

# Technical Data Information Report

RID Number	Transmitter	Transmitter Organization	Receiver	Receiver Organization	Keyword 1
7741.01	McRae	Nye County NWRPO	QARC	Nye County NWRPO	Groundwater

Document Date	1/20/2012	General Document Type	QA Program Doc	Keyword 2	Chemistry
Entry Date	2/3/2012	Detail Document Type	Data	Keyword 3	Results
Document Title/Subject	Groundwater Chemistry Results including Major Ions and Metals from ACZ Labs, Gross Alpha, Gross Beta and Tritium from RSE, Stable Isotopes from CSL and Isotech, Radiocarbon Dating from Beta Analytic, Arsenic from Applied Speciation, Desert Research Institute.				
Data Originator/Preparer	Roger McRae				
Data Description	This RID supersedes RID 7741 and adds the DRI data to the package. Major ions, metals, gross alpha and beta, tritium, stable isotope ratio analysis (SIRA) of oxygen and hydrogen in water, SIRA of nitrogen in nitrate, radiocarbon dating, and arsenic speciation for groundwater samples collected at Last Chance Well and EWDP wells NC-EWDP-2DB, 7S, 15P and 4PD Zones 1, 2, 3, 4, 5, and 6, from 5/11/2009 through 6/30/2009. Data package includes lab reports, QC reports, calculations, processed data, and final lab chemistry data are posted to the nyecounty.com website as file name: rid7741_01.zip. Package includes chain of custody forms and backup material.				
Data Collection Method	Groundwater grab sampling from well 4PD while performing zonal pump test. Other wells were pumped to the ground surface with a submersible Bennett pump (piston pump operated with compressed air). The wells were purged and samples collected, processed, bottled, and shipped to the testing laboratory following standard methods documented in Nye County QA technical procedure TP-8.1 revision 3. Ground water samples were also collected and transported by Desert Research Institute.				
Data Collection Location	Last Chance Well, NC-EWDP- 2DB, 7S, 15P, and 4PD Zones 1, 2, 3, 4, 5, & 6.				
Data Collection Period	5/11/2009-6/30/2009				
Data Sources	Lab analyses from ACZ Laboratories, Inc., Steamboat Springs, CO; Radiation Safety Engineering, Inc., Chandler, AZ; Beta Analytic, Inc., Miami, FL; Coastal Science Laboratories, Inc., Austin, TX; and Isotech Laboratory, Champagne, IL. , and Applied Speciation and Consulting, LLC, Tukwila, WA; Desert Research Institute, Reno, NV. Supporting Data: Refer to Scientific Notebook # 145 for field notes and field chemistry parameters pgs 138-174, Scientific Notebook # 186 (RID 7630.01) for pumping notes on well 4PD pgs 52-139;Scientific Notebook # 165 (RID 7659) pg 141-156, and Scientific Notebook # 188 pg 2-9 for additional pumping notes.				
Data Censoring	None				
Data Processing	Original data are processed into Excel spreadsheets				
Data Limitations	Field blanks were collected to assess any error due to cross-contamination and should generally produce results less than the laboratory Reporting Limit (RL), as reported as the Method Detection Limit (MDL). 2DB: Open hole well completion below casing from 2,962.6 ft. to 3175 ft. No screened or perforated intervals. Well not purged prior to sampling but previously developed. 15P: Samples were taken with powdered gloves. Last Chance: Filtered samples were taken with powdered gloves. Field Analytes that were not less than the laboratory RL: Aluminum, Bicarbonate as CaCO3, Boron, Conductivity @25C, Silica dissolved, Sodium dissolved, Total Alkalinity. 4PD: Composite- Discharge amounts prior to sampling are unknown. Composite proportion from each zone is unknown. 4PD Zone 1: Slight smell of H2S present prior to sampling. Water is turbid for both unfiltered and, to a lesser extent, filtered samples. 4PD Zone 2: Analytes that were not less than the laboratory RL: Aluminum, Bicarbonate as CaCO3, Conductivity @25C, Silica dissolved, Sodium dissolved,				

Total Alkalinity. The lower isolation packer set for Zone 2 was set at 748.4 ft, 8 ft below the top of the Zone 3 screen allowing an unknown contribution of Zone 3 water to be included in the Zone 2 ground water sample.

4PD Zone 3: Analytes that were not less than the laboratory RL: Conductivity @25C, Silica, dissolved, Sodium dissolved.

4PD Zone 4: Analytes that were not less than the laboratory RL: Bicarbonate as CaCO<sub>3</sub>, Conductivity @25C, Silica dissolved, Sodium dissolved, Total Alkalinity.

4PD Zone 5: Samples were taken with powdered gloves. Conductivity @25C. Analytes that were not less than the laboratory RL: Phosphorus total; Silica dissolved; Sodium dissolved.

4PD Zone 6: Samples were taken with powdered gloves. YSI water parameter meter was malfunctioning. Water parameters were taken by both DRI and USGS as stable but values were not documented.

Field duplicates were collected to assess any error that exceeded the Quality Assurance Objective (QAO):

D1 and D2 > 5RL, RPD < 30% or D1 or D2 ≤ 5RL, |D1-D2| ≤ 3RL

Where:  $RPD = \frac{ABS((D1-D2)/((D1+D2)/2))}{RL} * 100$ ; D1, D2 = Duplicate samples; RL = Laboratory reporting limit (MDL);

RPD = Relative percent difference. The following analytes from each well exceeded the QAO:

4PD Zone 2: Phosphorus, total.

4PD Zone 4: Nitrate/Nitrite as N

4PD Zone 5: Nitrate/Nitrite as N

Governing QA Docs:

TP-8.1, Rev. 3

Frequency of Transmittal

As required by PI

Direct Questions  
About Data To:

NWRPO QA Records Center