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AFFILIATED COMPANIES
Braun Environmental
Laboratories, Inc.
Braun Pavement
Technologies, Inc.

October 26, 1988

ERV
HASTY TRUCK TERMINAL
HASTY, MINNESOTA

Project #: C88-204/6087

Dear Sir,

Braun Environmental Laboratories, Inc. is pleased to provide our report for the analysis you requested. Data for the following sample(s) are enclosed:

<u>Your I.D. Number/Description</u>	<u>Work Requested</u>
Soil Samples	Organic Analysis

All samples were analyzed according to EPA or other standard methods. Any anomalies which were encountered in this analysis are referenced on the laboratory report. Method references and quality control information are available upon request.

If you have any questions or need additional information regarding this report or other Braun Environmental Laboratories services please contact us.

Very truly yours,

BRAUN ENVIRONMENTAL LABORATORIES, INC.

Linda C. Crawford
Organic Supervisor

Anne L. Ochs
Laboratory Manager

LCC/ALO:krf

Attachment

ERV
HASTY TRUCK TERMINAL
HASTY, MN

PROJECT: C88-204
COLLECTED: BRAUN DATE: 09/12/88
RECEIVED: 09/13/88
SAMPLE MATRIX: SOIL

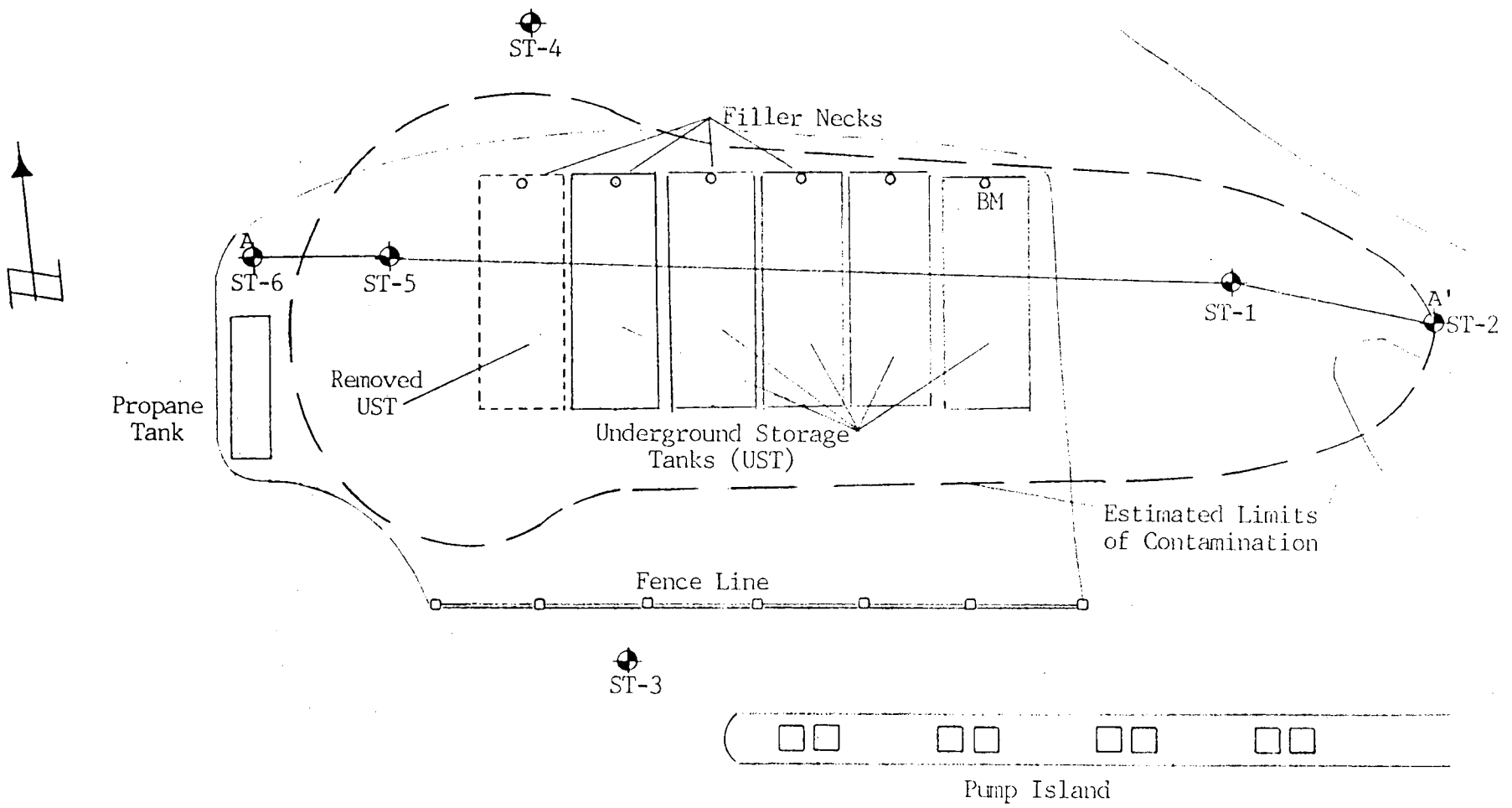
PARAMETER	BRAUN I.D.: 6087-1		6087-2	6087-3
	CLIENT I.D.: ST-214 FT.		ST-614 FT.	THIN SPREAD SOIL
	--UNITS--	-----	-----	-----
TOTAL HYDROCARBONS AS FUEL OIL	MG/KG	55	<1.0	250
XYLENES, TOTAL	MG/KG	<1.0	<1.0	<1.0
BENZENE	MG/KG	<1.0	<1.0	<1.0
ETHYL BENZENE	MG/KG	<1.0	<1.0	<1.0
TOLUENE	MG/KG	<1.0	<1.0	<1.0

<= less than: compound not detected at or above indicated detection limit

All quality control checks were within acceptable limits.

Reviewed by: WHL/krf





C88-204 LEAKING UNDERGROUND STORAGE TANK INVESTIGATION
 Hasty Truck Terminal
 Hasty, Minnesota
 Soil Boring Location Map

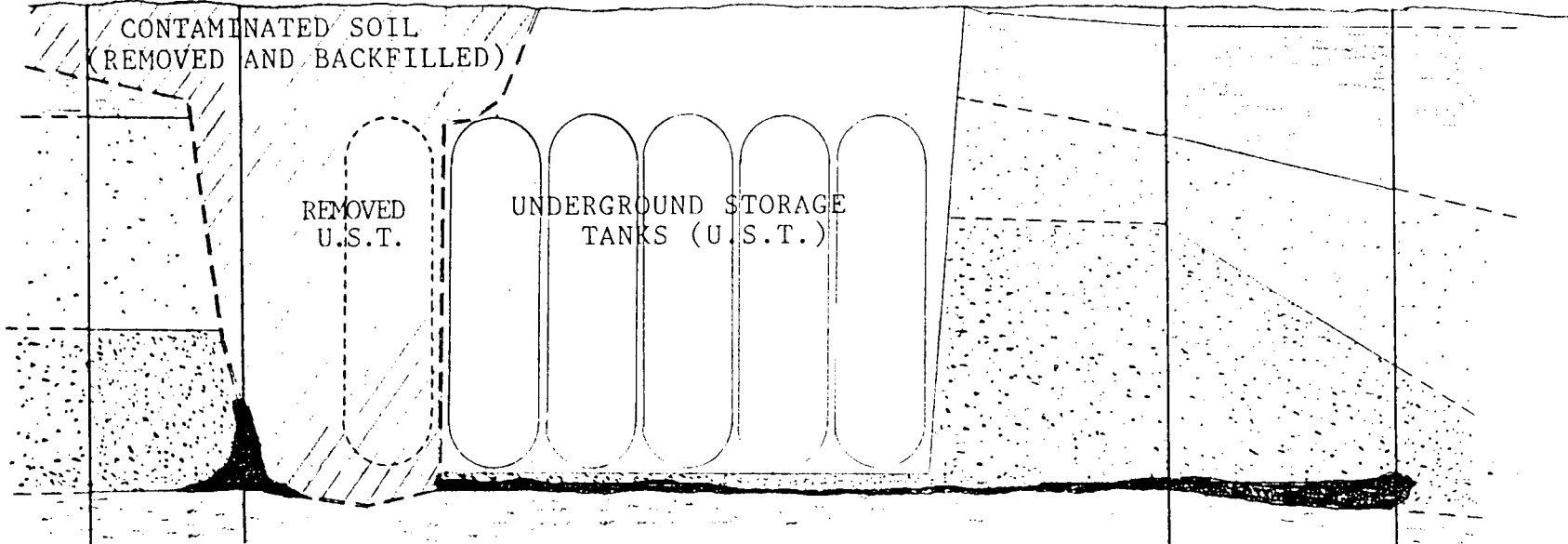
Date: 9/13/88
 Revised:
 Drawn: KNZ
 Scale: 1" = 20'







A
WEST
ST-6




ST-5

ST-1

A'
EAST
ST-2



-  FILL AND CLASS 5 GRAVEL
-  SP-SM (TOPSOIL)
-  SP-SM (ALLUVIUM)
-  SP (ALLUVIUM)
-  CL (GLACIAL TILL)
-  CONTAMINATED SOIL

-  GEOLOGIC CONTACT
-  INFERRED GEOLOGIC CONTACT
-  LIMITS OF EXCAVATION

BRAUN

C88-204 LEAKING UNDERGROUND STORAGE TANK INVESTIGATION
HASTY TRUCK TERMINAL
HASTY, MINNESOTA
GENERALIZED GEOLOGIC CROSS SECTION

Date: Sept. 19, 1988

Revised:

Drawn:
KNZ

Scale: HORIZ 1" = 20'
VERT 1" = 5'
VERTICAL EXAG. 4X

LOG OF BORING



PROJECT: C88-204 SOIL BORINGS Leaking Underground Storage Tank Evaluation Hasty Truck Stop Clearwater, MN	BORING: ST-1 LOCATION: See Attached Sketch DATE: 9-12-88 SCALE: 1"=4'
---	--

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
98.0	0.0					
97.0	1.0		FILL: consisting primarily of SILTY SAND with GRAVEL (SM),			1 mostly fine to medium grained, brown, moist. The ground surface elevation at the bore holes were referenced to the floor slab at the entrance of the station. This point was assumed to be at elevation 100.0.
		SM	SILTY SAND, mostly fine to medium grained, dark brown to black, moist. (Topsoil)			
94.5	3.5					
		SP	POORLY GRADED SAND, mostly fine to medium grained, with a trace of GRAVEL, brown, moist, loose. (Coarse Alluvium)	7		
90.0	8.0					
		SP	POORLY GRADED SAND, medium to fine grained, with a little GRAVEL, few Cobbles, brown, moist, loose. (Coarse Alluvium)	10		
85.0	13.0					
		CL	SANDY LEAN CLAY, with a trace of GRAVEL, brown, wet, rather soft. (Fine Alluvium)	5		
82.5	15.5					
			END OF BORING. Water level not encountered with 15' of hollow-stem auger in the ground. Water level not encountered to cave-in depth of 12' immediately after withdrawal of auger. Boring then backfilled.			

(See Report and Standard Plates for evaluation and descriptive terminology.)

LOG OF BORING



PROJECT: C88-204 SOIL BORINGS Leaking Underground Storage Tank Evaluation Hasty Truck Stop Clearwater, MN	BORING: ST-3 LOCATION: See Attached Sketch DATE: 9-12-88 SCALE: 1"=4'
---	--

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
99.1	0.0					
98.1	1.0		FILL: consisting primarily of SILTY SAND with GRAVEL (SM), ¹			1 mostly fine to medium grained, brown, moist. 2 with a little GRAVEL, brown, moist. (Coarse Alluvium) 3 (Fine Alluvium)
		SM	SILTY SAND, mostly fine to medium grained, dark brown to black, moist. (Topsoil)			
96.1	3.0					
95.1	4.0	SP-SM	POORLY GRADED SAND with SILT, mostly fine to medium grained, ²			
		SP	POORLY GRADED SAND, mostly fine to medium grained, with a trace of GRAVEL, brown, moist, medium dense. (Coarse Alluvium)	12		
90.1	9.0					
		SP	POORLY GRADED SAND, mostly fine grained, light brown, moist, loose. (Coarse Alluvium)	9		
85.1	14.0					
83.6	15.5	CL	SANDY LEAN CLAY, with a trace of GRAVEL, brown, moist to wet, rather soft. ³	5		
			END OF BORING. Water level not encountered with 15' of hollow-stem auger in the ground. Water level not encountered to cave-in depth of 12' immediately after withdrawal of auger. Boring then backfilled.			

(See Report and Standard Plates for evaluation and descriptive terminology.)

LOG OF BORING



PROJECT: C88-204 SOIL BORINGS Leaking Underground Storage Tank Evaluation Hasty Truck Stop Clearwater, MN	BORING: ST-4 LOCATION: See Attached Sketch DATE: 9-12-88 SCALE: 1"=4'
---	--

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests	or	Notes
99.0	0.0							
			FILL: consisting primarily of POORLY GRADED SAND with SILT, (SP-SM), mostly fine to medium grained, with a trace of GRAVEL, brown, moist.	6				
90.0	9.0							
		SP	POORLY GRADED SAND, mostly fine to medium grained, with a little GRAVEL, few Cobbles, light brown, moist, medium dense. (Coarse Alluvium)	18				
85.0	14.0							
		CL	SANDY LEAN CLAY, with a trace of GRAVEL, brown, wet, medium. (Fine Alluvium)	6				
83.5	15.5							
			END OF BORING. Water level not encountered with 15' of hollow-stem auger in the ground. Water level not encountered to cave-in depth of 10' immediately after withdrawal of auger. Boring then backfilled.					

(See Report and Standard Plates for evaluation and descriptive terminology.)

LOG OF BORING



PROJECT: C88-204 SOIL BORINGS Leaking Underground Storage Tank Evaluation Hasty Truck Stop Clearwater, MN	BORING: ST-5 LOCATION: See Attached Sketch DATE: 9-12-88 SCALE: 1"=4'
---	--

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests	or	Notes
99.1	0.0		FILL: consisting primarily of POORLY GRADED SAND with SILT (SP-SM), mostly fine to medium grained, with a trace of GRAVEL, brown, moist.	3				
85.1	14.0			3				
83.6	15.5	CL		SANDY LEAN CLAY, mostly fine grained, with a trace of GRAVEL, brown, wet, medium.	6			
			END OF BORING. Water level not encountered with 15' of hollow-stem auger in the ground. Water level not encountered to cave-in depth of 11' immediately after withdrawal of auger. Boring then backfilled.					

(See Report and Standard Plates for evaluation and descriptive terminology.)

LOG OF BORING



PROJECT: C88-204 SOIL BORINGS Leaking Underground Storage Tank Evaluation Hasty Truck Stop Clearwater, MN	BORING: ST-6 LOCATION: See Attached Sketch DATE: 9-12-88 SCALE: 1"=4'
---	--

Elev.	Depth	ASTM D2487 Symbol	Description of Materials (ASTM D2488)	BPF	WL	Tests or Notes
99.2	0.0					
98.4	0.8		FILL: consisting primarily of			SILTY SAND with GRAVEL (SM), mostly fine to medium grained, black, moist.
		SM	SILTY SAND, mostly fine grained, black, moist. (Topsoil)			
96.2	3.0					
		SP	POORLY GRADED SAND, mostly fine to medium grained, with a trace of GRAVEL, brown, moist, medium dense. (Coarse Alluvium)	20		
90.2	9.0					
		SP	POORLY GRADED SAND, mostly fine to medium grained, with a little GRAVEL, light brown, moist, medium dense. (Coarse Alluvium)	16		
85.2	14.0					
83.7	15.5	CL	SANDY LEAN CLAY, with a trace of GRAVEL, brown, wet, medium. (Fine Alluvium)	6		
			END OF BORING. Water level not encountered with 15' of hollow-stem auger in the ground. Water level not encountered to cave-in depth of 9' immediately after withdrawal of auger. Boring then backfilled.			

(See Report and Standard Plates for evaluation and descriptive terminology.)

h·Nu Field Data Sheet

Project Number: C88-204 Date: September 12, 1988
 Location: Hasty Truck Stop, Hasty, Mn Auger Steam Cleaned? N
 Weather Conditions: 50°-60°F Overcast W270°@10-20 Split-Spoon Cleaned between
 Calibration: Span 4.00 in 25ppm Benzene 9/12/88 samples? N
 Boring ID: St-1 30ft E and 12ft S of NE Filler neck Method: Washed in TSP

<u>Depth of Sample</u>	<u>Auger Cuttings (ppm)</u>	<u>Split-Spoon (ppm)</u>	<u>Head Space Analysis (ppm)</u>	<u>Notes</u>
<u>1.0</u>	<u>0.0</u>	<u></u>	<u></u>	<u></u>
<u>2.5</u>	<u>0.0</u>	<u></u>	<u></u>	<u></u>
<u>5.0</u>	<u>0.0</u>	<u></u>	<u>0.0</u>	<u></u>
<u>6.0</u>	<u>0.0</u>	<u></u>	<u></u>	<u></u>
<u>7.0</u>	<u>0.0</u>	<u></u>	<u></u>	<u></u>
<u>10.0</u>	<u>0.0</u>	<u></u>	<u>0.0</u>	<u></u>
<u>12.0</u>	<u>0.0</u>	<u></u>	<u></u>	<u></u>
<u>13.0</u>	<u>3.6</u>	<u></u>	<u>1.2</u>	<u>auger measurement may be inaccurate</u>

Location: Hasty Truck Stop, Hasty, Mn Date: September 12, 1988
 Weather Conditions: 50°-60°F Overcast W270@10-20 Auger Steam Cleaned? N
 Calibration: Span 4.00 in 25ppm Benzene 9/12/88 Split-Spoon Cleaned between
 Boring I.D.: ST-2 55ft E and 16ft S of NE Filler Neck samples? N
 Method: Washed in TSP

<u>Depth of Sample</u>	<u>Auger Cuttings (ppm)</u>	<u>Split-Spoon (ppm)</u>	<u>Head Space Analysis (ppm)</u>	<u>Notes</u>
<u>5.0</u>	<u></u>	<u></u>	<u>0.0</u>	<u></u>
<u>10.0</u>	<u></u>	<u></u>	<u>0.0</u>	<u></u>
<u>14.0</u>	<u>1.0</u>	<u></u>	<u></u>	<u></u>
<u>15.0</u>	<u></u>	<u></u>	<u>1.0</u>	<u></u>
<u>20.0</u>	<u></u>	<u></u>	<u>1.0</u>	<u></u>



h·Nu Field Data Sheet

Project Number: C88-204
 Location: Hasty Truck Stop, Hasty, Mn
 Weather Conditions: 60°F Overcast W290°@ 10-20mph
 Calibration: Span 4.00 in 25ppm Benzene
 Boring ID: ST-3 59ft S and 45ft W of NE Filler Neck

Date: September 12, 1988
 Auger Steam Cleaned? Y N
 Split-Spoon Cleaned between samples? Y N
 Method: Washed in TSP

Depth of Sample	Auger Cuttings (ppm)	Split-Spoon (ppm)	Head Space Analysis (ppm)	Notes
3.0	0.0			
5.0			0.0	
7.0	0.0			
10.0			0.0	
12.0	0.0			
13.5			0.0	
14.5			0.2	

Location: Hasty Truck Stop
 Weather Conditions: 60°F Overcast W290°@ 10-20mph
 Calibration: Span 4.00 in 25ppm Benzene
 Boring I.D.: ST-4 56ft W and 20ft N of NE Filler Neck

Date: September 12, 1988
 Auger Steam Cleaned? Y N
 Split-Spoon Cleaned between samples? Y N
 Method: Washed in TSP

Depth of Sample	Auger Cuttings (ppm)	Split-Spoon (ppm)	Head Space Analysis (ppm)	Notes
3.0	0.0			
5.0			0.0	
7.0	0.0			
10.0			0.0	
14.5			0.0	



h·Nu Field Data Sheet

Project Number: C88-204
 Location: Hasty Truck Stop, Hasty, Mn
 Weather Conditions: 60°F Overcast W290°@10-20mph
 Calibration: Span 4.00 in 25ppm Benzene
 Boring ID: ST-5 74ft W and 9ft S of NE Filler Neck

Date: September 12, 1988
 Auger Steam Cleaned? Y N
 Split-Spoon Cleaned between samples? Y N
 Method: Washed in TSP

<u>Depth of Sample</u>	<u>Auger Cuttings (ppm)</u>	<u>Split-Spoon (ppm)</u>	<u>Head Space Analysis (ppm)</u>	<u>Notes</u>
<u>5.0</u>	<u>0.2</u>	<u></u>	<u>0.0</u>	<u></u>
<u>10.0</u>	<u></u>	<u></u>	<u>0.2</u>	<u></u>
<u>13.0</u>	<u>9.0</u>	<u></u>	<u></u>	<u></u>
<u>14.0</u>	<u></u>	<u></u>	<u>0.4</u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>

Location: Hasty Truck Stop, Hasty, Mn
 Weather Conditions: 60°F Overcast W290°@10-20mph
 Calibration: Span 4.00 in 25ppm Benzene
 Boring I.D.: ST-6 91ft W and 9ft S of NE Filler Neck

Date: September 12, 1988
 Auger Steam Cleaned? Y N
 Split-Spoon Cleaned between samples? Y N
 Method: Washed in TSP

<u>Depth of Sample</u>	<u>Auger Cuttings (ppm)</u>	<u>Split-Spoon (ppm)</u>	<u>Head Space Analysis (ppm)</u>	<u>Notes</u>
<u>5.0</u>	<u></u>	<u></u>	<u>0.0</u>	<u></u>
<u>7.0</u>	<u>0.0</u>	<u></u>	<u></u>	<u></u>
<u>10.0</u>	<u></u>	<u></u>	<u>0.0</u>	<u></u>
<u>13.5</u>	<u>0.0</u>	<u></u>	<u>0.0</u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>	<u></u>





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October 26, 1988

AFFILIATED OFFICES

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Chicago

ERV
HASTY TRUCK TERMINAL
HASTY, MINNESOTA

Project #: C88-204/6087

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Dear Sir,

Braun Environmental Laboratories, Inc. is pleased to provide our report for the analysis you requested. Data for the following sample(s) are enclosed:

AFFILIATED COMPANIES
Braun Environmental
Laboratories, Inc.
Braun Pavement
Technologies, Inc.

<u>Your I.D. Number/Description</u>	<u>Work Requested</u>
Soil Samples	Organic Analysis

All samples were analyzed according to EPA or other standard methods. Any anomalies which were encountered in this analysis are referenced on the laboratory report. Method references and quality control information are available upon request.

If you have any questions or need additional information regarding this report or other Braun Environmental Laboratories services please contact us.

Very truly yours,

BRAUN ENVIRONMENTAL LABORATORIES, INC.

Linda C. Crawford
Organic Supervisor

Anne L. Ochs
Laboratory Manager

LCC/ALO:krf

Attachment

ERV
HASTY TRUCK TERMINAL
HASTY, MN

PROJECT: C88-204
COLLECTED: BRAUN DATE: 09/12/88
RECEIVED: 09/13/88
SAMPLE MATRIX: SOIL

PARAMETER	BRAUN I.D.: 6087-1		6087-2	6087-3
	CLIENT I.D.: ST-214 FT.		ST-614 FT.	THIN SPREAD SOIL
	--UNITS--	-----	-----	-----
TOTAL HYDROCARBONS AS FUEL OIL	MG/KG	55	<1.0	250
XYLENES, TOTAL	MG/KG	<1.0	<1.0	<1.0
BENZENE	MG/KG	<1.0	<1.0	<1.0
ETHYL BENZENE	MG/KG	<1.0	<1.0	<1.0
TOLUENE	MG/KG	<1.0	<1.0	<1.0

<= less than: compound not detected at or above indicated detection limit

All quality control checks were within acceptable limits.

Reviewed by: WHL/KZF



Descriptive Terminology

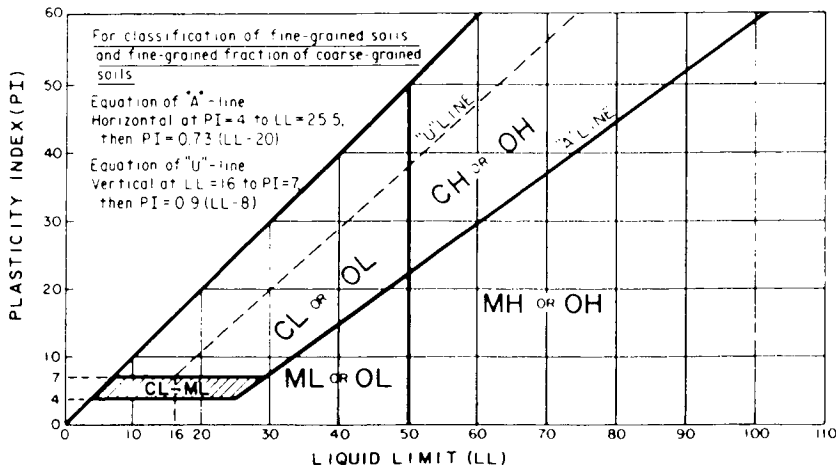


Designation D 2487 — 83

Standard Test Method for CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TESTS ^a				SOIL CLASSIFICATION	
				GROUP SYMBOL	GROUP NAME ^b
COARSE-GRAINED SOILS more than 75% retained on No. 20 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS Less than 5% fines ^c	$C_u \geq 4$ and $1 \leq C_c \leq 3$ ^e	GW	Well-graded gravel ^f
		GRAVELS WITH FINES More than 12% fines ^c	$C_u \geq 4$ and/or $1 \leq C_c \leq 3$ ^e	GP	Poorly graded gravel ^f
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS Less than 5% fines ^d	$C_u \geq 6$ and $1 \leq C_c \leq 3$ ^e	SW	Well-graded sand ^f
		SANDS WITH FINES More than 12% fines ^d	$C_u \geq 6$ and/or $1 \leq C_c \leq 3$ ^e	SP	Poorly graded sand ^f
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50%	inorganic	$PI > 7$ and plots on or above "A" line J	CL	Lean clay ^{k,l,m}
		inorganic	$PI < 4$ or plots below "A" line J	ML	Silt ^{k,l,m}
	organic	Liquid limit - oven dried Liquid limit - not dried > 0.75	OL	Organic clay ^{k,l,m,n} Organic silt ^{k,l,m,o}	
	SILTS AND CLAYS Liquid limit 50% or more	inorganic	PI plots on or above "A" line	CH	Fat clay ^{k,l,m}
		inorganic	PI plots below "A" line	MH	Elastic silt ^{k,l,m}
		organic	Liquid limit - oven dried Liquid limit - not dried > 0.75	OH	Organic clay ^{k,l,m,p} Organic silt ^{k,l,m,q}
		Primarily organic matter, dark in color, and organic odor		PT	Peat

- Based on the material passing the 3-in (75-mm) sieve.
- If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name.
- Gravels with 5 to 12% fines require dual symbols
 - GW-GM well graded gravel with silt
 - GW-GC well graded gravel with clay
 - GP-GM poorly graded gravel with silt
 - GP-GC poorly graded gravel with clay
- Sands with 5 to 12% fines require dual symbols
 - SW-SM well graded sand with silt
 - SW-SC well graded sand with clay
 - SP-SM poorly graded sand with silt
 - SP-SC poorly graded sand with clay
- $C_u = D_{60}/D_{10}$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
- If soil contains $\geq 15\%$ sand, add "with sand" to group name.
- If fines classify as CL-ML, use dual symbol GC-GM, SC-SM.
- If fines are organic, add "with organic fines" to group name.
- If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.
- If Atterberg limits plot in hatched area, soil is a CL-ML, silty clay.
- If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant.
- If soil contains $> 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
- If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.
- $PI > 4$ and plots on or above "A" line.
- $PI < 4$ or plots below "A" line.
- PI plots on or above "A" line.
- PI plots below "A" line.



LABORATORY TESTS

DD	Dry Density, pcf	OC	Organic Content, %
WD	Wet Density, pcf	S	Percent of Saturation, %
MC	Natural Moisture Content, %	SG	Specific Gravity
LL	Liquid Limit, %	C	Cohesion
PL	Plastic Limit, %	ϕ	Angle of Internal Friction
PI	Plasticity Index, %	qu	Unconfined Compressive Strength

PARTICLE SIZE IDENTIFICATION

Boulders	over 12"
Cobbles	3" to 12"
Gravel	
Coarse	3/8" — 3"
Fine	No. 4 — 1/4"
Sand	
Coarse	No. 4 — No. 10
Medium	No. 10 — No. 40
Fine	No. 40 — No. 200
Silt	No. 200 — .005 mm
Clay	less than .005 mm

RELATIVE DENSITY OF COHESIONLESS SOILS

very loose	0 — 4 BPF
loose	5 — 10 BPF
medium dense	11 — 30 BPF
dense	31 — 50 BPF
very dense	50+ BPF

CONSISTENCY OF COHESIVE SOILS

very soft	0 — 1 BPF
soft	2 — 3 BPF
rather soft	4 — 5 BPF
medium	6 — 8 BPF
rather stiff	9 — 12 BPF
stiff	13 — 16 BPF
very stiff	17 — 30 BPF
hard	30+ BPF

DRILLING NOTES

Standard penetration test borings were advanced by 3/4" or 6" I.D. hollow-stem augers unless noted otherwise. Jetting water was used to clean out auger prior to sampling only where indicated or logs. Standard penetration test borings are designated by the prefix "ST" (Split Tube).

Power auger borings were advanced by 4" or 6" diameter continuous-flute, solid stem augers. Soil classification and strain depths are inferred from disturbed samples augered to the surface and are therefore somewhat approximate. Power auger borings are designated by the prefix "B".

Hand probings were advanced manually with a 1 1/2" diameter probe and are limited to the depth from which the probe can be manually withdrawn. Hand probings are indicated by the prefix "H".

SAMPLING — All samples are taken with the standard 2" O.D. split tube sampler, except where noted. TW indicates thin-wall (undisturbed) sample.

BPF — Numbers indicate blows per foot recorded in standard penetration test, also known as "N" value. The sampler is set 6" into undisturbed soil below the hollow-stem auger. Driving resistances are then counted for second and third 6" increment and added to get BPF. Where they differ significantly, they are reported in the following form — 2/12 for the second and third 6" increments respectively.

WH — WH indicates that sampler penetrated soil under weight of hammer and rods alone, driving not required.

NOTE — All tests run in accordance with applicable ASTM standards.



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WAITING FOR
REPORT FROM
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CLOUD

