

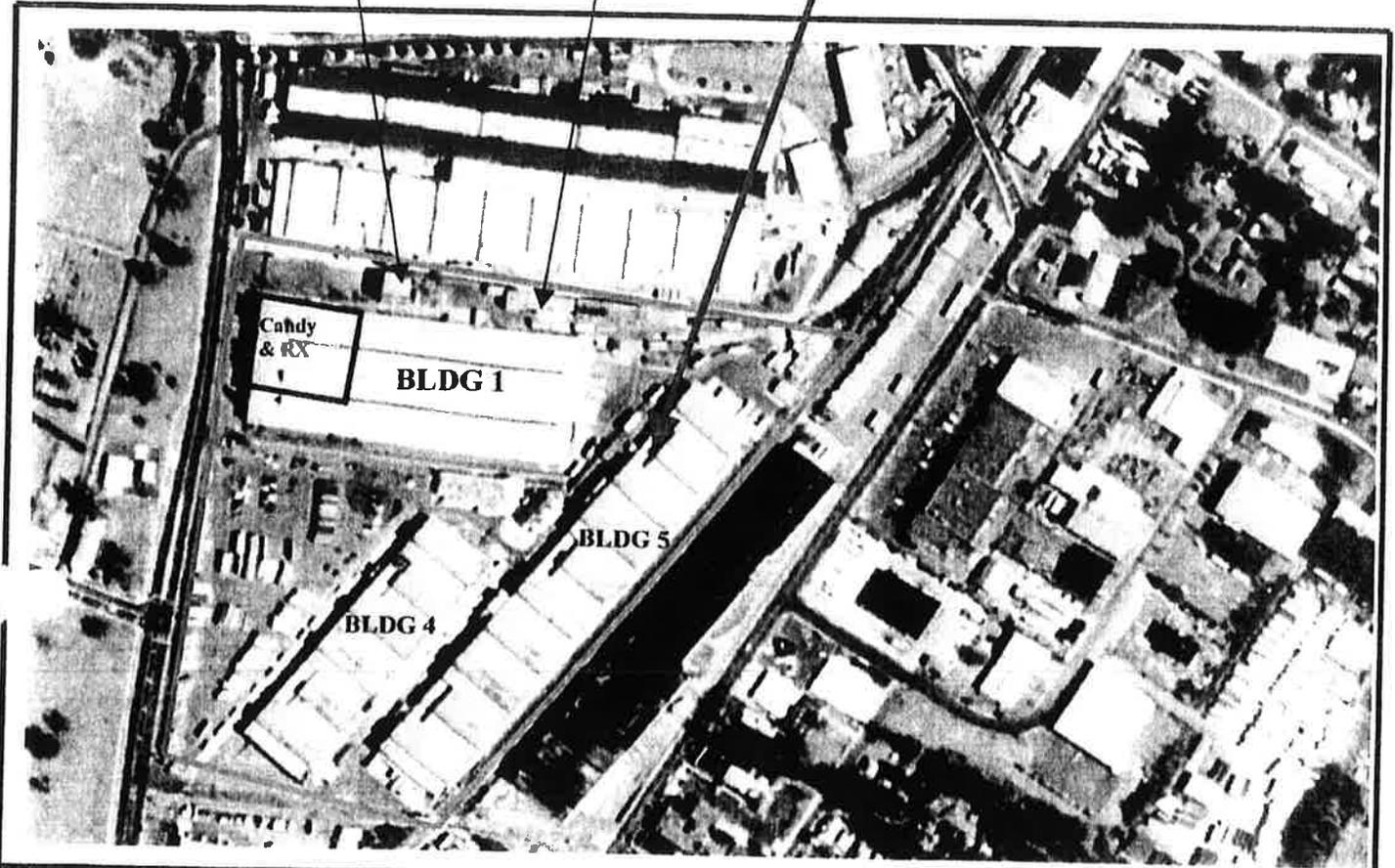
Building 5 Pit Analytical Results

- Soil samples were collected from the base of access to the former piping pit of the electroplating processes collected on 2/9/05.
- The material collected is residual chromic acid as expected.
- Testing lab reported that the soil sample Bob Hoffman collected from one of the plating pits contained 7940 mg/kg of hexavalent chromium and 80,000 mg/kg of total chromium. The hexavalent chromium concentration exceeds the S-2 cleanup level of 2000 mg/kg which DENR has established in draft guidance to address industrial/commercial exposures. Subsequent testing showed the metal to be a TCLP hazardous waste. 780 mg/l versus the regulatory standard of 5 mg/l.
- As an interim measure, we have covered over the access ways to this pit to prevent airborne dust and we have verified that chromic acid levels in the air space are acceptable.

Boiler House

BLDG 48

BLDG 5 piping pit
sampling location



HEI

HOFFMAN ENGINEERING, INC.
640 Ten Rod Rd.
North Kingstown, RI 02852

401-294-9032/Fax 294-1288

Site Plan based on
Building Designation used by
Army Corp of Engineers

Former CAMP facility
1776 Statesville Avenue
Charlotte, NC



LandVoyage maps
Copyright 2004

Survey drawing
number
75-12-02
Survey date 12-12-75

LETTER OF TRANSMITTAL

Hoffman Engineering Inc.
640 Ten Rod Road
North Kingstown, RI 02852

(401) 294-9032
Fax (401) 294-1288

Date: March 23, 2005

Job No.

To: Paula Bond, SAIC
Zainul Kidwai, ACOE
John Baden, ACOE
Franz Froelicher, ACOE
Marti Morgan, NCDENR
Arthur Shacter, NCDENR
Doug Rumford, NCDENR
Carol Van Buren, Kennedy Covington
Laura Moore, McDermott, Will & Emory
Ken Spader, Brooks Pharmacy
Sam Wells, Eckerd

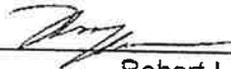
RE: Analytical Results
Eckerd Distribution Center
1776 Statesville Avenue, Charlotte, NC

Remarks:

Attached are the analytical results for the soil sample collected from the base of the access to the former piping pit of the electroplating processes in Building 5, collected on February 9, 2005. The sample was analyzed for the Total Metals, sulfate, hexavalent chrome, cyanide, and pH. During my scheduled visit next week I will collect and additional sample for TCLP metals testing. Based on these results it is apparent that the material is residual chromic acid as expected. As an interim measure we have covered over the access ways to this pit to prevent airborne dust.

We will forward you the additional test results upon receipt. If you have any questions, please contact us.

Signed: _____


Robert L. Hoffman, P.E.
President

February 21, 2005

Mr. Robert Hoffman
Hoffman Engineering
640 Ten Rod Road
North Kingstown, RI 02852

RE: Lab Project Number: 9287814
Client Project ID: Eckerd Distribution Center 2/9

Dear Mr. Hoffman:

Enclosed are the analytical results for sample(s) received by the laboratory on February 10, 2005. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report please feel free to contact me.

Sincerely,



Annette Scott
Annette.Scott@pacelabs.com
Project Manager

Enclosures

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

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NC Drinking Water 37706
SC 99006
FL NELAP E87627

Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

***ALL QC IS NOT COMPLETE FOR QC SAMPLE(S):
ESN 925309106 BATCH 121854

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Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

Solid results are reported on a dry weight basis

Lab Sample No: 925276420 Project Sample Number: 9287814-001 Date Collected: 02/09/05 19:45
Client Sample ID: PIPE PIT BLG 5 Matrix: Soil Date Received: 02/10/05 10:25

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	ReqLmt
Metals								
Metals, Trace ICP	Prep/Method: EPA 3050 / EPA 6010							
Arsenic	ND	mg/kg	8.1	02/17/05 22:42	ALV	7440-38-2	1	
Barium	76.	mg/kg	8.1	02/17/05 22:42	ALV	7440-39-3		
Cadmium	3.8	mg/kg	1.6	02/17/05 22:42	ALV	7440-43-9		
Chromium	80000	mg/kg	3.2	02/17/05 22:42	ALV	7440-47-3		
Copper	110	mg/kg	3.2	02/17/05 22:42	ALV	7440-50-8		
Lead	110	mg/kg	8.1	02/17/05 22:42	ALV	7439-92-1		
Nickel	27.	mg/kg	8.1	02/17/05 22:42	ALV	7440-02-0		
Selenium	ND	mg/kg	8.1	02/17/05 22:42	ALV	7782-49-2	1	
Silver	ND	mg/kg	3.2	02/17/05 22:42	ALV	7440-22-4		
Zinc	4300	mg/kg	16.	02/17/05 22:42	ALV	7440-66-6		
Date Digested	02/11/05 06:10			02/11/05 06:10				
Mercury, CVAAS, in Soil								
Mercury	0.91	mg/kg	0.054	02/11/05	ALV	7439-97-6		
et Chemistry								
Percent Moisture								
Percent Moisture	7.3	%		02/11/05 08:39	TNS			
Cyanide, Total, Soil								
Cyanide	3.3	mg/kg	0.054	02/21/05 11:00	TCM	57-12-5		
Chromium, Hexavalent, in Soil								
Chromium, Hexavalent	7940	mg/kg	1800	02/11/05 13:57	TMR	18540-29-9		
Sulfate, Total, Soil								
Sulfate	ND	mg/kg	110	02/12/05 03:30	BMF			
pH								
pH	8.83	units		02/11/05 11:20	EWS		2	

Date: 02/21/05

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Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

PARAMETER FOOTNOTES

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
[1] The sample was diluted to reduce matrix interference, resulting in elevated reporting limits.
[2] Analysis conducted in excess of EPA recommended holding time.

Date: 02/21/05

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QUALITY CONTROL DATA

Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

QC Batch: 121107
QC Batch Method: EPA 3050
Associated Lab Samples: 925276420

Analysis Method: EPA 6010
Analysis Description: Metals, Trace ICP

METHOD BLANK: 925272502
Associated Lab Samples: 925276420

Parameter	Units	Blank	Reporting	Footnotes
		Result	Limit	
Arsenic	mg/kg	ND	0.50	
Barium	mg/kg	ND	0.50	
Cadmium	mg/kg	ND	0.10	
Chromium	mg/kg	ND	0.20	
Copper	mg/kg	ND	0.20	
Lead	mg/kg	ND	0.50	
Nickel	mg/kg	ND	0.50	
Selenium	mg/kg	ND	0.50	
Silver	mg/kg	ND	0.20	
Zinc	mg/kg	ND	1.0	

LABORATORY CONTROL SAMPLE: 925272510

Parameter	Units	Spike	LCS	LCS	Footnotes
		Conc.	Result	% Rec	
Arsenic	mg/kg	50.00	44.60	89	
Barium	mg/kg	50.00	44.95	90	
Cadmium	mg/kg	50.00	43.60	87	
Chromium	mg/kg	50.00	44.40	89	
Copper	mg/kg	50.00	46.80	94	
Lead	mg/kg	50.00	43.90	88	
Nickel	mg/kg	50.00	43.50	87	
Selenium	mg/kg	50.00	42.70	85	
Silver	mg/kg	50.00	46.50	93	
Zinc	mg/kg	50.00	44.65	89	

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QUALITY CONTROL DATA

Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 925272528 925272536

Parameter	Units	925270084	Spike	MS	MSD	MS	MSD	RPD	Footnotes
		Result	Conc.	Result	Result	% Rec	% Rec		
Arsenic	mg/kg	1.045	124.50	103.7	98.14	82	84	5	
Barium	mg/kg	29.61	124.50	125.7	112.3	77	72	11	1
Cadmium	mg/kg	0.4332	124.50	100.5	95.09	80	82	6	
Chromium	mg/kg	8.599	124.50	105.7	99.84	78	79	6	
Copper	mg/kg	2242	124.50	2683	1113	354	0	83	1,1,2
Lead	mg/kg	150.2	124.50	197.0	161.9	38	10	20	1,1
Nickel	mg/kg	3.614	124.50	104.1	98.14	81	82	6	
Selenium	mg/kg	0.2786	124.50	100.2	95.43	80	82	5	
Silver	mg/kg	0.3157	124.50	108.3	101.9	87	88	6	
Zinc	mg/kg	168.5	124.50	208.3	178.9	32	9	15	1,1

SAMPLE DUPLICATE: 925272544

Parameter	Units	925270092	DUP	RPD	Footnotes
		Result	Result		
Arsenic	mg/kg	0.9300	0.7600	20	
Barium	mg/kg	43.00	37.00	14	
Cadmium	mg/kg	0.2800	0.1900	37	
Chromium	mg/kg	4.000	3.300	20	
Copper	mg/kg	130.0	110.0	13	
Lead	mg/kg	25.00	22.00	16	
Nickel	mg/kg	3.100	2.100	37	
Selenium	mg/kg	ND	ND	NC	
Silver	mg/kg	ND	ND	NC	
Zinc	mg/kg	130.0	100.0	19	

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QUALITY CONTROL DATA

Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

QC Batch: 121854
QC Batch Method: EPA 335.3 Modified
Associated Lab Samples: 925276420

Analysis Method: EPA 335.3 Modified
Analysis Description: Cyanide, Total, Soil

METHOD BLANK: 925309072
Associated Lab Samples: 925276420

<u>Parameter</u>	<u>Units</u>	<u>Blank Result</u>	<u>Reporting Limit</u>	<u>Footnotes</u>
Cyanide	mg/kg	ND	0.050	

LABORATORY CONTROL SAMPLE: 925309080

<u>Parameter</u>	<u>Units</u>	<u>Spike Conc.</u>	<u>LCS Result</u>	<u>LCS % Rec</u>	<u>Footnotes</u>
Cyanide	mg/kg	10.00	9.800	98	

Date: 02/21/05

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Lab Project Number: 9287814

Client Project ID: Eckerd Distribution Center 2/9

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- LCS (D) Laboratory Control Sample (Duplicate)
MS (D) Matrix Spike (Duplicate)
DUP Sample Duplicate
ND Not detected at or above adjusted reporting limit
NC Not Calculable
J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL Adjusted Method Detection Limit
RPD Relative Percent Difference
[1] The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
[2] The calculated RPD was outside QC acceptance limits.
[3] Analysis conducted in excess of EPA recommended holding time.
[4] The spike recovery was outside acceptance limits for the MS and/or MSD due to an analyte concentration in the sample at four times greater than the spike concentration. The QC batch was accepted based upon LCS and/or LCSD recoveries within acceptance limits.

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Date: February 28, 2005

To: Ken Spader
Brooks Pharmacy

Robert Hoffman
Hoffman Engineering

From: Susan M. Cooke, P.C.

Re: Reportability of Chromium Sampling Data at Statesville Avenue Facility

I. STATEMENT OF FACTS

While reviewing site plans for the Eckerd facility on Statesville Avenue in Charlotte, NC (the "Facility") which were obtained from the abutting property owners, Bob Hoffman identified subsurface plating pits in two of the Facility buildings which were used by a Department of Defense ("DOD") contractor in the fabrication of missiles.¹ Bob subsequently investigated the Building 5 pits which are located along an outside wall and extend outward below the ground surface under pavement. The pits, which are accessed from within the building, were dry and contained yellow stained soil. Bob also found pipes leading to the pits that were used to convey chemicals needed for the plating operations. It appears that one of those chemicals was chromic acid, and Bob has identified the location of a former chromic acid tank in the immediate vicinity.

Bob showed the stained soil to personnel from the Army Corps of Engineers and the North Carolina Department of Natural Resources ("DENR") during a Facility tour that was conducted as part of the February 8 meeting where the Army Corp's current site investigation and remediation pilot test were discussed. After the stained soil was identified, there was a discussion as to whether the yellow color was due to the presence of sulfate, uranium (i.e., yellowcake), or chromium, with Bob Hoffman explaining why he thought it was chromium remaining from the DOD contractor's plating operations. Bob promised to share any test results from sampling of the yellow stained soil with Dr. Franz Froelicher, one of the Army Corps representatives.

Bob Hoffman collected a soil sample from one of the plating pits, and on Friday, February 18, the testing laboratory called him to report that the soil sample was not yellowcake and did not contain sulfates. However, the laboratory reported that the sample contained 7940 mg/kg of hexavalent chromium and 80,000 mg/kg of total chromium (the amount obtained when trivalent and hexavalent chromium are added together). Thus, there was about 72,000 mg/kg of

¹ He also identified a plating pit in one of the buildings located on the abutting property which was also used by the DOD contractor for the fabrication of missiles.

likely to flow into such waters.⁶ Like the CERCLA release, this provision only covers current releases or discharges. Moreover, it relates to spills and discharges that contaminate groundwater. Thus, the chromium sampling information is reportable under the foregoing North Carolina statutory provisions.

It should be noted that Mary McGrath here at the DENR to confirm the scope of the North Carolina discharge reporting requirements appears to be no centralized spill reporting entity within DENR with a reporting telephone number or address. Thus, Mary was talking to Jeff Poupart, Supervisor of Pretreatment and Effluent Quality Division (919-733-5083 ext. 527) who does not have authority to

In addition to reporting current spills and releases, Mr. Poupart stated that historic contamination should be reported to the DENR Regional Office covering the site location, particularly if the contamination could affect groundwater beyond the property boundary. He also expressed his belief that most people (or at least most developers) notify DENR about historic contamination as they want to "cover themselves" and "err on the side of caution". However, Mr. Poupart did not cite any authority for such additional reporting. Moreover, there appears to be no guidance or other materials generated by DENR nor any other descriptions of North Carolina release reporting requirements that support Mr. Poupart's position.⁸

While there appears to be no justification for Mr. Poupart's position, and thus no immediate notification requirement either at the state or federal level, it should be noted that withholding the sampling results from the Army Corps and DENR participants at the February 8 meeting would not be advisable for several reasons. First, they already know about the existence of the yellow staining, and the likelihood that it is chromium. Second, the results will be useful in trying to get DOD funding for cleanup of the chromium so that Eckerd moneys won't have to be expended. Third, while the hexavalent chromium levels exceed North Carolina's cleanup level and could well exceed the level established for protection of groundwater, the chromium does not appear to constitute an immediate exposure risk, as it is below pavement and access from within the building can be blocked off and/or locked. Furthermore, while the condition of all potentially affected soil has yet to be investigated, the pits that were inspected appear to be free of any groundwater whose presence might trigger more immediate concern and action.

⁶ DENR has not established its own reportable quantities and instead relies on those promulgated by EPA to implement Section 311 of the CWA. The EPA reportable quantities are in turn the same ones used under CERCLA Section 103(a), and are set forth at 40 C.F.R. Table 302.4.

⁷ See discussion at n. 4 and n. 5, *supra*.

⁸ See, e.g., Chapter 45 of the Environmental Spills Reporting Handbook covering North Carolina, Morgan, Lewis & Bockius LLP, K. R. Myers and K.A. Rubin, edit., West Group. (1999 edit.). See also § NC.03 of North Carolina section of Vol. 2, Brownfields Law and Practice, M. Gerrard, gen. edit., LexisNexis.

Notification was made to USACE & NC DENR of the Chromium sampling results.

per Bob Hoffmann 9/5/06 during volume mtg w/Benda