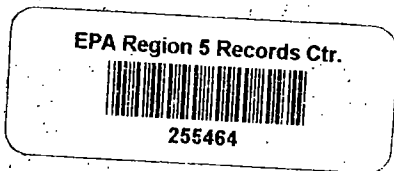




I/S



De

ecology and environment, inc.

223 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60606, TEL. 312-663-9415

International Specialists in the Environmental Sciences

DATE: May 26, 1983
 TO: File/USEPA Region V
 FROM: Mark Lunsford
 SUBJECT: Preliminary Assessment
 Indiana/TDD#R5-8212-02A, PAG #020
 East Chicago/U. S. S. Lead Refining, Inc.
 IND047030226

Can site be scored based on data from previous SI? Second FA for this site - Original was classified as "pending" - this needs review

Attached is EPA's Preliminary Assessment Form 2070-12 for the above referenced site.

Primary information was gathered from the following source(s):

1. Ecology and Environment, FIT files, Region V-Chicago
- 2.
- 3.

Information indicates the following responsible parties should be listed. They are listed here because of space limitations:

1. Donald J. Bidwell, Vice-President and General Manager
U. S. S. Lead
2. Joel Smollen, Plant Manager
3. Wes Dyman, Assistant Plant Manager

Presently, data gaps or no verification exists in the following key area(s):

1. Extent of groundwater contamination
2. Groundwater use in vicinity
3. Extent of surface water contamination

A review of the available data indicates that additional information will be necessary to assess the impact(s) on:

1. Groundwater
2. Surface water
- 3.
- 4.
- 5.

Suggested methods/sources for obtaining additional information are:

1. *SEE ATTACHED*
- 2.
- 3.

Notice of an apparent need for emergency action was transmitted to _____ on prior to April, 1980

by Robert Stone and Elissa Brown of Air and Hazardous Materials Div.
recycled paper

For more information contact:

1. Dr. Robert Gnaedinger, Jr., USEPA, Chicago, Region V
2. Clarence Bieze, FIT, Region V - Chicago, 312/663-9415
3. Groundwater investigation
4. Ron Lillich, USEPA Biologist, Region V
5. Ali Khan, East Chicago Air Quality Control Agency



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
IN 0047030226

II. SITE NAME AND LOCATION

01 SITE NAME (If legal, common, or descriptive name of site)
U.S.S. Lead Refining, Inc.

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
5300 Kennedy Avenue

03 CITY
East Chicago

04 STATE 05 ZIP CODE 06 COUNTY
IN 46312 Lake

07 COUNTY CODE 08 CONG DIST
089 01

09 COORDINATES LATITUDE LONGITUDE
41°36'50.0" 087°27'15.0" Highland quadrangle

10 DIRECTIONS TO SITE (Starting from nearest public road)
In - State (Routes 6, I-80, & I-94) to Kennedy Avenue. Continue north 2 1/2 - 3 1/2 miles. Site is on left (west) side of road just to north of Grand Calumet River.

III. RESPONSIBLE PARTIES

01 OWNER (If known)
U.S.S. Lead Refining, Inc.

02 STREET (Business, making residential)
5300 Kennedy Avenue

03 CITY
East Chicago

04 STATE 05 ZIP CODE 06 TELEPHONE NUMBER
IN 46312 (219) 397-1012

07 OPERATOR (If known and distinct from owner)
Noel Smollen, Plant Manager

08 STREET (Business, making residential)
5300 Kennedy Avenue

09 CITY
East Chicago

10 STATE 11 ZIP CODE 12 TELEPHONE NUMBER
IN 46312 (219) 397-1012

13 TYPE OF OWNERSHIP (Check one)
 A. PRIVATE B. FEDERAL C. STATE D. COUNTY E. MUNICIPAL
 F. OTHER: _____ (Specify) G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
 A. RCRA 3001 DATE RECEIVED: 8/18/80 MONTH DAY YEAR B. UNCONTROLLED WASTE SITE (RCRA 103(c)) DATE RECEIVED: none / MONTH DAY YEAR C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
 YES DATE: 4/28/81 MONTH DAY YEAR NO

BY (Check all that apply)
 A. EPA B. EPA CONTRACTOR C. STATE D. OTHER CONTRACTOR
 E. LOCAL HEALTH OFFICIAL F. OTHER: East Chicago Air Quality Control Agency (Specify)
CONTRACTOR NAME(S): Ecology & Environment, Inc.

02 SITE STATUS (Check one)
 A. ACTIVE B. INACTIVE C. UNKNOWN

03 YEARS OF OPERATION
1906 present UNKNOWN
BEGINNING YEAR ENDING YEAR

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
heavy metals (toxic/persistent) sludges (toxic/persistent)
rare metals - less common metallic elements, not rare earths (flammable/reactive/ignitable)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
discharge to surface water (environment & population)
leach into groundwater (environment & population)
contamination of soil (environment) worker exposure (population)

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
 A. HIGH (inspection required promptly) B. MEDIUM (inspection required) C. LOW (inspect on time available basis) D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT
Dr. Robert Concedinger, Jr.

02 OF (Agency/Organization)
U.S. EPA, Region V - Chicago

03 TELEPHONE NUMBER
(312) 886-7572

04 PERSON RESPONSIBLE FOR ASSESSMENT
05 AGENCY
06 ORGANIZATION
07 TELEPHONE NUMBER
08 DATE



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
D1 STATE IN	D2 SITE NUMBER 0047030226

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

D1 PHYSICAL STATES (Check all that apply) <input checked="" type="checkbox"/> A SOLID <input type="checkbox"/> E SLURRY <input checked="" type="checkbox"/> B POWDER, FINES <input type="checkbox"/> F LIQUID <input checked="" type="checkbox"/> C SLUDGE <input type="checkbox"/> G GAS <input type="checkbox"/> D OTHER _____ (Specify)		D2 WASTE QUANTITY AT SITE <small>(Measures of waste quantities must be independent)</small> TONS <u>30,000</u> CUBIC YARDS _____ NO. OF DRUMS _____	D3 WASTE CHARACTERISTICS (Check all that apply) <input checked="" type="checkbox"/> A TOXIC <input type="checkbox"/> E SOLUBLE <input type="checkbox"/> I HIGHLY VOLATILE <input type="checkbox"/> B CORROSIVE <input type="checkbox"/> F INFECTIOUS <input type="checkbox"/> J EXPLOSIVE <input type="checkbox"/> C RADIOACTIVE <input checked="" type="checkbox"/> G FLAMMABLE <input checked="" type="checkbox"/> K REACTIVE <input checked="" type="checkbox"/> D PERSISTENT <input checked="" type="checkbox"/> H IGNITABLE <input type="checkbox"/> L INCOMPATIBLE <input type="checkbox"/> M NOT APPLICABLE	
--	--	---	---	--

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	D1 GROSS AMOUNT	D2 UNIT OF MEASURE	D3 COMMENTS
SLU	SLUDGE	<i>unknown</i>		<i>CaSO₃ sludge from acid</i>
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	<i>unknown</i>		<i>chloride, sulfate, & fluoride ions</i>
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	<i>unknown</i>		<i>30,000 tons of stockpiled flue dust with heavy metals contamination & traces of lead</i>

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

D1 CATEGORY	D2 SUBSTANCE NAME	D3 CAS NUMBER	D4 STORAGE/DISPOSAL METHOD	D5 CONCENTRATION	D6 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	D1 FEEDSTOCK NAME	D2 CAS NUMBER	CATEGORY	D1 FEEDSTOCK NAME	D2 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., State files, sample analysis, reports)

Field Team I (FIT)
Field Investigation Team files, Region V - Chicago (TDD# FS-8012-6)



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

D1 STATE: **IN** D2 SITE NUMBER: **0047030226**

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 <input checked="" type="checkbox"/> A GROUNDWATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED: <u>1000</u>	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Wide variety of heavy metals found in onsite soils and in nearby surface waters plus the presence of highly permeable sandy soils make this a likely possibility.	
01 <input checked="" type="checkbox"/> B. SURFACE WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED: <u>over 10,000</u>	02 <input checked="" type="checkbox"/> OBSERVED (DATE: <u>4-7-80</u>) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Sampling results from USEPA & Field Investigation Team (4-28-81) show a wide variety of heavy metals present in USS Lead Canal, Grand Calumet River, & in a marsh next to site, including antimony (Sb), arsenic (As), aluminum (Al), barium (Ba), lead (Pb), manganese (Mn)	
01 <input checked="" type="checkbox"/> C. CONTAMINATION OF AIR 03 POPULATION POTENTIALLY AFFECTED: <u>11,000</u>	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Flue dust in open piles at site could be scattered by wind. Workers at site wear masks to filter airborne particles. Flue dust has high lead concentration.	
01 <input type="checkbox"/> D. FIRE/EXPLOSIVE CONDITIONS 03 POPULATION POTENTIALLY AFFECTED: _____	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
01 <input checked="" type="checkbox"/> E. DIRECT CONTACT 03 POPULATION POTENTIALLY AFFECTED: <u>11,000</u>	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Potential via contact with contaminated soils & waters or from flue dust in air. Southern border of site is part of Grand Calumet River floodplain. In high water periods contact with contaminated floodwaters could occur.	
01 <input checked="" type="checkbox"/> F. CONTAMINATION OF SOIL 03 AREA POTENTIALLY AFFECTED: <u>80</u> <small>(Acres)</small>	02 <input checked="" type="checkbox"/> OBSERVED (DATE: <u>4-28-81</u>) <input type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Sampling by FIT found wide variety of heavy metals present in slag & flue dust piles on site. Surface soil composite sample had 1220 ppm antimony, 1600 ppm arsenic, & 160,000 ppm lead. Marsh soil samples were significantly lower.	
01 <input checked="" type="checkbox"/> G. DRINKING WATER CONTAMINATION 03 POPULATION POTENTIALLY AFFECTED: <u>over 10,000</u>	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Lake Michigan, which is the main source of drinking water in the area, could receive lead & arsenic from site via Grand Calumet River & Indiana Harbor Canal. Private wells drawing from shallow aquifer could be contaminated.	
01 <input checked="" type="checkbox"/> H. WORKER EXPOSURE/INJURY 03 WORKERS POTENTIALLY AFFECTED: <u>50</u>	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Prolonged & repeated contact with soils & surface waters is possible. It is unknown how effective workers' masks are in filtering airborne contaminants.	
01 <input checked="" type="checkbox"/> I. POPULATION EXPOSURE/INJURY 03 POPULATION POTENTIALLY AFFECTED: <u>11,000</u>	02 <input type="checkbox"/> OBSERVED (DATE: _____) <input checked="" type="checkbox"/> POTENTIAL <input type="checkbox"/> ALLEGED 04 NARRATIVE DESCRIPTION
Contact with contaminants in airborne flue dust & surface waters is possible.	



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE 02 SITE NUMBER
IN D047030226

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
Flora of marsh & river systems have probably been adversely impacted.

01 K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
Fish of the Grand ~~Trunk~~ Calumet River could be vulnerable to biological magnification of heavy metal contaminants since they are at the top of aquatic food chain.

01 L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
Heavy metals present in surface waters and stream bottoms can accumulate in tissues of aquatic organisms & undergo biological magnification.

01 M. UNSTABLE CONTAINMENT OF WASTES
(Spills/runoff/standing ponds/leaking drums)
03-POPULATION POTENTIALLY AFFECTED: 11,000
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: 4-6-81) POTENTIAL ALLEGED
Furnace slag, calcium sulfate sludge & flue dust are dumped or stockpiled on ground. Runoff problem. Occasional failures of flue dust collection system.

01 N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED
Site is on southern border of Calumet floodplain. Under flood conditions contaminants could be deposited on offsite property & leave an undesirable residue when floodwaters retreat.

01 O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

01 P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION
02 OBSERVED (DATE: _____) POTENTIAL ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
Highly acidic conditions increase the solubilities of most metallic oxides. Accidental spills in the river of materials with a high affinity for lead could solubilize large amounts of lead from bottoms into river.

III. TOTAL POPULATION POTENTIALLY AFFECTED: over 11,000

IV. COMMENTS
25 acres of the 80-acre site have been used. There are five separate 6000 ton piles of flue dust at site. Slag is used in marsh land.

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)
Field Investigation Team files, Region II - Chicago
Includes sampling results from FIT & USEPA sampling, site ~~map~~ inspection report, & reports on sampling results.