MAR 22 '93 PWM

GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387
FAX. (415) 685-9148

ADDITIONAL ENVIRONMENTAL ASSESSMENT REPORT
CHEVRON SERVICE STATION NO. 9-5630
997 GRANT AVENUE
SAN LORENZO, CALIFORNIA

020203451

MARCH 19, 1993

Prepared for:
Ms. Nancy Vukelich
Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, California 94583-0804

Groundwater Technology, Inc.
Written/Submitted by

Tim Watchers
Project Geologist

Sandra L. Lindsey
Project Manager

Groundwater Technology, Inc.
Reviewed/Approved by

David R. Kleesattel
Registered Geologist
No. 5136

REGISTERED GEOLOGIST
DAVID R. KLEESATTEL
NO. 5136
STATE OF CALIFORNIA

For:
John S. Gaines
Vice President, General Manager
West Region

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Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address P.O. Box 5004, San Ramon, CA 94583-0804

Operations

March 22, 1993

Ms. Juliet Shin
Alameda County Health Care Services Agency
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Service Station #9-5630
997 Grant Avenue, San Lorenzo

Dear Ms. Shin:

Enclosed we are forwarding the Additional Environmental Assessment Report dated March 19, 1993, prepared by our consultant Groundwater Technology, Inc. for the above referenced site. As indicated in the report, one (1) boring was advanced and completed into a ground water monitoring well designated C-5. This well was installed off-site down-gradient of the residuals identified in the western property sidewall samples to assess ground water conditions in this area.

Both soil and ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. All samples reported concentrations of these constituents below method detection limits. Depth to groundwater was measured at approximately 6.64-feet below grade in C-5. C-5 will be included in all subsequent quarterly episodes.

Chevron will continue to monitor this site and report findings on a quarterly basis. At completion of two (2) additional rounds of monitoring events, we evaluate the site for appropriate next actions with respect to closure. If you have any questions or comments, please do not hesitate to contact me at (510) 842-9581.

Very truly yours,
CHEVRON U.S.A. PRODUCTS COMPANY

Nancy Vukelich
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB-Bay Area
Mr. J.N. Robbins, CHVPK/V1156
Ms. B.C. Owen
File (9-5630A1)

Ms. Beth Castleberry
Ware & Freidenrich
400 Hamilton Avenue
Palo Alto, CA 94301-1825

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(continued)

APPENDICES

ADDITIONAL ENVIRONMENTAL ASSESSMENT REPORT
FORMER CHEVRON SERVICE STATION NO. 9-5630
997 GRANT AVENUE
SAN LORENZO, CALIFORNIA

MARCH 19, 1993

1.0 INTRODUCTION

This report summarizes an additional environmental assessment, conducted by Groundwater Technology, Inc., of the former Chevron U.S.A. Products Company (Chevron) Service Station No. 9-5630 site at 997 Grant Avenue in San Lorenzo, California (Figure 1). The objective of this assessment was to evaluate the lateral distribution of dissolved petroleum hydrocarbons. The assessment was completed during February 1993 and included drilling one soil boring, constructing one 2-inch monitoring well in the soil boring, sampling soil and groundwater, analyzing the collected samples, evaluating the data, and preparing this report.

2.0 BACKGROUND

The site is located in southwestern Alameda County on the northeast corner of the Grant and Washington Avenues intersection in San Lorenzo, California (Figure 2). The site is situated in an area comprised of residences and small businesses. To the west across Washington Avenue is a car wash and Tune-Up Masters automotive facility. Toward the north and east are apartment buildings and a church, respectively. Across Grant Avenue toward the south are residential buildings. Geographically, the site is approximately 2,000 feet south of San Lorenzo Creek and 1.7 miles east of San Francisco Bay. Topographically, the area is generally level with an approximate site elevation of 20 feet above mean sea level (MSL). The site is currently an unpaved vacant lot.

On November 12 and 13, 1990, GeoStrategies Inc. (GSI) installed four 2-inch diameter on-site groundwater monitoring wells (in the GSI report dated February 8, 1991). Analytical results of soil samples collected during drilling activities reported the highest concentrations of total petroleum hydrocarbons-as-gasoline (TPH-G) in the samples from monitoring wells C-3 (140 parts per million [ppm] at 10.5 feet below grade) and C-2 (99 ppm at 9 feet below grade). On December 5, 1990, the groundwater gradient was calculated at 0.003 ft/ft and the direction was to the west. Analytical results of groundwater samples collected from the monitoring wells on December 5, 1990, reported nondetectable levels of TPH-G. The highest concentrations of benzene were reported at 4 parts per billion (ppb) in the samples collected from monitoring well C-4.

On December 18, 1990, four underground storage tanks and associated product pipe lines were removed from the site. Excavation of the tank pit was performed until field analysis (using an Organic Vapor Meter [OVM]) of collected soil samples reported values of less than 100 ppm. During the excavation, monitoring well C-4 was destroyed. Verification samples from the excavation sidewalls and bottom were collected after the OVM readings were less than 100 ppm. Approximately 1,600 cubic yards of soil was stockpiled during the excavation. Approximately 220 cubic yards of soil were transported to the Browning-Ferris Industries North Vasco Road disposal facility in Livermore, California. Approximately 1,380 cubic yards were aerated on site and then used to backfill the excavations (GeoStrategies Inc., September 13, 1991).

Between December 1990 and September 1992, Sierra Environmental Services monitored and sampled the monitoring wells at the site six times. Analytical results reported the highest concentrations of TPH-G (1,100 ppb) and benzene (150 ppb) in the samples collected from monitoring well C-3 on September 6, 1991. The analytical results of samples collected from monitoring wells C-1, C-2, and C-3 on September 2, 1992, reported TPH-G, benzene, toluene, and ethylbenzene concentrations below the method detection limits (MDLs). Xylenes were reported at concentrations of 0.9 ppb in samples collected from monitoring well C-3 on September 2, 1992.

3.0 WORK SCOPE

3.1 Site-Specific Health and Safety Plan and Permits

Groundwater Technology prepared a site-specific Health and Safety Plan required by the Occupational Health and Safety Administration Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120). The site-specific Health and Safety Plan was prepared after a review of site conditions and existing available site-specific health and safety plans for the site. The Health and Safety Plan was reviewed and signed by Groundwater Technology's on-site personnel and subcontractors before working at the site.

Groundwater Technology reviewed the site history and site information with Chevron representatives before beginning work at the site. A drilling permit to install the monitoring well was obtained from Zone 7 Alameda County Flood Control and Water Conservation District. An encroachment permit was obtained from the Alameda County Public Works Department. Copies of the permits are included in Appendix A.

3.2 Soil Boring

On February 2, 1993, Groundwater Technology supervised the drilling of one off-site soil boring for the construction of monitoring well C-5. The soil boring was drilled with a truck-mounted drill rig equipped with 8-inch hollow-stem augers. The augers were steam cleaned before drilling the monitoring well. The soil boring was drilled to a depth of approximately 20.5 feet below grade. A Groundwater Technology field geologist, under the supervision of a California Registered Geologist, logged the materials encountered during drilling using the Unified Soil Classification System.

The steam cleaning water was stored in labeled 55-gallon drums pending disposal. Approximately 0.33 cubic yard of soil cuttings generated during the drilling activities was placed on and covered with plastic sheets. Soil cuttings were characterized and profiled. Because the analytical results of the soil cuttings reported concentrations of benzene, toluene, ethylbenzene, xylene (BTEX) and TPH-G below the MDLs, the soil cuttings were spread evenly around the site. Water generated from

For aeration?

steam cleaning, purging, and sampling activities was removed and transported to the Chevron Refinery in Richmond.

3.3 Soil Sampling

During drilling on February 2, 1993, soil samples were collected from the soil boring for monitoring well C-5 at 5-foot intervals from approximately 5 feet below grade to the bottom of the boring. No soil was recovered at 20 feet below grade because of the saturated conditions at that depth. The samples were collected using a 2-inch-outside-diameter split-spoon sampler, lined with three 2-inch-diameter by 6-inch-long brass sample tubes. At each sampling interval, the sampler was driven 18 inches ahead of the hollow-stem augers into undisturbed soil. One sample from every 5-foot interval was sealed with aluminum foil, capped, taped, labeled, placed on ice in an insulated container, and delivered to a California-certified laboratory. All sampling was performed according to Groundwater Technology Standard Operating Procedures (SOPs), which are included in Appendix B.

Two soil samples collected during drilling activities for off-site monitoring well C-5 were submitted to a California-certified laboratory for BTEX and TPH-G analyses using EPA Methods 5030/8020 and modified EPA Method 8015.

3.4 Monitoring Well Installation

Monitoring well C-5 was constructed of 5 feet of 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) casing with flush threads and 15 feet of 0.020-inch-slot well screen. A sand filter pack was placed around the well screen in monitoring well C-5 to approximately 1 foot above the slotted well screen. Monitoring well C-5 was completed with 1 foot of hydrated bentonite and a neat-cement seal to grade. The wellhead was protected by a locking cap and a street box with a water-tight bolted lid. Well construction details are included with the drill log (Appendix C). The top of casing elevation of each monitoring well was surveyed relative to mean sea level on February 12, 1993, to an Alameda County Bench Mark (BM-C) in the southeast curb return at Grand Avenue and Via Alamitos by a professional licensed surveyor.

3.5 Monitoring Well Development

On February 12, 1993, monitoring well C-5 was developed by surging and bailing groundwater using a PVC bailer. Approximately 55 gallons of water were bailed from well C-5. This technique promotes a uniform sand filter pack, removes fine-grain sediments from the well screen and filter pack, and improves the hydraulic communication between the well and aquifer.

3.6 Groundwater Monitoring

On February 16, 1993, monitoring well C-5 was monitored to measure the depth to groundwater and the thickness of separate-phase hydrocarbons, if present. The water level was measured using an ORS Environmental Equipment INTERFACE PROBE™ Well Monitoring System, consisting of a dual optical sensor and electrical conductivity probe that distinguishes between water and petroleum products. Separate-phase hydrocarbons were not detected in monitoring well C-5.

3.7 Groundwater Sampling

On February 16, 1993, monitoring well C-5 was purged and groundwater samples were collected. Approximately 5 well volumes of water were purged from monitoring well C-5. Immediately before collecting each water sample, a distilled water rinsate blank was collected from the Teflon® sampler as a quality control check on the cleanliness of the sampler. A trip/lab blank was also prepared for quality control. Each sample was acidified, labeled, placed on ice in an insulated container, and delivered to a California-certified laboratory. The samples were accompanied by a chain-of-custody record during transport. The sample was analyzed for BTEX and TPH-G using EPA Methods 5030/8020 and modified EPA Method 8015. Water generated during the purging and sampling process was stored in Department of Transportation-approved steel drums pending characterization. The water was pumped to a water trailer and transported for recycling to the Chevron Refinery in Richmond, California.

4.0 SITE CONDITIONS

4.1 Analytical Results of Soil Samples

Laboratory analytical results of soil samples collected at 5 and 10 feet below grade during soil boring activities on February 2, 1993, reported BTEX and TPH-G concentrations below MDLs. The analytical results of soil samples are summarized in Table 1 and laboratory reports are included in Appendix D.

4.2 Analytical Results of Groundwater Samples

Analytical results of groundwater samples collected on February 16, 1993, reported nondetectable BTEX and TPH-G concentrations in the samples collected from monitoring well C-5. A summary of the groundwater sample analytical results is presented in Table 2. Copies of the laboratory reports are included in Appendix D.

4.3 Hydrogeology

According to Western Alameda County Water Resources, 1984, the site is located on the Bay Plain in western Alameda County separated from the older nonbearing bedrocks of the East Bay hills by the Hayward Fault. The alluvial sediments in the Bay Plain consist of a mixture of gravels, sands, and clays that are Pliocene-Pleistocene to late Pleistocene in age and were deposited on the alluvial cones west of the foothills. Groundwater in these sediments can be either confined or unconfined. The major groundwater-producing area in the East Bay region of Alameda County is the Bay Plain. Regional groundwater flow is generally to the southwest and toward San Francisco Bay.

The materials encountered during drilling consisted of silty clays. On February 16, 1993, the groundwater level in monitoring well C-5 was 6.64 feet below grade. Groundwater level data and wellhead elevations are presented in Table 2.

5.0 SUMMARY

- On February 2, 1993, Groundwater Technology supervised the drilling of one monitoring well (C-5) using a mobile B-61 drilling rig. The soil boring for this monitoring well was drilled to 20.5 feet below surface grade. The materials encountered during drilling consisted of silty clays.
- Analytical results of soil samples collected during drilling activities for off-site monitoring well C-5 reported TPH-G and BTEX concentrations below MDLs.
- On February 16, 1993, the groundwater level was measured in monitoring well C-5. The depth to water in monitoring well C-5 was 6.64 feet below grade.
- Analytical results of the groundwater samples collected from monitoring well C-5 reported concentrations of TPH-G and BTEX below MDLs.

6.0 REFERENCES

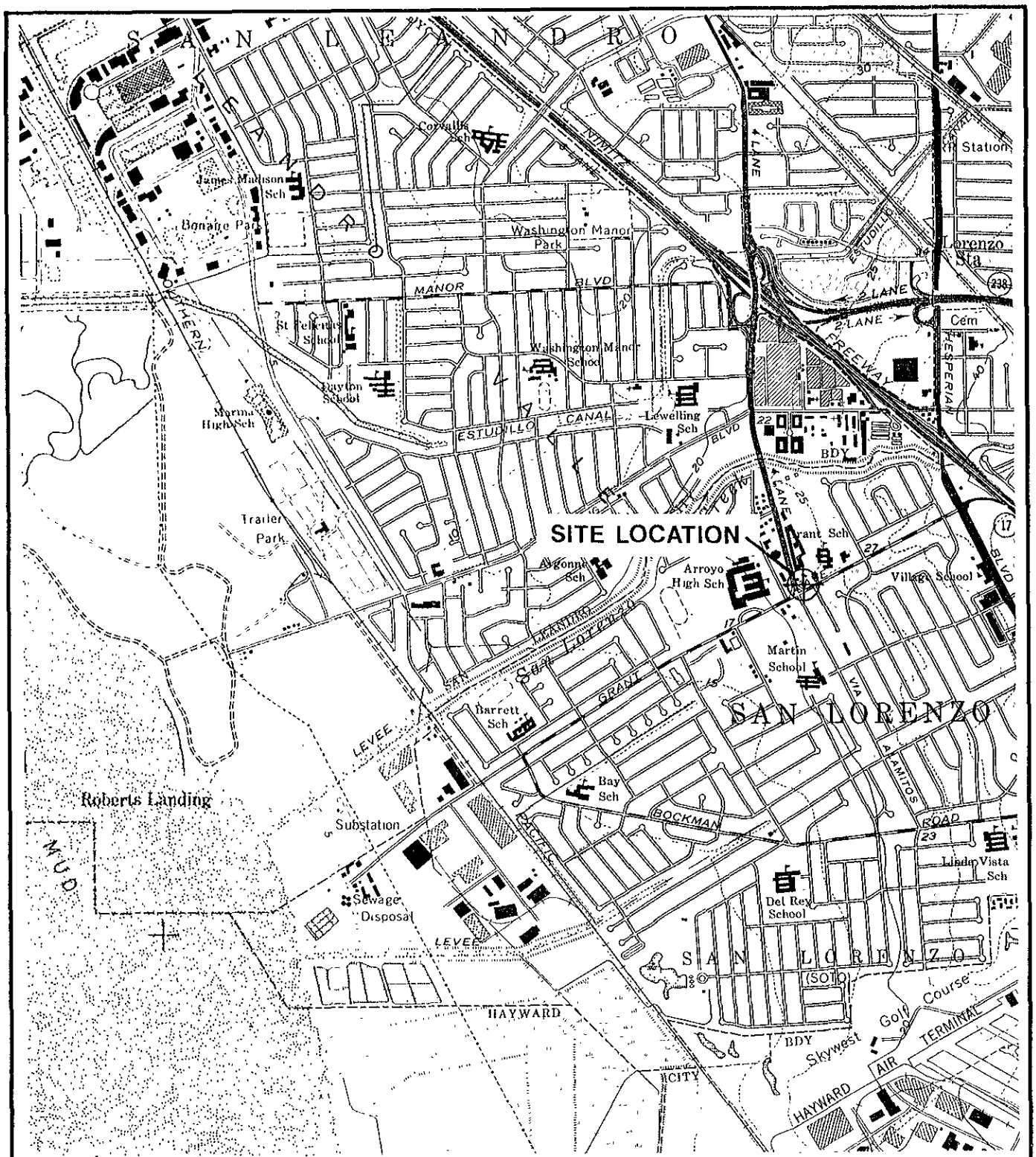
GeoStrategies Inc., February 8, 1991, Preliminary Site Assessment and Well Installation Report, Former Chevron Service Station No. 9-5630, 997 Grant Avenue, San Lorenzo, California.

GeoStrategies Inc., September 13, 1991, Tank Removal Observation Report, Former Chevron Service Station No. 9-5630, 997 Grant Avenue, San Lorenzo, California.

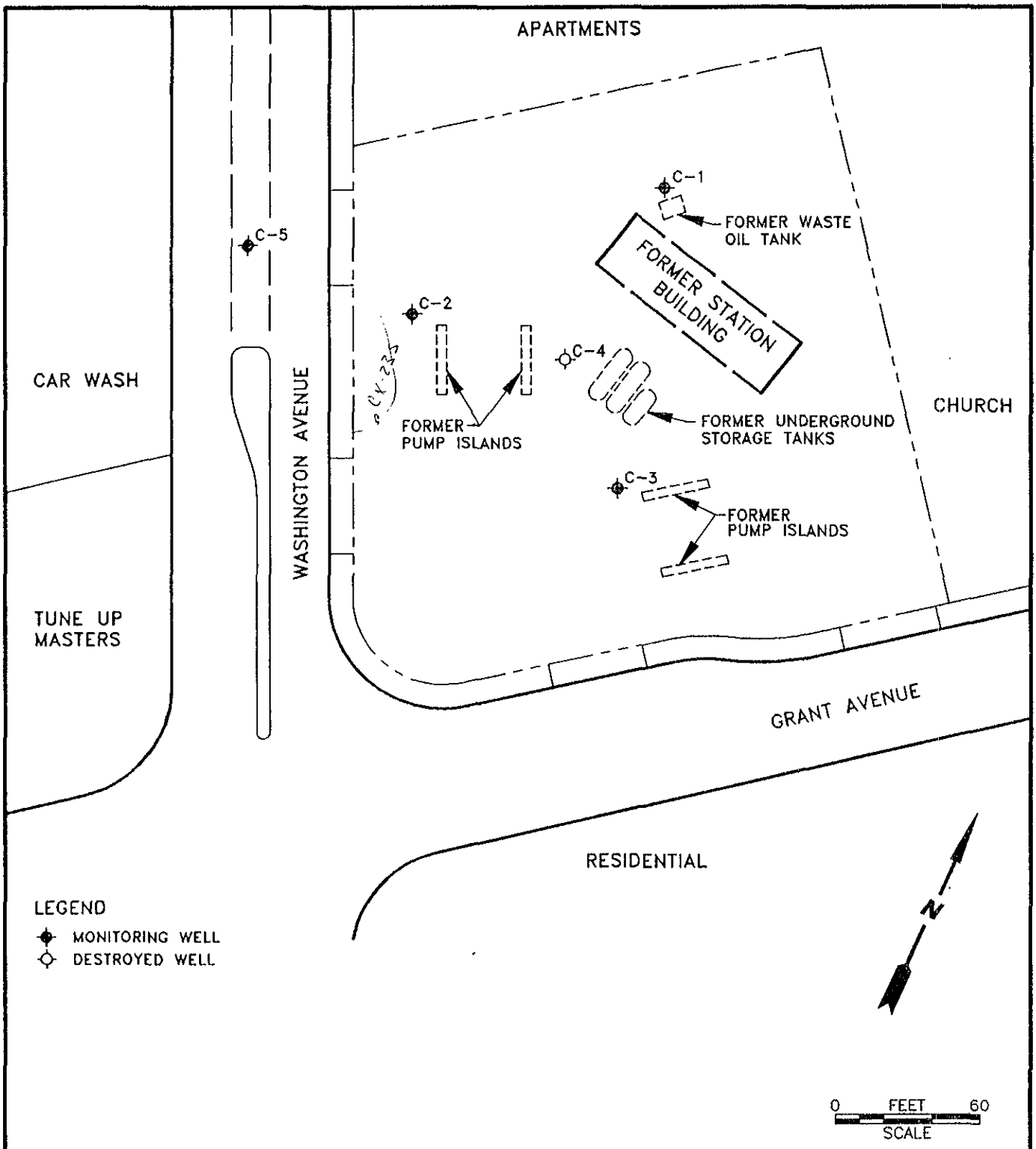
Sierra Environmental Services, October 1, 1992, Former Chevron Service Station No. 9-5630, 997 Grant Avenue, San Lorenzo, California.

Western Alameda County Water Resources, Alameda County Flood Control and Conservation District, 1984, Groundwater in the San Leandro and San Lorenzo Alluvial Cones of the East Bay Plain of Alameda County.

FIGURES



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387	N	SCALE: 0 FEET 2000	**SITE LOCATION MAP**
		CLIENT: CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-5630	DATE: 3/9/93
		LOCATION: 997 GRANT AVENUE SAN LORENZO, CALIFORNIA	FIGURE: 1



GROUNDWATER TECHNOLOGY
4057 PORT CHICAGO HWY.
CONCORD, CA 94520
(510) 671-2387

SITE PLAN

CLIENT:	LOCATION:	REV. NO.:	DATE:
CHEVRON U.S.A. PRODUCTS CO. SERVICE STATION No. 9-5630	997 GRANT AVENUE SAN LORENZO, CALIFORNIA	0	3/8/93

PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
JAW	DRK	TW	ML	SP293	020203451	2

TABLES

TABLE 1
ANALYTICAL RESULTS OF SOIL SAMPLES
COLLECTED ON FEBRUARY 2, 1993
(Concentrations in parts per million)

DATE	SAMPLE ID	SAMPLE DEPTH (feet)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	TPH-AS-GASOLINE
02/02/93	C-5	5	<0.005	<0.005	<0.005	<0.005	<1
		10	<0.005	<0.005	<0.005	<0.005	<1

TPH = Total petroleum hydrocarbons

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TABLE 2
MONITORING DATA AND ANALYTICAL RESULTS
OF GROUNDWATER SAMPLES COLLECTED ON FEBRUARY 16, 1993
(Concentrations in parts per billion)

WELL ID	TOC ELEVATION (msl)	BENZENE	TOLUENE	ETHYL-BENZENE	XYLENES	TPH-AS-GASOLINE	DTW (ft)	SPT (ft)	GWE (ft)
C-1	23.87	--	--	--	--	--	--	--	--
C-2	21.53	--	--	--	--	--	--	--	--
C-3	22.40	--	--	--	--	--	--	--	--
C-5	22.01	<0.5	<0.5	<0.5	<0.5	<50	6.64	0.00	15.37

TPH = Total petroleum hydrocarbons
DTW = Depth to water
SPT = Separate-phase hydrocarbon thickness
GWE = Groundwater elevation in feet above mean sea level relative to a City of Oakland benchmark
MSL = Mean sea level
TOC = Top of casing
– = Not monitored or sampled at the request of Chevron

APPENDIX A

WELL INSTALLATION PERMITS

ZONE 7 WATER AGENCY

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

RECEIVED
DEC 0 4 1992
ZONE 7, ACFC&WCD

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 997 - Grant Ave
San Lorenzo, California

CLIENT
Name Chevron U.S.A. Products Company
Address 240 Camino Ramon Phone 842-9500
City San Ramon, CA Zip 94583

APPLICANT
Name Groundwater Technology
Tim Watchers
Address 4057 Port Chicago Hy Phone 510 671-2387
City Concord, California Zip 94520

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	X	Well Destruction	___

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

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

DRILLER'S LICENSE NO. 482390

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum
Casing Diameter 2 in. Depth 30 ft.
Surface Seal Depth 10-11 ft. Number 1

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

ESTIMATED STARTING DATE Jan 15, 1992
ESTIMATED COMPLETION DATE Feb 15, 1992

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

APPLICANT'S SIGNATURE T. Watchers Date 3 Dec 92

FOR OFFICE USE

PERMIT NUMBER 92638
LOCATION NUMBER ___

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 8 Dec 92
Wyman Hong

31992

ALAMEDA COUNTY PUBLIC WORKS
399 ELMHURST STREET, HAYWARD, CALIFORNIA 94544
ROAD ENCROACHMENT PERMIT

(In accordance with Chapter 1 of Title 5, Streets and Highways, Ordinance Code, County of Alameda, an ordinance providing for the protection of Public Highways and rights of way thereof regulating the use thereof; and the manner in which the same may be altered, excavated under, obstructed or encroached upon; and providing penalties for the violation of the provisions thereof)

Issued To: TIMOTHY WATCHERS
4057 PORT CHICAGO HY.
CONCORD, CA
Phone: 671-2387

Permit Number: R00-921706
Issue Date: 1/26/1993
Expiration Date: 1/26/94
Permit Issue Receipt: 004470
Assessor Number: - - -
Work Order Number: 84541

Job Site: 997 GRANT AV.
Township: SLZ

In compliance with and subject to all the terms, conditions and restrictions contained in Chapter 1 of Title 5 of said Ordinance Code and as stated below or printed as general or special provisions on any part of or attached to and made a part of this encroachment permit.

THE ABOVE APPLICANT HEREBY REQUESTS PERMISSION TO:
INSTALL A GROUNDWATER MONITORING WELL IN THE RIGHT-OF-WAY OF WASHINGTON AVENUE, SAN LORENZO, IN THE VICINITY OF THE FORMER CHEVRON STATION AT 997 GRANT AVENUE.

Attention is directed to the general provisions printed on the attached sheets of this permit and to the special provisions attached hereto and made a part hereof.

ALL MISCELLANEOUS GENERAL PROVISIONS AND THE FOLLOWING SPECIAL PROVISIONS:

K, L, Q, R

THE PLANNED EXCAVATION IS WITHIN 500 FEET OF AN EXISTING TRAFFIC SIGNAL. CONTACT ERIC DAYTON AT 670-5537 TWO DAYS PRIOR TO START OF WORK.

THIS PERMIT AUTHORIZES THE INSTALLATION OF THE SUBJECT WELL, PENDING THE ISSUANCE OF AN ACFC&WCD ZONE 7 DRILLING PERMIT, AND THE OPERATION OF THE WELL FOR THE PERIOD NOTED. ANY CONTINUING OPERATIONS BEYOND THIS DATE WILL REQUIRE THE EXTENSION, BY AMENDMENT, OF THIS PERMIT.

DESTRUCTION OF THE WELL WILL REQUIRE A SEPARATE PERMIT.

ALL FLUIDS REMOVED FROM THE WELL SHALL BE DISPOSED OF IN AN AUTHORIZED DISPOSAL SITE.

ALL CONSTRUCTION ACTIVITIES AND SAMPLING OPERATIONS SHALL BE RESTRICTED TO THE HOURS OF 9:00 AM TO 3:30 PM.

This permit does not authorize, and it shall not be construed to authorize any infringement upon the property rights of owners of the fee title of the highway referred to herein. Notice of start of work and other required notices shall be given to the field office, 22341 Redwood Road, Castro Valley Phone (510) 670-5762.

Other Required Permits: ZONE 7 DRILLING
Bond Information: $3000 BOND ON FILE
Inspection Deposit: $35 CASH

By SEE APP. Applicant Reviewed By: JKR
Work Completed: __/__/__
By JK Rogina ALAMEDA COUNTY Inspector: _____

Where no maps or plats are furnished, a sketch of the proposed work, showing location, name of road and other information must be made on a separate sheet, in triplicate.

APPENDIX B

GROUNDWATER TECHNOLOGY'S STANDARD OPERATING PROCEDURES (SOPs)

GROUNDWATER TECHNOLOGY, INC.
STANDARD OPERATING PROCEDURE
CONCERNING GROUNDWATER MONITORING
SOP 8

Groundwater monitoring of wells at the site shall be conducted using an ORS Environmental Equipment (ORS) INTERFACE PROBE™ and SURFACE SAMPLER™. The INTERFACE PROBE™ is a hand-held, battery-operated device for measuring depth to petroleum product and depth to water as measured from an established datum (*i.e.*, top of the well casing which has ben surveyed). Separate-phase hydrocarbon (product) thickness is then calculated by subtracting the depth to product from the depth to water. In addition, water elevations are adjusted for the presence of fuel with the following calculation:

(Product Thickness) (0.8) + (Water Elevation) = Corrected Water Elevation

Note: The factor of 0.8 accounts for the density difference between water and petroleum hydrocarbons.

The INTERFACE PROBE ™ consists of a dual-sensing probe which utilizes an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products. A coated steel measuring tape transmits the sensor's signals to the reel assembly where an audible alarm sounds a continuous tone when the sensor is immersed in petroleum product and an oscillating tone when immersed in water. The INTERFACE PROBE ™ is accurate to 1/16th inch.

A SURFACE SAMPLER™ shall be used for visual inspection of the groundwater to note sheens (difficult to detect with the INTERFACE PROBE ™), odors, microbial action, etc.

The SURFACE SAMPLER™ used consists of a 12-inch-long case acrylic tube with a Delrin ball which closes onto a conical surface creating a seal as the sampler is pulled up. The sampler is calibrated in inches and centimeters for visual inspection of product thickness.

To reduce the potential for cross contamination between wells, the monitorings shall take place in order from the least to the most contaminated wells. Wells containing separate-phase hydrocarbons (free product) should be monitored last. Between each monitoring the equipment shall be washed with laboratory-grade detergent and double rinsed with distilled water.

GROUNDWATER TECHNOLOGY, INC.
STANDARD OPERATING PROCEDURE
CONCERNING WATER SAMPLING METHODOLOGY
SOP 9

Before water sampling, each well shall be purged by pumping a minimum of four well volumes or until the discharge water indicates stabilization of temperature conductivity and pH. If the well is evacuated before four well volumes are removed or stabilization is achieved, the sample should be taken when the water level in the well recovers to 80 percent of its initial level.

Retrieval of the water sample, sample handling and sample preservation shall be conducted according to Standard Operating Procedure 10 concerning "Sampling for Volatiles in Water." The sampling equipment used shall consist of a Teflon® and/or stainless steel samplers which meet U.S. Environmental Protection Agency (EPA) regulations. Glass vials with Teflon® lids should be used to store the collected samples.

To ensure sample integrity, each vial shall be filled with the sampled water in such a way that the water stands above the lip of the vial. The cap should then be quickly placed on the vial and tightened securely. The vial should then be checked to ensure that air bubbles are not present prior to labeling of the sample. Label information should include a sample identification number, job identification, date, time, type of analysis requested, and sampler's name. Chain-of-custody records shall be completed according to Standard Operating Procedure (SOP) 11 concerning chain of custody.

The vials should be immediately placed in high quality coolers for shipment to the laboratory. The coolers should be packed with sufficient ice or freezer packs to ensure that the samples are kept below 4° Celsius (C). To minimize sample degradation the prescribed analysis shall take place within seven days of sample collection unless specially prepared acidified vials are used.

To minimize the potential for cross contamination between wells, all the well development and water sampling equipment which contacts the groundwater shall be cleaned between each sampling. As a second precautionary measure, the wells shall be sampled in order of increasing contaminant concentrations (the least contaminated well first, the most contaminated well last) as established by previous analysis.

STANDARD OPERATING PROCEDURE 10
CONCERNING SAMPLING FOR VOLATILES IN WATER
(DISSOLVED GASOLINE, SOLVENTS, ETC.)
SOP 10

1. Use only vials properly washed and baked.

2. Use clean sampling equipment. Scrub with Alconox or equivalent laboratory detergent and water followed by a thorough water rinse. Complete with a distilled water rinse.

   Sampling equipment which has come into contact with liquid hydrocarbons (free product) should be regarded with suspicion. Such equipment should have tubing and cables replaced and all resilient parts washed with laboratory detergent solution as indicated above. Visible deposits may have to be removed with hexane. Solvent washing should be followed by detergent washing, as indicated above.

   This procedure is valid for volatile organic analysis only. For extractable organics (for example, pesticides, or base neutrals for U.S. Environmental Protection Agency [EPA] Method 625 a final rinse with pesticide-grade isopropyl alcohol), followed by overnight or oven drying will be necessary.

3. Take duplicate samples. Mark on forms as a single sample with two containers to avoid duplication of analyses.

4. Take a site blank using distilled water or known uncontaminated source. This sample will be run at the discretion of the project manager.

5. Fill out labels and forms as much as possible ahead of time. Use an indelible marker.

6. Preservatives are required for some types of samples. Use specially prepared vials marked as indicated below, or use the appropriate field procedure (SOP 12 for acidification). Make note on forms that samples were preserved. Always have extra vials in case of problems. Samples for volatile analyses should be acidified below pH 2 upright. Eye protection, foot protection, and disposable vinyl gloves are required for handling. Samples designated for expedited service and analyzed within seven (7) days of sampling will be acceptable without preservation. Acid-causing burns. Glasses or goggles (not contact lenses) are necessary for protection of the eyes. Flush eyes with water for 15 minutes if contact occurs and seek medical attention. Rinse off hands frequently with water during handling.

   For sampling chlorinated drinking water supplies for chlorinated volatiles, samples shall be preserved with sodium thiosulfate. Use vials labeled "CONTAINS THIOSULFATE." No particular cautions are necessary.

7. Fill vial to overflowing with water, avoiding turbulence and bubbling as much as possible. Water should stand above lip of vial.

8. Carefully, but quickly, slip cap onto vial. Avoid dropping the Teflon® septum from cap by not inverting cap until it is in contact with the vial. Disc should have Teflon® face toward the water. Also avoid touching white Teflon® face with dirty fingers.

9. Tighten cap securely, invert vial, and tap against hand to see there are not bubbles inside.

10. Label vial, using indelible ink, as follows:

    A. Sample I.D. No.
    B. Job I.D. No.
    C. Date and Time
    D. Type of analysis required
    E. Your name

11. Unless the fabric-type label is used, place Scotch™ tape over the label to preserve its integrity.

12. For chain-of-custody reasons, sample vial should be wrapped end-for-end with Scotch™ tape or evidence tape and signed with indelible ink where the end of the tape seals on itself. The septum needs to be covered.

13. Chill samples immediately. Samples to be stored should be kept at 4° Celsius (C) (30° Fahrenheit [F]). Samples received at the laboratory above 10°C (as measured at glass surface by a thermocouple probe), after overnight shipping, will be considered substandard, so use a high quality cooler with sufficient ice or freezer packs.

14. Fill out Chain-of-Custody Manifest and Analysis Request Form (see Chain of Custody Procedures, SOP 11).

GROUNDWATER TECHNOLOGY, INC.
STANDARD OPERATING PROCEDURE
CONCERNING CHAIN OF CUSTODY
SOP 11

1. Samples must be maintained under custody until shipped or delivered to the laboratory. The laboratory will then maintain custody. A sample is under custody if:

    a) It is in your possession
    b) It is in your view after being in your possession
    c) You locked it up after it was in your possession
    d) It is in a designated secure area

2. Custody of samples may be transferred from one person to another. Each transferrer and recipient must date, sign and note the time on the chain-of-custody form.

3. In shipping, the container must be sealed with tape, and bear the sender's signature across the area of bonding at the ends of the tape to prevent undetected tampering. Each sampling jar should be taped and signed as well. Scotch tape works well.

4. Write "sealed by" and sign in the "Remarks" box at the bottom of the form before sealing the box. Place form in a plastic bag and seal it inside the box.

5. The "REMARKS" section of the form is for documenting details such as:

    a) Correlation of sample numbers if samples are split between labs.
    b) QC numbers when lab is logging in the samples.
    c) Sample temperature and condition when received by lab.
    d) Preservation notation.
    e) pH of samples when opened for analysis (if acidified).
    f) Sampling observation or sampling problem.

6. The chain-of-custody form should be included inside the shipping container. A copy should be sent to the project manager.

7. When the samples are received by the lab, the chain-of-custody form will be dated, signed, and the time noted by a laboratory representative. The form will be retained in the laboratory files along with shipping bills and receipts .

8. At the time of receipt of samples by the laboratory, the shipping container will be inspected and the sealing signature will be checked. The samples will be inspected for condition and bubbles, and the temperature of a representative sample container will be measured externally by a thermocouple probe (held tightly between two samples) and recorded. The laboratory QC numbers will be placed on the labels, in the accession log, and on the chain-of-custody form. If samples are acidified, their pH will be measured by narrow range pH paper at the time of opening for analysis. All comments concerning procedures requiring handling of the samples will be dated and initialed on the form by the laboratory person performing the procedure. A copy of the completed chain-of-custody form with the comments on sample integrity will be returned to the sampler.

GROUNDWATER TECHNOLOGY, INC.
STANDARD OPERATING PROCEDURE
CONCERNING SOIL SAMPLING METHODOLOGY
SOP 14

1. Soil samples should be collected and preserved in accordance with Groundwater Technology Standard Operating Procedure (SOP 15) concerning Soil Sample Collection and Handling when Sampling for Volatile Organics. A hollow stem soil auger should be used to drill to the desired sampling depth. A standard 2 inch diameter split spoon sampler 18 inches in length shall be used to collect the samples. The samples are contained in 2 inch diameter by 6 inch long thin walled brass tube liners fitted into the split spoon sampler (three per sampler).

2. The split spoon sampler should be driven the full depth of the spoon into the soil by a 140 pound hammer. The spoon shall then be extracted from the borehole and the brass tube liners containing the soil sample removed from the sampler. The ends of the liner tubes should be immediately covered with aluminum foil, sealed with a teflon or plastic cap, and taped with duct tape. After being properly identified with sample data entered on a standard chain of custody form the samples shall be placed on dry ice (maintained below 4~C) and transported to the laboratory within 24 hours.

3. One of the three soil samples retrieved at each sample depth shall be analyzed in the field using a photolonization detector and/or explosimeter. The purpose of the field analysis is to provide a means to choose samples to be laboratory analyzed for hydrocarbon concentrations and to enable comparisons between the field and laboratory analyses. The soil sample shall be sealed in a plastic bag and allowed to equilibrate with the air surrounding the soil for approximately 10 minutes. One of the two field vapor instruments shall be used to quantify the amount of hydrocarbon released to the air from the soils. The data shall be recorded on the drill logs at the depth corresponding to the sample point.

GROUNDWATER TECHNOLOGY, INC.
STANDARD OPERATING PROCEDURE
CONCERNING SOIL SAMPLE COLLECTION AND
HANDLING WHEN SAMPLING FOR VOLATILE ORGANICS
SOP 15

1. Use a sampling means which maintains the physical integrity of the samples. The project sampling protocol will designate a preferred sampling tool. A split spoon sampler with liners, or similar tube sampler which can be sealed, is best.

2. The samples should be sealed in the liner, with teflon plugs (The "California Sampler") or plastic caps.

3. For sending whole-core samples (above):

   A. Seal ends of liner with teflon plugs or plastic caps, leaving no free air space inside.

   B. Tape with duct tape.

   C. Label the sample with the following information: sample identification, depth, date and time, project number and required analyses.

   D. Place in plastic bag labeled with indelible marker. Use Well #, depth, date, and job #.

   E. Place inside a second bag and place a labelling tag inside outer bag.

   F. Enclose samples in a cooler with sufficient ice or dry ice to maintain samples at 4 degrees C during shipment.

   G. Seal cooler with a lock, or tape with samplers signature so tampering can be detected.

   H. Package cooler in a box with insulating material. Chain of custody forms can be placed in a plastic bag in this outer box.

   I. If dry ice is used, a maximum of 5 pounds is allowed by Federal Express without special documents(documents are easy to obtain but are not necessary for under 5 pounds). Write "ORM-A dry ice", "____ pounds, for research" on outside packaging and on regular airbill under classification. UPS does not accept dry ice.

   J. Soil cores kept a 4 degrees C are only viable for up to 7 days when aromatic hydrocarbons are involved. The lab should prepare the samples in methanol once in the lab.

4. Good sampling practice would include preparing 1 out of 5 samples to be prepared in duplicates for analysis. These 4 out of 20 samples will be used for the following purposes:

   A. One in every 20 samples should be analyzed as a field replicate to evaluate the precision of the sampling technique. A minimum of 1 sample per data set is suggested.

   B. An additional 1 in 20 samples should be selected by sampler to be prepared in duplicate as alternative to Step (A). Choose a different soil type if available.

C. The remaining 2 in 20 samples should be used by lab for spiking with reference materials for internal QC.

Other QC procedures can be specified at the project manager's discretion. See Table 3-2 (reference 2) attached.

5. Decontamination of equipment in the field requires a detergent wash, with a distilled water rinse.

REFERENCES

1. Soil Sampling Quality Assurance Users Guide, U.S. EPA Environmental Monitoring Systems Laboratory, Las Vegas, NV, EPA 600/4-84-043, May 1984.

2. Preparation of Soil Sampling Protocol. Techniques and Strategies, U.S. EPA, Environmental Monitoring Systems Laboratory, Las Vegas, NV, EPA 600/4-83-020, August 1983 (PB83-206979).

3. Test Methods for Evaluating Solid Waste, U.S. EPA, Office of Solid Waste and Emergency Response, Washington, D.C., SW 846, July 1982.

GROUNDWATER TECHNOLOGY, INC.
STANDARD OPERATING PROCEDURE
CONCERNING OPERATION/CALIBRATION OF
PHOTOIONIZATION ANALYZER
SOP 19

1. The Thermo Environmental Instruments Inc. Model 580B OVM Photoionization Analyzer shall be used, using photoionization, to measure the concentration of trace gases over a range of less than 1 ppm to 2,000 ppm. The specific instrument used for investigations related to hydrocarbon contamination should be calibrated for direct readings in parts per million (ppm) volume/volume of isobutylene. Specifics of the detection principle/theory and functions of various components can be found in the manufactures instruction manual.

2. To assure optimum performance, the photoionization analyzer should be calibrated with a standard gas mixture of known concentration from a pressurized container. A daily procedure for calibration involves bringing the probe and readout close to the calibration gas, cracking the valve on the tank and checking the instrument reading. This provides a useful spot check for the instrument.

3. A procedure conducted weekly for more accurate calibration of the instrument from a pressurized container is to connect one side of a "T" to the pressurized container of calibration gas, another side of the "T" to a rotameter and the third side of the "T" directly to the 8" extension to the photoionization probe (see Figure 2). Crack the valve of the pressurized container until a slight flow is indicated on the rotameter. The instrument draws in the volume of sample required for detection, and the flow in the rotameter indicates an excess of sample. Now adjust the span pot so that the instrument reads the exact value of the calibration gas. (If the instrument span setting is changed, the instrument should be turned back to the standby position and the electronic zero should be readjusted, if necessary).

APPENDIX C

DRILL LOGS AND WELL CONSTRUCTION SPECIFICATIONS

Drilling Log

GROUNDWATER TECHNOLOGY

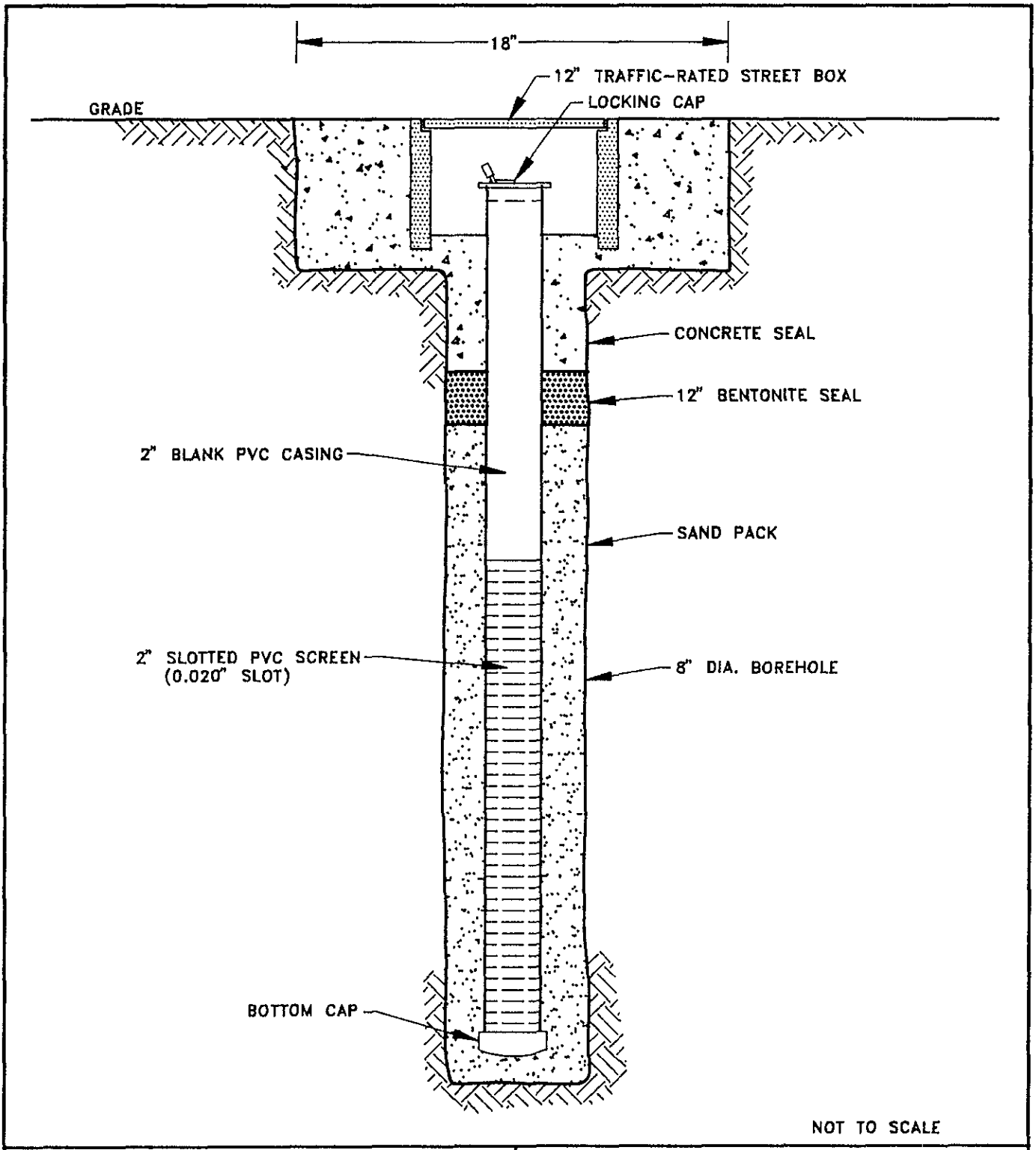
Monitoring Well **C-5**

Project *Chev/997 Grant Avenue* Owner *Chevron U.S.A. Products Co.*
Location *San Lorenzo, California* Project No. *02020 3451* Date drilled *02/02/93*
Surface Elev. *22.27 ft.* Total Hole Depth *20.5 ft.* Diameter *8 in.*
Top of Casing *22.01 ft.* Water Level Initial *8.5 ft.* Static *02/16/93 15.37 ft.*
Screen: Dia *2 in.* Length *15.0 ft.* Type/Size *0.020 in.*
Casing: Dia *2 in.* Length *5.0 ft.* Type *SCH 40 PVC*
Filter Pack Material *Lapis Lustre #3* Rig/Core Type *Mobile B-61/Split Spoon*
Drilling Company *Kvilhaug Well Drilling* Method *Hollow Stem Auger* Permit # *92638*
Driller *Rod Furlow* Log By *Chip Hurley*
Checked By *David Kleesattel* License No. *RG# 5136*

See Site Map For Boring Location

COMMENTS:

Depth (ft.)	Well Completion	PID (ppm)	Sample ID Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						Asphalt over 6 inches of siltstone
4		8.6	10 7 6			Brown silty CLAY (moist, stiff, about 75% clay, 25% silt)
8						*Encountered groundwater at 9:30AM 02/02/93*
10		4.9	6 6 7		CL	Same as above. (saturated)
14		4.9	22 22 17			Same as above. (saturated)
20			50			No recovery (saturated)
						End of boring at 20.5 feet. Installed groundwater monitoring well.



NOT TO SCALE

GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387				**TYPICAL MONITORING WELL CONSTRUCTION**		
CLIENT: CHEVRON U.S.A. PRODUCTS CO.				LOCATION:	REV. NO.:	DATE:
PM	PE/RG	DESIGNED	DETAILED: ML	ACAD FILE: FMONWELL	PROJECT NO.:	FIGURE:

APPENDIX D

LABORATORY REPORTS AND CHAIN-OF-CUSTODY RECORDS

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Groundwater Technology Inc.
Attn: TIM WATCHERS

Project 020203451/030503
Reported 02/10/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
14101- 1	C-5(5)	02/02/93	02/09/93	Soil
14101- 2	C-5(10)	02/02/93	02/09/93	Soil
14101- 4	SP-1	02/02/93	02/09/93	Soil

RESULTS OF ANALYSIS

Laboratory Number:	14101- 1	14101- 2	14101- 4
Gasoline:	ND<1	ND<1	ND<1
Benzene:	ND<.005	ND<.005	ND<.005
Toluene:	ND<.005	ND<.005	ND<.005
Ethyl Benzene:	ND<.005	ND<.005	ND<.005
Xylenes:	ND<.005	ND<.005	ND<.005
Concentration:	mg/kg	mg/kg	mg/kg

Superior Precision Analytical, Inc.
1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 14101

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	80/82	2%	75-111
Benzene:	79/76	4%	75-114
Toluene:	90/86	5%	78-114
Ethyl Benzene:	85/81	5%	76-120
Xylenes:	81/78	4%	71-117

Richard Srna, Ph.D.
Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact: ☐ Yes ☐ No 14101

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-5630
Facility Address 997 Grant Ave., San Lorenzo, CA.
Consultant Project Number 02634511030503
Consultant Name Groundwater Technology
Address 4057 Port Chicago Hwy, Concord, CA. 94520
Project Contact (Name) Tim Watchers
(Phone) 510-671-2387 (Fax Number)

Chevron Contact (Name) Nancy Vukelich
(Phone)
Laboratory Name Superior
Laboratory Release Number 424-7210
Samples Collected by (Name) S.C. Hurley
Collection Date 2-2-93
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
																	hold			
B-5(5)	1	1	S	G			Yes	X												
B-5(10)	2	1	1	1			1	X												
B-5(15)	3	1	1	1			1										X			
MW-1	4	↓	↓	↓			↓	X												

Date Rec'd:
Samples Stored in Ice: ✓
Appropriate containers: ✓
Samples preserved: NA
VOA's without headspace: NA
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GTI	2-3-93 10AM			
Relinquished By (Signature) Nancy A. Nelson	Organization MTZ1	Date/Time 2/4/93 3:00PM	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Recieved For Laboratory By (Signature) FTarquini		Date/Time 2-3-93

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
(10 Days)
As Contracted

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

Groundwater Technology Inc.
Attn: TIM WATCHERS

Project 020203451-030503
Reported 02/23/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
14171- 1	TB-LB	02/16/93	02/22/93	Water
14171- 3	C-5	02/16/93	02/19/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	14171- 1	14171- 3
Gasoline:	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5
Xylenes:	ND<0.5	ND<0.5
Concentration:	ug/L	ug/L

Superior Precision Analytical, Inc.
1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 14171

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	83/83	0%	76-111
Benzene:	91/94	3%	78-110
Toluene:	93/98	5%	78-111
Ethyl Benzene:	94/98	4%	78-118
Xylenes:	89/94	5%	73-113

Richard Srna, Ph.D.
Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact: ☐ No ☐ Yes

1/17/94

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number: 9-5630
Facility Address: 997 Grant Ave., San Lorenzo
Consultant Project Number: 020203451-030503
Consultant Name: GTI
Address: 4057 Port Chicago Concord, Ca.
Project Contact (Name): Tim Watchers
(Phone) (510) 671-2387 (Fax Number)

Chevron Contact (Name): Ms. Nancy Vukelich
(Phone): 842-9581
Laboratory Name: Superior
Laboratory Release Number: 424-7210
Samples Collected by (Name): Randy Ray Phillips
Collection Date: 2/16/93
Signature: Randy Ray Phillips

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Hold	Run TBLB as contracted N/C				Remarks
TBLB		1v	W	G	~~11:35~~ 11:49	HCl	Y	X									X				
PBC-5		1v	↓	↓	11:35	↓	↓	↓								X					
C-5		3v	↓	↓	11:35	↓	↓	↓													

Do not run RBC-5.

Please initial:
Samples Stored in Ice.
Appropriate containers.
Samples preserved.
VOA's without headspace
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Randy Ray Phillips	GTI	2/17/93 AM 905	K. Carlyon	Superior	2/17/93 905
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) Carla D Jongeward		Date/Time 2/18/93 1500

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted