

10/26/89

ALAMEDA COUNTY  
DEPT. OF ENVIRONMENTAL HEALTH  
HAZARDOUS MATERIALS

October 24, 1989  
88-44-361-01-223



Ms. Dyan Whyte  
Water Resource Control Engineer  
San Francisco Bay Regional Water Quality Control Board  
1111 Jackson Street, Sixth Floor  
Oakland, California 94607

Subject: Letter of Intent to Install  
Interim Groundwater Remediation System at  
500 40th Street, Oakland, California, 94607

Dear Ms. Whyte:

This letter is to inform the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) of Converse Environmental West's (CEW) intent to install an interim groundwater remediation system for Shell Oil Company at 500 40th Street in Oakland, California.

CEW proposes to install an interim groundwater extraction and treatment system to control offsite migration. Additional soil and groundwater investigations are scheduled to further define soil and groundwater plumes. The following tasks are proposed and copies will be provided to your office for review of progress.

- Task I - Design Interim Groundwater Remediation System
- Task II - Install Extraction Wells
- Task III - Submit a POTW Application (EBMUD)
- Task IV - Procure Building Permits
- Task V - Construct Groundwater Conveyance System
- Task VI - Construct Treatment System
- Task VII - Conduct System Start-up
- Task VIII - Provide System Monitoring and Prepare Reports

The above tasks are described in detail below.

### **Task 1 - Design Interim Groundwater Remediation System.**

An interim groundwater remediation system is currently under design for 10 gallons per minute of possible free product and dissolved product. Drawing 1 shows the locations of the three proposed extraction wells and the conveyance system to the treatment system. The interim treatment system will contain a total fluids pump, an oil/water separator, a product storage tank and aqueous activated carbon for dissolved product treatment.

Drawing 2 shows a schematic of the treatment system including an air stripper for removal of dissolved product from groundwater. An air stripper will not be incorporated into the system until sufficient chemical data is obtained to assist in designing an air stripper and provide information for obtaining an air discharge permit from the Bay Area Air Quality Management District (BAAQMD).

Detailed design drawings will be produced from Task 1 activities for submittal to the City of Oakland Building Department and the East Bay Municipal Utility District (EBMUD) to obtain a building permit and a water discharge permit respectively.

### **Task II - Install Extraction Wells.**

Three extraction wells will be installed in the locations shown on Drawing 1. These locations are closest to the former underground storage tanks. Attachment 1 is a recent copy of the Monthly Groundwater Monitoring Report which includes a plot plan showing the location of the former underground storage tanks.

These extraction wells will be constructed of 5-inch diameter PVC with 0.02 inch slot size, completed at approximately 30 feet below grade. The wellhead will be completed in a traffic rated vault box and connected to the below grade conveyance system.

### **Task III - Submit a POTW Application.**

Treated water will be discharge to the sanitary sewer under discharge conditions outlined by EBMUD, the local POTW. Detailed design drawings and an application for discharge will be submitted to EBMUD for review. Chemical data obtained from initial sampling of the newly constructed extraction wells will be provided to EBMUD.

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**Task IV - Procure Building Permits.**

The interim groundwater treatment system will be permitted by the City of Oakland's Building Department. Detailed design drawings will be provided to the building department. CEW engineers will meet with the building department personnel and the Hazardous Material Inspector to expedite the permit process.

**Task V and Task VI - System Construction.**

The interim groundwater remediation system will be constructed by licensed contractors and inspected by the City of Oakland building inspectors. Construction activities will be performed as soon as the necessary permits are obtained. Drawing 3 outlines the schedule of activities of all tasks and allows two months for construction activities.

**Task VII - Conduct System Start-up.**

The system start-up will verify operation of process control equipment. The fail-safe systems will be tested to insure proper operation.

**Task VIII - Provide System Monitoring and Reporting.**

CEW will provide start-up and continuous monitoring as specified in the discharge permit. The initial system sampling will be conducted to verify that discharge conditions are met. CEW personnel will obtain water samples at monthly intervals and analyze these samples for TPH as gas, diesel and BTEX. The analytical results and average flowrate will be reported to the POTW and the SFBRWQCB on a monthly basis.

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A schedule of these activities is provided on Drawing 3.

Please call myself or Dr. Douglas Charlton if you have any questions.

Very truly yours,

**Converse Environmental West**

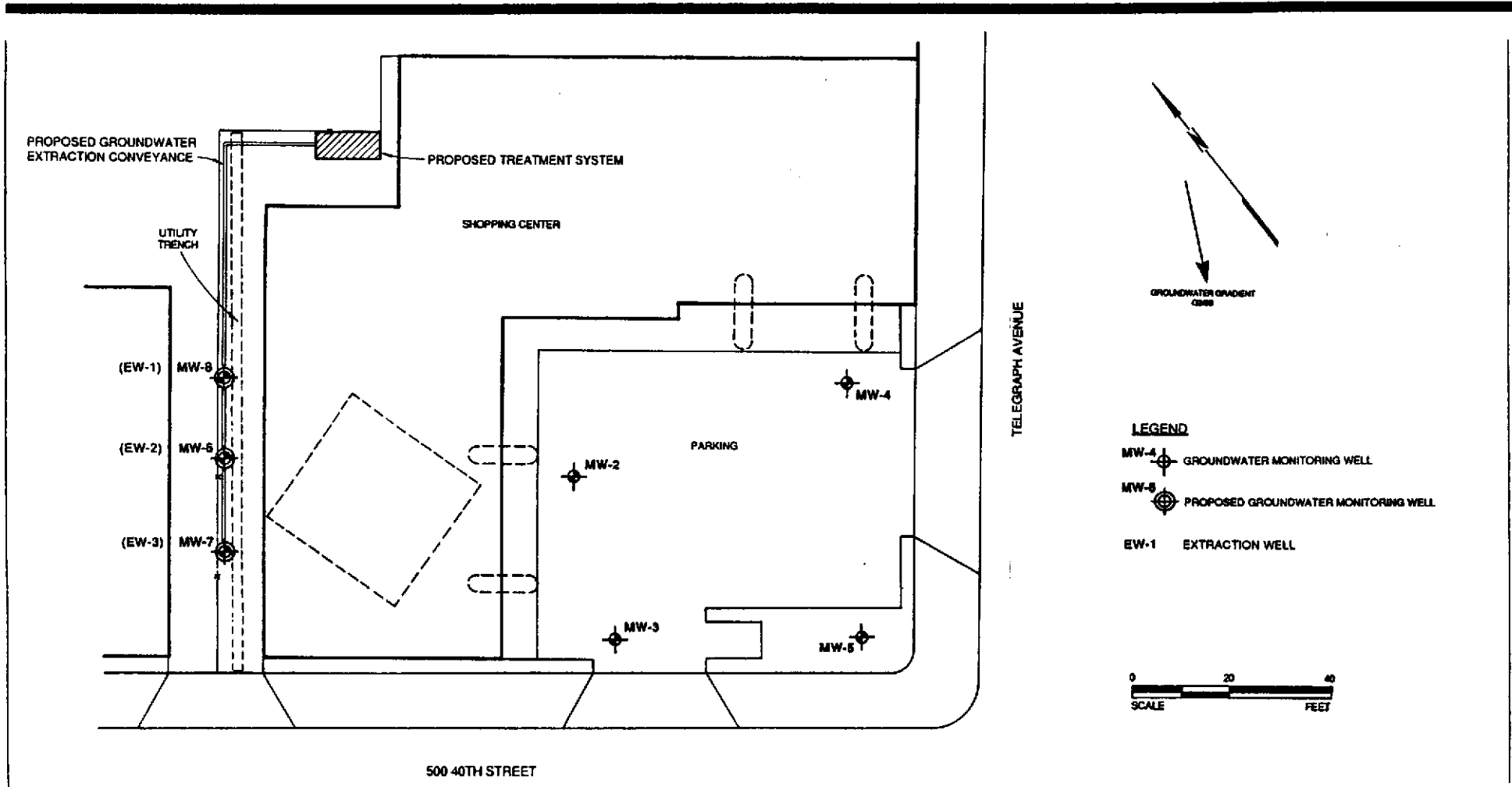


**Daniel R. Fitzgerald**  
**Project Engineer**

DRF:aar

Enclosure

cc: Ms. Diane Lundquist - Shell Oil Company (w/ encl.)  
Mr. Rafad Shahid - Alameda City Health Department (w/ encl.)  
Mr. Douglas W. Charlton - CEW (w/o encl.)  
Ms. Robin M. Breuer - CEW (w/o encl.)



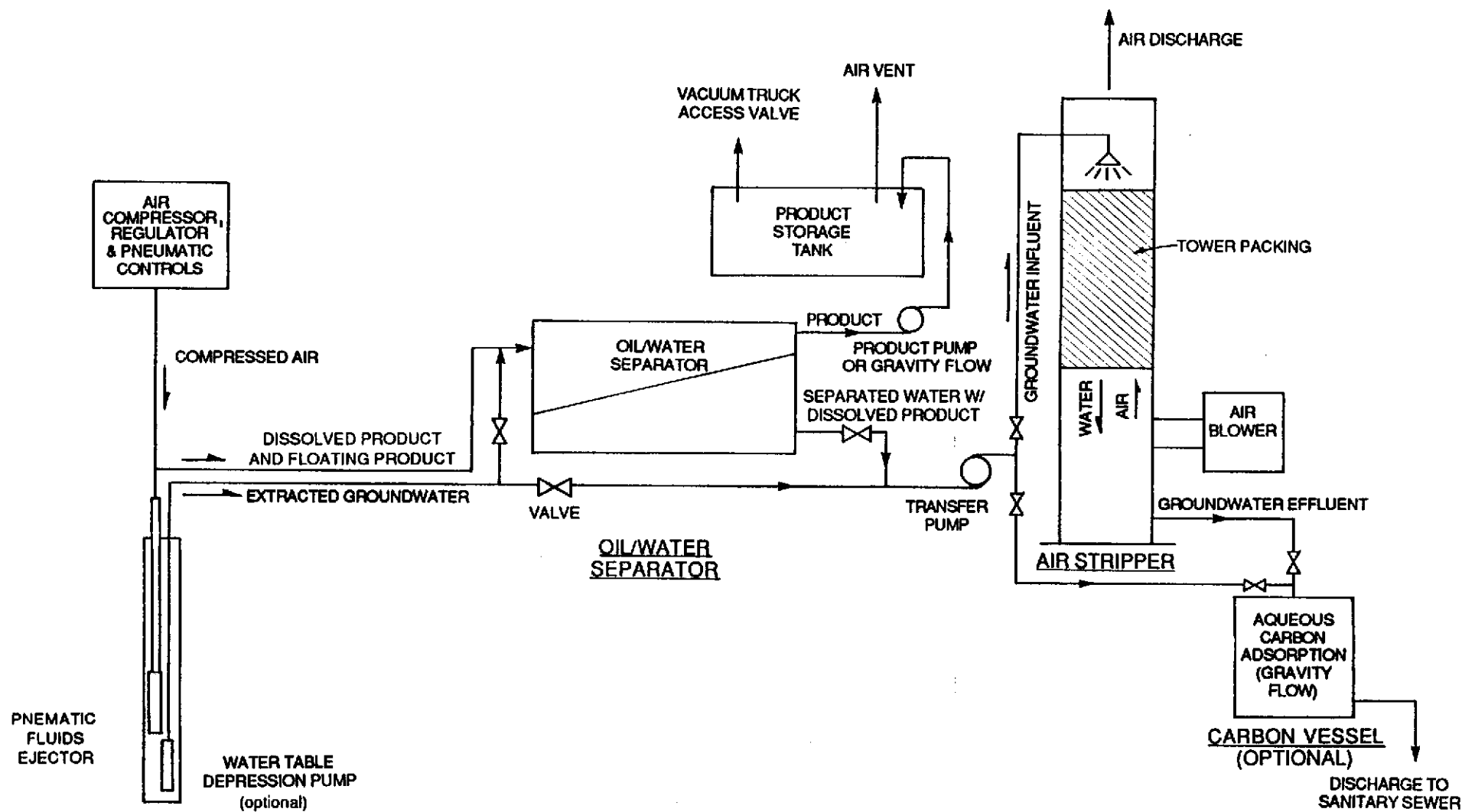
**PROPOSED INTERIM REMEDIATION SYSTEM SCHEMATIC**

SHELL OIL COMPANY  
 500 40th Street  
 Oakland, California

Scale	AS SHOWN	Project No.	
Date	7/5/89	Drawing No.	88-44-381-01
Prepared By	CRB/KGC		
Checked By	RMB		
Approved By			

 **Converse Environmental Consultants California**

Base Map: Surveyed with EDM, Converse 1989



**EXTRACTION WELL  
(TYPICAL OF FOUR)**

**SCHEMATIC DRAWING OF GROUNDWATER REMEDIATION SYSTEM**









**SHELL OIL COMPANY  
500 40th Street  
Oakland, California**

Scale	NOT TO SCALE	Project No
Date	7/21/89	88-44-361-01
Prepared By	CRB	Drawing No
Checked By	DRF	
Approved By	DRF	

NOTE : STORAGE TANK CONSTRUCTED AS REQUIRED.



**Converse Environmental Consultants California**

TASKS \ TIME	1989			1990	
	OCT	NOV	DEC	JAN	FEB
Task 1 Design Interim Groundwater Remedial System					
Task 2 Install Extraction Wells					
Task 3 Submit P.O.T.W. Application		 Obtain Discharge Permit			
Task 4 Procure Building Permit		 Obtain Building Permit			
Task 5 Install Groundwater Conveyance System					
Task 6 Construct Treatment System					
Task 7 Start-up System					 Begin System Operation
Task 8 Monitoring, Analysis and Reporting					 Report to RWQCB

**KEY :**



Schedule Subject to Permits



Document Submittal

**SCHEDULE OF ACTIVITIES**

**SHELL OIL COMPANY**  
 500 40th Street  
 Oakland, California

Scale	N/A	Project No	
Date	10-6-89	Drawing No	88-44-361-01
Prepared By	LQL		
Checked By	DRF		
Approved By	RMB		



**Converse Environmental Consultants California**