Appendix A
Asbestos Survey Report

ASBESTOS SURVEY REPORT

Continental Steel Lagoon Water Treatment Plant (ID: LWTP)

CONTINENTAL STEEL SUPERFUND SITE
1200 West Markland Ave
Kokomo , In 46901-6138

Prepared for:
CH2MHILL
135 S 84th St Suite 325
Milwaukee, WI 53214

Prepared by:
CHC Technologies
June 6, 2002
Project Number: **052102**

Prepared By:

William C Higgins
IDEM Certified Asbestos Inspector
190219128

Reviewed By:

William C Higgins III
IDEM Certified Asbestos Inspector
190120072

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Executive Summary

CHC Technologies Inc (CHC) was retained by CH2MHILL to perform a National Emissions Standard for Hazardous Air Pollutants (NESHAPS) style asbestos survey of the Continental Steel Lagoon Water Treatment Plant (Building ID: LWTP), to determine the locations of accessible and to the extent feasible, inaccessible friable and non-friable asbestos containing building materials (ACBM).

Friable materials are materials that can be reduced to powder with hand pressure such as fireproofing, sprayed-on acoustic ceilings, pipe insulation, and other thermal systems insulation. All other materials such as floor tile, ceiling tile, adhesives, plaster, stucco, and sheet rock mudding compounds are considered non-friable materials. Because friable materials are more likely to release asbestos fibers into the air when disturbed than non-friable materials, friable materials are considered a greater health concern.

Asbestos was detected or assumed in the following friable (or jacketed friable) materials:

Contaminated Soil
Tank Insulation

Asbestos was detected or assumed in the following non-friable materials:

Floor Tile And Adhesive
Window Glazing Compound

Section 1 Introduction

This report is based on requirements of the National Emissions Standards of Hazardous Air Pollutants (NESHAPS) requirements for renovation and/or demolition projects.

Friable materials are materials that can be reduced to powder with hand pressure such as fireproofing, sprayed-on acoustic ceilings, pipe insulation, and other thermal systems insulation. All other materials such as floor tile, ceiling tile, adhesives, plaster, stucco, and sheet rock mudding compounds are considered non-friable materials. Because friable materials are more likely to release asbestos fibers into the air when disturbed than non-friable materials, friable materials are considered a greater health concern.

All identified suspect asbestos-containing materials are summarized in Section 3. Materials testing positive for asbestos including material assessments, recommended response actions, and quantities are described in Section 4. Removal cost estimates for asbestos-containing materials are included in Section 5.

Removal cost estimates are for budgeting purposes only and should not be used as a quote for removal of the materials. It is not our recommendation to remove these materials unless they are beyond repair, or planned demolition or renovation activities will disturb the materials. Estimates are based on recent pricing we have received from contractors performing similar work and may vary from actual prices obtained due to the actual scope of work, quantity of material removed, control measures specified and contractor work loads.

On Tuesday, May 21, 2002 William C Higgins (190219128), IDEM Certified Asbestos Inspector from CHC, performed an asbestos survey of the building(s) in accordance with the Asbestos Hazard and Emergency Response Act of 1987 (AHERA).

DISCLAIMER

This report is prepared for the express use and benefit of CH2MHILL, its agents and employees. The information in this report or portions thereof may be required to be included in notifications to employees, contractors or other visitors to the building(s). This report is not intended to be used as a specification or work plan for any of the work suggested or recommended in this report.

This report is based upon conditions and practices observed at the property and information made available to the surveyor. This report does not intend to identify all hazards or unsafe practices, nor to indicate that other hazards or unsafe practices do not exist at the premises.

Section 2 Description of Building Construction and Systems

Number of Floors: 2 **Year Built:** 1962 **Total Square Footage:** 36,000

Structural components consist of: Concrete Foundation

Exterior Wall construction components consist of: Concrete

Interior Wall construction components consist of: Concrete

Interior ceiling components consist of: None

Roofing construction components consist of: Tar&Felt

Heating and mechancial systems include: None

Building Description/Comments:

This is a Water Treatment Plant with one main building with two identical Water Clarifier Tanks on either side

Comments:

The basement area of the main building was inaccessible due to flooding.

Section 3 Summary of Findings for Suspect Materials

The following table is a list of all materials at this building which were tested for the presence of asbestos or were assumed to contain asbestos along with overall sample results. Complete information on asbestos containing materials is included in Section 4 of this report.

Each unique material within the building is assigned a unique HM number by the surveyor at the time the survey is performed.

Section 3 and Section 4 are organized by building, surfacing, thermal systems insulation, flooring, walls, ceilings, roofing and miscellaneous materials.

Site Information
Continental Steel Lagoon Water Treatment Plant (Site ID: CSSS)
1200 West Markland Ave
Kokomo , In 46901-6138

Client Information
CH2MHILL
135 S 84th St Suite 325
Milwaukee, WI 53214

Survey Performed By	*Inspector*	*Inspection Date*	*Job Number*
CHC Technologies Inc	William C Higgins	Tuesday, May 21, 2002	052102

Suspect Material	*Category*	*HM Number*	*Material Location(s)*	*Asbestos Present?*
White Tank Insulation	TSI	TI-1	AROUND OUTSIDE OF WATER CLARIFIER TANK #1 AND #2 .	Yes
Black Rubber Tank Insulation	TSI	TI-3	AROUND OUTSIDE OF WATER CLARIFIER TANK #1 AND # 2	Yes
White Fluffy Tank Insulation	TSI	TI-6	ON TANK FEEDING INTO WATER CLARIFIER #2	No
Brown Tank Insulation	TSI	TI-4	THE INSIDE LAYER OF WATER CLARIFIER TANKS	No
9x9 Bronze Floor Tile And Adhesive	Flooring	FA-8	2ND FLOOR OFFICE OF MAIN BUILDING	Yes
Black Roofing Tar	Roofing	RT-5	ROOF OF MAIN BUILDING	No
White Window Glazing Compound	Miscellaneous	WP-7	AROUND ALL WINDOWS OF THE MAIN BUILDING	Yes
Brown Contaminated Soil	Soils	SO-2	SOIL AROUND WATER CLARIFIER # 1 AND #2	Yes

Section 4 Material Information Tables

Site Information
Continental Steel Lagoon Water Treatment Plant (Site ID: CSSS)
1200 West Markland Ave
ɔkomo , In 46901-6138

Client Information
CH2MHILL
135 S 84th St Suite 325
Milwaukee, WI 53214

Survey Performed By	*Inspector*	*Inspection Date*	*Job Number*
CHC Technologies Inc	William C Higgins	Tuesday, May 21, 2002	052102

Material Description	*Material Number*	*Asbestos Present?*
White Tank Insulation	**TI-1**	**Yes**

Material Category	*Friable Classification*	*EPA Category*	*Total Quantity*	*Unit of Measure*
TSI	Friable	Friable	9,500	Square Feet

General Condition	*Damage Category*	*Overall Material Assessment*	*Recommended Response*
Poor		Significantly Damaged	Abate Prior to Demolition

General Material Comments
This material is hanging off of the water clarifier tanks and is mixed in with soil around these tanks

Material Location(s)
AROUND OUTSIDE OF WATER CLARIFIER TANK #1 AND #2 .

Sample ID(s)	*Sample Location(s)*	*Floor*	*Analyzed*	*Overall Result*	*Layer(s) Reported by Lab*	*Results by Layer*
TI-1-1	East side of Tank #1		Yes	30%	1) Insulation 2) 3)	30 % Chrysotile
TI-1-2	South side of H20 Tank #1		Yes	30%	1) Insulation 2) 3)	30 % Chrysotile
TI-1-3	North side of H20 Tank #1		Yes	30%	1) Insulation 2) 3)	30 % Chrysotile
TI-1-4	West side of H20 Tank #1		Yes	30%	1) Insulation 2) 3)	30 % Chrysotile
TI-1-5	East side of H20 Tank #2		Yes	0%	1) Insulation 2) 3)	0
TI-1-6	North side of h20 Tank #2		Yes	0%	1) Insulation 2) 3)	0
TI-1-7	South side of H20 Tank #2		Yes	0%	1) Insulation 2) 3)	0
TI-1-8	West side of H20 Tank #2		Yes	10%	1) Insulation 2) Mastic 3)	0 10 % Chrysotile

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Section 4 Material Information Tables

Site Information	Survey Performed By	Inspection Date
Continental Steel Lagoon Water Treatment Plant (Site ID:	CHC Technologies Inc	Tuesday, May 21, 2002

Material Description	Material Number	Asbestos Present?
Black Rubber Tank Insulation	**TI-3**	**Yes**

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
TSI	Friable	Friable	9,500	Square Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
Poor		Damaged	Abate Prior to Demolition

General Material Comments

Material Location(s)
AROUND OUTSIDE OF WATER CLARIFIER TANK #1 AND # 2

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
TI-3-1	South side of H20 Tank #1		Yes	30%	1) Insulation 2) Layer2 3)	30 % Chrysotile 10 % Chrysotile
TI-3-2	East side of H20 Tank #1		Yes	30%	1) Insulation 2) Layer2 3)	30 % Chrysotile 10 % Chrysotile
TI-3-3	West side of H20 Tank #1		Yes	30%	1) Insulation 2) Layer2 3)	30 % Chrysotile 10 % Chrysotile
TI-3-4	South side of H20 Tank #2		Yes	0%	1) Insulation 2) Layer2 3)	0 0
I-3-5	West side of H20 Tank #2		Yes	10%	1) Insulation 2) Layer2 3)	TRACE % 10 % Chrysotile
TI-3-6	East side of H20 Tank #2		Yes	10%	1) Insulation 2) Layer2 3)	TRACE % Chrysotile 10 % Chrysotile

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Section 4 Material Information Tables

Site Information	Survey Performed By	Inspection Date
Continental Steel Lagoon Water Treatment Plant (Site ID:	CHC Technologies Inc	Tuesday, May 21, 2002

Material Description	Material Number	Asbestos Present?
White Fluffy Tank Insulation	**TI-6**	**No**

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
TSI	Friable	Friable	1,800	Square Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
Poor		No Assessment,Non-asbestos	Manage in Place

General Material Comments

Material Location(s)
ON TANK FEEDING INTO WATER CLARIFIER #2

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
TI-6-1	Middle section of tank		Yes	0%	1) Insulation 2) 3)	0
TI-6-2	Bottom section of tank		Yes	0%	1) Insulation 2) 3)	0

Material Description	Material Number	Asbestos Present?
Brown Tank Insulation	**TI-4**	**No**

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
TSI	Friable	Friable	7,000	Square Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
Poor		No Assessment,Non-asbestos	Manage in Place

General Material Comments

Material Location(s)
THE INSIDE LAYER OF WATER CLARIFIER TANKS

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
TI-4-1	South wall of H20 Tank #1		Yes	0%	1) Insulation 2) 3)	0
TI-4-2	West wall of H20 Tank #2		Yes	0%	1) Insulation 2) 3)	0
TI-4-3	East wall of H20 Tank #2		Yes	0%	1) Insulation 2) 3)	0

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Section 4 Material Information Tables

Site Information	Survey Performed By	Inspection Date
Continental Steel Lagoon Water Treatment Plant (Site ID:	CHC Technologies Inc	Tuesday, May 21, 2002

Material Description	Material Number	Asbestos Present?
9x9 Bronze Floor Tile And Adhesive	**FA-8**	**Yes**

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
Flooring	Non-Friable	Category II	400	Square Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
		Damaged	Abate Prior to Demolition

General Material Comments

Material Location(s)
2ND FLOOR OFFICE OF MAIN BUILDING

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
FA-8-1	West side of office		Yes	10%	1) Tile 2) Adhesive 3)	3 % Chrysotile 10 % Chrysotile
FA-8-2	South corner of office			Not Avail.	1) Tile 2) Adhesive 3)	3 % Chrysotile 10 % Chrysotile

Material Description	Material Number	Asbestos Present?
Black Roofing Tar	**RT-5**	**No**

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
Roofing	Non-Friable	Category I	3,600	Square Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
Poor		No Assessment,Non-asbestos	Manage in Place

General Material Comments

Material Location(s)
ROOF OF MAIN BUILDING

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
RT-5-1	East side of Main building		Yes	0%	1) Roof Tar 2) 3)	0
RT-5-2	North side of Main building		Yes	0%	1) Roof Tar 2) 3)	0

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Section 4 Material Information Tables

Site Information	Survey Performed By	Inspection Date
Continental Steel Lagoon Water Treatment Plant (Site ID:	CHC Technologies Inc	Tuesday, May 21, 2002

Material Description	Material Number	Asbestos Present?
White Window Glazing Compound	WP-7	Yes

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
Miscellaneous	Non-Friable	Category II	300	Linear Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
Poor		Damaged	Abate Prior to Demolition

General Material Comments

Material Location(s)
AROUND ALL WINDOWS OF THE MAIN BUILDING

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
WP-7-1	West window on 1st floor		Yes	2%	1) Window Putty 2) 3)	2 % Chrysotile
WP-7-2	South window on 1st floor		Yes	2%	1) Window Putty 2) 3)	2 % Chrysotile
WP-7-3	South window on 2nd floor		Yes	3%	1) Window Putty 2) 3)	3 % Chrysotile

Material Description	Material Number	Asbestos Present?
Brown Contaminated Soil	SO-2	Yes

Material Category	Friable Classification	EPA Category	Total Quantity	Unit of Measure
Soils	Friable	Friable	160	Cubic Feet

General Condition	Damage Category	Overall Material Assessment	Recommended Response
Poor		Damaged	Remove

General Material Comments
This soil is mixed with Tank insulation that has fallen off of water clarifier #1 and #2

Material Location(s)
SOIL AROUND WATER CLARIFIER # 1 AND #2

Sample ID(s)	Sample Location(s)	Floor	Analyzed	Overall Result	Layer(s) Reported by Lab	Results by Layer
Mi-2-1	South side of H20 Tank #1		Yes	20%	1) Brown Soil 2) 3)	20 % Chrysotile
Mi-2-2	East side of H20 Tank #1		Yes	20%	1) Brown Soil 2) 3)	20 % Chrysotile
Mi-2-3	West side of H20 Tank #1		Yes	20%	1) Brown Soil 2) 3)	20 % Chrysotile

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Section 5 Removal Cost Estimate Summary

These estimates are for budgeting purposes only and should not be used as a quote for removal of the materials. It is not our recommendation to remove these materials unless they are beyond repair, or planned demolition or renovation activities will disturb the materials. Estimates are based on recent pricing we have received from contractors performing similar work and may vary from actual prices obtained due to the actual scope of work, quantity of material removed, control measures specified and contractor work loads, etc.

Building Continental Steel Lagoon Water Treatment Plant

HM	EPA Category	Suspect Material	Material Location	QTY. Units Removal Costs (low to high)
1	Friable	White Tank Insulation	AROUND NORTH AND SOUTH WATER CLARIFIER TANKS.	9,500 Square Feet $190000
2	Friable	Brown Contaminated Soil	AROUND WATER CLARIFIER # 1 AND	160 Cubic Feet $12000 to $16000
3	Friable	Black Rubber Tank Insulation	AROUND WATER CLARIFIER #1 AND #	9,500 Square Feet $190000
4	Friable	Brown Tank Insulation	THE INSIDE LAYER OF WATER CLARIFIERS	7,000 Square Feet
5	Category I	Black Roofing Tar	ROOF OF MAIN BUILDING	3,600 Square Feet
6	Friable	White Fluffy Tank Insulation	ON TANK FEEDING INTO WATER CLARIFIER #2	1,800 Square Feet

HM	Building EPA Category	Suspect Material	Material Location	Qty. Units Removal Costs (low to high)
7	Category II	White Window Glazing Compound	AROUND ALL WINDOWS OF THE MAIN BUILDING	300 Linear Feet $500
8	Category II	9x9 Bronze Floor Tile And Adhesive	2ND FLOOR OFFICE OF MAIN BUILDING	400 Square Feet $700 to $1000

Total Removal Costs: $393,200 to $397,600

Appendix A
Definitions of Terms and Assessment Criteria

Definitions of Terms and Assessment Criteria

This survey report organizes information on each suspect ACBM identified in tables located in Section 4. This section describes how to interpret the data found on materials listed in Section 4.

Material description contains the description of the suspect homogeneous asbestos containing building material.

Material Serial Number is used to reference the material for reinspections, etc..

Asbestos type and content describes the type of asbestos and its percentage in the material.

Asbestos Results for positive materials are shown as a percentage. Samples having less than 1% asbestos are reported as containing "Trace" amounts of asbestos and samples with no detected asbestos are reported as "BLD" or below limit of detection.

Sample number(s) identifies a particular material sample obtained from a specific sample location. Sample numbers are used primarily for laboratory identification.

Sample Location identifies where the samples of this material were obtained.

Material Category categorizes each material as surfacing, TSI or miscellaneous.
Surfacing Materials - Asbestos containing materials that are sprayed-on, trowled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

Thermal Systems Insulation (TSI) - Asbestos containing materials applied to pipes, fittings, boilers, breaching, tanks, ducts or other interior structural components to prevent heat loss or gain or water condensation.

Miscellaneous Materials - Asbestos containing materials applied to or a part of building components that are not classified as surfacing materials or thermal systems insulation.

Quantity & Units reports approximate total quantity per unit of measure for each material.

Building(s) & Floor(s) specifies where a material is located.

Material Location describes where the material is found throughout the building.

Material Condition identifies the material as Friable, Non-friable or Jacketed (for thermal systems insulation only) if asbestos is present.

Friable - An asbestos containing material that can be crumbled, pulverized or reduced to powder, when dry, by hand pressure, such as spray applied fireproofing on structural steel members, spray applied acoustical ceiling materials or damaged thermal systems insulation. Friable materials are of greatest concern due to their potential fiber release.

Non-Friable - An asbestos containing material where the asbestos is bound tightly in a matrix or sealed by a protective layer. Non-friable materials can become friable by being rendered to a crumbled, pulverized or powdered state, when dry, by crushing, sanding, sawing, shot-blasting, severe weathering or by other mechanically induced means. Common examples of non-friable materials are adhesives, floor tiles, transite and roofing materials.

Jacketed - An asbestos containing material applied to thermal systems insulation and "jacketed" with a protective outer layer such as canvas or metal to keep the material in good condition. Undamaged jacketed ACBM is considered non-friable. If the jacketing is damaged, the material is considered friable.

Damage Category describes the type of damage, if any, to the material. The following damage categories are used: None, Physical, Air, and Water.

Material Assessment identifies the condition of the material in relation to physical and water damage, delamination of the material from its substrate, the extent of the damage and the potential for damage from building conditions, such as, accessibility by building occupants, influence of vibration, etc. The six standard assessment categories ranked by hazard potential, with the first being the lowest hazard are as follows: 1) Potential for Damage, 2) Potential for Significant Damage, 3) Damaged, 4) Damaged with Potential for Damage, 5) Damaged with Potential for Significant Damage, and 6) Significantly Damaged. Only friable materials are assessed under AHERA regulations. Non-friable materials, unless damaged, are not assessed and can be assumed to be in good condition.

Damaged - The damage or deterioration of the material results in inadequate cohesion or adhesion with crumbling, blistering, water stains, marring or otherwise abraded over less than on-tenth (1/10) of the surface if the damage is evenly distributed or one-fourth (1/4) if the damage is localized.

Significant Damage - The damage or deterioration of the material results in inadequate adhesion or cohesion and the damage is extensive and severe with one or more of the following characteristics: 1) Crumbling or blistering over at least one-tenth (1/10) of the surface if evenly distributed, one-fourth (1/4) if the damage is localized; 2) Areas of the material hanging from the surface, delaminated, or showing adhesive failure; 3) Water stains, gouges or marred.

Recommended Response suggests the appropriate options for controlling or maintaining ACBM in a safe manner. There are four options used:
Operations & Maintenance (O&M) - A program designed to "manage" asbestos in-place. As long as asbestos containing materials remain in a building, an O&M program should be instituted to alert maintenance personnel, custodial workers and outside vendors of the existence and location of these materials and to set a policy for the maintenance of these materials. The material is usually only required to be removed if it is significantly damaged, prior to demolition of the building or if it will be disturbed by renovation activities.

Repair - The restoration of damaged or deteriorated asbestos containing building materials to an intact condition. Once the intact condition is established, the material should be included in an O&M program. The material is usually only required to be removed if it is significantly damaged, prior to demolition of the building or if it will be disturbed by renovation activities.

Abate Due to Condition - This material is significantly damaged and is unsafe in its current condition. The access to the area should be restricted to personnel equipped with appropriate personal protection. This material should be properly removed by a licensed contractor using workers trained in the safe removal of asbestos.

Abate Prior to Renovation - This material should be properly removed prior to planned renovation activities by a licensed contractor using workers trained in the safe removal of asbestos. This recommendation is usually made only on survey reports prepared prior to planned renovation activities.

Comments & Damage Description contains any additional information and or specific details of material damage are noted here.

EPA Category provides the appropriate material category as outlined in the NESHAPS regulation. The four options are friable, Category 1, Category 2, and needs determination.

Friable - Materials containing greater than 1% asbestos are always considered Regulated Asbestos Containing Materials (RACM) that require removal prior to building renovation or demolition activities that impact the material.

Category 1 - Materials that are bituminous non-friable and contain more than 1% asbestos that become RACM and require removal only when will be subject to grinding, cutting, sanding or abrading.

Category 2 - Materials that are non-friable and contain more than 1% asbestos that will have a high probability of being crumbled, pulverized or reduced to a powder by the demolition or renovation activity. These material usually become RACM and will require removal.

Needs Determination - Materials that the individual designing the abatement and demolition project needs to inspect and evaluate to determine the potential for the material to become RACM and/or evaluate the asbestos content for the composite and individual layers of the material. For sheet rock with mudding compounds only, the EPA allows using the composite sample result. If the composite result by Point Counting the sample is below 1% asbestos, the material is not RACM.

Appendix B

Bulk Sampling Protocol and Analytical Methods

Bulk Sampling Protocol and Analytical Methods

Bulk samples of suspect asbestos containing building materials were obtained using standard industrial hygiene techniques including wetting the material to minimize fiber release. Our personnel wore half-face air purifying respirators equipped with high efficiency particulate (HEPA) filters while obtaining samples

Our sampling strategy for suspect friable surfacing materials was based on the guidelines outlined in the EPA publication Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials, and the procedures outlined in 40 CFR 763, Subpart E (AHERA). For non-friable suspect materials, AHERA requires the building inspector to determine the appropriate number of samples to obtain and analyze. Usually one to three samples of non-friable materials are collected.

For each homogeneous material identified by visual inspection as suspect material, random samples are obtained. A single bulk sample is randomly selected from each homogeneous material for first-round testing. If the sample is positive, the remaining samples are not analyzed; if the sample is negative, the other samples are submitted for study. Every sample must be reported negative if the material is to be considered non-asbestos containing.

The bulk samples were delivered to an independent laboratory that participates in the bulk sample proficiency analysis program conducted by the United States Environmental Protection Agency and is accredited by the National Voluntary Laboratory Program (NVLAP). The samples were analyzed using Polarized Light Microscopy (PLM) with dispersion staining to estimate the percent of asbestos composition by volume. Samples with no observable asbestiform minerals are designated as None-Detected. Samples in which asbestiform minerals are observed, but exist in concentrations of less than one percent (<1%), are designated as present in Trace amounts; all other samples are designated as asbestos containing with the appropriate percent of asbestos noted.

Appendix C
Laboratory Bulk Sampling Reports

Page 1 of 2

CHAIN OF CUSTODY

EMC Laboratories
7342 E. Thomas Road
Scottsdale, Arizona 85251
(800) 362-3373 (480) 990-8468 Fax

LAB#: 2322
TAT: 3 days
Rec'd: MAY 22 P.M.

COMPANY NAME: CHC TECHNOLOGIES, INC.
10990 E. 30TH ST.
INDIANAPOLIS, IN 46229
CONTACT: BILL HIGGINS
Phone/Fax: (219) 939-1249 / (219) 939-0744
Email:

BILL TO: (If different Location)

Now Accepting: VISA – MASTERCARD Price Quoted: $_____ / Sample $_____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] (3-Day) [5-Day] [6-10 Day]

****Prior confirmation of turnaround time is required
****Additional charges for rush analysis (please call marketing department for pricing details).
****Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** (Bulk-PLM) [Air-PCM] [Lead] [Point Count] [TEM-Air] [TEM-Bulk]
3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. **Project Name:** Continental Steel H_2O Treatment Plant Asbestos Inspection
P.O. Number: 52102 **Project Number:**

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Sample Accepted Yes / No	AIR SAMPLE INFO / COMMENTS ON	OFF	FLOW RATE
1	TI-1-1	5-21-02	H_2O clarifier tank #1 East	Y N			
2	TI-1-2		H_2O Tank #1 South	Y N			
3	TI-1-3		H_2O Tank #1 North	Y N			
4	TI-1-4		H_2O Tank #1 West	Y N			
5	TI-1-5		H_2O Tank #2 East	Y N			
6	TI-1-6		H_2O Tank #2 North	Y N			
7	TI-1-7		H_2O Tank #2 Side	Y N			
8	SS-2-1		Soil	Y N			
9	SS-2-2		Soil	Y N			
10	SS-2-3		Soil	Y N			
11	TI-3-1		H_2O Tank #1 South	Y N			
12	TI-3-2		H_2O Tank #1 East	Y N			
13	TI-3-3		H_2O Tank #1 West	Y N			
14	TI-3-4		H_2O Tank #2 South	Y N			
15	TI-3-5		H_2O Tank #2 West	Y N			

SPECIAL INSTRUCTIONS: Stop Analysis of first positive sample in each set

Sample Collector: (Print) William Higgins III (Signature) [signature]

Relinquished by: [signature] Date/Time: 5-21-02 Received by: Diana Fedurico Date/Time: 5/22/02

Relinquished by: Diana Fedurico Date/Time: 5/22/02 Received by: [signature] Date/Time: 5-24-02

Relinquished by: _____ Date/Time _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Scottsdale, Arizona and prevailing party will be entitled to attorney's fees and court costs.

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Page 2 of 2

CHAIN OF CUSTODY

EMC Laboratories
7342 E. Thomas Road
Scottsdale, Arizona 85251
(800) 382-3373 (480) 990-8468 Fax

LAB#:
TAT: 2322
Rec'd:

COMPANY NAME: CHC TECHNOLOGIES, INC.
10900 E. 30TH ST.
INDIANAPOLIS, IN 46229
CONTACT: BILL HIGGINS
Phone/Fax: (219) 939-1240 / (219) 939-8744
Email: wchiggins@chctechnologies.com

BILL TO: (If different Location)

Now Accepting: VISA – MASTERCARD

Price Quoted: $_____ / Sample $_____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] (3-Day) [5-Day] [8-10 Day]

****Prior confirmation of turnaround time is required
****Additional charges for rush analysis (please call marketing department for pricing details).
****Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** (Bulk-PLM) [Air-PCM] [Lead] [Point Count] [TEM-Air] [TEM-Bulk]
3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: Continental Steel H2O Treatment Plant Asbestos Inspection
P.O. Number: 52102 Project Number:

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Sample Accepted Yes / No	AIR SAMPLE INFO / CONDITIONS ON	OFF	FLOW RATE
16	TI-3-6	5-21-02	H2O Tank #2 East	Y N			
17	TI-4-1		H2O Tank #1 (inside) South	Y N			
18	TI-4-2		H2O Tank #2 West	Y N			
19	TI-4-3		H2O Tank #2 East	Y N			
20	RT-5-1		E side / Ground	Y N			
21	RT 5-2		N side / Ground	Y N			
	[redacted]			Y N			
22	TI-6-1		middle section	Y N			
23	TI-6-2		bottom section	Y N			
24	WP-7-1		1st floor W side	Y N			
25	WP-7-2		1st floor S side	Y N			
26	WP-7-3		2nd floor S side	Y N			
27	FA-8-1		2nd floor office west	Y N			
28	FA 8-2		2nd floor office S corner	Y N			
29	TI-1-8	✓		Y N			

SPECIAL INSTRUCTIONS: stop analysis after first positive of each set

Sample Collector: (Print) William C. Higgins (Signature) [signature]

Relinquished by: [signature] Date/Time: 5-21-02 Received by: Diana Federico Date/Time: 5/22/02

Relinquished by: Diana Federico Date/Time: 5/22/02 Received by: [signature] Date/Time: 5-24-02

Relinquished by: _____ Date/Time _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that jurisdiction and venue will be in Scottsdale, Arizona and prevailing party will be entitled to attorney's fees and court costs.

2-2

Environmental Management Consultants, Inc.

Laboratory Report
0002322

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	CHC TECHNOLOGIES, INC.	Job# / P.O. #:	52102
Address:	10990 E. 30TH ST.	Date Received:	05/22/2002
	INDIANAPOLIS, IN 46229	Date Analyzed:	05/30/2002
Collected:	05/21/2002	EPA Method:	EPA 600/M4-82-020
Project Name/	CONTINENTAL STEEL H20 TREATMENT	Submitted By:	BILL HIGGINS
Address:		Collected By:	Customer

Lab ID / Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0002322-001 TI-1-1	H20 TANK #1 EAST	Tank Insulation, White/ Gray	Yes	Chrysotile	30%	Mineral Wool	60%
						Carbonates Binder/Filler	10%
0002322-002 TI-1-2	H20 TANK #1 SOUTH	Tank Insulation, White/ Gray	Yes	Chrysotile	30%	Mineral Wool	60%
						Carbonates Binder/Filler	10%
0002322-003 TI-1-3	H20 TANK #1 NORTH	Tank Insulation, White/ Gray	Yes	Chrysotile	30%	Mineral Wool	60%
						Carbonates Binder/Filler	10%
0002322-004 TI-1-4	H20 TANK #1 WEST	Tank Insulation, White/ Gray	Yes	Chrysotile	30%	Mineral Wool	60%
						Carbonates Binder/Filler	10%
0002322-005 TI-1-5	H20 TANK #2 EAST	Tank Insulation, White	No			Mineral Wool	90%
						Carbonates	10%
0002322-006 TI-1-6	H20 TANK #2 NORTH	Tank Insulation, White/ Gray	No			Mineral Wool	98%
						Carbonates	2%
0002322-007 TI-1-7	H20 TANK #2 SIDE	Tank Insulation, White/ Gray	No			Mineral Wool	90%
						Quartz Carbonates	10%
0002322-008 SS-2-1	SOIL	Soil, Brown	Yes	Chrysotile	20%	Mineral Wool	30%
						Gypsum Binder/Filler	50%
0002322-009 SS-2-2	SOIL	Soil, Brown	Yes	Chrysotile	20%	Mineral Wool	30%
						Gypsum Binder/Filler	50%

May 30 02 10:23a p.1

Environmental Management Consultants, Inc.

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Laboratory Report
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Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	CHC TECHNOLOGIES, INC.	Job# / P.O. #:	52102
Address:	10990 E. 30TH ST.	Date Received:	05/22/2002
	INDIANAPOLIS, IN 46229	Date Analyzed:	05/30/2002
Collected:	05/21/2002	EPA Method:	EPA 600/M4-82-020
Project Name/	CONTINENTAL STEEL H20 TREATMENT	Submitted By:	BILL HIGGINS
Address:		Collected By:	Customer

Lab ID / Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type	(%)	Non-Asbestos Constituents	
0002322-010 SS-2-3	SOIL	Soil, Brown	Yes	Chrysotile	20%	Mineral Wool	30%
						Gypsum Binder/Filler	50%
0002322-011 TI-3-1	H20 TANK #1 SOUTH	LAYER# 1 Tank Insulation, White	Yes	Chrysotile	30%	Mineral Wool	60%
						Binder/Filler	10%
		LAYER# 2 Tank Insulation, Black	Yes	Chrysotile	10%	Fibrous Glass	15%
						Carbonates Binder/Filler	75%
0002322-012 TI-3-2	H20 TANK #1 EAST	LAYER# 1 Tank Insulation, White	Yes	Chrysotile	30%	Mineral Wool	60%
						Binder/Filler	10%
		LAYER# 2 Tank Insulation, Black	Yes	Chrysotile	10%	Fibrous Glass	15%
						Carbonates Binder/Filler	75%
0002322-013 TI-3-3	H20 TANK #1 WEST	LAYER# 1 Tank Insulation, White	Yes	Chrysotile	30%	Mineral Wool	60%
						Binder/Filler	10%
		LAYER# 2 Tank Insulation, Black	Yes	Chrysotile	10%	Fibrous Glass	15%
						Carbonates Binder/Filler	75%
0002322-014 TI-3-4	H20 TANK #2 SOUTH	LAYER# 1 Tank Insulation, White	No			Mineral Wool	98%
						Carbonates	2%
		LAYER# 2 Tank Insulation, Black	No			Fibrous Glass	10%
						Carbonates Binder/Filler	90%

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Laboratory Report
0002322

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	CHC TECHNOLOGIES, INC.	Job# / P.O. #:	52102
Address:	10990 E. 30TH ST.	Date Received:	05/22/2002
	INDIANAPOLIS, IN 46229	Date Analyzed:	05/30/2002
Collected:	05/21/2002	EPA Method:	EPA 600/M4-82-020
Project Name/	CONTINENTAL STEEL H20 TREATMENT	Submitted By:	BILL HIGGINS
Address:		Collected By:	Customer

Lab ID / Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0002322-015 TI-3-5	H20 TANK #2 WEST	LAYER# 1 Tank Insulation, White	Yes	Chrysotile	Trace	Mineral Wool	98%
						Carbonates	1%
		LAYER# 2 Tank Insulation, Black	Yes	Chrysotile	10%	Fibrous Glass	15%
						Carbonates Binder/Filler	75%
0002322-016 TI-3-6	H20 TANK #2 EAST	LAYER# 1 Tank Insulation, White	Yes	Chrysotile	Trace	Mineral Wool	98%
						Carbonates	1%
		LAYER# 2 Tank Insulation, Black	Yes	Chrysotile	10%	Fibrous Glass	15%
						Carbonates Binder/Filler	75%
0002322-017 TI-4-1	H20 TANK #1 (INSIDE) SOUTH	Tank Insulation, White, Brown	No			Gypsum Quartz Binder/Filler	100%
0002322-018 TI-4-2	H20 TANK #2 WEST	Tank Insulation, White, Brown	No			Gypsum Quartz Binder/Filler	100%
0002322-019 TI-4-3	H20 TANK #2 EAST	LAYER# 1 Tank Insulation, White, Brown	No			Gypsum Quartz Binder/Filler	100%
		LAYER# 2 Coating, Gray	No			Gypsum Binder/Filler	100%

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Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	CHC TECHNOLOGIES, INC.	Job# / P.O. #:	52102
Address:	10990 E. 30TH ST.	Date Received:	05/22/2002
	INDIANAPOLIS, IN 46229	Date Analyzed:	05/30/2002
Collected:	05/21/2002	EPA Method:	EPA 600/M4-82-020
Project Name/	CONTINENTAL STEEL H20 TREATMENT	Submitted By:	BILL HIGGINS
Address:		Collected By:	Customer

Lab ID / Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0002322-020 RT-5-1	E. SIDE/GROUND	LAYER# 1 Roofing, Black	No		Cellulose Fiber	40%
					Carbonates Binder/Filler	60%
		LAYER# 2 Roofing, Black	No		Cellulose Fiber	40%
					Carbonates Binder/Filler	60%
		LAYER# 3 Roofing, Black	No		Cellulose Fiber	40%
					Carbonates Binder/Filler	60%
0002322-021 RT-5-2	N. SIDE/GROUND	LAYER# 1 Roofing, Black	No		Cellulose Fiber	40%
					Carbonates Binder/Filler	60%
		LAYER# 2 Roofing, Black	No		Cellulose Fiber	40%
					Carbonates Binder/Filler	60%
		LAYER# 3 Roofing, Black	No		Cellulose Fiber	40%
					Carbonates Binder/Filler	60%
0002322-022 TI-6-1	MIDDLE SECTION	Insulation, Beige	No		Mineral Wool	80%
					Carbonates Gypsum Quartz Binder/Filler	20%
0002322-023 TI-6-2	BOTTOM SECTION	Insulation, Beige	No		Mineral Wool	90%
					Cellulose Fiber	1%
					Binder/Filler	9%
0002322-024 WP-7-1	1ST FL W. SIDE	Material, Gray White	Yes	Chrysotile 2%		
					Carbonates Binder/Filler	98%
0002322-025 WP-7-2	1ST FL S. SIDE	Material, Gray White	Yes	Chrysotile 2%		
					Carbonates Binder/Filler	98%

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Laboratory Report
0002322

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	CHC TECHNOLOGIES, INC.	Job# / P.O. #:	52102
Address:	10990 E. 30TH ST.	Date Received:	05/22/2002
	INDIANAPOLIS, IN 46229	Date Analyzed:	05/30/2002
Collected:	05/21/2002	EPA Method:	EPA 600/M4-82-020
Project Name/	CONTINENTAL STEEL H20 TREATMENT	Submitted By:	BILL HIGGINS
Address:		Collected By:	Customer

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)		Non-Asbestos Constituents	
0002322-026 WP-7-3	2ND FL S. SIDE	Material, Gray / White	Yes	Chrysotile	3%	Carbonates Binder/Filler	97%
0002322-027 FA-8-1	2ND FL OFFICE WEST	LAYER# 1 Floor Tile, Beige	Yes	Chrysotile	3%	Carbonates Quartz Binder/Filler	97%
		LAYER# 2 Mastic, Black	Yes	Chrysotile	10%	Carbonates Binder/Filler	90%
0002322-028 FA-8-2	2ND FL OFFICE S. CORNER	LAYER# 1 Floor Tile, Beige	Yes	Chrysotile	3%	Carbonates Quartz Binder/Filler	97%
		LAYER# 2 Mastic, Black	Yes	Chrysotile	10%	Carbonates Binder/Filler	90%
0002322-029 TI-1-8		LAYER# 1 Insulation, Beige	No			Mineral Wool	95%
						Binder/Filler	5%
		LAYER# 2 Mastic, Black	Yes	Chrysotile	10%	Mineral Wool	2%
						Carbonates Binder/Filler	88%

Brad Yanbin Ai

Approved Signatory

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernable layer. All analyses are derived from calibrated visual estimate and measured in weight percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and
that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately <1% by weight of Standards and Technology. Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product

Appendix D
Summary of Regulatory Requirements

Appendix D Summary of Regulatory Requirements

This appendix provides a summary of building owner and manager requirements under various asbestos regulations promulgated by the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA) to protect building occupants and employees from exposure to asbestos.

Survey Requirements

Prior to any renovation activity, OSHA and EPA regulations require that a complete asbestos survey be performed to determine if asbestos is present in any suspect asbestos containing material that will be present in the construction or work area. This survey report addresses accessible materials. It is recommended that prior to renovation activites, inaccessible areas that could contain asbestos materials be inspected.

Notification and Posting Requirements

Regulatory agencies feel that the building owner or manager should be responsible for knowing and communicating the locations of asbestos in their buildings to building employees, outside contractors and tenants to prevent exposure to asbestos.

Under the California Health and Safety Code, building owners and managers are required to provide annual notifications regarding known asbestos containing materials in their buildings to building employees, tenants, vendors and outside contractors. Therefore, specific information contained in this survey report is required to be included in the notification.

OSHA requires building employees, outside contractors, vendors and construction contractors bidding on or performing work in buildings be provided with notification regarding asbestos containing materials in their work areas. OSHA also requires that asbestos warning signs be posted in mechanical rooms.

Removal Requirements

Under EPA regulations, asbestos containing materials must be properly removed by licensed asbestos abatement contractors prior to renovation or demolition activities that would disturb friable materials or cause non-friable materials to become friable and a regulated material.

Repair of Damaged Materials and Cleanup of Debris

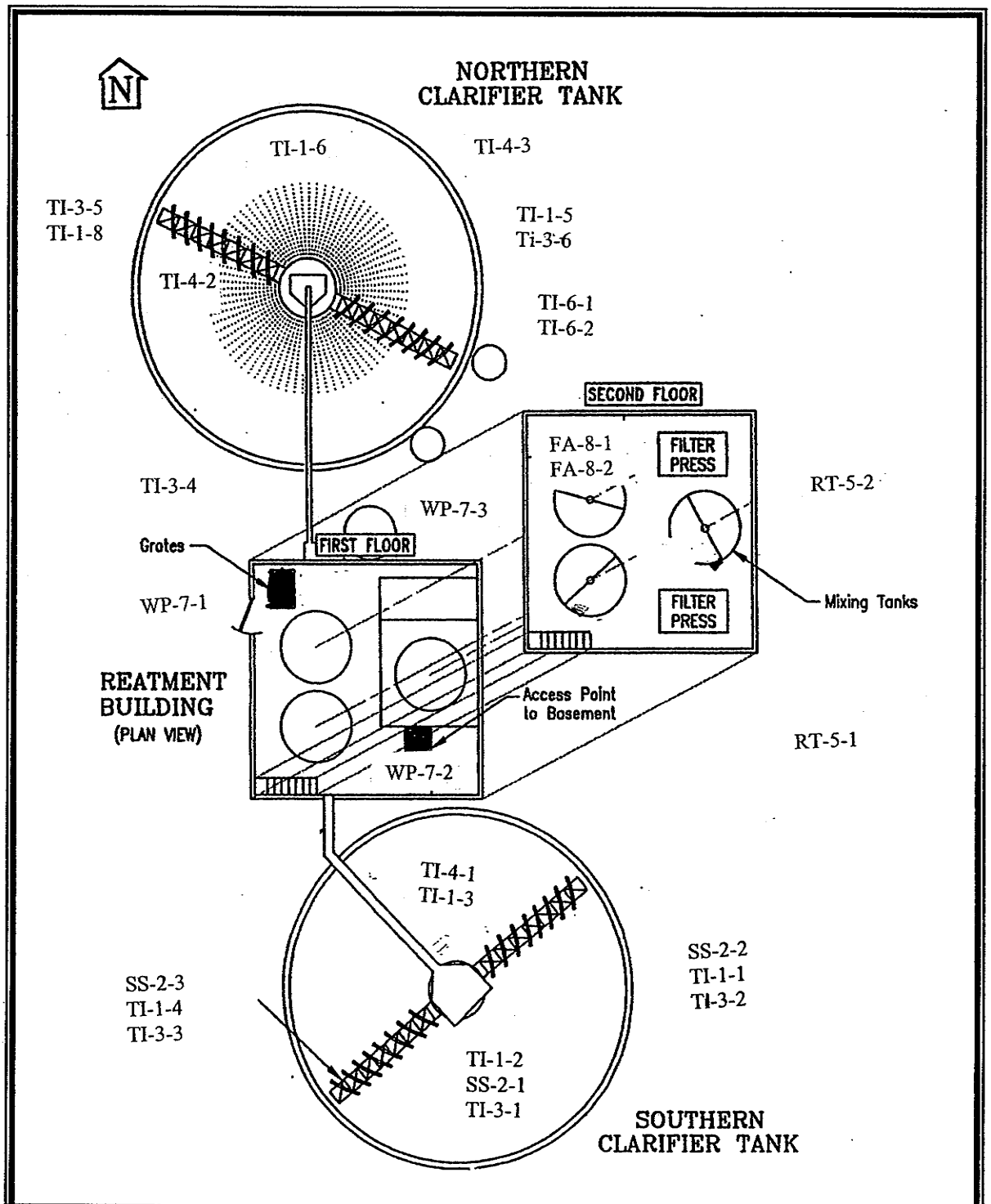
OSHA requires that asbestos containing debris be immediately cleaned up. It is recommended that damaged materials that may release fibers be repaired as soon as possible to prevent fiber release and potential exposures.

Training Requirements

OSHA requires employers whose employees are likely to or required to disturb asbestos to receive an asbestos training course. Refresher training is required to be provided annually.

Appendix E

Map Indicating Sample Locations



Continental Steel Superfund Site
Lagoon Water Treatment Plant

Figure 1:
Asbestos Sample Location Map

CHC Technologies Inc
10090 E 30th Street
Indianapolis, In. 46229

N

Appendix F

Photographic Documentation

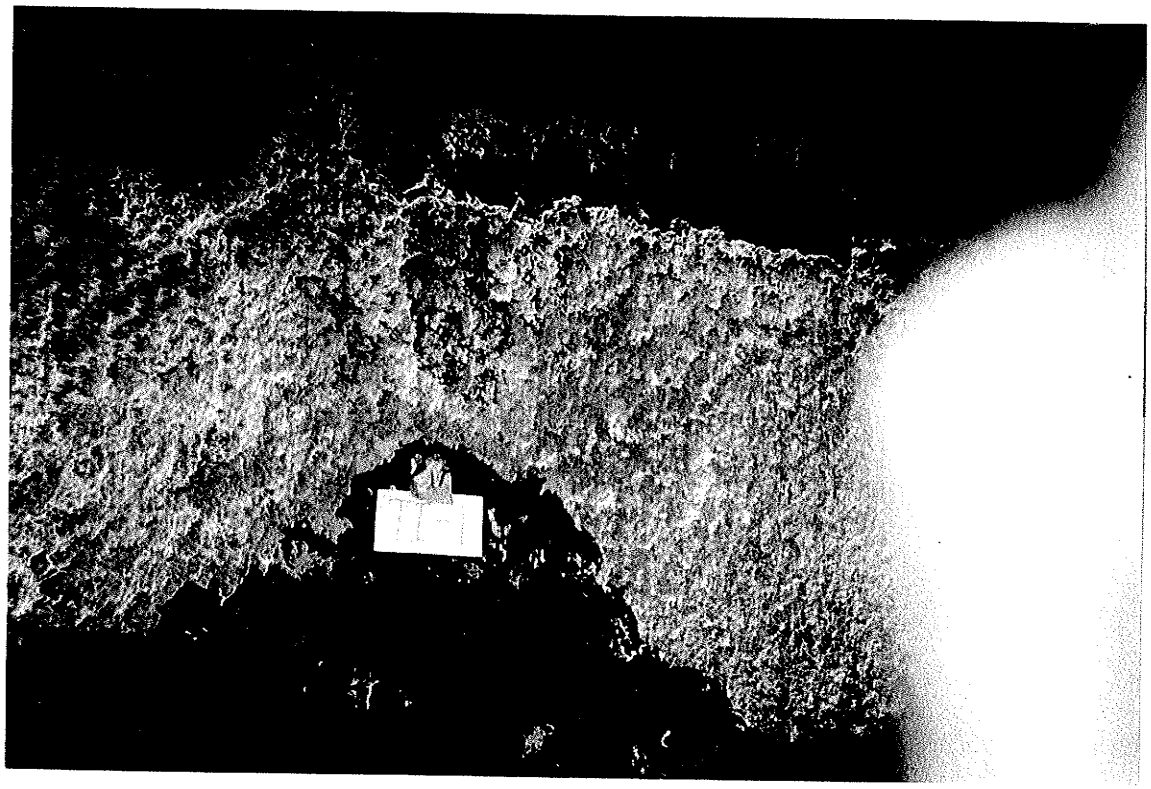


Photo 1: (TI-1) White Tank Insulation

Photo 2: (SS-2) Soil Sample Found around Water Clarifier Tank

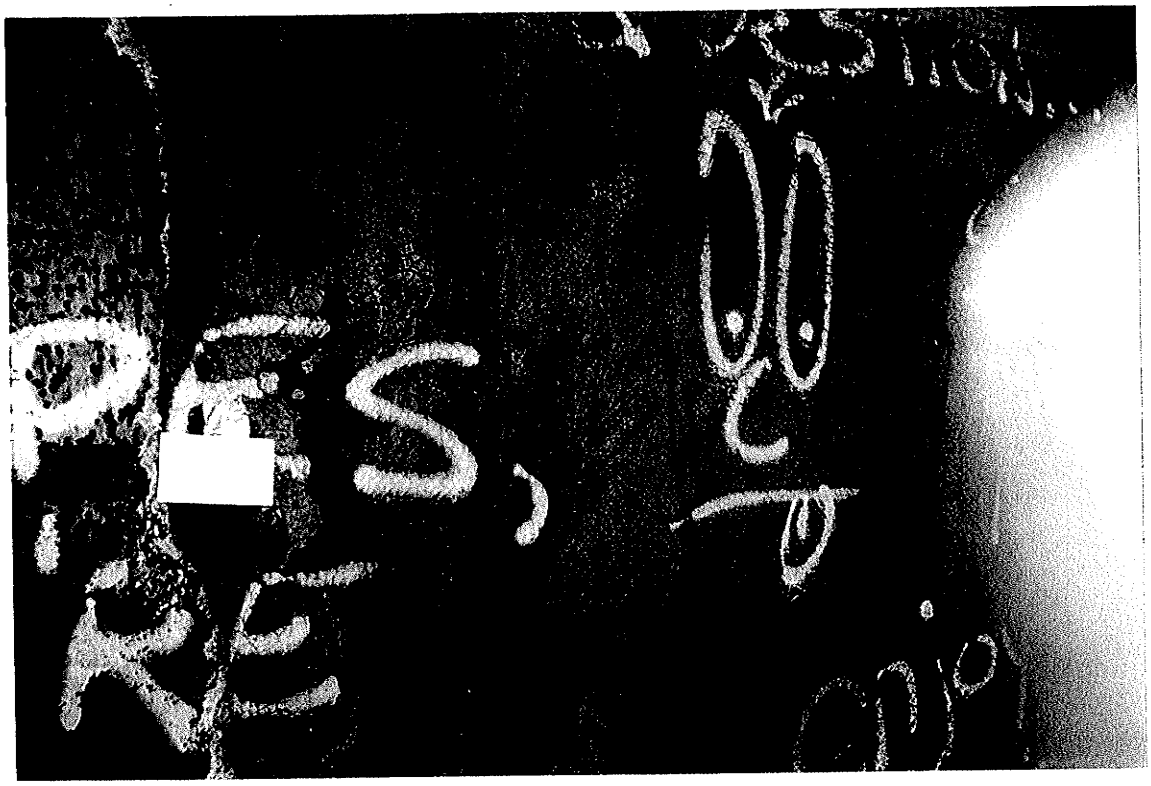


Photo 3: (TI-3) Rubber Tank Insulation

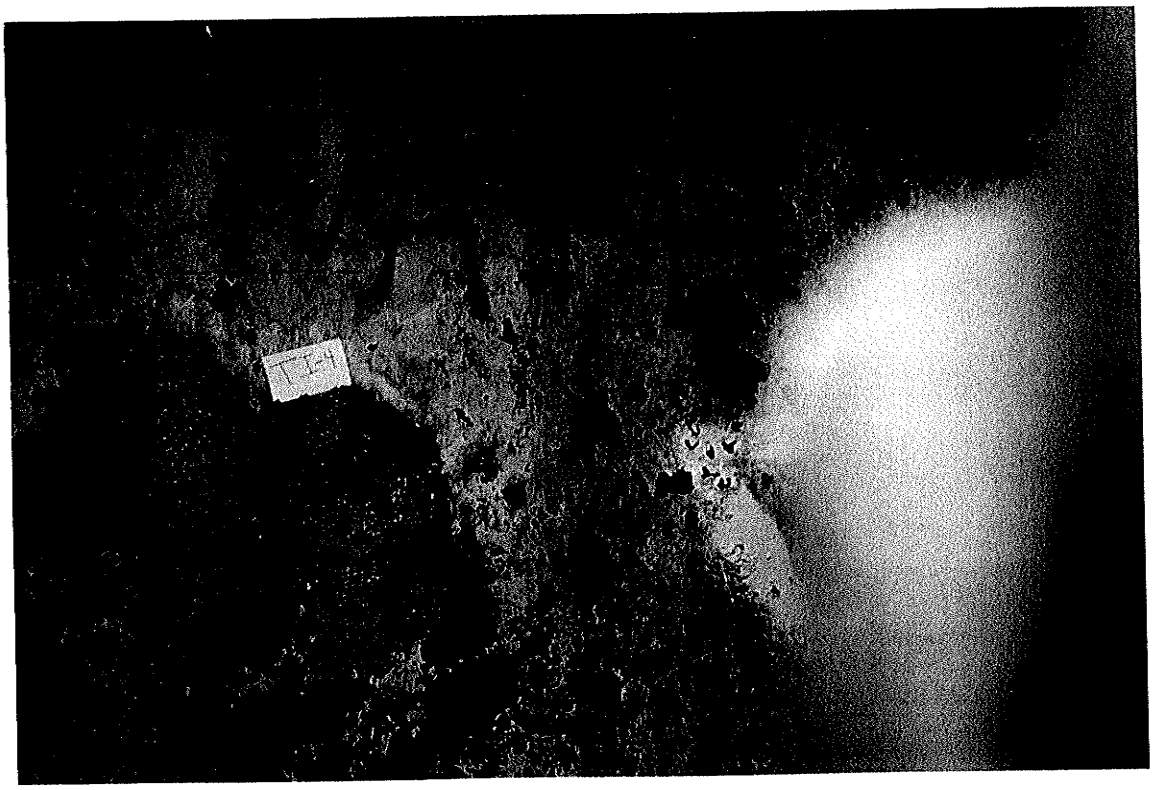


Photo 4: (TI-4) Brown Tank Insulation

Photo 5: (RT-5) Black Roofing Tar

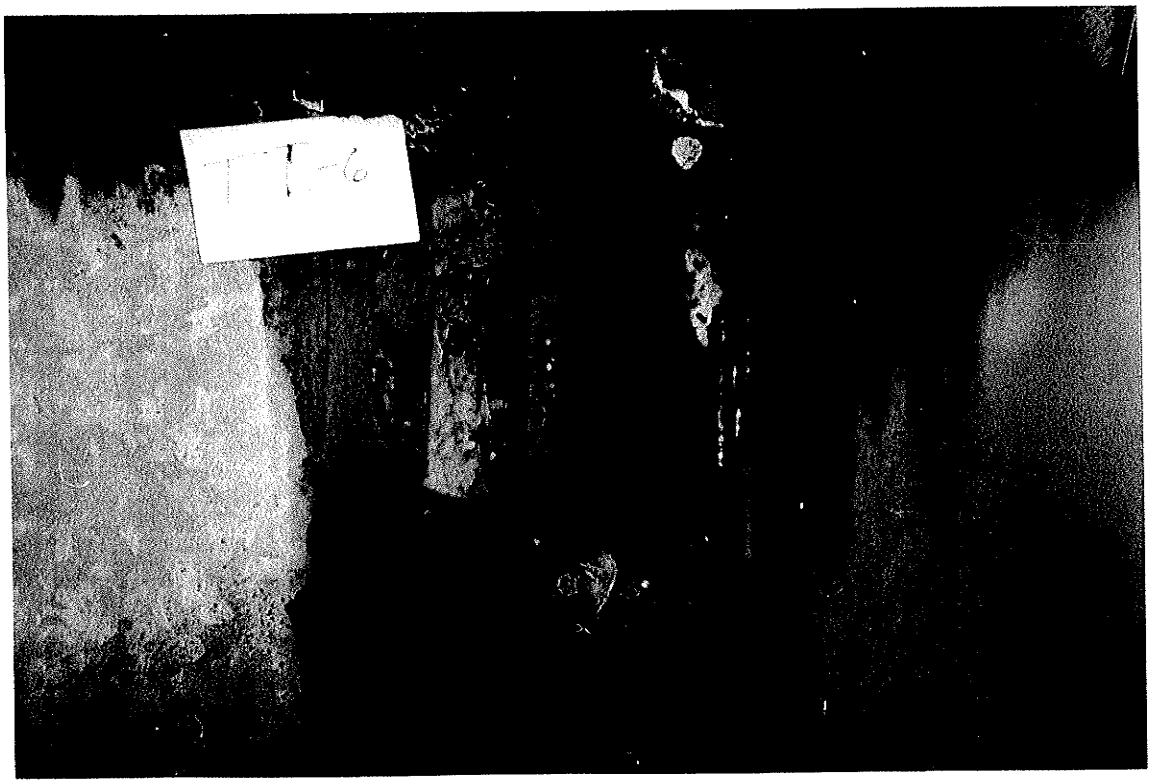


Photo 6: (TI-6) White Fluffy Tank Insulation

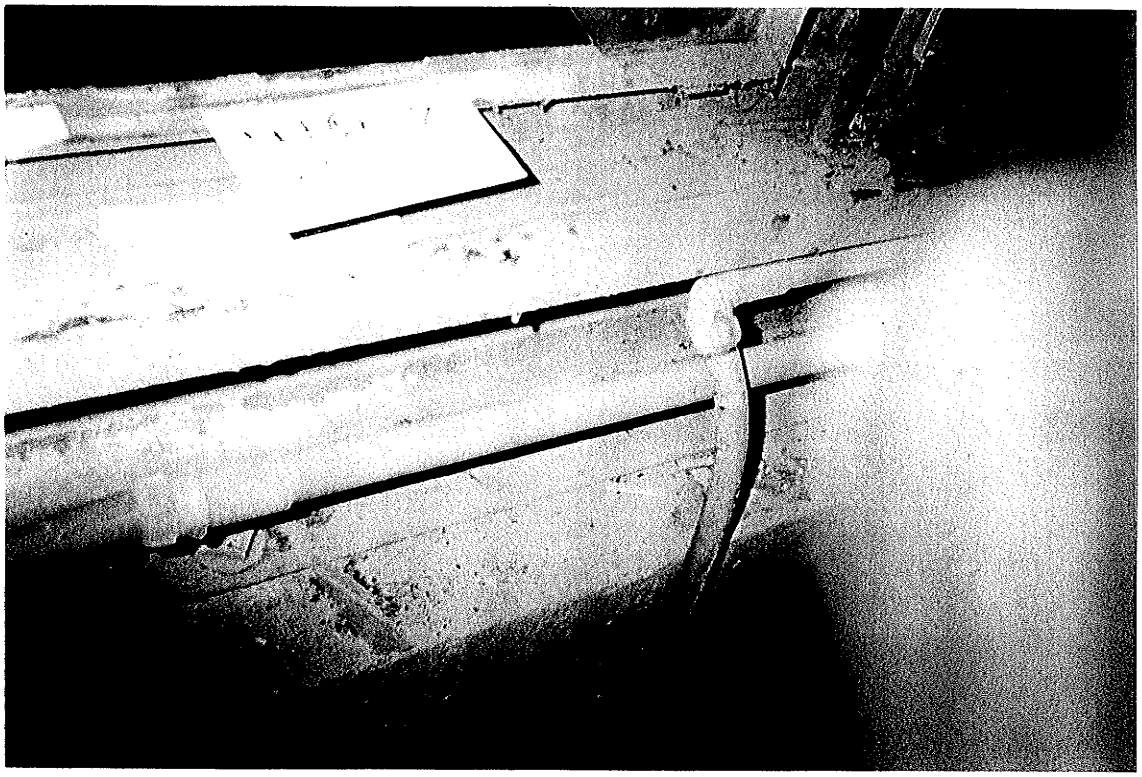


Photo 7: (WP-7) White Window Putty

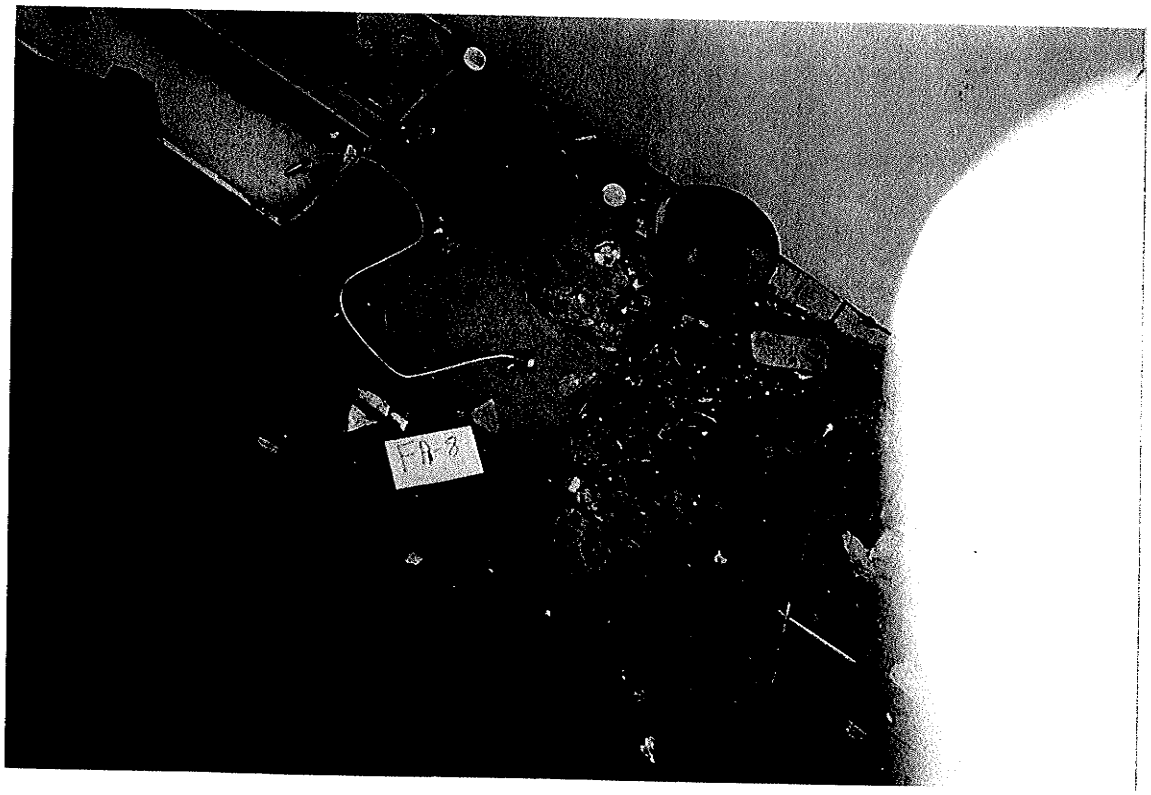


Photo 8: (FA-8) 9x9 Bronze Floor Tile and Adhesive

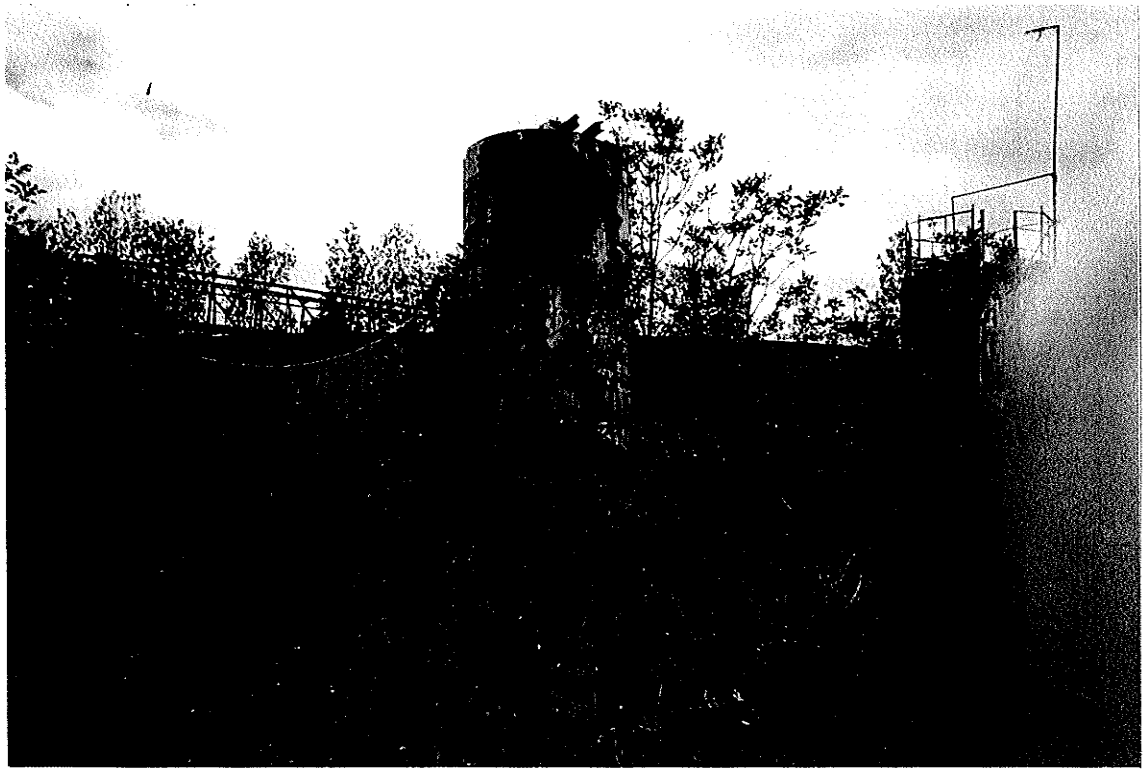


Photo 9: Northern View of Property Site and H20 Clarifier #2

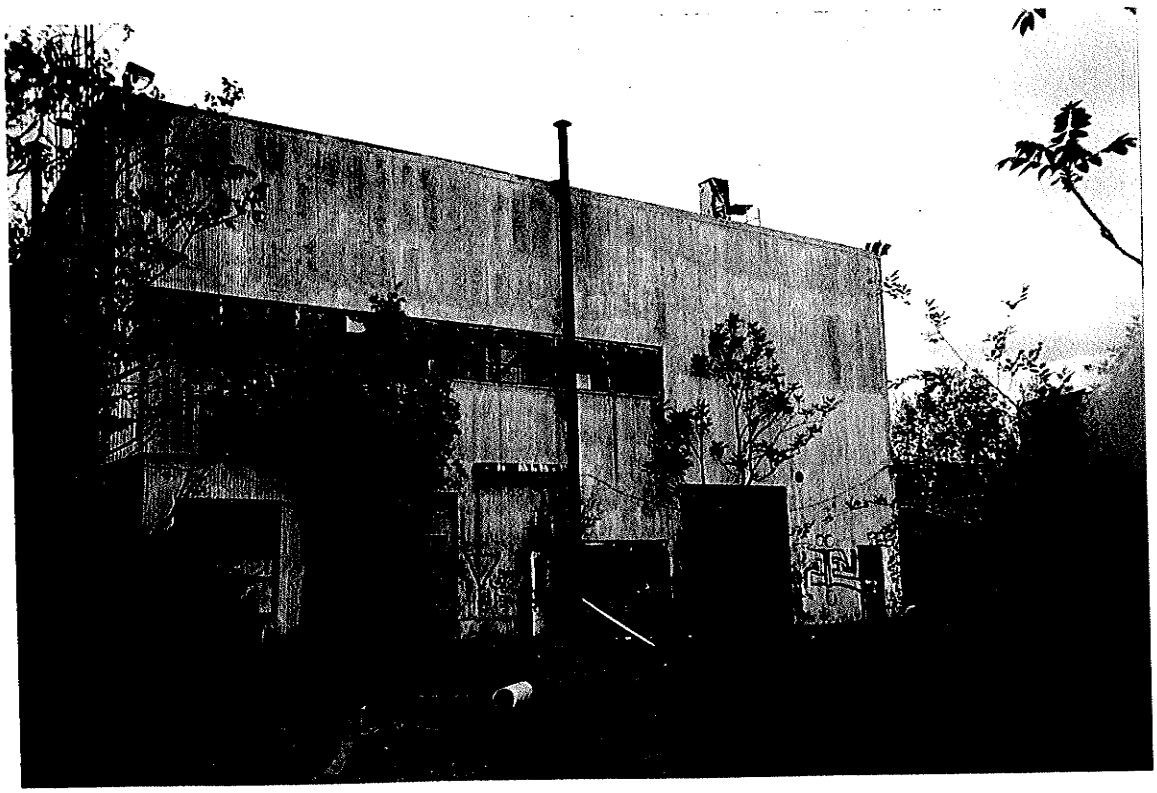


Photo 10: View of Main Pump Building

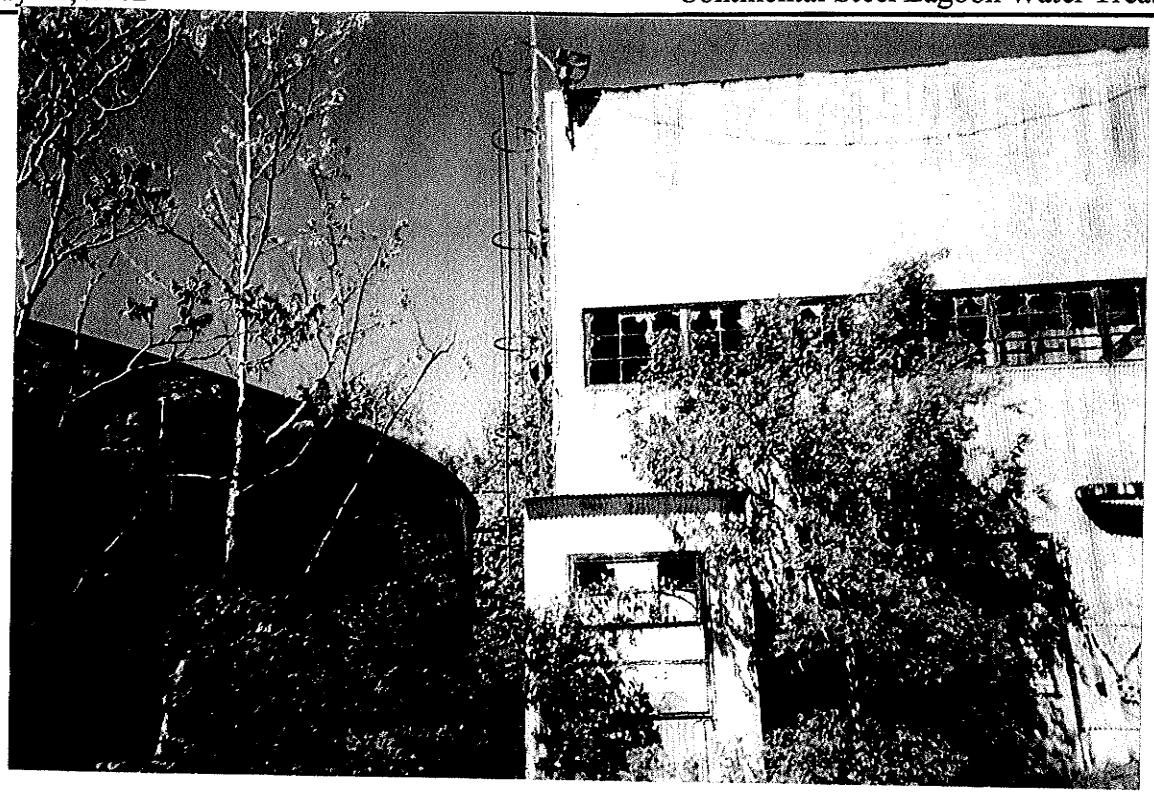


Photo 11: Southern View of Property Site

Photo 12: Western View of Property Site