EBA Engineering Consultants Ltd.

ASSESSMENT OF WELLHEAD PROTECTION AREA LOST SHOE CREEK AQUIFER DISTRICT OF UCLUELET, BC

Prepared by:
EBA ENGINEERING CONSULTANTS LTD.
Nanaimo, BC

Submitted to:
KOERS & ASSOCIATES ENGINEERING LTD.
AND DISTRICT OF UCLUELET

Project No. 0805-01-86153

March, 2002

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TABLE OF CONTENTS

LIST OF FIGURES

TABLES

LIST OF APPENDICES

EXECUTIVE SUMMARY

EBA Engineering Consultants Ltd. (EBA) was retained by Koers & Associates Engineering Ltd. (KAEL) on behalf of the District of Ucluelet (DOU) to reassess the wellhead protection area (WHPA) for their well field located within the Lost Shoe Creek Aquifer (LSCA) in the Alberni-Clayoquot Regional District (ACRD) of British Columbia. Previous wellhead protection work completed for the LSCA used either arbitrary fixed radius or simplified analytical methods to define the wellhead protection area. The purpose of this study was to reassess the existing WHPA using more refined methods to allow for the better management and protection of the DOU water supply.

EBA has used a combination of analytical methods and hydrogeological mapping to reassess the WHPA for the DOU well field. Based on the findings of this study, EBA would like to emphasise the following conclusions:

- The LSCA is very transmissive and has moderate hydraulic gradients in the vicinity of the DOU well field. This results in high groundwater flow velocity, which can transport contaminants to the water supply source in very short periods of time (e.g. weeks or months).

- Due to the high groundwater flow velocities, the area defined for wellhead protection extends to the edge of the LSCA and the entire area is considered to be a Zone 1 or high-risk zone. The DOU well field is considered at risk from bacteriological and direct chemical contamination.

- In the event of a spill within the WHPA, there will be very little time to react before the contaminant enters the groundwater flow system and is able to travel to the well field. Accordingly, aggressive management and monitoring within the WHPA are required.

- EBA has updated the inventory of potential areas of concern within the WHPA and has identified the areas that have potentially hazardous materials and site activities. They are located within a 3-month travel time distance to the primary source of water supply for the District of Ucluelet. The identified areas of concern are: Mainroad Contracting Yard (septic field, fuel and chemical storage, salt storage), the gravel pit operations (potential spills of fuel from heavy equipment), sanitary waste disposal fields from the house adjacent to Mainroad Contracting and the tourist pullout and the highway corridor with its risk of accidents or other activities that could result in spills or discharges to the environment.

EBA recommends that the DOU review the list of recommended management options that EBA has provided and work to implementing an action plan with the objective to protect the well field and the DOU drinking water supply.

1.0 INTRODUCTION

EBA Engineering Consultants Ltd. (EBA) was retained by Koers & Associates Engineering Ltd. (KAEL) on behalf of the District of Ucluelet (DOU) to characterise the wellhead protection area (WHPA) for their well field located within the Lost Shoe Creek Aquifer (LSCA) in the Alberni-Clayoquot Regional District (ACRD) of British Columbia. Previous wellhead protection work completed for the LSCA used either arbitrary fixed radius or simplified analytical methods to define the wellhead protection area. The purpose of this study was to reassess the existing WHPA using more refined methods to allow for the better management and protection of the DOU water supply.

2.0 BACKGROUND

2.1 Physical Setting

The LSCA is located between Kennedy Lake and Florencia Bay just north of the District of Ucluelet in British Columbia. The estimated area of the aquifer is approximately 11.5 km^2 (Wei, 1994). The DOU well field is located in the southern portion of the LSCA near the intersection of the Alberni and Ucluelet-Tofino Highways. In the vicinity of the well field, the LSCA is composed of glacial outwash deposits of sand and gravel up to 20 m thick. These materials typically have high permeability and represent good potential sources for water supply.

As the LSCA is unconfined, however, there is no "protective" layer of lower permeability material above the aquifer that would inhibit contaminants discharged at surface (spills of petroleum hydrocarbon products and chemicals or leaks from poorly designed or failing septic systems) from entering into the aquifer system. The BC Ministry of Water, Land and Air Protection (MWLAP) has classified the aquifer as IIA, which indicates that the LSCA aquifer is highly vulnerable to contamination from surface sources and currently is moderately used as public water supply resource.

The well field comprises three wells installed in 1995 (1-95, 2-95, 3-95) and one well installed in 1994 (1-94, now called 4-95) by Pacific Hydrology Consultants Ltd. (PHCL). These wells became operational in August 1998. EBA (1998) reported that the average daily consumption rate from the well field was 42 L/s. EBA understands that the projected DOU demand on the well field will be 145.6 L/s (KAEL, 2002). Table 1 presents the breakdown of the well field capacity and water demands projected to 2016 by KAEL.

The location and estimated aerial extent of the LSCA and DOU well field are shown on Figures 1 and 2, respectively.

2.2 Well Head Protection Methods

Washington State Department of Health (DOH) produced a *Wellhead Protection Program Guidance Document* in April of 1995. This document was based on the US Environmental Protection Agency's 1993 report titled "*Wellhead Protection – A Guide for Small Communities*". Both of these documents use the same approach to the development of a WHPA whereby the degree of available information defines the complexity of the WHPA that is to be developed. The four methods typically applied include:

1) The ***Calculated Fixed Radius*** method is used when there is limited information about the subsurface flow conditions within the aquifer.
2) ***Analytical*** methods use simplified uniform flow equations to estimate a capture zone for a well field.
3) ***Hydrogeologic Mapping*** methods are applied when additional information pertaining to the geological and hydrogeological conditions in the area is available.
4) ***Computer Modelling*** methods are recognised as the most technical approach to defining a WHPA, but these methods can only be applied when there is significant information available about the aquifer (e.g. boundary conditions, geological variations, and water level changes over the entire aquifer, etc.).

According to the DOH Wellhead Protection Program Guidance document, a normal WHPA consists of five zones: a sanitary protection zone, 1-year (Zone-1), 5-year (Zone-2) and 10-year (Zone-3) travel zones and then a buffer zone. These zones define the levels of control that should exist in order to safeguard a water supply. The sanitary protection zone would exist directly around the well field and has the highest level of control. The DOH document also indicates that the area covered by the 1-year travel zone is considered to be at risk for microbial pathogens as well as chemical contaminants. The 5-year and 10-year travel zones are primarily set up to delineate zones at risk from varying degrees of chemical contamination. The buffer zone defines the remainder of the area contributing to the well field recharge.

The following section details the various stages of WHPA development for the DOU well field.

2.3 Previous WHPA Work

In 1994, PHCL completed an *Evaluation of Groundwater Potential of Lost Shoe Creek and Albion Aquifers to Supply the Village of Ucluelet.* The PHCL report indicated that the LSCA held the best potential for water supply development for Ucluelet. Following this report, EBA was retained by KAEL to complete a *Preliminary Environmental Assessment* in February, 1995. This assessment documented potential areas of environmental concern in the vicinity of the proposed well field.

Following the installation and development of three new pumping wells in 1995, PHCL defined a WHPA for the LSCA using a uniform-flow analytical model (PHCL, 1995). This model defined a parabolic area that delineated the "capture zone". By definition, the capture zone of a well is the boundary of the area where groundwater will converge to the well to be extracted from the subsurface. The model calculations use a method applicable to a confined aquifer, but this calculation did provide a preliminary conservative WHPA estimate.

In December, 1995, EBA was retained to prepare a *Spill Response Plan* for the Lost Shoe Creek Aquifer Wellhead Protection Area as defined by PHCL (1995). This document was designed to protect the LSCA in the event of the release of a contaminant within the wellhead protection area. EBA identified the primary sources of concern to the WHPA as deriving from the following:

1) Spills at the intersection of the Tofino/Ucluelet Highway which is located directly north of the well field;
2) Logging activities, road construction and such activities that could potentially result in spills in recharge areas to the north/northwest of the well field;
3) Open ponds within the WHPA which would be hydraulically connected to the aquifer. Many of the gravel pits where these ponds are located are currently active; and,
4) Drainage ditches along the Tofino, Ucluelet and Port Alberni Highways within the well field area appear to drain towards the Tofino/Ucluelet intersection and could represent direct migration pathways for any spills towards the well field.

EBA (1998) developed the *Sewage System Guidelines for the Wellhead Protection Area, Municipality of Ucluelet* to review the delineation of the WHPA with regard to the location of septic systems in the area. As part of the 1998 report, EBA reassessed the PHCL (1995) WHPA and selected to apply the EPA (1993) arbitrary fixed radius

approach to the DOU well field due to uncertainty in the aquifer parameters developed by PHCL. In the development of the newer WHPA, EBA defined two concentrically arranged zones of influence. The first zone was defined at a radius of 230 m which corresponds to the PHCL (1995) calculated zone of influence during pumping. EBA recommended that conventional septic systems not be permitted within this zone. The second zone was based on a 90 day travel time radius. This zone was defined as a pathogen sensitive zone such that at present time the zone was deemed safe for the installation of conventional septic systems. In the event that the rate of withdrawal from the aquifer increased, however, (i.e. travel time to the well field decreased), EBA recommended that the placement of the septic systems be re-evaluated.

2.4 Scope of Work

The work plan completed for this project is consistent with the tasks outlined in EBA's proposal dated January 31, 2001 which was approved by KAEL in September 2001. The scope of work included the following:

- Collection of previous reports, additional information pertaining to the geology, recharge and private water supply use of the LSCA, water elevation monitoring data across the LSCA and new pumping test data for the DOU well field;

- Analysis of collected data and the reassessment of the hydrogeological flow regime and potential sources of contamination in the LSCA; and,

- Development of a more refined WHPA using combined approaches of travel time estimates, capture zones and hydrogeological mapping.

3.0 LSCA CHARACTERIZATION

Information EBA has reviewed for this project has included previous reports for the LSCA by EBA and other consultants, water well information from the DOU records and the MWLAP water well database, meteorological data from Environment Canada, data from TRIM sheets, geological and hydrological information and aerial photographs. The information gathered has been applied to developing a better understanding of the hydrogeological conditions in the LSCA in particular in the vicinity of the well field.

3.1 Aquifer Boundaries

The extent of the LSCA was defined by PHCL in their 1995 report titled "*Construction and Testing of Lost Shoe Creek Production Wells 1-95, 2-95, 3-95 and Evaluation of the Lost Shoe Creek Aquifer for the Village of Ucluelet*". The boundaries of the LSCA are described as the Lost Shoe Creek to the north and east of the aquifer, the Pacific coastline in the west and approximately 500 m south of the DOU well field where the subsurface geology grade from the sands and gravels typical of the aquifer to tills and bedrock. The area of the LSCA was reportedly defined by air photo analysis, bedrock outcrop locations and lithological information from test wells where available. EBA reviewed the drill log from a water well located at the Pacific Rim National Park office which is just north of the LSCA. The stratigraphy of the drill hole and the reported well yield are very similar to that of the DOU well field which suggests the permeable gravel deposits extend beyond Lost Shoe Creek.

The Northwest Ecosystem Institute (NWEI, 2000) has completed extensive work on the Kennedy Lake watershed. According to the NWEI *Watershed Information System* document, the drainage basin of the Kennedy Lake extends northeast of the LSCA, which would infer a groundwater divide between flow entering the LSCA or discharging towards Kennedy Lake. EBA understands that NWEI is currently completing additional stream characterisation work within the LSCA basin that involves delineating soils and drainage, however, at the time this report was completed, no additional information was available.

EBA considers the PHCL (1995) defined LSCA boundaries to the north and east to be somewhat uncertain, however, as there is limited information available for those areas, it was not possible to establish more exact boundary locations. Based on available topographic information, drill log data and observations made during a site visit, EBA agrees with the approximate location of the southern LSCA boundary. The present uncertainty of the delineation of the aquifer boundary does not affect the groundwater regime directly related to the operation of the well field and therefore does not affect the findings of the study presented in this report.

3.2 Groundwater Flow Regime

EBA conducted a site visit to the LSCA on January 18, 2002. The purpose of the site visit was to measure the depth to water in accessible water wells within the LSCA and to update our inventory of potential contaminant sources. EBA also met with KAEL staff

who surveyed the elevation of the tops of the well casings and of ponds within the LSCA, referenced to geodetic elevation. The information gathered was used to develop a conceptual model of the groundwater flow within the LSCA. The wells and ponds elevations are shown on Figure 3.

Figure 3 indicates groundwater elevations are highest in the southeast and lowest in the northwest and the regional groundwater flow likely follows this trend. The low groundwater elevations in the northwest and the drainage pattern of local streams within the LSCA indicate that the northern portion of the Lost Shoe Creek is acting as a major discharge area. The elevated groundwater levels in the southeast of the aquifer suggest that groundwater from the highland areas near Frederick Mountain may be recharging the LSCA in this area. Recharge to the aquifer will also be derived from direct precipitation over the LSCA and potentially from the Lost Shoe Creek (eastern portion).

EBA prepared a contour map showing groundwater flow directions in the vicinity of the DOU well field (See Figure 4). As shown on Figure 4, part of the flow discharges northwards towards the Lost Shoe Creek and the remainder of the groundwater (particularly along the Alberni Highway) flows in a westerly direction directly towards the DOU well field. EBA estimated the horizontal hydraulic gradient along the flow path towards the well field to be 0.006.

3.3 Re-Assessment of Aquifer Parameters

In 1995, PHCL developed preliminary estimates of the aquifer parameters based on pump test analyses that were conducted during the simultaneous testing of selected pairs of the three pumping wells installed in 1995 (1-95, 2-95 and 3-95) and test well from 1994 (4-95). The intent of the simultaneous pump testing was to investigate interference effects between the wells, but this methodology limits the confidence in which the key aquifer parameters (transmissivity and hydraulic conductivity) are calculated. PHCL reported that the response of the observations wells to pumping was almost immediate and theorized that the placement of fill within the vicinity of the well field may be causing the aquifer to locally respond in a confined manner. Based on the interpretation of early time data in each well prior to the start of simultaneous pumping, PHCL estimated transmissivities ranging from 0.02 m^2/s to 0.2 m^2/s.

In order to verify the aquifer parameter estimates calculated by PHCL (1995), EBA requested that DOU conduct additional testing of the aquifer. The DOU has a remote controlled data logger system that allows for the monitoring of water levels in the well field. DOU provided EBA with aquifer response data from two pumping tests that were

carried out by the DOU using well 2-95 as the pumping well at a rate of approximately 0.03 m^3/s. The first test was conducted on April 9, 2001 and lasted for 4.5 hours. The second test was conducted on January 17, 2002 and lasted for approximately one hour.

EBA analyzed both sets of pump test data using the Waterloo Hydrogeologic Institute AquiferTest (Version 3.0) software package. EBA used this software to produce a series of plots for each of the tests. Plots A-1 and A-7 show the change in water level (drawdown) during pumping and recovery versus time on a natural scale. Plots A-2 through A-5 and A-8 through A-9 are semi-log plots of time versus drawdown during pumping. Plot A-6 is a semi-log plot of the ratio of the total time since the pumping test started over the time since pumping ended versus residual drawdown. The analytical plots are attached in Appendix A.

On Plots A-1 and A-7, the response from the aquifer in all wells appears to be very fast and the drawdown rate appears to reach equilibrium very quickly.

EBA used the Cooper-Jacob method of analysis for the pumping data in all wells (Plots A-2 through A-5 and A-8 through A9) and the Theis Recovery method to analyze the recovery data recorded for well 2-95 (Plot A-5). While all of the assumptions are not entirely met for each of these analytical methods (i.e. fully confined, infinite aquifer, fully penetrating well, some anisotropy), the solutions appeared to provide acceptable estimates of the aquifer parameters.

EBA calculated the aquifer parameters defining the ability of the aquifer to transmit water (transmissivity) and store water (storativity). The transmissivity values ranged from 0.01 m^2/s to 0.16 m^2/s and the storativity values ranged from 0.02 to 0.1. The values of transmissivity, hydraulic conductivity and storativity for each well response are recorded in Table 1. The largest transmissivity was recorded in 4-95 and suggests that the subsurface material in the vicinity of 4-95 are likely coarser than elsewhere in the well field. The geomeans of the transmissivities and storativities were calculated to be 0.04 m^2/s and 0.05, respectively. These values are similar to those observed by PHCL in 1995.

4.0 DEVELOPMENT OF THE WHPA

4.1 Delineation of Capture Zone and Travel Time Estimate

As discussed in Section 2.2, the normal WHPA consists of five zones: a sanitary protection zone, 1-year, 5-year and 10-year travel zones and then a buffer zone. This standard approach, however, was not applicable to the LSCA due to its high transmissivity and flow gradients which result in fast travel times. The DOH (1995) document recommends that under these circumstances, a more refined approach be developed to best suit the aquifer conditions.

EBA refined the standard WHPA development methodology by reducing the travel time zones to three-month intervals and found that this approach appeared to satisfy the conditions encountered in the LSCA near the well field. The capture zone for the well field was calculated using an analytical method developed by Grubb in 1993 and is specific for the conditions in the LSCA (unconfined aquifer). EBA has attached both the travel time and analytical capture zone calculation methods and parameters used in Appendix B. EBA oriented the WHPA along the major flow path identified through hydrogeological mapping in the vicinity of the DOU well field.

The proposed WHPA is presented on Figure 5. As shown, the capture zone is fairly thin which is a function of the highly transmissive nature of the aquifer. The Sanitary Zone comprises the area of the well field and should be managed to prohibit any surface flows of water into the wellhead to prevent direct contamination of the wellhead. Three travel time zones (3-month, 6-month and 9-month) have been calculated within the capture zone. The edge of the 9-month travel zone lies on the eastern boundary of the LSCA. Without additional information it is difficult to presently assess groundwater flow beyond the border of the LSCA.

The DOH Wellhead Protection Program Guidance document (1995) defines the area with less than one-year travel time as high risk for microbial and viral pathogens and direct chemical contamination. Wilhelm (1992) completed a study which determined that the survival time of pathogens in groundwater tends to be less than three months although longer survival times have been recorded on occasion. As such, EBA's 3-month zone is considered as very high risk for microbial pathogens, while the 6-month and 9-month zones are defined as high risk and moderate to high risk, respectively.

Please note that the entire WHPA is classified under the "high-risk" category. Defining the less high-risk zones beyond the edge of the LSCA is not presently feasible given the lack of hydrogeological information about the area. DOU should keep in mind, however that surface water and groundwater are closely interconnected and logging and other activities in this upgradient area can potentially impact both surface and groundwater beyond the edge of the LSCA. Impacts upgradient of the LSCA may eventually have a direct impact on the LSCA although with the increased travel times associated with the location of activities outside the LSCA the risks are slightly reduced.

It should also be noted that the methods used to calculate the proposed WHPA have used advective transport analysis only. Advective transport assumes that the contaminant will travel at the same rate as linear groundwater velocity. Though there may potentially be other factors that will retard the movement of a contaminant in the subsurface, (e.g. adsorption to soil particles, natural degradation of the contaminants) this is considered to be the most conservative method of defining the potential transport.

4.2 Areas of Potential Concern within the WHPA

EBA reviewed the previously identified areas of potential environmental concern as discussed in EBA (1995a, b and 1998). Based on the new WHPA, EBA has redefined the list of potential areas of concern to include:

- **Mainroad Contracting Highways Maintenance Yard**: Mainroad Contracting operates a highways maintenance yard directly opposite the DOU well field within the very high-risk 3-month zone of the WHPA. On-site activities include the storage of road salt, the storage of petroleum hydrocarbons and other chemicals and the operation of a septic field. Based on EBA's experience of assessing and remediating the subsurface contamination of similar sites (e.g. BC Building Corporation sites used for Highway Maintenance), all of these activities are considered to represent a high potential risk of environmental impairment to the DOU well field.

- **House** (adjacent to Mainroad Contracting): The septic field associated with this house is located within the 3-month travel zone of the WHPA. A poorly designed, operating or failing septic field could be a potential source of bacteriological contamination of the DOU well field.

- **Tourist Pullout**: Pit toilets associated with the Tourist Pullout are located within the 3-month zone of the WHPA. EBA (1998) indicated that there is also a septic field adjacent to the pullout that was formerly used by the tourist bureau office that burnt

down. A poorly operating, poorly maintained or failing pit toilet could cause bacteriological contamination of the DOU well field.

- **Gravel Pit Operation**: The operation of heavy equipment within the 3-month zone of the WHPA is also considered to represent a high potential risk of impact to the groundwater due to the potential for leaks and spills of fuel and oil. Any release of contamination at surface due to the operation of the gravel pit could rapidly reach the groundwater supplying the well field.

- **Highway Corridor**: As shown on Figure 5, the WHPA follows the Port Alberni Highway for several hundred metres. There is always a risk of accidents that could result in the spillage of fuels and/or chemicals along a highway. Future road maintenance could require the repaving of the road which would bring an associated risk from the asphalt paving product and the use of the heavy equipment within the WHPA. Road salt is also a potential contaminant of concern though it is unlikely that large quantities are used within this area.

The locations of these primary areas of potential concern are noted on Figure 5.

4.3 WHPA Management Strategies

As discussed above, the entire WHPA defined by EBA is considered to represent high risk to the DOU well field. An inventory of potential sources of contamination has been completed and most of the identified sources are within the 3-month travel zone in the WHPA. This means that any release of contaminant (chemical or bacteriological) from one of the identified sources could impact the quality of the water extracted by the well field, within three months of release. That would represent a very short time to respond to a contamination incident, assess the contamination and design and implement a remediation plan. Based on the fact that remediation of subsurface contamination is always a lengthy and costly process, EBA strongly recommends that DOU implement management strategies to minimise the risk of occurrence of a contamination event.

Ideally, EBA would recommend that the DOU do everything in its power to implement the most stringent measures of control within the WHPA, however, we appreciate that there may be practical, legal and economic limitations to what can actually be enforced. As such, the best approach will likely be a combination of efforts including public education, active controls on land use, the use of best practice methodologies, water supply monitoring and contingency planning in the hopes that together the implemented measures will be successful in protecting the well field. The management strategy should

6.0 CLOSURE

The conclusions herein are based on available information and on data partially provided by others. This study has been carried out in accordance with generally accepted engineering practice. No other warranty is made, expressed or implied. Engineering judgement has been applied in developing this report.

Personnel who prepared this report have professional experience in investigations of this nature. Reference should be made to the "Environmental Report-General Conditions" attached in Appendix D that forms part of this report.

We trust that this report satisfies your current requirements. Should you have any questions or concerns, please contact us at your convenience.

Respectfully submitted;

EBA ENGINEERING CONSULTANTS LTD.

Prepared by:

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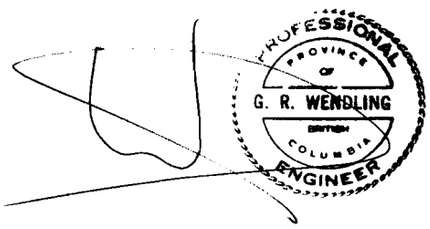
Reviewed by:



Gilles Wendling, Ph.D., P.Eng.
Senior Hydrogeologist

7.0 REFERENCE LIST

Canter L.W. and Knox, R.C. (1985) *Septic Tank System Effects on Groundwater Quality* Lewis Publishers, Inc. 336 pp.

EBA Engineering Consultants Ltd. (February, 1995) *Preliminary Environmental Assessment – Lost Shoe Creek Test Well #1-94*

EBA Engineering Consultants Ltd. (December, 1995) *Spill Response Plan, Lost Shoe Creek Aquifer Wellhead Protection Area*

EBA Engineering Consultants Ltd. (August, 1998) *Sewage System Guidelines for the Wellhead Protection Area, Municipality of Ucluelet, Ucluelet, BC*

Grubb, S. (February, 1992) *Analytical Model for Estimation of Steady-State Capture Zones of Pumping Wells in Confined and Unconfined Aquifers* Groundwater Vol. 31, No. 1

Koers & Associates Engineering Ltd. (February, 2002) *Well Field Capacity and Water Demands to 2016* (unpublished letter to EBA)

Northwest Ecosystem Institute (2000) *Kennedy Watershed Atlas Service*

Pacific Hydrology Consultants Ltd. (March, 1994) *Completion Report – Evaluation of Groundwater Potential of Lost Shoe Creek and Albion Aquifers to Supply the Village of Ucluelet*

Pacific Hydrology Consultants Ltd. (August, 1995) *Completion Report – Construction and Testing of Lost Shoe Creek Production Wells 1-95, 2-95 and 3-95 and Evaluation of Lost Shoe Creek Aquifer for the Village of Ucluelet*

US Environmental Protection Agency (February, 1993) *Wellhead Protection: A Guide for Small Communities* Seminar Publication, EPA 625/R-93/002

US Environmental Protection Agency (April, 1989) *Wellhead Protection Programs: Tools for Local Governments.* Washington, DC EPA 440/6-89-002

Washington State Department of Health (April, 1995) *Wellhead Protection Program Guidance Document*, DOH Publication # 331-018

Wei, M. (1994) *Lost Shoe Aquifer – Modelling to Estimate Aquifer Capacity* (unpublished memorandum to A.P. Kohut, Manager, Groundwater Section, Hydrology Branch, Water Management Division, Ministry of Environment, Lands and Parks)

also include an evaluation process to ensure that efforts remain up to date, focussed and effective.

Appendix C provides a series of selected management options that have been successfully applied to other municipal WHPAs and that EBA considers potentially applicable to the DOU well field protection strategy.

5.0 CONCLUSIONS/RECOMMENDATIONS

EBA has used a combination of analytical methods and hydrogeological mapping to reassess the WHPA for the DOU well field. Based on the findings of this study, EBA would like to emphasise the following conclusions:

- The LSCA is very transmissive and has moderate hydraulic gradients in the vicinity of the DOU well field. This results in high groundwater flow velocity which can transport contaminants to the water supply source in very short periods of time (e.g. weeks or months).

- Due to the high groundwater flow velocities, the area defined for wellhead protection extends to the edge of the LSCA and the entire area is considered to be a Zone 1 or high-risk zone. The DOU well field is considered at risk from chemical and bacteriological (e.g. viruses) contamination.

- In the event of a spill within the WHPA, there will be very little time to react before the contaminant enters the groundwater flow system and is able to travel to the well field. Accordingly, aggressive management and monitoring within the WHPA are required.

- EBA has updated the inventory of potential areas of concern within the WHPA and has identified the areas that have potentially hazardous materials and site activities. They are located within a 3-month travel time distance to the primary source of water supply for the District of Ucluelet. The identified areas of concern are: Mainroad Contracting Yard (septic field, fuel and chemical storage, salt storage), the gravel pit operations (potential spills of fuel from heavy equipment), sanitary waste disposal fields from the house adjacent to Mainroad Contracting and the tourist pullout and the highway corridor with its risk of accidents or other activities that could result in spills or discharges to the environment.

EBA recommends that the DOU review the list of recommended management options that EBA has provided and work to implementing an action plan with the objective to protect the well field and the DOU drinking water supply.

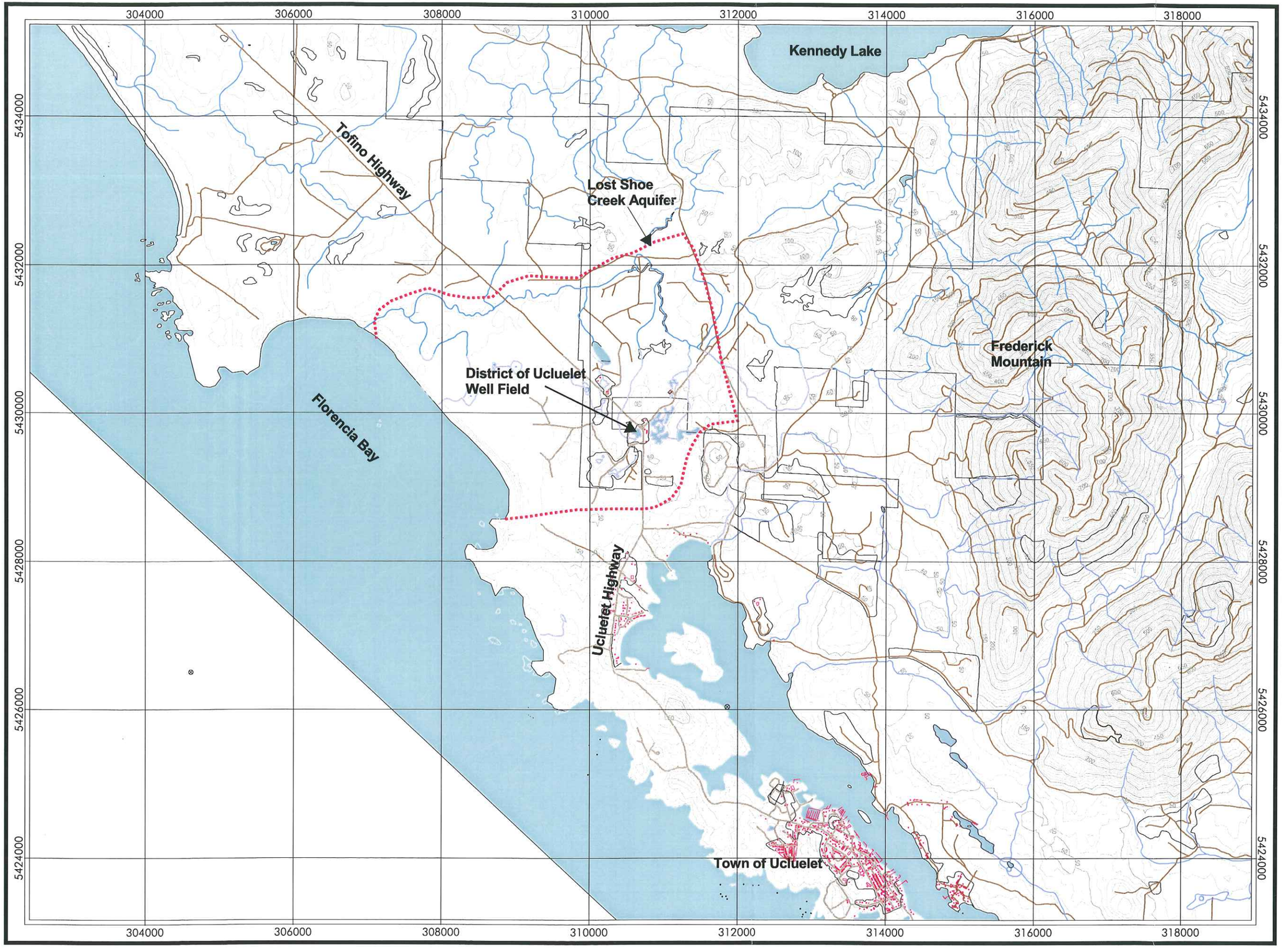
WELLHEAD PROTECTION AREA
LOST SHOE CREEK AQUIFER
DISTRICT OF UCLUELET, BC

Project No: 0805-01-86153

March, 2002

Figures

Figure 1: Regional Map of Lost Shoe Creek Area, Ucluelet, BC



N

Scale - 1 : 50,000

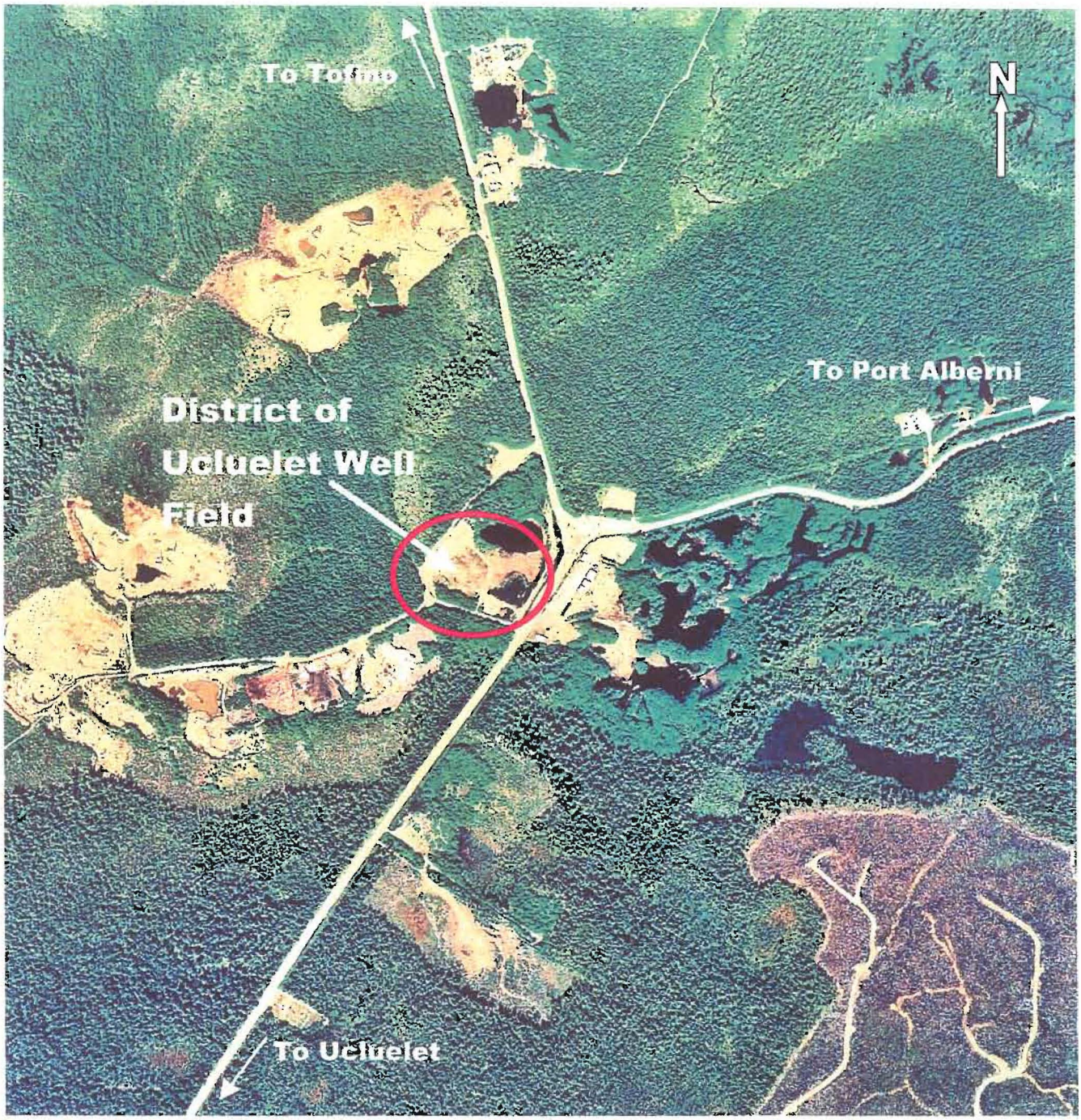
500 0 500 1000 Meters

Date: February, 2002
Projection: UTM
Datum: NAD83
Company: EBA Engineering Consultants Ltd.
Project #: 0805-01-86153

Legend

- Approximate Lost Shoe Creek Aquifer Boundary
- Roads
- Contours (m)
- Rivers
- Lake / Ocean

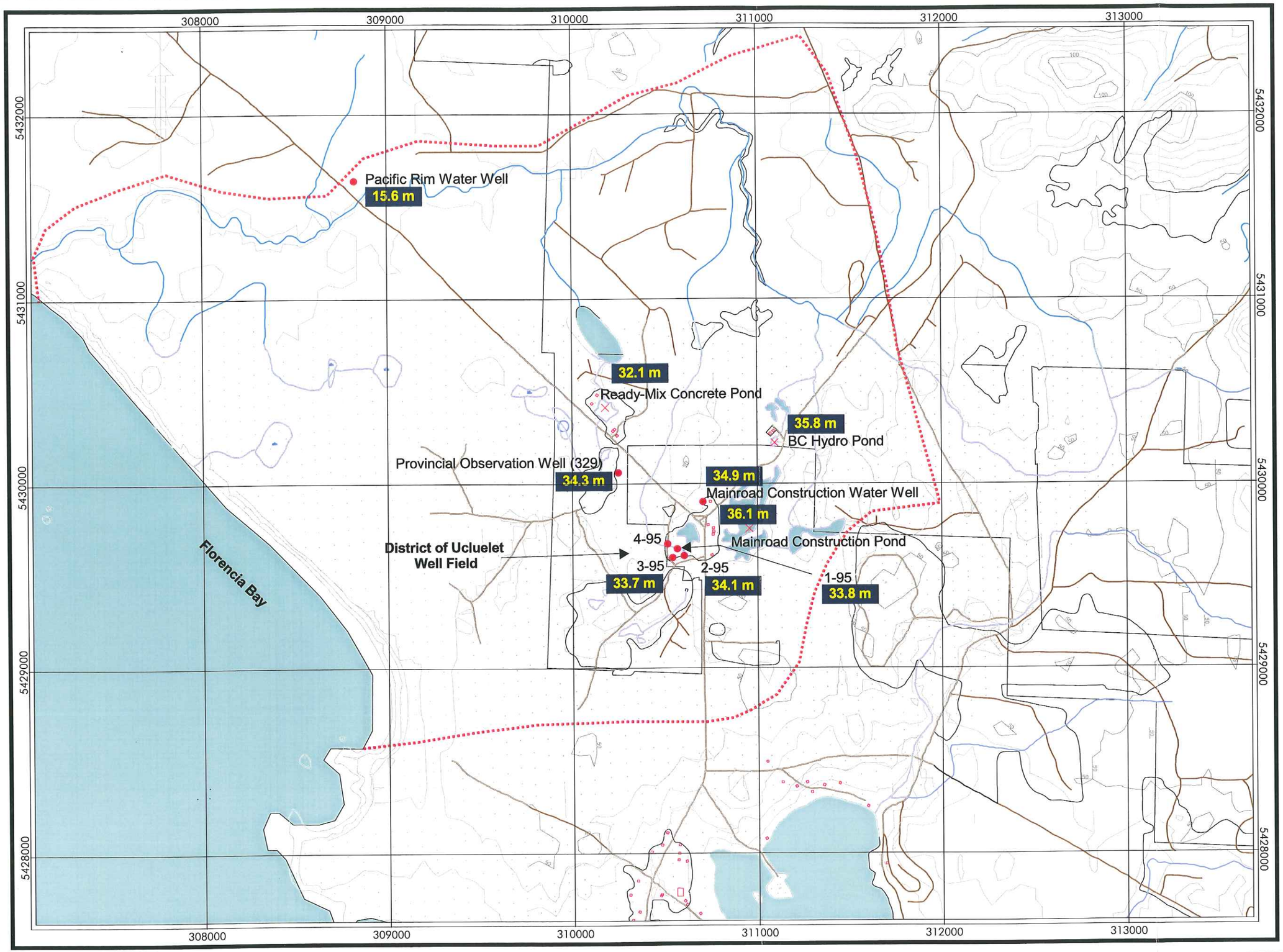
EBA Engineering Consultants Ltd



EBA Engineering Consultants Ltd.	PROJECT: UCLUELET WELLHEAD PROTECTION
CLIENT: KOERS AND ASSOCIATES ENGINEERING LTD. DISTRICT OF UCLUELET	TITLE: AERIAL PHOTOGRAPH UCLUELET WELLFIELD DISTRICT OF UCLUELET, BC

DATE:	DWN.:	CHKD.: SJB	FILE NO.: 0805-01-86153	FIGURE 2

Figure 3:
Water Elevations in the Lost Shoe Creek Aquifer (Measured January 18, 2001)



N

Scale - 1 : 20,000

250 0 250 500 Meters

Date: February, 2002
Projection: UTM
Datum: NAD83
Company: EBA Engineering Consultants Ltd.
Project #: 0805-01-86153

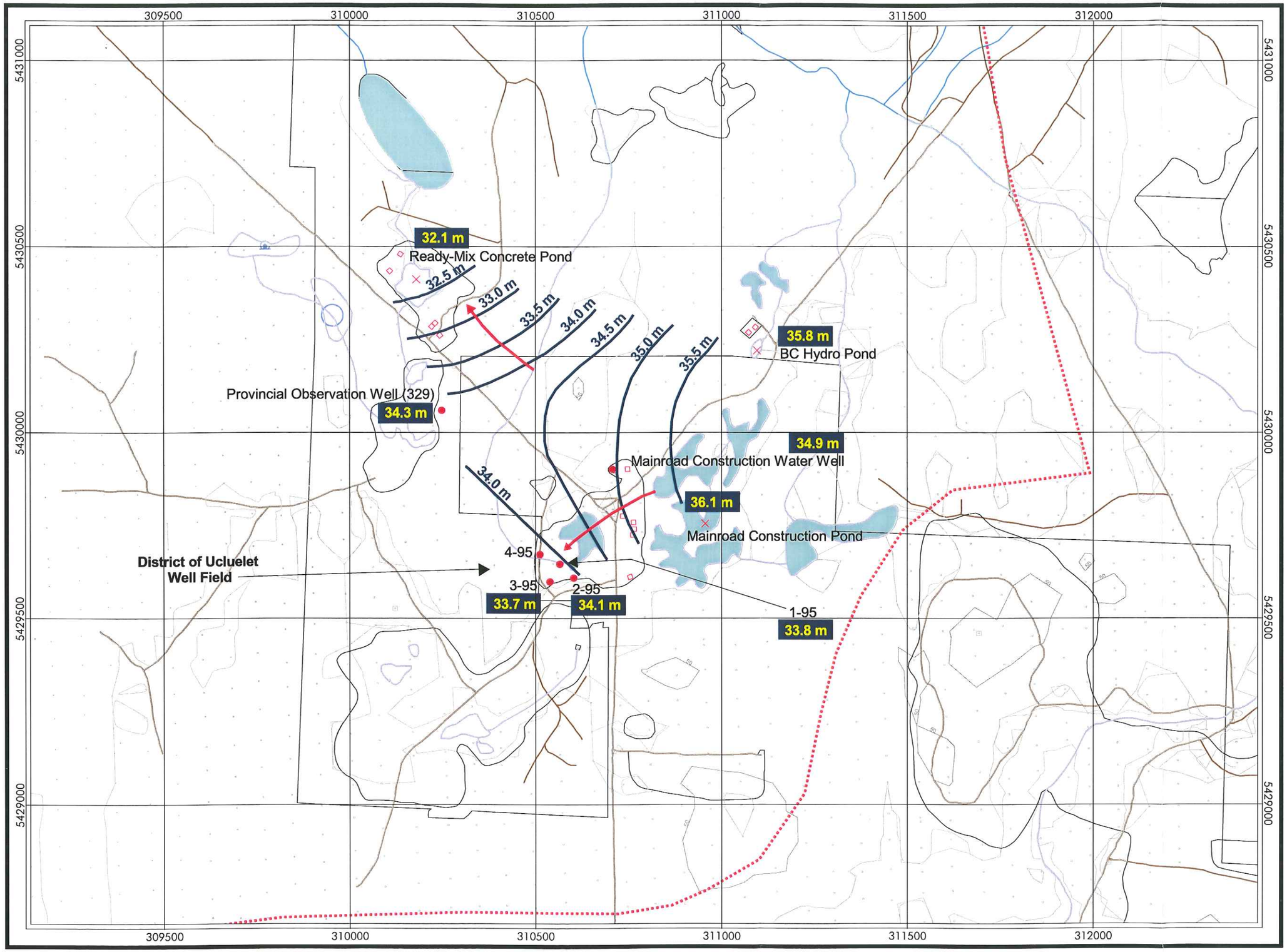
Legend

- Water well or Observation Well Location
- Pond Water Level Measurement Location
- 35.9 m — Elevation of Groundwater (m)
- Approximate Lost Shoe Creek Aquifer Boundary
- Roads
- Contours (m)
- Rivers
- Lake / Ocean

Note:
Groundwater level measurements were collected January 18, 2002.
Pond level measurements and well survey completed by Koers and Associates Engineering Ltd.
Well measurements completed by EBA.

EBA Engineering Consultants Ltd.

Figure 4:
Groundwater Flow Regime Near Ucluelet Well Field



Scale - 1 : 10,000

200 0 200 Meters

Date: February, 2002
Projection: UTM
Datum: NAD83
Company: EBA Engineering Consultants Ltd.
Project #: 0805-01-86153

Legend

- **35.9 m** — Elevation of Groundwater (m)
- **34.1 m** — Inferred Groundwater Contour
- Inferred Direction of Groundwater Flow
- Water well or Observation Well Location
- Pond Water Level Measurement Location
- Approximate Lost Shoe Creek Aquifer Boundary
- Roads
- Contours (m)
- Rivers
- Lake / Ocean

Note:
Pond level measurements and well survey completed by Koers and Associates Engineering Ltd.
Well measurements completed by EBA.

EBA Engineering Consultants Ltd

Areas of Potential Concern to Well Field

1.) Mainroad Contracting
- septic field
- salt storage
- storage of petroleum hydrocarbons and other chemicals

2.) House (adjacent to Mainroad Contracting)
- septic field

3.) Tourist Pullout (Intersection of Highways)
- pit toilets

4.) Gravel Pit Operation
- operation of heavy equipment, potential for spills and leaks of fuel

5.) Highway Corridor
- potential for accidents causing spills of fuel or chemicals
- salt from road maintenance

308000 309000 310000 311000 312000 313000

5432000 5431000 5430000 5429000 5428000

Florencia Bay

District of Ucluelet Well Field

1 2 3 4 5

?

Figure 5: Wellhead Protection Area and Areas of Potential Concern

N

Scale - 1 : 20,000

250 0 250 500 Meters

Date: February, 2002
Projection: UTM
Datum: NAD83
Company: EBA Engineering Consultants Ltd.
Project #: 0805-01-86153

Legend

- Boundary of Calculated Capture Zone
- 3-month Travel Time Transport Zone
- 6-month Travel Time Transport Zone
- 9-month Travel Time Transport Zone
- Water well or Observation Well Location
- Pond Water Level Measurement Location
- Approximate Lost Shoe Creek Aquifer Boundary
- Roads
- Contours (m)
- Rivers
- Lake / Ocean

The travel times and capture zone area beyond the edge of the aquifer are only approximate due to limited available information outside the aquifer.

EBA Engineering Consultants Ltd

Tables

TABLE 1: WELL FIELD CAPACITY AND WATER DEMANDS TO 2016

Rated Capacity of Existing Wells:		
Well No. 1	81.6 m^3/hr	
Well No. 2	102.2 m^3/hr	
Well No. 3	159.1 m^3/hr	
Well No. 4	85.3 m^3/hr	
Total Existing:		*428.2 m^3/hr*
Proposed Future Well:		*95.8 m^3/hr*
Supply from Mercantile Creek:		*164 m^3/hr*
Estimated Total System Demand (Year 2016):		***688 m^3/hr***

Note: System demand estimates were provided by KAEL.

Summary of Aquifer Parameters

Test Date	Well	Analysis	K (m/s)	T (m^2/s)	S
April 9, 2001	1-95	Cooper Jacob - Time Drawdown	0.005	0.057	0.069
	2-95	Cooper Jacob - Time Drawdown	0.004	0.049	-
	3-95	Cooper Jacob - Time Drawdown	0.005	0.058	0.102
	4-95	Cooper Jacob - Time Drawdown	0.014	0.164	0.019
	2-95	Theis Recovery	0.003	0.031	-
January 16, 2002	1-95	Cooper Jacob - Time Drawdown	0.001	0.023	-
	2-95	Cooper Jacob - Time Drawdown	0.001	0.011	-
		Geomean	**0.003**	**0.042**	**0.051**

Notes:

K - Hydraulic Conductivity
T - Transmissivity
S - Storativity

The geomean calculation is used in place of standard mean when numbers vary over an order of magnitude.

Appendix A

EBA Engineering Consultants Ltd.
#1 - 4376 Boban Drive
Nanaimo, British Columbia
Phone: (250) 756-2256

Pumping test analysis

No: 0805-01-86153

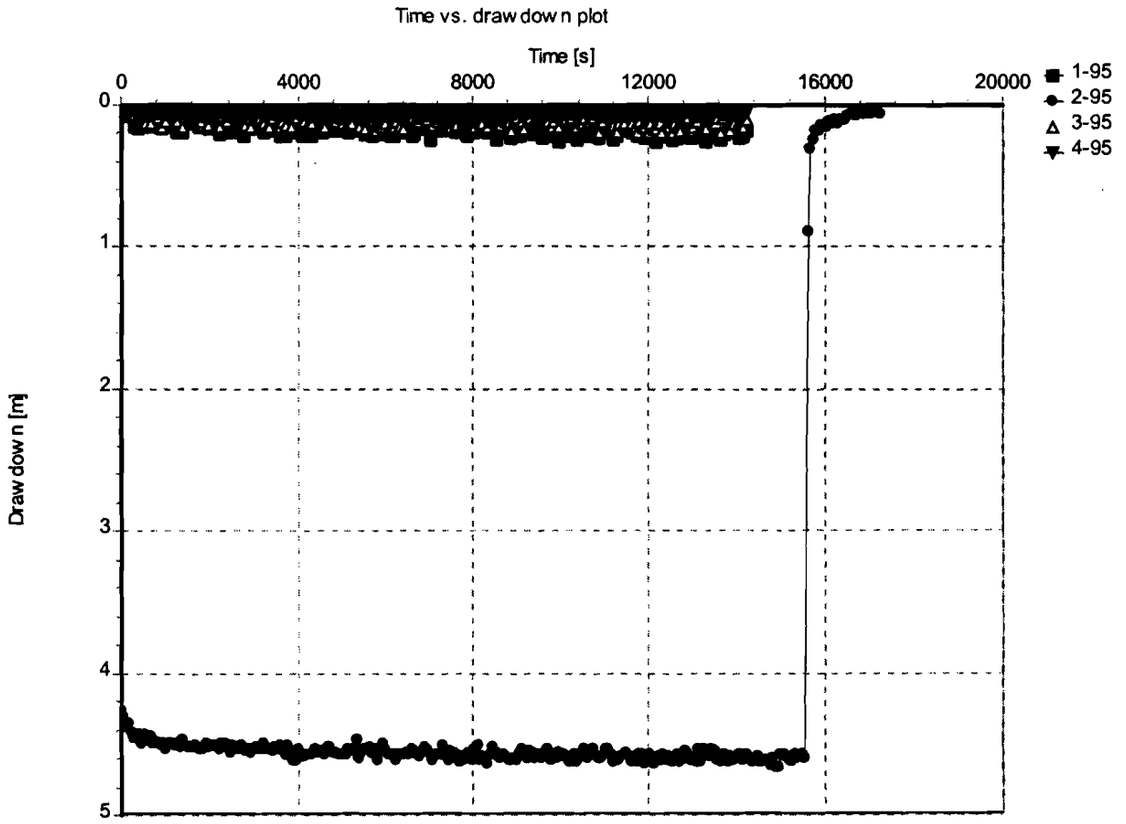
Project: Lost Shoe Creek Aquifer - 2001

Client: DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: April 9, 2001 Data	Pumping well: 2-95

Test performed by: District of Ucluelet	Evaluated by:
Test date: 9/4/01	Evaluation date: 2/20/02
Analysis method: Time vs. drawdown plot	Aquifer thickness: 12
	Discharge rate: 0.03 [m³/s]

A-1

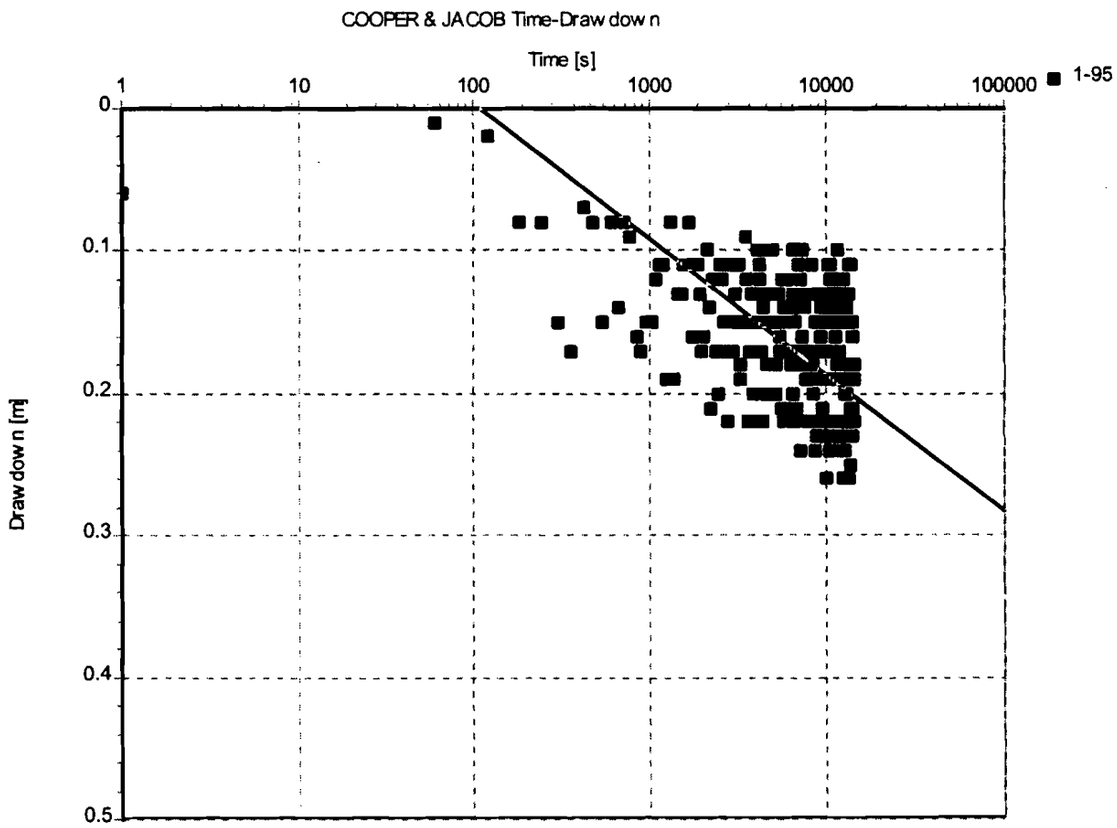


EBA Engineering Consultants Ltd. #1 - 4376 Boban Drive Nanaimo, British Columbia Phone: (250) 756-2256	**Pumping test analysis**	
	No:	0805-01-86153
	Project:	Lost Shoe Creek Aquifer - 2001
	Client:	DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: April 9, 2001 Data	Pumping well: 2-95

Test performed by:	District of Ucluelet	Evaluated by:	
Test date:	9/4/01	Evaluation date:	2/20/02
Analysis method:	COOPER & JACOB Time-Drawdown	Aquifer thickness:	12
		Discharge rate:	0.03 [m³/s]

A-2



Transmissivity: 5.75×10^-2 [m²/s]

Conductivity: 4.79×10^-3 [m/s]

Storativity: 7.08×10^-2

EBA Engineering Consultants Ltd.
#1 - 4376 Boban Drive
Nanaimo, British Columbia
Phone: (250) 756-2256

Pumping test analysis

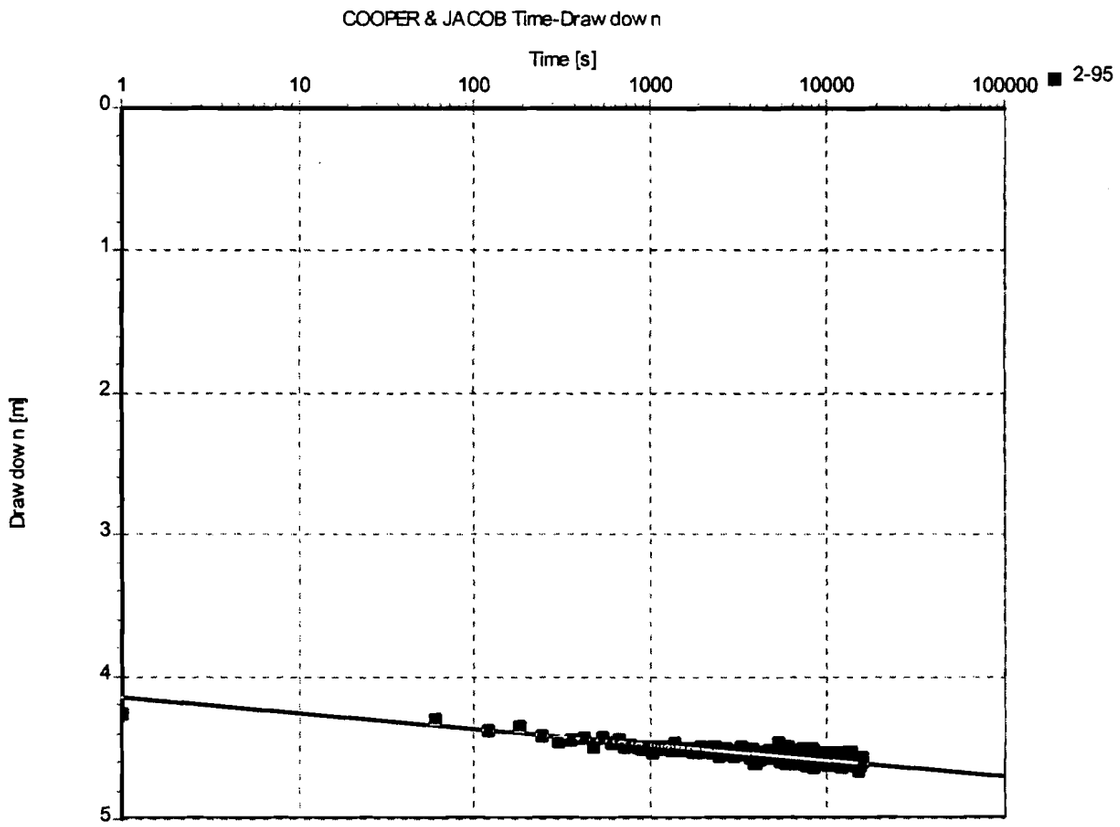
No: 0805-01-86153

Project: Lost Shoe Creek Aquifer - 2001

Client: DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: April 9, 2001 Data	Pumping well: 2-95

Test performed by: District of Ucluelet	Evaluated by:
Test date: 9/4/01	Evaluation date: 2/20/02
Analysis method: COOPER & JACOB Time-Drawdown	Aquifer thickness: 12
	Discharge rate: 0.03 [m³/s]



Transmissivity: 4.92×10^-2 [m²/s]

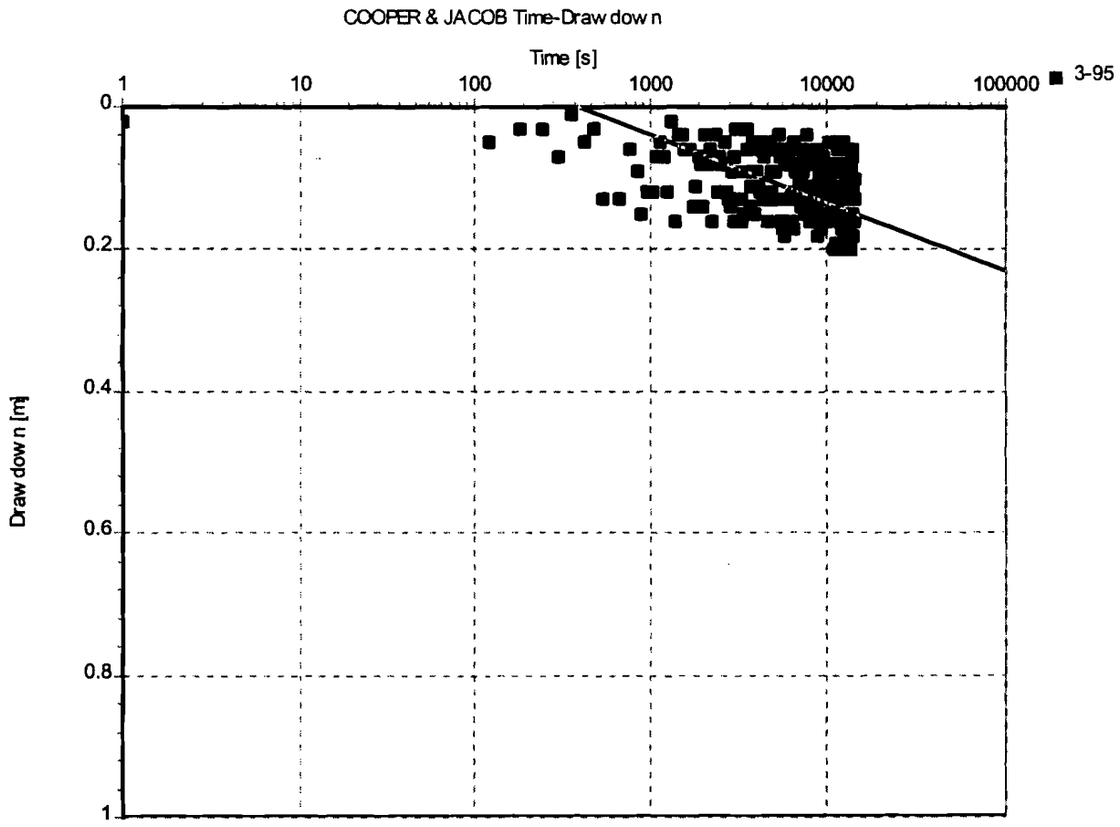
Conductivity: 4.10×10^-3 [m/s]

EBA Engineering Consultants Ltd. #1 - 4376 Boban Drive Nanaimo, British Columbia Phone: (250) 756-2256	**Pumping test analysis**	
	No:	0805-01-86153
	Project:	Lost Shoe Creek Aquifer - 2001
	Client:	DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: April 9, 2001 Data	Pumping well: 2-95

Test performed by:	District of Ucluelet	Evaluated by:	
Test date:	9/4/01	Evaluation date:	2/20/02
Analysis method:	COOPER & JACOB Time-Drawdown	Aquifer thickness:	12
		Discharge rate:	0.03 [m³/s]

A-4



Transmissivity: 5.76×10^-2 [m²/s]

Conductivity: 4.80×10^-3 [m/s]

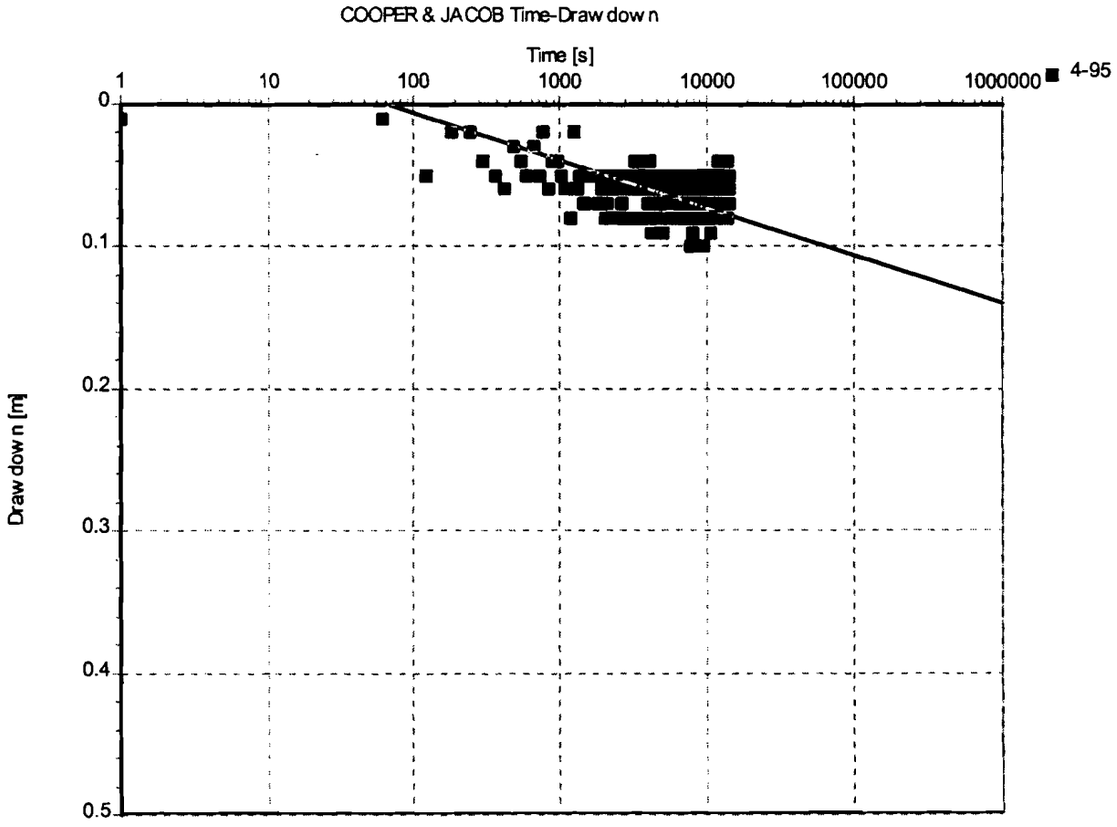
Storativity: 1.02×10^-1

EBA Engineering Consultants Ltd. #1 - 4376 Boban Drive Nanaimo, British Columbia Phone: (250) 756-2256	**Pumping test analysis**	
	No:	0805-01-86153
	Project:	Lost Shoe Creek Aquifer - 2001
	Client:	DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: April 9, 2001 Data	Pumping well: 2-95

Test performed by:	District of Ucluelet	Evaluated by:	
Test date:	9/4/01	Evaluation date:	2/20/02
Analysis method:	COOPER & JACOB Time-Drawdown	Aquifer thickness:	12
		Discharge rate:	0.03 [m³/s]

A-5



Transmissivity: 1.64×10^-1 [m²/s]

Conductivity: 1.37×10^-2 [m/s]

Storativity: 1.88×10^-2

EBA Engineering Consultants Ltd.
#1 - 4376 Boban Drive
Nanaimo, British Columbia
Phone: (250) 756-2256

Pumping test analysis

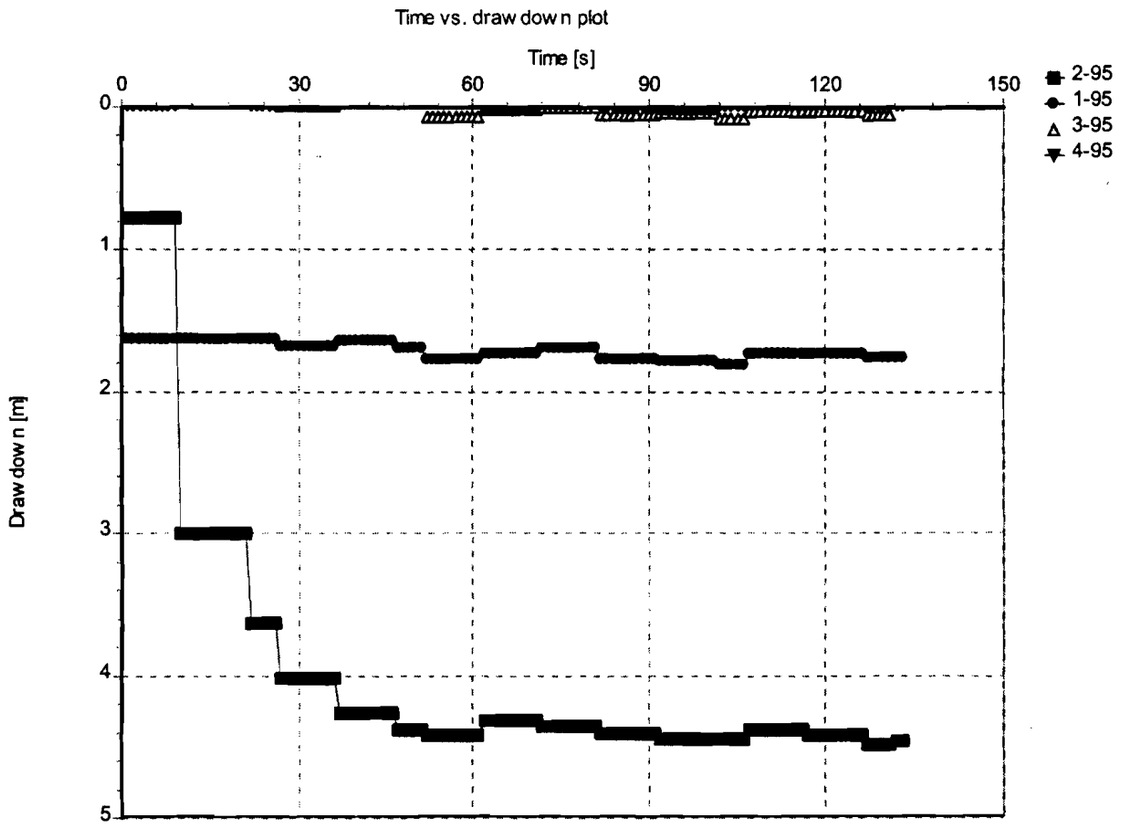
No: 0805-01-86153

Project: Lost Shoe Creek Aquifer Protection Plan

Client: DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: January 16, 2002	Pumping well: 2-95

Test performed by: District of Ucluelet	Evaluated by: SJB
Test date: 1/16/02	Evaluation date: 1/29/02
Analysis method: Time vs. drawdown plot	Aquifer thickness: 19.84
	Discharge rate: 0.03 [m³/s]

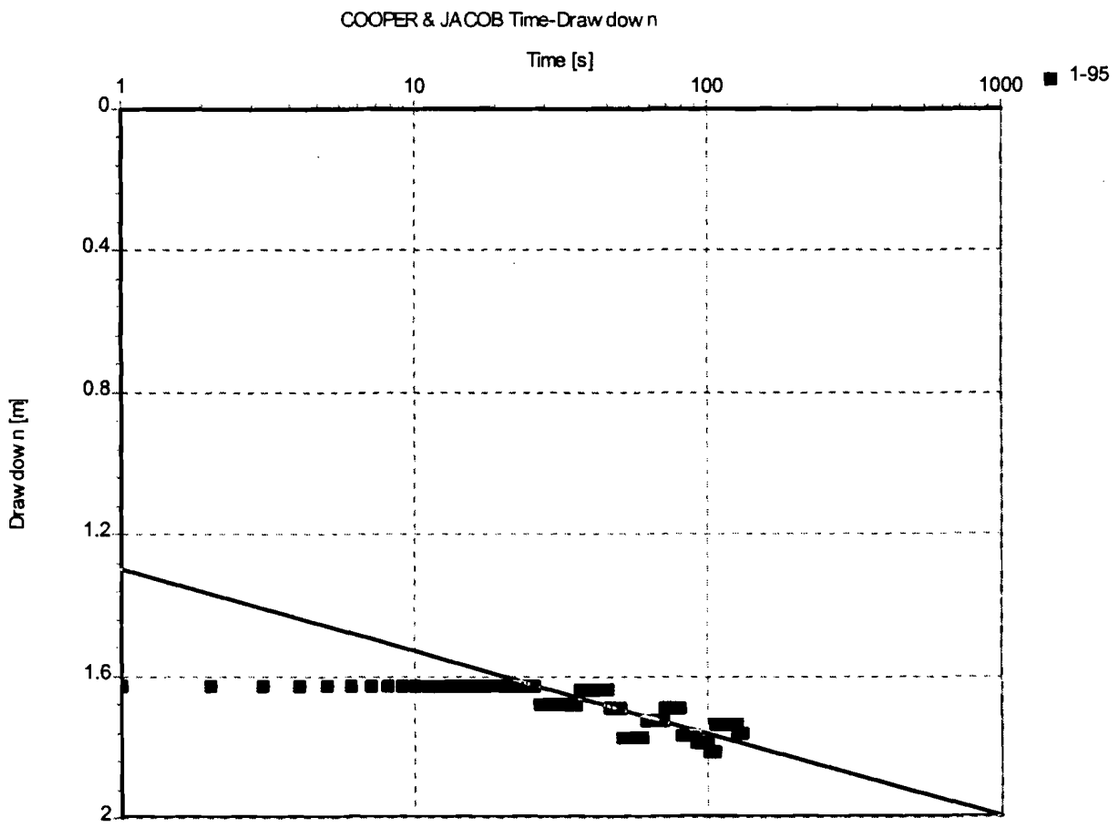


EBA Engineering Consultants Ltd. #1 - 4376 Boban Drive Nanaimo, British Columbia Phone: (250) 756-2256	**Pumping test analysis**	
	No:	0805-01-86153
	Project:	Lost Shoe Creek Aquifer Protection Plan
	Client:	DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: January 16, 2002	Pumping well: 2-95

Test performed by:	District of Ucluelet	Evaluated by:	SJB
Test date:	1/16/02	Evaluation date:	1/29/02
Analysis method:	COOPER & JACOB Time-Drawdown	Aquifer thickness:	19.84
		Discharge rate:	0.03 [m³/s]

A-7



Transmissivity: 2.34×10^-2 [m²/s]

Conductivity: 1.18×10^-3 [m/s]

EBA Engineering Consultants Ltd.
#1 - 4376 Boban Drive
Nanaimo, British Columbia
Phone: (250) 756-2256

Pumping test analysis

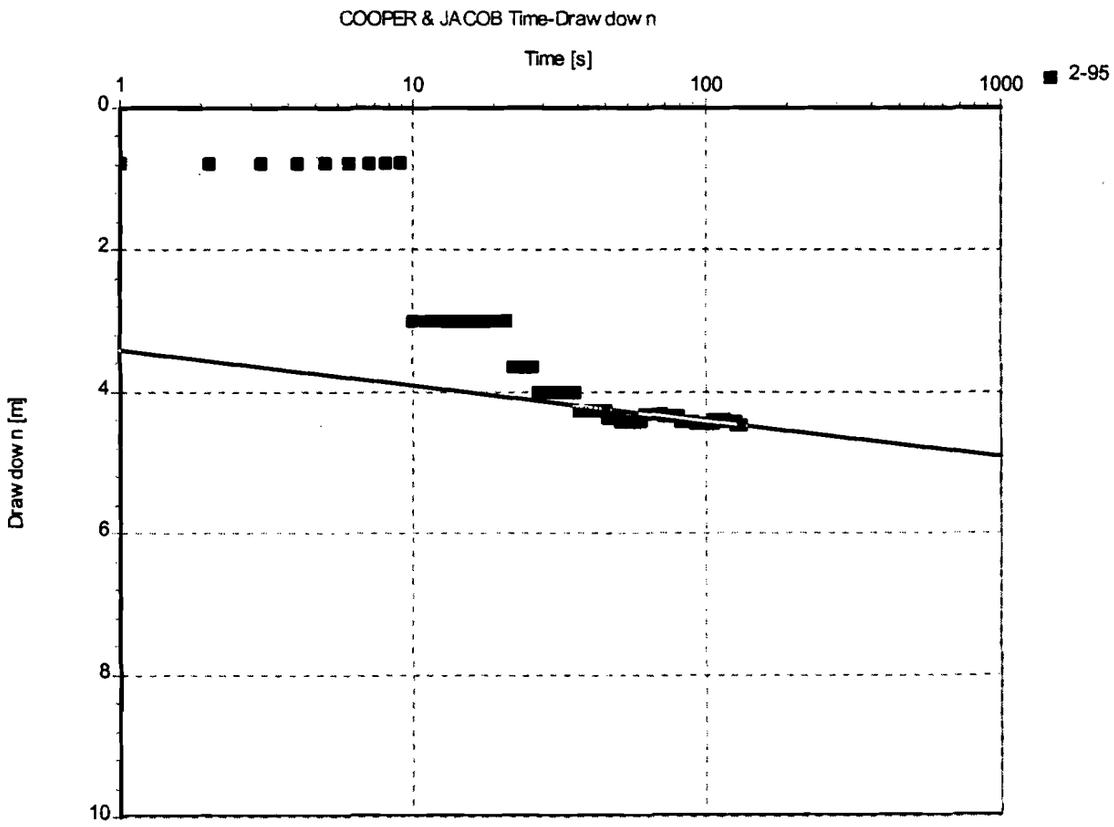
No: 0805-01-86153

Project: Lost Shoe Creek Aquifer Protection Plan

Client: DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: January 16, 2002	Pumping well: 2-95

Test performed by:	District of Ucluelet	Evaluated by:	
Test date:	1/16/02	Evaluation date:	1/29/02
Analysis method:	COOPER & JACOB Time-Drawdown	Aquifer thickness:	19.84
		Discharge rate:	0.03 [m³/s]



Transmissivity: 1.11×10^-2 [m²/s]

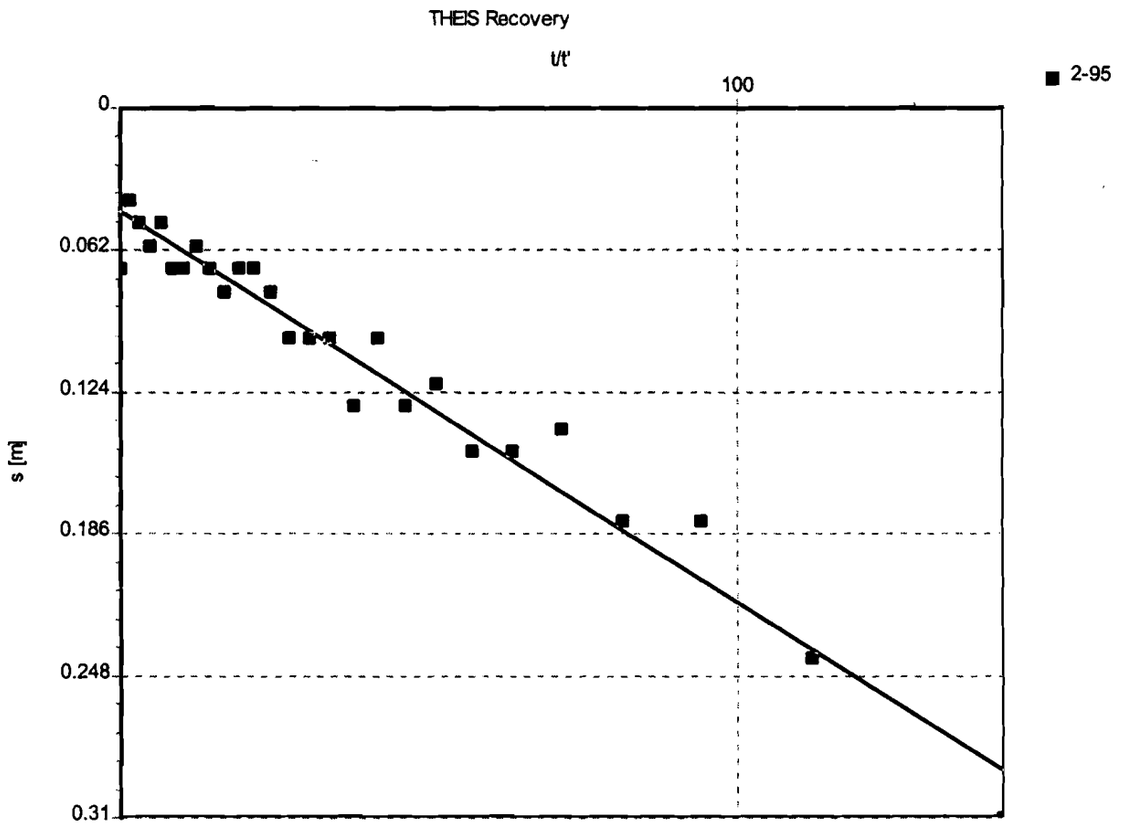
Conductivity: 5.60×10^-4 [m/s]

EBA Engineering Consultants Ltd. #1 - 4376 Boban Drive Nanaimo, British Columbia Phone: (250) 756-2256	**Pumping test analysis**	
	No:	0805-01-86153
	Project:	Lost Shoe Creek Aquifer - 2001
	Client:	DOU and KAEL

Location: Ucluelet, British Columbia	Pumping test: April 9, 2001 Data	Pumping well: 2-95

Test performed by: District of Ucluelet	Evaluated by:
Test date: 9/4/01	Evaluation date: 2/20/02
Analysis method: THEIS Recovery	Aquifer thickness: 12
	Discharge rate: 0.03 [m³/s]

A-9



Transmissivity: 3.12×10^-2 [m²/s]

Conductivity: 2.60×10^-3 [m/s]

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
10:01:04		7.69	31.910	3.880	8.11	31.810	4.050	9.92	31.550	4.370	9.86	32.890	3.120		
10:02:04		7.67	31.890	3.900	8.09	31.790	4.070	9.86	31.490	4.430	9.88	32.910	3.100		
10:03:04	0	3.41	27.630	8.160	8.05	31.750	4.110	9.87	31.500	4.420	9.87	32.900	3.110	103.60	
10:04:04	60	3.37	27.590	8.200	8.10	31.800	4.060	9.92	31.550	4.370	9.87	32.900	3.110	101.82	
10:05:04	120	3.29	27.510	8.280	8.09	31.790	4.070	9.84	31.470	4.450	9.83	32.860	3.150	102.50	
10:06:04	180	3.31	27.530	8.260	8.03	31.730	4.130	9.86	31.490	4.430	9.86	32.890	3.120	102.35	
10:07:04	240	3.25	27.470	8.320	8.03	31.730	4.130	9.86	31.490	4.430	9.86	32.890	3.120	101.70	
10:08:04	300	3.21	27.430	8.360	7.96	31.660	4.200	9.82	31.450	4.470	9.84	32.870	3.140	102.18	
10:09:04	360	3.23	27.450	8.340	7.94	31.640	4.220	9.88	31.510	4.410	9.83	32.860	3.150	103.83	
10:10:04	420	3.24	27.460	8.330	8.04	31.740	4.120	9.84	31.470	4.450	9.82	32.850	3.160	101.38	
10:11:04	480	3.17	27.390	8.400	8.03	31.730	4.130	9.86	31.490	4.430	9.85	32.880	3.130	101.70	
10:12:04	540	3.24	27.460	8.330	7.96	31.660	4.200	9.76	31.390	4.530	9.84	32.870	3.140	102.83	
10:13:04	600	3.20	27.420	8.370	8.03	31.730	4.130	9.90	31.530	4.390	9.83	32.860	3.150	101.23	
10:14:04	660	3.23	27.450	8.340	7.97	31.670	4.190	9.76	31.390	4.530	9.85	32.880	3.130	101.47	
10:15:04	720	3.17	27.390	8.400	8.03	31.730	4.130	9.90	31.530	4.390	9.83	32.860	3.150	102.56	
10:16:04	780	3.19	27.410	8.380	8.02	31.720	4.140	9.83	31.460	4.460	9.86	32.890	3.120	102.83	
10:17:04	840	3.18	27.400	8.390	7.95	31.650	4.210	9.80	31.430	4.490	9.82	32.850	3.160	101.94	
10:18:04	900	3.16	27.380	8.410	7.94	31.640	4.220	9.74	31.370	4.550	9.84	32.870	3.140	103.24	
10:19:04	960	3.17	27.390	8.400	7.96	31.660	4.200	9.77	31.400	4.520	9.84	32.870	3.140	103.74	
10:20:04	1020	3.13	27.350	8.440	7.96	31.660	4.200	9.77	31.400	4.520	9.83	32.860	3.150	101.82	
10:21:04	1080	3.18	27.400	8.390	7.99	31.690	4.170	9.82	31.450	4.470	9.82	32.850	3.160	101.98	
10:22:04	1140	3.17	27.390	8.400	8.00	31.700	4.160	9.84	31.470	4.450	9.82	32.850	3.160	103.98	
10:23:04	1200	3.16	27.380	8.410	8.00	31.700	4.160	9.82	31.450	4.470	9.80	32.830	3.180	102.35	
10:24:04	1260	3.17	27.390	8.400	7.92	31.620	4.240	9.77	31.400	4.520	9.86	32.890	3.120	102.35	
10:25:04	1320	3.15	27.370	8.420	8.03	31.730	4.130	9.87	31.500	4.420	9.82	32.850	3.160	103.82	
10:26:04	1380	3.20	27.420	8.370	7.92	31.620	4.240	9.73	31.360	4.560	9.83	32.860	3.150	102.65	
10:27:04	1440	3.16	27.380	8.410	7.98	31.680	4.180	9.85	31.480	4.440	9.81	32.840	3.170	101.88	
10:28:04	1500	3.15	27.370	8.420	7.98	31.680	4.180	9.85	31.480	4.440	9.81	32.840	3.170	101.88	
10:29:04	1560	3.15	27.370	8.420	8.00	31.700	4.160	9.83	31.460	4.460	9.83	32.860	3.150	102.00	
10:30:04	1620	3.15	27.370	8.420	8.00	31.700	4.160	9.83	31.460	4.460	9.83	32.860	3.150	102.00	
10:31:04	1680	3.16	27.380	8.410	8.03	31.730	4.130	9.83	31.460	4.460	9.83	32.860	3.150	101.76	
10:32:04	1740	3.14	27.360	8.430	7.95	31.650	4.210	9.75	31.380	4.540	9.83	32.860	3.150	102.71	
10:33:04	1800	3.14	27.360	8.430	7.95	31.650	4.210	9.78	31.410	4.510	9.83	32.860	3.150	102.47	
10:34:04	1860	3.14	27.360	8.430	8.00	31.700	4.160	9.82	31.450	4.470	9.81	32.840	3.170	103.00	
10:35:04	1920	3.17	27.390	8.400	7.98	31.680	4.180	9.81	31.440	4.480	9.82	32.850	3.160	103.36	
10:36:04	1980	3.15	27.370	8.420	7.94	31.640	4.220	9.75	31.380	4.540	9.83	32.860	3.150	102.18	
10:37:04	2040	3.16	27.380	8.410	7.95	31.650	4.210	9.85	31.480	4.440	9.80	32.830	3.180	102.47	
10:38:04	2100	3.16	27.380	8.410	8.01	31.710	4.150	9.81	31.440	4.480	9.81	32.840	3.170	100.93	
10:39:04	2160	3.16	27.380	8.410	7.97	31.670	4.190	9.83	31.460	4.460	9.82	32.850	3.160	102.74	
10:40:04	2220	3.14	27.360	8.430	7.90	31.600	4.260	9.73	31.360	4.560	9.83	32.860	3.150	103.71	
10:41:04	2280	3.18	27.400	8.390	7.99	31.690	4.170	9.85	31.480	4.440	9.83	32.860	3.150	102.56	
10:42:04	2340	3.18	27.400	8.390	7.99	31.690	4.170	9.85	31.480	4.440	9.83	32.860	3.150	102.56	
10:43:04	2400	3.15	27.370	8.420	7.94	31.640	4.220	9.77	31.400	4.520	9.80	32.830	3.180	103.63	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m³/hr)	
10:44:04	2460	3.11	27.330	8.460	7.91	31.610	4.250	9.82	31.450	4.470	9.82	32.850	3.160	102.65	
10:45:04	2520	3.16	27.380	8.410	8.00	31.700	4.160	9.81	31.440	4.480	9.80	32.830	3.180	103.65	
10:46:04	2580	3.15	27.370	8.420	7.99	31.690	4.170	9.81	31.440	4.480	9.83	32.860	3.150	101.94	
10:47:04	2640	3.13	27.350	8.440	7.96	31.660	4.200	9.84	31.470	4.450	9.81	32.840	3.170	102.47	
10:48:04	2700	3.16	27.380	8.410	7.94	31.640	4.220	9.77	31.400	4.520	9.82	32.850	3.160	102.65	
10:49:04	2760	3.14	27.360	8.430	7.89	31.590	4.270	9.76	31.390	4.530	9.80	32.830	3.180	102.89	
10:50:04	2820	3.12	27.340	8.450	7.94	31.640	4.220	9.75	31.380	4.540	9.80	32.830	3.180	103.71	
10:51:04	2880	3.14	27.360	8.430	8.00	31.700	4.160	9.80	31.430	4.490	9.82	32.850	3.160	103.71	
10:52:04	2940	3.11	27.330	8.460	7.94	31.640	4.220	9.73	31.360	4.560	9.82	32.850	3.160	102.83	
10:53:04	3000	3.13	27.350	8.440	7.96	31.660	4.200	9.82	31.450	4.470	9.83	32.860	3.150	102.83	
10:54:04	3060	3.15	27.370	8.420	7.98	31.680	4.180	9.86	31.490	4.430	9.82	32.850	3.160	101.76	
10:55:04	3120	3.13	27.350	8.440	7.96	31.660	4.200	9.80	31.430	4.490	9.83	32.860	3.150	102.35	
10:56:04	3180	3.14	27.360	8.430	8.00	31.700	4.160	9.76	31.390	4.530	9.80	32.830	3.180	102.41	
10:57:04	3240	3.18	27.400	8.390	7.92	31.620	4.240	9.76	31.390	4.530	9.84	32.870	3.140	101.64	
10:58:04	3300	3.13	27.350	8.440	7.93	31.630	4.230	9.73	31.360	4.560	9.82	32.850	3.160	103.03	
10:59:04	3360	3.14	27.360	8.430	7.96	31.660	4.200	9.74	31.370	4.550	9.82	32.850	3.160	101.91	
11:00:04	3420	3.12	27.340	8.450	7.96	31.660	4.200	9.80	31.430	4.490	9.82	32.850	3.160	103.63	
11:01:04	3480	3.15	27.370	8.420	7.99	31.690	4.170	9.86	31.490	4.430	9.83	32.860	3.150	102.53	
11:02:04	3540	3.14	27.360	8.430	8.02	31.720	4.140	9.83	31.460	4.460	9.82	32.850	3.160	102.53	
11:03:04	3600	3.16	27.380	8.410	7.89	31.590	4.270	9.74	31.370	4.550	9.80	32.830	3.180	102.18	
11:04:04	3660	3.13	27.350	8.440	7.94	31.640	4.220	9.78	31.410	4.510	9.84	32.870	3.140	102.77	
11:05:04	3720	3.09	27.310	8.480	7.89	31.590	4.270	9.75	31.380	4.540	9.80	32.830	3.180	103.51	
11:06:04	3780	3.16	27.380	8.410	7.98	31.680	4.180	9.84	31.470	4.450	9.83	32.860	3.150	102.53	
11:07:04	3840	3.09	27.310	8.480	7.91	31.610	4.250	9.74	31.370	4.550	9.82	32.850	3.160	102.92	
11:08:04	3900	3.06	27.280	8.510	7.96	31.660	4.200	9.80	31.430	4.490	9.83	32.860	3.150	103.89	
11:09:04	3960	3.06	27.280	8.510	7.96	31.660	4.200	9.80	31.430	4.490	9.83	32.860	3.150	103.89	
11:10:04	4020	3.13	27.350	8.440	8.01	31.710	4.150	9.84	31.470	4.450	9.81	32.840	3.170	103.89	
11:11:04	4080	3.09	27.310	8.480	7.89	31.590	4.270	9.78	31.410	4.510	9.84	32.870	3.140	103.95	
11:12:04	4140	3.08	27.300	8.490	7.99	31.690	4.170	9.77	31.400	4.520	9.84	32.870	3.140	102.41	
11:13:04	4200	3.10	27.320	8.470	8.00	31.700	4.160	9.83	31.460	4.460	9.81	32.840	3.170	103.60	
11:14:04	4260	3.10	27.320	8.470	7.94	31.640	4.220	9.77	31.400	4.520	9.79	32.820	3.190	104.07	
11:15:04	4320	3.10	27.320	8.470	7.89	31.590	4.270	9.76	31.390	4.530	9.82	32.850	3.160	102.77	
11:16:04	4380	3.14	27.360	8.430	7.97	31.670	4.190	9.82	31.450	4.470	9.83	32.860	3.150	102.89	
11:17:04	4440	3.11	27.330	8.460	7.96	31.660	4.200	9.83	31.460	4.460	9.82	32.850	3.160	102.89	
11:18:04	4500	3.12	27.340	8.450	7.98	31.680	4.180	9.76	31.390	4.530	9.81	32.840	3.170	102.80	
11:19:04	4560	3.11	27.330	8.460	7.91	31.610	4.250	9.73	31.360	4.560	9.80	32.830	3.180	103.48	
11:20:04	4620	3.10	27.320	8.470	7.93	31.630	4.230	9.73	31.360	4.560	9.82	32.850	3.160	102.41	
11:21:04	4680	3.15	27.370	8.420	9.97	33.670	2.190	9.84	31.470	4.450	9.83	32.860	3.150	103.60	
11:22:04	4740	3.15	27.370	8.420	8.01	31.710	4.150	9.83	31.460	4.460	9.82	32.850	3.160	103.60	
11:23:04	4800	3.11	27.330	8.460	7.96	31.660	4.200	9.80	31.430	4.490	9.81	32.840	3.170	103.74	
11:24:04	4860	3.11	27.330	8.460	7.93	31.630	4.230	9.77	31.400	4.520	9.80	32.830	3.180	103.74	
11:25:04	4920	3.09	27.310	8.480	7.96	31.660	4.200	9.83	31.460	4.460	9.80	32.830	3.180	103.30	
11:26:04	4980	3.09	27.310	8.480	8.01	31.710	4.150	9.80	31.430	4.490	9.79	32.820	3.190	101.70	
11:27:04	5040	3.10	27.320	8.470	7.98	31.680	4.180	9.76	31.390	4.530	9.80	32.830	3.180	102.95	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
11:28:04	5100	3.09	27.310	8.480	7.96	31.660	4.200	9.80	31.430	4.490	9.82	32.850	3.160	102.95	
11:29:04	5160	3.14	27.360	8.430	7.91	31.610	4.250	9.76	31.390	4.530	9.80	32.830	3.180	103.00	
11:30:04	5220	3.12	27.340	8.450	7.93	31.630	4.230	9.76	31.390	4.530	9.80	32.830	3.180	103.45	
11:31:04	5280	3.14	27.360	8.430	7.96	31.660	4.200	9.83	31.460	4.460	9.80	32.830	3.180	102.65	
11:32:04	5340	3.20	27.420	8.370	7.98	31.680	4.180	9.85	31.480	4.440	9.81	32.840	3.170	103.83	
11:33:04	5400	3.07	27.290	8.500	7.95	31.650	4.210	9.73	31.360	4.560	9.82	32.850	3.160	102.68	
11:34:04	5460	3.11	27.330	8.460	7.94	31.640	4.220	9.82	31.450	4.470	9.80	32.830	3.180	102.68	
11:35:04	5520	3.13	27.350	8.440	7.90	31.600	4.260	9.72	31.350	4.570	9.83	32.860	3.150	102.92	
11:36:04	5580	3.13	27.350	8.440	7.99	31.690	4.170	9.82	31.450	4.470	9.83	32.860	3.150	102.71	
11:37:04	5640	3.15	27.370	8.420	7.97	31.670	4.190	9.83	31.460	4.460	9.82	32.850	3.160	103.65	
11:38:04	5700	3.11	27.330	8.460	7.89	31.590	4.270	9.71	31.340	4.580	9.80	32.830	3.180	103.18	
11:39:04	5760	3.13	27.350	8.440	7.90	31.600	4.260	9.71	31.340	4.580	9.81	32.840	3.170	103.18	
11:40:04	5820	3.06	27.280	8.510	7.96	31.660	4.200	9.81	31.440	4.480	9.81	32.840	3.170	102.29	
11:41:04	5880	3.12	27.340	8.450	7.94	31.640	4.220	9.73	31.360	4.560	9.81	32.840	3.170	101.82	
11:42:04	5940	3.17	27.390	8.400	7.99	31.690	4.170	9.82	31.450	4.470	9.83	32.860	3.150	103.15	
11:43:04	6000	3.13	27.350	8.440	7.90	31.600	4.260	9.76	31.390	4.530	9.80	32.830	3.180	102.83	
11:44:04	6060	3.09	27.310	8.480	7.97	31.670	4.190	9.83	31.460	4.460	9.81	32.840	3.170	101.35	
11:45:04	6120	3.10	27.320	8.470	7.89	31.590	4.270	9.73	31.360	4.560	9.80	32.830	3.180	102.65	
11:46:04	6180	3.10	27.320	8.470	7.89	31.590	4.270	9.73	31.360	4.560	9.80	32.830	3.180	102.65	
11:47:04	6240	3.06	27.280	8.510	7.93	31.630	4.230	9.77	31.400	4.520	9.80	32.830	3.180	103.65	
11:48:04	6300	3.09	27.310	8.480	7.93	31.630	4.230	9.73	31.360	4.560	9.83	32.860	3.150	102.53	
11:49:04	6360	3.10	27.320	8.470	8.01	31.710	4.150	9.81	31.440	4.480	9.81	32.840	3.170	102.41	
11:50:04	6420	3.10	27.320	8.470	7.91	31.610	4.250	9.72	31.350	4.570	9.80	32.830	3.180	103.12	
11:51:04	6480	3.11	27.330	8.460	7.98	31.680	4.180	9.84	31.470	4.450	9.81	32.840	3.170	103.12	
11:52:04	6540	3.09	27.310	8.480	7.96	31.660	4.200	9.80	31.430	4.490	9.81	32.840	3.170	103.12	
11:53:04	6600	3.13	27.350	8.440	7.89	31.590	4.270	9.80	31.430	4.490	9.83	32.860	3.150	103.12	
11:54:04	6660	3.11	27.330	8.460	7.90	31.600	4.260	9.76	31.390	4.530	9.80	32.830	3.180	104.19	
11:55:04	6720	3.11	27.330	8.460	7.94	31.640	4.220	9.77	31.400	4.520	9.82	32.850	3.160	103.24	
11:56:04	6780	3.08	27.300	8.490	7.94	31.640	4.220	9.80	31.430	4.490	9.82	32.850	3.160	102.89	
11:57:04	6840	3.11	27.330	8.460	7.97	31.670	4.190	9.80	31.430	4.490	9.82	32.850	3.160	102.89	
11:58:04	6900	3.15	27.370	8.420	7.97	31.670	4.190	9.80	31.430	4.490	9.83	32.860	3.150	104.54	
11:59:04	6960	3.13	27.350	8.440	8.00	31.700	4.160	9.79	31.420	4.500	9.80	32.830	3.180	102.44	
12:00:04	7020	3.09	27.310	8.480	7.87	31.570	4.290	9.83	31.460	4.460	9.80	32.830	3.180	102.12	
12:01:04	7080	3.06	27.280	8.510	7.94	31.640	4.220	9.75	31.380	4.540	9.81	32.840	3.170	103.24	
12:02:04	7140	3.09	27.310	8.480	7.99	31.690	4.170	9.79	31.420	4.500	9.83	32.860	3.150	104.25	
12:03:04	7200	3.10	27.320	8.470	7.93	31.630	4.230	9.77	31.400	4.520	9.80	32.830	3.180	103.00	
12:04:04	7260	3.10	27.320	8.470	7.95	31.650	4.210	9.80	31.430	4.490	9.82	32.850	3.160	102.77	
12:05:04	7320	3.16	27.380	8.410	8.01	31.710	4.150	9.83	31.460	4.460	9.82	32.850	3.160	102.53	
12:06:04	7380	3.11	27.330	8.460	7.97	31.670	4.190	9.82	31.450	4.470	9.81	32.840	3.170	102.95	
12:07:04	7440	3.06	27.280	8.510	7.94	31.640	4.220	9.75	31.380	4.540	9.81	32.840	3.170	102.92	
12:08:04	7500	3.12	27.340	8.450	7.93	31.630	4.230	9.74	31.370	4.550	9.80	32.830	3.180	102.71	
12:09:04	7560	3.11	27.330	8.460	7.94	31.640	4.220	9.78	31.410	4.510	9.83	32.860	3.150	104.01	
12:10:04	7620	3.09	27.310	8.480	7.92	31.620	4.240	9.75	31.380	4.540	9.80	32.830	3.180	103.12	
12:11:04	7680	3.05	27.270	8.520	7.98	31.680	4.180	9.85	31.480	4.440	9.80	32.830	3.180	103.48	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
12:12:04	7740	3.08	27.300	8.490	7.94	31.640	4.220	9.81	31.440	4.480	9.83	32.860	3.150	103.60	
12:13:04	7800	3.06	27.280	8.510	7.93	31.630	4.230	9.76	31.390	4.530	9.80	32.830	3.180	104.07	
12:14:04	7860	3.09	27.310	8.480	7.89	31.590	4.270	9.78	31.410	4.510	9.78	32.810	3.200	103.54	
12:15:04	7920	3.11	27.330	8.460	7.92	31.620	4.240	9.77	31.400	4.520	9.79	32.820	3.190	102.53	
12:16:04	7980	3.06	27.280	8.510	7.93	31.630	4.230	9.73	31.360	4.560	9.83	32.860	3.150	103.98	
12:17:04	8040	3.13	27.350	8.440	7.92	31.620	4.240	9.74	31.370	4.550	9.80	32.830	3.180	102.95	
12:18:04	8100	3.16	27.380	8.410	8.00	31.700	4.160	9.82	31.450	4.470	9.82	32.850	3.160	102.95	
12:19:04	8160	3.06	27.280	8.510	7.93	31.630	4.230	9.76	31.390	4.530	9.80	32.830	3.180	104.13	
12:20:04	8220	3.08	27.300	8.490	7.98	31.680	4.180	9.76	31.390	4.530	9.80	32.830	3.180	103.51	
12:21:04	8280	3.06	27.280	8.510	7.93	31.630	4.230	7.96	29.590	6.330	9.80	32.830	3.180	102.18	
12:22:04	8340	3.03	27.250	8.540	7.91	31.610	4.250	9.73	31.360	4.560	9.83	32.860	3.150	102.71	
12:23:04	8400	3.10	27.320	8.470	7.98	31.680	4.180	9.78	31.410	4.510	9.78	32.810	3.200	102.71	
12:24:04	8460	3.15	27.370	8.420	7.98	31.680	4.180	9.82	31.450	4.470	9.81	32.840	3.170	102.71	
12:25:04	8520	3.11	27.330	8.460	7.87	31.570	4.290	9.74	31.370	4.550	9.80	32.830	3.180	103.21	
12:26:04	8580	3.08	27.300	8.490	7.96	31.660	4.200	9.83	31.460	4.460	9.83	32.860	3.150	103.54	
12:27:04	8640	3.07	27.290	8.500	7.98	31.680	4.180	9.75	31.380	4.540	9.80	32.830	3.180	104.01	
12:28:04	8700	3.10	27.320	8.470	7.92	31.620	4.240	9.83	31.460	4.460	9.81	32.840	3.170	102.95	
12:29:04	8760	3.08	27.300	8.490	7.94	31.640	4.220	9.78	31.410	4.510	9.83	32.860	3.150	102.95	
12:30:04	8820	3.06	27.280	8.510	7.98	31.680	4.180	9.78	31.410	4.510	9.80	32.830	3.180	103.63	
12:31:04	8880	3.06	27.280	8.510	7.88	31.580	4.280	9.71	31.340	4.580	9.82	32.850	3.160	101.50	
12:32:04	8940	3.07	27.290	8.500	7.94	31.640	4.220	9.79	31.420	4.500	9.82	32.850	3.160	102.30	
12:33:04	9000	3.06	27.280	8.510	7.89	31.590	4.270	9.80	31.430	4.490	9.83	32.860	3.150	103.48	
12:34:04	9060	3.11	27.330	8.460	7.89	31.590	4.270	9.76	31.390	4.530	9.80	32.830	3.180	103.71	
12:35:04	9120	3.13	27.350	8.440	7.95	31.650	4.210	9.78	31.410	4.510	9.83	32.860	3.150	103.24	
12:36:04	9180	3.10	27.320	8.470	7.92	31.620	4.240	9.72	31.350	4.570	9.81	32.840	3.170	103.24	
12:37:04	9240	3.07	27.290	8.500	7.96	31.660	4.200	9.81	31.440	4.480	9.82	32.850	3.160	103.24	
12:38:04	9300	3.12	27.340	8.450	7.97	31.670	4.190	9.80	31.430	4.490	9.83	32.860	3.150	102.71	
12:39:04	9360	3.11	27.330	8.460	7.90	31.600	4.260	9.76	31.390	4.530	9.80	32.830	3.180	103.77	
12:40:04	9420	3.07	27.290	8.500	7.96	31.660	4.200	9.78	31.410	4.510	9.78	32.810	3.200	102.47	
12:41:04	9480	3.09	27.310	8.480	7.90	31.600	4.260	9.82	31.450	4.470	9.78	32.810	3.200	102.18	
12:42:04	9540	3.10	27.320	8.470	7.96	31.660	4.200	9.78	31.410	4.510	9.83	32.860	3.150	103.36	
12:43:04	9600	3.07	27.290	8.500	7.88	31.580	4.280	9.78	31.410	4.510	9.78	32.810	3.200	103.36	
12:44:04	9660	3.08	27.300	8.490	7.92	31.620	4.240	9.76	31.390	4.530	9.80	32.830	3.180	103.06	
12:45:04	9720	3.13	27.350	8.440	7.89	31.590	4.270	9.78	31.410	4.510	9.83	32.860	3.150	101.88	
12:46:04	9780	3.06	27.280	8.510	7.92	31.620	4.240	9.74	31.370	4.550	9.80	32.830	3.180	102.06	
12:47:04	9840	3.10	27.320	8.470	7.94	31.640	4.220	9.78	31.410	4.510	9.80	32.830	3.180	103.27	
12:48:04	9900	3.07	27.290	8.500	7.98	31.680	4.180	9.81	31.440	4.480	9.83	32.860	3.150	101.17	
12:49:04	9960	3.11	27.330	8.460	7.85	31.550	4.310	9.73	31.360	4.560	9.81	32.840	3.170	102.77	
12:50:04	10020	3.08	27.300	8.490	7.94	31.640	4.220	9.81	31.440	4.480	9.80	32.830	3.180	102.77	
12:51:04	10080	3.10	27.320	8.470	8.00	31.700	4.160	9.80	31.430	4.490	9.83	32.860	3.150	103.71	
12:52:04	10140	3.08	27.300	8.490	7.97	31.670	4.190	9.79	31.420	4.500	9.82	32.850	3.160	102.18	
12:53:04	10200	3.05	27.270	8.520	7.96	31.660	4.200	9.84	31.470	4.450	9.81	32.840	3.170	104.31	
12:54:04	10260	3.05	27.270	8.520	7.89	31.590	4.270	9.80	31.430	4.490	9.82	32.850	3.160	103.36	
12:55:04	10320	3.10	27.320	8.470	7.99	31.690	4.170	9.84	31.470	4.450	9.80	32.830	3.180	103.12	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m³/hr)	
12:56:04	10380	3.05	27.270	8.520	7.87	31.570	4.290	9.74	31.370	4.550	9.80	32.830	3.180	104.25	
12:57:04	10440	3.10	27.320	8.470	8.00	31.700	4.160	9.80	31.430	4.490	9.82	32.850	3.160	102.32	
12:58:04	10500	3.08	27.300	8.490	7.98	31.680	4.180	9.76	31.390	4.530	9.83	32.860	3.150	103.65	
12:59:04	10560	3.14	27.360	8.430	7.96	31.660	4.200	9.80	31.430	4.490	9.83	32.860	3.150	104.01	
13:00:04	10620	3.07	27.290	8.500	7.89	31.590	4.270	9.76	31.390	4.530	9.79	32.820	3.190	103.03	
13:01:04	10680	3.09	27.310	8.480	7.94	31.640	4.220	9.78	31.410	4.510	9.83	32.860	3.150	103.03	
13:02:04	10740	3.14	27.360	8.430	7.96	31.660	4.200	9.80	31.430	4.490	9.82	32.850	3.160	103.98	
13:03:04	10800	3.10	27.320	8.470	7.99	31.690	4.170	9.84	31.470	4.450	9.82	32.850	3.160	103.77	
13:04:04	10860	3.07	27.290	8.500	7.88	31.580	4.280	9.69	31.320	4.600	9.82	32.850	3.160	103.36	
13:05:04	10920	3.07	27.290	8.500	7.96	31.660	4.200	9.80	31.430	4.490	9.81	32.840	3.170	101.94	
13:06:04	10980	3.08	27.300	8.490	7.98	31.680	4.180	9.77	31.400	4.520	9.82	32.850	3.160	102.53	
13:07:04	11040	3.13	27.350	8.440	7.95	31.650	4.210	9.81	31.440	4.480	9.82	32.850	3.160	102.18	
13:08:04	11100	3.13	27.350	8.440	7.97	31.670	4.190	9.84	31.470	4.450	9.80	32.830	3.180	102.29	
13:09:04	11160	3.10	27.320	8.470	7.92	31.620	4.240	9.76	31.390	4.530	9.81	32.840	3.170	103.65	
13:10:04	11220	3.04	27.260	8.530	7.87	31.570	4.290	9.75	31.380	4.540	9.80	32.830	3.180	102.35	
13:11:04	11280	3.07	27.290	8.500	7.89	31.590	4.270	9.70	31.330	4.590	9.82	32.850	3.160	103.68	
13:12:04	11340	3.06	27.280	8.510	7.93	31.630	4.230	9.76	31.390	4.530	9.81	32.840	3.170	103.68	
13:13:04	11400	3.08	27.300	8.490	8.01	31.710	4.150	9.81	31.440	4.480	9.82	32.850	3.160	103.36	
13:14:04	11460	3.09	27.310	8.480	7.98	31.680	4.180	9.76	31.390	4.530	9.80	32.830	3.180	103.00	
13:15:04	11520	3.11	27.330	8.460	8.01	31.710	4.150	9.83	31.460	4.460	9.81	32.840	3.170	103.48	
13:16:04	11580	3.08	27.300	8.490	7.96	31.660	4.200	9.81	31.440	4.480	9.83	32.860	3.150	103.48	
13:17:04	11640	3.05	27.270	8.520	7.92	31.620	4.240	9.76	31.390	4.530	9.81	32.840	3.170	103.24	
13:18:04	11700	3.06	27.280	8.510	7.92	31.620	4.240	9.73	31.360	4.560	9.80	32.830	3.180	103.00	
13:19:04	11760	3.05	27.270	8.520	7.89	31.590	4.270	9.69	31.320	4.600	9.80	32.830	3.180	104.54	
13:20:04	11820	3.10	27.320	8.470	7.94	31.640	4.220	9.78	31.410	4.510	9.82	32.850	3.160	103.06	
13:21:04	11880	3.09	27.310	8.480	7.89	31.590	4.270	9.73	31.360	4.560	9.80	32.830	3.180	103.06	
13:22:04	11940	3.03	27.250	8.540	7.88	31.580	4.280	9.73	31.360	4.560	9.80	32.830	3.180	102.06	
13:23:04	12000	3.04	27.260	8.530	7.88	31.580	4.280	9.69	31.320	4.600	9.82	32.850	3.160	103.54	
13:24:04	12060	3.10	27.320	8.470	7.88	31.580	4.280	9.76	31.390	4.530	9.84	32.870	3.140	103.54	
13:25:04	12120	3.03	27.250	8.540	7.89	31.590	4.270	9.72	31.350	4.570	9.80	32.830	3.180	103.00	
13:26:04	12180	3.04	27.260	8.530	7.85	31.550	4.310	9.72	31.350	4.570	9.82	32.850	3.160	103.03	
13:27:04	12240	3.08	27.300	8.490	7.92	31.620	4.240	9.76	31.390	4.530	9.81	32.840	3.170	103.98	
13:28:04	12300	3.06	27.280	8.510	7.89	31.590	4.270	9.69	31.320	4.600	9.80	32.830	3.180	102.29	
13:29:04	12360	3.09	27.310	8.480	7.99	31.690	4.170	9.84	31.470	4.450	9.80	32.830	3.180	101.94	
13:30:04	12420	3.06	27.280	8.510	7.89	31.590	4.270	9.76	31.390	4.530	9.84	32.870	3.140	103.60	
13:31:04	12480	3.08	27.300	8.490	7.89	31.590	4.270	9.74	31.370	4.550	9.80	32.830	3.180	103.30	
13:32:04	12540	3.05	27.270	8.520	7.87	31.570	4.290	9.69	31.320	4.600	9.82	32.850	3.160	102.21	
13:33:04	12600	3.06	27.280	8.510	7.91	31.610	4.250	9.76	31.390	4.530	9.80	32.830	3.180	102.89	
13:34:04	12660	3.09	27.310	8.480	7.88	31.580	4.280	9.73	31.360	4.560	9.80	32.830	3.180	102.59	
13:35:04	12720	3.04	27.260	8.530	7.89	31.590	4.270	9.71	31.340	4.580	9.80	32.830	3.180	103.77	
13:36:04	12780	3.06	27.280	8.510	7.93	31.630	4.230	9.77	31.400	4.520	9.83	32.860	3.150	103.48	
13:37:04	12840	3.12	27.340	8.450	7.96	31.660	4.200	9.79	31.420	4.500	9.83	32.860	3.150	103.77	
13:38:04	12900	3.11	27.330	8.460	7.97	31.670	4.190	9.80	31.430	4.490	9.83	32.860	3.150	102.83	
13:39:04	12960	3.06	27.280	8.510	7.88	31.580	4.280	9.71	31.340	4.580	9.80	32.830	3.180	103.48	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
13:40:04	13020	3.07	27.290	8.500	7.91	31.610	4.250	9.73	31.360	4.560	9.81	32.840	3.170	103.48	
13:41:04	13080	3.05	27.270	8.520	7.96	31.660	4.200	9.77	31.400	4.520	9.82	32.850	3.160	103.65	
13:42:04	13140	3.13	27.350	8.440	8.00	31.700	4.160	9.81	31.440	4.480	9.82	32.850	3.160	102.83	
13:43:04	13200	3.05	27.270	8.520	7.89	31.590	4.270	9.69	31.320	4.600	9.82	32.850	3.160	102.83	
13:44:04	13260	3.13	27.350	8.440	7.88	31.580	4.280	9.69	31.320	4.600	9.81	32.840	3.170	103.77	
13:45:04	13320	3.11	27.330	8.460	7.85	31.550	4.310	9.72	31.350	4.570	9.82	32.850	3.160	103.83	
13:46:04	13380	3.08	27.300	8.490	7.98	31.680	4.180	9.83	31.460	4.460	9.82	32.850	3.160	103.12	
13:47:04	13440	3.14	27.360	8.430	7.96	31.660	4.200	9.81	31.440	4.480	9.84	32.870	3.140	103.12	
13:48:04	13500	3.12	27.340	8.450	7.90	31.600	4.260	9.76	31.390	4.530	9.84	32.870	3.140	103.12	
13:49:04	13560	3.06	27.280	8.510	7.89	31.590	4.270	9.80	31.430	4.490	9.83	32.860	3.150	102.00	
13:50:04	13620	3.04	27.260	8.530	7.86	31.560	4.300	9.69	31.320	4.600	9.83	32.860	3.150	102.86	
13:51:04	13680	3.08	27.300	8.490	8.00	31.700	4.160	9.80	31.430	4.490	9.81	32.840	3.170	102.86	
13:52:04	13740	3.10	27.320	8.470	7.90	31.600	4.260	9.82	31.450	4.470	9.83	32.860	3.150	104.01	
13:53:04	13800	3.05	27.270	8.520	7.96	31.660	4.200	9.74	31.370	4.550	9.80	32.830	3.180	103.18	
13:54:04	13860	3.08	27.300	8.490	7.93	31.630	4.230	9.71	31.340	4.580	9.82	32.850	3.160	102.71	
13:55:04	13920	3.06	27.280	8.510	7.92	31.620	4.240	9.76	31.390	4.530	9.83	32.860	3.150	103.30	
13:56:04	13980	3.07	27.290	8.500	7.95	31.650	4.210	9.83	31.460	4.460	9.82	32.850	3.160	104.01	
13:57:04	14040	3.09	27.310	8.480	7.88	31.580	4.280	9.77	31.400	4.520	9.84	32.870	3.140	103.24	
13:58:04	14100	3.09	27.310	8.480	7.92	31.620	4.240	9.76	31.390	4.530	9.82	32.850	3.160	102.47	
13:59:04	14160	3.06	27.280	8.510	7.89	31.590	4.270	9.73	31.360	4.560	9.81	32.840	3.170	102.65	
14:00:04	14220	3.10	27.320	8.470	7.93	31.630	4.230	9.79	31.420	4.500	9.83	32.860	3.150	102.65	
14:01:04	14280	2.04	26.260	9.530										103.03	
14:02:04	14340	3.04	27.260	8.530										102.83	
14:03:04	14400	3.06	27.280	8.510										101.61	
14:04:04	14460	3.08	27.300	8.490										102.56	
14:05:04	14520	3.05	27.270	8.520										103.60	
14:06:04	14580	3.05	27.270	8.520										103.54	
14:07:04	14640	3.06	27.280	8.510										101.97	
14:08:04	14700	3.06	27.280	8.510										103.95	
14:09:04	14760	3.02	27.240	8.550										103.65	
14:10:04	14820	3.07	27.290	8.500										103.36	
14:11:04	14880	3.00	27.220	8.570										103.45	
14:12:04	14940	3.01	27.230	8.560										103.42	
14:13:04	15000	3.10	27.320	8.470										103.27	
14:14:04	15060	3.09	27.310	8.480										103.27	
14:15:04	15120	3.08	27.300	8.490										103.83	
14:16:04	15180	3.06	27.280	8.510										103.77	
14:17:04	15240	3.04	27.260	8.530										103.24	
14:18:04	15300	3.09	27.310	8.480										102.65	
14:19:04	15360	3.07	27.290	8.500										103.24	
14:20:04	15420	3.08	27.300	8.490										103.83	
14:21:04	15480	3.10	27.320	8.470										103.36	
14:22:04	15540	3.07	27.290	8.500										103.21	
14:23:04	15600	6.78	31.000	4.790											

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - APRIL 9, 2001

Time	Elapsed Time	Well #2			Well #1			Well #3			Well #4			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m³/hr)	
14:24:04	15660	7.36	31.580	4.210											
14:25:04	15720	7.43	31.650	4.140											
14:26:04	15780	7.49	31.710	4.080											
14:27:04	15840	7.49	31.710	4.080											
14:28:04	15900	7.53	31.750	4.040											
14:29:04	15960	7.52	31.740	4.050											
14:30:04	16020	7.52	31.740	4.050											
14:31:04	16080	7.55	31.770	4.020											
14:32:04	16140	7.54	31.760	4.030											
14:33:04	16200	7.57	31.790	4.000											
14:34:04	16260	7.54	31.760	4.030											
14:35:04	16320	7.57	31.790	4.000											
14:36:04	16380	7.57	31.790	4.000											
14:37:04	16440	7.57	31.790	4.000											
14:38:04	16500	7.59	31.810	3.980											
14:39:04	16560	7.60	31.820	3.970											
14:40:04	16620	7.60	31.820	3.970											
14:41:04	16680	7.59	31.810	3.980											
14:42:04	16740	7.60	31.820	3.970											
14:43:04	16800	7.61	31.830	3.960											
14:44:04	16860	7.60	31.820	3.970											
14:45:04	16920	7.60	31.820	3.970											
14:46:04	16980	7.62	31.840	3.950											
14:47:04	17040	7.61	31.830	3.960											
14:48:04	17100	7.62	31.840	3.950											
14:49:04	17160	7.63	31.850	3.940											
14:50:04	17220	7.60	31.820	3.970											
Top of Casing	2-95	35.790		1-95	35.860		3-95	35.920		4-95	36.010				
Height of Transducer		24.220			23.700			21.630			23.030				

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:05:07 PM	0	12.460	35.490	0.520	10.300	34.000	1.860	9.958	34.178	1.612	12.153	33.783	2.137	0.000	Wellfield was not pumped for 6 hours prior to start of test.
4:05:08 PM	1	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:09 PM	2	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:10 PM	3	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:11 PM	4	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:12 PM	5	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:13 PM	6	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:14 PM	7	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:15 PM	8	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:16 PM	9	12.469	35.499	0.511	10.344	34.044	1.816	9.185	33.405	2.385	12.223	33.853	2.067	24.864	
4:05:17 PM	10	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:18 PM	11	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:19 PM	12	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:20 PM	13	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:21 PM	14	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:22 PM	15	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:23 PM	16	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:24 PM	17	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:25 PM	18	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:26 PM	19	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:27 PM	20	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:28 PM	21	12.495	35.525	0.485	10.344	34.044	1.816	6.955	31.175	4.615	12.232	33.862	2.058	99.871	
4:05:29 PM	22	12.469	35.499	0.511	10.344	34.044	1.816	6.322	30.542	5.248	12.206	33.836	2.084	99.871	
4:05:30 PM	23	12.469	35.499	0.511	10.344	34.044	1.816	6.322	30.542	5.248	12.206	33.836	2.084	99.871	
4:05:31 PM	24	12.469	35.499	0.511	10.344	34.044	1.816	6.322	30.542	5.248	12.206	33.836	2.084	99.871	
4:05:32 PM	25	12.469	35.499	0.511	10.344	34.044	1.816	6.322	30.542	5.248	12.206	33.836	2.084	99.871	
4:05:33 PM	26	12.469	35.499	0.511	10.344	34.044	1.816	6.322	30.542	5.248	12.206	33.836	2.084	99.871	
4:05:34 PM	27	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:35 PM	28	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:36 PM	29	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:37 PM	30	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:38 PM	31	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:39 PM	32	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:40 PM	33	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:41 PM	34	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:42 PM	35	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:43 PM	36	12.469	35.499	0.511	10.296	33.996	1.864	5.945	30.165	5.625	12.170	33.800	2.120	104.926	
4:05:44 PM	37	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:45 PM	38	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:46 PM	39	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:47 PM	40	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:48 PM	41	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:05:49 PM	42	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:50 PM	43	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:51 PM	44	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:52 PM	45	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:53 PM	46	12.504	35.534	0.476	10.335	34.035	1.825	5.699	29.919	5.871	12.241	33.871	2.049	108.149	
4:05:54 PM	47	12.504	35.534	0.476	10.283	33.983	1.877	5.580	29.800	5.990	12.188	33.818	2.102	105.251	
4:05:55 PM	48	12.504	35.534	0.476	10.283	33.983	1.877	5.580	29.800	5.990	12.188	33.818	2.102	105.251	
4:05:56 PM	49	12.504	35.534	0.476	10.283	33.983	1.877	5.580	29.800	5.990	12.188	33.818	2.102	105.251	
4:05:57 PM	50	12.504	35.534	0.476	10.283	33.983	1.877	5.580	29.800	5.990	12.188	33.818	2.102	105.251	
4:05:58 PM	51	12.504	35.534	0.476	10.283	33.983	1.877	5.580	29.800	5.990	12.188	33.818	2.102	105.251	
4:05:59 PM	52	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:00 PM	53	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:01 PM	54	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:02 PM	55	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:03 PM	56	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:04 PM	57	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:05 PM	58	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:06 PM	59	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:07 PM	60	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:08 PM	61	12.487	35.517	0.493	10.204	33.904	1.956	5.541	29.761	6.029	12.083	33.713	2.207	103.980	
4:06:09 PM	62	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:10 PM	63	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:11 PM	64	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:12 PM	65	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:13 PM	66	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:14 PM	67	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:15 PM	68	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:16 PM	69	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:17 PM	70	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:18 PM	71	12.451	35.481	0.529	10.247	33.947	1.913	5.642	29.862	5.928	12.135	33.765	2.155	103.980	
4:06:19 PM	72	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:20 PM	73	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:21 PM	74	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:22 PM	75	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:23 PM	76	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:24 PM	77	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:25 PM	78	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:26 PM	79	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:27 PM	80	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:28 PM	81	12.487	35.517	0.493	10.283	33.983	1.877	5.607	29.827	5.963	12.153	33.783	2.137	102.768	
4:06:29 PM	82	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:30 PM	83	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:06:31 PM	84	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:32 PM	85	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:33 PM	86	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:34 PM	87	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:35 PM	88	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:36 PM	89	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:37 PM	90	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:38 PM	91	12.456	35.486	0.524	10.208	33.908	1.952	5.550	29.770	6.020	12.100	33.730	2.190	104.246	
4:06:39 PM	92	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:40 PM	93	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:41 PM	94	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:42 PM	95	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:43 PM	96	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:44 PM	97	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:45 PM	98	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:46 PM	99	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:47 PM	100	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:48 PM	101	12.451	35.481	0.529	10.186	33.886	1.974	5.519	29.739	6.051	12.118	33.748	2.172	104.246	
4:06:49 PM	102	12.469	35.499	0.511	10.160	33.860	2.000	5.514	29.734	6.056	12.074	33.704	2.216	104.246	
4:06:50 PM	103	12.469	35.499	0.511	10.160	33.860	2.000	5.514	29.734	6.056	12.074	33.704	2.216	104.246	
4:06:51 PM	104	12.469	35.499	0.511	10.160	33.860	2.000	5.514	29.734	6.056	12.074	33.704	2.216	104.246	
4:06:52 PM	105	12.469	35.499	0.511	10.160	33.860	2.000	5.514	29.734	6.056	12.074	33.704	2.216	104.246	
4:06:53 PM	106	12.469	35.499	0.511	10.160	33.860	2.000	5.514	29.734	6.056	12.074	33.704	2.216	104.246	
4:06:54 PM	107	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:06:55 PM	108	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:06:56 PM	109	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:06:57 PM	110	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:06:58 PM	111	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:06:59 PM	112	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:07:00 PM	113	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:07:01 PM	114	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:07:02 PM	115	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:07:03 PM	116	12.491	35.521	0.489	10.239	33.939	1.921	5.576	29.796	5.994	12.127	33.757	2.163	104.246	
4:07:04 PM	117	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:05 PM	118	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:06 PM	119	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:07 PM	120	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:08 PM	121	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:09 PM	122	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:10 PM	123	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:11 PM	124	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:12 PM	125	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:07:13 PM	126	12.487	35.517	0.493	10.239	33.939	1.921	5.545	29.765	6.025	12.127	33.757	2.163	104.246	
4:07:14 PM	127	12.478	35.508	0.502	10.212	33.912	1.948	5.479	29.699	6.091	12.100	33.730	2.190	104.246	
4:07:15 PM	128	12.478	35.508	0.502	10.212	33.912	1.948	5.479	29.699	6.091	12.100	33.730	2.190	104.246	
4:07:16 PM	129	12.478	35.508	0.502	10.212	33.912	1.948	5.479	29.699	6.091	12.100	33.730	2.190	104.246	
4:07:17 PM	130	12.478	35.508	0.502	10.212	33.912	1.948	5.479	29.699	6.091	12.100	33.730	2.190	104.246	
4:07:18 PM	131	12.478	35.508	0.502	10.212	33.912	1.948	5.479	29.699	6.091	12.100	33.730	2.190	104.246	
4:07:19 PM	132	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:20 PM	133	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:21 PM	134	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:22 PM	135	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:23 PM	136	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:24 PM	137	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:25 PM	138	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:26 PM	139	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:27 PM	140	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:28 PM	141	12.469	35.499	0.511	10.212	33.912	1.948	5.497	29.717	6.073	12.162	33.792	2.128	104.246	
4:07:29 PM	142	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:30 PM	143	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:31 PM	144	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:32 PM	145	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:33 PM	146	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:34 PM	147	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:35 PM	148	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:36 PM	149	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:37 PM	150	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:38 PM	151	12.487	35.517	0.493	10.239	33.939	1.921	5.497	29.717	6.073	12.122	33.752	2.168	104.246	
4:07:39 PM	152	12.460	35.490	0.520	10.283	33.983	1.877	5.514	29.734	6.056	12.170	33.800	2.120	104.246	
4:07:40 PM	153	12.460	35.490	0.520	10.283	33.983	1.877	5.514	29.734	6.056	12.170	33.800	2.120	104.246	
4:07:41 PM	154	12.460	35.490	0.520	10.283	33.983	1.877	5.514	29.734	6.056	12.170	33.800	2.120	104.246	
4:07:42 PM	155	12.460	35.490	0.520	10.283	33.983	1.877	5.514	29.734	6.056	12.170	33.800	2.120	104.246	
4:07:43 PM	156	12.460	35.490	0.520	10.283	33.983	1.877	5.514	29.734	6.056	12.170	33.800	2.120	104.246	
4:07:44 PM	157	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:45 PM	158	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:46 PM	159	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:47 PM	160	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:48 PM	161	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:49 PM	162	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:50 PM	163	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:51 PM	164	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:52 PM	165	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:53 PM	166	12.451	35.481	0.529	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:07:54 PM	167	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:07:55 PM	168	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:07:56 PM	169	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:07:57 PM	170	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:07:58 PM	171	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:07:59 PM	172	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:08:00 PM	173	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:08:01 PM	174	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:08:02 PM	175	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:08:03 PM	176	12.451	35.481	0.529	10.186	33.886	1.974	5.462	29.682	6.108	12.030	33.660	2.260	104.246	
4:08:04 PM	177	12.478	35.508	0.502	10.221	33.921	1.939	5.528	29.748	6.042	12.127	33.757	2.163	104.246	
4:08:05 PM	178	12.478	35.508	0.502	10.221	33.921	1.939	5.528	29.748	6.042	12.127	33.757	2.163	104.246	
4:08:06 PM	179	12.478	35.508	0.502	10.221	33.921	1.939	5.528	29.748	6.042	12.127	33.757	2.163	104.246	
4:08:07 PM	180	12.478	35.508	0.502	10.221	33.921	1.939	5.528	29.748	6.042	12.127	33.757	2.163	104.246	
4:08:08 PM	181	12.478	35.508	0.502	10.221	33.921	1.939	5.528	29.748	6.042	12.127	33.757	2.163	104.246	
4:08:09 PM	182	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:10 PM	183	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:11 PM	184	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:12 PM	185	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:13 PM	186	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:14 PM	187	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:15 PM	188	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:16 PM	189	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:17 PM	190	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:18 PM	191	12.487	35.517	0.493	10.221	33.921	1.939	5.523	29.743	6.047	12.118	33.748	2.172	104.246	
4:08:19 PM	192	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:20 PM	193	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:21 PM	194	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:22 PM	195	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:23 PM	196	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:24 PM	197	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:25 PM	198	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:26 PM	199	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:27 PM	200	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:28 PM	201	12.487	35.517	0.493	10.221	33.921	1.939	5.466	29.686	6.104	12.105	33.735	2.185	104.246	
4:08:29 PM	202	12.478	35.508	0.502	10.239	33.939	1.921	5.519	29.739	6.051	12.083	33.713	2.207	104.246	
4:08:30 PM	203	12.478	35.508	0.502	10.239	33.939	1.921	5.519	29.739	6.051	12.083	33.713	2.207	104.246	
4:08:31 PM	204	12.478	35.508	0.502	10.239	33.939	1.921	5.519	29.739	6.051	12.083	33.713	2.207	104.246	
4:08:32 PM	205	12.478	35.508	0.502	10.239	33.939	1.921	5.519	29.739	6.051	12.083	33.713	2.207	104.246	
4:08:33 PM	206	12.478	35.508	0.502	10.239	33.939	1.921	5.519	29.739	6.051	12.083	33.713	2.207	104.246	
4:08:34 PM	207	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:35 PM	208	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:36 PM	209	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:08:37 PM	210	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:38 PM	211	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:39 PM	212	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:40 PM	213	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:41 PM	214	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:42 PM	215	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:43 PM	216	12.443	35.473	0.537	10.195	33.895	1.965	5.479	29.699	6.091	12.065	33.695	2.225	104.246	
4:08:44 PM	217	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:45 PM	218	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:46 PM	219	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:47 PM	220	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:48 PM	221	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:49 PM	222	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:50 PM	223	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:51 PM	224	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:52 PM	225	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:53 PM	226	12.473	35.503	0.507	10.195	33.895	1.965	5.510	29.730	6.060	12.135	33.765	2.155	104.246	
4:08:54 PM	227	12.473	35.503	0.507	10.212	33.912	1.948	5.519	29.739	6.051	12.109	33.739	2.181	104.246	
4:08:55 PM	228	12.473	35.503	0.507	10.212	33.912	1.948	5.519	29.739	6.051	12.109	33.739	2.181	104.246	
4:08:56 PM	229	12.473	35.503	0.507	10.212	33.912	1.948	5.519	29.739	6.051	12.109	33.739	2.181	104.246	
4:08:57 PM	230	12.473	35.503	0.507	10.212	33.912	1.948	5.519	29.739	6.051	12.109	33.739	2.181	104.246	
4:08:58 PM	231	12.473	35.503	0.507	10.212	33.912	1.948	5.519	29.739	6.051	12.109	33.739	2.181	104.246	
4:08:59 PM	232	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:00 PM	233	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:01 PM	234	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:02 PM	235	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:03 PM	236	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:04 PM	237	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:05 PM	238	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:06 PM	239	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:07 PM	240	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:08 PM	241	12.469	35.499	0.511	10.133	33.833	2.027	5.497	29.717	6.073	12.048	33.678	2.242	104.246	
4:09:09 PM	242	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:10 PM	243	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:11 PM	244	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:12 PM	245	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:13 PM	246	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:14 PM	247	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:15 PM	248	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:16 PM	249	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:17 PM	250	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	
4:09:18 PM	251	12.456	35.486	0.524	10.274	33.974	1.886	5.536	29.756	6.034	12.153	33.783	2.137	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:10:01 PM	294	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:02 PM	295	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:03 PM	296	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:04 PM	297	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:05 PM	298	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:06 PM	299	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:07 PM	300	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:08 PM	301	12.460	35.490	0.520	10.265	33.965	1.895	5.497	29.717	6.073	12.153	33.783	2.137	104.246	
4:10:09 PM	302	12.469	35.499	0.511	10.186	33.886	1.974	5.457	29.677	6.113	12.056	33.686	2.234	104.246	
4:10:10 PM	303	12.469	35.499	0.511	10.186	33.886	1.974	5.457	29.677	6.113	12.056	33.686	2.234	104.246	
4:10:11 PM	304	12.469	35.499	0.511	10.186	33.886	1.974	5.457	29.677	6.113	12.056	33.686	2.234	104.246	
4:10:12 PM	305	12.469	35.499	0.511	10.186	33.886	1.974	5.457	29.677	6.113	12.056	33.686	2.234	104.246	
4:10:13 PM	306	12.469	35.499	0.511	10.186	33.886	1.974	5.457	29.677	6.113	12.056	33.686	2.234	104.246	
4:10:14 PM	307	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:15 PM	308	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:16 PM	309	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:17 PM	310	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:18 PM	311	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:19 PM	312	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:20 PM	313	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:21 PM	314	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:22 PM	315	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:23 PM	316	12.473	35.503	0.507	10.212	33.912	1.948	5.453	29.673	6.117	12.052	33.682	2.238	104.246	
4:10:24 PM	317	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:25 PM	318	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:26 PM	319	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:27 PM	320	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:28 PM	321	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:29 PM	322	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:30 PM	323	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:31 PM	324	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:32 PM	325	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:33 PM	326	12.482	35.512	0.498	10.168	33.868	1.992	5.471	29.691	6.099	12.083	33.713	2.207	104.246	
4:10:34 PM	327	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:35 PM	328	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:36 PM	329	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:37 PM	330	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:38 PM	331	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:39 PM	332	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:40 PM	333	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:41 PM	334	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:42 PM	335	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:10:43 PM	336	12.469	35.499	0.511	10.168	33.868	1.992	5.462	29.682	6.108	12.017	33.647	2.273	104.246	
4:10:44 PM	337	12.451	35.481	0.529	10.256	33.956	1.904	5.444	29.664	6.126	12.153	33.783	2.137	104.246	
4:10:45 PM	338	12.451	35.481	0.529	10.256	33.956	1.904	5.444	29.664	6.126	12.153	33.783	2.137	104.246	
4:10:46 PM	339	12.451	35.481	0.529	10.256	33.956	1.904	5.444	29.664	6.126	12.153	33.783	2.137	104.246	
4:10:47 PM	340	12.451	35.481	0.529	10.256	33.956	1.904	5.444	29.664	6.126	12.153	33.783	2.137	104.246	
4:10:48 PM	341	12.451	35.481	0.529	10.256	33.956	1.904	5.444	29.664	6.126	12.153	33.783	2.137	104.246	
4:10:49 PM	342	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:50 PM	343	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:51 PM	344	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:52 PM	345	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:53 PM	346	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:54 PM	347	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:55 PM	348	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:56 PM	349	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:57 PM	350	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:58 PM	351	12.469	35.499	0.511	10.124	33.824	2.036	5.462	29.682	6.108	12.056	33.686	2.234	104.246	
4:10:59 PM	352	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:00 PM	353	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:01 PM	354	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:02 PM	355	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:03 PM	356	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:04 PM	357	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:05 PM	358	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:06 PM	359	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:07 PM	360	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:08 PM	361	12.478	35.508	0.502	10.168	33.868	1.992	5.427	29.647	6.143	12.065	33.695	2.225	104.246	
4:11:09 PM	362	12.469	35.499	0.511	10.168	33.868	1.992	5.475	29.695	6.095	12.118	33.748	2.172	104.246	
4:11:10 PM	363	12.469	35.499	0.511	10.168	33.868	1.992	5.475	29.695	6.095	12.118	33.748	2.172	104.246	
4:11:11 PM	364	12.469	35.499	0.511	10.168	33.868	1.992	5.475	29.695	6.095	12.118	33.748	2.172	104.246	
4:11:12 PM	365	12.469	35.499	0.511	10.168	33.868	1.992	5.475	29.695	6.095	12.118	33.748	2.172	104.246	
4:11:13 PM	366	12.469	35.499	0.511	10.168	33.868	1.992	5.475	29.695	6.095	12.118	33.748	2.172	104.246	
4:11:14 PM	367	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:15 PM	368	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:17 PM	370	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:18 PM	371	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:19 PM	372	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:20 PM	373	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:21 PM	374	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:22 PM	375	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:23 PM	376	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:24 PM	377	12.469	35.499	0.511	10.204	33.904	1.956	5.457	29.677	6.113	12.100	33.730	2.190	104.246	
4:11:25 PM	378	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m³/hr)	
4:11:26 PM	379	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:27 PM	380	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:28 PM	381	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:29 PM	382	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:30 PM	383	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:31 PM	384	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:32 PM	385	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:33 PM	386	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:34 PM	387	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:35 PM	388	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:36 PM	389	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:37 PM	390	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:38 PM	391	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:39 PM	392	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:40 PM	393	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:41 PM	394	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:42 PM	395	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:43 PM	396	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:44 PM	397	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:45 PM	398	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:46 PM	399	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:47 PM	400	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:48 PM	401	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:49 PM	402	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:50 PM	403	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:51 PM	404	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:52 PM	405	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:53 PM	406	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:54 PM	407	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:55 PM	408	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:56 PM	409	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:57 PM	410	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:58 PM	411	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:59 PM	412	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:12:00 PM	413	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:01 PM	414	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:02 PM	415	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:03 PM	416	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:04 PM	417	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:05 PM	418	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:06 PM	419	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:07 PM	420	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m³/hr)	
4:12:08 PM	421	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:09 PM	422	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:10 PM	423	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:11 PM	424	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:12 PM	425	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:13 PM	426	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:14 PM	427	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:15 PM	428	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:16 PM	429	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:17 PM	430	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:18 PM	431	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:19 PM	432	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:20 PM	433	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:21 PM	434	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:22 PM	435	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:23 PM	436	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:24 PM	437	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:25 PM	438	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:26 PM	439	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:27 PM	440	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:28 PM	441	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:29 PM	442	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:30 PM	443	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:31 PM	444	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:32 PM	445	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:33 PM	446	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:34 PM	447	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:35 PM	448	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:36 PM	449	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:37 PM	450	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:38 PM	451	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:39 PM	452	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:40 PM	453	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:41 PM	454	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:42 PM	455	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:43 PM	456	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:44 PM	457	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:45 PM	458	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:46 PM	459	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:47 PM	460	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:48 PM	461	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:49 PM	462	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:12:50 PM	463	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:51 PM	464	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:52 PM	465	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:53 PM	466	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:54 PM	467	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:55 PM	468	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:56 PM	469	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:57 PM	470	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:58 PM	471	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:59 PM	472	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:13:00 PM	473	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:01 PM	474	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:02 PM	475	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:03 PM	476	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:04 PM	477	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:05 PM	478	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:06 PM	479	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:07 PM	480	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:08 PM	481	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:09 PM	482	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:10 PM	483	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:11 PM	484	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:12 PM	485	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:13 PM	486	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:14 PM	487	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:15 PM	488	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:16 PM	489	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:17 PM	490	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:18 PM	491	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:19 PM	492	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:20 PM	493	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:21 PM	494	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:22 PM	495	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:23 PM	496	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:24 PM	497	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:25 PM	498	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:26 PM	499	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:27 PM	500	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:28 PM	501	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:29 PM	502	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:30 PM	503	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:31 PM	504	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:13:32 PM	505	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:33 PM	506	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:34 PM	507	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:35 PM	508	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:36 PM	509	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:37 PM	510	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:38 PM	511	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:39 PM	512	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:40 PM	513	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:41 PM	514	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:42 PM	515	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:43 PM	516	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:44 PM	517	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:45 PM	518	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:46 PM	519	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:47 PM	520	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:48 PM	521	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:49 PM	522	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:50 PM	523	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:51 PM	524	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:52 PM	525	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:53 PM	526	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:54 PM	527	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:55 PM	528	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:56 PM	529	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:57 PM	530	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:58 PM	531	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:59 PM	532	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:00 PM	533	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:01 PM	534	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:02 PM	535	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:03 PM	536	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:04 PM	537	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:05 PM	538	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:06 PM	539	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:07 PM	540	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:08 PM	541	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:09 PM	542	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:10 PM	543	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:11 PM	544	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:12 PM	545	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:13 PM	546	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m³/hr)	
4:14:14 PM	547	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:15 PM	548	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:16 PM	549	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:17 PM	550	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:18 PM	551	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:19 PM	552	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:20 PM	553	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:21 PM	554	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:22 PM	555	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:23 PM	556	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:24 PM	557	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:25 PM	558	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:26 PM	559	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:27 PM	560	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:28 PM	561	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:29 PM	562	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:30 PM	563	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:31 PM	564	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:32 PM	565	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:33 PM	566	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:34 PM	567	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:35 PM	568	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:36 PM	569	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:37 PM	570	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:38 PM	571	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:39 PM	572	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:40 PM	573	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:41 PM	574	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:42 PM	575	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:43 PM	576	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:44 PM	577	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:45 PM	578	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:46 PM	579	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:47 PM	580	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:48 PM	581	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:49 PM	582	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:50 PM	583	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:51 PM	584	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:52 PM	585	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:53 PM	586	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:54 PM	587	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:55 PM	588	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:14:56 PM	589	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:14:57 PM	590	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:14:58 PM	591	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:14:59 PM	592	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:00 PM	593	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:01 PM	594	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:02 PM	595	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:03 PM	596	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:04 PM	597	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:05 PM	598	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:06 PM	599	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:07 PM	600	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:08 PM	601	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:09 PM	602	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:10 PM	603	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:11 PM	604	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:12 PM	605	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:13 PM	606	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:14 PM	607	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:15 PM	608	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:16 PM	609	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:17 PM	610	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:18 PM	611	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:19 PM	612	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:20 PM	613	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:21 PM	614	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:22 PM	615	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:23 PM	616	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:24 PM	617	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:25 PM	618	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:26 PM	619	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:27 PM	620	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:28 PM	621	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:29 PM	622	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:30 PM	623	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:31 PM	624	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:32 PM	625	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:33 PM	626	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:34 PM	627	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:35 PM	628	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:36 PM	629	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:37 PM	630	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

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Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:15:38 PM	631	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:39 PM	632	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:40 PM	633	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:41 PM	634	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:42 PM	635	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:43 PM	636	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:44 PM	637	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:45 PM	638	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:46 PM	639	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:47 PM	640	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:48 PM	641	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:49 PM	642	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:50 PM	643	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:51 PM	644	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:52 PM	645	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:53 PM	646	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:54 PM	647	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:55 PM	648	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:56 PM	649	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:57 PM	650	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:58 PM	651	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:59 PM	652	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:16:00 PM	653	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:01 PM	654	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:02 PM	655	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:03 PM	656	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:04 PM	657	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:05 PM	658	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:06 PM	659	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:07 PM	660	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:08 PM	661	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:09 PM	662	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:10 PM	663	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:11 PM	664	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:12 PM	665	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:13 PM	666	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:14 PM	667	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:15 PM	668	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:16 PM	669	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:17 PM	670	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:18 PM	671	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:19 PM	672	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:17:44 PM	757	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:45 PM	758	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:46 PM	759	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:47 PM	760	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:48 PM	761	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:49 PM	762	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:50 PM	763	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:51 PM	764	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:52 PM	765	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:53 PM	766	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:54 PM	767	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:55 PM	768	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:56 PM	769	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:57 PM	770	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:58 PM	771	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:59 PM	772	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:00 PM	773	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:01 PM	774	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:02 PM	775	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:03 PM	776	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:04 PM	777	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:05 PM	778	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:06 PM	779	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:07 PM	780	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:08 PM	781	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:09 PM	782	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:10 PM	783	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:11 PM	784	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:12 PM	785	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:13 PM	786	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:14 PM	787	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:15 PM	788	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:16 PM	789	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:17 PM	790	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:18 PM	791	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:19 PM	792	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:20 PM	793	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:21 PM	794	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:22 PM	795	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:23 PM	796	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:24 PM	797	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:25 PM	798	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:19:50 PM	883	12.469	35.499	0.511	10.151	33.851	2.009	5.361	29.581	6.209	12.030	33.660	2.260	104.246	
4:19:51 PM	884	12.469	35.499	0.511	10.151	33.851	2.009	5.361	29.581	6.209	12.030	33.660	2.260	104.246	
4:19:52 PM	885	12.469	35.499	0.511	10.151	33.851	2.009	5.361	29.581	6.209	12.030	33.660	2.260	104.246	
4:19:53 PM	886	12.469	35.499	0.511	10.151	33.851	2.009	5.361	29.581	6.209	12.030	33.660	2.260	104.246	
4:19:54 PM	887	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:19:55 PM	888	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:19:56 PM	889	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:19:57 PM	890	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:19:58 PM	891	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:19:59 PM	892	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:20:00 PM	893	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:20:01 PM	894	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:20:02 PM	895	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:20:03 PM	896	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:20:04 PM	897	12.469	35.499	0.511	10.195	33.895	1.965	5.444	29.664	6.126	12.065	33.695	2.225	104.246	
4:20:05 PM	898	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:06 PM	899	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:07 PM	900	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:08 PM	901	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:09 PM	902	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:10 PM	903	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:11 PM	904	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:12 PM	905	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:13 PM	906	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:14 PM	907	12.460	35.490	0.520	10.151	33.851	2.009	5.400	29.620	6.170	12.091	33.721	2.199	104.246	
4:20:15 PM	908	12.443	35.473	0.537	10.124	33.824	2.036	5.475	29.695	6.095	12.048	33.678	2.242	104.246	
4:20:16 PM	909	12.443	35.473	0.537	10.124	33.824	2.036	5.475	29.695	6.095	12.048	33.678	2.242	104.246	
4:20:17 PM	910	12.443	35.473	0.537	10.124	33.824	2.036	5.475	29.695	6.095	12.048	33.678	2.242	104.246	
4:20:18 PM	911	12.443	35.473	0.537	10.124	33.824	2.036	5.475	29.695	6.095	12.048	33.678	2.242	104.246	
4:20:19 PM	912	12.443	35.473	0.537	10.124	33.824	2.036	5.475	29.695	6.095	12.048	33.678	2.242	104.246	
4:20:20 PM	913	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:21 PM	914	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:22 PM	915	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:23 PM	916	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:24 PM	917	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:25 PM	918	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:26 PM	919	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:27 PM	920	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:28 PM	921	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:29 PM	922	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:30 PM	923	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	
4:20:31 PM	924	12.460	35.490	0.520	10.124	33.824	2.036	5.392	29.612	6.178	12.012	33.642	2.278	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:19:08 PM	841	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:09 PM	842	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:10 PM	843	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:11 PM	844	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:12 PM	845	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:13 PM	846	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:14 PM	847	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:15 PM	848	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:16 PM	849	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:17 PM	850	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:18 PM	851	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:19 PM	852	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:20 PM	853	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:21 PM	854	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:22 PM	855	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:23 PM	856	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:24 PM	857	12.460	35.490	0.520	10.239	33.939	1.921	5.427	29.647	6.143	12.100	33.730	2.190	105.370	
4:19:25 PM	858	12.469	35.499	0.511	10.168	33.868	1.992	5.396	29.616	6.174	12.091	33.721	2.199	102.827	
4:19:26 PM	859	12.469	35.499	0.511	10.168	33.868	1.992	5.396	29.616	6.174	12.091	33.721	2.199	102.827	
4:19:27 PM	860	12.469	35.499	0.511	10.168	33.868	1.992	5.396	29.616	6.174	12.091	33.721	2.199	102.827	
4:19:28 PM	861	12.469	35.499	0.511	10.168	33.868	1.992	5.396	29.616	6.174	12.091	33.721	2.199	102.827	
4:19:29 PM	862	12.469	35.499	0.511	10.168	33.868	1.992	5.396	29.616	6.174	12.091	33.721	2.199	102.827	
4:19:30 PM	863	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:31 PM	864	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:32 PM	865	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:33 PM	866	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:34 PM	867	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:35 PM	868	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:36 PM	869	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:37 PM	870	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:38 PM	871	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:39 PM	872	12.434	35.464	0.546	10.195	33.895	1.965	5.466	29.686	6.104	12.056	33.686	2.234	104.246	
4:19:40 PM	873	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:41 PM	874	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:42 PM	875	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:43 PM	876	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:44 PM	877	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:45 PM	878	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:46 PM	879	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:47 PM	880	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:48 PM	881	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	
4:19:49 PM	882	12.443	35.473	0.537	10.151	33.851	2.009	5.387	29.607	6.183	12.021	33.651	2.269	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:11:26 PM	379	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:27 PM	380	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:28 PM	381	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:29 PM	382	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:30 PM	383	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:31 PM	384	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:32 PM	385	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:33 PM	386	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:34 PM	387	12.487	35.517	0.493	10.204	33.904	1.956	5.466	29.686	6.104	12.127	33.757	2.163	104.246	
4:11:35 PM	388	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:36 PM	389	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:37 PM	390	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:38 PM	391	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:39 PM	392	12.443	35.473	0.537	10.204	33.904	1.956	5.479	29.699	6.091	12.109	33.739	2.181	104.246	
4:11:40 PM	393	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:41 PM	394	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:42 PM	395	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:43 PM	396	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:44 PM	397	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:45 PM	398	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:46 PM	399	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:47 PM	400	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:48 PM	401	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:49 PM	402	12.469	35.499	0.511	10.107	33.807	2.053	5.462	29.682	6.108	12.021	33.651	2.269	104.246	
4:11:50 PM	403	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:51 PM	404	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:52 PM	405	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:53 PM	406	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:54 PM	407	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:55 PM	408	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:56 PM	409	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:57 PM	410	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:58 PM	411	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:11:59 PM	412	12.487	35.517	0.493	10.221	33.921	1.939	5.479	29.699	6.091	12.091	33.721	2.199	103.241	
4:12:00 PM	413	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:01 PM	414	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:02 PM	415	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:03 PM	416	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:04 PM	417	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:05 PM	418	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:06 PM	419	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:07 PM	420	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:12:08 PM	421	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:09 PM	422	12.460	35.490	0.520	10.116	33.816	2.044	5.435	29.655	6.135	12.021	33.651	2.269	103.241	
4:12:10 PM	423	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:11 PM	424	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:12 PM	425	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:13 PM	426	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:14 PM	427	12.469	35.499	0.511	10.173	33.873	1.987	5.462	29.682	6.108	12.118	33.748	2.172	103.241	
4:12:15 PM	428	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:16 PM	429	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:17 PM	430	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:18 PM	431	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:19 PM	432	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:20 PM	433	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:21 PM	434	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:22 PM	435	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:23 PM	436	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:24 PM	437	12.451	35.481	0.529	10.124	33.824	2.036	5.462	29.682	6.108	12.039	33.669	2.251	103.241	
4:12:25 PM	438	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:26 PM	439	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:27 PM	440	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:28 PM	441	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:29 PM	442	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:30 PM	443	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:31 PM	444	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:32 PM	445	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:33 PM	446	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:34 PM	447	12.456	35.486	0.524	10.107	33.807	2.053	5.383	29.603	6.187	12.012	33.642	2.278	105.133	
4:12:35 PM	448	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:36 PM	449	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:37 PM	450	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:38 PM	451	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:39 PM	452	12.451	35.481	0.529	10.133	33.833	2.027	5.409	29.629	6.161	12.048	33.678	2.242	103.625	
4:12:40 PM	453	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:41 PM	454	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:42 PM	455	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:43 PM	456	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:44 PM	457	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:45 PM	458	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:46 PM	459	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:47 PM	460	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:48 PM	461	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	
4:12:49 PM	462	12.438	35.468	0.542	10.155	33.855	2.005	5.431	29.651	6.139	12.065	33.695	2.225	103.625	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:12:50 PM	463	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:51 PM	464	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:52 PM	465	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:53 PM	466	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:54 PM	467	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:55 PM	468	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:56 PM	469	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:57 PM	470	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:58 PM	471	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:12:59 PM	472	12.469	35.499	0.511	10.124	33.824	2.036	5.488	29.708	6.082	12.083	33.713	2.207	103.625	
4:13:00 PM	473	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:01 PM	474	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:02 PM	475	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:03 PM	476	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:04 PM	477	12.469	35.499	0.511	10.124	33.824	2.036	5.471	29.691	6.099	12.100	33.730	2.190	103.625	
4:13:05 PM	478	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:06 PM	479	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:07 PM	480	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:08 PM	481	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:09 PM	482	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:10 PM	483	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:11 PM	484	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:12 PM	485	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:13 PM	486	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:14 PM	487	12.443	35.473	0.537	10.208	33.908	1.952	5.453	29.673	6.117	12.091	33.721	2.199	103.625	
4:13:15 PM	488	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:16 PM	489	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:17 PM	490	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:18 PM	491	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:19 PM	492	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:20 PM	493	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:21 PM	494	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:22 PM	495	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:23 PM	496	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:24 PM	497	12.473	35.503	0.507	10.208	33.908	1.952	5.444	29.664	6.126	12.100	33.730	2.190	103.625	
4:13:25 PM	498	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:26 PM	499	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:27 PM	500	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:28 PM	501	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:29 PM	502	12.443	35.473	0.537	10.151	33.851	2.009	5.409	29.629	6.161	12.105	33.735	2.185	104.837	
4:13:30 PM	503	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:31 PM	504	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:13:32 PM	505	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:33 PM	506	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:34 PM	507	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:35 PM	508	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:36 PM	509	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:37 PM	510	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:38 PM	511	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:39 PM	512	12.469	35.499	0.511	10.212	33.912	1.948	5.479	29.699	6.091	12.091	33.721	2.199	103.418	
4:13:40 PM	513	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:41 PM	514	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:42 PM	515	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:43 PM	516	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:44 PM	517	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:45 PM	518	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:46 PM	519	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:47 PM	520	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:48 PM	521	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:49 PM	522	12.460	35.490	0.520	10.212	33.912	1.948	5.488	29.708	6.082	12.118	33.748	2.172	103.418	
4:13:50 PM	523	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:51 PM	524	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:52 PM	525	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:53 PM	526	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:54 PM	527	12.469	35.499	0.511	10.212	33.912	1.948	5.444	29.664	6.126	12.100	33.730	2.190	103.418	
4:13:55 PM	528	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:56 PM	529	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:57 PM	530	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:58 PM	531	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:13:59 PM	532	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:00 PM	533	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:01 PM	534	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:02 PM	535	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:03 PM	536	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:04 PM	537	12.456	35.486	0.524	10.195	33.895	1.965	5.462	29.682	6.108	12.030	33.660	2.260	103.418	
4:14:05 PM	538	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:06 PM	539	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:07 PM	540	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:08 PM	541	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:09 PM	542	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:10 PM	543	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:11 PM	544	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:12 PM	545	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:13 PM	546	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:14:14 PM	547	12.451	35.481	0.529	10.160	33.860	2.000	5.440	29.660	6.130	12.030	33.660	2.260	103.418	
4:14:15 PM	548	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:16 PM	549	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:17 PM	550	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:18 PM	551	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:19 PM	552	12.451	35.481	0.529	10.239	33.939	1.921	5.449	29.669	6.121	12.083	33.713	2.207	103.418	
4:14:20 PM	553	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:21 PM	554	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:22 PM	555	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:23 PM	556	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:24 PM	557	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:25 PM	558	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:26 PM	559	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:27 PM	560	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:28 PM	561	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:29 PM	562	12.469	35.499	0.511	10.186	33.886	1.974	5.418	29.638	6.152	12.091	33.721	2.199	103.418	
4:14:30 PM	563	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:31 PM	564	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:32 PM	565	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:33 PM	566	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:34 PM	567	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:35 PM	568	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:36 PM	569	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:37 PM	570	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:38 PM	571	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:39 PM	572	12.469	35.499	0.511	10.186	33.886	1.974	5.514	29.734	6.056	12.091	33.721	2.199	103.418	
4:14:40 PM	573	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:41 PM	574	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:42 PM	575	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:43 PM	576	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:44 PM	577	12.469	35.499	0.511	10.164	33.864	1.996	5.444	29.664	6.126	12.039	33.669	2.251	104.542	
4:14:45 PM	578	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:46 PM	579	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:47 PM	580	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:48 PM	581	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:49 PM	582	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:50 PM	583	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:51 PM	584	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:52 PM	585	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:53 PM	586	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:54 PM	587	12.478	35.508	0.502	10.164	33.864	1.996	5.422	29.642	6.148	12.048	33.678	2.242	104.542	
4:14:55 PM	588	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:14:56 PM	589	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:14:57 PM	590	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:14:58 PM	591	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:14:59 PM	592	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:00 PM	593	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:01 PM	594	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:02 PM	595	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:03 PM	596	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:04 PM	597	12.451	35.481	0.529	10.116	33.816	2.044	5.479	29.699	6.091	12.030	33.660	2.260	104.542	
4:15:05 PM	598	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:06 PM	599	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:07 PM	600	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:08 PM	601	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:09 PM	602	12.451	35.481	0.529	10.208	33.908	1.952	5.409	29.629	6.161	12.127	33.757	2.163	103.271	
4:15:10 PM	603	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:11 PM	604	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:12 PM	605	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:13 PM	606	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:14 PM	607	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:15 PM	608	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:16 PM	609	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:17 PM	610	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:18 PM	611	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:19 PM	612	12.451	35.481	0.529	10.208	33.908	1.952	5.449	29.669	6.121	12.039	33.669	2.251	103.271	
4:15:20 PM	613	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:21 PM	614	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:22 PM	615	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:23 PM	616	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:24 PM	617	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:25 PM	618	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:26 PM	619	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:27 PM	620	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:28 PM	621	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:29 PM	622	12.469	35.499	0.511	10.103	33.803	2.057	5.356	29.576	6.214	12.012	33.642	2.278	104.246	
4:15:30 PM	623	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:31 PM	624	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:32 PM	625	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:33 PM	626	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:34 PM	627	12.487	35.517	0.493	10.204	33.904	1.956	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:15:35 PM	628	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:36 PM	629	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:37 PM	630	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:15:38 PM	631	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:39 PM	632	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:40 PM	633	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:41 PM	634	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:42 PM	635	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:43 PM	636	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:44 PM	637	12.469	35.499	0.511	10.186	33.886	1.974	5.444	29.664	6.126	12.100	33.730	2.190	104.246	
4:15:45 PM	638	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:46 PM	639	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:47 PM	640	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:48 PM	641	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:49 PM	642	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:50 PM	643	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:51 PM	644	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:52 PM	645	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:53 PM	646	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:54 PM	647	12.473	35.503	0.507	10.160	33.860	2.000	5.435	29.655	6.135	12.039	33.669	2.251	103.123	
4:15:55 PM	648	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:56 PM	649	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:57 PM	650	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:58 PM	651	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:15:59 PM	652	12.438	35.468	0.542	10.204	33.904	1.956	5.418	29.638	6.152	12.083	33.713	2.207	103.123	
4:16:00 PM	653	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:01 PM	654	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:02 PM	655	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:03 PM	656	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:04 PM	657	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:05 PM	658	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:06 PM	659	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:07 PM	660	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:08 PM	661	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:09 PM	662	12.469	35.499	0.511	10.221	33.921	1.939	5.497	29.717	6.073	12.100	33.730	2.190	103.123	
4:16:10 PM	663	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:11 PM	664	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:12 PM	665	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:13 PM	666	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:14 PM	667	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:15 PM	668	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:16 PM	669	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:17 PM	670	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:18 PM	671	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	
4:16:19 PM	672	12.460	35.490	0.520	10.151	33.851	2.009	5.431	29.651	6.139	12.118	33.748	2.172	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:16:20 PM	673	12.478	35.508	0.502	10.230	33.930	1.930	5.435	29.655	6.135	12.069	33.699	2.221	104.246	
4:16:21 PM	674	12.478	35.508	0.502	10.230	33.930	1.930	5.435	29.655	6.135	12.069	33.699	2.221	104.246	
4:16:22 PM	675	12.478	35.508	0.502	10.230	33.930	1.930	5.435	29.655	6.135	12.069	33.699	2.221	104.246	
4:16:23 PM	676	12.478	35.508	0.502	10.230	33.930	1.930	5.435	29.655	6.135	12.069	33.699	2.221	104.246	
4:16:24 PM	677	12.478	35.508	0.502	10.230	33.930	1.930	5.435	29.655	6.135	12.069	33.699	2.221	104.246	
4:16:25 PM	678	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:26 PM	679	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:27 PM	680	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:28 PM	681	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:29 PM	682	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:30 PM	683	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:31 PM	684	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:32 PM	685	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:33 PM	686	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:34 PM	687	12.469	35.499	0.511	10.186	33.886	1.974	5.479	29.699	6.091	12.083	33.713	2.207	104.246	
4:16:35 PM	688	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:36 PM	689	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:37 PM	690	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:38 PM	691	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:39 PM	692	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:40 PM	693	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:41 PM	694	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:42 PM	695	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:43 PM	696	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:44 PM	697	12.478	35.508	0.502	10.186	33.886	1.974	5.413	29.633	6.157	12.083	33.713	2.207	104.246	
4:16:45 PM	698	12.469	35.499	0.511	10.186	33.886	1.974	5.462	29.682	6.108	12.083	33.713	2.207	104.246	
4:16:46 PM	699	12.469	35.499	0.511	10.186	33.886	1.974	5.462	29.682	6.108	12.083	33.713	2.207	104.246	
4:16:47 PM	700	12.469	35.499	0.511	10.186	33.886	1.974	5.462	29.682	6.108	12.083	33.713	2.207	104.246	
4:16:48 PM	701	12.469	35.499	0.511	10.186	33.886	1.974	5.462	29.682	6.108	12.083	33.713	2.207	104.246	
4:16:49 PM	702	12.469	35.499	0.511	10.186	33.886	1.974	5.462	29.682	6.108	12.083	33.713	2.207	104.246	
4:16:50 PM	703	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:51 PM	704	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:52 PM	705	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:53 PM	706	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:54 PM	707	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:55 PM	708	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:56 PM	709	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:57 PM	710	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:58 PM	711	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:16:59 PM	712	12.438	35.468	0.542	10.151	33.851	2.009	5.466	29.686	6.104	12.048	33.678	2.242	104.246	
4:17:00 PM	713	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:01 PM	714	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:17:02 PM	715	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:03 PM	716	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:04 PM	717	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:05 PM	718	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:06 PM	719	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:07 PM	720	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:08 PM	721	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:09 PM	722	12.434	35.464	0.546	10.116	33.816	2.044	5.392	29.612	6.178	12.065	33.695	2.225	104.246	
4:17:10 PM	723	12.456	35.486	0.524	10.177	33.877	1.983	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:11 PM	724	12.456	35.486	0.524	10.177	33.877	1.983	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:12 PM	725	12.456	35.486	0.524	10.177	33.877	1.983	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:13 PM	726	12.456	35.486	0.524	10.177	33.877	1.983	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:14 PM	727	12.456	35.486	0.524	10.177	33.877	1.983	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:15 PM	728	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:16 PM	729	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:17 PM	730	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:18 PM	731	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:19 PM	732	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:20 PM	733	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:21 PM	734	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:22 PM	735	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:23 PM	736	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:24 PM	737	12.478	35.508	0.502	10.212	33.912	1.948	5.409	29.629	6.161	12.039	33.669	2.251	104.246	
4:17:25 PM	738	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:26 PM	739	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:27 PM	740	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:28 PM	741	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:29 PM	742	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:30 PM	743	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:31 PM	744	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:32 PM	745	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:33 PM	746	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:34 PM	747	12.478	35.508	0.502	10.186	33.886	1.974	5.392	29.612	6.178	12.083	33.713	2.207	104.246	
4:17:35 PM	748	12.478	35.508	0.502	10.186	33.886	1.974	5.400	29.620	6.170	12.083	33.713	2.207	104.246	
4:17:36 PM	749	12.478	35.508	0.502	10.186	33.886	1.974	5.400	29.620	6.170	12.083	33.713	2.207	104.246	
4:17:37 PM	750	12.478	35.508	0.502	10.186	33.886	1.974	5.400	29.620	6.170	12.083	33.713	2.207	104.246	
4:17:38 PM	751	12.478	35.508	0.502	10.186	33.886	1.974	5.400	29.620	6.170	12.083	33.713	2.207	104.246	
4:17:39 PM	752	12.478	35.508	0.502	10.186	33.886	1.974	5.400	29.620	6.170	12.083	33.713	2.207	104.246	
4:17:40 PM	753	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:41 PM	754	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:42 PM	755	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:43 PM	756	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:17:44 PM	757	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:45 PM	758	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:46 PM	759	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:47 PM	760	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:48 PM	761	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:49 PM	762	12.434	35.464	0.546	10.186	33.886	1.974	5.422	29.642	6.148	12.083	33.713	2.207	104.246	
4:17:50 PM	763	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:51 PM	764	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:52 PM	765	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:53 PM	766	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:54 PM	767	12.434	35.464	0.546	10.133	33.833	2.027	5.435	29.655	6.135	12.012	33.642	2.278	104.246	
4:17:55 PM	768	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:56 PM	769	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:57 PM	770	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:58 PM	771	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:17:59 PM	772	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:00 PM	773	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:01 PM	774	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:02 PM	775	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:03 PM	776	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:04 PM	777	12.469	35.499	0.511	10.133	33.833	2.027	5.413	29.633	6.157	11.986	33.616	2.304	104.246	
4:18:05 PM	778	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:06 PM	779	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:07 PM	780	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:08 PM	781	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:09 PM	782	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:10 PM	783	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:11 PM	784	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:12 PM	785	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:13 PM	786	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:14 PM	787	12.469	35.499	0.511	10.098	33.798	2.062	5.409	29.629	6.161	12.034	33.664	2.256	104.246	
4:18:15 PM	788	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:16 PM	789	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:17 PM	790	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:18 PM	791	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:19 PM	792	12.451	35.481	0.529	10.186	33.886	1.974	5.418	29.638	6.152	12.083	33.713	2.207	104.246	
4:18:20 PM	793	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:21 PM	794	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:22 PM	795	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:23 PM	796	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:24 PM	797	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:25 PM	798	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

PUMP TEST DATA - JANUARY 16, 2002

Time	Elapsed Time	Well #4			Well #1			Well #2			Well #3			Pump #2	Comments
	(s)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	HW (m)	WE (m)	DTW (m)	Flow (m^3/hr)	
4:18:26 PM	799	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:27 PM	800	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:28 PM	801	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:29 PM	802	12.469	35.499	0.511	10.230	33.930	1.930	5.440	29.660	6.130	12.127	33.757	2.163	104.246	
4:18:30 PM	803	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:31 PM	804	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:32 PM	805	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:33 PM	806	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:34 PM	807	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:35 PM	808	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:36 PM	809	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:37 PM	810	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:38 PM	811	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:39 PM	812	12.478	35.508	0.502	10.186	33.886	1.974	5.370	29.590	6.200	12.100	33.730	2.190	104.246	
4:18:40 PM	813	12.451	35.481	0.529	10.098	33.798	2.062	5.374	29.594	6.196	12.021	33.651	2.269	104.246	
4:18:41 PM	814	12.451	35.481	0.529	10.098	33.798	2.062	5.374	29.594	6.196	12.021	33.651	2.269	104.246	
4:18:42 PM	815	12.451	35.481	0.529	10.098	33.798	2.062	5.374	29.594	6.196	12.021	33.651	2.269	104.246	
4:18:43 PM	816	12.451	35.481	0.529	10.098	33.798	2.062	5.374	29.594	6.196	12.021	33.651	2.269	104.246	
4:18:44 PM	817	12.451	35.481	0.529	10.098	33.798	2.062	5.374	29.594	6.196	12.021	33.651	2.269	104.246	
4:18:45 PM	818	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:46 PM	819	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:47 PM	820	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:48 PM	821	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:49 PM	822	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:50 PM	823	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:51 PM	824	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:52 PM	825	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:53 PM	826	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:54 PM	827	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:55 PM	828	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:56 PM	829	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:57 PM	830	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:58 PM	831	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:18:59 PM	832	12.478	35.508	0.502	10.186	33.886	1.974	5.422	29.642	6.148	12.074	33.704	2.216	104.246	
4:19:00 PM	833	12.469	35.499	0.511	10.103	33.803	2.057	5.392	29.612	6.178	11.986	33.616	2.304	104.246	
4:19:01 PM	834	12.469	35.499	0.511	10.103	33.803	2.057	5.392	29.612	6.178	11.986	33.616	2.304	104.246	
4:19:02 PM	835	12.469	35.499	0.511	10.103	33.803	2.057	5.392	29.612	6.178	11.986	33.616	2.304	104.246	
4:19:03 PM	836	12.469	35.499	0.511	10.103	33.803	2.057	5.392	29.612	6.178	11.986	33.616	2.304	104.246	
4:19:04 PM	837	12.469	35.499	0.511	10.103	33.803	2.057	5.392	29.612	6.178	11.986	33.616	2.304	104.246	
4:19:05 PM	838	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:06 PM	839	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	
4:19:07 PM	840	12.434	35.464	0.546	10.103	33.803	2.057	5.427	29.647	6.143	12.083	33.713	2.207	104.246	

HW - Height of Water above Transducer, WE - Water Elevation, DTW - Depth to Water

Appendix B

Steady State Capture Zone Estimation (Grubb, 1993)

Calc. to edge of downgradient capture zone location (xstag) = (Qw * L)/(@pi * K * (phi 1 ^2 - p
Width of capture zone (ydiv) = +/- (Qw * L)/ (K * (phi1 ^2 - phi2 ^2))
Calc. of edge of capture zone F(x) =y/@tan[@pi*K*(phi1^2-phi2^2)/((Qw*L)*y)]
where:

0.15	m^3/s	Qw = Discharge Rate from Wellfield
0.003	m/s	K = Hydraulic Conductivity
220	m	L = Distance between phi1 and phi2
20.1	m	Phi 1 =Downgradient head potential difference to bottom of aquifer
21.4	m	Phi 2 =Upgradient head potential difference to bottom of aquifer

xstag=	-65	m
ydiv=	-204	m
$x_{(50)}$=	-52	m
$x_{(100)}$=	-3	m
$x_{(150)}$=	137	m

Travel Time Calculations

Linear Velocity (v_{lin}) (m/s) = KI/n
Distance Travelled in Time Period, d(x) (m) = v_{lin}t
where

Hydraulic Conductivity, K=	0.003	m/s
Hydraulic Gradient, I=	0.006	m/m
Estimated Porosity, n=	0.25	
v_{lin}=	0.0001	m/s
v_{lin}=	6.6355	m/d
Distance Travelled in 3 mo.=	597	m
Distance Travelled in 6 mo.=	1214	m
Distance Travelled in 9 mo.=	1838	m

Appendix C

Recommended Monitoring and Management Program

(Based on US EPA, 1989 - Tools for Local Governments.)

Wellhead Protection Area Management

Source Prohibition/Zoning Ordinances - If possible, DOU should prohibit the handling or storage of chemicals, use of conventional septic systems or hazardous activities within the WHPA. Based on EBA's experience with other highways maintenance yards in BC, EBA would suggest that the Mainroad Contracting Highways Maintenance Yard represents one of the highest risks to the well field. As such, EBA would recommend to purchase this land, or prohibit its operation. An accidental release of contaminant on the highway is also considered high potential risk. Measures should be implemented with the Ministry of Transportation and Highways to increase safety (i.e. mandatory brake check prior to entering the LSCA), or even consider relocating the highway/highway intersection.

Voluntary/Mandatory Use of Best Management Practices - If it is not possible to prohibit operations such as the gravel pit or the Mainroad Contracting Highways Maintenance Yard, it may be possible to reduce the risk by working with the operators to implement best management practices. The practices outline the safest approach to handling certain activities/chemicals within a sensitive area (e.g. absorbent pads set beneath equipment when it is not being used, prohibition of refueling of equipment on-site, etc.). The practices would have to be developed individually for each operation.

Best management practices would also include the development of reasonable options (e.g. education and assistance program for the adequate design, operation and maintenance of septic fields). This may include providing information on alternative septic systems (as described in EBA, 1998) or replacing the pit toilets with portable toilets and having them pumped out regularly.

Purchase of Property or Development Rights - This tool can be used to ensure control of the land use in the vicinity of the WHPA in the event that it is legally or politically difficult to control land use through other means.

Public Education - Public education can consist of brochures or seminars to raise the public's awareness of the risks to the drinking water supply and basic measures that can be taken to protect it. This approach should also include installing educational and warning signs within the WHPA. EBA understands that the BC Ministry of Water, Land and Air Protection has in the past assisted municipalities with signage within sensitive areas and grants may be available for community planning from the Ministry of Community, Aboriginal and Women's Services.

Recommended Monitoring and Management Program

(Based on US EPA, 1989 - Tools for Local Governments.)

Wellhead Protection Area Management
Development Review - Incorporate the review of site development profiles to ensure that the proposed development will be consistent with approved practices within the WHPA.
Contingency Planning - The 1995 Spill Response Plan (EBA, 1995) should be updated to ensure that procedures and contacts are appropriate and up-to-date for the current WHPA. EBA also recommends that DOU conduct spill response training for the relevant personnel.
Water Monitoring - Upgradient monitoring of water quality and regular testing of the pumping wells in the well field for a full range of parameters will help to provide some early warning in the event that upgradient water quality is deteriorating (i.e.if a septic system is slowly failing, concentrations of nitrate may begin to increase.)

Appendix D

This report incorporates and is subject to these "General Conditions".

A.1 USE OF REPORT

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

This report and the assessments and recommendations contained in it are intended for the sole use of EBA's client. EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than EBA's client unless otherwise authorized in writing by EBA. Any unauthorized use of the report is at the sole risk of the user.

This report is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of EBA. Additional copies of the report, if required, may be obtained upon request.

A.2 LIMITATIONS OF REPORT

This report is based solely on the conditions which existed on site at the time of EBA's investigation. The client, and any other parties using this report with the express written consent of the client and EBA, acknowledge that conditions affecting the environmental assessment of the site can vary with time and that the conclusions and recommendations set out in this report are time sensitive.

The client, and any other party using this report with the express written consent of the client and EBA, also acknowledge that the conclusions and recommendations set out in this report are based on limited observations and testing on the subject site and that conditions may vary across the site which, in turn, could affect the conclusions and recommendations made.

The client acknowledges that EBA is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the client.

A.2.1 Information Provided to EBA by Others

During the performance of the work and the preparation of this report, EBA may have relied on information provided by persons other than the client. While EBA endeavours to verify the accuracy of such information when instructed to do so by the client, EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.

A.3 LIMITATION OF LIABILITY

The client recognizes that property containing contaminants and hazardous wastes creates a high risk of claims brought by third parties arising out of the presence of those materials. In consideration of these risks, and in consideration of EBA providing the services requested, the client agrees that EBA's liability to the client, with respect to any issues relating to contaminants or other hazardous wastes located on the subject site shall be limited as follows:

(1) With respect to any claims brought against EBA by the client arising out of the provision or failure to provide services hereunder shall be limited to the amount of fees paid by the client to EBA under this Agreement, whether the action is based on breach of contract or tort;

(2) With respect to claims brought by third parties arising out of the presence of contaminants or hazardous wastes on the subject site, the client agrees to indemnify, defend and hold harmless EBA from and against any and all claim or claims, action or actions, demands, damages, penalties, fines, losses, costs and expenses of every nature and kind whatsoever, including solicitor-client costs, arising or alleged to arise either in whole or part out of services provided by EBA, whether the claim be brought against EBA for breach of contract or tort.

A.4 JOB SITE SAFETY

EBA is only responsible for the activities of its employees on the job site and is not responsible for the supervision of any other persons whatsoever. The presence of EBA personnel on site shall not be construed in any way to relieve the client or any other persons on site from their responsibility for job site safety.

A.5 DISCLOSURE OF INFORMATION BY CLIENT

The client agrees to fully cooperate with EBA with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The client acknowledges that in order for EBA to properly provide the service, EBA is relying upon the full disclosure and accuracy of any such information.

A.6 STANDARD OF CARE

Services performed by EBA for this report have been conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Engineering judgement has been applied in developing the conclusions and/or recommendations provided in this report. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of this report.

A.7 EMERGENCY PROCEDURES

The client undertakes to inform EBA of all hazardous conditions, or possible hazardous conditions which are known to it. The client recognizes that the activities of EBA may uncover previously unknown hazardous materials or conditions and that such discovery may result in the necessity to undertake emergency procedures to protect EBA employees, other persons and the environment. These procedures may involve additional costs outside of any budgets previously agreed upon. The client agrees to pay EBA for any expenses incurred as a result of such discoveries and to compensate EBA through payment of additional fees and expenses for time spent by EBA to deal with the consequences of such discoveries.

A.8 NOTIFICATION OF AUTHORITIES

The client acknowledges that in certain instances the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by EBA in its reasonably exercised discretion.

A.9 OWNERSHIP OF INSTRUMENTS OF SERVICE

The client acknowledges that all reports, plans, and data generated by EBA during the performance of the work and other documents prepared by EBA are considered its professional work product and shall remain the copyright property of EBA.

A.10 ALTERNATE REPORT FORMAT

Where EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed EBA's instruments of professional service), the Client agrees that only the signed and sealed hard copy versions shall be considered final and legally binding. The hard copy versions submitted by EBA shall be the original documents for record and working purposes, and, in the event of a dispute or discrepancies, the hard copy versions shall govern over the electronic versions. Furthermore, the Client agrees and waives all future right of dispute that the original hard copy signed version archived by EBA shall be deemed to be the overall original for the Project.

The Client agrees that both electronic file and hard copy versions of EBA's instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except EBA. The Client warrants that EBA's instruments of professional service will be used only and exactly as submitted by EBA.

The Client recognizes and agrees that electronic files submitted by EBA have been prepared and submitted using specific software and hardware systems. EBA makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.