Please print or type
(Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OH5210020736 — Manifest Doc. No. NH006 — 2. Page 1 of 1

3. Generator's Name and Mailing Address
RAVENNA ARMY AMMUNITION PLANT
8451 State Route 5
RAVENNA, OHIO 44266

4. Generator's Phone (330) 358-2920

5. Transporter 1 Company Name: EMERALD ENV. SERVICES, INC.	6. US EPA ID Number: OHR000102053	A. Transporter's Phone: 330-677-0785
7. Transporter 2 Company Name:	8. US EPA ID Number:	B. Transporter's Phone:
9. Designated Facility Name and Site Address: COUNTYWIDE RECYCLING, 3619 GRACEMONT STREET SW., EAST SPARTA, OHIO 44626	10. US EPA ID Number: N/A	C. Facility's Phone: 330-874-3835

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-HAZARDOUS/NON-RCRA/NON-D.O.T.REGULATED MATERIALS (Wood Ash)	001	RO	20	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

11a) 511008

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

L/Line 6

EMERGENCY CONTACT: 330-677-0785

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Mark Patterson — Signature: Mark C. Patterson — Month Day Year: 10 8 07 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Shawn Hershberger — Signature: [signature] — Month Day Year: 10 8 07 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Leslie Holland — Signature: Leslie Holland — Month Day Year: 1 8 07 07

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OH5.2.1.0.0.2.0.7.3.6 | Manifest Document No. NHO.0.7 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: RAVENNA ARMY AMMUNITION PLANT, 8451 STATE ROUTE 5, RAVENNA, OH 44266

4. Generator's Phone: 330) 358 - 2920

5. Transporter 1 Company Name: EMERALD ENV. SERVICES, INC. | 6. US EPA ID Number: OHRO.00.10.2.0.5.2 | A. Transporter's Phone: 330 - 677 - 0785

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: COUNTYWIDE RECYCLING, 3619 GRACEMONT STREET SW., EAST PARTA, OH 44266 | 10. US EPA ID Number: N/A | C. Facility's Phone: 330 - 874 - 3851

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-HAZARDOUS/NON-RCRA/NON-D.O.T REGULATED MATERIALS (WOOD ASH)	001	RO	20	Y
b.				
c.				
d.				

d. 11 9) 5 11008

D. Additional Descriptions for Materials Listed Above: Load Line 6

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

EMERGENCY CONTACT: 330 - 677 - 0785

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of hazardous waste.

Printed/Typed Name: IRVIN E. VENGER | Signature: Irvin E. Venger | Month 10 | Day 10 | Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Steve McClanahan | Signature: [signature] | Month 10 | Day 10 | Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name: Esther Starck | Signature: Esther Starck | Month 10 | Day 11 | Year 03

GENERATOR — TRANSPORTER — FACILITY

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OH5210020736 | Manifest Document No. NH 0 0 3 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Ravenna Army Ammunition Plant, 8451 State Route 5, Ravenna, OH 44266

4. Generator's Phone: 330 - 358 - 7311

5a. Transporter 1 Company Name: Emerald Env. Services, Inc. | 6. US EPA ID Number: OHR000102053 | 7. Transporter's Phone: 330-677-0785

7a. Transporter 2 Company Name | 8. US EPA ID Number | 8. Transporter's Phone

9. Designated Facility Name and Site Address: Countywide Recycling, 3019 Gracemont St. SW, East Sparta, OH. 44626 | 10. US EPA ID Number: N/A | C. Facility's Phone: 330-874-3585

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non-Hazardous/ Non-RCRA/ Non D.O.T Reg Materials (Wood Ash)	001	RD	20	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information: 11a) 511008 Load Line 6

Emergency Contact 330-677-0785

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Mark Patterson | Signature: Mark Patterson | Month 08 | Day 11 | Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Terry Bauman | Signature | Month 08 | Day 11 | Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name: Peter Kotlar | Signature | Month 8 | Day 11 | Year 03

GENERATOR | TRANSPORTER | FACILITY

ORIGINAL - RETURN TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

5. Transporter 1 Company Name — 6. US EPA ID Number — A. Transporter's Phone

7. Transporter 2 Company Name — 8. US EPA ID Number — B. Transporter's Phone

9. Designated Facility Name and Site Address — 10. US EPA ID Number — C. Facility's Phone

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a.				
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Wastes.

Printed/Typed Name	Signature	Month	Day	Year

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year

GENERATOR — TRANSPORTER — FACILITY

T/S/D/F COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. O.H.5.2.1.0.0.2.0.7.3.6 | Manifest Document No. WHO10 | 2. Page 1 of 1

3. Generator's Name and Mailing Address
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna OH 44266

4. Generator's Phone (330) 358-7311

5. Transporter 1 Company Name: Emerald Environmental Services | 6. US EPA ID Number: O.H.R.0.0.0.1.0.2.0.5.3 | A. Transporter's Phone: (330) 677-0785

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address
County Wide R.D.F.
3619 Gracemont Ave. SW
East Sparta OH 44626

10. US EPA ID Number | C. Facility's Phone: (330) 874-3855

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. Non-Haz/Non-RCRA/Non Reg. Material (wood ash)	1	CM	00020	Y
b.	0			
c.	0			
d.	0			

D. Additional Descriptions for Materials Listed Above
a. 11a). 511008 c.
b. d.

E. Handling Codes for Wastes Listed Above
a. S01 c.
b. d.

15. Special Handling Instructions and Additional Information
a. Load Line 6, Wood Ash
d. EMERGENCY CONTACT: 330-677-0785

16 GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.
Printed/Typed Name: Mark Patterson | Signature: Mark Patterson | Month 09 Day 12 Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Jeremy Bauer | Signature: Jeremy Bauer | Month 09 Day 12 Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19
Printed/Typed Name | Signature | Month | Day | Year

GENERATOR — TRANSPORTER — FACILITY

COPY

MS - COUNTYWIDE RDF
3619 GRACEMONT ST SW
EAST SPARTA, OH 44626
PHONE: (330)874-3855 FAX: (330)874-2426

Ticket: 336380
Date: 08/12/2008
Time: 11:09 - 11:41

Customer: 19 / EMERALD ENVIRONMENTAL   Carrier: NA / NON APP
Truck: EM209
Trailer:
Origin: PORTAGE / PORTAGE COUNTY
Profile: 51/AOB / Ravenna Army Am...

Gross: 88500 Lbs 09
Tare: 40980 Lbs 09
Net: 47520 Lbs

Comment: RAVENNA ARMY

Waste & Service	Quantity
TSWOS / TSW - ... PER TON	23.76 Tons

Weighmaster: ______________ Driver: ______________
WEBLTE

MS - COUNTYWIDE RDF
3619 GRACEMONT ST SW
EAST SPARTA, OH 44626
PHONE: (330)874-3855 FAX: (330)874-2426

Ticket: 336539
Date: 08/12/2008
Time: 07:29 - 07:52

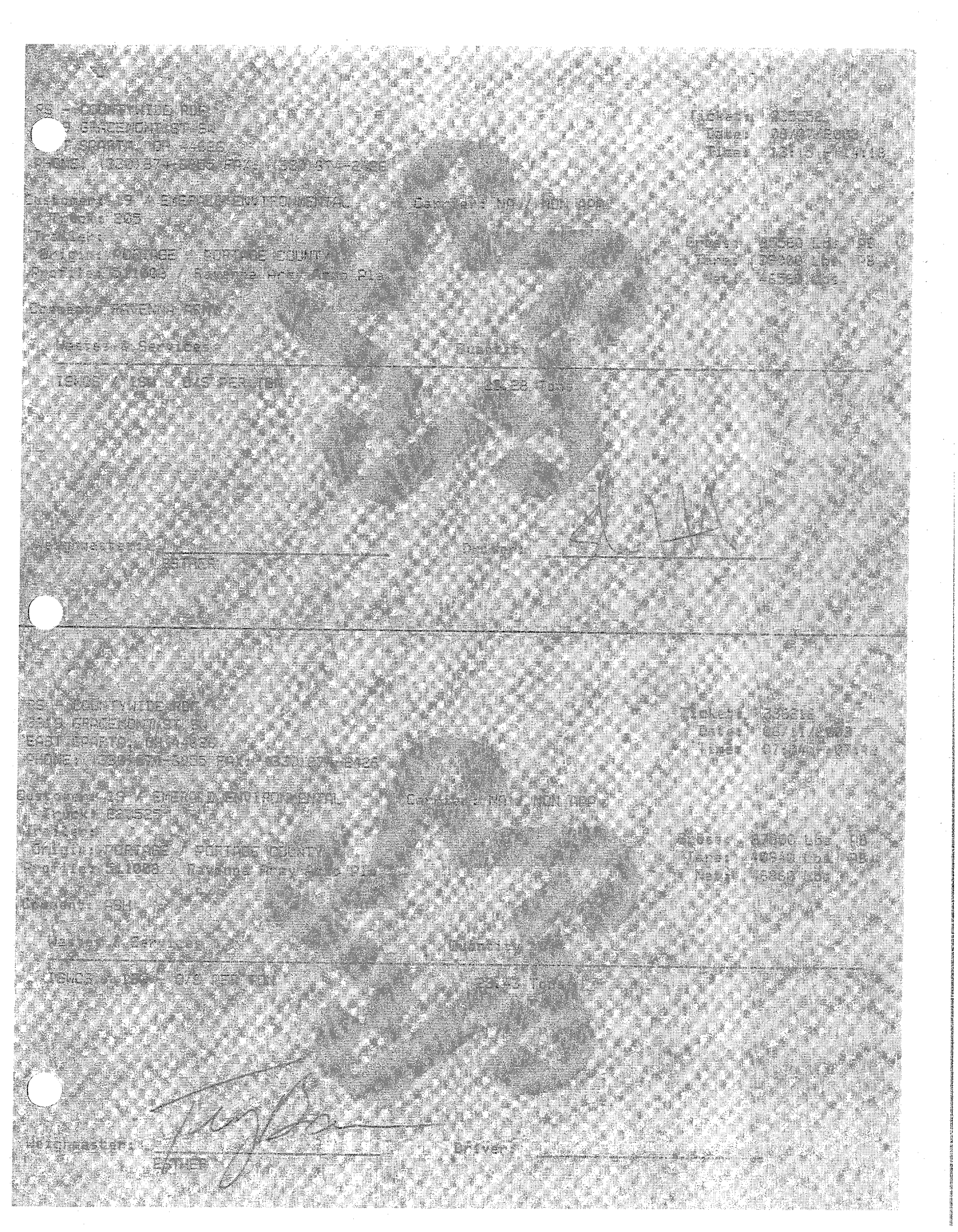
Customer: 19 / EMERALD ENVIRONMENTAL   Carrier: NA / NON-APP
Truck: [illegible]
Trailer:
Origin: PORTAGE / PORTAGE COUNTY
Profile: 51/AOB / Ravenna Army Ammo Pl...

Gross: 75240 Lbs 09
Tare: 3[illegible]500 Lbs 09
Net: 38740 Lbs

Comment: [illegible]

Waste & Service	Quantity
TSWOS / TSW - .. PER TON	19.37 Tons

Weighmaster: ______________ Driver: ______________
ESTRAN



TC - COUNTYWIDE RDF
3619 GRACEMONT ST SW
EAST SPARTA, OH 44626
PHONE: (330)874-3855 FAX: (330)874-2426

Ticket: 376796
Date: 08/[illegible]/2008
Time: 11:25 - 12:02

Customer: 17 / APPROVED ENVIRONMENTAL
Carrier: NA / NON APP
Truck: EM305
Trailer:
Origin: PORTAGE / PORTAGE COUNTY
Profile: S11008 / Ravenna Army Ammo Pl
Gross: 97460 Lbs PB
Tare: 40660 Lbs PB
Net: 56800 Lbs

Comment: RAVENNA ARMY

Wastes & Services	Quantity
ISW08 / ISW - 0.75 PER TON	[illegible] Tons

Weighmaster: LESLIE

Driver: [signature]

#1 28.40 T

#2

NON-HAZARDOUS WASTE MANIFEST

1 Generator's US EPA ID No. OH5210020736 | Manifest Document No. NH012 | 2 Page 1 of 1

3 Generator's Name and Mailing Address
Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna OH 44266

4 Generator's Phone (330) 358-7311

5 Transporter 1 Company Name: Emerald Environmental Services
6 US EPA ID Number: OHR000102053
A Transporter's Phone: (330) 677-0785

7 Transporter 2 Company Name
8 US EPA ID Number
B Transporter's Phone

9 Designated Facility Name and Site Address
County Wide R.D.F.
3619 Gracemont Ave. SW
East Sparta OH 44626
10 US EPA ID Number: N/A
C Facility's Phone: (330) 874-3855

11 Waste Shipping Name and Description	12 Containers No.	Type	13 Total Quantity	14 Unit Wt./Vol.
a. NON-HAZARDOUS/NON-RCRA/NON-D.O.T. REGULATED MATERIALS (Wood Ash)	1	CM	20000	Y
b.	0			
c.	0			
d.	0			

D Additional Descriptions for Materials Listed Above
a. 11a) 511008
b.
c.
d.

E Handling Codes for Wastes Listed Above
a. S01
b.
c.
d.

15 Special Handling Instructions and Additional Information
a. EMERENCY CONTACT- 330-677-0785

16 GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste
Printed/Typed Name: IRVING VENEGA
Signature: [signature]
Month 09 Day 30 Year 03

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Shawn HERSTEELER
Signature: [signature]
Month 09 Day 30 Year 03

18 Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name
Signature
Month Day Year

19 Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Leslie Holland
Signature: [signature]
Month 10 Day 1 Year 03

GENERATOR
TRANSPORTER
FACILITY

ORIGINAL - RETURN TO GENERATOR

#2

RS - COUNTYWIDE RDF
3619 GRACEMONT ST SW
EAST SPARTA, OH 44626
PHONE: (330)874-3855 FAX: (330)874-2426

Ticket: 351189
Date: 09/30/2003
Time: 11:05 - 11:34

Customer: 13 / EMERALD ENVIRONMENTAL   Carrier: NO / NON APP
Truck: EM205
Trailer:
Origin: PORTAGE / PORTAGE COUNTY
Profile: 511008 / Ravenna Arsenal P1

Gross: 62480 Lbs PB
Tare: 40120 Lbs PB
Net: 22360 Lbs

Comment: RAVENNA ARMY

Wastes & Services	Quantity
1SW05 / 1SW - O.S PER TON	11.18 Tons

Weighmaster: LESLIE   Driver:

D. Additional Descriptions for Materials Listed Above
a. 11a) 511008   c.
b.   d.

E. Handling Codes for Wastes Listed Above
a. S01   c.
b.   d.

15. Special Handling Instructions and Additional Information

a. EMERENCY CONTACT- 330-677-0785

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
IRVING VENGER	Irving Venger	09	30	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Shawn HERSHBERGER		09	30	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of waste materials covered by this manifest except as noted in Item 19

Printed/Typed Name	Signature	Month	Day	Year
Leslie Holland	Leslie Holl	9	30	03

ORIGINAL - RETURN TO GENERATOR

#1

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. O H 5 2 1 0 0 2 0 7 3 6 | Manifest Document No. WHX13 | 2. Page 1 of 1

3. Generator's Name and Mailing Address: Ravenna Army Ammunition Plant, 8451 State Route 5, Ravenna OH 44266

4. Generator's Phone: 330 / 358-7311

5. Transporter 1 Company Name: Emerald Environmental Services | 6. US EPA ID Number: O H R 0 0 0 1 0 2 0 5 3 | A. Transporter's Phone: (330) 677-0785

7. Transporter 2 Company Name | 8. US EPA ID Number | B. Transporter's Phone

9. Designated Facility Name and Site Address: County Wide R.D.F., 3619 Gracemont Ave. SW, East Sparta OH 44626 | 10. US EPA ID Number | C. Facility's Phone: (330) 874-3855

	11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a.	NON-HAZARDOUS / NON-RCRA / NON D.O.T REGULATED MATERIALS (Wood Ash)	1	C M	0 0 0 2 0	T
b.		0			
c.		0			
d.		0			

D. Additional Descriptions for Materials Listed Above: a. 11a) 511008 | b. | c. | d.

E. Handling Codes for Wastes Listed Above: a. 801 | b. | c. | d.

15. Special Handling Instructions and Additional Information

a. EMERGENCY CONTACT -330-677-0785

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: Mark Patterson | Signature: Mark Patterson | Month 10 | Day 30 | Year 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: SHAWN HERSBERGER | Signature | Month 10 | Day 30 | Year 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Leslie Hollinwell | Signature | Month 10 | Day 30 | Year 03

GENERATOR — TRANSPORTER — FACILITY

ORIGINAL - RETURN TO GENERATOR

#1

RE - COUNTYWIDE RDF	Ticket: 351345
[illegible]	Date: 09/30/2003
EAST SPARTA, OH 44626	Time: 14:46 - 15:14
PHONE: [illegible] FAX: [illegible]	

Customer: 19 EMERALD ENVIRONMENTAL Carrier: NA NON APP
Truck: EM205
Trailer:
Origin: PORTAGE / PORTAGE COUNTY
Profile: 511008 - Ravenna Army Ammo [illegible]

Gross: 52400 Lbs 2B
Tare: 39900 Lbs 2B
Net: 12500 Lbs

Comment: RAVENNA ARMY

Wastes & Services	Quantity
15WDS / 1SW - D/S PER TON	9.25 Tons

Weighmaster: LESLIE Driver: [signature]

D. Additional Descriptions for Materials Listed Above

a. 11a) 511008 c.

b. d.

E. Handling Codes for Wastes Listed Above

a. S01 c.
b. d.

15. Special Handling Instructions and Additional Information

a. EMERGENCY CONTACT -330-677-0785

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Mark Patterson	[signature]	09	30	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
SHAWN HERSHBERGER	[signature]	09	30	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Leslie Holland	[signature]	9	30	03

Printed by J. J. KELLER & ASSOCIATES, INC.
Neenah, WI 54957-0368

ORIGINAL - RETURN TO GENERATOR

12-BLC-M6

1084 Receipt ID: 340151 Manifest: MI8646313

DEQ WASTE MANAGEMENT DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

DO NOT WRITE IN THIS SPACE
ATT. ☐ DIS. ☐ REJ. ☐ PR. ☐

Required under authority of Part 111 and Part 121 of Act 451, 1994, as amended

Failure to file may subject you to criminal and/or civil penalties under Sections 324.11151 or 324.12116 MCL.

Please print or type. Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. OH5210020736 Manifest Document No. HW013
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address Ravenna Army Ammunition Plant
8451 State Rte. 5
Ravenna, OH. 44266
4. Generator's Phone (330) 358-7311

A. State Manifest Document Number MI 8646313
B. State Generator's ID WPW-0670849-OH

5. Transporter 1 Company Name Envirite of Ohio
6. US EPA ID Number OHD980568992
C. State Transporter's ID
D. Transporter's Phone 330-456-6228

7. Transporter 2 Company Name —
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address Michigan Disposal Waste TREATMENT PLANT
4900 N. I-94 Service Dr.
Belleville, MI. 48111
10. US EPA ID Number MI D000743831
G. State Facility's ID
H. Facility's Phone 800-592-5489

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID NUMBER).	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste (liquid), solid, n.o.s., 9, NA3077, PG III (D008)	X	1	CM	20	Y	D008
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above
Wood ash Load Line 9 - Demolition Operations
081803 MHF

K. Handling Codes
a
b
c
d

15. Special Handling Instructions and Additional Information
Emergency Number: 412-759-6178
ERG # 171

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Date (Month Day Year)
IRVING VERKER		09 13 16 03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
JEFF MUNUTCALD		09 12 16 03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
BRIAN SCHMITZ		09 16 03

ALL SPILLS MUST BE REPORTED TO THE MICHIGAN POLLUTION EMERGENCY ALERTING SYSTEM, IN MICHIGAN AT 1-800-292-4706 OR OUT OF STATE AT 517-373-7660 AND THE NATIONAL RESPONSE CENTER AT 1-800-424-8802 24 HOURS PER DAY.

EPA Form 8700-22 (Rev. 9-88) ... SQP-6310

EQ-THE ENVIRONMENTAL QUALITY CO.
Michigan Disposal Waste Treatment Plant
49350 North I-94 Service Drive, Belleville, Michigan 48111

Receipt

BETTER MGMT CORP INC OF OHIO

P O BOX 9755
YOUNGSTOWN, OH 44513

Receipt ID: 340151
EQ Account #: 3271
Manifest/BOL: MI8646313
Transporter: ENVIRITEOH
Date: 09/26/2003
Time In: 1:37 PM
Time Out: 3:33 PM

Line#	Approval/Service	Generator / Waste Code	Bill Unit	Gross	Tare	Net	Quantity
01	081803MHF	OH5210020736 RAVENNA ARMY AMMUNITION DEPOT					
		D008	TONS	52,000	40,080	11,920	5 960
		Hazardous Surcharge					

I understand and acknowledge that entry into an EQ environmental protection facility is permitted only at my own risk. I, both personally and on behalf of my employer, release EQ-The Environmental Quality Company from any and all liability not caused by its gross negligence or willful misconduct.

DELIVERED BY

NO SALVAGING ON PREMISES

Emergency Contact Telephone Number

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. OH5210020736	Manifest Document No. 10345	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

GENERATOR

3. Generator's Name and Mailing Address: Ravenna Army Ammunition Plant
8451 State Route 5
Ravenna, Ohio 44266

4. Generator's Phone (330) 358-7311

A. State Manifest Document Number

B. State Generator's ID

5. Transporter 1 Company Name: Emerald Env. Services, Inc.
6. US EPA ID Number: OHR000102053
C. State Transporter's ID
D. Transporter's Phone: 330-677-0785

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address: Envirite Of Ohio, Inc
2050 Central Avenue, Southeast
Canton, Ohio 44707
10. US EPA ID Number: OHD980568992
G. State Facility's ID
H. Facility's Phone: 330-456-6238

	11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	X RQ,Hazardous Wastes Solid,n.o.s.,9,NA3077, PGIII ERG#171	001	R/O	00012	TN	D008
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above: 11a)CS4358 ERG#171
Load Line 9

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

EMERGENCY CONTACT: 330-677-0785

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimized the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
K Irving Venice	Irving Venice	10	07	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Shawn Hershberger		10	07	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space: 7,100 #

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Eric Dunlap	Eric Dunlap	10	7	03

TRANSPORTER #1

ENVIRITE OF OHIO, INC.

CANTON, OHIO 44707

WEIGHT TALLY NUMBER ______

RAVENNA

REMARKS: EMERALD

C54358

46540 lb 11:40 am 10/07/03

46540 lb Gross

7100 lb Net

39440 lb Tare

12:34 pm 10/07/03

☐ LPU ☐ SPU

ENVIRITE OF OHIO, INC., WEIGHER

BRECHBUHLER SCALES

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of	
	0 0 0 1		KE 77

3. Generator's Name and Mailing Address

Ravenna Arsenal
8451 State Rt 5
Ravenna, OH 44266

4. Generator's Phone (330) 358-2920

5. Transporter 1 Company Name: JMW Trucking
6. US EPA ID Number:
A. Transporter's Phone: 330-484-2428

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address

Minerva Enterprises
9000 Minerva Rd.
Waynesburg, OH 44688

10. US EPA ID Number:
C. Facility's Phone: 330 866-3433

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. DOT-Nonregulated material, construction debris			00025	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

a) concrete rubble and ash, generated from wet storage

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name: AGENT FOR GENERATOR Michael Lancaster
Signature: Mike Lancaster
Month/Day/Year: 1 1 10 03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Dennis Mathie
Signature:
Month/Day/Year: 11 11 90

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name:
Signature:
Month/Day/Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: LORELEI KEIGHTY
Signature: Lorelei Keighty
Month/Day/Year: 11 10 03

GENERATOR / TRANSPORTER / FACILITY

TRANSPORTER #2

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NH017

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of
	OH5210020736	0-00 0 3	KE 77

GENERATOR

3. Generator's Name and Mailing Address
Ravenna Arsenal
8451 State Rt 5
Ravenna, OH 44266

4. Generator's Phone (330) 358-2920

5. Transporter 1 Company Name: JMW Trucking
6. US EPA ID Number:
A. Transporter's Phone: 330-484-2428

7. Transporter 2 Company Name:
8. US EPA ID Number:
B. Transporter's Phone:

9. Designated Facility Name and Site Address
Minerva Enterprises
9000 Minerva Rd.
Waynesburg, OH 44688

10. US EPA ID Number: N/A

C. Facility's Phone
330-866-3433

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. DOT Non-regulated material (construction debris)	001	RO	20	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
a) concrete rubble and ash, generated from wet storage

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Wet Storage Area Ash debris

Emergency Contact: 330-633-0724

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Mark Patterson	Mark Patterson	11	17	03

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Dennis Mathie		11	17	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Sharon Perry	Sharon Perry	11	17	03

TRANSPORTER #2

Please print or type.
(Form designed for use on elite (12-pitch) typewriter.)

NH018

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. OH5210020736	Manifest Doc. No. ~~0002~~	2. Page 1 of KE 77

3. Generator's Name and Mailing Address
Ravenna Arsenal
8451 State Rt 5
Ravenna, OH 44266

4. Generator's Phone (330) 358-2920

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
JMW Trucking		330-484-2428
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone

9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Minerva Enterprises 9000 Minerva Rd. Waynesburg, OH 44688	N/A	330-866-3433

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. DOT Non-regulated material (construction debris)	001	R	00013	Y
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above
a) concrete rubble, and ash, generaterd from wet storage

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
WET STORAGE AREA

EMERGENCY CONTACT : 330 6330724

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Mark Patterson	Mark Patterson	11	17	03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Dennis Mathie		11	17	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Sharon Perry	Sharon Perry	11	17	03

GENERATOR
TRANSPORTER
FACILITY

Printed by J. J. KELLER & ASSOCIATES, INC.
Neenah, WI 54957-0368

TRANSPORTER #1

12-BLS-C6 Rev. 12/98

Summary Table		
LL6 Non Hazardous Ash		
Date	Weight ticket #	Tons
8/7/2003	335552	23.28
8/11/2003	336360	23.76
8/11/2003	336216	23.43
8/12/2003	336796	23.4
8/12/2003	336639	18.37
	Total	112.24

Summary Table

LL9 Hazardous Ash

Date	Weight Ticket #	Tons
9/26/2003	340151	5.96
10/7/2003	654530	3.55
	Total	9.51

Summary Table		
LL9 Non Hazardous Ash		
Date	Weight Ticket #	Tons
9/30/2003	351345	9.25
9/30/2003	351189	11.18
	Total	20.43

Summary of Results LL 6 & 9 Lead Floor Ash Waste Characterization Samples		
Parameter (Method No., Units)	LL6 Floorash-WC	LL9 Floorash-WC
Sample Date	6/13/2003	6/13/2003
Lead (SW6010 µg/L)		
Lead	64300	63800
Organics (SW8015DRO mg/kg)		
TPH-DRO (Diesel Range Organics)	180	180
	LL6-9 Floorash-WC	
Sample Date	6/17/2003	
Asbestos		
Asbestos	NAD	
BQL = Below Quantitational Limit	mg/kg = miligrams per kilogram	
NAD = No Asbestos Detected	µg/L = micrograms per liter	

Summary of Results
LL 6 & 9 Non Lead Floor Ash Waste Characterization Samples

Parameter (Method No., Units)	LL6 Floorash-WC	LL9 Floorash-WC
Sample Date	7/8/2003	7/8/2003
PCB Analysis (SW8082 µg/kg		
Arocler 1016	BQL	BQL
Arocler 1221	BQL	BQL
Arocler 1232	BQL	BQL
Arocler 1242	BQL	BQL
Arocler 1248	BQL	BQL
Arocler 1254	BQL	BQL
Arocler 1260	BQL	BQL
Explosives (8330 µg/kg)		
HMX	BQL	BQL
RDX	BQL	BQL
1,3,5-Trinitrobenzene	BQL	BQL
1,3-Dinitrobenzene	BQL	BQL
Nitrobenzene	BQL	BQL
2,4,6-Trinitrtoluene	BQL	BQL
Tetryl	BQL	BQL
2,4-Dinitrotoluene	BQL	BQL
2,6-Dinitrotoluene	BQL	BQL
m-Nitrotoluene	BQL	BQL
o-Nitrtotoluene	BQL	BQL
p-Nitrotoluene	BQL	BQL
4-Amino-2,6-Dinitrotoluene	BQL	BQL
2-Amino-4,6-Dinitrotoluene	BQL	BQL
TCLP Metals (SW6010B / SW7471A_TCLP µg/L)		
Arsenic	BQL	BQL
Barium	2500	BQL
Cadmium	BQL	BQL
Chromium	BQL	BQL
Lead	679	970
Selenium	BQL	BQL
Silver	BQL	BQL
Mercury	BQL	BQL
Organics (SW8015DRO µg/kg		
TPH-DRO (Diesel Range Organics)	21	180
Pesticides (SW8081A / SW8151A_TCLP µg/L)		
Chlordane	BQL	BQL
Endrin	BQL	BQL
Gamma-BHC (Lindane)	BQL	BQL
Heptachlor Epoxide	BQL	BQL
Methoxychlor	BQL	BQL
Toxaphene	BQL	BQL
2,4,5-TP(Silvex)	BQL	BQL
2,4-D	BQL	BQL
VOC's (SW8260B_TCLP µg/L		
1,1-Dichloroethene	BQL	BQL
1,2-Dichloroethane	BQL	BQL
1,4-Dichlorobenzene	BQL	BQL
2-Butanone	BQL	BQL
Benzene	BQL	BQL
Carbon Tetrachloride	BQL	BQL
Clhlorobenzene	BQL	BQL
Chloroform	BQL	BQL
Tetrachloroethylene	12	25
Trichloroethene	BQL	BQL
Vinyl Chloride	BQL	BQL
SVOC's (SW8270C_TCLP µg/L)		
1,4-Dichlorobenzene	BQL	BQL
2,4,5-Trichlorophenol	BQL	BQL
2,4,6-Trichlorophenol	BQL	BQL
2,4-Dinitrotoluene	BQL	BQL
2-Methylphenol	BQL	BQL
3&4-Methylphenol	BQL	BQL
Hexachlorobenzene	BQL	BQL
Hexachlorobutadiene	BQL	BQL
Hexachloroethane	BQL	BQL
Nitrobenzene	BQL	BQL
Pentachlorophenol	BQL	BQL
Pyridine	BQL	BQL

BQL = Below Quantitational Limit

µg/kg = micrograms per kilogram

µg/L = micrograms per liter

AMA Analytical Services, Inc.

A Specialized Environmental Laboratory

CERTIFICATE OF ANALYSIS

NVLAP
NY ELAP
AIHA

Client:	MKM Engineers	Job Name:	Ravenna Army Ammunition Plant/LL #6 & 9	Chain Of Custody:	114049
Address:	4153 Blue Bonnet Drive	Job Location:	Not Provided	Date Analyzed:	06/24/2003
	Stafford, Texas 77477	Job Number:	02074	Person Submitting:	James Panozzo
		P.O. Number:	LA604-02081		

Attention: Brian Stockwell/James Panozzo

Summary of Polarized Light Microscopy

AMA Sample Number	Client Sample #	Total Asbestos	Chrysotile Percent	Amosite Percent	Crocidolite Percent	Other Asbestos Percent	Mineral Wool Percent	Fiberglass Percent	Organic Percent	Synthetic Percent	Other Percent	Particulate Percent	Sample Color	Analyst ID	Comments
0351385	LL6-9-Floor Ash-WC	NAD	--	--	--	--	TR	--	TR	--	--	100	Black	CK	

The following footnotes only apply to those samples which the total asbestos result is flagged with a note number.

1 TEM RECOMMENDATION - Please note, due to resolution limitations with optical microscopy and/or interference from matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos. It is recommended that the additional analytical technique of TEM be used to check for asbestos fibers below the resolution limits of optical microscopy.

2 MATRIX REDUCTION RECOMMENDATION - Please note, due to interference from the matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos which is obscured from view. It is recommended that the additional preparation technique of gravimetric reduction be performed on this sample to minimize the obscuring effects of matrix components, followed by reanalysis by PLM and/or TEM.

Analysis Method - EPA/600/R-93/116 dated July 1993

NAD = "No Asbestos Detected" TR = "Trace equals less than 1% of this component"

Crystal Kellam

An AIHA (#8863), NVLAP (# 101143), & New York ELAP (#10920) Accredited Laboratory
4475 Forbes Blvd. • Lanham, MD 20706 • (301) 459-2640 • Toll Free (800) 346-0961 • Fax (301) 459-2643

AMA Analytical Services, Inc.

AIHA (#8863) NVLAP (#1143) NY ELAP (10920)
4475 Forbes Blvd. • Lanham, MD 20706
(301) 459-2640 • (800) 346-0961 • Fax (301) 459-2643

CHAIN OF CUSTODY

(Please Refer To This Number For Inquires) ~~107062~~

MAILING ADDRESS:

1. Submittal Date: 6-17-03 — Job Name/location: Ravenna Army Ammunition Plant / LL #6 & 9
2. Client Name: MKM Engineers, Inc. — Job #: 02074 — P.O. #: To be Forwarded
3. Street/RFD/P.O. Box: 8451 St. Rte. 5 — Bill To: SAME
4. City, State, Zip: Ravenna, Ohio 44266 — Phone #: 330-358-2920 — Fax: 330-358-2924
5. Contact Person: Brian Stockwell / James Panuzzo — Submitted By: James Panuzzo (Print) _____ (Signature)
6. DATE & TIME RESULTS REQUIRED: Normal / ____, Time: ____ AM PM ☐IMMED. ☐24HR ☐48HR ☐72HR ☒5-DAY OTHER(Specify): ____

SAMPLE DATA:

1. Analysis Type: ☒Asbestos ☐Lead ☐NOB-Whole(PLM/TEM) ☐NOB-Whole(PLM Only) ☐NOB-Whole(TEM Only) ☐NOB-Res. Ash(TEM) ☐TCLP for Pb ☐Other(specify): ____
2. Total Number Of Samples: TEM 1 PCM ____ PLM ____ LEAD ____ OTHER (Specify) Waste characterization - Floor Ash
3. ELECTRON MICROSCOPY SAMPLES:
   A. Filter Type: PC ☐ MCB ☐ B. Porosity: ____ Micron C. Diameter ☐37mm ☐25m/m
4. LEAD SAMPLES Wipe Type: ☐Pace ☐Palintest ☐Ghost ☐Lynx Products ☐Other (specify) ____
5. Release Criteria/Analytical Sensitivity: 0.010 f/cc☐ 0.005 f/cc☐ AHERA ☐ %ASBESTOS ☐ S/EP ☐ OTHER ☐
6. Field Sheet Attached? ☐YES ☐NO If No Then Please Complete The Following:

CLIENT ID NUMBER	SAMPLE LOCATION	DATE	VOLUME ~~duration~~	WIPE AREA	ANALYSIS: TEM	PCM	PLM	LEAD	OTHER	MATRIX: AIR	BLANK	BULK	WIPE	CLIENT CONTACT (LABORATORY STAFF ONLY)
LL6-9-FlyAsh-WC	LL 6 & 9	6-17-03	8oz.		X									Date/Time: Contact: By:
														Date/Time: Contact: By:
														Date/Time: Contact: By:

REPORTING DATA:

1. Verbal Results To Whom? Name: NA Phone: ____ Beeper: ____
2. Date Written Results Required 5 Day Turn

LABORATORY STAFF ONLY: (CUSTODY)

1. Date/Time RCVD: ____ / ____ / ____ @ ____ Via: ____ By (Print): ____ Sign: ____
2. Date/Time Analyzed: ____ / ____ / ____ @ ____ By (Print): ____ Sign: ____
3. Results Reported To: ____ Via: ____ Date: ____ / ____ / ____ Time: ____ Initials: ____
4. Comments: ____

Analytical Report For 307054

for

MKM Engineers, Inc.

Project Manager : Brian Stockwell

Project Name : LL6, 9 & WS Demo

August 22, 2003

GPL

Laboratories

GPL Laboratories, LLLP Certifies that the test results meet all requirements of the NELAC Standards unless otherwise noted.

Reviewed by,
Project Manager

Approved by,
Laboratory Director

202 Perry Parkway Gaithersburg, MD 20877 Phone (301) 926-6802 Fax: (301) 840-1209
www.gplab.com

TOTAL # OF PAGES : 31

GPL
Laboratories

CASE NARRATIVE

CLIENT: **MKM ENGINEERS, INC.**
PROJECT/SITE: **LL6,9 & WS DEMO**
WORK ORDER(S): 307054
REVIEW DATE: 8/22/03

The Case Narrative, Chain of Custody, Sample Receipt Checklist, and the cover page of the Sample Analysis Report, are integral parts of GPL Laboratories' report package. If you did not receive all of these documents, please contact GPL immediately.

Sample Receipt

Two soil samples were received on 07/10/2003. The samples were delivered by Federal Express. Sample receipt conditions and temperatures are documented on the Sample Receipt Checklist.

Sample Analysis

Samples were prepared and analyzed by GPL using the analytical methodologies indicated on the Sample Analysis Summary Report. In some chromatographic analyses, manual integration is used instead of automated integration because it produces more accurate results. All manual integrations are denoted on the sample quantitation report as "m". Analysis results and limits for soil are reported on a dry weight basis unless otherwise specified on the report.

Volatile Analysis

1. Two soil samples were analyzed for TCLP compounds using 8260B methodologies.
2. The matrix spike analyses were performed on sample LL6-FLOORASH-WC. All QC criteria were met.
3. Two laboratory control sample (LCS) reports were submitted with this package.

Semivolatile TCLP

1. Two soil samples were digested and extracted using method 3510C. The samples were analyzed for semivolatile TCLP compounds using method 8270C.
2. Matrix spike analysis was shared with work order #307056. A laboratory control sample was extracted and analyzed with this batch. Two spike recoveries were above QC limits for the LCS analysis.

Pesticides 8081

1. Two soil samples were extracted and analyzed for TCLP Pesticide compounds using method 8081ATCLP.
2. Matrix spike was shared with work order 307056 on sample DRUM#4. A laboratory control spike sample was extracted and analyzed with the samples.
3. Endrin failed to pass QC limts for Continuing files U007385, U007388 and U007400, None of the samples indicate the presence of the failed compound and samples were not re-analyzed.

GPL
Laboratories

CASE NARRATIVE

4. Concentrations reported on Form 1 are the higher values of results generated two columns. However the analyst determines the most reliable results based on the evaluation of quality control parameters. Flagged concentrations (*) on Form 1 indicate that reported results are the lower values.

5. All other analyses met QC criteria.

PCBs

1. Two soil samples were extracted and analyzed for PCB compounds using method 8082A.

2. MS/MSD was shared with work order 307068. A laboratory control spike sample was extracted and analyzed with this sample.

3. All QC criteria were met.

Herbicides

1. Two soil samples were extracted and analyzed for Herbicide compounds using method 8151A_TCLP.

2. A laboratory control spike sample was extracted and analyzed with this sample.

3. MS analysis was shared with work order 307054.

4. All QC criteria were met.

5. Concentrations reported on Form 1 are the higher values of results generated two columns. However the analyst determines the most reliable results based on the evaluation of quality control parameters. Flagged concentrations (*) on Form 1 indicate that reported results are the lower values.

Total Petroleum Hydrocarbons

1. Two soil samples were extracted and analyzed for TPH DRO using SW8015 methodologies.

2. One laboratory control sample (LCS) is submitted with this package. Recovery was within QC limits.

3. The matrix spike and matrix spike duplicate analyses were performed for sample LL6-FLOORASH-WC.

GPL
Laboratories

CASE NARRATIVE

Explosives/HPLC

1. Two soil samples were extracted and analyzed for explosive compounds using SW846 method 8330.

2. Surrogate was not recovered for both samples. The samples were re-extracted outside extraction holding time with the re-extract exhibiting the same result. Both results are included in the data package. The re-extract is for QC purpose only. The modified sample ID's is LL6-FLOORASH-WCRE and LL9-FLOORASH-WCRE.

3. Matrix spike and matrix spike duplicate analysis was shared with work order# 307022.

4. A laboratory control sample was extracted and analyzed with each batch. BKS61445 showed one spike recovery above QC limits. BKS61549 showed three spike recoveries above QC limits. However, the overall LCS recoveries were very good.

5. Manual integration was performed on some data files, when automatic integration provided by the software was inappropriate. Some forms were "hand" corrected due to software limitations.

Metals

1. Two soil samples were analyzed for TCLP metals by EPA SW846 methods.

2. A matrix spike and duplicate were performed on sample LL6-FLOORASH-WC for all required analytes. A serial dilution was performed also for the ICP analytes. They were within the control limits.

3 Calibration standards are verified against independent check standards purchased from a commercial vendor of environmental standards.

4. All GPL QA/QC criteria were met.

Project Manager

Laboratory Director

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-003-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 07/26/2003
Time Analyzed: 14:00
Analysis Batch: 61808

Parameter	Result	Rep Limit	Units	Qualifier	D.F
Percent Solids	42	1.0	%		1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-004-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method:
Prep Date:
Prep Time:
Prep Batch:

Analytical Method: CLP_SOLIDS
Date Analyzed: 07/26/2003
Time Analyzed: 14:00
Analysis Batch: 61808

Parameter	Result	Rep Limit	Units	Qualifier	D.F
Percent Solids	30	1.0	%		1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-001-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3010A
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61449

Analytical Method: SW6010B_TCLP
Date Analyzed: 07/18/2003
Time Analyzed: 04:14
Analysis Batch: 14955

Parameter	Result	Rep Limit	Units	Qualifier	D.F
Arsenic	BQL	200	ug/L	U	1
Barium	2500	1000	ug/L		1
Cadmium	BQL	60	ug/L	U	1
Chromium	BQL	50	ug/L	U	1
Lead	679	100	ug/L		1
Selenium	BQL	200	ug/L	U	1
Silver	BQL	30	ug/L	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-002-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3010A
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61449

Analytical Method: SW6010B_TCLP
Date Analyzed: 07/18/2003
Time Analyzed: 04:45
Analysis Batch: 14955

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Arsenic	BQL	200	ug/L	U	1
Barium	BQL	1000	ug/L	U	1
Cadmium	BQL	60	ug/L	U	1
Chromium	BQL	50	ug/L	U	1
Lead	970	100	ug/L		1
Selenium	BQL	200	ug/L	U	1
Silver	BQL	30	ug/L	U	1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-001-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW7470A_DIG
Prep Date: 07/22/2003
Prep Time: 17:00
Prep Batch: 61520

Analytical Method: SW7471A_TCLP
Date Analyzed: 07/23/2003
Time Analyzed: 13:59
Analysis Batch: 14955

Parameter	Result	Rep Limit	Units	Qualifier	D.F
Mercury	BQL	2	ug/L	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-002-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW7470A_DIG
Prep Date: 07/22/2003
Prep Time: 17:00
Prep Batch: 61520

Analytical Method: SW7471A_TCLP
Date Analyzed: 07/23/2003
Time Analyzed: 14:06
Analysis Batch: 14955

Parameter	Result	Rep Limit	Units	Qualifier	D.F
Mercury	BQL	2	ug/L	U	1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-003-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3550
Prep Date: 07/22/2003
Prep Time: 00:00
Prep Batch: 61534

Analytical Method: SW8015DRO
Date Analyzed: 07/25/2003
Time Analyzed: 15:41
Analysis Batch: 61926

Parameter	Result	Rep Limit	Units	Qualifier	D.F
TPH-DRO (Diesel Range Organics)	21	4.0	mg/kg		1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-004-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3550
Prep Date: 07/22/2003
Prep Time: 00:00
Prep Batch: 61534

Analytical Method: SW8015DRO
Date Analyzed: 07/25/2003
Time Analyzed: 16:10
Analysis Batch: 61926

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
TPH-DRO (Diesel Range Organics)	180	5.6	mg/kg		1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-001-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3510C
Prep Date: 07/17/2003
Prep Time: 12:54
Prep Batch: 61464

Analytical Method: SW8081A_TCLP
Date Analyzed: 08/15/2003
Time Analyzed: 20:42
Analysis Batch: 62587

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chlordane	BQL	5.0	ug/L	U	1
Endrin	BQL	0.25	ug/L	U	1
Gamma-BHC (Lindane)	BQL	0.25	ug/L	U	1
Heptachlor	BQL	0.25	ug/L	U	1
Heptachlor Epoxide	BQL	0.25	ug/L	U	1
Methoxychlor	BQL	0.25	ug/L	U	1
Toxaphene	BQL	5.0	ug/L	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-002-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3510C
Prep Date: 07/17/2003
Prep Time: 12:54
Prep Batch: 61464

Analytical Method: SW8081A_TCLP
Date Analyzed: 08/15/2003
Time Analyzed: 21:10
Analysis Batch: 62587

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chlordane	BQL	5.0	ug/L	U	1
Endrin	BQL	0.25	ug/L	U	1
Gamma-BHC (Lindane)	BQL	0.25	ug/L	U	1
Heptachlor	BQL	0.25	ug/L	U	1
Heptachlor Epoxide	BQL	0.25	ug/L	U	1
Methoxychlor	BQL	0.25	ug/L	U	1
Toxaphene	BQL	5.0	ug/L	U	1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-003-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3550
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61443

Analytical Method: SW8082
Date Analyzed: 07/25/2003
Time Analyzed: 06:24
Analysis Batch: 61782

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
PCB-1016	BQL	79	ug/kg	U	1
PCB-1221	BQL	79	ug/kg	U	1
PCB-1232	BQL	79	ug/kg	U	1
PCB-1242	BQL	79	ug/kg	U	1
PCB-1248	BQL	79	ug/kg	U	1
PCB-1254	BQL	79	ug/kg	U	1
PCB-1260	BQL	79	ug/kg	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-004-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3550
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61443

Analytical Method: SW8082
Date Analyzed: 07/25/2003
Time Analyzed: 06:57
Analysis Batch: 61782

Parameter	Result	Rep Limit	Units	Qualifier	D.F
PCB-1016	BQL	110	ug/kg	U	1
PCB-1221	BQL	110	ug/kg	U	1
PCB-1232	BQL	110	ug/kg	U	1
PCB-1242	BQL	110	ug/kg	U	1
PCB-1248	BQL	110	ug/kg	U	1
PCB-1254	BQL	110	ug/kg	U	1
PCB-1260	BQL	110	ug/kg	U	1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-001-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: EXT_SW8151
Prep Date: 07/18/2003
Prep Time: 00:00
Prep Batch: 61477

Analytical Method: SW8151A_TCLP
Date Analyzed: 07/25/2003
Time Analyzed: 06:34
Analysis Batch: 61779

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
2,4,5-TP (Silvex)	BQL	5.0	ug/L	U	1
2,4-D	BQL	5.0	ug/L	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-002-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: EXT_SW8151
Prep Date: 07/18/2003
Prep Time: 00:00
Prep Batch: 61477

Analytical Method: SW8151A_TCLP
Date Analyzed: 07/25/2003
Time Analyzed: 06:59
Analysis Batch: 61779

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
2,4,5-TP (Silvex)	BQL	5.0	ug/L	U	1
2,4-D	BQL	5.0	ug/L	U	1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-001-1/1
Matrix: WATER
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW5030B
Prep Date: 07/17/2003
Prep Time: 10:28
Prep Batch: 61485

Analytical Method: SW8260B_TCLP
Date Analyzed: 07/17/2003
Time Analyzed: 13:54
Analysis Batch: 61635

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1-Dichloroethene	BQL	100	ug/L	U	10
1,2-Dichloroethane	BQL	100	ug/L	U	10
1,4-Dichlorobenzene	BQL	100	ug/L	U	10
2-Butanone	BQL	100	ug/L	U	10
Benzene	BQL	100	ug/L	U	10
Carbon Tetrachloride	BQL	100	ug/L	U	10
Chlorobenzene	BQL	100	ug/L	U	10
Chloroform	BQL	100	ug/L	U	10
Tetrachloroethylene	12	100	ug/L	J	10
Trichloroethene	BQL	100	ug/L	U	10
Vinyl Chloride	BQL	100	ug/L	U	10

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-002-1/1
Matrix: WATER
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW5030B
Prep Date: 07/18/2003
Prep Time: 09:17
Prep Batch: 61489

Analytical Method: SW8260B_TCLP
Date Analyzed: 07/18/2003
Time Analyzed: 11:30
Analysis Batch: 61638

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1-Dichloroethene	BQL	100	ug/L	U	10
1,2-Dichloroethane	BQL	100	ug/L	U	10
1,4-Dichlorobenzene	BQL	100	ug/L	U	10
2-Butanone	BQL	100	ug/L	U	10
Benzene	BQL	100	ug/L	U	10
Carbon Tetrachloride	BQL	100	ug/L	U	10
Chlorobenzene	BQL	100	ug/L	U	10
Chloroform	BQL	100	ug/L	U	10
Tetrachloroethylene	25	100	ug/L	J	10
Trichloroethene	BQL	100	ug/L	U	10
Vinyl Chloride	BQL	100	ug/L	U	10

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-001-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3510C
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61466

Analytical Method: SW8270C_TCLP
Date Analyzed: 07/21/2003
Time Analyzed: 17:34
Analysis Batch: 61764

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,4-Dichlorobenzene	BQL	10	ug/L	U	1
2,4,5-Trichlorophenol	BQL	10	ug/L	U	1
2,4,6-Trichlorophenol	BQL	10	ug/L	U	1
2,4-Dinitrotoluene	BQL	10	ug/L	U	1
2-methylphenol	BQL	10	ug/L	U	1
3 & 4-Methylphenol	BQL	10	ug/L	U	1
Hexachlorobenzene	BQL	10	ug/L	U	1
Hexachlorobutadiene	BQL	10	ug/L	U	1
Hexachloroethane	BQL	10	ug/L	U	1
Nitrobenzene	BQL	10	ug/L	U	1
Pentachlorophenol	BQL	20	ug/L	U	1
Pyridine	BQL	10	ug/L	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-002-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: SW3510C
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61466

Analytical Method: SW8270C_TCLP
Date Analyzed: 07/21/2003
Time Analyzed: 18:16
Analysis Batch: 61764

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,4-Dichlorobenzene	BQL	10	ug/L	U	1
2,4,5-Trichlorophenol	BQL	10	ug/L	U	1
2,4,6-Trichlorophenol	BQL	10	ug/L	U	1
2,4-Dinitrotoluene	BQL	10	ug/L	U	1
2-methylphenol	BQL	10	ug/L	U	1
3 & 4-Methylphenol	BQL	10	ug/L	U	1
Hexachlorobenzene	BQL	10	ug/L	U	1
Hexachlorobutadiene	BQL	10	ug/L	U	1
Hexachloroethane	BQL	10	ug/L	U	1
Nitrobenzene	BQL	10	ug/L	U	1
Pentachlorophenol	BQL	20	ug/L	U	1
Pyridine	BQL	10	ug/L	U	1

Summary of Analytical Results

Client ID: LL6-FLOORASH-WC
GPL ID: 307054-001-005-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: EXT_SW8330
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61445

Analytical Method: SW8330
Date Analyzed: 07/22/2003
Time Analyzed: 19:00
Analysis Batch: 61813

Parameter	Result	Rep Limit	Units	Qualifier	D.F
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	BQL	100	ug/kg	U	1
2,4,6-Trinitrotoluene	BQL	100	ug/kg	U	1
2,4-Dinitrotoluene	BQL	100	ug/kg	U	1
2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	BQL	100	ug/kg	U	1
4-Amino-2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
HMX	BQL	200	ug/kg	U	1
Nitrobenzene	BQL	100	ug/kg	U	1
RDX	BQL	200	ug/kg	U	1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

Summary of Analytical Results

Client ID: LL9-FLOORASH-WC
GPL ID: 307054-002-006-1/1
Matrix: SOIL
Date Collected: 07/08/2003
Date Received: 07/10/2003

Prep Method: EXT_SW8330
Prep Date: 07/17/2003
Prep Time: 00:00
Prep Batch: 61445

Analytical Method: SW8330
Date Analyzed: 07/22/2003
Time Analyzed: 19:55
Analysis Batch: 61813

Parameter	Result	Rep Limit	Units	Qualifier	D.F
1,3,5-Trinitrobenzene	BQL	100	ug/kg	U	1
1,3-Dinitrobenzene	BQL	100	ug/kg	U	1
2,4,6-Trinitrotoluene	BQL	100	ug/kg	U	1
2,4-Dinitrotoluene	BQL	100	ug/kg	U	1
2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
2-Amino-4,6-Dinitrotoluene	BQL	100	ug/kg	U	1
4-Amino-2,6-Dinitrotoluene	BQL	100	ug/kg	U	1
HMX	BQL	200	ug/kg	U	1
Nitrobenzene	BQL	100	ug/kg	U	1
RDX	BQL	200	ug/kg	U	1
Tetryl	BQL	200	ug/kg	U	1
m-Nitrotoluene	BQL	200	ug/kg	U	1
o-Nitrotoluene	BQL	200	ug/kg	U	1
p-Nitrotoluene	BQL	200	ug/kg	U	1

GPL LABORATORIES, LLC
ANALYTICAL RESULTS

Project Name : LL6, 9 & WS Demo

Date Printed: August 22, 2003

GPL ID	Client ID
307054-001-001-1/1	LL6-FLOORASH-WC
307054-001-003-1/1	LL6-FLOORASH-WC
307054-001-005-1/1	LL6-FLOORASH-WC
307054-001-005-1/1	LL6-FLOORASH-WCRE
307054-002-002-1/1	LL9-FLOORASH-WC
307054-002-004-1/1	LL9-FLOORASH-WC
307054-002-006-1/1	LL9-FLOORASH-WC
307054-002-006-1/1	LL9-FLOORASH-WCRE

GPL LABORATORIES, LLLP

Qualifier Definitions

U = Indicates that the compound was analyzed for but not detected at or above the reporting limit

Organics:

B = Indicates that the analyte was found in the associated blank as well as in the sample

D = Indicates that the analyte was reported from a diluted analysis

E = Indicates that the concentration detected exceeded the calibration range of the instrument

J = Value is less than the reporting limits but greater than the MDL

P = Indicates that there is greater than 25% difference for detected pesticide/Aroclor results between the two GC columns

Metals:

B = Indicates that the reported value was less than the reporting limit but greater than or equal to the IDL/MDL

E = Indicates that reported value is estimated because of the possible presence of interference (i.e., the serial dilution not within control limits)

H = Indicates that the element was found in the associated blank as well as in the sample and the value is greater than or equal to the reporting limit

N = Spiked sample recovery not within control limits

* = Duplicate analysis not within control limits

GPL Laboratories
202 Perry Parkway
Gaithersburg, MD 20877

SEVERN TRENT STL

~~STL Chicago~~
~~2417 Bond Street~~
~~University Park, IL 60466~~
~~Phone: 708-534-5200~~
~~Fax: 708-534-5211~~

Report To:
Contact: Brian Stockwell
Company: MKM Engineers, Inc.
Address: 8451 St. Rte. 5
Ravenna, Ohio 44266
Phone: 330-358-2920
Fax: 330-358-2924
E-Mail:

Bill To:
Contact:
Company:
Address: SAME
Phone:
Fax:
PO#: LA0501-02074 Quote:

Shaded Areas For internal Use Only ____ of ____

Lab Lot# 27

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature 2.0 °C of Cooler	
Within Hold Time Yes No	Preserv. Indicated Yes No NA
pH Check OK Yes No NA	Res. Cl_2 Check OK Yes No NA
Sample Labels and COC Agree Yes No	COC not present

Sampler Name: James Panozzo
Signature:
Project Name: LL6+9 Demo
Project Number: 02074
Project Location: LL6+LL9
Date Required Hard Copy: 21 Days Fax: 14 Days
Lab PM: Debbie Griffiths

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	TCLP	Explosives	PCB	TPH-DRO	Additional Analyses / Remarks
		LL6-FloorAsh-WC	7-8-03	1200	SO	C	X	X	X	X	Floor Ash waste characterization
		LL9-FloorAsh-WC	7-8-03	1115	SO	C	X	X	X	X	

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY GPL	DATE 7/10/03	TIME 10:15

Matrix Key
WW = Wastewater, W = Water, S = Soil, SL = Sludge, MS = Miscellaneous, OL = Oil, A = Air, SE = Sediment, SO = Solid, DS = Drum Solid, DL = Drum Liquid, L = Leachate, WI = Wipe, O = _____

Container Key.
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other _____

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

COMMENTS LL6+9 Demo
307054

Date Received / /
Courier: Hand Delivered ☐
Bill of Lading

202 Perry Parkway
Gaithersburg, MD 20877

SEVERN TRENT STL

~~STL Chicago~~
~~2417 Bond Street~~
~~University Park, IL 60466~~
~~Phone: 708.534.5200~~
~~Fax: 708.534.5211~~

Report To:
Contact: Brian Stockwell
Company: MKM Engineers, Inc.
Address: 8451 St. Rte. 5
Ravenna, Ohio 44266
Phone: 330-358-2920
Fax: 330-358-2924
E-Mail:

Bill To:
Contact:
Company:
Address: SAME
Phone:
Fax:
PO#: LA0501-02074 Quote:

Shaded Areas For Internal Use Only ____ of ____

Lab Lot#

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	
Within Hold Time Yes No	Preserv. Indicated Yes No NA
pH Check OK Yes No NA	Res Cl2 Check OK Yes No NA
Sample Labels and COC Agree Yes No	COC not present

Sampler Name: James Panozzo
Signature:
Project Name: LL6+9 Demo
Project Number: 02074
Project Location: LL6+LL9
Date Required Hard Copy: 21 Days
Lab PM: Debbie Griffiths
Fax: 14 Days

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	TCLP	Explosives	PCB	TPH-DRO							Additional Analyses / Remarks
Refrg #																	
# / Cont.																	
Volume																	
Preserv.																	
		LL6-Floor Ash-WC	7-8-03	1200	SO	C	X	X	X	X							Floor Ash waste
		LL9-Floor Ash-WC	7-8-03	1115	SO	C	X	X	X	X							characterization

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
James Panozzo	MKM	7/8/03	1400				
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater, W = Water, S = Soil, SL = Sludge, MS = Miscellaneous, Sol. = Oil, A = Air
SE = Sediment, SD = Solid, DS = Drum Solid, DL = Drum Liquid, L = Leachate, WI = Wipe, O = _____

Container Key.
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other _____

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

COMMENTS: LL6+9 Demo

Date Received / /
Courier: Hand Delivered
Bill of Lading

62

MKM Engineers, Inc.

FACSIMILE TRANSMITTAL

4153 Bluebonnet Drive
Stafford, Texas 77477
Phone: 281-277-5100
Fax: 281-277-5205

8451 State Route 5, Bldg. 1038
Ravenna, Ohio 44266
Phone: 330-358-2920
Fax: 330-358-2924

To: Debbie Griffiths	From: James Panozzo
Company:	Date: 7/11/03
Fax Number:	Total Pages + Cover:
Phone Number:	Sender's Reference #:
Re:	Your Reference #:

☐ Urgent ☒ For Review ☐ For Comment ☐ For Reply ☐ For Recycle

MESSAGE: Debbie,

This is a corrected COC for Samples LL6 FloorAsh-WC + LL9-FloorAsh-WC submitted on 7/8/03. The original COC was not signed. Please include new COC in Data package.

Thank you,

James Panozzo

NO PAYMENT NEEDED.
See back for peel and stick application instructions

FedEx. USA Airbill Express

FedEx Tracking Number 8383 2963 0767

0215 Recipient's Copy

RECIPIENT: PEEL HERE

1 From This portion can be removed for Recipient's records.

Date 7-9-03 FedEx Tracking Number 838329630767

Sender's Name DENISE NLN Phone (330) 358-2920

Company MKM ENGINEERS INC CRC

Address 8451 STATE ROUTE 3 Dept/Floor/Suite/Room

City RAVENNA State OH ZIP 44266-9244

2 Your Internal Billing Reference

3 To

Recipient's Name Debbie Griffiths Phone 301 926-6802

Company GPL Laboratories, LLLP

Address To "HOLD" at FedEx location, print FedEx address. We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address 202 Perry Parkway Dept/Floor/Suite/Room

City Gaithersburg State MD ZIP 20877

8383 2963 0767

L

0231330602

4a Express Package Service — Packages up to 150 lbs. Delivery commitment may be later in some areas

- [x] FedEx Priority Overnight — Next business morning
- [ ] FedEx Standard Overnight — Next business afternoon
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations
- [ ] FedEx 2Day — Second business day
- [ ] FedEx Express Saver — Third business day

FedEx Envelope rate not available. Minimum charge: One pound rate

4b Express Freight Service — Packages

- [ ] FedEx 1Day Freight* — Next business day
- [ ] FedEx 2Day Freight — Second business day
- [x] FedEx 3Day Freight — Third business day

* Call for Confirmation:

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Extra Large Pak

6 Special Handling — Include these items in Section 1

- [ ] SATURDAY Delivery — Available only for FedEx Priority Overnight and FedEx 2Day to select ZIP codes
- [ ] HOLD Weekday at FedEx Location — Available for FedEx Priority Overnight
- [ ] HOLD Saturday at FedEx Location — Available only for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous Goods (including Dry Ice) cannot be shipped in FedEx packaging.

7 Payment Bill to:

- [x] Sender — Acct. No. in Section 1 will be billed
- [ ] Recipient
- [ ] Third Party — Acct. No. below.
- [ ] Credit Card
- [ ] Cash/Check

Obtain Recip. Acct. No. [ ]

Total Packages	Total Weight	Total Charges
1	20	

Credit Card Auth.

†Our liability is limited to $100 unless you declare a higher value. See the *FedEx Service Guide* for details.

8 Release Signature — *Sign to authorize delivery without obtaining signature.*

By signing you authorize us to deliver this shipment without obtaining a signature and agree to indemnify and hold us harmless from any resulting claims.

Questions? Visit our Web site at fedex.com or call 1.800.Go.FedEx® 800.463.3339.

447

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GPL Laboratories, LLLP

Figure 1
SAMPLE RECEIPT CHECKLIST

W.O. No: 307054
Client Name: MKM
Date Received: 7/10/03
Time Received: 1011S
Received By:

Carrier Name: Fedex
Prepared (Logged In) By: / 7/10/03 (Initials Date)
Project:
Site:
VOA Holding Blank I.D. No:

	YES	NO
Airbill/Manifest Present?	—	—
No. 9383 2963 0767		
Shipping Container in Good Condition?	✓	—
Custody Seals Present on Shipping Container?	✓	—
Condition: Broken ____		
Intact-not dated or signed ____		
Intact-dated and signed ✓		
Usage of Tamper Evident Type	✓	—
Chain-of-Custody Present?	✓	—
Chain-of-Custody Agrees with Sample Labels?	✓	—
Chain-of-Custody Signed?	✓	—
Packing Present in Shipping Container?	✓	—
Type of Packing Bubble Wrap		
Custody seals on Sample Bottles?	—	✓
Condition: Good ____ Broken ____		
Total Number of Sample Bottles 6		
Total Number of Samples 2		
Samples Intact?	✓	—
Sufficient Sample Volume for Indicated Test?	✓	—

	YES	NO
Trip Blanks: No. of Sets ____	—	✓
Field Blanks: No. of Sets ____	—	✓
Equip. Blank: No of Sets ____	—	✓
Field Duplicate: No. of Sets ____	—	✓
MS/MSD: No of Sets____	—	✓
VOA Vials Have Zero Headspace?	—	✓
Preservatives Added to Sample?	—	✓
pH Check Required?	—	✓
Performed By? ____	—	✓
Ice Present in Shipping Container?	✓	—

Container #	Temp	Container #	Temp
1	2.0		

Project Manager Contacted?
Name: Debbie
Date Contacted: 7/10/03

Any NO response must be detailed in the comments section below If items are not applicable to particular samples or contracts, they should be marked N/A/

COMMENTS:

Checklist Completed By:
Date: 7/10/03

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: LL9PBFLOORASHWC
GPL ID: 306009-001-001-1/1
Matrix: SOIL
Date Collected: 06/09/2003
Date Received: 06/10/0003

Prep Method: SW3010A
Prep Date: 06/13/2003
Prep Time: 00:00
Prep Batch: 60866

Analytical Method: SW6010B_TCLP
Date Analyzed: 06/13/2003
Time Analyzed: 18:39
Analysis Batch: 14809

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	63800	100	ug/L		1

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: LL6PBFLOORASHWC
GPL ID: 306009-002-002-1/1
Matrix: SOIL
Date Collected: 06/09/2003
Date Received: 06/10/0003

Prep Method: SW3010A
Prep Date: 06/13/2003
Prep Time: 00:00
Prep Batch: 60866

Analytical Method: SW6010B_TCLP
Date Analyzed: 06/13/2003
Time Analyzed: 19:25
Analysis Batch: 14809

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Lead	64300	100	ug/L		1

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: LL9PBFLOORASHWC
GPL ID: 306009-001-001-1/1
Matrix: SOIL
Date Collected: 06/09/2003
Date Received: 06/10/0003

Prep Method: SW3550
Prep Date: 06/10/2003
Prep Time: 00:00
Prep Batch: 60821

Analytical Method: SW8015DRO
Date Analyzed: 06/11/2003
Time Analyzed: 16:32
Analysis Batch: 60957

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
TPH-DRO (Diesel Range Organics)	180	3.9	mg/kg		1

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: LL6PBFLOORASHWC
GPL ID: 306009-002-002-1/1
Matrix: SOIL
Date Collected: 06/09/2003
Date Received: 06/10/0003

Prep Method: SW3550
Prep Date: 06/10/2003
Prep Time: 00:00
Prep Batch: 60821

Analytical Method: SW8015DRO
Date Analyzed: 06/11/2003
Time Analyzed: 18:30
Analysis Batch: 60957

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
TPH-DRO (Diesel Range Organics)	180	4.3	mg/kg		1

GPL
202 Perry Parkway
Gaithersburg, MD 20877
Phone 301 926-6802

SEVERN TRENT **STL**

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:
Contact: Brian Stockwell
Company: MKM Engineers, Inc.
Address: 845 St. Rte 5
Ravenna, Ohio 44266
Phone: 330 358-2920
Fax: 330 358-2920
E-Mail:

Bill To:
Contact:
Company: SAME
Address:
Phone:
Fax:
PO#: [illegible]-02074 Quote:

Shaded Areas For Internal Use Only ___ of ___

Lab Lot#

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler:	
Within Hold Time Yes No	Preserv. Indicated Yes No NA
pH Check OK Yes No NA	Res Cl Check OK Yes No NA
Sample Labels and COC Agree Yes No	COC not present

Sampler Name: Brian Stockwell
Signature: [signature]
Project Name: LL6 and 9 Demo
Project Number: [illegible] 02074
Project Location: RVAAP
Date Required Hard Copy: __/__/__ Fax: __/__/__
Lab PM: [illegible]
Double QC [illegible]

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	TCLP Lead	TPH-DRO	Additional Analyses / Remarks
		LL-9-Lead Floor-95L-WC	6/9/03	1345	SO	C	X	X	72 hr TAT for Lead
		LL6-Lead Floor-95L-WC	6/9/03	1450	SO	C	X	X	
									Normal TAT for TPH-DRO

Refrig #, # Cont., Volume, Preserv

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	MKM	6/10/03	1620				
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater; W = Water; S = Soil; SL = Sludge; MS = Miscellaneous; OL = Oil; A = Air; SE = Sediment; SO = Solid; DS = Drum Solid; DL = Drum Liquid; L = Leachate; WI = Wipe; O = ___

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other ___

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

COMMENTS
NO CLP Required

Date Received __/__/__
Courier: **Hand Delivered** ☐
Bill of Lading

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L-8208 (0800)

SUMMARY TABLE
WET STORAGE AREA RVAAP
SUB-FLOOR CONFIRMATION SOIL SAMPLES

ANALYTE**, UNITS, METHOD NO.	Soil Background Criteria (0-1 ft) mg/kg	Region 9 PRG Data (Residential Soil) mg/Kg	WS1-001-CONF	WS1-002-CONF	WS1A-001-CONF	WS1A-002-CONF	WS2-001-CONF	WS2-002-CONF	WS2A-001-CONF	WS2A-002-CONF
Sample Date			6/24/2004	6/24/2004	6/24/2004	6/24/2004	6/24/2004	6/24/2004	6/24/2004	6/24/2004
Metals 6010B mg/kg			**mg/Kg**	**mg/Kg**	**mg/Kg**	**mg/Kg**	**mg/Kg**	**mg/Kg**	**mg/Kg**	**mg/Kg**
Lead	26.10	400.00	20	18	49	16	NT	NT	NT	NT
Mercury	0.04	23.00	NT	NT	NT	NT	0.028	0.025	0.037	0.018 (B)

BRL = Below Reporting Limit
ND = Not detected
NT = Not Tested
B = Result is less than CRDL/RL but greater than or equal to IDL/MDL

PRGs = Preliminary Remediation Goals
mg/kg = milligrams per kilogram (parts per million - ppm)
ug/L = micrograms per Liter (parts per billion - ppb)
= concentration greater than background
BOLD = concentration greater than Region 9 PRG data

SEVERN TRENT LABORATORIES
ANALYTICAL REPORT

JOB NUMBER: 228015

Prepared For:

MKM Engineers, Inc.
Ravenna Army Ammunition Plant
Building 1038
8451 State Route 5
Ravenna, OH 44266
Project: Ravenna - LL6, 9, WS Demo

Attention: James Panozzo

Date: 07/06/2004

_____ _____

Signature Date

Name: Eric A. Lang

Title: Project Manager

E-Mail: elang@stl-inc.com

STL Chicago
2417 Bond Street
University Park, IL 60466

PHONE: (708) 534-5200
FAX..: (708) 534-5211

This Report Contains (_____) Pages

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S A M P L E I N F O R M A T I O N

Date: 07/06/2004

Job Number.: 228015
Customer...: MKM Engineers, Inc.
Attn.....: James Panozzo

Project Number.....: 20002825
Customer Project ID....: RAVENNA - LL6, 9, WS
Project Description....: Ravenna - LL6, 9, WS Demo

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
228015-1	WS1-001-CONF	Soil	06/24/2004	10:00	06/25/2004	09:00
228015-2	WS1-002-CONF	Soil	06/24/2004	10:00	06/25/2004	09:00
228015-3	WS2-001-CONF	Soil	06/24/2004	10:30	06/25/2004	09:00
228015-4	WS2-002-CONF	Soil	06/24/2004	10:50	06/25/2004	09:00
228015-5	WS1A-001-CONF	Soil	06/24/2004	10:10	06/25/2004	09:00
228015-6	WS1A-002-CONF	Soil	06/24/2004	10:10	06/25/2004	09:00
228015-7	WS2A-001-CONF	Soil	06/24/2004	11:10	06/25/2004	09:00
228015-8	WS2A-002-CONF	Soil	06/24/2004	11:10	06/25/2004	09:00

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS1-001-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-1
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	77.6			0.10	0.10	1	%	121979		06/28/04 2039	clb
	% Moisture, Solid	22.4			0.10	0.10	1	%	121979		06/28/04 2039	clb
7421	Lead (GFAA)											
	Lead, Solid*	20			2.5	4.6	20	mg/Kg	122416		07/01/04 1532	daj

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS1-002-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-2
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	79.9			0.10	0.10	1	%	121979		06/28/04 2042	clb
	% Moisture, Solid	20.1			0.10	0.10	1	%	121979		06/28/04 2042	clb
7421	Lead (GFAA)											
	Lead, Solid*	18			2.5	4.6	20	mg/Kg	122416		07/01/04 1545	daj

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS2-001-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-3
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	80.2			0.10	0.10	1	%	121979		06/28/04 2045	clb
	% Moisture, Solid	19.8			0.10	0.10	1	%	121979		06/28/04 2045	clb
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.028			0.0054	0.021	1	mg/Kg	122442		07/02/04 1322	gok

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS2-002-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-4
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	81.4			0.10	0.10	1	%	121979		06/28/04 2048	clb
	% Moisture, Solid	18.6			0.10	0.10	1	%	121979		06/28/04 2048	clb
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.025			0.0053	0.020	1	mg/Kg	122442		07/02/04 1324	gok

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS1A-001-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 10:10
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-5
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	77.8			0.10	0.10	1	%	121979		06/28/04 2051	clb
	% Moisture, Solid	22.2			0.10	0.10	1	%	121979		06/28/04 2051	clb
7421	Lead (GFAA)											
	Lead, Solid*	49			5.1	9.3	40	mg/Kg	122416		07/01/04 1558	daj

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS1A-002-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 10:10
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-6
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	78.6			0.10	0.10	1	%	121979		06/28/04 2053	clb
	% Moisture, Solid	21.4			0.10	0.10	1	%	121979		06/28/04 2053	clb
7421	Lead (GFAA)											
	Lead, Solid*	16			0.65	1.2	5	mg/Kg	122178		06/30/04 0434	daj

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS2A-001-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-7
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	83.7			0.10	0.10	1	%	121979		06/28/04 2056	clb
	% Moisture, Solid	16.3			0.10	0.10	1	%	121979		06/28/04 2056	clb
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.037			0.0051	0.020	1	mg/Kg	122442		07/02/04 1326	gok

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 228015

Date:07/06/2004

CUSTOMER: MKM Engineers, Inc. | PROJECT: RAVENNA - LL6, 9, WS | ATTN: James Panozzo

Customer Sample ID: WS2A-002-CONF
Date Sampled.....: 06/24/2004
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 228015-8
Date Received.....: 06/25/2004
Time Received.....: 09:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Method	% Solids Determination											
	% Solids, Solid	85.4			0.10	0.10	1	%	121979		06/28/04 2059	clb
	% Moisture, Solid	14.6			0.10	0.10	1	%	121979		06/28/04 2059	clb
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.018	B		0.0050	0.019	1	mg/Kg	122442		07/02/04 1329	gok

* In Description = Dry Wgt.

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L A B O R A T O R Y C H R O N I C L E

Job Number: 228015 Date: 07/06/2004

CUSTOMER: MKM Engineers, Inc. PROJECT: RAVENNA - LL6, 9, WS ATTN: James Panozzo

Lab ID: 228015-1 Client ID: WS1-001-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2039	
3050B	Acid Digestion: Solids (GFAA)	1	121972		06/28/2004 1900	
EDD	Electronic Data Deliverable	1				
7421	Lead (GFAA)	1	122416	121972	07/01/2004 1532	20

Lab ID: 228015-2 Client ID: WS1-002-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2042	
3050B	Acid Digestion: Solids (GFAA)	1	121972		06/28/2004 1900	
7421	Lead (GFAA)	1	122416	121972	07/01/2004 1545	20

Lab ID: 228015-3 Client ID: WS2-001-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2045	
7471A	Mercury (CVAA) Solids	1	122442	122439	07/02/2004 1322	
7470/7471	SW846 Digestion (Hg)	1	122439		07/02/2004 1145	

Lab ID: 228015-4 Client ID: WS2-002-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2048	
7471A	Mercury (CVAA) Solids	1	122442	122439	07/02/2004 1324	
7470/7471	SW846 Digestion (Hg)	1	122439		07/02/2004 1145	

Lab ID: 228015-5 Client ID: WS1A-001-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2051	
3050B	Acid Digestion: Solids (GFAA)	1	121972		06/28/2004 1900	
7421	Lead (GFAA)	1	122416	121972	07/01/2004 1558	40

Lab ID: 228015-6 Client ID: WS1A-002-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2053	
3050B	Acid Digestion: Solids (GFAA)	1	121972		06/28/2004 1900	
7421	Lead (GFAA)	1	122178	121972	06/30/2004 0434	5

Lab ID: 228015-7 Client ID: WS2A-001-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2056	
7471A	Mercury (CVAA) Solids	1	122442	122439	07/02/2004 1326	
7470/7471	SW846 Digestion (Hg)	1	122439		07/02/2004 1145	

Lab ID: 228015-8 Client ID: WS2A-002-CONF Date Recvd: 06/25/2004 Sample Date: 06/24/2004

METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT #(S)	DATE/TIME ANALYZED	DILUTION
Method	% Solids Determination	1	121979	121979	06/28/2004 2059	
7471A	Mercury (CVAA) Solids	1	122442	122439	07/02/2004 1329	
7470/7471	SW846 Digestion (Hg)	1	122439		07/02/2004 1145	

REPORT COMMENTS

1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 100201
5) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

Glossary of flags, qualifiers and abbreviations (any number of which may appear in the report)

Inorganic Qualifiers (Q-Column)

U	Analyte was not detected at or above the stated limit.
<	Not detected at or above the reporting limit.
J	Result is less than the RL, but greater than or equal to the method detection limit.
B	Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
S	Result was determined by the Method of Standard Additions.
F	AFCEE: Result is less than the RL, but greater than or equal to the method detection limit.

Inorganic Flags (Flag Column)

^	ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.
*	LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
+	MSA correlation coefficient is less than 0.995.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
E	SD: Serial dilution exceeds the control limits.
H	MB, EB1, EB2, EB3: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
N	MS, MSD: Spike recovery exceeds the upper or lower control limits.
W	AS(GFAA) Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

U	Analyte was not detected at or above the stated limit.
ND	Compound not detected.
J	Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
Q	Result was qualitatively confirmed, but not quantified.
C	Pesticide identification was confirmed by GC/MS.
Y	The chromatographic response resembles a typical fuel pattern.
Z	The chromatographic response does not resemble a typical fuel pattern.
E	Result exceeded calibration range, secondary dilution required.
F	AFCEE:Result is an estimated value below the reporting limit or a tentatively identified compound (TIC)

Organic Flags (Flags Column)

B	MB: Batch QC is greater than reporting limit.
*	LCS, LCD, ELC, ELD, CV, MS, MSD, Surrogate: Batch QC exceeds the upper or lower control limits.
^	EB1, EB2, EB3, MLE: Batch QC is greater than reporting Limit
A	Concentration exceeds the instrument calibration range
a	Concentration is below the method Reporting Limit (RL)
B	Compound was found in the blank and sample.
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
H	Alternate peak selection upon analytical review
I	Indicates the presence of an interfence, recovery is not calculated.
M	Manually integrated compound.
P	The lower of the two values is reported when the % difference between the results of two GC columns is

greater than 25%.

Abbreviations

AS	Post Digestion Spike (GFAA Samples - See Note 1 below)
Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column CCB Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation analysis of original
C1	Confirmation analysis of A1 or D1
C2	Confirmation analysis of A2 or D2
C3	Confirmation analysis of A3 or D3
CRA	Low Level Standard Check - GFAA; Mercury
CRI	Low Level Standard Check - ICP
CV	Calilbration Verification Standard
Dil Fac	Dilution Factor - Secondary dilution analysis
D1	Dilution 1
D2	Dilution 2
D3	Dilution 3
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
DSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB1	Extraction Blank 1
EB2	Extraction Blank 2
EB3	DI Blank
ELC	Method Extracted LCS
ELD	Method Extracted LCD
ICAL	Initial calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A - ICAP
ISB	Interference Check Sample B - ICAP
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group
	Lab ID An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PDS	Post Digestion Spike (ICAP)
RA	Re-analysis of original
A1	Re-analysis of D1
A2	Re-analysis of D2
A3	Re-analysis of D3
RD	Re-extraction of dilution
RE	Re-extraction of original
RC	Re-extraction Confirmation
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor
RT	Retention Time

RTW	Retention Time Window Sample ID A 9 digit number unique for each sample, the first six digits are referred as the job number
SCB	Seeded Control Blank
SD	Serial Dilution (Calculated when sample concentration exceeds 50 times the MDL)
UCB	Unseeded Control Blank
SSV	Second Source Verification Standard
SLCS	Solid Laboratory Control Standard(LCS)
PHC	pH Calibration Check LCSP pH Laboratory Control Sample
LCDP	pH Laboratory Control Sample Duplicate
MDPH	pH Sample Duplicate
MDFP	Flashpoint Sample Duplicate
LCFP	Flashpoint LCS
G1	Gelex Check Standard Range 0-1
G2	Gelex Check Standard Range 1-10
G3	Gelex Check Standard Range 10-100
G4	Gelex Check Standard Range 100-1000

Note 1: The Post Spike Designation on Batch QC for GFAA is designated with an "S" added to the current abbreviation used. EX. LCS S=LCS Post Spike (GFAA); MSS=MS Post Spike (GFAA)

Note 2: The MD calculates an absolute difference (A) when the sample concentration is less than 5 times the reporting limit. The control limit is represented as +/- the RL.

AMA Analytical Services, Inc.
A Specialized Environmental Laboratory

CERTIFICATE OF ANALYSIS

NVLAP
NY ELAP
AIHA

Client:	MKM Engineers	**Job Name:**	RVAAP	**Chain Of Custody:**	118656
Address:	8451 State Route 5, Building 1038	**Job Location:**	Wet Storage Demo	**Date Analyzed:**	10/16/2003
	Ravenna, Ohio 44266	**Job Number:**	02-02-0074	**Person Submitting:**	James Panozzo
		P.O. Number:	Not Provided		
Attention:	Brian Stockwell				

Summary of Polarized Light Microscopy

AMA Sample Number	Client Sample #	Total Asbestos	Chrysotile Percent	Amosite Percent	Crocidolite Percent	Other Asbestos Percent	Mineral Wool Percent	Fiberglass Percent	Organic Percent	Synthetic Percent	Other Percent	Particulate Percent	Sample Color	Analyst ID	Comments
0401788	WS-FloorAsh-WC	NAD	--	--	--	--	--	--	--	--	--	100	Gray	CK	

The following footnotes only apply to those samples which the total asbestos result is flagged with a note number.

1 TEM RECOMMENDATION - Please note, due to resolution limitations with optical microscopy and/or interference from matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos. It is recommended that the additional analytical technique of TEM be used to check for asbestos fibers below the resolution limits of optical microscopy.

2 MATRIX REDUCTION RECOMMENDATION - Please note, due to interference from the matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos which is obscured from view. It is recommended that the additional preparation technique of gravimetric reduction be performed on this sample to minimize the obscuring effects of matrix components, followed by reanalysis by PLM and/or TEM.

Analysis Method - EPA/600/R-93/116 dated July 1993

NAD = "No Asbestos Detected" TR = "Trace equals less than 1% of this component"

Crystal Kellam

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LABORATORY TEST RESULTS

Job Number: 216081

Date:04/09/2003

CUSTOMER: MKM Engineers, Inc.

PROJECT: RAVENNA - LL6, 9, WS

ATTN: Brian Stockwell

Customer Sample ID: WET STORAGE-WC-ASH
Date Sampled.....: 03/24/2003
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 216081-2
Date Received.....: 03/26/2003
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8015B MDRO	TPH - Diesel Range Organics (DRO) Diesel Range Organics (DRO), 3541 Solid*	910			27	44	10.0000	mg/Kg	79591		04/02/03 2053	mgk
Method	% Solids Determination											
	% Solids, Solid	93.5			0.10	0.10	1	%	78835		03/27/03 0000	daj
	% Moisture, Solid	6.5			0.10	0.10	1	%	78835		03/27/03 0000	daj

* In Description = Dry Wgt.

SEVERN TRENT **STL**

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:
Contact:
Company:
Address:
Phone:
Fax:
E-Mail:

To:
Contact:
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use

1 of 1

Lab Lot#

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	

Sampler Name: Signature:

Project Name: Project Number:

Project Location: Date Required Hard Copy: / / Fax: / /

Lab PM:

Refrg #											
# / Cont.											
Volume											
Preserv											

Within Hold Time Yes No	Preserv. Indicated Yes No NA
pH Check OK Yes No NA	Res Cl_2 Check OK Yes No NA
Sample Labels and COC Agree Yes No	COC not present

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab										Additional Analyses / Remarks

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater, W = Water, S = Soil, SL = Sludge, MS = Miscellaneous, OL = Oil, A = Air, SE = Sediment, SO = Solid, DS = Drum Solid, DL = Drum Liquid, T = Tissue, WI = Wipe, O = _____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Wildmouth Glass
6. Other _____

Preservative Key
1. HCl, Cool to 4°
2. H_2SO_4, Cool to 4°
3. HNO_3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

COMMENTS

Date Received / /
Courier: Hand Delivered
Bill of Lading

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: WETSTORAGE-WE-ASH
GPL ID: 302104-001-001-1/2
Matrix: SOIL
Date Collected: 02/19/2003
Date Received: 02/20/2003

Prep Method: SW3010A
Prep Date: 02/27/2003
Prep Time: 00:00
Prep Batch: 59209

Analytical Method: SW6010B_TCLP
Date Analyzed: 03/05/2003
Time Analyzed: 23:13
Analysis Batch: 14391

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Arsenic	BQL	200	ug/L	U	1
Barium	BQL	1000	ug/L	U	1
Cadmium	BQL	60	ug/L	U	1
Chromium	BQL	50	ug/L	U	1
Lead	BQL	100	ug/L	U	1
Selenium	BQL	200	ug/L	U	1
Silver	BQL	30	ug/L	U	1

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: WETSTORAGE-WE-ASH
GPL ID: 302104-001-001-1/2
Matrix: SOIL
Date Collected: 02/19/2003
Date Received: 02/20/2003

Prep Method: SW7470A_DIG
Prep Date: 02/26/2003
Prep Time: 14:00
Prep Batch: 59198

Analytical Method: SW7471A_TCLP
Date Analyzed: 02/27/2003
Time Analyzed: 11:53
Analysis Batch: 14391

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Mercury	BQL	2	ug/L	U	1

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: WETSTORAGE-WE-ASH
GPL ID: 302104-001-001-1/2
Matrix: SOIL
Date Collected: 02/19/2003
Date Received: 02/20/2003

Prep Method: SW3510C
Prep Date: 02/26/2003
Prep Time: 00:00
Prep Batch: 59218

Analytical Method: SW8081A_TCLP
Date Analyzed: 03/11/2003
Time Analyzed: 19:19
Analysis Batch: 59373

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
Chlordane	BQL	5.0	ug/L	U	1
Endrin	BQL	0.25	ug/L	U	1
Gamma-BHC (Lindane)	BQL	0.25	ug/L	U	1
Heptachlor	BQL	0.25	ug/L	U	1
Heptachlor Epoxide	BQL	0.25	ug/L	U	1
Methoxychlor	BQL	0.25	ug/L	U	1
Toxaphene	BQL	5.0	ug/L	U	1

Summary of Analytical Results

Client ID: WETSTORAGE-WE-ASH
GPL ID: 302104-001-001-1/2
Matrix: SOIL
Date Collected: 02/19/2003
Date Received: 02/20/2003

Prep Method: EXT_SW8151
Prep Date: 02/26/2003
Prep Time: 00:00
Prep Batch: 59221

Analytical Method: SW8151A_TCLP
Date Analyzed: 03/10/2003
Time Analyzed: 19:10
Analysis Batch: 59369

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
2,4,5-TP (Silvex)	BQL	5.0	ug/L	U	1
2,4-D	BQL	5.0	ug/L	U	1

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: WETSTORAGE-WE-ASH
GPL ID: 302104-001-001-1/2
Matrix: WATER
Date Collected: 02/19/2003
Date Received: 02/20/2003

Prep Method: SW5030B
Prep Date: 02/24/2003
Prep Time: 14:10
Prep Batch: 59186

Analytical Method: SW8260B_TCLP
Date Analyzed: 02/24/2003
Time Analyzed: 18:13
Analysis Batch: 59115

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,1-Dichloroethene	BQL	100	ug/L	U	10
1,2-Dichloroethane	BQL	100	ug/L	U	10
1,4-Dichlorobenzene	BQL	100	ug/L	U	10
2-Butanone	BQL	100	ug/L	U	10
Benzene	BQL	100	ug/L	U	10
Carbon Tetrachloride	BQL	100	ug/L	U	10
Chlorobenzene	BQL	100	ug/L	U	10
Chloroform	BQL	100	ug/L	U	10
Tetrachloroethylene	BQL	100	ug/L	U	10
Trichloroethene	BQL	100	ug/L	U	10
Vinyl Chloride	BQL	100	ug/L	U	10

GPL LABORATORIES, LLLP

Summary of Analytical Results

Client ID: WETSTORAGE-WE-ASH
GPL ID: 302104-001-001-1/2
Matrix: SOIL
Date Collected: 02/19/2003
Date Received: 02/20/2003

Prep Method: SW3510C
Prep Date: 02/26/2003
Prep Time: 00:00
Prep Batch: 59212

Analytical Method: SW8270C_TCLP
Date Analyzed: 03/03/2003
Time Analyzed: 20:05
Analysis Batch: 59224

Parameter	Result	Rep Limit	Units	Qualifier	D.F.
1,4-Dichlorobenzene	BQL	50	ug/L	U	1
2,4,5-Trichlorophenol	BQL	50	ug/L	U	1
2,4,6-Trichlorophenol	BQL	50	ug/L	U	1
2,4-Dinitrotoluene	BQL	50	ug/L	U	1
2-methylphenol	BQL	50	ug/L	U	1
3 & 4-Methylphenol	BQL	50	ug/L	U	1
Hexachlorobenzene	BQL	50	ug/L	U	1
Hexachlorobutadiene	BQL	50	ug/L	U	1
Hexachloroethane	BQL	50	ug/L	U	1
Nitrobenzene	BQL	50	ug/L	U	1
Pentachlorophenol	BQL	100	ug/L	U	1
Pyridine	BQL	50	ug/L	U	1

[redacted]

Report To: Brian Stockwell

Contact:
Company: MKM Eng.
Address: 8451 St. Rte. 5
Ravenna OH 44266
Phone: 330-358-2203
Fax: 330-358-2924
E-Mail: Brian.Stockwell@MKMeng.Com

Bill To:

Contact:
Company: SAME
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot#

Package Sealed	Samples Sealed
(Yes) No	(Yes) No
Received on Ice	**Samples Intact**
(Yes) No	(Yes) No

Temperature °C of Cooler: 3.1

Within Hold Time	Preserv. Indicated
Yes No	Yes (No) NA
pH Check OK	**Res Cl_2 Check OK**
Yes (No) NA	Yes No NA

Sample Labels and COC Agree: (Yes) No — COC not present

Sampler Name: Brian Stockwell
Signature: B. A. [signature]
Project Name: LL 6, 9 + WSA Demo
Project Number: 02074
Project Location: Ravenna, OH
Date Required — Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Debbie Griffiths

Refrg #:
\# / Cont.: 2
Volume: 16oz
Preserv: 4°C

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	(Comp)/Grab	Full TCLP	Additional Analyses / Remarks
		wetstorage-wc-ash	2/19/03	1035	Ash	C		Pls send COCs to contact address

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
B. A. [signature]	MKM	2-19-03	1430				
				[signature]	STL	2/20/03	9:55

COMMENTS: Return Cooler to Contact address

Date Received: 2/20/03
Courier: /
Hand Delivered ☐
Bill of Lading

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = ____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other ____

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. Cool to 4°
7. None

302104

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LABORATORY TEST RESULTS

Job Number: 216081

Date:04/09/2003

CUSTOMER: MKM Engineers, Inc.

PROJECT: RAVENNA - LL6, 9, WS

ATTN: Brian Stockwell

Customer Sample ID: WET STORAGE-WC-ASH
Date Sampled.....: 03/24/2003
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 216081-2
Date Received.....: 03/26/2003
Time Received.....: 10:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8015B MDRO	TPH - Diesel Range Organics (DRO)											
	Diesel Range Organics (DRO), 3541 Solid*	910			27	44	10.0000	mg/Kg	79591		04/02/03 2053	mgk
Method	% Solids Determination											
	% Solids, Solid	93.5			0.10	0.10	1	%	78835		03/27/03 0000	daj
	% Moisture, Solid	6.5			0.10	0.10	1	%	78835		03/27/03 0000	daj

* In Description = Dry Wgt.

AMA Analytical Services, Inc.

A Specialized Environmental Laboratory

CERTIFICATE OF ANALYSIS

NVLAP
NY ELAP
AIHA

Client:	MKM Engineers	Job Name:	RVAAP	Chain Of Custody:	118656
Address:	8451 State Route 5, Building 1038	Job Location:	Wet Storage Demo	Date Analyzed:	10/16/2003
	Ravenna, Ohio 44266	Job Number:	02-02-0074	Person Submitting:	James Panozzo
		P.O. Number:	Not Provided		

Attention: Brian Stockwell

Summary of Polarized Light Microscopy

AMA Sample Number	Client Sample #	Total Asbestos	Chrysotile Percent	Amosite Percent	Crocidolite Percent	Other Asbestos Percent	Mineral Wool Percent	Fiberglass Percent	Organic Percent	Synthetic Percent	Other Percent	Particulate Percent	Sample Color	Analyst ID	Comments
0401788	WS-FloorAsh-WC	NAD	--	--	--	--	--	--	--	--	--	100	Gray	CK	

The following footnotes only apply to those samples which the total asbestos result is flagged with a note number.

1 TEM RECOMMENDATION - Please note, due to resolution limitations with optical microscopy and/or interference from matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos. It is recommended that the additional analytical technique of TEM be used to check for asbestos fibers below the resolution limits of optical microscopy.

2 MATRIX REDUCTION RECOMMENDATION - Please note, due to interference from the matrix components of this sample, results which are reported via PLM as negative or trace (<1%) for asbestos may contain a significant quantity of asbestos which is obscured from view. It is recommended that the additional preparation technique of gravimetric reduction be performed on this sample to minimize the obscuring effects of matrix components, followed by reanalysis by PLM and/or TEM.

Analysis Method - EPA/600/R-93/116 dated July 1993

NAD = "No Asbestos Detected" TR = "Trace equals less than 1% of this component"

Crystal Kellam

An AIHA (#8863), NVLAP (# 101143), & New York ELAP (#10920) Accredited Laboratory

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