CHEMICAL DATA MANAGEMENT SYSTEMS

December 14, 2010

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Alameda County
Environmental Health

Mr. Mark Detterman, P.G., C.E.G.
Hazardous Material Specialist
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Subject: December 2010 Report
Subsurface Environmental Activities
Western Forge and Flange, Albany

Dear Mr. Detterman:

This report documents the results of the sampling activities to address the Data Gaps that the County outlined in their letter dated July 30, 2010. The sampling plan was outlined in our letter dated September 23, 2010 and the results and conclusions follow.

Executive Summary

Following the hydraulic fluid cleanup activities at Western Forge and Flange (WFF), some hydraulic fluid remains in the immediate vicinity of the Ring Roller foundation. It is held there by the 12-foot thick black clay underlying the site. Down-gradient water samples indicate that there is no hydraulic fluid dissolved in the perched ground water that exceeds the environmental screening levels for ground water that is not a source of drinking water. This data supports the understanding that the hydraulic fluid is not moving with the ground water and is contained in the immediate vicinity of the Ring Roller foundation.

Description of the discovery of the hydraulic fluid release

During the environmental investigation of the subsurface at WFF, pursuant to closing the site, WFF and Chemical Data Management Systems (CDMS) collected soil samples for chemical analysis from 17 Boreholes at the site. Samples from four of those boreholes, B-106, B-107, B-5, and B-6b, contained Total Petroleum Hydrocarbons slightly above the San Francisco Regional Water Quality Control Boards, environmental screening levels (ESLs) for shallow soil. The boreholes containing these sediments were in close proximity to boreholes where samples were below the ESLs.

WFF decided to excavate the sediments surrounding three of the boreholes to a depth of three feet, and a depth of five feet at B-106. These depths were chosen to include excavation of the sediments that were above the ESLs. In January 2009, during the excavation around B-106, adjacent to the former ring roller, the excavator encountered a gravel zone surrounding the foundation and hydraulic fluid began to flow from the gravel into the excavation and accumulate on the surface of the water table that had been reached during the excavation. (Fig. 1)

Subsequent interviews with WFF management indicated that the ring roller, was known to consume hydraulic fluid, but that this discovery was the first that they had heard that the fluid had actually escaped from the machinery.

In order to determine if any other unsuspected releases had occurred around the foundations of the other former machine locations, excavations were conducted on all four sides of each of the foundations and no hydraulic fluid was found. In addition, shallow excavations were conducted at the sites of former waste oil and fuel storage sites to search for any signs of other releases. None were found.

Fig. 1. Photograph of the hydraulic fluid released from the gravel zone around the ring roller foundation.

Description of the geologic setting

The hydrogeology of the site was established in the Brown and Caldwell "Problem Definition Report" in 1984, and was based on the drilling of 4 monitor wells and 7 soil borings.

> "*Regionally, the plant site lies on Quaternary alluvium between the older southeast-northwest trending Berkeley Hills and the San Francisco Bay. The Mesozoic Franciscan Formation outcrops locally east and northeast of the site. Local stratigraphy underlying the plant site consists of sandstone overlain by 0 to 14 feet of clay. Figure 4-1 is a generalized cross section constructed from logs of three boreholes drilled on site. Borehole W1, drilled on the eastern portion of the site, towards the Albany Hill outcrop, contains less than 1 foot of clay and is primarily composed of weathered sandstone. Horizontally, the clay bed increases in thickness to the west to a maximum of 14 feet at borehole W3. Vertically, the underlying weathered sandstone grades into unweathered sandstone.*
>
> *Water level elevations were measured at 5 to 6 feet beneath the ground surface in monitoring wells W2 (5.93 feet), W3 (5.48 feet), and W4 (6.11 feet on July 11, 1984. These data indicate groundwater flows in a north-northwesterly direction beneath the plant site. The local groundwater gradient is approximately 3 x* 10^{-3} *ft/ft.*" (Brown and Caldwell. 1984).

In 2008, CDMS drilled 17 additional boreholes throughout the site, 12 of which were observed by a Professional Geologist. All of the borings were consistent with the Brown and Caldwell description of the hydrogeology. In addition, CDMS found that the site is underlain by a low permeability clay saturated above a dry dense clay above a poorly cemented sand. The clay contains a thin-perched ground water zone between 6 to 14 feet below the ground surface in the southwestern portion of the facility. The depth to water varies seasonally by 4-6 feet. None of the 2008 borings encountered any preferential pathways for transport of contaminants. (CDMS. 2009).

Description of the cleanup activities taken to date

Following the discovery of the hydraulic fluid seeps, the excavation was continued around two thirds of the ring roller foundation in search of the source of the fluid. The excavated sediments and gravel containing the hydraulic fluid were containerized and shipped for disposal as a hazardous waste. The following day, ground water had risen in the excavation to 3.5 feet below the ground surface. Excavation continued to the edge of the ring roller foundation where the gravel backfill was discovered. Water and oil were pumped out of the excavation into fifty-five gallon drums for disposal.

Over the next few months, hydraulic fluid was skimmed from the surface of the standing water in the excavation using oil absorbent pads. CDMS also deployed a 5000-gallon vacuum truck that drew oil and water from the surface of the water contained in the excavation.

At the conclusion of these removal efforts a thin film of hydraulic fluid remained on the surface of the water. At that point, a chemical oxidation treatment was deployed using the product RegenOx. Reaction products were observed for several weeks, followed by the return of a thin layer of hydraulic fluid. Following the months of physical and chemical removal techniques, the bulk of the hydraulic fluid has been removed leaving only a small amount in the vicinity of the ring roller foundation.

Description of the mitigating factors

In November of 1995, the State of California permanently exempted hydraulic fluid tanks from the underground tank requirements. (LG 141, Appendix A). This decision was based upon the State's determination that leaks from hydraulic fluid tanks do not pose a significant risk to water quality in California. The State based its decision on the facts that the fluids are relatively insoluble, have a low specific gravity, low volatility, and low or nonexistent human toxicity.

The geology of the site is protective of the environment. The dense low permeability clays that underlie the site will contain any remaining hydraulic fluids in place. The efficacy of these clays as a containment feature was obvious when the interface between the clay and the backfill gravel was breached allowing the hydraulic fluid product to flow out of the gravels. (Fig. 1).

The shallow ground water at the site is contained in a dense plastic black clay and is perched on a dry low permeability green clay found at 10 to 14 feet below ground surface (bgs). This shallow perched ground water body has a seasonal fluctuation between six inches and 6 feet bgs. Water drawn from the ¾ inch well points driven into the perched zone took up to 24 hours to recover, requiring several days of sampling to collect enough water to analyze. The water is turbid and has a hydrogen sulfide smell indicating an anaerobic environment. Based on these observations, the perched ground water at the site cannot be considered as a drinking water resource.

Description of the Data Gaps identified by the county and the results of the implementation of the data gaps workplan.

With the above information in hand the Alameda County Environmental Health staff identified several data gaps and requested a work plan to fill the gaps. (ACEH. 2010). CDMS responded with a work plan that included additional sampling of the excavations, sampling of the standing water in the ring roller excavation, and the installation of two additional boreholes, with attendant sediment and water sampling. (CDMS. 2010). The work plan was implemented in October 2010.

The data from the subsurface investigations conducted at the site, including the data from the implementation of the data gap workplan in October 2010 is included as Appendix C. The sample locations are shown on Fig. 2.

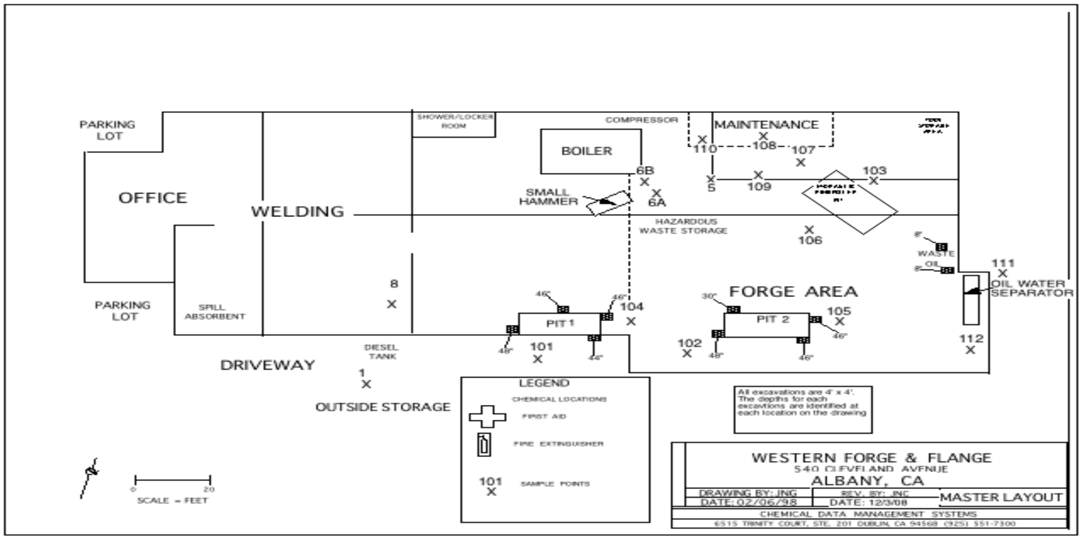


Fig. 2: Sample Location Map

Metals:

With the exception of the single analysis for Zinc (920 mg/Kg) taken from the near surface sediment sample at SB-111, in the yard west of the building, none of the sediment samples taken from the boreholes or the excavations contained any of the six metals of interest above the lowest soil ESLs. The Zinc ESL used here is for commercial/industrial sites for shallow sediments where the ground water use is drinking.

Ground water samples were taken at 12 of the soil boring sites throughout the facility. The results of the analyses of these samples were compared against the ESLs for both a non drinking water resource and a drinking water resource. None of these analyses exceeded the gross contamination ESLs for a non drinking water resource. However, analyses of water from six of the locations did exceed the nickel ESL for drinking water and one (W-111) exceeded the drinking water ESL for zinc. Zinc analyses of the water from B1001 (190 ug/L) and B1002 (ND), immediately upgradient of B-111, indicate that the zinc in B-111 is very localized.

At the request of ACEH, all of the sediment and water samples taken during the October 2010 events were analyzed for Copper. None of these analyses exceeded the ESLs.

Since the shallow ground water at the site is not and can never be a drinking water resource, as described in the above section of mitigating factors, these metals data indicate that metals are not a significant threat to the environment or human health at the WFF site.

<u>Hydraulic Fluid:</u>
The data indicate that the remaining hydraulic fluid released at the site of the former ring roller is confined to the immediate vicinity of the ring roller foundation. When SB-107 was drilled in December 2008, the sediment sample collected at 4.5 feet contained 15,000 mg/kg of hydraulic fluid. This boring location was used as the center of a four-foot by four-foot by three-foot deep excavation designed to remove any sediment contaminated with hydraulic fluid. When the walls and bottom of the SB-107 excavation, labeled SWEX, were sampled in October 2010, the data showed that the north wall nearest the ring roller foundation (eight feet away from the south wall of the ring roller foundation) remained above the ESL for total petroleum hydrocarbons (residual fuels) (TPH). The samples taken from the West and the South walls of this excavation decreased with distance away from the ring roller foundation. The East wall, furthest from the foundation was below the ESL, as was the sample from the bottom of the excavation. Samples from SB-108, SB-109, SB-110, and the excavations SCEX, and SEEX, all further away from the ring roller, were all below the ESL for TPH, or were not detected (ND) TPH.

Sediments from SB-106, located immediately to the east of the ring roller foundation, were ND at 2.5’ and 7.5’ bgs, but the sample from 4.5’ contained 2800 mg/kg TPH. It was this sample that prompted the excavation at this location and uncovered the hydraulic fluid release.

As the result of building foundation structures, sampling of the sediments in the walls of the ring roller excavation was limited to three locations. The north and south walls contained 10,000 and 24,000 mg/kg TPH, while the west wall contained 56 mg/kg TPH.

Water sampled from the ring roller excavation in October 2010, contained 280 mg/L TPH. Because of the difficulty in obtaining a sample from this location, it is unclear whether the analysis represents the TPH dissolved in the water or the TPH contained in an emulsion.

The remainder of sediment samples collected from the vicinity of the ring roller foundation were below the lowest ESL for shallow soil where the ground water use is drinking water, and the water samples are either ND or below the gross contamination ESL for a non-drinking water resource.

Sediments from SB-108, located 22’ southeast of the south edge of the ring roller foundation had a detection of 150 mg/kg TPH at 4.5’ and was ND for TPH at 1.5’ and 7.5’ bgs. Ground water at this location was ND for TPH.

SB-103, located 9’ west of the south edge of the ring roller foundation, had a detection of 110 mg/kg TPH at 7.5’ bgs and was ND for TPH at 3.5’, 11.5’, and 15.5’ bgs. Ground water sampled at this location was ND for TPH.

Sediments from SB-109, located 14’ east of the south edge of the ring roller foundation, were ND for TPH at all depths. Ground water sampled at this location was also ND for TPH.

Sediments from SB-105, 33’ north of the north corner of the ring roller foundation were ND for TPH at all depths. Ground water sampled at this location was also ND for TPH.

Sediments from B1001, located 44’ southwest of the ring roller foundation in the down-gradient direction, had detections of TPH at 6’’, 6’, and 10’ bgs. Samples taken from 2’, 4’, and 8’ were ND for TPH. Ground water sampled at this location contained 1.7 mg/L TPH.

Sediments from B1002, located 27’ southwest of the ring roller foundation in the down-gradient direction, had detections of TPH at 6” bgs and ND for TPH at 2’, 4’ and 10’ bgs. Ground water sampled at this location contained 2.0 mg/L TPH.

Conclusion

The chemical analyses of sediment and ground water samples taken during the subsurface investigation at the WFF site in Albany show that the metals present in the subsurface do not pose a significant threat to human health or the environment.

The data further indicate that the hydraulic fluid released at the site remains in the immediate vicinity of the ring roller foundation, the site of its release. Based upon the lack of demonstrated movement of the hydraulic fluid over the past 50 years, the protective geologic environment, the ephemeral and perched layer characteristics of the shallow ground water, the cleanup activities that have removed the vast majority of hydraulic fluid from the site, and the State of California's decision to not regulate hydraulic fluid tanks because of their finding that hydraulic fluid does not pose a significant risk to water quality in California, it is reasonable to conclude that the remaining hydraulic fluid at the site does not pose a significant risk to human health or the environment.

References Cited

ACEH. 2010. Request for Data Gap Work Plan. Letter to Walter Pierce, WFF. July 30, 2010.

Brown and Caldwell. 1984. Western Forge and flange, Albany Facility – Problem Definition Report. Submitted to Western Forge and Flange on July 10, 1984.

CDMS. 2009. Closure Report for Western Forge & Flange Co. – Albany. May 2009.

CDMS. 2010. Request for Data Gap Work Plan. Letter to Mark Detterman, ACEH. 12/14/10September 23, 2010.

PERJURY STATEMENT

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Walter R Pierce

WALTER R. PIERCE
PRESIDENT/CEO

James N. Carro

FREDRIC HOFFMAN
No. 3929

James N. Carro, REA No. 03698
Expiration date 6/30/2011

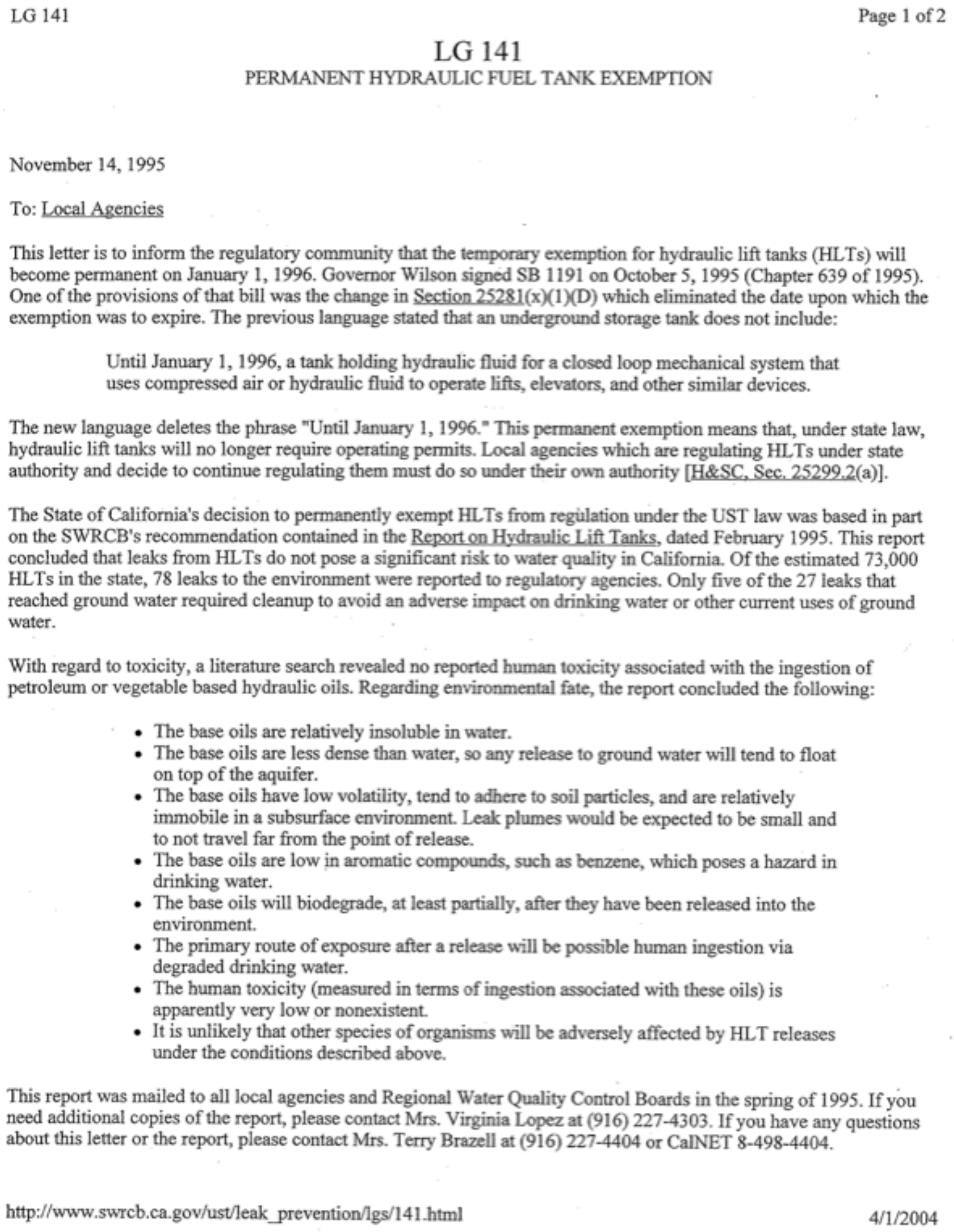
Fredric Hoffman
CA Professional Geologist No. 3929.
Expiration date 10/31/2012

CA Certified Hydrogeologist No. 83.
Expiration date 10/31/2012.

Copies: Walt Pierce, WFF
Fred Hoffman, Geologist

Appendices

Appendix A



LG 141 Page 1 of 2

LG 141

PERMANENT HYDRAULIC FUEL TANK EXEMPTION

November 14, 1995

To: Local Agencies

This letter is to inform the regulatory community that the temporary exemption for hydraulic lift tanks (HLTs) will become permanent on January 1, 1996. Governor Wilson signed SB 1191 on October 5, 1995 (Chapter 639 of 1995). One of the provisions of that bill was the change in Section 25281(x)(1)(D) which eliminated the date upon which the exemption was to expire. The previous language stated that an underground storage tank does not include:

> Until January 1, 1996, a tank holding hydraulic fluid for a closed loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

The new language deletes the phrase "Until January 1, 1996." This permanent exemption means that, under state law, hydraulic lift tanks will no longer require operating permits. Local agencies which are regulating HLTs under state authority and decide to continue regulating them must do so under their own authority [H&SC, Sec. 25299.2(a)].

The State of California's decision to permanently exempt HLTs from regulation under the UST law was based in part on the SWRCB's recommendation contained in the Report on Hydraulic Lift Tanks, dated February 1995. This report concluded that leaks from HLTs do not pose a significant risk to water quality in California. Of the estimated 73,000 HLTs in the state, 78 leaks to the environment were reported to regulatory agencies. Only five of the 27 leaks that reached ground water required cleanup to avoid an adverse impact on drinking water or other current uses of ground water.

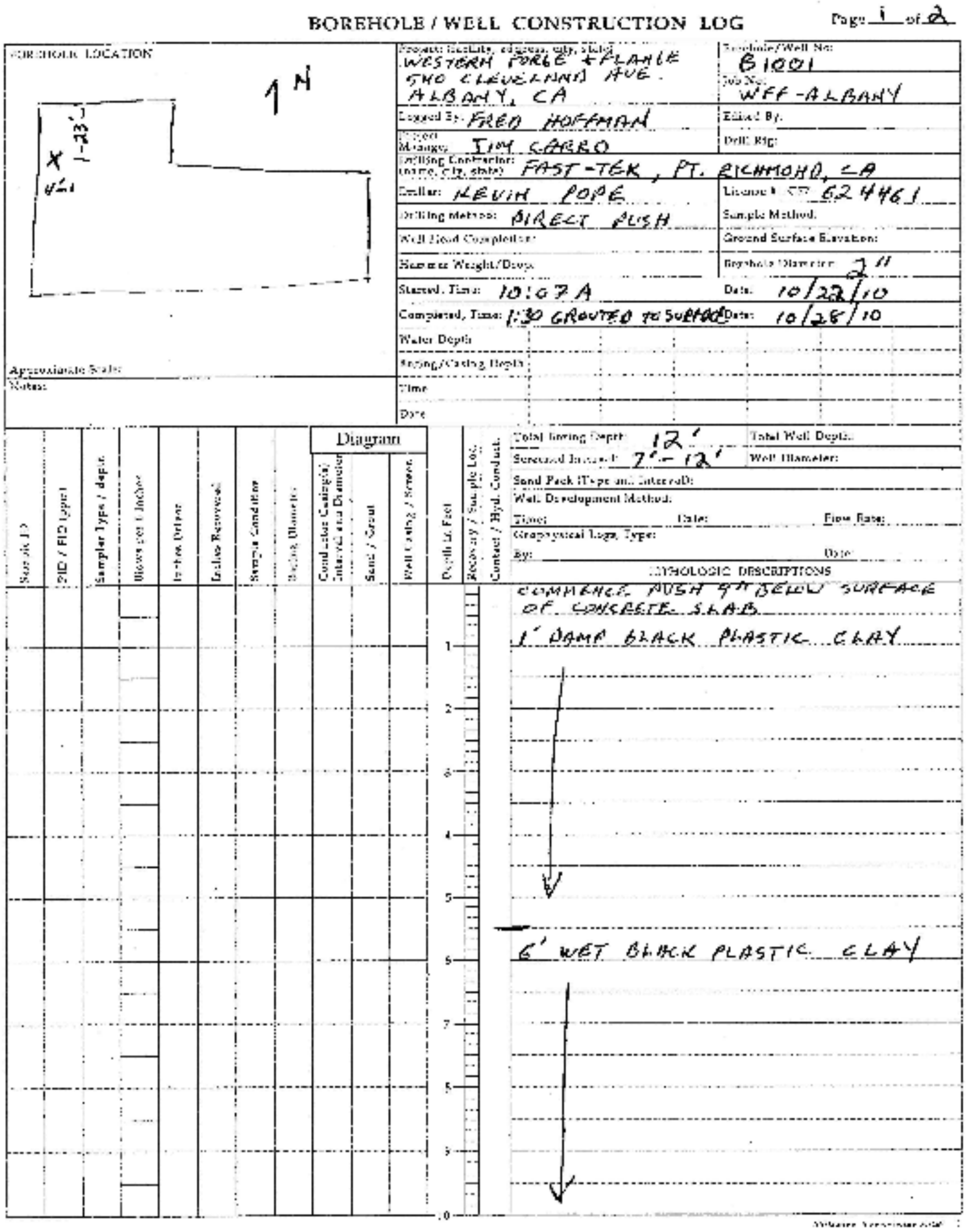
With regard to toxicity, a literature search revealed no reported human toxicity associated with the ingestion of petroleum or vegetable based hydraulic oils. Regarding environmental fate, the report concluded the following:

- The base oils are relatively insoluble in water.
- The base oils are less dense than water, so any release to ground water will tend to float on top of the aquifer.
- The base oils have low volatility, tend to adhere to soil particles, and are relatively immobile in a subsurface environment. Leak plumes would be expected to be small and to not travel far from the point of release.
- The base oils are low in aromatic compounds, such as benzene, which poses a hazard in drinking water.
- The base oils will biodegrade, at least partially, after they have been released into the environment.
- The primary route of exposure after a release will be possible human ingestion via degraded drinking water.
- The human toxicity (measured in terms of ingestion associated with these oils) is apparently very low or nonexistent.
- It is unlikely that other species of organisms will be adversely affected by HLT releases under the conditions described above.

This report was mailed to all local agencies and Regional Water Quality Control Boards in the spring of 1995. If you need additional copies of the report, please contact Mrs. Virginia Lopez at (916) 227-4303. If you have any questions about this letter or the report, please contact Mrs. Terry Brazell at (916) 227-4404 or CalNET 8-498-4404.

http://www.swrcb.ca.gov/ust/leak_prevention/lgs/141.html 4/1/2004

Appendix B



BOREHOLE / WELL CONSTRUCTION LOG

Page 1 of 2

BOREHOLE LOCATION

Approximate Scale:
Notes:

Project: (facility, address, city, state) WESTERN FORGE + FLANGE 540 CLEVELAND AVE. ALBANY, CA
Borehole/Well No: B1001
Job No: WFF-ALBANY
Logged By: FRED HOFFMAN
Edited By:
Project Manager: JIM CARRO
Drill Rig:
Drilling Contractor: (name, city, state) FAST-TEK, PT. RICHMOND, CA
Driller: KEVIN POPE
License #: C57 624461
Drilling Method: DIRECT PUSH
Sample Method:
Well Head Completion:
Ground Surface Elevation:
Hammer Weight/Drop:
Borehole Diameter: 2"
Started, Time: 10:07A
Date: 10/22/10
Completed, Time: 1:30 GROUTED TO SURFACE
Date: 10/28/10
Water Depth
Boring/Casing Depth
Time
Date

Total Boring Depth: 12'
Total Well Depth:
Screened Interval: 7'-12'
Well Diameter:
Sand Pack (Type and Interval):
Well Development Method:
Time:
Date:
Flow Rate:
Geophysical Logs, Type:
By:
Date:

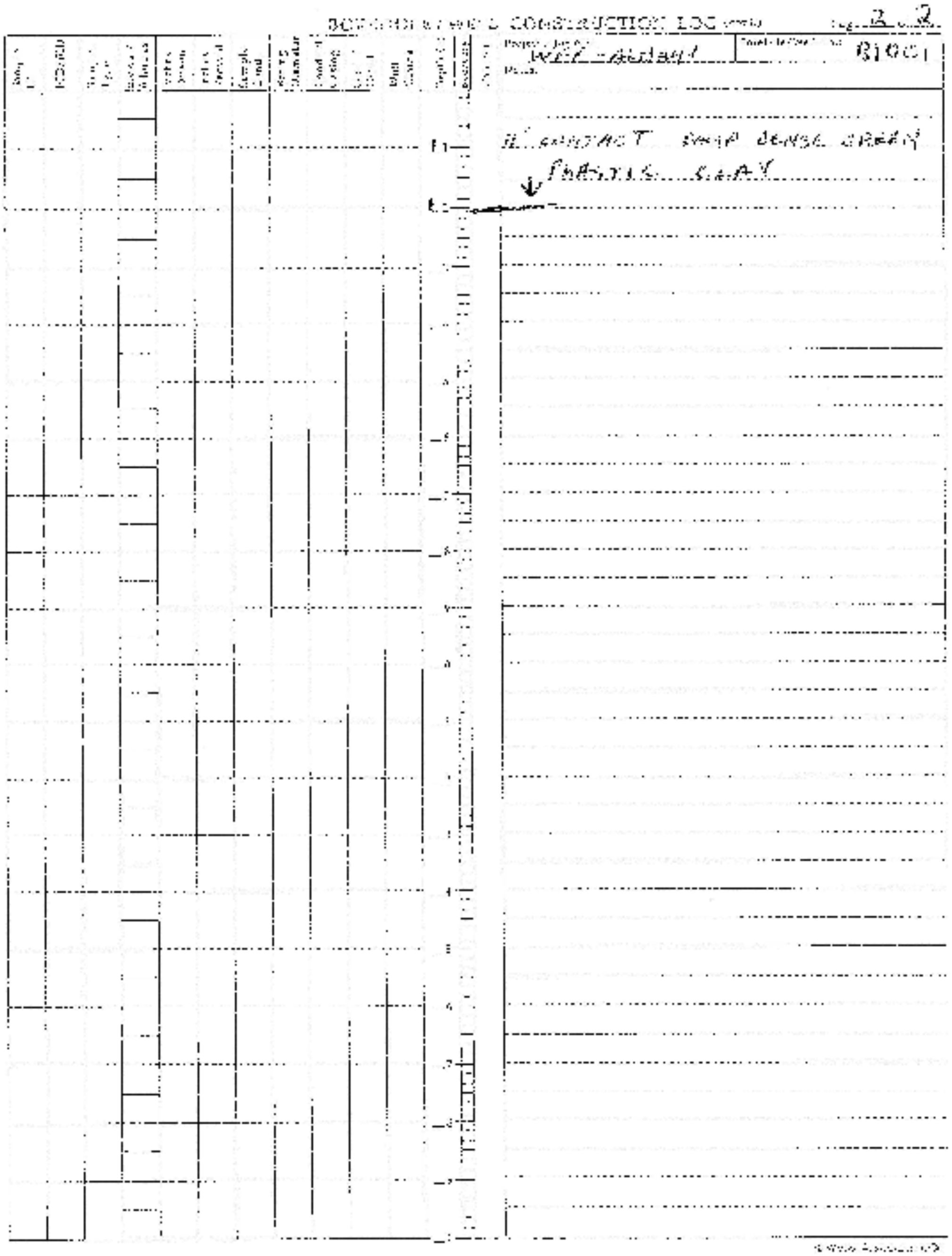
Sample ID | PID / FID (ppm) | Sampler Type / depth | Blows per 6 Inches | Inches Driven | Inches Recovered | Sample Condition | Boring Diameter | Diagram: Conductor Casing(s) Interval and Diameter | Sand / Grout | Well Casing / Screen | Depth in Feet | Recovery / Sample Log | Contact / Hyd. Conduct.

LITHOLOGIC DESCRIPTIONS

COMMENCE PUSH 4" BELOW SURFACE OF CONCRETE SLAB

1' DAMP BLACK PLASTIC CLAY

6' WET BLACK PLASTIC CLAY



BOREHOLE / WELL CONSTRUCTION LOG (cont'd) Page 2 of 2

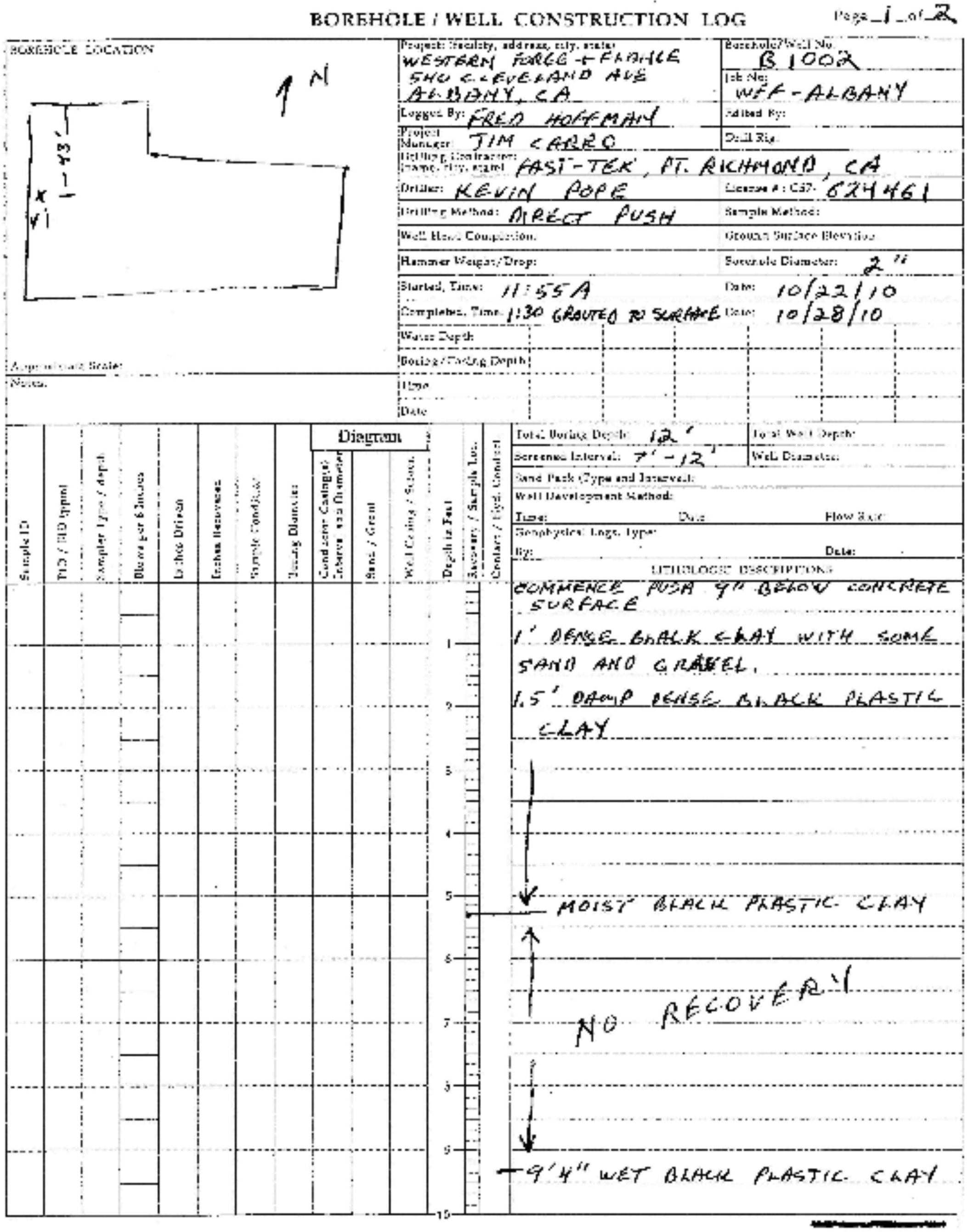
Project / Job No.: WAF - [illegible]

Boring / Well ID: B1001

11

@ CONTACT [illegible] DENSE GREEN PLASTIC CLAY

12



BOREHOLE / WELL CONSTRUCTION LOG

Page 1 of 2

BOREHOLE LOCATION

Approximate Scale:

Notes:

Project: (facility, address, city, state) WESTERN FORGE + FLANGE 540 CLEVELAND AVE ALBANY, CA

Borehole/Well No: B1002

Job No: WFF-ALBANY

Logged By: FRED HOFFMAN

Edited By:

Project Manager: JIM CARRO

Drill Rig:

Drilling Contractor: (name, city, state) FAST-TEK, PT. RICHMOND, CA

Driller: KEVIN POPE

License #: C57- 624461

Drilling Method: DIRECT PUSH

Sample Method:

Well Head Completion:

Ground Surface Elevation:

Hammer Weight/Drop:

Borehole Diameter: 2"

Started, Time: 11:55A

Date: 10/22/10

Completed, Time: 1:30 GROUTED TO SURFACE

Date: 10/28/10

Water Depth					
Boring/Casing Depth					
Time					
Date					

Total Boring Depth: 12'

Total Well Depth:

Screened Interval: 7'-12'

Well Diameter:

Sand Pack (Type and Interval):

Well Development Method:

Time: Date: Flow Rate:

Geophysical Logs, Type:

By: Date:

Sample ID	PID / FID (ppm)	Sampler Type / depth	Blows per 6 Inches	Inches Driven	Inches Recovered	Sample Condition	Tubing Diameter	Diagram: Conductor Casing(s) Interval and Diameter	Diagram: Sand / Grout	Diagram: Well Casing / Screen	Depth in Feet	Recovery / Sample Loc.	Contact / Hyd. Contact	LITHOLOGIC DESCRIPTIONS
														COMMENCE PUSH 9" BELOW CONCRETE SURFACE
											1			1' DENSE BLACK CLAY WITH SOME SAND AND GRAVEL.
											2			1.5' DAMP DENSE BLACK PLASTIC CLAY
											3			
											4			
											5			MOIST BLACK PLASTIC CLAY
											6			
											7			NO RECOVERY
											8			
											9			9'4" WET BLACK PLASTIC CLAY
											10			

BOREHOLE / WELL CONSTRUCTION LOG (cont.)

Page 2 of 2

Project: WBE ALBANY

Boring No.: B-802

Notes:

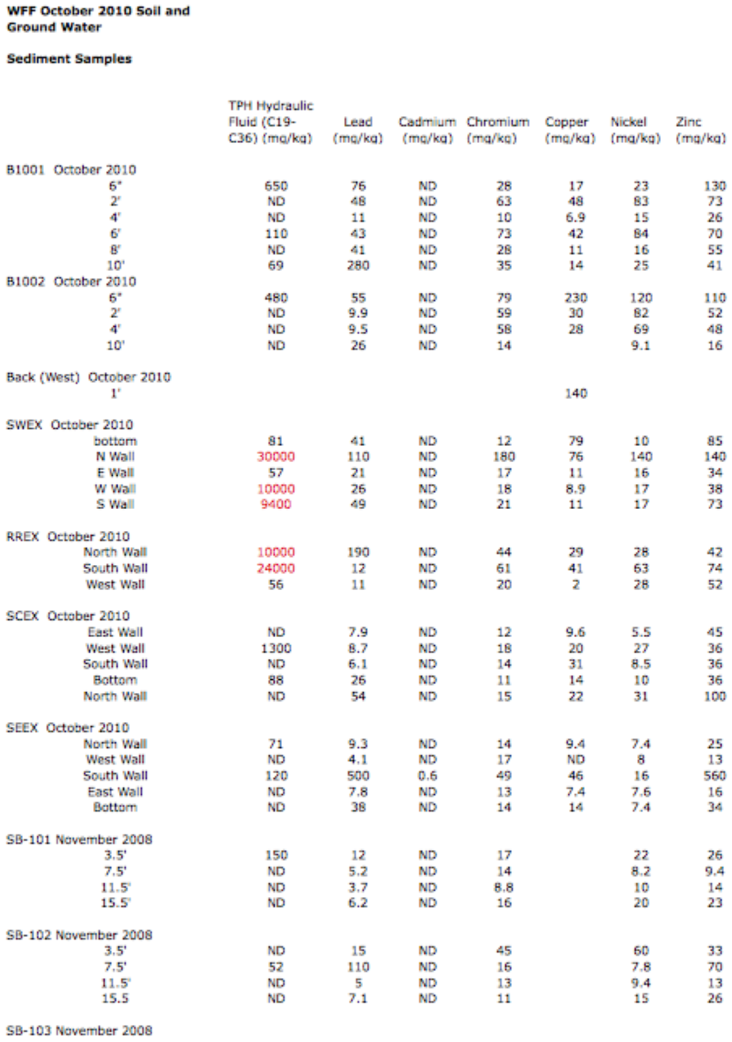
WET BLACK PLASTIC CLAY

1.1 — CONTACT

DRY DENSE GREY PLASTIC CLAY

1.2

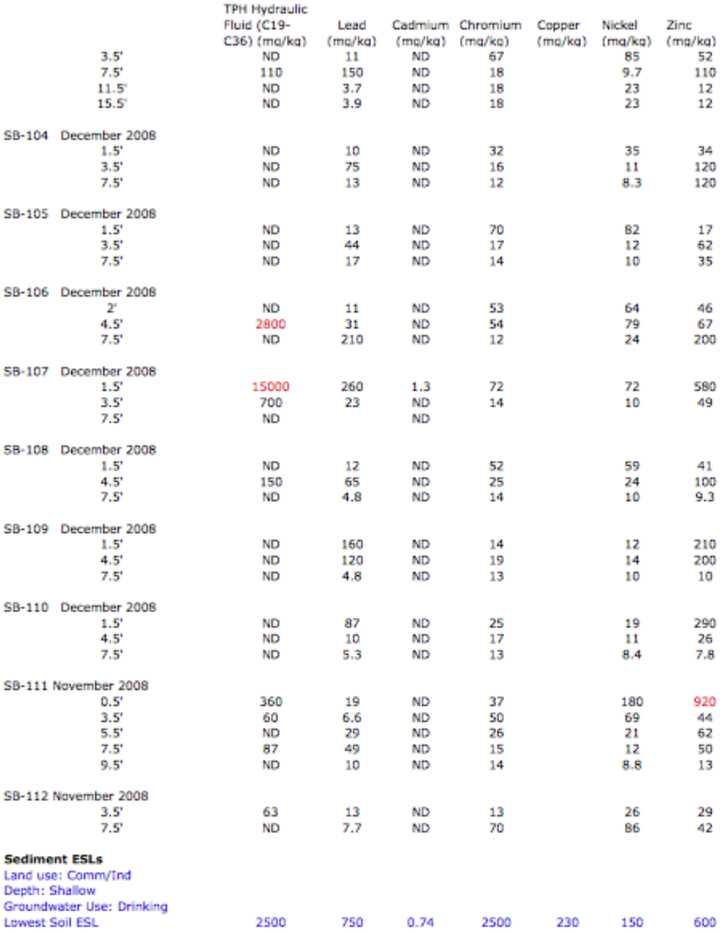
Appendix C



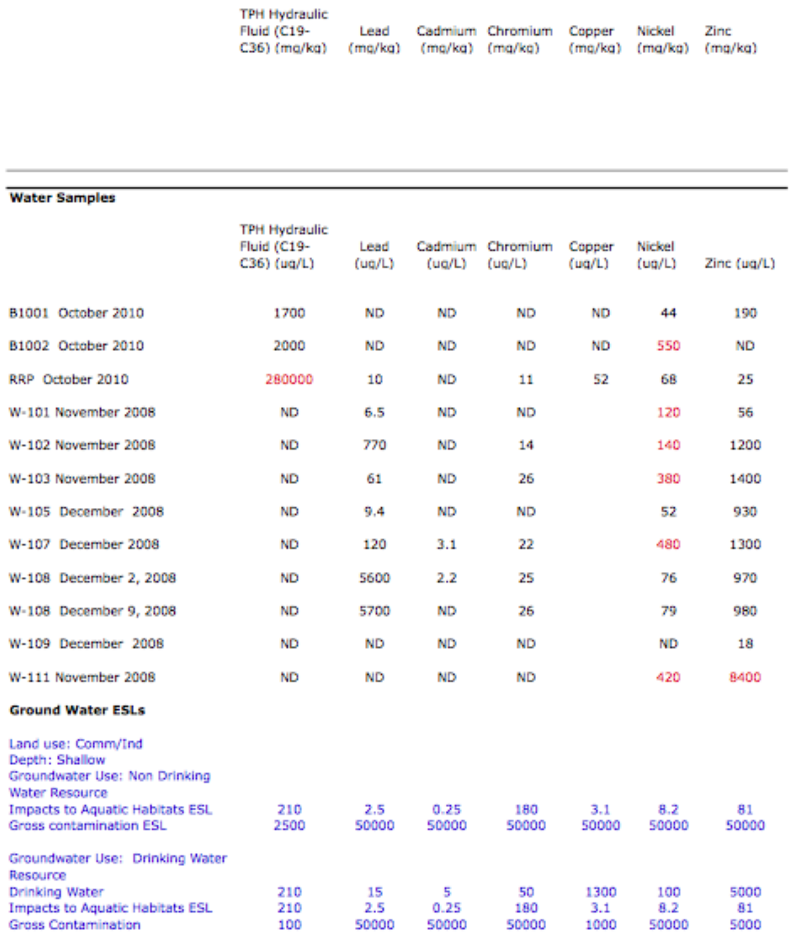
WFF October 2010 Soil and Ground Water

Sediment Samples

	TPH Hydraulic Fluid (C19-C36) (mg/kg)	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
B1001 October 2010							
6"	650	76	ND	28	17	23	130
2'	ND	48	ND	63	48	83	73
4'	ND	11	ND	10	6.9	15	26
6'	110	43	ND	73	42	84	70
8'	ND	41	ND	28	11	16	55
10'	69	280	ND	35	14	25	41
B1002 October 2010							
6"	480	55	ND	79	230	120	110
2'	ND	9.9	ND	59	30	82	52
4'	ND	9.5	ND	58	28	69	48
10'	ND	26	ND	14		9.1	16
Back (West) October 2010							
1'					140		
SWEX October 2010							
bottom	81	41	ND	12	79	10	85
N Wall	30000	110	ND	180	76	140	140
E Wall	57	21	ND	17	11	16	34
W Wall	10000	26	ND	18	8.9	17	38
S Wall	9400	49	ND	21	11	17	73
RREX October 2010							
North Wall	10000	190	ND	44	29	28	42
South Wall	24000	12	ND	61	41	63	74
West Wall	56	11	ND	20	2	28	52
SCEX October 2010							
East Wall	ND	7.9	ND	12	9.6	5.5	45
West Wall	1300	8.7	ND	18	20	27	36
South Wall	ND	6.1	ND	14	31	8.5	36
Bottom	88	26	ND	11	14	10	36
North Wall	ND	54	ND	15	22	31	100
SEEX October 2010							
North Wall	71	9.3	ND	14	9.4	7.4	25
West Wall	ND	4.1	ND	17	ND	8	13
South Wall	120	500	0.6	49	46	16	560
East Wall	ND	7.8	ND	13	7.4	7.6	16
Bottom	ND	38	ND	14	14	7.4	34
SB-101 November 2008							
3.5'	150	12	ND	17		22	26
7.5'	ND	5.2	ND	14		8.2	9.4
11.5'	ND	3.7	ND	8.8		10	14
15.5'	ND	6.2	ND	16		20	23
SB-102 November 2008							
3.5'	ND	15	ND	45		60	33
7.5'	52	110	ND	16		7.8	70
11.5'	ND	5	ND	13		9.4	13
15.5	ND	7.1	ND	11		15	26
SB-103 November 2008							



	TPH Hydraulic Fluid (C19-C36) (mg/kg)	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
3.5'	ND	11	ND	67		85	52
7.5'	110	150	ND	18		9.7	110
11.5'	ND	3.7	ND	18		23	12
15.5'	ND	3.9	ND	18		23	12
SB-104 December 2008							
1.5'	ND	10	ND	32		35	34
3.5'	ND	75	ND	16		11	120
7.5'	ND	13	ND	12		8.3	120
SB-105 December 2008							
1.5'	ND	13	ND	70		82	17
3.5'	ND	44	ND	17		12	62
7.5'	ND	17	ND	14		10	35
SB-106 December 2008							
2'	ND	11	ND	53		64	46
4.5'	2800	31	ND	54		79	67
7.5'	ND	210	ND	12		24	200
SB-107 December 2008							
1.5'	15000	260	1.3	72		72	580
3.5'	700	23	ND	14		10	49
7.5'	ND		ND				
SB-108 December 2008							
1.5'	ND	12	ND	52		59	41
4.5'	150	65	ND	25		24	100
7.5'	ND	4.8	ND	14		10	9.3
SB-109 December 2008							
1.5'	ND	160	ND	14		12	210
4.5'	ND	120	ND	19		14	200
7.5'	ND	4.8	ND	13		10	10
SB-110 December 2008							
1.5'	ND	87	ND	25		19	290
4.5'	ND	10	ND	17		11	26
7.5'	ND	5.3	ND	13		8.4	7.8
SB-111 November 2008							
0.5'	360	19	ND	37		180	920
3.5'	60	6.6	ND	50		69	44
5.5'	ND	29	ND	26		21	62
7.5'	87	49	ND	15		12	50
9.5'	ND	10	ND	14		8.8	13
SB-112 November 2008							
3.5'	63	13	ND	13		26	29
7.5'	ND	7.7	ND	70		86	42
Sediment ESLs							
Land use: Comm/Ind							
Depth: Shallow							
Groundwater Use: Drinking							
Lowest Soil ESL	2500	750	0.74	2500	230	150	600



TPH Hydraulic Fluid (C19-C36) (mg/kg)	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)

Water Samples

	TPH Hydraulic Fluid (C19-C36) (ug/L)	Lead (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Copper (ug/L)	Nickel (ug/L)	Zinc (ug/L)
B1001 October 2010	1700	ND	ND	ND	ND	44	190
B1002 October 2010	2000	ND	ND	ND	ND	550	ND
RRP October 2010	280000	10	ND	11	52	68	25
W-101 November 2008	ND	6.5	ND	ND		120	56
W-102 November 2008	ND	770	ND	14		140	1200
W-103 November 2008	ND	61	ND	26		380	1400
W-105 December 2008	ND	9.4	ND	ND		52	930
W-107 December 2008	ND	120	3.1	22		480	1300
W-108 December 2, 2008	ND	5600	2.2	25		76	970
W-108 December 9, 2008	ND	5700	ND	26		79	980
W-109 December 2008	ND	ND	ND	ND		ND	18
W-111 November 2008	ND	ND	ND	ND		420	8400
Ground Water ESLs							
Land use: Comm/Ind Depth: Shallow Groundwater Use: Non Drinking Water Resource							
Impacts to Aquatic Habitats ESL	210	2.5	0.25	180	3.1	8.2	81
Gross contamination ESL	2500	50000	50000	50000	50000	50000	50000
Groundwater Use: Drinking Water Resource							
Drinking Water	210	15	5	50	1300	100	5000
Impacts to Aquatic Habitats ESL	210	2.5	0.25	180	3.1	8.2	81
Gross Contamination	100	50000	50000	50000	1000	50000	5000