

40-2377

**FACSIMILE**

To:	John Buckley US Nuclear Regulatory Commission
FAX:	301 415 5398
From:	Henry Morton
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Date:	November 5, 1999
Pages:	5 including this page
Subject:	Kaiser Dross Site Surface Water

Three most recent Kaiser dross site surface water sample analyses for radionuclides are transmitted herewith.

- The water sample whose client ID is Fulton Creek was taken in Fulton Creek just upstream of the weir at the northeast corner of the site where the creek leaves the site.
- The Fresh Water Pond sample was taken in the Fresh Water Pond near the weir along the northeast corner of the pond where water leaves the pond.
- The Retention Pond sample was taken in the pond along the southern side about mid way between east and west ends of the pond.

4410



**Orotech Laboratory**  
 311 Newton Avenue  
 Easton, New Jersey, 08821  
 Phone: 908-251-2318  
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Client:  
 Client Project:  
 Lab Number:  
 Date Reported:  
 Date Received:  
 Page Number:

A & M Engineering  
 Kaiser  
 991106  
 10/27/99  
 9/21/99  
 5 of 9

**Analytical Report**

Method	Result Units	DL	Prep Date	Analyte Date	Analyst
Iron	EPA 6010B 0.79 mg/l	0.01	9/28/99	10/18/99	RE
Magnesium	EPA 6010B 149 mg/l	0.5	9/28/99	10/18/99	RE
Potassium	EPA 6010B 81.8 mg/l	0.2	9/28/99	10/18/99	RE
Sodium	EPA 6010B 24.8 mg/l	2.0	9/28/99	10/19/99	RE
<b>Lab ID: 991106-05</b>					
<b>Client ID: Fulton Creek</b>					
<b>Date Sampled: 9/21/99 10:00:00 AM</b>					
<b>Matrix: Water</b>					
<b>Radiochemical Analysis</b>					
Radium-226	SM 7500 Ra (M) 0.032 +/- 0.102 pCi/l	0.165	9/30/99	10/7/99	RE
Radium-228	EPA 9320 1.15 +/- 0.183 pCi/l	0.469	9/28/99	9/30/99	SD
Thorium-232	LANL ER 200 M 0.00 +/- 0.495 pCi/l	1.01	9/29/99	10/6/99	RE
Thorium-230	LANL ER 200 M 2.10 +/- 0.504 pCi/l	0.636	9/29/99	10/6/99	RE
Thorium-228	LANL ER 200 M 0.643 +/- 0.459 pCi/l	1.00	9/29/99	10/6/99	RE
<b>Inorganics Analysis</b>					
Alkalinity	EPA 310.1 96.0 mg/l	2	9/23/99 9:00:00 AM	9/23/99	RT
Chloride	EPA 325.3 14.8 mg/l	1	10/6/99 1:00:00 PM	10/6/99	RT
Conductivity	EPA 120.1 304 uMHO/cm	2	9/21/99 6:00:00 PM	9/21/99	KT
Fluoride	EPA 340.2 0.3 mg/l	0.2	9/22/99 11:30:00 AM	9/22/99	RT
Nitrate (N)	EPA 352.1 0.6 mg/l	0.2	9/21/99 6:15:00 PM	9/23/99	RT
pH	EPA 150.1 7.85 SI		9/21/99 6:15:00 PM	9/21/99	RT
Silica Dioxide	EPA 370.1 1.5 mg/l	0.8	10/1/99 3:00:00 PM	10/1/99	RT
Sulfate	EPA 375.4 32.4 mg/l	2	9/29/99 10:00:00 AM	9/29/99	RT
Temperature	EPA 170.1 21.1 degrees C		9/21/99 6:15:00 PM	9/21/99	RT
<b>Metals Analysis</b>					
Barium	EPA 6010B 0.096 mg/l	0.020	9/28/99	10/18/99	RE



**Outreach  
Laboratory**

311 North Aspen  
Broken Arrow, OK 74012  
(918) 251-2915  
FAX (918) 251-0058

Client:	A & M Engineering
Client Project:	Kaiser
Lab Number:	991106
Date Reported:	10/27/99
Date Received:	9/21/99
Page Number:	6 of 9

**Analytical Report**

Method	Result	Units	DL	Prep Date	Analyze Date	Analyst
Calcium	EPA 6010B	52.5 mg/l	0.2	9/28/99	10/19/99	RE
Iron	EPA 6010B	0.11 mg/l	0.01	9/28/99	10/18/99	RE
Magnesium	EPA 6010B	8.06 mg/l	0.005	9/28/99	10/19/99	RE
Potassium	EPA 6010B	5.0 mg/l	0.2	9/28/99	10/18/99	RE
Sodium	EPA 6010B	8.43 mg/l	0.20	9/28/99	10/19/99	RE

Lab ID: 991106-06  
 Client ID: Fresh Water Pond  
 Date Sampled: 9/21/99 10:15:00 AM  
 Matrix: Water

**Radiochemical Analyses**

Radium 226	SM 7500 Ra (M)	0.00 +/- 0.139 pCi/l	0.305	9/30/99	10/8/99	RE
Radium-228	EPA 9320	0.00 +/- 0.161 pCi/l	0.469	9/28/99	10/1/99	SD
Thorium-232	LANL ER 200 M	0.208 +/- 0.032 pCi/l	0.026	9/29/99	10/6/99	RE
Thorium-230	LANL ER 200 M	0.634 +/- 0.054 pCi/l	0.021	9/29/99	10/6/99	RE
Thorium-228	LANL ER 200 M	0.058 +/- 0.019 pCi/l	0.031	9/29/99	10/6/99	RE

**Inorganics Analyses**

Alkalinity	EPA 310.1	81.0 mg/l	2		9/23/99 9:00:00 AM	RT
Chloride	EPA 323.3	1.0 mg/l	1		10/4/99 1:00:00 PM	RT
Conductivity	EPA 120.1	251 uMHO/cm	2		9/21/99 6:00:00 PM	RT
Fluoride	EPA 340.2	0.3 mg/l	0.2		9/22/99 11:30:00 AM	RT
Nitrate (N)	EPA 352.1	0.5 mg/l	0.2	9/23/99 6:15:00 PM	9/23/99	RT
pH	EPA 150.1	7.83 SI			9/21/99 6:15:00 PM	RT
Silica Dioxide	EPA 370.1	1.3 mg/l	0.8		10/1/99 3:00:00 PM	RT
Sulfate	EPA 375.4	29.7 mg/l	2		9/29/99 10:00:00 AM	RT
Temperature	EPA 170.1	20.9 degrees C			9/21/99 6:15:00 PM	RT

**Metals Analyses**

BDL - Below Detection Limit



Client: A & M Engineering  
 Client Project: Kaiser  
 Lab Number: 991106  
 Date Reported: 10/27/99  
 Date Received: 9/21/99  
 Page Number: 7 of 9

**Analytical Report**

	Method	Result	Units	DL	Prep Date	Analysis Date	Analyst
Barium	EPA 6010B	0.036	mg/l	0.020	9/28/99	10/18/99	RE
Calcium	EPA 6010B	51.1	mg/l	0.2	9/28/99	10/19/99	RE
Iron	EPA 6010B	0.12	mg/l	0.01	9/28/99	10/18/99	RE
Magnesium	EPA 6010B	4.54	mg/l	0.005	9/28/99	10/19/99	RE
Potassium	EPA 6010B	1.6	mg/l	0.2	9/28/99	10/18/99	RE
Sodium	EPA 6010B	7.65	mg/l	0.20	9/28/99	10/19/99	RE

Lab ID: 991106-07  
 Client ID: Retention Pond  
 Date Sampled: 9/21/99 11:00:00 AM  
 Matrix: Water

**Radiochemical Analyses**

Radium 226	SM 7500 Ra (M)	4.50 +/- 0.775	pCi/l	0.131	10/8/99	10/12/99	RE
Radium-228	EPA 9320	0.00 +/- 0.337	pCi/l	0.469	9/28/99	10/1/99	SD
Thorium-232	LANL ER 200 M	0.207 +/- 0.090	pCi/l	0.050	9/29/99	10/6/99	RE
Thorium-230	LANL ER 200 M	0.791 +/- 0.175	pCi/l	0.082	9/29/99	10/6/99	RE
Thorium-228	LANL ER 200 M	0.217 +/- 0.118	pCi/l	0.192	9/29/99	10/6/99	RE

**Inorganics Analyses**

Alkalinity	EPA 310.1	232	mg/l	2		9/23/99 9:00:00 AM	RT
Chloride	EPA 325.3	129	mg/l	2		10/4/99 1:00:00 PM	RT
Conductivity	EPA 120.1	922	uMHO/cm	2		9/21/99 6:00:00 PM	RT
Fluoride	EPA 340.2	2.6	mg/l	0.2		9/22/99 11:30:00 AM	RT
Nitrate (N)	EPA 352.1	0.5	mg/l	0.2	9/23/99 8:15:00 PM	9/23/99	RT
pH	EPA 150.1	9.27	SI			9/21/99 6:15:00 PM	RT
Silica Dioxide	EPA 370.1	BDL	mg/l	0.8		10/1/99 3:00:00 PM	RT
Sulfate	EPA 375.4	67.5	mg/l	4		9/29/99 10:00:00 AM	RT

BDL = Below Detection Limit



**Outreach  
Laboratory**

211 North Avenue  
Bremen, Georgia, GA 30012  
(918) 251-2515  
FAX (918) 251-0558

Client:  
Client Project:  
Lab Number:  
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Page Number:

A & M Engineering  
Kaiser  
991106  
1027799  
9/21/99  
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**Analytical Report**

Method	Result Units	DL	Prep Date	Analyse Date	Analyst
EPA 170.1	21.2 degrees C			9/21/99 6:15:00 PM	RT
<b>Metals Analyzes</b>					
Barium	0.506 mg/l	0.020	9/28/99	10/18/99	RE
Calcium	13.2 mg/l	0.2	9/28/99	10/19/99	RE
Iron	0.10 mg/l	0.01	9/28/99	10/18/99	RE
Magnesium	110 mg/l	0.5	9/28/99	10/19/99	RE
Potassium	36.0 mg/l	0.2	9/28/99	10/18/99	RE
Sodium	24.5 mg/l	2.0	9/28/99	10/19/99	RE