

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

WATER WELL LOG Revised 08/18/2016

			eted: _ 7 _ / _ 29 _ / 2017 _ Pump Install: /			
City/Borough Subdivision Block		Block	Lot Property Owner Name & Address			
				City Of Pilot Station,		
Well location: Latitude 61.			0	Longitude162.88219740000002		
	•		Section	n 05 , SE 1/4 of NE 1/4 of SW 1/4 of NE 1/4		
Suggest T.M. Hanna's hydrog https://my.ngwa.org/NC Prod	eologic classific	cation sy 000BYub3 De	<u>BAAD</u> epth	Drilling method: ■ Air rotary, □ Cable tool, □ Other □ Well use: ■ Public supply, □ Domestic, □ Reinjection, □ Hydrofracking □ Commercial, □ Observation/Monitoring, □ Test/Exploratory, □ Cooling,		
Muck		From 0	<u>To</u> 10	☐ Irrigation/Agriculture, ☐ Grounding, ☐ Recharge/Aquifer Storage,		
			18	☐ Heating, ☐ Geothermal Exploration, ☐ Other Fluids used:		
Schist		10		Depth of hole: 280 ft Casing stickup: 3 ft		
Rock/schist		18	25	Casing type: steel Casing thickness: inches		
Rock		25	280	Casing diameter: 5 inches Casing depth: 260 ft		
				Liner type: Depth: ft Diameter:inches		
				Note:		
				Well intake opening type: Open end, Open hole, Other screened Screen type: Stainless, Screen mesh size: -02		
				Screen start: 260 ft, Screen stop: 280 ft, Perforated Yes No		
				Perforation description: ft, Perf		
				to:ft, Perf from: ft, Perf to: ft		
				Gravel packed ☐Yes		
				Note:		
				Static water (from top of casing): 66 ft on 7 / 30 / 2017 Artesian well		
				Pumping level & yield: feet after hours at 65 gpm		
				Method of testing: Duration: 8		
				Recovery rate: gpm		
				Grout type: Baroid Volume		
Include description or elected of	i wall lagation (in	aluda raa	namaa	Depth: From 0 ft, To 20 ft		
Include description or sketch of buildings, etc.):	well location (inc	ciude road	a names,	Final pump intake depth: ft Model:		
				Pump size: hp Brand name:		
				Was well disinfected upon completion? ■ Yes ■ No		
				Method of disinfection: Chlorination Was water quality tested? Yes No		
				Water quality parameters tested:		
				Well driller name:		
				Company name: TIMBERLINE EXCAVATION INC		
				Mailing address:		
Neth			North	City: State: <u>AK</u> Zip:		
AC 44 00 000/b\/4\ and AAC 4	14 440 02 440(=	\	hat a	Phone number: ()		
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				Driller's signature:		
Resources within 45 days of well completion. Well logs may				Date:/		
be submitted using the online well log reporting system available at:			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.			
https://dnr.alaska.gov/welts/						
OR email electronic well logs to			City Permit Number: Date of Issue://			
dnr.water.reports@alaska.gov				Parcel Identification Number:		

EXHIBIT A - WATER WELL LOG

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES MINING, LAND, WATER HYDROLOGIC SURVEY WATER WELL LOG

Drilling Started: 7 /25/-17, Completed: 7 /29/ V

City/Borough: Subdivision/USS: Block Lot Property Owner Name & Address: Pilot Station Meridian Township Range Section 1/4 of 14 of Lat: N Long: W NAD: 27 OR 83 Elevation: BOREHOLE DATA: (from ground surface) Drilling Method: Air rotary Cable tool, Other Well use: Public supply, Domestic, Other Material: Type, Color & wetness From Depth of hole: 7 ft, Casing stickup: Casing type: Thickness
Casing diameter (2.15 5 inches Casing diameter) ft 0-10 Casing type: 61 / 5" Inche
Casing diameter: Diameter: inches inches Casing depth 260 ft 10-18 inches Depth: Static water (from top of casing): _______ft on _7/30/17 Pumping level & yield: ___ feet after hours at Recovery rate: gpm, Method of testing: 25-280 Development method: Duration: Well intake opening type: Open end, Open hole ft, Stopped 280' Open end, Screened; Start: 260' Screen type: Stainless Slot/mesh size . 020 Perforated; Start: ft, Stopped ft Start: ft, Stopped ft Note: 6" CASING Grout type: Baroin Volume Start: 0 ft Stopped: 180 ft Depth; from ft 5" CASING Pump intake depth: 200 ' Start: 180 ft Stopped: 260 ft Pump size 4º/5hp hp, Brand name: Was well disinfected upon completion? Ves. Method of disinfection: Chronismie Driller comments/disclaimers: Well driller name: Timberlive Excavator John GLAY Company Name: 18 18 09 24823 Mailing Address: City: parabates State: NC Zip: 99 767 Phone Number: 907
Drillers Signature:

Extenting Production.

EXHIBIT A - WATER WELL LOG

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES MINING, LAND, WATER HYDROLOGIC SURVEY WATER WELL LOG

Drilling Started: 7 /25/-17, Completed: 7 /29/ 17

City/Borough:	Subdivision/USS:	Block	Lot	Property Owner Name & Address:
Pilot Station				City of Pilot Station
Meridian	Township	Ra	inge	Section,¼ of¼ of¼ of¼
	Long: W			NAD: <u>27</u> OR <u>83</u> Elevation:
Depth	ATA: (from groun Color & wetness		e) <u>rom</u>	Drilling Method: Air rotary, Cable tool, Other Well use: Public supply, Domestic, Other
Muck		0-	10	Depth of hole: 280 ft, Casing stickup: 3 ft
Schist		10-	18.	Casing type: Thickness inches Casing diameter: inches Casing depth ft Liner type: Diameter: inches Depth: ft
Rock/SC	hist	18.	25	Static water (from top of casing): 66 ft on 7/30/17 Pumping level & yield: feet after hours at gpm
Rock		25	- 280	Recovery rate:gpm, Method of testing: Development method: Duration: &
				Well intake opening type: Screened; Start: / 60 ft, Stopped 200 ft Screen type: Start: ft, Stopped ft Start: ft, Stopped ft Note: Grout type: Start: Volume Depth; from ft, to 20 ft
				Pump intake depth: 200 hp, Brand name: 600 ds
				Was well disinfected upon completion? Yes, No Method of disinfection:
				Driller comments/disclaimers:
				Well driller name: Timberlive Excavation Tohn Ray
				Company Name: Po Box 24823 Mailing Address: City: Phone Number: 907 322 3464 Drillers Signature:

water encontral @ 160' well was dolled to 280' to Real Satisfactory production.

Timberline Excavation, Inc.

Pilot Station Well D Test Pumping results 7-30-2017 Thru 8-01-2017 24 hour test Test pump set at 180' for this test. Note (test and drags s

Intial pumping was started at 75 GPM and lasted for the first 5 minutes

Every Minute f	or ten minutes
----------------	----------------

Water Level in feet		Water Level		
1	66	6	109	(45 GPM)
2	68	7	104	
3	90	8	104	
4	112	9	104	
5	115	10	104	

Every 2 minutes for 10 minutes @ 45 GPM

	Water Level
2	104
4	104
6	104
8	104
10	104.5

Every 5 minutes for 40 minutes @

Lvciyoiiii	14165 101 101
	Water Level
5	106
10	104
15	104
20	103

Every 10 minutes for 1 hr. @ 40-42 GPM

Water Level		Water Level
10	102	40 102
20	102	50 102
30	102	60 102

Every 30 min for the remainder of the test @ 40-42 GPM

•		_			
	Water Level		Water Level		Water Level
30	102	8	102	1530	102
1	102	830	102	16	102
130	102	9	102	1630	102
2	102	930	102	17	102
230	102	10	102	1730	102
3	102	1030	102	18	102
330	102	11	102	1830	102
4	102	1130	102	19	102
430	102	12	102	1930	102
5	102	1230	102	20	102
530	102	13	102	2030	102
6	102	1330	102	21	102
630	102	14	102	2130	102
7	102	1430	102	22	102

730 102 15 102

After test pumping was performed at 40 GPM the pump was ran at a full flow rate of approx. 65 GPM resulting in the water level to drop to 120' and stabilized. Within minutes of the pump being turned off the water level had already returned to 80 feet and climbing. No further testing was done.

pump entered into the 5" well screen pipe lightly due to pull cable and well wire.)

40-42 GPM

	Water Level
25	103
30	103
35	103
40	102