

## Rio Tinto

Kennecott Uranium Company  
PO Box 1500, 42 Miles NW of Rawlins  
Rawlins, Wyoming 82301-1500  
Tel: (307) 324-4924 Fax: (307) 324-4925

27 January 2016

Mr. John Tappert, Deputy Director  
Division of Decommissioning, Uranium Recovery, & Waste Programs  
Office of Federal and State Materials and Environmental Management Programs  
U.S. Regulatory Commission  
11545 Rockville Pike, Mail Stop T7-E18  
Rockville, MD 20852-2738

Dear Mr. Tappert:

**Subject: Sweetwater Uranium Project - Docket Number 40-8584**  
**Source Materials License #SUA-1350 -- License Conditions 11.2 and 12.3**  
**Land Use Report**

In compliance with License Conditions 11.2 and 12.3 of SML SUA-1350, Kennecott Uranium Company has conducted visual surveys throughout the year (2015) of land use in, and within a five-mile radius of, the Sweetwater Uranium Project. The primary land uses in the area are mineral development (including uranium and oil and gas), grazing (including cattle and sheep), feral horse habitat, wildlife habitat and recreation (including hunting and camping). Other ancillary activities are electricity transmission gas transmission and livestock and wildlife watering wells,

Surveys were made on June 24<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup>, and 30<sup>th</sup>, July 1<sup>st</sup>, 6<sup>th</sup>, 8<sup>th</sup>, 13<sup>th</sup>, and 14<sup>th</sup>, August 31<sup>st</sup>, September 9<sup>th</sup>, 29<sup>th</sup>, and 30<sup>th</sup>, October 13<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, and 21<sup>st</sup>, and December 14, 2015. Some of these surveys were made while performing other activities in the area such as the collection of water levels.

The surveys conducted June 29<sup>th</sup>, September 30<sup>th</sup>, October 15<sup>th</sup>, and 20<sup>th</sup>, and December 14, 2015 included collection of photographs. The surveys conducted on June 24<sup>th</sup>, 28<sup>th</sup>, and 30<sup>th</sup>, July 1<sup>st</sup>, 6<sup>th</sup>, 8<sup>th</sup>, and 13<sup>th</sup>, August 31<sup>st</sup>, September 9<sup>th</sup> and 29<sup>th</sup>, and October 13<sup>th</sup>, 14<sup>th</sup>, 19<sup>th</sup>, and 21<sup>st</sup>, 2015 were conducted concurrently with other activities specifically regional water level data collection. The locations of watering wells (identified by type of pump), gas development, uranium exploration/development activity, and livestock activity are shown on the included map. In addition, observations were made throughout the entire year as site personnel traveled around the area.

Cattle and sheep grazing occur in the area. Cattle are almost always present East of the facility along the paved access road (Sweetwater County Road 63). At least two sheep camps were established in the area in December 2015. They are labeled Sheep Camp #1 and Sheep Camp #2 respectively and are shown on the map. Sheep were visible East of Sweetwater County Road 23 in December 2015.

Hunting of big game wildlife occurs during the fall throughout the area. The area is also used for recreational camping.

Oil and gas development and production continue as a principle land use in the area. A twenty-four (24) inch buried gas pipeline and other gas development activities are shown on the map. There has been noticeable oil and gas drilling activity to the west, north and south of the facility, creating additional traffic along Sweetwater County Road 4-23 south of the facility. Uranium exploration drilling and well completion work is being conducted approximately four miles due north of the facility by UR-Energy. Drilling operations continued in 2014. The facility known as their Lost Creek Project commenced operation in August 2013. Their areas of operation including three (3) areas

containing wells are shown on the attached map. Extensive uranium related claim staking has been done in the past within a five mile radius of the facility, primarily to the north and west.

A 230 Kv power line from the Jim Bridger Power Plant passes through the area. A 34.500 Kv power line feeds the Sweetwater facility from the North and is shown on the map.

As of December 2015, UR-Energy's Lost Creek Project continues to operate Northeast of the facility with most of the infrastructure lying more than five (5) miles Northeast of the Sweetwater Uranium Project as shown on the map. A deep disposal well for the Lost Creek Project lies within five (5) miles of the facility.

Latitude			Longitude					
Degrees	Minutes		Degrees	Minutes		Northing	Easting	Item
42	6.146	North	107	53.491	West	166533.218	325779.559	Water well/solar panel
42	6.382	North	107	53.252	West	167966.199	326848.764	Deep disposal well/Reclaimed drilling site

The following oil and gas activity has been observed:

Latitude			Longitude					
Degrees	Minutes		Degrees	Minutes		Northing	Easting	Item
42	3.078	North	108	0.636	West	147883.447	293438.368	Booster station
42	1.511	North	108	1.197	West	138171	291068	Well site
42	1.144	North	108	1.406	West	135998	290131	Well site
41	59.557	North	108	3.293	West	125704	287614	Well site
41	59.469	West	108	1.968	West	126212	281646	Well site

The following sheep ranching activity has been observed:

Latitude			Longitude					
Degrees	Minutes		Degrees	Minutes		Northing	Easting	Item
42	0.784	North	107	57.474	West			Sheep Camp #1
42	2.556	North	107	57.748	West			Sheep Camp #2

These items are shown on the attached map entitled "Sweetwater Uranium Project – Land Use Report Map", provided that they are within the map's borders. Photographs of some of these items and other items are provided, attached.

A gas booster station related to gas development in the area has been installed west of the facility and is shown on the map. It is however, more than five (5) miles west of the facility.

A Google Earth image of the area is included with this report.

Mill operations remain suspended. There are two mobile homes near the south edge of the site's chain link fence. The 1976 Windsor mobile home was replaced by a 2011 HI TECH mobile home in June 2015. The resident caretaker uses the HI TECH mobile home for approximately four (4) days out of each week and a security guard uses the other trailer (the mobile home closest to the chain link fence) approximately three days of each week. The small camper trailer near the facility was removed at the end of June 2015. The employee now stays in the HI TECH mobile home. The security guard is considered the nearest resident for purposes of dose calculation and estimation as per the e-mail from James Webb – Nuclear Regulatory Commission (NRC) Project Manager dated Monday, February 28, 2011.

The Sweetwater Uranium Project's potable water wells are the only drinking water sources in the area. The Bureau of Land Management (BLM) maintains three water wells with tanks for livestock and wildlife watering along Sweetwater County Road 63 (one mile southeast, four miles east and five miles northeast of the facility) as well as at least seven (7) wells equipped with solar powered submersible pumps for livestock and wildlife watering in the area.

Those wells within the map's borders are shown on the attached map. One (1) of the wells along Sweetwater County Road 63 (Road Well #4) lies within the bounds of the map and is shown. These Bureau of Land Management wells are either up gradient of the Sweetwater Uranium Project area in regard to the regional ground water gradient or so distant as not to be impacted by operations.

If there are any questions regarding this report please contact me at (307) 328-1476 or (307) 324-4924.

Sincerely yours,

A handwritten signature in black ink that reads "Oscar A. Paulson". The signature is written in a cursive style with a large, stylized 'O' and 'P'.

Oscar Paulson  
Facility Supervisor/RSO

cc: J. Webb, Project Manager (NRC)  
Director, DRSS (NRC) - Arlington, TX  
Rich Atkinson

## **DIESEL CONTAMINATED SOIL EXCAVATION**

The excavation was completed in March 2003. A sign-off letter and page changes to the report submitted in February 2003 to make it a final report were submitted on July 31, 2003. The excavation is still open pending remediation of the land-farmed soils to the 100-milligram per kilogram clean soil standard, at which point they can be used as backfill. The average concentration in the land-farmed soils was 23.5 milligrams per kilogram in September 2008; however, some samples are still above the 100-milligram per kilogram clean soil standard.

The State of Wyoming Department of Environmental Quality, Land Quality Division, reviewed the sample data submitted for the land farm in their 2006 Annual Inspection Report and Annual Report Review, stating:

*“Since Kennecott has followed the permit (i.e. pages I-55 through I-60 in the Mine Plan) in all its land farming procedures at Permit 481, the company is authorized to remove the materials from the portions of the land farm noted in Appendix 13 of the 2005/2006 Annual Report as having DRO concentrations of 100 ppm or less.”*

Thus, Kennecott Uranium Company can remove land farmed material from grids with a Diesel Range Organic concentration of 100 parts per million or less and backfill that material into the open excavation.

# Images



Image 1 – UR Energy Lost Creek Project – Deep disposal well building in Section 25, Township 25 North, Range 93 West – December 14, 2015



Image 2 – Warning sign associated with the Lost Creek Project



Image 3 – Panorama of Sheep Camp #1 taken on December 14, 2015



Image 4 – Sheep Camp #2 – Near Center of Section 19, Township 24 North, Range 93 West – December 14, 2015

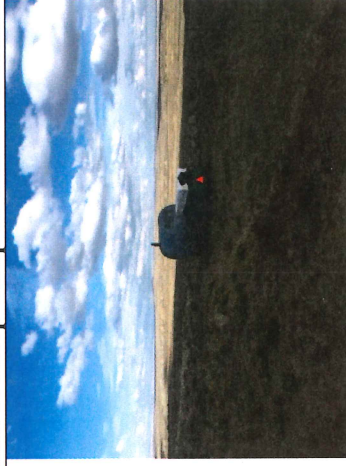


Image 5 – Sheep Wagon – Near Wamsutter to Jeffrey City Road – October 20, 2015

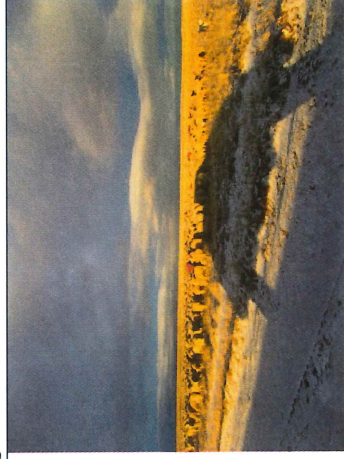


Image 6 – Sheep East of Wamsutter to Jeffrey City Road in Section 18 of Township 24 North, Range 93 West – December 14, 2015





**Image 7 – Feral Horses**



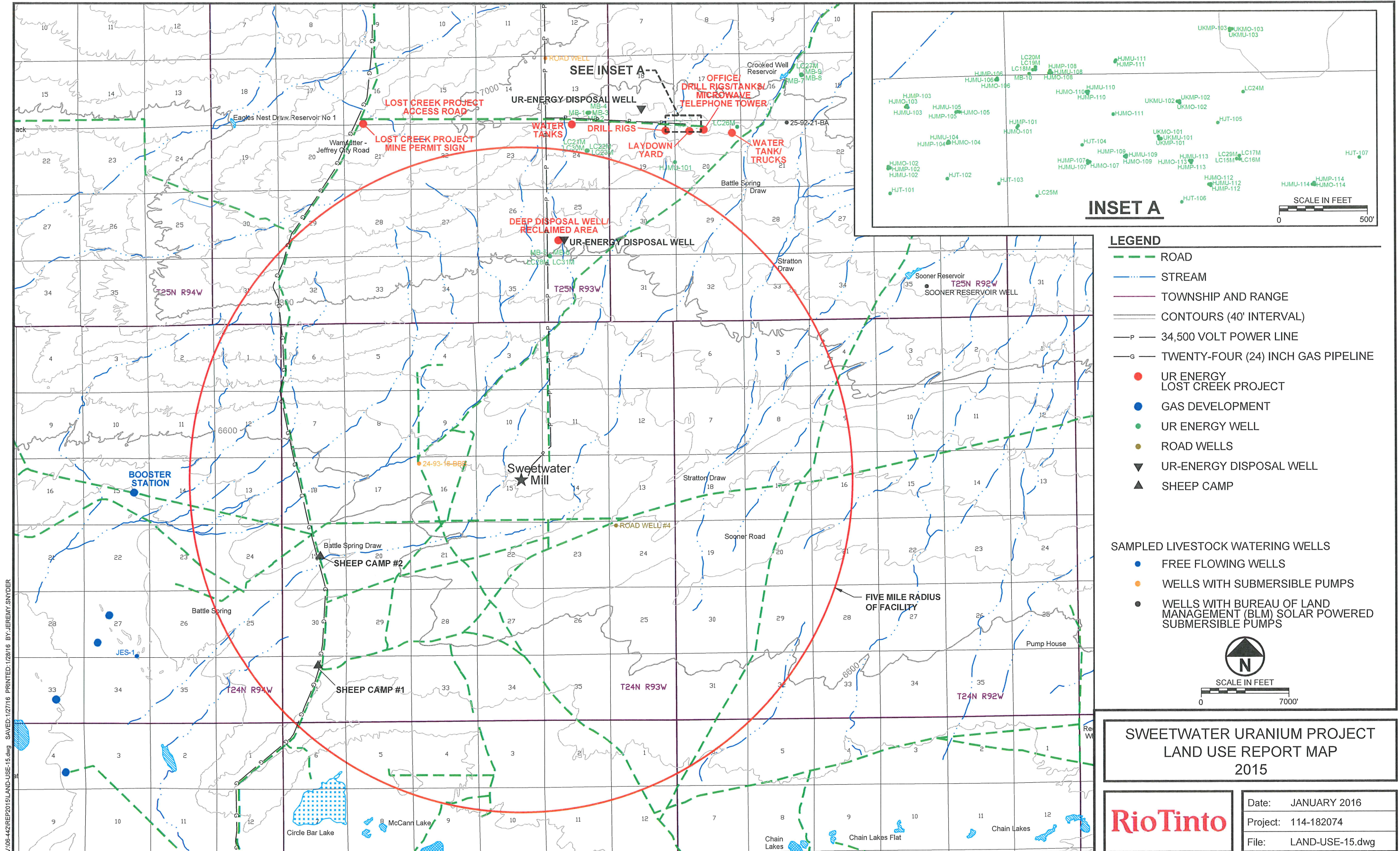
**Image 8 – HI TECH Trailer – Installed on site in June 2015**



Five (5) Mile Radius

Google Earth – June 8, 2014





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