ADDENDUM D6-6

AQUIFER TEST DATA AND ANALYSIS

ADDENDUM D6-6-1

AQUIFER TEST THEORY

TABLE OF CONTENTS

		PAGE NUMBER
D6-4-1.1	INTRODUCTION	D6-4-1-1
D6-4-1.2	THEIS EQUATION	D6-4-1-1
D6-4-1.2.1	STRAIGHT LINE EQUATION	D6-4-1-2
D6-4-1.2.2	THEIS RECOVERY EQUATION	D6-4-1-2
D6-4-1.3	HANTUSH'S MODIFIED METHOD	D6-4-1-4
D6-4-1.4	REFERENCES	D6-4-1-4

D6-4-1.1 INTRODUCTION

Transmissivity is a definition of the ability of an aquifer to transmit water. Common units of transmissivity are gallons per day per foot (gal/day/ft). Transmissivity, expressed in these units, is the amount of water, in gallons per day, that can flow through a vertical strip of aquifer one foot wide extending the full saturated height of the aquifer normal to the flow direction under a unit hydraulic gradient. Transmissivity must be adjusted by the actual aquifer width and hydraulic gradient to determine actual aquifer flow rates.

Horizontal hydraulic conductivity (permeability) of the aquifer is the transmissivity divided by the aquifer thickness. Permeability is the main parameter that governs the velocity of ground water movement. Hydraulic gradient and effective porosity are also needed with permeability to determine the velocity.

The specific yield is the water yielded from an aquifer by gravity drainage, as occurs when the water table declines. More precisely, the specific yield of an aquifer is the ratio of (1) volume of water which, after being saturated, will yield by gravity to (2) its own volume.

The storage coefficient is defined by Theis as the volume of water an aquifer releases from or takes into storage per unit surface area of the aquifer per unit change in head. The storage coefficient is dimensionless. The storage coefficient of unconfined aquifers is virtually equal to the specific yield, as most of the water is released from storage by gravity drainage and only a very small part comes from compression of the aquifer and expansion of the water.

D6-4-1.2 THEIS EQUATION

Theis, in 1935, introduced his equation which describes a non-leaky, confined aquifer. The following is a general definition of the Theis equation:

	T	=	$114.6\ Q\ W(u)/s$
	u	=	$2693\ r^2\ S/T\ t$
where:	s	=	drawdown, in feet
	Q	=	discharge, in gallons per minute (gpm)
	$W(u)$	=	well function
		=	the integral from u to infinity of $(e^{-u})/u\ du$
	T	=	transmissivity, in gal/day/ft
	u	=	well function variable
	r	=	observation well radius from pumping well, in feet
	S	=	storage coefficient
and	t	=	time since pumping started, in minutes.

Pump Test data are analyzed by matching the log-log plot of drawdown versus time to Theis' type curve [W(u) vs. 1/u] and applying the above equations to the match. Pages 92-98 of Ferris and others (1962) present a more thorough discussion of the Theis equation.

The value of the integral expression for W(u) is given by the following series:

$$W(u) = -0.577216 - \ln + u - u^2/2.2! + u^3/3.3! \ldots$$

where all terms are as previously defined.

D6-4-1.2.1 STRAIGHT LINE EQUATION

Jacob developed a simplified form of Theis' drawdown equation by truncating the well function series after the first two terms. Assuming the truncation, the following equations were developed to analyze drawdown versus time data on semi-log plots and is called the straight-line or Jacob equation:

T	=	$264\ Q\ [\log (t_2/t_1)]/(s_2 - s_1)$
T	=	$264\ Q/\Delta s$
S	=	$T\ t_o/4800\ r^2$
s_1	=	drawdown, in feet, at time since pumping started, t_1, in minutes
s_2	=	drawdown, in feet, at time since pumping started, t_2, in minutes
and		$t_2 > t_1$
Δs	=	change in drawdown over one log cycle of time on a semi-log plot, in feet
S	=	storage coefficient
t_o	=	straight-line intercept of zero drawdown, in minutes
r	=	radius of well, in feet.

A straight line is fitted to the semi-log plot of drawdown versus time (log scale) to obtain transmissivity. Jacob suggested that u values less than 0.01 are needed before his straight-line method is useful. However, a plot of W(u) versus 1/u on semi-log paper indicates that this method should be applicable for values of u as large as 0.1. with an error of less than 5% (refer to Kruseman and deRidder, 1992)

D6-4-1.2.2 THEIS RECOVERY EQUATION

The well functions of the residual-drawdown form of Theis' equation were approximated using only the first two terms in the well function series. The following equations present the semi-log form of the Theis recovery equation:

$$T = 264\ Q\ [\log(t/t')]/s'$$

or

$$T = 264\ Q/\Delta s'$$

where t = time since pumping started, in minutes

t' = time since pumping stopped, in minutes

s' = residual drawdown, in feet

and $\Delta s'$ = change in residual drawdown over one log cycle of t/t' on a semi-log plot, in feet

Therefore, when residual drawdown t/t' is plotted on a logarithmic scale, the above equation can be used for the straight line fit. Pages 100-102 of Ferris and others (1962) should be consulted for a discussion of Theis' recovery method. Theis' recovery equation can be also be used for a non-leaky, confined aquifer.

D6-4-1.3 HANTUSH'S MODIFIED METHOD

Hantush (1960) presented a modification of the theory of leaky confined aquifers which had previously been described by Hantush and Jacob (1955). Kruseman and deRidder (1992) present a summary of Hantush's modified method. The modification takes into account storage of water in a semi-pervious confining bed. Equations developed are as follows, and are the same as equation 4.15 and 4.17 presented in Kruseman and deRidder (the following, however, have been converted for use with U.S. Geological Survey units):

$$T = [114.6\ (Q)/s]\ H(u,\beta)$$

where $H(u,\beta)$ = the integral from u to infinity of $(e^{-y})/y$ [complementary error function of $(\beta\ u/\ (y(y-u)))$] dy

u = $[(2693)r^2\ (S)]/Tt$

and β = $r/4\ (K'S'/TSb')^{1/2}$

The main parameters are as follows:

T = transmissivity, gal/day/ft

Q = discharge, gpm

s = drawdown, ft

y = variable of integration

r = radius, ft

S = storage coefficient

t = time, min

b = aquifer thickness, ft

b' = aquitard thickness, ft

	K	=	aquifer permeability, ft/day
	K'	=	confining layer permeability, ft/day
and	S'	=	confining layer storage coefficient

This form of the beta equation assumes that all leakage comes from only one of the two confining layers. Hantush (1961) presented tabulations of $H(u,\beta)$ for varying values of u and β, and subsequently, a family of type curves showing $H(u,\beta)$ vs. $1/u$ has been developed. Primary aquifer properties can be determined by matching plots of observed drawdown versus time data to one of Hantush's type curves and using the equations presented above. Semi-pervious confining layer vertical permeability can then be calculated by noting the value of β for the curve which best fits observed data and applying the equation for β presented above. The specific storage of the confining layer can be determined from laboratory measurements of the coefficient of compressibility and void ratio on a core sample of the aquitard. The specific storage is given as:

$$Ss = a_v W_w/(1 + e)$$

where	a_v	=	coefficient of compressibility
	W_w	=	weight of water
and	e	=	void ratio

The specific storage of the confining layer can be estimated from the specific storage of the aquifer if the laboratory measurements are not available. The confining layer storage coefficient is obtained by multiplying the specific storage times the aquitard thickness.

D6-4-1.4 REFERENCES

1. Ferris, J.G., D.B. Knowles, R.H. Brown, and R.W. Stallman, 1962, Theory of aquifer tests, U.S. Geol. Survey, Water-Supply Paper 1536-E.

2. Jacob, C.E., 1944, Notes on determining permeability of pumping tests under water-table conditions, U.S. Geol. Survey, open-file report.

3. Hantush, M.S., and C.E. Jacob, 1955, Non-steady radial flow in an infinite leaky aquifer, Am. Geophy. Union Trans., V. 36, No. 1, pp. 95-100.

4. Hantush, M.S., 1960, Modification of the theory of leaky aquifers, Journal of Geophysical Research, V. 65, NO. 11, pp. 3713-3725.

5. Kruseman, G.P., and N.A. deRidder, 1992, Analysis and evaluation of pumping test data, International Institute for Land Reclamation and Improvement, Publication No. 47, 2nd Ed.

ADDENDUM D6-6-2

MINE UNIT 1
AQUIFER TEST DATA AND ANALYSIS

TABLE D6-2.1 AQUIFER-TEST DATA FOR PUMPING WELL P1

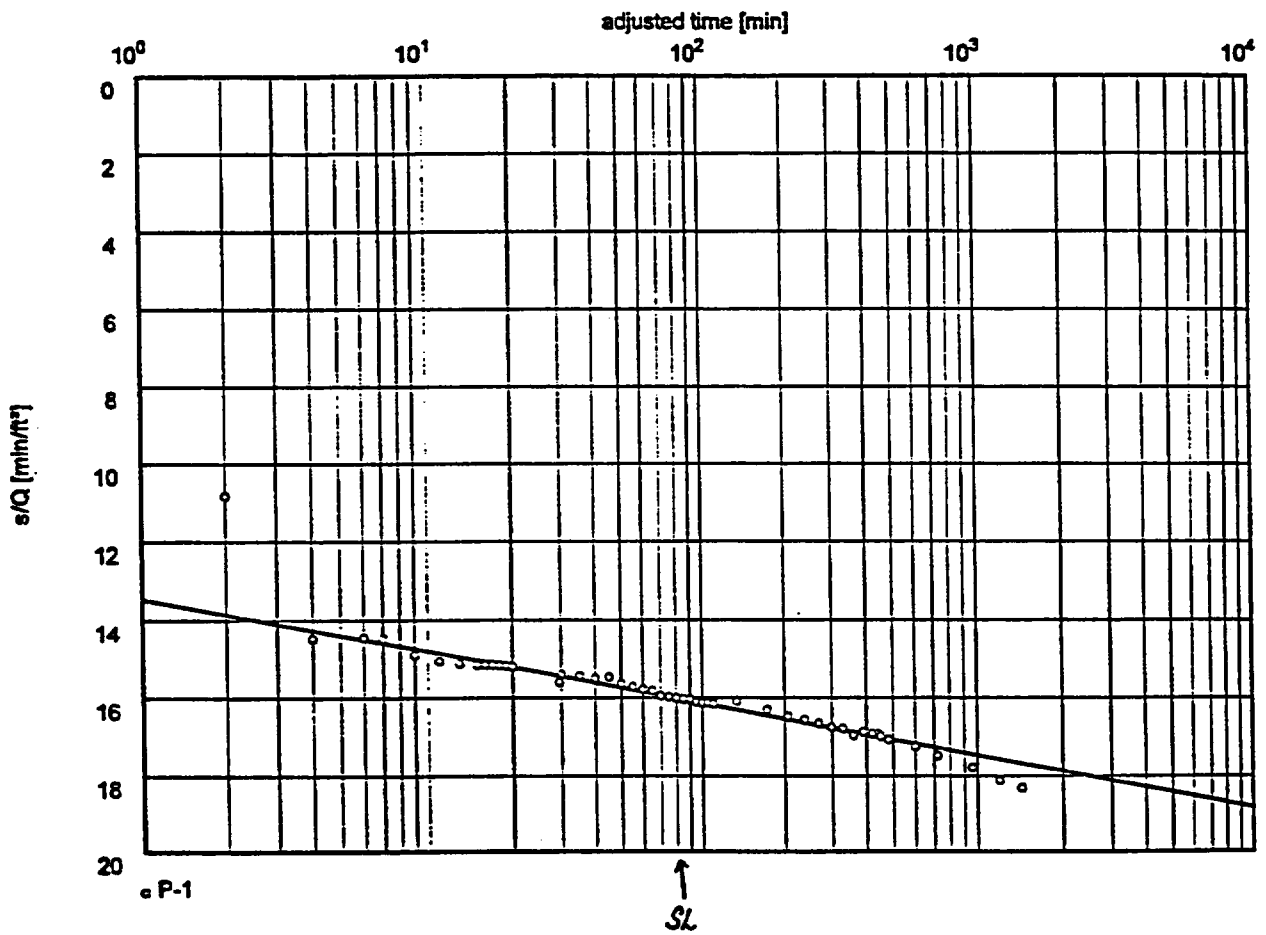
DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (ft)	DISCHARGE (gpm)	WATER TEMPERATURE (deg C)	CONDUCTIVITY (umhos/cm @ 25 deg C)	pH (units)
07-23-90	09:15	SWL = 266.42								
07-23-90	09:15	-15	—	—	266.42	-0.00	—	—	—	—
	09:30	Pump On								
	09:32	2	—	—	304.06	37.64	—	—	—	—
	09:34	4	—	—	316.69	50.27	—	—	—	—
	09:36	6	—	—	316.62	50.20	—	—	—	—
	09:37	7	—	—	316.72	50.30	—	—	—	—
	09:39	9	—	—	318.19	51.77	—	—	—	—
	09:41	11	—	—	318.72	52.30	—	—	—	—
	09:43	13	—	—	318.92	52.50	—	—	—	—
	09:45	15	—	—	319.04	52.62	—	—	—	—
	09:46	16	—	—	319.05	52.63	—	—	—	—
	09:47	17	—	—	319.05	52.63	—	—	—	—
	09:48	18	—	—	319.10	52.68	—	—	—	—
	09:49	19	—	—	319.15	52.73	—	—	—	—
	09:50	20	—	—	319.23	52.81	—	—	—	—
	10:00	30	—	—	319.93	53.51	—	—	—	—
	10:05	35	—	—	320.05	53.63	—	—	—	—
	10:10	40	—	—	320.28	53.86	—	—	—	—
	10:15	45	—	—	320.15	53.73	—	—	—	—
	10:20	50	—	—	320.77	54.35	—	—	—	—
	10:25	55	—	—	321.02	54.60	—	—	—	—
	10:30	60	—	—	321.27	54.85	—	—	—	—
	10:35	65	—	—	321.38	54.96	—	—	—	—
	10:40	70	—	—	321.85	55.43	—	—	—	—
	10:45	75	—	—	321.95	55.53	—	—	—	—
	10:50	80	—	—	322.04	55.62	—	—	—	—
	10:55	85	—	—	322.15	55.73	—	—	—	—
	11:00	90	—	—	322.18	55.76	—	—	—	—
	11:05	95	—	—	322.41	55.99	—	—	—	—
	11:10	100	—	—	322.49	56.07	—	—	—	—
	11:15	105	—	—	322.47	56.05	—	—	—	—
	11:20	110	—	—	322.54	56.12	—	—	—	—
	11:20	Pump Off due to broken switch box								
	11:28	Pump restarted - replaced switch box								
	11:30	120	—	—	316.44	50.02	—	—	—	—
	12:00	150	—	—	318.02	51.60	—	—	—	—
	12:30	180	—	—	318.72	52.30	—	—	—	—
	13:00	210	—	—	319.28	52.86	—	—	—	—
	13:30	240	—	—	319.56	53.14	—	—	—	—
	14:00	270	—	—	319.86	53.44	—	—	—	—
	14:30	300	—	—	320.16	53.74	—	—	—	—
	15:00	330	—	—	320.27	53.85	—	—	—	—
	15:30	360	—	—	320.83	54.41	—	—	—	—
	16:00	390	—	—	320.56	54.14	—	—	—	—
	16:30	420	—	—	320.72	54.30	—	—	—	—

TABLE D6-2.1 AQUIFER-TEST DATA FOR PUMPING WELL P1 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (ft)	DISCHARGE (gpm)	WATER TEMPERATURE (deg C)	CONDUCTIVITY (mmhos/cm @ 25 deg C)	pH (units)
	17:00	450	--	--	320.93	54.51	--	--	--	--
	17:30	480	--	--	321.19	54.77	--	--	--	--
	19:30	600	--	--	321.76	55.34	--	--	--	--
	21:30	720	--	--	322.52	56.10	--	--	--	--
07-24-90	01:30	960	--	--	323.50	57.08	--	--	--	--
	05:30	1200	--	--	324.56	58.14	--	--	--	--
	09:30	1440	--	--	325.17	58.75	--	--	--	--
	09:35	Pump Off								

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Variable discharge test Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 07.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

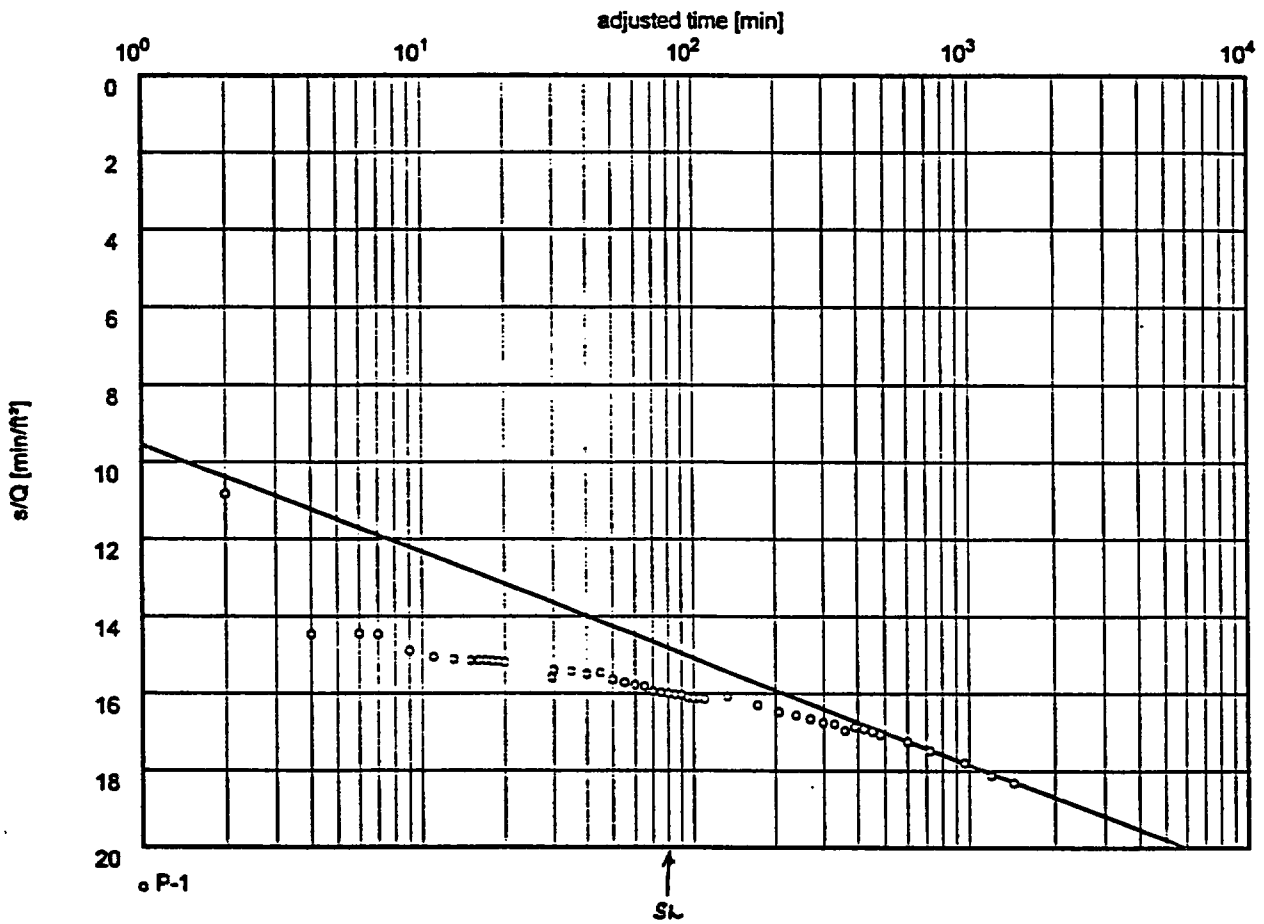
Pumping Test No.	Test conducted on: 7/23/90
P-1 (Early Time)	
Discharge 24.02 U.S.gal/min	



Transmissivity [ft²/min]: 1.36×10^{-1}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Variable discharge test Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 07.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 7/23/90
P-1 (Late Time)	
Discharge 24.02 U.S.gal/min	



Transmissivity [ft²/min]: 6.62×10^{-2}

TABLE D6-2.2 AQUIFER-TEST DATA FOR OBSERVATION WELL MP1

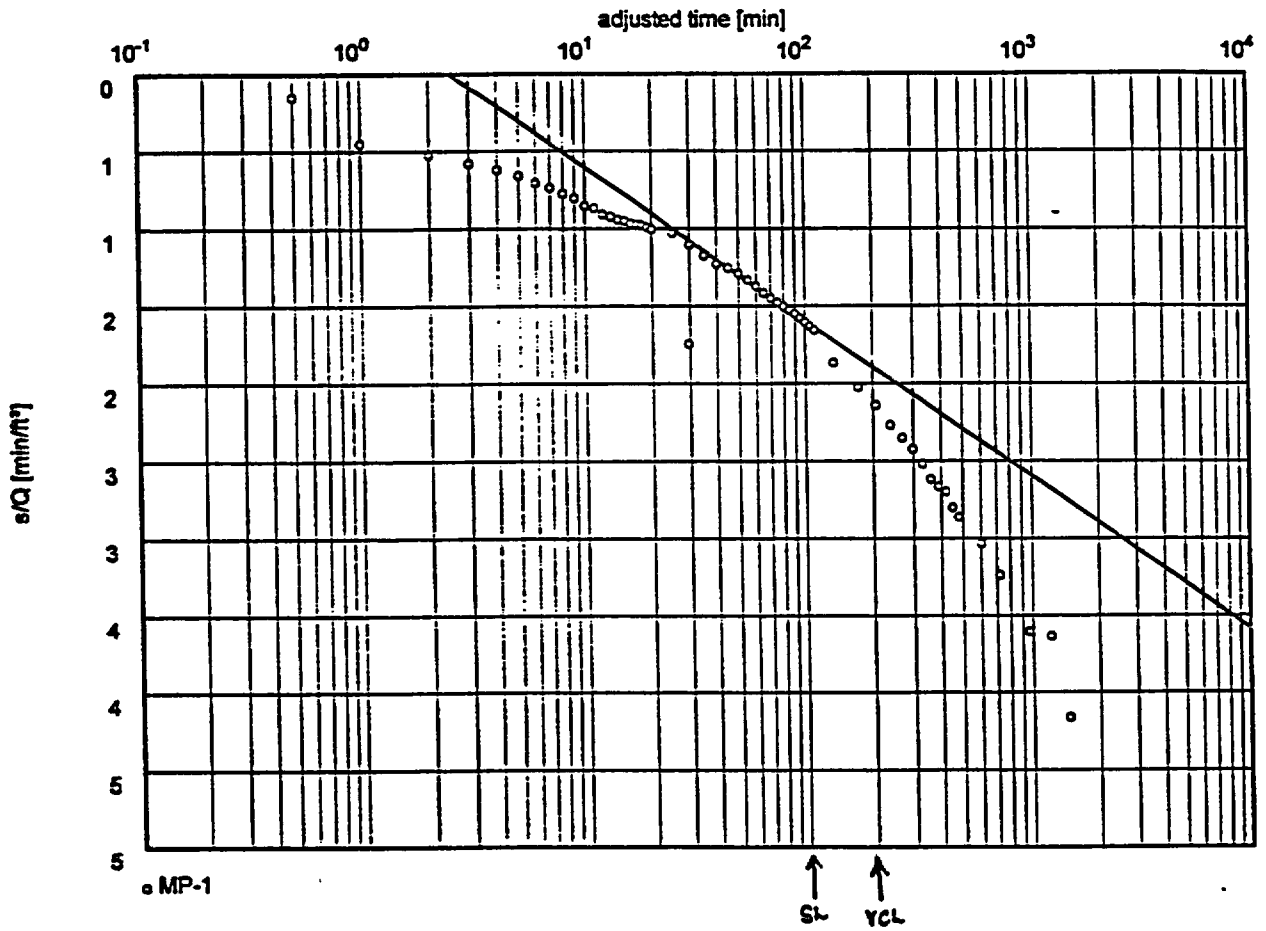
DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
980723	815	—	—	—	266.64	—
	915	—	—	—	266.64	—
	930	0	—	—	267.16	0.52
	931	1	—	—	268.21	1.57
	932	2	—	—	268.46	1.82
	933	3	—	—	268.65	2.01
	934	4	—	—	268.80	2.16
	935	5	—	—	268.93	2.29
	936	6	—	—	269.09	2.45
	937	7	—	—	269.20	2.56
	938	8	—	—	269.33	2.69
	939	9	—	—	269.43	2.79
	940	10	—	—	269.61	2.97
	941	11	—	—	269.66	3.02
	942	12	—	—	269.80	3.16
	943	13	—	—	269.85	3.21
	944	14	—	—	269.92	3.28
	945	15	—	—	269.95	3.31
	946	16	—	—	270.00	3.36
	947	17	—	—	270.02	3.38
	948	18	—	—	270.04	3.40
	949	19	—	—	270.09	3.45
	950	20	—	—	270.13	3.49
	955	25	—	—	270.22	3.58
	1000	30	—	—	270.40	3.84
	1005	35	—	—	270.72	4.00
	1010	40	—	—	270.91	4.27
	1015	45	—	—	271.00	4.36
	1020	50	—	—	271.12	4.48
	1025	55	—	—	271.27	4.63
	1030	60	—	—	271.41	4.77
	1035	65	—	—	271.56	4.92
	1040	70	—	—	271.68	5.04
	1045	75	—	—	271.78	5.14
	1050	80	—	—	271.87	5.23
	1055	85	—	—	271.95	5.31
	1100	90	—	—	272.03	5.39
	1105	95	—	—	272.13	5.49
	1110	100	—	—	272.22	5.58
	1115	105	—	—	272.31	5.67
	1120	110	—	—	272.40	5.76
	1130	120	—	—	272.24	5.60
	1200	150	—	—	272.63	5.99
	1230	180	—	—	273.14	6.50
	1300	210	—	—	273.51	6.87

TABLE D6-2.2 AQUIFER-TEST DATA FOR OBSERVATION WELL MP1 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
	1330	240	—	—	273.92	7.28
	1400	270	—	—	274.18	7.54
	1430	300	—	—	274.42	7.78
	1500	330	—	—	274.72	8.08
	1530	360	—	—	275.04	8.40
	1600	390	—	—	275.19	8.55
	1630	420	—	—	275.29	8.65
	1700	450	—	—	275.62	8.98
	1730	480	—	—	275.82	9.18
	1930	600	—	—	276.37	9.73
	2130	720	—	—	277.03	10.39
900724	130	960	—	—	278.21	11.57
	530	1200	—	—	278.30	11.66
	930	1440	—	—	280.00	13.36

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Variable discharge test Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 07.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 7/23/90
MP-1 (Early Time)	
Discharge 24.02 U.S.gal/min	

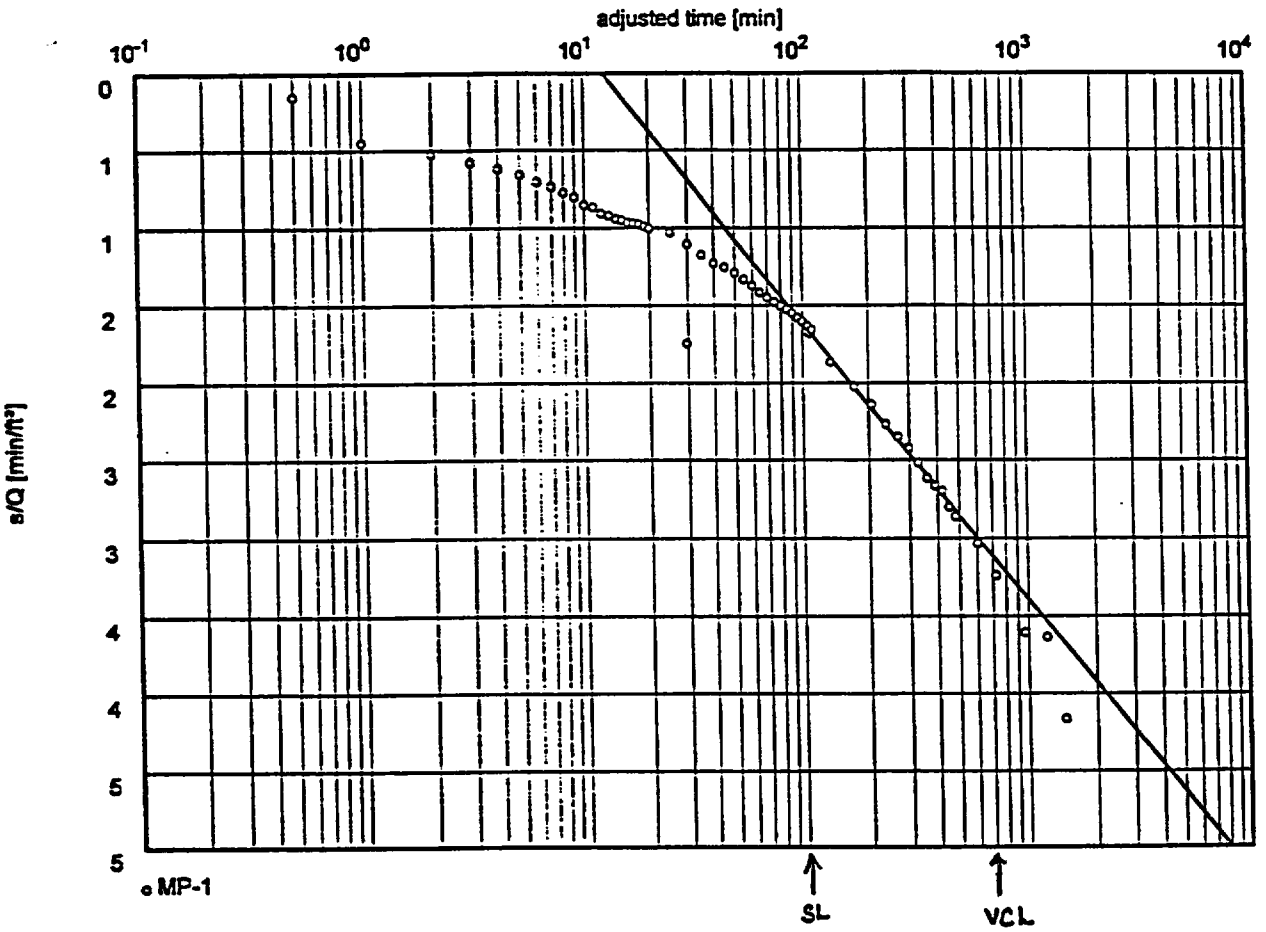


Transmissivity [ft²/min]: 1.84×10^{-1}

Storativity: 9.90×10^{-5}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Variable discharge test Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 07.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 7/23/90
MP-1 (Late Time)	
Discharge 24.02 U.S.gal/min	



Transmissivity [ft²/min]: 1.02×10^{-1}

```
ÿ       SE2000
  Environmental Logger
      10/19 12:57

 Unit# 747        Test 1

Setups:         INPUT  1
------------    ---------
Type            Level (F)
Mode            TOC
I.D.            152

Reference          0.000
PSI at Ref.       53.212
SG                 1.000
Linearity          0.360
Scale factor      99.762
Offset            -0.373
Delay mSEC        50.000

Step 0  10/18 11:52:22

Elapsed Time    INPUT  1
------------    ---------
   0.0000          0.000
   0.0083          0.000
   0.0166          0.031
   0.0250          3.540
   0.0333         -0.158
   0.0416          1.043
   0.0500          1.801
   0.0583          1.675
   0.0666          2.086
   0.0750          2.560
   0.0833          3.129
   0.0916          3.382
   0.1000          3.540
   0.1083          3.603
   0.1166          3.824
   0.1250          4.109
   0.1333          4.330
   0.1416          4.614
   0.1500          4.930
   0.1583          5.310
   0.1666          5.562
   0.1750          5.784
   0.1833          6.289
   0.1916          6.732
   0.2000          6.953
   0.2083          7.301
   0.2166          7.427
   0.2250          7.553
```

0.2333	8.027
0.2416	8.438
0.2500	8.343
0.2583	8.533
0.2666	9.102
0.2750	9.355
0.2833	9.576
0.2916	9.607
0.3000	10.145
0.3083	10.239
0.3166	10.334
0.3250	10.840
0.3333	11.029
0.3500	11.472
0.3666	11.693
0.3833	12.420
0.4000	12.704
0.4166	13.083
0.4333	13.589
0.4500	14.063
0.4666	14.221
0.4833	14.726
0.5000	15.263
0.5166	15.263
0.5333	15.990
0.5500	16.369
0.5666	16.211
0.5833	17.128
0.6000	17.507
0.6166	17.349
0.6333	17.823
0.6500	18.360
0.6666	18.454
0.6833	18.739
0.7000	19.118
0.7166	19.339
0.7333	19.592
0.7500	19.813
0.7666	20.066
0.7833	20.445
0.8000	20.666
0.8166	20.950
0.8333	21.329
0.8500	21.455
0.8666	21.613
0.8833	22.214
0.9000	22.214
0.9166	22.277
0.9333	22.877
0.9500	23.035
0.9666	22.877
0.9833	23.446

1.0000	23.698
1.2000	25.625
1.4000	27.267
1.6000	28.625
1.8000	29.257
2.0000	30.173
2.2000	31.120
2.4000	31.657
2.6000	32.794
2.8000	33.268
3.0000	33.646
3.2000	34.373
3.4000	34.846
3.6000	35.604
3.8000	36.015
4.0000	36.867
4.2000	37.246
4.4000	37.562
4.6000	38.319
4.8000	38.793
5.0000	38.762
5.2000	39.204
5.4000	39.646
5.6000	39.993
5.8000	40.687
6.0000	40.750
6.2000	40.845
6.4000	41.413
6.6000	41.887
6.8000	41.950
7.0000	42.455
7.2000	42.708
7.4000	42.802
7.6000	43.118
7.8000	43.308
8.0000	43.623
8.2000	43.813
8.4000	44.318
8.6000	44.412
8.8000	44.791
9.0000	45.202
9.2000	45.170
9.4000	45.801
9.6000	46.054
9.8000	46.117
10.0000	46.085
12.0000	48.326
14.0000	49.810
16.0000	51.041
18.0000	52.082
20.0000	52.966
22.0000	53.944

24.0000	54.607
26.0000	54.859
28.0000	55.364
30.0000	56.153
32.0000	56.405
34.0000	56.910
36.0000	57.447
38.0000	57.415
40.0000	57.983
42.0000	58.456
44.0000	58.488
46.0000	58.930
48.0000	59.308
50.0000	59.434
52.0000	59.466
54.0000	59.655
56.0000	60.128
58.0000	60.128
60.0000	60.192
62.0000	60.223
64.0000	60.444
66.0000	60.633
68.0000	60.759
70.0000	60.633
72.0000	60.980
74.0000	61.138
76.0000	61.264
78.0000	61.201
80.0000	61.611
82.0000	61.485
84.0000	61.422
86.0000	61.801
88.0000	62.053
90.0000	62.053
92.0000	62.337
94.0000	62.053
96.0000	62.274
98.0000	62.211
100.000	62.432
120.000	63.031
140.000	63.441
160.000	63.946
180.000	64.482
200.000	64.608
220.000	64.798
240.000	64.987
260.000	64.798
280.000	65.365
300.000	65.271

SE2000
Environmental Logger
10/19 12:59

Unit# 747 Test 2

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	53.212
SG	1.000
Linearity	0.360
Scale factor	99.762
Offset	-0.373
Delay mSEC	50.000

Step 0 10/18 16:59:44

Elapsed Time	INPUT 1
0.0000	64.419
0.0083	64.388
0.0166	64.261
0.0250	64.324
0.0333	64.545
0.0416	64.104
0.0500	61.422
0.0583	64.167
0.0666	63.220
0.0750	62.337
0.0833	61.801
0.0916	61.548
0.1000	60.886
0.1083	60.349
0.1166	60.097
0.1250	59.434
0.1333	59.056
0.1416	58.330
0.1500	57.920
0.1583	57.478
0.1666	57.099
0.1750	56.563
0.1833	56.342
0.1916	55.648
0.2000	55.396
0.2083	55.112
0.2166	54.480

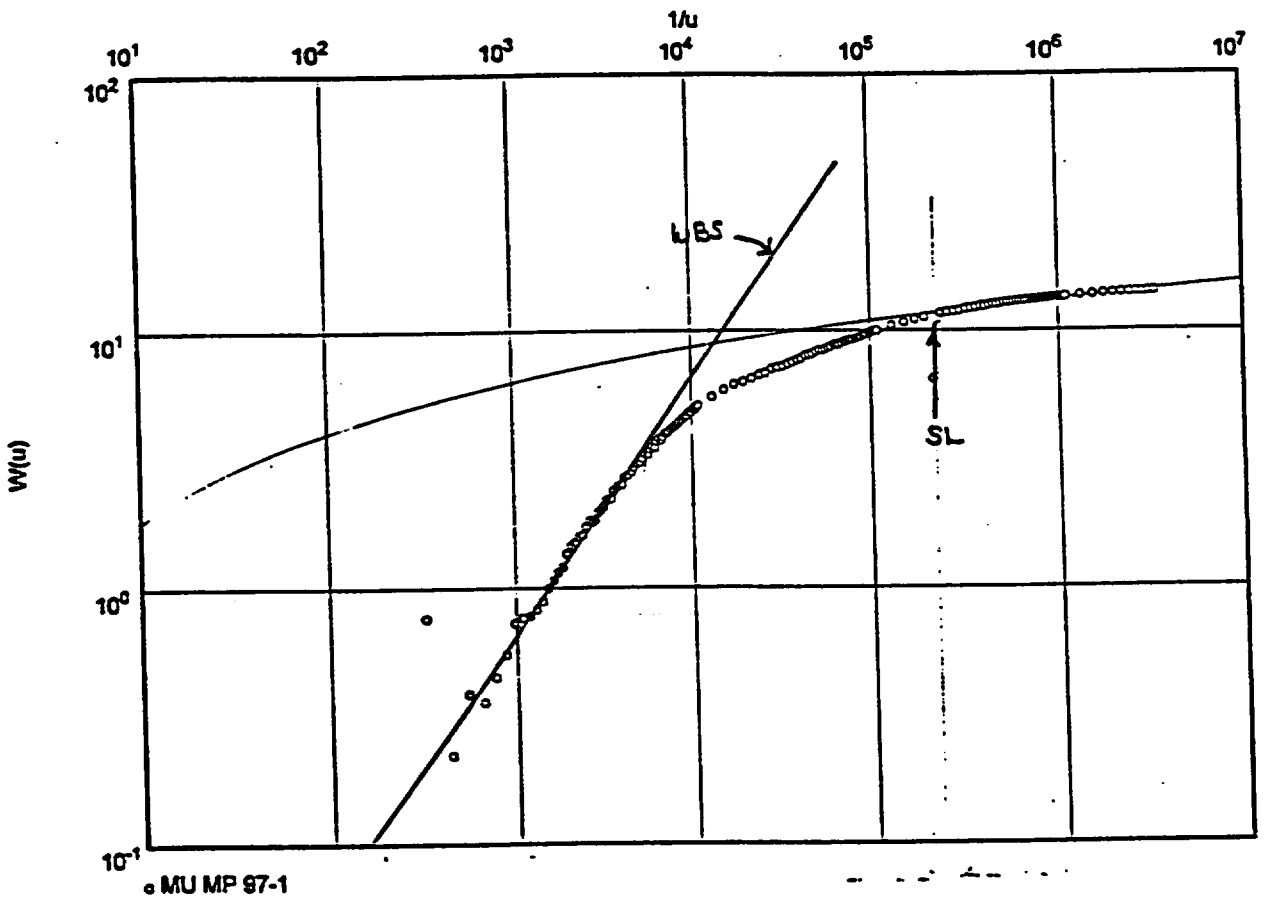
0.2250	53.976
0.2333	53.818
0.2416	53.565
0.2500	52.871
0.2583	52.492
0.2666	52.050
0.2750	51.766
0.2833	51.482
0.2916	50.977
0.3000	50.346
0.3083	49.999
0.3166	49.652
0.3250	49.336
0.3333	48.800
0.3500	48.295
0.3666	47.474
0.3833	47.095
0.4000	46.496
0.4166	46.022
0.4333	45.012
0.4500	44.286
0.4666	44.034
0.4833	43.276
0.5000	42.613
0.5166	42.455
0.5333	41.887
0.5500	40.719
0.5666	40.308
0.5833	40.214
0.6000	39.172
0.6166	38.888
0.6333	38.414
0.6500	38.098
0.6666	37.435
0.6833	36.930
0.7000	36.457
0.7166	35.888
0.7333	35.478
0.7500	35.225
0.7666	34.720
0.7833	34.246
0.8000	33.899
0.8166	33.362
0.8333	32.983
0.8500	32.510
0.8666	32.257
0.8833	31.847
0.9000	31.468
0.9166	31.120
0.9333	30.583
0.9500	30.331
0.9666	29.920

0.9833	29.383
1.0000	29.446
1.2000	25.846
1.4000	23.193
1.6000	21.203
1.8000	19.686
2.0000	18.612
2.2000	17.854
2.4000	17.601
2.6000	17.443
2.8000	17.538
3.0000	17.728
3.2000	18.075
3.4000	18.486
3.6000	18.960
3.8000	19.434
4.0000	19.844
4.2000	20.224
4.4000	20.476
4.6000	20.697
4.8000	20.824
5.0000	20.918
5.2000	20.982
5.4000	20.982
5.6000	20.950
5.8000	20.918
6.0000	20.855
6.2000	20.792
6.4000	20.697
6.6000	20.603
6.8000	20.476
7.0000	20.350
7.2000	20.255
7.4000	20.129
7.6000	19.971
7.8000	19.844
8.0000	19.718
8.2000	19.560
8.4000	19.434
8.6000	19.307
8.8000	19.149
9.0000	19.023
9.2000	18.865
9.4000	18.739
9.6000	18.612
9.8000	18.454
10.0000	18.328
12.0000	17.064
14.0000	15.959
16.0000	14.979
18.0000	14.094
20.0000	13.305

22.0000	12.641
24.0000	12.041
26.0000	11.472
28.0000	10.998
30.0000	10.524
32.0000	10.113
34.0000	9.734
36.0000	9.418
38.0000	9.102
40.0000	8.786
42.0000	8.533
44.0000	8.249
46.0000	8.027
48.0000	7.806
50.0000	7.617
52.0000	7.427
54.0000	7.237
56.0000	7.079
58.0000	6.921
60.0000	6.763
62.0000	6.637
64.0000	6.479
66.0000	6.352
68.0000	6.258
70.0000	6.131
72.0000	6.036
74.0000	5.910
76.0000	5.815
78.0000	5.720
80.0000	5.626
82.0000	5.562
84.0000	5.468
86.0000	5.404
88.0000	5.310
90.0000	5.246
92.0000	5.183
94.0000	5.088
96.0000	5.025
98.0000	4.962
100.000	4.899
120.000	4.393

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Theis analysis method Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

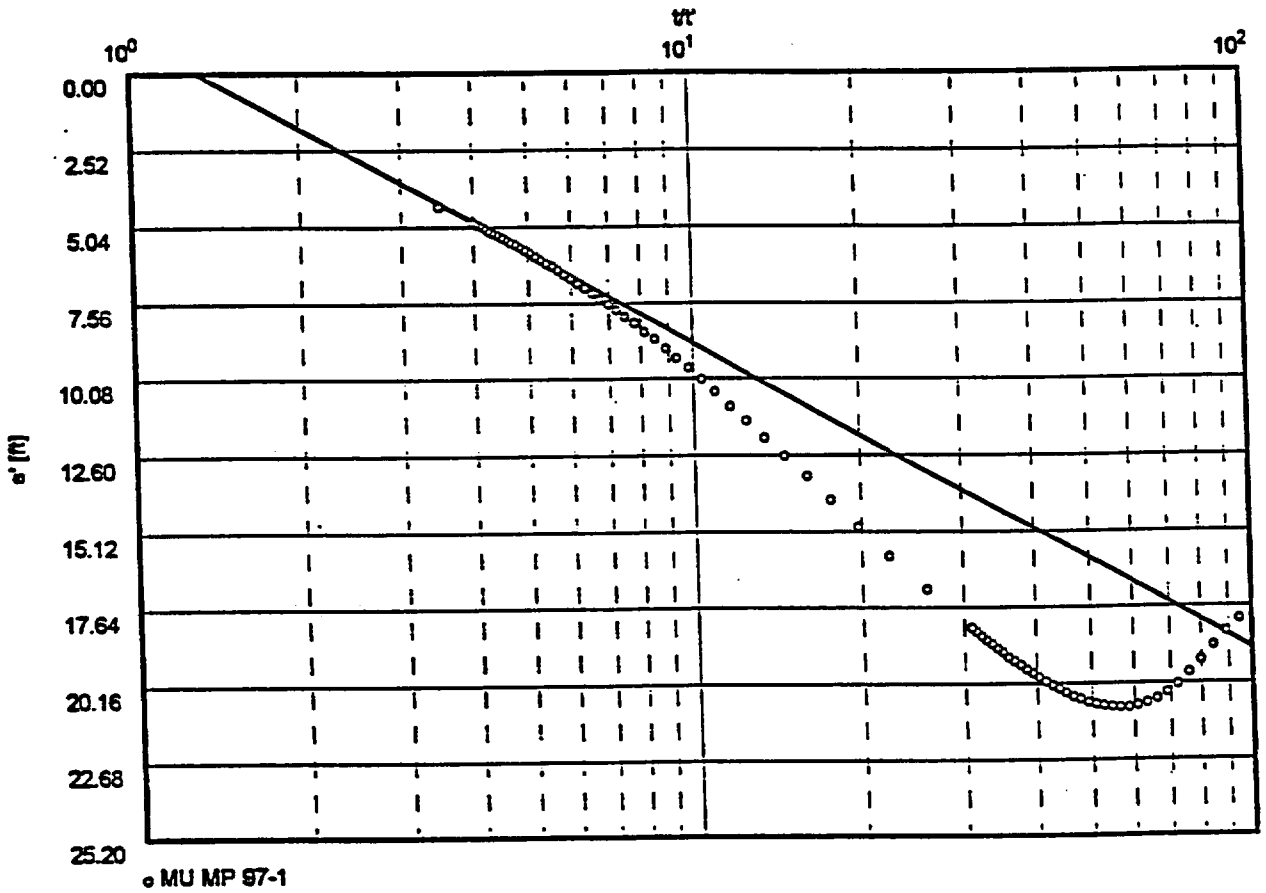
Pumping Test No.	Test conducted on: 10/18/97
MU MP 97-1	
Discharge 24.00 U.S.gal/min	



Transmissivity [ft²/min]: 5.51×10^{-2}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Recovery method after THEIS & JACOB Confined aquifer	Date: 04.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 10-18-97
MU MP 97-1	
Discharge 24.00 U.S.gal/min	
	Pumping test duration: 300.00 min



Transmissivity [ft²/min]: 5.78×10^{-2}

TABLE D6-2.3 AQUIFER-TEST DATA FOR OBSERVATION WELL M01

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
900723	815	—	—	—	198.00	—
	915	—	—	—	198.00	—
	930	0	—	—	197.97	-0.03
	940	10	—	—	197.97	-0.03
	950	20	—	—	197.97	-0.03
	1000	30	—	—	197.97	-0.03
	1010	40	—	—	197.97	-0.03
	1020	50	—	—	197.97	-0.03
	1030	60	—	—	197.97	-0.03
	1100	90	—	—	197.97	-0.03
	1130	120	—	—	197.97	-0.03
	1200	150	—	—	197.97	-0.03
	1230	180	—	—	197.97	-0.03
	1300	210	—	—	197.97	-0.03
	1330	240	—	—	197.97	-0.03
	1400	270	—	—	197.97	-0.03
	1430	300	—	—	197.90	-0.10
	1500	330	—	—	197.89	-0.11
	1530	360	—	—	197.83	-0.17
	1600	390	—	—	197.85	-0.15
	1650	440	—	—	197.83	-0.17
	1700	450	—	—	197.82	-0.18
	1730	480	—	—	197.81	-0.19
	1930	600	—	—	197.77	-0.23
	2130	720	—	—	197.77	-0.23
900724	130	960	—	—	197.73	-0.27
	530	1200	—	—	197.70	-0.30
	930	1440	—	—	197.66	-0.34

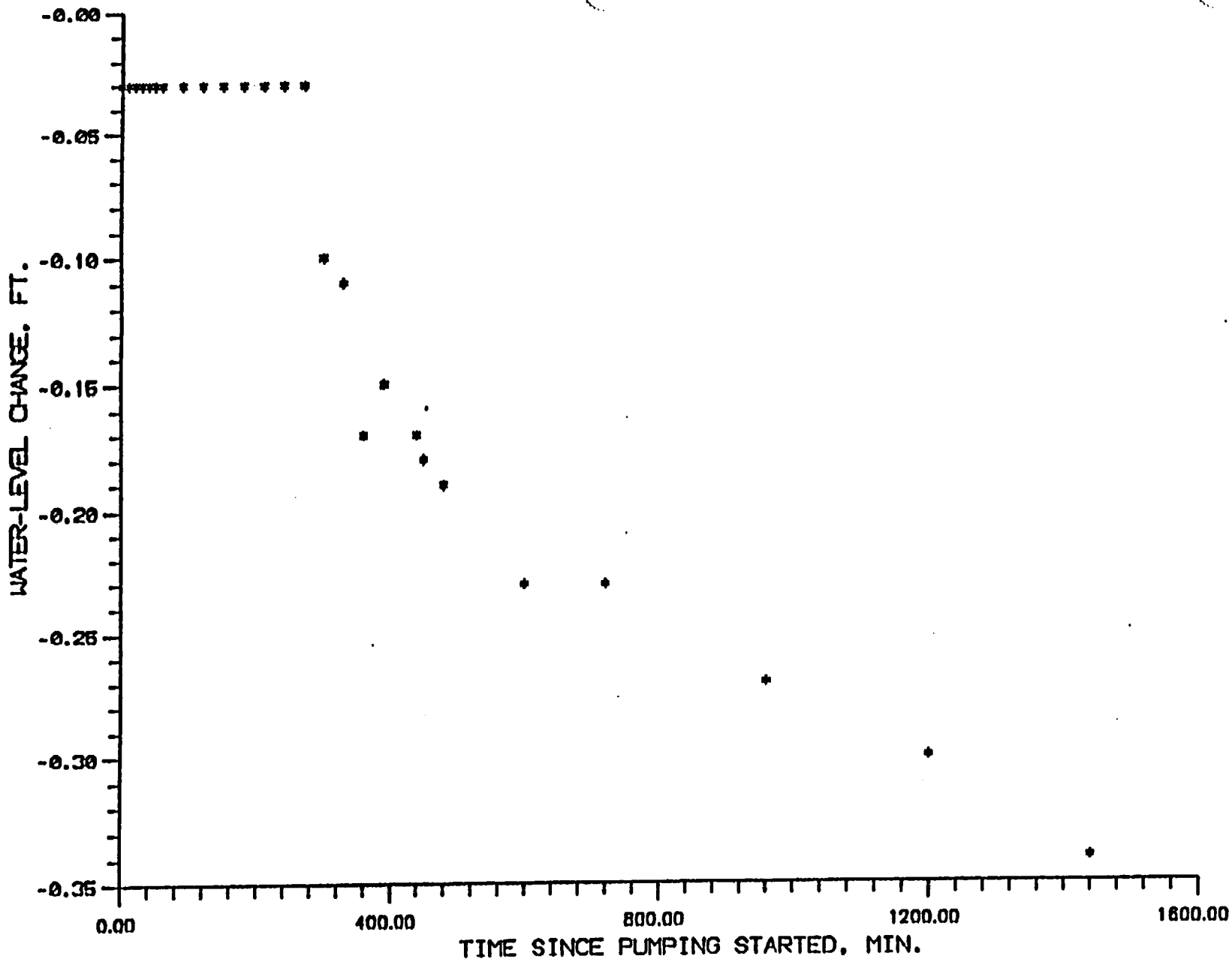


FIGURE D6-2.3 WATER LEVEL CHANGE DATA FOR OBSERVATION WELL M01

ADDENDUM D6-6-3

MINE UNIT 2
AQUIFER TEST DATA AND ANALYSIS

TABLE D6-1.1 AQUIFER-TEST DATA FOR PUMPING WELL BSPW-1

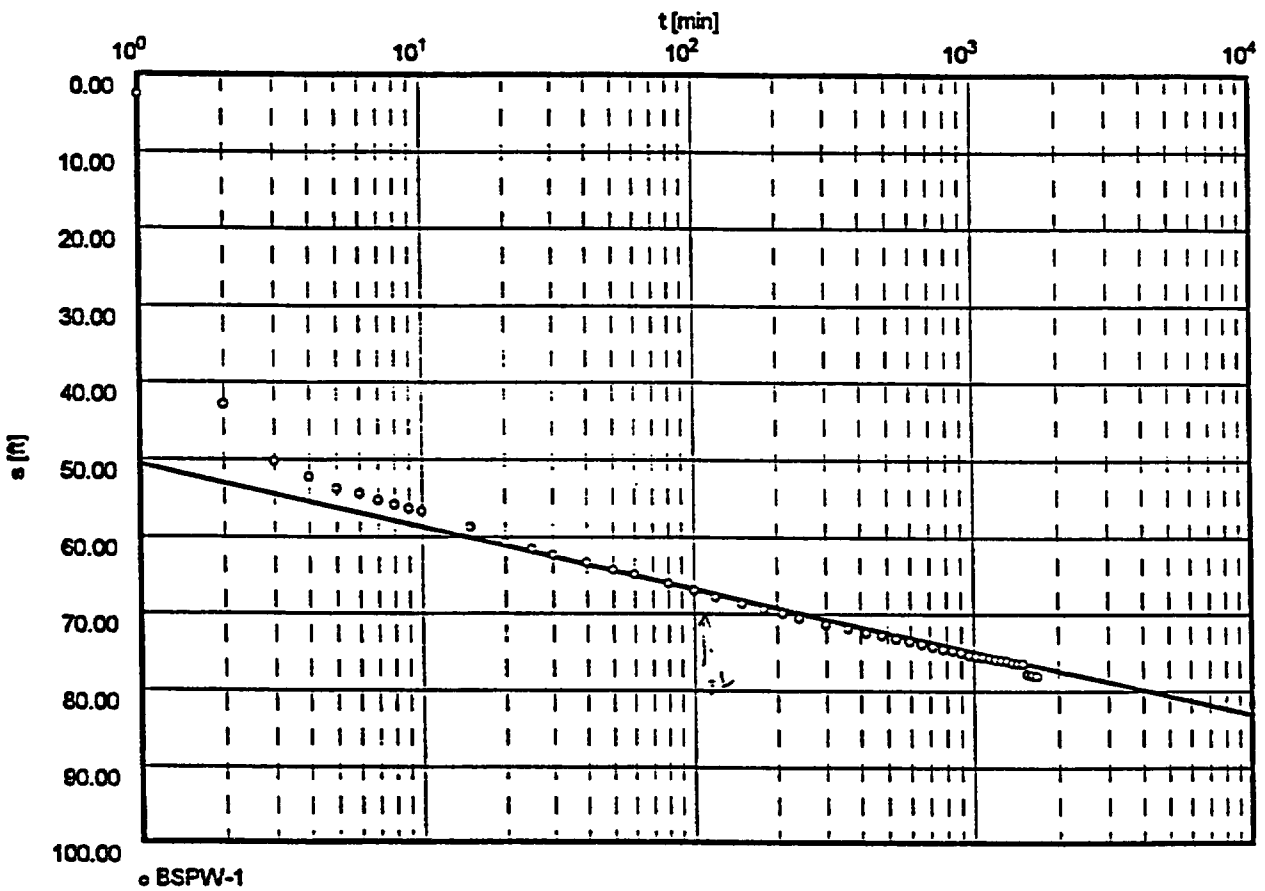
DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (ft)	DISCHARGE (gpm)	WATER TEMPERATURE (deg C)	CONDUCTIVITY (umhos/cm @ 25 deg C)	pH (units)
920824	530	--	--	--	258.55	--	--	--	--	--
920825	647	--	--	--	258.55	--	--	--	--	--
	700	PUMP ON								
	701	1	--	--	261.15	2.60	--	--	--	--
	702	2	--	--	301.50	42.95	--	--	--	--
	703	3	--	--	308.82	50.27	--	--	--	--
	704	4	--	--	310.85	52.30	--	--	--	--
	705	5	--	--	312.34	53.79	--	--	--	--
	706	6	--	--	313.00	54.45	--	--	--	--
	707	7	--	--	313.82	55.27	--	--	--	--
	708	8	--	--	314.47	55.92	--	--	--	--
	709	9	--	--	314.97	56.42	--	--	--	--
	710	10	--	--	315.30	56.75	--	--	--	--
	715	15	--	--	317.30	58.75	--	--	--	--
	720	20	--	--	319.32	60.77	--	--	--	--
	725	25	--	--	320.18	61.63	--	--	--	--
	730	30	--	--	320.95	62.40	--	--	--	--
	740	40	--	--	321.92	63.37	--	--	--	--
	750	50	--	--	322.89	64.34	--	--	--	--
	800	60	--	--	323.45	64.90	--	--	--	--
	820	80	--	--	324.63	66.08	--	--	--	--
	840	100	--	--	325.55	67.00	--	--	--	--
	900	120	--	--	326.43	67.88	--	--	--	--
	930	150	--	--	327.26	68.71	--	--	--	--
	1000	180	--	--	327.98	69.43	--	--	--	--
	1030	210	--	--	328.50	69.95	--	--	--	--
	1100	240	--	--	329.15	70.60	--	--	--	--
	1200	300	--	--	330.00	71.45	--	--	--	--
	1300	360	--	--	330.50	71.95	--	--	--	--
	1400	420	--	--	331.10	72.55	--	--	--	--
	1457	477	--	--	331.44	72.89	--	--	--	--
	1557	537	--	--	331.83	73.28	--	--	--	--
	1659	599	--	--	332.20	73.65	--	--	--	--
	1759	659	--	--	332.50	73.95	--	--	--	--
	1859	719	--	--	332.87	74.32	--	--	--	--
	2000	780	--	--	333.20	74.65	--	--	--	--
	2100	840	--	--	333.33	74.78	--	--	--	--
	2200	900	--	--	333.61	75.06	--	--	--	--
	2300	960	--	--	333.89	75.34	--	--	--	--
	2400	1020	--	--	334.10	75.55	--	--	--	--
920826	57	1077	--	--	334.20	75.65	--	--	--	--
	200	1140	--	--	334.35	75.80	--	--	--	--
	300	1200	--	--	334.53	75.98	--	--	--	--
	400	1260	--	--	334.62	76.07	--	--	--	--
	500	1320	--	--	334.67	76.12	--	--	--	--

TABLE D6-1.1 AQUIFER-TEST DATA FOR PUMPING WELL BSPW-1 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (ft)	DISCHARGE (gpm)	WATER TEMPERATURE (deg C)	CONDUCTIVITY (umhos/cm @ 25 deg C)	pH (units)
	600	1380	--	--	334.90	76.35	--	--	--	--
	700	1440	--	--	335.00	76.45	--	--	--	--
	800	1500	--	--	335.05	76.50	--	--	--	--
	901	1561	--	--	336.41	77.86	--	--	--	--
	1001	1621	--	--	336.58	78.03	--	--	--	--
	1100	1680	--	--	336.60	78.05	--	--	--	--
	1230	PUMP OFF								
	1231	1771	1	1771	323.00	64.45				
	1243	1783	13	137	278.89	20.34				
	1250	1790	20	89.5	275.40	16.85				
	1310	1810	40	45.2	272.74	14.19				
	1334	1834	64	28.7	271.00	12.45				
	1354	1854	84	22.1	269.92	11.37				
	1431	1891	121	15.6	268.55	10.00				
	1501	1921	151	12.7	268.00	9.45				
	1601	1981	211	9.39	266.33	7.78				
	1701	2041	271	7.53	265.56	7.01				

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

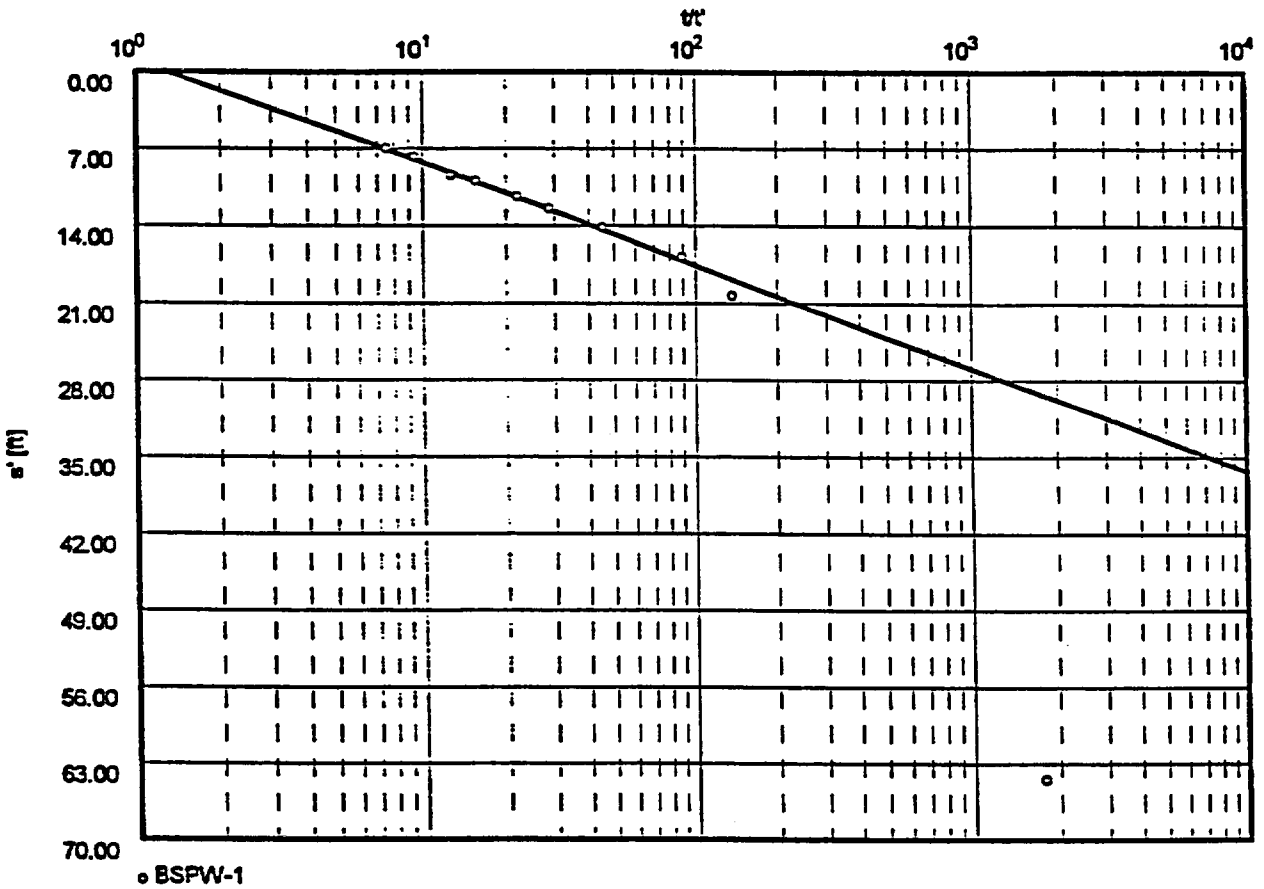
Pumping Test No.	Test conducted on: 8/25/92
BSPW-1	
Discharge 12.00 U.S.gal/min	



Transmissivity [ft²/min]: 3.61×10^{-2}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Recovery method after THEIS & JACOB Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 8/25/92
BSPW-1	
Discharge 12.00 U.S.gal/min	
	Pumping test duration: 1770.00 min



Transmissivity [ft²/min]: 3.13×10^{-2}

Hydraulic conductivity [ft/min]: 6.53×10^{-4}

Aquifer thickness [ft]: 48.00

TABLE D6-1.4 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMP-1

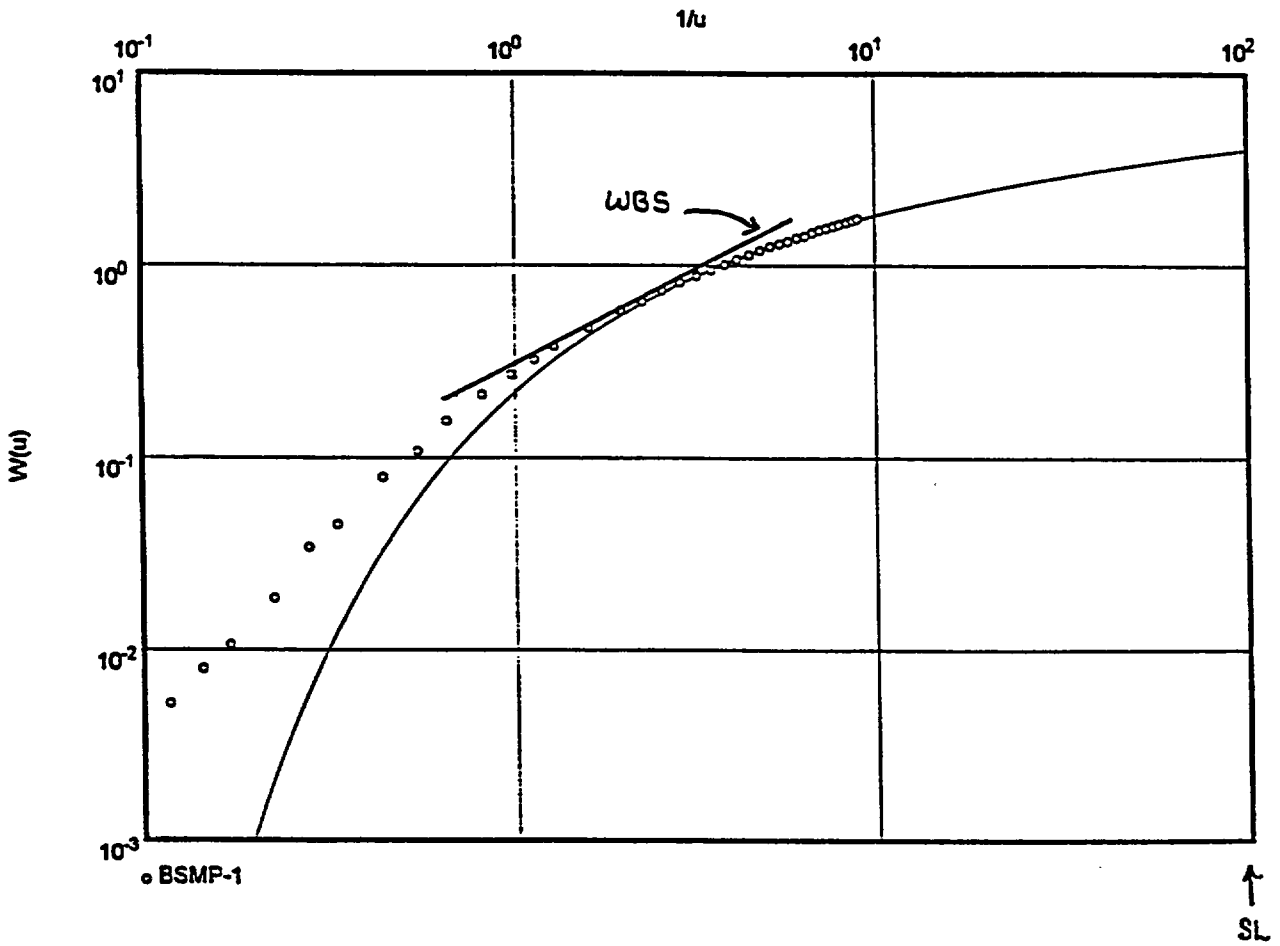
DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
920824	536	—	—	—	212.26	—
920825	652	—	—	—	212.31	—
	700	PUMP BSPW-1 ON				
	702	2	—	—	212.34	0.00
	707	7	—	—	212.33	-0.01
	712	12	—	—	212.33	-0.01
	717	17	—	—	212.34	0.00
	722	22	—	—	212.36	0.02
	727	27	—	—	212.37	0.03
	732	32	—	—	212.38	0.04
	742	42	—	—	212.41	0.07
	752	52	—	—	212.47	0.13
	802	62	—	—	212.51	0.17
	822	82	—	—	212.64	0.30
	842	102	—	—	212.75	0.41
	902	122	—	—	212.93	0.59
	932	152	—	—	213.15	0.81
	1002	182	—	—	213.37	1.03
	1032	212	—	—	213.57	1.23
	1102	242	—	—	213.79	1.45
	1202	302	—	—	214.15	1.81
	1309	369	—	—	214.56	2.22
	1404	424	—	—	214.82	2.48
	1503	483	—	—	215.16	2.82
	1602	542	—	—	215.44	3.10
	1704	604	—	—	215.70	3.36
	1804	664	—	—	215.94	3.60
	1904	724	—	—	216.18	3.84
	2004	784	—	—	216.42	4.08
	2106	846	—	—	216.66	4.32
	2206	906	—	—	216.89	4.55
	2305	965	—	—	217.09	4.75
920826	6	1026	—	—	217.25	4.91
	103	1083	—	—	217.42	5.08
	205	1145	—	—	217.62	5.28
	305	1205	—	—	217.74	5.40
	404	1264	—	—	217.95	5.61
	505	1325	—	—	218.10	5.76
	605	1385	—	—	218.25	5.91
	705	1445	—	—	218.38	6.04
	803	1503	—	—	218.55	6.21
	906	1566	—	—	218.70	6.36
	1004	1624	—	—	218.86	6.52
	1103	1683	—	—	218.98	6.64
	1230	PUMP BSPW-1 OFF				

TABLE D6-1.4 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMP-1 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
	1232	1772	2	886	219.18	6.84
	1245	1785	15	119	219.18	6.84
	1253	1793	23	78.0	219.18	6.84
	1314	1814	44	41.2	219.14	6.80
	1337	1837	67	27.4	219.07	6.73
	1358	1858	88	21.1	218.97	6.63
	1434	1894	124	15.3	218.79	6.45
	1504	1924	154	12.5	218.68	6.34
	1605	1985	215	9.23	218.32	5.98
	1705	2045	275	7.44	218.05	5.71
920827	751	2931	1161	2.52	215.75	3.41
	1510	3370	1600	2.11	215.18	2.84

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Theis analysis method Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 8/25/92
BSMP-1	
Discharge 12.00 U.S.gal/min	



Transmissivity [ft²/min]: 3.34×10^{-2}

Hydraulic conductivity [ft/min]: 6.97×10^{-4}

Aquifer thickness [ft]: 48.00

Storativity: 2.16×10^{-4}

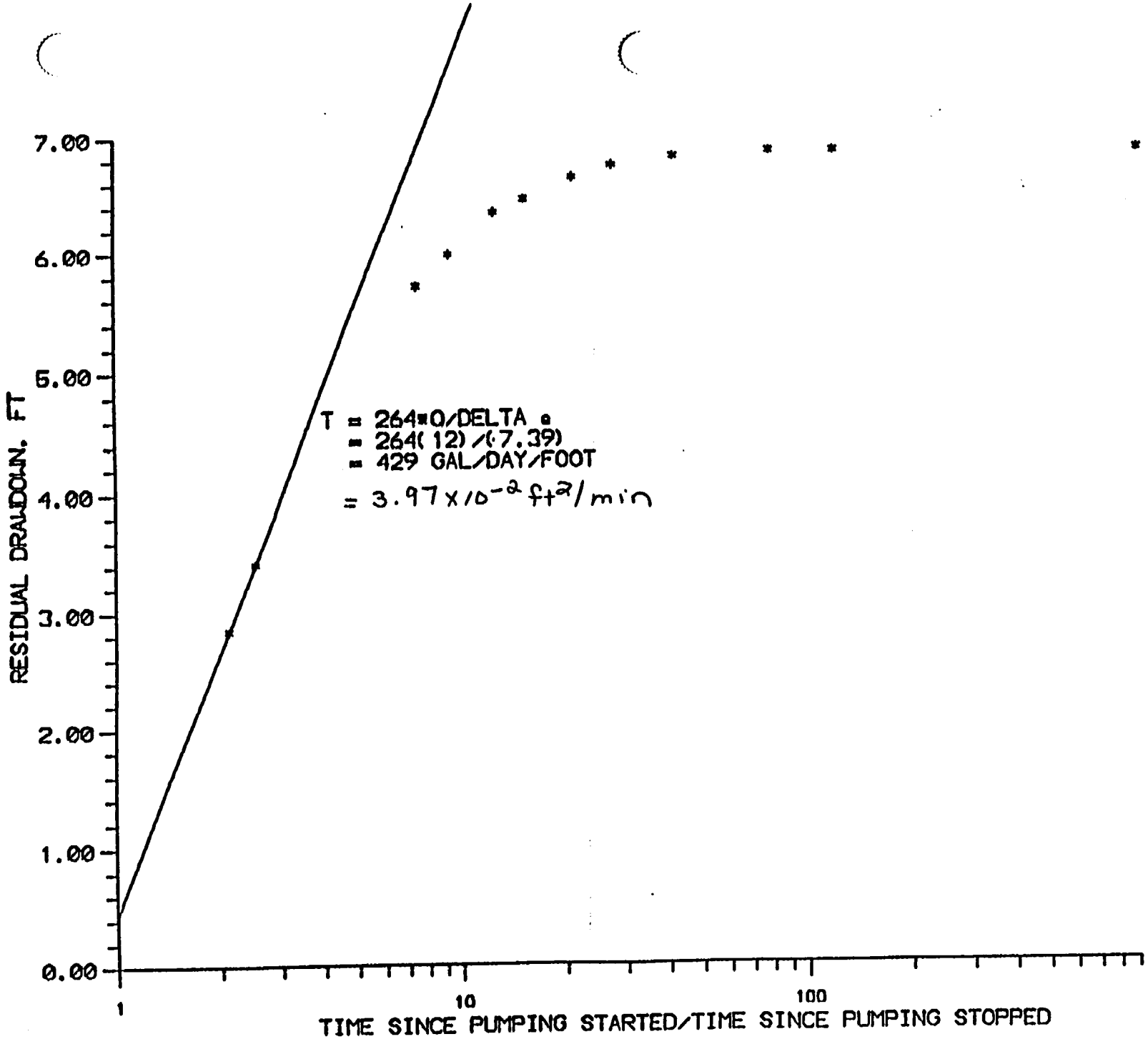


FIGURE D6-1.6B RECOVERY IN OBSERVATION WELL BSMP-1

TABLE D6-1.2 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMP-2

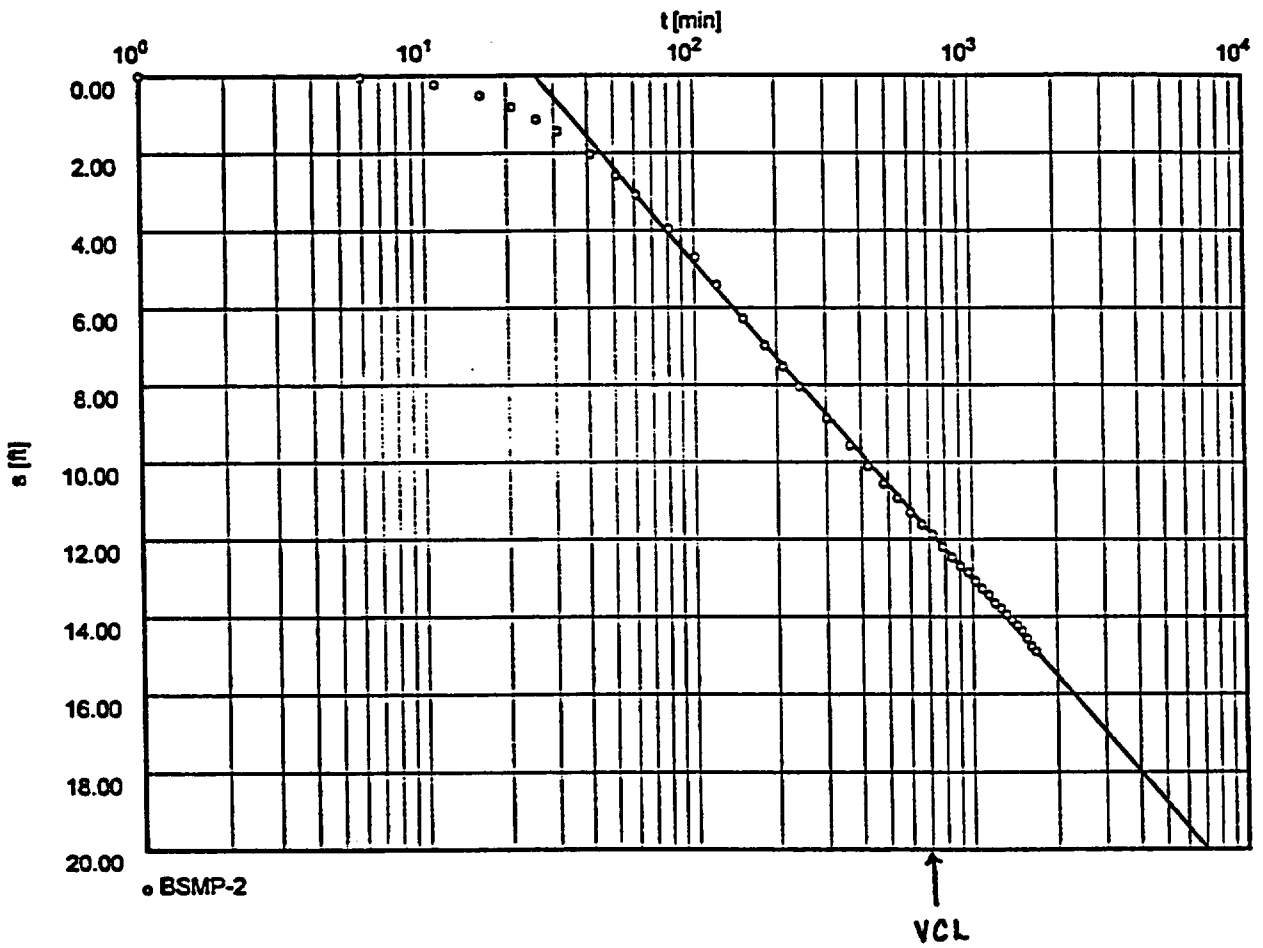
DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t´,min)	t/t´	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
920824	534	--	--	--	230.25	--
920825	650	--	--	--	230.29	--
	700	PUMP BSPW-1 ON				
	701	1	--	--	230.29	0.00
	706	6	--	--	230.34	0.05
	711	11	--	--	230.52	0.23
	716	16	--	--	230.80	0.51
	721	21	--	--	231.10	0.81
	726	26	--	--	231.43	1.14
	731	31	--	--	231.73	1.44
	741	41	--	--	232.32	2.03
	751	51	--	--	232.87	2.58
	801	61	--	--	233.37	3.08
	821	81	--	--	234.26	3.97
	841	101	--	--	235.00	4.71
	901	121	--	--	235.70	5.41
	931	151	--	--	236.57	6.28
	1001	181	--	--	237.27	6.98
	1031	211	--	--	237.82	7.53
	1101	241	--	--	238.34	8.05
	1201	301	--	--	239.17	8.88
	1305	365	--	--	239.86	9.57
	1403	423	--	--	240.41	10.12
	1501	481	--	--	240.85	10.56
	1600	540	--	--	241.23	10.94
	1703	603	--	--	241.60	11.31
	1802	662	--	--	241.91	11.62
	1902	722	--	--	242.17	11.88
	2003	783	--	--	242.48	12.19
	2104	844	--	--	242.75	12.46
	2204	904	--	--	242.98	12.69
	2304	964	--	--	243.14	12.85
	2403	1023	--	--	243.38	13.09
920826	101	1081	--	--	243.57	13.28
	203	1143	--	--	243.73	13.44
	303	1203	--	--	243.95	13.66
	402	1262	--	--	244.08	13.79
	502	1322	--	--	244.24	13.95
	602	1382	--	--	244.38	14.09
	702	1442	--	--	244.52	14.23
	802	1502	--	--	244.67	14.38
	904	1564	--	--	244.87	14.58
	1002	1622	--	--	245.07	14.78
	1102	1682	--	--	245.20	14.91
	1230	PUMP BSPW-1 OFF				

TABLE D6-1.2 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMP-2 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
	1231	1771	1	1771	245.37	15.08
	1244	1784	14	127	244.73	14.44
	1252	1792	22	81.5	244.27	13.98
	1312	1812	42	43.1	243.12	12.83
	1336	1836	66	27.8	242.08	11.79
	1356	1856	86	21.6	241.31	11.02
	1433	1893	123	15.4	240.20	9.91
	1503	1923	153	12.6	239.70	9.41
	1603	1983	213	9.31	238.41	8.12
	1702	2042	272	7.51	237.64	7.35
920827	757	2937	1167	2.52	233.70	3.41
	1510	3370	1600	2.11	233.08	2.79

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Time-Drawdown-method after COOPER & JACOB Confined aquifer	Date: 07.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 8/25/97
BSMP-2	
Discharge 12.00 U.S.gal/min	

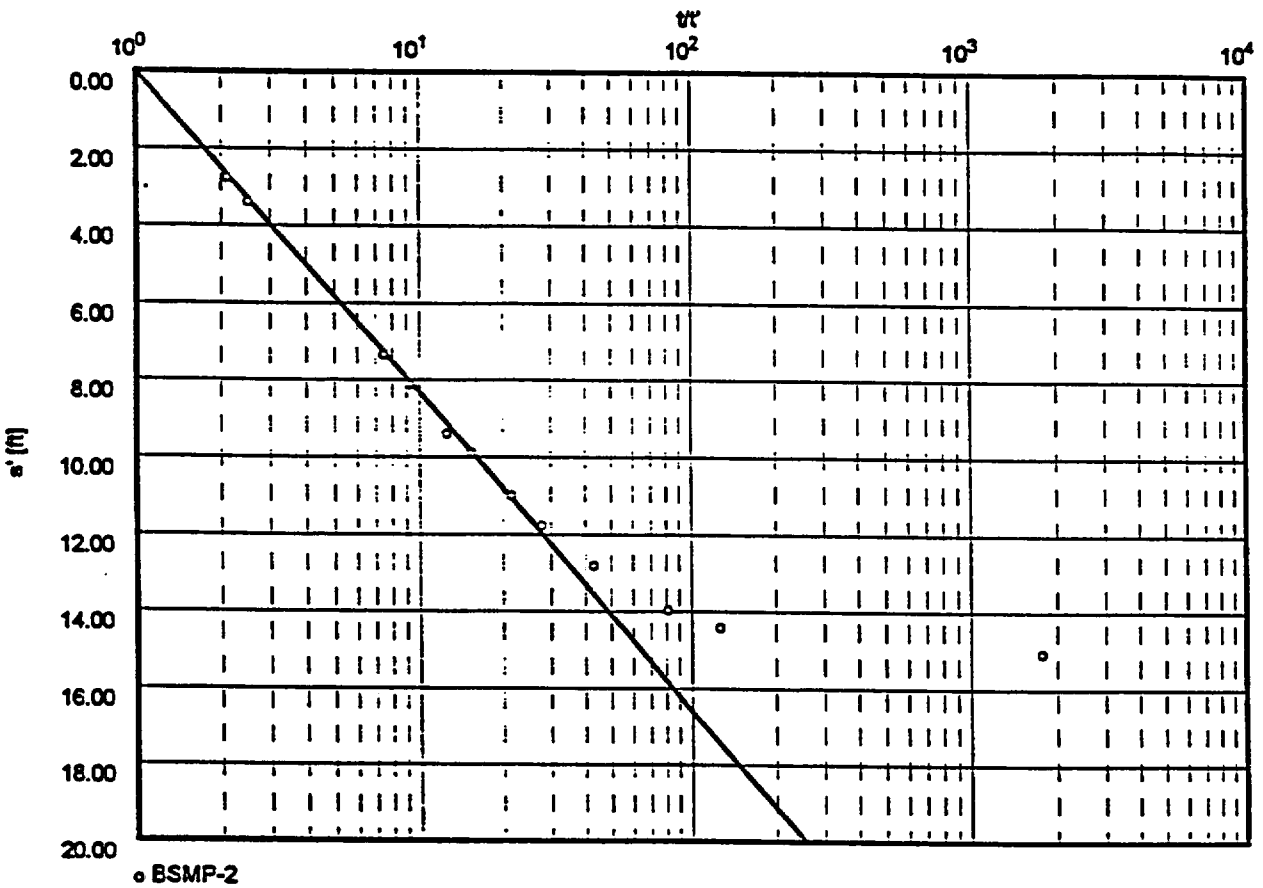


Transmissivity [ft²/min]: 3.57×10^{-2}

Storativity: 9.08×10^{-5}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Recovery method after THEIS & JACOB Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 8/25/92
BSMP-2	
Discharge 12.00 U.S.gal/min	
	Pumping test duration: 1770.00 min



Transmissivity [ft²/min]: 3.53×10^{-2}

TABLE D6-1.3 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMP-3

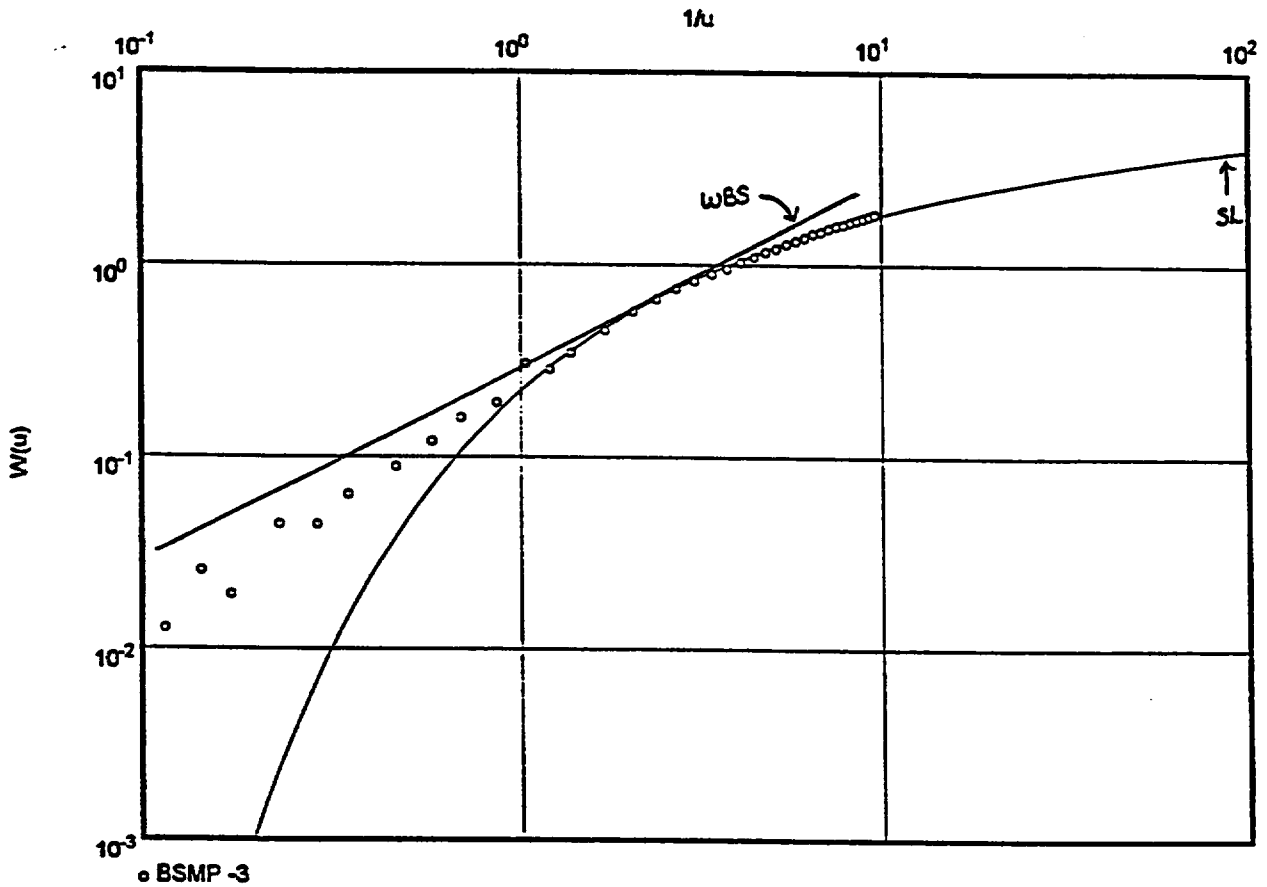
DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
920824	538	--	--	--	220.71	--
920825	640	--	--	--	220.73	--
	700	PUMP BSPW-1 ON				
	700.5	0.5	--	--	220.71	0.00
	705	5	--	--	220.74	0.03
	710	10	--	--	220.70	-0.01
	715	15	--	--	220.72	0.01
	720	20	--	--	220.73	0.02
	725	25	--	--	220.75	0.04
	730	30	--	--	220.74	0.03
	740	40	--	--	220.78	0.07
	750	50	--	--	220.78	0.07
	800	60	--	--	220.81	0.10
	820	80	--	--	220.85	0.14
	840	100	--	--	220.90	0.19
	900	120	--	--	220.96	0.25
	930	150	--	--	221.01	0.30
	1000	180	--	--	221.19	0.48
	1030	210	--	--	221.16	0.45
	1100	240	--	--	221.26	0.55
	1200	300	--	--	221.43	0.72
	1300	360	--	--	221.61	0.90
	1400	420	--	--	221.76	1.05
	1455	475	--	--	221.89	1.18
	1555	535	--	--	222.01	1.30
	1657	597	--	--	222.13	1.42
	1756	656	--	--	222.22	1.51
	1856	716	--	--	222.34	1.63
	1958	778	--	--	222.44	1.73
	2056	836	--	--	222.55	1.84
	2155	895	--	--	222.62	1.91
	2256	956	--	--	222.73	2.02
	2356	1016	--	--	222.82	2.11
920826	55	1075	--	--	222.90	2.19
	155	1135	--	--	223.00	2.29
	255	1195	--	--	223.06	2.35
	355	1255	--	--	223.14	2.43
	455	1315	--	--	223.22	2.51
	555	1375	--	--	223.26	2.55
	656	1436	--	--	223.34	2.63
	756	1496	--	--	223.40	2.69
	857	1557	--	--	223.47	2.76
	958	1618	--	--	223.53	2.82
	1057	1677	--	--	223.61	2.90
	1230	PUMP BSPW-1 OFF				

TABLE D6-1.3 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMP-3 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
	1234	1774	4	444	223.73	3.02
	1247	1787	17	105	223.71	3.00
	1255	1795	25	71.8	223.71	3.00
	1316	1816	46	39.5	223.71	3.00
	1339	1839	69	26.7	223.68	2.97
	1400	1860	90	20.7	223.67	2.96
	1437	1897	127	14.9	223.63	2.92
	1506	1926	156	12.3	223.59	2.88
	1607	1987	217	9.16	223.46	2.75
	1707	2047	277	7.39	223.36	2.65

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Theis analysis method Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 8/25/92
BSMP-3	
Discharge 12.00 U.S.gal/min	

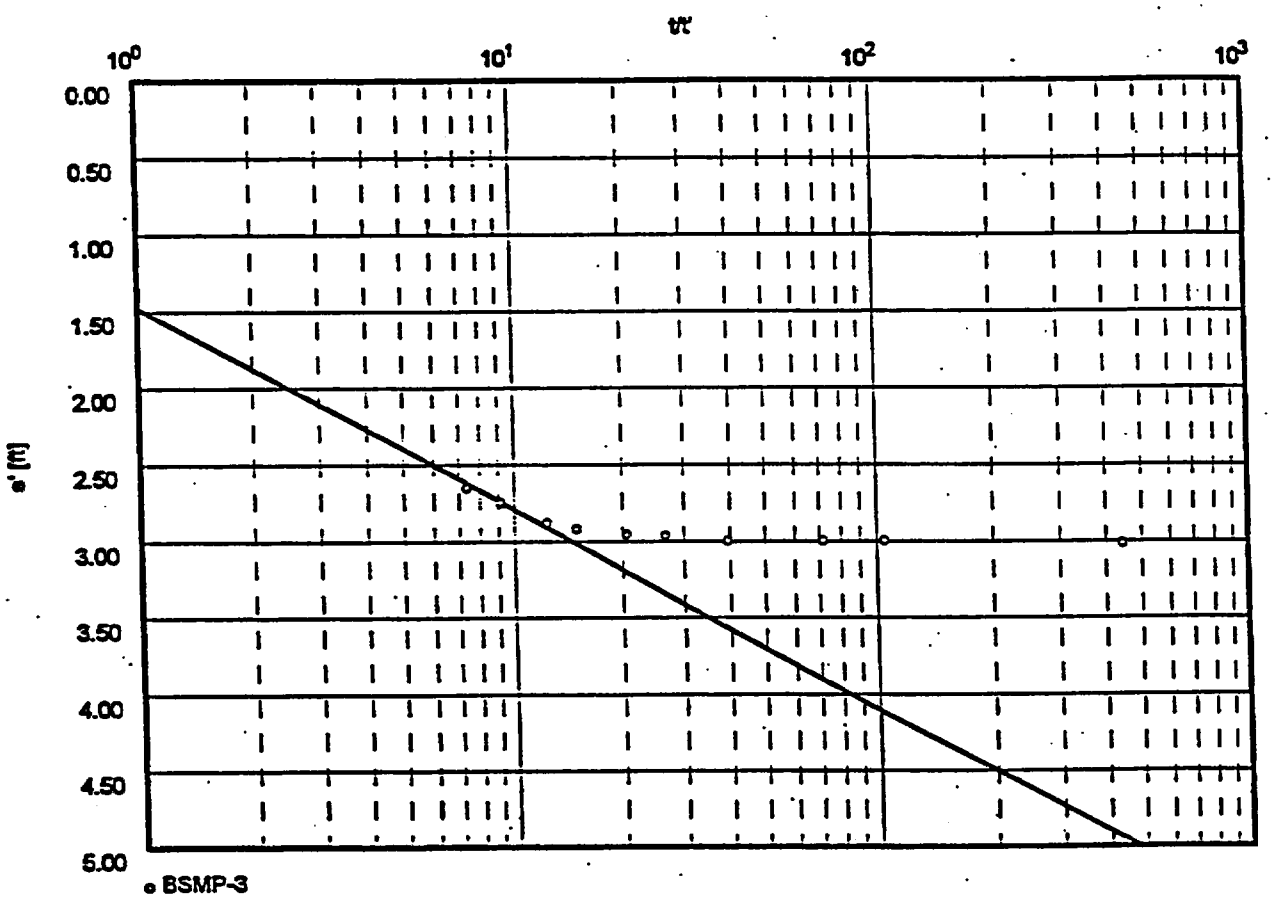


Transmissivity [ft²/min]: 8.05×10^{-2}

Storativity: 1.28×10^{-3}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Recovery method after THEIS & JACOB Confined aquifer	Date: 06.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 8/25/92
BSMP-3	
Discharge 12.00 U.S.gal/min	
	Pumping test duration: 1770.00 min



Transmissivity [ft²/min]: 2.23×10^{-1}

TABLE D6-1.5 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMU-1

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
920824	532	--	--	--	266.22	--
920825	645	--	--	--	266.23	--
	700	PUMP BSPW-1 ON				
	702	2	--	--	266.23	0.00
	730	30	--	--	266.22	-0.01
	800	60	--	--	266.19	-0.04
	830	90	--	--	266.18	-0.05
	900	120	--	--	266.19	-0.04
	930	150	--	--	266.19	-0.04
	1000	180	--	--	266.21	-0.02
	1030	210	--	--	266.21	-0.02
	1100	240	--	--	266.23	0.00
	1200	300	--	--	266.25	0.02
	1300	360	--	--	266.25	0.02
	1400	420	--	--	266.28	0.05
	1459	479	--	--	266.27	0.04
	1558	538	--	--	266.28	0.05
	1700	600	--	--	266.27	0.04
	1800	660	--	--	266.28	0.05
	1901	721	--	--	266.30	0.07
	2002	782	--	--	266.34	0.11
	2102	842	--	--	266.36	0.13
	2201	901	--	--	266.34	0.11
	2301	961	--	--	266.39	0.16
	2400	1020	--	--	266.45	0.22
920826	58	1078	--	--	266.47	0.24
	201	1141	--	--	266.48	0.25
	301	1201	--	--	266.50	0.27
	401	1261	--	--	266.50	0.27
	501	1321	--	--	266.50	0.27
	601	1381	--	--	266.52	0.29
	700	1440	--	--	266.55	0.32
	801	1501	--	--	266.57	0.34
	859	1559	--	--	266.60	0.37
	1000	1620	--	--	266.62	0.39
	1059	1679	--	--	266.65	0.42
	1229	1769	--	--	266.69	0.46
	1230	PUMP BSPW-1 OFF				
	1239	1779	9	198	266.68	0.45
	1249	1789	19	94.2	266.72	0.49
	1309	1809	39	46.4	266.73	0.50
	1333	1833	63	29.1	266.77	0.54
	1353	1853	83	22.3	266.77	0.54
	1430	1890	120	15.8	266.77	0.54
	1500	1920	150	12.8	266.77	0.54

TABLE D6-1.5 AQUIFER-TEST DATA FOR OBSERVATION WELL BSMU-1 (cont'd)

DATE	TIME	TIME SINCE PUMPING STARTED (t,min)	TIME SINCE PUMPING STOPPED (t',min)	t/t'	WATER LEVEL (ft below MP)	DRAWDOWN (FT)
	1600	1980	210	9.43	266.75	0.52
	1700	2040	270	7.56	266.71	0.48
920827	757	2937	1167	2.52	266.55	0.32
	1510	3370	1600	2.11	266.55	0.32

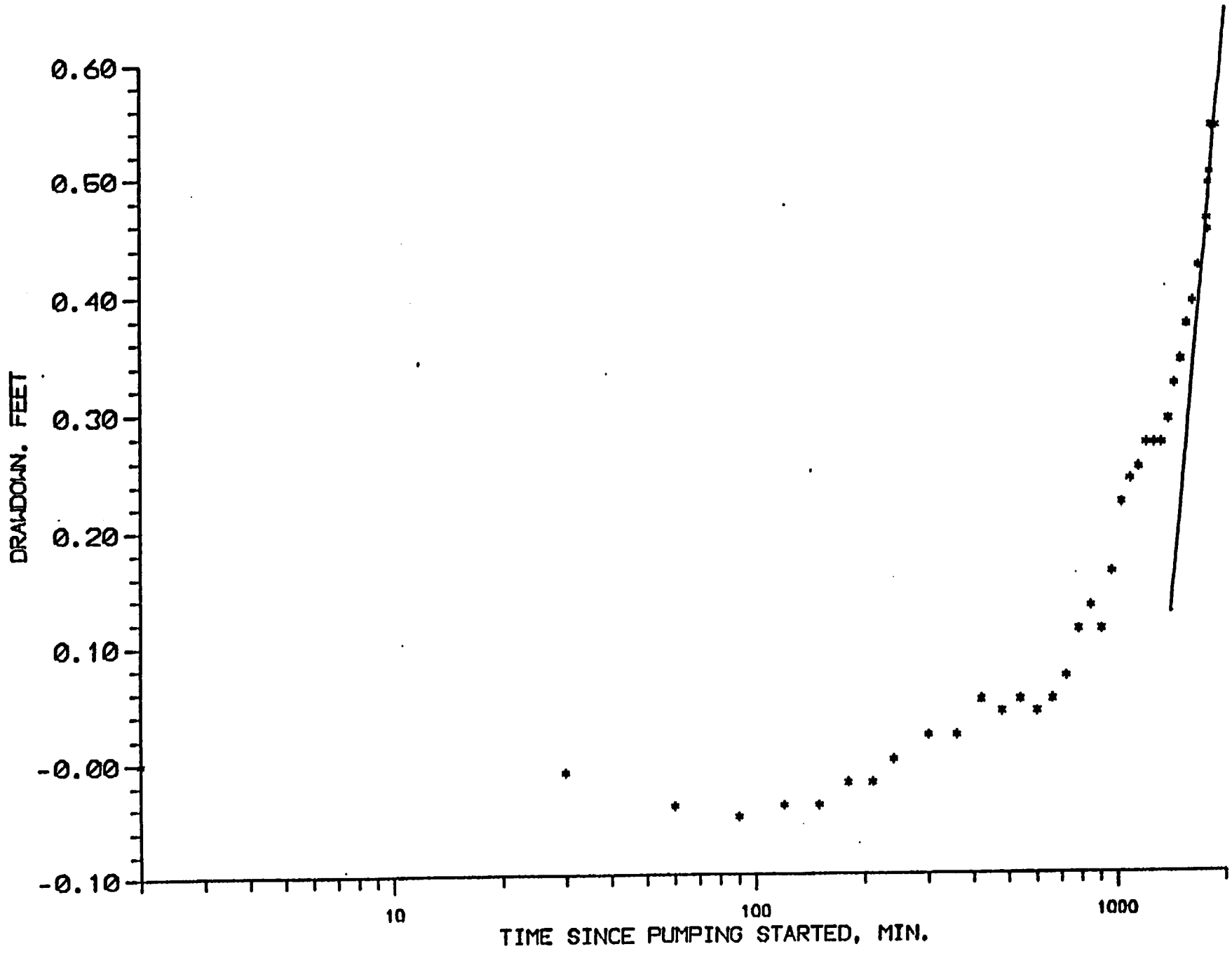


FIGURE D6-1.7 DRAWDOWN IN OBSERVATION WELL BSMU-1

ADDENDUM D6-6-4

MINE UNIT 3
AQUIFER TEST DATA AND ANALYSIS

SE2000
Environmental Logger
10/18 11:46

Unit# 747 Test 0

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	68.222
SG	1.000
Linearity	0.480
Scale factor	297.666
Offset	0.143
Delay mSEC	50.000

Step 0 10/17 09:59:38

Elapsed Time	INPUT 1
0.0000	0.000
0.0083	1.974
0.0166	0.658
0.0250	1.598
0.0333	1.410
0.0416	1.504
0.0500	1.598
0.0583	1.786
0.0666	2.350
0.0750	2.538
0.0833	2.726
0.0916	3.384
0.1000	3.666
0.1083	3.854
0.1166	4.042
0.1250	4.136
0.1333	4.513
0.1416	4.889
0.1500	4.983
0.1583	5.265
0.1666	5.547
0.1750	6.111
0.1833	5.923
0.1916	6.017
0.2000	6.111
0.2083	6.675
0.2166	6.957

0.2250	6.957
0.2333	6.957
0.2416	7.239
0.2500	7.521
0.2583	7.803
0.2666	7.803
0.2750	7.803
0.2833	8.085
0.2916	8.367
0.3000	8.461
0.3083	8.367
0.3166	8.555
0.3250	8.931
0.3333	8.931
0.3500	9.025
0.3666	9.402
0.3833	9.496
0.4000	9.778
0.4166	9.778
0.4333	10.154
0.4500	10.154
0.4666	10.530
0.4833	10.530
0.5000	10.718
0.5166	10.718
0.5333	10.906
0.5500	10.906
0.5666	11.094
0.5833	11.282
0.6000	11.188
0.6166	11.564
0.6333	11.282
0.6500	11.470
0.6666	11.752
0.6833	11.564
0.7000	11.752
0.7166	11.564
0.7333	12.128
0.7500	11.846
0.7666	12.222
0.7833	11.658
0.8000	12.222
0.8166	11.846
0.8333	12.316
0.8500	11.846
0.8666	12.222
0.8833	11.752
0.9000	12.222
0.9166	12.222
0.9333	12.128
0.9500	12.316
0.9666	12.128

0.9833	12.316
1.0000	12.034
1.2000	12.504
1.4000	12.692
1.6000	12.222
1.8000	12.504
2.0000	11.940
2.2000	12.034
2.4000	11.752
2.6000	11.564
2.8000	11.470
3.0000	11.188
3.2000	11.000
3.4000	11.376
3.6000	11.282
3.8000	11.094
4.0000	11.282
4.2000	11.470
4.4000	11.376
4.6000	11.564
4.8000	11.282
5.0000	11.564
5.2000	11.470
5.4000	11.470
5.6000	11.564
5.8000	11.470
6.0000	11.658
6.2000	11.658
6.4000	11.752
6.6000	11.564
6.8000	11.658
7.0000	11.658
7.2000	11.752
7.4000	11.846
7.6000	11.846
7.8000	11.752
8.0000	11.940
8.2000	11.752
8.4000	11.940
8.6000	11.846
8.8000	12.034
9.0000	11.846
9.2000	11.846
9.4000	12.034
9.6000	11.940
9.8000	11.940
10.0000	11.940
12.0000	12.504
14.0000	12.410
16.0000	13.162
18.0000	13.256
20.0000	13.256

22.0000	13.350
24.0000	13.820
26.0000	13.726
28.0000	13.632
30.0000	14.196
32.0000	13.820
34.0000	13.914
36.0000	14.008
38.0000	14.196
40.0000	14.290
42.0000	14.384
44.0000	14.290
46.0000	14.572
48.0000	14.666
50.0000	14.572
52.0000	14.760
54.0000	14.855
56.0000	14.760
58.0000	14.855
60.0000	15.043
62.0000	15.043
64.0000	14.949
66.0000	15.231
68.0000	15.043
70.0000	15.137
72.0000	15.231
74.0000	15.231
76.0000	15.325
78.0000	15.043
80.0000	15.137
82.0000	14.196
84.0000	12.974
86.0000	12.786
88.0000	12.034
90.0000	11.376
92.0000	10.624
94.0000	10.154
96.0000	10.248
98.0000	9.966
100.000	11.282
120.000	11.094
140.000	11.094
160.000	11.282
180.000	11.752
200.000	11.846
220.000	11.658
240.000	11.658
260.000	11.564
280.000	11.752
300.000	11.658
320.000	11.752
340.000	11.752

360.000	11.940
380.000	12.034
400.000	11.940

SE2000
Environmental Logger
10/18 12:12

Unit# 747 Test 0

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	68.222
SG	1.000
Linearity	0.480
Scale factor	297.666
Offset	0.143
Delay mSEC	50.000

Step 1 10/17 16:58:59

Elapsed Time	INPUT 1
0.0000	11.846
0.0083	11.564
0.0166	11.940
0.0250	11.940
0.0333	11.940
0.0416	11.940
0.0500	11.752
0.0583	7.333
0.0666	11.282
0.0750	10.342
0.0833	9.213
0.0916	9.872
0.1000	10.436
0.1083	9.966
0.1166	9.590
0.1250	9.308
0.1333	8.837
0.1416	8.555
0.1500	8.273
0.1583	7.897
0.1666	7.615
0.1750	7.333
0.1833	7.051
0.1916	6.769
0.2000	6.675
0.2083	6.299
0.2166	6.205

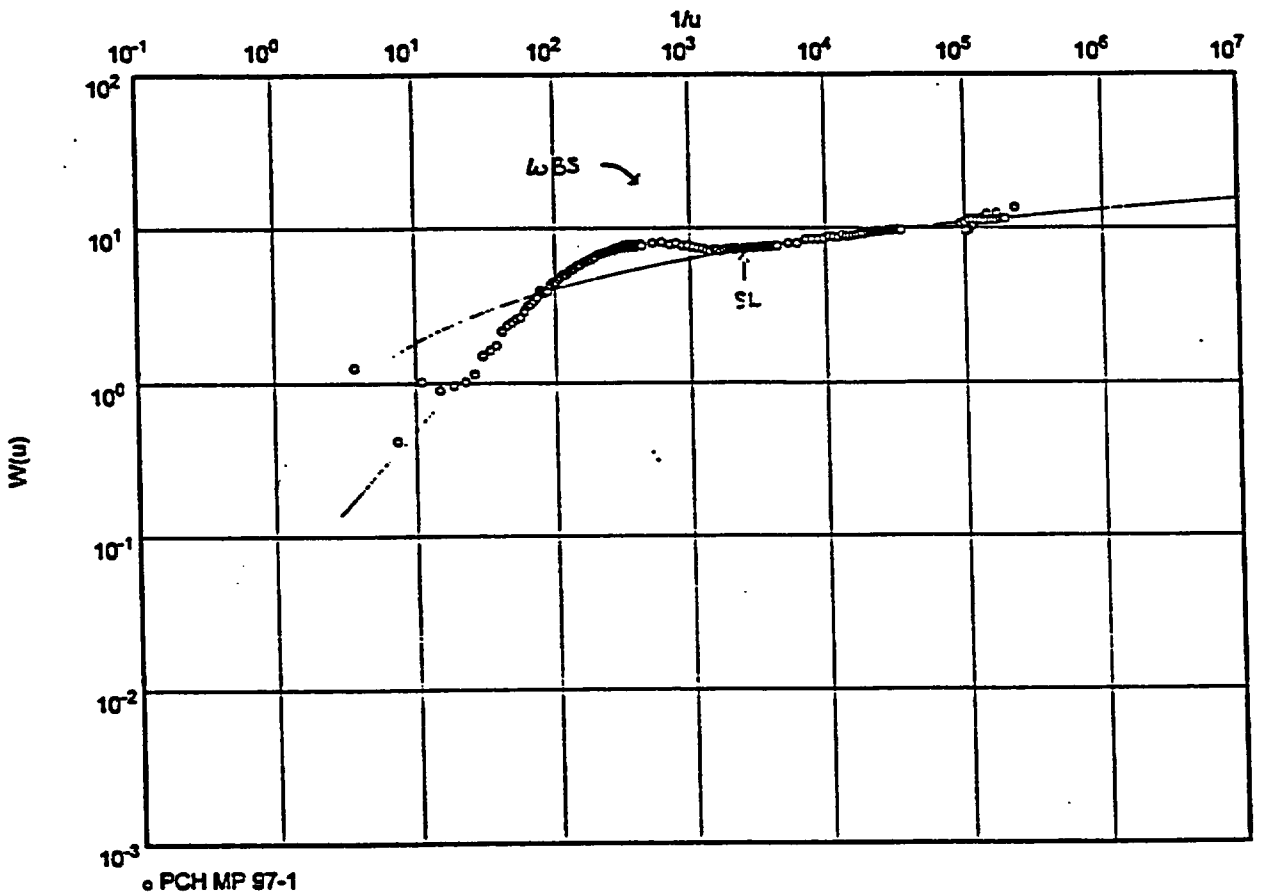
0.2250	6.017
0.2333	5.735
0.2416	5.641
0.2500	5.359
0.2583	5.171
0.2666	4.889
0.2750	4.795
0.2833	4.701
0.2916	4.513
0.3000	4.324
0.3083	4.230
0.3166	4.136
0.3250	4.042
0.3333	3.854
0.3500	3.760
0.3666	3.290
0.3833	3.008
0.4000	2.914
0.4166	2.726
0.4333	2.444
0.4500	2.256
0.4666	2.068
0.4833	1.974
0.5000	1.692
0.5166	1.692
0.5333	1.504
0.5500	1.222
0.5666	1.222
0.5833	1.128
0.6000	1.034
0.6166	0.940
0.6333	0.752
0.6500	0.658
0.6666	0.658
0.6833	0.564
0.7000	0.470
0.7166	0.282
0.7333	0.376
0.7500	0.188
0.7666	0.094
0.7833	0.094
0.8000	0.000
0.8166	0.000
0.8333	-0.094
0.8500	-0.188
0.8666	-0.188
0.8833	-0.282
0.9000	-0.188
0.9166	-0.282
0.9333	-0.376
0.9500	-0.282
0.9666	-0.376

0.9833	-0.376
1.0000	-0.376
1.2000	-0.658
1.4000	-0.846
1.6000	-0.940
1.8000	-1.034
2.0000	-1.034
2.2000	-0.940
2.4000	-0.846
2.6000	-0.752
2.8000	-0.752
3.0000	-0.658
3.2000	-0.564
3.4000	-0.564
3.6000	-0.470
3.8000	-0.376
4.0000	-0.282
4.2000	-0.188
4.4000	-0.094
4.6000	0.000
4.8000	0.094
5.0000	0.094
5.2000	0.282
5.4000	0.376
5.6000	0.470
5.8000	0.564
6.0000	0.658
6.2000	0.752
6.4000	0.940
6.6000	1.034
6.8000	1.128
7.0000	1.222
7.2000	1.410
7.4000	1.504
7.6000	1.786
7.8000	1.974
8.0000	2.162
8.2000	2.350
8.4000	2.444
8.6000	2.632
8.8000	2.726
9.0000	2.820
9.2000	2.914
9.4000	2.914
9.6000	2.914
9.8000	2.914
10.0000	2.914
12.0000	3.008
14.0000	3.008
16.0000	2.914
18.0000	2.820
20.0000	2.820

22.0000	2.726
24.0000	2.726
26.0000	2.632
28.0000	2.632
30.0000	2.538
32.0000	2.538
34.0000	2.444
36.0000	2.350
38.0000	2.350
40.0000	2.350
42.0000	2.256
44.0000	2.256
46.0000	2.256
48.0000	2.256
50.0000	2.162
52.0000	2.162
54.0000	2.162
56.0000	2.068
58.0000	2.068
60.0000	2.068
62.0000	1.974
64.0000	1.974
66.0000	1.974
68.0000	1.974
70.0000	1.880
72.0000	1.880
74.0000	1.880
76.0000	1.880
78.0000	1.880
80.0000	1.786
82.0000	1.786
84.0000	1.786
86.0000	1.786
88.0000	1.786
90.0000	1.692
92.0000	1.692
94.0000	1.692
96.0000	1.692
98.0000	1.692
100.000	1.692
120.000	1.504
140.000	1.410

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Variable discharge test Theis analysis method Confined aquifer	Date: 05.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

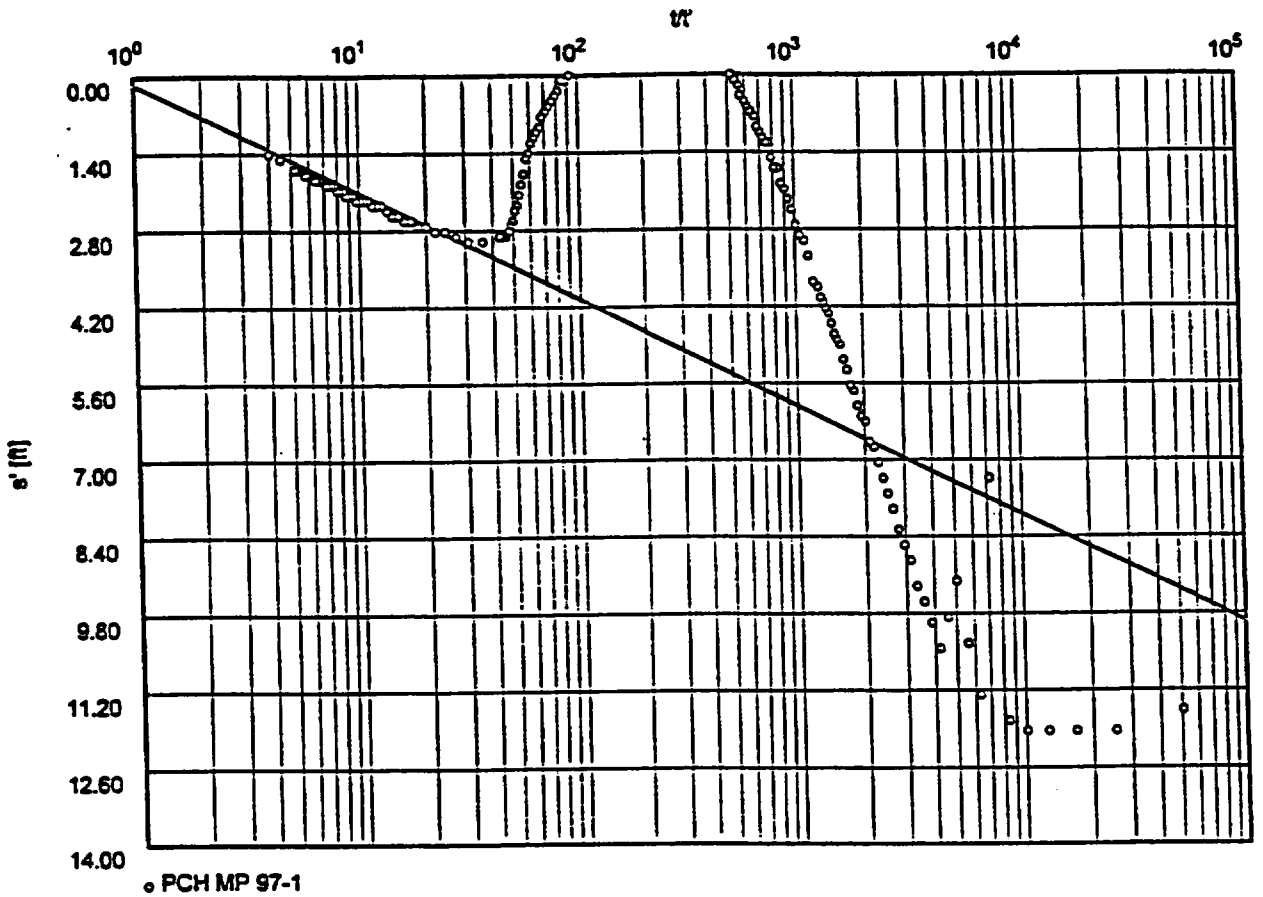
Pumping Test No.	Test conducted on: 10/16/97
PCH MP 97-1	
Discharge 21.90 U.S.gal/min	



Transmissivity [ft²/min]: 2.03×10^{-1}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Recovery method after THEIS & JACOB Confined aquifer	Date: 18.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

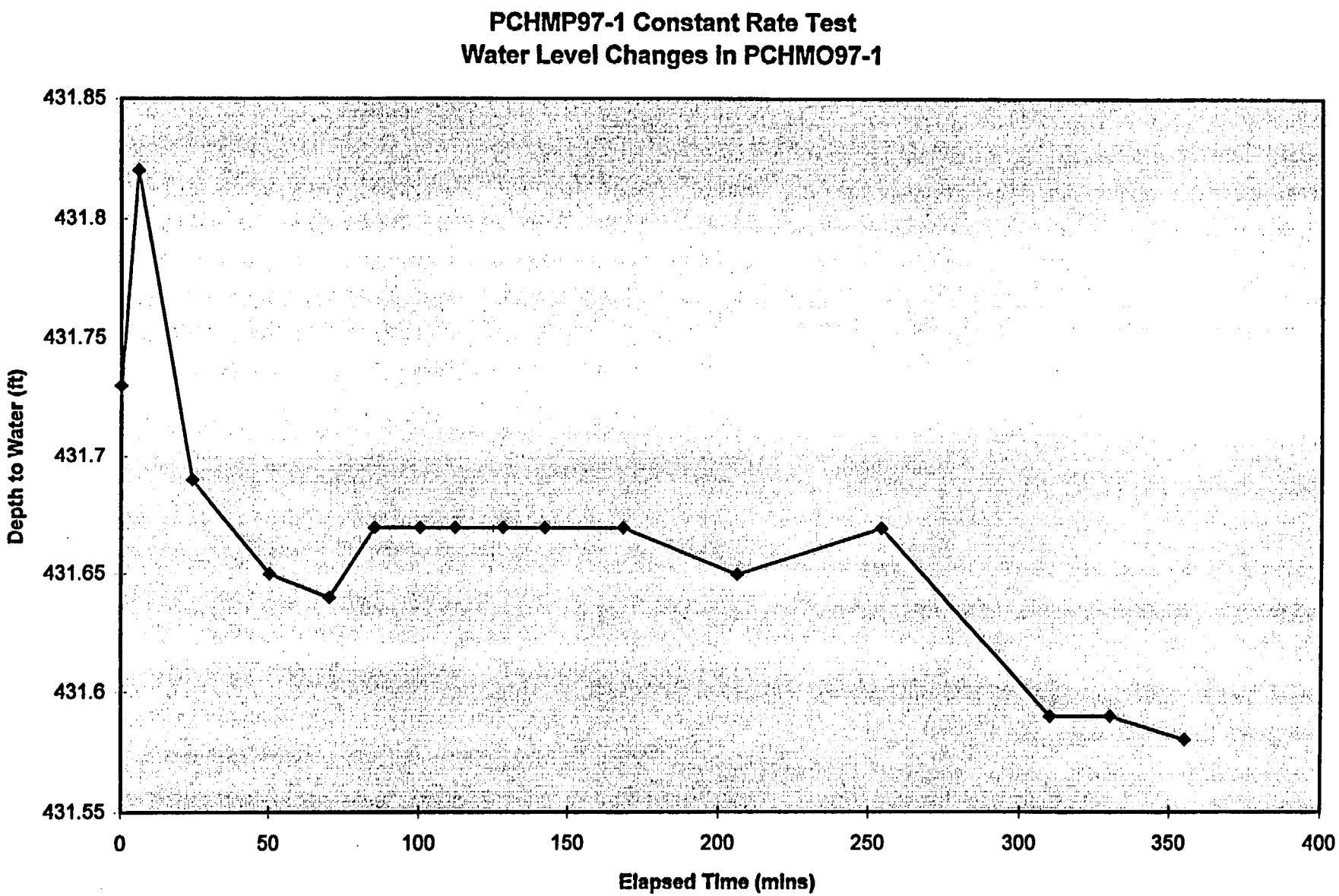
Pumping Test No.	Test conducted on: 10/16/97
PCH MP 97-1	
Discharge 22.00 U.S.gal/min	
	Pumping test duration: 420.00 min



Transmissivity [ft²/min]: 2.74×10^{-1}

DATA PCHMO97-1

PCHMP97-1 Constant Rate Test - Measurements in PCHMO97-1			
Time	Elapsed Time (H:M)	Elapsed Time (mins)	Depth to Water (ft)
10:00	0:00	0	431.73
10:06	0:06	6	431.82
10:24	0:24	24	431.69
10:50	0:50	50	431.65
11:10	1:10	70	431.64
11:25	1:25	85	431.67
11:40	1:40	100	431.67
11:52	1:52	112	431.67
12:08	2:08	128	431.67
12:22	2:22	142	431.67
12:48	2:48	168	431.67
13:26	3:26	206	431.65
14:14	4:14	254	431.67
16:10	6:10	310	431.59
16:30	6:30	330	431.59
16:55	6:55	355	431.58


PCHMP97-1 Constant Rate Test
Water Level Changes in PCHMO97-1
Depth to Water (ft)
431.85
431.8
431.75
431.7
431.65
431.6
431.55
0
50
100
150
200
250
300
350
400
Elapsed Time (mins)

SE2000
Environmental Logger
10/16 13:51

Unit# 747 Test 0

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	11.872
SG	1.000
Linearity	0.167
Scale factor	99.771
Offset	-0.360
Delay mSEC	50.000

Step 0 10/16 10:25:23

Elapsed Time	INPUT 1
0.0000	-0.031
0.0083	-0.031
0.0166	0.000
0.0250	-0.031
0.0333	-0.031
0.0416	0.000
0.0500	0.535
0.0583	0.409
0.0666	0.661
0.0750	1.071
0.0833	1.323
0.0916	1.606
0.1000	1.638
0.1083	2.236
0.1166	2.173
0.1250	2.457
0.1333	2.803
0.1416	2.866
0.1500	3.402
0.1583	3.402
0.1666	3.874
0.1750	4.000
0.1833	3.969
0.1916	4.032
0.2000	4.662
0.2083	4.788
0.2166	4.914

0.2250	5.071
0.2333	5.229
0.2416	5.292
0.2500	5.355
0.2583	5.922
0.2666	6.363
0.2750	6.426
0.2833	6.363
0.2916	6.426
0.3000	6.867
0.3083	7.119
0.3166	7.119
0.3250	7.182
0.3333	7.277
0.3500	7.781
0.3666	8.190
0.3833	8.600
0.4000	8.820
0.4166	8.852
0.4333	9.167
0.4500	9.167
0.4666	9.765
0.4833	9.954
0.5000	10.206
0.5166	10.363
0.5333	10.489
0.5500	10.647
0.5666	11.056
0.5833	11.214
0.6000	11.245
0.6166	11.277
0.6333	11.434
0.6500	11.749
0.6666	11.875
0.6833	11.938
0.7000	12.190
0.7166	12.348
0.7333	12.285
0.7500	12.411
0.7666	12.631
0.7833	12.631
0.8000	12.883
0.8166	12.820
0.8333	12.852
0.8500	12.883
0.8666	13.167
0.8833	13.167
0.9000	13.198
0.9166	13.261
0.9333	13.387
0.9500	13.324
0.9666	13.387

0.9833	13.387
1.0000	13.482
1.2000	13.797
1.4000	14.112
1.6000	14.427
1.8000	14.647
2.0000	14.836
2.2000	14.710
2.4000	14.710
2.6000	14.742
2.8000	14.647
3.0000	14.584
3.2000	14.584
3.4000	14.710
3.6000	14.647
3.8000	14.584
4.0000	14.679
4.2000	14.647
4.4000	14.679
4.6000	14.805
4.8000	14.742
5.0000	14.742
5.2000	14.836
5.4000	14.805
5.6000	14.899
5.8000	14.931
6.0000	14.994
6.2000	15.057
6.4000	14.962
6.6000	14.962
6.8000	15.057
7.0000	15.088
7.2000	15.057
7.4000	15.088
7.6000	15.057
7.8000	15.120
8.0000	15.057
8.2000	15.120
8.4000	15.120
8.6000	15.057
8.8000	15.183
9.0000	15.277
9.2000	15.340
9.4000	15.309
9.6000	15.309
9.8000	15.277
10.0000	15.403
12.0000	15.466
14.0000	15.435
16.0000	15.592
18.0000	15.529
20.0000	15.655

22.0000	15.561
24.0000	15.655
26.0000	15.687
28.0000	15.655
30.0000	15.750
32.0000	15.844
34.0000	15.844
36.0000	15.907
38.0000	15.907
40.0000	15.939
42.0000	15.750
44.0000	15.750
46.0000	15.655
48.0000	15.687
50.0000	15.655
52.0000	15.655
54.0000	15.876
56.0000	15.813
58.0000	15.876
60.0000	15.781
62.0000	15.813
64.0000	15.844
66.0000	15.781
68.0000	15.813
70.0000	15.781
72.0000	15.813
74.0000	15.907
76.0000	15.844
78.0000	15.939
80.0000	15.907
82.0000	15.876
84.0000	15.876
86.0000	15.939
88.0000	15.907
90.0000	15.844
92.0000	15.844
94.0000	15.813
96.0000	15.813
98.0000	15.970
100.000	15.939
120.000	15.844
140.000	15.939
160.000	15.907

SE2000
Environmental Logger
10/16 13:53

Unit# 747 Test 0

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	11.872
SG	1.000
Linearity	0.167
Scale factor	99.771
Offset	-0.360
Delay mSEC	50.000

Step 1 10/16 13:20:03

Elapsed Time	INPUT 1
0.0000	15.939
0.0083	15.939
0.0166	15.939
0.0250	15.876
0.0333	15.939
0.0416	14.805
0.0500	14.805
0.0583	15.277
0.0666	14.773
0.0750	14.742
0.0833	14.584
0.0916	14.269
0.1000	13.954
0.1083	13.671
0.1166	13.041
0.1250	12.757
0.1333	12.505
0.1416	12.285
0.1500	12.033
0.1583	11.749
0.1666	11.466
0.1750	11.182
0.1833	10.930
0.1916	10.615
0.2000	10.458
0.2083	10.238
0.2166	9.891

0.2250	9.734
0.2333	9.482
0.2416	9.198
0.2500	9.104
0.2583	8.694
0.2666	8.568
0.2750	8.253
0.2833	8.190
0.2916	7.844
0.3000	7.718
0.3083	7.434
0.3166	7.151
0.3250	7.025
0.3333	6.962
0.3500	6.394
0.3666	5.922
0.3833	5.575
0.4000	5.134
0.4166	4.882
0.4333	4.630
0.4500	4.189
0.4666	3.780
0.4833	3.559
0.5000	3.213
0.5166	2.835
0.5333	2.646
0.5500	2.299
0.5666	2.110
0.5833	1.827
0.6000	1.543
0.6166	1.291
0.6333	1.008
0.6500	0.819
0.6666	0.598
0.6833	0.315
0.7000	0.157
0.7166	-0.031
0.7333	-0.283
0.7500	-0.441
0.7666	-0.630
0.7833	-0.819
0.8000	-0.913
0.8166	-1.102
0.8333	-1.228
0.8500	-1.354
0.8666	-1.512
0.8833	-1.606
0.9000	-1.764
0.9166	-1.858
0.9333	-1.921
0.9500	-2.047
0.9666	-2.110

0.9833	-2.173
1.0000	-2.268
1.2000	-2.583
1.4000	-2.268
1.6000	-1.795
1.8000	-1.386
2.0000	-1.039
2.2000	-0.724
2.4000	-0.472
2.6000	-0.252
2.8000	-0.063
3.0000	0.094
3.2000	0.220
3.4000	0.315
3.6000	0.409
3.8000	0.535
4.0000	0.598
4.2000	0.661
4.4000	0.693
4.6000	0.724
4.8000	0.756
5.0000	0.787
5.2000	0.819
5.4000	0.819
5.6000	0.819
5.8000	0.819
6.0000	0.819
6.2000	0.850
6.4000	0.850
6.6000	0.850
6.8000	0.819
7.0000	0.819
7.2000	0.819
7.4000	0.819
7.6000	0.819
7.8000	0.819
8.0000	0.787
8.2000	0.787
8.4000	0.787
8.6000	0.787
8.8000	0.756
9.0000	0.756
9.2000	0.756
9.4000	0.724
9.6000	0.724
9.8000	0.724
10.0000	0.724
12.0000	0.598
14.0000	0.535

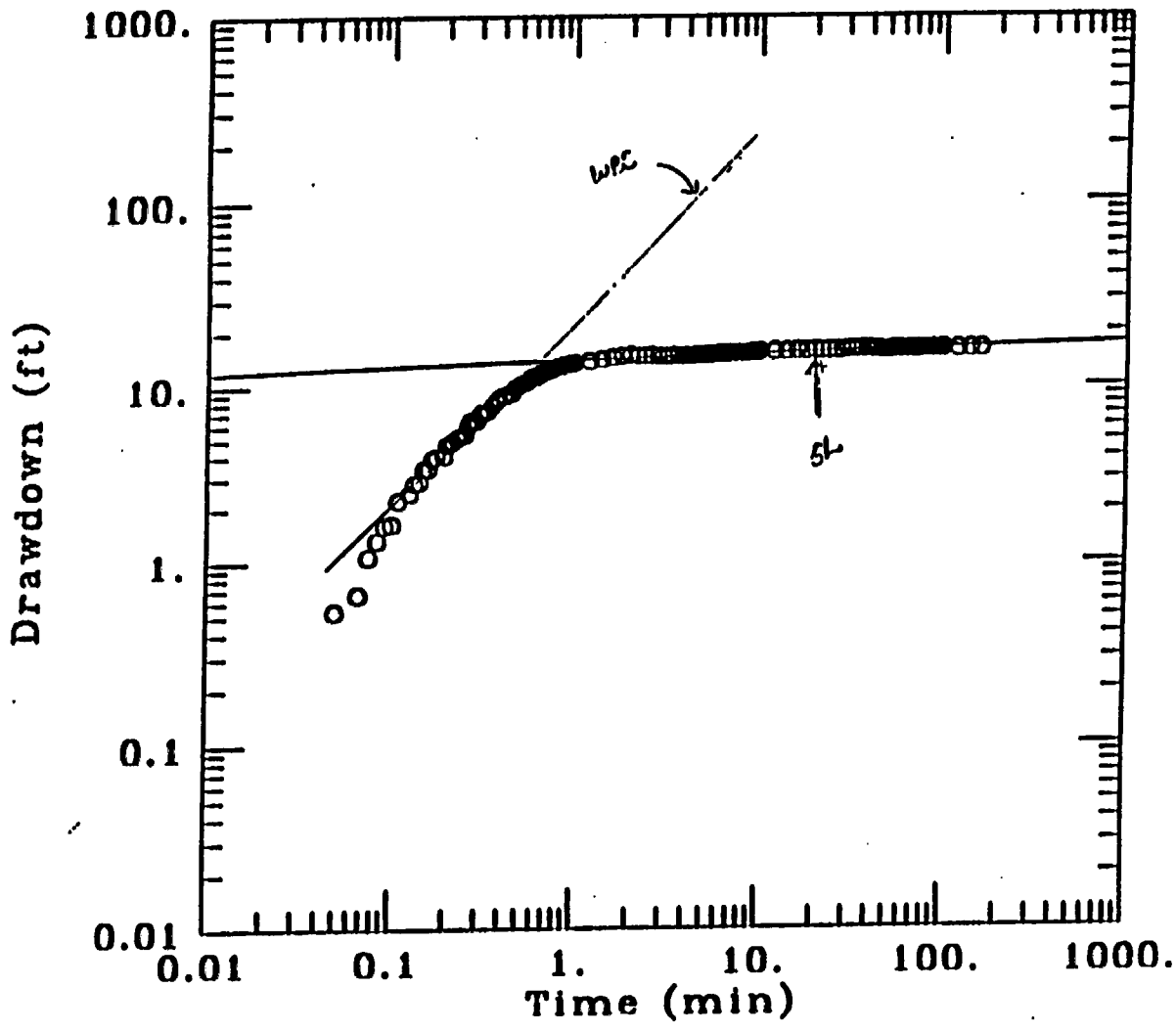
Lidstone & Anderson, Inc.

Client: Power Resources, Inc.

Project No.: WYPRI02

Location: East Gas Hills, Wyoming.

Constant Rate Test: PCHM097-1



DATA SET:
pchmo-cr.aqd
10/29/97

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Theis

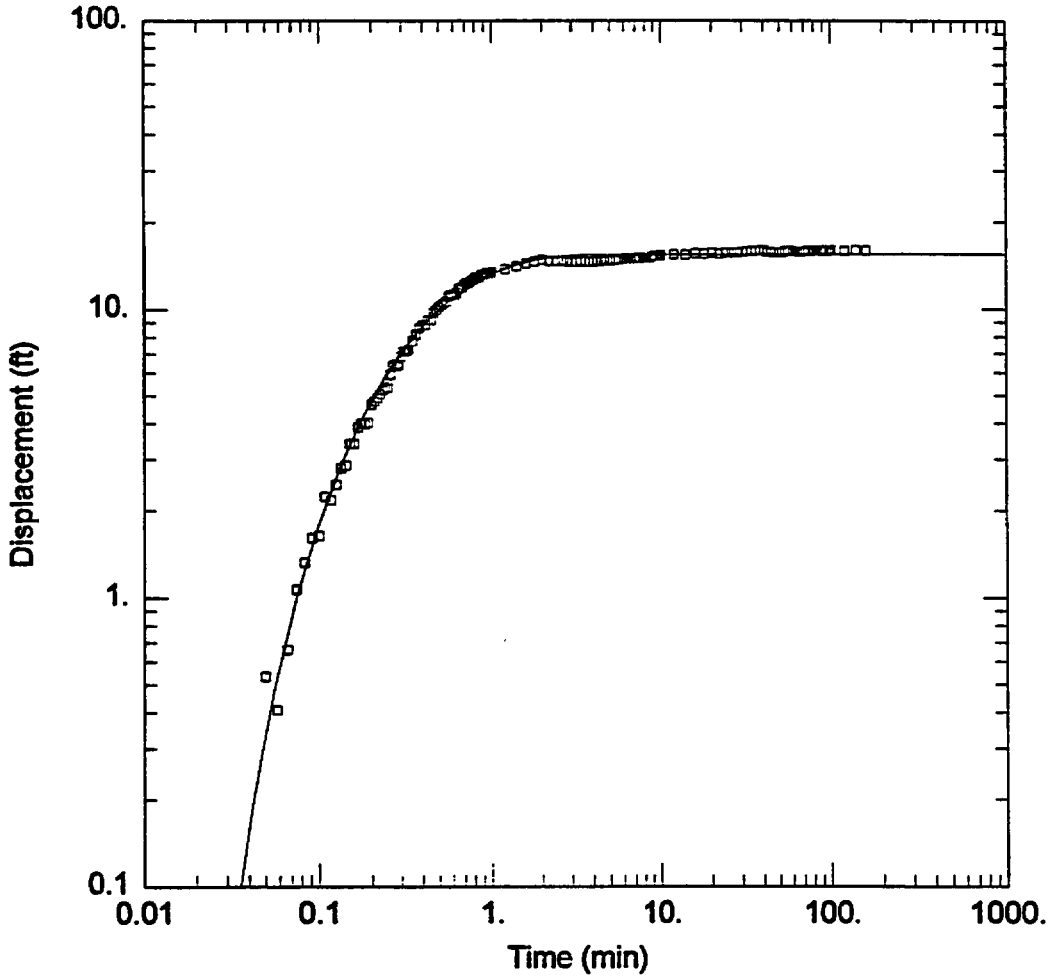
TEST DATE:
10/16/97

TEST WELL:
PCHM097-1

OBS. WELL:
PCHM097-1

ESTIMATED PARAMETERS:
T = 0.2128 ft^2/min

TEST DATA:
Q = 1.26 ft^3/min
r = 1. ft



CONSTANT RATE TEST: PCHMO97-1

Data Set:
Date: 01/06/98 Time: 16:23:17

PROJECT INFORMATION

Company: Lidstone & Anderson, Inc.
Client: Power Resources, Inc.
Project: WYPRI02
Test Location: East Gas Hills, Wyoming.
Test Well: PCHMO97-1
Test Date: 10/16/97

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
PCHMO97-1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
▫ PCHMO97-1	1	0

SOLUTION

Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 0.009096 ft^2/min

r/B = 0.7004

PZ-0.DAT

PEACH MP-1
CONSTANT Q TEST
@ 12 gpm

SE1000C
Environmental Logger
10/05 08:09

Unit# 00893 Test 2

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	Surface	Surface
I.D.	33333	44444
Reference	0.000	0.000
Linearity	0.240	0.260
Scale factor	29.870	29.560
Offset	-0.300	-0.150
Delay mSEC	50.000	50.000

Step 0 10/02 09:05:23

Elapsed Time	INPUT 1	INPUT 2
0.0000	-6.027	-0.329
0.0033	-6.150	-0.329
0.0066	-6.169	-0.329
0.0100	-6.273	-0.329
0.0133	-6.368	-0.329
[illegible]66	-6.463	-0.329
[illegible]0	-6.624	-0.329
0.0233	-6.795	-0.329
0.0266	-6.785	-0.329
0.0300	-6.937	-0.329
0.0333	-6.975	-0.329
0.0366	-7.098	-0.329
0.0400	-7.155	-0.329
0.0433	-7.278	-0.329
0.0466	-7.468	-0.329
0.0500	-7.572	-0.329
0.0533	-7.667	-0.329
0.0566	-7.677	-0.329
0.0600	-7.771	-0.329
0.0633	-7.904	-0.329
0.0666	-8.018	-0.339
0.0700	-8.141	-0.339
0.0733	-8.198	-0.339
0.0766	-8.226	-0.329
0.0800	-8.378	-0.339
0.0833	-8.482	-0.329
0.0866	-8.511	-0.329
0.0900	-8.520	-0.329
0.0933	-8.644	-0.339
0.0966	-8.748	-0.329
0.1000	-8.909	-0.329
[illegible]3	-9.013	-0.339
[illegible]66	-9.117	-0.329
0.1100	-9.212	-0.329
0.1133	-9.222	-0.339
0.1166	-9.345	-0.339

NOTES:

1. INPUT 1 = PUMPED WELL (PEACH MP-1)
   INPUT 2 = OBS. WELL (PEACH M-2)
2. OBS. WELL PROBE MOVED TO PEACH MP-2 @ TIME OF 1720 MINUTE BECAUSE M-2 WAS SHOWING NO DRAWDOWN

0.1200	-9.411	-0.339
0.1233	-9.449	-0.339
0.1266	-9.544	-0.339
0.1300	-9.639	-0.329
[illegible]3	-9.724	-0.339
[illegible]66	-9.838	-0.329
0.1400	-9.932	-0.339
0.1433	-9.989	-0.339
0.1466	-10.037	-0.329
0.1500	-10.169	-0.339
0.1533	-10.169	-0.339
0.1566	-10.226	-0.329
0.1600	-10.359	-0.339
0.1633	-10.416	-0.339
0.1666	-10.482	-0.339
0.1700	-10.539	-0.329
[illegible]733	-10.690	-0.329
0.[illegible]766	-10.795	-0.339
0.1800	-10.833	-0.339
0.1833	-10.918	-0.339
0.1866	-10.918	-0.329
0.1900	-10.984	-0.339
0.1933	-11.032	-0.339
0.1966	-11.164	-0.339
0.2000	-11.183	-0.329
0.2033	-11.268	-0.339
0.2066	-11.373	-0.339
0.2100	-11.448	-0.339
0.2133	-11.524	-0.329
[illegible]46	-11.543	-0.339
[illegible]0	-11.685	-0.329
0.2233	-11.742	-0.329
0.2266	-11.742	-0.339
0.2300	-11.818	-0.329
0.2333	-11.865	-0.339
0.2366	-11.922	-0.339
0.2400	-11.960	-0.339
0.2433	-12.045	-0.339
0.2466	-12.064	-0.339
0.2500	-12.187	-0.339
0.2533	-12.225	-0.329
0.2566	-12.377	-0.329
0.2600	-12.386	-0.339
0.2633	-12.414	-0.329
0.2666	-12.528	-0.339
0.2700	-12.594	-0.339
0.2733	-12.613	-0.329
0.2766	-12.642	-0.329
0.2800	-12.718	-0.339
0.2833	-12.736	-0.339
0.2866	-12.803	-0.329
0.2900	-12.812	-0.339
0.2933	-12.926	-0.329
0.2966	-12.954	-0.329
0.3000	-13.049	-0.339
[illegible]3	-13.087	-0.329
0.3066	-13.191	-0.339
0.3100	-13.238	-0.339
0.3133	-13.267	-0.339
0.3166	-13.371	-0.329

0.3200	-13.418	-0.329
0.3233	-13.494	-0.339
0.3266	-13.503	-0.329
0.3300	-13.541	-0.339
[illegible]	-13.560	-0.329
[illegible]	-13.750	-0.329
0.3666	-14.071	-0.329
0.3833	-14.232	-0.329
0.4000	-14.441	-0.329
0.4166	-14.602	-0.329
0.4333	-14.715	-0.329
0.4500	-14.583	-0.329
0.4666	-14.564	-0.329
0.4833	-14.431	-0.329
0.5000	-14.270	-0.329
0.5166	-14.109	-0.329
0.5333	-13.844	-0.329
0.5500	-13.579	-0.329
0.5666	-13.390	-0.329
0.5833	-13.153	-0.329
0.6000	-12.992	-0.329
0.6166	-12.878	-0.329
0.6333	-12.642	-0.329
0.6500	-12.424	-0.329
0.6666	-12.216	-0.329
0.6833	-12.272	-0.329
0.7000	-12.017	-0.329
0.7166	-11.865	-0.329
0.7333	-11.903	-0.329
[illegible]	-11.742	-0.329
[illegible]	-11.609	-0.329
0.7833	-11.496	-0.329
0.8000	-11.429	-0.329
0.8166	-11.458	-0.329
0.8333	-11.306	-0.329
0.8500	-11.164	-0.329
0.8666	-11.306	-0.329
0.8833	-11.050	-0.329
0.9000	-11.183	-0.329
0.9166	-11.032	-0.329
0.9333	-11.032	-0.329
0.9500	-11.041	-0.329
0.9666	-10.899	-0.329
0.9833	-10.937	-0.329
1.0000	-10.918	-0.329
1.2000	-10.596	-0.329
1.4000	-10.378	-0.329
1.6000	-10.302	-0.329
1.8000	-10.056	-0.329
2.0000	-9.970	-0.329
2.2000	-9.951	-0.329
2.4000	-9.942	-0.329
2.6000	-9.904	-0.329
2.8000	-9.866	-0.329
[illegible]	-9.885	-0.329
[illegible]	-9.800	-0.329
3.4000	-9.942	-0.329
3.6000	-9.838	-0.329
3.8000	-9.876	-0.329
4.0000	-9.932	-0.329

4.2000	-9.876	-0.329
4.4000	-9.913	-0.329
4.6000	-9.828	-0.329
4.8000	-9.961	-0.329
[illegible]00	-9.942	-0.329
[illegible]00	-10.027	-0.329
5.4000	-9.980	-0.329
5.6000	-10.075	-0.329
5.8000	-9.970	-0.329
6.0000	-10.113	-0.329
6.2000	-10.008	-0.329
6.4000	-9.999	-0.329
6.6000	-10.027	-0.329
6.8000	-10.065	-0.329
7.0000	-10.065	-0.329
7.2000	-10.056	-0.329
7.4000	-10.131	-0.329
7.6000	-10.037	-0.329
7.8000	-10.056	-0.329
8.0000	-10.150	-0.329
8.2000	-10.169	-0.329
8.4000	-10.141	-0.329
8.6000	-10.131	-0.329
8.8000	-10.179	-0.329
9.0000	-10.198	-0.329
9.2000	-10.131	-0.329
9.4000	-10.264	-0.329
9.6000	-10.264	-0.329
9.8000	-10.188	-0.329
[illegible]00	-10.198	-0.329
[illegible]00	-10.169	-0.329
14.0000	-10.293	-0.329
16.0000	-10.861	-0.329
18.0000	-10.833	-0.329
20.0000	-10.776	-0.329
22.0000	-11.050	-0.329
24.0000	-11.022	-0.329
26.0000	-11.088	-0.329
28.0000	-11.316	-0.329
30.0000	-11.079	-0.329
32.0000	-11.193	-0.329
34.0000	-11.117	-0.329
36.0000	-11.259	-0.329
38.0000	-11.221	-0.329
40.0000	-11.240	-0.329
42.0000	-11.354	-0.329
44.0000	-11.325	-0.329
46.0000	-11.230	-0.329
48.0000	-11.287	-0.329
50.0000	-11.354	-0.329
52.0000	-11.401	-0.320
54.0000	-11.316	-0.320
56.0000	-11.420	-0.320
58.0000	-11.392	-0.329
[illegible]0000	-11.401	-0.320
[illegible]00	-11.477	-0.320
64.0000	-11.467	-0.329
66.0000	-11.515	-0.329
68.0000	-11.638	-0.329
70.0000	-11.543	-0.329

72.0000	-11.647	-0.329
74.0000	-11.562	-0.329
76.0000	-11.534	-0.320
78.0000	-11.562	-0.320
80.0000	-11.657	-0.320
82.0000	-11.638	-0.320
84.0000	-11.638	-0.320
86.0000	-11.657	-0.320
88.0000	-11.733	-0.320
90.0000	-11.628	-0.320
92.0000	-11.723	-0.320
94.0000	-11.723	-0.320
96.0000	-11.714	-0.320
98.0000	-11.789	-0.320
100.000	-11.666	-0.320
120.000	-11.789	-0.310
140.000	-11.894	-0.310
160.000	-11.856	-0.301
180.000	-11.998	-0.301
200.000	-11.998	-0.291
220.000	-12.036	-0.291
240.000	-12.187	-0.282
260.000	-12.178	-0.282
280.000	-12.206	-0.273
300.000	-12.272	-0.263
320.000	-12.395	-0.254
340.000	-12.339	-0.245
360.000	-12.414	-0.235
380.000	-12.358	-0.235
400.000	-12.443	-0.226
420.000	-12.462	-0.216
440.000	-12.481	-0.235
460.000	-12.500	-0.216
480.000	-12.500	-0.226
500.000	-12.528	-0.226
520.000	-12.566	-0.216
540.000	-12.585	-0.216
560.000	-12.566	-0.216
580.000	-12.718	-0.216
600.000	-12.623	-0.216
620.000	-12.613	-0.216
640.000	-12.708	-0.216
660.000	-12.680	-0.216
680.000	-12.718	-0.216
700.000	-12.708	-0.226
720.000	-12.860	-0.235
740.000	-12.736	-0.245
760.000	-12.718	-0.235
780.000	-12.812	-0.245
800.000	-12.841	-0.245
820.000	-12.793	-0.245
840.000	-12.784	-0.245
860.000	-12.897	-0.245
880.000	-12.822	-0.245
900.000	-12.935	-0.254
920.000	-12.841	-0.254
940.000	-12.897	-0.254
960.000	-12.907	-0.254
980.000	-12.699	-0.245
1000.00	-12.689	-0.245

[illegible]0.00	-13.039	-0.235
[illegible].00	-13.058	-0.235
[illegible]0.00	-13.030	-0.226
1240.00	-12.878	-0.235
[illegible]	-13.049	-0.226
[illegible]	-13.106	-0.226
1420.00	-13.163	-0.235
1480.00	-13.049	-0.245
1540.00	-13.039	-0.235
1600.00	-13.172	-0.226
1660.00	-13.238	-0.226
1720.00	-13.096	-0.886
1780.00	-13.106	-0.546
1840.00	-13.305	-0.584
1900.00	-13.200	-0.518
1960.00	-13.276	-0.537
2020.00	-13.229	-0.546
2080.00	-13.352	-0.574

OBS. PROBE MOVED TO PEACH MP-2 WELL
TIME 1720 = EZZONEOUS DATA POINT RECORDED DURING CHANGE

PEACH MP-2

P2-1.DAT

PEACH MP-1
RECOVERY FOLLOWING
CONSTANT Q @ 12 8PM

BEGIN THUR. 10/3 @ 8PM

NOTE

INPUT 1 = PUMPED WELL
(PEACH MP-1)

INPUT 2 = OBS. WELL
(PEACH MP-2)

SEE NOTE RE: OBS. WELL
ON FILE P2-0.DAT

SE1000C
Environmental Logger
10/05 07:52

Unit# 00893 Test 2

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	Surface	Surface
I.D.	33333	44444
Reference	0.000	0.000
Linearity	0.240	0.260
Scale factor	29.870	29.560
Offset	-0.300	-0.150
Delay mSEC	50.000	50.000

Step 1 10/03 19:56:55

Elapsed Time	INPUT 1	INPUT 2
0.0000	-12.897	-0.565
0.0033	-12.784	-0.574
0.0066	-12.708	-0.574
0.0100	-12.727	-0.565
0.0133	-12.689	-0.574
0.0166	-12.651	-0.565
[illegible]0	-12.462	-0.565
0.0233	-12.197	-0.574
0.0266	-12.083	-0.574
0.0300	-12.083	-0.574
0.0333	-12.216	-0.574
0.0366	-12.036	-0.574
0.0400	-11.988	-0.565
0.0433	-11.676	-0.565
0.0466	-11.619	-0.574
0.0500	-11.486	-0.574
0.0533	-11.354	-0.574
0.0566	-11.259	-0.574
0.0600	-11.117	-0.574
0.0633	-10.956	-0.574
0.0666	-10.842	-0.574
0.0700	-10.738	-0.574
0.0733	-10.615	-0.574
0.0766	-10.520	-0.574
0.0800	-10.359	-0.574
0.0833	-10.283	-0.574
0.0866	-10.131	-0.574
0.0900	-10.008	-0.574
0.0933	-9.942	-0.574
0.0966	-9.857	-0.574
0.1000	-9.705	-0.574
[illegible]33	-9.610	-0.574
[illegible]066	-9.515	-0.574
0.1100	-9.411	-0.574
0.1133	-9.298	-0.574
0.1166	-9.193	-0.574

0.1200	-9.032	-0.574
0.1233	-8.937	-0.574
0.1266	-8.852	-0.574
0.1300	-8.748	-0.574
[illegible]3	-8.644	-0.574
[illegible]66	-8.568	-0.574
0.1400	-8.388	-0.574
0.1433	-8.283	-0.574
0.1466	-8.245	-0.574
0.1500	-8.141	-0.574
0.1533	-8.008	-0.574
0.1566	-7.923	-0.574
0.1600	-7.847	-0.574
0.1633	-7.743	-0.574
0.1666	-7.591	-0.574
0.1700	-7.525	-0.574
0.1733	-7.383	-0.574
0.1766	-7.364	-0.574
0.1800	-7.212	-0.574
0.1833	-7.127	-0.574
0.1866	-7.079	-0.574
0.1900	-6.985	-0.574
0.1933	-6.871	-0.574
0.1966	-6.729	-0.574
0.2000	-6.671	-0.574
0.2033	-6.605	-0.574
0.2066	-6.548	-0.574
0.2100	-6.415	-0.574
0.2133	-6.368	-0.574
[illegible]6	-6.216	-0.574
[illegible]0	-6.112	-0.574
0.2233	-6.093	-0.574
0.2266	-5.989	-0.574
0.2300	-5.894	-0.574
0.2333	-5.799	-0.574
0.2366	-5.742	-0.574
0.2400	-5.657	-0.574
0.2433	-5.562	-0.574
0.2466	-5.514	-0.574
0.2500	-5.353	-0.574
0.2533	-5.315	-0.574
0.2566	-5.192	-0.574
0.2600	-5.145	-0.574
0.2633	-5.097	-0.574
0.2666	-5.031	-0.574
0.2700	-4.917	-0.574
0.2733	-4.803	-0.574
0.2766	-4.774	-0.574
0.2800	-4.670	-0.574
0.2833	-4.566	-0.574
0.2866	-4.566	-0.574
0.2900	-4.452	-0.574
0.2933	-4.385	-0.574
0.2966	-4.338	-0.574
[illegible]00	-4.196	-0.574
[illegible]3	-4.148	-0.574
0.3066	-4.034	-0.574
0.3100	-4.063	-0.574
0.3133	-3.911	-0.574
0.3166	-3.873	-0.574

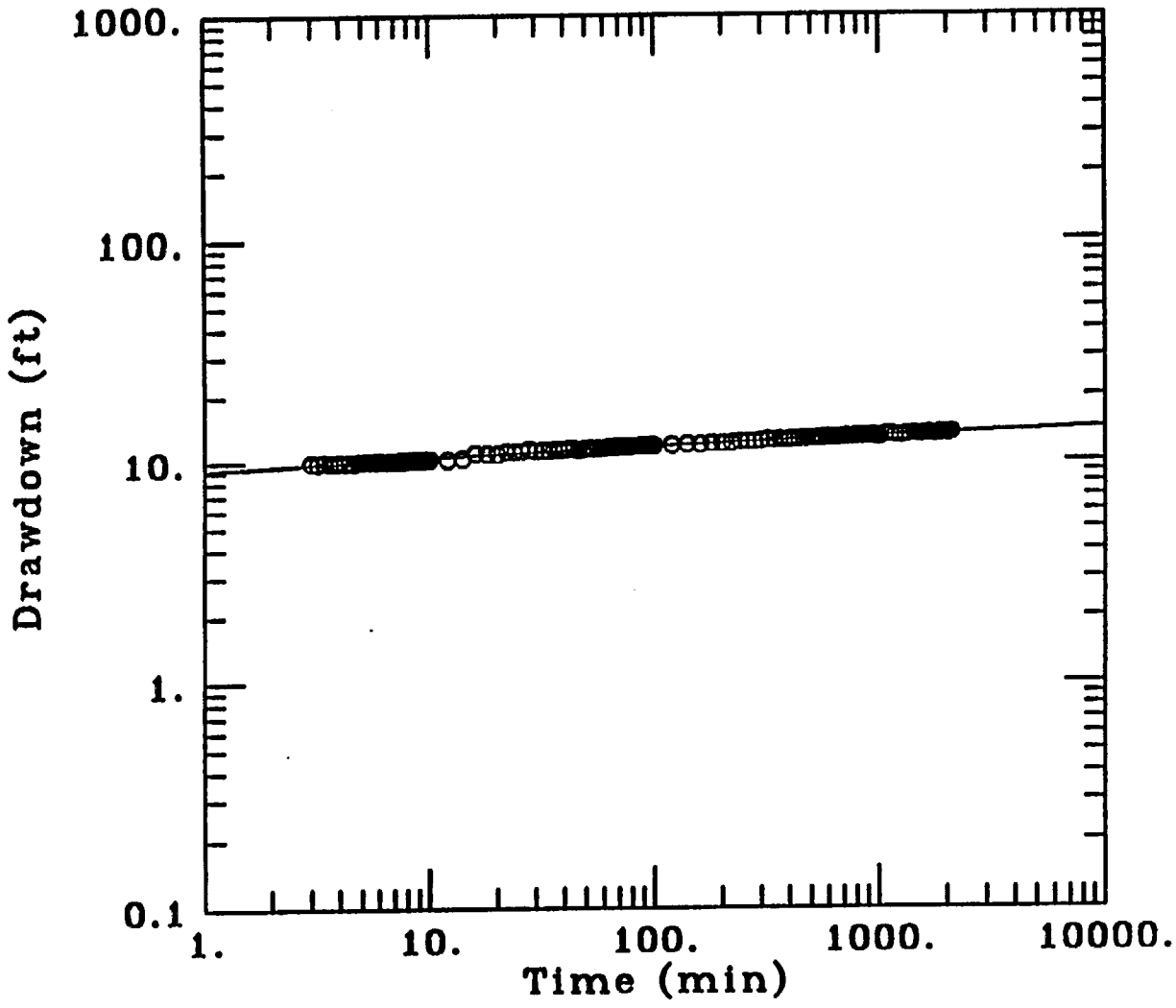
0.3200	-3.778	-0.574
0.3233	-3.674	-0.574
0.3266	-3.674	-0.574
0.3300	-3.617	-0.574
[illegible]33	-3.503	-0.574
[illegible]00	-3.133	-0.574
0.3666	-2.801	-0.574
0.3833	-2.497	-0.574
0.4000	-2.203	-0.574
0.4166	-1.975	-0.574
0.4333	-1.605	-0.565
0.4500	-1.377	-0.574
0.4666	-1.035	-0.574
0.4833	-0.779	-0.565
0.5000	-0.588	-0.565
0.5166	-0.370	-0.565
0.5333	-0.095	-0.574
0.5500	0.094	-0.565
0.5666	0.284	-0.574
0.5833	0.474	-0.574
0.6000	0.674	-0.574
0.6166	0.788	-0.574
0.6333	1.006	-0.565
0.6500	1.168	-0.574
0.6666	1.272	-0.565
0.6833	1.415	-0.565
0.7000	1.548	-0.565
0.7166	1.662	-0.574
0.7333	1.795	-0.574
[illegible]00	1.880	-0.574
[illegible]66	1.975	-0.565
0.7833	2.089	-0.574
0.8000	2.156	-0.574
0.8166	2.241	-0.574
0.8333	2.298	-0.565
0.8500	2.365	-0.565
0.8666	2.412	-0.565
0.8833	2.470	-0.574
0.9000	2.498	-0.565
0.9166	2.546	-0.574
0.9333	2.564	-0.574
0.9500	2.574	-0.574
0.9666	2.612	-0.565
0.9833	2.622	-0.574
1.0000	2.631	-0.574
1.2000	2.042	-0.565
1.4000	1.234	-0.574
1.6000	0.360	-0.574
1.8000	-0.408	-0.574
2.0000	-1.006	-0.574
2.2000	-1.462	-0.574
2.4000	-1.823	-0.565
2.6000	-2.098	-0.565
2.8000	-2.317	-0.565
[illegible]000	-2.478	-0.574
[illegible]00	-2.611	-0.574
3.4000	-2.715	-0.565
3.6000	-2.791	-0.565
3.8000	-2.848	-0.574
4.0000	-2.896	-0.574

4.2000	-2.934	-0.574
4.4000	-2.962	-0.574
4.6000	-2.981	-0.574
4.8000	-2.990	-0.574
[illegible]	-3.000	-0.574
[illegible]	-3.000	-0.574
5.4000	-3.000	-0.574
5.6000	-3.000	-0.574
5.8000	-3.000	-0.574
6.0000	-2.990	-0.574
6.2000	-2.990	-0.574
6.4000	-2.981	-0.574
6.6000	-2.971	-0.574
6.8000	-2.962	-0.565
7.0000	-2.953	-0.565
7.2000	-2.953	-0.565
7.4000	-2.943	-0.565
7.6000	-2.934	-0.565
7.8000	-2.924	-0.565
8.0000	-2.914	-0.565
8.2000	-2.905	-0.565
8.4000	-2.896	-0.565
8.6000	-2.886	-0.574
8.8000	-2.876	-0.574
9.0000	-2.867	-0.574
9.2000	-2.867	-0.574
9.4000	-2.858	-0.574
9.6000	-2.848	-0.574
9.8000	-2.839	-0.574
[illegible]	-2.829	-0.574
[illegible]	-2.763	-0.565
14.0000	-2.696	-0.565
16.0000	-2.639	-0.565
18.0000	-2.592	-0.565
20.0000	-2.544	-0.556
22.0000	-2.497	-0.556
24.0000	-2.459	-0.556
26.0000	-2.421	-0.546
28.0000	-2.392	-0.546
30.0000	-2.364	-0.546
32.0000	-2.336	-0.546
34.0000	-2.307	-0.546
36.0000	-2.279	-0.537
38.0000	-2.250	-0.537
40.0000	-2.231	-0.537
42.0000	-2.203	-0.537
44.0000	-2.184	-0.537
46.0000	-2.165	-0.537
48.0000	-2.136	-0.537
50.0000	-2.117	-0.537
52.0000	-2.098	-0.537
54.0000	-2.079	-0.537
56.0000	-2.070	-0.528
58.0000	-2.051	-0.528
[illegible]	-2.032	-0.537
[illegible]	-2.013	-0.537
64.0000	-2.003	-0.528
66.0000	-1.984	-0.518
68.0000	-1.966	-0.518
70.0000	-1.956	-0.518

72.0000	-1.937	-0.518
74.0000	-1.927	-0.528
76.0000	-1.908	-0.528
78.0000	-1.899	-0.518
[illegible]00	-1.889	-0.508
[illegible]00	-1.871	-0.508
84.0000	-1.861	-0.518
86.0000	-1.851	-0.528
88.0000	-1.832	-0.518
90.0000	-1.823	-0.508
92.0000	-1.813	-0.508
94.0000	-1.804	-0.508
96.0000	-1.785	-0.518
98.0000	-1.775	-0.508
100.000	-1.766	-0.508
120.000	-1.662	-0.499
140.000	-1.576	-0.489
160.000	-1.491	-0.489
180.000	-1.424	-0.480
200.000	-1.358	-0.471
220.000	-1.291	-0.462
240.000	-1.244	-0.452
260.000	-1.196	-0.443
280.000	-1.149	-0.433
300.000	-1.111	-0.433
320.000	-1.073	-0.433
340.000	-1.035	-0.424
360.000	-0.997	-0.414
380.000	-0.969	-0.414
[illegible].000	-0.940	-0.405
[illegible]00	-0.911	-0.405
440.000	-0.883	-0.395
460.000	-0.854	-0.395
480.000	-0.826	-0.386
500.000	-0.807	-0.377
520.000	-0.788	-0.367
540.000	-0.769	-0.367
560.000	-0.750	-0.367
580.000	-0.731	-0.358
600.000	-0.722	-0.367
620.000	-0.703	-0.358
640.000	-0.693	-0.358
660.000	-0.674	-0.358
680.000	-0.665	-0.358
700.000	-0.655	-0.348
720.000	-0.645	-0.358
740.000	-0.636	-0.367
760.000	-0.608	-0.367
780.000	-0.598	-0.348
800.000	-0.588	-0.348
820.000	-0.579	-0.348
840.000	-0.570	-0.348
860.000	-0.560	-0.348
880.000	-0.551	-0.339
900.000	-0.532	-0.329
[illegible]000	-0.522	-0.329
[illegible].000	-0.522	-0.329
960.000	-0.503	-0.320

Lidstone & Anderson, Inc.	Client: Power Resources Inc
Project No.: WYPRI02	Location: Peach

Peach Constant discharge Test



DATA SET:
phmp1f.in
10/17/96

AQUIFER TYPE:
Confined

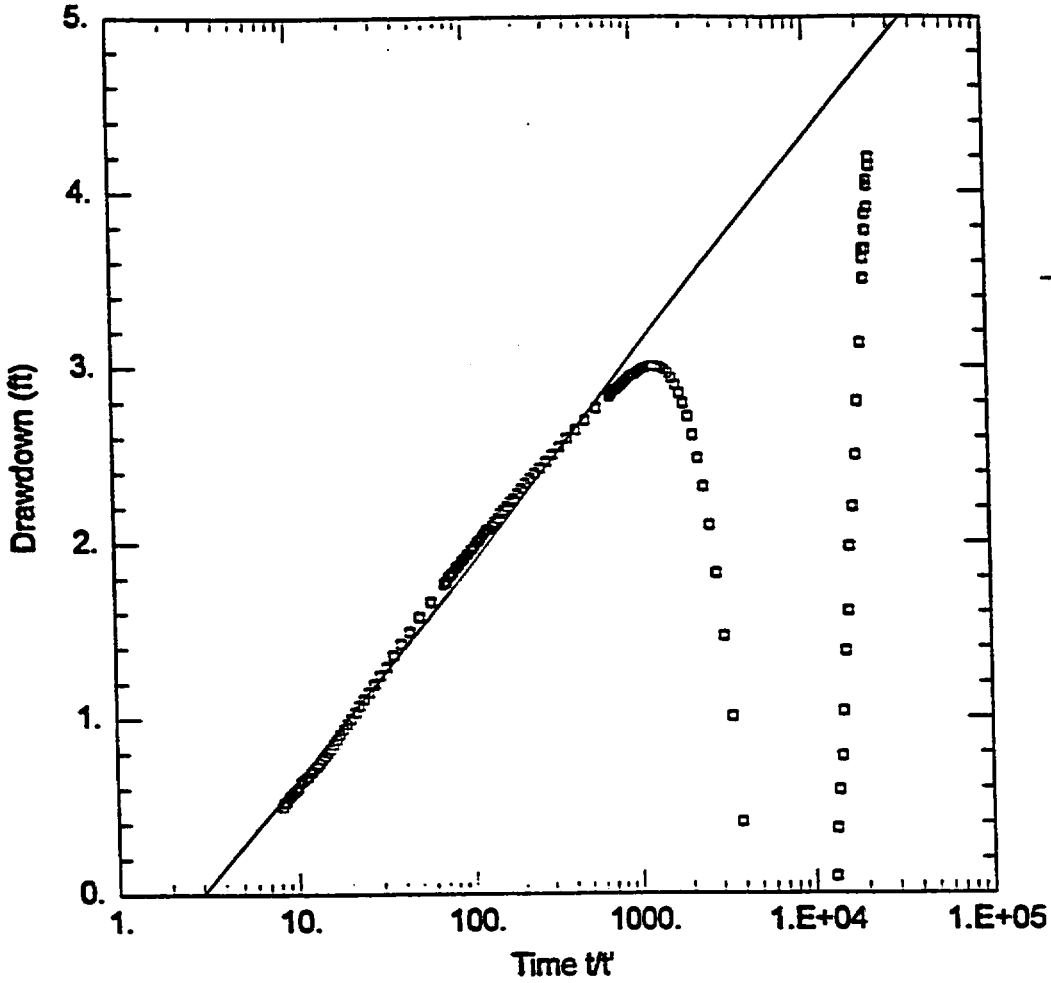
SOLUTION METHOD:
Theis

TEST DATE:
10/05/96

TEST WELL:
MP-1 Fully Penetrating

ESTIMATED PARAMETERS:
T = 0.1148 ft^2/min

TEST DATA:
Q = 0.802 ft^3/min
r = 0.17 ft
rc = 0.2 ft
rw = 0.2 ft



PEACH CONSTANT DISCHARGE TEST-RECOVERY

Data Set: L:\WYAVI23\SPREADS\AQTSOLV\PHMP1REC.AQT
Date: 01/02/98 Time: 13:47:46

PROJECT INFORMATION

Company: Lidstone & Anderson, Inc
Client: Power Resources Inc.
Project: WYPRI02
Test Location: Peach
Test Well: MP-1 Fully Penetrating
Test Date: 10/05/96

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
MP-1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
MP-1	1	0

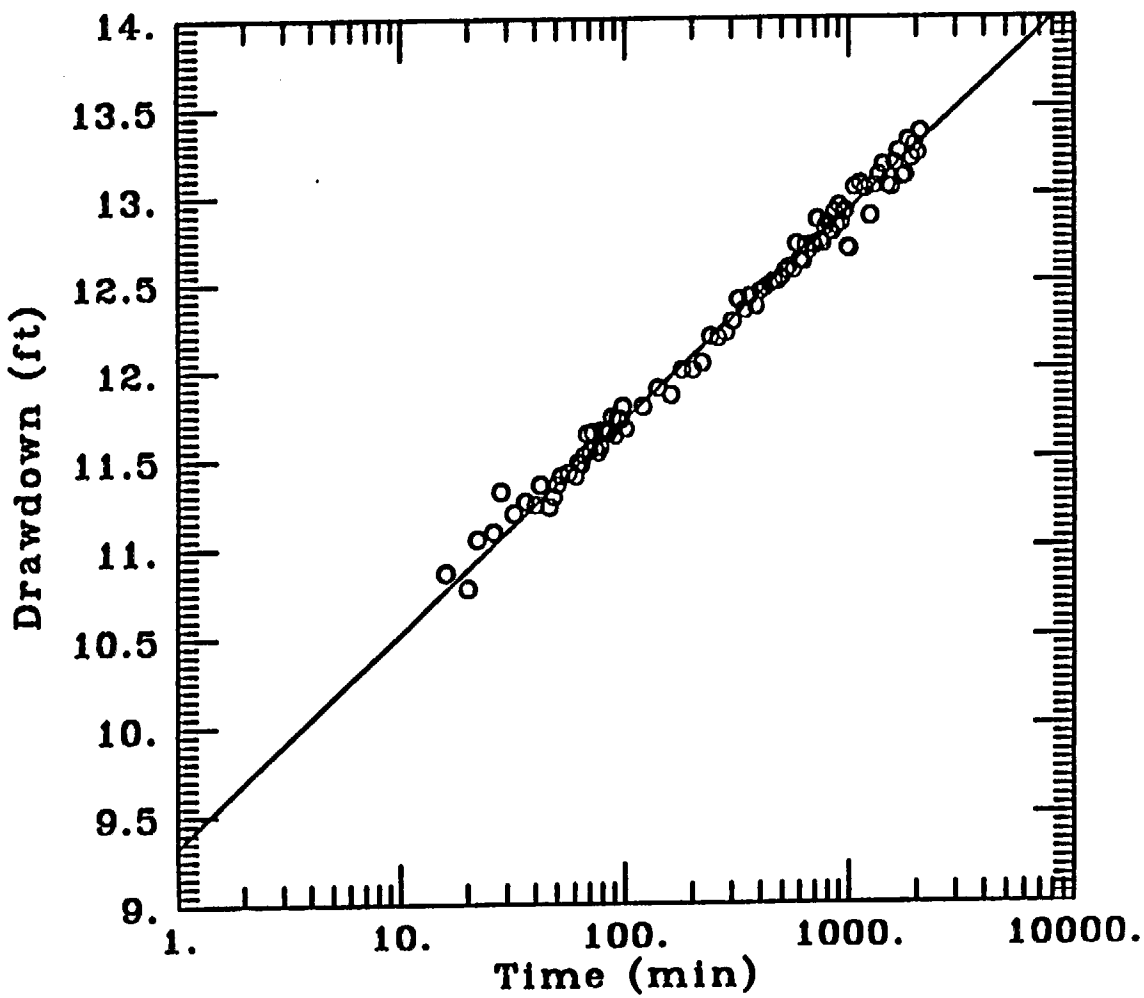
SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 0.01603 ft^2/min

Lidstone & Anderson, Inc.	Client: Power Resources Inc
Project No.: WYPRI02	Location: Peach

Peach Constant Discharge test



DATA SET:
phmpip.in
10/17/96

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper-Jacob

TEST DATE:
10/05/96

TEST WELL:
MP-1 Partially Penetrating

ESTIMATED PARAMETERS:
T = 0.1228 ft^2/min

TEST DATA:
Q = 0.802 ft^3/min
r = 0.2 ft
rc = 0.2 ft
rw = 0.2 ft

ADDENDUM D6-6-5

MINE UNIT 4
AQUIFER TEST DATA AND ANALYSIS

SE2000
Environmental Logger
10/21 08:57

Unit# 747 Test 3

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	TOC	TOC
I.D.	152	
Reference	0.000	0.000
PSI at Ref.	98.023	63.576
SG	1.000	1.000
Linearity	0.480	0.360
Scale factor	297.666	99.762
Offset	0.143	-0.373
Delay mSEC	50.000	50.000

Step 0 10/19 10:08:28
BUMP97-1 BUMU97-1

Elapsed Time	INPUT 1	INPUT 2
0.0000	-0.188	0.094
0.0083	-0.188	0.094
0.0166	-0.188	0.063
0.0250	-24.925	0.063
0.0333	-3.009	0.063
0.0416	0.376	0.094
0.0500	4.514	0.063
0.0583	2.163	0.094
0.0666	-0.188	0.063
0.0750	2.821	0.063
0.0833	1.692	0.094
0.0916	4.326	0.063
0.1000	3.668	0.094
0.1083	2.445	0.063
0.1166	6.113	0.063
0.1250	4.890	0.094
0.1333	5.266	0.063
0.1416	6.019	0.094
0.1500	4.984	0.063
0.1583	6.865	0.094
0.1666	8.182	0.063
0.1750	6.677	0.094
0.1833	8.652	0.094
0.1916	8.182	0.063
0.2000	6.489	0.063
0.2083	10.627	0.094
0.2166	8.934	0.063

0.2250	7.994	0.063
0.2333	10.251	0.094
0.2416	9.311	0.094
0.2500	10.909	0.094
0.2583	11.003	0.063
0.2666	9.781	0.063
0.2750	11.756	0.094
0.2833	10.345	0.094
0.2916	12.602	0.094
0.3000	12.696	0.094
0.3083	11.474	0.063
0.3166	14.295	0.063
0.3250	13.449	0.094
0.3333	12.320	0.094
0.3500	14.201	0.094
0.3666	15.330	0.094
0.3833	16.928	0.094
0.4000	14.953	0.063
0.4166	17.116	0.094
0.4333	18.433	0.094
0.4500	17.304	0.063
0.4666	18.433	0.094
0.4833	20.126	0.094
0.5000	19.844	0.094
0.5166	19.844	0.063
0.5333	21.536	0.094
0.5500	22.101	0.094
0.5666	22.571	0.094
0.5833	22.101	0.063
0.6000	23.982	0.094
0.6166	25.862	0.094
0.6333	23.229	0.094
0.6500	25.486	0.094
0.6666	26.333	0.094
0.6833	25.580	0.094
0.7000	27.931	0.094
0.7166	28.307	0.094
0.7333	27.273	0.063
0.7500	29.530	0.094
0.7666	31.129	0.094
0.7833	29.342	0.094
0.8000	30.376	0.094
0.8166	32.539	0.094
0.8333	31.787	0.094
0.8500	30.376	0.094
0.8666	33.480	0.094
0.8833	35.078	0.094
0.9000	34.796	0.094
0.9166	34.138	0.094
0.9333	36.301	0.094
0.9500	35.454	0.094
0.9666	36.583	0.094

0.9833	39.122	0.094
1.0000	36.771	0.094
1.2000	42.507	0.094
1.4000	47.961	0.094
1.6000	54.167	0.094
1.8000	57.740	0.094
2.0000	63.288	0.094
2.2000	66.672	0.094
2.4000	68.835	0.094
2.6000	73.630	0.094
2.8000	77.203	0.063
3.0000	80.117	0.094
3.2000	81.434	0.094
3.4000	81.151	0.063
3.6000	80.681	0.063
3.8000	81.340	0.094
4.0000	82.092	0.094
4.2000	81.434	0.063
4.4000	80.963	0.063
4.6000	82.092	0.063
4.8000	80.305	0.094
5.0000	81.716	0.063
5.2000	84.254	0.063
5.4000	82.656	0.063
5.6000	82.374	0.063
5.8000	81.434	0.063
6.0000	83.502	0.063
6.2000	82.374	0.063
6.4000	85.100	0.063
6.6000	82.844	0.063
6.8000	85.288	0.063
7.0000	83.408	0.063
7.2000	83.314	0.063
7.4000	85.006	0.063
7.6000	82.656	0.063
7.8000	82.750	0.063
8.0000	83.220	0.063
8.2000	83.314	0.063
8.4000	81.716	0.063
8.6000	81.622	0.063
8.8000	84.348	0.063
9.0000	85.194	0.063
9.2000	83.690	0.063
9.4000	84.818	0.063
9.6000	83.126	0.063
9.8000	84.536	0.063
10.0000	83.126	0.063
12.0000	82.374	0.063
14.0000	80.493	0.063
16.0000	80.587	0.063
18.0000	77.485	0.063
20.0000	75.792	0.063

22.0000	77.955	0.031
24.0000	78.143	0.031
26.0000	80.117	0.063
28.0000	81.245	0.063
30.0000	78.425	0.063
32.0000	83.126	0.063
34.0000	85.946	0.063
36.0000	83.878	0.063
38.0000	83.126	0.063
40.0000	83.220	0.063
42.0000	84.630	0.063
44.0000	85.006	0.063
46.0000	89.331	0.063
48.0000	89.425	0.063
50.0000	89.801	0.063
52.0000	93.843	0.063
54.0000	94.407	0.063
56.0000	94.689	0.063
58.0000	92.151	0.063
60.0000	92.903	0.063
62.0000	94.501	0.063
64.0000	92.715	0.063
66.0000	93.185	0.063
68.0000	93.561	0.063
70.0000	95.160	0.063
72.0000	96.100	0.094
74.0000	96.100	0.094
76.0000	94.878	0.094
78.0000	96.570	0.094
80.0000	94.407	0.094
82.0000	95.160	0.094
84.0000	94.031	0.094
86.0000	93.749	0.094
88.0000	94.031	0.094
90.0000	92.057	0.094
92.0000	92.527	0.094
94.0000	90.647	0.094
96.0000	91.117	0.094
98.0000	90.177	0.094
100.000	91.681	0.094
120.000	104.936	0.126
140.000	102.774	0.126
160.000	101.458	0.158
180.000	102.210	0.158
200.000	102.492	0.158
220.000	102.116	0.189
240.000	102.304	0.189
260.000	102.022	0.221

SE2000
Environmental Logger
10/21 09:00

Unit# 747 Test 3

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	TOC	TOC
I.D.	152	
Reference	0.000	0.000
PSI at Ref.	98.023	63.576
SG	1.000	1.000
Linearity	0.480	0.360
Scale factor	297.666	99.762
Offset	0.143	-0.373
Delay mSEC	50.000	50.000

Step 1 10/19 14:30:16

Elapsed Time	BUMP97-1 INPUT 1	BUMU97-1 INPUT 2
0.0000	101.740	0.221
0.0083	102.398	0.221
0.0166	102.022	0.221
0.0250	101.082	0.221
0.0333	102.398	0.221
0.0416	102.210	0.221
0.0500	102.680	0.221
0.0583	102.492	0.221
0.0666	101.928	0.221
0.0750	102.304	0.221
0.0833	102.586	0.221
0.0916	99.296	0.221
0.1000	107.569	0.221
0.1083	99.484	0.221
0.1166	100.236	0.221
0.1250	100.048	0.221
0.1333	99.390	0.221
0.1416	99.108	0.221
0.1500	98.638	0.221
0.1583	98.262	0.221
0.1666	97.698	0.221
0.1750	97.322	0.221
0.1833	96.852	0.221
0.1916	96.382	0.221
0.2000	95.912	0.221
0.2083	95.442	0.221
0.2166	95.066	0.221

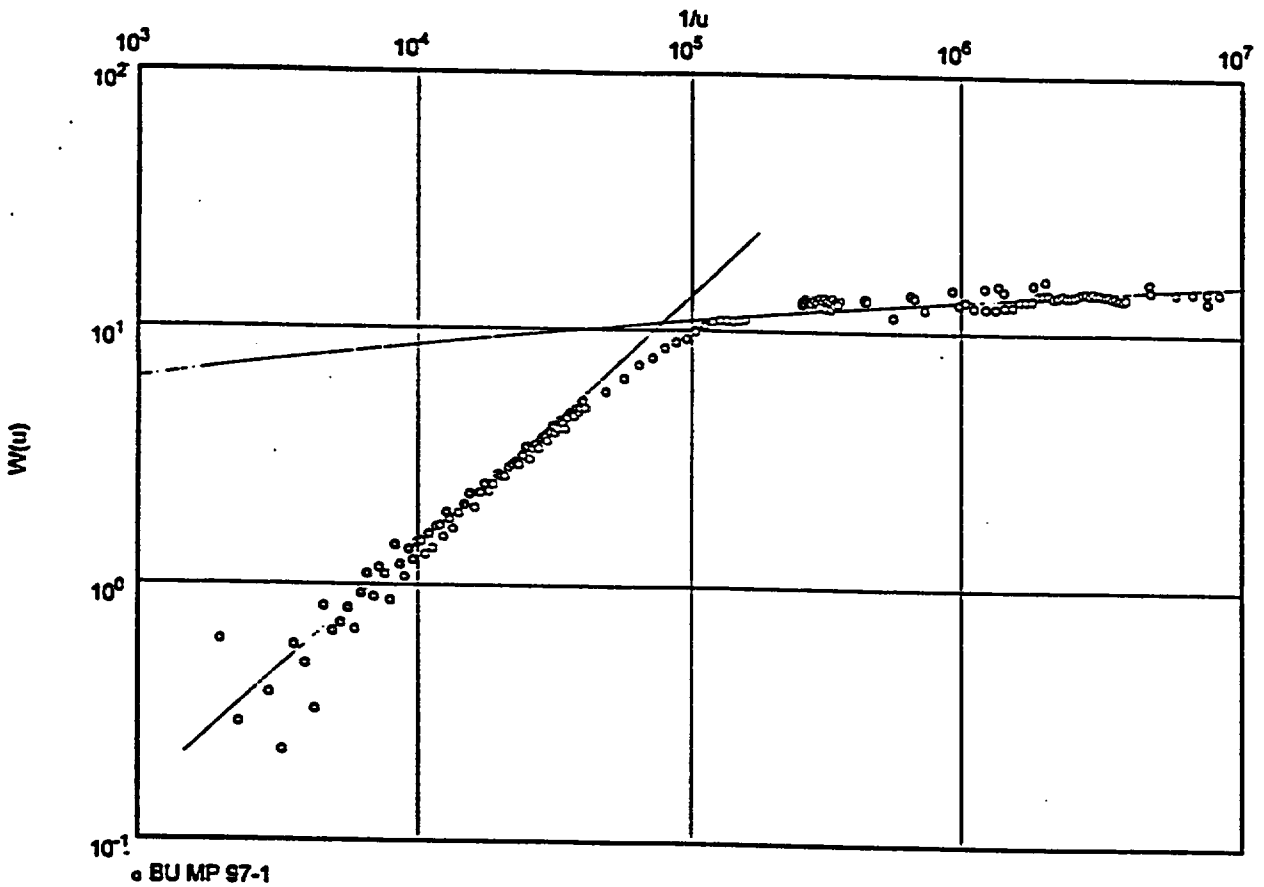
0.2250	94.595	0.221
0.2333	94.125	0.221
0.2416	93.749	0.221
0.2500	93.185	0.221
0.2583	92.809	0.221
0.2666	92.245	0.221
0.2750	91.775	0.221
0.2833	91.587	0.221
0.2916	91.211	0.221
0.3000	90.553	0.221
0.3083	90.271	0.221
0.3166	89.613	0.221
0.3250	89.331	0.221
0.3333	89.237	0.221
0.3500	88.109	0.221
0.3666	87.357	0.221
0.3833	86.604	0.221
0.4000	85.758	0.221
0.4166	85.006	0.221
0.4333	84.160	0.221
0.4500	83.502	0.221
0.4666	82.844	0.221
0.4833	82.186	0.221
0.5000	81.340	0.221
0.5166	80.493	0.221
0.5333	79.647	0.221
0.5500	78.989	0.221
0.5666	78.237	0.221
0.5833	77.673	0.221
0.6000	76.827	0.221
0.6166	76.075	0.221
0.6333	75.510	0.221
0.6500	74.758	0.221
0.6666	74.006	0.221
0.6833	73.160	0.221
0.7000	72.502	0.221
0.7166	71.844	0.221
0.7333	71.185	0.221
0.7500	70.527	0.221
0.7666	69.869	0.221
0.7833	69.117	0.221
0.8000	68.459	0.221
0.8166	67.707	0.221
0.8333	67.143	0.221
0.8500	66.390	0.221
0.8666	65.826	0.221
0.8833	65.168	0.221
0.9000	64.510	0.221
0.9166	63.852	0.221
0.9333	63.194	0.221
0.9500	62.535	0.221
0.9666	61.783	0.221

0.9833	61.219	0.221
1.0000	60.561	0.221
1.2000	53.133	0.221
1.4000	46.362	0.221
1.6000	40.250	0.221
1.8000	34.702	0.221
2.0000	29.530	0.221
2.2000	25.204	0.221
2.4000	21.348	0.221
2.6000	17.963	0.221
2.8000	15.141	0.221
3.0000	12.696	0.221
3.2000	10.815	0.221
3.4000	9.311	0.221
3.6000	8.276	0.221
3.8000	7.524	0.253
4.0000	7.241	0.253
4.2000	7.241	0.253
4.4000	7.430	0.253
4.6000	7.524	0.253
4.8000	7.618	0.253
5.0000	7.806	0.221
5.2000	7.900	0.221
5.4000	7.994	0.221
5.6000	8.088	0.221
5.8000	8.088	0.221
6.0000	8.182	0.221
6.2000	8.276	0.253
6.4000	8.370	0.221
6.6000	8.370	0.253
6.8000	8.464	0.253
7.0000	8.558	0.253
7.2000	8.558	0.221
7.4000	8.652	0.253
7.6000	8.652	0.221
7.8000	8.746	0.221
8.0000	8.746	0.253
8.2000	8.746	0.253
8.4000	8.746	0.253
8.6000	8.840	0.221
8.8000	8.840	0.253
9.0000	8.840	0.253
9.2000	8.934	0.253
9.4000	8.934	0.253
9.6000	8.934	0.253
9.8000	8.934	0.253
10.0000	8.934	0.253
12.0000	9.028	0.253
14.0000	8.934	0.253
16.0000	8.840	0.253
18.0000	8.652	0.253
20.0000	8.464	0.253

22.0000	8.182	0.253
24.0000	7.994	0.253
26.0000	7.806	0.253
28.0000	7.618	0.253
30.0000	7.335	0.253
32.0000	7.147	0.253
34.0000	6.959	0.253
36.0000	6.771	0.253
38.0000	6.583	0.253
40.0000	6.395	0.253
42.0000	6.301	0.253
44.0000	6.207	0.253
46.0000	6.019	0.253
48.0000	5.925	0.253
50.0000	5.737	0.253
52.0000	5.643	0.253
54.0000	5.549	0.253
56.0000	5.454	0.253
58.0000	5.266	0.253
60.0000	5.266	0.221
62.0000	5.172	0.221
64.0000	4.984	0.253
66.0000	4.984	0.221
68.0000	4.890	0.221
70.0000	4.796	0.221
72.0000	4.702	0.221
74.0000	4.702	0.221
76.0000	4.608	0.221
78.0000	4.514	0.221
80.0000	4.420	0.221
82.0000	4.420	0.221
84.0000	4.326	0.221
86.0000	4.232	0.221
88.0000	4.232	0.221
90.0000	4.138	0.221
92.0000	4.138	0.221
94.0000	4.044	0.221
96.0000	4.044	0.221
98.0000	3.950	0.221
100.000	3.950	0.221
120.000	3.479	0.221
140.000	3.197	0.189
160.000	3.009	0.189

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Variable discharge test Theis analysis method Confined aquifer	Date: 18.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

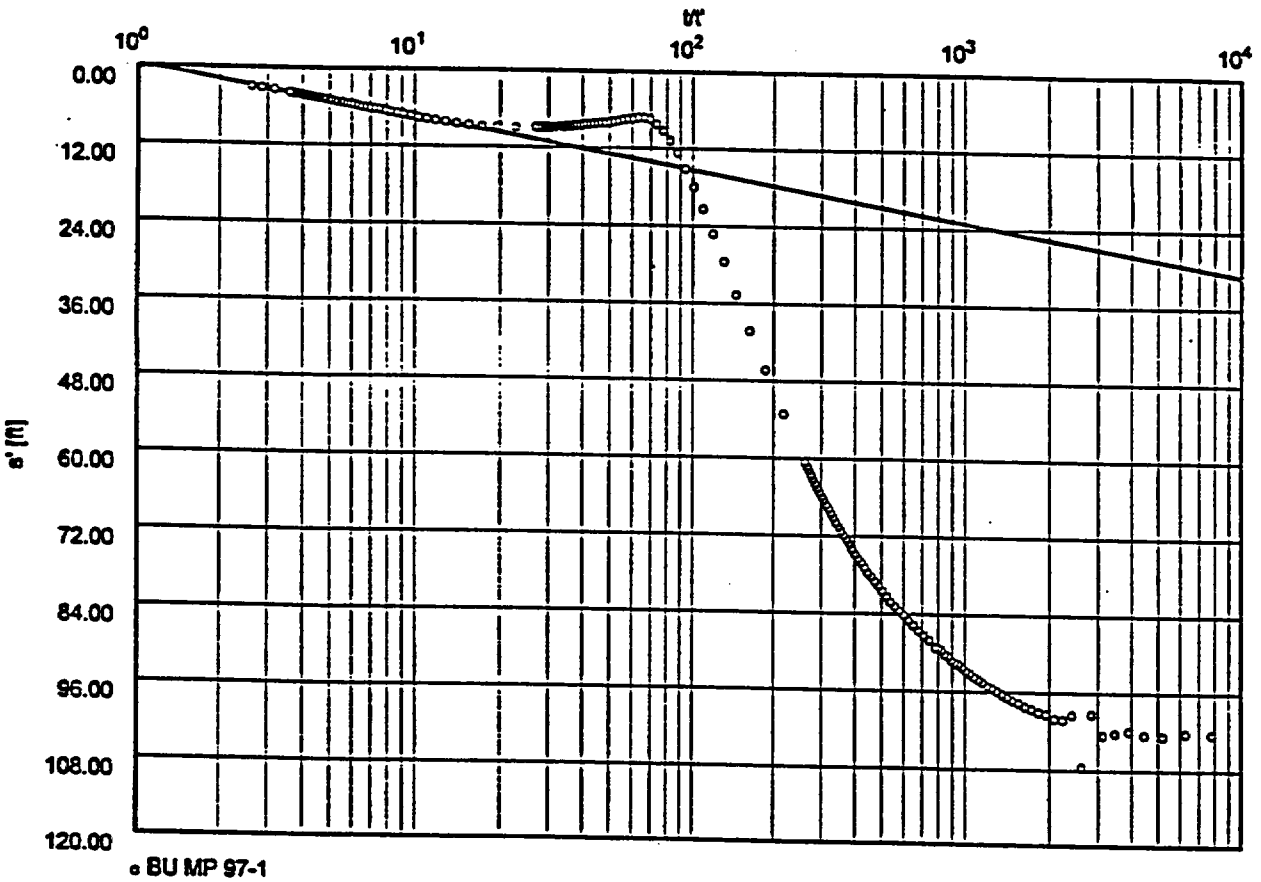
Pumping Test No.	Test conducted on: 10/28/97
BU MP 97-1	
Discharge 8.15 U.S.gal/min	



Transmissivity [ft²/min]: 1.26×10^{-2}

Power Resources, Inc. 800 Werner Court, Suite 352 Casper, Wyoming 82601 ph.(307) 472-2035	Pumping test analysis Recovery method after THEIS & JACOB Confined aquifer	Date: 18.11.1997	Page 1
		Project: GAS HILLS PROJECT	
		Evaluated by: BSP	

Pumping Test No.	Test conducted on: 10/19/97
BU MP 97-1	
Discharge 8.60 U.S.gal/min	
	Pumping test duration: 260.00 min



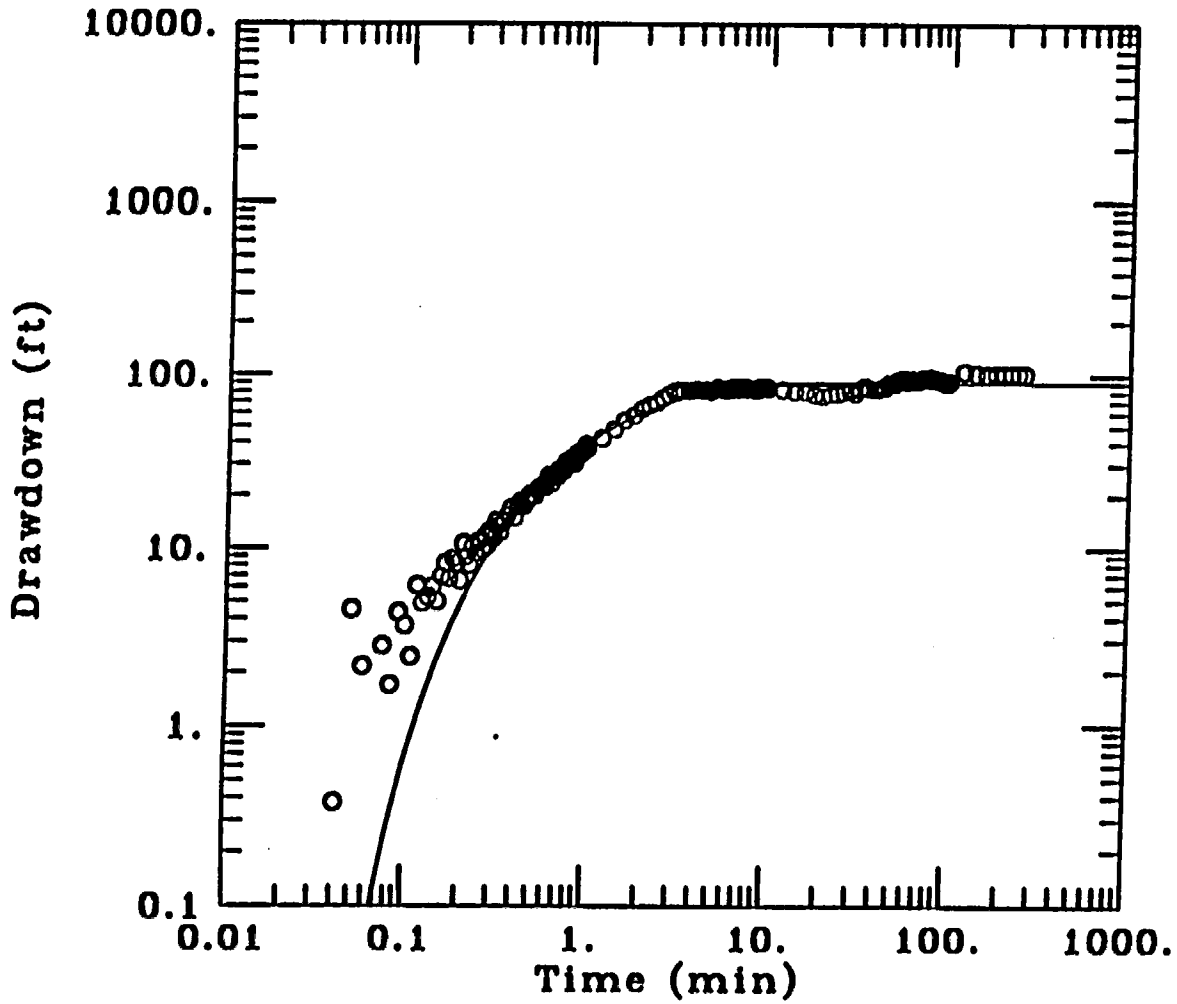
Transmissivity [ft²/min]: 2.67×10^{-2}

Hydraulic conductivity [ft/min]: 3.82×10^{-4}

Aquifer thickness [ft]: 70.00

Lidstone & Anderson, Inc.	Client: Power Resources, Inc.
Project No.: WYPRI02	Location: East Gas Hills, Wyoming.

Constant Rate Test: BUMP97-1



DATA SET:
bump-cr.aqd
12/04/97

AQUIFER TYPE:
Leaky

SOLUTION METHOD:
Hantush

TEST DATE:
10-19-97

TEST WELL:
BUMP97-1

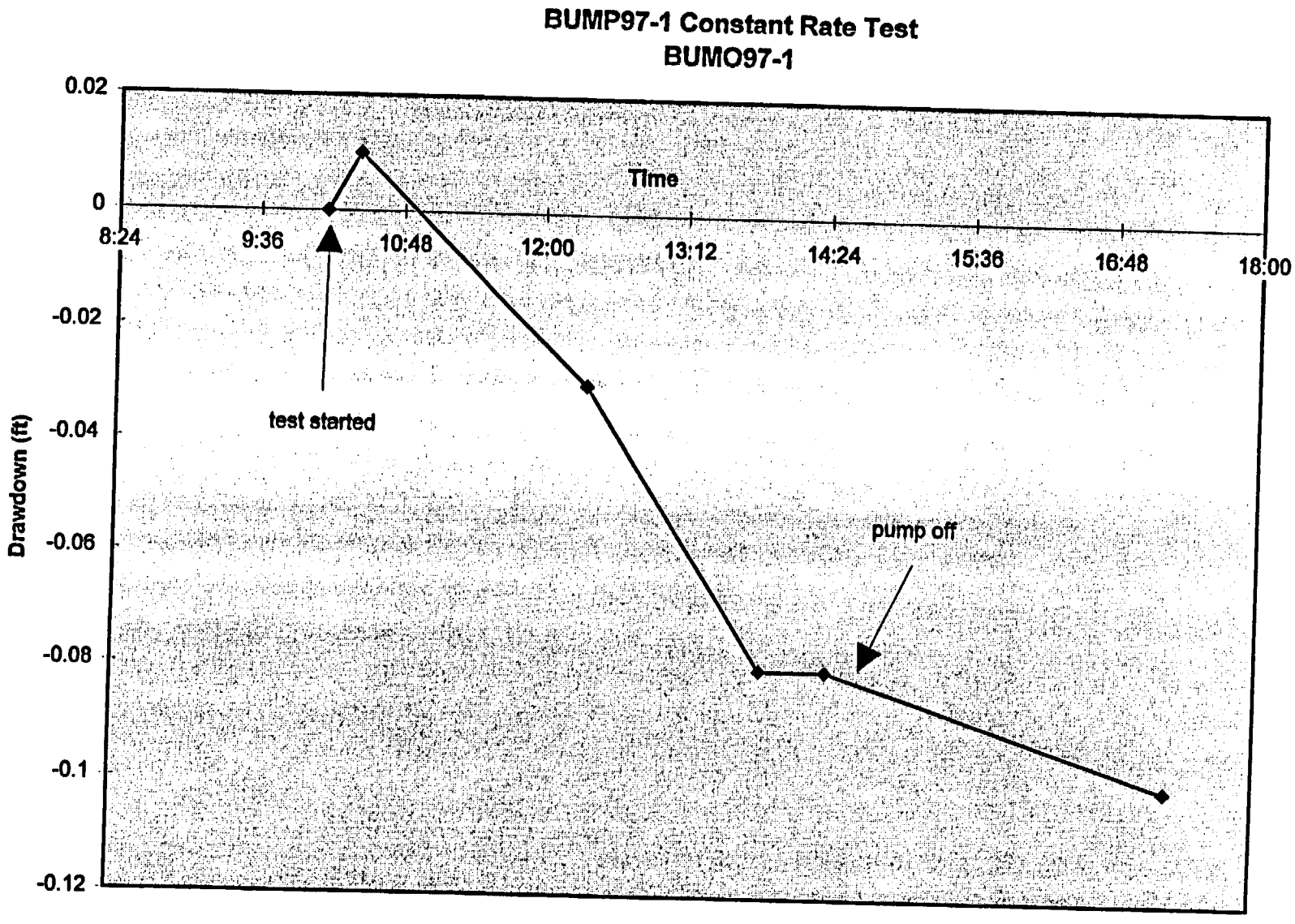
OBS. WELL:
BUMP97-1

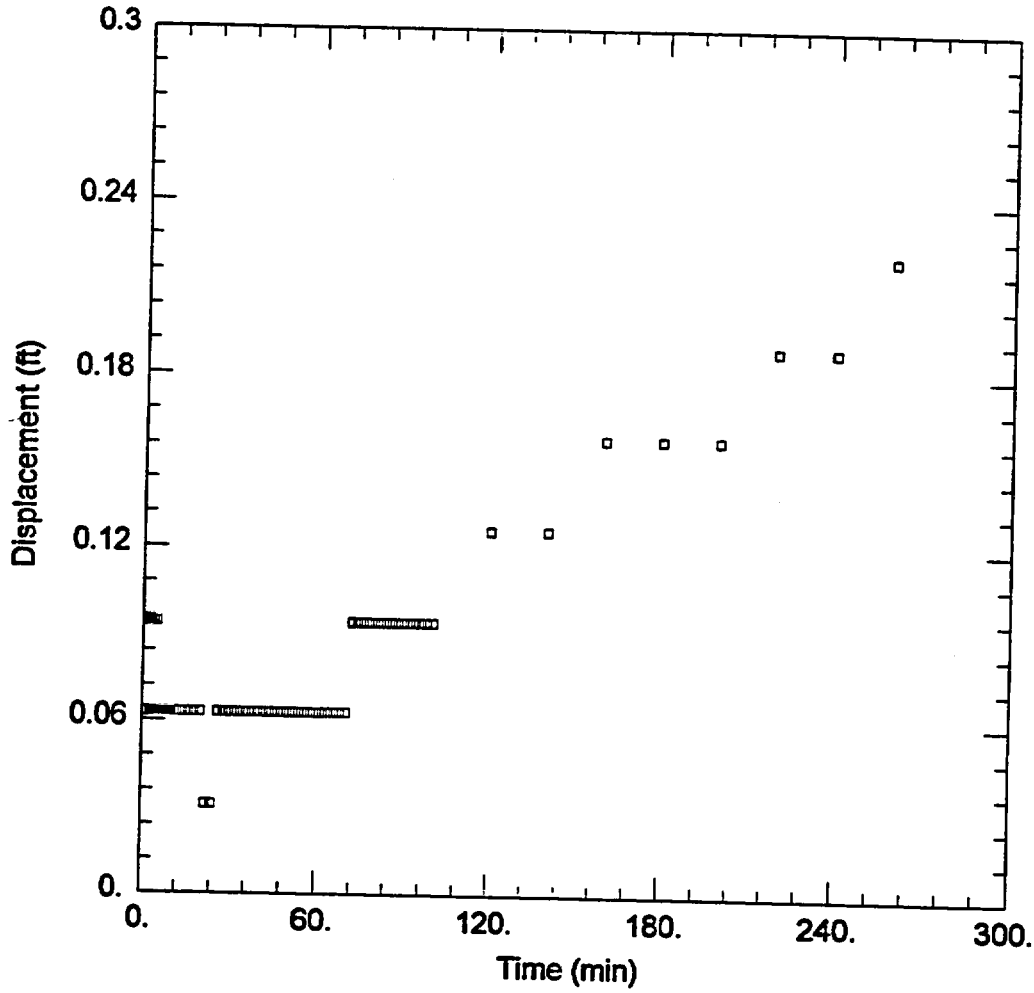
ESTIMATED PARAMETERS:
T = 0.001699 ft^2/min

r/B= 0.5083

TEST DATA:
Q = 1.06 ft^3/min
r = 1. ft

BUMP97-1 Constant Rate Test - Measurements in BUMO97-1				
Time	Water Level (ft)	Change in Head (ft)	Elapsed Time (h:m)	Elapsed Time (mins)
10:09	313.6	0	0:00	0
10:25	313.61	0.01	0:16	16
12:22	313.57	-0.03	2:13	133
13:52	313.52	-0.08	3:43	223
14:25	313.52	-0.08	4:16	256
17:16	313.5	-0.1	7:07	427


BUMP97-1 Constant Rate Test
BUMO97-1
Time
Drawdown (ft)
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
-0.12
8:24
9:36
10:48
12:00
13:12
14:24
15:36
16:48
18:00
test started
pump off



BUMP97-1 CONSTANT RATE TEST: BUMU97-1

Data Set: L:\WYPRI02\PUMPTEST\97TESTS\BUMU-OB1.AQT
Date: 01/20/98 Time: 08:50:27

PROJECT INFORMATION

Company: Lidstone & Anderson, Inc.
Client: Power Resources, Inc.
Project: WYPRI02
Test Location: Gas Hills, Wyoming
Test Well: BUMP97-1
Test Date: 10-19-97

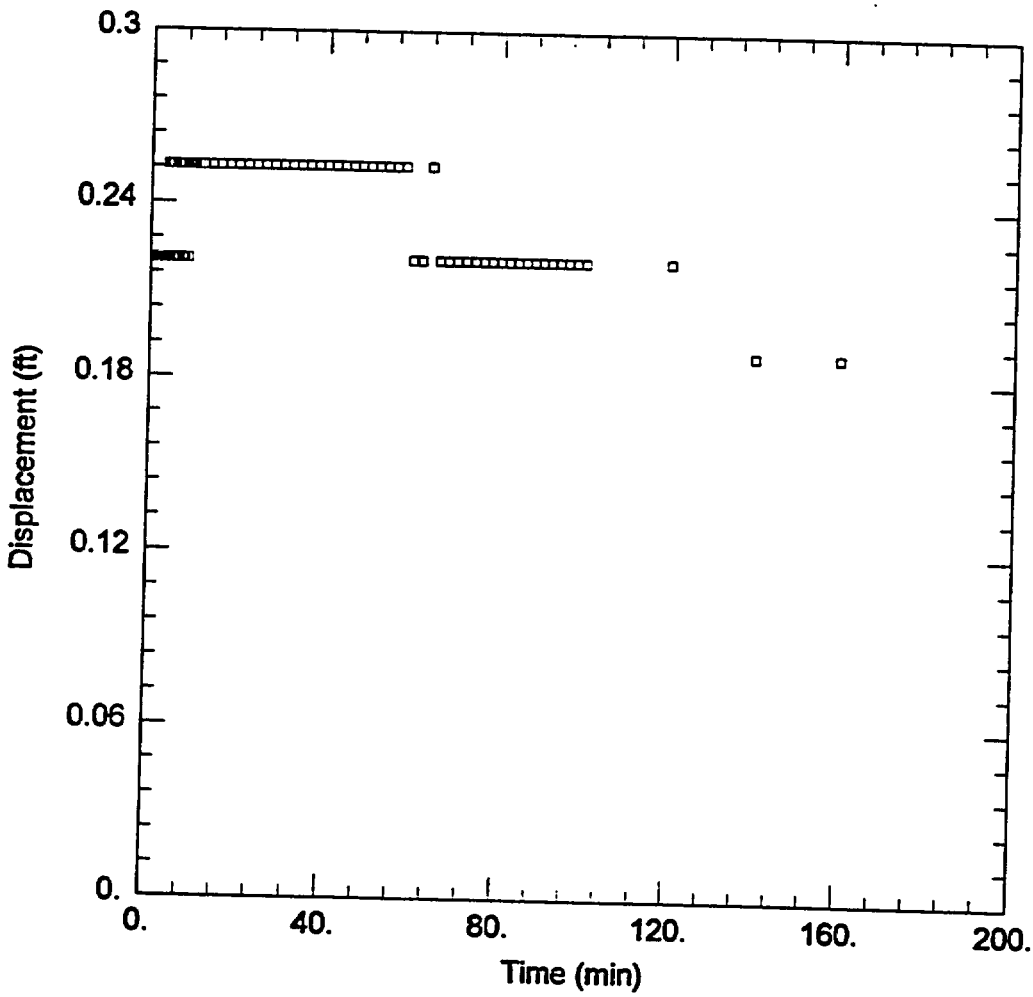
WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
BUMP97-1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
▫ BUMU97-1	0	20



BUMP97-1 RECOVERY TEST: BUMU97-1

Data Set: L:\WYPRI02\PUMPTEST\97TESTS\BUMU-OB2.AQT
Date: 01/20/98 Time: 08:56:54

PROJECT INFORMATION

Company: Lidstone & Anderson, Inc.
Client: Power Resources, Inc.
Project: WYPRI02
Test Location: Gas Hills, Wyoming.
Test Well: BUMP97-1
Test Date: 10-19-97

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
BUMP97-1	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
▫ BUMU97-1	0	20

Environmental Logger
10/21 12:34

Unit# 747 Test 5

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	2.723
SG	1.000
Linearity	0.360
Scale factor	99.762
Offset	-0.373
Delay mSEC	50.000

Step 0 10/21 09:59:20

Elapsed Time	INPUT 1
0.0000	0.000
0.0083	0.094
0.0166	0.031
0.0250	0.188
0.0333	-0.062
0.0416	0.094
0.0500	0.188
0.0583	0.157
0.0666	0.220
0.0750	0.377
0.0833	0.440
0.0916	0.377
0.1000	0.535
0.1083	0.472
0.1166	0.661
0.1250	0.503
0.1333	0.818
0.1416	0.566
0.1500	0.913
0.1583	0.598
0.1666	1.070
0.1750	0.692
0.1833	1.102
0.1916	0.881
0.2000	1.165
0.2083	1.070
0.2166	1.196
0.2250	1.165
0.2333	1.196

0.2416	1.259
0.2500	1.228
0.2583	1.322
0.2666	1.354
0.2750	1.417
0.2833	1.385
0.2916	1.543
0.3000	1.480
0.3083	1.606
0.3166	1.543
0.3250	1.637
0.3333	1.574
0.3500	1.637
0.3666	1.732
0.3833	1.763
0.4000	1.858
0.4166	1.952
0.4333	2.015
0.4500	2.047
0.4666	2.110
0.4833	2.173
0.5000	2.236
0.5166	2.362
0.5333	2.330
0.5500	2.393
0.5666	2.456
0.5833	2.519
0.6000	2.582
0.6166	2.645
0.6333	2.708
0.6500	2.739
0.6666	2.771
0.6833	2.834
0.7000	2.834
0.7166	2.897
0.7333	2.960
0.7500	3.023
0.7666	3.086
0.7833	3.086
0.8000	3.149
0.8166	3.243
0.8333	3.275
0.8500	3.369
0.8666	3.432
0.8833	3.495
0.9000	3.558
0.9166	3.558
0.9333	3.590
0.9500	3.590
0.9666	3.590
0.9833	3.621
1.0000	3.653

1.2000	3.905
1.4000	4.409
1.6000	4.660
1.8000	4.629
2.0000	4.723
2.2000	4.849
2.4000	4.912
2.6000	5.038
2.8000	5.007
3.0000	4.818
3.2000	5.164
3.4000	4.944
3.6000	5.070
3.8000	5.070
4.0000	5.133
4.2000	5.259
4.4000	5.101
4.6000	5.133
4.8000	5.133
5.0000	5.196
5.2000	4.975
5.4000	4.440
5.6000	4.472
5.8000	3.842
6.0000	3.968
6.2000	3.999
6.4000	3.653
6.6000	3.684
6.8000	3.621
7.0000	3.590
7.2000	3.653
7.4000	3.369
7.6000	3.464
7.8000	3.275
8.0000	3.338
8.2000	3.369
8.4000	3.180
8.6000	3.117
8.8000	3.054
9.0000	3.149
9.2000	3.086
9.4000	2.928
9.6000	3.149
9.8000	3.054
10.0000	2.960
12.0000	2.802
14.0000	2.928
16.0000	3.054
18.0000	3.023
20.0000	3.054
22.0000	2.991
24.0000	3.180

26.0000	2.802
28.0000	3.023
30.0000	3.086
32.0000	2.960
34.0000	2.897
36.0000	2.928
38.0000	2.834
40.0000	2.865
42.0000	2.834
44.0000	3.117
46.0000	3.054
48.0000	2.834
50.0000	3.054
52.0000	2.991
54.0000	3.023
56.0000	3.086
58.0000	3.023
60.0000	3.149
62.0000	3.054
64.0000	2.865
66.0000	2.960
68.0000	3.180
70.0000	3.086
72.0000	2.928
74.0000	3.086
76.0000	3.212
78.0000	3.054
80.0000	2.928
82.0000	2.960
84.0000	3.023
86.0000	2.897
88.0000	2.928
90.0000	3.086

SE2000
Environmental Logger
10/21 12:38

Unit# 747 Test 5

Setups:	INPUT 1
Type	Level (F)
Mode	TOC
I.D.	152
Reference	0.000
PSI at Ref.	2.723
SG	1.000
Linearity	0.360
Scale factor	99.762
Offset	-0.373
Delay mSEC	50.000

Step 1 10/21 11:31:04

Elapsed Time	INPUT 1
0.0000	2.834
0.0083	3.117
0.0166	2.928
0.0250	2.897
0.0333	2.865
0.0416	2.771
0.0500	2.771
0.0583	2.708
0.0666	2.645
0.0750	2.613
0.0833	2.519
0.0916	2.488
0.1000	2.425
0.1083	2.393
0.1166	2.330
0.1250	2.299
0.1333	2.267
0.1416	2.204
0.1500	2.173
0.1583	2.110
0.1666	2.078
0.1750	2.047
0.1833	1.984
0.1916	1.952
0.2000	1.889
0.2083	1.858
0.2166	1.826

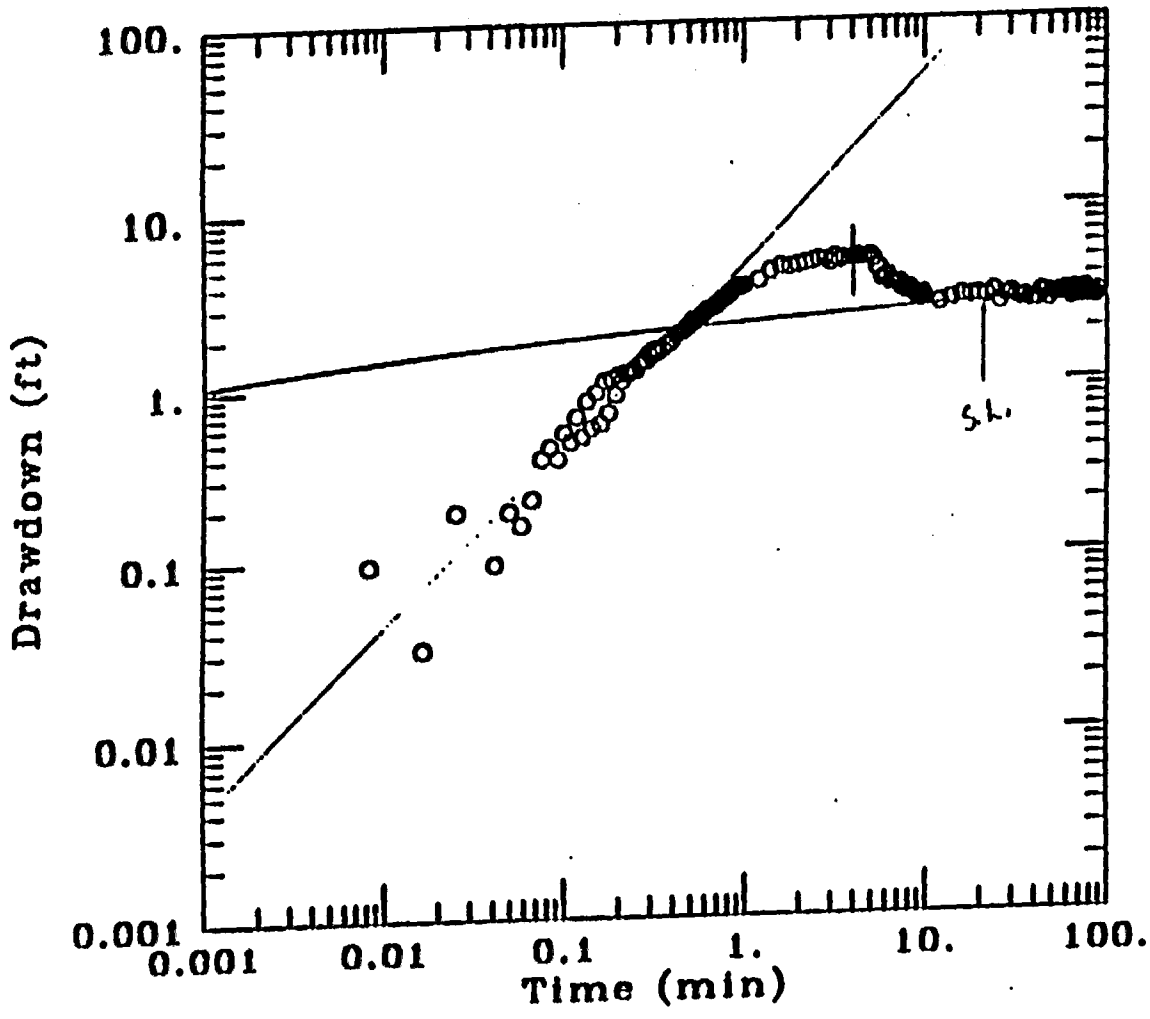
0.2250	1.795
0.2333	1.763
0.2416	1.700
0.2500	1.669
0.2583	1.637
0.2666	1.606
0.2750	1.574
0.2833	1.543
0.2916	1.511
0.3000	1.448
0.3083	1.417
0.3166	1.385
0.3250	1.354
0.3333	1.322
0.3500	1.259
0.3666	1.196
0.3833	1.133
0.4000	1.039
0.4166	1.007
0.4333	0.913
0.4500	0.881
0.4666	0.818
0.4833	0.755
0.5000	0.692
0.5166	0.692
0.5333	0.598
0.5500	0.535
0.5666	0.472
0.5833	0.440
0.6000	0.377
0.6166	0.346
0.6333	0.283
0.6500	0.220
0.6666	0.188
0.6833	0.157
0.7000	0.094
0.7166	0.062
0.7333	0.000
0.7500	-0.031
0.7666	-0.062
0.7833	-0.094
0.8000	-0.157
0.8166	-0.188
0.8333	-0.220
0.8500	-0.251
0.8666	-0.314
0.8833	-0.314
0.9000	-0.377
0.9166	-0.346
0.9333	-0.440
0.9500	-0.472
0.9666	-0.503

0.9833	-0.535
1.0000	-0.566
1.2000	-0.913
1.4000	-1.165
1.6000	-1.354
1.8000	-1.511
2.0000	-1.669
2.2000	-1.763
2.4000	-1.826
2.6000	-1.858
2.8000	-1.889
3.0000	-1.889
3.2000	-1.889
3.4000	-1.889
3.6000	-1.826
3.8000	-1.763
4.0000	-1.732
4.2000	-1.669
4.4000	-1.606
4.6000	-1.511
4.8000	-1.417
5.0000	-1.322
5.2000	-1.228
5.4000	-1.102
5.6000	-1.007
5.8000	-0.881
6.0000	-0.755
6.2000	-0.629
6.4000	-0.566
6.6000	-0.472
6.8000	-0.409
7.0000	-0.346
7.2000	-0.314
7.4000	-0.283
7.6000	-0.220
7.8000	-0.188
8.0000	-0.157
8.2000	-0.125
8.4000	-0.094
8.6000	-0.094
8.8000	-0.094
9.0000	-0.094
9.2000	-0.062
9.4000	-0.062
9.6000	-0.031
9.8000	-0.031
10.0000	-0.031
12.0000	0.094
14.0000	0.157
16.0000	0.157
18.0000	0.157
20.0000	0.157

22.0000	0.157
24.0000	0.157
26.0000	0.157
28.0000	0.157
30.0000	0.157
32.0000	0.157
34.0000	0.157
36.0000	0.157
38.0000	0.157
40.0000	0.157
42.0000	0.157
44.0000	0.157
46.0000	0.157
48.0000	0.125
50.0000	0.094

Lidstone & Anderson, Inc.	Client: Power Resources, Inc.
Project No.: WYPRI02	Location: East Gas Hills, Wyoming.

Constant Rate Test: BUM097-1



DATA SET:
bumo-cr.aqd
10/28/97

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Theis

TEST DATE:
10-21-97

TEST WELL:
BUM097-1

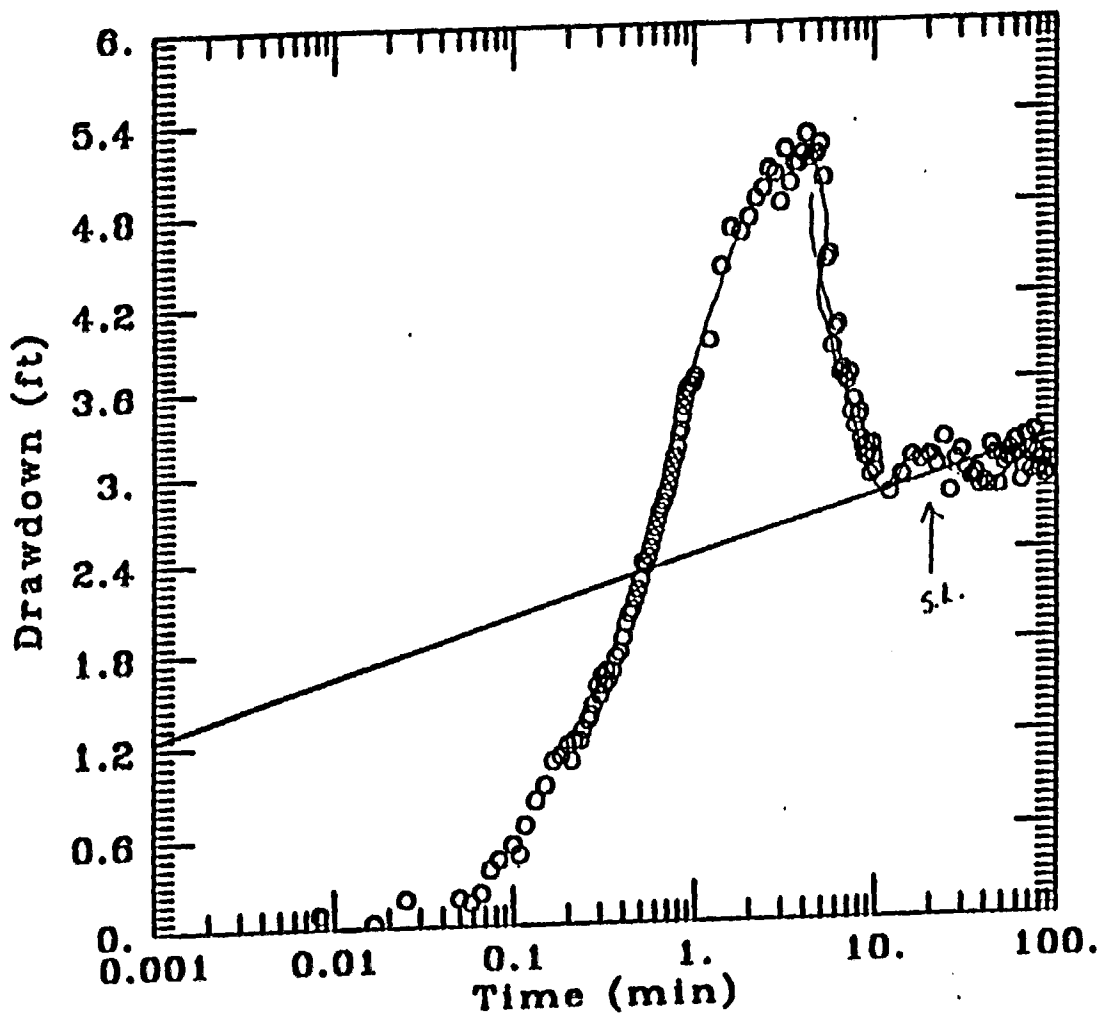
OBS. WELL:
BUM097-1

ESTIMATED PARAMETERS:
T = 0.1172 ft^2/min

TEST DATA:
Q = 0.26 ft^3/min
r = 1. ft

Lidstone & Anderson, Inc.	Client: Power Resources, Inc.
Project No.: WYPRI02	Location: East Gas Hills, Wyoming.

Constant Rate Test: BUM097-1



DATA SET:
bumo-cr.aqd
10/28/97

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Cooper-Jacob

TEST DATE:
10-21-97

TEST WELL:
BUM097-1

OBS. WELL:
BUM097-1

ESTIMATED PARAMETERS:
T = 0.1222 ft^2/min

TEST DATA:
Q = 0.26 ft^3/min
r = 1. ft

SE2000
Environmental Logger
10/21 09:04

Unit# 747 Test 4

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	TOC	TOC
I.D.	152	
Reference	0.000	0.000
PSI at Ref.	4.738	63.534
SG	1.000	1.000
Linearity	0.480	0.360
Scale factor	297.666	99.762
Offset	0.143	-0.373
Delay mSEC	50.000	50.000

Step 0 10/20 08:12:30

Elapsed Time	INPUT 1 (BUMP97-1)	INPUT 2 (BUMU97-1)
0.0000	-214.613	0.000
0.0083	-214.613	0.000
0.0166	-214.613	-10.725
0.0250	-214.613	-3.226
0.0333	-214.613	1.549
0.0416	-214.613	2.372
0.0500	-214.519	1.613
0.0583	-214.613	4.080
0.0666	-214.613	2.910
0.0750	-214.613	2.815
0.0833	-214.613	4.459
0.0916	-214.613	5.155
0.1000	-214.613	4.143
0.1083	-214.519	5.124
0.1166	-214.613	6.262
0.1250	-214.519	4.997
0.1333	-214.613	5.756
0.1416	-214.613	7.749
0.1500	-214.519	7.085
0.1583	-214.613	6.768
0.1666	-214.519	7.812
0.1750	-214.613	9.615
0.1833	-214.519	9.045
0.1916	-214.519	8.508
0.2000	-214.613	9.330
0.2083	-214.519	10.595
0.2166	-214.613	9.678

0.2250	-214.519	9.868
0.2333	-214.613	11.607
0.2416	-214.519	11.828
0.2500	-214.613	11.259
0.2583	-214.519	11.354
0.2666	-214.613	12.619
0.2750	-214.519	13.441
0.2833	-214.519	12.461
0.2916	-214.613	12.872
0.3000	-214.519	14.642
0.3083	-214.613	14.927
0.3166	-214.519	14.073
0.3250	-214.519	13.915
0.3333	-214.613	15.212
0.3500	-214.519	15.591
0.3666	-214.519	17.330
0.3833	-214.613	16.539
0.4000	-214.613	18.278
0.4166	-214.519	17.931
0.4333	-214.519	19.828
0.4500	-214.519	19.164
0.4666	-214.613	21.661
0.4833	-214.519	20.618
0.5000	-214.519	22.862
0.5166	-214.519	21.882
0.5333	-214.519	23.874
0.5500	-214.613	22.641
0.5666	-214.519	25.581
0.5833	-214.613	23.747
0.6000	-214.519	27.066
0.6166	-214.519	25.138
0.6333	-214.613	27.793
0.6500	-214.519	26.497
0.6666	-214.519	28.773
0.6833	-214.613	27.288
0.7000	-214.519	30.195
0.7166	-214.519	29.184
0.7333	-214.613	30.638
0.7500	-214.519	30.480
0.7666	-214.613	32.028
0.7833	-214.613	31.681
0.8000	-214.519	33.008
0.8166	-214.613	33.387
0.8333	-214.613	33.893
0.8500	-214.613	34.019
0.8666	-214.519	35.694
0.8833	-214.519	35.062
0.9000	-214.613	36.705
0.9166	-214.519	35.789
0.9333	-214.613	38.127
0.9500	-214.519	36.421
0.9666	-214.613	39.169

0.9833	-214.613	38.379
1.0000	-214.613	39.770
1.2000	-214.613	45.930
1.4000	-214.613	48.899
1.6000	-214.613	55.279
1.8000	-214.613	59.321
2.0000	-214.613	61.404
2.2000	-214.613	65.004
2.4000	-214.613	67.340
2.6000	-214.613	70.181
2.8000	-214.613	72.642
3.0000	-214.613	72.169
3.2000	-214.613	73.495
3.4000	-214.613	71.822
3.6000	-214.613	66.961
3.8000	-214.613	67.561
4.0000	-214.613	61.310
4.2000	-214.613	59.699
4.4000	-214.613	59.605
4.6000	-214.613	56.258
4.8000	-214.613	60.205
5.0000	-214.613	58.594
5.2000	-214.613	59.920
5.4000	-214.613	58.310
5.6000	-214.613	57.426
5.8000	-214.613	57.268
6.0000	-214.613	58.247
6.2000	-214.613	58.626
6.4000	-214.613	59.668
6.6000	-214.613	57.963
6.8000	-214.613	58.310
7.0000	-214.613	58.089
7.2000	-214.613	58.784
7.4000	-214.613	58.563
7.6000	-214.613	58.121
7.8000	-214.613	54.300
8.0000	-214.613	55.879
8.2000	-214.613	57.552
8.4000	-214.613	54.016
8.6000	-214.613	57.773
8.8000	-214.613	56.194
9.0000	-214.613	56.952
9.2000	-214.613	54.963
9.4000	-214.613	52.152
9.6000	-214.613	55.121
9.8000	-214.613	54.616
10.0000	-214.613	50.036
12.0000	-214.613	48.078
14.0000	-214.613	48.015
16.0000	-214.613	49.120
18.0000	-214.613	49.373
20.0000	-214.613	49.689

22.0000	-214.613	42.266
24.0000	-214.613	46.246
26.0000	-214.613	53.005
28.0000	-214.613	54.110
30.0000	-214.613	52.879
32.0000	-214.613	56.668
34.0000	-214.613	55.026
36.0000	-214.613	57.015
38.0000	-214.613	53.605
40.0000	-214.613	56.068
42.0000	-214.613	53.447
44.0000	-214.613	54.489
46.0000	-214.519	58.184
48.0000	-214.613	54.900
50.0000	-214.519	57.268
52.0000	-214.519	54.963
54.0000	-214.519	56.826
56.0000	-214.519	54.552
58.0000	-214.519	55.058
60.0000	-214.519	54.584
62.0000	-214.519	55.594
64.0000	-214.519	55.942
66.0000	-214.519	59.510
68.0000	-214.519	59.668
70.0000	-214.519	57.742
72.0000	-214.519	58.847
74.0000	-214.519	57.868
76.0000	-214.519	60.394
78.0000	-214.519	60.363
80.0000	-214.519	58.815
82.0000	-214.425	56.352
84.0000	-214.519	56.131
86.0000	-214.519	57.615
88.0000	-214.425	59.194
90.0000	-214.519	57.521
92.0000	-214.425	60.110
94.0000	-214.425	56.416
96.0000	-214.519	59.384
98.0000	-214.425	58.500
100.000	-214.425	57.015
120.000	-214.425	61.278
140.000	-214.331	58.310
160.000	-214.331	57.742
180.000	-214.331	57.773
200.000	-214.237	58.342
220.000	-214.237	59.163
240.000	-214.237	56.858

SE2000
Environmental Logger
10/21 09:06

Unit# 747 Test 4

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	TOC	TOC
I.D.	152	
Reference	0.000	0.000
PSI at Ref.	4.738	63.534
SG	1.000	1.000
Linearity	0.480	0.360
Scale factor	297.666	99.762
Offset	0.143	-0.373
Delay mSEC	50.000	50.000

Step 1 10/20 12:26:29

Elapsed Time	INPUT 1 (BUMP97-1)	INPUT 2 (BUMU97-1)
0.0000	-214.237	57.963
0.0083	-214.143	56.858
0.0166	-214.143	59.699
0.0250	-214.237	56.952
0.0333	-214.143	55.184
0.0416	-214.237	56.226
0.0500	-214.237	51.457
0.0583	-214.237	57.394
0.0666	-214.237	59.036
0.0750	-214.143	56.668
0.0833	-214.143	56.005
0.0916	-214.237	55.847
0.1000	-214.237	55.500
0.1083	-214.237	55.089
0.1166	-214.237	54.805
0.1250	-214.143	54.458
0.1333	-214.143	54.142
0.1416	-214.237	53.731
0.1500	-214.143	53.415
0.1583	-214.143	53.100
0.1666	-214.143	52.752
0.1750	-214.143	52.405
0.1833	-214.237	52.057
0.1916	-214.237	51.710
0.2000	-214.143	51.394
0.2083	-214.143	51.078
0.2166	-214.143	50.763

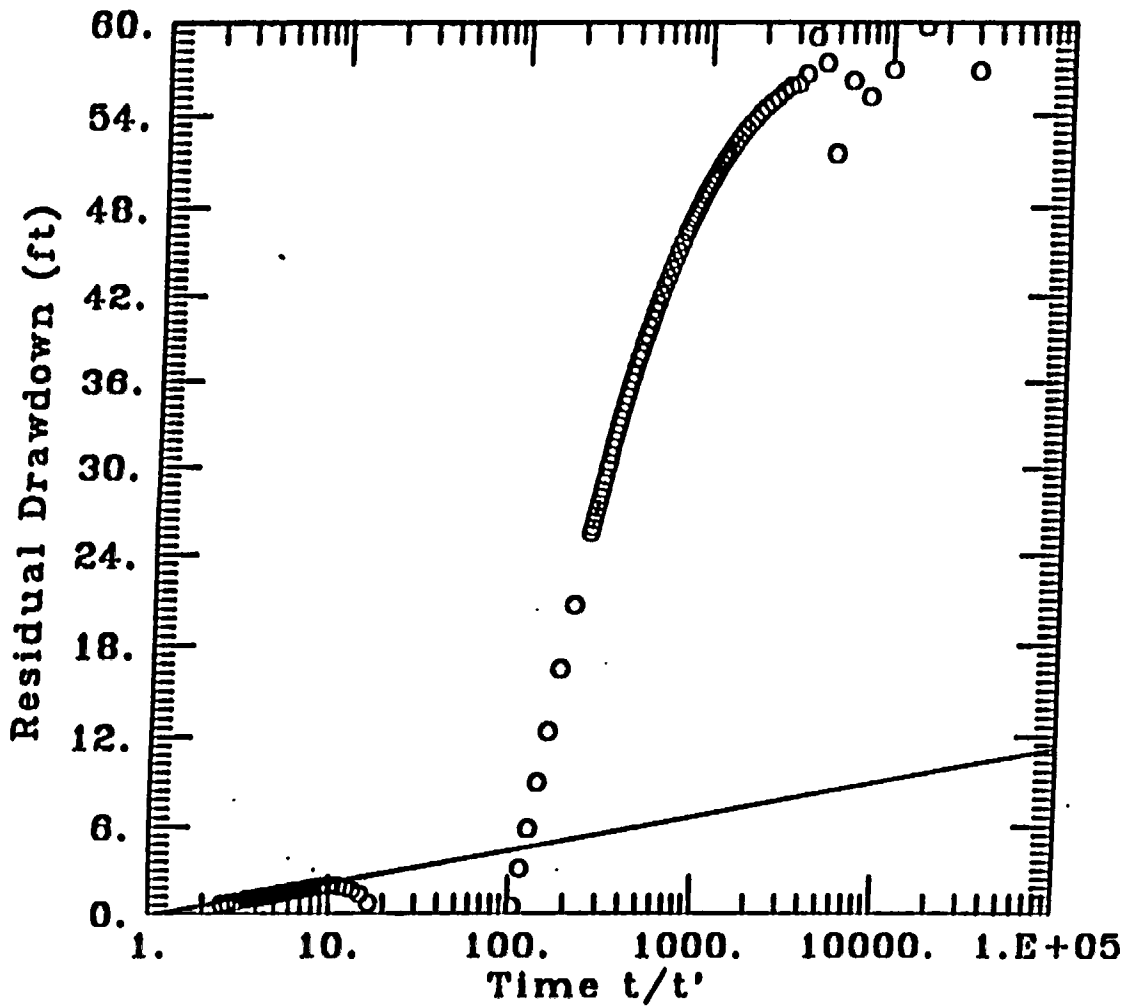
0.2250	-214.143	50.415
0.2333	-214.237	50.068
0.2416	-214.143	49.752
0.2500	-214.143	49.468
0.2583	-214.237	49.120
0.2666	-214.237	48.836
0.2750	-214.143	48.488
0.2833	-214.237	48.141
0.2916	-214.237	47.857
0.3000	-214.143	47.509
0.3083	-214.237	47.225
0.3166	-214.143	46.909
0.3250	-214.143	46.593
0.3333	-214.237	46.309
0.3500	-214.237	45.677
0.3666	-214.237	45.077
0.3833	-214.143	44.477
0.4000	-214.237	43.908
0.4166	-214.237	43.276
0.4333	-214.237	42.739
0.4500	-214.237	42.108
0.4666	-214.237	41.507
0.4833	-214.237	40.970
0.5000	-214.237	40.370
0.5166	-214.237	39.801
0.5333	-214.237	39.264
0.5500	-214.237	38.727
0.5666	-214.237	38.095
0.5833	-214.237	37.653
0.6000	-214.237	37.084
0.6166	-214.237	36.484
0.6333	-214.237	36.010
0.6500	-214.237	35.441
0.6666	-214.237	34.967
0.6833	-214.237	34.461
0.7000	-214.237	33.924
0.7166	-214.143	33.419
0.7333	-214.237	32.945
0.7500	-214.237	32.439
0.7666	-214.237	31.933
0.7833	-214.237	31.396
0.8000	-214.237	30.827
0.8166	-214.237	30.290
0.8333	-214.237	29.942
0.8500	-214.237	29.342
0.8666	-214.143	28.931
0.8833	-214.237	28.457
0.9000	-214.237	27.983
0.9166	-214.237	27.509
0.9333	-214.237	27.129
0.9500	-214.143	26.719
0.9666	-214.237	26.276

0.9833	-214.143	25.834
1.0000	-214.237	25.454
1.2000	-214.237	20.649
1.4000	-214.237	16.445
1.6000	-214.237	12.334
1.8000	-214.237	8.919
2.0000	-214.143	5.851
2.2000	-214.143	3.131
2.4000	-214.143	0.506
2.6000	-214.143	-1.581
2.8000	-214.143	-3.384
3.0000	-214.143	-5.030
3.2000	-214.143	-6.453
3.4000	-214.143	-7.687
3.6000	-214.143	-8.732
3.8000	-214.143	-9.586
4.0000	-214.143	-10.314
4.2000	-214.143	-10.947
4.4000	-214.143	-11.390
4.6000	-214.143	-11.801
4.8000	-214.143	-12.054
5.0000	-214.143	-12.307
5.2000	-214.143	-12.402
5.4000	-214.143	-12.434
5.6000	-214.143	-12.434
5.8000	-214.143	-12.307
6.0000	-214.143	-12.117
6.2000	-214.143	-11.927
6.4000	-214.143	-11.674
6.6000	-214.143	-11.358
6.8000	-214.143	-11.073
7.0000	-214.143	-10.725
7.2000	-214.143	-10.345
7.4000	-214.143	-9.871
7.6000	-214.143	-9.396
7.8000	-214.143	-8.890
8.0000	-214.143	-8.352
8.2000	-214.143	-7.846
8.4000	-214.143	-7.339
8.6000	-214.143	-6.865
8.8000	-214.143	-6.422
9.0000	-214.143	-5.979
9.2000	-214.143	-5.567
9.4000	-214.143	-5.188
9.6000	-214.143	-4.808
9.8000	-214.143	-4.492
10.0000	-214.143	-4.144
12.0000	-214.143	-1.739
14.0000	-214.143	-0.253
16.0000	-214.143	0.727
18.0000	-214.143	1.328
20.0000	-214.143	1.644

22.0000	-214.049	1.803
24.0000	-214.049	1.866
26.0000	-214.143	1.897
28.0000	-214.143	1.897
30.0000	-214.143	1.866
32.0000	-214.143	1.803
34.0000	-214.143	1.771
36.0000	-214.143	1.708
38.0000	-214.143	1.676
40.0000	-214.143	1.613
42.0000	-214.143	1.581
44.0000	-214.143	1.549
46.0000	-214.143	1.518
48.0000	-214.143	1.486
50.0000	-214.143	1.455
52.0000	-214.143	1.391
54.0000	-214.143	1.360
56.0000	-214.143	1.328
58.0000	-214.143	1.328
60.0000	-214.143	1.296
62.0000	-214.143	1.265
64.0000	-214.143	1.233
66.0000	-214.143	1.202
68.0000	-214.143	1.170
70.0000	-214.143	1.138
72.0000	-214.143	1.138
74.0000	-214.143	1.138
76.0000	-214.143	1.107
78.0000	-214.143	1.075
80.0000	-214.143	1.075
82.0000	-214.143	1.043
84.0000	-214.143	1.012
86.0000	-214.143	1.012
88.0000	-214.237	1.012
90.0000	-214.143	0.980
92.0000	-214.143	0.980
94.0000	-214.143	0.948
96.0000	-214.143	0.948
98.0000	-214.237	0.948
100.000	-214.143	0.917
120.000	-214.237	0.790
140.000	-214.237	0.695
160.000	-214.237	0.632

Lidstone & Anderson, Inc.	Client: Power Resources, Inc.
Project No.: WYPRI02	Location: East Gas Hills, Wyoming.

Recovery Test: BUMU97-1



DATA SET:
bumu-r.aqd
10/28/97

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Theis Recovery

TEST DATE:
10-20-97

TEST WELL:
BUMU97-1

OBS. WELL:
BUMU97-1

ESTIMATED PARAMETERS:
T = 0.1385 ft^2/min

TEST DATA:
Q = 1.7 ft^3/min
t pumping = 250. min

D6-6-5-34

WSL 96 MP-1

B2-0.DAT

BUSS CONSTANT Q @ 8 gpm

BEG. WED 10/2 @ 9:11 am

SE1000C
Environmental Logger
10/04 19:26

Unit# 00576 Test 2

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	Surface	Surface
I.D.	11111	22222
Reference	0.000	0.000
Linearity	2.230	0.100
Scale factor	249.940	49.870
Offset	0.320	-0.030
Delay mSEC	50.000	50.000

Step 0 10/02 09:11:36

Elapsed Time	INPUT 1	INPUT 2
0.0000	10.945	-0.300
0.0033	-3.568	-0.300
0.0066	-1.268	-0.300
0.0100	1.664	-0.300
0.0133	-0.158	-0.300
[illegible]166	-1.110	-0.300
[illegible]00	-0.714	-0.300
0.0233	-0.475	-0.300
0.0266	-1.110	-0.284
0.0300	-1.189	-0.284
0.0333	-1.268	-0.284
0.0366	-1.823	-0.300
0.0400	-1.189	-0.300
0.0433	-2.141	-0.300
0.0466	-1.823	-0.300
0.0500	-2.062	-0.284
0.0533	-2.299	-0.300
0.0566	-2.458	-0.284
0.0600	-2.537	-0.300
0.0633	-2.775	-0.284
0.0666	-3.013	-0.300
0.0700	-3.092	-0.284
0.0733	-3.330	-0.300
0.0766	-3.330	-0.300
0.0800	-3.330	-0.284
0.0833	-3.806	-0.300
0.0866	-3.965	-0.300
0.0900	-3.886	-0.300
0.0933	-3.965	-0.300
0.0966	-4.282	-0.300
0.[illegible]000	-4.361	-0.300
[illegible]3	-4.600	-0.300
0.1066	-4.679	-0.300
0.1100	-4.758	-0.300
0.1133	-4.916	-0.300
0.1166	-5.075	-0.284

NOTE

INPUT 1 = PUMPED WELL (WSL 96-MP1)

INPUT 2 = OBS. WELL (WSL 96-M1)

0.1200	-5.233	-0.300
0.1233	-5.313	-0.284
0.1266	-5.392	-0.300
0.1300	-5.709	-0.284
[illegible].1333	-5.789	-0.300
[illegible]1366	-5.947	-0.300
0.1400	-5.947	-0.300
0.1433	-6.185	-0.300
0.1466	-6.344	-0.284
0.1500	-6.423	-0.300
0.1533	-6.661	-0.300
0.1566	-6.581	-0.300
0.1600	-6.899	-0.300
0.1633	-6.899	-0.284
0.1666	-7.058	-0.300
0.1700	-7.136	-0.300
0.1733	-7.454	-0.300
0.1766	-7.612	-0.300
0.1800	-7.692	-0.284
0.1833	-7.692	-0.300
0.1866	-8.009	-0.300
0.1900	-8.167	-0.284
0.1933	-8.326	-0.284
0.1966	-8.405	-0.284
0.2000	-8.405	-0.300
0.2033	-8.564	-0.300
0.2066	-8.643	-0.300
0.2100	-8.801	-0.300
0.2133	-8.960	-0.300
[illegible].2166	-9.040	-0.284
[illegible]200	-9.198	-0.300
[illegible].2233	-9.277	-0.284
0.2266	-9.357	-0.300
0.2300	-9.436	-0.284
0.2333	-9.673	-0.300
0.2366	-9.515	-0.300
0.2400	-9.991	-0.300
0.2433	-9.753	-0.300
0.2466	-10.150	-0.284
0.2500	-10.150	-0.300
0.2533	-10.150	-0.300
0.2566	-10.467	-0.300
0.2600	-10.546	-0.300
0.2633	-10.705	-0.300
0.2666	-10.784	-0.300
0.2700	-10.863	-0.300
0.2733	-10.784	-0.300
0.2766	-10.863	-0.300
0.2800	-10.784	-0.284
0.2833	-10.625	-0.300
0.2866	-10.228	-0.300
0.2900	-9.832	-0.284
0.2933	-9.912	-0.300
0.2966	-10.705	-0.284
0.3000	-11.814	-0.284
[illegible]33	-11.101	-0.300
[illegible]066	-11.576	-0.300
0.3100	-11.576	-0.300
0.3133	-11.339	-0.300
0.3166	-11.576	-0.300

0.3200	-11.339	-0.300
0.3233	-11.418	-0.300
0.3266	-11.418	-0.300
0.3300	-11.180	-0.300
3333	-11.656	-0.284
3500	-11.576	-0.300
0.3666	-11.418	-0.284
0.3833	-1.031	-0.300
0.4000	-11.101	-0.300
0.4166	-12.607	-0.300
0.4333	-13.242	-0.300
0.4500	-13.796	-0.300
0.4666	-14.272	-0.300
0.4833	-14.985	-0.300
0.5000	-15.461	-0.300
0.5166	-16.016	-0.300
0.5333	-16.492	-0.300
0.5500	-15.223	-0.300
0.5666	-17.363	-0.300
0.5833	-17.205	-0.300
0.6000	-17.760	-0.300
0.6166	-17.680	-0.300
0.6333	-17.918	-0.300
0.6500	-17.918	-0.300
0.6666	-18.314	-0.300
0.6833	-18.076	-0.284
0.7000	-18.314	-0.300
0.7166	-18.473	-0.284
0.7333	-18.869	-0.300
7500	-18.473	-0.300
566	-19.186	-0.300
0.7833	-19.186	-0.300
0.8000	-19.345	-0.300
0.8166	-19.582	-0.300
0.8333	-19.424	-0.300
0.8500	-19.979	-0.300
0.8666	-18.076	-0.300
0.8833	-19.741	-0.300
0.9000	-19.662	-0.300
0.9166	-20.296	-0.284
0.9333	-20.058	-0.300
0.9500	-19.900	-0.300
0.9666	-20.137	-0.284
0.9833	-20.296	-0.300
1.0000	-20.216	-0.300
1.2000	-19.979	-0.300
1.4000	-21.009	-0.300
1.6000	-21.643	-0.300
1.8000	-22.515	-0.300
2.0000	-23.545	-0.300
2.2000	-24.179	-0.300
2.4000	-24.972	-0.300
2.6000	-25.843	-0.300
2.8000	-26.715	-0.300
3.0000	-27.111	-0.300
00	-27.904	-0.300
3.4000	-28.696	-0.300
3.6000	-29.251	-0.300
3.8000	-29.647	-0.300
4.0000	-30.281	-0.300

4.2000	-31.073	-0.300
4.4000	-31.469	-0.300
4.6000	-32.182	-0.300
4.8000	-32.579	-0.300
0000	-33.212	-0.284
2000	-33.767	-0.300
5.4000	-34.242	-0.300
5.6000	-34.717	-0.300
5.8000	-35.114	-0.300
6.0000	-35.827	-0.300
6.2000	-36.302	-0.300
6.4000	-36.381	-0.300
6.6000	-37.015	-0.300
6.8000	-37.411	-0.300
7.0000	-38.045	-0.300
7.2000	-38.282	-0.284
7.4000	-38.916	-0.300
7.6000	-38.995	-0.300
7.8000	-39.471	-0.300
8.0000	-39.629	-0.300
8.2000	-40.104	-0.300
8.4000	-40.342	-0.284
8.6000	-41.055	-0.300
8.8000	-41.292	-0.300
9.0000	-41.055	-0.300
9.2000	-41.767	-0.300
9.4000	-41.847	-0.300
9.6000	-42.401	-0.300
9.8000	-42.797	-0.300
0000	-42.718	-0.300
00	-45.490	-0.300
14.0000	-47.074	-0.300
16.0000	-48.737	-0.284
18.0000	-49.925	-0.284
20.0000	-50.875	-0.284
22.0000	-51.746	-0.284
24.0000	-52.379	-0.300
26.0000	-53.171	-0.284
28.0000	-53.408	-0.284
30.0000	-53.884	-0.300
32.0000	-54.359	-0.284
34.0000	-54.596	-0.284
36.0000	-54.913	-0.300
38.0000	-55.309	-0.284
40.0000	-55.704	-0.284
42.0000	-55.625	-0.284
44.0000	-56.259	-0.284
46.0000	-56.101	-0.284
48.0000	-56.417	-0.284
50.0000	-56.417	-0.284
52.0000	-56.734	-0.284
54.0000	-56.734	-0.284
56.0000	-56.813	-0.284
58.0000	-57.050	-0.284
60.0000	-57.288	-0.284
0	-57.050	-0.284
64.0000	-57.446	-0.284
66.0000	-57.367	-0.269
68.0000	-57.288	-0.300
70.0000	-57.526	-0.284

72.0000	-57.209	-0.284
74.0000	-57.446	-0.284
76.0000	-57.604	-0.284
78.0000	-57.842	-0.284
[illegible].0000	-57.763	-0.284
[illegible].0000	-57.684	-0.284
84.0000	-58.238	-0.284
86.0000	-58.317	-0.284
88.0000	-58.000	-0.253
90.0000	-58.238	-0.222
92.0000	-58.080	-0.238
94.0000	-58.238	-0.269
96.0000	-58.475	-0.284
98.0000	-58.713	-0.332
100.000	-58.792	-0.316
120.000	-58.792	-0.284
140.000	-59.584	-0.284
160.000	-59.742	-0.300
180.000	-60.138	-0.284
200.000	-59.900	-0.316
220.000	-60.138	-0.316
240.000	-60.138	-0.316
260.000	-60.217	-0.332
280.000	-60.296	-0.348
300.000	-60.613	-0.364
320.000	-60.455	-0.380
340.000	-60.613	-0.396
360.000	-60.692	-0.396
380.000	-60.929	-0.412
[illegible].000	-60.850	-0.427
[illegible].000	-61.246	-0.443
440.000	-60.929	-0.491
460.000	-61.167	-0.475
480.000	-64.333	-0.507
500.000	-66.153	-0.522
520.000	-62.671	-0.522
540.000	-57.842	-0.554
560.000	-57.526	-0.554
580.000	-60.059	-0.585
600.000	-60.692	-0.601
620.000	-60.850	-0.617
640.000	-61.088	-0.617
660.000	-61.167	-0.649
680.000	-61.246	-0.649
700.000	-61.325	-0.680
720.000	-61.483	-0.680
740.000	-64.966	-0.712
760.000	-65.362	-0.712
780.000	-65.124	-0.744
800.000	-65.204	-0.776
820.000	-65.362	-0.760
840.000	-65.520	-0.791
860.000	-65.679	-0.791
880.000	-65.599	-0.791
900.000	-65.441	-0.823
[illegible]00	-65.599	-0.839
940.000	-65.441	-0.855
960.000	-65.520	-0.886
980.000	-65.599	-0.886
1000.00	-65.599	-0.902

1060.00	-65.679	-0.949
1120.00	-65.599	-0.981
1180.00	-66.074	-1.013
1240.00	-66.153	-1.061
[illegible]0.00	-66.391	-1.061
[illegible]0.00	-66.549	-1.092
1420.00	-65.916	-1.108
1480.00	-66.153	-1.140
1540.00	-66.707	-1.156
1600.00	-66.391	-1.172
1660.00	-66.866	-1.203
1720.00	-66.866	-1.234
1780.00	-66.866	-1.250
1840.00	-66.945	-1.266
1900.00	-66.628	-1.298
1960.00	-66.945	-1.314
2020.00	-66.945	-1.345
2080.00	-67.182	-1.377

WSL 96 MP-1

B2-1.DAT

BUSS RECOVERY FOLLOWING CONSTANT Q @ 8 gpm

BEGIN THUR. 10/3 @ 8:32 pm

END FRIDAY 10/4 @

NOTE

INPUT 1 = PUMPED WELL (WSL 96-MP-1)

INPUT 2 = OBS. WELL (WSL 96-M1)

SE1000C
Environmental Logger
10/04 19:13

Unit# 00576 Test 2

Setups:	INPUT 1	INPUT 2
Type	Level (F)	Level (F)
Mode	Surface	Surface
I.D.	11111	22222
Reference	0.000	0.000
Linearity	2.230	0.100
Scale factor	249.940	49.870
Offset	0.320	-0.030
Delay mSEC	50.000	50.000

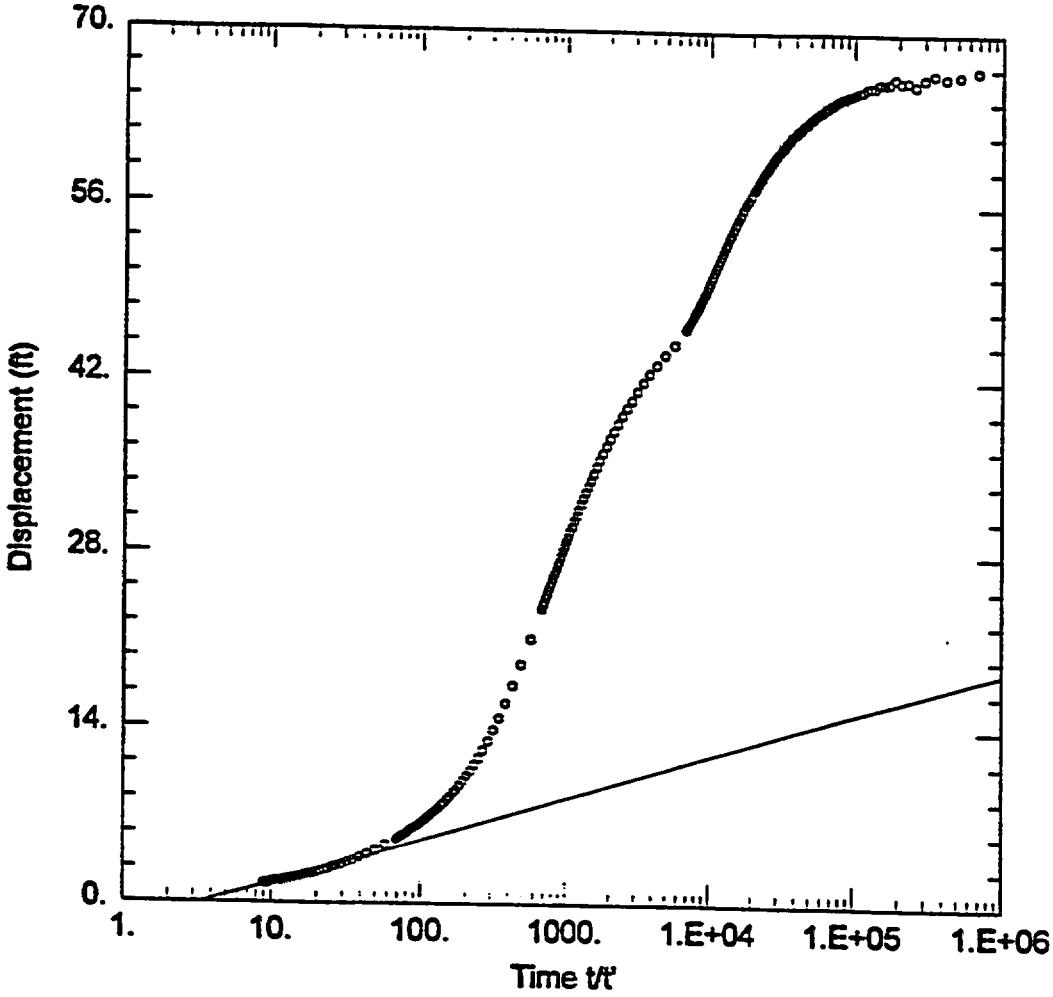
Step 1 10/03 20:31:56

Elapsed Time	INPUT 1	INPUT 2
0.0000	-67.499	-1.409
0.0033	-66.787	-1.393
0.0066	-66.549	-1.393
0.0100	-67.024	-1.393
0.0133	-66.628	-1.393
0.0166	-66.470	-1.393
0.0200	-66.707	-1.393
0.0233	-66.391	-1.393
0.0266	-65.837	-1.393
0.0300	-66.153	-1.393
0.0333	-66.074	-1.393
0.0366	-66.391	-1.393
0.0400	-65.995	-1.393
0.0433	-65.916	-1.393
0.0466	-65.916	-1.393
0.0500	-65.599	-1.393
0.0533	-65.599	-1.393
0.0566	-65.520	-1.393
0.0600	-65.282	-1.393
0.0633	-65.204	-1.393
0.0666	-65.124	-1.393
0.0700	-64.966	-1.393
0.0733	-64.887	-1.393
0.0766	-64.808	-1.393
0.0800	-64.649	-1.393
0.0833	-64.649	-1.393
0.0866	-64.491	-1.393
0.0900	-64.412	-1.393
0.0933	-64.254	-1.393
0.0966	-64.095	-1.393
0.1000	-64.095	-1.393
0.1033	-63.858	-1.393
0.1066	-63.858	-1.393
0.1100	-63.700	-1.393
0.1133	-63.541	-1.393
0.1166	-63.541	-1.393
0.1200	-63.383	-1.393

0.1233	-63.304	-1.393
0.1266	-63.225	-1.393
0.1300	-62.987	-1.393
0.1333	-62.987	-1.393
1366	-62.829	-1.393
400	-62.750	-1.393
0.1433	-62.512	-1.393
0.1466	-62.512	-1.393
0.1500	-62.434	-1.393
0.1533	-62.354	-1.393
0.1566	-62.117	-1.393
0.1600	-62.037	-1.393
0.1633	-62.037	-1.393
0.1666	-61.958	-1.393
0.1700	-61.721	-1.393
0.1733	-61.721	-1.393
0.1766	-61.642	-1.393
0.1800	-61.562	-1.377
0.1833	-61.483	-1.393
0.1866	-61.246	-1.393
0.1900	-61.246	-1.393
0.1933	-61.088	-1.393
0.1966	-61.008	-1.393
0.2000	-60.850	-1.393
0.2033	-60.771	-1.393
0.2066	-60.613	-1.393
0.2100	-60.613	-1.393
0.2133	-60.533	-1.393
0.2166	-60.375	-1.393
0.2200	-60.296	-1.393
33	-60.217	-1.393
0.2266	-60.138	-1.393
0.2300	-59.979	-1.393
0.2333	-59.979	-1.393
0.2366	-59.821	-1.393
0.2400	-59.742	-1.393
0.2433	-59.584	-1.393
0.2466	-59.584	-1.393
0.2500	-59.504	-1.393
0.2533	-59.346	-1.393
0.2566	-59.267	-1.393
0.2600	-59.109	-1.393
0.2633	-59.030	-1.393
0.2666	-59.030	-1.393
0.2700	-58.871	-1.393
0.2733	-58.792	-1.393
0.2766	-58.713	-1.393
0.2800	-58.633	-1.393
0.2833	-58.555	-1.393
0.2866	-58.475	-1.393
0.2900	-58.317	-1.393
0.2933	-58.159	-1.393
0.2966	-58.159	-1.393
0.3000	-58.080	-1.393
0.3033	-58.000	-1.393
6	-57.842	-1.393
100	-57.842	-1.393
0.3133	-57.684	-1.393
0.3166	-57.604	-1.393
0.3200	-57.526	-1.393

0.3233	-57.446	-1.393
0.3266	-57.288	-1.393
0.3300	-57.288	-1.393
0.3333	-57.209	-1.393
[illegible]500	-56.734	-1.393
[illegible]666	-56.338	-1.393
0.3833	-56.021	-1.393
0.4000	-55.625	-1.393
0.4166	-55.150	-1.409
0.4333	-54.833	-1.393
0.4500	-54.437	-1.393
0.4666	-54.042	-1.393
0.4833	-53.646	-1.393
0.5000	-53.329	-1.393
0.5166	-52.933	-1.393
0.5333	-52.617	-1.393
0.5500	-52.221	-1.393
0.5666	-51.904	-1.393
0.5833	-51.588	-1.393
0.6000	-51.271	-1.393
0.6166	-50.954	-1.393
0.6333	-50.637	-1.393
0.6500	-50.320	-1.393
0.6666	-50.083	-1.409
0.6833	-49.766	-1.393
0.7000	-49.449	-1.393
0.7166	-49.212	-1.393
0.7333	-48.895	-1.393
0.7500	-48.737	-1.393
[illegible]66	-48.499	-1.393
[illegible]53	-48.261	-1.393
0.8000	-48.103	-1.393
0.8166	-47.786	-1.393
0.8333	-47.628	-1.393
0.8500	-47.470	-1.393
0.8666	-47.311	-1.393
0.8833	-47.074	-1.393
0.9000	-46.915	-1.393
0.9166	-46.757	-1.393
0.9333	-46.599	-1.393
0.9500	-46.440	-1.393
0.9666	-46.282	-1.393
0.9833	-46.203	-1.393
1.0000	-46.044	-1.393
1.2000	-44.777	-1.377
1.4000	-43.985	-1.393
1.6000	-43.193	-1.393
1.8000	-42.480	-1.393
2.0000	-41.767	-1.393
2.2000	-41.055	-1.393
2.4000	-40.342	-1.393
2.6000	-39.708	-1.393
2.8000	-39.075	-1.393
3.0000	-38.441	-1.393
3.[illegible]00	-37.807	-1.393
[illegible]0	-37.253	-1.393
3.6000	-36.619	-1.377
3.8000	-36.064	-1.393
4.0000	-35.510	-1.377
4.2000	-34.955	-1.393

4.4000	-34.401	-1.377
4.6000	-33.846	-1.393
4.8000	-33.371	-1.377
5.0000	-32.895	-1.393
2000	-32.420	-1.377
4000	-31.945	-1.377
5.6000	-31.469	-1.393
5.8000	-30.994	-1.393
6.0000	-30.598	-1.377
6.2000	-30.122	-1.393
6.4000	-29.726	-1.393
6.6000	-29.251	-1.393
6.8000	-28.934	-1.377
7.0000	-28.538	-1.377
7.2000	-28.141	-1.377
7.4000	-27.745	-1.393
7.6000	-27.349	-1.377
7.8000	-27.032	-1.377
8.0000	-26.636	-1.393
8.2000	-26.319	-1.377
8.4000	-26.002	-1.393
8.6000	-25.685	-1.377
8.8000	-25.368	-1.393
9.0000	-25.051	-1.393
9.2000	-24.734	-1.393
9.4000	-24.417	-1.393
9.6000	-24.100	-1.393
9.8000	-23.862	-1.377
10.0000	-23.545	-1.393
000	-21.088	-1.393
00	-19.028	-1.393
16.0000	-17.363	-1.393
18.0000	-15.936	-1.393
20.0000	-14.748	-1.393
22.0000	-13.796	-1.393
24.0000	-12.924	-1.393
26.0000	-12.211	-1.393
28.0000	-11.576	-1.393
30.0000	-11.021	-1.393
32.0000	-10.546	-1.393
34.0000	-10.150	-1.393
36.0000	-9.753	-1.393
38.0000	-9.357	-1.393
40.0000	-9.040	-1.393
42.0000	-8.801	-1.409
44.0000	-8.484	-1.409
46.0000	-8.247	-1.409
48.0000	-8.009	-1.409
50.0000	-7.850	-1.409
52.0000	-7.612	-1.409
54.0000	-7.454	-1.409
56.0000	-7.295	-1.409
58.0000	-7.136	-1.409
60.0000	-6.978	-1.409
000	-6.820	-1.409
0	-6.661	-1.409
66.0000	-6.581	-1.409
68.0000	-6.423	-1.409
70.0000	-6.344	-1.409
72.0000	-6.185	-1.409



BUSS CONSTANT DISCHARGE TEST-RECOVERY

Data Set: L:\WYPRI02\PUMPTEST\BSMP1PRE.AQT
Date: 12/31/97 Time: 18:13:49

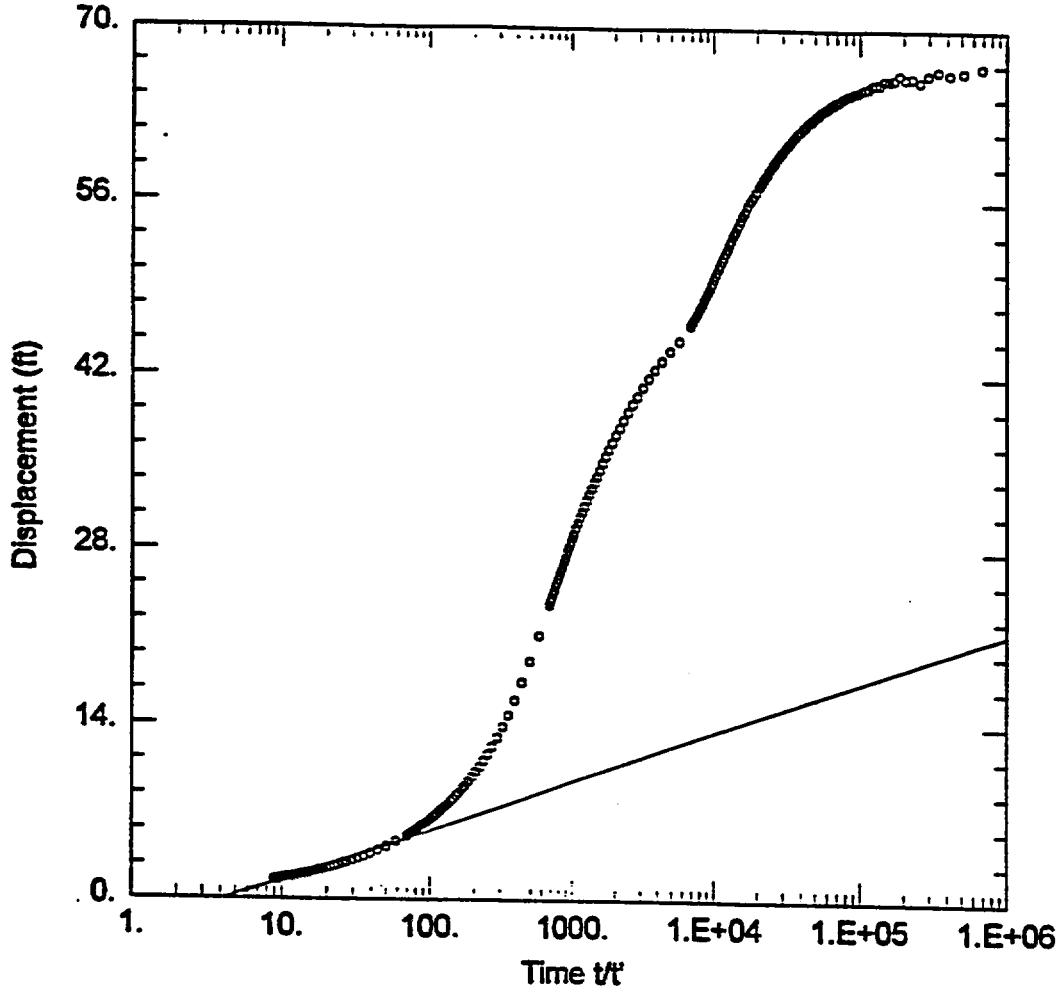
PROJECT INFORMATION

Company: Lidstone & Anderson, Inc.
Client: Power Resources Inc.
Project: WYPRI02
Test Location: Buss
Test Well: MP-1 Partially Penetrating
Test Date: 10/05/96

SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

$T = 0.05748\ ft^2/min$



BUSS CONSTANT DISCHARGE TEST-RECOVERY

Data Set: L:\WYPRI02\PUMPTEST\BSMP1REC.AQT
Date: 12/31/97 Time: 17:53:10

PROJECT INFORMATION

Company: Lidstone & Anderson, Inc.
Client: Power Resources Inc.
Project: WYPRI02
Test Location: Buss
Test Well: MP-1 Fully Penetrating
Test Date: 10/05/96

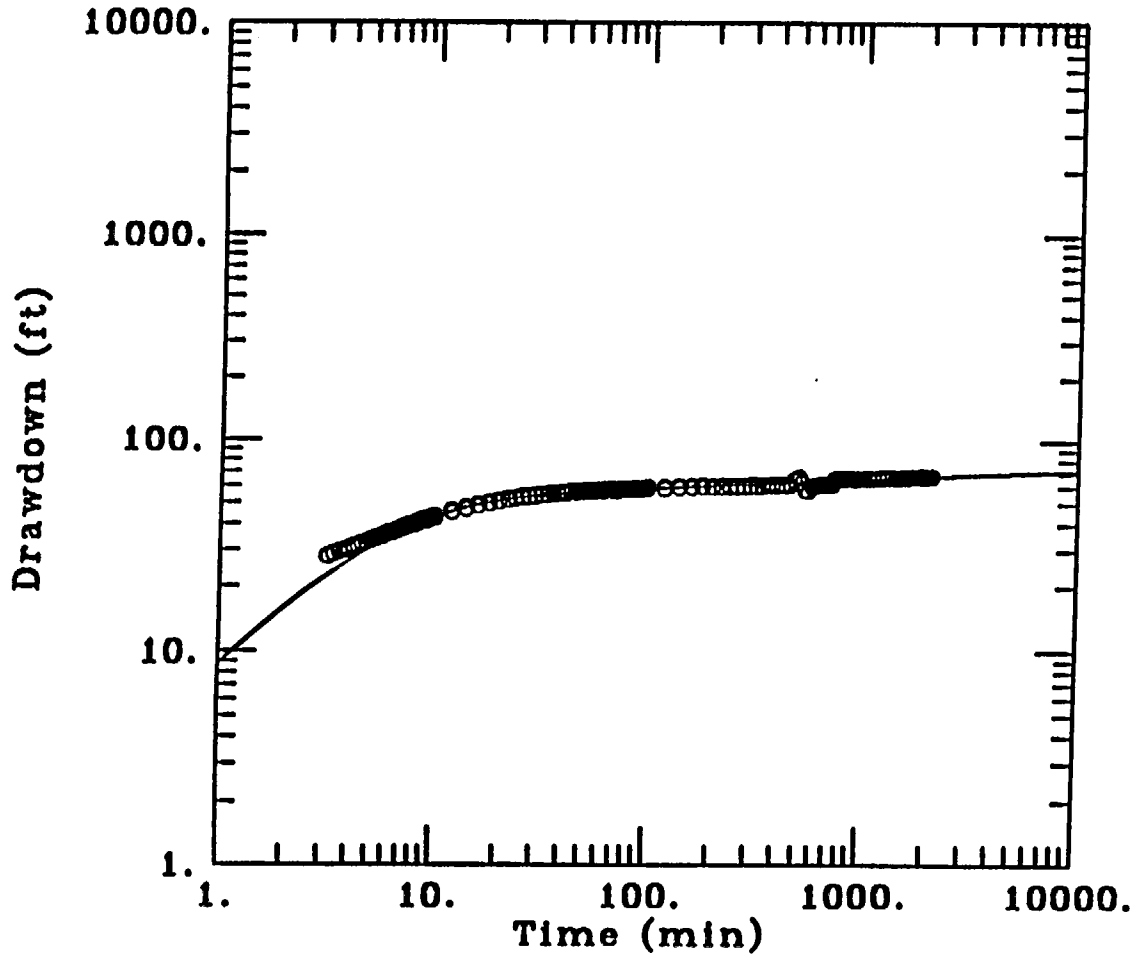
SOLUTION

Aquifer Model: Confined
Solution Method: Theis (Recovery)

T = 0.04913 ft^2/min

Lidstone & Anderson, Inc	Client: Power Resources Inc.
Project No.: WYPRI02	Location: Buss

Buss Constant Discharge Test



DATA SET:
bsmpip.in
10/17/96

AQUIFER TYPE:
Leaky

SOLUTION METHOD:
Moench

TEST DATE:
10/05/96

TEST WELL:
MP-1 Partially Penetrating

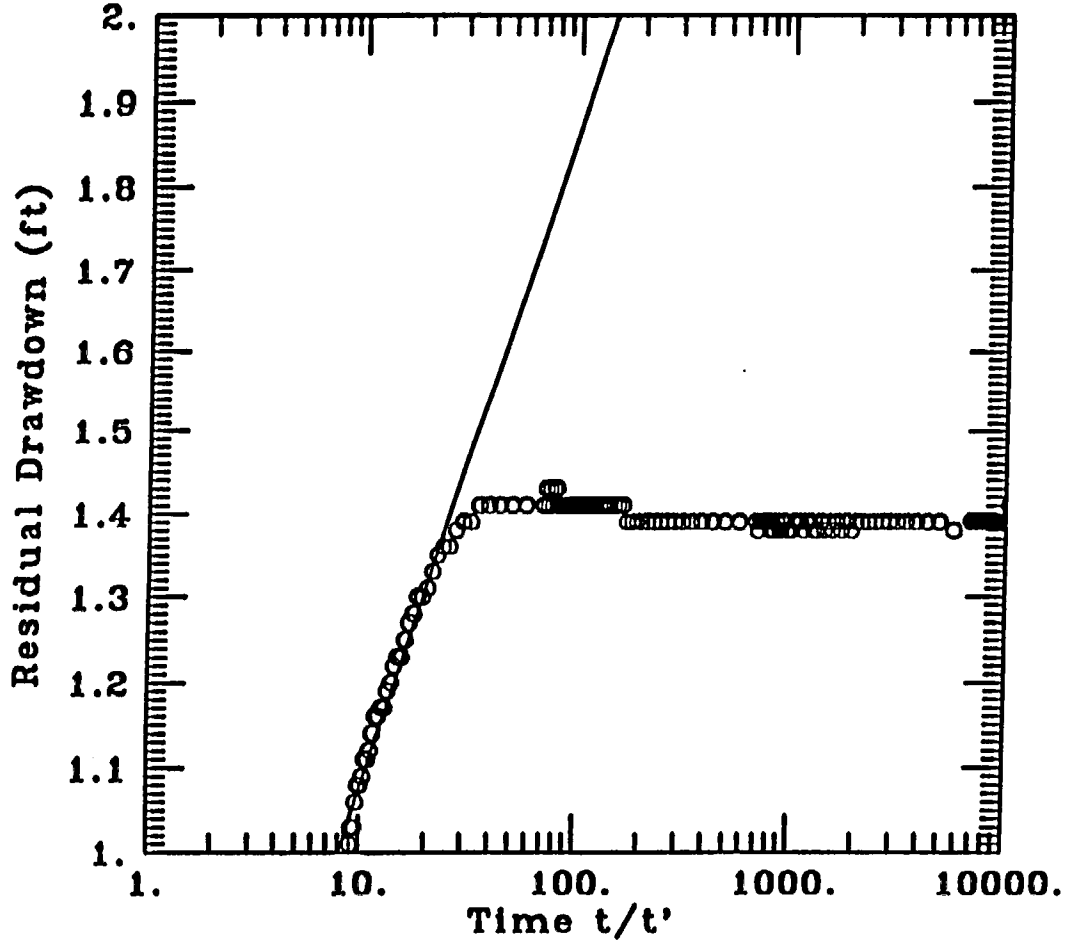
ESTIMATED PARAMETERS:
T = 0.02983 ft^2/min

r/B= 1.E-05
β = 1.E-05
Sw = 7.443
s = 0.6624

TEST DATA:
Q = 1.07 ft^3/min
r = 0.2 ft
rc = 0.2 ft
rw = 0.2 ft

Lidstone & Anderson, Inc.	Client: Power Resources Inc.
Project No.: WYPRI02	Location: Buss

Buss Constant Discharge Test–Recovery



DATA SET:
bsmifpre.in
11/24/96

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Theis Recovery

TEST DATE:
10/05/96

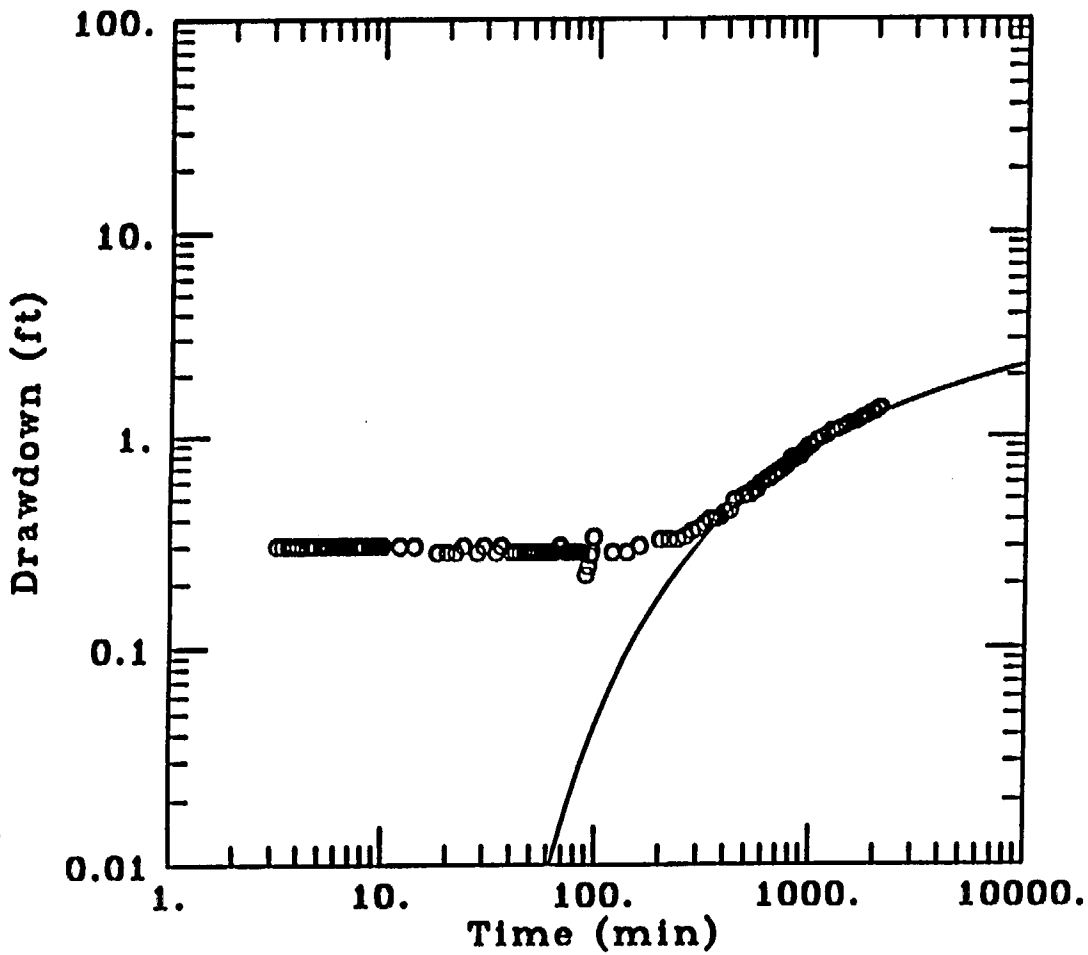
OBS. WELL:
M-1 Partially Penetrating

ESTIMATED PARAMETERS:
T = 0.2477 ft^2/min

TEST DATA:
Q = 1.07 ft^3/min
t pumping = 6900. min

Lidstone & Anderson, Inc	Client: Power Resources Inc.
Project No.: WYPRI02	Location: Buss

Buss Constant Discharge Test



DATA SET:
bamip.in
11/24/96

AQUIFER TYPE:
Leaky

SOLUTION METHOD:
Hantush

TEST DATE:
10/05/96

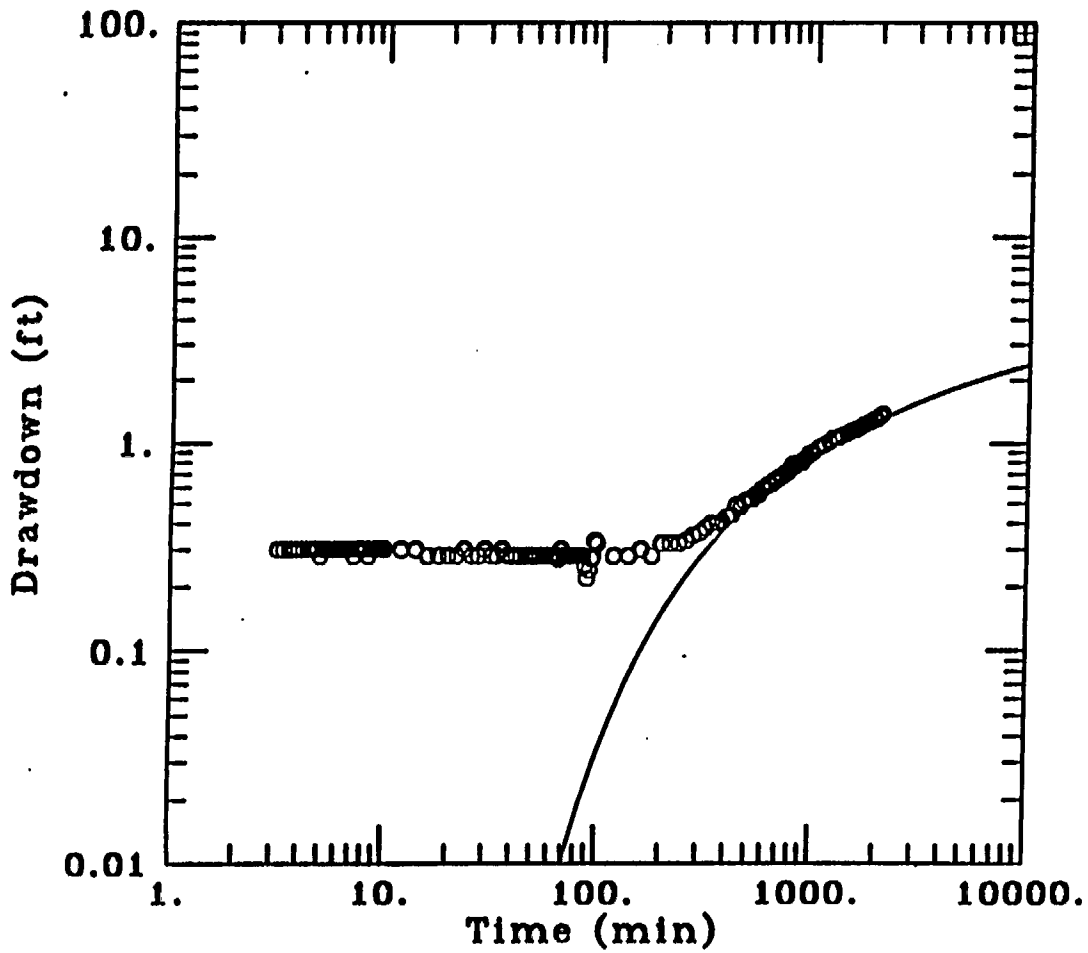
OBS. WELL:
M-1 Partially Penetrating

ESTIMATED PARAMETERS:
T = 0.1248 ft^2/min
S = 8.5323E-05
β = 0.01

TEST DATA:
Q = 1.07 ft^3/min
r = 1021.8 ft
rc = 0.2 ft
rw = 0.2 ft
b = 221.3 ft
TEST WELL:
t.o.s. = 113.8 ft
b.o.s. = 126.8 ft
OBS. WELL:
t.o.s. = 131.3 ft
b.o.s. = 191.3 ft

Lidstone & Anderson, Inc	Client: Power Resources Inc.
Project No.: WYPRI02	Location: Buss Pit

Buss Constant Discharge Test



DATA SET:
bamip.in
10/17/96

AQUIFER TYPE:
Leaky

SOLUTION METHOD:
Moench

TEST DATE:
10/05/96

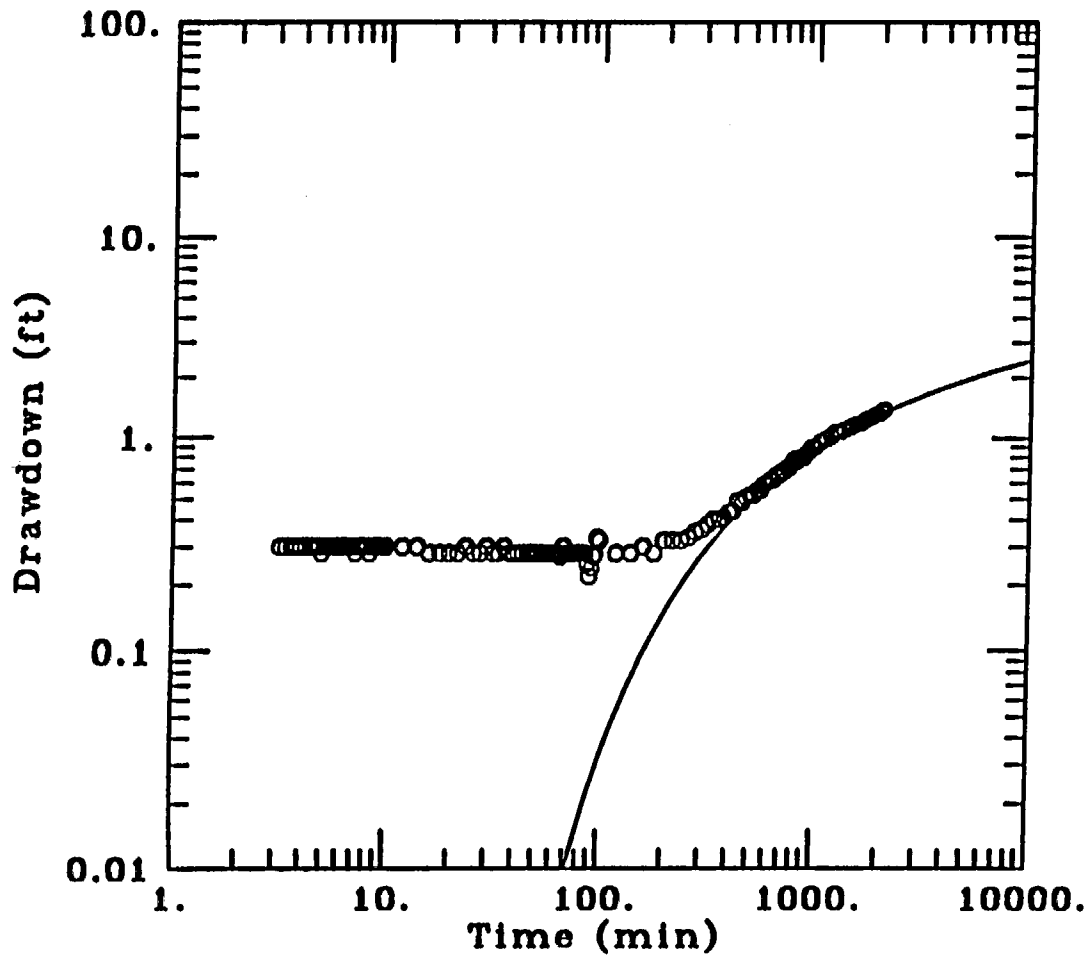
OBS. WELL:
M-1 Partially Penetrating

ESTIMATED PARAMETERS:
T = 0.1186 ft^2/min
S = 9.3819E-05
r/B= 1.E-05
β = 1.E-05
Sw = 0.
a = 0.002547

TEST DATA:
Q = 1.07 ft^3/min
r = 1021.8 ft
rc = 0.2 ft
rw = 0.2 ft

Lidstone & Anderson, Inc	Client: Power Resources Inc.
Project No.: WYPRI02	Location: Buss

Buss Constant Discharge Test



DATA SET:
bsmip.in
11/24/96

AQUIFER TYPE:
Confined

SOLUTION METHOD:
Theis

TEST DATE:
10/05/96

OBS. WELL:
M-1 Partially Penetrating

ESTIMATED PARAMETERS:
T = 0.1146 ft^2/min
S = 9.3018E-05

TEST DATA:
Q = 1.07 ft^3/min
r = 1021.8 ft
rc = 0.2 ft
rw = 0.2 ft
b = 221.3 ft
TEST WELL:
t.o.s. = 113.8 ft
b.o.s. = 126.8 ft
OBS. WELL:
t.o.s. = 131.3 ft
b.o.s. = 191.3 ft