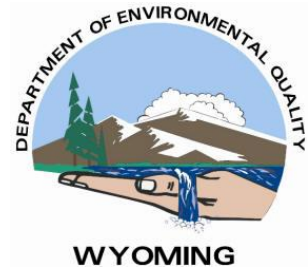




# Department of Environmental Quality Land Quality Division



## Status of the State of Wyoming's Uranium Recovery Program

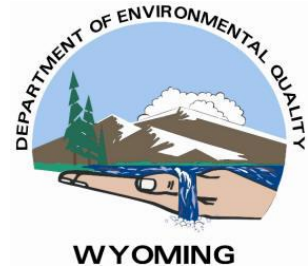
**National Mining Association**

**July 28, 2020**

Ryan Schierman, Program Manager WYDEQ/LQD



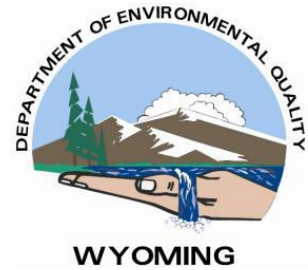
# LQD's Uranium Recovery Program



- 10 Full Time Employees (FTE)
  - Ryan Schierman Uranium Recovery Program Manager
  - Omar Nusair, Sr Health Physicist
  - Reid Brown, Hydrologist/Geochemist
  - Brandi O'Brien Health Physicist
  - Alan Thompson PG, Geologist
  - Emily Werner, Administrative Assistant moved to LQD Records
  - Kelly Shaw Assistant Attorney General for the Uranium Recovery Program
  - (3) FTE already in LQD



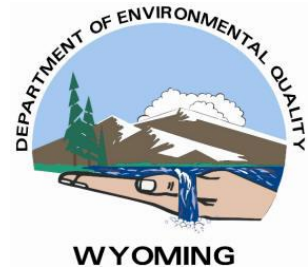
# BUDGET/FEES/INVOICES



- ▶ **FY 2019 (Oct 2018–June 2019)**
  - Collected \$1,178,872.91 ( ~1.6 million)
  - Expenditures \$774,405.68 (~1.3 million)
    - 52.4% Site Specific
    - 10.5% Indirect
    - 37 % Non Site Specific
- ▶ **FY 2020 (July 2019 – June 2020)**
  - Collected \$ 1,297,496.18
  - Expenditures \$1,142,859.07
    - 35.7% Site Specific
    - 13.5% Indirect (Indirect Rate increased)
    - 50.7% Non Site Specific (Alexco (Ensero) audit/ IMPEP audit and Training)
- ▶ **FY 2021 (July 2020 –June 2021)**
  - Collected \$ 1,047,754.08



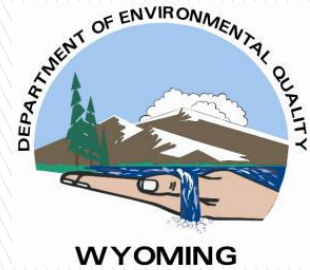

# Integrated Materials Performance Evaluation Program (IMPEP)



- Third party audit of program prior to IMPEP (Oct 2019)
  - Numerous recommendation, instrumental in preparing for the IMPEP
- IMPEP performed March 24-26 2020
  - Conducted remotely in response to travel restrictions imposed by Coronavirus-19.
  - 1<sup>st</sup> virtual IMPEP
  - Management Review Board Hearing 6-23-2020
    - The Program was found satisfactory for all six performance indicators and was found to be adequate to protect public health and safety and was compatible with the NRC's program.
    - The IMPEP team along with the Management Review Board recommended the next IMPEP review to be performed in approximately 4 years.



# Inspections since 06/2019

- LAND QUALITY
  - Bonding
  - Coal
  - MIDAS & e-Permitting
  - Limited Mining Operations
  - Non-Coal
  - Uranium
  - Exploration and Prospecting
  - Map Resources
- DIVISION RESOURCES
  - Administrator
  - Enforcement Actions

DEQ

## Land Quality

The Land Quality Division offices in Cheyenne have moved. The new address is

**Department of Environmental Quality - Land Quality Division**  
**200 West 17th Street, Suite 10**  
**Cheyenne, WY 82002**

Please note that any mail that was sent to the old address will be forwarded to (please use new address for mail in the future) and all phone numbers will remain. Hour parking is available on the surrounding surface streets and in the City Park to the west. Handicapped parking is available on the surface streets to the north of the building. Field office addresses in Lander and Sheridan remain the same.

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The Land Quality Division works to ensure that any land disturbances resulting from mining are minimal, and that affected areas are properly restored once mining is complete.

- MIDAS & e-Permitting
- Limited Mining Operations
- Non-Coal
- Uranium
- Exploration and Prospecting
- Map Resources

**PROGRAM RESOURCES**

- Forms
- Inspection Procedures
- Inspection Reports
- State Decision Documents
- URP Guidance
- URP Licenses

PROGRAM FAQ

CALENDAR

NEWS

VIDEOS

forms and information pertaining to uranium.

**Program Resources**

Show 10 entries Search:

FILE	DATE
Noncoal In Situ Mining Topsoil Policy (PDF)	2017-03-02
Wyoming Agreement State Informational Fact Sheet (PDF)	2017-02-27

Showing 1 to 2 of 2 entries

Previous Next

## Inspection Reports

### Resources

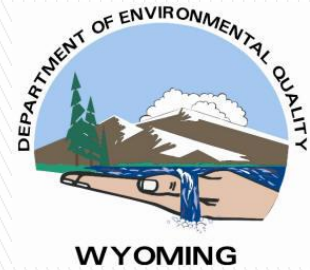
Show 10 entries Search:

FILE	DATE
Sua 1139 Exxon Mobil Highland Inspection Report 10-21-16 (PDF)	2018-10-09
Sua 1139 Exxon Mobile Highland Nrc Inspection Report 8-31-2018 (PDF)	2020-06-03
Sua 1310 Anadarko Bear Creek Nrc Inspection Report 8-31-2018 (PDF)	2020-06-03
Sua 1341 Uranium One Willow Creek Inspection Report 11-13-18 (PDF)	2019-03-06
Sua 1341 Uranium One Willow Creek Inspection Report 11-14-19 (PDF)	2019-12-16





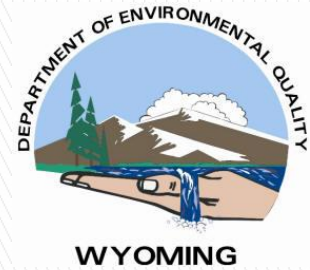
# Inspections since 06/2019



- 13 Inspections
  - Avg. time between inspection and report is 23 days
  - Semi-Annual Effluent reports have been reviewed and closed at each inspection
- 12 Findings 1 NOV
  - 2 Instances where exposure rates exceeded 5mR/hr at 30 cm with no radiation area signage.
  - Failure to comply with License Condition (permitting issue)
  - Errors in calculation of dose to the public outlined in the ALARA report
  - Failed MIT wells were not repaired or plugged and abandoned within 120 days
  - Failure to store byproduct material in a watertight package contrary to commitments in the license application
  - Failure to follow SOP for weekly inspection
  - Visual surface contamination on a yellowcake barrel stacked with other “Empty” barrels.
  - Not applying surface efficiencies in total calculation of total surface contamination as committed in the renewal application.
  - Not meeting a MDC of 0.03 WL for radon monitoring.
  - Failure to follow SOP for sampling of groundwater
  - Failure to label 11e.(2) container contrary to SOP



# Inspections since 06/2019

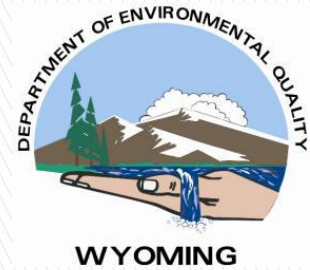


## ○ NOV

- Failure to fully characterize 11e.(2) waste prior to shipment resulted in the following:
  - Shipping waste as LSA-I when thorium content of waste required a LSA-II designation with UN3321
    - While the shipping container for the waste meet IB-2 requirements the hazardous material was not described as required per Subpart C of 49 C.F.R. Part 172 thus underrepresenting the hazards of the shipment.
  - Activity listed on the bill of lading was not indicative of the material being shipped contrary to 49 CFR 172.202(a)(5).
  - Licensee's bill of lading provided only a singular description of radionuclide activity for two packages contrary to 49 C.F.R 172.203(d)(3) which states that the maximum activity of the radioactive contents in each package during transport must be recorded in the description for Class 7 materials.
  - Shipment of waste prior to full characterization was contrary to commitments made in License Amendment request and LQD form 11 Major Revision.



# Licensing Actions

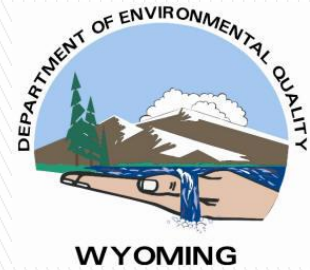


- Uranium One MU 2–6 Groundwater Restoration Rec. 9/11/15
  - WDEQ is working on State Decision Document. Approval anticipated 3Q/2020
- Pathfinder Shirley Basin ISR Application Rec. 10/1/18
  - WDEQ is working on the State Decision Document. Approval anticipated end of 3Q/4Q 2020
- Lost Creek KM Horizon and LC East Expansion Rec. 10/1/18
  - BLM Record of Decision 3/19/19
  - LQD Permit to Mine and State Decision Document possibly 3Q/4Q 2020
- Cameco Smith Ranch Mine Unit 1 ACL Rec. 12/5/18
  - WDEQ is working on State Decision Document. Approval anticipated 4Q2020
- Kennecott Uranium Groundwater Plume Characterization Report
  - Approved 5/11/2020
- Strata low pH amendment Rec. 10/1/18
  - Approval 8/1/19
- Western Nuclear Corporation License Termination
  - Pre-Draft Completion Review Report Sent to NRC on 2/4/2020,
  - Comments received from NRC 2/27/2020
  - Draft Completion Review Report Sent to NRC on 3-24-2020
  - Comments received from NRC 7-8-2020
- Strata Revision to Mine Unit 1 Wellfield Data Package rec. 2-18-2020
  - Approved 5-21-2020





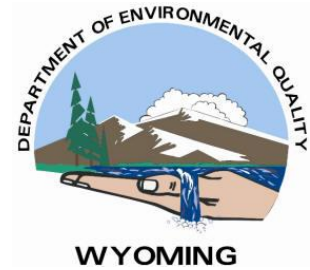
# Licensing Actions



- Energy Fuels Nichols Ranch TR and Permit to Mine Combination rec. 2-26-19
  - Approval 10-28-2020
- Anadarko Bear Creek Well Abandonment rec. 4-26-19
  - Approval 12-18-19
- Uranium One Soil Decommissioning Plan rec 8-12-19
  - Approval 12-20-19
- Kennecott Uranium changes to security measures rec. 12-20-19
  - Approval 3-19-2020
- Uranium One Irigaray Mine Unit 1-9 Final Status Survey
  - Further characterization needed.
- UEC Reno Creek Expansion rec 4-24-2020



# Other Items



- WDEQ/COVID-19 Response
  - Training
  - Budget
  - Inspection Schedule
- ACL Workshop June 2019
- WMA request on Public Notice
- Updates to Regulatory Guide 4.14



# Questions



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