

US EPA ARCHIVE DOCUMENT

APPENDIX F

Laboratory Reports

Appendix F
Laboratory Reports
Water Quality Sample Identification
Eagle Project

Sampling Event	Location	Sample ID	KEX ID	Sample Date	TriMatrix Lab Report	Brooks Rand Lab Report	Notes
2005 GW Summer Baseflow	QAL004A	QALM004A	EAG-1001464	8/17/05	0508268	05BR1288	
2005 GW Summer Baseflow	QAL004D	QALM004D	EAG-1001465	8/17/05	0508268	05BR1288	
2005 GW Summer Baseflow	QAL005A	QALM005A	EAG-1001466	8/17/05	0508268	05BR1288	
2005 GW Summer Baseflow	QAL005D	QALM005D	EAG-1001467	8/17/05	0508268	05BR1288	
2005 GW Summer Baseflow	QAL006A	QALM006A	EAG-1001468	8/17/05	0508268	05BR1288	
2005 GW Summer Baseflow	QAL006B	QALM006B	EAG-1001469	8/17/05	0508268	05BR1288	
2005 GW Summer Baseflow	QAL008A	QALM008A	EAG-1001470	8/24/05	0508366	05BR1288	
2005 GW Summer Baseflow	QAL008D	QALM008D	EAG-1001471	8/24/05	0508366	05BR1288	
2005 GW Summer Baseflow	QAL009A	QALM009A	EAG-1001472	8/24/05	0508366	05BR1288	
2005 GW Summer Baseflow	QAL009D	QALM009D	EAG-1001473	8/16/05	0508239	05BR1288	
2005 GW Summer Baseflow	QAL031D	QALM031D	EAG-1001474	8/24/05	0508366	05BR1288	
2005 GW Summer Baseflow	QAL009A	DUPM001	EAG-1001475	8/24/05	0508366	05BR1288	
2005 GW Summer Baseflow	QAL009D	DUPM002	EAG-1001476	8/16/05	0508239	05BR1288	
2005 GW Summer Baseflow	QA/QC	EQBM001	EAG-1001477	8/24 & 8/31/05	0509021	05BR1288	
2005 GW Summer Baseflow	QA/QC	EQBM002	EAG-1001478	8/24 & 8/31/05	0509021	05BR1288	
2005 GW Summer Baseflow	QA/QC	FBKM001	EAG-1001479	8/31/05	0509021	NA	
2005 GW Summer Baseflow	QA/QC	FBKM002	EAG-1001480	8/31/05	0509021	NA	

NA Not applicable

September 23, 2005

North Jackson Company - MI
Attn: Mr. Peter Sabee
P.O. Box 218
Marquette, MI 49855

Project: Eagle Groundwater

Dear Mr. Peter Sabee,

Enclosed is a copy of the laboratory report, comprised of the following work order(s), for test samples received by TriMatrix Laboratories:

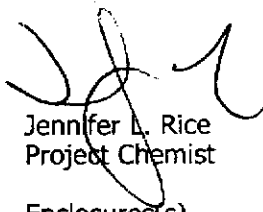
Work Order	Received	Description
0508239	08/17/2005	Laboratory Services
0508268	08/18/2005	Laboratory Services

This report relates only to the sample(s), as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC); any qualifications of results, including sample acceptance requirements, are explained in the Statement of Data Qualifications.

Estimates of analytical uncertainties for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely


Jennifer L. Rice
Project Chemist

Enclosures(s)

The total number of pages in this report, including this page, is 28.

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM009D EAG-1001473**
 Lab Sample ID: **0508239-01**
 Matrix: **Ground Water**

Work Order: **0508239**
 Description: **Laboratory Services**
 Sampled: **08/16/05 16:00**
 Sampled By: **RE/AM**
 Received: **08/17/05 08:40**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502629
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Boron	<100	100	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Calcium	18	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Iron	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Magnesium	4.0	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630
Manganese	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Sodium	2.7	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630
Strontium	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Potassium	0.90	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM009D EAG-1001473**
 Lab Sample ID: **0508239-01**
 Matrix: **Ground Water**

Work Order: **0508239**
 Description: **Laboratory Services**
 Sampled: **08/16/05 16:00**
 Sampled By: **RE/AM**
 Received: **08/17/05 08:40**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	62	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	62	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	<1.0	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	0.0121	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	74	50	mg/L	1	USEPA-160.1	08/18/05	JMJ	0502641
Sulfate	4.3	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **DUPM002 EAG-1001476**
 Lab Sample ID: **0508239-02**
 Matrix: **Ground Water**

Work Order: **0508239**
 Description: **Laboratory Services**
 Sampled: **08/16/05 16:00**
 Sampled By: **RE/AM**
 Received: **08/17/05 08:40**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502629
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Boron	<100	100	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Calcium	18	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Iron	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Magnesium	3.9	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630
Manganese	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Sodium	2.8	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630
Strontium	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0502630
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502629
Potassium	0.92	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0502630

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **DUPM002 EAG-1001476**
 Lab Sample ID: **0508239-02**
 Matrix: **Ground Water**

Work Order: **0508239**
 Description: **Laboratory Services**
 Sampled: **08/16/05 16:00**
 Sampled By: **RE/AM**
 Received: **08/17/05 08:40**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	66	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	66	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	<1.0	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	0.12	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	0.0176	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	66	50	mg/L	1	USEPA-160.1	08/18/05	JMJ	0502641
Sulfate	4.2	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM006A EAG-1001468**
 Lab Sample ID: **0508268-01**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 10:07**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	72	50	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502685
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Boron	<100	100	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Calcium	1.0	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Iron	<20	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Magnesium	<0.50	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Manganese	<20	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Sodium	0.63	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Strontium	<50	50	ug/L	1	USEPA-6010B	08/29/05	JLT	0502686
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Potassium	0.60	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM006A EAG-1001468**
 Lab Sample ID: **0508268-01**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 10:07**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	6.1	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	6.1	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	0.57	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
* Nitrogen, Nitrate	0.16	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	130	20	mg/L	1	USEPA-160.1	08/22/05	JMJ	0508081
Sulfate	3.2	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

*See Statement of Data Qualifications

Page 7 of 28

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM006B EAG-1001469**
 Lab Sample ID: **0508268-02**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 10:30**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	67	50	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502685
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Boron	<100	100	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Calcium	17	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Iron	13000	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Magnesium	5.1	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Manganese	130	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Sodium	1.5	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Strontium	<50	50	ug/L	1	USEPA-6010B	08/29/05	JLT	0502686
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Potassium	0.57	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM006B EAG-1001469**
 Lab Sample ID: **0508268-02**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 10:30**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	66	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	66	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	1.4	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	0.070	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	0.0232	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	50	50	mg/L	1	USEPA-160.1	08/22/05	JMJ	0508081
Sulfate	2.2	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM004A EAG-1001464**
 Lab Sample ID: **0508268-03**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 14:20**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502685
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Boron	<100	100	ug/L	1	USEPA-6010B	08/25/05	JLT	0502686
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Calcium	12	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Iron	<20	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Magnesium	2.2	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Manganese	<20	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Sodium	0.79	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Strontium	<50	50	ug/L	1	USEPA-6010B	08/29/05	JLT	0502686
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Potassium	0.60	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM004A EAG-1001464**
 Lab Sample ID: **0508268-03**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 14:20**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	42	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	42	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	0.56	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	0.20	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	0.0112	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	50	50	mg/L	1	USEPA-160.1	08/22/05	JMJ	0508081
Sulfate	3.5	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM004D EAG-1001465**
 Lab Sample ID: **0508268-04**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 12:20**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502685
Arsenic	8.6	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Boron	<100	100	ug/L	1	USEPA-6010B	08/25/05	JLT	0502686
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Calcium	23	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Iron	100	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Magnesium	3.1	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Manganese	54	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Sodium	1.9	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Strontium	56	50	ug/L	1	USEPA-6010B	08/29/05	JLT	0502686
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Potassium	0.91	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM004D EAG-1001465**
 Lab Sample ID: **0508268-04**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 12:20**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	78	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	78	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	1.9	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	0.095	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	0.0423	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	104	50	mg/L	1	USEPA-160.1	08/22/05	JMJ	0508081
Sulfate	<2.0	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM005A EAG-1001466**
 Lab Sample ID: **0508268-05**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 15:20**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502685
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Barium	<20	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Boron	<100	100	ug/L	1	USEPA-6010B	08/25/05	JLT	0502686
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Calcium	1.0	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Iron	200	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Magnesium	<0.50	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Manganese	<20	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Sodium	0.63	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Strontium	<50	50	ug/L	1	USEPA-6010B	08/29/05	JLT	0502686
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Potassium	0.62	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM005A EAG-1001466**
 Lab Sample ID: **0508268-05**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 15:20**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	2.4	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	2.4	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	<1.0	1.0	mg/L	1	USEPA-325.2	08/18/05	JLB	0502665
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	<20	20	mg/L	1	USEPA-160.1	08/22/05	JMJ	0508081
Sulfate	2.3	2.0	mg/L	1	USEPA-375.4	08/18/05	JLB	0502666
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM005D EAG-1001467**
 Lab Sample ID: **0508268-06**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 16:00**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	08/31/05	DWJ	0502685
Arsenic	3.3	2.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Barium	28	20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Boron	<100	100	ug/L	1	USEPA-6010B	08/25/05	JLT	0502686
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Calcium	26	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Copper	<5.0	5.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Iron	670	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Lead	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Magnesium	2.8	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Manganese	190	20	ug/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Molybdenum	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Nickel	<25	25	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Silver	<0.20	0.20	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Sodium	1.3	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686
Strontium	<50	50	ug/L	1	USEPA-6010B	08/29/05	JLT	0502686
Zinc	<10	10	ug/L	1	USEPA-6020	08/30/05	JMF	0502685
Potassium	0.67	0.50	mg/L	1	USEPA-6010B	08/23/05	DWJ	0502686

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM005D EAG-1001467**
 Lab Sample ID: **0508268-06**
 Matrix: **Ground Water**

Work Order: **0508268**
 Description: **Laboratory Services**
 Sampled: **08/17/05 16:00**
 Sampled By: **RE/AM**
 Received: **08/18/05 08:35**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	85	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508033
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508034
Alkalinity, Total	85	2.0	mg/L	1	USEPA-310.1	08/23/05	INR	0508035
Chloride	<1.0	1.0	mg/L	1	USEPA-325.2	08/30/05	JLB	0508224
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	0.068	0.020	mg/L	1	USEPA-350.1	08/19/05	GEH	0502699
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	08/18/05	HLB	0502704
Phosphorus, Total	0.0354	0.0100	mg/L	1	USEPA-365.1	08/24/05	INR	0508032
Residue, Dissolved @ 180° C	110	50	mg/L	1	USEPA-160.1	08/22/05	JMJ	0508081
Sulfate	<5.0	5.0	mg/L	1	USEPA-375.4	08/30/05	JLB	0508349
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/23/05	HLB	0508396

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Aluminum/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank			<50	ug/L				50	
Laboratory Control Sample		1250	1220	ug/L	98	86-120		50	

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank			<50	ug/L				50	
Laboratory Control Sample		2500	2360	ug/L	94	86-120		50	

Analyte: Antimony/USEPA-6020

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/31/2005 By: DWJ

Method Blank			<5.0	ug/L				5.0	
Laboratory Control Sample		100	104	ug/L	104	83-129		5.0	

Analyte: Arsenic/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	41.3	ug/L	103	83-111		1.0	

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank			<2.0	ug/L				2.0	
Laboratory Control Sample		100	89.9	ug/L	90	83-111		2.0	

Analyte: Barium/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	41.3	ug/L	103	86-119		1.0	

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank			<20	ug/L				20	
Laboratory Control Sample		100	98.5	ug/L	98	86-119		20	

Analyte: Beryllium/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank			<1.0	ug/L				1.0	
--------------	--	--	------	------	--	--	--	-----	--

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Beryllium/USEPA-6020 (Continued)

QC Batch: 0502629 (Continued) (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Laboratory Control Sample	40.0	41.1	ug/L	103	81-116	1.0
---------------------------	------	------	------	-----	--------	-----

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	100	94.3	ug/L	94	81-116	1.0

Analyte: Boron/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<100	ug/L			100
Laboratory Control Sample	250	303	ug/L	121	78-122	100

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<100	ug/L			100
Laboratory Control Sample	500	495	ug/L	99	78-122	100

Analyte: Cadmium/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<0.20	ug/L			0.20
Laboratory Control Sample	40.0	39.9	ug/L	100	83-112	0.20

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<0.50	ug/L			0.50
Laboratory Control Sample	100	96.0	ug/L	96	83-112	0.50

Analyte: Calcium/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<0.50	mg/L			0.50
Laboratory Control Sample	12.5	12.9	mg/L	103	88-121	0.50

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Calcium/USEPA-6010B (Continued)

QC Batch: 0502630 (Continued) (General Metals Prep)

Analyzed: 08/30/2005 By: KLV

Laboratory Control Sample	5.00	4.95	mg/L	99	88-121		0.50
---------------------------	------	-------------	------	----	--------	--	------

Analyte: Chromium/USEPA-6020

QC Batch: 0502629 (General Metals Prep)

Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L				1.0
Laboratory Control Sample	40.0	41.5	ug/L	104	84-122		1.0

QC Batch: 0502685 (3010A Digestion)

Analyzed: 08/30/2005 By: JMF

Method Blank		<5.0	ug/L				5.0
Laboratory Control Sample	100	103	ug/L	103	84-122		5.0

Analyte: Cobalt/USEPA-6010B

QC Batch: 0502686 (3010A Digestion)

Analyzed: 08/23/2005 By: DWJ

Method Blank		<10	ug/L				10
Laboratory Control Sample	250	257	ug/L	103	84-117		10

QC Batch: 0502630 (General Metals Prep)

Analyzed: 08/30/2005 By: KLV

Method Blank		<10	ug/L				10
Laboratory Control Sample	500	487	ug/L	97	84-117		10

Analyte: Copper/USEPA-6020

QC Batch: 0502629 (General Metals Prep)

Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L				1.0
Laboratory Control Sample	40.0	41.6	ug/L	104	86-123		1.0

QC Batch: 0502685 (3010A Digestion)

Analyzed: 08/30/2005 By: JMF

Method Blank		<5.0	ug/L				5.0
Laboratory Control Sample	100	106	ug/L	106	86-123		5.0

Analyte: Iron/USEPA-6010B

QC Batch: 0502686 (3010A Digestion)

Analyzed: 08/23/2005 By: DWJ

Method Blank		<20	ug/L				20
--------------	--	-----	------	--	--	--	----

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Iron/USEPA-6010B (Continued)

QC Batch: 0502686 (Continued) (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Laboratory Control Sample	250	263	ug/L	105	83-118	20
---------------------------	-----	-----	------	-----	--------	----

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<10	ug/L			10
Laboratory Control Sample	500	526	ug/L	105	83-118	10

Analyte: Lead/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	40.0	40.7	ug/L	102	87-118	1.0

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	100	97.6	ug/L	98	87-118	1.0

Analyte: Lithium/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<8.0	ug/L			8.0
Laboratory Control Sample	250	255	ug/L	102	86-115	8.0

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<8.0	ug/L			8.0
Laboratory Control Sample	500	513	ug/L	103	86-115	8.0

Analyte: Magnesium/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<0.50	mg/L			0.50
Laboratory Control Sample	12.5	12.6	mg/L	101	87-115	0.50

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Magnesium/USEPA-6010B (Continued)

QC Batch: 0502630 (Continued) (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Laboratory Control Sample	5.00	4.93	mg/L	99	87-115	0.50
---------------------------	------	-------------	------	----	--------	------

Analyte: Manganese/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<20	ug/L			20
Laboratory Control Sample	250	255	ug/L	102	83-118	20

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<10	ug/L			10
Laboratory Control Sample	500	498	ug/L	100	83-118	10

Analyte: Molybdenum/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	40.0	41.6	ug/L	104	88-114	1.0

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<10	ug/L			10
Laboratory Control Sample	100	98.1	ug/L	98	88-114	10

Analyte: Nickel/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	40.0	40.8	ug/L	102	84-117	1.0

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<25	ug/L			25
Laboratory Control Sample	100	103	ug/L	103	84-117	25

Analyte: Potassium/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Potassium/USEPA-6010B (Continued)

QC Batch: 0502686 (Continued) (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Laboratory Control Sample	12.5	13.0	mg/L	104	87-125	0.50
---------------------------	------	------	------	-----	--------	------

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.10	mg/L			0.10
--------------	--	-------	------	--	--	------

Laboratory Control Sample	5.00	5.15	mg/L	103	87-125	0.10
---------------------------	------	------	------	-----	--------	------

Analyte: Selenium/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
--------------	--	------	------	--	--	-----

Laboratory Control Sample	40.0	41.3	ug/L	103	75-110	1.0
---------------------------	------	------	------	-----	--------	-----

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
--------------	--	------	------	--	--	-----

Laboratory Control Sample	100	83.7	ug/L	84	75-110	1.0
---------------------------	-----	------	------	----	--------	-----

Analyte: Silver/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<0.20	ug/L			0.20
--------------	--	-------	------	--	--	------

Laboratory Control Sample	40.0	42.1	ug/L	105	86-114	0.20
---------------------------	------	------	------	-----	--------	------

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<0.20	ug/L			0.20
--------------	--	-------	------	--	--	------

Laboratory Control Sample	100	96.0	ug/L	96	86-114	0.20
---------------------------	-----	------	------	----	--------	------

Analyte: Sodium/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/23/2005 By: DWJ

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Laboratory Control Sample	12.5	11.8	mg/L	94	86-117	1.0
---------------------------	------	------	------	----	--------	-----

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Sodium/USEPA-6010B (Continued)

QC Batch: 0502630 (Continued) (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Laboratory Control Sample	5.00	4.68	mg/L	94	86-117	0.50
---------------------------	------	-------------	------	----	--------	------

Analyte: Strontium/USEPA-6010B

QC Batch: 0502686 (3010A Digestion) Analyzed: 08/29/2005 By: JLT

Method Blank		<50	ug/L			50
--------------	--	-----	------	--	--	----

Laboratory Control Sample	250	264	ug/L	106	91-113	50
---------------------------	-----	------------	------	-----	--------	----

QC Batch: 0502630 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<50	ug/L			50
--------------	--	-----	------	--	--	----

Laboratory Control Sample	500	494	ug/L	99	91-113	50
---------------------------	-----	------------	------	----	--------	----

Analyte: Zinc/USEPA-6020

QC Batch: 0502629 (General Metals Prep) Analyzed: 08/30/2005 By: JMF

Method Blank		<1.0	ug/L			1.0
--------------	--	------	------	--	--	-----

Laboratory Control Sample	40.0	39.8	ug/L	100	80-137	1.0
---------------------------	------	-------------	------	-----	--------	-----

QC Batch: 0502685 (3010A Digestion) Analyzed: 08/30/2005 By: JMF

Method Blank		<10	ug/L			10
--------------	--	-----	------	--	--	----

Laboratory Control Sample	100	95.9	ug/L	96	80-137	10
---------------------------	-----	-------------	------	----	--------	----

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Alkalinity, Bicarbonate/USEPA-310.1

QC Batch: 0508033 (General Inorganic Prep)					Analyzed: 08/23/2005 By: INR				
Method Blank			<5.0	mg/L					5.0
Laboratory Control Sample		238	227	mg/L	95	89-111			5.0

Analyte: Alkalinity, Carbonate/USEPA-310.1

QC Batch: 0508034 (General Inorganic Prep)					Analyzed: 08/23/2005 By: INR				
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample		377	329	mg/L	87	77-110			2.0

Analyte: Alkalinity, Total/USEPA-310.1

QC Batch: 0508035 (General Inorganic Prep)					Analyzed: 08/23/2005 By: INR				
Method Blank			<2.0	mg/L					2.0
Laboratory Control Sample		238	227	mg/L	95	0-200			2.0

Analyte: Chloride/USEPA-325.2

QC Batch: 0508265 (General Inorganic Prep)					Analyzed: 08/18/2005 By: JLB				
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		49.7	50.2	mg/L	101	92-109			

QC Batch: 0508224 (General Inorganic Prep)					Analyzed: 08/30/2005 By: JLB				
Method Blank			<1.0	mg/L					1.0
Laboratory Control Sample		49.7	49.3	mg/L	99	92-109			

Analyte: Fluoride/APHA 4500-F C

QC Batch: 0508407 (Method-Specific Preparation)					Analyzed: 08/31/2005 By: VAS				
Method Blank			<0.10	mg/L					0.10
Laboratory Control Sample		0.288	0.292	mg/L	101	88-116			0.10

Analyte: Nitrogen, Ammonia/USEPA-350.1

QC Batch: 0502699 (General Inorganic Prep)					Analyzed: 08/19/2005 By: GEH				
Method Blank			<0.020	mg/L					0.020

Continued on next page

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Nitrogen, Ammonia/USEPA-350.1 (Continued)

QC Batch: 0502699 (Continued) (General Inorganic Prep) Analyzed: 08/19/2005 By: GEH

Laboratory Control Sample	0.765	0.827	mg/L	108	90-110		0.020
---------------------------	-------	--------------	------	-----	--------	--	-------

Analyte: Nitrogen, Nitrate/USEPA-353.2

QC Batch: 0502704 (Method-Specific Preparation) Analyzed: 08/18/2005 By: HLB

Method Blank		<0.050	mg/L				0.050
--------------	--	--------	------	--	--	--	-------

Laboratory Control Sample	0.510	0.509	mg/L	100	90-110		0.050
---------------------------	-------	--------------	------	-----	--------	--	-------

Analyte: Phosphorus, Total/USEPA-365.1

QC Batch: 0508032 (365.1 Digestion) Analyzed: 08/24/2005 By: INR

Method Blank		<0.0100	mg/L				0.0100
--------------	--	---------	------	--	--	--	--------

Laboratory Control Sample	0.400	0.410	mg/L	102	90-110		0.0100
---------------------------	-------	--------------	------	-----	--------	--	--------

Analyte: Residue, Dissolved @ 180° C/USEPA-160.1

QC Batch: 0502641 (Method-Specific Preparation) Analyzed: 08/18/2005 By: JMJ

Method Blank		<2	mg/L				2
--------------	--	----	------	--	--	--	---

Laboratory Control Sample	200	190	mg/L	95	0-200		50
---------------------------	-----	------------	------	----	-------	--	----

Laboratory Control Sample	1000	984	mg/L	98	0-200		50
---------------------------	------	------------	------	----	-------	--	----

QC Batch: 0508081 (Method-Specific Preparation) Analyzed: 08/22/2005 By: JMJ

Method Blank		<2	mg/L				2
--------------	--	----	------	--	--	--	---

Laboratory Control Sample	1000	1020	mg/L	102	0-200		50
---------------------------	------	-------------	------	-----	-------	--	----

Laboratory Control Sample	200	200	mg/L	100	0-200		50
---------------------------	-----	------------	------	-----	-------	--	----

Analyte: Sulfate/USEPA-375.4

QC Batch: 0502666 (General Inorganic Prep) Analyzed: 08/18/2005 By: JLB

Method Blank		<5.0	mg/L				5.0
--------------	--	------	------	--	--	--	-----

Laboratory Control Sample	11.9	12.7	mg/L	107	85-113		
---------------------------	------	-------------	------	-----	--------	--	--

QC Batch: 0508349 (General Inorganic Prep) Analyzed: 08/30/2005 By: JLB

Method Blank		<1.0	mg/L				1.0
--------------	--	------	------	--	--	--	-----

Continued on next page

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Sulfate/USEPA-375.4 (Continued)

QC Batch: 0508349 (Continued) (General Inorganic Prep)

Analyzed: 08/30/2005 By: JLB

Laboratory Control Sample	11.9	12.8	mg/L	108	85-113
---------------------------	------	-------------	------	-----	--------

Analyte: Sulfide/USEPA-376.1

QC Batch: 0508396 (Method-Specific Preparation)

Analyzed: 08/23/2005 By: HLB

Method Blank		<1.0	mg/L			1.0
Laboratory Control Sample	12.0	11.8	mg/L	98	80-120	1.0

STATEMENT OF DATA QUALIFICATIONS**Physical/Chemical Parameters by EPA/APHA/ASTM Methods**

Qualification: The MS and/or MSD recovery was outside the control limit. The non-spiked sample result is considered estimated.

Analysis: USEPA-353.2

Sample/Analyte: 0508268-01 QALM006A EAG-1001468

Nitrogen, Nitrate



5560 Corporate Exchange Court SE Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No. 109296

Page 1 of 1

Analyses Requested

A B C F

PRESERVATIVES

- A NONE pH~7
- B HNO₃ pH<2
- C H₂SO₄ pH<2
- D 1+1 HCl pH<2
- E NaOH pH>12
- F ZnAc/NaOH pH>9
- G MeOH
- H Other (note below)

For Lab Use Only

Cart 1

VOL Pack/Tray

Receipt Log No.

Project Name

Laboratory Project No.

Test Method Laboratory Sample

Code Code Description

Client Name
North Jackson Co.

Address
1004 HARBOR HILLS DR.

MARQUETTE, MI 49855

Phone 906-225-6787

Fax 906-225-6769

Project Name
EAGLE Groundwater

Client Project No. / P.O. No.

Invoice To ☐ Client
☒ Other (comments)

Contact/Report To

DWW

Container Type (corresponds to Container Packing List)

3 15 4 9

Number of Containers Submitted

Total Sample Comments

Sample ID	Cooler ID	Sample Date	Sample Time	C O M P	G R A B	Matrix	Number of Containers Submitted	Total	Sample Comments
1 QALM009D EAG-1001473	TM0165	8/16	1600	X		WTR	1 1 1 1		
2 DUPM002 EAG-1001473	TM0165	8/16	1600	X		WTR	1 1 1 1		
3									
4									
5									
6									
7									
8									
9									
10									

Sampled By (print) R Eagle

Sampler's Signature Andrew M. MacKini

Company North Jackson Co.

How Shipped? Hand Carrier FEDEX

Tracking No. 445 791704601799

1. Relinquished By Date Time

1. Received By Date Time

Comments Invoice to: Jon Cherry

Kennecot Minerals

St 10/3

2. Relinquished By Date Time

2. Received By Date Time



5560 Corporate Exchange Court SE Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No. 109297

Page 1 of 1

Analyses Requested

A	B	C	F
Filtered			

- ← PRESERVATIVES
- A NONE pH~7
 - B HNO₃ pH<2
 - C H₂SO₄ pH<2
 - D 1+1 HCl pH<2
 - E NaOH pH>12
 - F ZnAc/NaOH pH>9
 - G MeOH
 - H Other (note below)

For Lab Use Only

Cart # 4

VOA Rack Tray

Receiving No. 495

Project Number

Laboratory Project No. E-0508208

Test Code	Matrix	Laboratory Sample Number
SG	01	
	02	
	03	
	04	

Client Name North Jackson Co.

Project Name EAGLE Groundwater

Address 1004 HARBOR HILLS DR.

Client Project No. / P.O. No.

Invoice To ☐ Client ☒ Other (comments)

Phone 906-225-6787

Fax 906-225-6769

Contact/Report To

Sample ID	Cooler ID	Sample Date	Sample Time	C O M P	G R A B	Matrix	Number of Containers Submitted	Total	Sample Comments
1 QALM006A ^{LKP} EAG-1001465	TM1090	8/17/05	1007	X	WTR		1 1 1 1		EAG-1001468
2 QALM006B		8/17/05	1030	X	WTR		1 1 1 1		EAG-1001469
3 QALM004A		8/17/05	1420	X	WTR		1 1 1 1		EN-1001464
4 QALM004D		8/17/05	1220	X	WTR		1 1 1 1		EAG-1001465
5 QALM005A ^{A.M.}		8/17/05	1520	X	WTR		1 1 1 1		EAG-1001466
6 QALM005D ^{A.M.}		8/17/05	1600	X	WTR		1 1 1 1		EAG-1001467
7									
8									
9									
10									

Sampled By (print) ANDREW MARACINI

Richard R Eagle

Sampler's Signature *Richard R Eagle*

Company North Jackson Co.

How Shipped? Hand Carrier FEDEX

Tracking No. 7925 0000 5173 0000 51730

1. Relinquished By Date Time

1. Received By Date Time

Comments Invoice to: Jon Cherry Kenne cott Minerals Co.

2. Relinquished By Date Time

2. Received By Date Time

3. Relinquished By Date Time

September 23, 2005

North Jackson Company - MI
Attn: Mr. Peter Sabee
P.O. Box 218
Marquette, MI 49855

Project: Eagle Groundwater

Dear Mr. Peter Sabee,

Enclosed is a copy of the laboratory report, comprised of the following work order(s), for test samples received by TriMatrix Laboratories:

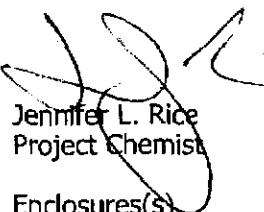
Work Order	Received	Description
0508366	08/25/2005	Laboratory Services
0509021	09/01/2005	Laboratory Services

This report relates only to the sample(s), as received. Test results are in compliance with the requirements of the National Environmental Laboratory Accreditation Conference (NELAC); any qualifications of results, including sample acceptance requirements, are explained in the Statement of Data Qualifications.

Estimates of analytical uncertainties for the test results contained within this report are available upon request.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely



Jennifer L. Rice
Project Chemist

Enclosures(s)

The total number of pages in this report, including this page, is 32.

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM008A EAG-1001470**
 Lab Sample ID: **0508366-01**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 12:28**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/31/05	JMF	0508217
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Barium	<20	20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Boron	<100	100	ug/L	1	USEPA-6010B	09/07/05	JMF	0508217
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Calcium	8.2	0.50	mg/L	1	USEPA-6010B	08/31/05	JMF	0508217
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/31/05	JMF	0508217
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Iron	<20	20	ug/L	1	USEPA-6010B	08/31/05	JMF	0508217
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/31/05	JMF	0508217
Magnesium	1.3	0.50	mg/L	1	USEPA-6010B	08/31/05	JMF	0508217
Manganese	<20	20	ug/L	1	USEPA-6010B	08/31/05	JMF	0508217
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Nickel	<25	25	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
Sodium	0.57	0.50	mg/L	1	USEPA-6010B	08/31/05	JMF	0508217
Strontium	<50	50	ug/L	1	USEPA-6010B	08/31/05	JMF	0508217
Zinc	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508216
* Potassium	0.72	0.50	mg/L	1	USEPA-6010B	08/31/05	JMF	0508217

*See Statement of Data Qualifications

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM008A EAG-1001470**
 Lab Sample ID: **0508366-01**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 12:28**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	21	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508308
Alkalinity, Carbonate	6.1	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508309
Alkalinity, Total	27	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508310
Chloride	3.8	1.0	mg/L	1	USEPA-325.2	08/30/05	JLB	0508224
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/09/05	GEH	0508602
Nitrogen, Nitrate	0.079	0.050	mg/L	1	USEPA-353.2	08/25/05	HLB	0508268
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/28/05	INR	0508179
Residue, Dissolved @ 180° C	<50	50	mg/L	1	USEPA-160.1	08/26/05	GEH	0508167
Sulfate	12	5.0	mg/L	1	USEPA-375.4	08/30/05	JLB	0508227
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/27/05	HLB	0508397

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM008D EAG-1001471**
 Lab Sample ID: **0508366-02**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 11:50**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Arsenic	3.7	2.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Barium	<20	20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Boron	<100	100	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Calcium	13	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Iron	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Magnesium	2.8	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Manganese	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Nickel	<25	25	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
* Sodium	1.3	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
* Strontium	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Zinc	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Potassium	1.0	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145

*See Statement of Data Qualifications

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM008D EAG-1001471**
 Lab Sample ID: **0508366-02**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 11:50**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	52	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508308
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508309
Alkalinity, Total	52	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508310
Chloride	61	1.0	mg/L	1	USEPA-325.2	08/30/05	JLB	0508224
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/09/05	GEH	0508602
Nitrogen, Nitrate	0.053	0.050	mg/L	1	USEPA-353.2	08/25/05	HLB	0508268
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/28/05	INR	0508179
Residue, Dissolved @ 180° C	<50	50	mg/L	1	USEPA-160.1	08/26/05	GEH	0508167
Sulfate	6.0	5.0	mg/L	1	USEPA-375.4	08/30/05	JLB	0508227
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/27/05	HLB	0508397

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM009A EAG-1001472**
 Lab Sample ID: **0508366-03**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 13:30**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Barium	<20	20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Boron	<100	100	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Calcium	14	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Iron	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Magnesium	2.3	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Manganese	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Nickel	<25	25	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Sodium	0.64	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Strontium	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Zinc	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Potassium	0.55	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM009A EAG-1001472**
 Lab Sample ID: **0508366-03**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 13:30**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	44	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508308
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508309
Alkalinity, Total	45	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508310
Chloride	14	1.0	mg/L	1	USEPA-325.2	08/30/05	JLB	0508224
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/09/05	GEH	0508602
Nitrogen, Nitrate	0.22	0.050	mg/L	1	USEPA-353.2	08/25/05	HLB	0508268
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/28/05	INR	0508179
Residue, Dissolved @ 180° C	<50	50	mg/L	1	USEPA-160.1	08/26/05	GEH	0508167
* Sulfate	<5.0	5.0	mg/L	1	USEPA-375.4	08/30/05	JLB	0508349
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/27/05	HLB	0508397

*See Statement of Data Qualifications

age 7 of 32

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM031D EAG-1001474**
 Lab Sample ID: **0508366-04**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 10:30**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Barium	<20	20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Boron	<100	100	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Calcium	12	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Iron	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Magnesium	2.4	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Manganese	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Nickel	<25	25	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Sodium	0.96	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Strontium	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Zinc	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Potassium	0.72	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **QALM031D EAG-1001474**
 Lab Sample ID: **0508366-04**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 10:30**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	40	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508308
Alkalinity, Carbonate	2.6	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508309
Alkalinity, Total	43	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508310
Chloride	12	1.0	mg/L	1	USEPA-325.2	08/30/05	JLB	0508224
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/09/05	GEH	0508602
Nitrogen, Nitrate	0.088	0.050	mg/L	1	USEPA-353.2	08/25/05	HLB	0508268
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/28/05	INR	0508179
Residue, Dissolved @ 180° C	<50	50	mg/L	1	USEPA-160.1	08/26/05	GEH	0508167
Sulfate	<5.0	5.0	mg/L	1	USEPA-375.4	08/30/05	JLB	0508349
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/27/05	HLB	0508397

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **DUPM001 EAG-1001475**
 Lab Sample ID: **0508366-05**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 13:30**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Barium	<20	20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Boron	<100	100	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Calcium	13	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Cobalt	<10	10	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Iron	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Magnesium	2.3	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Manganese	<20	20	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Nickel	<25	25	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Sodium	0.61	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145
Strontium	<50	50	ug/L	1	USEPA-6010B	08/30/05	KLV	0508145
Zinc	<10	10	ug/L	1	USEPA-6020	09/08/05	DWJ	0508144
Potassium	0.59	0.50	mg/L	1	USEPA-6010B	08/30/05	KLV	0508145

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **DUPM001 EAG-1001475**
 Lab Sample ID: **0508366-05**
 Matrix: **Ground Water**

Work Order: **0508366**
 Description: **Laboratory Services**
 Sampled: **08/24/05 13:30**
 Sampled By: **RE/AM**
 Received: **08/25/05 08:30**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	45	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508308
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508309
Alkalinity, Total	46	2.0	mg/L	1	USEPA-310.1	09/02/05	INR	0508310
Chloride	13	1.0	mg/L	1	USEPA-325.2	08/30/05	JLB	0508224
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	08/31/05	VAS	0508407
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/09/05	GEH	0508602
Nitrogen, Nitrate	0.22	0.050	mg/L	1	USEPA-353.2	08/25/05	HLB	0508268
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	08/28/05	INR	0508179
Residue, Dissolved @ 180° C	<50	50	mg/L	1	USEPA-160.1	08/26/05	GEH	0508167
Sulfate	<5.0	5.0	mg/L	1	USEPA-375.4	08/30/05	JLB	0508349
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	08/27/05	HLB	0508397

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **FBKM001-EAG-1001479**
 Lab Sample ID: **0509021-01**
 Matrix: **Water**

Work Order: **0509021**
 Description: **Laboratory Services**
 Sampled: **08/31/05 08:10**
 Sampled By: **RE/AM**
 Received: **09/01/05 09:00**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Alkalinity, Bicarbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/09/05	INR	0508596
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/09/05	INR	0508597
Alkalinity, Total	<2.0	2.0	mg/L	1	USEPA-310.1	09/09/05	INR	0508598
Chloride	<1.0	1.0	mg/L	1	USEPA-325.2	09/08/05	JLB	0508581
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	09/09/05	VAS	0508561
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/15/05	GEH	0508770
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	09/01/05	HLB	0508455
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	09/09/05	INR	0508524
Residue, Dissolved @ 180° C	<50	50	mg/L	20	USEPA-160.1	09/06/05	GEH	0508443
Sulfate	<5.0	5.0	mg/L	1	USEPA-375.4	09/08/05	JLB	0508516
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	09/07/05	HLB	0508735

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **FBKM002-EAG-1001480**
 Lab Sample ID: **0509021-02**
 Matrix: **Water**

Work Order: **0509021**
 Description: **Laboratory Services**
 Sampled: **08/31/05 07:15**
 Sampled By: **RE/AM**
 Received: **09/01/05 09:00**

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	Bv	QC Batch
Alkalinity, Bicarbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/09/05	INR	0508596
Alkalinity, Carbonate	<2.0	2.0	mg/L	1	USEPA-310.1	09/09/05	INR	0508597
Alkalinity, Total	<2.0	2.0	mg/L	1	USEPA-310.1	09/09/05	INR	0508598
Chloride	<1.0	1.0	mg/L	1	USEPA-325.2	09/08/05	JLB	0508581
Fluoride	<0.10	0.10	mg/L	1	APHA 4500-F C	09/09/05	VAS	0508561
Nitrogen, Ammonia	<0.020	0.020	mg/L	1	USEPA-350.1	09/15/05	GEH	0508770
Nitrogen, Nitrate	<0.050	0.050	mg/L	1	USEPA-353.2	09/01/05	HLB	0508455
Phosphorus, Total	<0.0100	0.0100	mg/L	1	USEPA-365.1	09/09/05	INR	0508524
Residue, Dissolved @ 180° C	<50	50	mg/L	20	USEPA-160.1	09/06/05	GEH	0508443
Sulfate	<5.0	5.0	mg/L	1	USEPA-375.4	09/08/05	JLB	0508516
Sulfide	<1.0	1.0	mg/L	1	USEPA-376.1	09/07/05	HLB	0508735

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **EQBM001-EAG-1001477**
 Lab Sample ID: **0509021-03**
 Matrix: **Water**

Work Order: **0509021**
 Description: **Laboratory Services**
 Sampled: **08/31/05 08:00**
 Sampled By: **RE/AM**
 Received: **09/01/05 09:00**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Barium	<20	20	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Boron	<100	100	ug/L	1	USEPA-6010B	09/09/05	JLT	0508373
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Calcium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Cobalt	<10	10	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Iron	<20	20	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Magnesium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373
Manganese	<20	20	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Nickel	<25	25	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Sodium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373
Strontium	<50	50	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Zinc	<10	10	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Potassium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373

ANALYTICAL REPORT

Client: **North Jackson Company - MI**
 Project: **Eagle Groundwater**
 Client Sample ID: **EQBM002-EAG-1001478**
 Lab Sample ID: **0509021-04**
 Matrix: **Water**

Work Order: **0509021**
 Description: **Laboratory Services**
 Sampled: **08/31/05 07:25**
 Sampled By: **RE/AM**
 Received: **09/01/05 09:00**

Dissolved Metals by EPA 6000/7000 Series Methods

Analyte	Analytical Result	RL	Unit	Dilution Factor	Method	Date Analyzed	By	QC Batch
Aluminum	<50	50	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Antimony	<5.0	5.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Arsenic	<2.0	2.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Barium	<20	20	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Beryllium	<1.0	1.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Boron	<100	100	ug/L	1	USEPA-6010B	09/09/05	JLT	0508373
Cadmium	<0.50	0.50	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Calcium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373
Chromium	<5.0	5.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Cobalt	<10	10	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Copper	<5.0	5.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Iron	<20	20	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Lead	<1.0	1.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Lithium	<8.0	8.0	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Magnesium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373
Manganese	<20	20	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Molybdenum	<10	10	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Nickel	<25	25	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Selenium	<1.0	1.0	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Silver	<0.20	0.20	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Sodium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373
Strontium	<50	50	ug/L	1	USEPA-6010B	09/09/05	KLV	0508373
Zinc	<10	10	ug/L	1	USEPA-6020	09/15/05	DSC	0508371
Potassium	<0.50	0.50	mg/L	1	USEPA-6010B	09/09/05	KLV	0508373

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Aluminum/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank			<50	ug/L					50
Laboratory Control Sample		2500	2370	ug/L	95	86-120			50

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank			<50	ug/L					50
Laboratory Control Sample		2500	2360	ug/L	94	86-120			50

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank			<50	ug/L					50
Laboratory Control Sample		1250	1230	ug/L	98	86-120			50

Analyte: Antimony/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		40.0	41.8	ug/L	104	83-129			1.0

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank			<5.0	ug/L					5.0
Laboratory Control Sample		100	102	ug/L	102	83-129			5.0

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		40.0	42.1	ug/L	105	83-129			1.0

Analyte: Arsenic/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L					1.0
Laboratory Control Sample		40.0	41.9	ug/L	105	83-111			1.0

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank			<2.0	ug/L					2.0
--------------	--	--	------	------	--	--	--	--	-----

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Arsenic/USEPA-6020 (Continued)

QC Batch: 0508216 (Continued) (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Laboratory Control Sample		100	90.1	ug/L	90	83-111		2.0	
---------------------------	--	-----	------	------	----	--------	--	-----	--

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	41.2	ug/L	103	83-111		1.0	

Analyte: Barium/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	40.5	ug/L	101	86-119		1.0	

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank			<20	ug/L				20	
Laboratory Control Sample		100	95.3	ug/L	95	86-119		20	

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	39.7	ug/L	99	86-119		1.0	

Analyte: Beryllium/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	42.4	ug/L	106	81-116		1.0	

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		100	90.2	ug/L	90	81-116		1.0	

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank			<1.0	ug/L				1.0	
--------------	--	--	------	------	--	--	--	-----	--

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Beryllium/USEPA-6020 (Continued)

QC Batch: 0508371 (Continued) (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Laboratory Control Sample	40.0	41.0	ug/L	102	81-116		1.0
---------------------------	------	------	------	-----	--------	--	-----

Analyte: Boron/USEPA-6010B

QC Batch: 0508217 (3010A Digestion) Analyzed: 09/01/2005 By: JMF

Method Blank		<100	ug/L				100
Laboratory Control Sample	250	<100	ug/L		78-122		100

QC Batch: 0508217 (3010A Digestion) Analyzed: 09/07/2005 By: JLT

Method Blank		<100	ug/L				100
Laboratory Control Sample	250	232	ug/L	93	78-122		100

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/15/2005 By: JLT

Method Blank		<100	ug/L				100
Laboratory Control Sample	500	515	ug/L	103	78-122		100

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<100	ug/L				100
Laboratory Control Sample	500	495	ug/L	99	78-122		100

Analyte: Cadmium/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<0.20	ug/L				0.20
Laboratory Control Sample	40.0	37.9	ug/L	95	83-112		0.20

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank		<0.50	ug/L				0.50
Laboratory Control Sample	100	87.6	ug/L	88	83-112		0.50

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank		<0.20	ug/L				0.20
--------------	--	-------	------	--	--	--	------

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Cadmium/USEPA-6020 (Continued)

QC Batch: 0508371 (Continued) (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Laboratory Control Sample	40.0	37.2	ug/L	93	83-112		0.20
---------------------------	------	-------------	------	----	--------	--	------

Analyte: Calcium/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<0.50	mg/L				0.50
--------------	--	-------	------	--	--	--	------

Laboratory Control Sample	5.00	4.91	mg/L	98	88-121		0.50
---------------------------	------	-------------	------	----	--------	--	------

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.50	mg/L				0.50
--------------	--	-------	------	--	--	--	------

Laboratory Control Sample	5.00	4.95	mg/L	99	88-121		0.50
---------------------------	------	-------------	------	----	--------	--	------

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank		<0.50	mg/L				0.50
--------------	--	-------	------	--	--	--	------

Laboratory Control Sample	12.5	12.6	mg/L	101	88-121		0.50
---------------------------	------	-------------	------	-----	--------	--	------

Analyte: Chromium/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<1.0	ug/L				1.0
--------------	--	------	------	--	--	--	-----

Laboratory Control Sample	40.0	42.4	ug/L	106	84-122		1.0
---------------------------	------	-------------	------	-----	--------	--	-----

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank		<5.0	ug/L				5.0
--------------	--	------	------	--	--	--	-----

Laboratory Control Sample	100	101	ug/L	101	84-122		5.0
---------------------------	-----	------------	------	-----	--------	--	-----

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank		<1.0	ug/L				1.0
--------------	--	------	------	--	--	--	-----

Laboratory Control Sample	40.0	40.3	ug/L	101	84-122		1.0
---------------------------	------	-------------	------	-----	--------	--	-----

Analyte: Cobalt/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<10	ug/L				10
--------------	--	-----	------	--	--	--	----

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Cobalt/USEPA-6010B (Continued)

QC Batch: 0508373 (Continued) (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Laboratory Control Sample		500	496	ug/L	99	84-117		10	
---------------------------	--	-----	-----	------	----	--------	--	----	--

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank			<10	ug/L				10	
--------------	--	--	-----	------	--	--	--	----	--

Laboratory Control Sample		500	487	ug/L	97	84-117		10	
---------------------------	--	-----	-----	------	----	--------	--	----	--

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank			<10	ug/L				10	
--------------	--	--	-----	------	--	--	--	----	--

Laboratory Control Sample		250	250	ug/L	100	84-117		10	
---------------------------	--	-----	-----	------	-----	--------	--	----	--

Analyte: Copper/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L				1.0	
--------------	--	--	------	------	--	--	--	-----	--

Laboratory Control Sample		40.0	41.3	ug/L	103	86-123		1.0	
---------------------------	--	------	------	------	-----	--------	--	-----	--

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank			<5.0	ug/L				5.0	
--------------	--	--	------	------	--	--	--	-----	--

Laboratory Control Sample		100	98.8	ug/L	99	86-123		5.0	
---------------------------	--	-----	------	------	----	--------	--	-----	--

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank			<1.0	ug/L				1.0	
--------------	--	--	------	------	--	--	--	-----	--

Laboratory Control Sample		40.0	40.3	ug/L	101	86-123		1.0	
---------------------------	--	------	------	------	-----	--------	--	-----	--

Analyte: Iron/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank			<10	ug/L				10	
--------------	--	--	-----	------	--	--	--	----	--

Laboratory Control Sample		500	513	ug/L	103	83-118		10	
---------------------------	--	-----	-----	------	-----	--------	--	----	--

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank			<10	ug/L				10	
--------------	--	--	-----	------	--	--	--	----	--

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Iron/USEPA-6010B (Continued)

QC Batch: 0508145 (Continued) (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Laboratory Control Sample		500	526	ug/L	105	83-118		10	
---------------------------	--	-----	-----	------	-----	--------	--	----	--

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank			<20	ug/L				20	
Laboratory Control Sample		250	261	ug/L	104	83-118		20	

Analyte: Lead/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	40.8	ug/L	102	87-118		1.0	

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		100	92.1	ug/L	92	87-118		1.0	

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank			<1.0	ug/L				1.0	
Laboratory Control Sample		40.0	41.0	ug/L	102	87-118		1.0	

Analyte: Lithium/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank			<8.0	ug/L				8.0	
Laboratory Control Sample		500	496	ug/L	99	86-115		8.0	

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank			<8.0	ug/L				8.0	
Laboratory Control Sample		500	513	ug/L	103	86-115		8.0	

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank			<8.0	ug/L				8.0	
--------------	--	--	------	------	--	--	--	-----	--

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Lithium/USEPA-6010B (Continued)

QC Batch: 0508217 (Continued) (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Laboratory Control Sample	250	258	ug/L	103	86-115	8.0
---------------------------	-----	------------	------	-----	--------	-----

Analyte: Magnesium/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Laboratory Control Sample	5.00	4.89	mg/L	98	87-115	0.50
---------------------------	------	-------------	------	----	--------	------

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Laboratory Control Sample	5.00	4.97	mg/L	99	87-115	0.50
---------------------------	------	-------------	------	----	--------	------

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank		<0.50	mg/L			0.50
--------------	--	-------	------	--	--	------

Laboratory Control Sample	12.5	12.3	mg/L	98	87-115	0.50
---------------------------	------	-------------	------	----	--------	------

Analyte: Manganese/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<10	ug/L			10
--------------	--	-----	------	--	--	----

Laboratory Control Sample	500	495	ug/L	99	83-118	10
---------------------------	-----	------------	------	----	--------	----

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<10	ug/L			10
--------------	--	-----	------	--	--	----

Laboratory Control Sample	500	498	ug/L	100	83-118	10
---------------------------	-----	------------	------	-----	--------	----

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank		<20	ug/L			20
--------------	--	-----	------	--	--	----

Laboratory Control Sample	250	246	ug/L	98	83-118	20
---------------------------	-----	------------	------	----	--------	----

Analyte: Molybdenum/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<1.0	ug/L			1.0
--------------	--	------	------	--	--	-----

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Molybdenum/USEPA-6020 (Continued)

QC Batch: 0508144 (Continued) (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Laboratory Control Sample	40.0	40.2	ug/L	100	88-114	1.0
---------------------------	------	-------------	------	-----	--------	-----

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank		<10	ug/L			10
Laboratory Control Sample	100	99.7	ug/L	100	88-114	10

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	40.0	39.0	ug/L	98	88-114	1.0

Analyte: Nickel/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	40.0	39.9	ug/L	100	84-117	1.0

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank		<25	ug/L			25
Laboratory Control Sample	100	94.0	ug/L	94	84-117	25

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank		<1.0	ug/L			1.0
Laboratory Control Sample	40.0	40.1	ug/L	100	84-117	1.0

Analyte: Potassium/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<0.10	mg/L			0.10
Laboratory Control Sample	5.00	4.90	mg/L	98	87-125	0.10

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.10	mg/L			0.10
--------------	--	-------	------	--	--	------

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Potassium/USEPA-6010B (Continued)

QC Batch: 0508145 (Continued) (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Laboratory Control Sample	5.00	5.15	mg/L	103	87-125			0.10	
---------------------------	------	------	------	-----	--------	--	--	------	--

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank		<0.50	mg/L					0.50	
Laboratory Control Sample	12.5	12.9	mg/L	103	87-125			0.50	

Analyte: Selenium/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<1.0	ug/L					1.0	
Laboratory Control Sample	40.0	41.5	ug/L	104	75-110			1.0	

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank		<1.0	ug/L					1.0	
Laboratory Control Sample	100	81.7	ug/L	82	75-110			1.0	

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank		<1.0	ug/L					1.0	
Laboratory Control Sample	40.0	40.4	ug/L	101	75-110			1.0	

Analyte: Silver/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<0.20	ug/L					0.20	
Laboratory Control Sample	40.0	42.1	ug/L	105	86-114			0.20	

QC Batch: 0508216 (3010A Digestion) Analyzed: 09/08/2005 By: DWJ

Method Blank		<0.20	ug/L					0.20	
Laboratory Control Sample	100	97.7	ug/L	98	86-114			0.20	

QC Batch: 0508371 (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Method Blank		<0.20	ug/L					0.20	
--------------	--	-------	------	--	--	--	--	------	--

Continued on next page

QUALITY CONTROL REPORT

Dissolved Metals by EPA 6000/7000 Series Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Silver/USEPA-6020 (Continued)

QC Batch: 0508371 (Continued) (General Metals Prep) Analyzed: 09/15/2005 By: DSC

Laboratory Control Sample	40.0	39.5	ug/L	99	86-114	0.20
---------------------------	------	-------------	------	----	--------	------

Analyte: Sodium/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
Laboratory Control Sample	5.00	4.78	mg/L	96	86-117	0.50

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<0.50	mg/L			0.50
Laboratory Control Sample	5.00	4.68	mg/L	94	86-117	0.50

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank		<0.50	mg/L			0.50
Laboratory Control Sample	12.5	12.4	mg/L	99	86-117	1.0

Analyte: Strontium/USEPA-6010B

QC Batch: 0508373 (General Metals Prep) Analyzed: 09/09/2005 By: KLV

Method Blank		<50	ug/L			50
Laboratory Control Sample	500	513	ug/L	103	91-113	50

QC Batch: 0508145 (General Metals Prep) Analyzed: 08/30/2005 By: KLV

Method Blank		<50	ug/L			50
Laboratory Control Sample	500	494	ug/L	99	91-113	50

QC Batch: 0508217 (3010A Digestion) Analyzed: 08/31/2005 By: JMF

Method Blank		<50	ug/L			50
Laboratory Control Sample	250	252	ug/L	101	91-113	50

Analyte: Zinc/USEPA-6020

QC Batch: 0508144 (General Metals Prep) Analyzed: 09/08/2005 By: DWJ

Method Blank		<1.0	ug/L			1.0
--------------	--	------	------	--	--	-----

Continued on next page

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Alkalinity, Bicarbonate/USEPA-310.1

QC Batch: 0508308 (General Inorganic Prep) Analyzed: 09/02/2005 By: INR

Method Blank			<10	mg/L				10	
Laboratory Control Sample	238		236	mg/L	99	89-111		10	

QC Batch: 0508596 (General Inorganic Prep) Analyzed: 09/09/2005 By: INR

Method Blank			<2.0	mg/L				2.0	
Laboratory Control Sample	238		215	mg/L	90	89-111		2.0	

Analyte: Alkalinity, Carbonate/USEPA-310.1

QC Batch: 0508309 (General Inorganic Prep) Analyzed: 09/02/2005 By: INR

Method Blank			<2.0	mg/L				2.0	
Laboratory Control Sample	377		349	mg/L	93	0-200		2.0	

QC Batch: 0508597 (General Inorganic Prep) Analyzed: 09/09/2005 By: INR

Method Blank			<2.0	mg/L				2.0	
Laboratory Control Sample	377		309	mg/L	82	0-200		2.0	

Analyte: Alkalinity, Total/USEPA-310.1

QC Batch: 0508310 (General Inorganic Prep) Analyzed: 09/02/2005 By: INR

Method Blank			<2.0	mg/L				2.0	
Laboratory Control Sample	238		236	mg/L	99	0-200		2.0	

QC Batch: 0508598 (General Inorganic Prep) Analyzed: 09/09/2005 By: INR

Method Blank			<2.0	mg/L				2.0	
Laboratory Control Sample	238		215	mg/L	90	89-111		2.0	

Analyte: Chloride/USEPA-325.2

QC Batch: 0508581 (General Inorganic Prep) Analyzed: 09/08/2005 By: JLB

Method Blank			<1.0	mg/L				1.0	
Laboratory Control Sample	49.7		50.0	mg/L	101	92-109			

QC Batch: 0508224 (General Inorganic Prep) Analyzed: 08/30/2005 By: JLB

Method Blank			<1.0	mg/L				1.0	
--------------	--	--	------	------	--	--	--	-----	--

Continued on next page

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Chloride/USEPA-325.2 (Continued)

QC Batch: 0508224 (Continued) (General Inorganic Prep) Analyzed: 08/30/2005 By: JLB

Laboratory Control Sample		49.7	49.3	mg/L	99	92-109			
---------------------------	--	------	------	------	----	--------	--	--	--

Analyte: Fluoride/APHA 4500-F C

QC Batch: 0508561 (Method-Specific Preparation) Analyzed: 09/09/2005 By: VAS

Method Blank			<0.10	mg/L				0.10	
--------------	--	--	-------	------	--	--	--	------	--

Laboratory Control Sample		0.288	0.303	mg/L	105	88-116			
---------------------------	--	-------	-------	------	-----	--------	--	--	--

QC Batch: 0508407 (Method-Specific Preparation) Analyzed: 08/31/2005 By: VAS

Method Blank			<0.10	mg/L				0.10	
--------------	--	--	-------	------	--	--	--	------	--

Laboratory Control Sample		0.288	0.292	mg/L	101	88-116		0.10	
---------------------------	--	-------	-------	------	-----	--------	--	------	--

Analyte: Nitrogen, Ammonia/USEPA-350.1

QC Batch: 0508602 (Method-Specific Preparation) Analyzed: 09/09/2005 By: GEH

Method Blank			<0.020	mg/L				0.020	
--------------	--	--	--------	------	--	--	--	-------	--

Laboratory Control Sample		0.810	0.775	mg/L	96	90-110		0.020	
---------------------------	--	-------	-------	------	----	--------	--	-------	--

QC Batch: 0508770 (Method-Specific Preparation) Analyzed: 09/15/2005 By: GEH

Method Blank			<0.020	mg/L				0.020	
--------------	--	--	--------	------	--	--	--	-------	--

Laboratory Control Sample		0.810	0.745	mg/L	92	90-110		0.020	
---------------------------	--	-------	-------	------	----	--------	--	-------	--

Analyte: Nitrogen, Nitrate/USEPA-353.2

QC Batch: 0508455 (Method-Specific Preparation) Analyzed: 09/01/2005 By: HLB

Method Blank			<0.050	mg/L				0.050	
--------------	--	--	--------	------	--	--	--	-------	--

Laboratory Control Sample		0.510	0.519	mg/L	102	90-110		0.050	
---------------------------	--	-------	-------	------	-----	--------	--	-------	--

QC Batch: 0508268 (Method-Specific Preparation) Analyzed: 08/25/2005 By: HLB

Method Blank			<0.050	mg/L				0.050	
--------------	--	--	--------	------	--	--	--	-------	--

Laboratory Control Sample		0.510	0.533	mg/L	105	90-110		0.050	
---------------------------	--	-------	-------	------	-----	--------	--	-------	--

Analyte: Phosphorus, Total/USEPA-365.1

QC Batch: 0508524 (365.1 Digestion) Analyzed: 09/09/2005 By: INR

Method Blank			<0.0100	mg/L				0.0100	
--------------	--	--	---------	------	--	--	--	--------	--

Continued on next page

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: Phosphorus, Total/USEPA-365.1 (Continued)

QC Batch: 0508524 (Continued) (365.1 Digestion) Analyzed: 09/09/2005 By: INR

Laboratory Control Sample	0.400	0.390	mg/L	97	90-110		0.0100
---------------------------	-------	--------------	------	----	--------	--	--------

QC Batch: 0508179 (365.1 Digestion) Analyzed: 08/28/2005 By: INR

Method Blank		<0.0100	mg/L				0.0100
Laboratory Control Sample	0.400	0.397	mg/L	99	90-110		0.0100

Analyte: Residue, Dissolved @ 180° C/USEPA-160.1

QC Batch: 0508443 (General Inorganic Prep) Analyzed: 09/06/2005 By: GEH

Method Blank		<2	mg/L				2
Laboratory Control Sample	1000	998	mg/L	100	0-200		50
Laboratory Control Sample	200	186	mg/L	93	0-200		50

QC Batch: 0508167 (Method-Specific Preparation) Analyzed: 08/26/2005 By: GEH

Method Blank		<2	mg/L				2
Laboratory Control Sample	1000	972	mg/L	97	0-200		50
Laboratory Control Sample	200	182	mg/L	91	0-200		50

Analyte: Sulfate/USEPA-375.4

QC Batch: 0508516 (General Inorganic Prep) Analyzed: 09/08/2005 By: JLB

Method Blank		<5.0	mg/L				5.0
Laboratory Control Sample	23.8	24.4	mg/L	103	85-113		

QC Batch: 0508227 (General Inorganic Prep) Analyzed: 08/30/2005 By: JLB

Method Blank		<5.0	mg/L				5.0
Laboratory Control Sample	23.8	25.7	mg/L	108	85-113		

QC Batch: 0508349 (General Inorganic Prep) Analyzed: 08/30/2005 By: JLB

Method Blank		<1.0	mg/L				1.0
Laboratory Control Sample	11.9	12.8	mg/L	108	85-113		

Analyte: Sulfide/USEPA-376.1

QC Batch: 0508735 (Method-Specific Preparation) Analyzed: 09/07/2005 By: HLB

Method Blank		<1.0	mg/L				1.0
--------------	--	------	------	--	--	--	-----

Continued on next page

QUALITY CONTROL REPORT

Physical/Chemical Parameters by EPA/APHA/ASTM Methods (Continued)

QC Type	Sample Conc.	Spike Qty.	Result	Unit	Spike % Rec.	Control Limits	RPD	RPD Limits	RL
---------	--------------	------------	--------	------	--------------	----------------	-----	------------	----

Analyte: **Sulfide/USEPA-376.1 (Continued)**

QC Batch: 0508735 (Continued) (Method-Specific Preparation) Analyzed: 09/07/2005 By: HLB

Laboratory Control Sample	11.6	11.4	mg/L	98	97-103	1.0
---------------------------	------	-------------	------	----	--------	-----

QC Batch: 0508397 (Method-Specific Preparation) Analyzed: 08/27/2005 By: HLB

Method Blank		<1.0	mg/L			1.0
Laboratory Control Sample	12.2	12.2	mg/L	100	80-120	1.0

STATEMENT OF DATA QUALIFICATIONS**Dissolved Metals by EPA 6000/7000 Series Methods**

Qualification: The % difference in results between the sample and a serial dilution of the sample exceeded the control limit. Sample matrix interference is suspected and the reported result is considered estimated.

Analysis: USEPA-6010B

Sample/Analyte: 0508366-02 QALM008D EAG-1001471 Sodium

Qualification: This analyte was not present in this sample at a concentration greater than 50 times the MDL, therefore serial dilution is not required.

Analysis: USEPA-6010B

Sample/Analyte: 0508366-01 QALM008A EAG-1001470 Potassium
0508366-02 QALM008D EAG-1001471 Strontium

Qualification: The MS or MSD recovery, but not both, was outside the control limit. The RPD is within the control limit. The unspiked sample result is not qualified.

Analysis: USEPA-6010B

Sample/Analyte: 0508366-02 QALM008D EAG-1001471 Strontium

STATEMENT OF DATA QUALIFICATIONS**Physical/Chemical Parameters by EPA/APHA/ASTM Methods**

Qualification: The MS and/or MSD recovery was outside the control limit. The non-spiked sample result is considered estimated.

Analysis: USEPA-375.4

Sample/Analyte: 0508366-03 QALM009A EAG-1001472

Sulfate

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
	Cr Diss 6020	(Water)	Special Units Used This is a modified report
	Pb Diss 6020	(Water)	Special Units Used
	Nitrogen, NQ3 353.2	(Water)	Special Units Used
	Nitrogen, Ammonia 350	(Water)	Special Units Used
	Ni Diss 6020	(Water)	Special Units Used
	Na Diss 6010B	(Water)	Special Units Used
	Mo Diss 6020	(Water)	Special Units Used
	Mn Diss 6010B	(Water)	Special Units Used
	Mg Diss 6010B	(Water)	Special Units Used
	Li Diss 6010B	(Water)	Special Units Used
	K Diss 6010B	(Water)	Special Units Used
	Fluoride 4500-F C	(Water)	Special Units Used
	Sb Diss 6020	(Water)	Special Units Used
	Cu Diss 6020	(Water)	Special Units Used
	Se Diss 6020	(Water)	Special Units Used
	Co Diss 6010B	(Water)	Special Units Used
	Chloride 325.2	(Water)	Special Units Used
	Cd Diss 6020	(Water)	Special Units Used
	Ca Diss 6010B	(Water)	Special Units Used
	Be Diss 6020	(Water)	Special Units Used
	Ba Diss 6020	(Water)	Special Units Used
	B Diss 6010B	(Water)	Special Units Used
	As Diss 6020	(Water)	Special Units Used
	Alkalinity, Total 310.1	(Water)	Special Units Used
	Alkalinity, Carbonate 31	(Water)	Special Units Used
	Al Diss 6010B	(Water)	Special Units Used
	Ag Diss 6020	(Water)	Special Units Used
	Fe Diss 6010B	(Water)	Special Units Used
0508770-MSD4	Nitrogen, Ammonia 350	Nitrogen, Ammonia	Exceeds lower control limit
0508217-MSD1	B Diss 6010B	Boron	Spike recovery below MDL
0508217-MS1	B Diss 6010B	Boron	Spike recovery below MDL
5083107-CRL1	K Diss 6010B	Potassium	GN020
0508366-03	Sulfate 375.4	Sulfate	MS001
0508366-02	Sr Diss 6010B	Strontium	MS006
0508366-02	Sr Diss 6010B	Strontium	ME007
0508366-02	Na Diss 6010B	Sodium	ME002

The total number of pages in this report, including this page, is 2.

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
0508366-01	K Diss 6010B	Potassium	ME007
5083107-SRD3	K Diss 6010B	Potassium	Exceeds RPD limit
5083010-SRD1	Na Diss 6010B	Sodium	Exceeds RPD limit
5083010-SRD1	Sr Diss 6010B	Strontium	Exceeds RPD limit
5091539-CRL1	Nitrogen, Ammonia 350	Nitrogen, Ammonia	Exceeds upper control limit
	Phosphorus, Total 365.1	(Water)	Special Units Used
0508145-MSD1	Sr Diss 6010B	Strontium	Exceeds upper control limit
0508217-BS1	B Diss 6010B	Boron	Spike recovery below MDL
0508770-MS4	Nitrogen, Ammonia 350	Nitrogen, Ammonia	Exceeds lower control limit
0508770-MSD5	Nitrogen, Ammonia 350	Nitrogen, Ammonia	Exceeds lower control limit
0508770-MS5	Nitrogen, Ammonia 350	Nitrogen, Ammonia	Exceeds lower control limit
0508349-MSD1	Sulfate 375.4	Sulfate	Exceeds lower control limit
0508349-MS1	Sulfate 375.4	Sulfate	Exceeds lower control limit
5083104-CRL1	Nitrogen, NO3 353.2	Nitrogen, Nitrate	Exceeds lower control limit
0508516-MSD3	Sulfate 375.4	Sulfate	Exceeds lower control limit
	Zn Diss 6020	(Water)	Special Units Used
	Sulfide 376.1	(Water)	Special Units Used
	Sulfate 375.4	(Water)	Special Units Used
	Sr Diss 6010B	(Water)	Special Units Used
	Solids, TDS 160.1	(Water)	Special Units Used
5083107-CRL1	K Diss 6010B	Potassium	Exceeds upper control limit



5560 Corporate Exchange Court SE Grand Rapids, MI 49512
Phone (616) 975-4500 Fax (616) 942-7463
www.trimatrixlabs.com

Chain of Custody Record

COC No.

17426b

Page ____ of ____

Analyses Requested

[illegible]



BROOKSRAND
TRACE METALS ANALYSIS & PRODUCTS

September 26, 2005

North Jackson Company
Attn.: Peter Sabee
PO Box 218
1004 Harbor Hills, Suite 102
Marquette, MI 49855

RE: Brooks Rand Project: NJC002; Tracking #: 05BR1288
Lab Services Agreement 101201nj01; Client Project: Eagle

Dear Mr. Sabee:

This report is for the mercury analysis of fifteen (15) water samples collected 8/16/05, 8/17/05, and 8/24/05. These samples were received at Brooks Rand LLC (BRL) on 8/26/05 and assigned the BRL internal tracking number 05BR1288.

These samples were received, stored, prepared and analyzed according to BRL standard operating procedures (SOPs) and EPA Method 1631E. All results were blank corrected, as outlined in the calculations section of EPA Method 1631E. Sample results below the method detection limit (MDL) were qualified "U" for non-detect and were reported at the MDL. Sample results above the MDL and below the practical quantitation limit (PQL) were qualified "B" and should be considered estimates. All QA criteria were met and no additional qualification of the data was required. Brooks Rand certifies that the reported test results meet all requirements of NELAC. Brooks Rand is a NELAC Accredited laboratory (NYS ELAP ID 11688).

If there are any questions please feel free to contact us.

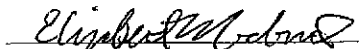
Sincerely,

Mariah Berry
Project Coordinator
mariah@brooksrand.com

Elizabeth Madonick
Project Manager
elizabeth@brooksrand.com

Reported by**Brooks Rand LLC****Contact: Elizabeth Madonick****3958 6th Avenue NW****Seattle, WA 98107****Tel: 206-632-6206 Fax: 206-632-6017****Summary of Results for****North Jackson Company****Contact: Dan Wiitala****PO Box 218****Marquette MI 49855****Tel: 906.225.6787****Lab Project # NJC002****Lab Tracking # 05BR1288****Lab Services Agreement 101201NJ01****Client Project Eagle****Sample/Sampling/Receiving Info****North Jackson Company****BRL**

Sample Identification	Sampling Date	Sample Number	Receiving Date
QALM004A	8/17/2005	05BR1288 - 1	8/30/2005
QALM004D	8/17/2005	05BR1288 - 2	8/30/2005
QALM005A	8/17/2005	05BR1288 - 3	8/30/2005
QALM005D	8/17/2005	05BR1288 - 4	8/30/2005
DUPM001	8/24/2005	05BR1288 - 5	8/30/2005
QALM006A	8/17/2005	05BR1288 - 6	8/30/2005
QALM006B	8/17/2005	05BR1288 - 7	8/30/2005
QALM008A	8/24/2005	05BR1288 - 8	8/30/2005
QALM008D	8/24/2005	05BR1288 - 9	8/30/2005
QALM009A	8/24/2005	05BR1288 - 10	8/30/2005
QALM009D	8/16/2005	05BR1288 - 11	8/30/2005
QALM031D	8/24/2005	05BR1288 - 12	8/30/2005
DUPM002	8/16/2005	05BR1288 - 13	8/30/2005
EQBM001	8/24/2005	05BR1288 - 14	8/30/2005
EQBM002	8/24/2005	05BR1288 - 15	8/30/2005

Friday, October 07, 2005
Project Manager

Reported by**Brooks Rand LLC****Contact:** Elizabeth Madonick

3958 6th Avenue NW

Seattle, WA 98107

Tel: 206-632-6206 Fax: 206-632-6017

Summary of Results for**North Jackson Company****Contact:** Dan Wiitala

PO Box 218

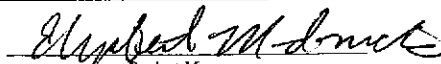
Marquette MI 49855

Tel: 906.225.6787

Lab Project # NJC002**Lab Tracking #** 05BR1288**Lab Services Agreement** 101201NJ01**Client Project** Eagle**Hg**

Sample Identification	BRL Number	Preparation date	Analysis date	Batch #	Result	Units	Qualifier (Q)
QALM004A	05BR1288 - 1	9/12/2005	9/21/2005	05-0693	0.100	ng/L	U
QALM004D	05BR1288 - 2	9/12/2005	9/21/2005	05-0693	0.170	ng/L	B
QALM005A	05BR1288 - 3	9/12/2005	9/21/2005	05-0693	0.180	ng/L	B
QALM005D	05BR1288 - 4	9/12/2005	9/21/2005	05-0693	0.100	ng/L	U
DUPM001	05BR1288 - 5	9/12/2005	9/21/2005	05-0693	0.110	ng/L	B
QALM006A	05BR1288 - 6	9/12/2005	9/21/2005	05-0693	0.420	ng/L	
QALM006B	05BR1288 - 7	9/12/2005	9/21/2005	05-0693	0.100	ng/L	U
QALM008A	05BR1288 - 8	9/12/2005	9/21/2005	05-0693	0.110	ng/L	B
QALM008D	05BR1288 - 9	9/12/2005	9/21/2005	05-0693	0.240	ng/L	B
QALM009A	05BR1288 - 10	9/12/2005	9/21/2005	05-0693	0.110	ng/L	B
QALM009D	05BR1288 - 11	9/12/2005	9/21/2005	05-0693	0.450	ng/L	
QALM031D	05BR1288 - 12	9/12/2005	9/21/2005	05-0693	0.120	ng/L	B
DUPM002	05BR1288 - 13	9/12/2005	9/21/2005	05-0693	0.300	ng/L	
EQBM001	05BR1288 - 14	9/12/2005	9/21/2005	05-0693	0.210	ng/L	B
EQBM002	05BR1288 - 15	9/12/2005	9/21/2005	05-0693	0.170	ng/L	B

Friday, October 07, 2005


Project Manager

QUALITY ASSURANCE REPORT

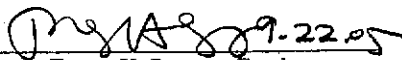
Batch: 05-0693
Analysis: Mercury by EPA 1631.E (CVAFS)
Tracking: 05BR1265, 05BR1307 & 05BR1288
Project: ADQ003, NJC001 & NJC002
Matrix: Water
Batch Size: 20 samples
Analysis Date: September 21, 2005

- 1 **SAMPLE PREPARATION** – Acceptable
- 2 **CALIBRATION** – Acceptable
- 3 **CALIBRATION VERIFICATION** – Acceptable
- 4 **QUALITY CONTROL SAMPLES** – Acceptable
- 5 **BLANKS** – Acceptable
- 6 **METHOD DUPLICATE ANALYSIS** – Not Applicable
- 7 **SPIKE / SPIKE DUPLICATE ANALYSIS** – Acceptable
- 8 **LIMITS OF DETECTION** – Acceptable, see section 9
- 9 **OVERALL DATA QUALITY** – Acceptable

Sample results have been evaluated using sample specific or client requested detection limits that may have been adjusted to account for sample aliquot size. Refer to the QA Summary for detection limits for affected samples.

No qualification of the data is required based on this review.

I certify that, to the best of my knowledge and belief, the data are reported as true and accurate. The Laboratory Director, or her designee, has authorized release of data contained in this Quality Assurance Report as verified by the following signature(s).



Tressa K. Pearson-Franks
Quality Assurance Associate

BRL QA Summary

Batch #: 05-0693

Method #: EPA 1631.E

Analyte: Hg

Matrix: Water

BIAS Criteria: Recovery = 77-123% Continuing Calibration Verification (CCV)			
QCS ID	Certified Value ng/L	Measured Value ng/L	Recovery %
CCV1	5.00	5.08	101.6%
CCV2	5.00	4.96	99.1%
CCV3	5.00	4.82	96.3%
CCV4	5.00	4.85	97.0%
CCV5	5.00	4.67	93.3%

BIAS Criteria: Recovery = 85-115% Independent Calibration Verification (ICV)			
QCS ID	Certified Value ng/L	Measured Value ng/L	Recovery %
ICV*	16.01	15.41	96.3%

* Preparation of the CRM NIST 1641d.

BIAS Criteria: Recovery = 71-125%, RPD < 24% Matrix Spikes/Matrix Spike Duplicates (MS/MSD)								
Sample ID	Sample Value ng/L	Matrix Spike			Matrix Spike Duplicate			Duplicate RPD
		Spiked Value ng/L	Measured Value ng/L	MS Recovery %	Spiked Value ng/L	Measured Value ng/L	MSD Recovery %	
05BR1307-4	90.31	204.1	287.4	96.6%	204.1	291.4	98.5%	1.4%
05BR1288-4	-0.19	1.01	0.79	97.8%	1.00	0.82	101.3%	3.8%

0.5% BrCl Method Blanks (MB) Criterion: MB < 0.5 ng/L					Detection Limits	
MB1	MB2	MB3	Average	StDev	MB MDL	MB PQL
ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
0.32	0.05	0.07	0.15	0.16	0.10	0.25

0.5% BrCl MB analyzed in triplicate.

Average MB result multiplied by appropriate factor to produce correction factor for each sample preservation BrCl level.

Sample Specific Detection Limits		
Sample ID	MDL ng/L	PQL ng/L
05BR1288-7	0.10	0.26
05BR1307-2	0.10	0.26
05BR1307-4	1.0	2.6
05BR1307-6	1.0	2.6

9/22/2005

Elisabeth McDonald
Project Manager

Brooks Rand LLC Sample Receiving Log

Tracking # **05BR1288**

Customer: North Jackson Company

Contact: Peter Sabee

Project Ref. #: NJC002

Project Mgr: Elizabeth Madonick

Collection Date: 8/16/05 - 8/24/2005

QA Level: Standard

Sample Condition: intact

Shipping container intact? Yes

Shipping container type: Cardboard Box

Shipping container temp: ambient

Shipping container coolant: none

Sample preservation:

Acid lab #

Hg Concentration:

Sample storage area: Cabinet #2

Sample Turnaround Time:

Contract Turnaround Time: 28 days

Due Date: 9/27/2005

Receiving Date: 8/30/2005

Receiving Time: 11:58 AM

Logged-in by: Stuart Brown

Log-In Date: 8/30/2005

Log-in Time: 4:55 PM

Airbill present? Yes

Airbill #: 791184841365

Carrier: Fedex

Custody seal present? No

Custody seal intact? No

COC Present? Yes

COC Number: N/A

Analysis request form? No

COC/Sample tag agree? Yes

See SOW No See Project Manager No

See Memo No See Lab Manager No

Consult MSDS No See Contract Info No

Comments:

Bottle washing dates were illegible shipment contained 10 250mL FPE bottles and 5 500mL FPE bottles

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
1	QALM004A	FPE	500 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
2	QALM004D	FPE	500 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
3	QALM005A	FPE	500 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
4	QALM005D	FPE	500 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
5	DUPM001	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
6	QALM006A	FPE	500 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			

Lab ID:	Sample Tag #	Container #	Size:	pH	Matrix/Sub-Matrix	Comments:
7	QALM006B	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
8	QALM008A	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
9	QALM008D	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
10	QALM009A	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
11	QALM009D	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
12	QALM031D	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
13	DUPM002	FPE	250 mL Bottle		Water,	
Analysis / Method:		Hg	EPA 1631			
14	EQBM001	FPE	250 mL Bottle		Water,	Do not spike
Analysis / Method:		Hg	EPA 1631			
15	EQBM002	FPE	250 mL Bottle		Water,	Do not spike
Analysis / Method:		Hg	EPA 1631			


 Sample Custodian signature

8/30/05
 Date

Brooks Rand LLC Chain Of Custody Record

Page 1 of 2

Client: <u>North Jackson Company</u>		Email address: <u>d.witala@northjackson.com</u>		Ship to: Brooks Rand LLC	
Contact: <u>D. Witala</u>		PO #: <u>Eagle</u>		3958 6 th Avenue NW	
Address: <u>PO Box 218</u> <u>Marquette MI 49855</u>		Sampler's signatures: <u>[Signature]</u> <u>Richard R Eagle</u>		Seattle, WA 98107	
Phone #: <u>906-225-6787</u>		Fax COC for receipt confirmation? (Y / N)		Phone: 206-632-6206	
Fax #: <u>906-225-6769</u>		Client project ID: <u>Eagle</u>		Fax: 206-632-6017	
		BRL project ID: <u>115C007</u>		Email: <u>brl@brooksrnd.com</u>	
For BRL use only		Cooler temp (°C):		Custody seals present? (Y / N)	
				Custody seals intact? (Y / N)	
				Date:	
				Initials:	

Sample ID	Collection		Miscellaneous			Field Preservation				Analyses required				Comments		
	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Unpreserved or ice only	HNO ₃	HCl	BrCl	Other (specify)					
1. QALM004A	8/12/05	1420	RRE	Wtr	1	Y	I					X				EAG-1001464
2. QALM004D		1220	RRE													EAG-1001465
3. QALM005A		1520														EAG-1001466
4. QALM005D		1600														EAG-1001467
5. QALM006A		1007														EAG-1001468
6. QALM006B		1030														EAG-1001469
7. QALM008A	8/24/05	1228														EAG-1001470
8. QALM008D		1150														EAG-1001471
9. QALM009A		1330														EAG-1001472
10. QALM009D	8/11/05	1600														EAG-1001473

Shipping carrier: <u>Fed Ex</u>		# of coolers: <u>Box</u>	
Relinquished by: <u>[Signature]</u>	Date: <u>8/26/05</u>	Time: <u>1200</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>Richard R Eagle</u>	Date: <u>8/26/05</u>	Time: <u>12:00</u>	Received by: <u>[Signature]</u>

White: LAB COPY

Yellow: CUSTOMER COPY

Brooks Rand LLC Chain Of Custody Record

Page 2 of 2

Client:		Email address:		Ship to: Brooks Rand LLC	
Contact:		PO #:		3958 6 th Avenue NW	
Address: <i>see p. 1</i>		Sampler's signatures: <i>Richard R. Engle</i>		Seattle, WA 98107	
		Fax COC for receipt confirmation? (Y / N)		Phone: 206-632-6206	
Phone #:		Client project ID:		Fax: 206-632-6017	
Fax #:		BRL project ID: <i>115002</i>		Email: brl@brooksrnd.com	
For BRL use only		Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date: Initials:

Sample ID	Collection		Miscellaneous			Field Preservation				Analyses required						Comments			
	Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Unpreserved or ice only	HNO ₃	HCl	BrCl	Other (specify)	Trace Hg							
1	QALM031D	8/24/05 1030	RRE	WAT	1	Y	Ice						X						EAG-1001474
2	DUPM001	8/24/05																	EAG-1001475
3	DUPM002	8/16/05																	EAG-1001476
4	EQBM001	8/24/05 1130																	EAG-1001477
5	EQBM002	↓ 1200																	EAG-1001478
6																			
7																			
8																			
9																			
10																			

Shipping carrier:		# of coolers: <i>Box</i>	
Relinquished by: <i>Sam M...</i>	Date: <i>8/24/05</i>	Time: <i>12:00</i>	Received by: <i>Sam M...</i>
Relinquished by: <i>Richard R. Engle</i>	Date: <i>8/24/05</i>	Time: <i>12:00</i>	Received by: <i>Sam M...</i>

White: LAB COPY

Yellow: CUSTOMER COPY

Appendix F
Laboratory Reports
Soil Boring Sample Identification
Eagle Project

Location / Boring No.	Sample No.	Depth (ft)	KEX ID	Sample Date	Note
QAL038	QALB038	0	EAG-1001481	7/13/05	
QAL038	QALB038	2	EAG-1001482	7/13/05	
QAL038	QALB038	4	EAG-1001483	7/13/05	
QAL031	QALB031	5	EAG-1001484	7/13/05	
QAL038	QALB038	6	EAG-1001485	7/13/05	
QAL038	QALB038	8	EAG-1001486	7/13/05	
QAL036	QALB036	7	EAG-1001487	7/12/05	
QAL037	QALB037	6	EAG-1001488	7/12/05	
QAL039	QALB039	7	EAG-1001489	7/12/05	
QAL040	QALB040	7	EAG-1001490	7/13/05	
QAL041	QALB041	5	EAG-1001491	7/14/05	
QAL042	QALB042	7	EAG-1001492	7/14/05	
QAL031	QALB031	44	EAG-1001493	8/3/05	
QAL036	QALB036	60	EAG-1001494	8/3/05	
QAL031	QALB031	61	EAG-1001495	8/3/05	
QAL031	QALB031	79	EAG-1001496	8/3/05	
QAL036	QALB036	80	EAG-1001497	8/3/05	
QAL036	QALB036	87	EAG-1001498	8/3/05	
QAL036	QALB036	91	EAG-1001499	8/3/05	
QAL036	QALB036	103	EAG-1001500	8/3/05	
QAL031	QALB031	106	EAG-1001501	8/3/05	
QAL031	QALB031	111	EAG-1001502	8/3/05	
QAL036	QALB036	120	EAG-1001503	8/3/05	
QAL031	QALB031	123	EAG-1001504	8/3/05	
QAL041	QALB041	18	EAG-1001505	7/29/05	
QAL041	QALB041	37	EAG-1001506	7/29/05	
QAL041	QALB041	55	EAG-1001507	7/29/05	
QAL041	QALB041	80	EAG-1001508	7/29/05	
QAL041	QALB041	105	EAG-1001509	7/29/05	
QAL034	QALB034	50	EAG-1001510	8/1/05	Sample rejected because lab noted sample was disturbed.
QAL029	QALB029	50	EAG-1001511	7/27/05	Sample rejected because lab noted sample was disturbed.
QAL029	QALB029	55	EAG-1001512	7/27/05	

Grain Size Distribution ASTM D422

Job No. : **5436**

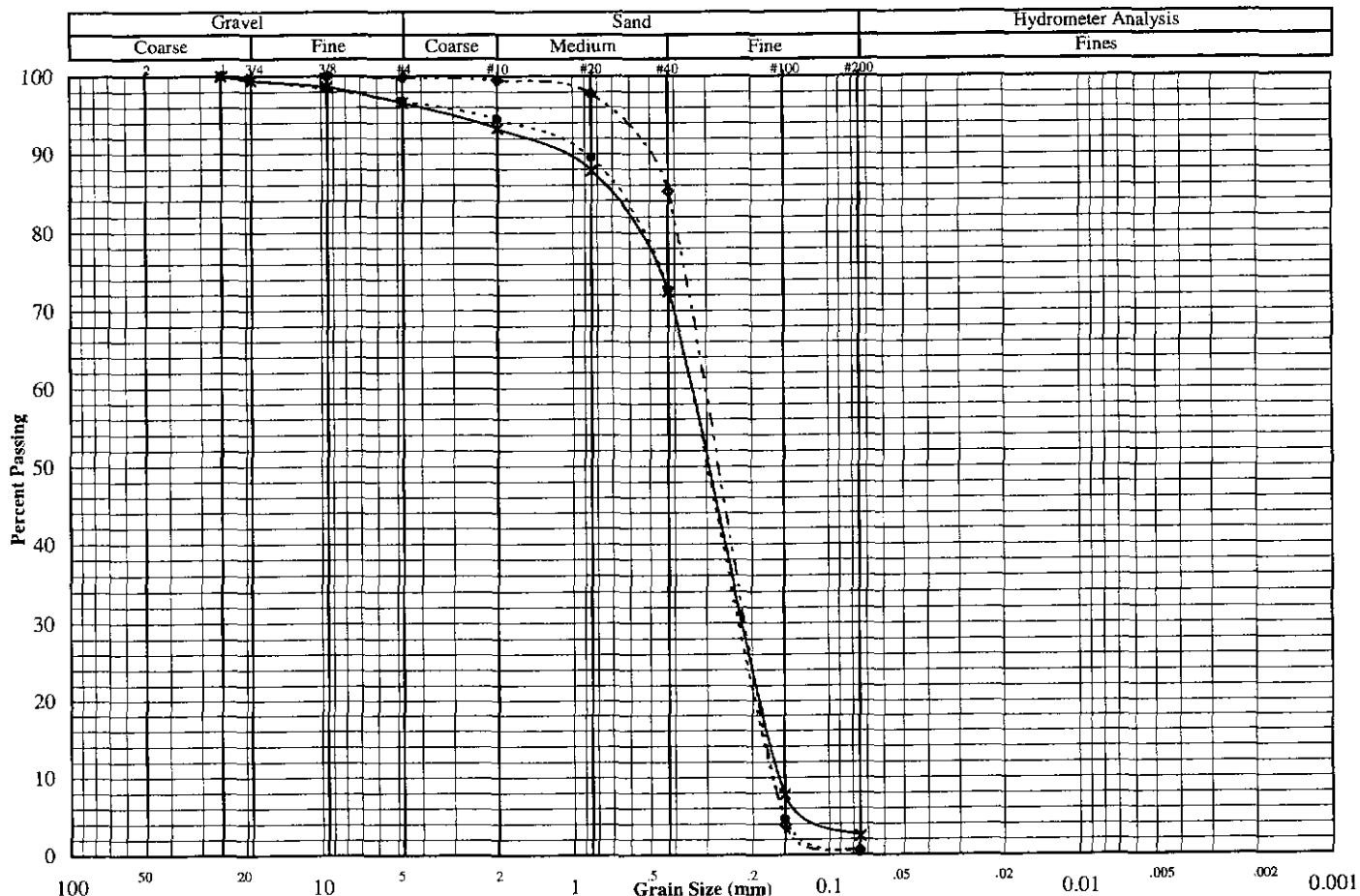
Project: Eagle

Test Date: 8/15/05

Reported To: North Jackson Company

Report Date: 8/17/05

Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
* QALB038	EAG-1001481	0	Bag	Sand w/a trace of gravel, fine grained (SP)
• QALB038	EAG-1001482	2	Bag	Sand w/a trace of gravel, fine grained (SP)
◇ QALB038	EAG-1001483	4	Bag	Sand, fine grained (SP)



Other Tests

	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

(* = assumed)

Percent Passing

Mass (g)	*	•	◇
2657.0			
2719.0			
3571.0			
2"			
1.5"			
1"	100.0	100.0	
3/4"	99.4	99.5	
3/8"	98.6	98.3	100.0
#4	96.5	96.8	99.8
#10	93.3	94.5	99.5
#20	87.8	89.5	97.7
#40	72.4	72.7	85.2
#100	7.8	4.6	3.9
#200	2.4	0.3	0.6

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

Grain Size Distribution ASTM D422

Job No. : **5436**

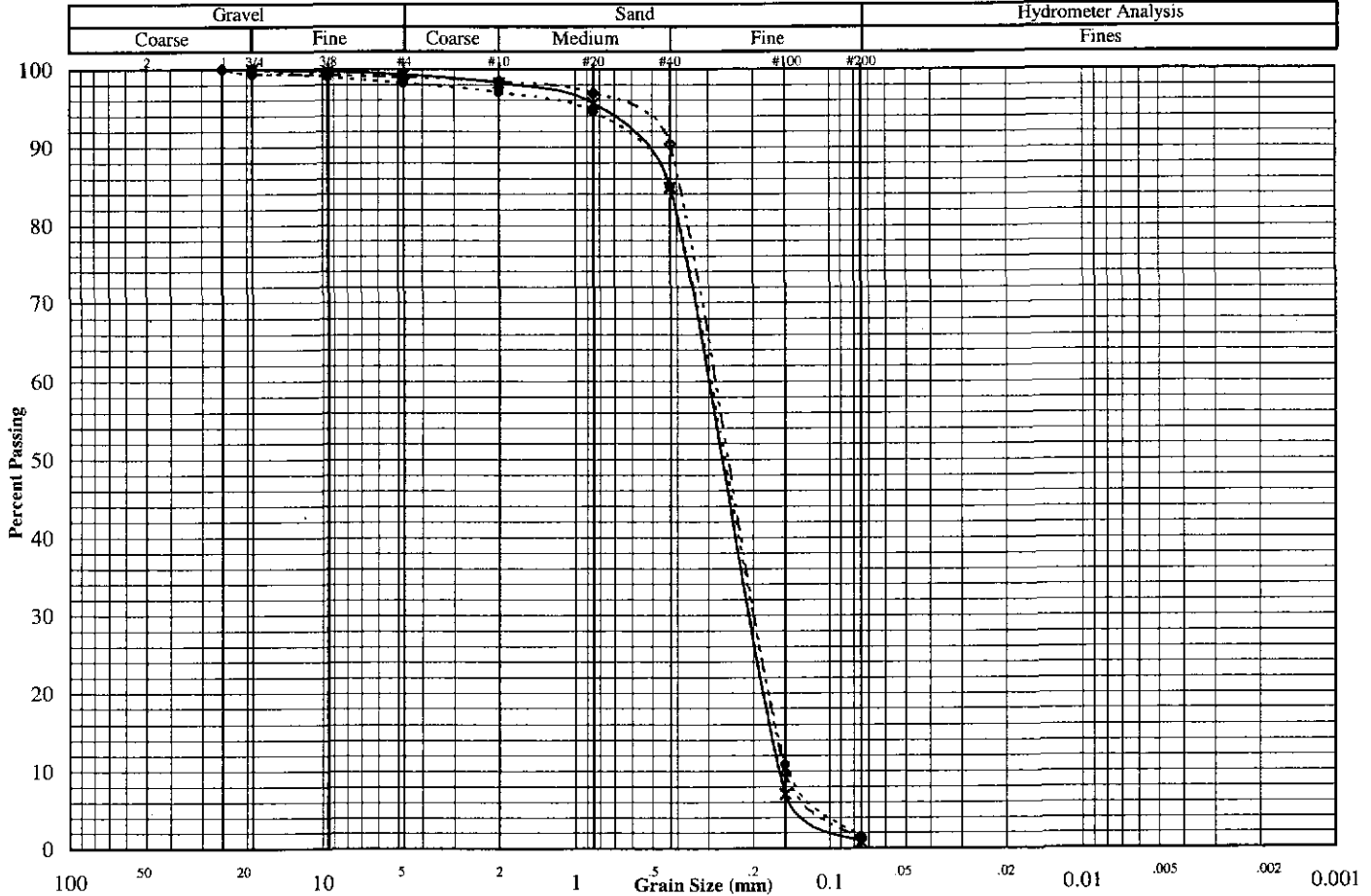
Project: Eagle

Test Date: 8/15/05

Reported To: North Jackson Company

Report Date: 8/17/05

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	QALB031	EAG-1001484	5	Bag	Sand, fine grained (SP)
•	QALB038	EAG-1001485	6	Bag	Sand, fine grained (SP)
◇	QALB038	EAG-1001486	8	Bag	Sand, fine grained (SP)



Other Tests

	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psi)			

(* = assumed)

Percent Passing

	*	•	◇
Mass (g)	3638.0	3662.0	3770.0
2"			
1.5"			
1"			100.0
3/4"	100.0	100.0	99.4
3/8"	99.7	99.0	99.3
#4	99.3	98.2	99.0
#10	98.2	97.0	98.4
#20	95.6	94.5	96.9
#40	84.9	85.0	90.4
#100	7.0	10.8	9.8
#200	0.9	1.5	1.2

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

Grain Size Distribution ASTM D422

Job No. : **5436**

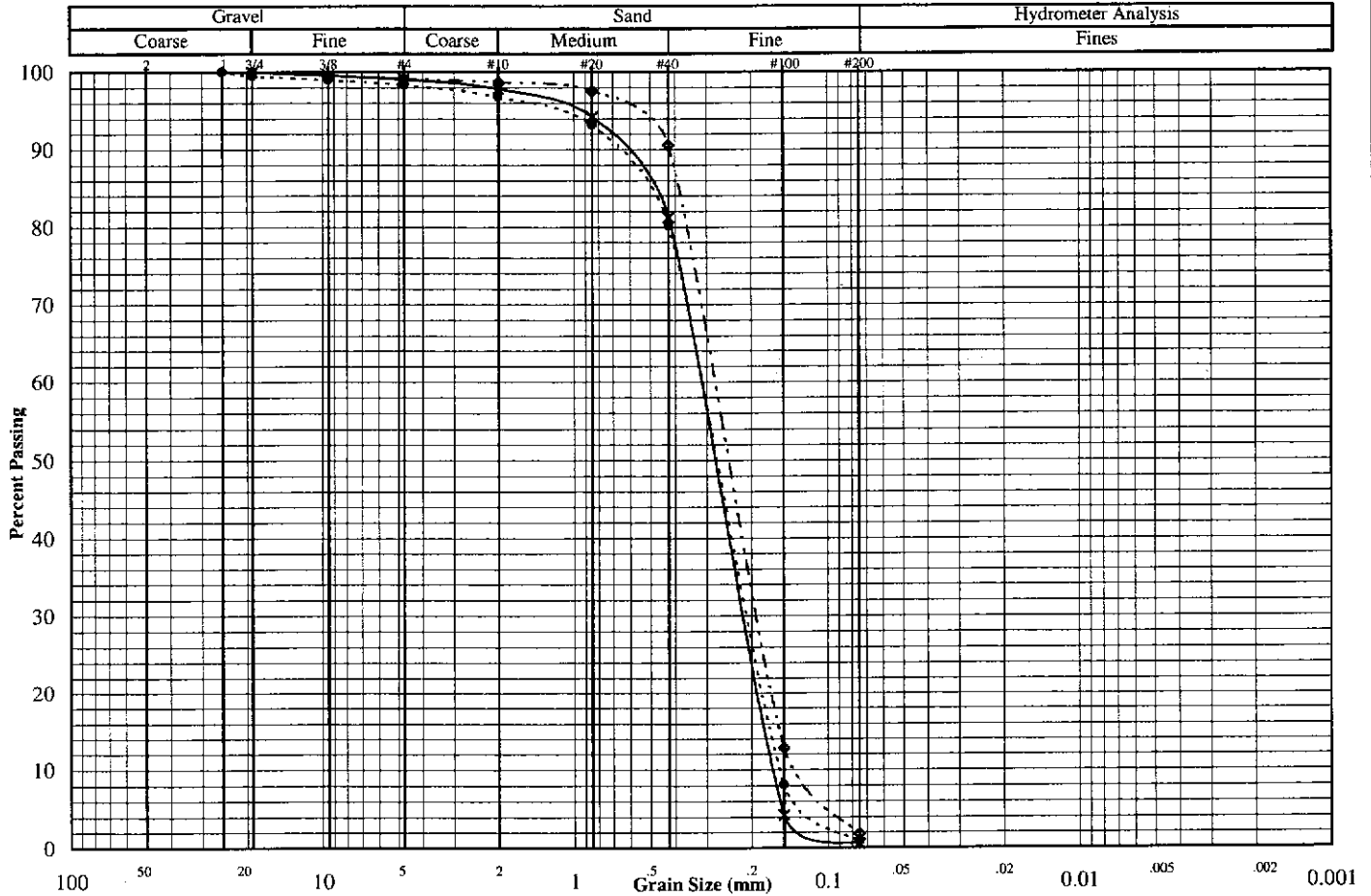
Project: Eagle

Test Date: 8/15/05

Reported To: North Jackson Company

Report Date: 8/17/05

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	QALB036	EAG-1001487	7	Bag	Sand, fine grained (SP)
•	QALB037	EAG-1001488	6	Bag	Sand, fine grained (SP)
◇	QALB039	EAG-1001489	7	Bag	Sand, fine grained (SP)



Other Tests

	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

(* = assumed)

Percent Passing

	*	•	◇
Mass (g)	3187.0	3408.0	3471.0
2"			
1.5"			
1"		100.0	
3/4"	100.0	99.5	100.0
3/8"	99.5	99.0	99.6
#4	99.0	98.3	99.2
#10	97.8	96.8	98.7
#20	94.3	93.2	97.5
#40	81.2	80.2	90.6
#100	4.3	8.1	12.8
#200	0.5	0.8	1.8

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

Grain Size Distribution ASTM D422

Job No. : 5436

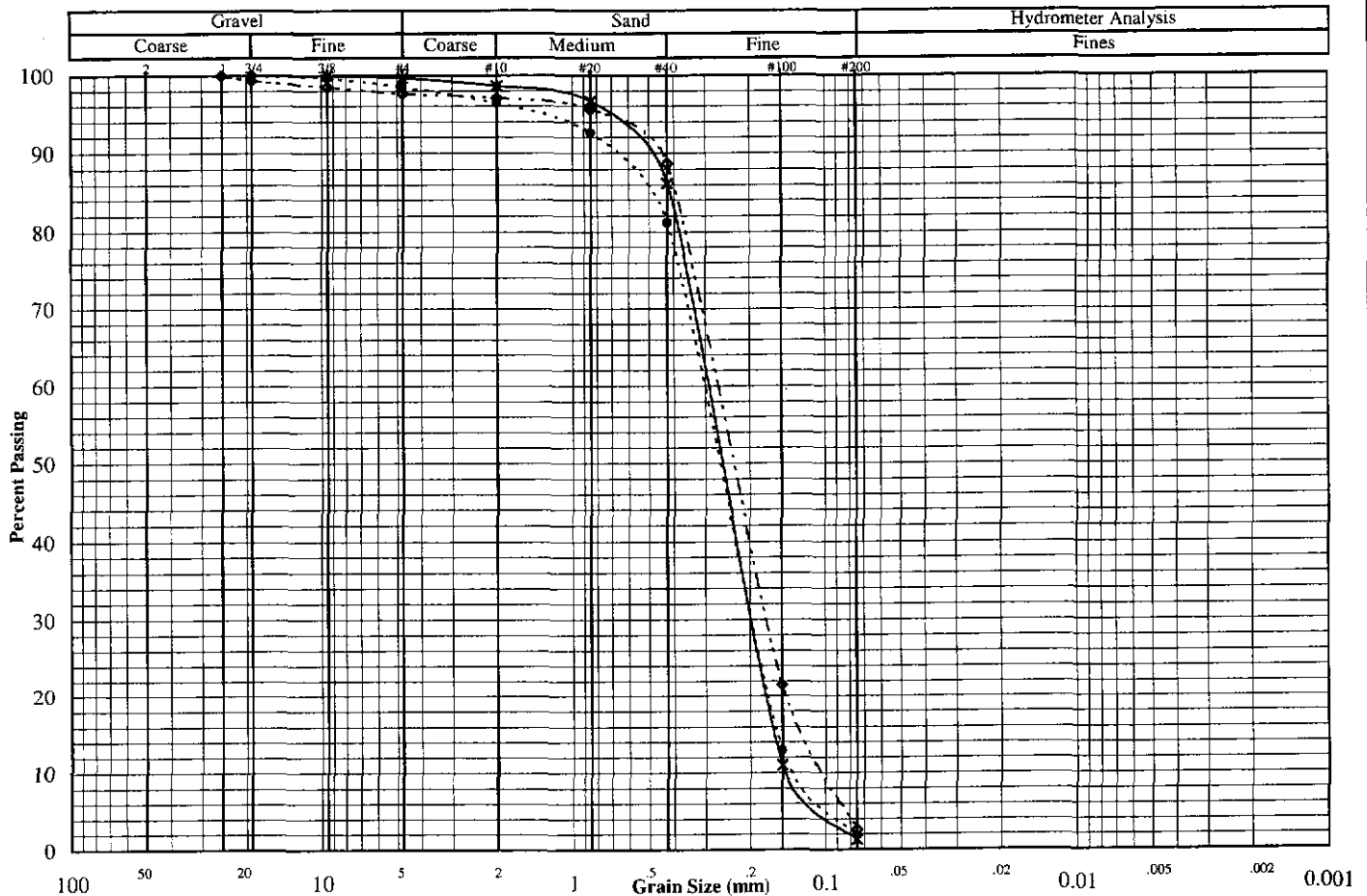
Project: Eagle

Test Date: 8/15/05

Reported To: North Jackson Company

Report Date: 8/17/05

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	QALB040	EAG-1001490	7	Bag	Sand, fine grained (SP)
•	QALB041	EAG-1001491	5	Bag	Sand, fine grained (SP)
◇	QALB042	EAG-1001492	7	Bag	Sand w/a trace of gravel, fine grained (SP)



Other Tests

	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

(* = assumed)

Percent Passing

	*	•	◇
Mass (g)	3654.0	3322.0	3730.0
2"			
1.5"			
1"			100.0
3/4"		100.0	99.4
3/8"	100.0	99.7	98.5
#4	99.7	98.5	97.6
#10	98.6	96.4	97.0
#20	96.6	92.6	95.6
#40	86.2	81.2	88.7
#100	11.0	12.8	21.5
#200	1.3	1.8	2.6

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

9301 Bryant Ave. South, Suite 107

SOIL
ENGINEERING
TESTING, INC.

Bloomington, Minnesota 55420-3436

Grain Size Distribution ASTM D422

Job No. : 5436

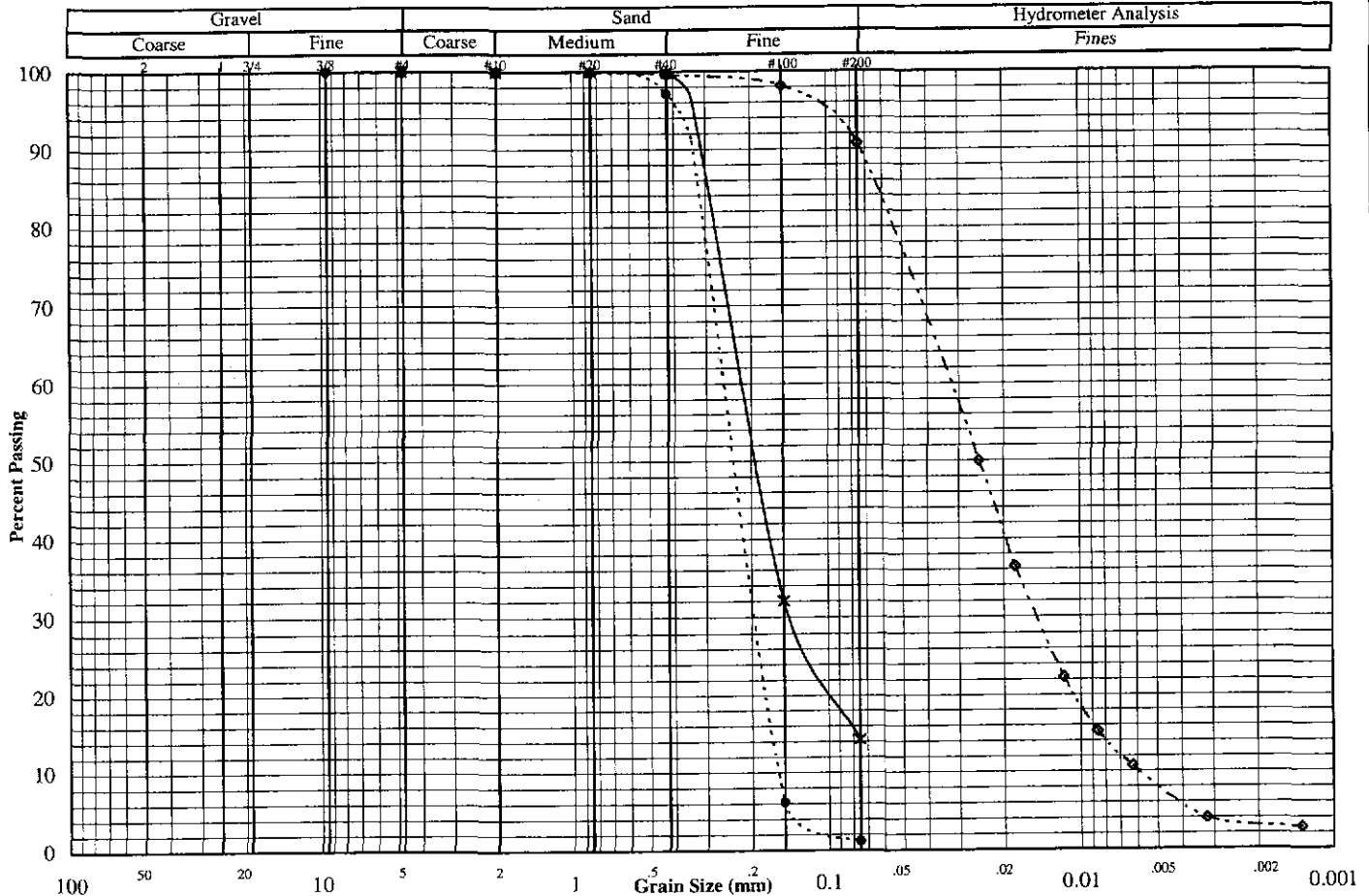
Project: Eagle

Test Date: 8/12/05

Reported To: North Jackson Company

Report Date: 8/18/05

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	QALB031	EAG-1001493	44	Bag	Silty Sand (SM/SP-SM)
•	QALB036	EAG-1001494	60	Bag	Sand, fine grained (SP)
◇	QALB031	EAG-1001495	61	Bag	Silt (ML/CL-ML)



Grain Size Distribution ASTM D422

Job No.: **5436**

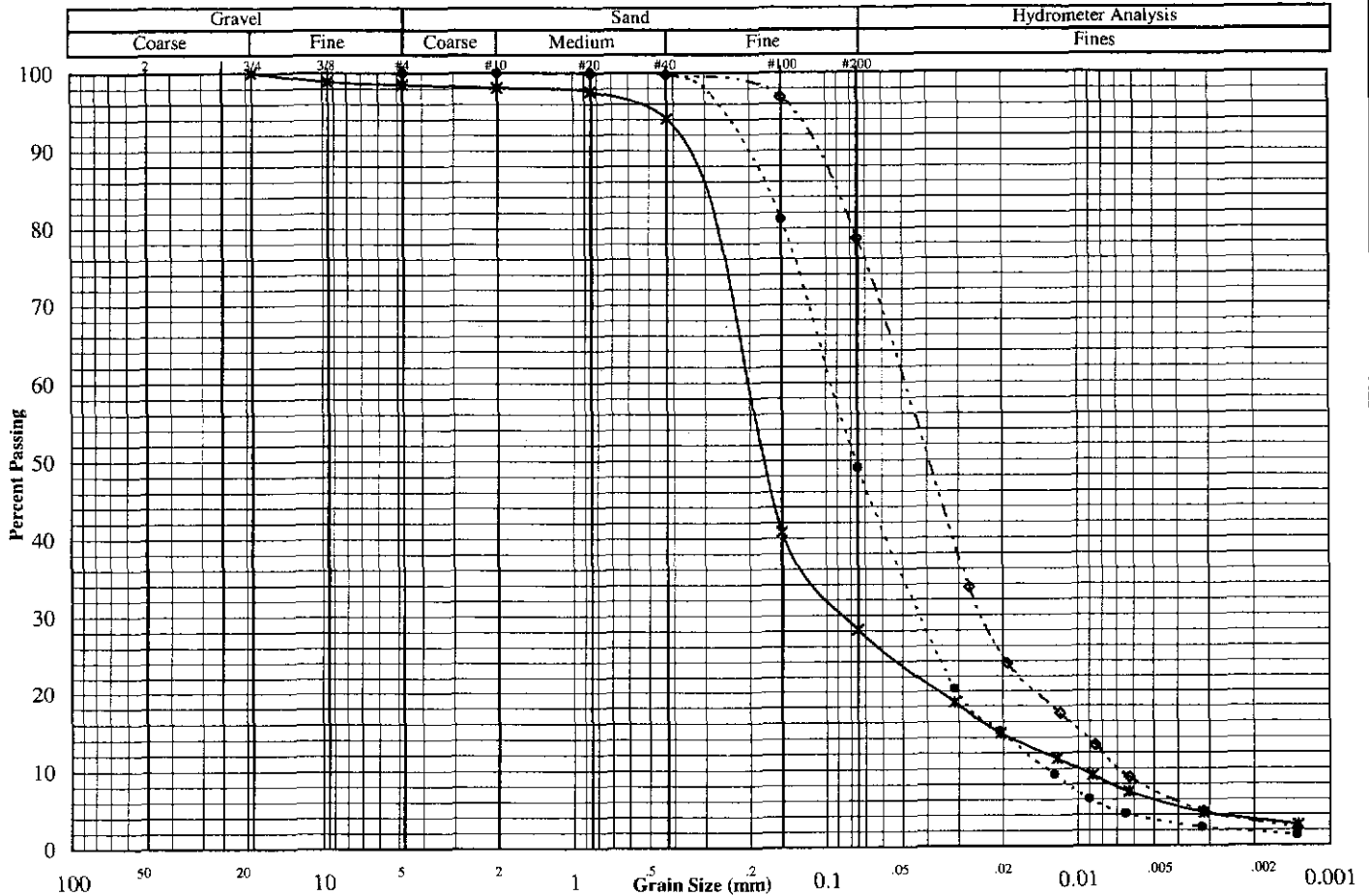
Project: Eagle

Test Date: 8/12/05

Reported To: North Jackson Company

Report Date: 8/18/05

	Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
*	QALB031	EAG-1001496	79	Bag	Silty Sand (SM)
•	QALB036	EAG-1001497	80	Bag	Silty Sand (SM)
◇	QALB036	EAG-1001498	87	Bag	Silt w/ sand (ML)



Other Tests

	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity	2.67*	2.67*	2.66*
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

(* = assumed)

Percent Passing

	*	•	◇
Mass (g)	1279.6	1156.6	1092.3
2"			
1.5"			
1"			
3/4"	100.0		
3/8"	98.9		
#4	98.5	100.0	100.0
#10	98.1	100.0	100.0
#20	97.6	100.0	99.9
#40	94.1	99.7	99.7
#100	40.8	81.2	96.9
#200	28.2	49.1	78.6

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

Grain Size Distribution ASTM D422

Job No. : **5436**

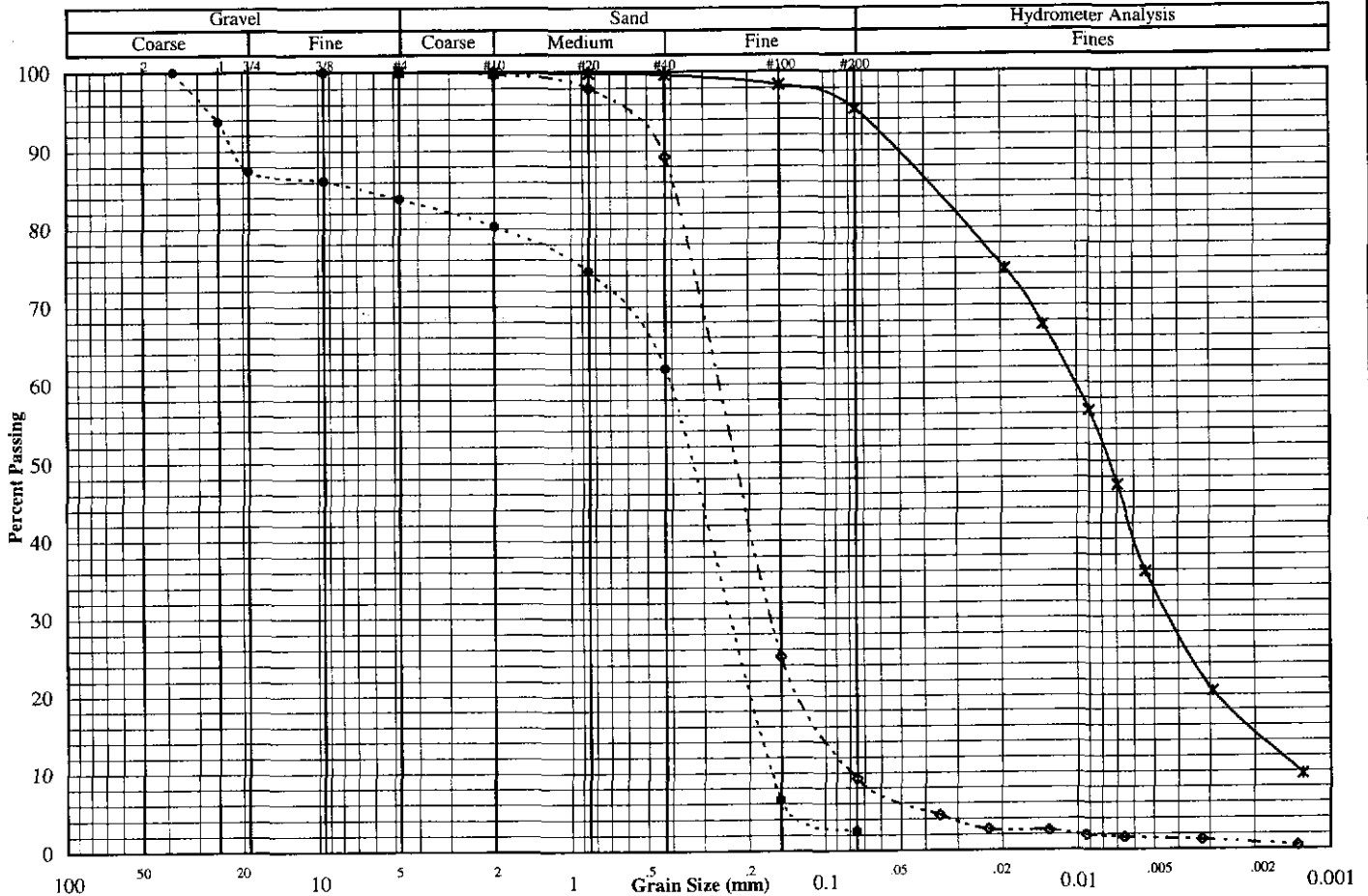
Project: Eagle

Test Date: 8/12/05

Reported To: North Jackson Company

Report Date: 8/18/05

Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
* QALB036	EAG-1001499	91	Bag	Silty Clay (CL-ML)
• QALB036	EAG-1001500	103	Bag	Sand w/ gravel, fine grained (SP)
◇ QALB031	EAG-1001501	106	Bag	Sand w/silt, fine grained (SP-SM)

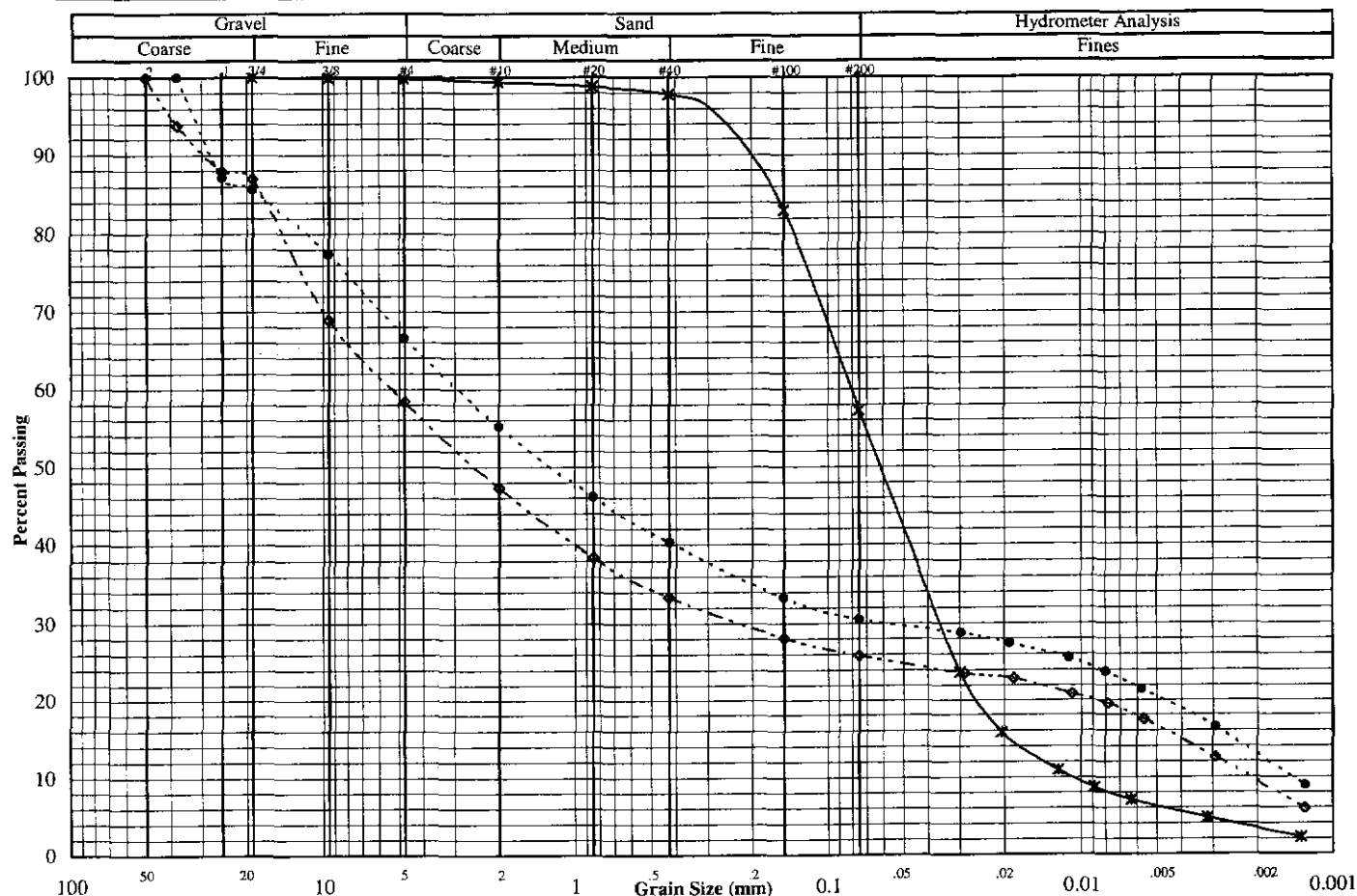


Grain Size Distribution ASTM D422

Job No. : 5436

Project: Eagle	Test Date: 8/12/05
Reported To: North Jackson Company	Report Date: 8/18/05

Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
* QALB031	EAG-1001502	111	Bag	Sandy Silt (SM)
• QALB036	EAG-1001503	120	Bag	Clayey Sand w/ gravel (SC)
◇ QALB031	EAG-1001504	123	Bag	Silty Clayey Sand w/ gravel (SM-SC)



Other Tests	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity	2.66*	2.67*	2.67*
Parasity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

	Percent Passing		
	★	●	◇
Mass (g)	1548.7	1320.6	1310.0
2"			100.0
1.5"		100.0	93.7
1"		87.1	87.9
3/4"	100.0	85.6	87.0
3/8"	99.9	77.4	68.9
#4	99.8	66.6	58.4
#10	99.4	55.2	47.3
#20	98.8	46.2	38.4
#40	97.8	40.3	33.4
#100	83.0	33.2	28.1
#200	57.2	30.5	25.8

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

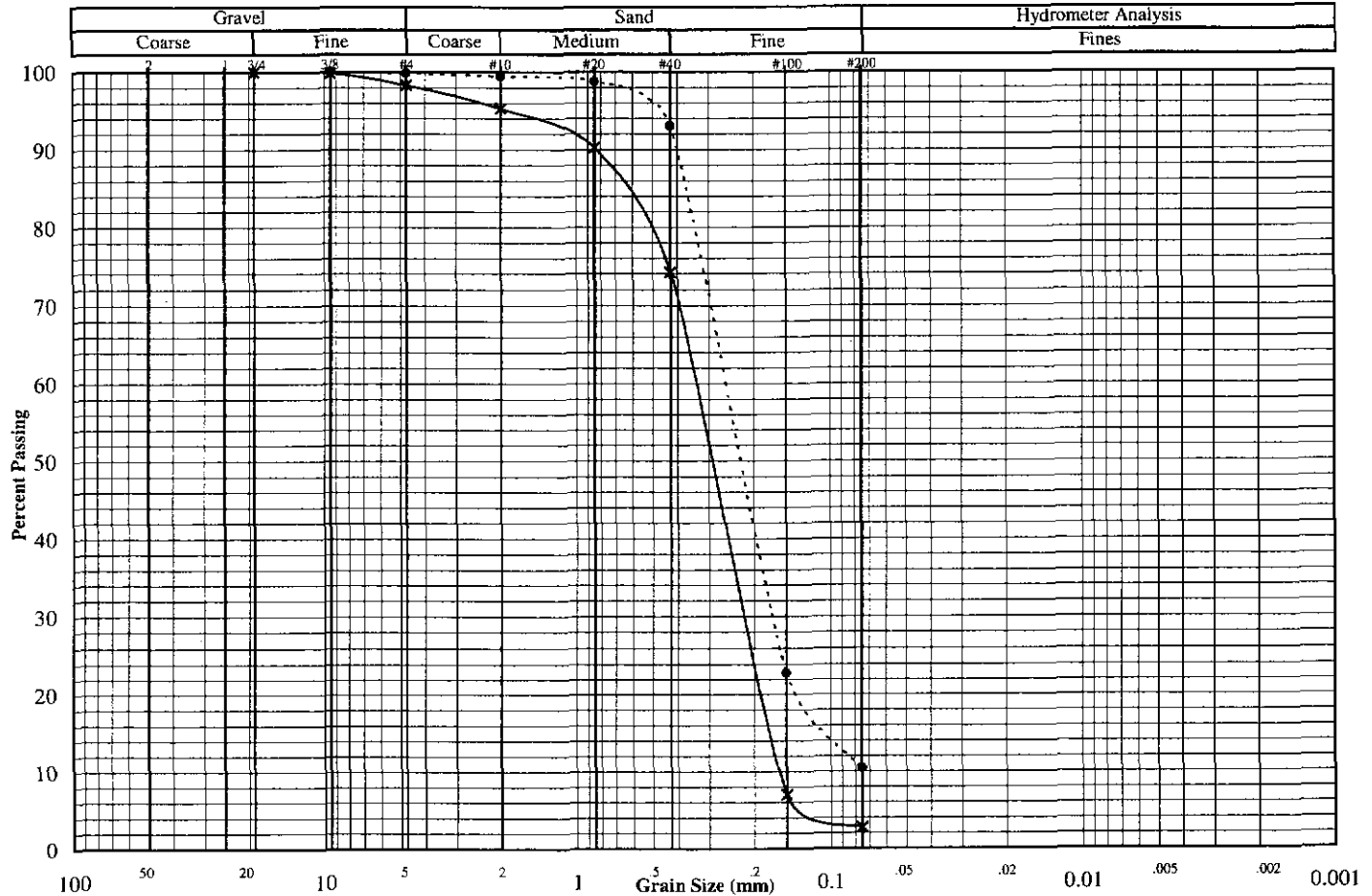
Remarks:

Grain Size Distribution ASTM D422

Job No.: 5436

Project: Eagle	Test Date: 8/12/05
Reported To: North Jackson Company	Report Date: 8/18/05

Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
* QALB041	EAG-1001505	18	Bag	Sand, fine grained (SP)
• QALB041	EAG-1001506	37	Bag	Sand w/ silt, fine grained (SP-SM)
◇				



Other Tests	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity			
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psi)			

Percent Passing	*	•	◇
Mass (g)	906.8	751.6	
2"			
1.5"			
1"			
3/4"	100.0		
3/8"	99.9	100.0	
#4	98.3	99.9	
#10	95.3	99.4	
#20	90.2	98.7	
#40	74.2	93.0	
#100	7.0	22.8	
#200	2.7	10.4	

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

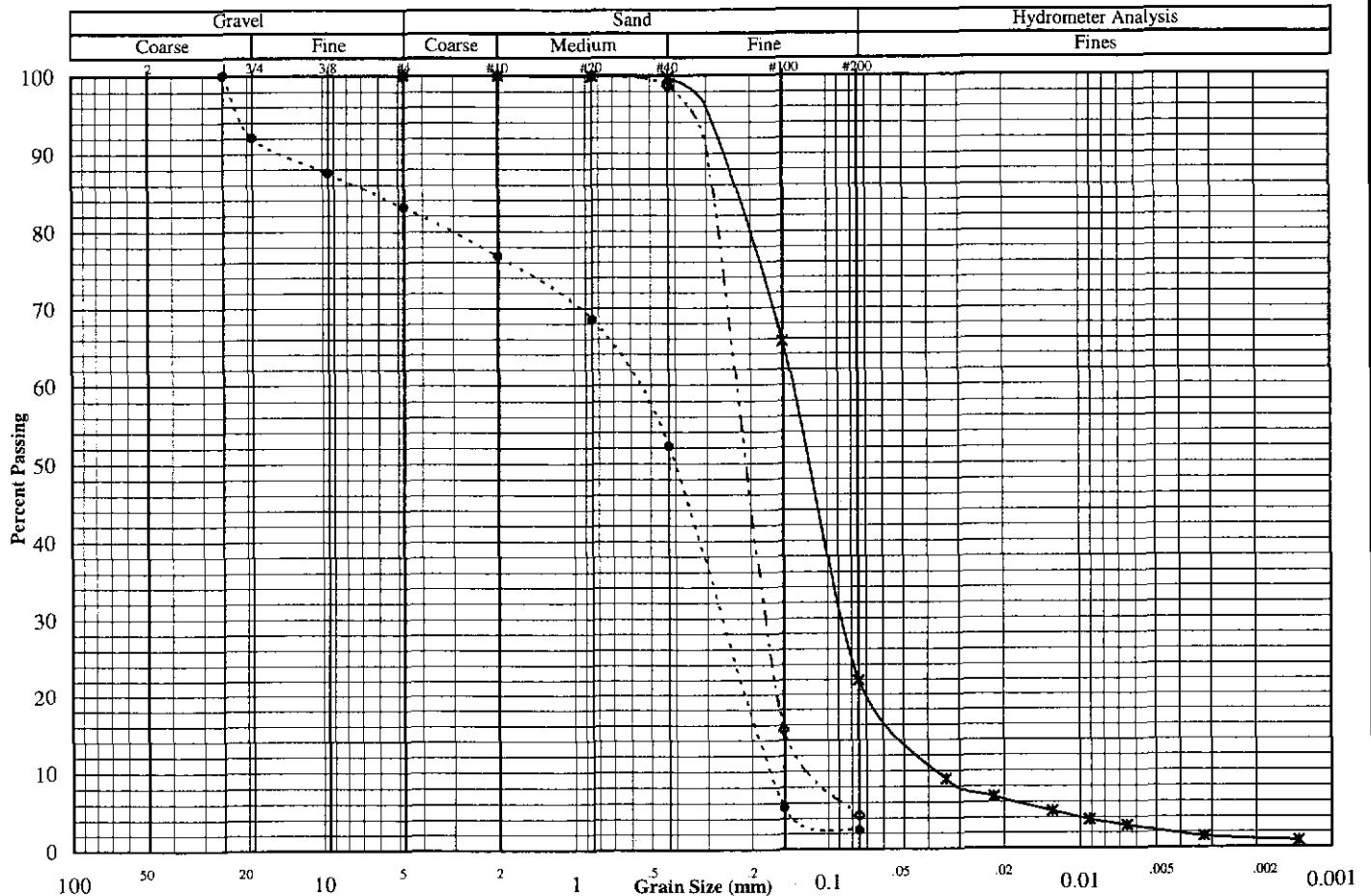
Remarks:

Grain Size Distribution ASTM D422

Job No. : 5436

Project: Eagle	Test Date: 8/12/05
Reported To: North Jackson Company	Report Date: 8/18/05

Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
* QALB041	EAG-1001507	55	Bag	Silty Sand (SM)
• QALB041	EAG-1001508	80	Bag	Sand w/ gravel, fine grained (SP)
◇ QALB041	EAG-1001509	105	Bag	Sand, fine grained (SP)



Other Tests			
	*	•	◇
Liquid Limit			
Plastic Limit			
Plasticity Index			
Water Content			
Dry Density (pcf)			
Specific Gravity	2.67*		
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			
(* = assumed)			

Percent Passing			
	*	•	◇
Mass (g)	934.9	1291.5	1024.2
2"			
1.5"			
1"		100.0	
3/4"		92.1	
3/8"		87.5	
#4	100.0	83.1	100.0
#10	100.0	76.8	100.0
#20	99.9	68.5	100.0
#40	99.8	52.2	98.7
#100	65.6	5.4	15.4
#200	21.9	2.4	4.4

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

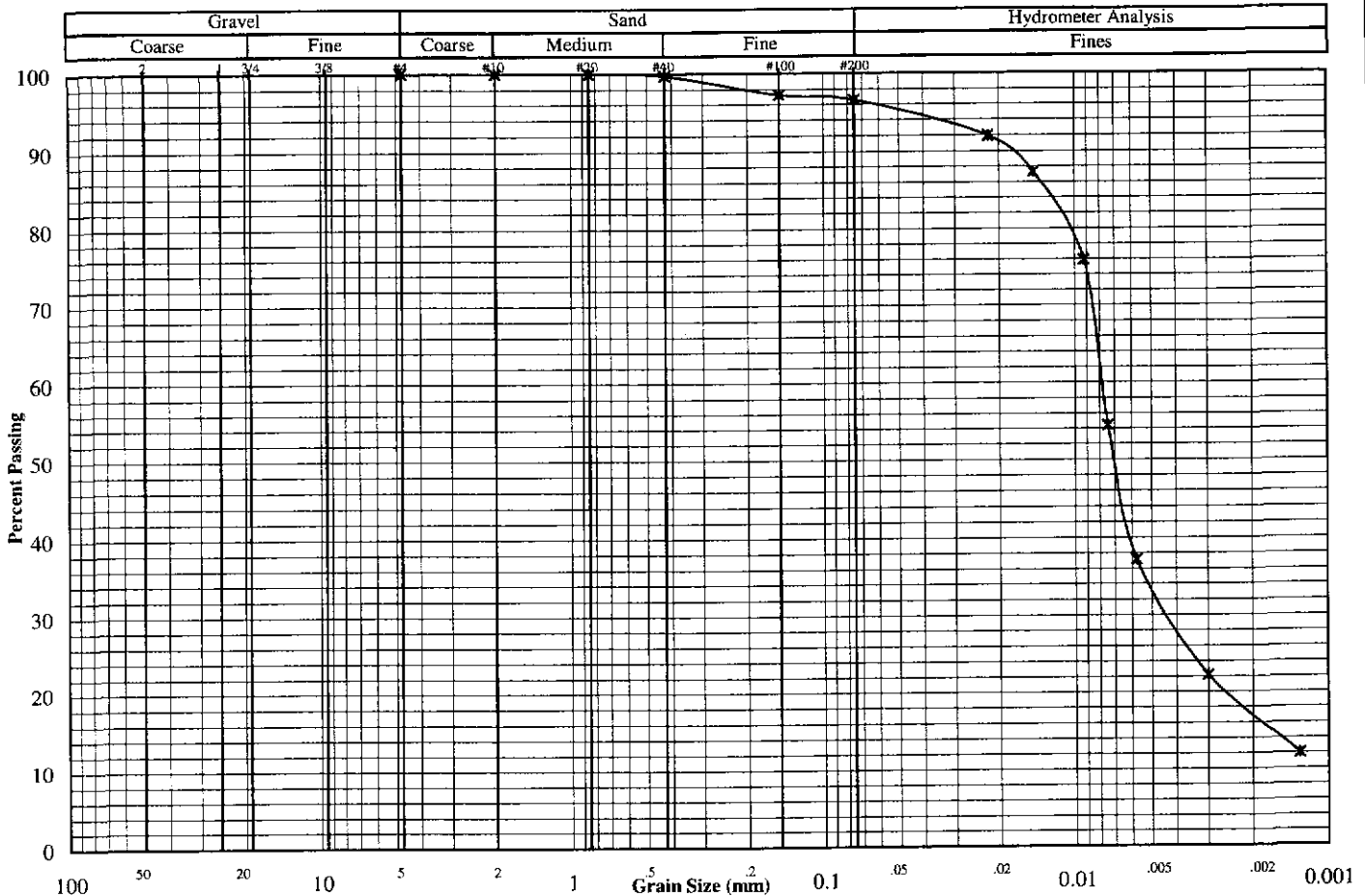
Remarks:

Grain Size Distribution ASTM D422

Job No. : **5436**

Project: Eagle	Test Date: 8/29/05
Reported To: North Jackson Company	Report Date: 8/30/05

Location / Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Classification
* QALB029	EAG-1001512	55.0	TWT	Lean Clay w/ Laminations of Silt, Silty Clay, Silty Sand and Fat Clay (CH)
•				
◇				



Other Tests	*	•	◇
Liquid Limit	32.6		
Plastic Limit	19.8		
Plasticity Index	12.8		
Water Content	29.5		
Dry Density (pcf)	94.0		
Specific Gravity	2.7*		
Porosity			
Organic Content			
pH			
Shrinkage Limit			
Penetrometer			
Qu (psf)			

Percent Passing	*	•	◇
Mass (g)	400.0		
2"			
1.5"			
1"			
3/4"			
3/8"			
#4	100.0		
#10	100.0		
#20	100.0		
#40	99.7		
#100	97.2		
#200	96.6		

	*	•	◇
D ₆₀			
D ₃₀			
D ₁₀			
C _u			
C _c			

Remarks:

Permeability Test Data

Project: Eagle **Date:** 8/30/2005

Reported To: North Jackson Company **Job No.:** 5436

Boring No.:							
Sample No.:	QALB029						
Depth (ft):	55						
Location:							
Sample Type:	TWT						
Soil Type:	Lean Clay w/Laminations of Silt, Silty Clay, Silty Sand and Fat Clay Clay (CL)						
Atterberg Limits							
LL	32.6						
PL	19.8						
PI	12.8						
Permeability Test							
Before Test Conditions:							
Saturation %:	101.3%						
Porosity:							
Ht. (in):	2.57						
Dia. (in):	2.85						
Dry Density (pcf):	94.0						
Water Content:	29.5%						
Test Type:	Falling						
Max Head (ft):	5.0						
Confining press. (Effective-psi):	40.3						
Trial No.:	26-30						
Water Temp °C:	23.0						
Test Type:	Vertical						
% Saturation (After Test)	101.3%						
Coefficient of Permeability							
K @ 20 °C (cm/sec)	8.8×10^{-8}						
K @ 20 °C (ft/min)	1.7×10^{-7}						
Notes:							