

# **TEXTRON Lycoming**

**Stratford Division**  
Textron Lycoming /  
Subsidiary of Textron Inc.

550 Main Street  
Stratford, CT 06497  
203/385-2000

13 September 1988

Mr. G. Dews  
Ct. D.E.P.  
Hazardous Matls. Mgmt.  
165 Capitol Avenue  
Hartford, CT 06106

Dear Mr. G. Dews:

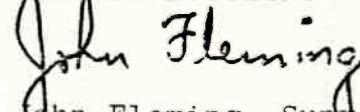
Enclosed you will find a copy of soil analyses on samples taken in the equalization lagoon in our Surface Impoundment Closure.

The schedule plans call for the Cap to be ordered in the next week to ten days. In this regard I am also submitting a copy of the addendum which the Army consultant, Metcalf & Eddy had sent to us, but did not forward to you for review. The closure contractor for the surface impoundments would like to complete work on the equalization lagoon before the sludge impoundments completion.

If you have any questions, please do not hesitate to contact me.

Very truly yours

TEXTRON LYCOMING



John Fleming, Supv.  
Environmental Compliance

Enclosure

September 12, 1988

VFL  
550 Main St.  
Stratford CT 06497

RE: LAB. No.88-279-17  
P.O. No.VFL-C2260  
Inv. No.4776

Gentelmen:

The attached report are results of analysis on the above referenced Purchase Order.

The samples were received on August 25, 1988.

The method of analysis was by Gas Chromatography using FID, PID, and/or HECD techniques.

All results are reported in parts per billion unless noted on the report.

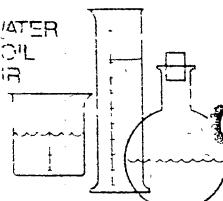
Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco  
Laboratory Director

SJF:hc

WATER  
SOIL  
AIR



**connecticut  
testing  
laboratories inc.**

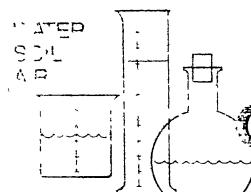
STEPHEN J. FRANCO  
Laboratory Director  
PHONE 203/634-3711  
140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date. :9-12-88  
Page 1

(Sample Matrix= Solid)

<u>EPA METHOD</u>	<u>601/8010</u>	<u>MDL</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Chloromethane	50	BDL	BDL	BDL	BDL	BDL
Bromomethane	50	BDL	BDL	BDL	BDL	BDL
Vinylchloride	50	BDL	BDL	BDL	BDL	BDL
Chloroethane	50	BDL	BDL	BDL	BDL	BDL
Methylenechloride	25	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	25	BDL	BDL	BDL	BDL	BDL
11-Dichloroethylene	25	BDL	BDL	BDL	BDL	BDL
11-Dichloroethane	25	BDL	BDL	BDL	BDL	BDL
T12-Dichloroethylene	25	BDL	BDL	BDL	BDL	BDL
Chloroform	25	BDL	BDL	BDL	BDL	BDL
12-Dichloroethane	25	BDL	BDL	BDL	BDL	BDL
111-Trichloroethane	25	BDL	BDL	BDL	BDL	BDL
Carbontetrachloride	25	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	25	BDL	BDL	BDL	BDL	BDL
12-Dichloropropane	25	BDL	BDL	BDL	BDL	BDL
T13-Dichloropropylene	25	BDL	BDL	BDL	BDL	BDL
Trichloroethylene	25	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane	25	BDL	BDL	BDL	BDL	BDL
112-Trichloroethane	25	BDL	BDL	BDL	BDL	BDL
Cis13-Dichloropropylene	25	BDL	BDL	BDL	BDL	BDL
2-Chlorethylvinylether	25	BDL	BDL	BDL	BDL	BDL
Bromoform	25	BDL	BDL	BDL	BDL	BDL
1122-Tetrachloroethane	25	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	25	64.0	BDL	BDL	BDL	BDL
Chlorobenzene	25	BDL	BDL	BDL	BDL	BDL
Benzyl Chloride	50	BDL	BDL	BDL	BDL	BDL
Bis(2-chlorethoxy)methane	50	BDL	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl)ether	50	BDL	BDL	BDL	BDL	BDL
Bromobenzene	25	BDL	BDL	BDL	BDL	BDL
Chloracetaldehyde	50	BDL	BDL	BDL	BDL	BDL
1-Chlorohexane	25	BDL	BDL	BDL	BDL	BDL
Chloromethyl methyl ether	50	BDL	BDL	BDL	BDL	BDL
Chlorotoluene	25	BDL	BDL	BDL	BDL	BDL
Dibromomethane	25	BDL	BDL	BDL	BDL	BDL
12-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
13-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
14-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
Trichloropropane	25	BDL	BDL	BDL	BDL	BDL

**MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB**



**connecticut  
testing  
laboratories inc.**

STEPHEN J. SPAZIO,  
Laboratory Director

PHONE 203/634-1771

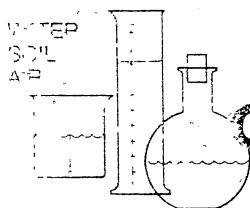
140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO-No. :VFL-C2260  
Date :9-12-88  
Page 2

(Sample Matrix= Solid)

EPA METHOD	601/8010	MDL	5	6	7	8
Chloromethane		50	BDL	BDL	BDL	BDL
Bromomethane		50	BDL	BDL	BDL	BDL
Vinylchloride		50	BDL	BDL	BDL	BDL
Chloroethane		50	BDL	BDL	BDL	BDL
Methylenechloride		25	BDL	BDL	BDL	BDL
Trichlorofluoromethane		25	BDL	BDL	BDL	BDL
11-Dichloroethylene		25	BDL	BDL	BDL	BDL
11-Dichloroethane		25	BDL	BDL	BDL	BDL
T12-Dichloroethylene		25	BDL	BDL	BDL	BDL
Chloroform		25	BDL	BDL	BDL	BDL
12-Dichloroethane		25	BDL	BDL	BDL	BDL
111-Trichloroethane		25	BDL	BDL	BDL	BDL
Carbontetrachloride		25	BDL	BDL	BDL	BDL
Bromodichloromethane		25	BDL	BDL	BDL	BDL
12-Dichloropropane		25	BDL	BDL	BDL	BDL
T13-Dichloropropylene		25	BDL	BDL	BDL	BDL
Trichloroethylene		25	BDL	BDL	BDL	BDL
Dibromochloromethane		25	BDL	BDL	BDL	BDL
112-Trichloroethane		25	BDL	BDL	BDL	BDL
Cis13-Dichloropropylene		25	BDL	BDL	BDL	BDL
2-Chlorethylvinylether		25	BDL	BDL	BDL	BDL
Bromoform		25	BDL	BDL	BDL	BDL
1122-Tetrachloroethane		25	BDL	BDL	BDL	BDL
Tetrachloroethylene		25	BDL	BDL	BDL	BDL
Chlorobenzene		25	BDL	BDL	BDL	BDL
Benzyl Chloride		50	BDL	BDL	BDL	BDL
Bis(2-chlorethoxy)methane		50	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl)ether		50	BDL	BDL	BDL	BDL
Bromobenzene		25	BDL	BDL	BDL	BDL
Chloracetaldehyde		50	BDL	BDL	BDL	BDL
1-Chlorohexane		25	BDL	BDL	BDL	BDL
Chloromethyl methyl ether		50	BDL	BDL	BDL	BDL
Chlorotoluene		25	BDL	BDL	BDL	BDL
Dibromomethane		25	BDL	BDL	BDL	BDL
12-Dichlorobenzene		25	BDL	BDL	BDL	BDL
13-Dichlorobenzene		25	BDL	BDL	BDL	BDL
14-Dichlorobenzene		25	BDL	BDL	BDL	BDL
Trichloropropane		25	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB



**connecticut  
testing  
laboratories inc.**

STEPHEN J. FRANCO  
Laboratory Dir.

PHONE 203/634-371

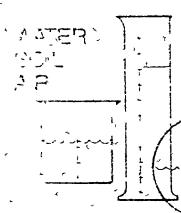
140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 23

(Sample Matrix= Solid)

<u>EPA METHOD</u>	<u>601/8010</u>	<u>MDL</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>
Chloromethane	50	BDL	BDL	BDL	BDL	BDL
Bromomethane	50	BDL	BDL	BDL	BDL	BDL
Vinylchloride	50	BDL	BDL	BDL	BDL	BDL
Chloroethane	50	BDL	BDL	BDL	BDL	BDL
Methylenechloride	25	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	25	BDL	BDL	BDL	BDL	BDL
11-Dichloroethylene	25	BDL	BDL	BDL	BDL	BDL
11-Dichloroethane	25	BDL	BDL	BDL	BDL	BDL
T12-Dichloroethylene	25	BDL	BDL	BDL	BDL	BDL
Chloroform	25	BDL	BDL	BDL	BDL	BDL
12-Dichloroethane	25	BDL	BDL	BDL	BDL	BDL
111-Trichloroethane	25	BDL	BDL	BDL	BDL	BDL
Carbontetrachloride	25	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	25	BDL	BDL	BDL	BDL	BDL
12-Dichloropropane	25	BDL	BDL	BDL	BDL	BDL
T13-Dichloropropylene	25	BDL	BDL	BDL	BDL	BDL
Trichloroethylene	25	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane	25	BDL	BDL	BDL	BDL	BDL
112-Trichloroethane	25	BDL	BDL	BDL	BDL	BDL
Cis13-Dichloropropylene	25	BDL	BDL	BDL	BDL	BDL
2-Chlorethylvinylether	25	BDL	BDL	BDL	BDL	BDL
Bromoform	25	BDL	BDL	BDL	BDL	BDL
1122-Tetrachloroethane	25	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	25	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	25	BDL	BDL	BDL	BDL	BDL
Benzyl Chloride	50	BDL	BDL	BDL	BDL	BDL
Bis(2-chlorethoxy)methane	50	BDL	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl)ether	50	BDL	BDL	BDL	BDL	BDL
Bromobenzene	25	BDL	BDL	BDL	BDL	BDL
Chloracetaldehyde	50	BDL	BDL	BDL	BDL	BDL
1-Chlorohexane	25	BDL	BDL	BDL	BDL	BDL
Chloromethyl methyl ether	50	BDL	BDL	BDL	BDL	BDL
Chlorotoluene	25	BDL	BDL	BDL	BDL	BDL
Dibromomethane	25	BDL	BDL	BDL	BDL	BDL
12-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
13-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
14-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
Trichloropropane	25	BDL	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB



**connecticut  
testing  
laboratories inc.**

140 GRACEY AVENUE MERIDEN, CT 06451

STEPHEN J. FRANZ  
Laboratory Director

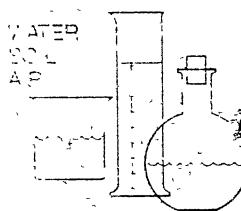
PHONE 203/634-4274

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 4

(Sample Matrix= Solid)

EPA METHOD	601/8010	MDL	13	14	15	16
Chloromethane	50	BDL	BDL	BDL	BDL	BDL
Bromomethane	50	BDL	BDL	BDL	BDL	BDL
Vinylchloride	50	BDL	BDL	BDL	BDL	BDL
Chloroethane	50	BDL	BDL	BDL	BDL	BDL
Methylenechloride	25	BDL	BDL	BDL	BDL	BDL
Trichlorofluoromethane	25	BDL	BDL	BDL	BDL	BDL
11-Dichloroethylene	25	BDL	BDL	BDL	BDL	BDL
11-Dichloroethane	25	BDL	BDL	BDL	BDL	BDL
T12-Dichloroethylene	25	BDL	BDL	BDL	BDL	BDL
Chloroform	25	BDL	BDL	BDL	BDL	BDL
12-Dichloroethane	25	BDL	BDL	BDL	BDL	BDL
111-Trichloroethane	25	BDL	BDL	BDL	BDL	BDL
Carbontetrachloride	25	BDL	BDL	BDL	BDL	BDL
Bromodichloromethane	25	BDL	BDL	BDL	BDL	BDL
12-Dichloropropane	25	BDL	BDL	BDL	BDL	BDL
T13-Dichloropropylene	25	BDL	BDL	BDL	BDL	BDL
Trichloroethylene	25	BDL	BDL	BDL	BDL	BDL
Dibromochloromethane	25	BDL	BDL	BDL	BDL	BDL
112-Trichloroethane	25	BDL	BDL	BDL	BDL	BDL
Cis13-Dichloropropylene	25	BDL	BDL	BDL	BDL	BDL
2-Chlorethylvinylether	25	BDL	BDL	BDL	BDL	BDL
Bromoform	25	BDL	BDL	BDL	BDL	BDL
1122-Tetrachloroethane	25	BDL	BDL	BDL	BDL	BDL
Tetrachloroethylene	25	BDL	BDL	BDL	BDL	BDL
Chlorobenzene	25	BDL	BDL	BDL	BDL	BDL
Benzyl Chloride	50	BDL	BDL	BDL	BDL	BDL
Bis(2-chlorethoxy)methane	50	BDL	BDL	BDL	BDL	BDL
Bis(2-chloroisopropyl)ether	50	BDL	BDL	BDL	BDL	BDL
Bromobenzene	25	BDL	BDL	BDL	BDL	BDL
Chloracetaldehyde	50	BDL	BDL	BDL	BDL	BDL
1-Chlorohexane	25	BDL	BDL	BDL	BDL	BDL
Chloromethyl methyl ether	50	BDL	BDL	BDL	BDL	BDL
Chlorotoluene	25	BDL	BDL	BDL	BDL	BDL
Dibromomethane	25	BDL	BDL	BDL	BDL	BDL
12-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
13-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
14-Dichlorobenzene	25	BDL	BDL	BDL	BDL	BDL
Trichloropropane	25	BDL	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB



connecticut  
testing  
laboratories inc.

STEPHEN J. FRANCIS  
Laboratory Director

PHONE 203/634-3774

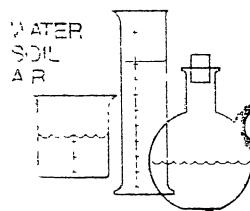
140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 5

(Sample Matrix= Solid)

<u>EPA METHOD</u>	<u>601/8010</u>	<u>MDL</u>	<u>17</u>					
Chloromethane		50		BDL				
Bromomethane		50		BDL				
Vinylchloride		50		BDL				
Chloroethane		50		BDL				
Methylenechloride		25		BDL				
Trichlorofluoromethane		25		BDL				
11-Dichloroethylene		25		BDL				
11-Dichloroethane		25		BDL				
T12-Dichloroethylene		25		BDL				
Chloroform		25		BDL				
12-Dichloroethane		25		BDL				
111-Trichloroethane		25		BDL				
Carbontetrachloride		25		BDL				
Bromodichloromethane		25		BDL				
12-Dichloropropane		25		BDL				
T13-Dichloropropylene		25		BDL				
Trichloroethylene		25		BDL				
Dibromochloromethane		25		BDL				
112-Trichloroethane		25		BDL				
Cis13-Dichloropropylene		25		BDL				
2-Chlorethylvinylether		25		BDL				
Bromoform		25		BDL				
1122-Tetrachloroethane		25		BDL				
Tetrachloroethylene		25		59.0				
Chlorobenzene		25		BDL				
Benzyl Chloride		50		BDL				
Bis(2-chlorethoxy)methane		50		BDL				
Bis(2-chloroisopropyl)ether		50		BDL				
Bromobenzene		25		BDL				
Chloracetaldehyde		50		BDL				
1-Chlorohexane		25		BDL				
Chloromethyl methyl ether		50		BDL				
Chlorotoluene		25		BDL				
Dibromomethane		25		BDL				
12-Dichlorobenzene		25		BDL				
13-Dichlorobenzene		25		BDL				
14-Dichlorobenzene		25		BDL				
Trichloropropane		25		BDL				

**MDL= Minimum Detectable Level/BDL= Below Detection Level/UNITS= PPB**



**connecticut  
testing  
laboratories inc.**

STEPHEN J. FRANCO  
Laboratory Dir.

PHONE 203/634-17

140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 6

(Sample Matrix= Solid)

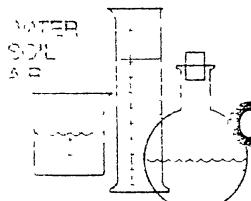
**EPA METHOD 602/8020**

	MDL	1	2	3	4
Benzene	50	BDL	BDL	BDL	BDL
Toluene	50	BDL	BDL	BDL	BDL
Ethyl Benzene	50	BDL	BDL	BDL	BDL
P & M Xylene	50	BDL	BDL	BDL	BDL
O- Xylene	50	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	50	BDL	BDL	BDL	BDL
Methyl Ethyl Ketone	100	BDL	BDL	BDL	BDL
Methyl Iso Butyl Ketone	100	BDL	BDL	BDL	BDL

**MDL** = Minimum Detectable Level

**BDL** = Below Detection Level

ALL **UNITS** IN PPB UNLESS NOTED.



**connecticut  
testing  
laboratories inc.**

140 GRACEY AVENUE MERIDEN, CT 06450

STEPHEN J. FRANZI  
Laboratory Director

PHONE 203/634-57

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 7

(Sample Matrix= Solid)

**EPA METHOD 602/8020**

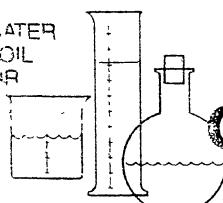
	MDL	5	6	7	8
Benzene	50	BDL	BDL	BDL	BDL
Toluene	50	BDL	BDL	BDL	BDL
Ethyl Benzene	50	BDL	BDL	BDL	BDL
P & M Xylene	50	BDL	BDL	BDL	BDL
O- Xylene	50	BDL	BDL	BDL	BDL
1, 4-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1, 3-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1, 2-Dichlorobenzene	50	BDL	BDL	BDL	BDL
Methyl Ethyl Ketone	100	BDL	BDL	BDL	BDL
Methyl Iso Butyl Ketone	100	BDL	BDL	BDL	BDL

**MDL** = Minimum Detectable Level

**BDL** = Below Detection Level

ALL UNITS IN PPB UNLESS NOTED.

WATER  
SOIL  
AIR



**connecticut  
testing  
laboratories inc.**

STEPHEN J. FRANCO  
Laboratory Director

PHONE 203/634-373

140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 8

(Sample Matrix= Solid)

**EPA METHOD 602/8020**

	MDL	9	10	11	12
Benzene	50	BDL	BDL	BDL	BDL
Toluene	50	BDL	BDL	BDL	BDL
Ethyl Benzene	50	BDL	BDL	BDL	BDL
P & M Xylene	50	BDL	BDL	BDL	BDL
O- Xylene	50	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	50	BDL	BDL	BDL	BDL
Methyl Ethyl Ketone	100	BDL	BDL	BDL	BDL
Methyl Iso Butyl Ketone	100	BDL	BDL	BDL	BDL

**MDL** = Minimum Detectable Level

**BDL** = Below Detection Level

ALL UNITS IN PPB UNLESS NOTED.

WATER  
SOIL  
AIR



STEPHEN J. FRANCO  
Laboratory Director

PHONE 203/624-0771

140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 9

(Sample Matrix= Solid)

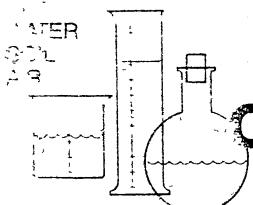
**EPA METHOD 602/8020**

	MDL	13	14	15	16
Benzene	50	BDL	BDL	BDL	BDL
Toluene	50	BDL	BDL	BDL	BDL
Ethyl Benzene	50	BDL	BDL	BDL	BDL
P & M Xylene	50	BDL	BDL	BDL	BDL
O- Xylene	50	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	50	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	50	BDL	BDL	BDL	BDL
Methyl Ethyl Ketone	100	BDL	BDL	BDL	BDL
Methyl Iso Butyl Ketone	100	BDL	BDL	BDL	BDL

**MDL** = Minimum Detectable Level

**BDL** = Below Detection Level

ALL UNITS IN PPB UNLESS NOTED.



**connecticut  
testing  
laboratories inc.**

140 GRACEY AVENUE MERIDEN, CT 06450

STEPHEN J. FRASER,  
Laboratory Director

PHONE 203/634-1721

Client :VFL  
Lab No.:88-279-17  
PO No. :VFL-C2260  
Date :9-12-88  
Page 10

(Sample Matrix= Solid)

**EPA METHOD 602/8020**

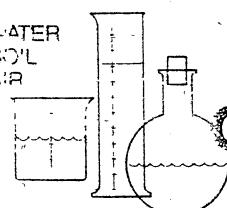
	MDL	17		
Benzene	50	BDL		
Toluene	50	BDL		
Ethyl Benzene	50	BDL		
P & M Xylene	50	BDL		
O- Xylene	50	BDL		
1,4-Dichlorobenzene	50	BDL		
1,3-Dichlorobenzene	50	BDL		
1,2-Dichlorobenzene	50	BDL		
Methyl Ethyl Ketone	100	BDL		
Methyl Iso Butyl Ketone	100	BDL		

**MDL** = Minimum Detectable Level

**BDL** = Below Detection Level

**ALL UNITS IN PPB UNLESS NOTED.**

WATER  
SOIL  
AIR



**connecticut  
testing  
laboratories inc.**

STEPHEN J. FRANCO  
Laboratory Director

PHONE 203/634-3730

140 GRACEY AVENUE MERIDEN, CT 06450

September 9, 1988

VFL  
550 Main Street  
Stratford, Ct. 06497

RE Lab. #88-274-17  
PO/Job #VFL-C2260  
Invoice #4763

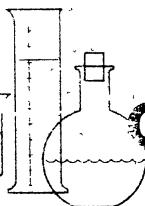
Gentlemen:

The following is a report of analysis on samples received:  
August 25, 1988.

**RESULTS OF ANALYSIS**

	1	2	3	4
Arsenic-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium-mg/l	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cadmium-mg/l	ND<0.01	ND<0.01	ND<0.01	0.03
Chromium, Total-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Lead-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Mercury-mg/l	ND<0.02	ND<0.02	ND<0.02	ND<0.02
Selenium-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Silver-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Chromium, Hex.-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Nickel-mg/l	0.19	0.06	ND<0.05	0.06
Cyanide, Total-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
	5	6	7	8
Arsenic-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium-mg/l	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cadmium-mg/l	0.02	0.01	0.01	0.02
Chromium, total-mg/l	ND<0.05	ND<0.05	0.11	0.06
Lead-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Mercury-mg/l	ND<0.02	ND<0.02	ND<0.02	ND<0.02
Selenium-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Silver-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Chromium, Hex.-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Nickel-mg/l	0.30	0.13	0.17	0.15
Cyanide, Total-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05

WATER  
SOIL  
AIR



**connecticut  
testing  
laboratories inc.**

STEPHEN J. FRANCO  
Laboratory Director

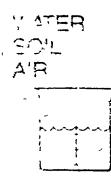
PHONE 203/632-4721

140 GRACEY AVENUE MERIDEN, CT 06450

Client :VFL  
 Lab No.:88-274-17  
 PO No. :VFL-C2260  
 Date :Sept. 9, 1988  
 Page 2

**RESULTS OF ANALYSIS**

	9	10	11	12
Arsenic-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium-mg/l	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cadmium-mg/l	0.01	0.02	ND<0.01	ND<0.01
Chromium, total-mg/l	0.06	0.12	0.51	0.16
Lead-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Mercury-mg/l	ND<0.02	ND<0.02	ND<0.02	ND<0.02
Selenium-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Silver-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Chromium, Hex.-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Nickel-mg/l	0.03	0.21	ND<0.05	ND<0.05
Cyanide, Total-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
	13	14	15	16
Arsenic-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium-mg/l	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cadmium-mg/l	0.06	0.05	0.07	0.02
Chromium, Total-mg/l	0.09	0.10	0.05	0.05
Lead-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Mercury-mg/l	ND<0.02	ND<0.02	ND<0.02	ND<0.02
Selenium-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Silver-mg/l	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Chromium, Hex.-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Nickel-mg/l	0.20	0.13	0.18	0.27
Cyanide, Total-mg/l	ND<0.05	ND<0.05	ND<0.05	ND<0.05



**connecticut  
testing  
laboratories inc.**

140 GRACEY AVENUE MERIDEN, CT 06450

STEPHEN J. FRANCIS  
Laboratory Director

PHONE 203/634-5721

Client :VFL  
Lab No.:88-274-17  
PO No. :VFL-C2260  
Date :Sept. 9, 1988  
Page 3

**RESULTS OF ANALYSIS**

17

Arsenic-mg/l	ND<0.05				
Barium-mg/l	ND<0.5				
Cadmium-mg/l	ND<0.01				
Chromium, Total-mg/l	0.07				
Lead-mg/l	ND<0.05				
Mercury-mg/l	ND<0.02				
Selenium-mg/l	ND<0.01				
Silver-mg/l	ND<0.01				
Chromium, Hex-mg/l	ND<0.05				
Nickel-mg/l	0.02				
Cyanide, Total-mg/l	ND<0.05				

Please contact us if you have any questions.

Very truly yours,

  
Stephen J. Franco

Laboratory Director

WATER  
SOIL  
AIR



**connecticut  
testing  
laboratories inc.**

STEPHEN J. FRANCO  
Laboratory Director

PHONE 203/634-1171

140 GRACEY AVENUE MERIDEN, CT 06450

TO: your viewing  
VTL Plant Engineering



VFL TECHNOLOGY CORPORATION  
42 LLOYD AVENUE • MALVERN, PENNSYLVANIA 19355  
(215) 296-2233

SUBJECT: VFL Project No. C2260  
Lagoon Closure Drawings.

DATE 10/05/08

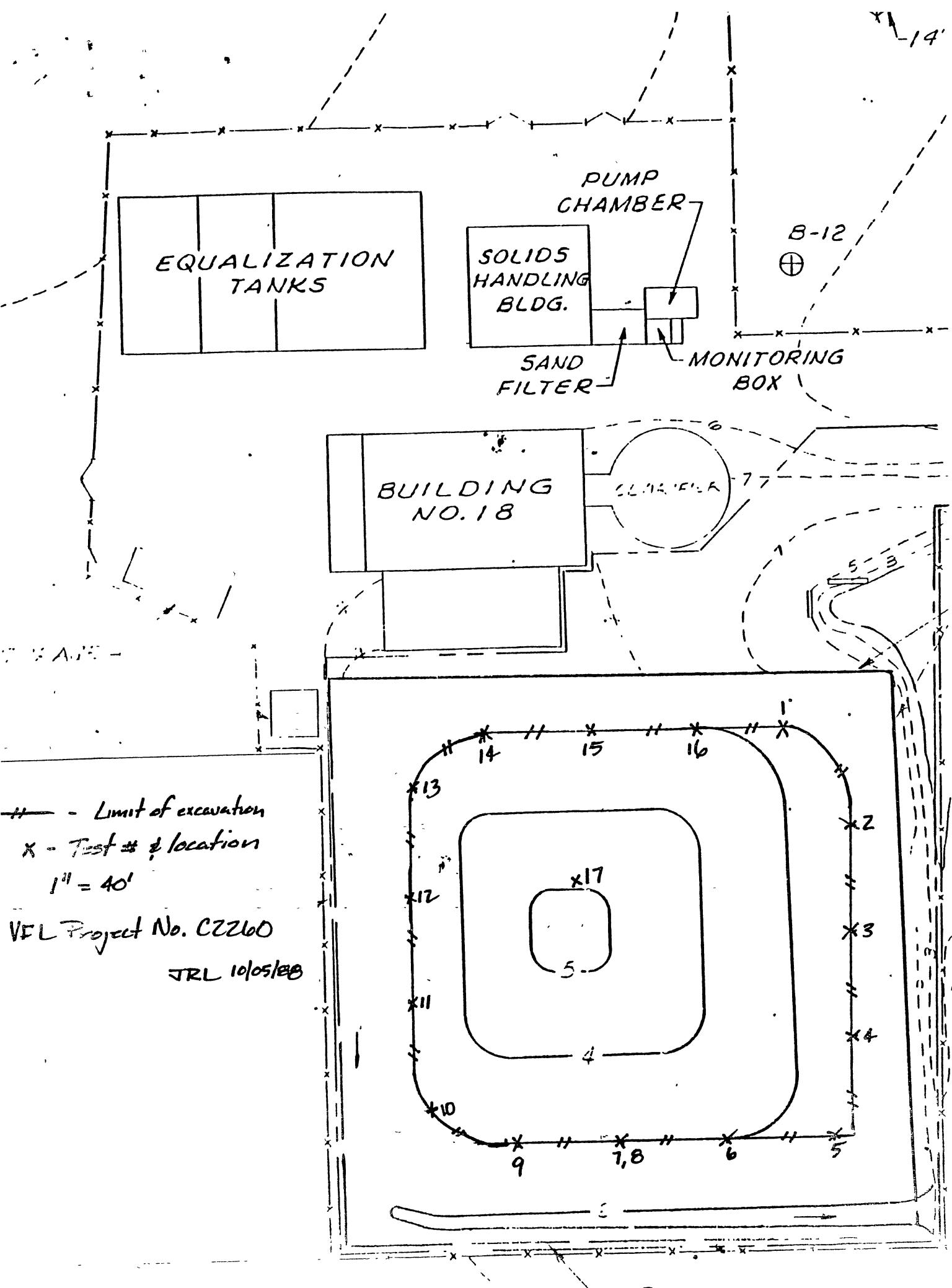
Per your request, attached are two figures showing sample locations in the equalization lagoon area and a typical x-section of the area sampled. If you have any questions or comments please contact me.

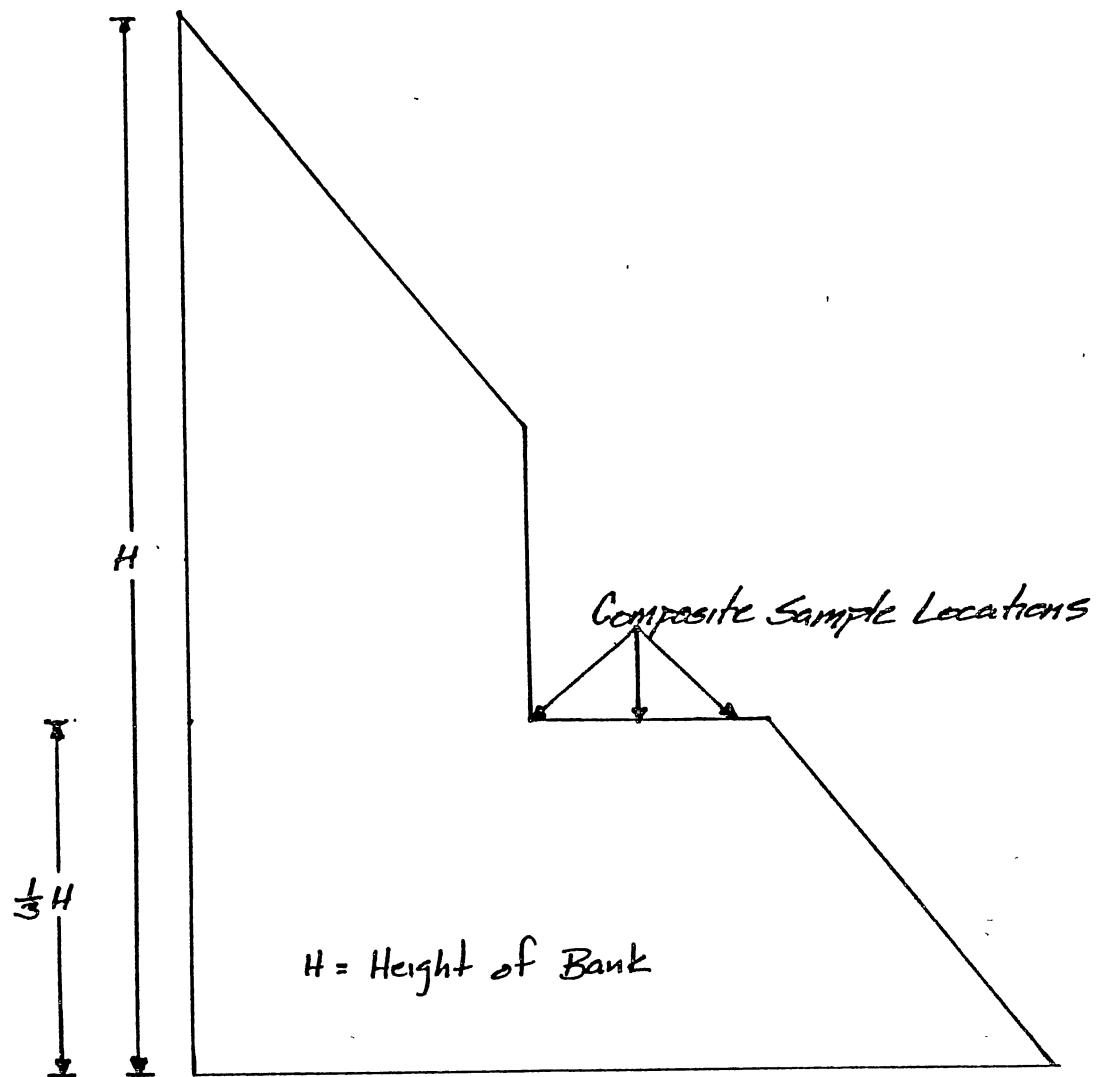
J.P. Landis

CC: J.P. Hopkins/VPL

REPLY TO → DATE BY

→ BY





Typical X-section of sample areas



NORTH AMERICA, INC.

A SUBSIDIARY OF  
SLT ENVIRONMENTAL, INC.PHYSICAL PROPERTIES OF SLT HDPE SHEET

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>VALUE</u>	<u>UNIT</u>
Density <sup>1</sup> (Natural)	ASTM-D-792	0.935±0.003	gm/cm <sup>3</sup>
Melt Index <sup>1</sup>	ASTM-D-1238 "E"	0.2 to 0.6	gm/10 min
Moisture Content <sup>1</sup>	Moisture Balance	≤0.1	%
Oxidative Induction Time <sup>1,2</sup>	ASTM D-3895 @200°C	100	Minutes
Thickness <sup>2</sup>	ASTM-D-1593	±10	%
Environmental Stress Crack Resistance <sup>2</sup>	ASTM-D-1693 "C" ASTM-D-1693 "B"	>5000 >2000	Hours Hours
Dimensional Stability <sup>2</sup>	ASTM-D-1204 120°C @ 1 Hr.	±2.0	%
Tensile Properties <sup>2</sup>			
(1) Yield Strength	ASTM-D-638	2700	lb/in <sup>2</sup>
(2) Break Strength	ASTM-D-638 Type IV	4000	lb/in <sup>2</sup>
(3) Yield Elongation	ASTM-D-638 Type IV	15	%
(4) Break Elongation	ASTM-D-638 Type IV	700	%

1 - Resin Property Requiring Routine Testing

2 - Liner Property Requiring Routine Testing

All Testing Frequencies per SLT Quality Assurance Manual



NORTH AMERICA, INC.

A SUBSIDIARY OF  
SLT ENVIRONMENTAL, INC.PHYSICAL PROPERTIES OF SLT HDPE SHEET

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>VALUE</u>	<u>UNIT</u>
Flexural Modulus	ASTM-D-790	100,000	lb/in <sup>2</sup>
Tensile Modulus <sup>2</sup>	ASTM-D-638	80,000	lb/in <sup>2</sup>
Resistance to Soil Burial	ASTM-D-3083 ASTM-D-638 Type IV		
(1) Tensile Strength at Break		±10	% change
(2) Elongation at Break		±10	% change
Volatile Loss	ASTM-D-1203 "A"	<0.1	%
Water Absorption	ASTM-D-570	0.0079	%
Water Vapor Transmission	ASTM-E-96 "B"	0.0009	gm/m <sup>2</sup> 24 Hrs.
Puncture Resistance <sup>2</sup>	FTMS-101-C Method 2065	108 (for 1.5mm) 128 (for 2.0mm) 140 (for 2.5mm)	lbs
Tear Resistance <sup>2</sup>	ASTM-D-1004	60 (for 1.5mm) 80 (for 2.0mm) 100 (for 2.5mm)	lb <sub>f</sub>

1 - Resin Property Requiring Routine Testing

2 - Liner Property Requiring Routine Testing

All Testing Frequencies per SLT Quality Assurance Manual



NORTH AMERICA, INC.

A SUBSIDIARY OF  
SLT ENVIRONMENTAL, INC.PHYSICAL PROPERTIES OF SLT HDPE SHEET

<u>PROPERTY</u>	<u>TEST METHOD</u>	<u>VALUE</u>	<u>UNIT</u>
Abrasion Resistance (Tabor Wear Index)	ASTM-D-3389	0.406 (for 1.5mm) 0.377 (for 2.0mm) 0.272 (for 2.5mm)	gms
Tensile Impact <sup>2</sup>	ASTM-D-1822	500	mJ/mm <sup>2</sup>
Low Temp Brittleness	ASTM-D-746-"B"	-105	°F
Surface Hardness	ASTM-D-2240	65	Shore D
Coefficient of Linear Thermal Expansion	ASTM-D-696	1.2 x 10 <sup>-4</sup>	°C <sup>-1</sup>
Carbon Black Content <sup>2</sup>	ASTM-D-1603	2.0-3.0	%
Carbon Black Dispersion <sup>2</sup>	ASTM-D-3015	A	Rating
Fungus Resistance	ASTM-G-21-80	0	Growth
Bacterial Resistance	ASTM-G-22-76	0	Growth
Ozone Resistance	ASTM-D-1149 (7 days, 100pphm, 104°F)	No Cracks	7x
Field Seams:	ASTM-D-4437		
Peel Strength	ASTM-D-4437	>1800	lbs/in <sup>2</sup>
Tensile Strength	ASTM-D-4437	>2400	lbs/in <sup>2</sup>

1 - Resin Property Requiring Routine Testing  
 2 - Liner Property Requiring Routine Testing

All Testing Frequencies per SLT Quality Assurance Manual