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By Alameda County Environmental Health at 4:25 pm, Jan 24, 2014

## Atlantic Richfield Company

**Chuck Carmel**

Remediation Management Project Manager

PO Box 1257  
San Ramon, CA 94583  
Phone: (925) 275-3804  
Fax: (925) 275-3815  
E-Mail: chuck.carmel@bp.com

January 24, 2014

Re: Fourth Quarter 2013 Monitoring Report  
Atlantic Richfield Company Service Station #601  
712 Lewelling Boulevard, San Leandro, California  
ACEH Case #RO0000309

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct.

Submitted by,



Chuck Carmel

Remediation Management Project Manager

Attachment



**BROADBENT**

875 Colting Ln., Suite G, Vacaville, CA 95688

[T] 707-455-7290 [F] 707-455-7295

broadbentinc.com

**CREATING SOLUTIONS. BUILDING TRUST.**

January 24, 2014

Project No. 06-88-605

Atlantic Richfield Company  
P.O. Box 1257  
San Ramon, CA 94583  
Submitted via ENFOS


Attn.: Mr. Chuck Carmel

Re: Fourth Quarter 2013 Status Report, Atlantic Richfield Company Station No. 601,  
712 Lewelling Boulevard, San Leandro, Alameda County, California;  
ACEH Case #RO0000309

Dear Mr. Carmel:

Attached is the *Fourth Quarter 2013 Status Report* for Atlantic Richfield Company Station No. 601 located at 712 Lewelling Boulevard, San Leandro, California (Site). This report presents a summary of current developments at the Site through the Fourth Quarter of 2013. Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us at (707) 455-7290.

Sincerely,  
BROADBENT & ASSOCIATES, INC.

  
Kristene Tidwell, P.G., C.Hg.  
Senior Geologist



enclosures

cc: Mr. Jerry Wickham, Alameda County Environmental Health (submitted via ACEH ftp site)  
Mr. Karl Busche, City of San Leandro (Submitted via GeoTracker)  
Electronic copy uploaded to GeoTracker

**FOURTH QUARTER 2013  
STATUS REPORT  
STATION No. 601, SAN LEANDRO, CALIFORNIA**

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Fourth Quarter 2013 Status Report* on behalf of Atlantic Richfield Company (a BP affiliated company) for Station No. 601 located in San Leandro, Alameda County, California (Site). Monitoring activities at the site were performed in accordance with the reporting requirements issued by the Alameda County Environmental Health (ACEH). Details of work performed, discussion of results, and recommendations are provided below.

Facility Name / Address:	Station No. 601 / 712 Lewelling Boulevard, San Leandro, California
Client Project Manager / Title:	Mr. Chuck Carmel, Remediation Management Project Manager
Broadbent Contact:	Kristene Tidwell, P.G., C.Hg., (707) 455-7290
Broadbent Project No.:	06-88-605
Primary Regulatory Agency / ID No.:	Alameda County Environmental Health (ACEH)/ Case #RO0000309
Current phase of project:	Monitoring
List of Acronyms / Abbreviations:	See end of report text for list of acronyms/abbreviations used in report.

**WORK PERFORMED THIS QUARTER (Fourth Quarter 2013):**

1. Submitted *Third Quarter 2013 Monitoring Report* on October 29, 2013 (Q3 GWM Report).
2. Received a letter from the ACEH dated December 9, 2014 requesting additional soil vapor sampling activities.
3. No environmental field activities were conducted for Fourth Quarter 2013.

**WORK SCHEDULED FOR NEXT QUARTER (First Quarter 2014):**

1. Submit *Fourth Quarter 2013 Status Report* (contained herein).
2. Submit a Work Plan for additional soil vapor sampling as requested by the ACEH.
3. Conduct First Quarter 2014 groundwater monitoring and sampling event.

**GROUNDWATER MONITORING PLAN SUMMARY:**

Groundwater level gauging:	MW-1 through MW-3, and MW-8 through MW-19	(1Q & 3Q)
Groundwater sample collection:	MW-1, MW-3, MW-10, MW-16, MW-17, and MW-18 MW-2, MW-8, MW-9, MW-14, MW- 15, and MW-19	(1Q & 3Q) (3Q)
Biodegradation indicator parameter monitoring:	None	

**QUARTERLY RESULTS SUMMARY:**

**LNAPL**

LNAPL observed this quarter:	N/A	(yes\no)
LNAPL recovered this quarter:	N/A	(gal)
Cumulative LNAPL recovered:	N/A	(gal)

**Groundwater Elevation and Gradient:**

Depth to groundwater:	N/A	(ft below TOC)
Gradient direction:	N/A	(compass direction)

Gradient magnitude:	N/A	(ft/ft)
Average change in elevation:	N/A	(ft since last measurement)
<b>Laboratory Analytical Data</b>		
Summary:	No environmental field activities were conducted during Fourth Quarter 2013.	

## DISCUSSION:

No environmental field activities were conducted by Broadbent & Associates at the Site during the Fourth Quarter of 2013. The most recent groundwater monitoring and sampling occurred during the Third Quarter of 2013, the results of which are contained within the Q3 GWM Report. A work plan for additional soil vapor sampling at the Site is currently being prepared and will be submitted during the first quarter 2014.

A site location map is presented as Drawing 1 and a groundwater elevation and analytical summary map from the most recent first quarter sampling event is presented as Drawing 2.

## LIMITATIONS:

The findings presented in this report are based upon observations of field personnel, points investigated, results of laboratory tests performed by TestAmerica Laboratories, Inc. (Irvine, California), and our understanding of ACEH requirements. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied was made. This report has been prepared for the exclusive use of the Atlantic Richfield Company. It is possible that variations in soil or groundwater conditions could exist beyond points explored in this investigation. Also, changes in site conditions could occur in the future due to variations in rainfall, temperature, regional water usage, or other factors.

## ATTACHMENTS:

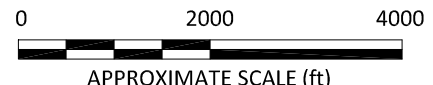
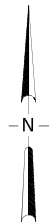
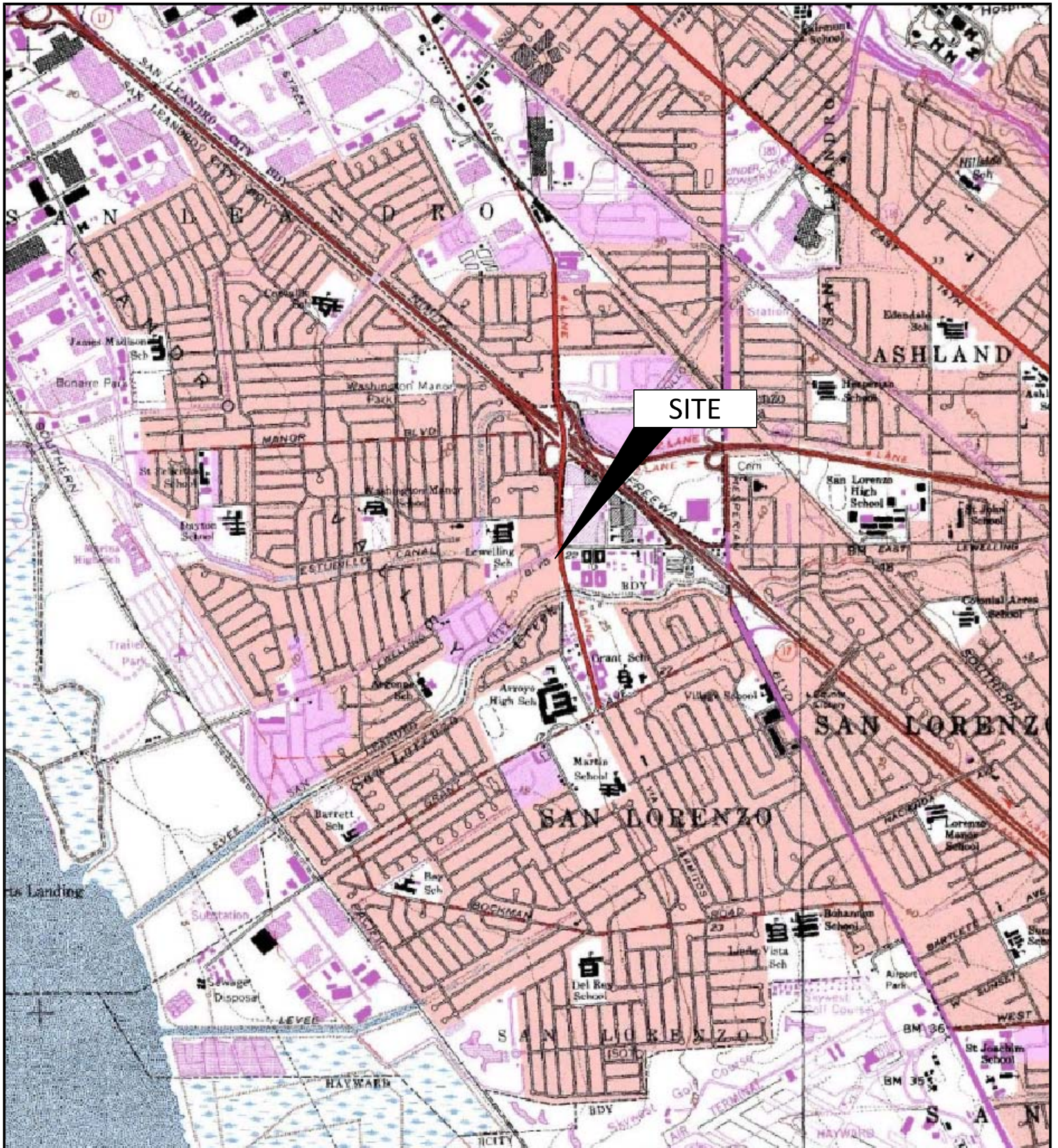
Drawing 1: Site Location Map

Drawing 2: Groundwater Elevation Contours and Analytical Summary Map, July 30, 2013.

## LIST OF COMMONLY USED ACCRONYMS/ABBREVIATIONS:

ACEH:	Alameda County Environmental Health	ft/ft:	feet per foot
Broadbent:	Broadbent & Associates, Inc.	gal:	Gallons
BTEX:	Benzene, Toluene, Ethylbenzene, Total Xylenes	GRO:	Gasoline-Range Organics
1,2-DCA:	1,2-Dichloroethane	LNAPL:	Light Non-Aqueous Phase Liquid
DIPE:	Di-Isopropyl Ether	MTBE:	Methyl Tertiary Butyl Ether
DO:	Dissolved Oxygen	NO <sub>3</sub> :	Nitrate as Nitrogen
DRO:	Diesel-Range Organics	ppb:	parts per billion
EDB:	1,2-Dibromomethane	SO <sub>4</sub> :	Sulfate
Eh:	Oxidation Reduction Potential	TAME:	Tert-Amyl Methyl Ether
EPA:	Environmental Protection Agency	TBA:	Tertiary Butyl Ether
ETBE:	Ethyl Tertiary Butyl Ether	TOC:	Top of Casing
Fe <sup>2+</sup> :	Ferrous Iron	µg/L:	micrograms per liter

## DRAWINGS



APPROXIMATE SCALE (ft)

IMAGE SOURCE: USGS



1324 Mangrove Ave., Suite 212  
Chico, California 95626

Project No.: 06-88-605 Date: 9/10/2013

Station No 601  
712 Lewelling Boulevard  
San Leandro, California

Site Location Map

Drawing

1

