

STATE ENGINEER
Salem, Oregon

MARION Well Record

STATE WELL NO. 10/3W-13B(1)
COUNTY Marion
APPLICATION NO. GR- 208

OWNER: Leland W. Wells

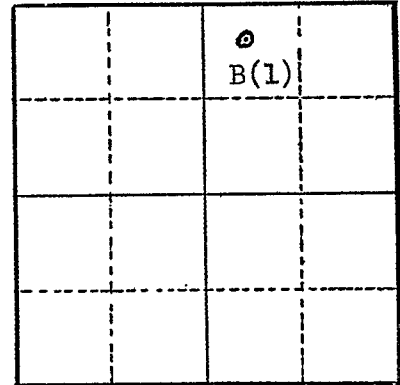
MAILING
ADDRESS:

LOCATION OF WELL: Owner's No. 1

CITY AND
STATE: Jefferson, Oregon

NW ¼ NE ¼ Sec. 13 T. 10 S., R. 3 W., W.M.

Bearing and distance from section or subdivision
corner 600' E. & 400' S. from N¼ cor. of sec. 13



Altitude at well 260'

TYPE OF WELL: Drilled Date Constructed 5/12/47

Depth drilled 20' Depth cased 20'

Section 13

CASING RECORD:
8 inch

FINISH:

AQUIFERS:

WATER LEVEL:
10 feet

PUMPING EQUIPMENT: Type Centrifugal H.P. 10
Capacity 300 G.P.M.

WELL TESTS:
Drawdown ft. after hours G.P.M.
Drawdown ft. after hours G.P.M.

USE OF WATER Irrigation (30 Acres) Temp. °F. 19

SOURCE OF INFORMATION GR- 193

DRILLER or DIGGER Wolf?

ADDITIONAL DATA:
Log NA Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

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Well No. 10/3w-13B(1)
County: MARION

AQUIFER TEST

Observation Well 10/3w-13B(1)

Time	Time since pumping started t_m (minutes)	Time since pumping started t_d (days)	Water Level (feet)	Drawdown (feet)(s)	r^2/t_d
10:20 AM	14	.00972	9.18	.88	108×10^5
10:21	15	.0104	9.19	.89	9.6×10^4
10:22	16	.0111	9.20	.90	9.0
10:23	17	.0118	9.21	.91	8.5
10:27	21	.0146	9.23	.93	6.8
10:28:30	22.5	.0156	9.24	.94	6.4
10:32	26	.0181	9.25	.95	5.5
10:33	27	.0187	9.2 ⁷ 8	.97	5.35
10:34	28	.0195	9.2 ²⁸ 8	.98	5.1
10:37	31	.0215	9.3 0 29	.99	4.65
10:39	33	.0229	9.3 7 30	1.00	4.35
10:41	35	.0243	9.3 ³¹ 2	1.01	4.10
10:42	36	.0250	9.3 ³² 3	1.02	4.00
10:45	39	.0271	9.3 ³ 4	1.03	3.70
10:47	41	.0285	9.3 7 4	1.04	3.50
10:49	43	.0298	9.3 ⁵ 8	1.05	3.35
10:51	45	.0313	9.3 8 6	1.06	3.20
11:04	58	.0402	9.38	1.08	2.49
11:12	66	.0457	9.40	1.10	2.19
11:22	76	.0529	9.42	1.12	1.89
11:50	104	.0721	9.50	1.20	1.38

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Observation Well 54 NW
From Pumped Well.

State Well No. 10/3w-13B(1)
County MARION

AQUIFER TEST

10/21/58

Time	Time Since Pumping Began (t) min	Water Level	Drawdown or recovery (s) ft	Head on Measuring Device	Discharge (g.p.m.)	Remarks
7:30 AM		13.88		ye d		Static W.L.
10:06					180 GPM	Pump started
10:13	7	13.88		.00486		
10:19	13	13.90	.02	.00902		
10:31	25	13.96	.08	.0174		
10:46	40	13.97	.09	.0278		
11:06	60	13.98	.10	.0416		
11:54	108	14.03	.15	.0750		
12:21 PM	195	14.07	.19	.136		
12:40	214	14.08	.20	.148		
1:05	239	14.12	.24	.166		
1:45	279	14.14	.26	.194		
2:42	336	14.19	.31	.234		
4:35	389	14.27	.39	.270		
6:00	474	14.32	.44	.329		
7:40	574	14.38	.50	.399		

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Well No. 10/3W-1380
County: MARION

AQUIFER TEST

Observation Well No. 10/3W-1380 $r =$ 10 (ft) $r^2 =$ 100
Date of test 10-21-58 Average Q = 180 gpm S.W.L. 8.30
Pump on 10:06 AM Pump off _____ Hours Pumped _____
Match Points: $s =$ _____ r^2/t _____ Wu _____ $u =$ _____

Time	Time since pumping started t_m (minutes)	Time since pumping started t_d (days)	Water Level (feet)	Drawdown (feet) (s)	r^2/t_d
10:06:10 AM	.16	.000111	8.60	.30	9.0×10^6
10:06:17	.27	.000187	8.70	.40	5.7×10^6
10:06:21	.29	.000201	8.75	.45	5.0
10:06:31	.50	.000347	8.80	.50	3.05
10:08:20	2.33	.00160	8.85	.55	6.5×10^5
10:08:45	2.75	.00191	8.88	.58	5.2
10:08:50	2.83	.00196	8.925	.625	5.2
10:09:20	3.33	.00231	8.95	.65	4.3
10:09:35	3.58	.00249	8.975	.675	4.0
10:09:55	3.89	.00270	9.00	.70	3.7
10:10:05	4.08	.00283	9.025	.725	3.53
10:10:15	4.25	.00295	9.05	.75	3.39
10:10:52	4.87	.00337	9.10	.80	2.95
10:11:35	5.58	.00386	9.15	.85	2.59
10:13:30	7.50	.00521	9.20	.90	1.92
10:18	12	.00833	9.15	.85	1.20
10:19	13	.00902	9.17	.87	1.11

Nonequilibrium formula:

$$T = \frac{114.6 \cdot Q \cdot W(u)}{s}$$

$$S = \frac{u \cdot T}{1.87 \cdot r^2/t}$$

Modified nonequilibrium formula:

$$T = \frac{264 \cdot Q}{\Delta s}$$

$$S = \frac{0.3 \cdot T \cdot t_0}{r^2}$$

$$T = \text{_____ gpd/ft}$$

$$S = \text{_____}$$

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Well No. 10/3W-13B(1)
County: MARION

AQUIFER TEST

Observation Well No. 10/3W-13B(1) $r =$ 0 (ft) $r^2 =$ _____

Date of test 10-21-58 10-22-58 Average $Q =$ 180 gpm S.W.L. 8.09

Pump on 10:06 AM 10-21-58 Pump off _____ Hours Pumped _____

Match Points: $s =$ _____ $r^2/t =$ _____ $Wu =$ _____ $u =$ _____

Time	Time since pumping started t_m (minutes)	Time since pumping started t_d (days)	Water Level (feet)	Drawdown (feet) (s)	r^2/t_d
11:00 AM	54	.0375	9.63	1.54	
11:04	58	.0402	9.60	1.51	
11:23	77	.0534	9.65	1.57	
11:56	110	.0763	9.74	1.65	
12:25 PM	139	.0965	9.80	1.71	
12:49 PM	167	.116	9.90	1.81	
1:40	214	.148	9.90	1.81	
2:45	279	.194	9.94	1.85	
4:28	382	.265	9.99	1.90	
5:55	469	.325	10.03	1.94	
7:30	564	.391	10.10	2.01	

Nonequilibrium formula:

$$T = \frac{114.6 \cdot Q \cdot W(u)}{s}$$

Modified nonequilibrium formula:

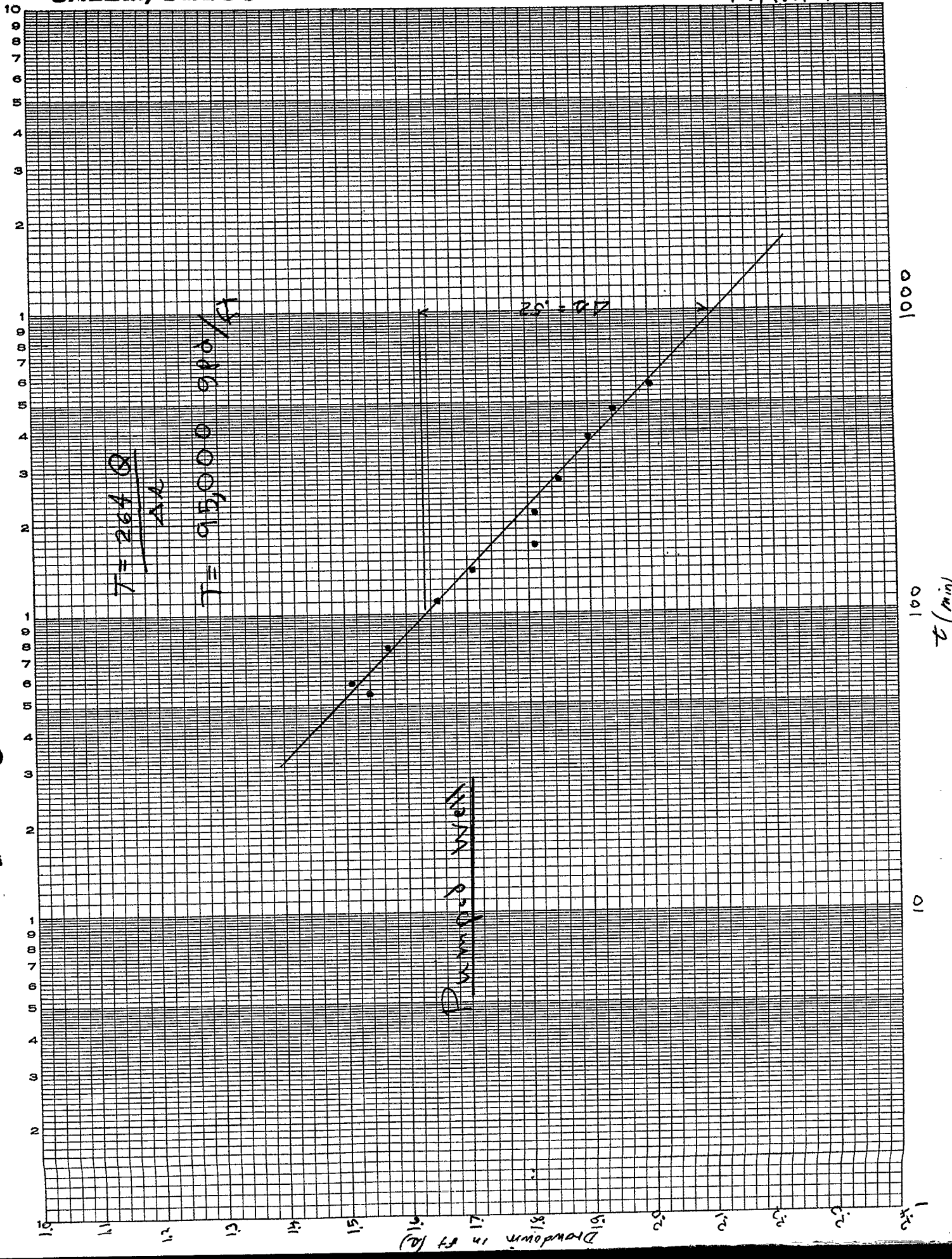
$$T = \frac{264 \cdot Q}{\Delta s}$$

$T =$ _____ gpd/ft

$$S = \frac{u \cdot T}{1.87 \cdot r^2/t}$$

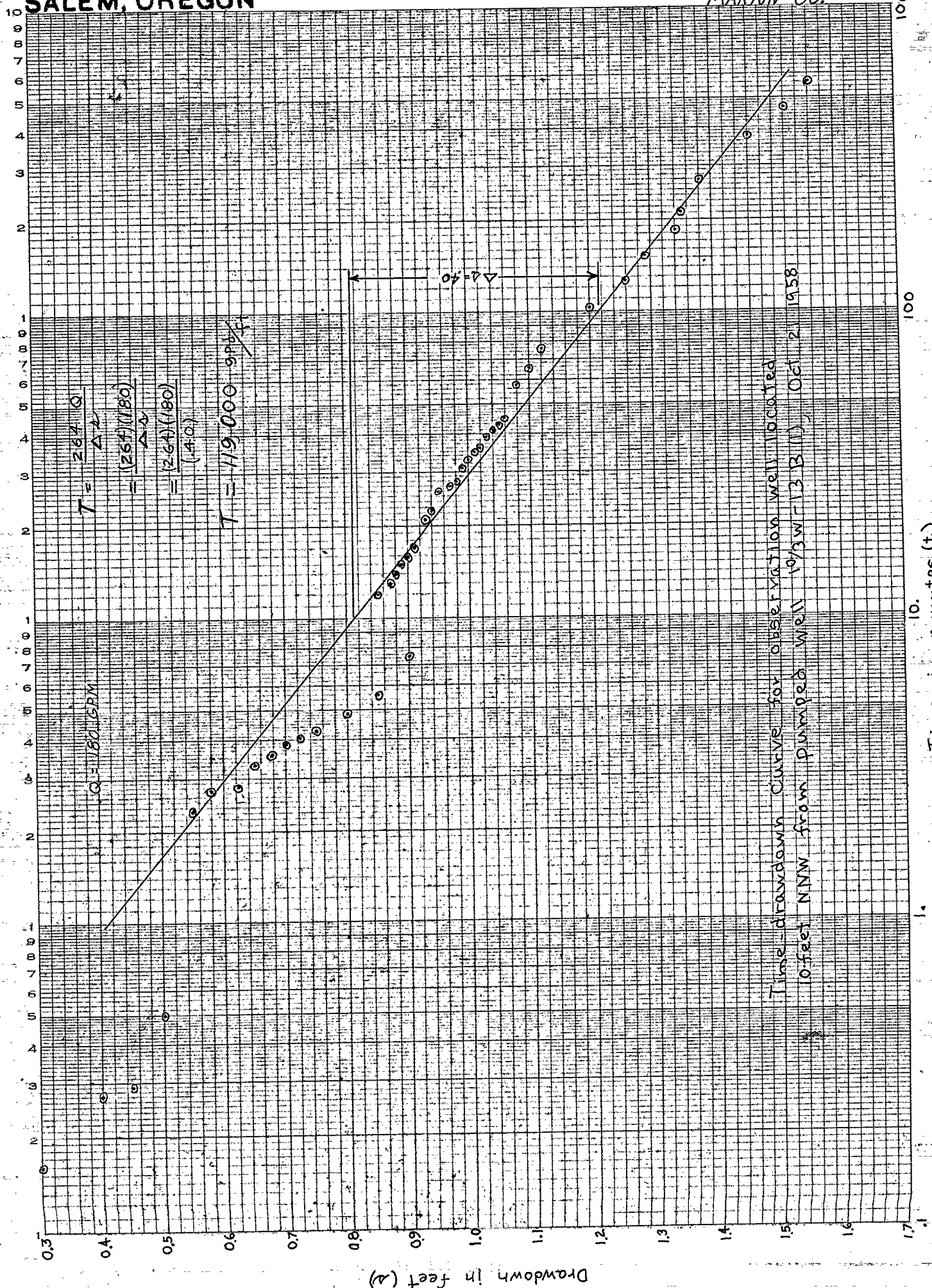
$$S = \frac{0.3 \cdot T \cdot t_0}{r^2}$$

$$S =$$



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Time-drawdown Curve for observation well located
10 feet NNW from pumped well 10/3W-13B(1), Oct 2, 1958

10.
1.
Time in minutes (t)

Drawdown in feet (s)

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