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ENTERED



*Environmental Protection Division  
Water Quality & RCRA Group (ENV-RCRA)*  
P.O. Box 1663, Mail Stop M704  
Los Alamos, New Mexico 87545  
(505) 667-0666/FAX: (505) 667-5224

Date: December 1, 2011  
Refer To: ENV-RCRA-11-0267  
LAUR: 11-12124

Mr. John E. Kieling  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, NM 87505-6303

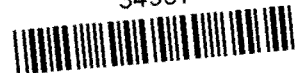


Dear Mr. Kieling:

**SUBJECT: LOS ALAMOS NATIONAL LABORATORY, RESPONSE TO REQUEST FOR INFORMATION REGARDING REGIONAL WELL R-61 STORMWATER POND**

Los Alamos National Laboratory's Water Quality & RCRA Group (ENV-RCRA) received notification from the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB) of a potential spill at the R-61 Well site on November 16, 2011. In the November 16<sup>th</sup> email, HWB staff mentioned the presence of "oil sludge" within the stormwater detention pond at the well site. ENV-RCRA staff responded on November 16<sup>th</sup> to investigate the potential release. Based on the site investigation, it appeared the material in the detention pond was residual drill cuttings associated with the construction of R-61. ENV-RCRA consulted with project staff and confirmed the material in the pond was associated with drill cuttings and was placed in the pond on October 14, 2011. The material had been approved for land application in accordance with the NMED approved *Notice of Intent Decision Tree for Land Application of IDW Solids from Construction of Wells and Boreholes* (November, 2007) and were residual following removal of the drill cuttings retention pond liner. There did not appear to be any evidence that the residual material discharged outside of the pond. The release did not leave Laboratory property or impact San Ildefonso Pueblo property. The residual material was removed from the pond on November 17, 2011 for disposal as industrial waste.

Enclosed is analytical data for the cuttings from the land application package. Based on the composition of the drill cuttings and the actions taken to remove the material from the pond, this release is not reportable as defined by 20.6.2.1203 NMAC. Additionally, this information has been documented in the National Pollution Discharge Elimination System (NPDES) Construction General Permit, Storm Water Pollution Prevention Plan for the R-61 well site.



Sampling event ID 3391

SWMU av 3391.3420

Stockpile Number av 3391.3420

### Detected Chemicals Form

page 3 of 6  
 associated Excel file:  
 ev3420.3391.avd.5.19.2011\_R-01 Drill  
 Cuttings.xls  
 evaluation date: 5/19/2011

| Analyte  | CAS/<br>Symbol | concentration | unit of<br>measure | Non-<br>wastewater<br>LDR | Hazardous<br>Soil LDR | Potential Haz F-codes | Potential Haz K-codes  | Potential Haz U-codes | Potential Haz<br>P-codes | comments                       |
|--|----------------|---------------|--------------------|---------------------------|-----------------------|-----------------------|--|-----------------------|--------------------------|--------------------------------|
| Acetone  | 67-64-1        | 0.032         | mg/kg              | pass                      | pass                  |                       |  |                       |                          | P003,U002 codes not applicable |
| Aluminum   | Al             | 2210          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Arsenic  | As             | 0.429         | mg/kg              | pass                      | pass                  |                       | K081,K080,K161,K171,K172,K176,K084,K101,K102                               |                       |                          |                                |
| Barium   | Ba             | 27.9          | mg/kg              | pass                      | pass                  |                       |  |                       |                          |                                |
| Beryllium  | Be             | 0.174         | mg/kg              | pass                      | pass                  |                       |  |                       |                          |                                |
| BHC(beta-)   | 319-85-7       | 0.00288       | mg/kg              | pass                      | pass                  |                       |  |                       |                          |                                |
| BHC(gamma-)  | 58-89-9        | 0.00076       | mg/kg              | pass                      | pass                  |                       |  | U129                  |                          |                                |
| Butanone(2-)                                       | 78-93-3        | 0.00491       | mg/kg              | pass                      | pass                  |                       |  | U156                  |                          |                                |
| Calcium  | Ca             | 2010          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Chlordane(gamma-)                                  | 5103-74-2      | 0.00283       | mg/kg              |                           |                       |                       | K097   |                       |                          |                                |
| Chloride   | Cl(-1)         | 3.32          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Chromium   | Cr             | 5.26          | mg/kg              | pass                      | pass                  |                       | K060   |                       |                          |                                |
| Cobalt   | Co             | 3.09          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Copper   | Cu             | 7.91          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Fluoride   | F(-1)          | 1.32          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Iron   | Fe             | 7650          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Lead   | Pb             | 2.35          | mg/kg              | pass                      | pass                  |                       | K002,K003,K005,K048,K049,K051,K062,K064,K066,K160,K176,K046,K052,K081,K086 |                       |                          |                                |
| Manganese  | Mn             | 128           | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Methyl-2-pentanone(4-)                             | 108-10-1       | 0.266         | mg/kg              | pass                      | pass                  |                       |  |                       |                          | P003,U001 codes not applicable |
| Nickel   | Ni             | 4.71          | mg/kg              | pass                      | pass                  |                       |  |                       |                          |                                |
| Potassium  | K              | 468           | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Sodium   | Na             | 257           | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Sulfate  | SO4(-2)        | 5.36          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Thallium   | Tl             | 0.114         | mg/kg              |                           |                       |                       | K178   |                       |                          |                                |
| Total Petroleum Hydrocarbons Diesel Range Organics | TPH-DRO        | 26.2          | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Total Petroleum Hydrocarbons Gasoline Range Org.   | TPH-GRO        | 0.0302        | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Uranium  | U              | 0.283         | mg/kg              |                           |                       |                       |  |                       |                          |                                |
| Vanadium   | V              | 16.6          | mg/kg              | pass                      | pass                  |                       |  |                       |                          |                                |
| Zinc   | Zn             | 19            | mg/kg              | pass                      | pass                  |                       |  |                       |                          |                                |

Please contact Jake Meadows at ENV-RCRA at (505) 606-0185 regarding future questions related to releases or if more information would be helpful.

Sincerely,

Handwritten signature of Anthony R. Grieggs in black ink, with the initials "DGL" written to the right of the signature.

for Anthony R. Grieggs  
Group Leader  
Water Quality & RCRA Group (ENV-RCRA)

ARG:JM/lm

Cy: Hannah Branning, USEPA/Region 6, Dallas, TX, w/enc.  
Jennifer Fullam, NMED/GWQB, Santa Fe, NM, w/enc.  
Richard Powell, NMED/SWQB, Santa Fe, NM, w/enc.  
Dave Cobrain, NMED/HWB, Santa Fe, NM, w/enc.  
Jerzy Kulis, NMED/HWB, Santa Fe, NM, w/enc.  
Michael Dale, NMED/HWB, Santa Fe, NM, w/enc.  
Erik Galloway, NMED/DOE/OB, Santa Fe, NM, w/enc.  
Steve Yanicak, LASO-GOV, M894, w/enc.  
Hai Shen, LASO-EO, w/enc., A316  
Gene Turner, LASO-EO, w/o enc., A316  
Jeffrey M. Casalina, LASO-EO, w/o enc., A316  
Carl A. Beard, PADOPS, w/o enc., A102  
Michael T. Brandt, ADESH, w/o enc., K491  
Victoria A. George, REG-DO, w/o enc., M991  
Kate Lynnes, REG-DO, w/o enc., M991  
Mike Saladen, ENV-RCRA, w/enc., K490, (E-File)  
Jacob Meadows, ENV-RCRA, w/enc., K490, (E-File)  
ENV-RCRA File, w/enc., K490  
IRM-RMMSO, w/enc., A150