0011

UtahAmerican Energy, Inc.

Incoming
C/007/0013
Copy Dave

March 5, 2004

Hi Dave:

Enclosed you will find the missing values from the DOGM water data base that we discussed on your last visit. I have entered the missing no discharge values. I have not and can not enter the missing values for the Springs. If you could get with Dana and take care of it I would greatly appreciate it.

Thanks Jay

RECEIVED
MAR - 5 2004
DIV. OF OIL, GAS & MINING

Jay

P.O. Box 986 Price, Utah 84501 Telephone (435) 637 5032 x 724 Fax (435) 613 0805 email: jmarshall@coalsource.com

HORSE CANYON
Spring

Field

magnesium

Manganese FS total

SITE NAME	DATE	Wat. Te Deg. C	F-pH pH un	Cond(FL umhos/c	Flow GPM	No A	D-Ca mg/l	D-Fe mg/l	D-Mg mg/l	D-Mn mg/l	D-K mg/l	D-Na mg/l	Bicarb mg/l	Carb mg/l	Cl mg/l	SO4 mg/l	T-Alk mg/l	T-Har mg/l	TDS mg/l	T-Cats meq/l	T-Anis meq/l	Cat-Ani PC DIFF.	T-Fe mg/l	T-Mn mg/l	
L-10-G	10/14/2002	13.3	8.2	1418	<0.1		67.9	<0.02	104	<0.01	1.2	284	591	<0.01	43	694	484	599	1510	24.34	25.33	-2.0	0.06	<0.01	1.1
L-10-G	08/13/2002	20.6	8.1	1630	<0.1		59	<0.1	102	<0.05	<1.	289	545	16	42	680	473	567	1494	23.9	24.8	-1.8	0.3	<0.05	0.9
L-10-G	06/04/2002	18.3	7.9	1990	0.34		58.8	<0.02	106	<0.01	1.1	286	536	<0.01	43	696	439	606	1520	25.05	24.48	1.2	<0.02	<0.01	0.8
L-10-G	03/27/2002	12.7	7.9	1595	<0.5		67.4	<0.02	117	<.01	1.3	304	576	5	44	691	480	650	1510	26.26	25.24	2.0	<0.02	<0.01	0.9
L-11-G	10/14/2002				0																				
L-11-G	08/13/2002				0																				
L-11-G	06/04/2002	16.7	8.3	1590	1.03		62.3	<0.02	74.5	<1.	2.9	229	498	<0.01	29	425	408	450	1170	19.42	17.83	4.3	<0.02	<0.01	0.7
L-11-G	03/27/2002	6.7	7.7	761	1		42.4	<0.02	54.9	<.01	2.1	158	532	5	26	185	444	332	770	13.55	13.48	0.3	<0.02	<0.01	1.0
L-12-G	10/15/2002	12.2	8.3	2320	<0.1		52.3	0.04	41.7	0.27	2.4	454	664	<0.01	43	765	544	302	1720	25.84	28.02	-4.0	0.38	0.27	0.7
L-12-G	08/13/2002	22.2	8.6	2312	<0.1		41	<0.1	63	0.25	3	629	783	22	50	1012	678	362	629	34.7	36	-1.8	1.4	0.25	0.3
L-12-G	06/04/2002	22.8	8.3	2430	0.11		33.8	0.16	52.7	<0.01	2.6	613	636	11	51	1060	540	308	2150	33.24	34.34	-1.6	0.02	<0.01	0.9
L-12-G	03/27/2002	9.6	7.8	1672	<0.25		31.1	<0.02	48.9	<.01	2	480	536	11	44	870	458	279	1760	26.49	28.52	-3.7	<0.02	<0.01	1.1
L-16-G	10/16/2002	7.5	8.4	>4000.	0.013		105	<0.02	149	0.01	5.3	918	1010	<0.01	141	2050	830	874	3680	53.54	63.16	-8.2	0.12	0.01	
L-16-G	08/14/2002	16.7	8.0	3492	0.025		97	<0.1	141	<.05	5	846	1063	<5.	143	1803	871	823	3645	53.4	59	-5.0	<0.1	<0.05	1.0
L-16-G	06/15/2002	21.2	8.0	2640	<0.1		117	0.03	156	.04	5.8	958	903	<1.	150	2050	740	933	3920	60.45	61.73	-1.0	1.84	0.04	1.5
	new site, monitoring began 2nd qtr																								
L-17-G	10/16/2002	7.4	9.2	3355	0.068		44.7	0.09	38.5	0.11	3.2	843	1110	<0.01	141	1090	910	270	2660	42.16	44.85	-3.1	0.91	0.11	0.8
L-17-G	08/14/2002	16.6	9.3	2534	0.14		23	0.1	22	<.05	3	796	1087	78	159	672	1021	148	2261	37.7	38.9	-1.6	0.5	<0.05	0.9
L-17-G	06/15/2002	21.7	8.9	2390	<0.5		29.3	0.43	20.4	.10	3.3	873	988	12	120	712	830	157	2570	41.18	34.81	8.4	5.45	0.1	1.1
	new site, monitoring began 2nd qtr																								
L-6-G	10/14/2002				0																				
L-6-G	08/13/2002				0																				
L-6-G	06/04/2002				0																				
L-6-G	03/07/2002				0																				
L-7-G	10/15/2002	3.1	8.2	890	1.2		76.2	<0.02	54.4	0.13	1.3	69.7	527	<0.01	20	95	432	414	2610	11.34	11.2	0.6	0.46	0.13	2.9
L-7-G	08/13/2002	17.8	8.3	698	0.13		57	<0.1	52	0.43	1	66	519	<5.	1	66	425	356	530	10	9.9	0.5	0.1	0.43	0.8
L-7-G	06/04/2002	9.2	7.9	806	0.56		55.5	<0.02	51.1	0.02	0.5	65.5	456	<0.01	19	73	374	351	560	9.75	9.51	1.2	0.05	0.02	0.7
L-7-G	03/27/2002				0																				
L-8-G	10/15/2002	12.4	8.3	882	0.29		68.4	<0.02	54.6	0.01	1	56.9	454	<0.01	20	142	372	395	620	10.4	10.94	-2.5	0.25	0.01	0.7
L-8-G	08/13/2002	21.1	8.3	742	0.29		66	<0.1	56	>0.05	<1.	60	439	<5.	8	161	360	395	590	10.5	10.8	-1.4	0.6	<0.05	0.8
L-8-G	06/04/2002	13.9	7.8	886	0.34		80.1	0.02	60.2	<0.01	2	61.6	415	<0.01	20	145	341	403	650	2.35	10.37	-63.1	<0.02	<0.01	0.7
L-8-G	03/27/2002				0																				
L-9-G	10/15/2002	9.3	8.5	1004	0.5		61.3	<0.02	53.1	0.07	1.5	108	537	<0.01	26	137	440	372	690	12.18	12.37	-0.8	0.03	0.07	0.7
L-9-G	08/13/2002				0																				
L-9-G	06/04/2002	18.6	8.1	921	0.34		45.3	0.04	52.5	<0.01	0.7	106	451	<0.01	24	120	370	320	650	11.37	10.57	3.6	<0.02	<0.01	0.7
L-9-G	03/27/2002				0																				
RS-2	10/14/2002	9.6	8.0	1210	7.5		53.8	<0.02	68	<0.01	1.4	146	566	<0.01	27	247	464	415	840	14.67	15.20	<.02	<.01		0.7
RS-2	08/13/2002	9.7	7.8	1004	7.5		45	<0.1	67	<0.05	1	152	551	<5.	14	264	452	388	802	14.4	14.9	<.1	<.05		0.8
RS-2	06/04/2002	11.2	7.9	1220	7.36		47.8	<0.02	70.7	<0.01	1.5	157	522	<0.01	24	232	428	418	870	15.18	14.05	<.02	<.01		0.7
RS-2	03/26/2002	9.1	7.6	901	7.5		51.3	<0.02	74.5	<0.01	1.6	165	561	5	25	241	468	435	870	15.89	15.09	<.02	<.01		1.0

missing data

checked ok

checked ok (Lab error?)

check ok

10.87

Dave The fill in values need to be entered into The DOGM Data Base (Jay)

HORSE CANYON
~~Spring~~ Stream

SITE NAME	SITE DESCRIPTION	DATE	Wat. Tei Deg. C	F-pH pH uni	Cond(Fl umhos/c	Flow GPM	No Ac	TSS mg/l	O/G mg/l	D-Ca mg/l	D-Fe mg/l	D-Mg mg/l	D-K mg/l	D-Na mg/l	Bicarb mg/l	Acidity mg/l	Carb mg/l	Cl mg/l	SO4 mg/l	T-Harc mg/l	TDS mg/l	Set So ml/l	Cat-Ani PC DIFF.	T-Mn mg/l	
B-1	(HC-2) Horse Cyn Wash BL mine	10/14/2002				0.0																			
B-1	(HC-2) Horse Cyn Wash BL mine	08/14/2002				0.0																			
B-1	(HC-2) Horse Cyn Wash BL mine	05/29/2002				0.0																			
B-1	(HC-2) Horse Cyn Wash BL mine	03/12/2002				0.0																			
HC-1	L FK Horse Cyn Wash AB mine	10/14/2002	12.8	8.0	2312	0.7		11	<5.	159	<0.02	180	7.1	249	549	3.9	<0.01	40	1190	1140	2130	<0.5	1.6	0.13	0.92128
HC-1	L FK Horse Cyn Wash AB mine	08/14/2002	27.2	8.1	1763	0.3		72	<2.	118	<0.1	150	9	221	545	<5.	<5.	34	971	912	1857	<0.1	3.5	0.17	1.053318
HC-1	L FK Horse Cyn Wash AB mine	06/04/2002	24.8	8.0	2150	4.6		2	<5.	112	<0.02	149	8.5	226	473	<1.	<1.	36	964	893	1810	<0.5	1.7	<0.01	0.84186
HC-1	L FK Horse Cyn Wash AB mine	03/26/2002	8.1	7.7	1445	3.5		3	<5.	111	0.08	143	6.6	210	205	<1.	5	38	938	868	1810	<0.5	5.0	<0.01	1.252595
L-1-S	Lila Canyon Creek	12/18/2002					NOA																		
L-1-S	Lila Canyon Creek	11/08/2002				0.0																			
L-1-S	Lila Canyon Creek	10/16/2002				0.0																			
L-1-S	Lila Canyon Creek	09/02/2002				0.0																			
L-1-S	Lila Canyon Creek	08/09/2002				0.0																			
L-1-S	Lila Canyon Creek	07/08/2002				0.0																			
L-1-S	Lila Canyon Creek	06/03/2002				0.0																			
L-1-S	Lila Canyon Creek	05/29/2002				0.0																			
L-1-S	Lila Canyon Creek	04/19/2002				0.0																			
L-1-S	Lila Canyon Creek	03/12/2002				0.0																			
L-1-S	Lila Canyon Creek	02/21/2002				0.0																			
L-1-S	Lila Canyon Creek	01/29/2002					NOA																		
L-13-S	Little Park Wash	12/18/2002					NOA																		
L-13-S	Little Park Wash	11/08/2002				0.0																			
L-13-S	Little Park Wash	10/14/2002				0.0																			
L-13-S	Little Park Wash	09/02/2002				0.0																			
L-13-S	Little Park Wash	08/09/2002				0.0																			
L-13-S	Little Park Wash	07/08/2002				0.0																			
L-13-S	Little Park Wash	06/03/2002				0.0																			
L-13-S	Little Park Wash	05/29/2002				0.0																			
L-13-S	Little Park Wash	04/05/2002				0.0																			
L-13-S	Little Park Wash	03/27/2002				0.0																			
L-14-S	William's Draw Wash	12/18/2002					NOA																		
L-14-S	William's Draw Wash	11/08/2002				0.0																			
L-14-S	William's Draw Wash	10/14/2002				0.0																			
L-14-S	William's Draw Wash	09/02/2002				0.0																			
L-14-S	William's Draw Wash	08/09/2002				0.0																			
L-14-S	William's Draw Wash	07/08/2002				0.0																			
L-14-S	William's Draw Wash	06/03/2002				0.0																			
L-14-S	William's Draw Wash	05/29/2002				0.0																			
L-14-S	William's Draw Wash	04/05/2002				0.0																			
L-14-S	William's Draw Wash	03/27/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	12/18/2002					NOA																		
L-15-S	Williams Draw @ Road Crossing	11/08/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	10/14/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	09/02/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	08/09/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	07/08/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	06/03/2002				0.0																			
L-15-S	Williams Draw @ Road Crossing	05/29/2002				0.0																			

missing data
data of concern
TDS/conductance ratio does not fall within .55 to .85 range.
TDS and conductance values outlined for easy comparison
Cation-Anion balance- should be near 1

L-15-S	Williams Draw @ Road Crossing	04/05/2002				0.0																				
L-15-S	Williams Draw @ Road Crossing	03/27/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	12/18/2002					NOA																			
L-2-S	Right Fk. Lila Canyon AB mine	11/08/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	10/16/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	09/02/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	08/09/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	07/08/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	06/03/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	05/29/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	04/19/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	03/12/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	02/21/2002				0.0																				
L-2-S	Right Fk. Lila Canyon AB mine	01/29/2002					NOA																			
L-3-S	Lila Canyon BL mine	12/18/2002					NOA																			
L-3-S	Lila Canyon BL mine	11/08/2002				0.0																				
L-3-S	Lila Canyon BL mine	10/16/2002				0.0																				
L-3-S	Lila Canyon BL mine	09/02/2002				0.0																				
L-3-S	Lila Canyon BL mine	08/09/2002				0.0																				
L-3-S	Lila Canyon BL mine	07/08/2002				0.0																				
L-3-S	Lila Canyon BL mine	06/03/2002				0.0																				
L-3-S	Lila Canyon BL mine	05/29/2002				0.0																				
L-3-S	Lila Canyon BL mine	04/19/2002				0.0																				
L-3-S	Lila Canyon BL mine	03/12/2002				0.0																				
L-3-S	Lila Canyon BL mine	02/21/2002				0.0																				
L-3-S	Lila Canyon BL mine	01/29/2002					NOA																			
RF-1	R FK Horse Cyn Wash AB mine	10/14/2002	9.8	8.4	1674	1.0		17	<5.	66.3	<0.02	90.8	5.8	233	747	0	<0.01	35	415	539	240	<0.5	1.9	0.06		0.143369
RF-1	R FK Horse Cyn Wash AB mine	08/14/2002	26.1	9.1	969	2.3		16	<2.	25	<0.1	66	2	163	412	<5.	34	16	296	334	760	<0.1	2.4	0.11		0.784314
RF-1	R FK Horse Cyn Wash AB mine	06/04/2002	24.2	9.0	1240	2.3		11	<5.	32.9	0.07	71.3	3	175	447	<1.	18	25	271	376	910	<0.5	3.2	<0.01		0.733871
RF-1	R FK Horse Cyn Wash AB mine	03/26/2002	9.2	8.0	1098	3.0		15	<5.	59.8	0.28	81.8	3.8	202	630	<1.	5	38	331	486	1060	<0.5	0.4	<0.01		0.965392

Horse Canyon Mine
UPDES

SITE NAME	SITE DESCRIPTION	DATE	Flow GPM	No Access
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	12/18/2002		NOA
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	11/08/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	10/16/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	09/02/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	08/09/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	07/08/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	6 4/3/02	0	updated 3/5/04
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	5 5/29/02	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	04/19/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	03/12/2002	0	
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	02/21/2002		NOA
L-4-S	UPDES UTG0040013-00# Sediment Pond Q.	01/29/2002		NOA
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	12/18/2002		NOA
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	11/08/2002	0	
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	10/16/2002	0	
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	09/02/2002	0	
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	08/09/2002	0	
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	07/08/2002	0	
		6 4/3/02		updated 3/5/04
		5 5/29/02		
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	04/19/2002	0	
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	03/12/2002	0	
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	02/21/2002		NOA
L-5-G	UPDES UTG0040013-00# Mine Water Discharg	01/29/2002		NOA
UTG04001	Sed Pond #1 Q to Horse Cyn Ck	08/14/2002	0	
		7 7/8/02		
UTG04001	Sed Pond #1 Q to Horse Cyn Ck	06/02/2002	0	
		5 5/29/02		updated 3/5/04
		4 4/19/02		
UTG04001	Sed Pond #1 Q to Horse Cyn Ck	03/12/2002	0	
		2 2/12/02		
		1 1/29/02		

	missing data
	data of concern
	TDS/conductance ratio does not fall within .55 to .85 rang
	TDS and conductance values outlined for easy comparis
	Cation-Anion balance- should be near 1

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UTG04001 Sed Pond #2 Q to Horse Cyn Ck	12/18/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	11/08/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	10/16/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	10/14/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	09/02/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	08/14/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	07/08/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	06/02/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	05/29/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	04/19/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	03/12/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	02/02/2002	0
UTG04001 Sed Pond #2 Q to Horse Cyn Ck	01/29/2002	0

HORSE CANYON
Wells

SITE NAME	SITE DESCRIPTION	DATE	Depth feet
IPA-1	Little Park Wash Well #1	10/15/2002	1112.5
IPA-1	Little Park Wash Well #1	08/13/2002	1112.5
IPA-1	Little Park Wash Well #1	06/04/2002	1112.8
IPA-1	Little Park Wash Well #1	03/27/2002	1112.9
IPA-2	Little Park Wash Well #2	10/15/2002	901.0
IPA-2	Little Park Wash Well #2	08/13/2002	901.0
IPA-2	Little Park Wash Well #2	06/04/2002	901.0
IPA-2	Little Park Wash Well #2	03/27/2002	901.0
IPA-3	Little Park Wash Well #3	10/15/2002	839.3
IPA-3	Little Park Wash Well #3	08/13/2002	839.3
IPA-3	Little Park Wash Well #3	06/02/2002	839.1
IPA-3	Little Park Wash Well #3	03/27/2002	839.1

- missing data
- data of concern
- TDS/conductance ratio does not fa
- TDS and conductance values outli
- Cation-Anion balance- should be r

data of concern
TDS/conductance ratio does not fall within .55 to .85 range.
TDS and conductance values outlined for easy comparison
Cation-Anion balance- should be near 1-in meq/liter
Cations- in mg/L }marked to compare to other data
Anions-in mg/L }marked to compare to other data

all within .55 to .85 range.
ined for easy comparison
near 1