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JAN 26 1989

DEPT OF MINERALS

January 9, 1989

Permit Officer
Division of Environmental Protection
Capitol Complex
Carson City, NV 89710

Dear Sirs:

RE: Warren Estates

This report is regarding permit #40310, 49057, and 30013.
This report includes July through December of 1989.
The totalizing flow meter readings and the gallons per minute
instantaneous flow measurements were taken, by Gordon McKay.

Sincerely,



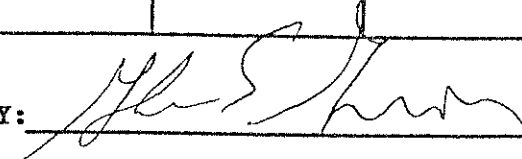
SIERRA ENVIRONMENTAL MONITORING

WATER QUALITY ANALYSIS RECORD

PROJECT NAME	Warren Properties	J.N. WAR-163
P.O. Box 915 Rancho Sante Fe, CA 92607		

SAMPLE IDENTIFICATION			PARAMETER	PARAMETER	PARAMETER	PARAMETER	PARAMETER
Sample Collection Date	Time	Station ID.	pH	Alkalinity Carbonate mg/l	Alkalinity Bicarbonate mg/l	Fluoride	Arsenic
MON DAY YR	0-2400		UNITS : S.U.	UNITS CaCO ₃	UNITS CaCO ₃	UNITS mg/l	UNITS mg/l
12-29-89	08:00	Product. Well #1	8.0	0	72	4.7	0.14
			Boron	Silica	Sulfate	Chloride	Conductivity umho
			Units: mg/l	Units: mg/l	Units: mg/l	Units: mg/l	Units: /cm
12-29-89	08:00	Product. Well #1	2.1	110	425	59	1,350
			Sodium	Potassium	Calcium	Magnesium	
			Units: mg/l	Units: mg/l	Units: mg/l	Units: mg/l	
12-29-89	08:00	Product. Well #1	291	9.2	27.2	0.2	

SAMPLES BY: McKay Drilling - G. McKay
ANALYSIS BY: SEM - G. Gross/S. Poole/A.M. Moos / M. Chubb

APPROVED BY: 

ATTACHMENT 1

Weekly measurements of production and injection activities at Warren Estates.

DATE	TIME	TEMP. OF PRODUCED FLUID (°F)	INSTANTANEOUS FLOW MEASUREMENT (gpm)	INJECTION WELL WATER-LEVEL (ft.)	TOTALIZING FLOW METER READINGS (gal)	DATA READ AND RECORDED BY
7-3-89	12:40	202	240	67	315,375.00	G. J. [unclear]
7-10-89	11:40	202	220	57	308,816.00	
7-17-89	11:45	202	230	60	310,863.00	
7-24-89	11:55	202	225	57	312,810.00	
7-31-89	11:50	202	235	62	315,202.00	
8-7-89	11:15	202	220	56	317,278.00	
8-14-89	11:10	202	245	54	321,113.00	
8-21-89	12:40	202	230	58	322,270.00	
8-28-89	12:30	202	220	61	324,270.00	
9-4-89	11:30	202	220	57	326,534.00	
9-11-89	1:00	202	220	55	328,573.00	
9-18-89	12:15	202	225	56	331,178.00	
9-25-89	11:30	202	233	57	333,733.00	
10-2-89	11:50	202	235	55	335,760.00	
10-9-89	12:35	202	230	53	338,259.00	
10-16-89	11:45	202	235	55	341,240.00	
10-23-89	11:15	202	235	56	342,950.00	
10-30-89	11:00	202	220	56	345,359.00	
11-6-89	12:10	202	250	56	347,716.00	
11-13-89	12:50	202	235	59	350,085.00	
11-20-89	12:10	202	220	55	352,485.00	
11-27-89	12:30	202	240	57	354,921.00	
12-4-89	11:45	202	235	56	357,198.00	
12-11-89	2:35	202	240	54	359,547.00	
12-18-89	3:45	202	220	59	361,943.00	
12-25-89	1:55	202	240	58	364,592.00	

ATTACHMENT 1

Injection Pressure-units

100
90
80
70
60
50
40
30
20
10
0

JANUARY 5 10 15 20 25
FEBRUARY 5 10 15 20 25
MARCH 5 10 15 20 25
APRIL 5 10 15 20 25
MAY 5 10 15 20 25
JUNE 5 10 15 20 25
JULY 5 10 15 20 25
AUGUST 5 10 15 20 25
SEPTEMBER 5 10 15 20 25
OCTOBER 5 10 15 20 25
NOVEMBER 5 10 15 20 25
DECEMBER 5 10 15 20 25

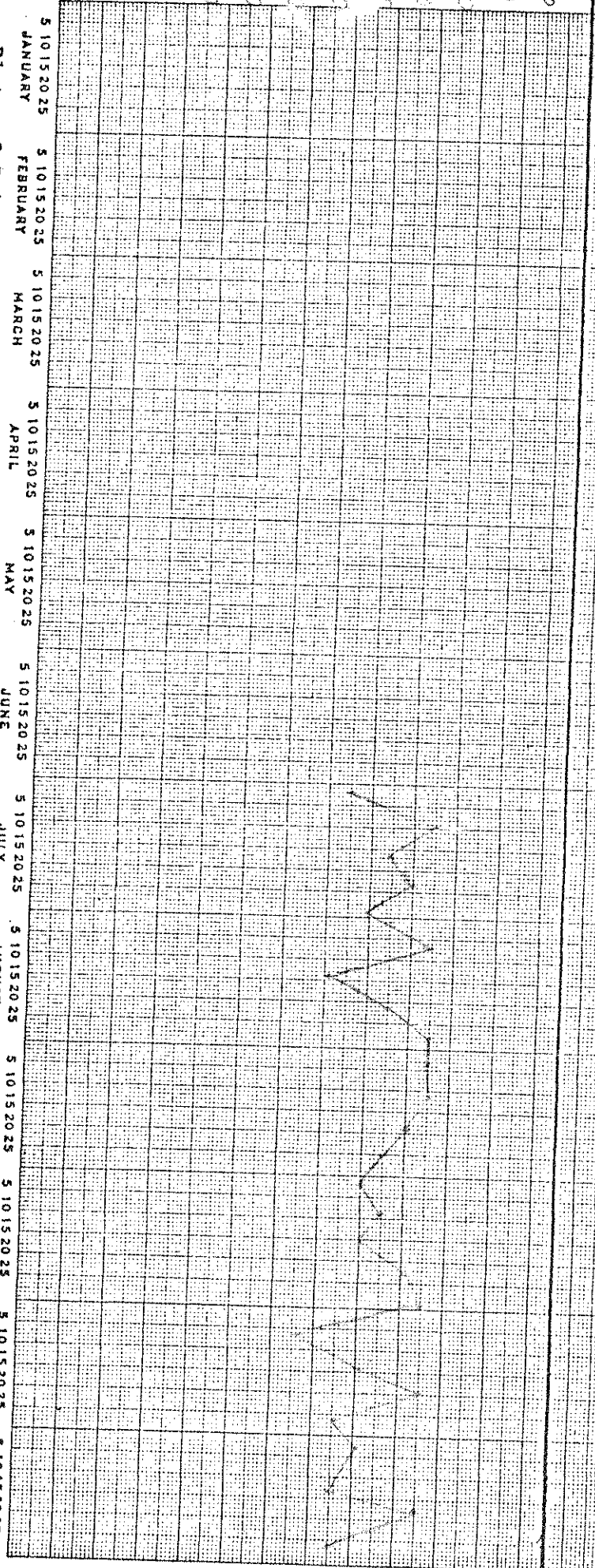


Injection Rate-units

300
200
100
0

JANUARY 5 10 15 20 25
FEBRUARY 5 10 15 20 25
MARCH 5 10 15 20 25
APRIL 5 10 15 20 25
MAY 5 10 15 20 25
JUNE 5 10 15 20 25
JULY 5 10 15 20 25
AUGUST 5 10 15 20 25
SEPTEMBER 5 10 15 20 25
OCTOBER 5 10 15 20 25
NOVEMBER 5 10 15 20 25
DECEMBER 5 10 15 20 25

Plots of Injection Rate and Pressure Versus Time for Injection Well 1



McKay
Drilling & Pump Service, Inc.

Serving Northern Nevada Since 1960
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• Reno, Nevada 89509

(702) 825-8692
826-1032
826-5365

July 9, 1989

Permit Officer
Division of Environmental Protection
Capitol Complex
Carson City, NV 89710

Dear Sirs: RE: Warren Estates

This report is regarding permit #40310, 49057, and 30013.
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The totalizing flow meter readings and the gallons per minute
instantaneous flow measurements were taken, by Gordon McKay.

Sincerely,

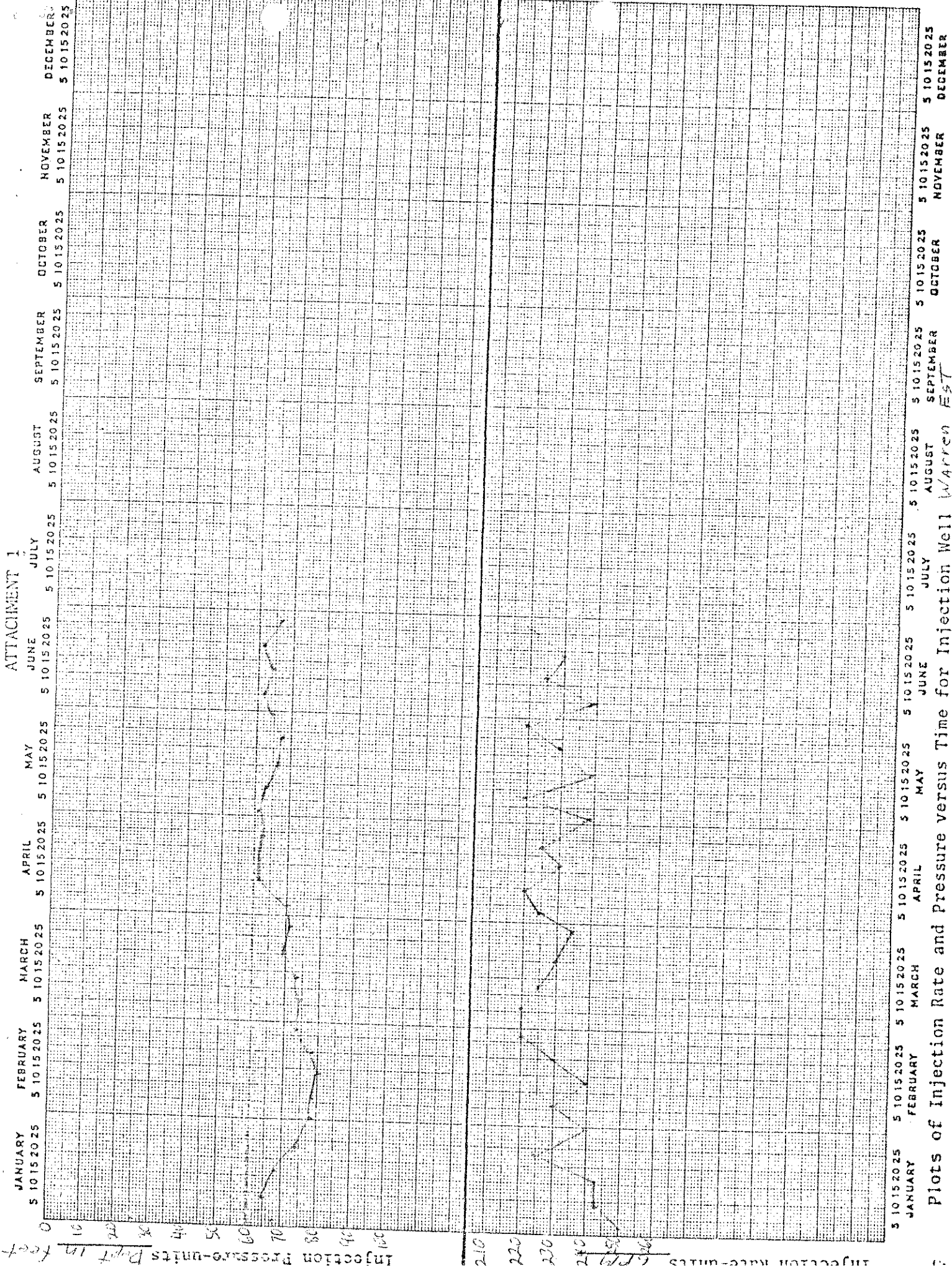
Gordon McKay

ATTACHMENT 1

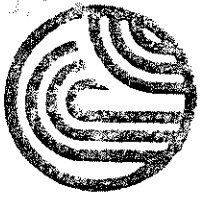
Weekly measurements of production and injection activities at L. Green Estates.

DATE	TIME	TEMP. OF PRODUCED FLUID (°F)	INSTANTANEOUS FLOW MEASUREMENT (gal)	INJECTION WELL WATER-LEVEL (ft.)	TOTALIZING FLOW METER READINGS (gal)	DATA READ AND RECORDED BY:
1-2-89	12:16	202	250	67	245,582,000	Gordon
1-9-	11:30		245	65	248,193,000	
1-16	12:30		245	68	250,518,000	
1-23	1:25		225	74	252,836,000	
1-30	12:05		240	78	255,121,000	
2-6	11:10		230	78	257,411,000	
2-13	11:00		240	80	259,739,000	
2-20	1:10		230	79	262,092,000	
2-27	1:00		220	74	264,399,000	
3-6	11:00		220	75	266,711,000	
3-13	11:45		225	73	269,055,000	
3-20	1:00		230	70	271,424,000	
3-27	1:10		235	71	273,770,000	
4-3	1:12		225	70	276,125,000	
4-10	1:20		220	62	278,443,000	
4-17	11:15		230	62	280,843,000	
4-24	12:05		225	63	283,085,000	
5-1	12:40		240	61	285,477,000	
5-8	12:20		230	64	287,746,000	
5-15	12:05		240	66	290,064,000	
5-22	12:00		230	67	292,378,000	
5-29	3:00		220	65	295,093,000	
6-5	12:00		240	61	297,061,000	
6-12	11:20		225	64	299,937,000	
6-19	1:10		230	62	301,727,000	
6-26	12:00		220	66	304,036,000	

ATTACHMENT 1



Plots of Injection Rate and Pressure versus Time for Injection Well Warren EST



SIERRA ENVIRONMENTAL MONITORING

WATER QUALITY ANALYSIS RECORD

PROJECT NAME Warren Properties			J.N. WAR-163				
P.O. Box 915 Rancho Sante Fe, CA 92607							
SAMPLE IDENTIFICATION			PARAMETER	PARAMETER	PARAMETER	PARAMETER	PARAMETER
Sample Collection Date	Time	Station ID.	pH	Total Dissol Solids	Conductivity	Fluoride	Arsenic
MON DAY YR	0-2400		UNITS S.U.	UNITS mg/l	umho/cm	UNITS mg/l	UNITS mg/l
6-16-89	11:00	Production Well - Warren Estates	8.3	1,049	1,450	4.8	0.09

SAMPLES BY: McKay Drilling - G. McKay
ANALYSIS BY: SEM - G. Gross/J. Seher/J. Mantravadi APPROVED BY: