

S7 MAR 10 PM 4: 46

March 6, 1997

SEMI-ANNUAL GROUNDWATER MONITORING REPORT FEBRUARY 5, 1997 GROUNDWATER SAMPLING ASE JOB NO. 3071

Dublin Rock and Ready Mix Facility
6393 Scarlett Court
Dublin, California

Prepared for: Mr. Michael Dolan 6365 Scarlett Court Dublin, California

Prepared by:
AQUA SCIENCE ENGINEERS, INC.
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583

(510) 820-9391

1.0 INTRODUCTION

Site Location (Site), See Figure 1
Dublin Rock and Ready Mix Facility
6393 Scarlett Court
Dublin, CA 94568

Property Owner
Dolan Rental Company
6365 Scarlett Court
Dublin, CA 94568
Attn.: Mr. Michael Dolan
(510) 829-0350

Environmental Consulting Firm
Aqua Science Engineers, Inc. (ASE)
2411 Old Crow Canyon Road, #4
San Ramon, CA 94583
Contact: Scott Ferriman, Environmental Specialist
(510) 820-9391

Agency Review
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502
Attn.: Ms. eva chu
(510) 293-8695

California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region 2101 Webster Street, Suite 500 Oakland, CA 94612 Contact: Mr. Kevin Graves (510) 286-4359

The following is a report detailing the results of the February 5, 1997, groundwater sampling at the above referenced site (Figure 2).

2.0 GROUNDWATER FLOW DIRECTION AND GRADIENT

On February 5, 1997, ASE environmental specialist Scott Ferriman measured the depth to water in each site well using an electric water level sounder. The surface of the groundwater was also checked for the presence of free-floating hydrocarbons or sheen susing a product thickness bailer. A sheen was present on the groundwater surface of monitoring well-MW-2. No free-floating hydrocarbons or sheen was present on the groundwater surface of any other monitoring well at the site. Depths to groundwater are presented in Table One.

Groundwater elevation contours are presented on Figure 2. On February 5, 1997, groundwater flowed generally to the west/southwest beneath the site at a gradient of 0.0125-feet/foot. The groundwater elevation in monitoring well MW-5 was anomalous; therefore, it was not used for contouring.

3.0 GROUNDWATER SAMPLE COLLECTION AND ANALYSES

Prior to sampling, monitoring well MW-2, MW-3, MW-4, MW-5 and MW-6 were purged of four well casing volumes of water using dedicated polyethylene bailers. The pH, temperature and conductivity of the purge water were monitored during purging and samples were not collected until these parameters stabilized. Groundwater samples were then collected from each well using dedicated polyethylene bailers. The samples were decanted from the bailers into 40-ml volatile organic analysis (VOA) vials, preserved with hydrochloric acid, capped, labeled and placed into an ice chest containing wet ice for transport to Chromalab, Inc. of Pleasanton, California (ELAP #1094) under chain-of-custody.

The well purge water was placed in 55-gallon steel 17H drums, labeled, and left on-site for temporary storage. Copies of the well sampling field logs are included as appendix A.

The groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-5 and MW-6 were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method 5030/8015M and benzene, toluene, ethylbenzene, total xylenes (BTEX) and MTBE by EPA Method 8020.

The analytical results for this and previous quarters are presented in Table Two, and the certified laboratory report and chain-of-custody form are included as Appendix B.

-2-

4.0 CONCLUSIONS

Elevated hydrocarbon concentrations were detected in groundwater samples collected from monitoring wells MW-2 and MW-4. No detectable TPH-G or BTEX concentrations were detected in groundwater samples collected from monitoring wells MW-3, MW-5 and MW-6. MTBE was detected in groundwater samples collected from monitoring wells MW-2 and MW-4.

Benzene concentrations in groundwater samples collected from monitoring wells MW-2 and MW-4 exceeded the California Department of Toxic Substances Control (DTSC) maximum contaminant level (MCL) for drinking water. The toluene concentration in groundwater samples collected from monitoring well MW-2 exceeded the DTSC recommended action level (RAL) for drinking water. The ethylbenzene and total xylenes concentrations in groundwater samples collected from monitoring well MW-2 exceeded DTSC MCLs for drinking water.

5.0 RECOMMENDATIONS

The next sampling event is scheduled for August 1997.

6.0 REPORT LIMITATIONS

The results of this report represent the conditions at the time of the groundwater sampling at the specific locations where the groundwater samples were collected, and for the specific parameters analyzed by the laboratory. It does not fully characterize the site for contamination resulting from sources other than the former underground storage tanks and associated plumbing at the site, or for parameters not analyzed by the laboratory. All of the laboratory work cited in this report was prepared under the direction of independent CAL-EPA certified laboratory. The independent laboratory is solely responsible for the contents and conclusions of the chemical analysis data.

Aqua Science Engineers appreciates the opportunity to provide environmental consulting services and trust that this report meets your needs. Please feel free to call us at (510) 820-9391 if you have any questions or comments.

Respectfully submitted,

AQUA SCIENCE ENGINEERS, INC.

Scott T. Ferriman

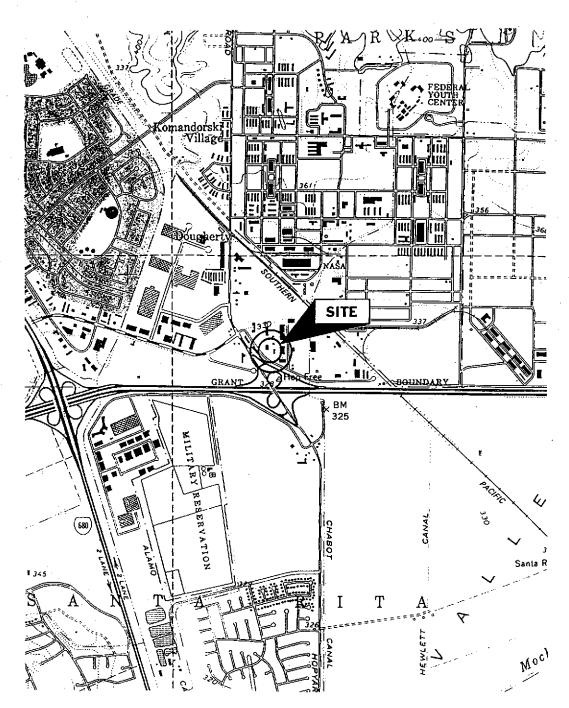
Environmental Specialist

Attachments: Figures 1 and 2

Tables One and Two Appendices A and B

cc: Ms. eva chu, Alameda County Health Care Services Agency Mr. Kevin Graves, RWQCB, San Francisco Bay Region





LOCATION MAP

DUBLIN ROCK & READY MIX 6393 SCARLETT COURT DUBLIN, CALIFORNIA

AQUA SCIENCE ENGINEERS, INC.

Figure 1

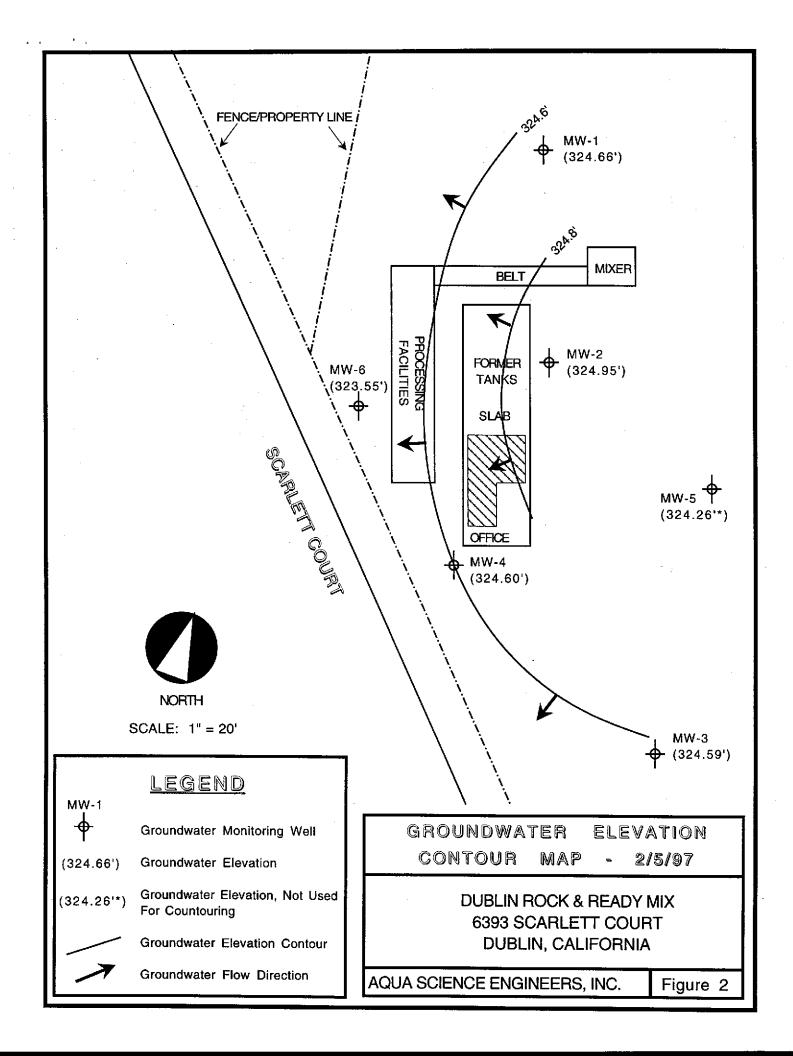


TABLE ONE
Summary of Groundwater Well Survey Data

Well	Date of	Top of Casing Elevation	Depth to Water (feet)	Groundwater Elevation (project data)
I.D.	Measurement	(relative to project datum)	(1661)	(project auta)
MW-1	11/27/91	326.61	4.82	321.79
171 11 1	09/30/92		5.34	321.27
	04/07/94		3.38	323.23
	08/12/94		4,23	322.38
	11/29/94		3.44	323.17
	03/21/95		1.00	325.61
	05/22/95		2.20	324.41
	08/24/95		3.45	323.16
	02/12/96		1.95	324.66
			:	
MW-2	11/27/91	326.67	4.92	321.75
	09/30/92		5.42	321.25
	04/07/94		3.48	323.19
	08/12/94		4.18	322.49
	11/29/94		3.76	322.91
	03/21/95		1.25	325.42
	05/22/95		2.20	324.41
	08/24/95		3.57	323.10
	02/12/96		2.60	324.07
	02/05/97		1.72	324.95
MW-3	11/27/91	326.58	4.96	321.62
W1 W ~ 3	09/30/92	320.50	5.46	321.12
	04/07/94		3.66	322.92
	08/12/94		4.37	322.21
	11/29/94		3.60	322.98
	03/21/95		1.62	324.96
	05/22/95		2.73	323.85
	08/24/95		3.76	322.82
	02/12/96		2.45	324.13
	02/05/97	•	1.99	324.59
	02.00.7		= *= =	

TABLE ONE (Continued)
Summary of Groundwater Well Survey Data

Well I.D.	Date of Measurement	Top of Casing Elevation (relative to project datum)	Depth to Water (feet)	Groundwater Elevation (project data)
MW-4	11/27/91	326.92	5.26	321.66
	09/30/92		5.78	321.14
	04/07/94	4	4.02	322.90
	08/12/94		4.81	322.11
	11/29/94		4.39	322.53
	03/21/95	•	1.80	325.12
	05/22/95		3.07	323.85
	08/24/95	•	4.09	322.83
	02/12/96		2.80	324.12
	02/05/97		2.32	324.60
MW-5	03/21/95	326,50	2.10	324.40
	05/22/95		2.93	323.57
	08/24/95		1.57	324.93
	02/12/96		2.78	323.72
	02/05/97		2.24	324.26
MW-6	03/21/95	327.23	3.24	323.99
	05/22/95		4.70	322.53
	08/24/95		4.95	322.28
	02/12/96		4.50	322.73
	02/05/97		3.68	323.55

TABLE TWO
Summary of Chemical Analysis of GROUNDWATER Samples
All results are in parts per billion

Sample I.D.	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	МТВЕ
MW-1						
11/27/91	< 50	< 0.3	< 0.3	< 0.3	< 0.3	
09/30/92	< 50	< 0.3	< 0.3	< 0.3	< 0.3	
04/07/94	< 50	< 0.5	< 0.5	< 0.5	< 0.5	
08/12/94	< 50	1	1	< 0.5	<2	
11/29/94	< 50	< 0.5	< 0.5	< 0.5	<2	
03/21/95	< 50	< 0.5	< 0.5	< 0.5	<2	
05/22/95	< 50	< 0.5	< 0.5	< 0.5	<2	
08/24/95	< 50	< 0.5	< 0.5	< 0.5	<2	
02/12/96	< 50	< 0.5	< 0.5	< 0.5	<2	
<u>MW-2</u>						
11/27/91	170,000	24,000	13,000	3,500	16,000	
09/30/92	120,000	24,000	15,000	3,800	17,000	
04/07/94	120,000	21,000	14,000	4,300	21,000	
08/12/94	140,000	17,000	10,000	4,300	18,000	
11/29/94	90,000	17,000	7,500	3,400	15,000	
03/21/95	83,000	17,000	8,000	3,800	17,000	
05/22/95	82,000	14,000	6,000	4,000	16,000	
08/24/95	86,000	13,000	8,100	3,700	16,000	
02/12/96	78,000	15,000	8,100	4,200	18,000	
02/05/97	58,000	11,000	6,900	3,500	15,000	480
<u>MW-3</u>						
11/27/91	< 50	< 0.3	< 0.3	< 0.3	< 0.3	
09/30/92	< 50	< 0.3	< 0.3	< 0.3	< 0.3	
04/07/94	< 50	2.5	5.5	0.9	5.1	
08/12/94	< 50	< 0.5	< 0.5	< 0.5	<2	
11/29/94	< 50	< 0.5	< 0.5	< 0.5	<2	
03/21/95	< 50	< 0.5	< 0.5	< 0.5	<2	
05/22/95	< 50	< 0.5	< 0.5	< 0.5	<2	
08/24/95	< 50	< 0.5	< 0.5	< 0.5	<2	
02/12/96	< 50	< 0.5	< 0.5	< 0.5	<2	
02/05/97	< 50	< 0.5	< 0.5	< 0.5	< 0.5	<5

TABLE TWO
(Continued)
Summary of Chemical Analysis of GROUNDWATER Samples
All results are in parts per billion

Sample I.D.	TPH Gasoline	Benzene	Toluene	Ethyl Benzene	Total Xylenes	МТВЕ
MW-4						•
11/27/91	11,000	100	0.7	250	330	
09/30/92	380	3.5	2.4	8.9	3.4	
04/07/94	1,100	61	5.5	17	12	
08/12/94	1,000	3	1	8	4	
11/29/94	1,100	2	< 0.5	10	6	
03/21/95	1,400	200	5	66	18	
05/22/95	1,200	60	1	12	8	
08/24/95	400	. 1	< 0.5	1	<2	
02/12/96	1,500	130	< 0.5	120	51	
02/05/97	1,200	250	4.9	94	12	16
<u>MW-5</u>						
03/21/95	< 50	< 0.5	< 0.5	< 0.5	<2	
05/22/95	< 50	< 0.5	< 0.5	< 0.5	<2	
08/24/95	< 50	< 0.5	< 0.5	< 0.5	<2	
02/12/96	< 50	< 0.5	< 0.5	< 0.5	< 2	
02/05/97	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
<u>MW-6</u>						
03/21/95	< 50	< 0.5	< 0.5	< 0.5	< 2	
05/22/95	< 50	< 0.5	< 0.5	< 0.5	<2	
08/24/95	< 50	< 0.5	< 0.5	< 0.5	<2	
02/12/96	< 50	< 0.5	< 0.5	< 0.5	< 2	
02/05/97	< 50	< 0.5	< 0.5	< 0.5	< 0.5	< 5
EPA METHOD	5030/ 8015M	8020	8020	8020	8020	8020
DTSC MCL	NE	1	100*	680	1,750	NE

Notes:

DTSC MCL = California Department of Toxic Substances Control maximum contaminant level for drinking water

NE = DTSC MCLs and RALs not established

--- = Not Analyzed

^{* =} DTSC recommended action level; MCL not established

APPENDIX A

Well Sampling Field Logs

Project Name and Address:	Jublin Rock and Ready M	x Facility 6393 Scarlettet QISI
Job #: 307/	Date of sampling:	2-5-97
Well Name: MW - Z	Sampled by:	St-
Total depth of well (feet):	19.90 Well diamet	er (inches): <u>2"</u>
Denth to water before sampling	g (feet):	·
Thickness of floating product i	f any: Sheep	<u> </u>
Depth of well casing in water	(feet): \mathcal{D}_{i}	K
Number of gallons per well ca	sing volume (gallons):	3.1
Number of well casing volume	s to be removed:	4
Req'd volume of groundwater t	to be purged before sample	ing (gallons): 12
Equipment used to purge the		
Time Evacuation Began: [3:5]	Time Evacuatio	n Finished: 14: 25
Approximate volume of groun	dwater purged: 12	
Did the well go dry?:		
Time samples were collected:	14:35	
Depth to water at time of sam		
Percent recovery at time of sa		
Samples collected with:		
Sample color: Cloudy	Odor: Sh	voc He
Description of sediment in sar	mple: \(\lambda_0\)	
Boodiphon of Journal in Jul		
CHEMICAL DATA		
Volume Purged Temp	pH Conductivity	y
1 65.5	807 1590	•
2 66.2	7.89 1620	
3 66.5	7.76 1668	
4 66.5	7,74 1674	
<u> </u>	7,74 1674	-
<u> </u>	7,74 <u>1674</u>	-
SAMPLES COLLECTED	<u> 7,74 </u>	
Sample # of containers Volume &	type container Pres Iced? A	nalysis
	type container Pres Iced? A	nalysis
Sample # of containers Volume &	type container Pres Iced? A	nalysis
Sample # of containers Volume &	type container Pres Iced? A	nalysis

WELL SAMPLING FIELD LOG

Project Name and Address: Dublin Rock and Ready Mix Facility 6393 Scarlettet. Och
10h # 307/ Date of sampling: 2-5-97
Well Name: Mul - 3 Sampled by: St
Total depth of well (feet): 19.25 Well diameter (inches): 2"
Death to water before sampling (feet): 199
Thickness of floating product if any: Depth of well casing in water (feet): Number of gallons per well casing volume (gallons): 3
Depth of well casing in water (feet): 17,26
Number of gallons per well casing volume (gallons): 3
Number of well casing volumes to be removed:
Req'd volume of groundwater to be purged before sampling (gallons): 12
Equipment used to purge the well: Dedvator Bly Baile
Time Evacuation Began: 11:55 Time Evacuation Finished: 12:30
Approximate volume of groundwater purged:
Did the well go dry?: After how many gallons:
Time samples were collected: 12:40
Depth to water at time of sampling: 2.02
Percent recovery at time of sampling: 100%
Samples collected with: Dedicated Poly Bake
Sample color: Odor: Now
Description of sediment in sample:
·
CHEMICAL DATA
Volume Purged Temp pH Conductivity
Volume Purged Temp pH Conductivity
Volume Purged Temp pH Conductivity
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650
Volume Purged Temp pH Conductivity 1 β0,3 7.85 3310 2 67.8 7.83 3630
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650
Volume Purged Temp pH Conductivity 1 63 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650 4 68.3 7.69 3650 SAMPLES COLLECTED
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650 4 68.3 7.69 3650 SAMPLES COLLECTED Sample # of containers Volume & type container Pres Iced? Analysis
Volume Purged Temp pH Conductivity 1 63 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650 4 68.3 7.69 3650 SAMPLES COLLECTED
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650 4 68.3 7.69 3650 SAMPLES COLLECTED Sample # of containers Volume & type container Pres Iced? Analysis
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650 4 68.3 7.69 3650 SAMPLES COLLECTED Sample # of containers Volume & type container Pres Iced? Analysis
Volume Purged Temp pH Conductivity 1 60,3 7.85 3310 2 67.8 7.83 3630 3 68.2 7.73 3650 4 68.3 7.69 3650 SAMPLES COLLECTED Sample # of containers Volume & type container Pres Iced? Analysis

WELL SAMPLING FIELD LOG

Project Name and Address: Dublin Rock and Ready Mix Facility 6393 Scarlettet. Qu								
Job #: Date of sampling:								
Well Name: Sampled by: St								
Total depth of well (feet): 19.42 Well diameter (inches): 2"								
Depth to water before sampling (feet):								
Thickness of floating product if any:								
Thickness of floating product if any: Depth of well casing in water (feet): 17.1								
Number of gallons per well casing volume (gallons): 2.7								
Number of well casing volumes to be removed:								
Req'd volume of groundwater to be purged before sampling (gallons): 12								
Equipment used to purge the well: Deducted Bly Baile								
Time Evacuation Began: 12:55 Time Evacuation Finished: 13:25								
Approximate volume of groundwater purged:								
Did the well go dry?: After how many gallons:								
Time samples were collected: 2:35								
Depth to water at time of sampling: 2.34								
Percent recovery at time of sampling: (00%)								
Samples collected with: Red and Poly Red								
Sample color: Clear Odor: Slight He								
Description of sediment in sample:								
CHEMICAL DATA								
Volume Purged Temp pH Conductivity								
Volume Purged Temp pH Conductivity								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 32.30 3 65.2 7.34 35.70 4 65.1 7.29 36.10 SAMPLES COLLECTED								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570 4 65.1 7.29 3610 Sample # of containers Volume & type container Pres Iced? Analysis								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 32.30 3 65.2 7.34 35.70 4 65.1 7.29 36.10 SAMPLES COLLECTED								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570 4 65.1 7.29 3610 Sample # of containers Volume & type container Pres Iced? Analysis								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570 4 65.1 7.29 3610 Sample # of containers Volume & type container Pres Iced? Analysis								
Volume Purged Temp pH Conductivity 1 61.7 8.32 3410 2 65.1 7.76 3230 3 65.2 7.34 3570 4 65.1 7.29 3610 Sample # of containers Volume & type container Pres Iced? Analysis								

Project Name and Address: Dublin Kock and Ready Mix Facility 6393 Scorlett ct. Out
Job #: 307/ Date of sampling: 2-5-97
well Name: Sampled by
Total depth of well (feet): 9.77 Well diameter (inches): 2"
Depth to water before sampling (feet): 2.24
Thickness of floating product if any: Depth of well casing in water (feet): Number of gallons per well casing volume (gallons): 1.3
Depth of well casing in water (feet):
Number of gallons per well casing volume (gallons): 1.3
Number of well casing volumes to be removed:
Rea'd volume of groundwater to be purged before sampling (gallons):
Equipment used to purge the well: Deducted foly Baile
Equipment used to purge the well: Deducted foly Bail. Time Evacuation Began: (1:30 Time Evacuation Finished: 11:40 Approximate volume of groundwater purged:
Approximate volume of groundwater purged:
Did the well go dry?: η_D After how many gallons:
Time samples were collected: 11:45
Depth to water at time of sampling: 2.24
Percent recovery at time of sampling: 100%
Samples collected with: Pedical Poly Rate
Sample color:Odor:Odor:
Description of sediment in sample:
Description of sediment in sample: CHEMICAL DATA
Description of sediment in sample: CHEMICAL DATA
CHEMICAL DATA Volume Purged Temp pH Conductivity
Description of sediment in sample: CHEMICAL DATA Volume Purged Temp pH Conductivity 1 60 8.21 52.00
CHEMICAL DATA Volume Purged Temp pH Conductivity 1 5200 2 61,1 7.92 5260
Description of sediment in sample: CHEMICAL DATA Volume Purged Temp pH Conductivity 1 601 8.21 5200 2 61,1 7.92 5260 3 61,1 7.86 5290
CHEMICAL DATA Volume Purged Temp pH Conductivity 1 5200 2 61,1 7.92 5260
Description of sediment in sample: CHEMICAL DATA Volume Purged Temp pH Conductivity 1 601 8.21 5200 2 61,1 7.92 5260 3 61,1 7.86 5290
Description of sediment in sample: CHEMICAL DATA Volume Purged Temp pH Conductivity 1 601 8.21 5200 2 61,1 7.92 5260 3 61,1 7.86 5290
Description of sediment in sample: None
Description of sediment in sample: CHEMICAL DATA Volume Purged Temp pH Conductivity 1 601 8.21 5200 2 61.1 7.92 5260 3 61.1 7.86 5290 Y 61.2 7.85 5300 SAMPLES COLLECTED Sample # of containers Volume & type container Pres Iced? Analysis

WELL SAMPLING FIELD LOG

Project Name and Add	Iress: <u>Dublin R</u>	ak and Rea	dy Mix Facility	y, Oublin CA				
Job #:	D	ate of samp	oling:2	-5-97				
Well Name: MW-	<u>6</u> St	ampled by:	<u> </u>	<u>~</u>				
Total depth of well (fe	et):	<u>'</u> We	ell diameter (inches): z				
Depth to water before sampling (feet): 3.68								
Thickness of floating product if any: Depth of well casing in water (feet): 6.63								
Depth of well casing i	n water (feet):		>.63	·				
Number of gallons per	well casing v	olume (gall	.ons):	· · · · · · · · · · · · · · · · · · ·				
Number of well casing volumes to be removed:								
Req'd volume of groundwater to be purged before sampling (gallons):								
Equipment used to put	rge the well:_	Oedical	ech Poly Ba	سميان				
Time Evacuation Began								
Approximate volume of	_							
Did the well go dry?:_	n _o	After l	now many ga	allons:				
Time samples were co	ollected:		11:20					
Depth to water at time	e of sampling:	3	.69	···				
Percent recovery at time	me of sampling	g:	100%					
Samples collected with	1: Ded cate	8 Poly	Bale					
Sample color:0	lear	Odor:_	nou	<u> </u>				
Description of sedimer	nt in sample:		none					
CHEMICAL DATA								
Volume Purged	Temp pl	4 0	Conductivity					
	609 8	آ ۹ آءُ	3480					
2	7	20	3440					
3		06	3440					
<u> </u>	60.7	3.09	3450					
· · · · · · · · · · · · · · · · · · ·								
SAMPLES COLLECTE	E D							
Sample # of containers	Volume & type co			<u>sis</u> ,				
MW-6 3	40 ml vo43	1486	Us TPH	DEX MIDE				
			/	· /				
								

APPENDIX B

Analytical Report and Chain of Custody for Groundwater Samples

Environmental Services (SDB)

February 12, 1997

Submission #: 9702035

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: DUBLIN ROCK AND READY MIX

Project#: 3071

Received: February 5, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.

Method: EPA 8015M SW846 8020A Nov 1990

Client Sample ID: MW-2

Spl#: 116723

Matrix: WATER

Sampled: February 5, 1997

Run#: 5264

Analyzed: February 11, 1997

	RESULT	REPORTING LIMIT	BLANK RESULT	BLANK SPIKE	DILUTION FACTOR
ANALYTE	(ug/L)	(uq/L)	(ug/L)	(%)	
GASOLINE	58000	5000	N.D.	83.4	100
BENZENE	11000	50	N.D.	104	100
TOLUENE	6900	50	N.D.	104	100
ETHYL BENZENE	3500	50	N.D.	107	100
XYLENES	15000	50	N.D.	106	100
MTBE	480	250	N.D.	90.0	50

Note: Surrogate recovery was outside QA/QC limits due to matrix interference.

See Surrogate Summary page.

Marianne Alexander

Gas/BTEX Supervisor

Chip Poalinelli

Environmental Services (SDB)

February 12, 1997

Submission #: 9702035

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: DUBLIN ROCK AND READY MIX

Project#: 3071

Received: February 5, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.

Method: EPA 8015M SW846 8020A Nov 1990

Client Sample ID: MW-3

Spl#: 116724

Matrix: WATER

Sampled: February 5, 1997 Run#: 5264

Analyzed: February 11, 1997

		REPORTING	BLANK	BLANK	DILUTION
	RESULT	LIMIT	RESULT	SPIKE	FACTOR
ANALYTE	(ug/L)	(ug/L)	(ug/L)	(%)	
GASOLINE	N.D.	50	N.D.	83.4	1
BENZENE	N.D.	0.50	N.D.	104	1
TOLUENE	N.D.	0.50	N.D.	104	1
ETHYL BENZENE	N.D.	0.50	N.D.	107	1
XYLENES	N.D.	0.50	N.D.	106	. 1
MTBE	N.D.	5.0	N.D.	90.0	1

Marianne Alexander Gas/BTEX Supervisor Chip Poalinel

Environmental Services (SDB)

February 12, 1997

Submission #: 9702035

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: DUBLIN ROCK AND READY MIX

Project#: 3071

Received: February 5, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.

Method: EPA 8015M SW846 8020A Nov 1990

Client Sample ID: MW-4

Spl#: 116725

Matrix: WATER

Sampled: February 5, 1997 Run#: 5264 Analyzed: February 11, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	1200	50	N.D.	83.4	1
TOLUENE	4.9	0.50	N.D.	104	1
ETHYL BENZENE	94	0.50	N.D.	107	1
XYLENES	12	0.50	N.D.	106	1
MTBE	16	5.0	N.D.	90.0	1
BENZENE	250	5.0	N.D.	104	10

Surrogate recovery was outside QA/QC limits due to matrix interference. See Surrogate Summary page.

Gas/BTEX Supervisor

Chip Poalinelli,

Environmental Services (SDB)

February 12, 1997

Submission #: 9702035

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: DUBLIN ROCK AND READY MIX

Project#: 3071

Received: February 5, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.

Method: EPA 8015M SW846 8020A Nov 1990

Client Sample ID: MW-5

Spl#: 116726

Matrix: WATER

Sampled: February 5, 1997

Run#: 5264

Analyzed: February 11, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	SPIKE (%)	DILUTION FACTOR
GASOLINE BENZENE TOLUENE ETHYL BENZENE XYLENES MTBE	N.D. N.D. N.D. N.D. N.D. N.D.	50 0.50 0.50 0.50 0.50 5.0	N.D. N.D. N.D. N.D. N.D. N.D.	83.4 104 107 106 90.0	1 1 1 1

Marianne Alexander Gas/BTEX Supervisor Chip Poalinelli/

Environmental Services (SDB)

February 12, 1997

Submission #: 9702035

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: DUBLIN ROCK AND READY MIX

Project#: 3071

Received: February 5, 1997

re: One sample for Gasoline, BTEX & MTBE analysis.

Method: EPA 8015M SW846 8020A Nov 1990

Client Sample ID: MW-6

Spl#: 116727 Sampled: February 5, 1997

Matrix: WATER

Run#: 5264

Analyzed: February 11, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	83.4	1
BENZENE	N.D.	0.50	N.D.	104	1
TOLUENE	N.D.	0.50	N.D.	104	1
ETHYL BENZENE	N.D.	0.50	N.D.	107	1
XYLENES	N.D.	0.50	N.D.	106	1
MTBE	N.D.	5.0	N.D.	90.0	ī

Marianne Alexander

Gas/BTEX Supervisor

Chip Poalinelli/

Environmental Services (SDB)

February 12, 1997

Submission #: 9702035

AQUA SCIENCE ENGINEERS INC

Atten: Scott Ferriman

Project: DUBLIN ROCK AND READY MIX Proj

Project#: 3071

Received: February 5, 1997

re: Surrogate report for 5 samples for Gasoline, BTEX & MTBE

Method: EPA 8015M SW846 8020A Nov 1990

Lab Run#: 5264 Matrix: WATER

G1 - #	7 3.44. 7	7 . .		Recovery
Sample#	Client Sample ID	Surrogate	Recovered	
116723-1	MW-2	TRIFLUOROTOLUENE	114	65-13 5
116723-1	MW-2	4-BROMOFLUOROBENZENE	138	65-13 5
116724-1	MW-3	TRIFLUOROTOLUENE	111	65-13 5
116724-1	MW-3	4-BROMOFLUOROBENZENE	91.2	65-13 5
116725-1	MW - 4	TRIFLUOROTOLUENE	142	65-13 5
116725-1	MW-4	4-BROMOFLUOROBENZENE	204	65-13 5
116725-2	MW-4	TRIFLUOROTOLUENE	73.8	65-13 5
116725-2	MW - 4	4-BROMOFLUOROBENZENE	104	65-13 5
116726-1	MW-5	TRIFLUOROTOLUENE	118	65-13 5
116726-1	MW-5	4-BROMOFLUOROBENZENE	104	65-13 5
116727-1	MW - 6	TRIFLUOROTOLUENE	96.1	65-135
116727-1	MW-6	4-BROMOFLUOROBENZENE	82.9	65-1 35
			% I	Recovery
Sample#	QC Sample Type	Surrogate	Recovered	Limits
117329-1	Reagent blank (MDB)	TRIFLUOROTOLUENE	103	65-13 5
117329-1	Reagent blank (MDB)	4-BROMOFLUOROBENZENE	86.0	65-13 5
117330-1	Spiked blank (BSP)	TRIFLUOROTOLUENE	102	65 - 135
117330-1	Spiked blank (BSP)	4-BROMOFLUOROBENZENE	106	65-135
117331-1	Spiked blank duplicate	(BSD) TRIFLUOROTOLUENE	99.2	65-13 5
117331-1	Spiked blank duplicate	(BSD) 4-BROMOFLUOROBENZENE	107	65-135
117332-1	Matrix spike (MS)	TRIFLUOROTOLUENE	97.5	65-135
117332-1	Matrix spike (MS)	4-BROMOFLUOROBENZENE	102	65-135
117333-1	Matrix spike duplicate	(MSD) TRIFLUOROTOLUENE	98.6	65-135
117333-1	Matrix spike duplicate	(MSD) 4-BROMOFLUOROBENZENE	107	65-135
		· · ·		

V125 QCSURR1229 ALEXANDM 12-Feb-9 Aqua Science Engineers, Inc. 2411 Old Crow Canyon Road, #4, San Ramon, CA 94583 (510) 820-9391 - FAX (510) 837-4853

Chain of Custody

DATE 2-5-9) PAGE (OF 1 PROJECT NAME Dublin Rock and Ready Mix Focility NO. 307/ SAMPLERS (SIGNATURE) (PHONE NO.) Salt T. L 510.820-9291 6393 Scorlett Ct. Dublin, CA TPH- GASOLINE/BTEX/MIL PURGABLE HALOCARBONS (EPA 601/8010) PURGABLE AROMATICS (EPA 602/8020) VOLATILE ORGANICS (EPA 624/8240) SPECIAL INSTRUCTIONS: TPH- DI ESEL (EPA 3510/8015) BASE/NUETRALS, (EPA 625/8270) TCLP (EPA 1311/1310) 5-Day RÉACTI VITY CORROSI VI TY I GNI TABI LÍ TY NO. OF SAMPLE ID. DATE TIME MATRIX SAMPLES waden MW-2 2-5-97 14.35 SUBM #: 9702035 REP: MV MW-3 12:40 CLIENT: ASE DUE: 02/12/97 MW-Y 13:35 REF #:31922 MW-5 11:45 MW - 6 11,50 RELINQUISHED BY: RECEIVED BY: RECEIVED BY LABORATORY: COMMENTS: RELINQUISHED BY:) Mime Jak 1450
(time) (time) (signature) (time) (signature) (time) (signature) Mimre Pak 2/5/97
(printed name) (date) Scott T. Fernman 2-5-97 (printed name) (date) (date) (printed name) (printed name) Company- Chromalab Company- ASE, In. Company-Company-