GeoStrategies

Vee 10/13/95

ENVIRONMENTAL PROTECTION
95 OCT -6 PM 2:46

Ms. Eva Chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, #250
Alameda, California 94502-6577

October 5, 1995

Subject: Well Abandonment at Shamrock Ford Site, 7499 Dublin Boulevard, Dublin, California.

Ms. Chu

This letter is written to notify you that wells A-1 through A-3 at the above referenced site were abandoned on September 1, 1995. A report documenting well abandonment activities is enclosed for your review. A copy of this report has been forwarded to Mr. Craig Caldwell of Shamrock Ford. Please issue a closure letter for the subject site.

If you have any questions, please call us at (510) 551-8777.

Sincerely,

GeoStrategies

Barbara Sieminski

Barbara Sieminski
Project Geologist

6747 Sierra Court, Suite G • Dublin, CA 94568 • (510) 551-8777 • Fax (510) 551-7888

GeoStrategies

LETTER REPORT
WELL ABANDONMENT
at
Shamrock Ford
7499 Dublin Boulevard
Dublin, California

813001-7

Prepared for

Shamrock Ford
7499 Dublin Boulevard
Dublin, California 94568

Prepared by

GeoStrategies
6747 Sierra Court, Suite G
Dublin, California 94568

Barbara Sieminski
Project Geologist

Stephen J. Carter
Senior Project Geologist
R.G. #5577

REGISTERED GEOLOGIST
STEPHEN J. CARTER
No. 5577
STATE OF CALIFORNIA

September 27, 1995

September 27, 1995

Mr. Craig Caldwell
Shamrock Ford
7499 Dublin Boulevard
Dublin, California 94568

Subject: Well Abandonment at Shamrock Ford Site, 7499 Dublin Boulevard, Dublin, California.

Mr. Caldwell:

As requested by Shamrock Ford, GeoStrategies (GSI) has prepared this letter report documenting field activities performed during abandonment of groundwater monitoring wells A-1 through A-3 at the above referenced site. Mrs. Eva Chu of the Alameda County Health Care Services Agency (ACHCSA) requested decommissioning of these wells in her letter dated August 14, 1995, because the environmental investigation at the subject site was completed and the wells would no longer be monitored. Field work was performed to comply with current State of California Water Resources Control Board (SCWRCB) and Alameda County Flood Control and Water Conservation District, Zone 7 (ACFCWCD) guidelines.

SITE BACKGROUND

The subject site is located at the intersections of Dublin Boulevard and Amador Plaza Road in Dublin, California, as shown on the Vicinity Map, Figure 1. In June 1993, Gettler-Ryan Inc. (G-R) removed one 1000-gallon waste-oil underground storage tank (UST) and one 2000-gallon gasoline UST from the site. The location of the former USTs are shown on the Site Plan, Figure 2.

The laboratory analytical results of soil samples collected from the tank pits indicated that the soil in the vicinity of the UST pits had not been impacted by waste-oil related hydrocarbons, but had been slightly impacted by gasoline related hydrocarbons. Laboratory analytical results of groundwater "grab" samples collected from the tank pits indicated that groundwater in the vicinity of the UST pits have been impacted by gasoline and waste-oil related hydrocarbons. The results of the environmental investigation related to UST removal were described in GSI Report No. 610001-01 *Underground Tank Removal Report*, dated August 16, 1993.

In December 1993, three groundwater monitoring wells (A-1 through A-3) were installed at the site by GSI to evaluate the extent of petroleum hydrocarbons in soil and groundwater in the vicinity of the former USTs, and to evaluate the gradient of the shallow groundwater beneath the site. The locations of the groundwater monitoring wells are shown on Figure 2 and boring logs are included in Appendix A. Laboratory analytical results of the soil and groundwater samples collected during this investigation indicated that the soils and groundwater in the vicinity of the former USTs have not been impacted by waste-oil or gasoline hydrocarbons. Concentrations of metals in soil and groundwater beneath the site appeared to be within the natural background levels. The results of this subsurface investigation were described in GSI Report No. 613001-3 *Initial Subsurface Investigation*, dated January 26, 1994.

Quarterly groundwater monitoring and sampling of the site wells began in December 1993. All wells contained nondetectable levels of gasoline and waste-oil related hydrocarbons for four consecutive quarters. Concentrations of metals cadmium, chromium, lead nickel and zinc were within natural background levels. The results of quarterly groundwater monitoring and sampling performed during the first, second and third quarter of 1994, are summarized in GSI Report No. 613001-6 *Quarterly Groundwater Monitoring* dated October 24, 1994.

A request to assign closure status to the subject site was submitted by GSI to the ACHCSA and the Regional Water Quality Control Board San Francisco Bay Region (RWQCB) on October 24, 1994. In the letter dated August 14, 1995, the ACHCSA and RWQCB concurred that no further action related to the underground tank release is required at the subject site

and requested decommissioning of wells A-1 through A-3 as they would no longer be monitored.

WELL ABANDONMENT ACTIVITIES

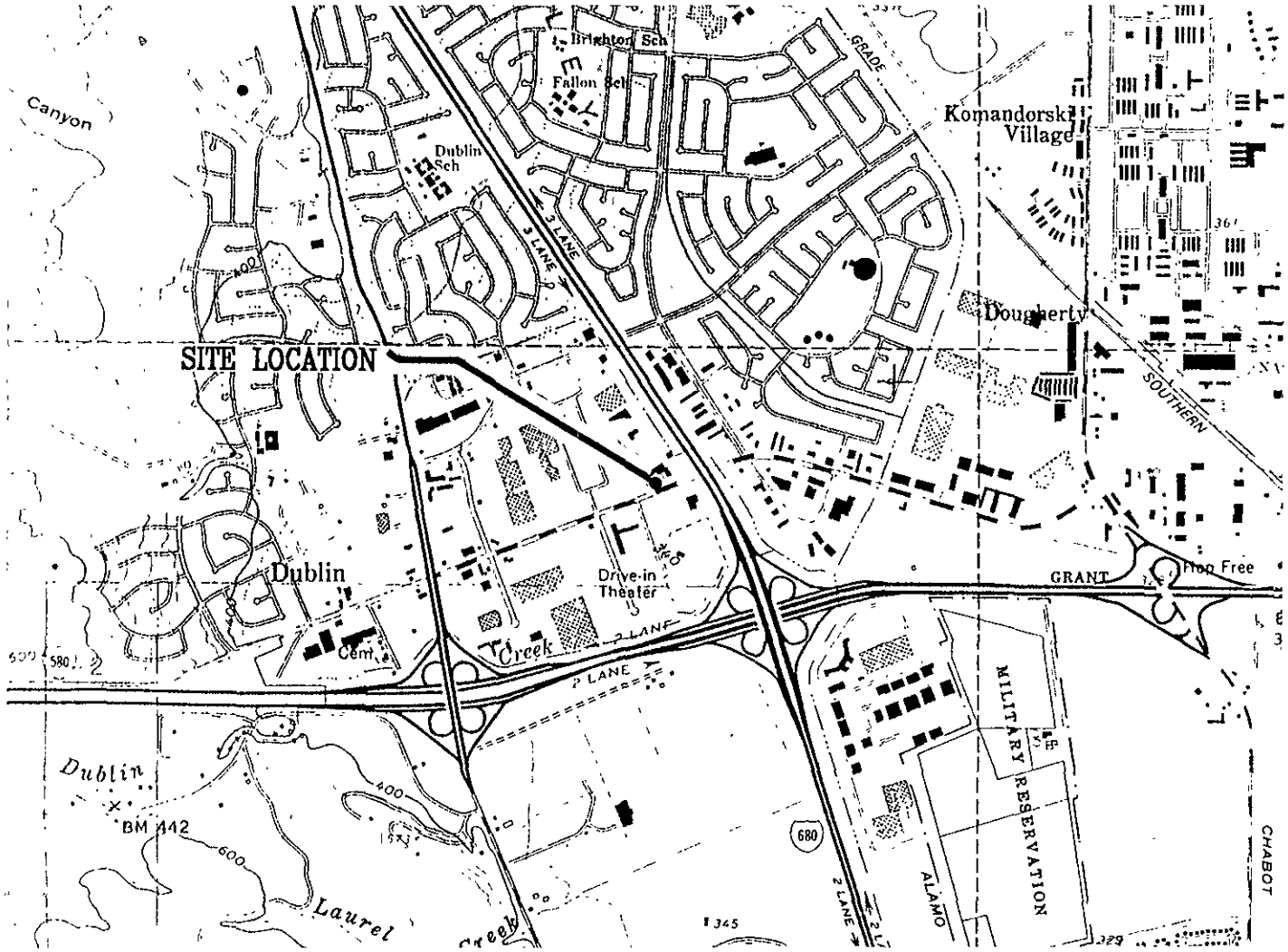
A well destruction permit (#95535) was acquired from the ACFCWCD prior to performing well abandonment at the site. A copy of the permit is attached in Appendix B. Groundwater monitoring wells A-1 through A-3 were abandoned by pressure grouting on September 1, 1995, in accordance with ACFCWCD requirements. The well abandonment work was performed by Exploration Geoservices, Inc. of San Jose, California (Drilling Contractor Lic. C-57 484288). A GSI geologist supervised the well abandonment activities. Prior to pressure grouting, the GSI geologist checked total depths of wells A-1 through A-3 to assure that there was no bridged material inside well casings. Then, the well casings were pressure grouted with neat cement (type I/II portland cement mixed with water in a ratio of 4 gallons of water per 47 pounds of cement) to approximately 2 feet below ground surface. The well boxes and the upper portions of the well casings and seals were removed. The remaining holes (approximately 2 feet deep) were backfilled with concrete and 4 inches asphalt on top.

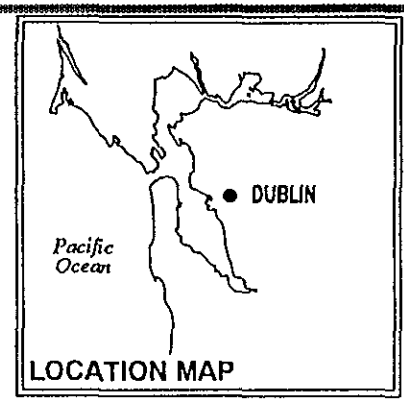
If you have any questions regarding this report, please call us at (510) 551-8777.

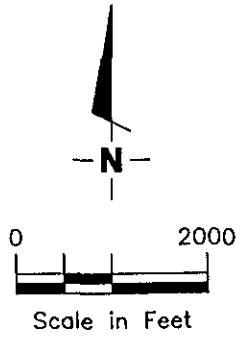
Figure 1. Vicinity Map
Figure 2. Site Plan

Appendix A: Boring Logs and Well Construction Details
Appendix B: Well Destruction Permit

FIGURES







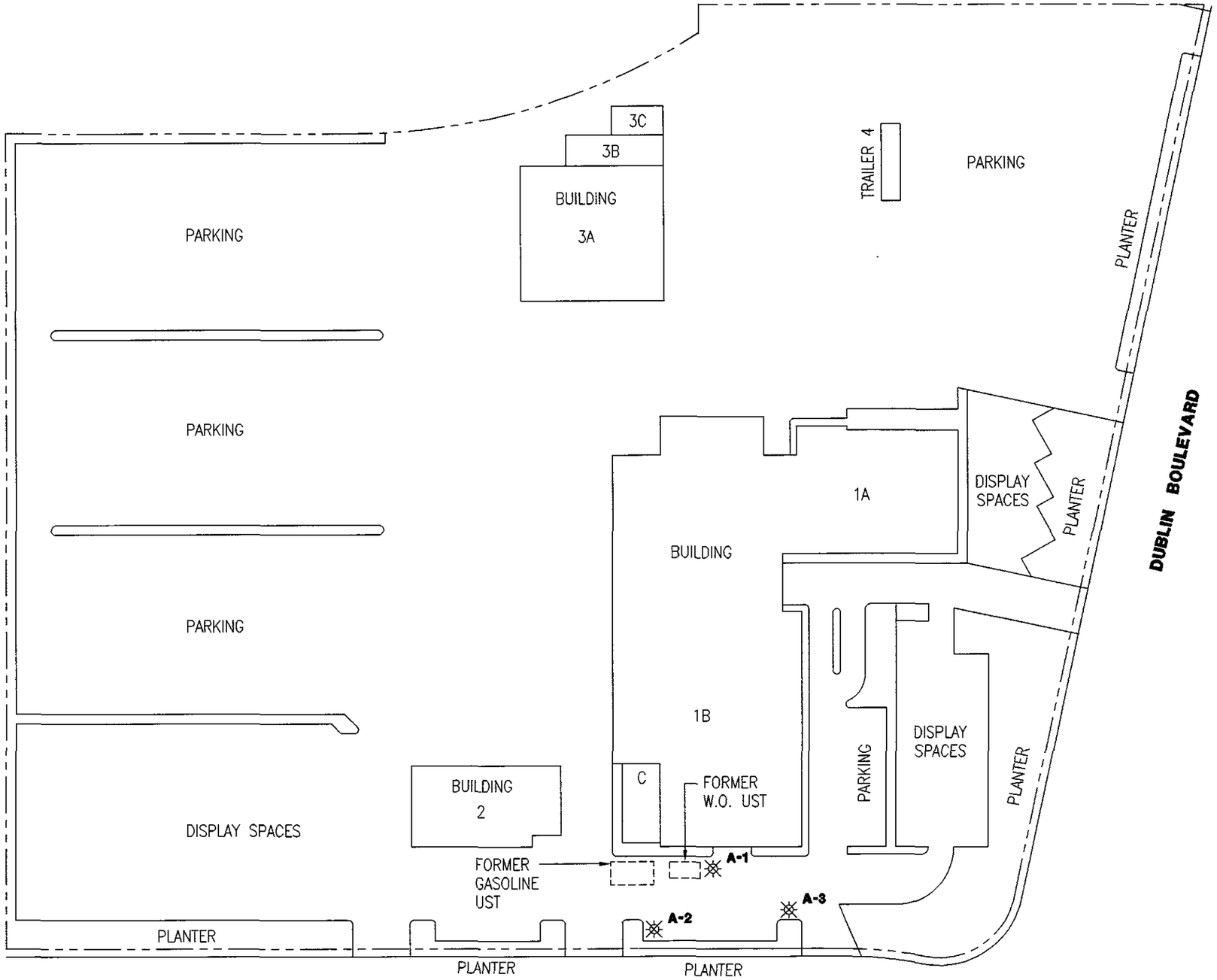
Base Map: USGS Topographic Map

GeoStrategies

VICINITY MAP
SHAMROCK FORD
7499 Dublin Boulevard
Dublin, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
8130		9/95	



Base Map: Modified from plan supplied by Shamrock Ford

FIGURE 2

SITE PLAN
SHAMROCK FORD
7499 Dublin Boulevard
Dublin, California

REVISED DATE

DATE 9/95

GeoStrategies

REVIEWED BY

JOB NUMBER 8130.01

APPENDIX A

BORING LOGS AND WELL CONSTRUCTION DETAILS

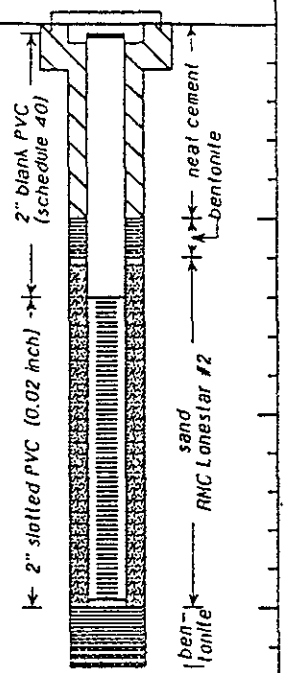
GeoStrategies, Inc.
6747 Sierra Court - Suite G Dublin, Ca. 95468

Log of Boring A-1

PROJECT: *Shamrock Ford*	LOCATION: *7499 Dublin Boulevard, Dublin, Ca.*
GSI 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*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *16.5 Feet*
DRILLING COMPANY: *Exploration GeoServices*	GEOLOGIST: *BS*

DEPTH (feet)	SAMPLE NUMBER	BLOWS/FT. *	PID (ppm)	SOIL CLASS	GEOLOGIC DESCRIPTION
0				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.
				CL	SANDY CLAY (CL) - olive (5Y 4/4), damp, very stiff, medium plasticity; 80% fines, 20% sand.
5	A1-5.5	22	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'.
	A1-7.5	34	0		
10	A1-10.5	38	0	CL SC	SANDY CLAY WITH CLAYEY SAND LENSES (CL/SC) - dark gray (5Y 3/1) mottled dark brown (10YR 3/3), saturated; 60% fines, 40% fine to coarse grained sand; sand comprised mainly of subangular evaporite grains.
15	A1-16	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
20					(* = converted to equivalent standard penetration blows/ft.)
25					
30					
35					

WELL DIAGRAM



JOB NUMBER: *6130.01*

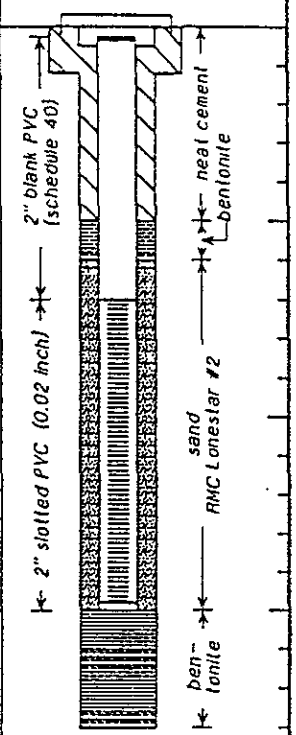
GeoStrategies, Inc.
6747 Sierra Court - Suite G Dublin, Ca. 95468

Log of Boring A-2

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

DEPTH feet	SAMPLE NUMBER	BLOWS/FT. *	PID (ppm)	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						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	A2-5.5	19	0			CL	SANDY CLAY (CL) - olive (5Y 4/4, damp, very stiff, low to medium plasticity, 70% fines, 30% sand.
	A2-7	19	0				
	A2-8.5	29	0				Becoming moist; increasing sand.
10						CL/SC	SANDY CLAY WITH CLAYEY SAND LENSES (CL/SC) - olive gray (5Y 4/2) with white motling, 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				Becoming damp.
20							Bottom of boring at 18 feet. 12/17/93
25							(* = converted to equivalent standard penetration blows/ft.)
30							
35							

WELL DIAGRAM



JOB NUMBER: *6130.01*

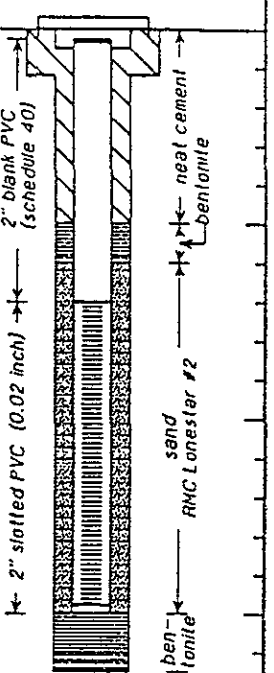
GeoStrategies, Inc.
6747 Sierra Court - Suite G Dublin, Ca 95468

Log of Boring A-3

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

DEPTH feet	SAMPLE NUMBER	BLOWS/FT. *	PID (ppm)	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						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.
						CL	SANDY CLAY (CL) - olive gray (5Y 4/2), damp, very stiff, medium plasticity, 80% fines, 20% sand.
5	A3-5.5	25	0				
	A3-8.5	18	0				
	A3-10	15	0				▽ 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.
	A3-13.5	26	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							

WELL DIAGRAM



APPENDIX B

WELL DESTRUCTION PERMIT

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Shamrock Ford
7499 Dublin Blvd, Dublin, CA

CLIENT
Name Shamrock Ford / Craig Caldwell
Address 7499 Dublin Blvd. Voice (510) 829-5211
City Dublin Zip 94568

APPLICANT
Name GeoStrategies / Barbara Sieminski
Fax (510) 551-7888
Address 6747 Sierra Ct, Suite G Voice (510) 551-8777
City Dublin Zip 94568

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	___	Well Destruction by pressure grouting	V

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other ___

DRILLER'S LICENSE NO. ___

WELL PROJECTS (Destruction)
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 15 ft.
Surface Seal Depth 5 ft. Number 3

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

ESTIMATED STARTING DATE 08/30/95
ESTIMATED COMPLETION DATE 08/30/95

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Barbara Sieminski Date 08/16/95

FOR OFFICE USE

PERMIT NUMBER 95535
LOCATION NUMBER 3S/1W 1F10 to 1F12

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(E.) WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 25 Aug 95
Wyman Hong

91992