California Regional Water Quality Control Board
San Francisco Bay Region

Alan C. Lloyd, Ph.D.
Agency Secretary

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Arnold Schwarzenegger
Governor

March 24, 2005
File No. 01S0149 (BG)

Mr. Robert Heath
2613 Saklan Indian Drive #4, Entry #2
Walnut Creek, CA 94595

SUBJECT: No Further Active Remediation, Ran Rob Tool & Die, 631 85th Avenue, Oakland, Alameda County

Dear Mr. Heath:

This letter confirms the completion of site investigation and active remedial action for the pollutant releases at the subject site. Please continue to submit monitoring reports on a biennial basis.

Background:

The former Ran Rob Tool and Die facility is located at the intersection of 85th Avenue and Baldwin Street, Oakland, Alameda County. The site is zoned for industrial/commercial use (M-40 industrial, warehouse and transport). Chlorinated solvents (1,1,1 trichloroethane and trichloroethene) were used in the manufacture of tools, dies and parts for computer circuitry from the 1960's until 1988 when Ran Rob ceased operations at the site. Chlorinated solvents were stored in an above ground storage tank outside of the existing buildings and releases from this tank probably occurred. As a consequence soil and groundwater in the immediate area became contaminated. Groundwater contamination was limited to an area in the immediate vicinity of the former above ground storage tank. Now this outside area is paved and the groundwater contamination is generally bounded by MW-2, EW-1 and EW-2.

Remedial Actions:

To remove contaminants from the impacted groundwater, a groundwater extraction and treatment system operated at the site for 15 months beginning in June 1992. Due to reduced effectiveness, Alameda County Environmental Health (ACEH) approved system shutdown in Fall 1993. In 1994, ACEH closed the site for soil contamination. In 1997, ACEH concurred with the conclusions of a human health risk assessment prepared on your behalf by McLaren Hart. The risk assessment concluded that residual groundwater contamination did not pose any unacceptable human health risks under a commercial land use scenario. In 1998, regulatory oversight of the property was transferred to the Regional Water Board.

To further reduce the remaining contamination in the groundwater, a pilot test was conducted in 1999 using hydrogen reducing compound (HRC). This demonstrated the site's suitability for enhanced in-situ biodegradation. The residual contamination is shallow and confined by low permeability silty clay and clayey silt soils. The presence of chlorinated solvent decomposition products indicated that microbes capable of reductive dechlorination were present in the subsurface.

Three quarterly injections of cheese whey were performed in 2003. These injections created an anerobic reactive zone, and reduced contaminant concentrations by at least one order of magnitude. Although concentrations in the relatively small impacted area remain relatively high, biodegradation is rapidly proceeding to completion. This is demonstrated by the presence of relatively high, relatively stable levels of vinyl chloride. Vinyl chloride is a very reactive metabolite that degrades to carbon dioxide, chloride, and water. Its presence at relatively high, relatively stable levels, indicates a steady and high rate of biological activity and complete degradation of chlorinated solvents. This active natural biological attenuation system will, in time, completely degrade the remaining contamination. No further active remediation is necessary. Please continue to submit monitoring reports on a biennial basis.

Risk Assessment:

The area of contamination is paved and outside of any buildings; low permeability soils contain residual contamination within a small area; and drinking water standards are met outside the area of contamination. With existing site conditions, there are no complete exposure pathways that pose a risk to human or ecological health.

Under a future site development scenario, an indoor air exposure pathway could be assumed for a future building over the area of contamination. For that future scenario (commercial or residential land use), current contaminant concentrations are below a 10^{-6} excess cancer risk for all contaminants other than vinyl chloride. Vinyl chloride concentrations correspond to a 10^{-5} to 10^{-4} excess cancer risk. (July 2003, *Screening for Environmental Concerns At Sites with Contaminated Soil and Groundwater,* Table E-1a, San Francisco Bay Regional Water Board)

Contaminant concentrations will continue to decline due to biodegradation. The property owner is responsible to preserve the integrity of the in-situ bioremediation system. This means that the property owner should maintain the existing pavement above the area of contamination and should not cover the area of contamination with any enclosed building.

Summary:

Site characterization is complete. Residual contamination is stable and diminishing. Microbial reductive dechlorination is proceeding to completion. There are no off-site impacts. Current site uses pose no unacceptable human or ecological health risks. The site is fully developed and no changes in land use are expected in the foreseeable future.

Based upon the available information, including the current land use, and with the provision that the information provided to this agency was accurate and representative of site conditions, no further active remediation related to the pollutant releases at the subject site is required.

Biennial monitoring reports should be submitted by December 31 every other year, starting in 2006 (12/31/06, 12/31/08, and so forth). This request for a technical report is made pursuant to Water Code Section 13267, which allows the Water Board to require technical reports from persons whose activities may have an impact on water quality. You may be subject to administrative civil liability of up to $1,000 per day pursuant to Water Code Section 13268 if you fail to respond, respond late, or submit an inadequate response. Any extension in the above deadline must be confirmed in writing by Water Board staff.

If you have any questions, please contact Betty Graham of my staff at (510) 622-2358 [e-mail bgraham@waterboards.ca.gov].

Sincerely,

for

Digitally signed by Stephen Hill
DN: CN = Stephen Hill, C = US
Date: 2005.03.24 16:17:38 -08'00'

Bruce H. Wolfe
Executive Officer

cc.

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RB 51/C CASE

CASE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: March 24, 2005

Agency Name: SF Bay Regional Water Quality Control Board	Address: 1515 Clay Street, Suite 1400
City/State/Zip: Oakland, CA 94612	Phone: 510-622-2300
Responsible Staff Person: Betty Graham	Title: WRCE

II. SITE INFORMATION

Site Facility Name: Ran Rob Tool & Die		
Site Facility Address: 631 85th Avenue, Oakland, Alameda County		
RB Case No.: 01S0149	Local Case No.:	Priority: Low
Responsible Parties (include addresses and phone numbers)		
Mr. Robert Heath, 2613 Saklan Indian Dr. #4, Entry #2, Walnut Creek, CA 94595		

Tank No.	Size in Gallons	Contents	Closed In—Place/Removed?	Date
NA	NA	NA	NA	NA

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown, incidental releases due to materials handling are suspected		
Site characterization complete? Yes	Date Approved by Oversight Agency: March 24, 2005	
Monitoring wells installed? Yes	Number: 6	Proper screened interval? Yes
Highest GW Depth Below Ground Surface: 4	Lowest Depth: 15	Flow Direction: North
Most Sensitive Current Use: M-40 Industrial		
Most Sensitive Potential Use and Probability of Use M-40 Industrial		
Are drinking water wells affected? No	Aquifer Name: NA	

Is surface water affected? No	Nearest surface water name: Elmhurst Cr. (about 1500' to north)
Off-Site Beneficial Use Impacts (Addresses/Locations): None	
Report(s) on file? Yes	Where is report(s) filed? Regional Water Board

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tanks	NA		
Piping	NA		
Free Product	NA		
Soil	NA		
Groundwater	NA		
Barrels	NA		

MAXIMUM DOCUMENTED POLLUTANT CONCENTRATIONS @ EW-1—BEFORE AND AFTER CLEANUP

POLLUTANT	Soil (ppm)		Water (ppb)		POLLUTANT	Soil (ppm)		Water (ppb)	
	Before	After	Before	After		Before	After	Before	After
1,1,1-TCA			56000	2400	Cis 1,2-DCE			<500	<100
1,1,2-TCA			<500	110	VC			<1000	1000
TCE			570	<100					
1,1-DCA			4200	3400					
1,2-DCA			1300	290					
1,1-DCE			24000	4100					

Comments (Depth of Remediation, etc.):

Investigation and remediation of the site have been on-going since 1988. Residual contamination in shallow groundwater is highly localized in the center of the site (a paved outside area in the vicinity of a former above ground storage tank), and is confined by low permeability silty/clay and clayey/silt soils. A groundwater extraction and treatment system operated at the site for 15 months beginning in June 1992. Due to reduced effectiveness, ACEH approved system shutdown in Fall 1993. ACEH closed the site for soil contamination in 1994. Pilot scale testing of hydrogen releasing compound (HRC), November 1999 through June 2000, demonstrated the presence of suitable conditions for enhanced, in-situ bioremediation. Three quarterly injections of cheese whey in 2003 successfully created an anaerobic reactive zone in the area of residual contamination (MW-2, EW-1, and EW-2); and reduced residual concentrations in groundwater below levels of concern for the protection of human and ecological heath . There are no completed human health or ecological health exposure pathways for existing site uses.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Yes		
Site Management Requirements: Maintain the integrity of the existing asphalt paving. Do not construct any enclosed building spaces over the area of residual contamination (the area of EW-1, MW-2, and EW-2 plus a 10 foot buffer) without notifying/consulting the Regional Water Board and completing further investigation/risk assessment, as directed. No change in existing land use without notifying/consulting the Regional Water Board and completing further investigation/risk assessment, as directed. No water supply wells.		
Monitoring Wells Decommissioned:	Number Decommissioned:	Number Retained:
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. TECHNICAL REPORTS, CORRESPONDENCE, ETC., THAT THIS CLOSURE RECOMMENDATION WAS BASED UPON

International Geologic, Annual Groundwater Monitoring Report for 2004	Dec. 15, 2004
International Geologic, Annual Groundwater Monitoring Report for 2003	Jan. 15, 2004
Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, San Francisco Bay Regional Water Board	July 2003
International Geologic, Annual Groundwater Monitoring Report for 2002	Nov. 15, 2002
International Geologic, Annual Groundwater Monitoring Report for 2001	Aug. 21, 2001
International Geologic, Annual Groundwater Monitoring Report for 2000	June 1, 2000
International Geologic, Annual Groundwater Monitoring Report for 1999	June 2, 1999
International Geologic, Annual Groundwater Monitoring Report for 1998	July 1, 1998
International Geologic, Annual Groundwater Monitoring Report for 1997	April 22, 1997
McLaren Hart, Health Risk Assessment	Mar. 7, 1997
ACEH, No Further Action Letter for Soil Contamination, Ran Rob Tool & Die, 631 85th Ave.	Nov. 22, 1994
RWQCB, No Further Action Letter for Groundwater Contamination, Ran Rob Tool & Die, 631 85th Ave.	March 24, 2005

VI. ADDITIONAL COMMENTS, DATA, ETC.

The former Ran Rob Tool and Die facility is located at the intersection of 85th Avenue and Baldwin Street, Oakland, Alameda County. Chlorinated solvents (1,1,1 trichloroethane and trichloroethene) were used in the manufacture of tools, dies and parts for computer circuitry from the 1960's until 1988. Chlorinated solvents were stored in an above ground storage tank outside of the existing buildings and releases likely occurred due to materials handling. Residual contamination is limited to the immediate vicinity of the former above ground storage tank. This outside area is paved and is generally delineated by MW-2, EW-1 and EW-2.

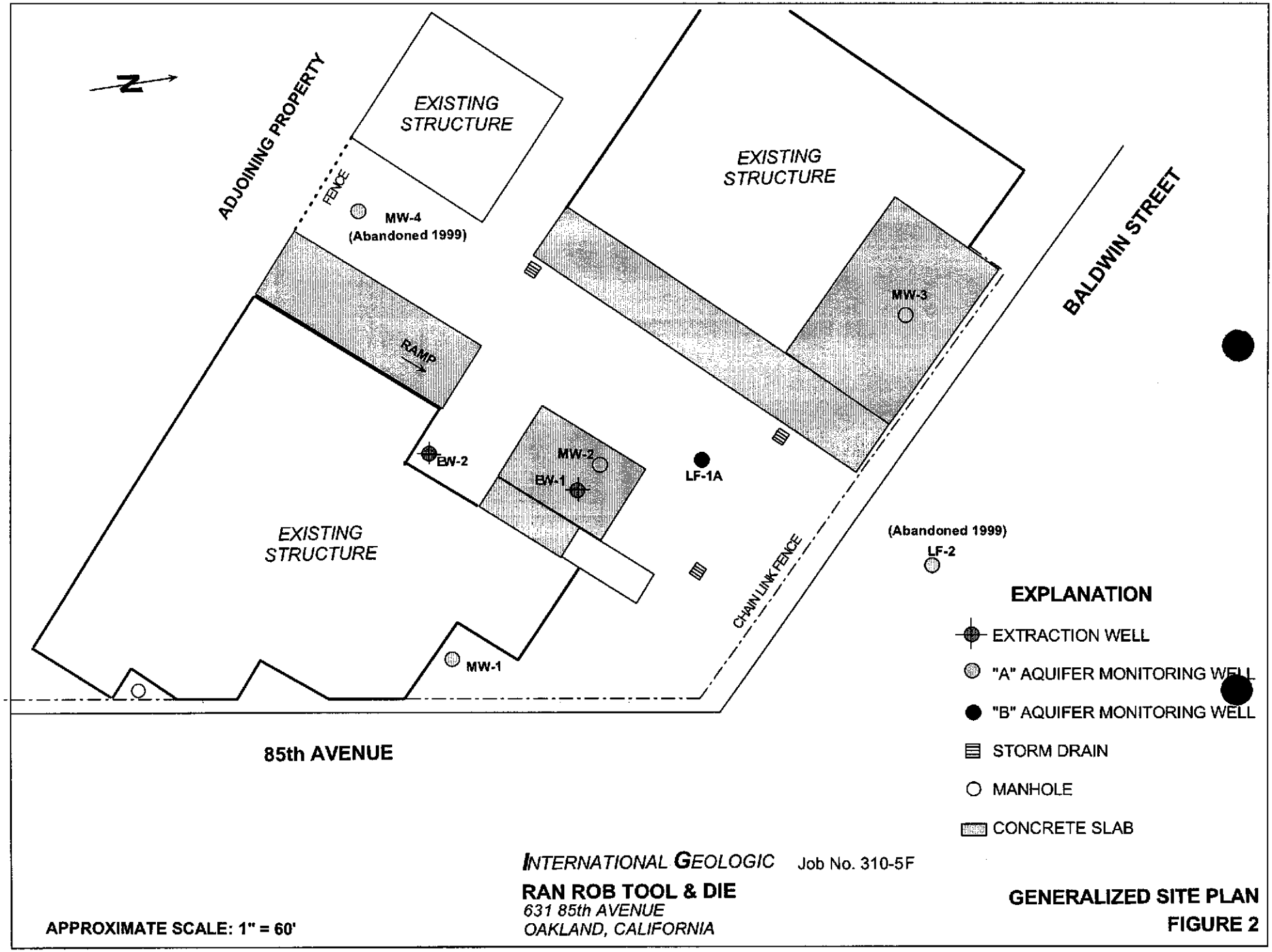
A groundwater extraction and treatment system operated at the site for 15 months beginning in June 1992. Due to reduced effectiveness, Alameda County Environmental Health (ACEH) approved system shutdown in Fall 1993. In 1994, ACEH closed the site for soil contamination. In 1997, ACEH concurred with the conclusions of a human health risk assessment prepared on behalf of Robert Health by McLaren Hart. The risk assessment concluded that residual groundwater contamination did not pose any unacceptable human health risks under a commercial land use scenario. In 1998, regulatory oversight was transferred to the Regional Water Board.

A 1999 pilot test using hydrogen reducing compound (HRC) demonstrated the site's suitability for enhanced in-situ reductive dechlorination. Three quarterly injections of cheese whey in 2003, created an anerobic reactive zone and reduced contaminant concentrations by at least one order of magnitude. Contaminant concentrations are currently below levels of concern for the protection of human and ecological health. Contaminant concentration will continue to decline due to biodegradation. No additional remedial actions or groundwater monitoring are necessary to complete site remediation.

Under the existing land use scenario, there are no completed exposure pathways for human or ecological health and the site poses no unacceptable human or ecological health risks. Under a future land use scenario, there are no unacceptable human health risks if enclosed building space is constructed over the area of residual contamination and completes an indoor air exposure pathway. The property owner is responsible to maintain the integrity of the in-situ bioremediaion system.

In summary : Site characterization is complete. Residual contamination is shallow, highly localized, and confined by low permeability silty clay and clayey silt soils. Residual contamination is stable and diminishing. Microbial reductive dechlorination is fully degrading residual contamination to benign end products. There are no off-site impacts. There are no unacceptable human or ecological health risks. The site is fully developed and no changes in land use are expected in the foreseeable future.

This document and the related CASE CLOSURE LETTER shall be retained by the lead agency as part of the official site file.



INTERNATIONAL GEOLOGIC Job No. 310-5F

RAN ROB TOOL & DIE
631 85th AVENUE
OAKLAND, CALIFORNIA

GENERALIZED SITE PLAN
FIGURE 2

APPROXIMATE SCALE: 1" = 60'