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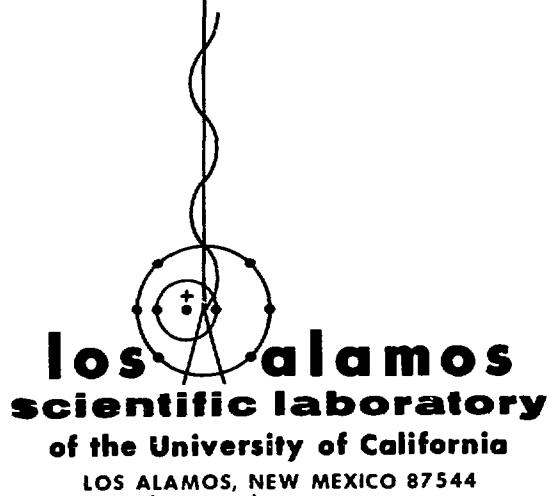
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Water Supply at Los Alamos During 1973

by

**William D. Purtymun
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WATER SUPPLY AT LOS ALAMOS DURING 1973

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ABSTRACT

The Los Alamos water supply for 1973 consisted of 1566 million gal from 16 wells in three fields, with an additional 49 million gal from a gallery in Water Canyon. Water level trends in the well fields were as anticipated for current pumpage practices. Recommendations previously made in Los Alamos Scientific Laboratory reports LA-5059-MS and LA-5296-MS for a new well for the Pajarito field and a replacement well in the Guaje field are still valid. An exceedingly dry spring and summer or an outage of a high-yield well during the period of heavy pumpage could result in a shortage of supply for an indefinite period of time.

Monthly pumping and production data are presented for each of the 16 wells and the gallery in Water Canyon for the years 1971, 1972, and 1973.

I. INTRODUCTION

This report summarizes pumpage, as well as pump and aquifer conditions, for the 16 wells in the Los Alamos, Guaje, and Pajarito well fields which supply most of the water used for municipal and industrial purposes in Los Alamos. A gallery in Water Canyon which makes an appreciable contribution to the Los Alamos water supply is also discussed briefly. The appendix contains basic pumping and production statistics for supply wells on a monthly basis for 1971, 1972, and 1973.

Water is pumped from the wells (Fig. 1) through transmission lines, and lifted by booster pumps into reservoirs for storage and distribution. Water from the gallery flows by gravity through a microfilter station and is pumped into one of the system reservoirs for distribution.

The Utilities and Engineering (U/E) Division of the Zia Company, the USAEC support contractor at Los Alamos, maintains and operates the water-supply system and provides production and water level data to the Los Alamos Scientific Laboratory Environmental Studies Group, H-8, for interpretation and evaluation. The purpose of the joint effort is to ensure reliable and continuing historical records, provide guidance for management of water resources and facilities, and provide for long-range planning for the water-supply system. One summary report¹ and two previous annual reports^{2,3} have been issued as a result of these studies.

Pump operating time and pumpage are taken from monthly operating reports. Monthly average nonpumping and pumping water levels are computed from air-line recorders

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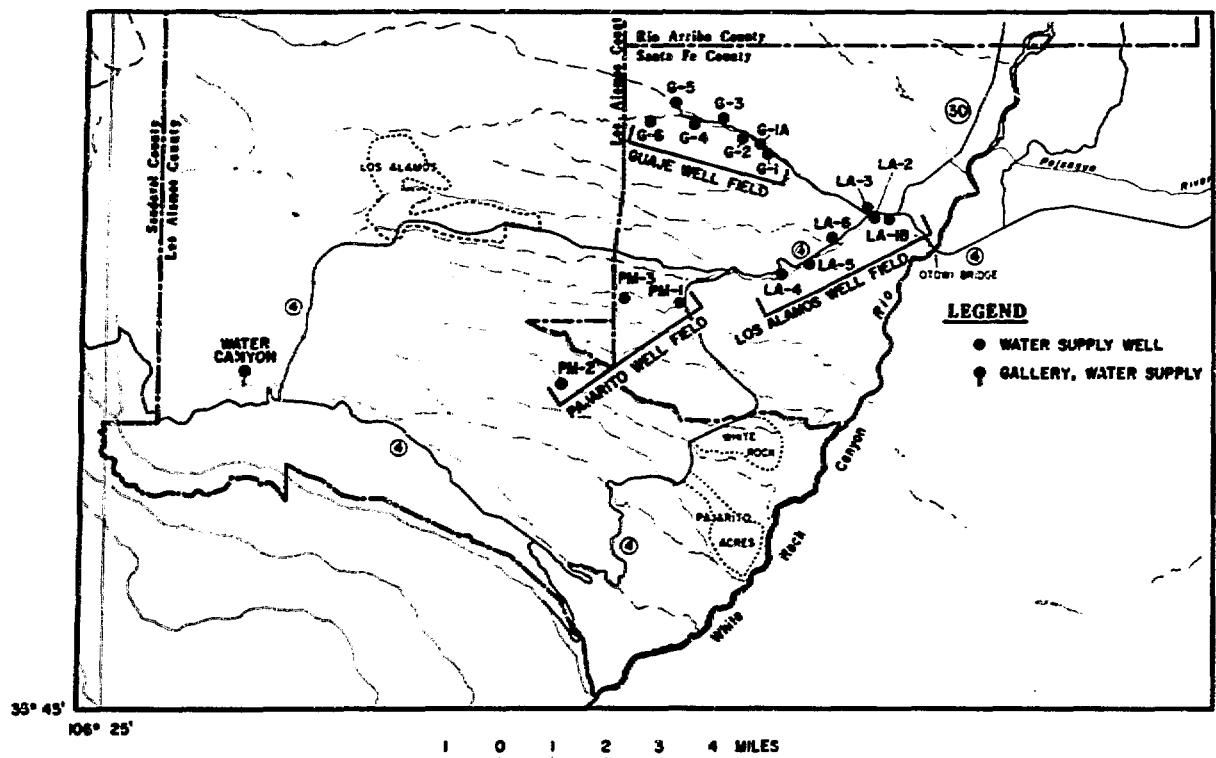


Fig. 1. Location of well fields, supply wells, and gallery water supply.

operated on each well. These data are input information for a computer program that calculates pumping rates, drawdown (difference between monthly average nonpumping and pumping water levels), specific capacity (pump rate per unit drawdown), and other statistics of interest.

Hydrographs have been prepared for one observation well and 16 supply wells. They show monthly average nonpumping and pumping water levels (a measure of well conditions), and the monthly and yearly pumpage.

II. WELL-FIELD CHARACTERISTICS

Production during 1973 was from six wells in the Los Alamos field, seven wells in the Guaje field and three wells in the Pajarito field (Fig. 1). Pumpage from the three fields increased by 56 million gal,

from 1510 million gal in 1972 to 1566 million gal in 1973 (Table I). The total pumpage from the three well fields since 1947 has been 26 748 million gal. The annual production for the individual wells is shown in Table II, and monthly production data for 1971, 1972, and 1973 are given in the Appendix.

The average yearly pumping rate for the three well fields decreased 130 gpm from 8837 gpm in 1972 to 8707 gpm in 1973 (Table III). The maximum average pumping rate was 9139 gpm in 1968. The average yearly pumping rate indicates pumping conditions of wells in the three fields and should not be construed to mean that water can be delivered continuously at this rate.

TABLE I
TOTAL PUMPAGE BY FIELD BY YEAR
IN MILLIONS OF GALLONS

YEAR	LOS ALAMOS			CANYON			GUAJE CANYON			PAJARITO MESA			ALL FIELDS		
	PUMP- AGE	PER- CENT	CUMU- LATIVE	PUMP- AGE	PER- CENT	CUMU- LATIVE	PUMP- AGE	PER- CENT	CUMU- LATIVE	PUMP- AGE	PER- CENT	CUMU- LATIVE	PUMP- AGE	PER- CENT	CUMU- LATIVE
1947	147	100.0	147	0	0.0	0	0	0.0	0	147	0.0	0	147	147	147
1948	264	100.0	411	0	0.0	0	0	0.0	0	264	0.0	0	264	411	411
1949	302	100.0	713	0	0.0	0	0	0.0	0	302	0.0	0	302	713	713
1950	547	99.5	1260	3	.5	3	0	0.0	0	550	0.0	0	550	1263	1263
1951	702	91.1	1961	69	8.9	71	0	0.0	0	770	0.0	0	770	2032	2032
1952	448	56.1	2409	350	43.9	421	0	0.0	0	798	0.0	0	798	2830	2830
1953	444	54.4	2853	372	45.6	793	0	0.0	0	816	0.0	0	816	3646	3646
1954	380	50.3	3233	374	49.7	1168	0	0.0	0	754	0.0	0	754	4400	4400
1955	407	52.1	3640	375	47.9	1542	0	0.0	0	782	0.0	0	782	5182	5182
1956	437	46.4	4077	505	53.6	2048	0	0.0	0	942	0.0	0	942	6125	6125
1957	350	48.1	4426	379	51.9	2425	0	0.0	0	727	0.0	0	727	6852	6852
1958	372	48.5	4798	395	51.5	2821	0	0.0	0	767	0.0	0	767	7619	7619
1959	391	45.0	5189	479	55.0	3298	0	0.0	0	869	0.0	0	869	8487	8487
1960	530	49.8	5719	533	50.2	3831	0	0.0	0	1062	0.0	0	1062	9550	9550
1961	546	46.7	6265	624	53.3	4455	0	0.0	0	1170	0.0	0	1170	10720	10720
1962	577	49.1	6842	597	50.9	502	0	0.0	0	1174	0.0	0	1174	11894	11894
1963	539	45.2	7381	654	54.8	5706	0	0.0	0	1193	0.0	0	1193	13087	13087
1964	627	48.5	8008	665	51.5	6372	0	0.0	0	1292	0.0	0	1292	14380	14380
1965	647	40.0	8455	571	51.1	6943	99	9.9	99	1117	0.0	0	1117	15497	15497
1966	450	37.8	8905	613	51.5	7556	127	10.7	226	1191	0.0	0	1191	16687	16687
1967	373	28.3	9279	464	35.2	8020	481	35.5	707	1319	0.0	0	1319	18006	18006
1968	345	24.6	9623	474	33.8	864	584	41.6	1291	1402	0.0	0	1402	19408	19408
1969	331	24.8	9954	435	32.6	8929	559	42.6	1860	1335	0.0	0	1335	20743	20743
1970	360	26.1	10314	423	30.7	9352	595	43.2	2454	1377	0.0	0	1377	22120	22120
1971	412	26.5	10726	484	31.1	9835	657	42.3	3111	1553	0.0	0	1553	23673	23673
1972	380	25.2	11107	467	30.9	10302	652	43.9	3774	1510	0.0	0	1510	25183	25183
1973	406	25.9	11512	475	30.3	10778	685	43.7	4459	1566	0.0	0	1566	26748	26748

The heaviest demands for water in 1973 occurred in June, July, and August while January, February, March, November, and December were months of least pumpage. Water for irrigation is responsible for the increased demands for water during the late spring and summer. As a result, the highest water levels in the well fields occur in the winter and early spring when pumpage is the least, and lowest levels occur during the summer when pumpage is the greatest.

Tables IV and V present percents of total pumpage and of field pumpage, respectively, for all wells by year.

A. Los Alamos Well Field

Pumpage from the Los Alamos well field increased 26 million gal from 380 million

gal in 1972 to 406 million gal in 1973. The six wells produced 25.9% of the total pumpage.

Well LA-1 ceased operations as a supply well in 1956 due to a sand problem and is now used as an observation well to monitor water level trends in the lower part of the Los Alamos well field. The well was replaced by well LA-1B which is located about 150 ft northeast of LA-1. Water-level trends in well LA-1 (Fig. 2) therefore mainly reflect pumpage from nearby LA-1B.

Pumpage from well LA-1B was 12 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 3).

Pumpage from well LA-2 was 8 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 4).

TABLE II
TOTAL PUMPAGE BY WELL BY YEAR IN MILLIONS OF GALLONS

YEAR	LOS ALAMOS CANYON						GUADALAJARA CANYON						PAJARITO MESA						TOTAL			
	LA-1	LA-1B	LA-2	WELL FIELD	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	G-3	G-4	G-5	G-6	G-7	WELL FIELD	PM-1	PM-2	PM-3		
1947	54	0	28	65	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	167	
1948	35	0	59	83	43	40	58	96	0	0	0	0	0	0	0	0	0	0	0	0	264	
1949	27	0	42	42	37	58	165	130	3	0	0	0	0	0	0	0	0	0	0	0	302	
1950	11	0	16	58	67	174	187	201	38	0	4	7	13	7	0	0	0	0	0	0	550	
1951	15	0	56	67	59	120	110	75	0	78	57	57	74	0	0	0	0	0	0	0	770	
1952	3	0	46	50	70	109	104	114	97	0	106	76	55	38	0	0	0	0	0	0	798	
1953	0	0	47	57	57	78	80	107	78	5	86	66	59	81	0	0	0	0	0	0	816	
1954	0	0	49	49	94	97	97	108	70	53	79	69	23	80	0	0	0	0	0	0	754	
1955	10	0	44	42	120	105	126	83	108	96	88	34	97	0	0	0	0	0	0	0	782	
1956	0	0	30	26	105	86	102	56	87	76	70	24	64	0	0	0	0	0	0	0	942	
1957	0	0	31	34	110	90	107	68	93	80	69	36	49	0	0	0	0	0	0	0	727	
1958	0	0	41	35	114	93	108	62	103	85	75	32	102	0	0	0	0	0	0	0	767	
1959	0	0	52	38	146	119	139	96	123	97	82	37	98	0	0	0	0	0	0	0	869	
1960	36	0	44	35	130	100	113	112	147	105	60	45	134	0	0	0	0	0	0	0	1062	
1961	125	0	45	45	129	108	129	94	135	100	64	42	142	0	0	0	0	0	0	0	1170	
1962	129	0	41	42	130	105	103	115	150	105	67	46	151	0	0	0	0	0	0	0	1174	
1963	117	0	50	50	155	119	138	114	129	105	79	43	150	45	0	0	0	0	0	0	1193	
1964	130	0	43	111	151	104	91	117	83	66	24	117	75	99	0	0	0	0	0	0	1292	
1965	98	0	40	46	116	79	104	103	133	95	74	34	83	92	108	19	0	0	0	0	1117	
1966	34	0	21	46	116	79	104	105	130	91	68	53	45	80	58	111	370	0	0	0	1161	
1967	65	0	55	47	77	74	85	70	91	68	55	31	81	56	328	0	0	0	0	0	1319	
1968	74	0	62	63	72	79	103	66	91	69	51	17	83	56	34	280	0	0	0	0	0	1402
1969	76	0	40	62	68	82	92	68	91	63	55	17	89	51	66	301	0	0	0	0	0	1335
1970	60	0	44	63	66	79	65	92	63	55	9	21	88	43	101	340	0	0	0	0	0	1377
1971	69	0	32	45	89	74	82	68	112	87	64	21	88	43	101	340	0	0	0	0	0	1553
1972	75	0	39	40	83	64	79	66	94	73	51	33	92	57	85	385	0	0	0	0	0	1510
1973	67	0	47	20	92	66	91	67	88	72	65	37	97	0	47	381	0	0	0	0	0	1566

TABLE III
AVERAGE YEARLY PUMPING RATE BY WELL BY YEAR IN GALLONS PER MINUTE

YEAR	LOS ALAMOS CANYON					GUAJE CANYON					PAJARITO MESA					TOTAL		
	LA-1	LA-1B	LA-2	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	G-3	G-4	G-5	G-6	PW-1	PW-2	PW-3	
1947	260	0	297	373	0	0	0	0	0	0	0	0	0	0	0	0	0	930
1948	193	0	270	377	454	575	698	0	0	0	0	0	0	0	0	0	0	2567
1949	327	0	421	462	665	553	652	0	0	0	0	0	0	0	0	0	0	3079
1950	311	0	624	635	632	590	520	571	539	0	0	0	0	0	0	0	0	2870
1951	200	0	297	314	586	581	533	580	508	0	533	634	0	0	0	0	0	4197
1952	201	0	380	386	599	528	597	495	0	549	458	395	477	0	0	0	0	5051
1953	0	0	357	374	364	611	524	617	496	716	536	491	340	436	0	0	0	4666
1954	0	0	370	369	595	513	618	488	577	528	489	434	515	0	0	0	0	5587
1955	235	0	408	380	589	501	610	469	574	513	465	323	530	0	0	0	0	5635
1956	0	0	463	402	618	500	602	444	587	516	465	314	530	0	0	0	0	5353
1957	0	0	445	348	619	498	603	461	578	493	452	304	448	0	0	0	0	5380
1958	0	0	425	320	613	505	503	465	577	480	424	304	537	0	0	0	0	5337
1959	0	0	425	320	594	485	566	449	562	483	383	295	581	0	0	0	0	5263
1960	0	0	439	294	566	473	571	442	571	441	369	251	578	0	0	0	0	5659
1961	0	0	344	298	566	473	571	442	571	441	369	269	572	0	0	0	0	5495
1962	0	0	326	321	584	481	555	454	571	408	344	254	565	0	0	0	0	5411
1963	0	0	340	333	585	470	581	424	552	386	317	226	556	0	0	0	0	5299
1964	0	0	296	326	574	467	543	434	560	386	292	201	553	392	0	0	0	5545
1965	0	0	347	369	597	484	550	428	554	389	312	189	554	390	600	0	0	6307
1966	0	0	333	344	588	469	546	420	561	395	308	252	543	391	583	1429	0	7701
1967	0	0	346	347	605	485	567	446	559	410	327	277	554	393	645	1422	0	7939
1968	0	0	365	375	335	598	472	565	439	557	405	305	251	539	361	615	1415	1343
1969	0	0	562	407	322	608	475	566	429	561	427	317	224	524	344	602	1412	9139
1970	0	0	351	319	596	468	564	398	556	430	337	212	535	307	619	1420	1310	9098
1971	0	0	564	296	589	466	566	389	563	426	321	213	554	243	617	1402	1307	8983
1972	0	0	566	299	590	467	569	424	564	424	299	196	531	378	586	1393	1309	8837
1973	0	0	553	296	589	460	573	429	531	429	296	196	541	364	460	1388	1320	8707

TABLE IV
PERCENT OF TOTAL PUMPAGE BY WELL BY YEAR

YEAR	LOS ALAMOS CANYON						GUAJE CANYON						PAJARITO MESA					
	LA-1	LA-1B	LA-2	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	G-3	G-4	G-5	G-6	PM-1	PM-2	PM-3	
1947	36.9	0.0	18.8	44.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1948	13.1	0.0	22.4	31.2	16.2	15.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1949	8.9	0.0	13.8	13.8	12.4	19.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1950	1.9	0.0	2.8	10.5	30.5	23.0	30.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
1951	1.9	0.0	7.5	8.7	22.6	24.3	26.2	4.9	0.0	0.5	0.9	1.6	0.9	0.0	0.0	0.0	0.0	
1952	0.4	0.0	5.8	7.3	15.0	13.7	13.8	9.5	0.0	9.8	8.2	7.1	9.2	0.0	0.0	0.0	0.0	
1953	0.0	0.0	5.8	6.5	13.4	12.7	14.0	11.9	0.0	12.9	9.4	6.8	4.6	0.0	0.0	0.0	0.0	
1954	0.0	0.0	7.5	7.6	10.4	10.6	14.2	10.3	0.6	11.4	8.8	7.8	10.7	0.0	0.0	0.0	0.0	
1955	1.2	0.0	6.3	6.2	12.1	12.4	13.8	9.0	6.8	10.1	9.9	2.9	10.3	0.0	0.0	0.0	0.0	
1956	0.0	0.0	4.7	4.5	12.5	11.1	13.3	8.8	1.6	10.2	9.3	3.6	10.3	0.0	0.0	0.0	0.0	
1957	0.0	0.0	4.1	3.6	14.5	11.8	14.1	7.7	12.0	10.5	9.7	3.3	8.9	0.0	0.0	0.0	0.0	
1958	0.0	0.0	4.1	4.4	14.4	11.7	13.9	8.9	12.1	10.4	9.1	4.7	6.4	0.0	0.0	0.0	0.0	
1959	0.0	0.0	4.7	4.0	13.4	10.8	12.5	9.5	11.6	9.7	8.6	3.6	11.7	0.0	0.0	0.0	0.0	
1960	0.0	3.4	4.9	3.6	13.7	11.2	13.0	9.0	11.6	9.1	7.8	3.5	9.2	0.0	0.0	0.0	0.0	
1961	0.0	10.7	3.8	3.0	11.1	6.6	9.6	12.6	9.0	6.6	3.6	11.5	0.0	0.0	0.0	0.0	0.0	
1962	0.0	11.0	3.0	3.9	11.0	9.2	11.0	8.0	11.6	8.5	7.1	3.6	12.1	0.0	0.0	0.0	0.0	
1963	0.0	9.9	3.4	3.6	10.9	8.8	9.6	12.5	8.9	7.3	3.9	12.7	0.0	0.0	0.0	0.0	0.0	
1964	0.0	10.1	2.6	3.9	12.1	9.2	10.7	8.8	10.0	8.1	6.1	3.3	11.6	0.0	0.0	0.0	0.0	
1965	0.0	8.8	3.6	3.9	10.6	4.5	9.3	8.1	10.4	7.4	5.9	2.1	10.5	0.0	0.0	0.0	0.0	
1966	0.0	7.1	1.8	3.9	9.7	6.7	8.6	1.2	8.0	6.2	2.8	7.0	7.7	0.0	0.0	0.0	0.0	
1967	0.0	5.4	0.4	3.6	5.8	6.5	6.5	5.3	6.9	5.1	4.0	3.4	6.1	4.4	0.0	0.0	0.0	
1968	0.0	5.3	0.8	3.0	5.8	4.5	5.1	5.6	7.4	4.7	4.0	2.2	5.8	4.0	4.9	13.4	0.0	
1969	0.0	5.7	0.3	3.0	4.6	5.1	6.1	5.1	6.8	5.1	3.8	1.3	6.2	4.2	2.6	19.1	0.0	
1970	0.0	5.6	1.5	3.2	6.7	4.8	5.7	4.7	6.7	4.6	4.0	0.6	6.5	4.8	21.8	16.6	0.0	
1971	0.0	5.7	2.0	2.9	5.7	4.9	5.3	4.4	7.2	5.6	4.1	1.4	5.7	2.8	6.5	21.9	13.9	
1972	0.0	5.0	2.6	2.6	5.5	4.3	5.2	4.4	6.2	4.9	3.4	2.2	6.1	3.8	5.6	25.5	12.7	
1973	0.0	5.6	3.0	1.3	5.0	4.3	5.8	4.6	4.6	3.0	4.2	6.2	3.0	24.3	16.5			

TABLE V
PERCENT OF FIELD PUMPAGE BY WELL BY YEAR

YEAR	LOS ALAMOS CANYON						GUAJE CANYON						PAJARITO MESA					
	LA-1	LA-1B	LA-2	LA-3	LA-4	LA-5	LA-6	G-1	G-1A	G-2	G-3	G-4	G-5	G-6	PM-1	WELL FIELD	PM-2	PM-3
1947	36.9	0.0	16.8	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1948	13.1	0.0	22.4	31.2	16.2	15.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1949	8.9	0.0	13.8	13.8	12.4	19.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1950	1.9	0.0	2.9	10.6	30.2	23.8	30.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1951	2.1	0.0	6.2	9.5	24.7	26.7	28.7	55.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1952	0.8	0.0	10.3	13.1	26.7	24.5	24.6	21.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1953	0.0	0.0	10.6	15.7	24.4	23.4	25.7	26.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1954	0.0	0.0	15.0	15.1	20.6	21.1	28.2	20.8	1.0	23.1	17.6	14.8	14.8	10.1	0.0	0.0	0.0	0.0
1955	2.4	0.0	12.1	11.9	23.2	23.9	26.5	18.5	14.1	21.0	13.5	16.1	21.4	0.0	0.0	0.0	0.0	0.0
1956	0.0	0.0	10.1	9.6	27.5	23.9	28.8	16.5	21.3	18.9	17.4	6.7	19.2	0.0	0.0	0.0	0.0	0.0
1957	0.0	0.0	8.5	7.5	30.1	24.6	29.3	14.8	23.0	20.2	19.6	6.4	17.0	0.0	0.0	0.0	0.0	0.0
1958	0.0	0.0	6.4	9.0	29.7	24.2	28.7	17.2	23.4	20.3	17.6	9.1	12.4	0.0	0.0	0.0	0.0	0.0
1959	0.0	0.0	10.4	8.9	29.7	23.9	27.7	21.7	17.2	12.0	12.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1960	0.0	6.9	9.7	7.2	27.5	22.5	26.2	18.0	23.0	18.1	15.5	6.6	21.3	0.0	0.0	0.0	0.0	0.0
1961	0.0	22.8	8.1	6.4	23.7	18.4	20.6	18.0	23.6	16.9	12.8	7.2	21.5	0.0	0.0	0.0	0.0	0.0
1962	0.0	22.4	6.2	7.9	22.4	18.7	22.4	15.7	22.8	16.7	14.0	7.0	23.6	0.0	0.0	0.0	0.0	0.0
1963	0.0	21.6	7.6	7.9	24.2	19.5	19.1	17.6	22.9	16.2	13.2	7.1	23.1	0.0	0.0	0.0	0.0	0.0
1964	0.0	20.8	5.5	8.0	24.7	18.9	22.1	17.1	19.4	15.8	11.8	6.4	22.6	6.9	0.0	0.0	0.0	0.0
1965	0.0	21.9	8.9	9.7	24.9	11.3	23.2	15.9	20.4	14.5	11.5	4.2	20.5	13.1	0.0	0.0	0.0	0.0
1966	0.0	19.6	4.7	10.2	25.7	17.6	23.1	16.7	21.7	15.4	12.0	5.5	13.6	15.0	0.0	0.0	0.0	0.0
1967	0.0	22.7	1.3	12.7	20.7	19.7	22.9	15.1	19.7	14.6	11.4	9.6	17.2	12.5	0.0	0.0	0.0	0.0
1968	0.0	21.5	3.3	12.4	23.7	18.4	20.8	16.6	21.9	14.0	11.9	6.6	17.1	11.9	0.0	0.0	0.0	0.0
1969	0.0	22.8	1.1	12.1	18.7	20.7	24.6	15.7	20.9	15.8	11.7	4.0	19.2	12.8	0.0	0.0	0.0	0.0
1970	0.0	22.2	2.0	12.2	23.2	18.4	22.0	15.3	21.9	14.8	13.1	1.8	21.0	12.1	11.1	50.6	38.3	0.0
1971	0.0	21.6	7.7	11.0	21.5	18.1	20.0	14.0	23.1	18.1	13.3	4.3	18.3	8.9	15.4	51.7	32.9	0.0
1972	0.0	19.8	10.3	10.4	21.7	16.9	20.8	14.1	20.1	15.7	10.9	7.1	19.8	12.2	12.8	59.2	37.6	0.0
1973	0.0	21.5	11.5	5.0	22.3	16.9	22.8	14.2	18.5	15.2	10.0	7.8	20.5	13.7	0.0	0.0	0.0	0.0

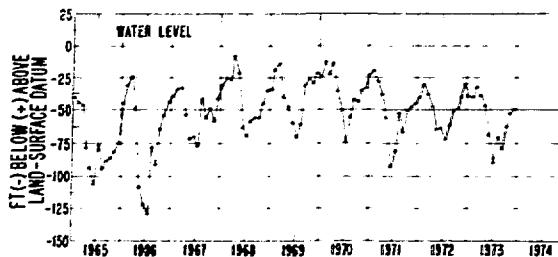


Fig. 2. Monthly average daily high water level, Los Alamos Canyon well, LA-1.

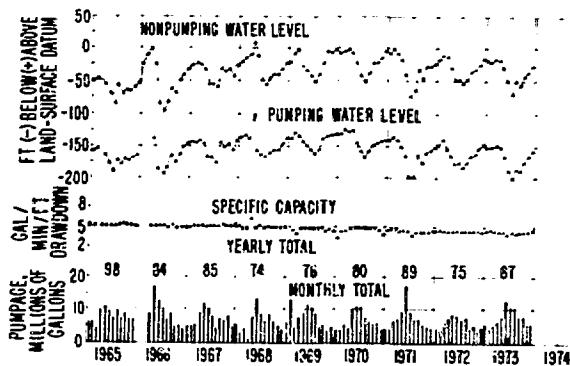


Fig. 3. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-1B.

Pumpage from well LA-3 decreased 20 million gal and water levels were slightly higher in 1973 than in 1972 (Fig. 5). The well was taken out of service on May 16 because of a possible problem with the chemical quality of the water. It was pumped only for testing during the subsequent six-month period. After the quality of the water was found to be acceptable, the well was put back into service on November 20.

Pumpage from well LA-4 was 9 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 6).

Pumpage from well LA-5 was 4 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 7). The pump was taken out of service in December due to a mechanical problem.

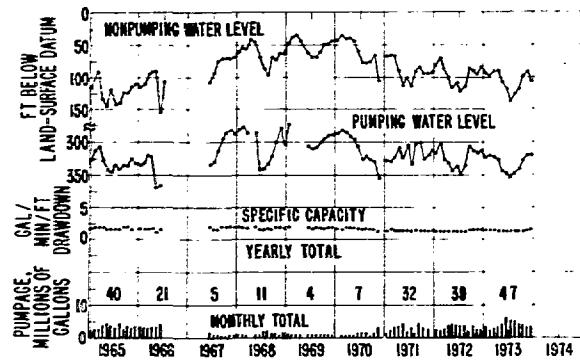


Fig. 4. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-2.

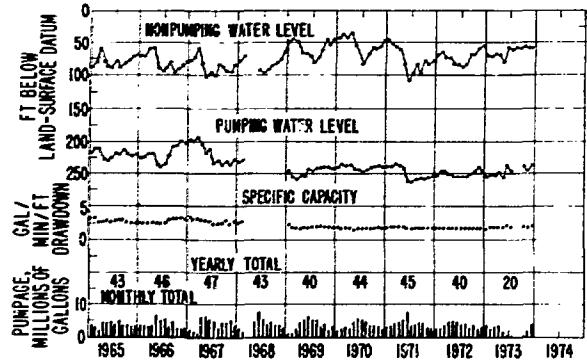


Fig. 5. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-3.

Pumpage from well LA-6 was 12 million gal greater in 1973 than in 1972 and no significant water level changes occurred (Fig. 8).

Due to increased production in the past few years, there has been a slight water level decline in the Los Alamos well field. The decline is as anticipated under the present amount of pumpage. The yearly pumping rate from the six wells increased 23 gpm from 2794 gpm in 1972 to 2817 gpm in 1973. There was no significant change in specific capacities in the six wells.

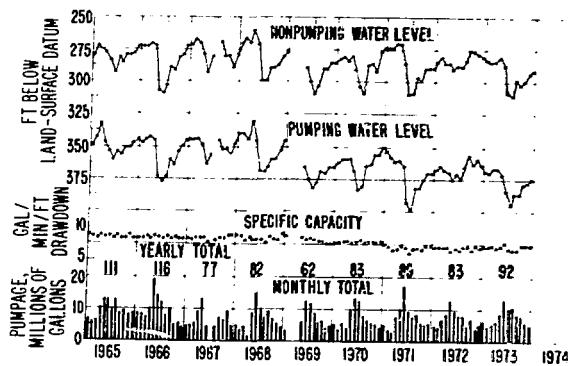


Fig. 6. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-4.

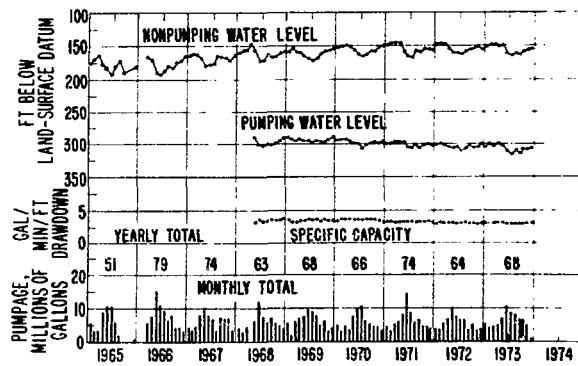


Fig. 7. Monthly average nonpumping and pumping water levels, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-5.

B. Guaje Well Field

Pumpage from the Guaje well field increased 8 million gal from 467 million gal in 1972 to 475 million gal in 1973. The seven wells in the field produced 30.3% of the total pumpage (Table I).

Pumpage from well G-1 was one million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 9).

Pumpage from well G-1A decreased 6 million gal and no significant water level changes occurred from 1972 to 1973 (Fig.

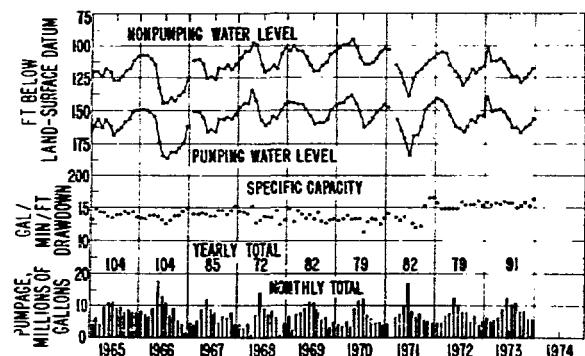


Fig. 8. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Los Alamos Canyon supply well LA-6.

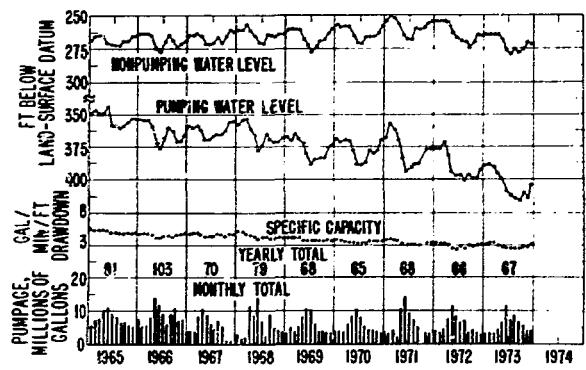


Fig. 9. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-1.

10). The pumping rate declined about 40 gpm from January through November, while specific capacities have declined for the past few years. The well was taken out of service on November 22 to have the pump rebuilt and the sand cleared out of the well. The pump has been in the well since 1954.

Pumpage from well G-2 decreased one million gal and water levels showed no significant change from 1972 to 1973 (Fig. 11).

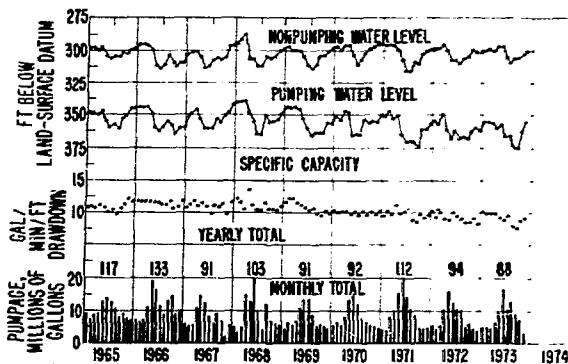


Fig. 10. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-1A.

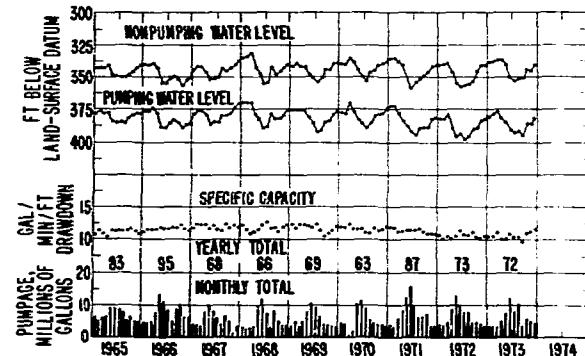


Fig. 11. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-2.

Pumpage from well G-3 decreased 4 million gal and water levels showed no significant change from 1972 to 1973 (Fig. 12).

Pumpage from well G-4 was 4 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 13).

Pumpage from well G-5 was 5 million gal greater and water levels showed no significant changes from 1972 to 1973 (Fig. 14).

Pumpage from well G-6 was 8 million gal greater and water levels were slightly lower in 1973 than in 1972 (Fig. 15).

In general the water levels follow the anticipated trends under the present amount of pumping. Yearly average pumping rate declined 32 gpm from 2756 gpm in 1972 to 2724 gpm in 1973. Specific capacities of the wells are static or are showing slight declines.

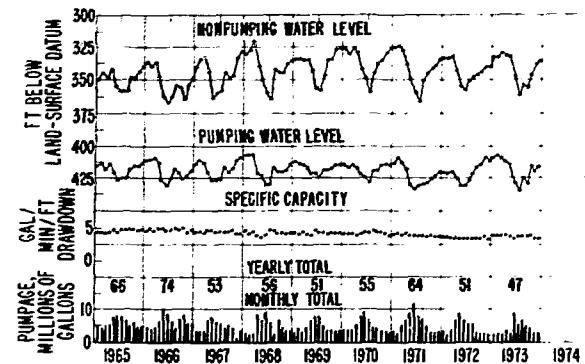


Fig. 12. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-3.

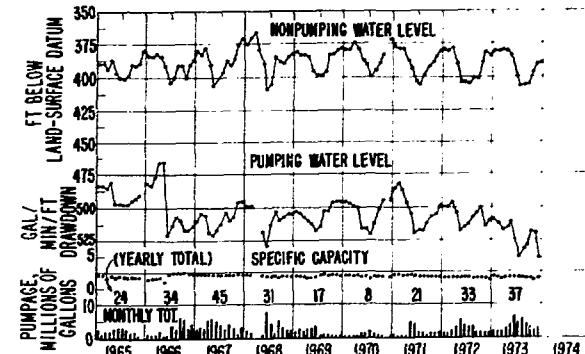


Fig. 13. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-4.

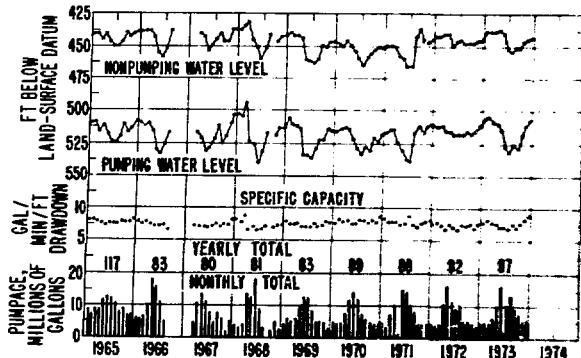


Fig. 14. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-5.

C. Pajarito Well Field

Pumpage from the Pajarito well field increased 23 million gal from 662 million gal in 1972 to 685 million gal in 1973. The three wells produced 43.7% of the total pumpage (Table I).

Pumpage from well PM-1 decreased 38 million gal, and as a result water levels were slightly higher in 1973 than in 1972 (Fig. 16). The pumping rate declined from about 580 gpm in January to about 360 gpm in October. The pump was pulled and replaced and about 300 ft of sand was cleaned out of the bottom of the well. The well was out of service from October 17 to the end of December.

Pumpage from well PM-2 decreased 4 million gal and water levels were slightly lower in 1972 than in 1973 (Fig. 17).

Pumpage from well PM-3 increased 66 million gal and water levels were lower in 1973 than in 1972 (Fig. 18).

The water level trends in well PM-1 show recovery in the past few years due to a decline in pumping rate and some additional development of the well. Water levels in wells PM-2 and PM-3 show slight declines for the past few years. Water levels are following their anticipated trends under the present amount of pumpage. Average

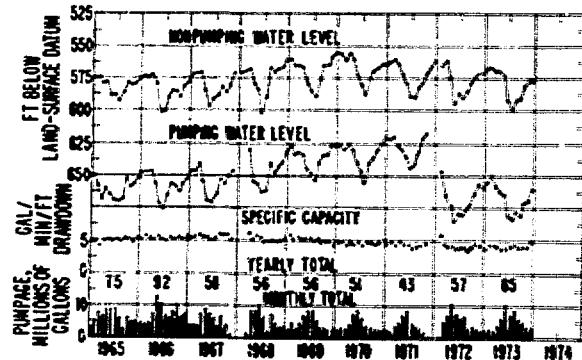


Fig. 15. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumpage, Guaje Canyon supply well G-6.

annual pumping rate declined 120 gpm from 3288 gpm in 1972 to 3168 gpm in 1973. The largest decline in pumping rate occurred in PM-1 during the time prior to pump failure. The specific capacities show no significant changes from 1972.

III. WATER CANYON WATER SUPPLY

Production from the gallery in Water Canyon increased about 9 million gal from about 40 million gal in 1972 to about 49 million gal in 1973. The gallery is an excellent source of water, producing as much water from gravity flow as is pumped from some of the weaker wells (LA-2, LA-3, and G-4). Production data for 1971, 1972, and 1973 are shown in Table VI.

IV. SUMMARY

Pumpage has generally increased since the first well went into production in 1947, but the increase has been erratic in the past seven years (Table VII).

Pumpage increased 56 million gal or 172 acre-ft from 1972 to 1973. Requirements vary widely depending on precipitation, e.g., pumpage during a wet spring and summer will be reduced, whereas a dry spring and summer will result in a considerable increase in pumpage.

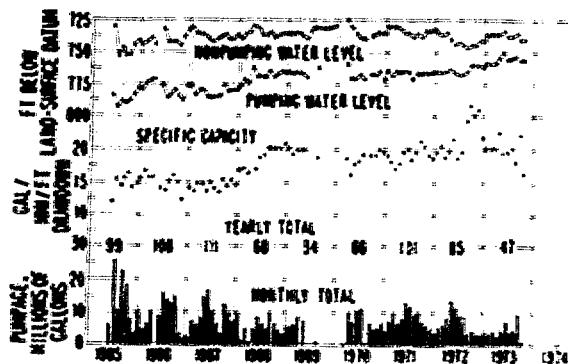


Fig. 16. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumping, Pajarito Mesa supply well PW-1.

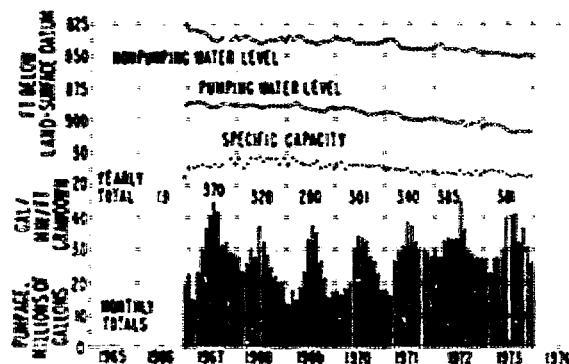


Fig. 17. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumping, Pajarito Mesa supply well PW-2.

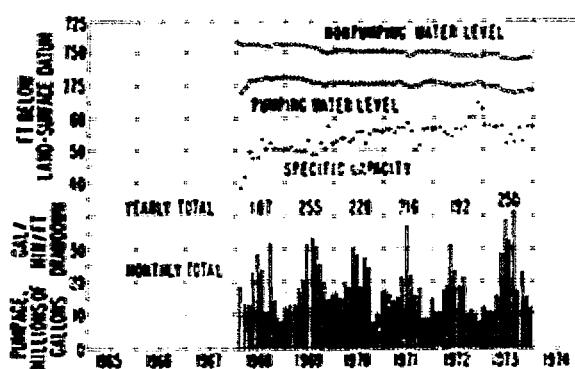


Fig. 18. Monthly average nonpumping and pumping water level, monthly average specific capacity, and monthly and yearly pumping, Pajarito Mesa supply well PW-3.

Expansion of laboratory facilities and population and housing increases in the county will undoubtedly result in demands for a greater increase in production. The State Engineer has established underground water rights for the three well fields at 5325 acre-ft/yr.

Well field operations during 1973 were satisfactory. Water-level trends in the Los Alamos, Guaje and Pajarito well fields fell within the range expected from trends established during the past eight years. Two wells, PW-1 and G-1A, were down for re-

pairs and cleaning of sand from the wells. Routine maintenance and repair of equipment during late fall, winter, and early spring will best prepare equipment for the heavy pumping season in late spring and summer when maximum production is necessary.

The average annual pumping rate from the three fields decreased slightly; however, most of the decrease occurred in wells that are being pulled for repairs or replacement. The specific capacities of wells

TABLE VI
PRODUCTION FROM WATER CANYON GALLERY
IN MILLIONS OF GALLONS

Month	1971	1972	1973
January	3.2	3.3	4.3
February	3.0	2.6	2.8
March	3.7	2.7	1.9
April	3.6	4.1	.9
May	3.3	3.7	4.6
June	3.4	3.1	8.9
July	2.8	3.1	8.0
August	3.1	3.1	5.2
September	2.8	3.2	3.4
October	2.6	3.5	3.8
November	2.5	4.0	2.5
December	2.7	3.2	3.1
Total	36.7	39.6	49.2

TABLE VII
WELL FIELD PRODUCTION FOR 1967-1973

<u>Year</u>	<u>Pumpage</u>	
	<u>Million Gallons</u>	<u>Acre-Ft</u>
1967	1319	4048
1968	1402	4502
1969	1335	4097
1970	1337	4226
1971	1553	4766
1972	1510	4634
1973	1566	4806

in the three fields were within acceptable limits and were considered normal.

V. RECOMMENDATIONS

New wells are considered essential for continued efficient operation of the water-supply system. Previous recommendations^{2,3} for a new well in the Pajarito well field and a replacement for well G-4 in the Guaje well field are still valid. Gordon Herkenhoff and Associates, Inc., after an engineering study, concur in these recommendations, and, in fact, recommend three new wells in the Pajarito field to satisfy the long-range requirements of the Los Alamos development. Their report⁴ is being prepared for the USAEC and LASL. Action should be taken in the very near future to satisfy the need for the new wells to cover any shortage that may occur due to the increasing demand for pumpage due to expansion of the laboratory and housing in the county. The time necessary for completion of a well

from design to production ranges from 18-24 months. An exceedingly dry spring and summer or outage of a high-yield well during the late spring or summer would probably result in a shortage of water for an indefinite period of time without this additional capacity.

We again recommend that the annual pumpage be limited to no more than 400 million gal from the Los Alamos field and no more than 500 million gal from the Guaje field, with additional required water to be pumped from the Pajarito field. Since 1967, when these restrictions were first established, there has been either a reversal or deceleration of water-level declines in most of the wells in the Los Alamos and Guaje fields.

REFERENCES

1. W. D. Purtyman and J. E. Herceg, "Summary of Los Alamos Municipal Well Field Characteristics, 1947-1971," Los Alamos Scientific Laboratory report LA-5040-MS (1972).
2. W. D. Purtyman and J. E. Herceg, "Water Supply at Los Alamos During 1971," Los Alamos Scientific Laboratory report LA-5039-MS (1972).
3. W. D. Purtyman and J. E. Herceg, "Water Supply at Los Alamos During 1972," Los Alamos Scientific Laboratory report LA-5296-MS (1973).
4. "Comprehensive Plan for Water System Improvements, Los Alamos, New Mexico," Gordon Herkenhoff and Associates, Inc., Engineers and Planners, 302 Eighth St., Albuquerque, New Mexico, 87102, Contract Number AT(29-1)-2201 (1974).

SUMMARY OF LOS ALAMOS MUNICIPAL WELL-FIELD CHARACTERISTICS

APPENDIX

MONTHLY PUMPING AND PRODUCTION STATISTICS

**FOR WELL LA-1
FOR LAST THREE YEARS**

DATE	NO	YR	PUMP TIME	PUMP AGE	THSND GAL	GPM	RATE	WATER LEVEL	NON PUMP FT	DRAW DOWN FT	SPEC CAPACITY GPY/FT	PERCENT OF FIELD PUMP RATE TIME	PERCENT OF TOTAL PUMP RATE TIME	YEARLY AVERAGE PUMP RATE TIME	CUMULATIVE PUMP PUMPS TIME AGE THSND MILLN HR GAL		
															HR	GAL	
JAN 71	1	2	-0	0	24	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
FEB 71	2	3	-0	0	21	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
MAR 71	3	4	-0	0	28	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
APR 71	4	5	-0	0	39	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
MAY 71	5	6	-0	0	56	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JUN 71	6	7	-0	0	94	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JUL 71	7	8	-0	0	82	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
AUG 71	8	9	-0	0	54	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
SEP 71	9	10	-0	0	66	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
OCT 71	10	11	-0	0	51	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
NOV 71	11	12	-0	0	48	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
DEC 71	12	13	-0	0	46	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JAN 72	13	14	-0	0	41	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
FEB 72	14	15	-0	0	30	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
MAR 72	15	16	-0	0	38	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
APR 72	16	17	-0	0	48	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
MAY 72	17	18	-0	0	64	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JUN 72	18	19	-0	0	63	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JUL 72	19	20	-0	0	72	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
SEP 72	21	22	-0	0	67	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
OCT 72	22	23	-0	0	51	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
NOV 72	23	24	-0	0	49	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
DEC 72	24	25	-0	0	41	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JAN 73	25	26	-0	0	29	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
FEB 73	26	27	-0	0	39	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
MAR 73	27	28	-0	0	39	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
APR 73	28	29	-0	0	37	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
MAY 73	29	30	-0	0	46	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
JUL 73	30	31	-0	0	68	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
AUG 73	31	32	-0	0	89	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
SEP 73	32	33	-0	0	70	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
OCT 73	33	34	-0	0	78	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
NOV 73	34	35	-0	0	62	-0	0	0	0	0	0	0.0	0.0	0.0	0	0	153.7
DEC 73	35	-	-0	-0	52	-0	-0	-0	-0	-0	-0	0.0	0.0	0.0	-0	-0	153.7

MONTHLY PUMPING AND PRODUCTION STATISTICS

DATE	MO	YR	PUMP- TIME	RATE THSND HR	RATE GPM	WATER LEVEL NON PUMP	DRAW DOWN FT	SPEC CAPACI- TY GRPH/ FT	PERCENT OF FIELD PUMP TIME	PERCENT OF FIELD PUMP RATE	AGE TIME	YEARLY PUMP RATE THSND HR	AVERAGE PUMP RATE GPM	TIME AGE THSND HR	CUMULATIVE PUMP TIME THSND HR	CUMULATIVE PUMP TIME GAL
									FOR WELL LA-18 FOR LAST THREE YEARS							
JAN 71	1	118	4114	541	403	134	0	17.4	20.0	19.8	6.3	196	6600	561	30.9	1030.2
FEB 71	2	109	3930	601	4.5	134	0	18.2	25.5	25.2	7.0	197	6630	561	31.0	1042.1
MAR 71	3	178	6348	594	6.6	139	1.1	4.5	18.6	20.4	6.6	199	6722	563	31.2	1049.4
APR 71	4	208	7282	543	18	152	134	4.4	16.6	20.3	6.5	206	6976	563	31.4	1055.7
MAY 71	5	283	9627	567	41	165	124	4.6	16.5	20.5	6.5	206	6962	563	31.7	1063.3
JUN 71	6	531	17513	550	73	199	126	4.6	19.5	23.4	6.9	220	7440	563	32.2	1082.9
JUL 71	7	290	9138	525	65	199	134	3.9	18.5	21.5	6.1	214	7235	563	32.5	1092.9
AUG 71	8	211	7114	562	34	162	128	4.4	18.4	21.6	6.1	212	7179	564	32.7	1099.1
SEP 71	9	241	8161	564	46	177	131	4.3	18.7	22.2	6.7	217	7339	565	33.0	1107.3
OCT 71	10	167	5720	571	28	160	132	4.3	16.9	20.4	6.7	217	7364	565	33.1	1113.0
NOV 71	11	157	5396	573	27	158	131	4.4	16.7	20.3	6.9	217	7353	565	33.3	1118.4
DEC 71	12	140	4806	572	25	152	127	4.5	16.5	20.2	6.5	219	7429	566	33.4	1123.2
JAN 72	13	137	4716	574	17	149	132	4.3	16.9	20.7	6.2	221	7479	566	33.7	1127.9
FEB 72	14	128	4437	578	11	140	129	4.5	17.0	21.0	6.3	223	7521	563	33.7	1132.3
MAR 72	15	168	7618	568	14	156	142	4.0	16.7	20.5	6.3	223	7527	561	33.9	1138.8
APR 72	16	229	7810	569	30	166	136	4.2	16.7	20.6	6.4	225	7557	561	34.1	1144.4
MAY 72	17	275	9333	566	46	178	132	4.3	17.7	21.5	6.5	225	7557	560	34.4	1155.9
JUN 72	18	251	8563	569	46	177	131	4.3	17.0	21.9	6.2	201	8001	561	34.7	1164.5
JUL 72	19	229	7732	563	53	184	131	4.3	17.0	21.0	6.4	196	6694	568	35.9	1172.2
AUG 72	20	232	7880	566	46	176	130	4.4	16.9	20.9	5.1	203	7511	568	35.9	1180.1
SEP 72	21	136	4394	538	35	166	131	4.1	16.8	19.3	6.1	189	6436	567	35.2	1186.3
OCT 72	22	173	5825	561	31	163	132	4.3	16.6	19.7	6.4	190	6462	566	35.4	1190.3
NOV 72	23	109	3714	568	25	153	128	4.4	16.4	19.3	6.5	186	6302	566	35.5	1196.0
DEC 72	24	128	4430	577	14	146	132	4.4	16.5	19.5	6.5	185	6271	566	35.7	1198.4
JAN 73	25	169	5794	571	20	154	136	4.3	16.7	19.7	6.4	187	6361	566	35.8	1204.2
FEB 73	26	118	4061	574	22	152	131	4.4	16.3	19.3	6.1	186	6229	566	35.9	1213.5
MAR 73	27	150	5199	578	17	150	133	4.3	16.6	19.7	6.4	179	6097	566	36.1	1217.7
APR 73	28	183	6244	569	18	153	135	4.2	17.6	20.8	6.3	175	5953	566	36.3	1227.3
MAY 73	29	225	7599	563	30	166	136	4.1	17.8	20.3	6.4	186	6277	562	36.5	1230.8
JUN 73	30	380	12456	566	50	190	140	3.9	20.5	22.9	6.4	186	6496	558	37.2	1239.2
JUL 73	31	326	10359	530	72	201	129	4.1	16.9	19.2	6.2	201	6690	554	37.5	1246.4
AUG 73	32	317	10207	537	50	186	138	4.0	17.0	19.1	6.4	208	6931	554	37.8	1257.6
SEP 73	33	224	7286	542	58	191	133	4.1	17.7	19.7	6.4	201	7061	554	38.0	1265.0
OCT 73	34	222	7379	554	44	177	133	4.2	19.6	21.6	6.4	213	7196	554	38.1	1270.3
NOV 73	35	156	5272	563	36	166	130	4.3	17.7	19.7	6.4	216	7247	553	38.3	1281.6
DEC 73	36	158	5367	564	29	157	128	4.4	19.8	23.0	7.1	219	7267	553	38.5	1284.6

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-2
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP AGE	RATE	WATER LEVEL	DRAW DOWN	SPEC CAPACITY GPM/FT	PERCENT OF FIELD PUMP RATE TIME AGE	PERCENT OF TOTAL PUMP RATE TIME AGE	YEARLY AVERAGE PUMP RATE			CUMULATIVE PUMP TIME THSND HRS	CUMULATIVE PUMP TIME THSND HRS	CUMULATIVE PUMP TIME THSND HRS						
									THSND FT	NON PUMP FT	PUMP FT	HR	GAL	HR						
MO YR	JAN 71	1	59	1177	332	65	329	264	1.3	8.7	5.7	11.3	2.4	3.6	32	477	349	38.3	843.6	
	FEB 71	2	107	2228	347	66	328	262	1.3	19.6	14.5	14.6	5.9	3.0	4.0	638	347	38.4	845.8	
	MAR 71	3	180	3420	317	64	324	260	1.2	18.4	12.9	10.9	5.8	3.5	5.4	1090	337	38.6	849.2	
	APR 71	4	208	3688	296	88	308	220	1.3	16.6	10.3	10.3	5.5	2.8	3.2	70	1364	325	38.8	852.9
	MAY 71	5	271	4527	278	111	324	213	1.3	15.8	9.5	10.1	5.1	2.7	3.2	90	1691	312	39.1	857.4
	JUN 71	6	118	1954	276	99	304	205	1.3	4.4	2.6	10.4	1.5	1.5	1.5	47	1786	306	39.2	859.4
	JUL 71	7	194	3130	269	111	334	223	1.2	12.3	7.4	10.3	3.7	1.8	3.1	110	1972	299	39.4	862.5
	AUG 71	8	196	1726	300	90	304	214	1.4	8.4	5.3	10.8	2.4	1.2	3.4	115	2052	298	39.5	864.2
	SEP 71	9	90	1477	274	81	301	220	1.2	7.0	4.0	10.0	2.4	1.1	3.2	122	2159	296	39.5	865.7
	OCT 71	10	167	3013	301	93	325	232	1.3	16.9	10.9	10.7	6.3	3.1	3.6	123	2364	295	39.7	868.7
	NOV 71	11	157	2882	306	91	329	229	1.3	16.7	10.6	10.8	6.5	3.1	3.5	137	2355	296	39.9	871.6
	DEC 71	12	140	2535	302	91	310	219	1.4	16.7	10.6	10.6	6.2	3.0	3.5	149	2646	296	40.0	874.2
	JAN 72	13	137	2357	287	80	313	233	1.2	16.9	10.3	10.2	5.9	2.6	3.3	155	2745	194	40.2	876.5
	FEB 72	14	128	2212	284	72	300	228	1.3	17.0	10.5	10.2	6.0	2.6	3.1	157	2743	291	40.3	878.7
	MAR 72	15	188	3018	268	87	324	237	1.1	16.7	9.7	9.7	6.2	2.6	3.0	158	2710	286	40.5	881.7
	APR 72	16	230	4140	304	101	330	229	1.3	16.9	10.9	10.7	5.1	2.6	3.0	160	2748	287	40.7	885.9
	MAY 72	17	275	4336	263	116	342	226	1.2	17.7	10.6	10.6	6.5	3.1	3.5	149	2646	296	40.8	890.2
	JUN 72	18	231	4142	299	109	336	227	1.3	17.9	7.7	9.3	4.2	2.3	2.3	169	2745	194	41.2	894.4
	JUL 72	19	229	4079	297	121	346	227	1.3	17.0	11.1	10.8	5.1	2.5	3.4	172	2793	289	41.4	898.4
	AUG 72	20	232	4245	305	115	334	219	1.4	16.9	11.2	11.0	5.1	2.7	3.5	184	3203	291	41.7	902.7
	SEP 72	21	129	2555	330	87	305	218	1.5	15.9	11.2	11.7	5.1	2.7	3.7	187	3293	294	41.8	905.2
	OCT 72	22	173	3402	328	91	312	221	1.5	16.6	11.4	11.5	6.9	3.3	3.7	187	3325	296	42.0	908.6
	NOV 72	23	109	2210	339	95	314	219	1.5	16.4	11.5	11.7	6.9	3.8	3.8	183	3269	297	42.1	910.4
	DEC 72	24	128	2577	336	83	311	228	1.5	16.5	11.3	11.4	6.6	3.2	3.8	182	3273	299	42.2	913.4
	JAN 73	25	169	3224	318	93	323	230	1.4	16.7	11.9	11.0	6.6	3.4	3.5	185	3345	301	42.4	916.7
	FEB 73	26	115	2225	322	97	320	223	1.4	15.6	11.5	11.1	6.2	3.7	3.6	184	3346	303	42.5	918.9
	MAR 73	27	150	2893	321	90	322	232	1.4	17.0	11.3	11.3	6.4	3.3	3.6	191	3336	307	42.6	921.6
	APR 73	28	183	3330	303	91	329	238	1.3	17.5	11.1	10.5	6.1	3.4	3.4	177	3268	308	42.8	925.1
	MAY 73	29	225	4108	304	108	345	237	1.3	17.8	11.0	10.7	5.6	2.8	3.5	173	3269	313	43.0	929.2
	JUN 73	30	380	6390	280	119	349	230	1.2	20.0	11.0	10.1	5.6	2.9	3.3	185	3436	309	43.4	935.4
	JUL 73	31	326	5419	277	139	354	215	1.3	20.5	11.9	10.0	6.1	3.1	3.2	193	3548	306	43.6	941.0
	AUG 73	32	317	5233	275	127	349	222	1.2	20.3	11.6	11.5	5.6	2.6	3.4	200	3630	302	44.1	946.3
	SEP 73	33	225	3842	285	117	343	226	1.3	19.4	11.4	11.8	5.5	2.8	3.5	208	3738	299	44.3	950.1
	OCT 73	34	222	3922	296	98	330	232	1.3	19.6	11.7	10.6	6.3	3.0	3.6	212	3761	296	44.7	954.0
	NOV 73	35	157	3001	319	91	321	230	1.4	17.8	11.6	11.1	6.2	3.1	3.8	216	3847	296	44.7	957.0
	DEC 73	36	156	332	107	213	1.6	19.6	13.3	11.4	6.9	3.7	4.2	4.2	219	3891	296	44.8	960.1	

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL L-3
FOR LAST THREE YEARS

DATE	PUMP- TIME	PUMP- AGE	THSND GAL	RATE	WATER LEVEL NON PUMP	DRAW DOWN FT	SPEC- CAP- ACITY GP4/ FT	PERCENT OF FIELD TIME AGE	PUMP PUMP- RATE TIME AGE	PERCENT OF TOTAL PUMP PUMP- RATE TIME AGE	YEARLY PUMP PUMP- RATE TIME THSND HR	CUMULATIVE PUMP PUMP- RATE TIME THSND HR		
MO	YR													
JAN	71	1	122	2502	342	47	242	195	1.8	17.9	12.2	11.7	54.0	
FEB	71	2	114	2424	354	53	239	189	1.9	21.1	15.7	14.9	54.1	
MAR	71	3	180	3690	53	235	182	1.9	18.4	13.3	11.8	54.3	1158.5	
APR	71	4	208	4157	333	62	236	176	1.9	16.5	11.6	5.5	54.5	1172.6
MAY	71	5	286	5200	303	85	262	157	1.9	16.7	10.9	11.0	54.6	1177.8
JUN	71	6	508	7089	213	109	263	156	1.5	18.9	9.5	8.8	55.3	1194.9
JUL	71	7	220	34662	262	99	264	165	1.6	14.0	8.4	10.0	55.5	1198.4
AUG	71	8	211	3823	302	82	258	176	1.7	18.4	11.6	10.9	55.7	1192.2
SEP	71	9	241	4303	298	98	169	1.9	18.7	11.7	10.9	56.0	1196.5	
OCT	71	10	168	3074	305	78	259	181	1.7	17.0	11.2	10.9	56.0	1199.6
NOV	71	11	158	2990	81	255	174	1.8	16.9	11.3	11.2	56.4	1202.5	
DEC	71	12	140	2724	324	78	254	176	1.8	16.7	11.4	11.4	56.4	1205.3
JAN	72	13	137	2660	324	69	253	186	1.8	16.9	11.7	11.5	56.6	1208.0
FEB	72	14	129	2478	320	65	253	182	1.8	17.2	11.3	11.3	56.7	1209.4
MAR	72	15	187	3397	303	74	248	174	1.7	16.6	10.9	10.9	56.7	1213.8
APR	72	16	230	4310	312	74	252	178	1.8	16.6	11.3	11.2	56.8	1217.0
MAY	72	17	271	4645	246	83	255	172	1.8	17.5	10.7	12.6	57.1	1218.1
JUN	72	18	253	4366	288	85	254	169	1.7	13.9	8.1	9.9	57.4	1222.8
JUL	72	19	220	3558	270	88	256	168	1.6	16.4	9.7	9.8	57.4	1227.7
AUG	72	20	232	3868	278	84	255	171	1.6	16.9	10.2	10.3	57.4	1230.7
SEP	72	21	136	2372	291	68	252	184	1.6	16.8	10.4	10.3	57.5	1234.6
OCT	72	22	173	3244	313	69	248	179	1.7	16.6	10.8	10.9	58.2	1237.0
NOV	72	23	109	2154	329	59	241	182	1.8	16.4	11.2	11.4	58.4	1240.4
DEC	72	24	128	2614	340	55	246	194	1.8	16.5	11.5	11.6	58.5	1242.4
JAN	73	25	169	3463	340	71	256	185	1.8	16.7	11.7	11.7	58.7	1245.0
FEB	73	26	115	2353	341	72	254	182	1.9	15.8	11.1	11.7	58.8	1248.4
MAR	73	27	147	3069	348	69	254	185	1.9	16.6	12.0	12.0	58.9	1250.8
APR	73	28	183	3725	339	70	250	180	1.9	17.5	12.4	11.8	59.1	1253.8
MAY	73	29	90	1798	333	82	257	175	1.9	17.1	14.8	11.7	59.3	1257.6
JUN	73	30	13	283	363	58	239	181	2.0	7.7	5.5	13.0	59.4	1259.4
JUL	73	31	10	225	375	62	247	185	2.0	6.6	5.5	13.6	59.4	1259.9
AUG	73	32	0	220	370	59	0	0	0.0	0.0	0.0	0.0	59.4	1259.9
SEP	73	33	0	0	0	59	0	0	0.0	0.0	0.0	0.0	59.4	1259.9
OCT	73	34	7	154	367	57	249	183	2.0	5.5	5.5	13.0	59.4	1260.6
NOV	73	35	86	1798	348	58	246	188	1.9	9.6	7.0	12.1	59.5	1261.8
DEC	73	36	157	3458	367	58	237	179	2.1	19.7	14.8	12.6	59.6	1265.3

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-4
FOR LAST THREE YEARS**

DATE	MO	YR	PUMP TIME	PUMP AGE	RATE GPM	WATER LEVEL FT	DRAW DOWN FT	SPEC ACITY	PERCENT OF FIELD CAPACITY	PUMP TIME	PUMP AGE	RATE GPM	PERCENT OF TOTAL PUMP RATE	PUMP TIME	PUMP AGE	RATE GPM	YEARLY AVERAGE PUMP RATE	CUMULATIVE PUMP RATE	
JAN	71	1	136	5023	616	272	352	80	7.7	20.0	24.5	21.0	6.5	6.1	6.7	195	6967	597	
FEB	71	2	105	3782	600	273	358	85	7.1	19.4	24.6	25.2	5.9	5.1	7.0	195	6970	596	
MAR	71	3	76	2756	604	268	361	93	6.5	17.8	20.0	20.8	5.0	5.4	7.4	189	6745	596	
APR	71	4	210	7613	604	272	361	89	6.8	16.7	21.2	21.1	5.7	5.5	6.7	189	6745	596	
MAY	71	5	290	10348	595	287	369	82	7.3	16.9	21.8	21.5	5.9	6.1	6.8	198	7015	596	
JUN	71	6	511	17497	571	310	392	82	7.0	19.0	23.3	21.6	6.4	6.7	20.0	7460	591	597	
JUL	71	7	282	9493	561	307	398	91	6.2	18.0	22.3	21.5	5.3	6.5	20.4	7204	589	597	
AUG	71	8	211	7532	595	293	382	89	6.7	18.4	22.9	21.5	5.4	6.7	20.3	7169	590	597	
SEP	71	9	8445	586	299	383	84	6.0	18.6	20.9	21.5	6.4	6.3	6.8	20.7	7317	589	597	
OCT	71	10	162	5603	597	289	375	86	6.9	16.4	21.1	21.3	6.1	5.9	7.1	207	7318	589	597
NOV	71	11	156	563	600	287	370	83	7.2	16.6	21.1	21.2	6.5	6.1	6.9	207	7325	72.0	2559.2
DEC	71	12	140	5060	602	287	370	83	7.3	16.7	21.3	21.3	6.0	6.0	7.0	210	7414	599	72.3
JAN	72	13	133	4835	606	284	367	73	16.4	21.4	21.5	5.7	5.3	6.9	210	7398	598	72.5	
FEB	72	14	122	4618	604	279	364	85	7.1	16.2	20.9	21.4	5.6	5.2	6.6	211	7451	588	71.6
MAR	72	15	187	6727	600	285	368	83	7.2	16.6	21.6	21.6	6.2	5.8	6.6	220	7782	589	72.6
APR	72	16	227	8143	598	285	369	84	7.1	16.6	21.3	21.4	5.0	5.3	6.8	222	7826	588	72.8
MAY	72	17	370	12667	571	290	376	86	6.6	23.8	29.2	25.2	5.9	6.2	6.9	228	8019	585	73.4
JUN	72	18	280	5867	587	287	371	84	7.0	14.5	19.3	18.2	5.4	6.4	6.9	209	7384	588	73.6
JUL	72	19	222	7809	596	288	375	87	6.7	15.5	21.2	21.4	4.9	4.9	6.7	204	7243	591	73.9
AUG	72	20	225	6022	594	283	366	83	7.2	16.4	21.1	21.3	4.9	5.1	6.8	205	7284	591	74.1
SEP	72	21	136	4895	600	274	357	83	7.2	16.4	21.1	21.3	5.0	5.2	6.8	197	6988	592	74.2
OCT	72	22	181	6515	600	276	363	87	6.9	16.6	21.5	21.3	5.3	5.4	6.8	198	7048	592	74.4
NOV	72	23	109	3940	602	278	359	81	7.4	16.4	20.5	20.8	4.9	4.7	6.7	194	6908	592	74.6
DEC	72	24	130	4749	609	279	364	85	16.8	20.9	20.8	20.9	6.1	5.9	6.8	193	6882	593	74.7
JAN	73	25	169	6134	605	284	368	84	7.2	16.7	20.9	20.9	6.5	6.5	6.8	196	6990	593	74.8
FEB	73	26	126	4600	608	285	369	84	7.2	17.4	21.6	20.9	5.7	5.6	6.8	197	7006	593	74.9
MAR	73	27	147	5336	605	284	366	82	7.4	16.6	20.8	20.8	6.3	6.0	6.7	193	6890	593	75.1
APR	73	28	166	6115	614	281	366	85	7.4	15.9	20.4	21.3	5.5	5.6	6.9	186	6721	594	75.3
MAY	73	29	239	6557	597	288	371	83	7.2	18.9	22.9	21.1	6.0	5.9	6.8	177	6372	593	75.5
JUN	73	30	376	1311	308	383	75	7.7	19.8	23.8	20.9	5.6	5.9	6.8	185	6649	597	75.9	
JUL	73	31	10611	570	311	394	83	6.9	19.5	23.3	20.6	6.2	6.1	6.7	193	6882	595	76.2	
AUG	73	32	318	1096	574	301	386	85	6.8	20.3	24.3	23.9	5.6	5.5	7.0	201	7129	592	76.5
SEP	73	33	236	8108	573	303	387	84	6.8	20.4	23.7	23.9	5.8	6.0	7.0	209	7393	590	76.7
OCT	73	34	222	7722	580	300	378	78	7.4	19.6	23.1	20.5	6.0	5.9	6.7	212	7495	588	77.0
NOV	73	35	153	5648	615	300	378	83	7.4	17.4	21.9	21.4	6.0	5.8	7.4	216	7638	589	77.1
DEC	73	36	154	5471	592	300	378	82	7.4	19.3	23.5	20.4	6.0	6.5	7.5	218	7698	589	77.3

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LAS
FOR LAST THREE YEARS**

DATE	MO YR	PUMP TIME	PUMP AGE	THSND GAL	RATE GPM	WATER LEVEL FT	DRAW DOWN FT	SPEC CAPACITY GPM/FT	PERCENT OF FIELD PUMP RATE TIME	PERCENT OF TOTAL PUMP RATE TIME	YEARLY AVERAGE PUMP RATE TIME	CUMULATIVE PUMP RATE TIME	
JAN 71	1	136	3983	46.8	150	301	151	3.2	20.0	19.4	16.7	6.5	4.8
FEB 71	2	105	3029	48.1	146	300	154	3.1	19.4	19.7	20.2	5.9	4.1
MAR 71	3	180	5076	47.0	146	298	152	3.1	18.4	18.3	16.2	5.9	4.5
APR 71	4	210	5912	46.9	148	300	152	3.1	16.7	16.5	16.4	5.5	4.4
MAY 71	5	288	8036	46.5	160	300	140	3.3	16.8	16.9	16.8	5.4	4.8
JUN 71	6	505	13981	46.1	167	307	140	3.3	18.5	18.6	17.5	6.4	5.5
JUL 71	7	327	8963	45.7	166	308	142	3.2	20.8	21.1	17.5	6.2	5.0
AUG 71	8	211	5861	46.3	156	302	146	3.2	18.4	17.8	16.7	5.3	4.2
SEP 71	9	240	6626	46.0	159	307	148	3.1	18.6	18.0	16.9	6.0	5.3
OCT 71	10	161	4545	47.0	154	303	149	3.2	16.3	16.5	16.8	6.1	4.6
NOV 71	11	156	4436	47.4	153	301	148	3.2	16.6	16.7	16.8	6.5	4.8
DEC 71	12	140	3969	47.2	153	303	150	3.1	16.7	16.7	16.7	6.5	4.7
JAN 72	13	133	3766	47.2	147	302	155	3.1	16.4	16.5	16.7	6.2	5.2
FEB 72	14	122	3486	47.6	146	300	154	3.1	16.2	16.5	16.7	5.7	4.1
MAR 72	15	108	5202	46.8	148	302	154	3.0	16.2	17.0	16.9	6.1	4.6
APR 72	16	227	6365	46.7	154	305	151	3.1	16.6	16.6	16.7	5.1	4.1
JUN 72	17	360	9877	45.7	159	306	147	3.1	18.6	18.3	14.2	5.4	5.0
JUL 72	18	280	7667	45.6	159	305	146	3.1	14.5	14.2	14.2	5.0	4.2
AUG 72	19	6125	46.0	161	311	150	3.1	16.6	16.6	16.8	4.9	3.8	
SEP 72	20	225	6302	46.7	157	307	150	3.1	16.4	16.6	16.8	4.9	4.0
OCT 72	21	136	3872	47.5	154	313	149	3.2	16.8	17.0	16.9	5.3	4.5
NOV 72	22	164	4658	47.3	153	306	153	3.1	15.6	15.6	16.6	5.7	4.5
DEC 72	23	114	3247	47.5	150	305	155	3.1	17.7	17.7	16.6	5.1	4.3
JAN 73	24	130	3769	48.3	154	307	146	3.3	16.8	16.6	16.4	6.1	4.7
FEB 73	25	169	4802	47.4	151	307	156	3.0	16.7	16.4	16.4	6.6	5.3
MAR 73	26	126	3612	47.8	148	302	154	3.1	17.4	17.0	16.6	5.7	4.4
APR 73	27	143	4066	47.4	147	305	158	3.0	16.2	15.8	16.3	6.1	4.6
JUN 73	28	166	4710	47.3	151	301	150	3.2	15.9	15.7	16.1	5.5	4.3
JUL 73	29	244	6918	46.6	150	304	154	3.0	19.3	18.2	16.4	6.1	4.7
AUG 73	30	379	10248	45.1	162	314	152	3.0	19.9	18.6	16.2	5.6	4.6
SEP 73	31	310	8354	44.9	165	317	152	3.0	19.5	18.4	16.2	6.2	4.8
OCT 73	32	293	7906	45.0	162	311	149	3.0	18.7	17.5	18.7	5.2	4.0
NOV 73	33	236	6465	45.7	163	315	152	3.0	20.4	19.2	18.9	5.6	4.7
DEC 73	34	230	6333	45.9	160	309	149	3.1	20.3	19.0	16.2	6.5	4.8
NOV 73	35	163	4550	46.5	157	309	152	3.1	18.5	17.6	16.2	6.4	4.7
DEC 73	36	17	476	46.7	155	307	155	2.1	2.1	2.1	2.1	.8	.6

**MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL LA-6
FOR LAST THREE YEARS**

DATE	PUMP TIME	PUMP AGE	RATE THSND GAL	WATER LEVEL FT	DRAW DOWN FT	SPEC CAPACITY GPM/FT	PERCENT OF FIELD PUMP RATE TIME			PERCENT OF TOTAL PUMP RATE TIME			YEARLY AVERAGE PUMP RATE TIME			CUMULATIVE PUMP TIME AGE THSND MILLN GAL			
							NON PUMP FT	PUMP FT	PUMP TIME	NON PUMP FT	PUMP FT	PUMP TIME	NON PUMP FT	PUMP FT	PUMP TIME	HR	GPM	THSND	MILLN
NO YR																			
JAN 71	1	109	3739	572	102	143	41	13.9	16.0	1A.2	19.5	5.2	4.5	6.2	193	6528	564	71.7	203.5
FEB 71	2	-0	0	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	184	6218	363	71.7	250.3
MAR 71	3	185	6386	575	115	158	43	13.4	18.9	23.1	19.8	5.9	5.6	6.4	187	6316	363	71.8	209.9
APR 71	4	210	7278	578	121	165	44	13.1	16.7	20.3	20.2	5.5	5.5	6.5	195	6610	564	72.0	217.2
MAY 71	5	293	9798	557	129	171	42	13.3	17.1	20.6	20.2	5.5	5.8	6.4	196	6626	562	72.3	257.0
JUN 71	6	512	16059	552	138	185	47	11.7	19.1	22.6	20.9	6.4	6.7	6.7	210	7046	560	72.9	254.0
JUL 71	7	258	8336	539	125	168	43	12.5	16.4	19.6	20.6	4.9	4.7	6.3	201	6742	559	73.1	255.2
AUG 71	8	207	6810	548	121	168	47	11.7	18.0	20.7	19.8	5.2	4.9	6.2	199	6690	559	73.3	259.9
SEP 71	9	240	7615	543	118	162	44	12.3	18.6	21.2	19.9	6.4	5.6	6.3	204	6818	557	73.6	256.9
OCT 71	10	162	5310	555	114	150	36	15.4	16.4	19.6	19.8	6.1	5.5	6.5	204	6814	556	73.7	257.2
NOV 71	11	156	5247	561	112	146	34	16.5	16.6	19.8	19.8	6.5	5.7	6.5	204	6817	556	73.9	257.6
DEC 71	12	140	4709	561	110	144	34	16.5	16.7	19.8	19.8	6.5	5.5	6.5	206	6972	556	74.0	259.2
JAN 72	13	133	4482	562	106	142	36	15.6	16.4	19.6	19.8	6.7	6.4	6.4	208	6934	556	74.1	258.8
FEB 72	14	122	4064	559	105	143	38	14.6	16.2	19.3	19.7	5.7	5.8	6.1	218	7273	556	74.3	259.0
MAR 72	15	186	6299	564	109	147	38	14.9	16.5	20.2	20.4	6.1	5.5	6.3	218	7266	555	74.5	259.1
APR 72	16	227	7473	549	116	153	37	14.9	16.6	19.5	19.6	5.0	4.9	6.2	220	7282	552	74.7	260.6
MAY 72	17	361	12453	575	123	162	39	14.7	23.3	28.7	25.4	5.7	6.1	7.0	225	7503	555	75.0	261.0
JUN 72	18	280	9461	563	125	163	38	14.8	14.8	17.5	17.5	5.0	5.2	6.1	206	6878	556	75.3	262.5
JUL 72	19	222	7560	568	120	166	36	15.8	16.5	20.5	20.7	4.9	4.7	6.5	203	6814	559	75.5	263.1
AUG 72	20	225	7746	574	125	163	38	15.1	16.4	20.4	20.6	4.9	4.9	6.5	204	6692	562	75.6	264.1
SEP 72	21	136	4726	579	118	156	38	15.2	16.8	20.7	20.6	5.3	5.1	6.6	196	6634	565	75.9	264.5
OCT 72	22	181	6301	580	120	158	38	15.3	17.3	21.0	20.3	6.3	6.1	6.6	197	6710	566	76.1	265.2
NOV 72	23	114	3996	584	116	153	37	15.8	17.2	20.7	20.2	5.1	4.7	6.5	194	6606	568	76.2	265.8
DEC 72	24	130	4594	589	115	154	39	15.1	16.8	20.2	20.1	6.1	5.7	6.6	193	6596	569	76.3	266.4
JAN 73	25	169	5958	102	139	37	15.9	16.7	20.3	20.3	6.6	6.3	6.6	196	6719	571	76.5	266.7	
FEB 73	26	126	4426	585	112	150	38	15.4	17.4	20.8	20.1	5.7	5.4	6.5	196	6749	573	76.6	267.0
MAR 73	27	147	5113	580	112	149	37	15.7	16.6	19.9	20.0	6.3	5.7	6.4	193	6651	574	76.8	267.6
APR 73	28	166	5846	587	110	148	38	15.4	15.9	19.5	20.3	5.5	5.4	6.6	188	6515	577	76.9	2682.8
MAY 73	29	243	5823	586	113	150	37	15.8	19.2	22.8	20.6	6.1	5.9	6.6	178	6189	579	77.2	2691.3
JUN 73	30	372	12606	565	120	156	36	15.7	19.6	22.9	20.3	5.5	5.7	6.6	186	6451	578	77.6	2703.4
JUL 73	31	310	10486	564	126	162	36	15.7	19.5	23.1	20.4	6.2	6.0	6.6	193	6695	577	77.9	2714.4
AUG 73	32	318	10765	564	124	162	38	14.8	20.3	23.9	23.5	5.6	5.4	6.9	201	6946	575	78.2	2725.2
SEP 73	33	237	6025	564	128	165	37	15.3	17.3	20.5	23.8	5.8	5.9	6.9	209	7221	574	78.4	2733.1
OCT 73	34	230	7872	570	126	162	36	15.8	20.3	23.4	20.2	6.5	6.0	6.6	213	7352	574	78.6	2741.1
NOV 73	35	165	5549	561	122	159	37	15.1	18.7	21.5	19.5	6.5	5.7	6.8	218	7482	573	78.8	2746.6
DEC 73	36	155	5439	585	119	155	36	16.2	16.2	19.7	19.7	6.9	6.4	7.4	220	7552	573	79.0	2752.1

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL G-1
FOR LAST THREE YEARS

DATE	PUMP- TIME	PUMP- AGE	THSND GAL	RATE GPM	WATER LEVEL FT	NON PUMP FT	DRAW DOWN FT	SPEC CAPA- CY GPM/ FT	PERCENT OF FIELD PUMP- RATE TIME AGE	PERCENT OF TOTAL PUMP- RATE TIME AGE	YEARLY PUMP- RATE TIME THSND HR	AVERAGE PUMP- RATE THSND GAL	CUMULATIVE PUMP- RATE THSND GAL	
MO	YR													
JAN	71	1	142	3540	415	253	367	114	3.6	16.1	15.9	14.5	4.5	61.3
FEB	71	2	110	2701	409	250	357	107	3.8	16.1	15.4	14.5	4.8	61.4
MAR	71	3	170	4047	397	251	363	112	3.4	12.6	11.8	14.2	3.6	61.5
APR	71	4	85	2012	395	257	373	116	4.8	4.5	14.5	1.5	4.4	66.2
MAY	71	5	469	10918	388	263	385	122	3.2	17.4	16.3	14.5	1.5	61.6
JUN	71	6	642	14589	379	267	394	127	3.0	16.2	16.1	14.5	1.5	61.6
JUL	71	7	438	9814	373	267	391	124	3.0	16.8	15.6	13.9	1.5	62.1
AUG	71	8	315	7384	391	260	388	128	3.1	16.1	15.5	14.3	1.5	62.7
SEP	71	9	252	5927	392	261	387	126	3.1	15.8	15.7	15.0	1.5	63.2
OCT	71	10	-0	-0	407	256	376	76	0	0.0	0.0	0.0	0.0	63.7
NOV	71	11	140	3420	367	254	376	120	3.4	16.6	16.3	16.3	1.5	63.7
DEC	71	12	145	3536	406	254	376	122	3.4	16.7	16.3	16.3	1.5	63.9
JAN	72	13	153	3727	406	254	376	122	3.3	16.7	16.2	16.2	1.5	64.0
FEB	72	14	127	3065	402	254	376	122	3.3	16.3	15.8	13.7	1.5	64.2
MAR	72	15	173	4115	396	371	371	117	3.4	15.2	14.6	13.7	1.5	64.3
APR	72	16	328	7619	387	255	382	127	3.0	14.5	14.1	13.9	1.5	64.5
MAY	72	17	500	11389	380	264	394	130	2.9	14.1	13.9	14.1	1.5	64.5
JUN	72	18	6365	375	267	398	131	2.9	14.2	13.8	14.1	1.5	64.6	1724.8
JUL	72	19	303	6552	377	269	396	127	3.0	14.3	13.8	13.8	1.5	64.7
AUG	72	20	315	7093	375	271	400	129	2.9	14.3	13.7	13.8	1.5	64.8
SEP	72	21	3779	386	275	396	121	3.2	14.3	14.0	14.0	1.5	64.9	
OCT	72	22	174	4048	388	275	396	125	3.2	14.3	14.0	14.0	1.5	65.0
NOV	72	23	144	3922	314	272	369	124	3.1	14.7	14.3	14.1	1.5	65.1
DEC	72	24	120	2792	388	266	391	125	3.1	14.3	14.0	14.0	1.5	65.2
JAN	73	1	138	3261	364	265	389	124	3.0	14.6	14.6	14.3	1.5	65.3
FEB	73	2	140	3322	395	265	388	123	3.2	14.2	14.2	14.2	1.5	65.4
MAR	73	3	127	3012	395	265	390	125	3.2	14.3	13.8	13.9	1.5	65.5
APR	73	4	192	4552	395	265	395	130	3.0	14.5	14.0	13.8	1.5	65.6
MAY	73	5	283	6556	386	268	400	132	2.9	15.4	14.6	13.9	1.5	65.7
JUN	73	30	519	11010	354	276	409	133	2.7	14.5	13.5	13.3	1.5	65.8
JUL	73	31	331	4042	355	278	412	134	2.6	14.3	13.4	13.4	1.5	65.9
AUG	73	32	410	6920	363	275	413	138	2.6	14.1	13.4	13.6	1.5	66.0
SEP	73	33	296	6595	371	277	416	139	2.7	15.4	15.1	13.9	1.5	66.1
OCT	73	34	234	5349	381	275	409	134	2.8	14.5	14.1	13.9	1.5	66.2
NOV	73	35	164	3858	392	271	413	142	2.8	15.0	15.5	14.3	1.5	66.3
DEC	73	36	163	408	3990	408	272	404	2.8	16.5	16.5	17.0	1.5	66.4

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL G-1A
FOR LAST THREE YEARS

DATE	PUMP- TIME	RATE	WATER LEVEL	DRAW DOWN	SPEC- CAP- ACITY	PERCENT OF FIELD PUMP RATE TIME AGE	PERCENT OF TOTAL PUMP RATE TIME AGE	YEARLY AVERAGE PUMP RATE TIME AGE	CUMULATIVE PUMP TIME THSND HRS	PUMP TIME HR	GPM	
MO	YR	HR	GAL	FT	FT	FT	FT	HR	GAL	HR	0.0	
JAN	71	1	112	3915	583	290	353	63	9.2	12.7	17.6	20.3
FEB	71	2	111	3815	573	290	346	56	10.2	16.2	21.8	20.3
MAR	71	3	231	7929	572	293	354	61	9.4	17.1	23.1	20.5
APR	71	4	326	11236	574	300	351	51	11.3	18.3	25.0	20.6
MAY	71	5	462	15229	569	309	367	58	9.5	17.1	25.5	20.5
JUN	71	6	651	21712	556	316	371	55	10.1	16.4	26.1	21.3
JUL	71	7	435	14572	558	316	370	54	10.3	16.6	23.1	20.3
AUG	71	8	311	10810	579	308	373	65	8.9	15.9	22.7	21.2
SEP	71	9	247	8210	554	310	375	65	8.5	15.5	21.8	21.2
OCT	71	10	142	4882	573	302	361	59	9.7	15.6	20.9	24.8
NOV	71	11	140	4668	556	300	361	61	9.1	16.6	22.6	22.2
DEC	71	12	145	4864	559	298	356	58	9.6	16.7	22.5	22.4
JAN	72	13	153	52000	567	298	354	56	10.1	16.7	22.7	22.7
FEB	72	14	124	4149	556	297	356	59	9.5	16.0	21.4	19.0
MAR	72	15	173	5650	564	295	349	54	10.1	15.2	20.1	18.8
APR	72	16	328	10579	538	300	360	60	9.0	14.5	19.6	19.4
MAY	72	17	497	16037	536	308	367	59	9.1	16.0	19.6	19.9
JUN	72	18	385	12528	562	307	360	53	10.2	15.0	20.8	20.1
JUL	72	19	303	10031	552	310	367	57	9.7	14.3	20.2	20.2
AUG	72	20	315	10407	551	306	366	60	9.2	14.3	20.1	20.2
SEP	72	21	163	5338	564	305	369	64	8.5	14.3	19.8	19.8
OCT	72	22	174	5678	544	300	362	62	8.8	14.7	20.1	19.7
NOV	72	23	144	4639	537	301	358	57	9.4	14.3	19.2	19.3
DEC	72	24	120	3725	525	301	360	59	8.9	14.3	18.4	18.9
JAN	73	25	138	4463	539	300	354	54	10.0	14.6	20.0	19.5
FEB	73	26	140	4645	553	299	355	56	9.9	14.2	19.8	19.8
MAR	73	27	127	4177	548	300	356	56	9.8	14.3	19.2	19.2
APR	73	28	192	6318	548	297	361	64	8.6	14.5	19.5	19.2
MAY	73	29	282	9372	554	297	357	60	9.2	15.3	20.4	19.9
JUN	73	30	517	16544	533	306	366	60	8.9	14.4	20.2	20.1
JUL	73	31	331	10426	525	310	366	56	9.4	14.3	19.8	19.8
AUG	73	32	410	12848	522	306	373	67	7.8	14.1	19.4	19.6
SEP	73	33	296	9144	515	306	374	68	7.6	15.4	20.9	19.2
OCT	73	34	234	7218	514	303	362	59	8.7	14.5	19.0	18.7
NOV	73	35	93	2788	500	300	355	55	9.1	11.2	18.3	2.9
DEC	73	36	-0	-0	0	-0	-0	0	0.0	0.0	0.0	0.0

MONTHLY PUMPING AND PRODUCTION STATISTICS

DATE	PUMP- TIME	PUMP- AGE	RATE THSND GAL	WATER NON PUMP	DRAW DOWN FT	SPEC CAPA- CITY GP/H	PERCENT OF FIELD PUMP RATE TIME HR	PERCENT OF TOTAL PUMP RATE TIME HR	YEARLY PUMP FLOW- RATE THSND GAL	CUMULATIVE PUMP FLOW- RATE THSND GAL	
MO YR	JAN 71	1	142	3828	449	335	373	38	11.8	16.1	17.2
	FEB 71	2	110	2895	439	335	373	38	11.5	16.1	16.7
	MAR 71	3	222	5900	443	336	377	41	10.8	16.5	16.1
	APR 71	4	314	8356	444	341	363	42	10.6	17.7	16.3
	MAY 71	5	468	11757	419	352	388	36	11.6	17.7	16.3
	JUN 71	6	646	15776	407	359	392	33	12.3	16.3	15.6
	JUL 71	7	417	10176	394	354	394	40	10.2	16.1	15.1
	AUG 71	8	269	6780	420	352	388	36	11.7	13.7	14.2
	SEP 71	9	256	6642	432	349	387	38	11.4	16.1	16.5
	OCT 71	10	291	7797	447	346	387	41	10.9	19.3	17.9
	NOV 71	11	140	3699	440	342	382	40	11.0	16.6	17.6
	DEC 71	12	145	3818	439	341	381	40	11.0	16.7	17.6
	JAN 72	13	153	4047	441	341	382	41	10.8	16.7	17.6
	FEB 72	14	126	3276	433	340	382	42	10.3	16.2	14.9
	MAR 72	15	173	4463	430	338	379	41	10.5	15.2	15.8
	APR 72	16	328	8328	423	347	389	42	10.1	14.5	15.4
	MAY 72	17	126	12664	416	356	395	39	10.7	14.3	15.4
	JUN 72	18	380	9507	417	358	393	35	11.9	14.6	15.8
	JUL 72	19	303	7624	419	357	397	40	10.5	14.3	15.4
	AUG 72	20	315	7894	418	356	395	39	10.7	14.3	15.3
	SEP 72	21	163	4178	427	353	389	36	11.9	14.3	15.5
	OCT 72	22	174	4508	432	346	388	42	10.3	14.7	15.7
	NOV 72	23	144	3770	436	341	383	42	10.4	14.3	15.6
	DEC 72	24	120	3142	436	341	382	41	10.6	14.3	15.7
	JAN 73	25	138	3554	429	338	380	42	10.2	14.6	15.5
	FEB 73	26	141	3547	419	338	378	40	10.5	14.3	15.1
	MAR 73	27	126	3358	444	337	377	40	11.1	14.2	15.4
	APR 73	28	191	5148	449	337	381	44	10.2	14.4	15.9
	MAY 73	29	282	7438	440	341	385	44	10.0	15.3	16.6
	JUN 73	30	502	12326	409	351	389	38	10.3	14.0	15.1
	JUL 73	31	330	8027	405	353	392	39	10.4	14.2	15.3
	AUG 73	32	420	10438	414	352	392	40	10.4	14.4	15.7
	SEP 73	33	145	3628	417	351	394	43	9.7	13.5	15.3
	OCT 73	34	215	5891	457	345	386	41	11.1	13.3	15.5
	NOV 73	35	163	4448	455	346	386	40	11.4	14.9	16.6
	DEC 73	36	163	4624	473	341	382	41	11.5	16.2	20.4

MONTHLY PUMPING AND PRODUCTION STATISTICS

FOR WELL G-3

FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP AGE	RATE THSND GAL/HR	WATER LEVEL FT	DRAW DOWN FT	SPEC CAPACITY GPM/FT	PERCENT OF FIELD PUMP RATE			PERCENT OF TOTAL PUMP RATE	YEARLY AVERAGE PUMP RATE	CUMULATIVE PUMP TIME
							PUMP TIME	PUMP AGE	PUMP TYPE	THSND HR	GAL	THSND HR
JAN 71	1	143	3033	353	413	87	4.1	16.3	13.6	3.0	227	4575
FEB 71	2	111	2310	347	409	84	4.1	16.2	13.2	6.0	223	4682
MAR 71	3	231	4790	339	413	96	3.9	17.1	13.7	3.0	230	4596
APR 71	4	321	6341	309	339	419	80	4.8	18.1	6.5	236	4690
MAY 71	5	459	8519	350	431	91	3.8	17.0	14.0	5.0	241	4761
JUN 71	6	655	11574	295	360	435	75	3.9	16.5	11.5	259	5014
JUL 71	7	418	17643	305	366	432	66	4.6	16.0	12.0	264	5101
AUG 71	8	316	6799	359	350	80	4.5	16.1	14.2	11.3	269	5133
SEP 71	9	256	4861	315	345	429	84	3.8	16.1	12.9	273	5195
OCT 71	10	142	2785	327	341	426	85	3.8	14.5	11.4	279	5253
NOV 71	11	140	2772	336	346	424	88	3.8	16.6	13.2	277	5359
DEC 71	12	145	2689	329	334	421	87	3.8	16.7	13.2	282	5332
JAN 72	13	153	3009	327	334	421	87	3.8	16.7	13.1	278	5345
FEB 72	14	126	2649	330	333	421	88	3.7	16.2	12.9	279	5346
MAR 72	15	173	3433	331	331	420	89	3.7	15.2	12.2	280	5360
APR 72	16	328	6151	313	339	426	97	3.6	15.5	11.4	275	5255
MAY 72	17	514	6989	291	354	431	77	3.8	14.5	11.0	276	5239
JUN 72	18	357	6052	283	357	431	74	3.8	13.9	10.5	280	5248
JUL 72	19	303	5330	350	426	76	3.9	14.3	10.7	10.7	279	5216
AUG 72	20	307	5602	293	347	422	75	3.9	13.9	10.5	280	5245
SEP 72	21	163	2856	292	342	416	74	3.9	14.3	10.6	275	5099
OCT 72	22	150	2505	278	339	415	76	3.7	12.7	10.1	274	4743
NOV 72	23	144	2547	295	334	408	74	4.0	14.3	10.6	279	4320
DEC 72	24	120	2109	293	334	411	77	3.8	14.3	10.6	279	4301
JAN 73	25	132	2343	296	332	409	77	3.8	14.0	10.5	275	4239
FEB 73	26	141	2436	284	332	407	75	3.8	14.3	10.4	277	4184
MAR 73	27	126	2297	304	329	409	80	3.8	14.2	10.5	276	4179
APR 73	28	184	3374	306	331	412	81	3.8	13.9	10.4	272	4085
MAY 73	29	128	2288	298	333	413	80	3.7	14.0	10.7	270	3995
JUN 73	30	522	6623	276	347	428	81	3.4	14.5	10.6	204	3510
JUL 73	31	331	5205	262	361	434	73	3.6	14.3	9.9	204	3500
AUG 73	32	420	6669	265	353	425	72	3.7	14.4	10.1	205	3605
SEP 73	33	296	4747	267	356	429	73	3.7	15.4	10.8	213	3605
OCT 73	34	237	3921	276	347	416	69	4.0	14.6	10.3	224	3763
NOV 73	35	164	2710	278	338	419	81	3.4	15.0	11.0	224	3681
DEC 73	36	2656	277	417	337	417	80	16.4	11.8	7.2	278	3966

MONTHLY PUMPING AND PRODUCTION STATISTICS
FUR WELL 3-4,
FOR LAST THREE YEARS

DATE	MO YR	PUMP= TIME	RATE	WATER LEVEL	DRAW DOWN	SPEC CAPACITY	PERCENT OF FIELD PUMP RATE	PERCENT OF TOTAL PUMP RATE	YEARLY AVERAGE PUMP RATE	CUMULATIVE PUMP PUMP= TIME AGE THSND MILLN HR GAL	
										THSND GPM	GPM FT
JAN 71	55	714	216	286	217	377	6.3	3.2	6.9	2.4	2.5
FEB 71	22	408	213	378	484	106	2.0	3.2	1.6	7.7	1.2
MAR 71	93	1196	214	387	489	111	1.9	2.4	1.2	7.6	1.0
APR 71	5	346	4747	229	394	498	1.1	1.9	5.2	2.7	2.5
MAY 71	6	324	3955	203	404	505	1.1	2.1	12.8	8.0	4.9
JUN 71	7	175	1940	220	404	520	1.6	8.2	6.2	4.4	7.8
JUL 71	8	125	1622	215	405	517	1.6	6.7	3.1	6.9	4.1
SEP 71	9	60	762	212	397	518	1.8	6.4	3.4	7.9	3.2
OCT 71	10	121	1568	216	392	512	1.8	3.8	2.0	8.1	1.6
NOV 71	11	142	1692	222	384	506	1.7	12.4	6.7	9.3	4.4
DEC 71	12	145	1915	220	380	499	1.9	1.8	16.9	9.0	8.9
JAN 72	13	203	218	380	499	119	1.8	16.7	8.9	6.9	5.9
FEB 72	14	1553	214	380	500	120	1.8	15.6	8.0	7.3	5.7
MAR 72	15	166	2150	216	378	498	1.8	14.8	14.6	7.5	5.5
APR 72	16	328	3485	177	390	504	1.6	1.6	14.5	6.5	7.4
MAY 72	17	513	5618	163	404	517	1.6	16.5	6.9	6.8	6.2
JUN 72	18	346	3962	191	404	515	1.1	1.7	13.4	6.6	7.1
JUL 72	19	303	3480	191	405	512	1.0	1.8	14.3	7.0	6.7
AUG 72	20	319	3742	196	401	507	1.0	1.8	14.4	7.2	7.0
SEP 72	21	163	1919	196	401	504	1.0	1.9	14.3	7.1	6.4
OCT 72	22	164	1964	201	389	504	1.0	1.8	13.9	7.0	7.2
NOV 72	23	144	1884	218	382	514	1.3	1.1	12.3	7.8	6.4
DEC 72	24	120	1558	216	384	510	1.7	1.7	14.3	7.6	7.8
JAN 73	25	132	1726	218	380	509	1.7	1.7	14.3	7.0	5.6
FEB 73	26	141	1892	224	380	512	1.7	1.7	14.3	8.0	5.2
MAR 73	27	126	1670	221	380	517	1.6	1.6	14.2	7.7	5.7
APR 73	28	188	2504	222	381	515	1.7	1.7	14.2	7.7	7.8
MAY 73	29	288	3622	210	384	511	1.7	1.7	15.7	8.1	7.5
JUN 73	30	509	6191	203	400	520	1.0	1.7	14.2	7.6	7.6
JUL 73	31	331	4055	204	407	538	1.0	1.7	14.3	7.7	7.7
AUG 73	32	410	4944	201	406	522	1.6	1.6	14.1	7.5	7.6
SEP 73	33	297	3603	202	405	528	1.6	1.6	15.5	8.2	7.3
OCT 73	34	234	2801	200	397	518	1.6	1.6	14.5	7.4	7.3
NOV 73	35	182	1945	178	390	519	1.4	1.4	16.7	7.8	9.6
DEC 73	36	229	222	390	534	1.5	1.5	17.0	7.5	7.5	7.5

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL G-5
FOR LAST THREE YEARS

DATE	PUMP- TIME	PUMP- AGE	RATE THSND GAL	WATER LEVEL FT	DRAW DOWN NON PUMP FT	SPEC CAP- ACITY GPM/ FT	PERCENT OF FIELD PUMP PUMP- TIME AGE			YEARLY PUMP RATE TIME	AVERAGE PUMP RATE THSND HR	CUMULATIVE PUMP PUMP- TIME AGE THSND MILN HR GAL
							PUMP FT	PUMP FT	PUMP RATE AGE			
MO YR	JAN 71	1	143	4748	553	450	518	68	6.1	16.3	21.3	55.6 1805.3
	FEB 71	2	110	3733	550	449	516	67	6.2	16.1	20.7	55.7 1808.9
	MAR 71	3	231	7529	543	451	519	68	6.0	17.1	21.9	55.9 1816.5
	APR 71	4	313	10357	551	458	525	67	6.2	17.6	23.1	56.2 1822.8
	MAY 71	5	37	1170	527	460	531	71	7.4	11.4	20.0	56.3 1828.0
	JUN 71	6	453	14360	528	466	537	71	7.4	11.4	15.9	56.7 1846.4
	JUL 71	7	369	14344	648	463	538	75	8.6	14.1	22.5	56.7 1866.7
	AUG 71	8	313	10256	546	442	517	75	7.3	16.0	21.0	57.1 1867.0
	SEP 71	9	265	8200	516	435	511	76	6.8	16.6	21.8	57.4 1875.2
	OCT 71	10	142	4578	537	445	516	71	7.6	14.5	19.6	57.8 1877.7
	NOV 71	11	139	4533	544	444	512	68	8.0	16.5	21.6	57.9 1884.3
	DEC 71	12	142	4642	545	443	511	68	8.0	16.4	21.6	58.1 1888.9
	JAN 72	13	153	4951	539	441	512	71	7.6	16.7	21.6	58.2 1893.9
	FEB 72	14	124	4039	543	442	512	70	7.8	16.0	20.9	58.4 1897.9
	MAR 72	15	156	5520	535	440	511	71	7.5	15.1	19.6	58.5 1903.4
	APR 72	16	328	10495	533	439	515	76	7.0	14.5	19.5	58.9 1913.9
	MAY 72	17	522	16445	515	448	515	67	7.7	14.7	19.7	59.4 1930.1
	JUN 72	18	378	11555	523	444	517	73	7.2	14.7	19.4	59.8 1941.9
	JUL 72	19	303	9655	531	439	516	77	6.9	14.3	19.5	60.1 1951.6
	AUG 72	20	319	10111	528	446	517	71	7.4	14.4	19.4	60.4 1961.7
	SEP 72	21	163	5255	537	443	515	72	7.5	14.3	19.5	60.5 1965.9
	OCT 72	22	174	544	544	441	516	75	7.3	14.7	20.1	60.7 1972.6
	NOV 72	23	146	4754	543	437	514	77	7.0	14.5	19.7	61.1 1977.4
	DEC 72	24	120	3929	546	437	510	73	7.5	14.3	19.7	61.0 1981.3
	JAN 73	25	132	4313	545	437	506	69	7.9	14.0	19.7	61.1 1985.6
	FEB 73	26	141	4414	545	437	504	67	8.1	14.3	19.6	61.3 1990.2
	MAR 73	27	132	4406	556	437	508	71	7.8	14.8	20.2	61.4 1994.6
	APR 73	28	188	6264	555	436	509	73	7.6	14.2	19.3	61.6 2000.9
	MAY 73	29	289	9368	540	439	514	75	7.2	15.7	20.9	61.9 2010.3
	JUN 73	30	514	16282	526	452	526	74	7.1	14.3	19.9	62.4 2026.5
	JUL 73	31	331	10617	535	453	530	77	6.9	14.3	20.2	62.7 2033.2
	AUG 73	32	418	13460	537	451	524	73	7.4	14.4	20.3	63.1 2050.6
	SEP 73	33	296	9568	539	451	527	76	7.1	15.4	21.9	63.4 2060.2
	OCT 73	34	233	7627	546	446	517	71	7.7	14.4	20.1	63.7 2067.6
	NOV 73	35	163	5388	551	444	511	67	8.2	14.9	21.7	64.0 2073.2
	DEC 73	36	166	5548	557	443	507	64	8.7	16.8	24.2	64.0 2078.7
											250	8121

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL 3-6
FOR LAST THREE YEARS

DATE	PUMP TIME	PUMP RATE	WATFR LEVEL	DRAW DOWN	SPEC CAPACITY		PERCENT OF FIELD PUMP RATE		PERCENT OF TOTAL PUMP RATE		YEARLY AVERAGE PUMP RATE		CUMULATIVE PUMP TIME	CUMULATIVE PUMP TIME
					HR	FT	NON PUMP FT	PUMP FT	TIME AGE	PUMP TIME	AGE	THSND HR	THSND GAL	
JAN 71	1 143	2509	292	562	625	63	4.6	16.3	11.3	10.2	6.9	3.2	230	4215
FEB 71	2 110	1895	287	562	620	58	5.0	16.1	10.8	10.2	6.1	3.3	225	4098
MAR 71	3 231	3885	280	564	627	63	4.4	17.1	11.3	10.1	7.4	3.4	230	4173
APR 71	4 326	5372	275	573	630	57	4.8	18.3	12.0	9.9	8.6	4.0	238	4231
MAY 71	5 462	7265	262	580	635	55	4.8	17.1	12.2	9.8	8.7	4.3	244	4227
JUN 71	6 592	8420	237	589	644	55	4.5	14.9	9.3	9.3	7.5	3.3	255	4234
JUL 71	7 362	4565	210	590	642	52	4.0	13.8	7.8	7.8	6.9	2.8	255	4074
AUG 71	8 308	4088	220	582	631	49	4.5	15.7	8.5	8.1	7.8	2.5	263	4013
SEP 71	9 257	3032	198	577	623	46	4.3	16.1	8.1	7.6	7.3	2.5	269	4052
OCT 71	10 141	1789	211	571	617	46	4.6	14.4	7.6	9.1	5.4	1.8	268	3913
NOV 71	11 -0	-0	0	566	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	255	3755
DEC 71	12 -0	-0	0	562	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	244	3568
JAN 72	13 -0	-0	0	562	-0	0	0.0	0.0	0.0	0.0	0.0	0.0	232	3359
FEB 72	14 29	784	451	564	647	83	5.4	3.7	4.0	15.4	1.4	1.4	226	3267
MAR 72	15 108	2880	438	562	665	103	4.3	9.5	10.1	15.2	3.6	2.5	215	3180
APR 72	16 298	7254	406	575	675	100	4.1	13.2	13.5	14.6	6.6	4.7	213	3336
MAY 72	17 494	11152	376	594	686	92	4.1	13.9	13.6	13.9	5.5	4.6	197	3660
JUN 72	18 364	8005	367	587	679	92	4.0	14.1	13.3	13.6	6.6	4.4	197	283
JUL 72	19 303	6612	364	590	681	91	4.0	14.3	13.3	13.3	6.7	4.2	192	3626
AUG 72	20 319	3767	367	586	677	91	4.0	14.4	13.6	13.4	7.0	4.5	193	3196
SEP 72	21 163	3589	367	578	673	95	3.9	14.3	13.3	13.3	6.4	4.2	185	3087
OCT 72	22 174	3558	370	574	665	91	4.1	14.7	13.7	13.4	6.1	3.8	188	3259
NOV 72	23 164	3201	370	571	657	86	4.3	14.3	13.3	13.3	6.4	4.1	200	4226
DEC 72	24 220	2676	372	571	660	89	4.2	14.3	13.4	13.4	5.6	3.3	210	4749
JAN 73	25 132	3709	342	567	654	87	3.9	14.0	12.1	12.4	5.2	2.9	221	376
FEB 73	26 141	3058	361	561	649	82	4.4	14.3	13.0	13.0	6.1	3.7	230	5164
MAR 73	27 126	2873	380	569	657	88	4.3	14.2	13.2	13.3	5.4	3.2	231	5167
APR 73	28 188	4213	379	569	662	93	4.1	14.2	13.2	13.3	6.3	3.9	222	4919
MAY 73	29 288	6210	359	573	664	91	3.9	15.7	13.8	12.9	7.2	4.3	205	4507
JUN 73	30 508	10720	352	592	681	89	4.0	14.1	13.1	13.3	7.6	4.1	217	4733
JUL 73	31 332	419	963	360	567	85	4.2	14.3	13.7	13.6	6.7	4.1	220	4780
AUG 73	32 419	6487	365	591	677	85	4.2	14.4	13.7	13.5	7.4	4.4	228	362
SEP 73	33 296	5118	372	581	671	90	4.1	15.4	14.8	13.6	7.3	4.8	239	5191
OCT 73	34 35	3703	370	577	668	83	4.2	14.9	13.6	13.6	6.5	3.9	244	5301
NOV 73	35 163	3844	366	386	597	83	4.0	16.8	14.9	13.9	6.4	4.6	245	5343
DEC 73	36 166	3844	366	386	597	83	4.0	16.8	14.8	13.8	7.4	4.6	245	5441

MONTHLY PUMPING AND PRODUCTION STATISTICS
 FOR WELL #M-1
 FOR LAST THREE YEARS

MO	YR	DATE	PUMP- TIME	PUMP- AGE	RATE	DRAW- DOWN	WATER LEVEL	NON PUMP PUMP	SPEC- CAP- ACITY	PUMP PUMP- TIME	FIELD AGE	PERCENT OF FIELD PUMP PUMP- TIME	PERCENT OF TOTAL PUMP PUMP- TIME	YEARLY AVERAGE PUMP PUMP- TIME	CUMULATIVE PUMP PUMP- TIME	THSND	GPM	HR	GAL	HR	GPM	THSND	GAL	HR	GPM	THSND	GAL															
JAN	71	1	110	4438	672	729	764	35	19.2	20.5	11.3	19.8	5.2	7.3	158	5884	622	13.4	491.3	FEB	71	2	191	7656	668	731	768	37	18.1	32.2	16.9	19.6	10.5	10.4	7.8	173	6522	627	13.6	498.9		
MAR	71	3	280	9847	594	731	765	34	17.2	35.7	10.2	17.7	9.0	9.7	6.5	197	7337	622	13.9	506.8	APR	71	4	199	7040	590	732	765	33	17.9	26.3	13.3	17.9	5.3	5.3	6.6	192	7101	616	14.1	515.8	
MAY	71	5	242	8352	575	735	764	29	19.8	27.0	13.5	17.5	4.6	4.6	4.9	197	7176	608	14.3	524.3	JUN	71	6	352	13143	622	735	766	31	20.1	27.1	14.7	18.7	4.4	4.4	5.2	199	7315	612	14.7	537.3	
JUL	71	7	346	12657	610	738	771	33	18.5	18.5	17.3	17.3	6.6	6.6	7.1	201	7427	615	15.0	550.0	AUG	71	8	256	9469	616	735	766	31	19.9	29.9	16.2	18.6	6.5	6.8	7.0	222	8214	616	15.3	559.4	
SEP	71	9	271	10001	615	736	767	29	21.2	30.8	16.9	18.7	7.0	7.0	7.5	7.1	229	8478	616	15.5	569.4	OCT	71	10	178	7037	659	733	765	32	20.6	26.6	14.8	19.6	6.9	7.1	7.8	232	8422	620	15.7	576.5
NOV	71	11	147	5601	635	733	766	33	19.2	19.2	12.7	12.7	6.1	6.1	6.1	7.3	232	8646	621	15.9	582.1	DEC	71	12	156	5769	616	732	765	33	18.7	28.7	15.1	18.5	6.9	6.9	7.1	227	8417	617	16.0	587.8
JAN	72	13	131	5467	696	730	766	35	17.9	21.2	12.9	20.4	5.6	6.3	6.0	229	9503	619	16.1	593.3	FEB	72	14	134	5600	697	731	765	34	20.5	22.3	12.7	20.4	6.3	6.3	6.6	224	8332	619	16.3	598.9	
MAR	72	15	151	6170	681	728	764	36	18.9	29.8	11.0	20.7	5.3	5.3	7.5	5.0	214	8025	624	16.4	605.1	APR	72	16	250	8590	573	734	763	29	19.7	27.9	14.0	17.5	5.5	5.6	6.5	218	8155	624	16.7	613.7
MAY	72	17	389	13568	581	738	765	27	21.5	32.6	17.3	17.7	6.7	6.7	6.7	7.1	230	8589	622	17.1	627.2	JUN	72	18	336	11628	577	736	767	31	18.6	32.3	16.9	17.6	6.4	6.4	6.3	229	8643	617	17.4	638.9
JUL	72	19	267	9256	578	738	767	29	19.9	25.4	12.6	17.6	6.1	6.1	6.1	6.6	222	8180	614	17.7	648.1	AUG	72	20	270	9199	568	741	764	23	24.7	27.6	13.7	17.4	5.9	5.9	6.5	223	8157	609	17.9	657.3
SEP	72	21	122	3972	543	737	757	20	27.1	20.2	9.1	16.7	4.8	4.8	4.3	6.2	211	7655	605	18.1	661.3	OCT	72	22	146	4398	592	737	757	20	25.1	23.1	9.1	17.5	5.1	4.3	6.5	218	7435	595	18.2	665.7
NOV	72	23	110	3797	575	735	757	22	26.2	19.6	9.3	17.5	4.3	4.3	4.3	5.7	208	7435	595	18.3	669.5	DEC	72	24	109	3294	594	735	758	23	21.9	20.5	10.6	15.6	4.5	4.5	5.6	205	7284	592	18.4	672.8
JAN	73	25	123	4273	579	735	758	23	25.2	20.6	9.1	15.6	4.1	4.1	4.1	5.1	201	7678	586	19.0	699.4	FEB	73	26	104	3595	576	735	758	23	25.0	25.0	20.1	17.5	4.5	4.5	5.5	201	6979	580	19.3	703.6
MAR	73	27	120	4146	576	735	758	23	25.0	20.9	10.0	17.5	5.1	4.7	4.7	6.4	198	6912	573	19.6	690.6	APR	73	28	194	2862	507	735	754	19	26.7	15.0	9.5	15.8	4.3	4.3	5.6	204	6643	566	19.8	694.8
MAY	73	29	164	4526	460	734	749	15	18.5	30.7	18.5	14.5	7.1	7.1	7.1	182	6166	563	19.9	697.7	JUN	73	30	270	7177	443	737	755	18	24.6	21.8	8.4	14.1	4.1	4.1	5.2	164	5412	551	20.0	692.2	
JUL	73	31	165	4248	429	737	754	17	25.2	25.0	9.6	17.5	5.5	4.7	4.7	198	6041	531	19.3	699.4	AUG	73	32	198	4922	414	735	753	18	23.0	16.4	5.7	13.3	3.5	3.5	5.1	150	4624	515	19.5	703.6	
SEP	73	33	393	9557	405	740	755	15	27.0	29.5	16.3	13.1	9.6	9.6	9.6	164	4267	495	19.7	708.5	OCT	73	34	357	1242	363	739	756	17	21.4	7.3	2.1	11.9	4.9	4.9	5.0	166	473	474	20.1	718.3	
NOV	73	35	-0	-0	0	-0	-0	0	-0	-0	0	0.0	0.0	0.0	0.0	0.0	150	4153	462	20.1	719.3	DEC	73	36	-0	-0	0	-0	-0	0	-0	-0	0.0	0.0	0.0	0.0	0.0	141	3879	460	20.1	719.3

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL PM-2
FOR LAST THREE YEARS

DATE	MO	YR	PUMP TIME	PUMP- HR	PUMP- THSND GAL	RATE GPM	WATER RATE LEVFL FT	DRAW DOWN FT	SPEC CAP- ACITY GPW/	PERCENT OF FIELD PUMP TIME	PUMP- RATE AGE	PERCENT OF TOTAL PUMP RATE TIME	YEARLY AVERAGE PUMP RATE TIME	CUMULATIVE PUMP PUMP- TIME AGE THSND MILLN						
JAN	71	1	210	17888	1420	838	R95	57	24.9	39.1	45.4	41.7	10.0	21.8	15.4	294	25648	1420	15.5	315.6
FEB	71	2	191	16311	1423	837	R95	58	24.5	32.2	40.2	41.8	10.5	22.2	16.5	293	24993	1420	15.7	331.9
MAR	71	3	311	26415	1416	839	R96	57	24.8	39.7	51.4	42.8	10.0	23.3	15.7	301	25659	1420	16.0	358.3
APR	71	4	353	28911	1408	842	R96	54	26.1	46.6	56.8	42.8	9.3	22.3	15.8	311	26455	1419	16.3	388.1
MAY	71	5	371	31354	1409	842	R98	56	25.2	41.4	50.8	42.9	7.0	18.6	16.1	312	26512	1418	16.7	419.5
JUN	71	6	460	38806	1416	842	R99	55	25.6	35.4	43.3	42.3	5.9	15.2	16.4	316	26872	1416	17.2	458.3
JUL	71	7	452	37564	1398	844	R92	58	23.9	41.3	51.4	42.2	8.6	21.0	16.1	321	27189	1412	17.6	495.8
AUG	71	8	393	1394	842	R90	56	24.0	45.9	56.1	42.0	9.9	23.6	15.8	322	27220	1409	18.0	528.7	
SEP	71	9	366	30543	1391	842	R91	54	23.6	41.6	51.6	42.2	9.7	22.8	16.1	325	27431	1406	18.4	559.3
OCT	71	10	363	30466	1399	842	R90	58	24.1	54.3	64.2	41.7	13.8	31.0	16.5	330	27789	1405	18.7	599.7
NOV	71	11	349	29339	1401	842	R90	58	24.2	56.3	65.6	41.9	14.5	31.8	16.1	336	28187	1403	19.1	619.1
DEC	71	12	216	18163	1401	841	R99	58	24.2	39.9	47.4	42.1	9.6	21.7	16.2	336	28294	1402	19.3	637.0
JAN	72	13	350	28398	1400	843	R90	57	24.6	56.5	64.3	41.1	14.9	32.1	16.0	348	29253	1401	19.6	666.6
FEB	72	14	331	21835	1402	841	R90	59	23.8	55.0	62.9	41.0	15.5	32.9	15.3	360	30214	1400	20.0	694.5
MAR	72	15	386	1399	844	R92	58	24.1	50.5	57.8	41.6	12.8	28.1	15.5	366	30712	1399	20.4	726.9	
APR	72	16	404	33755	1393	844	R92	58	24.0	45.1	54.9	42.5	8.9	22.0	15.7	370	31041	1398	20.8	760.6
MAY	72	17	397	33189	1393	844	R92	58	24.0	33.3	42.3	42.5	6.3	16.3	16.9	372	31193	1397	21.2	793.8
JUN	72	18	404	33654	1388	844	R92	58	23.9	38.8	48.9	42.5	7.3	16.4	15.9	368	30764	1395	21.6	827.5
JUL	72	19	544	45435	1392	847	R92	55	25.3	51.8	61.8	42.5	12.0	29.4	15.9	375	31420	1396	22.1	872.9
AUG	72	20	438	36456	1397	847	R95	58	23.9	44.7	54.3	42.4	9.6	23.2	15.8	379	31718	1395	22.5	909.3
SEP	72	21	360	30049	1391	845	R93	58	24.0	59.6	68.9	42.9	14.1	32.2	15.8	378	31677	1395	22.9	939.4
OCT	72	22	339	28344	1394	844	R92	58	24.0	53.7	63.9	43.3	11.9	27.6	15.8	376	31500	1394	23.2	967.7
NOV	72	23	332	21692	1390	847	R92	55	25.3	59.3	67.8	42.3	14.9	32.6	15.5	375	31364	1394	23.6	995.4
DEC	72	24	326	27087	1385	848	R96	58	23.9	61.3	71.0	43.0	15.2	33.5	15.5	384	32107	1393	23.9	2022.5
JAN	73	25	325	27097	1390	847	R94	57	24.4	54.5	62.7	42.1	12.7	20.5	15.5	382	31915	1392	24.2	2049.6
FEB	73	26	277	23170	1394	847	R94	57	24.5	53.6	61.7	42.4	12.4	29.1	15.5	378	31527	1391	24.6	2072.8
MAR	73	27	325	21798	1395	848	R94	56	24.9	56.6	65.5	42.4	13.6	30.6	15.4	373	31094	1391	24.8	2100.0
APR	73	28	334	27862	1390	847	R94	57	24.4	53.4	60.0	43.2	11.1	25.6	15.5	367	30603	1391	25.2	2127.8
MAY	73	29	356	18929	1396	848	R95	57	24.5	40.2	47.1	43.0	R.9	20.5	15.8	363	30323	1391	25.5	2157.7
JUN	73	30	476	36062	1387	849	R95	57	23.9	38.5	44.0	42.0	7.1	17.8	16.1	369	30818	1391	26.0	2197.3
JUL	73	31	484	40146	1382	850	R99	59	23.4	45.6	52.1	44.1	9.7	22.9	16.2	364	30378	1390	26.5	2237.4
AUG	73	32	494	40974	1382	851	R91	59	23.4	40.9	47.2	44.4	8.7	20.7	16.9	369	30754	1389	27.0	2278.4
SEP	73	33	385	32012	1386	851	R99	58	23.9	38.7	44.7	44.7	9.4	20.5	16.9	371	30918	1389	27.4	2310.4
OCT	73	34	440	36560	1385	850	R99	59	23.9	56.7	60.6	45.1	12.5	27.8	16.0	379	31602	1388	27.6	2347.0
NOV	73	35	369	1384	849	R69	60	59	65.3	66.5	51.3	61.4	14.5	31.7	16.7	383	31847	1387	28.5	2377.6
DEC	73	36	306	25632	1387	849	R69	59	65.4	66.6	51.4	61.4	13.6	30.2	17.5	381	31713	1388	28.5	2403.1

MONTHLY PUMPING AND PRODUCTION STATISTICS
FOR WELL PM-3
FOR LAST THREE YEARS

DATE	PUMP- TIME	RATE	WATER LEVEL	DRAW DOWN	SPEC		PERCENT OF FIELD		PERCENT OF TOTAL		YEARLY AVERAGE		CUMULATIVE				
					THSND GAL	HR	NON PUMP	PUMP FT	PUMP RATE	TIME AGE	PUMP TIME	PUMP RATE	TIME AGE	PUMP THSND	PUMP HR	PUMP GAL	
MO	YR				FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	
JAN	71	1	217	17045	1309	750	773	23	56.9	40.4	43.3	38.5	10.3	20.7	14.2	242	19002
FEB	71	2	211	16605	1312	750	773	23	57.0	35.6	40.9	38.5	11.6	22.6	15.2	243	19070
MAR	71	3	193	15099	1304	750	774	24	54.3	24.6	29.4	39.4	6.2	13.3	14.5	236	18672
APR	71	4	205	15884	1291	751	773	22	58.7	27.1	30.1	39.3	5.4	11.9	14.5	236	18442
MAY	71	5	283	22062	1299	751	774	23	56.5	31.6	35.7	39.6	5.3	13.1	14.9	227	17704
JUN	71	6	486	37669	1292	753	775	22	58.7	37.4	42.0	38.9	6.1	14.8	15.1	237	18476
JUL	71	7	296	22881	1288	753	776	23	56.0	27.1	31.3	39.2	5.6	12.8	15.0	241	18844
AUG	71	8	207	16264	1310	750	776	26	50.4	24.2	27.7	39.4	5.2	11.7	14.8	229	17942
SEP	71	9	242	18688	1287	751	776	25	51.5	27.5	31.6	39.1	6.4	14.0	14.9	234	19227
OCT	71	10	128	9984	1300	750	773	23	56.5	19.1	21.0	38.7	4.9	10.1	15.4	236	18383
NOV	71	11	124	9753	1311	750	773	23	57.0	20.0	21.8	39.2	5.2	10.6	15.1	236	18221
DEC	71	12	182	14347	1314	750	773	23	57.1	32.9	37.5	39.4	8.0	17.1	15.2	231	18025
JAN	72	13	138	10847	1310	750	773	23	57.0	22.3	23.7	38.5	5.9	11.9	15.0	225	17509
FEB	72	14	137	10825	1317	750	773	23	57.3	22.8	24.5	38.6	6.6	12.8	14.4	218	17027
MAR	72	15	227	17500	1285	751	774	23	55.9	29.7	31.2	38.2	7.5	12.6	14.2	221	17298
APR	72	16	246	19088	1315	751	775	24	54.8	27.0	31.1	40.1	5.3	12.4	14.9	224	17494
MAY	72	17	406	31749	1303	753	777	24	54.3	34.1	40.4	39.8	6.5	15.6	15.8	235	18301
JUN	72	18	300	23483	1305	753	776	23	56.7	28.8	34.1	34.1	5.4	12.8	14.2	219	17117
JUL	72	19	240	18851	1309	753	776	23	56.9	22.8	25.6	39.9	5.3	11.8	15.0	214	16782
AUG	72	20	272	21491	1317	753	776	23	57.3	27.8	32.0	40.2	6.0	13.7	15.0	220	17217
SEP	72	21	122	9564	1309	751	774	21	62.3	20.2	22.0	40.4	4.8	12.1	14.9	220	17049
OCT	72	22	146	11855	1322	753	775	22	60.1	23.1	26.1	41.1	5.1	11.3	15.0	211	16592
NOV	72	23	9338	1319	753	773	20	65.9	21.1	22.9	40.2	5.3	11.1	14.7	211	16557	
DEC	72	24	97	7754	1323	755	778	23	57.5	41.2	45.7	41.6	4.5	9.6	14.9	204	16008
JAN	73	25	148	11835	1333	753	776	23	57.9	27.4	30.4	40.4	5.8	12.5	14.9	205	16248
FEB	73	26	136	10766	1319	753	776	23	57.4	26.3	28.7	40.1	6.1	13.1	14.7	204	16090
MAR	73	27	129	10201	1318	753	776	23	57.3	22.5	24.6	40.1	5.5	11.5	14.6	196	15477
APR	73	28	198	15706	1322	753	776	23	57.5	31.6	33.8	41.1	6.2	14.4	14.8	193	15195
MAY	73	29	365	28967	1323	755	778	23	57.7	41.2	45.7	41.6	6.1	19.9	15.0	189	14963
JUN	73	30	491	38901	1320	755	780	25	52.8	39.7	45.4	41.9	7.3	17.5	15.4	205	16248
JUL	73	31	413	32713	1320	756	780	24	55.0	38.9	42.2	42.2	8.3	18.7	15.5	220	17403
AUG	73	32	516	49874	1320	756	781	25	52.8	42.7	47.1	42.4	9.1	20.6	16.1	220	17458
SEP	73	33	217	17087	1312	756	779	23	57.1	21.8	29.1	42.3	5.3	12.6	14.8	240	19064
OCT	73	34	285	22577	1320	755	780	25	52.6	36.4	37.4	43.0	8.1	17.1	15.3	259	20560
NOV	73	35	196	15459	1315	755	778	23	57.2	34.7	33.5	48.7	7.7	16.0	15.8	266	21070
DEC	73	36	162	12756	1313	755	778	23	57.1	34.6	33.4	48.6	7.0	15.1	16.6	271	21487