0027

File ACT/015/015 #7

Consolidation Coal Company
Mid-Continent Region
12755 Olive Boulevard
St. Louis, Missouri 63141
(314) 275-2300

February 10, 1989

RECEIVED
FEB 13 1989
DIVISION OF
OIL, GAS & MINING

Mr. Wayne Hedberg
Utah Division of Oil, Gas and Mining
355 W. North Temple
3 Triad Center - Suite 350
Salt Lake City, UT 84180-1203

Dear Mr. Hedberg:

Enclosed please find various monitoring data for the 4th quarter 1988 for the Emery Mine. These include:

1) Streamflow and sample results for the surface water monitoring sites; and

2) Water-level data for all monitoring wells and sample results for the RDA wells and specific deep mine wells except as shown below.

Problems with the Lewis and IU#2 wells are being investigated. These wells have dedicated pumps that have malfunctioned. The Lewis well seems to have an electrical short while the pump impeller in the IU#2 well won't turn.

Also, due to a malfunction with the water level meter, no readings were taken at the following well sites:

H(BG), H(L), H(M), R2(M), R2(U), TP(U), T1(U), T2(U), and WW1.

This problem has been remedied and these wells will be checked in February, weather permitting.

If you have any questions, please call.

Sincerely,

Richard J. Denning

Richard J. Denning
Permit Coordinator

/vms

Enclosure

FOURTH QUARTER 1988 REPORT
FIELD DATA SUMMARY
CONSOLIDATION COAL COMPANY
EMERY MINE

SURFACE WATER MONITORING
DECEMBER 1988

Site #	Date	Location	Discharge cfs	pH	Temp °C	Conductivity Micromhos
1A	12/21/88	QC @ SR#10	Frozen[1]	8.9	7.1	760
2	12/27/88	CW near flume site	Frozen[1]	No Data Collected		
3	12/27/88	QC below CW	1.11	No Data Collected		
4	12/27/88	QC at gage site	Frozen[1]	No Data Collected		
5	12/27/88	CW at gage site	Frozen	No Data Collected		
8	12/27/88	Trib above pond	0			
9	12/27/88	Ivie Upper	Frozen[1]	8.5	2.9	560
10	12/27/88	Ivie Lower	Frozen[1]	8.6	2.0	1130

Note (1): Flows could not be measured due to ice and freezing conditions.

Well #	Date	Water Level Reading (Feet)	pH	Temp °C	Conductivity Micromhos
RDA 1	12/19/88	13.9	7.1	9.9	4240
RDA 2	12/19/88	14.3	7.2	10.5	4330
RDA 3	12/19/88	22.8	7.2	8.0	7700
RDA 4	12/19/88	21.8	7.6	8.9	6950
RDA 5	12/19/88	20.3	7.8	8.7	9290
RDA 6	12/19/88	15.9	7.5	10.6	2470
Bryant	10/19/88	291.1	11.3	18.2	2400
EMRIA 2	10/20/88	33.8	7.1	11.5	4920
Kemmerer	10/20/88	- 24.0	9.7	12.5	860
IV#2	10/20/88	Not Sampled - Pump Malfunction			
Lewis	10/20/88	Not Sampled - Pump Electrical Problem			
TPU	10/25/88	-	10.6	15.4	1630
T1BG	10/21/88	13.5	7.8	14.0	6720
USGS 1-2	10/20/88	90.5	7.1	18.0	3350
ZZ	10/21/88	148.0	9.8	11.7	1000

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-090-3633

Sample ID: SITE 1A
Sample Date Time: 12/21/88 10:40

Lab No. : 88-WI/07079
Date Received: 12/28/88

Parameters

Alkalinity as CaCO3	272.	mg/l
Bicarbonate as CaCO3	272	mg/l
Boron, dissolved	.29	mg/l
Calcium, dissolved	100.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	53.	mg/l
Conductivity @ 25C	1390.	umhos/cm
Fluoride	.4	mg/l
Hardness as CaCO3	521.	mg/l
Hardness, noncarbonate	249.	mg/l
Magnesium, dissolved	66.	mg/l
Nitrate as N, dissolved	.12	mg/l
Nitrate/Nitrite as N	.13	mg/l
Nitrite as N, dissolved	.01	mg/l
Oil and Grease	-1.	mg/l
Hydroxide as CaCO3	0	mg/l
pH (lab)	7.8	units
Phosphorus, ortho diss	.007	mg/l
Potassium, dissolved	4.	mg/l
SAR in water	2.68	
Silica, dissolved	10.7	mg/l
Sodium, dissolved	139.	mg/l
Sulfate	492.	mg/l
Cations (sum)	16.63	meq/l
Anions (sum)	17.26	meq/l
Cation-Anion Balance	-1.86	%
Solids, total dissolved	986.	mg/l
Solids, total suspended	202.	mg/l
Iron, total	4.80	mg/l
Manganese, total	.11	mg/l
Strontium, total	1.14	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald C. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: SITE 2
Sample Date Time: 12/27/88 10:30

Lab No. : 88-WI/07080
Date Received: 12/28/88

Parameters

Alkalinity as CaCO3	324.	mg/l
Bicarbonate as CaCO3	324	mg/l
Boron, dissolved	.22	mg/l
Calcium, dissolved	199.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	46.	mg/l
Conductivity @ 25C	2920.	umhos/cm
Fluoride	.4	mg/l
Hardness as CaCO3	1227.	mg/l
Hardness, noncarbonate	903.	mg/l
Magnesium, dissolved	178.	mg/l
Nitrate as N, dissolved	10.93	mg/l
Nitrate/Nitrite as N	11.0	mg/l
Nitrite as N, dissolved	.07	mg/l
Hydroxide as CaCO3	0	mg/l
pH (lab)	7.7	units
Phosphorus, ortho diss	.007	mg/l
Potassium, dissolved	5.	mg/l
SAR in water	4.76	
Silica, dissolved	8.1	mg/l
Sodium, dissolved	379.	mg/l
Sulfate	1597.	mg/l
Cations (sum)	41.35	meq/l
Anions (sum)	41.31	meq/l
Cation-Anion Balance	.05	%
Solids, total dissolved	2558.	mg/l
Solids, total suspended	108.	mg/l
Iron, total	2.32	mg/l
Manganese, total	.37	mg/l
Strontium, total	1.70	mg/l

Remarks:

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Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: SITE 3
Sample Date Time: 12/27/88 11:05

Lab No. : 88-WI/07081
Date Received: 12/28/88

Parameters

Alkalinity as CaCO3	314.	mg/l
Bicarbonate as CaCO3	314	mg/l
Boron, dissolved	.32	mg/l
Calcium, dissolved	118.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	50.	mg/l
Conductivity @ 25C	2060.	umhos/cm
Fluoride	.4	mg/l
Hardness as CaCO3	590.	mg/l
Hardness, noncarbonate	276.	mg/l
Magnesium, dissolved	72.	mg/l
Nitrate as N, dissolved	1.03	mg/l
Nitrate/Nitrite as N	1.06	mg/l
Nitrite as N, dissolved	.03	mg/l
Hydroxide as CaCO3	0	mg/l
pH (lab)	7.9	units
Phosphorus, ortho diss	.008	mg/l
Potassium, dissolved	4.	mg/l
SAR in water	5.38	
Silica, dissolved	10.2	mg/l
Sodium, dissolved	297.	mg/l
Sulfate	873.	mg/l
Cations (sum)	24.98	meq/l
Anions (sum)	26.01	meq/l
Cation-Anion Balance	-2.02	%
Solids, total dissolved	1554.	mg/l
Solids, total suspended	40.	mg/l
Iron, total	1.05	mg/l
Manganese, total	.05	mg/l
Strontium, total	2.28	mg/l

Remarks:

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Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: SITE 4
Sample Date Time: 12/27/88 11:00

Lab No. : 88-WI/07082
Date Received: 12/28/88

Parameters

Alkalinity as CaCO3	320.	mg/l
Bicarbonate as CaCO3	320	mg/l
Boron, dissolved	.32	mg/l
Calcium, dissolved	104.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	50.	mg/l
Conductivity @ 25C	2040.	umhos/cm
Fluoride	.7	mg/l
Hardness as CaCO3	547.	mg/l
Hardness, noncarbonate	227.	mg/l
Magnesium, dissolved	70.	mg/l
Nitrate as N, dissolved	.50	mg/l
Nitrate/Nitrite as N	.56	mg/l
Nitrite as N, dissolved	.06	mg/l
Hydroxide as CaCO3	0	mg/l
pH (lab)	7.9	units
Phosphorus, ortho diss	.008	mg/l
Potassium, dissolved	4.	mg/l
SAR in water	5.70	
Silica, dissolved	10.2	mg/l
Sodium, dissolved	303.	mg/l
Sulfate	860.	mg/l
Cations (sum)	24.38	meq/l
Anions (sum)	25.86	meq/l
Cation-Anion Balance	-2.95	%
Solids, total dissolved	1532.	mg/l
Solids, total suspended	120.	mg/l
Iron, total	2.49	mg/l
Manganese, total	.06	mg/l
Strontium, total	2.36	mg/l

Remarks:

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Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: SITE 9
Sample Date Time: 12/27/88 11:30

Lab No. : 88-WI/07083
Date Received: 12/28/88

Parameters

Alkalinity as CaCO3	218.	mg/l
Bicarbonate as CaCO3	218	mg/l
Boron, dissolved	.02	mg/l
Calcium, dissolved	90.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	50.	mg/l
Conductivity @ 25C	893.	umhos/cm
Fluoride	.3	mg/l
Hardness as CaCO3	422.	mg/l
Hardness, noncarbonate	204.	mg/l
Magnesium, dissolved	48.	mg/l
Nitrate as N, dissolved	.12	mg/l
Nitrate/Nitrite as N	.13	mg/l
Nitrite as N, dissolved	.01	mg/l
Hydroxide as CaCO3	0	mg/l
pH (lab)	7.7	units
Phosphorus, ortho diss	.007	mg/l
Potassium, dissolved	3.	mg/l
SAR in water	.62	
Silica, dissolved	17.9	mg/l
Sodium, dissolved	29.	mg/l
Sulfate	214.	mg/l
Cations (sum)	9.79	meq/l
Anions (sum)	10.25	meq/l
Cation-Anion Balance	-2.30	%
Solids, total dissolved	584.	mg/l
Solids, total suspended	32.	mg/l
Iron, total	.69	mg/l
Manganese, total	.01	mg/l
Strontium, total	.54	mg/l

Remarks:

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Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Minc
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: SITE 10
Sample Date Time: 12/27/88 12:10

Lab No. : 88-WI/07084
Date Received: 12/28/88

Parameters

Alkalinity as CaCO3	256.	mg/l
Bicarbonate as CaCO3	256	mg/l
Boron, dissolved	.20	mg/l
Calcium, dissolved	134.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	69.	mg/l
Conductivity @ 25C	1810.	umhos/cm
Fluoride	.4	mg/l
Hardness as CaCO3	811.	mg/l
Hardness, noncarbonate	555.	mg/l
Magnesium, dissolved	116.	mg/l
Nitrate as N, dissolved	1.54	mg/l
Nitrate/Nitrite as N	1.56	mg/l
Nitrite as N, dissolved	.02	mg/l
Hydroxide as CaCO3	0	mg/l
pH (lab)	7.9	units
Phosphorus, ortho diss	-.005	mg/l
Potassium, dissolved	4.	mg/l
SAR in water	2.70	
Silica, dissolved	9.9	mg/l
Sodium, dissolved	175.	mg/l
Sulfate	790.	mg/l
Cations (sum)	24.02	meq/l
Anions (sum)	23.64	meq/l
Cation-Anion Balance	.80	%
Solids, total dissolved	1430.	mg/l
Solids, total suspended	174.	mg/l
Iron, total	3.55	mg/l
Manganese, total	.08	mg/l
Strontium, total	1.42	mg/l

Remarks:

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Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald C. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: RDA1
Sample Date Time: 12/19/88 11:35

Lab No. : 88-WI/07018
Date Received: 12/21/88

Parameters

Alkalinity as CaCO3	456.	mg/l
Bicarbonate as CaCO3	456	mg/l
Boron, dissolved	.61	mg/l
Calcium, dissolved	413.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	117.	mg/l
Conductivity @ 25C	4440.	umhos/cm
Fluoride	.4	mg/l
Hardness as CaCO3	1812.	mg/l
Hardness, noncarbonate	1356.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	190.	mg/l
Nitrogen, ammonia	.04	mg/l
Nitrate as N, dissolved	.54	mg/l
Nitrite as N, dissolved	.01	mg/l
pH (lab)	7.1	units
Phosphorus, ortho diss	.007	mg/l
Potassium, dissolved	12.	mg/l
SAR in water	5.22	
Sodium, dissolved	505.	mg/l
Sulfate	2272.	mg/l
Cations (sum)	58.76	meq/l
Anions (sum)	60.11	meq/l
Cation-Anion Balance	-1.14	%
Solids, total dissolved	3834.	mg/l
Aluminum, dissolved	.05	mg/l
Arsenic, dissolved	-.001	mg/l
Barium, dissolved	.01	mg/l
Cadmium, dissolved	-.005	mg/l
Copper, dissolved	-.01	mg/l
Iron, dissolved	.03	mg/l
Lead, dissolved	-.02	mg/l
Manganese, dissolved	.40	mg/l
Mercury, dissolved	-.0001	mg/l
Molybdenum, dissolved	-.05	mg/l
Nickel, dissolved	-.02	mg/l
Selenium, dissolved	.002	mg/l
Strontium, dissolved	4.10	mg/l
Zinc, dissolved	.02	mg/l

Remarks: Lab Filtering Required on "GREEN & WHITE" Bottles 7018-23

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050 3633

Sample ID: RDA2
Sample Date Time: 12/19/88 11:50

Lab No. : 88-WI/07020
Date Received: 12/21/88

Parameters

Alkalinity as CaCO3	610.	mg/l
Bicarbonate as CaCO3	610	mg/l
Boron, dissolved	.71	mg/l
Calcium, dissolved	448.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	168.	mg/l
Conductivity @ 25C	4890.	umhos/cm
Fluoride	.5	mg/l
Hardness as CaCO3	1915.	mg/l
Hardness, noncarbonate	1305.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	194.	mg/l
Nitrogen, ammonia	.06	mg/l
Nitrate as N, dissolved	-.02	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	7.5	units
Phosphorus, ortho diss	.007	mg/l
Potassium, dissolved	10.	mg/l
SAR in water	6.52	
Sodium, dissolved	649.	mg/l
Sulfate	2688.	mg/l
Cations (sum)	67.12	meq/l
Anions (sum)	73.35	meq/l
Cation-Anion Balance	-4.44	%
Solids, total dissolved	4518.	mg/l
Aluminum, dissolved	.05	mg/l
Arsenic, dissolved	.001	mg/l
Barium, dissolved	.01	mg/l
Cadmium, dissolved	-.005	mg/l
Copper, dissolved	.01	mg/l
Iron, dissolved	.06	mg/l
Lead, dissolved	-.02	mg/l
Manganese, dissolved	.52	mg/l
Mercury, dissolved	-.0001	mg/l
Molybdenum, dissolved	-.05	mg/l
Nickel, dissolved	-.02	mg/l
Selenium, dissolved	.001	mg/l
Strontium, dissolved	4.60	mg/l
Zinc, dissolved	.01	mg/l

Remarks:

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Ralph V. Poulsen, Laboratory Director
Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-090-3633

Sample ID: RDA3
Sample Date Time: 12/19/88 11:00

Lab No. : 88-WI/07021
Date Received: 12/21/88

Parameters

Alkalinity as CaCO3	564.	mg/l
Bicarbonate as CaCO3	564	mg/l
Boron, dissolved	1.74	mg/l
Calcium, dissolved	346.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	424.	mg/l
Conductivity @ 25C	8960.	umhos/cm
Fluoride	.6	mg/l
Hardness as CaCO3	3202.	mg/l
Hardness, noncarbonate	2638.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	570.	mg/l
Nitrogen, ammonia	.22	mg/l
Nitrate as N, dissolved	-.02	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	7.4	units
Phosphorus, ortho diss	.005	mg/l
Potassium, dissolved	8.	mg/l
SAR in water	13.03	
Sodium, dissolved	1676.	mg/l
Sulfate	5499.	mg/l
Cations (sum)	137.99	meq/l
Anions (sum)	138.63	meq/l
Cation-Anion Balance	-.23	%
Solids, total dissolved	9158.	mg/l
Aluminum, dissolved	.06	mg/l
Arsenic, dissolved	-.001	mg/l
Barium, dissolved	.01	mg/l
Cadmium, dissolved	-.005	mg/l
Copper, dissolved	-.01	mg/l
Iron, dissolved	.16	mg/l
Lead, dissolved	-.02	mg/l
Manganese, dissolved	.52	mg/l
Mercury, dissolved	-.0001	mg/l
Molybdenum, dissolved	-.05	mg/l
Nickel, dissolved	-.02	mg/l
Selenium, dissolved	.001	mg/l
Strontium, dissolved	5.40	mg/l
Zinc, dissolved	.01	mg/l

Remarks:

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Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

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Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: RDA4
Sample Date Time: 12/19/88 10:50

Lab No. : 88-WI/07023
Date Received: 12/21/88

Parameters

Alkalinity as CaCO3	87.	mg/l
Bicarbonate as CaCO3	87	mg/l
Boron, dissolved	1.39	mg/l
Calcium, dissolved	399.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	230.	mg/l
Conductivity @ 25C	7300.	umhos/cm
Fluoride	.8	mg/l
Hardness as CaCO3	2662.	mg/l
Hardness, noncarbonate	2575.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	406.	mg/l
Nitrogen, ammonia	.05	mg/l
Nitrate as N, dissolved	.52	mg/l
Nitrite as N, dissolved	.02	mg/l
pH (lab)	7.7	units
Phosphorus, ortho diss	.007	mg/l
Potassium, dissolved	5.	mg/l
SAR in water	9.00	
Sodium, dissolved	1055.	mg/l
Sulfate	4503.	mg/l
Cations (sum)	99.79	meq/l
Anions (sum)	102.74	meq/l
Cation-Anion Balance	-1.46	%
Solids, total dissolved	7394.	mg/l
Aluminum, dissolved	-.05	mg/l
Arsenic, dissolved	-.001	mg/l
Barium, dissolved	.01	mg/l
Cadmium, dissolved	-.005	mg/l
Copper, dissolved	.01	mg/l
Iron, dissolved	.10	mg/l
Lead, dissolved	-.02	mg/l
Manganese, dissolved	.19	mg/l
Mercury, dissolved	-.0001	mg/l
Molybdenum, dissolved	-.05	mg/l
Nickel, dissolved	-.02	mg/l
Selenium, dissolved	-.001	mg/l
Strontium, dissolved	6.20	mg/l
Zinc, dissolved	.01	mg/l

Remarks:

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Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: RDA5
Sample Date Time: 12/19/88 10:40

Lab No. : 88-WI/07019
Date Received: 12/21/88

Parameters

Alkalinity as CaCO3	520.	mg/l
Bicarbonate as CaCO3	520	mg/l
Boron, dissolved	3.30	mg/l
Calcium, dissolved	362.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	1330.	mg/l
Conductivity @ 25C	20700.	umhos/cm
Fluoride	1.9	mg/l
Hardness as CaCO3	7629.	mg/l
Hardness, noncarbonate	7109.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	1640.	mg/l
Nitrogen, ammonia	.04	mg/l
Nitrate as N, dissolved	-.02	mg/l
Nitrite as N, dissolved	.01	mg/l
pH (lab)	7.9	units
Phosphorus, ortho diss	.014	mg/l
Potassium, dissolved	6.	mg/l
SAR in water	32.09	
Sodium, dissolved	6370.	mg/l
Sulfate	16011.	mg/l
Cations (sum)	433.02	meq/l
Anions (sum)	383.87	meq/l
Cation-Anion Balance	6.02	%
Solids, total dissolved	28102.	mg/l
Aluminum, dissolved	-.05	mg/l
Arsenic, dissolved	.005	mg/l
Barium, dissolved	-.01	mg/l
Cadmium, dissolved	-.005	mg/l
Copper, dissolved	-.01	mg/l
Iron, dissolved	.08	mg/l
Lead, dissolved	-.02	mg/l
Manganese, dissolved	.74	mg/l
Mercury, dissolved	-.0001	mg/l
Molybdenum, dissolved	-.05	mg/l
Nickel, dissolved	.02	mg/l
Selenium, dissolved	.001	mg/l
Strontium, dissolved	8.80	mg/l
Zinc, dissolved	.01	mg/l

Remarks: Cations & Anions Retested To Verify CAB

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: RDA6
Sample Date Time: 12/19/88 11:15

Lab No. : 88-WI/07022
Date Received: 12/21/88

Parameters

Alkalinity as CaCO3	494.	mg/l
Bicarbonate as CaCO3	494	mg/l
Boron, dissolved	1.67	mg/l
Calcium, dissolved	435.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	923.	mg/l
Conductivity @ 25C	19100.	umhos/cm
Fluoride	1.0	mg/l
Hardness as CaCO3	6582.	mg/l
Hardness, noncarbonate	6088.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	1340.	mg/l
Nitrogen, ammonia	.04	mg/l
Nitrate as N, dissolved	110.54	mg/l
Nitrite as N, dissolved	.46	mg/l
pH (lab)	7.6	units
Phosphorus, ortho diss	.015	mg/l
Potassium, dissolved	15.	mg/l
SAR in water	31.24	
Sodium, dissolved	5760.	mg/l
Sulfate	15682.	mg/l
Cations (sum)	385.46	meq/l
Anions (sum)	365.05	meq/l
Cation-Anion Balance	2.72	%
Solids, total dissolved	25346.	mg/l
Aluminum, dissolved	-.05	mg/l
Arsenic, dissolved	.006	mg/l
Barium, dissolved	.01	mg/l
Cadmium, dissolved	.010	mg/l
Copper, dissolved	.03	mg/l
Iron, dissolved	.02	mg/l
Lead, dissolved	-.02	mg/l
Manganese, dissolved	.12	mg/l
Mercury, dissolved	-.0001	mg/l
Molybdenum, dissolved	-.05	mg/l
Nickel, dissolved	.03	mg/l
Selenium, dissolved	.050	mg/l
Strontium, dissolved	13.5	mg/l
Zinc, dissolved	.01	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: ~~TIU~~ TPU
Sample Date Time: 10/21/88 11:45

Lab No. : 88-WI/06092
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	470.	mg/l
Bicarbonate as CaCO3	70	mg/l
Calcium, dissolved	2.	mg/l
Carbonate as CaCO3	400	mg/l
Chloride	47.	mg/l
Conductivity @ 25C	1570.	umhos/cm
Fluoride	1.0	mg/l
Hardness as CaCO3	9.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	1.	mg/l
Nitrate as N, dissolved	-.01	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	10.3	units
Phosphorus, ortho diss	.03	mg/l
Potassium, dissolved	1.	mg/l
SAR in water	52.22	
Silica, dissolved	4.5	mg/l
Sodium, dissolved	358.	mg/l
Sulfate	247.	mg/l
Sulfide as S	6.47	mg/l
Cations (sum)	15.96	meq/l
Anions (sum)	15.90	meq/l
Cation-Anion Balance	.19	%
Solids, total dissolved	1018.	mg/l
Solids, total suspended	4.	mg/l
Iron, dissolved	.04	mg/l
Iron, total	1.56	mg/l
Manganese, dissolved	-.01	mg/l
Strontium, dissolved	.16	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: ZZ
Sample Date Time: 10/21/88 11:00

Lab No. : 88-WI/06093
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	550.	mg/l
Bicarbonate as CaCO3	338	mg/l
Calcium, dissolved	2.	mg/l
Carbonate as CaCO3	212	mg/l
Chloride	17.	mg/l
Conductivity @ 25C	1180.	umhos/cm
Fluoride	2.4	mg/l
Hardness as CaCO3	50.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	11.	mg/l
Nitrate as N, dissolved	.04	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	9.5	units
Phosphorus, ortho diss	.02	mg/l
Potassium, dissolved	3.	mg/l
SAR in water	16.47	
Silica, dissolved	4.5	mg/l
Sodium, dissolved	265.	mg/l
Sulfate	86.	mg/l
Sulfide as S	13.44	mg/l
Cations (sum)	12.74	meq/l
Anions (sum)	13.28	meq/l
Cation-Anion Balance	-2.08	%
Solids, total dissolved	752.	mg/l
Solids, total suspended	58.	mg/l
Iron, dissolved	-.02	mg/l
Iron, total	.04	mg/l
Manganese, dissolved	-.01	mg/l
Strontium, dissolved	.29	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: EMRIA 2
Sample Date Time: 10/20/88 10:10

Lab No. : 88-WI/06094
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	418.	mg/l
Bicarbonate as CaCO3	418	mg/l
Calcium, dissolved	425.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	43.	mg/l
Conductivity @ 25C	4180.	umhos/cm
Fluoride	.5	mg/l
Hardness as CaCO3	3313.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	549.	mg/l
Nitrate as N, dissolved	1.50	mg/l
Nitrite as N, dissolved	.02	mg/l
pH (lab)	7.7	units
Phosphorus, ortho diss	.03	mg/l
Potassium, dissolved	18.	mg/l
SAR in water	2.40	
Silica, dissolved	6.4	mg/l
Sodium, dissolved	314.	mg/l
Sulfate	3101.	mg/l
Sulfide as S	.16	mg/l
Cations (sum)	80.55	meq/l
Anions (sum)	74.68	meq/l
Cation-Anion Balance	3.78	%
Solids, total dissolved	5324.	mg/l
Solids, total suspended	46.	mg/l
Iron, dissolved	-.02	mg/l
Iron, total	.21	mg/l
Manganese, dissolved	.88	mg/l
Strontium, dissolved	5.70	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen/S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: USGS 1-2
Sample Date Time: 10/20/88 10:00

Lab No. : 88-WI/06088
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	418.	mg/l
Bicarbonate as CaCO3	418	mg/l
Calcium, dissolved	211.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	46.	mg/l
Conductivity @ 25C	2800.	umhos/cm
Fluoride	1.0	mg/l
Hardness as CaCO3	1257.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	178.	mg/l
Nitrate as N, dissolved	.06	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	7.5	units
Phosphorus, ortho diss	.01	mg/l
Potassium, dissolved	6.	mg/l
SAR in water	5.66	
Silica, dissolved	18.5	mg/l
Sodium, dissolved	456.	mg/l
Sulfate	1611.	mg/l
Sulfide as S	13.76	mg/l
Cations (sum)	45.37	meq/l
Anions (sum)	43.48	meq/l
Cation-Anion Balance	2.13	%
Solids, total dissolved	2820.	mg/l
Solids, total suspended	22.	mg/l
Iron, dissolved	-.02	mg/l
Iron, total	2.13	mg/l
Manganese, dissolved	.18	mg/l
Strontium, dissolved	7.40	mg/l

Remarks: Lab Filtering Required on "GREEN & WHITE" Bottles 6088-94

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: KEMMERER
Sample Date Time: 10/20/88 09:30

Lab No. : 88-WI/06089
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	244.	mg/l
Bicarbonate as CaCO3	180	mg/l
Calcium, dissolved	10.	mg/l
Carbonate as CaCO3	64	mg/l
Chloride	28.	mg/l
Conductivity @ 25C	1130.	umhos/cm
Fluoride	.8	mg/l
Hardness as CaCO3	111.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	21.	mg/l
Nitrate as N, dissolved	.08	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	9.2	units
Phosphorus, ortho diss	.05	mg/l
Potassium, dissolved	4.	mg/l
SAR in water	11.19	
Silica, dissolved	11.9	mg/l
Sodium, dissolved	268.	mg/l
Sulfate	350.	mg/l
Sulfide as S	.47	mg/l
Cations (sum)	14.12	meq/l
Anions (sum)	13.01	meq/l
Cation-Anion Balance	4.09	%
Solids, total dissolved	778.	mg/l
Solids, total suspended	1874.	mg/l
Iron, dissolved	.24	mg/l
Iron, total	1.76	mg/l
Manganese, dissolved	.01	mg/l
Strontium, dissolved	.61	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: ~~T1BG~~ T1 BG
Sample Date Time: 10/21/88 12:15

Lab No. : 88-WI/06090
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	352.	mg/l
Bicarbonate as CaCO3	352	mg/l
Calcium, dissolved	287.	mg/l
Carbonate as CaCO3	0	mg/l
Chloride	72.	mg/l
Conductivity @ 25C	11300.	umhos/cm
Fluoride	.9	mg/l
Hardness as CaCO3	1702.	mg/l
Hydroxide as CaCO3	0	mg/l
Magnesium, dissolved	240.	mg/l
Nitrate as N, dissolved	.06	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	8.3	units
Phosphorus, ortho diss	.03	mg/l
Potassium, dissolved	23.	mg/l
SAR in water	45.76	
Silica, dissolved	6.8	mg/l
Sodium, dissolved	4290.	mg/l
Sulfate	10496.	mg/l
Sulfide as S	.39	mg/l
Cations (sum)	223.39	meq/l
Anions (sum)	229.47	meq/l
Cation-Anion Balance	-1.34	%
Solids, total dissolved	14300.	mg/l
Solids, total suspended	50.	mg/l
Iron, dissolved	-.02	mg/l
Iron, total	.86	mg/l
Manganese, dissolved	.46	mg/l
Strontium, dissolved	5.00	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

Client : Consolidation Coal Company-Emery Mine
Address : P.O. Box 527
Emery, Utah 84522
Attn. : Mr. Ronald G. Thompson cc:R. Denning
P.O. No.: 69-050-3633

Sample ID: BRYANT
Sample Date Time: 10/19/88 13:30

Lab No. : 88-WI/06091
Date Received: 10/25/88

Parameters

Acidity as CaCO3	0	mg/l
Alkalinity as CaCO3	144.	mg/l
Bicarbonate as CaCO3	0	mg/l
Calcium, dissolved	1.	mg/l
Carbonate as CaCO3	68	mg/l
Chloride	91.	mg/l
Conductivity @ 25C	1980.	umhos/cm
Fluoride	.6	mg/l
Hardness as CaCO3	15.	mg/l
Hydroxide as CaCO3	76	mg/l
Magnesium, dissolved	3.	mg/l
Nitrate as N, dissolved	-.01	mg/l
Nitrite as N, dissolved	-.01	mg/l
pH (lab)	10.8	units
Phosphorus, ortho diss	.01	mg/l
Potassium, dissolved	4.	mg/l
SAR in water	56.16	
Silica, dissolved	-.1	mg/l
Sodium, dissolved	491.	mg/l
Sulfate	718.	mg/l
Sulfide as S	.36	mg/l
Cations (sum)	22.00	meq/l
Anions (sum)	20.51	meq/l
Cation-Anion Balance	3.51	%
Solids, total dissolved	1302.	mg/l
Solids, total suspended	10.	mg/l
Iron, dissolved	-.02	mg/l
Iron, total	1.72	mg/l
Manganese, dissolved	-.01	mg/l
Strontium, dissolved	.14	mg/l

Remarks:

Note: Negative sign "-" denotes that the value is less than "<"

Ralph V. Poulsen, Laboratory Director

Ralph V. Poulsen /S.H.

FOR THE PERIOD FROM 880101 TO 881231

---------- WELL=EMRIA1 AQUIFER=UM ----------

DATE	READING	WLELEV
22MAR88	149.5	6006.2
29JUN88	143.6	6012.1
11OCT88	139.5	6016.2
23DEC88	140.3	6015.4

---------- WELL=EMRIA2 AQUIFER=BGUML ----------

DATE	READING	WLELEV
22MAR88	27.8	6055.6
09JUN88	31.9	6051.5
20OCT88	33.8	6049.6
23DEC88	34.6	6048.8

---------- WELL=EMRIA3 AQUIFER=BGU ----------

DATE	READING	WLELEV
10JUN88	47.5	6044.3
21OCT88	62.7	6029.1
23DEC88	47.3	6044.5

---------- WELL=FC346WW AQUIFER=UM ----------

DATE	READING	WLELEV
22MAR88	88.0	6035.2
09JUN88	76.3	6046.9
11OCT88	76.3	6046.9
23DEC88	77.2	6046.0

---------- WELL=H AQUIFER=BG ----------

DATE	READING	WLELEV
22MAR88	35.1	6196.5
30JUN88	33.6	6198.0
25OCT88	33.9	6197.7
23DEC88	.	.

---------- WELL=H AQUIFER=L ----------

DATE	READING	WLELEV
22MAR88	40.4	6190.0
30JUN88	44.0	6186.4
25OCT88	43.9	6186.5
23DEC88	.	.

---------- WELL=H AQUIFER=M ----------

DATE	READING	WLELEV
22MAR88	94.6	6135.8
30JUN88	183.1	6047.3
25OCT88	220.0	6010.4
23DEC88	.	.

---------- WELL=H AQUIFER=U ----------

DATE	READING	WLELEV
22MAR88	58.0	6172.4
30JUN88	57.3	6173.1
20OCT88	57.7	6172.7
23DEC88	56.9	6173.5

---------- WELL=I AQUIFER=BG ----------

DATE	READING	WLELEV
22MAR88	40.1	6069.5
30JUN88	36.0	6073.6
25OCT88	26.0	6083.6
23DEC88	38.0	6071.6

---------- WELL=I AQUIFER=L ----------

DATE	READING	WLELEV
22MAR88	13.5	6095.2
30JUN88	14.6	6094.1
25OCT88	13.8	6094.9
23DEC88	13.8	6094.9

---------- WELL=I AQUIFER=M ----------

DATE	READING	WLELEV
22MAR88	223.3	5885.6
30JUN88	223.3	5885.6
25OCT88	223.8	5885.1
23DEC88	223.5	5885.4

WELL=I2 AQUIFER=U

DATE	READING	WLELEV
22MAR88	397.9	5702.1
09JUN88	397.0	5703.0
25OCT88	.	.
23DEC88	.	.

WELL=KEMMER AQUIFER=L

DATE	READING	WLELEV
22MAR88	-24.0	6310.7
09JUN88	-24.0	6310.7
20OCT88	-24.0	6310.7
27DEC88	-23.0	6309.7

WELL=LEWIS AQUIFER=U

DATE	READING	WLELEV
25OCT88	.	.
29DEC88	.	.

WELL=MUDDY1 AQUIFER=U

DATE	READING	WLELEV
22MAR88	127.5	5940.7
09JUN88	127.7	5940.5
21OCT88	128.6	5939.6
29DEC88	128.4	5939.8

WELL=MUDDY2 AQUIFER=U

DATE	READING	WLELEV
22MAR88	93.6	5953.2
09JUN88	91.1	5955.7
21OCT88	87.7	5959.1
29DEC88	76.5	5970.3

WELL=RDA1 AQUIFER=QAL

DATE	READING	WLELEV
17FEB88	13.0	5945.5
08JUN88	13.5	5945.0
26SEP88	14.5	5944.0
19DEC88	13.9	5944.6

---------- WELL=RDA2 AQUIFER=QAL ----------

DATE	READING	WLELEV
17FEB88	13.5	5942.2
08JUN88	14.2	5941.5
26SEP88	17.0	5938.7
19DEC88	14.3	5941.4

---------- WELL=RDA3 AQUIFER=QAL ----------

DATE	READING	WLELEV
17FEB88	21.0	5925.5
08JUN88	22.4	5924.1
23SEP88	21.0	5925.5
19DEC88	22.8	5923.7

---------- WELL=RDA4 AQUIFER=QAL ----------

DATE	READING	WLELEV
17FEB88	21.0	5923.0
08JUN88	21.5	5922.5
23SEP88	20.5	5923.5
19DEC88	21.8	5922.2

---------- WELL=RDA5 AQUIFER=QAL ----------

DATE	READING	WLELEV
17FEB88	19.0	5923.4
08JUN88	19.8	5922.6
23SEP88	17.5	5924.9
19DEC88	20.3	5922.1

---------- WELL=RDA6 AQUIFER=QAL ----------

DATE	READING	WLELEV
17FEB88	12.0	5930.0
08JUN88	15.5	5926.5
23SEP88	17.5	5924.5
19DEC88	15.9	5926.1

FOR THE PERIOD FROM 880101 TO 881231

---------- WELL=R1 AQUIFER=L ----------

DATE	READING	WLELEV
22MAR88	-258.4	6292.6
30JUN88	-263.0	6297.2
25OCT88	-267.7	6301.9
29DEC88	-226.1	6260.3

---------- WELL=R2 AQUIFER=BG ----------

DATE	READING	WLELEV
22MAR88	64.3	5967.4
30JUN88	117.3	5914.4
25OCT88	74.0	5957.7
29DEC88	76.8	5954.9

---------- WELL=R2 AQUIFER=M ----------

DATE	READING	WLELEV
22MAR88	-69.2	6100.3
25OCT88	.	.
29DEC88	.	.

---------- WELL=R2 AQUIFER=U ----------

DATE	READING	WLELEV
22MAR88	198.0	5833.7
25OCT88	.	.
29DEC88	.	.

---------- WELL=SM1-1 AQUIFER=CAL ----------

DATE	READING	WLELEV
21MAR88	9.0	6062.6
10JUN88	3.7	6067.9
22SEP88	18.0	6053.6
29DEC88	9.8	6061.8

---------- WELL=SM1-2 AQUIFER=CAL ----------

DATE	READING	WLELEV
21MAR88	8.0	6043.8
10JUN88	4.7	6047.1
22SEP88	5.9	6045.9
29DEC88	.	.

---------- WELL=SM1-3 AQUIFER=CAL ----------

DATE	READING	WLELEV
21MAR88	8.0	6048.5
10JUN88	7.3	6049.2
22SEP88	8.3	6048.2
29DEC88	8.6	6047.9

---------- WELL=SM1-4 AQUIFER=CAL ----------

DATE	READING	WLELEV
21MAR88	13.0	5928.6
10JUN88	12.8	5928.8
22SEP88	14.3	5927.3
29DEC88	13.1	5928.5

---------- WELL=TP AQUIFER=U ----------

DATE	READING	WLELEV
25MAR88	333.0	5669.7
09JUN88	332.9	5669.8
25OCT88	.	.
29DEC88	.	.

---------- WELL=T1 AQUIFER=BG ----------

DATE	READING	WLELEV
25MAR88	12.5	5990.7
09JUN88	13.5	5989.7
21OCT88	13.5	5989.7
29DEC88	13.2	5990.0

---------- WELL=T1 AQUIFER=U ----------

DATE	READING	WLELEV
21OCT88	.	.
29DEC88	.	.

---------- WELL=T2 AQUIFER=BG ----------

DATE	READING	WLELEV
22MAR88	12.9	5990.1
09JUN88	13.3	5989.7
21OCT88	13.5	5989.5
29DEC88	13.0	5990.0

WELL=T2 AQUIFER=U

DATE	READING	WLELEV
22MAR88	325.7	5672.0
09JUN88	322.7	5675.0
21OCT88	353.3	5644.4
29DEC88	.	.

WELL=USGS1-2 AQUIFER=U

DATE	READING	WLELEV
22MAR88	88.8	5957.5
09JUN88	89.6	5956.7
20OCT88	90.5	5955.8
29DEC88	92.7	5953.6

WELL=USGS3-1 AQUIFER=BG

DATE	READING	WLELEV
22MAR88	18.2	6028.7
09JUN88	18.3	6028.6
21OCT88	20.5	6026.4
29DEC88	18.7	6028.2

WELL=USGS4-1 AQUIFER=BG

DATE	READING	WLELEV
22MAR88	8.0	6039.5
09JUN88	18.3	6029.2
21OCT88	18.8	6028.7
29DEC88	20.6	6026.9

WELL=WW1 AQUIFER=L

DATE	READING	WLELEV
30JUN88	66.2	5853.8
21OCT88	67.9	5852.1
29DEC88	.	.

WELL=ZZ AQUIFER=L

DATE	READING	WLELEV
22MAR88	147.6	5921.1
09JUN88	148.0	5920.7
21OCT88	148.0	5920.7
29DEC88	148.3	5920.4

FOR THE PERIOD FROM 880101 TO 881231

WELL=AA AQUIFER=BG

DATE	READING	WLELEV
22MAR88	59.5	5910.2
30JUN88	60.0	5909.7
19OCT88	59.5	5910.2
19DEC88	57.0	5912.7

WELL=AA AQUIFER=L

DATE	READING	WLELEV
22MAR88	87.3	5881.3
30JUN88	86.5	5882.1
19OCT88	88.0	5880.6
19DEC88	86.4	5882.2

WELL=AA AQUIFER=M

DATE	READING	WLELEV
22MAR88	86.0	5883.2
30JUN88	83.5	5885.7
19OCT88	85.0	5884.2
19DEC88	84.0	5885.2

WELL=AA AQUIFER=U

DATE	READING	WLELEV
22MAR88	109.0	5860.8
30JUN88	108.0	5861.8
19OCT88	112.5	5857.3
19DEC88	109.0	5860.8

WELL=BRYANT AQUIFER=U

DATE	READING	WLELEV
22MAR88	294.1	5730.4
30JUN88	318.0	5706.5
19OCT88	291.1	5733.4
19DEC88	292.0	5732.5