NYE County NWRPO -Technical Data Report

RID No.	Transmitter	Org.	Receiver	Org.	Key word1	Title/Description
7163	Sampson	Nye County NWRPO	QARC	Nye	1DX	Thermal logging data and original Westbay MOSDAX pressure and temperature data collected at NC-EWDP-1DX Deep from 7/27/06 to 7/31/06 using Sensornet Sentinel Distributed Temperature Sensor (DTS) equipment.

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Data Originator Preparer
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Title of Data
Thermal logging data and original Westbay MOSDAX pressure and temperature data collected at NC-EWDP-1DX Deep from 7/27/06 to 7/31/06 using Sensornet Sentinel Distributed Temperature Sensor (DTS) equipment.

Description of Data
One cd containing temperature data (raw and processed) collected in NC-EWDP-1DX Deep from 7/27/06 to 7/31/06 using Sensornet DTS equipment, including a reference temperature probe (RTP). Raw Sensornet data are in document description format (*.ddf) as well as *.tdf, *.txt, and *.tcd files, and processed data are in Excel spreadsheets (*.xls). Also included on the cd are the raw Westbay data files (*.WD2 format) and the corresponding files converted with WinGT software to comma separated value format (*.CSV). Sensornet DTS configuration files are stored in *.cfg files.

Data Collection Method
The fiber optic temperature sensing cable and heater wire were installed below the water table in well NC-EWDP-1DX Deep. A RTP was installed about 20 feet (ft) below the top of the water table, and Westbay MOSDAX probe EM2619 was hung at approximately 1300 ft below top of well casing. Westbay data were collected on data logger MDL2565. The fiber optic cable is connected to the Sentinel DTS unit, which continuously records temperature data along the length of the cable (every 1.16 ft). The heater wire connected to a generator via a power meter, which supplied power at 240 volts.

After data collection started, data were "stacked" every 900 seconds, and each "stack" recorded as a temperature profile along the length of the cable (and the well) every 900 seconds. After in situ conditions were recorded by the Sentinel DTS, the heater wire was turned on and allowed to heat the well for approximately 39.25 hours. At that time, the heater wire was turned off, and the well allowed to cool while data logging continued.

Gross deflections from baseline temperature profile at specific depths may indicate a change in geology, well completion materials, or local flow

Data Location(s)
NC-EWDP-1DX Deep

Data Collection Period(s)
7/27/06 to 7/31/06

Data Source(s)
Sensornet Sentinel DTS; 1309 ft fiber optic cable; Sensornet RTP; Westbay MOSDAX probe EM2619 (0-1000 psi); and Westbay MOSDAX Data Logger MDL2565.

Supporting Data: Field Scientific Notebook #165, pages 76 to 78.

Data Censoring
Negative length data associated with the Sentinel DTS raw data were removed upon import to the Excel spreadsheet.

Data Processing
Data were imported into an Excel spreadsheet for ease of manipulation and graphing. Westbay data were converted from *.WD2 format to *.CSV format for ease of manipulation and graphing.

Data Limitations
Data were collected to evaluate the utility of the DTS method in existing wells.

Governing QA Docs.
TPN-6.1 Rev. 0

Frequency of Transmittal
As required by PI

Direct Questions About Data To-
NWRPO QA Records Center