



83960

**STATE OF ALASKA**  
**DEPARTMENT OF NATURAL RESOURCES**  
**DIVISION OF MINING, LAND & WATER**  
**Alaska Hydrologic Survey**

**WATER WELL LOG** Revised 08/18/2016

Drilling Started: 5 / 11 / 2021 Completed: 5 / 11 / 2021 Pump Install:     /    /    

City/Borough	Subdivision	Block	Lot	Property Owner Name & Address
				<b>Copper River Subway, Inc. ,</b>

**Well location: Latitude** 62.107 **Longitude** -145.527647  
 Meridian C Township 004N Range 002W Section 23 , SE 1/4 of SE 1/4 of SE 1/4 of SE 1/4

<p><b>BOREHOLE DATA:</b> (from ground surface)          Suggest T.M. Hanna's hydrogeologic classification system*  <a href="https://my.ngwa.org/NC_Product?id=a18500000BYub3AAD">https://my.ngwa.org/NC_Product?id=a18500000BYub3AAD</a></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2" style="text-align: center;">Depth</th> </tr> <tr> <th style="text-align: center;">From</th> <th style="text-align: center;">To</th> </tr> </thead> <tbody> <tr><td>overburden</td><td style="text-align: center;">0</td><td style="text-align: center;">1</td></tr> <tr><td>sand and gravel</td><td style="text-align: center;">1</td><td style="text-align: center;">3</td></tr> <tr><td>gravel with clay</td><td style="text-align: center;">3</td><td style="text-align: center;">8</td></tr> <tr><td>vegetation</td><td style="text-align: center;">8</td><td style="text-align: center;">10</td></tr> <tr><td>gravel with clay</td><td style="text-align: center;">10</td><td style="text-align: center;">13</td></tr> <tr><td>wet gravel</td><td style="text-align: center;">13</td><td style="text-align: center;">15</td></tr> <tr><td>clay and gravel</td><td style="text-align: center;">15</td><td style="text-align: center;">23</td></tr> <tr><td>clay</td><td style="text-align: center;">23</td><td style="text-align: center;">38</td></tr> <tr><td>sand and gravel</td><td style="text-align: center;">38</td><td style="text-align: center;">53</td></tr> <tr><td>clay</td><td style="text-align: center;">53</td><td style="text-align: center;">66</td></tr> <tr><td>sand, gravel with water</td><td style="text-align: center;">66</td><td style="text-align: center;">76</td></tr> <tr><td>coarse gravel with water</td><td style="text-align: center;">76</td><td style="text-align: center;">83</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		Depth		From	To	overburden	0	1	sand and gravel	1	3	gravel with clay	3	8	vegetation	8	10	gravel with clay	10	13	wet gravel	13	15	clay and gravel	15	23	clay	23	38	sand and gravel	38	53	clay	53	66	sand, gravel with water	66	76	coarse gravel with water	76	83																			<p><b>Drilling method:</b> <input checked="" type="checkbox"/> Air rotary, <input type="checkbox"/> Cable tool, <input type="checkbox"/> Other _____  <b>Well use:</b> <input checked="" type="checkbox"/> Public supply, <input type="checkbox"/> Domestic, <input type="checkbox"/> Reinjection, <input type="checkbox"/> Hydrofracking  <input type="checkbox"/> Commercial, <input type="checkbox"/> Observation/Monitoring, <input type="checkbox"/> Test/Exploratory, <input type="checkbox"/> Cooling,  <input type="checkbox"/> Irrigation/Agriculture, <input type="checkbox"/> Grounding, <input type="checkbox"/> Recharge/Aquifer Storage,  <input type="checkbox"/> Heating, <input type="checkbox"/> Geothermal Exploration, <input type="checkbox"/> Other _____  <b>Fluids used:</b> _____  <b>Depth of hole:</b> <u>83</u> ft <b>Casing stickup:</b> <u>2</u> ft  <b>Casing type:</b> <u>Steel</u> <b>Casing thickness:</b> <u>.25</u> inches  <b>Casing diameter:</b> <u>6</u> inches <b>Casing depth:</b> <u>83</u> ft  <b>Liner type:</b> _____ <b>Depth:</b> _____ ft <b>Diameter:</b> _____ inches  <b>Note:</b> _____  <b>Well intake opening type:</b> <input checked="" type="checkbox"/> Open end, <input type="checkbox"/> Open hole, <input type="checkbox"/> Other <u>open end</u>  <b>Screen type:</b> _____, <b>Screen mesh size:</b> _____  <b>Screen start:</b> _____ ft, <b>Screen stop:</b> _____ ft, <b>Perforated</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <b>Perforation description:</b> _____ <b>Perf from:</b> _____ ft, <b>Perf to:</b> _____ ft, <b>Perf to:</b> _____ ft, <b>Perf to:</b> _____ ft  <b>Gravel packed</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Gravel start:</b> _____ ft, <b>Gravel stop:</b> _____ ft  <b>Note:</b> _____  <b>Static water (from top of casing):</b> <u>28</u> ft on <u>5 / 11 / 2021</u> <b>Artesian well</b> <input type="checkbox"/>  <b>Pumping level &amp; yield:</b> _____ feet after _____ hours at _____ gpm  <b>Method of testing:</b> _____  <b>Development method:</b> <u>air lift</u> <b>Duration:</b> <u>1</u> _____  <b>Recovery rate:</b> <u>50</u> gpm  <b>Grout type:</b> <u>Bentonite</u> <b>Volume</b> <u>3 bags</u>  <b>Depth: From</b> <u>0</u> ft, <b>To</b> <u>20</u> ft  <b>Final pump intake depth:</b> _____ ft <b>Model:</b> _____  <b>Pump size:</b> _____ hp <b>Brand name:</b> _____  <b>Was well disinfected upon completion?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <b>Method of disinfection:</b> <u>chlorine tabs</u>  <b>Was water quality tested?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  <b>Water quality parameters tested:</b> _____  <b>Well driller name:</b> _____  <b>Company name:</b> <u>HEFTY DRILLING</u>  <b>Mailing address:</b> _____  <b>City:</b> _____ <b>State:</b> <u>AK</u> <b>Zip:</b> _____  <b>Phone number:</b> ( _____ ) _____ - _____  <b>Driller's signature:</b> _____  <b>Date:</b> _____ / _____ / _____  <b>Anchorage Municipal Code 15.55.060(I) and North Pole Ordinance 13.32.030(D) require that a copy of this well log be submitted to the Development Services Department/City within 30 days of well completion.</b>  <b>City Permit Number:</b> _____  <b>Date of Issue:</b> _____ / _____ / _____  <b>Parcel Identification Number:</b> _____ - _____ - _____</p>
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Include description or sketch of well location (include road names, buildings, etc.):

AS 41.08.020(b)(4) and AAC 11 AAC 93.140(a) require that a copy of the well log be submitted to the Department of Natural Resources within **45 days of well completion**. Well logs may be submitted using the online well log reporting system available at:

<https://dnr.alaska.gov/welts/>

OR email electronic well logs to

[dnr.water.reports@alaska.gov](mailto:dnr.water.reports@alaska.gov)

\*Guide for Using the Hydrogeologic Classification System for Logging Water Well Boreholes by Thomas M. Hanna NGWA Press



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SEP 15 2021

State Of Alaska
DEC Wasilla Alaska 99657

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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Started: 05 /11 /2021 Completed: 05 /11 /2021 Pump Install: / /

Table with 5 columns: City/Borough, Subdivision, Block, Lot, Property Owner Name & Address. Values: Glennallen, 17, Copper River Subway, Inc. P.O.Box 807 Glennallen, AK 99588

Well location: Latitude Longitude
Meridian Copper River Township 4N Range 2W Section 23, 1/4 of 1/4 of 1/4 of 1/4

BOREHOLE DATA: (from ground surface)
Suggest T.M. Hanna's hydrogeologic classification system\*
https://my.ngwa.org/NC Product?id=a185000000BYub3AAD

Table with 3 columns: Depth From, To, and description of geological layers like Casing Stick Up, overburden, sand & gravel, etc.

Drilling method: Air rotary, Cable tool, Other
Well use: Public supply, Domestic, Reinjection, Hydrofracking, Commercial, Observation/Monitoring, Test/Exploratory, Cooling, Irrigation/Agriculture, Grounding, Recharge/Aquifer Storage, Heating, Geothermal Exploration, Other

Fluids used:
Depth of hole: 85 ft Casing stickup: 2 ft
Casing type: Steel Casing thickness: .250 inches
Casing diameter: 6 inches Casing depth: 85 ft
Liner type: Depth: ft Diameter: inches

Note:
Well intake opening type: Open end, Open hole, Other
Screen type: Screen mesh size:
Screen start: ft, Screen stop: ft, Perforated Yes No
Perforation description: Perf from: ft, Perf to: ft, Perf from: ft, Perf to: ft
Gravel packed Yes No Gravel start: ft, Gravel stop: ft

Note:
Static water (from top of casing): 28 ft on 05 /11 /2021 Artesian well
Pumping level & yield: feet after hours at gpm
Method of testing:
Development method: Air Lift Duration: 1 hour
Recovery rate: 50 gpm
Grout type: Bentonite Volume 3 bags
Depth: From 0 ft, To 20 ft

Include description or sketch of well location (include road names, buildings, etc.):

Final pump intake depth: ft Model:
Pump size: hp Brand name:
Was well disinfected upon completion? Yes No
Method of disinfection: chlorine tabs
Was water quality tested? Yes No
Water quality parameters tested:

Well driller name: Jonny Kay
Company name: Hefty Drilling, Inc.
Mailing address: P.O. Box 112130
City: Anchorage State: AK Zip: 99511
Phone number: (907 ) 345 - 0593

Driller's signature:
Date: 05 /11 /2021

Anchorage Municipal Code 15.55.060(l) and North Pole Ordinance 13.32.030(D) require that a copy of this well log be submitted to the Development Services Department/City within 30 days of well completion.

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