



STATE OF ALASKA 34076
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
Alaska Hydrologic Survey

WATER WELL LOG Revised 08/18/2016

Drilling Started: ___/___/___ Completed: 3 / 19 / 2010 Pump Install: ___/___/___

City/Borough	Subdivision	Block	Lot	Property Owner Name & Address
North Slope Borough				Eni Petroleum ,

Well location: Latitude 70.51011699999998 Longitude -149.869316
Meridian U Township 013N Range 009E Section 05 SW 1/4 of SE 1/4 of SW 1/4 of NE 1/4

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

	Depth	
	From	To
pad gravel fill	0	2
small gravel: gray black, sandy/silty, dry	2	18
small gravel: damp	18	20
black muck: silty, organics, wet	20	24
clay: black, silty, gravelly, dry	24	43
muck: black, silty/clayey, pebbles, wet-runny	43	51
small gravel: black, silty-mucky, wet	51	59
small gravel: very sandy, water bearing - 5gpm	59	71
water gravel: gray black, 20-30% sand-coarse, good saturation	71	81

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: _____ ft Casing stickup: 4.5 _____ ft
Casing type: A53B Steel Casing thickness: .375 _____ inches
Casing diameter: 14 _____ inches Casing depth: 76 _____ ft
Liner type: _____ Depth: _____ ft Diameter: _____ inches
Note: 14" casing to 30'. 8" casing to 76'.

Well intake opening type: ☐ Open end, ☐ Open hole, ☒ Other screened
Screen type: _____, Screen mesh size: .06
Screen start: 70 _____ ft, Screen stop: 76 _____ 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): 40 _____ ft on ___/___/___ Artesian well ☐
Pumping level & yield: 2.45 _____ feet after 24 _____ hours at 40 _____ gpm
Method of testing: submersible pump
Development method: air surge Duration: _____
Recovery rate: _____ gpm

Grout type: bentonite Volume 3 sacks
Depth: From _____ ft, To _____ 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: _____
Was water quality tested? ☐ Yes ☒ No
Water quality parameters tested: _____

Well driller name: Wayne Westberg
Company name: M-W DRILLING
Mailing address: PO BOX 110378
City: ANCHORAGE State: AK Zip: 99511
Phone number: (907) 945 - 3287

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: _____ - _____ - _____

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



Department of Natural Resources
Division of Mining, Land & Water
550 W 7th Ave., Suite 1020
Anchorage, AK 99501-3562
dnr.water.reports@alaska.gov



Department of Environmental Conservation
Division of Environmental Health, Drinking Water Program
555 Cordova Street
Anchorage, AK 99501
dec.eh.drinkingwater.reports@alaska.gov

State
of
Alaska



Well Record of Decommissioning

This form is intended to convey information regarding the decommissioning of a water well as required by both DEC and DNR. Add additional datasheets as necessary.

Well Decommissioner or Contractor		Well and Owner Particulars *	
Name:		Owner's name and address:	ENI Petroleum
Company:	M-W Drilling, Inc.	Well location - Street & number:	Oliktok Point, North Slope, Alaska
Address:	12200 Avion Street	Well location - Subdivision, Lot & Block:	
(continued):	Anchorage, AK 99516	Meridian:	Township:
Phone:	907-345-4000	Range:	Section:
Email:	mw@mwdrillinginc.com	GPS (to 5 places): Latitude:	Longitude:
		Datum:	
		Well Name or Number:	Camp Well #02

Please check all boxes that apply and provide all requested information. Do not check boxes that do not apply. * Note, Do not enter locational information for public water supplies - see note **, below.

Details of Former Well		Former Well Description (Not required if original well log attached)	
Public water system? (See note **) Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Original Driller's Name:	Well depth (ft bls):	80
If so, PWSID number:	Well Type	Static water (ft bls):	29
Single Family Domestic? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Drilled? Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Bedrock (ft bls):	no
Commercial/ Fishery? Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Driven? Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>	Casing type:	steel
Irrigation/Agricultural? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Jettied? Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>	Diameter (inches):	8
Heating / Cooling? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Dug? Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>	Stickup (ft):	1.7
	Unknown? Yes: <input type="checkbox"/> No: <input type="checkbox"/>	Well condition?	Good: <input checked="" type="checkbox"/> Poor: <input type="checkbox"/> N/A: <input type="checkbox"/>
		Grouted?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
		Well house?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/>

** Public Water System decommissioning may require additional documentation, please contact DEC in this regard.

Decommissioning notes:		Reason for well decommissioning:		Decommissioning process	
Include notes regarding any deviations from state approved methods of decommissioning the well.	Out of use	Casing cut below grade?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Well disinfected prior to decommissioning?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/>
		Casing fully removed?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/>	Plumbing removed from casing?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
		Casing filled with bentonite?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Liner (if any) removed?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/>
		Casing welded closed?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Electric wiring removed from site?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
Casing cut-off 2' below grade, casing filled with 3/8" bentonite chips, screen filled with sandy gravel, plate welded on top of casing, chips mounded on top of plate, pit back filled to grade.	Excavation and Fill Details	Borehole refilled?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Attached an original well log?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
		Screened area filled with gravel?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Well log listed at DNR?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
		Perforated area filled with gravel?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	Local authorities notified?	Yes: <input type="checkbox"/> No: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/>
		Excavated pit refilled?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	DEC notified of decommissioning?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>
		Pit area mounded?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>	DNR notified of decommissioning?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/> N/A: <input type="checkbox"/>

Signatures (*** => are required)

Owner***: David Hart-operations Mgr ENI	Decommissioner / Contractor***: Wayne E. M... ..
Date: 6 / 1 / 21	Date: 5 / 8 / 2011

- 1) Deliver this form to DNR and DEC within 45 days of decommissioning, as per state regulations 11 AAC 93.140.
- 2) Attach an original water well log, if available. A blank water well log form is available for use if the lithology and well construction details are known but the original water well log is missing.
- 3) Attach any maintenance or water usage records that may apply to this well and provide an adequate locational description, including maps or sketches. Use additional pages as needed.
- 4) This form is under development and is subject to change. Please submit suggestions for changes or improvements to either DNR or DEC at the addresses listed above.

Please attach schematics and photos to further document the information provided on this form. This is particularly important for public water supply wells and also any other wells that might impact the public water supply.

♦ P.O. Box 110389 ♦ Anchorage, AK 99511 ♦
♦ 907-345-4000 ♦ 907-345-3287 Fax ♦

GROUNDWATER WELL AS-BUILT & LOG

CONSTRUCTION

Grout Notes: (3) Sack(s) of Bentonite - dry grout outs de 14' surface casing
Well Development: Air surge - cleaned up rapidly - no sand.
Well Disinfected: N Notes:
Yield test at 40 GPM for 24 hour(s) with 2.45 of drawdown (DD) from static level(SWL).
Method: Submersible Static Water Level (SWL): 40
Start Date: 3/12/10 Completion Date: 3/19/10
Test Pump Date: 3/21 - 22/10 Final Pump Install Date:

Depth in feet from top of casing.			Details of formations penetrated, size of material, color and miscellaneous details.
0	TO	4.5	Casing Stick Up
4.5	TO	6.5	Pad gravel fill
6.5	TO	22	Small gravel: gray black, sandy/silty, dry
22	TO	24	Small gravel: damp
24	TO	28	Black muck: silty, organics, wet
28	TO	47	Clay: black, silty, gravelly, dry
47	TO	54	Muck: black, silty/clayey, pebbles, wet-runny
54	TO	63	Small gravel: black, silty-mucky, wet
63	TO	75	Small gravel: very sandy, water bearing - 5 GPM
75	TO	85	Water gravel: gray black, 20-30% sand-coarse, good saturation
	TO		
	TO		WAYNE E. WESTBERG
	TO		President M-W Drilling Co.
	TO		Highway Certified Master Groundwater Contractor
	TO		California State License # 9149
	TO		
	TO		Note: recommend pump intake = 50' max

M-W DRILLING, INC.

Well As-Built Profile

Client: ENI Petroleum

Date: 3/23/10
Job No.: 10-104
Loc'n:
Oliktok Point, N. Slope
85' S of NW corner Pipe

GENERAL

Owner: ENI Engineer:
City: Oliktok Point County: North Slope State: AK
Contact: Don Graika Phone: 670-8501
Well Used For: Public
Date Drilled: 3/20/10 Date in Service:

Well No.: OPP2

All depths are from top of casing:

Well drilled in 45° slant

CONSTRUCTION

Drill Method: Air Rotary Aquifer Type: Gravel TD: 87.5 ft
Type Screen: Y Wire Gravel Pack (Y/N): Other: Natural
Drill Fluid Type: Air Developed By: Air surge
Chemicals Used: None

MATERIALS

Surface Csg OD: 14" Depth: 30.26 Matl: A53 Seal: Bent granules
Prod Csg OD: 8 5/8" Depth: 76.17 Matl: A53 Seal:
Screen OD: 6T Slot: 0.060" Matl: 316SS
Packers/Plugs: Fig K Notes:

ORIGINAL TEST DATA

Static Level: 26' Pumping Level: 28.4 Drawdown: 2.45'
GMP: 40 Duration: 24 hours Recovery: 6 minutes
Specific Capacity: 16.3 Sand Content: 0
Turbidity: Other:

PUMP & MOTOR

Type: GMP: TDH: PSI(dsl):
Pump Mfg: Model No: Serial No.:
Bowl OD: Stgs: HD/Stg: Pump Eff:
Column OD: Tube: Shaft: Wire Size:
Motor Mfg: HP: RPM: Volt:
Amps (Lock): (Full Load) SF: PF: Eff:

Recent Repair History/Treatment/Test Data:

Date last serviced: Reason:
SWL: PWL: GMP: PSI:
DD: Specific Capacity: Duration:
Last Treated: How:
Results:

4.5'
GS

30.26'
Surface Casing

8"
Borehole Diam.
8 5/8"
Casing Size

Recommend
50'
Pump Intake

76'
Top screen

86.5
Bottom Screen

87.5
TD Borehole

Sheet 1 of 2
Date: 3/21/10

Conducted by: <u>Kris. Wade, Carl</u>		M-W Job #: <u>10-104</u>	
Owner: <u>ENI Petroleum</u>			
Address: <u>Oliktok Point Pad - North Slope, AK</u>			
Well Location: <u>OPP Well No. 2 Site (OPP2)</u>			
Well Info:	Total Depth: <u>87.5</u>	Depth of Casing: <u>76.12</u>	Screen: From <u>76</u> To <u>86.5</u>
	Casing Size: <u>8 5/8"</u>	Screen Diameter: <u>61</u>	Screen Slot: <u>0.060"</u>
	Remarks: <u>316SS, 45° slant well, -20°F +</u>		
Pump Info:	Intake depth: <u>43</u>	Pump size: <u>5HP</u>	Water level meas.: <u>Electric</u>
	Make: <u>Grufos</u>	Model: <u></u>	HP/Volt: <u>230V</u>
	Static water level: <u>25.95'</u>	Avg. discharge: <u>40</u>	GPM, max, drawdown: <u>2.45'</u>
Misc Pump Info:	Pump on: Date: <u>3/21/10</u>	Time: <u>0900</u>	Mtr Reading: <u></u>
	Pump off: Date: <u>3/22/10</u>	Time: <u>0900</u>	Mtr Reading: <u></u>

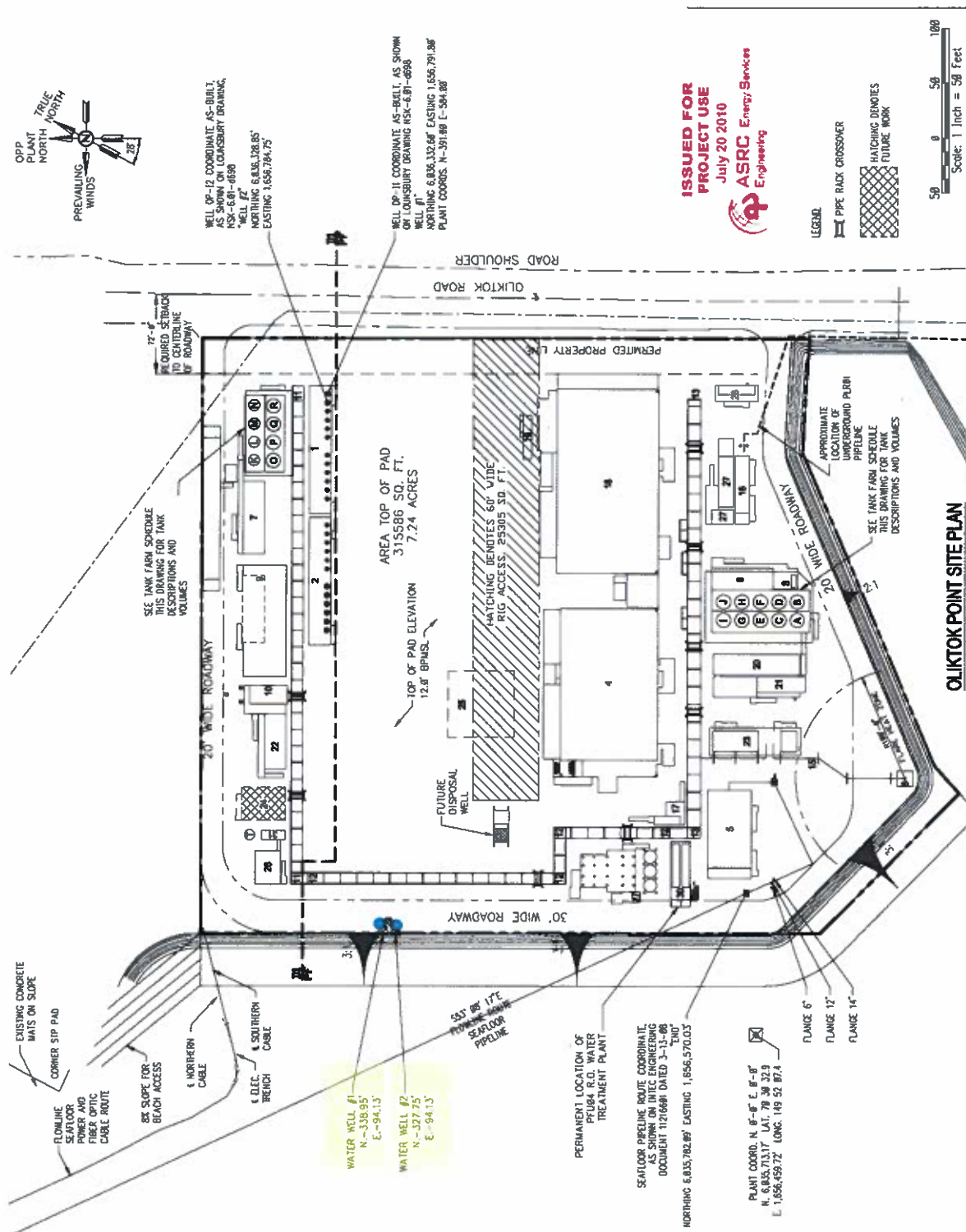
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M-W Drilling, Inc.
TEST PUMP REPORT
Continuation Sheet

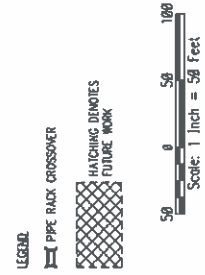
Owner: ENI Petroleum
Well Location: Oliktok Point Pad Well No. 2 (OPP2)

Sheet 2 of 2
M-W Job No. 10-104

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ISSUED FOR PROJECT USE
July 20 2010
ASRC Energy Services
Engineering



OPP Water Wells Location Map