



August 26, 1991

Ms. Susan Hugo
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

RE: Investigation of Soil and Groundwater Hydrocarbon Impact at ARCO
Service Station #2112, 1260 Park Street, Alameda, CA

Dear Ms. Hugo:

is not in
This letter is submitted in response to your letter dated August 3, 1991 concerning the review of GeoStrategies, Inc. (GSI) Work Plan dated January 2, 1991. The responses to your letter are presented in the order in which they appear in your letter.

① "Through telephone conversation between Mr. Kyle Christie and a representative from this office.....This office was never informed subsequent to February 14, 1991 as to whether or not the workplan was to be revised."

check w/ KC
Kyle Christie called Ms. Cheswick of your office during early April, 1991 to inform her that all soil samples from the piping excavation were non-detectable and therefore no changes to the workplan were warranted and ARCO was prepared to implement the work. Ms. Cheswick concurred but stated she wanted to review the report prior to approving the workplan. The report was provided to the ACHD on May 3, 1991. On May 20, 1991 Keith Bullock of Gettler-Ryan was contacted by Ms. Cheswick and informed the workplan had not yet been reviewed and therefore was not approved and also she was no longer going to be supervising this project and did not know who would be supervising it in the future. ARCO is still awaiting approval of the 1/2/91 workplan.

② "A waste oil tank was removed on May, 1987.....Manifest for the waste oil tank....have not been submitted to this office."

25 JUL 30 1991

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*the waste
manifest
forms are
required
for disposal
of waste
tank.*

According to ARCO records, a 550 gallon waste oil tank was removed on or about May 29, 1987. The hazardous waste manifest forms for both the liquids and soils removed are attached to this letter. It is our understanding that hazardous waste manifest forms were not required for the waste oil tank however, ARCO has records that show that the waste oil tank was destroyed by S&G, a scrap metals company, located in Oakland, CA. It is not clear why the need for these documents which pertain to a tank removal over 4 years ago should delay your review and approval of the 1/2/91 workplan. Ms. Cheswick never indicated that she wanted ARCO to submit these manifests or that it was necessary to submit these documents in order to review and approve the workplan.

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"Contamination of up to 21,000ppm TPH.....It is unclear if all the piping associated with the former five underground storage tanks have been removed at this time. Disposition of all the stockpiled soil generated at this site from the removal and installation of the underground storage tanks and piping was not fully documented. Did any stockpiled soil go back into the ground?"

As described in the GeoStrategies Report dated May 3, 1991 provided to your office, all of the piping has been removed. The disposition of the soil from the tank and piping excavation and removal was documented in GSI reports dated November 7, 1990 and May 3, 1991. All of the soils were aerated on site and disposed at either the Redwood sanitary landfill in Novato or at the Laidlaw landfill in Kern County. No excavated soils were placed back into the ground. Please find attached paid ARCO invoices from Laidlaw Environmental Services and Dillard Trucking, Inc. that document when and where all excavated soils were disposed.

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"Manifests for the five underground storage tanks removed on 7/26/90 and contaminated soil hauled off site have not been submitted to this office"

{ Attached to this letter are the manifest forms for the five underground storage tanks. Again, it is not clear why these manifests should have
✓ *should be submitted on a report regarding Tank Replacement dated Nov. 7, 1990.*
Manifests were required to be submitted 60 days after receipt of sample results as per item # 22 (page 4) in the approved closure of the underground tank (KC 3/13/90).
not necessarily as a condition to review & approve the workplan

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impeded review of the workplan. Ms. Cheswick never mentioned that they needed to be submitted before review of the workplan.

⑤ **"The work plan submitted to this agency on January 4, 1991 is not adequate to fully define the extent of soil and groundwater contamination."**

To date only soil borings have been performed at this site. As described in the LUFT manual the standard procedure following discovery of onsite soil contamination involves determining the distance to groundwater, the groundwater gradient and the presence of groundwater contamination. These LUFT requirements are established through the installation of onsite groundwater monitoring wells. Following this necessary initial onsite groundwater monitoring step, offsite wells may be installed if necessary to determine the extent of any dissolved contaminants. The 1/2/91 workplan as proposed includes the installation of five onsite groundwater wells, three onsite vapor extraction wells and the performance of a vapor extraction test. It is difficult to understand your comment that the workplan does not address the extent of soil and groundwater contamination when it is clear that to date no groundwater data has been generated because of the lack of approval of the 1/2/91 workplan. The determination of the extent of contamination must start with the performance of the 1/2/91 workplan which is imperative to document the presence, character, and concentration of any groundwater contaminants as well as the flow direction. This information would then be used to guide any further investigations.

⑥ **"The overall effectiveness of the proposed in-situ remediation using vapor extraction wells should be verified by an appropriate monitoring program....."**

As proposed in the GSI work plan, a vapor extraction test will be performed that will determine the area of influence and the system's overall effectiveness as a remedial approach. Following the completion of the assessment and vapor extraction test, and the determination of any groundwater contamination and any necessary groundwater pump tests, a remedial action plan (RAP) will be developed that will include an approximate time schedule for the RAP to be implemented. To move

8/26/91

forward, however, toward the implementation of a RAP, it is imperative that the 1/2/91 workplan be performed without any further delay. After the installation of the monitoring wells, any free product will be removed on a weekly basis up to the time when an automated extraction system is installed. The remedial plan will include the determination of aquifer characteristics and the capture zone of the extraction system.

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"This department will oversee the assessment and remediation for this site. You may implement remedial actions before approval of the workplan to act diligently in protecting the waters of the State. Please be advised that final concurrence by this office will depend on the extent to which the work done meets the requirements of this letter."

This is the first time ARCO has been advised by any agency within Alameda County that ARCO has the right to implement remedial actions prior to agency approval of the workplan. To date it has been our understanding that in the case of the subject site the Alameda County Environmental Health Department had to approve all workplans prior to their implementation.

As described above to date only soil borings have been performed at this site. It is necessary at this time to install monitoring wells to establish the criteria required by the LUFT manual. As such, although your letter indicates that ARCO "...may implement remedial actions before approval of the workplan...", in accordance with LUFT it is necessary to establish the character and extent of the any groundwater contamination before initiating remedial action. ARCO will therefore initiate implementation of the 1/2/91 workplan following your approval. Furthermore, also as described in LUFT, if and when groundwater contamination is confirmed and if free product is identified ARCO will implement free product recovery measures.

Since this seems to be a change in Alameda County Health Department policy it would be helpful to have the following areas clarified: (a) does this program apply to all sites within the ACHCS's jurisdiction, (b) does this program apply to all aspects of site assessment and remediation or

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just "remedial actions" as stated in your letter, (c) is a workplan necessary to file if work can proceed prior to Agency approval and (d) rather than receiving comments about a certain aspect of an investigation or remedial plan after its implementation, does the County have written guidelines for ARCO to follow in performing assessment and remedial work.

If the Alameda County Environmental Health Department policy allows completion of assessment work in addition to "remedial actions" prior to workplan approval please advise me as soon as convenient as ARCO will proceed immediately with implementation of the workplan as originally proposed. Please don't hesitate to call me at (415) 571-2469 if you have any questions regarding this letter.

Sincerely,



Chuck Carmel
Environmental Engineer

cc: John Meck, ARCO Products Company
Chris Winsor, ARCO Products Company
Lester Feldman, San Francisco RWQCB
Howard Hatayama, State Department of Health Services
Keith Bullock, Gettler-Ryan Inc.
Mark Thomson, Alameda County District Attorney's Office

enclosures

disposal systems which utilize subsurface disposal, and possible combinations of individual disposal systems, community collection and disposal systems which utilize subsurface disposal, and conventional treatment systems.

13284. The state board may adopt guidelines, regulations, or policies necessary to implement the provisions of this article.

CHAPTER 5. ENFORCEMENT AND IMPLEMENTATION

Article 1. Administrative Enforcement and Remedies by Regional Boards

13300. Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.

(Added by Stats. 1969, Ch. 482; amended by Stats. 1970, Ch. 918; amended by Stats. 1971, Ch. 1288.)

13301. When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to such system by dischargers who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing, or in accordance with the procedure set forth in Section 13302.

(Added by Stats. 1969, Ch. 482; amended by Stats. 1970, Ch. 918; amended by Stats. 1971, Ch. 1288.)

13301.1. The regional board shall render to persons against whom a cease and desist order is issued pursuant to Section 13301 all possible assistance in making available current information on successful and economical water quality control programs, as such information is developed by the state board pursuant to Section 13167, and information and assistance in applying for federal and state funds necessary to comply with the cease and desist order.

(Added by Stats. 1970, Ch. 1464.)

13302. (a) Hearings for consideration of issuance of a cease and desist order may be conducted by hearing panels designated by the regional

board, each panel to consist of three or more members of the board as it may specify. A member of the board may serve on more than one panel.

(b) Due notice of the hearing shall be given to all affected persons. After the hearing, the panel shall report its proposed decision and order to the regional board and shall supply a copy to all parties who appeared at the hearing and requested a copy. Members of the panel are not disqualified from sitting as members of the board in deciding the matter. The board, after making such independent review of the record and taking such additional evidence as may be necessary, may adopt, with or without revision, the proposed decision and order of the panel.

13303. Cease and desist orders of the board shall become effective and final upon issuance thereof. Copies shall be served forthwith by personal service or by registered mail upon the person being charged with the violation of the requirements and upon other affected persons who appeared at the hearing and requested a copy.

(Added by Stats. 1969, Ch. 482; amended by Stats. 1972, Ch. 813.)

13304. (a) Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirement or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up such waste or abate the effects thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action. Upon failure of any person to comply with such cleanup or abatement order, the Attorney General, at the request of the board, shall petition the superior court for that county for the issuance of an injunction requiring such person to comply therewith. In any such suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.

(b) The regional board may expend available moneys to perform any cleanup, abatement, or remedial work required under the circumstances set forth in subdivision (a) which in its judgment is required by the magnitude of endeavor or urgency of prompt action needed to prevent substantial pollution, nuisance, or injury to any waters of the state. Such action may be taken in default of, or in addition to, remedial work by the waste discharger or other persons, and regardless of whether injunctive relief is being sought. The regional board may perform the work itself, or by or in cooperation with any other governmental agency, and may use rented tools or equipment, either with operators furnished or unoperated. Notwithstanding any other provisions of law, the regional board may enter into oral contracts for such work, and the contracts, whether written or oral, may include provisions for equipment rental and in addition the furnishing of labor and materials necessary to accomplish the work. Such contracts shall be exempt from approval by the Department of General Services pursuant to the provisions of Section 14780 of the Government Code.

EXPLANATION OF ARCO 2112

REMEDIATION SCHEDULE

(1) Soil Investigation

Completion of the soil investigation will depend on results of the current on-site investigation. It is assumed that soil contamination is confined onsite and has been delineated by already completed work for which a report is currently pending.

(2) Additional Ground-water Investigation

An off-site ground-water investigation will be required into the adjacent property to the southwest of the site, and into the public right-of-way in Park Street. It is assumed that three additional ground-water monitoring wells will be required for delineation of off-site ground-water contamination. A work plan will be prepared and submitted to the Alameda County Health Care Services Agency. It is assumed that this work plan will be approved within one month of submittal and that upon completion of the proposed work, no further ground-water investigation will be necessary.

This off-site investigation will require obtaining encroachment permits from the City of Alameda and a right-of-entry from the adjacent property owner. Because Park Street is also State Highway 61, Cal-Trans encroachment permits may also be required. It is assumed that these permits will require four months to obtain.

Field work, data evaluation, and reporting of the additional ground-water investigation will take two months after receipt of all necessary permits.

(3) Remediation System Design (Ground-Water)

After ground-water contamination has been delineated, a ground-water remediation system will be designed. It will include location and design of extraction wells and treatment equipment, process flow diagrams, and equipment enclosure specifications. An aquifer test has been performed and data will be included in system design.

It is assumed that ground-water remediation will be required on-site only and that the additional ground-water investigation will not indicate that off-site ground-water remediation is required. A Remedial Action Plan (RAP) will be prepared detailing the design of the on-site system. It is assumed that the RAP will be approved by the Alameda County Health Care Services Agency within one month of submittal. The schedule assumes no revisions will be required due to agency review.

(4) System Permitting (Groundwater)

The following permits are required for installation of a ground-water system at this site:

Discharge - The East Bay Municipal Utility District (EBMUD) will accept the discharge of treated groundwater into the sanitary sewer system provided it does not exceed 25,000 gallons per day. It is assumed that the permit can be applied for and issued within 90 days.

Bay Area Quality Management District (BAAQMD) - If an oil/water separator is part of the system design, a BAAQMD permit is required. It is assumed that the permit can be applied for and issued within 90 days.

City of Alameda Planning Department - The planning department must review and approve the equipment enclosure.

City of Alameda Building Department - After planning department approval, the building department must issue permits for electrical, plumbing, and enclosure structural work. This is an administrative process which should not require modification to current proposals.

Planning and building department approvals should be received within 120 days.

It is assumed that no revisions to design will be required for permitting.

(5) Equipment Procurement (Ground-water)

An equipment list will be provided to ARCO by GeoStrategies Inc., the project consultant to order selected equipment directly from the vendors. It is assumed that agencies will approve the equipment specified and that vendors can provide delivery within six weeks.

(6) System Construction and Startup (Ground-water)

System construction is contingent upon receipt of all necessary permits. Scheduled construction time assumes no delays due to weather, unusual contractor difficulties, unforeseen onsite conditions, utility company scheduling, or owner/dealer requirements.

(7) System Operation and Maintenance (Ground-water)

The estimate of system operation time assumes that ground-water cleanup levels can be achieved in 5 years. Actual operation period cannot be predicted and will depend on the accuracy of assumptions made during modeling and design, fluctuation in ground-water levels, unforeseen variations in site hydrogeology and chemistry, and ability to meet regulatory cleanup levels.

Regulatory approval of system shut down will be required.

(8) Performance Evaluation (Ground-water)

A performance evaluation will be performed after 90 days of system operation to evaluate the hydrodynamic effects of the system. Among the parameters evaluated will be actual versus anticipated zones of capture, effects of ground-water extraction of chemical concentrations in groundwater, and contaminant levels in effluent discharge. Modifications of the system and/or addition of extraction wells may be required.

The schedule assumes the system will perform as designed and no modifications will be required.

(9) Remediation System Design (Soil)

After soil contamination has been delineated, a soil remediation system will be designed. It will include location and design of wells and treatment equipment, process flow diagrams and enclosure specifications. A soil vapor extraction pilot test has been performed. These data will be incorporated into system design.

It is assumed that soil remediation will be required onsite only and that results of the pending soil investigation will not indicate that off-site soil remediation is required. A RAP will be prepared detailing the design of the on-site system. It is assumed that the RAP will be approved by the Alameda County Health Care Services Agency within one month of submittal. The schedule assumes that no design revisions will be required as a result of agency review.

(10) System Permitting (Soil)

The following permits are required for installation of a soil treatment system:

BAAQMD - Approval of soil vapor extraction equipment is required by the BAAQMD. An authority to construct has already been obtained for installation of an internal combustion engine. The decision whether to use this method of treatment has not been made at this time.

City of Alameda Planning Department - The planning department must review and approve the equipment enclosure.

City of Alameda Building Department - After planning department approval, the building department must approve all electrical, plumbing, and enclosure structural work.

Planning and building department approvals should be received with 120 days.

It is assumed that no revisions to the initial design will be required for permitting.

(11) Equipment Procurement (Soil)

An equipment list will be provided to ARCO by GeoStrategies Inc., the project consultant. ARCO will order the equipment directly from the vendors. It is assumed that agencies will approve the equipment specified and that vendors can provide delivery within eight weeks.

(12) System Construction and Startup (Soil)

System construction is contingent on receipt of all necessary permits. Construction time assumes no delays due to weather, contractor difficulties, unforeseen onsite conditions, utility company scheduling, or owner/dealer requirements.

(13) System Operation and Maintenance (Soil)

The estimate of system operation time assumes that soil cleanup levels can be achieved in 1 year. Actual operation period will depend on the accuracy of assumptions made during modeling and design, unforeseen variations in site geology and chemistry, and ability to meet regulatory cleanup levels.

Regulatory approval of system shut down will be required.

(14) Verification Soil Borings

After the soil remediation system has been shutdown, borings will be drilled and soil samples will be collected and analyzed to verify that soil contamination has been attenuated to meet regulatory cleanup levels.

The schedule assumes that these borings will verify that soil remediation has been achieved and no further system operation will be required.

(15) Verification Monitoring

After ground-water contamination levels have been reduced to meet cleanup goals, with agency approval, the ground-water treatment system will be shut down. A minimum of one year of monitoring and sampling (i.e. four quarters) is required to verify cleanup.

The schedule assumes that ground-water monitoring and sampling will demonstrate that ground-water remediation has been achieved and that no further system operation will be required.

(16) Site Closure

Based on results of verification borings and monitoring, site closure will be applied for. Concurrence by the State Water Resources Control Board is required to obtain site closure.

The schedule assumes that the Board will review and approve a site closure plan within one year of submittal.

PROJECT TIME LINE

ACTIVITY		1992												1993																					
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D										
SOIL INVESTIGATION (1)		■																																	
ADDITIONAL GROUNDWATER INVESTIGATION (2)		■		■												▨																			
GROUNDWATER	REMEDIATION SYSTEM DESIGN (3)	■		■																															
	SYSTEM PERMITTING (4)	■		■																															
	EQUIPMENT PROCUREMENT (5)	■		■																															
	SYSTEM CONSTRUCTION AND START-UP (6)	■		■																															
	SYSTEM OPERATION AND MAINTENANCE (7)	■		■												▨												FEB, 1998							
	PERFORMANCE EVALUATION (8)	■		■																															
	REMEDIATION SYSTEM DESIGN (9)	■		■																															
SOIL	SYSTEM PERMITTING (10)	■		■																															
	EQUIPMENT PROCUREMENT (11)	■		■																															
	SYSTEM CONSTRUCTION AND START-UP (12)	■		■																															
	SYSTEM OPERATION AND MAINTENANCE (13)	■		■												▨												JAN-MAR 1994							
	VERIFICATION SOIL BORINGS (14)	■		■												▨												FEB, 1998-JAN, 1999							
VERIFICATION GROUNDWATER MONITORING (15)		■		■												▨												FEB, 1999-JAN, 2000							
SITE CLOSURE (SOIL AND GROUNDWATER) (16)		■		■												▨																			

LEGEND

(X) FOR NOTES AND ASSUMPTIONS REFER TO PLATES 2, 3 AND 4

■ PROBABLE SCHEDULE

▨ ESTIMATED SCHEDULE



GeoStrategies Inc.

REMEDIATION IMPLEMENTATION SCHEDULE
ARCO Service Station #2112

PLATE

1

JOB NUMBER
7920-RTL

REVIEWED BY

DATE
1/92

REVISED DATE

Susan Hurd

(1) Soil Investigation

- Soil contamination is onsite only and has been delineated by already completed work

(2) Additional Ground-water Investigation

- Ground-water investigation will be required off-site in Park Boulevard and on the adjacent property west of the ARCO site
- A work plan will be prepared for the installation of three additional ground-water monitoring wells.
- The work plan will be approved by Alameda County Health Care Services Agency within one month of submittal
- Ground-water contamination will be delineated after completion of the activities proposed in the work plan
- Encroachment and right-of-entry permits can be obtained in four months
- Field work, data evaluation, and reporting can be completed two months after receipt of necessary permits

(3) Remediation System Design (Ground-water)

- Ground-water remediation will only be required onsite
- A Remediation Action Plan (RAP) will be prepared detailing the design of the on-site ground-water remediation system
- The RAP will be approved by the Alameda County Health Care Services Agency within one month of submittal
- No revisions will be required following agency review

(4) Remediation System Permitting (Ground-water)

- No modifications to design required for permitting
- Planning/Building department approval within 120 days
- BAAQMD permit within 90 days
- Discharge permit approval within 90 days



GeoStrategies Inc.

REMEDATION IMPLEMENTATION ASSUMPTIONS
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE

2

JOB NUMBER
7920-RTL

REVIEWED BY

A handwritten signature in black ink, appearing to be 'M. J. ...', is written over the 'REVIEWED BY' text.

DATE
1/92

REVISED DATE

(5) Equipment Procurement (Ground-water)

- No equipment modification due to agency/permitting requirements
- Equipment available from manufacturers stock within six weeks

(6) System Construction and Startup (Ground-water)

- No delays from utility companies
- No special dealer/property owner requirements
- No unusual contractor delays
- No unforeseen on-site conditions
- No weather delays

(7) System Operation and Maintenance (Ground-water)

- Five year operation of system to meet cleanup levels
- Regulatory approval of system shutdown after five years

(8) Performance Evaluation (Ground-water)

- Will show system is operating as designed and does not require modification

(9) Remediation System Design (Soil)

- Soil remediation will only be required onsite
- A RAP will be prepared detailing the design of the onsite soil remediation system
- The RAP will be approved by the Alameda County Health Care Services Agency within one month of submittal
- No revisions will be required following agency review

(10) System Permitting (Soil)

- No modifications to design required for permitting
- BAAQMD approval within 120 days (if current authority to construct not used)
- Building/Planning department approval within 120 days



GeoStrategies Inc.

REMEDATION IMPLEMENTATION ASSUMPTIONS
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE

3

JOB NUMBER
7920-RTL

REVIEWED BY
[Signature]

DATE
1/92

REVISED DATE

(11) Equipment Procurement (Soil)

- No special equipment modification due to agency/permitting requirements
- Available from manufacturer stock within eight weeks

(12) System Construction and Startup (Soil)

- No delays from utility companies
- No special dealer/property owner requirements
- No unusual contractor delays
- No unforeseen on-site conditions
- No weather delays

(13) System Operation and Maintenance (Soil)

- One year operation of system to meet cleanup levels
- Regulatory approval of system shutdown after one year

(14) Verification Soil Borings

- Borings demonstrate soil cleanup has been achieved - no further system operation

(15) Verification Monitoring

- One year (four quarters) of monitoring water-levels and sampling
- Sampling demonstrates ground-water cleanup has been achieved - no further system operation

(16) Site Closure

- Agency approval based on results of verification borings, monitoring and sampling



GeoStrategies Inc.

REMEDATION IMPLEMENTATION ASSUMPTIONS
ARCO Service Station #2112
1260 Park Street
Alameda, California

PLATE

4

JOB NUMBER
7920-RTL

REVIEWED BY

A handwritten signature in black ink, appearing to be 'MMA', is written over the 'REVIEWED BY' text.

DATE
1/92

REVISED DATE

Contract: Bettler - Ryan - John Worfal (783-8500)
↳ Keith Ballou ↳ ARCO

Summary of History

11-12-91 #2112

1260 Park St. Alameda

used to have 6 tanks (w/ interim permits 9/6/88)

Super 9928 gal

Reg #1 4000

9/8/86 precision

UL#1 6000 gal

Reg #2 4000

tested tight.

UL#2 6000 gal

7/16/87 - tested tight

5/22/89 - tested tight

① Have Form A & B submitted? (Comments 5 UL's (9/6/88))

② Business Plan re USCC?

③ Precision test results?

④ Or multiple perms?

June 8, 1987 - letter fr. Arco to Ted Israw - re: soil sampler

test results fr. waste oil tank removal.

Anater report (May 19, 1987) - 430 ppm TPH diesel

& 2,400 ppm motor oil.

6-30-89 - ULR filed by Arco 2400 ppm HC,

over excavated to 210 ppm. Contaminated soil moved to dump site.

12/26/89

Letter fr Arco. notifying tanks failed precision test, with copies of test results (11-20-89) submitted, SW leaked

12/22/89

Letter fr Pacific Env. Exp. submitting ULR to dept. ULR form dated report 12/21/89 failed tank test of 11-20-89 (Super UL.)

1/19/90

Letter fr Arco notifying Co. tanks/lines retested, repaired (replaced? retested 1/10/90 tight (Super UL.)

2/16/90

re conversation w/ Mr. Hedrick (Berghamer Eng.) complete submitted next week.

2/20/90

Limited Environmental Site Assessment report by A&S, contamination up to 21,000 ppm TPH

7-12-91

Third Quarter 1990 Summary Report

- 21,000 ppm TPH(G) from soil borings
- prepare work plan - evaluate soil & ground H₂O contaminations, direction & magnitude of ground-water gradient.

7-26-90 5 UGI's removed 10,000 gal
\$6,000 gal

one tank removed, soil around it looked green
Very strong H₂S odors. Piping will be removed
later per KC notes

8/90 4 New UGI's installed next to former tank area.

8/90 Piping along pump island removed & sampled.
(contamination up to 5800 ppm TPH G) Soil
excavated down to <10 ppm TPH G, w/ 890 ppm
& 4,600 ppm TPH G remain beneath canopy foundation

9/90 Third quarter summary report submitted
Stockpiled soil perated on site

10/25/90 - Piping parallel to Encinal removed & sampled.
Soil sample taken due odor, no excavation
done after sample was collected.

11/7/90 - Report submitted by GeoStrategies - Tank
Observations Replacement Operation work done
before 9/90. (Remainder of product piping on
the north side of the site will be removed &
soil sample will be collected (1 per lineal ft)
A&HCS will be notified.
(page 2)

- ① no manifest for
5 tanks removed
② no manifest for
bill of lading for
soil hauled off site

- Work plan will be issued to assess extent of
soil & groundwater contamination at site &
will design appropriate remediation system
to mitigate unexcavated soils beneath site.
- 1-2-91 Reiterate given submitted work plan
propose 3 vapor extraction wells & 5 G.M.W.'s
Current status: (per KC)
- 1-3-91 Submitted USI Leak Site Update
Remedial plan submitted (1-2-91)
Additional contaminated soil will be
remediated in-situ.
- 2-6-91 KC filed U.K.-C for 5 UG's removal
of 7/26/90.
- 2-14-91 KC conversation w/ Kyle Christie -
remediation options, wants the soil
vapor extraction & underflow area need
to rigorously define vertical & lateral extent
of the soil contamination before setting-up
the system. Kyle to contact Rutter Ryan
& set-up removal of remaining UG's piping.
For Kyle, the work plan submitted prior
was a preliminary work plan & would
probably be revised to reflect contamination
data obtained when the rest of the former
piping comes out. Kyle said he'd have
Chuck Carmel call KC to tell her what

what to do with the Jan 2 work plan.

3/5/91 Pipe excavation & removal (overseen by KC) sampling. Excavated soil to be hauled off site after sampling & analysis.

5/3/91 Trench Excavation / Soil Sampling Report included soil aeration sampling 9/90 → 11/28/90

4/19/91 ULR Filed - Proker Hole on 4/11/91

8/1/91 Questions: Removal of waste oil 5/87, 2,400 ppm water oil in soil, never documented, manifested for tanks? How was the ^{contaminated} soil manifested? No wells installed?
Needs: As built plans for new tanks not submitted as requested by KC letter (April 23, 1990), Part B of UGI

8/6/91 ✓ 1260 Park Ave. Alameda

Route's monitoring plan & contingency
plan for release has been submitted on
✓ March 11, 1991.
reported to Mark 8/7/91

7-9-91

(Mark Thompson) ARCO questions about sites

I NOV Dealers - Arco ask to be sent copies

(Mark said it's a reasonable request)

✓ * Talked to Ed (7-11-91) said I should write a memo via Arco - letters of NOV to cc Arco & copies of ^{ARCO's} inspection reports to me so I could send them to Arco representative (once a wk or ~~once~~ every 2 weeks or once a month).

7/15/91
Mark Thompson

II

1260 Park St. Alameda -

- 1) May 1987 - waste oil tank removed. Contamination of 2400 ppm motor oil, WHEN & HOW did we learn of contamination?
- 2) 11/89 - tank leaked, failed precision test. WHEN & HOW did we learn of leak.
- 3) Ground violation list - old piping was not removed. Arco was saying it was, Arco correct? What was the basis of ^{belief} that old piping was not removed?
- 4) Arco submitted Workplan 11/4/91, have we responded to this?

visited Mark Thompson
7/15/91

✓ III

909 Bluebell Drive Livermore -

contract dealer site

There are only 5 or 6 sites that Arco only supplies the gas. Have you had any progress of dealer since Arco told me?

785 E. Stanley Blvd. Livermore
Arco clams with wells installed 1991
- report will be forthcoming. Any truth?

5131 Shattuck Oakland

- 1) How groundwater summaries been submitted
- 2) ~~revisions~~ deficiencies regarding
precision testing.

7-15-91

discussion with Mark Thompson

SH

① 899 Lincoln Ave. Livermore

Phil Winter letter of 5/31/91 ask questions.
Where Phil Winter's questions answered &
what developments have occurred?

② 731 W. MacArthur Blvd. Oakland,

Before answering the questions see summary.

a) We say approval to submit a phase recovery system was made, but it's unclear whether proposal, any workplans were submitted.

Clarify this point.

b) Anything new in our statement "County has been provided no information or a third quarter 1990 proposed remedial action plan has ~~been~~ been implemented?

c) Have you rec'd or approved & or what do you think of 5/15/91 workplan to install pumps.

d) Have you rec'd or approved & or what do you think of 5/15/91 workplan for assessment & feasibility.

e) Arco says it contacted the agency to determine if it could defer testing from 1987-1988 & Arco said County agreed thru Ted Zerow.

Arco said 2/88 to 10/89 testing occurred but something was said to Ed Howell 10/90 & something was said 1/91, any info on these?

6707 Telegraph, Oakland 94609

1) 2 workplans submitted 5/15/91

General questions as to the workplans,
how are the workplans, are they approved,
what's the status?

7-18-91

(Mark's Thompson) Arco Sites Questions

Additional Questions:

I

1260 Park Ave. Alameda

1. In the violation summary - are the tanks permitted? & when?
2. New correspondence fr. Arco "a product sheen etc could not be measured was identified at this site. As such, interim free product banking is not applicable". A workplan ^{was} submitted to the agency 1/91. For the purpose of defining the extent of free product & provide data from which interim recovery system will be based. Agency had not responded to workplan. Agency not responded until new July 3, 1991.

II

6407 Telegraph Ave Oakland 94609

Interim free product recovery banking terminated temporarily. b/c no free product detected in the site wells. Workplan submitted 5/15/91 to conduct further assessment & feasibility testing to allow design of comprehensive remedial plan. No response from agency as of 7/2/91. Encroachment permitting for off site wells. initiated 6/24/91 w/ city of Oakland.

III 1249 Dublin Blvd.

Fair said discrepancy in daily reconciliation & he gave S.H. the file.
Need to check or look in to this issue either Fair or S.H.

IV 785 E. Stanley Blvd. Livermore,

Reports submitted to agency describing assessment of findings on 4/16/91.
Further assessment workplans to determine extent of groundwater problem, contamination

V 899 Lincoln Ave. Livermore,

Interim free product recovery boring temporarily terminated per. of lack of free product in site wells on 2/19/91. Workplan submitted to agency 5/19/91 w/c incl. further assessment & feasible testing for purpose of monitoring interim program into final remedial system. Assessment workplan approved 5/31/91. Installation of 4 MWs commenced on 6/28/91.

Is this accurate? adequate?

VI

731 W. MacArthur Blvd.

Interim product recovery backing on-going.
Aquifer test done 4/4/91 for purpose of evaluating
feasibility intrinsic recovery system & gather
data for design of final remediation
system. Workplan submitted for approval
of installation of extraction pumps & site well
on 5/15/91. No response from agency. From to
date. An aquifer test performed 4/4/91 no
further work necessary for purpose of
designing final groundwater remediation
system. As such the workplan submitted
for approval on 5/15/91 for assessment &
feasibility testing was not necessary.
True?

6/19/91

John Meek's Letter 4/16/91

FP (KCO) #2112

1260 Park St. Alameda - Submitted
Waiting for approval of workplan
4 proposals - 30 acres of attraction with 5
5 GMWS.

FP (LS) #2035

1001 San Pablo Ave. Albany - Submitted by 4/26/91
Also notified (3/20/91) of free product etc. 2 service
stations

FP (PE) #5387

20200 Hesperian Blvd., Hayward 94541
Ala. Co letter (3/19/91) free product
discovered. Workplan requested by
April 30, 1991.

FP (PS) #276

10600 MacArthur Blvd., Oakland 94605
Submitted workplan 6/27/91.

FP (PE) #362

Hayward

29900 Mission Blvd., Hayward
Workplan submitted by 5/15/91
Letter report quarterly by GWS monitoring quarterly
1990 (date March 26, 1991) (PE)

FP (SH) #374

6407 Telegraph Ave., Oakland
Workplan submitted by 5/15/91 by - SH

FP (LS) # 601

412 Lemelling Blvd. San Leandro
Workplan submitted by 5/15/91 w/ LS.
addendum to your work plan

FP (GW SH) # 771

899 Rincon Ave. Livermore
Workplan to submit by 5/15/91

FP (KE B) # 4494
L. inspection

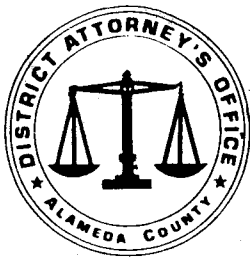
566 Hegensberger Rd., Oakland
Workplan to submit by 5/15/91

FP (GW SH) # 4931

431 W. MacArthur Blvd, Oakland
12 wells at site, 3 GWM's w/ FP.
workplan to be submitted 5/15/91

FP (PE) # 608

17601 Hesperian Blvd. San Lorenzo
7 GWM's
pumping of treat to complete
by mid June



Alameda County
District Attorney's Office
John J. Meehan, District Attorney

April 17, 1991

Gil Wistar
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Dear Mr. Wistar:

Enclosed please find a 14-page letter from Mr. Meck. It concerns pending litigation to which this office is a party. That letter and its content is privileged and confidential and is the work product of the Alameda County District Attorney's Office. It is neither to be copied nor distributed. It is to remain within the possession of the Alameda County District Attorney's Office after your review.

After you have had an opportunity to review its content, please contact me so that we may discuss issues raised and so that we can arrange for the return to this office of our document.

Very truly yours,

JOHN J. MEEHAN
District Attorney

By: Mark Thomson
Mark Thomson
Deputy District Attorney

JJM:MT:rf

91 APR 19 AM 10:26