2022 Hazardous Waste Scanning Project

File Form Naming Convention.

(*File_Type*).(*Program*).(*Site_Number*).(*YYYY-MM-DD*).(*File_Name*).pdf

Note 1: Each category is separated by a period "."
Note 2: Each word within category is separated by an underscore "_"

Specific File Naming Convention Label:

RepA.HW.932026.1991-11-01.Haz_Waste_Inv_Report.pdf

FINAL
~~DRAFT~~

HAZARDOUS WASTE INVESTIGATION REPORT

FOR

CHEW ROAD (NY ROUTE 31 TO PRINTUP ROAD)
TUSCARORA INDIAN RESERVATION
NIAGARA COUNTY, NEW YORK
PIN 5753.46

Prepared By:

URS CONSULTANTS, INC.
282 DELAWARE AVENUE
BUFFALO, NEW YORK 14202

NOVEMBER 1991

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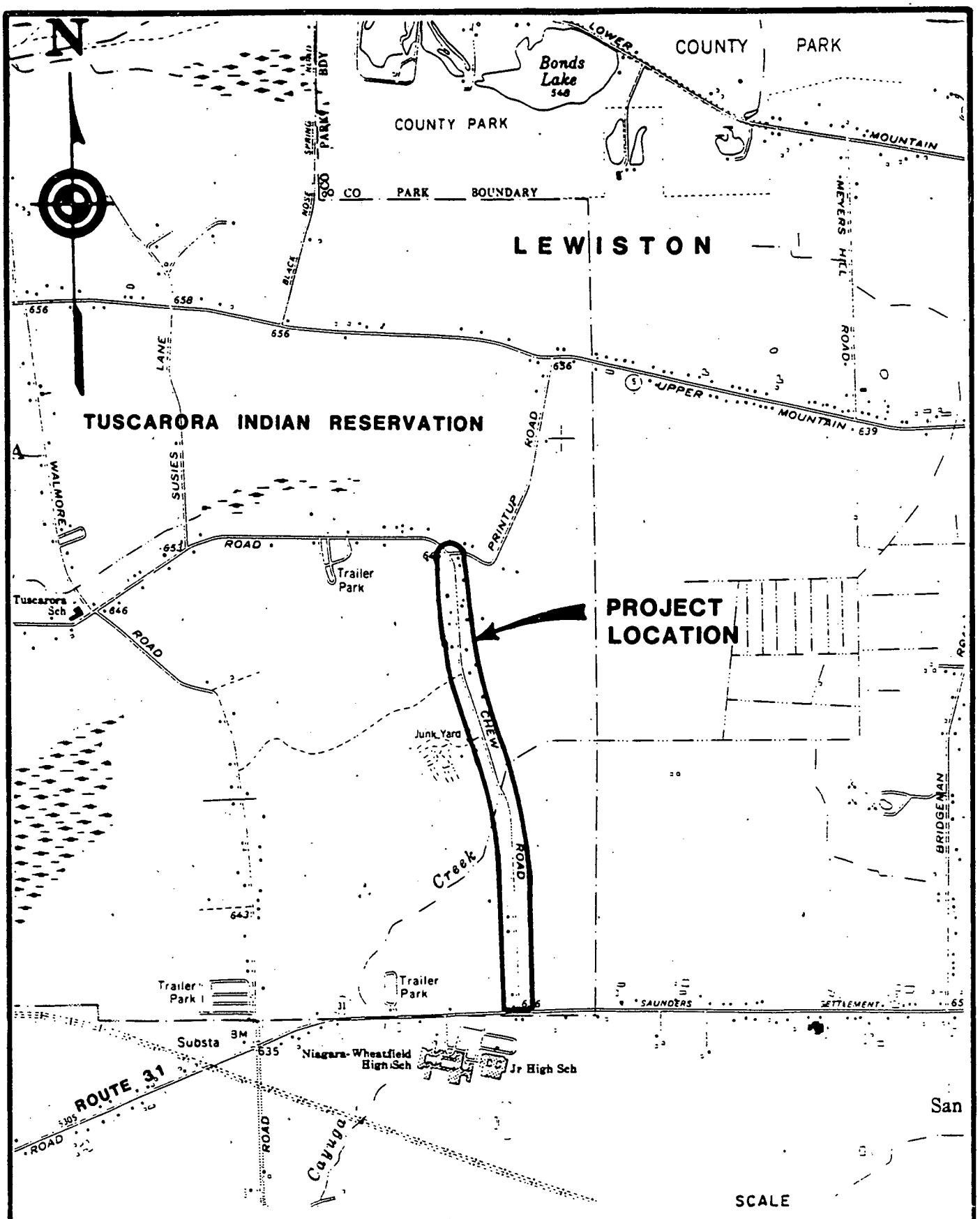
1.0 INTRODUCTION

This Hazardous Waste Investigation Report is prepared under the terms of the New York State Department of Transportation (NYSDOT) Standby Contract No. D005711 with URS Consultants, Inc. (URS). The investigation, including sampling and analysis, has been conducted as a follow-up to earlier investigations of Chew Road, (PIN 5753.46) from NY Route 31 to Printup Road, on the Tuscarora Indian Reservation, Niagara County, New York (Figure 1).

In May 1991, NYSDOT requested URS to sample Chew Road for Toxicity Characteristic Leaching Procedure (TCLP) constituents, in connection with the characterization for disposal purposes of the old fill materials used for the road subgrade. This subgrade material was derived from slag residue from open hearth steel manufacturing operations, and was originally laid down in the 1950's. This road will be rebuilt, and NYSDOT has made the decision that all slag materials will be removed and disposed of off the Tuscarora Indian Reservation.

On August 8, 1991, URS performed a site inspection in preparation for the sampling activities to be conducted. Representatives from NYSDOT and Chief Ken Patterson, as representative of the Tuscarora Indians, were also present during this site inspection. An abbreviated sampling plan was prepared and sent in letter form to NYSDOT dated August 12, 1991.



SOURCE:
USGS 7.5 MINUTE QUADRANGLE
RANSOMVILLE, N.Y., 1976

URS CONSULTANTS, INC.	SITE LOCATION MAP N.Y.S.D.O.T. - CHEW ROAD	FIGURE 1

A-409

2.0 BACKGROUND

At NYSDOT's request, the Chew Road site was extensively sampled in August, 1987 by Ecology and Environment, Inc., (E&E) to determine if the embankment material contained any contaminants of concern, and whether there had been migration of any contaminants via leaching of the embankment. After testing, E&E concluded that, "...with the exception of some metals, there are no priority pollutants present in the embankment material." Analysis was performed for 23 metals, and only seven were above background levels. Calcium, chromium, magnesium, and sodium were present at levels significantly higher than background. "The remaining three metals (antimony, iron, and vanadium) were present at levels only slightly above background, and were not present at levels which are of any concern to public health...In addition, the results of EP Toxicity tests indicate that the two metals tested (chromium and vanadium) are not readily soluble or subject to leaching from the embankment...In summary, the constituents present in the roadway embankment are not hazardous, and the metals appear to be tightly bound to the slag and thus not subject to leaching and migration from the site." ("Summary of Sampling and Analysis of Roadway Embankment Along Chew Road," E&E, September, 1987).

Since 1987, however, the EP Toxicity (EP Tox) tests, formerly used to determine whether a material was hazardous, have been supplanted by the Toxicity Characteristic Leaching Procedure (TCLP) (Federal Register, September 25, 1990). Unfortunately, the two tests do not yield strictly comparable results. Therefore, NYSDEC has now required NYSDOT (April 22, 1991) to characterize these embankment (subgrade) soils for disposal purposes by TCLP methods.

3.0 SAMPLING AND ANALYTICAL PROGRAM

Seven composite subgrade (slag) samples were collected from 34 sampling points (Figure 2) along the approximately 7,000 feet of Chew Road. The site was characterized by collecting samples every 200 feet on alternating sides of the road. On the east side of the road, samples were collected at 200, 600, 1,000, etc., feet north of Route 31 to Printup Road. On the west side of the road, samples were collected at 400, 800, 1200, etc., feet north of Route 31 to Printup Road. This sampling scheme was patterned after E&E's 1987 investigation for comparability of results.

A backhoe (Ford 550) with a 1-foot wide bucket was used to excavate test holes at the road's shoulder, or edge of pavement. The shoulder of the road was chosen for the location of sampling points to avoid making the road impassable during sampling and to avoid further damage to the driving surface of the road. After each test pit was excavated, the side wall was examined for stratification (see Table 1).

Subgrade (slag) samples were collected from the bucket of the backhoe. The slag material was identified as a dense, light green/light gray material. Solid chunks of slag were broken up with a hammer in a pan to smaller particles for laboratory analysis. Slag material from each five successive sampling points was composited into a single sample for laboratory analysis. Thus, each sample represents approximately 1,000 feet of roadbed. Compositing was done by thoroughly mixing the five individual samples in a decontaminated stainless-steel bowl and collecting the sample for analysis with a decontaminated stainless-steel spoon. The use of composite samples allowed for characterization of the entire length of the road, since the material is likely derived from a single source, and appeared to be relatively homogeneous in this and previous investigations.

TABLE 1
CHEW ROAD SAMPLE DESCRIPTIONS AND LOCATIONS

Sample ID	Sampling Point	Location **	Depth in Feet	Description
CR-01	#1	200,E	0-1.5 1.5-2.5*	Newer road bed, coarse gravel, some brown silt. Light green-light gray slag, dense. Unit varies from 0.5-1' thick.
	#2	400,W	0-0.5 0.5-1.0 1.0-3.5*	Coarse roadbed, gravel underlain by geofabric. Brown silty gravel (older road bed). Slag, typical, as described above.
	#3	600,E	0-1.0 1.0-1.5 1.5-3.5*	Newer road bed, coarse gravel. Brown silty gravel. Slag, typical.
	#4	800,W	0-2.5 2.5-5.0*	Gravel (fill) intermixed with asphalt and remnants of former road beds. Slag, typical, thickness varies from 1.5-2.5'.
	#5	1000,E	0-2.0 2.0-4.5*	Gravelly road bed. Slag, typical.
CR-02	#6	1200,W	0-2.5 2.5-3.5*	Gravelly road bed. Slag; spotty, loosely compacted.
	#7	1400,E	0-0.25 0.25-1.0 1.0-2.0 2.0-4.0*	Gravelly road bed (recent). Root material, some silty clay. Brown silty gravel (former road bed). Slag, typical.

* Bottom of test pit - natural material.
** Feet from Route 31, east or west side of road.

35223(5/90)/TABLE-1.RI

TABLE 1 (Continued)
CHEW ROAD SAMPLE DESCRIPTIONS AND LOCATIONS

Sample ID	Sampling Point	Location **	Depth in Feet	Description
CR-02	#8	1600,W	0-2.0 2.0-6.5*	Road bed gravel (2 episodes) Slag, brittle. Location adjacent to dry culvert.
	#9	1800,E	0-1.0 1.0-2.5 2.5-5.0*	Recent gravel road bed, underlain with geofabric. Brown silty gravel (former road bed). Slag, typical.
	#10	2000,W	0-1.0 1.0-2.5 2.5-5.0*	Recent road bed gravel. Brown silty gravel road bed. Slag, typical.
CR-03	#11	2200,E	0-1.0 1.0-3.0 3.0-5.0*	Recent gravel road bed. Brown silty gravel road bed. Slag, typical.
	#12	2400,W	0-1.5 1.5-2.5*	Recent and former road bed gravel. Slag, typical.
	#13	2600,E	0-1.0 1.0-2.0*	Brown silty gravel road bed. Spotty slag deposits.
	#14	2800,W	0-3.0 3.0-4.0*	Silty gravel, some root material (1-2'); road fill. Spotty slag, varies from 0.5-1.0' thick.

* Bottom of test pit - natural material.
** Feet from Route 31, east or west side of road.

35223(5/90)/TABLE-1.RI

TABLE 1 (Continued)
CHEW ROAD SAMPLE DESCRIPTIONS AND LOCATIONS

Sample ID	Sampling Point	Location **	Depth in Feet	Description
CR-03	#15	3000,E	0-2.0 2.0-4.0*	Gravel road fill (2 episodes). Slag, typical.
CR-04	#16	3200,W	0-1.0 1.0-2.0 2.0-4.0*	Recent gravel road bed fill. Brown silty gravel fill (former road bed). Slag, typical.
	#17	3440,E	0-1.0 1.0-2.0 2.0-4.5*	Recent gravel road bed fill. Brown silty gravel (former road bed). Slag, typical.
	#18	3640,E	0-1.0 1.0-1.5 1.5-3.5*	Recent gravel road bed. Brown silty gravel (former road bed). Slag, typical.
	#19	3840,E	0-2.5 2.5-3.5*	Coarse gravel, some cobbles in a silty sandy matrix (road fill). Spotty slag fill.
	#20	4040,W	0-0.5 0.5-1.0 1.0-2.0*	Recent gravel road bed. Brown silty gravel (former road bed). Slag, typical.
CR-05	#21	4240,E	0-0.25 0.25-1.0 1.0-3.7*	Asphalt Brown silty gravel road bed. Slag, typical.

* Bottom of test pit - natural material.
** Feet from Route 31, east or west side of road.

35223(5/90)/TABLE-1.RI

TABLE 1 (Continued)
CHEW ROAD SAMPLE DESCRIPTIONS AND LOCATIONS

Sample ID	Sampling Point	Location **	Depth in Feet	Description
CR-05	#22	4440,W	0-0.5 0.5-1.0 1.0-3.0*	Asphalt Brown silty gravel road bed. Slag, typical.
	#23	4640,E	0-0.5 0.5-0.75 0.75-2.0*	Asphalt Brown silty gravel road bed. Slag, typical.
	#24	4840,W	0-0.5 0.5-1.0 1.0-3.0*	Asphalt Red/brown silty gravel road bed. Slag, typical.
	#25	5040,E	0-0.3 0.3-1.25 1.25-2.0*	Asphalt Brown silty gravel road bed. Spotty slag fill, varying thickness.
CR-06	#26	5240,W	0-0.5 0.5-1.0 1.25-2.0*	Asphalt Brown silty gravel road bed. Spotty slag fill, varying thickness.
	#27	5440,E	0-0.3 0.3-1.0 1.0-2.0*	Asphalt Brown silty gravel road bed. Slag, typical.
	#28	5640,W	0-0.3 0.3-1.0 1.0-3.0*	Asphalt Brown silty gravel fill. Slag, typical.

* Bottom of test pit - natural material.
** Feet from Route 31, east or west side of road.

35223(5/90)/TABLE-1.RI

TABLE 1 (Continued)
CHEW ROAD SAMPLE DESCRIPTIONS AND LOCATIONS

Sample ID	Sampling Point	Location **	Depth in Feet	Description
CR-06	#29	5840,E	0-0.5 0.5-1.0 1.0-1.5*	Asphalt Brown silty gravel road bed. Slag, typical.
	#30	6040,W	0-0.7 0.7-2.7*	Asphalt Slag, typical.
CR-07	#31	6240,E	0-0.5 0.5-1.0 1.0-1.5*	Asphalt Brown silty gravel road bed. Spotty slag fill, varying thickness.
	#32	6440,W	0-0.4 0.4-0.7 0.7-2.2*	Asphalt Brown silty gravel road bed. Slag, typical.
	#33	6640,E	0-0.3 0.3-1.8 1.8-2.3*	Asphalt Brown silty gravel fill (road bed). Slag, typical.
	#34	6840,W	0-0.3 0.3-0.7 0.7-3.7*	Asphalt Brown silty gravel (road bed). Slag, typical.

* Bottom of test pit - natural material.
** Feet from Route 31, east or west side of road.

35223(5/90)/TABLE-1.RI

The analysis performed was for TCLP metals only. Previous investigations had determined that no organic contaminants were present, and the nature of the material is such that only metals would be expected. Samples were submitted, under proper chain-of-custody procedures, to IEA Laboratories, Inc., of Monroe, Connecticut for analysis.

Sampling locations were restored to approximately pre-existing conditions by backfilling of excavated materials, and tamping in lifts with the backhoe bucket and a gas-powered tamper.

4.0 ANALYTICAL RESULTS

A summary of the analytical results obtained from all samples is presented in Table 2.

Of the eight metals on the TCLP list, only two (chromium and barium) were present above detection levels. The concentrations of barium ranged from 0.220 mg/l (ppm) to 0.523 mg/l (ppm). These are all well below the regulatory limit of 100.0 mg/l defining hazardous waste. The concentrations of chromium ranged from 0.528 mg/l to 2.210 mg/l, all below the regulatory limit of 5.0 mg/l.

ELECTRO-METALLURGICAL CO.
April '84 LISTING

TABLE 2

CHEW ROAD
TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) - METALS
ANALYTICAL RESULTS

SAMPLE ID		CR-01	CR-02	CR-03	CR-04	CR-05	CR-06	CR-07
SAMPLE TYPE		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
COLLECTION DATE		9/9/91	9/9/91	9/9/91	9/9/91	9/10/91	9/10/91	9/10/91
PARAMETER	TYPE							
ARSENIC	TCLP	ND	ND	ND	ND	ND	ND	ND
BARIUM	TCLP	220	376	282	252	288	523	327
CADMIUM	TCLP	ND	ND	ND	ND	ND	ND	ND
CHROMIUM	TCLP	2210	1620	1320	967	738	528	813
LEAD	TCLP	ND	ND	ND	ND	ND	ND	ND
MERCURY	TCLP	ND	ND	ND	ND	ND	ND	ND
SELENIUM	TCLP	ND	ND	ND	ND	ND	ND	ND
SILVER	TCLP	ND	ND	ND	ND	ND	ND	ND

All results reported in µg/L (ppb) unless otherwise specified.
ND=Not Detected

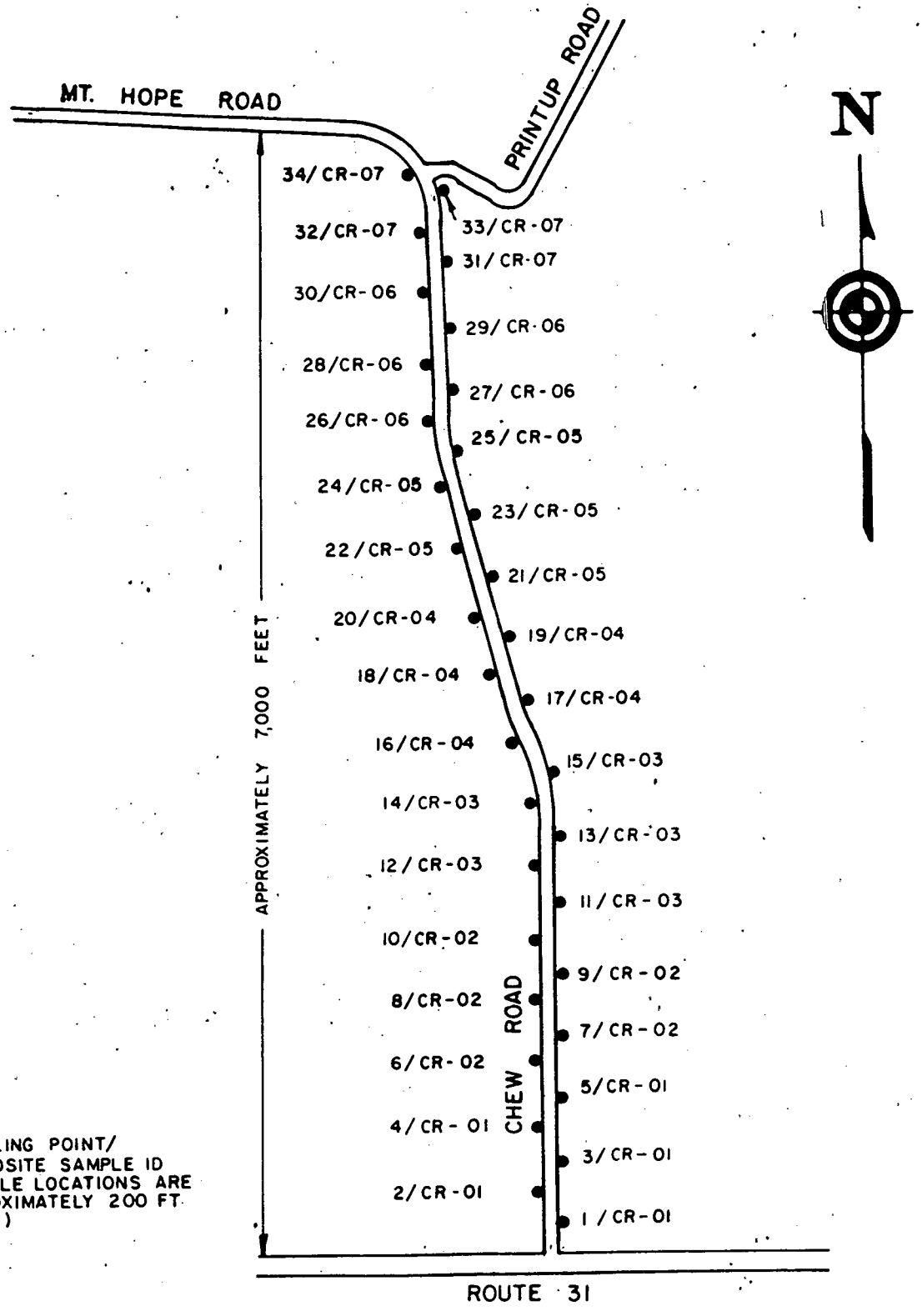
5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the analytical data generated from this sampling program, chromium is found to be the only contaminant of concern on the TCLP metals list. Barium levels were low enough that they do not represent a contaminant of concern. The maximum concentration of the chromium in the TCLP samples is less than half of the regulatory limit, thus showing the slag material in the road bed to be non-hazardous. It is considered, however, to be a solid, industrial waste since it is a solid waste generated by industrial processes [6 NYCRR 360-1.2(b)(80)].

Personnel from the hazardous waste section of the Region 9 NYSDEC have confirmed that the levels found in these samples are well under the regulatory limits, and therefore, it would not be required that the material be disposed of in a hazardous waste landfill (see Appendix B). Personnel from the solid waste section of Region 9 NYSDEC have expressed the opinion that this slag material should be disposed of in a lined solid-waste facility, not an unlined C&D landfill facility (see Appendix B). In any case, disposal of this slag material should be coordinated with regional personnel at NYSDEC.

Contacts with various regional and local landfills have come up with a range in price per ton for disposal of this slag material from less than $50 to $150 (see Appendix B). IWS Schultz C&D landfill in Cheektowaga quoted a price over the phone of $50 per ton, and indicated a lower price can be negotiated for the large volume involved. However, this is not a lined facility and may not meet with approval by NYSDEC. Browning-Ferris Industries (BFI) quoted a preliminary price of $50 per ton for disposal in their non-hazardous industrial waste landfill. CID Landfill quoted a price of $70 per ton, and Chemical Waste Management quoted a price of $150 per ton for disposal at their Model City facility. All prices assume transportation by NYSDOT.

At the NYSDOT-estimated quantity of 44,000 yd^3 of material (one cubic yard approximates one ton) and the lowest rate of $50 per ton for disposal, cost of disposal will be $2.2 million plus transportation costs. At the highest rate of $150 per ton, the cost would be $6.6 million. Note that this quantity estimate includes all excavation associated with the project, including ditch cleaning, reshaping, and removal of all embankment material down to the original grade. Of course, much of this is not slag, and could be separated and possibly re-used on site, or disposed of in any C&D landfill facility.



A-4096

URS CONSULTANTS, INC.	SAMPLE LOCATIONS N.Y.S.D.O.T. - CHEW ROAD	FIGURE 2

APPENDIX A

LABORATORY REPORT

an environmental testing company
200 Monroe Turnpike
Monroe, Connecticut 06468
(203) 261-4458
FAX (203) 268-5346

JOB # 35223.11.1150
HT
RF
File

SAMPLE DATA PACKAGE

CLIENT:	URS CONSULTANTS
PROJECT ID:	CHEW ROAD NYSDOT
P.O.#	35223.11
SDG#	Z1799
IEA ID:	30910-1799

iea an environmental testing company
200 Monroe Turnpike
Monroe, Connecticut 06468

LOGIN RECORD

IEA JOB # : - 11-1

Page 1 of

Client : URS

Project ID : Chew Road (NYSDOT)

IEA Project Mgr :

Rush: Y (N) TAT: 28 Due Date:

Protocols : SW846

Deliverables : Level I NYSDEC ASP Form I

						TESTS: TCLP MTLS											
					Bottle Type & Preservative	150ml wide mouth											
Bottle Set #	Client Sample ID	Date/Time Sampled	* Matrix	Lab ID	Field Filt?	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	Y N	QC Required Y/N	Comments
	CR-01	9/9 / 1025	S	001		1											
	CR-02	↓ / 1155	S	002		1											
	CR-03	↓ / 14:05	S	003		1											
	CR-04	↓ / 15:30	S	004		1											
		/															
		/															
		/															
		/															
		/															
		/															
		/															
		/															

(AS) CC EX GC BNA VO Ref. # 37

* Matrix Codes
A - Air C - Complex S - Soil W - Wipe FB - Field Blank
AQ - Aqueous D - Drum Waste SL - Sludge O - Other TB - Trip Blank

Rec'd In Lab By : Christopher Muir
Date/Time : 9/10/91 / 11:30
Signature : [signature]

Incoming Seal ID#: 012251
Intact On Lab Receipt? (Y) N

iea
an environmental testing company
200 Monroe Turnpike
Monroe, Connecticut 06468

LOGIN RECORD

IEA JOB # : 5091-1799

Page 1 of 1

Client : URS

Project ID : Chew Road

IEA Project Mgr :

Rush: Y (N) TAT: 28dy Due Date:

Protocols : SW846

Deliverables : Level I NYSDEC ASP Form I

Bottle Set #	Client Sample ID	Date/Time Sampled	* Matrix	Lab ID	Field Filt?	TESTS: TCLP MTLS Bottle Type & Preservative: 150ml wide mouth Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	QC Required Y/N	Comments
	CR-05	9/10 / 11:05	S	005		1											
	CR-06	↓ / 12:05	S	006		1											
	CR-07	↓ / 12:50	S	007		1											
		/															
		/															
		/															
		/															
		/															
		/															
		/															
		/															
		/															

(AS) CC EX GC BNA VO Ref. # 37

* Matrix Codes
A - Air C - Complex S - Soil W - Wipe FB - Field Blank
AQ - Aqueous D - Drum Waste SL - Sludge O - Other TB - Trip Blank

Rec'd In Lab By : Christopher Muir
Date/Time : 9/11/91 / 9:45
Signature : [signature]

Incoming Seal ID#: NA
Intact On Lab Receipt? Y N

Client : URS

IEA, INC - CT
Internal Chain of Custody Form

IEA Job #: 3091-1799

Custody Seal : present / absent
: intact / not intact
Field Chain of Custody : present / absent
Sample Tags : present / absent
: listed / not listed
SMO Forms : present / absent

Case # :
Airbill #:

Sample #s: 501-004
Location : 37

Sample Custodian: CPM / [signature] Date/Time: 9/10/91 1130
(print) (signature)

Laboratory Sample Number	Removed By (Full Signature)	Date	Time	Reason	Returned By (Full Signature)	Date	Time	Returned To Ref. #
1-4	Peter Kelly	9/10	1	TCLP	Peter Kelly	9/10	4	
1-4	J. Knowles	9/23	8:20	MTL	S. Knowles	9/23	4	9

003

Page of

Client : URS

IEA, INC - CT
Internal Chain of Custody Form

IEA Job #: 3091-1789

Custody Seal: present / ~~absent~~
: intact / not intact

Field Chain of Custody : present / absent

Sample Tags : present / ~~absent~~
: listed / ~~not listed~~

SMO Forms : present / absent

Case # :
Airbill #:

Sample #s: 005-007
Location : 37

Sample Custodian: PM (print) (signature) Date/Time: 9/11/91 9:45

Laboratory Sample Number	Removed By (Full Signature)	Date	Time	Reason	Returned By (Full Signature)	Date	Time	Returned To Ref. #
5-7	Peter Kelly	9/18	1	TCLP	Peter Kelly	9/16	4	
5-7	J. Krawczyk	9/23	8:20	MTL	J. Krawczyk	9/23	4	9

004

Page of

AS:022189:

005

an environmental testing company
200 Monroe Turnpike
Monroe, Connecticut 06468
(203) 261-4458
FAX (203) 268-5346

CHAIN OF CUSTODY
ATOMIC SPECTROSCOPY DEPARTMENT

Job Number 3091-1799 Sample Numbers 001 - 007

WATER - SOIL - SLUDGE - EPTOX/TCLP

I confirm that I have performed the preparation below following SOP guidelines and authorize the release of this preparation:

Sample Prep			
	Jadrige Krawczyk	9/23/91	ICP/FLME
			FURN
	Shirley Mickens / Anna Mancyk	10/2/91 - 10/3/91	MERCURY
	Chemist	Date(s)	

I confirm that I have performed the analysis below following SOP guidelines and authorize the release of all associated data:

Analysis	[illegible]	10/4/91	ICP
			FLAME
			FURN
	Anna Mancyk	10/3/91	MERCURY
	Chemist	Date(s)	

I have reviewed and authorize the release of this job:

Complete	Diane M. Drzyzga	10/11/91
	Supervisor	Date

Batch Assignment _____

A-2424

URS CONSULTANTS

CHAIN OF CUSTODY RECORD

PROJECT NO. 35223.11

SITE NAME: Chen ROAD (NYSDOT)

SAMPLERS (SIGNATURE) [signature]

STATION NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	150 ml Amber Glass						REMARKS
1	9/9/91	10:25 A	X		CR-01	1	X						
2	"	11:55 A	X		CR-02	1	X						
3	"		X		CR-03	1	X						
4	"	3:30 P	X		CR-04	1	X						

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
[signature]		5:10					

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS:
			[signature]	9/10/91	11:30	

Distribution: Original accompanies shipment, copy to coordinator field files

006

A-2424

URS CONSULTANTS

CHAIN OF CUSTODY RECORD

PROJECT NO: 35223.11

SITE NAME: Chew Road (WSDOT)

SAMPLERS (SIGNATURE):

STATION NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 Soil / Amber Glass	REMARKS
5	9/10/91	11:05A	X		CR-05	1	X	
6	"	12:05P	X		CR-06	1	X	
7	"	12:59P	X		CR-07	1	X	
								See Attached Analytical Request Form for Required Analysis.

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
	9/10/91	4:00P					
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE):	DATE/TIME	REMARKS:		
				9/11/91 9:45			

Distribution: Original accompanies shipment, copy to coordinator field files

007

[redacted]

QUESTIONS? CALL 800-238-5355 TOLL FREE.

3220371383

AIRBILL
PACKAGE TRACKING NUMBER

3220371383

RECIPIENT'S COPY

[redacted]

Date: 8/10/91

1 From (Your Name) Please Print: D. SHELDON
Your Phone Number (Very Important): (716-856-5636)
Department/Floor No.:

Company: URS CONSULTANTS INC

Street Address: 282 DELAWARE AVE 2ND FL

City: BUFFALO
State: NY
ZIP Required: 14202

YOUR INTERNAL BILLING REFERENCE INFORMATION (First 24 characters will appear on invoice.): 35223.

2 To (Recipient's Name) Please Print: J. DUBKAKIS
Recipient's Phone Number (Very Important): ( )
Department/Floor No.:

Company: IEA, INC.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 200 MONROE TURNPIKE

City: MONROE, CONNECTICUT
State:
ZIP Required: 06468

H IF HOLD FOR PICK-UP, Print FEDEX Address Here
Street Address:
City:
State:
ZIP Required:

3 PAYMENT
1 ☑ Bill Sender
2 ☐ Bill Recipient's FedEx Acct. No.
3 ☐ Bill 3rd Party FedEx Acct. No.
4 ☐ Bill Credit Card
5 ☐ Cash/Check

[redacted]

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning)
- 11 ☑ YOUR PACKAGING
- 16 ☐ FEDEX LETTER *
- 12 ☐ FEDEX PAK *
- 13 ☐ FEDEX BOX
- 14 ☐ FEDEX TUBE

Standard Overnight (Delivery by next business afternoon)
- 51 ☐ YOUR PACKAGING
- 56 ☐ FEDEX LETTER *
- 52 ☐ FEDEX PAK *
- 53 ☐ FEDEX BOX
- 54 ☐ FEDEX TUBE

Economy Two-Day (Delivery by second business day†)
- 30 ☐ ECONOMY

Government Overnight (Restricted to authorized users only)
- 46 ☐ GOV'T LETTER
- 41 ☐ GOV'T PACKAGE

Freight Service (for Extra Large or any package over 150 lbs.)
- 70 ☐ OVERNIGHT FREIGHT **
- 80 ☐ TWO-DAY FREIGHT **

† Delivery commitment may be later in some areas.
* Declared Value Limit $100.
** Call for delivery schedule.

5 DELIVERY AND SPECIAL HANDLING (Check services required)
1 ☐ HOLD FOR PICK-UP (Fill in Box H)
2 ☑ DELIVER WEEKDAY
3 ☐ DELIVER SATURDAY (Extra charge) (Not available to all locations)
4 ☐ DANGEROUS GOODS (Extra charge)
5 ☐
6 ☐ DRY ICE ______ Lbs.
7 ☐ OTHER SPECIAL SERVICE ______
8 ☐
9 ☐ SATURDAY PICK-UP (Extra charge)
10 ☐
11 ☐
12 ☐ HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT In Pounds Only: 1 | 5
Total: 1 | Total: 5

[redacted]

DIM SHIPMENT (Chargeable Weight) ☐ ______ lbs.
____ x ____ x ____ =

Received At
1 ☐ Regular Stop
2 ☐ On-Call Stop
3 ☐ Drop Box
4 ☐ B.S.C.
5 ☐ Station

Emp. No. | Date
☐ Cash Received
☐ Return Shipment
☐ Third Party ☐ Chg. To Del. ☐ Chg. To Hold
Street Address
City | State | Zip

Received By: [signature]
Date/Time Received: 9/11/91 9:45
FedEx Employee Number

7 Release Signature:
FedEx Emp. No. | Date/Time

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 4/91
PART #137204 NCREC 8/91
FORMAT #082

082

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CR-01

Lab Name: IEA/CI Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 179901

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	300 ✗	U		P
7440-39-3	Barium	220			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0 ✗	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	2210			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	100 ✗	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0 ✗	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	500 ✗	U		P
7440-22-4	Silver	10.0 ✗	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DMJ sirgue 10/11/91

Color Before: Y Clarity Before: CI Texture: _____

Color After: C Clarity After: CI Artifacts: _____

Comments: TCLP LEACHATE

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CR-02

Lab Name: IEA/CT Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 1799002

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	200 ✕	U		P
7440-39-3	Barium	376			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0 ✕	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1620			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	100 ✕	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0 ✕	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	500 ✕	U		P
7440-22-4	Silver	10.0 ✕	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Oprique 10/11/91

Color Before: Y Clarity Before: CI Texture: _____

Color After: C Clarity After: CI Artifacts: _____

Comments: TCLP LEACHATE

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CR-03

Lab Name: IEA/CT Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 1799003

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	300	U		P
7440-39-3	Barium	272			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	1320			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	100	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	500	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Trisque 10/11/91

Color Before: Y Clarity Before: CL Texture: _____

Color After: C Clarity After: CL Artifacts: _____

Comments: TCLP LEACHATE

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CR.04

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 1799004

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	200 ~~X~~	U		P
7440-39-3	Barium	252			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0 ~~X~~	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	967			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	100 ~~X~~	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0 ~~X~~	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	500 ~~X~~	U		P
7440-22-4	Silver	10.0 ~~X~~	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Pritzlaff 10/11/91

Color Before: C Clarity Before: C1 Texture: _____

Color After: C Clarity After: C1 Artifacts: _____

Comments: TCLP LEACHATE

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CR-05

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: ____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 1799005

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	3.00 DL	U		P
7440-39-3	Barium	288			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0 DL	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	73.8			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	100 DL	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0 DL	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	5.00 DL	U		P
7440-22-4	Silver	10.0 DL	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Trisque 10/11/91

Color Before: C Clarity Before: Cl Texture: _____

Color After: C Clarity After: Cl Artifacts: _____

Comments: TCLP LEACHATE

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CR-06

Lab Name: IEA Contract: ____

Lab Code: IEA Case No.: ____ SAS No.: ____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 1799006

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	300	U		P
7440-39-3	Barium	523			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	528			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	100	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	500	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Marquel 10/11/91

Color Before: C Clarity Before: Cl Texture: ____

Color After: C Clarity After: Cl Artifacts: ____

Comments:
TCLP LEACHATE

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

CN-07

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: 1799007

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	3.00	U		P
7440-39-3	Barium	327			P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	8.13			P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1.00	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	5.00	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Trifiro 10/11/91

Color Before: C Clarity Before: C1 Texture: _____

Color After: C Clarity After: C1 Artifacts: _____

Comments: TCLP LEACHATE

IEA
200 Monroe Turnpike
Monroe, CT 06468 (203) 452-8200

METALS RESULTS & QUALITY ASSURANCE DATA - WATER

QC ID : _____ QC ID : _____ QC ID : TCLP 1837001

Parameter	QC REPLICATE ANALYSIS			QC MATRIX SPIKE ANALYSIS			METHOD BLANK (PBW)	LCSW	LCSW
	Sample ug/L	Duplicate ug/L	RPD*	Spiked Sample Conc ug/L	Conc Added Units: ug/L	% Recovery	ug/L	Found	% Recovery
Aluminum					2000				
Antimony					500				
Arsenic	300U			1940.4	2000 ~~40~~	97.0	300U	936.25	93.6
Barium	278			2189.6	2000	95.6	200U	300.13	100.0
Beryllium					50				
Boron					NA				
Cadmium	10.0U			59.38	50	118.8	10.0U	299.16	99.7
Calcium					NA				
Chromium	10.0U			192.42	200	96.2	10.0U	306.89	108.3
Cobalt					500				
Copper					250				
Cyanide					NA				
Iron					1000				
Lead	100U			446.63	500	89.3	100U	97021	97.0
Magnesium					NA				
Manganese					500				
Mercury	2.00U			4.59	0.2	91.8	2.00U	NC	
lybdenum					500				
ickel					500				
Potassium					NA				
Selenium	500U			1962.9	2000 ~~10~~	98.1	500U	505.34	101.1
Silicon					NA				
Silver	10.0U			47.52	50	95.0	10.0U	336.55	112.2
Sodium	~~10.0~~ DELETE				NA				
Thallium					50				
Tin					1250				
Titanium					500				
Vanadium					500				
Zinc					500				

*RPD : Relative Percent Difference

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: TCLP Blank

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: _____ SAS No.: _____ SDG No.: 21799

Matrix (soil/water): water Lab Sample ID: TCLP Blank

Level (low/med): low Date Received: 9/10/91

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic	3.00	U		P
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium				
7440-43-9	Cadmium	10.0	U		P
7440-70-2	Calcium				
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1.00	U		P
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	2.0	U		CV
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium	5.00	U		P
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

all corrections by DM Driscoll 10/11/91

Color Before: C Clarity Before: C1 Texture: _____

Color After: C Clarity After: C1 Artifacts: _____

Comments: TCLP LEACHATE

APPENDIX B

COMMUNICATIONS WITH REGULATORY AGENCIES AND DISPOSAL FACILITIES

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35223.11.30000 JOB NAME NYSDOT/CHEW Rd.

MEMO OF TELECON

DATE 10/25/91 TELEPHONE 847-4585

PERSON CALLING V U Ulofsanger PERSON CALLED Rick Fisher

REPRESENTING URS REPRESENTING NYSDEC Region 9

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: Hazardous Waste disposal restrictions

TEXT OF TELECON

No restrictions on disposal as long as the regulatory limits are not exceeded

2.2 ppm Cr
0.5 ppm Ba } well under limits and no problem

If Cr. was closer, say 4.5 ppm, then there could be a problem. Can be used for another road.

TCLP will be part of NYS regs as of next year - see draft Part 376 (but not Toxicity Characteristic)

Solid waste people to call:
Kevin Hunt
Bob Nitrey

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35223.11 JOB NAME NYSDCT / Chew Rd

MEMO OF TELECON

DATE 10/28/91 TELEPHONE 847-4585

PERSON CALLING V. Wolfanger PERSON CALLED Bob Mitrey

REPRESENTING URS REPRESENTING NYSDEC - Solid Waste

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

disposal of steel slag / road bed

TEXT OF TELECON

Sampling plan should have been ~~[illegible]~~ approved by DEC so there would be no question.

C&D landfill may not be best place to dispose of this because slag does leach and this IWS Schultz is not lined.

If paperwork goes through landfill, make sure it is done properly, because if there are any problems, they come back to the generator not the landfill.

I said I would be in contact with him at a later point after decisions had been made.

cc: H. Trussell

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35223.11 JOB NAME NYSDOT / Chew Rd.

MEMO OF TELECON

DATE 10/25/91 TELEPHONE

PERSON CALLING VU Wolfangel PERSON CALLED Bob Vincent

REPRESENTING URS REPRESENTING IWS Schultz C&D

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: Landfill

TEXT OF TELECON

Approved C&D landfill

$50/ton, but call main office for break in price for 15,000 yd3

Need letter from DEC to OK disposal.

Call Sam Ricotta 852-2345 at main office.

cc:

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35223.00 JOB NAME Chew Rd

MEMO OF TELECON

DATE 11/6/91 TELEPHONE

PERSON CALLING V Wolfanger PERSON CALLED Bob Anthony

REPRESENTING URS REPRESENTING BFI - Kenmore Ave

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: price quote slag disposal

TEXT OF TELECON

$50/ton - must be landfilled - cannot be used for cover according to analysis.

If anything changes for the better, he will call again.

cc: _____

URS
AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35223.11 JOB NAME NYSDOT / Chew Rd.

MEMO OF TELECON

DATE 10/28/91 TELEPHONE 496-5514

PERSON CALLING VH Wolfangel PERSON CALLED Tom Machnicki

REPRESENTING URS REPRESENTING SID landfill

PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED: disposal prices

Steel slag/road bed 2.2 ppm Cr

TEXT OF TELECON

$10/ton for 15,000 y^3

needs to clear DEC who may want volatiles

will take about 6 weeks

Sending packet in the mail.

cc:

Chemical Waste Management, Inc.

Eastern Region
100 Nassau Park Boulevard
Princeton, New Jersey 08540
609/243-7800

October 31, 1991

URS CONSULTANTS
282 Delaware Avenue
Buffalo, NY 14202
Attn: Ms. Virginia Wolfinger

Dear Ms. Wolfinger:

Chemical Waste Management is pleased to provide you with a quotation for disposal of your Road Bed. Disposal will take place at the Model City facility located in Model City, NY. Pricing will be as follows:

Disposal Pricing: $150.00 per ton - Secure Landfill.
Plus applicable fees & taxes.

Pricing is contingent upon submission and approval of a representative sample of the waste material(s) and completion of a Chemical Waste Management's Generator's Waste Profile Sheet.

Chemical Waste Management wishes to thank you for allowing us to quote on your disposal. Please feel free to contact me at (609) 243-7914 with any questions you might have regarding this matter. Pricing is good for 30 days from the date of this letter.

Sincerely,
Chemical Waste Management, Inc.

Heather A. Bird

Heather A. Bird
Customer Service Representative
HAB/rll

cc: Mike Scarano
File

RECEIVED

NOV 4 1991

35223.11

URS

AN INTERNATIONAL PROFESSIONAL SERVICES ORGANIZATION

JOB NO. 35223.01 JOB NAME Chew Rd

MEMO OF TELECON

DATE 10/28/91 TELEPHONE 282-2676

PERSON CALLING V.U. Wolfanger PERSON CALLED Nick Morreale

REPRESENTING URS REPRESENTING CECOS

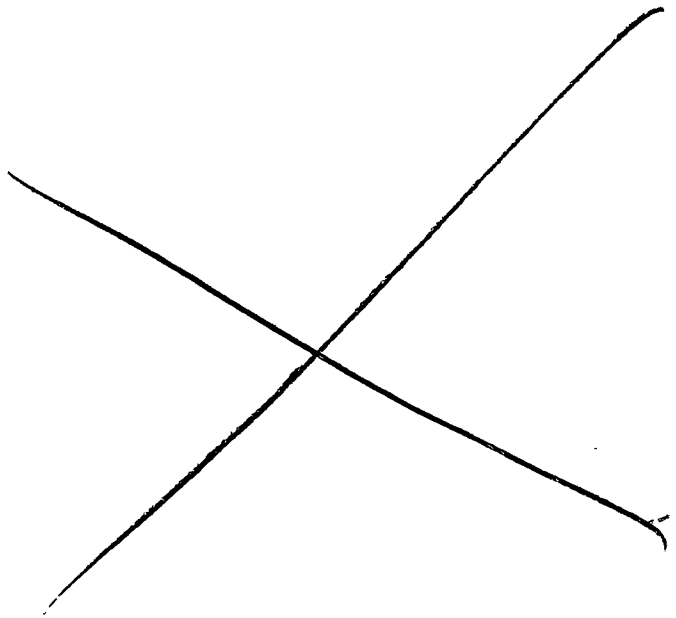
PURPOSE OF TELECON AND/OR EQUIPMENT INVOLVED:

TEXT OF TELECON

Cell A is non-hazardous waste but cannot accept that volume of waste (15,000 y^3).

Will send info packet on disposal of drummed cuttings, decon water.

cc:



RECEIVED
JUN 22 1992
N.Y.S. DEPT. OF
ENVIRONMENTAL CONSERVATION
REGION 9