OGMCOAL - Sample Upload Report 4th Quarter 2010 Horizon

From: Kevin Lundmark
To: Kit Pappas
Date: 4/11/2011 11:58 AM
Subject: Sample Upload Report 4th Quarter 2010 Horizon
CC: OGMCOAL
Attachments: HZN_WQ10-4_upload.pdf

Kit,
I've attached an upload report for 4th quarter 2010 data entered into the Division's water quality database for Horizon Mine.

Thanks,
Kevin

Kevin Lundmark
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Division of Oil, Gas & Mining
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Spring Sites

2-6-W
11/5/2010
10:05

Flow	GPM	0

GV-70
11/5/2010
10:30

Wat. Temp	Deg. C	8.8
F-pH	pH units	7.1
Cond(FLD)	umhos/cm	750
Flow	GPM	2
D-Ca	mg/l	109.58
D-Fe	mg/l	< .03
D-Mg	mg/l	37.2
D-Mn	mg/l	< .002
D-K	mg/l	3.71
D-Na	mg/l	8.05
Bcrb CaCO3	mg/l	371
Carb CaCO3	mg/l	< 5.
Cl	mg/l	11
SO4	mg/l	46
T-Alk	mg/l	371
T-Hardns	mg/l	427
TDS	mg/l	455
Set Solids	ml/l	
T-Cats	meq/l	8.98
T-Anis	meq/l	8.7
T-Fe	mg/l	< .05
T-Mn	mg/l	< .002

SP-1
11/5/2010
10:05

Flow	GPM	0

SP-2
11/5/2010
10:05

Flow	GPM	0

SP-4
11/5/2010
10:05

Flow	GPM	0

SP-9
11/5/2010
10:55

Wat. Temp	Deg. C	5.8
F-pH	pH units	7.2
Cond(FLD)	umhos/cm	500
Flow	GPM	3
D-Ca	mg/l	87.17
D-Fe	mg/l	< .03
D-Mg	mg/l	12.99
D-Mn	mg/l	< .002
D-K	mg/l	1.42
D-Na	mg/l	4.2
Bcrb CaCO3	mg/l	258
Carb CaCO3	mg/l	< 5.
Cl	mg/l	5
SO4	mg/l	17
T-Alk	mg/l	258
T-Hardns	mg/l	271
TDS	mg/l	300

T-Cats	meq/l	5.64
T-Anis	meq/l	5.66
T-Fe	mg/l	0.76
T-Mn	mg/l	0.042

SS-10
11/5/2010
11:30

Wat. Temp	Deg. C	2.9
F-pH	pH units	7.2
F-D.O.	mg/l	5
Cond(FLD)	umhos/cm	350
Flow	GPM	12
TSS	mg/l	< 5.
O/G	mg/l	< 5.
D-Ca	mg/l	62.35
D-Fe	mg/l	< .03
D-Mg	mg/l	9.56
D-Mn	mg/l	0.016
D-K	mg/l	1.37
D-Na	mg/l	4.13
Bcrb CaCO3	mg/l	153
Carb CaCO3	mg/l	< 5.
Cl	mg/l	4
SO4	mg/l	40
T-Alk	mg/l	153
T-Hardns	mg/l	195
TDS	mg/l	226
Set Solids	ml/l	< .1
T-Cats	meq/l	4.11
T-Anis	meq/l	4.02
T-Fe	mg/l	0.52
T-Mn	mg/l	0.031

Stream Sites

SS-11
11/5/2010
10:05

Flow	GPM	0

SS-12
11/5/2010
10:05

Flow	GPM	0

SS-3
11/1/2010
10:00

Wat. Temp	Deg. C	13.3
F-pH	pH units	7.5
F-D.O.	mg/l	6
Cond(FLD)	umhos/cm	1140
Flow	GPM	350
TSS	mg/l	11
O/G	mg/l	< 5.
D-Ca	mg/l	96.89
D-Fe	mg/l	< .03
D-Mg	mg/l	44.39
D-Mn	mg/l	< .002
D-K	mg/l	8.76
D-Na	mg/l	13.92
Bcrb CaCO3	mg/l	242
Carb CaCO3	mg/l	< 5.
Cl	mg/l	8
SO4	mg/l	205
T-Alk	mg/l	242
T-Hardns	mg/l	425

TDS	mg/l	584
Set Solids	ml/l	< .1
T-Cats	meq/l	9.32
T-Anis	meq/l	9.34
T-Fe	mg/l	0.041
T-Mn	mg/l	0.026

SS-5
11/5/2010
10:05

Flow	GPM	0

SS-7
11/5/2010
10:45

Wat. Temp	Deg. C	4.5
F-pH	pH units	6.8
F-D.O.	mg/l	6
Cond(FLD)	umhos/cm	530
Flow	GPM	22
TSS	mg/l	36
O/G	mg/l	< 5.
D-Ca	mg/l	86.14
D-Fe	mg/l	< .03
D-Mg	mg/l	17.8
D-Mn	mg/l	< .002
D-K	mg/l	1.52
D-Na	mg/l	4.56
Bcrb CaCO3	mg/l	261
Carb CaCO3	mg/l	< 5.
Cl	mg/l	5
SO4	mg/l	24
T-Alk	mg/l	261
T-Hardns	mg/l	288
TDS	mg/l	340
Set Solids	ml/l	< .1
T-Cats	meq/l	6
T-Anis	meq/l	5.86
T-Fe	mg/l	0.09
T-Mn	mg/l	0.018

SS-8
11/5/2010
11:10

Wat. Temp	Deg. C	2.1
F-pH	pH units	7.1
F-D.O.	mg/l	5
Cond(FLD)	umhos/cm	450
Flow	GPM	14
TSS	mg/l	< 5.
O/G	mg/l	< 5.
D-Ca	mg/l	79.88
D-Fe	mg/l	< .03
D-Mg	mg/l	14.82
D-Mn	mg/l	0.007
D-K	mg/l	1.61
D-Na	mg/l	4.91
Bcrb CaCO3	mg/l	238
Carb CaCO3	mg/l	< 5.
Cl	mg/l	6
SO4	mg/l	16
T-Alk	mg/l	239
T-Hardns	mg/l	261
TDS	mg/l	286
Set Solids	ml/l	< .1
T-Cats	meq/l	5.46
T-Anis	meq/l	5.29
T-Fe	mg/l	0.29

T-Mn	mg/l	0.018

UPDES Permit discharge point

UTG040019-001
12/10/2010
9:45

Flow	GPM	0
COMMENTS		NO DISCHARGE

UTG040019-001
11/5/2010
10:00

Flow	GPM	0

UTG040019-001
10/21/2010
11:15

Flow	GPM	0

UTGO40019-002
12/10/2010
9:30

Wat. Temp	Deg. C	13
F-pH	pH units	7.47
Flow	GPM	315
O/G	mg/l	< 5.
T-Fe	mg/l	0.45
TDS-DMxDMR	mg/l	350
TSS-DMxDMR	mg/l	< 5.

UTGO40019-002
11/5/2010
10:15

Wat. Temp	Deg. C	13
F-pH	pH units	7.49
Flow	GPM	350
O/G	mg/l	< 5.
T-Fe	mg/l	0.78
TDS-DMxDMR	mg/l	390
TSS-DMxDMR	mg/l	9

UTGO40019-002
10/21/2010
11:30

Wat. Temp	Deg. C	13
F-pH	pH units	7.33
Flow	GPM	325
O/G	mg/l	< 5.
T-Fe	mg/l	0.51
TDS-DMxDMR	mg/l	335
TSS-DMxDMR	mg/l	< 5.

Wells

HZ-01-06-1
11/5/2010
11:00

Depth	feet	1027.25

HZ-95-1
11/5/2010
11:00

Depth	feet	950.51
WL	feet	7406.19

HZ-95-1S
11/5/2010

11:00

Depth	feet	148.3
WL	feet	8208.2

HZ-95-2
11/5/2010
11:00

Depth	feet	898.13
WL	feet	7449.47

HZ-95-3
11/5/2010
10:05

COMMENTS	Dry Wells