sample for: VOCs

Site Jordan Truck Station
Date 5/30/91
Well number MW1

STABILIZATION TEST

note: all samples preserved w/ 1:1 HCl
1 well volume = 1.3 gal

Pumping rate (gallons/minute) _____
Type of pump Teflon Bailer
Water level before pumping (nearest 0.01 ft. below top of casing) Gross - 8.25' (plunked)
Approximate well location South Side of Bldg Next to Fence
Calculated volume of water in casing 0
Weather conditions Cloudy, Humid ~ 65-70° w/ showers

Time	pH (units)	Temperature-Corrected Conductance (umhos/cm) raw [corrected]	Temperature (°C)	Water Level (nearest 0.01 ft.)	Cumulative Volume of Water Removed From Well (measured in gallons)
1030		67.5x10	8.1 (Fr. Sit meter		practice
~10:35	6.48	78x10 [950]	14 use single thermometer		initial
10:47	6.58	83x10 [1037]	13		5 gal
10:55	6.83	85x10 [1062]	13		10 gal
11:00	6.62	85x10 [1062]	13		15 gal
11:06	6.60	85x10 [1062]	13		20 gal

Total depth To Bottom 17.05'

notes: bailer shows possible gw stratification
- bottom third lighter color
- water color grey green; odor moderate

Site Jordan Truck Stop
Date 5-30-91
Well number MW-2

STABILIZATION TEST

notes: preserve all samples w/ 1:1 HCl
well volume = 1.5

Pumping rate (gallons/minute) _____
Type of pump Bailer (Teflon)
Water level before pumping (nearest 0.01 ft. below top of casing) gross level - 7.85
Approximate well location ~70' W. of bldg. by entrance gate
Calculated volume of water in casing _____
Weather conditions cloudy, 65-70° - sprinklers

Time	pH (units)	Temperature-Corrected Conductance (umhos/cm) [temp. corrected]	Temperature (°C)	Water Level (nearest 0.01 ft.)	Cumulative Volume of Water Removed From Well (measured in gallons)
12:50	6.66	141×10 [1639]	16		5 gal
12:57	6.71	142×10 [1651]	16.1		7 gal
1:03	6.73	141×10 [1602]	17		

Total Depth to bottom of well - 16.92'

Sample for: VOC's

Site	Jordan Truck Station
Date	5/30/91
Well number	MW-3

STABILIZATION TEST

Preserve all samples w/ 1:1 HCl
Well volume = 1.1
Pumping rate (gallons/minute) _____
Type of pump Bailer Teflon Rinsed Bailer #1 on MW 1
Water level before pumping (nearest 0.01 ft. below top of casing) Gross Level – 7.87'
Approximate well location NW Corner of Bldg. in parking Lot
Calculated volume of water in casing _____
Weather conditions Cloudy ~ 65–70°

Time	pH (units)	Temperature-Corrected Conductance (umhos/cm) [corrected]	Temperature (°C)	Water Level (nearest 0.01 ft.)	Cumulative Volume of Water Removed From Well (measured in gallons)
11:55	6.72	110x10 [1309]	15		3 gal
12:03	6.82	110x10 [1309]	15.1		6 gal
12:15	6.85	100x10 [1190]	15.1		8 gal
12:23	6.82	105x10 [1280]	15		10 gal

Total Depth To Bottom 17.05'

9.7.90
ORG.FORM.FY91.1

MINNESOTA DEPARTMENT OF HEALTH
Chemical Laboratory Section
Organic Chemistry Unit

WATER ANALYSES ONLY

Date Collected: 5/30/91
Date Received: 5-30-91
Collected by: BK

Chain of Custody #: 012

Budget #: DA
Report To: LANETTE ZAHGER BRIAN KAMANIKAR
Field Blank #:

RECD 26 JUN 91

Laboratory Number		Field Number	Sample Description	- Container- Number	Type
9111160	a	MW-1	JORDAN T.S.	4	40 mil
9111161	b	MW-2	PETRO ODORS JUN 24 1991	↓	↓
9111162	c	MW-3			
9111163	d	BLK	BAILER BLANK - FIELD CLEANING		
	e				

Analyses Request Options		ALL	a 9111160	b 9111161	c 9111162	d 9111163	e
VOLATILE ORGANICS	465						
VOLATILE HALOGENATED ORGANICS (THM)	464						
GASOLINE/FUEL OIL + HALOGENATED	463	X					
VOLATILE ORGANICS by GC/MS	468						
CHLOROPHENOXY ACID HERBICIDES (CPA)	574						
POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)	470						
POLYCHLORINATED BIPHENYLS (PCBs)	420						
PHTHALATE ESTERS	490						
PESTICIDES, CHLORINATED	502						
TOXAPHENE	520						
TECHNICAL CHLORDANE	530						
DDT GROUP	550						
PESTICIDES, NITROGEN/PHOSPHOROUS	571						
SPECIAL SAMPLE HOURS	560						

Field Notes:
TRIP BLANK ACCOMPANIED SAMPLES. WILL GO WITH SAMPLES ALSO ON 5-31-91 (NEW VLM TS)

Laboratory Notes:

Mn/DOT TP-03023-01 (8/90)

Minnesota Department of Transportation

Transportation Building
St. Paul, MN 55155

ENVIRONMENTAL COMPLIANCE AND INVESTIGATION UNIT

NC 912

CHAIN OF CUSTODY RECORD

Project Name: Jordan Transfer Station

Name of Sampler: Brian Kaminkar, Bruce Johnson, Nancy Radle

Field Number	Date	Time	Sample Type (s): Monitoring well	Existing well	Surface water	Wastewater	Waste	Other	Sample Location	Analyses Requested	Comments on Samples
	5/30/91	12:30	X						MW-3	VOC's	preserved w/ 2 drops 1:1 HCl no sheen observed
	5/30/91	11:00	X						MW-1	VOC's	Preserved w/ 2 drops 1:1 HCl no sheen observed
	5/30/91	1300	X						MW-2	VOC's	preserved w/ 2 drops 1:1 HCl moderate odor, very silty
	5/30/91	1145						X	field blk; bailer-rinse	VOC's	taken between MW-3 and MW-1 sampling, preserved w/ 1:1 HCl

Remarks on Site: MW-2 - the inner casing threaded cap was not screwed in - outer casing was locked

Samples Relinquished by	Samples Received by	Comments	Date/Time
Brian Kaminkar			5/30/91 3:00 PM
Samples Relinquished by	Samples Received by	Comments	Date/Time
Samples Relinquished by	Samples Received by	Comments	Date/Time
Means of Delivery		Seals intact: ☐ YES ☐ NO ☐ N.A.	

Original and yellow copies to Lab. Pink copy to Mn/DOT. Lab forwards completed yellow copy to Mn/DOT with analytical results.

MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY

VOLATILE HYDROCARBONS (code 463)

SAMPLED: 05/30/91
ANALYZED: 06/11/91
REPORTED: 06/19/91

LAB SAMPLE #: 9111160

FIELD BLANK #: NONE

MW-1

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dichlorobenzene	< 0.2	
1,1-Dichloroethene	< 0.5		1,2-Dibromo-3-Chloropropane	< 2.0	
Allyl Chloride	< 0.5		124-Trichlorobenzene	< 0.5	
Methylene Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
t-1,2-Dichloroethene	< 0.1		123-Trichlorobenzene	< 0.5	
1,1-Dichloroethane	< 0.2		Ethyl Ether	< 2.0	
2,2-dichloropropane	< 0.5		Acetone	< 20	
c-1,2 Dichloroethene	< 0.2		Methyl tertiary-Butyl Ether	< 2.0	
Chloroform	< 0.1		Methyl Ethyl Ketone	< 10	
Bromochloromethane	< 0.5		Tetrahydrofuran	< 10	
1,1,1-Trichloroethane	< 0.2		Benzene	< 0.2	0.6
1,1-Dichloropropene	< 0.2		Methyl Isobutyl Ketone	< 5.0	
Carbon Tetrachloride	< 0.2		Toluene	< 0.2	
1,2-Dichloroethane	< 0.2		Ethyl Benzene	< 0.2	
Trichloroethene	< 0.1		m+p-Xylene	< 0.2	
1,2-Dichloropropane	< 0.2		o-Xylene	< 0.2	
Bromodichloromethane	< 0.2		Styrene	< 0.5	
Dibromomethane	< 1.0		Isopropyl Benzene	< 0.5	
c-1,3-Dichloropropene	< 0.2		n-Propyl Benzene	< 0.5	
t-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		tert-Butyl Benzene	< 0.5	
1,3-Dichloropropane	< 0.2		124-Trimethylbenzene	< 0.5	
Tetrachloroethene	< 0.2		sec-Butylbenzene	< 0.5	
Chlorodibromomethane	< 0.5		p-Isopropyltoluene	< 0.5	
1,2-Dibromoethane	< 1.0		n-Butylbenzene	< 0.5	
Chlorobenzene	< 0.2		Naphthalene	< 0.5	
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:

GASOLINE & FUEL OIL (463)

GASOLINE : < 30. UG/L

FUEL OIL : < 200. UG/L

Legend:
< = less than
PP = peak present

502.4G MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY
VOLATILE HYDROCARBONS (code 463)

SAMPLED: 05/30/91
ANALYZED: 06/11/91
REPORTED: 06/19/91

LAB SAMPLE #: 9111161

FIELD BLANK #: NONE MW-2

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
			1,2-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dibromo-3-Chloropropane	< 2.0	
1,1-Dichloroethene	< 0.5		124-Trichlorobenzene	< 0.5	
Allyl Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
Methylene Chloride	< 0.5		123-Trichlorobenzene	< 0.5	
t-1,2-Dichloroethene	< 0.1		Ethyl Ether	< 2.0	
1,1-Dichloroethane	< 0.2		Acetone	< 20	
2,2-dichloropropane	< 0.5		Methyl tertiary-Butyl Ether	< 2.0	
c-1,2 Dichloroethene	< 0.2		Methyl Ethyl Ketone	< 10	
Chloroform	< 0.1		Tetrahydrofuran	< 10	
Bromochloromethane	< 0.5		Benzene	< 0.2	4.8
1,1,1-Trichloroethane	< 0.2		Methyl Isobutyl Ketone	< 5.0	
1,1-Dichloropropene	< 0.2		Toluene	< 0.2	2.8
Carbon Tetrachloride	< 0.2		Ethyl Benzene	< 0.2	15
1,2-Dichloroethane	< 0.2		m+p-Xylene	< 0.2	5.4
Trichloroethene	< 0.1		o-Xylene	< 0.2	6.7
1,2-Dichloropropane	< 0.2		Styrene	< 0.5	
Bromodichloromethane	< 0.2		Isopropyl Benzene	< 0.5	12
Dibromomethane	< 1.0		n-Propyl Benzene	< 0.5	10
c-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	3.2
t-1,3-Dichloropropene	< 0.2		tert-Butyl Benzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		124-Trimethylbenzene	< 0.5	25
1,3-Dichloropropane	< 0.2		sec-Butylbenzene	< 0.5	10
Tetrachloroethene	< 0.2		p-Isopropyltoluene	< 0.5	4.7
Chlorodibromomethane	< 0.5		n-Butylbenzene	< 0.5	7.1
1,2-Dibromoethane	< 1.0		Naphthalene	< 0.5	1.1
Chlorobenzene	< 0.2				
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:

GASOLINE & FUEL OIL (463)

GASOLINE : 700 UG/L

FUEL OIL : 11000 UG/L

Legend:
< = less than
PP = peak present

502.4G MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY 1
VOLATILE HYDROCARBONS (code 463)

SAMPLED: 05/30/91 LAB SAMPLE #: 9111162
ANALYZED: 06/11/91
REPORTED: 06/19/91 FIELD BLANK #: NONE MW-3

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dichlorobenzene	< 0.2	
1,1-Dichloroethene	< 0.5		1,2-Dibromo-3-Chloropropane	< 2.0	
Allyl Chloride	< 0.5		124-Trichlorobenzene	< 0.5	
Methylene Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
t-1,2-Dichloroethene	< 0.1		123-Trichlorobenzene	< 0.5	
1,1-Dichloroethane	< 0.2		Ethyl Ether	< 2.0	
2,2-dichloropropane	< 0.5		Acetone	< 20	
c-1,2 Dichloroethene	< 0.2		Methyl tertiary-Butyl Ether	< 2.0	
Chloroform	< 0.1		Methyl Ethyl Ketone	< 10	
Bromochloromethane	< 0.5		Tetrahydrofuran	< 10	
1,1,1-Trichloroethane	< 0.2		Benzene	< 0.2	
1,1-Dichloropropene	< 0.2		Methyl Isobutyl Ketone	< 5.0	
Carbon Tetrachloride	< 0.2		Toluene	< 0.2	
1,2-Dichloroethane	< 0.2		Ethyl Benzene	< 0.2	
Trichloroethene	< 0.1		m+p-Xylene	< 0.2	
1,2-Dichloropropane	< 0.2		o-Xylene	< 0.2	
Bromodichloromethane	< 0.2		Styrene	< 0.5	
Dibromomethane	< 1.0		Isopropyl Benzene	< 0.5	
c-1,3-Dichloropropene	< 0.2		n-Propyl Benzene	< 0.5	
t-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		tert-Butyl Benzene	< 0.5	
1,3-Dichloropropane	< 0.2		124-Trimethylbenzene	< 0.5	
Tetrachloroethene	< 0.2		sec-Butylbenzene	< 0.5	
Chlorodibromomethane	< 0.5		p-Isopropyltoluene	< 0.5	
1,2-Dibromoethane	< 1.0		n-Butylbenzene	< 0.5	
Chlorobenzene	< 0.2		Naphthalene	< 0.5	
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:

GASOLINE & FUEL OIL (463)

GASOLINE :	<	30 UG/L
FUEL OIL :	<	200 UG/L

Legend:
< = less than
PP = peak present

MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY
VOLATILE HYDROCARBONS (code 463)

SAMPLED: 05/30/91
ANALYZED: 06/11/91
REPORTED: 06/19/91

LAB SAMPLE #: 9111163

FIELD BLANK #: NONE

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dichlorobenzene	< 0.2	
1,1-Dichloroethene	< 0.5		1,2-Dibromo-3-Chloropropane	< 2.0	
Allyl Chloride	< 0.5		124-Trichlorobenzene	< 0.5	
Methylene Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
t-1,2-Dichloroethene	< 0.1		123-Trichlorobenzene	< 0.5	
1,1-Dichloroethane	< 0.2		Ethyl Ether	< 2.0	
2,2-dichloropropane	< 0.5		Acetone	< 20	
c-1,2 Dichloroethene	< 0.2		Methyl tertiary-Butyl Ether	< 2.0	
Chloroform	< 0.1		Methyl Ethyl Ketone	< 10	
Bromochloromethane	< 0.5		Tetrahydrofuran	< 10	
1,1,1-Trichloroethane	< 0.2		Benzene	< 0.2	
1,1-Dichloropropene	< 0.2		Methyl Isobutyl Ketone	< 5.0	
Carbon Tetrachloride	< 0.2		Toluene	< 0.2	0.2
1,2-Dichloroethane	< 0.2		Ethyl Benzene	< 0.2	
Trichloroethene	< 0.1		m+p-Xylene	< 0.2	
1,2-Dichloropropane	< 0.2		o-Xylene	< 0.2	
Bromodichloromethane	< 0.2		Styrene	< 0.5	
Dibromomethane	< 1.0		Isopropyl Benzene	< 0.5	
c-1,3-Dichloropropene	< 0.2		n-Propyl Benzene	< 0.5	
t-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		tert-Butyl Benzene	< 0.5	
1,3-Dichloropropane	< 0.2		124-Trimethylbenzene	< 0.5	
Tetrachloroethene	< 0.2		sec-Butylbenzene	< 0.5	
Chlorodibromomethane	< 0.5		p-Isopropyltoluene	< 0.5	
1,2-Dibromoethane	< 1.0		n-Butylbenzene	< 0.5	
Chlorobenzene	< 0.2		Naphthalene	< 0.5	
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:

GASOLINE & FUEL OIL (463)

GASOLINE : < 30 UG/L

FUEL OIL : < 200 UG/L

Legend:
< = less than
PP = peak present

STABILIZATION TEST

Site Jordan
Date 9-5-91
Well number MW1

Pumping rate (gallons/minute) _____
Type of pump Field washed Bailer
Water level before pumping (nearest 0.01 ft. below top of casing) 11.16'
Approximate well location _____
Calculated volume of water in casing 1.03 gal Bottom 17.46'
Weather conditions cloudy, windy 20°C

Time	pH (units)	Temperature-Corrected Conductance (umhos/cm)	Temperature (°C)	Water Level (nearest 0.01 ft.)	Cumulative Volume of Water Removed From Well (measured in gallons)
1020				11.16	
1025	7.6	830	15		1.0
1027	7.5	830	15		2.0
1029	7.4	830	15		2.5
1031	7.4	850	14		3.0
1033	7.3	850	14		4.0
1035	sample			11.70	

- NO petrol odor
- water lt. Brown

STABILIZATION TEST

Site JORDAN
Date 9-5-91
Well number MW2

Pumping rate (gallons/minute) _____
Type of pump Dedicated Bailer
Water level before pumping (nearest 0.01 ft. below top of casing) 10.72'
Approximate well location _____
Calculated volume of water in casing 1.09 gal Bottom 17.40'
Weather conditions Cloudy, windy 20°C

Time	pH (units)	Temperature-Corrected Conductance (umhos/cm)	Temperature (°C)	Water Level (nearest 0.01 ft.)	Cumulative Volume of Water Removed From Well (measured in gallons)
0925				10.72	
0927	6.8	1400	17		1.0
0929	6.7	1250	17		2.0
0931	6.7	1250	17		3.0
0934	6.7	1200	17		4.5
0940	Sample			10.72	

- NOTICABLE petrol odor
- water Blackish

STABILIZATION TEST

Site Jordan
Date 9-5-91
Well number MW3

Pumping rate (gallons/minute) _____
Type of pump Dedicated Bailer
Water level before pumping (nearest 0.01 ft. below top of casing) 10.80
Approximate well location _____
Calculated volume of water in casing 1.08 gal Bottom 17.43
Weather conditions cloudy, windy 20°C

Time	pH (units)	Temperature-Corrected Conductance (umhos/cm)	Temperature (°C)	Water Level (nearest 0.01 ft.)	Cumulative Volume of Water Removed From Well (measured in gallons)
0905				10.80	
0908	6.4	410	16		1.0
0911	6.6	450	16		1.5
0915	6.6	630	16		2.0
0918	Dry slow recharge			16.78	
	too slow to Bail				
0945	sample			11.20	
1000	Bailer BLANK				

- NO petrol odor
- water lt. Brown

9120855 90 ORG.FORM.FY91.1

09120956 09120957 09120958. 09120959

MINNESOTA DEPARTMENT OF HEALTH
Chemical Laboratory Section
Organic Chemistry Unit

WATER ANALYSES ONLY

RECD 15 OCT 91

Date Collected: 9-5-91

Date Received: _____

Collected by: Mn/DOT

Chain of Custody #: 031

Budget #: DA

Report To: Mn/DOT

Field Blank #: 9120959

Laboratory Number		Field Number	Sample Description	Container Number	Container Type
9120955	a	JMW1	Jordan, Scott. Mn/DOT Truckstation Well 1035	4	40ml
9120956	b	JMW2	" " " 0940	"	"
9120957	c	JMW3	" " " 0945	"	"
9120958	d	BB	" " " Bailer Blank 0000	"	"
9120959	e		Field BLANK	3	"

Analyses Request Options		ALL	a 9120955	b 9120956	c 9120957	d 9120958	e 9120959
VOLATILE ORGANICS	465						
VOLATILE HALOGENATED ORGANICS (THM)	464						
GASOLINE/FUEL OIL + HALOGENATED	463	X					
VOLATILE ORGANICS by GC/MS	468						
CHLOROPHENOXY ACID HERBICIDES (CPA)	574						
POLYNUCLEAR AROMATIC HYDROCARBONS (PAH)	470						
POLYCHLORINATED BIPHENYLS (PCBs)	420						
PHTHALATE ESTERS	490						
PESTICIDES, CHLORINATED	502						
TOXAPHENE	520						
TECHNICAL CHLORDANE	530						
DDT GROUP	550						
PESTICIDES, NITROGEN/PHOSPHOROUS	571						
SPECIAL SAMPLE HOURS C/C ~~550~~ 990		X					

OCT 11 1991

Field Notes:

Laboratory Notes:

Mn/DOT TP-03023-01 (8/90)

Minnesota Department of Transportation

Transportation Building
St. Paul, MN 55155

ENVIRONMENTAL COMPLIANCE AND INVESTIGATION UNIT

№ 031

CHAIN OF CUSTODY RECORD

Project Name: Mn/DOT Jordan Truck Station

Name of Sampler: JIC #3 Lonetta Gauger

Field Number	Date (1991)	Time	Sample Type (s): Monitoring well	Existing well	Surface water	Wastewater	Waste	Other	Sample Location	Analyses Requested	Comments on Samples
JMW1	9-5	1035	X						Jordan T.S.	463	TAN WATER COLOR
JMW2	9-5	0940	X						" "	463	NOTICABLE PETROL ODOR, BLACK
JMW3	9-5	0945	X						" "	463	TAN WATER COLOR
BB	9-5	1000						X	" "	463	
FB	-	-						X		463	

Remarks on Site: cloudy, 20°C, windy

Samples Relinquished by	Samples Received by	Comments	Date/Time
Lonetta Gauger 9-5-91 1155			9/5/91 @ 11:55
Samples Relinquished by	Samples Received by	Comments	Date/Time
Samples Relinquished by	Samples Received by	Comments	Date/Time
Means of Delivery		Seals intact: ☐ YES ☐ NO ☐ N.A.	

Original and yellow copies to Lab. Pink copy to Mn/DOT. Lab forwards completed yellow copy to Mn/DOT with analytical results.

MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY
VOLATILE HYDROCARBONS (code 463)

SAMPLED: 09/05/91
ANALYZED: 10/01/91
REPORTED: 10/08/91

LAB SAMPLE #: 9120955 MW-1

FIELD BLANK #: 9120959

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0	
Chloromethane	< 2.0	
Vinyl Chloride	< 1.0	
Bromomethane	< 2.0	
Chloroethane	< 1.0	
Dichlorofluoromethane	< 1.0	
Trichlorofluoromethane	< 2.0	
Trichloro-trifluoroethane	< 0.2	
1,1-Dichloroethene	< 0.5	
Allyl Chloride	< 0.5	
Methylene Chloride	< 0.5	
t-1,2-Dichloroethene	< 0.1	
1,1-Dichloroethane	< 0.2	
2,2-dichloropropane	< 0.5	
c-1,2 Dichloroethene	< 0.2	
Chloroform	< 0.1	
Bromochloromethane	< 0.5	
1,1,1-Trichloroethane	< 0.2	
1,1-Dichloropropene	< 0.2	
Carbon Tetrachloride	< 0.2	
1,2-Dichloroethane	< 0.2	
Trichloroethene	< 0.1	
1,2-Dichloropropane	< 0.2	
Bromodichloromethane	< 0.2	
Dibromomethane	< 1.0	
c-1,3-Dichloropropene	< 0.2	
t-1,3-Dichloropropene	< 0.2	
1,1,2-Trichloroethane	< 0.2	
1,3-Dichloropropane	< 0.2	
Tetrachloroethene	< 0.2	
Chlorodibromomethane	< 0.5	
1,2-Dibromoethane	< 1.0	
Chlorobenzene	< 0.2	
1112-Tetrachloroethane	< 0.2	
Bromoform	< 1.0	
1122-Tetrachloroethane	< 0.2	
123-Trichloropropane	< 0.5	
Bromobenzene	< 0.2	
2-Chlorotoluene	< 0.5	
4-Chlorotoluene	< 0.5	
1,3-Dichlorobenzene	< 0.2	
1,4-Dichlorobenzene	< 0.2	
1,2-Dichlorobenzene	< 0.2	
1,2-Dibromo-3-Chloropropane	< 2.0	
124-Trichlorobenzene	< 0.5	
Hexachlorobutadiene	< 0.5	
123-Trichlorobenzene	< 0.5	
Ethyl Ether	< 2.0	
Acetone	< 20	
Methyl tertiary-Butyl Ether	< 2.0	
Methyl Ethyl Ketone	< 10	
Tetrahydrofuran	< 10	
Benzene	< 0.2	
Methyl Isobutyl Ketone	< 5.0	
Toluene	< 0.2	
Ethyl Benzene	< 0.2	
m+p-Xylene	< 0.2	
o-Xylene	< 0.2	
Styrene	< 0.5	
Isopropyl Benzene	< 0.5	
n-Propyl Benzene	< 0.5	
135-Trimethylbenzene	< 0.5	
tert-Butyl Benzene	< 0.5	
124-Trimethylbenzene	< 0.5	
sec-Butylbenzene	< 0.5	
p-Isopropyltoluene	< 0.5	
n-Butylbenzene	< 0.5	
Naphthalene	< 0.5	

COMMENTS:
ANALYZED AFTER THE 14 DAYS HOLDING TIME.

GASOLINE & FUEL OIL (463)

GASOLINE : < 30.0 UG/L

FUEL OIL : < 200.0 UG/L

Legend:
< = less than
PP = peak present

MINNESOTA DEPT. OF HEALTH - CHEMICAL LABORATORY
VOLATILE HYDROCARBONS (code 463)

SAMPLED: 09/05/91
ANALYZED: 10/01/91
REPORTED: 10/08/91

LAB SAMPLE #: 9120956

FIELD BLANK #: 9120959 MW-2

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 2.0		1122-Tetrachloroethane	< 0.4	
Chloromethane	< 4.0		123-Trichloropropane	< 1.0	
Vinyl Chloride	< 2.0		Bromobenzene	< 0.4	
Bromomethane	< 4.0		2-Chlorotoluene	< 1.0	
Chloroethane	< 2.0		4-Chlorotoluene	< 1.0	
Dichlorofluoromethane	< 2.0		1,3-Dichlorobenzene	< 0.4	
Trichlorofluoromethane	< 4.0		1,4-Dichlorobenzene	< 0.4	
Trichloro-trifluoroethane	< 0.4	0.6	1,2-Dichlorobenzene	< 0.4	
1,1-Dichloroethene	< 1.0		1,2-Dibromo-3-Chloropropane	< 4.0	
Allyl Chloride	< 1.0		124-Trichlorobenzene	< 1.0	
Methylene Chloride	< 1.0		Hexachlorobutadiene	< 1.0	
t-1,2-Dichloroethene	< 0.2		123-Trichlorobenzene	< 1.0	
1,1-Dichloroethane	< 0.4		Ethyl Ether	< 4.0	
2,2-dichloropropane	< 1.0		Acetone	< 40	
c-1,2 Dichloroethene	< 0.4		Methyl tertiary-Butyl Ether	< 4.0	
Chloroform	< 0.2		Methyl Ethyl Ketone	< 20	
Bromochloromethane	< 1.0		Tetrahydrofuran	< 20	
1,1,1-Trichloroethane	< 0.4		Benzene	< 0.4	1.4
1,1-Dichloropropene	< 0.4		Methyl Isobutyl Ketone	< 10.0	
Carbon Tetrachloride	< 0.4		Toluene	< 0.4	0.4
1,2-Dichloroethane	< 0.4		Ethyl Benzene	< 0.4	10
Trichloroethene	< 0.2		m+p-Xylene	< 0.4	2.4
1,2-Dichloropropane	< 0.4		o-Xylene	< 0.4	3.3
Bromodichloromethane	< 0.4		Styrene	< 1.0	
Dibromomethane	< 2.0		Isopropyl Benzene	< 1.0	
c-1,3-Dichloropropene	< 0.4		n-Propyl Benzene	< 1.0	11
t-1,3-Dichloropropene	< 0.4		135-Trimethylbenzene	< 1.0	
1,1,2-Trichloroethane	< 0.4		tert-Butyl Benzene	< 1.0	
1,3-Dichloropropane	< 0.4		124-Trimethylbenzene	< 1.0	8.4
Tetrachloroethene	< 0.4		sec-Butylbenzene	< 1.0	13
Chlorodibromomethane	< 1.0		p-Isopropyltoluene	< 1.0	4.0
1,2-Dibromoethane	< 2.0		n-Butylbenzene	< 1.0	7.4
Chlorobenzene	< 0.4		Naphthalene	< 1.0	4.4
1112-Tetrachloroethane	< 0.4				
Bromoform	< 2.0				

COMMENTS:
ANALYZED AFTER THE 14 DAY HOLDING TIME.

GASOLINE & FUEL OIL (463)

GASOLINE : 800 UG/L

FUEL OIL : 12000 UG/L

Legend:
< = less than
PP = peak present

MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY

VOLATILE HYDROCARBONS (code 463)

SAMPLED: 09/05/91
ANALYZED: 10/01/91
REPORTED: 10/08/91

LAB SAMPLE #: 9120957

FIELD BLANK #: 9120959

MW-3

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dichlorobenzene	< 0.2	
1,1-Dichloroethene	< 0.5		1,2-Dibromo-3-Chloropropane	< 2.0	
Allyl Chloride	< 0.5		124-Trichlorobenzene	< 0.5	
Methylene Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
t-1,2-Dichloroethene	< 0.1		123-Trichlorobenzene	< 0.5	
1,1-Dichloroethane	< 0.2		Ethyl Ether	< 2.0	
2,2-dichloropropane	< 0.5		Acetone	< 20	
c-1,2 Dichloroethene	< 0.2		Methyl tertiary-Butyl Ether	< 2.0	
Chloroform	< 0.1		Methyl Ethyl Ketone	< 10	
Bromochloromethane	< 0.5		Tetrahydrofuran	< 10	
1,1,1-Trichloroethane	< 0.2		Benzene	< 0.2	
1,1-Dichloropropene	< 0.2		Methyl Isobutyl Ketone	< 5.0	
Carbon Tetrachloride	< 0.2		Toluene	< 0.2	
1,2-Dichloroethane	< 0.2		Ethyl Benzene	< 0.2	
Trichloroethene	< 0.1		m+p-Xylene	< 0.2	
1,2-Dichloropropane	< 0.2		o-Xylene	< 0.2	
Bromodichloromethane	< 0.2		Styrene	< 0.5	
Dibromomethane	< 1.0		Isopropyl Benzene	< 0.5	
c-1,3-Dichloropropene	< 0.2		n-Propyl Benzene	< 0.5	
t-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		tert-Butyl Benzene	< 0.5	
1,3-Dichloropropane	< 0.2		124-Trimethylbenzene	< 0.5	
Tetrachloroethene	< 0.2		sec-Butylbenzene	< 0.5	
Chlorodibromomethane	< 0.5		p-Isopropyltoluene	< 0.5	
1,2-Dibromoethane	< 1.0		n-Butylbenzene	< 0.5	
Chlorobenzene	< 0.2		Naphthalene	< 0.5	
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:
ANALYZED AFTER THE 14 DAYS HOLDING TIME.

GASOLINE & FUEL OIL (463)

GASOLINE : < 30. UG/L

FUEL OIL : < 200. UG/L

Legend:
< = less than
PP = peak present

DT

MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY

VOLATILE HYDROCARBONS (code 463)

SAMPLED: 09/05/91
ANALYZED: 10/01/91
REPORTED: 10/08/91

LAB SAMPLE #: 9120958

FIELD BLANK #: 9120959

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dichlorobenzene	< 0.2	
1,1-Dichloroethene	< 0.5		1,2-Dibromo-3-Chloropropane	< 2.0	
Allyl Chloride	< 0.5		124-Trichlorobenzene	< 0.5	
Methylene Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
t-1,2-Dichloroethene	< 0.1		123-Trichlorobenzene	< 0.5	
1,1-Dichloroethane	< 0.2		Ethyl Ether	< 2.0	
2,2-dichloropropane	< 0.5		Acetone	< 20	
c-1,2 Dichloroethene	< 0.2		Methyl tertiary-Butyl Ether	< 2.0	
Chloroform	< 0.1	0.2	Methyl Ethyl Ketone	< 10	
Bromochloromethane	< 0.5		Tetrahydrofuran	< 10	
1,1,1-Trichloroethane	< 0.2		Benzene	< 0.2	0.4
1,1-Dichloropropene	< 0.2		Methyl Isobutyl Ketone	< 5.0	
Carbon Tetrachloride	< 0.2		Toluene	< 0.2	
1,2-Dichloroethane	< 0.2		Ethyl Benzene	< 0.2	
Trichloroethene	< 0.1		m+p-Xylene	< 0.2	
1,2-Dichloropropane	< 0.2		o-Xylene	< 0.2	
Bromodichloromethane	< 0.2		Styrene	< 0.5	
Dibromomethane	< 1.0		Isopropyl Benzene	< 0.5	
c-1,3-Dichloropropene	< 0.2		n-Propyl Benzene	< 0.5	
t-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		tert-Butyl Benzene	< 0.5	
1,3-Dichloropropane	< 0.2		124-Trimethylbenzene	< 0.5	
Tetrachloroethene	< 0.2		sec-Butylbenzene	< 0.5	
Chlorodibromomethane	< 0.5		p-Isopropyltoluene	< 0.5	
1,2-Dibromoethane	< 1.0		n-Butylbenzene	< 0.5	
Chlorobenzene	< 0.2		Naphthalene	< 0.5	
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:
ANALYZED AFTER THE 14 DAYS HOLDING TIME.

GASOLINE & FUEL OIL (463)

GASOLINE : < 30. UG/L

FUEL OIL : < 200. UG/L

Legend:
< = less than
PP = peak present

MINNESOTA DEPT OF HEALTH - CHEMICAL LABORATORY

VOLATILE HYDROCARBONS (code 463)

SAMPLED: 09/05/91
ANALYZED: 10/01/91
REPORTED: 10/08/91

LAB SAMPLE #: 9120959

FIELD BLANK #: 9120959

COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)	COMPOUND	REPORTING LIMIT (UG/L)	AMOUNT FOUND (UG/L)
Dichlorodifluoromethane	< 1.0		1122-Tetrachloroethane	< 0.2	
Chloromethane	< 2.0		123-Trichloropropane	< 0.5	
Vinyl Chloride	< 1.0		Bromobenzene	< 0.2	
Bromomethane	< 2.0		2-Chlorotoluene	< 0.5	
Chloroethane	< 1.0		4-Chlorotoluene	< 0.5	
Dichlorofluoromethane	< 1.0		1,3-Dichlorobenzene	< 0.2	
Trichlorofluoromethane	< 2.0		1,4-Dichlorobenzene	< 0.2	
Trichloro-trifluoroethane	< 0.2		1,2-Dichlorobenzene	< 0.2	
1,1-Dichloroethene	< 0.5		1,2-Dibromo-3-Chloropropane	< 2.0	
Allyl Chloride	< 0.5		124-Trichlorobenzene	< 0.5	
Methylene Chloride	< 0.5		Hexachlorobutadiene	< 0.5	
t-1,2-Dichloroethene	< 0.1		123-Trichlorobenzene	< 0.5	
1,1-Dichloroethane	< 0.2		Ethyl Ether	< 2.0	
2,2-dichloropropane	< 0.5		Acetone	< 20	
c-1,2 Dichloroethene	< 0.2		Methyl tertiary-Butyl Ether	< 2.0	
Chloroform	< 0.1		Methyl Ethyl Ketone	< 10	
Bromochloromethane	< 0.5		Tetrahydrofuran	< 10	
1,1,1-Trichloroethane	< 0.2		Benzene	< 0.2	
1,1-Dichloropropene	< 0.2		Methyl Isobutyl Ketone	< 5.0	
Carbon Tetrachloride	< 0.2		Toluene	< 0.2	
1,2-Dichloroethane	< 0.2		Ethyl Benzene	< 0.2	
Trichloroethene	< 0.1		m+p-Xylene	< 0.2	
1,2-Dichloropropane	< 0.2		o-Xylene	< 0.2	
Bromodichloromethane	< 0.2		Styrene	< 0.5	
Dibromomethane	< 1.0		Isopropyl Benzene	< 0.5	
c-1,3-Dichloropropene	< 0.2		n-Propyl Benzene	< 0.5	
t-1,3-Dichloropropene	< 0.2		135-Trimethylbenzene	< 0.5	
1,1,2-Trichloroethane	< 0.2		tert-Butyl Benzene	< 0.5	
1,3-Dichloropropane	< 0.2		124-Trimethylbenzene	< 0.5	
Tetrachloroethene	< 0.2		sec-Butylbenzene	< 0.5	
Chlorodibromomethane	< 0.5		p-Isopropyltoluene	< 0.5	
1,2-Dibromoethane	< 1.0		n-Butylbenzene	< 0.5	
Chlorobenzene	< 0.2		Naphthalene	< 0.5	
1112-Tetrachloroethane	< 0.2				
Bromoform	< 1.0				

COMMENTS:
ANALYZED AFTER THE 14 DAY HOLDING TIME.

GASOLINE & FUEL OIL (463)

GASOLINE : < 30. UG/L

FUEL OIL : < 200. UG/L

Legend:
< = less than
PP = peak present

DEPARTMENT OF TRANSPORTATION - Environmental Services Section

STATE OF MINNESOTA
Office Memorandum

DATE: January 17, 1991

TO: Janet Berryhill
MPCA - Tanks and Spills Section

FROM: Brian Kamnikar, Project Manager
Environmental Compliance and Investigation

PHONE: 297-2703

SUBJECT: MNDOT JORDAN TRUCK STATION - SITE ID#: LEAK00001338

Submitted for your review are completed Tank Removal and Remedial Investigation (RI) Reports for the above referenced site. MNDOT believes the degree and extent of petroleum contamination has been adequately defined by the RI.

In summary, low levels of petroleum contamination remain in the soil and concentrations of petroleum compounds in the groundwater samples are below Minnesota Department of Health Recommended Allowable Limits. According to the Groundwater Receptor Survey performed by Braun Environmental Laboratories, Inc., no receptors located downgradient of the site should be impacted. Therefore MNDOT proposes no Corrective Action at this time. MNDOT personnel (Environmental Engineering-Water Quality) will sample the groundwater monitoring wells quarterly. The MPCA will be updated accordingly.

Please call me if you have any questions concerning this matter.

cc (w/o enc.):
C. Hoffstedt
C. Lucas
L. Foote
G. Heapy
B. Johnson/File
ESS File

THERMAL REMEDIATION INC.

July 3, 1990

Ms. Robyn Livermore
Pollution Control Specialist Senior
Tanks and Spills Section
Hazardous Waste Division
MN Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

SUBJECT: Petroleum Contaminated Soil Processed
Minnesota Dept. of Transportation Sites
2315 Fernbrook Lane
Plymouth, MN

SITE I.D. NO.: Leak No.'s 00001359, 00001352, 00001338

FINAL DEPOSITION: On site backfill

VOLUME PROCESSED: 700 Cubic Yards

DATE OF FINAL WORK: June 30, 1990

Dear Robyn:

The field and laboratory testing and reports were performed by Precision Environmental. Enclosed is a copy of the post burn analysis. This information will be transmitted to all distributees of this letter.

If you have any further questions or requirements with regard to this project, please call at any time.

Sincerely,

John E. Stenglein
Project Manager

JES:rab
Enclosures

Dist: Calvin Lucas, MN DOT
Bob Dullinger, Supervisor, Tanks & Spills

443 8TH AVENUE NW NEW BRIGHTON, MN 55112 (612) 636-9931

THERMAL REMEDIATION INC.

July 3, 1990

Ms. Robyn Livermore
MN Pollution Control Agency
Hazardous Waste Division
Tanks and Spills Division
520 Lafayette Road
St. Paul, MN 55155

SUBJECT: Petroleum Contaminated Soil Disposal
Site: 2315 Fernbrook Lane
Plymouth, MN
Site I.D.# LEAK 00001359, 00001352, 00001338

The treatment of 700 cubic yards of petroleum contaminated soil from the above referenced site as per Minnesota Pollution Control Agency approval letter dated May 25, 1990, has been completed as of June 30, 1990.

Sincerely,

John E. Stenglein
Project Manager

JES:rab

443 8TH AVENUE NW NEW BRIGHTON, MN 55112 (612) 636-9931

PRECISION ENVIRONMENTAL

Field Monitoring and Testing Services

[illegible] Mound Blvd NE
Minneapolis, MN 55432-1849
(612) 780-9787

Report Date: June 27, 1990

Analytical Report No.: 90-380

Client Name: Thermal Remediation
Address: 443 8th Ave NW
City, State Zip: New Brighton, MN 55112

Attention: David T. Rybak
Project Name: Soil Analysis
Project No.: C177-ML

Date Collected: 6-27-90
Date Analyzed: 6-27-90

Sample I.D.	Benzene mg/kg	Toluene mg/kg	E Benzene mg/kg	Xylenes mg/kg	Total Hydrocarbons, as Fuel Oil mg/kg
Pile #1	<0.01	<0.01	<0.02	<0.05	2.6
Pile #2	<0.01	0.01	<0.02	<0.05	0.5

Benzene, Toluene, E Benzene and Xylenes determined by EPA 8020, (GC-PID).

Total Hydrocarbons determined by EPA 8015, (GC-FID)

Approved by,

Richard R. Dahl
Manager, Analytical Services

PRECISION ENVIRONMENTAL

Field Monitoring and Testing Services

[illegible] Main Street NE
[illegible], Minnesota 55432-1949
(612) 780-0787

Report Date: June 27, 1990

Analytical Report No.: 90-380

Client Name: Thermal Remediation
Address: 443 8th Ave NW
City, State Zip: New Brighton, MN 55112

Attention: David T. Rybak
Project Name: Soil Analysis
Project No.: C177-MI

Date Collected: 6-27-90
Date Analyzed: 6-27-90

Sample I.D.	Benzene mg/kg	Toluene mg/kg	E Benzene mg/kg	Xylenes mg/kg	Total Hydrocarbons, as Fuel Oil mg/kg
Pile #1	<0.01	<0.01	<0.02	<0.05	2.6
Pile #2	<0.01	0.01	<0.02	<0.05	0.5

Benzene, Toluene, E Benzene and Xylenes determined by EPA 8020, (GC-PID).

Total Hydrocarbons determined by EPA 8015, (GC-FID)

Approved by,

Richard R. Dahl
Manager, Analytical Services

File

THERMAL REMEDIATION INC.

July 3, 1990

RECEIVED
JUL 09 1990
MPCA, HAZARDOUS WASTE DIVISION

Ms. Robyn Livermore
Pollution Control Specialist Senior
Tanks and Spills Section
Hazardous Waste Division
MN Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

SUBJECT: Petroleum Contaminated Soil Processed
Minnesota Dept. of Transportation Sites
2315 Fernbrook Lane
Plymouth, MN

RLL RLL JOB

SITE I.D. NO.: Leak No.'s 00001359, 00001352, 00001338

FINAL DEPOSITION: On site backfill

VOLUME PROCESSED: 700 Cubic Yards

DATE OF FINAL WORK: June 30, 1990

Dear Robyn:

The field and laboratory testing and reports were performed by Precision Environmental. Enclosed is a copy of the post burn analysis. This information will be transmitted to all distributees of this letter.

If you have any further questions or requirements with regard to this project, please call at any time.

Sincerely,

John E. Stenglein
Project Manager

JES:rab
Enclosures

Dist: Calvin Lucas, MN DOT
Bob Dullinger, Supervisor, Tanks & Spills

443 8TH AVENUE NW NEW BRIGHTON, MN 55112 (612) 636-9931

PRECISION ENVIRONMENTAL

Field Monitoring and Testing Services

[illegible] Main Street N.E.
Minneapolis, Minnesota 55432-1849
(612) 780-9787

Report Date: June 27, 1990

Analytical Report No.: 90-380

Client Name: Thermal Remediation
Address: 443 8th Ave NW
City, State Zip: New Brighton, MN 55112

Attention: David T. Rybak
Project Name: Soil Analysis
Project No.: C177-ML

Date Collected: 6-27-90
Date Analyzed: 6-27-90

Sample I.D.	Benzene mg/kg	Toluene mg/kg	E Benzene mg/kg	Xylenes mg/kg	Total Hydrocarbons, as Fuel Oil mg/kg
Pile #1	<0.01	<0.01	<0.02	<0.05	2.6
Pile #2	<0.01	0.01	<0.02	<0.05	0.5

Benzene, Toluene, E Benzene and Xylenes determined by EPA 8020, (GC-PID).

Total Hydrocarbons determined by EPA 8015, (GC-FID)

Approved by,

Richard R. Dahl
Manager, Analytical Services

file: Cal Lucas

SE-00006-05 (4-86)

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT : Mn/DOT - Operations
Metro District - Golden Valley

DATE : July 9, 1990

TO : Robyn Livermore
Tanks and Spills Section
Hazardous Waste Division
Mn. Pollution Control Agency

FROM :
Calvin Lucas CL
U.S.T. Coordinator
Mn/DOT - Metro District-Golden Valley

PHONE : 593-8515

SUBJECT : Report on Thermal Treatment of Petroleum Contaminated Soil.

Treatment of Petroleum Contaminated soil at our Plymouth Truck Station site was completed June 27, 1990. The timely completion of the project was delayed due to weather conditions at the time the project was proceeding. The MPCA was notified and a verbal extension of the permit was granted.

A total of 680 cubic yards of material was thermally treated. 280 cubic yards from the Plymouth Truck Station, Site ID# LEAK00001352, Ft. Snelling Truck Station Site ID# LEAK00001359 300 cubic yards and from the Jordan Truck Station Site ID# LEAK00001338 100 cubic yards.

Enclosed is a copy of the last burn analyses. Pile #1 is the Ft. Snelling and Jordan sites, Pile #2 is the Plymouth site.

* Final disposition of the treated soil will be as shoulder material and road base on the Truck Highway System.

Please contact me at 593-8515 if you have any questions.

cc: Laurie Ravenhorst - City Clerk, Plymouth
Greg Lie - Hennepin County Solid Waste
John Stenglein - Thermal Radiation, Inc.

J. Koivisto
C. Hoffstedt
T. Styrbicki
J. Crohn
N. Radle - C.O. 704

CL:cs

* I okayed for use as fill material under the Broadway Bridge over I 94 in a conversation with Cal Lucas on 7/17/90.
Robyn Livermore

Minnesota Pollution Control Agency
520 Lafayette Road, Saint Paul, Minnesota 55155
Telephone (612) 296-6300

Celebrate MINNESOTA 1990

May 25, 1990

Mr. Calvin Lucas
Minnesota Department of Transportation
2055 North Lilac Drive
Golden Valley, Minnesota 55422

Dear Mr. Lucas:

RE: Approval for Thermal Treatment of Petroleum Contaminated Soil
Site: Jordan Truck Station, District 5
Site ID#: LEAK00001338

Your application dated May 10, 1990, for treatment of 100 cubic yards of petroleum contaminated soil from the above site is hereby approved by staff of the Minnesota Pollution Control Agency (MPCA) subject to the following conditions.

1. Soils will be treated by Thermal Remediation, Inc. Air Quality permit number 2333-90-OT-1.
2. Protection from run-on, infiltration and run-off shall be provided for contaminated soils stored prior to treatment.
3. Soil treatment will be completed by June 15, 1990.
4. MPCA staff must be notified of the proposed date of the soil treatment prior to the actual treatment date. Please notify both the MPCA Regional Specialist, if appropriate, and Bob Dullinger of the proposed treatment date.

Within 30 days of soil treatment, MPCA staff shall be provided with a site summary including the MPCA Site ID number, date soil treatment was completed, the volume of contaminated soil processed, post-burn analyses, and final disposition of the processed soil.

Failure to comply with the conditions of this approval may result in enforcement actions against either the generator of the contaminated soil or the facility operators or both. Failure to comply may also result in refusal by the MPCA to approve of similar applications for contaminated soil treatment by the facility or generator in the future.

Please contact me at 612/643-3430 or Bob Dullinger at 612/643-3454, if you have questions about this approval or cannot meet any of the above conditions. Thank you.

Sincerely,

Robyn Livermore
Robyn Livermore
Project Leader
Tanks and Spills Section
Hazardous Waste Division

Thermal Treatment Permission Granted

Bob Dullinger
Bob Dullinger, Supervisor
Cleanup Unit II
Tanks and Spills Section
Hazardous Waste Division

RL:kra
cc: Laurie Ravenhorst, City Clerk, Plymouth
John Stenglein, Thermal Remediation, Inc., New Brighton
Greg Lie, Hennepin County Solid Waste Officer

Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155

Facsimile Transmittal Sheet

To: Calvin Lucas

Company or Agency: MNDOT

Facsimile Number: 591-4665

Subject: TRI approval letters

From: Robyn Livermore

Company or Agency: MPCA / Tanks + Spills

Telephone Number: 643-3431

Facsimile Number: (612) 642-0465

Date: 5/24/90

Pages to Follow: 3

(Please Number ALL Pages)

If you have questions regarding this transmittal, please call: (612)

faxed 5/24/90
RL

To: ~~Louis Chamberlain~~
Regulatory Compliance Section
Division of Air Quality

Date: 5-10-90

From: _____
Tanks and Spills Section
Division of Hazardous Waste

Subject: Remedial action on contaminated soils

1. Location of soil MN/DOT TRUCK STATION JORDAN
705 SYNDICATE JORDAN, MN.
2. Amount of soil 100 CU/YDS
3. Consultant NOVA ENVIRONMENTAL SERVICES
CHASKA, MN.
4. ~~Asphalt plant~~ THERMAL REMEDIATION INC. (TRI)
ST. PAUL, MN.
5. Soil test results

	ppm	Less than	yes	no
Benzene	.028	1000 ppm	✓	
Toluene	.23	10,000 ppm	✓	
Xylene	.82	10,000 ppm	✓	
Ethyl Benzene	.072	10,000 ppm	✓	
Gasoline	—	30,000 ppm	✓	
Fuel Oil	130	15,000 ppm	✓	
Lead	—	20 ppm	✓	

6. Asphalt plant approval, M. Sandusky _____ Date _____
7. Pollutant review approval, L. Chamberlain ____ Date ____
8. Remarks MN/DOT HAS A START DATE of MAY 30th 1990 with TRI for This Project. MN/DOT HAS RECEIVED APPROVAL from The city of Plymouth for This REMEDIAL Action to take PLACE within its city limits

LMC:rml 2.20

5.2. LABORATORY ANALYTICAL RESULTS

The following is a summary of the laboratory soil analysis and phase separated hydrocarbon (PSH) identification. The complete laboratory report is included in Appendix A.

TABLE 5-2
LABORATORY SOIL ANALYSIS

Type Analysis	Excavation Base Diesel Tank 332	Excavation Base Unleaded Tank 331	Stockpiled Soil	PSH Identification
Benzene	<.005	<0.020**	0.028	<250**
Toluene	<.005	<0.020**	0.23	<250**
Ethyl benzene	0.022	2.3	0.072	1500
Xylenes	0.055	2.0	0.82	1300
Total Hydrocarbons as #2 fuel oil	21	1600	130	***
Total Hydrocarbons as gasoline	*	*	*	*
MTBE	<0.010	<0.040**	<0.020**	<500**

All results listed in ppm (parts per million)

*Unable to quantify due to high fuel concentration.

**Increased detection limits due to increased contamination

***Sample appears to be 9.9% fuel oil (40 ml sample vial contained a mixture of ground water and PSH. Laboratory analysis was performed on composite sample from vial. Percentage (9.9% fuel oil) is based on total fluid contained in sample vial and suggests remaining 90.1% of fluid is comprised of water).

Minnesota Pollution Control Agency
520 Lafayette Road, Saint Paul, Minnesota 55155
Telephone (612) 296-6300

Celebrate MINNESOTA 1990

April 18, 1990

Mr. Cal Lucas
Maintenance Support
Minnesota Department of Transportation
2055 North Lilac Drive
Golden Valley, Minnesota 55422

Dear Mr. Lucas:

RE: Land Application of Petroleum Contaminated Soil
Site: Minnesota Department of Transportation Truck Station, Jordan
Site ID#: LEAK00001338
Soil stockpile concentration: 590 Total Hydrocarbons as Kerosene

Your request dated March 3, 1990, to land apply approximately 100 cubic yards of petroleum contaminated soil is hereby approved by staff of the Minnesota Pollution Control Agency (MPCA) subject to the following conditions:

1. Soil shall not be transported to or spread at the site until county and local officials have been notified of your proposal and given reasonable time to respond. Please send the names and addresses of these officials to MPCA staff.

2. Stockpiled soil shall be protected from infiltration and runoff prior to land application.

3. Soil shall be applied to land located at Kasal Farm.

4. Soil shall be spread to a thickness of no more than six inches and incorporated into the top six inches of native soil per MPCA guidance document "Land Application of Petroleum Contaminated Soil." Soil shall be disked at least once per month during the growing season. More frequent plowing accelerates the decomposition of petroleum.

5. The land applied soil shall be sampled quarterly until MPCA staff determines the soil has been adequately treated. Please send me the soil analysis results as they become available.

We believe these actions will provide adequate treatment of petroleum contaminated soil. The MPCA reserves the right to require additional work if this is determined to be necessary to protect public health and the environment. This letter does not release any party from liability for this contamination.

Land application of petroleum contaminated soil is a partially reimbursable expense through the Petroleum Tank Release Cleanup Act. Details on eligibility rules for this program are available from the Petroleum Tank Release Compensation Board (297-4017).

Please contact me at 643-3427, if you have any further questions.

Sincerely,

Janet Berryhill
Pollution Control Specialist Senior
Tanks and Spills Section
Hazardous Waste Division

JB:smm

cc: Ed Homan, McLeod County Zoning Officer
James Friedrichs, Collins Township Chairman
Francis Kasal

Minnesota Pollution Control Agency

520 Lafayette Road, Saint Paul, Minnesota 55155
Telephone (612) 296-6300

Celebrate MINNESOTA 1990

September 12, 1989

recieved 3/2/90

Mr. Francis Kasal
Rural Route 1, Box 174A
Stewart, Minnesota 55385

Dear Mr. Kasal:

RE: Land Application of Petroleum Contaminated Soils

The purpose of this letter is to outline the procedure that is to be followed when land applying contaminated soils to the Kasal farm in T115W, R30W, section 33, Collins Township, McLeod County. This is not an approval or permit for land application of contaminated soils. As detailed below, approval will be granted on a case-by-case basis upon Minnesota Pollution Control Agency (MPCA) staff's receipt of a proposal for land applied soils.

1. The tank site owner is responsible for obtaining MPCA approval for land application of petroleum contaminated soils at the Kasal farm. The tank site owner must submit the July 26, 1989, proposal for land application (enclosure A), and the "Land Application of Petroleum Contaminated Soil at Kasal Farm" form (enclosure B) to the MPCA staff person assigned to the site.

2. MPCA staff will review the application, and approve or deny the tank site owner's proposal. MPCA staff will not approve the proposal unless county and township officials have been notified, and have been provided a reasonable time for response. MPCA staff will inform the tank site owner of their decision in writing. You will receive a carbon copy of this letter.

3. After the tank site owner receives written approval from the MPCA to land apply soil on the Kasal farm, you may land apply the soils. If the tank owner does not receive written approval from MPCA staff, you may not land apply the soils.

4. In addition to the separation distances you list in your July 26, 1989, proposal you must leave a 25 foot separation distance between contaminated soils from different tank sites. The 25 foot separation distance will be planted in a cover crop. This will prevent erosion problems, and clearly mark each thinspread corridor. You also shall not land apply contaminated soils within 25 feet of drain tiles.

5. After land application for a specific site has been completed, you will submit two copies of an updated map to me that shows the location of the soils originating from that site, and the location of all other soils applied to date. The map will also contain the following information for each tank site:

   A. site owners name(s)
   B. soil volume applied

C. fuel type
D. spreading thickness
E. acreage the site occupies
F. status (open or closed)

At the end of each quarter you shall submit a status report to me that includes the number of new soils you have applied, acreage covered, and volume of soils applied.

6. You will conduct the appropriate quarterly surface soil sampling and analyses on all the land applied soils. Analytical parameters are indicated on MPCA guidance dated April 1, 1989, (enclosure C). You shall send the quarterly analytical results for each tank site to the MPCA staff person assigned to the site.

7. Subsurface soil sampling shall be done immediately upon application of soils from each site, and quarterly thereafter. Soil samples will be taken at the depth of 3 feet, and analyzed for benzene, ethyl benzene, toluene, xylene, total hydrocarbons as gasoline, and total hydrocarbons as fuel oil. The first quarterly sampling of subsurface soil shall occur before freeze-up this fall.

8. Submit a map showing property boundaries, drainage tile locations, and drainage tile discharge points. The water in the discharge points shall be sampled twice yearly for benzene, ethyl benzene, toluene, xylene, total hydrocarbons as gasoline, and total hydrocarbons as fuel oil. The first quarterly sampling of water in the tile discharge points shall occur before freeze-up this fall.

Failure to comply with this procedure may result in enforcement actions against either or both the generator of the contaminated soil or the person who is responsible for land application. MPCA staff reserves the right to prohibit future land application of contaminated soils at the Kasal farm for reasons including but not limited to: Insufficient documentation of work; failure to follow procedure; failure to submit required reports on time; overloading of soils; insufficient breakdown of contaminants; problems with contaminant leaching in soils; and impacts to surface water, groundwater, or air quality.

Sincerely,

Mark K. Bird

for Janet Berryhill
Pollution Control Specialist
Tanks and Spills Section
Hazardous Waste Division

JB:kra

Enclosures

cc: Ed Homan, McLeod County Zoning Officer, Glencoe

THIS AGREEMENT, made and entered into as of the _____ day of _____, 1990, by Carolyn Kasal, Box 174A, Rural Route 1, Stewart, Minnesota 55385, hereinafter called the "Contractor", and the MnDOT _____ called the "Owner".

IT IS AGREED THAT:

Soil is to be spread on the Kasal MPCA approved landfarm

TYPE OF SOIL _____

SPILL SITE:
NAME Jordan

LOCATION Jordan Truck station

LEAK ID# 1338

SPREADING THICKNESS _____

EST VOLUME OF SOIL 100 Ton

MPCA CONTACT PERSON Janet Berglund

IN WITNESS WHEREOF, the Parties have caused this Document to be executed in at least two (2) original counterparts as of the day and year first above written.

OWNER

(SEAL)

By CJ Hoffstetter

COUNTERSIGNED
(Or Attested)

Title Maintenance Support Engr

_____

Date 3/2/90

Date _____

CONTRACTOR - KASAL LANDFARM

CAROLYN L.KASAL
BOX 174A
RURAL ROUTE 1
STEWART, MN 55385

COUNTERSIGNED

By Carolyn L. Kasal

Telephone No. _____

_____

Date _____

Date _____

SERCO Laboratories

Jordan

1931 West County Road C2, St Paul Minnesota 55113 (612) 636-7173

LABORATORY ANALYSIS REPORT NO: 2541 PAGE 1
10/26/89

Nova
1107 Hazeltine Blvd
Suite 420
Chaska, Mn 55318

DATE RECEIVED: 10/20/89
COLLECTED BY : CLIENT
DELIVERED BY : CLIENT
SAMPLE TYPE : SOIL
LIQUID

Attn: Ed Radecki

SERCO SAMPLE NO:	72319	72329	72339	72349
SAMPLE DESCRIPTION:	M89-604 Base Under No Lead	M89-604 Base Under Diesel	M89-604 Stock pile	M89-604 Product ID
ANALYSIS:				
Benzene, mg/kg	<0.005	<0.020**	0.028	<250**
Toluene, mg/kg	<0.005	<0.020**	0.23	<250**
Ethylbenzene, mg/kg	0.022	2.3	0.072	1500
Xylene, mg/kg	0.055	2.0	0.82	1300
Methyl Tertiary Butyl Ether, mg/kg	<0.010	<0.040**	<0.020**	<500**
FID Scan, mg/kg, as #2 fuel oil	*	*	*	*
FID Scan, mg/kg, as gasoline	*	*	*	*
FID Scan, mg/kg, as kerosene	7.6	590	45	***

* Samples appear to be contaminated with kerosene, not gasoline or fuel oil.
** Increased detection limits due to high levels of contamination.
*** Organic layer appears to be 100% kerosene.

< means "not detected at this level". 1 mg = 1000 ug.

Member

SERCO Laboratories

1931 West County Road C2. St Paul. Minnesota 55113 (612) 636-7173

All analyses were performed using EPA or other accepted methodologies. Samples that may be of an environmentally hazardous nature will be returned to you. Other samples will be stored for 30 days from the date of this report, then disposed of by SERCO LABORATORIES. Please contact me if other arrangements are needed.

Report submitted by,

Diane J. Anderson

Diane J. Anderson
Project Manager

< means "not detected at this level". 1 mg = 1000 ug.

Member

NOVA Environmental Services, Inc.

Minneapolis Office [X]
1107 Hazeltine Blvd. Ste. 420
Chaska, MN 55318
(612) 448-9393
Fax # 612-448-9572

Chain of Custody Record

Chicago Office [ ]
O'Hare Atrium Office Plaza, Ste 170
2860 River Road
Des Plaines, Il 60018
(312) 803-4510
Fax # 312-803-0780

Name of Project: MNDOT Jordan

Project Number: M89-604

Project Manager: Ed Radecki

Project Location: Jordan, MN

Specials Instructions: Call Ed Radecki if you have any questions regarding product I.D.

Sample No.	Time	No. & Vol. of Containers	Station Location	Requested Analysis: MTBE	BTEX	THC as Gasoline	THC as Fuel Oil	Product I.D.		Sample Description / Remarks
1		1	EXCAVATION BASE UNDER UNLEAD TANK: 8'	X	X	X	X			
2		1	EXCAVATION BASE UNDER DIESEL TANK: 9'	X	X	X	X			
3		1	Stockpiled Soil Pile	X	X	X	X			
4		1	EXCAVATION BASE: 12'	X	X	X	X	X		*Suspect Fuels are Diesel Fuel and UNLEADED GASOLINE

Sampler (Signature)	Relinquished By	Affiliation	Date	Time	Received By	Affiliation	Date	Time
Ed Radecki	Ed Radecki	NOVA	10/20/89					
Affiliation: NOVA			10-20	4:30			10-20	3:40
Date: 10/20/89	Time: 2:00 PM							

Permit Application of Francis & Carolyn Kasal for Land Application of Petroleum Contaminated Soil

I. Background Information

1. Disposal site location and site location map:

   Proposed disposal site is located 1 mile east of Stewart, Minnesota on Highway No. 212 in McLeod County. The legal description of the area is: That part of the SW¼, Section 33, Township 115 North, Range 30 West, which lies south of the Highway No. 212 right-of-way. The proposed site contains approximately 100 acres. Exhibit "A" attached hereto is an ASCS aerial photo map. Exhibit "B" attached hereto is a copy of the township plat.

2. Landowner's name, address and telephone number:

   Carolyn Kasal, Stewart, MN 55385
   Ph. (612) 562-2513

3. Documentation of approval or notification of the appropriate local officials:

   Collins Township does not have local zoning, and the McLeod County Zoning Office has been contacted on 2 occasions and advised of the proposed application. The Zoning Office has advised that no local approval appears to be needed.

4. Site visit by MPCA staff and/or topographic and soil survey maps with the proposed spreading site outlined and a map scale presented:

   The site has been visited by MPCA staff. A soil survey has been completed on the proposed area and has been requested from the local Soil Conservation Service.

5. Volume of soil to be landspread:

   Unknown at this point.

6. Projected date of spreading:

   Spreading would be limited to the growing season from approximately May 15 to October 15. No specific dates have been obtained yet.

7. Any previous history of waste disposal activities at the proposed site:

There has been no previous disposal of petroleum contaminated soils on the proposed site.

II. Site and Soil Characteristics

1. Site slope:

   The proposed site has 4% or less slope.

2. Minimum distance to surface water:

   There are no surface waters within 500 ft of the proposed site.

3. Distances to roads, buildings and other features:

   All disposable contaminated soil would be kept a minimum of 100 ft. from all roads, buildings and other structures.

4. Minimum depth to seasonal high water table, tile lines or bedrock:

   The seasonal high water table is presumed to be approximately 5 ft. The proposed site is crossed by several tile lines, but all surface inlets will be removed.

5. Soil characteristics:

   a. pH: 6.8-7

   b. Nutrients: No nutrient testing has been conducted for the proposed site since several separate disposals of contaminated soil is anticipated for the site. Each disposal would be conducted in an individual manner and each affected area would be individually and separately evaluated.

   c. The proposed disposal sites have been under general cultivation and agricultural practices for at least the past 25 years.

   d. Optimum soil moistue content: Unknown at the present time. Presumed to be approximately 50% of the soil water holding capacity.

6. Maximum application rates:

   Maximum application rates would be as per recommended by MPCA regulations and/or staff.

III. Procedures

1. Addition of lime:

   It is not believed that lime addition is necessary at the present time to raise the pH. As noted earlier, the pH is approximately 6.8-7, or slightly alkaline.

2. Landspreading season:

   Spreading will be contained within the period of May 15 to October 15, which would encompass the growing season.

3. Contaminated soils not to be applied greater than 6 inches deep:

   No application of contaminated soil shall be made greater than 6 inches, and depending on the amount of contamination contained within the soil, a thinner application will be made.

4. Method of spreading contaminated soil:

   Contaminated soil will be spread by trucks with chain beds to provide for an even and uniform application of the contaminated soil over the proposed area.

5. Addition of fertilizer:

   Fertilizer shall be added as needed, and the determination of whether or not fertilizer is needed will be made on a periodic basis of testing.

6. Mixing soil:

   The spread contaminated soil will be incorporated within the upper 4-6 inches of the native soil within 48 hours of its application. The soil will be incorporated through the use of a large notchblade disk and other equipment, if determined to be necessary.

7. Periodic incorporation:

   The proposed site will be disked at least twice a month, weather permitting.

8. Multiple applications of contaminated soil:

   It is anticipated the site would be used for multiple applications of contaminated soil, but the applications would be only once on each affected area.

9. Petroleum loading rate:

Each load of contaminated soil disposed of on the site will be tested with an HU meter. A composition report shall be prepared on each individual disposal, in addition to a state-prepared report from the site.

IV. Monitoring Requirements

1. Each load of contaminated soil shall be tested separately with an HU meter to determine the contamination present. It is intended that all requirements for testing set forth by the MPCA, including number of soil samples to be taken, shall be within the guidelines issued by the MPCA. Soil samples will be sent in to an independent testing agency and the results will be sent to the state.

2. Testing for benzene, ethyl benzene, toluene, etc.:

Testing for the foregoing hydrocarbons will be conducted on the soil, both before application and after. Soil samples will be obtained on a quarterly basis to measure the amount of degradation occurring within the soil.. It is agreed that the duration of sampling will be as specified by MPCA staff.

3. Sampling of ground water and/or surface water:

Sampling of ground and surface waters will be conducted as directed by MPCA recommendations.

DATED: July _____, 1989

Francis Kasal

Carolyn Kasal

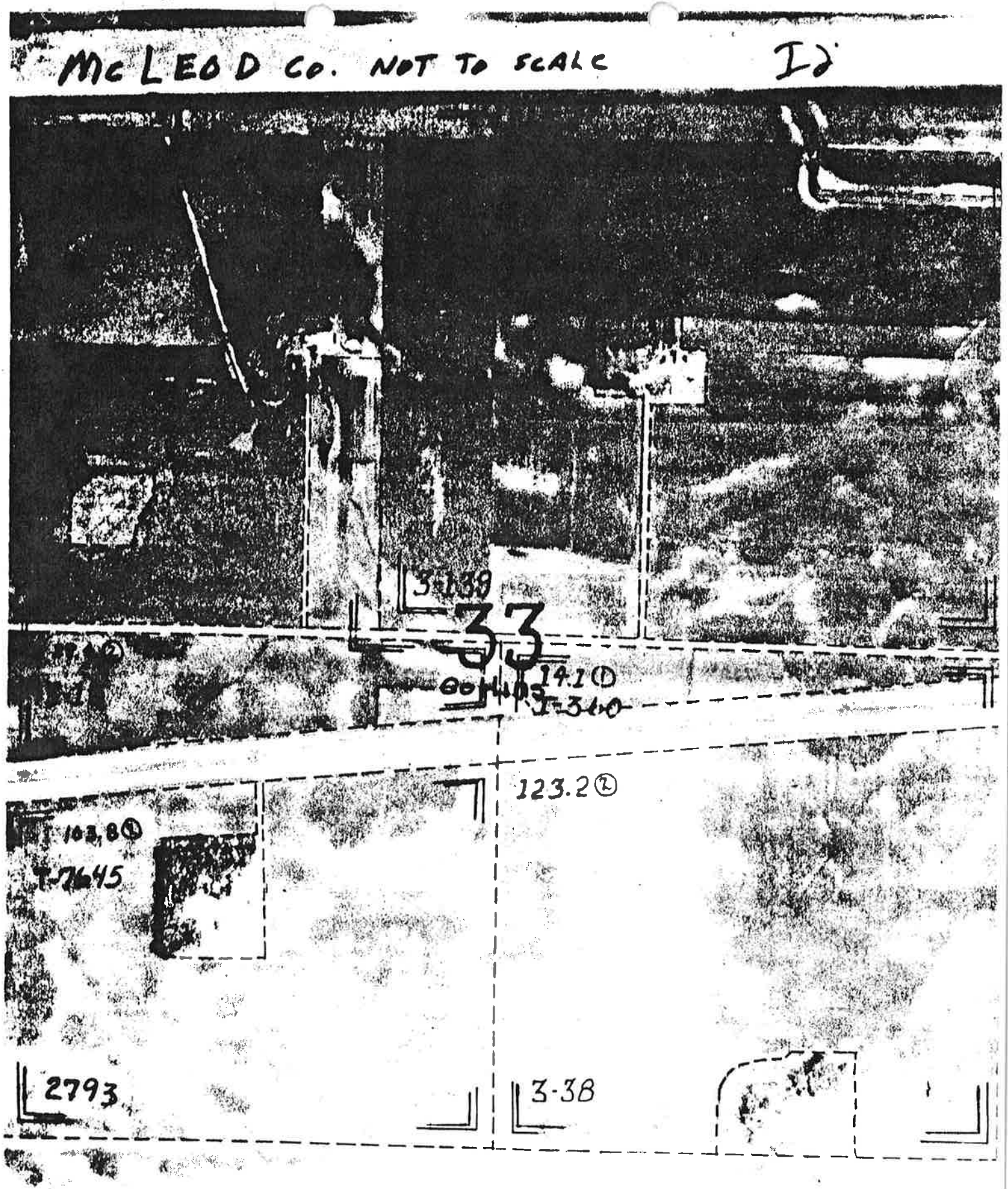

McLEOD Co. NOT TO SCALE
Id
3-139
33
14.1 ①
T-310
123.2 ②
102.8 ①
T-7645
2793
3-38

Exhibit
A

7

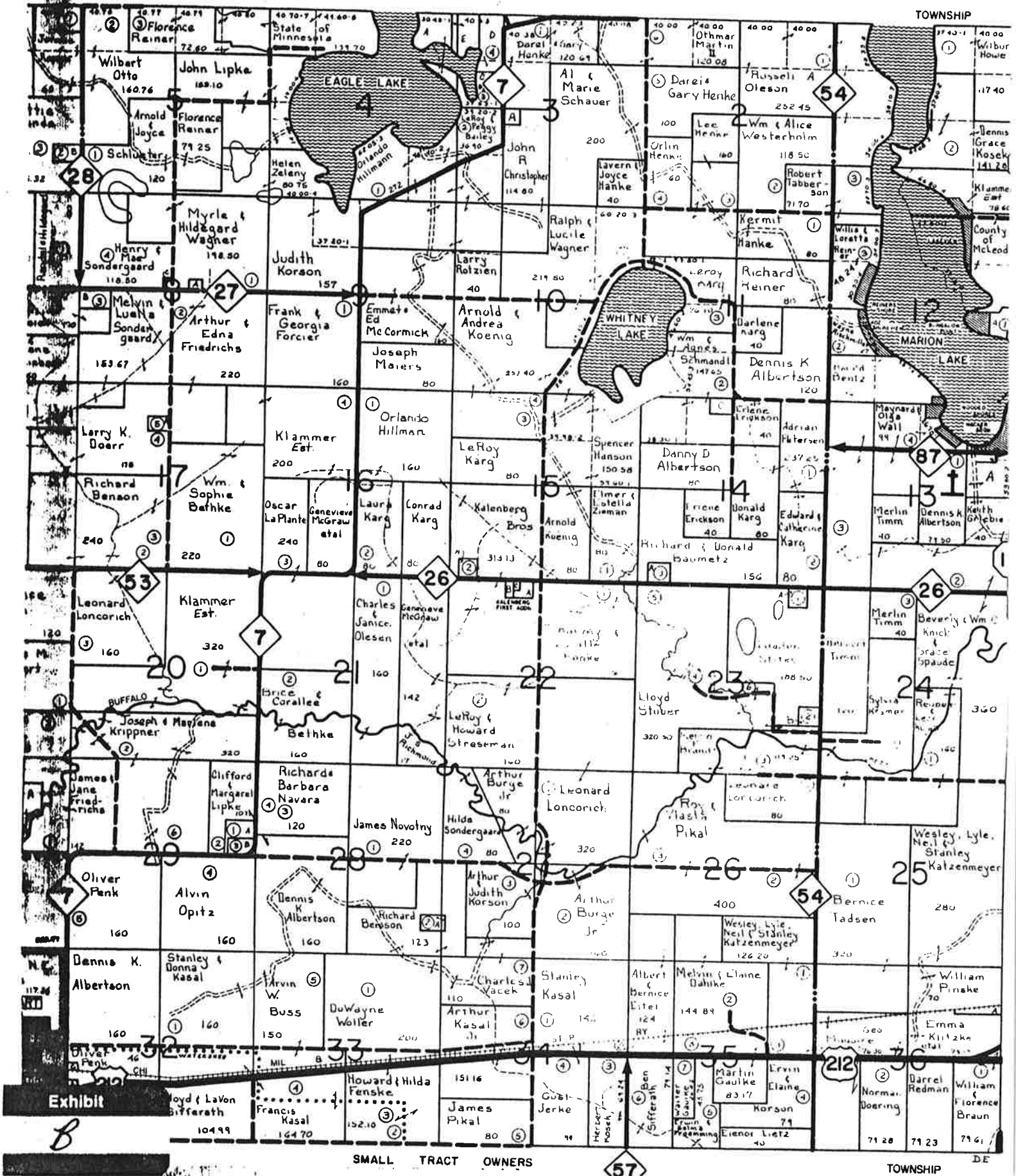
MAP OF COLLINS

TOWNSHIP: 115 N.

RANGE: 30 W.

CODE: CO

MIDLAND PUBLISHING & PRINTING



Minnesota Pollution Control Agency
520 Lafayette Road, Saint Paul, Minnesota 55155
Telephone (612) 296-6300

Celebrate MINNESOTA 1990

December 4, 1989

Ms. Nancy Radle
Minnesota Department of Transportation
Transportation Building, Room 704
John Ireland Boulevard
St. Paul, Minnesota 55155

Dear Ms. Radle:

RE: Petroleum Storage Tank Release Investigation and Corrective Action
Site: Minnesota Department of Transportation Truck Station - Jordan
Site ID#: LEAK00001338

The Minnesota Pollution Control Agency (MPCA) has received your notification that a release of petroleum has occurred from storage tank facilities which you own and/or operate. The first report of the release was made to the MPCA staff on July 7, 1989.

Federal and state laws require that persons legally responsible for storage tank releases notify the MPCA of the release, investigate the extent of the release and take actions needed to ensure that the release is cleaned up. A person is generally considered legally responsible for a tank release if the person owned or operated the tank either during or after the release.

I understand that you have hired Bay West to investigate the site. Their report will be submitted to the MPCA when the work has been completed.

If you complete the cleanup work, the state may reimburse you for a major portion of your costs. The Petroleum Tank Release Cleanup Act establishes a fund which in certain circumstances provides partial reimbursement for petroleum tank release cleanup costs. This fund is administered by the Petroleum Tank Release Compensation Board (Petro Board). More specific eligibility rules are available from the Petro Board (612/297-4017).

Please notify me within 24 hours of discovery of free floating petroleum product on the surface of the ground water, and notify me three days before removing any tanks.

Please feel free to contact me at any time you need information or assistance in these matters. My telephone number is 612/297-3083. Thank you.

Sincerely,

Janet Berryhill
Pollution Control Specialist
Tanks and Spills Section
Hazardous Waste Division

JB:jr
cc: The Honorable Don Tillman, Mayor, City of Jordan
William Busch, Fire Chief