

**4th QUARTERLY MONITORING REPORT
November 2007 SAMPLING**

**City of Patterson
Water Quality Control Facility
Groundwater Monitoring Program**

Conducted in Accordance with
Waste Discharge Requirements Order No. 5-00-146

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SECTION 1 INTRODUCTION

This Quarterly Groundwater Monitoring Report has been prepared in accordance with the Waste Discharge Requirements (WDR) Order No. 5-00-147 for the Water Quality Control Facility (WQCF) in the City of Patterson, Stanislaus County, California. The WQCF is located on a gently sloping plain at the edge of a ten-foot high bluff overlooking the San Joaquin River, approximately ½ mile to the east (see **Figure 1**). Monitoring wells were installed as part of the groundwater monitoring program (Monitoring Program) developed to determine if groundwater has been, or has the potential to be, adversely impacted by wastewater treatment and disposal operations. The Monitoring Program includes an assessment of background conditions and a determination if there has been any impact from wastewater disposal. The Monitoring Program consists of the quarterly sampling of nine monitoring wells. The plant water supply is not tested nor required by the current WDR, and therefore no analytical results are provided in this report.

Monitoring wells MW-1 to MW-5 were constructed in March 2001 and have been sampled on a quarterly basis since April 2001. Wells MW-6 to MW-10, were installed between the months of July and August 2004 during the construction of the 1.25 MGD South Activated Sludge Treatment System and have been sampled on a quarterly basis since the summer of 2004. There is no well MW-9.

Groundwater samples from the nine monitoring wells are tested in accordance with the current WDR.

This report presents the results of the quarterly samples collected on November 8, 2007. Included in this report will be groundwater elevation summaries and contour maps.

SECTION 2 GROUNDWATER MONITORING WELLS

A total of nine wells, three upgradient and six downgradient, are located outside and within the WQCF. Wells MW-1, MW-2, and MW-6 are background upgradient wells located west of the WQCF. The remaining wells are downgradient wells. Wells MW-3, MW-4, and MW-5 are located east of Pond 13, AIPS Primary Pond, and Pond 7, respectively. Wells MW-7 and MW-8 are located in the northeast corners of Ponds 15 and 18, respectively. Well MW-10 is located between the South Activated Sludge Treatment System and Pond 12. The monitoring well locations are shown in **Figure 2**.

All monitoring wells have 15 feet of screen with total depths ranging from 28 to 31.5 feet below ground surface (bgs). A summary of well characteristics is provided in **Table 2**.



SECTION 3 GROUNDWATER ELEVATIONS

Groundwater elevations measured in this sampling round are listed in **Table 3** and are contoured on the map in **Figure 2**. Groundwater elevations sampled since 2001 to the current sample date are presented graphically in **Figure 3**. Surface and groundwater flow is generally eastward toward the San Joaquin River.

SECTION 4 MONITORING WELL SAMPLING

The wells were purged and sampled on November 8, 2007 in accordance with the procedures specified in the workplan. The November sampling is considered the fourth quarter sampling round. Sampling was conducted by Ken Moffitt of FGL Environmental. Purge logs are presented in **Appendix A**.

SECTION 5 GROUNDWATER QUALITY RESULTS

In accordance with WDR Order No. 5-00-147, groundwater monitoring wells were tested for following parameters:

- Total Dissolved Solids
- Nitrate as Nitrogen
- Total Kjeldahl Nitrogen
- pH
- Chloride
- Sodium
- Total Coliform Organisms
- Standard Minerals - calcium, magnesium, manganese, boron, iron, potassium, sulfate, total alkalinity (including alkalinity series), and hardness.
- Metals - arsenic, copper, lead, iron, manganese, molybdenum, nickel, and zinc.

The samples were analyzed by FGL Environmental, a state-certified environmental laboratory. The analysis for Total Kjeldahl Nitrogen was performed by Capco Analytical Services for samples obtained from wells MW-7 and MW-8. The analysis for Total Kjeldahl Nitrogen for wells MW-1, -2, -3, -4, -5, -6, and -10 were analyzed by Pat-Chem Laboratories.

The analytical results can be found in **Table 5.1**, **Table 5.2**, **Table 5.3** and **Table 5.4**. Laboratory reports for the November 2007 samples are presented in **Appendix B**.



Total Coliform. In the November 2007 sampling round, Total Coliform was present in five monitoring wells: MW-4, MW-6, MW-7, MW-8, and MW-10.

Well MW-6 has had significant hits of Total Coliform, with detections in ten of the twelve sampling events since sampling began in October 2004. Fecal Coliform was detected in MW-6 during this sampling round. This well is an upgradient background well. The constant Coliform presence could be the direct result of an existing neighboring dairy feed lot west of the MW-6 and not the disposal of treated wastewater at the plant.

The remaining four wells with Total Coliform detections are down gradient wells. Well MW-4 is located east of the AIPs. Wells MW-7 and MW-8 is located on the northern tip of Percolation Ponds 18 and 15, respectively. Percolation Ponds 18 and 15 are normally empty throughout the year. The Coliform presence could be the result of the existing dairy feed lot. Human error or contaminated samples is also a possibility. The Well MW-10 is located between Percolation Pond 12 and the south activated sludge system.

Due to the nature of Total Coliform present in five of the eleven monitoring wells, the City will conduct well cleanup and disinfection procedures as recommended by FGL Environmental.

The plant effluent is not disinfected, so it contains Coliform at levels exceeding drinking water standards. However, pathogens such as Coliform bacteria travel only short distances in the soil and groundwater and so would not impact groundwater uses beyond the immediate pond areas.

Historical Coliform data dating back to 2004 is compiled in **Table 5.4**.

SECTION 6 COMPARISON WITH EFFLUENT QUALITY

The 2007 monthly average data for the WQCF's influent, effluent, treatment ponds, and percolation ponds are summarized in **Table 6.1**. Total Dissolved Solids, Electric Conductivity, and Nitrate (as $\text{NO}_3\text{-N}$) 2007 data are also shown in **Table 6.1** and graphically shown in **Figure 6A**, **Figure 6B**, and **Figure 6C**, respectively. These results show that the groundwater quality is improved by dilution with the plant effluent.

Nitrate. Nitrate has been detected in groundwater samples at concentrations of up to 14.3 mg/L nitrate as $\text{NO}_3\text{-N}$. Nitrate concentrations in the downgradient wells are lower than, those found in the upgradient wells. These results indicate that the plant effluent has not degraded the quality of groundwater. In the case of nitrate and the north oxidation ditch, this ditch was constructed in the late 1970's and modified in the mid 1980's. The north ditch was not originally designed for nitrification and therefore explains the higher concentration of nitrate from the effluent samples taken.



SECTION 7 CERTIFICATION

A copy of the certification for each certified wastewater treatment plant operator working at the City of Patterson WQCF has been provided in **Appendix C**. The City of Patterson is in compliance with Title 23, CCR, Division 3, Chapter 26.

SECTION 8 SLUDGE MONITORING RESULTS

The WQCF has two methods in handling digested sludge disposal. Sludge is either wasted to the existing percolation ponds or injected with polymer and sent to dry on the sludge drying beds. A log of the biosolids production for 2007 and analytical results performed on biosolids sampled at the City of Patterson is presented in **Appendix D**. The amount of dried sludge produced in 2007 is approximately 63 tons. The dried sludge is removed offsite by a biosolids contractor for land application. The results from the sludge monitoring required by the City of Patterson have been submitted to the Board separately from this report during the week of January 28, 2008.

SECTION 9 COMPLIANCE W/ITERIM GROUNDWATER LIMITATIONS

The current WDR Order No. R5-2007-147 adopted by the Regional Water Quality Control Board (Board) November 1, 2007 requires that the City comply with the following effluent limitations listed below in **Table 9-1**. Effluent discharged to the percolation ponds shall not exceed the limits listed below.

Table 9-1. Interim Groundwater Limits

Constituents	Units	North Activated Sludge Treatment System	South Activated Sludge Treatment System	AIPS
		Monthly Average	Monthly Average	Monthly Average
BOD ₅	mg/L	<20	<20	<40
TSS	Mg/L	<20	<20	<40
Total Nitrogen	mg/L	NA	<8	<8
Total Nitrogen (Interim Limit)	mg/L	<35	NA	NA
Total Nitrogen (as of June 1, 2009)	mg/L	<10	<8	<8
TDS (Interim Limit)	mg/L	1250	1250	1250

Based on the 2007 TDS and Nitrate data (as provided in **Table 6.1**) collected and submitted to the Board in accordance with the WDR reporting and monitoring program, the secondary effluent is in compliance with the interim effluent limitations. The design of the rehabilitation of the North Oxidation Ditch to provide nitrification is complete.

Table 2

Well Construction Summary

	Well Depth (ft)	Completion Type	Slab Surface Elev (ft msl)	Top of Casing Elev (ft msl)	Water Elev 11/08/07 (ft msl)
MW-1	27.5	Below	55.58	54.93	37.88
MW-2	31.4	Above	57.93	59.68	38.13
MW-6	29.2	Above	51.81	55.23	34.91
MW-3	31.0	Above	52.18	53.80	35.98
MW-4	31.0	Above	56.99	58.58	35.49
MW-5	31.0	Above	53.79	55.21	37.28
MW-7	31.0	Above	54.62	58.04	35.84
MW-8	30.7	Above	55.91	59.33	38.11
MW-10	30.0	Below	58.33	58.12	35.98

Table 3
Groundwater Elevations
Upgradient and Downgradient Monitoring Wells

Water Elevations (ft msl)	Upgradient Wells			Downgradient Wells						
	MW-1	MW-2	MW-6	MW-3	MW-4	MW-5	MW-7	MW-8	MW-9	MW-10
	4/4/2001	38.10	40.30	N/A	35.90	37.18	35.85	N/A	N/A	N/A
4/24/2001	38.57	43.79	N/A	35.85	36.85	35.31	N/A	N/A	N/A	N/A
5/23/2001	39.24	40.81	N/A	35.80	36.94	36.52	N/A	N/A	N/A	N/A
7/13/2001	39.49	40.58	N/A	34.77	36.10	35.59	N/A	N/A	N/A	N/A
11/7/2001	37.79	37.32	N/A	34.58	35.77	35.04	N/A	N/A	N/A	N/A
2/8/2002	37.68	40.16	N/A	35.69	36.35	35.30	N/A	N/A	N/A	N/A
5/3/2002	39.80	39.59	N/A	35.11	35.97	34.76	N/A	N/A	N/A	N/A
8/12/2002	38.10	42.26	N/A	31.28	33.48	33.50	N/A	N/A	N/A	N/A
11/6/2002	37.47	40.93	N/A	34.48	35.46	35.13	N/A	N/A	N/A	N/A
2/18/2003	37.22	42.99	N/A	35.05	35.87	34.50	N/A	N/A	N/A	N/A
7/9/2003	37.48	42.23	N/A	32.58	33.97	33.83	N/A	N/A	N/A	N/A
10/8/2003	37.93	37.99	N/A	33.97	35.40	34.80	N/A	N/A	N/A	N/A
1/9/2004	35.97	35.55	N/A	N/A	30.97	36.29	N/A	N/A	N/A	N/A
1/29/2004	N/A	N/A	N/A	35.30	N/A	N/A	N/A	N/A	N/A	N/A
4/8/2004	37.24	38.06	N/A	35.14	35.36	34.41	N/A	N/A	N/A	N/A
7/8/2004	37.61	38.82	N/A	33.76	34.44	33.60	N/A	N/A	N/A	N/A
10/18/2004	37.90	37.68	36.01	34.87	35.40	34.19	34.33	35.41	38.08	37.38
1/17/2005	37.83	37.22	36.81	37.05	37.72	37.50	37.54	37.98	37.28	37.94
4/5/2005	40.03	38.87	39.15	39.47	39.58	39.58	40.13	40.20	39.36	39.85
7/11/2005	41.95	42.15	42.14	39.78	39.87	38.93	39.13	40.42	N/A	43.12
10/10/2005	40.62	40.48	39.72	37.46	37.70	36.61	37.86	38.37	N/A	38.69
1/9/2006	38.60	38.25	38.25	37.12	46.45	37.34	39.43	38.49	N/A	39.82
4/12/2006	41.69	40.74	41.92	45.65	47.63	47.19	47.75	44.87	N/A	41.74
7/6/2006	46.21	44.93	46.08	43.53	43.37	42.89	43.33	45.21	N/A	44.38
1/23/2007	38.95	37.71	37.33	37.32	36.71	35.69	35.84	37.66	N/A	N/A
6/14/2007	38.11	39.79	40.33	34.15	34.98	34.66	36.21	37.20	N/A	35.24
8/28/2007	37.38	39.80	39.31	32.56	35.52	34.27	35.24	36.25	N/A	36.12
11/8/2007	37.88	38.13	34.91	35.98	35.49	37.28	35.84	38.11	N/A	35.98

Table 5.1
Analytical Results Upgradient and Downgradient Monitoring Wells
November 8, 2007 Sampling

	Salinity		Nitrogen Compounds				pH	Chloride (mg/L)	Sodium (mg/L)	Pathogens	
	Total Dissolved Solids (mg/L)	Electrical Conductivity (umhos/cm)	Nitrate (as Nitrogen) (mg/L)	Ammonia (NH3-N) (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Total Coliform Organisms (MPN/100ml)				Fecal Coliform (MPN/100ml)	
Up gradient	MW-1	1610	2420	14.3	ND	0.2	7.7	238	368	<1.1 Absent	<1.1 Absent
	MW-2	2330	3490	7.8	ND	0.09	7.4	410	503	<1.1 Absent	<1.1 Absent
	MW-6	1140	1760	6.2	ND	0.06	7.9	157	221	16.1 Present	<1.1 Absent
Downgradient	MW-3	2020	3150	6.7	ND	0.05	7.5	460	517	<2 Absent	<2 Absent
	MW-4	1600	2520	0.3	1.1	0.93	7.3	400	344	2.2 Present	1.1 Present
	MW-5	1460	2340	ND	0.6	1.6	7.2	380	313	<2 Absent	<2 Absent
	MW-7	1310	2200	0.2	0.2	BQL	8.5	365	331	1.1 Present	<1.1 Absent
	MW-8	1460	2360	4.2	35	BQL	7.9	379	347	1.1 Present	<1.1 Absent
	MW-10	1690	2640	8.4	ND	3.3	7.5	405	320	1.1	<1.1 Absent

A/P = Absence/Presence

ND = Not Detected

BQL = Below Practical Quantitation Limit

**Table 5.2
Upgradient and Downgradient Monitoring Wells
Dissolved Metals Results
November 8, 2007 Sampling**

	Arsenic (ug/L)	Copper (mg/L)	Lead (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Zinc (mg/L)
MW-1	0.003	0.003	ND	0.015	0.001	ND
MW-2	0.006	0.004	0.0003	0.012	0.002	ND
MW-6	0.003	0.003	ND	0.013	ND	ND
MW-3	0.006	0.003	ND	0.003	0.003	ND
MW-4	0.016	0.006	ND	0.011	0.015	ND
MW-5	0.008	ND	ND	0.031	0.022	ND
MW-7	0.006	0.008	ND	0.033	0.019	ND
MW-8	0.008	0.066	0.0008	0.017	0.009	ND
MW-10	0.003	0.004	0.0002	0.002	0.007	ND

ND = Not Detected

**Table 5.3
Upgradient and Downgradient Monitoring Wells
Standard Minerals Results
November 8, 2007 Sampling**

	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/l)	Iron (mg/L)	Manganese (mg/L)	Sulfate (as SO ₄) (mg/L)	Total Alkalinity (as CaCO ₃) (mg/L)	Hardness (as CaCO ₃) (mg/L)	
Up gradient	MW-1	78	114	2	ND	480	420	664	
	MW-2	77	237	2	90	640	710	1170	
	MW-6	44	104	ND	2150	100	300	538	
Downgradient	MW-3	106	119	3	100	550	440	754	
	MW-4	120	92	10	ND	370	330	678	
	MW-5	111	79	17	110	1620	330	602	
	MW-7	40	98	3	4000	210	280	503	
	MW-8	80	92	2	500	20	290	578	
	MW-10	177	146	3	930	320	360	460	1040

ND = Not Detected
NS = Not Sampled

Table 5.4
 Upgradient Monitoring Wells
 Groundwater Total and Fecal Coliform Data
 MPN/100 ML

Sample Date	MW-1		MW-2		MW-6	
	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform
10/18/2004	<2	<2	7	4	17	17
1/17/2005	6.9	<1.1	<1.1	N/R	12	<1.1
4/5/2005	<2	NT	<2	NT	>1600	>1600
7/11/2005	<2	NT	<2	NT	>1600	>1600
10/10/2005	<2	NT	<2	NT	>1600	>1600
1/9/2006	<2	NT	<2	NT	50	50
4/12/2006	<1	NT	<1	NT	<1	NT
7/6/2006	1	NT	3.1	NT	>2420	NT
1/23/2007	6.9	<1.1	<1.1	N/R	12	<1.1
6/14/2007	1.1	<1.1	<1.1	<1.1	>23	<1.1
8/28/2007	<1.1	<1.1	<1.1	<1.1	>23	1.1
11/8/2007	<1.1	<1.1	<1.1	<1.1	16.1	<1.1

Table 5.4
Downgradient Monitoring Wells
Groundwater Total and Fecal Coliform Data
MPN/100 ML

Sample Date	MW-3		MW-4		MW-5		MW-7		MW-8		MW-10	
	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform	Total Coliform Organisms	Fecal Coliform
10/18/2004	2	<2	4	<2	9	<2	23	<2	8	<2	<2	<2
1/17/2005	<2	N/R	<1.1	N/R	<2	N/R	<1.1	N/R	<1.1	N/R	NS	NS
4/5/2005	<2	NT	<2	NT	<2	NT	<2	NT	<2	NT	2	<2
7/11/2005	<2	NT	<2	NT	<2	NT	<2	NT	<2	NT	4	<2
10/10/2005	<2	NT	<2	NT	<2	NT	<2	NT	<2	NT	<2	NT
1/9/2006	<2	NT	<2	NT	<2	NT	<2	NT	<2	NT	13	<2
4/12/2006	<1	NT	1100	21	730	60	<1	NT	<1	NT	<1	NT
7/6/2006	<1	NT	<1	NT	<1	NT	<1	NT	<1	NT	12	NT
1/23/2007	<2	N/R	<1.1	N/R	<2	N/R	<1.1	N/R	<1.1	N/R	NS	NS
6/14/2007	<2	<2	<1.1	<1.1	<2	<2	<1.1	<1.1	<1.1	<1.1	2.2	<1.1
8/28/2007	<2	<2	<1.1	<1.1	<2	<2	1.1	<1.1	<1.1	<1.1	5.1	<1.1
11/8/2007	<2	<2	2.2	1.1	<2	<2	1.1	<1.1	1.1	<1.1	1.1	<1.1

NS = Not Sampled
NT = Not Tested
N/R = Not Required

TABLE 6.1
ELECTRICAL CONDUCTIVITY, TOTAL DISSOLVED SOLIDS, AND NITRATE 2007 DATA

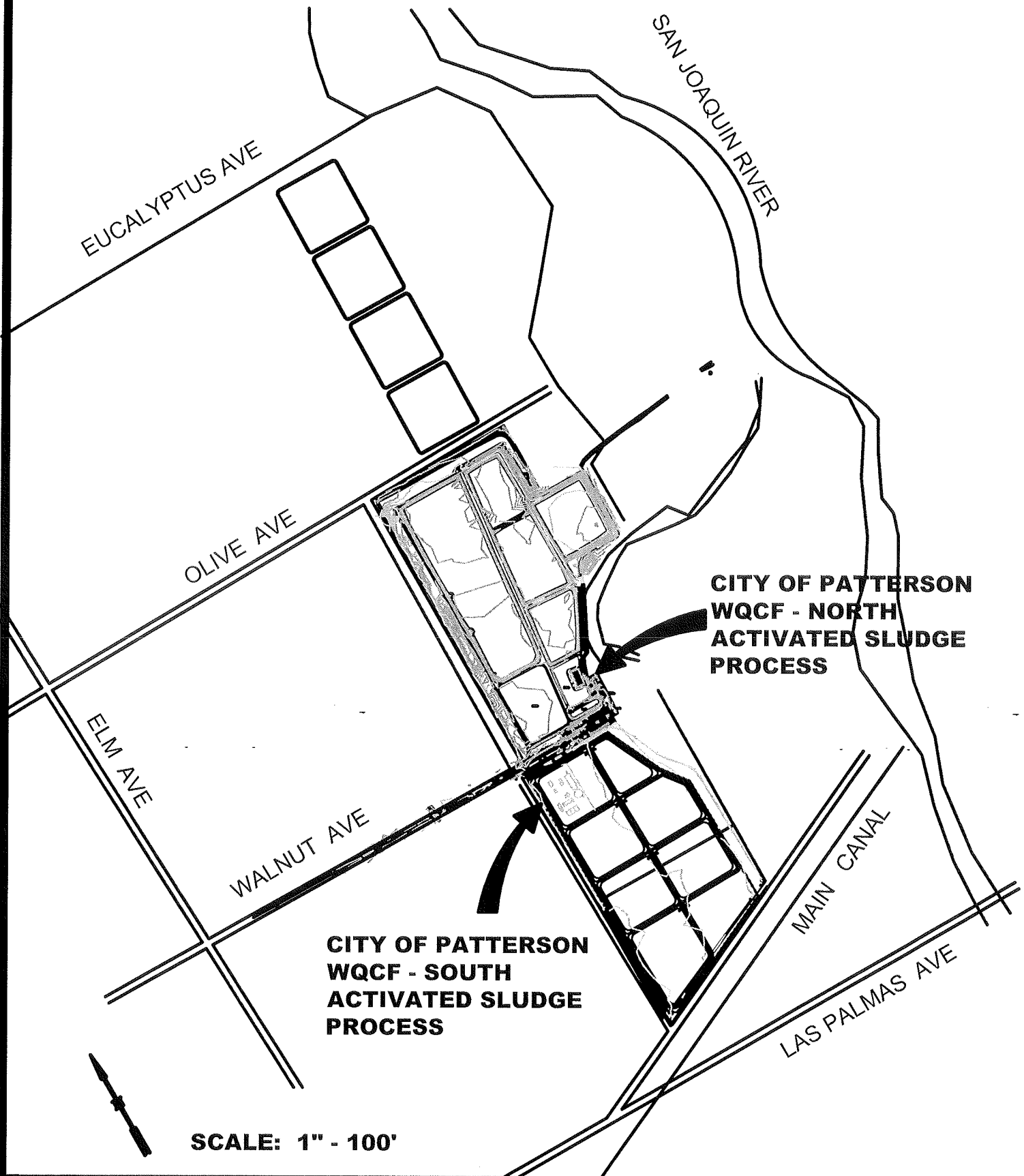
2007 MONTHLY AVERAGES - Electrical Conductivity												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Raw Influent	1948	1920	1874	1880	1926	1995	2116	2050	1912	1839	1676	1657
South Ox. Ditch Effluent	2025	1970	1908	1893	1938	1993	1989	1847	1933	1713	1596	1470
North Ox. Ditch Effluent	2038	2033	2064	2075	2108	2110	2090	1922	1928	1689	1569	1499
AIPS Effluent	1965	1993	1993	2253	2264	2388	2380	2359	2341	2106	1812	1582
Percolation Pond #1	1809	2982	2987.5	2923.3	3325	4377.5	1937	4494	4514	3795	2697	1027
Percolation Pond #2	0	0	0	0	0	0	2058	1997	1920	0	0	0
Percolation Pond #3	0	0	0	0	0	0	0	0	0	0	0	0
Percolation Pond #4	1712.7	1878.3	1952.3	1792.8	2167.3	2123	2068	2010	1939	1516	1293	925
Percolation Pond #5	1667.3	1857.3	1964	1772.3	2259.5	2292	2223	2035	1987	1525	1236	934
Percolation Pond #6	0	0	0	0	0	0	0	0	0	0	0	0
Percolation Pond #7	0	0	0	0	0	0	0	0	0	0	0	0
Percolation Pond #8	1880	2018	1493.1	1867.8	2119.5	2216.5	2097	1932	1953	1601	1381	1026
Percolation Pond #9	1770.3	1709.8	1877.5	2208	0	0	0	0	0	0	0	0
Percolation Pond #10	1615.7	1703.5	1955.3	2047	2300.7	2457.5	2619	0	0	0	983	998
Percolation Pond #11	1647.7	1666.3	1943	2031	2394	0	0	0	0	0	0	0
Percolation Pond #12	1791	1662.5	1871.7	0	0	0	2347	2292	2211	1440	0	0
Percolation Pond #13	1634.7	1668.3	1864	1985.8	2881.5	4490	0	0	0	1889	1375	1012
Percolation Pond #14	1606.3	1710.5	1972.3	2114.5	2701.3	3616	0	0	0	1938	0	0
Percolation Pond #15	0	0	0	0	0	0	0	0	0	0	1210	0
Percolation Pond #16	0	0	0	0	0	0	0	0	0	0	0	0
Percolation Pond #17	0	0	0	0	0	0	0	0	0	0	0	0
Percolation Pond #18	0	0	0	0	0	0	0	0	0	0	0	0
Upgradient Wells (MW-1, -2, -6)	2220					2760		2820				2557
Downgradient Wells (MW-3,-4,-5,-7,-8,-10)	2632					2482		2495				2347

2007 MONTHLY AVERAGES - TDS												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
South Ox. Ditch Effluent	1258	1258	1192	1893	1208	1265	1213	1181	1147	1120	1058	1128
North Ox. Ditch Effluent	1323	1358	1362	2075	1382	1363	1348	1320	1293	1220	1178	1213
AIPS Effluent	1248	1263	1342	2253	1462	1370	1418	1386	1368	1300	1202	820
Total Average:	1276	1293	1299	2074	1351	1333	1326	1296	1269	1213	1146	1054
Upgradient Wells (MW-1, -2, -6)	1463					1973		1967			1693	
Downgradient Wells (MW-3,-4,-5,-7,-8,-10)	1658					1597		1577			1590	

2007 MONTHLY AVERAGES - Nitrate ¹												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
South Ox. Ditch Effluent	1.53	1.13	2.52	1.15	1.94	1.35	0.4	0.28	0.4	0.75	1.12	1.08
North Ox. Ditch Effluent	27.4	28.6	30.3	29.1	27.4	31.3	27.2	26.94	30.9	24.13	22.18	26.13
AIPS Effluent	11.5	13.4	10.6	6.7	3.5	0.1	0.28	0.3	0.3	0.15	1.22	0.33
Total Average:	13.48	14.38	14.47	12.32	10.95	10.92	9.29	9.17	10.53	8.34	8.17	9.18
Upgradient Wells (MW-1, -2, -6)	11					12		11			9	
Downgradient Wells (MW-3,-4,-5,-7,-8,-10)	8					6		5			4	

Note: ¹ Nitrate as N pre July 2007, Nitrate as NO3-N July and on

FIGURE 1 LOCATION MAP



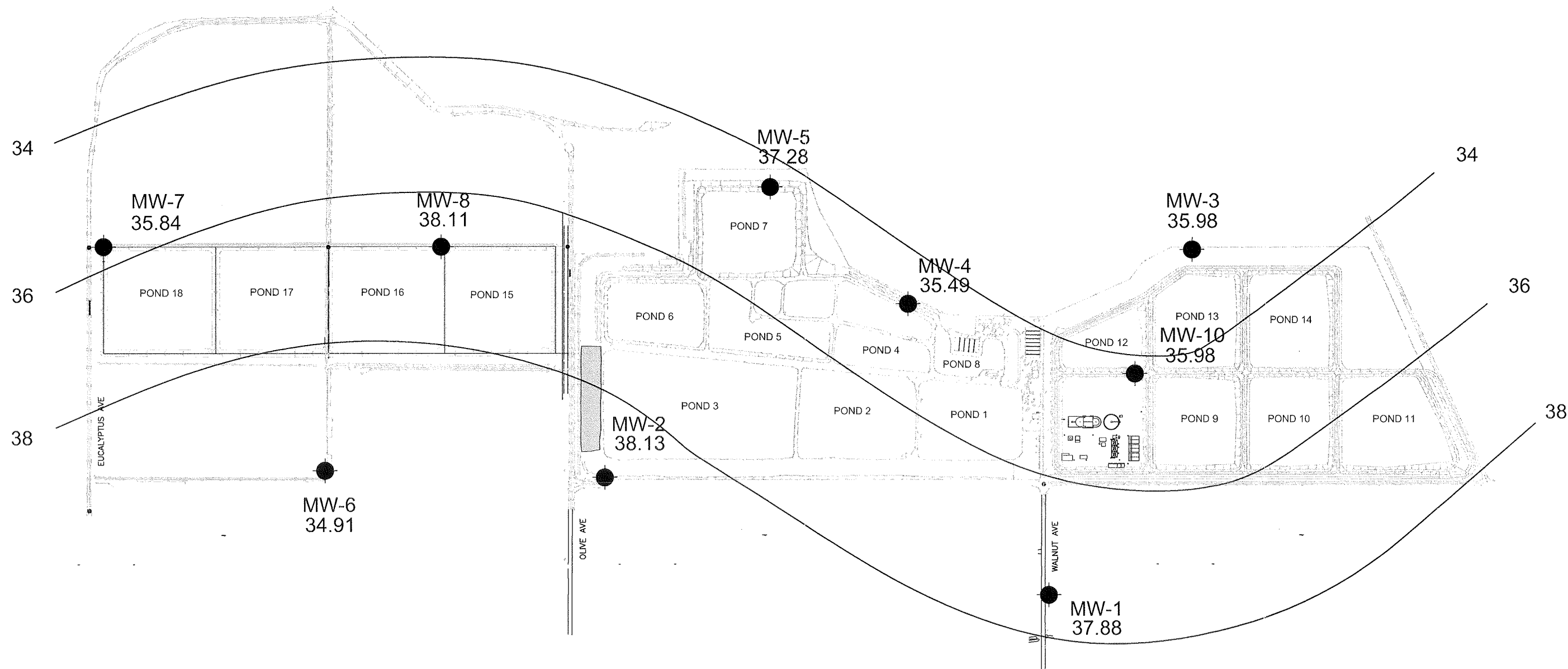
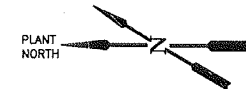


FIGURE 6A - TOTAL DISSOLVED SOLIDS 2007 DATA

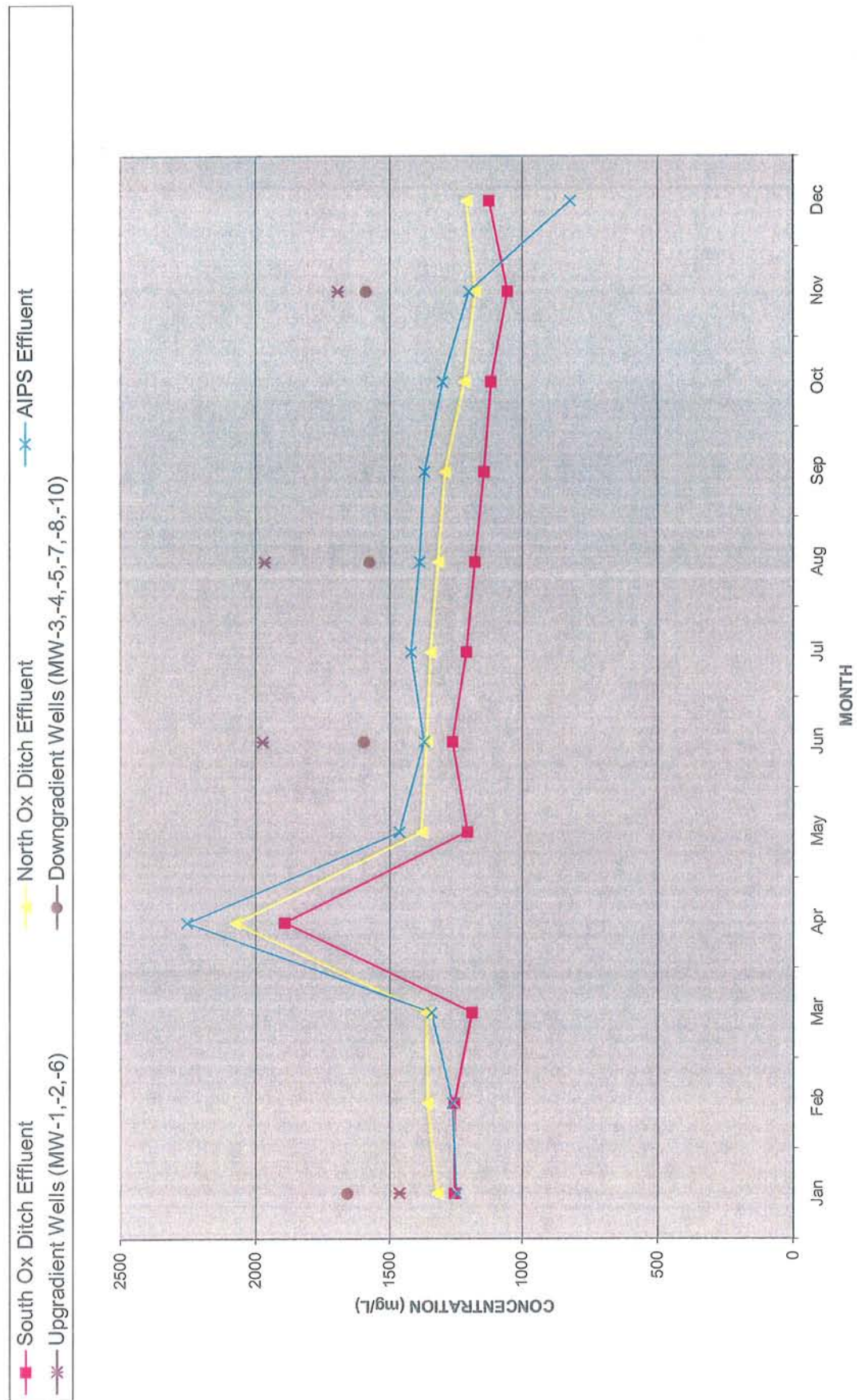


FIGURE 6B - ELECTRICAL CONDUCTIVITY 2007 DATA

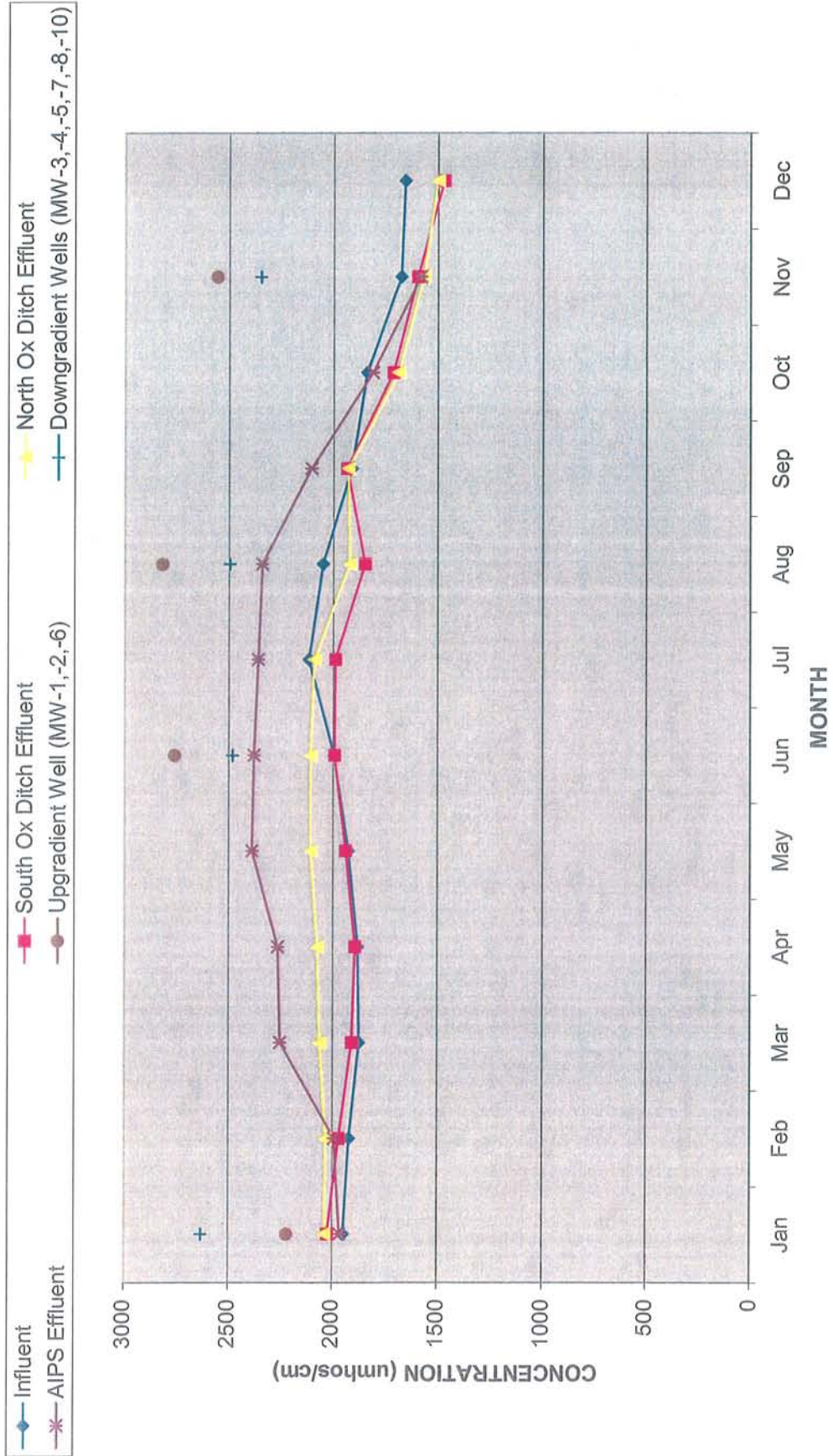
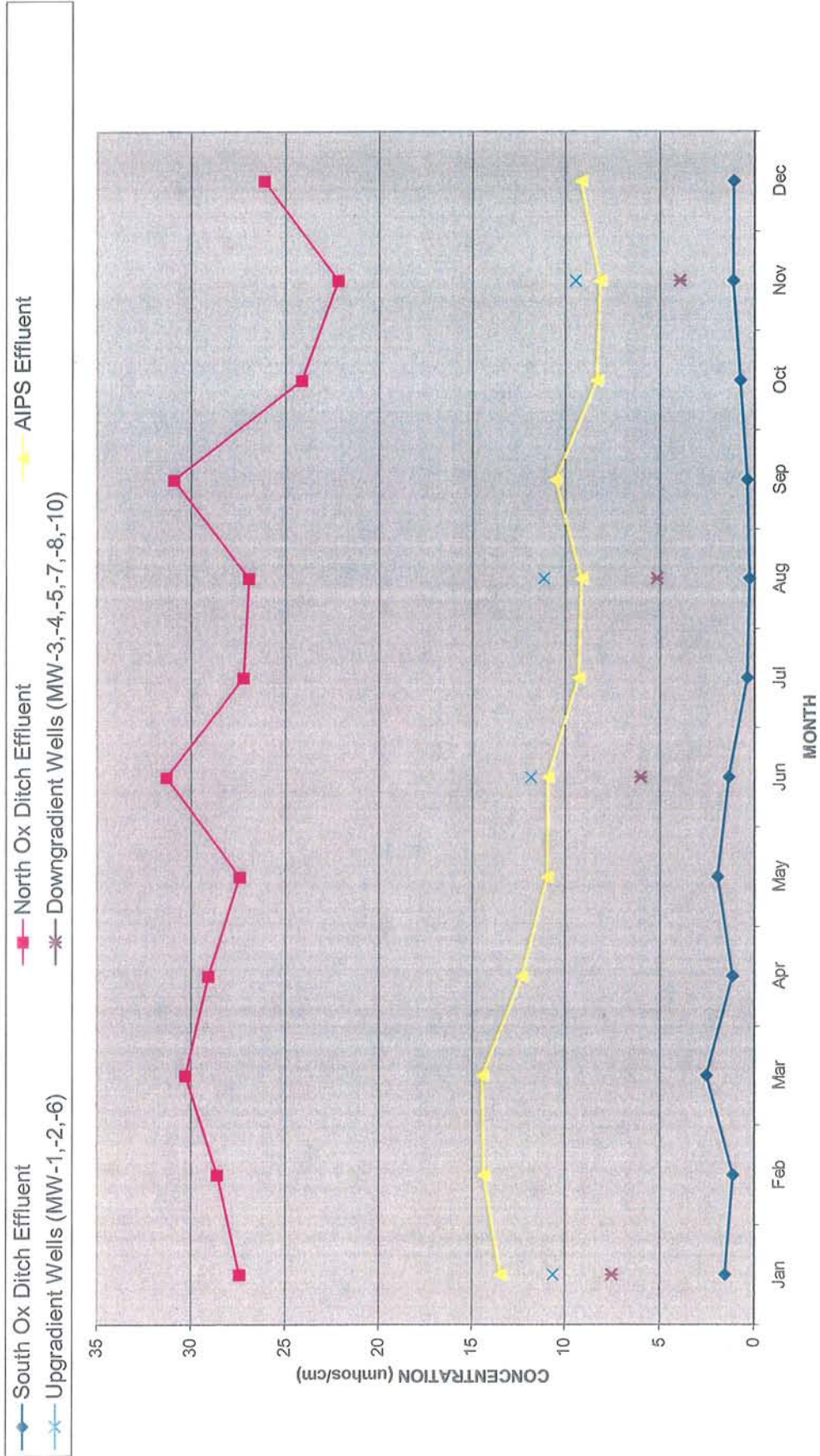


FIGURE 3C - NITRATE 2007 DATA



APPENDIX A
WELL PURGE LOGS

Quarterly

Laboratory Copy (1 of 3)

Samp Num		Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)		Type of Sample	33141:10/01/2007		TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information											
1		MW1	11/8/07	1101	G	MW	General Mineral/Irrigation Suitability (Color Report N/R)	250ml(P)-HNO3, 16oz(P), 8oz(P)-H2SO4	Metals, Diss-As, Ba, Cd, Cu, Pb, Hg, Mo, Ni, Se	250ml(P)-HNO3 (Samples to be Field Filtered by Sampler)	16oz(P)-H2SO4	40ml(AVT)-H2SO4	Sampling - Field Logs (Depth to Water, pH, EC, Temp)	Sampling - Field Filtering	Sampling Charge	Field Test-Field pH (pH = 15 MINUTE HOLD TIME)	Field - pH Date	Field - pH Time	Coliform - LTB-MTF 10 Tube	120ml(PBa)-Na2S2O3	
2		MW2		1334	G	MW															
3		MW3		1134	G	MW															
4		MW4		1249	G	MW															
5		MW5		1315	G	MW															
6		MW6		1029	G	MW															
7		MW7		0923	G	MW															
8		MW8		1001	G	MW															
9		MW9			G	MW															
10		MW10		1209	G	MW															

Client: City of Patterson Wastewater
 Address: PO Box 667
 Patterson, CA. 95363
 Phone: (209)892-3287 Fax: (209)892-3970
 Contact Person: Joel Cockrell
 Project Name: Groundwater Monitoring
 Purchase Order Number:
 Quote Number:

Sampling Fee: Pickup Fee: Time:
 Compositor Setup Date: Time:
 Lab Number: **STK 750498** 3-15918

Sampler(s): *Ken*

Relinquished Date: 11/8/07 1144
 Relinquished Date: 11/8/07 1145
 Relinquished Date: 11/8/07 1145

Received By: *[Signature]*
 Received By: *[Signature]*
 Received By: *[Signature]*

Stockton - Condition Upon Receipt (Attach to COC)

Sample Receipt at STK:

1. Number of ice chests/packages received: ROI
2. Were samples received in a chilled condition? Temps: ___/___/___/___/___
Acceptable is above freezing to 6° C. Also acceptable is received on ice (ROI) for the same day of sampling or received at room temperature (RRT) if sampled within one hour of receipt. Client contact for temperature failures must be documented below. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received..
3. Do the number of bottles received agree with the COC? Yes No N/A
4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
5. Were sample custody seals intact? N/A Yes No

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): [Signature]

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 5/___/___/___/___
Acceptable is above freezing to 6° C. If many packages are received at one time check for tests/H.T.'s/rushes/Bacti's to prioritize further review. Please notify Microbiology personnel immediately of bacti samples received.
2. Do the number of bottles received agree with the COC? Yes No N/A
3. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No
4. Were sample custody seals intact? N/A Yes No

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1. Were all requested analyses understood and acceptable? Yes No
2. Did bottle labels correspond with the client's ID's? Yes No
3. Were all bottles requiring sample preservation properly preserved? Yes No N/A FGL
4. VOAs checked for Headspace? Yes No -N/A
5. Were all analyses within holding times at time of receipt? Yes No
6. Have rush or project due dates been checked and accepted? N/A Yes No

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): [Signature]

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(3-15918)
City of Patterson Wastewater
STK0750498



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: Mitigation Well Well Completion Depth: _____ ft.

Depth to Water (sounded depth): _____ ft. Reference Point: _____

Height of Water Column: _____ ft. Casing Diameter: 4 in.

Casing Volume: _____ gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: _____ gal = Casing Volume x 3 (volumes required)

Purge Rate: _____ gal Purge Method: 12 Volt Purge Pump

Table with 8 columns: Time, Purge Vol Gal, pH, EC, Temp °C, ORP, Turb, Comments. Row 1: 1325, Start. Row 2: 1330, Sampled, 7.61, 2.31, 19.4, Clear.

Total Purge Time: _____ Total Purge Volume: _____ gal

Recharge Depth: _____ ft. Time: _____ Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: _____

Notes: _____



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP
 Tech. Name: Ken Moffitt Project Name/No: QUARTERLY
 Well No: MW-1 Well Completion Depth: 27.50 ft.
 Depth to Water (sounded depth): 17.05 ft. Reference Point: North Side Top Casing
 Height of Water Column: 10.45 ft. Casing Diameter: 4 in.
 Casing Volume: 6.79 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)
 Amount to be purged: 20.37 gal = Casing Volume x 3 (volumes required)
 Purge Rate: 2.0 gal Purge Method: 12 Volt Purge Pump

Time	Purge Vol Gal	pH	EC	Temp °C	ORP	Turb	Comments
1049	Start						
1053	8	7.72	2.30	21.3		Clear	
1057	16	7.71	2.29	21.4			
1100	22	7.71	2.29	21.4			
1101	Sampled						
1102	Off						

Total Purge Time: 11 Minutes Total Purge Volume: 22 gal
 Recharge Depth: 17.08 ft. Time: 1107 Sampling Method: 12 Volt Purge Pump
 Decontamination Procedure: Cleaned at lab prior to use in field.

Notes: _____



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-2 Well Completion Depth: 30.36 ft.

Depth to Water (sounded depth): 21.55 ft. Reference Point: North Side Top Casing

Height of Water Column: 8.81 ft. Casing Diameter: 4 in.

Casing Volume: 5.72 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 17.16 gal = Casing Volume x 3 (volumes required)

Purge Rate: 2.0 gal Purge Method: 12 Volt Purge Pump

Table with 8 columns: Time, Purge Vol Gal, pH, EC, Temp °C, ORP, Turb, Comments. Rows include data for 1344 (Start), 1347 (6 gal), 1350 (12 gal), 1353 (18 gal), 1354 (Sampled), and 1355 (Off).

Total Purge Time: 9 Minutes Total Purge Volume: 18 gal

Recharge Depth: 21.58 ft. Time: 1400 Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: Cleaned at lab prior to use in field.

Notes:



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-3 Well Completion Depth: 30.95 ft.

Depth to Water (sounded depth): 18.89 ft. Reference Point: North Side Top Casing

Height of Water Column: 12.06 ft. Casing Diameter: 4 in.

Casing Volume: 7.83 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 23.49 gal = Casing Volume x 3 (volumes required)

Purge Rate: 2.0 gal Purge Method: 12 Volt Purge Pump

Table with 8 columns: Time, Purge Vol Gal, pH, EC, Temp °C, ORP, Turb, Comments. Rows include Start, 1125, 1129, 1133, 1134, 1135.

Total Purge Time: 12 Minutes Total Purge Volume: 24 gal

Recharge Depth: 19.10 ft. Time: 1140 Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: Cleaned at lab prior to use in field.

Notes:



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 0207-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-4 Well Completion Depth: 31.60 ft.

Depth to Water (sounded depth): 22.60 ft. Reference Point: North Side Top Casing

Height of Water Column: 9.00 ft. Casing Diameter: 4 in.

Casing Volume: 5.85 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 17.54 gal = Casing Volume x 3 (volumes required)

Purge Rate: 2.0 gal Purge Method: 12 Volt Purge Pump

Table with 8 columns: Time, Purge Vol Gal, pH, EC, Temp °C, ORP, Turb, Comments. Rows include Start, 1242, 1245, 1248, 1249, 1250.

Total Purge Time: 9 Minutes Total Purge Volume: 18 gal

Recharge Depth: 22.68 ft. Time: 1255 Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: Cleaned at lab prior to use in field.

Notes:



Analytical Chemists

FGL ENVIRONMENTAL
GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP
Tech. Name: Ken Moffitt Project Name/No: QUARTERLY
Well No: MW-5 Well Completion Depth: 30.92 ft.
Depth to Water (sounded depth): 19.72 ft. Reference Point: North Side Top Casing
Height of Water Column: 11.20 ft. Casing Diameter: 4 in.
Casing Volume: 7.28 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)
Amount to be purged: 21.84 gal = Casing Volume x 3 (volumes required)
Purge Rate: 2.0 gal Purge Method: 12 Volt Purge Pump

Table with 8 columns: Time, Purge Vol Gal, pH, EC, Temp °C, ORP, Turb, Comments. Rows include data for times 1303, 1307, 1311, 1314, 1315, and 1316.

Total Purge Time: 11 Minutes Total Purge Volume: 22 gal
Recharge Depth: 19.80 ft. Time: 1320 Sampling Method: 12 Volt Purge Pump
Decontamination Procedure: Cleaned at lab prior to use in field.

Notes:



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-6 Well Completion Depth: 28.60 ft.

Depth to Water (sounded depth): 17.95 ft. Reference Point: North Side Top Casing

Height of Water Column: 10.65 ft. Casing Diameter: 2 in.

Casing Volume: 1.73 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 5.18 gal = Casing Volume x 3 (volumes required)

Purge Rate: 1.0 gal Purge Method: 12 Volt Purge Pump

Time	Purge Vol Gal	pH	EC	Temp °C	ORP	Turb	Comments
1022	Start						
1024	2	7.90	1.66	20.1		Turbid	
1026	4	7.90	1.66	20.1			
1028	6	7.89	1.66	20.1			
1029	Sampled						
1030	Off						

Total Purge Time: 6 Minutes Total Purge Volume: 6 gal

Recharge Depth: 17.98 ft. Time: 1035 Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: Cleaned at lab prior to use in field.

Notes: _____



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-7 Well Completion Depth: 30.10 ft.

Depth to Water (sounded depth): 22.20 ft. Reference Point: North Side Top Casing

Height of Water Column: 7.90 ft. Casing Diameter: 2 in.

Casing Volume: 1.28 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 3.84 gal = Casing Volume x 3 (volumes required)

Purge Rate: _____ gal Purge Method: Disposable Hand Bail

Time	Purge Vol Gal	pH	EC	Temp °C	ORP	Turb	Comments
0912	Start						
0915	1.50	8.51	2.07	20.0		Muddy	
0919	3	8.50	2.07	20.0		Muddy	
0922	4	8.49	2.07	19.9		Muddy	
0923	Sampled						
0925	Finished						

Total Purge Time: 10 Minutes Total Purge Volume: 4 gal

Recharge Depth: 22.98 ft. Time: 0930 Sampling Method: Disposable Hand Bail

Decontamination Procedure: New sealed from Manufacturer

Notes: _____



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-8 Well Completion Depth: 30.35 ft.

Depth to Water (sounded depth): 21.22 ft. Reference Point: North Side Top Casing

Height of Water Column: 9.13 ft. Casing Diameter: 2 in.

Casing Volume: 1.48 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 4.43 gal = Casing Volume x 3 (volumes required)

Purge Rate: 1.0 gal Purge Method: 12 Volt Purge Pump

Table with 8 columns: Time, Purge Vol Gal, pH, EC, Temp °C, ORP, Turb, Comments. Rows include data for 0954 (Start), 0956 (2 gal, pH 7.91, EC 2.22, Temp 20.4, Muddy), 0958 (4 gal, pH 7.91, EC 2.22, Temp 20.5), 1000 (6 gal, pH 7.91, EC 2.22, Temp 20.5, Turbid), 1001 (Sampled), and 1003 (Off).

Total Purge Time: 6 Minutes Total Purge Volume: 6 gal

Recharge Depth: 21.42 ft. Time: 1008 Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: Cleaned at lab prior to use in field.

Notes:



Analytical Chemists

FGL ENVIRONMENTAL

GROUNDWATER SAMPLING & PURGE LOG

Date: 2007-11-08 Lab ID #: 750498 Client: City of Patterson WWTP

Tech. Name: Ken Moffitt Project Name/No: QUARTERLY

Well No: MW-10 Well Completion Depth: 30.00 ft.

Depth to Water (sounded depth): 22.14 ft. Reference Point: North Side Top Casing

Height of Water Column: 7.86 ft. Casing Diameter: 2 in.

Casing Volume: 1.28 gal = Height of Column x Volume/ft. (2"=0.163, 4"=0.650, 6"=1.43 gal/ft)

Amount to be purged: 3.84 gal = Casing Volume x 3 (volumes required)

Purge Rate: 1.0 gal Purge Method: 12 Volt Purge Pump

Time	Purge Vol Gal	pH	EC	Temp °C	ORP	Turb	Comments
1204	Start						
1206	2	7.51	2.51	18.2		Muddy	
1207	3	7.51	2.51	18.2			
1208	4	7.51	2.51	18.2			
1209	Sampled						
1210	Off						

Total Purge Time: 4 Minutes Total Purge Volume: 4 gal

Recharge Depth: 24.90 ft. Time: 1215 Sampling Method: 12 Volt Purge Pump

Decontamination Procedure: Cleaned at lab prior to use in field.

Notes:



ENVIRONMENTAL

ANALYTICAL CHEMISTS

November 27, 2007

City of Patterson Wastewater
PO Box 667
Patterson, CA. 95363

STK0750498-1-8, 10-11 COLIFORM BACTERIA ANALYSIS
Customer ID : 3-15918

System Number :
Project Name : Groundwater Monitoring

Sample Handling Information

ID	Sample Number	Sample Description	Sample Type/Reason	Sampled By	Employed By	Sampled	Started	Finished
1	STK0750498-001	MW1	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 11:01	11/08/2007 14:38 CTH	2007-11-11 CTH
2	STK0750498-002	MW2	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 13:54	11/08/2007 15:02 CTH	2007-11-10 CTH
3	STK0750498-003	MW3	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 11:34	11/08/2007 14:36 cth	2007-11-10 cth
4	STK0750498-004	MW4	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 12:49	11/08/2007 15:04 CTH	2007-11-11 CTH
5	STK0750498-005	MW5	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 13:15	11/08/2007 15:10 cth	2007-11-10 cth
6	STK0750498-006	MW6	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 10:29	11/08/2007 14:40 CTH	2007-11-11 CTH
7	STK0750498-007	MW7	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 09:23	11/08/2007 14:42 CTH	2007-11-11 CTH
8	STK0750498-008	MW8	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 10:01	11/08/2007 14:44 CTH	2007-11-10 CTH
9	STK0750498-010	MW10	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 12:09	11/08/2007 15:06 CTH	2007-11-11 CTH
10	STK0750498-011	Mitigation Well	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 13:30	11/08/2007 15:08 CTH	2007-11-10 CTH

Analytical Results

ID	Sample Description	Chlorine Total/Free	Temp °C	Method	Units	Total	Fecal	Person	Date	Time	Foot Note
1	MW1	---	---	SM 9221B	MPN/100ml	<1.1 ABSENT	<1.1 ABSENT	N/R			
2	MW2	---	---	SM 9221B	MPN/100ml	<1.1 ABSENT	<1.1 ABSENT	N/R			
3	MW3	---	---	SM 9221B	MPN/100ml	<2 ABSENT	<2 ABSENT	N/R			
4	MW4	---	---	SM 9221B	MPN/100ml	2.2 PRESENT	1.1 PRESENT		11/12/2007	14:52	
5	MW5	---	---	SM 9221B	MPN/100ml	<2 ABSENT	<2 ABSENT	N/R			
6	MW6	---	---	SM 9221B	MPN/100ml	16.1 PRESENT	<1.1 ABSENT		11/12/2007	14:52	
7	MW7	---	---	SM 9221B	MPN/100ml	1.1 PRESENT	<1.1 ABSENT		11/12/2007	14:52	
8	MW8	---	---	SM 9221B	MPN/100ml	1.1 PRESENT	<1.1 ABSENT		11/12/2007	14:52	
9	MW10	---	---	SM 9221B	MPN/100ml	1.1 PRESENT	<1.1 ABSENT		11/12/2007	14:52	
10	Mitigation Well	---	---	SM 9221B	MPN/100ml	<1.1 ABSENT	<1.1 ABSENT	N/R			

N/R Not Required. MPN Most Probable Number A/P Absence/Presence

Digitally signed by Raquel R. Harvey
Title: Tech Director Microbiology
Date: 2007.12.03

Reviewed and Approved By **Raquel R. Harvey**

Corporate Offices & Laboratory
P.O. Box 272 / 853 Corporation Street
Santa Paula, CA 93061-0272
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Chicago, CA 95926
TEL: 530/943-5818
FAX: 530/943-3807
CA ELAP Certification No. 2670

Field Office
Visalia, California
TEL: 559/734-9473
Mobile: 559/737-2399
FAX: 559/734-8435

Bacteriological Results Page: 1

November 27, 2007

City of Patterson Wastewater

STK0750498:1-8, 10-11 COLIFORM BACTERIA ANALYSIS
Customer ID : 3-15918

The samples listed below had failures for Total and/or Fecal Coliform as listed:

- MW4 Total Coliform - Failure, Fecal Coliform - Failure.
- MW6 Total Coliform - Failure.
- MW7 Total Coliform - Failure.
- MW8 Total Coliform - Failure.
- MW10 Total Coliform - Failure.

Treatment: Guidance on well cleanup will be faxed upon requested. Alternatively, we suggest that you contact a qualified well service company

Analyses were performed using Standard Methods 20th edition. If you have any questions regarding your results, please call.

RRH:SMH

Reviewed and Approved By **Raquel R. Harvey**
Digitally signed by Raquel R. Harvey
Title: Tech Director Microbiology
Date: 2007-12-03

APPENDIX B
LABORATORY ANALYTICAL REPORT



ANALYTICAL CHEMISTS

December 11, 2007

City of Patterson Wastewater
PO Box 667
Patterson, CA. 95363

Lab ID : STK0750498
Customer : 3-15918

RECEIVED
DEC 18 2007

BY: *ms*

Laboratory Report

Introduction: This report package contains total of 42 pages divided into 3 sections:

- Case Narrative (3 Pages) : An overview of the work performed at FGL.
- Sample Results (30 pages) : Results for each sample submitted.
- Quality Control (9 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
MW1	11/08/2007	11/08/2007	STK0750498-001	MW
MW2	11/08/2007	11/08/2007	STK0750498-002	MW
MW3	11/08/2007	11/08/2007	STK0750498-003	MW
MW4	11/08/2007	11/08/2007	STK0750498-004	MW
MW5	11/08/2007	11/08/2007	STK0750498-005	MW
MW6	11/08/2007	11/08/2007	STK0750498-006	MW
MW7	11/08/2007	11/08/2007	STK0750498-007	MW
MW8	11/08/2007	11/08/2007	STK0750498-008	MW
MW10	11/08/2007	11/08/2007	STK0750498-010	MW
Mitigation Well	11/08/2007	11/08/2007	STK0750498-011	MW

Sampling and Receipt Information: All samples were performed by FGL using the following methods (where applicable):

- Bacteriological Sampling - SOP:S0FS005
- Grab sampling for liquids - SOP:S0FS010
- Composite sampling for liquids - SOP:S0FS015
- Grab sampling for solids - SOP:S0FS020
- Composite sampling for solids - SOP:S0FS025

All samples were received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/21/2007:211337	All preparation quality controls are within established criteria.
	11/28/2007:211511	All preparation quality controls are within established criteria.
	12/06/2007:211813	All preparation quality controls are within established criteria.
	11/22/2007:212155	All analysis quality controls are within established criteria.
	11/28/2007:212242	All analysis quality controls are within established criteria.
	12/06/2007:212555	All analysis quality controls are within established criteria.
200.8	11/21/2007:211332	All preparation quality controls are within established criteria, except: The following note applies to Copper, Nickel, Lead, Selenium: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	12/04/2007:211722	All preparation quality controls are within established criteria, except: The following note applies to Selenium: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	11/21/2007:212081	All analysis quality controls are within established criteria.
	12/04/2007:212489	All analysis quality controls are within established criteria.
245.1	11/21/2007:212062	All analysis quality controls are within established criteria.
7470	11/21/2007:211320	All preparation quality controls are within established criteria.

Organic QC

5310C	11/24/2007:211365	All preparation quality controls are within established criteria.
	11/24/2007:212219	All analysis quality controls are within established criteria.

Inorganic - Wet Chemistry QC

2320B	11/14/2007:211748	All analysis quality controls are within established criteria.
	11/14/2007:211063	All preparation quality controls are within established criteria.
2510B	11/10/2007:210975	All preparation quality controls are within established criteria.
	11/10/2007:211601	All analysis quality controls are within established criteria.
2540 C,E	11/11/2007:210985	All preparation quality controls are within established criteria.
	11/12/2007:210988	All preparation quality controls are within established criteria.
300.0	12/06/2007:212685	All analysis quality controls are within established criteria.
	12/06/2007:211858	All preparation quality controls are within established criteria, except: The following note applies to Chloride, Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.


Inorganic - Wet Chemistry QC

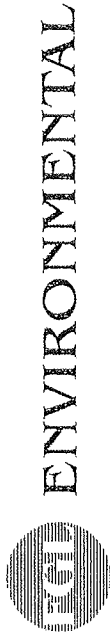
	The following note applies to Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	11/09/2007:211013 All preparation quality controls are within established criteria.
	11/10/2007:211650 All analysis quality controls are within established criteria.
4500NH3G	11/27/2007:212022 All analysis quality controls are within established criteria.
	12/03/2007:212415 All analysis quality controls are within established criteria.
	12/04/2007:212416 All analysis quality controls are within established criteria.
	11/20/2007:211973 All analysis quality controls are within established criteria.
4500NH3H	11/16/2007:211192 All preparation quality controls are within established criteria.
	11/21/2007:211321 All preparation quality controls are within established criteria.
	11/29/2007:211575 All preparation quality controls are within established criteria.
5540C	11/09/2007:210966 All preparation quality controls are within established criteria.
	11/09/2007:211596 All analysis quality controls are within established criteria.

Certification: I certify that this data package is in compliance with NELAC standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By Kelly A. Dunnahoo, B.S.

 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2007-12-11



ANALYTICAL CHEMISTS

November 27, 2007
 City of Patterson Wastewater
 PO Box 667
 Patterson, CA. 95363

STK0750498:1-8, 10-11 COLIFORM BACTERIA ANALYSIS
 Customer ID : 3-15918

System Number :
 Project Name : Groundwater Monitoring

Sample Handling Information

ID	Sample Number	Sample Description	Sample Type/Reason	Sampled By	Employed By	Sampled	Started	Finished
1	STK0750498-001	MW1	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 11:01	11/08/2007 14:38 CTH	2007-11-11 CTH
2	STK0750498-002	MW2	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 13:54	11/08/2007 15:02 CTH	2007-11-10 CTH
3	STK0750498-003	MW3	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 11:34	11/08/2007 14:36 cth	2007-11-10 cth
4	STK0750498-004	MW4	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 12:49	11/08/2007 15:04 CTH	2007-11-11 CTH
5	STK0750498-005	MW5	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 13:15	11/08/2007 15:10 cth	2007-11-10 cth
6	STK0750498-006	MW6	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 10:29	11/08/2007 14:40 CTH	2007-11-11 CTH
7	STK0750498-007	MW7	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 09:23	11/08/2007 14:42 CTH	2007-11-11 CTH
8	STK0750498-008	MW8	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 10:01	11/08/2007 14:44 CTH	2007-11-10 CTH
9	STK0750498-010	MW10	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 12:09	11/08/2007 15:06 CTH	2007-11-11 CTH
10	STK0750498-011	Mitigation Well	Source-Other	Ken Moffitt	FGL Environmental	11/08/2007 13:30	11/08/2007 15:08 CTH	2007-11-10 CTH

Analytical Results

ID	Sample Description	Chlorine Total/Free	Temp °C	Method	Units	Total	Fecal	Person	Date	Time	Foot Note
1	MW1	---	---	SM 9221B	MPN/100ml	<1.1 ABSENT	<1.1 ABSENT	N/R			
2	MW2	---	---	SM 9221B	MPN/100ml	<1.1 ABSENT	<1.1 ABSENT	N/R			
3	MW3	---	---	SM 9221B	MPN/100ml	<2 ABSENT	<2 ABSENT	N/R			
4	MW4	---	---	SM 9221B	MPN/100ml	2.2 PRESENT	1.1 PRESENT	N/R	11/12/2007	14:52	
5	MW5	---	---	SM 9221B	MPN/100ml	<2 ABSENT	<2 ABSENT	N/R			
6	MW6	---	---	SM 9221B	MPN/100ml	16.1 PRESENT	<1.1 ABSENT	N/R	11/12/2007	14:52	
7	MW7	---	---	SM 9221B	MPN/100ml	1.1 PRESENT	<1.1 ABSENT	N/R	11/12/2007	14:52	
8	MW8	---	---	SM 9221B	MPN/100ml	1.1 PRESENT	<1.1 ABSENT	N/R	11/12/2007	14:52	
9	MW10	---	---	SM 9221B	MPN/100ml	1.1 PRESENT	<1.1 ABSENT	N/R	11/12/2007	14:52	
10	Mitigation Well	---	---	SM 9221B	MPN/100ml	<1.1 ABSENT	<1.1 ABSENT	N/R	11/12/2007	14:52	

N/R Not Required. MPN Most Probable Number A/P Absence/Presence

Digitally signed by Raquel R. Harvey
 Title: Tech Director Microbiology
 Date: 2007-12-03

Reviewed and Approved By **Raquel R. Harvey**

Corporate Offices & Laboratory
 P.O. Box 272 / 853 Corporation Street
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 Chico, CA 95926
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November 27, 2007

STK0750498:1-8, 10-11 COLIFORM BACTERIA ANALYSIS
Customer ID : 3-15918

City of Patterson Wastewater

The samples listed below had failures for Total and/or Fecal Coliform as listed:

MW4 Total Coliform - Failure, Fecal Coliform - Failure.

MW6 Total Coliform - Failure.

MW7 Total Coliform - Failure.

MW8 Total Coliform - Failure.

MW10 Total Coliform - Failure.

Treatment: Guidance on well cleanup will be faxed upon requested. Alternatively, we suggest that you contact a qualified well service company

Analyses were performed using Standard Methods 20th edition. If you have any questions regarding your results, please call.

RRH:SMH

Digitally signed by Raquel R. Harvey
Title: Tech Director Microbiology
Date: 2007-12-03

Reviewed and
Approved By **Raquel R. Harvey**



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-001

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-11:01

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW1

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral P-15								
Total Hardness	664	2.5	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Calcium	78	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Magnesium	114	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	2	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	368	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	29.3	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Boron	1.8	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	30	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	ND	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	6.2	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Copper	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Total Alkalinity (as CaCO3)	420	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	510	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	480	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	238	5	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	63.3	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.4	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	26.1	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.7	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2420	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1610	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/13/07:211680
Total Dissolved Solids (sum)	1850	0	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.6	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.7	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss P-15								
Arsenic	0.003	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Barium	0.0347	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	30	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Lead	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.015	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Nickel	0.001	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Selenium	0.013	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Wet Chemistry ^{P:14}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	11/21/07:211321	4500NH3G	11/27/07:212022
Nitrate Nitrogen	14.3	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1420	40	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726
Solids, Volatile Dissolved	190	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-001

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-11:01

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW1

Project : Groundwater Moniroring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}								
TOC	1.6	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-002

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-13:54

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW2

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral P:15								
Total Hardness	1170	2.5	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Calcium	77	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Magnesium	237	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	2	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	503	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	45.3	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Boron	3.1	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	10	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	90	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	6.4	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Copper	0.004	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Total Alkalinity (as CaCO3)	710	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	870	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	640	20	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	410	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	34.3	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.3	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	39.7	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.4	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	3490	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	2330	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/13/07:211680
Total Dissolved Solids (sum)	2770	0	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.5	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.6	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss P:15								
Arsenic	0.006	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Barium	0.0259	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	10	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	0.004	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Lead	0.0003	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.012	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Nickel	0.002	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Selenium	0.020	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Wet Chemistry ^{P:14}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	11/21/07:211321	4500NH3G	11/27/07:212022
Nitrate Nitrogen	7.8	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1980	40	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726
Solids, Volatile Dissolved	350	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-002

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-13:54

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW2

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:P4}	1.7	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-003

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-11:34

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW3

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral ^{P:15}								
Total Hardness	754	2.5	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Calcium	106	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Magnesium	119	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	3	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	517	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	37.6	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Boron	1.8	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	100	50	ug/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Manganese	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	8.2	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Copper	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Total Alkalinity (as CaCO3)	440	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	540	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	550	20	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	460	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	29.8	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.4	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	33.8	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.5	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	3150	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	2020	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211633
Total Dissolved Solids (sum)	2330	0	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.6	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.6	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss ^{P:15}								
Arsenic	0.006	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Barium	0.0313	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Lead	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Nickel	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Selenium	0.006	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Wet Chemistry ^{P:14}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	11/21/07:211321	4500NH3G	11/27/07:212022
Nitrate Nitrogen	6.7	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1850	40	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634
Solids, Volatile Dissolved	170	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-003

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-11:34

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW3

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}	3.1	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-004

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-12:49

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW4

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral ^{P:15}								
Total Hardness	678	2.5	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Calcium	120	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Magnesium	92	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	10	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	344	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	28.8	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Boron	0.8	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	ND	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	1220	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	5.7	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Copper	0.006	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Total Alkalinity (as CaCO3)	330	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	410	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	370	20	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	400	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	1.5	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.4	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	25.8	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.3	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2520	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1600	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/13/07:211680
Total Dissolved Solids (sum)	1750	0	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.3	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.4	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss ^{P:15}								
Arsenic	0.016	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Barium	0.131	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	0.0002	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	0.006	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Lead	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.011	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Nickel	0.015	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Selenium	0.005	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Wet Chemistry ^{P:14}								
Ammonia-N	1.1	0.2	mg/L		4500NH3H	11/16/07:211192	4500NH3G	11/20/07:211973
Nitrate Nitrogen	0.3	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1470	40	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726
Solids, Volatile Dissolved	130	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-004

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-12:49

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW4

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}								
TOC	2.5	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-005

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-13:15

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW5

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral P:15								
Total Hardness	602	2.5	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Calcium	111	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Magnesium	79	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	17	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	313	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	26.1	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Boron	0.7	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	110	50	ug/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Manganese	1620	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	5.5	0.1	meq/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Copper	0.005	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Total Alkalinity (as CaCO3)	330	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	400	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	310	20	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	380	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	ND	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.6	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	23.8	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.2	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2340	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1460	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/13/07:211680
Total Dissolved Solids (sum)	1610	0	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.2	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.2	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss P:15								
Arsenic	0.008	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Barium	0.0716	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	0.0004	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	0.005	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Lead	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.031	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Nickel	0.022	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Selenium	0.004	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Wet Chemistry ^{P:14}								
Ammonia-N	0.6	0.2	mg/L		4500NH3H	11/16/07:211192	4500NH3G	11/20/07:211973
Nitrate Nitrogen	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1360	40	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726
Solids, Volatile Dissolved	100	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-005

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-13:15

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW5

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}								
TOC	2.5	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-006

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-10:29

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW6

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral ^{P:15}								
Total Hardness	538	2.5	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Calcium	44	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Magnesium	104	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	ND	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	221	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	20.4	0.1	meq/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Boron	1.5	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	2150	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	100	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	4.1	0.1	meq/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Total Alkalinity (as CaCO3)	300	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	370	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	370	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	157	5	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	27.2	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.7	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	18.7	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.9	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	1760	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1140	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/13/07:211680
Total Dissolved Solids (sum)	1290	0	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.4	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.5	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss ^{P:15}								
Arsenic	0.003	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Barium	0.0212	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Copper	0.003	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Lead	ND	0.0002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.013	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Nickel	ND	0.001	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Selenium	0.006	0.002	mg/L		200.8	11/21/07:211332	200.8	11/21/07:212081
Wet Chemistry ^{P:14}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	11/16/07:211192	4500NH3G	11/20/07:211973
Nitrate Nitrogen	6.2	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1000	40	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726
Solids, Volatile Dissolved	140	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3.pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-006

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-10:29

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW6

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:P4}								
TOC	2.0	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-007

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-09:23

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW7

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral ^{P:15}								
Total Hardness	503	2.5	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Calcium	40	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Magnesium	98	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Potassium	3	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	331	1	mg/L		200.7	11/28/07:211511	200.7	11/28/07:212242
Total Cations	24.5	0.1	meq/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Boron	0.7	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	10	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	4000	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	210	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	6.4	0.1	meq/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	0.008	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Total Alkalinity (as CaCO3)	280	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	350	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	290	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	365	5	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	1.0	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.8	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	22.1	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	8.5	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2200	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1310	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/13/07:211680
Total Dissolved Solids (sum)	1480	0	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.9	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	1.0	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss ^{P:15}								
Arsenic	0.006	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Barium	0.0419	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	10	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	0.008	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Lead	ND	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.033	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Nickel	0.019	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Selenium	0.002	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Wet Chemistry ^{P:14}								
Ammonia-N	0.2	0.2	mg/L		4500NH3H	11/29/07:211575	4500NH3G	12/03/07:212415
Nitrate Nitrogen	0.2	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1190	40	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726
Solids, Volatile Dissolved	120	20	mg/L		2540 C,E	11/12/07:210988	2540C	11/14/07:211726

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-007

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-09:23

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW7

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}	2.2	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-008

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-10:01

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW8

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral ^{P:15}								
Total Hardness	578	2.5	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Calcium	80	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Magnesium	92	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Potassium	2	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	347	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Total Cations	26.7	0.1	meq/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Boron	0.8	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	630	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	500	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	20	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	6.3	0.1	meq/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Copper	0.066	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Total Alkalinity (as CaCO3)	320	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	390	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	290	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	379	5	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	18.8	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.9	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	23.5	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.9	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2360	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1460	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211633
Total Dissolved Solids (sum)	1600	0	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.7	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.8	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss ^{P:15}								
Arsenic	0.008	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Barium	0.0693	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	630	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	0.066	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Lead	0.0008	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.017	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Nickel	0.009	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Selenium	0.004	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Wet Chemistry ^{P:14}								
Ammonia-N	35	4	mg/L		4500NH3H	11/29/07:211575	4500NH3G	12/04/07:212416
Nitrate Nitrogen	4.2	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1340	40	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634
Solids, Volatile Dissolved	120	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-008

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-10:01

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW8

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}								
TOC	2.0	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-010

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-12:09

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW10

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral P:15								
Total Hardness	1040	2.5	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Calcium	177	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Magnesium	146	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Potassium	3	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	320	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Total Cations	34.8	0.1	meq/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Boron	0.7	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	930	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	320	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	ND	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	4.3	0.1	meq/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Copper	0.004	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Total Alkalinity (as CaCO3)	460	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	570	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	360	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	405	5	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	37.0	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.3	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	28.9	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.5	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2640	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1690	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211633
Total Dissolved Solids (sum)	2020	0	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.8	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.9	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss P:15								
Arsenic	0.003	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Barium	0.0507	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	0.004	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Lead	0.0002	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Mercury	0.00003	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.002	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Nickel	0.007	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Selenium	0.004	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Wet Chemistry ^{P:14}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	11/16/07:211192	4500NH3G	11/20/07:211973
Nitrate Nitrogen	8.4	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1500	40	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634
Solids, Volatile Dissolved	190	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-010

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-12:09

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : MW10

Project : Groundwater Moniroring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC <small>AVT:14</small>								
TOC	2.4	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-011

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-13:30

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : Mitigation Well

Project : Groundwater Monitoring

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
General Mineral^{P:15}								
Total Hardness	715	2.5	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Calcium	102	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Magnesium	112	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Potassium	3	1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Sodium	340	1	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Total Cations	29.2	0.1	meq/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Boron	1.4	0.1	mg/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Iron	ND	50	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Manganese	20	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Zinc	20	20	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155
Gypsum Requirement	0.0	0	Tons/AF		200.7	11/21/07:211337	200.7	11/22/07:212155
SAR	5.5	0.1	meq/L		200.7	12/06/07:211813	200.7	12/06/07:212555
Copper	0.004	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Total Alkalinity (as CaCO ₃)	540	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Hydroxide	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Carbonate	ND	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Bicarbonate	660	10	mg/L		2320B	11/14/07:211063	2320B	11/14/07:211748
Sulfate	390	10	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Chloride	271	5	mg/L		300.0	12/06/07:211858	300.0	12/06/07:212685
Nitrate	41.7	0.4	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Nitrite as N	ND	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Fluoride	0.4	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Total Anions	27.3	0.1	meq/L		2320B	11/14/07:211063	2320B	11/14/07:211748
pH	7.6	--	units		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Specific Conductance	2450	1	umhos/cm		2510B	11/10/07:210975	2510B	11/10/07:211601
Total Dissolved Solids	1560	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211633
Total Dissolved Solids (sum)	1920	0	mg/L		200.7	12/06/07:211813	200.7	12/06/07:212555
MBAS (foaming agents)	ND	0.1	mg/L		5540C	11/09/07:210966	5540C	11/09/07:211596
Aggressiveness Index	12.7	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Langlier Index	0.8	1	--		4500-H B	11/08/07:300824	4500HB	11/08/07:300859
Metals, Diss^{P:15}								
Arsenic	0.006	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Barium	0.0340	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	ND	10	ug/L		200.7	11/21/07:211337	200.7	11/22/07:212155

Sample Results - Inorganic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
Metals, Diss ^{P:15}								
Cadmium	ND	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Copper	0.004	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Lead	ND	0.0002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Mercury	ND	0.00002	mg/L		7470	11/21/07:211320	245.1	11/21/07:212062
Molybdenum	0.010	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Nickel	0.001	0.001	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Selenium	0.013	0.002	mg/L		200.8	12/04/07:211722	200.8	12/04/07:212489
Wet Chemistry ^{P:14}								
Ammonia-N	ND	0.2	mg/L		4500NH3H	11/16/07:211192	4500NH3G	11/20/07:211973
Nitrate Nitrogen	9.4	0.1	mg/L		300.0	11/09/07:211013	300.0	11/10/07:211650
Solids, Fixed Dissolved (FDS)	1390	40	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634
Solids, Volatile Dissolved	170	20	mg/L		2540 C,E	11/11/07:210985	2540C	11/12/07:211634

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007

Lab ID : STK0750498-011

Customer ID : 3-15918

City of Patterson Wastewater

PO Box 667

Patterson, CA. 95363

Sampled On : November 8, 2007-13:30

Sampled By : Ken Moffitt

Received On : November 8, 2007-15:00

Matrix : Monitoring Well

Description : Mitigation Well

Project : Groundwater Monitoring

Sample Results - Organic

Constituent	Result	PQL	Units	Note	Sample Preparation		Sample Analysis	
					Method	Date/ID	Method	Date/ID
TOC ^{AVT:14}								
TOC	2.5	0.5	mg/L		5310C	11/24/07:211365	5310C	11/24/07:212219

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (AVT) Amber VOA TFE-Cap, (P) Plastic Preservatives: H2SO4 pH < 2, H2SO4 pH < 2, H2SO4 pH < 2, HNO3 pH < 2



ANALYTICAL CHEMISTS

December 11, 2007
City of Patterson Wastewater

Lab ID : STK0750498
Customer : 3-15918

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Arsenic	200.8	11/21/2007:211332	MS	ug/L	5.000	77.2 %	75-125	
			MSD	ug/L	5.000	80.9 %	75-125	
			MSRPD	ug/L	5.000	0.18	≤2	
	200.8	11/21/2007:212081	CCV	ppb	120.0	102 %	90-110	
			CCB	ppb		0.40	2	
			CCV	ppb	120.0	102 %	90-110	
			CCB	ppb		0.15	2	
	200.8	12/04/2007:211722	MS	ug/L	5.000	114 %	75-125	
			MSD	ug/L	5.000	115 %	75-125	
			MSRPD	ug/L	5.000	0.054	≤2	
	200.8	12/04/2007:212489	ICV	ppb	120.0	103 %	90-110	
			ICB	ppb		0.04	2	
			CCV	ppb	120.0	99.0 %	90-110	
			CCV	ppb	120.0	99.0 %	90-110	
			CCB	ppb		0.03	2	
			CCB	ppb		0.03	2	
CCV			ppb	120.0	102 %	90-110		
CCB			ppb		0.03	2		
Barium	200.8	11/21/2007:211332	MS	ug/L	5.000	-290 %	<¼	
			MSD	ug/L	5.000	-290 %	<¼	
			MSRPD	ug/L	5.000	0.0%	≤20	
	200.8	11/21/2007:212081	CCV	ppb	120.0	102 %	90-110	
			CCB	ppb		-0.108	0.2	
			CCV	ppb	120.0	101 %	90-110	
			CCB	ppb		-0.050	0.2	
	200.8	12/04/2007:211722	MS	ug/L	5.000	141 %	<¼	
			MSD	ug/L	5.000	152 %	<¼	
			MSRPD	ug/L	5.000	0.7%	≤20	
	200.8	12/04/2007:212489	ICV	ppb	120.0	98.8 %	90-110	
			ICB	ppb		-0.007	0.2	
CCV			ppb	120.0	97.7 %	90-110		
CCV			ppb	120.0	97.7 %	90-110		
CCB			ppb		-0.017	0.2		
CCB			ppb		-0.017	0.2		
CCV			ppb	120.0	102 %	90-110		
CCB			ppb		0.023	0.2		
Boron	200.7	11/21/2007:211337	MS	mg/L	4.000	101 %	75-125	
			MSD	mg/L	4.000	99.7 %	75-125	
			MSRPD	mg/L	4.000	0.9%	≤20.0	
	200.7	11/22/2007:212155	CCV	ppm	5.000	102 %	90-110	
			CCB	ppm		0.0009	N/A	
			CCV	ppm	5.000	101 %	90-110	
			CCV	ppm	5.000	101 %	90-110	
			CCB	ppm		0.004	N/A	
			CCB	ppm		0.004	N/A	
			CCV	ppm	5.000	101 %	90-110	
200.8	11/21/2007:211332	MS	ug/L	5.000	84.7 %	75-125		
		MSD	ug/L	5.000	84.9 %	75-125		
		MSRPD	ug/L	5.000	0.3%	≤20		
200.8	11/21/2007:212081	CCV	ppb	120.0	102 %	90-110		
		CCB	ppb		0.011	0.2		
		CCV	ppb	120.0	102 %	90-110		
		CCB	ppb		0.013	0.2		
200.8	12/04/2007:211722	MS	ug/L	5.000	100 %	75-125		

December 11, 2007
 City of Patterson Wastewater

Lab ID : STK0750498
 Customer : 3-15918

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Cadmium	200.8	12/04/2007:211722	MSD	ug/L	5.000	103 %	75-125	
			MSRPD	ug/L	5.000	2.6%	≤20	
			ICV	ppb	120.0	102 %	90-110	
	200.8	12/04/2007:212489	ICB	ppb		0.013	0.2	
			CCV	ppb	120.0	99.5 %	90-110	
			CCV	ppb	120.0	99.5 %	90-110	
			CCB	ppb		0.008	0.2	
			CCB	ppb		0.008	0.2	
			CCV	ppb	120.0	103 %	90-110	
Calcium	200.7	11/21/2007:211337	MS	mg/L	12.50	96.1 %	75-125	
			MSD	mg/L	12.50	98.6 %	75-125	
			MSRPD	mg/L	4.000	1.0%	≤20.0	
	200.7	11/22/2007:212155	CCV	ppm	25.00	98.4 %	90-110	
			CCB	ppm		0.05	1.0	
			CCV	ppm	25.00	101 %	90-110	
			CCB	ppm		0.04	1.0	
	200.7	11/28/2007:211511	MS	mg/L	12.50	46.1 %	<¼	
			MSD	mg/L	12.50	79.8 %	75-125	
			MSRPD	mg/L	800.0	3.1%	≤20.0	
	200.7	11/28/2007:212242	CCV	ppm	25.00	99.0 %	90-110	
			CCB	ppm		0.005	1.0	
			CCV	ppm	25.00	99.4 %	90-110	
			CCV	ppm	25.00	99.4 %	90-110	
			CCB	ppm		0.007	1.0	
			CCB	ppm		0.007	1.0	
	200.7	12/06/2007:211813	MS	mg/L	12.50	76.7 %	75-125	
			MSD	mg/L	12.50	70.0 %	<¼	
MSRPD			mg/L	800.0	1.0%	≤20.0		
200.7	12/06/2007:212555	CCV	ppm	25.00	103 %	90-110		
		CCB	ppm		-0.004	1.0		
		CCV	ppm	25.00	102 %	90-110		
Copper	200.7	11/21/2007:211337	MS	ug/L	800.0	97.1 %	75-125	
			MSD	ug/L	800.0	99.3 %	75-125	
			MSRPD	ug/L	4.000	1.9%	≤20.0	
	200.7	11/22/2007:212155	CCV	ppm	1.000	100 %	90-110	
			CCB	ppm		-0.0012	0.05	
			CCV	ppm	1.000	96.7 %	90-110	
			CCV	ppm	1.000	96.7 %	90-110	
			CCB	ppm		0.0012	0.05	
			CCB	ppm		0.0012	0.05	
	200.8	11/21/2007:211332	MS	ug/L	5.000	57.8 %	75-125	435
			MSD	ug/L	5.000	63.5 %	75-125	435
			MSRPD	ug/L	5.000	0.28	≤1	
	200.8	11/21/2007:212081	CCV	ppb	120.0	99.6 %	90-110	
			CCB	ppb		0.01	1	
			CCV	ppb	120.0	98.8 %	90-110	
CCB			ppb		0.02	1		
200.8	12/04/2007:211722	MS	ug/L	5.000	177 %	<¼		
		MSD	ug/L	5.000	164 %	<¼		
		MSRPD	ug/L	5.000	0.7%	≤20		
200.8	12/04/2007:212489	ICV	ppb	120.0	103 %	90-110		
		ICB	ppb		0.02	1		

December 11, 2007
 City of Patterson Wastewater

Lab ID : STK0750498
 Customer : 3-15918

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Copper	200.8	12/04/2007:212489	CCV	ppb	120.0	97.7 %	90-110	
			CCV	ppb	120.0	97.7 %	90-110	
			CCB	ppb		-0.01	1	
			CCB	ppb		-0.01	1	
			CCV	ppb	120.0	98.7 %	90-110	
			CCB	ppb		0.03	1	
Iron	200.7	11/21/2007:211337	MSRPD	ug/L	4.000	3.0%	≤20.0	
	200.7	11/22/2007:212155	CCV	ppm	5.000	101 %	90-110	
			CCB	ppm		-0.04	N/A	
			CCV	ppm	5.000	97.0 %	90-110	
			CCV	ppm	5.000	97.0 %	90-110	
			CCB	ppm		-0.03	N/A	
			CCB	ppm		-0.03	N/A	
	200.7	11/28/2007:211511	MS	ug/L	4000	94.8 %	75-125	
			MSD	ug/L	4000	93.4 %	75-125	
			MSRPD	ug/L	800.0	1.5%	≤20.0	
	200.7	11/28/2007:212242	CCV	ppm	5.000	103 %	90-110	
			CCB	ppm		0.0046	0.05	
			CCV	ppm	5.000	102 %	90-110	
			CCB	ppm		0.0076	0.05	
	Lead	200.8	11/21/2007:211332	MS	ug/L	5.000	51.6 %	75-125
MSD				ug/L	5.000	51.7 %	75-125	435
MSRPD				ug/L	5.000	0.1%	≤20	
200.8		11/21/2007:212081	CCV	ppb	120.0	99.6 %	90-110	
			CCB	ppb		0.009	0.2	
			CCV	ppb	120.0	99.9 %	90-110	
			CCB	ppb		0.008	0.2	
200.8		12/04/2007:211722	MS	ug/L	5.000	102 %	75-125	
			MSD	ug/L	5.000	104 %	75-125	
			MSRPD	ug/L	5.000	1.1%	≤20	
200.8		12/04/2007:212489	ICV	ppb	120.0	103 %	90-110	
			ICB	ppb		0.021	0.2	
			CCV	ppb	120.0	98.6 %	90-110	
			CCV	ppb	120.0	98.6 %	90-110	
			CCB	ppb		0.01	0.2	
	CCB		ppb		0.01	0.2		
Magnesium	200.7	11/28/2007:211511	MS	mg/L	12.50	75.5 %	75-125	
			MSD	mg/L	12.50	86.0 %	75-125	
			MSRPD	mg/L	800.0	2.1%	≤20.0	
	200.7	11/28/2007:212242	CCV	ppm	25.00	97.0 %	90-110	
			CCB	ppm		0.002	1.0	
			CCV	ppm	25.00	97.6 %	90-110	
			CCV	ppm	25.00	97.6 %	90-110	
			CCB	ppm		0.002	1.0	
			CCB	ppm		0.002	1.0	
	200.7	12/06/2007:211813	MS	mg/L	12.50	89.1 %	75-125	
			MSD	mg/L	12.50	81.4 %	75-125	
			MSRPD	mg/L	800.0	1.8%	≤20.0	
200.7	12/06/2007:212555	CCV	ppm	25.00	100 %	90-110		
		CCB	ppm		0.003	1.0		
		CCV	ppm	25.00	98.9 %	90-110		
		CCB	ppm		0.003	1.0		

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note			
Metals Manganese	200.7	11/21/2007:211337	MS	ug/L	800.0	96.0 %	75-125				
			MSD	ug/L	800.0	98.8 %	75-125				
			MSRPD	ug/L	4.000	2.9%	≤20.0				
	200.7	11/22/2007:212155	CCV	ppm	1.000	99.9 %	90-110				
			CCB	ppm		-0.0031	0.03				
			CCV	ppm	1.000	96.8 %	90-110				
			CCV	ppm	1.000	96.8 %	90-110				
			CCB	ppm		-0.0002	0.03				
			CCB	ppm		-0.0002	0.03				
			CCV	ppm	1.000	99.2 %	90-110				
	Mercury	245.1	11/21/2007:212062	CCV	ppt	200.0	96.0 %	90-110			
				CCB	ppt		-17.6	20			
				CCV	ppt	200.0	98.8 %	90-110			
				CCV	ppt	200.0	98.8 %	90-110			
CCB				ppt		-18.8	20				
CCB				ppt		-18.8	20				
CCV				ppt	200.0	101 %	90-110				
7470		11/21/2007:211320	Blank	ug/L		ND	<0.02				
			LCS	ug/L	0.2000	90.4 %	85-115				
			MS	ug/L	0.2000	103 %	75-125				
			MSD	ug/L	0.2000	93.2 %	75-125				
			MSRPD	ug/L	0.2000	9.2%	≤20				
			Molybdenum	200.8	11/21/2007:211332	MS	ug/L	5.000	89.4 %	75-125	
						MSD	ug/L	5.000	86.4 %	75-125	
MSRPD	ug/L	5.000				0.15	≤1				
200.8	11/21/2007:212081	CCV		ppb	120.0	100 %	90-110				
		CCB		ppb		0.15	1				
		CCV		ppb	120.0	100 %	90-110				
200.8	12/04/2007:211722	CCB		ppb		0.16	1				
		MS	ug/L	5.000	110 %	75-125					
		MSD	ug/L	5.000	113 %	75-125					
200.8	12/04/2007:212489	MSRPD	ug/L	5.000	1.4%	≤20					
		ICV	ppb	120.0	102 %	90-110					
		ICB	ppb		0.23	1					
		CCV	ppb	120.0	98.2 %	90-110					
		CCV	ppb	120.0	98.2 %	90-110					
		CCB	ppb		0.18	1					
		CCB	ppb		0.18	1					
Nickel	200.8	11/21/2007:211332	CCV	ppb	120.0	101 %	90-110				
			CCB	ppb		0.20	1				
			MS	ug/L	5.000	71.3 %	75-125	435			
	200.8	11/21/2007:212081	MSD	ug/L	5.000	73.2 %	75-125	435			
			MSRPD	ug/L	5.000	1.6%	≤20				
			CCV	ppb	120.0	102 %	90-110				
	200.8	12/04/2007:211722	CCB	ppb		0.03	1				
			CCV	ppb	120.0	101 %	90-110				
			CCB	ppb		0.04	1				
	200.8	12/04/2007:212489	MS	ug/L	5.000	98.2 %	75-125				
			MSD	ug/L	5.000	100 %	75-125				
			MSRPD	ug/L	5.000	1.6%	≤20				
			ICV	ppb	120.0	103 %	90-110				
			ICB	ppb		0.003	1				
CCV			ppb	120.0	99.2 %	90-110					
CCV			ppb	120.0	99.2 %	90-110					
CCB	ppb		-0.01	1							
CCB	ppb		-0.01	1							

December 11, 2007
 City of Patterson Wastewater

Lab ID : STK0750498
 Customer : 3-15918

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Nickel	200.8	12/04/2007:212489	CCV CCB	ppb ppb	120.0	100 % 0.02	90-110 1	
Potassium	200.7	11/21/2007:211337	MS MSD MSRPD	mg/L mg/L mg/L	12.50 12.50 4.000	106 % 108 % 1.3%	75-125 75-125 ≤20.0	
	200.7	11/22/2007:212155	CCV CCB CCV CCV CCB CCB CCV CCB	ppm ppm ppm ppm ppm ppm ppm ppm	25.00 25.00 25.00 25.00 25.00	107 % -0.01 103 % 103 % -0.002 -0.002 106 % 0.006	90-110 1.0 90-110 90-110 1.0 1.0 90-110 1.0	
Selenium	200.8	11/21/2007:211332	MS MSD MSRPD	ug/L ug/L ug/L	5.000 5.000 5.000	230 % 248 % 5.4%	75-125 75-125 ≤20	435 435
	200.8	11/21/2007:212081	CCV CCB CCV CCB	ppb ppb ppb ppb	120.0 120.0	104 % 0.20 104 % 0.09	90-110 2 90-110 2	
	200.8	12/04/2007:211722	MS MSD MSRPD	ug/L ug/L ug/L	5.000 5.000 5.000	128 % 133 % 2.0%	75-125 75-125 ≤20	435 435
	200.8	12/04/2007:212489	ICV ICB CCV CCB CCB CCV CCB	ppb ppb ppb ppb ppb ppb ppb	120.0 120.0 120.0 120.0 120.0	103 % -0.08 100 % 100 % 0.04 0.04 103 % 0.02	90-110 2 90-110 90-110 2 2 90-110 2	
Sodium	200.7	11/28/2007:211511	MS MSD MSRPD	mg/L mg/L mg/L	12.50 12.50 800.0	56.7 % 75.4 % 2.1%	<¼ 75-125 ≤20.0	
	200.7	11/28/2007:212242	CCV CCB CCV CCV CCB CCB CCV CCB	ppm ppm ppm ppm ppm ppm ppm ppm	25.00 25.00 25.00 25.00 25.00	94.6 % 0.007 94.7 % 94.7 % 0.04 0.04 94.0 % 0.0007	90-110 1.0 90-110 90-110 1.0 1.0 90-110 1.0	
	200.7	12/06/2007:211813	MS MSD MSRPD	mg/L mg/L mg/L	12.50 12.50 800.0	84.3 % 78.2 % 2.2%	75-125 75-125 ≤20.0	
	200.7	12/06/2007:212555	CCV CCB CCV CCB	ppm ppm ppm ppm	25.00 25.00	97.5 % 0.09 96.4 % 0.01	90-110 1.0 90-110 1.0	
Zinc	200.7	11/21/2007:211337	MS MSD MSRPD	ug/L ug/L ug/L	2000 2000 4.000	101 % 101 % 0.3%	75-125 75-125 ≤20.0	
	200.7	11/22/2007:212155	CCV CCB CCV CCV CCB CCB	ppm ppm ppm ppm ppm ppm	1.000 1.000 1.000	99.3 % -0.0138 99.1 % 99.1 % -0.0131 -0.0131	90-110 0.05 90-110 90-110 0.05 0.05	

December 11, 2007
 City of Patterson Wastewater

Lab ID : STK0750498
 Customer : 3-15918

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Zinc	200.7	11/22/2007:212155	CCV	ppm	1.000	99.8 %	90-110	
			CCB	ppm		-0.0136	0.05	
Wet Chem Alkalinity (as CaCO3)	2320B	11/14/2007:211063	Dup	mg/L		0.8%	3.42	
	2320B	11/14/2007:211748	ICV CCV	mg/l mg/l	234.9 234.9	103 % 102 %	90-110 90-110	
Ammonia Nitrogen	4500NH3G	11/20/2007:211973	CCB	mg/l		-0.002	0.2	
			CCV	mg/l	2.000	102 %	90-110	
			CCB	mg/l		-0.001	0.2	
			CCB	mg/l		-0.001	0.2	
			CCV	mg/l	2.000	103 %	90-110	
			CCV	mg/l	2.000	103 %	90-110	
			CCB	mg/l		0.019	0.2	
			CCV	mg/l	2.000	103 %	90-110	
	4500NH3G	11/27/2007:212022	CCB	mg/l		0.003	0.2	
			CCV	mg/l	2.000	99.4 %	90-110	
			CCB	mg/l		-0.003	0.2	
			CCB	mg/l		-0.003	0.2	
			CCV	mg/l	2.000	98.2 %	90-110	
			CCV	mg/l	2.000	98.2 %	90-110	
	4500NH3G	12/03/2007:212415	CCB	mg/l		0.093	0.2	
			CCV	mg/l	2.000	95.0 %	90-110	
			CCB	mg/l		0.078	0.2	
			CCV	mg/l	2.000	95.2 %	90-110	
	4500NH3G	12/04/2007:212416	ICB	mg/l		0.10	0.2	
			ICV	mg/l	2.000	92.8 %	90-110	
			CCB	mg/l		0.10	0.2	
			CCV	mg/l	2.000	92.4 %	90-110	
	4500NH3H	11/16/2007:211192	Blank	mg/L		ND	<0.2	
			LCS	mg/L	2.000	91.6 %	63-116	
MS			mg/L	2.000	78.4 %	17-127		
MSD			mg/L	2.000	78.2 %	17-127		
4500NH3H	11/21/2007:211321	MSRPD	mg/L	2.000	0.2%	≤80.2		
		Blank	mg/L		ND	<0.2		
		LCS	mg/L	2.000	70.4 %	63-116		
		MS	mg/L	2.000	68.6 %	17-127		
4500NH3H	11/29/2007:211575	MSD	mg/L	2.000	71.4 %	17-127		
		MSRPD	mg/L	2.000	3.7%	≤80.2		
		Blank	mg/L		ND	<0.2		
		LCS	mg/L	2.000	84.4 %	63-116		
Bicarbonate	2320B	11/14/2007:211063	Dup	mg/l		0.8%	4.78	
			Dup	mg/l		0.0	10	
Carbonate								
Chloride	300.0	12/06/2007:211858	LCS	mg/L	25.00	96.4 %	90-110	
			MS	mg/L	500.0	130 %	86-128	
			MSD	mg/L	500.0	107 %	86-128	
			MSRPD	mg/L	100.0	18.7%	≤23.0	
	300.0	12/06/2007:212685	ICV	ppm	50.00	100 %	90-110	
			ICB	ppm		0.007	1	
			CCB	ppm		0.007	1	
			CCB	ppm		0.007	1	
Chloride	300.0	12/06/2007:212685	CCV	ppm	25.00	96.4 %	90-110	
			CCV	ppm	25.00	96.4 %	90-110	

December 11, 2007
 City of Patterson Wastewater

Lab ID : STK0750498
 Customer : 3-15918

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note			
Wet Chem Chloride	300.0	12/06/2007:212685	CCB	ppm		0.003	1				
			CCV	ppm	25.00	96.8 %	90-110				
Conductivity	2510B	11/10/2007:211601	ICB	umhos/cm		0.1	1				
			ICV	umhos/cm	996.0	100 %	95-105				
			CCV	umhos/cm	996.0	100 %	95-105				
			CCV	umhos/cm	996.0	100 %	95-105				
			CCV	umhos/cm	996.0	100 %	95-105				
E. C.	2510B	11/10/2007:210975	Blank	umhos/cm		ND	<1				
			Dup	umhos/cm		0.0%	0.372				
			Blank	umhos/cm		ND	<1				
			Dup	umhos/cm		0.0%	0.372				
Fluoride	300.0	11/09/2007:211013	LCS	mg/L	2.500	103 %	90-110				
			MS	mg/L	50.00	105 %	81-126				
			MSD	mg/L	50.00	105 %	81-126				
			MSRPD	mg/L	100.0	0.07%	≤12.1				
	300.0	11/10/2007:211650	CCB	ppm		0.000	0.1				
			CCV	ppm	2.500	110 %	90-110				
			CCB	ppm		0.000	0.1				
			CCB	ppm		0.000	0.1				
			CCV	ppm	2.500	103 %	90-110				
			CCV	ppm	2.500	103 %	90-110				
			CCB	ppm		0.000	0.1				
			CCV	ppm	2.500	104 %	90-110				
			Hydroxide	2320B	11/14/2007:211063	Dup	mg/l		0.0	10	
			MBAS	5540C	11/09/2007:210966	MS	mg/L	1.000	100 %	90-110	
MSD	mg/L	1.000				100 %	90-110				
5540C	11/09/2007:211596	MSRPD		mg/L	1.000	0.0	≤0.1				
		CCB		mg/L		0.000	0.1				
CCV	mg/L	1.000	100 %	99-101							
Nitrate	300.0	11/09/2007:211013	LCS	mg/L	20.00	108 %	90-110				
			MS	mg/L	400.0	108 %	88-124				
			MSD	mg/L	400.0	108 %	88-124				
			MSRPD	mg/L	100.0	0.3%	≤29.1				
	300.0	11/10/2007:211650	CCB	ppm		0.040	0.4				
			CCV	ppm	20.00	110 %	90-110				
			CCB	ppm		0.044	0.4				
			CCB	ppm		0.044	0.4				
			CCV	ppm	20.00	107 %	90-110				
			CCV	ppm	20.00	107 %	90-110				
CCB	ppm		0.026	0.4							
CCV	ppm	20.00	108 %	90-110							
Nitrite	300.0	11/09/2007:211013	LCS	mg/L	15.00	98.8 %	90-110				
			MS	mg/L	300.0	104 %	91-121				
			MSD	mg/L	300.0	104 %	91-121				
			MSRPD	mg/L	100.0	0.1%	≤23.8				
	300.0	11/10/2007:211650	CCB	ppm		0.020	0.3				
			CCV	ppm	15.00	106 %	90-110				
			CCB	ppm		0.000	0.3				
			CCB	ppm		0.000	0.3				
			CCV	ppm	15.00	98.7 %	90-110				
			CCV	ppm	15.00	98.7 %	90-110				
CCB	ppm		0.014	0.3							
CCV	ppm	15.00	99.3 %	90-110							
Solids, Fixed Dissolved	2540 C,E	11/11/2007:210985	Blank	mg/L		ND	<40				
			LCS	mg/L	1000	98.0 %	90-110				
			LCS	mg/L	1000	98.3 %	90-110				
	Dup	mg/L		0.09%	12.2						
	2540 C,E	11/12/2007:210988	Blank	mg/L		ND	<40				

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Solids, Fixed Dissolved	2540 C,E	11/12/2007:210988	LCS	mg/L	1000	101 %	90-110	
			LCS	mg/L	1000	101 %	90-110	
			Dup	mg/L		1.6%	12.2	
Solids, Total Dissolved	2540 C,E	11/11/2007:210985	Blank	mg/L		ND	<20	
			LCS	mg/L	1000	97.8 %	90-110	
			LCS	mg/L	1000	98.3 %	90-110	
	2540 C,E	11/12/2007:210988	Dup	mg/L		0.1%	10.0	
			Blank	mg/L		ND	<20	
			LCS	mg/L	1000	103 %	90-110	
Sulfate	300.0	12/06/2007:211858	LCS	mg/L	50.00	93.5 %	90-110	
			MS	mg/L	1000	138 %	78-137	435
			MSD	mg/L	1000	107 %	78-137	
			MSRPD	mg/L	100.0	24.2%	≤12.3	435
	300.0	12/06/2007:212685	ICV	ppm	100.0	98.2 %	90-110	
			ICB	ppm		0.92	2	
			CCB	ppm		0.91	2	
			CCB	ppm		0.91	2	
			CCV	ppm	50.00	93.6 %	90-110	
			CCV	ppm	50.00	93.6 %	90-110	
			CCB	ppm		0.89	2	
			CCV	ppm	50.00	95.4 %	90-110	

Definition

ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
 ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
 CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
 CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
 Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
 LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
 MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
 MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
 Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
 MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
 ND : Non-detect - Result was below the DQO listed for the analyte.
 <1/4 : High Sample Background - Spike concentration was less than one fourth of the sample concentration.
 DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.



ANALYTICAL CHEMISTS

December 11, 2007
City of Patterson Wastewater

Lab ID : STK0750498
Customer : 3-15918

Quality Control - Organic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Organic TOC	5310C	11/24/2007:211365	Blank	mg/L		ND	<0.5	
			BS	mg/L	53.13	85.0 %	75-114	
			BSD	mg/L	53.13	85.9 %	75-114	
			BSRPD	mg/L	53.13	1.0%	≤23.0	
	5310C	11/24/2007:212219	ICV	ppm	53.13	84.7 %	N/A	
			CCV	ppm	53.13	80.7 %	76-119	
			CCV	ppm	53.13	88.4 %	76-119	
			CCV	ppm	53.13	90.4 %	76-119	
Definition								
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
BS : Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSD : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not affecting analyte recovery.								
BSRPD : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation and analysis.								
ND : Non-detect - Result was below the DQO listed for the analyte.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								



ANALYTICAL CHEMISTS

December 13, 2007

City of Patterson Wastewater
PO Box 667
Patterson, CA 95363

Subject: TKN Analysis – FGL Lab No. STK 750498

Enclosed please find results for the above sample(s) which were received by FGL.

Please note that this analysis was performed by Pat-Chem Laboratories.

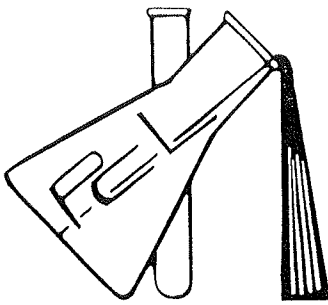
Thank you for using FGL Environmental.

Sincerely,
FGL Environmental

Kelly A. Dunnahoo
Laboratory Director

KAD:dmb

Enclosure



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Fruit Growers - FGL**
853 Corporation Street
Santa Paula CA, 93060

Page 1 of 3

Attention: **Fruit Growers - FGL**
Report Date: **03-Dec-07 16:42**
Subject: **Water Samples**

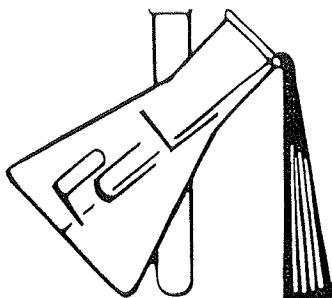
Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)	RESULT	NOTE
MW1 STK0750498 (Sample I.D.# : 0711468-01) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	0.20 mg/l	
MW2 STK0750498 (Sample I.D.# : 0711468-02) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	0.09 mg/l	
MW3 STK0750498 (Sample I.D.# : 0711468-03) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	< 0.05 mg/l	

Respectfully Submitted,

Pat Brueckner
Laboratory Director

12/3/2007



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: Fruit Growers - FGL
853 Corporation Street
Santa Paula CA, 93060

Page 2 of 3

Attention: Fruit Growers - FGL
Report Date: 03-Dec-07 16:42
Subject: Water Samples

Project/P.O.#: [none]

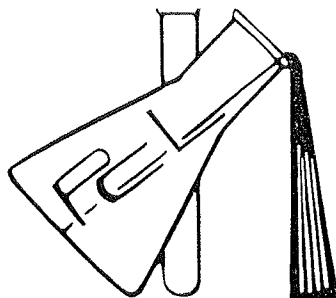
General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD	RPD Limit	Note
Batch AK73011 - General Preparation										
Blank (AK73011-BLK1)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	ND	0.05	mg/l							
Blank (AK73011-BLK2)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	ND	0.05	mg/l							
Blank (AK73011-BLK3)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	ND	0.05	mg/l							
LCS (AK73011-BS1)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	0.94	0.05	mg/l	1.00		94.2	80-120			
LCS (AK73011-BS2)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	1.0	0.05	mg/l	1.00		99.7	80-120			
LCS (AK73011-BS3)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	0.95	0.05	mg/l	1.00		94.8	80-120			
Duplicate (AK73011-DUP1)				Source: 0711463-01 Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	0.50	0.05	mg/l		0.50			1.09	20	
Duplicate (AK73011-DUP2)				Source: 0711464-01 Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	2.4	0.05	mg/l		2.3			1.96	20	
Duplicate (AK73011-DUP3)				Source: 0711465-01 Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	0.70	0.05	mg/l		0.67			4.68	20	
Matrix Spike (AK73011-MS1)				Source: 0711463-01 Prepared: 30-Nov-07 Analyzed: 03-Dec-07						
Total Kjeldahl Nitrogen	1.3	0.05	mg/l	1.00	0.50	83.8	75-125			

Respectfully Submitted,

Pat Brueckner
Laboratory Director

12/3/2007



PAT-CHEM LABORATORIES

11990 Discovery Ct. • Moorpark, CA 93021 • Ph. (805) 532-0012 • Fax (805) 532-0016

Customer: **Fruit Growers - FGL**
853 Corporation Street
Santa Paula CA, 93060

Page 3 of 3

Attention: Fruit Growers - FGL
Report Date: 03-Dec-07 16:42
Subject: Water Samples

Project/P.O.#: [none]

General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
Batch AK73011 - General Preparation										
Matrix Spike (AK73011-MS2)	Source: 0711464-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	3.2	0.05	mg/l	1.00	2.3	91.6	75-125			
Matrix Spike (AK73011-MS3)	Source: 0711465-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	2.0	0.05	mg/l	1.10	0.67	118	75-125			
Matrix Spike Dup (AK73011-MSD1)	Source: 0711463-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	1.3	0.05	mg/l	1.00	0.50	81.4	75-125	1.83	20	
Matrix Spike Dup (AK73011-MSD2)	Source: 0711464-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	3.3	0.05	mg/l	1.00	2.3	102	75-125	3.04	20	
Matrix Spike Dup (AK73011-MSD3)	Source: 0711465-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	2.0	0.05	mg/l	1.10	0.67	120	75-125	1.10	20	

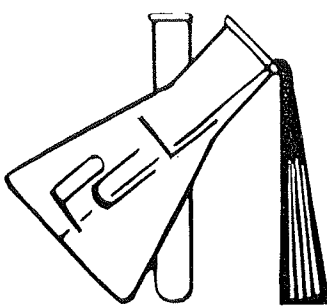
Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis

Respectfully Submitted,

Pat Brueckner
Laboratory Director

12/3/2007



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Customer: **Fruit Growers - FGL**
853 Corporation Street
Santa Paula CA, 93060

Page 1 of 3

Attention: Fruit Growers - FGL
Report Date: 03-Dec-07 16:51
Subject: Water Samples

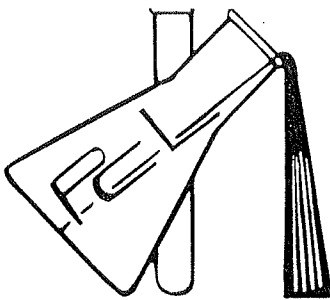
Project/P.O.#: [none]

PARAMETER	METHOD	QC BATCH	REPORTING LIMIT	ANALYZED (ANALYST)	RESULT	NOTE
MW4 STK0750498 (Sample I.D.# : 0711488-01) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	0.93 mg/l	
MW5 STK0750498 (Sample I.D.# : 0711488-02) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	1.6 mg/l	
MW6 STK0750498 (Sample I.D.# : 0711488-03) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	0.06 mg/l	
MW10 STK0750498 (Sample I.D.# : 0711488-04) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	3.3 mg/l	
Mitigation Well STK0750498 (Sample I.D.# : 0711488-05) Collected: 08-Nov-07 By Customer						
Total Kjeldahl Nitrogen	EPA 351.2	AK73011	0.05	03-Dec-07 (CS)	< 0.05 mg/l	

Respectfully Submitted,

Pat Brueckner
Laboratory Director

12/3/2007



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Customer: **Fruit Growers - FGL**
853 Corporation Street
Santa Paula CA, 93060

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Attention: **Fruit Growers - FGL**
Report Date: **03-Dec-07 16:51**
Subject: **Water Samples**

Project/P.O.#: [none]

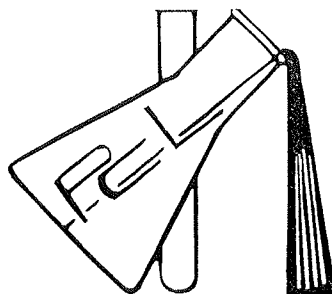
General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC %REC	RPD RPD	Limit Limit	Note
Batch AK73011 - General Preparation									
Blank (AK73011-BLK1)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07					
Total Kjeldahl Nitrogen	ND	0.05	mg/l						
Blank (AK73011-BLK2)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07					
Total Kjeldahl Nitrogen	ND	0.05	mg/l						
Blank (AK73011-BLK3)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07					
Total Kjeldahl Nitrogen	ND	0.05	mg/l						
LCS (AK73011-BS1)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07					
Total Kjeldahl Nitrogen	0.94	0.05	mg/l	1.00		94.2		80-120	
LCS (AK73011-BS2)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07					
Total Kjeldahl Nitrogen	1.0	0.05	mg/l	1.00		99.7		80-120	
LCS (AK73011-BS3)				Prepared: 30-Nov-07 Analyzed: 03-Dec-07					
Total Kjeldahl Nitrogen	0.95	0.05	mg/l	1.00		94.8		80-120	
Duplicate (AK73011-DUP1)				Source: 0711463-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07			
Total Kjeldahl Nitrogen	0.50	0.05	mg/l		0.50			1.09	20
Duplicate (AK73011-DUP2)				Source: 0711464-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07			
Total Kjeldahl Nitrogen	2.4	0.05	mg/l		2.3			1.96	20
Duplicate (AK73011-DUP3)				Source: 0711465-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07			
Total Kjeldahl Nitrogen	0.70	0.05	mg/l		0.67			4.68	20
Matrix Spike (AK73011-MS1)				Source: 0711463-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07			
Total Kjeldahl Nitrogen	1.3	0.05	mg/l	1.00	0.50	83.8		75-125	

Respectfully Submitted,

Pat Brueckner
Laboratory Director

12/3/2007



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Customer: **Fruit Growers - FGL**
853 Corporation Street
Santa Paula CA, 93060

Page 3 of 3

Attention: Fruit Growers - FGL
Report Date: 03-Dec-07 16:51
Subject: Water Samples

Project/P.O.#: [none]

General Inorganic Nonmetallic Chemistry by Standard Methods/EPA Methods - Quality Control

Parameter	Result	Rep. Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Note
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Matrix Spike (AK73011-MS2)	Source: 0711464-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
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Matrix Spike Dup (AK73011-MSD1)	Source: 0711463-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	1.3	0.05	mg/l	1.00	0.50	81.4	75-125	1.83	20	
Matrix Spike Dup (AK73011-MSD2)	Source: 0711464-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	3.3	0.05	mg/l	1.00	2.3	102	75-125	3.04	20	
Matrix Spike Dup (AK73011-MSD3)	Source: 0711465-01		Prepared: 30-Nov-07 Analyzed: 03-Dec-07							
Total Kjeldahl Nitrogen	2.0	0.05	mg/l	1.10	0.67	120	75-125	1.10	20	

Notes and Definitions

- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis

Respectfully Submitted,

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Laboratory Director

12/3/2007