

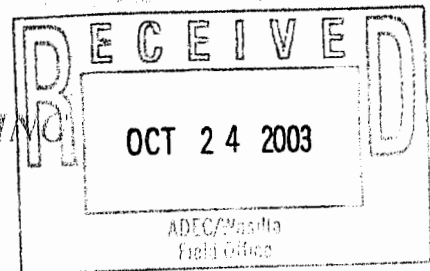


# ACE WATER WELL DRILLING

P.O. Box 877149  
8124 W. Tia Terrace  
Wasilla, Ak. 99687  
[aceh2o@mtaonline.net](mailto:aceh2o@mtaonline.net)

(907) 357-7987 fax

(907) 376-7987



(907) 354-1398 cell

Well Owner: **Northridge Construction LLC**

Use of Well: **Community**

Location: **Silver Creek Springs Community Well #1 within 18N01E35 S1/2E1/2SW1/4NW1/4NE1/4**

Date of Completion: **09-23-03**

Job # **03-146**

Drilling Method: **Air Rotary**

Size of Casing: **6"**

Depth of hole: **159 feet**

Cased to: **144 feet**

Static Water Level: **46 feet** below/~~above~~ land surface.

Finish of Well ( ) Open End (X) Grout/Seal (X) Screen/Liner ( ) Perforated

Describe screen, seal, or perforation: **3 x 5 foot #60 slot screen assembly with K-packer, 5 foot Riser, 1 foot Tail pipe and end cap. 4 bags #8 Bentonite, 50# each grout seal.**

Well Pumping Test at **230** Gallons per ( ) hour (X) minute.

Suggested Pump setting depth: **135 feet from top of casing.**

Method of disinfection: **Chlorine tablets**

Depth in feet from casing top	Details of Formations/size/color/ etc
0 to 2 feet	Casing stick up
2 to 19 feet	Silty gravel
19 to 60 feet	Sandy gravel
60 to 95 feet	Sandy, silty gravel – wet
95 to 130 feet	Silty, sandy, clayey gravel – wet
130 to 145 feet	Water sand – little gravel
145 to 163 feet	Sandy, silty gravel – wet
163 to 170 feet	Silty gravel

Driller Signature

A handwritten signature in black ink, appearing to be "Chad" followed by a stylized last name.

Date: 10-9-03

Alaska  
Rim  
Engineering, Inc.

Phone (907) 743-0222  
Fax (907) 746-0222  
alrim@rogertisa.com



29907  
update.

P.O. Box 2749  
Palmer, Alaska 99645

February 1, 2005  
Ms. Wendy Tatlow  
Alaska Division of Mining, Land, and Water  
550 West 7<sup>th</sup> Avenue, Suite 1020  
Anchorage, Alaska 99501-3562

DEPARTMENT OF  
NATURAL RESOURCES  
DIV. OF MINING, LAND & WATER

FEB 11 2005

RE: Silver Creek Springs Community Water System  
Water Rights Application LAS 24713

DIRECTOR'S OFFICE  
ANCHORAGE

Dear Ms. Tatlow:

Based on my conversation with Roy Ireland, DMLW, and Kirby Branham, Clearwater Utilities, LCC, on December 28, 2004, Alaska Rim Engineering, Inc. conducted a pumping test on the well serving the Silver Creek Springs Community Water System on December 29 and 30. Water levels were also measured at the church well located within Silver Creek Springs Subdivision and the Colony Middle School Well located across East Colony School Drive. We have enclosed a drawing indicating the location and elevation of the well casings. All drawdown measurements were taken relative to the top of the well casings at the individual wells. We have provided a pumping test report the Silver Springs Well and the results of monitoring the water level in the two monitoring wells.

The Silver Creek Springs Community Water System well was pumped for 24 hours at an average rate of 163 per minute as shown on the pumping test documentation for the well. The initial water level in the well prior to the test was 49 feet below the top of the casing. The water level for this well was 114 feet after 24 hours, a drawdown of 65 feet. The well water level recovered to 49 feet after 9 hours 15 minutes.

The initial water level in the church well was 52 feet below the top of the casing. After 24 hours of pumping the Silver Creek Springs Community Water System well, the level in the church well was 55 feet, a drawdown of 3 feet. The well recovered to 52 feet after 9 hours 15 minutes.

The initial water level in the Colony Middle School well was 47 feet. After 24 hours of pumping the Silver Creek Springs Community Water System well, the level in the school well was 55 feet, a drawdown of 5 feet. The well recovered to 52 feet after 9 hours 15 minutes.

The Silver Creek Springs Community Water System well was pumped at an average rate of 163 gallons per minute. This is 1.63 times the design peak flow of the well of 100 gallons per minute for the subdivision. We believe that the Silver Creek Springs

Wendy Tatlow  
2/1/2005

Page 2 of 2

Community Water System well will have a minimal affect on the other two wells used for the test and any other wells located in the immediate area located in the same aquifer.

We have also included a drawing indicating the direction of groundwater flow based on the static elevations in the three wells using graphical methods. You will note that the direction of flow is generally west southwest.

We trust that the above information is sufficient for issuance of the water rights for the Silver Creek Springs Community Water System well, as it demonstrates that the well, when pumped at design peak flow, will have little impact on neighboring wells in the same aquifer

On January 31, 2005, Kyle Cherry of my staff briefly discussed the test procedures and results with Roy Ireland. Mr. Ireland felt he would be able to conduct his review of the aquifer with the information we are presenting to you.

If there are any questions or you require further information, please contact me.

Sincerely,

ALASKA RIM ENGINEERING, INC.



Charles A. Leet, P.E.  
Project Manager



ENCL: Well Location Drawing  
Pumping Test Reports (3)  
Graphical Determination of Direction of Groundwater Flow

CC: Roy Ireland DNR/DMLW  
Kirby Branham  
Alaska Rim File No. 03-00150

# WATERWELL - TEST PUMP REPORT

Conducted By: Alaska Rim Engineering  
Owner: Northridge Construction  
Location: Silver Creek Spring Well # 1

## Well Information:

Total Depth: 159 Depth of Casing: 144 feet Screen From To  
Casing Size: 6" Screen Diameter: Screen Slot: # 60  
Remarks:

## Pump Information

Intake Depth: Pump Size: Air Line Depth:  
Static Water Level: 49 Average Discharge: 163 GPM During Pumping Test

## Pump On

Time: 1445 Date: 12/29/04 Pump Off: Time: 1445 Date: 12/30/04

Time	Water Level	Flow GPM	Remarks:
1445	49	185	8,599,100 initial meter reading
1455	92	185	
1505	96	182	
1515	98	175	
1525	100	175	
1535	101	175	
1545	102	175	
1555	102	175	
1605	103	174	
1615	104	174	
1625	104	174	
1635	105	172	
1645	105	171	
1745	107	170	
1845	106	170	
1945	109	170	
2045	110	170	
2145	111	170	
2245	111	170	
2345	112	170	
45	112	170	
145	112	170	
245	113	170	
345	113	170	
445	114	170	
545	114	170	
645	114	170	
745	114	171	
845	114	170	
945	114	170	
1045	114	170	
1145	114	170	
1245	114	170	
1345	114	168	
1445	114	168	Final Reading: 8,833,400

# WATERWELL - TEST PUMP REPORT

Conducted By: Alaska Rim Engineering  
Owner: Northridge Construction  
Location: Silver Creek Spring: Well # 1

## Well Information:

Total Depth: 159 Depth of Casing: 144 feet Screen From To  
Casing Size: 6" Screen Diameter: Screen Slot: # 60  
Remarks:

## Pump Information

Intake Depth: Pump Size: Air Line Depth:  
Static Water Level: 49 Average Discharge: 163 GPM During Pumping Test

## Pump On

Time: 1445 Date: 12/29/04 Pump Off: Time: 1445 Date: 12/30/04

Time	Water Level	Flow GPM	Remarks:
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## RECOVERY

1455	73		
1505	69		
1530	66		
1545	63		
1600	61		
1615	60		
1630	59		
1645	58		
1700	58		
1800	56		
1900	55		
2100	53		
2200	52		
2300	50		
2400	49		

# WATERWELL - TEST PUMP REPORT

Conducted By: Alaska Rim Engineering, Inc.

Owner: Mat-Su School District

Location: MSBSD Middle School adjacent to Colony High School (Used as Monitoring Well)

## Well Information:

Total Depth:      Depth of Casing      Screen From      To  
Casing Size: 6"      Screen Diameter:  
Remarks:      Screen Slot: #

## Pump Information

Intake Depth:      Pump Size:      Air Line Depth:  
Static Water Level:      Average Discharge:

## Pump On

Time      Time: 1445      Date: 12/29/04      Pump Off:      Time: 1445      Date: 12/30/04  
Water Level      Flow GPM      Remarks:

1445	47
1455	47
1505	47
1515	47
1525	47
1535	47
1545	47
1615	47
1645	47
1745	48
1845	48
1945	48
2045	49
2145	49
2245	49
2345	50
45	50
145	50
245	50
345	50
445	50
545	50
645	51
745	51
845	51
945	51
1045	51
1145	51
1245	51
1345	52
1445	52

## Recovery

1500	52
1525	52
1545	52
1600	51
1615	51
1630	51
1645	51
1700	51
1800	50
1900	50
2100	50
2200	50
2300	48
2400	47

Conducted by: Alaska Rim Engineering, Inc.  
Owner: LDS Church  
Location: Across from Colony High School (Used as Monitoring Well)  
Well Information:

Owner: LDS Church

Location: 250 Church  
Well Information: Across from Colony High School (Used as Monitoring Well)

Well Information:

Total Depth:  
Casing Size: 6"  
Remarks:

Depth of Casing  
Screen Diameter:

Screen From	To
Screen Slot:	

### Pump Information

Intake Depth:  
Static Water Level:

Pump Size:  
Average Discharge:

Air Line Depth:

Pump On

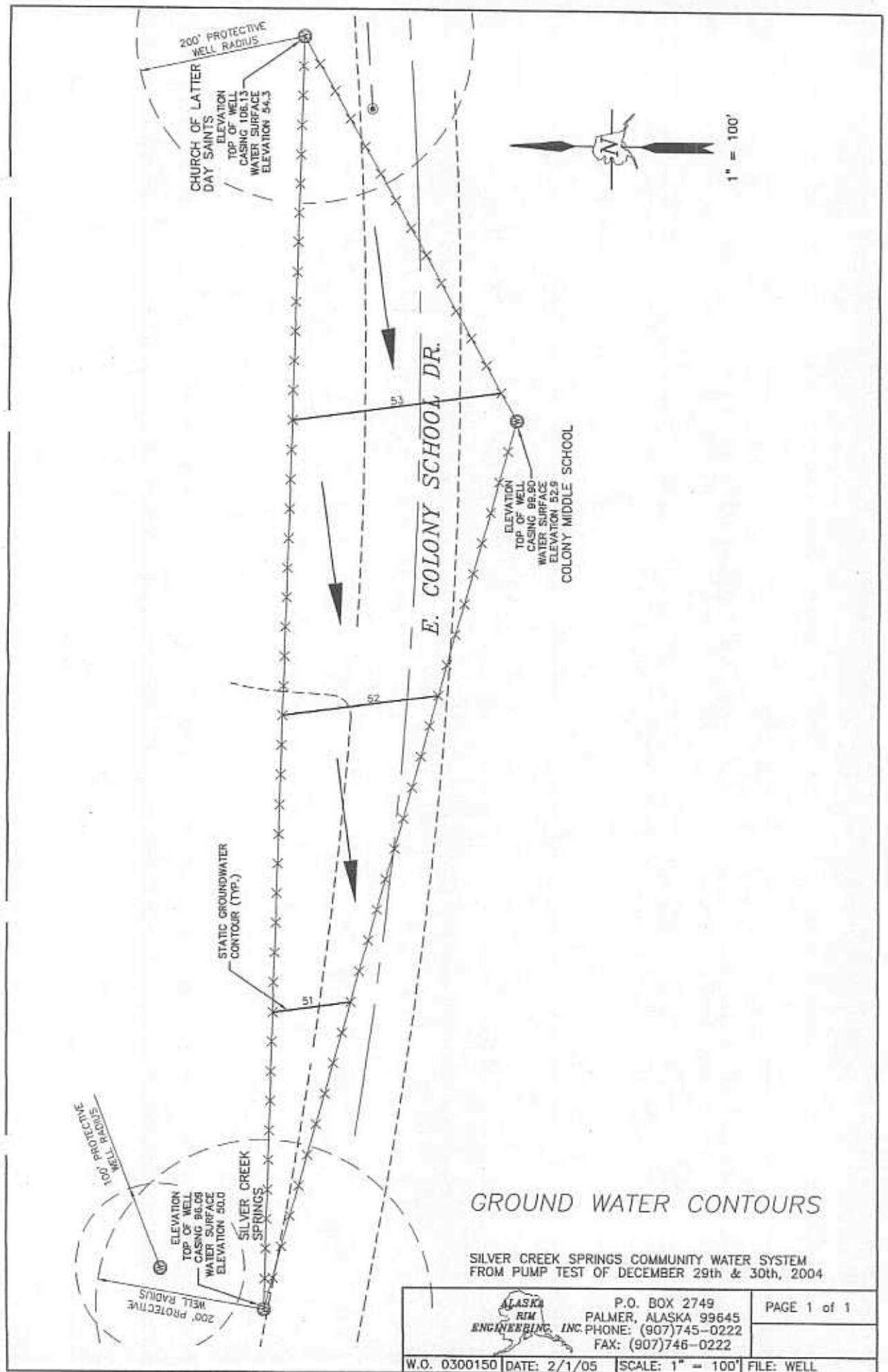
Time	Time: 1445 Water Level	Date: 12/29/04 Flow GPM	Pump Off: Remarks:	Time: 1445	Date: 12/30/04
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1445	52
1455	52
1505	52
1515	52
1525	52
1535	52
1545	52
1615	52
1645	53
1745	52
1845	52
1945	52
2045	52
2145	52
2245	52
2345	52
45	52
145	52
245	52
345	52
445	52
545	52
645	52
745	52
845	52
945	52
1045	55
1145	55
1245	55
1345	55
1445	55

Recovery

1600	54
1800	53
2100	53
2400	52





29907

LAS 24713

update

29907

2:00 PM 130' FLAT - (BROKE SUCTION)



