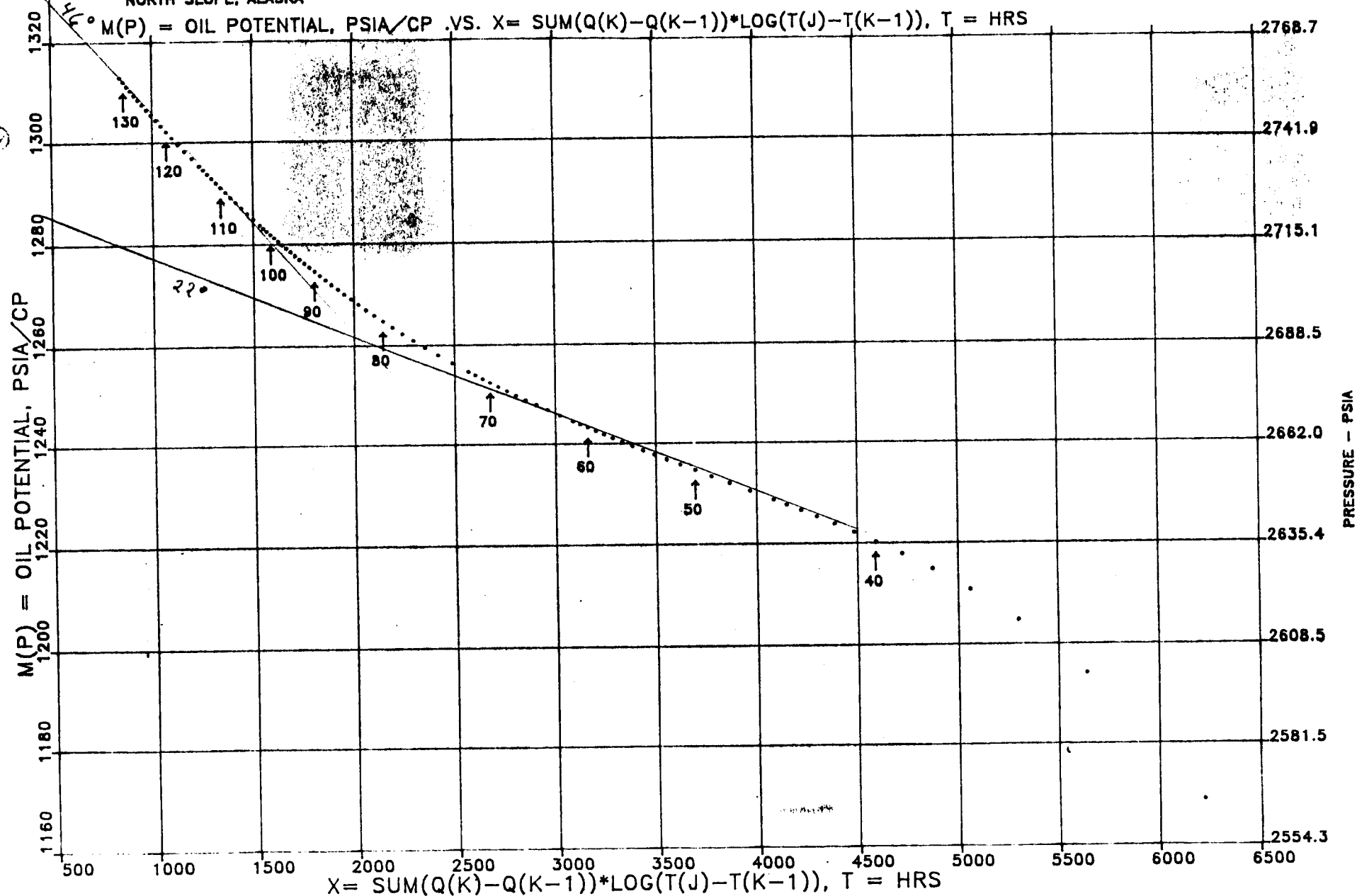


DST TEST  
ARCO ALASKA  
KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

a.bd

a.a

a.pvt





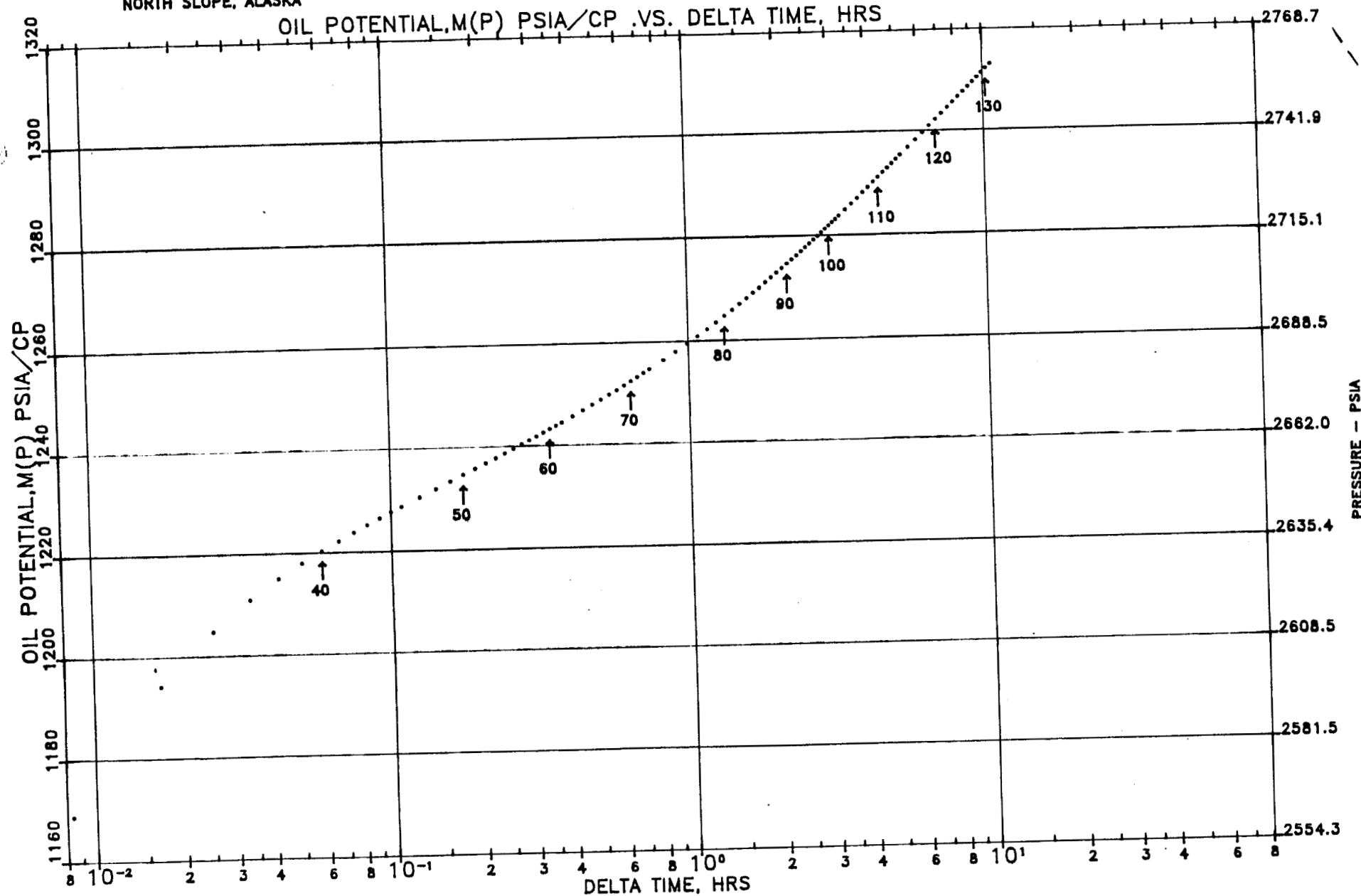
DST TEST  
 ARCO ALASKA  
 KUVLUM #1 WELL  
 BLANK FORMATION  
 WILD CAT  
 NORTH SLOPE, ALASKA

a.bd

a.a

a.pvt

OIL POTENTIAL, M(P) PSIA/CP .VS. DELTA TIME, HRS



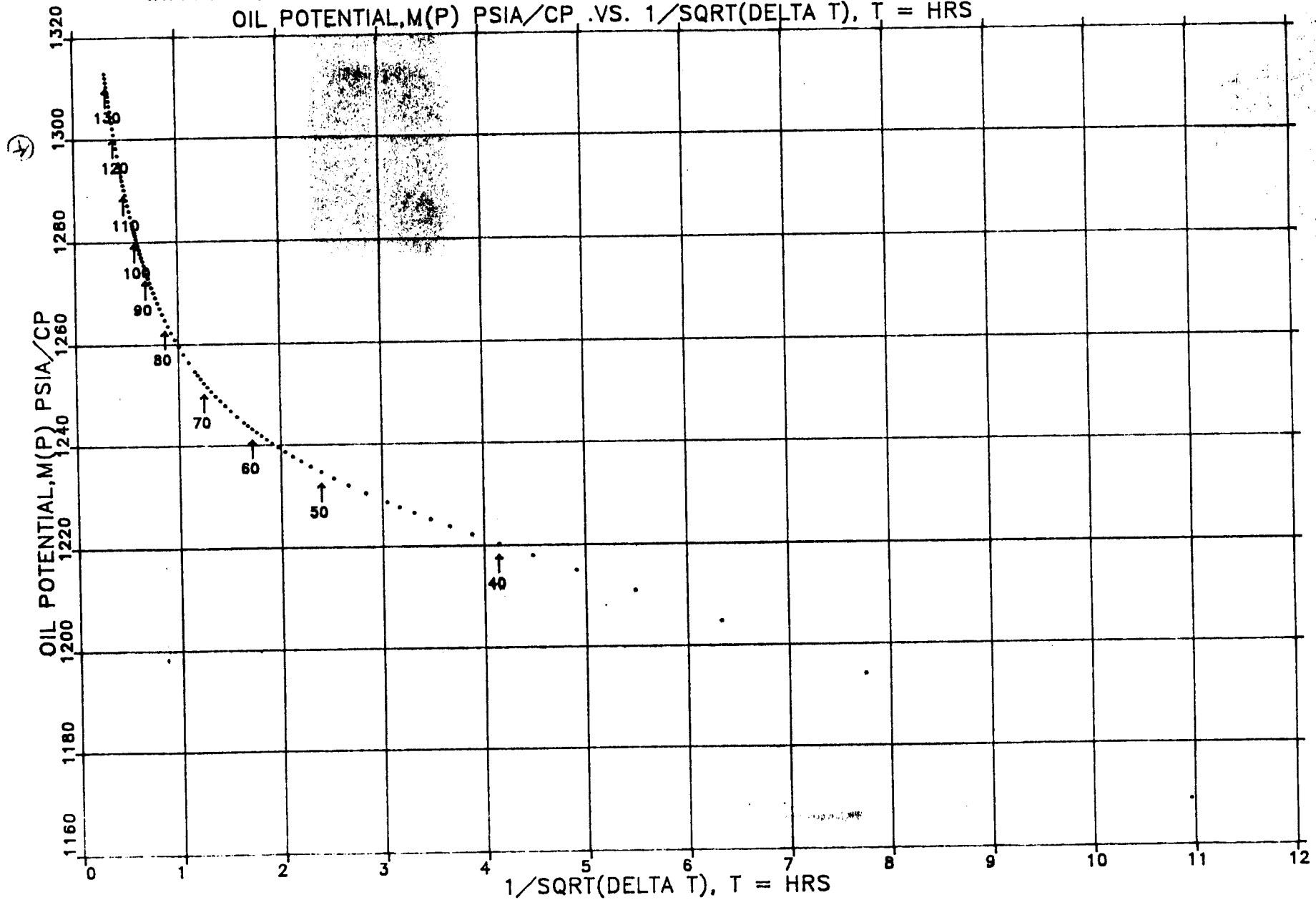
DST TEST  
ARCO ALASKA  
KUVLUM #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

a.bd

a.a

a.pvt

OIL POTENTIAL, M(P) PSIA/CP .VS. 1/SQRT(DELTA T), T = HRS



DST TEST  
 ARCO ALASKA  
 KUVLUH #1 WELL  
 BLANK FORMATION  
 WILD CAT  
 NORTH SLOPE, ALASKA

bd.rpt

TIME - PRESSURE DATA  
 FILE: a.bd

COUNT	SEQ. NO	YR	MO	DA	HOUR	MIN	SEC	HOURS FROM STRT. OF PROD	B.H.PRES PSIA	B.H.TEMP DEG. F	W.H.PRES PSIA	W.H.TEMP DEG. F
1	1	92	10	1	10.0000	45	30	26.0333	2434.204	0.000	0.000	0.000
2	2	92	10	1	10.0000	46	0	26.0417	2566.456	0.000	0.000	0.000
3	3	92	10	1	10.0000	46	30	26.0500	2600.704	0.000	0.000	0.000
4	4	92	10	1	10.0000	47	0	26.0583	2614.989	0.000	0.000	0.000
5	5	92	10	1	10.0000	47	30	26.0667	2623.161	0.000	0.000	0.000
6	6	92	10	1	10.0000	48	0	26.0750	2628.635	0.000	0.000	0.000
7	7	92	10	1	10.0000	48	30	26.0833	2632.648	0.000	0.000	0.000
8	8	92	10	1	10.0000	49	0	26.0917	2635.782	0.000	0.000	0.000
9	9	92	10	1	10.0000	49	30	26.1000	2638.342	0.000	0.000	0.000
10	10	92	10	1	10.0000	50	0	26.1083	2640.515	0.000	0.000	0.000
11	11	92	10	1	10.0000	50	30	26.1167	2642.403	0.000	0.000	0.000
12	12	92	10	1	10.0000	51	0	26.1250	2644.069	0.000	0.000	0.000
13	13	92	10	1	10.0000	51	30	26.1333	2645.562	0.000	0.000	0.000
14	14	92	10	1	10.0000	52	0	26.1417	2646.912	0.000	0.000	0.000
15	15	92	10	1	10.0000	53	0	26.1500	2649.304	0.000	0.000	0.000
16	16	92	10	1	10.0000	54	0	26.1750	2651.367	0.000	0.000	0.000
17	17	92	10	1	10.0000	55	0	26.1917	2653.191	0.000	0.000	0.000
18	18	92	10	1	10.0000	56	0	26.2083	2654.839	0.000	0.000	0.000
19	19	92	10	1	10.0000	57	0	26.2250	2656.338	0.000	0.000	0.000
20	20	92	10	1	10.0000	58	0	26.2417	2657.726	0.000	0.000	0.000
21	21	92	10	1	10.0000	59	0	26.2583	2659.016	0.000	0.000	0.000
22	22	92	10	1	11.0000	0	0	26.2750	2660.222	0.000	0.000	0.000
23	23	92	10	1	11.0000	1	0	26.2917	2661.358	0.000	0.000	0.000
24	24	92	10	1	11.0000	2	0	26.3083	2662.429	0.000	0.000	0.000
25	25	92	10	1	11.0000	3	0	26.3250	2663.452	0.000	0.000	0.000
26	26	92	10	1	11.0000	4	0	26.3417	2664.423	0.000	0.000	0.000
27	27	92	10	1	11.0000	5	0	26.3583	2665.352	0.000	0.000	0.000
28	28	92	10	1	11.0000	6	0	26.3750	2666.249	0.000	0.000	0.000
29	29	92	10	1	11.0000	7	0	26.3917	2667.105	0.000	0.000	0.000
30	30	92	10	1	11.0000	8	0	26.4083	2667.930	0.000	0.000	0.000
31	31	92	10	1	11.0000	9	0	26.4417	2669.500	0.000	0.000	0.000
32	32	92	10	1	11.0000	12	0	26.4750	2670.974	0.000	0.000	0.000
33	33	92	10	1	11.0000	14	0	26.5083	2672.364	0.000	0.000	0.000
34	34	92	10	1	11.0000	16	0	26.5417	2673.673	0.000	0.000	0.000
35	35	92	10	1	11.0000	18	0	26.5750	2674.919	0.000	0.000	0.000
36	36	92	10	1	11.0000	20	0	26.6083	2676.110	0.000	0.000	0.000
37	37	92	10	1	11.0000	22	0	26.6417	2677.251	0.000	0.000	0.000
38	38	92	10	1	11.0000	24	0	26.6750	2678.343	0.000	0.000	0.000
39	39	92	10	1	11.0000	26	0	26.7083	2679.395	0.000	0.000	0.000
40	40	92	10	1	11.0000	28	0	26.7417	2680.413	0.000	0.000	0.000
41	41	92	10	1	11.0000	30	0	26.7750	2681.397	0.000	0.000	0.000

DST TEST  
ARCO ALASKA  
KOVLUH #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

bd.rpt

TIME - PRESSURE DATA  
FILE: a.bd

COUNT	SEQ.NO	YR	MO	DA	HOUR	MIN	SEC	HOURS FROM STRT.OF PROD	B.H.PRES PSIA	B.H.TEMP DEG.F	W.H.PRES PSIA	W.H.TEMP DEG.F
42	42	92	10	1	11.0000	35	0	26.8583	2683.714	0.000	0.000	0.000
43	43	92	10	1	11.0000	40	0	26.9417	2685.874	0.000	0.000	0.000
44	44	92	10	1	11.0000	45	0	27.0250	2687.894	0.000	0.000	0.000
45	45	92	10	1	11.0000	50	0	27.1083	2689.795	0.000	0.000	0.000
46	46	92	10	1	11.0000	55	0	27.1917	2691.590	0.000	0.000	0.000
47	47	92	10	1	12.0000	0	0	27.2750	2693.296	0.000	0.000	0.000
48	48	92	10	1	12.0000	5	0	27.3583	2694.919	0.000	0.000	0.000
49	49	92	10	1	12.0000	10	0	27.4417	2696.466	0.000	0.000	0.000
50	50	92	10	1	12.0000	15	0	27.5250	2697.947	0.000	0.000	0.000
51	51	92	10	1	12.0000	20	0	27.6083	2699.373	0.000	0.000	0.000
52	52	92	10	1	12.0000	25	0	27.6917	2700.742	0.000	0.000	0.000
53	53	92	10	1	12.0000	30	0	27.7750	2702.062	0.000	0.000	0.000
54	54	92	10	1	12.0000	35	0	27.8583	2703.332	0.000	0.000	0.000
55	55	92	10	1	12.0000	40	0	27.9417	2704.556	0.000	0.000	0.000
56	56	92	10	1	12.0000	45	0	28.0250	2705.744	0.000	0.000	0.000
57	57	92	10	1	12.0000	50	0	28.1083	2706.892	0.000	0.000	0.000
58	58	92	10	1	12.0000	55	0	28.1917	2708.009	0.000	0.000	0.000
59	59	92	10	1	13.0000	0	0	28.2750	2709.087	0.000	0.000	0.000
60	60	92	10	1	13.0000	5	0	28.3583	2710.137	0.000	0.000	0.000
61	61	92	10	1	13.0000	10	0	28.4417	2711.159	0.000	0.000	0.000
62	62	92	10	1	13.0000	15	0	28.5250	2712.156	0.000	0.000	0.000
63	63	92	10	1	13.0000	20	0	28.6083	2713.124	0.000	0.000	0.000
64	64	92	10	1	13.0000	25	0	28.6917	2714.071	0.000	0.000	0.000
65	65	92	10	1	13.0000	30	0	28.7750	2714.987	0.000	0.000	0.000
66	66	92	10	1	13.0000	35	0	28.8583	2715.889	0.000	0.000	0.000
67	67	92	10	1	13.0000	40	0	28.9417	2716.765	0.000	0.000	0.000
68	68	92	10	1	13.0000	45	0	29.0250	2717.622	0.000	0.000	0.000
69	69	92	10	1	13.0000	50	0	29.1083	2718.461	0.000	0.000	0.000
70	70	92	10	1	13.0000	55	0	29.1917	2719.279	0.000	0.000	0.000
71	71	92	10	1	14.0000	0	0	29.2750	2720.085	0.000	0.000	0.000
72	72	92	10	1	14.0000	10	0	29.4417	2721.641	0.000	0.000	0.000
73	73	92	10	1	14.0000	20	0	29.6083	2723.135	0.000	0.000	0.000
74	74	92	10	1	14.0000	30	0	29.7750	2724.569	0.000	0.000	0.000
75	75	92	10	1	14.0000	40	0	29.9417	2725.950	0.000	0.000	0.000
76	76	92	10	1	14.0000	50	0	30.1083	2727.283	0.000	0.000	0.000
77	77	92	10	1	15.0000	0	0	30.2750	2728.576	0.000	0.000	0.000
78	78	92	10	1	15.0000	10	0	30.4417	2729.828	0.000	0.000	0.000
79	79	92	10	1	15.0000	20	0	30.6083	2731.031	0.000	0.000	0.000
80	80	92	10	1	15.0000	30	0	30.7750	2732.200	0.000	0.000	0.000
81	81	92	10	1	15.0000	40	0	30.9417	2733.331	0.000	0.000	0.000
82	82	92	10	1	15.0000	50	0	31.1083	2734.429	0.000	0.000	0.000

DST TEST  
 ARCO ALASKA  
 KUVLUM #1 WELL  
 BLANK FORMATION  
 WILD CAT  
 NORTH SLOPE, ALASKA

bd.rpt

TIME - PRESSURE DATA  
 FILE: a.bd

COUNT	SEQ.NO	YR	MO	DA	HOUR	MIN	SEC	HOURS FROM STRT.OF PROD	B.H.PRES PSIA	B.H.TEMP DEG.F	W.H.PRES PSIA	W.H.TEMP DEG.F
83	83	92	10	1	16.0000	0	0	31.2750	2735.493	0.000	0.000	0.000
84	84	92	10	1	16.0000	20	0	31.6083	2737.543	0.000	0.000	0.000
85	85	92	10	1	16.0000	40	0	31.9417	2739.482	0.000	0.000	0.000
86	86	92	10	1	17.0000	0	0	32.2750	2741.323	0.000	0.000	0.000
87	87	92	10	1	17.0000	20	0	32.6083	2743.073	0.000	0.000	0.000
88	88	92	10	1	17.0000	40	0	32.9417	2744.743	0.000	0.000	0.000
89	89	92	10	1	18.0000	0	0	33.2750	2746.331	0.000	0.000	0.000
90	90	92	10	1	18.0000	20	0	33.6083	2747.856	0.000	0.000	0.000
91	91	92	10	1	18.0000	40	0	33.9417	2749.319	0.000	0.000	0.000
92	92	92	10	1	19.0000	0	0	34.2750	2750.716	0.000	0.000	0.000
93	93	92	10	1	19.0000	20	0	34.6083	2752.067	0.000	0.000	0.000
94	94	92	10	1	19.0000	40	0	34.9417	2753.376	0.000	0.000	0.000
95	95	92	10	1	20.0000	0	0	35.2750	2754.605	0.000	0.000	0.000
96	96	92	10	1	20.0000	20	0	35.6083	2755.801	0.000	0.000	0.000
97	97	92	10	1	20.0000	40	0	35.9417	2756.934	0.000	0.000	0.000
98	98	92	10	1	21.0000	0	0	36.2750	2758.125	0.000	0.000	0.000
99	99	92	10	1	21.0000	21	30	36.6333	2759.280	0.000	0.000	0.000

DST TEST  
ARCO ALASKA  
KUVLUH #1 WELL  
BLANK FORMATION  
WILD CAT  
NORTH SLOPE, ALASKA

bd.rpt

PRODUCTION DATA  
FILE: a.bd

COUNT	SEQ. NO.	YR	MO	DA	HOUR	MIN	SC	PROD. STRT	OIL PROD	GAS PROD	WTR. PROD	CUMLTIVE OIL, STB	CUMLTIVE GAS, MSCF	CUMLTIVE WATER, BBL
									STB/DAY AVERAGE	MSCF/DAY AVERAGE	BBL/DAY AVERAGE			
1	1	92	9	30	8.000000	53	15	0.162500	200.0000	0.000000	0.000000	1.35	0.00	0.00
2	2	92	9	30	11.000000	40	0	2.941667	0.000000	0.000000	0.000000	1.35	0.00	0.00
3	3	92	9	30	12.000000	0	0	3.275000	200.0000	0.000000	0.000000	4.13	0.00	0.00
4	4	92	9	30	12.000000	30	0	3.775000	240.0000	0.000000	0.000000	9.13	0.00	0.00
5	5	92	9	30	12.000000	45	0	4.025000	560.0000	0.000000	0.000000	14.97	0.00	0.00
6	6	92	9	30	13.000000	0	0	4.275000	920.0000	0.000000	0.000000	24.55	0.00	0.00
7	7	92	9	30	13.000000	15	0	4.525000	1440.000	0.000000	0.000000	39.55	0.00	0.00
8	8	92	9	30	13.000000	30	0	4.775000	1000.000	0.000000	0.000000	49.97	0.00	0.00
9	9	92	9	30	15.000000	0	0	8.275000	1000.000	0.000000	0.000000	112.47	0.00	0.00
10	10	92	9	30	15.000000	15	0	6.525000	1080.000	0.000000	0.000000	123.72	0.00	0.00
11	11	92	9	30	15.000000	30	0	6.775000	880.0000	588.0000	0.000000	132.88	6.13	0.00
12	12	92	9	30	15.000000	45	0	7.025000	1640.000	588.0000	0.000000	149.97	12.25	0.00
13	13	92	9	30	17.000000	30	0	8.775000	2480.000	1094.000	0.000000	330.80	92.02	0.00
14	14	92	9	30	18.000000	0	0	9.275000	2260.000	1078.000	0.000000	377.88	114.48	0.00
15	15	92	9	30	18.000000	30	0	9.775000	1840.000	1073.000	0.000000	416.22	136.83	0.00
16	16	92	9	30	19.000000	0	0	10.275000	1980.000	1085.000	0.000000	457.47	159.44	0.00
17	17	92	9	30	19.000000	30	0	10.775000	1940.000	1107.000	0.000000	497.88	182.50	0.00
18	18	92	9	30	20.000000	0	0	11.275000	1760.000	1092.000	0.000000	534.55	205.25	0.00
19	19	92	9	30	21.000000	0	0	12.275000	1960.000	1099.500	0.000000	616.22	251.06	0.00
20	20	92	9	30	22.000000	0	0	13.275000	1160.000	1055.000	0.000000	684.55	295.02	0.00
21	21	92	9	30	23.000000	0	0	14.275000	1920.000	1055.000	0.000000	744.55	338.98	0.00
22	22	92	10	1	0.000000	0	0	15.275000	1690.000	999.000	0.000000	814.97	380.80	0.00
23	23	92	10	1	1.000000	0	0	16.275000	1800.000	1007.000	0.000000	889.97	422.58	0.00
24	24	92	10	1	2.000000	0	0	17.275000	1780.000	1002.700	0.000000	964.13	464.34	0.00
25	25	92	10	1	3.000000	0	0	18.275000	1620.000	1014.000	0.000000	1031.63	506.59	0.00
26	26	92	10	1	4.000000	0	0	19.275000	1572.000	1043.500	0.000000	1097.13	550.07	0.00
27	27	92	10	1	5.000000	0	0	20.275000	1890.000	1041.000	0.000000	1175.88	593.45	0.00
28	28	92	10	1	10.000000	45	30	26.03333	1698.000	983.700	0.000000	1583.28	829.47	0.00
29	29	92	10	1	21.000000	21	30	36.63333	0.000000	0.000000	0.000000	1583.28	829.47	0.00