MALCOLM PIRNIE

REMEDIAL REPORT FOR THE TRUSCON PROPERTY

THE CITY OF BUFFALO

DECEMBER 1996

MALCOLM PIRNIE, INC.

40 Centre Drive
P. O. Box 1938
Buffalo, New York 14219

0848-261-100/RR

T. DIEFFENBACH

MALCOLM PIRNIE

RECEIVED
FEB 11 1997
NYSDEC-REG. 9
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X REL UNREL

LETTER OF TRANSMITTAL

To: NYSDEC - BUFFALO

Attention: PETER BUECHI

Date: 2/10/97

Re: TRUSCON SITE
SOILS REMEDIATION

We are sending you ☑ Enclosed ☐ Under separate cover via ☐ Mail ☐ Messenger, the following items:

☐ shop drawings ☐ prints ☐ data sheets ☐ _____

☐ specifications ☐ sketches ☐ brochures ☐ _____

Our action relative to items submitted for approval has been noted on the drawings.

COPIES	PREPARED BY	REFERENCE NO.	DESCRIPTION
2	MPI		REMEDIAL REPORT FOR THE
			TRUSCON PROPERTY

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☐ For your use ☐ Approved as Corrected ☐ Submit _____ copies for distribution
☐ For review & comment ☐ Revise and Resubmit ☐ Return _____ corrected Prints
☑ For your information ☐ Not Approved ☐ _____

Remarks: COPIES OF THE REPORT HAVE ALSO BEEN SENT TO LTV STEEL & THE CITY OF BUFFALO. CALL EITHER ME OR KENT MCMANUS IF YOU HAVE ANY QUESTIONS.

Copies to: _____

Very truly yours,

MALCOLM PIRNIE, INC.

Terry Reid

40 Centre Drive Orchard Park, New York 14127 Telephone: (716) 667-0900 Fax: (716) 667-0279

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THE CITY OF BUFFALO

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REMEDIAL REPORT FOR THE TRUSCON PROPERTY

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1.0 INTRODUCTION

1.1 Background

The City of Buffalo purchased an approximately 50-acre parcel of property, located at 1176-1184 South Park Avenue, from LTV Steel Company approximately five years ago. Prior to the purchase, the City contracted for a Phase 1 Assessment of the site which uncovered NYSDEC-documented evidence of an approximately 20 year old spill of No. 6 fuel oil on the site. Subsequently the City, as part of the City's Brownfields redevelopment efforts, worked closely with a Developer to put together a proposed $22 million development package for purchase and use of the site for hydroponics tomato manufacturing. During the development discussions, the spill history led to a site investigation by the City and discussions with the NYSDEC regarding site remedial requirements.

A proposed remedial plan was submitted to the NYSDEC by Foit-Albert on behalf of the City of Buffalo on June 19, 1996. That plan was revised by Foit-Albert on July 25, 1996.

At the request of the City of Buffalo and LTV, Malcolm Pirnie subsequently reviewed the July 25, 1996 Foit-Albert Remedial Plan in addition to the following four studies:

- Enasco, Inc. (November 1984) Limited Environmental Investigation.
- Enasco, Inc. (January 1995) Continuing Environmental Investigation Report.
- Foit-Albert Assoc. (February 1996) Groundwater Investigation.
- Foit-Albert Assoc. (May 1996) Subsurface Investigation.

Following discussions with the City, NYSDEC and LTV Steel it was concluded that the proposed remedial approach by Foit-Albert was too conservative and costly to implement.

A supplemental soil sampling program was completed in August 1996 to better define the vertical and horizontal limits of soil contamination and serve as the basis for development of a revised remedial plan. The sampling results and a revised remedial approach are discussed in the September 1996 Sampling Report and Remedial Plan prepared by Malcolm Pirnie.

LTV Steel and the City subsequently agreed to share the cost and responsibility for implementing the remedial plan. Copies of the Agreement between the City and LTV Steel are included in Appendix E of the September 1996 Sampling Report and Remedial Plan.

1.2 Previous Investigations

The previous studies performed by Enasco, Inc., Foit-Albert & Associates, and Malcolm Pirnie are described in the Sampling Report and Remedial Plan prepared by Malcolm Pirnie.

That report describes the methods used to investigate the site, summarizes the analytical data, compares the results to NYSDEC spill clean-up guidance values and delineates the anticipated extent of contamination in each area of the site.

3.0 REMEDIAL RESULTS

3.1 Remedial Plan

The remedial plan prepared by Malcolm Pirnie was submitted to the NYSDEC for review on September 24, 1996. Various discussions and items of clarification followed regarding the proposed remedial approach. Related correspondence is included in Appendix A.

Generally, remediation activities conducted to date include the excavation of contaminated soil, backfilling and compaction of the excavated areas, transportation of the contaminated soil to an off-site bioremediation storage area on nearby LTV Steel property, and conducting an investigation to determine whether three underground storage tanks remained on-site.

Malcolm Pirnie provided construction oversight of the remediation activities. The inspector's daily reports of the work are included in Appendix B and construction photographs are included in Appendix G. NYSDEC personnel were routinely informed of the test results and progress of the work during construction and provided periodic inspections of the work as it proceeded. Each element of the completed remediation efforts is summarized below.

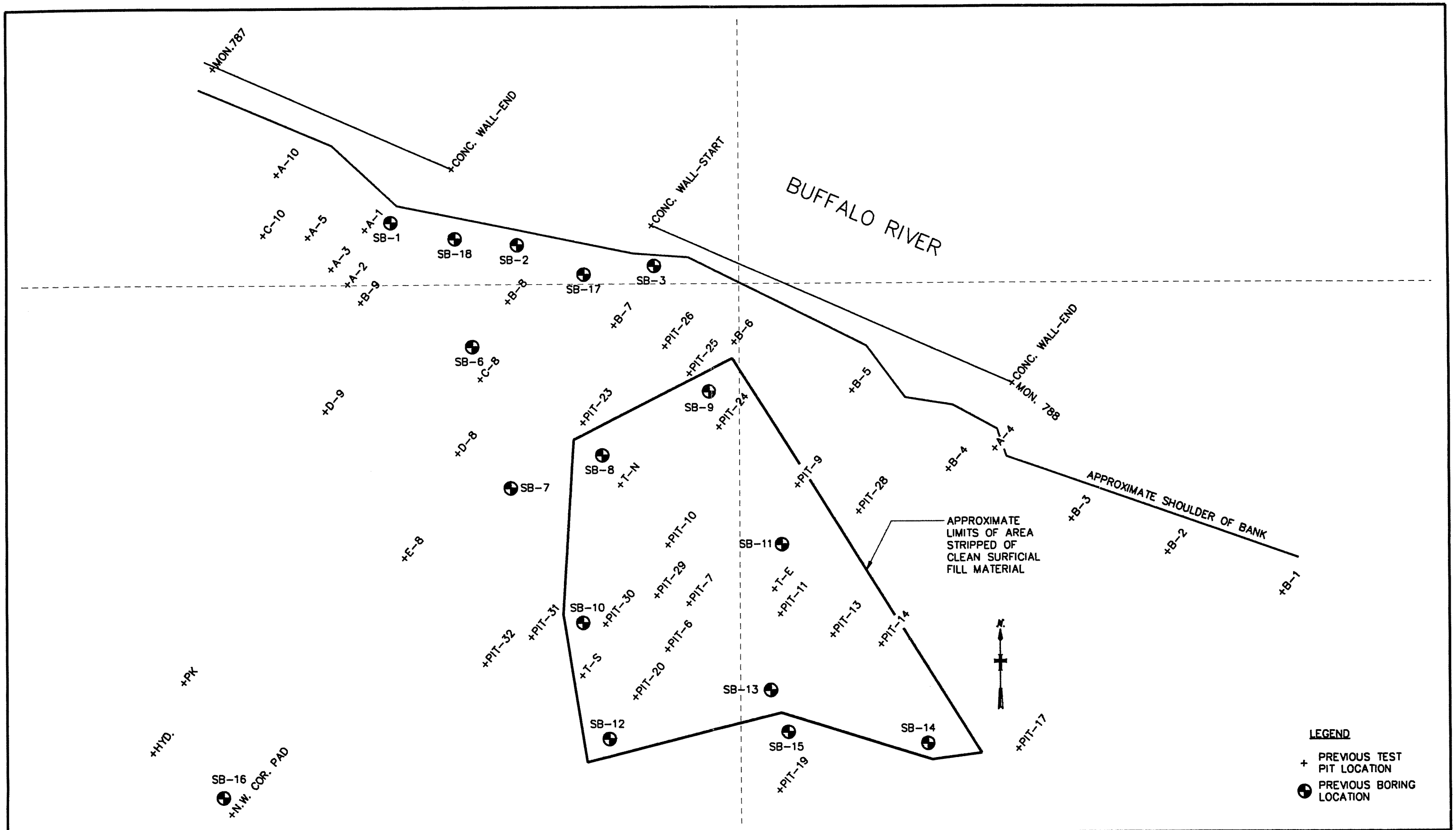
3.2 Soil Excavation

3.2.1 Area of Former 5.5 Million Gallon Tank

The upper portion of clean surficial fill material (1538 cubic yards), within the limits of soil excavation shown on Figure 1 was stripped off and stockpiled on-site (actual depth varied from 1.0 to 1.5-feet from existing ground surface).

Contaminated soil was then excavated vertically until residual oil was not observed or to a maximum depth of approximately 9 to 10 feet, which is equivalent to the elevation of the Buffalo River (573.0-573.5). Actual elevations in the bottom of the excavation varied from 573.0 to 576.2 depending on conditions encountered.

Soil was excavated laterally to the limits of the excavation illustrated on Figure 2. Field modifications to the originally proposed limits of excavation occurred based on



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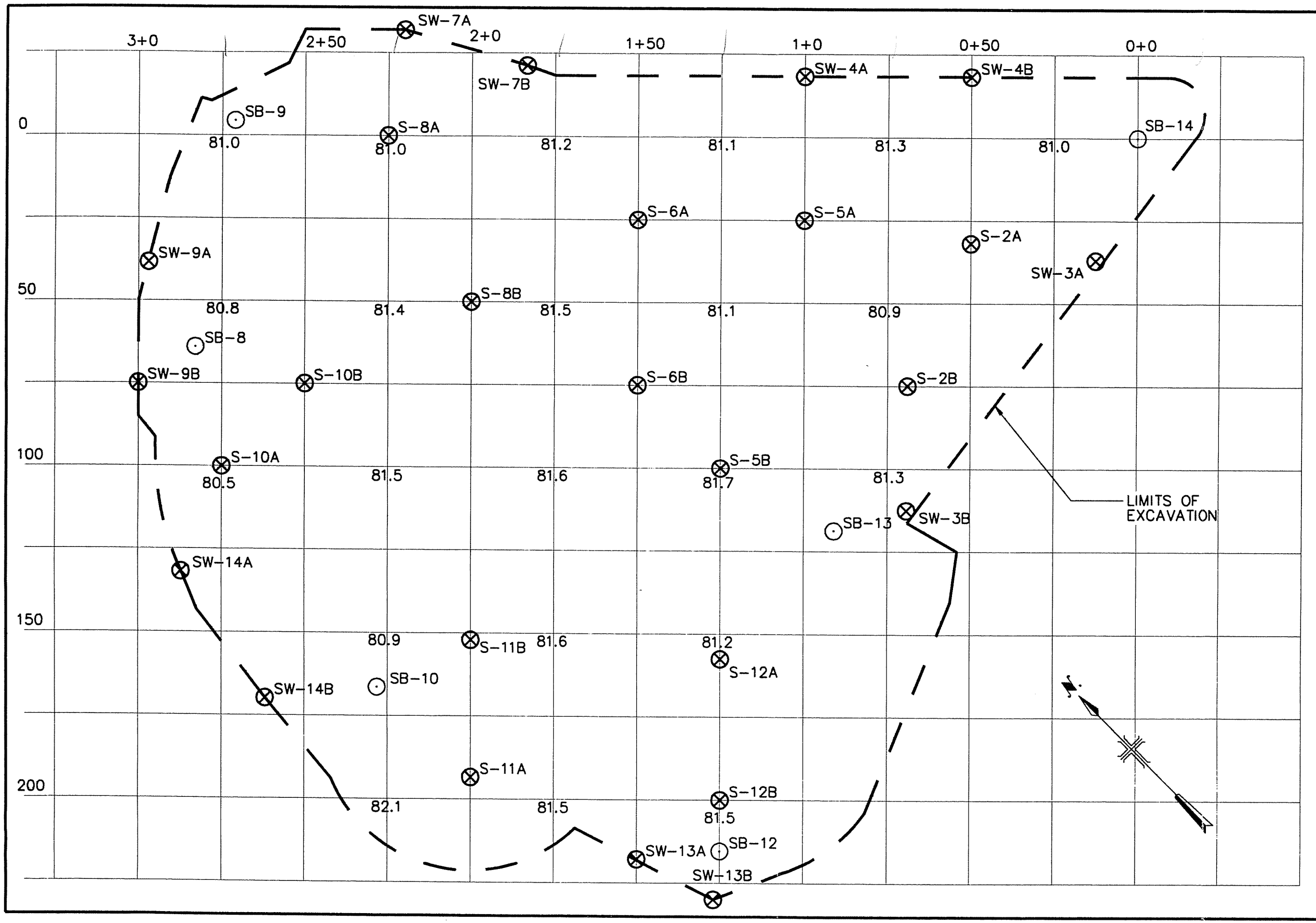
0848F04

LTV STEEL

AREA OF 5.5 MILLION GALLON TANK

BUFFALO, NY DECEMBER 1996



MALCOLM PIRNIE

0848F03

LTV STEEL
AREA OF 5.5 MILLION GALLON TANK
LIMITS OF EXCAVATION

BUFFALO, NY DECEMBER 1996

observed field conditions where residual oil (as defined in Section 2.3 of the Sampling Report and Remedial Plan) was observed along the perimeter of the excavation. The excavating was continued beyond the limits shown on Figure 1 until residual oil was not observed. Approximately 12,100 cubic yards of contaminated soil was excavated from the area of the former 5.5 million gallon tank.

Verification soil samples were collected at a minimum frequency of one sample per 100 linear feet of excavation as composite samples where nuisance characteristics were evident along the sidewall of the excavation. Verification samples were also collected in side wall areas without visual or olfactory indications at a minimum frequency of one sample per 200 linear feet. These samples were intended to document any residual petroleum contamination which might remain.

The bottom of the excavation was sampled at an interval of one composite sample per 5,000 square feet. All samples were collected no less than six inches below the exposed surface being sampled. Random samples were used for compositing. All sampling equipment was decontaminated between sample locations. Soil samples were placed in precleaned sample containers, placed on ice, and transported to a NYSDOH ELAP certified analytical laboratory (Waste Stream Technology, Inc.) for testing.

Sample locations are shown on Figure 2. Table 3-1 summarizes the laboratory analytical results and compares the results to the NYSDEC STARS memo guidance policy values for petroleum contaminated soils. Copies of the laboratory reports are included in Appendix C.

All side wall samples results were less than STARS guidance values. Of the ten base of excavation samples collected, eight had some exceedances of STARS values indicating that some petroleum contamination remained in-place below the level of the River. The remaining contamination not considered significant, however since the oil has been shown to be very hydrophobic and tends to adhere to the soil particles as long as the soil remains undisturbed

TABLE 3-1
LTV/TRUSCON REMEDIAL EXCAVATION

COMPARISON OF SOIL SAMPLING
TO STARS MEMO GUIDANCE VALUES

Sample Location[1] Sample Elevation (FMSL)	S-2 (574)	S-5A	S-5B (574)	S-6 (574)	S-8 A/B (575)	S-8A	Stars Memo Guidance Value[2]
Compound	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
VOLATILES:							
Methyl-t-butyl ether							1000.0
Benzene		20.0	10.1		104.0	107.0	14.0
Toluene							100.0
Ethylbenzene		80.0	38.7		94.5	96.0	100.0
m,p-Xylene		229.0	116.0		160.0	178.0	100.0
o-Xylene		164.0	79.6		71.5	73.7	100.0
Isopropyl benzene							100.0
n-Propylbenzene		16.0					100.0
1,3,5-Trimethylbenzene		63.0	21.2		22.1		100.0
tert-Butylbenzene							100.0
1,2,4-Trimethylbenzene		245.0	93.1		102.0	60.7	100.0
sec-Butylbenzene							100.0
p-Isopropyltoluene							100.0
n-Butylbenzene		97.0	20.2				100.0
Napthalene			188.0		209.0	53.6	200.0

Notes: (1) S-designates sample collected from base of excavation.
SW-designates sample collected from sidewall of excavation.
(2) TCLP Alternatives Guidance Value for petroleum contaminated soil.

Shaded concentration values indicate guidance value exceedence.
Blank indicates compound not detected above laboratory detection limit.

TABLE 3-1
LTV/TRUSCON REMEDIAL EXCAVATION

COMPARISON OF SOIL SAMPLING
TO STARS MEMO GUIDANCE VALUES

Sample Location[1] Sample Elevation (FMSL)	S-8B	S-10 A/B (573)	S-11 A/B (573)	S-12 A/B (573)	S-16 A/B (573)	Stars Memo Guidance Value[2]
Compound	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
VOLATILES:						
Methyl-t-butyl ether						1000.0
Benzene	273.0	198.0	34.7			14.0
Toluene	12.6		4.6			100.0
Ethylbenzene	289.0	406.0	40.9			100.0
m,p-Xylene	496.0	70.3	120.0			100.0
o-Xylene	199.0	38.3	66.1			100.0
Isopropyl benzene		27.1	2.3			100.0
n-Propylbenzene			11.4			100.0
1,3,5-Trimethylbenzene	99.1	53.6	39.3			100.0
tert-Butylbenzene						100.0
1,2,4-Trimethylbenzene	399.0	1260.0	158.0	145.0		100.0
sec-Butylbenzene						100.0
p-Isopropyltoluene						100.0
n-Butylbenzene		351.0	50.7	15.2		100.0
Napthalene	772.0	3270.0	707.0	147.0		200.0

Notes: (1) S-designates sample collected from base of excavation.
SW-designates sample collected from sidewall of excavation.
(2) TCLP Alternatives Guidance Value for petroleum contaminated soil.

Shaded concentration values indicate guidance value exceedence.
Blank indicates compound not detected above laboratory detection limit.

TABLE 3-1
LTV/TRUSCON REMEDIAL EXCAVATION

COMPARISON OF SOIL SAMPLING
TO STARS MEMO GUIDANCE VALUES

Sample Location[1] Sample Elevation (FMSL)	S-18 A/B (571)	S-20 A/B (570)	S-21 A/B (572)	SW-3	SW-4	Stars Memo Guidance Value[2]
Compound	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
VOLATILES:						
Methyl-t-butyl ether						1000.0
Benzene				1.4		14.0
Toluene						100.0
Ethylbenzene						100.0
m,p-Xylene						100.0
o-Xylene						100.0
Isopropyl benzene	739.0		2.0			100.0
n-Propylbenzene	4340.0	3.8	5.4			100.0
1,3,5-Trimethylbenzene			1.9			100.0
tert-Butylbenzene						100.0
1,2,4-Trimethylbenzene		6.3	23.0			100.0
sec-Butylbenzene	1610.0					100.0
p-Isopropyltoluene						100.0
n-Butylbenzene	5310.0	13.7				100.0
Napthalene			4.9			200.0

Notes: (1) S-designates sample collected from base of excavation.
SW-designates sample collected from sidewall of excavation.
(2) TCLP Alternatives Guidance Value for petroleum contaminated soil.

Shaded concentration values indicate guidance value exceedence.
Blank indicates compound not detected above laboratory detection limit.

TABLE 3-1
LTV/TRUSCON REMEDIAL EXCAVATION

COMPARISON OF SOIL SAMPLING
TO STARS MEMO GUIDANCE VALUES

Sample Location[1] Sample Elevation (FMSL)	SW-7 A/B	SW-9 A/B	SW-13 A/B	SW-14 A/B	SW-15 A/B	Stars Memo Guidance Value[2]
Compound	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
VOLATILES:						
Methyl-t-butyl ether						1000.0
Benzene						14.0
Toluene				2.4		100.0
Ethylbenzene						100.0
m,p-Xylene						100.0
o-Xylene				29.0		100.0
Isopropyl benzene						100.0
n-Propylbenzene				65.3		100.0
1,3,5-Trimethylbenzene						100.0
tert-Butylbenzene						100.0
1,2,4-Trimethylbenzene		2.1				100.0
sec-Butylbenzene						100.0
p-Isopropyltoluene						100.0
n-Butylbenzene						100.0
Napthalene		4.0	3.2	2.3		200.0

Notes: (1) S-designates sample collected from base of excavation.
SW-designates sample collected from sidewall of excavation.
(2) TCLP Alternatives Guidance Value for petroleum contaminated soil.

Shaded concentration values indicate guidance value exceedence.
Blank indicates compound not detected above laboratory detection limit.

TABLE 3-1
LTV/TRUSCON REMEDIAL EXCAVATION

COMPARISON OF SOIL SAMPLING
TO STARS MEMO GUIDANCE VALUES

Sample Location[1] Sample Elevation (FMSL)	SW-17 A/B	SW-19 A/B	SW-22 A/B	SW-23 A/B	SW-24 A/B	Stars Memo Guidance Value[2]
Compound	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**	**ug/kg**
VOLATILES:						
Methyl-t-butyl ether						1000.0
Benzene						14.0
Toluene						100.0
Ethylbenzene						100.0
m,p-Xylene						100.0
o-Xylene						100.0
Isopropyl benzene			3.7		10.2	100.0
n-Propylbenzene			12.7		23.3	100.0
1,3,5-Trimethylbenzene			6.9			100.0
tert-Butylbenzene						100.0
1,2,4-Trimethylbenzene			39.6			100.0
sec-Butylbenzene			5.2		7.5	100.0
p-Isopropyltoluene			4.2			100.0
n-Butylbenzene			42.1		16.8	100.0
Napthalene			40.0			200.0

Notes: (1) S-designates sample collected from base of excavation.
SW-designates sample collected from sidewall of excavation.
(2) TCLP Alternatives Guidance Value for petroleum contaminated soil.

Shaded concentration values indicate guidance value exceedence.
Blank indicates compound not detected above laboratory detection limit.

3.2.2 Perimeter of Tank Area and River Bank

Soil was excavated to the water table (the same elevation as the Buffalo River) in the vicinity of SB-1, SB-3, SB-5, SB-17, and SB-18 within the limits shown on Figure 3. Soil that did not have visual staining or detectable odors was stockpiled and used as backfill. The actual quantity of contaminated soil excavated from these five areas was 1660 cubic yards.

The proposed excavation areas were modified as follows:

- The lateral limits of excavation above the water table were modified using the same logic presented in Section 3.2.1 for the 5.5 million gallon tank area.

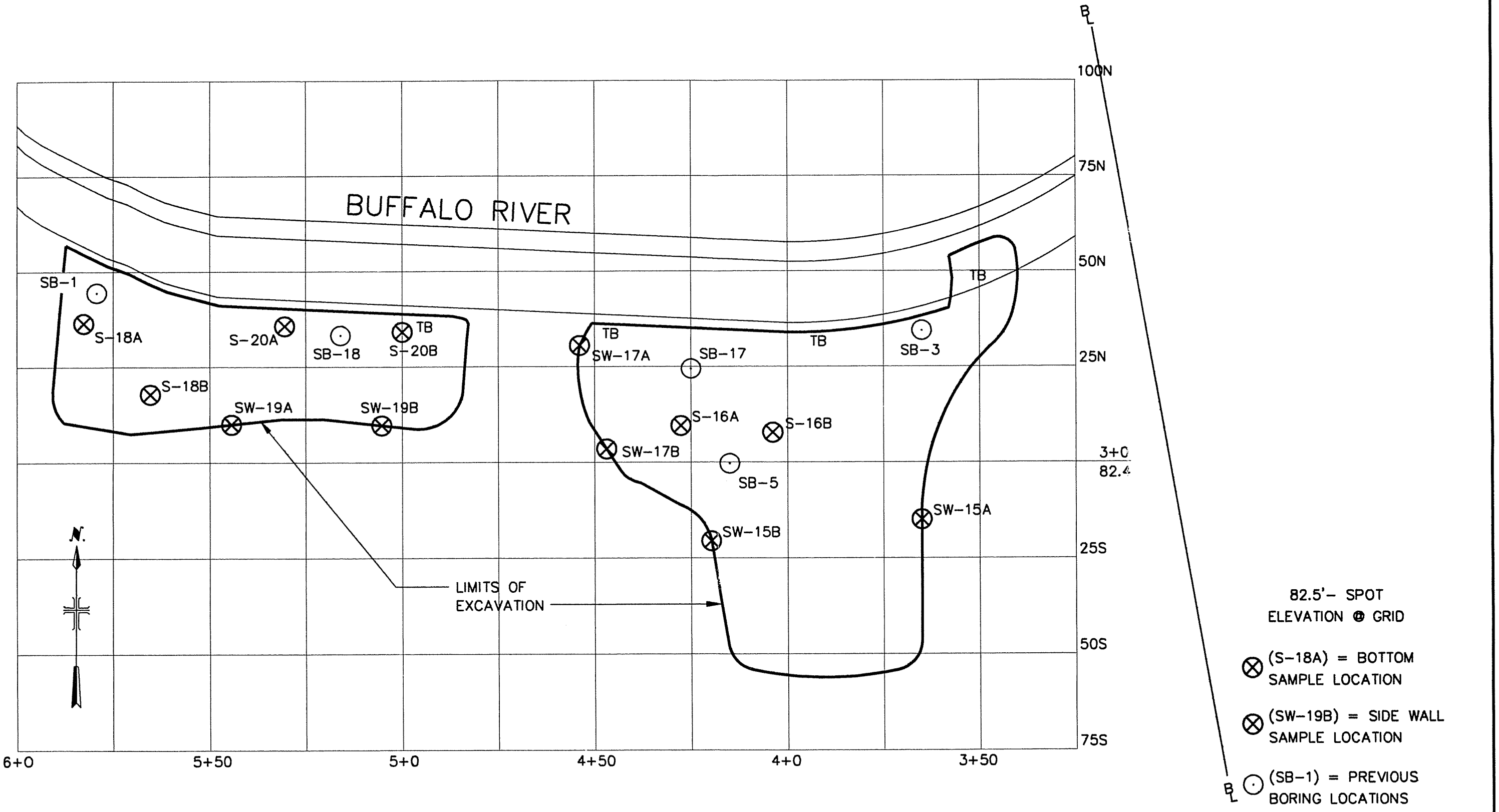
- The proposed excavation plan was to excavate approximately four to five feet below the water table at SB-1, approximately seven feet below the water table at SB-18 and nine feet below the water table at SB-17, and to continue excavating below the water table in a lateral direction until gross contamination was not observed, or the river was encountered. Water entering the excavation was to be removed by pumping and will be discharged to the Buffalo Sewer Authority collection system on South Park Avenue.

  As discussed with the on-site NYSDEC representative, the anticipated depths of excavation below the water table could not be achieved due to the proximity of the River and the porous nature of the bank materials. Water entered the excavations much faster than it could be pumped out. To avoid the possibility of the river bank collapsing into the hole and the potential for release of petroleum contaminated soil to the river, the excavation depth was terminated at 4.5-feet below the River elevation in SB-1, 1-foot below the water in SB-18, and 4-feet below the water in SB-17.

  Sample locations are shown on Figure 3 and analytical results are summarized in Table 3-1. All side wall results were less than STARS guidance values, as were two of the three base of excavation samples.

3.3.3 Tank Removals

A total of three underground storage tanks (USTs) were assumed to still exist at the site; two 4,000-gallon diesel fuel USTs in the center of the site and one 1,000-gallon fuel oil tank near the Truscon Building Office. The tanks, if present, were planned to be removed,



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0848F05

LTV STEEL
RIVER BANK AREA: EXCAVATION LIMITS
SAMPLE LOCATION MAP

BUFFALO, NY DECEMBER 1996

decommissioned and disposal of. Any contaminated soil in the vicinity of the tanks was to be excavated and remediated.

After excavating with a backhoe, no tanks could be found. In the area of the suspected 1,000-gallon tank, the tank tie-down straps and clean sand backfill were observed; however, no tank was discovered. No contaminated soil was observed.

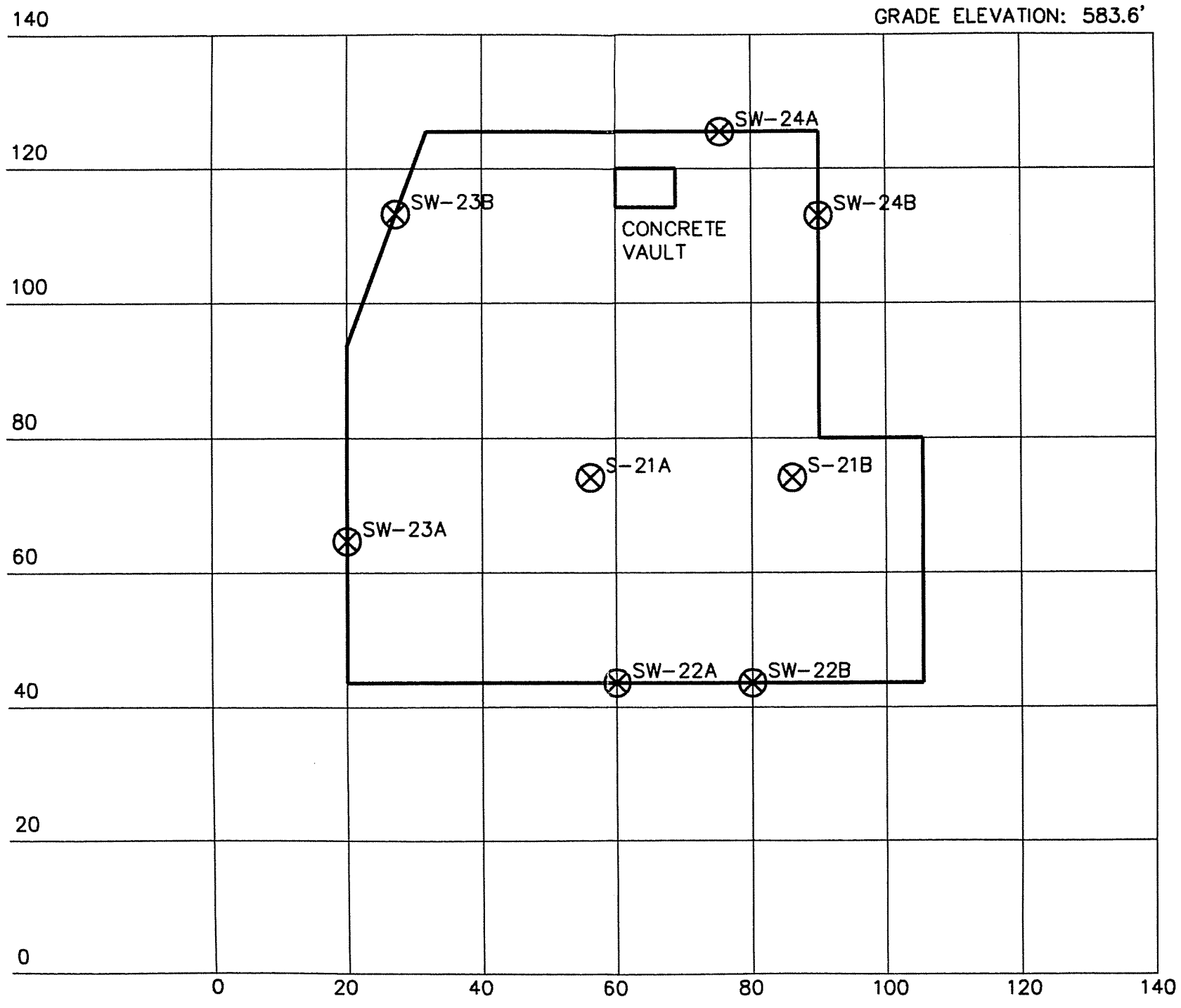
Although no tanks were discovered in the anticipated location of the 4,000-gallon tanks, contaminated soil was observed. Approximately 1,820 cubic yards of contaminated material were excavated at a depth of 3 to 5 feet and hauled off-site. The excavation area and location of the side wall and base of excavation samples that were collected are shown on Figure 4. Laboratory analytical results are summarized in Table 3-1. All test results were less than the STARS guidance values for petroleum contaminated soils

3.3.4 Oil Pipeline

During excavation activities in the area of the former 5.5 million gallon tank, an eight-inch diameter abandoned steel pipeline filled with oil was unexpectedly discovered. The oil was detected when the backhoe broke the line. The ends of the pipeline were crimped so that the oil could not leak out. The pipeline ran in an east-west direction in the vicinity of boring SB-12.

Elmwood Tank and Piping Corporation was employed to drain the line and clean out the pipe. The oil from inside the pipe was drained into a sump hole where it was then suctioned out and hauled off-site for disposal. Waste oil invoice forms are included in Appendix D. Eight hundred ninety gallons of oil were removed and disposed of at Bison Waste Oil Company, Inc. The inside of the line (225 linear feet) was cleaned with a pig to free the line of any remaining product. The pipeline was then excavated and set next to the trench.

After removing the pipe, visually contaminated soil or soils with a detectable petroleum odor from the trench and sump area were excavated. The soil was removed to an approximate depth of six feet. The trench width varied from 12 to 50 feet. A total of 1,340 cubic yards of contaminated soil were removed from the pipeline trench. Upon completion



(S-18A) = BOTTOM SAMPLE LOCATION

(SW-19B) = SIDE WALL SAMPLE LOCATION

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0848F02

LTV STEEL
4000 GALLON TANK AREA
LIMITS OF EXCAVATION

BUFFALO, NY DECEMBER 1996

of the excavation activities, the previously cleaned pipeline was placed back into the bottom of the trench and the entire area backfilled.

3.3 Backfilling

All excavated soil lacking a detectable petroleum odor or visual evidence of petroleum contamination, blocks of concrete, slag that is not tillable, excavated broken pipelines or other nonputrescible materials which could not be bioremediated were stockpiled on-site for use as backfill. Fill material from other portions of the Truscon site was also stripped and used for backfill in the excavated areas. Railroad ties which were uncovered were stockpiled on the west end of the property for disposal by the City. A total of 9,980 cubic yards of on-site backfill were utilized. In addition, 11,360 cubic yards of off-site fill material were utilized to backfill the excavation areas. No characterization of backfill material was performed.

All backfill was compacted with a dozer and a vibratory pad-foot roller. A uniform grade was achieved on the site upon completion of site activities.

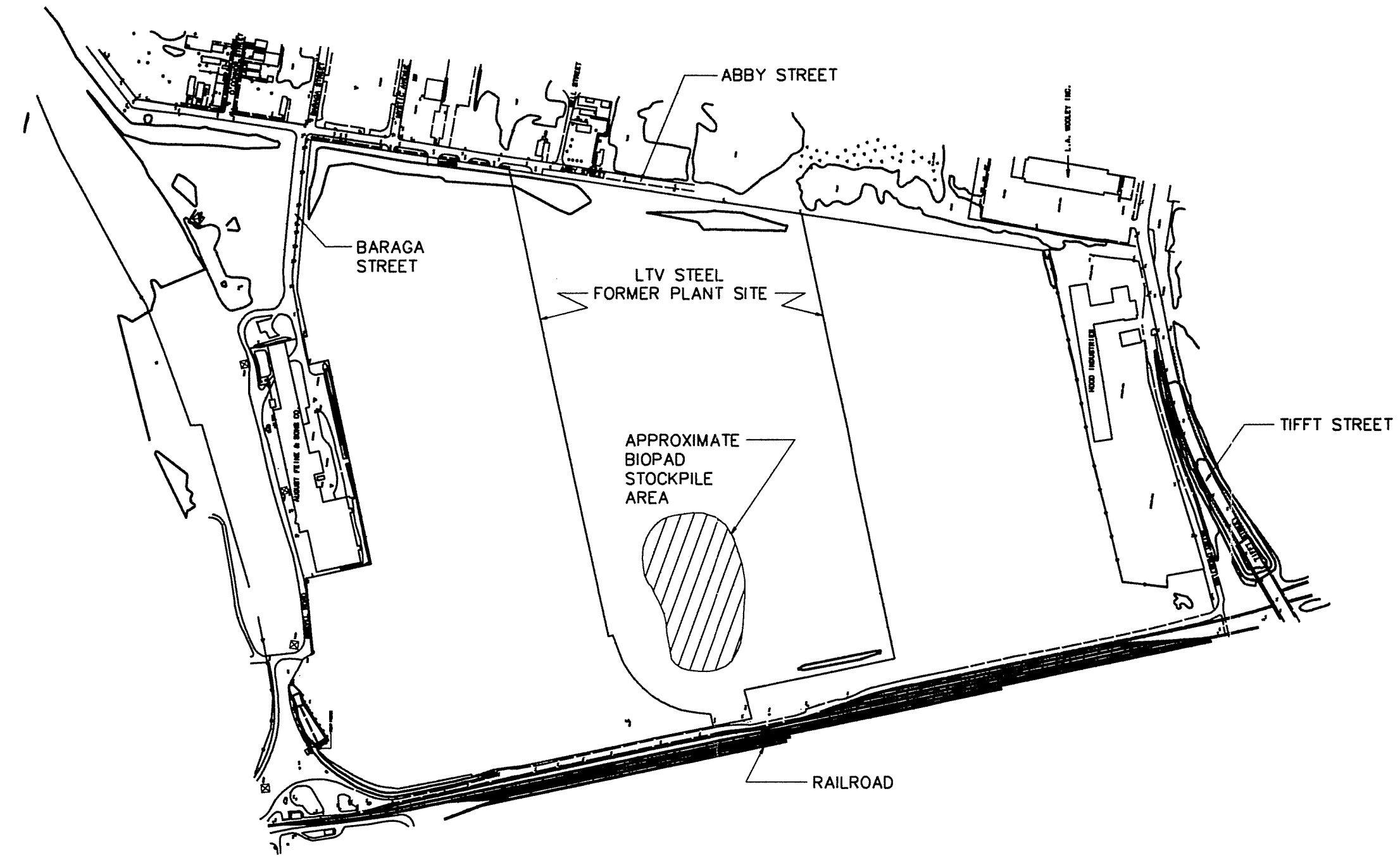
3.4 Bioremediation Location

As agreed with the City of Buffalo, LTV Steel will perform all work associated with the bioremediation operations on LTV Steel's Abbey Street property. Contaminated soil removed from the Truscon site (a total of 16,920 cubic yards) has been stockpiled on a low permeability soil lined pad and covered for the winter season.

An approximate 3-acre stockpile liner consisting of 6-inches of low permeability soil (average permeability of 2.97×10^{-8} cm/s) was constructed prior to stockpiling activities. The liner was placed on the highest elevation of the site and graded to promote proper drainage. Quality assurance test results for the liner are included in Appendix E. The approximate location of the stockpile is shown on Figure 5.

Due to the extremely wet nature of the excavated soils, a special wide track, low pressure dozer was required to grade the stockpile prior to covering. Landfill Service Corporation was then employed to apply a Posi-Shell intermediate cover over the material. Posi-Shell is a slurry mixture of water, mineral binder and Posi-Pak fibers which hardens to

FIGURE 5



MALCOLM PIRNIE

REVISIONS			
NO.	BY	DATE	REMARKS

DES TJR
DRN GJS
CHD

LTV STEEL COMPANY
BUFFALO, NEW YORK

ABBY STREET PLANT SITE

BIOPAD
STOCKPILE
AREA
SCALE: 1" = 200'

MALCOLM PIRNIE, INC.
DATE JUNE 1993
SHEET ___ OF ___
DWG. NO. ___

7516 : 2828003300\I:\CAD\PROJ\LTV_0848\LTV241\LTV11X14 SCALE: 1:200 12/10, 1995 at 10:18

a non-flammable, water resistant coating approximately 1/4"-1/2" thick (see Appendix F for information).

Representative soil samples of the stockpiled material have been collected for bench scale testing. A bench scale soil bioremediation study will be conducted by Malcolm Pirnie over the winter months to determine the appropriate mixture of soil amendments and water, and to determine whether an additional bio-cell or bio-cells are necessary as well as to establish procedures and time frames for bioremediation. A work plan for the soil bioremediation study is presented in Appendix C of the September 1996 Sampling Report and Remedial Plan.

Once the bench-scale study is complete, Malcolm Pirnie will prepare and submit a bioremediation plan to the NYSDEC for review which will detail:

- Results of the bench-scale study.
- Bioremediation goals.
- Major design elements (need for additional bio-cells).
- Storm water management plans.
- pH, moisture and nutrient additive requirements.
- Sampling and analysis plans.
- Reporting requirements.
- Schedule (startup Spring 1997).

3.5 Disposal of Treated Soil

Remediated soil is expected to be reused as fill material on LTV Steel properties.

MALCOLM PIRNIE

APPENDIX A

RELATED PROJECT CORRESPONDENCE

MALCOLM PIRNIE

FACSIMILE TRANSMITTAL

10/24 Received call from Peter. Said OK to this. Leave tank holes open til DEC inspects it.

MALCOLM PIRNIE, INC.
40 Centre Drive
P.O. Box 1938
Buffalo, New York 14219
TEL: 716/667-0900
FAX: 716/667-0279

TO: PETER BUECHI

OF: NYSDEC

FAX NO.: 851-7008

RE: TRUSCON REMEDIATION

FROM: TERRY RIED / KENT MCMANUS

DATE: 10/22/96 **TIME:**

PROJECT NUMBER: 0304277

NUMBER OF PAGES: *(including this sheet)* 3

RETURN ORIGINALS TO SENDER: *(circle one)* Yes No

MESSAGE: PETER

WE SPOKE WITH JOHN HILTON CONCERNING YOUR DESIRE FOR HIM TO DIG DEEPER THAN THE MEASURED WATER TABLE AT THE TRUSCON SITE. AS JOHN INDICATED, THE WATER TABLE HAS BEEN MEASURED AT APPROXIMATELY 7.5 FEET FROM THE SURFACE.

IT HAS BEEN OUR INTENT, & THE INTENT OF THE APPROVED REMEDIAL PLAN, TO EXCAVATE ONLY TO THE WATER TABLE. IT IS UNDERSTOOD THAT ALL CONTAMINATION MAY NOT BE REMOVED, HENCE THE REASON FOR THE

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.

BY..... DATE..... SHEET NO..... OF.....

CHKD. BY..... DATE..... JOB NO.....

SUBJECT.....

VERIFICATION SAMPLING IN THE BOTTOM OF THE EXCAVATION. DEC'S ACKNOWLEDGEMENT OF EXCAVATION TO THE WATER TABLE IS DESCRIBED IN YOUR 9/24/96 LETTER (COPY ATTACHED).

IN THE ABSENCE OF THE WATER TABLE RUSHING INTO THE EXCAVATION OR SATURATED CONDITIONS MAKING EXCAVATION IMPRACTICAL, WE WILL EXCAVATE TO A MAXIMUM DEPTH EQUIVALENT TO THE RIVER ELEVATION (APPROXIMATELY 9-10 FEET). SHOULD NO VISUAL EVIDENCE OR ODORS BE DETECTED, THE EXCAVATION WILL CEASE ABOVE THAT LEVEL. THE WATER TABLE CAN NOT BE BELOW THE LEVEL OF THE RIVER.

PLEASE CONTACT US IF YOU HAVE ANY QUESTIONS

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

Michael D. Zagata
Commissioner

September 24, 1996

Mr. Kent Mcmanus
Malcolm Pirnie, Inc.
P.O. Box 1938
Buffalo, NY 14219

Dear Mr. Mcmanus:

RE: Spill # 951284
1205 South Park Avenue

This is in response to your request of this date for clarification of one comment in my letter of September 17, 1996 regarding the Remedial Plan Outline submitted for the subject site.

The sampling to be conducted along the bottom of the excavations is intended to provide documentation of the conditions in the excavations at the conclusion of the remedial action. The Department has concurred with the conceptual approach to remediation of the petroleum contamination at the site, i.e. excavation to the water table, based on the data provided by the City of Buffalo and Malcolm Pirnie.

I trust that the above clarifies the Department's request. Feel free to contact me at (716) 851-7220 if you have further questions.

Sincerely,

Peter J. Buechi, P.E.
Regional Environmental Remediation Engineer

PJB:pw
cc: Mr. J. Ryan
Mr. T. Dieffenbach
Mr. J. Smith, City of Buffalo
Mr. D. Sengbush, City of Buffalo

New York State Department of Environmental Conservation
270 Michigan Avenue, Buffalo, New York 14203-2999
(716) 851-7220

Michael D. Zagata
Commissioner

October 9, 1996

Mr. Kent McManus
Malcolm Pirnie, Inc.
P.O. Box 1938
Buffalo, NY 14219-0138

Dear Mr. McManus:

Spill# 9513284
1176-1184 South Park Avenue

This is in response to the Remedial Plan for the subject site submitted to this office on September 24, 1996 and your follow up letter of October 4, 1996 transmitting revisions to the Remedial Plan.

The Remedial Plan and revisions have been reviewed by this office and found to be acceptable in light of the following agreements reached during a telephone conversation on October 8, 1996:

- The soil excavation procedure for the River Bank area as specified in the Remedial Plan calls for excavation in a lateral direction below the water table until gross contamination is not observed or the river is encountered. Since it is likely, based on soil borings and visual observations, that the excavation will proceed until the river is encountered, an oil boom and silt fence will be installed in the Buffalo River to control the release of oil and soil into the river during the excavation and backfilling operations.

- The bank of the Buffalo River disturbed during excavation will be restored to prevent erosion of the bank material. Bank restoration will consist of regrading the bank to a 1 vertical to 3 horizontal slope, seeding and mulching. In addition, existing stone larger than 6" in diameter on the bank will be saved during excavation and replaced on the bank from one foot below to one foot above the mean water level of the River.

- The Department will accept the use of a spray on cover system on the excavated soil stockpile. Details on the thickness and composition of the cover material must be provided.

- The Remedial Plan indicates that the lateral limits of excavation above the water table in the tank perimeter and river bank area will be determined using the same logic that will be used for the 5.5 million gallon tank area. The type and amount of verification sampling to be performed in the tank perimeter and river bank area will be the same type and amount of sampling as specified for the 5.5 million gallon tank area.

- The October 4, 1996 revisions to the Remedial Plan indicate that verification samples on the side walls will be based on visual and olfactory indications and collected every 100 linear feet. Verification samples will also be collected in side wall areas without such evidence, at a frequency of one sample per 200 linear feet. These samples are intended to provide documentation that the soil excavation is complete. However, the sample results may necessitate further excavation. All side wall samples shall be composite samples.

Feel free to contact me should you have any questions regarding the above items.

Sincerely,

Peter J. Buechi, P.E.
Regional Environmental Remediation Engineer

PJB:pw

cc: J. Ryan
T. Dieffenbach
D. Sengbush
S. Nasca

D6

MALCOLM PIRNIE

MALCOLM PIRNIE, INC.
ENVIRONMENTAL ENGINEERS, SCIENTISTS & PLANNERS

October 4, 1996

Mr. Peter Buechi, P.E.
NYS Dept. of Environmental Conservation
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Revised Remedial Plan
Truscon Site
1176-1184 South Park Avenue

Dear Mr. Buechi:

We have prepared this letter in response to your verbal comments on the Sampling Report and Revised Remedial Plan dated September 1996 received by telephone on October 1, 1996. Each of your comments are summarized below in italics followed by our responses:

Comment 1: *The wrong sample letter is attached to the letter agreement between the City of Buffalo and LTV Steel included as Appendix E. The actual letter will document that some residual contamination remains in place and that the site is classified as inactive.*

Response: Acknowledged.

Comment 2: *Separate stipulation letters will be required with the City of Buffalo and LTV Steel consistent with the letter agreement between the City and LTV Steel.*

Response: Acknowledged.

Comment 3: *How will the thickness and permeability of the stockpile liner be assured? Is the liner thickness sufficient and how will the integrity of the liner be maintained during tilling operations if it is used as a bioremediation cell?*

40 CENTRE DRIVE, P O BOX 1938 BUFFALO, NY 14219-0138 716-667-0900 FAX 716-667-0279 HTTP://WWW.PIRNIE.COM

Response: We will precharacterize the soil material, establish a moisture/density relationship and monitor compaction with a nuclear densitometer (minimum of 9 per acre). We will also collect and analyze three undisturbed Shelby tubes (1 per acre) to verify the permeability of the liner. The thickness will be controlled through on-site surveys. Malcolm Pirnie will provide documentation of the thickness and permeability signed and sealed by a professional engineer licensed in New York State. It is our intent to place restrictions on the method/approach for tilling so as to provide for adequate protection of the liner integrity. We will also place survey tape on top of the liner prior to placement of the contaminated soil to serve as a warning indicator if tilling operations exceed the maximum depth. The details of the bioremediation method (e.g., tilling operation, nutrient additives, moisture control, etc.) will be submitted to the NYSDEC for review/approval upon completion of the bench-scale bioremediation study.

Comment 4: *What will be the frequency of verification sampling?*

Response: If a determination is made to sample the side walls based on visual or olfactory indications, one sample per 100 linear feet of excavation will be collected. The bottom of excavations will be sampled on an interval of one composite sample per 5,000 square feet to determine the level of residual petroleum contamination to remain in place.

Comment 5: *The excavation discussion on Pages 10 and 11 of the remedial plan is not consistent with the NYSDEC-approved concept plan.*

Response: Pages 10 and 11 have been revised (copies attached) to reflect the concept plan.

Comment 6: *Page 12 states that the City of Buffalo* ***plans*** *to use LTV's Abby Street site for ex-situ bioremediation and the City plans to enter into an agreement with LTV Steel for use of the property.*

Response: Page 12 has been revised (copy attached) to state that the City has entered into an agreement for bioremediation of the soil on LTV property.

I trust that these responses are acceptable and that the NYSDEC will now issue an approval letter. Please contact us if you have any further questions or comments.

Very truly yours,

MALCOLM PIRNIE, INC.

Kent R. McManus, P.E.
Senior Associate

Attachments

c: D. Sengbusch, C-Buffalo
J. Smith, C-Buffalo
W. Gould, LTV Steel
D. Papajcik, LTV Steel
J. Etchison, LTV Steel
T. Ried, MPI
File: CC

0848-260
plb/260100ts.res

Verification soil samples will be collected as composite samples where nuisance characteristics are evident along the sidewall of the excavation. If a determination is made to sample the side walls based on visual or olfactory indications, one sample per 100 linear feet of excavation will be collected. The bottom of excavations will be sampled on an interval of one composite sample per 5,000 square feet to determine the level of residual petroleum contamination to remain in place. All samples shall be taken no less than six inches below the exposed surface being sampled. Random samples will be used for compositing. All sampling equipment must be decontaminated between sample locations. Soil samples will be placed in precleaned sample containers, placed on ice, and transported to a NYSDOH ELAP certified analytical laboratory for testing.

Perimeter of Tank Area and River Bank

Soil will be excavated to the water table in the vicinity of SB-1, SB-3, SB-5, SB-17, and SB-18 within the limits shown on Figure 2. Soil that does not have visual staining or detectable odors will be stockpiled and used as backfill. The estimated quantity of soil that will need to be remediated from these five areas is 1550 cubic yards. These excavations will be modified as follows:

- Determine the lateral limits of excavation above the water table in the field using the logic presented above for the 5.5 million gallon tank area.

- Excavate approximately four to five feet below the water table at SB-1, approximately seven feet below the water table at SB-18 and nine feet below the water table at SB-17. Continue excavating below the water table in a lateral direction until gross contamination is not observed, or the river is encountered. Water entering the excavation will be removed by pumping and will be discharged to the Buffalo Sewer Authority.

Engineering Controls

Dewatering of excavations during excavation of the petroleum-contaminated soil and UST removals may be required. No discharge of water to the Buffalo River or on the project site is anticipated.

Groundwater removed from the excavation areas (including the tank areas) will be discharged to the nearest sanitary sewer manhole. Permission to do so has been granted by the Buffalo Sewer Authority. The water will be either hauled by tank truck or pumped across the site through the pump discharge lines.

No sheet piling as originally proposed by Foit-Albert will be installed.

5.2 Tank Removal

The Contractor shall remove the USTs at the site. A total of three underground storage tanks (USTs) are assumed to still exist at the site; two 4,000-gallon diesel fuel USTs in the center of the site and one 1,000-gallon fuel oil UST near the Truscon Building office. (It is assumed that the 1000-gallon tank is located outside of the building foundation.)

The Subsurface Investigation performed by Foit-Albert revealed an area of fill material, evident of a tank pit, in the probable location of the two 4,000-gallon USTs in the center of the site. Due to field conditions, it was impossible for Foit-Albert to positively determine existence of the two USTs.

An area of petroleum-contaminated soil was delineated in the area of the two USTs. Lateral extent of the contamination in this area is approximately 21,685 square feet with vertical extent of contamination at 2.5 feet. Total estimated volume of petroleum-contaminated soil in this area is 2,125 cubic yards.

For all UST removals, excavation soil sampling will be completed in accordance with the previously described protocols (except for the bottom of the tank pit excavations where only one composite sample will be collected). The Contractor shall not backfill the tank pit excavations until analytical results are reported to, and approved by, the NYSDEC. If excavation verification analysis reveals levels of constituents above guidance values, additional excavation and sample analysis will be required.

Contaminated soil encountered during tank removal will be transported to the designated off-site location and bioremediated with the petroleum-contaminated soil. Shallow groundwater which may be encountered in the tank excavation areas will be

pumped and disposed of in the Buffalo Sewer Authority (BSA) sanitary sewer system. Proper closure will include tank removal, residual tank liquid removal and proper disposal, tank cleaning, tank bottoms removal and proper disposal, tank decommissioning, and backfilling of the tank pits. The contractor shall file all proper waste manifests when disposing of residual tank liquids and tank bottoms. When transporting all petroleum-contaminated tank materials, the Contractor must comply with 6NYCRR Part 364 regulations.

The Engineer will document all UST removals with the NYSDEC on behalf of the City of Buffalo.

5.3 Backfilling

All excavated soil that does not have a detectable petroleum odor or visual evidence of petroleum contamination, and blocks of concrete or slag that are not tillable will be stockpiled on-site. This material will be reused as backfill and has an estimated quantity of 6,400 cubic yards (including soil from the vicinity of the large tank, SB-1, SB-3, SB-5, SB-17, and SB-18).

Existing fill material (0.5 to 1-foot) will be stripped off the remainder of the Truscon site for use as backfill (refer to Appendix D for a copy of the approved letter from the site Developer). Any putrescible materials, such as railroad ties will be segregated and not used as backfill. Any railroad ties or other materials that will not be biotreated or used as backfill will be stockpiled on-site for disposal by the City. No backfill characterization will be performed on the stripped material.

All backfill materials will be compacted in the excavation.

5.4 Transportation/Bioremediation Location

The City of Buffalo has entered into an agreement (see Appendix E) with LTV Steel for bioremediation of the petroleum contaminated soil. The Contractor will be responsible for maintaining and protecting traffic during all transportation operations. The total estimated volume of soil to be removed and bioremediated is 23,000 cubic yards.

MALCOLM PIRNIE

APPENDIX B

INSPECTOR'S DAILY REPORTS

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Transcon Site FROM — TO —
WEATHER — TEMP A.M. P.M. DATE 10/11/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Proposed Area of Excavation stripped of surficial clean material, Average depth of "clean" material stripped from proposed area 1-1½ feet.
- Site to be excavated Approx 52,344 Ft²
- Approx 1538 yd³ cover material stripped, later to be used as backfill material
- Established site grid, surficial elevations before/after backfill material had been removed
- Site map and grid completed

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN:

VISITORS: P. Werthman, T. Reis, R. Frappa

QA PERSONNEL SIGNATURE P Hilton

REPORT NO. 1
SHEET 1 of 1

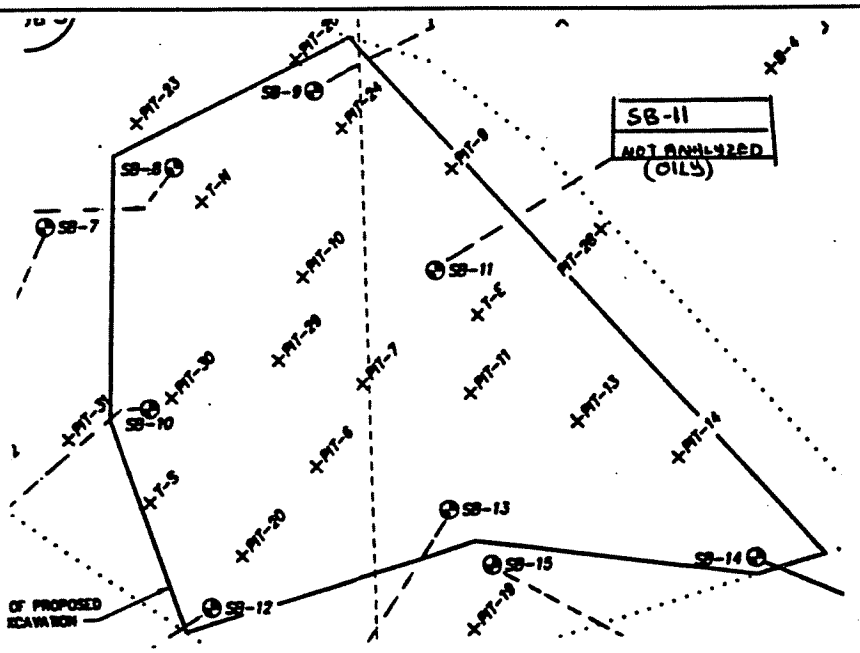
MEETINGS HELD & RESULTS: – Met w/ Tina of Tomato development, who requested that no asphalt or concrete greater than 8" diameter be backfilled into excavation.

Assured developer that backfill materials (Asphalt) will be broken up into small pieces and used at depths > 4' bgs

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Transcon FROM — TO —
WEATHER TEMP A.M. P.M. DATE 10/14/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Installed 1" PVC piezometer to approx 11.5' bgs @ location due south of excavation area
- Perched water condition @ base of slag backfill 2.5' bgs
- Dug test pits to investigate / confirm location of on-site fuel oil tanks
  - Found (2) ½" dia copper lines adjacent to SW corner of Transcon office addition, tank presumably under existing sidewalk.
  - Unable to uncover (2) 4000 gal tank in central portion of site

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN:
VISITORS:

QA PERSONNEL SIGNATURE P. Hilton

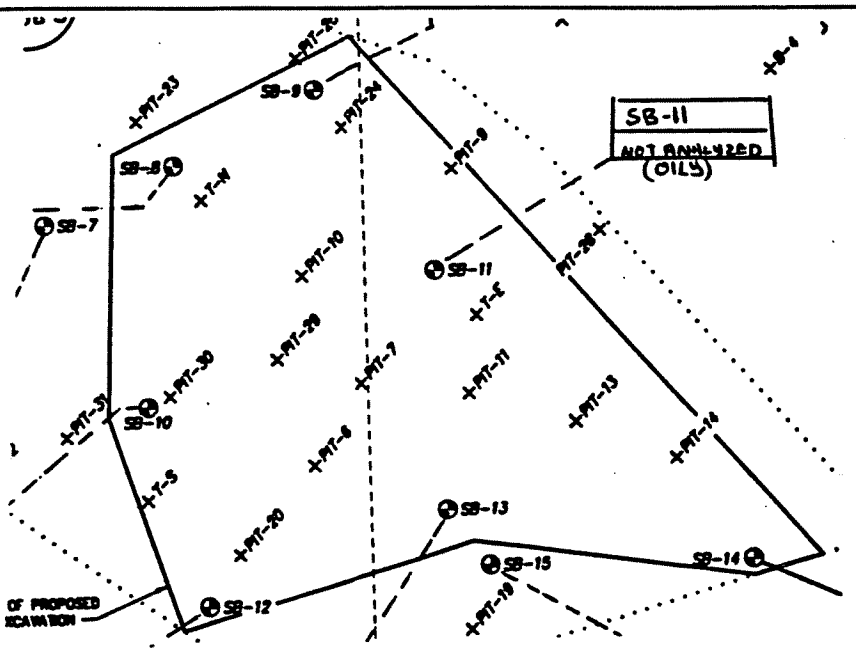
REPORT NO. 2
SHEET 1 of 1

MEETINGS HELD & RESULTS:

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ OF _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV/TRANSCON FROM — TO —
WEATHER _____ TEMP ____ A.M. ____ P.M. ____ DATE 10/15/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Obtained elevation data to calculate stripped soil volume 1538 yd^3
- Notified Peter Buechi of site developments

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
	2			Uncontaminated Stockpile	1538 yd^3	w/in proposed site
	7			Stockpile liner construction	1	

TEST PERFORMED:
PICTURES TAKEN:
VISITORS:

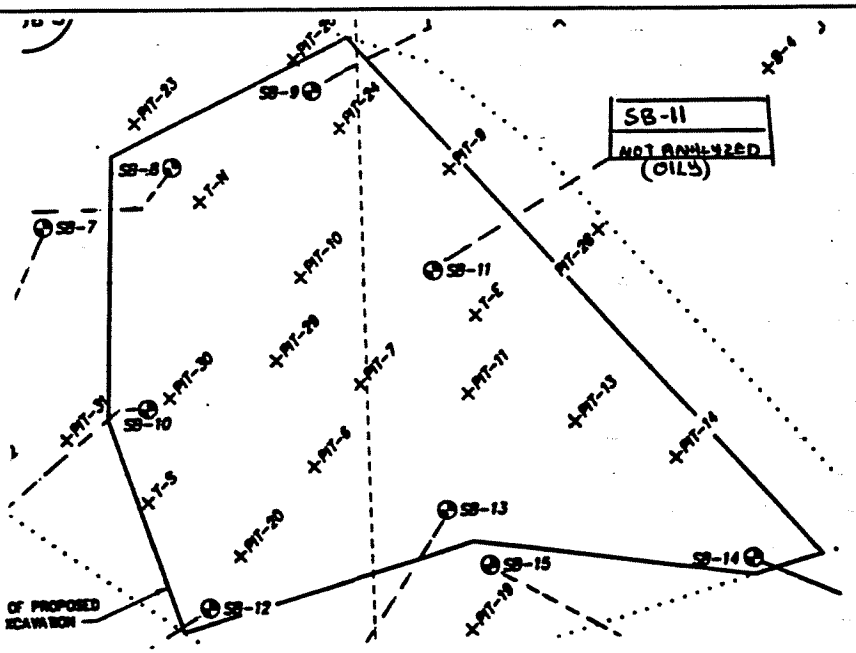
QA PERSONNEL SIGNATURE J. P. Hilton
REPORT NO. 3
SHEET 1 of 1

MEETINGS HELD & RESULTS:

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ OF _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon FROM _____ TO _____
WEATHER _____ TEMP _____ A.M. _____ P.M. _____ DATE 10/16/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Contractor to define top of CLAY PAD / bottom of Stockpile material w/ Plastic tape / ribbon per DEC request

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN:
VISITORS:

QA PERSONNEL SIGNATURE J. P. Hutton

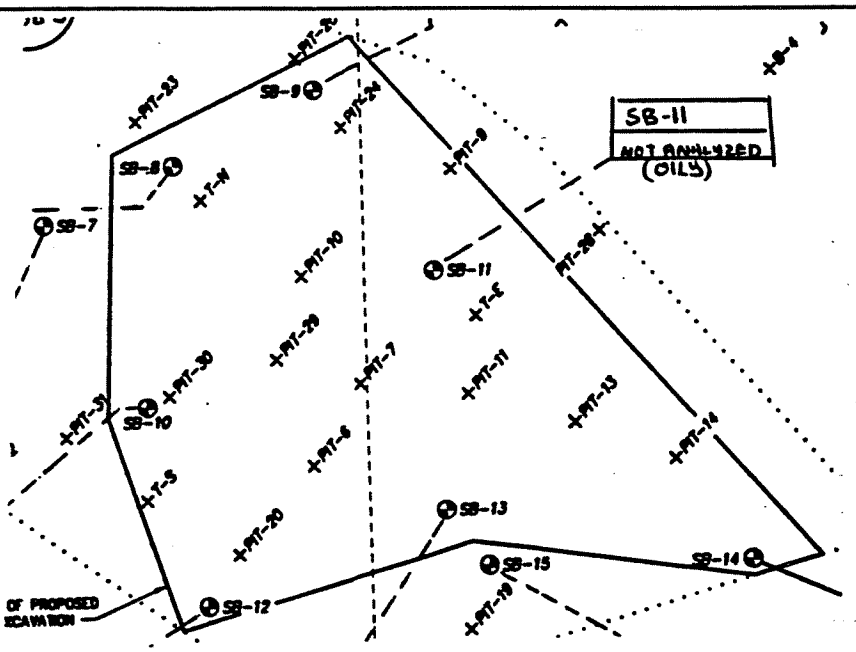
REPORT NO. 4
SHEET 1 of 1

MEETINGS HELD & RESULTS:

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ OF _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Transcon FROM _____ TO _____
WEATHER _____ TEMP _____ A.M. _____ P.M. _____ DATE 10/17/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Excavated to approx depth 7.5' bgs max (574' elev) along southern perimeter of excavation
- Obtained elevation data on bottom of excavation
- Sampled base of excavation for STARS parameters list Method 8021, Waste Stream analytical lab on site to pick up sample(s) under COC
- Backfilled portion of open excavation

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: X along southern perimeter of excavation
VISITORS:

QA PERSONNEL SIGNATURE LP Hilton
REPORT NO. 5
SHEET 1 of 1

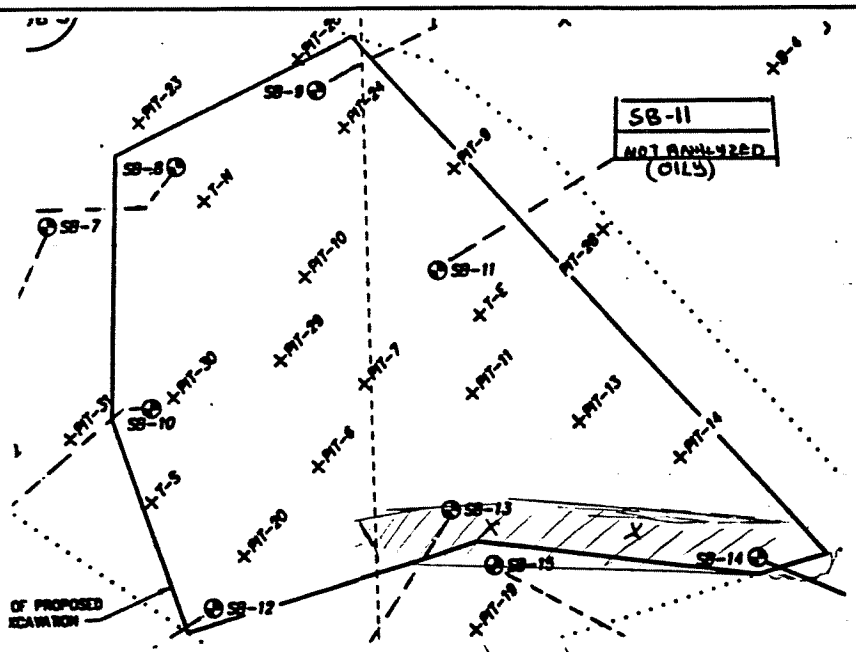
MEETINGS HELD & RESULTS:

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES

Approx. only



X Approximate location of sample S-2 taken at base of excavation

SAMPLE LOG

SAMPLE NUMBER: S-2 (574' elevation) estimated elevation

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION: 10/17/96

CLIMATOLOGIC CONDITIONS: Sunny Day, 70°

FIELD OBSERVATION: base of excavation below contaminated overburden

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Transcon FROM _____ TO _____
WEATHER _____ TEMP _____ A.M. _____ P.M. _____ DATE 10/18/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Continued excavation toward SW corner of proposed Transcon site perimeter
- Lithology became sandy w/ coarse gravel lenses, oil saturated, stopped excavation advancement toward west and moved to eastern perimeter. Second swath/cut started
- Oil soaked silty-sand noted to depths greater than 9' bgs per work plan overburden material was removed to maximum depth of 7.5-8' bgs representative of water table conditions
- Surveyed bottom of west excavation

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pump		

TEST PERFORMED:
PICTURES TAKEN: X Photos of Sand/Gravel lithology
VISITORS: Tim Dittenbach, Bob Leary

QA PERSONNEL SIGNATURE L. P. Hilton
REPORT NO. 6
SHEET 1 of 1

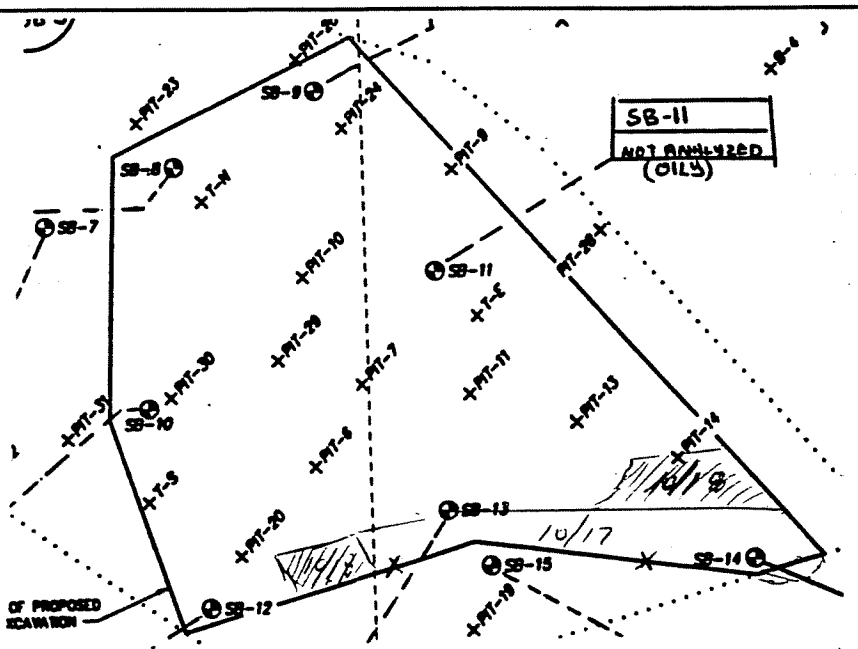
MEETINGS HELD & RESULTS: - Met w/ Tim Dittenback & Bob Leary to Address progress and anticipated schedule of events

- Toured excavation and stockpile pad
- Discussed sampling procedures and frequency
- DEC personnel request removal of soil contaminated with oil to depths greater than 9' bgs. Subject was not pursued when told that water table conditions approximate 7.5' as measured in adjacent piezometer.

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



X Composite sample taken from sidewall on southern perimeter approx 3' below top of excavation

SAMPLE LOG

SAMPLE NUMBER: SW-3 sidewall samples on Southern perimeter

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon FROM _____ TO _____
WEATHER Cloudy, showers TEMP 40-50°A.M. _____ P.M. _____ DATE 10/21/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- BDR contractors to pump water from excavation - will not haul contaminated material today
- Contractors to prepare bio-pads and haul roads for inclement weather conditions

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pump	1	
				2" pump	1	

TEST PERFORMED:
PICTURES TAKEN: X Water w/in excavation on Southern perimeter
VISITORS:

QA PERSONNEL SIGNATURE J.P. Hilton
REPORT NO. 7
SHEET 1 of 1

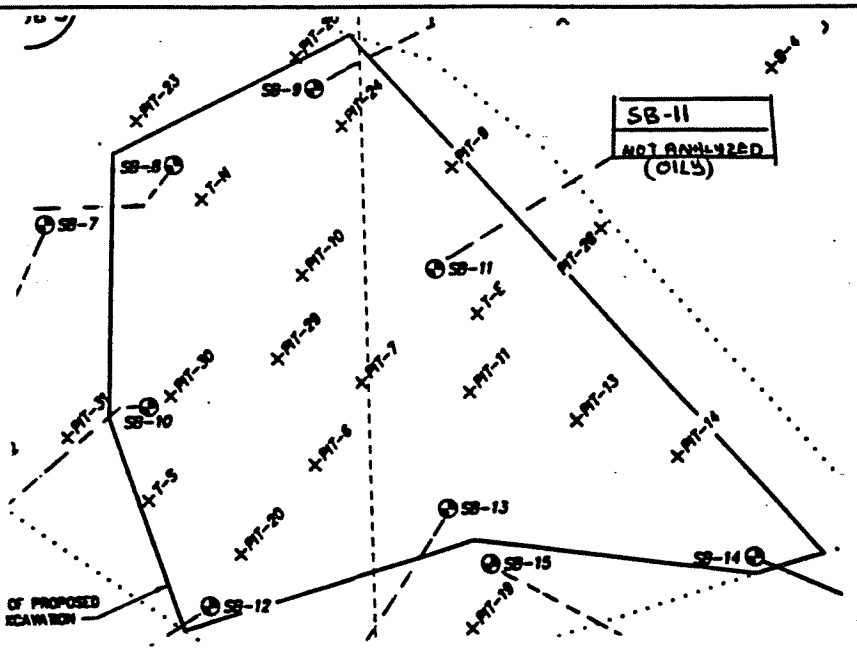
MEETINGS HELD & RESULTS: Met w/ Peter Buechi of NYSDEC

- Toured excavation site and bio-PAD area discussed progress to date and findings as seen in sidewalls of excavation

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



No add'l mat'l removed 10/16 due to ponded water w/in excavation shown on Rpt #6

SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV/TRUSCON FROM _____ TO _____
WEATHER Partly Sunny TEMP 50-60° A.M. Y P.M. X DATE 10/22/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO
WORK PERFORMED:

- Continued w/excavation along EASTERN perimeter of site - excavation hindered by excessive volume of perched water @ 3-4 bgs interval
- Site excavation backfilled to lessen volume of ponded water that recharges to open hole excavation
- Contractors dig lateral, E-W trench to facilitate pumping of perched water

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pump	2	
				2" pump	1	

TEST PERFORMED:
PICTURES TAKEN: X perched H_2O flow to open excavation
VISITORS: D. Buechi, P. Werkheiser, K. Williams, T. Reid, Wayne Arnold, LTV counsel

QA PERSONNEL SIGNATURE John P. Hutton
REPORT NO.
SHEET 1 of 1

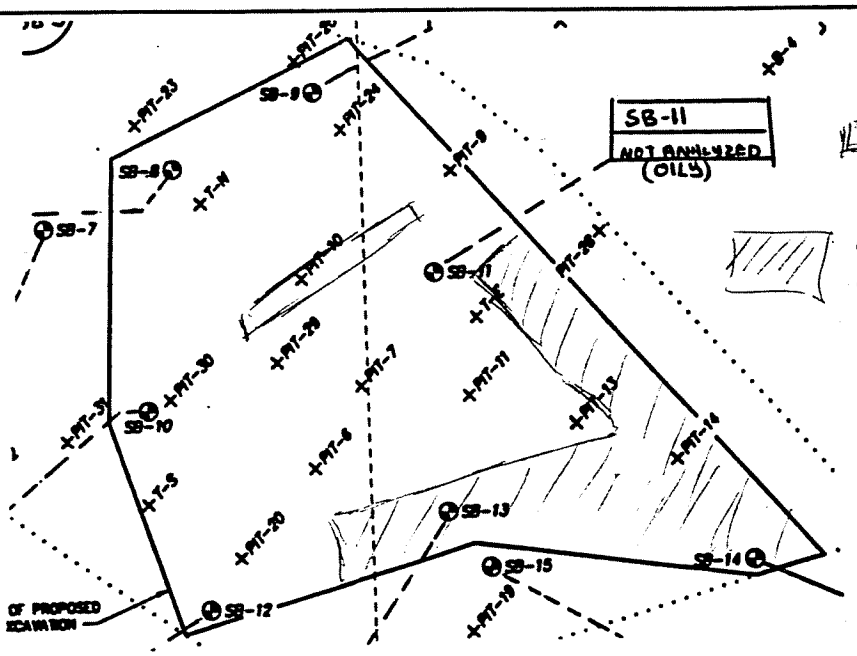
MEETINGS HELD & RESULTS: • Met w/P. Buechi 10^{00} - 12^{00} (NYSDEC) insisted that excavation be taken to depths below water table conditions 7.6-8.0' bgs to remove oil contaminated soil

• Called MPI to define AND resolve depth of excavation issue - P. Verbrugge, K. Williams & T. Reid resolve that excavation will not be taken to depths greater than BAR River elevation currently 7.6' bgs 573.42

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon FROM _____ TO _____
WEATHER Cloudy w/ Showers TEMP 40-45°A.M. X P.M. X DATE 10/23/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Excavated second swath in East → West direction along southern perimeter
- Used pneumatic hammer to break dense slag material to facilitate the excavation of shallow trench laterals
- Base of excavation held in "clean" material @ approx 573.2 - 573.7
- Sampled sidewalls @ SW-4A/4B shown on reverse
  Sampled base of Excavation S-5A/5B on reverse side

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pumps	2	
				2" pump	1	

TEST PERFORMED:
PICTURES TAKEN:

VISITORS: Nelsen Ranch (developer), Peter Ruechi (DEC)

QA PERSONNEL SIGNATURE John P. Hilton

REPORT NO.

SHEET 1 of 1

MEETINGS HELD & RESULTS:

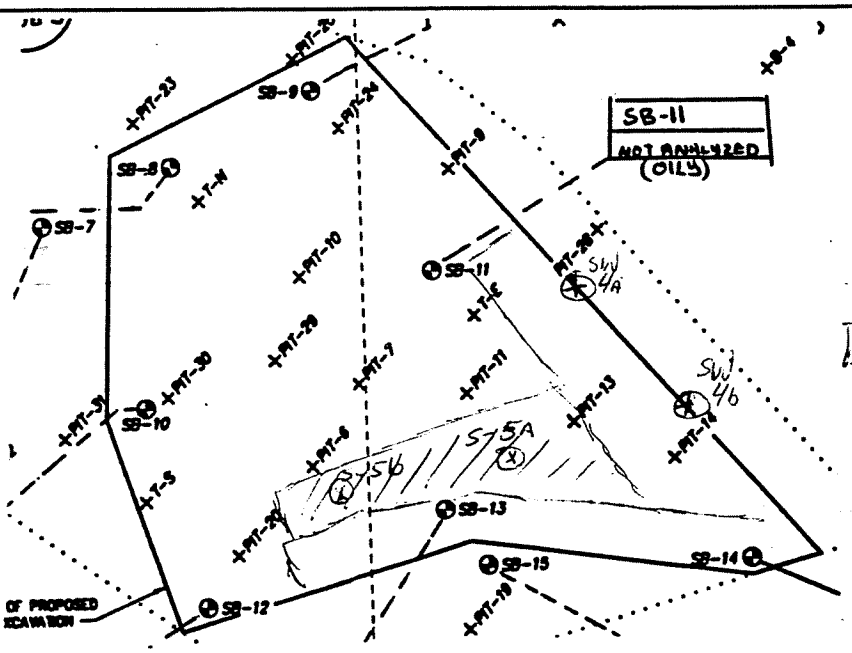
- Nelson Rauch (developer for Komatsu factory) out for site visit & observation
  - no developments

- Peter Buech. (DEC) here for site visit, discussed progress and approach to contain perched water conditions

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



Approx AREA excavated 10/23/96

Ⓧ Approx sample locations

SAMPLE LOG

SAMPLE NUMBER: SW-4A/4B, S-5A/5B Sampled sidewall and base

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon FROM _____ TO _____
WEATHER Rain TEMP 40-45 A.M. x P.M. x DATE 10/24/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Continued w/ excavation along approximate grid baseline 1+75N in westerly direction, excavated to clean soil (SAND) material @ approx Elevation of 573.5 - 574.5'
- Sampled base of excavation @ S-6A/6B
- Pumped from trench intervals to reduce perched water flow into trench

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pumps	2	
				2" pump		

TEST PERFORMED:
PICTURES TAKEN:
VISITORS:

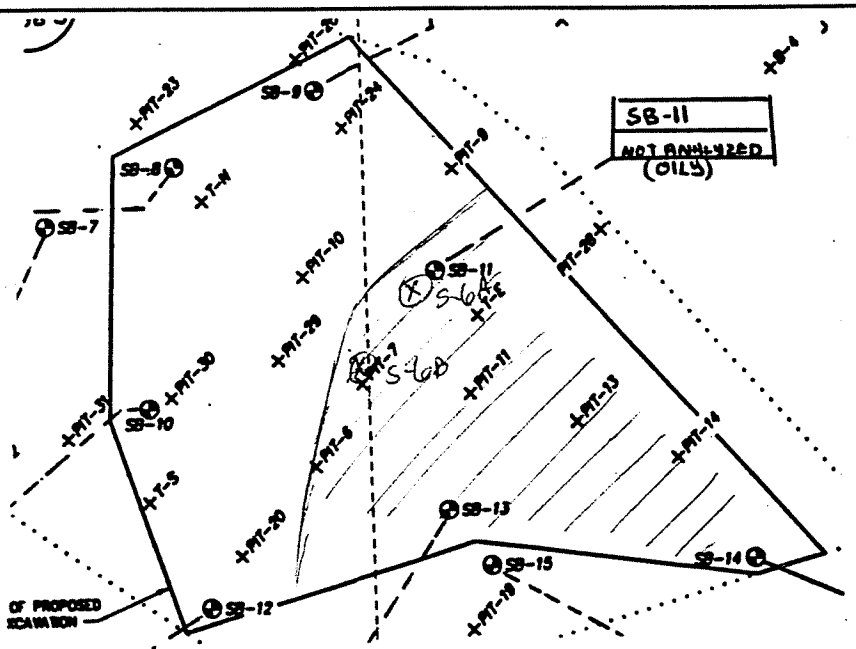
QA PERSONNEL SIGNATURE John P. Hilton
REPORT NO.
SHEET 1 of 1

MEETINGS HELD & RESULTS:

REMARKS: Buffalo Sewer Authority asked if material from city excavation could be stockpiled, when checked the overburden material appeared to be A SANDY SILT w/ NO CONTAMINATION 0.2 #Nu reading — OK'd material as stockpile & backfill

REFERENCES TO OTHER FORMS:

SKETCHES



Approx area of excavation

SAMPLE LOG

SAMPLE NUMBER: S-6A/6B

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS ____ OF ____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER Partly Sunny Light winds <10mph TEMP 40-50 A.M. _____ P.M. ✓ DATE 10/25/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Digging ops initiated @ EASTERN perimeter at approx 200N grid line - excavated westward to approx 50' West grid line
- base of excavation @ approx 574. - 574.8' in clean dark gray silty overburden, little black organic plant debris

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pumps	1	
				2" pumps	1	

TEST PERFORMED:
PICTURES TAKEN:

VISITORS: T. Reis, P. Buechi, T. Diffenbach

QA PERSONNEL SIGNATURE John P. Hilton

REPORT NO.

SHEET 1 of 1

MEETINGS HELD & RESULTS:

- Met w/ T. Reis, P. Buechi & T Dittenbach here on site inspection visit

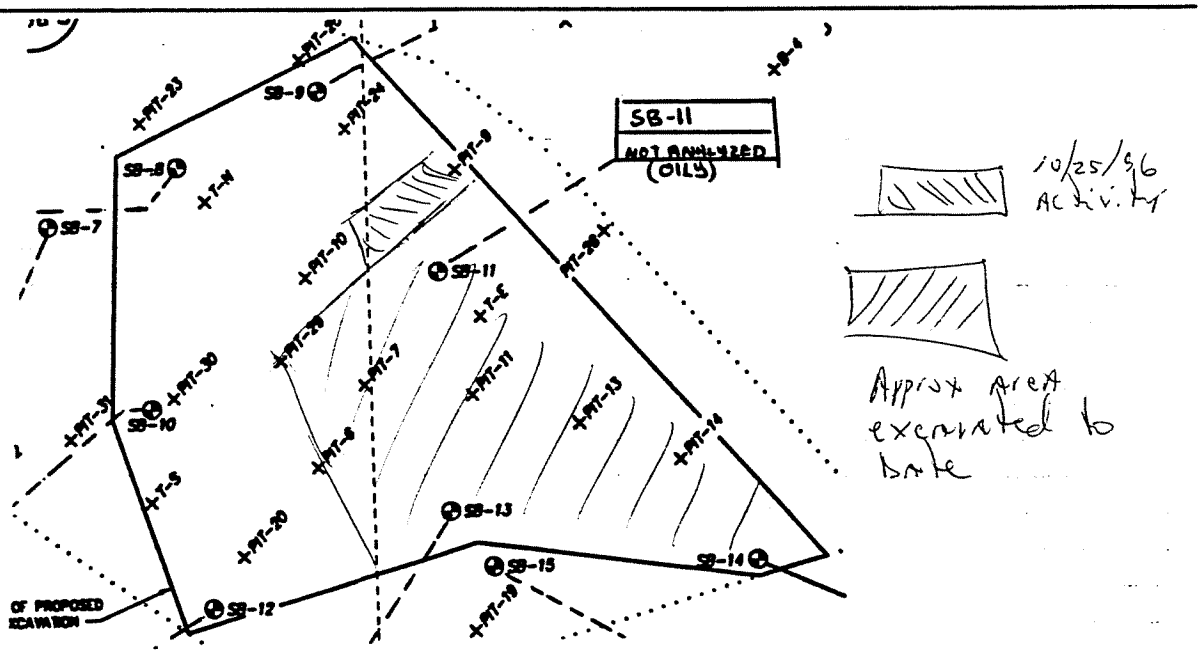
- DEC requests notification of scheduled work along Northern perimeter

REMARKS:

- Oil stained/soaked Sand & Gravel lens developing on eastern perimeter @ approx 175'N grid, base line will require excavation toward Easterly direction (towards River)

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV/TRUSCON FROM _____ TO _____
WEATHER SUNNY/CLEAR TEMP 45° A.M. 55° P.M. _____ DATE 10/26/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Continued w/ digging ops in westerly direction along East-West GRM line for approx 200' N
- backfilled to working face of excavation w/ on-site material
- off-site backfill material brought on site for temporary stockpile via S. Antmyer

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pump	1	NOT USED
				2" pump	1	NOT USED

TEST PERFORMED:
PICTURES TAKEN: X site view/control w/ oil phase separation w/ depth
VISITORS:

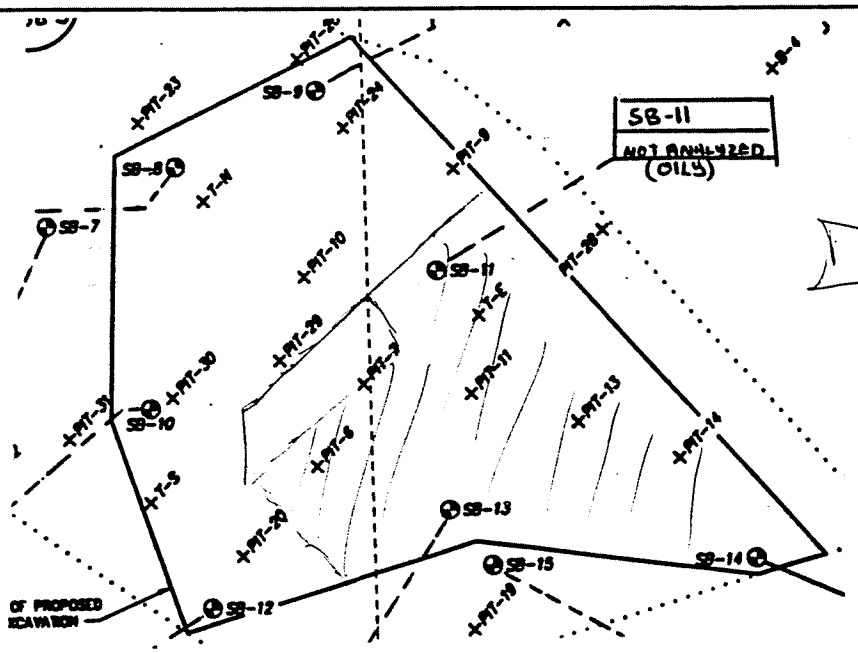
QA PERSONNEL SIGNATURE John P. Hutton
REPORT NO.
SHEET 1 of 2

MEETINGS HELD & RESULTS: R. Frappa on site to observe progress and discuss anticipated schedule / developments

REMARKS: Excavation will be extended in easterly direction @ or between grid points 200 — 225 N @ base line

REFERENCES TO OTHER FORMS:

SKETCHES



Approx area of Excavation 10/26

SAMPLE LOG

SAMPLE NUMBER: None

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon FROM _____ TO _____
WEATHER Partly Cloudy, showers TEMP 45-55 A.M. _____ P.M. _____ DATE 10/28/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Excavated south between grid points 200 – 225 N moved in westerly direction & elevation of 575 – 576 Overburden material becomes increasingly more sandy with /as excavation moves toward west ie depth of contamination increases
- Started excavation 25' east of original base line
- Dug new drainage lateral along northern perimeter
- Sampled sidewalls @ SW-7A/7B, base @ S-8A/8A

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pump	1	
				2" pump	1	

TEST PERFORMED:
PICTURES TAKEN:

VISITORS: P. Battaglia

QA PERSONNEL SIGNATURE John P. Hilton

REPORT NO.

SHEET 1 of 1

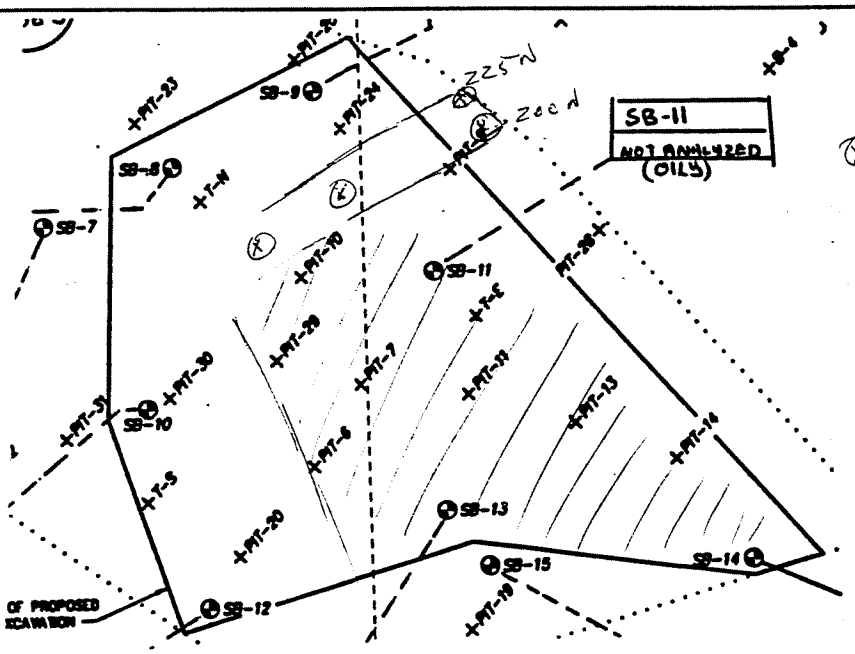
MEETINGS HELD & RESULTS:

- Met w/ Peter Battaglia of Battaglia concrete, Asked if he could dump 200-300 yds of overburden excavated from concrete construction job. Stated that he should bring representative load so that I could inspect material for approval or denial

REMARKS: Slag & ballast pinches out as does oil contamination on Eastern perimeter

REFERENCES TO OTHER FORMS:

SKETCHES



(X) Approx location of SW-7A/7B S-8A/8B

Approx Area Examined 10/28

SAMPLE LOG

SAMPLE NUMBER: Samples SW-7A/7B, S-8A/8B

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon Site FROM TO
WEATHER Clear TEMP 35-50° A.M. P.M. DATE 10/29/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Started NE corner excavation, moved westward along northern perimeter
  - Overburden material silty grading to sandy silt in proximity of boring SB-9, depth of excavation increased as sandy moved toward west
  - Initial depth @ approx 576' deepened to 573' (water table) conditions @ SB-9, maintained deeper elevation along northern perimeter to accommodate approx H_2O table conditions and minimal contamination

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN:

VISITORS: NAVE Sengbush, BPIO Commissioner, LTV personnel (Wayne Gould et al), Nelson Rauch, P. Bacchi, T. Differbach (NYSDEC)

QA PERSONNEL SIGNATURE John P. Hulton

REPORT NO.

SHEET 1 of 1

MEETINGS HELD & RESULTS: $9^{15}-10^{00}$ Nelson Rauch here for site visit expressed concern on compaction of backfill material and subsequent testing. Assured that contractors are compacting backfill material however testing is not within scope of workplan

$10^{50}-11^{30}$ Wayne Gould, John Eicheson and other LTV personnel here for site visit. Gave the group A brief overview of progress to date and anticipated schedule of work developments

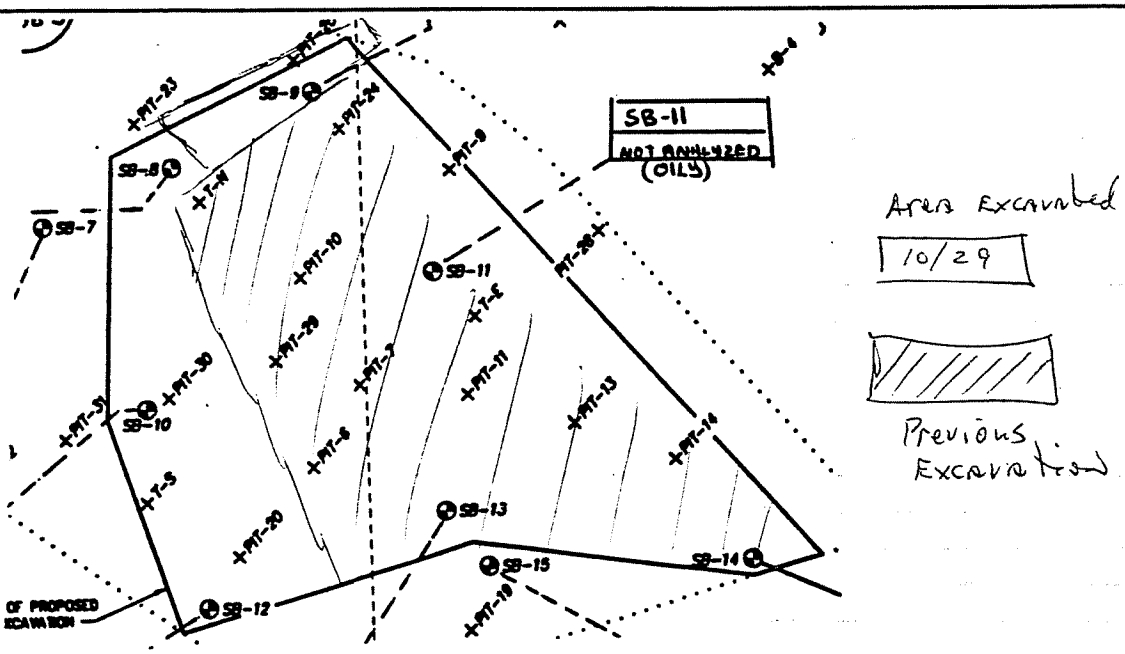
$11^{45}-12^{20}$ Dave Senglaub and PRO Commissioner here for site visit, gave superficial progress update. Councilman & Commissioner indicate that the City Mayor will come for site visit & press conference within 2 weeks

REMARKS: 13:00 - 14:00 (NYSDEC) P. Buecht and T. Dittenbach on site to observe NE corner and northern perimeter sidewall exposure(s) esp in vicinity of SB-9

Overburden increasingly more sandy w/ movement of excavation towards the west. Contamination observed to water table

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER Cloudy, showers Wind to 50 mph TEMP 50-40 A.M. _____ P.M. _____ DATE _____

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED: - Excavation moved westward along northwest / west perimeter, advanced to SB-10 location

- Squared off excavation to intercept end points of excavated cells → working face to depth / elevation of 573 - 573.5'

- Pumps not used as excavation was held above / at water table. then backfilled

- Sampled sidewalk @ SW-9 A/B
- Sampled base @ S-10 A/B

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: X Oil @ depth along NW perimeter 4 pipelines w/in NW face
VISITORS:

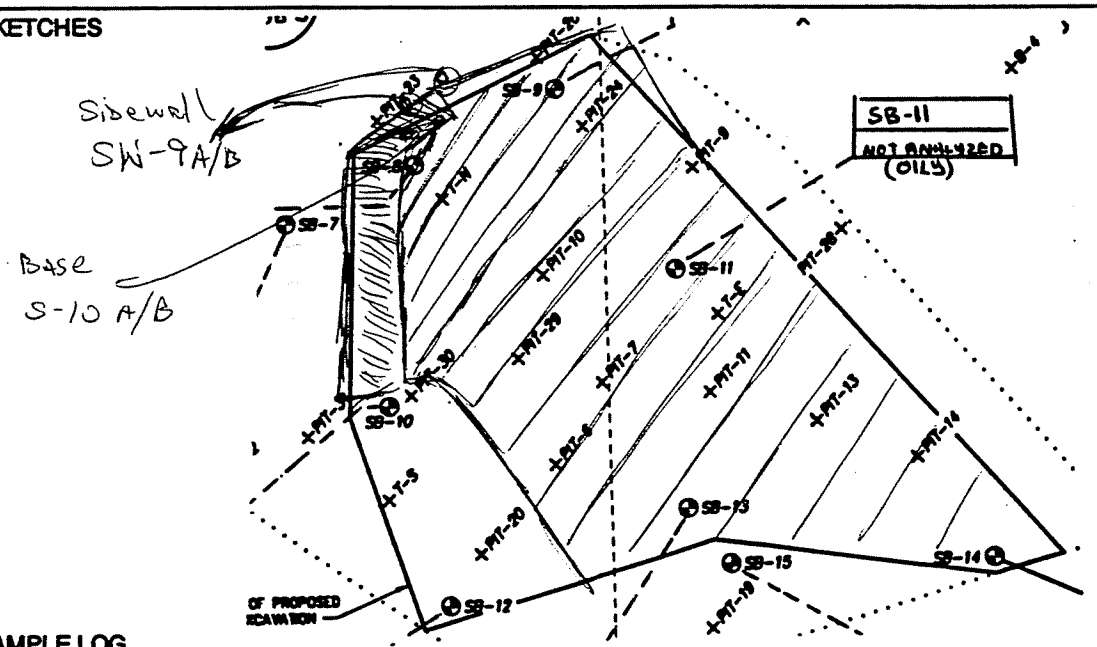
QA PERSONNEL SIGNATURE John P. Hilton
REPORT NO.
SHEET 1 of 1

MEETINGS HELD & RESULTS: T. Reid on site to discuss results of Base sample S-8 A/B, Per P. Werthman & K McManus excavation will be taken to elevation of river i.e. water table

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



Approx Area Excavated 10/30

Existing Excavation

SAMPLE LOG

SAMPLE NUMBER: Sidewall sample SW-9A/B Base S-10 A/B

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION ATV / Transcon FROM _____ TO _____
WEATHER Partly Sunny TEMP 30-40° A.M. _____ P.M. _____ DATE _____

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☒ YES ☐ NO

WORK PERFORMED: – Advanced excavation southward from SB-10 east flank toward SB-12 east flank. Intercepted end terminus of cells excavated in central portion of site

– Backfilled to working face

– Excavation terminated at approx SB-12

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: X Oil pipelines @ pump station, perched oil
VISITORS: Peter Bucchi, Marty Doster (NYSDEC

QA PERSONNEL SIGNATURE John P. Hutton
REPORT NO.
SHEET 1 of 1

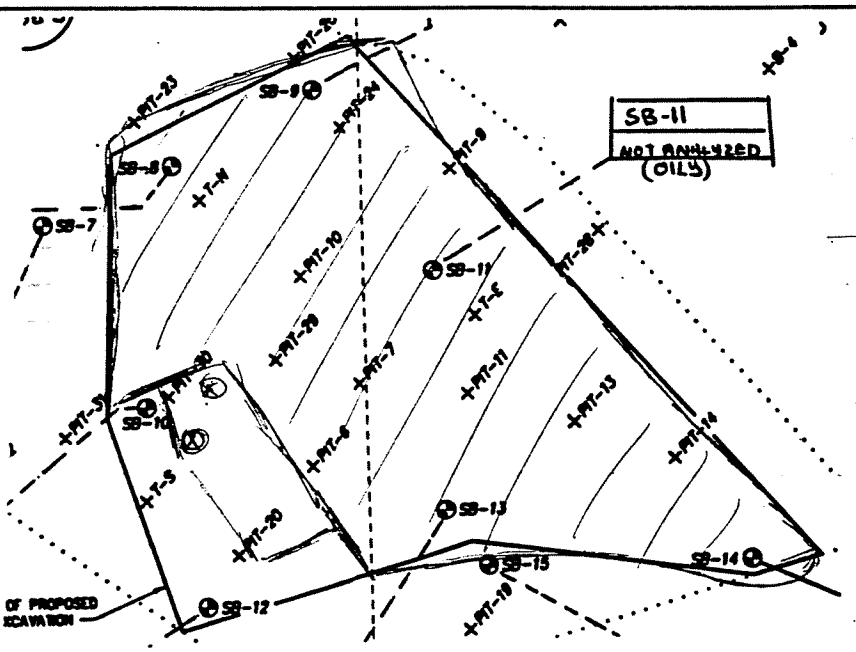
13:45 - 14:00

MEETINGS HELD & RESULTS: - Peter Buechi & Marty Doster of NYSDEC out for site visit. Outlined progress for today, discreet perimeter in SW corner and along western border

REMARKS: Spoke w/ Paul Morrow of WasteStream Analytical Labs regarding sample @ A/B analyses, lab equipment down until Mon or Tue of next week. Sample's S-10 A/B, S-11 A/B @ base excavation of 573 - 573.5' elevation

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: S-11 A/B base of excavation @ 573.0 - 573.6

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV Truscon site FROM _____ TO _____
WEATHER Partly Cloudy TEMP 30-40° A.M. _____ P.M. _____ DATE 11/1/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Completed N-S swath to southern perimeter east of SB-12

- Moved equipment & working face of excavation to Western most perimeter swath between SB-11 & SB-12

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				2" pump	1	
				3" pump	1	

TEST PERFORMED:
PICTURES TAKEN: X "Action Photos" SW corner slag filled trench
VISITORS:

QA PERSONNEL SIGNATURE John P. Hutton
REPORT NO.
SHEET 1 of 1

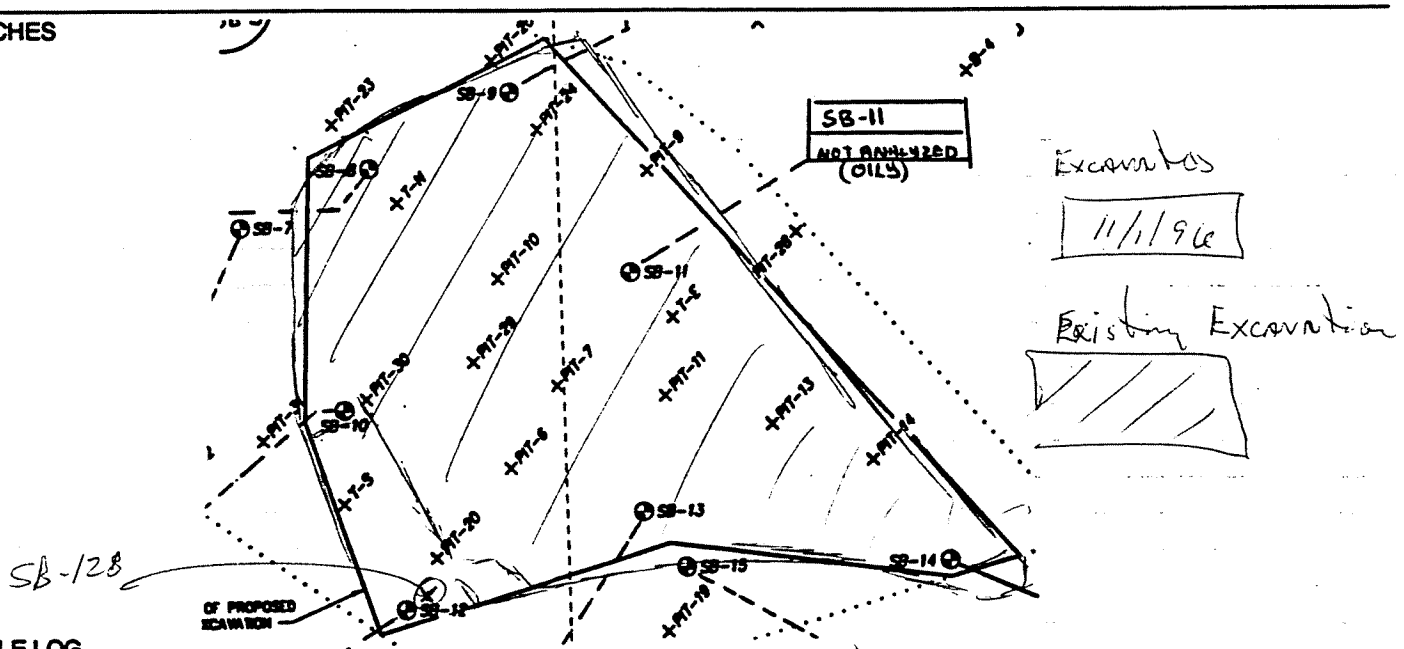
MEETINGS HELD & RESULTS:

- Called P. Buechi at NYSDEC to inform of site progress discussed extending excavation south of SB-12 and slightly west of SB-10

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: S-126 Sample @ base of excavation 573.2'

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRANSCON FROM _____ TO _____
WEATHER Partly Sunny TEMP 35-45 A.M. _____ P.M. _____ DATE Mon 11/4/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED: - Continued excavation along western perimeter in SW corner mixed working face eastward to start 25' south of trench A.

- Following 8" oil filled pipeline w/ adjacent slag/oil filled trench

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: X Pipeline

VISITORS:

QA PERSONNEL SIGNATURE John P. Hinton

REPORT NO.

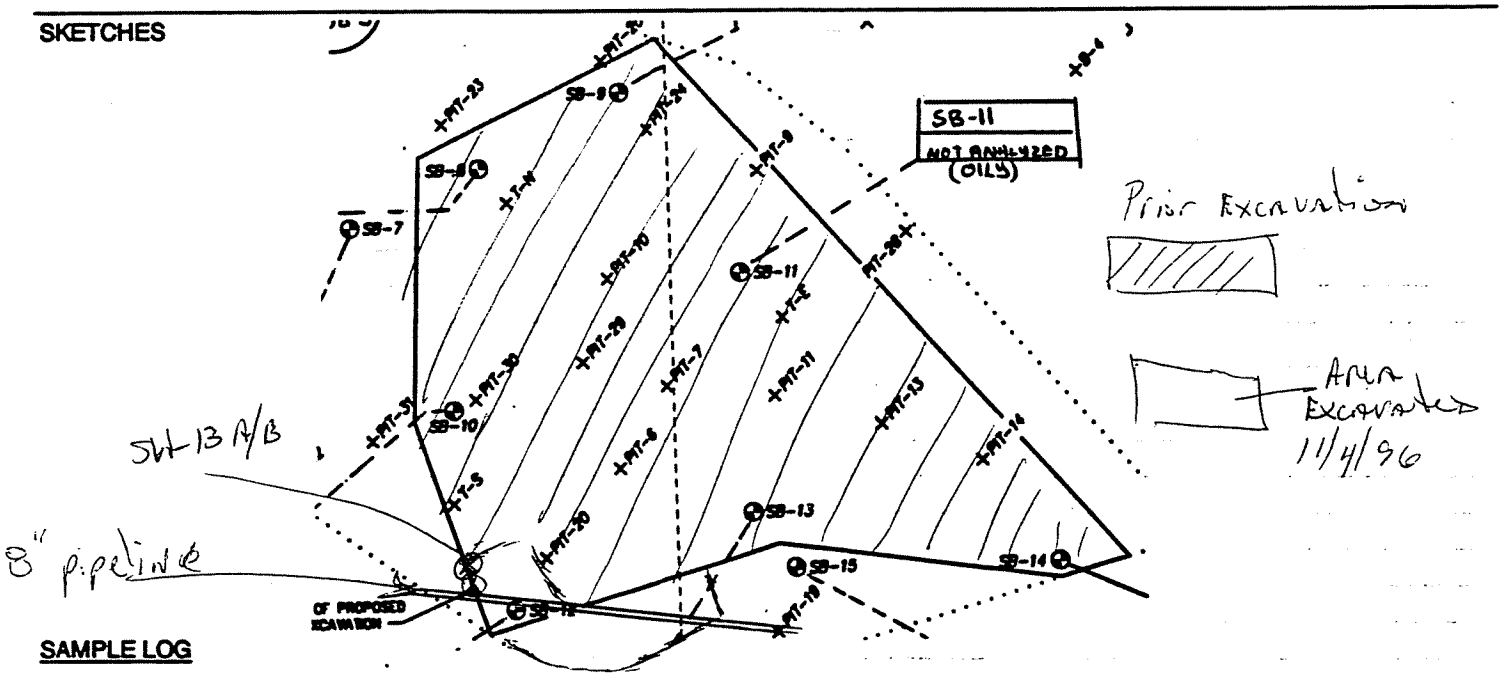
SHEET 1 of 2

MEETINGS HELD & RESULTS: 15:00 P. Buechi (NYSDEC) on site to observe pipeline and saturated orb material.
- When asked at DEC position on pipeline, stated that UST guideline would apply

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER Cloudy TEMP 40-50° A.M. _____ P.M. _____ DATE 11/5/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Stopped work along southern perimeter (100' east of SB-12) until LTV is advised of 8" oil filled pipeline situation

- Moved to western perimeter to remove soil in area between SB-8/SB-7 towards SB-12

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				2" pump	1	
				3" pump	1	

TEST PERFORMED:
PICTURES TAKEN: x piping w/trench
VISITORS:

QA PERSONNEL SIGNATURE John P. Hilton
REPORT NO.
SHEET 1 of 1

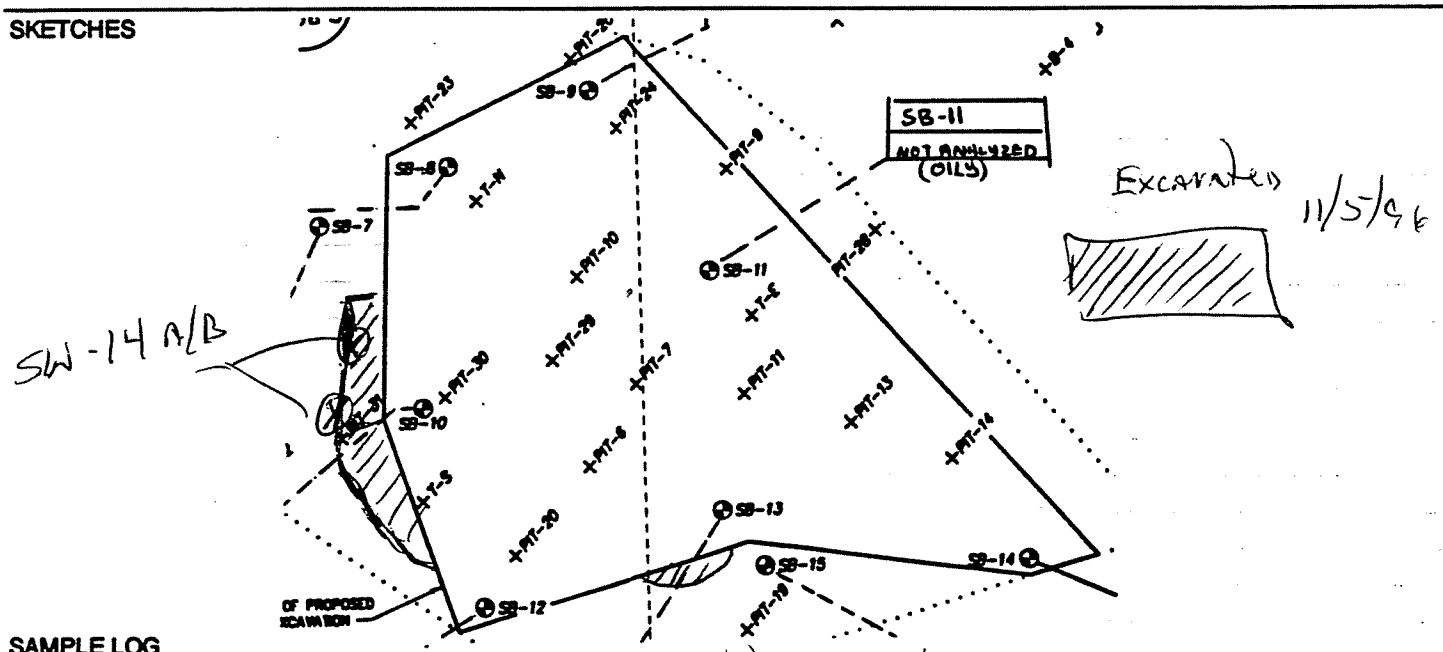
MEETINGS HELD & RESULTS: Met w/ Elmwood Tank rep (Peter Hitchcock) to discuss pumping AND removal of 8" oil pipeline

- Met w/ Paul Morrow of Waste Stream Technology to transfer SW-14 A/B

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: Sample ID sidewall SW-14 A/B

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER Cloudy 45°-55° TEMP _____ A.M. _____ P.M. _____ DATE 11/6/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Started excavation @ SB-3 location, adjacent to Bflo River
- Established elevation data for on site material backfilled into tank excavation area
- Dug / Removed oil saturated material from river bank to approx 85' south of River
- Established Eastern and Southern perimeter for oil saturated material

PAY ITEMS:

CONTRACT NO.	ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS
				3" pump		

TEST PERFORMED:
PICTURES TAKEN: X SB-3 excavation
VISITORS: Tim Dittenback, Jack Kijewski (NYSDEC)

QA PERSONNEL SIGNATURE John P. Hilton
REPORT NO.
SHEET 1 of 1

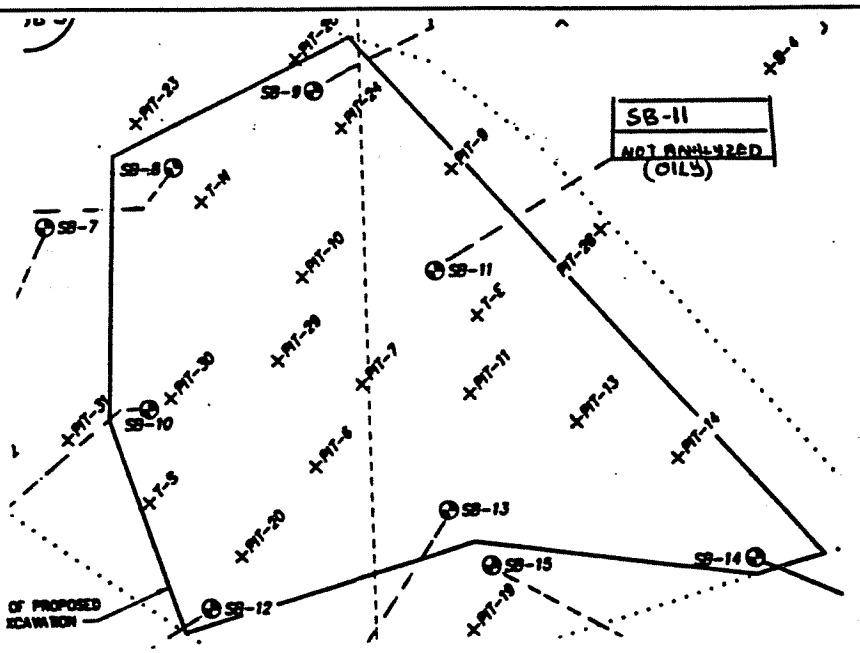
MEETINGS HELD & RESULTS: Met w/ T. Diffenbach who was on site to observe excavation from 10:30 - 3:30 PM

- Defined criteria to establish Eastern and southern perimeters in vicinity of SB-3

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: S

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ OF _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER Partly Cloudy 60-70° TEMP _____ A.M. _____ P.M. _____ DATE 11/7/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO
WORK PERFORMED:

- Continued excavation in SB-17 / SB-3 AREA to delineate limits of shallow (6-7') bkgd oil condition
- Attempted to pump water from excavations adjacent to Buffalo River, SAND AND backfilled crushed stone Allow high flow to excavation. Timed water flow to 2½ yd³ hole @ river elevation. Water filled hole in 1.5 min
- Ceased pumping ops, instructed operator to dig to water table conditions then backfill excavation.
- Sampled sidewalls and base @ SW-15 A/B, S-16 A/B SW-17 A/B, S-18 A/B

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: X River excavations @ SB-17, SB-1
VISITORS:

QA PERSONNEL SIGNATURE John P. Hilton
REPORT NO.
SHEET 1 of 1

MEETINGS HELD & RESULTS: Met w/ T Reis re: water conditions w/in excavations @ SB-1, SB-17

- Determined that slope adjacent to Bald River will remain since it is fill material "clean". Contamination at water table and below >6'.

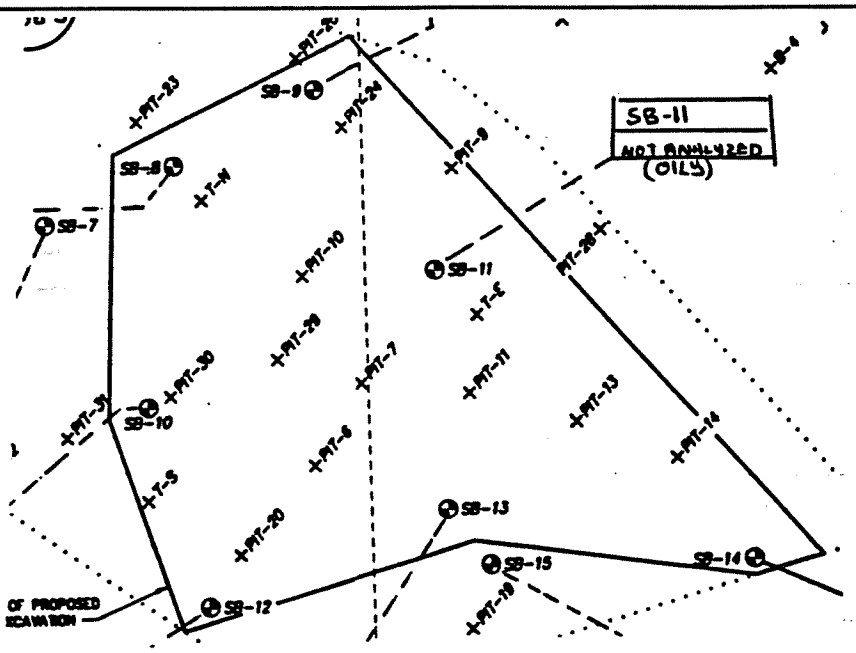
- slope failure
- unable to pump water from hole

Met w/ T. DiFelsbach (NYSDEC) given update of progress along river embankment

REMARKS: Maximum depth attained as measured @ SB-17 location (570.8)' excavation slope continued to fail thereby filling pit

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: Samples S-(SW) -15, 16, 17, 18 @ River proximity

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ **OF** _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / Truscon FROM _____ TO _____
WEATHER Partly Cloudy, Snow TEMP 30-35° A.M. _____ P.M. _____ DATE 11/11/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Completed excavation & backfilling at Bflo River boreholes SB-1 & SB-18 ✓
- Stripped material to approx 8-9' bgs removed material 9-12' bgs, hindered by water infiltration from River
- Sampled SW-19 A/B and S-20 A/B
- Opened excavation over 8" oil pipeline
- Dug sump in vicinity of 4,000 gal tanks

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: XX River excavation

VISITORS:

QA PERSONNEL SIGNATURE John P. Hilton

REPORT NO.

SHEET _____ of _____

MEETINGS HELD & RESULTS: Met w/ Peter Hitchcock at Elmwood tank, delineated 8" pipeline from West TANK to EAST.

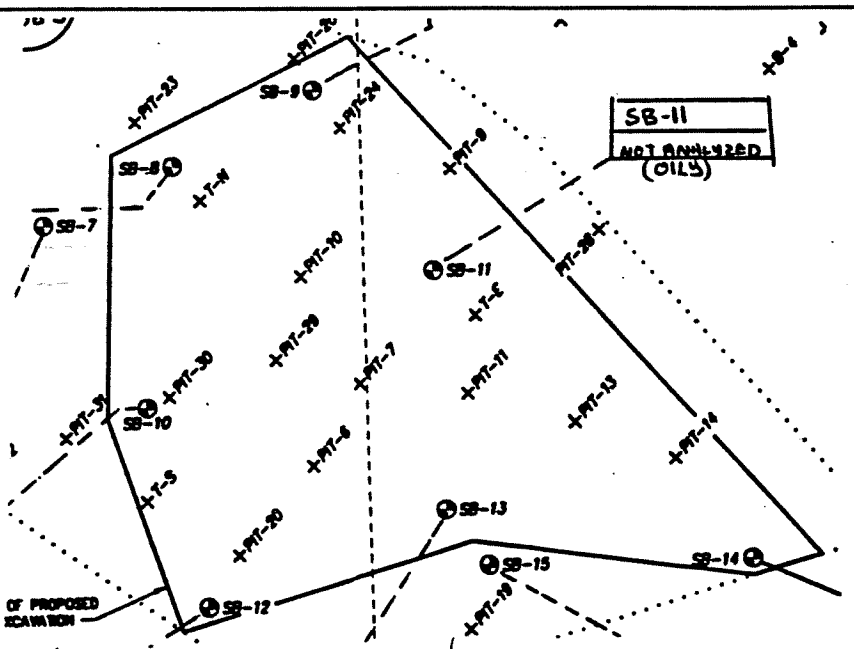
Scope of work to be completed will require pigging out oil (250') in western section of pipeline / EASTERN portion will be drained.

Western portion of pipeline will be removed w/ soil and placed back into EXCAVATION

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: S-19 A/B, S-20 A/B Along river edge

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER Partly Cloudy, Snow 25-35° TEMP _____ A.M. _____ P.M. _____ DATE 11/12/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Began excavations in AREA (5) reported to contain (1) 1,000 gal, (2) 4000 UST's.
- 1,000 gal tank in SW corner of Truscon bldg previously excavated sand backfill material and straps found as evidence
- (2) 4000 gal tanks not found after excavating 50'x50' area
- West (250') section of 8" pipeline pigged out Approx 1300 gal of water and oil collected
- Sampled S-21 A/B, SW-22 A/B

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: XX pipeline, pigging oil
VISITORS: Elmwood tank personnel

QA PERSONNEL SIGNATURE John P. Hulton
REPORT NO.
SHEET 1 of 1

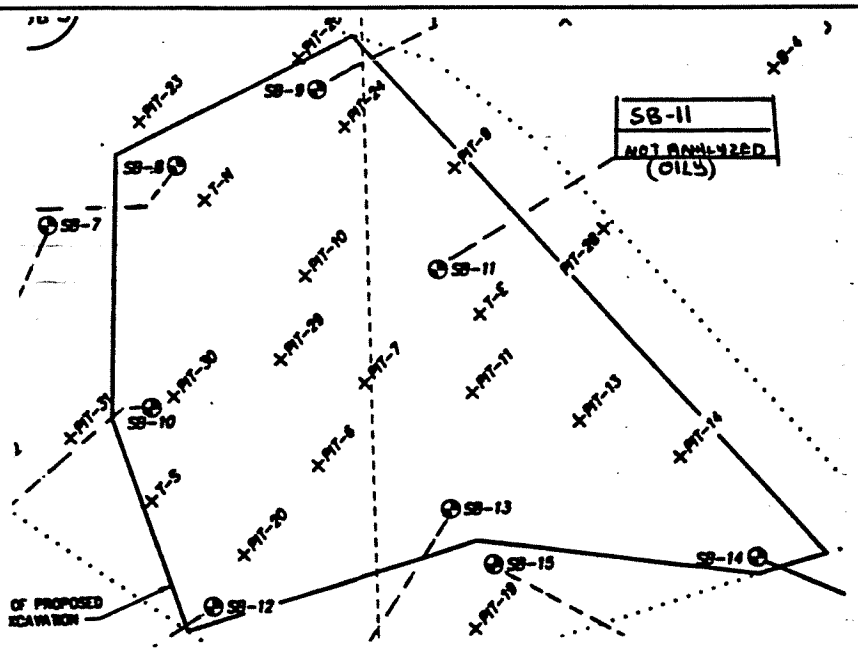
MEETINGS HELD & RESULTS:

- Called P. Bucchi of NYSDEC to advise of site/work progress

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: S-21 A/B, SW-22 A/B @ 4,000 gal tank area

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV/Truscon FROM TO
WEATHER Partly Sunny 30-40° TEMP A.M. P.M. DATE 11/13/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Completed excavation @ 4000 gal tank Area
  Approx area excavated 80'x80' benched @ Approx 5' & 12' bgs
- Sampled sidewalls of dug pit @ SW-23 A/B
  SW-24 A/B
- Backfilled excavation

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: X 4000 gal pit Area

VISITORS:

QA PERSONNEL SIGNATURE John P. Hilton

REPORT NO.

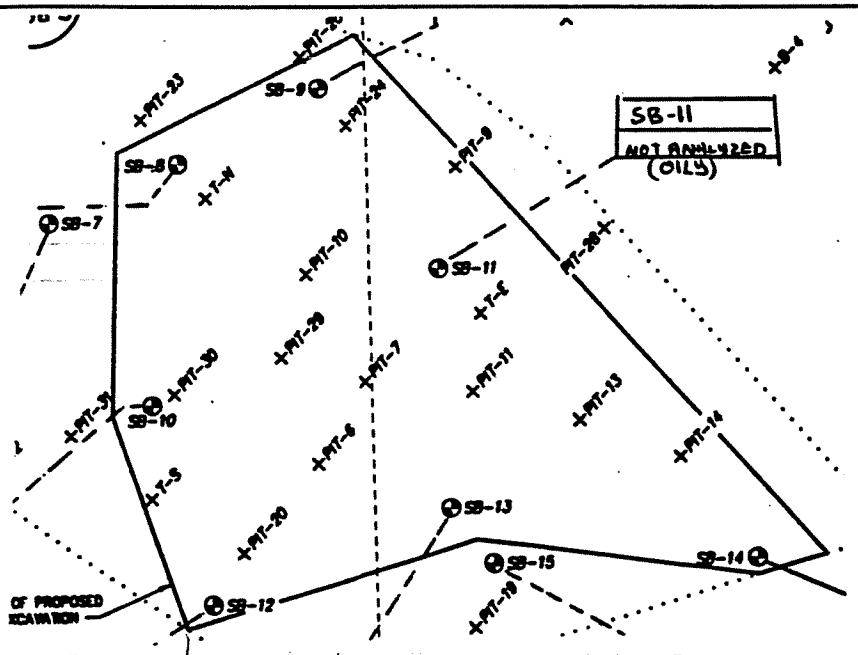
SHEET 1 of 1

MEETINGS HELD & RESULTS:

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER: Sampled SW-23 A/B SW-24 A/B

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS ____ OF ____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTY / TRANSCON FROM _____ TO _____
WEATHER Partly Cloudy 25-35° TEMP _____ A.M. _____ P.M. _____ DATE 11/12/96

CONTRACTOR'S WORK FORCE AND EQUIPMENT

DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#	DESCRIPTION	H	#
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐ YES ☐ NO

WORK PERFORMED:

- Excavated 8" pipeline (225') from Tank location east to Tank location West.

Approx trench 12' x 6' x 225', dimensions of trench increase as width expanded to 50', depth held at 6' adjacent to pipeline, benched to approx 3-4' on sides

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: XX Slag Filled trench

VISITORS:

QA PERSONNEL SIGNATURE John P. Hilton

REPORT NO.

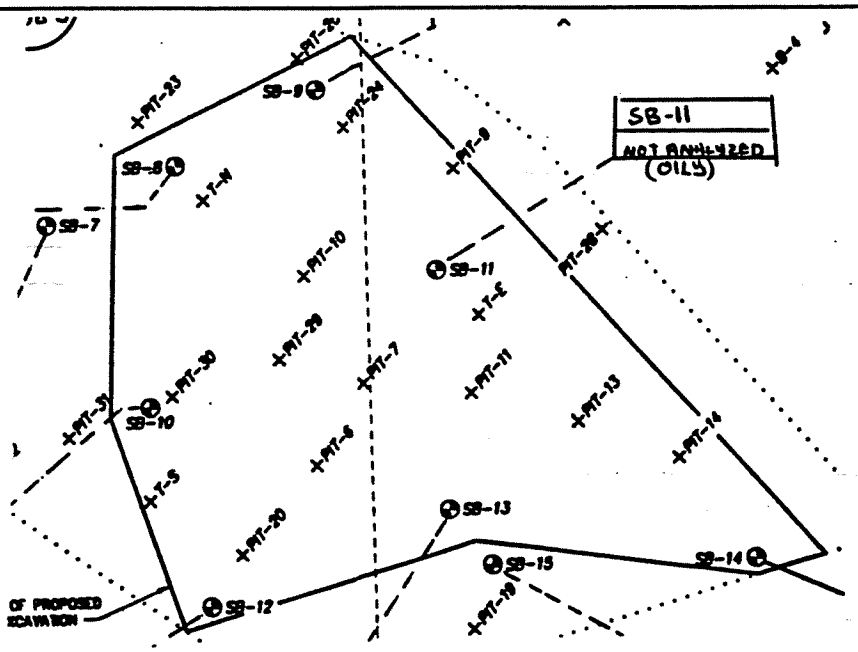
SHEET 1 of 1

MEETINGS HELD & RESULTS:

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ OF _____

MALCOLM PIRNIE

Inspector's Daily Report

CONTRACTOR:
ADDRESS:

TELEPHONE:
LOCATION LTV / TRUSCON FROM _____ TO _____
WEATHER SUNNY 25-35° TEMP _____ A.M. _____ P.M. _____ DATE 11/15

CONTRACTOR'S WORK FORCE AND EQUIPMENT											
DESCRIPTION	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*	*DESCRIPTION*	*H*	*#*
Field Engineer						Equipment			Front Loader Ton		
Superintendent			Ironworker			Generators			Bulldozer		
						Welding Equip.					
Laborer-Foreman			Carpenter								
Laborer									Backhoe		
Operating Engineer			Concrete Finisher								
Carpenter						Paving Equip. & Roller					
						Air Compressor					

SEE REVERSE SIDE FOR SKETCH ☐YES ☐NO

WORK PERFORMED:

- Continued excavation of 8" dia pipeline
- Excavation completed & backfilled
- Excavated Sump Area

PAY ITEMS:

CONTRACT NO.	CONTRACT ITEM	STA FROM	STA TO	DESCRIPTION	QUANTITY	REMARKS

TEST PERFORMED:
PICTURES TAKEN: XX Trench & pipeline proximity
VISITORS: City of Buffalo, MPI personnel

QA PERSONNEL SIGNATURE John P. Hutton
REPORT NO.
SHEET 1 of 1

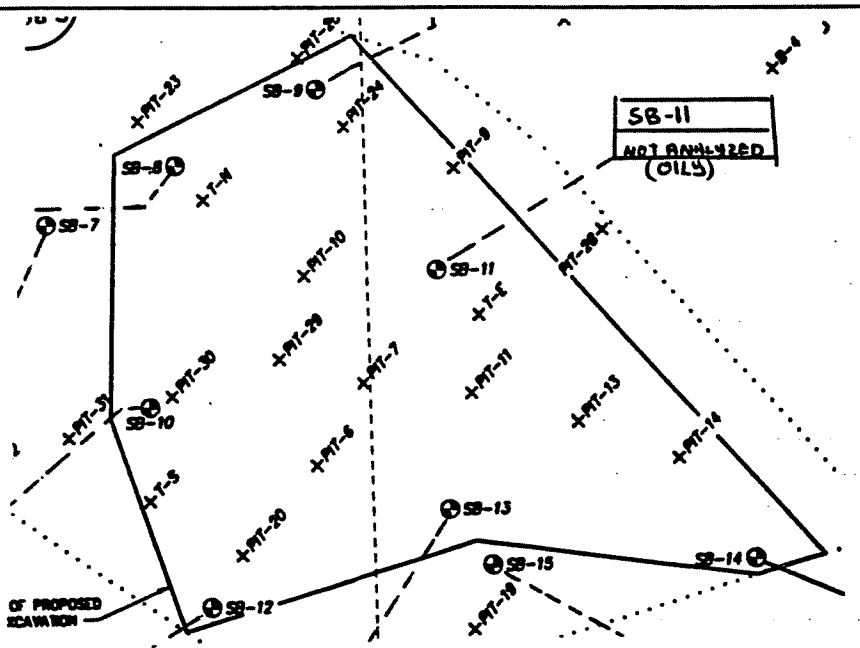
MEETINGS HELD & RESULTS:

Mayor's T.V. spotlight

REMARKS:

REFERENCES TO OTHER FORMS:

SKETCHES



SAMPLE LOG

SAMPLE NUMBER:

APPROXIMATE LOCATION OF STOCKPILE:

NUMBER OF STOCKPILE:

DATE OF COLLECTION:

CLIMATOLOGIC CONDITIONS:

FIELD OBSERVATION:

SHEETS _____ OF _____

MALCOLM PIRNIE

APPENDIX C

LABORATORY ANALYTICAL REPORTS

ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but not detected.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets identification criteria, but the result is less than the sample quantitation limit but greater than zero.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B - This flag is used when the analyte is found in the associated blank as well as the sample.

E - This flag identifies all compounds whose concentrations exceed the calibration range of the GC/MS instrument or that specific analysis.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

G - Matrix spike recovery is greater than the expected upper limit of analytical performance.

L - Matrix spike recovery is less than the expected lower limit of analytical performance.

- Indicates that a surrogate recovery was found to be outside the expected limits of analytical performance.

$ - Indicates that the surrogate compound was diluted out because the sample had to be diluted to obtain analytical results and a recovery could not be calculated.

(%) Indicates that the compound is a surrogate and the values reported for these compounds are in percent recovery. The quality control recovery limits (QC Limits) are indicated in the detection limit column.

METHODOLOGIES

The specific methodologies employed in obtaining the analytical data reported are indicated on each of the result forms. The method numbers shown refer to the following analytical method references:

Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020, March 1979, Revised 1983, U.S. Environmental Monitoring and Support Laboratory, Cincinnati, Ohio 45268.

Federal Register, 40 CFR Part 136: Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act. Revised July 1992.

Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. Third Edition, Revised September 1994, United States EPA SW-846.

Annual Book of ASTM Standards, Volume II. ASTM, 1916 Race Street, Philadelphia, Pennsylvania 19103.

Standard Methods for the Examination of Water and Wastewater. (18th Edition). American Public Health Association, 1105 18th Street, NW, Washington, D.C. 20036.

Waste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/17/96
Date Received: 10/17/96

Group Number: 9601-534
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30672
	Client ID	S-2 574' BASE
	Date Extracted	NA
	Date Analyzed	10/21/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	108.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/18/96
Date Received: 10/18/96

Group Number: 9601-535
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30677
	Client ID	SW-3 SO PERIMETER
	Date Extracted	NA
	Date Analyzed	10/21/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.4	
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	107.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/23/96
Date Received: 10/23/96

Group Number: 9601-544
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30725
	Client ID	SW-4
	Date Extracted	NA
	Date Analyzed	10/24/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	110.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/23/96
Date Received: 10/23/96

Group Number: 9601-544
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30726
	Client ID	S-5 A
	Date Extracted	NA
	Date Analyzed	10/24/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	25	25	U
Benzene	5	20	
Toluene	5	5	U
Ethylbenzene	7	80	
m,p-Xylene	14	229	
o-xylene	9	164	
Isopropylbenzene	8	8	U
n-Propylbenzene	9	16	
1,3,5-Trimethylbenzene	9	63	
tert-Butylbenzene	18	18	U
1,2,4-Trimethylbenzene	7	245	E
sec-Butylbenzene	11	11	U
p-Isopropyltoluene	9	9	U
n-Butylbenzene	14	97	
Naphthalene	8	642	E
a,a,a-Trifluorotoluene (%)	72-117	105	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/23/96
Date Received: 10/23/96

Group Number: 9601-544
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30757
	Client ID	S-5b
	Date Extracted	NA
	Date Analyzed	10/28/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	25.0	25.0	U
Benzene	5.0	10.1	
Toluene	5.0	5.0	U
Ethylbenzene	6.5	38.7	
m,p-Xylene	14.0	116.0	
o-xylene	8.5	79.6	
Isopropylbenzene	8.0	8.0	U
n-Propylbenzene	8.5	8.5	U
1,3,5-Trimethylbenzene	8.5	21.2	
tert-Butylbenzene	18.0	18.0	U
1,2,4-Trimethylbenzene	7.0	93.1	
sec-Butylbenzene	11.0	11.0	U
p-Isopropyltoluene	9.0	9.0	U
n-Butylbenzene	14.0	20.2	
Naphthalene	8.0	188.0	
a,a,a-Trifluorotoluene (%)	72-117	108.0	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/24/96
Date Received: 10/25/96

Group Number: 9601-549
Report Units: ug/kg
Matrix: Soil

	Lab ID Number Client ID Date Extracted Date Analyzed	WS30761 S-6 NA 10/28/96	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117 .	112.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/28/96
Date Received: 10/28/96

Group Number: 9601-552
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30769
	Client ID	SW-7A/B
	Date Extracted	NA
	Date Analyzed	10/28/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	84.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/28/96
Date Received: 10/28/96

Group Number: 9601-552
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30770
	Client ID	S-8A/B
	Date Extracted	NA
	Date Analyzed	10/29/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	25.0	25.0	U
Benzene	5.0	104.0	
Toluene	5.0	5.0	U
Ethylbenzene	6.5	94.5	
m,p-Xylene	14.0	160.0	
o-xylene	8.5	71.5	
Isopropylbenzene	8.0	8.0	U
n-Propylbenzene	8.5	8.5	U
1,3,5-Trimethylbenzene	8.5	22.1	
tert-Butylbenzene	18.0	18.0	U
1,2,4-Trimethylbenzene	7.0	102.0	
sec-Butylbenzene	11.0	11.0	U
p-Isopropyltoluene	9.0	9.0	U
n-Butylbenzene	14.0	14.0	U
Naphthalene	8.0	209.0	
a,a,a-Trifluorotoluene (%)	72-117	102.0	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, I
8021 Soil Analysis-NYSDEC List
5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/28/96
Date Received: 10/28/96

Group Number: 9601-552
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30799
	Client ID	S-8A
	Date Extracted	NA
	Date Analyzed	10/30/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	25.0	25.0	U
Benzene	5.0	107.0	
Toluene	5.0	5.0	U
Ethylbenzene	6.5	96.0	
m,p-Xylene	14.0	178.0	
o-xylene	8.5	73.7	
Isopropylbenzene	8.0	8.0	U
n-Propylbenzene	8.5	8.5	U
1,3,5-Trimethylbenzene	8.5	8.5	U
tert-Butylbenzene	18.0	18.0	U
1,2,4-Trimethylbenzene	7.0	60.7	
sec-Butylbenzene	11.0	11.0	U
p-Isopropyltoluene	9.0	9.0	U
n-Butylbenzene	14.0	14.0	U
Naphthalene	8.0	53.6	
a,a,a-Trifluorotoluene (%)	72-117	92.0	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Vaste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/28/96
Date Received: 10/28/96

Group Number: 9601-552
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30800
	Client ID	S-8B
	Date Extracted	NA
	Date Analyzed	10/30/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	25.0	25.0	U
Benzene	5.0	273.0	E
Toluene	5.0	12.6	
Ethylbenzene	6.5	289.0	E
m,p-Xylene	14.0	496.0	E
o-xylene	8.5	199.0	E
Isopropylbenzene	8.0	8.0	U
n-Propylbenzene	8.5	8.5	U
1,3,5-Trimethylbenzene	8.5	99.1	
tert-Butylbenzene	18.0	18.0	U
1,2,4-Trimethylbenzene	7.0	399.0	E
sec-Butylbenzene	11.0	11.0	U
p-Isopropyltoluene	9.0	9.0	U
n-Butylbenzene	14.0	14.0	U
Naphthalene	8.0	772.0	E
a,a,a-Trifluorotoluene (%)	72-117	107.0	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Vaste Stream Technology, Ii

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/30/96
Date Received: 10/30/96

Group Number: 9601-563
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS30802	
Client ID	SW-9 A/B	
Date Extracted	NA	
Date Analyzed	10/30/96	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	2.1	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	4.0	
a,a,a-Trifluorotoluene (%)	72-117	86.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/30/96
Date Received: 10/30/96

Group Number: 9601-563
Report Units: ug/kg
Matrix: Soil

Lab ID Number	WS30803	
Client ID	S-10 A/B	
Date Extracted	NA	
Date Analyzed	10/30/96	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	25.0	25.0	U
Benzene	5.0	198.0	E
Toluene	5.0	5.0	U
Ethylbenzene	6.5	406.0	E
m,p-Xylene	14.0	70.3	
o-xylene	8.5	38.3	
Isopropylbenzene	8.0	27.1	
n-Propylbenzene	8.5	8.5	U
1,3,5-Trimethylbenzene	8.5	53.6	
tert-Butylbenzene	18.0	18.0	U
1,2,4-Trimethylbenzene	7.0	1260.0	E
sec-Butylbenzene	11.0	11.0	U
p-Isopropyltoluene	9.0	9.0	U
n-Butylbenzene	14.0	351.0	E
Naphthalene	8.0	3270.0	E
a,a,a-Trifluorotoluene (%)	72-117 .	76.0	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 10/31/96
Date Received: 10/31/96

Group Number: 9601-566
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30817
	Client ID	S-11 A/B
	Date Extracted	NA
	Date Analyzed	11/05/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	34.7	
Toluene	1.0	4.6	
Ethylbenzene	1.3	40.9	
m,p-Xylene	2.8	120.0	E
o-xylene	1.7	66.1	E
Isopropylbenzene	1.6	2.3	
n-Propylbenzene	1.7	11.4	
1,3,5-Trimethylbenzene	1.7	39.3	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	158.0	E
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	50.7	E
Naphthalene	1.6	707.0	E
a,a,a-Trifluorotoluene (%)	72-117	79.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

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8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/01/96
Date Received: 11/01/96

Group Number: 9601-568
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30830
	Client ID	S-12 A/B
	Date Extracted	NA
	Date Analyzed	11/05/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	25.0	25.0	U
Benzene	5.0	5.0	U
Toluene	5.0	5.0	U
Ethylbenzene	6.5	4.3	J
m,p-Xylene	14.0	14.0	U
o-xylene	8.5	8.5	U
Isopropylbenzene	8.0	8.0	U
n-Propylbenzene	8.5	6.1	J
1,3,5-Trimethylbenzene	8.5	8.5	U
tert-Butylbenzene	18.0	18.0	U
1,2,4-Trimethylbenzene	7.0	145.0	
sec-Butylbenzene	11.0	11.0	U
p-Isopropyltoluene	9.0	9.0	U
n-Butylbenzene	14.0	15.2	
Naphthalene	8.0	147.0	
a,a,a-Trifluorotoluene (%)	72-117	104.0	

Dilution Factor 5
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/04/96
Date Received: 11/04/96

Group Number: 9601-571
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30840
	Client ID	SW-13 A/B
	Date Extracted	NA
	Date Analyzed	11/05/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	3.2	
a,a,a-Trifluorotoluene (%)	72-117	97.3	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

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Waste Stream Technology, Inc

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/05/96
Date Received: 11/05/96

Group Number: 9601-575
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30880
	Client ID	SW-14 A/B
	Date Extracted	NA
	Date Analyzed	11/05/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	2.4	
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	29.0	
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	65.3	E
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	2.3	
a,a,a-Trifluorotoluene (%)	72-117	107.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/07/96
Date Received: 11/07/96

Group Number: 9601-580
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30925
	Client ID	SW-15 A/B
	Date Extracted	NA
	Date Analyzed	11/08/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	115.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, Inc.

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/07/96
Date Received: 11/07/96

Group Number: 9601-580
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30926	
	Client ID	S-16 A/B	
	Date Extracted	NA	
	Date Analyzed	11/08/96	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	117.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, In
8021 Soil Analysis-NYSDEC List
5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/07/96
Date Received: 11/07/96

Group Number: 9601-580
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30927
	Client ID	SW-17 A/B
	Date Extracted	NA
	Date Analyzed	11/08/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	110.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

/aste Stream Technology, In

8021 Soil Analysis-NYSDEC List

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Site: LTV/TRUSCON
Date Sampled: 11/07/96
Date Received: 11/11/96

Group Number: 9601-584
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30982
	Client ID	S-18 A/B
	Date Extracted	11/11/96
	Date Analyzed	11/11/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	625	625	U
Benzene	125	125	U
Toluene	125	125	U
Ethylbenzene	163	163	U
m,p-Xylene	350	350	U
o-xylene	213	213	U
Isopropylbenzene	200	739	
n-Propylbenzene	213	4340	
1,3,5-Trimethylbenzene	213	213	U
tert-Butylbenzene	450	450	U
1,2,4-Trimethylbenzene	175	175	U
sec-Butylbenzene	275	1610	
p-Isopropyltoluene	225	225	U
n-Butylbenzene	350	5310	
Naphthalene	200	200	U
a,a,a-Trifluorotoluene (%)	72-117	129	#

Dilution Factor 125
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/11/96
Date Received: 11/11/96

Group Number: 9601-586
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30993
	Client ID	SW-19 A/B
	Date Extracted	NA
	Date Analyzed	11/12/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	100.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/11/96
Date Received: 11/11/96

Group Number: 9601-586
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS30994
	Client ID	S-20 A/B
	Date Extracted	NA
	Date Analyzed	11/12/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	3.8	
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	6.3	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	13.7	
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	104.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/12/96
Date Received: 11/13/96

Group Number: 9601-590
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS31029
	Client ID	S-21 A/B
	Date Extracted	NA
	Date Analyzed	11/15/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	2.0	
n-Propylbenzene	1.7	5.4	
1,3,5-Trimethylbenzene	1.7	1.9	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	23.0	
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	4.9	
a,a,a-Trifluorotoluene (%)	72-117	117.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

/aste Stream Technology, Ir

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/12/96
Date Received: 11/13/96

Group Number: 9601-590
Report Units: ug/kg
Matrix: Soil

	Lab ID Number	WS31030
	Client ID	SW-22 A/B
	Date Extracted	NA
	Date Analyzed	11/15/96

Compound	Detection Limit/ QC Limits (%)	Result	Q
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	3.7	
n-Propylbenzene	1.7	12.7	
1,3,5-Trimethylbenzene	1.7	6.9	
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	39.6	
sec-Butylbenzene	2.2	5.2	
p-Isopropyltoluene	1.8	4.2	
n-Butylbenzene	2.8	42.1	
Naphthalene	1.6	40.0	
a,a,a-Trifluorotoluene (%)	72-117	125.0	#

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, In
8021 Soil Analysis-NYSDEC List
5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/13/96
Date Received: 11/13/96

Group Number: 9601-590
Report Units: ug/kg
Matrix: Soil

	Lab ID Number Client ID Date Extracted Date Analyzed	WS31031 SW-23 A/B NA 11/13/96	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	1.6	U
n-Propylbenzene	1.7	1.7	U
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	2.2	U
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	2.8	U
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	108.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

Waste Stream Technology, In

8021 Soil Analysis-NYSDEC List

5030/8021

Site: LTV/TRUSCON
Date Sampled: 11/13/96
Date Received: 11/13/96

Group Number: 9601-590
Report Units: ug/kg
Matrix: Soil

	Lab ID Number Client ID Date Extracted Date Analyzed	WS31032 SW-24 A/B NA 11/13/96	
Compound	**Detection Limit/ QC Limits (%)**	**Result**	**Q**
Methyl-t-butylether	5.0	5.0	U
Benzene	1.0	1.0	U
Toluene	1.0	1.0	U
Ethylbenzene	1.3	1.3	U
m,p-Xylene	2.8	2.8	U
o-xylene	1.7	1.7	U
Isopropylbenzene	1.6	10.2	
n-Propylbenzene	1.7	23.3	
1,3,5-Trimethylbenzene	1.7	1.7	U
tert-Butylbenzene	3.6	3.6	U
1,2,4-Trimethylbenzene	1.4	1.4	U
sec-Butylbenzene	2.2	7.5	
p-Isopropyltoluene	1.8	1.8	U
n-Butylbenzene	2.8	16.8	
Naphthalene	1.6	1.6	U
a,a,a-Trifluorotoluene (%)	72-117	101.0	

Dilution Factor 1
NYSDEC Petroleum contaminated Water/Soil compound list.

WASTE STREAM TECHNOLOGY

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-534

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277-100 SITE NAME: LTV/Truscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 METHOD 8021				PRESERVATIVES			REMARKS
S-2	10/17/96	15:30	X		So:1	S-2 574' base	2	X				WS30672			Referenced to STARS criteria

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10-17-96 16:05	Debra Reeder			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs / contract

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY
302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-535

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV / Truscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021	PRESERVATIVES	REMARKS
3	10/8/96	08:30	X		Soil	SW-3 So Perimeter	2 2	2	WS30677	Referenced to STARS criteria

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10/8/96 10:00	Debra Pessler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs / contract

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

96001-544

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV / Truscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021					PRESERVATIVES		REMARKS
4	10/23	09:00	X		Soil	SW-4 3-4' bgs East Perimeter	2 oz 2	2		10			WS30725		Referenced to STARS criteria
							4 4		4 4	1 1	4 4				
5	10/23	11:15	X		Soil	S-5, 573.6 -574	2 oz 2	2					3072607 30757		
						Total sample jars	4								
											8	8			

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10/23/96 13:28	Debra Ressler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTESTREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

Q1-1544

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV / Tonawanda

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Methods 8021					PRESERVATIVES		REMARKS
4	10/23	10:00	X		Soil	SW-4 3-4' bgs East Perimeter	2oz 2	Z						307367	Referenced to STARS criteria
5	10/23	11:15	X		Soil	S-5. 573.6 -574	2oz 2	Z						307367 307357	

Total sample jars 4

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P Hilton	10/23/96 13:25	DeDee Reyon			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-549

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV/Tenscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 9021	PRESERVATIVES	REMARKS
6	10/24	16:00	X		Soil	S-6 573.4-574.2	2 oz / 2	2	WS30761	Referenced to STARS criteria

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10/25 14:00	Debra Restle			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-552

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV/Truscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021	PRESERVATIVES	REMARKS
7	10/28	08:15	X		Soil	SW-7A/B (3-4') East Perimeter	2oz 2	2	WS30769	Analyses performed to STARS criteria
8	10/28	09:30	X		Soil	S-8 A/B 575-575.5 Base	2oz 2	2	WS30770	

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10/28 13:20	Debra Reddan			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-552

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV/TRUSCON

SAMPLERS (SIGNATURE): John P Hulton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 METHOD 8021	PRESERVATIVES	REMARKS
7	10/25	09:15	X		Soil	SW-7A/B (3 4') East Perimeter	2oz 2	2	WS30769	Analyses performed to STARS criteria
8	10/26	09:30	X		Soil	S-8 A/B 575-575.5 Base	2oz 2	2	WS30770	
8A	10/28	09:30	X		Soil	S-8A	1x2oz	X	WS30799	
8B	10/28	09:30	X		Soil	S-8B	1x2oz	X	WS30800	

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P Hulton	10/28 13:20	Debra Rebbin			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-563

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277

SITE NAME: LTV Transcon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021						PRESERVATIVES	REMARKS
9A/B	10/30	08:15	X		Soil	SW-9 A/B	2oz 2	2					WS30802		Released for
						3-5' bgs									STARS criteria
						North Perimeter									
10A/B	10/30	10:30	X		Soil	S-10 A/B	2oz 2	2					WS30803		
						572.8 - 573.1									

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10/30 14:00	Debra Russler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

96011-566 DK

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277

SITE NAME: LTV/Truscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021	PRESERVATIVES	REMARKS
11	10/31	09:00	X		Soil	S-11 A/B base 573-573.6	2oz 2	2	WS30817	Referenced to STARS criteria

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	10/31 14:00	Debra Reesler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY
302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-568

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV Transcon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	5-8016 Method 8021	PRESERVATIVES	REMARKS
12	10/31	15:30	X		Soil	S-12 A/B	2oz 2	2	WS30830	References to STARS criteria
	11/1	11:45				573.2-573.6				
						BASE				

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	11/4/96 13:35	Debra Reeder			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME _____

LAB USE: REFRIGERATOR # _____ SHELF # _____ GROUP # _____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-571

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277

SITE NAME: LTV / Truscon

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021	PRESERVATIVES	REMARKS
13	11/4	1045	X		Soil	SW-13 A/B West Perimeter (3-5')	2oz / 2	2	WS80840	References to STARS criteria

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P Hilton	11/4 13:30	Debra Resler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-575

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277

SITE NAME: LTV, Tonawanda

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021							PRESERVATIVES	REMARKS
14	11/5	10:00	X		Soil	SW-14 A/B West Perimeter	2 oz 2	2			WS ~~30857~~		30880	DI		References to STARS criteria

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	11/5/90 13:15	Paul C Moon	Shipping	Late	TIME
Paul C Moon	11/5/90 1400				

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-580

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV/TRUSCON

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021	PRESERVATIVES	REMARKS
15	11/6-11/7		X		Soil	SW-15 A/B 5-6' bgs	2 oz 2	Z	WS30925	Analysis referenced to STARS criteria
16	11/7	10:45	X		Soil	S-16 A/B base	2 oz 2	Z	WS30926	
17	11/7	11:45	X		Soil	SW-17 A/B 5-7' bgs	2 oz 2	Z	WS30927	

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	11/7/96 13:50	Debra Kessler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 4/8 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-584

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277

SITE NAME: LTV / TRUSCON

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SVOC 8270 Method 8021						PRESERVATIVES	REMARKS
18	11/7	15:20	X		Soil	S-18 A/B	2oz 2	2						WS30982	References to STARS criteria
						base @ 570.8									

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	11/8 4:05	Rebecca E Dye	Rebecca E Dye	11/11 0800	Debra Kessler
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 4/8 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-586

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV/Tryckwood

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Method 8021	PRESERVATIVES	REMARKS
19	11/11	13:00	X		Soil	SW-19 A/B S. Perimeter SB-18 prox	2oz 2	2	WS30993	Referenced to STARS criteria
20	11/11	13:45	X		Soil	S-20 A/B BASE - 570-571	2	2	WS30994	

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	11/12 15:00	Debra Riddle			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE_____

WASTE STREAM TECHNOLOGY
302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

CHAIN OF CUSTODY RECORD

PROJECT NO: 0301-277 SITE NAME: LTV TRUSCON

SAMPLERS (SIGNATURE): John P Hutton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 Mtd 8021	PRESERVATIVES	REMARKS
21	11/12	13:30	X		Soil	S-21 A/B	2oz 2	2		Analysis retrieved to STARS criteria
						BASE 571 574				
22	11/12	14:45	X		Soil	SW-22 A/B	2oz 2	2		
23	11/13	10:15	X		Soil	SW-23 A/B	2oz 2	2		
24	11/13	11:15	X		Soil	SW-24 A/B	2oz 2	2		

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hutton	11/13/96 11:40	Debra Kessler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

WASTE STREAM TECHNOLOGY

302 GROTE STREET
BUFFALO, NY 14207
(716) 876-5290

9601-590

CHAIN OF CUSTODY RECORD

PROJECT NO: 0304-277 SITE NAME: LTV/TRUSCON

SAMPLERS (SIGNATURE): John P. Hilton

SAMPLE NO.	DATE	TIME	COMP	GRAB	MATRIX	SAMPLE LOCATION	SIZE & NO. OF CONTAINERS	SW-846 ME 8240 8021	PRESERVATIVES	REMARKS
21	11/12	13:30	X		Soil	S-21 A/B	202 2	2	WS31029	Analysis returned to STARS criteria
						BASE 571-574				
22	11/12	14:45	X		Soil	SW-22 A/B	202 2	2	WS31030	
23	11/13	10:15	X		Soil	SW-23 A/B	202 2	2	WS31031	
24	11/13	11:15	X		Soil	SW-24 A/B	202 2	2	WS31032	

RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)
John P. Hilton	11/13/96 11:40	Debra Rossler			
RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE/TIME	RECEIVED BY (SIGNATURE)

SPECIAL INSTRUCTIONS:

TURNAROUND TIME 48 hrs

LAB USE: REFRIGERATOR #_____ SHELF #_____ GROUP #_____ DUE DATE _____

MALCOLM PIRNIE

APPENDIX D

WASTE OIL INVOICE FORMS

10 351

INVOICE 96-7515

Retain this copy for your records for 10 years

BISON WASTE OIL COMPANY INC.

P.O. Box 147
240 Main St
Cowlesville, NY 14037

OFFICE:
11881 Broadway
Alden, NY 14004

DEC #9A050

716-937-7730 Fax 716-937-3254 1-800-542-5699

OFFICIAL USED OIL RECEIPT / INVOICE / CERTIFICATION OF USED OIL COMPOSITION

Company Name Elmwood Tank

Company Street Address Firetower Dr.

City Tonawanda State NY Zip

Phone No.

A. COMPANY CERTIFICATION:

1. Company is a used oil ____ Generator ✓ Collector
2. That the used oil released 11-14-96 Date
3. ✓ Sample has been taken
   ✓ Has not been mixed with any hazardous materials
   ____ Contains chlorinated paraffinic compounds (attach specifications)
4. ✓ Waste water
5. That this company generates ____ less than ____ more than 300 gallons per month

D.B. Stevens
Company Certification Signature

Driver Signature D. B. Gn.

P.O. # 17780

B. Charge per Container ____ × Container ____ = $ ____ Chg. for Oil

Charge per Container ____ × Container 890 = $ ____ Chg. for Water/Anti Freeze

Environmental Fee ____ $ ____

Chg. ____ × % Sales Tax ____ = $ ____ Sales Tax Due

Total due — Pay this amount to Bison Waste Oil Co. $ ____

THIS IS YOUR INVOICE

County Erie Charge ☒ Cash ☐ Check ☐ # ____

MALCOLM PIRNIE

APPENDIX E

STOCKPILE LINER QUALITY ASSURANCE TEST DATA

MALCOLM PIRNIE, INC.

Project..... LTV - 6" PAD
Project Number.. 0304-27-7

Sample Number	Undisturbed Permeability cm/sec
ST-1	1.9 E-8
ST-2	2.1 E-8
ST-3	4.9 E-8

MALCOLM PIRNIE, INC.

Project..... LTV - 6" PAD
Project Number.. 0304-27-7
Location..... ST-1

PERMEABILITY TEST RESULTS

SAMPLE PARAMETERS	INITIAL	FINAL
Height.....(in)	3.08	3.04
Diameter.....(in)	2.84	2.83
Wet Density.....(pcf)	133.9	136.9
Moisture Content.....(%)	15.0	15.5
Optimum Moisture Content..(%)	9.7	9.7
Dry Density.....(pcf)	116.4	118.6
Percent Compaction.....(%)	94	

TEST PARAMETERS	
Test Type.....	UNDISTURBED
	FALLING HEAD
Head Pressure.....(psi)	84.1
Back Pressure.....(psi)	80.0
Chamber Pressure..(psi)	88.0
Fluid.....	DEAIRED WATER
Permeation Time..(days)	3

TEST RESULTS

Coefficient of Permeability, K..(cm/sec) 1.9 E-8

MALCOLM PIRNIE, INC.

Project..... LTV - 6" PAD
Project Number.. 0304-27-7
Location..... ST-2

PERMEABILITY TEST RESULTS

SAMPLE PARAMETERS	INITIAL	FINAL
Height.....(in)	1.81	1.77
Diameter.....(in)	2.84	2.84
Wet Density.....(pcf)	136.9	140.6
Moisture Content.....(%)	11.8	12.8
Optimum Moisture Content..(%)	9.7	9.7
Dry Density.....(pcf)	122.5	124.7
Percent Compaction.....(%)	98	

TEST PARAMETERS	
Test Type.....	UNDISTURBED
	FALLING HEAD
Head Pressure.....(psi)	84.9
Back Pressure.....(psi)	80.0
Chamber Pressure..(psi)	88.0
Fluid.....	DEAIRED WATER
Permeation Time..(days)	2

TEST RESULTS

Coefficient of Permeability, K..(cm/sec) 2.1 E-8

MALCOLM PIRNIE, INC.

Project..... LTV - 6" PAD
Project Number.. 0304-27-7
Location..... ST-3

PERMEABILITY TEST RESULTS

SAMPLE PARAMETERS	INITIAL	FINAL
Height.....(in)	1.93	1.92
Diameter.....(in)	2.83	2.83
Wet Density.....(pcf)	128.6	131.6
Moisture Content.....(%)	13.5	15.5
Optimum Moisture Content..(%)	9.7	9.7
Dry Density.....(pcf)	113.3	113.9
Percent Compaction.....(%)	91	

TEST PARAMETERS	
Test Type.....	UNDISTURBED
	FALLING HEAD
Head Pressure.....(psi)	85.0
Back Pressure.....(psi)	79.5
Chamber Pressure..(psi)	88.0
Fluid.....	DEAIRED WATER
Permeation Time..(days)	2

TEST RESULTS

Coefficient of Permeability, K..(cm/sec) 4.9 E-8

NUCLEAR DENSITOMETER DATA SHEET

Project: LTV - 6" PAD
Date: 10/15/96
Client: LTV
Job No. 0304-27-7
Contractor: BDR
Type of Material: Clay
Proctor Test Data – Maximum Density: 124.4
Optimum Moisture Content: 9.7

NUCLEAR GAGE STANDARD COUNTS Density: 2693
Moisture: 190

TEST NUMBER	1	2	3	4	5	6	7	8	9			
DEPTH OR ELEVATION	4"	4"	4"	4"	4"	4"	4"	4"	4"			
DENSITY COUNT	2588	2822	2486	2449	2716	2678	2730	2735	2413			
WET DENSITY (pcf)	132.0	127.7	134.1	134.9	129.6	130.2	131.3	129.1	135.7			
MOISTURE ~~CONTENT~~ COUNT	200	174	189	193	189	200	181	211	194			
MOISTURE (pcf)	15.2	12.9	14.2	14.6	14.2	15.2	13.5	16.1	14.7			
DRY DENSITY (pcf)	116.8	114.8	119.9	120.3	115.3	115.1	115.8	113.0	121.0			
PERCENT MOISTURE	13.0	11.3	11.9	12.1	12.3	13.2	11.7	14.3	12.1			
PERCENT COMPACTION	93.9	92.2	96.4	96.7	92.7	92.5	93.1	90.8	97.3			
PASS (P) OR FAIL (F)	P	P	P	P	P	P	P	P	P			

TEST NO.	LOCATION OR REMARKS

INSPECTION TIME: 13:30
INSPECTOR: J. Boyles
DATA CHECKED BY:
TROXLER SERIAL NUMBER: 17112

NUCLEAR DENSITOMETER DATA SHEET

Project: LTV - 6" PAN Date: 10/16/96
Client: LTV Job No. 0304-27-7
Contractor: BDR Type of Material: Clay
Proctor Test Data – Maximum Density: 124.4 Optimum Moisture Content: 9.7

NUCLEAR GAGE STANDARD COUNTS Density: 2688 Moisture: 696

TEST NUMBER	10	11	12	13	14	15	16	17	18	19	20
DEPTH OR ELEVATION	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
DENSITY COUNT	2465	2559	2389	2306	2469	2487	2675	2785	2544	2296	2467
WET DENSITY (pcf)	134.5	132.6	137.3	138.1	134.4	134.1	130.3	128.2	132.9	138.2	134.5
MOISTURE ~~CONTENT~~ Count	204	208	206	174	204	197	189	198	203	207	208
MOISTURE (pcf)	15.5	15.9	15.2	12.9	15.5	14.9	14.2	15.0	15.4	15.8	15.9
DRY DENSITY (pcf)	119.0	116.7	122.1	125.2	118.9	119.2	116.1	113.2	117.4	122.4	118.6
PERCENT MOISTURE	13.1	13.6	12.4	10.3	13.1	12.5	12.3	13.3	13.2	12.9	13.4
PERCENT COMPACTION	95.6	93.8	98.1	100.7	95.6	95.8	93.3	91.0	94.4	98.4	95.3
PASS (P) OR FAIL (F)	P	P	P	P	P	P	P	P	P	P	P

TEST NO.	LOCATION OR REMARKS

INSPECTION TIME: 14:00
INSPECTOR: J. MOLNAR
DATA CHECKED BY:
TROXLER SERIAL NUMBER: 17112

NUCLEAR DENSITOMETER DATA SHEET

Project: LTV - 6" PAD Date: 10/12/96

Client: LTV Job No. 0804-277

Contractor: BDR Type of Material: Clay

Proctor Test Data – Maximum Density: 124.4 Optimum Moisture Content: 9.7

NUCLEAR GAGE STANDARD COUNTS Density: 2694 Moisture: 694

TEST NUMBER	21	22	23	24	25	26	27	28	29	30	31	32
DEPTH OR ELEVATION	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
DENSITY COUNT	2640	2520	2359	2502	2404	2503	2446	2273	2487	2583	2392	2529
WET DENSITY (pcf)	127.3	133.1	136.5	133.5	135.6	133.5	134.6	132.5	133.6	131.7	135.2	132.8
MOISTURE ~~CONTENT~~ COUNT	197	184	204	184	176	183	195	185	206	184	190	200
MOISTURE (pcf)	14.9	13.8	15.5	13.8	13.1	13.7	14.8	14.8	15.7	13.8	14.3	15.2
DRY DENSITY (pcf)	112.3	119.3	120.9	119.7	122.5	119.7	119.9	123.7	117.9	117.9	121.5	117.7
PERCENT MOISTURE	13.3	11.6	12.8	11.5	10.7	11.5	12.3	11.9	13.3	11.7	11.8	12.9
PERCENT COMPACTION	90.3	95.9	97.2	96.2	98.5	96.3	96.3	99.4	94.8	94.8	97.6	94.6
PASS (P) OR FAIL (F)	P	P	P	P	P	P	P	P	P	P	P	P

TEST NO.	LOCATION OR REMARKS

INSPECTION TIME: 13:00

INSPECTOR: J. Boyces

DATA CHECKED BY:

TROXLER SERIAL NUMBER: 1712

NUCLEAR DENSITOMETER DATA SHEET

Project: LIV – 6" PAD Date: 10/12/96

Client: LIV Job No. 034-27-7

Contractor: BDC Type of Material: Clay

Proctor Test Data – Maximum Density: 124.4 Optimum Moisture Content: 9.7

NUCLEAR GAGE
STANDARD COUNTS Density: 2694 Moisture: 694

TEST NUMBER	33	34										
DEPTH OR ELEVATION	4"	4"										
DENSITY COUNT	2609	2829										
WET DENSITY (pcf)	131.3	127.1										
MOISTURE CONTENT	18G	19G										
MOISTURE (pcf)	14.0	14.8										
DRY DENSITY (pcf)	117.3	112.3										
PERCENT MOISTURE	11.9	13.2										
PERCENT COMPACTION	94.3	90.3										
PASS (P) OR FAIL (F)	P	P										

TEST NO.	LOCATION OR REMARKS

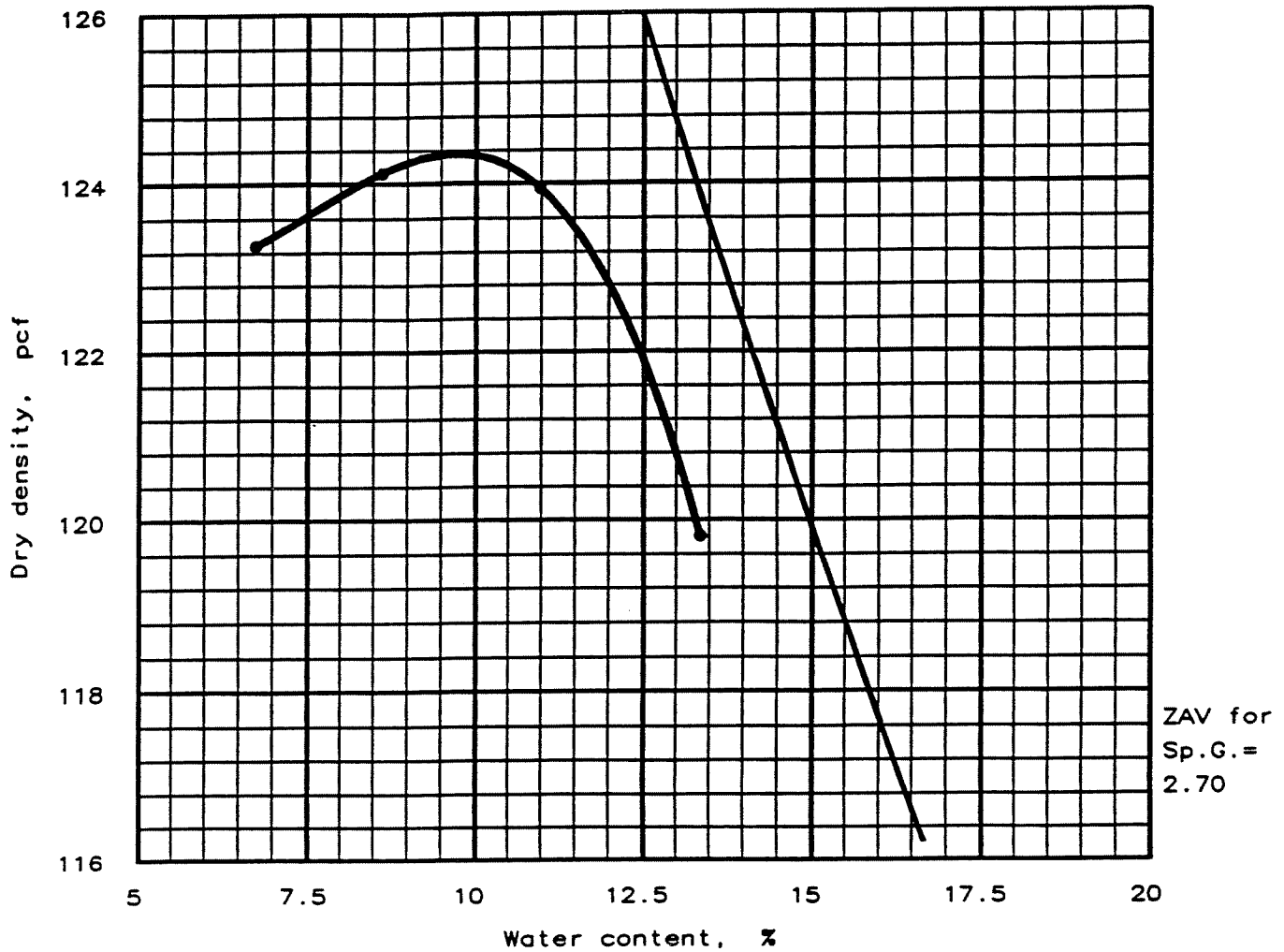
INSPECTION TIME: 13:00

INSPECTOR: J. Boyces

DATA CHECKED BY:

TROXLER SERIAL NUMBER: 17112

MOISTURE-DENSITY RELATIONSHIP TEST



Test specification: ASTM D 1557-91 Method B, Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/8 in	% < No.200
	USCS	AASHTO						

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 124.4 pcf Optimum moisture = 9.7 %	

Project No.: 0304-27-7

Project: LTV

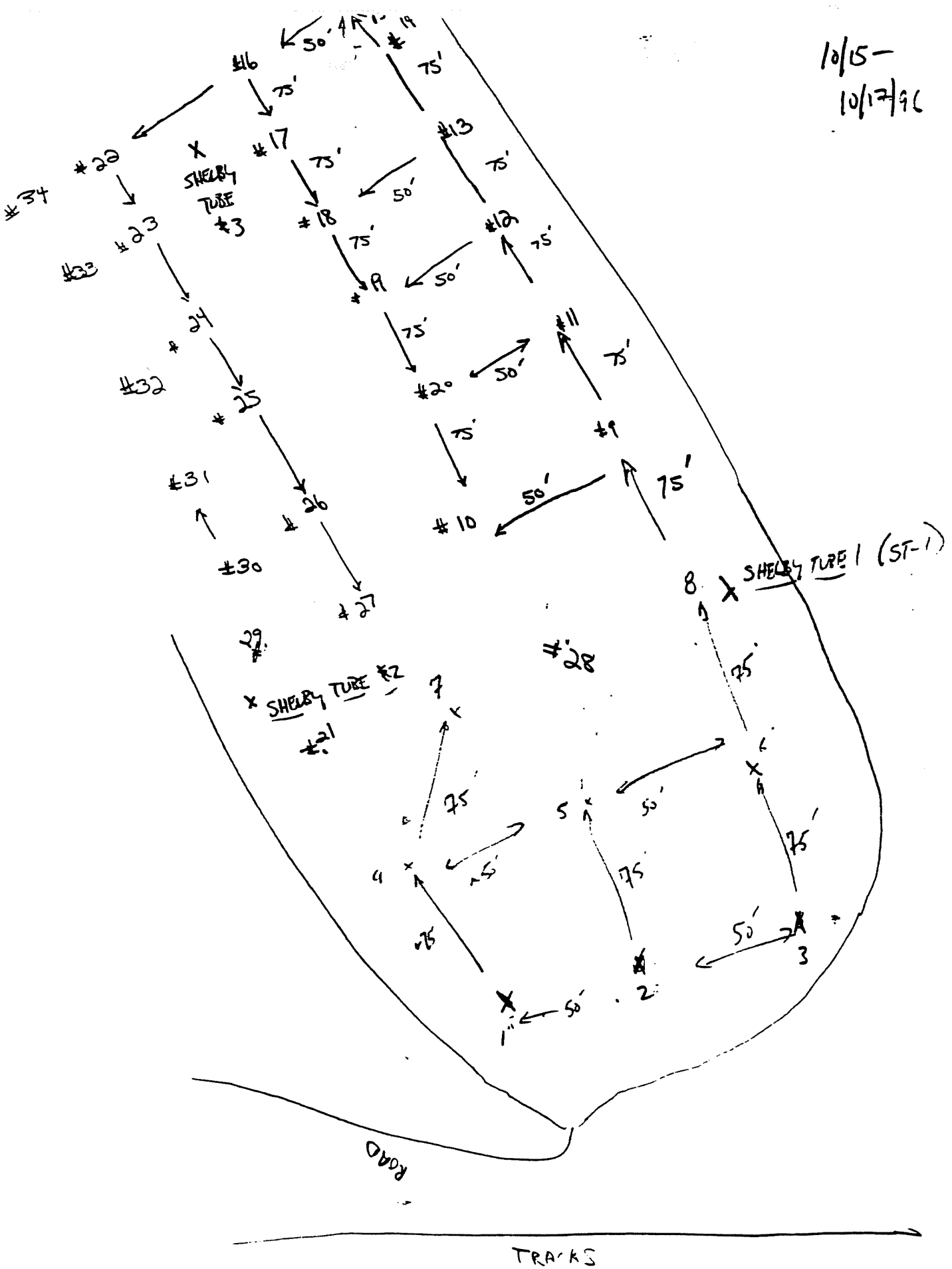
Location: BULK SAMPLE NO. 1 / BDR

Date: 10-7-96

Remarks:

MOISTURE-DENSITY RELATIONSHIP TEST

MALCOLM PIRNIE, INC.


10/15-
10/17/96
#16
#17
#18
#19
#20
#21
#22
#23
#24
#25
#26
#27
#28
#29
#30
#31
#32
#33
#34
#1
#2
#3
#4
#5
#6
#7
#8
#9
#10
#11
#12
#13
50'
75'
SHELBY TUBE #3
SHELBY TUBE #2
SHELBY TUBE 1 (ST-1)
Bldg
TRACKS
J. Boyles
LTV - 6" PAD / DENSITY TESTING

MALCOLM PIRNIE

APPENDIX F

POSI-SHELL MANUFACTURER'S DATA

Posi-Shell™ Cover System

LSC

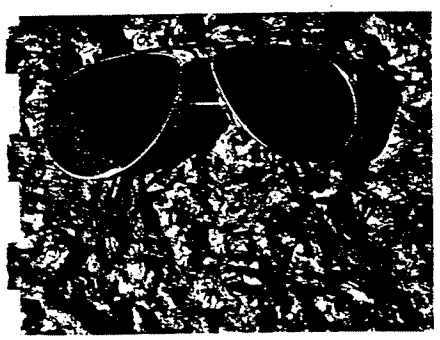
LANDFILL SERVICE
CORPORATION

Posi-Shell™ Makes Room for Profit

The most valuable element of a landfill is disposal airspace. Efficient use of airspace today can directly translate into longer landfill life, decreased operating costs and increased profits.

Using Posi-Shell synthetic cover instead of natural soil for daily landfill cover is your ticket to achieving maximum airspace utilization. Developed by Landfill Service Corporation as an innovative, zero-volume cover for today's challenged landfill sites, Posi-Shell is the one total application system that gives you easy access to every cubic yard of airspace formerly consumed by thick soil covers.

In most cases, the application cost of Posi-Shell is no more than soil, making Posi-Shell daily cover affordable within your existing landfill budget. You gain additional usable airspace at little or no additional cost.



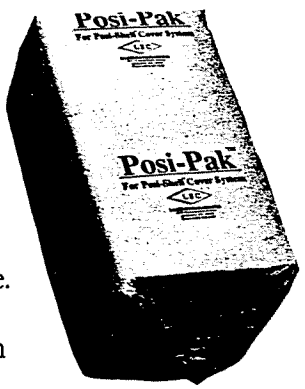
Composition

Posi-Shell™ is a 100% recycled alternative to traditional, costly soil layering. It has met the rigorous standards required for approval by New York State's tough Department of Environmental Conservation (DEC) for use in the state's landfills.

Made entirely of non-flammable, non-toxic recycled materials, Posi-Shell is an environmentally-compatible combination of: **Liquid (Water or Leachate) + Posi-Pak with Fibers + Mineral Binder = Posi-Shell**

Liquid: Posi-Shell has been formulated to use either water or landfill leachate as its liquid base. For landfill owners, this means that you can now use leachate as part of your daily cover process rather than transporting it offsite for treating.

Posi-Pak™: Lightweight, easy-to-handle and ready-to-use Posi-Paks contain a mixture of materials including recycled plastic and cellulose fibers.



Mineral Binder: Posi-Shell's mineral binder component acts to neutralize odors and contaminants present in leachate. It is comprised of recycled by-products now put to good use in the Posi-Shell formula.

After application, the Posi-Shell slurry hardens to a non-flammable coating that easily conforms to the irregular contours of your landfill. Its color and texture provide a uniform appearance that is aesthetically appealing to nearby residents.

Application

Applying Posi-Shell cover is an uncomplicated, one-man operation. Once the ten-minute process of mixing the dry components with a liquid is completed, Posi-Shell's mobile applicator is moved to the working face. The specially-designed applicator provides exceptional ability to access difficult, steep or muddy areas. High pressure slurry pumping capability allows rapid coverage from a single station.

Versatile Posi-Shell is equally effective as cover for conventional landfills, composting piles, hazardous waste piles, and for preventing side slope erosion.

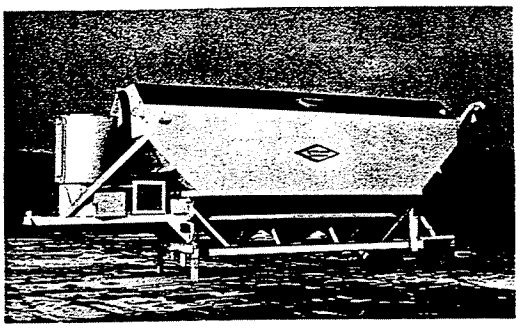
EQUIPMENT

Posi-Shell™ Cover System

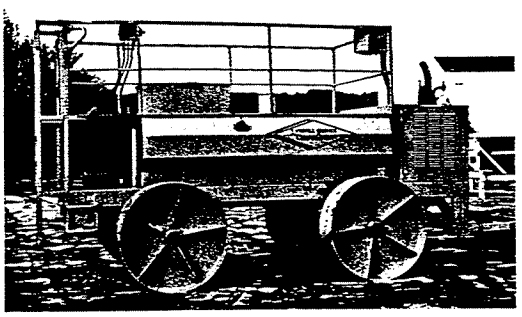
Landfill Service Corporation provides all specialized equipment and training for the Posi-Shell application process. Mixing and application equipment are available on a lease basis. In almost every case, our total application system will cost you less to maintain and operate than traditional soil moving equipment such as dump trucks, backhoes and bulldozers.

Stage I: Mixing

- Horizontal Silo — Used to store and dispense mineral binder used in the Posi-Shell mix.



- Posi-Shell Applicator — Mixes Posi-Shell ingredients in five to ten minutes; maintains constant agitation of slurry until ready for application.



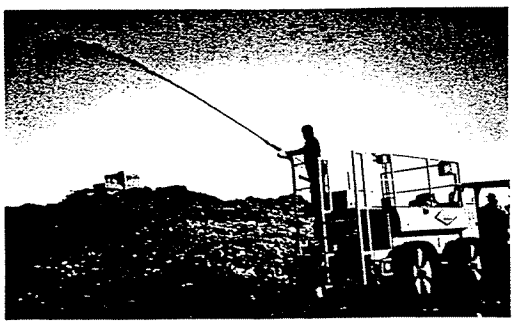
Customized Set-Ups

Landfill Service Corporation determines your application equipment needs depending on the configuration of your site. Multiple set-ups can be arranged for larger landfills.

Maintenance and warranty are supplied by Landfill Service Corporation. Our technicians and engineers are available 24-hours-a-day for troubleshooting assistance.

Stage II: Application

- Mobile, self-contained Posi-Shell applicator can be towed to any point in your landfill adjacent to working faces.
- Deck-mounted spray tower applies non-flammable Posi-Shell mixture up to 200 feet, with the ability to cover 2,000 – 3,000 square feet per load.



- From the five to ten-minute mixing process through application and clean-up, using Posi-Shell takes only about one hour per load with a one-man crew.

LSC
LANDFILL SERVICE
CORPORATION

2183 Pennsylvania Avenue
Apalachin, NY 13732 (USA)
Tele (607) 625-3050
FAX (607) 625-2689

ADDITIONAL USES

Posi-Shell™ Cover System

Posi-Shell has proven to be an effective daily cover for these typical landfill challenges:

- **Litter Control**
  The tacky consistency of Posi-Shell's fresh slurry adheres particles to fresh waste piles, preventing airborne debris.

- **Odor Control**
  Posi-Shell's alkaline formulation neutralizes waste odors.

- **Bird Abatement**
  Posi-Shell is an effective deterrent. After application to a landfill near one busy regional airport, bird populations dropped dramatically, reducing danger to passing aircraft. In fact, birds could be seen feeding on newly dumped garbage while completely avoiding garbage coated with Posi-Shell just a few feet away.

- **Erosion Control**
  Posi-Shell can be used to cover erodible soils on protective berms or other landfill structures.

- **Stabilized Waste Placement**

- **Compost Pile Cover**

- **Contaminated Soil Pile Cover**
  Posi-Shell forms a protective, fireproof seal around contaminated soils, eliminating wind and rainfall dispersion.

Posi-Pak™: Environmentally Safe
Lightweight, easy-to-handle Posi-Paks are packaged for easy stacking, storage and protection against the elements. They contain 100% recycled materials for blending with the Posi-Shell mixture. Three Posi-Paks are required for each full load of cover.

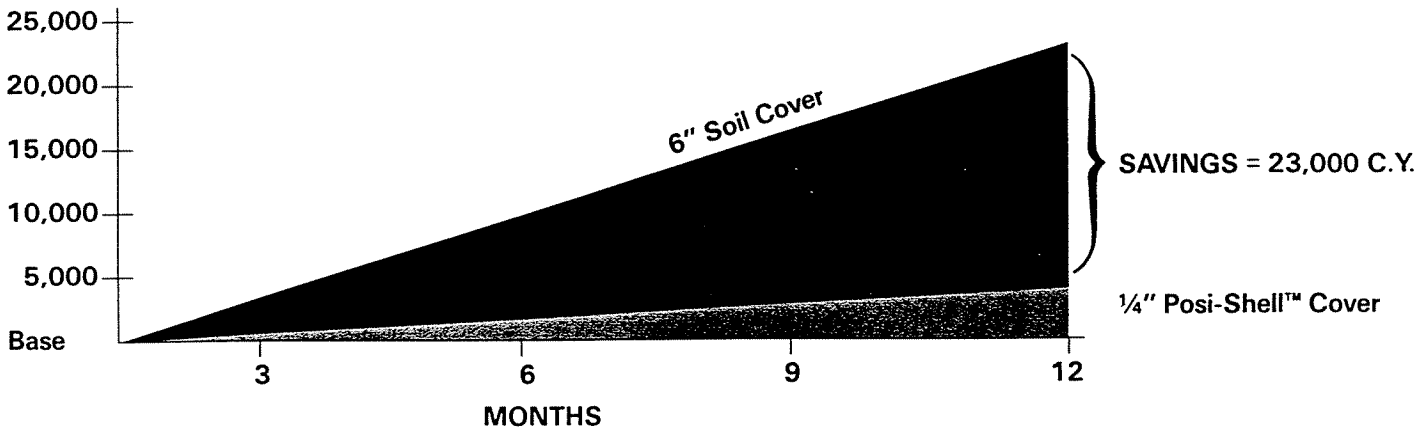
LSC
LANDFILL SERVICE
CORPORATION
2183 Pennsylvania Avenue
Apalachin, NY 13732 (U S A)
Tele (607) 625 3050
FAX (607) 625 2689

PERFORMANCE

Posi-Shell™ Cover System

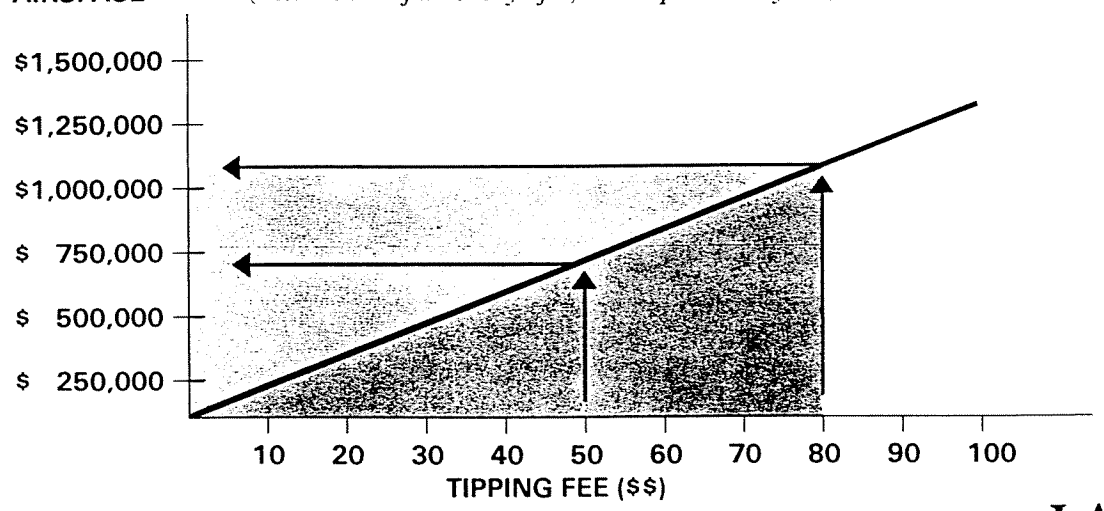
Airspace Consumed by Daily Landfill Coverings

(assume 5,000 S.F. of coverage daily)



Annual Value of Conserved Airspace

(assume landfill density of 1,200 lb. per cubic yard)



EXAMPLE:
A landfill with a **$50.00** tipping fee would realize **$690,000** in additional airspace value over a one-year period.

LSC

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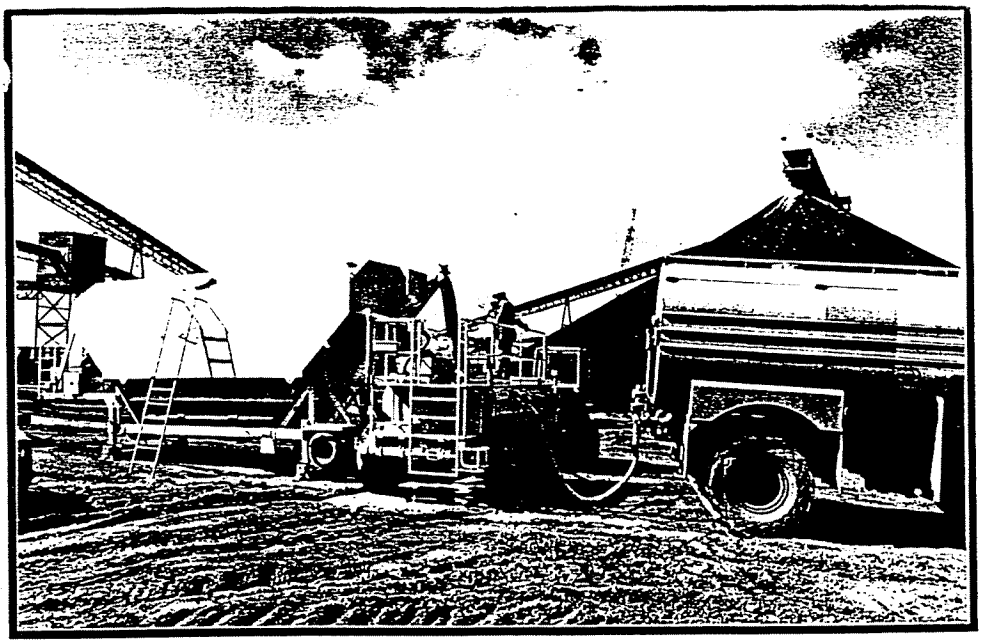
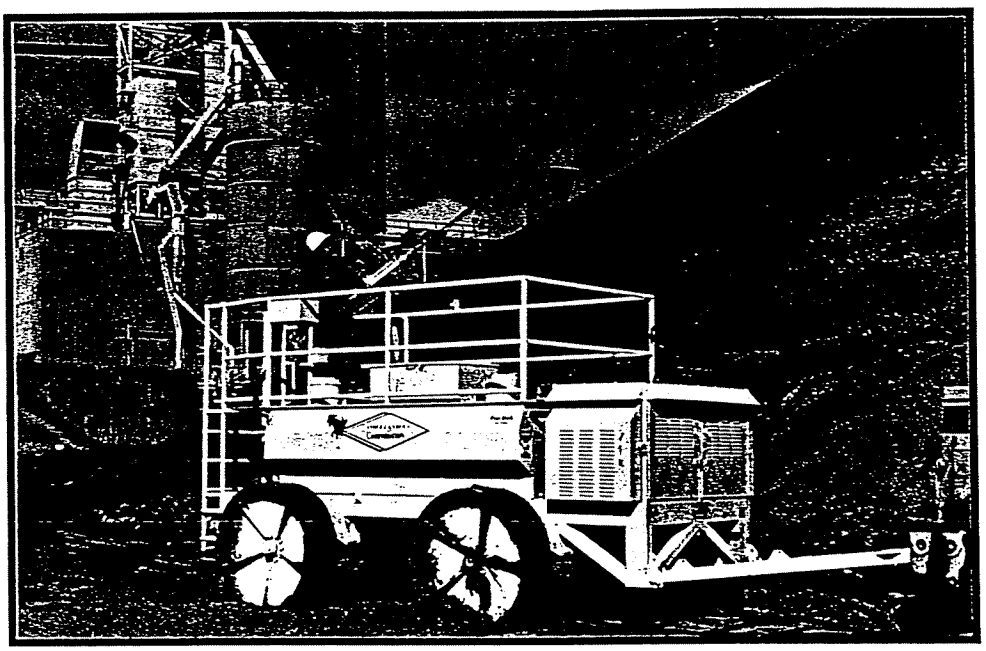
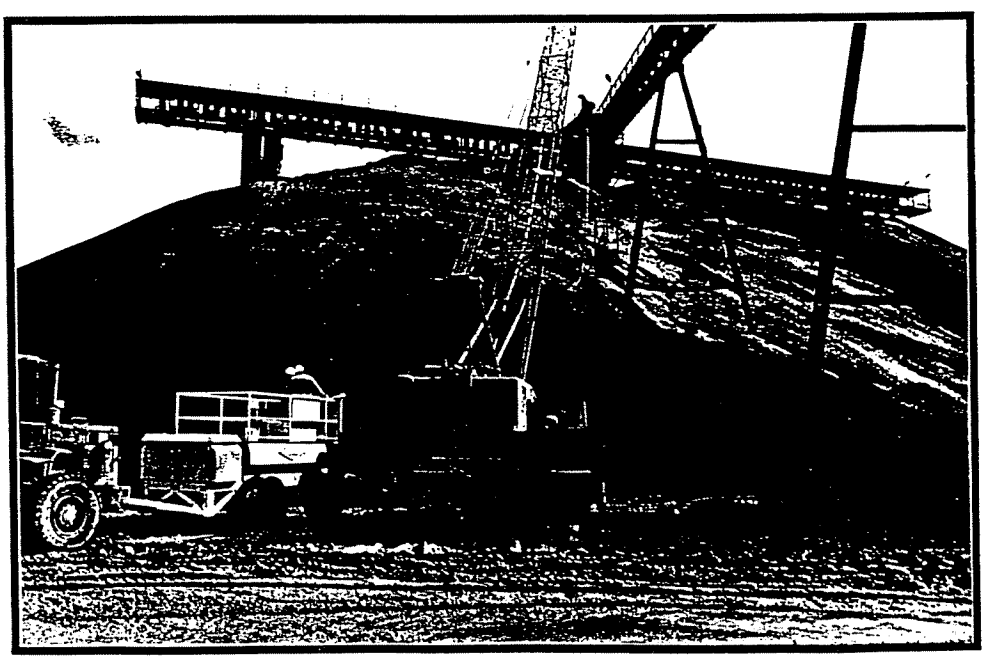
Apalachin, NY 13732 (USA)
Phone (607) 625-3050 Fax (607) 625-2689



Specially designed portable equipment blending Posi-Shell® ingredients



Applying Posi-Shell® through deck-mounted spray tower

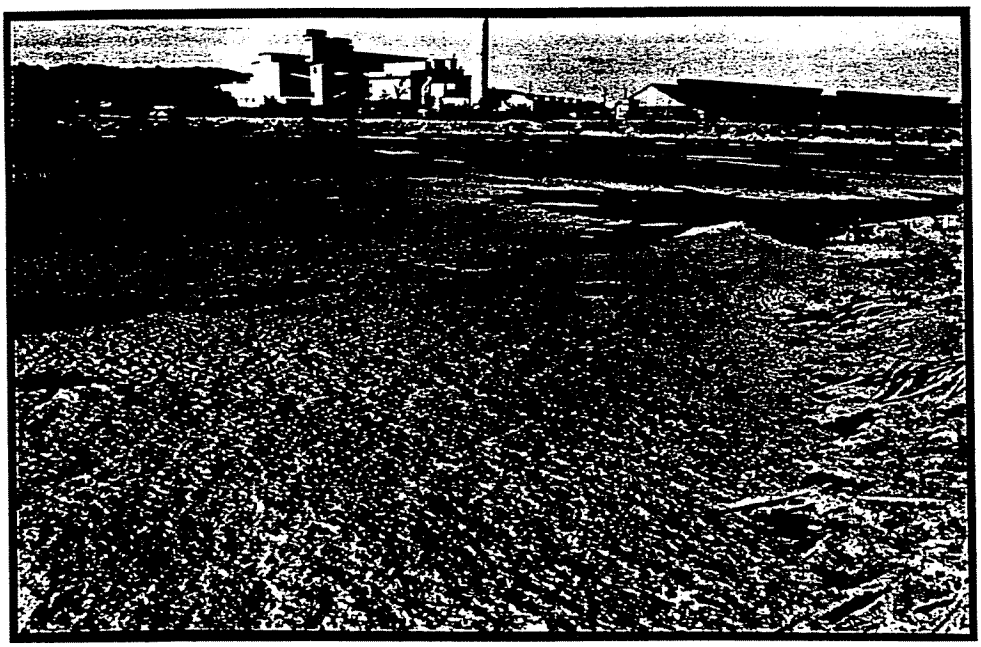


Applying Posi-Shell® to a remote location via several hundred feet of hose

LSC
LANDFILL SERVICE
CORPORATION

2183 Pennsylvania Avenue
Apalachin, NY 13732 (USA)
Phone (607) 625-3050 Fax (607) 625-2689

Lead contaminated fugitive dust control (South Carolina)



Odor and V.O.C. emissions control (New York)

Fugitive dust control on Superfund Site (Western U.S.)

MALCOLM PIRNIE

APPENDIX G

CONSTRUCTION PHOTOGRAPHS

PHOTO #1:

Checking grades in the area of the former 5.5 million gallon tank.

PHOTO #2:

Excavating contaminated soil in area of former 5.5 million gallon tank.

PHOTO #3:
Groundwater in main excavation.

PHOTO #4:
Oil contamination on side of excavation area.

PHOTO #5:
Dumping contaminated soil on biopad.

PHOTO #6:
Grading soil on biopad.

PHOTO #7:

Oil contaminated groundwater in area of former 5.5 million gallon tank.

PHOTO #8:

Side wall of main excavation area showing layer of hard slag above oil contaminated groundwater.

PHOTO #9:

Abandoned pipe lines in side of main excavation area.

PHOTO #10:

Compacting backfill.

PHOTO #11:
Excavating soil adjacent to Buffalo River.

PHOTO #12:
Pumping contaminated groundwater from excavation to BSA collection system.

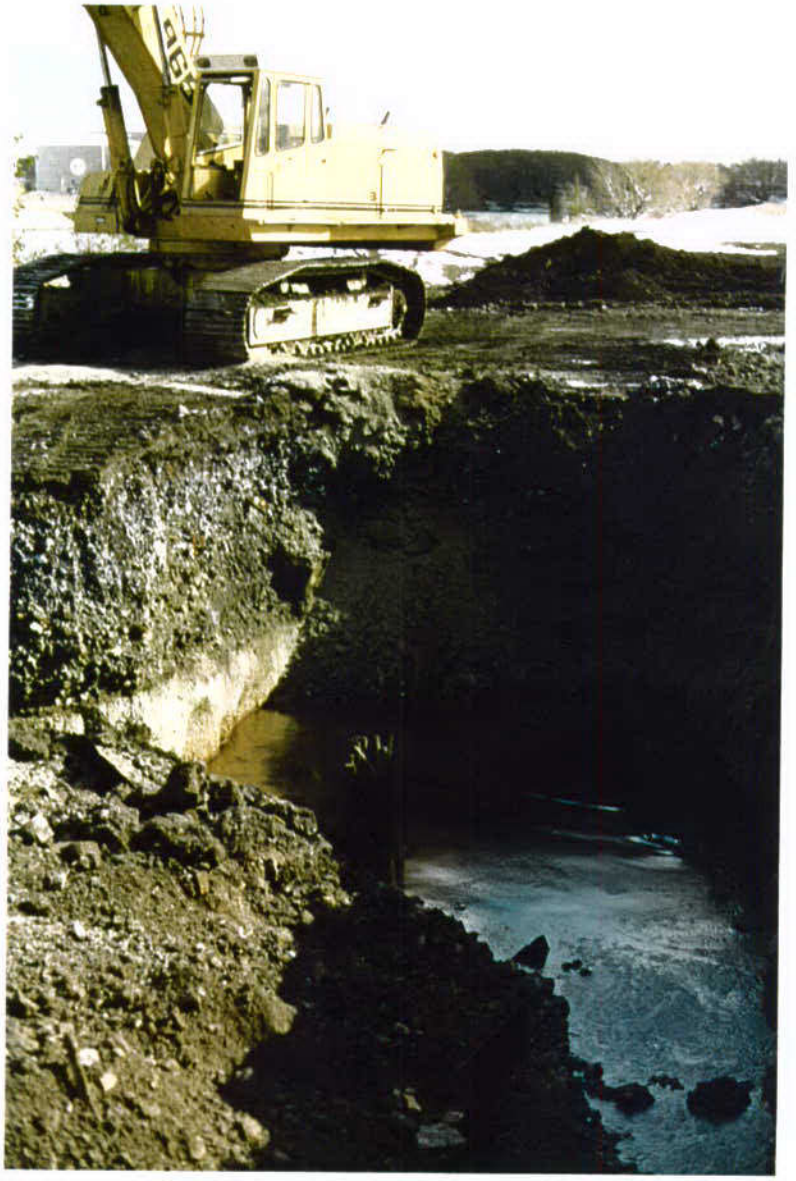


PHOTO #13

Excavation adjacent to River.

PHOTO #14:
Excavation adjacent to River showing granular backfill in bottom of excavation from previous site operations.

PHOTO #15:
Closeup of granular backfill showing oil contamination.

PHOTO #16

Oil filled pipeline crimped on one end.

PHOTO #17

Draining oil from pipeline and vacumming oil from bottom of excavation into tank truck.

PHOTO #18

Placing pig into oil pipeline to clean the inside.

PHOTO #19

Reassembling pipeline after pig has been placed inside.

PHOTO #20

Applying Posi-Shell cover to biopad stockpile.

PHOTO #21

Stockpile being covered.