

UNITED NUCLEAR CORPORATION



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March 26, 2012

Mr. Keith I. McConnell, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management
Programs
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
#2 White Flint, Mail Stop T7 E-18
Rockville, MD 20852-2738

Re: Annual Land Use Report for 2011

Dear Mr. McConnell:

The above report is submitted, pursuant to our NRC Source Materials License No. SUA-1475, Condition 31.

Sincerely,

A handwritten signature in black ink that reads "Max Chischilly, Jr." with a stylized flourish at the end.

Max Chischilly, Jr.
Radiation Safety Officer

DY:

Enclosure

Cc: Jack E. Whitten, NRC Region IV
Steve Hill, GE
Roy Blickwedel, GE
Yolande Norman, NRC

Docket 040-08907
License SUA-1475



ANNUAL LAND USE SURVEY REPORT FOR 2011

UNITED NUCLEAR CORPORATION

LICENSE NO. SUA – 1475

CONDITION NO. 31

MARCH 26, 2012



SURVEY OF LAND OWNERSHIP AND USE WITHIN TWO-MILE RADIUS OF MILL SITE

UNITED NUCLEAR CORPORATION
License No. SUA-1475
Condition No. 31

1.0 Introduction

This report has been prepared pursuant to License Condition 31 of United Nuclear Corporation's License No. SUA – 1475. The information submitted in this report was acquired from the master title plate published by the Bureau of Land Management. United Nuclear Corporation maintains the surface ownership records. The map is a copy of the USGS Quadrangle of Hardground Flats, Oak Springs, and Churchrock, the photo revised in 1979. United Nuclear Corporation's Radiation Safety Officer performed the land use survey.

2.0 Area Ownership and Use

Reference the attached map (figure 1) for location in regards to Mill Site.

Area:	Owner:	Usage:
Section 1	Navajo Tribe	Grazing and well monitoring
Section 2*	United Nuclear	Mill & Tailings site, one employee homesite and well monitoring.
Section 3	Navajo Tribe	Grazing and well monitoring
Section 4	Indian Allotted	Grazing
Section 6	Indian Allotted	Grazing
Section 9	Navajo Tribe	Grazing
Section 10	Indian Allotted	Grazing, eleven homesite, and well monitoring
Section 11	Navajo Tribe	Grazing
Section 12	BLM. A. Etah, Etal	Grazing
Section 13	Navajo Tribe	Grazing
Section 14	Indian Allotted	Grazing
Section 15	Navajo Tribe	Grazing



Area:	Owner:	Usage:
Section 33	Navajo Tribe	Grazing
Section 34	BLM (western portion)	Grazing
Section 35	United Nuclear (eastern portion) Indian Trust for Navajo Tribe	UNC'S Reclaimed Northeast Churchrock Mine Site is located in this section.
Section 36	United Nuclear	Well monitoring, extraction and injection testing.
Map Northern Portion of 2 mile radius	Navajo Reservation	Grazing, 22 home sites, and Kerr McGee's reclaimed Navajo Mine site is located in this area.
Section 31	Indian Allotted	Grazing

*Additional Note for Section 2:

The Mill has been decommissioned and has been cleaned to meet releasable standards for unrestricted use. Final reclamation activity on the tailings area was completed in 1996 with the exception of evaporation pond area, currently used for ground water remediation. Final cover radon flux test result was reported in the "Report On Radon Emanation Testing Of Final Radon Cover Over UNC'S Church Rock Tailings Site, Docket No. 40-80907" submitted on January 3, 1997.

3.0 Current ongoing groundwater tailings seepage remediation activity

- 1) Sample/monitor wells on Sec. 2 and 36 (UNC), Sec. 1 and 3 (Navajo Tribe) and Sec. 10 (Indian Allotted) on a quarterly basis.
- 2) Continual pumping/extraction of wells RW-11, RW-16, RW-17, RW-A, PB-2, NW-1, NW-4 and NW-2. These wells are on UNC's Sec. 36 to enhance the remedy for cut off and containment of the migrating Zone 3 seepage impacted water.
- 3) Monthly monitoring (i.e. measure field parameters, in-house bicarbonate and chloride titration test) of wells NBL-1, NBL-2, PB-2, PB-3, PB-4, RW-A and NW series 1 thru 5 to track the northern most migration of the seepage impacted water in Zone 3, Sec. 36. Also beginning July 9, 2011 well MW-6 and MW-7 (drilled/installed during May and June, 2010) are added to the monitoring program.



4.0 Well ID, Use, Location and Formation

Well ID: United Nuclear	Use: Domestic	Location: Sec. 2-Mill Site	Formation: Westwater
Circle Wash	Domestic/ Livestock	Section 14	Alluvium
Unknown ID Abandoned	No Known Use	Section 11	Alluvium
J.E. Soper#1 Abandoned	No Known Use	Section 1	Two Wells- Members Mancos
BLM – 2	Monitor	Section 12	Alluvium
14T – 586 (Friendship well # 1)	Livestock	N.I.R. N Part of map	Lower Gallup
NR – 1	Monitor/ Inactive	N.I.R. N Part of map	Alluvium
15K – 303	Livestock	N.I.R. NE Part of Map	Upper Gallup

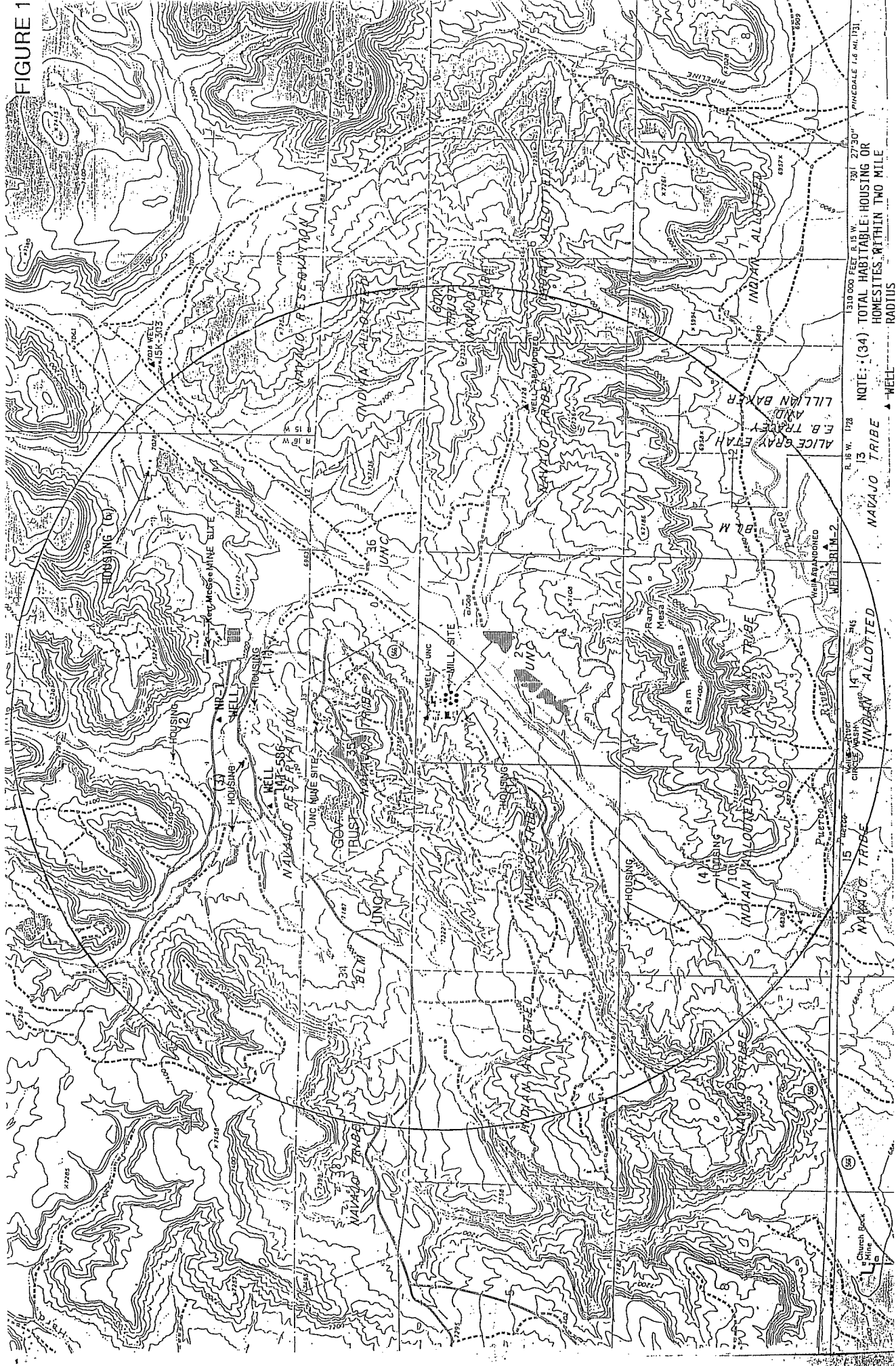
5.0 Significant changes or events which took place in 2011 are as follows:

- 1) No change under item 2.0 (Area ownership and Use) and item 4.0 (Well ID, Use, Location and Formation). Total current home site is thirty-four within the two mile radius of mill site.
- 2) Three new wells were installed in Sec. 36 (UNC) during May and June of 2010 (i.e. pilot injection well IW-A and nearby well MW-6 and MW-7 to monitor reaction to water injection in Zone 3) as part of the injection well feasibility testing program and potential remedial option in SWSFS. Based on the two injection test results analyzed by Chester Engineers during July 2010; well IW-A was brought online on August 19, 2011. Water is supplied to this well via domestic mill well (i.e. thru a driscoe pipeline connection to a close proximity recently installed collection tank where sodium bicarbonate is added/mixed and gravity feed to well). The objective of this pilot test to inject alkalinity-amended water is to increase ground water PH in Zone 3 and increase the saturated thickness in the pumping wells to extend their productivity and life span.



- 3) After the August 2009 remedial construction activity (i.e. Interim Removal Action) on UNC'S NECR Mine Site in Sec 35 (Indian Trust Land) and adjacent Navajo Reservation Land; the following pertinent events or changes have since taken place in 2011.
 - Additional seeding was redone over constructed berms, old haulage roads, retention pond, reclaimed hill and soil recovered areas in Step-out Areas Zone 1 and 2 and NECR-Pile during July 2012.
 - Approximately 6,000 feet total fencing construction (i.e. 760 ft. of repair, 2,550 ft. new installment and 2,690 ft. removal/replacement) was done, eastward and adjacent the Red Water Pond Road which also included one home site area during April 2012.

FIGURE 1



NOTE: (34) TOTAL HABITABLE HOUSING OR HOMESITES WITHIN TWO MILE RADIUS

NAVAJO TRIBE

INDIAN ALLOTTED

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