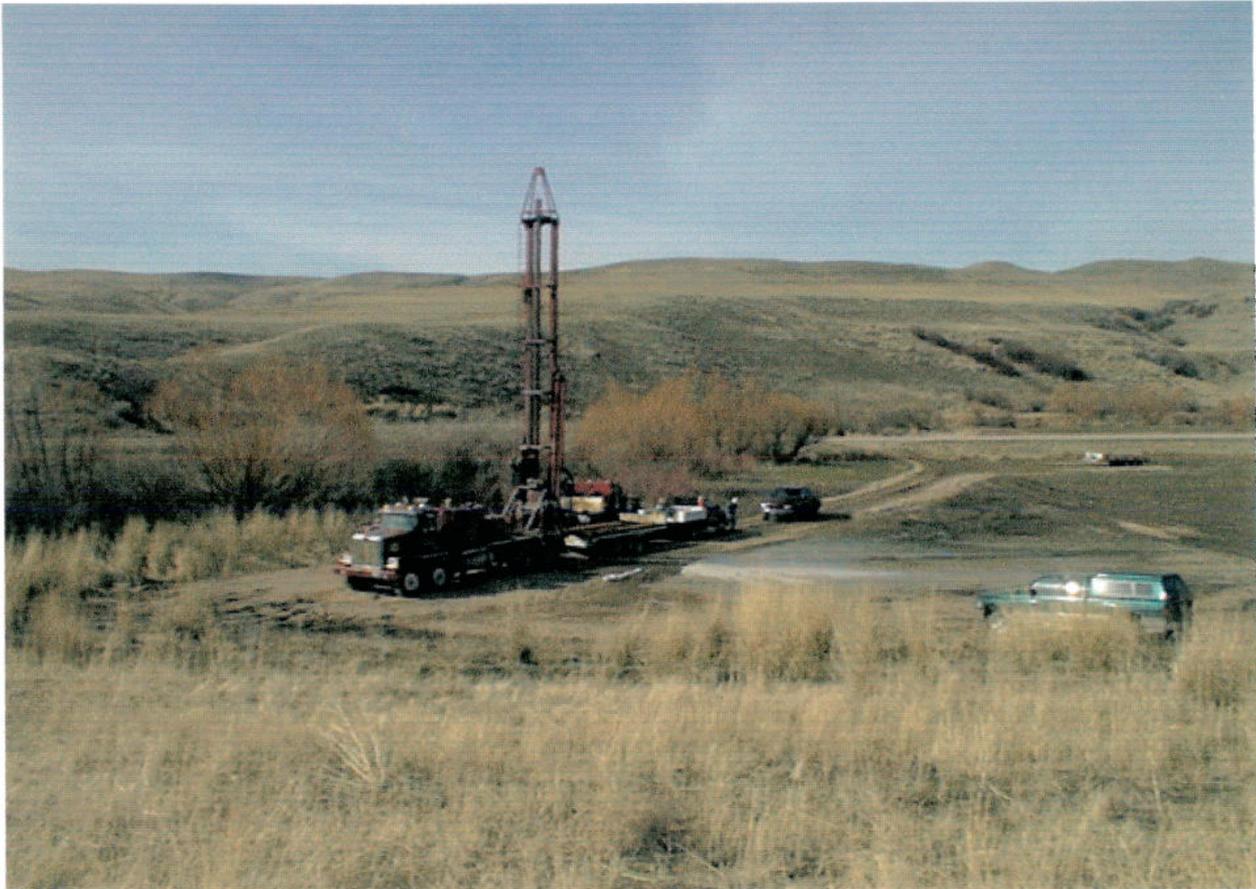


GROUNDWATER EXPLORATION DRILLING IN THE SPRING VALLEY RANCH VICINITY OF GEM, ADA, AND BOISE COUNTIES, IDAHO



REPORT PREPARED FOR
SUNCOR DEVELOPMENT COMPANY

BY
SCANLAN ENGINEERING

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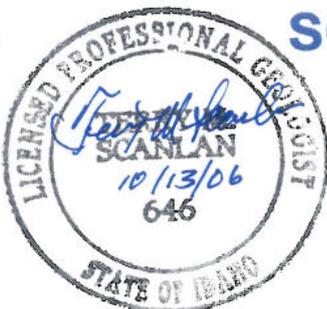


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EXECUTIVE SUMMARY

Four groundwater exploration boreholes were drilled in Spring Valley and in the South Fork Willow Creek Valley in an attempt to locate aquifers to serve Phase 1 of the Spring Valley Ranch Project. Well locations are shown on Figure 1.

- The first two wells produced less than 75 gpm each during short-term pumping tests, suggesting poor potential for aquifers at those sites to provide a significant and sustainable groundwater supply.
- The third well penetrated a geographically limited, but highly productive aquifer (referred to herein as the Sandy Hill Aquifer). The well produced 160 gpm with 3 feet of stabilized drawdown during a short-term pumping test, with full water-level recovery immediately after cessation of pumping. These test results suggest that properly completed wells in the Sandy Hill Aquifer should be capable of yields in excess of 500 gpm. However, the limited extent of the aquifer (estimated at less than one square mile) and limited available recharge suggest that the withdrawals in excess of approximately 100 acre feet annually might not be sustained without significant water level declines.
- The fourth well was drilled one-half mile south of Spring Valley Ranch headquarters. This 1220-foot well penetrated a sand and gravel aquifer at a depth of 240 to 290 feet. Several discrete fracture zones between 875 and 1220 feet in the underlying granite produced (3 to 25 gpm) during drilling but were not productive enough to warrant further testing. Testing of the shallow sand and gravel aquifer suggests that it will produce short-term yields of 100 gpm or more, but sustainable yields will be considerably less. As a result, the well shows little potential for significant water supply to support the project.

Additional exploration drilling and testing is recommended to further characterize the Sandy Hill Aquifer, since current information suggests that the aquifer might support a few hundred homes on a long term-basis, or several hundred homes on a short-term basis. Water quality from aquifer is excellent in all respects except arsenic. Arsenic was present in the sample from SVR-3 at concentrations that will require treatment to meet future drinking water standards.

Productive aquifers are believed to be present on Spring Valley Ranch lands in the vicinities of Big Gulch and Little Gulch, approximately four to seven miles west of Phase 1. Exploration drilling and testing in that area is recommended to verify water quality and aquifer conditions for a future well field. A well field in Big Gulch could be developed to serve later phases of the Spring Valley Ranch project or the long-term water needs of Phase 1 if the Sandy Hill Aquifer is not sustainable.

INTRODUCTION

Background

SunCor Development Company is evaluating development potential for the Spring Valley Ranch property located northwest of Boise, Idaho. The property consists of more than 30,000 acres located in Ada, Gem, and Boise Counties. Approximately 12,500 acres were identified as a primary development area in studies conducted in June 2001. The ultimate population within the primary development area could be as high as 30,000 residents, based on 11,300 dwelling units with 2.7 occupants per dwelling unit (Idaho average). The initial phase of the project will likely consist of less than 1000 homes in a core area located along Highway 55 in Spring Valley, and also located west of Highway 55 in the South Fork Willow Creek Valley.

SunCor contacted Scanlan Engineering in June 2002 to provide consulting services related to water supply for the Spring Valley Ranch Project. As a first step, Scanlan Engineering prepared a letter report dated July 11, 2002 that discussed groundwater resources within the Spring Valley Ranch property. A primary goal of the study was to propose an exploration-drilling program to locate and develop groundwater supplies to serve Phase 1 of the project. For purposes of that study, an initial phase water supply target of approximately 2 million gallons per day (1,400 gpm) was determined to be adequate to provide the peak-day domestic and landscape irrigation supply for approximately 1,000 homes.

Scanlan Engineering's July 11, 2002 report concluded that aquifers located in the western portion of the property (near Big Gulch) have the best potential to serve the ultimate needs of the project. Properly constructed wells in Big Gulch are anticipated to yield flow rates in excess of 1,000 gpm. Three exploration wells in Big Gulch were recommended to document water quality and aquifer characteristics.

The report also concluded that limited exploration for aquifers in the Spring Valley area was warranted. Although highly productive aquifers were not anticipated in the Spring Valley area, exploration drilling was recommended to explore for groundwater supplies located in the close proximity of initial development areas. Low capacity wells in this area might be candidates to serve the initial needs of the development. Other areas of Spring Valley Ranch property were determined to have very low probability for significant groundwater development. These other areas were either located in remote upland locations, or are underlain at shallow depth by granitic bedrock.

On October 15, 2002, SunCor authorized Scanlan Engineering to proceed with drilling of three exploration boreholes. A fourth exploration borehole was authorized on January 16, 2003. This report presents the results of those drilling activities. All activities occurred within the vicinity of the potential Phase 1 Development Area (Spring Valley Creek and South Fork Willow Creek areas). Well locations are shown on Figure 1.

Scope of Work

The following tasks were accomplished.

1. Four exploratory boreholes (Exploration Well Nos. 1, 2, 3, and 4) were drilled, with approximately 3,483 feet of total drilling. The first three boreholes were drilled using the mud-rotary technique, which allows the borehole to be advanced through unconsolidated materials without the use of well casing. The fourth borehole was drilled primarily using air rotary techniques, which requires well casing to support the boring through unconsolidated or unstable materials.
2. Geophysical logs were run on each of the three mud-rotary boreholes. The geophysical logs provide documentation of the borehole characteristics, and assist in identification of formation changes and lithology.
3. Exploration Well No. 1 was completed for stockwater and water-level observation purposes with 100 feet of 6-inch well casing.
4. Exploration Well No. 2 was completed for stockwater and water-level observation purposes with 300 feet of 6-inch well casing.
5. Exploration Well No. 3 was completed for stockwater, water-level observation, and test pumping purposes with 245 feet of 6-inch casing and well screen.
6. Exploration Well No. 4 was completed for water-level observation and test pumping purposes with 60 feet of 10-inch surface casing, 240 feet of 8-inch well casing, and 40 feet of 6-inch well screen. The lower portion of the exploratory boring (300 to 1220 feet) was abandoned by backfilling with bentonite chips and cement grout.
7. Exploration Well Nos. 1 and 2 each were test pumped in an open-hole condition prior installation of casing to determine potential yield and water quality. Exploration Well No. 2 was test pumped again after it was cased to 300 feet.
8. An air-lift pumping test of the lower portion of the Exploration Well No. 4 borehole prior to abandonment.
9. Exploration Well Nos. 3 and 4 were test pumped in a completed (cased and screened) condition to determine potential yield and water quality.
10. A short pumping test was conducted on the Ranch Irrigation Well to determine approximate aquifer parameters.
11. Water samples were collected from the four exploration wells, from the Ranch Irrigation Well, from the hillside spring in Spring Valley, and from stockwater wells in Little Gulch and Big Gulch.

12. Limited surface geologic exploration was conducted in an effort to better characterize local geology.

Details and results of the above activities are provided in follow sections. A summary of well testing results is provided as Table 1.

EXPLORATION WELL NO. 1

Exploration Well No. 1 (SVR 1) is located in Spring Valley, west of Highway 55, approximately one mile southwest of the Spring Valley Ranch headquarters. Target depth for the well was 600 feet or top of granite. The purpose of the exploration well was to provide definition of local stratigraphy and explore for water-bearing sand zones within an anticipated sedimentary section.

Drilling

Exploration Well No. 1 (IDWR tag No. D25898) was drilled to a total depth of 447 feet using mud-rotary methods. The nominal 8-inch diameter borehole penetrated lakebed sediments and volcanoclastic sediments from surface to approximately 340 feet. Well cuttings through this interval are described as primarily very fine-grained sandstone, clay, tuffaceous sandstone, and tuff. These materials are gravelly at times, but without any significant layers of coarse-grained clean sand. At 340 feet, the borehole appears to have entered decomposed granite. The granite continued to the bottom of the borehole and became progressively less weathered (and more dense) with depth. Note that the cuttings from the 340 to 447-foot section of the borehole are composed primarily of angular quartz grains, which look identical to a coarse-grained sand deposit. However, based on drilling characteristics, geophysical logs, and the presence of mica (biotite) in the cuttings, it was determined that this material is weathered granite.

Following drilling, geophysical logs (single point resistivity and natural gamma) were run to 427 feet. The borehole was then developed by bailing at a rate of approximately 40 gpm. During bailing, the driller reported that the borehole was open to approximately 420 feet. The driller thought that most of the water was being produced from above the top of the granite (i.e., above 340 feet), because mud was bailed from bottom of the borehole and muddy water was bailed from 375 feet, while relatively clean water was bailed from above 200 feet. These observations suggest that significant flow was not moving up the borehole from below 375 feet.

Testing

Static water level in the well prior to test pumping was approximately 17 feet below ground surface. The well was tested in an open-hole condition and produced 51 gpm with 102 feet of drawdown after 7.5 hours of test pumping. Pumping water level did not stabilize during the test period. Estimated transmissivity of the tested aquifer section was 1500 gpd/ft.

The discharge from the well was very dirty (fine sand and suspended sediment) throughout the pumping test. Water temperature was 60 degrees F. Field specific conductance and pH were 282 uS and 7.4 S.U., respectively. The water has a noticeable hydrogen sulfide odor. A field-filtered (0.45-micron) water sample was collected for laboratory water-quality analysis. The

Table 1
Summary of Aquifer Tests
Spring Valley Ranch

Well No.	Test type	Test Date	Static Water Level (ft. bmp)	Well Condition	Pumping Rate (gpm)	Test Duration (mins.)		Drawdown (ft.)	Transmissivity (gpd/ft)		Comments
						Pumping	Recovery		Drawdown	Recovery	
SVR1	Step	11/07/02	19.5	Open hole	Variable	150	30	128.8	NA	NA	Pumped at 20, 50 and 60 gpm; Spec Cap .9 gpm/ft., .7 gpm/ft., and .5 gpm/ft respectively.
SVR1	Constant Rate	11/08/02	19.8	Open hole	51	450	150	102.0	1500	1925	Cloudy, T = 60.3 F, SC = 282 uS, EC = 733 uS, pH = 7.39
SVR2	Constant Rate	11/22/02	18.0	Open hole	40	332	25	95.3	528	365	Cloudy, T = 66.7 F, SC = 815 uS, EC = 725 uS.
SVR2	Constant Rate	12/19/02	35.1	Cased to 300 ft	50	150	115	159.9	695	280	Almost clear, T = 66.6 F, SC = 773 uS, EC = 690 uS.
SVR3	Constant Rate	12/16/02	175.0	Cased and screened to 260 ft.	50	85	10	1.6	46875 *	NA	Clear, T = 56.8 F, EC = 111.5 uS, SC = 142 uS
SVR3	Constant Rate	12/18/02	177.8	Cased and screened to 260 ft.	160	65	15	3.0	80000 *	NA	Clear, T = 56.1 F, EC = 108 uS, SC = 138 uS.
SVR4	Constant Rate	03/06/03	43.4	Cased and screened to 290 ft.	100	180	220	114.5	910 (early) 290 (late)	550	Clear, T = 56 F, SC = 590 uS, pH 7.4
SVR4	Constant Rate	03/14-15/03	+2 gl	Cased and screened to 290 ft.	80	1443	180	200.7	1320 (early) 120 (mid) 640 (late)	660	Clear, T = 66.2 F, SC = 546 uS
Irrigation Well	Constant Rate	12/05/02	18.0	Cased, const. unk.	100	150	70	105.1	480	455	Clear, T = 56.7 F, SC = 450 umhos/cm, EC = 350 umhos/cm.

Notes:

* = Calculated value; where T (gpd/ft) = Specific Capacity (gpm/ft) x 1500.

laboratory results suggest relatively good water quality, although manganese (0.18 mg/L) is in excess of the secondary standard (0.05 mg/L). There were no inorganic constituents in excess of primary drinking water standards.

Well Completion

After testing, the bottom of the borehole was measured at approximately 390 feet, suggesting that the lower 57 feet of borehole was filled with materials that had caved from the borehole walls. An attempt was made to bail out the fill material. This attempt was unsuccessful because the borehole was unstable between 250 and 350 feet, and continued to cave in when material was removed. The borehole was eventually completed with 6-inch steel casing set to 100 feet. The bottom of the casing was equipped with a shale trap to seal the casing to the 8-inch borehole. A bentonite grout surface seal was placed above the shale trap with tremie pipe from approximately 90 feet to surface.

Discussion

Results of drilling and test pumping of Exploration Well No. 1 suggest that groundwater potential at the site is low. A properly completed production well at this site will likely produce a sustainable yield of less than 50 gpm. Water quality is acceptable for public water system use. However, due to low yield, additional groundwater development at this location is not currently recommended.

EXPLORATION WELL NO. 2

Exploration Well No. 2 (SVR 2) is located in the South Fork Willow Creek Valley, approximately ½ mile west of Highway 55 and 1.5 miles northwest of the Spring Valley Ranch headquarters. Target depth for the well was 800 feet or top of granite. The purpose of the exploration well was to provide definition of local stratigraphy and explore for possible water-bearing sand layers or fractured basalt.

Drilling

Exploration Well No. 2 (IDWR Tag No. D25899) was drilled to a total depth of 846 feet using mud-rotary methods. The borehole is nominal 8-inch diameter above 700 feet and 6-inch diameter below 700 feet. Materials penetrated consisted primarily of shale, clay, and fine-grained sandstone. A layer of basalt rock and basaltic tuff was present from 560 to 610 feet. The driller reported soft sandstone at 725 feet. At approximately 740 feet, the borehole entered decomposed granite. This material was present to total depth.

Geophysical logs (single point resistivity, natural gamma, and caliper) were run to 843 feet. Following logging, the borehole was developed briefly by bailing. The driller indicated that a potentially unstable sand zone was present from 130 to 140 feet. A test pump was set at approximately 130 feet to avoid being below this zone in event of borehole collapse.

First Pumping Test

Static water level prior to testing was approximately 15 feet below ground surface. The hole was test pumped in an open-hole condition for 5.5 hours and produced 40 gpm with 95 feet of drawdown. Drawdown did not stabilize, and discharge was dirty (fine sand and suspended sediment) throughout the pumping test. Estimated transmissivity of the tested section of the aquifer was approximately 500 gpd/ft.

The temperature of water produced during test pumping was 66 degrees F. Specific conductance varied throughout the test period between 650 and 800 uS. The reason for the variation is unknown, but may suggest contributions from various zones within the borehole as the pumping test progressed. A field-filtered water sample was collected for laboratory water-quality analysis. Laboratory results suggest poor to moderate quality water. Arsenic (0.016 mg/L) exceeds the future primary standard of 0.010 mg/L. TDS (570 mg/L), iron (0.95 mg/L), and manganese (1.64 mg/L) exceed the secondary standards of 500 mg/L, 0.30 mg/L and 0.05 mg/L, respectively. The water is hard (319 mg/L as CaCO₃), and high in sulfate (229 mg/L).

Well Completion

Geophysical logging, drilling characteristics, and well cuttings suggested that water-bearing zones might be present between 100 and 150 feet, and below 450 feet. In order to be able to adequately stress zones below 450 feet during test pumping, the suspected upper water-bearing zones in the well were cased off by installing 6-inch casing to 300 feet. The 6-inch well casing is equipped with shale traps at 160 and 300 feet. A grout surface seal was placed with tremie pipe from approximately 150 feet to surface.

Second Pumping Test

Following installation of casing, the well was test pumped at 60 gallons per minute for 2.5 hours. Static water level before the test was 32 feet below the top of casing. Pumping water level at the end of the test was 192 feet (160 feet of drawdown) and had not stabilized. Water discharge was initially very turbid but was clearing by the end of the test. Temperature was 67 degrees F and specific conductance was 733 uS. The specific capacity of the lower part of this well is slightly less than the specific capacity of the uncased borehole (as measured by the first test at this location). This suggests that the majority of water produced from this well during the first pumping test was coming from zones below 300 feet depth. Estimated transmissivity of the tested section is approximately 500 gpd/ft.

Discussion

Results of drilling and test pumping of Exploration Well No. 2 suggest that groundwater production potential at the site is low and water quality is relatively poor. A properly completed production well at this site will likely produce a sustainable yield of 60 gpm or less with drawdown of more than 200 feet. The water has high concentrations of iron, manganese, sulfate, and TDS. Arsenic concentration (0.016 mg/L) exceeds the future standard of 0.010 mg/L. Due to low yield and poor water quality, significant groundwater development at this location is not anticipated.

Additional development work could be considered in an attempt to stimulate more production from deep aquifer zones. The additional development would probably consist of air-lift pumping from 300 feet or deeper. However, in all likelihood the additional development work will simply confirm the low production potential shown by test pumping.

EXPLORATION WELL NO. 3

Exploration Well No. 3 (SVR 3) is located west of Highway 55, approximately 3/4-mile west of the Spring Valley Ranch headquarters. Target depth for the well was 1,000 feet, or top of granite. The purpose of the exploration well was to provide better definition of local stratigraphy and explore for possible water-bearing sand zones in a primarily sedimentary formation.

Drilling

Exploration Well No. 3 (IDWR Tag No. D29004) was drilled to a total depth of approximately 970 feet using mud-rotary methods, with 8-inch diameter hole to total depth. The borehole penetrated a coarse-grained sand unit extending from ground surface to a depth of 275 feet. Below 275 feet, the borehole entered a sequence of lakebed sediments and volcanoclastic sediments (shale, clay, tuff and fine-grained sandstone) that continued to the bottom of the borehole.

Geophysical logs (single point resistivity, natural gamma, and caliper) were run to 967 feet following drilling. The well cuttings, drilling characteristics, and geophysical logs did not provide indications of high permeability zones below 275 feet. Therefore, testing was focused on the coarse sand unit above 275 feet.

Completion

In order to test the unconsolidated sands above 275 feet, it was necessary to complete the borehole with well casing and screen. The well was constructed with 6-inch well casing and 40 feet of 6-inch stainless steel well screen extending to a total depth of 245 feet. An open hole was left below the bottom of the 6-inch casing.

The well was developed initially by bailing, and then by surging with a 5-hp test pump. The discharge from the well quickly cleared during pumping. Static water level was determined to be approximately 176 feet below top of casing. Pumping water level at 50 gpm (maximum capacity of the 5-hp development pump) was stable at 178 feet below top of casing.

Testing

A 25-hp test pump was used for testing of the well. This pump produced only 160 gpm due to friction losses in the 2.5-inch pipe used for setting the pump. Larger diameter pipe was not used because of the need to also fit a water-level sounding tube within the 6-inch casing. At the 160-gpm pumping rate, the water-level drawdown was approximately 3 feet. Pumping water level stabilized within one minute of the start of testing. The rapid water-level response during testing

precludes calculation of aquifer hydraulic parameters using standard graphical methods. However, based on a specific capacity of 53 gpm/ft, a minimum transmissivity of 80,000 gpd/ft is estimated.

The water produced during pumping had a specific conductance of approximately 100 uS, suggesting excellent water quality. This specific conductance is substantially lower than the specific conductance measured at the other exploration wells and at the Ranch Irrigation Well. Laboratory analysis showed good water quality for all parameters except arsenic. The arsenic concentration of 0.038 mg/L is less than the current Maximum Contaminant Level of 0.050 mg/L, but more than the future standard of 0.010 mg/L.

It is likely that essentially all of the water produced during development and testing was derived from the portion of the borehole above 275 feet. The driller reported that the well and borehole was filled with sand below approximately 240 feet following completion of test pumping.

Discussion

Additional test pumping is needed to better estimate potential yield from the aquifer penetrated by Exploration Well No. 3. Based on the limited information obtained during development and test pumping, it is probable that a yield of several hundred gpm could be obtained from a properly completed production well at this site. The water from the aquifer will require treatment for arsenic removal, but otherwise is excellent quality for public water system use. However, the lateral extent of the aquifer is limited. Surface geologic mapping suggests that the sand unit does not extend to the east more than approximately 1500 feet. The aquifer appears to be bounded at a distance of 1000 feet to the southwest by a faulted contact with a ridge of granitic rock. The aquifer does not extend north to the vicinity of Exploration Well No. 2 (6,000 feet north). Therefore, the total yield from the aquifer may not be adequate to sustain high rate pumping for many months or years. Nonetheless, the aquifer appears to be a significant resource that could be exploited for the initial phase of the project. The aquifer could also function in the future as a reservoir to allow winter-time groundwater recharge, and summer-time high rate production.

EXPLORATION WELL NO. 4

Exploration Well No. 4 (SVR 4) is located east of Highway 55, approximately ¼ mile south of Spring Valley Ranch headquarters. SunCor selected the well site, and established a target depth of 1200 feet.

Drilling

Exploration Well No. 4 (IDWR Tag No. D0029075) was drilled to a total depth of approximately 1220 feet, primarily using air-rotary methods, with 14-inch diameter hole to 60 feet, 8-inch diameter hole to 840 feet and 6-inch diameter hole to 1220 feet.

The borehole penetrated a sequence of lakebed sediments and volcanoclastic sediments (shale and clay) from near ground surface to approximately 240 feet, and again from 290 feet to 450 feet. A coarse-grained sand and gravel aquifer was penetrated between 240 to 290 feet. Below

of drawdown at the 100-gpm rate, no additional steps were attempted, and the step-rate pumping test was terminated. Three hours following the end of pumping, the water level had recovered to only 94 feet. After four days, water level had recovered to approximately 12 feet.

Constant-rate testing was conducted on March 14 and 15. The well was pumped at a rate of 80 gpm for 24 hours. Static water level at the start of the test was +2 feet. Water level at the end of the test was 200 feet. At the end of the test, the drawdown rate appeared to be trending toward stabilization. Water-level responses from test pumping were not detected in either the Ranch Well or Exploration Well No. 1.

Following the constant-rate test, water levels recovered slowly. Nine days after the test, the water level was still 38 feet from full recovery.

The indication from the test pumping response is that the well is completed in a relatively permeable aquifer zone, but the permeable zone is very limited in lateral extent. Thus, while this well can probably be pumped at high rates (more than 200 gpm) for periods of less than an hour, the limited aquifer storage capacity will reduce the sustainable yield to approximately 65 gpm. Estimated transmissivity in the near vicinity of the well is approximately 1320 gpd/ft. If this short-term trend had continued, the well would be capable of producing a sustained yield of 180 gpm from a pumping level of 225 feet. However, after 15 minutes of pumping the effective transmissivity decreased by an order of magnitude (to 120 gpd/ft) as a result of negative hydraulic boundaries. The negative boundaries are the hydraulic expression of drawdown effects reaching the outer edge of the permeable portion of the aquifer. In this case, the limit of the aquifer may be (1) the edge of a buried channel, (2) a fault, or (3) a change in permeability where a lens-shaped deposit of permeable sand and gravel "pinches out" into a surrounding mass of low-permeability sediments. These hydraulic boundaries severely limit the long-term productivity of the well and aquifer. Leakage from overlying and underlying fine-grained sediments, or a positive hydraulic boundary as some distance from the well, is probably responsible for the trend toward stabilization (effective transmissivity of 640 gpd/ft) that was noted near the end of the constant-rate test.

Water quality from the aquifer is moderate, with no parameters exceeding primary drinking water standards, but concentrations of iron (0.73 mg/L) and manganese (0.26 mg/L) exceed secondary standards. Water temperature was 66 degrees F, specific conductance was 590 uS, and pH was 7.4. The water has a very faint hydrogen sulfide odor. Laboratory analysis found less than 0.003 mg/L arsenic, TDS of 404 mg/L, and nitrate of less than 0.20 mg/L.

Discussion

Results of drilling and test pumping of Exploration Well No. 4 suggest that groundwater potential at the site is low. Although the well is capable of short-term pumping at rates of more than 200 gpm, a properly completed production well at this site will likely produce an estimated sustainable yield of only 60 gpm. Water quality is acceptable for public water system use. However, due to low yield, additional groundwater development at this location is not currently recommended.

HILLSIDE SPRING

A spring located ¼ mile west of Highway 55 in Spring Valley currently serves as the domestic and stockwater source for the Spring Valley Ranch headquarters. The spring was developed many years ago by driving a tunnel into the soft sandstone hillside. The tunnel is not currently visible, as the portal reportedly was sealed and covered. However, piping from the tunnel is functional, and water is supplied under gravity pressure from the spring (at elevation 3400 feet +/-) to the ranch headquarters (at elevation 3330 +/-) and nearby stocktanks. Ranch Manager Jerry Thompson reported that the flow from the spring was measured at 50 gpm during summertime several years ago. Discharge rate from the spring during the Exploration Well No. 4 pumping test in March 2003 was 48 gpm, suggesting that the discharge rate is relatively constant.

A water sample was collected from the spring and submitted for laboratory testing. Field specific conductance was 188 uS. Laboratory results show excellent water quality, except for arsenic at 0.021 mg/L.

Conceptually, it appears that the aquifer zone tapped by Exploration Well No. 3 is in hydraulic connection with the hillside spring. Water level elevation at the spring is approximately 3400 feet, compared with a water level elevation of approximately 3420 feet at Well No. 3. The elevation of shallow groundwater at Exploration Well No. 2 is estimated to be approximately 3600 feet. This may suggest a gradient from the South Fork Willow Creek Valley toward Spring Valley. The spring is not anticipated to be in hydraulic connection with the aquifer zones tapped by Exploration Well No. 4 or the Ranch Irrigation Well.

The sedimentary formation that the spring issues from consists of a slightly indurated fine-grained sand. The material has the appearance of a dune sand, although further investigation would be required to ascertain whether it has an eolian or alluvial origin. The sand is noticeably different in appearance from the coarse-grained sand aquifer in the upper 275 feet of Well No. 3. This suggests that the two sources are separate geologic units, although we suspect that they are hydraulically connected. The coarse-sand appears to be a younger, stratigraphically higher unit, perhaps equivalent to the Pierce Gulch sand of the upper Idaho Group. The dune sand appears to be an older sand, perhaps part of the lower Idaho Group or even the older Payette Formation or Poison Creek Formation. The nature of the contact between the two units is unclear.

Given the probable hydraulic connection between the spring and the Sandy Hill Aquifer, monitoring of spring discharge is recommended during future Sandy Hill Aquifer exploration activities. Significant development of the Sandy Hill Aquifer may eventually deplete or eliminate flow from the spring.

The discharge from the spring also provides a preliminary estimate of the minimum yield from the Sandy Hill Aquifer. For instance, if the spring discharge averages 50 gpm, the annual discharge from the aquifer at that location is approximately 80 acre feet (26 million gallons). This amount of discharge is probably the minimum amount that can be produced from the Sandy Hill aquifer (provided that a decline in spring discharge is acceptable) on an annual basis. The actual potential yield from the aquifer is probably more than the measured spring discharge, but the annual spring discharge provides a rough estimate of the minimum potential annual yield.

RANCH IRRIGATION WELL

A short-pumping test of the Ranch Irrigation Well was conducted to determine approximate yield. The well was pumped at an average rate of 100 gpm for 2.5 hours. Drawdown did not stabilize, and was measured at 105 feet (123 feet below ground level) at the end of the test period. The well appears to be completed with 12-inch perforated casing at the surface, and cascading water was audible after the pumping water level fell below about 37 feet.

Based on the results of test pumping, the well appears to be capable of a sustained pumping rate of less than 100 gpm. This short-term test result matches with anecdotal information from Jerry Thompson who indicated that the well could sustain a pumping rate of about 65 gpm or 75 gpm for irrigation purposes, and that the pump is set at 190 feet. Using the drawdown trend from short-term test, the estimated pumping water level after 3 months of continuous pumping at 65 gpm would be approximately 170 feet.

Water temperature during testing was 57 degrees F, and specific conductance was 450 uS. A water quality sample was not collected for laboratory analysis during the test. The well was later sampled on March 6. At that time, temperature was 56 degrees F, specific capacity was 507 uS, and pH was 7.5.

Depth and construction of the well are not documented. The previous Ranch Manager (Red) recalled that the well was drilled to approximately 400 feet, and that drilling was terminated when they hit granite. However, retired well driller Wayne Stevens recalled deepening the well to approximately 1000 feet many years ago. The well was then "shot" using dynamite in an attempt to stimulate production. The dynamite approach was partially successful, as the well reportedly flowed under artesian pressure for a short time afterward.

BIG GULCH AND LITTLE GULCH STOCKWATER WELLS

Water samples were collected from stockwater wells located in Big Gulch and Little Gulch. Well locations are shown on Figure 2.

Both wells produce excellent quality groundwater, with low total dissolved solids (approximately 200 mg/L), and very low concentrations of iron, manganese and sulfate. Arsenic was present at levels barely detectable (.005 to .006 mg/L). Nitrates were also low indicating the aquifer has not been impacted by nearby cattle grazing operations.

No data are available regarding well construction or well depth. Jerry Thompson thought that the pumps were set at less than 200 feet in both wells.

COMPARISON OF WATER QUALITY

Water quality results for the three wells and the spring are provided in Table 2. Major ion distributions are shown graphically on Figure 3.

Table 2
Water Quality Results
Spring Valley Ranch

Source Date	MCL	SMCL	SVR 1 11/08/2002	SVR 2 11/27/2002	SVR 3 12/18/2002	SVR Spring 12/18/2002	SVR Spring* 03/19/2002	Big Gulch 1 02/14/2003	Little Gulch 1 02/14/2003	SVR 4 (250') 03/06/2003	SVR Irrigation 03/06/2003	SVR 4 (deep) 02/25/2003
arsenic	0.01**		0.008	0.016	0.038	0.021	0.021	0.005	0.006	<0.003	0.006	0.004
ammonia			0.18	0.23	<0.04	<0.04	0.07	<0.04	<0.04	0.46	0.75	0.04
antimony	0.006		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
barium	2		<0.05	0.06	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	0.22	<0.05
beryllium	0.004		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
bicarbonate			94.4	189	50.4	66.2	24.4	121	104	155	169	136
calcium			27.3	85.6	12.9	22.2	30.8	23.9	23.9	45.6	50	1.58
chloride		250	4	5	2	3	3	5	6	3	12	5
chromium	0.1		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
fluoride	4		0.44	0.34	0.27	0.33	0.38	0.6	0.59	0.17	0.79	0.97
hardness			99.5	319	41.8	67.7	69.2	107	89.7	19	125	5
iron		0.3	0.06	0.95	0.06	<0.05	<0.05	<0.05	<0.05	0.73	4.33	0.24
magnesium			5.47	22.2	2.54	3.53	3.63	6.65	6.55	2.58	11.6	<0.10
manganese		0.05	0.18	1.64	<0.05	<0.05	<0.05	<0.05	<0.05	0.26	2.29	<0.05
mercury	0.002		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
nickel			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
nitrate	10		0.26	<0.20	0.63	1.59	0.3	0.3	0.59	<0.20	<0.20	<0.20
nitrite	1		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01
potassium			6.5	12.9	4.4	4.4	4.1	2.1	1.7	6.5	10.4	0.7
sodium			17.8	43.7	9.72	9.52	9.67	19.2	21.2	68.7	27.5	83.5
sulfate		250	43	229	11	17	24	21	21	117	61	32
sulfide			<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
TDS		500	210	570	116	120	206	192	192	404	378	214
thallium	0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Field Parameters

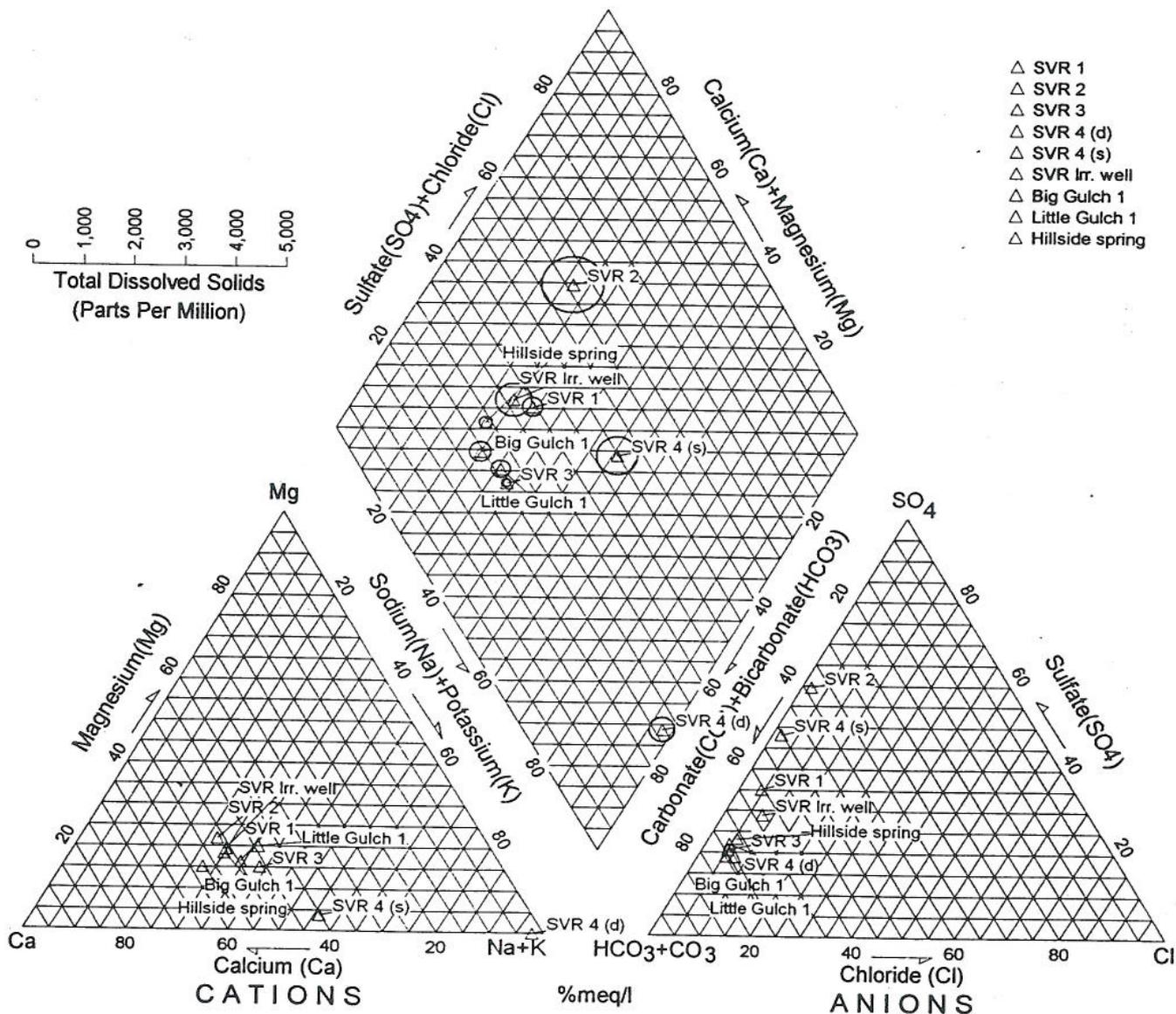
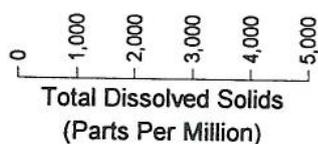
Temp. (C)	15.7	19.2	13.4	13.8	18.3	20.1	18.9	13.3	21.5
Temp (F)	60.3	66.6	56.1	56.8	64.9	68.2	66.0	55.9	70.7
SC (YSI) umhos/cm	282	697	138	188	268.8	253	546	359	331
EC (YSI) umhos/cm	233	595	108	145	234.3	231	7.4	7.49	9.12
pH	7.39	7.56	7.46	7.56	7.38	7.3	7.4	7.49	9.12
SC (Corning) umhos/cm					335	310	590	514	

* Sampled by Roylance Engineers

All results in mg/L

Spring Valley Ranch Water Resources Investigation

- △ SVR 1
- △ SVR 2
- △ SVR 3
- △ SVR 4 (d)
- △ SVR 4 (s)
- △ SVR Irr. well
- △ Big Gulch 1
- △ Little Gulch 1
- △ Hillside spring



**FIGURE 3
MAJOR ION COMPARISONS**

The comparisons in Figure 3 and on Table 2 suggest a similar chemistry exists at the Hillside Spring, SVR 3 and the Big and Little Gulch wells. This suggests the aquifer at the Big and Little Gulch wells is probably also a clean sand alluvial deposit.

The chemistry data also indicate the water produced from the Ranch Irrigation well and SVR 1 are similar, but that the aquifer tapped by SVR 4 (s, shallow) is isolated from the water-bearing zones in those wells. This chemistry separation is consistent with the uniqueness of the sand and gravel at SVR 4, the higher temperature at SVR4 (66 vs 56 F), and the lack of water level response in either SVR 1 or the Irrigation well when SVR 4 was pumped.

As shown on Figure 3, wells SVR 2 and the granite at SVR 4 (SVR 4 d, deep) also appear to be chemically isolated from the other wells.

MISCELLANEOUS COMMENTS

Exploration Well Construction

The wells completed as part of this exploration program were constructed to obtain a maximum amount of information at a minimum cost. Boreholes 1 and 2 were tested in an open-hole condition to prevent potential water-bearing zones from being excluded by solid casing. Boreholes 3 and 4 cased and screened prior to testing because the target formation was unstable. Boreholes 1 and 2 could have been cased and screened prior to testing in order to produce less suspended materials. However, this effort could have reduced the already low yield, would have added substantially to exploration program costs, but would have produced little, if any, additional information.

Well No. 4 was completed with the hope that it might eventually be utilized in a public water system. Although the site of the well is problematic for public water system approval (due to the close proximity of Spring Valley Creek), the well was constructed with heavy wall casing, stainless steel well screen, and a surface seal extending to 60 feet depth.

Value of Low Yield Wells

The value of constructing wells for public water system purposes in low-yield aquifers, such as tapped by Exploration Wells 1, 2 and 4, is debatable. Although a 40 gpm well may have the capacity to support domestic and landscape irrigation needs for 20 to 40 homes, the unit costs to construct and operate numerous low capacity sources is much higher than constructing and operating fewer high capacity sources. Thus, constructing and equipping 2 or 3 high capacity wells, even if distant from the place of use, is generally preferable to constructing numerous low capacity wells nearer to the place of use.

CONCLUSIONS

Results from the first phase of exploration drilling and testing indicate the following.

1. A coarse-grained sand aquifer (i.e., the "Sandy Hill Aquifer") is present in the highlands approximately $\frac{3}{4}$ mile west of Spring Valley Ranch headquarters. This aquifer could be exploited for water supply in the first phase of the project. Based on a tested specific capacity of 52 gpm/ft, it appears that high capacity (200 gpm to 1000 gpm) wells can be constructed in this aquifer. However, the aquifer appears to extend over an area of less than one square mile. Therefore, the sustainability of this source is questionable. The minimum sustainable yield is estimated at 80 acre feet annually, based on the discharge from the Hillside Spring. Additional investigation is recommended in an attempt to further define the size and hydraulic characteristics of this aquifer. Treatment of arsenic in water from this aquifer may be required.
2. Testing of Exploration Well Nos. 1, 4, and the Ranch Irrigation Well indicate that aquifer conditions along the Highway 55 corridor through Spring Valley are not conducive to development of high capacity wells. Low capacity (20 to 60 gpm) wells could potentially be constructed in this area. Although it is probable that the "Spring Valley Aquifer" is laterally more extensive than the Sandy Hill Aquifer, the Spring Valley Aquifer has low productivity and is bounded by granitic rock to the northeast and southwest. As a result, sustainable yield from the aquifer is Spring Valley Aquifer questionable.
3. The Hillside Spring in Spring Valley could be considered for water supply purposes. The water could be captured at the spring and used directly (with treatment for arsenic) in a public water system. Alternatively, the discharge from the spring could be captured and pumped back to the vicinity of Exploration Well No. 3 for Sandy Hill Aquifer recharge purposes. Discharge from the spring (currently 50 gpm) is likely to be impacted by pumping from the Sandy Hill Aquifer.
4. Suspected aquifers in the Big Gulch and Little Gulch areas should be targeted as part of the ultimate water supply for the project. The aquifers in this area are anticipated to be productive and more sustainable than aquifers in the Spring Valley area.
5. Wells in Big Gulch and Little Gulch areas could be used as sources of recharge for the Sandy Hill Aquifer, allowing the Sandy Hill Aquifer to be recharged during low-demand winter months. Recharged water could be recovered from Sandy Hill Aquifer wells during high demand summer months.

PRIMARY RECOMMENDATIONS

1. Additional exploration wells are recommended to further characterize the Sandy Hill Aquifer. These wells include one full-size test well and approximately three small diameter exploration/observation wells. The full-size (16-inch) test well can be constructed within approximately 300 feet of Exploration Well No. 3. The three small-diameter (6-inch) wells could be constructed in the following locations.

- One hole should be drilled near the existing sand pit, approximately 1300 feet east of Exploration Well No. 3. Target depth will be 150 feet.
- One hole should be drilled near the Orville Jackson homestead, approximately 2000 feet northwest of Exploration Well No. 3. Target depth will be 300 feet.
- One hole should be drilled 1500 feet south of Exploration Well No. 3. Target depth will be 500 feet.

Each of these wells should be preserved for long-term water-level observation purposes, which will be necessary for assessing the status of the aquifer as it is developed.

2. A long-term test of the full-size well in the Sandy Hill Aquifer is recommended. The test duration should be approximately three days to two weeks, with continuous monitoring of observation wells and spring discharge. The pumping rate for testing will depend on the productivity of the well, but a rate of 500 gpm to 1,000 gpm is probable.
3. An application for water right permit should be submitted for municipal or domestic use. Two points of diversion should be identified at the Sandy Hill Aquifer, along with one point of diversion at the spring, and up to three points of diversion in Spring Valley. The water right permit will need to describe the proposed development, including the number and location of lots. Processing of the application will likely require 4 to 8 months if the application is not protested.
4. An exploration drilling program should be conducted in the Big Gulch and Little Gulch areas to characterize water quality and aquifer characteristics. The program should include test borings at three locations and construction of at least one full-size production well. Water quality samples should be obtained from the test borings to determine water quality characteristics at various depths.

SECONDARY RECOMMENDATIONS

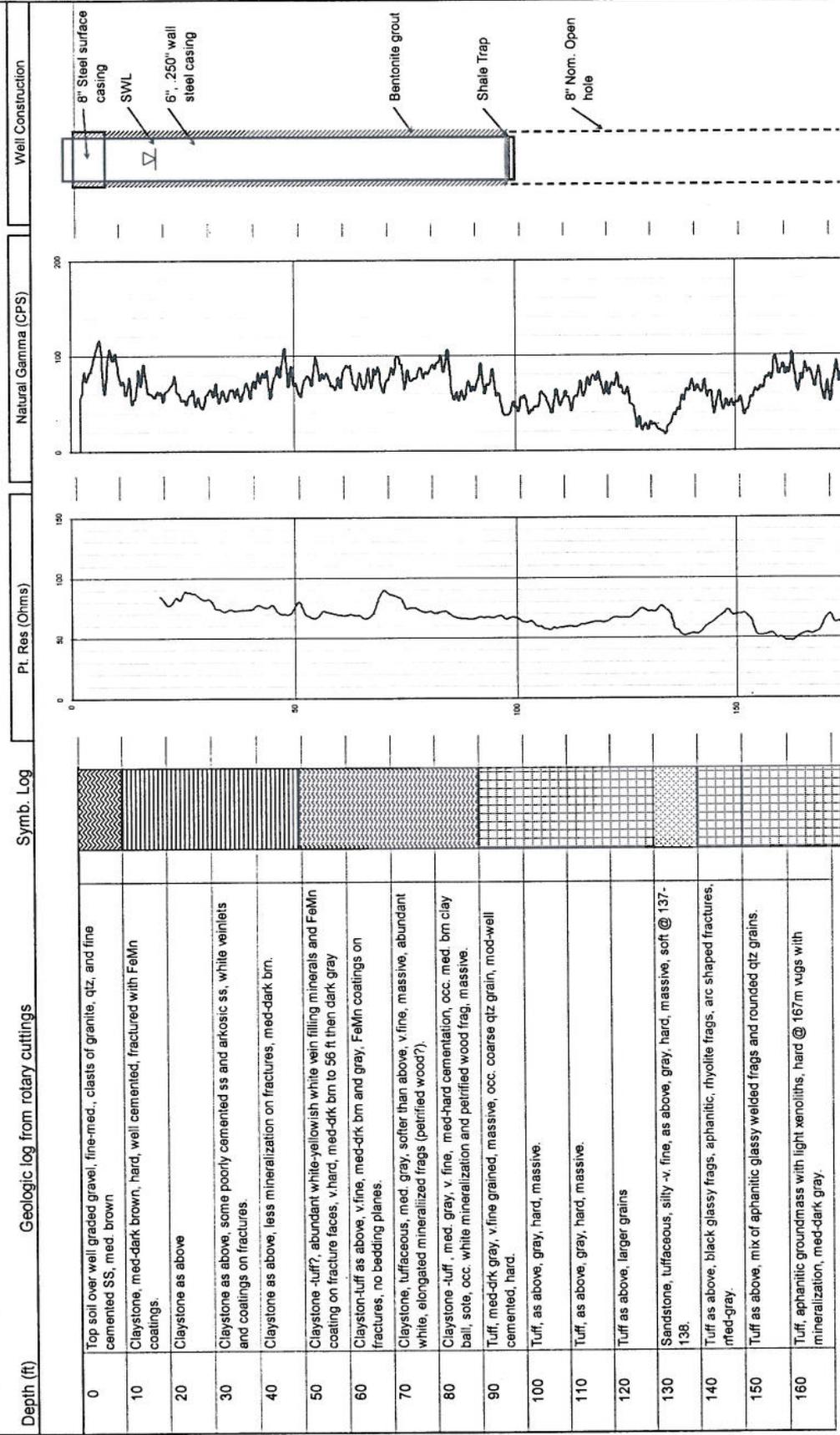
5. Surface geologic mapping is recommended to estimate the lateral extent of the Sandy Hill Aquifer and to identify any other potential drilling targets in the core area of the project.
6. Water levels in Spring Valley wells (Exploration Well Nos. 1 and 4, Highway Well, and Ranch Well) should be monitored on a bi-weekly basis throughout the 2003 irrigation season. At the same time, irrigation pumping from the Ranch Irrigation Well should be maximized to stress the aquifer. Response of the Spring Valley wells may provide indications of Spring Valley Aquifer sustainability.
7. A short-term (6-hour) test of the Highway Well could be conducted to characterize aquifer hydraulics and water quality at that location.
8. Down-hole video surveys of the Ranch Irrigation Well and the Highway Well could be used to document depth and construction. Geophysical logging of the Ranch Irrigation Well and the Highway Well could be considered if the camera surveys show extensive uncased sections within the wells.

Appendix A
Well No. 1 Data

Exploration Hole SVR 1

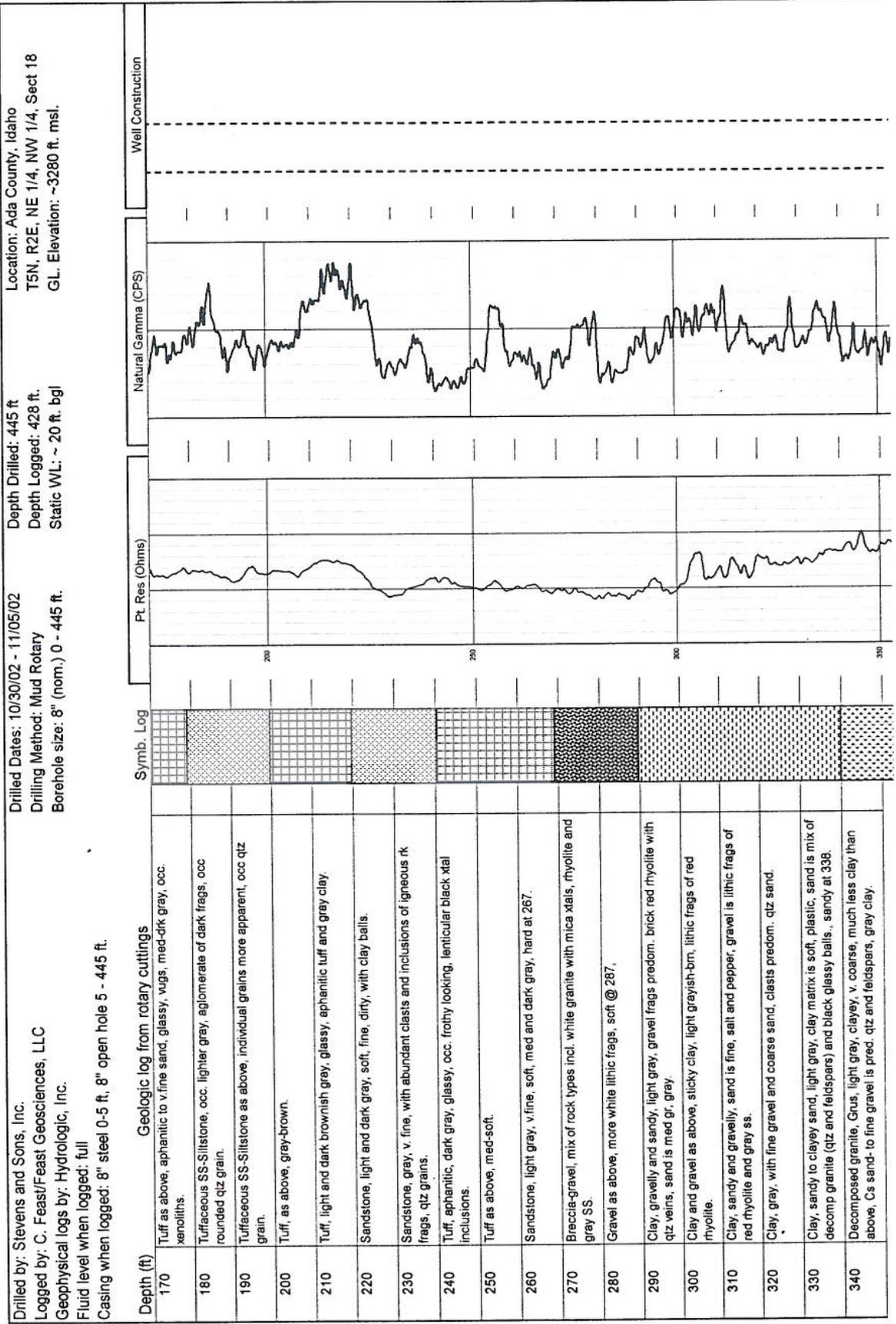
Spring Valley Ranch

Drilled by: Stevens and Sons, Inc. Location: Ada County, Idaho
 Logged by: C. Feast/Feast Geosciences, LLC T5N, R2E, NE 1/4, NW 1/4, Sect 18
 Geophysical logs by: Hydrologic, Inc. Depth Drilled: 445 ft
 Fluid level when logged: full Drilling Method: Mud Rotary Depth Logged: 428 ft
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 445 ft. Borehole size: 8" (nom.) 0 - 445 ft. Static WL: ~ 20 ft. bgl
 Drilled Dates: 10/30/02 - 11/05/02 GL Elevation: ~3280 ft. msl.



Exploration Hole SVR 1

Spring Valley Ranch



Drilled by: Stevens and Sons, Inc. Location: Ada County, Idaho
 Logged by: C. Feast/Feast Geosciences, LLC T5N, R2E, NE 1/4, NW 1/4, Sect 18
 Geophysical logs by: Hydrologic, Inc. Drilled Dates: 10/30/02 - 11/05/02 Depth Drilled: 445 ft
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 GL. Elevation: ~3280 ft. msl.

Hydro Logic, Inc.

Geophysical Division

WELL NAME: Spring Valley-2002 Test Well #1

GEOPHYSICAL WELL LOG:
Natural Gamma-Ray
Point Resistance

PERMANENT DATUM: Mean Sea Level
LOG MEASURED FROM: Ground
3235 Feet above MSL

OTHER SERVICES:

COMPANY: Scanlan Engineering / Suncor
PROJECT: Spring Valley Ranch Wells
ORDERED BY: Chuck Feast

COORDINATES:
T5N, R2E Sec. 18
NE1/4,NW1/4
ELEVATION:

COUNTY: Ada

STATE: Idaho

KB:
GL: 3235

WELL OWNER:

WELL: Spring Valley-2002 Test Well #1
LOCATION: 8.2mi N. of Statest on Hwy54

	Run No. 1		Run No. 1
Date	11/5/02	Fluid Level	hole full
Bottom logged Int.	428 ft. bgl	Fluid Nature	drilling mud
Top Logged Int.	1 ft. bgl	Fluid Viscosity	
Footage Logged	427 ft.	Fl. Resistivity	mud Cs=673uS
Bottom (Driller)	445 ft.	Fl. Res. at BHT	
Casing (from Log)	3 ft.	Fluid pH	NA
Casing (Driller)	3 ft.	Last Circulated	NA
Casing Size	8"	Bottom Hole Temp	
Bit Size	8"		
		LOGGED BY:	Brian Cavanagh
		WITNESSED BY:	Nick Stevens

REMARKS:

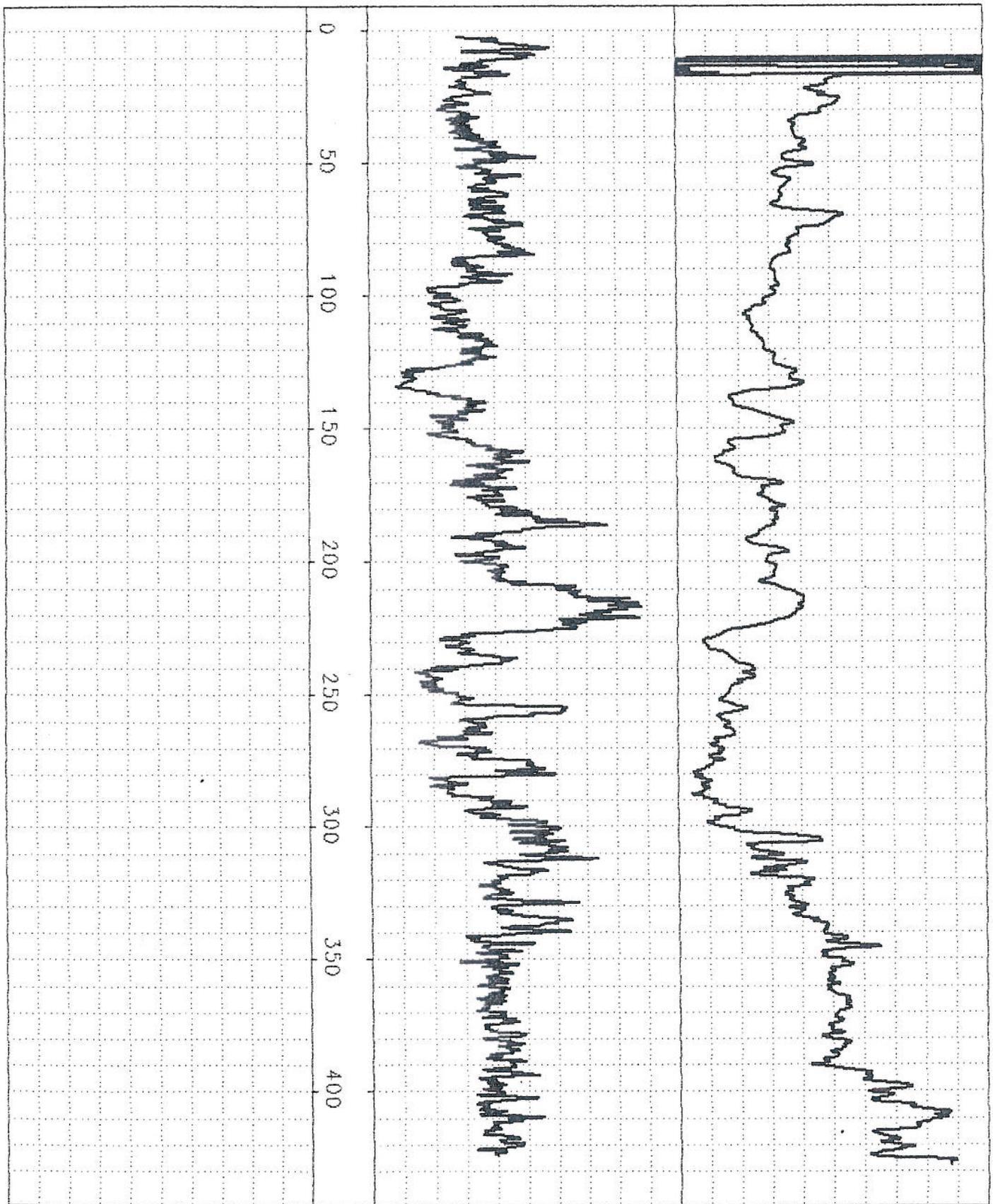
Datum = ground level

Hole circulation 20 min. prior to log

Drilled by Stevens and Sons, Boise, Id.
Nick Stevens Driller
Mud rotary drilled well
Hole drilled with mud
Drilled to 445 ft. 11/4/02

Spring Valley Test Well #1 November 5, 2002

NaturalGammaRay counts/sec 0 200 *35 PointResistance ohms 135



NaturalGammaRay counts/sec 0 200 *35 PointResistance ohms 135

Spring Valley Test Well #1 November 5, 2002

AQUIFER TEST DATA
Well No. 1, Spring Valley Ranch

Test conducted by: Scanlan Engineering, Feast Geosciences and Stevens Drilling

Flow measured by: Bucket and watch

Water levels measured by: Well sounder Water level measure point: Top of temporary 1" PE access tube, +3' bgl.

Elevation: Static WL (ft bmp): 19.8

Pump on: 11/8/2002 9:34 Pump off: 11/8/2002 17:34

Date	Time	t (mins)	t/t'	WaterLevel Data				Comments
				Ref (ft)	Measure (inch)	WL (ft bmp)	Drawdown (feet)	
11/8/2002	9:33	-				19.8		Static water level
11/8/2002	9:34	0.0				19.8	0.0	Start test
11/8/2002	9:36	2				64.2	44.4	5 gal./4.9 sec = 61 gpm
11/8/2002	9:37	3				72.3	52.5	
11/8/2002	9:38	4				79.6	59.8	5 gal./5.5 sec = 55 gpm
11/8/2002	9:39	5				81.2	61.4	
11/8/2002	9:40	6				89.5	69.7	
11/8/2002	9:42	8				95.5	75.7	
11/8/2002	9:44	10				99.4	79.6	5 gal./5.7 sec = 53 gpm
11/8/2002	9:47	13				103.3	83.5	cloudy
11/8/2002	9:49	15				104.8	85.0	
11/8/2002	9:51	17				106.2	86.4	
11/8/2002	9:53	19				107.3	87.5	
11/8/2002	9:55	21				108.1	88.3	
11/8/2002	9:58	24				109.3	89.5	5 gal./5.7 sec = 53 gpm
11/8/2002	10:04	30				110.6	90.8	dirty
11/8/2002	10:06	32				111.1	91.3	slight odor
11/8/2002	10:08	34						5 gal./5.7 sec = 53 gpm; SC 305, T = 15.5°C, EC 250
11/8/2002	10:10	36				111.5	91.7	
11/8/2002	10:15	41				112.8	93.0	
11/8/2002	10:20	46				112.8	93.0	WL in ranch well = 14.16 ft below pump base at 10:22
11/8/2002	10:25	51				113.9	94.1	5 gal./5.9 sec = 51 gpm
11/8/2002	10:30	56				114.0	94.2	
11/8/2002	10:35	61				114.1	94.3	
11/8/2002	10:40	66				114.2	94.4	5 gal./5.9 sec = 51 gpm
11/8/2002	10:45	71				114.4	94.6	
11/8/2002	10:50	76				115.0	95.2	
11/8/2002	10:55	81				115.4	95.6	
11/8/2002	11:00	86				115.5	95.7	5 gal./5.9 sec = 51 gpm
11/8/2002	11:05	91				115.9	96.1	
11/8/2002	11:10	96				116.0	96.2	
11/8/2002	11:15	101				116.3	96.5	
11/8/2002	11:20	106				116.5	96.7	5 gal./5.9 sec = 51 gpm, T = 15.7°C,
11/8/2002	11:25	111				116.5	96.7	SC 292 umhos/cm, EC 239 umhos/cm
11/8/2002	11:30	116				116.8	97.0	
11/8/2002	11:35	121				116.9	97.1	
11/8/2002	11:40	126				117.0	97.2	
11/8/2002	11:45	131				117.0	97.2	
11/8/2002	11:50	136				117.3	97.5	5 gal./5.9 sec = 51 gpm
11/8/2002	11:55	141				117.6	97.8	
11/8/2002	12:00	146				117.8	98.0	
11/8/2002	12:10	156				118.1	98.3	
11/8/2002	12:20	166				118.2	98.4	
11/8/2002	12:30	176				118.5	98.7	
11/8/2002	12:40	186				118.7	98.9	
11/8/2002	12:50	196				118.8	99.0	
11/8/2002	13:00	206				118.1	98.3	5 gal./5.9 sec = 51 gpm
11/8/2002	13:10	216				119.0	99.2	
11/8/2002	13:20	226				119.2	99.4	
11/8/2002	13:30	236				119.3	99.5	
11/8/2002	13:40	246				119.8	100.0	
11/8/2002	13:50	256				119.9	100.1	cloudy
11/8/2002	14:00	266				119.9	100.1	5 gal./5.9 sec = 51 gpm
11/8/2002	14:10	276				120.0	100.2	
11/8/2002	14:20	286				120.0	100.2	
11/8/2002	14:30	296				120.3	100.5	
11/8/2002	14:40	306				120.4	100.6	
11/8/2002	14:50	316				120.6	100.8	
11/8/2002	15:00	326				120.8	101.0	5 gal./5.9 sec = 51 gpm
11/8/2002	15:10	336				120.8	101.0	
11/8/2002	15:20	346				120.8	101.0	
11/8/2002	15:30	356				121.1	101.3	

AQUIFER TEST DATA
Well No. 1, Spring Valley Ranch

Test conducted by: Scanlan Engineering, Feast Geosciences and Stevens Drilling

Flow measured by: Bucket and watch

Water levels measured by: Well sounder Water level measure point: Top of temporary 1" PE access tube, +3' bgl.

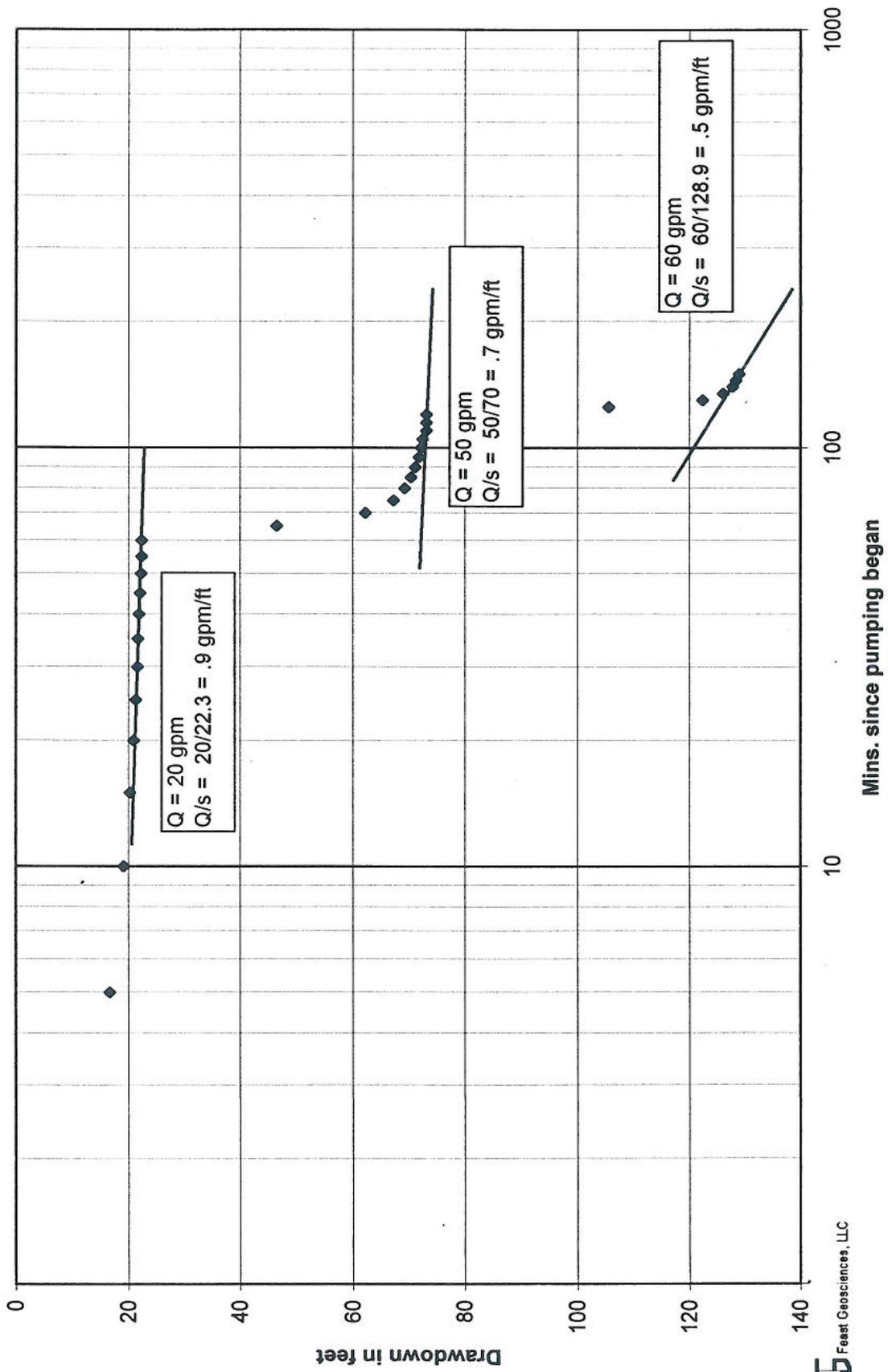
Elevation: Static WL (ft bmp): 19.8

Pump on: 11/8/2002 9:34 Pump off: 11/8/2002 17:34

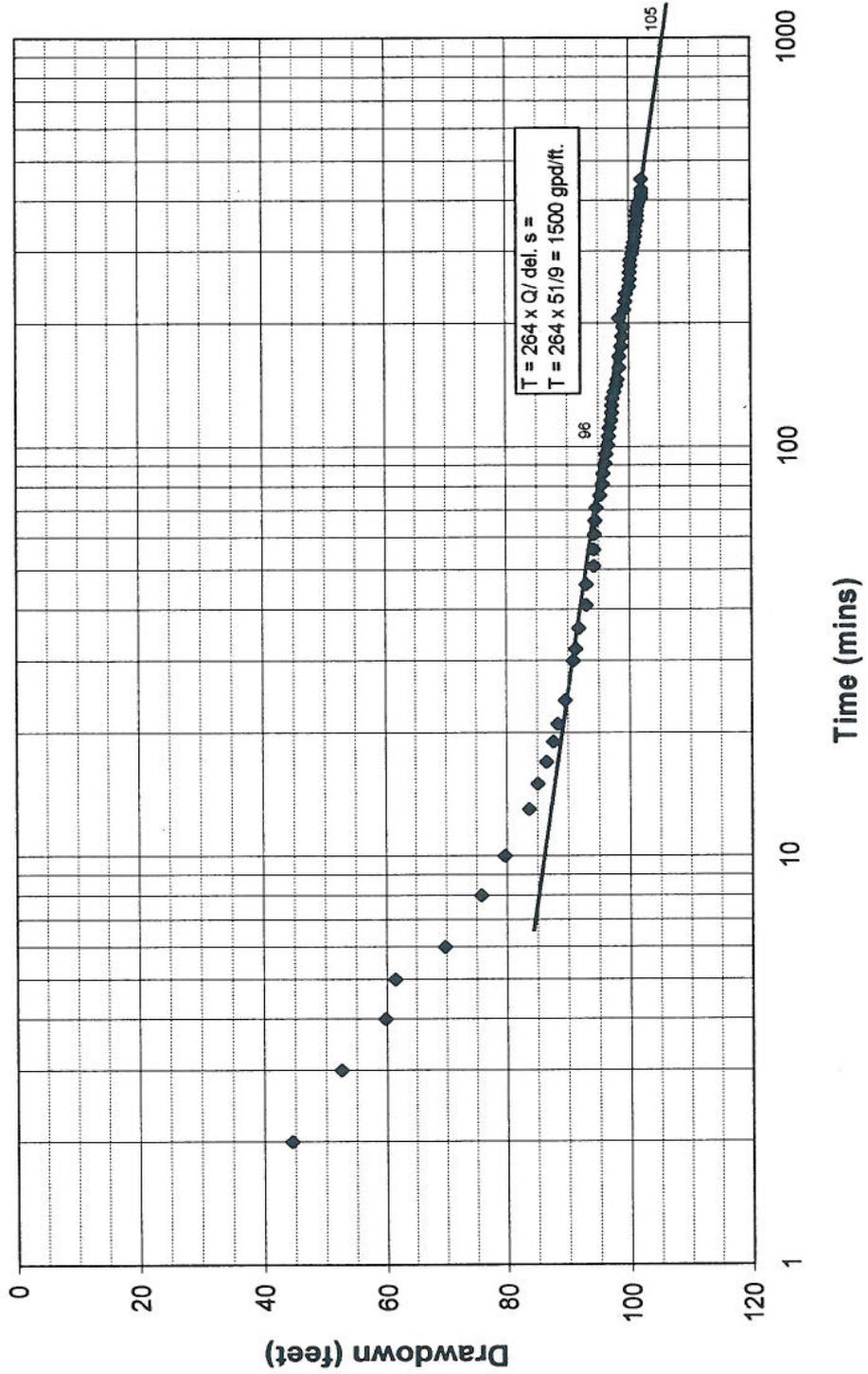
Date	Time	t (mins)	t/t'	WaterLevel Data				Comments	
				Ref (ft)	Measure (inch)	WL (ft bmp)	Drawdown (feet)		
11/8/2002	15:40	366				121.1	101.3	T = 15.7°C; SC 282 umhos/cm, EC 233 umhos/cm; pH = 7.39 Took water sample at 16:15 5 gal./5.9 sec = 51 gpm pump off, cloudy	
11/8/2002	15:50	376				121.2	101.4		
11/8/2002	16:00	386				121.2	101.4		
11/8/2002	16:10	396				121.4	101.6		
11/8/2002	16:20	406				121.8	102.0		
11/8/2002	16:30	416				121.8	102.0		
11/8/2002	16:40	426				121.8	102.0		
11/8/2002	17:04	450				121.8	102.0		
Begin Recovery, pump off at:				11/8/2002	17:34				
11/8/2002	17:05	451	451.0			97.4	77.6		
11/8/2002	17:06	452	226.0			87.2	67.4		
11/8/2002	17:07	453	151.0			70.0	50.2		
11/8/2002	17:08	454	113.5			59.3	39.5		
11/8/2002	17:09	455	91.0			45.7	25.9		
11/8/2002	17:11	457	65.3			40.0	20.2		
11/8/2002	17:12	458	57.3			35.8	16.0		
11/8/2002	17:14	460	46.0			33.1	13.3		
11/8/2002	17:16	462	38.5			31.6	11.8		
11/8/2002	17:18	464	33.1			30.6	10.8		
11/8/2002	17:20	466	29.1			29.7	9.9		
11/8/2002	17:22	468	26.0			29.0	9.2		
11/8/2002	17:24	470	23.5			28.7	8.9		
11/8/2002	17:27	473	20.6			28.2	8.4		
11/8/2002	17:30	476	18.3			27.6	7.8		
11/8/2002	17:33	479	16.5			27.3	7.5		
11/8/2002	17:36	482	15.1			27.2	7.4		
11/8/2002	17:39	485	13.9			26.7	6.9		
11/8/2002	17:44	490	12.3			26.3	6.5		
11/8/2002	17:49	495	11.0			26.1	6.3		
11/8/2002	17:54	500	10.0			25.9	6.1		
11/8/2002	17:59	505	9.2			25.5	5.7		
11/8/2002	18:04	510	8.5			25.3	5.5		
11/8/2002	18:14	520	7.4			24.9	5.1		
11/8/2002	18:24	530	6.6			24.6	4.8		
11/8/2002	18:34	540	6.0			24.4	4.6		
11/8/2002	18:44	550	5.5			24.1	4.3		
11/8/2002	19:04	570	4.8			23.9	4.1		
11/8/2002	19:34	600	4.0			23.3	3.5		

Notes and Comments:
Well cased to 10 feet.

SVR1 Step Test

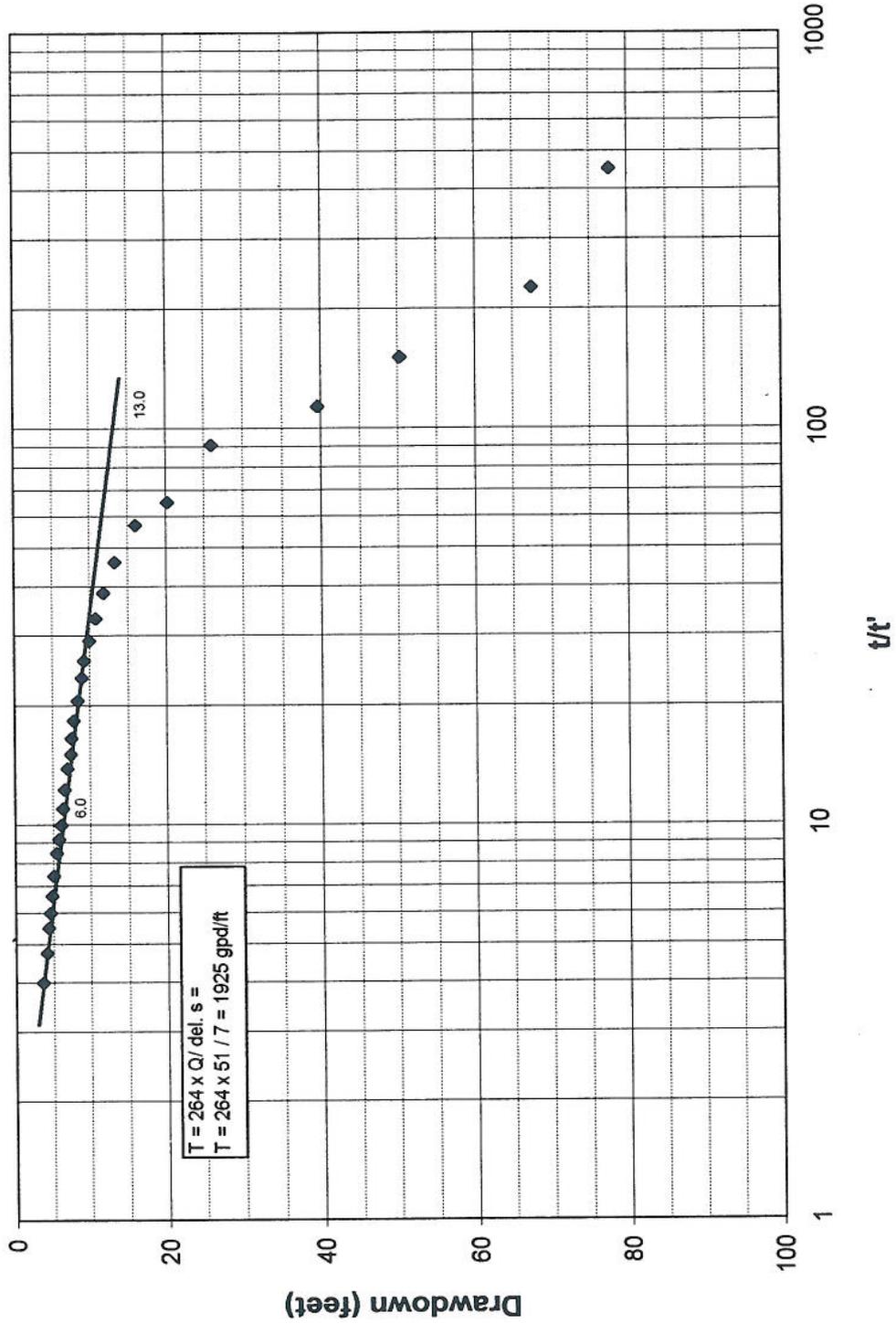


Time - Drawdown
Spring Valley Ranch
Well No.1 (8" Test well), Q = 51 gpm
Test date: 11/8/02



Time - Recovery
Spring Valley Ranch
Well No.1 (8" Test well), Q = 51 gpm

Test date: 11/8/02



ANALYTICAL LABORATORIES, INC.

1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 42426

Attn. TERRY SCANLAN

SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Time of Collection: 16:15
Date of Collection: 11/08/02

Date Received: 11/09/02
Date Reported: 11/26/02

Collected by: C F

Submitted by: CHUCK FEAST

Source of Sample: SPRING VALLEY RANCH #1

Test Requested	FRDS #	MCL	Analysis Result Unit	MDL	Method	Date Completed	Analyst Initials
ANTIMONY FURNACE			<0.005 mg/L	0.005	EPA 200.9	11/19/02	DMB
ARSENIC FURNACE			0.008 mg/L	0.003	EPA 200.9	11/21/02	DMB
BARIUM			<0.05 mg/L	0.05	EPA 200.7	11/11/02	JH
BERYLLIUM FURNACE			<0.0005 mg/L	0.0005	EPA 200.9	11/14/02	DMB
CALCIUM			27.3 mg/L	0.10	EPA 200.7	11/14/02	JH
CHROMIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	11/14/02	DMB
IRON			0.06 mg/L	0.05	EPA 200.7	11/15/02	JH
MAGNESIUM			5.47 mg/L	0.10	EPA 200.7	11/14/02	JH
MANGANESE			0.18 mg/L	0.05	EPA 200.7	11/15/02	JH
MERCURY			<0.0002 mg/L	0.0002	EPA 245.1	11/11/02	KLZ
NICKEL			<0.02 mg/L	0.02	EPA 200.7	11/12/02	JH
POTASSIUM			6.5 mg/L	0.10	EPA 200.7	11/15/02	JH
SODIUM			17.8 mg/L	0.10	EPA 200.7	11/15/02	JH
THALLIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	11/14/02	DMB
AMMONIA DIRECT			0.18 mg/L	0.04	EPA 350.1	11/12/02	KDH
NITRATE N			0.26 mg/L	0.20	EPA 300.0	11/14/02	GMM
NITRITE N			<0.01 mg/L	0.01	SM 4500NO2-B	11/09/02	CSC
SULFIDE			<0.05 mg/L	0.05	SM 4500 D	11/11/02	JR
BICARBONATE			94.4 mg/L		SM 2320	11/11/02	GMM
CHLORIDE			4 mg/L	1	EPA 300.0	11/14/02	GMM
FLUORIDE DIRECT			0.44 mg/L	0.10	EPA 300.0	11/18/02	GMM
HARDNESS			99.5 mg/L	5.0	SM 2340	11/11/02	GMM
SULFATE			43 mg/L	1.0	EPA 300.0	11/14/02	GMM
TOTAL DISSOLVED SOLIDS			210 mg/L	25	EPA 160.1	11/13/02	CS

Michael Moore

THANK YOU FOR CHOOSING ANALYTICAL LABORATORIES, INC. FOR YOUR TESTING NEEDS.

PLEASE CONTACT MICHAEL MOORE IF YOU HAVE ANY QUESTIONS REGARDING
THIS REPORT OR ANY FUTURE ANALYTICAL NEEDS.

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

PUBLIC DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT
ACUTE IOC CONTAMINANTS For Public Drinking Water Systems

FRDS	Contaminant	Result (mg/L)	MCL (mg/L)	MDL	Method	Analysis Date	Analyst	MONITORING REQUIREMENTS
1040	Nitrate	0.26	10.0	0.20	EPA 300.0	11/14/02	GMM	Ground water systems with nitrate levels below 5 mg/L must monitor nitrate annually. Surface water systems and systems with nitrate levels of 5 or more mg/L must monitor quarterly, unless otherwise advised in writing.
1041	Nitrite	ND	1.0	0.01	SM 4500NO2-B	11/09/02	CSC	Once per nine years unless advised otherwise.
1040	Total (NO ₃ + NO ₂)	---						
1055	Sulfate	43		1.0	EPA 300.0	11/14/02	GMM	Sulfate is in the process of becoming a regulated contaminant. Monitoring is not yet required.

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

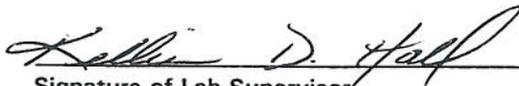
---- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

COMMENTS:

PWS #	
Lab Sample Tracking #	42426
Date Collected	11/08/02
Sample Type	Water
Date Received	11/09/02
Time Collected	16:15
Location Tag #	
Sample Collection Location	SPRING VALLEY RANCH #1
Date Reported by Lab	11/26/02
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

 12/3/02
 Signature of Lab Supervisor Date

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

INORGANIC CHEMICAL ANALYSIS REPORT For Public Water Systems
PRIMARY IOC CONTAMINANTS (Mandatory, except for transient water systems)

FRDS	Contaminant MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana- lyst	Analysis Date	FRDS	Contaminant MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana- lyst	Analysis Date
1074	Antimony 0.006	ND	0.005	EPA 200.9	DMB	11/19/02	1036	Nickel N/A	ND	0.02	EPA 200.7	JH	11/12/02
1005	Arsenic 0.05	0.008	0.003	EPA 200.9	DMB	11/21/02	1045	Selenium 0.05	---				
1010	Barium 2	ND	0.05	EPA 200.7	JH	11/11/02	1052	Sodium N/A	17.8	0.10	EPA 200.7	JH	11/15/02
1075	Beryllium 0.004	ND	0.0005	EPA 200.9	DMB	11/14/02	1085	Thallium 0.002	ND	0.002	EPA 200.9	DMB	11/14/02
1015	Cadmium 0.005	---					1024	Cyanide 0.2	---				
1020	Chromium 0.1	ND	0.002	EPA 200.9	DMB	11/14/02	1025	Fluoride 4.0	0.44	0.10	EPA 300.0	GMM	11/18/02
1035	Mercury 0.002	ND	0.0002	EPA 245.1	KLZ	11/11/02							

SECONDARY AND OTHER IOC CONTAMINANTS (OPTIONAL)

1017	Chloride	4	1	EPA 300.0	GMM	11/14/02	1003	Ammonia (as N)	0.18	0.04	EPA 350.1	KDH	11/12/02
1905	Color	---					1016	Calcium (as CaCO ₃)	27.3	0.10	EPA 200.7	JH	11/14/02
1027	Hydrogen Sulfide	---					1915	Hardness (as CaCO ₃)	99.5	5.0	SM 2340	GMM	11/11/02
1028	Iron	0.06	0.05	EPA 200.7	JH	11/15/02	1031	Magnesium	5.47	0.10	EPA 200.7	JH	11/14/02
1032	Manganese	0.18	0.05	EPA 200.7	JH	11/15/02	1925	pH	---				
1920	Odor	---					1042	Potassium	6.5	0.10	EPA 200.7	JH	11/15/02
2905	Surfactants	---					1049	Silica (as SiO ₂)	---				
1930	Dissolved Solids	210	25	EPA 160.1	CS	11/13/02	1030	Lead	---				
1095	Zinc	---					1022	Copper	---				
1050	Silver	---					1926	Conductive μ S/cm	---				
1002	Aluminum	---					1997	Langlier Index	---				
1927	Alkalinity (as CaCO ₃)	---											

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

---- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

Nitric Acid Preservative Yes No

COMMENTS:

Michael D. Yoon 12/2/02
 Signature of Lab Supervisor Date

PWS #	
Lab Sample Tracking #	42426
Date Collected	11/08/02
Sample Type	Water
Date Received	11/09/02
Time Collected	16:15
Location Tag #	
Sample Collection Location	SPRING VALLEY RANCH #1
Date Reported by Lab	11/26/02
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

Form 235-1
12/15/96 (LDT)

(Internet)

Drilling Permit I.D. Tag No. 50025898

Water Right Permit No. _____

Injection Permit No. _____

RECEIVED

well #1

OCT 21 2002

WATER RESOURCES
WESTERN REGION

State of Idaho
Department of Water Resources

874391-788454

APPLICATION FOR DRILLING PERMIT
(FOR THE CONSTRUCTION OF A WELL)

1. Owner (please print): SunCor Development Company, Attention: Jerry Ellsworth

2. Mailing Address: 80 East Rio Salado Parkway, Suite 410

City: Tempe State: AZ Zip Code: 85281 Telephone 480-317-6800

3. Proposed Well Location: Twp. 5N Rge. 2E Sec. 8 1/4 NE 1/4 NW

Gov't Lot No. _____ County Ada Lat. _____ Long. _____

Street Address of Well Site west side of Highway 55 in Spring Valley City _____
Give at least name of road + Distance to Road or Landmark

Lot, block and subdivision _____

4. Proposed Use of Well:

DOMESTIC: The use of water for homes, organization camps, public campgrounds, livestock (1,000 head or less) and any other purpose in connection therewith, including irrigation of up to 1/2 acre of land, if the total use is not in excess of 13,000 gpd; or any other uses, if the total use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

Domestic does not include water for multiple ownership subdivisions, mobile home parks, commercial or business establishments, unless the use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

NON-DOMESTIC: Irrigation Municipal Industrial
 Stock Test Other _____
(Over 1,000 Head) (Describe)

INJECTION

MONITORING: A well bore schematic and map is required for each blanket permit.
No. of proposed wells: _____

5. Well Construction Information:

A. New well Modify Replace

B. Proposed Casing Diameter 6-inch Proposed Maximum Depth 1,000 feet

C. Anticipated bottom hole temperature:
 85°F or less (Cold Water Well) 85°F to 212°F (Low Temp. Geo. Well) 212°F or more (Geothermal Well)

6. Construction Start Date: October 28, 2002

7. Anticipated Well Driller: Stevens and Sons Well Drilling Driller's Lic. No. 153
NOTE: The actual well driller must be identified prior to drilling.

8. Applicant's Signature: Terry M Scanlan Date 10/21/02

Address (if different than owner): Scanlan Engineering
500 East River Park Lane, Suite 105

City: Boise State: ID Zip Code: 83706 Telephone 208-383-4140

Title: Consulting Engineer for SunCor Development Company
(Owner, Firm Representative, Other)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

This Permit is Approved Date 10-28-02

If approved, this permit authorizes the construction or modification of a well subject to the following conditions. **READ CAREFULLY!**

GENERAL CONDITIONS:

1. This drilling permit is valid for two (2) months from the above approval date for the start of construction and is valid for one (1) year from the approval date for completion of the well unless an extension has been granted.
2. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare which may be required before construction of this well. All wells must be drilled a minimum distance of 100 feet from a drain field. Domestic and Public Water Supply wells must be drilled a minimum of 50 feet and 100 feet respectively from a septic tank.
3. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.
4. Approval of this drilling permit does not authorize trespass on the land of another party.
5. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.
6. This drilling permit does not represent a right to divert and use the water of the State of Idaho.
7. If a bottom hole temperature of 85° or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.
8. Idaho Code, S 55-2201 - 55-2210 requires the applicant and/or his contractors to contact "DigLine" (DigLine is a one-call center for utility notification) not less than 2 working days prior to the start of any excavation for this project. The "DigLine" Number for your area is 1-800-342-1585.

SPECIFIC CONDITIONS:

After completion and logging of the test hole, and prior to installation of any casing, screens or seals, a well design proposal shall be submitted for review and approval by IDWR. This well shall not be completed as a permanent, completed well without specific approval from IDWR. If this well is not completed, the hole shall be properly plugged.

[Signature] For
 Signature of Authorized Department Representative

MANAGER
 WESTERN REGIONAL OFFICE

Receipt No. W029818 Received by KI Fee 2000 Date 10/21/02

EXTENSION OF DRILLING PERMIT

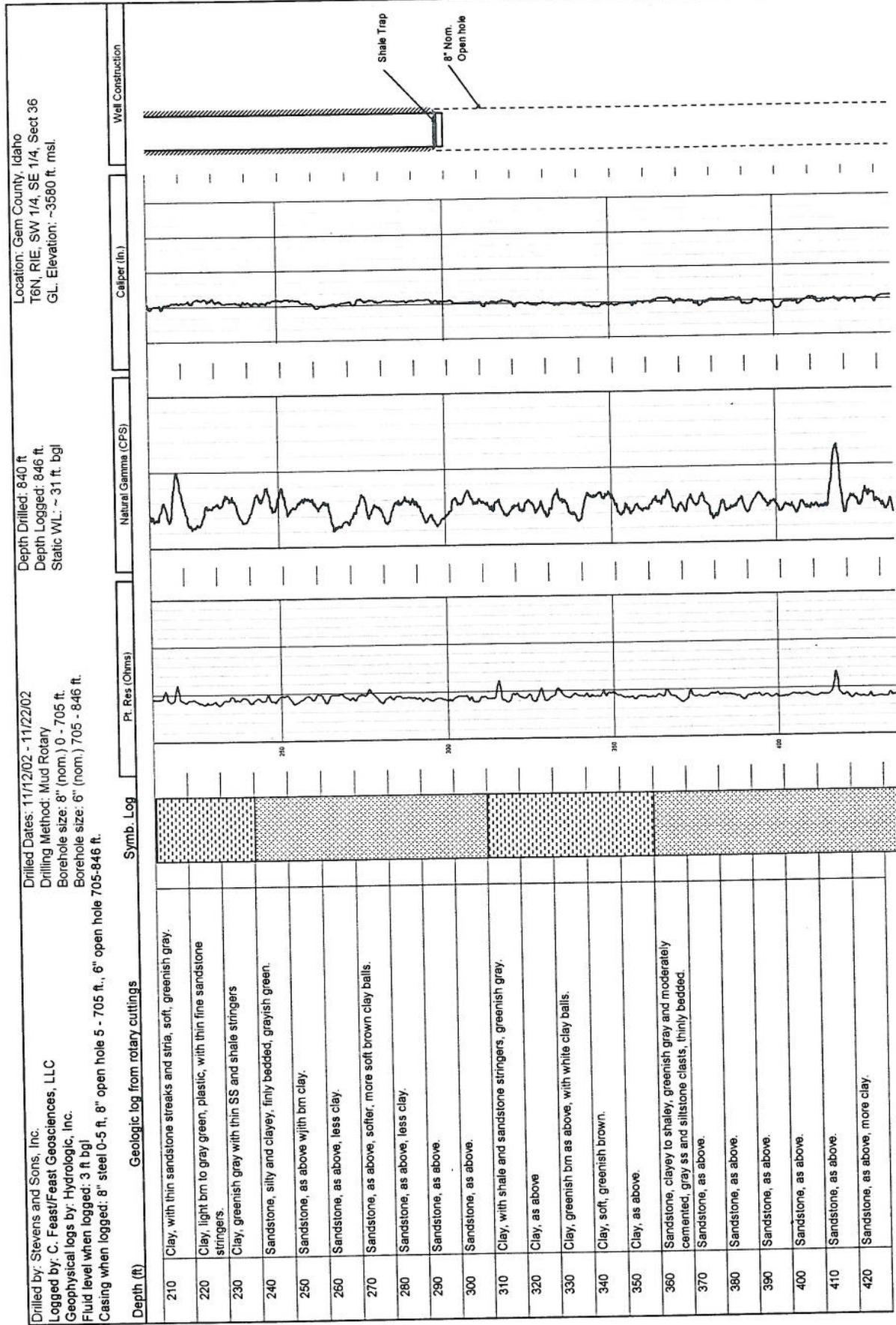
Extension approved by _____ Approval Date _____

This extension expires: _____

Appendix B
Well No. 2 Data

Exploration Hole SVR 2

Spring Valley Ranch



Drilled by: Stevens and Sons, Inc.
 Logged by: C. Feast/Feast Geosciences, LLC
 Geophysical logs by: Hydrologic, Inc.
 Fluid level when logged: 3 ft bgl
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 705 ft., 6" open hole 705-846 ft.

Drilled Dates: 11/12/02 - 11/22/02
 Drilling Method: Mud Rotary
 Borehole size: 8" (nom.) 0 - 705 ft.
 Borehole size: 6" (nom.) 705 - 846 ft.

Depth Drilled: 840 ft.
 Depth Logged: 846 ft.
 Static WL: ~ 31 ft. bgl

Location: Gem County, Idaho
 T6N, R1E, SW 1/4, SE 1/4, Sect 36
 GL. Elevation: ~3580 ft. msl.

Exploration Hole SVR 2

Spring Valley Ranch

Depth (ft)	Geologic log from rotary cuttings	Symb. Log	Pl. Res (Ohms)	Natural Gamma (CPS)	Caliper (in.)	Well Construction
430	Sandstone, as above, less clay.					
440	Sandstone, v fine-silty, finely bedded, with clay and shaley zones, med-greenish brown					
450	Sandstone, as above.					
460	Sandstone, as above.					
470	Sandstone, as above.					
480	Sandstone, as above.					
490	Clay and fine bedded sandstone as above, brown.					
500	Clay and fine bedded sandstone as above, abundant dark organic debris (bark?) at 498 ft, sticky gray clay.					
510	Clay, as above, occ. shale and siltstone clast.					
520	Clay, as above.					
530	Clay, dk bm as above, more bm and gray sandstone stringers					
540	Sandstone, light gray, fine grain, poorly cemented, bm clay balls.					
550	Sandstone, clayey, v. fine, light gray.					
560	Sandstone, as above, well indurated, some hard black basalt chips					
570	Basalt, black, aphanitic with abundant small white porphyrys and welded tuff					
580	Basalt, as above, more tuff.					
590	Tuff, welded and basalt, glassy, occ. wug, med gray, very hard.					
600	Tuff and basalt as above, glassy, more porphoritic, light and dark gray frags.					
610	Tuff as above.					
620	Sandstone, clayey, light gray and hard, aphanitic frags as above.					
630	Sandstone, as above, less clay.					
640	Sand, mix of lithologic frags as cs-vcs sand grains, light gray.					

Drilled by: Stevens and Sons, Inc.
 Logged by: C. Feast/Feast Geosciences, LLC
 Geophysical logs by: Hydrologic, Inc.
 Fluid level when logged: 3 ft bgl
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 705 ft., 6" open hole 705-846 ft.

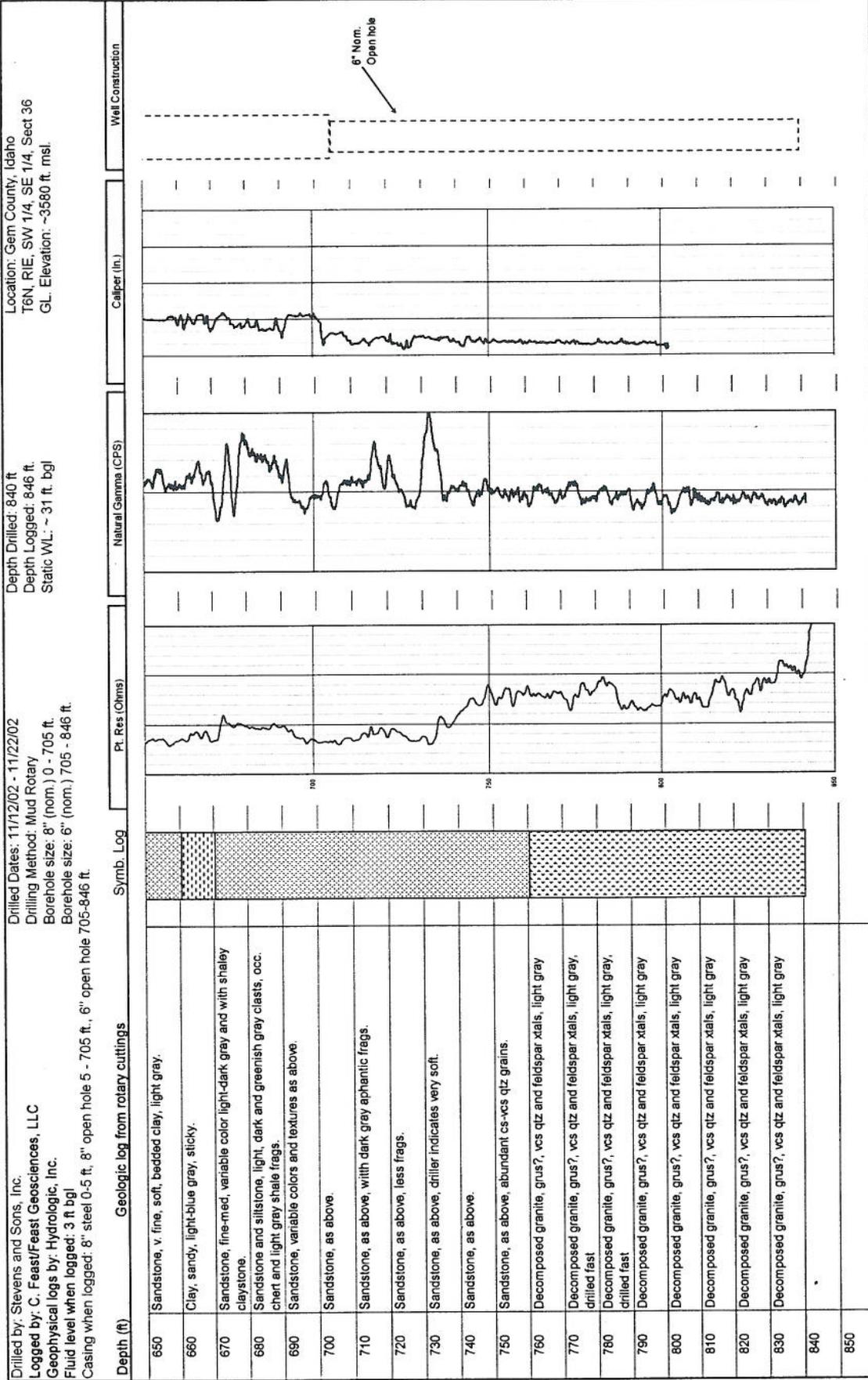
Drilled Dates: 11/12/02 - 11/22/02
 Drilling Method: Mud Rotary
 Borehole size: 8" (nom.) 0 - 705 ft.
 Borehole size: 6" (nom.) 705 - 846 ft.

Location: Gem County, Idaho
 T6N, R1E, SW 1/4, SE 1/4, Sect 36
 GL. Elevation: -3580 ft. msl.

Depth Drilled: 840 ft
 Depth Logged: 846 ft.
 Static WL: ~ 31 ft. bgl

Exploration Hole SVR 2

Spring Valley Ranch



Hydro Logic, Inc.

Geophysical Division

WELL NAME: Spring Valley-2002 Test Well #2

GEOPHYSICAL WELL LOG: Natural Gamma-Ray Point Resistance Caliper	PERMANENT DATUM: Mean Sea Level LOG MEASURED FROM: Ground 3676 Feet above MSL	OTHER SERVICES:
--	---	------------------------

COMPANY: Scanlan Engineering / Suncor PROJECT: Spring Valley Ranch Wells ORDERED BY: Chuck Feast COUNTY: Gem STATE: Idaho	COORDINATES: T6N R1E Sec. 36 NE1/4, SE1/4 ELEVATION: KB: GL: 3676	WELL OWNER: WELL: Spring Valley-2002 Test Well #2 LOCATION: T6N R1E SEC.36 NE1/4 SE1/4
---	--	---

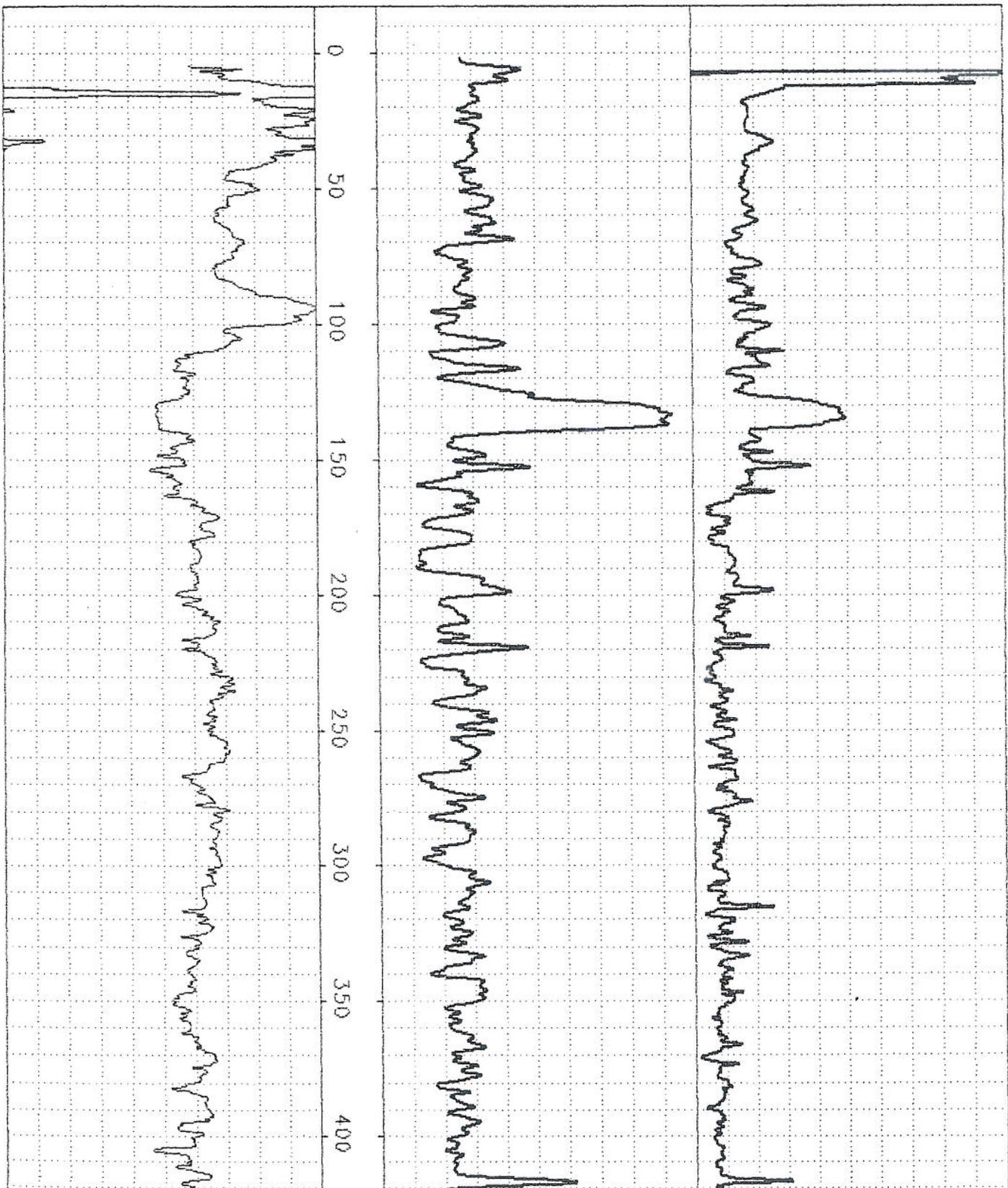
	Run No. 1		Run No. 1
Date	11/22/02	Fluid Level	3 ft. blw. grnd.
Bottom logged Int.	845.2 ft. bgl	Fluid Nature	drilling mud
Top Logged Int.	2.1 ft. bgl	Fluid Viscosity	
Footage Logged	843.1 ft	Fl. Resistivity	mud Cs=893uS
Bottom (Driller)	840 feet	Fl. Res. at BHT	
Casing (from Log)	5 feet	Fluid pH	NA
Casing (Driller)	5 feet	Last Circulated	NA
Casing Size	8-inch	Bottom Hole Temp	
Bit Size	8-inch; 6-inch		
		LOGGED BY:	Loren Pearson
		WITNESSED BY:	Chuck Feast

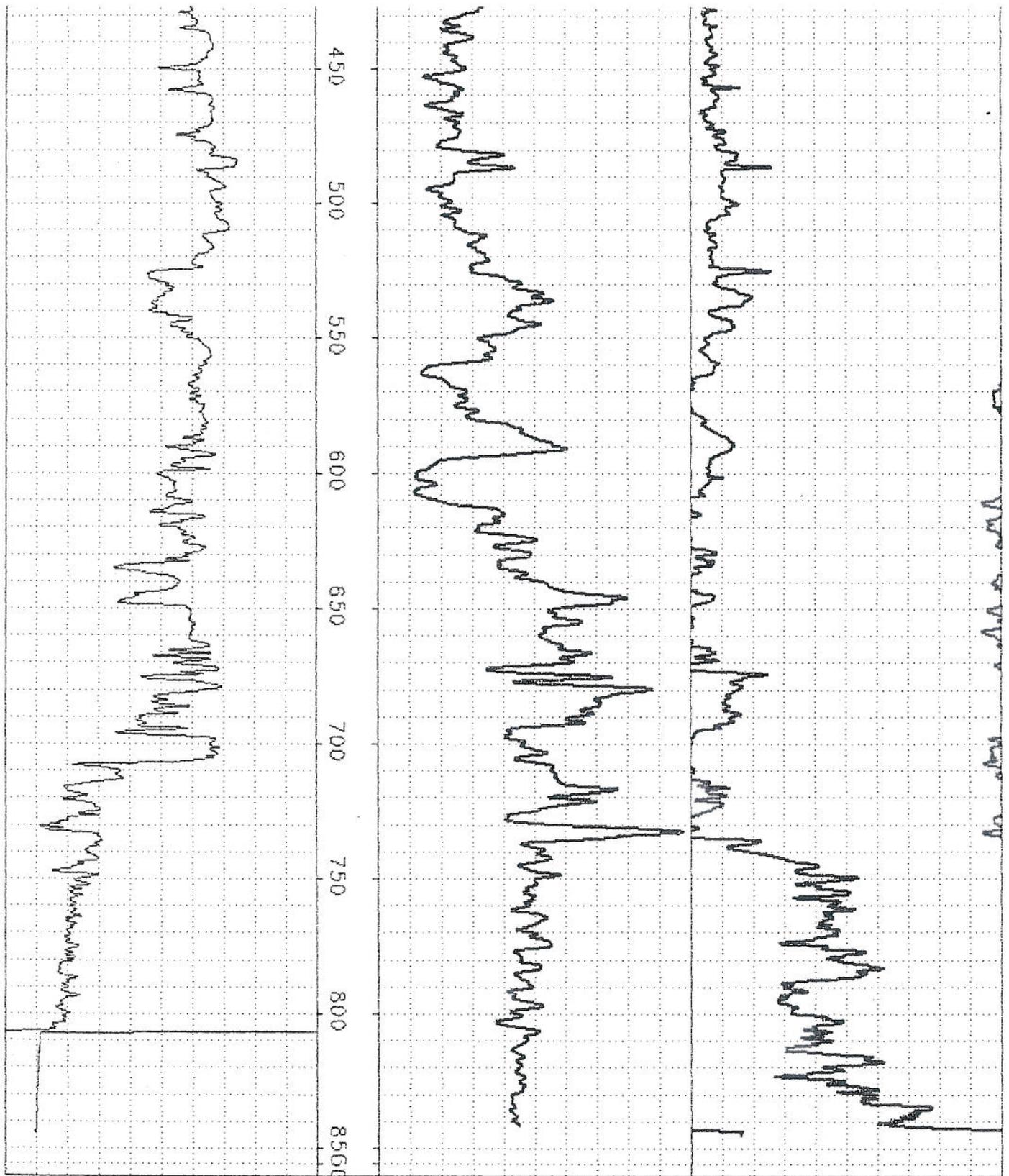
REMARKS: Datum = ground level Gamma and point resistance log scales ordered by Chuck Feast Hole circulation 120 min. prior to log	Drilled by Stevens and Sons, Boise, Id. Nick Stevens Driller Mud rotary drilled well Drilled to 840 ft. 11/22/02
---	---

Spring Valley Test Well #2

November 22, 2002

Caliper inches NaturalGammaRay counts/sec PointResistance ohms





← 5 Caliper inches 10 → ← 0 NaturalGammaRay counts/sec 200 *35 → PointResistance ohms 135 →
 Spring Valley Test Well #2 November 22, 2002

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT
WELL # 2

Office Use Only			
Inspected by	_____		
Twp	Rge	Sec	
_____ 1/4	_____ 1/4	_____ 1/4	
Lat:	:	Long:	:

1. WELL TAG NO. D 0025899
874392-788455
DRILLING PERMIT NO. _____
Other IDWR No. _____

2. OWNER:
Name Sun Cor Development Co
Address 80 East Rio Salado Pkwy #410
City Tempe State AZ Zip 85281

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N		Twp. <u>6</u>		North <input checked="" type="checkbox"/> or South <input type="checkbox"/>	
E		Rge. <u>1</u>		East <input checked="" type="checkbox"/> or West <input type="checkbox"/>	
S		Sec. <u>36</u>		1/4 <u>N/E</u> 1/4 <u>S/E</u> 1/4	
W		Gov't Lot _____		10 acres County <u>Ada</u> 160 acres	
		Lat: _____		Long: _____	
		Address of Well Site <u>west side of</u>			
		<u>hiway 55 in Spring Valley</u> City _____			
(Give at least name of road + Distance to Road or Landmark)					
Lt. _____		Blk. _____		Sub. Name _____	

4. USE:
 Domestic Municipal Monitor Irrigation
 Thermal Injection Other Test

5. TYPE OF WORK check all that apply (Replacement etc.)
 New Well Modify Abandonment Other _____

6. DRILL METHOD
 Air Rotary Cable Mud Rotary Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
bentonite grout	0	300	11 sk	pumped

Was drive shoe used? Y N Shoe Depth(s) _____
Was drive shoe seal tested? Y N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
6	+2	300	250	steel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	+1	5	250	steel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations _____ Method _____
Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
31 ft. below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:
 Pump Bailor Air Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time

Water Temp. _____ Bottom hole temp. _____
Water Quality test or comments: _____
Depth first Water Encounter _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water

Bore Dia	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
8	0	6	topsoil		X
	6	20	brown clay/ gravel		X
	20	29	granite sand		X
	29	35	sand, some water	X	
	35	60	sandy clay w/ gravel		X
	60	70	sandstone, some brown clay		X
	70	90	clay, less sand		X
	90	120	shale, green gray		X
	120	130	sandstone		X
	130	140	fine sand	X	
	140	150	sandy clay		X
	150	200	shale green-gray-blue		X
	200	210	sandstone		X
	210	240	clay, sandstone		X
	240	310	sandstone, some clay		X
	310	360	gray clay, some sand		X
	360	440	sandstone		X
	440	540	brown clay		X
	540	570	sandstone, some clay		X
	570	610	hard basalt		X
	610	640	sandstone		X
	640	660	cemented sand	X	
	660	670	gray clay		X
	670	760	sandstone		X
	760	840	decomposed granite		X

Completed _____ Depth 846' (Measurable)
Date: Started 11/5/02 Completed 11/27/02

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Company Name Stevens & Sons Firm No. 153
Firm Official _____ Date 11/27/03
and
Driller or Operator _____ Date _____
(Sign once if Firm Official & Operator)

AQUIFER TEST DATA
Spring Valley Ranch - Test Well 2

Test conducted by: Stevens and Sons Drilling, Scanlan Engineering, Feast Geosciences, LLC

Flow measured by: 5 gallon bucket and watch

Water levels measured by: Well sounder | Water level measure point: Top of temporary sounding tube, ~3 ft bgl.

Elevation: | Static WL (ft bmp): 18.0 (Approximate)

Pump on: 11/26/02 11:45 Pump off: 11/26/02 17:20

Date	Time	Elapsed t (mins)	Rec. t (mins.)	t/t'	Water Level Data			Comments
					Measure (')	WL (ft bmp)	Drawdown (feet)	
11/26/02	11:00	-				18.0		Static water level (approx)
11/26/02	11:45	0				18.0	0.0	Start test (approx)
11/26/02	11:50	5				65.0	47.0	
11/26/02	11:55	10				75.0	57.0	
11/26/02	11:56	11				77.0	59.0	
11/26/02	12:01	16				80.0	62.0	More turbid
11/26/02	12:10	25				91.2	73.2	
11/26/02	12:15	30				93.0	75.0	
11/26/02	12:20	35				94.5	76.5	
11/26/02	12:25	40				95.7	77.7	
11/26/02	12:30	45				96.5	78.5	
11/26/02	12:35	50				99.7	81.7	
11/26/02	12:45	60				100.1	82.1	5g/7.5 sec = 40 gpm
11/26/02	12:52	67				100.9	82.9	18.8°C, SC 790
11/26/02	13:00	75				101.3	83.3	
11/26/02	13:07	82				102.2	84.2	
11/26/02	13:15	90				103.0	85.0	19.1°C, SC 765, EC 678
11/26/02	13:34	109				104.7	86.7	5g/7.5 sec = 40 gpm
11/26/02	13:50	125				105.5	87.5	
11/26/02	14:00	135				106.2	88.2	
11/26/02	14:15	150				107.1	89.1	
11/26/02	14:30	165				108.1	90.1	
11/26/02	14:45	180				109.9	91.9	
11/26/02	15:00	195				109.7	91.7	19.2°C, SC 675, EC 654
11/26/02	15:15	210				110.2	92.2	
11/26/02	15:30	225				110.7	92.7	
11/26/02	15:45	240				111.9	93.9	
11/26/02	16:00	255				110.3	92.3	19.3°C, SC 815, EC 725
11/26/02	16:15	270				109.7	91.7	
11/26/02	16:30	285				110.0	92.0	
11/26/02	16:45	300				112.0	94.0	
11/26/02	17:00	315				112.6	94.6	
11/26/02	17:17	332				113.3	95.3	
Begin Recovery, pump off at: 11/26/02 17:20								
11/26/02	17:21	336	1.0	336.0		112.6	93.1	
11/26/02	17:22	337	2.0	168.5		93.4	87.7	
11/26/02	17:23	338	3.0	112.7		81.3	82.8	
11/26/02	17:24	339	4.0	84.8		76.2	79.2	
11/26/02	17:26	341	6.0	56.8		71.7	73.7	
11/26/02	17:27	342	7.0	48.9		67.2	71.4	
11/26/02	17:30	345	10.0	34.5		64.2	67.1	
11/26/02	17:31	346	11.0	31.5		61.8	65.7	
11/26/02	17:33	348	13.0	26.8		59.2	63.8	
11/26/02	17:35	350	15.0	23.3		55.1	62.4	
11/26/02	17:38	353	18.0	19.6		51.2	60.6	
11/26/02	17:42	357	22.0	16.2		49.1	58.6	
11/26/02	17:45	360	25.0	14.4		46.1	57.5	

Notes and Comments:

Well cased to 10 ft., pump at ~130 ft.

11/27/02 Pump on @ 09:30

10:50

11:43

PWL 102.2

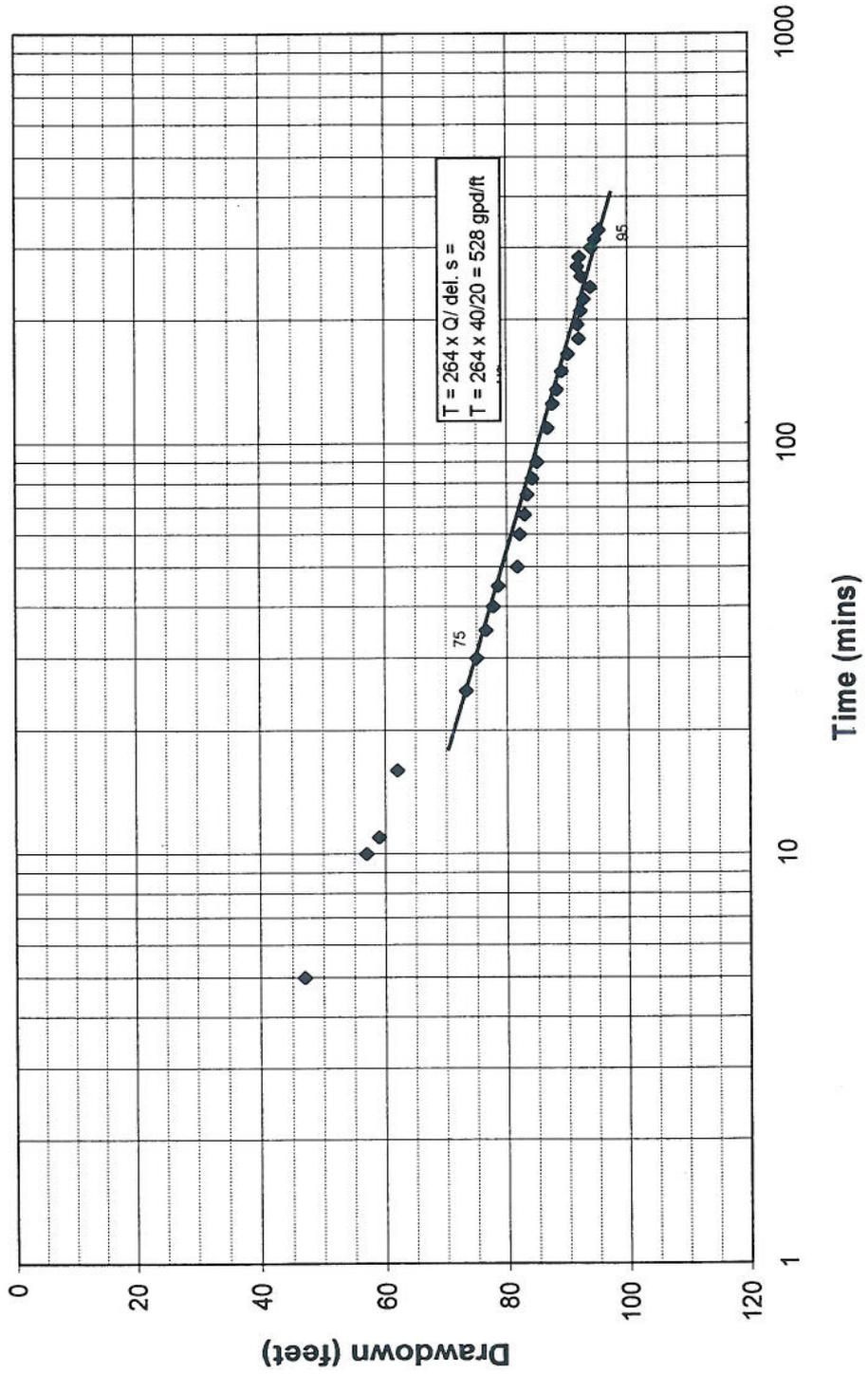
PWL 106.4

Took water sample

T 19°C, pH 6.8, EC 603 umhos/cm, SC 687 umhos/cm

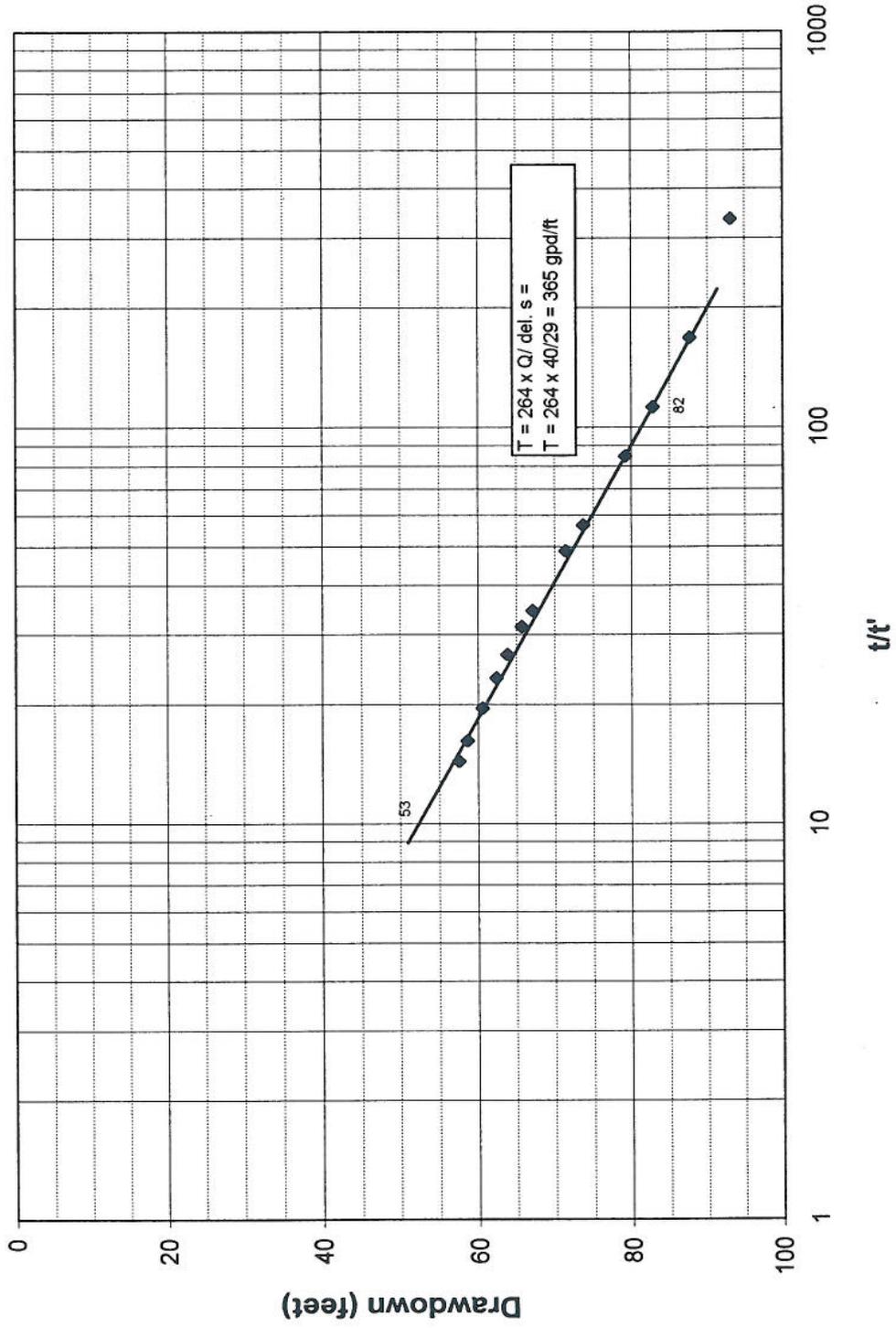
Time - Drawdown
Spring Valley Ranch
Test Well 2, Q = 40 gpm

Test date: 11/26/02



Time - Recovery
Spring Valley Ranch
Test Well 2, Q = 40 gpm

Test date: 11/26/02



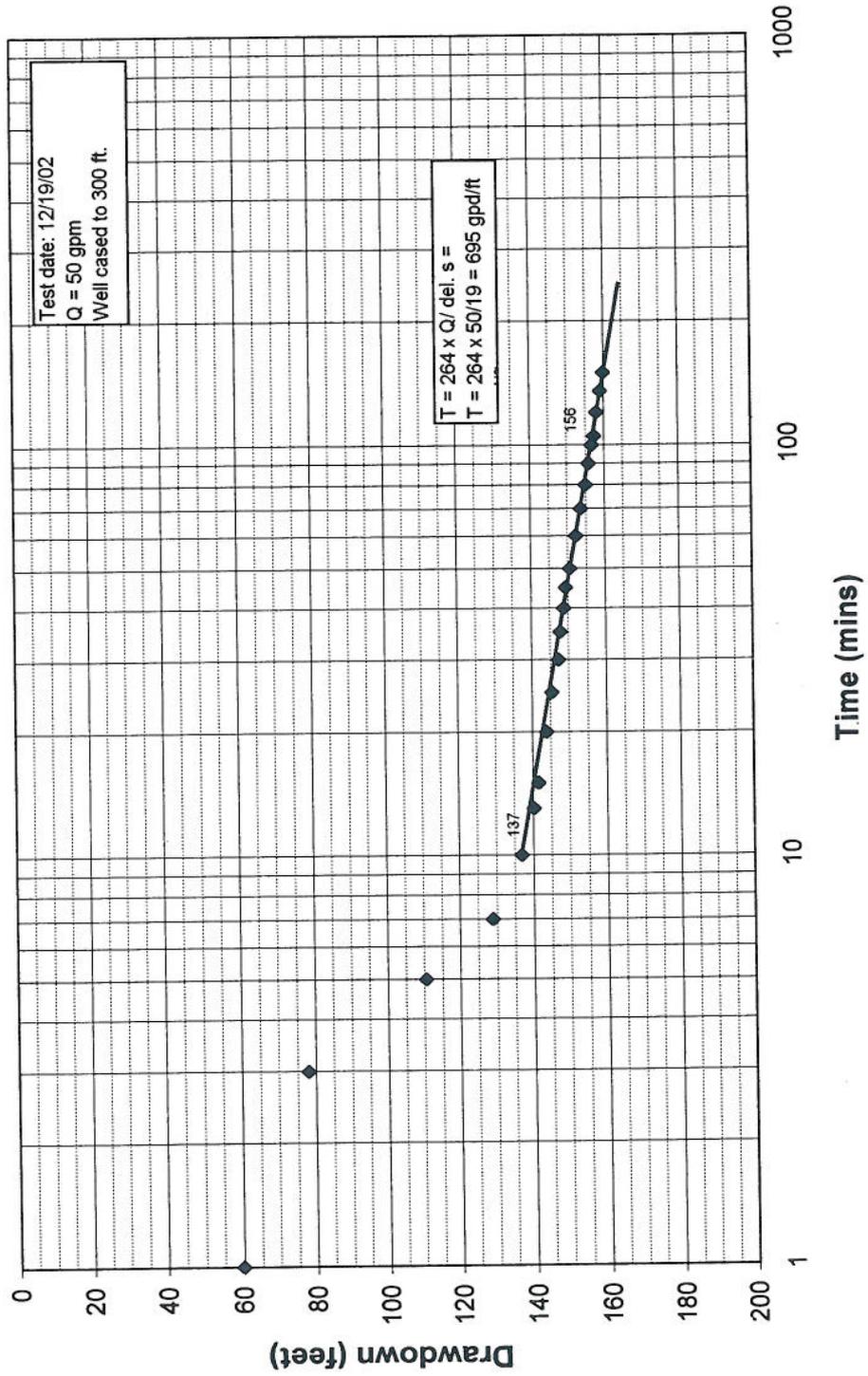
AQUIFER TEST DATA
Spring Valley Ranch - Test Well 2

Test conducted by: Feast Geosciences, LLC
 Flow measured by: 5 gallon bucket and watch
 Water levels measured by: Well sounder | Water level measure point: Top of temporary sounding tube, ~3 ft bgl.
 Elevation: | Static WL (ft bmp): 35.1 (Approximate)
 Pump on: 12/19/02 12:35 Pump off: 12/19/02 15:05

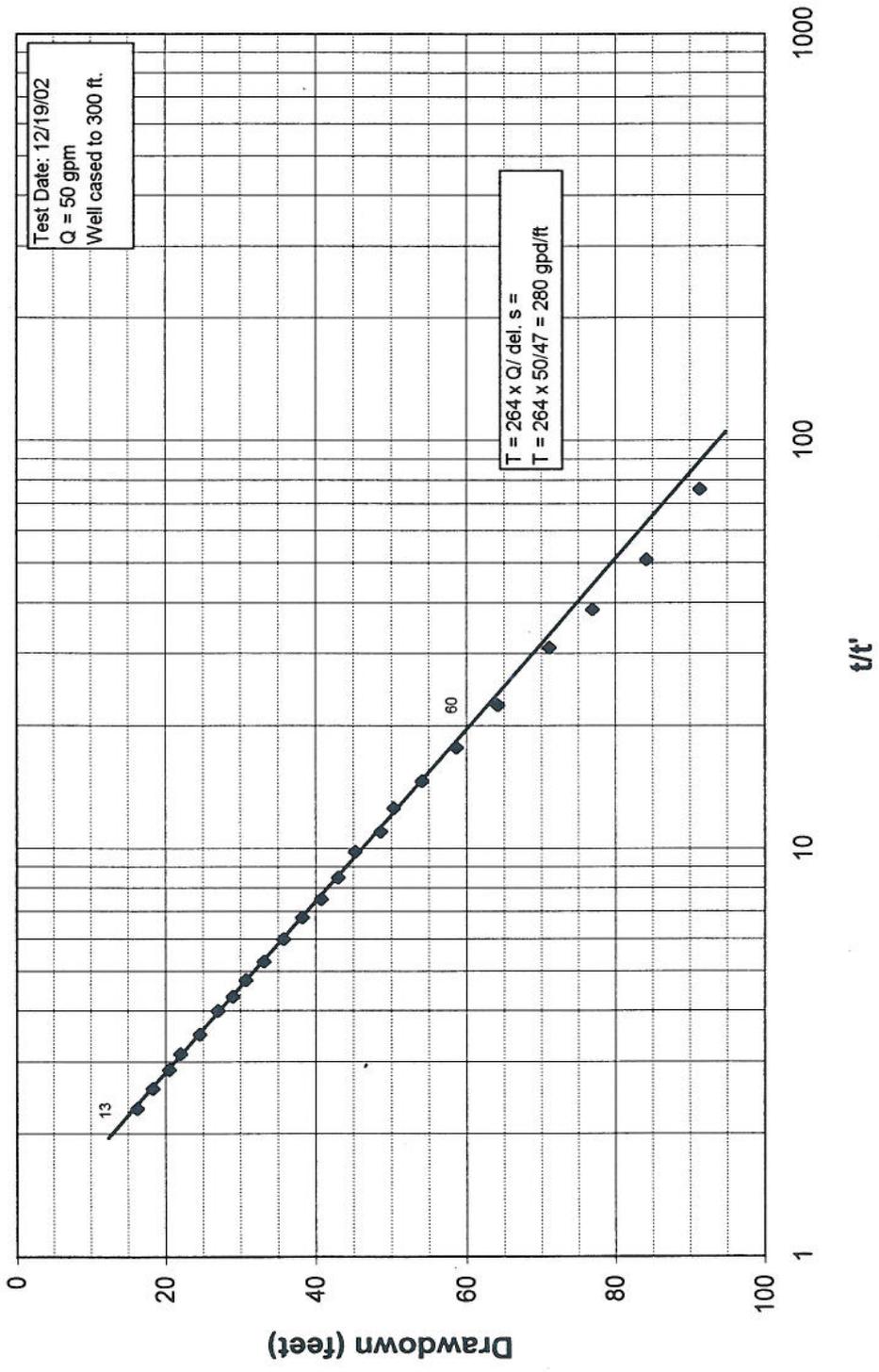
Date	Time	Elapsed t (mins)	Rec. t (mins.)	t/t'	Water Level Data			Comments
					Measure (')	WL (ft bmp)	Drawdown (feet)	
12/19/02	12:15	-				35.1		SWL = 31.1 ft bgl
12/19/02	12:35	0				35.1	0.0	SWL = 31.1 ft bgl
12/19/02	12:36	1				95.0	59.9	V. Turbid
12/19/02	12:38	3				113.0	77.9	
12/19/02	12:40	5				145.5	110.4	
12/19/02	12:42	7				164.0	128.9	
12/19/02	12:45	10				172.0	136.9	
12/19/02	12:48	13				175.4	140.3	
12/19/02	12:50	15				176.8	141.7	
12/19/02	12:55	20				179.0	143.9	
12/19/02	13:00	25				180.5	145.4	
12/19/02	13:05	30				182.4	147.3	5g/6 sec = 50 gpm
12/19/02	13:10	35				182.9	147.8	19.2°C, SC 595 umhos/cm
12/19/02	13:15	40				183.8	148.7	
12/19/02	13:20	45				184.4	149.3	
12/19/02	13:25	50				185.5	150.4	
12/19/02	13:35	60				187.3	152.2	
12/19/02	13:45	70				188.7	153.6	
12/19/02	13:55	80				190.0	154.9	Clearing
12/19/02	14:05	90				190.8	155.7	
12/19/02	14:15	100				191.7	156.6	
12/19/02	14:20	105				192.3	157.2	
12/19/02	14:35	120				193.0	157.9	5g/6 sec = 50 gpm
12/19/02	14:50	135				194.0	158.9	19.2°C, SC 773 umhos/cm, EC 690 umhos/cm
12/19/02	15:05	150				195.0	159.9	
Begin Recovery, pump off at: 12/19/02 15:05								
12/19/02	15:06	151	1.0	151.0		143.7	108.6	
12/19/02	15:07	152	2.0	76.0		126.4	91.3	
12/19/02	15:08	153	3.0	51.0		119.3	84.2	
12/19/02	15:09	154	4.0	38.5		112.0	76.9	
12/19/02	15:10	155	5.0	31.0		106.2	71.1	
12/19/02	15:12	157	7.0	22.4		99.3	64.2	
12/19/02	15:14	159	9.0	17.7		93.8	58.7	
12/19/02	15:16	161	11.0	14.6		89.2	54.1	
12/19/02	15:18	163	13.0	12.5		85.5	50.4	
12/19/02	15:20	165	15.0	11.0		83.7	48.6	
12/19/02	15:22	167	17.0	9.8		80.3	45.2	
12/19/02	15:25	170	20.0	8.5		78.1	43.0	
12/19/02	15:28	173	23.0	7.5		75.8	40.7	
12/19/02	15:31	176	26.0	6.8		73.3	38.2	
12/19/02	15:35	180	30.0	6.0		70.8	35.7	
12/19/02	15:40	185	35.0	5.3		68.2	33.1	
12/19/02	15:45	190	40.0	4.8		65.8	30.7	
12/19/02	15:50	195	45.0	4.3		64.1	29.0	
12/19/02	15:55	200	50.0	4.0		62.1	27.0	
12/19/02	16:05	210	60.0	3.5		59.7	24.6	
12/19/02	16:15	220	70.0	3.1		57.1	22.0	
12/19/02	16:25	230	80.0	2.9		55.6	20.5	
12/19/02	16:40	245	95.0	2.6		53.4	18.3	
12/19/02	17:00	265	115.0	2.3		51.3	16.2	

Notes and Comments:
 5 HP Pump at 210 ft.
 Well cased to 300 feet.

Test Well 2
Spring Valley Ranch
Time - Drawdown
2nd test



Test Well 2
Spring Valley Ranch
Time - Recovery
2nd test



ANALYTICAL LABORATORIES, INC.

1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 45158

Attn. TERRY SCANLAN

SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Time of Collection: 11:00
Date of Collection: 11/27/02

Date Received: 11/27/02
Date Reported: 12/17/02

Collected by: CHUCK FEAST

Submitted by: CHUCK FEAST

Source of Sample: SVR 2 PROJECT: SPRING VALLEY RANCH GROUNDWATER

Test Requested	FRDS #	MCL	Analysis Result Unit	MDL	Method	Date Completed	Analyst Initials
ANTIMONY FURNACE			<0.005 mg/L	0.005	EPA 200.9	12/10/02	DMB
ARSENIC FURNACE			0.016 mg/L	0.003	EPA 200.9	12/08/02	DMB
BARIUM			0.06 mg/L	0.05	EPA 200.7	12/03/02	JH
BERYLLIUM FURNACE			<0.0005 mg/L	0.0005	EPA 200.9	12/13/02	DMB
CALCIUM			85.6 mg/L	0.10	EPA 200.7	12/02/02	JH
CHROMIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	12/12/02	DMB
IRON			0.95 mg/L	0.05	EPA 200.7	12/06/02	JH
MAGNESIUM			22.2 mg/L	0.10	EPA 200.7	12/02/02	JH
MANGANESE			1.64 mg/L	0.05	EPA 200.7	12/06/02	JH
MERCURY			<0.0002 mg/L	0.0002	EPA 245.1	12/04/02	KLZ
NICKEL			<0.02 mg/L	0.02	EPA 200.7	12/04/02	JH
POTASSIUM			12.9 mg/L	0.10	EPA 200.7	12/02/02	JH
SODIUM			43.7 mg/L	0.10	EPA 200.7	12/02/02	JH
THALLIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	12/12/02	DMB
AMMONIA DIRECT			0.23 mg/L	0.04	EPA 350.1	12/06/02	KDH
NITRATE N			<0.20 mg/L	0.20	EPA 300.0	12/03/02	GMM
NITRITE N			<0.01 mg/L	0.01	SM 4500NO2-B	11/27/02	CSC
SULFIDE			<0.05 mg/L	0.05	SM 4500 D	12/03/02	CS
BICARBONATE			189 mg/L		SM 2320	12/03/02	GMM
CHLORIDE			5 mg/L	1	EPA 300.0	12/03/02	GMM
FLUORIDE DIRECT			0.34 mg/L	0.10	EPA 300.0	12/06/02	GMM
HARDNESS			319 mg/L	5.0	SM 2340	12/03/02	GMM
SULFATE			229 mg/L	1.0	EPA 300.0	12/06/02	GMM
TOTAL DISSOLVED SOLIDS			570 mg/L	25	EPA 160.1	12/03/02	JR

Michael A. Moore

THANK YOU FOR CHOOSING ANALYTICAL LABORATORIES, INC. FOR YOUR TESTING NEEDS.

PLEASE CONTACT MICHAEL MOORE IF YOU HAVE ANY QUESTIONS REGARDING
THIS REPORT OR ANY FUTURE ANALYTICAL NEEDS.

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

INORGANIC CHEMICAL ANALYSIS REPORT For Public Water Systems
PRIMARY IOC CONTAMINANTS (Mandatory, except for transient water systems)

FRDS	Contaminant	MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana-lyst	Analysis Date	FRDS	Contaminant	MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana-lyst	Analysis Date
1074	Antimony	0.006	ND	0.005	EPA 200.9	DMB	12/10/02	1036	Nickel	N/A	ND	0.02	EPA 200.7	JH	12/04/02
1005	Arsenic	0.05	0.016	0.003	EPA 200.9	DMB	12/08/02	1045	Selenium	0.05	---				
1010	Barium	2	0.06	0.05	EPA 200.7	JH	12/03/02	1052	Sodium	N/A	43.7	0.10	EPA 200.7	JH	12/02/02
1075	Beryllium	0.004	ND	0.0005	EPA 200.9	DMB	12/13/02	1085	Thallium	0.002	ND	0.002	EPA 200.9	DMB	12/12/02
1015	Cadmium	0.005	---					1024	Cyanide	0.2	---				
1020	Chromium	0.1	ND	0.002	EPA 200.9	DMB	12/12/02	1025	Fluoride	4.0	0.34	0.10	EPA 300.0	GMM	12/06/02
1035	Mercury	0.002	ND	0.0002	EPA 245.1	KLZ	12/04/02								

SECONDARY AND OTHER IOC CONTAMINANTS (OPTIONAL)

1017	Chloride	5	1	EPA 300.0	GMM	12/03/02	1003	Ammonia (as N)	0.23	0.04	EPA 350.1	KDH	12/06/02
1905	Color	---					1016	Calcium (as CaCO ₃)	85.6	0.10	EPA 200.7	JH	12/02/02
1027	Hydrogen Sulfide	---					1915	Hardness (as CaCO ₃)	319	5.0	SM 2340	GMM	12/03/02
1028	Iron	0.95	0.05	EPA 200.7	JH	12/06/02	1031	Magnesium	22.2	0.10	EPA 200.7	JH	12/02/02
1032	Manganese	1.64	0.05	EPA 200.7	JH	12/06/02	1925	pH	---				
1920	Odor	---					1042	Potassium	12.9	0.10	EPA 200.7	JH	12/02/02
2905	Surfactants	---					1049	Silica (as SiO ₂)	---				
1930	Dissolved Solids	870	25	EPA 160.1	JR	12/03/02	1030	Lead	---				
1095	Zinc	---					1022	Copper	---				
1050	Silver	---					1926	Conductive μ S/cm	---				
1002	Aluminum	---					1997	Langlier Index	---				
1927	Alkalinity (as CaCO ₃)	---											

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument
 --- = No analysis performed for this contaminant
 Numerical entry = Detection at level indicated
 Nitric Acid Preservative Yes No

COMMENTS:

Michael N. Moore 12/17/02
 Signature of Lab Supervisor Date

PWS #	
Lab Sample Tracking #	45158
Date Collected	11/27/02
Sample Type	Water
Date Received	11/27/02
Time Collected	11:00
Location Tag #	
Sample Collection Location	SVR 2 PROJECT:SPRING VALLEY
Date Reported by Lab	12/17/02
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

PUBLIC DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT
ACUTE IOC CONTAMINANTS For Public Drinking Water Systems

FRDS	Contaminant	Result (mg/L)	MCL (mg/L)	MDL	Method	Analysis Date	Analyst	MONITORING REQUIREMENTS
1040	Nitrate	ND	10.0	0.20	EPA 300.0	12/03/02	GMM	Ground water systems with nitrate levels below 5 mg/L must monitor nitrate annually. Surface water systems and systems with nitrate levels of 5 or more mg/L must monitor quarterly, unless otherwise advised in writing.
1041	Nitrite	ND	1.0	0.01	SM 4500NO2-B	11/27/02	CSC	Once per nine years unless advised otherwise.
1040	Total (NO ₃ + NO ₂)	---						
1055	Sulfate	229		1.0	EPA 300.0	12/06/02	GMM	Sulfate is in the process of becoming a regulated contaminant. Monitoring is not yet required.

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

--- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

COMMENTS:

PWS #	
Lab Sample Tracking #	45158
Date Collected	11/27/02
Sample Type	Water
Date Received	11/27/02
Time Collected	11:00
Location Tag #	
Sample Collection Location	SVR 2 PROJECT:SPRING
Date Reported by Lab	12/17/02
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

Kellie D. Hall 12/17/02
 Signature of Lab Supervisor Date

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

Drilling Permit I.D. Tag 00025 899
Water Right Permit No. _____
Injection Permit No. _____

well #2

874392-788455

RECEIVED

OCT 21 2002

WATER RESOURCES
WESTERN REGION

State of Idaho
Department of Water Resources

APPLICATION FOR DRILLING PERMIT
(FOR THE CONSTRUCTION OF A WELL)

1. Owner (please print): SunCor Development Company, Attention: Jerry Ellsworth

2. Mailing Address: 80 East Rio Salado Parkway, Suite 410
 City: Tempe State: AZ Zip Code: 85281 Telephone 480-317-6800

3. Proposed Well Location: Twp. 6N, Rge. 3E, Sec. 36, 1/4 NE 1/4 SE
 Govt Lot No. _____ County Ada Lat. _____ Long. _____
 Street Address of Well Site west side of Highway 55 in Spring Valley City _____
Give at least name of road + Distance to Road or Landmark
 Lot, block and subdivision _____

4. Proposed Use of Well:

DOMESTIC: The use of water for homes, organization camps, public campgrounds, livestock (1,000 head or less) and any other purpose in connection therewith, including irrigation of up to 1/2 acre of land, if the total use is not in excess of 13,000 gpd; or any other uses, if the total use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

Domestic does not include water for multiple ownership subdivisions, mobile home parks, commercial or business establishments, unless the use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

NON-DOMESTIC: Irrigation Municipal Industrial
 Stock Test Other _____
 (Over 1,000 Head) (Describe)

INJECTION

MONITORING: A well bore schematic and map is required for each blanket permit.
 No. of proposed wells: _____

5. Well Construction Information:

A. New well Modify Replace

B. Proposed Casing Diameter 6-inch Proposed Maximum Depth 1,000 feet

C. Anticipated bottom hole temperature:
 85°F or less (Cold Water Well) 85°F to 212°F (Low Temp. Geo. Well) 212°F or more (Geothermal Well)

6. Construction Start Date: October 28, 2002

7. Anticipated Well Driller: Stevens and Sons Well Drilling Driller's Lic. No. 153
 NOTE: The actual well driller must be identified prior to drilling.

8. Applicant's Signature: *Jimmy M. Scanlan* Date 10/21/02

Address (if different than owner): Scanlan Engineering
600 East River Park Lane, Suite 105

City: Boise State: ID Zip Code: 83706 Telephone 208-383-4140

Title: Consulting Engineer for SunCor Development Company
 (Owner, Firm Representative, Other)

ACTION OF THE DEPARTMENT OF WATER RESOURCES

APPROVED

This Permit is

Date

11/8/02

If approved, this permit authorizes the construction or modification of a well subject to the following conditions. READ CAREFULLY!

GENERAL CONDITIONS:

1. This drilling permit is valid for two (2) months from the above approval date for the start of construction and is valid for one (1) year from the approval date for completion of the well unless an extension has been granted.
2. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare which may be required before construction of this well. All wells must be drilled a minimum distance of 100 feet from a drain field. Domestic and Public Water Supply wells must be drilled a minimum of 50 feet and 100 feet respectively from a septic tank.
3. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.
4. Approval of this drilling permit does not authorize trespass on the land of another party.
5. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.
6. This drilling permit does not represent a right to divert and use the water of the State of Idaho.
7. If a bottom hole temperature of 85° or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.
8. Idaho Code, S 55-2201 - 55-2210 requires the applicant and/or his contractors to contact "DigLine" (DigLine is a one-call center for utility notification) not less than 2 working days prior to the start of any excavation for this project. The "DigLine" Number for your area is 1-800-342-1585.

SPECIFIC CONDITIONS:

9. After completion & Logging of the test hole and prior to installation of any casing, screens or seals, a well design Proposal shall be submitted for review and approval by IDWR.
10. This well shall not be completed as a permanent, completed well without specific approval from IDWR.
11. If this well is not completed the hole shall be properly plugged.

[Handwritten Signature]
Signature of Authorized Department Representative

For

MANAGER
WESTERN REGIONAL OFFICE

Title

Receipt No. W029818 Received by KL Fee 200.00 Date 10/21/02

EXTENSION OF DRILLING PERMIT

Extension approved by _____ Approval Date _____

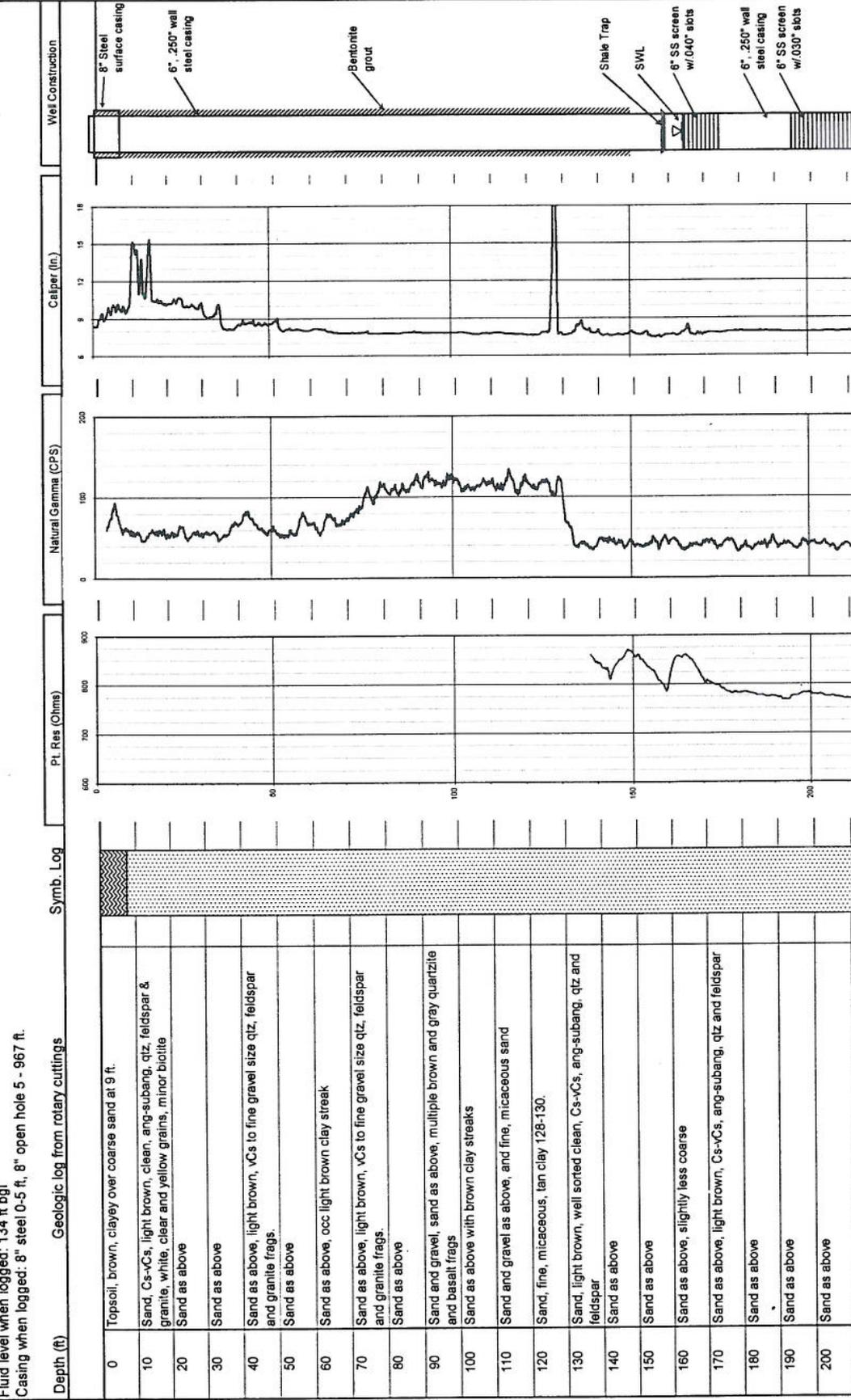
This extension expires: _____

Appendix C
Well No. 3 Data

Exploration Hole SVR 3

Spring Valley Ranch

Drilled by: Stevens and Sons, Inc. Location: Ada County, Idaho
 Logged by: C. Feast/Feast Geosciences, LLC T5N, R1E, SE 1/4, SE 1/4, Sect 1
 Geophysical logs by: Hydrologic, Inc. Depth Drilled: 970 ft.
 Fluid level when logged: 134 ft bgl Depth Logged: 967 ft.
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 967 ft. Static WL: ~ 175 ft. bgl
 Borehole size: 8" (nom.) Drilling Method: Mud Rotary
 Borehole size: 8" (nom.) Borehole size: 8" (nom.)



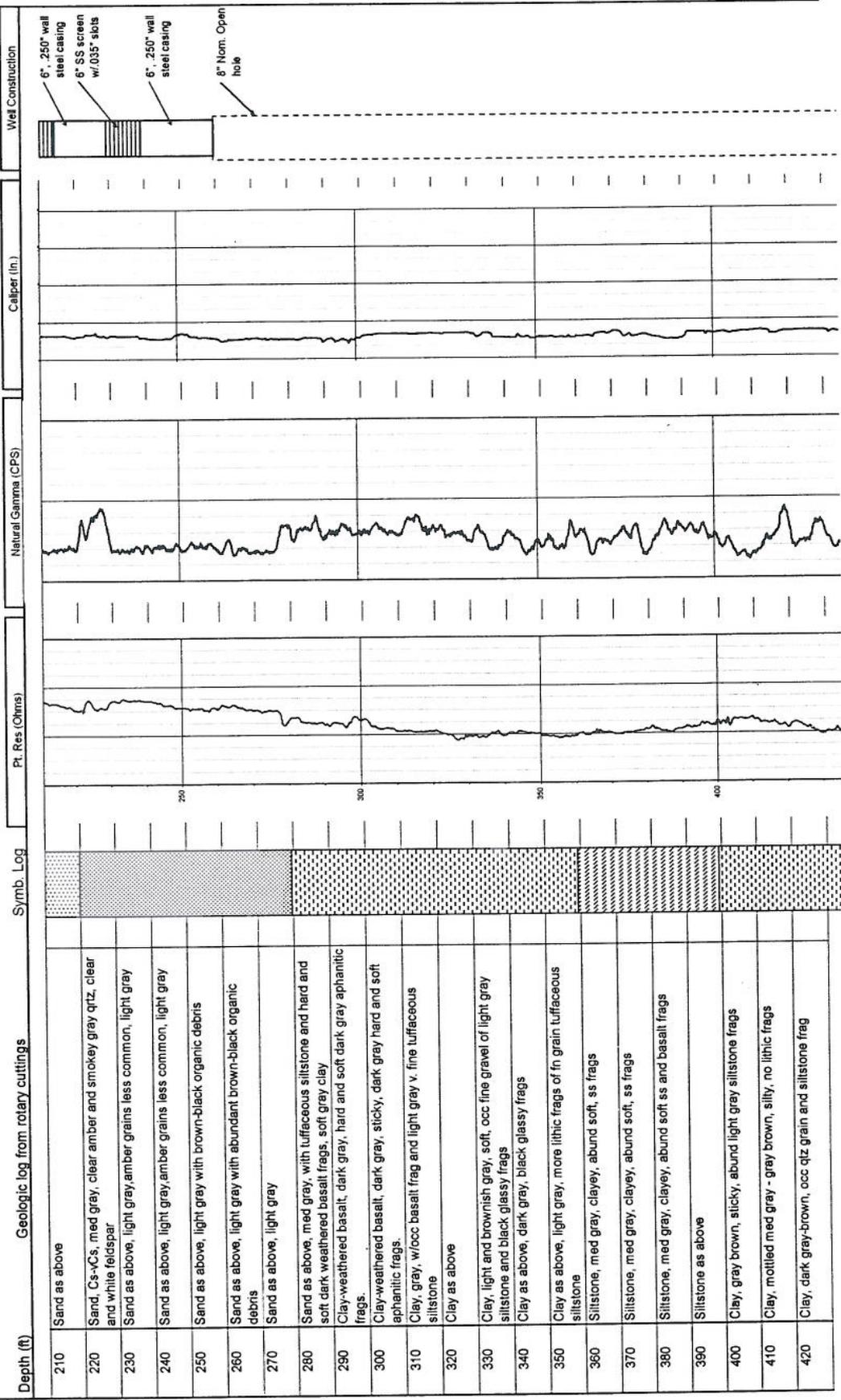
Exploration Hole SVR 3 Spring Valley Ranch

Drilled by: Stevens and Sons, Inc.
 Logged by: C. Feast/Feast Geosciences, LLC
 Geophysical logs by: Hydrologic, Inc.
 Fluid level when logged: 134 ft bgl
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 967 ft.

Drilled Dates: 12/1/02 - 12/11/02
 Drilling Method: Mud Rotary
 Borehole size: 8" (nom.)

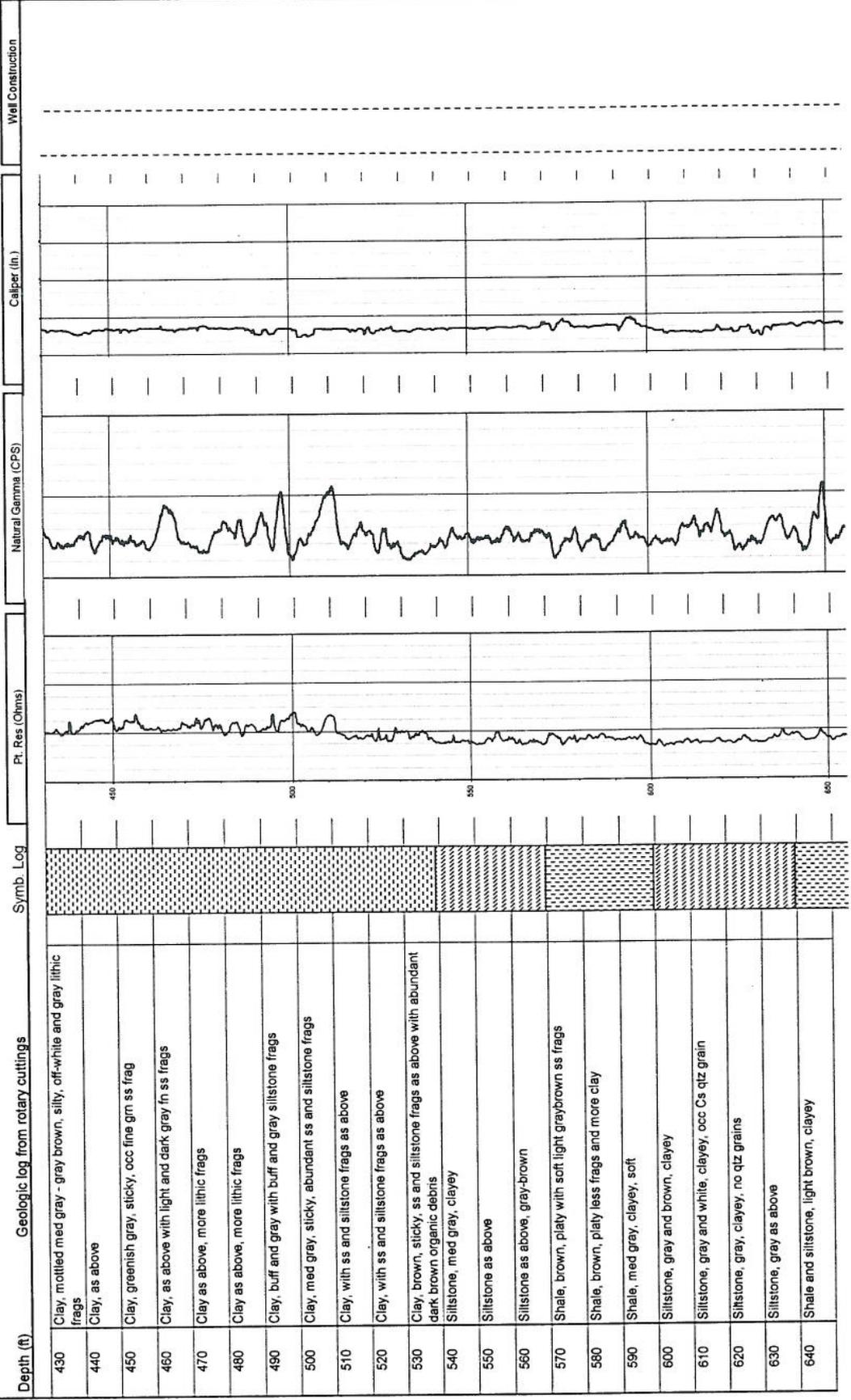
Location: Ada County, Idaho
 T5N, R1E, SE 1/4, SE 1/4, Sect 1
 GL Elevation: ~ 3590 ft. msl.

Depth Drilled: 970 ft
 Depth Logged: 967 ft
 Static WL: ~ 175 ft. bgl

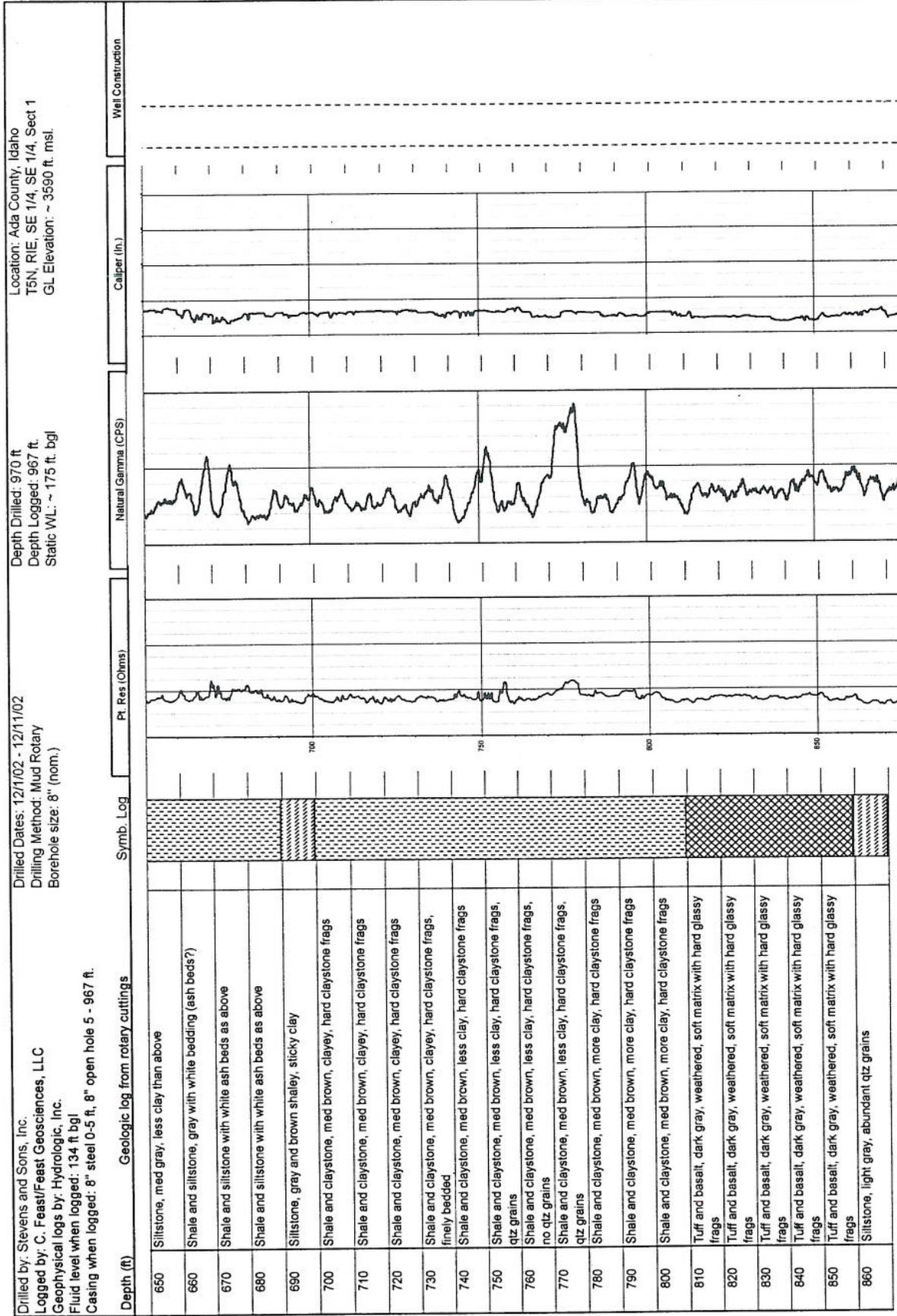


Exploration Hole SVR 3 Spring Valley Ranch

Drilled by: Stevens and Sons, Inc. Location: Ada County, Idaho
 Logged by: C. Feast/Feast Geosciences, LLC T6N, R1E, SE 1/4, SE 1/4, Sect 1
 Geophysical logs by: Hydrologic, Inc. Depth Drilled: 970 ft
 Fluid level when logged: 134 ft bgl Depth Logged: 967 ft
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 967 ft. Static WL: ~ 175 ft. bgl
 Borehole size: 8" (nom.) Drilled Dates: 12/1/02 - 12/11/02
 Drilling Method: Mud Rotary GL Elevation: ~ 3590 ft. msl.
 Borehole size: 8" (nom.)



Exploration Hole SVR 3 Spring Valley Ranch



Drilled by: Stevens and Sons, Inc.
 Logged by: C. Feast/Feast Geosciences, LLC
 Geophysical logs by: Hydrologic, Inc.
 Fluid level when logged: 134 ft bgl
 Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 967 ft.

Drilled Dates: 12/11/02 - 12/11/02
 Drilling Method: Mud Rotary
 Borehole size: 8" (nom.)

Depth Drilled: 970 ft
 Depth Logged: 967 ft
 Static WL: ~ 175 ft. bgl

Location: Ada County, Idaho
 T5N, R1E, SE 1/4, SE 1/4, Sect 1
 GL Elevation: ~ 3590 ft. msl.

Exploration Hole SVR 3 Spring Valley Ranch

Depth (ft)	Geologic log from rotary cuttings	Symb. Log	Pl. Res (Ohms)	Natural Gamma (CPS)	Caliper (in.)	Well Construction
Drilled by: Stevens and Sons, Inc. Logged by: C. Feast/Feast Geosciences, LLC Geophysical logs by: Hydrologic, Inc. Fluid level when logged: 134 ft bgl Casing when logged: 8" steel 0-5 ft, 8" open hole 5 - 967 ft.						
Drilled Dates: 12/1/02 - 12/11/02 Drilling Method: Mud Rotary Borehole size: 8" (nom.)						
Location: Ada County, Idaho T9N, R1E, SE 1/4, SE 1/4, Sect 1 GL Elevation: ~ 3590 ft. msl.						
Depth Drilled: 970 ft Depth Logged: 967 ft Static WL: ~ 175 ft. bgl						
870	Tuffaceous SS, dark gray, Cs qtz grains	[Pattern]				
880	Tuffaceous SS, dark gray, Cs qtz grains	[Pattern]				
890	Siltstone and claystone, med gray-brown	[Pattern]				
900	Siltstone and claystone, med gray-brown	[Pattern]				
910	Siltstone as above with dark gray glassy frags	[Pattern]				
920	Siltstone as above with dark gray glassy frags	[Pattern]				
930	Clay with siltstone frags, med gray, soft	[Pattern]				
940	Siltstone, med-light gray, less clay than above	[Pattern]				
950	Clay with siltstone frags, med gray, soft	[Pattern]				
960	Clay with siltstone frags, med gray, soft	[Pattern]				
970						
980						
990						
1000						

Hydro Logic, Inc.

Geophysical Division

WELL NAME: Spring Valley-2002 Test Well #3

GEOPHYSICAL WELL LOG:
Natural Gamma-Ray
Point Resistance
Caliper

PERMANENT DATUM: Mean Sea Level
LOG MEASURED FROM: Ground
3602 Feet above MSL

OTHER SERVICES:

COMPANY: Scanlan Engineering / Suncor
PROJECT: Spring Valley Ranch Wells
ORDERED BY: Chuck Feast

COORDINATES:
T5N R1E Sec. 1
SE1/4, SE1/4
ELEVATION:

KB:
GL: 3602

COUNTY: Ada

STATE: Idaho

WELL OWNER:

WELL: Spring Valley-2002 Test Well #3
LOCATION: T5N R1E SEC.1 SE1/4 SE1/4

	Run No. 1		Run No. 1
Date	12/11/02	Fluid Level	134 feet b.g.l.
Bottom logged Int.	967 feet b.g.l.	Fluid Nature	drilling mud
Top Logged Int.	0 ft. bgl	Fluid Viscosity	
Footage Logged	967 feet	Fl. Resistivity	mud Cs=642uS
Bottom (Driller)	970 feet	Fl. Res. at BHT	
Casing (from Log)	3 feet	Fluid pH	NA
Casing (Driller)	5 feet	Last Circulated	NA
Casing Size	8-inch	Bottom Hole Temp	
Bit Size	8-inch		
		LOGGED BY:	Loren Pearson
		WITNESSED BY:	Chuck Feast

REMARKS:

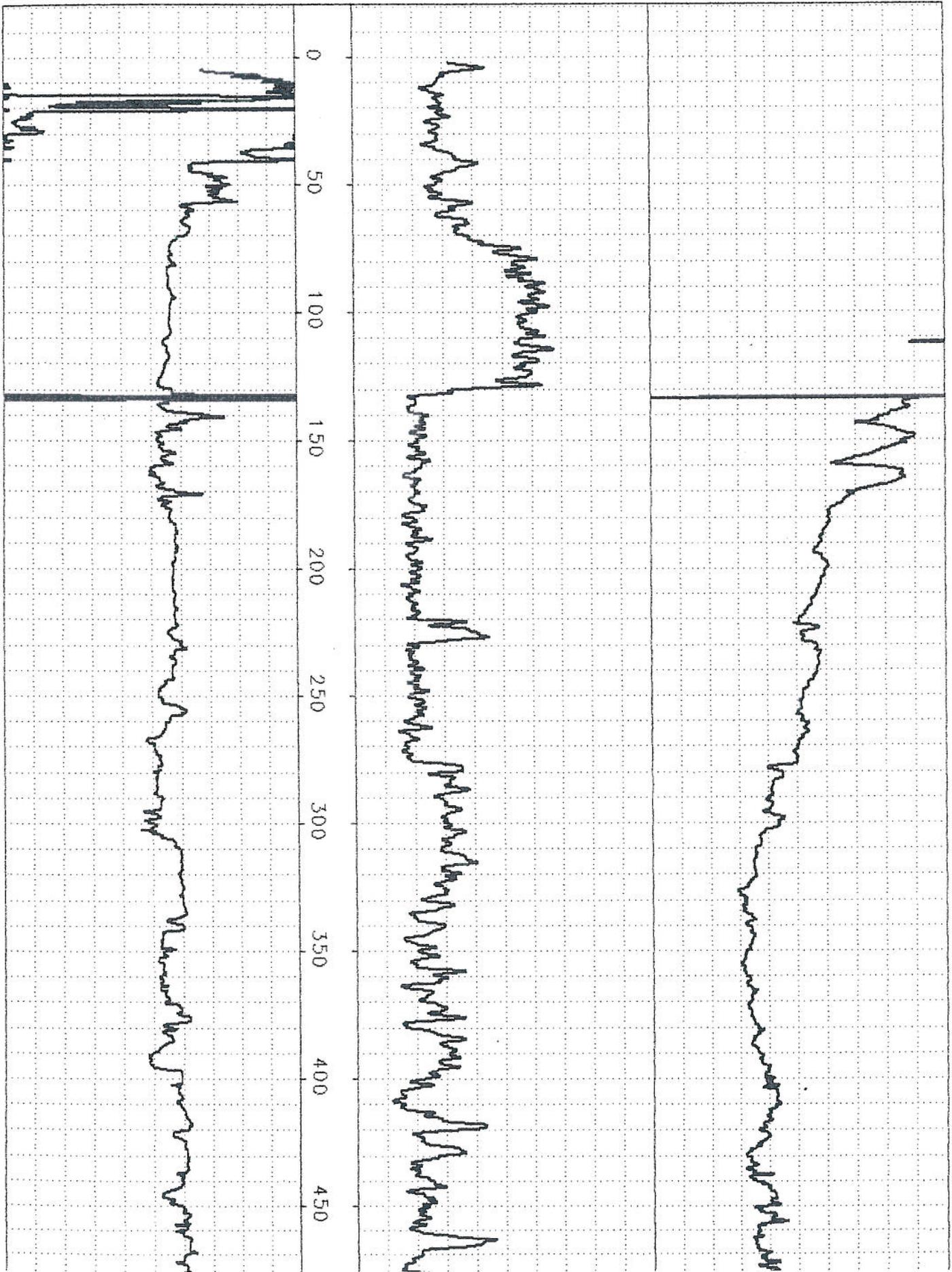
Datum = ground level
Single point resistance log scale
ordered by Chuck Feast
Hole circulation 24 hours prior to log

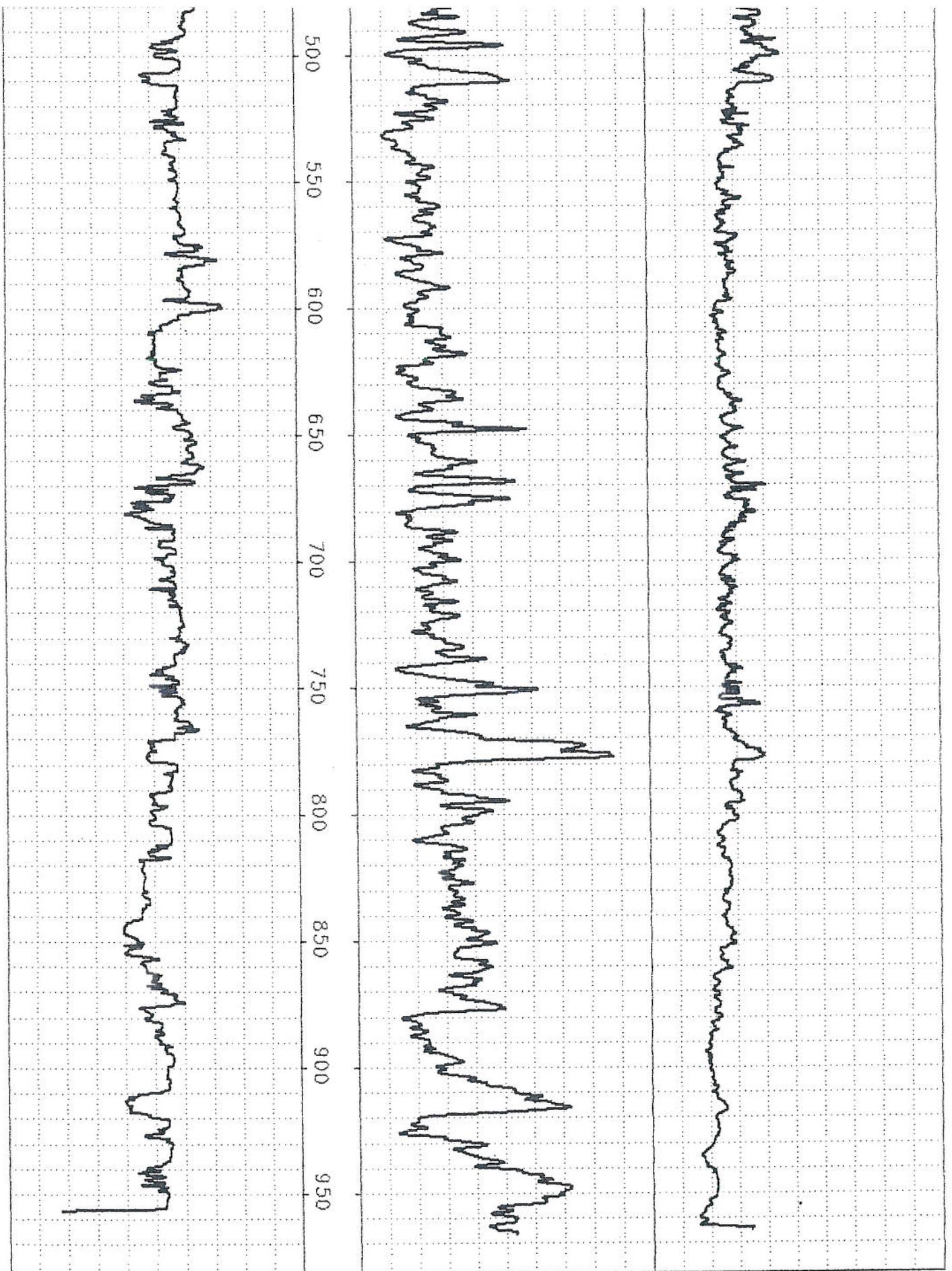
Drilled by Stevens and Sons, Boise, Id.
Nick Stevens Driller
Mud rotary drilled well

Drilled to 970 ft. 12/10/02

Spring Valley Test Well #3 December 11, 2002

Caliper inches 5 10 NaturalGammaRay counts sec 0 200 600 PointResistance ohms 900





← 5 Caliper inches 10 → ← 0 Natural Gamma Ray counts/sec 200 600 → ← Point Resistance ohms 900 →
 Spring Valley Test Well #3 December 11, 2002

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 48593

Attn. TERRY SCANLAN

SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Time of Collection: 14:00
Date of Collection: 12/18/02

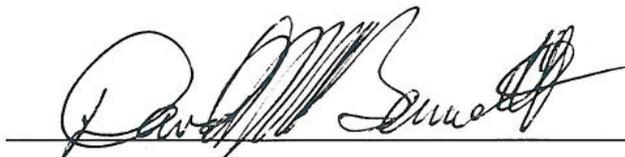
Date Received: 12/19/02
Date Reported: 01/10/03

Collected by: CHUCK FEAST

Submitted by: CHUCK FEAST

Source of Sample: SVR 3 PROJECT: SPRING VALLEY RANCH GROUNDWATER
FILTERED IN FIELD W/.45u

Test Requested	FRDS #	MCL	Analysis Result Unit	MDL	Method	Date Completed	Analyst Initials
ANTIMONY FURNACE			<0.005 mg/L	0.005	EPA 200.9	01/06/03	DMB
ARSENIC FURNACE			0.038 mg/L	0.003	EPA 200.9	01/08/03	DMB
BARIUM			<0.05 mg/L	0.05	EPA 200.7	12/30/03	JH
BERYLLIUM FURNACE			<0.0005 mg/L	0.0005	EPA 200.9	01/10/03	DMB
CALCIUM			12.9 mg/L	0.10	EPA 200.7	12/26/02	JH
CHROMIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	12/28/02	DMB
IRON			0.06 mg/L	0.05	EPA 200.7	12/27/02	JH
MAGNESIUM			2.54 mg/L	0.10	EPA 200.7	12/26/02	JH
MANGANESE			<0.05 mg/L	0.05	EPA 200.7	12/27/02	JH
MERCURY			<0.0002 mg/L	0.0002	EPA 245.1	01/06/03	DMB
NICKEL			<0.02 mg/L	0.02	EPA 200.7	12/27/02	JH
POTASSIUM			4.4 mg/L	0.10	EPA 200.7	12/26/02	JH
SODIUM			9.72 mg/L	0.10	EPA 200.7	12/26/02	JH
THALLIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	12/29/02	DMB
AMMONIA DIRECT			<0.04 mg/L	0.04	EPA 350.1	12/24/02	KDH
NITRATE N			0.63 mg/L	0.20	EPA 300.0	12/30/02	GMM
NITRITE N			<0.01 mg/L	0.01	SM 4500N02-B	12/19/02	CSC
SULFIDE			<0.05 mg/L	0.05	SM 4500 D	12/20/02	CS
BICARBONATE			50.4 mg/L		SM 2320	12/30/02	GMM
CHLORIDE			2 mg/L	1	EPA 300.0	12/30/02	GMM
FLUORIDE DIRECT			0.27 mg/L	0.10	EPA 300.0	12/30/02	GMM
HARDNESS			41.8 mg/L	5.0	SM 2340	12/30/02	GMM
SULFATE			11 mg/L	1.0	EPA 300.0	12/30/02	GMM
TOTAL DISSOLVED SOLIDS			116 mg/L	25	EPA 160.1	12/24/02	JR



THANK YOU FOR CHOOSING ANALYTICAL LABORATORIES, INC. FOR YOUR TESTING NEEDS.

PLEASE CONTACT MICHAEL MOORE IF YOU HAVE ANY QUESTIONS REGARDING
THIS REPORT OR ANY FUTURE ANALYTICAL NEEDS.

well #13

Drilling Permit No. 874852-789296
Drilling Permit Tag No. D0029604
Water Right Permit No. _____
Injection Permit NO. _____

RECEIVED

NOV 27 2002

WATER RESOURCES
WESTERN REGION

State of Idaho Department of Water Resources
APPLICATION FOR DRILLING PERMIT
(FOR THE CONSTRUCTION OF A WELL)

1. Owner (please print): SunCor Development Company, Attention: Jerry Ellsworth
80 Rio Salado Parkway, Suite 410
2. Mailing Address: _____
City: Tempe State: AZ Zip Code: 85281 Telephone 480-317-6800
3. Proposed Well Location: Twp: 5N Rge: 1E Sec: 1 1/4 SW 1/4 SE 1/4
Gov't Lot No. _____ County Ada Lat. _____ : _____ : _____ Long. _____ : _____ : _____
Street Address of Well Site 3/4 mi West of Hwy 55 City: _____
Lot, block and subdivision Give at least the name of Road and Distance to Road or Landmark
Spring Valley Ranch area

4. Proposed Use of Well:

Domestic: The use of water for homes, organization camps, public campgrounds, livestock (1,000 head or less) and for any other purpose in connection therewith, including irrigation of up to 1/2 acre of land, if the total use is not in excess of 13,000 gpd; or any other uses, if the total use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

Domestic does not include water for multiple ownership subdivisions, mobile home parks, commercial or business establishments, unless the use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

NON-DOMESTIC: Irrigation Municipal Industrial
 Stock Test Other _____
(Over 1,000 Head) (Describe)

INJECTION

MONITORING: A well bore schematic and map is required for each blanket permit.
Number of proposed wells: _____

5. Well Construction Information:

A. New well Modify Replace
B. Proposed Casing Diameter 6-inch Proposed Maximum Depth 1000
C. Anticipated bottom hole temperature:
 85°F or less 85°F to 212° 212° F or more
(Cold water well) (Low temp. geo. well) (Geothermal well)

6. Construction Start Date: November 29, 2002

7. Anticipated Well Driller: Stevens and Sons Well Drilling Driller's Lic. No. 153
NOTE: The actual well driller must be identified prior to drilling.

8. Applicant's Signature: Jerry Ellsworth Date: 11/27/02
Address (if different than owner): Scanlan Engineering, 600 E. River Park Lane # 105

City: Boise State: ID Zip Code: 83706 Telephone: 208-383-4140

Title: Consulting Engineer for SunCor Development Company
(Owner, Firm Representative, Other)

ACTION OF THE DEPARTMENT OF WATER RESOURCE

This Permit is Approved

Date 11-27-02

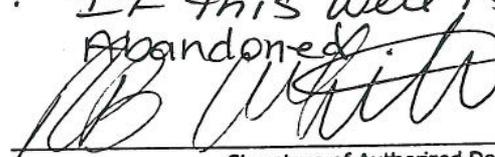
If approved, this permit authorizes the construction or modification of a well subject to the following conditions. **READ CAREFULLY!**

GENERAL CONDITIONS:

1. This drilling permit is valid for two (2) months from the above approval date for the start of construction and is valid for one (1) year from the approval date for completion of the well unless an extension has been granted.
2. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare which may be required before construction of this well. All wells must be drilled a minimum distance of 100 feet from a drain field. Domestic and Public Water Supply wells must be drilled a minimum of 50 feet and 100 feet respectively from a septic tank.
3. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.
4. Approval of this drilling permit does not authorize trespass on the land of another party.
5. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.
6. This drilling permit does not represent a right to divert and use the water of the State of Idaho.
7. If a bottom hole temperature of 85° or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.
8. Idaho Code, S 55-2201 – 55-2210 requires the applicant and/or his contractors to contact "Digline" (Digline is a one-call center for utility notification) not less than 2 working day prior to the start of any excavation for this project. The "Digline" number for your area is 1-800-342-1585.

SPECIFIC CONDITIONS:

9. After completion & logging of the test hole and prior to installation of any casing, screens or seals, a well design Proposal shall be submitted for review & approval by IDWR.
10. This well shall not be completed as a permanent, completed well without specific approval from IDWR.
11. IF this well is not completed the hole shall be properly abandoned.


 Signature of Authorized Department Representative

MANAGER
WESTERN REGIONAL OFFICE
 Title

Receipt No. W029891 Received by KH Fee 20000 Date 11/27/02

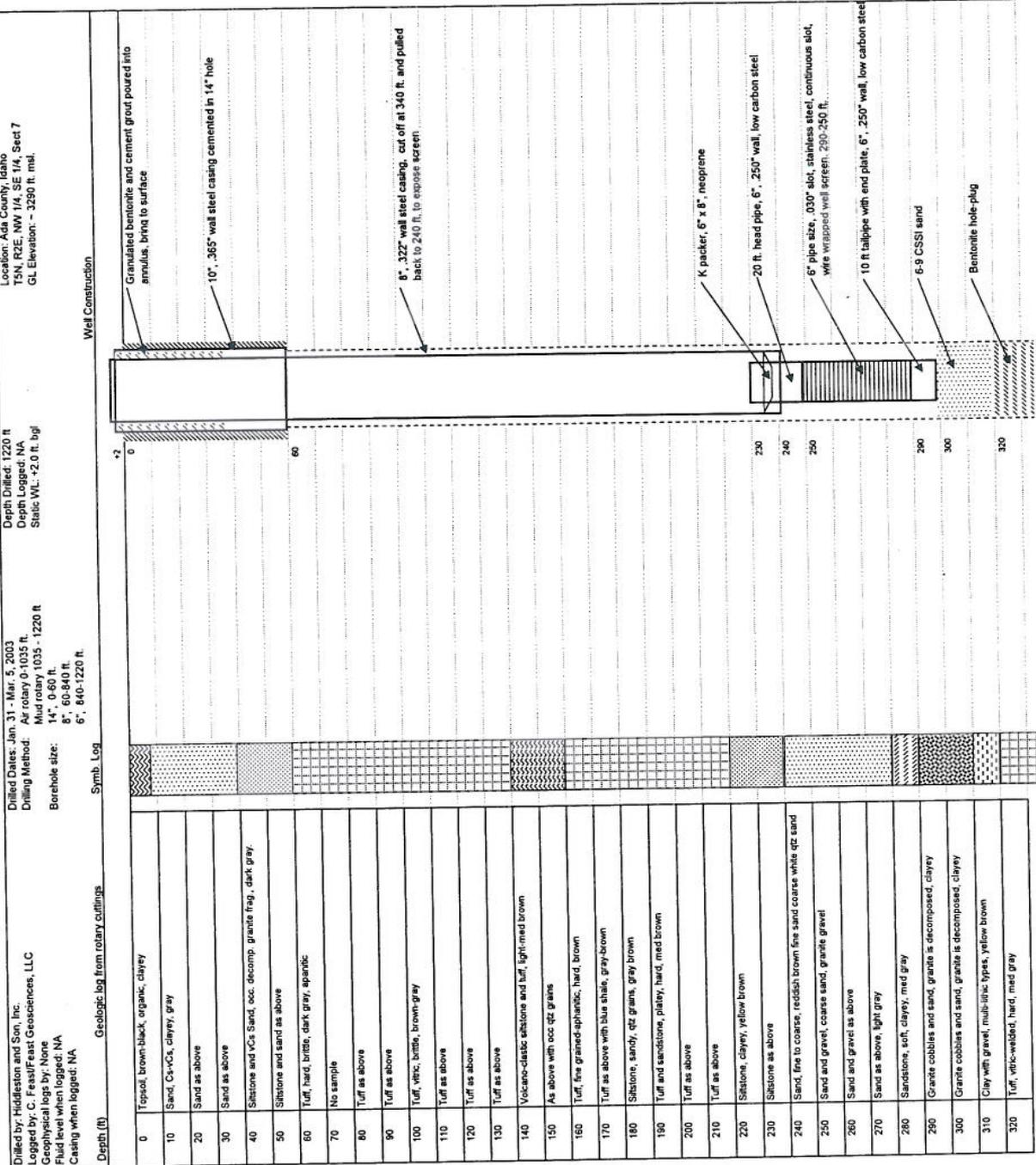
EXTENSION OF DRILLING PERMIT

Extension approved by _____ Approval Date _____
 This extension expires: _____

Appendix D
Well No. 4 Data

Exploration Hole SVR 4

Spring Valley Ranch



Location: Ada County, Idaho
 T5N R2E, NW 1/4, SE 1/4, Sect 7
 G.L. Elevation: ~ 3290 ft. msl.

Depth: Drilled: 1220 ft
 Depth Logged: NA
 Static WL: ~ 21.0 ft. bgl

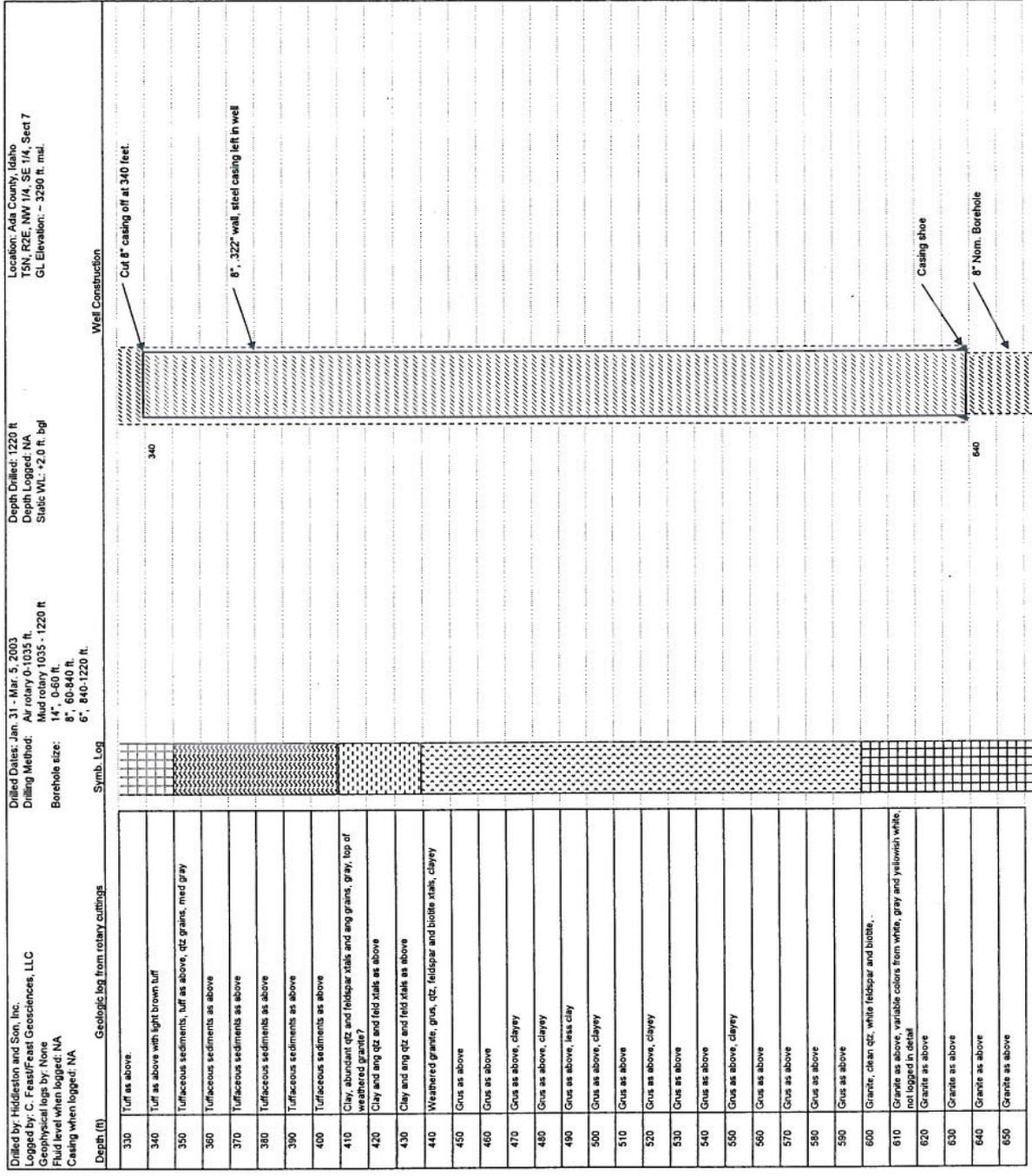
Dilled Dates: Jan 31 - Mar 5, 2003
Drilling Method: Air rotary 0-1035 ft.
 Mud rotary 1035 - 1220 ft

Borehole size: 14", 0-60 ft.
 8", 60-840 ft.
 6", 840-1220 ft.

Logged by: Hiddleston and Son, Inc.
Logged by: C. Feast/Feast Geosciences, LLC
Geophysical logs by: None
Fluid level when logged: NA
Casing when logged: NA

Exploration Hole SVR 4

Spring Valley Ranch



Location: Ada County, Idaho
 TSN: R2E NW 1/4 SE 1/4, Sect 7
 GL Elevation: - 3280 ft. msl.

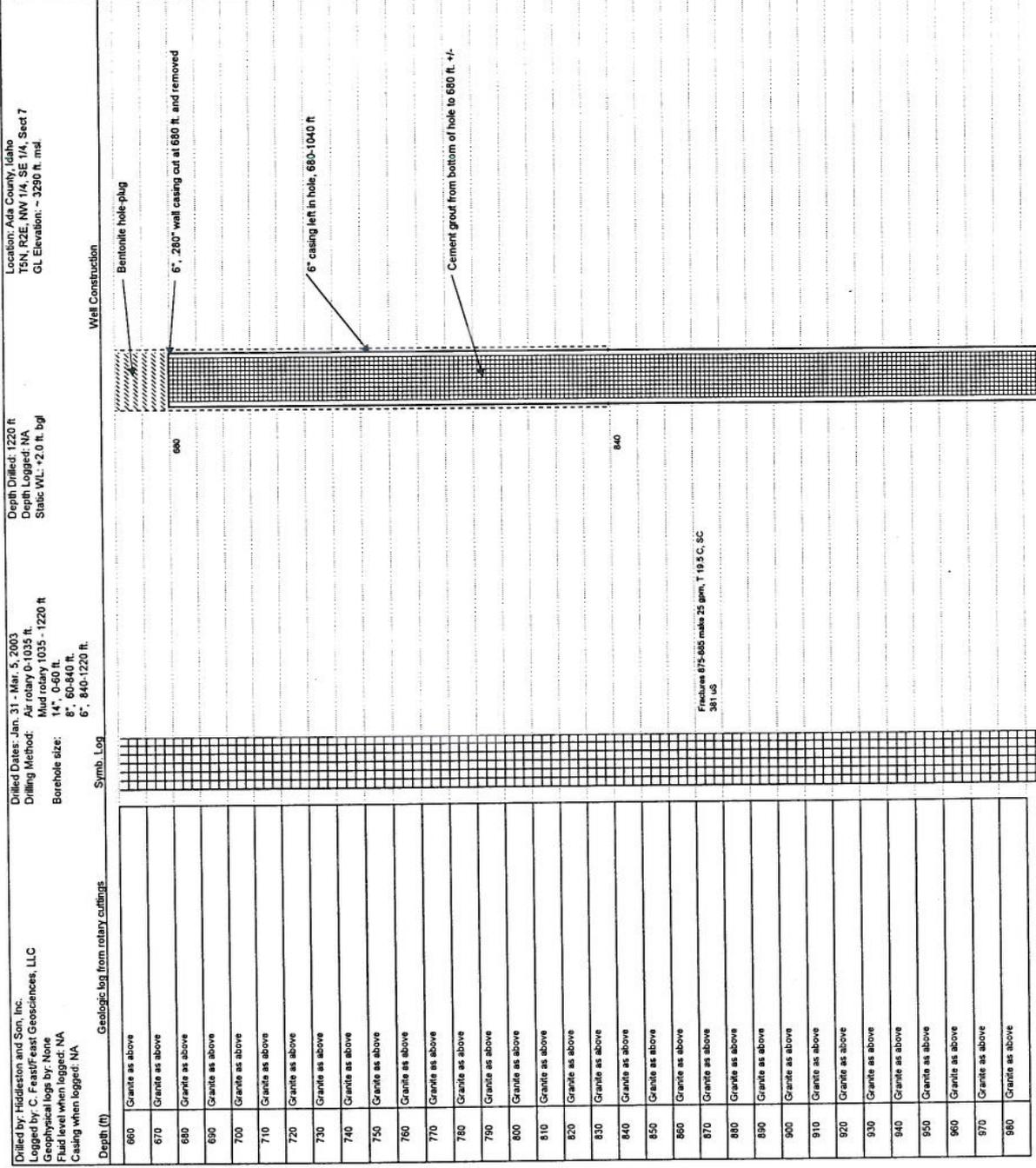
Depth Drilled: 1220 ft
 Depth Logged: NA
 Static WL: +2.0 ft. bgl

Drilled Dates: Jan 31 - Mar 5, 2003
 Logged by: C. Feast/Feast Geosciences, LLC
 Geophysical logs by: None
 Fluid level when logged: NA
 Casing when logged: NA

Well Construction
 Cut 8" casing off at 340 feet.
 8" .322" wall, steel casing left in well
 Casing shoe
 8" Nom. Borehole

Exploration Hole SVR 4

Spring Valley Ranch



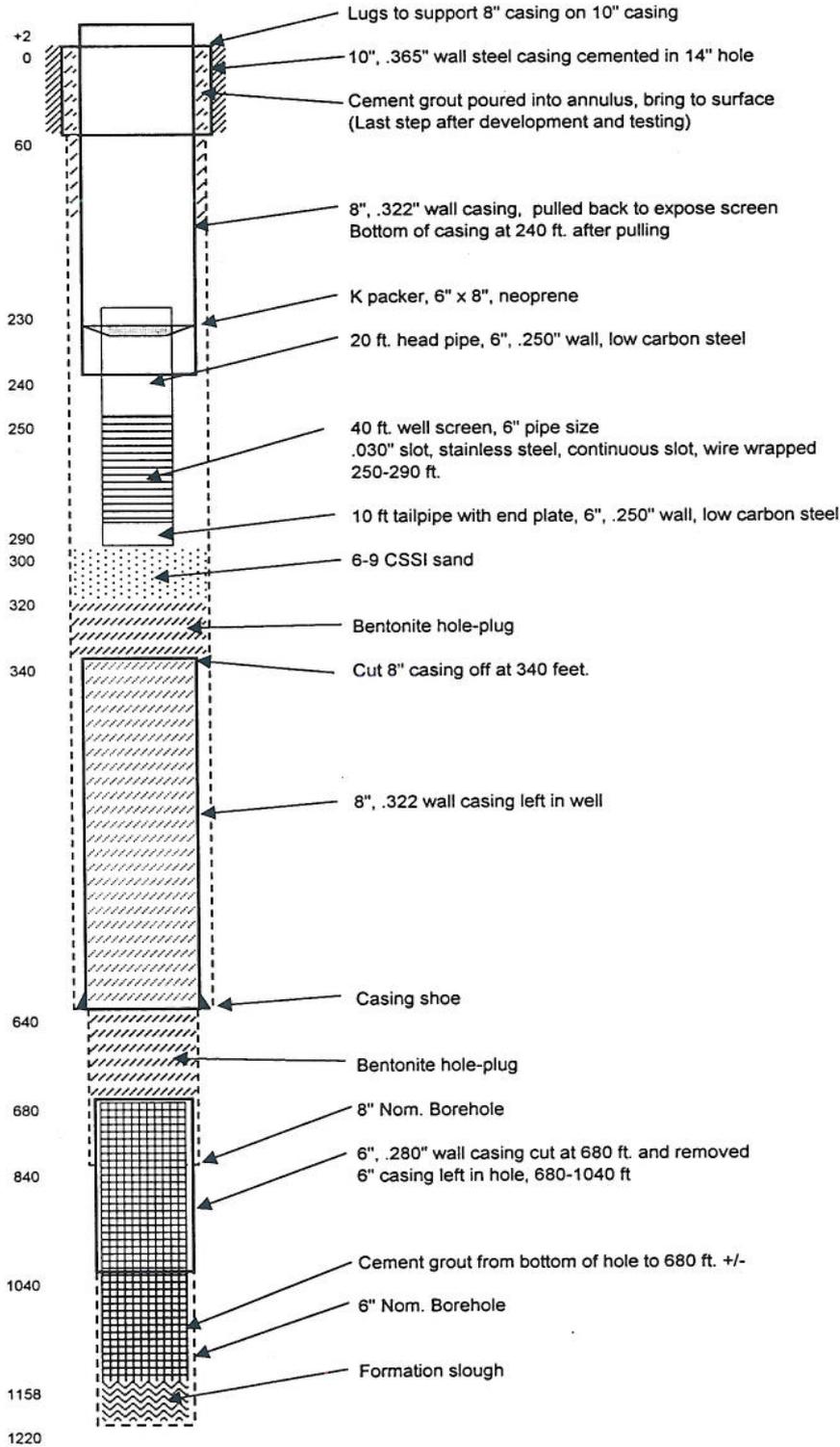
Location: Ada County, Idaho
T5N, R2E, NW 1/4, SE 1/4, Sect 7
GL Elevation: ~ 3290 ft. msl.

Depth Drilled: 1220 ft
Depth Logged: NA
Static WL: +2.0 ft. bgl

Drilled Dates: Jan. 31 - Mar. 5, 2003
Drilling Method: Air rotary D-1035 ft.
Borehole size: 14", 0-60 ft.
8", 60-840 ft.
6", 840-1220 ft.

Drilled by: Heddleston and Son, Inc.
Logged by: C. Feast/Feast Geosciences, LLC
Fluid level when logged: None
Casing when logged: NA

Well SVR-4
As Built Well Construction
 Spring Valley Ranch
 Constructed Jan.31 - Mar.5, 2003



AQUIFER TEST DATA

Well No.: Spring Valley Ranch, Test Well SVR 4 **Test 2, Q=80 gpm, t = 24 hours**

Test conducted by: Scanlan Engineering; Hiddleston Drilling and Pump Co.								
Flow measured by: AOMAC dopler in-line flow meter								
Water levels measured by: Well sounder								Water level measure point: Top of 1" poly tube
MP Elevation: 2.6 ft agl				Static WL (ft bmp): 1.12				
Pump on: 03/14/03 8:57		Pump off: 03/15/03 9:00						
Date	Time	t (mins)	t/t'	Water Level Data				Comments
				Ref (ft.)	Measure (in.)	WL (ft bmp)	Drawdown (feet)	
03/15/03	3:00	1083		198.0	1.5	198.1	197.0	Q = 80 gpm Q = 80 gpm Q = 80 gpm Q = 80 gpm
03/15/03	3:30	1113		198.0	10.0	198.8	197.7	
03/15/03	4:00	1143		198.0	11.0	198.9	197.8	
03/15/03	4:30	1173		199.0	3.0	199.3	198.1	
03/15/03	5:00	1203		199.0	3.5	199.3	198.2	
03/15/03	5:30	1233		199.0	7.0	199.6	198.5	
03/15/03	6:00	1263		199.0	10.0	199.8	198.7	
03/15/03	6:30	1293		200.0	4.0	200.3	199.2	
03/15/03	7:00	1323		200.0	7.0	200.6	199.5	
03/15/03	7:30	1353		200.0	11.5	201.0	199.8	
03/15/03	8:00	1383		201.0	0.5	201.0	199.9	
03/15/03	8:30	1413		201.0	4.0	201.3	200.2	
03/15/03	9:00	1443				201.8	200.7	
Begin Recovery, pump off at: 03/15/03 9:00								Q = 80 gpm Q = 80 gpm @08:40; Q = 5g/3.6s T = 19.0 C, SC 546, EC = 484 umhos/cm Q = 80 gpm
03/15/03	9:01	1444	1444.0	120.0	44.0	167.40	166.3	
03/15/03	9:02	1445	722.5	125.0	3.0	170.39	169.3	
03/15/03	9:03	1446	482.0	120.0	52.5	170.30	169.2	
03/15/03	9:04	1447	361.8	120.0	34.5	169.61	168.5	
03/15/03	9:05	1448	289.6	120.0	19.0	168.69	167.6	
03/15/03	9:06	1449	241.5	120.0	0.0	167.52	166.4	
03/15/03	9:07	1450	207.1	115.0	47.5	166.58	165.5	
03/15/03	9:08	1451	181.4	115.0	29.0	165.72	164.6	
03/15/03	9:09	1452	161.3	115.0	13.0	165.01	163.9	
03/15/03	9:10	1453	145.3	110.0	53.0	164.26	163.1	
03/15/03	9:12	1455	121.3	110.0	43.0	162.80	161.7	
03/15/03	9:14	1457	104.1	110.0	25.0	161.38	160.3	
03/15/03	9:16	1459	91.2	110.0	8.0	160.18	159.1	
03/15/03	9:18	1461	81.2	105.0	46.0	159.10	158.0	
03/15/03	9:20	1463	73.2	105.0	21.0	158.01	156.9	
03/15/03	9:22	1465	66.6	105.0	0.0	156.96	155.8	
03/15/03	9:25	1468	58.7	100.0	47.0	155.58	154.5	
03/15/03	9:28	1471	52.5	100.0	29.0	154.80	153.7	
03/15/03	9:30	1473	49.1	100.0	16.5	153.57	152.5	
03/15/03	9:35	1478	42.2	100.0	5.0	151.77	150.7	
03/15/03	9:40	1483	37.1	95.0	41.0	150.26	149.1	
03/15/03	9:45	1488	33.1	90.0	47.0	148.75	147.6	
03/15/03	9:50	1493	29.9	90.0	14.5	147.33	146.2	
03/15/03	9:55	1498	27.2	100.0	16.5	146.11	145.0	
03/15/03	10:00	1503	25.1	100.0	5.0	144.96	143.8	
03/15/03	10:05	1508	23.2	95.0	41.0	143.93	142.8	
03/15/03	10:10	1513	21.6	90.0	47.0	142.95	141.8	
03/15/03	10:15	1518	20.2	90.0	14.5	142.10	141.0	
03/15/03	10:20	1523	19.0	100.0	16.5	141.27	140.2	
03/15/03	10:25	1528	18.0	100.0	5.0	140.49	139.4	
03/15/03	10:30	1533	17.0	95.0	41.0	139.78	138.7	
03/15/03	10:40	1543	15.4	90.0	47.0	138.36	137.2	
03/15/03	10:50	1553	14.1	90.0	14.5	137.21	136.1	
03/15/03	11:00	1563	13.0	100.0	16.5	136.06	134.9	
03/15/03	11:10	1573	12.1	100.0	5.0	134.45	133.3	
03/15/03	11:20	1583	11.3	95.0	41.0	134.22	133.1	
03/15/03	11:30	1593	10.6	90.0	47.0	133.37	132.3	
03/15/03	11:40	1603	10.0	90.0	14.5	132.69	131.6	
03/15/03	12:00	1623	9.0	90.0	14.5	131.30	130.2	
03/20/03	17:07	9130	1.2	90.0	47.0	64.35	63.2	
03/23/03	14:30	13293	1.1	90.0	14.5	39.41	38.3	
Notes and Comments: Pump at ~210 ft. SWL ~ +2 ft gl.								

AQUIFER TEST DATA

Well No.: **Spring Valley Ranch, Test Well SVR 4** Test 1, Q=100 gpm, t = 3 hours

Test conducted by: **Feast Geosciences, LLC; Hiddleston Drilling and Pump Co.**
 Flow measured by: **AOMAC dopler in-line flow meter, and inline totalizing flow meter**
 Water levels measured by: **Well sounder** Water level measure point: **Top of 1" poly tube**
 MP Elevation: **31' agl** Static WL (ft bmp): **43.4**
 Pump on: **03/06/03 11:10** Pump off: **03/06/03 14:10**

Date	Time	t (mins)	t/t'	Water Level Data				Comments
				Ref (ft.)	Measure (in.)	WL (ft bmp)	Drawdown (feet)	
03/06/03	10:55	-		45.0	-15.0	43.8		Static water level, still recovering from development
03/06/03	11:10	0		40.0	41.0	43.4	0.0	Static water level, start test, Q = 99 gpm
03/06/03	11:11	1		70.0	42.0	73.5	30.1	
03/06/03	11:12	2		75.0	-6.0	74.5	31.1	
03/06/03	11:13	3		75.0	6.0	75.5	32.1	Q = 88 gpm
03/06/03	11:15	5		75.0	30.0	77.5	34.1	Adj. Q = 101 gpm
03/06/03	11:16	6		80.0	13.0	81.1	37.7	
03/06/03	11:17	7		80.0	44.0	83.7	40.3	
03/06/03	11:19	9		85.0	12.0	86.0	42.6	Q = 99 gpm
03/06/03	11:21	11		85.0	36.5	88.0	44.6	
03/06/03	11:24	14		90.0	3.0	90.3	46.9	Q = 97 gpm
03/06/03	11:26	16		90.0	21.0	91.8	48.4	Q = 97 gpm
03/06/03	11:28	18		90.0	36.0	93.0	49.6	Q = 96 gpm
03/06/03	11:32	22		95.0	4.5	95.4	52.0	Q = 95 gpm
03/06/03	11:35	25		95.0	27.0	97.3	53.9	Q = 96 gpm
03/06/03	11:40	30		100.0	-5.5	99.5	56.1	Q = 95 gpm; T = 66F, SC 615 umhos/cm, pH = 7.6
03/06/03	11:44	34		100.0	21.0	101.8	58.4	
03/06/03	11:50	40		105.0	-6.5	104.5	61.1	Q = 94 gpm
03/06/03	11:55	45		105.0	37.0	108.1	64.7	Adj. Q = 100 gpm
03/06/03	12:00	50		110.0	9.5	110.8	67.4	Q = 97 gpm
03/06/03	12:05	55		110.0	34.5	112.9	69.5	Q = 97 gpm
03/06/03	12:13	63		115.0	11.0	115.9	72.5	Q = 95 gpm
03/06/03	12:21	71		115.0	52.0	119.3	75.9	Q = 94, Adj. Q = 100 gpm
03/06/03	12:31	81		125.0	0.0	125.0	81.6	
03/06/03	12:41	91		125.0	39.0	128.3	84.9	T = 66F, SC 600 umhos/cm, pH = 7.5
03/06/03	12:51	101		130.0	19.0	131.6	88.2	Q = 95 gpm
03/06/03	13:06	116		135.0	17.5	136.5	93.1	Q = 94, Adj. Q = 100 gpm
03/06/03	13:16	126		140.0	31.0	142.6	99.2	Q = 99 gpm; T = 66F, SC 590 umhos/cm, pH = 7.4
03/06/03	13:26	136		145.0	12.0	146.0	102.6	Took WQ sample
03/06/03	13:36	146		145.0	46.0	148.8	105.4	Q = 96 gpm
03/06/03	13:46	156		150.0	22.0	151.8	108.4	Q = 95 gpm
03/06/03	14:00	170		155.0	4.0	155.3	111.9	Q = 94 gpm
03/06/03	14:10	180		155.0	34.5	157.9	114.5	Q = 93 gpm
Begin Recovery, pump off at:				03/06/03	14:10			
03/06/03	14:11	1	181.0	120.0	44.0	123.7	80.3	
03/06/03	14:12	2	91.0	125.0	3.0	125.3	81.9	
03/06/03	14:13	3	61.0	120.0	52.5	124.4	81.0	
03/06/03	14:14	4	46.0	120.0	34.5	122.9	79.5	
03/06/03	14:15	5	37.0	120.0	19.0	121.6	78.2	
03/06/03	14:17	7	26.7	120.0	0.0	120.0	76.6	
03/06/03	14:19	9	21.0	115.0	47.5	119.0	75.6	
03/06/03	14:21	11	17.4	115.0	29.0	117.4	74.0	
03/06/03	14:24	14	13.9	115.0	13.0	116.1	72.7	
03/06/03	14:27	17	11.6	110.0	53.0	114.4	71.0	
03/06/03	14:30	20	10.0	110.0	43.0	113.6	70.2	
03/06/03	14:35	25	8.2	110.0	25.0	112.1	68.7	
03/06/03	14:40	30	7.0	110.0	8.0	110.7	67.3	
03/06/03	14:50	40	5.5	105.0	46.0	108.8	65.4	
03/06/03	15:00	50	4.6	105.0	21.0	106.8	63.4	
03/06/03	15:10	60	4.0	105.0	0.0	105.0	61.6	
03/06/03	15:20	70	3.6	100.0	47.0	103.9	60.5	
03/06/03	15:30	80	3.3	100.0	29.0	102.4	59.0	
03/06/03	15:40	90	3.0	100.0	16.5	101.4	58.0	
03/06/03	15:50	100	2.8	100.0	5.0	100.4	57.0	
03/06/03	16:10	120	2.5	95.0	41.0	98.4	55.0	
03/06/03	17:10	180	2.0	90.0	47.0	93.9	50.5	
03/06/03	17:50	220	1.8	90.0	14.5	91.2	47.8	
03/08/03	12:00	1900	1.1	35	15.0	36.3	-7.2	

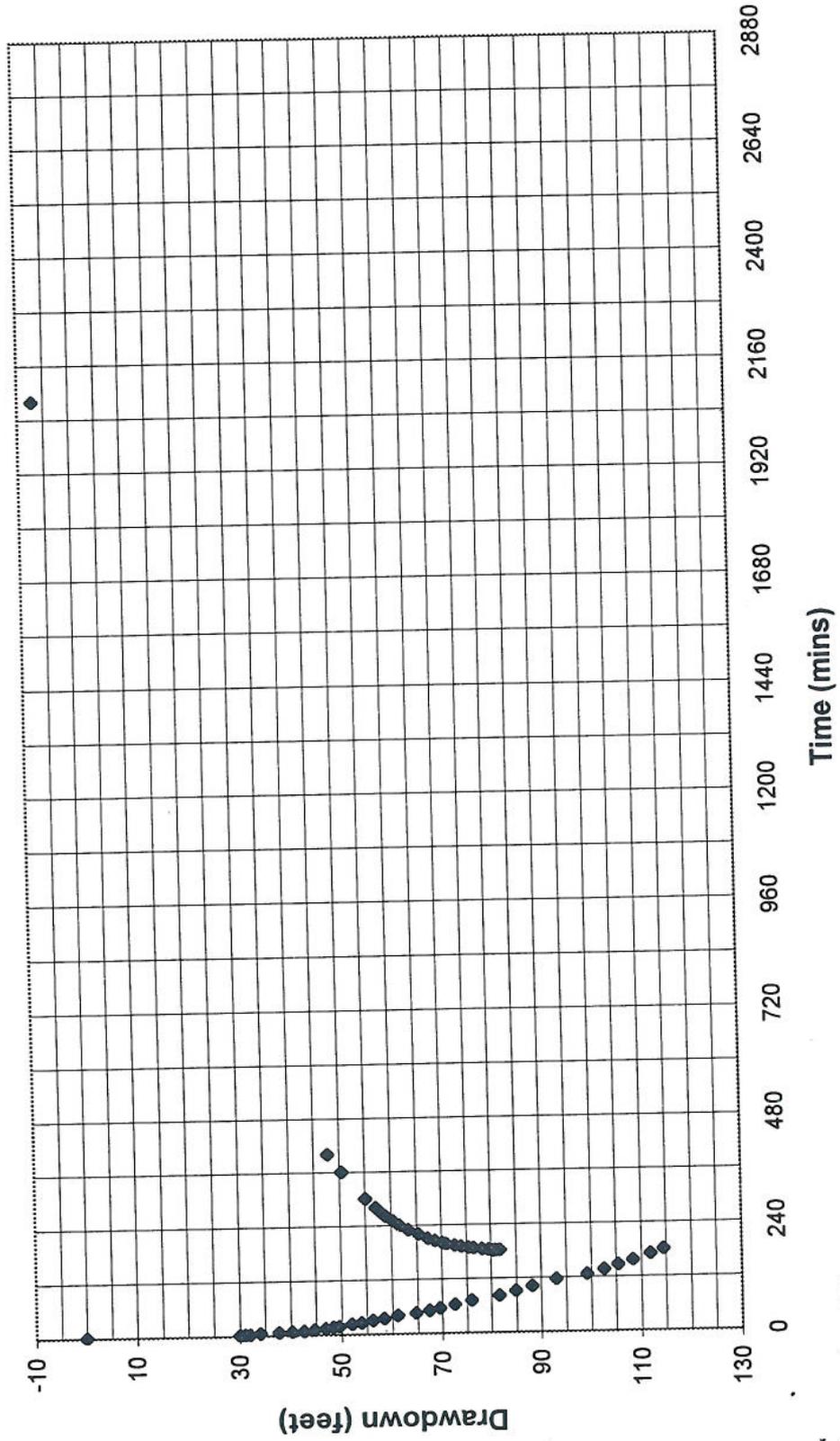
Notes and Comments:
 Pump at -210 ft.
 SWL still recovering from development, approx. true static = +2 ft gl.

Drawdown and Recovery

Spring Valley Ranch

Test Well SVR 4, Q = 100 gpm

Test date: 3/6/03

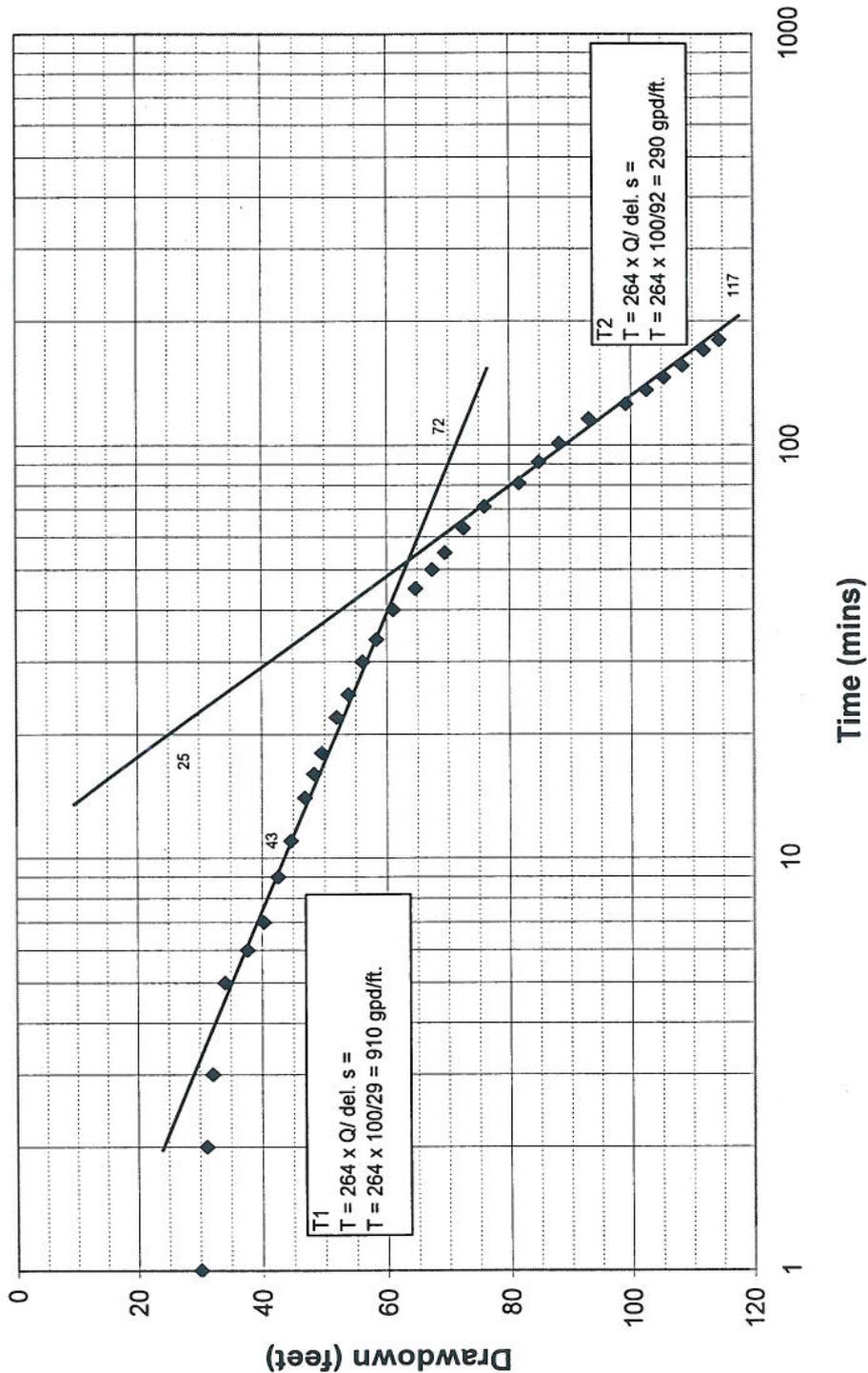


Time - Drawdown

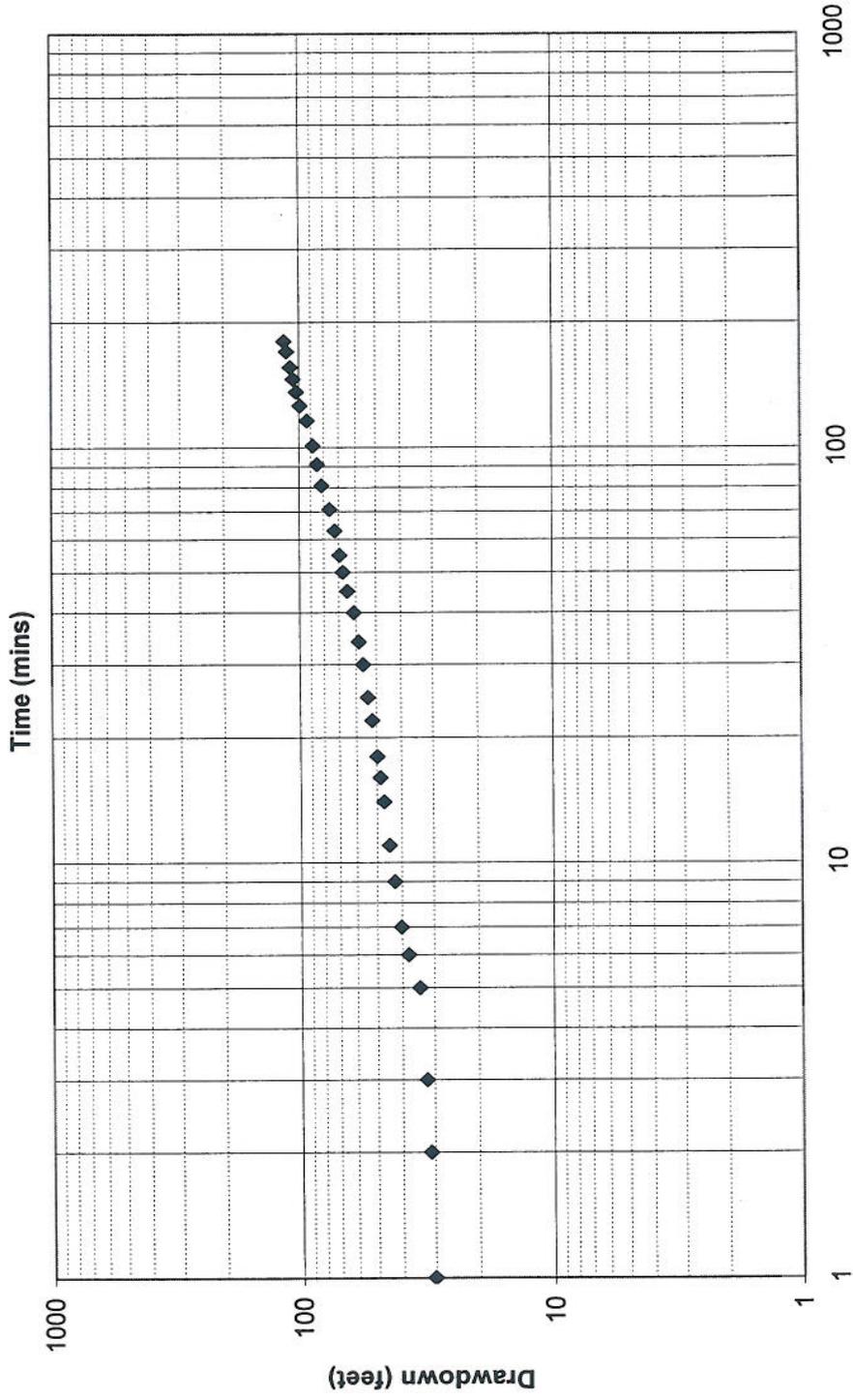
Spring Valley Ranch

Test Well SVR 4, Q = 100 gpm

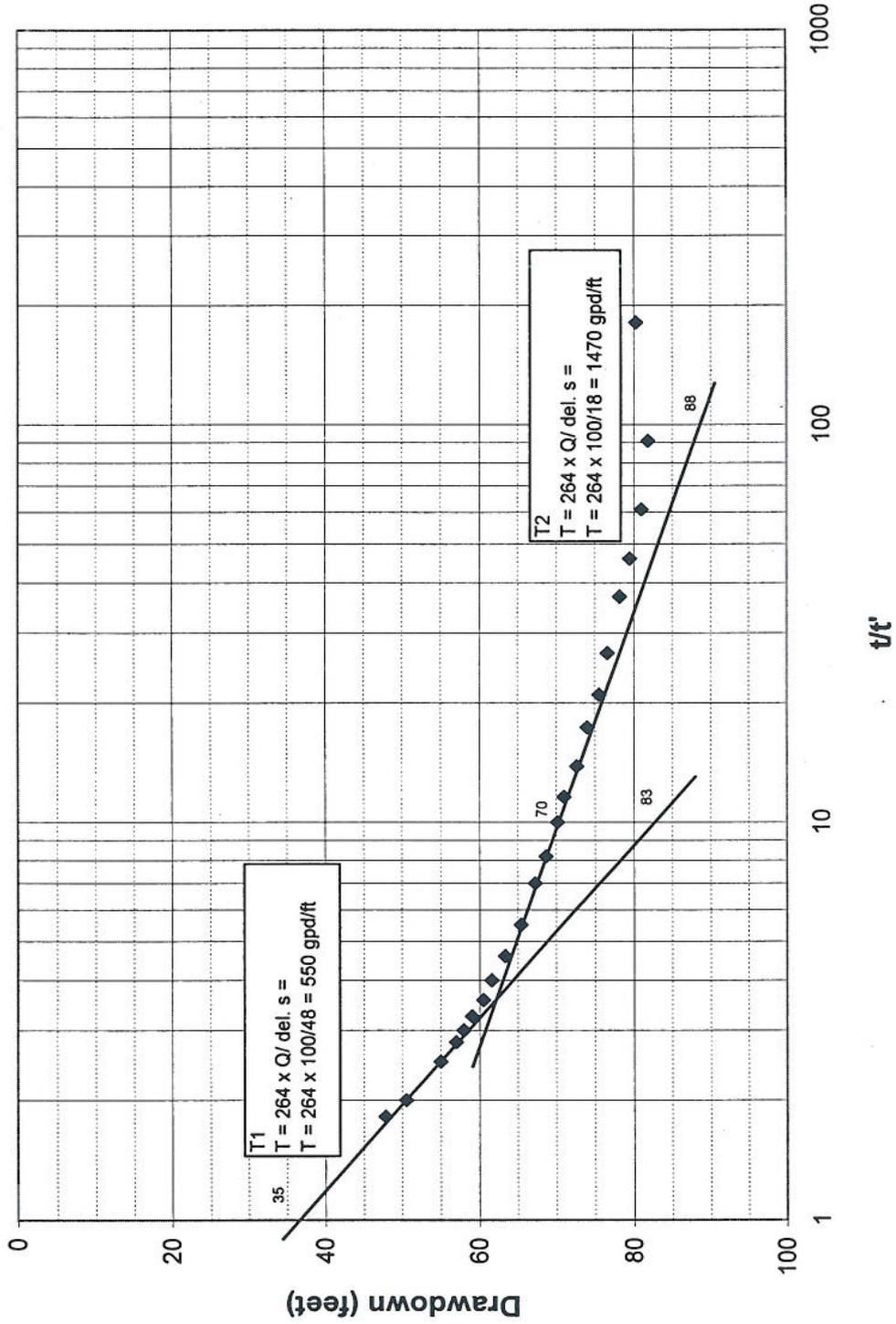
Test date: 3/6/03



Time - Drawdown
Spring Valley Ranch
Test Well SVR 4, Q = 100 gpm
Test date: 3/6/03



Time - Recovery
 Spring Valley Ranch
 Test Well SVR 4, Q = 100 gpm
 Test date: 3/6/03



AQUIFER TEST DATA

Well No.: Spring Valley Ranch, Test Well SVR 4 **Test 2, Q=80 gpm, t = 24 hours**

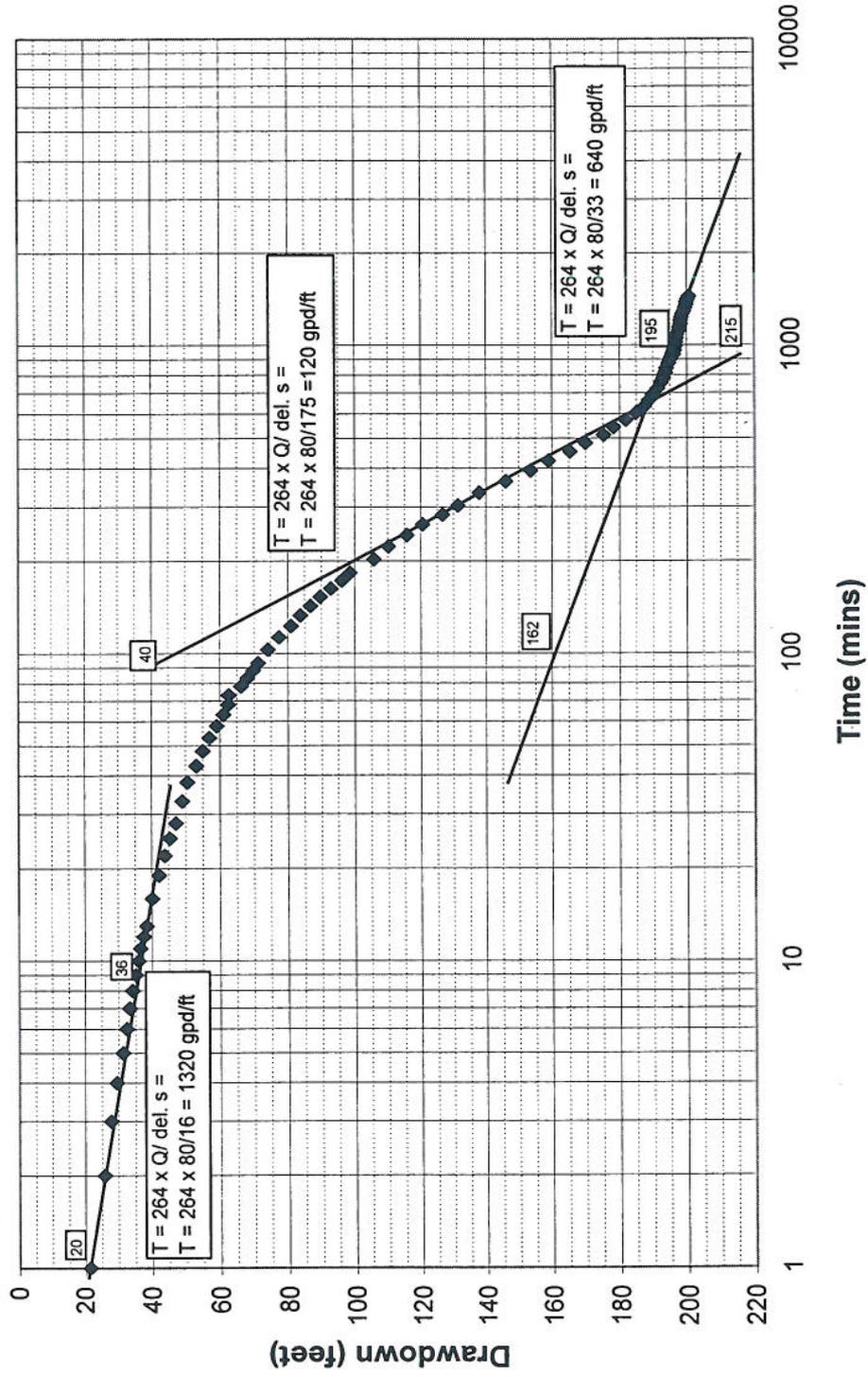
Test conducted by: Scanlan Engineering; Hiddleston Drilling and Pump Co.								
Flow measured by: AOMAC dopler in-line flow meter								
Water levels measured by: Well sounder Water level measure point: Top of 1" poly tube								
MP Elevation: 2.6 ft agl		Static WL (ft bmp): 1.12						
Pump on: 03/14/03 8:57		Pump off: 03/15/03 9:00						
Date	Time	t (mins)	t/t'	Water Level Data				Comments
				Ref (ft.)	Measure (in.)	WL (ft bmp)	Drawdown (feet)	
03/14/03	8:56	-				1.1		Static water level
03/14/03	8:58	1				22.6	21.5	Start test, Q = 86 gpm
03/14/03	8:59	2				27.0	25.9	Q = 81 gpm
03/14/03	9:00	3		28.0	11.0	28.9	27.8	Q = 80 gpm
03/14/03	9:01	4		30.0	8.0	30.7	29.5	Q = 79 gpm
03/14/03	9:02	5		32.0	6.0	32.5	31.4	Q = 81 gpm
03/14/03	9:03	6		33.0	7.0	33.6	32.5	Q = 81 gpm
03/14/03	9:04	7		34.0	6.0	34.5	33.4	Q = 80 gpm
03/14/03	9:05	8		35.0	4.0	35.3	34.2	Q = 80 gpm
03/14/03	9:06	9		36.0	3.5	36.3	35.2	
03/14/03	9:07	10		37.0	2.0	37.2	36.0	Q = 80 gpm
03/14/03	9:08	11		37.0	9.0	37.8	36.6	Q = 79 gpm
03/14/03	9:09	12		38.0	9.5	38.8	37.7	Q = 81 gpm
03/14/03	9:10	13		39.0	7.0	39.6	38.5	
03/14/03	9:13	16		41.0	3.0	41.3	40.1	Q = 80 gpm
03/14/03	9:16	19		43.0	3.5	43.3	42.2	Q = 81 gpm
03/14/03	9:19	22		45.0	0.5	45.0	43.9	Q = 81 gpm
03/14/03	9:22	25		46.0	6.5	46.5	45.4	Q = 80 gpm
03/14/03	9:25	28		48.0	3.0	48.3	47.1	Q = 80 gpm
03/14/03	9:30	33		50.0	2.0	50.2	49.0	@ 09:27; Q = 5g/3.5s T = 18.9 C, SC 562, EC = 497 umhos/cm
03/14/03	9:35	38		51.0	8.0	51.7	50.5	Q = 78 gpm
03/14/03	9:40	43		54.0	3.0	54.3	53.1	
03/14/03	9:45	48		56.0	2.0	56.2	55.0	
03/14/03	9:50	53		58.0	1.5	58.1	57.0	
03/14/03	9:55	58		60.0	3.0	60.3	59.1	
03/14/03	10:00	63		62.0	2.0	62.2	61.0	
03/14/03	10:05	68		63.0	7.0	63.6	62.5	Q = 80 gpm
03/14/03	10:10	73		63.0	9.0	63.8	62.6	Q = 80 gpm
03/14/03	10:15	78		67.0	4.0	67.3	66.2	Q = 80 gpm
03/14/03	10:20	83		69.0	2.0	69.2	68.0	Q = 80 gpm
03/14/03	10:25	88		70.0	11.0	70.9	69.8	Q = 80 gpm
03/14/03	10:30	93		72.0	4.0	72.3	71.2	Q = 80 gpm
03/14/03	10:40	103		75.0	3.0	75.3	74.1	Q = 80 gpm
03/14/03	10:50	113		78.0	6.0	78.5	77.4	Q = 80 gpm
03/14/03	11:00	123		82.0	1.0	82.1	81.0	Q = 80 gpm
03/14/03	11:10	133		84.0	11.0	84.9	83.8	Q = 80 gpm
03/14/03	11:20	143		87.0	10.0	87.8	86.7	Q = 80 gpm
03/14/03	11:30	153		90.0	9.0	90.8	89.6	Q = 80 gpm
03/14/03	11:40	163		93.0	11.0	93.9	92.8	Q = 80 gpm
03/14/03	11:50	173		97.0	4.0	97.3	96.2	Q = 80 gpm
03/14/03	12:00	183		99.0	9.0	99.8	98.6	Q = 80 gpm
03/14/03	12:20	203		106.0	11.0	106.9	105.8	Q = 80 gpm
03/14/03	12:40	223		111.0	4.0	111.3	110.2	Q = 80 gpm
03/14/03	13:00	243		116.0	10.5	116.9	115.8	Q = 80 gpm
03/14/03	13:20	263		121.0	8.0	121.7	120.5	Q = 80 gpm
03/14/03	13:40	283		127.0	9.0	127.8	126.6	Q = 80 gpm
03/14/03	14:00	303		132.0	6.0	132.5	131.4	Q = 80 gpm
03/14/03	14:30	333		139.0	0.0	139.0	137.9	Q = 80 gpm
03/14/03	15:00	363		147.0	2.0	147.2	146.0	Q = 80 gpm
03/14/03	15:30	393		154.0	8.0	154.7	153.5	Q = 80 gpm
03/14/03	16:00	423		160.0	1.0	160.1	159.0	Q = 80 gpm
03/14/03	16:30	453		166.0	6.0	166.5	165.4	Q = 80 gpm
03/14/03	17:00	483		171.0	1.0	171.1	170.0	Q = 80 gpm
03/14/03	17:30	513		176.0	4.5	176.4	175.3	Q = 80 gpm
03/14/03	18:00	543		179.0	4.0	179.3	178.2	Q = 80 gpm
03/14/03	18:30	573		183.0	0.5	183.0	181.9	Q = 80 gpm
03/14/03	19:00	603		186.0	0.0	186.0	184.9	Q = 80 gpm
03/14/03	19:30	633		188.0	6.0	188.5	187.4	Q = 80 gpm
03/14/03	20:00	663		189.0	10.0	189.8	188.7	Q = 80 gpm
03/14/03	20:30	693		190.0	11.0	190.9	189.8	Q = 80 gpm
03/14/03	21:00	723		192.0	5.0	192.4	191.3	Q = 80 gpm
03/14/03	21:30	753		193.0	6.0	193.5	192.4	Q = 80 gpm
03/14/03	22:00	783		194.0	2.5	194.2	193.1	Q = 80 gpm
03/14/03	22:30	813		194.0	9.0	194.8	193.6	Q = 80 gpm
03/14/03	23:00	843		195.0	1.0	195.1	194.0	Q = 80 gpm
03/14/03	23:30	873		195.0	9.0	195.8	194.6	Q = 80 gpm
03/15/03	0:00	903		196.0	5.0	196.4	195.3	Q = 80 gpm
03/15/03	0:30	933		197.0	2.5	197.2	196.1	Q = 80 gpm
03/15/03	1:00	963		197.0	6.0	197.5	196.4	Q = 80 gpm
03/15/03	1:30	993		197.0	8.5	197.7	196.6	Q = 80 gpm
03/15/03	2:00	1023		197.0	10.0	197.8	196.7	Q = 80 gpm
03/15/03	2:30	1053		198.0	1.0	198.1	197.0	Q = 80 gpm

Time - Drawdown

Spring Valley Ranch

Test Well SVR 4, Q = 80 gpm

Test date: 3/14-15/03

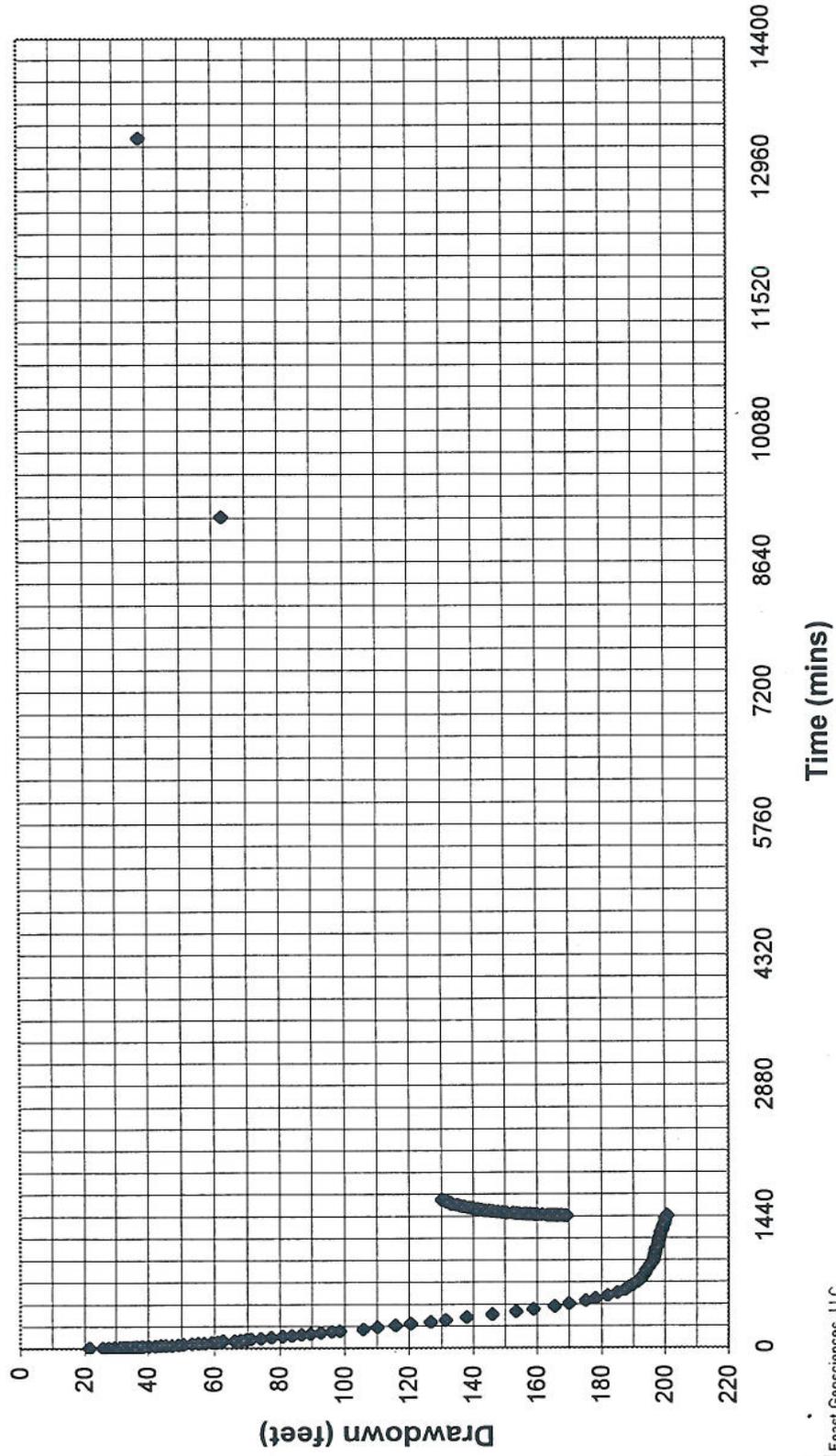


Drawdown and Recovery

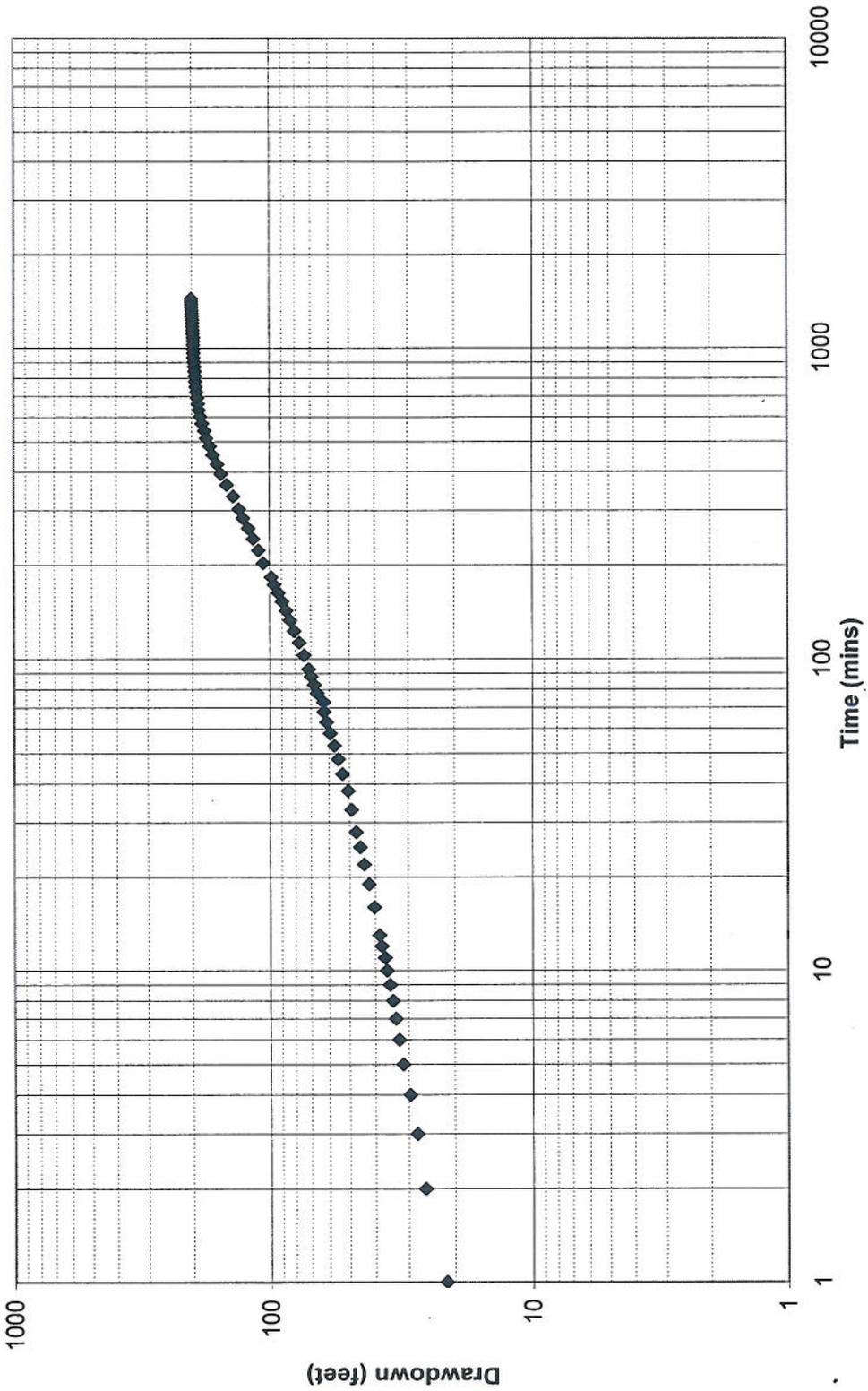
Spring Valley Ranch

Test Well SVR 4, Q = 80 gpm

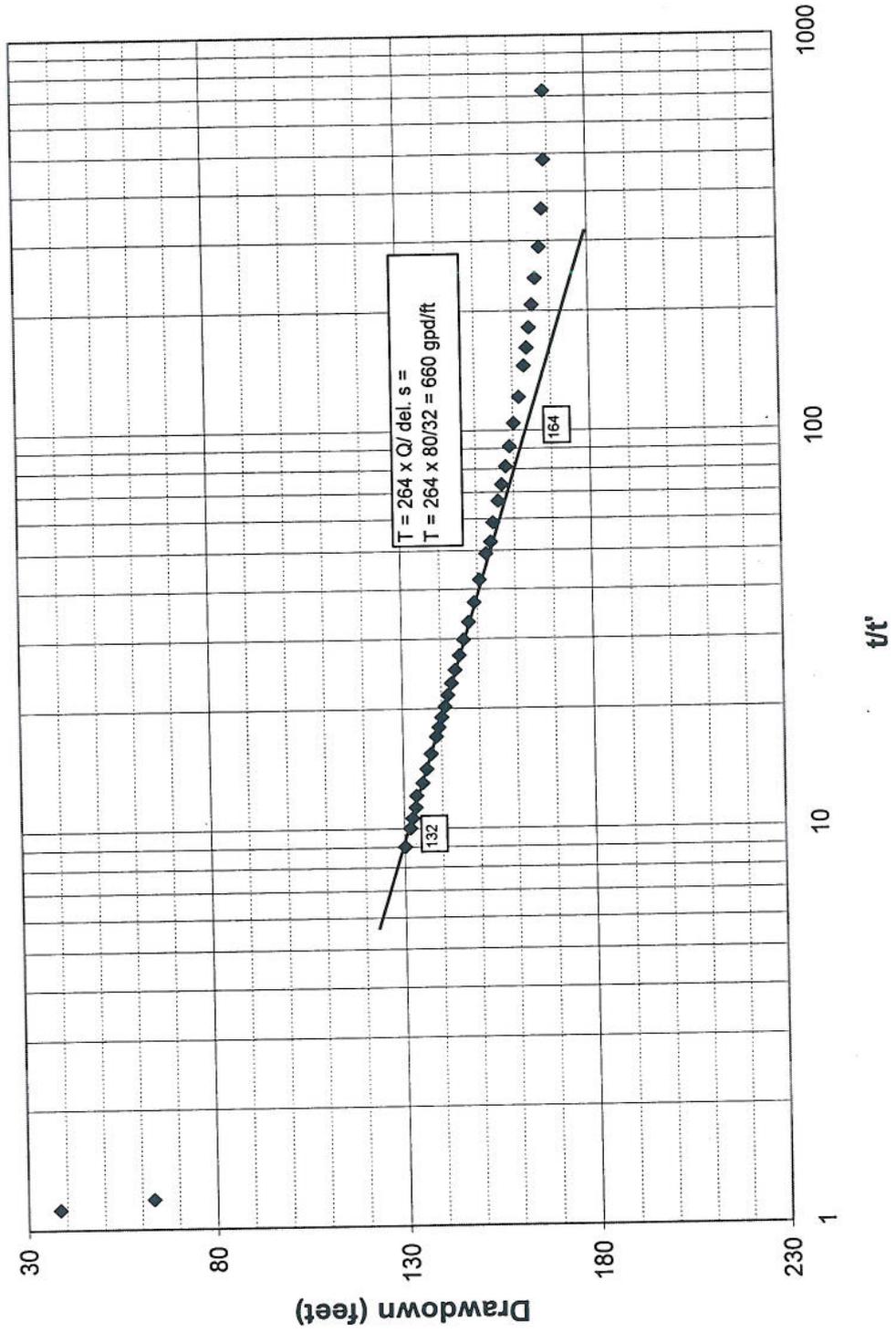
Test date: 3/14-15/03



Time - Drawdown
Spring Valley Ranch
Test Well SVR 4, Q = 80 gpm
Test date: 3/14-15/03



Time - Recovery
 Spring Valley Ranch
 Test Well SVR 4, Q = 80 gpm
 Test date: 3/14-15/03





Analytical Laboratories, Inc.

1804 N. 33rd Street
Boise, Idaho 83703
Phone (208) 342-5515

Attn: TERRY SCANLAN
SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Collected By: CHUCK FEAST
Submitted By: CHUCK FEAST

Source of Sample:

SVR 4 GROUNDWATER PROJECT:SPRING VALLEY RANCH

Time of Collection: 13:00
Date of Collection: 03/06/2003
Date Received: 03/07/2003
Report Date: 03/31/2003

Laboratory Analysis Report

Sample Number: 0309661

Test Requested	MCL	Analysis Result	Units	MDL	Method	Date Completed	Analyst
Arsenic Furnace		< 0.003	mg/L	0.003	SM 3113 B	03/24/2003	DMB
Beryllium Furnace		<0.0005	mg/L	0.0005	SM 3113 B	03/19/2003	DMB
Antimony Furnace		<0.005	mg/L	0.005	SM 3113 B	03/18/2003	DMB
Sodium, Na		68.7	mg/L	0.1	EPA 200.7	03/10/2003	JH
Chromium Furnace		< 0.002	mg/L	0.002	SM 3113 B	03/27/2003	DMB
Mercury, Hg	0.002	<0.0002	mg/L	0.0002	EPA 245.1	03/13/2003	KLZ
Nickel, Ni		< 0.02	mg/L	0.02	EPA 200.7	03/28/2003	JH
Thallium Furnace		< 0.002	mg/L	0.002	SM 3113 B	03/28/2003	DMB
Calcium, Ca		45.6	mg/L	0.1	EPA 200.7	03/10/2003	JH
Magnesium, Mg		2.58	mg/L	0.1	EPA 200.7	03/10/2003	JH
Iron, Fe		0.73	mg/L	0.05	EPA 200.7	03/21/2003	JH
Manganese, Mn		0.26	mg/L	0.05	EPA 200.7	03/21/2003	JH

Laboratory Analysis Report

Sample Number: 0309661

Test Requested	MCL	Analysis Result	Units	MDL	Method	Date Completed	Analyst
Barium, Ba		< 0.05	mg/L	0.05	EPA 200.7	03/08/2003	JH
Potassium, K		6.5	mg/L	0.5	EPA 200.7	03/10/2003	JH
Nitrate (as N)	10.0	<0.20	mg/L	0.2	EPA 300.1	03/07/2003	GMM
Nitrite (as N)	1.00	<0.01	mg/L	0.01	SM4500 NO2-	03/07/2003	CSC
Ammonia Direct (as N)		0.46	mg/L	0.04	EPA 350.1	03/11/2003	GMM
Fluoride, F	4.0	0.17	mg/L	0.1	EPA 300.1	03/11/2003	GMM
Bicarbonate		155	mg/L		SM 2320	03/16/2003	KDH
Hardness		19.0	mg/L	5	SM 2340	03/14/2003	KDH
Chloride, Cl		3	mg/L	1	EPA 300.1	03/14/2003	GMM
Sulfate, SO4		117	mg/L	1	EPA 300.1	03/15/2003	GMM
Total Dissolved Solids		404	mg/L	25	160.1	03/11/2003	JR
Sulfide, Dissolved (as H2S)		<0.05	mg/L	0.05	SM 4500-S2 D	03/10/2003	JR



Thank you for choosing Analytical Laboratories for your testing needs.

If you have any questions concerning this report,
please contact: **Michael Moore**

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

INORGANIC CHEMICAL ANALYSIS REPORT For Public Water Systems
PRIMARY IOC CONTAMINANTS (Mandatory, except for transient water systems)

FRDS	Contaminant MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana- lyst	Analysis Date	FRDS	Contaminant MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana- lyst	Analysis Date
1074	Antimony 0.006	ND	0.005	EPA 200.9	DMB	03/18/03	1036	Nickel N/A	ND	0.02	EPA 200.7	JH	03/04/03
1005	Arsenic 0.05	0.004	0.003	EPA 200.9	DMB	03/12/03	1045	Selenium 0.05	---				
1010	Barium 2	ND	0.05	EPA 200.7	JH	03/04/03	1052	Sodium N/A	83.5	0.10	EPA 200.7	JH	03/05/03
1075	Beryllium 0.004	ND	0.0005	EPA 200.9	DMB	03/04/03	1085	Thallium 0.002	ND	0.002	EPA 200.9	DMB	03/05/03
1015	Cadmium 0.005	---					1024	Cyanide 0.2	---				
1020	Chromium 0.1	ND	0.002	EPA 200.9	DMB	03/06/03	1025	Fluoride 4.0	0.97	0.10	EPA 300.0	GMM	02/27/03
1035	Mercury 0.002	ND	0.0002	EPA 245.1	KLZ	02/28/03							

SECONDARY AND OTHER IOC CONTAMINANTS (OPTIONAL)

1017	Chloride	5	1	EPA 300.0	GMM	03/04/03	1003	Ammonia (as N)	0.04	0.04	EPA 350.1	GMM	03/04/03
1905	Color	---					1016	Calcium (as CaCO ₃)	1.58	0.10	EPA 200.7	JH	03/05/03
1027	Hydrogen Sulfide	---					1915	Hardness (as CaCO ₃)	5.0	5.0	SM 2340	KDH	03/07/03
1028	Iron	0.24	0.05	EPA 200.7	JH	03/04/03	1031	Magnesium	ND	0.10	EPA 200.7	JH	03/05/03
1032	Manganese	ND	0.05	EPA 200.7	JH	03/04/03	1925	pH	---				
1920	Odor	---					1042	Potassium	0.7	0.5	EPA 200.7	JH	03/05/03
2905	Surfactants	---					1049	Silica (as SiO ₂)	---				
1930	Dissolved Solids	214	25	EPA 160.1	CS	03/01/03	1030	Lead	---				
1095	Zinc	---					1022	Copper	---				
1050	Silver	---					1926	Conductive μ S/cm	---				
1002	Aluminum	---					1997	Langlier Index	---				
1927	Alkalinity (asCaCO ₃)	---											

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument
 ---- = No analysis performed for this contaminant
 Numerical entry = Detection at level indicated
 Nitric Acid Preservative Yes No

COMMENTS:

Michael Moran 3/25/2003
 Signature of Lab Supervisor Date

PWS #	
Lab Sample Tracking #	8082
Date Collected	02/25/03
Sample Type	Water
Date Received	02/26/03
Time Collected	14:50
Location Tag #	
Sample Collection Location	SVR 4 (DEEP) GROUND WATER
Date Reported by Lab	03/20/03
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

PUBLIC DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT
ACUTE IOC CONTAMINANTS For Public Drinking Water Systems

FRDS	Contaminant	Result (mg/L)	MCL (mg/L)	MDL	Method	Analysis Date	Analyst	MONITORING REQUIREMENTS
1040	Nitrate	ND	10.0	0.20	EPA 300.0	02/27/03	GMM	Ground water systems with nitrate levels below 5 mg/L must monitor nitrate annually. Surface water systems and systems with nitrate levels of 5 or more mg/L must monitor quarterly, unless otherwise advised in writing.
1041	Nitrite	0.01	1.0	0.01	SM 4500NO2-B	02/26/03	CSC	Once per nine years unless advised otherwise.
1040	Total (NO ₃ + NO ₂)	---						
1055	Sulfate	32		1.0	EPA 300.0	03/04/03	GMM	Sulfate is in the process of becoming a regulated contaminant. Monitoring is not yet required.

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

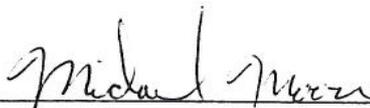
--- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

COMMENTS:

PWS #	
Lab Sample Tracking #	8082
Date Collected	02/25/03
Sample Type	Water
Date Received	02/26/03
Time Collected	14:50
Location Tag #	
Sample Collection Location	SVR 4 (DEEP) GROUND WATER
Date Reported by Lab	03/20/03
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020


 Signature of Lab Supervisor

3/25/2003
 Date

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

well #4

Drilling Permit No. 875297-790901

Drilling Permit Tag No. DO029075

Water Right Permit No. _____

Injection Permit NO. _____

RECEIVED

JAN 16 2003

WATER RESOURCES
WESTERN REGION

State of Idaho Department of Water Resources
APPLICATION FOR DRILLING PERMIT
(FOR THE CONSTRUCTION OF A WELL)

1. Owner (please print): SunCor Development Company, Attention: Jerry Ellsworth

2. Mailing Address: 80 East Rio Salado Parkway, Suite 410

City: Tempe State: AZ Zip Code: 85281 Telephone 480-317-6800

3. Proposed Well Location: Twp: 5N Rge: 2E Sec: 7 1/4 NW 1/4 SE 1/4

Gov't Lot No. _____ County Ada Lat. _____ : _____ : _____ Long. _____ : _____ : _____

Street Address of Well Site Highway 55 City: 7 mi NE of Eagle

Lot, block and subdivision Spring Valley Ranch
Give at least the name of Road and Distance to Road or Landmark

4. Proposed Use of Well:

Domestic: The use of water for homes, organization camps, public campgrounds, livestock (1,000 head or less) and for any other purpose in connection therewith, including irrigation of up to 1/2 acre of land, if the total use is not in excess of 13,000 gpd; or any other uses, if the total use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

Domestic does not include water for multiple ownership subdivisions, mobile home parks, commercial or business establishments, unless the use does not exceed a diversion rate of 0.04 cfs and a diversion volume of 2500 gpd.

NON-DOMESTIC: Irrigation Municipal Industrial
 Stock Test Other _____
(Over 1,000 Head) (Describe)

INJECTION

MONITORING: A well bore schematic and map is required for each blanket permit.
Number of proposed wells: _____

5. Well Construction Information:

A. New well Modify Replace

B. Proposed Casing Diameter 10" surface Proposed Maximum Depth 1200 feet
8" casing, 6" liner (if necessary)

C. Anticipated bottom hole temperature:
 85°F or less 85°F to 212° 212° F or more
(Cold water well) (Low temp. geo. well) (Geothermal well)

6. Construction Start Date: 1/21/03

7. Anticipated Well Driller: Hiddleston Drilling and Pump Company Driller's Lic. No. 35
NOTE: The actual well driller must be identified prior to drilling.

8. Applicant's Signature: Jerry M. Aarlar Date: 1/16/03

Address (if different than owner): 600 East River Park Lane, Suite 105

City: Boise State: ID Zip Code: 83706 Telephone: 208-383-4140

Title: Consulting Engineer for SunCor Development Company
(Owner, Firm Representative, Other)

ACTION OF THE DEPARTMENT OF WATER RESOURCE

This Permit is Approved

Date 1-23-03

If approved, this permit authorizes the construction or modification of a well subject to the following conditions. **READ CAREFULLY!**

GENERAL CONDITIONS:

1. This drilling permit is valid for two (2) months from the above approval date for the start of construction and is valid for one (1) year from the approval date for completion of the well unless an extension has been granted.
2. This permit does not constitute an approval of the District Health Department or the Idaho Department of Health and Welfare which may be required before construction of this well. All wells must be drilled a minimum distance of 100 feet from a drain field. Domestic and Public Water Supply wells must be drilled a minimum of 50 feet and 100 feet respectively from a septic tank.
3. The well shall be constructed by a driller currently licensed in the State of Idaho who must maintain a copy of the drilling permit at the drilling site.
4. Approval of this drilling permit does not authorize trespass on the land of another party.
5. This permit does not constitute other local, county, state or federal approvals which may be required for construction of a well.
6. This drilling permit does not represent a right to divert and use the water of the State of Idaho.
7. If a bottom hole temperature of 85° or greater is encountered, well construction shall cease and the well driller and the well owner shall contact the Department immediately.
8. Idaho Code, S 55-2201 – 55-2210 requires the applicant and/or his contractors to contact "Digline" (Digline is a one-call center for utility notification) not less than 2 working day prior to the start of any excavation for this project. The "Digline" number for your area is 1-800-342-1585.

SPECIFIC CONDITIONS:

- 9) This well shall not be used as a production well without specific approval from IDWR
- 10) Any casing installed shall be properly sealed to prevent mixing of different aquifers.

RB [Signature] For
Signature of Authorized Department Representative

MANAGER
WESTERN REGIONAL OFFICE
Title

Receipt No. W029979 Received by [Signature] Fee 200⁰⁰ Date 1/16/03

EXTENSION OF DRILLING PERMIT

Extension approved by _____ Approval Date _____

This extension expires: _____

Appendix E
Hillside Spring Data

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 48594

Attn. TERRY SCANLAN

SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Time of Collection: 16:45
Date of Collection: 12/18/02

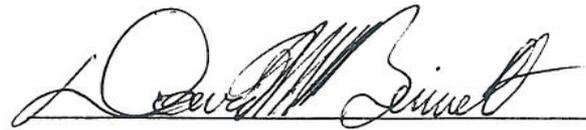
Date Received: 12/19/02
Date Reported: 01/10/03

Collected by: CHUCK FEAST

Submitted by: CHUCK FEAST

Source of Sample: SVR SPRING #1 PROJECT: SPRING VALLEY RANCH
GROUNDWATER
UNFILTERED

Test Requested	FRDS #	MCL	Analysis Result Unit	MDL	Method	Date Completed	Analyst Initials
ANTIMONY FURNACE			<0.005 mg/L	0.005	EPA 200.9	01/06/03	DMB
ARSENIC FURNACE			0.021 mg/L	0.003	EPA 200.9	01/08/03	DMB
BARIUM			<0.05 mg/L	0.05	EPA 200.7	12/30/03	JH
BERYLLIUM FURNACE			<0.0005 mg/L	0.0005	EPA 200.9	01/10/03	DMB
CALCIUM			22.2 mg/L	0.10	EPA 200.7	12/26/02	JH
CHROMIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	12/28/02	DMB
IRON			<0.05 mg/L	0.05	EPA 200.7	12/27/02	JH
MAGNESIUM			3.53 mg/L	0.10	EPA 200.7	12/26/02	JH
MANGANESE			<0.05 mg/L	0.05	EPA 200.7	12/27/02	JH
MERCURY			<0.0002 mg/L	0.0002	EPA 245.1	01/06/03	DMB
NICKEL			<0.02 mg/L	0.02	EPA 200.7	12/27/02	JH
POTASSIUM			4.4 mg/L	0.10	EPA 200.7	12/26/02	JH
SODIUM			9.52 mg/L	0.10	EPA 200.7	12/26/02	JH
THALLIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	12/29/02	DMB
AMMONIA DIRECT			<0.04 mg/L	0.04	EPA 350.1	12/24/02	KDH
NITRATE N			1.59 mg/L	0.20	EPA 300.0	12/30/02	GMM
NITRITE N			<0.01 mg/L	0.01	SM 4500NO2-B	12/19/02	CSC
SULFIDE			<0.05 mg/L	0.05	SM 4500 D	12/20/02	CS
BICARBONATE			66.2 mg/L		SM 2320	12/30/02	GMM
CHLORIDE			3 mg/L	1	EPA 300.0	12/30/02	GMM
FLUORIDE DIRECT			0.33 mg/L	0.10	EPA 300.0	12/30/02	GMM
HARDNESS			67.7 mg/L	5.0	SM 2340	12/30/02	GMM
SULFATE			17 mg/L	1.0	EPA 300.0	12/30/02	GMM
TOTAL DISSOLVED SOLIDS			120 mg/L	25	EPA 160.1	12/24/02	JR



THANK YOU FOR CHOOSING ANALYTICAL LABORATORIES, INC. FOR YOUR TESTING NEEDS.

PLEASE CONTACT MICHAEL MOORE IF YOU HAVE ANY QUESTIONS REGARDING
THIS REPORT OR ANY FUTURE ANALYTICAL NEEDS.

Appendix F
Ranch Irrigation Well Data

AQUIFER TEST DATA
Spring Valley Ranch -12" Ranch Well

Test conducted by: Feast Geosciences, LLC

Flow measured by: 20 gallon bucket and watch

Water levels measured by: Well sounder Water level measure point: Top of wood blocking on pump column support. ~.5 ft bgl.

Elevation: Static WL (ft bmp): 18.0

Pump on: 12/05/02 14:25 Pump off: 12/05/02 16:55

Date	Time	t (mins)	t/t'	Water Level Data				Comments
				Ref (')	Measure (')	WL (ft bmp)	Drawdown (feet)	
12/05/02	14:15	-				18.0		Static water level
12/05/02	14:25	0				18.0	0.0	Start test
12/05/02	14:27	2				48.2	30.2	
12/05/02	14:28	3				53.8	35.8	
12/05/02	14:33	8				55.0	37.0	Cascading wtr.
12/05/02	14:35	10				70.0	52.0	
12/05/02	14:37	12				74.8	56.8	
12/05/02	14:41	16				80.0	62.0	Q = 20 gal/12 sec.
12/05/02	14:44	19				83.3	65.3	
12/05/02	14:45	20				85.8	67.8	
12/05/02	14:50	25				90.2	72.2	Q = 17 gal/11 sec.
12/05/02	14:55	30				93.1	75.1	
12/05/02	15:00	35				96.6	78.6	Q = 20 gal/12 sec.
12/05/02	15:05	40				98.9	80.9	T = 13.5°C, SC 450 umhos/cm, EC 350 umhos/cm
12/05/02	15:10	45				101.1	83.1	
12/05/02	15:15	50				103.9	85.9	Cascading wtr
12/05/02	15:20	55				105.9	87.9	
12/05/02	15:25	60				105.5	87.5	Q = 20 gal/13 sec.
12/05/02	15:35	70				110.7	92.7	
12/05/02	15:45	80				112.6	94.6	
12/05/02	16:05	100				116.8	98.8	
12/05/02	16:25	120				119.9	101.9	Q = 20 gal/12 sec.
12/05/02	16:45	140				122.0	104.0	T = 13.7°C, SC 450 umhos/cm, EC 350 umhos/cm
12/05/02	16:55	150				123.1	105.1	
Begin Recovery, pump off at:				12/05/02	16:55			
12/05/02	16:56	1	151.0			112.6	94.6	
12/05/02	16:57	2	76.0			93.4	75.4	
12/05/02	16:59	4	38.5			81.3	63.3	
12/05/02	17:00	5	31.0			76.2	58.2	
12/05/02	17:01	6	26.0			71.7	53.7	
12/05/02	17:02	7	22.4			67.2	49.2	
12/05/02	17:03	8	19.8			64.2	46.2	
12/05/02	17:04	9	17.7			61.8	43.8	
12/05/02	17:05	10	16.0			59.2	41.2	
12/05/02	17:07	12	13.5			55.1	37.1	
12/05/02	17:09	14	11.7			51.2	33.2	
12/05/02	17:11	16	10.4			49.1	31.1	
12/05/02	17:14	19	8.9			46.1	28.1	
12/05/02	17:17	22	7.8			44.0	26.0	
12/05/02	17:20	25	7.0			42.6	24.6	
12/05/02	17:23	28	6.4			41.0	23.0	
12/05/02	17:26	31	5.8			39.6	21.6	
12/05/02	17:30	35	5.3			38.7	20.7	
12/05/02	17:35	40	4.8			36.9	18.9	
12/05/02	17:40	45	4.3			35.7	17.7	
12/05/02	17:45	50	4.0			34.7	16.7	
12/05/02	17:55	60	3.5			32.9	14.9	
12/05/02	18:05	70	3.1			31.9	13.9	

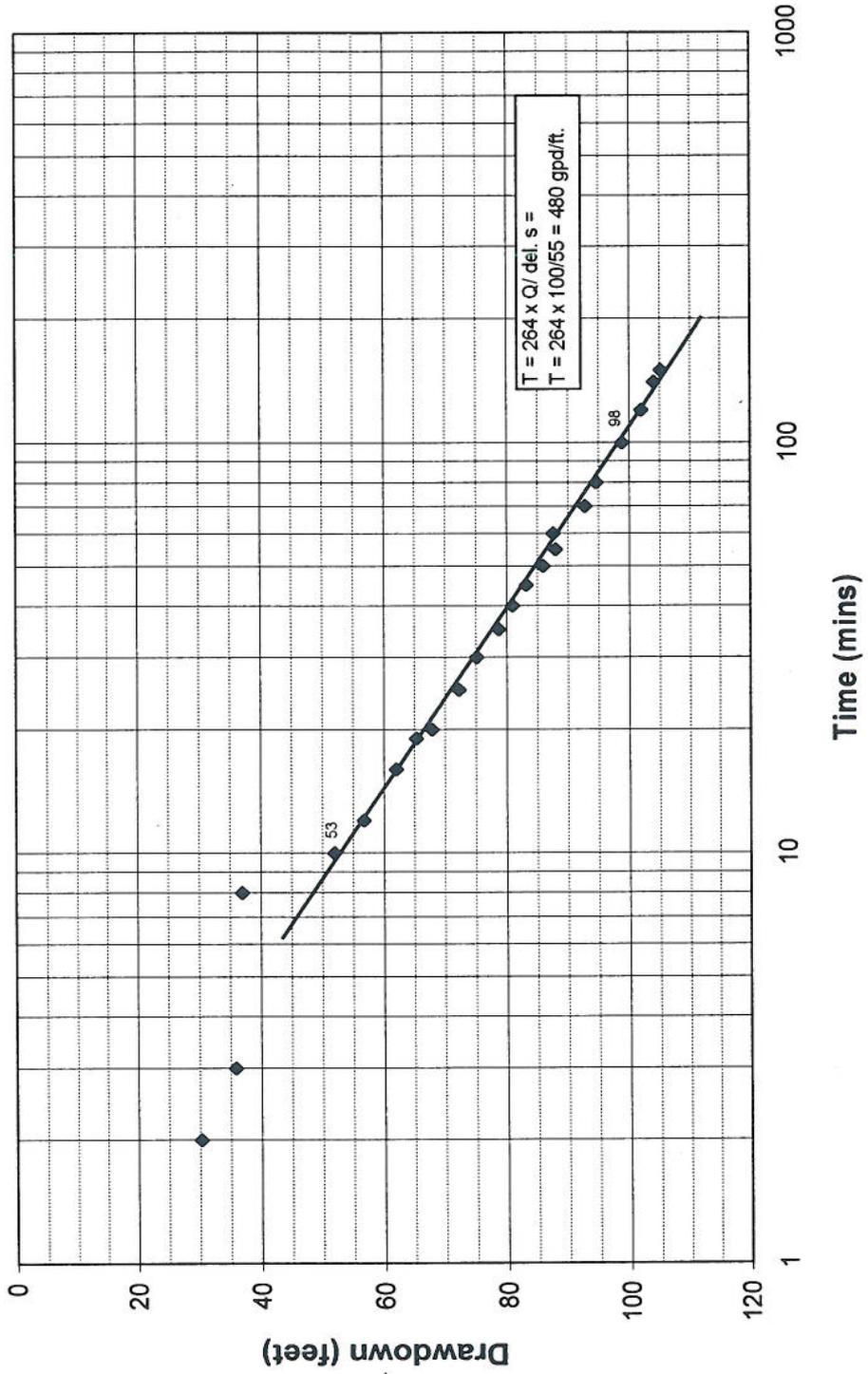
Notes and Comments:

Pump at ~190 ft.

Well being used periodically for drilling water, water level at start of test at 18' ft and still rising. SWL about 15' from previous meas.

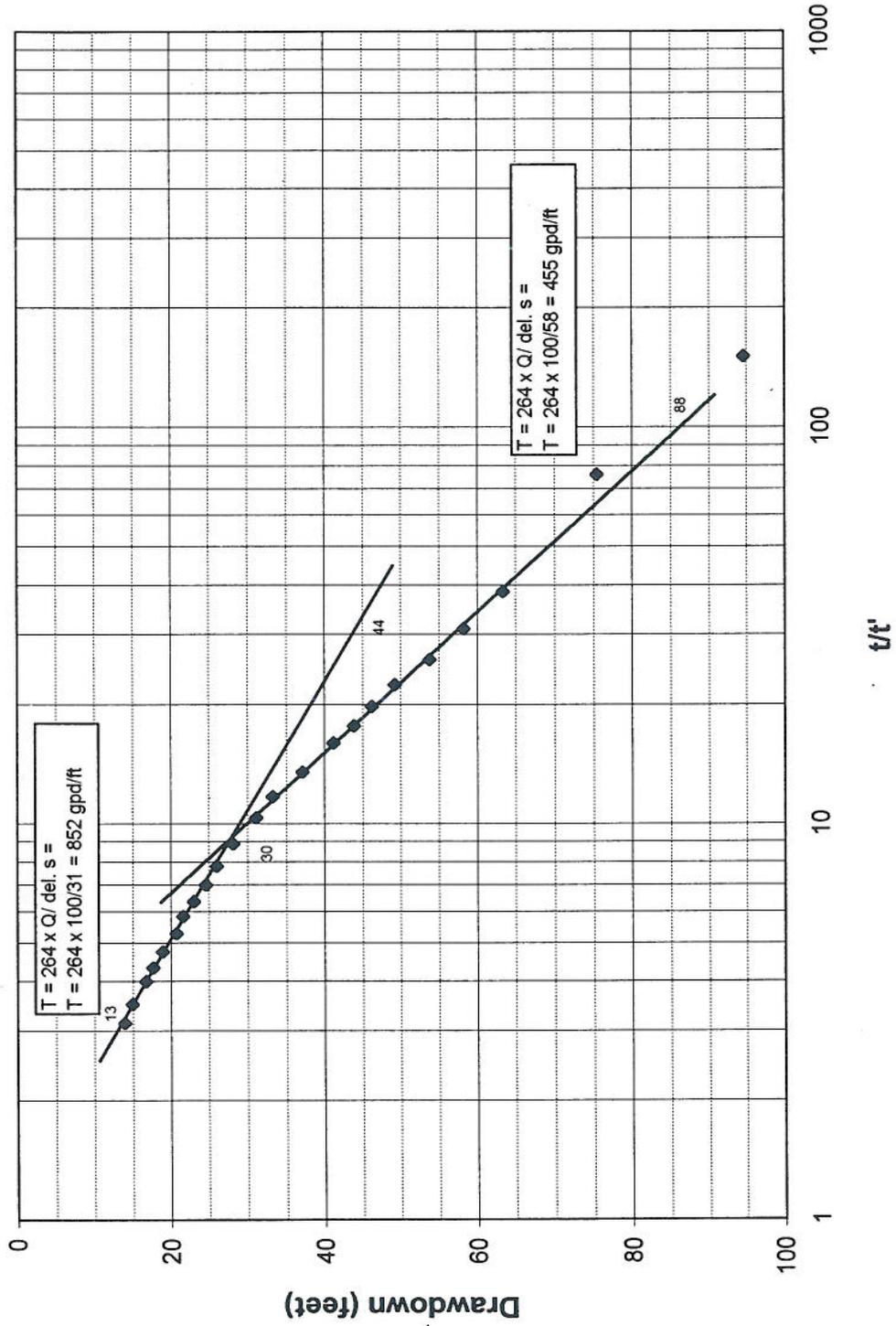
Time - Drawdown
Spring Valley Ranch
12" Supply Well, Q = 100 gpm

Test date: 12/5/02



Time - Recovery
Spring Valley Ranch
12" Supply Well, Q = 100 gpm

Test date: 12/5/02





Analytical Laboratories, Inc.

1804 N. 33rd Street
Boise, Idaho 83703
Phone (208) 342-5515

Attn: TERRY SCANLAN
SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Collected By: CHUCK FEAST
Submitted By: CHUCK FEAST

Source of Sample:

SVR IRRIGATION WELL PROJECT:SPRING VALLEY RANCH

Time of Collection: 16:35
Date of Collection: 03/06/2003
Date Received: 03/07/2003
Report Date: 03/31/2003

Laboratory Analysis Report

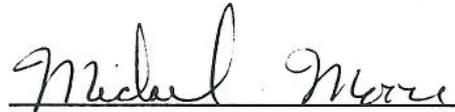
Sample Number: 0309662

Test Requested	MCL	Analysis Result	Units	MDL	Method	Date Completed	Analyst
Arsenic Furnace		0.006	mg/L	0.003	SM 3113 B	03/24/2003	DMB
Beryllium Furnace		<0.0005	mg/L	0.0005	SM 3113 B	03/19/2003	DMB
Barium, Ba		0.22	mg/L	0.05	EPA 200.7	03/08/2003	JH
Antimony Furnace		<0.005	mg/L	0.005	SM 3113 B	03/18/2003	DMB
Sodium, Na		27.5	mg/L	0.1	EPA 200.7	03/10/2003	JH
Chromium Furnace		< 0.002	mg/L	0.002	SM 3113 B	03/27/2003	DMB
Mercury, Hg	0.002	<0.0002	mg/L	0.0002	EPA 245.1	03/13/2003	KLZ
Thallium Furnace		< 0.002	mg/L	0.002	SM 3113 B	03/28/2003	DMB
Calcium, Ca		50.0	mg/L	0.1	EPA 200.7	03/10/2003	JH
Magnesium, Mg		11.6	mg/L	0.1	EPA 200.7	03/10/2003	JH
Potassium, K		10.4	mg/L	0.5	EPA 200.7	03/10/2003	JH
Iron, Fe		4.33	mg/L	0.05	EPA 200.7	03/21/2003	JH

Laboratory Analysis Report

Sample Number: 0309662

Test Requested	MCL	Analysis Result	Units	MDL	Method	Date Completed	Analyst
Manganese, Mn		2.29	mg/L	0.05	EPA 200.7	03/21/2003	JH
Nickel, Ni		< 0.02	mg/L	0.02	EPA 200.7	03/28/2003	JH
Nitrate (as N)	10.0	<0.20	mg/L	0.2	EPA 300.1	03/07/2003	GMM
Nitrite (as N)	1.00	0.02	mg/L	0.01	SM4500 NO2-	03/07/2003	CSC
Ammonia Direct (as N)		0.75	mg/L	0.04	EPA 350.1	03/11/2003	GMM
Fluoride, F	4.0	0.79	mg/L	0.1	EPA 300.1	03/11/2003	GMM
Bicarbonate		169	mg/L		SM 2320	03/16/2003	KDH
Hardness		125	mg/L	5	SM 2340	03/14/2003	KDH
Chloride, Cl		12	mg/L	1	EPA 300.1	03/14/2003	GMM
Sulfate, SO4		61	mg/L	1	EPA 300.1	03/14/2003	GMM
Total Dissolved Solids		378	mg/L	25	160.1	03/11/2003	JR
Sulfide, Dissolved (as H2S)		<0.05	mg/L	0.05	SM 4500-S2 D	03/10/2003	JR



Thank you for choosing Analytical Laboratories for your testing needs.
If you have any questions concerning this report,
please contact: **Michael Moore**

Appendix G
Big Gulch Stockwater Well Data

ANALYTICAL LABORATORIES, INC.

1804 N. 33rd Street
Boise, Idaho 83703
Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
SAMPLE NUMBER - 6548

Attn. TERRY SCANLAN

SCANLAN ENGINEERING
600 EAST RIVER PARK LANE
SUITE 105
BOISE, ID 83706

Time of Collection: 11:00
Date of Collection: 02/14/03

Date Received: 02/14/03
Date Reported: 02/26/03

Collected by: C FEAST

Submitted by: C FEAST

Source of Sample: PROJECT NAME: SPRING VALLEY RANCH BIG GULCH 1

Test Requested	FRDS #	MCL	Analysis Result Unit	MDL	Method	Date Completed	Analyst Initials
ANTIMONY FURNACE			<0.005 mg/L	0.005	EPA 200.9	02/24/03	DMB
ARSENIC FURNACE			0.005 mg/L	0.003	EPA 200.9	02/21/03	DMB
BARIUM			0.05 mg/L	0.05	EPA 200.7	02/18/03	JH
BERYLLIUM FURNACE			<0.0005 mg/L	0.0005	EPA 200.9	02/18/03	DMB
CALCIUM			30.8 mg/L	0.10	EPA 200.7	02/19/03	JH
CHROMIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	02/26/03	DMB
IRON			<0.05 mg/L	0.05	EPA 200.7	02/21/03	JH
MAGNESIUM			6.65 mg/L	0.10	EPA 200.7	02/19/03	JH
MANGANESE			<0.05 mg/L	0.05	EPA 200.7	02/21/03	JH
MERCURY			<0.0002 mg/L	0.0002	EPA 245.1	02/20/03	KLZ
NICKEL			<0.02 mg/L	0.02	EPA 200.7	02/19/03	JH
POTASSIUM			2.1 mg/L	0.5	EPA 200.7	02/19/03	JH
SODIUM			19.2 mg/L	0.10	EPA 200.7	02/19/03	JH
THALLIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	02/18/03	DMB
AMMONIA DIRECT			<0.04 mg/L	0.04	EPA 350.1	02/18/03	GMM
NITRATE N			0.30 mg/L	0.20	EPA 300.0	02/14/03	GMM
NITRITE N			<0.01 mg/L	0.01	SM 4500NO2-B	02/14/03	CSC
SULFIDE			<0.05 mg/L	0.05	SM 4500 D	02/17/03	JR
BICARBONATE			121 mg/L		SM 2320	02/20/03	GMM
CHLORIDE			5 mg/L	1	EPA 300.0	02/18/03	GMM
FLUORIDE DIRECT			0.60 mg/L	0.10	EPA 300.0	02/21/03	GMM
HARDNESS			107 mg/L	5.0	SM 2340	02/20/03	GMM
SULFATE			24 mg/L	1.0	EPA 300.0	02/18/03	GMM
TOTAL DISSOLVED SOLIDS			206 mg/L	25	EPA 160.1	02/18/03	RG



THANK YOU FOR CHOOSING ANALYTICAL LABORATORIES, INC. FOR YOUR TESTING NEEDS.

PLEASE CONTACT MICHAEL MOORE IF YOU HAVE ANY QUESTIONS REGARDING
THIS REPORT OR ANY FUTURE ANALYTICAL NEEDS.

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

INORGANIC CHEMICAL ANALYSIS REPORT For Public Water Systems
PRIMARY IOC CONTAMINANTS (Mandatory, except for transient water systems)

FRDS	Contaminant MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana- lyst	Analysis Date	FRDS	Contaminant MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Ana- lyst	Analysis Date
1074	Antimony 0.006	ND	0.005	EPA 200.9	DMB	02/24/03	1036	Nickel N/A	ND	0.02	EPA 200.7	JH	02/19/03
1005	Arsenic 0.05	0.005	0.003	EPA 200.9	DMB	02/21/03	1045	Selenium 0.05	---				
1010	Barium 2	0.05	0.05	EPA 200.7	JH	02/18/03	1052	Sodium N/A	19.2	0.10	EPA 200.7	JH	02/19/03
1075	Beryllium 0.004	ND	0.0005	EPA 200.9	DMB	02/18/03	1085	Thallium 0.002	ND	0.002	EPA 200.9	DMB	02/18/03
1015	Cadmium 0.005	---					1024	Cyanide 0.2	---				
1020	Chromium 0.1	ND	0.002	EPA 200.9	DMB	02/26/03	1025	Fluoride 4.0	0.60	0.10	EPA 300.0	GMM	02/21/03
1035	Mercury 0.002	ND	0.0002	EPA 245.1	KLZ	02/20/03							

SECONDARY AND OTHER IOC CONTAMINANTS (OPTIONAL)

1017	Chloride	5	1	EPA 300.0	GMM	02/18/03	1003	Ammonia (as N)	ND	0.04	EPA 350.1	GMM	02/18/03
1905	Color	---					1016	Calcium (as CaCO ₃)	30.8	0.10	EPA 200.7	JH	02/19/03
1027	Hydrogen Sulfide	---					1915	Hardness (as CaCO ₃)	107	5.0	SM 2340	GMM	02/20/03
1028	Iron	ND	0.05	EPA 200.7	JH	02/21/03	1031	Magnesium	6.65	0.10	EPA 200.7	JH	02/19/03
1032	Manganese	ND	0.05	EPA 200.7	JH	02/21/03	1925	pH	---				
1920	Odor	---					1042	Potassium	2.1	0.5	EPA 200.7	JH	02/19/03
2905	Surfactants	---					1049	Silica (as SiO ₂)	---				
1930	Dissolved Solids	206	25	EPA 160.1	RG	02/18/03	1030	Lead	---				
1095	Zinc	---					1022	Copper	---				
1050	Silver	---					1926	Conductive μ S/cm	---				
1002	Aluminum	---					1997	Langlier Index	---				
1927	Alkalinity (asCaCO ₃)	---											

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

--- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

Nitric Acid Preservative Yes No

COMMENTS:

Michael A. Moore 2/26/03
 Signature of Lab Supervisor Date

PWS #	
Lab Sample Tracking #	6548
Date Collected	02/14/03
Sample Type	Water
Date Received	02/14/03
Time Collected	11:00
Location Tag #	
Sample Collection Location	PROJECT NAME:SPRING VALLEY
Date Reported by Lab	02/26/03
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

Appendix H
Little Gulch Stockwater Well Data

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

LABORATORY ANALYSIS REPORT
 SAMPLE NUMBER - 6549

Attn. TERRY SCANLAN

SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706

Time of Collection: 12:00
 Date of Collection: 02/14/03

Date Received: 02/14/03
 Date Reported: 02/26/03

Collected by: C FEAST

Submitted by: C FEAST

Source of Sample: PROJECT NAME: SPRING VALLEY RANCH LITTLE GULCH 1

Test Requested	FRDS #	MCL	Analysis Result Unit	MDL	Method	Date Completed	Analyst Initials
ANTIMONY FURNACE			<0.005 mg/L	0.005	EPA 200.9	02/24/03	DMB
ARSENIC FURNACE			0.006 mg/L	0.003	EPA 200.9	02/21/03	DMB
BARIUM			<0.05 mg/L	0.05	EPA 200.7	02/18/03	JH
BERYLLIUM FURNACE			<0.0005 mg/L	0.0005	EPA 200.9	02/18/03	DMB
CALCIUM			23.9 mg/L	0.10	EPA 200.7	02/19/03	JH
CHROMIUM FURNACE			0.004 mg/L	0.002	EPA 200.9	02/26/03	DMB
IRON			<0.05 mg/L	0.05	EPA 200.7	02/21/03	JH
MAGNESIUM			6.55 mg/L	0.10	EPA 200.7	02/19/03	JH
MANGANESE			<0.05 mg/L	0.05	EPA 200.7	02/21/03	JH
MERCURY			<0.0002 mg/L	0.0002	EPA 245.1	02/20/03	KLZ
NICKEL			<0.02 mg/L	0.02	EPA 200.7	02/19/03	JH
POTASSIUM			1.7 mg/L	0.5	EPA 200.7	02/19/03	JH
SODIUM			21.2 mg/L	0.10	EPA 200.7	02/19/03	JH
THALLIUM FURNACE			<0.002 mg/L	0.002	EPA 200.9	02/18/03	DMB
AMMONIA DIRECT			<0.04 mg/L	0.04	EPA 350.1	02/18/03	GMM
NITRATE N			0.59 mg/L	0.20	EPA 300.0	02/14/03	GMM
NITRITE N			<0.01 mg/L	0.01	SM 4500N02-B	02/14/03	CSC
SULFIDE			<0.05 mg/L	0.05	SM 4500 D	02/17/03	JR
BICARBONATE			104 mg/L		SM 2320	02/20/03	GMM
CHLORIDE			6 mg/L	1	EPA 300.0	02/18/03	GMM
FLUORIDE DIRECT			0.59 mg/L	0.10	EPA 300.0	02/21/03	GMM
HARDNESS			89.7 mg/L	5.0	SM 2340	02/20/03	GMM
SULFATE			21 mg/L	1.0	EPA 300.0	02/18/03	GMM
TOTAL DISSOLVED SOLIDS			192 mg/L	25	EPA 160.1	02/18/03	RG

Michael N. Moore

THANK YOU FOR CHOOSING ANALYTICAL LABORATORIES, INC. FOR YOUR TESTING NEEDS.

PLEASE CONTACT MICHAEL MOORE IF YOU HAVE ANY QUESTIONS REGARDING
 THIS REPORT OR ANY FUTURE ANALYTICAL NEEDS.

ANALYTICAL LABORATORIES, INC.
 1804 N. 33rd Street
 Boise, Idaho 83703
 Phone # (208) 342-5515

INORGANIC CHEMICAL ANALYSIS REPORT For Public Water Systems
PRIMARY IOC CONTAMINANTS (Mandatory, except for transient water systems)

FRDS	Contaminant	MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Analyst	Analysis Date	FRDS	Contaminant	MCL(mg/L)	Result (mg/L)	MDL (mg/L)	Method	Analyst	Analysis Date
1074	Antimony	0.006	ND	0.005	EPA 200.9	DMB	02/24/03	1036	Nickel	N/A	ND	0.02	EPA 200.7	JH	02/19/03
1005	Arsenic	0.05	0.006	0.003	EPA 200.9	DMB	02/21/03	1045	Selenium	0.05	---				
1010	Barium	2	ND	0.05	EPA 200.7	JH	02/18/03	1052	Sodium	N/A	21.2	0.10	EPA 200.7	JH	02/19/03
1075	Beryllium	0.004	ND	0.0005	EPA 200.9	DMB	02/18/03	1085	Thallium	0.002	ND	0.002	EPA 200.9	DMB	02/18/03
1015	Cadmium	0.005	---					1024	Cyanide	0.2	---				
1020	Chromium	0.1	0.004	0.002	EPA 200.9	DMB	02/26/03	1025	Fluoride	4.0	0.59	0.10	EPA 300.0	GMM	02/21/03
1035	Mercury	0.002	ND	0.0002	EPA 245.1	KLZ	02/20/03								

SECONDARY AND OTHER IOC CONTAMINANTS (OPTIONAL)

1017	Chloride	6	1	EPA 300.0	GMM	02/18/03	1003	Ammonia (as N)	ND	0.04	EPA 350.1	GMM	02/18/03
1905	Color	---					1016	Calcium (as CaCO ₃)	23.9	0.10	EPA 200.7	JH	02/19/03
1027	Hydrogen Sulfide	---					1915	Hardness (as CaCO ₃)	89.7	5.0	SM 2340	GMM	02/20/03
1028	Iron	ND	0.05	EPA 200.7	JH	02/21/03	1031	Magnesium	6.55	0.10	EPA 200.7	JH	02/19/03
1032	Manganese	ND	0.05	EPA 200.7	JH	02/21/03	1925	pH	---				
1920	Odor	---					1042	Potassium	1.7	0.5	EPA 200.7	JH	02/19/03
2905	Surfactants	---					1049	Silica (as SiO ₂)	---				
1930	Dissolved Solids	192	25	EPA 160.1	RG	02/18/03	1030	Lead	---				
1095	Zinc	---					1022	Copper	---				
1050	Silver	---					1926	Conductive μ S/cm	---				
1002	Aluminum	---					1997	Langlier Index	---				
1927	Alkalinity (as CaCO ₃)	---											

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

--- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

Nitric Acid Preservative Yes No

COMMENTS:

Michael D. Merri 2/26/03
 Signature of Lab Supervisor Date

PWS #	
Lab Sample Tracking #	6549
Date Collected	02/14/03
Sample Type	Water
Date Received	02/14/03
Time Collected	12:00
Location Tag #	
Sample Collection Location	PROJECT NAME:SPRING VALLEY
Date Reported by Lab	02/26/03
Jurisdiction	
PWS Contact Phone (208)	208-383-4140

Lab ID: ID00020

Attn: TERRY SCANLAN
 SCANLAN ENGINEERING
 600 EAST RIVER PARK LANE
 SUITE 105
 BOISE, ID 83706