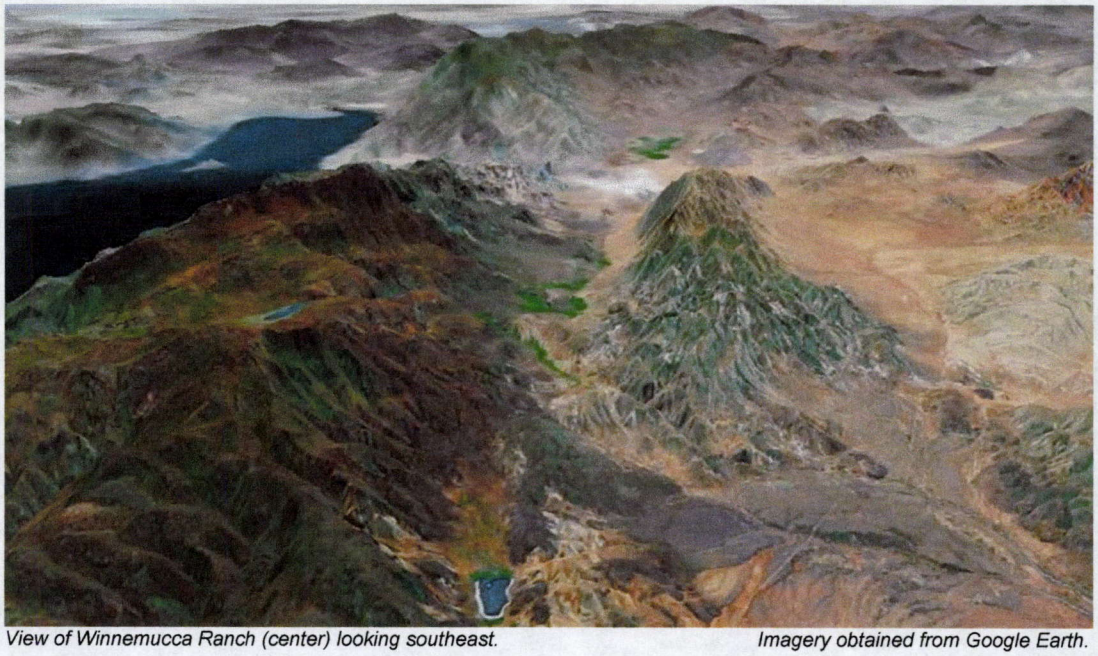
Pumping Test Report
Winnemucca Ranch Test Well
Winnemucca Ranch, Washoe County, Nevada



View of Winnemucca Ranch (center) looking southeast. *Imagery obtained from Google Earth.*

Prepared for:

Locnavar, LLC.

August 2007

Prepared by:

TEC CIVIL ENGINEERING CONSULTANTS

"Engineering Nevada's Interests"

9480 Double Diamond Pkwy. #200
Reno, NV 89521

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PUMPING TEST REPORT
WINNEMUCCA RANCH TEST WELL

1.0 EXECUTIVE SUMMARY AND RECOMMENDATIONS

Drilling and construction of the Winnemucca Ranch Test Well began in April and ended in May of 2007. The work was performed by McKay Drilling, Inc. upon receipt of a well permit issued by the Washoe County District Health Department (District Health). A copy of the Well Permit issued by District Health for this well is presented in **APPENDIX 1** of this report. A 16-inch diameter borehole was drilled to a depth of 470 feet below the ground surface (BGS). An 8-inch diameter, steel casing was installed within the borehole from a depth of 2 feet above the ground surface (AGS) to 470 feet BGS. The well casing contains factory milled 3/32" single and double perforations as well as 0.05" wired perforations at various intervals that are listed on the well log presented in **APPENDIX 2** of this report. The annular space between the well casing and the borehole is gravel packed from 100 feet to 470 feet BGS. Cement grout was pumped into the remaining annular space to form a sanitary seal from the ground surface to a depth of 100 feet BGS. The static depth to water encountered during drilling and construction operations was measured to be 15 feet BGS. Upon completion of the well drilling and construction activities, the well was developed for approximately 16 hours using the air lift method.

Step-drawdown and stress tests were completed on the well in June of 2007. Discharge from the well during the step-drawdown test ranged from 150 gpm to 570 gpm. Well efficiency within this range of discharge was calculated to range from 69% to 90% with 69% corresponding to the highest rate of discharge (570 gpm) and 90% corresponding to the lowest rate (150 gpm) of discharge.

The stress test commenced immediately after the conclusion of the step-drawdown test. Discharge during the stress test averaged 542 gpm according to totalizing flow meter readings. However, due to variations in calculated flow rates between the two meters, the average flow rate for the duration of the 72-hour test is approximately 580 gpm. Using data obtained from the pumping phase(s) of the test, the aquifer Transmissivity and Storativity (storage coefficient) were estimated to be 1,770 ft^2/day and 0.123 respectively. Using data obtained from the recovery phase of the test, aquifer Transmissivity and Storativity were estimated to be 1,340 ft^2/day and 0.00019 respectively.

At a pumping rate of 550 gpm, the predicted drawdown from the static water level would be approximately 57 feet with a resulting well efficiency of approximately 70%. The predictive analysis is based upon the well loss relation derived from the step-test data presented in **APPENDIX 5** of this report.

Since the aforementioned derivation has no temporal component, it is necessary to provide a projected value for drawdown based upon the test data. Drawdown in the well is projected to reach approximately 81.4 feet after continuous pumping for 30 days at 540 gpm +/- 7%. Water levels are projected to be fully recovered after approximately 12 days of rest. Projections are illustrated graphically in **APPENDIX 5** of this report.

TEC recommends a sustainable pumping rate of approximately 550 gpm with the pump intake set at a minimum depth of approximately 120 feet BGS.

With the consideration of the static water level being at approximately 17 feet deep from the top of the well casing (15 feet BGS), the minimum pump intake depth of 120 feet BGS will ensure proper operation of the pump with the recommended sustainable pumping rate.

Water samples were collected from the well by personnel from the Washoe County Department of Water Resources during the 72-hour stress test. The analytical results indicate that all the analyzed parameters meet the Nevada primary and secondary drinking water standards. It should be pointed out that not all parameters regulated by drinking water standards were analyzed. Therefore, it is recommended that future water quality analysis to include all the parameters regulated by the primary and secondary standards.

2.0 INTRODUCTION

TEC Civil Engineering has been retained by Locnavar, LLC, to perform a step-drawdown pumping test and a 72 hour stress test on a well located at Winnemucca Ranch in Dry Valley, Washoe County, Nevada.

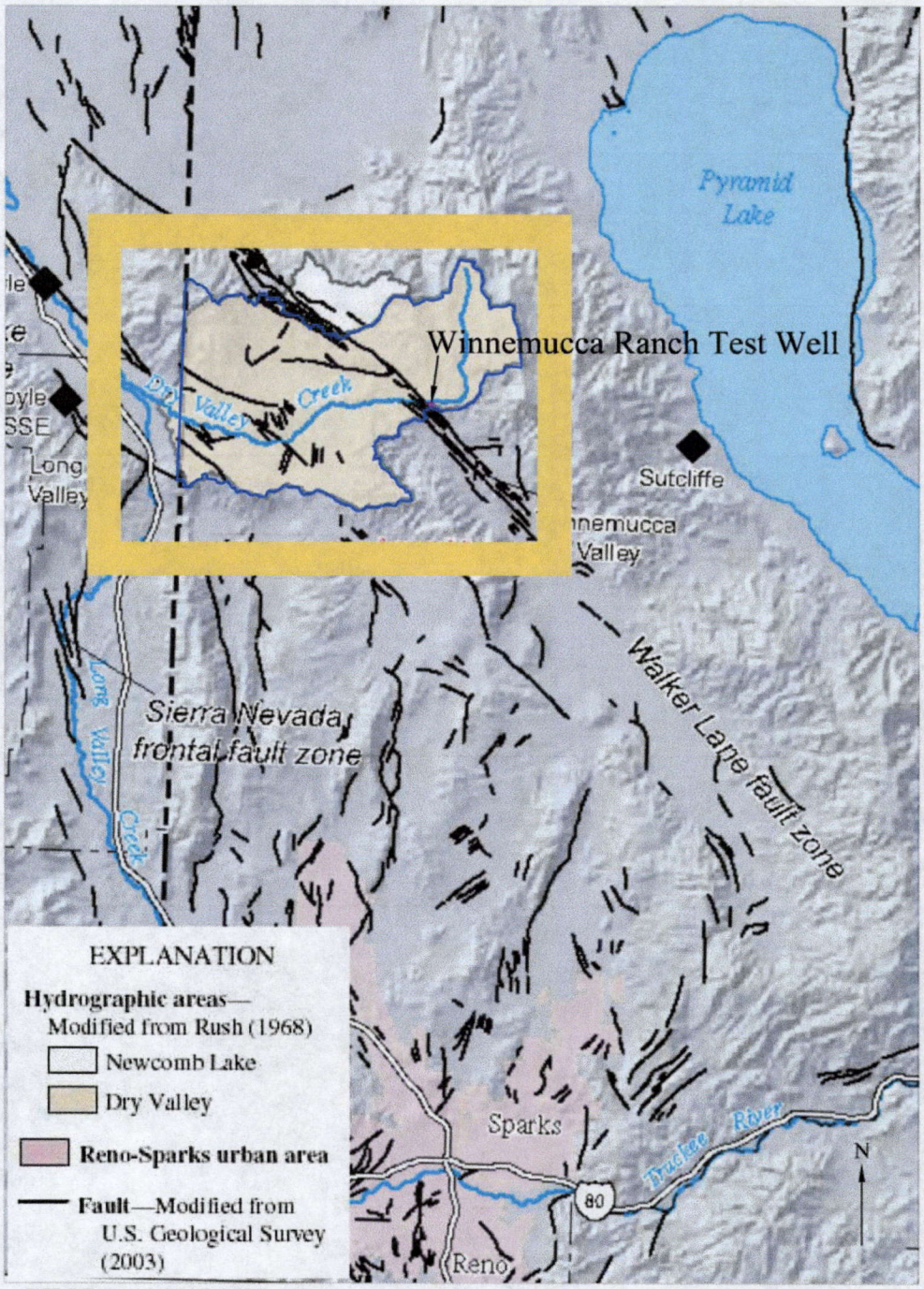
The purpose of performing the pumping test(s) was to assess the well capacity and performance characteristics and to estimate aquifer parameters. The step-drawdown test included four steps with each step lasting approximately 6 hours with 4 different pumping rates. In addition, water quality samples were collected by the Washoe County Department of Water Resources for an evaluation of the general water chemistry.

3.0 WELL LOCATION

The Winnemucca Ranch Test Well (hereinafter referred to as "the well") is located on the southeast side of Dry Valley Hydrographic Area (Basin 95), Washoe County, Nevada. Refer to the Regional Location Map presented as **FIGURE 1** on the following page.

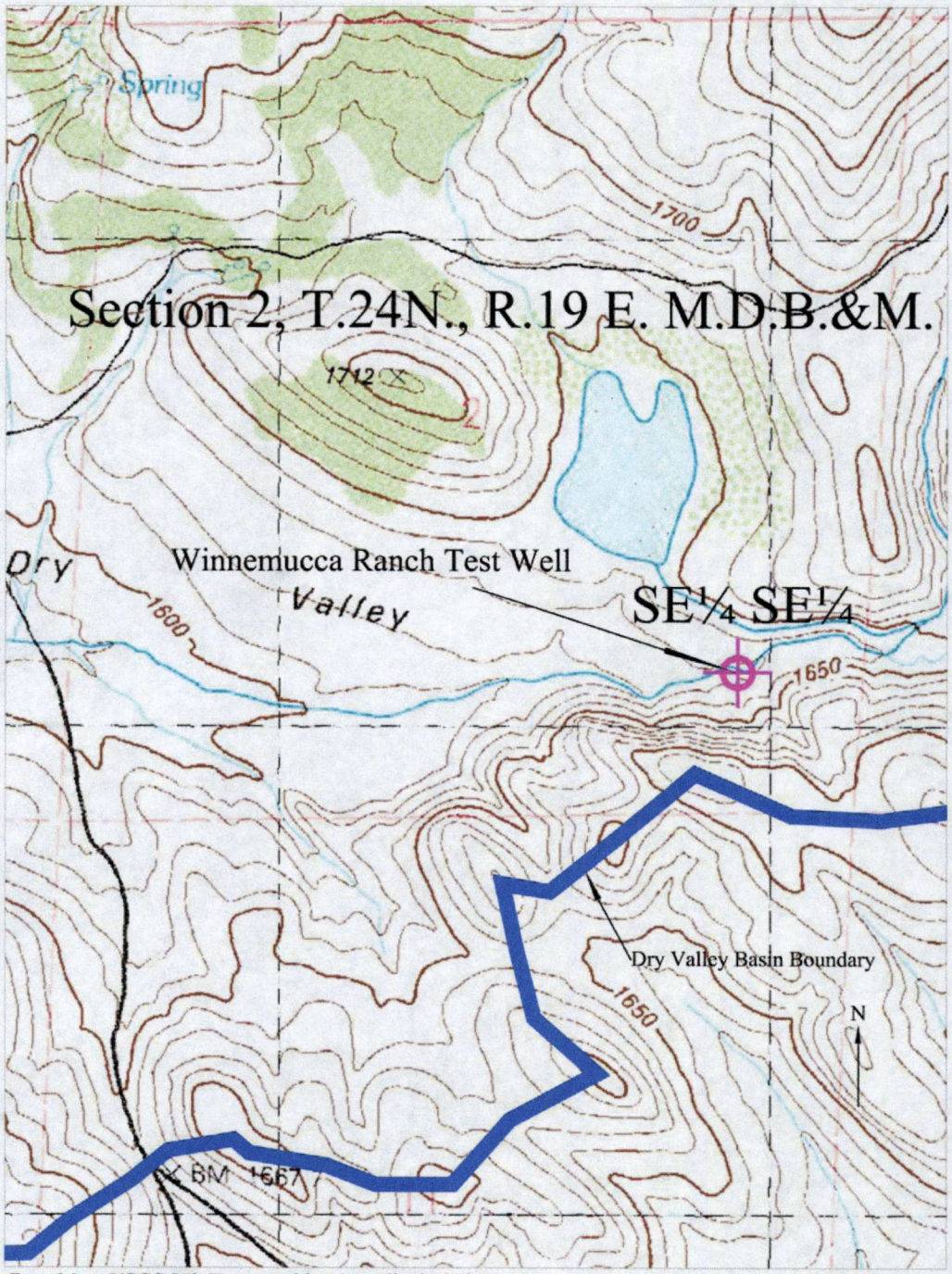
More specifically, the well is located within the SE¼ SE¼, Section 2, Township 24 North, Range 19 East from the Mount Diablo Baseline and Meridian. The elevation at the well site is approximately 5,380 feet. Refer to the Site Map presented as **FIGURE 2** on the following pages of this report.

FIGURE 1
Regional Location Map
Winnemucca Ranch Test Well



UTM Zone 11, NAD 1927
Modified from USGS Scientific Investigations Report 2004-5155, p.4.

FIGURE 2
Site Map
Winnemucca Ranch Test Well

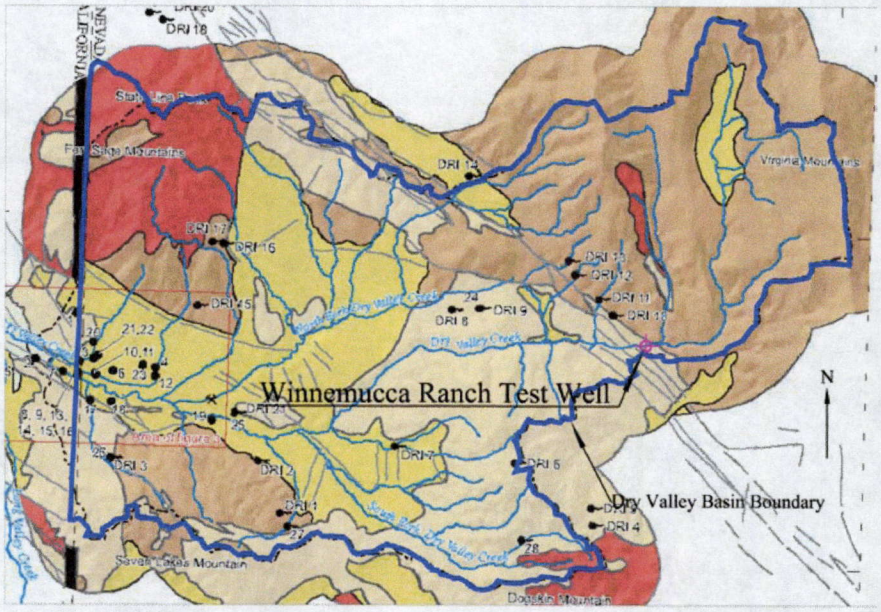


Base Map: USGS 25k Topographic Map edited 1979
UTM Zone 11, NAD 1927

4.0 BOREHOLE DRILLING AND WELL CONSTRUCTION

The site in which the borehole was drilled is within the Walker Lane fault zone. Dry Valley Creek runs almost perpendicular to the fault zone and is approximately 50 feet north of the well site. Refer to the General Geologic Map presented as **FIGURE 3** below. General geological features in the vicinity of the well indicate that the area is composed of formations from the Tertiary period and include Rylolitic tuffs of Tuffaceous deposits, and Volcanic rocks (USGS Scientific Investigations Report 2004-5155, p5).

FIGURE 3
General Geologic Map
Winnemucca Ranch Test Well



UTM Zone 11, NAD 1927
Modified from USGS Scientific Investigations Report 2004-5155, p. 5.

12000 ft

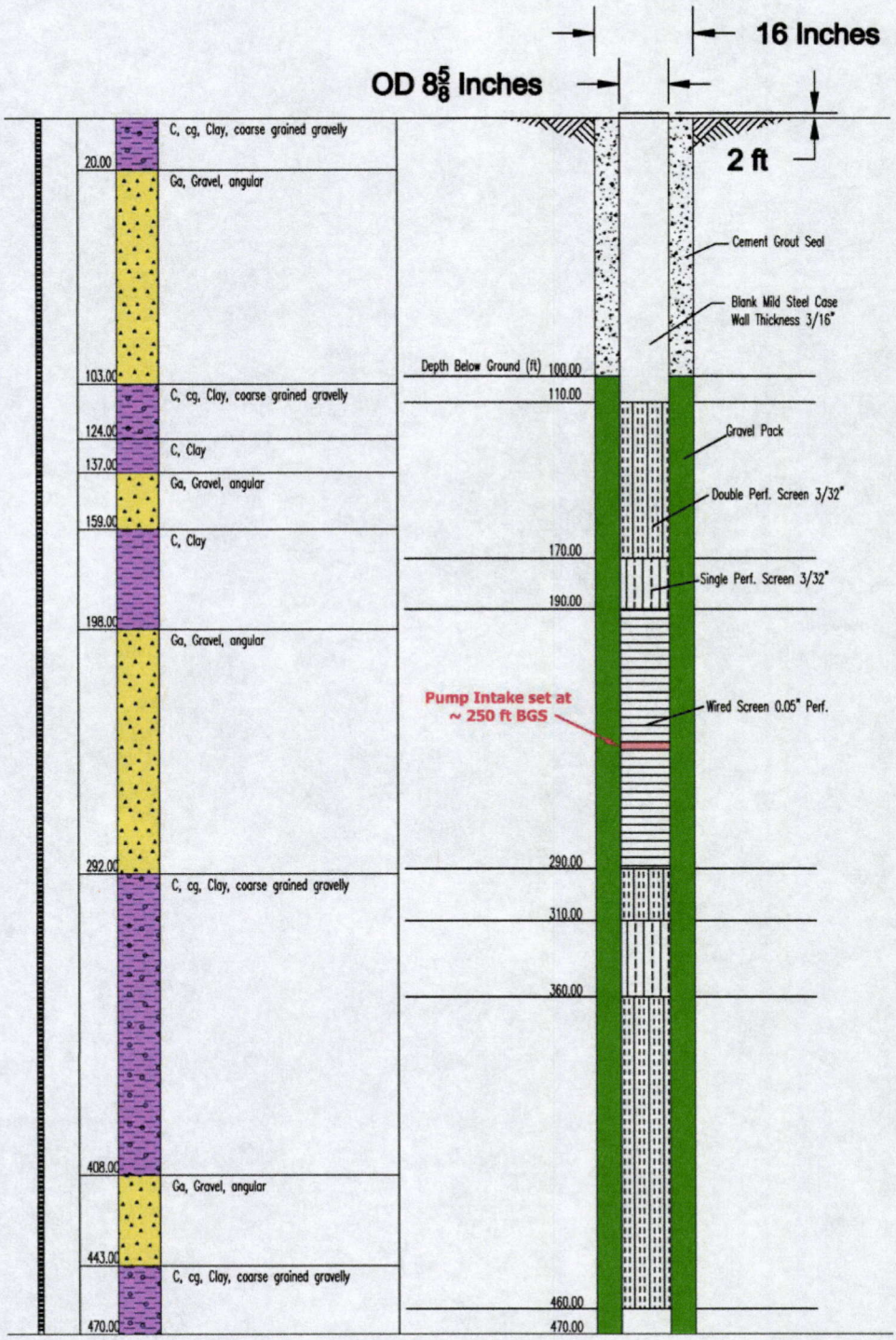
EXPLANATION

- **Basin-fill sediments (Quaternary)**—Unconsolidated to poorly consolidated interbedded clay, silt, sand, gravel, and boulder
- **Lake deposits (Quaternary)**—Semi-consolidated sand, silt, clay, and minor fine gravel of Lake Lahontan (Grose and Mergner, 2000)
- **Volcanic rocks (Tertiary)**—Basalt, basaltic andesite, andesite flows, and flow breccias of Pyramid Sequence (Bonham, 1969, p. 28)
- **Rhyolitic tuffs or Tuffaceous deposits (Tertiary)**—Welded and unwelded ash-fall and ash-flow tuffs, and tuffaceous sedimentary deposits (Bonham, 1969, p. 23; Grose and Mergner, 2000)
- **Granitic rocks (pre-Tertiary)**—Undifferentiated plutonic rocks, principally biotite-hornblende granodiorite in composition (Bonham, 1969, p. 8)
- **Area of unmapped geology**
- **Boundary of hydrographic area**—Modified from Rush (1968)
- **Fault**—Modified from U.S. Geological Survey (2003)
- 19 **Well sites**—Number corresponds to table 1
- 26 **Spring sites**—Number corresponds to table 1 (DRI indicates spring data from Thomas and Albright, 2003)
- **Gravel pit**

The borehole was first drilled with a 12-inch diameter bit and was drilled to 480' with rotary drilling and normal mud circulation. Drilling cuttings were sampled at 20 feet intervals by the well driller. When the borehole was complete, an E-Log was performed on April 26, 2007 at the drill hole. The E-Log is presented in **APPENDIX 3** of this report. On the basis of the e-log and drilling sample, the test hole was later reamed with a 16-inch diameter drill bit to 470 feet BGS prior to well construction.

The borehole was cased with an 8 5/8" diameter and 3/16" thick casing. Casing is perforated from 110' to 460". Perforation sizes are 3/32" for single and double perforation factory milled slots and are .05" for wired screen. The 3.7-inch annular space between the well casing and the borehole was gravel packed (well graded with a mean size of approximately ¼") from a depth of 100 feet to 470 feet BGS. A cement grout sanitary seal was pumped via tremie pipe into the annular space between the well casing and the borehole above the gravel pack. The cement grout sanitary seal extends from the ground surface to a depth of 100 feet BGS. The static depth to water encountered during drilling and construction activities was measured to be 15 feet BGS. The soil strata penetrated by the well are primarily coarse grained angular gravel (or broken rocks) and clay. Please refer to the Well Construction and Lithologic Diagram presented as **FIGURE 4** on the following page.

FIGURE 4
Well Construction and Lithologic Diagram
Winnemucca Ranch Test Well



5.0 WELL DEVELOPMENT

The well was developed by piston swabbing and air lifting for approximately 16 hours. The purpose of the development was to break and remove the mud cake formed on the borehole wall, to settle the gravel pack as well as to remove fine sand. The development was performed until the air lifted water was clean and free of mud and sand by visual inspection. The estimated discharge rate based upon results from the well development was approximately 600 gallons per minute.

6.0 PUMPING TESTS

6.1 Temporary Discharge Permit

Permission to discharge water from the well has been issued by the Nevada Division of Environmental Protection under a Temporary Discharge Permit with the serial number TNEV2007491. A copy of the Temporary Discharge Permit is included in **APPENDIX 4** of this report.

In fulfillment of the permit requirements, a Discharge Monitoring Report (DMR) was submitted to the NDEP along with the laboratory analytical reports for tests performed on water samples collected from the well during testing activities. A copy of the DMR submitted to the NDEP is presented as **FIGURE 5** below.

FIGURE 5
Discharge Monitoring Report
Winnemucca Ranch Test Well

PERMITTEE ADDRESS (Include Facility Name/Location if different)
NAME: Randy Venturacci
ADDRESS: 4005 Quail Rock Drive, #100
Reno, NV 89511
FACILITY: Winnemucca Ranch
LOCATION: T.24N., R.19E., Section 2, MDB&M

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2000-0015

Pg. 1 of 1

TNEV2007491 (PERMIT NUMBER) | NA (REUSE SUPPLIER PERMIT NUMBER)

NOTE: Read instructions before completing this form.

OUTFALL: Groundwaters of the State via percolation at irrigated meadow pasture

MONITORING PERIOD							REPORTING QUARTER	
YEAR	MONTH	DAY	TO	YEAR	MONTH	DAY	2nd QUARTER	2007 YEAR
2007	06	01		2007	06	30		

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				No. of Exceptions	Frequency of Analysis	Sample Type
		30-DAY AVERAGE	MAXIMUM	Units	MINIMUM	AVERAGE	MAXIMUM	Units			
FLOW	Sample Measurement	NA	3.453	MG	NA	NA	NA	NA	0	CONTINUOUS	FLOW METER
	Permit Requirement	MONITOR & REPORT			NA	NA	NA		0	CONTINUOUS	FLOW METER
WATER QUALITY SEE LABORATORY ANALYTICAL REPORT	Sample Measurement	NA	NA	NA	SEE ANALYTICAL REPORT			VARY	0	ONCE	DISCRETE
	Permit Requirement	NA	NA		MONITOR & REPORT				0	ONCE	DISCRETE
	Sample Measurement										
	Permit Requirement										
	Sample Measurement										
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	Sample Measurement										
	Permit Requirement										

Name/Title Principal Executive Officer (Typed or Printed)
Randy Venturacci
Contact Person
TELEPHONE NO.: (775) 825-1888

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See 18 U.S.C. §1001 and 33 U.S.C. §1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

Signature of Principal Executive Officer or Authorized Agent

DATE: 7 Month / 12 Day / 07 Year

COMMENT AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

6.2 Test Equipment

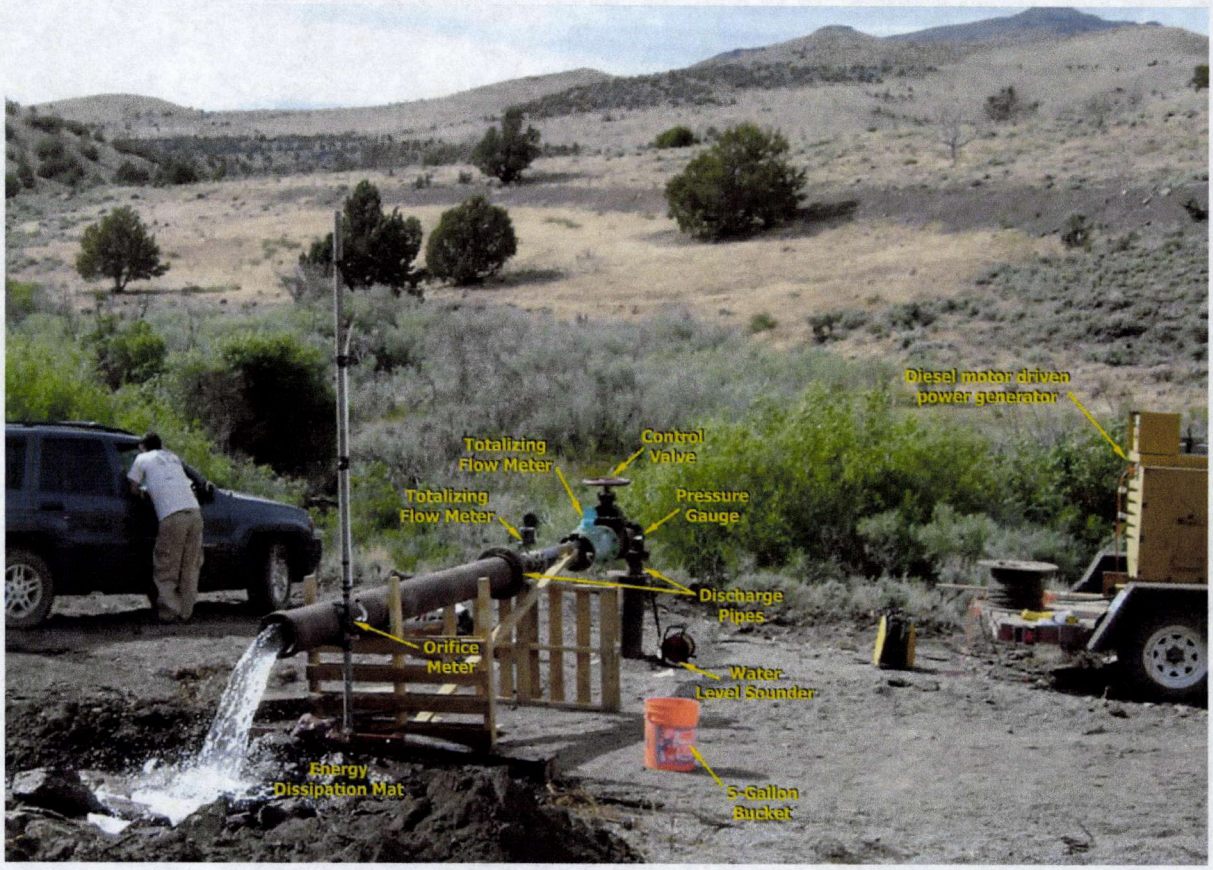
Test equipment used to perform testing operations included:

- Submersible turbine pump and motor (Berkeley 7T-450 with a motor size of 60 hp)
- Diesel motor driven power generator (Caterpillar model no. 3304)
- 4" diameter discharge pipe in well and 8" discharge pipe outside of well
- Pressure Gauge
- Control Valve
- Two totalizing flow meters
- Orifice meter (6" orifice)
- 1" diameter PVC drop pipe for manual water level measurements
- Water level sounder
- Water level data logger
- 5-gallon buckets for flow rate verification and sand content evaluation

6.3 Test Setup

A diesel motor driven power generator supplied power to the submersible motor and pump. Water was pumped through the discharge pipe(s) and flowed past the control valve, both totalizing flow meters and the Orifice meter. Water was then discharged to an energy dissipation mat composed of cobbles and gravel. Refer to **PHOTO 1** below for an illustration of these details.

PHOTO 1
Pump Test Setup
Winnemucca Ranch Test Well



Not visible: submersible pump and motor, diesel fuel storage tank, PVC drop pipe and down-hole data collecting pressure transducer.

As water flowed from the energy dissipation mat, it was conveyed down a roadside ditch and applied over a meadow pasture for irrigation and stock-watering purposes. Refer to **PHOTOS 2 through 3** on the following page for an illustration of these features.

PHOTO 2
Roadside Conveyance Ditch
Winnemucca Ranch Test Well

Water discharged from the well was conveyed along a roadside ditch (shown) to a meadow pasture (not shown).

PHOTO 3
Receiving Area (Meadow Pasture) of Discharge
Winnemucca Ranch Test Well

Meadow pasture receiving water discharged from the test well.

6.4 Summary of Testing Details

- Static water lever (SWL) before test: 17 feet below the top of the well casing.
- Pump set in well at 250 feet BGS for the testing.
- 24-hour step-drawdown and 72-hour stress tests occurred between June 4th and June 11th, 2007.
- The step-drawdown test consisted of four steps, with each consecutive step being pumped at a higher rate than the previous step. The total pumping of the four steps lasted 24 hours with each step lasting for 6 hours. The 72-hour stress test commenced immediately after the conclusion of the step-drawdown test.
- Average pumping rates for the step-drawdown test were approximately: 150 gpm for the first step, 338 gpm for the second step, 390 gpm for the third step, and 570 gpm for the last step.
- Water level at the pumping well was monitored at time intervals sufficient to monitor the water level changes; specific water level monitoring data is included in **APPENDIX 5** of this report.
- Flow rates were verified with 5-gallon buckets and triple redundant measuring devices that included two (2) instantaneous, totalizing flow meters and an orifice flow meter.
- Sand content was examined by using a 5-gallon bucket during the step-drawdown test with a finding that the pumped water is virtually free of sand after 30 minutes from the start of each step.
- Water Quality samples were collected by personnel from the Washoe County Department of Water Resources during the 72-hour stress test.

7.0 PUMPING TEST DATA ANALYSIS AND INTERPRETATIONS

Pumping test data, calculations and graphics are presented in **APPENDIX 5** of this report.

7.1 24-hour Step-Drawdown Test

- Drawdown varied from approximately 11.70 feet at 150 gpm to 58.00 feet at the end of Step 4 at 570 gpm. The specific capacity ranged from approximately 18.97 to 9.12 gallon per minute per foot of drawdown (gpm/ft). Refer to the Stepped Drawdown Chart presented as **FIGURE 6** on the following page.

- The specific capacity results show that specific capacity varies with the pumping rate. The higher the pumping rate, the lower the specific capacity. This is due to the fact that drawdown observed in the pumping well includes head loss resulting from laminar flow in the aquifer formation and head losses through the well screen and casing. At a higher pumping rate, the well loss is higher due to a higher flow velocity through the well screen and casing.

FIGURE 6
Stepped Drawdown Chart
Winnemucca Ranch Test Well

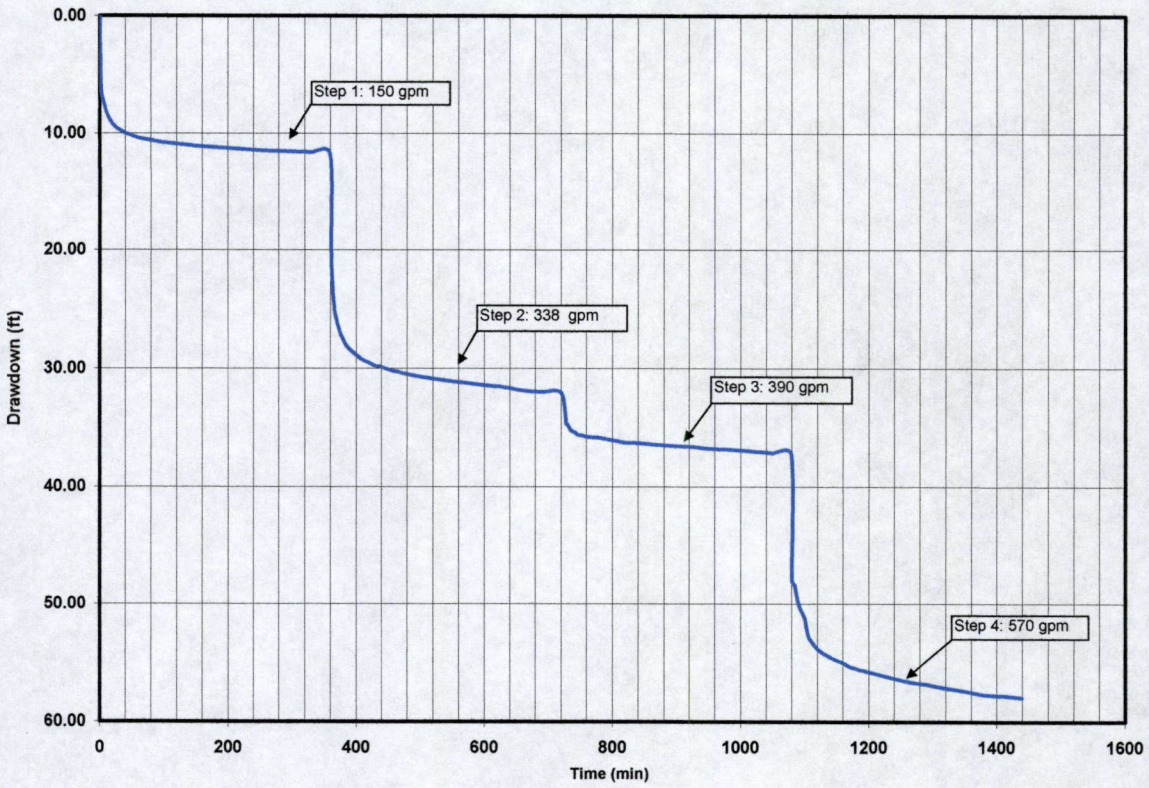


TABLE 1
Calculated Drawdown, Specific Capacity and Well Efficiency
Winnemucca Ranch Test Well

PUMP RATE (gpm)	AQUIFER LOSS BQ (ft)	WELL LOSS CQ^2 (ft)	CALCULATED DRAWDOWN s' (ft)	CALCULATED SPECIFIC CAPACITY Q/s' (gpm)	WELL EFFICIENCY E (%)
170	12.29	1.62	13.91	12.22	88.3
360	26.03	7.27	33.30	10.81	78.2
400	28.92	8.98	37.90	10.56	76.3
500	36.15	14.03	50.18	9.97	72.0
550	39.77	16.97	56.74	9.69	70.1
570	41.21	18.23	59.44	9.59	69.3
600	43.38	20.20	63.58	9.44	68.2
700	50.61	27.49	78.10	8.96	64.8
800	57.84	35.90	93.74	8.53	61.7

7.2 72-hour Stress Test

Discharge during the 72-hour stress test averaged approximately 580 gpm. Drawdown and recovery data were used to estimate aquifer parameters. The drawdown vs. time chart presented in **APPENDIX 5** of this report indicates that the drawdown stabilized at approximately 360 minutes into the test with a pumping rate of approximately 150 gpm for the first pumping step.

Aquifer parameters estimated from the unsteady test and the recovery data based on the Theis solution are summarized in **TABLE 2** below.

TABLE 2
Estimated Aquifer Parameters
Winnemucca Ranch Test Well

Parameter	Pumping	Recovery
Transmissivity (T: ft^2/day)	1770	1340
Storage Coefficient (S)	0.123	0.00019

**The straight-line method (Jacob's) was used.*

- The recovery data was influenced by the water in the pump pipe (in other words, when the pump was stopped, the water in the pump standpipe provided a quick impulse source which made the recovery appear to occur faster than the actual rate of recovery); therefore, the result is not as reliable as the data from the pumping portion. The aquifer transmissivity value in the pumping well area probably falls within the range of 1300~1800 ft^2/day.

- No obvious boundary conditions can be ascertained, even though, the lateral aquifer extent may be limited and no significant recharge was occurring during the pump test.

- The storage coefficient derived from the first pumping step indicates an unconfined condition while the value derived from the recovery data indicates a more confined condition.

8.0 WATER QUALITY

Water samples were collected by Washoe County Water Resources Department and were analyzed by Sierra Environmental Monitoring, Inc. **TABLE 3** summarizes the results of the analyses. **TABLE 3** also lists the Nevada drinking water standards for the analyzed parameters. **TABLE 3** indicates that all the analyzed parameters meet the Nevada primary and secondary drinking water standards. Laboratory analytical reports and the associated Chain(s) of Custody are presented in **APPENDIX 6** of this report. It should be pointed out that not all parameters regulated by drinking water standards were analyzed. Therefore, it is recommended that future water quality analysis to include all the parameters regulated by the primary and secondary standards.

TABLE 3
Summary of Results from Water Quality Analysis
Winnemucca Ranch Test Well

Parameter	Quantity	Units	NV Primary Standard	NV Secondary Standard
Alkalinity, Total	170	mg/L CaCO3	NA	NA
Alkalinity/Bicarbonate	170	mg/L CaCO3	NA	NA
Alkalinity/Carbonate	<2	mg/L CaCO3	NA	NA
Alkalinity/Hydroxide	<2	mg/L CaCO3	NA	NA
Arsenic	<0.002	mg/L	0.01	NA
Barium	0.032	mg/L	2	NA
Calcium	31	mg/L	NA	NA
Chloride	5.1	mg/L	NA	400
Color Apparent	<5	Color Units	NA	15
Copper	<0.002	mg/L	NA	1.0
Fluride	<0.1	mg/L	4.0	NA
Iron	<0.05	mg/L	NA	0.6
Lead	<0.002	mg/L	NA	NA
Magnesium	18	mg/L	NA	150
Manganese	0.003	mg/L	NA	0.1
MBAS Surfactants	<0.05	mg/L	NA	NA
Nitrate-N	0.31	mg/L	10	NA
pH	8.18	pH Units	NA	6.5 to 8.5
ph-Temperature	20.3	° C	NA	NA
Potassium	4.8	mg/L	NA	NA
Sodium	17	mg/L	NA	NA
Sulfate	6.6	mg/L	NA	500
Total Dissolved Solids	220	mg/L	NA	1000
Turbidity	0.3	NTU	1.0	NA
Zinc	<0.02	mg/L	NA	5.0

9.0 CONCLUSIONS AND RECOMMENDATIONS

- Based on the testing results it is recommended that the sustainable pumping rate be 550 gpm with the pump intake set at 120 feet BGS.

The recommended pumping rate and pump intake depth are based on the calculated results by applying the well loss relation derived from the step drawdown test. Pump test data, calculations and graphics are presented in **APPENDIX 5** of this report. On the calculation sheet, when the pumping rate is 550 gpm, the calculated drawdown from the static water level would be approximately 57 feet with a well efficiency of approximately 70%.

Since the aforementioned derivation has no temporal component, it is necessary to provide a projected value for drawdown based upon the test data. Drawdown in the well is projected to reach approximately 81.4 feet after continuous pumping for 30 days at 540 gpm +/- 7%. Water levels are projected to be fully recovered after approximately 12 days of rest. Projections are illustrated graphically in **APPENDIX 5** of this report.

In consideration of the static water level being at approximately 17 feet from the top of the casing (~2 feet BGS), the 120 feet pump intake depth will ensure the proper operation of the pump with the recommended sustainable pumping rate.

The recommended pumping rate of 550 gpm is also based on the limited size of the well casing. If a larger pump can be installed, the sustainable pumping rate can be as high as 800 gpm with the pump intake set at approximately 250 feet deep and the expected drawdown of 94 feet.

- Water is of good quality in terms of the analyzed parameters. All of the analyzed water quality parameters meet Nevada's primary and secondary drinking water standards. It is recommended that future water quality analyses include all the parameters regulated by the primary and secondary drinking water standards.

10.0 ACKNOWLEDGEMENTS

Pump testing activities were performed with the cooperation of the Washoe County Department of Water Resources. TEC wishes to express their thanks and appreciation of the assistance provided by Dan Dragan and Ed Evans throughout various phases of the testing process.

11.0 REFERENCES CITED

1. Berger, D. et al., 2004, *Estimates of Natural Groundwater Discharge and Characterization of Water Quality in Dry Valley, Washoe County, West-Central Nevada, 2002-2003*, United States Geological Survey.

WELL CONSTRUCTION PERMIT

WASHOE COUNTY DISTRICT HEALTH DEPARTMENT
ENVIRONMENTAL HEALTH SERVICES
1001 East Ninth Street
Reno, Nevada 89512
(775) 328-2434

POST IN A CONSPICUOUS PLACE

WELL CONSTRUCTION PERMIT

Permit No.: WL050283

Tag No.: 8025

Issued By:

Date Issued: 10/21/2005

Owner: RICARDO CRUZ

Driller: WINNEMUCCA RANCH LLC

Location of Site: MCKAY DRILLING INC

Expiration Date: WINNEMUCCA RANCH RD WCTY

04/21/2007

Permit Fee: $210.00

Inspection Type: DOMESTIC

Comment:

INSPECTIONS

	Inspector:	Date:
Well Setup:		
Well Final:		
Septic System Setbacks:		

100' Seal Required: ☐ Yes ☐ No

Other:

(By Affirmation, Deepening, Etc.)

WELL DRILLER'S LOG

WASHOE#

STATE OF NEVADA
DIVISION OF WATER RESOURCES
WELL DRILLER'S REPORT

office use only
Log No.....
Permit No.....
Basin.....

NOTICE OF INTENT NO 58426

1. OWNER **Winnemucca Ranch LLC** ADDRESS AT WELL LOCATION **Winnemucca Ranch Road**
MAILING ADDRESS 18124 Wedge Pkwy Latitude N
Reno, NV 89511 Longitude W

2. Location **NE** 1/4 **SE** 1/4 Sec **2** T **24** N R **19** E **Washoe** County
PERMIT NO. PARCEL NO. **079-200-27** SUBDIVISION NAME

3. WORK PERFORMED			4. PROPOSED USE			5. WELL TYPE		
X New Well	Replace	Recondition	X Domestic	Irrigation	Test	Cable	X Rotary	RVC
Deepen	Abandon	Other	Municipal/Industrial	Monitor	Stock	Air	Other	X Mud

6. LITHOLOGIC LOG

Material	Water Strata	From	To	Thickness
Clay and Rock		**0**	**20**	**20**
Broken Rock		**20**	**103**	**83**
Clay and Rock		**103**	**124**	**21**
Clay		**124**	**137**	**13**
Broken Rock		**137**	**159**	**22**
Clay		**159**	**198**	**39**
Broken Rock		**198**	**292**	**94**
Clay and Rock		**292**	**408**	**116**
Broken Rock		**408**	**443**	**35**
Clay and Rock		**443**	**470**	**27**
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0
				0

8. WELL CONSTRUCTION
Depth Drilled feet Depth Cased feet
HOLE DIAMETER (BIT SIZE)

		From		To	
16	inches	**0**	feet	**470**	feet
	inches		feet		feet
	inches		feet		feet

CASING SCHEDULE

Size O.D. (Inches)	Weight/Ft. (Pounds)	Wall Thickness (Inches)	From (Feet)	To Feet
8 5/8	**16.9**	**.188**	**2**	**470**

Perforations::
Type Perforation **Factory**
Size perforation **3/32" & .050**
From **110** feet to **170D** feet
From **170** feet to **180S** feet
From **190** feet to **290screen** feet
From **290** feet to **310D** feet
From **310** feet to **360S** feet
From **360** feet to **460D** feet
Surface Seal **X** YES No Seal Type: Neat Cement
Depth of Seal **100** feet **x** Pumped **X** Cement Grout
Poured Concrete Grout
Gravel Packed: **x** Yes No
From **100** feet to **470** feet

9 WATER LEVEL
Static water level **15** feet below land surface
Artesian flow GPM **0** P.S.I.
Water Temperature **cool** Degrees F Quality **unknown**

Date started **4/11/07**
Date completed **5/9/07** -07

7. WELL TEST DATA
TEST METHOD: Bailer Pump **x** Air Lift

G.P.M.	Draw Down (Feet Below Static)	Time (hours)
600+	200	16

10. DRILLER'S CERTIFICATION
This well was drilled under my supervision and the report is true to the best of my knowledge.
Name **McKay Drilling, Inc.**
4850 Joule St.
Reno, NV 89502
NV Contractors No. **14170**
NV Driller's Lic (on site) **2121**

Signed _____
By driller performing actual drilling on site or contractor
Date 5/11 -07

E - LOG

DEWEY DATA INC
WINNEMUCCA RANCH-1-2007

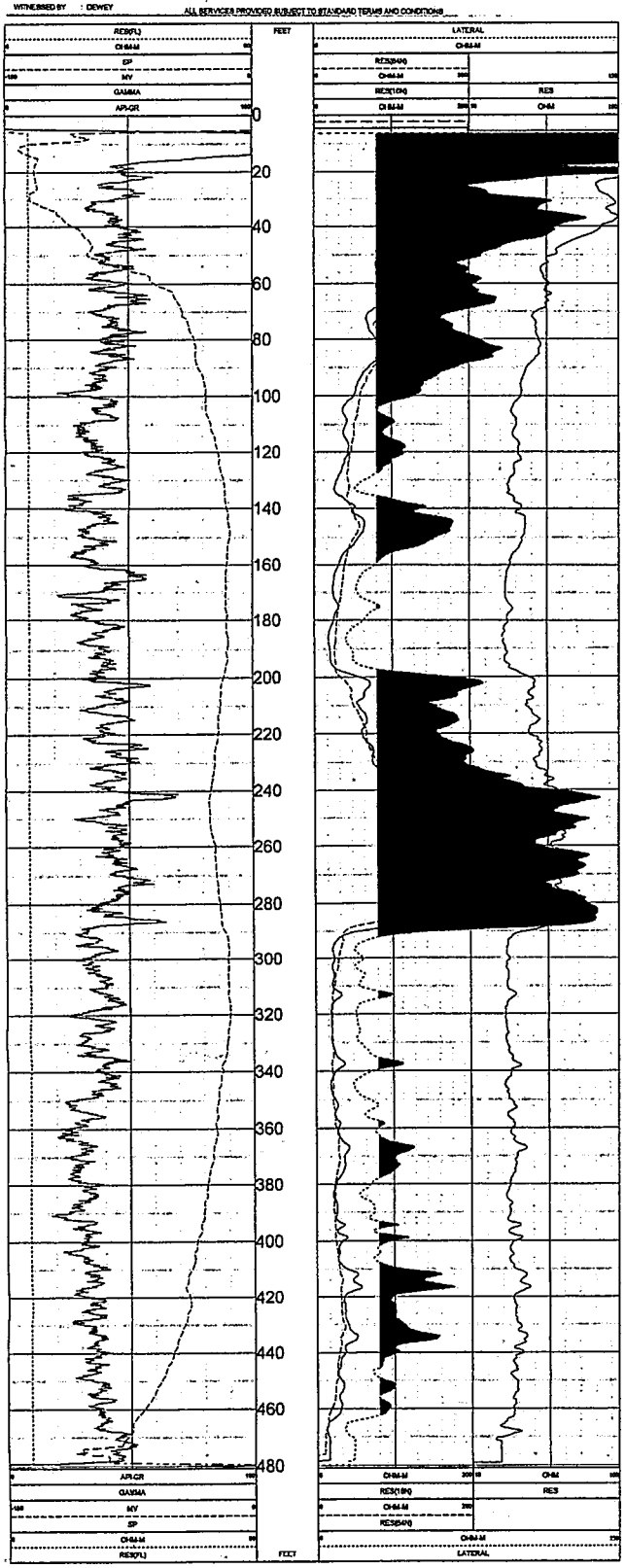
COMPANY	: WINNEMUCCA RANCH				
WELL	: WINNEMUCCA RANCH-1-2007				
LOCATION/FIELD	: PYRAMID LAKE				
COUNTY	: WASHOE				
LOCATION	: CA				
SECTION	:	TOWNSHIP	:	RANGE	:
DATE	: 04/28/07	PERMANENT DATUM	: GL		
DEPTH DRILLER	: 460 FT.			KB	: N/A
LOG BOTTOM	: 460.00	LOG MEASURED FROM	: GL	DF	: N/A
LOG TOP	: 0.00	DRL MEASURED FROM	: GL	GL	: N/A
CASING DIAMETER	:	LOGGING UNIT	: 3		
CASING TYPE	:	FIELD OFFICE	: CENTRAL CAL.		
CASING THICKNESS	:	RECORDED BY	: SHANHOLTZER		
BIT SIZE	: 12	BOREHOLE FLUID	: CLAYGEL	FILE	: ORIGINAL
MAGNETIC DECL.	: 15	RM	: .179	TYPE	: 90MA
MATRIX DENSITY	: 2.65	RM TEMPERATURE	: 73.6		
MUD WEIGHT/VISC	: SANDSTONE	MATRIX DELTA T	: 54		
				THRESH	: 0000

OTI IDR SERVICES
INVOICE
042807
D 400

WATER QUALITY-GOOD-400-600 PPM TDS
MCKAY

WITNESSED BY : DEWEY

ALL SERVICES PROVIDED SUBJECT TO STANDARD TERMS AND CONDITIONS



DISCHARGE PERMIT

REC'D JUN 04 2007

ndep
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
protecting the future for generations

STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor
Allen Biaggi, Director
Leo M. Drozdoff, P.E., Administrator

May 31, 2007

Randy Venturacci
Locnavar, LLC
4005 Quail Rock Lane, Suite 100
Reno, Nevada 89511

RE: TEMPORARY DISCHARGE PERMIT TNEV2007491,
WINNEMUCCA RANCH, LLC WELL TESTS.

Dear Mr. Venturacci:

The Division of Environmental Protection has issued the enclosed Temporary Authorization to Discharge, TNEV2007491, to Randy Venturacci/Locnavar, LLC for the discharge of well test water to a 200 acre alfalfa field/pasture at the Winnemucca Ranch, Washoe County, Nevada.

The temporary permit will be in effect from June 1, 2007 through midnight, November 30, 2007. The first monthly report covering the June 1st through June 30th time period is due to the Division July 28, 2007.

If you have questions regarding this temporary permit, please contact me at 775-687-9423.

Sincerely,

Bruce Holmgren, PE
Bureau of Water Pollution Control

Enclosure: Temporary Permit TNEV2007491
cc w/encl.: Zach Lannoy, EIT, TEC Civil Engineering Consultants, 500 Damonte Ranch Parkway, Suite 1056, Reno, Nevada 89521

TNEV2007491

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

TEMPORARY
AUTHORIZATION TO DISCHARGE

In compliance with the provisions Chapter 445A of the Nevada Revised Statutes (NRS), the Permittee,

Randy Venturacci
Locnavar, LLC
4005 Quail Rock Lane, Suite 100
Reno, Nevada 89511

is authorized to discharge groundwater from the test well, located at:

Winnemucca Ranch, LLC
Washoe County, Nevada

Latitude: 39° 58' 16.84" N
Longitude: 119° 48' 38.74" W
(well site)

Township 24 N, Range 19 E, Section 2 MDB&M

to receiving waters named

groundwaters of the State via percolation at an irrigated alfalfa field/pasture,

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, and III hereof.

This permit shall become effective on June 1, 2007.

This permit and the authorization to discharge shall expire at midnight, November 30, 2007.

Signed this 31st day of May, 2007.

Bruce Holmgren, PE
Bureau of Water Pollution Control

to:
P:\...\TNEV\2007491WinnemuccaRanch\2007491F Pmt

PART I

I.A. EFFLUENT LIMITATIONS, MONITORING, AND CONDITIONS

There shall be no discharge from the facility property except as authorized by this permit; there shall be no discharge or release of pollutants or toxic contaminants from the facility to the ground surface or waters of the State of Nevada (State); and there shall be no discharge of substances that would cause a violation of water quality standards of the State.

I.A.1. **Effluent Limitations:** During the period beginning on the effective date of this permit and lasting until the permit expires, the Permittee is authorized to discharge piped water from the Winnemucca Ranch test well to a roadside conveyance ditch for alfalfa field/pasture irrigation at the approximately 200 acre site identified in the permit application. The Permittee is authorized to conduct a 24-hour step test and a 72-hour stress test of the aquifer.

a. Measurements and effluent samples taken in compliance with the monitoring requirements specified below shall be collected at a location:

i. Totalizing flow meter on the discharge line to the roadside conveyance ditch; and

ii. Discharge line from the test well.

b. The effluent discharge shall be limited and monitored in accordance with the following specifications:

EFFLUENT DISCHARGE LIMITATIONS

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Total Discharge	Daily Maximum	Measurement Frequency	Sample Type
Flow (MG)	3.50	Monitor and Report	Continuous[1]	Flow Meter
Alkalinity, Total as $CaCO_3$ (mg/L)	Monitor and Report		Once	Discrete
Aluminum (mg/L)	Monitor and Report		Once	Discrete
Antimony (mg/L)	Monitor and Report		Once	Discrete
Arsenic (mg/L)	Monitor and Report		Once	Discrete
Barium (mg/L)	Monitor and Report		Once	Discrete
Beryllium (mg/L)	Monitor and Report		Once	Discrete
Bicarbonate, HCO_3 as $CaCO_3$ (mg/L)	Monitor and Report		Once	Discrete
Boron (mg/L)	Monitor and Report		Once	Discrete
Cadmium (mg/L)	Monitor and Report		Once	Discrete
Calcium (mg/L)	Monitor and Report		Once	Discrete
Chloride (mg/L)	Monitor and Report		Once	Discrete

Chromium (mg/L)	Monitor and Report	Once	Discrete
Color (PCU)	Monitor and Report	Once	Discrete
Copper (mg/L)	Monitor and Report	Once	Discrete
Cyanide (mg/L)	Monitor and Report	Once	Discrete
Electrical Conductivity (µmhos or µSiemens/cm)	Monitor and Report	Once	Discrete
Fluoride (mg/L)	Monitor and Report	Once	Discrete
Hardness as $CaCO_3$ (mg/L)	Monitor and Report	Once	Discrete
Iron (mg/L)	Monitor and Report	Once	Discrete
Lead (mg/L)	Monitor and Report	Once	Discrete
Magnesium (mg/L)	Monitor and Report	Once	Discrete
Manganese (mg/L)	Monitor and Report	Once	Discrete
MBAS (mg/L)	Monitor and Report	Once	Discrete
Mercury (mg/L)	Monitor and Report	Once	Discrete
Nickel (mg/L)	Monitor and Report	Once	Discrete
Nitrate + Nitrite as N (mg/L)	Monitor and Report	Once	Discrete
Nitrite as N (mg/L)	Monitor and Report	Once	Discrete
pH (SU)	Monitor and Report	Once	Discrete
pH Temperature (°C)	Monitor and Report	Once	Discrete
Potassium (mg/L)	Monitor and Report	Once	Discrete
Selenium (mg/L)	Monitor and Report	Once	Discrete
Silver (mg/L)	Monitor and Report	Once	Discrete
Sodium (mg/L)	Monitor and Report	Once	Discrete
Sulfate (mg/L)	Monitor and Report	Once	Discrete
Thallium (mg/L)	Monitor and Report	Once	Discrete
Total Dissolved Solids (mg/L)	Monitor and Report	Once	Discrete

Turbidity (NTU)	Monitor and Report	Once	Discrete
Zinc (mg/L)	Monitor and Report	Once	Discrete
Gross Alpha (pCi/L)	Monitor and Report	Once	Discrete
Gross Beta (mrem/yr)	Monitor and Report	Once	Discrete
Total Coliform (No./100mL)	Monitor and Report	Once	Discrete
E. Coli (No./100mL)	Monitor and Report	Once	Discrete

Notes:
1: The totalizing flow meter shall be read daily.
MG: Million gallons.
mg/L: Milligrams per liter.
NTU: Nephelometric turbidity units.
pCi/L: Picocuries per liter.
SU: Standard units.
Mrem/yr: Millirem per year.
µg/L: Micrograms per liter.
gpd: Gallons per day.
PCU: Platinum cobalt unit.
MBAS: Methylene blue active substances.
TON: Threshold odor number.

I.A.2. **Odors:** There shall be no objectionable odors from the roadside conveyance ditch or the irrigated alfalfa field/pasture.

I.A.3. **Visibility Parameters:** There shall be no discharge of floating solids or visible foam.

I.A.4. **Security:** The disposal facility shall be fenced and posted.

I.A.5. **Solid Waste Management:** All solid, toxic, or hazardous waste shall be properly handled and disposed of pursuant to applicable laws and regulations. Any sludge generated during this operation shall be characterized and disposed of in accordance with local, State, and Federal regulations.

I.A.6. **Facility Construction:** Collection and/or disposal facilities shall be constructed in conformance with plans approved by the Nevada Division of Environmental Protection (Division). All plans must be approved by the Division prior to the start of construction. All changes to any plans approved by the Division must be re-approved by the Division prior to implementation.

I.A.7. **Operations and Maintenance of Permitted Activities:** The Permittee shall operate the permitted facility in compliance with permit provisions and requirements.

I.A.8. **Best Management Practices:** The Permittee shall develop and implement Best Management Practices (BMPs) at the facility to include, at a minimum, "good housekeeping" measures. Best Management Practices shall be implemented to minimize erosion and sediment transport within the roadside conveyance ditch at the alfalfa field/pasture land discharge point.

There shall be no discharge from the irrigated alfalfa field/pasture.

I.A.9. **Presumption of Possession and Compliance:** Copies of this permit, any subsequent modifications, shall be maintained at the permitted facility at all times.

I.A.10. **Schedule of Compliance:** The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications which the Administrator may make in approving the schedule of compliance. The Permittee shall implement and/or execute the following scheduled compliance requirements:

a. Upon initial discharge, the Permittee shall achieve compliance with the effluent.

I.B. MONITORING AND REPORTING

I.B.1. Monitoring

a. **Representative Samples:** Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge.

b. **Test Procedures:** Monitoring for the analysis of pollutants shall be conducted according to test procedures approved under 40 Code of Federal Regulations (CFR) 136 published pursuant to Section 304(h) of the Clean Water Act, or other procedures as approved by the Division. Analysis shall be performed by a State of Nevada certified laboratory.

c. **Recording the Results:** For each measurement or sample taken pursuant to the requirements of this permit, the Permittee shall record the following information:

i. The exact place, date, and time of sampling;

ii. The dates the analyses were performed;

iii. The person(s) who performed the analyses;

iv. The analytical techniques or methods used; and

v. The results of all required analyses.

d. **Additional Monitoring by Permittee:** If the Permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in any calculation and/or reported value required by this permit. Such increased frequency shall also be indicated in required reports.

e. **Records Retention:** All records and information resulting from monitoring activities; the permit application; reporting required by this permit, including all records of analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years or longer if required by the Administrator.

f. **Detection Limits:** All laboratory analysis conducted in accordance with this discharge permit must meet the following criteria:

i. The most sensitive analytical method specified or approved in 40 CFR 136 shall be used, which is required and/or approved under the Nevada State laboratory certification program; and

ii. Each parameter shall have detection at or below the permit limits or the method detection limit as defined in the analytical method whichever is lower.

g. **Modification of Monitoring Frequency and Sample Type:** After considering monitoring data, discharge flow, discharge frequency, and receiving water conditions, the Division and/or Administrator may, for just cause, modify the monitoring frequency and/or sample type by issuing an order to the Permittee.

h. **Definitions**

i. **Daily maximum:** is the highest measurement obtained during the monitoring period.

ii. **Discrete sample:** means any individual sample collected in less than 15 minutes.

I.B.2. **Reporting:** Analytical data and monitoring results shall be summarized and/or tabulated for presentation in standardized Discharge Monitoring Reports (DMRs). Laboratory reports for

quantitative analyses conducted by State of Nevada certified laboratories must accompany DMR submittals.

DMRs shall be received by the 28th day of the month following the effective date of the permit and the 28th day of each month for the duration of the permit. The first report, for the period from the permit effective date through November 30, 2007, is due on July 28, 2007. If no discharge occurs during the reporting period, summarize the project status and report "no discharge" on the submitted DMR.

DMRs must be signed by the authorized representative that is responsible for the facility. The first DMR submitted under this permit must include the written designation of the authorized representative elected to sign DMRs. The designated representative responsible for facility operations must sign each subsequent DMR submitted to the Division. If the authorized representative changes, a new designation letter must be submitted.

a. **Monthly Reporting:** Monitoring results for the effluent discharge monitoring requirements described in Part I.A.1. shall be summarized and tabulated for each month. The Permittee is considered in compliance if the reported results are less than the established permit limit.

b. **Other Information:** Where the Permittee becomes aware of failure to submit any relevant facts in a permit application or has submitted incorrect information in a permit application or in any report to the Division, the Permittee shall promptly submit such facts or information.

e. **Planned Changes:** The Permittee shall give notice to the Division as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when the alteration or addition to a permitted facility:

   i. Could significantly change the nature or increase the quantity of pollutants discharged; or

   ii. Results in a significant change to the Permittee's sludge management practice or disposal sites.

f. **Anticipated Noncompliance:** The Permittee shall give advance notice to the Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

g. **Submittal:** An original signed copy of these, and all other reports required herein, shall be submitted to the Division at the following address:

Division of Environmental Protection
Bureau of Water Pollution Control
ATTN: Compliance Coordinator
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701-5249

I.B.3. **Signatory Certification Required on Application and Reporting Forms:**

a. All applications, reports, or information submitted to the Administrator shall be signed and certified by making the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

b. All applications, reports, or other information submitted to the Division shall be signed by one of the following:

i. A principal executive officer of the corporation (of at least the level of vice president) or his authorized representative who is responsible for the overall operation of the facility from which the discharge described in the application or reporting form originates;

ii. A general partner of the partnership;

iii. The proprietor of the sole proprietorship; or

iv. A principal executive officer, ranking elected official, or other authorized employee of the municipal, state, or other public facility.

c. **Changes to Authorization:** If an authorization under Part I.B.3. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part I.B.3. must be submitted to the Administrator prior to or together with any reports, information, or applications to be signed by an authorized representative.

PART II

II.A. MANAGEMENT REQUIREMENTS

II.A.1. **Change in Discharge:** All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than, or at a level in excess of, that authorized shall constitute a violation of the permit.

Any anticipated facility expansions that will result in new, different, or increased discharges of pollutants must be reported by submission of a new application or, if such changes will not violate the effluent limitations specified in this permit, by notice to the permit issuing authority of such changes. Any changes to the permitted facility must comply with NAC 445A.283 to 445A.285. Pursuant to NAC 445A.263, the permit may be modified to specify and limit any pollutants not previously limited.

II.A.2. **Facilities Operation-Proper Operation and Maintenance:** The Permittee shall, at all times, maintain in good working order and operate as efficiently as possible all control facilities, collection systems, or pump stations installed or used by the Permittee to achieve compliance with the terms and conditions of this permit.

II.A.3. **Adverse Impact-Duty to Mitigate:** The Permittee shall take all reasonable steps to minimize releases to the environment resulting from noncompliance with any effluent limitations specified in this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. The Permittee shall carry out such measures, as reasonable, to prevent significant adverse impacts on human health or the environment.

II.A.4. **Noncompliance, Unauthorized Discharge, Bypassing, and Upset:**

a. Any diversion, bypass, spill, overflow, or discharge of wastewater from evaporation or conveyance facilities under the control of the Permittee is prohibited except as authorized by this permit. In the event the Permittee has knowledge that a diversion, bypass, spill, overflow, or discharge not authorized by this permit is probable, the Permittee shall immediately notify the Division at 775-687-9485.

b. The Permittee shall notify the Administrator within twenty-four (24) hours of any diversion, bypass, spill, upset, overflow, or release of discharge other than that which is authorized by the permit. The following shall be included as information which must be reported within 24 hours:

i. Any unanticipated bypass which exceeds any effluent limitation in the permit;

ii. Any upset which exceeds any effluent limitation in the permit; and

iii. Any violation of a limitation for any toxic pollutant or any pollutant identified as the method to control a toxic pollutant.

c. A written report shall be submitted to the Division within five (5) days of diversion, bypass, spill, overflow, upset, or discharge detailing the entire incident including:

i. Time and date of discharge;

ii. Exact location and estimated amount of discharge;

iii. Flow path and any bodies of water which the discharge contacts;

iv. The specific cause of the discharge; and

v. The preventive and/or corrective actions taken.

d. The Permittee shall report all instances of noncompliance not reported under Part II.A.4.c. at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.A.4.c.

e. A "bypass" means the intentional diversion of waste streams from any portion of a facility.

i. Bypass not exceeding limitations: The Permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II.A.4.a. and II.A.4.b.

ii. Anticipated bypass: If the Permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten (10) days before the date of bypass.

f. Bypass is prohibited, and the Division may take enforcement action against a Permittee for bypass, unless:

i. The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There were no feasible alternatives to the bypass, such as the use of auxiliary evaporation facilities or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurs during normal periods of equipment downtime or preventative maintenance; and

iii. The Permittee submitted notices as required under Part II.A.4.e.

g. The Division may approve an anticipated bypass, after considering its adverse effects, if the Division determines that it will meet the three conditions listed in Part II.A.4.f.

h. An "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed facilities, lack of preventive maintenance, or careless or improper operation.

i. A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and the Permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being properly operated;

iii. The Permittee submitted notice of the upset as required under Part II.A.4.e.; and

iv. The Permittee complied with any remedial measures required under II.A.3.

j. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Part II.A.4.i. are met.

k. In selecting the appropriate enforcement option, the Administrator shall consider whether or not the noncompliance was the result of an upset. The burden of proof is on the Permittee to establish that an upset occurred.

II.A.5. **Removed Substances:** Solids, sludges, filter backwash, or other pollutants removed in the course of control of process wastewaters shall be disposed of in a manner such as to prevent any pollution from such materials from entering any navigable waters.

II.A.6. **Safeguards to Electric Power Failure:** In order to maintain compliance with the effluent limitations and prohibitions of this permit the Permittee shall either:

a. ~~Provide, at the time of discharge, an alternative power source sufficient to operate the~~ wastewater control facilities; or

b. Halt or reduce all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.

II.B. RESPONSIBILITIES

II.B.1. **Right of Entry and Inspection:** The Permittee shall allow the Administrator and/or his authorized representatives, upon the presentation of credentials, to:

a. Enter, at reasonable times, upon the Permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit;

b. Have access to and copy any records required to be kept under the terms and conditions of this permit;

c. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations required in this permit; and

d. Perform any necessary sampling or monitoring to determine compliance with this permit at any location for any parameter.

II.B.2. **Transfer of Ownership or Control:** In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the Permittee shall notify the succeeding owner or controller of the existence of this permit, by letter, a copy of which shall be forwarded to the Administrator. The Administrator may require modification or revocation and re-issuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary. The Division shall approve all transfer of permits.

II.B.3. **Availability of Reports:** Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the office of the Administrator. As required by the Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

II.B.4. **Furnishing False Information and Tampering with Monitoring Devices:** Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation, or order issued pursuant thereto or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive or by any permit, rule, regulation, or order issued pursuant thereto is guilty of a gross misdemeanor and shall be punished by a fine of not more than $10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, provided pursuant to NRS 445A.300 to 445A.730, inclusive.

II.B.5. **Penalty for Violation of Permit Conditions:** NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.705.

II.B.6. **Permit Modification, Suspension, or Revocation:** After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts;

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge;

II.B.7. **Toxic Pollutants:** Notwithstanding Part II.B.6., if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge and such standard or prohibition is more stringent than any limitation for such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the Permittee so notified.

II.B.8. **Liability:** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable Federal, State, or local laws, regulations, or ordinances.

II.B.9. **Property Rights:** The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, rights, or rights of access or easement; nor does it authorize any injury to private property, any invasion of personal rights, or any infringement of Federal, State, or local laws or regulations.

II.B.10. **Severability:** The provisions of this permit are severable, and if any provision of this permit or the application of any provisions of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

II.B.11. **Need to Halt or Reduce Activity Not a Defense:** The need to halt or reduce permitted activities in order to maintain compliance with the conditions of this permit shall not be a defense for a Permittee in an enforcement action.

II.B.12. **Duty to Provide Information:** The Permittee shall furnish to the Administrator, within a reasonable time, any relevant information which the Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Administrator, upon request, copies of records required to be kept by this permit.

TEST DATA

Winnemucca Ranch Pumping Test Well #1

Step Pumping Test

Pumping well drawdown data (manual) Well Diameter: 8"

Step	Date	Time Of Day	Test Time (min)	Total Combined Time (Min)	Depth to Water (ft.)	Totalizer #1 (green)	Totalizer #2 (McCrometer)	s (ft.)	Q (gpm)	Remarks or notes
1	6/4/2007	10:00 AM	0	0	17.00	27,597,000	12,465,000	0.00	-	
1	6/4/2007	10:01 AM	1	1	20.80	27,597,000	12,466,500	3.80	-	
1	6/4/2007	10:02 AM	2	2	22.90	27,597,000	12,468,000	5.90	-	
1	6/4/2007	10:04 AM	4	4	23.90	27,598,000	12,472,600	6.90	-	
1	6/4/2007	10:06 AM	6	6	24.40	27,599,000	12,477,100	7.40	-	
1	6/4/2007	10:08 AM	8	8	24.80	-	12,482,000	7.80	-	
1	6/4/2007	10:10 AM	10	10	25.20	27,600,000	12,483,100	8.20	-	
1	6/4/2007	10:15 AM	15	15	25.80	27,603,000	12,484,400	8.80	260	
1	6/4/2007	10:20 AM	20	20	26.20	27,606,000	12,485,300	9.20	180	
1	6/4/2007	10:25 AM	25	25	26.50	27,609,000	12,486,200	9.50	180	
1	6/4/2007	10:30 AM	30	30	26.70	27,611,000	12,487,200	9.70	200	
1	6/4/2007	10:40 AM	40	40	27.00	27,617,000	12,489,000	10.00	180	
1	6/4/2007	10:50 AM	50	50	27.20	-	-	10.20	-	
1	6/4/2007	11:00 AM	60	60	27.40	27,629,000	12,492,800	10.40	-	
1	6/4/2007	11:10 AM	70	70	27.50	28,635,000	12,494,600	10.50	180	
1	6/4/2007	11:20 AM	80	80	27.60	27,640,000	12,496,300	10.60	170	
1	6/4/2007	11:30 AM	90	90	27.70	27,645,000	12,498,100	10.70	180	
1	6/4/2007	11:40 AM	100	100	27.80	27,651,000	12,499,900	10.80	180	
1	6/4/2007	12:00 PM	120	120	27.90	27,663,000	12,503,600	10.90	185	
1	6/4/2007	12:30 PM	150	150	28.10	27,680,000	12,509,000	11.10	180	
1	6/4/2007	1:00 PM	180	180	28.20	27,697,000	12,514,600	11.20	187	
1	6/4/2007	1:30 PM	210	210	28.30	27,714,000	12,520,100	11.30	183	
1	6/4/2007	2:00 PM	240	240	28.40	27,732,000	12,525,700	11.40	187	
1	6/4/2007	2:30 PM	270	270	28.50	27,749,000	12,531,000	11.50	177	
1	6/4/2007	3:00 PM	300	300	28.55	27,767,000	12,536,500	11.55	183	
1	6/4/2007	3:30 PM	330	330	28.60	27,784,000	12,541,900	11.60	180	
1	6/4/2007	3:59 PM	359	359	28.70	27,798,000	12,546,400	11.70	155	
2	6/4/2007	4:01 PM	361	361	36.60	27,800,000	12,547,600	19.60	600	
2	6/4/2007	4:02 PM	362	362	38.90	-	-	21.90	-	
2	6/4/2007	4:04 PM	364	364	40.80	27,803,000	12,548,000	23.80	-	
2	6/4/2007	4:06 PM	366	366	41.85	27,804,000	12,548,600	24.85	300	
2	6/4/2007	4:08 PM	368	368	42.55	27,807,000	12,549,900	25.55	-	
2	6/4/2007	4:10 PM	370	370	43.10	27,808,000	12,550,700	26.10	-	
2	6/4/2007	4:15 PM	375	375	44.00	27,812,000	12,552,300	27.00	320	
2	6/4/2007	4:20 PM	380	380	44.60	27,816,000	12,554,000	27.60	340	
2	6/4/2007	4:25 PM	385	385	45.10	27,819,000	12,555,700	28.10	340	
2	6/4/2007	4:30 PM	390	390	45.40	27,823,000	12,557,400	28.40	340	
2	6/4/2007	4:40 PM	400	400	45.90	27,830,000	12,560,900	28.90	350	
2	6/4/2007	4:50 PM	410	410	46.30	27,838,000	12,564,200	29.30	330	
2	6/4/2007	5:00 PM	420	420	46.55	27,845,000	12,557,600	29.55	-	
2	6/4/2007	5:10 PM	430	430	46.80	27,853,000	12,571,000	29.80	-	
2	6/4/2007	5:20 PM	440	440	46.90	27,860,000	12,574,500	29.90	350	
2	6/4/2007	5:30 PM	450	450	47.10	27,868,000	12,577,800	30.10	330	
2	6/4/2007	5:40 PM	460	460	47.25	27,875,000	12,581,100	30.25	330	
2	6/4/2007	6:00 PM	480	480	47.50	27,890,000	12,587,900	30.50	340	

2	6/4/2007	6:30 PM	510	510	47.80	27,913,000	12,598,000	30.80	337	
2	6/4/2007	7:00 PM	540	540	48.05	27,935,000	12,608,200	31.05	340	
2	6/4/2007	7:30 PM	570	570	48.25	27,958,000	12,618,400	31.25	340	
2	6/4/2007	8:00 PM	600	600	48.45	27,981,000	12,628,800	31.45	347	
2	6/4/2007	8:30 PM	630	630	48.60	28,004,000	12,638,500	31.60	323	
2	6/4/2007	9:00 PM	660	660	48.90	28,037,000	12,653,100	31.90	487	
2	6/4/2007	9:30 PM	690	690	49.00	28,050,000	12,659,200	32.00	203	
2	6/4/2007	10:00 PM	720	720	49.10	28,072,000	12,669,200	32.10	333	Diesel Idling
3	6/4/2007	10:08 PM	728	728	51.70	28,078,000	12,672,000	34.70	350	
3	6/4/2007	10:10 PM	730	730	51.75	28,081,000	12,672,800	34.75	400	
3	6/4/2007	10:15 PM	735	735	52.25	28,084,000	12,674,800	35.25	400	
3	6/4/2007	10:20 PM	740	740	52.40	28,089,900	12,677,100	35.40	460	
3	6/4/2007	10:25 PM	745	745	52.60	28,094,000	12,679,400	35.60	460	
3	6/4/2007	10:30 PM	750	750	52.70	28,098,000	12,681,000	35.70	320	
3	6/4/2007	10:40 PM	760	760	52.80	28,112,000	12,689,800	35.80	880	
3	6/4/2007	10:50 PM	770	770	52.85	28,118,000	12,692,100	35.85	230	
3	6/4/2007	11:00 PM	780	780	52.90	28,122,000	12,693,300	35.90	120	
3	6/4/2007	11:10 PM	790	790	53.00	28,129,000	12,697,400	36.00	410	
3	6/4/2007	11:20 PM	800	800	53.10	28,136,000	12,700,900	36.10	350	
3	6/4/2007	11:30 PM	810	810	53.20	28,150,000	12,706,200	36.20	530	
3	6/4/2007	11:40 PM	820	820	53.30	28,156,000	12,710,300	36.30	410	
3	6/5/2007	12:00 AM	840	840	53.35	28,175,000	12,718,200	36.35	395	
3	6/5/2007	12:30 AM	870	870	53.50	28,202,000	12,729,800	36.50	387	
3	6/5/2007	1:00 AM	900	900	53.60	28,228,000	12,741,500	36.60	390	
3	6/5/2007	1:30 AM	930	930	53.70	28,254,000	12,753,400	36.70	397	
3	6/5/2007	2:00 AM	960	960	53.85	28,281,000	12,765,300	36.85	397	
3	6/5/2007	2:30 AM	990	990	53.92	28,308,000	12,777,600	36.92	410	
3	6/5/2007	3:00 AM	1020	1020	54.05	28,334,000	12,789,200	37.05	387	
3	6/5/2007	3:30 AM	1050	1050	54.18	28,359,000	12,800,400	37.18	373	
3	6/5/2007	3:59 AM	1079	1079	54.30	28,385,000	12,812,400	37.30	414	
4	6/5/2007	4:00 AM	1080	1080	65.00	28,387,000	12,813,000	48.00	600	
4	6/5/2007	4:04 AM	1084	1084	65.40	28,389,000	12,815,000	48.40	500	
4	6/5/2007	4:06 AM	1086	1086	66.00	28,390,000	12,815,700	49.00	350	
4	6/5/2007	4:08 AM	1088	1088	66.50	28,391,000	12,816,600	49.50	450	
4	6/5/2007	4:10 AM	1090	1090	67.00	28,393,000	12,817,700	50.00	550	
4	6/5/2007	4:15 AM	1095	1095	67.70	28,396,000	12,820,000	50.70	460	
4	6/5/2007	4:20 AM	1100	1100	68.25	29,399,000	12,822,700	51.25	540	
4	6/5/2007	4:25 AM	1105	1105	69.75	28,403,000	12,825,800	52.75	620	
4	6/5/2007	4:30 AM	1110	1110	70.20	28,405,000	12,827,700	53.20	380	
4	6/5/2007	4:40 AM	1120	1120	70.90	28,411,000	12,832,800	53.90	510	
4	6/5/2007	4:50 AM	1130	1130	71.30	28,416,000	12,838,200	54.30	540	
4	6/5/2007	5:00 AM	1140	1140	71.60	28,422,000	12,843,300	54.60	510	
4	6/5/2007	5:10 AM	1150	1150	71.85	28,427,000	12,848,600	54.85	530	
4	6/5/2007	5:20 AM	1160	1160	72.05	28,433,000	12,853,800	55.05	520	
4	6/5/2007	5:30 AM	1170	1170	72.40	28,438,000	12,859,400	55.40	560	
4	6/5/2007	5:40 AM	1180	1180	72.55	28,444,000	12,864,600	55.55	520	
4	6/5/2007	6:00 AM	1200	1200	72.85	28,455,000	12,875,200	55.85	530	
4	6/5/2007	6:30 AM	1230	1230	73.25	28,472,000	12,891,300	56.25	537	
4	6/5/2007	7:00 AM	1260	1260	73.65	28,490,000	12,907,400	56.65	537	
4	6/5/2007	7:30 AM	1290	1290	73.90	28,506,000	12,923,200	56.90	527	
4	6/5/2007	8:00 AM	1320	1320	74.20	28,523,000	12,939,800	57.20	553	
4	6/5/2007	8:30 AM	1350	1350	74.45	28,540,000	12,955,400	57.45	520	
4	6/5/2007	9:00 AM	1380	1380	74.75	28,560,000	12,974,000	57.75	620	
4	6/5/2007	9:30 AM	1410	1410	74.85	28,575,000	12,987,400	57.85	447	
4	6/5/2007	9:59 AM	1439	1439	75.00	28,590,000	13,002,700	58.00	528	

Winnemucca Ranch Pumping Test Well #1

72 hr. Constant-Rate Pumping Test

Pumping well drawdown data (manual) Well Diameter: 8"

Date	Time	Test Time (min)	Total Combined Time (min)	Depth To Water (ft)	Totalizer #1 (green)	Totalizer #2 (McCrometer)	s (ft)	Q (gpm)	Remarks or notes
6/5/2007	10:00 AM	0	1440	75.0	-	-	58.00		
6/5/2007	10:02 AM	2	1442	76.00	28,593,000	13,005,600	59.00	-	
6/5/2007	10:08 AM	8	1448	76.25	28,596,000	13,008,500	59.25	483	
6/5/2007	10:15 AM	15	1455	76.40	28,600,000	13,012,000	59.40	500	
6/5/2007	10:20 AM	20	1460	76.40	28,601,000	13,014,400	59.40	480	
6/5/2007	10:25 AM	25	1465	76.50	28,605,000	13,017,100	59.50	540	
6/5/2007	10:30 AM	30	1470	76.55	28,608,000	13,019,800	59.55	540	
6/5/2007	10:40 AM	40	1480	76.60	28,613,000	13,024,900	59.60	510	
6/5/2007	10:50 AM	50	1490	76.70	28,619,000	13,030,300	59.70	540	
6/5/2007	11:00 AM	60	1500	76.80	28,625,000	13,035,500	59.80	520	
6/5/2007	11:10 AM	70	1510	76.90	28,631,000	13,041,100	59.90	560	
6/5/2007	11:20 AM	80	1520	76.90	28,636,000	13,046,400	59.90	530	
6/5/2007	11:30 AM	90	1530	77.00	28,642,000	13,051,700	60.00	530	
6/5/2007	11:40 AM	100	1540	77.10	28,648,000	13,057,200	60.10	550	
6/5/2007	12:00 PM	120	1560	77.25	28,659,000	13,068,500	60.25	565	
6/5/2007	12:30 PM	150	1590	77.50	28,676,000	13,084,700	60.50	540	
6/5/2007	1:00 PM	180	1620	77.70	28,694,000	13,101,300	60.70	553	
6/5/2007	1:30 PM	210	1650	77.85	28,711,000	13,117,200	60.85	530	
6/5/2007	2:00 PM	240	1680	78.00	28,728,000	13,134,500	61.00	577	
6/5/2007	2:30 PM	270	1710	78.20	28,748,000	13,152,600	61.20	603	
6/5/2007	3:00 PM	300	1740	78.35	28,763,000	13,166,600	61.35	467	
6/5/2007	3:30 PM	330	1770	78.55	28,781,000	13,187,300	61.55	690	
6/5/2007	4:00 PM	360	1800	78.70	28,798,000	13,200,000	61.70	423	
6/5/2007	4:30 PM	390	1830	78.85	28,815,000	13,215,900	61.85	530	
6/5/2007	5:00 PM	420	1860	79.05	28,832,000	13,232,800	62.05	563	
6/5/2007	5:30 PM	450	1890	79.25	28,849,000	13,249,000	62.25	540	
6/5/2007	6:00 PM	480	1920	79.40	28,867,000	13,266,000	62.40	567	
6/5/2007	6:30 PM	510	1950	79.55	28,884,000	13,282,600	62.55	553	
6/5/2007	7:00 PM	540	1980	79.70	28,901,000	13,299,100	62.70	550	
6/5/2007	7:30 PM	570	2010	79.90	28,918,000	13,315,200	62.90	537	
6/5/2007	8:00 PM	600	2040	80.05	28,935,000	13,331,700	63.05	550	
6/5/2007	8:30 PM	630	2070	80.20	28,952,000	13,348,100	63.20	547	
6/5/2007	9:00 PM	660	2100	80.35	28,970,000	13,364,600	63.35	550	
6/5/2007	9:30 PM	690	2130	80.55	28,987,000	13,381,000	63.55	547	
6/5/2007	10:00 PM	720	2160	80.75	29,004,000	13,397,400	63.75	547	
6/5/2007	10:30 PM	750	2190	80.90	29,021,000	13,413,900	63.90	550	
6/5/2007	11:00 PM	780	2220	81.05	29,038,000	13,430,400	64.05	550	
6/5/2007	11:30 PM	810	2250	81.20	29,055,000	13,446,900	64.20	550	

6/6/2007	12:00 AM	840	2280	81.35	29,073,000	13,463,200	64.35	543	
6/6/2007	12:30 AM	870	2310	81.45	29,090,000	13,479,700	64.45	550	
6/6/2007	1:00 AM	900	2340	81.55	29,107,000	13,495,400	64.55	523	
6/6/2007	1:30 AM	930	2370	81.65	29,124,000	13,506,400	64.65	367	
6/6/2007	2:00 AM	960	2400	81.80	29,141,000	13,528,700	64.80	743	
6/6/2007	2:30 AM	990	2430	81.90	29,154,000	13,545,200	64.90	550	
6/6/2007	3:00 AM	1020	2460	82.00	29,176,000	13,561,800	65.00	553	
6/6/2007	3:30 AM	1050	2490	82.15	29,198,000	13,578,200	65.15	547	
6/6/2007	4:00 AM	1080	2520	82.30	29,210,000	13,594,600	65.30	547	
6/6/2007	4:30 AM	1110	2550	82.40	29,222,000	13,611,000	65.40	547	
6/6/2007	5:00 AM	1140	2580	82.50	29,244,000	13,627,400	65.50	547	
6/6/2007	5:30 AM	1170	2610	82.60	29,261,000	13,643,700	65.60	543	
6/6/2007	6:00 AM	1200	2640	82.70	29,279,000	13,660,000	65.70	543	
6/6/2007	6:30 AM	1230	2670	82.80	29,296,000	13,676,400	65.80	547	
6/6/2007	7:00 AM	1260	2700	82.90	29,313,000	13,692,800	65.90	547	
6/6/2007	7:30 AM	1290	2730	83.00	29,330,000	13,709,200	66.00	547	
6/6/2007	8:00 AM	1320	2760	83.15	29,347,000	13,725,600	66.15	547	Diesel Idling
6/6/2007	8:30 AM	1350	2790	83.30	29,364,000	13,741,900	66.30	543	
6/6/2007	9:00 AM	1380	2820	83.45	29,382,000	13,758,500	66.45	553	
6/6/2007	10:00 AM	1440	2880	83.60	29,416,000	13,790,600	66.60	535	
6/6/2007	10:30 AM	1470	2910	83.65	29,433,000	13,807,300	66.65	557	
6/6/2007	11:00 AM	1500	2940	83.80	29,451,000	13,824,600	66.80	577	
6/6/2007	11:30 AM	1530	2970	84.00	-	-	67.00	-	
6/6/2007	12:00 PM	1560	3000	84.10	29,485,000	13,857,000	67.10	-	
6/6/2007	12:30 PM	1590	3030	84.20	29,502,000	13,873,400	67.20	547	
6/6/2007	1:00 PM	1620	3060	84.30	29,518,000	13,888,700	67.30	510	
6/6/2007	1:30 PM	1650	3090	84.30	29,538,000	13,906,500	67.30	593	
6/6/2007	2:00 PM	1680	3120	84.50	29,559,000	-	67.50	-	
6/6/2007	2:30 PM	1710	3150	84.60	29,589,000	13,954,100	67.60	-	
6/6/2007	3:00 PM	1740	3180	84.70	29,595,000	-	67.70	-	
6/6/2007	3:30 PM	1770	3210	84.75	29,608,000	13,974,100	67.75	-	
6/6/2007	4:00 PM	1800	3240	84.80	29,632,000	13,990,100	67.80	533	
6/6/2007	4:30 PM	1830	3270	84.90	29,638,000	14,003,100	67.90	433	
6/6/2007	5:30 PM	1890	3330	85.10	29,673,000	14,036,400	68.10	555	
6/6/2007	6:00 PM	1920	3360	85.20	29,689,000	14,052,000	68.20	520	
6/6/2007	6:30 PM	1950	3390	85.25	29,706,000	14,067,700	68.25	523	
6/6/2007	7:00 PM	1980	3420	85.30	29,725,000	14,086,000	68.30	610	
6/6/2007	7:30 PM	2010	3450	85.50	29,741,000	14,100,900	68.50	497	
6/6/2007	8:00 PM	2040	3480	85.60	29,750,000	14,116,200	68.60	510	
6/6/2007	8:30 PM	2070	3510	85.70	29,774,000	14,132,700	68.70	550	
6/6/2007	9:00 PM	2100	3540	85.80	29,790,000	14,148,100	68.80	513	
6/6/2007	9:30 PM	2130	3570	85.90	29,808,000	14,165,600	68.90	583	
6/6/2007	10:00 PM	2160	3600	86.00	29,824,000	14,181,100	69.00	517	
6/6/2007	10:30 PM	2190	3630	86.10	29,842,000	14,197,800	69.10	557	
6/6/2007	11:00 PM	2220	3660	86.20	29,859,000	14,212,600	69.20	493	
6/6/2007	11:30 PM	2250	3690	86.35	29,877,000	14,231,500	69.35	630	
6/7/2007	12:00 AM	2280	3720	86.40	29,893,000	14,246,200	69.40	490	
6/7/2007	12:30 AM	2310	3750	86.50	29,911,000	14,263,100	69.50	563	

6/7/2007	1:00 AM	2340	3780	86.60	29,928,000	14,278,900	69.60	527	
6/7/2007	1:30 AM	2370	3810	86.75	29,944,000	14,294,600	69.75	523	
6/7/2007	2:00 AM	2400	3840	86.80	29,962,000	14,311,400	69.80	560	
6/7/2007	2:30 AM	2430	3870	86.95	29,979,000	14,327,700	69.95	543	
6/7/2007	3:00 AM	2460	3900	87.00	29,997,000	14,344,500	70.00	560	
6/7/2007	3:30 AM	2490	3930	87.10	30,013,000	14,360,600	70.10	537	
6/7/2007	4:00 AM	2520	3960	87.20	30,031,000	14,377,300	70.20	557	
6/7/2007	4:30 AM	2550	3990	87.30	30,048,000	14,392,800	70.30	517	
6/7/2007	5:00 AM	2580	4020	87.40	30,062,000	14,406,600	70.40	460	
6/7/2007	5:30 AM	2610	4050	87.50	30,082,000	14,425,300	70.50	623	
6/7/2007	6:00 AM	2640	4080	87.55	30,101,000	14,442,600	70.55	577	
6/7/2007	6:30 AM	2670	4110	87.60	30,116,000	14,457,800	70.60	507	
6/7/2007	7:00 AM	2700	4140	87.70	30,132,000	14,472,500	70.70	490	
6/7/2007	7:30 AM	2730	4170	87.80	30,150,000	14,489,400	70.80	563	
6/7/2007	8:00 AM	2760	4200	87.90	30,169,000	14,505,700	70.90	543	
6/7/2007	8:30 AM	2790	4230	87.95	30,188,000	14,523,900	70.95	607	
6/7/2007	9:00 AM	2820	4260	88.00	30,202,000	14,539,000	71.00	503	
6/7/2007	9:30 AM	2850	4290	88.05	30,221,000	14,556,900	71.05	597	
6/7/2007	10:00 AM	2880	4320	88.10	30,237,000	14,572,300	71.10	513	
6/7/2007	10:30 AM	2910	4350	88.15	30,252,000	14,587,000	71.15	490	
6/7/2007	11:00 AM	2940	4380	88.20	30,269,000	14,603,200	71.20	540	
6/7/2007	11:30 AM	2970	4410	88.30	30,287,000	14,620,700	71.30	583	
6/7/2007	12:00 PM	3000	4440	88.35	30,304,000	14,626,000	71.35	177	
6/7/2007	12:30 PM	3030	4470	88.40	30,320,000	14,651,600	71.40	853	
6/7/2007	1:00 PM	3060	4500	88.50	30,341,000	14,671,400	71.50	660	
6/7/2007	1:30 PM	3090	4530	88.55	30,354,000	14,683,900	71.55	417	
6/7/2007	2:00 PM	3120	4560	88.60	30,373,000	14,702,100	71.60	607	
6/7/2007	2:30 PM	3150	4590	88.65	30,389,000	14,717,200	71.65	503	
6/7/2007	3:00 PM	3180	4620	88.75	30,408,000	14,735,200	71.75	600	
6/7/2007	3:30 PM	3210	4650	88.85	30,422,000	14,748,800	71.85	453	
6/7/2007	4:00 PM	3240	4680	88.95	30,439,000	14,765,100	71.95	543	
6/7/2007	4:30 PM	3270	4710	89.05	30,458,000	14,783,100	72.05	600	
6/7/2007	5:00 PM	3300	4740	89.10	30,473,000	14,797,400	72.10	477	
6/7/2007	6:00 PM	3360	4800	89.25	30,510,000	14,833,000	72.25	593	
6/7/2007	6:30 PM	3390	4830	89.35	30,524,000	14,846,100	72.35	437	
6/7/2007	7:00 PM	3420	4860	89.40	30,541,000	14,862,100	72.40	533	
6/7/2007	7:30 PM	3450	4890	89.50	30,557,000	14,877,800	72.50	523	
6/7/2007	8:00 PM	3480	4920	89.60	30,577,000	14,896,700	72.60	630	
6/7/2007	9:30 PM	3570	5010	89.90	30,628,000	14,945,600	72.90	543	
6/7/2007	10:00 PM	3600	5040	90.00	30,645,000	14,961,800	73.00	540	
6/7/2007	10:30 PM	3630	5070	90.10	30,661,000	14,976,900	73.10	503	
6/7/2007	11:00 PM	3660	5100	90.20	30,679,000	14,994,300	73.20	580	
6/7/2007	11:30 PM	3690	5130	90.25	30,697,000	15,010,900	73.25	553	
6/8/2007	12:00 AM	3720	5160	90.30	30,713,000	15,026,000	73.30	503	
6/8/2007	12:30 AM	3750	5190	90.40	30,729,000	15,042,000	73.40	533	
6/8/2007	1:00 AM	3780	5220	90.50	30,746,000	15,057,700	73.50	523	
6/8/2007	1:30 AM	3810	5250	90.55	30,765,000	15,075,600	73.55	597	
6/8/2007	2:00 AM	3840	5280	90.60	30,780,000	15,090,400	73.60	493	

6/8/2007	2:30 AM	3870	5310	90.70	30,798,000	15,107,000	73.70	553	
6/8/2007	3:00 AM	3900	5340	90.75	30,814,000	15,122,600	73.75	520	
6/8/2007	3:30 AM	3930	5370	90.80	30,831,000	15,138,500	73.80	530	
6/8/2007	4:00 AM	3960	5400	90.90	30,848,000	15,155,400	73.90	563	
6/8/2007	4:30 AM	3990	5430	90.95	30,865,000	15,171,500	73.95	537	
6/8/2007	5:00 AM	4020	5460	91.05	30,882,000	15,187,900	74.05	547	
6/8/2007	5:30 AM	4050	5490	91.10	30,898,000	15,203,200	74.10	510	
6/8/2007	6:00 AM	4080	5520	91.20	30,915,000	15,219,400	74.20	540	
6/8/2007	6:30 AM	4110	5550	91.30	30,932,000	15,235,600	74.30	540	
6/8/2007	7:00 AM	4140	5580	91.35	30,949,000	15,251,700	74.35	537	
6/8/2007	7:30 AM	4170	5610	91.40	30,967,000	15,269,000	74.40	577	
6/8/2007	8:00 AM	4200	5640	91.45	30,984,000	15,284,000	74.45	500	
6/8/2007	8:30 AM	4230	5670	91.50	31,000,000	15,300,000	74.50	533	
6/8/2007	9:00 AM	4260	5700	91.55	31,018,000	15,317,200	74.55	573	
6/8/2007	9:30 AM	4290	5730	91.65	31,035,000	15,333,500	74.65	543	
6/8/2007	9:59 AM	4319	5759	91.65	31,050,000	15,347,900	74.65	497	

AVERAGE CALCULATED PUMPING RATE: 542 gpm (see notes below)
TOTAL DRAWDOWN: 74.65 FEET

NOTE: The calculated average pumping rate for the 72-hour on the basis of the totalizer #2 is not accurate as indicated by the variation of the calculated values.
The estimated average pumping rate for the 72-hour test is approximately **580 gpm**.

Winnemucca Ranch Pumping Test Well #1

Step Pumping Test and 72 hr. Constant-Rate Pumping Test

Pumping well recovery data (manual) | Well Diameter: 8"

Time Since Pumping Stopped t' (min)	Date	Time	Total Combined Time (min)	Time Ratio	Depth to Water (ft)	Residual Drawdown (ft)	Notes
0	6/8/2007	10:00 AM	5253	---	91.65	74.65	
2	6/8/2007	10:02 AM	5255	2628	91.65	74.65	
3	6/8/2007	10:03 AM	5256	1752	68.00	51.00	
4	6/8/2007	10:04 AM	5257	1314	62.70	45.70	
5	6/8/2007	10:05 AM	5258	1052	60.40	43.40	
6	6/8/2007	10:06 AM	5259	877	57.95	40.95	
7	6/8/2007	10:07 AM	5260	751	56.30	39.30	
8	6/8/2007	10:08 AM	5261	658	54.95	37.95	
9	6/8/2007	10:09 AM	5262	585	53.95	36.95	
10	6/8/2007	10:10 AM	5263	526	53.10	36.10	
11	6/8/2007	10:11 AM	5264	479	52.40	35.40	
12	6/8/2007	10:12 AM	5265	439	51.75	34.75	
14	6/8/2007	10:14 AM	5267	376	50.80	33.80	
16	6/8/2007	10:16 AM	5269	329	50.05	33.05	
18	6/8/2007	10:18 AM	5271	293	49.40	32.40	
20	6/8/2007	10:20 AM	5273	264	48.90	31.90	
22	6/8/2007	10:22 AM	5275	240	48.40	31.40	
25	6/8/2007	10:25 AM	5278	211	47.90	30.90	
30	6/8/2007	10:30 AM	5283	176	47.15	30.15	
35	6/8/2007	10:35 AM	5288	151	46.60	29.60	
40	6/9/2007	10:40 AM	5293	132	46.11	29.11	
45	6/8/2007	10:45 AM	5298	118	45.70	28.70	
50	6/8/2007	10:50 AM	5303	106	45.30	28.30	
55	6/8/2007	10:55 AM	5308	97	45.05	28.05	
60	6/8/2007	11:00 AM	5313	89	44.70	27.70	
70	6/8/2007	11:10 AM	5323	76	44.15	27.15	
80	6/8/2007	11:20 AM	5333	67	43.60	26.60	
90	6/8/2007	11:30 AM	5343	59	43.20	26.20	
100	6/8/2007	11:40 AM	5353	54	42.80	25.80	
110	6/8/2007	11:50 AM	5363	49	42.45	25.45	
120	6/8/2007	12:00 PM	5373	45	42.05	25.05	
150	6/8/2007	12:30 PM	5403	36	41.08	24.08	
180	6/8/2007	1:00 PM	5433	30	40.35	23.35	
210	6/8/2007	1:30 PM	5463	26	39.60	22.60	
240	6/8/2007	2:00 PM	5493	23	38.95	21.95	
270	6/8/2007	2:30 PM	5523	20	38.35	21.35	
300	6/8/2007	3:00 PM	5553	19	37.73	20.73	
330	6/8/2007	3:30 PM	5583	17	37.15	20.15	
360	6/8/2007	4:00 PM	5613	16	36.50	19.50	
390	6/8/2007	4:30 PM	5643	14	36.25	19.25	

420	6/8/2007	5:00 PM	5673	14	35.80	18.80	
450	6/8/2007	5:30 PM	5703	13	35.45	18.45	
480	6/8/2007	6:00 PM	5733	12	35.09	18.09	
510	6/8/2007	6:30 PM	5763	11	34.85	17.85	
540	6/8/2007	7:00 PM	5793	11	34.50	17.50	
570	6/8/2007	7:30 PM	5823	10	34.20	17.20	
600	6/8/2007	8:00 PM	5853	10	33.90	16.90	
1380	6/9/2007	9:30 AM	6633	5	29.75	12.75	
1410	6/9/2007	10:00 AM	6663	5	29.65	12.65	
1440	6/9/2007	10:30 AM	6693	5	29.60	12.60	
1470	6/9/2007	11:00 AM	6723	5	29.50	12.50	
1500	6/9/2007	11:30 AM	6753	5	29.40	12.40	
1530	6/9/2007	12:00 PM	6783	4	29.30	12.30	
1560	6/9/2007	12:30 PM	6813	4	29.20	12.20	
1590	6/9/2007	1:00 PM	6843	4	29.10	12.10	
1620	6/9/2007	1:30 PM	6873	4	29.00	12.00	
1650	6/9/2007	2:00 PM	6903	4	28.95	11.95	
1680	6/9/2007	2:30 PM	6933	4	28.90	11.90	
1710	6/9/2007	3:00 PM	6963	4	28.80	11.80	
1740	6/9/2007	3:30 PM	6993	4	28.70	11.70	
1770	6/9/2007	4:00 PM	7023	4	28.60	11.60	
1800	6/9/2007	4:30 PM	7053	4	28.60	11.60	
1830	6/9/2007	5:00 PM	7083	4	28.50	11.50	
2760	6/10/2007	8:00 AM	8013	3	26.60	9.60	
2790	6/10/2007	8:30 AM	8043	3	26.60	9.60	
2820	6/10/2007	9:00 AM	8073	3	26.60	9.60	
2850	6/10/2007	9:30 AM	8103	3	26.60	9.60	
2880	6/10/2007	10:00 AM	8133	3	26.60	9.60	
2910	6/10/2007	10:30 AM	8163	3	26.55	9.55	
2940	6/10/2007	11:00 AM	8193	3	26.50	9.50	
2970	6/10/2007	11:30 AM	8223	3	26.50	9.50	
3000	6/10/2007	12:00 PM	8253	3	26.40	9.40	
3030	6/10/2007	12:30 PM	8283	3	26.35	9.35	
3060	6/10/2007	1:00 PM	8313	3	26.30	9.30	
3090	6/10/2007	1:30 PM	8343	3	26.25	9.25	
3120	6/10/2007	2:00 PM	8373	3	26.25	9.25	
3150	6/10/2007	2:30 PM	8403	3	26.20	9.20	
3180	6/10/2007	3:00 PM	8433	3	26.20	9.20	
3210	6/10/2007	3:30 PM	8463	3	26.10	9.10	
3240	6/10/2007	4:00 PM	8493	3	26.10	9.10	
3270	6/10/2007	4:30 PM	8523	3	26.00	9.00	
3330	6/10/2007	5:30 PM	8583	3	26.00	9.00	
4410	6/11/2007	11:30 AM	9663	2	24.90	7.9	
4470	6/11/2007	12:30 PM	9723	2	24.85	7.9	

Step 1 Flow Rate Estimation from Orifice Weir

Equation	Q = 8.02*C*A*h^0.5	
Plate Diameter	6	inches
Pipe Diameter	8	inches
Ratio	0.75	
From Chart, C=	0.71	
Orifice Not Full	2 inches open	
Flow Area Calculation		
Depth	4	inches
Half chord length	2.83	inches
Chord length	5.66	inches
Chord subtended angle	2.461918835	radian
	141.0575587	degrees
Triangle Area	2.83	sq. in.
Fan Area	11.08	sq. in.
Flow Area =	20.02	sq. in.
Piezometer Tube Head	1.7	inches
Q =	148.7	gpm

Therefore, the flow rate for the first step is approximately 150 gpm.

COOPER - JACOB CALCULATIONS
Winnemucca Ranch Pumping Test Well #1

DATE OF TEST: June 4~8, 2007
JOB NAME: WinRch001
WELL NUMBER: Test Well #1
WELL LOCATION: Dry Valley Hydrographic Area, Nevada
STATIC WATER LEVEL: **17.0** feet from Top of Casing

EXPLANATION OF SYMBOLS & EQUATIONS

T = Transmissivity (ft^2/day)

$$T=2.3*Q/(4*3.14159*\Delta s)$$

S = Storage Coefficient

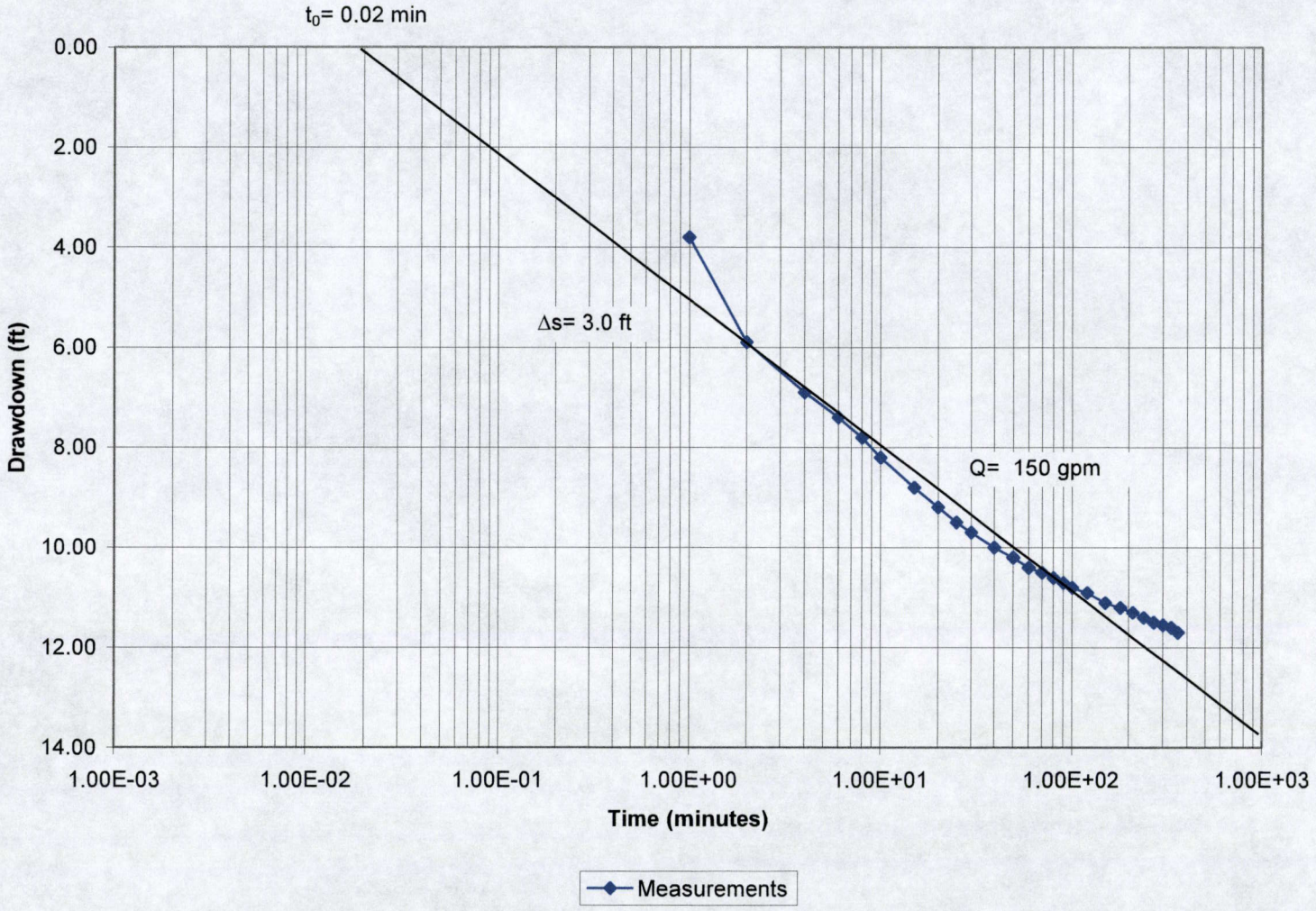
Pumping eq. $S = 2.25*T*(t_o/r^2)$

Recovery eq. $S = (r^2/(2.25*T*t_{stop})*10^{(s*4\pi T/2.3Q)}$

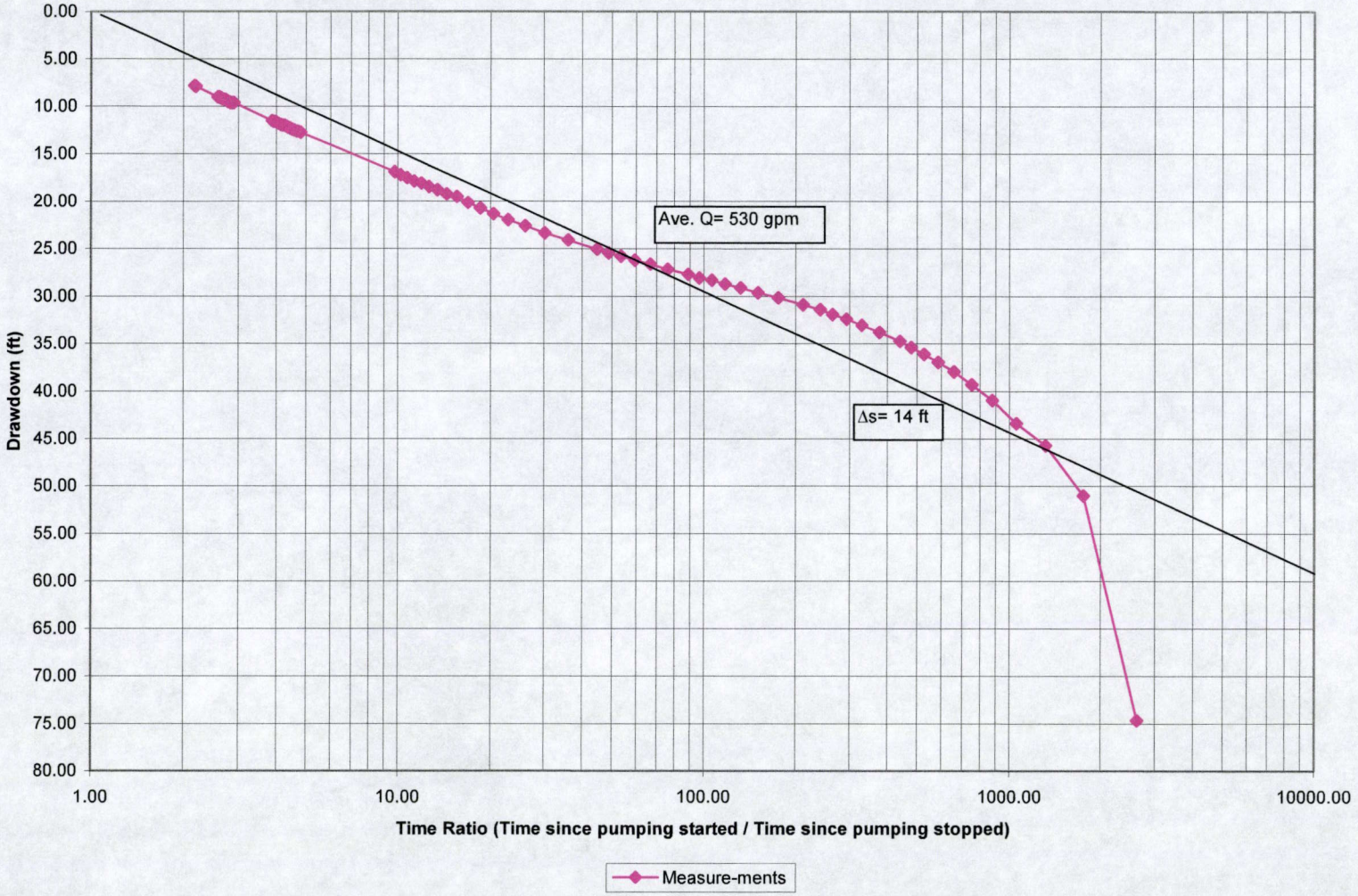
Q = Average well discharge (gpm)
Δs = Change in drawdown over one log cycle
s = Total Drawdown (ft)
r = Radius
t_{stop} = total time pumped
t_o = x-intercept of straight line.

TEST	AVERAGE PUMPING RATE (GPM)	TOTAL DRAWDOWN s (ft)	r (ft.)	Δs (ft)	T (ft^2/day)	S
Step 1	150	11.70	0.67	3.00	1767.12	0.1230
Recovery	530	74.65	0.67	14.00	1337.96	0.00019

Transient Drawdown Data
Winnemucca Ranch Test Well #1



RECOVERY FOLLOWING STEP AND 72-HOUR DRAWDOWN TEST DATA (June 4~8, 2007)
Winnemucca Ranch Test Well #1



Cooper-Jacob Calculations (Recovery Data)

STEP-DRAWDOWN TEST CALCULATIONS
Winnemucca Ranch Pumping Test Well #1

DATE OF TEST: June 4~8, 2007
JOB NAME: WinRch001
WELL NUMBER: Test Well #1
WELL LOCATION: Dry Valley Hydrographic Area, Nevada
STATIC WATER LEVEL: **17.0** feet from Top of Casing

EXPLANATION OF SYMBOLS & EQUATIONS

Q = Well discharge (gpm)
S = Total Drawdown (ft)
s_o = Drawdown at end of step (ft)
B = Formation loss (from graph) Q
C = Well loss (s/Q^2) (from graph)
s' = Calculated drawdown (ft) = BQ + CQ2 (ft)
E = well efficiency = 1/[1+(C/B)Q] x 100 (%)

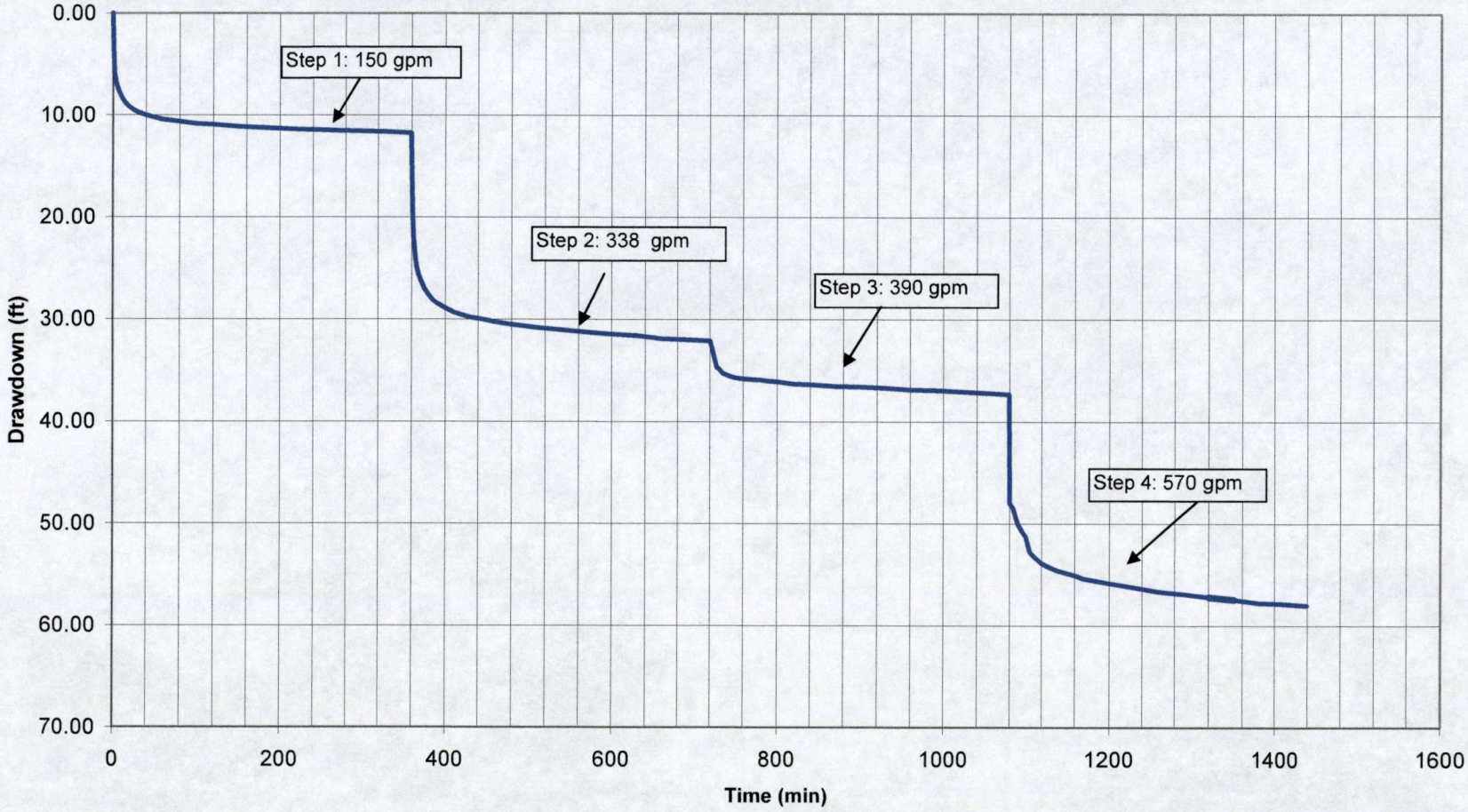
STEP	DURATION OF STEP (min)	PUMP RATE (gpm)	STEP DRAWDOWN s_o (ft)	TOTAL DRAWDOWN S (ft)	SPECIFIC DRAWDOWN S/Q (ft/gpm)	SPECIFIC CAPACITY Q/S (gpm/ft)
1	360	150	11.70	11.70	0.0780	12.8205
2	360	338	20.40	32.10	0.0950	10.5296
3	360	390	5.30	37.30	0.0956	10.4558
4	360	570	20.70	58.00	0.1018	9.8276

CALCULATED DRAWDOWN, SPECIFIC CAPACITY & WELL EFFICIENCY

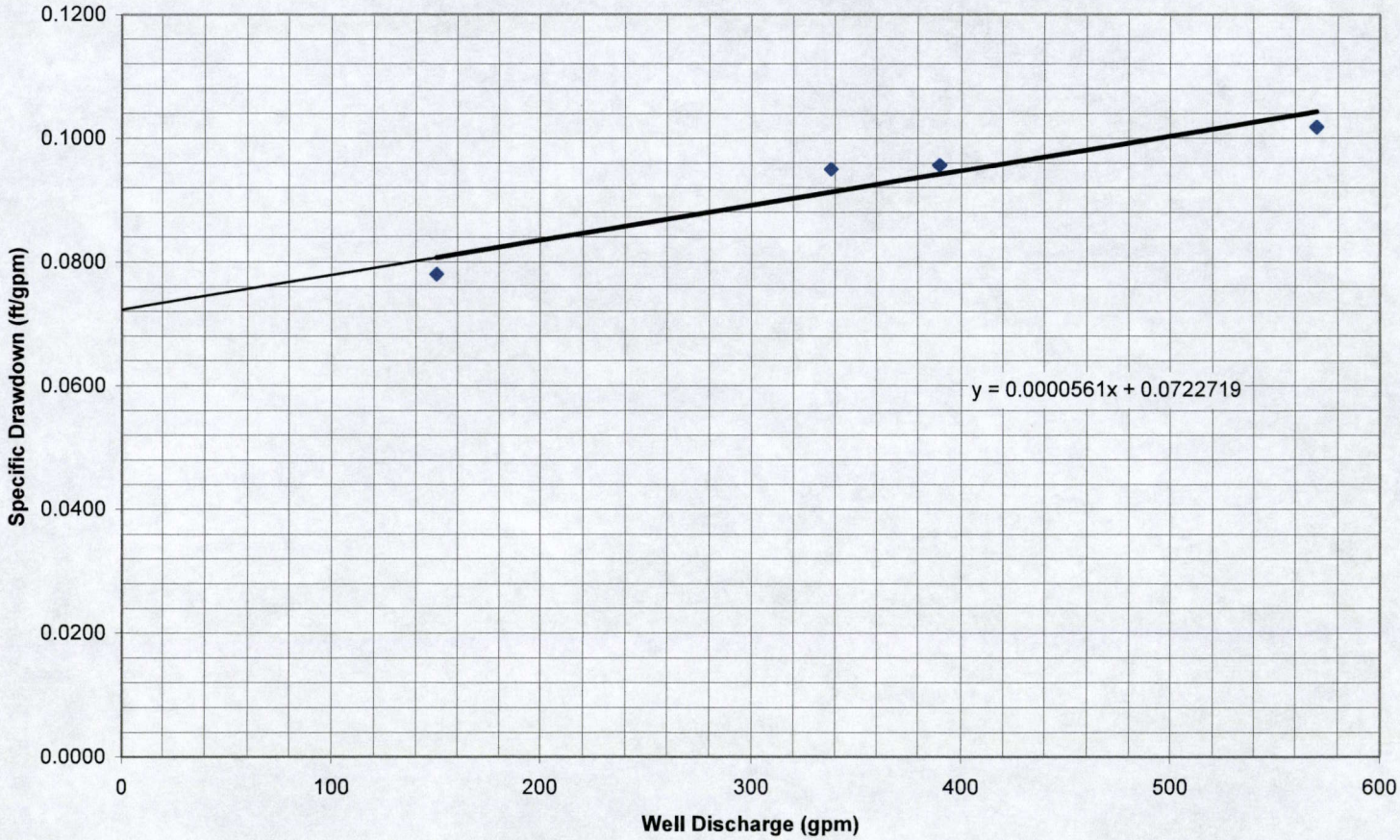
PUMP RATE (gpm)	AQUIFER LOSS BQ (ft)	WELL LOSS CQ^2 (ft)	CALCULATED DRAWDOWN s' (ft)	CALCULATED SPECIFIC CAPACITY Q/s' (gpm)	WELL EFFICIENCY E (%)
170	12.29	1.62	13.91	12.22	88.3
360	26.03	7.27	33.30	10.81	78.2
400	28.92	8.98	37.90	10.56	76.3
500	36.15	14.03	50.18	9.97	72.0
550	39.77	16.97	56.74	9.69	70.1
570	41.21	18.23	59.44	9.59	69.3
600	43.38	20.20	63.58	9.44	68.2
700	50.61	27.49	78.10	8.96	64.8
800	57.84	35.90	93.74	8.53	61.7

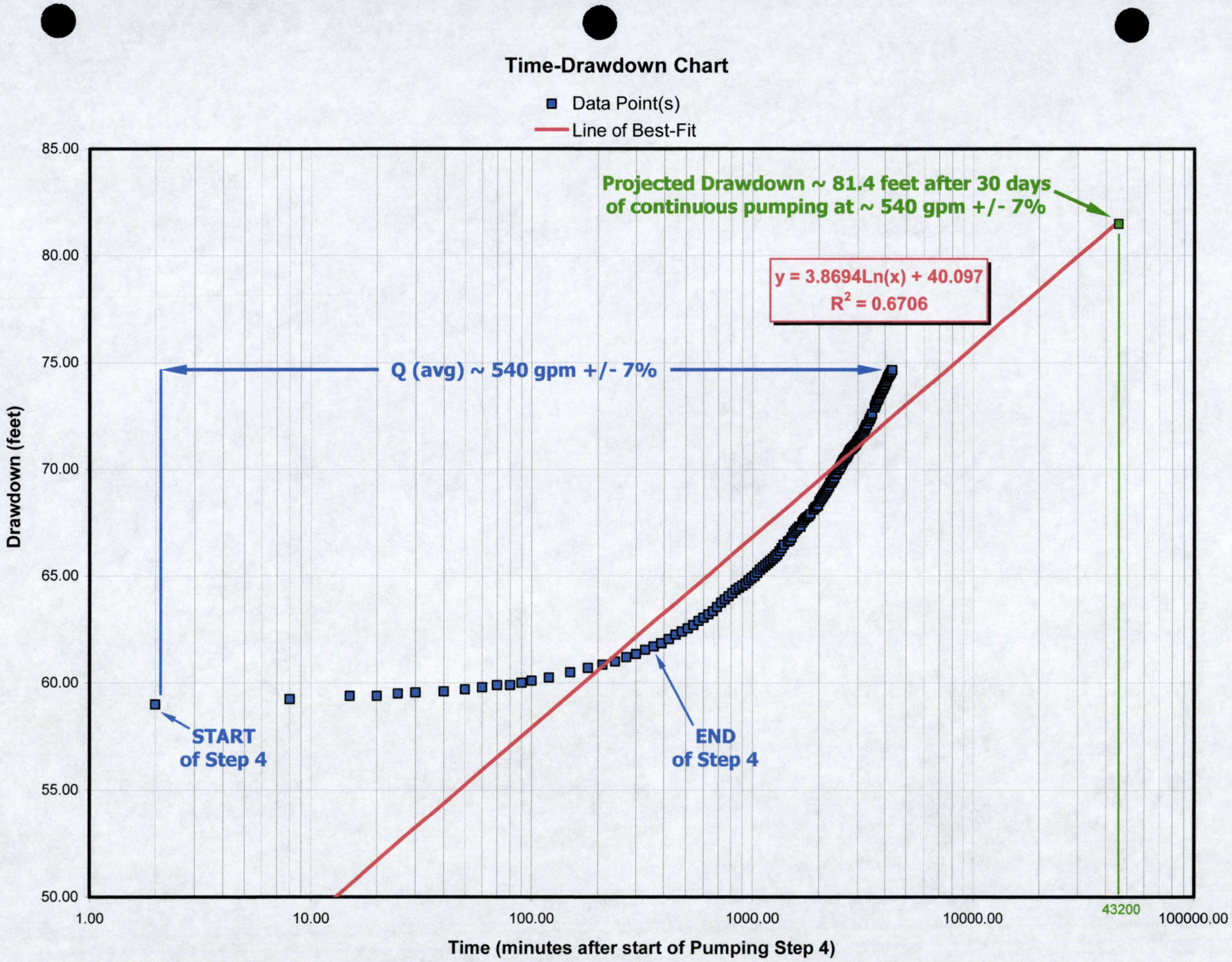
FROM GRAPH:
B= 0.0723
C= 0.0000561

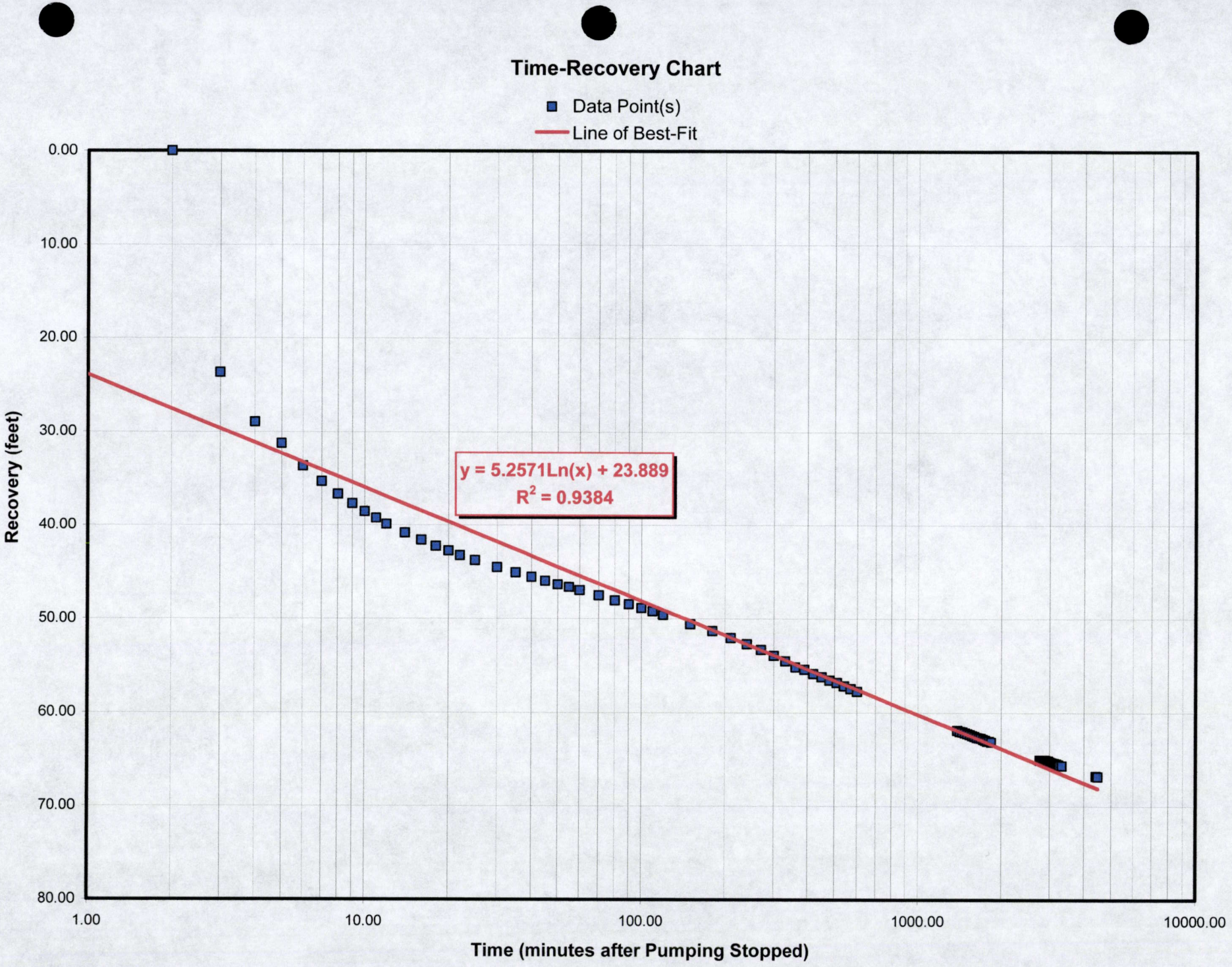
STEP-DRAWDOWN TEST DATA (June 4~8, 2007)
Winnemucca Ranch Well Test Well #1



STEP-DRAWDOWN TEST (June 4~8, 2007)
Winnemucca Ranch Test Well #1




Time-Drawdown Chart
Data Point(s)
Line of Best-Fit
Projected Drawdown ~ 81.4 feet after 30 days
of continuous pumping at ~ 540 gpm +/- 7%
y = 3.8694Ln(x) + 40.097
R2 = 0.6706
Q (avg) ~ 540 gpm +/- 7%
START
of Step 4
END
of Step 4
Drawdown (feet)
85.00
80.00
75.00
70.00
65.00
60.00
55.00
50.00
1.00
10.00
100.00
1000.00
10000.00
43200
100000.00
Time (minutes after start of Pumping Step 4)


Time-Recovery Chart
Data Point(s)
Line of Best-Fit
y = 5.2571Ln(x) + 23.889
R2 = 0.9384
Recovery (feet)
0.00
10.00
20.00
30.00
40.00
50.00
60.00
70.00
80.00
1.00
10.00
100.00
1000.00
10000.00
Time (minutes after Pumping Stopped)

LABORATORY ANALYTICAL REPORT
for WATER QUALITY

Laboratory Report
Report ID: 84105

Sierra Environmental Monitoring, Inc.

Washoe County Dept. of Water Resources
Attn: Dan Dragan
4930 Energy Way
Reno, NV 89520

Date: 6/12/2007
Client: WAS-500
Taken by: D. Dragan
PO #: 6500000616

Dear Dan Dragan,

It is the policy of Sierra Environmental Monitoring, Inc to strictly adhere to a comprehensive Quality Assurance Plan that insures the data presented in this report are both accurate and precise. Sierra Environmental Monitoring, Inc. maintains accreditation in the State of Nevada (NV-15) and the State of California (ELAP 2526).

The data presented in this report were obtained from the analysis of samples received under a chain of custody. Unless otherwise noted below, samples were received in good condition, properly preserved and within the hold time for the requested analyses. Any anomalies associated with the analysis of the samples have been flagged with appropriate explanation in the Analysis Report section of this Laboratory Report.

General Comments:

- There are no general comments for this report.

Individual Sample Comments:

- There are no specific comments that are associated with these samples.

Approved By: **Date:**

Sierra Environmental Monitoring, Inc. 6/12/2007

John Kobza, Ph.D.
Laboratory Director

1135 Financial Blvd.
Reno, NV 89502-2348
Phone (775) 857-2400
FAX (775) 857-2404
sem@sem-analytical.com

John C. Seher
Special Consultant
Quality Assurance Manager

Laboratory Report
Report ID: 84105

Sierra Environmental Monitoring, Inc.

Washoe County Dept. of Water Resources
Attn: Dan Dragan
4930 Energy Way
Reno, NV 89520

Date: 6/12/2007
Client: WAS-500
Taken by: D. Dragan
PO #: 6500000616

Analysis Report

Sample ID:	Customer Sample ID	Date Sampled	Time Sampled	Date Received
S200706-0174	Winranch Well	6/5/2007	10:15 AM	6/5/2007

Parameter	Method	Result	Units	Reporting Limit	Analyst	Date Analyzed	Data Flag
Alkalinity, Total	SM 2320 B	170	mg/L CaCO3	2	Pacheco	6/8/2007	
Alkalinity/Bicarbonate	SM 2320 B	170	mg/L CaCO3	2	Pacheco	6/8/2007	
Alkalinity/Carbonate	SM 2320 B	<2	mg/L CaCO3	2	Pacheco	6/8/2007	
Alkalinity/Hydroxide	SM 2320 B	<2	mg/L CaCO3	2	Pacheco	6/8/2007	
Arsenic - ICP-MS	EPA 200.8	<0.002	mg/L	0.002	Faulstich	6/8/2007	
Barium - ICP-MS	EPA 200.8	0.032	mg/L	0.002	Faulstich	6/8/2007	
Calcium - ICP-OES	EPA 200.7	31	mg/L	0.5	Keller	6/7/2007	J1
Chloride - Ion Chromatography	EPA 300.0	5.1	mg/L	0.5	Henderson	6/5/2007	
Color Apparent	EPA 110.2	<5	Color Units	5	Van Ry	6/6/2007	
Copper - ICP-MS	EPA 200.8	<0.002	mg/L	0.002	Faulstich	6/8/2007	
Fluoride - Ion Chromatography	EPA 300.0	<0.1	mg/L	0.1	Henderson	6/5/2007	
Iron - ICP-OES	EPA 200.7	<0.05	mg/L	0.05	Keller	6/7/2007	J1
Lead - ICP-MS	EPA 200.8	<0.002	mg/L	0.002	Faulstich	6/8/2007	J1
Magnesium - ICP-OES	EPA 200.7	18	mg/L	0.5	Keller	6/7/2007	J1
Manganese - ICP-MS	EPA 200.8	0.003	mg/L	0.002	Faulstich	6/8/2007	J1
MBAS Surfactants	SM 5540 C	<0.05	mg/L	0.05	Pacheco	6/5/2007	
Nitrate-N - Ion Chromatography	EPA 300.0	0.31	mg/L N	0.05	Henderson	6/5/2007	
pH	SM 4500 H+B	8.18	pH Units		Pacheco	6/8/2007	
pH - Temperature	SM 4500 H+B	20.3	°C		Pacheco	6/8/2007	
Potassium - ICP-OES	EPA 200.7	4.8	mg/L	0.5	Keller	6/7/2007	C
Sodium - ICP-OES	EPA 200.7	17	mg/L	0.5	Keller	6/7/2007	J1
Sulfate - Ion Chromatography	EPA 300.0	6.6	mg/L	0.2	Henderson	6/5/2007	
Total Dissolved Solids	SM 2540 C	220	mg/L	10	Van Ry	6/8/2007	
Total Recoverable Metals - Acid Dig	EPA 200.2	Completed			Keller	6/6/2007	
Turbidity	SM 2130 B	0.3	NTU	0.1	Van Ry	6/6/2007	
Zinc - ICP-MS	EPA 200.8	<0.02	mg/L	0.02	Faulstich	6/8/2007	

Data Flag Legend:

C - Sample concentration is at least 5 times greater than spike contribution. Spike recovery criteria do not apply.
J1 - The batch MS and/or MSD were outside acceptance limits. The batch LCS was acceptable.

John Kobza, Ph.D.
Laboratory Director

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John C. Seher
Special Consultant
Quality Assurance Manager

Laboratory Report
Report ID: 84105

Sierra Environmental Monitoring, Inc.

Washoe County Dept. of Water Resources
Attn: Dan Dragan
4930 Energy Way
Reno, NV 89520

Date: 6/12/2007
Client: WAS-500
Taken by: D. Dragan
PO #: 6500000616

Quality Control Report

Parameter	*LCS, % Recovery*	*MS, % Recovery*	*MSD, % Recovery*	*RPD, %*	*Method Blank*	
Alkalinity, Total	99.0			2.58		
Alkalinity/Bicarbonate				2.58		
Alkalinity/Carbonate				0.00		
Alkalinity/Hydroxide				0.00		
Arsenic - ICP-MS	102.0	117.0	114.0	2.60	<0.002	mg/L
Barium - ICP-MS	102.0	6.0	3.0	68.09	<0.002	mg/L
Calcium - ICP-OES	98.0	18.0	8.0	76.92	<0.5	mg/L
Chloride - Ion Chromatography	95.0	92.0	94.0	2.15	<0.5	mg/L
Copper - ICP-MS	103.0	86.0	82.0	4.65	<0.002	mg/L
Fluoride - Ion Chromatography	98.0	97.0	99.0	1.94	<0.1	mg/L
Iron - ICP-OES	99.0	8.0	16.0	66.67	<0.05	mg/L
Lead - ICP-MS	102.0	24.0	23.0	4.22	<0.002	mg/L
Magnesium - ICP-OES	98.0	4.0	2.0	66.67	<0.5	mg/L
Manganese - ICP-MS	101.0	36.0	26.0	34.08	<0.002	mg/L
MBAS Surfactants					<0.05	mg/L
Nitrate-N - Ion Chromatography	97.0	97.0	99.0	2.04	<0.05	mg/L
pH				0.00		
pH - Temperature				1.53		
Potassium - ICP-OES	97.0	0.0	0.0		<0.5	mg/L
Sodium - ICP-OES	96.0	2000.0	1000.0	66.67	<0.5	mg/L
Sulfate - Ion Chromatography	98.0	96.0	98.0	2.06	<0.2	mg/L
Total Dissolved Solids		115.0		2.84	<10	mg/L
Turbidity	101.0			0.33		
Zinc - ICP-MS	102.0	91.0	86.0	6.23	<0.02	mg/L

Legend: LCS- Laboratory Control Standard MS- Matrix Spike MSD- Matrix Spike Duplicate
RPD- Relative Percent Difference

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John C. Seher
Special Consultant
Quality Assurance Manager

JUN. 22. 2007 12:08PM WATER RESOURCES NO. 9844 P. 5

SIERRA ENVIRONMENTAL MONITORING, INC.

1135 FINANCIAL BOULEVARD - RENO - NEVADA - 89502

PHONE: (775) 857 - 2400 FAX: (775) 857 - 2404 E-Mail sem@sem-analytical.com

34105

CHAIN OF CUSTODY RECORD

Client Name: WASHOE COUNTY DEPT OF WATER RESOURCES
Purchase Order:
Address: 4930 ENERGY WAY
Phone/Fax #: 954 - 4636 (ED EVANS)
City: RENO State: NV Zip: 89502
Report Attention: DAN DRABAN
Sampled by: DAN DRABAN
Signature:

Analyses Requested: NV GEN MINERAL

Turnaround Time: Standard: X Other: ___ Rush: 24 Hr ___ 48 Hr ___

Compliance Monitoring: Yes: ___ No: X

Lab Use Only: Sub-Sample pH <2 >12

Date Sampled	Time Sampled	Sample Type*	Sample Identification	Preservative* See Key Below	Number of Containers	NV GEN MINERAL	Remarks	pH <2	pH >12
6/5/07	1015	3	WINRANCH WELL	3,6	2	X		8	

Signature	Print Name	Company	Date	Time
Relinquished By:	ED EVANS	WASHOE COUNTY	6/5/07	1:35 PM
Received By:				
Relinquished By:				
Received By:				
Relinquished By:				
Received By Laboratory:	JOHN POTTER	SEM	6/5/07	1335

Custody Seal Intact: Yes ___ No ___ None X

Sample Temperature: Degrees C 16°

Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The analytical results associated with this COC apply only to the samples as they are received by the laboratory. The liability of the laboratory is limited to the amount paid for the report.
Terms: Net thirty days on approved credit.

*KEY: Sample Type: 1=Drinking Water, 2=Surface Water, 3=Ground Water, 4=Waste Water, 5=Soil, 6=RCRA, 7=Other
Preservative: 1=NaOH, 2=NaOH + ZnOAC, 3=HNO3, 4=H2SO4, 5=Na2S2O3, 6=None, 7=Other

SEM COC Form Revised 02/01