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Chevron



Chevron

ENVIRONMENTAL
PROTECTION

98 JUN -5 PM 3:38

June 1, 1998

Chevron Products Company
6001 Bollinger Canyon Road
Building L
San Ramon, CA 94583
P.O. Box 6004
San Ramon, CA 94583-0904

Marketing - Sales West
Phone 510 842-9500

Ms. Pamela J. Evans
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**Re: Former Chevron Service Station #9-0329
340 Highland Avenue
Piedmont, California**

Dear Ms. Evans:

Enclosed is the Water Well and Surface Water Survey that was conducted by our consultant Pacific Environmental Group Inc., for the above noted site. This survey was requested in your letter of March 18, 1998, and was for an area within 1/4 mile of the site.

The water well survey conducted at the Department of Water Resources determined that four domestic and four irrigation wells are located within the surveyed area. Four of these wells are located southerly and down gradient of the site.

The closest down gradient well to the site is the City of Piedmont well #4, which is used for irrigation. This well is located approximately 0.11 miles (580 feet) south of the site. The well is screened from 150 to 170 feet and 190 to 210 feet below ground surface. The closest site monitoring wells MW-5 and MW-6 to City well #4 are screened from about 2 1/2 to 18 feet and are in a high recharge aquifer near the surface (<5 feet). The soil lithology for these wells below the 5-foot level, is siltstone and sandstone, which would act as a confining barrier between the lower aquifer (copy of well logs enclosed).

The other three down gradient wells #7, #6 and #5 are located 0.17 miles (897 feet), 0.19 miles (1003 feet) and 0.19 miles (1003 feet) respectively south of the site. Well #7 is used for irrigation and is screened from 55 to 275 feet. Well #6 is used for irrigation and is screened from 57 to 157 feet. Well #5 is used for domestic water supply and is screened from 40 to 100 feet.

6/1/98

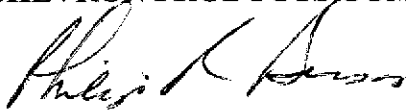
June 1, 1998
Ms. Pamela Evans
Former Chevron Service Station #9-0329
Page 2

None of the down gradient wells are screened in the upper aquifer and with the confining siltstone/sandstone barrier between the upper and lower aquifers, it would not be expected that the down gradient wells would be impacted from the hydrocarbons that have been detected at the site.

If you have any questions or comments please call me at (510) 842-9136.

Sincerely,

CHEVRON PRODUCTS COMPANY



Philip R. Briggs
Site Assessment and Remediation Project Manager

Enclosure

Cc. Mr. Chuck Headlee
RWQCB-San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Frank Hoffman
Hoffman Investment Company
1760 Willow Road
Hillsborough, CA 94010

Mir Ghafari & Fred Manoucheri
Piedmont Enterprises
340 Highland Avenue
Piedmont, CA 94611

Ms. Bette Owen, Chevron

Ms. Anne Payne, Chevron, ChvPkv/V-1156



PACIFIC
ENVIRONMENTAL
GROUP, INC.

AN  COMPANY

May 29, 1998
Project 320-160.1B

Mr. Phil Briggs
Chevron Products Company
P.O. Box 6004
San Ramon, California 94583-804

Re: **Water Well and Surface Water Survey**
Chevron Service Station 9-0329
340 Highland Avenue at Vista Avenue
Piedmont, California

Dear Mr. Briggs:

The water well survey conducted at the Department of Water Resources for the site referenced above (Figure 1) determined that four domestic water-supply wells, and four irrigation wells are located within 1/4 mile of the site. Available well details are presented in Table 1 and brief descriptions of these wells follows:

- The domestic water-supply wells are owned by individuals for use at their private residences. The nearest domestic well to the site is Well #2 (19P4) located approximately 0.17 miles west-southwest of the site.
- Three of the irrigation wells are owned by individuals, the closest of which, Well #7 (19Q) is approximately 0.17 miles southeast of the site.
- The City of Piedmont well (Well #4, 19Q2) used for irrigation, is the closest well to the site at 0.11 miles to the south. The well is screened from 150 to 170 feet and 190 to 210 feet below ground surface. Further well construction details are not currently known.

The surface water survey identified only one creek within a 1/4-mile radius of the site. A small intermittent creek flows through Piedmont Park and is located approximately 360 feet southeast of the site.

May 29, 1998

Page 2

Groundwater gradient at the site has been generally to the southwest. Therefore, the City of Piedmont irrigation well #4 and the intermittent creek located in Piedmont Park are the closest downgradient receptors. Elevated concentrations of methyl tert-butyl ether have been identified in on-site Well C-2. Wells C-5, C-6 should continue to be monitored to evaluate plume status (Figure 2).

If you have any questions or require further information, please call.

Sincerely,

Pacific Environmental Group, Inc.



Ross Tinline
Project Geologist
RG 5860



Attachments: Table 1 - Summary of Water Wells
Figure 1 - Site Location Map
Figure 2 - Site Map

Table 1
Summary of Water Wells
 Located Within 1/4-Mile Radius of

Chevron Service Station 9-0329
 340 Highland Avenue at Vista Avenue
 Piedmont, California

Well ID	Section	Location (if listed in DWR records)	Well Use	Date Drilled	Well Diameter (inches)	Total Depth (feet, bgs)	Screened Interval (feet, bgs)	Distance From Site (miles)
1	19P3	304 Hillside Near Oakland	Domestic	1977	6	220	NA	0.20 NW
2	19P4	321 Hillside at Vista	Domestic	02/04/91	5	161	54-74	0.17 WSW
3	19Q1	781 Highland	Domestic	5/14/77	6	200	NA	0.23 SE
4	19Q2	Piedmont Park	Irrigation	8/77	6	250	150-170, 190-210	0.11 S
5	19Q3	141 Hazel Lane	Domestic	5/17/88	4.5	100	40-100	0.19 S
6	19Q4	55 Hazel Lane near Highland Avenue	Irrigation	9/19/88	4.5	157	57-157	0.19 SE
7	19Q	120 Hazel Lane	Irrigation	11/3/92	4.5	300	55-275	0.17 SE
8	19R1	321 Mountain between Mountain and Sharon	Irrigation	6/23/88	4.5	220	80-180	0.23 E

bgs = Below ground surface
 NA = Not available



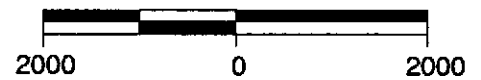
QUADRANGLE
LOCATION

REFERENCES:
USGS 7.5 MIN. TOPOGRAPHIC MAP
TITLED: OAKLAND EAST, CALIFORNIA
DATED: 1959 REVISED: 1980

LEGEND

- 1 ▲ WATER SUPPLY WELL LOCATION AND DESIGNATION

SCALE IN FEET

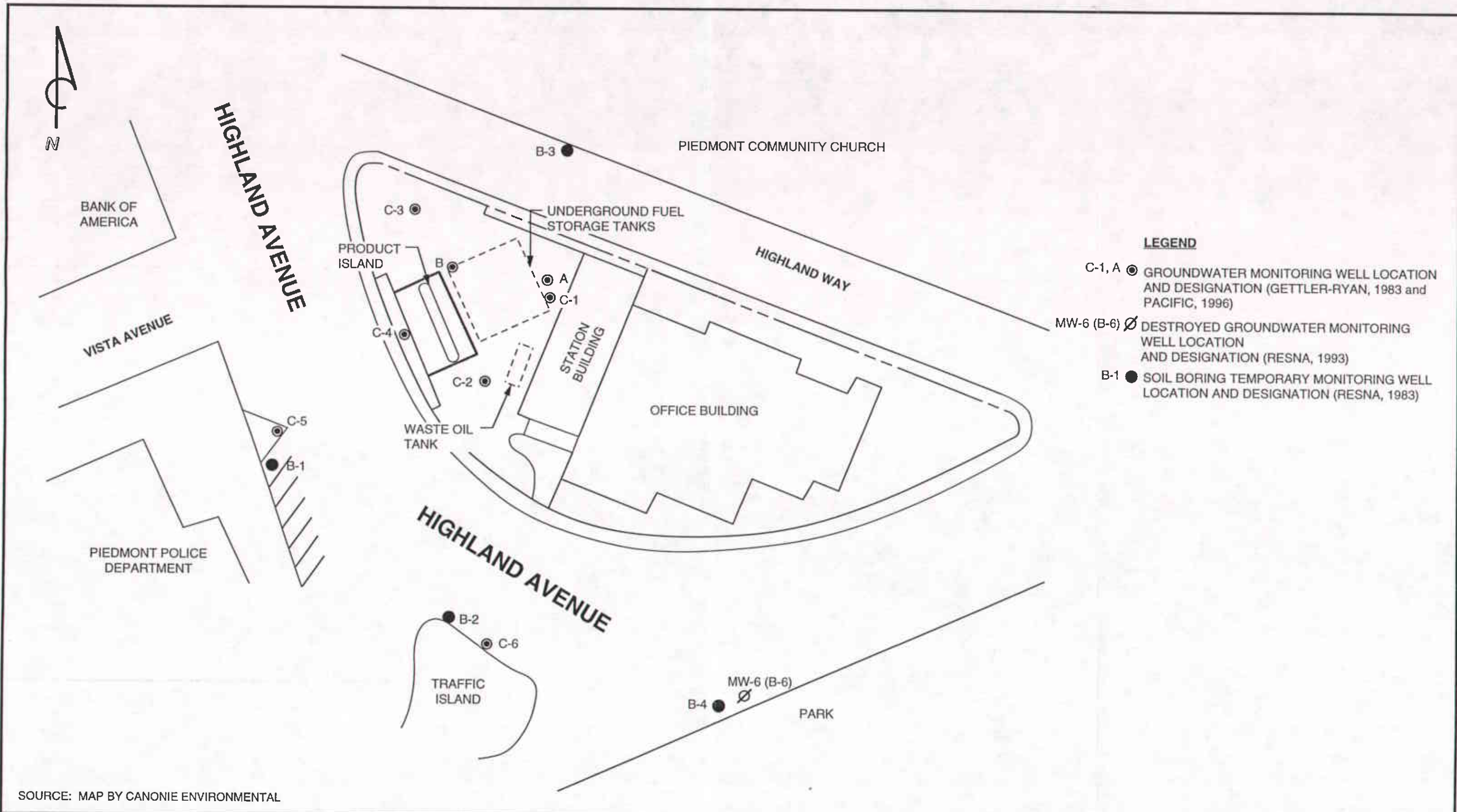


PACIFIC
ENVIRONMENTAL
GROUP, INC.

CHEVRON SERVICE STATION 9-0329
340 Highland Avenue at Vista Avenue
Piedmont, California

SITE LOCATION MAP

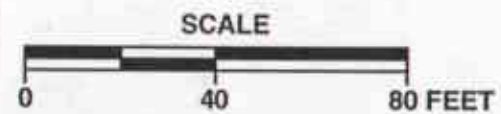
FIGURE:
1
PROJECT:
320-160.1b



SOURCE: MAP BY CANONIE ENVIRONMENTAL



PACIFIC ENVIRONMENTAL GROUP, INC.

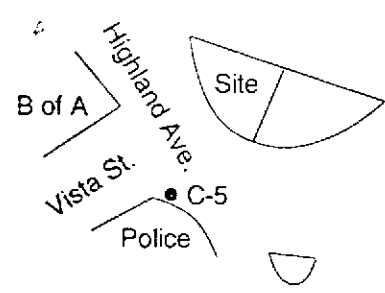


CHEVRON SERVICE STATION 9-0329
340 Highland Avenue at Vista Avenue
Piedmont, California

SITE MAP

FIGURE:
2
PROJECT:
320-160.1B

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

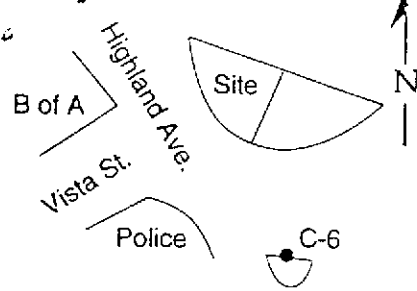
WELL NO. C-5
PAGE 1 OF 1

PROJECT NO. 320-160.1A
 LOGGED BY: C.W.R.
 DRILLER: West Hazmat
 DRILLING METHOD: HSA
 SAMPLING METHOD: CAL MOD
 CASING TYPE: SCH 40 PVC
 SLOT SIZE: 0.020"
 WELL PACK: #3 SAND

CLIENT: CHEVRON
 DATE DRILLED: 10-18-96
 LOCATION: 340 Highland Ave., Piedmont
 HOLE DIAMETER: 8"
 HOLE DEPTH: 18.5'
 WELL DIAMETER: 2"
 WELL DEPTH: 18'
 CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS				
		Dp	>50	1			SW	ASPHALT 3"				
				2			ML	SILT with sand and gravel: greenish gray; low plasticity; 60-70% silt with clay; 20% fine sand; 10-20% fine subangular gravel; hard; no product odor.				
				3			4			SS	SANDSTONE - BEDROCK - weathered: yellowish brown; fine sand with silt; poorly lithified; 1-10mm planar laminae; friable; no product odor.	
				5			6					
				7			8			SLst	SILTSTONE : pale yellow; minor sand; friable; poorly lithified; massive; no product odor.	
				9		>50	10					
				11			12					
				13			14					
				15		>50	16				@15': as above; pale yellow; decreased sand content; moderate hardness; massive; no product odor.	
				17			18			SS	SANDSTONE - weathered: yellowish brown, gray, and reddish brown; friable; poorly lithified; massive; fine sand with silt; moisture in fractures; no product odor.	
				19		>50	20					
				21			22					
						Mst						BOTTO M OF BORING 18.5'

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. 320-160.1A
PAGE 1 OF 1

PROJECT NO. 320-160.1A
LOGGED BY: C.W.R.
DRILLER: West Hazmat
DRILLING METHOD: HSA
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WELL DEPTH: 17.5'
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
		Dp		1		SW ML	ASPHALT 4"	
		Mst		2			SAND with gravel: yellowish brown; 10% fines as silt and clay; 70% fine to medium sand; 10-20% subangular gravel up to 3" in diameter; no product odor.	
		Mst		3		SC	SILT with sand: dark gray; low plasticity; 65-75% silt with clay; 20-30% fine sand; trace coarse sand; roots; soft; no product odor.	
		Mst-Wt	>50	4			CLAYEY SAND: dark greenish gray; 30-40% fines as clay and silt; 60-70% fine to medium sand; trace black roots; loose; no product odor.	
		Dp		5		SS	SANDSTONE - BEDROCK - weathered: yellowish brown and greenish gray; abundant silt; fine sand with silt; poorly lithified; friable; hard; no product odor.	
				6				
				7				
				8		SLst	SILTSTONE - weathered: pale yellow; trace sand; friable; poorly lithified; massive; moderate hardness; no product odor.	
			>50	9				
				10				
				11				
				12				
				13				
			>50	14				
				15			@15': as above; pale yellow; decreased sand content; moderate hardness; massive; no product odor.	
				16				
				17				
		Dp-Mst	>50	18			@18': as above; dark yellowish brown with dark gray; and minor reddish brown; massive; moderate hardness; increased lithification; difficult drilling; no product odor.	
				19				
				20				
				21				
				22				

BOTTO M OF BORING 18'