



RICK SYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF MILITARY & VETERANS AFFAIRS
LANSING

MG GREGORY J. VADNAIS
THE ADJUTANT GENERAL AND DIRECTOR

17 July 2014

Subject: Environmental Condition of Property Update for the Charlotte Armory, Charlotte, MI.

1. In accordance with AR 200-1 and applicable ASTM standards, an Environmental Condition of Property (ECP) Update Report has been prepared for the Charlotte Armory located in Charlotte, MI. The following ASTM D 6008-96 (2005) sections were completed: government records reviewed, visual inspection of the property and adjoining properties, and declaration by the environmental professional responsible for the assessment.
2. Background – A Preliminary Assessment (PA) report, prepared by ALTECH for the U.S. Army Corps of Engineers, was completed October 2005. The Charlotte Armory is located at 1310 S. Cochran Street, Charlotte, Michigan in Eaton County. The property has one building, 23,882 square feet, built in 1924 on a five acre parcel. The Charlotte Armory was built on undeveloped property in 1924 and has not been used for anything else. The armory was first occupied by an artillery unit with horses. The horses were replaced with trucks before the Second World War. The armory did not have underground storage tanks for fuel. Fuel pods were used and one of them leaked in 1996. A spill report was filed with the Michigan Department of Environmental Quality (MDEQ). The spilled material and soils were removed and disposed of resulting in a closure letter from the MDEQ approving a "Residential Closure." Only light maintenance was performed on vehicles at the armory. The 2005 PA did not identify any significant environmental conditions of concern. Activities at the armory did not change between 2005 and 2013 when the armory was vacated.
3. Site Reconnaissance - On 11 July 2014 Mr. Tom Pavlik and Mr. Rob MacLeod of the Michigan Department of Military and Veterans Affairs (MDMVA) Environmental Division conducted a site reconnaissance of the property. The armory appeared to be in a well-maintained condition and was mostly cleaned out. There were tools, cabinets and small items lying about that will most likely be moved to the vacating unit's current location. A small group of compressed gas cylinders were chained and locked in a storage cage. The only chemicals found were cleaning supplies and boiler additives. We did not find any materials or staining that would be a concern.

We walked the five acres around the armory. There are parking lots on the north and south sides of the building. A secure parking area for military vehicles is south west of the building. There was no staining on the pavement to indicate oil spills or fuel leaks. There are six conex temporary storage units north of the secure parking lot that need to be moved to the unit's current location. All five acres were walked over except for the south west corner which was too thickly overgrown to access without cutting our way into woods. Nothing of concern was seen on the property.

MITAG-ENV

SUBJECT: Environmental Site Assistance Visit Findings

Information gathered from the site reconnaissance and background review, indicate that conditions at the armory have not changed since the previous PA was completed in October of 2005. The 2005 PA Report contains descriptions of the building and assessments of environmental conditions based on potential problem areas. Conditions at the armory as documented in photographs taken for the October 2005 PA have not changed.

The property to the south and west of the armory are occupied by a state highway maintenance facility and south of that is the Battle Creek River. To the north is Tirrell Highway and residential single-family housing. To the east are Bennett Park and the Eaton County Fairgrounds. The site reconnaissance did not identify any changes on properties around the armory from the 2005 PA or from the 1974 historic aerial photograph.

4. Interviews – There were no interviews as the armory is a vacant facility. All previous occupants were not available for interviews.

5. Records Review – The October 2005 PA contracted Environmental Data Resources, Inc. (EDR) to conduct a database search for the area around the property. EDR focused on searching federal and state environmental databases and historical and current land uses to identify sites of potential environmental concern with addresses in the area immediately surrounding the property. None of the surrounding properties exhibited environmental conditions that have the potential to adversely affect the environmental conditions. The properties around the armory are mostly parks and residential. The property to the west is a state-operated road repair facility and stores aggregate and road construction equipment.

6. Conclusion – This ECP Update Report confirms that conditions at the Charlotte Armory have not changed since the prior PA Report was completed by U.S. Army Corps of Engineers in October of 2005. The PA of October 2005 did not identify any significant environmental conditions of concern. There are a number of environmental conditions not investigated that are typical of buildings this old. Asbestos in floor tiles, lead based paint and possible PCBs in light ballasts that have not been replaced. Also, the PA stated that there was an M-16 Rifle small arms range in the storage bay on the south side of the main building. The range was closed in 1980.

MITAG-ENV

SUBJECT: Environmental Site Assistance Visit Findings

7. Certification – All information/documentation provided accurately reflects the current environmental conditions of the property. This ECP Update Report is in conformance with the requirements for completion of an Environmental Condition of Property Report.

Robert MacLeod
Compliance/Cleanup
Environmental Division
MDMVA
(517)-481-7632



Date 17 July 2014

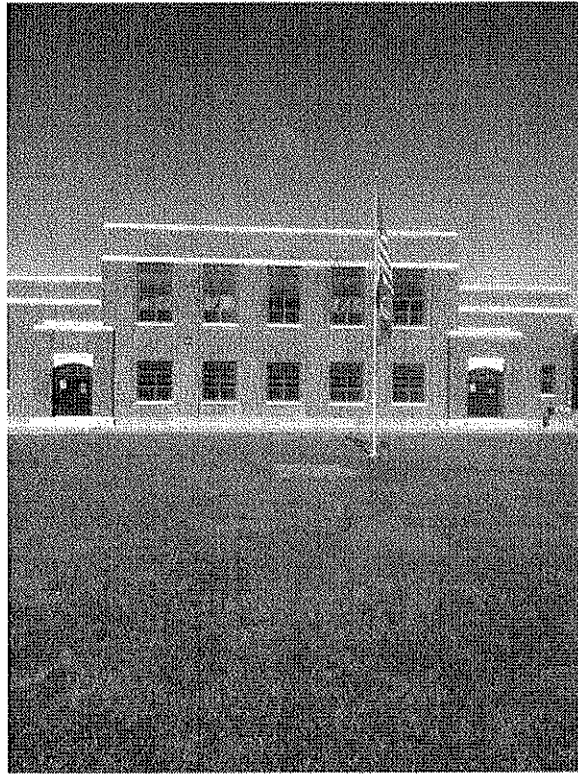
Encls:

- 1) Current Photos
- 2) Environmental Baseline Survey Checklist (July 2014).
- 3) Fuel Pod Leak Cleanup documentation.
- 4) Preliminary Assessment Report, ALTECH, October, 2005.

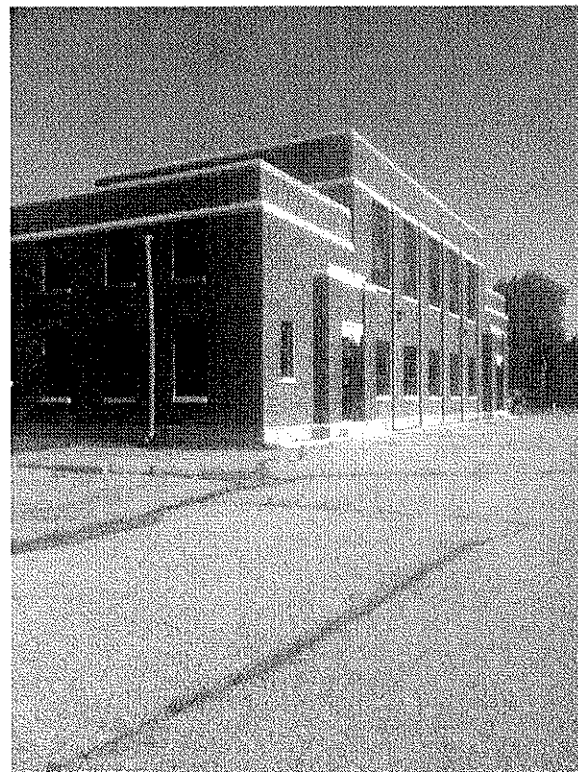
Charlotte Armory
ECP 2014

Site Reconnaissance Photos

Charlotte Armory
ECP 2014



Charlotte Armory

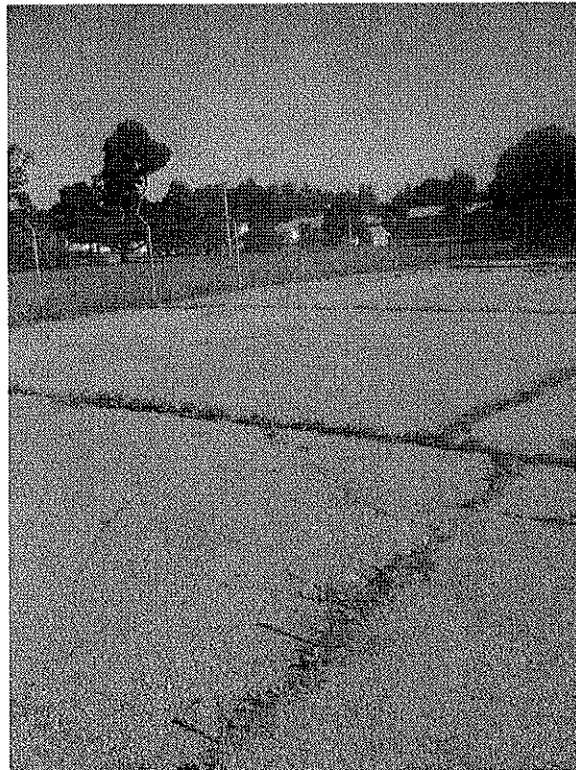


Armory

Charlotte Armory
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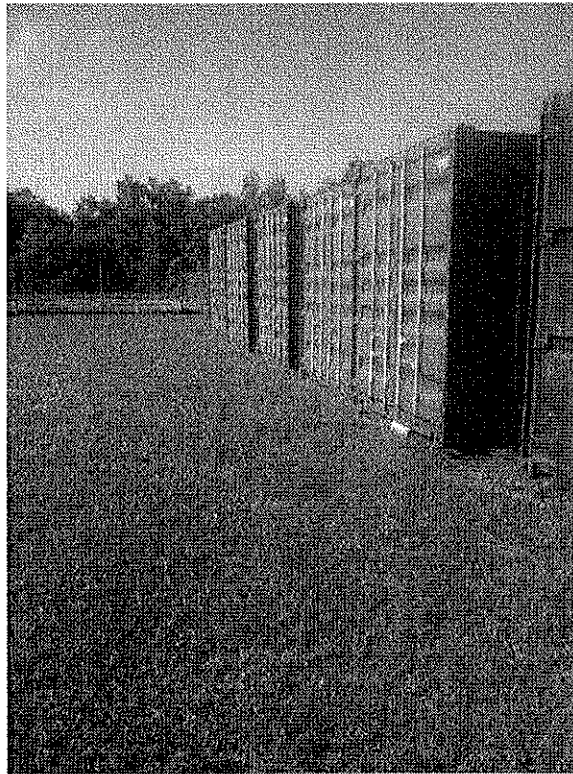


Secure parking looking toward south west

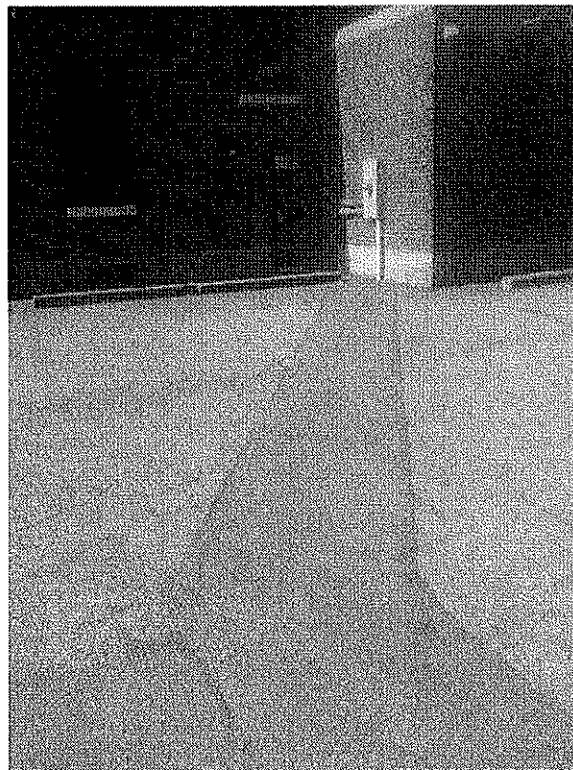


Inside secure parking lot

Charlotte Armory
ECP 2014



Conex boxes behind armory

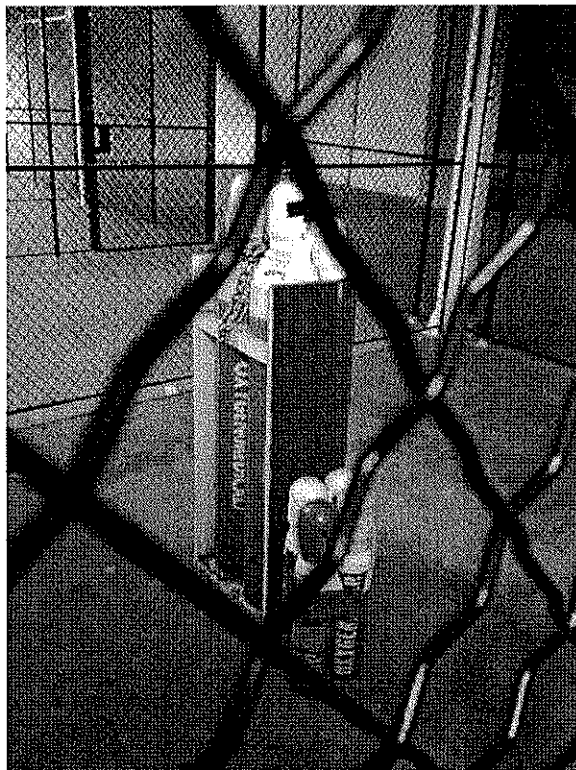


Utility trench

Charlotte Armory
ECP 2014

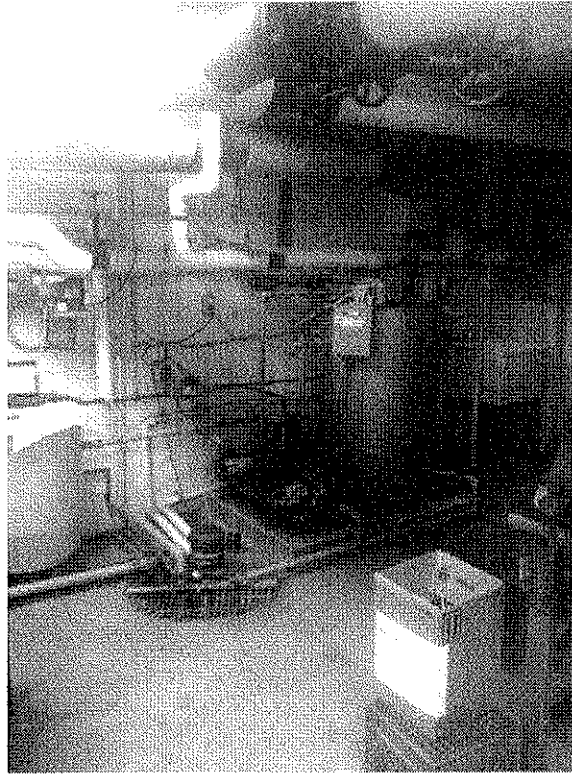


Cleaned out storage area



Compressed gas cylinders in cage

Charlotte Armory
ECP 2014

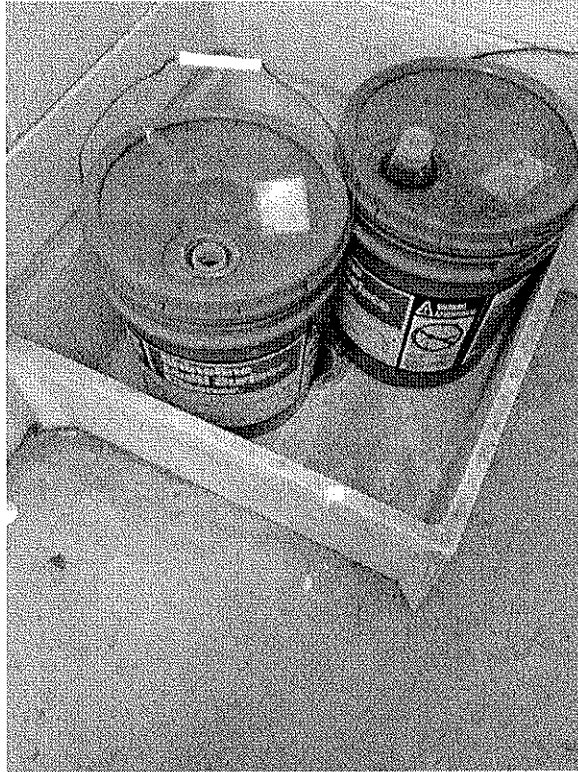


Boiler room in basement



Storage area in basement

Charlotte Armory
ECP 2014



Floor cleaning chemicals

Charlotte Armory
ECP 2014

EBS Checklist

EBS QUESTIONNAIRE

QUESTIONS

Charlotte Armory

Number	General Liability Concerns	YES	NO	N/A	UNK
A1	Have there been any federal or state enforcement actions against the facility?		X		
A2	Are there any pending enforcement actions against the facility, its owner, or operator?		X		
A3	Has the owner or operator entered into any consent decrees or administrative consent orders?		X		
A4	If so, have these decrees or orders provided a full release from liability?			X	
A5	Has the property or adjoining property been used for gas station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junk yard or landfill, or a waste treatment storage, disposal, processing, or recycling facility?		X		
A6	Does seller's business involve the use, treatment, storage, or disposal of hazardous substances?		X		
A7	Have there been any citizen suits filed against the facility, owner, or operator?		X		
A8	Have there been any regulator warning letters or administrative orders against the facility, owner, or operator?		X		
A9	Have there been any notices of violation, consent orders, or consent decrees sent to the owner or operator under the citizen suit provisions of any statute?		X		
A10	Do any settlement agreements with the government or private parties leave the owner or operator open to subsequent suits on the same issues?		X		
A11	Can the facility incur future liability through non-compliance with the above orders or decrees?		X		
A12	Has the owner or operator received any Requests for Information, Notice and Demand letters or administrative inquiries from any governmental entity with regard to its environmental practices?		X		
A13	Has an "imminent hazard" ever been alleged to exist at the site?		X		
A14	Has the owner or operator not maintained all records required by each environmental statute?	X			
A15	Is the facility out of compliance with any environmental permits?		X		
A16	Do past practices leave the owner or operator open to citizen suits or government enforcement actions?		X		
A17	Has the facility undergone any environmental audits/inspections?	X			
A18	Have audit/inspection deficiencies gone uncorrected?		X		
A19	Have any claims been made under the companies' insurance policies?		X		
A20	Is the company in violation of laws that require insurance policies to cover environmental contingencies?		X		
A21	Is the property adjacent to or on an abandoned mining site?		X		
A22	Is the property adjacent to railroad tracks or underground pipes?		X		
A23	Is the property part of or adjacent to an oil or gas producing property?		X		
A24	Are there any environmental liens or governmental notification relating to past or recurrent violations of environmental laws?		X		

Number	Clean Air Act	YES	NO	N/A	UNK
B1	Does the facility emit air pollutants into the environment?		X		
B2	Is the facility a type for which new standards of performance (NSPS) have been promulgated? See 40 C.F.R. Part 60 for a list of new source categories and applicable standards.		X		
B3	Is the facility in violation or has the facility been in violation of the NSPS or the permit?		X		
B4	Is the facility located in a nonattainment area?		X		
B5	Will the facility be subject to maximum attainable control technology (MACT)?		X		
B6	Is a capital expenditure required to meet the requirements of emissions reductions in the new Clean Air Act, i.e., is the facility required to reduce emissions because it is in a non-attainment area?		X		

B7	Does the facility incinerate any wastes of any kind?		X		
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Number	Radon	YES	NO	N/A	UNK
C1	Were the results of an EPA short term radon test performed in the basement above 4pCi/l or 0.02 WL?		X		
C2	Is there evidence that nearby structures have elevated indoor levels of radon or radon progeny?		X		
C3	Have local water supplies been found to have elevated levels of radon or radium?		X		
C4	Is the property located on or near sites that currently are or formerly were used for uranium, thorium or radium extraction or for phosphate processing?		X		
C5	Were the structures constructed from salvaged material from oil wells or other structures characteristic of high radon levels?		X		
	Note: A property may be acceptable for radon if guidelines in AR 200-1, Chapter 11 are met.				

Number	Clean Water Act	YES	NO	N/A	UNK
D1	Does the facility discharge pollutants into the waters of the state or onto land from which pollutants could enter such waters?		X		
D2	Even if the discharge was permitted by the state, is there any basis upon which EPA might challenge the variance or exemption as abdicating the state's responsibilities?		X		
D3	Are there or has there been any flooring, drains, or walls that are stained by substances other than water or are emitting foul odors?		X		
D4	Do the discharge monitoring reports (DMRs) indicate violations of the permit? Have DMR's gone unsubmitted?		X		
D5	Are there any septic tanks, sumps from floor drains, or below-ground oil-water separators?		X		
D6	Have any toxic or hazardous pollutants ever been spilled or otherwise released at the site? <i>1996 spill</i>	X			
D7	Is there cause to believe that any operation or equipment at the facility might be the cause of a future spill or release of a pollutant?		X		
D8	Has the facility neglected to apply for necessary facility NPDES storm water discharge permits?		X		
D9	Has there been any road oiling done on the facility?		X		
D10	Are there any equipment cleaning stations?		X		
D11	Are there sinkholes, abandoned manholes, abandoned sewer lines or other aquifer access points?		X		
D12	Are there any oily sheens on the surface water or unusual odors?		X		
D13	Can the facility's Clean Water Act permits be easily transferred?			X	
D14	Are permits required to discharge into the WWTF?				X
D15	Will a new or modified permit be necessary for an expansion of operations?				X
D16	Are there any visual evidence of wells?		X		
	Pressure tanks?		X		
	Pipes that extend vertically into the ground?		X		
	Above-ground pump heads?		X		
	Small sheds or shelters (sometimes resembling dog houses)?		X		
	Electrical transformers on poles for no other apparent use (especially in agricultural settings)?		X		
	Concrete pads surrounding a pipe or opening?		X		
	Depressions in the ground?		X		
	Small lined or unlined pits?		X		
	Simple holes in the ground?		X		
D17	Are there any non-permitted storm water discharges?		X		
D18	Does the adjacent property discharge waste water on to evaluated property?		X		

D19	Does the evaluated property discharge waste water on or adjacent to the property?		✓		
Number	Comprehensive Environmental Response, Compensation and Liability Act	YES	NO	N/A	UNK
E1	Has the facility ever generated, transported, or disposed of a hazardous substance as defined by Section 9601(14) of CERCLA?		✓		
E2	Are any of the facility wastes disposed of in a manner which would create a release or a threat of release prompting future enforcement or private cost recovery actions?		✓		
E3	Has the operator/owner ever notified the National Response Center of a reportable quantity release of a hazardous substance into the environment?		✓		
E4	Is the owner/operator currently subject to any administrative orders under section 106 of CERCLA, and has it properly complied with all orders issued in the past?		✓		
E5	Has the owner/operator received any section 104(c) letters from EPA requesting information concerning material sent to sites listed on the National Priorities List?		✓		
E6	Has the company failed to develop a complete history of its past disposal practices, including production of all waste manifests, shipping records, disposal contracts, etc., to determine potential liability under CERCLA?		✓		
E7	Has the facility failed to comply with the Emergency Planning and Community Right to Know Act?		✓		
E8	Has the company received any notice from adjoining landowners, other potentially responsible parties, or waste disposal facilities that it is responsible under section 107 for cleanup costs or contribution?		✓		

Number	Resource Conservation and Recovery Act	YES	NO	N/A	UNK
F1	Does the facility generate, treat, store, transport, or dispose of hazardous waste? <i>small quantity</i>		✓		
F2	Does the facility accumulate hazardous waste for periods in excess of 90 days?		✓		
F3	Does the facility hold a RCRA permit or EPA Waste Generator Number?		✓		
F4	Is the facility out of compliance with applicable RCRA regulations?		✓		
F5	Has there been any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above grade, buried and/or burned on the property?		✓		
F6	Has fill material been brought onto the property that originated from a contaminated site?		✓		
F7	Has there been any pesticides, paints or other chemicals in individual containers stored on or used at the property or facility? <i>operational items</i>	✓			
F8	Has an imminent and substantial endangerment ever been alleged to be present at the site?		✓		
F9	Has an audit been conducted at this facility to determine RCRA compliance?		✓		✓
F10	Has an inventory been taken to determine the amount and location of underground storage tanks at the facility?			✓	
F11	Are there any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground?		✓		
F12	Do existing tanks meet all requirements, i.e., financial assurance, leak detection, spill protection, overflow?			✓	
F13	Are there any petroleum storage and/or delivery facilities (including gas stations) or chemical manufacturing plants located on adjacent properties?		✓		
F14	Are there any active underground or above ground tank facilities on-site for such activities as motor fuel, waste oil or fuel oil storage, hazardous waste or chemical storage in any size?		✓		
F15	Have any of the tanks that are more than 10 years old NOT been successfully tested for leaks.			✓	
F16	Are there any deactivated USTs on the property?		✓		
F17	Are there any hydraulic lift sumps for equipment?		✓		
F18	Are there any lead screening tests that indicate evidence of lead-based paint?				✓
F19	Was the building constructed prior to 1979?	✓			

F20	Is the paint peeling or chipping?		X		
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Number	Toxic Substances Control Act	YES	NO	N/A	UNK
	Note: Common synonyms/names for PCBs include chlorodiphenyls, Aroclor, Askarel, Pyranol and Inerteen.				
G1	Did the facility manufacture, process or distribute in commerce any chemical substances regulated by TSCA?		X		
G2	Have adverse consequences been alleged to have been caused by exposure to chemical substances produced by the facility?		X		
G3	Does the company have PCBs on site?		X		
G4	Is there a need for a comprehensive PCB survey?		X		
G5	Has the facility failed to comply with all asbestos reporting requirements?		X		
G6	Are there any florescent light ballasts containing PCBs in the building?				X
G7	Is there any visible or documented evidence of soil or ground water contamination from PCBs on the property?		X		
G8	Is there evidence of soil discoloration around present or former equipment sites, utility poles, etc.?		X		
G9	Are any of the lights damaged or leaking?		X		
G10	Are any of the capacitors or transformers inside residential buildings?		X		
G11	Are any of the transformers or capacitors not clearly marked, well maintained, or secure?		X		
G12	Have PCB concentrations of 50 ppm or greater been found in contaminated soils or groundwater?		X		
G13	Is there any evidence of hydraulic fluid leaks on lifts installed prior to 1980?			X	
	Note: Additional PCB containing materials: carbonless copy paper, brake linings, printers ink, synthetic rubber, natural gas (as a contaminant), microscopy mounting media, fabric coatings, and cutting oils.				

Number	The Safe Drinking Water Act	YES	NO	N/A	UNK
H1	Has there been a discharge of any substance or material at the facility which might find its way into a public water system?		X		
H2	Is the property served by a private/non-public water system that has been found to have contaminants in quantities that exceed drinking water guidelines or has it been designated as contaminated?		X		
H3	Does the drinking water at the facility contain lead at levels above 10 ppb?		X		

Number	Asbestos Removal and Inspection	YES	NO	N/A	UNK
I1	Was the building constructed prior to 1980?	X			
I2	Has the building been inspected by a certified asbestos removal team since 1980 for the presence of ACM?		X		
I3	Has all friable asbestos been removed or contained so that it does not create the potential for human exposure?				X
I4	Does the site survey reveal any visible evidence of possible ACM? (boiler insulation, floor tiles, building siding, shingles, roofing felt, wall and ceiling insulation, acoustical ceiling tiles, window putty, fuse boxes, heat reflectors, air duct lining)			X	
I5	Is there any documented evidence of asbestos? (tests, surveys, management plan, etc.)		X		

Number	Waste Disposal Facilities	YES	NO	N/A	UNK
J1	Has there been or is there any pits, ponds, or lagoons associated with waste treatment or disposal?		X		
J2	Is there any evidence of acid pits located on or adjacent to the site?		X		
J3	Is it likely the property was used for illegal or uncontrolled dumping?		X		
J4	Are there any obvious high risk neighbors in adjacent properties engaged in producing storing or		X		

	transporting hazardous wastes, chemicals, or substances?				
J5	Was the site ever used for research, industry, or military purposes? <i>Armory</i>	<i>X</i>			
J5	Has any of the site space ever been leased to commercial tenants who are likely to have used, transported, or disposed of toxic chemicals? (e.g. dry cleaner, print shop, service stations, etc.).		<i>X</i>		

Number	Additional Hazards	YES	NO	N/A	UNK
K1	Do the tenant areas contain Urea Formaldehyde Foam Insulation (UFFI) that was installed less than a year ago?				<i>X</i>
K2	Is there any identifiable UFFI behind exterior-wall switch and outlet cover plates?				<i>X</i>
K3	Are there any elevated formaldehyde concentrations?				<i>X</i>
K4	Did interviews indicate the presence of UFFI?			<i>X</i>	
K5	Are there any citizen complaints or local law enforcement responses to unexploded munitions (UXO)?		<i>X</i>		
K6	Has the property ever been suspected to contain or been used for military chemical/biological testing?		<i>X</i>		
K7	Has the Army Technical Escort Unit or Army Corps of Engineers responded to UXO or chemical test kits incidents?		<i>X</i>		
K8	Do any of the building structures have canneec (made from sugar cane waste) building materials?				<i>X</i>
K9	Are there any small arms test ranges that have been used to perform function checks on serviced weapons?		<i>X</i>		
K10	Are there any ranges, impact areas, berms, maneuver areas, training areas, OB/OD areas present on the facility?		<i>X</i>		
K11	Is there evidence of any "red dust" (arsenic) from canneec materials?		<i>X</i>		
K12	Is there documented evidence that Electromagnetic Radiation (EMF) is present on the property?		<i>X</i>		

Number	Natural and Cultural Resources	YES	NO	N/A	UNK
L1	Does the site have any known or potential federal or state threatened & endangered species?				<i>X</i>
L2	Has an Endangered Species Survey been completed for the area?				<i>X</i>
L3	Have there been any Biological, Historical, Cultural, Soil, or Aquatic surveys of the site?				<i>X</i>
L4	Does the site have any erosion problems, i.e. bare areas, gullies, runoff during major storm events?		<i>X</i>		
L5	Does the site have an Integrated Natural Resources Management Plan (IMRMP)?		<i>X</i>		
L6	Have planning level natural resources surveys been conducted on the site (including soils, flora, fauna, wetlands)?		<i>X</i>		
L7	Does the site currently have commercial natural resource activities (timber, agricultural, grazing outleases)?		<i>X</i>		
L8	Do NEPA documents exist that address/authorize natural resource management activities?		<i>X</i>		
L9	Has a noxious weed survey been completed for the area?		<i>X</i>		
L10	Are there any buildings or structures older than 50 years old on the property?	<i>X</i>			
L11	Are there any archeological sites on the property?				<i>X</i>
L12	Is there a Cultural Resources Management Plan in place for the site?		<i>X</i>		
L13	Are there any known sites of importance to Native American tribes?				<i>X</i>
L14	Is there a memorandum of agreement or programmatic agreement addressing cultural resources in place?		<i>X</i>		
L15	Have invasive, non-native plant species been identified on the property?		<i>X</i>		
L16	Has there been a wetland survey for the site?		<i>X</i>		
L17	Are there any planned projects to create wetlands on this site?		<i>X</i>		
L18	Are there any planned uses for this site that may impact existing wetlands?		<i>X</i>		
L19	Are there any completed or in progress Environmental Assessments and/or Environmental Impact Statements?		<i>X</i>		
L20	Was the proposed real estate transaction found to have "FNSI" or a "ROD"?		<i>X</i>		

L21	Has a Pest Management Plan been completed for the site?	<input checked="" type="checkbox"/>			
L22	Does the site have any major pest problems (insects, invasive plants, animals, pathogens, rodents, et cetera)?	<input checked="" type="checkbox"/>			

GENERAL ENVIRONMENTAL SEARCH		YES	NO	N/A	UKN
Do any of the following Federal government record systems list the property or any property within the circumference of the area noted below:					
National Priorities List - within 1.0 mile (1.6 Km)?			<input checked="" type="checkbox"/>		
CERCLIS List - within 0.5 mile (0.8 Km)?			<input checked="" type="checkbox"/>		
RCRA TSD Facilities - within 1.0 mile (1.6 Km)?			<input checked="" type="checkbox"/>		
Do any of the following state record systems list the property or any property within the circumference of the area noted below:					
List maintained by state environmental agency of hazardous waste sites identified for investigation or remediation that is the equivalent to NPL - within 0.5 mile (1.6 Km)?			<input checked="" type="checkbox"/>		
List maintained by state environmental agency of sites identified for investigation or remediation that is the state equivalent to CERCLIS - within 0.5 mile (0.8 Km)?			<input checked="" type="checkbox"/>		
Leaking Underground Storage Tank (LUST) List - within 0.5 mile (0.8 Km)?			<input checked="" type="checkbox"/>		
Solid Waste/Landfill Facilities - within 0.5 mile (0.8 Km)?			<input checked="" type="checkbox"/>		
Based on fire insurance maps or consultation with the local fire department, are there any buildings or other improvements on the property or adjoining property identified as having been used for an industrial use or uses likely to lead to contamination of the property?			<input checked="" type="checkbox"/>		
The preparer of the transaction screen questionnaire must complete and sign the following statement.					
This questionnaire was completed by:					
Name: <i>Rob MacLeod</i>					
Title: <i>Project Manager</i>					
Firm: <i>MDMYA</i>					
Address: <i>Reserve Forces Support Center 3423 N. Martin Luther King Jr. Blvd.</i>					
<i>Lansing, Michigan 48906</i>					
Phone number: <i>577-481-7632</i>					
Date: <i>11 July 2014</i>					
If the preparer is different than the user, complete the following:					
Name of user:					
User's address:					
User's phone number:					
Preparer's relationship to site:					
Preparer's relationship to user:					
Copies of the completed questionnaire have been filed at:					
Copies of the completed questionnaire have been mailed or delivered to:					
Preparer represents that to the best of the preparer's knowledge the above statements and facts are true and correct and to the best of the preparer's actual knowledge no material facts have been suppressed or misstated.					

Charlotte Armory
ECP 2014

Spill Report 1996

STATE OF MICHIGAN



JOHN ENGLER, Governor

DEPARTMENT OF MILITARY AFFAIRS

2500 S. WASHINGTON AVENUE, LANSING, MI 48913-5101

MAJOR GENERAL E. GORDON STUMP

Director, and The Adjutant General

MITAG-CFO

23 April 1996

Mr. Wayne Morris
Michigan Dept. of Environmental Quality
Environmental Response Division
10650 S. Bennett Road
Morrice, MI 48857

Re: Charlotte Armory 3 March
1996 Diesel Fuel Spill

Dear Mr. Morris:

On 3 March 1996, a diesel fuel spill occurred at the Charlotte Armory, located at 1310 S. Cochran, Charlotte, MI. The spill was the result of a leak from a diesel refueling pod parked at the Michigan Army National Guard (MIARNG) facility. Approximately 20 gallons of diesel fuel leaked from a defective shut-off valve on the pod. MIARNG personnel immediately responded with spill control materials to contain the spill. The following information is provided to document DMA spill response actions taken:

Date of Spill: 3 March 1996

Location: Charlotte Armory S. Cochran Street, Charlotte, MI. 48813

Spill Description: Spill was from a fuel pod parked in the motor vehicle compound at this location. Material spilled is diesel fuel.

Response Actions: MIARNG personnel immediately emptied the pod. Spill area dimensions were approximately 5 feet wide by 5 feet long by 3 feet deep. Spilled fuel was absorbed with spill socks which were placed in 55-gallon drums for disposal. In addition, MIARNG personnel removed all visibly contaminated soils and loaded on dump truck. Approximately 10 cubic yards of contaminated soils were removed and disposed of at the Granger Landfill-Grand River Avenue location. Soil cleanup verification samples were taken. Sample results showed all samples below detection limits except the Sidewall-North(SW-North) sample. However, SW-North results were below Tier 1 Residential soil levels. Sample analytical results and sample location map is attached.

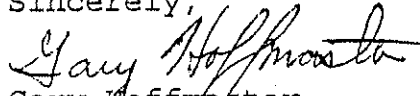
Mr. Morris

-2-

3 March 1996

In addition, another area of stained soil was discovered in the motor vehicle compound where the leaking pod had been previously parked. Approximately 10 cubic yards were removed from this location by MIARNG personnel and disposed of at Granger Landfill. Spill area dimensions at this second location were approximately 10 feet wide by 6 feet long by 1 foot deep. Sample analysis showed no contamination present after response actions. Sample analytical and sample location map is attached. No further response actions are planned for this spill location. Please contact me at (517) 483-5627 if you have any questions or comments.

Sincerely,



Gary Hoffmaster
ENVIRONMENTAL SPECIALIST
ENVIRONMENTAL SECTION

cf:SSG Hower/Charlotte Armory
GEH
Att:



ENVIRONMENTAL TESTING • COMPLIANCE ANALYSES
INDUSTRIAL HYGIENE

LOG NO: SE12424
Received: 21 MAR 96
Reported: 25 MAR 96

MR. GARY HOFFMASTER
MICH DEPT. OF MILITARY AFFAIRS
2500 SOUTH WASHINGTON AVENUE
LANSING, MI 48910

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, SL SAMPLES		DATE SAMPLED		
SE12424-1	B.S.-NORTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-2	B.S.-SOUTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-3	S.W.-NORTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-4	S.W.-SOUTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-5	S.W.-EAST	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
PARAMETER	SE12424-1	SE12424-2	SE12424-3	SE12424-4	SE12424-5
Total Solids, %	86	82	85	95	91
BTEX COMPOUNDS:					
Benzene, ug/kg	<10	<10	<10	<10	<10
Toluene, ug/kg	<10	<10	<10	<10	<10
Ethylbenzene, ug/kg	<10	<10	<10	<10	<10
Xylenes (Total), ug/kg	<30	<30	<30	<30	<30



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Page 2

LOG NO	SAMPLE DESCRIPTION, SL SAMPLES		DATE SAMPLED		
SE12424-1	B.S.-NORTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-2	B.S.-SOUTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-3	S.W.-NORTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-4	S.W.-SOUTH	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
SE12424-5	S.W.-EAST	CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96		
PARAMETER	SE12424-1	SE12424-2	SE12424-3	SE12424-4	SE12424-5
PNA COMPOUNDS					
Naphthalene, ug/kg	<330	<330	<330	<330	<330
Acenaphthylene, ug/kg	<330	<330	<330	<330	<330
Acenaphthene, ug/kg	<330	<330	<330	<330	<330
Fluorene, ug/kg	<330	<330	<330	<330	<330
Phenanthrene, ug/kg	<330	<330	<330	<330	<330
Anthracene, ug/kg	<330	<330	<330	<330	<330
Fluoranthene, ug/kg	<330	<330	410	<330	<330
Pyrene, ug/kg	<330	<330	350	<330	<330
Benzo(a)anthracene, ug/kg	<330	<330	<330	<330	<330
Chrysene, ug/kg	<330	<330	<330	<330	<330
Benzo(b)fluoranthene, ug/kg	<330	<330	<330	<330	<330
Benzo(k)fluoranthene, ug/kg	<330	<330	<330	<330	<330
Benzo(a)pyrene, ug/kg	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene, ug/kg	<330	<330	<330	<330	<330
Dibenzo(a,h)anthracene, ug/kg	<330	<330	<330	<330	<330
Benzo(ghi)perylene, ug/kg	<330	<330	<330	<330	<330



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LANSING, MI 48910

REPORT OF ANALYTICAL RESULTS

Page 3

LOG NO	SAMPLE DESCRIPTION, SL SAMPLES	DATE SAMPLED
SE12424-6	S.W.-WEST CHARLOTTE ARMORY-SPILL SITE #1	19 MAR 96
PARAMETER	SE12424-6	
Total Solids, %	90	
BTEX COMPOUNDS:		
Benzene, ug/kg	<10	
Toluene, ug/kg	<10	
Ethylbenzene, ug/kg	<10	
Xylenes (Total), ug/kg	<30	
PNA COMPOUNDS		
Naphthalene, ug/kg	<330	
Acenaphthylene, ug/kg	<330	
Acenaphthene, ug/kg	<330	
Fluorene, ug/kg	<330	
Phenanthrene, ug/kg	<330	
Anthracene, ug/kg	<330	
Fluoranthene, ug/kg	<330	
Pyrene, ug/kg	<330	
Benzo(a)anthracene, ug/kg	<330	
Chrysene, ug/kg	<330	
Benzo(b)fluoranthene, ug/kg	<330	
Benzo(k)fluoranthene, ug/kg	<330	
Benzo(a)pyrene, ug/kg	<330	
Indeno(1,2,3-cd)pyrene, ug/kg	<330	
Dibenzo(a,h)anthracene, ug/kg	<330	
Benzo(ghi)perylene, ug/kg	<330	

Clinton B. Walter
Approved



ENVIRONMENTAL TESTING • COMPLIANCE ANALYSES
INDUSTRIAL HYGIENE

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2500 SOUTH WASHINGTON AVENUE
LANSING, MI 48910

REPORT OF ANALYTICAL RESULTS

Page 1

LOG NO	SAMPLE DESCRIPTION, SL SAMPLES				DATE SAMPLED
SE12425-1	B.S.-NORTH	CHARLOTTE ARMORY-SPILL	SITE #2		19 MAR 96
SE12425-2	B.S.-SOUTH	CHARLOTTE ARMORY-SPILL	SITE #2		19 MAR 96
SE12425-3	S.W.-NORTH	CHARLOTTE ARMORY-SPILL	SITE #2		19 MAR 96
SE12425-4	SW-SOUTH	CHARLOTTE ARMORY-SPILL	SITE #2		19 MAR 96
SE12425-5	SW-EAST	CHARLOTTE ARMORY-SPILL	SITE #2		19 MAR 96
PARAMETER	SE12425-1	SE12425-2	SE12425-3	SE12425-4	SE12425-5
Total Solids, %	84	86	82	85	87
BTEX COMPOUNDS:					
Benzene, ug/kg	<10	<10	<10	<10	<10
Toluene, ug/kg	<10	<10	<10	<10	<10
Ethylbenzene, ug/kg	<10	<10	<10	<10	<10
Xylenes (Total), ug/kg	<30	<30	<30	<30	<30



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 LANSING, MI 48910

REPORT OF ANALYTICAL RESULTS

Page 2

LOG NO	SAMPLE DESCRIPTION, SL SAMPLES				DATE SAMPLED
SE12425-1	B.S.-NORTH	CHARLOTTE ARMORY-SPILL SITE #2			19 MAR 96
SE12425-2	B.S.-SOUTH	CHARLOTTE ARMORY-SPILL SITE #2			19 MAR 96
SE12425-3	S.W.-NORTH	CHARLOTTE ARMORY-SPILL SITE #2			19 MAR 96
SE12425-4	SW-SOUTH	CHARLOTTE ARMORY-SPILL SITE #2			19 MAR 96
SE12425-5	SW-EAST	CHARLOTTE ARMORY-SPILL SITE #2			19 MAR 96
PARAMETER	SE12425-1	SE12425-2	SE12425-3	SE12425-4	SE12425-5
PNA COMPOUNDS					
Naphthalene, ug/kg	<330	<330	<330	<330	<330
Acenaphthylene, ug/kg	<330	<330	<330	<330	<330
Acenaphthene, ug/kg	<330	<330	<330	<330	<330
Fluorene, ug/kg	<330	<330	<330	<330	<330
Phenanthrene, ug/kg	<330	<330	<330	<330	<330
Anthracene, ug/kg	<330	<330	<330	<330	<330
Fluoranthene, ug/kg	<330	<330	<330	<330	<330
Pyrene, ug/kg	<330	<330	<330	<330	<330
Benzo(a)anthracene, ug/kg	<330	<330	<330	<330	<330
Chrysene, ug/kg	<330	<330	<330	<330	<330
Benzo(b)fluoranthene, ug/kg	<330	<330	<330	<330	<330
Benzo(k)fluoranthene, ug/kg	<330	<330	<330	<330	<330
Benzo(a)pyrene, ug/kg	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene, ug/kg	<330	<330	<330	<330	<330
Dibenzo(a,h)anthracene, ug/kg	<330	<330	<330	<330	<330
Benzo(ghi)perylene, ug/kg	<330	<330	<330	<330	<330



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REPORT OF ANALYTICAL RESULTS

Page 3

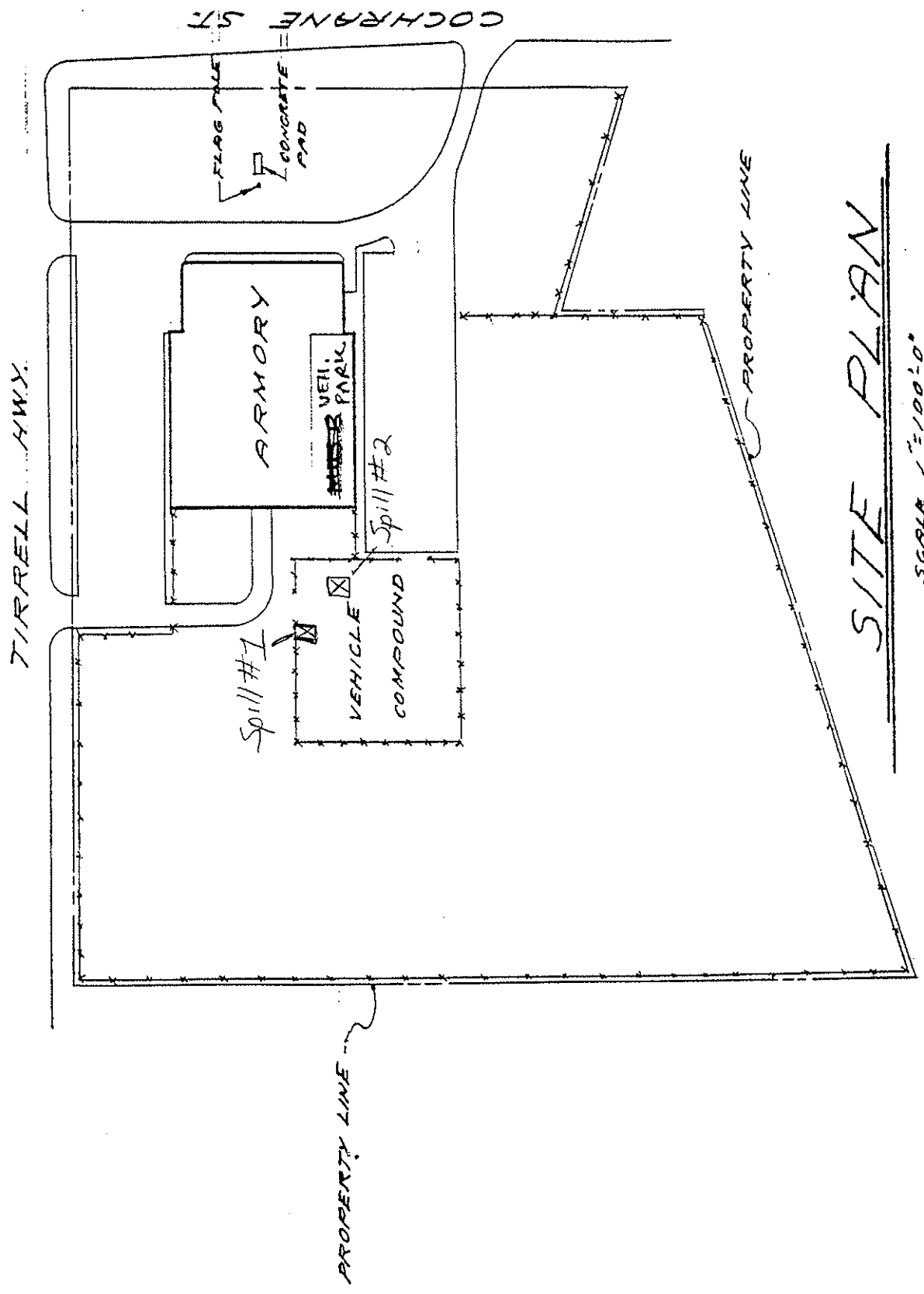
LOG NO	SAMPLE DESCRIPTION, SL SAMPLES	DATE SAMPLED
SE12425-6	SW-WEST CHARLOTTE ARMORY-SPILL SITE #2	19 MAR 96
PARAMETER	SE12425-6	
Total Solids, %	88	
BTEX COMPOUNDS:		
Benzene, ug/kg	<10	
Toluene, ug/kg	<10	
Ethylbenzene, ug/kg	<10	
Xylenes (Total), ug/kg	<30	
PNA COMPOUNDS		
Naphthalene, ug/kg	<330	
Acenaphthylene, ug/kg	<330	
Acenaphthene, ug/kg	<330	
Fluorene, ug/kg	<330	
Phenanthrene, ug/kg	<330	
Anthracene, ug/kg	<330	
Fluoranthene, ug/kg	<330	
Pyrene, ug/kg	<330	
Benzo(a)anthracene, ug/kg	<330	
Chrysene, ug/kg	<330	
Benzo(b)fluoranthene, ug/kg	<330	
Benzo(k)fluoranthene, ug/kg	<330	
Benzo(a)pyrene, ug/kg	<330	
Indeno(1,2,3-cd)pyrene, ug/kg	<330	
Dibenzo(a,h)anthracene, ug/kg	<330	
Benzo(ghi)perylene, ug/kg	<330	

Clinton B. Galt
 Approved

SECTION B-B

0 TANKS

SHEET

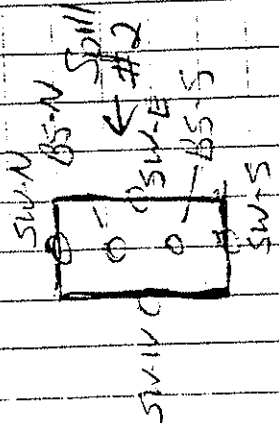
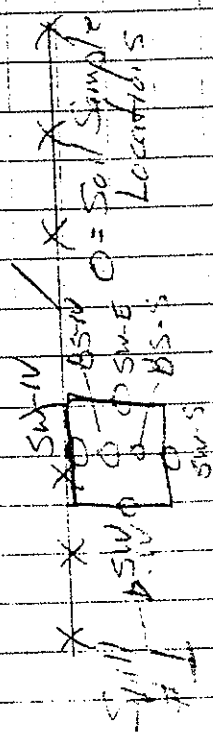
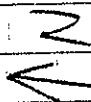


SITE PLAN

SCALE 1"=100'-0"

Charlotte Army 3 March 1996

Dickel Spill



Soil Conditions = Sandy
Final Soil Sample - taken
3/14/96 at submission
Site 11 and 12.

Larry Hoffmaster

AUG 21 1996



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

RUSSELL J. HARDING, Director

August 15, 1996

REPLY TO:

SHIAWASSEE DISTRICT OFFICE
10650 S BENNETT DR
MORRICE MI 48857-9792

Mr. Gary Hoffmaster
Department of Military Affairs
2500 S. Washington Avenue
Lansing, Michigan 48913-5101

Dear Mr. Hoffmaster:

SUBJECT: Closure of the March 3, 1996, Release of Hazardous Substances, Department of Military Affairs, South Cochran Street, Charlotte, Eaton County, Michigan

The Michigan Department of Environmental Quality (MDEQ) has reviewed your April 23, 1996 correspondence detailing the response actions taken regarding the release of diesel fuel at the above referenced site. Based upon the data presented, the MDEQ concurs that the site meets the criteria for a "Residential" Closure for the release of Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Polynuclear Aromatic Hydrocarbons (PNA's).

The MDEQ expresses no opinion as to other contaminants beyond those found and remediated as part of the response activity associated with this release. We make no warranty as to the fitness of this site for any general or specific use and prospective purchasers or users are advised to use due diligence in acquiring or using this site.

If you have any questions or concerns please feel free to contact the Project Manager for this site, Wayne Morse, at 517-625-4673.

Sincerely,

Rodney L. Mosier
Shiawassee District Supervisor
Environmental Response Division

cc: Eaton County Health Department
Wayne Morse, MDEQ-ERD