Pump Test Report

NGK Metals Corporation RCRA Corrective Measures Implementation

Prepared for:

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RUST Environment & Infrastructure
Mechanicsburg, Pennsylvania

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Volume 2

QUALITY
◊
INTEGRITY
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CREATIVITY
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RESPONSIVENESS

RUST ENVIRONMENT & INFRASTRUCTURE

AR360436

APPENDIX B

PUMP TEST DATA

NGK METALS CORP					
MONITOR WELL SUMMARY					
AUGUST 12, 1993					
PUMPING WELL SW-8					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	32.62	275.46
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	36.67	267.57
Well 4	10285	10315	311.73	38.8	272.93
shallow monitor					
SW-5	11470	10805	392.56	NM	-
SW-6	10826	10833	327.99	NM	-
SW-7	10234	10680	320.71	47.59	273.12
SW-8	10020	10160	304.71	37.36	267.35
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330.6	NM	-
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	NM	-
SW-15	11212	11522	329.56	NM	-
SW-16	10605	11445	328.74	NM	-
SW-17	9969	11009	321.16	NM	-
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	NM	-
SW-22	11125	11495	330.39	NM	-
SW-23	11220	11670	327.27	NM	-
deep monitor					
DW-5	11464	10790	329.62	NM	-
DW-8	9996	10162	304.58	39.06	265.52
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	32.52	275.31
DW-13	10250	10055	304.45	36.91	267.54
DW-15	11242	11533	329.63	NM	-
DW-16	10590	11440	327.54	NM	-
DW-17	9930	10998	319.39	NM	-

AR360438

NGK METALS CORP					
MONITOR WELL SUMMARY					
AUGUST 12, 1993					
PUMPING WELL SW-8					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	NM	-
DW-28	11046	11618	327.1	NM	-
DW-29	11385	11711	325.61	NM	-
DW-30	11499	11749	326.51	NM	-
DW-31	11166	11449	331.3	NM	-
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	29.3	269.52
SW-P-1	9785	9750	302.35	31.04	271.31
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2			-	NM	-

AR360439

NGK METALS CORP						
MONITOR WELL SUMMARY						
AUGUST 19, 1993						
PUMPING WELL SW-8						
			TOC Elevation	Water Level	W.L. Elevation	Corrected WL
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
On-site						
landfill						
Well 1	10545	10115	308.08	33.38	274.7	275.09
Well 2	10622	10598	322.11	NM	-	-
Well 3	10230	10055	304.24	38.91	265.33	265.73
Well 4	10285	10315	311.73	39.91	271.82	272.19
shallow monitor						
SW-5	11470	10805	392.56	NM	-	-
SW-6	10826	10833	327.99	NM	-	-
SW-7	10234	10680	320.71	48.61	272.1	272.56
SW-8	10020	10160	304.71	51.86	252.85	253.2
SW-9	11080	10540	333.22	NM	-	-
SW-10	11322	10140	312.8	NM	-	-
SW-11	11328	11247	330.6	NM	-	-
SW-12	11025	10110	311.6	NM	-	-
SW-14	11632	11800	327.97	NM	-	-
SW-15	11212	11522	329.56	NM	-	-
SW-16	10605	11445	328.74	NM	-	-
SW-17	9969	11009	321.16	NM	-	-
SW-18	11040	10445	332.33	NM	-	-
SW-19	11080	10515	334.11	NM	-	-
SW-20	11110	10635	334.56	NM	-	-
SW-21	11190	11440	331.99	NM	-	-
SW-22	11125	11495	330.39	NM	-	-
SW-23	11220	11670	327.27	NM	-	-
deep monitor						
DW-5	11464	10790	329.62	NM	-	-
DW-8	9996	10162	304.58	41.16	263.42	263.84
DW-9	11098	10548	333.63	NM	-	-
DW-10	11337	10142	313.15	NM	-	-
DW-12	10638	10100	307.83	33.32	274.51	274.93
DW-13	10250	10055	304.45	39.13	265.32	265.74
DW-15	11242	11533	329.63	NM	-	-
DW-16	10590	11440	327.54	NM	-	-
DW-17	9930	10998	319.39	NM	-	-

NGK METALS CORP						
MONITOR WELL SUMMARY						
AUGUST 19, 1993						
PUMPING WELL SW-8						
			TOC Elevation	Water Level	W.L. Elevation	Corrected WL
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
deep monitor						
DW-27	10889	11563	328.2	NM	-	-
DW-28	11046	11618	327.1	NM	-	-
DW-29	11385	11711	325.61	NM	-	-
DW-30	11499	11749	326.51	NM	-	-
DW-31	11166	11449	331.3	NM	-	-
Off-site						
shallow monitor						
SW-24	9495	9900	298.82	29.27	269.55	-
SW-P-1	9785	9750	302.35	31.52	270.83	-
deep monitor						
DW-25	11700	12530	327.26	NM	-	-
DW-26	8150	9120	284.48	NM	-	-
private						
OS-1			292.87	NM	-	-
OS-2				NM	-	-

AR360441

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 14, 1993					
PUMPING WELL DW-12					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	28.76	279.32
Well 2	10622	10598	322.11	34.51	287.6
Well 3	10230	10055	304.24	34.19	270.05
Well 4	10285	10315	311.73	35.77	275.96
shallow monitor					
SW-5	11470	10805	329.56	27.35	302.21
SW-6	10826	10833	327.99	35.1	292.89
SW-7	10234	10680	320.71	43.63	277.08
SW-8	10020	10160	304.71	34.79	269.92
SW-9	11080	10540	333.22	39.44	293.78
SW-10	11322	10140	312.8	22.17	290.63
SW-11	11328	11247	330	NM	-
SW-12	11025	10110	311.6	26.36	285.24
SW-14	11632	11800	327.97	NM	-
SW-15	11212	11522	329.56	NM	-
SW-16	10605	11445	328.74	NM	-
SW-17	9969	11009	321.16	NM	-
SW-18	11040	10445	332.33	39.93	292.4
SW-19	11080	10515	334.11	40.45	293.66
SW-20	11110	10635	334.56	40.71	293.85
SW-21	11190	11440	331.99	NM	-
SW-22	11125	11495	330.39	NM	-
SW-23	11220	11670	327.27	NM	-
deep monitor					
DW-5	11464	10790	329.62	28.38	301.24
DW-8	9996	10162	304.58	36.6	267.98
DW-9	11098	10548	333.63	41.27	292.36
DW-10	11337	10142	313.15	22.35	290.8
DW-12	10638	10100	307.83	28.36	279.47
DW-13	10250	10055	304.45	34.41	270.04
DW-15	11242	11533	329.63	NM	-
DW-16	10590	11440	327.54	NM	-
DW-17	9930	10998	319.39	NM	-

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 14, 1993					
PUMPING WELL DW-12					
deep monitor					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
DW-27	10889	11563	328.2	NM	-
DW-28	11046	11618	327.1	NM	-
DW-29	11385	11711	325.61	NM	-
DW-30	11499	11749	326.51	NM	-
DW-31	11166	11449	331.3	NM	-
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	30.8	268.02
SW-P-1	9785	9750	302.35	30.9	271.45
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

NGK METALS CORP						
MONITOR WELL SUMMARY						
JULY 19, 1993						
PUMPING WELL DW-12						
			TOC Elevation	Water Level	W.L. Elevation	Corrected W.L.
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
On-site						
landfill						
Well 1	10545	10115	308.08	42.55	265.53	265.84
Well 2	10622	10598	322.11	35.6	286.51	287.38
Well 3	10230	10055	304.24	36.37	267.87	268.31
Well 4	10285	10315	311.73	42.77	268.96	269.29
shallow monitor						
SW-5	11470	10805	329.56	25.62	303.94	304.66
SW-6	10826	10833	327.99	35.47	292.52	293.14
SW-7	10234	10680	320.71	45	275.71	276.16
SW-8	10020	10160	304.71	36.49	268.22	268.53
SW-9	11080	10540	333.22	40.24	292.98	293.67
SW-10	11322	10140	312.8	20.75	292.05	293
SW-11	11328	11247	330	NM	-	-
SW-12	11025	10110	311.6	30.549	281.051	281.65
SW-14	11632	11800	327.97	NM	-	-
SW-15	11212	11522	329.56	NM	-	-
SW-16	10605	11445	328.74	NM	-	-
SW-17	9969	11009	321.16	NM	-	-
SW-18	11040	10445	332.33	41.27	291.06	291.83
SW-19	11080	10515	334.11	41.27	292.84	293.48
SW-20	11110	10635	334.56	41.38	293.18	293.82
SW-21	11190	11440	331.99	NM	-	-
SW-22	11125	11495	330.39	NM	-	-
SW-23	11220	11670	327.27	NM	-	-
deep monitor						
DW-5	11464	10790	329.62	26.89	302.73	303.5
DW-8	9996	10162	304.58	37.65	266.93	267.32
DW-9	11098	10548	333.63	42.43	291.2	291.66
DW-10	11337	10142	313.15	21.11	292.04	293.21
DW-12	10638	10100	307.83	72.594	235.236	235.99
DW-13	10250	10055	304.45	36.7	267.75	268.16
DW-15	11242	11533	329.63	NM	-	-
DW-16	10590	11440	327.54	NM	-	-
DW-17	9930	10998	319.39	NM	-	-

AR360444

NGK METALS CORP						
MONITOR WELL SUMMARY						
JULY 19, 1993						
PUMPING WELL DW-12						
			TOC Elevation	Water Level	W.L. Elevation	Corrected W.L.
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
deep monitor						
DW-27	10889	11563	328.2	NM	-	-
DW-28	11046	11618	327.1	NM	-	-
DW-29	11385	11711	325.61	NM	-	-
DW-30	11499	11749	326.51	NM	-	-
DW-31	11166	11449	331.3	NM	-	-
Off-site						
shallow monitor						
SW-24	9495	9900	298.82	20.58	278.24	-
SW-P-1	9785	9750	302.35	30.16	272.19	-
deep monitor						
DW-25	11700	12530	327.26	NM	-	-
DW-26	8150	9120	284.48	NM	-	-
private						
OS-1			292.87	NM	-	-
OS-2				NM	-	-

AR360445

NGK METALS CORP					
MONITOR WELL SUMMARY					
JUNE 14, 1993					
PUMPING WELL DW-13					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	24.48	283.6
Well 2	10622	10598	322.11	26.51	295.6
Well 3	10230	10055	304.24	32.11	272.13
Well 4	10285	10315	311.73	31.35	280.38
shallow monitor					
SW-5	11470	10805	329.56	25.46	304.1
SW-6	10826	10833	327.99	28.41	299.58
SW-7	10234	10680	320.71	38.18	282.53
SW-8	10020	10160	304.71	32.88	271.83
SW-9	11080	10540	333.22	33.63	299.59
SW-10	11322	10140	312.8	19.88	292.92
SW-11	11328	11247	330	NM	-
SW-12	11025	10110	311.6	21.62	289.98
SW-14	11632	11800	327.97	NM	-
SW-15	11212	11522	329.56	NM	-
SW-16	10605	11445	328.74	NM	-
SW-17	9969	11009	321.16	NM	-
SW-18	11040	10445	332.33	33.7	298.63
SW-19	11080	10515	334.11	34.61	299.5
SW-20	11110	10635	334.56	34.81	299.75
SW-21	11190	11440	331.99	NM	-
SW-22	11125	11495	330.39	NM	-
SW-23	11220	11670	327.27	NM	-
deep monitor					
DW-5	11464	10790	329.62	26.45	303.17
DW-8	9996	10162	304.58	33.68	270.9
DW-9	11098	10548	333.63	37.7	295.93
DW-10	11337	10142	313.15	19.4	293.75
DW-12	10638	10100	307.83	23.55	284.28
DW-13	10250	10055	304.45	32.67	271.78
DW-15	11242	11533	329.63	NM	-
DW-16	10590	11440	327.54	NM	-
DW-17	9930	10998	319.39	NM	-

AR360446

NGK METALS CORP					
MONITOR WELL SUMMARY					
JUNE 14, 1993					
PUMPING WELL DW-13					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	NM	-
DW-28	11046	11618	327.1	NM	-
DW-29	11385	11711	325.61	NM	-
DW-30	11499	11749	326.51	NM	-
DW-31	11166	11449	331.3	NM	-
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	27.9	270.92
SW-P-1	9785	9750	302.35	30.1	272.25
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

NGK METALS CORP						
MONITOR WELL SUMMARY						
JUNE 21, 1993						
PUMPING WELL DW-13						
			TOC Elevation	Water Level	W.L. Elevation	Corrected W.L.
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
On-site						
landfill						
Well 1	10545	10115	308.08	27.02	281.06	282.43
Well 2	10622	10598	322.11	28.57	293.54	295.28
Well 3	10230	10055	304.24	51.128	253.112	-
Well 4	10285	10315	311.73	35.29	276.44	277.99
shallow monitor						
SW-5	11470	10805	329.56	25.68	303.88	305.18
SW-6	10826	10833	327.99	30.3	297.69	-
SW-7	10234	10680	320.71	40.48	280.23	281.68
SW-8	10020	10160	304.71	39.74	264.97	-
SW-9	11080	10540	333.22	35.27	297.95	299.36
SW-10	11322	10140	312.8	20.6	292.2	293.51
SW-11	11328	11247	330	NM	-	-
SW-12	11025	10110	311.6	23.2	288.4	289.5
SW-14	11632	11800	327.97	NM	-	-
SW-15	11212	11522	329.56	NM	-	-
SW-16	10605	11445	328.74	NM	-	-
SW-17	9969	11009	321.16	NM	-	-
SW-18	11040	10445	332.33	35.33	297	298.57
SW-19	11080	10515	334.11	36.23	297.88	299.29
SW-20	11110	10635	334.56	36.38	298.18	299.8
SW-21	11190	11440	331.99	NM	-	-
SW-22	11125	11495	330.39	NM	-	-
SW-23	11220	11670	327.27	NM	-	-
deep monitor						
DW-5	11464	10790	329.62	26.69	302.93	304.19
DW-8	9996	10162	304.58	42.78	261.8	-
DW-9	11098	10548	333.63	39	294.63	295.86
DW-10	11337	10142	313.15	19.21	293.94	295.58
DW-12	10638	10100	307.83	26.2	281.63	283.04
DW-13	10250	10055	304.45	70.655	233.795	-
DW-15	11242	11533	329.63	NM	-	-
DW-16	10590	11440	327.54	NM	-	-
DW-17	9930	10998	319.39	NM	-	-

AR360448

NGK METALS CORP						
MONITOR WELL SUMMARY						
JUNE 21, 1993						
PUMPING WELL DW-13						
			TOC Elevation	Water Level	W.L. Elevation	Corrected W.L.
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
deep monitor						
DW-27	10889	11563	328.2	NM	-	-
DW-28	11046	11618	327.1	NM	-	-
DW-29	11385	11711	325.61	NM	-	-
DW-30	11499	11749	326.51	NM	-	-
DW-31	11166	11449	331.3	NM	-	-
Off-site						
shallow monitor						
SW-24	9495	9900	298.82	23.33	275.49	-
SW-P-1	9785	9750	302.35	29.41	272.94	-
deep monitor						
DW-25	11700	12530	327.26	NM	-	-
DW-26	8150	9120	284.48	NM	-	-
private						
OS-1			292.87	NM	-	-
OS-2				NM	-	-

NGK METALS CORP					
MONITOR WELL SUMMARY					
MARCH 28, 1994					
PUMPING WELL DW-27					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	NM	-
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	NM	-
Well 4	10285	10315	311.73	NM	-
shallow monitor					
SW-5	11470	10805	329.56	14.71	314.85
SW-6	10826	10833	327.99	18.5	309.49
SW-7	10234	10680	320.71	NM	-
SW-8	10020	10160	304.71	NM	-
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330.6	20.08	310.52
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	44.96	283.01
SW-15	11212	11522	329.56	19.18	310.38
SW-16	10605	11445	328.74	32.16	296.58
SW-17	9969	11009	321.16	25.61	295.55
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	21.83	310.16
SW-22	11125	11495	330.39	21.53	308.86
SW-23	11220	11670	327.27	38.71	288.56
deep monitor					
DW-5	11464	10790	329.62	15.61	314.01
DW-8	9996	10162	304.58	NM	-
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	NM	-
DW-13	10250	10055	304.45	NM	-
DW-15	11242	11533	329.63	42.15	287.48
DW-16	10590	11440	327.54	43.98	283.56
DW-17	9930	10998	319.39	27.48	291.91

AR360450

NGK METALS CORP					
MONITOR WELL SUMMARY					
MARCH 28, 1994					
PUMPING WELL DW-27					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	37.08	291.12
DW-28	11046	11618	327.1	36.75	290.35
DW-29	11385	11711	325.61	41.36	284.25
DW-30	11499	11749	326.51	43.98	282.53
DW-31	11166	11449	331.3	21.75	309.55
DW-32			319.49	NM	-
DW-33			321.33	29.2	292.13
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	NM	-
SW-P-1	9785	9750	302.35	NM	-
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	

AR360451

NGK METALS CORP					
MONITOR WELL SUMMARY					
APRIL 1, 1994					
PUMPING WELL DW-27					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	NM	-
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	NM	-
Well 4	10285	10315	311.73	NM	-
shallow monitor					
SW-5	11470	10805	329.56	14.99	314.57
SW-6	10826	10833	327.99	17.49	310.5
SW-7	10234	10680	320.71	NM	-
SW-8	10020	10160	304.71	NM	-
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330.6	18.89	311.71
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	43.95	284.02
SW-15	11212	11522	329.56	18.45	311.11
SW-16	10605	11445	328.74	29.41	299.33
SW-17	9969	11009	321.16	25.27	295.89
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	20.94	311.05
SW-22	11125	11495	330.39	21.71	308.68
SW-23	11220	11670	327.27	41.83	285.44
deep monitor					
DW-5	11464	10790	329.62	15.86	313.76
DW-8	9996	10162	304.58	NM	-
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	NM	-
DW-13	10250	10055	304.45	NM	-
DW-15	11242	11533	329.63	44.09	285.54
DW-16	10590	11440	327.54	43.47	284.07
DW-17	9930	10998	319.39	25.9	293.49

AR360452

NGK METALS CORP					
MONITOR WELL SUMMARY					
APRIL 1, 1994					
PUMPING WELL DW-27					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	69.77	258.43
DW-28	11046	11618	327.1	44.1	283
DW-29	11385	11711	325.61	41.44	284.17
DW-30	11499	11749	326.51	43.17	283.34
DW-31	11166	11449	331.3	20.86	310.44
DW-32			319.49	NM	-
DW-33			321.33	29.38	291.95
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	NM	-
SW-P-1	9785	9750	302.35	NM	-
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	

AR360453

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 28, 1993					
PUMPING WELL DW-28					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	NM	-
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	NM	-
Well 4	10285	10315	311.73	NM	-
shallow monitor					
SW-5	11470	10805	329.56	26.09	303.47
SW-6	10826	10833	327.99	NM	-
SW-7	10234	10680	320.71	NM	-
SW-8	10020	10160	304.71	NM	-
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330.6	29.18	301.42
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	54.83	273.14
SW-15	11212	11522	329.56	44.85	284.71
SW-16	10605	11445	328.74	50.41	278.33
SW-17	9969	11009	321.16	51.12	270.04
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	31.41	300.58
SW-22	11125	11495	330.39	45.11	285.28
SW-23	11220	11670	327.27	53.5	273.77
deep monitor					
DW-5	11464	10790	329.62	27.29	302.33
DW-8	9996	10162	304.58	NM	-
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	NM	-
DW-13	10250	10055	304.45	NM	-
DW-15	11242	11533	329.63	56.61	273.02
DW-16	10590	11440	327.54	55.92	271.62
DW-17	9930	10998	319.39	51.55	267.84

AR360454

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 28, 1993					
PUMPING WELL DW-28					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	54.91	273.29
DW-28	11046	11618	327.1	53.84	273.26
DW-29	11385	11711	325.61	53.42	272.19
DW-30	11499	11749	326.51	54.25	272.26
DW-31	11166	11449	331.3	39.84	291.46
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	NM	-
SW-P-1	9785	9750	302.35	NM	-
deep monitor					
DW-25	11700	12530	327.26	70.37	256.89
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 30, 1993					
PUMPING WELL DW-28					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	NM	-
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	NM	-
Well 4	10285	10315	311.73	NM	-
shallow monitor					
SW-5	11470	10805	329.56	26.65	302.91
SW-6	10826	10833	327.99	37.02	290.97
SW-7	10234	10680	320.71	45.6	275.11
SW-8	10020	10160	304.71	NM	-
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330.6	29.75	300.85
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	54.51	273.46
SW-15	11212	11522	329.56	45.08	284.48
SW-16	10605	11445	328.74	50.6	278.14
SW-17	9969	11009	321.16	51.29	269.87
SW-18	11040	10445	332.33	51.83	280.5
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	31.88	300.11
SW-22	11125	11495	330.39	45.43	284.96
SW-23	11220	11670	327.27	53.2	274.07
deep monitor					
DW-5	11464	10790	329.62	27.82	301.8
DW-8	9996	10162	304.58	NM	-
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	NM	-
DW-13	10250	10055	304.45	NM	-
DW-15	11242	11533	329.63	55.59	274.04
DW-16	10590	11440	327.54	56.06	271.48
DW-17	9930	10998	319.39	51.83	267.56

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 30, 1993					
PUMPING WELL DW-28					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	55.09	273.11
DW-28	11046	11618	327.1	54.95	272.15
DW-29	11385	11711	325.61	52.45	273.16
DW-30	11499	11749	326.51	53.76	272.75
DW-31	11166	11449	331.3	40.15	291.15
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	NM	-
SW-P-1	9785	9750	302.35	NM	-
deep monitor					
DW-25	11700	12530	327.26	70.33	256.93
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

NGK METALS CORP						
MONITOR WELL SUMMARY						
AUGUST 2, 1993						
PUMPING WELL DW-28						
			TOC Elevation	Water Level	W.L. Elevation	Corrected W.L.
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
On-site						
landfill						
Well 1	10545	10115	308.08	NM	-	-
Well 2	10622	10598	322.11	NM	-	-
Well 3	10230	10055	304.24	NM	-	-
Well 4	10285	10315	311.73	NM	-	-
shallow monitor						
SW-5	11470	10805	329.56	27.54	302.02	302.89
SW-6	10826	10833	327.99	37.76	290.23	290.98
SW-7	10234	10680	320.71	45.95	274.76	275.19
SW-8	10020	10160	304.71	NM	-	-
SW-9	11080	10540	333.22	NM	-	-
SW-10	11322	10140	312.8	NM	-	-
SW-11	11328	11247	330	30.58	299.42	300.3
SW-12	11025	10110	311.6	NM	-	-
SW-14	11632	11800	327.97	54.54	273.43	-
SW-15	11212	11522	329.56	45.68	283.88	284.2
SW-16	10605	11445	328.74	50.95	277.79	278.09
SW-17	9969	11009	321.16	51.63	269.53	269.8
SW-18	11040	10445	332.33	NM	-	-
SW-19	11080	10515	334.11	NM	-	-
SW-20	11110	10635	334.56	NM	-	-
SW-21	11190	11440	331.99	39.67	292.32	293.05
SW-22	11125	11495	330.39	46.37	284.02	284.43
SW-23	11220	11670	327.27	54.36	272.91	-
deep monitor						
DW-5	11464	10790	329.62	28.7	300.92	301.75
DW-8	9996	10162	304.58	NM	-	-
DW-9	11098	10548	333.63	NM	-	-
DW-10	11337	10142	313.15	NM	-	-
DW-12	10638	10100	307.83	NM	-	-
DW-13	10250	10055	304.45	NM	-	-
DW-15	11242	11533	329.63	56.09	273.54	-
DW-16	10590	11440	327.54	56.44	271.1	271.33
DW-17	9930	10998	319.39	52.25	267.14	267.58

AR360458

NGK METALS CORP						
MONITOR WELL SUMMARY						
AUGUST 2, 1993						
PUMPING WELL DW-28						
			TOC Elevation	Water Level	W.L. Elevation	Corrected W.L.
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
deep monitor						
DW-27	10889	11563	328.2	55.82	272.38	272.58
DW-28	11046	11618	327.1	97.03	230.07	-
DW-29	11385	11711	325.61	52.22	273.39	-
DW-30	11499	11749	326.51	53.69	272.82	-
DW-31	11166	11449	331.3	41.44	289.86	290.35
Off-site						
shallow monitor						
SW-24	9495	9900	298.82	NM	-	-
SW-P-1	9785	9750	302.35	NM	-	-
deep monitor						
DW-25	11700	12530	327.26	70.11	257.15	-
DW-26	8150	9120	284.48	NM	-	-
private						
OS-1			292.87	NM	-	-
OS-2				NM	-	-

AR360459

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 21, 1993					
PUMPING WELL DW-29					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	NM	-
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	NM	-
Well 4	10285	10315	311.73	NM	-
shallow monitor					
SW-5	11470	10805	329.56	23.05	306.51
SW-6	10826	10833	327.99	35.23	292.76
SW-7	10234	10680	320.71	45.11	275.6
SW-8	10020	10160	304.71	NM	-
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330	26.49	303.51
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	52.87	275.1
SW-15	11212	11522	329.56	43.79	285.77
SW-16	10605	11445	328.74	49.56	279.18
SW-17	9969	11009	321.16	50.44	270.72
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	30.45	301.54
SW-22	11125	11495	330.39	43.96	286.43
SW-23	11220	11670	327.27	50.69	276.58
deep monitor					
DW-5	11464	10790	329.62	24.44	305.18
DW-8	9996	10162	304.58	NM	-
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	NM	-
DW-13	10250	10055	304.45	NM	-
DW-15	11242	11533	329.63	53.28	276.35
DW-16	10590	11440	327.54	54.73	272.81
DW-17	9930	10998	319.39	50.68	268.71

AR360460

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 21, 1993					
PUMPING WELL DW-29					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	53.02	275.18
DW-28	11046	11618	327.1	51.27	275.83
DW-29	11385	11711	325.61	50.24	275.37
DW-30	11499	11749	326.51	52.01	274.5
DW-31	11166	11449	331.3	39.32	291.98
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	NM	-
SW-P-1	9785	9750	302.35	NM	-
deep monitor					
DW-25	11700	12530	327.26	70.55	256.71
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

AR360461

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 23, 1993					
PUMPING WELL DW-29					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	NM	-
Well 2	10622	10598	322.11	NM	-
Well 3	10230	10055	304.24	NM	-
Well 4	10285	10315	311.73	NM	-
shallow monitor					
SW-5	11470	10805	329.56	24.09	305.47
SW-6	10826	10833	327.99	NM	-
SW-7	10234	10680	320.71	NM	-
SW-8	10020	10160	304.71	NM	-
SW-9	11080	10540	333.22	NM	-
SW-10	11322	10140	312.8	NM	-
SW-11	11328	11247	330	27.26	302.74
SW-12	11025	10110	311.6	NM	-
SW-14	11632	11800	327.97	53.01	274.96
SW-15	11212	11522	329.56	44	285.56
SW-16	10605	11445	328.74	49.81	278.93
SW-17	9969	11009	321.16	50.63	270.53
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	NM	-
SW-20	11110	10635	334.56	NM	-
SW-21	11190	11440	331.99	30.68	301.31
SW-22	11125	11495	330.39	44.16	286.23
SW-23	11220	11670	327.27	51.24	276.03
deep monitor					
DW-5	11464	10790	329.62	25.39	304.23
DW-8	9996	10162	304.58	NM	-
DW-9	11098	10548	333.63	NM	-
DW-10	11337	10142	313.15	NM	-
DW-12	10638	10100	307.83	NM	-
DW-13	10250	10055	304.45	NM	-
DW-15	11242	11533	329.63	53.41	276.22
DW-16	10590	11440	327.54	54.91	272.63
DW-17	9930	10998	319.39	50.84	268.55

NGK METALS CORP					
MONITOR WELL SUMMARY					
JULY 23, 1993					
PUMPING WELL DW-29					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	53.51	274.69
DW-28	11046	11618	327.1	51.85	275.25
DW-29	11385	11711	325.61	50.58	275.03
DW-30	11499	11749	326.51	52.16	274.35
DW-31	11166	11449	331.3	39.16	292.14
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	NM	-
SW-P-1	9785	9750	302.35	NM	-
deep monitor					
DW-25	11700	12530	327.26	70.44	256.82
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

AR360463

NGK METALS CORP						
MONITOR WELL SUMMARY						
JULY 26, 1993						
PUMPING WELL DW-29						
			TOC Elevation	Water Level	W.L. Elevation	Corrected WL
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
On-site						
landfill						
Well 1	10545	10115	308.08	NM	-	-
Well 2	10622	10598	322.11	NM	-	-
Well 3	10230	10055	304.24	NM	-	-
Well 4	10285	10315	311.73	NM	-	-
shallow monitor						
SW-5	11470	10805	392.56	25.54	367.02	305.62
SW-6	10826	10833	327.99	NM	-	-
SW-7	10234	10680	320.71	NM	-	-
SW-8	10020	10160	304.71	NM	-	-
SW-9	11080	10540	333.22	NM	-	-
SW-10	11322	10140	312.8	NM	-	-
SW-11	11328	11247	330.6	28.36	302.24	302.77
SW-12	11025	10110	311.6	NM	-	-
SW-14	11632	11800	327.97	55.79	272.18	272.38
SW-15	11212	11522	329.56	44.47	285.09	285.33
SW-16	10605	11445	328.74	50.17	278.57	278.95
SW-17	9969	11009	321.16	50.9	270.26	270.55
SW-18	11040	10445	332.33	NM	-	-
SW-19	11080	10515	334.11	NM	-	-
SW-20	11110	10635	334.56	NM	-	-
SW-21	11190	11440	331.99	31.05	300.94	301.29
SW-22	11125	11495	330.39	44.8	285.59	285.89
SW-23	11220	11670	327.27	54.9	272.37	273.08
deep monitor						
DW-5	11464	10790	329.62	26.6	303.02	304.48
DW-8	9996	10162	304.58	NM	-	-
DW-9	11098	10548	333.63	NM	-	-
DW-10	11337	10142	313.15	NM	-	-
DW-12	10638	10100	307.83	NM	-	-
DW-13	10250	10055	304.45	NM	-	-
DW-15	11242	11533	329.63	59.56	270.07	270.18
DW-16	10590	11440	327.54	55.48	272.06	272.33
DW-17	9930	10998	319.39	51.26	268.13	268.37

AR360464

NGK METALS CORP						
MONITOR WELL SUMMARY						
JULY 26, 1993						
PUMPING WELL DW-29						
			TOC Elevation	Water Level	W.L. Elevation	Corrected WL
Well No.	Easting	Northing	(feet)	(feet)	(feet)	(feet)
deep monitor						
DW-27	10889	11563	328.2	54.58	273.62	274.38
DW-28	11046	11618	327.1	54.07	273.03	273.67
DW-29	11385	11711	325.61	92.23	233.38	233.49
DW-30	11499	11749	326.51	56.06	270.45	270.69
DW-31	11166	11449	331.3	39.53	291.77	292.01
Off-site						
shallow monitor						
SW-24	9495	9900	298.82	NM	-	-
SW-P-1	9785	9750	302.35	NM	-	-
deep monitor						
DW-25	11700	12530	327.26	70.46	256.8	257
DW-26	8150	9120	284.48	NM	-	-
private						
OS-1			292.87	NM	-	-
OS-2				NM	-	-
Note:	NGK water level probe used on all wells except SW-14 and DW-30.					
	Probe measured 0.8 ft. shallower than Rust probe.					
	Water levels presented above are adjusted by 0.8 ft.					

AR360465

NGK METALS CORP					
MONITOR WELL SUMMARY					
MARCH 29, 1994					
PUMPING WELL DW-32					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	10.72	297.36
Well 2	10622	10598	322.11	14.6	307.51
Well 3	10230	10055	304.24	16.9	287.34
Well 4	10285	10315	311.73	15.22	296.51
shallow monitor					
SW-5	11470	10805	329.56	14.71	314.85
SW-6	10826	10833	327.99	18.02	309.97
SW-7	10234	10680	320.71	22.84	297.87
SW-8	10020	10160	304.71	18.16	286.55
SW-9	11080	10540	333.22	24.74	308.48
SW-10	11322	10140	312.8	6.2	306.6
SW-11	11328	11247	330.6	19.62	310.98
SW-12	11025	10110	311.6	10.83	300.77
SW-14	11632	11800	327.97	NM	-
SW-15	11212	11522	329.56	NM	-
SW-16	10605	11445	328.74	NM	-
SW-17	9969	11009	321.16	NM	-
SW-18	11040	10445	332.33	24.44	307.89
SW-19	11080	10515	334.11	25.68	308.43
SW-20	11110	10635	334.56	26.37	308.19
SW-21	11190	11440	331.99	21.48	310.51
SW-22	11125	11495	330.39	NM	-
SW-23	11220	11670	327.27	NM	-
deep monitor					
DW-5	11464	10790	329.62	15.61	314.01
DW-8	9996	10162	304.58	18.43	286.15
DW-9	11098	10548	333.63	28.54	305.09
DW-10	11337	10142	313.15	8.08	305.07
DW-12	10638	10100	307.83	10.78	297.05
DW-13	10250	10055	304.45	17.13	287.32
DW-15	11242	11533	329.63	NM	-
DW-16	10590	11440	327.54	NM	-
DW-17	9930	10998	319.39	NM	-

AR360466

NGK METALS CORP					
MONITOR WELL SUMMARY					
MARCH 29, 1994					
PUMPING WELL DW-32					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	NM	-
DW-28	11046	11618	327.1	NM	-
DW-29	11385	11711	325.61	NM	-
DW-30	11499	11749	326.51	NM	-
DW-31	11166	11449	331.3	21.38	309.92
DW-32			319.49	22.69	296.8
DW-33			321.33	NM	-
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	9.71	289.11
SW-P-1	9785	9750	302.35	16.27	286.08
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

AR360467

NGK METALS CORP					
MONITOR WELL SUMMARY					
MARCH 29, 1994					
PUMPING WELL DW-32					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	10.88	297.2
Well 2	10622	10598	322.11	15.24	306.87
Well 3	10230	10055	304.24	17.54	286.7
Well 4	10285	10315	311.73	15.92	295.81
shallow monitor					
SW-5	11470	10805	329.56	14.99	314.57
SW-6	10826	10833	327.99	17.49	310.5
SW-7	10234	10680	320.71	25.1	295.61
SW-8	10020	10160	304.71	18.75	285.96
SW-9	11080	10540	333.22	24.07	309.15
SW-10	11322	10140	312.8	8.38	304.42
SW-11	11328	11247	330.6	NM	-
SW-12	11025	10110	311.6	10.49	301.11
SW-14	11632	11800	327.97	NM	-
SW-15	11212	11522	329.56	NM	-
SW-16	10605	11445	328.74	NM	-
SW-17	9969	11009	321.16	NM	-
SW-18	11040	10445	332.33	24.43	307.9
SW-19	11080	10515	334.11	25.07	309.04
SW-20	11110	10635	334.56	25.5	309.06
SW-21	11190	11440	331.99	NM	-
SW-22	11125	11495	330.39	NM	-
SW-23	11220	11670	327.27	NM	-
deep monitor					
DW-5	11464	10790	329.62	15.86	313.76
DW-8	9996	10162	304.58	18.48	286.1
DW-9	11098	10548	333.63	27.69	305.94
DW-10	11337	10142	313.15	9.15	304
DW-12	10638	10100	307.83	11.04	296.79
DW-13	10250	10055	304.45	17.74	286.71
DW-15	11242	11533	329.63	NM	-
DW-16	10590	11440	327.54	NM	-
DW-17	9930	10998	319.39	NM	-

AR360468

NGK METALS CORP					
MONITOR WELL SUMMARY					
MARCH 29, 1994					
PUMPING WELL DW-32					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	NM	-
DW-28	11046	11618	327.1	NM	-
DW-29	11385	11711	325.61	NM	-
DW-30	11499	11749	326.51	NM	-
DW-31	11166	11449	331.3	NM	-
DW-32			319.49	88.28	231.21
DW-33			321.33	NM	-
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	12.82	286
SW-P-1	9785	9750	302.35	17.41	284.94
deep monitor					
DW-25	11700	12530	327.26	NM	-
DW-26	8150	9120	284.48	NM	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

AR360469

NGK METALS CORP					
MONITOR WELL SUMMARY					
JUNE 7, 1993					
SITE WELLS					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	NM	-
DW-28	11046	11618	327.1	NM	-
DW-29	11385	11711	325.61	NM	-
DW-30	11499	11749	326.51	NM	-
DW-31	11166	11449	331.3	NM	-
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	23.27	275.55
SW-P-1	9785	9750	302.35	29.37	272.98
deep monitor					
DW-25	11700	12530	327.26	66.17	261.09
DW-26	8150	9120	284.48	32.83	251.65
private					
OS-1			292.87	NM	-
OS-2				NM	-

AR360470

NGK METALS CORP					
MONITOR WELL SUMMARY					
JUNE 7, 1993					
SITE WELLS					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	23.01	285.07
Well 2	10622	10598	322.11	24.71	297.4
Well 3	10230	10055	304.24	31.07	273.17
Well 4	10285	10315	311.73	29.7	282.03
shallow monitor					
SW-5	11470	10805	329.56	24.06	305.5
SW-6	10826	10833	327.99	26.83	301.16
SW-7	10234	10680	320.71	36.68	284.03
SW-8	10020	10160	304.71	32.13	272.58
SW-9	11080	10540	333.22	32.16	301.06
SW-10	11322	10140	312.8	18.48	294.32
SW-11	11328	11247	330	27.56	302.44
SW-12	11025	10110	311.6	20.46	291.14
SW-14	11632	11800	327.97	49.12	278.85
SW-15	11212	11522	329.56	36.82	292.74
SW-16	10605	11445	328.74	42.48	286.26
SW-17	9969	11009	321.16	44.36	276.8
SW-18	11040	10445	332.33	NM	-
SW-19	11080	10515	334.11	33.14	300.97
SW-20	11110	10635	334.56	33.14	301.42
SW-21	11190	11440	331.99	29.27	302.72
SW-22	11125	11495	330.39	37.93	292.46
SW-23	11220	11670	327.27	46.78	280.49
deep monitor					
DW-5	11464	10790	329.62	25.1	304.52
DW-8	9996	10162	304.58	32.77	271.81
DW-9	11098	10548	333.63	36.39	297.24
DW-10	11337	10142	313.15	17.66	295.49
DW-12	10638	10100	307.83	22.07	285.76
DW-13	10250	10055	304.45	31.42	273.03
DW-15	11242	11533	329.63	49.11	280.52
DW-16	10590	11440	327.54	48.74	278.8
DW-17	9930	10998	319.39	43.23	276.16

AR360471

NGK METALS CORP					
MONITOR WELL SUMMARY					
APRIL 5, 1994					
SITE WELLS					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
On-site					
landfill					
Well 1	10545	10115	308.08	13.08	295
Well 2	10622	10598	322.11	15.67	306.44
Well 3	10230	10055	304.24	18.45	285.79
Well 4	10285	10315	311.73	16.31	295.42
shallow monitor					
SW-5	11470	10805	329.56	16.17	313.39
SW-6	10826	10833	327.99	17.88	310.11
SW-7	10234	10680	320.71	24.56	296.15
SW-8	10020	10160	304.71	19.55	285.16
SW-9	11080	10540	333.22	24.66	308.56
SW-10	11322	10140	312.8	11.02	301.78
SW-11	11328	11247	330.6	19.63	310.97
SW-12	11025	10110	311.6	12.39	299.21
SW-14	11632	11800	327.97	43.65	284.32
SW-15	11212	11522	329.56	18.94	310.62
SW-16	10605	11445	328.74	30.42	298.32
SW-17	9969	11009	321.16	28.39	292.77
SW-18	11040	10445	332.33	25.18	307.15
SW-19	11080	10515	334.11	25.7	308.41
SW-20	11110	10635	334.56	25.91	308.65
SW-21	11190	11440	331.99	21.4	310.59
SW-22	11125	11495	330.39	21.54	308.85
SW-23	11220	11670	327.27	39.7	287.57
deep monitor					
DW-5	11464	10790	329.62	17.04	312.58
DW-8	9996	10162	304.58	19.32	285.26
DW-9	11098	10548	333.63	27.91	305.72
DW-10	11337	10142	313.15	10.78	302.37
DW-12	10638	10100	307.83	12.93	294.9
DW-13	10250	10055	304.45	18.66	285.79
DW-15	11242	11533	329.63	42.68	286.95
DW-16	10590	11440	327.54	42.99	284.55
DW-17	9930	10998	319.39	28.08	291.31

AR360472

NGK METALS CORP					
MONITOR WELL SUMMARY					
APRIL 5, 1994					
SITE WELLS					
			TOC Elevation	Water Level	W.L. Elevation
Well No.	Easting	Northing	(feet)	(feet)	(feet)
deep monitor					
DW-27	10889	11563	328.2	40.98	287.22
DW-28	11046	11618	327.1	39.64	287.46
DW-29	11385	11711	325.61	40.8	284.81
DW-30	11499	11749	326.51	42.8	283.71
DW-31	11166	11449	331.3	21.33	309.97
DW-32	-	-	319.49	24.5	294.99
DW-33	-	-	321.33	32.64	288.69
Off-site					
shallow monitor					
SW-24	9495	9900	298.82	14.6	284.22
SW-P-1	9785	9750	302.35	19.36	282.99
deep monitor					
DW-25	11700	12530	327.26	62.39	-
DW-26	8150	9120	284.48	25.06	-
private					
OS-1			292.87	NM	-
OS-2				NM	-

AR360473

APPENDIX C

PRE-TEST WATER LEVEL GRAPHS

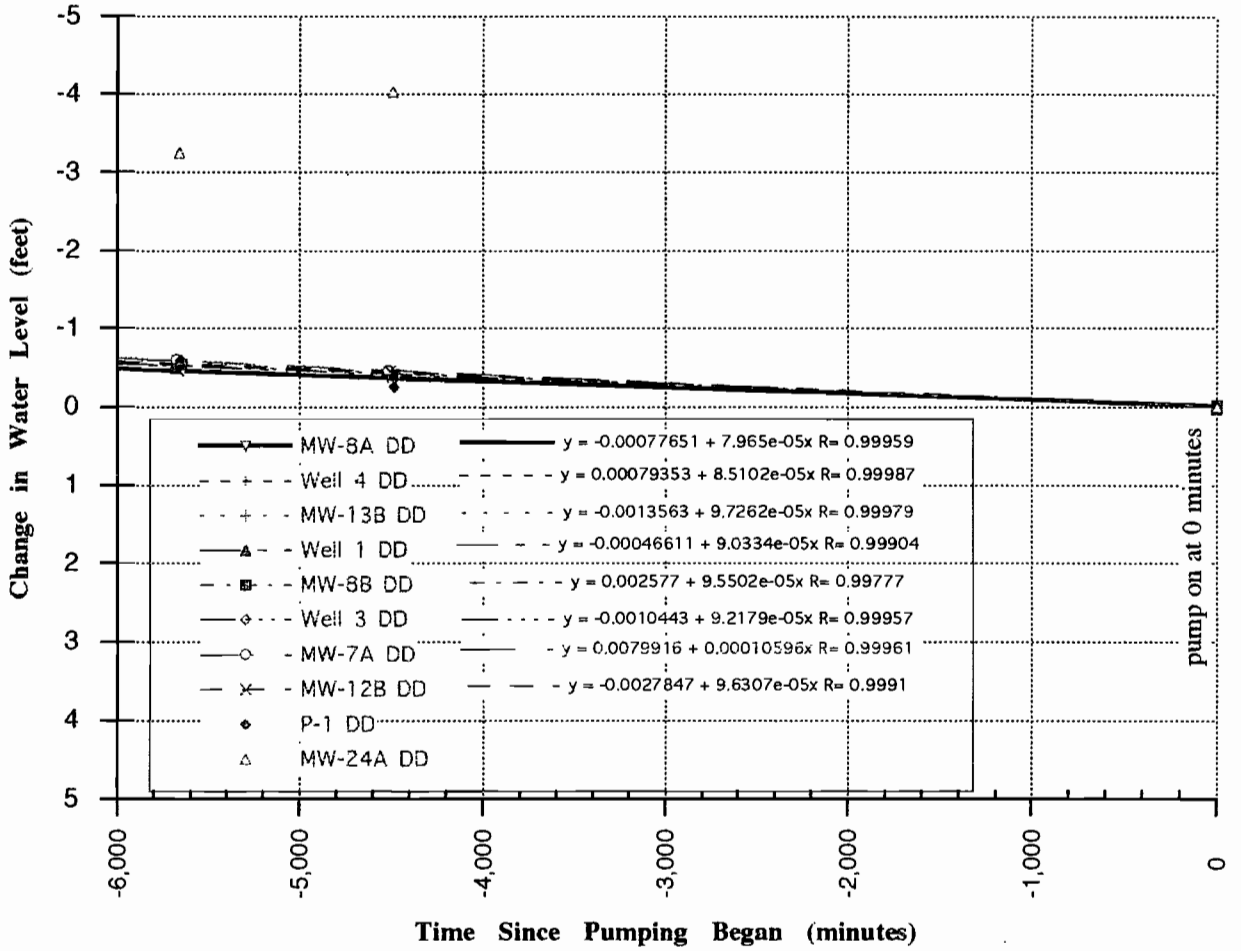


Figure 1
Linear Pre-Test Graph
for Pumping Well MW-8A and Observation Wells

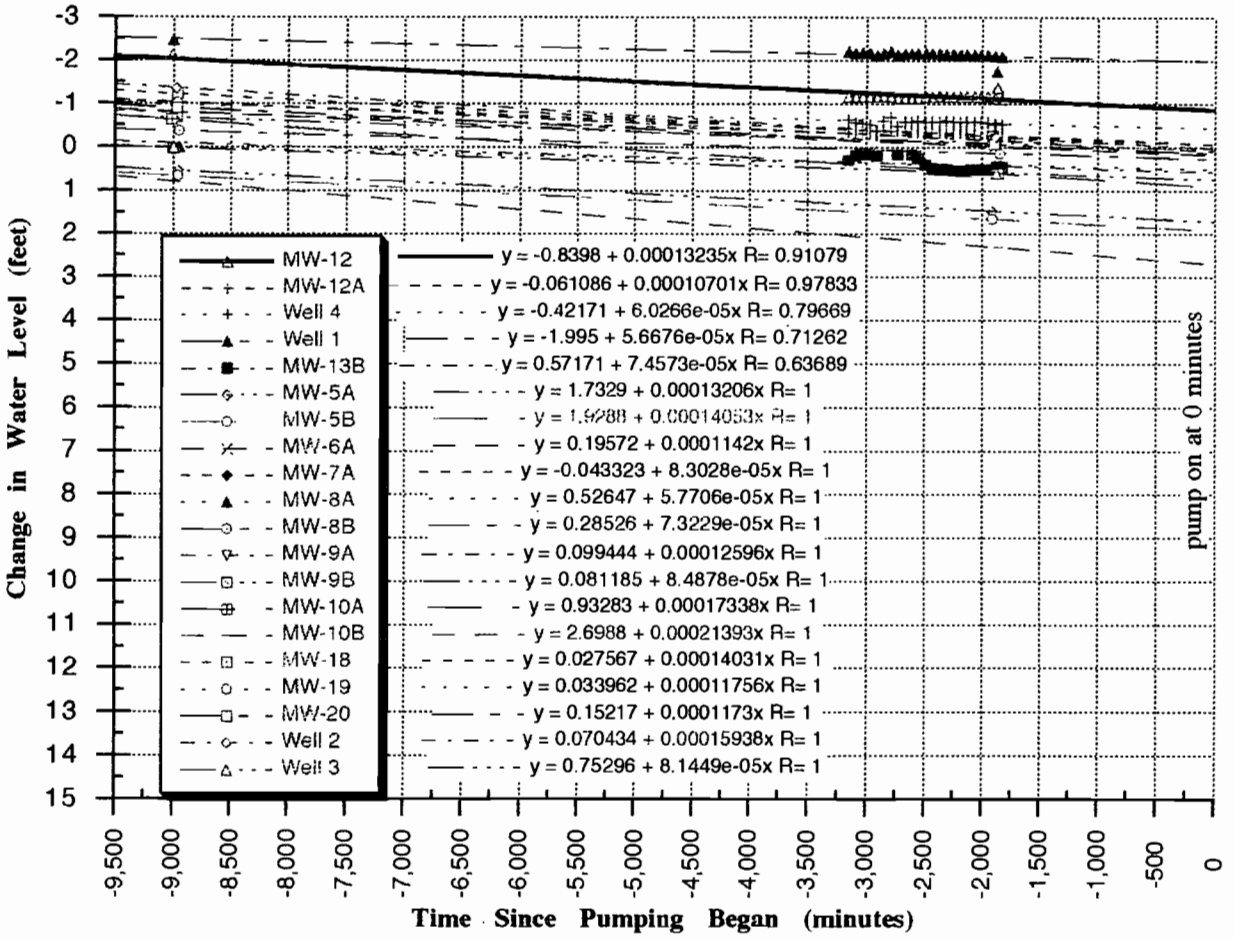


Figure 2
Linear Pre-Test Graph
for Pumping Well MW-12B and Observation Wells

AR360476

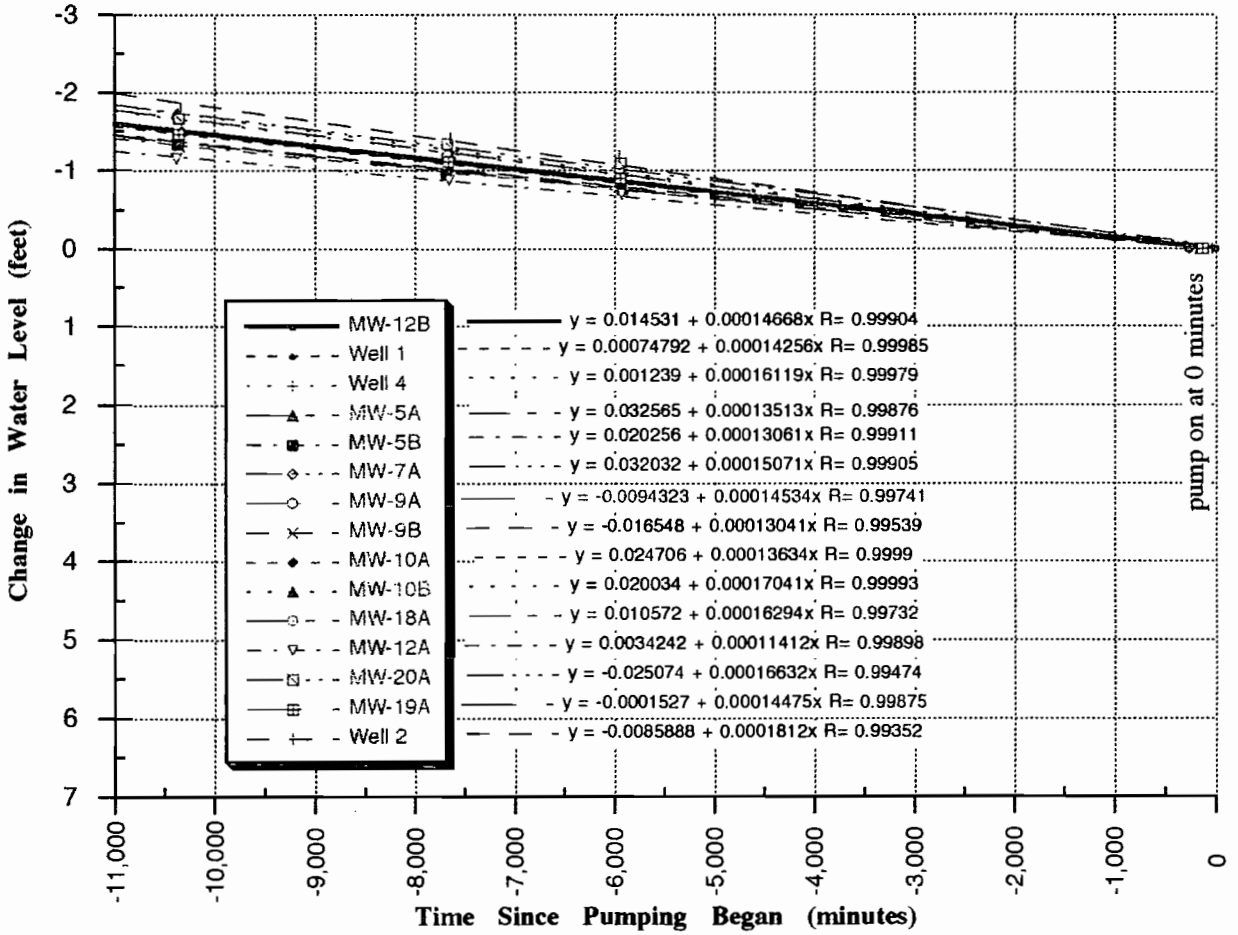


Figure 3
Linear Pre-Test Graph
for Pumping Well MW-13B and Observation Wells

AR360477

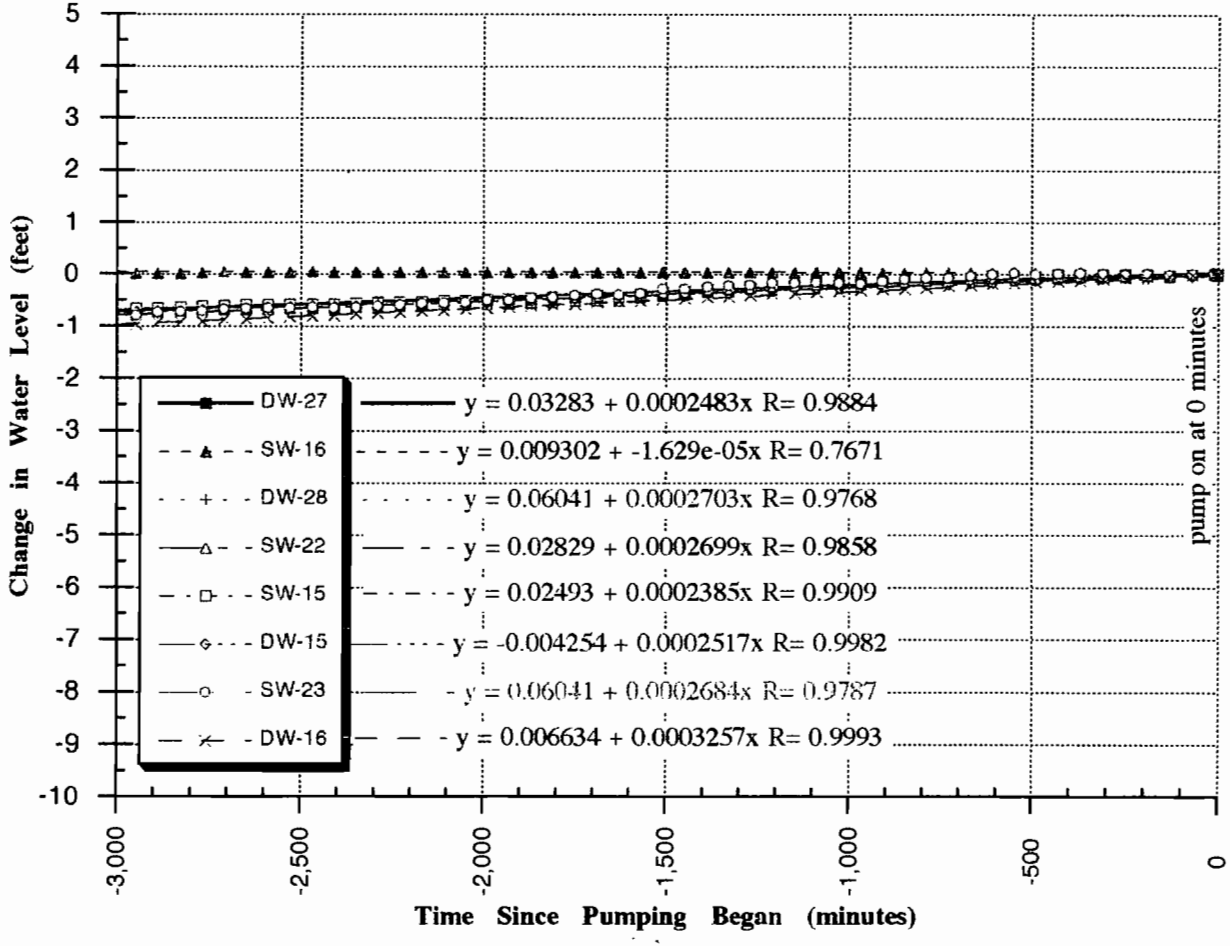


Figure 4
Linear Pre-Test Graph
for Pumping Well DW-27 and Observation Wells

AR360478

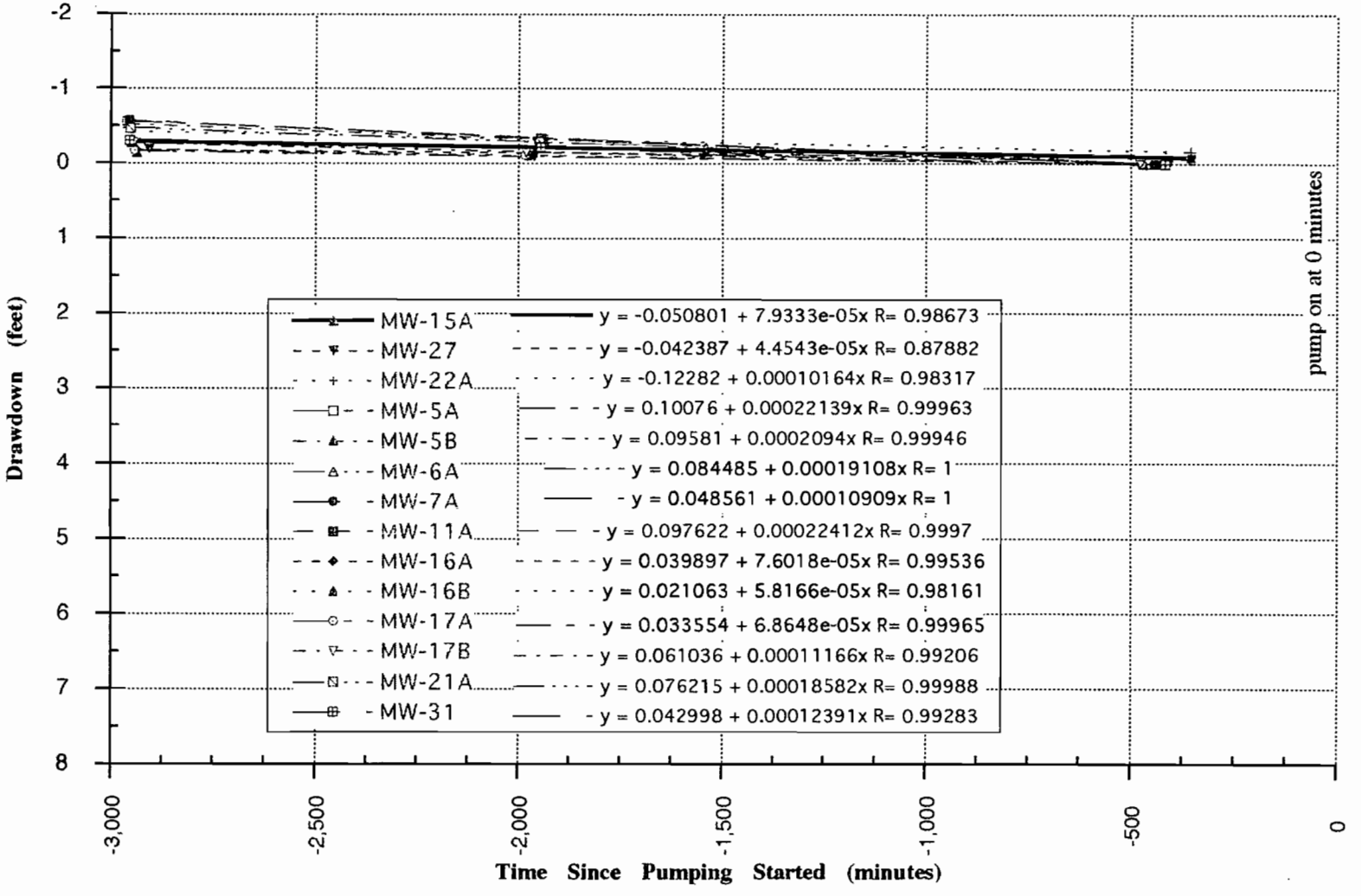


Figure 5
Linear Pre-Test Graph
for Pumping Well DW-28 and Observation Wells

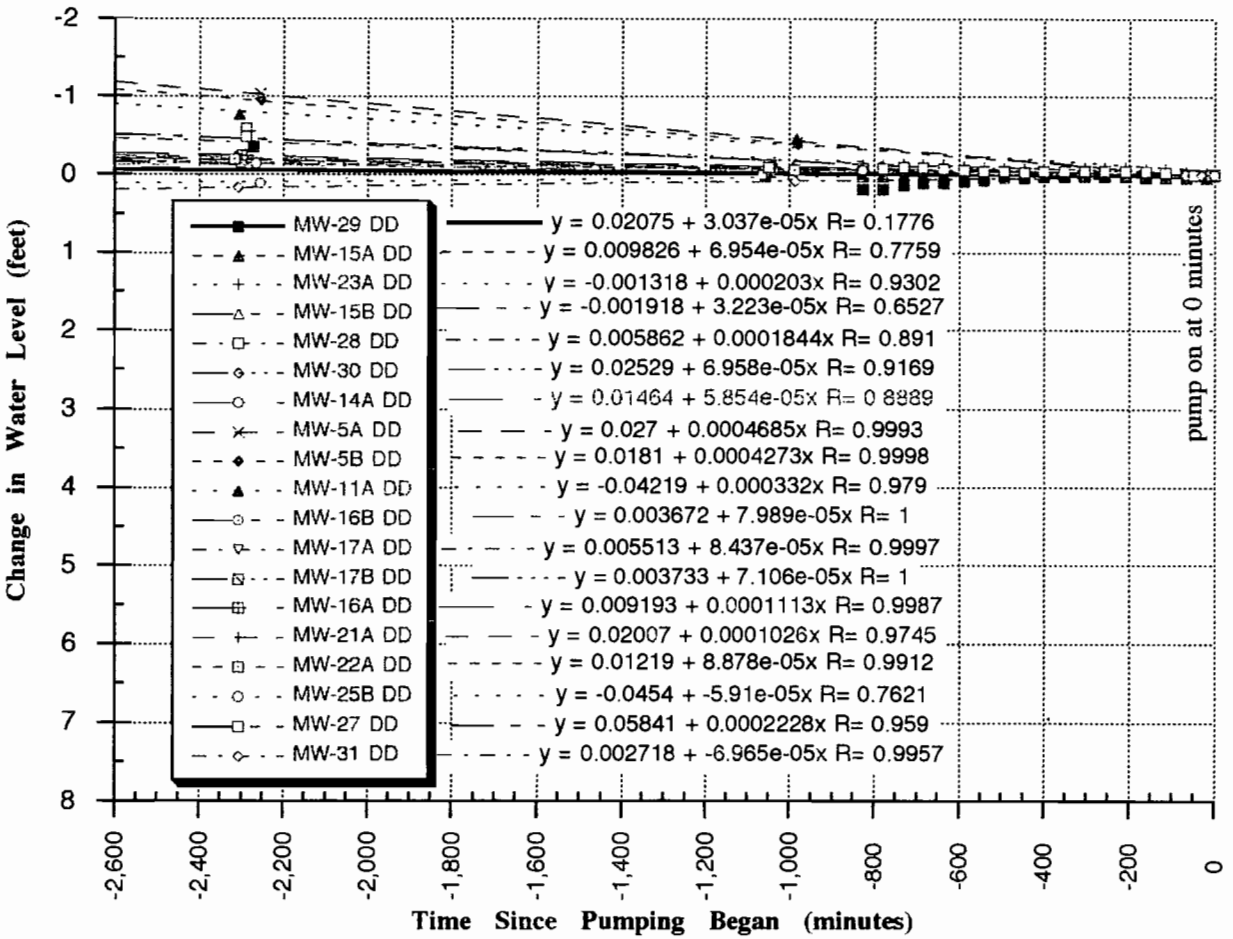


Figure 6
Linear Pre-Test Graph
for Pumping Well DW-29 and Observation Wells

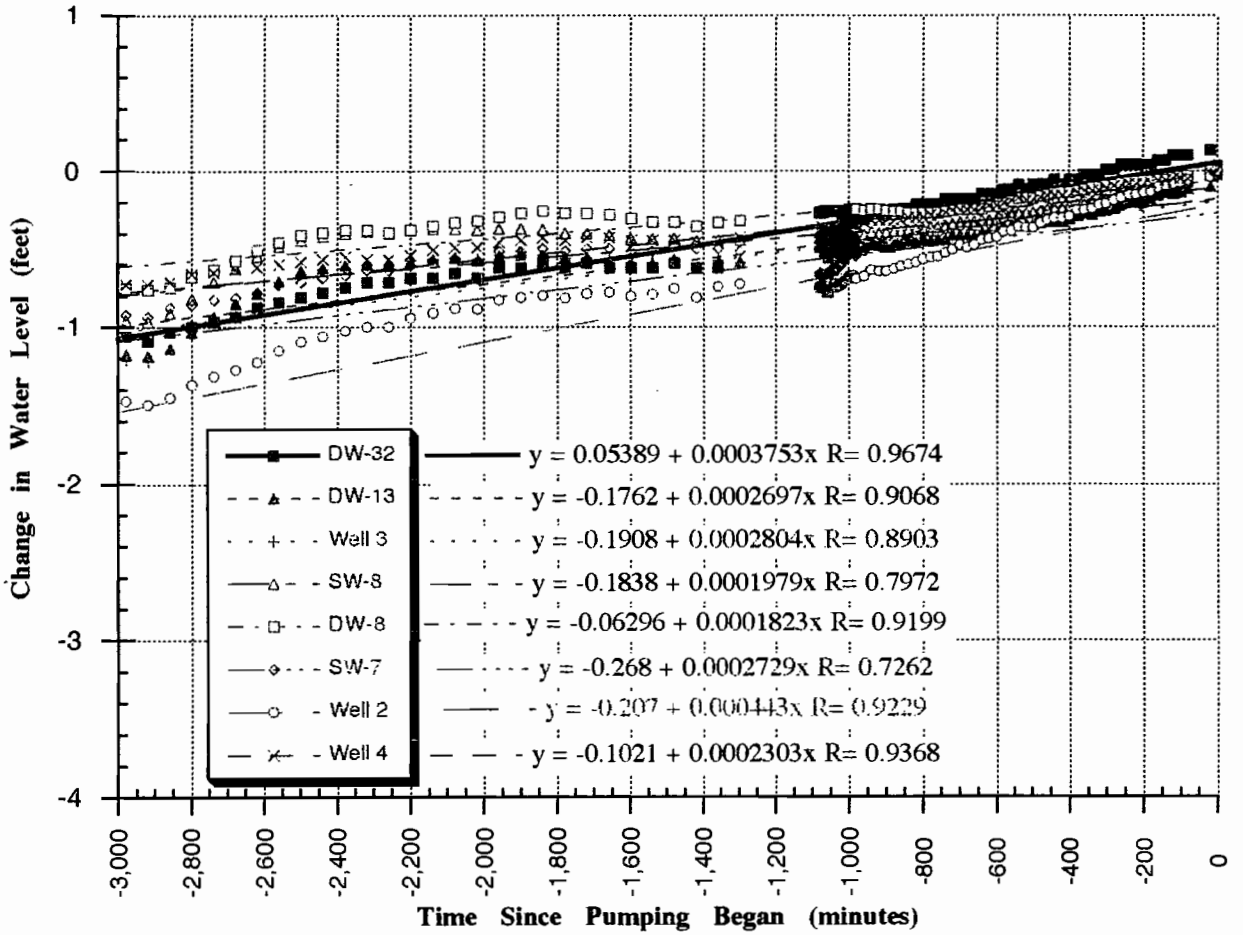
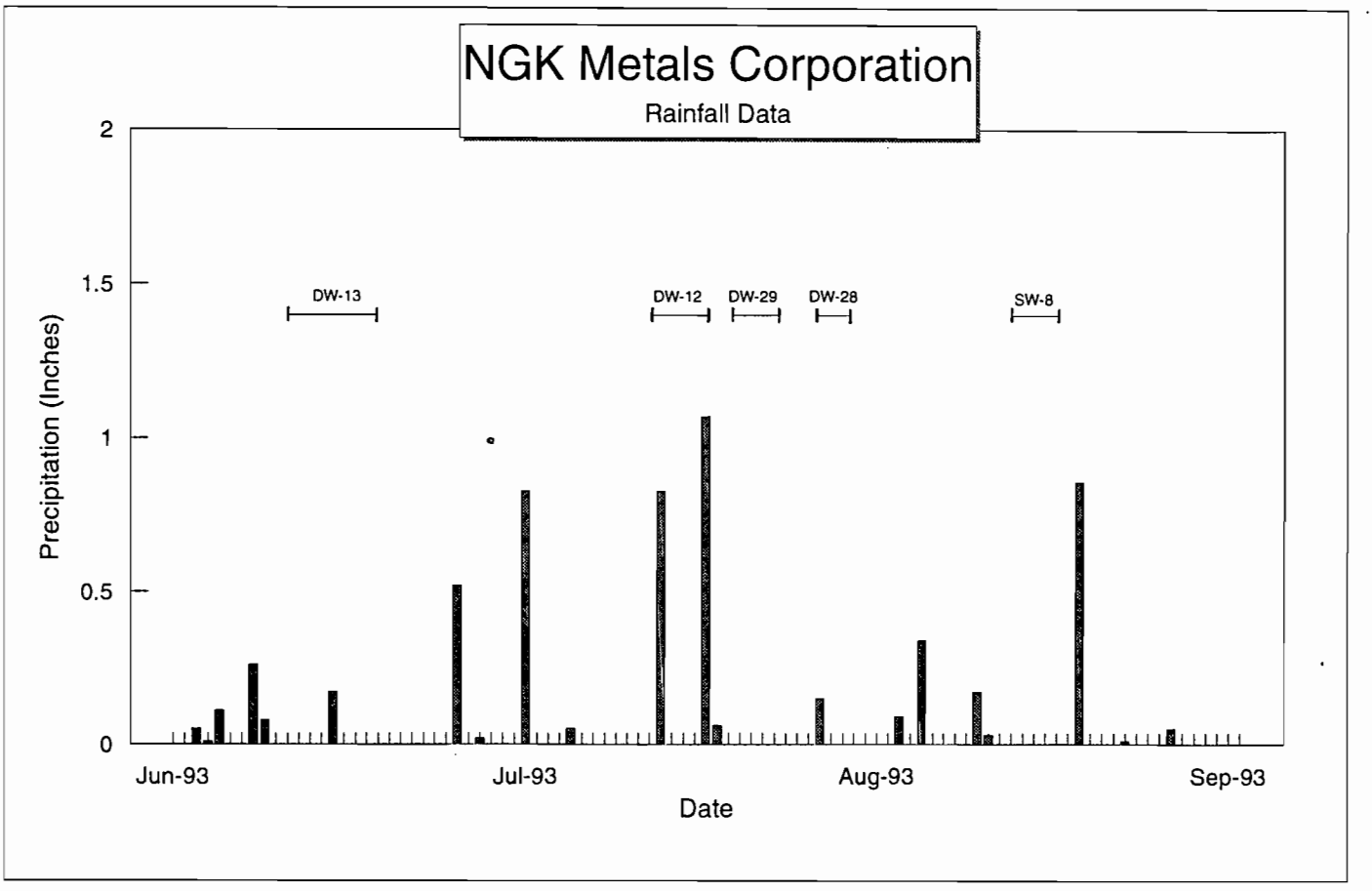


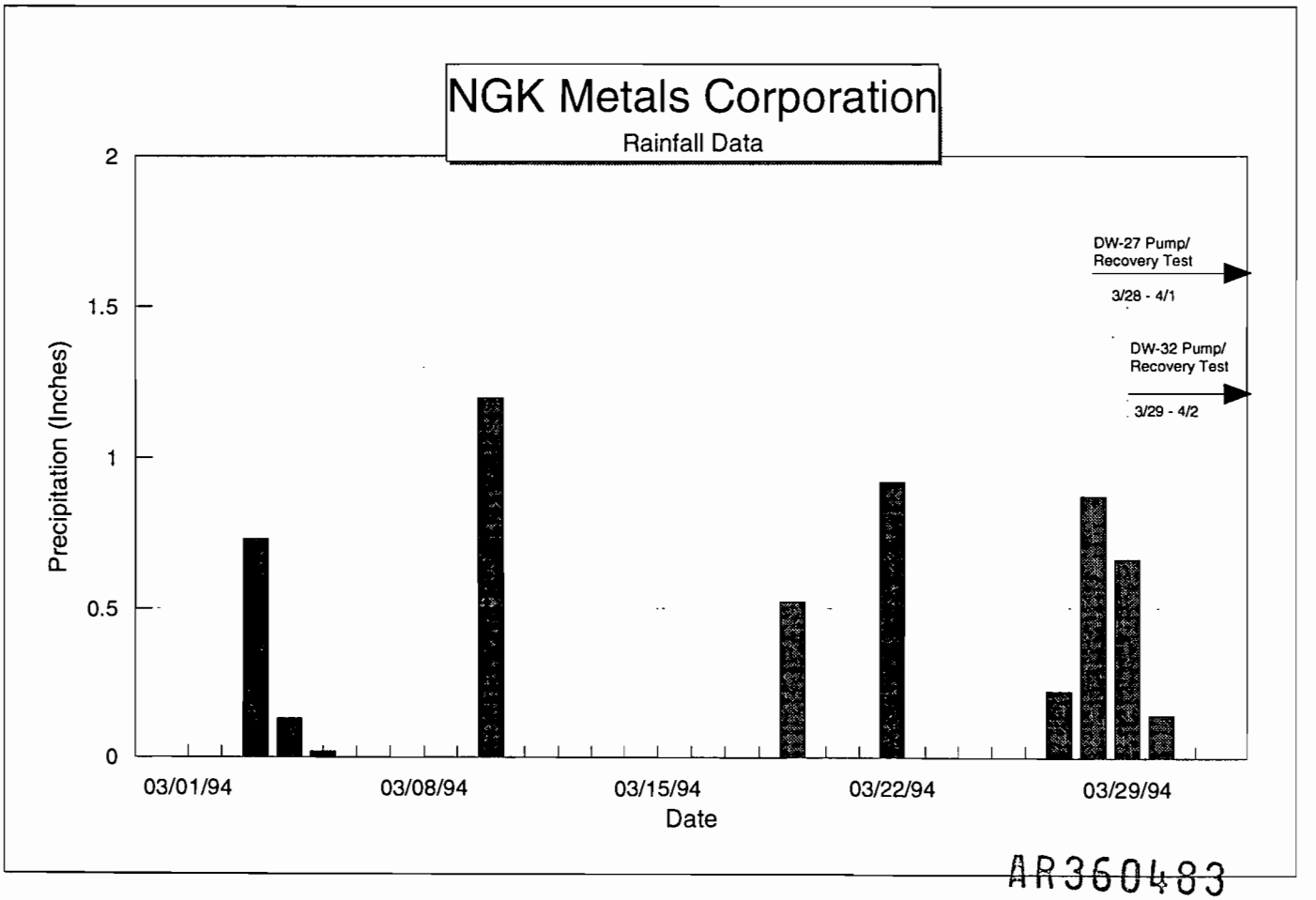
Figure 7
Linear Pre-Test Graph
for Pumping Well DW-32 and Observation Wells

AR360481

APPENDIX D

PRECIPITATION DATA/GRAPHS


NGK Metals Corporation
Rainfall Data
Precipitation (Inches)
2
1.5
1
0.5
0
DW-13
DW-12
DW-29
DW-28
SW-8
Jun-93
Jul-93
Aug-93
Sep-93
Date


NGK Metals Corporation
Rainfall Data
Precipitation (Inches)
2
1.5
1
0.5
0
DW-27 Pump/
Recovery Test
3/28 - 4/1
DW-32 Pump/
Recovery Test
3/29 - 4/2
03/01/94
03/08/94
03/15/94
03/22/94
03/29/94
Date

AR360483

WS FORM E-15
(7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

AR360484

STATION (Climatological): Reading	(River Station, if different): 4 NW	MONTH: June	19 93
STATE: PA	COUNTY: Berks	RIVER: Schuylkill	
TIME (local) OF OBSERVATION:	TEMP.: 0800	PRECIPITATION: 0800	STANDARD TIME IN USE:
TYPE OF RIVER GAGE:	ELEVATION OF RIVER GAGE ZERO: Ft.	FLOOD STAGE: Ft.	NORMAL POOL STAGE: Ft.

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (tens and hundredths)	Snow, ice pellets, hail (tens and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (tens)	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	67	42	52			O											
2	68	51	57														
3	74	54	55	.05													
4	72	54	57	.01													
5	62	53	59	.11													
6	74	48	60														
7	78	59	65														
8	73	64	70	.26						X							
9	89	65	74	.08													
10	87	65	72														
11	82	55	63														
12	77	51	60														
13	79	55	65														
14	82	60	68														
15	82	58	65	.17													
16	82	56	63														
17	93	73	71														
18	90	68	71	.15													
19	92	67	71	.12													
20	87	67	69	.80													
21	85	66	71	.09						X							
22	85	59	64														
23	81	52	61														
24	84	55	66														
25	86	65	72														
26	88	61	67	.52													
27	87	66	75														
28	89	67	72	.02													
29	80	65	71														
30	82	63	69														
31																	
SUM			SUM			X	Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM			X	
				Greatest													

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~) through hours precipitation probably occurred unobserved.

Mark 'X' for all types occurring each day.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER

SUPERVISING OFFICE

STATION INDEX NO. 36 7322 3

KEYED BY 02023

KEYED BY 175.40

AR360485

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

STATION (Climatological): Reading	(River Station, if different): 4NW	MONTH: July	19 93
STATE: PA	COUNTY: Berks	RIVER: Schuylkill	
TIME (local) OF OBSERVATION RIVER	TEMP.: 08~~00~~	PRECIPITATION: 08~~00~~	STANDARD TIME IN USE
TYPE OF RIVER GAGE	ELEVATION OF RIVER GAGE ZERO Ft.	FLOOD STAGE Ft.	NORMAL POOL STAGE Ft.

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (ins. and hundredths)	Snow, ice pellets, hail (ins. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (ins.)	WEATHER (Calendar Day) Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	82	64	66			O											
2	67	63	65	.83													
3	83	65	73														
4	90	68	74														
5	90	70	71														
6	90	70	69	.05													Thunderstorm overnight
7	93	74	80														
8	94	73	75														
9	94	76	82														
10	94	71	77														
11	91	70	75														
12	90	71	77														
13	91	65	70														
14	90	70	74	.83													
15	83	57	67														
16	84	64	68														
17	81	52	63														
18	85	63	65	1.07													
19	69	65	69	.06													
20	89	65	69														
21	81	56	67														
22	82	57	67														
23	85	57	65														
24	86	60	67														
25	87	67	69														
26	76	68	74														
27	89	69	76														
28	93	68	71	.15													
29	88	65	72														
30	76	62	68														
31	93	68	69														
SUM			SUM			X										X	
				Greatest			Fog	Ice Pel.	Glaze	Thund.	Hail	Dam. Winds	SUM				

Draw a straight line (——) through hours precipitation was observed, and a waved line (~~) through hours precipitation probably occurred unobserved.

A.M. NOON P.M.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

OBSERVER

SUPERVISING OFFICE

STATION INDEX NO. 36 7322 3

Punched 88755

STATION (Climatological)	(River Station, if different)	MONTH	
Reading	4 NW	Aug.	1993
STATE: PA	COUNTY: Berks	RIVER: Schuylkill	
TIME (local) OF OBSERVATION RIVER	TEMP.: 0800	PRECIPITATION: 0800	STANDARD TIME IN USE
TYPE OF RIVER GAGE	ELEVATION OF RIVER GAGE ZERO Ft.	FLOOD STAGE Ft.	NORMAL POOL STAGE Ft.

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

mm

AR360486

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (ins. and hundredths)	Snow, ice pellets, hail (ins. and tenths)	At Ob. Snow, ice pellets, hail, ice on ground (ins.)	Draw a straight line (——) through hours precipitation was observed, and a waved line (~~) through hours precipitation probably occurred unobserved. A.M. NOON P.M.	WEATHER (Calendar Day) Mark 'X' for all types occurring each day. Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	88	64	73															
2	90	66	74															
3	90	67	73															
4	87	57	64	.09														
5	80	56	60															
6	64	59	62	.34														
7	76	57	61					X										
8	81	58	62					X										
9	85	59	63															
10	81	63	69															Light RAIN
11	76	62	66	.17				X										
12	82	64	67	.03														
13	86	62	68															
14	86	61	66															
15	88	65	69															
16	83	68	69	.60														
17	77	67	70	.03														
18	82	66	68															
19	82	68	73															
20	81	64	69	.86														
21	78	50	57															
22	78	53	57															
23	85	57	71															
24	86	68	72	.01														
25	91	67	71															
26	92	65	69															
27	94	68	75															
28	96	61	69	.05														
29	88	62	68															
30	89	66	71															
31	89	67	69															
SUM			SUM	Greatest		X		Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM			X	

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

OBSERVER

SUPERVISING OFFICE

STATION INDEX NO. 36 7322 3

STATION (Climatological)	(River Station, if different)	MONTH	19
Reading	4 NW	MARCH	94

STATE	COUNTY	RIVER
PA	Berks	Schuylkill

TIME (local) OF OBSERVATION RIVER	TEMP.	PRECIPITATION	STANDARD TIME IN USE
	0800	0800	

TYPE OF RIVER GAGE	ELEVATION OF RIVER GAGE ZERO Ft.	FLOOD STAGE Ft.	NORMAL POOL STAGE Ft.

WS FORM E-15 (7-79)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE

RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS

AR360487

DATE	TEMPERATURE F. 24 HRS. ENDING AT OBSERVATION MAX.	MIN.	AT OBSN.	PRECIPITATION 24-HR AMOUNTS Rain, melted snow, etc. (ins. and hundredths)	Snow, ice pellets hail (ins. and tenths)	At Ob. Snow, ice pellets hail, ice on ground (ins.)	Draw a straight line (——) through hours precipitation was observed, and a waved line (~~~) through hours precipitation probably occurred unobserved. A.M. NOON P.M.	WEATHER (Calendar Day) Mark 'X' for all types occurring each day. Fog	Ice Pellets	Glaze	Thunder	Hail	Damaging Winds	Time of observation if different from above	RIVER STAGE CONDITION	GAGE READING AT ___ A.M.	TENDENCY	REMARKS (Special observations, etc.,)
1	30	13	17			5"												
2	35	16	21			4"												
3	29	21	29	.73	7.0													Strong winds Ave. 15 mph H-54 Gusts -35 Snow 8-10 11:PM Sleet
4	37	28	33	.13		11"												
5	42	33	39	.02														
6	43	22	25															
7	39	24	31			10"												
8	46	31	38															
9	42	29	30			6"												Snow, Sleet, RAIN
10	33	26	33	1.20														
11	42	31	32															Sleet, RAIN
12	40	21	26															
13	43	22	32															
14	50	33	38	T														
15	49	31	37															
16	49	34	35															
17	36	18	22	T														
18	34	22	29															
19	33	28	31	.52	3"													
20	41	30	36			3"												
21	46	25	29															
22	41	29	41	.92														
23	53	37	47															
24	69	32	40															
25	68	41	48															
26	48	31	36															
27	48	36	37	.22														
28	43	36	42	.87														
29	47	32	32	.66														
30	48	32	40	.14	T													
31	51	27	32															
SUM			SUM			X		Fog	Ice Pel.	Glaze	Thund	Hail	Dam. Winds	SUM			X	

CONDITION OF RIVER AT GAGE

A. Obstructed by rough ice.
B. Frozen, but open at gage.
C. Upper surface of smooth ice.
D. Ice gorge above gage.
E. Ice gorge below gage.
F. Shore ice.
G. Floating ice.
H. Pool stage.

Greatest

CHECK BAR (For wire-weight) NORMAL CK. BAR

READING	DATE

OBSERVER

SUPERVISING OFFICE

STATION INDEX NO. 36 7322 3

APPENDIX E

ANALYTICAL DATA

Analysis Report

JJP

Lancaster Laboratories
Where quality is a science.

23:35:49 389054
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2009780
Date Reported 8/30/93
Date Submitted 8/13/93
Discard Date 9/ 7/93
Collected 8/13/93 by JP
Time Collected 0930
P.O. A31999
Rel.

MW-8A-1 Grab Water Sample
NGK Metals Corp.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	45.	mg/l	7.	020601400P*
Total Dissolved Solids	690.	mg/l	30.	021201500P*
Total Hardness	137.	mg/l	1.	021601300P*
This total hardness value is approximately equivalent to 8 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	23.6	mg/l	0.1	026301800P*
Purgeable Halocarbons (8010)		attached		146211000P*
Purgeable Aromatics (8020)		attached		146309000P*
Beryllium	0.0190	mg/l	0.0050	174701400P*
Cadmium	< 0.0050	mg/l	0.0050	174901400P*
Chromium	0.353	mg/l	0.010	175101400P*
Copper	< 0.025	mg/l	0.025	175301400P*
Iron	3.33	mg/l	0.10	175401400P*

Field pH= 7.13

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
882 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc
2425 New Holland Pike
Lancaster, PA 17601-5994
(717) 656-2301

Lancaster Laboratories
Where quality is a science.

23:35:52 389054
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2009780
Date Reported 8/30/93
Date Submitted 8/13/93
Discard Date 9/ 7/93
Collected 8/13/93 by JP
Time Collected 0930
P.O. A31999
Rel.

MW-8A-1 Grab Water Sample
NGK Metals Corp.

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	19.	ug/l	1.	151800000P
1,1-Dichloroethane	7.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	65.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	2.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360490

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

23:35:57 389054
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2009780
Date Reported 8/30/93
Date Submitted 8/13/93
Discard Date 9/ 7/93
Collected 8/13/93 by JP
Time Collected 0930
P.O. A31999
Rel.

MW-8A-1 Grab Water Sample
NGK Metals Corp.

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360491

See reverse side for explanation of symbols and abbreviations.

2216
9 13 93

Analysis Report

Lancaster Laboratories
Where quality is a science.

23:35:59 389054
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2009781
Date Reported 8/30/93
Date Submitted 8/13/93
Discard Date 9/ 7/93
Collected 8/13/93 by JP
Time Collected 0930
P.O. A31999
Rel.

MW-8A-1 Filtered Grab Water Sample
NGK Metals Corp.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	23.6	mg/l	0.1	026301800P*

Field pH= 7.13

This sample was filtered in the lab for dissolved Fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
882 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360492

See reverse side for explanation of symbols and abbreviations

*2216
9 13 90

Lancaster Laboratories
Where quality is a science.

03:12:25 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995936
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93

Trip Blank Water Sample
NGK Metals Corporation

Time Collected
P.O. A31999
Rel.

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000N
Chloroethane	< 1.	ug/l	1.	151500000N
Methylene chloride	< 1.	ug/l	1.	151600000N
Trichlorofluoromethane	< 1.	ug/l	1.	151700000N
1,1-Dichloroethene	< 1.	ug/l	1.	151800000N
1,1-Dichloroethane	< 1.	ug/l	1.	151900000N
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000N
Chloroform	< 1.	ug/l	1.	152100000N
1,2-Dichloroethane	< 1.	ug/l	1.	152200000N
1,1,1-Trichloroethane	< 1.	ug/l	1.	152300000N
Carbon Tetrachloride	< 1.	ug/l	1.	152400000N
Dichlorobromomethane	< 1.	ug/l	1.	152500000N
1,2-Dichloropropane	< 1.	ug/l	1.	152600000N
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000N
Trichloroethene	< 1.	ug/l	1.	152800000N
Dibromochloromethane	< 1.	ug/l	1.	152900000N
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000N
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000N
Bromoform	< 2.	ug/l	2.	153200000N
Tetrachloroethene	< 1.	ug/l	1.	153300000N
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000N
Chlorobenzene	< 1.	ug/l	1.	153500000N

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360493

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:12:26 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995936
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93

Trip Blank Water Sample
NGK Metals Corporation

Time Collected
P.O. A31999
Rel.

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000N
o-Xylene	< 1.	ug/l	1.	153900000N
m-Xylene	< 1.	ug/l	1.	154000000N
p-Xylene	< 1.	ug/l	1.	154100000N

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360494

See reverse side for explanation of symbols and abbreviations.

*2216

[redacted]

For LLI Use Only

Acct. # 1213 Sample # 1995932-6

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: ~~NGK~~ RUST E & I
Project Name/#: NGK Metals Corp
Project Manager: Jeff Painter
Sampler: Jeffrey J. Painter
State where sample was collected: PA

Acct. #:
PWSID #:
P.O. #: A31999
Quote #:

For LLI use only
FSC:
SCR #: 1048701

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Potable Water	NPDES	Other	Total # of Containers	Total Be, Cu, Cd, Cr, Fe	F (Total), TSS, TDS	F (Dissolved) - lab filter	Hardness	VOA's - SW846 8010/8020				Remarks	Temperature of samples upon receipt
MW-12B-1	7-14-93	0900	X			X			6	X	X	X	X	X				Lab-please filter	
MW-12B-2	7-16-93		X			X			6	X	X	X	X	V				ALL F (dissolved)	
Trip Blank	7-16-93					X								X				samples	
																		Field pH:	
																		MW-12B-1 = 8.51	
																		MW-12B-2 = 7.89	

(7)

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)

Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	6/24/93	0030	Jeffrey J. Painter		
Jeffrey J. Painter	7/16/93	12:35	[illegible]	7/16/93	12:35
[illegible]	7/16/93	17:50			
			Received for LLI by: [illegible]	7/16/93	1750

2425 New Holland Pike, Lancaster, PA 17601-5994 (717) 656-2301 Copies: White and yellow copies should accompany sample to Lancaster Laboratories. The pink copy should be retained by the client. 2/3/93 #2192

For LLI Use Only

Acct. # 1213 Sample # 2009780-81

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: RUST E & I Acct. #:
Project Name/#: NGK Metals PWSID #:
Project Manager: Jeff Painter P.O. #: A31999
Sampler: Jeff Painter Quote #:
State where sample was collected: PA

For LLI use only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Potable / NPDES)	Other	Total # of Containers	Be, Cd, Cr, Cu, Fe	Tot. Hardness	F (Total), TSS, TDS	F (Diss.)	VOA's - 8010 8020				Remarks	Temperature of samples upon receipt
MW-8A-1	8-13-93	0930	X			X		6									Lab is to filter	
																	F(Diss.)	
																	sample	
																	Field pH=	
																	7.13	

(7)

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)

Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey J. Painter	8-13-93	1229			
			Received for LLI by: Leg H. Lute	8/13/93	1229

(9)

2425 New Holland Pike, Lancaster, PA 17601-5994 (717) 656-2301 Copies: White and yellow copies should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client. 2/3/93 #2102

Lancaster Laboratories
Where quality is a science.

10:25:38 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012619
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/17/93 by JP
Time Collected 1100
P.O. A31999
Rel.

MW-8A-2 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	24.	mg/l	7.	020601400P
Total Dissolved Solids	550.	mg/l	30.	021201500P
Total Hardness	123.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 7 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	18.6	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.015	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.349	mg/l	0.050	175101400P
Copper	< 0.020	mg/l	0.020	175301400P
Iron	1.24	mg/l	0.10	175401400P

Field pH = 7.44

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

RECEIVED
SEP 3
DUNN GEOSCIENCE CORP.
HARRISBURG, PA.

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

10:25:40 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012619
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/17/93 by JP
Time Collected 1100
P.O. A31999
Rel.

MW-8A-2 Grab Water Sample
NGK Metals

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	10.	ug/l	1.	151800000P
1,1-Dichloroethane	4.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	35.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	2.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

10:25:44 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012619
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/17/93 by JP
Time Collected 1100
P.O. A31999
Rel.

MW-8A-2 Grab Water Sample
NGK Metals

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360499

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10:25:45 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012620
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/17/93 by JP
Time Collected 1100
P.O. A31999
Rel.

MW-8A-2 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	19.4	mg/l	0.1	026301800P

Field pH = 7.44
This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

RECEIVED
SEP 3
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HARRISBURG, PA.

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations

AR360500

Analysis Report

Lancaster Laboratories
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10:25:46 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012621
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/18/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-8A-3 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	550.	mg/l	30.	021201500P
Total Hardness	125.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 7 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	18.8	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.014	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.331	mg/l	0.050	175101400P
Copper	< 0.020	mg/l	0.020	175301400P
Iron	0.15	mg/l	0.10	175401400P

Field pH = 7.12

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HARRISBURG, PA.

Questions? Contact Environmental Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations

AR360501

2216

Lancaster Laboratories
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10:25:49 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012621
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/18/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-8A-3 Grab Water Sample
NGK Metals

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	10.	ug/l	1.	151800000P
1,1-Dichloroethane	5.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	34.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Analysis Report

Lancaster Laboratories
Where quality is a science.

10:25:52 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012621
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/18/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-8A-3 Grab Water Sample
NGK Metals

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

AR360503

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994

Analysis Report

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10:25:53 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012622
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/19/93 by JP
Time Collected 1115
P.O. A31999
Rel.

MW-8A-3 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	18.6	mg/l	0.1	026301800P

Field pH = 7.12
This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

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HARRISBURG, PA.

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

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10:25:54 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
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LLI Sample No. WW 2012623
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/19/93 by JP
Time Collected 1115
P.O. A31999
Rel.

MW-8A-4 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	580.	mg/l	30.	021201500P
Total Hardness	125.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 7 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	19.5	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.014	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.326	mg/l	0.050	175101400P
Copper	< 0.020	mg/l	0.020	175301400P
Iron	0.11	mg/l	0.10	175401400P

Field pH = 6.80

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HARRISBURG, PA.

Questions? Contact Environmental Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

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10:25:55 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012623
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/19/93 by JP
Time Collected 1115
P.O. A31999
Rel.

MW-8A-4 Grab Water Sample
NGK Metals

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	9.	ug/l	1.	151800000P
1,1-Dichloroethane	4.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	33.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

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10:25:57 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012623
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/19/93 by JP
Time Collected 1115
P.O. A31999
Rel.

MW-8A-4 Grab Water Sample
NGK Metals

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360507

See reverse side for explanation of symbols and abbreviations.

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10:25:59 389818
ASR000 D 1 6
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2012624
Date Reported 9/ 2/93
Date Submitted 8/19/93
Discard Date 9/10/93
Collected 8/19/93 by JP
Time Collected 1115
P.O. A31999
Rel.

MW-8A-4 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	18.8	mg/l	0.1	026301800P

Field pH = 6.80
This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

RECEIVED
SEP 3
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HARRISBURG, PA.

Questions? Contact Environmental Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Analysis Request/Environmental Services Chain of Custody

Acct. # 1213 For LLI Use Only Sample # 2012619-24

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: Rust E & I Acct. #:
Project Name/#: NGK Metals PWSID #:
Project Manager: Jeff Painter/D. Wolfe P.O. #: A31999
Sampler: Jeff Painter Quote #:
State where sample was collected: PA

For LLI use only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Potable / NPDES)	Other	Total # of Containers	Pb, Cd, Cr, Cu, Fe	Tot Hardness	F (Total), TSS, TD's	F (Dissolved)	VOA's 8010 8020				Remarks	Temperature of samples upon receipt
MW-8A-2	8-17-93	1100	X			X		6	X	X	X	X	X				Lab is to	
MW-8A-3	8-18-93	1030	X			X		6	X	X	X	X	X				filter all	
MW-8A-4	8-19-93	1115	X			X		6	X	X	X	X	X				F (Dissolved)	
																	samples	
RECEIVED																	Field pH:	
																	MW-8A-2 = 7.44	
SEP 3																	MW-8A-3 = 7.12	
																	MW-8A-3 = 6.80	
DUNN GEOSCIENCE CORP. HARRISBURG, PA.																		

(7)

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)

Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey J. Painter	8-19-93		Erma Dillman	8/19/93	14:25
Erma Dillman	8/19/93	15:40			
			Received for LLI by: Marianne Bragg	8/19/93	1540

(9)

2425 New Holland Pike, Lancaster, PA 17601-5994 (717) 656-2301 Copies: White and yellow copies should accompany samples to Lancaster Laboratories

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Where quality is a science.

03:12:15 385636 5756
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995932
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/14/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-1 Grab Water Sample
NGK Metals Corporation

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	3,020.	mg/l	70.	020601400P
Total Dissolved Solids	870.	mg/l	30.	021201500P
Total Hardness	161.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 9 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	65.3	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.230	mg/l	0.010	174701400P
Cadmium	0.022	mg/l	0.010	174901400P
Chromium	0.527	mg/l	0.050	175101400P
Copper	0.546	mg/l	0.020	175301400P
Iron	401.	mg/l	1.0	175401400P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

03:12:16 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995932
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/14/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-1 Grab Water Sample
NGK Metals Corporation

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	2.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	5.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	3.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

2216
3 13 90

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:12:18 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995932
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/14/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-1 Grab Water Sample
NGK Metals Corporation

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360512

See reverse side for explanation of symbols and abbreviations

2216

ANALYSIS REPORT

Lancaster Laboratories
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03:12:19 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995933
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/14/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-1 Filtered Grab Water Sample
NGK Metals Corporation

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	66.4	mg/l	0.1	026301800P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360513

See reverse side for explanation of symbols and abbreviations

2216

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:12:20 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995934
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/16/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-2 Grab Water Sample
NGK Metals Corporation

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	280.	mg/l	20.	020601400P
Total Dissolved Solids	740.	mg/l	30.	021201500P
Total Hardness	64.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 4 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	43.4	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.036	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.295	mg/l	0.050	175101400P
Copper	0.107	mg/l	0.020	175301400P
Iron	20.5	mg/l	0.10	175401400P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360514

See reverse side for explanation of symbols and abbreviations.

*2216
9 13 90

Lancaster Laboratories
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03:12:21 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995934
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/16/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-2 Grab Water Sample
NGK Metals Corporation

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	4.	ug/l	1.	151800000P
1,1-Dichloroethane	2.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	16.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000N
1,2-Dichloropropane	< 1.	ug/l	1.	152600000N
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000N
Trichloroethene	2.	ug/l	1.	152800000N
Dibromochloromethane	< 1.	ug/l	1.	152900000N
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000N
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000N
Bromoform	< 2.	ug/l	2.	153200000N
Tetrachloroethene	< 1.	ug/l	1.	153300000N
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000N
Chlorobenzene	< 1.	ug/l	1.	153500000N

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations

Lancaster Laboratories
Where quality is a science.

03:12:22 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995934
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/16/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-2 Grab Water Sample
NGK Metals Corporation

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360516

See reverse side for explanation of symbols and abbreviations

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:12:23 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995935
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93
Collected 7/16/93 by JJP
Time Collected 0900
P.O. A31999
Rel.

MW-12B-2 Filtered Grab Water Sample
NGK Metals Corporation

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	44.0	mg/l	0.1	026301800P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations

AR360517

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:12:24 385636
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1995936
Date Reported 8/ 2/93
Date Submitted 7/16/93
Discard Date 8/10/93

Trip Blank Water Sample
NGK Metals Corporation

Time Collected
P.O. A31999
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Purgeable Halocarbons (8010)	attached		146211000P
Purgeable Aromatics (8020)	attached		146309000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 0.00 020000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360518

See reverse side for explanation of codes and abbreviations.

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03:41:50 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987110
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/25/93 by JP
Time Collected 1445
P.O.
Rel.

MW-12B-1 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	6,400.	mg/l	200.	020601400P
Total Dissolved Solids	910.	mg/l	50.	021201500P
Total Hardness	281.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 17 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	81.0	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	0.334	mg/l	0.010	174701400P
Cadmium	0.076	mg/l	0.010	174901400P
Chromium	0.610	mg/l	0.050	175101400P
Copper	0.510	mg/l	0.020	175301400P
Iron	518.	mg/l	1.0	175401400P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
278 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

AR560519

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

03:41:52 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987110
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/25/93 by JP
Time Collected 1445
P.O.
Rel.

MW-12B-1 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	< 1.	ug/l	1.	311600000P
1,1-Dichloroethane	< 1.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	< 1.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	3.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360520

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
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03:41:55 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987111
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/25/93 by JP
Time Collected 1445
P.O.
Rel.

MW-12B-1 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	83.5	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
278 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

AR560521

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

03:41:56 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987112
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/26/93 by JP
Time Collected 1130
P.O.
Rel.

MW-12B-2 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	201.	mg/l	9.	020601400P
Total Dissolved Solids	740.	mg/l	50.	021201500P
Total Hardness	62.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 4 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	45.1	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	0.022	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.235	mg/l	0.050	175101400P
Copper	< 0.020	mg/l	0.020	175301400P
Iron	7.22	mg/l	0.10	175401400P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
278 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360522

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

03:41:57 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987112
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/26/93 by JP
Time Collected 1130
P.O.
Rel.

MW-12B-2 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	1.	ug/l	1.	311600000P
1,1-Dichloroethane	2.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	9.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	2.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

AR360523

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:41:59 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987113
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/26/93 by JP
Time Collected 1130
P.O.
Rel.

MW-12B-2 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	43.4	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
278 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360524

See reverse side for explanation of symbols and abbreviations.

2216
9/13/90

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:42:00 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987114
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/28/93 by JP
Time Collected 1225
P.O.
Rel.

MW-12B-3 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	134.	mg/l	9.	020601400P
Total Dissolved Solids	730.	mg/l	50.	021201500P
Total Hardness	64.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 4 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	47.2	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	0.023	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.236	mg/l	0.050	175101400P
Copper	0.028	mg/l	0.020	175301400P
Iron	8.74	mg/l	0.10	175401400P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
278 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360525

See reverse side for explanation of symbols and abbreviations.

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Where quality is a science.

03:42:01 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987114
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/28/93 by JP
Time Collected 1225
P.O.
Rel.

MW-12B-3 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	2.	ug/l	1.	311600000P
1,1-Dichloroethane	2.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	12.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	2.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360526

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:42:03 383415
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1987115
Date Reported 7/16/93
Date Submitted 6/28/93
Discard Date 7/24/93
Collected 6/28/93 by JP
Time Collected 1225
P.O.
Rel.

MW-12B-3 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	46.8	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
278 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360527

See reverse side for explanation of symbols and abbreviations.

Analysis Request/Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # 1987110-16

AR360528

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: RUST / NGK
Acct. #:
Project Name/#: NGK Metals
PWSID #:
Project Manager: Jeff Painter
P.O. #:
Sampler: Jeff Painter / Joe Prowell
Quote #:
State where sample was collected:

For LLI use only
FSC:
SCR #: 1048296

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Potable / NPDES)	Other	Total # of Containers	Be, Cd, Cr, Cu, Fe	Hardness	F- (Total), TSS, TDS	F- (Dissolved)	VOA's 8010/8020				Remarks	Temperature of samples upon receipt
MW-12B-1	6-25-93	1445	x			x		6									F- (Dissolved).	
MW-12B-2	6-26-93	1130	x			x		6									samples are to	
MW-12B-3	6-28-93	1225	x			x		6									be lab filtered	
Trip Blank								2										

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)
Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	6/4/93	2200	L Woodside	6/4/93	1300
Jeffrey J. Painter	6/29/93	1241	Erma Dellman	6/28/93	13:15
Erma Dellman	6/28/93	14:30			
			Received for LLI by: Joseph B. Pine	6/28/93	14:30

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:40:53 386443
ASR000 D 1 5
01213 0

575-

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999361
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/19/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-12B-3 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	37.	mg/l	7.	020601400P
Total Dissolved Solids	760.	mg/l	30.	021201500P
Total Hardness	64.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 4 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	45.7	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.024	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.269	mg/l	0.050	175101400P
Copper	0.064	mg/l	0.020	175301400P
Iron	4.18	mg/l	0.10	175401400P

The field pH of the sample at the time of collection was 8.11

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
170 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster PA 17601-5994
717-656-2301

AR360529

See reverse side for explanation of symbols and abbreviations.

2216

Lancaster Laboratories
Where quality is a science.

14:40:58 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999361
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/19/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-12B-3 Grab Water Sample
NGK Metals Corp

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	3.	ug/l	1.	151800000P
1,1-Dichloroethane	2.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	15.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	2.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

14:41:05 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999361
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/19/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-12B-3 Grab Water Sample
NGK Metals Corp

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360531

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:40:53 386443
ASR000 D 1 5
01213 0

5756

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999361
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/19/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-12B-3 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	37.	mg/l	7.	020601400P
Total Dissolved Solids	760.	mg/l	30.	021201500P
Total Hardness	64.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 4 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	45.7	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.024	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	0.269	mg/l	0.050	175101400P
Copper	0.064	mg/l	0.020	175301400P
Iron	4.18	mg/l	0.10	175401400P

The field pH of the sample at the time of collection was 8.11

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
170 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

AR360532

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

14:40:58 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999361
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/19/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-12B-3 Grab Water Sample
NGK Metals Corp

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	3.	ug/l	1.	151800000P
1,1-Dichloroethane	2.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	15.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	2.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360533

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

14:41:05 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999361
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/19/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-12B-3 Grab Water Sample
NGK Metals Corp

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360534

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

14:41:07 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999363
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/23/93 by JP
Time Collected 0945
P.O. A31999
Rel.

MW-29-1 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	290.	mg/l	10.	020601400P
Total Dissolved Solids	740.	mg/l	30.	021201500P
Total Hardness	404.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 24 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	21.6	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.480	mg/l	0.010	174701400P
Cadmium	0.016	mg/l	0.010	174901400P
Chromium	4.48	mg/l	0.050	175101400P
Copper	5.96	mg/l	0.020	175301400P
Iron	22.2	mg/l	0.10	175401400P

The field pH of the sample at the time of collection was 6.39

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
170 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

AR350535

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

14:41:10 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999363
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/23/93 by JP
Time Collected 0945
P.O. A31999
Rel.

MW-29-1 Grab Water Sample
NGK Metals Corp

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	6.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	3.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	2.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360536

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:41:13 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999363
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/23/93 by JP
Time Collected 0945
P.O. A31999
Rel.

MW-29-1 Grab Water Sample
NGK Metals Corp

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

AR360537

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # 1999361-65

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Rust E & I
Project Name/#: NGK Metals Corp
Project Manager: Jeff Painter
Sampler: Jeff Painter
State where sample was collected: PA

Acct. #:
PWSID #:
P.O. #: A31999
Quote #:

For LLI use only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Potable Water / NPDES	Matrix: Other	Total # of Containers	Be, Cd, Cr, Cu, Fe	Hardness	F (Total), TSS, TDS	F (Dissolved)	VOA's 8010/8020				Remarks	Temperature of samples upon receipt
MW-12B-3	7-19-93	1030	X			X		6	X								F (Dissolved)	
MW-29-1	7-23-93	0945	X			X		6	X								Samples to be	
Travel Blank								1									lab filtered	
																	Field pH	
																	MW-12B = 8.11	
																	MW-29 = 6.39	

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)
Data Package Options (please circle if requested):
Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey J. Painter	7-23-93	12:45	Gene Seifi	7/23/93	12:45
Gene Seifi	7/23/93	13:45			

Received for LLI by:	Date	Time
E. A. Witowski	7/23/93	1345

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:05:22 381534
ASR000 D 1 3
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1980074
Date Reported 6/24/93
Date Submitted 6/10/93
Discard Date 7/ 2/93
Collected 6/ 9/93 by JJP
Time Collected 1625
P.O. A31999JJP
Rel.

MW-13B Initial Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	410.	mg/l	20.	020601400P
Total Dissolved Solids	1,020.	mg/l	10.	021201500P
Total Hardness	172.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 10 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Beryllium	< 0.01	mg/l	0.01	024701400P
Cadmium	< 0.01	mg/l	0.01	024901400P
Chromium	0.79	mg/l	0.05	025101400P
Copper	0.03	mg/l	0.02	025301400P
Iron	31.0	mg/l	0.1	025401400P
Fluoride	29.2	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

RECEIVED
JUN 25
DUNN GEOSCIENCE CORP.
HARRISBURG, PA.

Questions? Contact Environmental Client Services at (717) 656-2301
059 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

AR360539

*2216
9/13/90

Lancaster Laboratories
Where quality is a science.

14:05:25 381534
ASR000 D 1 3
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1980074
Date Reported 6/24/93
Date Submitted 6/10/93
Discard Date 7/ 2/93
Collected 6/ 9/93 by JJP
Time Collected 1625
P.O. A31999JJP
Rel.

MW-13B Initial Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	2.	ug/l	1.	311600000P
1,1-Dichloroethane	4.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	16.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	1.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360540

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:05:28 381534
ASR000 D 1 3
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1980075
Date Reported 6/24/93
Date Submitted 6/10/93
Discard Date 7/ 2/93
Collected 6/ 9/93 by JJP
Time Collected 1625
P.O. A31999JJP
Rel.

MW-13B Initial Grab Water Sample
Dissolved (not field filtered)
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	26.4	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
059 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360541

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:05:29 381534
ASR000 D 1 3
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1980076
Date Reported 6/24/93
Date Submitted 6/10/93
Discard Date 7/ 2/93

Trip Blank Water Sample
NGK Metals

Time Collected
P.O. A31999JJP
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Volatile Halocarbons/Aromatics	attached		051512500P

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
059 01213 0.00 012500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360542

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:05:29 381534
ASR000 D 1 3
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1980076
Date Reported 6/24/93
Date Submitted 6/10/93
Discard Date 7/ 2/93

Trip Blank Water Sample
NGK Metals

Time Collected
P.O. A31999JJP
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Volatile Halocarbons/Aromatics	attached		051512500P

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
059 01213 0.00 012500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

AR360543

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

14:05:30 381534
ASR000 D 1 3
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1980076
Date Reported 6/24/93
Date Submitted 6/10/93
Discard Date 7/ 2/93

Trip Blank Water Sample
NGK Metals

Time Collected
P.O. A31999JJP
Rel.

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	< 1.	ug/l	1.	311600000P
1,1-Dichloroethane	< 1.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	< 1.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	< 1.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR560544

See reverse side for explanation of symbols and abbreviations.

Analysis Request/Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # 1980074-76

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Dunn Corp Acct. #:
Project Name/#: NGK Metals PWSID #:
Project Manager: Jeff Painter P.O. #: A31999
Sampler: Jeff Painter Quote #:
State where sample was collected: PA

For LLI use only
FSC:
SCR #: 1048296

(2) (3) (4) (5) (8)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (1 Potable 2 NPDES)	Other	Total # of Containers	Total-Be,Cu,Cd,Cr,Fe	Total F-TSS, TDS	Diss F-	Hardness	VOA-SW-846 8010/8020				Remarks	Temperature of samples upon receipt
MW-13B Initial	6-9-93	1625	X			X		6	x	x	x	x	x					
Trip Blank	6-4-93							2					x					

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)
Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP
Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No
SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	6/4/93	2200	L Woodside	6/7/93	1300
L Woodside	6-8-93	0800	Jeffrey J. Painter	6-8-93	0800
Lynne Woodside	6/9/93		Erma Dillman	6/10/93	13:10
Erma Dillman	6/10/93	14:50			
Relinquished by:	Date	Time	Received for LLI by:	Date	Time
			Annette Hutchison	6/10/93	1450

[redacted]25 Ne[redacted]and Pi[redacted]caste[redacted]7601-[redacted]717) [redacted]01 [redacted] Whi[redacted]yellow[redacted]s shou[redacted]mpar[redacted]ples to [redacted]ter La[redacted]eries. [redacted] pink copy should be retained by the client. 2/3/93 #2102 [redacted]

Analysis Report

Lancaster Laboratories
Where quality is a science.

03:04:49 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981584
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93
Collected 6/14/93 by JP
Time Collected 1630
P.O. A31999
Rel.

MW-13B Initial Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	390.	mg/l	20.	020601400P
Total Dissolved Solids	1,140.	mg/l	10.	021201500P
Total Hardness	253.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 15 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	21.2	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	< 0.01	mg/l	0.01	174701400P
Cadmium	< 0.01	mg/l	0.01	174901400P
Chromium	1.09	mg/l	0.05	175101400P
Copper	0.03	mg/l	0.02	175301400P
Iron	39.0	mg/l	0.1	175401400P

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

AR360546

2216
9/13/90

Lancaster Laboratories
Where quality is a science.

03:04:51 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981584
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93
Collected 6/14/93 by JP
Time Collected 1630
P.O. A31999
Rel.

MW-13B Initial Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	8.	ug/l	1.	311600000P
1,1-Dichloroethane	5.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	41.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	1.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

AR360547

Lancaster Laboratories
Where quality is a science.

03:04:55 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981585
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93
Collected 6/14/93 by JP
Time Collected 1630
P.O. A31999
Rel.

MW-13B Filtered Initial Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	22.6	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

AR360548

Lancaster Laboratories
Where quality is a science.

03:04:37 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981581
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93
Collected 6/15/93 by JP
Time Collected 1100
P.O. A31999
Rel.

MW-13B-2 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	8.	mg/l	7.	020601400P
Total Dissolved Solids	730.	mg/l	10.	021201500P
Total Hardness	158.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 9 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	18.7	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	< 0.01	mg/l	0.01	174701400P
Cadmium	< 0.01	mg/l	0.01	174901400P
Chromium	0.45	mg/l	0.05	175101400P
Copper	< 0.02	mg/l	0.02	175301400P
Iron	0.6	mg/l	0.1	175401400P

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

RECEIVED
JUL - 1
DUNN CORPORATE CORP.
HARRISBURG, PA.

Questions? Contact Environmental Client Services at (717) 656-2301
351 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360549

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

03:04:40 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981581
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93
Collected 6/15/93 by JP
Time Collected 1100
P.O. A31999
Rel.

MW-13B-2 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	10.	ug/l	1.	311600000P
1,1-Dichloroethane	5.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	43.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	2.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360550

See reverse side for explanation of symbols and abbreviations.

ANALYSIS REPORT

Lancaster Laboratories
Where quality is a science.

03:04:44 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981582
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93

MW-13B-2 Filtered Water Sample
NGK Metals

Time Collected
P.O. A31999
Rel.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	17.7	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

AR360551

Lancaster Laboratories
Where quality is a science.

03:04:45 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981583
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93

Trip Blank Water Sample
NGK Metals

Time Collected
P.O. A31999
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Volatile Halocarbons/Aromatics	attached		051512500P

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 0.00 012500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360552

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

03:04:46 381985
ASR000 D 1 5
01213 0

Dunn Corporation - PA
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1981583
Date Reported 6/30/93
Date Submitted 6/15/93
Discard Date 7/ 8/93

Trip Blank Water Sample
NGK Metals

Time Collected
P.O. A31999
Rel.

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	< 1.	ug/l	1.	311600000P
1,1-Dichloroethane	< 1.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	< 1.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	< 1.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO Dunn Corporation ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360553

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # P81581-85

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Dunn Corp
Acct. #:
Project Name/#: NGK Metals
PWSID #:
Project Manager: Jeff Painter
P.O. #: A31999
Sampler: Jeff Painter
Quote #:
State where sample was collected: PA

For LLI use only
FSC:
SCR #: 1048296

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Potable / NPDES)	Other	Total # of Containers	Be, Cu, Cd, Cr, Fe	Hardness	F- (Total), TSS, TDS	F- (dissolved)	UDA SW-846 6010/8020				Remarks:	Temperature of samples upon receipt
MW-13 B-2	6-15-93	1100	x			x		6	x	x	x	x	x				S.C. - 0.733 mho/cm pH = 7.70	
Trip Blank								1					x					
MW-13 B Initial	6-14-93	1630	x			x		6	x	x	x	x	x				S.C. = 1.498 mho/cm pH = 7.98	

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)
Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[illegible]	6/14/93	2200	Lynn Woodside	6/15/93	1300
Jeffrey J. Painter	6-15 93	1135	Lynn Woodside	6-15 93	1135
Lynn Woodside	6-15 93	1300	Erma Dellman	6/15/93	13:00
Erma Dellman	6/15/93	15:30			
			Received for LLI by: Marianne Bragg	6/15/93	1530

Analysis Report

Lancaster Laboratories
Where quality is a science.

11:12:48 382551
ASR000 D 1 7
01213 0

RECEIVED
JUL - 2
DUNN GEOSCIENCE CORP.
HARRISBURG, PA.

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983535
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/16/93 by JP
Time Collected 1150
P.O. A31999
Rel.

MW-13B-3 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	710.	mg/l	10.	021201500P
Total Hardness	141.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 8 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	18.4	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	0.01	mg/l	0.010	174701400P
Cadmium	< 0.01	mg/l	0.010	174901400P
Chromium	0.40	mg/l	0.050	175101400P
Copper	< 0.02	mg/l	0.020	175301400P
Iron	0.3	mg/l	0.10	175401400P

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360555

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:12:53 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983535
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/16/93 by JP
Time Collected 1150
P.O. A31999
Rel.

MW-13B-3 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	11.	ug/l	1.	311600000P
1,1-Dichloroethane	6.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	58.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	2.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360556

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:12:57 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983536
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/16/93 by JP
Time Collected 1150
P.O. A31999
Rel.

MW-13B-3 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	17.1	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved metals.

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360557

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:12:59 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983537
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/17/93 by JP
Time Collected 1300
P.O. A31999
Rel.

MW-13B-4 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	680.	mg/l	10.	021201500P
Total Hardness	162.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 10 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	17.6	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	0.01	mg/l	0.010	174701400P
Cadmium	< 0.01	mg/l	0.010	174901400P
Chromium	0.38	mg/l	0.050	175101400P
Copper	< 0.02	mg/l	0.020	175301400P
Iron	0.1	mg/l	0.10	175401400P

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360558

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:13:04 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983537
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/17/93 by JP
Time Collected 1300
P.O. A31999
Rel.

MW-13B-4 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	11.	ug/l	1.	311600000P
1,1-Dichloroethane	6.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	61.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	2.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360559

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

11:13:12 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983538
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/17/93 by JP
Time Collected 1300
P.O. A31999
Rel.

MW-13B-4 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	17.1	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved metals.

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360560

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:13:13 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983539
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/18/93 by JP
Time Collected 1205
P.O. A31999
Rel.

MW-13B-5 Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	680.	mg/l	10.	021201500P
Total Hardness	162.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 10 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	17.5	mg/l	0.1	026301800P
Volatile Halocarbons/Aromatics		attached		051512500P
Beryllium	0.01	mg/l	0.010	174701400P
Cadmium	< 0.01	mg/l	0.010	174901400P
Chromium	0.37	mg/l	0.050	175101400P
Copper	< 0.02	mg/l	0.020	175301400P
Iron	0.1	mg/l	0.10	175401400P

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 15.00 027000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360561

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:13:18 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983539
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/18/93 by JP
Time Collected 1205
P.O. A31999
Rel.

MW-13B-5 Grab Water Sample
NGK Metals

Volatile Halocarbons/Aromatics	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	310700000P
Toluene	< 1.	ug/l	1.	310800000P
Chlorobenzene	< 1.	ug/l	1.	310900000P
Ethylbenzene	< 1.	ug/l	1.	311000000P
Chloromethane	< 5.	ug/l	5.	311100000P
Bromomethane	< 5.	ug/l	5.	311200000P
Vinyl chloride	< 1.	ug/l	1.	311300000P
Chloroethane	< 1.	ug/l	1.	311400000P
Methylene chloride	< 1.	ug/l	1.	311500000P
1,1-Dichloroethene	11.	ug/l	1.	311600000P
1,1-Dichloroethane	7.	ug/l	1.	311700000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	311800000P
Chloroform	< 1.	ug/l	1.	311900000P
1,2-Dichloroethane	< 1.	ug/l	1.	312000000P
1,1,1-Trichloroethane	62.	ug/l	1.	312100000P
Carbon tetrachloride	< 1.	ug/l	1.	312200000P
Dichlorobromomethane	< 1.	ug/l	1.	312300000P
1,2-Dichloropropane	< 1.	ug/l	1.	312400000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	312500000P
Trichloroethene	2.	ug/l	1.	312600000P
Dibromochloromethane	< 1.	ug/l	1.	312700000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	312800000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	312900000P
Bromoform	< 2.	ug/l	2.	313000000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	313100000P
Tetrachloroethene	< 1.	ug/l	1.	313200000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360562

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

11:13:23 382551
ASR000 D 1 7
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1983540
Date Reported 7/ 1/93
Date Submitted 6/18/93
Discard Date 7/ 9/93
Collected 6/18/93 by JP
Time Collected 1205
P.O. A31999
Rel.

MW-13B-5 Filtered Grab Water Sample
NGK Metals

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	17.1	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved metals.

1 COPY TO RUST Env. & Infrastructure Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360563

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # 1983535-41

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: RUST (formerly Dunn) Acct. #:
Project Name/#: NGK Metals PWSID #:
Project Manager: Jeff Painter P.O. #: A31999
Sampler: Jeff Painter Quote #:
State where sample was collected: PA

For LLI use only
FSC:
SCR #: 1048296

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Potable / NPDES)	Other	Total # of Containers	Be, Cd, Cr, Cu, Fe (Total)	Hardness	F⁻ (Total), TSS, TDS	F⁻ (dissolved)	VOA SW-846 8010/8020				Remarks	Temperature of samples upon receipt
MW-13B-3	6-16-93	1150	X			X		6	X	X	X	X	X				ALL F⁻ (dissolved)	
MW-13B-4	6-17-93	1300	X			X		6	X	X	X	X	X				samples are to	
MW-13B-5	6-18-93	1205	X			X		6	X	X	X	X	X				be lab filtered	
Trip Blank													X					

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)
Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	6/4/93	2200	L Woodside	6/7/93	1300
Jeffrey J. Painter	6-18-93	1550	[signature]	6/18/93	1550
[signature]	6/18/93	1710			

Relinquished by:	Date	Time	Received for LLI by:	Date	Time
			E.A. Witowski	6/18/93	1700

2425 New Holland Pike, Lancaster, PA 17601-5994 (717) 656-2301 Copies: White and yellow copies should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client. 2/3/93 #2102

Analysis Report

Lancaster Laboratories

Where quality is a science.

12:08:38 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004140
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1020
P.O. A31999
Rel.

MW-28-1 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	1,010.	mg/l	40.	020601400P
Total Dissolved Solids	1,070.	mg/l	30.	021201500P
Total Hardness	695.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 41 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	2.0	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	< 0.010	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	< 0.050	mg/l	0.050	175101400P
Copper	0.051	mg/l	0.020	175301400P
Iron	54.0	mg/l	0.10	175401400P

The field pH of the sample was 6.31

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

RECEIVED
AUG 18
DUNN GEOSCIENCE CORP.
HARRISBURG PA

Questions? Contact Environmental Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Analysis Report

Lancaster Laboratories
Where quality is a science.

12:08:39 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004140
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1020
P.O. A31999
Rel.

MW-28-1 Grab Water Sample
NGK Metals Corp

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	2.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	4.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360566

Lancaster Laboratories
Where quality is a science.

12:08:42 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004140
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1020
P.O. A31999
Rel.

MW-28-1 Grab Water Sample
NGK Metals Corp

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster PA 17601-5994

AR360567

Analysis Report

Lancaster Laboratories
Where quality is a science.

12:08:43 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004141
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1020
P.O. A31999
Rel.

MW-28-1 Filtered Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	2.0	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360568

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

12:08:44 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004142
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1100
P.O. A31999
Rel.

MW-28-2 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	1,020.	mg/l	30.	021201500P
Total Hardness	685.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 40 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	2.5	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	< 0.010	mg/l	0.010	174701400P
Cadmium	< 0.010	mg/l	0.010	174901400P
Chromium	< 0.050	mg/l	0.050	175101400P
Copper	< 0.020	mg/l	0.020	175301400P
Iron	0.34	mg/l	0.10	175401400P

The field pH of the sample was 7.14

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

12:08:45 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004142
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1100
P.O. A31999
Rel.

MW-28-2 Grab Water Sample
NGK Metals Corp

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	3.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster PA 17601-5994
717-656-2300

Lancaster Laboratories
Where quality is a science.

12:08:47 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004142
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1100
P.O. A31999
Rel.

MW-28-2 Grab Water Sample
NGK Metals Corp

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360571

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

12:08:48 387643
ASR000 D 1 4
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2004143
Date Reported 8/17/93
Date Submitted 8/ 3/93
Discard Date 8/25/93
Collected 7/30/93 by JJP
Time Collected 1100
P.O. A31999
Rel.

MW-28-2 Filtered Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Fluoride	2.5	mg/l	0.1	026301800P

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
355 01213 5.00 002300

Respectfully Submitted
Lancaster Laboratories, Inc.

Bethany A. Ebling, B.S.
Group Leader, Water Quality

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360572

See reverse side for explanation of symbols and abbreviations.

Analysis Request/Environmental Services Chain of Custody

For LLI Use Only

Acct. # 1213 Sample # 2004140-43

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: Rust E & I Acct. #:
Project Name/#: NGK Metals Corp PWSID #:
Project Manager: Jeff Painter P.O. #: A 31999
Sampler: Jeffrey J. Painter Quote #:
State where sample was collected: PA

For LLI use only
FSC:
SCR #:

(2)

Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Water (Potable / NPDES)	Other	Total # of Containers	(5) Analyses Requested: Be, Cd, Cr, Cu, Fe	Hardness	F (Total), TSS, TDS	F (Diss.)	VOA's 8010/8020				Remarks	(6) Temperature of samples upon receipt
MW-28-1	7-30-93	1020	X			X		6	X	X	X	X	X				Lab is to filter	
MW-28-2	8-2-93	1100	X			X		6	X	X	X	X	X				F(Diss.) sample	
																	Field pH =	
																	MW-28-1 = 6.31	
																	MW-28-2 = 7.14	

AR3605 3

(7)

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)

Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey J. Painter	8-3-93		Erma Dillman	8/3/93	1315
Erma Dillman	8/3/93	14:50			
			Received for LLI by: E. A. Witowski	8/3/93	1455

(9)

Lancaster Laboratories
Where quality is a science.

14:41:07 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999363
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/23/93 by JP
Time Collected 0945
P.O. A31999
Rel.

MW-29-1 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	290.	mg/l	10.	020601400P
Total Dissolved Solids	740.	mg/l	30.	021201500P
Total Hardness	404.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 24·grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	21.6	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.480	mg/l	0.010	174701400P
Cadmium	0.016	mg/l	0.010	174901400P
Chromium	4.48	mg/l	0.050	175101400P
Copper	5.96	mg/l	0.020	175301400P
Iron	22.2	mg/l	0.10	175401400P

The field pH of the sample at the time of collection was 6.39

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
170 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360574

See reverse side for explanation of codes and abbreviations

Lancaster Laboratories
Where quality is a science.

14:41:10 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999363
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/23/93 by JP
Time Collected 0945
P.O. A31999
Rel.

MW-29-1 Grab Water Sample
NGK Metals Corp

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	6.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	3.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	2.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

14:41:13 386443
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 1999363
Date Reported 8/ 6/93
Date Submitted 7/23/93
Discard Date 8/14/93
Collected 7/23/93 by JP
Time Collected 0945
P.O. A31999
Rel.

MW-29-1 Grab Water Sample
NGK Metals Corp

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Analysis Request/Environmental Services Chain of Custody

For LLI Use Only
Acct. # 1213 Sample # 1799361-65

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Rust E & I
Project Name/#: NGK Metals Corp
Project Manager: Jeff Painter
Sampler: Jeff Painter
State where sample was collected: PA

Acct. #:
PWSID #:
P.O. #: A31999
Quote #:

For LLI use only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Potable / NPDES	Water	Other	Total # of Containers	Be, Cd, Cr, Cu, Fe	Hardness	F (Total), TSS, TDS	F (Dissolved)	VOA's 8010/8020				Remarks	Temperature of samples upon receipt
MW-12B-3	7-19-93	1030	X				X		6	X								F (Dissolved)	
MW-29-1	7-23-93	0945	X				X		6	X								Samples to be	
Travel Blank									1									lab filtered	
																		Field pH	
																		MW-12B = 8.11	
																		MW-29 = 6.39	

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

Data Package Options (please circle if requested):
(8)
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey A. Painter	7-23-93	12:45	Gene Beyer	7/23/93	12:45
Gene Beyer	7/23/93	13:45			

Received for LLI by:	Date	Time
E. A. Witowski	7/23/93	1345

Lancaster Laboratories
Where quality is a science.

14:57:17 387143 5756
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2002185
Date Reported 8/13/93
Date Submitted 7/29/93
Discard Date 8/21/93
Collected 7/26/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-29-2 Grab Water Sample
NGK Metals Corporation

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P
Total Dissolved Solids	810.	mg/l	30.	021201500P
Total Hardness	422.	mg/l	1.	021601300P
This total hardness value is approximately equivalent to 25 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Fluoride	17.7	mg/l	0.1	026301800P
Purgeable Halocarbons (8010)		attached		146211000P
Purgeable Aromatics (8020)		attached		146309000P
Beryllium	0.360	mg/l	0.010	174701400P
Cadmium	0.011	mg/l	0.010	174901400P
Chromium	0.590	mg/l	0.050	175101400P
Copper	1.07	mg/l	0.020	175301400P
Iron	0.48	mg/l	0.10	175401400P

Field pH was 5.74. Water was effervescent.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
351 01213 15.00 034500

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360578

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

14:57:59 387143
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2002185
Date Reported 8/13/93
Date Submitted 7/29/93
Discard Date 8/21/93
Collected 7/26/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-29-2 Grab Water Sample
NGK Metals Corporation

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	7.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	5.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	3.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

The reagent blank analyzed in conjunction with this sample contained approximately 0.5 ug/l methylene chloride. The result was not changed to reflect the level in the blank.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:59:00 387143
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2002185
Date Reported 8/13/93
Date Submitted 7/29/93
Discard Date 8/21/93
Collected 7/26/93 by JP
Time Collected 1030
P.O. A31999
Rel.

MW-29-2 Grab Water Sample
NGK Metals Corporation

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360580

See reverse side for explanation of symbols and abbreviations.

Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # 2002185-8e

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: Rust E & I
Project Name/#: NGK Metals Corp
Project Manager: Jeff Painter
Sampler: Jeff Painter
State where sample was collected: PA

Acct. #:
PWSID #:
P.O. #: A31999
Quote #:

For LLI use only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (☐ Potable ☐ NPDES)	Matrix: Other	Total # of Containers	Be, Cd, Cr, Cu, Pb, Zn	Hardness	F(Total), TSS, TDS	F(Diss.)	VOA's 8010/8020				Remarks	Temperature of samples upon receipt
MW-29-2	7-26-93	1030	X			X		6	X	X	X	X	X				Lab is to filter	
Trip Blank (ERD)								1									F(Dissolved)	
																	Sample	
																	Field pH = 5.74	
																	water was	
																	effervescent	

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)
Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey J. Painter	7-29-93	1218	Erma Dallman	7/29/93	12:18
Erma Dallman	7/29/93	13:25			

Relinquished by:	Date	Time	Received for LLI by:	Date	Time
			Donna M. Zielinski	7/29/93	1325

Analysis Report

Lancaster Laboratories
Where quality is a science.

07:35:03 387145
ASR000 D 1 1
01213 0

575

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2002193
Date Reported 8/13/93
Date Submitted 7/29/93
Discard Date 8/21/93

Trip Blank Water Sample
NGK Metals Corporation

Time Collected
P.O. A31999
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Purgeable Halocarbons (8010)	attached		146211000P
Purgeable Aromatics (8020)	attached		146309000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

RECEIVED
AUG 16
DUNN GEOSCIENCE CORP.
HARRISBURG, PA.

Questions? Contact Environmental
Client Services at (717) 656-2301
434 01213 0.00 020000

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360582

See reverse side for explanation of [illegible]

Lancaster Laboratories
Where quality is a science.

07:35:04 387145
ASR000 D 1 1
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2002193
Date Reported 8/13/93
Date Submitted 7/29/93
Discard Date 8/21/93

Trip Blank Water Sample
NGK Metals Corporation

Time Collected
P.O. A31999
Rel.

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	< 1.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

07:35:06 387145
ASR000 D 1 1
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2002193
Date Reported 8/13/93
Date Submitted 7/29/93
Discard Date 8/21/93

Trip Blank Water Sample
NGK Metals Corporation

Time Collected
P.O. A31999
Rel.

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster PA 17601

5756

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Where quality is a science.

RECEIVED
DEC 22

14:02:21 403902
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067511
Date Reported 12/21/93
Date Submitted 12/16/93
Discard Date 12/29/93
Collected 12/16/93 by JP
Time Collected 1145
P.O. 98-9300084
Rel.

DW-12 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Arsenic	0.0101	mg/l	0.0020	024505100S*
Mercury	< 0.00020	mg/l	0.00020	025904300S*
Fluoride	67.6	mg/l	0.1	026303100S*
Selenium	0.0057	mg/l	0.0020	026405100S*
Hexavalent Chromium	0.18	mg/l	0.02	027603600S*
Thallium	< 0.30	mg/l	0.30	172202400S*
Antimony	< 0.20	mg/l	0.20	174402400S*
Beryllium	0.015	mg/l	0.010	174702400S*
Cadmium	< 0.010	mg/l	0.010	174902400S*
Chromium	0.209	mg/l	0.050	175102400S*
Copper	< 0.020	mg/l	0.020	175302400S*
Iron	19.1	mg/l	0.10	175402400S*
Lead	< 0.10	mg/l	0.10	175502400S*
Nickel	< 0.050	mg/l	0.050	176102400S*
Silver	< 0.020	mg/l	0.020	176602400S*
Zinc	< 0.040	mg/l	0.040	177202400S*

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
882 01213 22.00 049800

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360585

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

14:02:24 403902
ASR000 D 1 2
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067512
Date Reported 12/21/93
Date Submitted 12/16/93
Discard Date 12/29/93
Collected 12/16/93 by JP
Time Collected 1520
P.O. 98-9300084
Rel.

DW-29 Grab Water Sample
NGK Metals Corp

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Arsenic	< 0.0020	mg/l	0.0020	024505100S*
Mercury	< 0.00020	mg/l	0.00020	025904300S*
Fluoride	22.6	mg/l	0.1	026303100S*
Selenium	< 0.0020	mg/l	0.0020	026405100S*
Hexavalent Chromium	0.18	mg/l	0.02	027603600S*
Thallium	< 0.30	mg/l	0.30	172202400S*
Antimony	< 0.20	mg/l	0.20	174402400S*
Beryllium	0.472	mg/l	0.010	174702400S*
Cadmium	0.013	mg/l	0.010	174902400S*
Chromium	0.382	mg/l	0.050	175102400S*
Copper	1.48	mg/l	0.020	175302400S*
Iron	< 0.10	mg/l	0.10	175402400S*
Lead	< 0.10	mg/l	0.10	175502400S*
Nickel	0.100	mg/l	0.050	176102400S*
Silver	< 0.020	mg/l	0.020	176602400S*
Zinc	< 0.040	mg/l	0.040	177202400S*

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
882 01213 22.00 049800

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR300306

See reverse side for explanation of symbols and abbreviations.

*2216
9/13/90

Analysis Request/Environmental Services Chain of Custody

Rust

Lancaster Laboratories
Where quality is a science.

For LLI Use Only
Acct. # 1213 Sample # 2067511-12
2067513-17

Please print. Instructions on reverse side correspond with circled numbers.

(1)
Client: NGK Metals Corp / Rust E&I Acct. #:
Project Name/#: NGK Metals Corp PWSID #:
Project Manager: Jeff Painter P.O. #: 93-9800054
Sampler: Jeff Painter, John Matty Quote #:
State where sample was collected:

For LLI use only
FSC:
SCR #: 10534660

(2)

Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	Matrix (4) Soil	Water (Potable / NPDES)	Other	Total # of Containers	(5) PPL Metals + Fe	TOC	VOA's 5030/5020	Hex Cr	Total Hard	TSS, TDS, F, Cl, NO3, SO4			Remarks	(6) Temperature of sample upon receipt
DW-27	12-15-93	1215	X			X			X		X		X	X			3 Day TAT for	
DW-12	12-16-93	1145	X			X			X	X		X	X	X			PPL Metals, Fe,	
DW-30	12-16-93	1313	X			X			X		X		X	X			Hex Cr and F-	
DW-29	12-93-93		X			X			X	X		X	X	X			~~secondary param~~	
Trip Blank			X								X						for DW-12 and	
																	DW-29	

(7)
Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #: (717) 795-8001
Fax #: (717) 795-8780

(8)
Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
EPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Andrew R Jentz	12/14/93	1648	Erma Dillman	12/15/93	8:00
Erma Dillman	12/15/93	9:10	Lynn Woodside	12/15/93	910
Jeffrey J. Painter	12/16/93	16:05	Erma Dillman	12/16/93	16:05
Erma Dillman	12/16/93	17:10			
			Received for LLI by:	12-16-93	1710

Lancaster Laboratories
Where quality is a science.

10:39:53 403903
ASR000 D 1 5
01213 0

RECEIVED JAN 1 1 1994

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067513
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94
Collected 12/15/93 by JP
Time Collected 1215
P.O. 98-9300084
Rel.

DW-27 Grab Water Sample
NGK Metals Corp.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	47.	mg/l	7.	020601400P*
Total Dissolved Solids	990.	mg/l	30.	021201500P*
Total Hardness	657.	mg/l	5.	021601300P*
This total hardness value is approximately equivalent to 39 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Chloride	110.	mg/l	10.	022401900P*
Sulfate	310.	mg/l	30.	022801900P*
Arsenic	0.0028	mg/l	0.0020	024503000P*
Mercury	< 0.00020	mg/l	0.00020	025902500P*
Fluoride	4.8	mg/l	0.1	026301800P*
Selenium	< 0.0020	mg/l	0.0020	026403000P*
Nitrate Nitrogen	19.	mg/l	2.	036801500P*
Purgeable Halocarbons (8010)		attached		146211000P*
Purgeable Aromatics (8020)		attached		146309000P*
Thallium	< 0.30	mg/l	0.30	172201400P*
Antimony	< 0.20	mg/l	0.20	174401400P*
Beryllium	0.100	mg/l	0.010	174701400P*
Cadmium	< 0.010	mg/l	0.010	174901400P*
Chromium	0.404	mg/l	0.050	175101400P*
Copper	0.088	mg/l	0.020	175301400P*
Iron	3.40	mg/l	0.10	175401400P*
Lead	< 0.10	mg/l	0.10	175501400P*
Nickel	< 0.050	mg/l	0.050	176101400P*
Silver	< 0.020	mg/l	0.020	176601400P*
Zinc	< 0.040	mg/l	0.040	177201400P*

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
925 01213 15.00 056700

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental/Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360366

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

10:40:03 403903
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067515
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94
Collected 12/16/93 by JP
Time Collected 1315
P.O. 98-9300084
Rel.

DW-30 Grab Water Sample
NGK Metals Corp.

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	3.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	2.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360589

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

10:40:05 403903
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067515
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94
Collected 12/16/93 by JP
Time Collected 1315
P.O. 98-9300084
Rel.

DW-30 Grab Water Sample
NGK Metals Corp.

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations

AR360590

Lancaster Laboratories
Where quality is a science.

10:40:06 403903
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067516
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94
Collected 12/16/93 by JP
Time Collected 1520
P.O. 98-9300084
Rel.

DW-29 Grab Water Sample
NGK Metals Corp.

ANALYSIS	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Total Suspended Solids	< 7.	mg/l	7.	020601400P*
Total Dissolved Solids	650.	mg/l	30.	021201500P*
Total Hardness	309.	mg/l	5.	021601300P*
This total hardness value is approximately equivalent to 18 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.				
Chloride	54.	mg/l	4.	022401900P*
Sulfate	230.	mg/l	30.	022801900P*
Total Organic Carbon	1.	mg/l	1.	027302500P*
The Total Organic Carbon (TOC) result reported above was determined by measuring total carbon by a persulfate digestion/infrared detection method on an acidified sample which has been purged of inorganic carbon using nitrogen. It represents "non-purgeable TOC".				
Nitrate Nitrogen	7.7	mg/l	0.5	036801500P*

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
925 01213 0.00 012000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360591

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

10:40:07 403903
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067517
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94

Trip Blank Water Sample
NGK Metals Corp.

Time Collected
P.O. 98-9300084
Rel.

ANALYSIS	RESULT AS RECEIVED	LIMIT OF QUANTITATION	LAB CODE
Purgeable Halocarbons (8010)	attached		146211000P*
Purgeable Aromatics (8020)	attached		146309000P*

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301
925 01213 0.00 020000

Respectfully Submitted
Lancaster Laboratories, Inc.

Ramona V. Layman, Group Leader
Instrumental Water Chemistry

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360592

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

10:40:08 403903
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067517
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94

Trip Blank Water Sample
NGK Metals Corp.

Time Collected
P.O. 98-9300084
Rel.

Purgeable Halocarbons (8010)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Chloromethane	< 5.	ug/l	5.	151200000P
Bromomethane	< 5.	ug/l	5.	151300000P
Vinyl chloride	< 1.	ug/l	1.	151400000P
Chloroethane	< 1.	ug/l	1.	151500000P
Methylene chloride	< 1.	ug/l	1.	151600000P
Trichlorofluoromethane	< 1.	ug/l	1.	151700000P
1,1-Dichloroethene	< 1.	ug/l	1.	151800000P
1,1-Dichloroethane	< 1.	ug/l	1.	151900000P
1,2-Dichloroethene (cis/trans)	< 1.	ug/l	1.	152000000P
Chloroform	< 1.	ug/l	1.	152100000P
1,2-Dichloroethane	< 1.	ug/l	1.	152200000P
1,1,1-Trichloroethane	< 1.	ug/l	1.	152300000P
Carbon Tetrachloride	< 1.	ug/l	1.	152400000P
Dichlorobromomethane	< 1.	ug/l	1.	152500000P
1,2-Dichloropropane	< 1.	ug/l	1.	152600000P
trans-1,3-Dichloropropene	< 1.	ug/l	1.	152700000P
Trichloroethene	< 1.	ug/l	1.	152800000P
Dibromochloromethane	< 1.	ug/l	1.	152900000P
1,1,2-Trichloroethane	< 1.	ug/l	1.	153000000P
cis-1,3-Dichloropropene	< 1.	ug/l	1.	153100000P
Bromoform	< 2.	ug/l	2.	153200000P
Tetrachloroethene	< 1.	ug/l	1.	153300000P
1,1,2,2-Tetrachloroethane	< 2.	ug/l	2.	153400000P
Chlorobenzene	< 1.	ug/l	1.	153500000P

Under the analytical conditions of EPA methods 601 and 8010, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

10:40:10 403903
ASR000 D 1 5
01213 0

RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

LLI Sample No. WW 2067517
Date Reported 1/10/94
Date Submitted 12/17/93
Discard Date 1/18/94

Trip Blank Water Sample
NGK Metals Corp.

Time Collected
P.O. 98-9300084
Rel.

Purgeable Aromatics (8020)	RESULT AS RECEIVED		LIMIT OF QUANTITATION	LAB CODE
Benzene	< 1.	ug/l	1.	153600000P
Toluene	< 1.	ug/l	1.	153700000P
Ethylbenzene	< 1.	ug/l	1.	153800000P
o-Xylene	< 1.	ug/l	1.	153900000P
m-Xylene	< 1.	ug/l	1.	154000000P
p-Xylene	< 1.	ug/l	1.	154100000P

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact Environmental
Client Services at (717) 656-2301

Respectfully Submitted
Lancaster Laboratories, Inc.

Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR 300594

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105207
Collected: 3/28/94 at 13:45 by JJP

Submitted: 3/28/94 Reported: 4/11/94
Discard: 4/19/94

DW-27-1 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.141	0.010	mg/l
1749	Cadmium	0.012	0.010	mg/l
1751	Chromium	0.641	0.030	mg/l
1753	Copper	0.699	0.025	mg/l
1754	Iron	41.4	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	320.	50.	mg/l
0368	Nitrate Nitrogen	21.	2.	mg/l
0206	Total Suspended Solids	650.	30.	mg/l
0212	Total Dissolved Solids	1,040.	30.	mg/l
0216	Total Hardness	757.	5.	mg/l
	This total hardness value is approximately equivalent to 45 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	5.6	0.5	mg/l
	The field temperature of the sample was 14.4 C, the field ph was 6.44, and the field specific conductance was 1,314 umhos/cm.			

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
10:34:14 D 0001 3 0 0 414171
170 15.00 00038300 ASR000

RECEIVED APR 12 1994

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360595

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105207
Collected: 3/28/94 at 13:45 by JJP

Submitted: 3/28/94 Reported: 4/11/94
Discard: 4/19/94

DW-27-1 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	6.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	1.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360596

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105207
Collected: 3/28/94 at 13:45 by JJP

Submitted: 3/28/94 Reported: 4/11/94
Discard: 4/19/94

DW-27-1 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360597

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105208
Collected: 3/28/94 at 13:45 by JJP

Submitted: 3/28/94 Reported: 4/11/94
Discard: 4/19/94

DW-27-1 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	5.4	0.5	mg/l

This sample was filtered in the lab for dissolved metals.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
10:34:36 D 0001 3 0 0 414171
170 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360598

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105209
Collected:

Submitted: 3/28/94 Reported: 4/11/94
Discard: 4/19/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

RECEIVED APR 1

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
10:34:43 D 0001 3 0 0 414171
170 0.00 00020000 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360599

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105209
Collected:

Submitted: 3/28/94 Reported: 4/11/94
Discard: 4/19/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360600

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

Acct. # 1213 For LLI Use Only Sample # 2105207-09

Please print. Instructions on reverse side correspond with circled numbers.

1

Client: NC Rust E&I Acct. #:
Project Name/#: NGK Metals PWSID #:
Project Manager: Jeff Painter P.O. #:
Sampler: JJP / KAS Quote #:
Name of state where samples were collected:

For LLI use only
FSC:
SCR #: 1056080

2

Sample Identification	Date Collected	Time Collected	3 Grab	Composite	Matrix 4 Soil	Water (Potable / NPDES)	Other	Total # of Containers	5 Analyses Requested: Be, Cd, Cr, Cu, Fe	F, TSS, TDS, SO4, NO3	T Hardness	P (lab filtered)					Remarks	6 Temperature of samples upon receipt (if requested)
DW-27-1	3-28-94	1345	✓			✓		7									Field parameters	
Trip Blank								2									pH = 6.44	
																	T = 14.4°C	
																	Sp. C = 1.314 mS/cm	

7

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

8

Data Package Options (please circle if requested):
QC Summary
Type I (Tier I)
Type II (Tier II)
Type IV (CLP)
GLP
Other

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Laurissa States	3-28-94	2:46	Erma Dillman	3/28/94	8:00
Erma Dillman	3/28/94	8:50	Lynn Woodrich	3/28/94	0855
Jeffrey J. Painter	3/28/94	14:00	Erma Dillman	3/28/94	14:00
Erma Dillman	3/28/94	15:10			
			Received for LLI by: K. Guite	3-28-94	1510

9

NGK

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105855
Collected: 3/29/94 at 11:30 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-1 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.082	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.116	0.030	mg/l
1753	Copper	0.131	0.025	mg/l
1754	Iron	19.1	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	300.	50.	mg/l
0368	Nitrate Nitrogen	6.7	0.5	mg/l
0206	Total Suspended Solids	330.	10.	mg/l
0212	Total Dissolved Solids	850.	30.	mg/l
0216	Total Hardness	355.	2.	mg/l
	This total hardness value is approximately equivalent to 21 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	14.	1.	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:47:14 D 0001 5 0 0 414323
15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360602

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105855
Collected: 3/29/94 at 11:30 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-1 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	49.	1.	ug/l
1519	1,1-Dichloroethane	26.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	3.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	130.	2.	ug/l
1524	Carbon Tetrachloride	< 2.	2.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	13.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360603

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105855
Collected: 3/29/94 at 11:30 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-1 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
urgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 20.	20.	ug/l
538	Ethylbenzene	< 1.	1.	ug/l
539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Due to the presence of an interferent near its retention time, the normal reporting limit was not attained for toluene.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360604

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105856
Collected: 3/29/94 at 11:30 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-1 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	14.	1.	mg/l

This sample was filtered in the lab for dissolved fluoride.

COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:47:30 D 0001 5 0 0 414323
5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360605

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105857
Collected: 3/29/94 at 11:45 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-2 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.143	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.752	0.030	mg/l
1753	Copper	0.170	0.025	mg/l
1754	Iron	1.55	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	270.	50.	mg/l
0368	Nitrate Nitrogen	18.	1.	mg/l
0206	Total Suspended Solids	23.	5.	mg/l
0212	Total Dissolved Solids	880.	30.	mg/l
0216	Total Hardness	570.	5.	mg/l
	This total hardness value is approximately equivalent to 34 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	6.0	0.5	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:47:35 D 0001 5 0 0 414323
15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360606

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105857
Collected: 3/29/94 at 11:45 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-2 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	6.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	2.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360607

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105857
Collected: 3/29/94 at 11:45 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-2 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360608

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105858
Collected: 3/29/94 at 11:45 by JP

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-2 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	5.9	0.5	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:47:51 D 0001 5 0 0 414323
5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360609

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105859
Collected:

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:47:56 D 0001 5 0 0 414323
0.00 00020000 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360610

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105859
Collected:

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	< 1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	< 1.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	< 1.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	< 1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2105859
Collected:

Submitted: 3/29/94 Reported: 4/22/94
Discard: 4/30/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360612

See reverse side for explanation of symbols and abbreviations.

For LLI Use Only

Acct. # 1213 Sample # 2105855-59

Lancaster Laboratories

Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: Rust Env. / NGK Metals Acct. #:

Project Name/#: NGK Metals PWSID #:

Project Manager: Jeff Painter P.O. #:

Sampler: Jeff Painter Quote #:

State where sample was collected:

For LLI use only

FSC:

SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Potable	NPDES	Other	Total # of Containers	Ba, Cd, Cr, Pb, Ni	F, Cl, Br, Fe	F, TSS, TDS, NO3, SO4	Total Hardness	AIL VOA Scan				Remarks	Temperature of samples upon receipt
DW-32-1	3-29-94	1130	✓			✓			7	1	1	1	1	3					
DW-27-2	3-29-94	1145	✓			✓			7	1	1	1	1	3					
Trip Blank									1										

(7)

Turnaround Time Requested (please circle): Normal Rush

(Rush TAT is subject to LLI approval and surcharge.)

Date results are needed:

Rush results requested by (please circle): Phone Fax

Phone #:

Fax #:

(8)

Data Package Options (please circle if requested):

QC Summary

Tier I (NJ)

Tier II (NJ)

EPA CLP

GLP

Site-specific QC required? Yes No

(If yes, indicate QC sample and submit triplicate volume.)

Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey J. Painter	3-29-94	14:10	Erma Dillman	3/29/94	14:10
Erma Dillman	3/29/94	15:45			

Received for LLI by: D. Pulosky 3/29/94 1545

HR3BD

2425 New Holland Pike, Lancaster, PA 17601-5994 (717) 656-2301 Copies: White and yellow copies should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client. 2/3/93 #2102

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106261
Collected: 3/30/94 at 11:30 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-2 Filtered Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	7.	1.	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:49:14 D 0001 5 0 0 414429
170 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360614

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106262
Collected:

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

Trip Blank Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:49:21 D 0001 5 0 0 414429
170 0.00 00020000 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360615

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106262
Collected:

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

Trip Blank Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	< 1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	< 1.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	< 1.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	< 1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360616

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106262
Collected:

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

Trip Blank Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360617

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

For LLI Use Only

Acct. # 1213 Sample # 2106258-62

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: NGK Rust E&I Acct. #:
Project Name/#: NGK Metals Corp PWSID #:
Project Manager: Jeff Painter P.O. #:
Sampler: JJP Quote #:
Name of state where samples were collected: PA

For LLI use only
FSC:
SCR #: 1056080

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water (Potable / NPDES)	Other	Total # of Containers	Be, Cd, Cr, Cu, Fe	F (lab filtered)	F, TSS, TDS, NO_3, SO_4	Tot Hard	PPL VOA 8010/8020				Remarks	Temperature of samples upon receipt (if requested)
DW-27-3	3-30-94	1145	✓			✓		7	1	1	1	1	3					
DW-32-2	3-30-94	1130	✓			✓		7	1	1	1	1	3					
Trip Blank													2					

(7) **Turnaround Time Requested** (TAT) (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8) **Data Package Options** (please circle if requested):
QC Summary
Type I (Tier I)
Type II (Tier II)
Type IV (CLP)
GLP
Other

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
[signature]	3-28-94	2:46	Erma Dillman	3/28/94	8:00
Erma Dillman	3/28/94	8:50	Lynn Woodrick	3/28/94	0855
Jeffrey J. Painter	3-30-94	1200	Erma Dillman	3/30/94	12:35
Erma Dillman	3/30/94	14:05			
			Received for LLI by: K. Guite	3-30-94	1405

2425 New Holland Pike, Lancaster, PA 17601-5994 (717) 656-2301 Copies: White and yellow copies should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client. 6/17/93 #2102

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106258
Collected: 3/30/94 at 11:45 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-3 Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.146	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.798	0.030	mg/l
1753	Copper	0.205	0.025	mg/l
1754	Iron	0.40	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	280.	50.	mg/l
0368	Nitrate Nitrogen	17.	1.	mg/l
0206	Total Suspended Solids	< 5.	5.	mg/l
0212	Total Dissolved Solids	890.	30.	mg/l
0216	Total Hardness	551.	5.	mg/l
	This total hardness value is approximately equivalent to 32 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	6.3	0.4	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:48:32 D 0001 5 0 0 414429
170 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360619

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106258
Collected: 3/30/94 at 11:45 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-3 Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 50.	50.	ug/l
1513	Bromomethane	< 50.	50.	ug/l
1514	Vinyl chloride	< 10.	10.	ug/l
1515	Chloroethane	< 10.	10.	ug/l
1516	Methylene chloride	< 10.	10.	ug/l
1517	Trichlorofluoromethane	< 10.	10.	ug/l
1518	1,1-Dichloroethene	< 10.	10.	ug/l
1519	1,1-Dichloroethane	< 10.	10.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 10.	10.	ug/l
1521	Chloroform	< 10.	10.	ug/l
1522	1,2-Dichloroethane	< 10.	10.	ug/l
1523	1,1,1-Trichloroethane	< 10.	10.	ug/l
1524	Carbon Tetrachloride	< 10.	10.	ug/l
1525	Dichlorobromomethane	< 10.	10.	ug/l
1526	1,2-Dichloropropane	< 10.	10.	ug/l
1527	trans-1,3-Dichloropropene	< 10.	10.	ug/l
1528	Trichloroethene	< 10.	10.	ug/l
1529	Dibromochloromethane	< 10.	10.	ug/l
1530	1,1,2-Trichloroethane	< 10.	10.	ug/l
1531	cis-1,3-Dichloropropene	< 10.	10.	ug/l
1532	Bromoform	< 20.	20.	ug/l
1533	Tetrachloroethene	< 10.	10.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 20.	20.	ug/l
1535	Chlorobenzene	< 10.	10.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360620

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106258
Collected: 3/30/94 at 11:45 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-3 Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360621

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106259
Collected: 3/30/94 at 11:45 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-27-3 Filtered Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	6.3	0.4	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:48:51 D 0001 5 0 0 414429
170 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360622

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106260
Collected: 3/30/94 at 11:30 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-2 Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.053	0.010	mg/l
1749	Cadmium	0.014	0.010	mg/l
1751	Chromium	0.168	0.030	mg/l
1753	Copper	0.223	0.025	mg/l
1754	Iron	1.87	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	310.	50.	mg/l
0368	Nitrate Nitrogen	10.8	0.5	mg/l
0206	Total Suspended Solids	14.	5.	mg/l
0212	Total Dissolved Solids	870.	30.	mg/l
0216	Total Hardness	374.	5.	mg/l
	This total hardness value is approximately equivalent to 22 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	10.	1.	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:48:55 D 0001 5 0 0 414429
170 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360623

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106260
Collected: 3/30/94 at 11:30 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-2 Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	47.	1.	ug/l
1519	1,1-Dichloroethane	23.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	2.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	160.	1.	ug/l
1524	Carbon Tetrachloride	< 5.	5.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 2.	2.	ug/l
1528	Trichloroethene	10.	1.	ug/l
1529	Dibromochloromethane	< 2.	2.	ug/l
1530	1,1,2-Trichloroethane	< 2.	2.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360624

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2106260
Collected: 3/30/94 at 11:30 by JJP

Submitted: 3/30/94 Reported: 4/22/94
Discard: 4/30/94

DW-32-2 Grab Water Sample
NGK Metals Corporation

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360625

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107006
Collected: 3/31/94 at 11:50 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-4 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
747	Beryllium	0.153	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.843	0.030	mg/l
753	Copper	0.206	0.025	mg/l
754	Iron	0.61	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
228	Sulfate	290.	50.	mg/l
368	Nitrate Nitrogen	16.	1.	mg/l
206	Total Suspended Solids	12.	5.	mg/l
0212	Total Dissolved Solids	890.	30.	mg/l
0216	Total Hardness	626.	5.	mg/l
	This total hardness value is approximately equivalent to 37 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	6.5	0.4	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:37:33 D 0001 5 0 0 414654
170 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360626

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

#2216

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107006
Collected: 3/31/94 at 11:50 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-4 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	< 1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	6.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	3.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360627

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107006
Collected: 3/31/94 at 11:50 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-4 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
rgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
537	Toluene	< 1.	1.	ug/l
538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative*
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360628

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107007
Collected: 3/31/94 at 11:50 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-4 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	6.2	0.4	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:37:50 D 0001 5 0 0 414654
170 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360629

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107008
Collected: 3/31/94 at 11:20 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-3 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.052	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.127	0.030	mg/l
1753	Copper	0.087	0.025	mg/l
1754	Iron	0.73	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	310.	50.	mg/l
0368	Nitrate Nitrogen	11.	1.	mg/l
0206	Total Suspended Solids	15.	5.	mg/l
0212	Total Dissolved Solids	900.	30.	mg/l
0216	Total Hardness	439.	5.	mg/l
	This total hardness value is approximately equivalent to 26 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	12.	1.	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:37:54 D 0001 5 0 0 414654
170 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107008
Collected: 3/31/94 at 11:20 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-3 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
urgeable Halocarbons (8010)				
1512	Chloromethane	< 10.	10.	ug/l
1513	Bromomethane	< 10.	10.	ug/l
1514	Vinyl chloride	< 2.	2.	ug/l
1515	Chloroethane	< 2.	2.	ug/l
1516	Methylene chloride	< 2.	2.	ug/l
1517	Trichlorofluoromethane	< 2.	2.	ug/l
1518	1,1-Dichloroethene	47.	2.	ug/l
1519	1,1-Dichloroethane	25.	2.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 2.	2.	ug/l
1521	Chloroform	< 2.	2.	ug/l
1522	1,2-Dichloroethane	< 2.	2.	ug/l
1523	1,1,1-Trichloroethane	220.	2.	ug/l
1524	Carbon Tetrachloride	< 20.	20.	ug/l
1525	Dichlorobromomethane	< 2.	2.	ug/l
1526	1,2-Dichloropropane	< 2.	2.	ug/l
1527	trans-1,3-Dichloropropene	< 2.	2.	ug/l
1528	Trichloroethene	11.	2.	ug/l
1529	Dibromochloromethane	< 2.	2.	ug/l
1530	1,1,2-Trichloroethane	< 2.	2.	ug/l
1531	cis-1,3-Dichloropropene	< 2.	2.	ug/l
1532	Bromoform	< 4.	4.	ug/l
1533	Tetrachloroethene	< 2.	2.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 4.	4.	ug/l
1535	Chlorobenzene	< 2.	2.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.
Due to dilution of the sample made necessary by the high levels of 1,1,1-trichloroethane, normal quantitation limits were not attained.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360631

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107008
Collected: 3/31/94 at 11:20 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-3 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360632

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107009
Collected: 3/31/94 at 11:20 by JP

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-3 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
263	Fluoride	12.	1.	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:38:13 D 0001 5 0 0 414654
170 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360633

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107010
Collected:

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:38:17 D 0001 5 0 0 414654
170 0.00 00020000 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360634

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107010
Collected:

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
rgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
13	Bromomethane	< 5.	5.	ug/l
14	Vinyl chloride	< 1.	1.	ug/l
15	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
17	Trichlorofluoromethane	< 1.	1.	ug/l
18	1,1-Dichloroethene	< 1.	1.	ug/l
19	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
22	1,2-Dichloroethane	< 1.	1.	ug/l
23	1,1,1-Trichloroethane	< 1.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
26	1,2-Dichloropropane	< 1.	1.	ug/l
27	trans-1,3-Dichloropropene	< 1.	1.	ug/l
28	Trichloroethene	< 1.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
31	cis-1,3-Dichloropropene	< 1.	1.	ug/l
32	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	< 1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
35	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360635

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107010
Collected:

Submitted: 3/31/94 Reported: 4/20/94
Discard: 4/28/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
rgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
37	Toluene	< 1.	1.	ug/l
38	Ethylbenzene	< 1.	1.	ug/l
539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360636

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

For LLI Use Only

Acct. # 1213 Sample # 2107006-7010

Lancaster Laboratories

Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

Client: Rust E&I
Project Name/#: NGK metals
Project Manager: Jeff Painter
Sampler: JJP
Name of state where samples were collected:

Acct. #:
PWSID #:
P.O. #:
Quote #:

For LLI use only
FSC:
SCR #: 1056850

Sample Identification	Date Collected	Time Collected	Grab (3)	Composite	Matrix (4): Soil	Potable Water	NPDES Water	Other	Total # of Containers	Ba, Cd, Cr, Cu, Fe	F (lab filtered)	F, TSS, TDS, NO3, SO4	Tot. Hard	VOA 8010/8020				Remarks	Temperature of samples upon receipt (if requested) (6)
DW-27-4	3-31-94	1150	X			X			7	1	1	1	1	3					
DW-32-3	3-31-94	1120	X			X			7	1	1	1	1	3					
Trip Blank									2					2					

(5) Analyses Requested

Turnaround Time Requested (TAT) (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

Data Package Options (please circle if requested):
QC Summary
Type I (Tier I)
Type II (Tier II)
Type IV (CLP)
GLP
Other

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

Relinquished by:	Date	Time	Received by:	Date	Time
Francesca States	3-28-94	2:46	Erma Dellman	3/28/94	8:00
Erma Dellman	3/28/94	8:30	Lynne Woodside	3/28/94	0855
Jeffrey J. Painter	3-31-94	1205	Erma Dellman	3/31/94	15:10
Erma Dellman	3/31/94	16:40			

Relinquished by:	Date	Time	Received for LLI by:	Date	Time
			D Petersy	3/31/94	1640

(9)

(717) 656-2301 Copies: White and yellow copies should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client. 6/17/93 #2102

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107906
Collected: 4/ 1/94 at 12:20 by JJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-5 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.188	0.010	mg/l
1749	Cadmium	0.011	0.010	mg/l
1751	Chromium	0.954	0.030	mg/l
1753	Copper	0.238	0.025	mg/l
1754	Iron	1.43	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	300.	50.	mg/l
0368	Nitrate Nitrogen	16.	1.	mg/l
0206	Total Suspended Solids	31.	5.	mg/l
0212	Total Dissolved Solids	940.	30.	mg/l
0216	Total Hardness	570.	5.	mg/l
	This total hardness value is approximately equivalent to 34 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	6.9	0.5	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:41:18 D 0001 7 0 0 414887
885 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360638

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

*2216

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107906
Collected: 4/ 1/94 at 12:20 by JJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-5 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	6.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	4.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360639

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107906
Collected: 4/ 1/94 at 12:20 by JJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-5 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360640

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107907
Collected: 4/ 1/94 at 12:20 by JJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-27-5 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	7.1	0.5	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:41:35 D 0001 7 0 0 414887
885 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360641

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107908
Collected: 4/ 1/94 at 12:50 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-4 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.055	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.132	0.030	mg/l
1753	Copper	0.086	0.025	mg/l
1754	Iron	0.95	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	310.	50.	mg/l
0368	Nitrate Nitrogen	12.	1.	mg/l
0206	Total Suspended Solids	11.	5.	mg/l
0212	Total Dissolved Solids	920.	30.	mg/l
0216	Total Hardness	467.	5.	mg/l
	This total hardness value is approximately equivalent to 27 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	11.	1.	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:41:39 D 0001 7 0 0 414887
885 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107908
Collected: 4/ 1/94 at 12:50 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-4 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	57.	1.	ug/l
1519	1,1-Dichloroethane	26.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	2.	1.	ug/l
1521	Chloroform	1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	210.	5.	ug/l
1524	Carbon Tetrachloride	< 10.	10.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	11.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	2.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360643

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717 656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107908
Collected: 4/ 1/94 at 12:50 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-4 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360644

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107909
Collected: 4/ 1/94 at 12:50 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-4 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
0263	Fluoride	11.	1.	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:41:57 D 0001 7 0 0 414887
885 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360645

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107910
Collected: 4/ 2/94 at 11:20 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-5 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1747	Beryllium	0.054	0.010	mg/l
1749	Cadmium	< 0.010	0.010	mg/l
1751	Chromium	0.131	0.030	mg/l
1753	Copper	0.094	0.025	mg/l
1754	Iron	0.37	0.10	mg/l
1462	Purgeable Halocarbons (8010)			See Page 2
1463	Purgeable Aromatics (8020)			See Page 3
0228	Sulfate	310.	50.	mg/l
0368	Nitrate Nitrogen	12.	1.	mg/l
0206	Total Suspended Solids	< 5.	5.	mg/l
0212	Total Dissolved Solids	920.	30.	mg/l
0216	Total Hardness	299.	2.	mg/l
	This total hardness value is approximately equivalent to 18 grains/gal. Water with a total hardness value of less than 10 grains/gallon is usually considered soft.			
0263	Fluoride	11.	1.	mg/l

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:42:01 D 0001 7 0 0 414887
885 15.00 00038300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107910
Collected: 4/ 2/94 at 11:20 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-5 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
urgeable Halocarbons (8010)				
512	Chloromethane	< 10.	10.	ug/l
1513	Bromomethane	< 10.	10.	ug/l
1514	Vinyl chloride	< 2.	2.	ug/l
515	Chloroethane	< 2.	2.	ug/l
516	Methylene chloride	< 2.	2.	ug/l
1517	Trichlorofluoromethane	< 2.	2.	ug/l
1518	1,1-Dichloroethene	53.	2.	ug/l
519	1,1-Dichloroethane	24.	2.	ug/l
520	1,2-Dichloroethene (cis/trans)	< 2.	2.	ug/l
521	Chloroform	< 2.	2.	ug/l
1522	1,2-Dichloroethane	< 2.	2.	ug/l
1523	1,1,1-Trichloroethane	200.	2.	ug/l
524	Carbon Tetrachloride	< 2.	2.	ug/l
525	Dichlorobromomethane	< 2.	2.	ug/l
1526	1,2-Dichloropropane	< 2.	2.	ug/l
1527	trans-1,3-Dichloropropene	< 2.	2.	ug/l
528	Trichloroethene	10.	2.	ug/l
529	Dibromochloromethane	< 2.	2.	ug/l
530	1,1,2-Trichloroethane	< 2.	2.	ug/l
1531	cis-1,3-Dichloropropene	< 2.	2.	ug/l
1532	Bromoform	< 4.	4.	ug/l
533	Tetrachloroethene	< 2.	2.	ug/l
534	1,1,2,2-Tetrachloroethane	< 4.	4.	ug/l
1535	Chlorobenzene	< 2.	2.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.
Due to dilution of the sample made necessary by the high levels of 1,1,1-trichloroethane, normal quantitation limits were not attained.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360647

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107910
Collected: 4/ 2/94 at 11:20 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-5 Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
Purgeable Aromatics (8020)				
1536	Benzene	< 1.	1.	ug/l
1537	Toluene	< 1.	1.	ug/l
1538	Ethylbenzene	< 1.	1.	ug/l
1539	o-Xylene	< 1.	1.	ug/l
1540	m-Xylene	< 1.	1.	ug/l
1541	p-Xylene	< 1.	1.	ug/l

RECEIVED APR 21 1994

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

AR360648

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Analysis Report

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107911
Collected: 4/ 2/94 at 11:20 by OJP

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

DW-32-5 Filtered Grab Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
63	Fluoride	11.	1.	mg/l

This sample was filtered in the lab for dissolved fluoride.

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:42:18 D 0001 7 0 0 414887
885 5.00 00002300 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360649

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107912
Collected:

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

Trip Blank Water Sample
NGK Metals

Account No: .01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98-9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
1462	Purgeable Halocarbons (8010)			See Page 2
	The purgeable aromatics vial for this sample could not be located; therefore, the purgeable aromatics scan was deleted.			

1 COPY TO RUST Env. & Infrastructure,Inc ATTN: Mr. Jeff Painter

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301
03:42:25 D 0001 7 0 0 414887
885 0.00 00011000 ASR000

Respectfully Submitted
Ramona V. Layman, Group Leader
ICP Metals/Leachates

AR360650

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

See reverse side for explanation of symbols and abbreviations.

Lancaster Laboratories
Where quality is a science.

LLI Sample No. WW 2107912
Collected:

Submitted: 4/ 4/94 Reported: 4/20/94
Discard: 4/28/94

Trip Blank Water Sample
NGK Metals

Account No: 01213
RUST Env. & Infrastructure Inc
2 Market Plaza Way
Mechanicsburg, PA 17055-5659

P.O. 98 9400197
Rel.

CAT NO.	ANALYSIS NAME	AS RECEIVED RESULTS	LIMIT OF QUANTITATION	UNITS
urgeable Halocarbons (8010)				
1512	Chloromethane	< 5.	5.	ug/l
1513	Bromomethane	< 5.	5.	ug/l
1514	Vinyl chloride	< 1.	1.	ug/l
1515	Chloroethane	< 1.	1.	ug/l
1516	Methylene chloride	< 1.	1.	ug/l
1517	Trichlorofluoromethane	< 1.	1.	ug/l
1518	1,1-Dichloroethene	< 1.	1.	ug/l
1519	1,1-Dichloroethane	< 1.	1.	ug/l
1520	1,2-Dichloroethene (cis/trans)	< 1.	1.	ug/l
1521	Chloroform	< 1.	1.	ug/l
1522	1,2-Dichloroethane	< 1.	1.	ug/l
1523	1,1,1-Trichloroethane	< 1.	1.	ug/l
1524	Carbon Tetrachloride	< 1.	1.	ug/l
1525	Dichlorobromomethane	< 1.	1.	ug/l
1526	1,2-Dichloropropane	< 1.	1.	ug/l
1527	trans-1,3-Dichloropropene	< 1.	1.	ug/l
1528	Trichloroethene	< 1.	1.	ug/l
1529	Dibromochloromethane	< 1.	1.	ug/l
1530	1,1,2-Trichloroethane	< 1.	1.	ug/l
1531	cis-1,3-Dichloropropene	< 1.	1.	ug/l
1532	Bromoform	< 2.	2.	ug/l
1533	Tetrachloroethene	< 1.	1.	ug/l
1534	1,1,2,2-Tetrachloroethane	< 2.	2.	ug/l
1535	Chlorobenzene	< 1.	1.	ug/l

Under the analytical conditions of EPA methods 601 and 8010A, the cis and trans isomers of 1,2-dichloroethene coelute and cannot be distinguished from one another. The result reported above represents the total for both isomers.

Questions? Contact your Client Services Representative
Katherine A. Klinefelter at (717) 656-2301

Respectfully Submitted
Judy A. Colello, B.S.
Group Leader

Lancaster Laboratories, Inc.
2425 New Holland Pike
Lancaster, PA 17601-5994
717-656-2301

AR360651

See reverse side for explanation of symbols and abbreviations.

Analysis Request/Chain of Custody Record

For LLI Use Only

Acct. # 1213 Sample # 210906-12

Lancaster Laboratories
Where quality is a science.

Please print. Instructions on reverse side correspond with circled numbers.

(1)

Client: RUST E&I
Project Name/#: NGK Metals
Project Manager: Jeff Painter
Sampler: JJP
State where sample was collected:

Acct. #:
PWSID #:
P.O. #:
Quote #:

For LLI use only
FSC:
SCR #:

(2) (3) (4) (5) (6)

Sample Identification	Date Collected	Time Collected	Grab	Composite	Matrix: Soil	Matrix: Water (☐ Potable ☐ NPDES)	Matrix: Other	Total # of Containers	Ba, Cd, Cr, Cu, Fe	F (lab filtered)	S, TSS, TDS, NO3, SO4	PPL VOA 8010/8120	Tot Hard				Remarks	Temperature of samples upon receipt
DW-27-5	4-1-94	1220	✓			✓		7	1	1	1	3	1					
DW-32-4	4-1-94	1250	✓			✓		7	1	1	1	3	1					
Trip Blank	4-1-94					✓		3	2	2		3						
DW-32-5	4-2-94	1120	✓			✓		7	1	1	1	3	1					

(7)

Turnaround Time Requested (please circle): Normal Rush
(Rush TAT is subject to LLI approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax
Phone #:
Fax #:

(8)

Data Package Options (please circle if requested):
QC Summary
Tier I (NJ)
Tier II (NJ)
FPA CLP
GLP

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Data Package Internal Chain of Custody required? Yes No

SDG Complete ? Yes No

(9)

Relinquished by:	Date	Time	Received by:	Date	Time
Jeffrey A. Painter	4/4/94	1200	Gene Perfi	4-4-94	13:45
Gene Perfi	4-4-94	15:40			

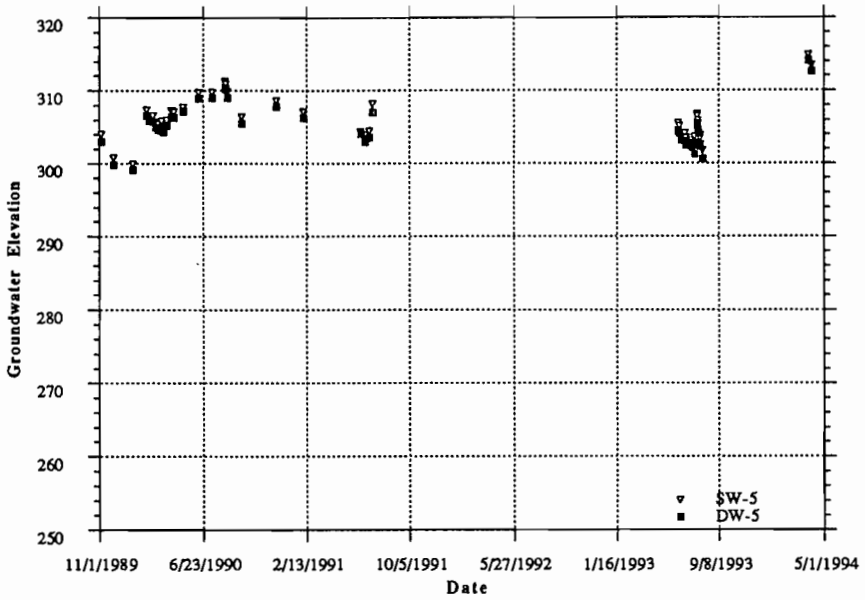
Relinquished by:	Date	Time	Received for LLI by:	Date	Time
			K. Grutz	4-4-94	15:40

[redacted] 1-[redacted] (71[redacted]2301 [redacted] Ve[redacted]nd vel[redacted]bies s[redacted]com[redacted]mples[redacted]caste[redacted]atories. The pink copy should be retained by the client. 2/3/93 #2102

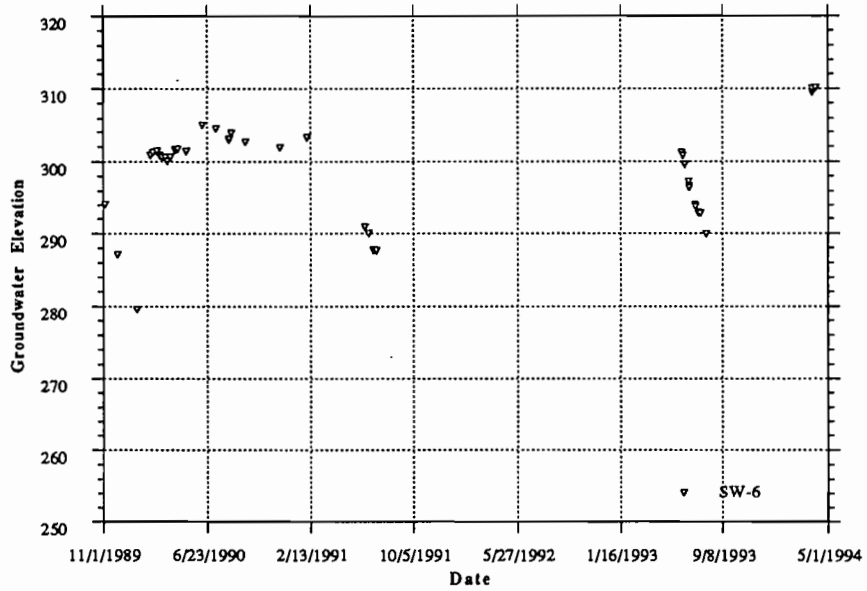
APPENDIX F

HYDROGRAPHS

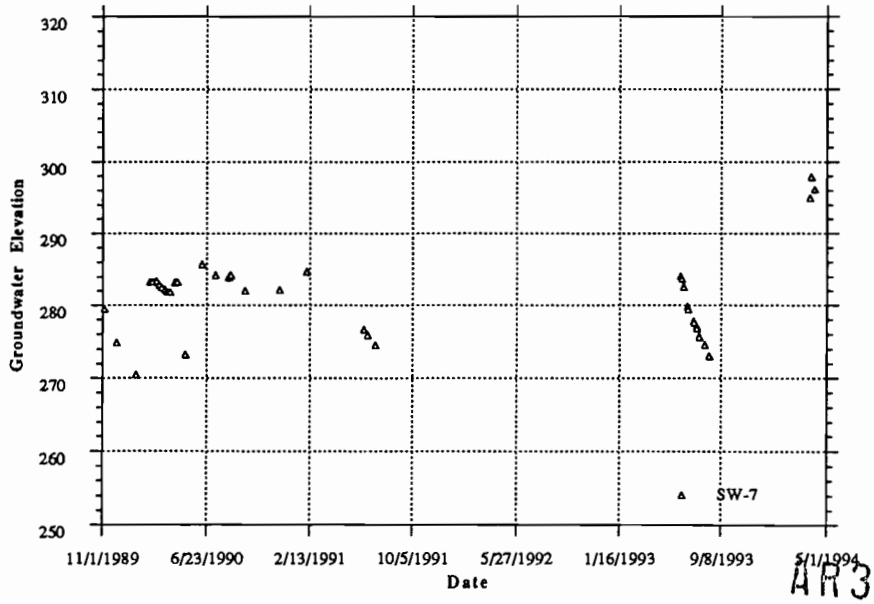
Well Set 5 Hydrograph



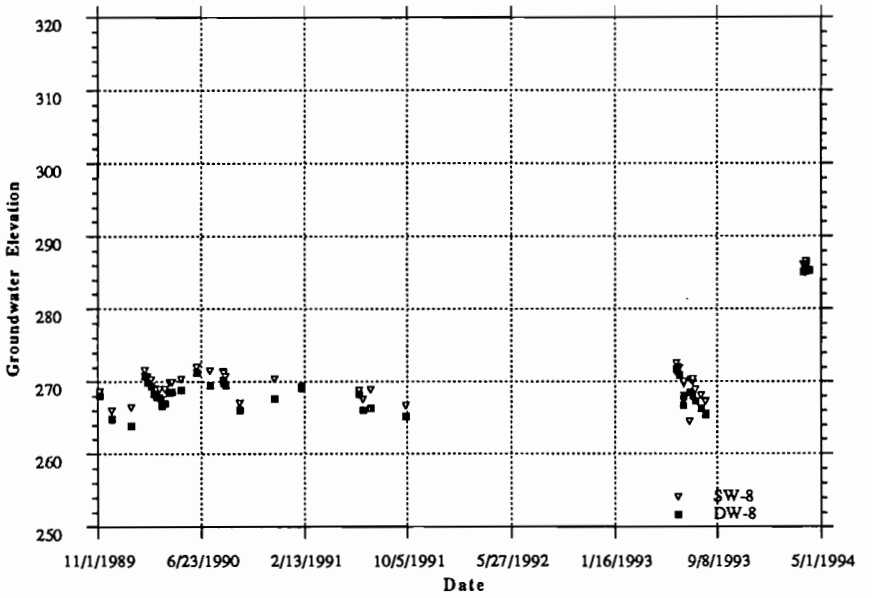
SW-6 Hydrograph



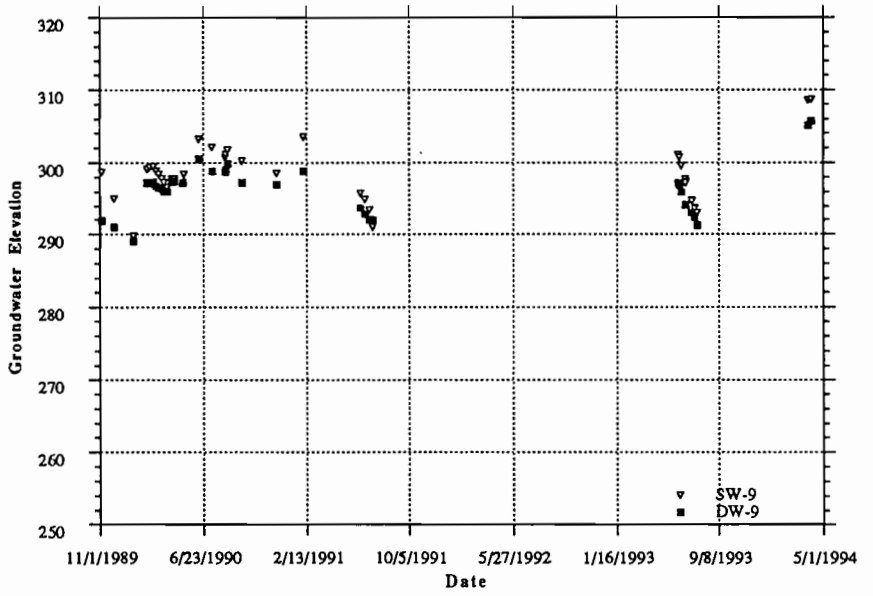
SW-7 Hydrograph



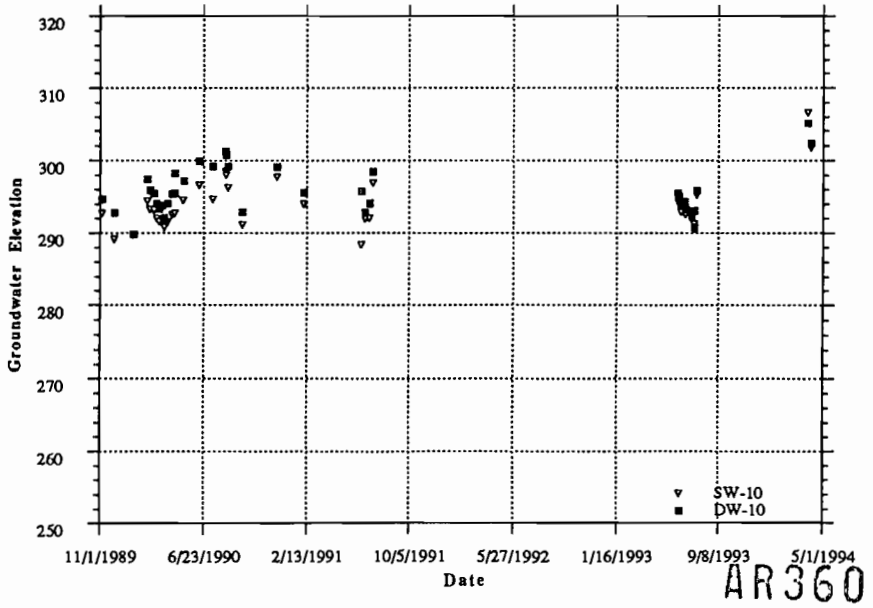
Well Set 8 Hydrograph



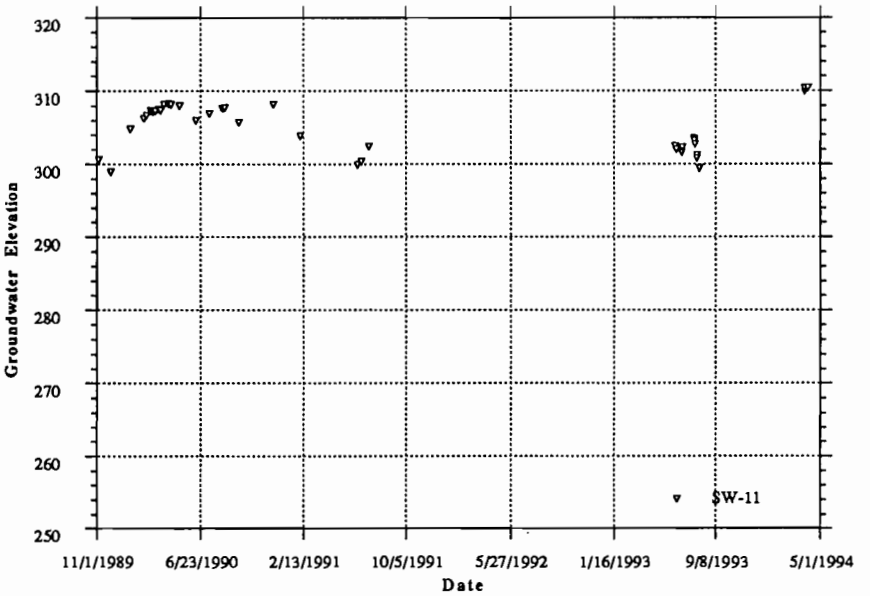
Well Set 9 Hydrograph



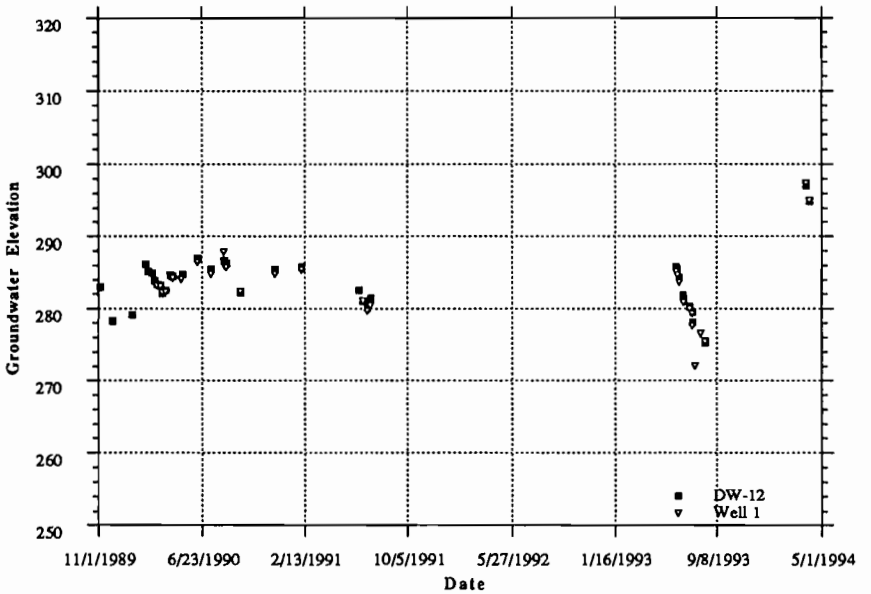
Well Set 10 Hydrograph



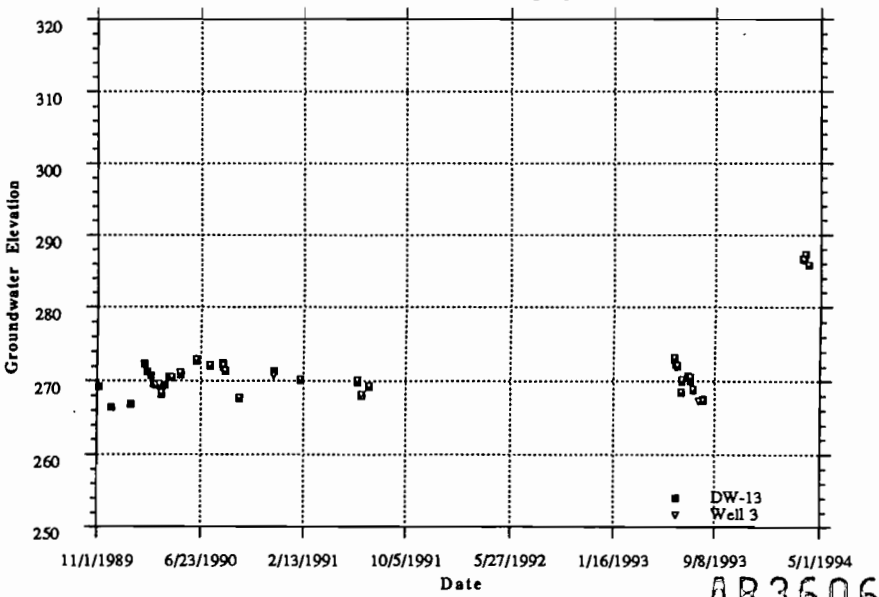
SW-11 Hydrograph



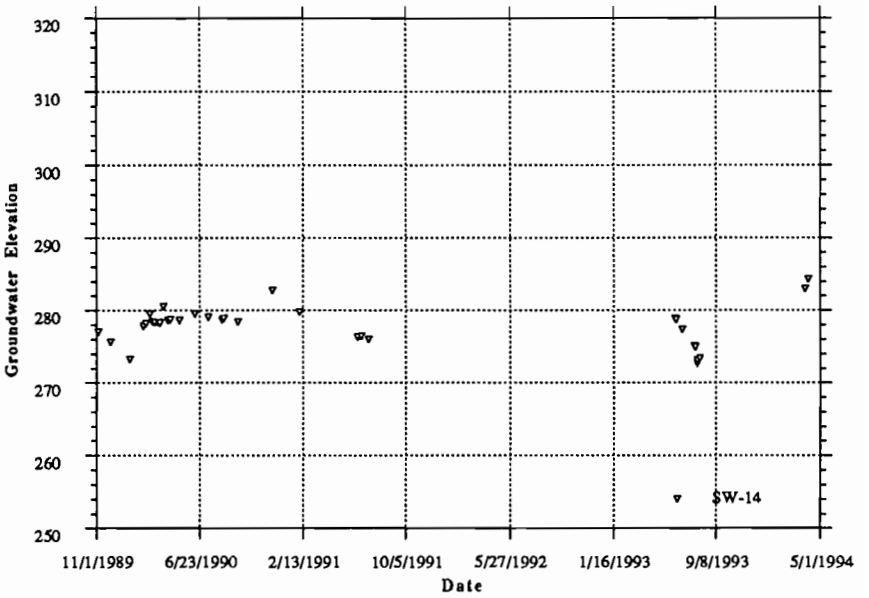
Well 1/DW-12 Hydrograph



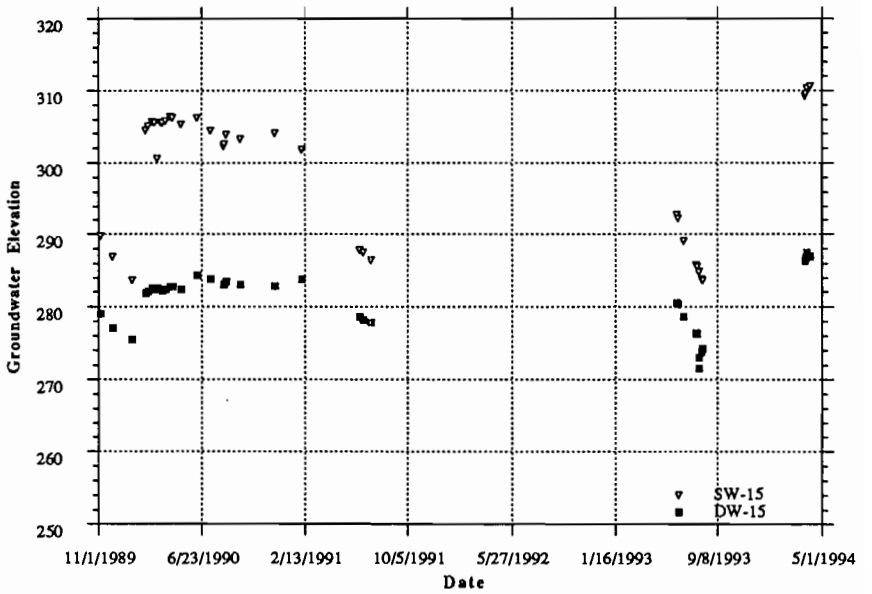
Well3/DW-13 Hydrograph



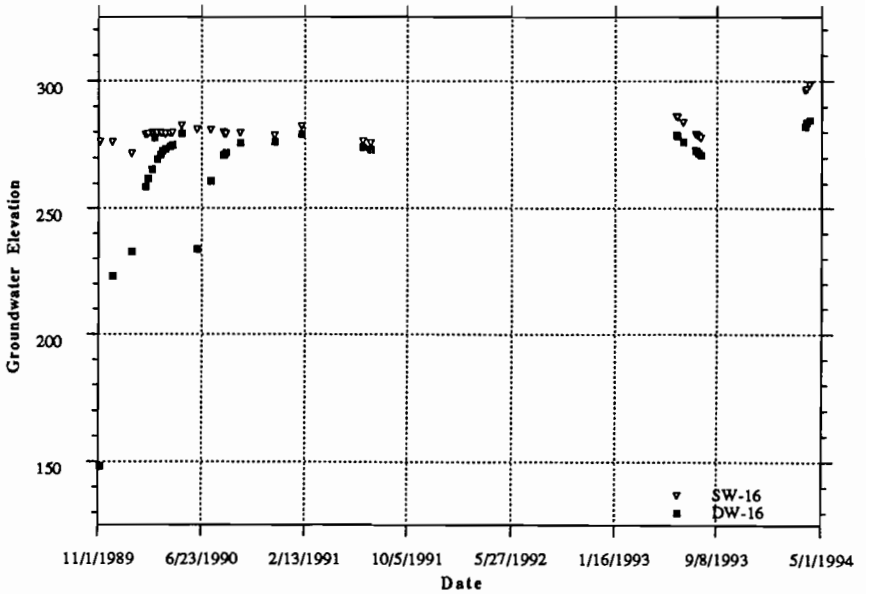
SW-14 Hydrograph



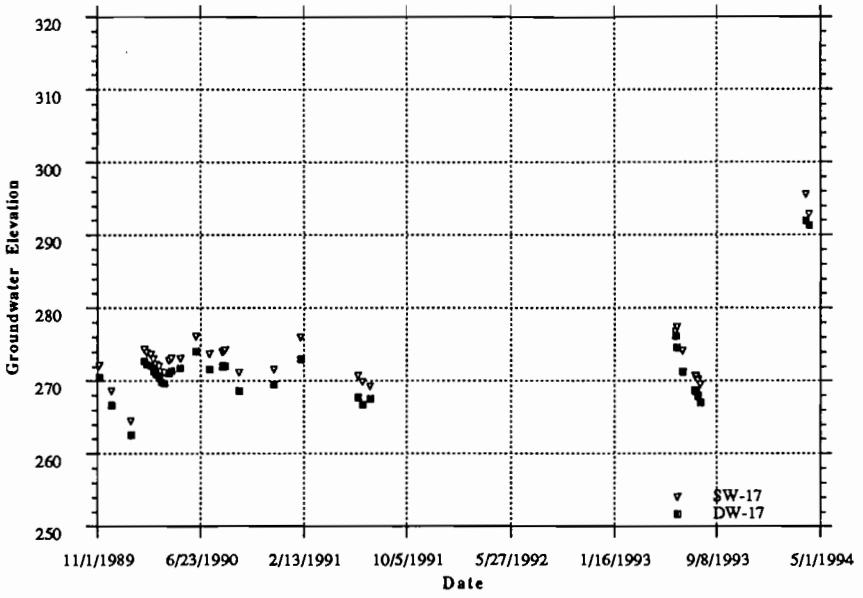
Well Set 15 Hydrograph



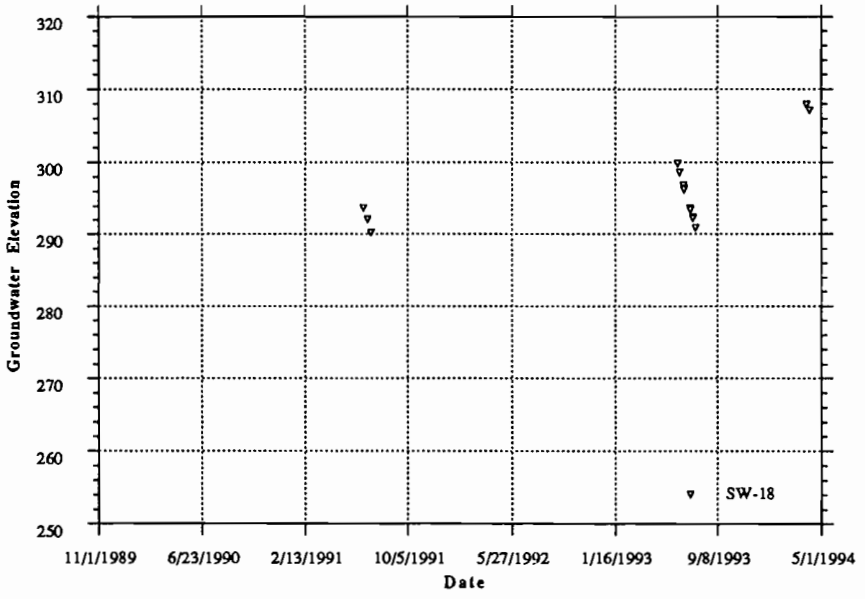
Well Set 16 Hydrograph



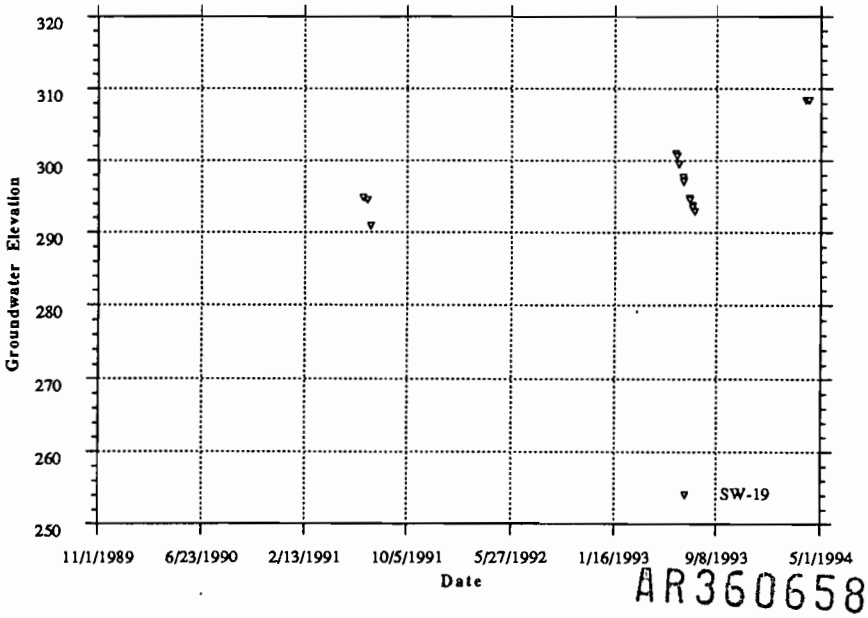
Well Set 17 Hydrograph



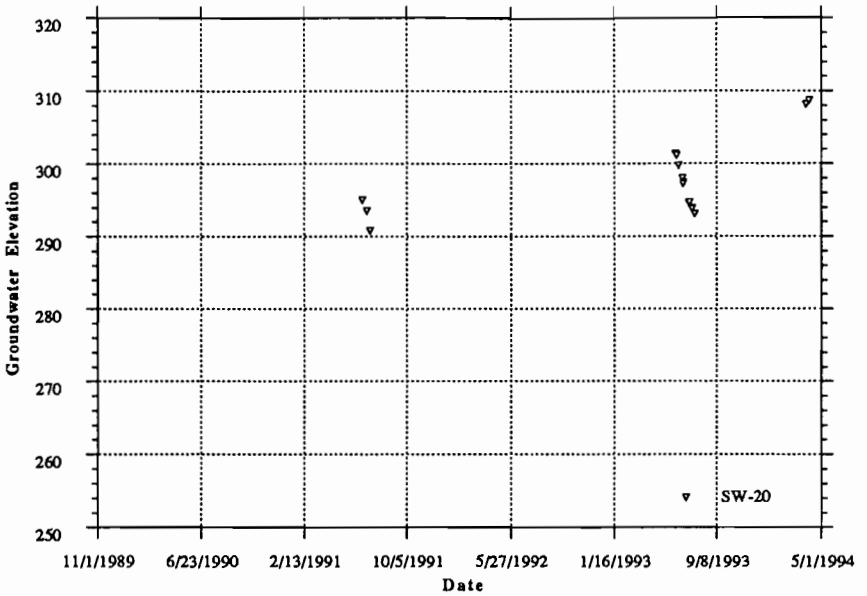
SW-18 Hydrograph



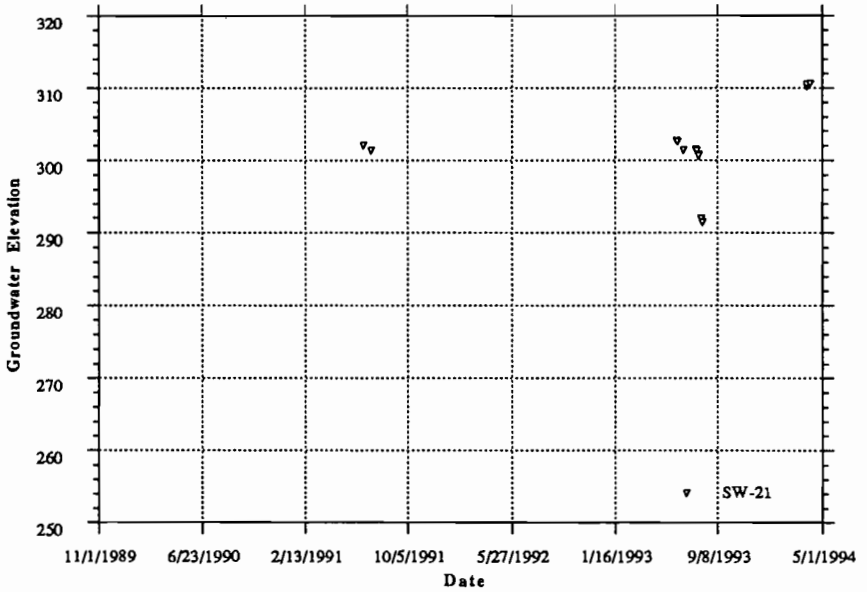
SW-19 Hydrograph



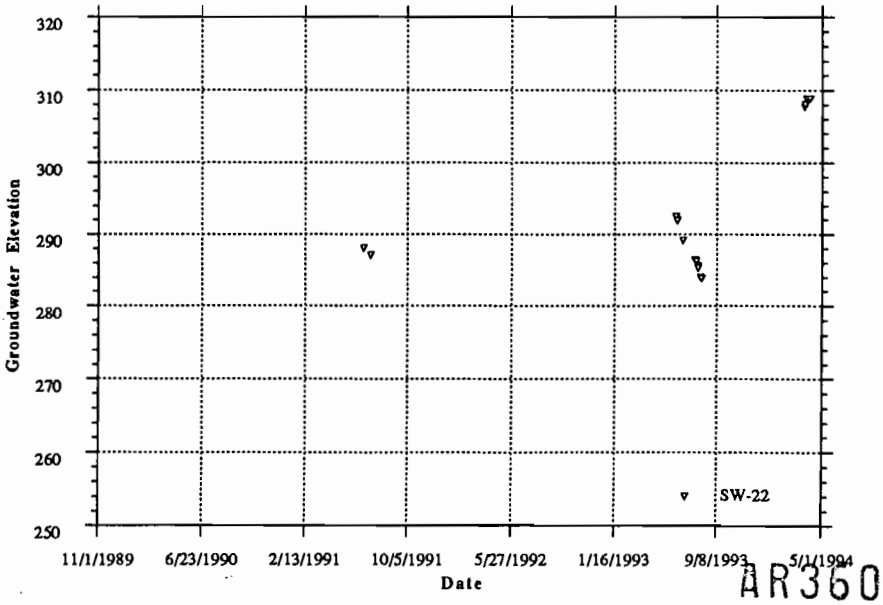
SW-20 Hydrograph

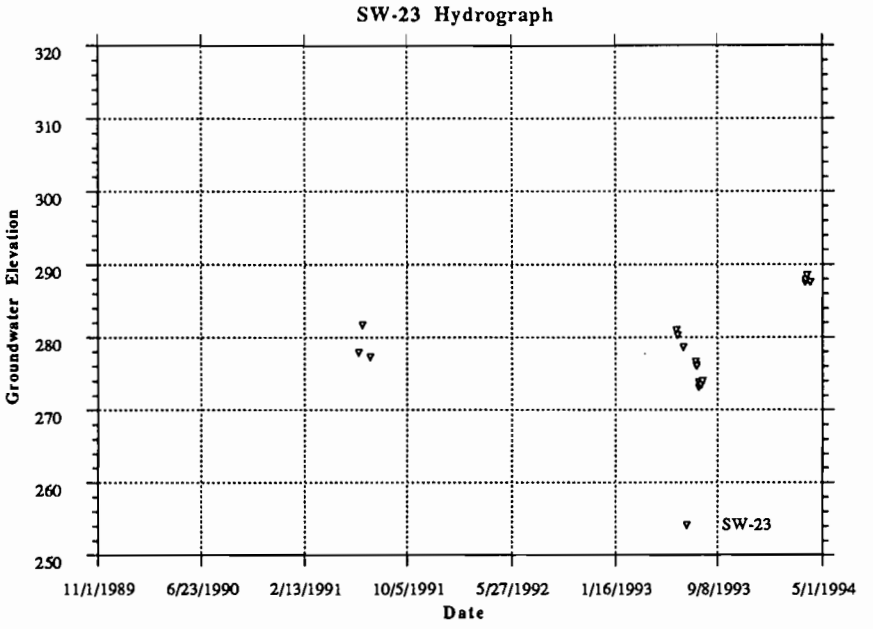


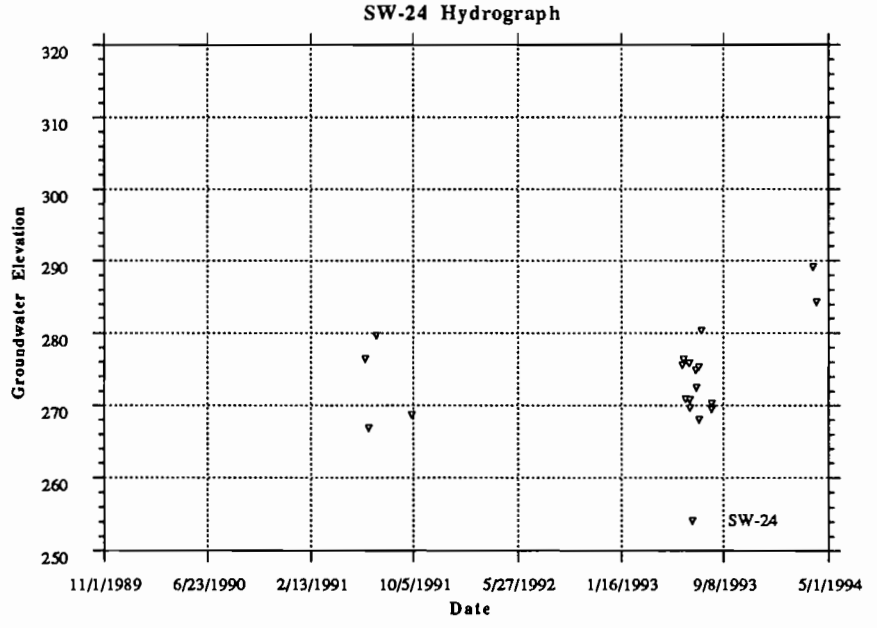
SW-21 Hydrograph

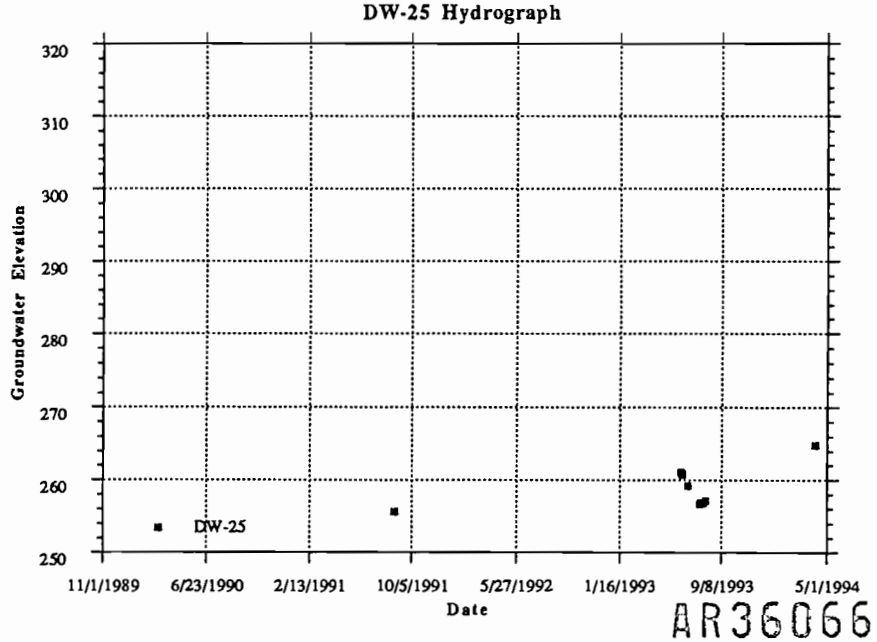


SW-22 Hydrograph

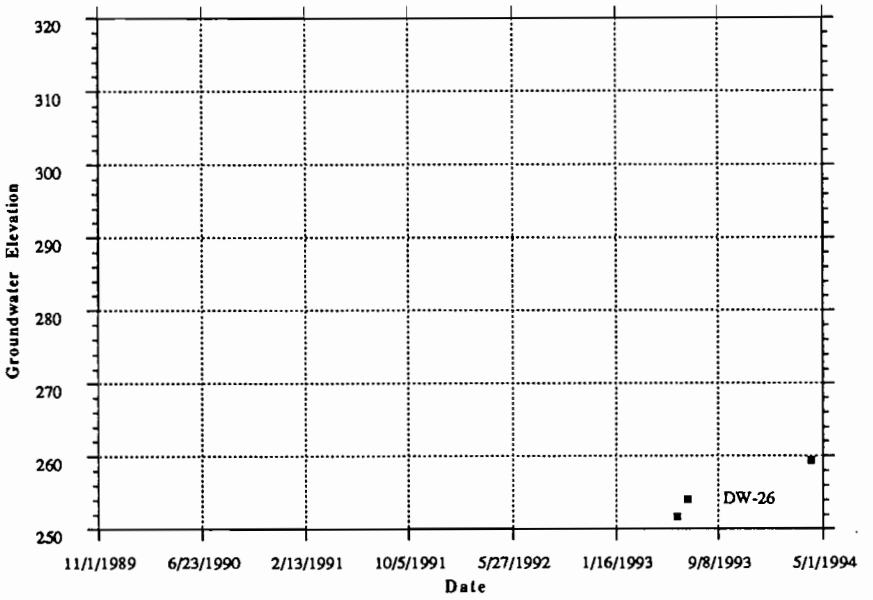



SW-23 Hydrograph
Groundwater Elevation
320
310
300
290
280
270
260
250
SW-23
11/1/1989
6/23/1990
2/13/1991
10/5/1991
5/27/1992
1/16/1993
9/8/1993
5/1/1994
Date

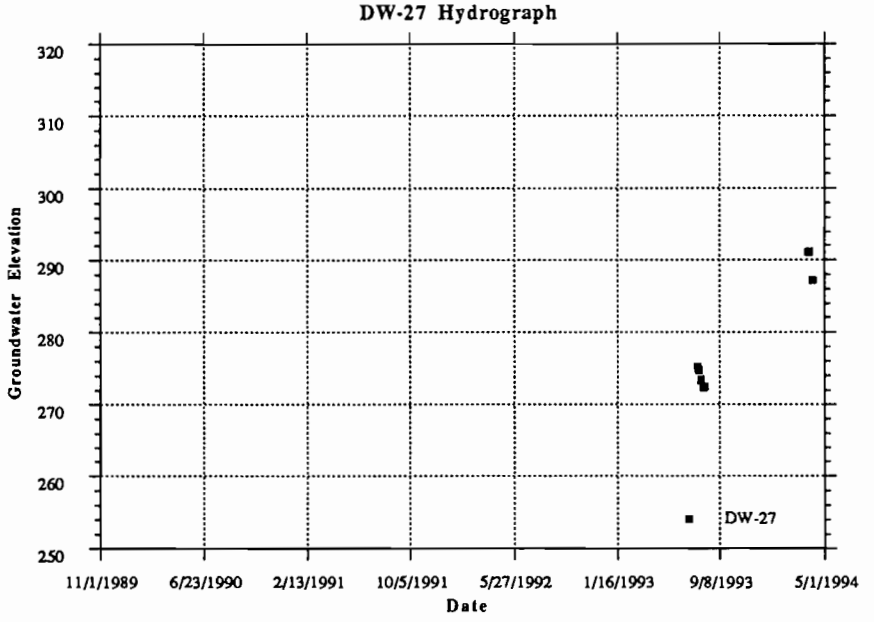

SW-24 Hydrograph
Groundwater Elevation
320
310
300
290
280
270
260
250
SW-24
11/1/1989
6/23/1990
2/13/1991
10/5/1991
5/27/1992
1/16/1993
9/8/1993
5/1/1994
Date


DW-25 Hydrograph
Groundwater Elevation
320
310
300
290
280
270
260
250
DW-25
11/1/1989
6/23/1990
2/13/1991
10/5/1991
5/27/1992
1/16/1993
9/8/1993
5/1/1994
Date

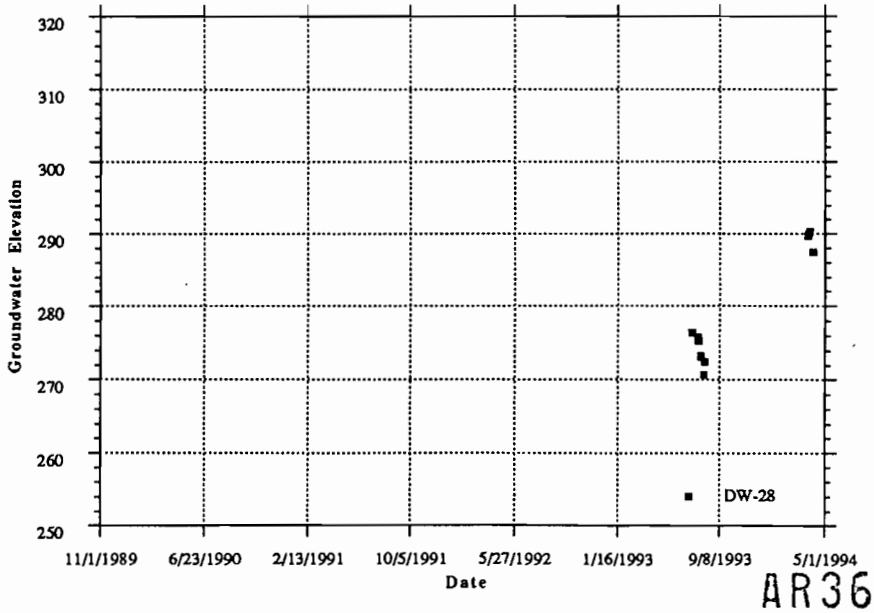
DW-26 Hydrograph



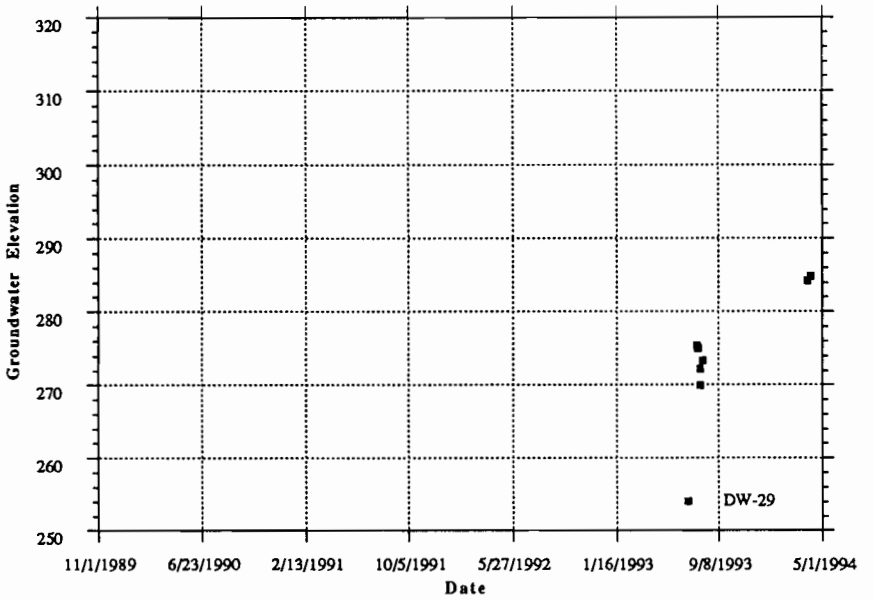
DW-27 Hydrograph



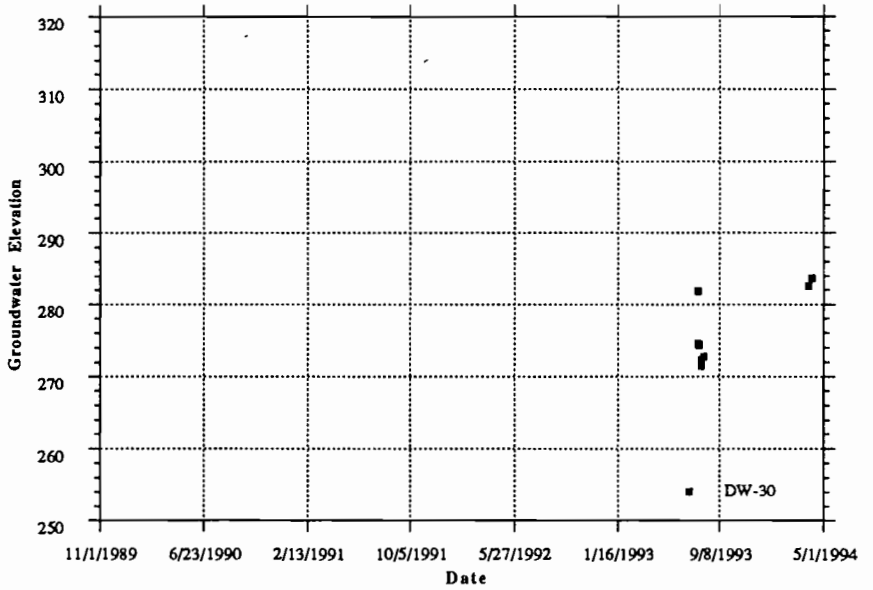
DW-28 Hydrograph



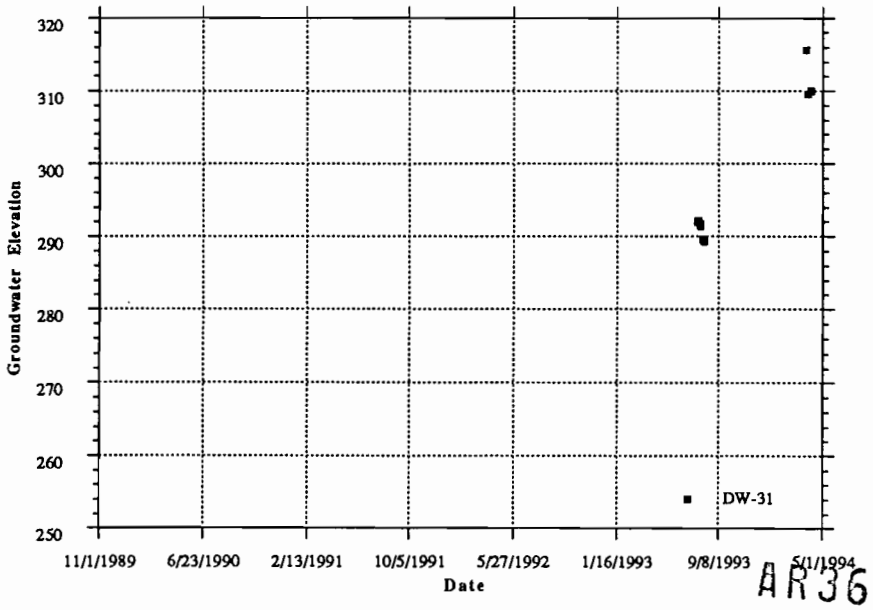
DW-29 Hydrograph



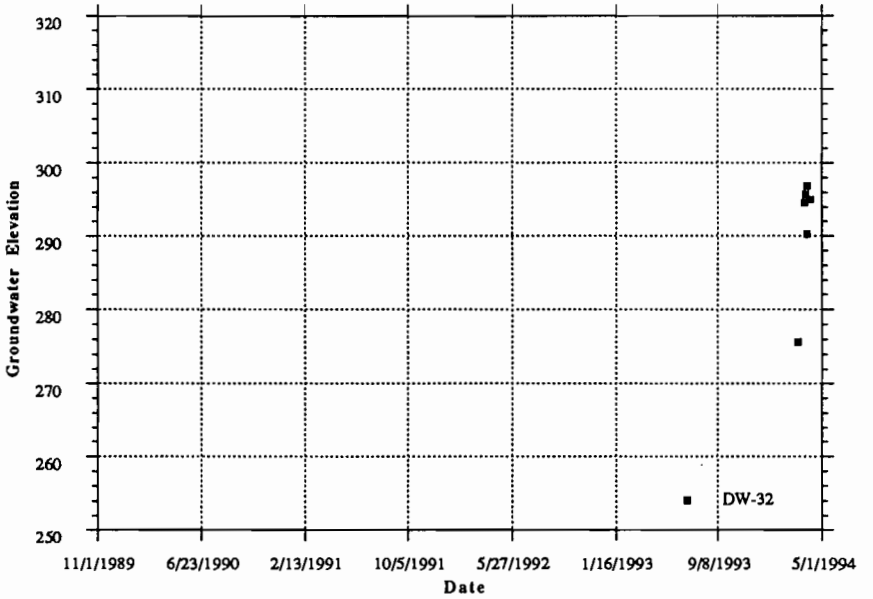
DW-30 Hydrograph



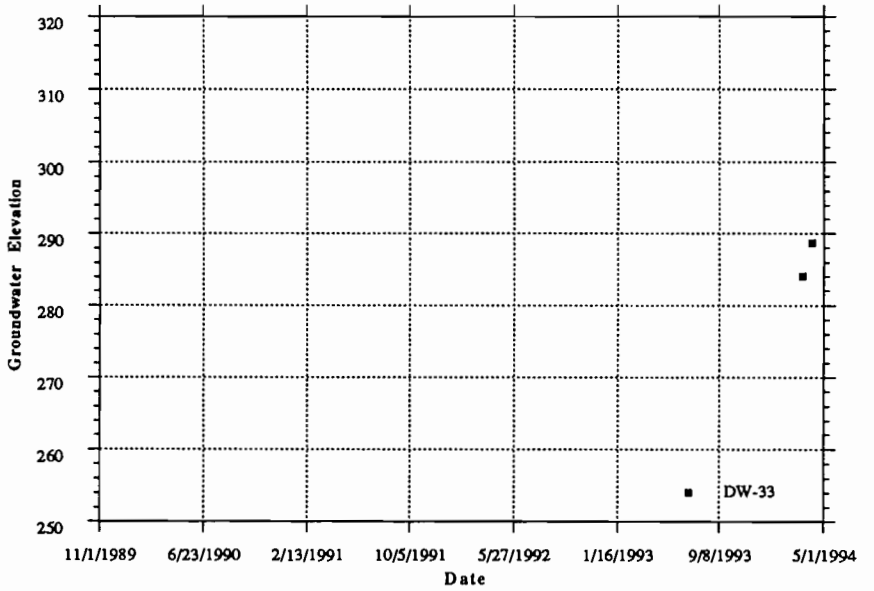
DW-31 Hydrograph



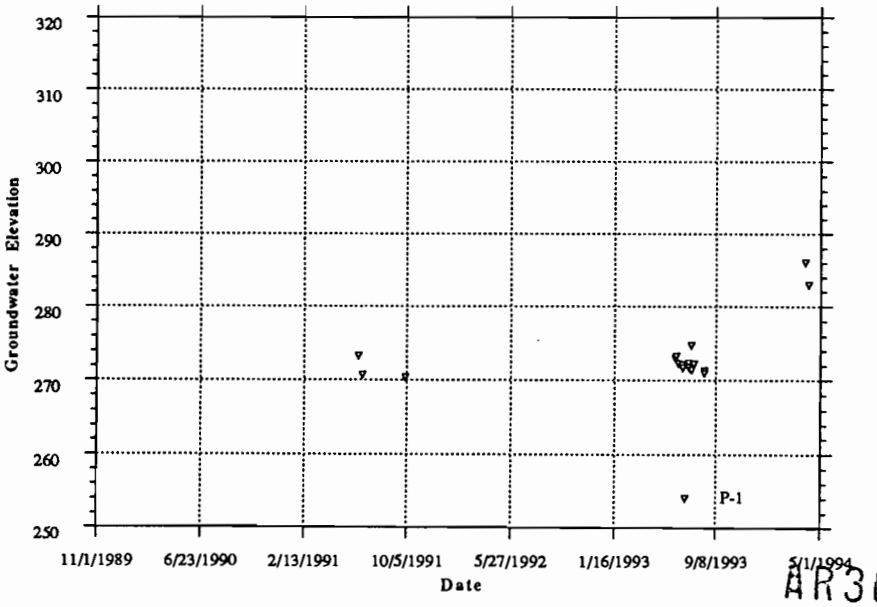
DW-32 Hydrograph

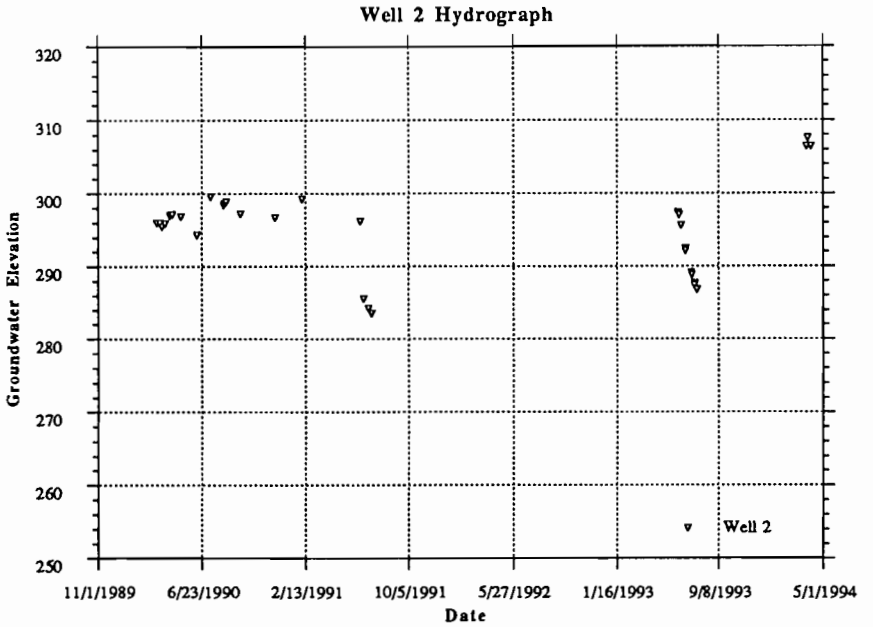


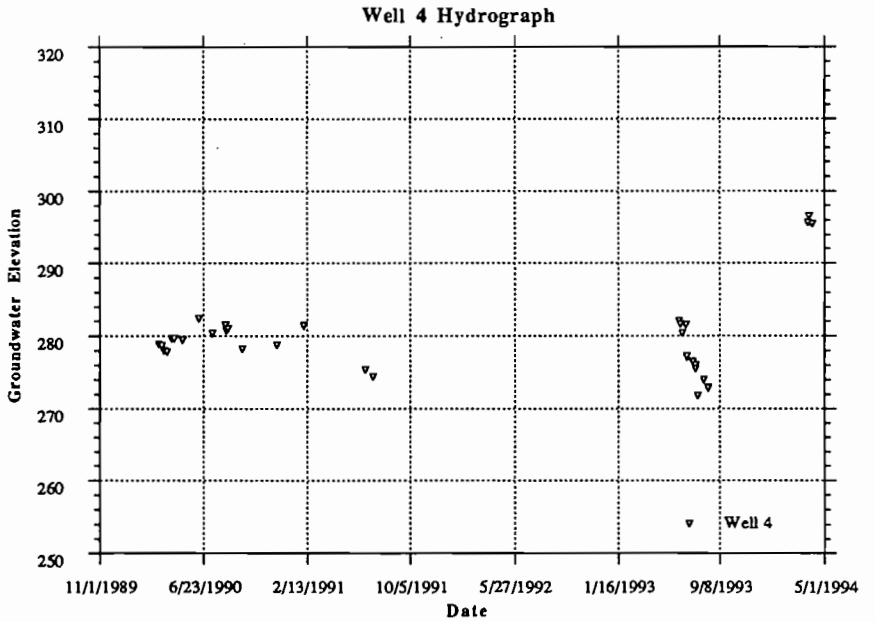
DW-33 Hydrograph



P-1 Hydrograph




Well 2 Hydrograph
Groundwater Elevation
320
310
300
290
280
270
260
250
11/1/1989
6/23/1990
2/13/1991
10/5/1991
5/27/1992
1/16/1993
9/8/1993
5/1/1994
Date
Well 2


Well 4 Hydrograph
Groundwater Elevation
320
310
300
290
280
270
260
250
11/1/1989
6/23/1990
2/13/1991
10/5/1991
5/27/1992
1/16/1993
9/8/1993
5/1/1994
Date
Well 4