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By Alameda County Environmental Health at 3:37 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 Status Report
Atlantic Richfield Company Station #374
6407 Telegraph Avenue, Oakland, California
ACEH Case #RO0000078

"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 Cotting 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. 06-88-602

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

Attn.: Mr. Chuck Carmel

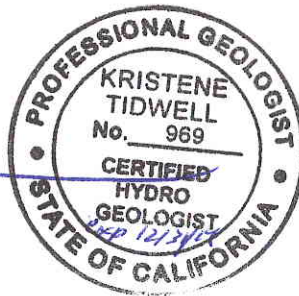
Re: Fourth Quarter 2013 Status Report, Atlantic Richfield Company Station No. 374,
6407 Telegraph Avenue, Oakland, Alameda County, California
ACEH Case #RO0000078

Dear Mr. Carmel:

Attached is the *Fourth Quarter 2013 Status Report* for Atlantic Richfield Company Station No. 374 located at 6407 Telegraph Avenue, Oakland, 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: Ms. Karel Detterman, Alameda County Environmental Health (submitted via ACEH ftp site)
Electronic copy uploaded to GeoTracker

**FOURTH QUARTER 2013
STATUS REPORT
ATLANTIC RICHFIELD COMPANY STATION No. 374
OAKLAND, CALIFORNIA**

Broadbent & Associates, Inc. (Broadbent) is pleased to present this *Fourth Quarter 2013 Status Report* on behalf of Atlantic Richfield Company (ARC, a BP affiliated company) for Station No. 374 located in Oakland, 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:	<u>Station No. 374 / 6407 Telegraph Avenue, Oakland, California</u>
Client Project Manager / Title:	<u>Mr. Chuck Carmel, Remediation Management Project Manager</u>
Broadbent Contact:	<u>Kristene Tidwell, P.G., C.Hg. (707) 455-7290</u>
Broadbent Project No.:	<u>06-88-602</u>
Primary Regulatory Agency / ID No.:	<u>ACEH / Case #RO0000078</u>
Current phase of project:	<u>Monitoring</u>
List of Acronyms / Abbreviations:	<u>See end of report text for list of acronyms/abbreviations used in report.</u>

WORK PERFORMED THIS QUARTER (Fourth Quarter 2013):

1. Submitted *Third Quarter 2013 Monitoring Report* on October 29, 2013 (Q3 GWM Report).
2. Carried out the scope of work described in the *Addendum to the Soil Vapor Investigation Work Plan* dated June 19, 2013 (Work Plan Addendum).
3. No other environmental field activities were conducted during the Third Quarter 2013.

WORK SCHEDULED FOR NEXT QUARTER (First Quarter 2014):

1. Submit *Fourth Quarter 2013 Status Report* (contained herein).
2. Conduct First Quarter 2014 groundwater monitoring and sampling event.
3. Submit Report documenting recent soil vapor sampling activities, as noted above.

GROUNDWATER MONITORING PLAN SUMMARY:

Groundwater level gauging:	<u>MW-1 through MW-9</u>	(1Q & 3Q)
Groundwater sample collection:	<u>MW-1, MW-2, MW-4, MW-7, MW-8 and MW-9</u>	(1Q & 3Q)
	<u>MW-3, MW-5 and MW-6</u>	(3Q)
Biodegradation indicator parameter monitoring:	<u>None</u>	

QUARTERLY RESULTS SUMMARY:

LNAPL

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

Groundwater Elevation and Gradient:

Depth to groundwater:	<u>N/A</u>	(ft below TOC)
Gradient direction:	<u>N/A</u>	(compass direction)
Gradient magnitude:	<u>N/A</u>	(ft/ft)
Average change in elevation:	<u>N/A</u>	(ft since last measurement)

Laboratory Analytical Data

Summary:

No routine groundwater monitoring and sampling activities were conducted during Fourth Quarter 2013.

DISCUSSION:

The most recent groundwater monitoring and sampling event occurred during the Third Quarter of 2013, the results of which are contained within the Q3 GWM Report. Recently Broadbent carried out the scope of work outlined in the Work Plan Addendum. A report documenting these activities 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 Third Quarter 2013 monitoring and 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, August 22, 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 ₃ :	Nitrate as Nitrogen
DRO:	Diesel-Range Organics	ppb:	parts per billion
EDB:	1,2-Dibromomethane	SO ₄ :	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 ²⁺ :	Ferrous Iron	µg/L:	Micrograms per liter

DRAWINGS

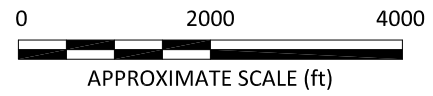
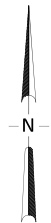
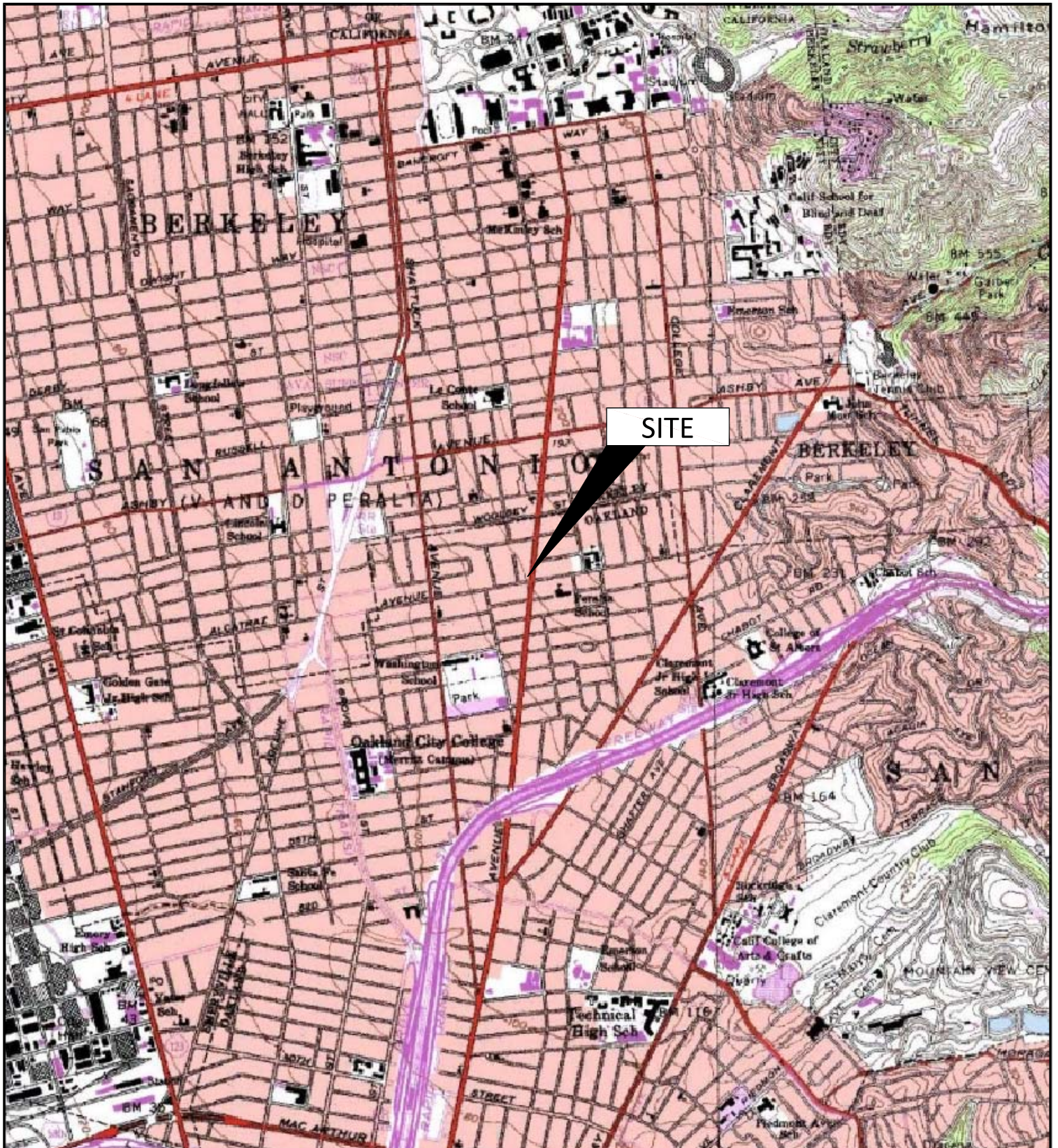


IMAGE SOURCE: USGS

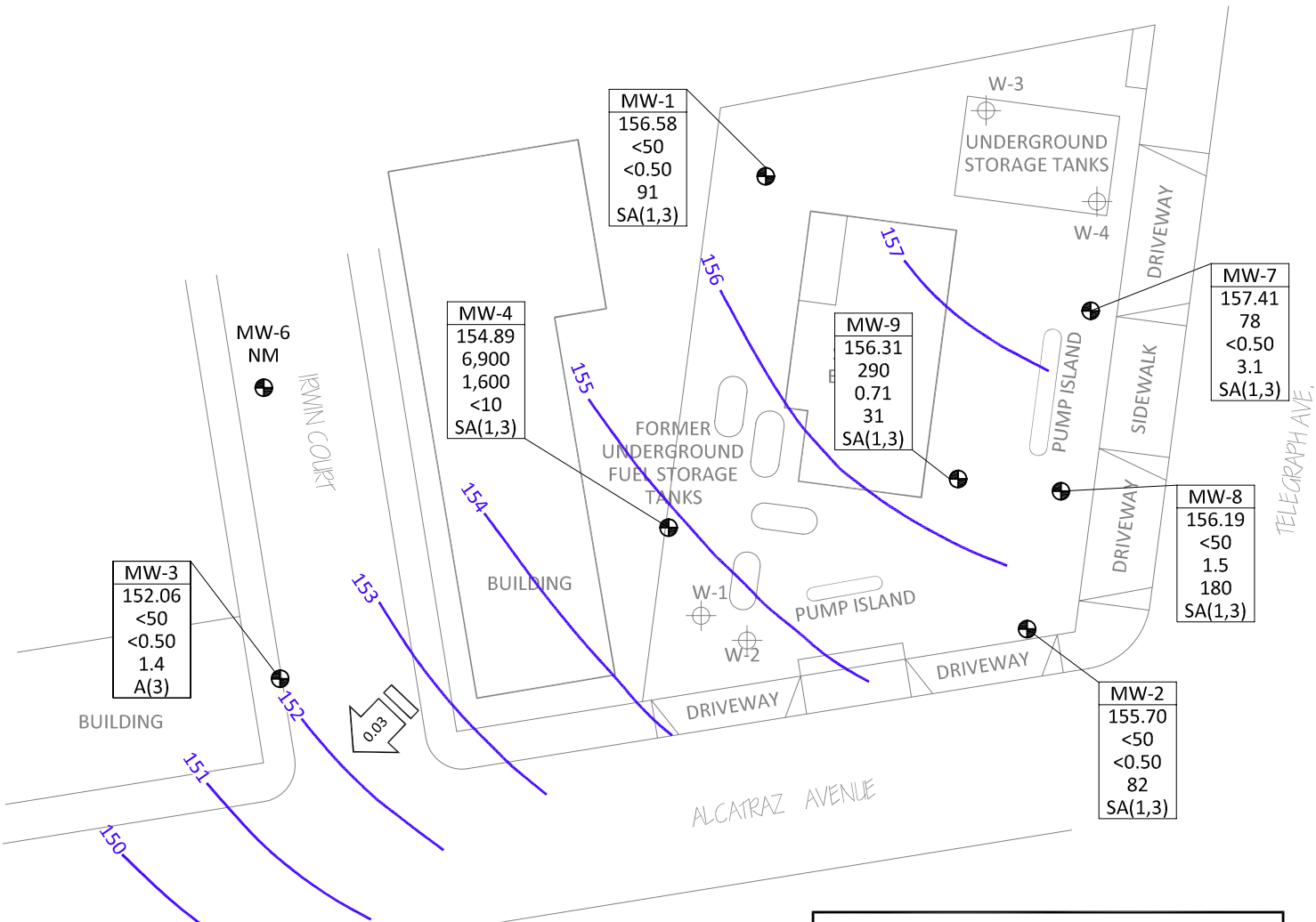
BROADBENT
 875 Cotting Lane, Suite G
 Vacaville, California 95688
 Project No.: 06-88-602 Date: 3/8/2013

Station #374
 6407 Telegraph Ave.
 Oakland, California

Site Location Map

Drawing

1



MW-3
152.06
<50
<0.50
1.4
A(3)

MW-4
154.89
6,900
1,600
<10
SA(1,3)

MW-1
156.58
<50
<0.50
91
SA(1,3)

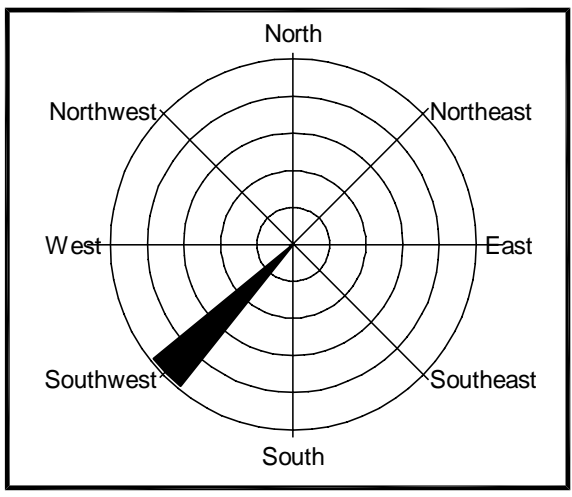
MW-9
156.31
290
0.71
31
SA(1,3)

MW-7
157.41
78
<0.50
3.1
SA(1,3)

MW-8
156.19
<50
1.5
180
SA(1,3)

MW-2
155.70
<50
<0.50
82
SA(1,3)

MW-5
148.56
<50
<0.50
A(3)



LEGEND

- ⊕ Monitor Well Location
- ⊕ Tank Pit Monitor Well Location
- Groundwater Elevation Contour (Feet Above Site Datum)
- ⇨ 0.03 Groundwater Gradient (ft/ft)
- A(3) Sampled Annually - Third Quarter
- SA(1,3) Sampled Semi-Annually - First and Third Quarter

WELL	Well Designation
ELEV	Groundwater Elevation (ft)
GRO	GRO, Benzene, and MTBE
BZ	Concentrations (µg/L)
MTBE	
A/SA/Q	Sampling Frequency

NM Not Monitored



NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.