



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

22077

WATER WELL LOG Revised 08/18/2016

Drilling Started: 3 / 10 / 1998 Completed: 3 / 15 / 1998 Pump Install: / /

City/Borough	Subdivision	Block	Lot	Property Owner Name & Address																																																								
Matanuska-Susitna Borough	HOLIDAY LANGE`S	B2	L06	D & M WARHUS ,																																																								
Well location: Latitude 61.670034999999984 Longitude -149.113092 Meridian S Township 018N Range 002E Section 09 SW 1/4 of NE 1/4 of NW 1/4 of NW 1/4																																																												
BOREHOLE DATA: (from ground surface) Suggest T.M. Hanna's hydrogeologic classification system* https://my.ngwa.org/NC_Product?id=a185000000BYub3AAD																																																												
<table border="1"><thead><tr><th rowspan="2"></th><th colspan="2">Depth</th></tr><tr><th>From</th><th>To</th></tr></thead><tbody><tr><td>overburden</td><td>0</td><td>2</td></tr><tr><td>sand and gravel</td><td>2</td><td>25</td></tr><tr><td>boulder</td><td>25</td><td>27</td></tr><tr><td>gravel</td><td>27</td><td>46</td></tr><tr><td>sand</td><td>46</td><td>52</td></tr><tr><td>gravel</td><td>52</td><td>57</td></tr><tr><td>clay</td><td>57</td><td>63</td></tr><tr><td>bedrock</td><td>63</td><td>91</td></tr><tr><td>fracture quartz</td><td>91</td><td>92</td></tr><tr><td>rock</td><td>92</td><td>181</td></tr><tr><td>sandstone</td><td>181</td><td>215</td></tr><tr><td>fractured quartz</td><td>215</td><td>217</td></tr><tr><td>bedrock</td><td>217</td><td>286</td></tr><tr><td>fractured rock</td><td>286</td><td>295</td></tr><tr><td>rock</td><td>295</td><td>308</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	2	sand and gravel	2	25	boulder	25	27	gravel	27	46	sand	46	52	gravel	52	57	clay	57	63	bedrock	63	91	fracture quartz	91	92	rock	92	181	sandstone	181	215	fractured quartz	215	217	bedrock	217	286	fractured rock	286	295	rock	295	308						
	Depth																																																											
	From	To																																																										
overburden	0	2																																																										
sand and gravel	2	25																																																										
boulder	25	27																																																										
gravel	27	46																																																										
sand	46	52																																																										
gravel	52	57																																																										
clay	57	63																																																										
bedrock	63	91																																																										
fracture quartz	91	92																																																										
rock	92	181																																																										
sandstone	181	215																																																										
fractured quartz	215	217																																																										
bedrock	217	286																																																										
fractured rock	286	295																																																										
rock	295	308																																																										
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: 310 ft Casing stickup: _____ ft Casing type: A53B Steel Casing thickness: _____ inches Casing diameter: 6 inches Casing depth: 65 ft Liner type: _____ Depth: _____ ft Diameter: _____ inches Note: CASE TO 65 FT Well intake opening type: ☐ Open end, ☒ Open hole, ☐ Other open hole 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): 72 ft on / / Artesian well ☐ Pumping level & yield: 228 feet after 4 hours at 3 gpm Method of testing: _____ Development method: _____ Duration: _____ Recovery rate: _____ gpm Grout type: _____ Volume _____ Depth: From _____ ft, To _____ ft Final pump intake depth: _____ ft Model: _____ Pump size: _____ hp Brand name: _____ Was well disinfected upon completion? ☐ Yes ☒ No Method of disinfection: _____ Was water quality tested? ☐ Yes ☒ No Water quality parameters tested: _____ Well driller name: _____ Company name: JAY WILLIAMS DRILLING Mailing address: _____ City: _____ State: AK Zip: _____ Phone number: () - - Driller's signature: _____ Date: / / 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. City Permit Number: _____ Date of Issue: / / Parcel Identification Number: - -																																																												
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																																																												

5M 18N 2E sec 9
N 71 W 66
LAS 34371

WE SERVE

**JAY WILLIAMS
DRILLING CO.**

P.O. BOX 874747 - WASILLA, ALASKA 99687

ALL ALASKA

22077

CHUGIAK, AK
688-3199

WASILLA, AK
376-3199

OWNER OF LAND Donn and Marian Warhus WARHUS
ADDRESS HCO 3 Box 81000 Palmer Ak.
WELL - SITE Lot 6 Blk 2 Holiday Subd. Palmer Ak.
DATE - STARTED 3-10-98
DATE - ENDED 3-15-98

DEPTH OF WELL 310 ft.
STATIC LEVEL OF WATER FT. 72 FT.
DRAW DOWN FT. 300 ft.
GALS. PER HR. 180 Test pump 4 hrs
KIND OF CASING 65 ft. 6in. A-53-B A.S.T.H.

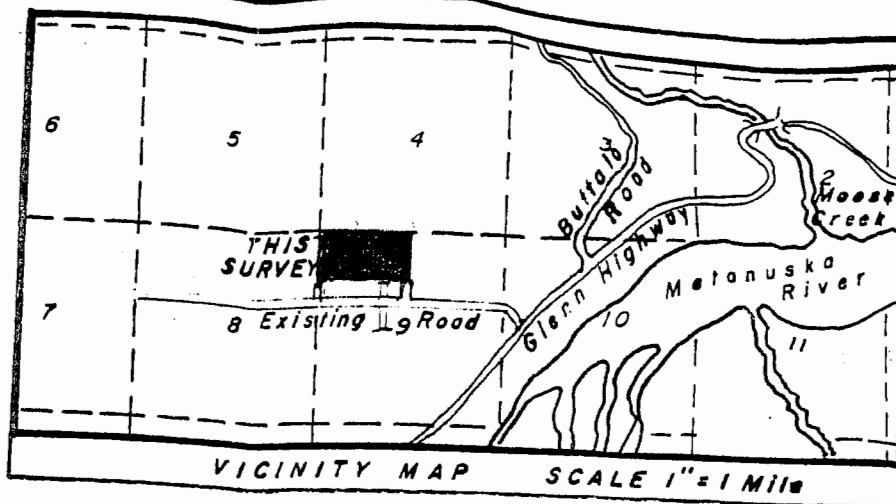
KIND OF FORMATION:

FROM 0 FT. TO 2 FT. Stub Up
FROM 2 FT. TO 4 FT. Overburden
FROM 4 FT. TO 27 FT. Sand & Gravel
FROM 27 FT. TO 29 FT. Boulders
FROM 29 FT. TO 48 FT. Gravel
FROM 48 FT. TO 54 FT. Sand
FROM 54 FT. TO 59 FT. Gravel
FROM 59 FT. TO 65 FT. Clay
FROM 65 FT. TO 93 FT. Bedrock
FROM 93 FT. TO 94 FT. Fracture Quartz
FROM 94 FT. TO 183 FT. Rock
FROM 183 FT. TO 217 FT. Sandstone

FROM 217 FT. TO 219 FT. Fractured Quartz
FROM 219 FT. TO 288 FT. Bedrock
FROM 288 FT. TO 297 FT. Fractured Rock
FROM 297 FT. TO 310 FT. Rock
FROM FT. TO FT.
FROM FT. TO FT.
FROM FT. TO FT.
FROM FT. TO FT.
FROM FT. TO FT.
FROM FT. TO FT.
FROM FT. TO FT.
FROM FT. TO FT.

MISCL. INFORMATION: No warranty or no warranties implied

DRILLER'S NAME Rick Green



CERTIFICATION OF PAYMENT OF TAXES

I HEREBY CERTIFY THAT ALL CURRENT TAXES THROUGH
Dec. 31 1973 AGAINST THE PROPERTY, INCLUDED
 IN THE SUBDIVISION OR RESUBDIVISION HEREON HAVE BEEN PAID.
Oct 24 1973 Marjorie J. Burkhardt
 Date Tax Collection Official

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL SURVEYOR
 AND THAT THIS PLAT REPRESENTS THE SURVEY MADE BY ME AND THAT
 THE MONUMENTS SHOWN THEREON ACTUALLY EXIST AND ARE LOCATED AND
 THAT DIMENSIONAL AND OTHER DETAILS ARE CORRECT.

Date

1973

Registered November 5, 1965

State of Alaska

REGISTERED

LAND SURVEYOR

CERTIFICATE OF OWNERSHIP AND DEDICATION

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY
 SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS
 PLAN OF SUBDIVISION WITH OUR FREE CONSENT AND DEDICATE ALL
 STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC
 OR PRIVATE USE AS SHOWN ON THIS PLAT.

Date

1973

Norman G. Lange
 Owner

Ann M. Lange
 Owner

Notary's Acknowledgment:

Subscribed and sworn before me this 7th day of August 1973

William J. Smith
 Notary for the State of Alaska

Aug 27 1973