

# NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
6866	Walker	Contractor, Nye County	QARC	Nye	24PB	NC-EWDP-24PB Open Hole Fluid Resistivity logs conducted during Fluid Electrical Conductivity (FEC) logging
<b>Doc. Date</b>	2/28/2006	<b>General Doc. Type</b>	QA Program Doc	<b>Keyword2</b>	EWDP V	
<b>Entry Date</b>	3/13/2006	<b>Detailed Doc. Type</b>	Geophysical Log	<b>Keyword3</b>	log	

**Data Originator Preparer** Raymond Federwisch

**Title of Data** NC-EWDP-24PB Open Hole Fluid Resistivity logs conducted during Fluid Electrical Conductivity (FEC) logging

**Description of Data** This transmittal consists of all of the fluid electrical conductivity (FEC) logging data collected during open hole FEC logging of borehole NC-EWDP-24PB, following drilling and prior to well completion over the period 2/24/2006 to 2/28/2006. This logging/testing was conducted to determine flowing intervals in the borehole that could be used for natural gradient tracer testing. Conventional logs (electric logs, fluid logs, nuclear logs and deviation) were also conducted and are transmitted separately.

A total of six tests were conducted during the testing of the borehole. Two pumps of differing capacities were used to pump, circulate and reinject deionized water. The depth of reinjection lines were also varied to accommodate the conditions observed. Fluid resistivity open hole logs were conducted after pumping, deionizing and recirculating water to the bottom of the borehole in order to displace the borehole fluid with less conductive fluid. Logging was conducted under ambient conditions and under pumping conditions. The geophysical data files were transmitted to the Nye County Quality Assurance Records Center (QARC) shortly after logging. This data will be described based on the six tests. Geophysical logging data files are provided to Nye County NWRPO in ".las" - log ascii standard format - for distribution. For internal use, logs are also provided in paper copies and in ".WCL" WellCAD proprietary format. During logging, several peripheral data sets were collected primarily for field quality checks and for scoping borehole conditions. These data are not included in this transmittal, except for three logging runs conducted during test #4. All depths described below are referenced to a ground level datum established prior to drilling. Logging tool runs are identified by date and time the run was begun expressed in 24 hour clock.

Additional description of the six individual tests is attached as an appendix.

**Data Collection Method** Data collected during geophysical logging and testing of well borehole at site NC-EWDP-24PB on February 24-28, 2006.

**Data Location(s)** NC-EWDP-24 well site

**Data Collection Period(s)** 2/24/06 to 2/28/06

**Data Source(s)** Geophysical Logging Services (GLS) Logging System S/N 1010 tools: Polyprobe S/N 2189 (fluid logs).

Supporting Data: Scientific Notebook #172 pages 51-64 (RID 7005) and Geophysical Log Header Check Sheet dated 2/28/06 included in this data package. Secondary FEC logging data are located in RID 6867.

**Data Censoring** None

**Data Processing** None

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**Data Limitations** Logging data is provided in .las format. WellCad is required to read .WCL files. Logging data was collected at higher than normal rates (100 fpm vs. 45 fpm). Logs were plotted with multiple fluid resistivity runs overlaid. This method is used for FEC analysis. Logging data was collected at a depth step of 1.0 ft except for Test #6 (Filename: 24PB 2-28-06.las), where the depth step is 0.25 ft. Logs are plotted at 1:200 to show detail. Limitations for individual .las files are summarized below.

Limitations for file 24PB Fluid Res 2 24&25.las.

Several header titles (track description) require changes. The corrected values/text are tabulated below. Test number and run number are added to clarify track descriptions. For Test 1 and 2 there are both "down" and "up" tracks for each run number. Tests #3, #4, #5 and #6 have only "down" runs. Test #6 also has a short interval (480 to 465 ft) of several "up" runs only. Also note that Test #1, run 5, has only a "down" track.

Track description in .las file	Corrected Date & Time	Test Number	Run Number
FLUI.OHM-M :Fluid Res Down 2-24-06 1305	2-25-06 1306	2	1
FLUI.OHM-M :Fluid Res Down 2-24-06 1336	2-25-06	2	2
FLUI.OHM-M :Fluid Res Down 2-24-06 1405	2-25-06	2	3
FLUI.OHM-M :Fluid Res Down 2-24-06 1535	2-25-06	2	4
FLUI.OHM-M :Fluid Res Down 2-24-06 1808	2-25-06	2	5
FLUI.OHM-M :Fluid Res Up 2-25-06 1537	2-24-06	1	3
FLUI.OHM-M :Fluid Res Up 2-25-06 1505	2-24-06	1	2
FLUI.OHM-M :Fluid Res Up 2-25-06 1436	2-24-06	1	1
FLUI.OHM-M :Fluid Res Up 2-25-06 1645	2-24-06	1	4
FLUI.OHM-M :Fluid Res Up 2-25-06 1840	2-24-06	1	5
FLUI.OHM-M :Fluid Res Up 2-25-06 2300	2-24-06	1	6
FLUI.OHM-M :Fluid Res Up 2-26-06 0830	2-25-06	1	7
FLUI.OHM-M :Fluid Res Down 2/24/06 1412		1	1
FLUI.OHM-M :Fluid Res Down 2/24/06 1516		1	3
FLUI.OHM-M :Fluid Res Down 2/24/06 1455		1	2
FLUI.OHM-M :Fluid Res Down 2/24/06 1642	1602	1	4
FLUI.OHM-M :Fluid Res Down 2/24/06 2100		1	6
FLUI.OHM-M :Fluid Res Down 2/24/06 1729		1	5
FLUI.OHM-M :Fluid Res Down 2/25/06 0630		1	7
FLUI.OHM-M :Fluid Res Up 2/24/06 1321	2-25-06	2	1
FLUI.OHM-M :Fluid Res Up 2/24/06 1348	2-25-06	2	2
FLUI.OHM-M :Fluid Res Up 2/24/06 1435	2-25-06	2	3
FLUI.OHM-M :Fluid Res Up 2/24/06 1735	2-25-06	2	4

The "Loc." header identifies the test as "DOWN RUNNING FLUID RESISTIVITY LOGS RECORDED WHILE PUMPING AT 3 G.P.M. +- ". This statement is true only for Test #2. Test #1 was run under ambient conditions. The date identified should be 2-24-2006 and 02-25-2006.

Limitations for file 24PB Fluid Resistivity 2-26-06.las:

The "Loc." header identifies the test as "UP RUNNING FLUID RESISTIVITY LOGS" These logs are all "down" running.

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Limitations for file 24PB Fluid Resistivity Logs 2-27-06.las:

The "Loc." header identifies the test as "Fluid Resistivity Logs, Down run while pumping @ +- 10 GPM". This statement is true for Test #4. For Test #5, the borehole was pumped at 38 GPM. File also contains additional data (beyond fluid resistivity) for three data runs containing natural gamma, single point resistivity and fluid resistivity for Test #4 runs 1, 2 and 3. This data was collected to check that depths for logging runs corresponded by comparing that other geophysical features (not related to fluid resistivity) were aligned on multiple runs.

Limitations for file 24PB 2-28-06.las:

Depth step for this data is 0.25 ft. All of the "down" tracks are part of the Test #6 from 480 to 740 ft. The "up" tracks are the data collected after the borehole became bridged at 480.5 ft. These tracks comprise data collected between 480 and approximately 465 ft.

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**Governing  
QA Docs.**

WP 6 Rev. 1, TP-11.0 Rev. 0

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**Frequency  
of  
Transmittal**

As required by PI

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**Direct Questions  
About Data  
To-**

NWRPO QA Records Center