SDMS US EPA REGION V -1

SOME IMAGES WITHIN THIS DOCUMENT MAY BE ILLEGIBLE DUE TO BAD SOURCE DOCUMENTS.

NATIONAL PRIORITIES LIST

REGIONAL SUBMISSION CHECKLIST FORM

SITE NAME Cahokia Dead Creek STATE IL

EPA I.D. NUMBER

ON-SCENE COORDINATOR MICHAEL O'TOOLE

HRS SCORE 8.70 18.48

PATHWAYS: GROUNDWATER 4.24

SURFACE WATER 7.55

AIR ~~12.31~~ 30.77

FIRE & EXPLOSION 30.00

DIRECT CONTACT 50.00

INFORMATION REQUIRED FOR SUBMISSION

DOCUMENTATION RECORDS X

EPA FORM 2070 X

SUMMARY SHEET

PHOTOGRAPHS (OPTIONAL) X

SUMMARY, PAST/FUTURE ACTIONS

ENFORCEMENT SUMMARY

COMMENTS:

Facility Name: CAHOKIA / DEAD CREEK

Location: SAUGET, IL. (ST CLAIR COUNTY)

EPA Region: 5

Person(s) in Charge of the Facility:

Name of Reviewer: C. E. Mays III Date: 7/20/82

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

Unlined creek bed - the surrounding area had several landfills operating in the creek's vicinity since 1927 to the 1960's. Site is surrounded on the north by several large companies which have been operating since the 1900's.

Scores: S_M = ~~8.70~~ 18.48 (S_{gw} = 4.24 S_{sw} = 7.55 S_a = ~~12.51~~ 30.77)

S_{FE} = 30.00

S_{DC} = 50.00

Figure 1

HRS COVER SHEET

RECEIVED
SEP 25 1984
IEPA-DLPC

QC
Math error under air pathway
Michael Adams
RPS I
31.132

GROUND WATER ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 OBSERVED RELEASE	0 45	1	45	45	3.1
If observed release is given a score of 45, proceed to line 4. If observed release is given a score of 0, proceed to line 2.					
2 ROUTE CHARACTERISTICS					3.2
Depth to Aquifer of Concern	0 1 2 3	2		6	
Net Precipitation	0 1 2 3	1		3	
Permeability of the Unsaturated Zone	0 1 2 3	1		3	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score			N/A	15	
3 CONTAINMENT	0 1 2 3	1	N/A	3	3.3
4 WASTE CHARACTERISTICS					3.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			18	26	
5 TARGETS					3.5
Ground Water Use	0 1 2 3	3	3	9	
Distance to Nearest Well/Population Served	0 4 6 8 10 / 12 16 18 20 / 24 30 32 35 40	1	0	40	
Total Targets Score			3	49	
6 If line 1 is 45, multiply 1 x 4 x 5; If line 1 is 0, multiply 2 x 3 x 4 x 5				57,330	
7 Divide line 6 by 57,330 and multiply by 100			S_{gw} = 4.24		

Figure 2

Ground Water Route Work Sheet

45 x 18 x 3 = 2430 = GW

$\frac{GW}{57330} \times 100 = 4.24$

SURFACE WATER ROUTE WORK SHEET					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section
1 OBSERVED RELEASE	0 45	1	45	45	4.1
If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2 ROUTE CHARACTERISTICS					4.2
Facility Slope and Intervening Terrain	0 1 2 3	1		3	
1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
Distance to Nearest Surface Water	0 1 2 3	2		6	
Physical State	0 1 2 3	1		3	
Total Route Characteristics Score			N/A	15	
3 CONTAINMENT	0 1 2 3	1	N/A	3	4.3
4 WASTE CHARACTERISTICS					4.4
Toxicity/Persistence	0 3 6 9 12 15 18	1	18	18	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8	
Total Waste Characteristics Score			18	26	
5 TARGETS					4.5
Surface Water Use	0 1 2 3	3	6	9	
Distance to a Sensitive Environment	0 1 2 3	2	0	6	
Population Served/ Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1	0	40	
Total Targets Score			6	55	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				64,350	
7 Divide line 6 by 64,350 and multiply by 100			S_{sw} = 7.55		

Figure 7

Surface Water Route Work Sheet

45 x 18 x 6 = 4860 = SW

$\frac{SW}{64350} \times 100 = 7.55$

AIR ROUTE WORK SHEET

Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 OBSERVED RELEASE	0 45	1	45	45	5.1
Date and Location:	3/23/82 Northern Dead Creek				
Sampling Protocol:	Check for spots above background 2- HNU photo-ionizers & 1- OVA				
If line 1 is 0, then S = 0. Enter on line 6. If line 1 is 45, then proceed to line 2.					
2 WASTE CHARACTERISTICS					5.2
Reactivity and Incompatibility	0 1 2 3	1	1	3	
Toxicity	0 1 2 3	3	~~3~~ 9	9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8	
			10		
Total Waste Characteristics Score			~~4~~	20	
3 TARGETS					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1	21	30	
Distance to Sensitive Environment	0 1 2 3	2	0	6	
Land Use	0 1 2 3	1	3	3	
Total Targets Score			24	39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100			S_a = ~~12.31~~ 30.77		

Figure 9

Air Route Work Sheet

$45 \times \overset{10}{\cancel{4}} \times 24 = 10800 = 4320 = A$ (38)

$\frac{A}{35\,100} \times 100 = 30.77 = 12.31$

	S	S^2
Groundwater Route Score (S_{gw})	4.24	17.98
Surface Water Route Score (S_{sw})	7.55	57.00
Air Route Score (S_a)	~~12.37~~ ~~30.72~~	946.80 ~~+51.54~~
$S_{gw}^2 + S_{sw}^2 + S_a^2$		1021.78 ~~776.52~~
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		31.97 15.05
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$		18.48 S_M = ~~8.70~~

Figure 10

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1	3	3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1	3	3	
Ignitability	0 1 2 3	1	3	3	
Reactivity	0 1 2 3	1	1	3	
Incompatibility	0 1 2 3	1	1	3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1	0	8	
	Total Waste Characteristics Score		8	20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1	3	5	
Distance to Nearest Building	0 1 2 3	1	2	3	
Distance to Sensitive Environment	0 1 2 3	1	0	3	
Land Use	0 1 2 3	1	3	3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1	5	5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1	5	5	
	Total Target Score		18	24	
4 Multiply 1 x 2 x 3				1,440	
5 Divide line 5 by 1,440 and multiply by 100			S_{FE} = 30.0		

Figure 11

Fire and Explosion Work Sheet

$3 \times 8 \times 18 = 432 = FE$

$\frac{FE}{1440} \times 100 = 30$

DIRECT CONTACT WORK SHEET					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1	45	45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	1		3	8.2
3 Containment	0 15	1		15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5	15	15	8.4
5 Targets					8.5
Population within a 1-mile radius	0 1 2 3 4 5	4	16	20	
Distance to a critical habitat	0 1 2 3	4	0	12	
	Total Targets Score		16	32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} = 50		

$45 \times 15 \times 16 = 10900 = DC$

$\frac{DC}{21600} \times 100 = 50$

Figure 12

Direct Contact Work Sheet

DOCUMENTATION RECORDS
FOR
HAZARD RANKING SYSTEM

INSTRUCTIONS: The purpose of these records is to provide a convenient way to prepare an auditable record of the data and documentation used to apply the Hazard Ranking System to a given site. The source of information should be provided for each entry and should be a bibliographic-type reference that will allow anyone to find the document used for a given data point. Include the location of the document and consider appending a copy of the relevant page(s) for ease in review by any interested party.

FACILITY NAME: CAHOKIA / DEAD CREEK

LOCATION: SAUGET, IL. (ST. CLAIR COUNTY)

RECEIVED
SEP 25 1984
IEPA-DLPC

recycled paper

ecology and environment

1 OBSERVED RELEASE

Contaminants detected off site (5 maximum):

PCB's, chloroaniline, dichlorobenzene, copper, manganese, lead, cyclohexane, chlorophenol, aliphatic hydrocarbons, silver, nickel, arsenic, cadmium, phosphorous

Reasoning by which the presence of the detected contaminants can be attributed to the facility:

Found in IEPA monitoring wells surrounding the site
Wastes corresponds to waste of several industries in the area
Site is surrounded by various industries
SOURCE: "A Preliminary Hydrogeologic Investigation in the Northern Portion of Dead Creek & Vicinity" By Ron St. John, 4/81, IEPA Report pp. 34-39

* * *

2 ROUTE CHARACTERISTICS

Depth to Aquifer of Concern

Name/description of aquifers(s) of concern:

NOT APPLICABLE (N/A) - OBSERVED RELEASE (O.R.)

Depth(s) from the ground surface to the highest seasonal level of the saturated zone [water table(s)] of the aquifer of concern:

N/A - O.R.

Depth from the ground surface to the lowest point of waste disposal/storage:

N/A - O.R.

Net Precipitation

Mean annual or seasonal precipitation:

N/A - O.R.

Mean annual lake or seasonal evaporation:

N/A - O.R.

Net precipitation (subtract the above figures):

N/A - O.R.

Permeability of Unsaturated Zone

Soil type in unsaturated zone:

N/A - O.R.

Permeability associated with soil type:

N/A - O.R.

Physical State

Physical state of waste at time of disposal (or generated gases):

N/A - O.R.

* * *

recycled paper

ecology and environment

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

N/A - O.R.

Method with highest score:

N/A - O.R.

4 WASTE CHARACTERISTICS

Toxicity and Persistence

Compound(s) evaluated:	TOXICITY	PERSISTENCE
PCB's	3	3
Chloroaniline	3	1
dichlorobenzene	2	2
cyclohexane	2	2

Compound with highest score:

SOURCE: SAX & NFPA DATA

SCORES A (18)

Bazardous Waste Quantity

Total quantity of hazardous waste at the facility (excluding those with a containment score of 0):

UNKNOWN - AREA HAS BEEN USED AS SEVERAL LANDFILLS SINCE 1937 AND NO RECORDS ON AMOUNT HAS BEEN KEPT

Basis of estimating and/or computing waste quantity:

SOURCE: "A Preliminary Hydrogeologic Investigation in the Northern Portion of Reed Creek & Vicinity" By Ron St. John, 4/81, DEPA Report

* * * SCORES A (0)

recycled paper

ecology and environment

Ground Water Use

Use(s) of aquifer(s) of concern within a 3-mile radius of the facility:

Industrial / Commercial - SOURCE: IL. STATE WATER SURVEY
Mississippi River is major water source in the area

Distance to Nearest Well

Location of nearest well drawing from aquifer of concern or occupied building not served by a public water supply:

< 2000 ft : Monsanto well upgradient to GW flow but causes cone of depression in water table → contaminated well

Distance to above well or building:

< 2000 ft SCORES A (4)

Population Served by Ground Water Wells Within a 3-Mile Radius

Identified public-supply well(s) drawing from aquifer(s) of concern within a 3-mile radius:

NONE

Private - industrial → Track Supply Inc → used bottled H_2O for drinking
Amax
Cerro Corp

Population served by each above public-supply well and how computed:

PSW - 0 SOURCE: ISWS

Computation of land area irrigated by supply well(s) drawing from aquifer(s) of concern within a 3-mile radius, and conversion to population (1.5 people per acre):

N/A

Total population served by ground water within a 3-mile radius:

0

Industrial use only SCORES A (0)

recycled paper

1 OBSERVED RELEASE

Contaminants detected in surface water at the facility or downhill from it (5 maximum):

PCB's, Chloroaniline, dichlorobenzene, cyclohexane, Chlorophenol

Reasoning by which the presence of the detected contaminants can be attributed to the facility:

Contaminants deposited directly into waters - Lab. analysis of creek downstream & certain company holding ponds show waste analysis of the same type
SOURCE: ST. JOHN'S REPORT

* * *

2 ROUTE CHARACTERISTICS

Facility Slope and Intervening Terrain

Average slope of facility in percent:

N/A - O.R.

Name/description of nearest downslope surface water:

N/A - O.R.

Average slope of terrain between facility and above-cited surface water body in percent:

N/A - O.R

Is the facility located either totally or partially in surface water?

N/A - O.R.

Is the facility completely surrounded by areas of higher elevation?

N/A -OR

1-Year 24-Hour Rainfall in Inches

N/A - O.R.

Distance to Nearest Downslope Surface Water

N/A - O.R.

Physical State of Waste

N/A - O.R.

* * *

3 CONTAINMENT

Containment

Method(s) of waste or leachate containment evaluated:

N/A - O.R.

Method with highest score:

N/A - O.R.

recycled paper

ecology and environment

4 WASTE CHARACTERISTICS

Refer to Ground Water Route

* * *

5 TARGETS

Surface Water Use

Use(s) of surface water within 3 miles downstream of the hazardous substance:

Recreation - children play in creek

SCORES A (2)

Is there tidal influence?

NO

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

> 2 mile

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

> 1 mile

Distance to critical habitat of an endangered species or national wildlife refuge, if 1 mile or less:

> 1 mile SCORES A (0)

recycled paper

ecology and environment

Population Served by Surface Water

Location(s) of public-supply intake(s) within 3 miles (free-flowing bodies) or 1 mile (static water bodies) downstream of the hazardous substance:

None

Population served by each above public-supply intake:

None

Computation of land area irrigated by above-cited intake(s) and conversion to population (1.5 people per acre):

N/A

Total population served:

0

Name/description of nearest of above water bodies:

Dead Creek

Distance to above-cited intakes, measured in stream miles.

N/A

TOTAL: SCORES A 0

recycled paper

ecology and environment

1 OBSERVED RELEASE

Contaminants detected:

No specifics - just a survey to get a plus or minus reading (check for spots above background)

Source: FIT memo 4/14/82 by Don Woods

Date and location of detection of contaminants

3/23/82

North end of Dead Creek - just south of Queeny Ave.

Methods used to detect the contaminants:

Organic Vapor Analyzer

2 - HNU photo-ionizer 10.2 ev lamp
11.7 ev lamp

Explosimeter, Radiation survey meter, O_2 Indicator

Reasoning by which the presence of the detected contaminants can be attributed to the site:

Absorption of contaminants with the soil, a buried pipe was found entering the creek with a turbid & oily liquid coming from it. Midwest Rubber use to pipe their waste into the creek (creek bed is spongy when you walk on it)

* * *

2 WASTE CHARACTERISTICS

Reactivity and Incompatibility

Three most reactive compounds (indicate one used):

Phosphorous

Arsenic SCORES A (1)

Three most incompatible pairs of compounds (indicate one used):

Toxicity

Three most toxic compounds (indicate one used):

PCB's 3
Dichlorophenol 3
Chloroaniline 3

Hazardous Waste Quantity

Total quantity of hazardous waste:

UNKNOWN

Basis of estimating and/or computing waste quantity:

* * *

3 TARGETS

Population Within 4-Mile Radius

Circle radius used, give population, and indicate how determined:

1 to 4 mi 1/2 to 1 mi 1/4 to 1/2 mi 0 to 1/4 mi

6,100 people

Scores A 21

Distance to a Sensitive Environment

Distance to 5-acre (minimum) coastal wetland, if 2 miles or less:

> 2 miles

Distance to 5-acre (minimum) fresh-water wetland, if 1 mile or less:

> 1 mile

recycled paper

ecology and environment

Distance to critical habitat of an endangered species, if 1 mile or less:

> 1 mile SCORES A (0)

Land Use

Distance to commercial/industrial area, if 1 mile or less:

< 1/4 mile (~2000 ft) Topo map & FIT inspection

SCORES A (3)

Distance to national or state park, forest, or wildlife reserve, if 2 miles or less:

None

Distance to residential area, if 2 miles or less:

< 1/4 mile topo map & FIT inspection

SCORES A (3)

Distance to agricultural land in production within past 5 years, if 1 mile or less:

< 1/4 mile topo map & FIT inspection

SCORES A (3)

Distance to prime agricultural land in production within past 5 years, if 2 miles or less:

< 1/2 mile topo map & FIT inspection

SCORES A (3)

Is a historic or landmark site (National Register or Historic Places and National Natural Landmarks) within the view of the site?

NO - only the St. Louis Arch

FIRE AND EXPLOSION - PICTURES FROM DEPA FILE OF CREEK BED ON FIRE.

CONTAINMENT → WASTE DUMPED WITH NO SEGREGATION
SCORES A (3)

WASTE CHARACTERISTICS

DIRECT EVIDENCE → no measurements, but photographs of creek bed on fire
SCORES A (3)

IGNITABILITY → SCORES A (3)

	TOXICITY	PERSISTENCE	IGNITABILITY	REACTIVITY
Chlorobenzene	2	2	3	0
Dichlorophenol	3	1	0	0
Chloroaniline	3	1	1	0
PCB	3	3	0	0
Phosphorous	3	1	3	1
Arsenic	2	1	0	1
Cyclohexane	2	2	3	0

SOURCE: SAX AND NFPA DATA

REACTIVITY → SCORES A (1)

INCOMPATIBILITY → SCORES A (1)

HAZ. WASTE QUANTITY → UNKNOWN: SCORES A (0)

TARGETS

DIST. TO NEAREST POP.

201 ft - 2640 ft SCORES A (3)

SOURCE: U.S.G.S. TOPO MAP (DIST ~ 500 ft)

DIST. TO NEAREST BLDG.

51 - 200 ft SCORES A (2)

SOURCE: U.S.G.S. TOPO MAP (DIST ~ 55 ft)

DIST TO SENSITIVE ENVIR. → SCORES A (0)

LAND USE → SCORES A (3) (see air section)

POP. W/IN 2 MILE RADIUS → 12,239: 1/8 of E St Louis & 1520 bldgs counted off of map × 3.8 people/bldg
(E St. Louis: 51700 pop)
51700/8 = 6463 people SCORES A (5)

BLDGS. W/IN 2 MI. RAD. → 1520 counted; 6463/3.8 = 1700 TOTAL: 3220

DIRECT CONTACT

OBSERVED INCIDENT → Yes, resident's dog rolled in ditch and died of apparent chemical burns in Aug. 1980 SOURCE: ST JOHN'S REPORT

WASTE CHARACTERISTICS: TOXICITY - PCB's = 3 SCORES A (3)

TARGETS: POP W/IN 1 MI. RAD. - 6,100 SCORES A (4)

DIST. TO CRITICAL HABITAT: SCORES A (0)

APPENDIX E
MODEL WORKSHEETS

Site Name: CAHOKIA / DEAD CREEK

Location: St Clair Co. - Sauget, IL.

EPA Region: V

Person(s) in Charge of the Site: Unknown (various owners)

Name of Reviewer: C. E. Mayo III

Site Overall Score: 8.87 F&E = 6.12 D.C = 81.26

General Description of the Site:

(For example: landfill, surface impoundment, pile, container; types of wastes; location of the site; contamination route of major concern; types of information needed for rating; agency action, etc.)

Creek bed unlined

Waste disposed - liquids, sludges, some solids

Site boundaries: Queen Ave on the north & Judith Lane on the South - Dead Creek ravine bed

G.W. major concern

Waste Quantity Analysis: UNK - need amount

→ Area had several landfills operating since 1937 until 1960's

Surrounded on the North by several large companies which have been operating since the 1900's

RECEIVED
SEP 25 1984
IEPA-DLPC

ROUTE - GROUND WATER

Rating Factor	Basis of Information	Site Rating (Circle One)	Multiplier	Site Score	Maximum Possible Score
1 OBSERVED RELEASE (ref GW 1)					
Measured Level or Evidence of Release	St John report	0 (45)	1	45	45
If the site score is zero, go to step 2 otherwise, go to step 5					
2 ROUTE CHARACTERISTICS[1] (ref GW 2)					
Depth to Aquifer of Concern		0 1 2 3	2		6
Net Precipitation		0 1 2 3	1		3
Permeability of Unsaturated Zone		0 1 2 3	2		6
			Subtotal		15
3 CONTAINMENT[1,2] (ref GW 3)					
Containment		0 1 2 3	1		3
4 POTENTIAL FOR RELEASE					
Multiply site score from 2 by site score from 3. The product is site rating for this route.			1		45
5 RELEASE					
Enter site score from 1 or 4				45	45
6 WASTE CHARACTERISTICS[1,3] (ref GW 4)					
Physical State	PCB's	0 1 2 (3)	1	3	3
Persistence		0 1 2 (3)	2	6	6
Toxicity/ Infectiousness		0 1 2 (3)	2	6	6
			Subtotal	15	15
7 HAZARDOUS WASTE QUANTITY[1] (ref GW 5)					
Total Waste Quantity	Unknown	0 (1) 2 3 4 5	1	1	5
(by Superfund definition) excluding waste that is totally contained					
8 TARGETS[1] (ref GW 6)					
Ground Water Use	DEPA file	0 (1) 2 3	3	3	9
Distance to Nearest Well Downgradient	DEPA files	0 1 2 (3)	3	9	9
Population Served by Ground Water Within 3 Mile Radius	ISWS	0 (1) 2 3 4 5	6	6	30
			Subtotal	18	48
9 GROUND WATER ROUTE SUBTOTAL					
A. Multiply 5 x 6 x 7 x 8	45 x 15 x 1 x 18			12150	162,000
B. Multiply [A.] by Normalization Factor of 0.6 and Divide by 1,000			0.6	7.29 (9 | Route Subtotal)	97.2

[1] A rating of zero should be entered when data is unavailable to rate an additive factor. A rating of 1 should be entered when data is unavailable to rate a multiplicative category such as the waste quantity or containment. A total of 5% missing data for the entire site is allowed when rating a site.

[2] If the site has more than one type of containment (e.g., surface impoundment, landfill, containers), consider all cases separately and enter the score from the worst case.

[3] Rate the five most hazardous wastes. Select the one with the highest subtotal score and enter that score.

ROUTE - SURFACE WATER

Rating Factor	Basis of Information	Site Rating (Circle One)	Multiplier	Site Score	Maximum Possible Score
1 OBSERVED RELEASE (ref SW 1)					
Measured level or evidence of release	St Johns report	0 (45)	1	45	45
If the site score is zero, go to step 2 otherwise, go to step 5					
2 ROUTE CHARACTERISTICS[1] (ref SW 2)					
Site Slope and Terrain		0 1 2 3	1		3
1 Year 24 Hour Rainfall		0 1 2 3	1		3
Distance to Surface Water		0 1 2 3	1		3
Flood Potential		0 1 2 3	2		6
			Subtotal		15
3 CONTAINMENT[1,2] (ref SW 3)					
Containment		0 1 2 3	1		3
4 POTENTIAL FOR RELEASE					
Multiply site score from 2 by site score from 3. The product is site rating for this route.			1		45
5 RELEASE					
Enter site score from 1 or 4				45	45
6 WASTE CHARACTERISTICS[1,3] (ref SW 4)					
Physical State	PCB's	0 1 2 (3)	1	3	3
Toxicity/ Infectiousness	↓	0 1 2 (3)	2	6	6
Persistence	↓	0 1 2 (3)	2	6	6
			Subtotal	15	15
7 HAZARDOUS WASTE QUANTITY[1] (ref SW 5)					
Total Waste Quantity	Unknown	0 (1) 2 3 4 5	1	1	5
(by Superfund definitions) excluding waste that is totally contained					
8 TARGETS[1] (ref SW 6)					
Surface Water Use	recreation	0 1 (2) 3	3	6	9
Critical Habitats	100 yr floodplain	0 1 (2) 3	2	4	6
Population Served by Surface Water With Water Intake Within 3 Miles Downstream From Site	Public AD Supply	(0) 1 2 3 4 5	6	0	30
			Subtotal	10	45
9 SURFACE WATER ROUTE SUBTOTAL					
A. Multiply 5 x 6 x 7 x 8	45 x 15 x 1 x 10			6750	151,875
B. Multiply [A] by normalization factor of 0.64 and divide by 1,000			0.64	4.32 [B] Route Subtotal	97.2

ROUTE - AIR

Rating Factor	Basis of Information	Site Rating (Circle One)	Multiplier	Site Score	Maximum Possible Score
1 OBSERVED RELEASE* (ref A 1)					
Evidence of Release	Don Woods' 4/14/82 memo	0 (45)	1	45	45
If the site score is zero, the route subtotal score is zero, otherwise, go to Step 2					
2 RELEASE					
Enter site score from 1				45	45
3 WASTE CHARACTERISTICS[1,3] (ref A 2)					
Physical State/ Volatility	St John's report	0 1 (2) 3	1	2	3
Reactivity	Dichlorobenzene	(0) 1 2 3	1	0	3
Incompatibility		0 1 (2) 3	1	2	3
Toxicity/ Infectiousness	PCB's	0 1 2 (3)	2	6	6
			Subtotal	10	15
4 HAZARDOUS WASTE QUANTITY[1] (ref A 3)					
Total Waste Quantity	UNKNOWN	0 (1) 2 3 4 5	1	1	5
(by Superfund definition) excluding waste that is totally contained					
5 TARGETS[1] (ref A 4)					
Distance to Nearest Population	St John's report	0 1 2 (3)	2	6	6
Population Within 1 Mile Radius	topo & pop count	0 1 2 3 4 (5)	5	25	25
Critical Environments	w/in 100yr floodplain	0 1 (2) 3	2	4	6
Land Use	Topo map	0 1 2 (3)	1	3	3
			Subtotal	38	40
6 AIR ROUTE SUBTOTAL					
A. Multiply 2 x 3 x 4 x 5	45 x 10 x 1 x 38 = 17100			17100	135,000
B. Multiply [A] by normalization factor of 0.72 and divide by 1,000			0.72	12.31 [B] Route Subtotal	97.2

*Only air monitoring data will be considered as evidence of release.

10

AGGREGATE SITE RATING

Route	Route Subtotal from 6 or 9	Route Subtotal Squared	Maximum Possible Score
Ground Water	7.29	53.14	$(97.2)^2 = 9447.84$
Surface Water	4.32	18.66	$(97.2)^2 = 9447.84$
Air	12.31	151.54	$(97.2)^2 = 9447.84$
Sum		223.34	28,343.52
Square Root of Sum		14.94	168.36
Overall Score* = $\frac{\text{sum} \times 100}{168.36}$		8.87	100

FIRE AND EXPLOSION

Route Subtotal from 8	Maximum Possible Score
6.12	97.2

Adjusted Score = $\frac{\text{Route Subtotal} \times 100}{97.2} = \frac{6.12 \times 100}{97.2} = 6.29$

DIRECT CONTACT

Route Subtotal from 8	Maximum Possible Score
78.98	97.2

Adjusted Score = $\frac{\text{Route Subtotal} \times 100}{97.2} = \frac{78.98 \times 100}{97.2} = 81.26$

*The overall and adjusted scores will be between 0 and 100. The maximum overall score for a site with only one exposure route is 57.7.

DRAFT-SUBJECT TO CHANGE

WORKSHEET FOR HAZARDOUS WASTE
SITE RANKING MODEL

RECEIVED
SEP 25 1984
IEPA-DLPC

GENERAL

Site name and location: Cahokia / Dead Creek
St Clair Co., Sauget, IL

Date(s) of site scoring: 2/16 - 2/17/82

Primary source(s) of information (e.g., EPA region, state, FIT, etc.):

IEPA file - Cahokia / Dead Creek General file

IEPA report - "A Preliminary Hydrogeologic Investigation in the Northern Portion of Dead Creek & Vicinity" Ron St John (4/81)

St John has copy @ office

Factors not scored (assigned 0 for additive and 1 for multiplicative) due to insufficient information:

Waste quantity - could estimate the depth of contaminated soil, length of creek bed in hydrogeologic study, along with average width - because contaminated soil would be remove in clean up operation

Creek SW intake from Mississippi w/in 3 mi downstream

Air sampling needed

Comments or qualifications:

- Need Air quality work done (may or may not be fruitful)
- Need further GW study in area to determine depth of contamination, determine leachate plumes, etc in total area
- Need Hazardous waste quantity (do not think it is possible due to past history of the area)
- Creek does not always flow due to road construction upstream; see IEPA report of 4/81 - St John's
  - if possible take further SW samples up & down stream

DRAFT-SUBJECT TO CHANGE

GROUND WATER PATHWAY

[1] Measured Level or Evidence of Release

Describe substance(s) and nature of release:

Corresponds to waste of several industries in the area

PCB's, Chloroaniline, Dichlorobenzene, Copper, Manganese, Lead, Cyclohexane, Chlorophenol, aliphatic hydrocarbons, silver, nickel, arsenic, cadmium - Found in monitoring wells placed by IEPA

Describe method of measurement or observation:

Lab analysis in report "A Preliminary Hydrogeologic Investigation in the Northern Portion of Dead Creek & Vicinity" by Ron St John - 4/81 Analysis pp 34-39

[2] Depth to Aquifer of Concern

Describe/name aquifer of concern:

Why is above aquifer of concern?

Depth and how determined, including sources:

Net Precipitation

Net precipitation and how determined, including source(s):

Premeability of Unsaturated Zone

Soil type(s) in unsaturated zone:

Permeability and how determined, including source(s):

DRAFT-SUBJECT TO CHANGE

[3] Containment

Method of waste management (e.g., surface impoundment, landfill, etc) of extreme case:

Describe basis for selecting extreme case:

Describe method(s) of waste or leachate containment for above extreme case:

Cite source(s) of information:

[6] Physical State

Physical state of waste and source of information:
Liquid - St John's report

Persistence

Most persistent compound subject to transport via ground water:
PCB's

Basis for selecting compound, including source(s):
Lab Analysis from H_2O & soil samples taken in the area of concern

Basis for selecting persistence rating score:
Mike persistence report

Toxicity/Infectiousness

Toxic materials subject to transport via ground water and Sax or NFPA level for each:
PCB → Sax's toxicity

DRAFT-SUBJECT TO CHANGE

Cite source(s) of information indicating toxics present on site:

St John's report

Infectious materials present on site and source(s) of information:

—

Basis for selecting CDC classification of infectious materials:

—

7 Total Waste Quantity

Total waste quantity present, including unit of measurement (e.g., tons, cubic yards drums): 0-3 ft deep in contaminated soil
2000 ft length of creek bed
8 ft width

$3 \times 2000 \times 8 = 48000 \text{ ft}^3$
$= 777.9$ cu. yds.

Basis for estimating or computing quantity, including source(s) of information: from St John's report - depth of contaminated soil
length & depth from topo map (if you use soil as waste)

UNKNOWN - AREA HAS BEEN USED AS SEVERAL LANDFILLS SINCE 1937 AND NO RECORDS ON AMOUNT HAS BEEN KEPT.

8 Ground Water Use

Use(s) of aquifer of concern and source(s) of information:

Industrial use - IL. water Survey
Mississippi River another source (∴ limited H_2O sources)

Distance to Nearest Well Downgradient

Distance to nearest well downgradient:
Adjacent - Monsanto well upgradient to GW flow but causes cone of depression in water table, thus contaminated well

How was downgradient direction(s) established, including source(s) of information:

IL. State Water Survey (ISWS)

W to SW

How was distance determined?:

ISWS

Is nearest building known to be using ground water? Source of information:

No, not nearest bldg.

DRAFT-SUBJECT TO CHANGE

Is nearest well known to be drawing from aquifer of concern? Source of information: Yes. ISWS

Population Served by Ground Water Within 3-Mile Radius

Population served with 3-mile radius: 14

How was population counted or computed, including source(s) of information: Drinking well was drilled for Industrial Track Supply E. St. Louis 1980 per ISWS

Is population known to be served by aquifer of concern? Source of information: Yes, ISWS

DRAFT-SUBJECT TO CHANGE

SURFACE WATER PATHWAY

[1] Measured Level or Evidence of Release

Describe substances and nature of release:
Contaminants deposited directly into creek-waters - lab analysis of creek downstream & certain company holding ponds show contamination of the same type

Describe method of measurement or observation:
St. John's report of 4/81 previously cited

[2] Site Slope and Terrain

Computation of slope and description of points of measurement:

Cite source(s) of information (topo maps, etc.):

1-Year 24-Hour Rainfall

Amount of rainfall and source of information:

Distance to Surface Water

Distance and description of points of measurement:

Cite source(s) of information:

Flood Potential

In what flood plain, if any, is the site located?:

Cite source(s) of information:

DRAFT-SUBJECT TO CHANGE

[3] Containment

Describe basis for selecting extreme waste management case:

Describe method(s) of waste or leachate containment for extreme case:

Cite source(s) of information:

[8] Surface Water Use

Use(s) of downstream surface water and sources of information:

Recreation - children play in creek

Critical Habitats

Location and descritpion of downstream critical habitat; if any:

w/in 100 yr floodplain

Distance and description of points of measurement:

Cite source(s) of information:

USGS floodprone maps

Population Served By Surface Water with Water Intake Within 3 Miles Downstream from Site

Population served by water intake(s): 0

Is surface water within 3 miles in a tidal estuary?: No

DRAFT-SUBJECT TO CHANGE

Description(s) and location(s) of intake(s) and corresponding population served by each:

—

How was population counted or computed?:

—

Cite source(s) of water-intake and population information:

IL. Public Water Supply

DRAFT-SUBJECT TO CHANGE

AIR PATHWAY

[1] Evidence of Release

Describe contaminant and monitoring which reveal that background levels have been exceeded?:

No air sampling done

Cite source(s) of information:

IEPA file has pictures of smoldering creek bed, but no air quality data

[3] Physical State/Volatility

Physical state of waste and source(s) of information:

Liquid - St John's report

Vapor pressure of waste and source(s) of information:

Reactivity

Reactive substances and source(s) of information:

Dichlorobenzene from NFPA = 0 react.

NFPA level for each and basis of selection:

Incompatability

Incompatible substances which are present and source(s) of information:

None that were found in analysis - still unknowns

Pictures of smoldering creek bed in IEPA file

Basis for selecting incompatibility score:

St. John's Report 4/81

IEPA file

DRAFT-SUBJECT TO CHANGE

5 Distance to Nearest Population

Distance and description of points of measurement:
w/in ¼ - houses adjacent to creek on the SE

Cite source(s) of information:
Topo map & 4/61 IEPA report (cited)

Population Within 1-Mile Radius

Population and how counted or computed:
>10,000 : towns of Cahokia, Centreville, & Sauget
w/in 1 mile radius

Cite source(s) of information:
topo map & pop. Chart

Land Use

Location and type of determining land use:
Ag. adjacent creek bed on west side
Ind. - " north < ¼ mile
Res. - " SE

Distance to determining land use:
Topo map, IEPA photo

Cite source(s) of information:
IEPA photo & files

ROUTE - FIRE AND EXPLOSION

Rating Factor	Basis of Information	Site Rating (Circle One)	Multiplier	Site Score	Maximum Possible Score
1 ROUTE CHARACTERISTICS* (ref FE 1)					–
Ignition Source	IEPA files photos	0 (15)	1	15	15
2 CONTAINMENT[1,2] (ref FE 2)					
Containment	IEPA file	0 (3)	1	3	3
3 POTENTIAL FOR RELEASE					
Multiply site score from 1 by site score from 2. The product is site rating for this route.			1	45	45
4 RELEASE					
Enter site score from 3				45	45
5 WASTE CHARACTERISTICS[1,3] (ref FE 3)					
Ignitability	Chlorobenzene	0 1 (2) 3	1	2	3
Reactivity		(0) 1 2 3	1	0	3
Incompatibility	IEPA file	0 1 (2) 3	1	2	3
			Subtotal	4	9
6 HAZARDOUS WASTE QUANTITY[1] (ref FE 4)					
Total Waste Quantity	Unknown	0 (1) 2 3 4 5	1	1	5
(by Superfund definition) excluding waste that is totally contained.					
7 TARGETS[1,2] (ref FE 5)					
Distance to Nearest Population	USGS topo map	0 1 2 (3) 4 5	1	3	5
Distance to Nearest Off Site Building	" "	0 (1) 2 3	1	1	3
Distance to Environmentally Sensitive Area	" "	(0) 1 2 3	1	0	3
Land Use	" "	0 1 2 (3)	1	3	3
Population Within 2 Mile Radius	" "	0 1 2 3 4 (5)	1	5	5
Number of Buildings Within 2 Mile Radius	" "	0 1 2 3 4 (5)	1	5	5
			Subtotal	17	24
8 FIRE AND EXPLOSION ROUTE SUBTOTAL					
A. Multiply 4 x 5 x 6 x 7	45 x 4 x 1 x 17			3060	48,600
B. Multiply [A] by normalization factor of 2.0 and divide by 1,000			2.0	6.12 (B) Route Subtotal	97.2

*The fire and explosion route will be considered only if a state or local fire marshall has certified that the site represents a significant fire and explosion threat to the public and to sensitive environment. However, any demonstrated fire and explosion threat based on field observation (e.g., explosivity meter readings) will also be considered as sufficient evidence.

RECEIVED
SEP 25 1984
IEPA-DLPC

ROUTE - DIRECT CONTACT

Rating Factor	Basis of Information	Site Rating (Circle One)	Multiplier	Site Score	Maximum Possible Score
1 OBSERVED RELEASE (ref DC 1)					
Evidence of Contact	DEPA file	0 (45)	1	45	45
If the site score is zero, go to step 2. Otherwise, go to step 5				or	
2 ROUTE CHARACTERISTICS (ref DC 2)					
Accessibility of Waste	DEPA file	0 (15)	1	15	15
3 CONTAINMENT[1,2] (ref DC 3)					
Containment	DEPA file	0 1 2 (3)	1	3	3
4 POTENTIAL FOR RELEASE					
Multiply site score from 2 by site score from 3. The product is site rating for this route.			1	45	45
5 RELEASE					
Enter site score from 1 or 4				45	45
6 WASTE CHARACTERISTICS[1,3] (ref DC 4)					
Toxicity/Infectiousness	PCB's	0 1 2 (3)	5	15	15
7 TARGETS[1] (ref DC 5)					
Population Within 1 Mile Radius	U.S. GS topo map	0 1 2 3 (4) 5	4	16	20
Critical Habitat	Floodplain map	0 1 (2) 3	2	4	6
Land Use		0 1 2 (3)	2	6	9
			Subtotal	26	32
8 DIRECT CONTACT ROUTE SUBTOTAL					
A. Multiply 5 x 6 x 7	45 x 15 x 26			17550	21,600
B. Multiply (A) by Normalization Factor of 4.5 and divide by 1,000			4.5	78.98 B. Route Subtotal	97.2

[1] Field information certified by a physician will be considered as sufficient evidence.

EPA

POTENTIAL HAZARDOUS WASTE SITE
FINAL STRATEGY DETERMINATION

REGION	SITE NUMBER

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force (EN-335); 401 M St., SW, Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
Dead Creek	East Walnut Street	
C. CITY	**D. STATE**	**E. ZIP CODE**
Sauget	IL	

II. FINAL DETERMINATION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY: EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED					
B. REMEDIAL ACTION NEEDED, BUT NO RESOURCES AVAILABLE (If yes, complete Section III.)	X	X			
C. REMEDIAL ACTION (If yes, complete Section IV.)	X	X			
D. ENFORCEMENT ACTION (If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)					

E. RATIONALE FOR FINAL STRATEGY DETERMINATION

Potential Superfund Site.

RECEIVED
SEP 25 1984
IEPA-DLPC

F. IF A CASE DEVELOPMENT PLAN HAS BEEN PREPARED, SPECIFY THE DATE PREPARED (mo., day, & yr.)	G. IF AN ENFORCEMENT CASE HAS BEEN FILED, SPECIFY THE DATE FILED (mo., day, & yr.)

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE (mo., day, & yr.)
S. Logue	886-6714	7/9/81

III. REMEDIAL ACTIONS TO BE TAKEN WHEN RESOURCES BECOME AVAILABLE

List all remedial actions, such as excavation, removal, etc. to be taken as soon as resources become available. See instructions for a list of Key Words for each of the actions to be used in the spaces below. Provide an estimate of the approximate cost of the remedy.

A. REMEDIAL ACTION	B. ESTIMATED COST	C. REMARKS
	$	
	$	
	$	
	$	
	$	
	$	
	$	
	$	
D. TOTAL ESTIMATED COST	$	

Continue On Reverse

Continued From Front

IV. REMEDIAL ACTIONS

A. SHORT TERM/EMERGENCY ACTIONS *(On Site and Off-Site)*: List all emergency actions taken or planned to bring the site under immediate control, e.g., restrict access, provide alternate water supply, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. ACTION START DATE *(mo, day, & yr)*	3. ACTION END DATE *(mo, day, & yr)*	4. ACTION AGENCY *(EPA, State, Private Party)*	5. COST	6. SPECIFY 311 OR OTHER ACTION. INDICATE THE MAGNITUDE OF THE WORK REQUIRED.
				$	
				$	
				$	
				$	
				$	
				$	

B. LONG TERM STRATEGY *(On Site and Off-Site)*: List all long term solutions, e.g., excavation, removal, ground water monitoring wells, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. ACTION START DATE *(mo, day, & yr)*	3. ACTION END DATE *(mo, day, & yr)*	4. ACTION AGENCY *(EPA, State Private Party)*	5. COST	6. SPECIFY 311 OR OTHER ACTION. INDICATE THE MAGNITUDE OF THE WORK REQUIRED.
				$	
				$	
				$	
				$	
				$	
				$	

C. MANHOURS AND COST BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL MAN-HOURS FOR REMEDIAL ACTIVITIES	3. TOTAL COST FOR REMEDIAL ACTIVITIES
a. EPA		$
b. STATE		$
c. PRIVATE PARTIES		$
d. OTHER *(specify)*:		$

EPA

POTENTIAL HAZARDOUS WASTE SITE IDENTIFICATION

REGION: ✓

SITE NUMBER:

NOTE: The initial identification of a potential site or incident should not be interpreted as a finding of illegal activity or confirmation that an actual health or environmental threat exists. All identified sites will be assessed under the EPA's Hazardous Waste Site Enforcement and Response System to determine if a hazardous waste problem actually exists.

A. SITE NAME: Dead Creek

B. STREET (or other identifier): East Walnut Street

C. CITY: Sauget

D. STATE: Ill

E. ZIP CODE:

F. COUNTY NAME:

G. OWNER/OPERATOR (if known)

1. NAME:

2. TELEPHONE NUMBER:

H. TYPE OF OWNERSHIP (if known)

☐ 1. FEDERAL ☐ 2. STATE ☐ 3. COUNTY ☐ 4. MUNICIPAL ☐ 5. PRIVATE ☑ 6. UNKNOWN

I. SITE DESCRIPTION

J. HOW IDENTIFIED (i.e., citizen's complaints, OSHA citations, etc.): ERS

K. DATE IDENTIFIED (mo., day, & yr.): 10/10/80

L. SUMMARY OF POTENTIAL OR KNOWN PROBLEM

M. PREPARER INFORMATION

1. NAME: S. Fogel

2. TELEPHONE NUMBER: 886-6714

3. DATE (mo., day, & yr.): 10/2/80

EPA Form 2070-8 (5-80)

Superfund
4/15

REGION V
HAZARDOUS MATERIAL ENFORCEMENT AND RESPONSE PROGRAM

SITE NAME "Dead Creek"
SITE ADDRESS East of Walnut St, North of Judith Lane
HOW/DATE IDENTIFIED Sauget / Cahokia, Illinois
SITE DESCRIPTION IEPA Emergency Response Section
Ditch running in a north-south direction containing high concentrations of heavy metals
WASTE RELATED INFORMATION and hazardous materials
HAZARD IDENTIFICATION Ditch undergoes self-combustion at times; probably due to chronic, uncontrolled ~~DATE~~ ~~COMMENT~~ dumping & airy discharges

- concentrations of heavy metals as follows (in the ditch) 120,000 ppm phosphorous
  20,000 ppm zinc
  PCB's at 5300 ppm
- Nearby resident's dog wandered there area and died next day; severe burns covered its body.
- This is Coast Guard area of response. They have made initial determination that the site is not 311 actionable. They will finalize their determination on 9/17/80.
- IEPA is assessing site and gathering data. They have requested no federal actions until they have had opportunity to formalize their position. They will then contact us.

10-7 SEA to follow up on site, call emergency response Team and find out what is happening at site.

10-20 Illinois will follow Ohio on this one
track & conference call

11-12 "

11-24 the state expects that all sample results will be ~~done~~ ready within a couple of weeks. then they will decide what course of action they want to pursue

12/2/10 track at CC

1-20 candidate for superfund. FIT met with state. The State will
3-24-81 — " " — provide report to be reviewed by superfund

3 " track & call

HMS

REGION V
HAZARDOUS MATERIAL ENFORCEMENT AND RESPONSE PROGRAM

SITE NAME "Dead Creek"
SITE ADDRESS East of Walnut St, North of Judith Lane
HOW/DATE IDENTIFIED Sauget / Cahokia, Illinois
SITE DESCRIPTION IEPA Emergency Response Section
Ditch running in a north-south direction
containing high concentrations of heavy metals
WASTE RELATED INFORMATION and hazardous materials
HAZARD IDENTIFICATION Ditch undergoes self-combustion at
times; probably due to chronic, uncontrolled
dumping & past discharges

- concentrations of heavy metals as follows (in the ditch) 120,000 ppm phosphorous
  20,000 ppm zinc
  PCB's at 5300 ppm

- Nearby resident's dog wandered there area and died next day; severe burns covered its body.
- This is Coast Guard area of response. They have made initial determination that the site is not 311 actionable (9/11/80). They will finalize their determination on 9/17/80.
- IEPA is assessing site and gathering data. They have requested no federal actions until they have had opportunity to formalize their position. They will then contact us.

Cahokia/Dead Creek ILD980792006

1. What are wells used for if not for drinking?

Overall I approve the SI.

Already on the ERRIS list

R.G.

RECEIVED
SEP 25 1984
IEPA-DLPC

EPA ID# ILD 980792006

SITE NAME Dead Creek

NORLING FACTOR _____ (>15 PTS.=HIGH MITRE POTENTIAL)

WASTE TYPE

PESTICIDES	(5)
→ HEAVY METALS	(5)
→ PCB's	(5)
ORGANICS	(4)
SOLVENTS	(4)
INORGANICS	(3)
ACIDS	(3)
BASES	(3)
MIXED MUNI-WASTES	(2)
UNKNOWN	(1)

WASTE QUANTITY
(1 ton = ½ cu.yd.=13.5 cu.ft.=4 drums = 220 gals.)

TONS	CU.YDS.	CU. FT.	DRUMS	GALLONS	PTS.
>875	>437	>11,799	>3500	>192,500	(5)
875	437	11,799	3500	192,500	
251	126	3,402	1001	55,055	(4)
250	125	3,375	1000	55,000	
163	82	2,214	651	35,805	(3)
162	81	2,187	650	35,750	
76	38	1,026	301	16,555	(2)
75	37	999	300	16,500	
21	11	297	81	4,455	(1)
<20	<10	<270	<80	<4,400	(0)

FACILITY TYPE

PILES	(5)
DRUMS BELOW GROUND	(4)
DRUMS ABOVE GROUND	(3)
SURFACE IMPOUNDMENTS	(3)
TANKS	(3)
LANDFILLS	(2)
LAND TREATMENT	(2)
UNDERGROUND INJECTION	(1)

POPULATION

10,000 or more	(5) ←
3,000 - 9,999	(4)
1,000 - 2,999	(3)
101 - 999	(2)
1 - 100	(1)

RECEIVED
SEP 25 1984
IEPA-DLPC

_____ NOT A HAZARDOUS WASTE SITE

✓ INFORMATION MISSING

COMMENTS: _____

REVIEWER: Sth

U. S. ENVIRONMENTAL PROTECTION AGENCY
REGION V
HAZ. OUS MATERIAL ENFORCEMENT AND RESP..SE PROGRAM

ILD 980 792 006

SITE NAME "Dead Creek"
SITE ADDRESS East of Walnut St. North of Judith Lane
HOW/DATE IDENTIFIED Sauget/Cahokia, Illinois
SITE DESCRIPTION IEPA Emergency Response Section
Ditch running in a north-south direction containing high concentrations of heavy metals
WASTE RELATED INFORMATION and hazardous materials
HAZARD IDENTIFICATION Ditch undergoes self-combustion at times; probably due to chronic, uncontrolled ~~DATE~~ ~~CONTENT~~ dumping & nasty discharges

- concentrations of heavy metals as follows (in the ditch) 120,000 ppm phosphorous
  20,000 ppm zinc
  PCB's at 5300 ppm

RECEIVED
SEP 25 1984
IEPA-DLPC

- Nearby resident's dog wandered there area and died next day; severe burns covered its body.
- This is Coast Guard area of response. They have made initial determination that the site is not 311 actionable (9/11/80). They will finalize their determination on 9/17/80.
- IEPA is assessing site and gathering data. They have requested no federal actions until they have had opportunity to formalize their position. They will then contact us.

10-7 STA to follow up on site, call emergency response team and find out what is happening at site

10-20 Illinois will " " thru on this one
track at conference call

11-12 "

11-24 the state expects that all sample results will be ~~done~~ ready within a couple of weeks. then they will decision what course of action they want to pursue

12/8/10 Track at CC

1-20 Candidate for Superfund.

3/4 AG looking for responsible parties. Trying to get evidence that Monsanto & other companies in the area may be discharging.

3/31 Track at C.C. Drop it under control

4/15 SEM to check w/ Superfund to see if report required.
Suggest we refer to Enforcement Division to help State with case.
Drop

DATE March 23, 1982

TIME 9:10 (A.M.) P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW (NNW)

WEATHER Sunny, slight wind from S (~5mph), Temp. ~50°F

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Claude E. Mays, III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon FD 50mm f1:1.8 lens

Picture #12 ← Corresponds to number on negatives

DESCRIPTION: Looking up (northerly) Dead Creek from Judith Lane towards Monsanto and Cerro Corporation.

DATE March 23, 1982

TIME 9:40 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Same camera and lens as above

Picture # 13

DESCRIPTION: Eileen Black and April Richards preparing to go "on-site."

RECEIVED
SEP 25 1984
IEPA-DLPC

PHOTOGRAPHY LOG SHEET

DATE March 23, 1982

TIME 9:50 (A.M.) P.M.

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, slight wind from S (~5mph), Temp. ~50°F

SITE Sauget, IL / Dead Creek

TDD# FS - 8203 - 02

PHOTOGRAPHED BY:

Claude E. Mays, III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon lens FD 50mm f 1:1.8

Picture #14

DESCRIPTION: On-site work crew beginning air monitoring in Dead Creek.

DATE March 23, 1982

TIME 9:55 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# FS - 8203 - 02

PHOTOGRAPHED BY:

Claude E. Mays, III

SAMPLE ID# (if applicable)

N/A

Same camera and lens used as above

Picture #15

DESCRIPTION: Spot #2 : readings at breathing height H-NU (11.7 lamp) 5ppm and H-NU (10.2 lamp) .2ppm

PHOTOGRAPHY LOG SHEET

DATE March 23, 1982

TIME 9:56 (A.M.) P.M.

DIRECTION: N NNE (NE) ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, Slight wind from S (~5mph), Temp ~50°F

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon FD 50mm f1:1.8 lens

Picture #16

DESCRIPTION: Shows lake formed on Walnut Grove Subdivision property by Dead Creek

DATE March 23, 1982

TIME 9:58 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Same camera and lens used as above

Picture #17

DESCRIPTION: Shows spot #3 - readings with H-NU (11.7 lamp) at breathing height 5ppm.

FIELD PHOTOGRAPHY LOG SHEET

DATE March 23, 1982

TIME 10:00 (A.M.) P.M.

DIRECTION: N NNE NE ENE
E ESE (SE) SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, slight wind from S (~5mph), Temp. ~ 50°F

SITE Sauget, IL. / Dead Creek

TDD# F5 - 8203 - 02

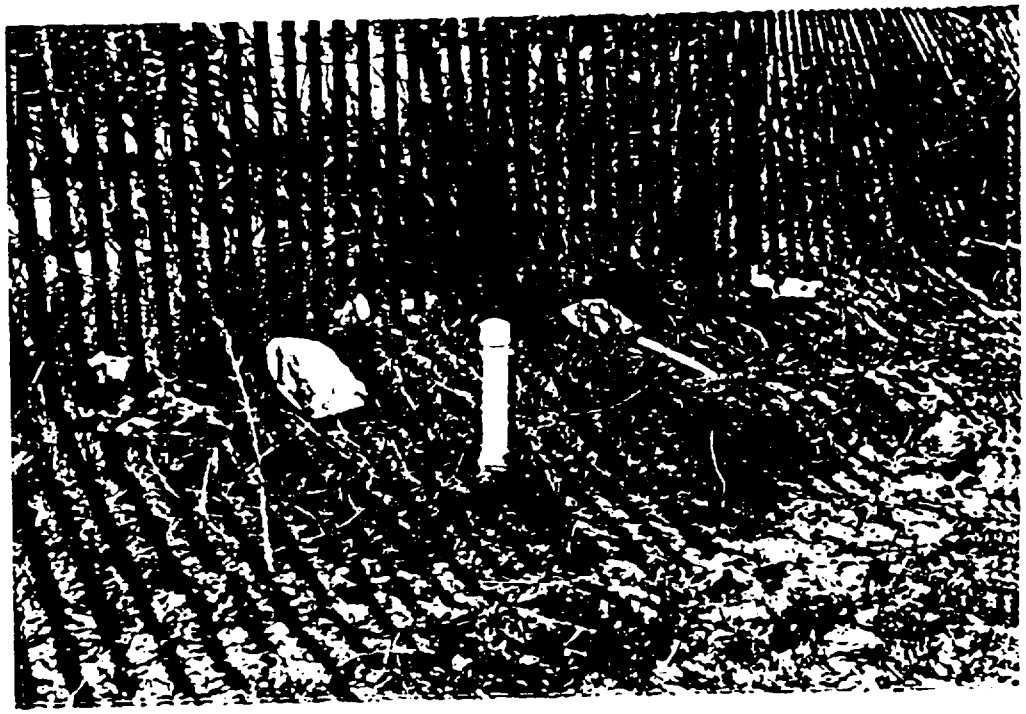
PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon FD 50mm f1:1.8 lens



Picture #18

DESCRIPTION: Shows ground water well put in by Ron St. John while working with the Illinois E.P.A. for the Northern Dead Creek Study.

DATE March 23 1982

TIME 10:02 (A.M.) P.M.

DIRECTION: N NNE (NE) ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# F5 - 8203 - 02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Same camera and lens as above.

Picture #19

DESCRIPTION: Spot #4 - readings with H-Nu (11.7 lamp) 4 to 5ppm

DATE March 23, 1982

TIME 10:05 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, slight wind from S (~5mph), Temp. ~50°F

SITE Sauget, IL / Dead Creek

TDD# FS - 8203 -02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon FD 50mm f 1:1.8 lens

Picture #20

DESCRIPTION: Shows spots #5 & #6 - readings with 14-NU (11.7 lamps) 8 and 7 p

DATE March 23, 1982

TIME 10:10 (A.M.) P.M.

DIRECTION: N NNE NE (ENE)
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# FS - 8203 - 02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Same camera and lens used as above

Picture #21

DESCRIPTION: Shows snow fence (placed there by the I.E.P.A.) on far side torn down for easy access to creek.

DATE March 23 1982

TIME 10:15 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, slight wind from S (~5mph), Temp ~50°F

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

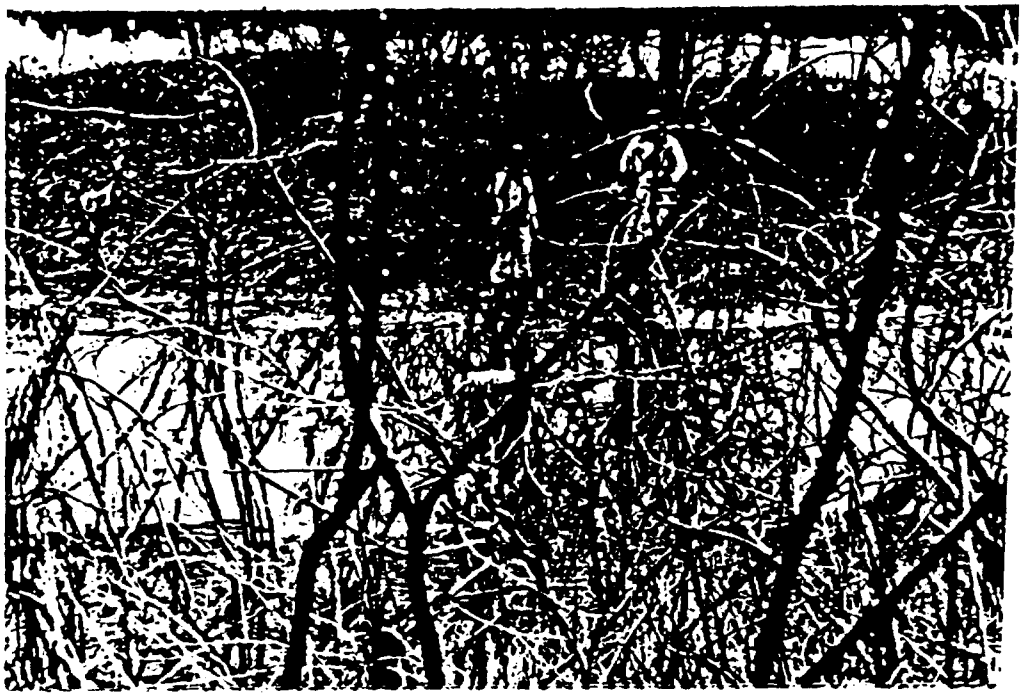
PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 with Canon FD 50mm f1:1.8 lens



Picture # 22

DESCRIPTION: Shows polyethylene acid container in creek.

DATE March 23 1982

TIME 10:30 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Claude E. Mays III

SAMPLE ID# (if applicable)

N/A

Same camera and lens as used above

Picture # 23

DESCRIPTION: Taking sample of seepage and placing it into a V.O.A. bottle for later analysis with O.V.A.

DATE March 23, 1982

TIME 11:40 (A.M.) P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, slight wind from S (~5mph), Temp ~50°F

SITE Sauget, IL / Dead Creek

TDD# F5-8203-02

PHOTOGRAPHED BY:

Claude E. Mays, III

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon FD 50mm f1:1.8 lens

Picture #1

DESCRIPTION: Shows Dead Creek and surrounding area south of Judith Lane.

DATE March 23, 1982

TIME 11:55 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, wind from S-SW @ ~5-10mph, Temp ~60°F

SITE Sauget, IL / Dead Creek

TDD# F5-8203-02

PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Canon AE-1 camera
Zoom - f: 90mm ~ 230mm 1:4.5 lens

Picture #2.

DESCRIPTION: Showing area of seepage near land leased to Ruan Transport Co.

DATE March 23, 1982

TIME 11:56 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, wind from S-SW @ 5-10mph, Temp ~ 60°F

SITE Sauget, IL / Dead Creek

TDD# F5 - 8203 - 02

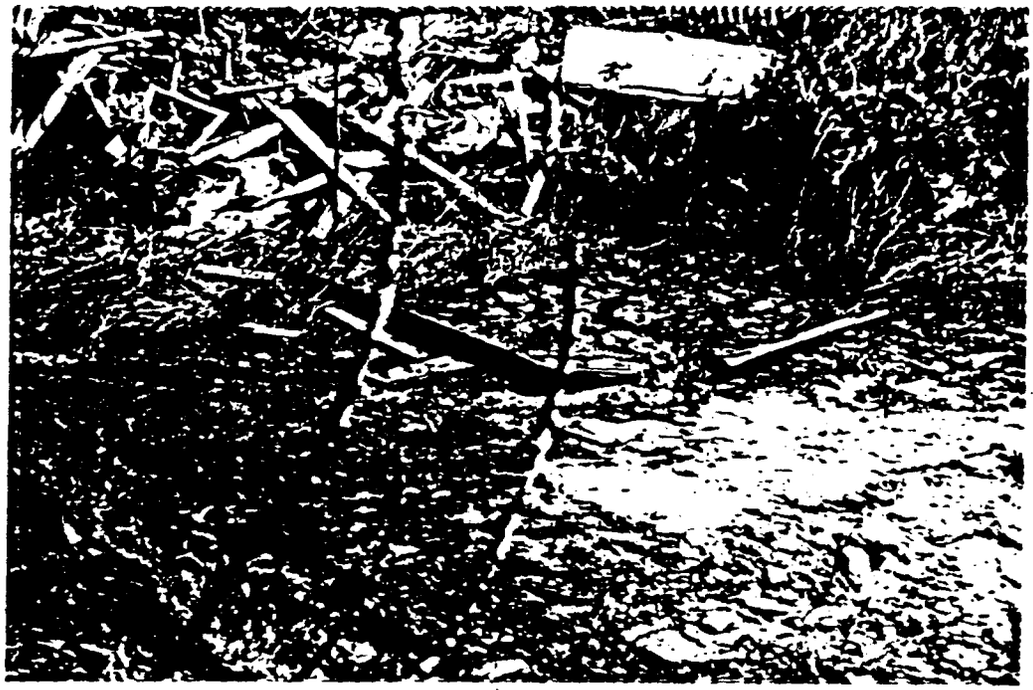
PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Zoom f= 90mm ~ 230mm 1:4.5 lens



Picture #3

DESCRIPTION: Area of seepage just south of Cerro Corporation and Queeny Ave in Dead Creek

DATE March 23, 1982

TIME 11:57 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# F5 - 8203 - 02

PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Same camera and lens used as above

Picture #4

DESCRIPTION: Closeup of drums on Ruan Transport Co. property. Hoping to see a label of some kind on drums.

DATE March 23, 1982

TIME 11:58 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, wind from S-SW

(15) 5-10 mph, Temp. ~60°F

SITE Sauget, IL / Dead Creek

TDD# F5 - 8203 - 02

PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ zoom f: 90mm ~ 230mm 1:4.5 lens

Picture #5

DESCRIPTION: Showing seepage from bank (pipe w/ inside diameter of 3 inches)

DATE March 23, 1982

TIME 11:58 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# F5 - 8203 - 02

PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Same camera and lens used as above

Picture #6

DESCRIPTION: Close-up of pipe which seems to be the source of seepage

DATE March 23, 1982

TIME 11:58 (A.M.) P.M.

DIRECTION: N NNE NE ENE
(E) ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Sunny, wind from S-SW @ 5-10mph, Temp ~60°F

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Camera: Canon AE-1 w/ Canon FD 50mm f1:1.8 lens

Picture #7

DESCRIPTION: Area of seepage in northern portion of Dead Creek near Cerro Corp.

DATE March 23, 1982

TIME 11:59 (A.M.) P.M.

DIRECTION: (N) NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER Same as above

SITE Sauget, IL / Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY:

Don Woods

SAMPLE ID# (if applicable)

N/A

Same camera and lens as used above

Picture #8

DESCRIPTION: Drums and "oily" substance in pit on Cerro Corp. property. Readings with O.V.A. - 0ppm, H-NU (11.7 lamp) - 3-4ppm.

DATE March 23, 1982

TIME 12:00 noon A.M. (P.M.)

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W (WNW) NW NNW

WEATHER Sunny, wind from S-SW @ 5-10 mph. Temp. ~60°F

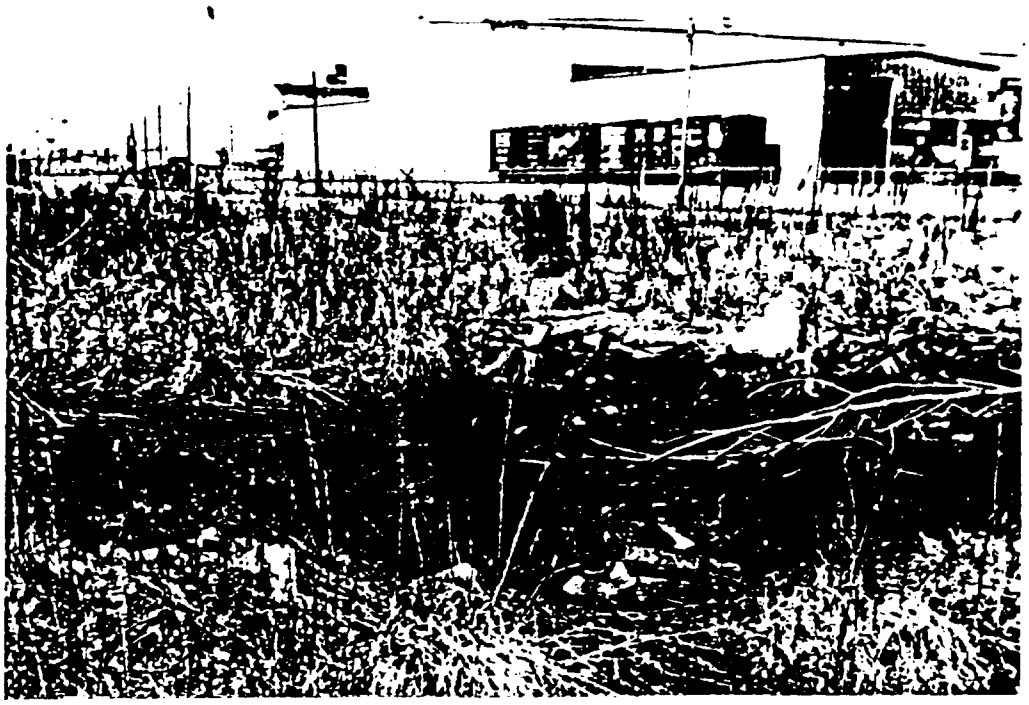
SITE Sauget, IL/Dead Creek

TDD# FS-8203-02

PHOTOGRAPHED BY: Don Woods

SAMPLE ID# (if applicable) N/A

Camera: Canon AE-1 w/ Canon FD 50 mm f:1:1.8 lens



Picture #9

DESCRIPTION: Another pit with drums and "oily" substance on Cerro Corp. property

DATE

TIME A.M. P.M.

DIRECTION: N NNE NE ENE
E ESE SE SSE
S SSW SW WSW
W WNW NW NNW

WEATHER

SITE

TDD#

PHOTOGRAPHED BY:

SAMPLE ID# (if applicable)

PHOTO

DESCRIPTION:

EPA

POTENTIAL HAZARDOUS WASTE SITE CURRENT DISPOSITION
PART 1 - SITE STATUS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR OTHER SPECIFIC LOCATION IDENTIFIER				
Dead Creek	E. Walnut St N of Judith				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Sauget	IL	62201	St. Clair	163	23

III. CURRENT SITE STATUS

01 REPORTING DATE 01 01 83 (MONTH DAY YEAR)

02 TRACKING COMPLETED (Check one if applicable)

☐ A. SITE REQUIRED NO RESPONSE — DATE CLOSED ___ / ___ / ___ (MONTH DAY YEAR)

☐ B. ALL GOVERNMENT FINANCED ACTIVITIES COMPLETED — DATE COMPLETED ___ / ___ / ___ (MONTH DAY YEAR); TOTAL COST ___

☐ C. ALL PRIVATELY FINANCED ACTIVITIES COMPLETED — DATE COMPLETED ___ / ___ / ___ (MONTH DAY YEAR)

☐ D. SITE CLOSED — DATE CLOSED ___ / ___ / ___ (MONTH DAY YEAR)

03 PENDING (Check if applicable)

☐ FURTHER RESEARCH AND ANALYSIS REQUIRED — EXPECTED COMPLETION DATE ___ / ___ / ___ (MONTH DAY YEAR)

REFERENCE

04 MONITORING (Check if applicable)

☐ SITE REQUIRES CONTINUED SURVEILLANCE/MONITORING — SCHEDULE ☐ A. MONTHLY ☐ B. SEMI ANNUALLY ☐ C. QUARTERLY ☐ D. ANNUALLY

REFERENCE

05 FULL FIELD INVESTIGATION (Check one if applicable)

☐ A. NEEDED ☐ B. IN PROGRESS ☐ C. COMPLETED — DATE COMPLETED ___ / ___ / ___ (MONTH DAY YEAR)

06 REMEDIAL RESPONSE (Check one if applicable)

☐ A. NEEDED ☐ B. IN PROGRESS ☐ C. COMPLETED — DATE COMPLETED ___ / ___ / ___ (MONTH DAY YEAR)

07 PLANNED REMOVAL (Check one if applicable)

☐ A. NEEDED ☐ B. IN PROGRESS ☐ C. COMPLETED — DATE COMPLETED ___ / ___ / ___ (MONTH DAY YEAR)

08 IMMEDIATE REMOVAL (Check one if applicable)

☐ B. IN PROGRESS ☐ C. COMPLETED — DATE COMPLETED ___ / ___ / ___ (MONTH DAY YEAR)

09 RESPONSIBLE PARTIES (Check if applicable)

☐ RESPONSE/REMOVAL ACTIVITIES UNDER CONTROL OF RESPONSIBLE PARTIES

10 ENFORCEMENT (Privately financed removal/response activities linked to enforcement are carried in the Enforcement Docket System.)

☐ A. ADMINISTRATIVE ORDER ISSUED — DATE ISSUED ___ / ___ / ___ (MONTH DAY YEAR); COMPLIANCE DATE ___ / ___ / ___ (MONTH DAY YEAR)

☐ B. CIVIL/CRIMINAL LITIGATION FILED — DATE FILED ___ / ___ / ___ (MONTH DAY YEAR); WHERE FILED ___ (Judicial District); JUDGEMENT/SETTLEMENT DATE ___ / ___ / ___ (MONTH DAY YEAR)

IV. SITE RANKING

01 SITE RANKING AVAILABLE (Check one)

☑ A. YES RANKING 18.48 ☐ B. NO ☐ C. PLANNED ☐ D. UNNECESSARY ☐ E. UNKNOWN

02 STATE PRIORITY ___

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

VI. INFORMATION AVAILABLE FROM

01 PREPARED BY	02 AGENCY	03 ORGANIZATION	04 TELEPHONE NO	05 DATE
S. Vogus	USEPA	ERB/SS	( ) 886-0358	01 28 83 (MONTH DAY YEAR)

EPA FORM 2070-14 (7-81)