



BRYAN A. STIRRAT & ASSOCIATES
CIVIL AND ENVIRONMENTAL ENGINEERS

JN: 9645

MEMORANDUM

TO: Mr. Bob Richmond
County of Orange Integrated Waste Management Department

FROM: Christine Arbogast *CA*
Bryan A. Stirrat & Associates

DATE: February 8, 2000

RE: Prima Deshecha Landfill Groundwater Monitoring Well Data

Enclosed is groundwater monitoring well data for the last 10 years for the Prima Deshecha Landfill as requested by the United States Army Corp of Engineers and United States Fish and Wildlife Services. A location map is also enclosed for the eight existing wells located along the Prima Deshecha Cañada channel.

**SITE MONITORING WELL INFORMATION
PRIMA DESHECHA LANDFILL**

WELL INFORMATION	WELL IDENTIFICATION		
	WELL D	WELL E	WELL F
Elevation of well (ft above msl):			
Top of well casing	243.47	235.32	385.86
Total depth of well (ft):	29.00	65.00	23.00
Depth of screened interval	5 - 29	10 - 65	5 - 23
Depth to water from top of well casing (ft):			
06/15/89	16.46	23.20	16.28
12/15/89	18.05	32.60	20.80
03/15/90	16.66	28.77	17.26
06/15/90	16.59	28.64	16.70
08/15/90	17.30	28.91	20.05
06/15/92	11.10	12.00	14.30
08/15/92	11.77	16.03	15.02
11/15/92	15.03	18.66	19.75
03/15/93	6.01	7.52	7.68
05/15/93	6.27	9.14	7.49
08/15/93	8.57	14.17	7.31
11/15/93	11.10	16.99	7.57
02/15/94	10.08	16.84	7.33
05/15/94	8.66	14.82	8.32
08/15/94	13.00	17.42	11.90
10/15/94	12.94	18.26	15.32
03/15/95	4.12	8.22	5.22
05/15/95	4.80	6.04	6.40
07/15/95	4.90	9.40	6.70
10/15/95	7.24	13.50	8.88
01/15/96	5.97	12.32	11.21
04/15/96	6.10	9.98	10.50
07/15/96	9.61	13.42	12.74
10/15/96	13.28	15.81	14.61
01/15/97	10.40	13.25	13.75
05/15/97	7.78	12.17	11.47
07/15/97	10.71	15.58	13.95
10/15/97	12.61	17.00	16.43
01/15/98	11.95	14.97	13.66
04/27/98	5.93	8.98	5.61
07/20/98	6.66	10.21	7.94
11/23/98	8.73	11.41	12.10
02/25/99	7.42	10.37	11.04
06/15/99	12.17	13.07	14.21
07/15/99	13.86	15.14	13.38
Elevation of water surface (ft above msl):			
06/15/89	227.01	212.12	369.58
12/15/89	225.42	202.72	365.06
03/15/90	226.81	206.55	368.60
06/15/90	226.88	206.68	369.16
08/15/90	226.17	206.41	365.81
06/15/92	232.37	223.32	371.56
08/15/92	231.70	219.29	370.84
11/15/92	228.44	216.66	366.11
03/15/93	237.46	227.80	378.18
05/15/93	237.20	226.18	378.37
08/15/93	234.90	221.15	378.55
11/15/93	232.37	218.33	378.29
02/15/94	233.39	218.48	378.53
05/15/94	234.81	220.50	377.54
08/15/94	230.47	217.90	373.96
10/15/94	230.53	217.06	370.54
03/15/95	239.35	227.10	380.64
05/15/95	238.67	229.28	379.46
07/15/95	238.57	225.92	379.16
10/15/95	236.23	221.82	376.98
01/15/96	237.50	223.00	374.65
04/15/96	237.37	225.34	375.36
07/15/96	233.86	221.90	373.12
10/15/96	230.19	219.51	371.25
01/15/97	233.07	222.07	372.11
05/15/97	235.69	223.15	374.39
07/15/97	232.76	219.74	371.91
10/15/97	230.86	218.32	369.43
01/15/98	231.52	220.35	372.20
04/27/98	237.54	226.34	380.25
07/20/98	236.81	225.11	377.92
11/23/98	234.74	223.91	373.76
02/25/99	236.05	224.95	374.82
06/15/99	231.30	222.25	371.65
07/15/99	229.61	220.18	372.48
Mean Elevation	233.07	220.04	373.78

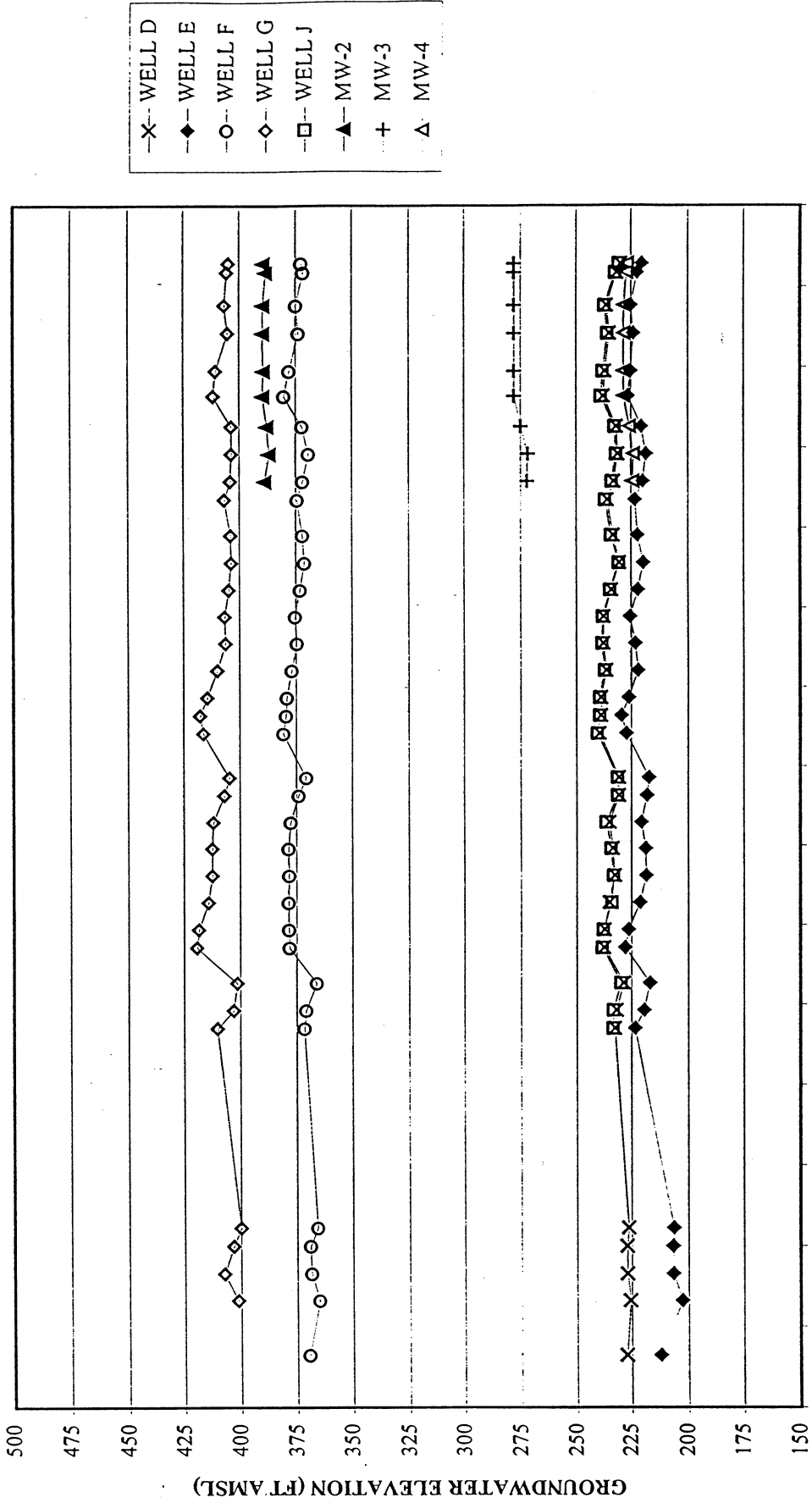
Notes:
- Data not available

**SITE MONITORING WELL INFORMATION
PRIMA DESHECHA LANDFILL**

WELL INFORMATION	WELL IDENTIFICATION				
	WELL G	WELL J	MW-2	MW-3	MW-4
Elevation of well (ft above msl):					
Top of well casing	425.30	244.18	516.34	277.81	266.78
Total depth of well (ft):	26.00	25.00	240.00	125.80	102.00
Depth of screened interval	4 - 26	7-29	217-237	105-125	70-100
Depth to water from top of well casing (ft):					
06/15/89	22.20	--	--	--	--
12/15/89	24.08	--	--	--	--
03/15/90	17.90	--	--	--	--
06/15/90	22.06	--	--	--	--
08/15/90	25.33	--	--	--	--
06/15/92	15.16	10.85	--	--	--
08/15/92	22.33	11.08	--	--	--
11/15/92	23.91	14.61	--	--	--
03/15/93	6.06	5.87	--	--	--
05/15/93	6.84	6.36	--	--	--
08/15/93	11.30	10.26	--	--	--
11/15/93	12.97	11.13	--	--	--
02/15/94	12.91	10.10	--	--	--
05/15/94	13.49	7.89	--	--	--
08/15/94	18.36	13.14	--	--	--
10/15/94	20.68	13.06	--	--	--
03/15/95	9.00	3.80	--	--	--
05/15/95	7.65	5.00	--	--	--
07/15/95	10.92	5.00	--	--	--
10/15/95	15.44	7.30	--	--	--
01/15/96	19.02	6.02	--	--	--
04/15/96	18.70	6.28	--	--	--
07/15/96	20.56	9.69	--	--	--
10/15/96	21.59	13.77	--	--	--
01/15/97	21.40	10.15	--	--	--
05/15/97	18.50	7.48	--	--	--
07/15/97	21.17	10.55	127.56	5.66	42.54
10/15/97	21.67	12.61	129.55	6.13	42.91
01/15/98	21.75	11.84	128.61	2.94	41.08
04/27/98	13.72	5.51	126.71	0.00	38.58
07/20/98	14.79	6.38	127.01	0.00	38.52
11/23/98	20.14	8.56	126.70	0.00	38.46
02/25/99	18.62	7.26	126.86	0.00	38.71
06/15/99	19.73	12.18	128.15	0.00	39.89
07/15/99	20.55	13.81	127.03	0.00	40.21
Elevation of water surface (ft above msl):					
01/27/88	403.10				
12/15/89	401.22				
03/15/90	407.40				
06/15/90	403.24				
08/15/90	399.97				
06/15/92	410.14	233.33			
08/15/92	402.97	233.10			
11/15/92	401.39	229.57			
03/15/93	419.24	238.31			
05/15/93	418.46	237.82			
08/15/93	414.00	233.92			
11/15/93	412.33	233.05			
02/15/94	412.39	234.08			
05/15/94	411.81	236.29			
08/15/94	406.94	231.04			
10/15/94	404.62	231.12			
03/15/95	416.30	240.38			
05/15/95	417.65	239.18			
07/15/95	414.38	239.18			
10/15/95	409.86	236.88			
01/15/96	406.28	238.16			
04/15/96	406.60	237.90			
07/15/96	404.74	234.49			
10/15/96	403.71	230.41			
01/15/97	403.90	234.03			
05/15/97	406.80	236.70			
07/15/97	404.13	233.63	388.78	272.15	224.24
10/15/97	403.63	231.57	386.79	271.68	223.87
01/15/98	403.55	232.34	387.73	274.87	225.70
04/27/98	411.58	238.67	389.63	277.81	228.20
07/20/98	410.51	237.80	389.33	277.81	228.26
11/23/98	405.16	235.62	389.64	277.81	228.32
02/25/99	406.68	236.92	389.48	277.81	228.07
06/15/99	405.57	232.00	388.19	277.81	226.89
07/15/99	404.75	230.37	389.31	277.81	226.57
Mean Elevation	407.86	234.93	388.76	276.17	226.68

Notes:
-- Data not available

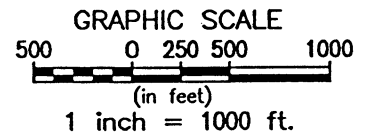
**HISTORICAL GROUNDWATER ELEVATIONS
GROUNDWATER MONITORING WELLS ALONG PRIMA DESHECHA CANADA
PRIMA DESHECHA LANDFILL, ORANGE COUNTY, CALIFORNIA**



DATE

EXPLANATION:

- MW-2 ⊕ GROUNDWATER MONITORING WELL
- MONITORING WELL (Stankov, 1986)



MONITORING WELL LOCATION MAP		
PRIMA DESHECHA LANDFILL ORANGE COUNTY, CALIFORNIA		
GeoLogic Associates Geologists, Hydrogeologists, and Engineers		
DRAWN BY: VL	DATE: FEBRUARY 2000	JOB NO. 9637



**ATTACHMENT B
PRIMA DESHECHA LANDFILL
WASTE DISCHARGE REQUIREMENTS**