TETRA TECH

April 15, 2009

Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2746

RE: Groundwater Monitoring Results; Second Half 2008
Docket No. 40-8102
License No. SUA-1139
Highland Reclamation Project

Dear Mr. McConnell:

Pursuant to the semiannual reporting requirements of Materials License No. SUA-1139, Conditions 22 and 33, attached are the semiannual environmental monitoring results covering the Highland Reclamation Project for the period July 1, 2008 through December 30, 2008.

This report was prepared on behalf of ExxonMobil by Tetra Tech.

A summary of the groundwater elevation data is found in Attachment 1. Summaries of the water quality data are found in Attachment 2. Monitoring locations are shown on the map in Figure 1. Sampling of environmental media other than groundwater is not required by the Materials License and was not performed as part of this report.

Static groundwater levels (Attachment 1) show no significant changes in groundwater elevations over the course of the second half of the calendar year 2008. One exception was the groundwater level in well TDM VII (112), which returned back to levels consistent with those found in 2007 for this well after dropping approximately 30 feet from 2007 22nd half – 2008 1st half. Groundwater quality data (Attachment 2) show no significant changes in concentrations of monitored parameters over the course of the second half of the calendar year 2008.

Monitored parameters in the Tailings Dam Sandstone (TDSS) groundwater compliance wells were within groundwater protection standards during the second half of 2008. The groundwater protection standards are defined by Condition 33 of the Materials License which was modified in 2006, via license amendment 58.

If there are any questions or comments regarding the groundwater monitoring results, please contact me at (970) 223-9600 or Dan Burnham with ExxonMobil at (703) 846-3272.

Sincerely,

Rebecca Bilodeau
Project Manager

cc: Keith McConnell, NRC
Thomas McLaughlin, NRC
Mahesh Vidyasagar, ExxonMobil
Bruce Wielinga, AMEC

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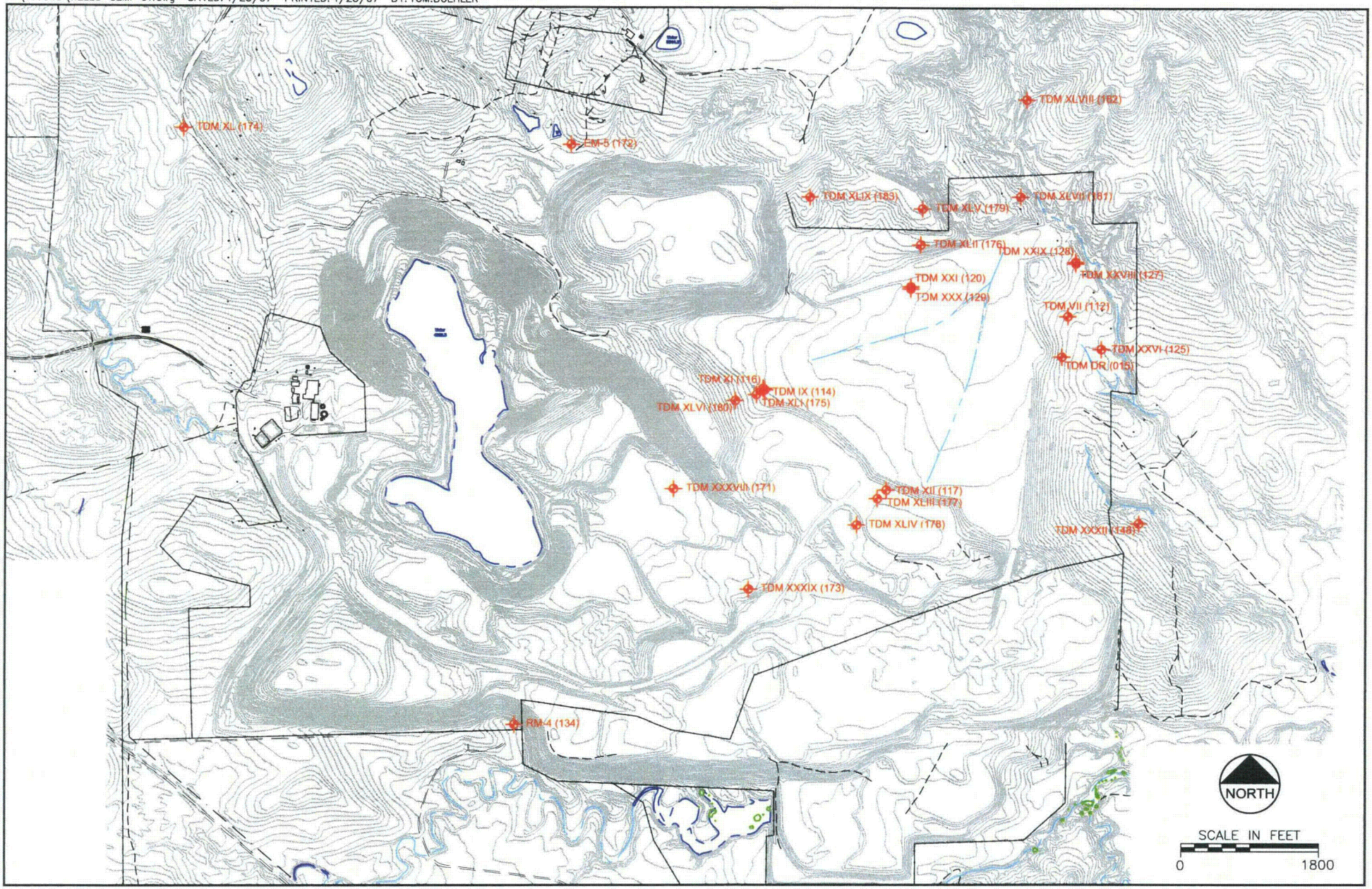

Project No. 180549

April 2007

FIGURE 1
SEMI ANNUAL MONITORING REPORT
MONITORING WELL LOCATION MAP

Attachment 1 - Water Level Data 2008 2nd Half

Well Number	Well Name	Datum (ft)	3rd Quarter Water Level (ft)	4th Quarter Water Level (ft)
15	TDM DR		Dry	Dry
112	TDM VII	5188.8	5120.1	5120
114	TDM IX	5243.53	5099.83	5099.83
116	TDM XI	5243.41	5054.41	5057.49
117	TDM XII	5265.35	5120.45	Dry
120	TDM XXI	5224.82	5112.52	5104.82
125	TDM XXVI	5171.3	5124.1	5123.1
127	TDM XXVIII	5203.6	Dry	Dry
128	TDM XXIX	5203.8	5069.1	5069.26
129	TDM XXX	5226.36	5062.76	5063.36
134	RM-4	5158.7	5125	5124.88
148	TDM XXXII	5112.9	Dry	Dry
171	TDM XXXVIII	5205.3	5048.7	5050.4
172	EM-5	5272.09	5080.79	5079.92
173	TDM XXXIX	5241.09	5065.09	5065.32
174	TDM XL	5380.39	5084.09	5083.69
175	TDM XLI	5259.6	5105.9	5105.92
176	TDM XLII	5452.5	5309.6	5310.1
177	TDM XLIII	5264.19	5155.19	NM
178	TDM XLIV	5277.14	NM	5113.14
179	TDM XLV	5295.7	5112.5	5112.7
180	TDM XLVI	5324.39	Dry	Dry
181	TDM XLVII	5237.7	5116.1	5115.9
182	TDM XLVIII	5240.4	5112.4	5112.02
183	TDM XLIX	5301.4	5104.5	5103.7

Attachment 2 - Water Quality Data 2008 2nd Half

Well Number	Well Name	Sample Date	As (mg/l)	Cd (mg/l)	Cl (mg/l)	Cr (mg/l)	Gross Alpha (pCi/L)	Pb (mg/l)	Ni (mg/l)	NO2 +NO3 (mg/l)	pH-Field (s.u.)	Ra226 (pCi/L)	Ra226 +228 (pCi/L)	Ra228 (pCi/L)	Se (mg/l)	Na (mg/l)	SO4 (mg/l)	TDS (mg/l)	Th230 (pCi/L)	Unat (mg/l)
Groundwater Protection Standards:			**0.05**	**0.01**		**0.1**	**15**	**0.05**	**0.1**				**5**		**0.05**				**0.55**	**0.03**
Backfill Monitor																				
171	TDM XXXVIII	8/7/2008	<0.00095	<0.00021	40.3	<0.00068	1.3	<0.00005	0.00054	<0.04	6.8	0.57+/-0.16	2.47+/-0.93	1.9+/-0.77	<0.0003	101	524	842	<0.2	0.0012
		12/2/2008			35.1					0.041	6.56					108	574	859		
173	TDM XXXIX	8/6/2008	0.0012	<0.00021	90.1	<0.00068	1.4	0.000074	0.00085	<0.04	7.72	1+/-0.22	3.4+/-1.01	2.4+/-0.79	<0.0003	99.1	444	850	<0.2	0.0029
		12/5/2008			84.4					<0.04	7					89.4	410	849		
180		8/25/2008	Dry																	
		12/16/2008	Dry																	
OSS Monitor																				
116	TDM XI	7/29/2008	<0.0047	<0.00021	59.2	<0.00068	2.6	<0.00005	<0.0005	<0.04	7.32	1.9+/-0.33	4.6+/-1.22	2.7+/-0.89	<0.0003	98	673	1410	<0.2	0.0134
		11/18/2008			95.5					<0.04	7.04					96.9	758	1430		
128	TDM XXIX	7/30/2008	<0.0047	0.00024	8.5	<0.00068	1.4	0.00038	0.0038	<0.04	7.46	<0.29	<1.59	<1.3	0.0058	98.8	156	483	<0.2	0.0049
		12/2/2008			10.2					<0.04	7.25					104	174	499		
129	TDM XXX	7/30/2008	0.0052	<0.00021	20	0.0014	1.6	0.00011	0.0266	6.2	7	<0.24	<1.54	<1.3	**1.1**	195	1370	1970	<0.2	0.0031
		12/2/2008			49.8					0.22	7.15					175	1010	1600		
148	TDM XXXII	8/25/2008	Dry																	
		12/16/2008	Dry																	
TDSS Background																				
134	RM-4	8/8/2008	<0.00095	<0.00021	18.8	<0.00068	1	<0.00005	<0.0005	<0.04	7.56	0.48+/-0.18	3.58+/-1.07	3.1+/-0.89	<0.0003	202	625	1100	<0.2	0.0009
		12/2/2008			18.3					<0.04	7.17					209	509	1160		
172	EM-5	8/19/2008	<0.00095	<0.00021	8.6	<0.00068	2	<0.00005	0.00058	<0.04	7.81	1.3+/-0.23	2.7+/-0.98	1.4+/-0.75	<0.0003	117	338	617	<0.2	0.0003
		12/4/2008			9.5					<0.04	7.39					126	339	618		
174	TDM XL	8/19/2008	<0.00095	<0.00021	5.3	<0.00068	0.8	<0.00005	<0.0005	<0.04	7.85	0.48+/-0.17	1.88+/-0.92	1.4+/-0.75	<0.0003	62.4	105	312	<0.2	<0.0003
		12/4/2008			6.8					<0.04	7.6					69.1	109	316		
182	TDM XLVIII	8/11/2008	<0.00095	<0.00021	11.9	<0.00068	1	<0.00005	<0.0005	<0.04	8.25	0.27+/-0.14	<1.47	<1.2	<0.0003	114	202	410	<0.2	<0.0003
		12/10/2008			11.3					<0.04	7.7					114	184	427		
TDSS Compliance Monitor Well																				
125	TDM XXVI	8/5/2008	<0.00095	<0.00021	19.6	<0.00068	2.4	0.0005	0.0021	<0.04	7.25	0.71+/-0.26	<2.01	<1.3	0.0029	85.9	422	915	<0.2	0.0179
		11/18/2008			15.2					0.11	7.01					84	431	870		
175	TDM XLI	7/31/2008	<0.0047	<0.00021	255	<0.00068	1.6	<0.00005	0.772	<0.04	6.47	2+/-0.28	10.1+/-1.28	8.1+/-1	0.00031	275	3240	5220	<0.2	0.0262
		12/5/2008			298					<0.2	6.21					275	3270	4790		
176	TDM XLII	8/5/2008	<0.00095	<0.00021	269	<0.00068	1.3	<0.00005	0.0022	<0.04	7.01	1.3+/-0.22	4.7+/-1.05	3.4+/-0.83	<0.0003	216	2270	3870	<0.2	<0.0003
		12/8/2008			260					<0.2	6.93					259	2590	4120		
177	TDM XLIII	8/25/2008	No sample -unable to measure																	
		12/16/2008	No sample -unable to measure																	
TDSS Monitor																				
15	TDM DR	8/25/2008	Dry																	
		12/16/2008	Dry																	
112	TDM VII	7/29/2008	0.0061	<0.00021	110	<0.00068	1.4	0.000057	0.0044	<0.04	7.17	0.48+/-0.25	<1.78	<1.3	<0.0003	235	1730	2820	<0.2	**0.0378**
		11/17/2008			117					<0.04	6.93					244	1890	3160		
114	TDM IX	7/29/2008	<0.0047	<0.00021	250	<0.00068	3.1	0.00029	**1.12**	<0.04	6.37	0.39+/-0.21	**6.69+/-1.21**	6.3+/-1	<0.0003	287	3580	5440	<0.2	<0.0003
		11/17/2008			424					<0.04	5.23					289	3720	5290		
117	TDM XII	8/28/2008	No Sample																	
		12/16/2008	Dry																	
120	TDM XXI	7/30/2008	<0.0047	<0.00021	376	<0.00068	1.4	<0.00005	0.0618	<0.04	6.85	0.35+/-0.19	<1.65	<1.3	0.0021	285	1820	4080	<0.2	0.0019
		11/18/2008			523					<0.04	6.4					288	2040	4270		
127	TDM XXVIII	8/25/2008	Dry																	
		12/16/2008	Dry																	
178	TDM XLIV	8/8/2008	No sample -unable to measure																	
		12/8/2008			289					1.5						261	2550	4190		
179	TDM XLV	8/18/2008	<0.00095	<0.00021	176	<0.00068	1	<0.00005	<0.0005	<0.04	7.43	1.1+/-0.21	3.2+/-.99	2.1+/-0.78	<0.0003	272	1580	2580	<0.2	<0.0003
		12/8/2008			188					<0.04	7.2					271	1820	2460		
181	TDM XLVII	7/31/2008	<0.0047	<0.00021	62.4	<0.00068	1.9	<0.00005	0.0015	<0.04	7.46	0.7+/-0.17	4+/-1.0	3.3+/-0.83	<0.0003	215	626	1230	<0.2	<0.0003
		12/10/2008			58.4					<0.04	7.11					218	519	1300		
183	TDM XLIX	8/11/2008	<0.00095	<0.00021	134	<0.00068	1.4	<0.00005	<0.0005	<0.04	7.46	1.2+/-0.15	4.2+/-1.1	3+/-0.95	<0.0003	226	1190	2040	<0.2	<0.0003
		12/10/2008			326					<0.04	7.08					229	1260	2000		

Bold = Result exceeds Groundwater Protection Standards

Note: Alternate Concentration Limits (ACL) apply to:
Well 125: Unat = 0.089 mg/l
Well 175: Ni = 1.8 mg/l; Ra226+228 = 25 pCi/L
Well 177: Unat = 0.11 mg/l