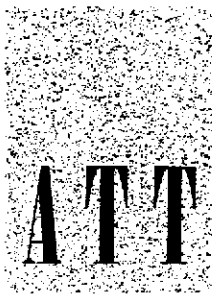


September 9, 1992

1287

Mr. William C. Collett, Treasurer
Dreyer's Grand Ice Cream, Inc.
5929 College Avenue
Oakland, CA 94618

Subject: **Quarterly Groundwater Table Measurements to Supplement June 21, 1992 Workplan for a Groundwater Remedial Investigation and Remediation for the Property at 5929 College Avenue, Oakland, CA 94618 (Project No. 929313)**

Dear Mr. Collett:

Aqua Terra Technologies
Consulting Engineers
& Scientists

2950 Buskirk Avenue
Suite 120
Walnut Creek, CA
94596-2079
FAX 934-0418
510 934-4884

On June 21, 1992, Aqua Terra Technologies, Inc. (ATT) developed a workplan for a shallow, unconfined groundwater remedial investigation with subsequent groundwater remediation for the property at 5929 College Avenue in Oakland, California. This workplan was submitted in accordance with the *State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Manual* (October 18, 1989 revisions), the *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites* (10 August 1990) and the Alameda County Environmental Health Care Services Agency (ACHCSA) requirements of March 27, 1992 (Attachment A). Ms. Jennifer Eberle of the ACHCSA requested additional information on the current groundwater table measurements that ATT has collected for the period May to July, 1992.

Groundwater Table Measurements and Groundwater Table Flow Direction and Gradient: May to July 1992

Previous Groundwater Table Measurements

On August 26, 1991, depth to groundwater ranged from approximately 13 to 16 feet B.G.; the shallow, unconfined groundwater flow was toward the south-southwest with a gradient of approximately 0.005 feet/foot (ft/ft) directed toward the southwest. On December 4, 1991, groundwater flow was towards the west, as determined by recorded groundwater table depths measured from groundwater monitoring wells MW1, MW2, and MW3. The soil and groundwater investigation was completely summarized in ATT's February 19, 1992 report (ATT, 1992).

ATT

LETTER OF TRANSMITTAL

Date: September 29, 1992

To: Ms. Jennifer Eberle
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Rm. 200
Oakland, CA 94621

Aqua Terra Technologies
Consulting Engineers
& Scientists

From: Terrance Carter TC
Senior Engineer/Project Manager

2950 Buskirk Avenue
Suite 120
Walnut Creek, CA
94596-2079
FAX 934-0418
510 934-4884

Subject: **Dreyers Report**

Transmitted herewith is a copy of the report per your request.

919313/DK1/JE093092.TRN

Current Groundwater Table Measurements

Groundwater table elevations ranged from approximately 10.3 feet B.G. to 13.7 feet B.G. for the period of May through July 1992. Groundwater flow ranged from the south to the southeast; gradients ranged from 0.008 ft/ft to 0.010 ft/ft (Plates 1 through 3, Attachment B).

AUGMENTED PROPOSED SCOPE OF WORK

Methods For Determining The Extent of Groundwater Contamination

HydroPunch™ and Monitoring Well Locations

Prior to HydroPunch™ and hollow-stem auger drilling, locations will be cleared for underground utilities. A private locating service will be used for the subject property. Offsite public utilities will be cleared by Underground Service Alert (USA) at least 48 hours before any subsurface investigation.

HydroPunch™ probes will be used to define the lateral limits of the hydrocarbon contamination (extent of the plume) (Plate 4, Attachment B). Samples of groundwater will be collected under proper protocol and submitted under proper chain-of-custody to a DHS accredited laboratory.

HydroPunch™ Installation

ATT proposes to install up to ten HydroPunch™ I samplers. HydroPunch™ probes will be used to sample the groundwater table for hydrocarbon contamination; sample results will determine the lateral extent of the hydrocarbon plume.

Drilling Procedures and Monitoring Well Construction/Development

A California licensed (C-57) water well driller will be contracted to provide drilling services for the groundwater monitoring well installations.

Drilling and monitoring well installation activities will begin after the HydroPunch™ investigation. A Mobile B-61 truck-mounted drilling rig (or its equivalent) will be utilized for all drilling, soil sampling, and monitoring well installations. Monitoring well borings will be drilled using eight-inch or ten-inch outside diameter (O.D.) hollow-stem augers.

Drilling procedures and groundwater monitoring well construction and development will be in accordance with regulatory agency requirements and guidelines using the protocol in Attachment C.

Groundwater monitoring well soil borings will be logged using the Unified Soil Classification System (USCS).

Soil Sample Collection

Soil samples will be collected, during drilling operations, using a California modified split-spoon sampler driven, through the hollow-stem augers, using a 140 pound hammer with a 30-inch drop. For each sample drive, the sampler will be lined with three, six-inch by two-inch O.D. brass tubes. The split-spoon sampler and tubes will be pre-cleaned, before each sample drive using the procedure described in Attachment C.

Drilling cuttings and discarded soil samples will be placed in approved (DOT 17-H) 55-gallon steel drums. These will be sealed and stored on the subject property until sample analyses are returned from the laboratory.

Groundwater Measurements and Sampling

Monitoring wells will be measured monthly; groundwater table measurements will be conducted using a Solinst reel water level meter with accuracy to 0.01 ft. Groundwater monitoring well measurements will be conducted prior to development and/or sampling.

Groundwater samples will be collected after proper monitoring well development. Sample collection will follow the protocol in Attachment D.

Drilling and Sampling Equipment Decontamination

Drilling and sampling equipment will be steam-cleaned prior to use and between each soil boring. Sample tubes and split-spoon samplers will be steam-cleaned and/or cleaned with an Alconox solution and triple-rinsed with purified or distilled water. All steam-cleaning, decontamination rinsate, groundwater monitoring well development water will be contained in approved (DOT 17-H) 55-gallon steel drums. Water samples will be collected from the drums; samples will be transported under proper chain-of-custody to a DHS certified laboratory for chemical analyses using the appropriate EPA approved methods (see below).

Project Oversite and Supervision

All HydroPunch™, drilling and soil sampling procedures, soil logging will be conducted by an ATT engineer/geologist under the direct supervision of a California registered geologist (R.G.) or professional engineer (P.E.).

Soil and Groundwater Sample Protocol and Analytical Methods

Soil, groundwater, and rinsate, decontamination and development-water samples will be collected in accordance with regulatory agency requirements and guidelines using the protocol outlined in Attachment D.

Soil samples from the monitoring well borings will be collected at five-foot intervals; a soil sample will be collected in the vadose zone just above the groundwater table.

Soil samples will be screened for hydrocarbons, in the field, using an H-nu detector. Samples will be collected and submitted to a DHS certified laboratory if hydrocarbon contamination is detected from the screening procedure or if the onsite geologist/engineer determines from soil coloration or odor that possible hydrocarbon contamination is present.

Soil, groundwater, rinsate, decontamination and development-water samples will be submitted to a DHS accredited laboratory under chain-of-custody documentation. Sample collection records and certified analytical reports will be maintained with copies provided in reports.

Soil, groundwater, rinsate, decontamination and development-water samples will be analyzed for TPH/g using EPA Method 5030, for TPH/d using EPA Method 3510, and for BTEX using EPA Method 602.

GROUNDWATER REMEDIATION

Pumping Test

ATT will conduct either a step or continuous drawdown pumping test on one or more groundwater monitoring or extraction wells; this test will be used to determine the aquifer hydraulic conductivity (K), transmissivity (T), and other pertinent aquifer hydraulic characteristics as applicable. Potential zones of influence and capture will be determined from the pumping test.

Other site groundwater monitoring wells will also be used as observation wells to determine drawdown and effective capture zone(s). The calculated zone(s) of capture will be so placed to capture the hydrocarbon plume.

Extraction/Treatment System Design

ATT will design a groundwater extraction/treatment system that will optimize the type and extent of the contaminant plume. Generally, such a system consist of one or more, four-inch diameter PVC extraction wells, each containing a submersible pump, placed near the bottom of the extraction well. Effluent is pumped to Calcon Disorb 55-gallon drums that have a lead - follow configuration. Each drum contains a specified quantity of granular activated carbon. The final filter effluent is released to the onsite sanitary sewer clean-out. The system will have a totalizing flow meter. ATT will obtain the proper discharge permits from the local sanitary sewer district.

Water samples from the extraction/treatment system are normally collected once a month from the first filter drum in the series; samples will be collected and submitted to a DHS accredited laboratory for TPH as gasoline and diesel and BTEX analyses.

REPORTING

Groundwater Remedial Investigation

ATT will complete an interim groundwater remedial investigation and feasibility report after the conclusion of the HydoPunch™, groundwater monitoring well installation, and the initial groundwater pumping test.

A map showing the potentiometric surface with associated extraction well drawdown, effective capture zone(s) and appropriate pumping test data will be included.

Groundwater Remediation

After installation of the groundwater extraction/treatment system, ATT will conduct at least a 30-day test on the extraction/treatment system to determine optimum pumping rates for plume capture without excessive groundwater table drawdown. Monthly status reports with pumping rates and influent/effluent sample analyses will be provided.

All reports will be reviewed and signed by a California R.G. or P.E. Upon approval, copies of the appropriate reports will be sent to the RWQCB and ACHCSA.

SITE SAFETY PLAN

A site specific safety plan is in Attachment E. References cited in this workplan are in Attachment F.

Please contact us if you have any questions or comments regarding this workplan.

Sincerely,

AQUA TERRA TECHNOLOGIES, INC.

Terrance E. Carter
Senior Environmental Engineer
Project Manager

William E. Motzer, Ph.D.
Senior Hydrogeologist
California Registered Geologist No. 4202
(Expires 6/30/92)

TEC/WEM:pd

Attachments

cc: Ms. Jennifer Eberle, ACHCSA

ATTACHMENT A

ACHCSA Requirements Letter

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALT
Hazardous Materials Division
80 Swan Way, Rm. 200
Oakland, CA 94621
(510) 271-4320

March 27, 1992

STID #1287

Dreyer's Grand Ice Cream, Inc.
3675 Mt. Diablo Blvd., Suite 300
Lafayette CA 94549
Attn: William Collett

RE: 5929 College Ave.
Oakland CA 94618

Dear Mr. Collett,

This office is in receipt of your Groundwater Investigation Report for the above referenced site dated February 19, 1992 by Aqua Terra Technologies. Upon a review of the report by our staff, it was noted that groundwater contamination levels are extremely high. For example, monitor well #2 (MW2), exhibited concentrations of Total Petroleum Hydrocarbons as gasoline (TPH-g) up to 91,000 parts per billion (ppb), TPH as diesel up to 1,900 ppb, benzene up to 8,300 ppb, toluene up to 8,900 ppb, ethylbenzene up to 3,200 ppb, and xylenes up to 38,000 ppb. These levels exceed the state maximum contaminant levels of 1 ppb for benzene, and 1,750 ppb for xylenes.

At this time, the following steps need to be taken:

- Develop and submit a proposal within 30 days for an interim groundwater remediation system.
- Conduct twelve consecutive months of groundwater gradient determinations in each well, beginning April 1992, due to the approximately 90 degree change in groundwater gradient between 8/26/91 and 12/4/91.
- Develop and submit a proposal within 30 days for an appropriate array of downgradient monitoring wells, due to the proximity of contaminated groundwater in MW2 to the property line.

These proposals must adhere to the technical requirements outlined in the RWQCB Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks and the SWRCB LUFT manual. A report documenting the results from work performed is due to this office within 45 days of completion of field activities.

All reports and proposals must be submitted under seal of a California-Registered Geologist, -Certified Engineering Geologist, or -Registered Civil Engineer. Please submit copies of all reports and proposals to Rich Hiett at the Regional Water Quality Control Board.

If you have any questions, please contact Jennifer Eberle, Hazardous Materials Specialist, at 510-271-4320.

Sincerely,

Susan Hugo

Susan Hugo
Senior Hazardous Materials Specialist

cc: Rich Hiett, RWQCB
Terrance Carter, Aqua Terra Technologies, 2950 Buskirk Av., Ste 120, Walnut Creek CA 94596
File (JE)

je

ATTACHMENT B

Plates

LEGEND

Property Boundary

Building

Groundwater Monitoring Well

175 Groundwater Table Elevation Contour

Direction of Shallow, Unconfined Groundwater Flow

Claremont Avenue

Sidewalk

Chabot Road

Sidewalk

Driveway

Planter

Parking

177

MW1
176.99

Parking

MW2
174.94

Planter

175

176

GW Flow

Driveway

MW3
173.59

5929 College Avenue

174

173

Sidewalk

College Avenue

N

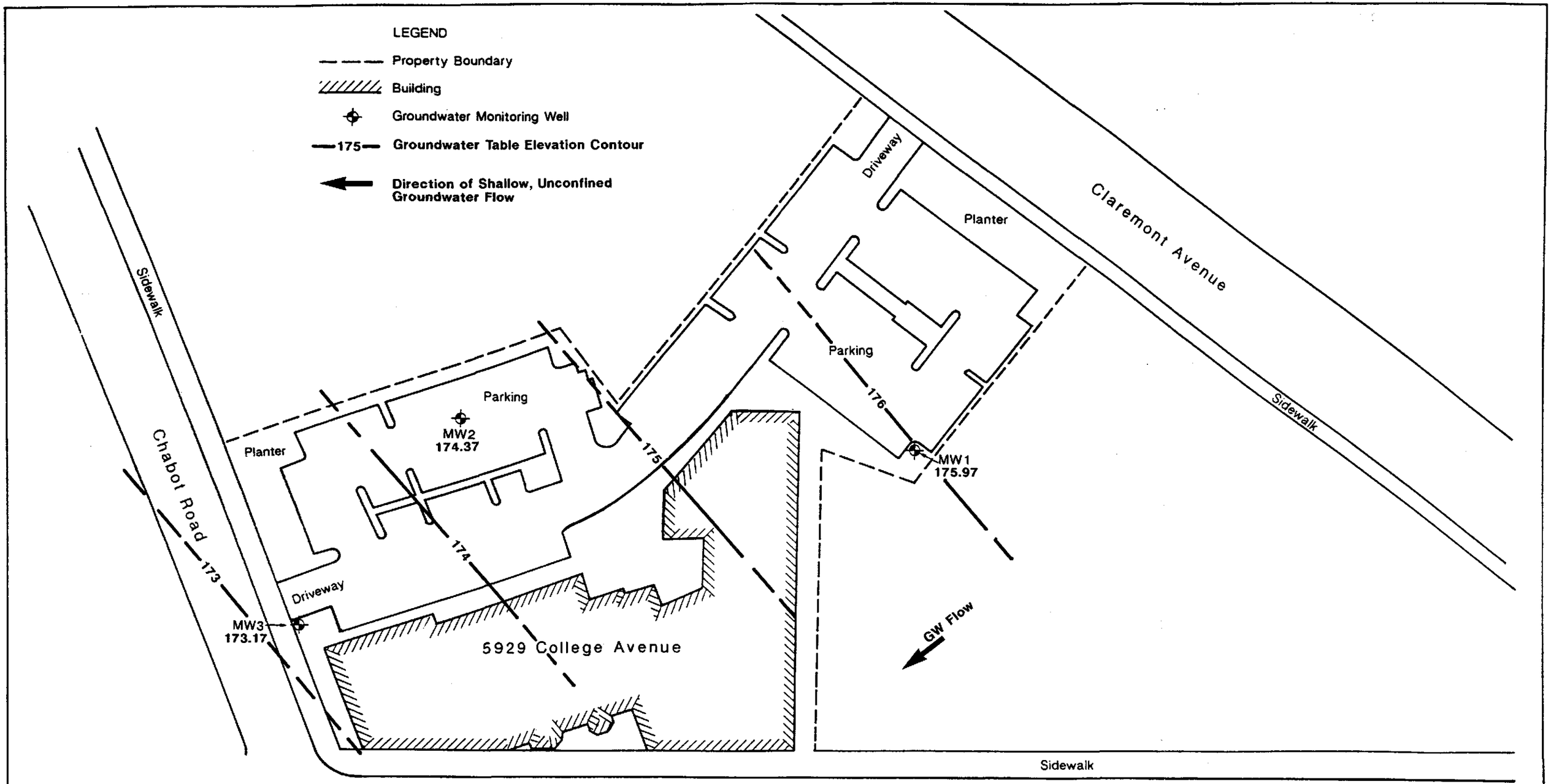
0 50 feet
SCALE

Groundwater Elevations and Contours
5/4/92

ATT Aqua Terra Technologies Consulting Engineers & Scientists

Dreyer's Grand Ice Cream, Inc.

JOB NUMBER	DATE	PLATE
919313	9/92	1



Groundwater Elevations and Contours
6/17/92

ATT Aqua Terra Technologies Consulting Engineers & Scientists

Dreyer's Grand Ice Cream, Inc.

JOB NUMBER	DATE	PLATE
919313	9/92	2

LEGEND

Property Boundary

Building

Groundwater Monitoring Well

175 Groundwater Table Elevation Contour

Direction of Shallow, Unconfined Groundwater Flow

Chabot Road

Sidewalk

Claremont Avenue

Sidewalk

Driveway

Planter

Parking

Parking

Planter

MW2
173.75

MW1
175.48

MW3
172.84

173

174

175

176

GW Flow

Driveway

5929 College Avenue

Sidewalk

College Avenue

N

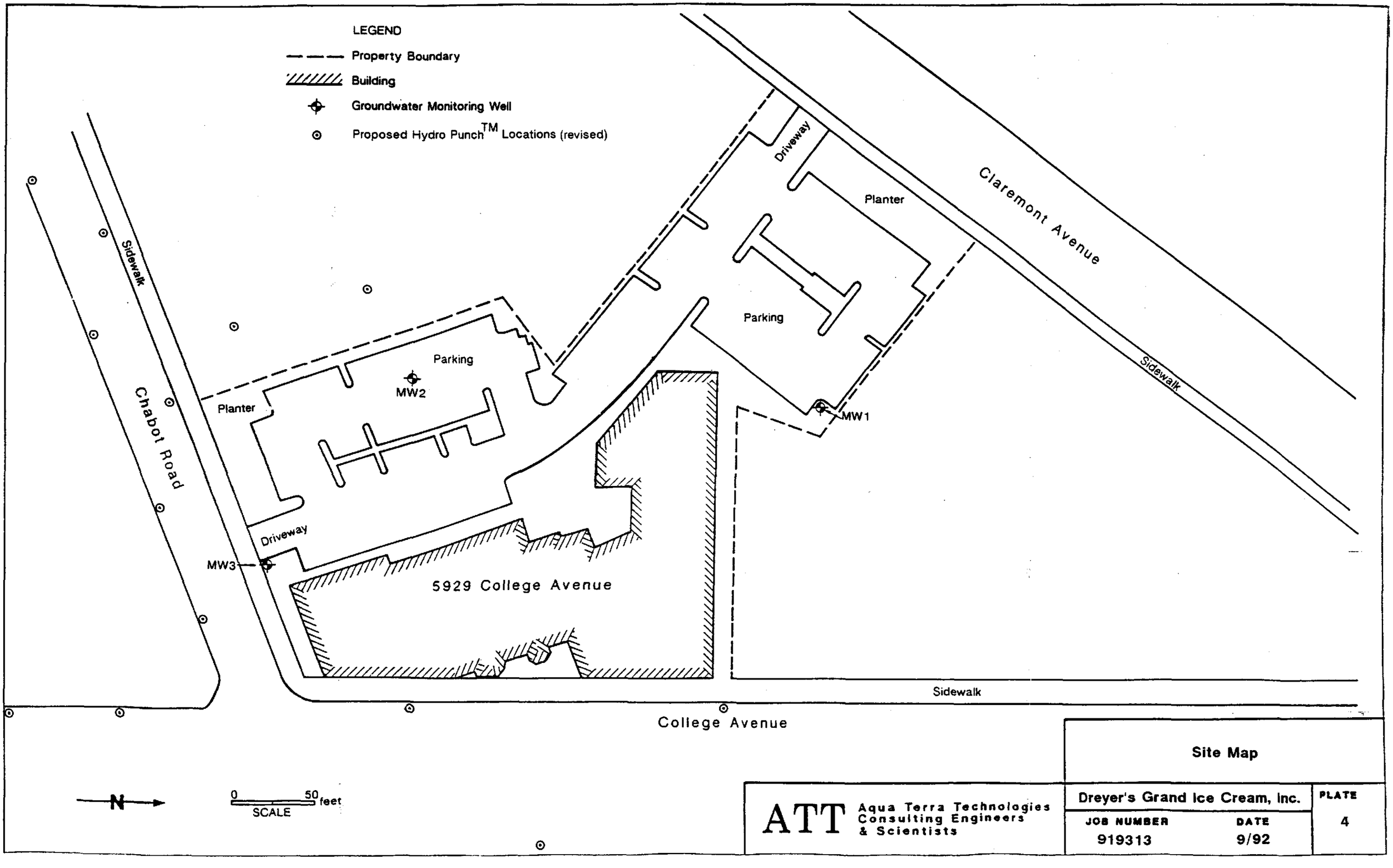
0 50 feet
SCALE

Groundwater Elevations and Contours
7/15/92

ATT Aqua Terra Technologies
Consulting Engineers
& Scientists

Dreyer's Grand Ice Cream, Inc.

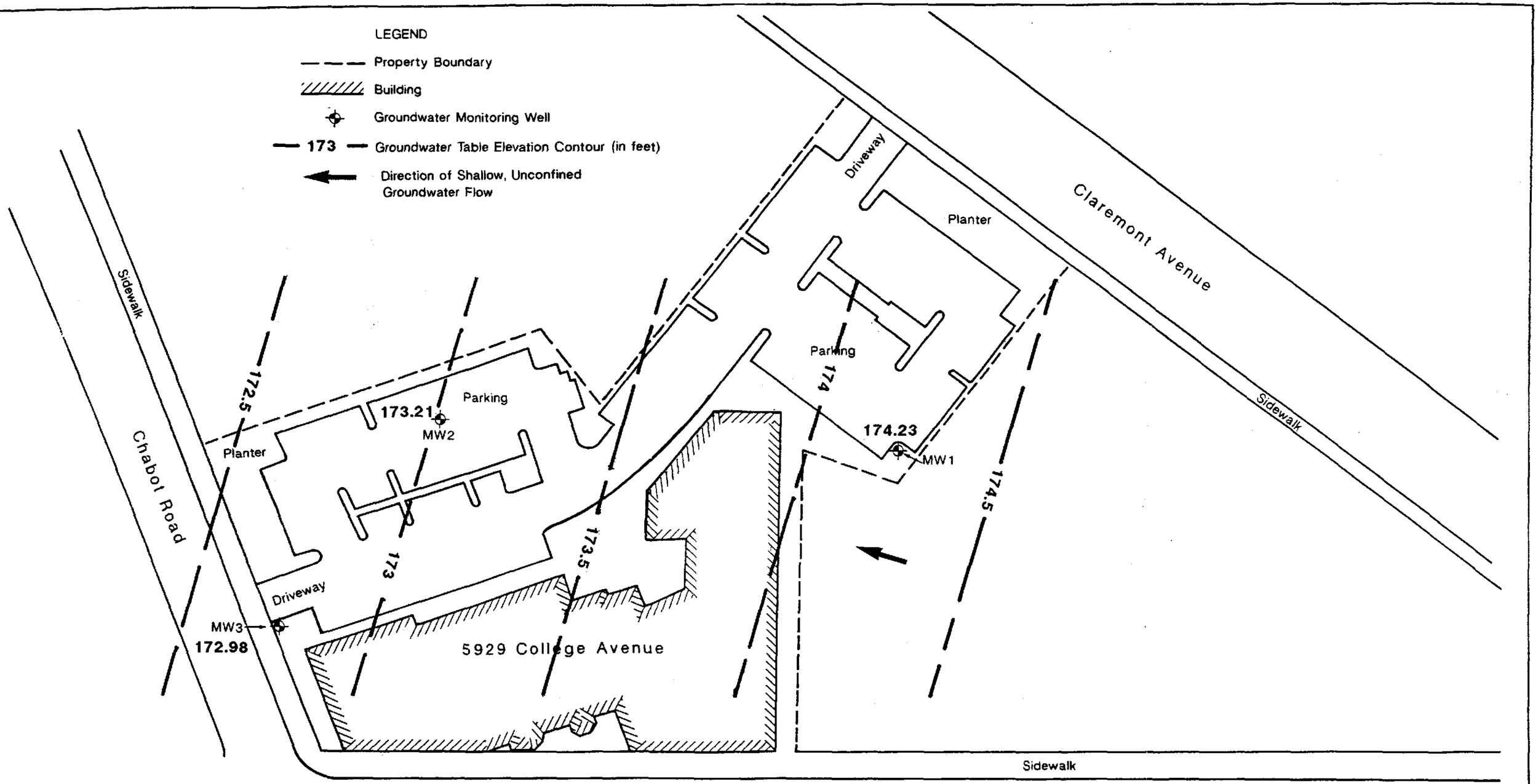
JOB NUMBER	DATE	PLATE
919313	9/92	3



Site Map

ATT Aqua Terra Technologies Consulting Engineers & Scientists

Dreyer's Grand Ice Cream, Inc.		PLATE
JOB NUMBER	DATE	4
919313	9/92	



Groundwater Elevations and Contours
8/31/92

ATT Aqua Terra Technologies Consulting Engineers & Scientists

Dreyer's Grand Ice Cream, Inc.

JOB NUMBER	DATE	PLATE
919313	9/92	5

ATTACHMENT C

Drilling Procedures & Groundwater Monitoring Well Construction/Design

DRILLING PROCEDURES & GROUNDWATER MONITORING WELL CONSTRUCTION/DESIGN

DRILLING AND SAMPLING PROCEDURES

All borings for well construction were drilled using eight-inch diameter or larger hollow stem auger equipment. A California Registered Geologist or Professional Engineer directed or surpervised the collection of undisturbed samples of the soils encountered and the preparation of detailed logs for each boring.

Soil sampling was conducted using a modified California split-spoon sampler, a standard penetration sampler, or a five-foot continuous sampler. Samples were retained in two-inch to three-inch diameter, six-inch long, clean, brass or stainless steel tubes. The samples were retained for verification of soil classification and for chemical laboratory analytical testing, as appropriate. Teflon sheeting was placed between the soil sample and the cap, and the cap was sealed with PVC tape.

Where access limitations did not allow drilling with truck mounted equipment, either a trailer mounted drilling rig, portable power driven, or manually operated soil sampling equipment was utilized. If soil samples were to be retained for analysis, they were collected in clean brass tubes fitted within a thin walled drive sampler. The soil samples were capped and sealed as described above.

All down hole sampling, drilling, and well construction equipment and materials, including augers, casing, and screens were steam cleaned prior to their initial use. The sampling equipment was cleaned prior to each assembly by washing with a trisodium phosphate solution (TSP), rinsing with purified water, and allowing to air dry. The auger flights, drill bit, and sampler were steam cleaned at each boring location.

MONITORING WELL CONSTRUCTION

Monitoring wells were constructed in accordance with applicable local water district or California Department of Water Resources guidelines. The specific completion details for each well were determined in the field at the time of drilling by a California Registered Geologist or Professional Engineer experienced in groundwater monitoring system design and installation.

Monitoring wells consist of two or four-inch diameter, Schedule 40 PVC casing and screens with flush, threaded joints. No PVC glue was used. The screened sections are machine slotted with either 0.010-inch (0.255 mm) or 0.020-inch (0.51 mm) openings. The smaller slot size was used where the wells are screened within fine-grained sandy soils, and the larger slots were used where coarse sand or gravels are encountered. The slotted sections were fitted with a slip-on cap and placed opposite the water-bearing strata in the boring. The blank pipe was connected to the perforated pipe and extends to just below the ground surface.

The annulus between the side of the borehole and the slotted section was filled with a clean sand pack to variable depths, but not less than one or two feet above the perforated pipe. The annulus was packed with either Lonestar No. 1/20 (where 0.010-inch slotted pipe is used) or No. 3 (where 0.020-inch slotted pipe is used), or equivalent, washed sand filter material. The gradation of the filter material is summarized below:

U.S. Sieve No.	Opening (mm)	Percent Passing (No. 3)	Percent Passing (No. 1/20)
6	3.35	100	
8	2.36	99 - 100	
12	1.70	62 - 78	
16	1.18	15 - 33	100
20	0.85	0 - 8	90 - 100
30	0.60	0 - 4	14 - 40
40	0.425		0 - 5

A seal of bentonite pellets approximately 0.5 to 1.0 foot thick was placed above the sand pack to reduce the risk of grout penetration into the sand. The bentonite pellets were hydrated with purified water to form a tight plug. A cement/bentonite grout was be placed above the bentonite plug to a depth of approximately 0.5 to 2.0 feet below the ground surface. The grout was pumped into the boreholes using a tremie pipe when it was required by local guidelines or regulations. A flush mounted traffic box or aboveground security enclosure was set in concrete above the cement/bentonite mixture.

At most sites in sedimentary formations, it is not practical to "rationally design" a filter pack based on sieve analyses. From experience, Lonestar No. 1/20 or No. 3 washed sand as a filter material was selected for use in wells. The 0.010-inch and 0.020-inch slot sizes were selected to retain 100 percent of the filter material.

The completed wells were enclosed in a traffic rated enclosure placed flush with grade or in an above-ground metal enclosure, and were fitted with a locking cap. Well head elevations were determined by a level survey, and well coordinates were determined by a traverse survey. The level/traverse survey was referenced to a bench mark of known or assigned elevation, and known coordinates. Once water levels stabilized, water levels in all wells were measured.

After the wells had been completed, they were developed by pumping and surging to clean and stabilize the soils around the screens. A manually operated, positive displacement surge pump and teflon bailer, surge block, and/or centrifugal pump was used for development. A minimum of 10 well casing volumes of water was removed during development; however, development continued until turbidity or sediment content had stabilized. All development equipment was steam cleaned or triple rinsed in a solution of purified water and tri-sodium phosphate (TSP) prior to its initial use in each well. A well development record was maintained which included 1) a description of development water characteristics at frequent intervals, 2) the quantity of water removed during development, and 3) flow rates during development.

Soil cuttings generated during drilling were stored in 55-gallon drums or wrapped in plastic sheeting, and water generated during well development and sampling was retained in secured 55-gallon drums until chemical analytical data from samples were received.

ATTACHMENT D

Soil & Groundwater Sample Collection & Handling Protocol

SOIL & GROUNDWATER SAMPLE COLLECTION & HANDLING PROTOCOL

INTRODUCTION & PURPOSE

Because reliable and representative test results must be generated from soil and groundwater samples, it is essential to establish a sampling procedure which assures that all samples are:

- Collected by approved and repeatable methods
- Representative of the materials(s) at the desired location and depth
- Uncontaminated by container and sampling equipment

The following sampling protocol was designed to be a guide to the sampling and handling procedures for soil and groundwater samples. Based on conditions which may be encountered in the field, some modifications to this protocol may be required to fit the needs of an individual site.

SAMPLING PROCEDURES

Groundwater Sampling

Prior to collecting groundwater samples, monitoring wells were purged by bailing until pH, conductivity, and temperature levels stabilize. A minimum of four well casing volumes was purged from each well. Wells were purged and groundwater samples were obtained using a teflon bailer, or disposable polyethelene bailer, and nylon rope. New nylon rope is used for each well.

The appropriate number of sample containers and type were used for each sample collected, in accordance with the analytical laboratory requirements and EPA protocol. The bottles were filled using the bailer. All sample bottles were pre-cleaned by the supplier according to EPA protocols.

To prevent cross contamination of groundwater samples by the sampling equipment, all reusable equipment used in sampling was washed with a trisodium phosphate solution (TSP), triple rinsed with purified water, and allowed to air dry prior to each use. A sample of the purified water was retained for analysis as part of sample quality assurance.

Soil Sampling

After the soil sampler was driven to the desired depth and the samples were retrieved, each end of the tube containing the soil sample retained for laboratory analysis was sealed with teflon sheeting, covered with plastic end caps, and sealed with PVC tape. All sample containers (tubes) were steamed cleaned (or washed with TSP, as above) and air dried prior to use. The soil sample recovered in the tube just above the sample retained for chemical analysis was examined in the field for visual and olfactory indications of chemical contamination and used for lithologic description.

The Unified Soil Classification System (USCS) was used to log and describe the soil by the onsite geologist. These logs also include details of the sampling process such as depth, apparent odors, discoloration, and any other factors which may be required to evaluate the presence of contamination at the site.

POST SAMPLING PROCEDURES

One field/travel blank consisting of one sample bottle filled with purified water accompanied soil and groundwater sample containers at all times, including during transport to and from the site. Purified water field/travel blanks were analyzed according to the appropriate EPA Methods corresponding to the soil/groundwater sample analyses.

Sample containers were labeled with sample number, project number, date, and the initials of the person collecting the sample. A separate sample collection record was maintained for each groundwater sample collected.

Soil and groundwater samples collected were analyzed by an analytical laboratory certified by the California Department of Health Services (DHS). Quality assurance documentation accompanied all analytical reports generated by the laboratory.

The samples were placed in a cooler with dry ice (for soil samples) or bagged ice (for water samples) immediately following collection, and remained in the cooler until refrigerated at the analytical laboratory. The samples were delivered to the laboratory direct by courier or overnight freight within 48 hours of time of collection. Appropriate chain of custody forms were used for all samples.

ATTACHMENT E

Site Safety Plan

AQUA TERRA TECHNOLOGIES SITE SAFETY PLAN

A. GENERAL INFORMATION

Site: Dreyer's Grand Ice Cream Corporate Headquarters

Location: 5929 College Avenue, Oakland, CA 94618

Plan Prepared By: Benjamin Berman
Technical Services Manager
Site Safety Officer
Date: June 8, 1992

Plan Approved By: William E. Motzer, Ph.D., R.G.
Senior Hydrogeologist
Corporate Health and Safety Officer
Date: June 8, 1992

Objectives: HydroPunch I™ investigation, soil and groundwater sample collection

Proposed Date of Investigation: July, 1992 and upon approval of work plan by the Alameda County Health Care Services Agency and San Francisco Bay Region, Regional Water Quality Control Board

Background Review: Complete: X Preliminary:

Documentation/Summary: Aqua Terra Technologies, Inc. (ATT) workplan of March, 1990 (attached)

Overall Hazard: Serious: Moderate:
Low: X Unknown:

B. SITE/WASTE CHARACTERISTICS

Waste Type(s): Liquid: Solid: X Sludge: Gas:

Characteristic(s): Corrosive: Ignitable: Radioactive:

Volatile: X Toxic: Reactive: Unknown: Other(name):

Facility Description: New office building and adjacent parking lot.

Principal Disposal Method (type and location): HydroPunch I™ investigation, no excess soil or purged groundwater anticipated. Purged groundwater from existing monitoring

wells is stored on site in 55-gallon drums (DOT 17-H). The purged groundwater is disposed of in accordance with regulatory agency requirements and based on accredited laboratory analytical results from the groundwater samples.

Unusual Features (power lines, terrain, utilities, etc.): none

Status: Active: X Inactive: Unknown:

History (agency action, complaints, injuries, etc.): None noted

C. HAZARD EVALUATION

Parameter:	TLV (ppm)	IDLH (ppm)	LEL (%)	HEALTH skin/eyes/inge./inha
	___	___	20	X

Special Precautions and Comments: Use NIOSH approved gloves when handling soil samples. Sampling to be conducted in open air.

D. SITE SAFETY WORK PLAN

Perimeter Establishment: Map/Sketch Attached: see work plan

Perimeter Identified: Yes; via building plans and property lines

Zone(s) of Contamination Identified: Zones of contamination identified during underground fuel and waste oil storage tank removal and other previous investigation. The currently proposed investigation will further identify the contamination zone.

Personal Protection:

Level of Protection: A___B___C___D_X_

Modifications: If necessary, tyvek suits will be used with NIOSH approved face masks. All personnel collecting soil samples will wear gloves. Hard hats and steel toed shoes will be worn at all times.

Surveillance Equipment & Materials:

Instrument: LEL Meter Action Level: 20%

AQUA TERRA TECHNOLOGIES SITE SAFETY PLAN (continued)

Site Entry Procedures: Permission of property owner and onsite building security. Hard hats and steel toed shoes will be worn at all times.

Decontamination Procedures:

Personal: Wash hands, face, clothes. Smoking or eating not permitted onsite during active excavation or drilling.

Equipment: Steel toed boots, gloves, hard hat, NIOSH approved respirator.

First Aid (type of equipment available): Fully stocked first aid kit and emergency eyewash with company vehicles.

Work Limitations (time of day, weather, heat/cold stress):

Work limitations: winds less than 10 mph; no work during periods of precipitation; work hours: 8:00 A.M to 5:00 P.M. Monday through Friday.

Investigation-Derived Material Disposal: Hydro Punch I™ investigation, no excess soil or other materials anticipated.

Team Composition:

Team Member	Responsibility
Terrance E. Carter	Project Manager/Engineer
William E. Motzer	Project Hydrogeologist
Benjamin Berman	Project Safety Manager

E. EMERGENCY INFORMATION

Local Resources:

Ambulance:	911
Hospital Emergency Room:	911
Poison Control Center:	1-800-523-2222
Police:	911
Fire Department:	911

AQUA TERRA TECHNOLOGIES SITE SAFETY PLAN (continued)

Agency Contact:	National Response Center (NAC)
Toxic Chemical and Oil Spills:	1-800-424-8802

Site Resources:

Water Supply:	on site
Telephone:	(510) 601-0179
Radio:	unknown
Other:	none

Emergency Contacts:

Name:	William C. Collett, Treasurer Dreyer's Grand Ice Cream, Inc.	Phone: (510) 601-4339
	Terrance E. Carter, Senior Env. Eng. Aqua Terra Technologies, Inc.	Phone: (510) 934-4884

Emergency Routes:

Hospital: Alta Bates-Herrick Hospital
3001 Colby and Ashby
Berkeley, California

From site north on College Avenue (approximately 0.65 miles) to Ashby Avenue. Left turn (west) onto Ashby approximately 0.20 miles to hospital entrance (on left) south side of Ashby Avenue.

ATTACHMENT F

References Cited

ATT

REFERENCES CITED

Aqua Terra Technologies, Inc. (ATT), 1992, *Groundwater Investigation, 5929 College Avenue, Oakland, California*: ATT unpublished report to Dreyer's Grand Ice Cream, Inc., 8 p. with attachments.

California State Water Resources Board (SWRCB), 1989, *Leaking Underground Fuel Tank (LUFT) Manual*: SWRCB 62 p. with appendices.

North Coast Region, San Francisco Bay Region, and Central Valley Region, Regional Water Quality Control Board (RWQCB), 1990, *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites*: Tri-Region RWQCB, 21 p. with appendices.