



May 16, 2012

Sent via Certified Mail

Mr. Glenn Mooney, Senior Analyst  
Wyoming Department of Environmental Quality  
Land Quality Division  
2100 West Fifth Street  
Sheridan, Wyoming 82801

**RE: PERMIT TO MINE NO. 478 – Willow Creek Project  
Monthly Excursion Report – Monitor Wells 2MW-89, 5MW-66, 5AH57-1, 5AV46-1, and  
5AG70-1**

Dear Mr. Mooney:

To satisfy the requirements in Chapter 11, Section 12.(e) of the DEQ-LQD In Situ Mining Rules (May 2005) for monthly reporting of monitor wells on Excursion Status, this letter serves as the Monthly Report for Monitor Wells 2MW-89, 5MW-66, 5AV46-1, 5AH57-1 and 5AG70-1.

**Monitor Well 2MW-89**

Monitor Well 2MW-89 is a perimeter monitor well located in the restored Mine Unit 2 wellfield at the Christensen Ranch site. The well is located directly between Mine Units 2 and 3 in the south central portion of the Mine Unit in Section 6, T. 44 N., R76 W. Campbell County, Wyoming. This monitor well was confirmed on Excursion Status on March 28, 2012 and reported to you by both telephone and email on March 29, 2012.

The Corrective Actions that were implemented to address this concern are as follows; Wells 2AF11-1 (391 feet to the east) and 2AE13-3 (341 feet to the West), of Monitor Well 2MW-89 were being pumped at a combined rate of 11 gpm. This action has dropped all parameters below the Upper Control Limits (UCL) for four of the last five sampling rounds. Analysis for uranium for all samples remained below the detection limit. The attached table provides the analysis data for the samples taken from Monitor Well 2MW-89 from January 4, 2010 to May 14, 2012.

In accordance with Permit No. 478 the criteria for termination of an Excursion are when three consecutive weekly samples do not exceed more than one UCL. This has been the case at well 2MW-89 since April 16, 2012. Therefore, this letter will serve as notification that the Excursion Status for Monitor Well 2MW-89 in the restored Mine Unit 2 wellfield has been terminated and this well will return to the quarterly monitoring frequency.

### **Monitor Well 5MW-66**

Monitor Well 5MW-66 is a perimeter monitor well located in the restored Mine Unit 5 wellfield at the Christensen Ranch site. The well is located in the northeastern portion of the Mine Unit in Section 16, T. 44 N., R76 W. Campbell County, Wyoming. It is located far away from the Mine Unit 5-2 area that was recently put back into production operations. This monitor well was confirmed on Excursion Status on March 29, 2012 and reported to you by both telephone and email on March 29, 2012.

The Corrective Actions that were implemented to address this concern are as follows; Wells 5BP118-1 (348 feet to the NNE) and 5BM103-1 (349 feet to the SSW), of Monitor Well 5MW-66 were being pumped at a combined rate of 10 gpm. This action has dropped all parameters below the Upper Control Limits (UCL) for the last five sampling rounds. The attached table provides the analysis data for the samples taken from Monitor Well 5MW-66 from January 13, 2010 to May 14, 2012.

In accordance with Permit No. 478 the criteria for termination of an Excursion are when three consecutive weekly samples do not exceed more than one UCL. This has been the case at well 5MW-66 since April 23, 2012. Therefore, this letter will serve as notification that the Excursion Status for Monitor Well 5MW-66 in the restored Mine Unit 5 wellfield has been terminated and this well will return to the quarterly monitoring frequency.

### **Monitor Wells 5AH57-1, 5AV46-1 and 5AG70-1**

Monitor Wells 5AH57-1, 5AV46-1 and 5AG70-1 are actually historic injection and production wells in the restored Mine Unit 5 wellfield at Christensen Ranch that were put into service as monitor wells for the MU 5-2 activities. These wells are located in the southwestern portion of the Mine Unit in Sections 17 and 20, T. 44 N., R76 W. Campbell County, Wyoming. Monitor Wells 5AH57-1 and 5AV46-1 were confirmed on Excursion Status on April 2, 2012 and reported to you by both telephone and email on April 3, 2012. Monitor Well 5AG70-1 was confirmed on Excursion Status on April 12, 2012 and reported to you by both telephone and email on April 12, 2012.

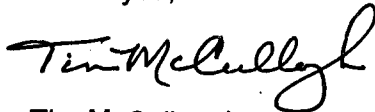
These "Excursions" are limited to areas of the wellfield that were previously mined and restored. Therefore, the ground water that has been impacted is not "native" ground water and is within the Exempted Aquifer area.

Uranium One has assessed the current monitoring plan that uses historic production or injection wells in the restored area and determined that the monitoring plan for this area needs to be revised. Therefore, on May 10, 2012 Uranium One submitted a revised monitoring plan for this area to add additional wells and make the four monitor wells in question "Trend Wells" thereby removing these wells from Excursion Status.

The attached table provides the analysis data for the samples taken from Monitor Wells 5AH57-1, 5AV46-1 and 5AG70-1 from November 23, 2011 to May 14, 2012.

Please contact me if you have any questions regarding this letter.

Thank you,



Tim McCullough  
Manager Site SHE

cc: Bill Kearney  
Larry Arbogast  
Barry Koch  
Rick Kukura  
Ron Linton- NRC

**URANIUM ONE**  
**CHRISTENSEN RANCH**  
**MINE UNIT 5-2**  
**MONITOR WELL 5AH57-1**

SAMPLE DATE	CHLORIDE (UCL 32.9mg/l)	CONDUCTIVITY (UCL 1126 µmhos/cm)	ALKALINITY (UCL 378.4 mg/l)	pH	WATER LEVEL	U <sub>3</sub> O <sub>8</sub> ppm
12/19/2011	17.5	1025	331.5	6.8		6.1
12/27/2011	17.5	1040	333.0	6.5		5.5
1/3/2012	20.3	1034	336.5	6.5		4.7
1/9/2012	16.2	1035	320.4	6.5		4.0
1/18/2012	18	990	311.5	6.4		3.8
2/1/2012	18.9	1001	315.6	6.7		4.8
2/16/2012	11.9	709	214.5	7.0	4426	1.7
2/29/2012	17.3	883	267	7.0	4426.7	
3/13/2012	18.8	979	294	6.8	4428	
3/29/2012	39.2	1814	534.8	6.8	4427.2	10.9
4/2/2012	28.7	1584	485.8	6.9	4420	8.6
4/9/2012	29	1432	478.8	6.9	4438.9	6.8
4/16/2012	29.5	1417	470.8	7.1	4420.9	6.8
4/23/2012	24.2	1475	473.5	6.6	4425.6	7.9
4/30/2012	27	1398	452.5	7	4434.6	7.6
5/7/2012	32.2	1576	515.4	6.6	4422.6	9.3
5/14/2012	32.4	1554	488.5	6.7	4420.9	8.8

**URANIUM ONE**  
**CHRISTENSEN RANCH**  
**MINE UNIT 5-2**  
**MONITOR WELL 5AG-70**

Sample Date	CHLORIDE (UCL 78.2mg/l)	CONDUCTIVITY (UCL 3014 µmhos/cm)	ALKALINITY (UCL 1049.3 mg/l)	pH	WATER LEVEL	U <sub>3</sub> O <sub>8</sub> ppm
11/23/2011	55.4	2847	937.7	6.7	4442.7	7.1
11/28/2011	64	2833	987	6.7	4443.7	7.5
12/5/2011	62.9	2776	977.9	6.7	4440.2	7.1
12/14/2011	62	2753	951.0	6.7	4442.9	4.3
12/19/2011	64.5	2753	945	6.8	4442.5	7.9
12/27/2011	66	2716	948	6.8	4442.9	7.8
1/5/2012	67.5	2715	939	6.7	4443.0	7.6
1/18/2012	63	2744	935	6.9	4443.4	7.2
2/16/2012	55.3	2661	938	7.2	4443.3	
2/29/2012	58.6	2700	891	6.9	4441.2	
3/13/2012	57.6	2734	916	7.1	4442	
3/29/2012	70	3230	1028	6.8	4465.1	
4/10/2012	74.5	3220	1077.5	7	4445.4	10.0
4/11/2012	75	3180	1110.5	6.9	4445.1	9.7
4/16/2012	82	3170	1158.5	6.7	4443.7	9.9
4/23/2012	97	3240	1128	6.7	4452.5	10.7
4/30/2012	75	3250	1119.5	6.7	4456.8	10.5
5/7/2012	80.0	3300	1147.5	6.7	4451.5	11.0
5/14/2012	81.5	3300	1136.5	6.7	4458.1	14.7

**URANIUM ONE**  
**CHRISTENSEN RANCH**  
**MINE UNIT 5-2**  
**MONITOR WELL 5AV46-1**

<b>SAMPLE DATE</b>	<b>CHLORIDE (UCL 33.3mg/l)</b>	<b>CONDUCTIVITY (UCL 1263 µmhos/cm)</b>	<b>ALKALINITY (UCL 424.4 mg/l)</b>	<b>pH</b>	<b>WATER LEVEL</b>	<b>U<sub>3</sub>O<sub>8</sub> ppm</b>
11/28/2011	16.8	976	322.7	7.3		5.4
12/6/2011	16.2	1018	313.4	7.3		5.0
12/14/2011	18.0	969	339.0	7.2		4.9
12/19/2011	19.2	1070	343.4	7.2		7.1
12/27/2011	22	1101	368	7.2		8.1
1/5/2012	18.0	1015	330	6.9		7.4
1/18/2012	18	1000	323.5	7.1		6.4
2/1/2012	22.3	1012	410.7	7.3		6.9
2/16/2012	17.3	961	308	7.6	4453.6	6.1
2/29/2012	18.5	893	284.4	7.4	4449.3	
3/13/2012	19.7	1005	315	7.4	4456.4	
<b>3/29/2012</b>	33.3	<b>1450</b>	<b>459.8</b>	7.6	4425.5	13.7
4/2/2012	26	<b>1320</b>	386.3	7.3	4435.5	12.2
<b>4/3/2012</b>	31.6	<b>1373</b>	<b>459.9</b>	7.4	4419.1	12.4
<b>4/9/2012</b>	<b>35.3</b>	<b>1414</b>	<b>495.9</b>	7.3	4422.4	13.2
<b>4/16/2012</b>	32.8	<b>1430</b>	<b>460.2</b>	7.1	4435.3	13.9
<b>4/23/2012</b>	31.1	<b>1315</b>	<b>428.9</b>	6.7	4427.2	12.6
<b>4/30/2012</b>	30.9	<b>1376</b>	<b>445.5</b>	7.2	4451	13.1
<b>5/7/2012</b>	<b>45.9</b>	<b>1710</b>	<b>568.4</b>	7	4432.2	15.9
<b>5/14/2012</b>	<b>37.9</b>	<b>1544</b>	<b>488.1</b>	7	4425	10.8

**URANIUM ONE  
CHRISTENSEN RANCH**

**MINE UNIT 2**

**MONITOR WELL 2MW-89**

Sample Date	CHLORIDE (UCL 13.6mg/l)	CONDUCTIVITY (UCL 823 $\mu$ mhos/cm)	ALKALINITY (UCL 121.3 mg/l)	pH	WATER LEVEL	U <sub>3</sub> O <sub>8</sub> ppm
1/4/2010	15.3	777	157.9	8.1	4573.9	<0.4
1/11/2010	16.1	771	157.4	8.1	4570.5	
1/18/2010	15.1	758	135.9	8	4556.9	<0.4
1/25/2010	13.9	755	125.6	8.2	4545.3	<0.4
2/1/2010	13.6	726	110	8	4550.1	<0.4
2/8/2010	13.3	720	112.8	8	4549.9	<0.4
2/16/2010	13.6	711	99.9	8	4547.6	<0.4
3/8/2010	13.3	716	95.6	8.2	4569.7	
6/7/2010	12.8	732	118.4	8	4573	
9/28/2010	13.3	750	120	8.3	4564.9	
12/8/2010	13.7	760	118.4	8.3	4565	
3/8/2011	15	765	142	8.2	4569.8	<0.4
3/9/2011	14.5	763	137.8	8.3	4569.8	<0.4
3/14/2011	14.4	759	137.5	8.2	4568.5	<0.4
3/21/2011	15.5	760	148.2	8.4	4567.6	<0.4
3/28/2011	14.7	763	147.9	8.4	4570.2	<0.4
4/4/2011	14.5	762	145.8	8.4	4559.8	<0.4
4/11/2011	14.5	748	130.9	8.4	4558.5	<0.4
4/18/2011	14.5	738	127.4	8.1	4557.4	<0.4
4/25/2011	14.9	729	123.2	8.4	4562.8	<0.4
5/2/2011	14.3	726	118.6	8.4	4561.8	<0.4
5/9/2011	14.7	727	114.8	8.4	4557.7	<0.4
5/16/2011	14.7	716	112	8.5	4556.2	<0.4
5/23/2011	14.5	712	105.7	8.4	4557.8	<0.4
5/31/2011	14.2	713	106.9	8.4	4566	<0.4
6/6/2011	14.5	714	108.5	8.3	4560	<0.4
6/13/2011	12.6	711	107	8.4	4559.8	<0.4
6/15/2011	13	708	109.9	8.3	4560	<0.4
6/20/2011	12.9	712	109.9	8.3	4560	<0.4
6/27/2011	12.5	708	112.5	8.5	4558.3	
8/22/2011	13.5	713	112.8	8.3	4558.3	
11/8/2011	13.2	732	123.2	8.3	4570.7	
3/27/2012	14.0	743	128.3	8.4	4555.1	0.8
3/28/2012	13.9	742	127.4	8.5	4554.7	<0.4
4/2/2012	13.6	739	124.2	8.4	4555.3	<0.4
4/9/2012	13.6	728	122.2	8.5	4554	<0.4

**URANIUM ONE**  
**CHRISTENSEN RANCH**  
**MINE UNIT 2**  
**MONITOR WELL 2MW-89**

Sample Date	CHLORIDE (UCL 13.6mg/l)	CONDUCTIVITY (UCL 823 $\mu$ mhos/cm)	ALKALINITY (UCL 121.3 mg/l)	pH	WATER LEVEL	U <sub>3</sub> O <sub>8</sub> ppm
4/16/2012	13.4	720	117.8	8.5	4553.9	<0.4
4/23/2012	<b>14.9</b>	715	112.7	8.4	4656.7	<0.4
4/30/2012	13.6	719	118.7	8.6	4560	<0.4
5/7/2012	12.6	715	111.1	8.5	4557.3	<0.4
5/14/2012	13.5	713	104.8	8.3	4556.2	<0.4

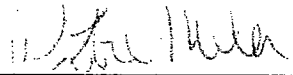


**URANIUM ONE**  
**CHRISTENSEN RANCH**  
**MINE UNIT 5**  
**MONITOR WELL 5MW-66**

Sample Date	CHLORIDE (UCL 22.7mg/l)	CONDUCTIVITY (UCL 1004 $\mu$ mhos/cm)	ALKALINITY (UCL 134 mg/l)	pH	WATER LEVEL	U <sub>3</sub> O <sub>8</sub> ppm
2/1/2011	22.5	1095	185.9	7.5	4629.4	1.1
2/7/2011	22	1098	198.2	7.7	4629.4	1.0
2/14/2011	21.7	1085	188.1	7.1	4629.4	1.3
2/23/2011	20.1	986	124.4	8	4620.8	<0.4
2/28/2011	20.6	990	129.4	7.5	4614.7	<0.4
3/7/2011	19.3	985	130	8	4614.7	<0.4
3/14/2011	20.9	985	125.7	8	4617.1	<0.4
3/21/2011	21.2	991	135.9	8.1	4616.7	<0.4
3/28/2011	20.3	985	136.1	8.1	4618.7	<0.4
4/4/2011	19.4	983	137.9	8.1	4623.6	<0.4
4/11/2011	19.2	983	128.5	8.1	4627.9	<0.4
4/18/2011	20.4	988	130.9	7.7	4626.4	<0.4
4/25/2011	20.9	991	133.6	8	4626.8	<0.4
5/2/2011	20.7	995	137.7	8	4627.2	<0.4
5/9/2011	21.2	976	125.7	8.1	4620	<0.4
5/16/2011	21.4	973	124.8	8.2	4619.2	0.7
5/23/2011	20.5	968	115.7	7.9	4620.8	<0.4
5/31/2011	19.5	965	117.3	8.1	4625.9	<0.4
6/20/2011	17.9	967	125.3	8.2	4628.3	
6/27/2011	18	971	128.9	8.1	4628.7	
9/21/2011	17.2	942	126.7	8.2	4625.9	
11/14/2011	17	950	133.4	8	4627.9	
12/1/2011	16.7	963	138.4	7.7	4626.2	
3/28/2012	23.9	1146	244.1	8.1	4631.7	1.6
3/29/2012	23.4	1149	235.7	8.0	4631.5	1.5
4/2/2012	21.8	1119	215.1	8	4630.8	1.4
4/9/2012	14.7	901	135.1	8.1	4619.3	<0.4
4/16/2012	14.5	887	130	8.1	4620.8	<0.4
4/23/2012	18.5	897	127	7.9	4623.4	1.1
5/1/2012	14.2	897	124.2	8.1	4624.6	0.5
5/7/2012	14.2	896	121.7	8.1	4624.1	<0.4
5/14/2012	15.4	885	111.8	8.1	4626.1	<0.4

**URANIUM ONE**  
**CHRISTENSEN RANCH**  
**MINE UNIT 5**  
**MONITOR WELL 5MW-66**

Sample Date	CHLORIDE (UCL 22.7mg/l)	CONDUCTIVITY (UCL 1004 µmhos/cm)	ALKALINITY (UCL 134 mg/l)	pH	WATER LEVEL	U <sub>3</sub> O <sub>8</sub> ppm
1/13/2010	37.6	1411	358	7.2	4635.9	
3/24/2010	37	1407	259.1	7.5	4635	2.6
4/6/2010	38.2	1405	319	7.4	4635.2	2.7
4/21/2010	36.2	1400	297.8	7.4	4635.7	<0.4
4/27/2010	38.3	1386	306.4	7.5	4635.2	2.2
5/11/2010	37.2	1392	335.2	7.2	4635	2.2
5/25/2010	40	1394	352.8	7.1	4634	2.3
6/3/2010	42	1383	360.2	7.2	4634.5	2.2
6/9/2010	35.2	1380	328.2	7.3	4634	2.1
6/15/2010	36.2	1371	314.2	7	4632.6	<0.4
6/21/2010	43.8	1378	318.8	6.9	4634.1	2.1
6/29/2010	35.8	1412	327.4	6.8	4635.3	2.5
7/7/2010	36.2	1397	313.8	7.2	4633.3	2.2
7/12/2010	36.6	1385	324.4	7.1	4633.5	2.2
7/20/2010	31.6	1386	309.2	7.2	4631.9	2.1
7/27/2010	38	1395	322.4	7.3	4631.4	1.8
8/3/2010	34.8	1384	346	7.4	4631.9	2.1
8/9/2010	37.2	1393	348	7.6	4634.7	1.9
8/18/2010	34.4	1394	328.2	6.9	4632.6	2.1
8/25/2010	38.2	1391	370.2	6.8	4633.3	2.5
8/31/2010	38.4	1379	352	7	4632.6	2.0
9/9/2010	37.6	1378	360.6	7.3	4631.5	2.2
9/13/2010	37.2	1386	348.2	7.4	4631.9	2.1
9/22/2010	36.6	1382	356.8	7.8	4630.8	1.9
9/28/2010	32.6	1376	317.8	7.3	4633.3	2.2
10/6/2010	33.9	1380	345	7	4632.5	2
10/13/2010	38.6	1371	363.4	7.3	4629.5	2.1
10/19/2010	36.6	1378	350.4	7.2	4629.5	2.8
10/27/2010	36	1370	334.8	7.3	4633.8	2.2
11/2/2010	33	1370	320.4	7.5	4629.6	
11/9/2010	32.2	1372	314.4	7.1	4630.5	1.76
11/16/2010	32.6	1341	320.8	6.8	4622.4	2.28
11/22/2010	32.6	1360	315	6.9	4623.6	2.0
11/29/2010	32.6	1350	328	6.9	4629.4	1.9
12/8/2010	25.6	1162	192.6	7	4629.4	1.9
12/13/2010	25.2	1132	195.3	7.1	4629.4	0.95
12/20/2010	25.2	1112	192.4	7.1	4629.4	0.9
12/28/2010	27.8	1091	185.2	7.1	4629.4	0.5
1/3/2011	29.3	1109	177.6	7.2	4629.4	1.0
1/10/2011	23.7	1110	153.5	7.2	4629.4	<0.4
1/17/2011	22.9	1112	154.7	7.6	4629.4	1.0
1/24/2011	24.5	1080	193	7.4	4629.4	1.0

NRC FORM 253 (9-96)		U.S. NUCLEAR REGULATORY COMMISSION		DATE OF REQUEST 5-21-12		CONTROL NUMBER	
MESSENGER/COURIER RECEIPT							
TO: RON C. LINTON		OFFICE FSME		BUILDING TWFN		ROOM NUMBER 1-8F5	
FROM: URANIUM ONE		OFFICE ADM		BUILDING DWFN		ROOM NUMBER P1-37	
DESCRIPTION 7011 2970 0003 9357 0929				MESSENGER/COURIER SIGNATURE			
				MESSENGER/COURIER		DATE RECEIVED	
						TIME RECEIVED	
				MESSENGER/COURIER		DATE RECEIVED	
						TIME RECEIVED	
				RECIPIENT'S SIGNATURE			
RECIPIENT 		DATE RECEIVED					
		TIME RECEIVED 2:35					
SENDER:		MESSENGER/COURIER:		RECIPIENT:			
1. Complete "DATE OF REQUEST," "TO:," "FROM:," and unclassified "DESCRIPTION" blocks.		1. Deliver package to recipient or next messenger/courier enroute to addressee.		1. Provide signature, date received, and time received in the appropriate blocks.			
2. Obtain MESSENGER/COURIER signature, date received, and time received in first blocks provided.		2. Obtain MESSENGER/COURIER or RECIPIENT signature, date received, and time received in the appropriate blocks provided.		2. Retain RECIPIENT'S COPY.			
3. Retain "SENDER'S SUSPENSE COPY."				3. Return original to messenger/courier immediately, who will return it to the sender.			

NRC FORM 253 (9-96)

SENDER'S SUSPENSE COPY