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STATE OF CALIFORNIA
CENTRAL COAST WATER BOARD
Received
AUG 7 2006
895 Aerovista Place, Ste. 101
San Luis Obispo, CA 93401-7906

California Regional Water Quality Control Board
Central Coast Region
895 Aero Vista Drive, Suite 101
San Luis Obispo, CA 93401
Attn: Ms. Thea Tryon

Re: City of Morgan Hill Historic J-Flag Data: Northeast Wells

Dear Ms. Tryon:

Enclosed, as you requested, are historic J-Flag data perchlorate from the City of Morgan Hill's (City) northeast wells, specifically Dunne 1, Dunne 2, San Pedro, Condit, and Nordstrom. J-Flag perchlorate data from the Dunne 2 well had been previously provided to you by Mr. Jim Ashcraft of the City on May 23, 2006, however those data are also included herein for your convenience. Also provided herein is a brief summary of annual average concentrations and well information, again for your convenience.

These data were requested by the City from BSK Labs (BSK). BSK revisited the raw historical analytical data from 2003 through 2006, the great majority of which had previously been reported only as < 4 ug/L, with respect to the Reporting Limit for USEPA Method 314.0. These J-Flag concentrations are reported with respect to the Method Detection Limit of 1.3 ug/L. According to BSK, these values are estimated concentrations calculated from a relative peak response below the lowest point on their calibration curve. BSK note therefore, that these data are not legally defensible and should not be used for regulatory purposes.

In spite of the above-noted limitations, the data show a very regular occurrence of perchlorate concentrations greater than 2 ug/L in all wells except Dunne 2 (the shallowest-screened well). Of particular note is the large number of detections above 3 ug/L: 14 from Condit well; 12 from San Pedro well; 2 from Dunne 1 well; and 33 from Nordstrom Park well. This large number of perchlorate detections at concentrations clearly above any conceivable "background" level strongly suggests that there has been and continues to be a continuous plume of perchlorate from the Olin Site to the City's northeast wells, and these wells have been intercepting the plume of perchlorate from the Olin Site.

Furthermore, these data are strong evidence to dispel the claim that perchlorate from the Site would not reach the Nordstrom Park well without first impacting the Dunne, San Pedro or Condit wells, which have historically reported < 4 ug/L perchlorate. These J-Flag data indicate that all four of the City's northeast wells (Dunne 2 excepted) have been and continue to intercept a deeper plume of perchlorate from the Olin Site.

Also interesting in the data is the period of relatively high perchlorate concentrations that were detected between April and September 2004. This corresponds to the City's summer period of high groundwater production. The data seem to show a general pattern of higher perchlorate concentrations in the summer and early fall months, coinciding with summer's higher groundwater production, especially when the Nordstrom Park well (one of the City's larger producers) is pumping.

WorleyParsons Komex hopes this information is helpful to the RWQCB in your ongoing evaluation of northeast perchlorate contamination from the Olin Site, and we encourage you to consider these data in the context of the of the City of Morgan Hills request to issue a CAO naming Olin as the discharger relative to the NE contamination. We are at your disposal to discuss any of the information provided above. If you have any questions please call Mark Trudell at extension 161 or Jon Rohrer at extension 241.

Sincerely,

WorleyParsons Komex

Mark Trudell, Ph.D., P.G.
Senior Groundwater Modeler

Jon Rohrer, P.G., C.Hg.
Senior Hydrogeologist

cc: Mr. Steve Hoch, Hatch & Parent
Mr. Jim Ashcraft, City of Morgan Hill
Mr. Tom Mohr, Santa Clara Valley Water District

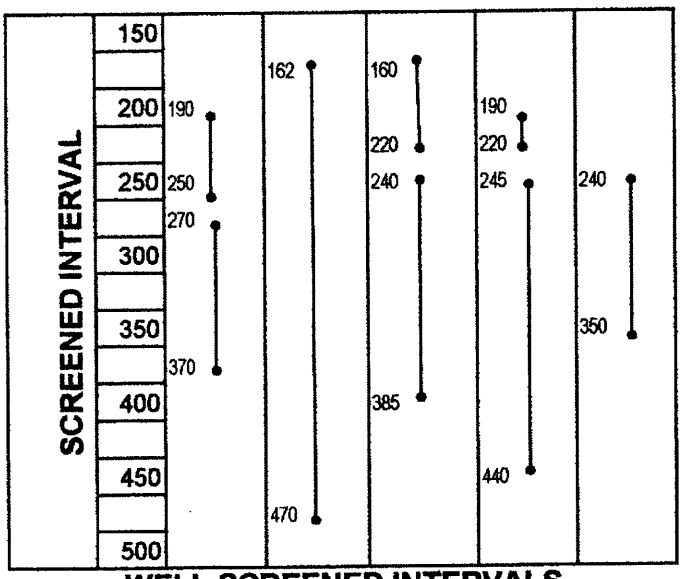
Enc.

NE WELLS J-flag Results Jan/03 - 2006

		Nordstrom	Dunne 1	Dunne 2	San Pedro	Condit
GPM		1,000	500	550	600	200
2003		3.49	1.77	1.37	2.36	3.10
2004		3.59	2.42	1.62	2.80	3.27
2005		2.78	0.99	0.90	2.17	1.74
2006			1.05		2.07	1.30

Note: Highlighted average concentrations note at least one reading of ND assumed as 50% of detection limit or .65 ppb for averaging.

Average Perchlorate Concentration in NE Wells by Calendar Year (J-Flag Estimations by BSK with MDL of 1.3 ppb.) (See attached for detailed valves by well.)



WELL SCREENED INTERVALS

DISTANCE FROM OLIN SITE	6,700 ft	5,700 ft	5,700 ft	4,600 ft	3,700 ft

J. Flag Perchlorate Estimates by BSK Labs

CONDIT WELL					
*Based on a MDL value of 1.3 ppb.					
Run #	Submission #	Order #	Sample Date	Result	Dilution
3003	2003010869	284269	01/16/2003	3.53	1
3014	2003021101	294408	02/19/2003	5.19	1
3015	2003021460	296415	02/25/2003	Missing	1
3019	2003031193	303773	03/19/2003	Missing	1
3026	2003041566	315456	04/23/2003	Missing	1
3032	2003051197	323864	05/19/2003	1.50	1
3038	2003061211	334144	06/17/2003	2.44	1
3044	2003070981	343990	07/15/2003	1.76	1
3058	2003081306	358068	08/19/2003	4.34	1
3063	2003091073	368704	09/16/2003	3.67	1
3068	2003101008	379068	10/14/2003	4.00	1
3073	2003110603	388128	11/10/2003	1.71	1
3079	2003120670	398083	12/09/2003	3.06	1
4003	2004010701	408770	01/13/2004	2.81	1
4008	2004020970	419537	02/17/2004	ND	1
4012	2004031138	429434	03/16/2004	1.42	1
4015	2004041192	440759	04/20/2004	2.70	1
4017	2004051176	450467	05/18/2004	3.81	1
4021	2004060813	459393	06/10/2004	3.93	1
4021	2004061069	461029	06/15/2004	5.20	1
4023	2004061882	465758	06/29/2004	4.90	1
4027	2004071259	473281	07/20/2004	4.08	1
4031	2004081280	484959	08/17/2004	4.58	1
4036	2004091546	499131	09/21/2004	3.77	1
4041	2004101288	510281	10/19/2004	2.93	1
4046	2004111130	520699	11/16/2004	2.74	1
4051	2004120986	529838	12/14/2004	1.81	1
5004	2005010875	539410	01/13/2005	1.37	1
5009	2005020862	548745	02/10/2005	ND	1
5013	2005030625	557757	03/08/2005	ND	1
5018	2005040281	566978	04/05/2005	3.40	1
5022	2005050455	579395	05/05/2005	ND	1
5031	2005060569	591858	06/07/2005	2.05	1
5037	2005070262	603097	07/05/2005	2.73	1
5042	2005080274	615294	08/02/2005	2.13	1
5050	2005090489	631398	09/07/2005	2.35	1
5059	2005100252	642903	10/04/2005	1.72	1
5067	2005110704	656826	11/08/2005	1.61	1
5071	2005120723	667913	12/08/2005	1.56	1
6004	2006010640	678777	01/10/2006	1.92	1
6008	2006020537	687884	02/07/2006	ND	1
6012	2006021405	692174	02/15/2006	ND	1
2006015	2006030617	697314	03/07/2006	ND	1
2006021	2006040450	708074	04/06/2006	1.90	1
2006028	2006050199	716510	05/02/2006	1.96	1
2006028	2006050201	716527	05/02/2006	1.35	1

J. Flag Perchlorate Estimates by BSK Labs

SAN PEDRO WELL					
*Based on a MDL value of 1.3 ppb.					
Run #	Submission #	Order #	Sample Date	Result	Dilution
3003	2003010869	284270	01/16/2003	2.56	1
3014	2003021101	294410	02/19/2003	2.55	1
3032	2003051197	323865	05/19/2003	2.16	1
3038	2003061211	334145	06/17/2003	2.50	1
3044	2003070981	343991	07/15/2003	ND	1
3058	2003081306	358069	08/19/2003	3.25	1
3063	2003091073	368705	09/16/2003	2.46	1
3068	2003101008	379069	10/14/2003	1.70	1
3073	2003110603	388129	11/10/2003	2.78	1
3079	2003120670	398085	12/09/2003	3.02	1
4003	2004010701	408771	01/13/2004	ND	1
4008	2004020970	419538	02/17/2004	1.70	1
4012	2004031138	429435	03/16/2004	1.71	1
4015	2004041192	440760	04/20/2004	3.04	1
4017	2004051176	450468	05/18/2004	3.28	1
4022	2004060813	459394	06/10/2004	3.60	1
4021	2004061069	461030	06/15/2004	3.70	1
4027	2004071259	473282	07/20/2004	4.30	1
4031	2004081280	484960	08/17/2004	3.61	1
4036	2004091546	499132	09/21/2004	3.46	1
4041	2004101288	510282	10/19/2004	2.61	1
4046	2004111130	520700	11/16/2004	3.14	1
4051	2004120986	529839	12/14/2004	2.83	1
5004	2005010875	539411	01/13/2005	1.65	1
5009	2005020862	548746	02/10/2005	ND	1
5013	2005030625	557758	03/08/2005	2.44	1
5018	2005040281	566979	04/05/2005	1.30	1
5022	2005050455	579396	05/05/2005	ND	1
5031	2005060569	591859	06/07/2005	3.03	1
5037	2005070262	603098	07/05/2005	2.35	1
5042	2005080274	615295	08/02/2005	2.76	1
5050	2005090489	631399	09/07/2005	2.76	1
5059	2005100252	642904	10/04/2005	2.94	1
5067	2005110704	656827	11/08/2005	2.91	1
5071	2005120723	667914	12/08/2005	2.57	1
6004	2006010640	678778	01/10/2006	3.06	1
6008	2006020537	687885	02/07/2006	1.63	1
2006015	2006030617	697315	03/07/2006	1.41	1
2006021	2006040450	708075	04/06/2006	1.46	1
2006028	2006050200	716513	05/02/2006	2.79	1

J. Flag Perchlorate Estimates by BSK Labs

DUNNE I WELL					
*Based on a MDL value of 1.3 ppb.					
Run #	Submission #	Order #	Sample Date	Result	Dilution
3003	2003010869	284260	01/16/2003	2.15	1
3014	2003021101	294399	02/19/2003	1.98	1
3032	2003051197	323853	05/19/2003	1.50	1
3038	2003061211	334133	06/17/2003	1.76	1
3044	2003070981	343980	07/15/2003	1.41	1
3058	2003081306	358058	08/19/2003	2.46	1
3063	2003091073	368694	09/16/2003	1.79	1
3068	2003101008	379058	10/14/2003	2.33	1
3073	2003110603	388118	11/10/2003	1.68	1
3079	2003120670	398073	12/09/2003	ND	1
4003	2004010701	408760	01/13/2004	2.85	1
4008	2004020970	419528	02/17/2004	1.90	1
4012	2004031138	429424	03/16/2004	1.81	1
4015	2004041192	440749	04/20/2004	2.35	1
4017	2004051176	450458	05/18/2004	3.28	1
4021	2004060813	459383	06/10/2004	2.85	1
4021	2004061069	461020	06/15/2004	2.99	1
4027	2004071259	473272	07/20/2004	2.79	1
4031	2004081280	484950	08/17/2004	3.04	1
4036	2004091546	499122	09/21/2004	2.63	1
4041	2004101288	510272	10/19/2004	1.97	1
4046	2004111130	520690	11/16/2004	2.38	1
4051	2004120986	529829	12/14/2004	ND	1
5004	2005010875	539401	01/13/2005	ND	1
5009	2005020862	548736	02/10/2005	ND	1
5013	2005030625	557747	03/08/2005	ND	1
5018	2005040281	566968	04/05/2005	ND	1
5022	2005050455	579385	05/05/2005	ND	1
5031	2005060569	591848	06/07/2005	ND	1
5037	2005070262	603087	07/05/2005	ND	1
5042	2005080274	615284	08/02/2005	2.16	1
5049	2005090489	631388	09/07/2005	1.54	1
5059	2005100252	642894	10/04/2005	1.58	1
5066	2005110704	656817	11/08/2005	1.80	1
5071	2005120723	667904	12/08/2005	ND	1
6003	2006010640	678768	01/10/2006	1.39	1
6008	2006020537	687876	02/07/2006	ND	1
2006015	2006030617	697304	03/07/2006	ND	1
2006021	2006040450	708064	04/06/2006	ND	1
2006028	2006050201	716516	05/02/2006	1.91	1

J. Flag Perchlorate Estimates by BSK Labs

NORDSTROM WELL					
*Based on a MDL value of 1.3 ppb.					
Run #	Submission #	Order #	Sample Date	Result	Dilution
3061	2003090220	363795	09/02/2003	3.37	1
3062	2003090520	365425	09/08/2003	3.40	1
3065	2003091493	371198	09/22/2003	3.84	1
3066	2003100012	373837	09/29/2003	3.35	1
4016	2004050164	445123	05/04/2004	3.38	1
4018	2004051094	450011	05/17/2004	3.96	1
4020	2004060463	457620	06/07/2004	4.37	1
4022	2004060932	460302	06/14/2004	4.26	1
4022	2004061413	462960	06/21/2004	3.91	1
4023	2004061793	465196	06/28/2004	3.92	1
4026	2004070283	467685	07/06/2004	4.25	1
4026	2004070665	469971	07/12/2004	3.30	1
4027	2004071141	472700	07/19/2004	3.98	1
4028	2004071609	475335	07/26/2004	4.05	1
4029	2004080093	478145	08/02/2004	4.07	1
4030	2004080656	481352	08/09/2004	3.96	1
4031	2004081165	484339	08/16/2004	3.85	1
4032	2004081659	487201	08/23/2004	3.67	1
4034	2004082196	490239	08/30/2004	3.57	1
4034	2004090490	493215	09/07/2004	3.50	1
4035	2004090918	495570	09/13/2004	4.30	1
4036	2004091429	498553	09/20/2004	3.88	1
4037	2004091957	501288	09/27/2004	3.96	1
4039	2004100693	506927	10/07/2004	2.51	1
4039	2004100695	506935	10/11/2004	3.61	1
4041	2004101157	509695	10/18/2004	4.55	1
4042	2004101672	512376	10/25/2004	4.00	1
4044	2004110606	517378	11/08/2004	Missing	1
4046	2004111030	520124	11/15/2004	2.90	1
4047	2004111507	523021	11/22/2004	3.21	1
4050	2004120357	526695	12/06/2004	2.90	1
4051	2004120850	529207	12/13/2004	3.09	1
5001	2004121765	533870	12/27/2004	4.56	1
5030	2005060038	588995	05/31/2005	2.31	1
5030	2005060433	591155	06/06/2005	2.63	1
5033	2005060976	593943	06/13/2005	3.21	1
5034	2005061506	596858	06/20/2005	4.31	1
5035	2005062078	599916	06/27/2005	2.54	1
5038	2005070678	605511	07/11/2005	2.64	1
5039	2005071230	608672	07/18/2005	3.42	1
5041	2005071797	611779	07/25/2005	2.53	1
5043	2005080077	614455	08/01/2005	3.33	1
5047	2005082432	627431	08/29/2005	1.50	1
5049	2005090344	630591	09/06/2005	2.87	1
5050	2005090812	633034	09/12/2005	2.94	1
5054	2005091958	639236	09/26/2005	1.98	1
5058	2005100071	641981	10/03/2005	2.44	1
5060	2005100719	645407	10/10/2005	2.76	1
5063	2005101709	650877	10/24/2005	2.99	1
5065	2005110005	653284	10/31/2005	2.42	1

*Based on a MDL value of 1.3 ppb.

Run#	Submission#	Order #	Sample Date	Sample Description	Result	Dilution
3003	2003010869	284261	01/16/2003	Dunne II Well 4310006	3.40	1
3014	2003021101	294400	02/19/2003	Dunne II Well	1.38	1
3032	2003051197	323854	05/19/2003	Dunne II Well	0.00	1
3038	2003061211	334134	06/17/2003	Dunne II Well	1.50	1
3040	2003061946	338097	06/27/2003	Dunne Well 2	1.81	1
3043	2003070829	342941	07/11/2003	Dunne II Well	2.11	1
3044	2003071075	344583	07/16/2003	Dunne II Well	0.00	1
3058	2003081306	358059	08/19/2003	Dunne II Well 4310006	0.00	1
3063	2003091073	368695	09/16/2003	Dunne II Well	0.00	1
3068	2003101008	379059	10/14/2003	Dunne II Well	1.45	1
3073	2003110603	388119	11/10/2003	Dunne II Well	1.58	1
3079	2003120670	398074	12/09/2003	Dunne Well 2	0.00	1
4003	2004010701	408761	01/13/2004	Dunne II Well	0.00	1
4008	2004020970	419529	02/17/2004	Dunne II Well	0.00	1
4012	2004031138	429425	03/16/2004	Dunne II Well 4310006	0.00	1
4015	2004041192	440750	04/20/2004	Dunne II Well 4310006	0.00	1
4017	2004051176	450459	05/18/2004	Dunne II Well	0.00	1
4021	2004060813	459384	06/10/2004	Dunne II Well	0.00	1
4021	2004061069	461021	06/15/2004	Dunne II Well	2.12	1
4027	2004071259	473273	07/20/2004	Dunne II Well	1.35	1
4030	2004080655	481349	08/06/2004	Dunne II Well	1.73	1
4031	2004081280	484951	08/17/2004	Dunne Well 2	1.98	1
4034	2004082190	490214	08/30/2004	Dunne II Well	0.00	1
4034	2004090499	493291	09/03/2004	Dunne Well II	0.00	1
4036	2004091546	499123	09/21/2004	Dunne II Well	1.95	1
4041	2004101288	510273	10/19/2004	Dunne II Well	0.00	1
4046	2004111130	520691	11/16/2004	Dunne II Well	0.00	1
4051	20004120986	529830	12/14/2004	Dunne Well II	0.00	1
5004	2005010875	539402	01/13/2005	Dunne II Well	0.00	1

Based on MDL value of 1.3 ppb

Client	Submission#	Order #	Sample Date	Sample Description	Result	Dilution	PQL, ppb
MONTEREY_CHD	2005020862	548737	2/10/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005030625	557748	3/8/2005	Dunne II Well	2.34	1	4
MONTEREY_CHD	2005040281	566969	4/5/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005050455	579386	5/5/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005060569	591849	6/7/2005	Dunne II Well	1.29	1	4
MONTEREY_CHD	2005070262	603088	7/5/2005	Dunne II Well	1.32	1	4
MONTEREY_CHD	2005080274	615285	8/1/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005090489	631389	9/7/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005100252	642895	10/4/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005110704	656818	11/8/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2005120723	667905	12/8/2005	Dunne II Well	ND	1	4
MONTEREY_CHD	2006010640	678769	1/10/2006	Dunne II Well	ND	1	4
MONTEREY_CHD	2006020537	687877	2/7/2006	Dunne II Well	ND	1	4