Optimum Growth Temperature (Predicted)

20 °C	40 °C	60 °C

Isolate
Iron oxidation (cyc2)
Respiratory H2-uptake NiFe hydrogenase 1d (hyaABC)
H2-sensing hydrogenase 2b (hupUV)
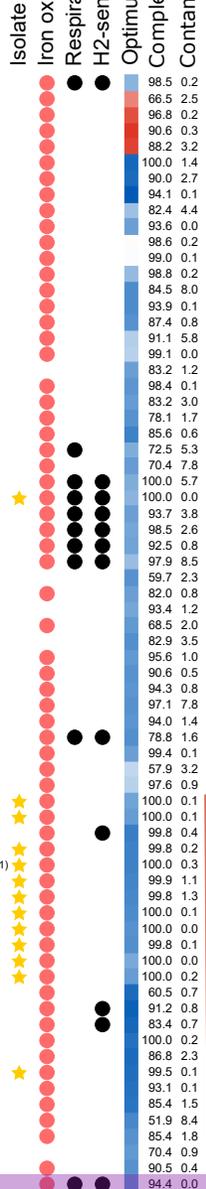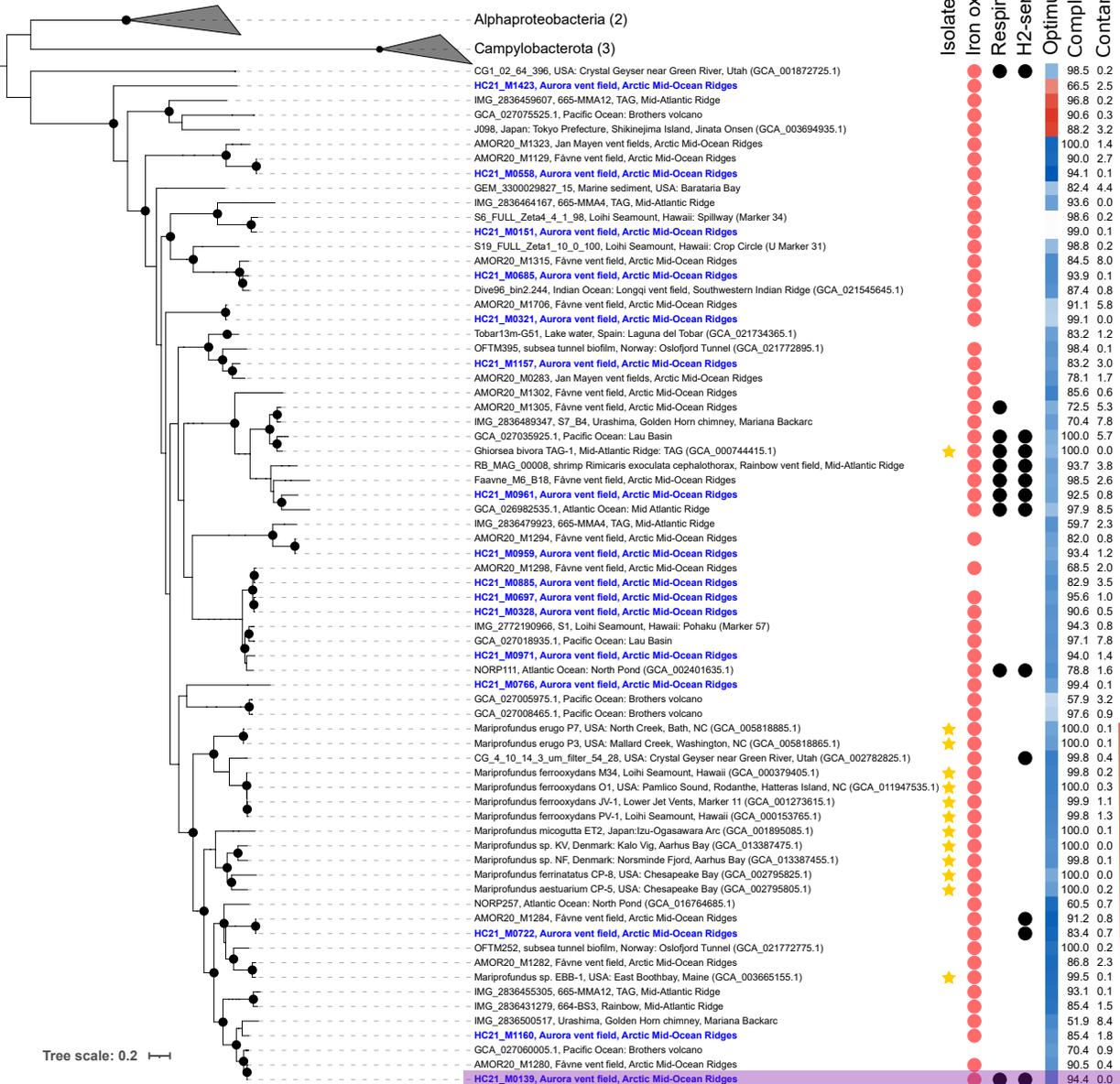Optimum Growth Temperature (Predicted)
Completeness
Contamination

Alphaproteobacteria (2)

Campylobacterota (3)

Taxon	Completeness	Contamination
CG1_02_64_396, USA: Crystal Geyser near Green River, Utah (GCA_001872725.1)	98.5	0.2
HC21_M1423, Aurora vent field, Arctic Mid-Ocean Ridges	66.5	2.5
IMG_2836459607, 665-MMA12, TAG, Mid-Atlantic Ridge	96.8	0.2
GCA_027075525.1, Pacific Ocean: Brothers volcano	90.6	0.3
J098, Japan: Tokyo Prefecture, Shikinejima Island, Jinata Onsen (GCA_003694935.1)	88.2	3.2
AMOR20_M1323, Jan Mayen vent fields, Arctic Mid-Ocean Ridges	100.0	1.4
AMOR20_M1129, Fåvne vent field, Arctic Mid-Ocean Ridges	90.0	2.7
HC21_M0558, Aurora vent field, Arctic Mid-Ocean Ridges	94.1	0.1
GEM_3300029827_15, Marine sediment, USA: Barataria Bay	82.4	4.4
IMG_2836464167, 665-MMA4, TAG, Mid-Atlantic Ridge	93.6	0.0
S6_FULL_Zeta4_4_1_98, Loihi Seamount, Hawaii: Spillway (Marker 34)	98.6	0.2
HC21_M0151, Aurora vent field, Arctic Mid-Ocean Ridges	99.0	0.1
S19_FULL_Zeta1_10_0_100, Loihi Seamount, Hawaii: Crop Circle (U Marker 31)	98.8	0.2
AMOR20_M1315, Fåvne vent field, Arctic Mid-Ocean Ridges	84.5	8.0
HC21_M0685, Aurora vent field, Arctic Mid-Ocean Ridges	93.9	0.1
Dive96_bin2.244, Indian Ocean: Longqi vent field, Southwestern Indian Ridge (GCA_021545645.1)	87.4	0.8
AMOR20_M1706, Fåvne vent field, Arctic Mid-Ocean Ridges	91.1	5.8
HC21_M0321, Aurora vent field, Arctic Mid-Ocean Ridges	99.1	0.0
Tobar13m-G51, Lake water, Spain: Laguna del Tobar (GCA_021734365.1)	83.2	1.2
OFTM395, subsea tunnel biofilm, Norway: Oslofjord Tunnel (GCA_021772895.1)	98.4	0.1
HC21_M1157, Aurora vent field, Arctic Mid-Ocean Ridges	83.2	3.0
AMOR20_M0283, Jan Mayen vent fields, Arctic Mid-Ocean Ridges	78.1	1.7
AMOR20_M1302, Fåvne vent field, Arctic Mid-Ocean Ridges	85.6	0.6
AMOR20_M1305, Fåvne vent field, Arctic Mid-Ocean Ridges	72.5	5.3
IMG_2836489347, S7_B4, Urashima, Golden Horn chimney, Mariana Backarc	70.4	7.8
GCA_027035925.1, Pacific Ocean: Lau Basin	100.0	5.7
Ghiorsea bivora TAG-1, Mid-Atlantic Ridge: TAG (GCA_000744415.1)	100.0	0.0
RB_MAG_00008, shrimp Rimicaris exoculata cephalothorax, Rainbow vent field, Mid-Atlantic Ridge	93.7	3.8
Faavne_M6_B18, Fåvne vent field, Arctic Mid-Ocean Ridges	98.5	2.6
HC21_M0961, Aurora vent field, Arctic Mid-Ocean Ridges	92.5	0.8
GCA_026982535.1, Atlantic Ocean: Mid Atlantic Ridge	97.9	8.5
IMG_2836479923, 665-MMA4, TAG, Mid-Atlantic Ridge	59.7	2.3
AMOR20_M1294, Fåvne vent field, Arctic Mid-Ocean Ridges	82.0	0.8
HC21_M0959, Aurora vent field, Arctic Mid-Ocean Ridges	93.4	1.2
AMOR20_M1298, Fåvne vent field, Arctic Mid-Ocean Ridges	68.5	2.0
HC21_M0885, Aurora vent field, Arctic Mid-Ocean Ridges	82.9	3.5
HC21_M0697, Aurora vent field, Arctic Mid-Ocean Ridges	95.6	1.0
HC21_M0328, Aurora vent field, Arctic Mid-Ocean Ridges	90.6	0.5
IMG_2772190966, S1, Loihi Seamount, Hawaii: Pohaku (Marker 57)	94.3	0.4
GCA_027018935.1, Pacific Ocean: Lau Basin	97.1	7.8
HC21_M0971, Aurora vent field, Arctic Mid-Ocean Ridges	94.0	1.4
NORP111, Atlantic Ocean: North Pond (GCA_002401635.1)	78.8	1.6
HC21_M0766, Aurora vent field, Arctic Mid-Ocean Ridges	99.4	0.1
GCA_027005975.1, Pacific Ocean: Brothers volcano	57.9	3.2
GCA_027008465.1, Pacific Ocean: Brothers volcano	97.6	0.9
Mariprofundus erugo P7, USA: North Creek, Bath, NC (GCA_005818885.1)	100.0	0.1
Mariprofundus erugo P3, USA: Mallard Creek, Washington, NC (GCA_005818865.1)	100.0	0.1
CG_4_10_14_3_um_filter_54_28, USA: Crystal Geyser near Green River, Utah (GCA_002782825.1)	99.8	0.4
Mariprofundus ferrooxydans M34, Loihi Seamount, Hawaii (GCA_000379405.1)	99.8	0.0
Mariprofundus ferrooxydans O1, USA: Pamlico Sound, Rodanthe, Hatteras Island, NC (GCA_011947535.1)	100.0	0.3
Mariprofundus ferrooxydans JV-1, Lower Jet Vents, Marker 11 (GCA_001273615.1)	99.9	1.1
Mariprofundus ferrooxydans PV-1, Loihi Seamount, Hawaii (GCA_000153765.1)	99.8	1.3
Mariprofundus micogutta ET2, Japan:Izu-Ogasawara Arc (GCA_001895085.1)	100.0	0.1
Mariprofundus sp. KV, Denmark: Kalo Vig, Aarhus Bay (GCA_013387475.1)	100.0	0.0
Mariprofundus sp. NF, Denmark: Norsminde Fjord, Aarhus Bay (GCA_013387455.1)	99.8	0.1
Mariprofundus ferrinatatus CP-8, USA: Chesapeake Bay (GCA_002795825.1)	100.0	0.0
Mariprofundus aestuarium CP-5, USA: Chesapeake Bay (GCA_002795805.1)	100.0	0.0
NORP257, Atlantic Ocean: North Pond (GCA_016764685.1)	60.5	0.7
AMOR20_M1284, Fåvne vent field, Arctic Mid-Ocean Ridges	91.2	0.8
HC21_M0722, Aurora vent field, Arctic Mid-Ocean Ridges	83.4	0.7
OFTM252, subsea tunnel biofilm, Norway: Oslofjord Tunnel (GCA_021772775.1)	100.0	0.1
AMOR20_M1282, Fåvne vent field, Arctic Mid-Ocean Ridges	86.8	2.3
Mariprofundus sp. EBB-1, USA: East Boothbay, Maine (GCA_003665155.1)	99.5	0.1
IMG_2836455305, 665-MMA12, TAG, Mid-Atlantic Ridge	93.1	0.1
IMG_2836431279, 664-BS3, Rainbow, Mid-Atlantic Ridge	85.4	1.5
IMG_2836500517, Urashima, Golden Horn chimney, Mariana Backarc	51.9	8.4
HC21_M1160, Aurora vent field, Arctic Mid-Ocean Ridges	85.4	1.8
GCA_027060005.1, Pacific Ocean: Brothers volcano	70.4	0.0
AMOR20_M1280, Fåvne vent field, Arctic Mid-Ocean Ridges	90.5	0.4
HC21_M0139, Aurora vent field, Arctic Mid-Ocean Ridges	94.4	0.0

Mariprofundus

Tree scale: 0.2