



Figure 7-14. Location of surface water and spring monitoring stations.

GENWAL COAL COMPANY
1990 WATER SAMPLING
SPRINGS

LOCATION	FREQUENCY	PARAMETERS
SP-19 SP-22 SP-36 SP-47 SP-58	June, July & August	Table 7-4
SP-19 SP-22 SP-36 SP-47 SP-58	September, 1990	Table 7-5
SP-30	January, April, & July	Table 7-4
SP-30	October, 1990	Table 7-5
Inventory mine workings inflows exceeding 3gpm	Jan, Apr, July & Oct.	
Submit Quarterly & Annual Reports to DOGM		

**GENWAL COAL COMPANY
WATER MONITORING**

DATE: January 18, 1990

RE: SP-30

=====
During this sampling period an attempt has made to sample SP-30. Again, at this location there was no evidence of water for a sample to be taken.

GENWAL COAL COMPANY
WATER MONITORING

2nd Quarter
1990

DATE: May 16, 1990

RE: SP-30

=====
During this sampling period an attempt was made to sample SP-30. Again, at this location there was no evidence of water for a sample to be taken.



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

CE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10465

Sample ID: GENWAL COAL CO.

Date Rec'd: June 28, 1990

SPRING 19

Date Sampled: June 28, 1990

Rec'd 1330 hr.

Sampled no time

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
07-24-90	1400 hr.		07-24-90	1030 hr.	
Alk., Bicarbonate	342	mg/l HCO ₃	Fluoride	0.30	mg/l
07-10-90	0950 hr.		07-10-90	1500 hr.	
Alk., Carbonate	1<	mg/l CaCO ₃	Hardness, Total	295	mg/l CaCO ₃
07-10-90	0950 hr.				
Arsenic	0.002<	mg/l	Iron, Dissolved	0.02<	mg/l
07-20-90	0900 hr.		07-06-90	1315 hr.	
Anions, Total	6.02	meq/l	Lead	0.050<	mg/l
			07-24-90	1030 hr.	
Barium	0.03<	mg/l	Magnesium	37.70	mg/l
07-24-90	1400 hr.		07-06-90	1300 hr.	
Boron	0.19	mg/l	Manganese	0.01<	mg/l
07-19-90	0930 hr.		07-06-90	1330 hr.	
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
07-24-90	1030 hr.		07-19-90	1400 hr.	
Calcium	55.8	mg/l	Molybdenum	0.10<	mg/l
07-06-90	1230 hr.		07-24-90	1400 hr.	
Cations, Total	6.20	meq/l	Nickel	0.02<	mg/l
			07-24-90		
Chloride	15.0	mg/l	Nitrogen, Ammonia	0.02	mg/l
07-10-90	1230 hr.		07-12-90	1530 hr.	
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.07	mg/l
07-24-90	1400 hr.		07-13-90	1230 hr.	

ANALYST: D. Ligon

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

ll ll
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10465

Sample ID: GENWAL COAL CO.

Date Rec'd: June 28, 1990

SPRING 19

Date Sampled: June 28, 1990

Rec'd 1330 hr.

Sampled no time

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.01<	mg/l	Solids, Dissolved	665.0	mg/l
07-13-90	1230 hr.		07-10-90	1630 hr.	
Phosphorus, Total	0.02	mg/l	Solids, Suspended	2.0	mg/l
07-05-90	1610 hr.		07-10-90	1630 hr.	
Potassium	3.96	mg/l	Sulfate	6.0	mg/l
07-06-90	1400 hr.		07-12-90	1430 hr.	
Selenium	0.002<	mg/l	Sulfide	1.00<	mg/l
07-20-90	1000 hr.		07-12-90	0830 hr.	
Sodium	4.96	mg/l	Zinc	0.00<	mg/l
07-06-90	1345 hr.		07-24-90	1030 hr.	

ANALYST: D. Tyson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

U U
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 853-2311

July 25, 1990

Job No.: 59 10463

Sample ID: GENWAL COAL CO.

Date Rec'd: June 28, 1990

SPRING 22

Date Sampled: June 28, 1990

Rec'd 1330 hr.

Sampled no time

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
07-24-90	1400 hr.		07-24-90	1030 hr.	
Alk., Bicarbonate	437	mg/l HCO ₃	Fluoride	0.34	mg/l
07-10-90	0950 hr.		07-10-90	1500 hr.	
Alk., Carbonate	1<	mg/l CaCO ₃	Hardness, Total	425	mg/l CaCO ₃
07-10-90	0950 hr.				
Arsenic	0.002<	mg/l	Iron, Dissolved	0.02<	mg/l
07-20-90	0900 hr.		07-06-90	1315 hr.	
Anions, Total	8.60	meq/l	Lead	0.050<	mg/l
			07-24-90	1030 hr.	
Barium	1.08	mg/l	Magnesium	59.20	mg/l
07-24-90	1400 hr.		07-06-90	1300 hr.	
Boron	0.22	mg/l	Manganese	0.01<	mg/l
07-03-90	0930 hr.		07-06-90	1330 hr.	
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
07-24-90	1030 hr.		07-19-90	1400 hr.	
Calcium	72.5	mg/l	Molybdenum	0.10<	mg/l
07-06-90	1230 hr.		07-24-90	1400 hr.	
Cations, Total	8.90	meq/l	Nickel	0.02<	mg/l
			07-24-90	1030 hr.	
Chloride	20.0	mg/l	Nitrogen, Ammonia	0.04	mg/l
07-10-90	1230 hr.		07-12-90	1530 hr.	
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.06	mg/l
07-24-90	1400 hr.		07-13-90	1230 hr.	

ANALYST: D. Jipou

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

[Signature]
Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10463

Sample ID: GENWAL COAL CO.

Date Rec'd: June 28, 1990

SPRING 22

Date Sampled: June 28, 1990

Rec'd 1330 hr.

Sampled no time

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.01<	mg/l	Solids, Dissolved	372.0	mg/l
07-13-90	1230 hr.		07-10-90	1630 hr.	
Phosphorus, Total	0.04	mg/l	Solids, Suspended	14.0	mg/l
07-05-90	1610 hr.		07-10-90	1630 hr.	
Potassium	0.21	mg/l	Sulfate	50.0	mg/l
07-06-90	1400 hr.		07-12-90	1430 hr.	
Selenium	0.002<	mg/l	Sulfide	1.00<	mg/l
07-20-90	1000 hr.		07-12-90	0830 hr.	
Sodium	9.67	mg/l	Zinc	0.00<	mg/l
07-06-90	1345 hr.		07-24-90	1030 hr.	

ANALYST: D. Ipson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

U U
Manager, Huntington Laboratory

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10464

Sample ID: GENWAL COAL CO.

Date Rec'd: June 28, 1990

SPRING 36

Date Sampled: June 28, 1990

Rec'd 1330 hr.

Sampled no time

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
07-24-90	1400 hr.		07-24-90	1030 hr.	
Alk., Bicarbonate	587	mg/l HCO ₃	Fluoride	0.49	mg/l
07-10-90	0950 hr.		07-10-90	1500 hr.	
Alk., Carbonate	1<	mg/l CaCO ₃	Hardness, Total	479	mg/l CaCO ₃
07-10-90	0950 hr.				
Arsenic	0.002<	mg/l	Iron, Dissolved	0.02<	mg/l
07-20-90	0900 hr.		07-06-90	1315 hr.	
Anions, Total	10.47	meq/l	Lead	0.050<	mg/l
			07-24-90	1030 hr.	
Barium	0.17	mg/l	Magnesium	83.60	mg/l
07-24-90	1400 hr.		07-06-90	1300 hr.	
Boron	0.25	mg/l	Manganese	0.01<	mg/l
07-03-90	0930 hr.		07-06-90	1330 hr.	
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
07-24-90	1030 hr.		07-19-90	1400 hr.	
Calcium	54.0	mg/l	Molybdenum	0.10<	mg/l
07-06-90	1230 hr.		07-24-90	1400 hr.	
Cations, Total	10.29	meq/l	Nickel	0.02<	mg/l
			07-24-90	1030 hr.	
Chloride	20.0	mg/l	Nitrogen, Ammonia	0.02	mg/l
07-10-90	1230 hr.		07-12-90	1530 hr.	
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.05	mg/l
07-24-90	1400 hr.		07-13-90	1230 hr.	

ANALYST: D. Tipton

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

U U
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10464

Sample ID: GENWAL COAL CO.

Date Rec'd: June 28, 1990

SPRING 36

Date Sampled: June 28, 1990

Rec'd 1330 hr.

Sampled no time

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.01<	mg/l	Solids, Dissolved	476.0	mg/l
07-13-90	1230 hr.		07-10-90	1630 hr.	
Phosphorus, Total	0.01	mg/l	Solids, Suspended	37.0	mg/l
07-05-90	1610 hr.		07-10-90	1630 hr.	
Potassium	0.47	mg/l	Sulfate	25.0	mg/l
07-06-90	1400 hr.		07-10-90	1430 hr.	
Selenium	0.002<	mg/l	Sulfide	1.00<	mg/l
07-20-90	1000 hr.		07-12-90	0830 hr.	
Sodium	16.92	mg/l	Zinc	0.00<	mg/l
07-06-90	1345 hr.		07-24-90	1030 hr.	

ANALYST: D. Ipson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

U U
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10457

Sample ID: GENWAL COAL CO.

Date Rec'd: June 26, 1990

SPRING 58

Date Sampled: June 26, 1990

Rec'd 1600 hr.

Sampled 1500 hr.

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.22	mg/l	Copper	0.010<	mg/l
07-24-90	1400 hr.		07-24-90	1030 hr.	
Alk., Bicarbonate	330	mg/l HCO ₃	Fluoride	0.29	mg/l
06-27-90	0950 hr.		07-10-90	1500 hr.	
Alk., Carbonate	1<	mg/l CaCO ₃	Hardness, Total	330	mg/l CaCO ₃
06-27-90	0950 hr.				
Arsenic	0.220	mg/l	Iron, Dissolved	0.02<	mg/l
07-20-90	0900 hr.		07-06-90	1315 hr.	
Anions, Total	6.75	meq/l	Lead	0.050<	mg/l
			07-24-90	1030 hr.	
Barium	0.25	mg/l	Magnesium	25.90	mg/l
07-24-90	1400 hr.		07-06-90	1300 hr.	
Boron	0.10	mg/l	Manganese	0.01<	mg/l
07-03-90	0930 hr.		07-06-90	1330 hr.	
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
07-24-90	1030 hr.		07-19-90	1400 hr.	
Calcium	89.5	mg/l	Molybdenum	0.10<	mg/l
07-06-90	1230 hr.		07-24-90	1400 hr.	
Cations, Total	6.69	meq/l	Nickel	0.02<	mg/l
			07-24-90	1030 hr.	
Chloride	15.0	mg/l	Nitrogen, Ammonia	0.34	mg/l
06-27-90	1230 hr.		06-24-90	1530 hr.	
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.03	mg/l
07-24-90	1400 hr.		07-13-90	1230 hr.	

ANALYST: D. Lyon

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

W. W.
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

July 25, 1990

Job No.: 59 10457

Sample ID: GENWAL COAL CO.

Date Rec'd: June 26, 1990

SPRING 58

Date Sampled: June 26, 1990

Rec'd 1600 hr.

Sampled 1500 hr.

Sampled By: GENWAL COAL CO.

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.01<	mg/l	Solids, Dissolved	254.0	mg/l
07-13-90	1230 hr.		06-27-90	1630 hr.	
Phosphorus, Total	0.02	mg/l	Solids, Suspended	4.0	mg/l
07-06-90	1610 hr.		06-27-90	1630 hr.	
Potassium	0.19	mg/l	Sulfate	50.0	mg/l
07-06-90	1400 hr.		07-12-90	1430 hr.	
Selenium	0.002<	mg/l	Sulfide	0.01<	mg/l
07-20-90	1000 hr.		07-12-90	0830 hr.	
Sodium	2.05	mg/l	Zinc	0.01<	mg/l
07-06-90	1345 hr.		07-24-90	1030 hr.	

ANALYST: D. Tyson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Ul cy

Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

GENWAL COAL COMPANY
WATER MONITORING

DATE: July 23, 1990

RE: SP-30

=====
During this sampling period an attempt was made to sample SP-30. At this location there was no evidence of water for a sample to be taken and; therefore, recorded as having no flow.

GENWAL COAL COMPANY
WATER MONITORING

DATE: July 23, 1990

RE: SP-36

=====

During this sampling period an attempt was made to sample SP-36. At the sampling point there was no evidence of water for a sample to be taken; although, the overhanging rock was wet. Because of this no flow was recorded.



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

NCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

August 7, 1990

Job No.: 59 10522

Sample ID: GENMAL COAL CO.

Date Rec'd: July 24, 1990

SP-58

Date Sampled: July 24, 1990

Rec'd 1200 hr.

Sampled 0940 hr.

Sampled By: GENMAL COAL CO.

GENMAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
08-07-90	1500 hr.		08-07-90	1300 hr.	
Alk., Bicarbonate	256	mg/l HCO ₃	Fluoride	0.23	mg/l
08-02-90	1435 hr.		07-31-90	0900 hr.	
Alk., Carbonate	1<	mg/l CO ₃	Hardness, Total	230	mg/l CaCO ₃
08-02-90	1435 hr.				
Arsenic	0.002<	mg/l	Iron, Dissolved	0.02<	mg/l
08-03-90	1510 hr.		08-01-90	1430 hr.	
Anions, Total	4.97	meq/l	Lead	0.050<	mg/l
			08-07-90	1300 hr.	
Barium	0.17	mg/l	Magnesium	17.00	mg/l
08-07-90	1500 hr.		08-01-90	1415 hr.	
Boron	0.08	mg/l	Manganese	0.02	mg/l
08-07-90	0930 hr.		08-01-90	1445 hr.	
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
08-07-90	1300 hr.		08-06-90	1300 hr.	
Calcium	64.0	mg/l	Molybdenum	0.10<	mg/l
08-01-90	1400 hr.		08-07-90	1500 hr.	
Cations, Total	4.71	meq/l	Nickel	0.02<	mg/l
			08-07-90	1300 hr.	
Chloride	20.0	mg/l	Nitrogen, Ammonia	0.07	mg/l
07-26-90	0845 hr.		07-31-90	1300 hr.	
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.01<	mg/l
08-07-90	1500 hr.		08-07-90	1300 hr.	

ANALYST: D. Lyon

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Dave Councilly Jr
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

NCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 853-2311

August 7, 1990

Job No.: 59 10522

Sample ID: GENMAL COAL CO.

Date Rec'd: July 24, 1990

SP-58

Date Sampled: July 24, 1990

Rec'd 1200 hr.

Sampled 0940 hr.

Sampled By: GENMAL COAL CO.

GENMAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.014	mg/l	Solids, Dissolved	258.0	mg/l
08-07-90	1300 hr.		07-27-90	0930 hr.	
Phosphorus, Total	0.014	mg/l	Sulfate	15.0	mg/l
08-01-90	1055 hr.		07-30-90	1030 hr.	
Potassium	0.10	mg/l	Sulfide	0.01	mg/l
08-01-90	1345 hr.		07-31-90	1330 hr.	
Selenium	0.0024	mg/l	Zinc	0.004	mg/l
08-03-90	1600 hr.		08-07-90	1300 hr.	
Sodium	2.58	mg/l			
08-01-90	1330 hr.				

ANALYST: D. L. Sporn

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

David C. Cunniff
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

INCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

August 7, 1990

Job No.: SP 10520

Sample ID: GENMAL COAL CO.

Date Rec'd: July 24, 1990

SP-19

Date Sampled: July 24, 1990

Rec'd 1200 hr.

Sampled 0800 hr.

Sampled By: GENMAL COAL CO.

GENMAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
08-07-90	1500 hr.		08-07-90	1300 hr.	
Alk., Bicarbonate	254	mg/l HCO ₃	Fluoride	0.27	mg/l
08-02-90	1435 hr.		07-31-90	0900 hr.	
Alk., Carbonate	1<	mg/l CO ₃	Hardness, Total	240	mg/l CaCO ₃
08-02-90	1435 hr.				
Arsenic	0.002<	mg/l	Iron, Dissolved	0.03	mg/l
08-03-90	1510 hr.		08-01-90	1430 hr.	
Anions, Total	5.09	meq/l	Lead	0.050<	mg/l
			08-07-90	1300 hr.	
Barium	0.06	mg/l	Magnesium	23.10	mg/l
08-07-90	1500 hr.		08-01-90	1415 hr.	
Boron	0.06	mg/l	Manganese	0.02	mg/l
08-07-90	0930 hr.		08-01-90	1445 hr.	
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
08-07-90	1300 hr.		08-06-90	1300 hr.	
Calcium	58.1	mg/l	Molybdenum	0.10<	mg/l
08-01-90	1400 hr.		08-07-90	1500 hr.	
Cations, Total	4.95	meq/l	Nickel	0.02<	mg/l
			08-07-90	1300 hr.	
Chloride	20.0	mg/l	Nitrogen, Ammonia	0.09	mg/l
07-26-90	0845 hr.		07-31-90	1300 hr.	
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.01<	mg/l
08-07-90	1500 hr.		08-07-90	1300 hr.	

ANALYST: D. Ipson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Dave Council
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

August 7, 1990

Job No.: 59 10520

Sample ID: GENVAL COAL CO.

Date Rec'd: July 24, 1990

SP-19

Date Sampled: July 24, 1990

Rec'd 1200 hr.

Sampled 0800 hr.

Sampled By: GENVAL COAL CO.

GENVAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.014	mg/l	Solids, Dissolved	553.0	mg/l
08-07-90	1300 hr.		07-27-90	0930 hr.	
Phosphorus, Total	0.014	mg/l	Sulfate	22.0	mg/l
08-01-90	1055 hr.		07-30-90	1030 hr.	
Potassium	0.39	mg/l	Sulfide	5.10	mg/l
08-01-90	1345 hr.		07-31-90	1330 hr.	
Selenium	0.0024	mg/l	Zinc	0.004	mg/l
08-03-90	1600 hr.		08-07-90	1300 hr.	
Sodium	3.34	mg/l			
08-01-90	1330 hr.				

ANALYST: D. Lyon

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Dave Councill
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

ICE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

August 7, 1990

Job No.: 59 10521

Sample ID: GENVAL COAL CO.

Date Rec'd: July 24, 1990

SP-22

Date Sampled: July 24, 1990

Rec'd 1200 hr.

Sampled 0825 hr.

Sampled By: GENVAL COAL CO.

GENVAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite	0.01<	mg/l	Solids, Dissolved	293.0	mg/l
08-07-90	1300 hr.		07-27-90	0930 hr.	
Phosphorus, Total	0.01<	mg/l	Sulfate	25.0	mg/l
08-01-90	1055 hr.		07-30-90	1030 hr.	
Potassium	0.30	mg/l	Sulfide	1.00<	mg/l
08-01-90	1345 hr.		07-31-90	1330 hr.	
Selenium	0.002<	mg/l	Zinc	0.00<	mg/l
08-03-90	1600 hr.		08-07-90	1300 hr.	
Sodium	3.61	mg/l			
08-01-90	1330 hr.				

ANALYST: D. Ipson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

Dave Councilly Sr
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

NCE 190H

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

August 7, 1990

Job No.: 59 10521

Sample ID: GENIAL COAL CO.

Date Rec'd: July 24, 1990

SP-22

Date Sampled: July 24, 1990

Rec'd 1200 hr.

Sampled 0825 hr.

Sampled By: GENIAL COAL CO.

GENIAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
08-07-90 1500 hr.			08-07-90 1300 hr.		
Alk., Bicarbonate	299	mg/l HCO ₃	Fluoride	0.26	mg/l
08-02-90 1435 hr.			07-31-90 0900 hr.		
Alk., Carbonate	1<	mg/l CO ₃	Hardness, Total	262	mg/l CaCO ₃
08-02-90 1435 hr.					
Arsenic	0.002<	mg/l	Iron, Dissolved	0.02<	mg/l
08-03-90 1510 hr.			08-01-90 1430 hr.		
Anions, Total	5.59	meq/l	Lead	0.050<	mg/l
			08-07-90 1300 hr.		
Barium	0.03<	mg/l	Magnesium	28.10	mg/l
08-07-90 1500 hr.			08-01-90 1415 hr.		
Boron	0.11	mg/l	Manganese	0.02	mg/l
08-07-90 0930 hr.			08-01-90 1445 hr.		
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
08-07-90 1300 hr.			08-06-90 1300 hr.		
Calcium	58.7	mg/l	Molybdenum	0.10<	mg/l
08-01-90 1400 hr.			08-07-90 1500 hr.		
Cations, Total	5.40	meq/l	Nickel	0.02<	mg/l
			08-07-90 1300 hr.		
Chloride	10.0	mg/l	Nitrogen, Ammonia	0.08	mg/l
07-26-90 0845 hr.			07-31-90 1300 hr.		
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.01<	mg/l
08-07-90 1500 hr.			08-07-90 1300 hr.		

ANALYST: D. Lyon

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

David Council
Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

GENWAL COAL COMPANY
WATER MONITORING

DATE: July 23, 1990

RE: SP-47

=====
During this sampling period an attempt was made to sample SP-47. At this location there was no evidence of water for a sample to be taken and; therefore, recorded as having no flow.

GENWAL COAL COMPANY
WATER MONITORING

DATE: August 19, 1990

RE: SP-19

=====

During this sampling period an attempt was made to sample SP-19. At the sampling point there was no evidence of water for a sample to be taken; although, the rock was wet. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER MONITORING

DATE: August 19, 1990

RE: SP-22

=====

During this sampling period an attempt was made to sample SP-22. At the sampling point there was no evidence of water for a sample to be taken; although, the soil was moist. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER MONITORING

DATE: August 19, 1990

RE: SP-36

During this sampling period an attempt was made to sample SP-36. At the sampling point there was no evidence of water for a sample to be taken and the soil was dry; although, there were three drippers coming off the rock face. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER MONITORING

DATE: August 19, 1990

RE: SP-47

=====
During this sampling period an attempt was made to sample SP-47. At this location there was no evidence of water for a sample to be taken and; therefore, recorded as having no flow.

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

September 5, 1990

Job No.: 59 10562

Sample ID: GENWAL COAL COMPANY

Date Rec'd: August 20, 1990

SPRING #58

Date Sampled: August 19, 1990

Rec'd 1200 hr.

Sampled 1900 hr.

Sampled By: GENWAL COAL COMPANY

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Acidity	1<	mg/l CaCO ₃	Chromium	0.02<	mg/l
Aluminum	0.01<	mg/l	08-31-90	1100 hr.	
08-31-90	1100 hr.		Copper	0.010<	mg/l
Alk., Bicarbonate	303	mg/l HCO ₃	08-31-90	1100 hr.	
08-20-90	1600 hr.		Fluoride	0.38	mg/l
Alk., Carbonate	1<	mg/l CaCO ₃	08-20-90	1300 hr.	
08-20-90	1600 hr.		Hardness, Total	270	mg/l CaCO ₃
Arsenic	0.002<	mg/l	Iron	0.02<	mg/l
08-31-90	1400 hr.		08-28-90	1000 hr.	
Anions, Total	5.99	meq/l	Lead	0.050<	mg/l
Barium	0.03<	mg/l	08-31-90	1000 hr.	
08-31-90	1000 hr.		Magnesium	20.00	mg/l
Boron	0.01<	mg/l	08-28-90	1100 hr.	
08-23-90	0900 hr.		Manganese	0.01<	mg/l
Cadmium	0.002<	mg/l	08-28-90	1300 hr.	
08-31-90	1020 hr.		Mercury	0.002<	mg/l
Calcium	75.2	mg/l	08-30-90	0930 hr.	
08-28-90	1030 hr.		Molybdenum	0.10<	mg/l
Cations, Total	5.82	meq/l	08-31-90	1100 hr.	
Chloride	30.0	mg/l	Nickel	0.02<	mg/l
08-28-90	1630 hr.		08-31-90	1100 hr.	
			Nitrogen, Ammonia	0.01	mg/l
			08-20-90	1100 hr.	

ANALYST: D. Tyson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

ll ll
Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300

NCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

September 5, 1990

Job No.: 59 10562

Sample ID: GENWAL COAL COMPANY

Date Rec'd: August 20, 1990

SPRING #58

Date Sampled: August 19, 1990

Rec'd 1200 hr.

Sampled 1900 hr.

Sampled By: GENWAL COAL COMPANY

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrate	0.12	mg/l	Sodium	9.60	mg/l
08-23-90	1600 hr.		08-28-90	1445 hr.	
Nitrogen, Nitrite	0.01	mg/l	Solids, Dissolved	275.0	mg/l
08-23-90	1600 hr.		08-24-90	1630 hr.	
Phosphorus, Total	0.01	mg/l	Sulfate	15.0	mg/l
08-24-90	1500 hr.		08-17-90	0830 hr.	
Potassium	0.10	mg/l	Sulfide	0.00	mg/l
08-28-90	1500 hr.		08-17-90	0830 hr.	
Selenium	0.002	mg/l	Zinc	0.02	mg/l
08-31-90	1300 hr.		08-31-90	1100 hr.	

ANALYST: D. Tyson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

ll ll

Manager, Huntington Laboratory

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

GENWAL COAL COMPANY
WATER MONITORING

DATE: September 27, 1990

LOCATION: SP-19

=====

During this sampling period an attempt was made to sample SP-19. At the sampling point there was no evidence of water for a sample to be taken; although, the ground was moist. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER MONITORING

DATE: September 27, 1990

LOCATION: SP-22

=====
During this sampling period an attempt was made to sample SP-22. At the sampling point there was no evidence of water for a sample to be taken; although, the ground was dry. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER MONITORING

DATE: September 27, 1990

RE: SP-36

=====
During this sampling period an attempt was made to sample SP-36. At the sampling point there was no evidence of water for a sample to be taken; although, the rock was wet. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER MONITORING

DATE: September 27, 1990

LOCATION: SP-47

=====
During this sampling period an attempt was made to sample SP-47. At the sampling point there was no evidence of water for a sample to be taken; although, the ground was dry. Because of this no flow was recorded.



COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 983-9300

SINCE 1928

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 659-2311

October 29, 1990

Job No.: 59 10622

Sample ID: GENWAL COAL CO.

Date Rec'd: September 27, 1990

SPRING 58

Date Sampled: September 27, 1990

Rec'd 1300 hr.

Sampled 0945 hr.

Sampled By: GENWAL

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Aluminum	0.01<	mg/l	Copper	0.010<	mg/l
10-25-90			10-25-90		
Alk., Bicarbonate	321	mg/l HCO ₃	Fluoride	0.16	mg/l
10-18-90			10-01-90		
Alk., Carbonate	1<	mg/l CaCO ₃	Hardness, Total	290	mg/l CaCO ₃
10-18-90					
Arsenic	0.002<	mg/l	Iron, Dissolved	0.02<	mg/l
10-28-90			10-02-90		
Anions, Total	6.12	meq/l	Lead	0.050<	mg/l
			10-25-90		
Barium	0.03<	mg/l	Magnesium	22.40	mg/l
10-25-90			10-02-90		
Boron	0.26	mg/l	Manganese	0.02<	mg/l
10-15-90			10-02-90		
Cadmium	0.002<	mg/l	Mercury	0.002<	mg/l
10-25-90			10-23-90		
Calcium	79.1	mg/l	Molybdenum	0.10<	mg/l
10-29-90			10-25-90		
Cations, Total	6.12	meq/l	Nickel	0.02<	mg/l
			10-25-90		
Chloride	20.0	mg/l	Nitrogen, Ammonia	0.15	mg/l
10-15-90			10-18-90		
Chromium	0.02<	mg/l	Nitrogen, Nitrate	0.01<	mg/l
10-25-90			10-08-90		

ANALYST: *D. Tyson*

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

u u
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

COMMERCIAL TESTING & ENGINEERING CO.

GENERAL OFFICES: 1919 SOUTH HIGHLAND AVE., SUITE 210-B, LOMBARD, ILLINOIS 60148 • (312) 953-9300



SINCE 1908

Member of the SGS Group (Société Générale de Surveillance)

PLEASE ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1020, HUNTINGTON, UT 84528
TELEPHONE: (801) 653-2311

October 29, 1990

Job No.: 59 10622

Sample ID: GENWAL COAL CO.

Date Rec'd: September 27, 1990

SPRING 58

Date Sampled: September 27, 1990

Rec'd 1300 hr.

Sampled 0945 hr.

Sampled By: GENWAL

GENWAL COAL CO.
P.O. Box 1201
Huntington UT 84528

WATER ANALYSIS

Nitrogen, Nitrite 10-08-90	0.01<	mg/l	Sodium 10-02-90	7.40	mg/l
Oil and Grease 10-11-90	1.5	mg/l	Solids, Dissolved 10-24-90	356.0	mg/l
Phosphorus, Total 10-16-90	0.01<	mg/l	Sulfate 10-14-90	27.0	mg/l
Potassium 10-02-90	0.53	mg/l	Sulfide 10-12-90	0.00<	mg/l
Selenium 10-19-90	0.002<	mg/l	Zinc 10-25-90	0.00<	mg/l

ANALYST: D. Tyson

Respectfully submitted,
COMMERCIAL TESTING & ENGINEERING CO.

M. W.
Manager, Huntington Laboratory

Original Copy Watermarked
For Your Protection

OVER 40 BRANCH LABORATORIES STRATEGICALLY LOCATED IN PRINCIPAL COAL MINING AREAS,
TIDEWATER AND GREAT LAKES PORTS, AND RIVER LOADING FACILITIES

GENWAL COAL COMPANY
WATER MONITORING

DATE: October 30, 1990

RE: SP-30

During this sampling period, October 9, 1990, an attempt was made to sample SP-30. At the sampling point there was no evidence of water for a sample to be taken. Because of this no flow was recorded.

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP-30

DATE: Jan 18 1990

SAMPLER: Jacen Childs

FIELD PARAMETERS:

TEMP. _____

pH _____

COND. _____

FLOW no discharge

DIS. O₂ _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: _____

DATE: _____

SAMPLER: _____

FIELD PARAMETERS:

TEMP. _____

pH _____

COND. _____

FLOW _____

DIS. O₂ _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP. 30

DATE: April 8 14, 1990

SAMPLER: Jason A. Childs

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: _____

FLOW: no discharge

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: _____

DATE: _____

SAMPLER: Jason A. Childs

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 58

DATE: June 26

SAMPLER: JASON CHILDS

FIELD PARAMETERS:

TEMP: 62°F

pH: 3.56

COND: .5 ms

FLOW: 2 GPM

DIS. O2: _____

WEATHER: SUNNY & CLEAR

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 19

DATE: June 27

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: 14.6 C

pH: 2.10

COND: .3 ms

FLOW: 2 ~~ms~~ GAL. PER HOUR

DIS. O2: _____

WEATHER: Sunny & clear

COMMENTS: Time 12:15 PM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 22

DATE: June 27

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: 5.4°C

pH: 4.85

COND: .4 ms

FLOW: 3 gal per hour

DIS. O2: _____

WEATHER: Sunny & hot

COMMENTS: TIME 12:20 PM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 39

DATE: June 27

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: NO FLOW

TEMP: _____

pH: _____

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: TIME 4:05 PM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 36

DATE: June 27

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: 6.3°C

pH: 2.10

COND: .6 m.s

FLOW: 1 gal every 20 min

DIS. O2: _____

WEATHER: Sunny & Hot

COMMENTS: Time 330 PM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: _____

DATE: _____

SAMPLER: _____

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 22

DATE: 7/23/90

SAMPLER: JASON CHILDS

FIELD PARAMETERS:

TEMP: 5.7°C

pH: 4.9

COND: .4 mS

FLOW: 1 gal in 23 min.

DIS. O2: _____

WEATHER: _____

COMMENTS: HOT & SUNNY

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 47

DATE: 7/23/90

SAMPLER: JASON CHILDS

FIELD PARAMETERS:

TEMP: _____

pH: NO FLOW

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 58

DATE: July 23, 1990

SAMPLER: Jason Childs

FIELD PARAMETERS:

TEMP: 66°F

pH: 3.5

COND: .5 ms

FLOW: 2.3 GPM

DIS. O2: _____

WEATHER: SUNNY & HOT

COMMENTS: sample taken at 9:40 AM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 19

DATE: 23 July 1990

SAMPLER: JASON CHILDS

FIELD PARAMETERS:

TEMP: 15° C

pH: 2.1

COND: 3 ms

FLOW: 6 GPM

DIS. O2: _____

WEATHER: HOT & SUNNY

COMMENTS: 800 AM sample was taken

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 30

DATE: 7/23/90

SAMPLER: JASON CHILDS

FIELD PARAMETERS:

TEMP: NO FLOW

pH: _____

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 36

DATE: 7/23/90

SAMPLER: JASON CHILDS

FIELD PARAMETERS:

TEMP: OVER HANG ROCK WAS WET

pH: BUT NOT ENOUGH WATER

COND: TO SAMPLE

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP - 47

DATE: Aug 19, 1990

SAMPLER: Nandal Ralphs

FIELD PARAMETERS:

TEMP: _____

pH: NO FLOW

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: ~~clear~~ cloudy

COMMENTS: no water at sample point

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP - 36

DATE: Aug 19, 1990

SAMPLER: Nandal Ralphs

FIELD PARAMETERS:

TEMP: _____

pH: NO FLOW

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: overcast

COMMENTS: 3 small drippers of rock
no water at sample point

SAMPLE LOOKED AT, AT 600PM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP-19

DATE: Aug 19, 1990

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: _____

pH: NO FLOW

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: overcast & windy

COMMENTS: rock was wet, no water at sample point
sample look at at 230pm

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP-22

DATE: Aug 19, 1990

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: _____

pH: NO FLOW

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: overcast & windy

COMMENTS: soil moist, no water at sample point
Sample looked at at 245pm

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP-58

DATE: Aug 19, 1990

SAMPLER: Randal Ralphs

FIELD PARAMETERS:

TEMP: 8.3°C

pH: 2.3

COND: ms 0.4

FLOW: 6 GPM

DIS. O2: 5.8%

WEATHER: over cast

COMMENTS: sample taken at 7:00pm

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: _____

DATE: _____

SAMPLER: _____

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 19

DATE: SEPT 27, 1990

SAMPLER: Randal

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: NO FLOW

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: Ground wet in spots

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 22

DATE: Sept 27 1990

SAMPLER: Randal

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: NO FLOW

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: Ground Dry

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 58

DATE: 26 SEPT, 1990

SAMPLER: Randal

FIELD PARAMETERS:

TEMP: 8.7 °C

pH: 4.06

COND: ms 0.4

FLOW: 5.5 GPM

DIS. O2: 5.0%

WEATHER: partly cloudy

COMMENTS: sample was taken at 1130AM

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 47

DATE: ~~26~~ SEPT 26, 1990

SAMPLER: Randal

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: NO FLOW

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: Ground Dry

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: SP 36

DATE: SEPT 26, 1990

SAMPLER: Randal

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: NO FLOW

FLOW: _____

DIS. O2: _____

WEATHER: Ground & rock were wet but

~~COMMENTS:~~ no water for sample to be taken

GENWAL COAL COMPANY
WATER SAMPLING FIELD REPORT

LOCATION: _____

DATE: _____

SAMPLER: _____

FIELD PARAMETERS:

TEMP: _____

pH: _____

COND: _____

FLOW: _____

DIS. O2: _____

WEATHER: _____

COMMENTS: _____