

APPENDIX I
SUMMARY AND RECOMMENDATIONS
FROM ISA STUDY



ONTARIO
ENVIRONMENTAL, INC.

RECEIVED

DEC 23 1991

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December 16, 1991

Tom Cervone
Bernardin & Lochmueller, Inc.
Suite 606, Hulman Building
Evansville, Indiana 47708

RE: US 231 Bypass, Tippecanoe County
INDOT Project F-071-2(1)
Lafayette, Indiana

Dear Mr. Cervone:

Per our recent telecomm pertaining to the above-mentioned project, Ontario Environmental, Inc. offers the following information, on behalf of the Indiana Department of Transportation. Ontario is currently in the process of field preparation for the emplacement of approximately 60 subsurface borings on INDOT right-of-way acquisition parcels related to the project. I have enclosed a brief summary of the borings and their general locations relative to their site number. The summary follows from the Initial Site Assessment report which you have a copy.

A report summarizing the assessment related to potential soil contamination at the various parcels will be submitted to INDOT in approximately 6-8 weeks. If you have any questions, please feel free to contact me at (317) 237-3615 or 3600.

Sincerely,
ONTARIO ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads "Mark G. Detroy". The signature is fluid and cursive, with a long horizontal stroke at the end.

Mark G. Detroy
Senior Project Manager

MGD
cerv1.doc

Attachment

APPENDIX I

Field Summary for Tippecanoe INDOT

Site #	Environmental Issue	Shallow Boring (manual)	# of HSA Borings	Depth of Borings	Boring Total	Priority Pollutants	Total Metals	TPH by 8015	PCBs	Comments
1 & 2	drum dumping (ditch areas)	5 (36")				x				
3 & 4	dumping in old pond (wetlands)	2 (24")	3	20	60	x				
5 & 6	Elliot Ditch, PCBs in bed sediments	3 (36")			0				x	
9, 10, 11 & 12	dumping nr RR (wetlands)	3 (24")	8	6	48	x				
13 & 14	dumping nr gravel pit	2 (24")	2	15	30	x				
15, 16 & 17	dumping	2 (24")	3	15	45	x				
18, 19 & 20	dumping	3 (24")	5	15	75	x				
21					0					
22					0					
23 & 24					0					
25					0					
26	USTs		2	15	30			x		
27	USTs		3	15	45			x		
28	USTs		3	15	45			x		
29	USTs		2	15	30			x		
30, 31 & 32	USTs		4	15	60			x		
33 & 34	USTs				0			x		
35	USTs		2	15	30			x		
36	USTs		3	15	45			x		
		21	40		543					

None of the INDOT highway environmental study properties are on the Federal Superfund List, or the Indiana State Cleanup List.

CONCLUSIONS AND RECOMMENDATIONS

Typically an ISA focuses on potential environmental concerns near or within the right-of-way take. Buildings and businesses may need to be removed or relocated because of the highway project. Although INDOT may have the option to purchase an entire property, potential environmental concerns within the buildings or on the parcels but away from the right-of-way take may not have been addressed by work proposed in this ISA.

- 1) Sites 1 & 2, Purdy Swine Farm: Revisiting the sites when summer foliage is gone is recommended. Soil sampling in the ditch area in the location of Sites 1 and 2 is also recommended for Priority Pollutants testing to address possible concerns for soil contamination due to illegal dumping of drums in the ditch, and to past waste land application practices.

- 2) Sites 3 & 4, The Old Romney Road Pond Dump: There was illegal dumping of solid waste observed on the pond located on Site 4. The solid waste deposited there should be removed and disposed properly. Three borings

on the west side of Old Romney Road near the pond should be drilled to the water table and one soil sample of visibly stained material, or of soil with elevated levels of organic vapor (as detected with field operated organic vapor analysis equipment) should be collected from each boring for analysis for Priority Pollutants. Another option is to relocate this area of the proposed roadway away from the dump.

- 3) Sites 5 & 6, Elliot Ditch: Because of Alcoa's past discharge of PCBs into Elliot Ditch, the right-of-way take should be evaluated by collecting two soil samples, one from silty soil on each bank of the creek, and a third soil sample should be collected from silt on the creek's bottom. The samples should be analyzed for polychlorinated biphenyls (PCBs).

- 4) Sites 9-12, Norfolk and Western Railroad: The right-of-way take is proposed to pass through railroad property southwest of the Lafayette Wastewater Treatment Plant. Lush vegetation prevented a comprehensive inspection during the site visit. Evidence of illegal dumping, occurring over a period of years, was noted during the site visit on all sites. The illegal dumping concern is also supported by past aerial photographs and information in the IDEM files.

We recommend that soil samples be collected from shallow borings and analyzed for Priority Pollutants. This analysis is recommended to identify the unknown waste streams that may have been deposited on these sites. Four borings are recommended for the area of Sites 9-11 and two shallow borings for the area of Site 12. In addition, two shallow borings are recommended to be taken in the right of way take across from Site 12 on the north side of the Towpath Road.

- 5) Sites 13 & 14, Purdue University Gravel Pit: Based on the concerns for possible contamination from old landfill dumping practices in the vicinity of the sites, we recommend one soil boring to an approximate depth of 12 feet at each of the two sites. The borings should be evaluated in the field for the presence of waste material deposited and a representative soil sample from each boring should be analyzed for Priority Pollutants.

- 6) Sites 15-17, Marie Byers Property: There were no apparent problems revealed for Site 17. Site 16, and to a lesser degree Site 15, have been subject to illegal dumping over the years and are not restricted to the public.

It is recommended that soil sampling be conducted with representative samples collected from three borings drilled to a depth of approximately 10 feet within the right of way take at Sites 16 and 15. Samples should be analyzed for Priority Pollutants.

- 7) Sites 18-20, Fauber Construction Dump: Even though there is a history of illegal dumping at these sites, there has been no documented evidence for disposal of hazardous wastes. Given the concerns associated with illegal dumping, the existence of several additional sites of concern north of the Fauber Construction area (such as Site 26), and the INDOT proposed highway right of way crossing a long path between the River and South River Road over the dumping grounds and downgradient of the other sites of concern, we recommend a general sampling scheme. This scheme is intended to investigate the possible impact of various sites of concern on the INDOT's right of way between South River Road and the River. Five borings should be drilled or augered to the water table and soil samples should be collected from each boring for analysis for Priority Pollutants if encountered soils show discoloration, elevated levels of organic vapor with a field operated organic vapor detector or other evidence of

environmental impact. The five borings should be spaced along the path of the INDOT right of way between South River Road and the River.

- 8) Site #21, Mullen Towing: The South River Road right-of-way take shows no evidence of environmental impact. The property east of Mullen Towing which leads to the new river bridge is the fill discussed in the Fauber construction section above. The proposed highway right of way between the river and South River Road should be sampled as discussed in the Fauber section. Property boundaries have not been determined. Some of the recommended 5 soil borings may fall on Mullen Towing property if this property extends east from River Road across the fill.
- 9) Site #22, Former Site of Doug's Auto Garage: There is no record of underground storage tanks at this site. Environmental problems are not known or suspected. Environmental testing is not required.
- 10) Sites #23 & #24, Crestview and Riverwalk Apartments: There is no record of underground storage tanks at these sites. Environmental problems are not known or suspected. Environmental testing is not required.

- 11) Site #25, Parking lot behind Bruno's Restaurant: There is no record of underground storage tanks at this site. Although environmental problems are not suspected, if contamination is discovered at the Amoco service station, this property should be evaluated with collection of soil samples and analysis for hydrocarbons. This recommendation is made because of the properties' apparent downgradient location from Amoco.
- 12) Site #26, Lafayette Motor Parts: There is no record of underground storage tanks at this location. There is history of auto salvage operations which are known to have caused hydrocarbon contamination in soil. Auto salvage operations appear to be downgradient of the proposed right-of-way take at State Road 26, but upgradient from the proposed take between River Road and the new bridge south of State Road 26. We recommend collection of soil samples from two borings approximately 12 feet deep in the right of way take along SR 26. Soil samples should be field screened with an organic vapor detector and the soil sample with the highest level of organic vapor should be collected from each boring for analysis for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method SW 8015, California modified.

Additionally, two surface soil samples should be collected just below pavement or asphalt in the right of way take along SR 26 and analyzed for total lead and PCBs.

We recommend limiting the amount of property purchased from Lafayette Motor Parts due to potential environmental liability. It is anticipated that any impact from this property on the proposed take south of and downgradient from this site would be evaluated by the five borings proposed under the Fauber site section.

- 13) Site #27, Abraham's Shell Station: The right-of-way take should be evaluated with soil samples collected from three borings drilled to the water table. Soil samples should be field screened with an organic vapor detector and the soil sample with the highest level of organic vapor should be collected from each boring for analysis for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method SW 8015, California modified.
- 14) Site #28, Amoco Station: The right-of-way take should be evaluated with soil samples collected from three borings drilled to the water table. Soil samples

should be field screened with an organic vapor detector and the soil sample with the highest level of organic vapor should be collected from each boring for analysis for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method SW 8015, California modified.

- 15) Site #29, McQuik's Oilube: Although three underground storage tanks are present, it is believed that no environmental impact to the right of way take is likely from onsite tanks. The tanks and businesses are three years old and the property was previously operated as a residence/restaurant. Due to the property's location downgradient of the Clark service station, two soil borings located on the west side of McQuik's near the Clark station should be utilized to evaluate whether any releases of petroleum products at Clark's have impacted the McQuik site. A soil sample from each boring should be analyzed for TPH and BTEX as recommended for Site 28 above.

- 16) Sites #30-32 McDonald's Restaurant: The right-of-way take along North River Road and State Road 26 should be evaluated for potential contamination by petroleum hydrocarbons. This property was formerly a Sunoco Service Station. The right-of-way take should be

evaluated with soil samples collected from four borings drilled to the water table. Two borings should be located near State Street and two near North River Road. Soil samples should be field screened with an organic vapor detector and the soil sample with the highest level of organic vapor should be collected from each boring for analysis for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method SW 8015, California modified.

- 17) Sites #33-34, The Travel Lodge: There is no record of underground storage tanks at this site. Environmental problems are not known or suspected. Environmental testing is not required, unless the investigation proposed for the McDonald's site (Sites 30-32) shows that the old Sunoco gas station had caused hydrocarbon contamination at the area of Sites 30-32. Due to the Travel Lodge's location downgradient of the old Sunoco station, releases at Sunoco may have impacted the Travel Lodge property.

- 18) Site #35 The Carwash: Although there is no record of underground storage tanks at this site, Sinclair Oil Company leased the property in 1960 and USTs may be present. The carwash is adjacent to the former service

station operations and USTs at the Hairman next door. The right-of-way take should be evaluated with soil samples collected from two borings drilled to the water table. Soil samples should be field screened with an organic vapor detector and the soil sample with the highest level of organic vapor should be collected from each boring for analysis for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method SW 8015, California modified.

- 19) Site #36 The Hairman: This former Sinclair service station should be evaluated with three soil samples collected from three borings along the proposed right of way take. Soil samples should be field screened with an organic vapor detector and the soil sample with the highest level of organic vapor should be collected from each boring for analysis for total petroleum (TPH) and benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method SW 8015, California modified.