0058

Dianne
ACT 007/007
Folder 5

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

April 27, 1989

TO: Joe Helfrich, Assessment Officer

FROM: Dianne R. Nielson, Director DRN

RE: NOV 89-26-1-1, SRS Sunnyside Mine, Carbon County, Utah

Lowell Braxton and I visited the Sunnyside Mine on Tuesday, April 25, 1989. The purpose of the visit was to examine portions of Grassy Trail Creek subject to recent discharge, as defined in the above NOV. At that time, SRS provided the attached information and requested that it be considered as part of the review and assessment of the NOV.

If you have any questions, please contact Lowell or me.

ksg
Attachment
cc: L. Braxton
R. Smith
AD485/20

an equal opportunity employer

AQUA SURVEYS
2356 West Bonanza Court • South Jordan, Utah 84065
(801) 254-7091

W. P. Balz, Manager of Administration
Kaiser Coal Corp
Sunnyside Coal Mines
P.O. Box 10
Sunnyside, Utah 84539

April 24, 1989

Dear Bill,

Enclosed are the results of the Acute Whole Effluent Toxicity Test conducted by AQUA SURVEYS on the March 31, 1989 samples of the effluent of the Sunnyside Coal Mine outfall #002 and the March 31, 1989 sample taken downstream of #002.

Both samples exhibited insignificant mortality to the test organisms (Ceriodaphnia dubia and Fathead Minnows) and would pass Region VIII EPA's "acute toxicity" criteria (no more than 20% mortality).

Attached are the two sets of compilation tables (ACUTE WHOLE EFFLUENT TOXICITY REPORT: CERIODAPHNIA, FATHEAD MINNOWS) of the chemical and test data of the test results. A summary of the test and methods (Summary of Acute Toxicity Test) is included for your files will be sent in the mail with the orginal forms.

I appreciate the opportunity of doing business with you and the Kaiser Coal Corporation. I apologize for the delay in sending you this report. Please feel free to contact me at 801-254-7091 concerning any questions you may have about the toxicity test.

Respectfully,

Randall S. Isham
Lab Director

ACUTE WHOLE EFFLUENT TOXICITY REPORT
FATHEAD MINNOW

PERMITTEE: Kaiser Coal Corp

NPDES # UT-0022942

OUTFALL # Sunnyside Mine #002

RECEIVING WATER: Grassy Trail Ck

20% MORTALITY TEST: XXXXXX PASS FAIL

LC50 =>100%

TEST ORGANISM: Fathead Minnow AGE: 5 days DILUTION WATER: Receiving

SAMPLE DATE/TIME: 03/31/89 1048 RECEIVING: 03/31/89 1021

ANALYSIS DATE/TIME: BEGIN: 04/01/89 0900 END: 04/05/89 0900

MEASUREMENTS	RECON (0%)	0%	DILUTIONS (% EFFLUENT) 6%	12.5%	25%	50%	100%
No. LIVE							
INITIAL	20	20	20	20	20	20	20
24 HRS	20	20	20	20	20	20	19
48 HRS	20	19	20	20	20	19	19
72 HRS	20	19	20	19	20	19	18
96 HRS	20	19	20	19	20	19	18
DO (mg/l)							
INITIAL	7.4	8.2	8.2	8.2	8.2	8.2	8.2
24 HRS O/N	6.8/7.4	6.6/8.3	6.4/8.3	6.4/8.3	6.2/8.2	6.2/8.2	6.1/8.2
48 HRS O/N	6.6/7.4	6.4/8.3	6.2/8.3	6.0/8.3	6.3/8.3	6.2/8.3	6.2/8.3
72 HRS O/N	6.7/7.5	6.5/8.2	6.3/8.2	6.2/8.2	6.3/8.2	6.4/8.2	6.4/8.2
96 HRS	6.7	6.6	6.4	6.4	6.1	6.2	6.2
TEMP (C)							
INITIAL	20	20	20	20	21	21	21
24 HRS O/N	20/20	20/21	20/21	20/21	20/21	20/21	20/21
48 HRS O/N	20/20	20/21	20/20	20/20	21/21	20/21	20/20
72 HRS O/N	21/20	21/20	21/20	21/20	21/20	21/20	21/20
96 HRS	20	21	20	20	20	21	20

	INIT. ALKALINITY	INIT. HARDNESS	INIT. NH3 (AS N)	INIT. pH	FINAL pH	INIT. CONDUCT.
RECONST.	158	221	-	8.29	8.11	690
0%	237	217	-	8.35	8.23	
100%	531	290	-	8.39	8.42	1680

ANALYST/LABORATORY: Randall Isham, AQUA SURVEYS, 2356 West Bonanza Court, South Jordan, Utah 84065 PH: 801-254-7091

SIGNATURE Randall S Isham DATE 4/29/89

COMMENTS:

ACUTE WHOLE EFFLUENT TOXICITY REPORT
CERIODAPHNIA

PERMITTEE: Kaiser Coal Corp NPDES # UT-0022942

OUTFALL # Sunnyside Mine #002 RECEIVING WATER: Grassy Trail Ck

20% MORTALITY TEST: XXXXXX PASS FAIL LC50 =>100%

TEST ORGANISM: Ceriodaphnia dubia AGE: <20 hrs DILUTION WATER: Receiving

SAMPLE DATE/TIME: 03/31/89 1048 RECEIVING: 03/31/89 1021

ANALYSIS DATE/TIME: BEGIN: 04/01/89 0830 END: 04/03/89 0840

MEASUREMENTS	RECON (0%)	DILUTIONS (% EFFLUENT) 0%	6%	12.5%	25%	50%	100%
No. LIVE							
INITIAL	20	20	20	20	20	20	20
24 HRS	20	20	19	20	20	19	19
48 HRS	20	19	19	20	20	18	17
72 HRS							
96 HRS							
DO (mg/l)							
INITIAL	7.4	8.2	8.2	8.2	8.2	8.2	8.2
24 HRS O/N	7.1/7.4	7.0/8.3	7.0/8.3	7.0/8.3	6.9/8.2	6.8/8.2	6.8/8.2
48 HRS O/N	7.0	7.0	7.0	6.9	6.9	6.9	6.8
72 HRS O/N							
96 HRS							
TEMP (C)							
INITIAL	20	20	20	20	21	21	21
24 HRS O/N	20/20	20/21	20/21	20/21	20/21	20/21	20/21
48 HRS O/N	20	20	21	20	20	20	20
72 HRS O/N							
96 HRS							

	INIT. ALKALINITY	INIT. HARDNESS	INIT. NH3 (AS N)	INIT. pH	FINAL pH	INIT. CONDUCT.
RECONST.	158	221	-	8.29	8.39	690
0%	237	217	-	8.35	8.43	
100%	531	290	-	8.39	8.62	1680

ANALYST/LABORATORY: Randall Isham, AQUA SURVEYS, 2356 West Bonanza Court, South Jordan, Utah 84065 PH: 801-254-7091

SIGNATURE Randall Isham DATE 4/24/89

COMMENTS:

ACUTE WHOLE EFFLUENT TOXICITY REPORT
FATHEAD MINNOW

PERMITTEE: Kaiser Coal Corp NPDES # UT-0022942

OUTFALL # Downstream of #002 RECEIVING WATER: Grassy Trail Ck

20% MORTALITY TEST: XXXXXX PASS FAIL LC50 =>100%

TEST ORGANISM: Fathead Minnow AGE: 5 days DILUTION WATER: Receiving

SAMPLE DATE/TIME: 03/31/89 1057 RECEIVING: 03/31/89 1021

ANALYSIS DATE/TIME: BEGIN: 04/01/89 0930 END: 04/05/89 0930

(% EFFLUENT) MEASUREMENTS	RECON (0%)	0%	6%	12.5%	25%	50%	100%
							DILUTIONS
No. LIVE							
INITIAL	20	20	20	20	20	20	20
24 HRS	20	20	20	20	20	20	20
48 HRS	20	19	20	20	20	20	19
72 HRS	20	19	20	20	20	19	19
96 HRS	20	19	19	20	20	19	19
DO (mg/l)							
INITIAL	7.4	8.2	8.2	8.3	8.3	8.3	8.3
24 HRS O/N	6.8/7.4	6.6/8.3	6.5/8.3	6.5/8.3	6.5/8.3	6.4/8.3	6.4/8.3
48 HRS O/N	6.6/7.4	6.4/8.3	6.4/8.3	6.3/8.3	6.4/8.3	6.4/8.3	6.3/8.2
72 HRS O/N	6.7/7.5	6.5/8.2	6.5/8.2	6.3/8.3	6.4/8.3	6.5/8.3	6.5/8.3
96 HRS	6.7	6.6	6.5	6.4	6.4	6.3	6.4
TEMP (C)							
INITIAL	20	20	20	20	20	20	20
24 HRS O/N	20/20	20/21	20/21	20/21	20/20	20/20	20/20
48 HRS O/N	20/20	20/21	21/21	20/21	20/21	20/21	21/21
72 HRS O/N	21/20	21/20	21/20	21/20	21/21	21/21	21/21
96 HRS	20	21	20	21	21	20	20

	INIT. ALKALINITY	INIT. HARDNESS	INIT. NH3 (AS N)	INIT. pH	FINAL pH	INIT. CONDUCT.
RECONST.	158	221	-	8.29	8.11	690
0%	237	217	-	8.35	8.23	
100%	390	258	-	8.31	8.37	1190

ANALYST/LABORATORY: Randall Isham, AQUA SURVEYS, 2356 West Bonanza Court, South Jordan, Utah 84065 PH: 801-254-7091

SIGNATURE Randall Isham DATE 4/24/89

COMMENTS:

ACUTE WHOLE EFFLUENT TOXICITY REPORT
CERIODAPHNIA

PERMITTEE: Kaiser Coal Corp NPDES # UT-0022942

OUTFALL # Downstream of #002 RECEIVING WATER: Grassy Trail Ck

20% MORTALITY TEST: XXXXXX PASS FAIL LC50 =>100%

TEST ORGANISM: Ceriodaphnia dubia AGE: <22 hrs DILUTION WATER: Receiving

SAMPLE DATE/TIME: 03/31/89 1057 RECEIVING: 03/31/89 1021

ANALYSIS DATE/TIME: BEGIN: 04/01/89 1000 END: 04/05/89 1000

(% EFFLUENT) MEASUREMENTS	RECON (0%)	0%	6%	12.5%	25%	50%	DILUTIO 100%
No. LIVE							
INITIAL	20	20	20	20	20	20	20
24 HRS	20	20	20	20	20	20	20
48 HRS	20	19	20	20	19	20	20
72 HRS							
96 HRS							
DO (mg/l)							
INITIAL	7.4	8.2	8.2	8.3	8.3	8.3	8.3
24 HRS O/N	7.1/7.4	7.0/8.3	7.0/8.3	7.0/8.3	6.9/8.3	6.8/8.3	6.8/8.3
48 HRS O/N	7.0	7.0	6.9	6.9	6.8	6.8	6.7
72 HRS O/N							
96 HRS							
TEMP (C)							
INITIAL	20	20	20	20	20	20	20
24 HRS O/N	20/20	20/21	19/21	20/21	20/20	19/20	20/20
48 HRS O/N	20	20	20	21	20	20	20
72 HRS O/N							
96 HRS							

	INIT. ALKALINITY	INIT. HARDNESS	INIT. NH3 (AS N)	INIT. pH	FINAL pH	INIT. CONDUCT.
RECONST.	158	221	-	8.29	8.11	690
0%	237	217	-	8.35	8.23	
100%	390	258	-	8.31	8.57	1190

ANALYST/LABORATORY: Randall Isham, AQUA SURVEYS, 2356 West Bonanza Court, South Jordan, Utah 84065 PH: 801-254-7091

SIGNATURE [signature] DATE 4/24/89

COMMENTS: