



WATER QUALITY TESTING
WARM SPRINGS RANCH
DEVELOPMENT
WASHOE COUNTY, NEVADA

MARCH 11, 1998

prepared for

Tehama Holdings, Incorporated

TABLE OF CONTENTS

INTRODUCTION 1

WATER QUALITY SAMPLING AND ANALYSIS 1

NEW WELL DRILLING AND CONSTRUCTION 3

CONCLUSION 3

TABLES

Table 1 - Summary of General Water Chemistry Analytical Results

PLATES

- 1 - Well Locations
- 2 - Geologic Log
- 3 - As-Built Well Construction Details

APPENDICES

- A - Laboratory Analytical Reports

WATER QUALITY TESTING

WARM SPRINGS RANCH DEVELOPMENT

INTRODUCTION

Presented herein are the results of Stantech Consulting Inc.'s water quality sampling, laboratory testing, and associated analytical results for Safe Drinking Water Act (SDWA) testing for the Warm Springs Ranch Development located in Washoe County, Nevada.

WATER QUALITY SAMPLING AND ANALYSIS

On December 23, 1998, Stantech environmental staff met with a Tehama Holdings representative at the Warm Springs Ranch property in Warm Springs Valley, Washoe County, Nevada. Water samples were acquired from three domestic wells near the northern property boundary (well locations are shown on Plate 1). Outside spigots were used as a sampling point. Water was allowed to run at approximately 5 gallons per minute for 15 to 20 minutes prior to sample collection. Samples were placed into laboratory provided containers, labeled, stored in a chilled ice chest, and transported to Alpha Analytical, Incorporated, a Nevada Division of Environmental Protection (NDEP) approved laboratory. Chain of custody procedures were followed throughout sample collection, transport and analysis. The three well samples were combined by Alpha Analytical and analyzed as one composite sample.

A new well located in the southeast portion of the property was sampled on January 23, 1998, once construction and development was completed. The well was pumped for approximately 24 hours at a rate of 29 gallons per minute before sample collection. This sample was also placed into laboratory provided containers, labeled and stored in a chilled ice chest, and delivered to Alpha Analytical Laboratories, under chain of custody procedures.

Alpha Analytical Laboratories completed analytical testing for regulated and unregulated synthetic organic compounds (SOCs) and volatile organic compounds (VOCs). Sierra Environmental

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(formerly SEA, Incorporated)
950 Industrial Way
Sparks NV 89431 USA

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www.stantech.com



March 11, 1998
Project No. 26100038

Mr. Thomas Pratt
TEHAMA HOLDINGS, INCORPORATED
100 West Grove Street, #125
Reno, Nevada 89509

RE: Results of Safe Drinking Water Act - Water Quality Testing for the Warm Springs Ranch Development

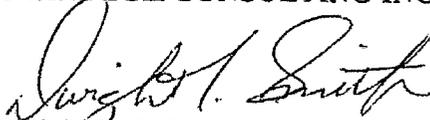
Dear Mr. Pratt:

We are pleased to present this report of analytical testing for Safe Drinking Water Act (SDWA) water quality at Warm Springs Ranch. Two analyses were performed, one on a water sample from the new well constructed in the southeast corner of Warm Springs Ranch, on January 16 through 19, 1998. The second sample was a composite from three wells situated near the northern subdivision boundaries. Water quality meets all State and Federal drinking water standards.

We appreciate the opportunity to provide hydrogeologic services to Tehama Holdings. Please contact me if you have any questions regarding the proposed scope of work or estimated costs.

Sincerely,

STANTECH CONSULTING INC.


Dwight L. Smith, P.E., C.E.M.
Hydrogeologist

DLS:rvv
F:\GEO\330645\SWP\DOCS\REPORTS\420QUAL.CVR

Monitoring, Inc. performed general water quality analysis. Barringer Laboratories, Inc. analyzed gross alpha and gross beta radioactivity. No VOCs or SOCs were detected above laboratory detection limits. Gross alpha and beta radioactivity levels for the composite sample were reported as 4.9+/-3.1 and 12+/-3 picoCuries per liter (pCi/L), respectively. Gross alpha and Beta were reported as 5.4+/-2.8 and 5.6+/-3.2 pCi/L, respectively for the new well sample. Inorganic water chemistry results are all within State and Federal drinking water standards, as summarized in Table 1. Laboratory analytical reports are included as Appendix A.

Table 1 - Summary of General Water Chemistry Analytical Results			
Parameter	New Tehama Well	Composite Sample	State Standard
pH	7.91	7.85	6.5 to 8.5
Apparent Color Unit	5	<5	15
Total Dissolved Solids (mg/L)	330	328	1000
Nitrate - N (mg/L)	0.5N	2.4N	10
Nitrite - N (mg/L)	<0.1N	<0.1N	10
NO3 + NO2 (mg/L)	0.5	2.4N	10
Magnesium (mg/L)	11	14	150
Chloride (mg/L)	23	26	400
Cyanide (mg/L)	<0.005	<0.005	0.2
Fluoride (mg/L)	<0.1	<0.1	2.0
Sulfate (mg/L)	38	38	500
MBAS Surfactants (mg/L)	<0.05	<0.05	0.5
Odor (T.O.N.)	1	0	8.0
Antimony (mg/L)	<0.001	<0.001	0.006
Arsenic (mg/L)	0.003	0.002	0.05
Barium (mg/L)	0.081	0.070	2.0
Beryllium (mg/L)	<0.001	<0.001	0.004
Cadmium (mg/L)	<0.001	<0.001	0.005
Chromium (mg/L)	0.015	0.001	0.10
Copper (mg/L)	<0.001	0.002	1.3
Iron (mg/L)	0.48	<0.05	0.6
Manganese (mg/L)	0.018	<0.001	0.1
Mercury (mg/L)	<0.0005	<0.0005	0.002
Nickel (mg/L)	0.005	0.006	0.1
Selenium (mg/L)	<0.001	<0.001	0.05
Thallium (mg/L)	<0.001	<0.001	0.002
Zinc (mg/L)	0.16	0.02	5.0

NEW WELL DRILLING AND CONSTRUCTION

Hydrogeologic services were provided by Stantech during new well design and construction in the southeast corner of Warm Springs Ranch. Periodic inspection was provided during drilling and construction, including inspection during installation of casing and a 200-foot sanitary seal. Drilling and well construction were completed by A.S.A.P. Pump and Well Service, Inc., located in Reno, Nevada. Drilling began on January 16, 1998, using direct circulation mud-rotary drilling methods to advance a 12-inch diameter borehole to a depth of 250 feet. Materials encountered during drilling were predominantly coarse-grained clayey sands and coarse, poorly-graded sands. A geologic log is attached as Plate 2.

Well construction began on January 20, 1998. Forty feet of 6-inch inside diameter (ID) mill slot casing was installed from a depth of 210 feet below ground surface (bgs) to 250 feet bgs. Blank, 6-inch ID steel casing was installed from 210 feet bgs to 3.1 feet above ground surface. A tremie pipe was used to circulate minus $\frac{3}{8}$ -inch pea gravel into the annular space from its total depth of 250 feet to 200 feet bgs (10 feet above the top of the screened interval). The tremie pipe was then used to fill the remaining annular space (to ground surface) with cement grout. The 200 feet of 3-inch thick cement acts as a sanitary seal for the upper 50-feet of the aquifer (water table at approximately 145 feet below ground surface), where leveled nitrate concentrations exist as a result of agricultural activity. As-built well construction details are included as Plate 3.

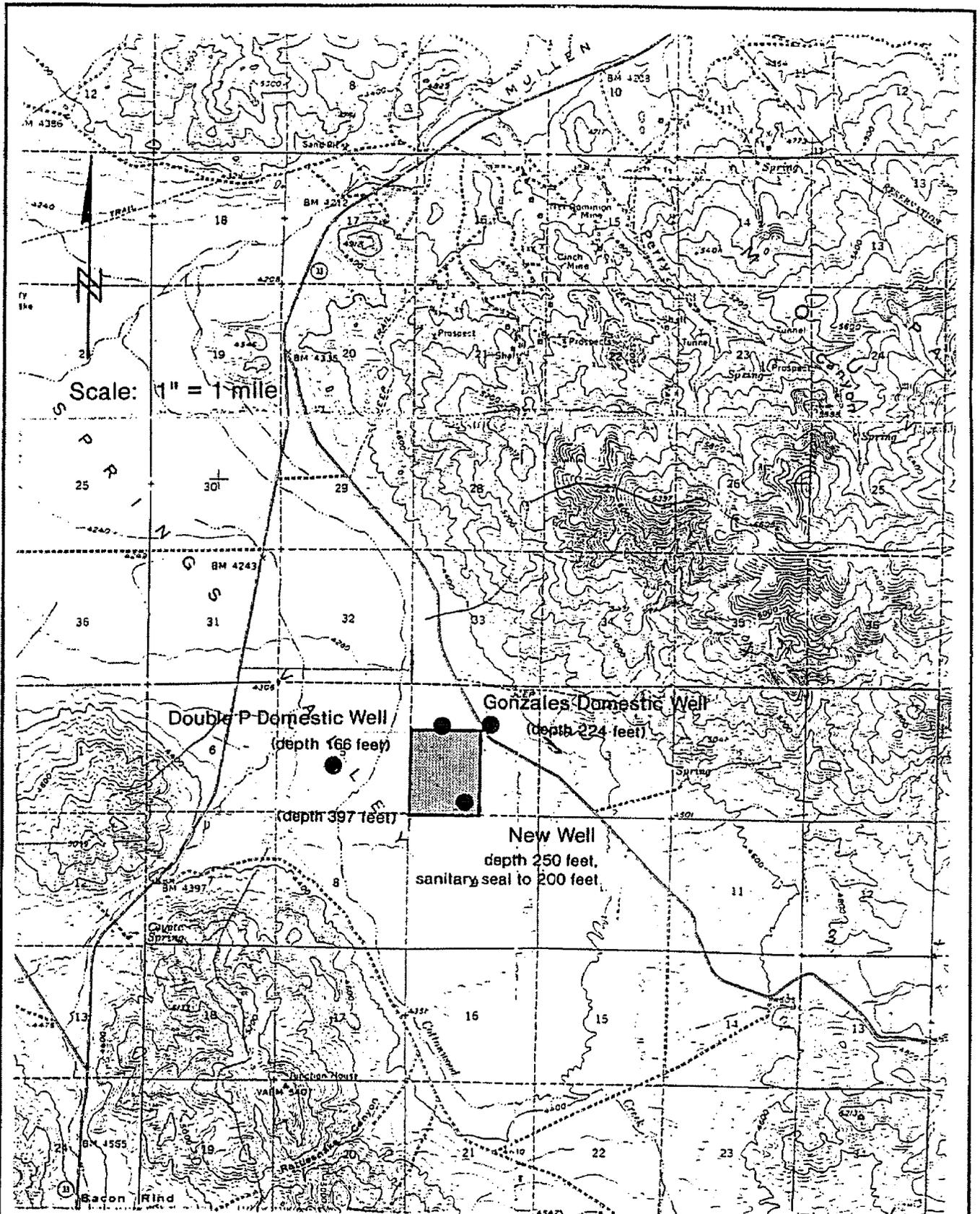
Well development included several hours of air-lifting, using the drill rig, to remove drilling fluids and sediment. A 2-horsepower submersible pump was installed at a depth of 210 feet on January 22, 1998. The new well was pumped at a rate of 29 gallons per minute for 24 hours. Water level dropped from 143.8 feet bgs (static) to 162.8 feet bgs for a total drawdown of 19.0 feet, during the 24-hour pumping period. Water samples for SDWA testing were collected during the last hour of pumping.

CONCLUSION

Water quality in four (4) domestic wells located on or surrounding the Warm Springs Ranch property has been tested. All SDWA water quality parameters are within acceptable State and Federal

drinking water standards. The new well, constructed with a sanitary seal which extends 55-feet into the aquifer, which has effectively reduced nitrate concentrations to 0.5 mg/L.

PLATES



Stantech Consulting Inc.
 950 Industrial Way
 Sparks, Nevada 89431 USA
 Phone: (702) 358-6931

Warm Springs Ranch
 TEHAMA HOLDINGS

WASHOE COUNTY NEVADA

Project No.
 26100038

Plate No. 1

WELL LOG

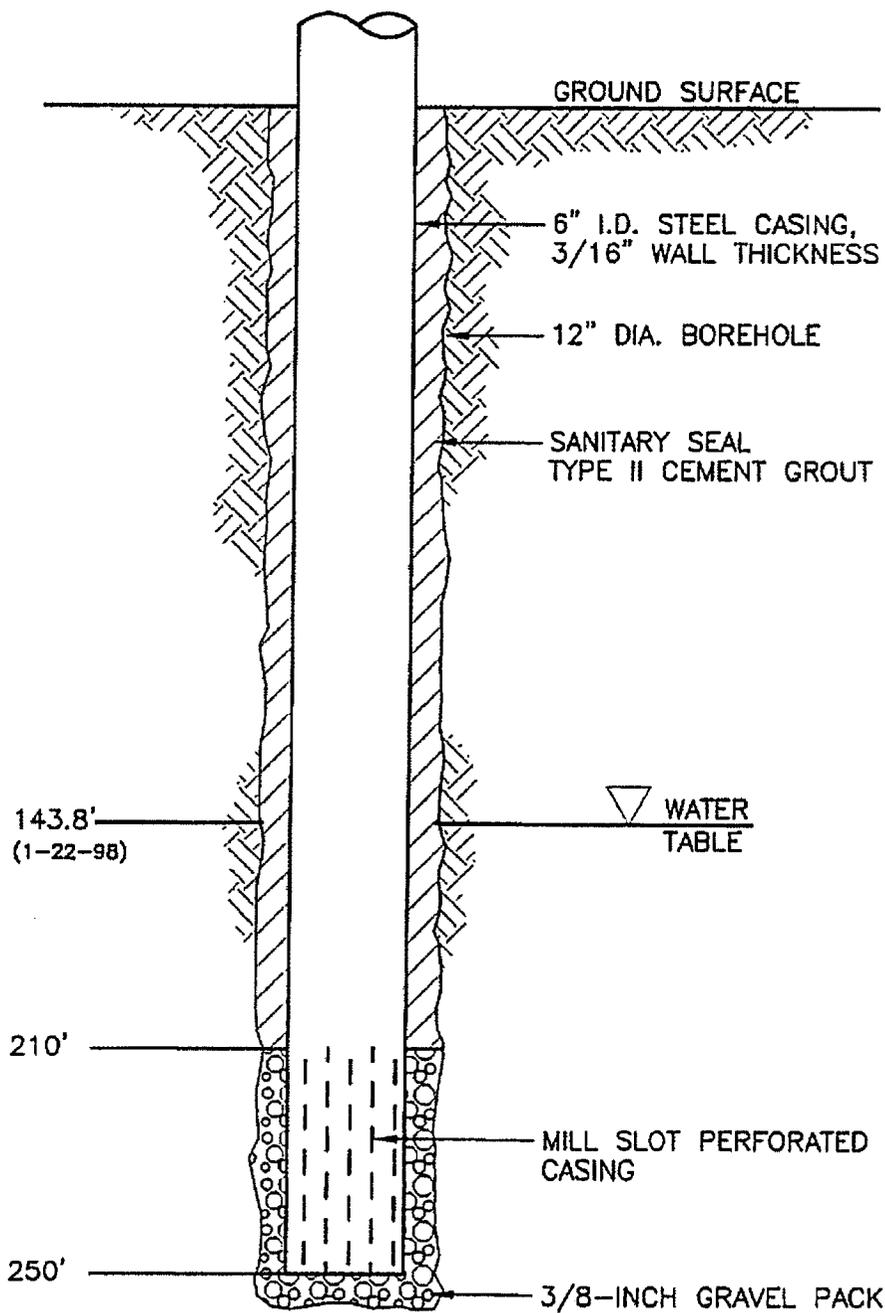
WELL NO.: Domestic Well GROUND ELEVATION.: _____
 LOGGED BY: Lara MacDonald GROUND WATER DEPTH: 143.8 Feet
 DATE: 1/16/98-1/19/98 DATE MEASURED: 1/22/98
 TYPE OF BORING: Direct Circulation

NOTES	Sample Number	Location	PTD (ppm)	Number of Blocks	Depth in Feet	Soil Class	Well Diagram	Graphic Log	DESCRIPTION
					10	SC		[Diagonal Hatching]	0-10: Brown, <u>Clayey Sand</u> with estimated 70% fine to medium, subangular to subround sand and 30% low plastic fines.
					20	SC		[Diagonal Hatching]	10-20: Brown <u>Clayey Sand</u> with estimated 85% fine to medium, subangular to subround sand and 15% low plastic fines as sand matrix and stringers.
					30	SC		[Diagonal Hatching]	20-40: Brown, <u>Clayey Sand</u> with estimated 60% fine to coarse, subround sand and 40% low to medium plastic fines.
					40	SP		[Dotted Pattern]	40-55: Grey to green to red <u>Poorly Graded Sand</u> with estimated 90% fine to coarse, subround sand, 5% fine gravel and 5% low plastic fines.
					50	SC		[Diagonal Hatching]	55-65: Brown, <u>Clayey Sand</u> with estimated 65-70% fine to coarse subangular to subround sand and 30-35% low plastic fines.
					60	SC		[Diagonal Hatching]	65-80: Tan, <u>Clayey Sand with Gravel</u> with estimated 5% fine to medium subangular gravel 65% fine to coarse subangular sand and 30% low plastic fines.
					70	SC		[Diagonal Hatching]	
					80	SP		[Dotted Pattern]	80-100: Grey to green to red <u>Poorly Graded Sand</u> with approximately 95% medium to coarse, subround to subangular sand and 5% non plastic fines.
					90	SC		[Diagonal Hatching]	
					100	SC		[Diagonal Hatching]	

EXPLANATION

Description: Describe soil type by Unified Soil Classification System with emphasis on in-place or natural condition.

■ Indicates depth of grab sample



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950 Industrial Way
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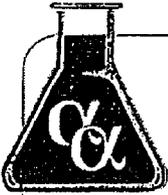
DOMESTIC WELL AS-BUILT
TEHAMA HOLDINGS

WASHOE COUNTY

NEVADA

PROJECT NO.
26100038
PLATE NO. 3

APPENDIX A



Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21
Sparks, Nevada 89431
(702) 355-1044
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1-800-283-1183

e-mail: alpha@powernet.net
http://www.powernet.net/~alpha

2505 Chandler Avenue, Suite 1
Las Vegas, Nevada 89120
(702) 498-3312
FAX: 702-736-7523
1-800-283-1183

ANALYTICAL REPORT

Stantech Consulting, Inc.
950 Industrial Way
Sparks, NV 89431
Attn: Dwight Smith

Client ID: Double P/Pratt/Gonzales (Composite)
Lab ID: SEA97122308-01/03
Sampled: 12/23/97
Received: 12/23/97
PWS#: Teahama

National Primary Drinking Water Phase II and Phase V Regulated and Unregulated Synthetic Organic Compounds (SOC's)

EPA Method	Contaminant	Concn ug/L	Det Limit	EPA Method	Contaminant	Concn ug/L	Det Limit
Analyzed: 12/25/97				Analyzed: 12/30/97			
504.1	1. 1,2-Dibromo-3-Chloropropane (DBCP)	ND	0.02	525.2	1. Atrazine	ND	0.10
504.1	2. 1,2-Dibromoethane (EDB)	ND	0.01	525.2	2. Benzo(a)pyrene	ND	0.02
Analyzed: 12/24/97				525.2	3. Bis(2-ethylhexyl) Phthalate	ND	0.60
505	1. Alachlor	ND	0.20	525.2	4. Bis(2-ethylhexyl) Adipate	ND	0.60
505	2. Aldrin	ND	0.20	525.2	5. Butachlor	ND	1.00
505	3. Chlordane (Technical)	ND	0.20	525.2	6. Metolachlor	ND	1.00
505	4. Dieldrin	ND	0.20	525.2	7. Metribuzin	ND	1.00
505	5. Endrin	ND	0.01	525.2	8. Propachlor	ND	1.00
505	6. Heptachlor	ND	0.04	525.2	9. Simazine	ND	0.07
505	7. Heptachlor Epoxide	ND	0.02	Analyzed: 01/08/98			
505	8. Hexachlorobenzene	ND	0.10	531.1	1. Aldicarb	ND	0.50
505	9. Hexachlorocyclopentadiene	ND	0.10	531.1	2. Aldicarb Sulfoxide	ND	0.50
505	10. Lindane	ND	0.02	531.1	3. Aldicarb Sulfone	ND	0.80
505	11. Methoxychlor	ND	0.10	531.1	4. Carbaryl	ND	1.00
505	12. Aroclor-1016 (Screen)	ND	0.08	531.1	5. Carbofuran	ND	0.90
505	13. Aroclor-1221 (Screen)	ND	20.0	531.1	6. 3-Hydroxycarbofuran	ND	1.00
505	14. Aroclor-1232 (Screen)	ND	0.50	531.1	7. Methomyl	ND	1.00
505	15. Aroclor-1242 (Screen)	ND	0.30	531.1	8. Oxamyl	ND	2.00
505	16. Aroclor-1248 (Screen)	ND	0.10	Analyzed: 12/23/97			
505	17. Aroclor-1254 (Screen)	ND	0.10	547	1. Glyphosate	ND	6.00
505	18. Aroclor-1260 (Screen)	ND	0.20	Analyzed: 12/29/97			
505	19. Toxaphene	ND	1.00	548.1	1. Endothal	ND	9.00
Analyzed: 01/03/98				Analyzed: 01/07/98			
515	1. Dalapon	ND	1.00	549.1	1. Diquat	ND	0.40
515	2. Dicamba	ND	0.50				
515	3. Dinoseb	ND	0.20				
515	4. 2,4-D	ND	0.10				
515	5. Picloram	ND	0.10				
515	6. Pentachlorophenol	ND	0.04				
515	7. 2,4,5-TP (Silvex)	ND	0.20				

N/A-Not Analyzed ND - Not Detected

Approved By: Roger Scholl Date: 1/9/98
Roger L. Scholl, Ph.D.
Laboratory Director



Alpha Analytical, Inc.

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2505 Chandler Avenue, Suite 1
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(702) 498-3312
FAX: 702-736-7523
1-800-283-1183

ANALYTICAL REPORT

Stantech Consulting, Inc.
950 Industrial Way
Sparks, NV 89431

PWS#: Teahama
Phone: 358-6931
Attn: Dwight Smith

Client ID: Double P/Pratt/Gonzales(Comp) Sampled: 12/23/97
Lab ID: SEA97122308-01/03 Received: 12/23/97

Analyzed: 01/05/98

SDWA VOLATILES PLUS LISTS 1 AND 3 UNREGULATED COMPOUNDS EPA 524.2

Compound	Concentration ug/L	RL ug/L	Compound	Concentration ug/L	RL ug/L
1 Benzene	ND	0.50	28 Chloroform	ND	0.50
2 Vinyl Chloride	ND	0.50	29 Chloromethane	ND	0.50
3 Carbon tetrachloride	ND	0.50	30 o-Chlorotoluene	ND	0.50
4 1,2-Dichloroethane	ND	0.50	31 p-Chlorotoluene	ND	0.50
5 Trichloroethylene	ND	0.50	32 Dibromomethane	ND	0.50
6 p-Dichlorobenzene	ND	0.50	33 m-Dichlorobenzene	ND	0.50
7 1,1-Dichloroethylene	ND	0.50	34 1,1-Dichloroethane	ND	0.50
8 1,1,1-Trichloroethane	ND	0.50	35 1,1-Dichloropropene	ND	0.50
10 Regulated Volatile Organic Compounds (VOC's) (Phase II)			36 1,3-Dichloropropane	ND	0.50
9 Cis-1,2-Dichloroethylene	ND	0.50	37 c,z-1,3-Dichloropropene	ND	0.50
10 1,2-Dichloropropane	ND	0.50	38 2,2-Dichloropropane	ND	0.50
11 Ethylbenzene	ND	0.50	39 1,1,1,2-Tetrachloroethane	ND	0.50
12 Monochlorobenzene	ND	0.50	40 1,1,2,2-Tetrachloroethane	ND	0.50
13 o-Dichlorobenzene	ND	0.50	41 1,2,3-Trichloropropane	ND	0.50
14 Styrene	ND	0.50	List 3- Monitoring Required at State Discretion		
15 Tetrachloroethylene	ND	0.50	42 Bromochloromethane	ND	0.50
16 Toluene	ND	0.50	43 n-Butylbenzene	ND	0.50
17 Trans-1,2-Dichloroethylene	ND	0.50	44 Dichlorodifluoromethane	ND	0.50
18 Xylenes (total)	ND	0.50	45 Fluorotrichloromethane	ND	0.50
3 Regulated Volatile Organic Compounds (VOC's) (Phase V)			46 Hexachlorobutadiene	ND	0.50
19 Dichloromethane	ND	0.50	47 Isopropylbenzene	ND	0.50
20 1,1,2-Trichloroethane	ND	0.50	48 p-Isopropyltoluene	ND	0.50
21 1,2,4-Trichlorobenzene	ND	0.50	49 Naphthalene	ND	0.50
List 1 - Unregulated Compounds - All Systems			50 n-Propylbenzene	ND	0.50
22 Bromobenzene	ND	0.50	51 sec-Butylbenzene	ND	0.50
23 Bromodichloromethane	ND	0.50	52 tert-Butylbenzene	ND	0.50
24 Bromoform	ND	0.50	53 1,2,3-Trichlorobenzene	ND	0.50
25 Bromomethane	ND	0.50	54 1,2,4-Trimethylbenzene	ND	0.50
26 Chlorodibromomethane	ND	0.50	55 1,3,5-Trimethylbenzene	ND	0.50
27 Chloroethane	ND	0.50	ND-Not Detected RL-Reporting Limit		

Approved by:

Roger Scholl

Date:

1/9/98

Roger L. Scholl, Ph.D.
Laboratory Director



BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1609

4-Feb-98

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

Attn:
Project:

PO #:

Received: 24-Dec-97 10:05

Job: 974494E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1

Laboratory
Analysis Report



Sierra
Environmental
Monitoring, Inc.

ALPHA ANALYTICAL
255 GLENDALE AVENUE, SUITE 21
SPARKS NV 89431

Date : 1/06/98
Client : ALP-855
Taken by: CLIENT
Report : 22124
PO# :

Page: 1

Sample	Collected Date Time	PH S.U.	COLOR APPARENT COLOR UNIT	TOTAL DISSOL. SOLIDS MG/L	NITRATE-N MG/L	NITRITE-N MG/L	NO3 + NO2 MG/L N
SEA97122308-04-COMP OF 01-03	12/23/97 :	7.85	<5	328	2.4N	<0.1N	2.4N
Sample	Collected Date Time	MAGNESIUM ICP MG/L	CHLORIDE MG/L	CYANIDE, TOTAL MG/L	FLUORIDE MG/L	SULFATE MG/L	MBAS SURFACTANTS MG/L
SEA97122308-04-COMP OF 01-03	12/23/97 :	14	26	<0.005	<0.1	3B	<0.05
Sample	Collected Date Time	ODOR T.O.N.	ANTIMONY ICP-MS MG/L	ARSENIC ICP-MS MG/L	BARIUM ICP-MS MG/L	BERYLLIUM ICP-MS MG/L	CADMIUM ICP-MS MG/L
SEA97122308-04-COMP OF 01-03	12/23/97 :	0	< 0.001	0.002	0.070	< 0.001	< 0.001
Sample	Collected Date Time	CHROMIUM ICP-MS MG/L	COPPER ICP-MS MG/L	IRON ICP-OES MG/L	MANGANESE ICP-MS MG/L	MERCURY AA COLD VAPOR MG/L	NICKEL ICP-MS MG/L
SEA97122308-04-COMP OF 01-03	12/23/97 :	0.001	0.002	<0.05	< 0.001	<0.0005	0.006
Sample	Collected Date Time	SELENIUM ICP-MS MG/L	THALLIUM ICP-MS MG/L	ZINC ICP-MS MG/L			
SEA97122308-04-COMP OF 01-03	12/23/97 :	< 0.001	< 0.001	0.02			

Approved By:

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

William F. Pillsbury
President

1135 Financial Blvd.
Reno, NV 89502
Phone (702) 857-2400
FAX (702) 857-2404
sem@power.net

John Kobza, Ph.D.
John C. Seher
Managers



15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

4-Feb-98
Page: i

Attn:
Project:

PO #:

Received: 24-Dec-97 10:05

Job: 974494E

Status: Final

CASE NARRATIVE
AMENDED REPORT

A total of 2 Water samples were received on 24-Dec-97. As stated in the chain of custody, the samples were run for the following analyses: Gross Alpha and Gross Beta. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Per client request, this report has been amended from the report dated 26-Jan-98 to put sample #2 - TPU97122305 on job 981268-1.

Signed: *William A. 2/5/98*
.....
Radiochemistry
Manager

Signed: *C. E. Smith 2/5/98*
.....
Project Review



BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

4-Feb-98
Page: ii

Attn:
Project:

PO #:

Received: 24-Dec-97 10:05

Job: 974494E

Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
974494-1	Water	SEA97122308-01,02,03	23-Dec-97



BARRINGER LABORATORIES INC.

15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1607 FAX (303) 277-1609

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

4-Feb-98
Page: Q-2

Attn:
Project:

PO #:

Received: 24-Dec-97 10:05

Job: 974494E

Status: Final

Abbreviations:

Units:

pCi/l

: picoCuries per liter



4-Feb-98

Page: Q-3

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

Attn:
Project:

PO #:

Received: 24-Dec-97 10:05

Job: 974494E

Status: Final

QUALITY CONTROL DATA SHEET

Received by: kz

Via: UPS

Sample Container Type: 1000mL gls
Additional Lab Preparation: None

Parameter	Method	Preservative	Init	Analysis Dates
Gross Alpha	900.0	HNO3	MK	01/20-01/24
Gross Beta	900.0	HNO3	MK	01/20-01/24

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.



4-Feb-98
Page: R-1
Job: 974494E
Status: Final

ALPHA ANALYTICAL, INC.

Analyte: Gross Alpha
Fraction: Total
Method: 900.0
Units: pCi/l

Project:
Date Analyzed: 01/20-01/24
LLD: 6

Lab Id	Date Sampled	Matrix	Sample Id	Concentration+ 2σ	LLD
974494-1	23-Dec-97	Water	SEA97122308-01,02,03	4.9±3.1	6

Analyte: Gross Beta
Fraction: Total
Method: 900.0
Units: pCi/l

Project:
Date Analyzed: 01/20-01/24
LLD: 6

Lab Id	Date Sampled	Matrix	Sample Id	Concentration+ 2σ	LLD
974494-1	23-Dec-97	Water	SEA97122308-01,02,03	12±3	6

ALPHA ANALYTICAL, INC.

QUALITY CONTROL REPORT

Sample Id	Gross Alpha		Gross Beta	
	Total	+ 2σ	Total	+ 2σ
	pCi/l		pCi/l	
Duplicate	---		---	
Duplicate	---		---	
RER	---		---	
Std (found value)	---		---	
Std (true value)	---		---	
Std % rec.	---		---	
Blank	---		---	
Spike % rec.	---		---	

Name _____
 Address _____
 City, State, Zip _____
 Phone Number _____ Fax _____



255 Glendale Avenue, Suite 21
 Sparks, Nevada 89431
 Phone (702) 355-1044
 Fax (702) 355-0406

Page # _____
 Analyses Required _____

Time Sampled	Date Sampled	Matrix See Key Below	Office Use Only	Sampled by	Lab ID Number	Report Analyte	Sample Description	Total and type of containers ** See below:	504505	513501	513502	517548	519	519	519	REMARKS
						Carla	Dwight	27	X	X	X	X	X	X	X	gross HPLC 519
						Double P		27	X	X	X	X	X	X	X	"
						Pratt		27	X	X	X	X	X	X	X	"
						0.3	Gonzales		X	X	X	X	X	X	X	
						04	Camp 19 01-02		X	X	X	X	X	X	X	SEM-Comp into sample

SPECIAL INSTRUCTIONS:
 NO Dioxin per Dwight

Signature	Print Name	Company	Date	Time
<i>[Signature]</i>	Lara Mad Donald	Stantech	12/23/97	11:55
<i>[Signature]</i>	Linda Watson	AAI	12/23/97	11:55
<i>[Signature]</i>	Kelly Rogers	AAI	12/23/97	2:45
<i>[Signature]</i>	[Signature]	SGM	12-23-97	1445

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



Alpha Analytical, Inc.

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Las Vegas, Nevada
(702) 498-3312
FAX: (702) 736-7523
Sacramento, California
(916) 366-9089
FAX: (916) 366-9138

ANALYTICAL REPORT

Stantech
950 Industrial Way
Sparks NV 89431
Attn: Dwight Smith

Client ID: Tehama Well
Lab ID: SEA98012306-01
Sampled: 01/23/98
Received: 01/23/98

National Primary Drinking Water Phase II and Phase V Regulated and Unregulated Synthetic Organic Compounds (SOC's)

EPA Method	Contaminant	Concn ug/L	Dct Limit	EPA Method	Contaminant	Concn ug/L	Dct Limit
Analyzed: <u>02/05/98</u>				Analyzed: <u>02/04/98</u>			
504.1	1. 1,2-Dibromo-3-Chloropropane (DBCP)	ND	0.02	525.2	1. Atrazine	ND	0.10
504.1	2. 1,2-Dibromoethane(EDB)	ND	0.01	525.2	2. Benzo(a)pyrene	ND	0.02
Analyzed: <u>01/29/98</u>				525.2	3. Bis(2-ethylhexyl) Phthalate	ND	0.60
505	1. Alachlor	ND	0.20	525.2	4. Bis(2-ethylhexyl) Adipate	ND	0.60
505	2. Aldrin	ND	0.20	525.2	5. Butachlor	ND	1.00
505	3. Chlordane (Technical)	ND	0.20	525.2	6. Metolachlor	ND	1.00
505	4. Dieldrin	ND	0.20	525.2	7. Metribuzin	ND	1.00
505	5. Endrin	ND	0.01	525.2	8. Propachlor	ND	1.00
505	6. Heptachlor	ND	0.04	525.2	9. Simazine	ND	0.07
505	7. Heptachlor Epoxide	ND	0.02	Analyzed: <u>02/19/98</u>			
505	8. Hexachlorobenzene	ND	0.10	531.1	1. Aldicarb	ND	0.50
505	9. Hexachlorocyclopentadiene	ND	0.10	531.1	2. Aldicarb Sulfoxide	ND	0.50
505	10. Lindane	ND	0.02	531.1	3. Aldicarb Sulfone	ND	0.80
505	11. Methoxychlor	ND	0.10	531.1	4. Carbaryl	ND	1.00
505	12. Aroclor-1016 (Screen)	ND	0.08	531.1	5. Carbofuran	ND	0.90
505	13. Aroclor-1221 (Screen)	ND	20.0	531.1	6. 3-Hydroxycarbofuran	ND	1.00
505	14. Aroclor-1232 (Screen)	ND	0.50	531.1	7. Methomyl	ND	1.00
505	15. Aroclor-1242 (Screen)	ND	0.30	531.1	8. Oxamyl	ND	2.00
505	16. Aroclor-1248 (Screen)	ND	0.10	Analyzed: <u>02/06/98</u>			
505	17. Aroclor-1254 (Screen)	ND	0.10	547	1. Glyphosate	ND	6.00
505	18. Aroclor-1260 (Screen)	ND	0.20	Analyzed: <u>01/28/98</u>			
505	19. Toxaphene	ND	1.00	548.1	1. Endothal	ND	9.00
Analyzed: <u>02/10/98</u>				Analyzed: <u>02/03/98</u>			
515	1. Dalapon	ND	1.00	549.1	1. Diquat	ND	0.40
515	2. Dicamba	ND	0.50	Analyzed: <u>01/28/98</u>			
515	3. Dinoseb	ND	0.20	Analyzed: <u>02/03/98</u>			
515	4. 2,4-D	ND	0.10	Analyzed: <u>02/03/98</u>			
515	5. Picloram	ND	0.10	Analyzed: <u>02/03/98</u>			
515	6. Pentachlorophenol	ND	0.04	Analyzed: <u>02/03/98</u>			
515	7. 2,4,5-TP (Silvex)	ND	0.20	Analyzed: <u>02/03/98</u>			

ND - Not Detected

Approved By: Walter Hinchman
Walter Hinchman
Quality Control Officer

Date: 2/23/98



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FAX: (916) 366-9138

ANALYTICAL REPORT

Stantech
950 Industrial Way
Reno NV 89502

Job#:
Phone: 358-6931
Attn: Dwight Smith

Client ID: Tehama Well
Lab ID: SEA98012306-01

Sampled: 01/23/98
Received: 01/23/98

Analyzed: 02/05/98

SDWA VOLATILES PLUS LISTS 1 AND 3 UNREGULATED COMPOUNDS EPA 524.2

Concentration			Concentration		
<u>Compound</u>	<u>ug/L</u>	<u>RL</u>	<u>Compound</u>	<u>ug/L</u>	<u>RL</u>
1 Benzene	ND	0.50	28 Chloroform	4.07	0.50
2 Vinyl Chloride	ND	0.50	29 Chloromethane	ND	0.50
3 Carbon tetrachloride	ND	0.50	30 o-Chlorotoluene	ND	0.50
4 1,2-Dichloroethane	ND	0.50	31 p-Chlorotoluene	ND	0.50
5 Trichloroethylene	ND	0.50	32 Dibromomethane	ND	0.50
6 p-Dichlorobenzene	ND	0.50	33 m-Dichlorobenzene	ND	0.50
7 1,1-Dichloroethylene	ND	0.50	34 1,1-Dichloroethane	ND	0.50
8 1,1,1-Trichloroethane	ND	0.50	35 1,1-Dichloropropene	ND	0.50
10 Regulated Volatile Organic Compounds (VOC's)					
(Phase II)					
9 Cis-1,2-Dichloroethylene	ND	0.50	36 1,3-Dichloropropane	ND	0.50
10 1,2-Dichloropropane	ND	0.50	37 c,c-1,3-Dichloropropene	ND	0.50
11 Ethylbenzene	ND	0.50	38 2,2-Dichloropropane	ND	0.50
12 Monochlorobenzene	ND	0.50	39 1,1,1,2-Tetrachloroethane	ND	0.50
13 o-Dichlorobenzene	ND	0.50	40 1,1,2,2-Tetrachloroethane	ND	0.50
14 Styrene	ND	0.50	41 1,2,3-Trichloropropane	ND	0.50
15 Tetrachloroethylene	ND	0.50	List 3- Monitoring Required at State Discretion		
16 Toluene	ND	0.50	42 Bromochloromethane	ND	0.50
17 Trans-1,2-Dichloroethylene	ND	0.50	43 n-Butylbenzene	ND	0.50
18 Xylenes (total)	ND	0.50	44 Dichlorodifluoromethane	ND	0.50
3 Regulated Volatile Organic Compounds (VOC's)					
(Phase V)					
19 Dichloromethane	ND	0.50	45 Fluorotrichloromethane	ND	0.50
20 1,1,2-Trichloroethane	ND	0.50	46 Hexachlorobutadiene	ND	0.50
21 1,2,4-Trichlorobenzene	ND	0.50	47 Isopropylbenzene	ND	0.50
List 1 - Unregulated Compounds - All Systems					
22 Bromobenzene	ND	0.50	48 p-Isopropyltoluene	ND	0.50
23 Bromodichloromethane	ND	0.50	49 Naphthalene	ND	0.50
24 Bromoform	ND	0.50	50 n-Propylbenzene	ND	0.50
25 Bromomethane	ND	0.50	51 sec-Butylbenzene	ND	0.50
26 Chlorodibromomethane	ND	0.50	52 tert-Butylbenzene	ND	0.50
27 Chloroethane	ND	0.50	53 1,2,3-Trichlorobenzene	ND	0.50
			54 1,2,4-Trimethylbenzene	ND	0.50
			55 1,3,5-Trimethylbenzene	ND	0.50

ND-Not Detected
RL-Reporting Limit

Approved by:

Walter Hinchman

Date:

2/23/98

Walter Hinchman
Quality Control Officer

Laboratory
Analysis Report



Sierra
Environmental
Monitoring, Inc.

ALPHA ANALYTICAL
255 GLENDALE AVENUE, SUITE 21
SPARKS NV 89431

Date : 2/05/98
Client : ALP-855
Taken by: CLIENT
Report : 22428
PO# :

Page: 1

Sample	Collected Date	Time	PH S.U.	COLOR APPARENT COLOR UNIT	TOTAL DISSOL. SOLIDS MG/L	NITRATE-N MG/L	NITRITE-N MG/L	NO3 + NO2 MG/L N
SEA98012306-01 - TEHAMA WELL	1/23/98	:	7.91	5	330	0.5N	<0.1N	0.5
Sample	Collected Date	Time	MAGNESIUM ICP MG/L	CHLORIDE MG/L	CYANIDE, TOTAL MG/L	FLUORIDE MG/L	SULFATE MG/L	MBAS SURFACTANTS MG/L
SEA98012306-01 - TEHAMA WELL	1/23/98	:	11	23	<0.005	<0.1	38	<0.05
Sample	Collected Date	Time	ODOR T.O.N.	ANTIMONY ICP-MS MG/L	ARSENIC ICP-MS MG/L	BARIUM ICP-MS MG/L	BERYLLIUM ICP-MS MG/L	CADMIUM ICP-MS MG/L
SEA98012306-01 - TEHAMA WELL	1/23/98	:	1	< 0.001	0.003	0.081	< 0.001	< 0.001
Sample	Collected Date	Time	CHROMIUM ICP-MS MG/L	COPPER ICP-MS MG/L	IRON ICP-OES MG/L	MANGANESE ICP-MS MG/L	MERCURY AA COLD VAPOR MG/L	NICKEL ICP-MS MG/L
SEA98012306-01 - TEHAMA WELL	1/23/98	:	0.015	< 0.001	0.48	0.018	<0.0005	0.005
Sample	Collected Date	Time	SELENIUM ICP-MS MG/L	THALLIUM ICP-MS MG/L	ZINC ICP-MS MG/L			
SEA98012306-01 - TEHAMA WELL	1/23/98	:	< 0.001	< 0.001	0.16			

Approved By:

This report is applicable only to the sample received by the laboratory. The liability of the laboratory is limited to the amount paid for this report. This report is for the exclusive use of the client to whom it is addressed and upon the condition that the client assumes all liability for the further distribution of the report or its contents.

William F. Pillsbury
President

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sem@power.net

John Kobza, Ph.D.
John C. Seher
Managers



BARRINGER LABORATORIES, INC.

15000 W. 6TH AVE., SUITE 300 GOLDEN, CO 80401 (303) 277-1687 FAX (303) 277-1689

16-Feb-98

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

Attn:
Project:

PO #:

Received: 27-Jan-98 10:15

Job: 981188E

Status: Final

ANALYTICAL REPORT PACKAGE

CASE NARRATIVE.....i

ANALYTICAL RESULTS.....R-1

QUALITY CONTROL REPORT.....Q-1



ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

16-Feb-98
Page: Q-3

Attn:
Project:

PO #:

Received: 27-Jan-98 10:15

Job: 981188E

Status: Final

QUALITY CONTROL DATA SHEET

Received by: kz

Via: UPS

Sample Container Type: 1000ml gl
Additional Lab Preparation: None

Parameter	Method	Preservative	Init	Analysis Dates
Gross Alpha	900.0	HNO3	MK	02/05-02/12
Gross Beta	900.0	HNO3	MK	02/05-02/12

Barringer Laboratories, Inc. will return or dispose of your samples 30 days from the date your final report is mailed, unless otherwise specified by contract. Barringer Laboratories, Inc. reserves the right to return samples prior to the 30 days if radioactive levels exceed our license.



BARRINGER LABORATORIES, INC.

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ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

16-Feb-98
Page: Q-2

Attn:
Project:

PO #:

Received: 27-Jan-98 10:15

Job: 981188E

Status: Final

Abbreviations:

Units:

pCi/l

: picoCuries per liter

ALPHA ANALYTICAL, INC.

QUALITY CONTROL REPORT

Sample Id	Gross Alpha Total		Gross Beta Total	
	pCi/l	+ 2 σ	pCi/l	+ 2 σ
Duplicate	5.4	± 2.8	5.6	± 3.2
Duplicate	7.3	± 3.0	3.9	± 3.3
RER	0.32		0.26	
Std (found value)	90	± 5	80	± 3
Std (true value)	103		90	
Std % rec.	88		89	
Blank	1.8	± 0.6	0.7	± 0.5
Spike % rec.	78		95	



16-Feb-98
Page: R-1
Job: 981188E
Status: Final

ALPHA ANALYTICAL, INC.

Analyte: Gross Alpha
Fraction: Total
Method: 900.0
Units: pCi/l

Project:
Date Analyzed: 02/05-02/12
LLD: 5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration+ 2σ	LLD
981188-1	23-Jan-98	Water	SEA98012306-01	Tehama Well 5.4±2.8	5

Analyte: Gross Beta
Fraction: Total
Method: 900.0
Units: pCi/l

Project:
Date Analyzed: 02/05-02/12
LLD: 5

Lab Id	Date Sampled	Matrix	Sample Id	Concentration+ 2σ	LLD
981188-1	23-Jan-98	Water	SEA98012306-01	Tehama Well 5.6±3.2	5



ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

16-Feb-98
Page: ii

Attn:
Project:

PO #:

Received: 27-Jan-98 10:15

Job: 981188E

Status: Final

Lab-ID	Matrix	Client Sample ID	Sampled
981188-1	Water	SEA98012306-01 Tehama Well	23-Jan-98

ALPHA ANALYTICAL, INC.
255 Glendale Ave., Ste. 21
Sparks, NV 89431

16-Feb-98
Page: i

Attn:
Project:

PO #:

Received: 27-Jan-98 10:15

Job: 981188E

Status: Final

CASE NARRATIVE

A total of 1 Water sample was received on 27-Jan-98. As stated in the chain of custody, the sample was run for the following analyses: Gross Alpha and Gross Beta. A table, to cross reference your sample ID to ours, is attached. Our procedures are summarized on the Quality Control Data Sheet.

Quality control standards for organic and inorganic analyses followed the appropriate SW-846 or EPA methodology. Quality control standards for radiochemistry followed our standard operating procedures or contractual requirements.

Signed:

[Signature]
.....
Radiochemistry
Manager

Signed:

[Signature]
.....
Project Review
2/16/98

