



DEPARTMENT OF ENVIRONMENTAL HEALTH
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6777

REMEDIAL ACTION COMPLETION CERTIFICATION

StID 2127 - 7499 Dublin Blvd, Dublin, CA 94568

September 15, 1995

Mr. Jim Woulfe
Shamrock Ford
7499 Dublin Blvd
Dublin, CA 94568

Dear Mr. Woulfe:

This letter confirms the completion of site investigation and remedial action for the two former underground storage tanks (1-2K gasoline, 1-1K gallon waste oil tank) removed from the above site on June 23, 1993. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721(e) of the California Code of Regulations. Please contact Ms. Eva Chu at (510) 567-6700 if you have any questions regarding this matter.

Very truly yours,

Jun Makishima, Interim Director

cc: Chief, Division of Environmental Protection
Kevin Graves, RWQCB
Mike Harper, SWRCB (with attachment)
files (shamrock.7)

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: July 17, 1995

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: Eva Chu Title: Hazardous Materials Spec.

II. CASE INFORMATION

Site facility name: Shamrock Ford
Site facility address: 7499 Dublin Blvd, Dublin 94568
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 2127
URF filing date: 12/29/94 SWEEPS No: N/A

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
Shamrock Ford Attn. Jim Woulfe	7499 Dublin Blvd, Dublin	94568

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	2,000	Gasoline	Removed	6/23/93
2	1,000	Waste Oil	Removed	6/23/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Leaking waste oil tank
Site characterization complete? YES
Date approved by oversight agency: 11/17/94
Monitoring Wells installed? Yes Number: 3
Proper screened interval? Yes, 7-15' bgs
Highest GW depth below ground surface: 5.92' Lowest depth: 7.88'
Flow direction: NE
Most sensitive current use: None known
Are drinking water wells affected? No Aquifer name:
Is surface water affected? No Nearest affected SW name: NA
Off-site beneficial use impacts (addresses/locations): None

Report(s) on file? YES Where is report(s) filed? Alameda County
1131 Harbor Bay Pkwy
Alameda, CA 94502

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount (include units)</u>	<u>Action (Treatment or Disposal w/destination)</u>	<u>Date</u>
Tank	2 USTs	1K to Erickson, 2K to H & H	6/25/93
Piping			
Free Product	2,900 gal rinsate	PRC Patterson Inc	6/23/24/93
Soil	54 cy	Vasco Rd L.F., Livermore	7/14/93
Groundwater Barrels			

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	2.4	2.4	3,600	ND
TPH (Diesel)	ND ¹	ND	ND	ND
Benzene	.015	.015	67	ND
Toluene	.006	.006	40	ND
Ethylbenzene	.030	.030	170	ND
Xylenes	.094	.094	540	ND
Oil & Grease	ND ¹	77	2,200	ND
Heavy metals				
Cd Cr Pb Ni Zn	1.5, 51, 14,	37, 86 ¹	17, 460, 850,	1,200, 530
			4.4, 39, 4.7,	30, 26 (after)
Other				
TPH-MO	ND ¹		8,600	ND
VOCs (methylene chloride)	ND ¹		4.4 ²	ND

NOTE: 1 from waste oil pit (other results from gasoline pit)

2 other VOCs detected (see Table 3)

Comments (Depth of Remediation, etc.):

See Section VII, Additional Comments...

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? **YES**

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **YES**

Does corrective action protect public health for current land use? **YES**

Site management requirements: **None**

Should corrective action be reviewed if land use changes? **YES**

Monitoring wells Decommissioned: **None, pending site closure**

Number Decommissioned: **0** Number Retained: **3**

List enforcement actions taken: **None**

List enforcement actions rescinded: **NA**

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: *Eva Chu* Date: 7/18/95

Reviewed by

Name: Madhulla Logan Title: Haz Mat Specialist

Signature: *Madhulla Logan* Date: 7/17/95

Name: Jennifer Eberle Title: Haz Mat Specialist

Signature: *J Eberle* Date: 7-19-95

VI. RWQCB NOTIFICATION

Date Submitted to RB: 7/20/95

RB Response: *Approved*

RWQCB Staff Name: Kevin Graves

Title: AWRCE

Signature: *K Graves*

Date: 7/20/95

VII. ADDITIONAL COMMENTS, DATA, ETC.

Two USTs (1K waste oil, 2K gasoline) were removed on June 23, 1993. (see Fig. 1) The waste oil tank had holes up to 1" in diameter throughout the bottom of the tank. Because groundwater was in the pit at a depth of 7', sidewall samples were collected from the capillary fringe. Groundwater samples were collected after purging the pit. Laboratory analysis of soil sampled did not exhibit TPH-G, TPH-D, BTEX, TPH-MO, TOG, or VOCs above the detection limits. (see Table 1) Higher concentrations of contaminants were detected in the stockpiled soil: up to 460 ppm TPH-G and TRPH, and 0.64 ppm benzene. (see Table 2) However, laboratory analysis of groundwater grab samples detected up to 3,600 ppb TPH-G, 8,600 ppb TPH-MO, 2,200 ppb TOG, 67 ppb benzene, and low levels of TEX (up to 540 ppb). (see Table 3) Metals were detected in the groundwater sample as 17, 460, 850, 1,200 and 530 ppb Cd, Cr, Pb, Ni, and Zn, respectively. 54 cy of contaminated soil was disposed at Vasco Rd L.F.

On December 17, 1993 three monitoring wells were installed southeast and southwest of the former tank pits. (see Fig. 2) Soil from these borings did not detect petroleum hydrocarbon constituents except for 77 ppm O & G in A3, at 8.5' depth. (see Table 4) Groundwater has been sampled for four consecutive quarters, from Dec 1993 - Sep 1994, without detecting TPH-G, D, MO, O&G, BTEX or VOCs. (see Table 5) Cr and Ni levels have exceeded MCLs in Dec 1993 (190 ppb Cr and 150 ppb Ni) and March 1994 (78ppb Cr), and below MCLs in June 1994. Because all wells are up or cross gradient, metal concentrations in groundwater may be background levels.

Groundwater flows toward the northeast. Although there are no wells downgradient, the nearest well is within 10' of the waste oil pit. The gradient is relatively flat (.002 - .004 ft/ft) and any significant contaminants sought in groundwater would have been detected in well A-1. Continued monitoring is not warranted.

TABLE 1
LABORATORY ANALYSES OF TANK PIT SOIL SAMPLES
 Shamrock Ford
 Dublin, California

TANK PIT/ SAMPLE NO.	SAMPLE DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)	TPH-D (PPM)	TPH-MO (PPM)	O&G (PPM)	VOCs (PPM)	METALS (PPM)
Waste-oil Tank Pit											
S-7-T1-1	23-Jun-93	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	Cadmium - 1.6 Chromium - 49 Lead - 13 Nickel - 34 Zinc - 86
S-7-T1-2	23-Jun-93	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	Cadmium - 1.3 Chromium - 51 Lead - 14 Nickel - 37 Zinc - 56
Gasoline Tank Pit											
S-7-T2-1	23-Jun-93	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	NA	NA	NA	NA	Lead - 12
S-7-T2-2	23-Jun-93	2.4	0.015	0.0060	0.030	0.094	NA	NA	NA	NA	Lead - <10

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.
 TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.
 TPH-MO = Total Petroleum Hydrocarbons calculated as Motor Oil.
 O&G = Oil and Grease
 VOCs = Volatile Organic Compounds
 PPM = Parts per Million
 ND = Not detected
 * = 35 compounds tested
 NA = Not analyzed

Notes: 1. All data shown as < x are reported as ND (none detected).

LABORATORY ANALYSES OF STOCKPILE SOIL SAMPLES
Shamrock Ford
Dublin, California

SAMPLE NO.	SAMPLE DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)	TRPH (PPM)	VOCs (PPM)	SVOCs (PPM)	RCI	METALS (PPM)
SP-1A,B,C,D	23-Jun-93	1.1	<0.0050	<0.0050	0.012	0.076	460	ND*	ND**	Reactive Cyanide - <1.0 ppm; Reactive Sulfide - <10 ppm; pH - 8.8; Flashpoint - >140F	Antimony - <0.030 Arsenic - 0.28 Barium - 6.2 Beryllium - 0.0045 Cadmium - 0.016 Chromium - 0.066 Cobalt - 0.21 Copper - 0.16 Lead - 0.17(0.19***) Mercury - <0.0050 Molybdenum - <0.010 Nickel - 0.44 Selenium - 0.025 Silver - <0.0050 Thallium - <0.010 Vanadium - 0.36 Zinc - 1.0
SP-2A,B,C,D	23-Jun-93	460	0.64	<0.50	2.4	22	NA	NA	NA	Reactive Cyanide - <1.0 ppm; Reactive Sulfide - <10 ppm; pH - 8.7; Flashpoint - >140F	Lead - 0.064***
SP-2A,B,C,D	09-Jul-93	0.78	<0.0003	<0.0003	<0.0003	0.0014	NA	NA	NA	NA	NA

- TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.
 TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.
 TRPH = Total Recoverable Petroleum Hydrocarbons
 VOCs = Volatile Organic Compounds
 SVOCs = Semi Volatile Organic Compounds
 RCI = Reactivity, Corrosivity, Ignitability
 PPM = Parts per Million
 * = All 35 compounds tested were nondetectable except P,M-Xylene (0.011 ppm) and O-Xylene (0.010 ppm).
 ** = All 56 compounds tested were nondetectable.
 *** = Analyzed by "Waste Extraction Test for Lead"

Notes: 1. All data shown as <x are reported as ND (none detected).

TABLE 3
LABORATORY ANALYSES OF WATER SAMPLES FROM TANK PITS
Shamrock Ford
Dublin, California

TANK PIT/ SAMPLE NO.	SAMPLE DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	TPH-D (PPB)	TPH-MO (PPB)	O&G (PPB)	VOCs (PPB)	METALS (PPB)
Waste-oil Tank Pit											
W-7-T1	29-Jun-93	150	3.4	6.5	2.2	11	<100*	8600	2200	ND** except: Methylene Chloride - 4.4; Acetone - 34; Benzene - 2.6; Toluene 6.1; P,M-Xylene - 5.6; O-Xylene - 3.2	Cadmium - 17 Chromium - 460 Lead - 850 Nickel - 1200 Zinc - 530
Gasoline Tank Pit											
W-7-T2	24-Jun-93	3600	67	40	170	540	NA	NA	NA	NA	Lead - 16

Current Regional Water Quality Control Board Maximum Contaminant Levels:
 Benzene 1.0 ppb, Xylenes 1750 ppb, Ethylbenzene 680 ppb

Current DHS Action Levels: Toluene 100 ppb

- TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.
- TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.
- TPH-MO = Total Petroleum Hydrocarbons calculated as Motor Oil.
- O&G = Oil and Grease
- VOCs = Volatile Organic Compounds
- PPB = Parts per Billion
- ND = Not detected
- NA = Not analyzed
- * = Reporting limit increased due to oil interference.
- ** = 35 compounds tested.

Notes: 1. All data shown as < x are reported as ND (none detected).

LABORATORY ANALYSES OF BORING SOIL SAMPLES

Shamrock Ford

Dublin, California

December 17, 1993

Table 4

SAMPLE NO.	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)	TPH-D (PPM)	TPH-MO (PPM)	O&G (PPM)	VOCs (PPM)	METALS (PPM)				
										Cd	Cr	Pb	Zn	Ni
A1-5.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.3	39	<10	50	34
A1-7.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.5	48	<10	61	40
A1-16	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.3	43	<10	52	33
A2-5.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.7	40	<10	49	35
A2-8.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.6	48	<10	57	35
A2-17.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.7	41	<10	52	36
A3-5.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.9	41	<10	51	51
A3-8.5	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	77**	ND*	1.6	48	<10	58	38
A3-16	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<10	<10	<50	ND*	1.8	48	<10	56	42
Stockpile Sample S-1217-SPABCD	<0.50	<0.0003	<0.0003	<0.0003	<0.0005	NA	NA	490***	ND*	1.6	45 {0.1 }	8.0	44	54

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.
 TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.
 TPH-MO = Total Petroleum Hydrocarbons calculated as Motor Oil.
 O&G = Oil and Grease
 VOCs = Volatile Organic Compounds.
 PPM = Parts per Million
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead
 Zn = Zinc
 Ni = Nickel

Sample Identification:

A1-16.5



ND = Not detected
 * = 38 compounds tested
 ** = Sample extracts yielded a white non-petroleum residue.
 *** = Total Recoverable Petroleum Hydrocarbons analyzed by EPA Method 418.1
 {} = STLC Metals results

Notes: 1. All data shown as <x are reported as ND (none detected).
 2. Stockpile sample S-1217-SPABCD was analyzed also for: antimony (<3.2 ppm), arsenic (6.8 ppm, {0.16 ppm}), barium (130 ppm), beryllium (0.90 ppm), cobalt (11 ppm, {0.0068 ppm}), copper (26 ppm), mercury (<0.50 ppm, [<0.0050 ppm]), molybdenum (<0.80 ppm), selenium (<4.0), silver (0.90 ppm), thallium (<1.0) and vanadium (41 ppm).

TABLE X5
LABORATORY ANALYSES OF GROUNDWATER SAMPLES
 Shamrock Ford
 Dublin, California

SAMPLE DATE	SAMPLE POINT	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	TPH-D (PPB)	TPH-MO (PPB)	O&G (PPB)	VOCs (PPB)	METALS (PPB)				
											Cd	Cr	Pb	Zn	Ni
23-Dec-93	A-1	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	5.2	54	4.0	42	41
23-Mar-94	A-1	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	5.8	33	18	22	12
24-Jun-94	A-1	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	NA	4.4	25	<3	<10	23
30-Sep-94	A-1	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	NA	NA	NA	NA	NA	NA
23-Dec-93	A-2	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	13	190	15	210	150
23-Mar-94	A-2	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	8.3	73	5.3	46	56
24-Jun-94	A-2	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	NA	<4	30	<3	13	30
30-Sep-94	A-2	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	NA	NA	NA	NA	NA	NA
23-Dec-93	A-3	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	5.5	51	3.5	39	32
23-Mar-94	A-3	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	ND*	7.6	78	6.5	45	71
24-Jun-94	A-3	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	NA	<4	39	4.7	26	22
30-Sep-94	A-3	<50	<0.30	<0.30	<0.30	<0.50	<50	<100	<1000	NA	NA	NA	NA	NA	NA

Current Regional Water Quality Control Board Maximum Contaminant Levels:
 Benzene 1.0 ppb, Xylenes 1750 ppb, Ethylbenzene 680 ppb, Cadmium 10 ppb, Chromium 50 ppb, Lead 50 ppb, Nickel 100 ppb, Zinc 5,000 ppb.
 Current Cal EPA Action Levels: Toluene 100 ppb

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline.
 TPH-D = Total Petroleum Hydrocarbons calculated as Diesel.
 TPH-MO = Total Petroleum Hydrocarbons calculated as Motor Oil.
 O&G = Oil and Grease
 VOCs = Volatile Organic Compounds.
 PPB = Parts per Billion
 Cd = Cadmium
 Cr = Chromium
 Pb = Lead
 Zn = Zinc
 Ni = Nickel
 ND = Not detected
 * = 38 compounds tested
 NA = Not analyzed

Notes: 1. All data shown as <x are reported as ND (none detected).



GeoStrategies, Inc.
6747 Sierra Court - Suite G Dublin, Ca. 95468

Log of Boring A-1

PROJECT: Shamrock Ford	LOCATION: 7499 Dublin Boulevard, Dublin, Ca.
PROJECT NO.: 6130.01	SURFACE ELEVATION: 332.88 ft. MSL
DATE STARTED: 12/17/93	WL (ft. bgs): 9.5 DATE: 12/17/93 TIME: 12:00
DATE FINISHED: 12/17/93	WL (ft. bgs): 7.0 DATE: 12/17/93 TIME: 12:30
DORILLING METHOD: 8 in. Hollow Stem Auger	TOTAL DEPTH: 16.5 Feet
DORILLING COMPANY: Exploration GeoServices	GEOLOGIST: BS

DEPTH (feet)	SAMPLE NUMBER	BLOWS/FT. *	PID (ppm)	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
						PV	PAVEMENT SECTION - 3" baserock, 3" asphalt	
						CL	SILTY CLAY (CL) - black (5Y 2.5/2), damp, stiff, medium plasticity; 95 % fines, 5% fine grained sand.	
5	AI-5.5	22	0			CL	SANDY CLAY (CL) - olive (5Y 4/4), damp, very stiff, medium plasticity; 80% fines, 20% sand.	
7.5	AI-7.5	34	0			ML	CLAYEY SILT WITH SAND (ML) - very dark gray (5Y 3/1), damp, hard, low plasticity; 70% fines, 30% sand; sand comprised mainly of subangular evaporite grains; with root holes; becoming moist at 7'.	
10.5	AI-10.5	38	0			CL SC	SANDY CLAY WITH CLAYEY SAND LENSES (CL/SC) - dark gray (5Y 3/1) mottled dark brown (10YR 3/3), saturated; 80% fines, 40% fine to coarse grained sand; sand comprised mainly of subangular evaporite grains.	
16.5	AI-16	26	0			CL	SANDY CLAY (CL) - olive (5Y 4/4), damp, very stiff, medium plasticity; 80% fines, 20% sand.	
							Bottom of boring at 16.5 feet. 12/17/93	
							(* = converted to equivalent standard penetration blows/ft.)	



GeoStrategies, Inc.
8747 Sierra Court - Suite 6 Dublin, Ca. 95468

Log of Boring A-2

PROJECT: <i>Shamrock Ford</i>	LOCATION: <i>7499 Dublin Boulevard, Dublin, Ca.</i>
GSI PROJECT NO.: <i>6130.01</i>	SURFACE ELEVATION: <i>334.16 ft. MSL</i>
DATE STARTED: <i>12/17/93</i>	WL (ft. bgs): <i>9</i> DATE: <i>12/17/93</i> TIME: <i>8:30</i>
DATE FINISHED: <i>12/17/93</i>	WL (ft. bgs): <i>7.50</i> DATE: <i>12/17/93</i> TIME: <i>9:30</i>
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>	TOTAL DEPTH: <i>18 Feet</i>
DRILLING COMPANY: <i>Exploration GeoServices</i>	GEOLOGIST: <i>BS</i>

DEPTH feet	SAMPLE NUMBER	BLOWS/FT. *	PID (ppm)	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
						PV	PAVEMENT SECTION - 3" baserock, 3" asphalt	
5	A2-5.5	19	0			CL	SILTY CLAY (CL) - black (5Y 2.5/2), damp, stiff, medium plasticity; 95% fines, 5% fine grained sand.	
	A2-7	19	0			CL	SANDY CLAY (CL) - olive (5Y 4/4), damp, very stiff, low to medium plasticity, 70% fines, 30% sand.	
	A2-8.5	29	0			CL	↓ Becoming moist; increasing sand.	
10						CL/SC	SANDY CLAY WITH CLAYEY SAND LENSES (CL/SC) - olive gray (5Y 4/2) with white mottling, saturated; 50% fines, 50% fine to coarse grained sand; sand consists mainly of subangular evaporite grains.	
15	A2-15	31	0			CL	SANDY CLAY (CL) - olive gray (5Y 4/2), moist, very stiff, low plasticity; 85% fines, 15% sand.	
	A2-17.5	30	0			CL	Becoming damp.	
20							Bottom of boring at 18 feet. 12/17/93	
							(* = converted to equivalent standard penetration blows/ft.)	



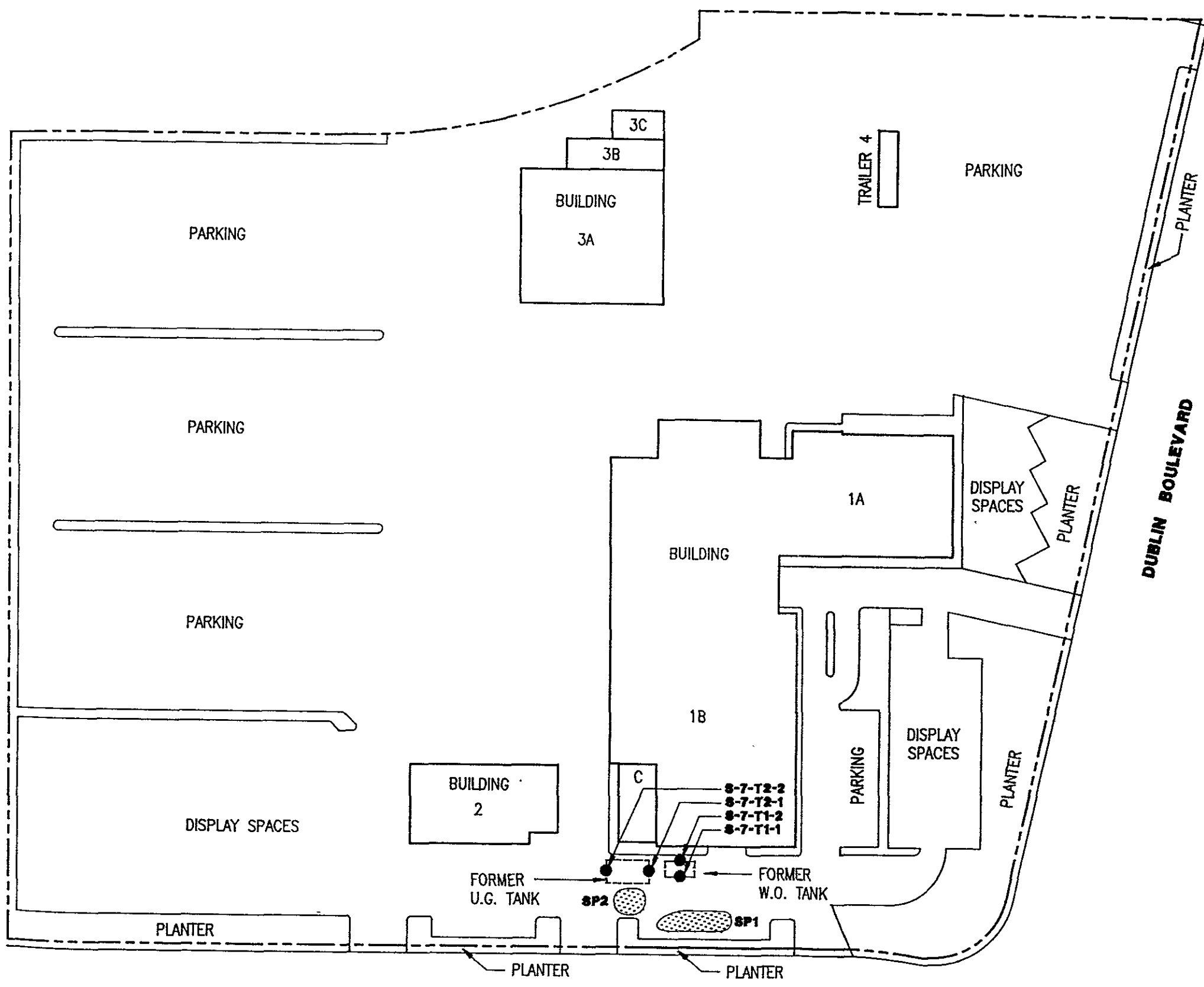
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8747 Sierra Court - Suite 6 Dublin, Ca. 95468

Log of Boring A-3

PROJECT: <i>Shamrock Ford</i>	LOCATION: <i>7499 Dublin Boulevard, Dublin, Ca.</i>
GSI PROJECT NO.: <i>6130.01</i>	SURFACE ELEVATION: <i>334.18 ft. MSL</i>
DATE STARTED: <i>12/17/93</i>	WL (ft. bgs): <i>9.5</i> DATE: <i>12/17/93</i> TIME: <i>10:30</i>
DATE FINISHED: <i>12/17/93</i>	WL (ft. bgs): <i>7.50</i> DATE: <i>12/17/93</i> TIME: <i>11:45</i>
DRILLING METHOD: <i>8 in. Hollow Stem Auger</i>	TOTAL DEPTH: <i>16.5 Feet</i>
DRILLING COMPANY: <i>Exploration GeoServices</i>	GEOLOGIST: <i>BS</i>

DEPTH feet	SAMPLE NUMBER	BLOWS/FT. *	PID (ppm)	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION	WELL DIAGRAM
						PV	PAVEMENT SECTION - 3" baserock, 3" asphalt	
						CL	SILTY CLAY (CL) - black (5Y 2.5/2), damp, stiff, medium plasticity; 95 % fines, 5% fine sand.	
5	A3-5.5	25	0			CL	SANDY CLAY (CL) - olive gray (5Y 4/2), damp, very stiff, medium plasticity, 80% fines, 20% sand.	
							▼	
	A3-8.5	18	0				▼	
10	A3-10	15	0				▽ Becoming moist; increasing sand	
						CL SC	SANDY CLAY WITH CLAYEY SAND LENSES (CL/SC) - olive gray (5Y 4/2) with white mottling, saturated; 50% fines, 50% fine to coarse grained sand; sand consists mainly of subangular evaporite grains.	
	A3-13.5	28	0				Decreasing sand; becoming moist.	
15	A3-16	28	0			CL	SANDY CLAY (CL) - very dark grayish brown (2.5Y 4/4) damp, very stiff, low plasticity; 80% fines, 20 % sand.	
							Bottom of boring at 16.5 feet. 12/17/93	
20							(* = converted to equivalent standard penetration blows/ft.)	
25								
30								
35								



EXPLANATION

- Soil Sample
- ▨ Soil Stockpile

Base Map: Modified from plan supplied by Shamrock Ford

AMADOR PLAZA ROAD

DUBLIN BOULEVARD

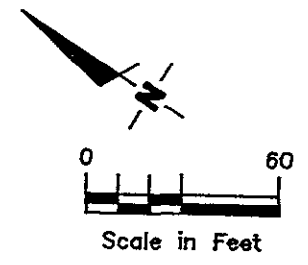


PLATE **12**

REVIEWED BY *RS*

DATE 8/93

REVISED DATE

GeoStrategies Inc.

SITE PLAN
SHAMROCK FORD
 7499 Dublin Boulevard
 Dublin, California

GSI

JOB NUMBER 610001-01