OCTOBER 29 | 2021



Appendix L: Summary of Agency and Stakeholder Engagement

Coastal Virginia Offshore Wind Commercial Project

Dominion Energy®

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CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1	10/1/2021	Captain Mark Hodges	VIMS Meeting	Fisheries/Fishermen
2	10/1/2021	TRAFFIX (Hampton Roads Transit)	CVOW discussion	Local Govt Staff
3	10/1/2021	Virginia Beach Mayor Rosemary Wilson	CVOW update	Local Govt Elected
4	9/30/2021	City of Chesapeake's City Manager's Office	CVOW update	Local Govt Staff
5	9/30/2021	Virginia Department of Environmental Quality	CVOW Commercial – Project Update and Onshore Permitting	State Govt Staff
6	9/28/2021	BOEM	CVOW update	Federal Govt Staff
7	9/28/2021	Virginia Governor Ralph Northam	Engagement with potential CVOW suppliers; supporting Commonwealths economic development activity	State Govt Elected
8	9/28/2021	VMRC Finfish Advisory Board	Email exchange about CVOW presentation at the next meeting	Fisheries/Fishermen
9	9/27/2021	City of Chesapeake Economic Development	CVOW update	Local Govt Staff
10	9/27/2021	Norfolk Environmental Commission	To request that the commission receive a project briefing.	Environmental/Marine Orgs
11	9/26/2021	Virginia Beach Neptune Festival (9/24-9/26)	Event sponsor	Communities/Landowners
12	9/25/2021	Butterfly Village - She Can STEM Academy for Girls	Educational outreach to introduce careers in STEM and the benefits of clean energy (CVOW)	Workforce/Education
13	9/24/2021	Black BRAND	Highlight Dominion Energy's presenting sponsorship of Black Brand's Black Diamond Weekend	Hist/Cultural
14	9/24/2021	Government of Flanders / BELGIUM, FLANDERS INVESTMENT & TRADE	CVOW update, procurement status, VCEA hiring requirements	Business/Industry
15	9/24/2021	The Business Network for Offshore Wind	DEI culture at DE and VCEA hiring requirements	Business/Industry
16	9/24/2021	VCU, CMZ, (RODA?)	TJ added the Conch Pot discussion on to this meeting; include Rachel Peabody (VMRC)	Fisheries/Fishermen
17	9/24/2021	Virginia Beach Councilmember Barara Henley	CVOW update	Local Govt Elected
18	9/24/2021	Visit Norfolk	CVOW update	Business/Industry
19	9/23/2021	Kitty Hawk Wind Farm	Status update, surf clam fishing update	Fisheries/Fishermen
20	9/23/2021	Naval Air Station Oceana	Scheduled monthly sync-up between Dominion Energy and NAS Oceana to discuss action items and updates regarding the Transmission route for CVOW.	Military
21	9/23/2021	Newport News Economic Development	CVOW outreach	Local Govt Staff
22	9/23/2021	Surfside Foods, LLC	Arrange meeting to discuss Surf Clam activity near CVOW lease area	Fisheries/Fishermen
23	9/22/2021	City of Chesapeake's City Manager's Office	CVOW update and correspondence	Local Govt Staff

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OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
24	9/21/2021	Friends of Indian River	CVOW update	Environmental/Marine Orgs
25	9/21/2021	Hampton Roads Chamber Suffolk B2B Expo	Business and community awareness regarding CVOW – clean energy benefits, economic growth, job opportunities, local supply chain growth	Business/Industry
26	9/20/2021	City of Virginia Beach/Basque Delegation	Educate Basque Delegation on CVOW status, procurement activity and hiring requirements of the Act	Business/Industry
27	9/20/2021	Hampton Roads Alliance	Connect Businesses with Hampton Roads OSW Leadership and Development Personnel	Business/Industry
28	9/20/2021	Hampton Roads Alliance	Project update	Business/Industry
29	9/18/2021	Virginia Beach Interdenominational Ministers Conference	Project update	Faith-Based Orgs
30	9/17/2021	Captain Mark Hodges	Discuss Surf Claim exploratory fishing east of lease area	Fisheries/Fishermen
31	9/17/2021	Hampton Roads Transportation Accountability Commission	CVOW update	Local Govt Staff
32	9/17/2021	State Military Installation	CVOW update	Military
33	9/17/2021	VersAbility Resources	CVOW inquiry	Workforce/Education
34	9/16/2021	Hampton Clean City Commission	CVOW outreach	Environmental/Marine Orgs
35	9/16/2021	Hampton Economic Development	CVOW outreach	Business/Industry
36	9/16/2021	Newport News Economic Development	CVOW outreach	Business/Industry
37	9/15/2021	VCU, CMZ, (RODA?)	Check status on coordinating meetings w/Conch fishermen	Fisheries/Fishermen
38	9/15/2021	Visit Norfolk	CVOW update	Business/Industry
39	9/14/2021	BOEM	CVOW update	Federal Govt Staff
40	9/14/2021	Kitty Hawk Wind Farm	Status Update; air Gap for pilot turbines; status of light on wave buoy	Fisheries/Fishermen
41	9/14/2021	Virginia Center for Inclusive Communities	Project discussion	Hist/Cultural
42	9/11/2021	Mid-Atlantic Home and Outdoor Living Show	Community event	Communities/Landowners
43	9/10/2021	State Military Installation	Encounter report to come	Military
44	9/10/2021	University of the Potomac	CVOW educational institution support	Workforce/Education
45	9/9/2021	Naval Air Station Oceana	Scheduled monthly sync-up between Dominion Energy and NAS Oceana to discuss action items and updates regarding the Transmission route for CVOW.	Military
46	9/9/2021	VCEA Roundtable	VCEA Hiring Roundtable information session & discussion	Workforce/Education
47	9/8/2021	Aquaman Sportfishing Charters	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen
48	9/8/2021	F/V Game On	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen
49	9/8/2021	Long Bay Pointe Bait & Tackle	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen
50	9/8/2021	Norfolk Angler's Club	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen

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OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
51	9/8/2021	Virginia Beach Angler's Club	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen
52	9/8/2021	Virginia Saltwater Sportfishing Association	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen
53	9/8/2021	VMRC Finfish Advisory Board	Collect visual footage or recreational fishing for Dominion PR.	Fisheries/Fishermen
54	9/1/2021	Commonwealth of Virginia - Governor's Office	Recap of June 29, 2021. CVOW hiring roundtable, and discussion of next steps	State Govt Staff
55	8/31/2021	BOEM	CVOW update	Federal Govt Staff
56	8/28/2021	Delta Sigma Theta	CVOW outreach	Community
57	8/28/2021	New Galilee Baptist Church	General project update	Faith-Based Orgs
58	8/28/2021	STOP Community Connect Event	CVOW outreach	Community
59	8/27/2021	Chesapeake Scientific LLC	Email from Dr. Haver sharing info from dive on turbines	Fisheries/Fishermen
60	8/26/2021	Business Network for Offshore Wind Conference (8/24-8/26)	Panels, receptions, meetings, events	Business/Industry
61	8/26/2021	Hampton Roads Black Caucus	CVOW presentation by Katharine Bond	Hist/Cultural
62	8/26/2021	Naval Air Station Oceana	Scheduled monthly meeting sync-up to discuss action items and updates regarding the transmission route	Military
63	8/26/2021	Norwegian Energy Partners	CVOW update, procurement status, VCEA hiring requirements	Business/Industry
64	8/26/2021	Virginia Beach Councilmember Barbara Henley	Dominion Energy was on the agenda to provide CVOW update	Local Govt Elected
65	8/26/2021	Virginia Governor Ralph Northam	Engagement with potential CVOW suppliers; supporting Commonwealths economic development activity	State Govt Elected
66	8/26/2021	VMRC - Finfish Management Advisory Commission	Email exchange re: Recreational fishing trip and suggested attendees	Fisheries/Fishermen
67	8/25/2021	Patawomeck Tribe	Provide update on CVOW	Tribe
68	8/23/2021	Gabriel Chapel AME Church	Community support	Faith-Based Orgs
69	8/23/2021	Long Bay Point Bait & Tackle, Ocean Pearl Charters	Follow up with Pilot Project WTG coordinates	Fisheries/Fishermen
70	8/23/2021	The Nature Conservancy (TNC)	Part of routine outreach between TNC and Dominion	Environmental/Marine Orgs
71	8/21/2021	Chesapeake Scientific LLC	Endangered species monitoring in lease area	Fisheries/Fishermen
72	8/20/2021	Hampton Roads Alliance	CVOW outreach	Business/Industry
73	8/20/2021	Norfolk Angler's Club	Coastal Angler Video Fishing trip	Fisheries/Fishermen
74	8/20/2021	Norfolk Angler's Club	Participants for Coastal Angler Video Fishing trip	Fisheries/Fishermen
75	8/20/2021	The Nature Conservancy (TNC)	Update on CVOW On-Shore activities and discuss next steps	Environmental/Marine Orgs
76	8/20/2021	Virginia Living Museum	Dominion Energy Environmental Education and Stewardship grant information	Community

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OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
77	8/20/2021	Virginia Saltwater Sportfishing Association (VSSA)	Coastal Angler Video Fishing trip	Fisheries/Fishermen
78	8/19/2021	F/V Russell; Lynnhaven Fishing Co. ; Bubba's Marina	Share project information	Fisheries/Fishermen
79	8/19/2021	Long Bay Point Bait & Tackle; Ocean Pearl Charters	General outreach to Capt. Wray	Fisheries/Fishermen
80	8/19/2021	Long Bay Pointe Marina	General project outreach	Fisheries/Fishermen
81	8/19/2021	Oceans East Bait & Tackle	RL visited store to conduct initial outreach with store manager (ML) and staff (Chris and Anthony)	Fisheries/Fishermen
82	8/19/2021	Pleasure House Oyster Farm	Meet in person, discuss any issues	Fisheries/Fishermen
83	8/18/2021	State Military Installation	CVOW update	Military
84	8/18/2021	Virginia Wesleyan University	CVOW educational institution support	Workforce/Education
85	8/17/2021	BOEM	CVOW update	Federal Govt Staff
86	8/17/2021	Communities around Fentress Substation	CVOW update	Communities/Landowners
87	8/17/2021	Kitty Hawk Wind Farm	CVOW update	Fisheries/Fishermen
88	8/17/2021	Sandbridge HOA	CVOW update	Communities/Landowners
89	8/17/2021	Virginia African American Cultural Center (VAACC)	CVOW update	Hist/Cultural
90	8/17/2021	Virginia Area Committee (VA AC) Co-chaired by the Coast Guard and VA DEQ	CVOW outreach	Military
91	8/16/2021	Etheride Lakes residents	These residents will have the greatest impact for the Fentress expansion.	Communities/Landowners
92	8/16/2021	Hispanics in Energy	Follow-up phone call from August 4th email. Discussed methods of diverse outreach to Hispanic communities and how to engage the changing dynamic of communities in Dominion Energy's footprint	Hist/Cultural
93	8/16/2021	Newport News City Councilmember David Jenkins	Legislative Meet and Greet hosted by the Virginia Peninsula Chamber of Commerce	Local Govt Elected
94	8/16/2021	Newport News City Councilmember David Jenkins	CVOW update	Local Govt Elected
95	8/13/2021	State Military Reservation	CVOW outreach	Military
96	8/12/2021	Chesapeake Resident Shane Hensely	To reach out to residents along Clearwater Lane who may be impacted by expansion of the Fentress substation.	Communities/Landowners
97	8/12/2021	Clearwater Lane Residents	Left brochures	Communities/Landowners
98	8/12/2021	F/V Capt'n MAK; Hodges Seafood	Provide additional information re: Gear Conflict question in JUN '21	Fisheries/Fishermen
99	8/12/2021	The Mariner's Museum and Park	CVOW presentation	Community
100	8/11/2021	Scott Stevens, County Administrator, James City County	CVOW outreach follow up	Local Govt Staff

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#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
101	8/10/2021	Chesapeake Climate Action Network	Discuss the email that was sent out concerning the open houses and virtual meetings	Environmental/Marine Orgs
102	8/10/2021	F/V Capt'n MAK; Hodges Seafood	Respond to request to check on potential gear conflict in JUN '21	Fisheries/Fishermen
103	8/10/2021	Kitty Hawk Wind Farm	RR called RL to discuss impacts of MAFMC letter to developers re; BSB and SBP per M. Hawkins observations;	Fisheries/Fishermen
104	8/10/2021	Piney Grove Baptist Church parishioner (EJ)	To provide information about CVOW project, share information about upcoming Open Houses and seek participation from them in a Community Conversation or backpack giveaway, hot dog event, etc. for church community near Holland Pines subdivision	Faith-Based Orgs
105	8/10/2021	Virginia Manufacturers Association	Project outreach	Business/Industry
106	8/9/2021	Greater Williamsburg Chamber and Tourism Alliance	Regular monthly 1:1 meeting as friend, Chair of Legislative Committee and Board member	Business/Industry
107	8/9/2021	Greater Williamsburg Chamber of Commerce	Follow up on brief presentation by John Larson to Board; other opportunities to engage on CVOW/OSW	Business/Industry
108	8/9/2021	Hampton Roads Workforce Committee	CVOW update	Workforce/Education
109	8/8/2021	North Carolina Department of Environmental Quality	CVOW outreach	State Govt Staff
110	8/7/2021	Seatack	General project outreach as well as sharing information regarding job opportunities and upcoming Diversity Student Conference.	Communities/Landowners
111	8/6/2021	F/V Capt'n MAK; Hodges Seafood	Catch up on medical procedure recovery, availability for VIMS meeting	Fisheries/Fishermen
112	8/6/2021	Highland Parish Resident Peter Wengel	Mr. Wengel requested a look at the transmission routes and Rob Richardson provided a PowerPoint slide which showed the routes and specifically which route comes closest to him in Highland Parish neighborhood.	Communities/Landowners
113	8/5/2021	Chesapeake NAACP	CVOW update	Hist/Cultural
114	8/5/2021	Highland Parish Resident Dennis Smith	Seek out Highland Parish residents and determine if they're receiving our mailers, literature and receive feedback.	Communities/Landowners
115	8/5/2021	Highland Parish Resident James Landas	Seek out Highland Parish residents and determine if they're receiving our mailers, literature and receive feedback.	Communities/Landowners
116	8/5/2021	Highland Parish Resident Peter Wengel	Seek out Highland Parish residents and determine if they're receiving our mailers, literature and receive feedback.	Communities/Landowners
117	8/5/2021	New Jerusalem Ministries (EJ)	Provide CVOW follow-up outreach to Pastor Coleman and to inform her of the Aug. 17 through 19 Open Houses.	Faith-Based Orgs
118	8/5/2021	STOP, Inc.	CVOW update	Community
119	8/5/2021	Virginia Beach City Councilmember Michael Berlucchi	CVOW update	Local Govt Elected
120	8/4/2021	American Association of Blacks in Energy, VA Chapter	General project update	Hist/Cultural

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#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
121	8/4/2021	An Achievable Dream Middle and High Schools	CVOW outreach follow up	Workforce/Education
122	8/4/2021	Calvary Revival Church	General project outreach	Faith-Based Orgs
123	8/4/2021	Center for African American Public	General project update	Workforce/Education
124	8/4/2021	Chesapeake NAACP	CVOW check-in	Hist/Cultural
125	8/4/2021	City of Hampton	CVOW outreach follow up	Local Govt Staff
126	8/4/2021	City of Newport News	CVOW outreach follow up	Local Govt Staff
127	8/4/2021	City of Poquoson	CVOW outreach follow up	Local Govt Staff
128	8/4/2021	City of Portsmouth (Field Engineers)	Discuss some outstanding Dominion Energy initiatives in the city of Portsmouth	Local Govt Staff
129	8/4/2021	Delegate Don Scott	CVOW update	State Govt Elected
130	8/4/2021	Gary McCollum	CVOW update	Public Opinion Leaders
131	8/4/2021	Hampton City Schools	CVOW outreach follow up	Workforce/Education
132	8/4/2021	Hampton Roads Community Foundation	CVOW update	Community
133	8/4/2021	Hispanic Chamber of Coastal Virginia	General project update	Hist/Cultural
134	8/4/2021	Hispanics in Energy	General project update	Hist/Cultural
135	8/4/2021	Immaculate Conception Catholic Church	CVOW outreach follow up	Faith-Based Orgs
136	8/4/2021	James City County	CVOW outreach follow up	Local Govt Staff
137	8/4/2021	League of Conservation Voters	CVOW discussion	Environmental/Marine Orgs
138	8/4/2021	Macaulay & Jamerson, Alexander Macaulay	CVOW discussion	Environmental/Marine Orgs
139	8/4/2021	NAACP Hampton	CVOW outreach follow up	Hist/Cultural
140	8/4/2021	Newport News NAACP	CVOW outreach follow up	Hist/Cultural
141	8/4/2021	Newport News Public Schools	CVOW update	Workforce/Education
142	8/4/2021	Office of Senator John Cosgrove	Discussion with LA	State Govt Staff
143	8/4/2021	St. Paul's Community Development Corporation	General project update	Local Govt Staff
144	8/4/2021	Suffolk Mayor Michael Duman	General Project update	Local Govt Elected
145	8/4/2021	Suffolk Public Schools	General project update	Workforce/Education
146	8/4/2021	Thomas Nelson Community College	CVOW outreach follow up	Workforce/Education
147	8/4/2021	Virginia Beach City Councilmember Sabrina Wooten	CVOW update	Local Govt Elected
148	8/4/2021	Virginia Beach Interdenominational Ministers Conference	CVOW Update, also sent email update with post card, one pager, Hampton Roads Alliance flier	Faith-Based Orgs
149	8/4/2021	Virginia Beach Minority Business Council	CVOW update	Hist/Cultural
150	8/4/2021	Virginia Beach SWaM Office	SwaM-certified business participated in "Industry Day" to learn about CVOW and supplier opportunities	Local Govt Staff

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#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
151	8/4/2021	Virginia Chamber of Commerce	CVOW update	Business/Industry
152	8/4/2021	Virginia Manufacturers Association	CVOW update	Business/Industry
153	8/4/2021	York-James City-Williamsburg NAACP	CVOW outreach follow up	Hist/Cultural
154	8/3/2021	Back Bay Foundation	CVOW update	Environmental/Marine Orgs
155	8/3/2021	Battlefield Golf Course	CVOW update	Communities/Landowners
156	8/3/2021	Bethany Beach Church (Chesapeake)	Inform Pastor Cason of the CVOW route and impacts that it could have to EJ communities	Faith-Based Orgs
157	8/3/2021	BOEM	CVOW update	Federal Govt Staff
158	8/3/2021	Chesapeake City Councilmember Robert Ike	CVOW update	Local Govt Elected
159	8/3/2021	Chesapeake's Gabriel Chapel AME Zion Church	CVOW update	Faith-Based Orgs
160	8/3/2021	Gabriel Chapel AME Zion Church (Chesapeake)	CVOW update	Faith-Based Orgs
161	8/3/2021	Greater Williamsburg Chamber and Tourism Alliance/Greater Williamsburg Partnership	CVOW outreach follow up	Business/Industry
162	8/3/2021	Hampton Roads Community Action Program	CVOW outreach follow up	Community
163	8/3/2021	James River Association	CVOW outreach follow up	Environmental/Marine Orgs
164	8/3/2021	New Galilee Baptist Church	CVOW update	Faith-Based Orgs
165	8/3/2021	New Galilee Baptist Church	CVOW update	Faith-Based Orgs
166	8/3/2021	Poquoson Kiwanis Club	CVOW outreach follow up	Community
167	8/3/2021	Senator Monty Mason	CVOW update	State Govt Elected
168	8/3/2021	Tech Center Research Park (Newport News)	CVOW outreach follow up	Business/Industry
169	8/3/2021	The Mariner's Museum and Park	CVOW outreach follow up	Community
170	8/3/2021	The Month Global Fellowship of Churches	CVOW update	Faith-Based Orgs
171	8/3/2021	The Mount Global Fellowship of Churches (EJ)	CVOW update	Faith-Based Orgs
172	8/3/2021	Virginia African American Advisory Board	CVOW update	Hist/Cultural
173	8/3/2021	Virginia Air & Space Science Center	CVOW outreach follow up	Community
174	8/3/2021	Virginia Asian Chamber of Commerce	General project update	Hist/Cultural
175	8/3/2021	Virginia Beach City Councilmember Michael Berlucchi	CVOW update	Local Govt Elected

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#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
176	8/3/2021	Virginia Beach Councilmember Sabrina Wooten	CVOW update	Local Govt Elected
177	8/3/2021	Virginia Beach Deputy City Manager Taylor Adams	CVOW update	Local Govt Staff
178	8/3/2021	Virginia Beach Hotel Association	CVOW update	Business/Industry
179	8/3/2021	Virginia Living Museum	CVOW project follow up	Community
180	8/3/2021	Virginia Peninsula Chamber of Commerce, Greater Peninsula NOW, Coliseum Central Business District, LEAD Peninsula	CVOW outreach follow up	Business/Industry
181	8/3/2021	Virginia Pilots Association	CVOW update	Business/Industry
182	8/3/2021	York County	CVOW outreach follow up	Local Govt Staff
183	8/2/2021	Battlefield Golf Course	CVOW update	Communities/Landowners
184	8/2/2021	CIVIC Community Institute	CVOW update	Community
185	8/2/2021	CIVIC Leadership Institute	CVOW update	Community
186	8/2/2021	Mayberry Residents	Email to let Mayberry residents know we are working on a new visual impact tool to show for them	Communities/Landowners
187	8/2/2021	Nansemond Tribe	CVOW update	Tribe
188	8/2/2021	New Journal and Guide	CVOW update	Community Media
189	8/2/2021	New Journal and Guide	CVOW update	Community Media
190	8/2/2021	Norfolk City Manager Chip Filer	Email follow up to schedule virtual meeting	Local Govt Staff
191	8/2/2021	Office of Delegate Barry Knight	CVOW update	State Govt Staff
192	8/2/2021	Old Dominion University	CVOW update	Workforce/Education
193	8/2/2021	Prince George Estates Resident Arleen Painter	CVOW update	Communities/Landowners
194	8/2/2021	Urban League of Hampton Roads (EJ)	CVOW update	Hist/Cultural
195	8/2/2021	Virginia African American Advisory Board (EJ)	CVOW update	Hist/Cultural
196	8/2/2021	Virginia Beach Deputy City Manager Taylor Adams	CVOW update	Local Govt Staff
197	8/2/2021	Wetlands Watch	CVOW update	Environmental/Marine Orgs
198	8/2/2021	YELLOW	CVOW update	Community
199	8/1/2021	Chesapeake Scientific LLC	Dr. Hager interested in VCU Sturgeon person I referenced (T. Janeski)	Fisheries/Fishermen
200	7/31/2021	Virginia Beach Legislative Liaison Deb Ryan	CVOW update	Local Govt Staff
201	7/31/2021	Will Sessoms	CVOW update	Public Opinion Leaders
202	7/30/2021	Castleton Property Manager	CVOW update	Communities/Landowners

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203	7/30/2021	Chesapeake City Councilmember Robert Ike	CVOW update	Local Govt Elected
204	7/30/2021	Chesapeake Scientific LLC	Project discussion	Fisheries/Fishermen
205	7/30/2021	Courthouse Woods – United Property Associates	CVOW update	Communities/Landowners
206	7/30/2021	Croatan Civic League	CVOW update	Communities/Landowners
207	7/30/2021	Dewberry and Indian River Farms – United Property Associates	CVOW update	Communities/Landowners
208	7/30/2021	Ducks Unlimited	CVOW update	Environmental/Marine Orgs
209	7/30/2021	Elizabeth River Project	CVOW update	Environmental/Marine Orgs
210	7/30/2021	Hampton Roads Vision	CVOW update	Business/Industry
211	7/30/2021	Harvey Lindsay	CVOW update	Business/Industry
212	7/30/2021	Office of Delegate Barry Knight	CVOW update	State Govt Staff
213	7/30/2021	Patawomeck Tribe	CVOW outreach	Tribe
214	7/30/2021	Sandbridge HOA	CVOW update	Communities/Landowners
215	7/30/2021	State Military Reservation – Virginia Army National Guard, Department of Military Affairs	Key Accounts (Watson), Transmission Right of Way, Transmission Project Development, and Legal participated in a weekly virtual meeting with representatives from SMR Camp Pendleton, Virginia Department of General Services (DGS), and the Virginia Attorney General's Office to continue discussions regarding the Coastal Virginia Offshore Wind onshore cable route	Military
216	7/30/2021	Union Mission	CVOW update	Faith-Based Orgs
217	7/30/2021	Virginia Beach Deputy City Manager Ron Williams	CVOW update	Local Govt Staff
218	7/30/2021	Virginia Beach Hotel Association	CVOW update	Business/Industry
219	7/30/2021	Virginia Beach Restaurant Association	CVOW update	Business/Industry
220	7/30/2021	Virginia Beach Volunteer Rescue Squad	CVOW update	Community
221	7/30/2021	Virginia Pilots Association	CVOW update	Business/Industry
222	7/30/2021	Visit Virginia Beach Head Nancy Helman	CVOW update	Local Govt Staff
223	7/29/2021	Ben Davenport	CVOW update	Public Opinion Leaders
224	7/29/2021	CBDA	CVOW update	Business/Industry
225	7/29/2021	Chesapeake Alliance	CVOW update	Business/Industry
226	7/29/2021	Chesapeake City Councilmember Matt Hamel	CVOW update	Local Govt Elected
227	7/29/2021	Chesapeake Vice Mayor John DeTriquet	CVOW update	Local Govt Elected

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OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
228	7/29/2021	Commercial Fisherman Tommy Eskridge	RL apologize for distraction created by sending safety info, per T. Janeski feedback	Fisheries/Fishermen
229	7/29/2021	Delegate jay Leftwich	CVOW update and addressing concerns/feedback	State Govt Elected
230	7/29/2021	ODU, VA CZM, (RODA?)	Discuss VIMS meeting with Conch fishermen, NOI comments, vessel safety checklist	Fisheries/Fishermen
231	7/29/2021	Portsmouth City Councilmember Christopher Woodard, Jr.	Project outreach	Local Govt Elected
232	7/29/2021	Portsmouth City Councilmember DeAndre Barnes	Project outreach	Local Govt Elected
233	7/29/2021	Portsmouth City Councilmember Dr. Mark Whitaker	Project outreach	Local Govt Elected
234	7/29/2021	Portsmouth City Councilmember Lisa Lucas-Burke	Project outreach	Local Govt Elected
235	7/29/2021	Portsmouth City Councilmember Paul Battle	Project outreach	Local Govt Elected
236	7/29/2021	Portsmouth City Councilmember William Moody, Jr.	Project outreach	Local Govt Elected
237	7/29/2021	VCU, CZM, (RODA?)	Discuss status of meeting w/VIMS/Conch Pot Fishermen; NOI Comments; Vessel Safety info shared w/Tommy Eskridge	Fisheries/Fishermen
238	7/29/2021	Virginia Beach City Councilmember Louis Jones	CVOW update	Local Govt Elected
239	7/29/2021	Virginia Beach Mayor Bobby Dyer	CVOW update	Local Govt Elected
240	7/29/2021	Virginia Beach Rotary Club	CVOW update	Community
241	7/29/2021	Virginia Beach Vice Mayor Jim Wood	CVOW update	Local Govt Elected
242	7/28/2021	Betsy Atkinson	CVOW update	Public Opinion Leaders
243	7/28/2021	Boys and Girls Club of Southeastern Virginia	Project outreach	Community
244	7/28/2021	Castleton HOA President	Discuss CVOW projects impact on Castleton Subdivision	Communities/Landowners
245	7/28/2021	Castleton President	General discussion on CVOW project and EMF readings	Communities/Landowners
246	7/28/2021	Cheryl McLeskey	CVOW update	Public Opinion Leaders
247	7/28/2021	Chesapeake City Councilmember Matt Hamel	CVOW update	Local Govt Elected
248	7/28/2021	Chesapeake City Councilmember Stephen Best	CVOW discussion	Local Govt Elected
249	7/28/2021	Chesapeake Climate Action Network	Project outreach	Environmental/Marine Orgs
250	7/28/2021	Chesapeake Deputy City Manager Bob Geis	Project update	Local Govt Staff

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
251	7/28/2021	Chesapeake Deputy City Manager Dr. Wanda Barnard	Project update	Local Govt Staff
252	7/28/2021	Chesapeake Mayor Rick West	Boat tour	Local Govt Elected
253	7/28/2021	Delegate Glenn Davis	CVOW update	State Govt Elected
254	7/28/2021	Delegate Nancy Guy	Project update	State Govt Elected
255	7/28/2021	Delegate Steve Heretick	Project update	State Govt Elected
256	7/28/2021	Hampton Roads Rotary	Project outreach	Community
257	7/28/2021	Men of Faith	Project status update	Faith-Based Orgs
258	7/28/2021	Peninsula Chamber of Commerce	CVOW update	Business/Industry
259	7/28/2021	Reinvent Hampton Roads	CVOW update	Business/Industry
260	7/28/2021	Senator John Cosgrove	Project update	State Govt Elected
261	7/28/2021	Senator Lynwood Lewis	Project update	State Govt Elected
262	7/28/2021	Southeastern Virginia Community Foundation	Project outreach	Community
263	7/28/2021	The Miles Agency	CVOW update	Business/Industry
264	7/28/2021	Virginia Aquarium	CVOW update	Community
265	7/28/2021	Virginia Hispanic Chamber of Commerce	General project update	Hist/Cultural
266	7/27/2021	Black Brand	Project outreach	Hist/Cultural
267	7/27/2021	Carolinas-Virginia Minority Supplier Development	Project outreach	Hist/Cultural
268	7/27/2021	Fentress Civic League	Project outreach	Communities/Landowners
269	7/27/2021	Franklin Public Schools	Project outreach	Workforce/Education
270	7/27/2021	House of Prayer (Chesapeake)	General project outreach	Faith-Based Orgs
271	7/27/2021	Isle of Wight Public Schools	Project outreach	Workforce/Education
272	7/27/2021	League of Conservation Voters	CVOW discussion	Environmental/Marine Orgs
273	7/27/2021	Macaulay & Jamerson, Alexander Macaulay	CVOW discussion	Environmental/Marine Orgs
274	7/27/2021	Mt. Olive Baptist Church	General project outreach	Faith-Based Orgs
275	7/27/2021	Office of Senator John Cosgrove	Discussion with LA	State Govt Staff
276	7/27/2021	Portsmouth Volunteers for the Homeless	Project outreach	Community
277	7/27/2021	Ravenna	Project outreach	Communities/Landowners
278	7/27/2021	Senator Bill DeSteph	CVOW update	State Govt Elected
279	7/27/2021	Southampton County Public Schools	Project outreach	Workforce/Education
280	7/27/2021	Virginia Beach Audubon	Project outreach	Environmental/Marine Orgs
281	7/27/2021	Virginia Beach Interdenominational Conference	General project outreach	Faith-Based Orgs

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
282	7/27/2021	Virginia Wesleyan University	Project outreach	Workforce/Education
283	7/27/2021	Women for Defense	Project outreach	Military
284	7/26/2021	Audubon Society – Clean Energy Initiative	Follow up to environmental advocacy group trip to pilot turbines where we discussed outreach to local Audubon chapters	Environmental/Marine Orgs
285	7/26/2021	Centreville Chapel AME	CVOW update	Faith-Based Orgs
286	7/26/2021	Chesapeake Deputy City Manager Bob Geis	CVOW update	Local Govt Staff
287	7/26/2021	Chesapeake Regional Medical Center	CVOW update	Business/Industry
288	7/26/2021	Hampton Roads Committee of 200+ Men	CVOW outreach follow up	Hist/Cultural
289	7/26/2021	Hampton Roads Community Action Program	CVOW outreach follow up	Community
290	7/26/2021	Virginia Beach Councilmember Aaron Rouse (EJ)	CVOW update	Local Govt Elected
291	7/25/2021	Will Sessoms	CVOW update	Public Opinion Leaders
292	7/23/2021	An Achievable Dream Middle and High Schools	CVOW outreach follow up	Workforce/Education
293	7/23/2021	Chesapeake City Councilmember Susan Vitale	Discuss transmission routes	Local Govt Elected
294	7/23/2021	City of Hampton	CVOW outreach follow up	Local Govt Staff
295	7/23/2021	City of Newport News	CVOW outreach follow up	Local Govt Staff
296	7/23/2021	City of Poquoson	CVOW outreach follow up	Local Govt Staff
297	7/23/2021	Commercial Fisherman Tommy Eskridge	Share "Good Practice Guidelines" for wind farm service vessels.	Fisheries/Fishermen
298	7/23/2021	Courthouse Estates	Returned inquiry with postcard about August open houses	Communities/Landowners
299	7/23/2021	Doyletown Civic League	Project outreach	Communities/Landowners
300	7/23/2021	Greater Williamsburg Chamber and Tourism Alliance/Greater Williamsburg Partnership	CVOW outreach follow up	Business/Industry
301	7/23/2021	Hampton City Schools	CVOW outreach follow up	Workforce/Education
302	7/23/2021	Hampton Roads Community Action Program	CVOW outreach follow up	Community
303	7/23/2021	James City County	CVOW outreach follow up	Local Govt Staff
304	7/23/2021	James River Association	CVOW outreach follow up	Environmental/Marine Orgs
305	7/23/2021	LA for Del. Leftwich	CVOW update	State Govt Staff
306	7/23/2021	Mt. Lebanon Baptist Church	General project outreach	Faith-Based Orgs
307	7/23/2021	NAACP Hampton	CVOW outreach follow up	Hist/Cultural
308	7/23/2021	Newport News NAACP	CVOW outreach follow up	Hist/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
309	7/23/2021	Norfolk City Councilmembers Courtney Doyle, Paul Riddick, Danica Royster, Tommy Smigiel, Martin Thomas, Andria McClellan	Sent postcards about open houses	Local Govt Elected
310	7/23/2021	Poquoson Kiwanis Club	CVOW outreach follow up	Community
311	7/23/2021	State Military Reservation – Virginia Army National Guard, Department of Military Affairs	Key Accounts (Watson), Transmission Right of Way, Transmission Project Development, and Legal participated in a weekly virtual meeting with representatives from SMR Camp Pendleton, Virginia Department of General Services (DGS), and the Virginia Attorney General's Office to continue discussions regarding the Coastal Virginia Offshore Wind onshore cable route	Military
312	7/23/2021	Tech Center Research Park (Newport News)	CVOW outreach follow up	Business/Industry
313	7/23/2021	The Mariner's Museum and Park	CVOW outreach follow up	Community
314	7/23/2021	Thomas Nelson Community College	CVOW outreach follow up	Workforce/Education
315	7/23/2021	Virginia Air & Space Science Center	CVOW outreach follow up	Community
316	7/23/2021	Virginia Living Museum	CVOW project follow up	Community
317	7/23/2021	Virginia Natural Gas	Discuss CVOW/transmission routes	Business/Industry
318	7/23/2021	Virginia Peninsula Chamber of Commerce, Greater Peninsula NOW, Coliseum Central Business District, LEAD Peninsula	CVOW outreach follow up	Business/Industry
319	7/23/2021	York County	CVOW outreach follow up	Local Govt Staff
320	7/23/2021	York-James City-Williamsburg NAACP	CVOW outreach follow up	Hist/Cultural
321	7/22/2021	Chesapeake Deputy City Manager Bob Geis	CVOW update	Local Govt Staff
322	7/22/2021	City of Portsmouth Mayor Shannon Glover (EJ)	CVOW update and discussed participation in BOEM Scoping Meeting	Local Govt Elected
323	7/22/2021	LA for Del. Leftwich	CVOW update	State Govt Staff
324	7/22/2021	Senator Louise Lucas	CVOW update and discussion	State Govt Elected
325	7/22/2021	Virginia Beach City Councilmember Aaron Rouse	CVOW update	Local Govt Elected
326	7/22/2021	Virginia Beach Restaurant Association	CVOW update	Business/Industry
327	7/22/2021	Virginia Beach Staff Drew Lupkin	CVOW update for Councilmember Barbara Henley's constituents monthly meeting	Local Govt Staff
328	7/21/2021	Chesapeake Councilmember Debbie Ritter	Project update	Local Govt Elected
329	7/21/2021	Chesapeake Councilmember Don Carey	Project update	Local Govt Elected

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
330	7/21/2021	Chesapeake Councilmember Ella Ward	Project update	Local Govt Elected
331	7/21/2021	Christopher Farms HOA	Project outreach	Communities/Landowners
332	7/21/2021	City of Portsmouth Mayor Shannon Glover (EJ)	CVOW update and discussed participation in BOEM Scoping Meeting	Local Govt Elected
333	7/21/2021	Commercial Fisherman Tommy Eskridge	Discuss safety requirements for fishing vessels supporting offshore wind developer activities	Fisheries/Fishermen
334	7/21/2021	Delegate Barry Knight	Project update	State Govt Elected
335	7/21/2021	Delegate Cliff Hayes	CVOW update and discussion	State Govt Elected
336	7/21/2021	Delegate Jason Miyares	Project update	State Govt Elected
337	7/21/2021	Delegate Kelly Convirs-Fowler	Project update	State Govt Elected
338	7/21/2021	Delegate Mike Mullin	CVOW update	State Govt Elected
339	7/21/2021	Green Run Homes Association	Project outreach	Communities/Landowners
340	7/21/2021	Hampton Roads Business Roundtable	Project outreach	Business/Industry
341	7/21/2021	Hampton Roads Messenger	Project outreach	Community Media
342	7/21/2021	Hampton Roads Planning District Commission	BOEM scoping letter of support	Local Govt Staff
343	7/21/2021	Hope Haven	General project outreach	Faith-Based Orgs
344	7/21/2021	HRMFFA	Project outreach	Military
345	7/21/2021	Hunt Club Farm	Project outreach	Communities/Landowners
346	7/21/2021	Hunt Club Forest Civic League	Project outreach	Communities/Landowners
347	7/21/2021	Kemp Woods Civic League	Project outreach	Communities/Landowners
348	7/21/2021	LA for Del. Leftwich	CVOW update	State Govt Staff
349	7/21/2021	La Selecta	Project outreach	Community Media
350	7/21/2021	Lake Christopher HOA	Project outreach	Communities/Landowners
351	7/21/2021	Larkspur Civic League	Project outreach	Communities/Landowners
352	7/21/2021	Louisa Strayhorn	Project outreach	Public Opinion Leaders
353	7/21/2021	Lynnhaven River Now	Project update	Environmental/Marine Orgs
354	7/21/2021	Senator Dick Saslaw	CVOW update	State Govt Elected
355	7/21/2021	Senator Lionel Spruill	CVOW update and discussion	State Govt Elected
356	7/21/2021	Senator Mamie Locke	CVOW update and discussion	State Govt Elected
357	7/21/2021	STOP	Project update	Community
358	7/21/2021	Virginia Beach City Manager Patrick Duhaney	Project update	Local Govt Staff
359	7/21/2021	Virginia Beach Councilmember Barbara Henley	Project update	Local Govt Elected
360	7/21/2021	Virginia Beach Councilmember Rosemary Wilson	Project update	Local Govt Elected

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
361	7/21/2021	Virginia Beach NAACP	Project update	Hist/Cultural
362	7/21/2021	Wetlands Watch	CVOW update	Environmental/Marine Orgs
363	7/21/2021	WHRO	Project outreach	Community Media
364	7/21/2021	Will Sessoms	Project outreach	Public Opinion Leaders
365	7/20/2021	BOEM	CVOW update	Federal Govt Staff
366	7/20/2021	City of Portsmouth Mayor Shannon Glover (EJ)	CVOW update and discussed participation in BOEM Scoping Meeting	Local Govt Elected
367	7/20/2021	Delegate Cliff Hayes	CVOW update and discussion	State Govt Elected
368	7/20/2021	Senator Louise Lucas	CVOW update and discussion	State Govt Elected
369	7/20/2021	Senator Mamie Locke	CVOW update and discussion	State Govt Elected
370	7/19/2021	F/V Capt'n MAK; Hodges Seafood	Inform MH he can meet w/VIMS at his convenience w/o DE present	Fisheries/Fishermen
371	7/19/2021	Senator Lionel Spruill	CVOW update and discussion	State Govt Elected
372	7/16/2021	CVOW North Atlantic Right Whale NGO Working Group	CVOW outreach	Environmental/Marine Orgs
373	7/16/2021	Delegate Glenn Davis	Met the aide at Hampton Roads Delegation meeting and inquired about the CVOW project	State Govt Elected
374	7/16/2021	Virginia Department of Historic Resources (VDHR)	CVOW outreach	State Govt Staff
375	7/15/2021	City of Norfolk Mayor Kenneth C. Alexander (EJ)	CVOW update and discusses participation in BOEM Scoping Meeting	Local Govt Elected
376	7/15/2021	City of Portsmouth Mayor Shannon Glover (EJ)	CVOW update and discussed participation in BOEM Scoping Meeting	Local Govt Elected
377	7/15/2021	Pleasure House Oyster Farm	RL approach following CL Instagram post of 08-JUL-2021	Fisheries/Fishermen
378	7/15/2021	Virginia Beach Hotel Association	Joel Rubin provided a presentation about the Mayor's Commission on Offshore Wind and Clean Energy at the VBHA Board and membership meeting	Business/Industry
379	7/14/2021	Audubon Society – Clean Energy Initiative	Follow up to environmental advocacy group trip to pilot turbines where we discussed outreach to local Audubon chapters	Environmental/Marine Orgs
380	7/14/2021	BOEM	CVOW update	Federal Govt Staff
381	7/14/2021	Chesapeake Bay Foundation	Timeline update on OSW project and transmission routes	Environmental/Marine Orgs
382	7/14/2021	Chesapeake Bay Foundation	Project briefing/update	Environmental/Marine Orgs
383	7/14/2021	Hampton Roads Chamber of Commerce	CVOW update	Business/Industry
384	7/14/2021	Hampton Roads Planning District Commission	BOEM scoping letter of support	Local Govt Staff
385	7/14/2021	Nansemond Tribe	Invitation to meet to discuss latest transmission routes	Hist/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
386	7/14/2021	Pamunkey Tribe	Invitation to meet to discuss latest transmission routes	Tribe
387	7/14/2021	Upper Mattaponi Tribe	Invitation to meet to discuss latest transmission routes	Tribe
388	7/14/2021	Virginia Beach City Councilmember Guy Tower	CVOW update	Local Govt Elected
389	7/13/2021	Chesapeake Bay Foundation	Project briefing/update	Environmental/Marine Orgs
390	7/13/2021	Chickahominy Tribe – Eastern Division	Invitation to meet to discuss latest transmission routes	Tribe
391	7/13/2021	F/V Capt'n MAK; Hodges Seafood	VIMS meeting re: BSB, meeting attendance	Fisheries/Fishermen
392	7/13/2021	F/V Capt'n MAK; Hodges Seafood	VIMS meeting re: BSB, confirmation & prep	Fisheries/Fishermen
393	7/13/2021	F/V Capt'n MAK; Hodges Seafood	VIMS meeting confirmation & prep	Fisheries/Fishermen
394	7/13/2021	Sierra Club	Ongoing communication and project update with key stakeholder	Environmental/Marine Orgs
395	7/12/2021	BOEM	CVOW update	Federal Govt Staff
396	7/12/2021	BOEM	Public Scoping meeting (2/3) for CVOW Construction & Operations Plan, which is required as part of NEPA process following July 2nd issuance of NOI. Part of 30-day public comment period process which ends Aug 2nd	Federal Govt Staff
397	7/12/2021	BOEM	Public Scoping meeting (1/3) for CVOW Construction & Operations Plan, which is required as part of NEPA process following July 2nd issuance of NOI. Part of 30-day public comment period process which ends Aug 2nd	Federal Govt Staff
398	7/12/2021	Chesapeake Bay Foundation	Project briefing/update	Environmental/Marine Orgs
399	7/12/2021	State Military Preservation – Virginia Army National Guard, Department of Military Affairs	Ongoing weekly meeting to discuss CVOW onshore cable routing on SMR property. Key Accounts (Watson), Transmission Real Estate, Transmission Project Development, and Legal participated in a weekly virtual meeting with representatives from SMR Camp Pendleton, Virginia Department of General Services (DGS), and the Virginia Attorney General's Office to continue discussion regarding the CVOW cable route	Military
400	7/12/2021	Virginia Marine Resources Commission (VMRC) Recreational Fisheries Advisory Board (RFAB)	Provide project update and Q&A session	Fisheries/Fishermen
401	7/10/2021	New Weeping Mary Baptist Church	CVOW outreach	Faith-Based Org
402	7/9/2021	American Legion Post #35 (Norfolk)	CVOW outreach	Community
403	7/9/2021	City of Norfolk Mayor Kenneth C. Alexander (EJ)	CVOW update and discusses participation in BOEM Scoping Meeting	Local Govt Elected

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
404	7/9/2021	State Military Preservation – Virginia Army National Guard, Department of Military Affairs	Ongoing weekly meeting to discuss CVOW onshore cable routing on SMR property. Key Accounts (Watson), Transmission Real Estate, Transmission Project Development, and Legal participated in a weekly virtual meeting with representatives from SMR Camp Pendleton, Virginia Department of General Services (DGS), and the Virginia Attorney General's Office to continue discussion regarding the CVOW cable route	Military
405	7/8/2021	Patawomeck Tribe	Invitation to meet to discuss latest transmission routes	Tribe
406	7/7/2021	Captain Mark Hodges (commercial fisherman)	VIMS meeting confirmation and prep	Fisheries/Fishermen
407	7/7/2021	Chickahominy Tribe – Eastern Division	Invitation to meet to discuss latest transmission line routes	Tribe
408	7/7/2021	Delegate Mark Sickles	CVOW update	State Govt Elected
409	7/7/2021	Pamunkey Tribe (EJ)	Invitation to meet to discuss latest transmission line routes	Tribe
410	7/7/2021	Rappahannock Tribe	Invitation to meet to discuss latest transmission line routes	Tribe
411	7/7/2021	Upper Mattaponi Tribe	Invitation to meet to discuss latest transmission line routes	Tribe
412	7/6/2021	BOEM	Project discussion	Federal Govt Staff
413	7/6/2021	Mid-Atlantic Fisheries Management Council (MAFMC)	Project discussion	Fisheries/Fishermen
414	7/6/2021	Virginia Marine Resource Commission – Recreational Fisheries/Artificial Reef	Plan for presentation at VMRC RFAB meeting on July 12	Fisheries/Fishermen
415	7/5/2021	Upper Mattaponi Tribe	Invitation to meet to discuss latest transmission line routes	Tribe
416	7/2/2021	Chickahominy Tribe	Invitation to meet to discuss latest transmission line routes	Tribe
417	7/2/2021	Kitty Hawk Wind Farm	Project-related discussion	Fisheries/Fishermen
418	7/1/2021	Portsmouth Mayor Shannon Glover	Project discussion	Local Govt Elected
419	6/30/2021	Captain Mark Hodges (commercial fisherman)	Discussion re: VIMS meeting	Fisheries/Fishermen
420	6/30/2021	Virginia Beach Historic Preservation Commission	CVOW update, review conceptual routes, onshore historic resources, and photo simulations, solicit feedback, and exchange information relevant to routing and the project	Local Govt Staff
421	6/30/2021	Virginia Marine Resource Commission – Finfish Management Advisory Commission	Discussion re: CVOW presentation at next VMRC Finfish Advisory Board Meeting	Fisheries/Fishermen
422	6/29/2021	Hampton Roads Workforce Council, Department of DEI and Virginia Career Works	To provide project overview from Dominion Energy's Coastal Virginia Offshore Wind project.	Workforce/Education
423	6/25/2021	Hampton Roads Alliance	CVOW outreach	Business/Industry

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
424	6/25/2021	State Military Preservation – Virginia Army National Guard, Department of Military Affairs	Ongoing weekly meeting to discuss CVOW onshore cable routing on SMR property. Key Accounts (Watson), Transmission Real Estate, Transmission Project Development, and Legal participated in a weekly virtual meeting with representatives from SMR Camp Pendleton, Virginia Department of General Services (DGS), and the Virginia Attorney General's Office to continue discussion regarding the CVOW cable route	Military
425	6/24/2021	Berkshire Apartments (VA Beach)	CVOW update – Managers agreed to put the postcard in the main office where residents will see it	Communities/Landowners
426	6/24/2021	Commercial Fisherman	General outreach, VIMS Meeting;	Fisheries/Fishermen
427	6/24/2021	Fisherman's Wharf Marina; Virginia Beach Billfish Tournament	General outreach; discuss Virginia Beach Billfish Tournament (VBBT)	Fisheries/Fishermen
428	6/24/2021	In-person Open House – Chesapeake	CVOW update	Communities/Landowners
429	6/24/2021	Long Bay Point Bait & Tackle; Ocean Pearl Charters	General outreach to Capt. Wray	Fisheries/Fishermen
430	6/24/2021	Long Bay Pointe Marina	General project outreach	Fisheries/Fishermen
431	6/24/2021	Reed Jackson (Chesapeake landowner)	Project update	Communities/Landowners
432	6/24/2021	Rudee's Marina	Touch base, general outreach	Fisheries/Fishermen
433	6/24/2021	Southern Pine Apartments (VA Beach)	CVOW update – leasing consultant agreed to share information with residents	Communities/Landowners
434	6/24/2021	Virginia Beach Tuna Tournament	Discuss VBTT and potential for 'vendor' status next year and not sponsorship;	Fisheries/Fishermen
435	6/23/2021	Heath Covey (City of Chesapeake)	Shared information about open houses	Local Govt Staff
436	6/23/2021	Virtual Open House	CVOW update	Communities/Landowners
437	6/22/2021	BOEM	CVOW update	Federal Govt Staff
438	6/22/2021	EdLogics	Tablemates at the Hampton Roads Chamber 2030 Blueprint event	Business/Industry
439	6/22/2021	In-person Open House – VA Beach	CVOW update	Communities/Landowners
440	6/21/2021	Virtual Open House	CVOW update	Communities/Landowners
441	6/21/2021	Woods at Piney Grove Residents	CVOW outreach	Communities/Landowners
442	6/18/2021	Delegate Barry Knight	Sent the CVOW postcard requesting that he *consider* sending it to his constituents who may have an interest in the project or preliminary transmission routes.	State Govt Elected
443	6/18/2021	Delegate Cliff Hayes	Project Update	State Govt Elected
444	6/18/2021	Delegate Don Scott	Project Update	State Govt Elected
445	6/18/2021	Delegate Glenn Davis	Sent the CVOW postcard requesting that he *consider* sending it to his constituents who may have an interest in the project or preliminary transmission routes.	State Govt Elected

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
446	6/18/2021	Delegate Kelly Convirs-Fowler	Sent the CVOW postcard to the delegate requesting that she *consider* sending it to his constituents who may have an interest in the project or preliminary transmission routes.	State Govt Elected
447	6/18/2021	National Capital Chapter of the Association of Energy Engineers (AEE-NCC)	CVOW update	Business/Industry
448	6/18/2021	Norfolk City Councilmember Courtney Doyle	Project update	Local Govt Elected
449	6/18/2021	Senator Bill DeSteph	Sent the CVOW postcard requesting that he *consider* sending it to his constituents who may have an interest in the project or preliminary transmission routes.	State Govt Elected
450	6/18/2021	Senator Lionell Spruill	Project Update	State Govt Elected
451	6/18/2021	Virginia Hispanic Chamber of Commerce	Invited to 6/29 VCEA Hiring Roundtable	Hist/Cultural
452	6/18/2021	Virginia Interfaith Center for Public Policy	Invited to 6/29 VCEA Hiring Roundtable	Hist/Cultural
453	6/18/2021	Virginia State Conference NAACP	Invited to 6/29 VCEA Hiring Roundtable	Hist/Cultural
454	6/18/2021	Virginia Waterman's Association	Check-in	Fisheries/Fishermen
455	6/17/2021	Black BRAND Hampton Roads' Regional Chamber of Commerce	Social media support	Hist/Cultural
456	6/17/2021	Buryn Farm	Outreach for June 22 and June 24 open houses	Communities/Landowners
457	6/17/2021	Business Network for Offshore Wind	Virtual Panel – Safety First	Business/Industry
458	6/17/2021	Christopher Farms	Outreach for June 22 and June 24 open houses	Communities/Landowners
459	6/17/2021	Courthouse Estates	Outreach for June 22 and June 24 open houses	Communities/Landowners
460	6/17/2021	Hampton Roads Chamber of Commerce	CVOW outreach	Business/Industry
461	6/17/2021	Holland Pines	Outreach for June 22 and June 24 open houses	Communities/Landowners
462	6/17/2021	On Point Communications	Social media support	Hist/Cultural
463	6/17/2021	Urban League of Hampton Roads (EJ)	Social media support	Hist/Cultural
464	6/16/2021	Commercial Fisherman Mark Hodges	Survey vessel, fishing update	Fisheries/Fishermen
465	6/16/2021	Hampton Roads Messenger	CVOW information	Community Media
466	6/16/2021	Media Boat Tour	Boat tour	Community Media
467	6/15/2021	Prince Georges Estates and Mayberry	CVOW outreach	Communities/Landowners
468	6/14/2021	Chandler Hogg, Captain/Owner	General project outreach	Fisheries/Fishermen
469	6/14/2021	Chincoteague Harbor	General project outreach	Fisheries/Fishermen
470	6/14/2021	Cobbs Marina	General project outreach	Fisheries/Fishermen
471	6/14/2021	Daisey's Island Cruises	General project outreach	Fisheries/Fishermen
472	6/14/2021	Greg White, Captain	General project outreach	Fisheries/Fishermen
473	6/14/2021	Morningstar Marina	General project outreach	Fisheries/Fishermen

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
474	6/14/2021	Senate Majority Leader Dick Saslaw	Project update	State Govt Elected
475	6/14/2021	Virginia Beach NAACP	CVOW update	Hist/Cultural
476	6/14/2021	Wachapreague Harbor	General project outreach	Fisheries/Fishermen
477	6/13/2021	Bay Point Marina	General project outreach	Fisheries/Fishermen
478	6/13/2021	Christopher Farms HOA	Follow-up to phone calls and emails	Communities/Landowners
479	6/13/2021	Long Bay Pointe Marina	General project outreach	Fisheries/Fishermen
480	6/13/2021	ODU, CZM	Discuss Luria meeting, arrange meeting w VIMS/Fishermen	Workforce/Education
481	6/12/2021	Coastal Angler Magazine	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
482	6/12/2021	Eric Meyers (Recreational Fisherman)	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
483	6/12/2021	Great Bridge Fishermen's Association Flea Market	Outreach to recreational fishing community	Fisheries/Fishermen
484	6/12/2021	Mike Frielingsdorf (recreational fisherman)	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
485	6/12/2021	Mike Morgan (Recreational Fisherman)	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
486	6/12/2021	SeaTow	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
487	6/12/2021	Tidewater Angler's Club	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
488	6/12/2021	Virginia Beach Angler's Club	Outreach at Great Bridge Fishermen's Association Flea Market	Fisheries/Fishermen
489	6/11/2021	Beaufort Inlet Seafood; B&J Seafood; North Carolina Fishermen's Association	Outgoing outreach, project status update	Fisheries/Fishermen
490	6/11/2021	Chesapeake Councilman Don Carey III	CVOW outreach	Local Govt Elected
491	6/11/2021	State Military Preservation – Virginia Army National Guard, Department of Military Affairs	Ongoing weekly meeting to discuss CVOW onshore cable routing on SMR property. Key Accounts (Watson), Transmission Real Estate, Transmission Project Development, and Legal participated in a weekly virtual meeting with representatives from SMR Camp Pendleton, Virginia Department of General Services (DGS), and the Virginia Attorney General's Office to continue discussion regarding the CVOW cable route	Military
492	6/9/2021	Mark Hodges (Commercial Fisherman)	Exchange information on new gear location	Fisheries/Fishermen
493	6/9/2021	Virginia DEQ	Discuss status of CVOW relative to upcoming SCC and State permitting	State Govt Staff
494	6/8/2021	Chesapeake City Council	CVOW outreach	Local Govt Elected
495	6-4-21	City of Virginia Beach Staff	Follow up meeting to discuss current onshore transmission line routes	Local Govt (Route Relevant)
496	6-3-21	Chesapeake Schools	Information shared around computer science jobs to be created by CVOW	Workforce/Education
497	6-3-21	Centura College	Project update	Workforce/Education
498	6-2-21	Sierra Club (VA Chapter) (EJ)	Project update	Communities/Landowners
499	6-1-21	Derby Run Mobile Home Park (EJ)	Attempt to deliver flyers to residents	Communities/Landowners
500	6-1-21	Ocean Gate Apartments	Request permission to distribute CVOW flyers to residents	Communities/Landowners

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
501	5-27-21	Dorothy "Sissy" Keffer	Questions about CVOW transmission	Communities/Landowners
502	5-27-21	Reed Jackson	CVOW transmission discussion	Communities/Landowners
503	5-27-21	Chesapeake Regional Medical Center	Briefing on CVOW and hospital expansion, partnership opportunities	Business/Industry
504	5-27-21	BOEM	Bi-weekly meeting	Federal Govt
505	5-26-21	Dorothy "Sissy" Keffer	CVOW update	Communities/Landowners
506	5-26-21	Southern Environmental Law Center/Defenders of Wildlife	Introductory call on SELC and Defenders of Wildlife's work in maritime mammal conservation.	Environmental Orgs
507	5-26-21	U.S. Offshore Wind 2021 Conference	CVOW update	Business/Industry
508	5-26-21	Captain Mark Hodges	Survey vessel update, fishing update, and VIMS planning	Fisheries/Fishermen
509	5-26-21	Captain Tommy Eskridge	Survey vessel update, fishing update, and VIMS planning	Fisheries/Fishermen
510	5-25-21	Delegate Cliff Hayes	Presentation of six routing options	State Elected (Route Relevant)
511	5-25-21	Virginia Saltwater Sportfishing Association	Project briefing	Fisheries/Fishermen
512	5-25-21	Poquoson Kiwanis Club	CVOW update	Community
513	5-24-21	NAS Oceana	Discuss the postcards being sent to customers in the potential CVOW routing area and to gain a list of addresses for the Wadsworth Shores Navy housing.	Military Stakeholders
514	5-21-21	Old Dominion Bar Association	CVOW update	Business/Industry
515	5-21-21	Courthouse Estates Homeowners Association	Discussion of project and transmission lines near homeowners' properties	Communities/Landowners
516	5-21-21	Harpers Square Apartments (EJ)	Talk with management about distributing CVOW flyers at apartments and speak to residents.	Communities/Landowners
517	5-21-21	Hampton Roads Alliance	CVOW update	Business/Industry
518	5-20-21	Great Bridge Fishermen's Association	Discuss participation in Fishing Flea Market	Fisheries/Fishermen
519	5-20-21	City of Chesapeake Mayor Rick West	Introduce six onshore routes	Local Govt (Route Relevant)
520	5-20-21	Castleton HOA	Introduce six onshore routes	Communities/Landowners
521	5-19-21	American Association of University Women, Virginia Beach Branch	Informational outreach	Workforce/Education
522	5-19-21	Harvey Lindsey	Left message on mailer and interest in going on boat tour on Mya 25 or June 14	Business/Industry
523	5-19-21	Virginia Beach Vision	CVOW update	Business/Industry
524	5-19-21	Virginia Beach Councilmember Aaron Rouse	CVOW update	Local Govt (Route Relevant)
525	5-19-21	Virginia Beach Councilmember Louis Jones	Left message re: mailer	Local Govt (Route Relevant)
526	5-19-21	Dorothy "Sissy" Keffer (landowner)	CVOW update	Communities/Landowners

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
527	5-19-21	Chesapeake Alliance	Left message re: mailer	Local Govt (Route Relevant)
528	5-19-21	Wadsworth Homes (Lincoln Military Housing)	CVOW outreach	Communities/Landowners
529	5-19-21	Courthouse Woods	CVOW update	Communities/Landowners
530	5-19-21	Croatan Civic League	Left message re: the mailer	Communities/Landowners
531	5-19-21	Piney Grove Baptist Church	CVOW update	Faith-Based Orgs (Route Relevant)
532	5-19-21	Elizabeth River Project	CVOW update	Environmental Orgs (Route Relevant)
533	5-19-21	Back Bay Restoration Foundation	CVOW update	Environmental Orgs (Route Relevant)
534	5-19-21	Ducks Unlimited, Chip Heaps	CVOW update	Environmental Orgs (Route Relevant)
535	5-19-21	Chesapeake Bay Foundation	CVOW update	Environmental Orgs (Route Relevant)
536	5-19-21	Wetlands Watch	CVOW update	Environmental Orgs (Route Relevant)
537	5-19-21	Lynnhaven River Now	Left message on mailer and offered to meet with her on any questions she may have with CVOW project	Environmental Orgs (Route Relevant)
538	5-19-21	Visit Virginia Beach	Left message on mailer	Business/Industry (Route Relevant)
539	5-19-21	Virginia Beach Hotel Association	Left message on mailer	Business/Industry (Route Relevant)
540	5-19-21	Virginia Beach Restaurant Association	Left message on mailer	Business/Industry (Route Relevant)
541	5-19-21	Central Business District Association	Left message on mailer	Business/Industry (Route Relevant)
542	5-19-21	Virginia Natural Gas	Left message on mailer	Business/Industry (Route Relevant)
543	5-19-21	Office of Delegate Kelly Convirs-Fowler	Advised Delegate and legislative aide that CVOW preliminary maps are being made public today, and that a GeoVoice Tool will be available to the public/constituents for commenting on maps.	State Govt (Route Relevant)
544	5-18-21	Virginia Saltwater Sportfishing Association	Discussed VSSA Webinar planning	Fisheries/Fishermen
545	5-18-21	Central Business District Association	General Awareness/Informational Presentation for CBDA BOD	Business/Industry
546	5-18-21	Delegate Alex Askew, Virginia House of Delegates	CVOW discussion of six routing options	State Govt (Route Relevant)

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
547	5-18-21	Dorothy "Sissy" Keffer (landowner)	CVOW update	Communities/Landowners
548	5-18-21	Hampton Roads Planning District Commission	Discussion and presentation about Wednesday's reveal of preliminary routes	Local Govt (Route Relevant)
549	5-18-21	Virginia Beach Mayor Bobby Dyer	CVOW update	Local Govt (Route Relevant)
550	5-18-21	Chesapeake Councilmember Debbie Ritter	CVOW outreach and introduction of project route options	Local Govt (Route Relevant)
551	5-18-21	Chesapeake Vice Mayor John De Triquet	CVOW update	Local Govt (Route Relevant)
552	5-18-21	Chesapeake City Councilmember Matt Hamel	CVOW update	Local Govt (Route Relevant)
553	5-18-21	Chesapeake City Councilwoman Ella Ward	CVOW outreach and introduction of project route options	Local Govt (Route Relevant)
554	5-18-21	The Nature Conservancy	Trip to the Volgenau Virginia Coastal Reserve (VCR) was hosted by TNC as a platform for discussion on environmental concerns associated with the CVOW Commercial Project.	Environmental Orgs (Route Relevant)
555	5-17-21	James City County	CVOW outreach	Local Govt
556	5-17-21	City of Poquoson	CVOW outreach	Local Govt
557	5-17-21	York County	CCOW outreach	Local Govt
558	5-17-21	Chesapeake NAACP	CVOW update	Hist/Cultural (Route Relevant)
559	5-17-21	Deputy City Manager Wanda Bernard Bailey	CVOW update	Local Govt (Route Relevant)
560	5-17-21	Virginia Beach Councilmember Sabrina Wooten	CVOW update	Local Govt (Route Relevant)
561	5-17-21	Virginia Beach Councilmember Michael Berlucchi	Updated councilman that approx. 9,000 mailers were being sent to residents of Virginia Beach and Chesapeake regarding the six proposed CVOW transmission routes from Oceana to Fentress Substation.	Local Govt (Route Relevant)
562	5-17-21	VMRC – Finfish Management Advisory Commission	Email exchange	Fisheries/Fishermen
563	5-14-21	National Audubon Society	Provided project points of contact and an invitation to future environmental workshops and June 9 CVOW trip (accepted).	Environmental Orgs
564	5-14-21	American Bird Conservancy	Provided project points of contact and an invitation to future environmental workshops and June 9 CVOW trip (accepted).	Environmental Orgs
565	5-14-21	Delegate Cliff Hayes, Virginia House of Delegates	CVOW discussion on six routing options	State Govt (Route Relevant)
566	5-14-21	Senator Lionell Spruill, Virginia State Senate	CVOW discussion on six routing options	State Govt (Route Relevant)

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
567	5-14-21	Norfolk Mayor Kenneth Alexander	CVOW discussion on six routing options	Local Govt (Route Relevant)
568	5-14-21	City of Virginia Beach Historic Preservation Planner (EJ)	Discuss historic properties in Virginia Beach that the city would like to have considered in the Offshore Historic Properties Effects Analysis	Local Govt (Route Relevant)
569	5-14-21	City of Suffolk Mayor Michael Duman	Follow up call and email	Local Govt
570	5-14-21	The Miles Agency	Follow up email	Business/Industry
571	5-14-21	BT Holdings/Sunny Farms	Discussed the need to route a transmission line on the property of the newly proposed hydroponic farm in Virginia Beach.	Communities/Landowners
572	5-14-21	Norfolk State University – Joseph Jenkins Center for the Study of the African Diaspora	Project outreach	Historical/Cultural
573	5-14-21	Center for African American Public Policy	Offered follow up spot of the NSU radio show	Historical/Cultural
574	5-14-21	African American Heritage Trail	Email sent	Historical/Cultural
575	5-14-21	The Virginia Hispanic Chamber of Commerce/Virginia Hispanic Foundation	Requested follow up meeting	Historical/Cultural
576	5-14-21	The Virginia Asian Chamber of Commerce	Sent follow up email	Historical/Cultural
577	5-14-21	NAACP Norfolk	Follow up email	Historical/Cultural
578	5-14-21	NAACP Virginia Beach	Follow up email	Historical/Cultural
579	5-14-21	Hispanic Chamber of Coastal Virginia	Follow up email	Historical/Cultural
580	5-14-21	VIMS	Foster relationship between VIMS and DE	Workforce/Education
581	5-13-21	Kempsville Mennonite Church	CVOW update	Faith-Based Orgs (Route Relevant)
582	5-13-21	Virginia Beach Councilmember Rosemary Wilson	Follow up to discuss route reveal	Local Govt
583	5-13-21	Dorothy "Sissy" Keffer (landowner)	CVOW update	Communities/Landowners
584	5-12-21	International Fund for Animal Welfare	Introductory call on their work in maritime mammal conservation	Environmental/Marine Orgs
585	5-12-21	Virginia Waterman's Association	Email follow-up	Fisheries/Fishermen
586	5-12-21	Captain Mark Hodges	Email exchange regarding gar locations and NOAA vessel	Fisheries/Fishermen
587	5-11-21	Heritage Partners	Roundtable	Historical/Cultural
588	5-11-21	Preservation Virginia	Roundtable	Historical/Cultural
589	5-11-21	Chickahominy – Eastern Division	Roundtable	Tribes
590	5-11-21	Virginia Department of Historical Resources	Project update	State Govt
591	5-11-21	Norfolk State University – Joseph Jenkins Center for the Study of the African Diaspora	Roundtable	Historical/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
592	5-11-21	BOEM	CVOW update	Federal Govt
593	5-11-21	National Park Service	CVOW update	Federal Govt
594	5-11-21	Virginia Saltwater Sportfishing Association	Email exchanges regarding logistics for VSSA webinar on May 25	Fisheries/Fishermen
595	5-10-21	BOEM & NMFS	Review the Benthic Characterization Report that was submitted as part of the March COP supplement and solicit feedback from the agencies.	Federal Govt
596	5-10-21	SeaTack Community Civic League	Invited to participate to provide overview of CVOW – onshore and offshore impacts, clean energy initiative, workforce development and career opportunities, economic development for the Hampton Roads region, outreach initiatives.	Communities/Landowners
597	5-7-21	Virginia Aquarium and Marine Science Center	Project outreach	Environmental/Marine Orgs
598	5-7-21	Virginia Aquarium and Marine Science Center	Discussed marine life monitoring practices and explore opportunities for partnering on data gathering and monitoring. Continued exploration of VA Aquarium scientific support for CVOW project.	Environmental/Marine Orgs
599	5-7-21	SMR, DGS, and Office of the Attorney General	Ongoing weekly meeting to discuss CVOW onshore cable routing on SMR property.	Military
600	5-7-21	Greater Williamsburg Chamber & Tourism Alliance Business Council	CVOW overview	Business/Industry
601	5-6-21	BOEM	Email exchange regarding ongoing studies/monitoring around Pilot Turbines	Federal Govt
602	5-6-21	Virginia Institute of Marine Science (VIMS)	Kickoff meeting for the CVOW Scientific Review Committee	Environmental/Marine Orgs
603	5-6-21	The Nature Conservancy	Introductory call on TNC's work in maritime mammal conservation and offshore wind.	Environmental/Marine Orgs
604	5-6-21	The Mount – Virginia Beach (Mount Lebanon Missionary Baptist Church)	To share information with the church membership during one of their weekly church meetings about CVOW, answer questions, and encourage engagement with the website, public meetings, surveys, GeoVoice, etc.	Faith-Based Orgs
605	5-6-21	Tech Center Research Park	Technology Day for LEAD Peninsula – Tech Center Research Park presentation	Business/Industry
606	5-5-21	New Journal and Guide	CVOW update	Community Media
607	5-5-21	Taylor Farms	Discuss possible options for CVOW onshore transmission	Project Area Landowner
608	5-5-21	Whale and Dolphin Conservation	Introductory call on WDC's work in maritime mammal conservation	Environmental/Marine Orgs
609	5-5-21	Kitty Hawk	Discuss fisheries status and NMFS Stock Assessment Survey frequency in lease area	Fisheries/Fishermen
610	5-4-21	Grafton Kiwanis Club	2021 hurricane forecast	Community Orgs
611	5-4-21	Naval Air Station Oceana	Scheduled monthly sync-up to discuss action items and updates regarding the Transmission route and purposed switching station for CVOW	Military

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
612	5-4-21	Nansemond Tribe of Virginia	CVOW update	Tribes
613	5-4-21	THRIVE (Hampton Roads Chamber)	General CVOW Update for HR COC Young professional group	Workforce/Education
614	5-4-21	Long Bay Point Bait & Tackle; Ocean Pearl Charters	Initial introduction, discuss CVOW	Fisheries/Fishermen
615	5-4-21	Virginia Beach Tuna Tournament	Email exchange regarding tournament sponsorship; Dominion cannot support but maintain communication with tournament organizers and fishermen	Fisheries/Fishermen
616	5-4-21	Lynnhaven Dive Center	Shared information with staff about CVOW	Fisheries/Fishermen
617	5-4-21	VMRC – Finfish Management Advisory Commission	Email exchange, continue follow up RE: AEE webinar	Fisheries/Fishermen
618	5-3-21	Mark Hodges	Text exchange regarding gar locations, buoy spotted off location, NOAA vessel in area	Fisheries/Fishermen
619	5-3-21	NAACP – Chesapeake	CVOW project overview	Historical/Cultural
620	4-29-21	St. Joseph AME Zion Church	CVOW update	Faith-Based orgs
621	4-29-21	Taylor Farms	Request in-person meeting with her and members of the Richmond-based project team	Project Area Landowner
622	4-29-21	BT Holdings	To determine if he still represents Barbara Creech (BT Holdings) and to explain that we need to contact his client and/or discuss with him potential property impacts for the CVOW project depending on final route.	Project Area Landowner
623	4-28-21	Hampton Roads Messenger	CVOW update	Community Media
624	4-28-21	Office of Sen. Lionell Spruill	Email sent with information on upcoming CVOW Friday Call for 5/21	State Govt
625	4-28-21	Highland Parrish Homeowners Association	Follow-up and to discuss meeting with HOA	Project Area Communities
626	4-28-21	Courthouse Estates Homeowners Association	Offer the HOAs project virtual meetings or in-person meetings to discuss CVOW project.	Project Area Communities
627	4-28-21	Fentress Civic League	CVOW Initial encounter. Sent the one-pager to Ms. Burke. She is involved with the Fentress Civic League and my contact to get in touch with them. Waiting for a reply back from her, also left a voicemail and sent an email for initial communication.	Project Area Communities
628	4-28-21	Promotion of 5-21-21 CVOW Friday Call	Email sent with information about upcoming call for May 21, 2021 to the following: • Region II Superintendents (Hampton Roads) • Community college contacts • Hampton Roads state delegation members • Regional economic development contacts • Regional chamber of commerce contacts	Multiple categories
629	4-28-21	House of Prayer (Chesapeake)	CVOW outreach	Faith-Based Orgs

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
630	4-28-21	Virginia Beach City Councilmember Aaron Rouse	Potential partnership with Seatack community	Local Govt
631	4-28-21	Virginia Wesleyan University	CVOW outreach and introduction of the project to the president and a few on his team	Education/Workforce
632	4-27-21	Wall Street Journal and New York Times	Trip to WTGs with WSJ reporter and WSJ & NYT photographers.	Community Media
633	4-27-21	An Achievable Dream	CVOW overview	Education/Workforce
634	4-26-21	Virginia Aquarium and Marine Science Center	Introductory call on the Aquarium's work in the maritime mammal conservation	Environmental/Marine Orgs
635	4-26-21	Joint Norfolk/VB MEDAC (Military Economic Development Advisory Committee)	CVOW briefing	Military
636	4-26-21	The Nature Conservancy	Discuss TNC review and feedback on onshore routing alternatives relative to TNC Land Holdings/Conservation Easements. Discuss TNC questions.	Project Area Landowner
637	4-23-21	National Wildlife Federation and Natural Resources Defense Council	Introductory call to learn about NWF and NRDC's work in the offshore wind space	Environmental/Marine Orgs
638	4-23-21	State Military Reservation	Virtual meeting with representatives from SMR to continue discussions with SMR on the proposed route across their property	Military
639	4-22-21	Hampton Roads Chamber of Commerce State of the City (Norfolk) Event	Present DE CVOW project and video at the event	Business/Industry
640	4-21-21	Chesapeake Public Library	Earth Day education event related to sustainable communities and the impacts of CVOW.	Community Orgs
641	4-21-21	Centura College	Project overview	Education/Workforce
642	4-21-21	Chesapeake Coalition of Black Pastors	CVOW outreach	Faith-Based Orgs
643	4-21-21	Virginia Business Council	• Panel discussion with members of the Virginia Business Council, which includes the president/CEO/senior leadership with Virginia's largest employers. Dominion is a member of the VBC and Bob Blue is the principal member. • Call featured brief updates from the heads of the VBC's energy sector members, including Dominion Energy, Appalachian Power, Columbia Gas of Virginia and Washington Gas, and WestRock. • Blue provided a brief slide deck with overview of CVOW, as well as more general verbal comments.	Business/Industry
644	4-21-21	Christopher Farms Homeowners Association	Set up meeting with HOA	Project Area Communities
645	4-21-21	Virginia Beach Mayor's Commission of Offshore Wind and Clean Energy	Organizational meeting to promote CVOW	Local Govt
646	4-21-21	Portsmouth Branch #7104, NAACP	CVOW briefing	Historical/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
647	4-20-21	Fisheries Meeting	CVOW overview	Environmental/Marine Orgs
648	4-20-21	Virginia Beach Parks and Recreation	To learn about opportunities within P&R to disseminate information about the Power of Wind and Offshore Wind to their audiences, mainly the thousands of children they oversee through after school and summer camp programs.	Local Govt
649	4-20-21	BOEM	CVOW project overview	Federal Govt
650	4-19-21	Virginia Department of Environmental Quality	Project check-in	State Govt
651	4-19-21	Hampton Roads Alliance	May forum – project check-in	Business/Industry
652	4-19-21	Virginia Air and Space Science Center	CVOW overview and presentation	Community Orgs
653	4-18-21	Croatan Civic League	To ascertain whether the civic league or any individuals had any concerns about the CVOW.	Project Area Communities
654	4-18-21	Castleton Estates Community	To address questions related to CVOW and survey requests	Project Area Communities
655	4-16-21	State Military Reservation	Virtual meeting with representatives from SMR to continue discussions with SMR on the proposed route across their property	Military
656	4-16-21	Historic Properties Engagement Group	*Encounter notes to come*	Historical/Cultural
657	4-16-21	Labor Partners Meeting	*Encounter notes to come*	Business/Industry
658	4-15-21	Betsy Atkinson	Ascertain Ms. Atkinson's knowledge of and interest in the offshore wind project	Public Opinion Leaders
659	4-15-21	New Jerusalem Ministries	To provide a briefing to Dr. Coleman about CVOW and engage her and her affiliated ministers group for a future formal project presentation.	Faith-Based Org
660	4-15-21	CVOW Community Conversation with Virginia Beach Aquarium	Hot topics discussed: • Will the aquarium have a wind turbine exhibit? • Will the aquarium have any internships to work stranded animals? • With this being such a busy port, why would we use this particular location?	Community Orgs
661	4-15-21	Chickahominy Eastern Division, Rappahannock, Nansemond, Upper Mattaponi	Project briefing	Historical/Cultural
662	4-14-21	U.S. Fish and Wildlife Service	The meeting was initiated by USFWS as a follow up to larger avian/bat discussions we are having with USFWS/BOEM/DWR.	Federal Govt
663	4-13-21	Urban League of Hampton Roads	CVOW outreach	Historical/Cultural
664	4-13-21/4-14-21	Upper Mattaponi, Pamunkey, Chickahominy, Chickahominy – Eastern Division, Rappahannock, Nansemond	Follow-up calls to tribes about the terrestrial archeology and historical properties survey processes	Historical/Cultural
665	4-13-21	Naval Air Station Oceana	Discuss DE's CVOW community outreach plan/process, stakeholder engagement, and consistency in communications regarding NAS Oceana	Military

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
666	4-13-21	Delta Sigma Theta Chesapeake/Virginia Beach Chapter	CVOW outreach	Historical/Cultural
667	4-13-21	BOEM	Bi-weekly call	Federal Govt
668	4-12-21	WHRO	To learn more about CVOW's workforce development and educational opportunities for WHRO's new environmental curricula for all 21 local school divisions, deliverable to the entire state for free.	Community Orgs
669	4-12-21	La Selecta	CVOW outreach	Historical/Cultural
670	4-12-21	NAACP – York James City County Williamsburg Chapter	CVOW outreach	Historical/Cultural
671	4-12-21	Portsmouth Partnership	Provide project updates and answer questions	Local Govt
672	4-12-21	Isle of Wight Public Schools	CVOW initial encounter	Education/Workforce
673	4-12-21	Franklin City Public Schools	CVOW initial encounter	Education/Workforce
674	4-9-21	SMR – Virginia Army National Guard, Department of Military Affairs	Discussions on the proposed route across SMR property	Military
675	4-8-21	Federal Permitting Improvement Steering Council	Project meeting	Federal Govt
676	4-7-21	Cheryl McLeskey	Ascertain knowledge of the Dominion offshore wind initiative and see if she had any concerns	Public Opinion Leaders
677	4-7-21	Accomack County Public Schools	Explain CVOW project, explain benefits, and directed superintendent to our website and offered to assist with a project brief and/or to answer additional questions	Education/Workforce
678	4-7-21	Southampton County Public Schools	CVOW initial encounter	Education/Workforce
679	4-7-21	Northampton County Public Schools	Inform the superintendent that the project staff is available to answer any questions and/or to provide a project briefing about CVOW	Education/Workforce
680	4-7-21	Carolinas-Virginia Minority Supplier Development Council Data Center Coalition	CVOW initial encounter	Historical/Cultural
681	4-7-21	Virginia Health Department	Left message on main number and spoke with the administrative assistant in regard to a CVOW presentation	State Govt
682	4-7-21	Virginia Health Department (Virginia Beach)	Left message on main number and talked to VDH Executive Secretary in regard to a CVOW presentation	State Govt
683	4-7-21	Virginia Department of Transportation	Left message with the Communications Manager for the Hampton Roads District (Holly Christopher)	State Govt
684	4-7-21	Chesapeake Climate Action Network	CVOW initial encounter	Environmental Org
685	4-6-21	Naval Air Station Oceana	Scheduled monthly sync-up between Dominion Energy and NAS Oceana to discuss action items and updates regarding CVOW	Military
686	4-6-21	THRIVE (Hampton Roads Chamber)	Engaged in an email thread to determine best date and time for a CVOW presentation to THRIVE	Business/Industry

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
687	4-1-21	Virginia Renewable Energy Alliance	• Regional MOU between MD, VA, and NC. • Potential for Lamberts Point to be developed. • Efforts on local hiring and economically disadvantaged communities. • Discuss major equipment packages	Environmental Org
688	4-1-21	Virginia Beach Councilmember Rosemarie Wilson	Follow Up contact from initial two phone calls to inform Rosemary that the CVOW project now has a GeoVoice tool available for the project area that she can share with her constituents.	Local Govt
689	4-1-21	Norfolk Councilmember Tommy Smigiel	Discuss CVOW project	Local Govt
690	4-1-21	Doug Beaver, Chief Resiliency Officer (Norfolk)	Project check-in	Local Govt
691	3-31-21	Veterans-Military Affairs-City of Norfolk	CVOW Project briefing	Local Govt
692	3-31-21	Courthouse Woods HOA/United Property Associates	Forwarded information material on CVOW survey mailer	Project Area Stakeholders
693	3-31-21	Virginia State Conference NAACP	Provide project updates, answer questions, offer partnership opportunities to host community conversations as well as outreach to local NAACP chapters.	Hist/Cultural
694	3-31-21	Virginia Beach Vision	Give the Board a presentation concerning CVOW	Community
695	3-30-21	Deputy Secretary of Veterans and Defense Affairs (VA), Kathleen Jabs	Reactive CVOW outreach	State Govt
696	3-30-21	Public Utilities-City of Norfolk	Brief Interim Director about CVOW project	Local Govt
697	3-30-21	Greater Williamsburg Chamber and Tourism Alliance (aka Greater Williamsburg Business Council)/Greater Williamsburg Partnership	CVOW overview	Business/Industry
698	3-29-21	Virginia Beach City Councilmember Aaron Rouse	CVOW outreach	Local Govt
699	3-26-21	Virginia Air and Space Science Center	CVOW outreach	Community
700	3-26-21	BOEM	Email communication to inquire about initial feedback on the Offshore Visual Study Plan submitted to BOEM and assess BOEM SME's willingness to discuss directly given the challenges with scheduling larger meetings.	State/Fed Govt
701	3-26-21	Virginia Interfaith Center for Public Policy	Provide information on CVOW, answer questions, seek partnership in hosting a community outreach event.	Community
702	3-26-21	An Achievable Dream Middle/High School (Newport News)	CVOW outreach	Education/Workforce
703	3-26-21	Oceana	Establish a working relationship regarding the Right Whale and have Oceana help establish contacts in the NGO community.	Environmental/Marine Orgs

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
704	3-25-21	U.S. EPA – Region 3	Provide USEPA with a project update, notify them of Dominion's intention to submit a Notice of Intent for the OCS Air Permit in Q3 2021, and discuss the OCS permitting process	Federal Agencies
705	3-25-21	NAACP – Newport News Chamber	CVOW outreach	Historical/Cultural
706	3-25-21	NAACP – Hampton Chamber	CVOW outreach	Historical/Cultural
707	3-25-21	100 Black Men of Virginia Peninsula	CVOW outreach	Historical/Cultural
708	3-25-21	North Carolina Department of Environmental Quality	CZMA Meeting	State/Fed Govt
709	3-25-21	Avian and Bat Work Plan Discussion	Avian and Bat Work Plan Follow-up	State/Fed Govt
710	3-25-21	U.S. Coast Guard	Show USCG the CTV Atlantic Endeavor and visit the CVOW Pilot Turbines	Military
711	3-25-21	Gary McCollum	Emailed information about virtual open houses March 30th and provided coastalvawind website for additional information. Also requested help reaching the Virginia Beach Interdenominational Ministers Conference (Gary recommended)	Public Opinion Leaders
712	3-23-21	Fentress Civic League	Update re: property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
713	3-23-21	Filipino-American Political Action Group	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Hist/Cultural
714	3-23-21	From One Hand To Another	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Community
715	3-23-21	Greater Williamsburg Chamber and Tourism Alliance (aka Greater Williamsburg Business Council)	Project update	Business/Industry
716	3-23-21	Hampton Roads Business Roundtable	Project briefing	Business/Industry
717	3-23-21	Kemp Woods Civic League	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
718	3-23-21	Lake Christopher Homes Association	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
719	3-23-21	Larkspur Civic League	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
720	3-23-21	Plantation Lakes Civic League	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
721	3-23-21	Reinvent Hampton Roads	Project update	Business/Industry
722	3-23-21	STOP, Inc.	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Hist/Cultural
723	3-23-21	Urban League of Hampton Roads	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Hist/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
724	3-23-21	Virginia Beach Hotel Association	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Business/Industry
725	3-23-21	Virginia Beach Minority Business Council	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Hist/Cultural
726	3-23-21	Virginia Beach Restaurants Association	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Business/industry
727	3-23-21	Virginia Peninsula Chamber of Commerce/Greater Peninsula Now	Project update	Business/Industry
728	3-23-21	Virginia Pilots Association	Project update	Business/industry
729	3-23-21	Virginia Department of Transportation	Shared contact information with the admin asst. in the Hampton Roads District and offered to provide a CVOW presentation to VDOT groups	State Govt
730	3-22-21	American Clean Power	Establish a working relationship regarding the Right Whale and have ACP help establish contacts in industry and the NGO community.	Environmental/Marine Orgs
731	3-22-21	Virginia Manufacturers Association	• Discuss CVOW and VA Business Opportunities. • Panel discussion to share broader VCEA, CVOW and Supply Chain opportunities	Business/Industry
732	3-22-21	Ben Davenport	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Public Opinion Leader
733	3-22-21	Ronald Adnor (individual landowner)	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
734	3-22-21	State Del. Barry Knight	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
735	3-22-21	State Del. Jason Miyares	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
736	3-22-21	State Sen. Bill DeSteph	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
737	3-22-21	Virginia Natural Gas	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Business/Industry
738	3-22-21	Virginia Saltwater Sportfishing Association	Project update	Marine Orgs
739	3-22-21	Courthouse Estates/United Property Associates	Project update	Project Area Stakeholders
740	3-21	BT Holdings	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
741	3-21	Capt. Jim Ruhle	Discussion re: project/relationship development	Marine/Fishery
742	3-21	Chesapeake City Manager	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Local Govt
743	3-21	Chesapeake Coalition of Black Pastors	Discussions regarding hosting a community conversation.	Hist/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
744	3-21	Guardhouse HOA	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
745	3-21	Highland Parrish HOA	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
746	3-21	Holland Pines HOA	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
747	3-21	Hope Haven	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
748	3-21	Indian River Farms Owners Association	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
749	3-21	Ives Farms	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
750	3-21	Kay Basnight Trust	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
751	3-21	Lupton Farm	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
752	3-21	Michael Corprew (individual landowner)	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
753	3-21	Recreational Fishery (primarily Rudee & Lynnhaven)	Discussion re: project/relationship development	Marine/Fishery
754	3-21	State Del. Jay Jones	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
755	3-21	State Del. Mark Sickles	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
756	3-21	State Del. Mike Mullin	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
757	3-21	State Senate Majority Leader Dick Saslaw	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
758	3-21	Taylor Farms	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
759	3-21	VIMS Bob Fisher (Conch guy)	Hot topics: • Channel Welk • Genetic diversity • Inshore/offshore differences • Differences north/south	Marine/Fishery Ed/Workforce
760	3-21	Virginia Beach Staff Patrick Duhaney, City Manager	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
761	3-20-21	Virginia Beach Staff Ron Williams, Deputy City Manager	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings. Mr. Williams to distribute to all department heads and staff.	Local Govt
762	3-19-21	Croatan Civic League	Property owner package asking for survey permission and upcoming landowner briefing meetings.	Project Area Stakeholder
763	3-19-21	Virginia State Building and Construction Trades Council	Monthly project update	Business/Industry
764	3-19-21	DMME Oil and Gas Transition	Industry meeting	State Govt
765	3-19-21	Hampton Roads Alliance	CVOW Friday: Deep dive into OSW development process and supply chain.	Business/Industry
766	3-19-21	Labor Partners	Project check-in	Business/Industry
767	3-19-21	State Military Reservation Charlton Dunn (SMR), Jennifer Beck, Robert Palmore, and Russel Woodlief, Pamela Coleman	• To provide an overview and continue discussions with SMR on the proposed route across SMR property and the various requirements. • Topics of discussion included an overview of applicable form agreements and anticipated completion timelines. • Provided an overview an overview and receive feedback from SMR on the proposed route across SMR property and the various components required and their configuration and location.	Military
768	3-19-21	Suffolk Mayor Mike Duman	Preparing students for workforce development and emerging industry; job opportunities.	Local Govt
769	3-19-21	Suffolk Public Schools	Shared overview of CVOW, community outreach and engagement, how to tie wind energy into science curriculum as well as current vocational/technical education at The College and Career Academy at Pruden.	Ed/Workforce
770	3-19-21	Virginia Department of General Services	• To provide an overview and continue discussions with SMR on the proposed route across SMR property and the various requirements. • Topics of discussion included an overview of applicable form agreements and anticipated completion timelines. • Provided an overview an overview and receive feedback from SMR on the proposed route across SMR property and the various components required and their configuration and location.	State Govt
771	3-19-21	Virginia Office of the Attorney General	• To provide an overview and continue discussions with SMR on the proposed route across SMR property and the various requirements. • Topics of discussion included an overview of applicable form agreements and anticipated completion timelines. • Provided an overview an overview and receive feedback from SMR on the proposed route across SMR property and the various components required and their configuration and location.	State Govt
772	3-18-21	Chesapeake Public Schools	Provided the CVOW presentation with the CTE team	Ed/Workforce

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
773	3-18-21	Kitty Hawk	Share updates, discuss topic of Special Management Zones (SMZ) brought up in MAFMC meeting.	Marine/Fishery Orgs
774	3-18-21	Virginia Maritime Association	Provided verbal project update at quarterly meeting of the Offshore Wind Committee	Business/Industry
775	3-17-21	Women in Defense (Hampton Roads)	Initial information sent	Business/Industry
776	3-17-21	American Association of Blacks in Energy (AABE)	The community outreach and workforce diversity efforts.	Hist/Cultural
777	3-17-21	Boys and Girls Club of Southeast Virginia	Project outreach	Community Org
778	3-17-21	Christopher Newport University	Share information about Dominion Energy's CVOW Project, Discuss CVOW Project, potential educational opportunities.	Ed/Workforce
779	3-17-21	Cultural/Historic Preservation Advocacy and Native American Tribal Stakeholder Group Participants: • Scenic Virginia • Piedmont Environmental Council • Pamunkey Tribe • Preservation Virginia • Rappahannock Tribe • Norfolk State – Joseph Jenkins Center for the Study of African Diaspora • National Trust for Historic Preservation • American Battlefield Trust • Colonial National Historical Trust • Virginia Department of Historic Resources • Debra Martin • Allyson Gray • Woodie Walker • Minnie Lightner	Brief them on the project and transmission – open lines of communication to receive their feedback.	Hist/Cultural Tribes State Govt
780	3-17-21	Paul D. Camp Community College	Project outreach	Ed/Workforce
781	3-17-21	Portsmouth Councilmember Christopher Woodard	Project briefing	Local Govt
782	3-17-21	Portsmouth Councilmember Lisa Lucas-Burke	Project briefing	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
783	3-17-21	Portsmouth Councilmember Mark Whitaker	Project briefing	Local Govt
784	3-17-21	Portsmouth Councilmember Paul Battle	Project briefing	Local Govt
785	3-17-21	Portsmouth Councilmember William Moody	Project briefing	Local Govt
786	3-17-21	Portsmouth Partnership	Project briefing	Local Govt
787	3-17-21	Portsmouth Vice Mayor De'Andre Barnes	Project briefing	Local Govt
788	3-17-21	Rotary Club of Hampton Roads	Project outreach	Community Org
789	3-17-21	State Del. Alex Askew	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
790	3-17-21	State Del. Amanda Batten	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
791	3-17-21	State Del. Angelia Williams-Graves	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
792	3-17-21	State Del. Cia Price	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
793	3-17-21	State Del. Clint Jenkins	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
794	3-17-21	State Del. Don Scott	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
795	3-17-21	State Del. Emily Brewer	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
796	3-17-21	State Del. Jay Leftwich	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
797	3-17-21	State Del. Jeion Ward	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
798	3-17-21	State Del. Kelly Convirs-Fowler	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
799	3-17-21	State Del. Martha Mugler	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
800	3-17-21	State Del. Nancy Guy	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
801	3-17-21	State Del. Rip Sullivan	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
802	3-17-21	State Del. Robert Bloxom	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
803	3-17-21	State Del. Shelly Simonds	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
804	3-17-21	State Del. Steve Heretick	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
805	3-17-21	State Sen. Jen Kiggans	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
806	3-17-21	State Sen. Jennifer McClellan	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
807	3-17-21	State Sen. John Cosgrove	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
808	3-17-21	State Sen. Lionell Spruill	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
809	3-17-21	State Sen. Louise Lucas	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
810	3-17-21	State Sen. Lynwood Lewis	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
811	3-17-21	State Sen. Mamie Locke	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
812	3-17-21	State Sen. Monty Mason	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
813	3-17-21	State Sen. Scott Surovell	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
814	3-17-21	State Senate Minority Leader Tommy Norment	Update re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	State Govt
815	3-17-21	The Mariner's Museum and Park	Project outreach	Community Org
816	3-17-21	VIMS (William and Mary)	Working to schedule call to discuss Dominion role in VIMS Marine Science Day on May 15, 2021.	Ed/Workforce
817	3-17-21	Virginia Marine Resources Commission	Discuss Dominion presentation on OSW and CVOW for *Association of Energy Engineers* in June	State Govt
818	3-16-21	BOEM Casey Reeves, Jen Draher, Algene Byrum	Key topics discussed: • SAP/COP Survey Plan Revision • Site Assessment Plan for Meteorological Buoys • COP Supplemental Filings • Avian and Bat Work Plan • Visual Impact Assessment • FAST-41 • 3rd Party NEPA	Fed Govt
819	3-16-21	Coastal Virginia Building Industry Association	Provide information to the Coastal Virginia Building Industry Association to learn more about CVOW project and to take questions.	Business/Industry
820	3-16-21	Norfolk Councilmember Paul Riddick	Briefing about CVOW and job opportunities for region	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
821	3-16-21	Norfolk Vice Mayor Martin Thomas, Jr.	Project briefing	Local Govt
822	3-16-21	Virginia Hispanic Chamber of Commerce	Introductions of CVOW team members, education of the topic, answer any questions.	Hist/Cultural
823	3-16-21	Wetlands Watch	Project outreach	Environmental Org
824	3-15-21	Cherrystone Aquafarms	Visit dock to locate Conch fishermen (Heath boats) and establish local contact	Marine/Fishery Orgs
825	3-15-21	Sappony Tribe	Sent him the CVOW Tribal Briefing presentation	Tribe
826	3-14-21	Captain Mark Hodges (commercial fisherman)	Review ongoing ops, his fishing status, gear claim, future mitigation	Marine/Fishery Orgs
827	3-12-21	Clean Valley Council	CVOW Overview presentation and career development opportunities	Ed/Workforce Environmental
828	3-12-21	Norfolk Councilmember Courtney Doyle	Project briefing	Local Govt
829	3-12-21	State Military Reservation • Charlton Dunn, Construction and Facility Management Officer, Virginia Army National Guard, Department of Military Affairs • Jennifer Beck • Robert Palmore • Russel Woodlief • Pamela Coleman DGS: Holly Eve, Michael Nolan, Zachary Hunt	To review the proposed onshore cable landing location, construction practices, installation methods and status of deliverables from the meeting held on 3/5/21. Hot topics: • Route from Cable Landing west to where it leaves SMR • Cross sections of Open Trench and HDD sections • Typical manhole detail for two locations on SMR • Typical Laydown area for Pipe Assembly • Cable landing schematic	Military
830	3-12-21	• Virginia Beach Hotel Association • Virginia Beach Restaurant Association • Lynnhaven River NOW • Visit Virginia Beach	To explain to the group about the Mayor's Commission on Offshore Wind and Clean Energy being announced on March 17 and how to expand on related opportunities for Virginia Beach and businesses to promote and get involved in making VB the wind energy "capital." Topics discussed: • Wind energy • Visitors to Virginia Beach • Business opportunities • Planning to make Virginia Beach the centerpiece for clean energy and the project (through the work of the commission and the community)	Business/Industry Environmental Orgs Local Govt
831	3-11-21	Back Bay Farms, Gene Hansen (Owner)	Project discussion, landowner discussion	Project Area Landowner
832	3-11-21	Captain Scott Jones, F/V No Limits (Commercial Fisherman)	Discuss fishing gear locations in lease area, any issues to date, open/maintain lines of communication; relationship building	Marine/Fishery

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
833	3-11-21	Cheryl McLeskey Owner, McLeskey & Associates and related entities	Schedule project update	Public Opinion Leader
834	3-11-21	Chesapeake Alliance	Project update	Local Govt
835	3-11-21	Garcia Companies Andrea Kilmer, President and CEO	Purpose of encounter: To arrange a meeting/discussion about CVOW	Public Opinion Leader
836	3-11-21	Greater Norfolk Corporation (GNC)	Project briefing Hot topics: Opportunities for region, including jobs.	Business/Industry
837	3-11-21	Virginia Beach Deputy City Manager, David Bradley	Project outreach	Local Govt
838	3-11-21	Virginia Beach Commissioner of the Revenue Phil Kellam	Routes. Asked a few times about what the routes will be. I said that we do not know yet as that is currently being assessed.	Local Govt
839	3-10-21	American Association of Blacks in Energy (AABE)	Update on CVOW project	Hist/Cultural
840	3-10-21	Battlefield Golf Course	Assess existing transmission ROW (Line 271) adjacent to BGC for possible CVOW expansion; Brief BGC on CVOW project and potential ROW expansion.	Project Area Stakeholder
841	3-10-21	Business Network for Offshore Wind	New staff person at BNOW, region is MidAtlantic, inform of Dominion Fisheries Liaison outreach activities	Marine/Fishery
842	3-10-21	Captain John Jorette F/V Hey Dad (Commercial Fisherman)	Confirm status of fishing gear in NW of lease; relationship building	Marine/Fishery
843	3-10-21	Captain Tommy Eskridge (Commercial Fisherman)	Purpose: Discuss latest fishing gear location, make sure no issues, relationship building.	Marine/Fishery
844	3-10-21	Gary McCollum	Project briefing, answer questions	Public Opinion Leader
845	3-10-21	Louisa Strayhorn	Notification re: packages to individual property owners asking for survey permission and upcoming landowner briefing meetings.	Public Opinion Leader
846	3-10-21	Louisa Strayhorn CEO, Louisa Strayhorn & Associates	Project update	Public Opinion Leader
847	3-10-21	Naval Air Station Oceana • John Broughton, Senior Project Manager, SIA Solutions on Behalf of the U.S. Navy (NAS Oceana) • John Broughton, SIA Solutions • Patrick Giardina, SIA Solutions • Richard Ricker, U.S. Navy • Blake Waller, U. Navy	To identify the deliverables that the Navy will require to complete the Requirements Package for Naval Facilities Engineering Systems Command (NAVFAC) in order to grant Dominion the necessary easements to site facilities associated with CVOW Project on Navy lands.	Military

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
848	3-10-21	Naval Air Station Oceana (facilities, environmental, real estate, NAVFAC)	Purpose of encounter: • Ongoing discussions regarding site map format for preferred routes for Lake Christine • Switching Station • Transmission route • Navy easement overlap in the City of Chesapeake and Fentress • Environmental requirements for NEPA study • Navy's requirements package	Military
849	3-10-21	Newport News Public Schools	Purpose of encounter: Talk about adding courses to their curriculum that would support offshore wind. Topics discussed: • Excited about benefits to the area (economy, jobs) • Kid Wind project • Marine life • Educational curriculum • Job opportunities	Ed/Workforce
850	3-10-21	North Carolina State Historic Preservation Office	To clarify data access on the HPOWEB system (online site files database)	State Govt
851	3-10-21	Virginia Department of Environmental Quality (DEQ) Craig Nichol, Regional Director, Tidewater Region	The purpose of the meeting was to provide DEQ with a project update, and discuss DEQ permitting that will be required at a high level. The meeting covered the following: • Reviewed Pilot Project briefly • Discussed benefits of OSW/ CVOW Project • Project timeline / NEPA Process • DEQ Engagements	State Govt
852	3-9-21	Captain Mark Hodges F/V Capt MAK Black Sea Bass Pot Fishery (Commercial Fisherman)	Plan meeting for review of fishing gear interaction claim	Marine/Fishery
853	3-9-21	Conch Pot Fishery	Discussion re: project/relationship development	Marine/Fishery
854	3-9-21	Dogfish Gillnet Fishery	Discussion re: project/relationship development	Marine/Fishery
855	3-9-21	Portsmouth Public Schools	Share information about Dominion Energy's CVOW Project	Ed/Workforce
856	3-9-21	Sierra Club	Discuss workforce development and share insights to assist in developing an OSW workforce development presentation.	Environmental
857	3-9-21	State Del. Amanda Batten	Topics: • Diversity in supply chain • Delegate Batten's influence to change Dominion Energy's supplier choices • Finding information on our Coastal Virginia Offshore Wind website	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
858	3-9-21	Virginia Beach Hotel Association	Provided the association with a Power Point project briefing to formally introduce the association to the project and answer any questions.	Business/Industry
859	3-8-21	Ducks Unlimited	Project update	Environmental
860	3-8-21	Environmental Workshop Organizations: • Audubon • Ducks Unlimited • Elizabeth River Project • Friends of Norfolk's Environment • Lynnhaven River Now • National Wildlife Foundation • The Nature Conservancy • North Carolina Coastal Federation • Sierra Club • Southern Environmental Law Center • Surfrider Foundation (VA Beach) • Virginia Conservation Network • Virginia Institute of Marine Science	Discussion of COP environmental provisions and environmental advocacy group interest in the project. Hot topics: • Baseline characterizations and protections for sensitive marine species (NARW) • Environmental monitoring for Pilot and pre-monitoring for commercial project • Offshore lighting • Environmental justice review and mapping to avoid equity concerns • Coordination of transmission routing with Avangrid • IHA modifications for spotted and common dolphins	Environmental
861	3-7-21	Norfolk State University – Center for African American Public Policy *State of the Water* Radio Show, WNSB 91.1FM Eric W. Claville, J.D., M.L.I.S., Director, Center for African American Public Policy Adjunct Professor of Political Science	Project discussion	Hist/Cultural
862	3-5-21	Chesapeake Mayor Rick West	Talked about the project and discussed things that are going on after the open houses.	Local Govt
863	3-5-21	Chief Stephen Best and Councilmember Robert Ike, Jr.	Project update	Local Govt
864	3-5-21	North Carolina Commission and Staff	Project update	State Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
865	3-5-21	State Military Reservation • Charlton Dunn, Construction and Facility Management Officer, Virginia Army National Guard, Department of Military Affairs • Michael Nolan (State Real Property) • Jennifer Beck (Master Plan) • Robert Palmore (Planning) • Russel Woodlief • DGS: Holly Eve (Real estate), Zach Hunt and Michael Nolan • NAVY: Johnny Lauterbach	• Dominion Energy provided a detailed review of the preferred route for the onshore cable landing at SMR. • Topics of discussion included an overview of the site plans, right of way requirements by DGS and the Department of Military Affairs, a summary of the project timeline, construction work practices, and next steps.	Military
866	3-5-21	U.S. Army Corps of Engineers (USACE) Brian Denson, Robert Pruhs, Mike Anderson, Courtney Spears, Peter Kube, Joel Scussel	Purpose of encounter: • Discussion of CVOW onshore routes with the USACE. • Seek input from USACE on routing alternatives, Section 408 permitting and Easement processes. • Topics include the crossing of Intracoastal Waterway, the North Landing Bridge Project, crossings of USACE along existing Dominion transmission ROWs, and understanding the processes and permitting requirements for USACE land crossings.	Military
867	3-5-21	Virginia Commonwealth University College of Engineering (capstone students)	Purpose: Enable students to hear from a VCU engineering alumni, hear about what their companies may be working on, and ask about progression from starting engineer to late career levels.	Ed/Workforce
868	3-4-21	AquaMan Sportfishing Charters	Discuss North Atlantic Right Whale (NARW) encounter and availability of vessels to support OSW opportunities.	Marine/Fishery
869	3-4-21	MidAtlantic Fisheries Management Council (MAFMC) Peter deFur, Virginia Fisheries Council Representative	Project outreach	Marine/Fishery
870	3-4-21	MidAtlantic Fisheries Management Council (MAFMC) Julia Beaty, Council Staffer	Project outreach	Marine/Fishery
871	3-4-21	VersAbility	Discussion of opportunities to work together	Business/Industry
872	3-3-21	City of Norfolk Jared Chalk, Economic Development Director	Project discussion	Local Govt
873	3-3-21	Norfolk Economic Development Authority	Project update during the Norfolk EDA's regular monthly meeting	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
874	3-3-21	Portsmouth Public Schools	Share information about Dominion Energy's CVOW Project	Ed/Workforce
875	3-3-21	Princess Anne Independent News	Project discussion	Community Media
876	3-3-21	Virginia Beach Councilmember Aaron Rouse (At-Large)	Following up on offshore wind.	Local Govt
877	3-3-21	Virginia Beach Tuna Tournament (VBTT)	Tournament support	Marine/Fishery
878	3-3-21	Virginia Saltwater Sportfishing Association (VSSA)	Call to discuss CVOW updates prior to DT attending the ROSA Scientific Advisor's meeting on 05-MAR	Marine/Fishery
879	3-2-21	Chesapeake Bay Foundation	CVOW project update	Environmental
880	3-2-21	Naval Air Station Oceana	Dominion Seminar	Military
881	3-2-21	The Rotary Club of James City County	CVOW Presentation during a regularly scheduled Rotary Club of James City County meeting.	Community
882	3-1-21	Congressional Staff Briefing Staff from the offices of Senator Warner, Senator Kaine, Congresswoman Luria, Congressman Scott and Congressman McEachin participated.	Project briefing	Federal Govt
883	3-1-21	Hampton Roads Planning District Commission	CVOW Project Brief, History of what the HRPDC has done on Offshore Wind	Local Govt
884	3-1-21	Hispanic Chamber of Coastal Virginia	Share project information	Hist/Cultural
885	3-1-21	Nansemond River Preservation Alliance	Project update	Environmental
886	3-1-21	Virginia Beach Audubon	Project update	Environmental
887	3-1-21	Virginia Economic Development Partnership	Project update and discussion	State Govt
888	2-26-21	City of Virginia Beach Staff Planning and Community Development Economic Development Public Works Public Utilities Zoning City Attorney Parks and Recreation	Purpose of encounter: • Update City Staff on the CVOW Project • Review conceptual routes • Solicit feedback on the routes • Exchange information relevant to routing and the Project	Local Govt
889	2-26-21	Hampton Roads Chamber of Commerce	Leadership Series featured Ed Baine (Dominion) who discussed project	Business/Industry
890	2-26-21	Hampton Roads Community Foundation	Provide project briefing and answer questions	Community
891	2-26-21	James Madison University – KidWind Challenge	Shared project post card collateral	Ed/Workforce
892	2-26-21	MidAtlantic Fisheries Management Council (MAFMC)	Call to discuss/refine request for information regarding ongoing and/or monitoring/studies at the Pilot Project site; follow up question after presentation to the MAFMC the week prior	Marine/Fishery

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
893	2-26-21	Surfrider Foundation	CVOW Project Brief, General outreach and discussion of upcoming virtual meeting	Environmental
894	2-26-21	Virginia Beach Staff – Planning, Public Works, Economic Development, Public Utilities	Routing discussion with ET and ERM	Local Govt
895	2-25-21	American Maritime Modernization Association	CVOW update presentation to AMMA general membership	Business/Industry
896	2-25-21	Chesapeake Public Schools	CVOW update presentation	Ed/Workforce
897	2-25-21	Interagency Meeting – BOEM, USFWS, DWR, Navy Included: • VDWR – Ray Fernald, Rick Reynolds, Ernie Aschenbach, Ruth Boettcher • USFWS – Pam Loring, Troy Anderson, Emily Argo • BOEM – Casey Reeves, Algene Byrum, David Bigger • Navy – Michael Wright, Blake Waller	• The purpose of the meeting was to review agency comments received on the CVOW Commercial Avian and Bat Workplan. • This workplan will be used for the surveys conducted prior to construction. • We provided a project update, reviewed the comment matrix, and provided an overview on the status of the routing efforts.	Federal Govt
898	2-25-21	Meherrin Tribe	Project outreach	Tribe
899	2-25-21	Old Dominion University Engineers Week	Dominion presented on project	Ed/Workforce
900	2-25-21	Virginia Beach Taylor Adams (VB Economic Development) and Virginia Beach Vice Mayor Jim Wood	Discuss formation of the Mayor's Commission on Offshore Wind and Clean Energy	Local Govt
901	2-25-21	Virginia Beach Councilmember Sabrina Wooten	Project discussion	Local Govt
902	2-25-21	Will Sessoms	Project discussion	Public Opinion Leader
903	2-24-21	City of Virginia Beach Public Utilities	Discuss sharing of City of Virginia Beach utility shapefiles with Dominion	Local Govt
904	2-24-21	Fairfax County Environmental and Energy Coordination	CVOW Update Presentation	Local Govt
905	2-24-21	Hampton Roads Association of Commercial Real Estate	Project update presentation provided	Business/Industry
906	2-24-21	Mt. Olive Baptist Church	Project outreach	Hist/Cultural
907	2-24-21	New Jerusalem Ministries	Project outreach	Hist/Cultural
908	2-24-21	Norfolk Councilmember Danica Royster	Project outreach	Local Govt
909	2-24-21	Shiloh Baptist Church/Tidewater Metro Baptist Minister's Conference	Working to schedule project update	Hist/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
910	2-24-21	State Military Reservation • Charlton Dunn, Construction and Facility Management Officer • Virginia Army National Guard, Department of Military Affairs • Jennifer Beck • Robert Palmore • Russel Woodlief	Dominion Energy participated in a virtual meeting with representatives from SMR to review the proposed onshore cable landing location and discussed the regulatory approval and easement acquisition processes.	Military
911	2-24-21	The Nature Conservancy	CVOW Onshore Route Alternatives Discussion	Project Area Stakeholder
912	2-24-21	Thomas Nelson Community College	Project discussion	Ed/Workforce
913	2-24-21	Virginia Beach Vision	Project update	Business/Industry
914	2-23-21	Norfolk Councilmember Andria McClellan	Project outreach	Local Govt
915	2-23-21	Norfolk Staff James Rogers, Assistant City Manager-Neighborhood Development	Project outreach	Local Govt
916	2-23-21	State Del. Glenn Davis	Project update	State Govt
917	2-23-21	STOP, Inc.	Project outreach	Community
918	2-23-21	Vethouse Incorporated	Project outreach	Community
919	2-23-21	Virginia Beach Hotel Association	Shared project post card and collateral	Business/Industry
920	2-23-21	Virginia Beach Restaurant Association	Shared project post card collateral	Business/Industry
921	2-23-21	Virginia Ship Repair Association	Project update presented to VSRA members	Business/Industry
922	2-22-21	Back Bay Restoration Foundation	Project update	Environmental Org
923	2-22-21	Chesapeake Alliance	Shared project post card collateral	Local Govt
924	2-22-21	Hampton Roads Community Action Program	Project outreach	Community
925	2-22-21	Hampton Roads Military and Federal Facilities Alliance	Project update	Military
926	2-22-21	Norfolk Staff Doug Beaver, Resilience Officer	Project outreach	Local Govt
927	2-22-21	Office of U.S. Senator Tim Kaine Diane Kaufman, Hampton Roads Regional Director	Request for briefing	Federal Govt
928	2-22-21	Old Dominion University	Shared project post card collateral	Ed/Workforce
929	2-22-21	State Del. Kelly Convirs-Fowler	Shared project post card and collateral	State Govt
930	2-21	Cheroenhaka Nottoway Tribe	Project overview provided	Tribe
931	2-21	Macaulay and Jamerson	Project check-in	Environmental

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
932	2-21	Monacan Tribe	Project outreach	Tribe
933	2-21	Patawomeck Tribe	Project outreach	Tribe
934	2-21	Rappahannock Tribe	Project outreach	Tribe
935	2-21	Sierra Club	Project check-in	Environmental
936	2-21	Southern Environmental Law Center	Project check-in	Environmental
937	2-21	Virginia League of Conservation Voters	Project check-in	Environmental
938	2-19-21	Men of Faith	Initial communication, sharing of information, answering question, sharing of website, email, and phone number as well postcard.	Hist/Cultural
939	2-19-21	Norfolk Staff Wynter Benda, Deputy City Manager	Confirm whether City Manager Chip Filer wants City Council to be briefed	Local Govt
940	2-19-21	State Del. Jason Miyares	Shared project post card and collateral	State Govt
941	2-19-21	Virginia Department for Conservation and Recreation	Initial outreach for lines of communication of CVOW project for DCR	State Govt
942	2-19-21	Virginia Department of Environmental Quality Craig Nicol, Director, Tidewater Regional Office Melanie Davenport, Director Water Permitting	Initial outreach on commercial project; project overview; invite to public meetings; offer for larger update with broader DEQ staff.	State Govt
943	2-19-21	Virginia State Building and Construction Trades Council • Jason Parker, President • Vance Ayers – Int'l Union of Elevator Constructors • Robert Schwartz – Helmets and Hardhats • Danny Watson – Boilermakers • Olaf Olsen – Carpenters/Pile Drivers • Kendall Martin -Assoc of Bridge Structural & Ironworkers • John "Rosie" Rosenberger – IBEW • Sebastian Feculak • Alan Hood • Danny Watson • Kris Begoli • Brian Kerkhoven • Thomas Bell	Monthly project update	Business/Industry
944	2-19-21	Will Sessoms	Project discussion	Public Opinion Leader

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
945	2-18-21	BOEM Algene Byrum, Jen Draher, Willy Hoffman, Brian Hooker, Jen Miller, Annette Moore, Casey Reeves, Josh Wadlington	To discuss geological and geophysical data, data products, & data transfer methods.	Federal Govt
946	2-18-21	Pamunkey Tribe	Project briefing	Tribe
947	2-17-21	American Battlefield Trust	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
948	2-17-21	BOEM Casey Reeves, Algene Byrum, Justin Bedard, Connie Barnett	Purpose was to review the historic resources survey plan relative to Offshore project components and solicit BOEM's feedback. The Proposed Area of Potential Effects was reviewed, as well as the survey plans, and BOEM provided verbal concurrence and feedback. BOEM also provided feedback on tribal engagement, and lessons learned from other projects. Electric transmission also provided an update on onshore routing, SCC process, and the Stage I Pre-Application Analysis for cultural resources that will be completed as part of the SCC filing.	Federal Govt
949	2-17-21	Cheroenhaka (Nottoway) Indian Tribe	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
950	2-17-21	Chickahominy Indian Tribe	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
951	2-17-21	Chickahominy Indian Tribe Eastern Division	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
952	2-17-21	Colonial National Historic Park	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
953	2-17-21	Council of Virginia Archeologists	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
954	2-17-21	Macaulay & Jamerson	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
955	2-17-21	Mattaponi Tribe	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
956	2-17-21	Monacan Indian Nation	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
957	2-17-21	Nansemond Indian Nation	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
958	2-17-21	National Trust for Historic Preservation	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
959	2-17-21	Norfolk State University	Received letter re: project sent to Cultural/Advocacy contacts	Ed/Workforce Hist/Cultural
960	2-17-21	Nottoway Indian Tribe of Virginia	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
961	2-17-21	Pamunkey Indian Museum and Cultural Center	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
962	2-17-21	Pamunkey Indian Tribe	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
963	2-17-21	Patawomeck Indian Tribe of Virginia	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
964	2-17-21	Piedmont Environmental Council	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
965	2-17-21	Preservation Virginia	Received letter re: project sent to Cultural/Advocacy contacts	Environmental
966	2-17-21	Rappahannock Tribe	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
967	2-17-21	Scenic Virginia	Received letter re: project sent to Cultural/Advocacy contacts	Hist/Cultural
968	2-17-21	State Sen. Jen Kiggans	Project overview	State Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
969	2-17-21	U. S. Coast Guard Jerry Barnes, Samson Stevens, Jennifer Stockwell, Dean Horton, Peter Francisco, Robert Webb, Maureen Kallgren	To discuss the Navigational Safety Risk Assessment prepared for the Project.	Military
970	2-17-21	Upper Mattaponi Indian Tribe	Received letter re: project sent to Cultural/Advocacy contacts	Tribe
971	2-17-21	Upper Mattaponi Tribe	Project briefing	Tribe
972	2-17-21	Virginia Asian Chamber of Commerce	Project outreach	Hist/Cultural
973	2-17-21	Virginia Beach Staff Taylor Adams, Economic Development Director	To discuss the pending announcement of the Mayor's Commission on Offshore Wind and Clean Energy	Local Govt
974	2-17-21	Virginia Department of Historic Resources	Received letter re: project sent to Cultural/Advocacy contacts	State Govt
975	2-17-21	WHRO Public Media	Project outreach	Ed/Workforce Community
976	2-16-21	Coastal Virginia Building Industry Association	Invited Dominion to address their Board at their March 16th meeting	Business/Industry
977	2-16-21	Portsmouth Mayor Shannon Glover	Share information about Dominion Energy's CVOW Project	Local Govt
978	2-15-21	Coastal Virginia Building Industry Association	Shared post card and basic information about CVOW	Business/Industry
979	2-2-21 to 2-13-21	Virginia Beach NAACP	Project outreach	Hist/Cultural
980	2-12-21	Chesapeake Vice Mayor John De Triquet	Share information about Dominion Energy's CVOW Project	Local Govt
981	2-12-21	Elizabeth River Project	Project update	Environmental
982	2-12-21	Norfolk Staff Deputy City Manager, Wynter Benda	Project outreach	Local Govt
983	2-12-21	Norfolk State University – Joseph Jenkins Roberts Center for African Diaspora Studies	Informational and offer to answer questions	Hist/Cultural
984	2-12-21	State Sen. Bill DeSteph	Shared project post card and collateral	State Govt
985	2-12-21	Virginia Beach City Public Schools	Project update	Ed/Workforce
986	2-12-21	Virginia Beach Councilmember Guy Tower (Beach District)	Share information about Dominion Energy's CVOW Project	Local Govt
987	2-12-21	Virginia Beach Councilmember Jessica Abbott (Kempsville District)	Share information about Dominion Energy's CVOW Project	Local Govt
988	2-12-21	Virginia Beach Councilmember Louis Jones (Bayview District)	Share information about Dominion Energy's CVOW Project	Local Govt
989	2-11-21	Hispanic Chamber of Coastal Virginia	Project outreach	Hist/Cultural
990	2-11-21	Immaculate Conception Catholic Church	Project outreach	Hist/Cultural

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
991	2-11-21	Mid-Atlantic Fisheries Management Council (MAFMC)	Presented an update on the CVOW Pilot and Commercial Project	Marine/Fishery
992	2-11-21	State Del. Barry Knight	Shared project post card and collateral	State Govt
993	2-11-21	Virginia Beach Minority Business Council	Project outreach	Hist/Cultural
994	2-10-21	Grove Christian Outreach Center	Project outreach	Hist/Cultural
995	2-10-21	Habitat for Humanity – Peninsula and Greater Williamsburg	Project outreach	Community
996	2-10-21	Norfolk Economic Development Authority	Project overview provided at regular meeting	Local Govt
997	2-10-21	Norfolk Public Schools	Initial outreach for CVOW project and to inform Norfolk Public School administration about upcoming community engagement sessions	Ed/Workforce
998	2-10-21	Norfolk State University	Key Accounts provided a high-level overview of the Coastal Virginia Offshore Wind project. Topics of review included benefits, permitting agencies and onshore project summary.	Ed/Workforce
999	2-10-21	Portsmouth Volunteers for the Homeless	Project outreach	Community
1000	2-10-21	Southeastern Virginia Community Foundation	Project outreach	Community
1001	2-10-21	State Del. Cliff Hayes	Briefed Delegate Hayes and staff on project and email information and postcard	State Govt
1002	2-10-21	Thomas Nelson Community College	Project update	Ed/Workforce
1003	2-10-21	Virginia Aquarium	Project outreach	Community
1004	2-10-21	Virginia Beach Councilmember Rosemary Wilson	Additional outreach following follow-up phone call to forward postcard, as discussed, containing more information about future community engagement opportunities	Local Govt
1005	2-9-21	Chesapeake City Council – all 9 members City Staff included – City Manager Chris Price, Deputy City Manager Wanda Bernard-Bailey, Director of Public Utilities David Jurgens, Economic Development Director Steve Wright	Project briefing	Local Govt
1006	2-9-21	Hampton Roads Collaborative	Provided a 15-minute presentation on CVOW	Business/Industry
1007	2-9-21	State Sen. Lionell Spruill	Briefed Senator Spruill and staff on project and email information and postcard	State Govt
1008	2-8-21	Hampton Roads Workforce Development Council	Provide CVOW update for the charter meeting of the subcommittee.	Ed/Workforce

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1009	2-8-21	Naval Air Station Oceana John Lauterbach, Planning Liaison	Discuss CVOW Electric Transmission routing alternatives, from the two proposed collector station sites to the south and west, specifically relating to information provided by the Navy on 2/5/21 regarding the AICUZ (Air Installation Compatible Use Zone) and associated restrictions in the Accident Potential Zones (APZs).	Military
1010	2-8-21	Virginia Beach Interdenominational Minister's Conference	Project outreach	Hist/Cultural
1011	2-8-21	Virginia Wesleyan University	Project update	Ed/Workforce
1012	2-5-21	African American Heritage Trail/City of Chesapeake, Parks, Recreation, and Tourism	Project outreach	Local Govt Hist/Cultural
1013	2-5-21	Hampton Mayor Donnie Tuck and Senior City Staff	Talk about Dominion Energy's CVOW project and the benefits to the Hampton area.	Local Govt
1014	2-4-21	LEAD Peninsula 2021 Class	LEAD Peninsula's theme for session was Environment Day. Jennifer Palestrant spoke about offshore wind energy in Hampton Roads.	Community
1015	2-4-21	Reinvent Hampton Roads	Project outreach	Business/Industry
1016	2-4-21	The Mariner's Museum and Park	Share information about CVOW project.	Community
1017	2-4-21	The Nature Conservancy	Discussion of COP Summary and concerns about project's impacts on migrating birds	Project Area Stakeholder Environmental
1018	2-4-21	Virginia Institute of Marine Science (VIMS)	● Review MOA language update ● Address VIMS questions (below) ● Update on potential establishing a VIMS review panel ● Update on specific research projects	Ed/Workforce
1019	2-3-21	Business Network for Offshore Wind	Standing Program Committee Kickoff Meeting	Business/Industry
1020	2-3-21	Chesapeake Councilmember Debbie Ritter	CVOW outreach	Local Govt
1021	2-3-21	Sharing Info LLC – Barbara Hamm Lee	CVOW outreach	Community
1022	2-3-21	Virginia Beach Vice Mayor Jim Wood	To follow up on presentation to City Council and discuss possible further outreach and promotional efforts that Virginia Beach could undertake.	Local Govt
1023	2-2-21	Center for African American Public Policy (Norfolk State University)	Initial Outreach; Answer questions	Hist/Cultural Ed/Workforce
1024	2-2-21	Chesapeake Bay Foundation	Update on CVOW plans	Environmental
1025	2-2-21	Newport News Mayor McKinley L. Price, DDS	Discuss Dominion Energy's CVOW project.	Local Govt
1026	2-1-21	Carolyn Culpepper, Owner Pungo Realty	Provide initial CVOW outreach and answer any questions/concerns that she and her business may have.	Public Opinion Leader
1027	2-1-21	Chesapeake Planning Staff	Discuss transmission line routing through Chesapeake and receive input from the City, specifically related to land use topics.	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1028	2-1-21	Newport News Public Schools	Project outreach	Ed/Workforce
1029	2-1-21	University of Richmond	3rd session on Offshore wind in three-part series on renewable energy in Virginia. Prior sessions were on Virginia Clean Economy Act and Dominion Solar program.	Ed/Workforce
1030	1-31-21	Norfolk Anglers Club	Update on NAC Activity	Marine/Fishery
1031	1-30-21	Northern Virginia Montessori Alumni	CVOW/OSW project summary	Ed/Workforce
1032	1-29-21	Seatack Civic League	CVOW outreach	Community
1033	1-29-21	Virginia Beach Staff Taylor Adams, Economic Development Director	Project outreach	Local Govt
1034	1-29-21	Virginia Department of Historic Resources (VDHR)	The purpose of this call was to discuss archaeological survey plans for onshore components of the project, and also to communicate the BOEM process vs. SCC process for cultural resource investigations.	State Govt
1035	1-28-21	Chesapeake City Manager, Chris Price	Follow up CVOW outreach	Local Govt
1036	1-28-21	James River Association	Discuss Dominion Energy's Coastal Virginia Offshore Wind project.	Environmental
1037	1-28-21	Newport News Public Schools	Community outreach/informational	Ed/Workforce
1038	1-28-21	Virginia Beach Councilmember Rosemary Wilson	Follow up contact from initial phone call to explain CVOW project benefits and to learn whether she had any questions or concerns.	Local Govt
1039	1-28-21	Virginia Beach Councilmember Rosemary Wilson	Follow up contact from initial phone call to explain CVOW project benefits and to learn whether she had any questions or concerns.	Local Govt
1040	1-28-21	Virginia Living Museum	Discuss Dominion Energy's Coastal Virginia Offshore Wind project. Because this is a Newport News-based business and an environmental and wildlife-based organization, the conversation was tailored to the jobs this project will bring to the area and Dominion Energy's strategy on how we are working with environmental groups and federal agencies.	Community
1041	1-28-21	Virginia Ship Repair Association	Pre-meeting for February 23 presentation.	Business/Industry
1042	1-27-21	Dr. Tommy Blogger	Introduction meeting with Dr. Bogger to cover high-level project details, discuss role of local historian in assisting Dominion Energy understand cultural and historically significant locations in the study area, provide contact information of Dominion Energy team, and determine Dr. Bogger's information needs to begin research	Hist/Cultural
1043	1-27-21	Hampton City Schools	Share information about Dominion Energy's CVOW project.	Ed/Workforce
1044	1-27-21	Hampton Vice Mayor/President of Hampton Roads Committee of 200 Plus Men – Jimmy Gray	Discuss the Coastal Virginia Offshore Wind project and its potential impact on the Hampton citizens.	Local Govt Hist/Cultural
1045	1-27-21	Virginia Peninsula Chamber of Commerce	Discuss project	Business/Industry

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1046	1-26-21	Calvary Revival Church	To discuss possible partnership opportunities between Dominion Energy and Calvary Revival Church's non-profit arm and provide high level overview of CVOW and potential workforce development opportunities	Hist/Cultural
1047	1-26-21	Portsmouth Port & Industrial Commission Meeting	To provide high level overview of CVOW and potential impact to Portsmouth ports, industry, and workforce.	Local Govt
1048	1-26-21	Virginia Beach City Council	Introduce CVOW to City Council during public meeting	Local Govt
1049	1-25-21	Chesapeake Councilmember Matt Hamel	Provided project post card and collateral	Local Govt
1050	1-25-21	Cynthia Romero, MD Director, Eastern Virginia Medical School	CVOW outreach	Public Opinion Leader
1051	1-25-21	Fentress Civic League	CVOW outreach	Project Area Stakeholder
1052	1-25-21	Olga Torres	CVOW outreach	Public Opinion Leader
1053	1-25-21	The Natural Conservancy	Stakeholder engagement; review of specific concerns and sensitivities related to onshore infrastructure.	Project Area Stakeholder
1054	1-24-21	Hispanic Chamber of Commerce/Virginia Coalition of Latino Organizations	Discuss general info on CVOW and make sure the community has input.	Hist/Cultural
1055	1-22-21	Cheroenhaka Nottoway	Update on CVOW and offer meeting to discuss project in more detail.	Tribe
1056	1-22-21	Chickahominy Tribe	Update on CVOW and offer meeting to discuss project in more detail.	Tribe
1057	1-22-21	Colonial National Historic Park	To generally discuss CVOW and provide a brief overview of the transmission needs	Hist/Cultural
1058	1-22-21	Council of Virginia Archeologists	To generally discuss CVOW and provide a brief overview of the transmission needs	Hist/Cultural
1059	1-22-21	Mattaponi Tribe	Update on CVOW and offer meeting to discuss project in more detail.	Tribe
1060	1-22-21	Nansemond Tribe	Update on CVOW and offer meeting to discuss project in more detail.	Tribe
1061	1-22-21	National Trust for Historic Preservation	To generally discuss CVOW and provide a brief overview of the transmission needs	Hist/Cultural
1062	1-22-21	Norfolk State University – Joseph Jenkins Center for the Study of the African Diaspora	To generally discuss CVOW and provide a brief overview of the transmission needs	Hist/Cultural
1063	1-22-21	Pamunkey Tribe	Update on CVOW and offer meeting to discuss project in more detail.	Tribe
1064	1-22-21	Piedmont Environmental Council	To generally discuss CVOW and provide a brief overview of the transmission needs	Environmental
1065	1-22-21	Preservation Virginia	To generally discuss CVOW and provide a brief overview of the transmission needs	Environmental
1066	1-22-21	Rappahannock Tribe	Update on CVOW and offer meeting to discuss project in more detail.	Tribe
1067	1-22-21	Scenic Virginia	To generally discuss CVOW and provide a brief overview of the transmission needs	Environmental
1068	1-22-21	Upper Mattaponi Tribe	Update on CVOW and offer meeting to discuss project in more detail.	Tribe

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1069	1-21-21	Sierra Club	Outreach on CVOW-Tier 1, identified myself as her contact going forward and asked her what issues and concerns she may have and any details she would like to share about Sierra Club plans	Environmental
1070	1-21-21	Virginia Beach City Councilmember Barbara Henley (Princess Ann District)	Briefed her on transmission line, which will be mostly in her VB district	Local Govt
1071	1-20-21	Chesapeake Democratic Committee	CVOW outreach	Community
1072	1-19-21	Chesapeake City Councilmember Susan Vitale	Project briefing	Local Govt
1073	1-19-21	Naval Air Station Oceana	ERM wetland biologists on the NAS Oceana parcel of interest for the Collector Substation to do wetland delineation.	Military
1074	1-19-21	The Mount Global Churches	CVOW outreach	Hist/Cultural
1075	1-15-21	Virginia Building Trades • Jason Parker – VA Bldg & Construction Trades • Vance Ayers – Int'l Union of Elevator Constructors • Brian Monroe – DC Local 51 Painters • Rob Shwarts -- Helmets and Hardhats • Danny Watson – Boilermakers • Olaf Olsen – Carpenters/Pile Drivers • Kendall Martin -Assoc of Bridge Structural & Ironworkers • Dennis Morgan – Teamsters • John "Rosie" Rosenberger – IBEW	Monthly update	Business/Industry
1076	1-14-21	Chesapeake City Manager Chris Price	Talked about communications with council and development opportunities in the city.	Local Govt
1077	1-14-21	Naval Air Station Oceana • Navy: John Lauterbach, Rich Riker, Paul Moomaw • SMR: Charlton Dunn, Sally Torgler	Discuss routing from onshore cable landing site across Lake Christine.	Military
1078	1-14-21	VIMS	Purpose: • Review MOA language with this group and identify next steps and timeframe for finalizing (draft attached) • Update on potential establishing a VIMS review panel • Update on specific research projects	Ed/Workforce

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1079	1-14-21	Virginia Maritime Association	Meeting of the Virginia Maritime Associations Offshore Wind Committee – meets quarterly, and Dominion Energy provides an update on the CVOWP & C projects	Business/Industry
1080	1-13-21	Department of Army/State Military Reservation Charlton Dunn, Retired Commander and POC for SMR	Discuss cable landing zone, routing through SMR	Military
1081	1-13-21	Dominion Energy Eastern Community Advisory Board Includes: • Grove Christian Outreach Center • Habitat for Humanity Peninsula • Portsmouth School Board • Portsmouth Volunteers for the Homeless • Southeast Virginia Community Foundation • The Miles Agency • Virginia Asian Foundation & Virginia Asian Chamber of Commerce • WHRO/Sharing Info LLC	Members were interested in opportunities for training and workforce development as a result of CVOW project.	Community Hist/Cultural Org
1082	1-13-21	The Nature Conservancy	• Update Dominion on TNC's role in Atlantic Coast Fisheries Management • Share TNC's preliminary thinking on impacts to fish from offshore wind development. • Discuss ways to collaborate to resolve differences and develop solutions. • Plan for a similar discussion around pelagic and migratory shorebirds	Project Area Stakeholder Environmental
1083	1-13-21	Virginia Beach senior staff, Mayor Bobby Dyer City Manager Patrick Duhaney Deputy City Manager Ron Williams Taylor Adams (Economic Development Director)	Project briefing	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1084	1-12-21	Naval Air Station Oceana • Navy: Blake Waller, John Lauterbach, Amanda Pack, Rich Riker, Andrew Porter, Andy Gnadt, Paul Moomaw, Mark Outman, Lakeeva Gunderson	Discuss CVOW Electric Transmission routing alternatives, from the two proposed collector station sites to the south and west	Military
1085	1-11-21	Norfolk Mayor Kenny Anderson	Project outreach	Local Govt
1086	1-11-21	Virginia Beach Councilmember Michael Berlucchi	Project outreach	Local Govt
1087	1-11-21	Virginia Beach Economic Development and Planning	Discuss CVOW routing with Virginia Beach Economic Development staff	Local Govt
1088	1-9-21	Chesapeake Councilmember Steve Best	Project outreach	Local Govt
1089	1-9-21	City of Chesapeake Economic Development – Steven Wright	Project outreach	Local Govt
1090	1-8-21	Chesapeake Councilman Don Carey	Project outreach	Local Govt
1091	1-8-21	Chesapeake Councilwoman Debbie Ritter	Project outreach	Local Govt
1092	1-8-21	Chesapeake Councilwoman Ella Ward	Project outreach	Local Govt
1093	1-8-21	Virginia Beach City Councilmember Rosemary Wilson (At-Large)	To provide CVOW Outreach information to a city council member to advise her that she and others will be receiving project updates/messages in the next two weeks by email and that Dominion Energy is committed to keeping her and others informed about offshore and onshore messages.	Local Govt
1094	1-7-21	Chesapeake Councilmember Robert Ike	Project outreach	Local Govt
1095	1-7-21	Chesapeake Mayor Rick West	Project outreach	Local Govt
1096	1-7-21	Hampton Roads Association of Commercial Real Estate	To discuss a long-planned HRACRE Luncheon Program for Offshore Wind Energy/CVOW	Business/Industry
1097	1-7-21	Portsmouth Economic Development Robert Moore (Director of Economic Development) and Brian Donahue (Assistant Director of Economic Development)	Request from City of Portsmouth to discuss engagement and partnership opportunities	Local Govt
1098	1-7-21	Virginia Beach Deputy City Manager Ron Williams	Purpose: • Get his perspective on how it's going working with Dominion on the project thus far. • Get his thoughts on how we can continue to work with them as effectively as possible. • Let him know he can contact me at any time if he has concerns or suggestions as our work with the City proceeds.	Local Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

#	*Date*	*Stakeholder*	*Purpose/Topics*	*Category*
1099	1-6-21	Chesapeake Senior Staff • Chris Price, City Manager • Bob Geis, Deputy City Manager • Wanda Barnard-Bailey, Deputy City Manager • Heath Covey, Director of Public Communications • Allison Harper, Administrative Asst and Meeting Host	Project outreach	Local Govt
1100	1-5-21	U.S. Army Corps of Engineers • USACE: Beth Babineau, Courtney Spears, Brian Denson, Peter Kube	Meeting hosted by DEES to serve as a follow-up to initial kickoff call with USACE (hosted on 11/23/20) to update them on the project and discuss onshore routing. Specifically, the need to cross Intracoastal Waterway (land owned by USACE) to bring transmission to Fentress Substation.	Military
1101	1-5-21	Virginia Beach Economic Development, Taylor Adams	Project discussion	Local Govt
1102	1-4-21	Virginia Beach Public Works	Discuss routing	Local Govt
1103	1-4-21	Virginia Beach Vice Mayor – Jim Wood	Discuss project	Local Govt

Pre-2021

Date	*Stakeholder*	*Purpose/Topics*	*Category*
12-22-20	WVEC-TV – Craig Moeller	To continue an earlier conversation, we had regarding the potential for him, as one of the station's senior meteorologists and science educators, to "own" the offshore wind story and produce stories on it for the station's newscasts.	Media
12-16-20	City of Chesapeake	Meeting to discuss proposed onshore transmission line routing and property access requirements	Local Govt
12-16-20	City of Chesapeake Senior Staff Included: • Christopher Price, City Manager • Earl Sorey, Director of Public Works • Jaleh Shea, Director of Planning • Steven C. Wright, Director of Economic Development • Jay Tate, Director of Development and Permits • John King, Zoning Administrator • Ben White, Assistant Director of Economic Development	Project discussion	Local Govt
12-15-20	Naval Air Station Oceana	Discussed routing on Navy land	Military

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

Date	*Stakeholder*	*Purpose/Topics*	*Category*
12-15-20	BOEM, Navy	Meeting to discuss the EIS/NEPA process for the COP	Military
12-14-20	Hampton Roads Military and Federal Facilities Alliance (HRMFFA)	Project discussion	Military
12-11-20	City of Virginia Beach	Meeting to discuss proposed onshore transmission line routing and property access requirements	Local Govt
12-10-20	State Military Reservation (SMR)	Meeting to discuss proposed onshore transmission line routing and property access requirements	Military
12-10-20	State Military Reservation	Discussed routing	Military
12-9-20	Virginia Beach Vice Mayor – Jim Wood	To learn what he knows about offshore wind and chat about how Virginia Beach can take full ownership of the opportunity and why.	Local Govt
12-8-20	Hampton Roads Maritime Collaborative	To catch up on her work building support for growth of maritime industry jobs	Business/Industry
12-7-20	Virginia Aquarium	Discuss the potential for the Aquarium to participate on the CVOW Commercial project	Community
12-3-20	Virginia State Historic Preservation Office (SHPO)	• Cultural resources planning meeting held with BOEM, VDHR, NCSHPO • Introduced project/ reviewed offshore and onshore project components • Discussed onshore and offshore cultural resources investigations • Discussed visual analysis methodologies	State Govt
11-20-20	Portsmouth Public Schools	Share information about Dominion Energy's CVOW Project	Ed/Workforce
11-17-20	USACE	Discuss general project updates; • Discuss onshore footprint area and Virginia State Corporation Commission (SCC) filing; • Discuss USACE permitting and approximate timelines	Military
11-12-20	Virginia Inter-Agency Meeting	Meeting between BOEM, NOAA Fisheries, USCG, DMME, VIMS, and GARFO to discuss project schedule, G&G Surveys, and regulatory involvement.	State Govt National Govt
11-5-20	City of Chesapeake	Introductory project meeting with the City Manager	Local Govt
11-5-20	City of Virginia Beach	Introductory project meeting with the City Manager and other staff	Local Govt
11-2-20	The Nature Conservancy (TNC) Follow-Up Meeting	Discussed TNC goals of renewable energy and concerns	Environmental
10-28-20	U.S. Navy/Naval Air Station (NAS) Oceana	Review existing data and discuss survey needs for the Switching Station	Military
10-23-20	Oceana	Introductory call with Oceana	Military
10-22-20	USCG SAR Meeting	Discuss the protection of the surrounding maritime community and the safest way to respond to those in distress	Military
10-20-20	Conch and Black Sea Bass Fisheries Meeting	Discuss active fisheries in the vicinity of the project, proposed construction timeline, and goals of minimizing impacts to active fisheries	Community Environmental
9-30-20	Local Fisheries Roundtable	Discuss general project updates and question/answer opportunity	Business/Industry

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

Date	*Stakeholder*	*Purpose/Topics*	*Category*
			Community
9-28-20	Virginia Maritime Association Word Shipping Council Virginia Pilots Association Port of Virginia American Waterways Operators Chamber of Shipping of America	Discuss general project updates; Discuss proposed approach for NSRA	Business/Industry
9-24-20	Military Roundtable	Provide general project update and question/answer opportunity	Military
9-22-20	Local Government/Business Roundtable	Provide general project update and question/answer opportunity	Local Govt
9-15-20	USCG/BOEM Navigational Safety Risk Assessment (NSRA) Approach Meeting	Provide general project updates; Discuss proposed approach for NSRA	Military National Govt
8-20-20	BOEM/NOAA Fisheries Essential Fish Habitat (EFH) Deliverables Discussion	Discuss requirements for Essential Fish Habitat (EFH) Deliverables to support the COP	National Govt
8-18-20	BOEM Early Fabrication Meeting	Discuss requirements for early fabrication	National Govt
8-5-20	BOEM G&G Data Interpretation Meeting	Discuss interpretations, analyses, charting, ground modeling, and electronic data deliverables as they apply to G&G reporting requirements	National Govt
6-25-20	Tribal Engagement	Letter to provide a project update, maintain communications, and let Tribes know the next steps of the project	Tribe
6-3-20	BOEM Cultural Resources Clearance for Geotechnical Investigations d/	Provide results of Phase 1 cultural resources analyses of high-resolution geophysical (HRG) survey data to support geotechnical investigations	National Govt
5-22-20	NOAA Fisheries	Discuss Level A harassment exclusion zone in the IHA application	National Govt
5-14-20	BOEM Shipwreck Notification Letters c/	Notify BOEM of the discovery of potential shipwrecks in and around the Lease Area to comply with Lease Stipulations	National Govt
5-12-20	USCG	Discuss proposed turbine spacing for the project	Military
4-24-20	BOEM Bi-Weekly Meeting b/	Provide general project updates; Discuss Avian and Bat Survey Plan	National Govt
4-17-20	BOEM Pre-Survey Meeting	Conduct a Pre-Survey meeting for surveys to be conducted in support of the COP	National Govt
4-10-20	Tribal Pre-Survey Meeting	Conduct a Pre-Survey meeting for surveys to be conducted in support of the COP	Tribe
3-25-20	NOAA Fisheries Greater Atlantic Regional Fisheries Office (GARFO)	Project introduction; Discuss permit approvals that will be required	National Govt
3-24-20	Military Roundtable	Provide project introduction and question/answer opportunity	Military
3-21-20	USCG	Project introduction and discuss the proposed wind turbine layout	Military
3-18-20	Fisheries Roundtable	Provide project introduction and question/answer opportunity	Business/Industry Community
3-11-20	Local Government/Business Roundtable	Provide project introduction and question/answer opportunity	Local Govt
12-16-19	BOEM	Discuss proposed methodologies for Site Assessment Plan (SAP) Survey Plan, SAP Amendment, COP Survey Plan, and COP strategy	National Govt

CVOW OUTREACH TRACKING

OUTREACH CHRONOLOGY, NUMBER OF ENCOUNTERS, ENCOUNTERS BY CATEGORY

Date	*Stakeholder*	*Purpose/Topics*	*Category*
11-13-19	U.S. Army Corps of Engineers (USACE)	Project introduction; Discuss permit approvals that will be required	Military
10-3-19	NOAA Fisheries	General project update; Discuss Incidental Harassment Authorization (IHA)	National Govt
4-21-15	Commercial Fishing Meeting – City of Virginia Beach	Project introduction with the commercial fishing community in the City of Virginia Beach	Business/Industry
3-30-15	Commercial Fishing Meeting – Town of Chincoteague	Discuss the Project with regional commercial fishermen in the Town of Chincoteague	Business/Industry
3-25-15	Commercial Fishing Meeting – Town of Wachapreague	Discuss the Project with regional commercial fishermen in the Town of Wachapreague	Business/Industry
10-16-14	Interagency Kickoff Meeting	Meeting between: • BOEM, Dominion Energy, • U.S. Navy, • National Oceanic and Atmospheric Administration (NOAA) Fisheries, • Tetra Tech, • United States Coast Guard (USCG), • Virginia Department of Environmental Quality (VDEQ), • Virginia Department of Game and Inland Fisheries (VDGIF), • Virginia Institute of Marine Sciences (VIMS), and • Virginia Marine Resources Commission (VMRC) To discuss Project survey schedule and upcoming development plans	State/National Govt Military
9-11-14	BOEM Construction and Operations Plan (COP) Survey Plan Meeting	Discuss COP strategy and development plans with BOEM	National Govt
5-19-14	Bureau of Ocean Management (BOEM)/Virginia Department of Mines, Minerals, and Energy (DMME) Borings Pre-Survey Meeting	Conduct Marine Site Characterization Surveys Pre-Survey Meeting	State/National Govt

CONSTRUCTION AND OPERATIONS PLAN

Coastal Virginia Offshore Wind Commercial Project

Appendix L, Attachment A

Shipwreck Notifications

Prepared for:

Dominion Energy®

707 E. Main Street,
Richmond, VA 23219

Prepared by:

TETRA TECH

Tetra Tech, Inc.
4101 Cox Road, Suite 120
Glen Allen, VA 23060

www.tetratech.com

From:	Reeves, Casey L
To:	Scott Lawton
Cc:	Grant T Hollett; Lloyd J Eley; Fish, David S; DARRELL SHIER; Bennett, James F; Byrum, Algene D; Hoffman, William T; Lavallee, Janelle; Alexandra R Gibson (Services - 6)
Subject:	RE: [EXTERNAL] RE: CVOW Commercial Lease OCS-A 0483 - Condition 4.27 Review Discovery Clauses Notification
Date:	Thursday, May 14, 2020 5:04:07 PM
Attachments:	image001.gif

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Scott,

Thank you for notifying BOEM of the discovery of the three potential shipwrecks via the letter reports dated May 11, 2020 and May 14, 2020, pursuant to the post-review discoveries stipulation of your lease.

At this time, BOEM has placed temporary avoidance buffers around each of the three potential shipwreck sites to a distance of 50 meters (164 feet) from the discernable extent of each target.

Please refrain from conducting any seafloor disturbing activities within the boundaries of the buffers, to include anchoring of vessels. In accordance with Lease Stipulation 4.2.6, in no case may the Lessee knowingly impact a potential archaeological resource without the Lessor's prior approval. Should it be necessary for you to work within these boundaries, please notify BOEM so that BOEM can advise you on how to protect the site. Additionally, BOEM may alter or amend this temporary buffer if additional information warrants doing so. If BOEM decides to amend this temporary buffer, BOEM will notify you immediately.

Moreover, if the site is located within the Area of Potential Effects for your future activities, the site must be reported in the marine archaeological resource assessment and included in accompanying data submissions required in support of the COP, in accordance with 585.626(a)(5), stipulations of your lease, and the *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*.

Finally, please be aware, the bureau's decision regarding final avoidance buffers, and any other measures to minimize or mitigate adverse effects to this or other potential historic properties will be determined during our review of the COP under Section 106 of the National Historic Preservation Act.

Please don't hesitate to contact me if you have any questions.

Casey Reeves
Project Coordinator
BOEM, Office of Renewable Energy Programs
45600 Woodland Road, Mailstop: VAM-OREP
Sterling, VA 20166
O: (703) 787-1671
C: (571) 393-4369

From: Scott Lawton <scott.lawton@dominionenergy.com>
Sent: Thursday, May 14, 2020 1:34 PM
To: Bennett, James F <James.Bennett@boem.gov>; Byrum, Algene D <Algene.Byrum@boem.gov>; Reeves, Casey L <Casey.Reeves@boem.gov>; Fish, David S <David.Fish@bsee.gov>; Hoffman, William T <William.Hoffman@boem.gov>
Cc: Grant T Hollett <grant.t.hollett@dominionenergy.com>; Lloyd J Eley <Lloyd.J.Eley@dominionenergy.com>; DARRELL SHIER <darrell.shier@dominionenergy.com>; Lavallee, Janelle <Janelle.Lavallee@tetratech.com>; Alexandra R Gibson <Alexandra.R.Gibson@dominionenergy.com>
Subject: [EXTERNAL] RE: CVOW Commercial Lease OCS-A 0483 - Condition 4.27 Review Discovery Clauses Notification

Dominion Energy initially reported a ship wreck on May 11, 2020. Attached is an updated report based on Casey Reeve's e-mail dated May 14, 2020.

We are also reporting 2 additional ship wrecks identified on May 13, 2020 [redacted]. Attached is the written report from Terrasond.

These submittals are being made in accordance with OCS Lease OCS-A 0483 condition 4.27.

If you have any questions or require additional information, let me know.

Thanks,

Scott Lawton
Environmental Technical Advisor
Dominion Energy Environmental Services
5000 Dominion Blvd
Glen Allen, VA 23060
Scott.lawton@dominionenergy.com
T - (804) 273-2600
M - (804) 205-6077

WTG	WTG

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From:	Hoffman, William T
To:	scott.lawton@dominionenergy.com; Byrum, Algene D; Reeves, Casey L; "al.christopher@dmme.virginia.gov"; Browning, Jeffrey A
Cc:	grant.t.hollett@dominionenergy.com; Lloyd.J.Eley@dominionenergy.com; DARRELL SHIER; Lavallee, Janelle; Alexandra R Gibson (Services - 6); Scott Hiller; Scott Croft
Subject:	RE: [EXTERNAL] CVOW Commercial Lease OCS-A 0483 - Condition 4.27 Review Discovery Clauses Notification
Date:	Tuesday, August 18, 2020 2:32:14 PM
Attachments:	image001.gif

CAUTION: This email originated from an external sender. Verify the source before opening links or attachments.

Hello Scott,

Thank you for notifying BOEM of the August 11, 2020, discovery of a potential shipwreck, pursuant to the post-review discoveries stipulation of your lease. At this time, BOEM has placed a temporary avoidance buffer around the location of the potential site to a distance of 50 meters (164 feet) from the centroid of the position, [redacted]

[redacted]
Geodesy: NAD83(2011) UTM 18N

Please refrain from conducting any seafloor disturbing activities within the boundaries of this buffer, to include anchoring of vessels. In accordance with Lease Stipulation 4.2.6, in no case may the Lessee knowingly impact a potential archaeological resource without the Lessor's prior approval. Should it be necessary for you to work within this boundary, please notify BOEM so that BOEM can advise you on how to protect the site. If BOEM decides to amend a temporary buffer, BOEM will notify you immediately.

Moreover, if the site is located within the Area of Potential Effects for your future activities, it must be reported in the marine archaeological resource assessment and included in accompanying data submissions required in support of the COP, in accordance with 585.626(a)(5), stipulations of your lease, and the *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*.

Please be aware, the bureau's decision regarding final avoidance buffers, and any other measures to minimize or mitigate adverse effects to this or other potential historic properties will be determined during our review of the COP under Section 106 of the National Historic Preservation Act.

Should you have any questions or concerns with this matter, please do not hesitate to contact me.

Best,
Willie

William Hoffman, RPA
Archaeologist
Bureau of Ocean Energy Management

Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, Virginia 20166

(703) 787-1549
William.Hoffman@boem.gov

From: scott.lawton@dominionenergy.com <scott.lawton@dominionenergy.com>
Sent: Friday, August 14, 2020 9:21 AM
To: Bennett, James F <James.Bennett@boem.gov>; Byrum, Algene D <Algene.Byrum@boem.gov>; Reeves, Casey L <Casey.Reeves@boem.gov>; Fish, David S <David.Fish@bsee.gov>; Hoffman, William T <William.Hoffman@boem.gov>; 'al.christopher@dmme.virginia.gov' <al.christopher@dmme.virginia.gov>
Cc: grant.t.hollett@dominionenergy.com; Lloyd.J.Eley@dominionenergy.com; DARRELL SHIER <darrell.shier@dominionenergy.com>; 'Lavallee, Janelle' <Janelle.Lavallee@tetratech.com>; Alexandra.R.Gibson@dominionenergy.com; Scott Hiller <scott.hiller@terrasond.com>; Scott Croft <scott.croft@terrasond.com>
Subject: [EXTERNAL] CVOW Commercial Lease OCS-A 0483 - Condition 4.27 Review Discovery Clauses Notification

This email has been received from outside of DOI – Use caution before clicking on links, opening attachments, or responding.

Mr. Bennett,

Dominion Energy is reporting a potential ship wreck that was discovered on May 11, 2020 during the Geophysical and Geotechnical Surveys for the CVOW Commercial project. Attached is the report from Terrasond.

This submittal is being made in accordance with OCS Lease OCS-A 0483 condition 4.27.

If you have any questions or require additional information, let me know.

Thanks,
Scott Lawton
Environmental Technical Advisor
Dominion Energy Environmental Services
5000 Dominion Blvd
Glen Allen, VA 23060

Scott.lawton@dominionenergy.com

T - (804) 273-2600
M - (804) 205-6077

WTG	WTG

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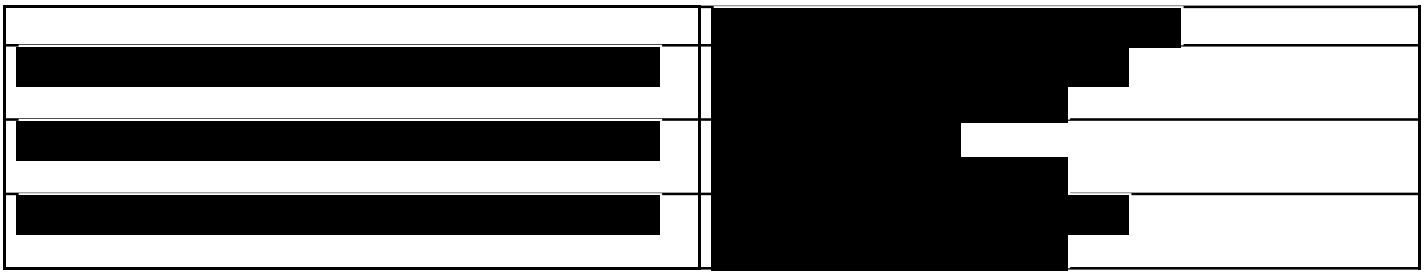
From: Reeves, Casey L <Casey.Reeves@boem.gov>
Sent: Friday, March 26, 2021 1:26 PM
To: Mitchell M Jabs (Services - 6) <Mitchell.M.Jabs@dominionenergy.com>
Cc: Byrum, Algene D <Algene.Byrum@boem.gov>; Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>; William J Kinnan (Services - 6) <William.J.Kinnan@dominionenergy.com>; Edward E Buchanan (Services - 6) <Edward.E.Buchanan@dominionenergy.com>; Carrier, Brandi M <Brandi.Carrier@boem.gov>
Subject: [EXTERNAL] RE: [EXTERNAL] CVOW Commercial Shipwrecks

This is an EXTERNAL email that was NOT sent from Dominion Energy. Are you expecting this message? Are you expecting a link or attachment? DO NOT click links or open attachments until you verify them

Good Day Mitchell,

Thank you for notifying BOEM on March 24, 2021 of the October 2020 discovery of three potential shipwrecks, pursuant to the post-review discoveries stipulation of your lease.

At this time, BOEM has placed a temporary avoidance buffer around the location of each potential site, to a distance of 50 meters (164 feet) from the discernable extent of each site, [redacted]



Please refrain from conducting any seafloor disturbing activities within the boundaries of the buffer, to include anchoring of vessels. In accordance with Lease Stipulation 4.2.6, in no case may the Lessee knowingly impact a potential archaeological resource without the Lessor's prior approval. Should it be necessary for you to work within these boundaries, please notify BOEM so that BOEM can advise you on how to protect the site. Additionally, BOEM may alter or amend this temporary buffer if additional information warrants doing so. If BOEM decides to amend this temporary buffer, BOEM will notify you.

Moreover, if the site is located within the APE for your future activities, it must be reported in the marine archaeological resource assessment and included in accompanying data submissions required in support of the SAP or COP, in accordance with 585.626(a)(5), stipulations of your lease, and the Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585. Please be aware, the bureau's decision regarding final avoidance buffers, and any other measures to minimize or mitigate adverse effects to this or other potential historic properties will be determined during our review of the SAP or COP under Section 106 of the National Historic Preservation Act.

Should you have any questions or concerns with this matter, please do not hesitate to contact me.

Casey Reeves, Project Coordinator
U.S. Department of the Interior
Bureau of Ocean Energy Management
Office Of Renewable Energy Programs
Mobile: 571.393.4369

From: Mitchell.M.Jabs@dominionenergy.com <Mitchell.M.Jabs@dominionenergy.com>
Sent: Thursday, March 25, 2021 5:11 PM
To: Reeves, Casey L <Casey.Reeves@boem.gov>
Cc: Byrum, Algene D <Algene.Byrum@boem.gov>; scott.lawton@dominionenergy.com; William.J.Kinnan@dominionenergy.com; Edward.E.Buchanan@dominionenergy.com
Subject: [EXTERNAL] CVOW Commercial Shipwrecks

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Good afternoon Casey,

In reviewing our shipwreck identifications throughout survey activities, we have identified three additional shipwrecks [redacted]. Please see the attached reports for BOEM's records, and don't hesitate to let us know if you have any questions or require additional information.

Best,

Mitchell M. Jabs
Contractor
Dominion Energy Environmental Services
M: 757-746-6276
Mitchell.M.Jabs@dominionenergy.com



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From:	scott.lawton@dominionenergy.com
To:	"Bennett, James F"
Cc:	Casey.Reeves@boem.gov; Algene Byrum; joshua.j.bennett@dominionenergy.com; grant.t.hollett@dominionenergy.com; William.J.Kinnan@dominionenergy.com; Edward.E.Buchanan@dominionenergy.com; jason.p.ericson@dominionenergy.com; DARRELL SHIER; scott.lawton@dominionenergy.com; Mitchell.M.Jabs@dominionenergy.com; robert.m.bisha@dominionenergy.com; Lavallee, Janelle; Cross, Alexandra; "renewable_reporting@boem.gov"
Subject:	Dominion Energy CVOW Commercial Project - Shipwreck Notification
Date:	Monday, April 5, 2021 1:51:54 PM
Attachments:	image001.gif 20210405_Shipwreck_Notification_OCS-A 0483 Submittal.pdf

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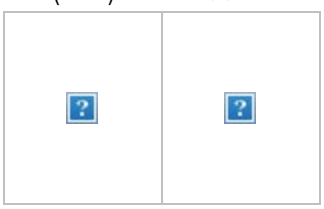
Mr Bennett:

Virginia Electric and Power Company, d/b/a Dominion Energy Virginia (Dominion Energy) submits the enclosed reports in accordance with Condition 4.2.7 of its Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483; the Lease). Through recent record review, Dominion Energy has identified six additional potential shipwrecks that were recorded by Terrasond through geophysical survey activities within the Lease area. Of these, three shipwrecks have been previously charted in the National Oceanic and Atmospheric Administration (NOAA) Automated Wreck and Obstruction Information System (AWOIS) database. All potential shipwreck locations have been avoided and have been communicated to other survey vessels for avoidance during future work.

If you have any questions or require additional information, let me know.

Thanks,
Scott Lawton
Environmental Technical Advisor
Dominion Energy Environmental Services
5000 Dominion Blvd
Glen Allen, VA 23060

Scott.lawton@dominionenergy.com
T - (804) 273-2600
M - (804) 205-6077



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Cross, Alexandra

To: scott.lawton@dominionenergy.com
Subject: RE: RE: Dominion Energy CVOW Lease OCS-A-0483 Initial Incident Report

---

From: Horrell, Christopher E <Christopher.Horrell@bsee.gov>
Sent: Wednesday, April 7, 2021 2:58 PM
To: Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>
Cc: Hunter, Cheri <Cheri.Hunter@bsee.gov>; Idziorek, Michael T <Michael.Idziorek@bsee.gov>; Broussard, T.J. <T.J.Broussard@bsee.gov>; Leedy, Daniel <Daniel.Leedy@bsee.gov>; Giordano, Juliette C <juliette.giordano@bsee.gov>; Fish, David S <David.Fish@bsee.gov>; Kulaga, Kathryn A <Kathryn.Kulaga@bsee.gov>; Sorset, Irina T <Irina.Sorset@bsee.gov>; Reeves, Casey L <Casey.Reeves@boem.gov>; DARRELL SHIER (Services - 6) <darrell.shier@dominionenergy.com>; Mitchell M Jabs (Services - 6) <Mitchell.M.Jabs@dominionenergy.com>; Grant T Hollett (Services - 6) <grant.t.hollett@dominionenergy.com>; Jason Meidinger (Services - 6) <jason.meidinger@dominionenergy.com>; William J Kinnan (Services - 6) <William.J.Kinnan@dominionenergy.com>; Edward E Buchanan (Services - 6) <Edward.E.Buchanan@dominionenergy.com>; tom@mcneilan.com; Kozak, Mark S <Mark.Kozak@bsee.gov>; Lan, Christy M <Christy.Lan@bsee.gov>
Subject: [EXTERNAL] Re: [EXTERNAL] RE: Dominion Energy CVOW Lease OCS-A-0483 Initial Incident Report

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Mr. Lawton,

BSEE continues to review the March 16, 2021 incident you reported to BOEM. At this time, Dominion may resume with the recovery of the lost equipment.

As part of the planning and recovery work, Dominion should contact the Virginia Marine Resources Commission to provide notification that remote sensing gear was lost on one of the reefed vessels located in the Triangle Reef offshore of Virgina. Dominion should also notify the Commission of the upcoming recovery work and provide the Commission an opportunity to participate in both the planning as well as recovery efforts at the reef site. During recovery operations, a damage assessment to the reef should be completed and provided to the Commission detailing any impacts to the reef structure caused from the loss and/or recovery of the remote sensing gear.

Additional information related to this incident will follow.

Should you have any questions, please do not hesitate to contact me.

Thank you,

Chris

--

Christopher Horrell Ph.D., RPA 15990

Federal Preservation Officer/Senior Marine Archaeologist

Bureau of Safety and Environmental Enforcement
Office of Environmental Compliance
1201 Elmwood Park Blvd.
New Orleans, LA
70123

Office (504) 736-2796

"Whenever you find yourself on the side of the majority, it is time to pause and reflect." --Mark Twain

---

From: scott.lawton@dominionenergy.com <scott.lawton@dominionenergy.com>
Sent: Monday, March 22, 2021 10:20
To: Horrell, Christopher E <Christopher.Horrell@bsee.gov>
Cc: Hunter, Cheri <Cheri.Hunter@bsee.gov>; Idziorek, Michael T <Michael.Idziorek@bsee.gov>; Broussard, T.J. <T.J.Broussard@bsee.gov>; Leedy, Daniel <Daniel.Leedy@bsee.gov>; Giordano, Juliette C <juliette.giordano@bsee.gov>; Idziorek, Michael T <Michael.Idziorek@bsee.gov>; Fish, David S <David.Fish@bsee.gov>; Kulaga, Kathryn A <Kathryn.Kulaga@bsee.gov>; Sorset, Irina T <Irina.Sorset@bsee.gov>; Reeves, Casey L <Casey.Reeves@boem.gov>; DARRELL SHIER <darrell.shier@dominionenergy.com>; Mitchell.M.Jabs@dominionenergy.com <Mitchell.M.Jabs@dominionenergy.com>; grant.t.hollett@dominionenergy.com <grant.t.hollett@dominionenergy.com>; jason.meidinger@dominionenergy.com <jason.meidinger@dominionenergy.com>; William.J.Kinnan@dominionenergy.com <William.J.Kinnan@dominionenergy.com>; Edward.E.Buchanan@dominionenergy.com <Edward.E.Buchanan@dominionenergy.com>; tom@mcneilan.com <tom@mcneilan.com>
Subject: [EXTERNAL] RE: Dominion Energy CVOW Lease OCS-A-0483 Initial Incident Report

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Thanks Chris we will await further instruction.

If you have any questions or require additional information, let me know.

Thanks,
Scott Lawton
Environmental Technical Advisor
Dominion Energy Environmental Services
5000 Dominion Blvd
Glen Allen, VA 23060

Scott.lawton@dominionenergy.com
T - (804) 273-2600
M - (804) 205-6077



From: Horrell, Christopher E <Christopher.Horrell@bsee.gov>
Sent: Friday, March 19, 2021 12:37 PM
To: Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>
Cc: Hunter, Cheri <Cheri.Hunter@bsee.gov>; Idziorek, Michael T <Michael.Idziorek@bsee.gov>; Broussard, T.J. <T.J.Broussard@bsee.gov>; Leedy, Daniel <Daniel.Leedy@bsee.gov>; Giordano, Juliette C <juliette.giordano@bsee.gov>; Idziorek, Michael T <Michael.Idziorek@bsee.gov>; Fish, David S <David.Fish@bsee.gov>; Kulaga, Kathryn A <Kathryn.Kulaga@bsee.gov>; Sorset, Irina T <Irina.Sorset@bsee.gov>; Reeves, Casey L <Casey.Reeves@boem.gov>
Subject: [EXTERNAL] Dominion Energy CVOW Lease OCS-A-0483 Initial Incident Report

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Hello Mr. Lawton,

My name is Chris Horrell, and I am the Federal Preservation Officer for the Bureau of Safety and Environmental Enforcement (BSEE). I want to begin by first thanking you for the report you submitted on March 17th 2021 regarding the incident that occurred on March 16, 2021 on your lease [redacted]

I will serve as the point of contact as we move forward with the assessment of this incident and potential impacts to any submerged archaeological resources in the area. At this time, BSEE requests that you pause any efforts to mobilize to conduct recovery operations for the lost remote sensing array described in the report. I will send a follow-up email shortly with a request for information to help with our assessment of the subject incident.

Should you have any questions, please do not hesitate to reach out to me. I look forward to working with you and Dominion.

Thank you,

Chris

--

Christopher Horrell Ph.D., RPA 15990

Federal Preservation Officer/Senior Marine Archaeologist

Bureau of Safety and Environmental Enforcement
Office of Environmental Compliance
1201 Elmwood Park Blvd.
New Orleans, LA
70123

Office (504) 736-2796

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Subject: RE: Re: RE: RE: Dominion CVOW Project and VMRC Artificial Reef Program

---

From: Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>
Sent: Monday, June 14, 2021 12:11 PM
To: Nelson, Alicia <alicia.nelson@mrc.virginia.gov>
Cc: Mitchell M Jabs (Services - 6) <Mitchell.M.Jabs@dominionenergy.com>
Subject: RE: [EXTERNAL] Re: RE: RE: Dominion CVOW Project and VMRC Artificial Reef Program

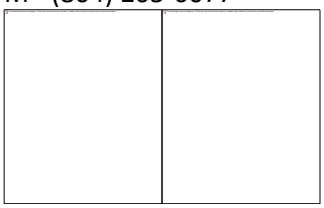
Alicia,

Here are some photos and the incident report for the TVG loss for your consideration.

If you have any questions or require additional information, let me know.

Thanks,
Scott Lawton
Environmental Technical Advisor
Dominion Energy Environmental Services
5000 Dominion Blvd
Glen Allen, VA 23060

Scott.lawton@dominionenergy.com
T - (804) 273-2600
M - (804) 205-6077



From: Nelson, Alicia <alicia.nelson@mrc.virginia.gov>
Sent: Tuesday, June 8, 2021 12:31 PM
To: Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>
Subject: [EXTERNAL] Re: RE: RE: Dominion CVOW Project and VMRC Artificial Reef Program

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830 is great

On Tue, Jun 8, 2021 at 11:19 AM scott.lawton@dominionenergy.com <scott.lawton@dominionenergy.com> wrote:

> Is 830 too early for you? I'll be on a trip to our Pilot turbines tomorrow morning and we leave the dock at 9:00. If not we can catch up Thursday.

Thanks,

Scott Lawton

Environmental Technical Advisor

Dominion Energy Environmental Services

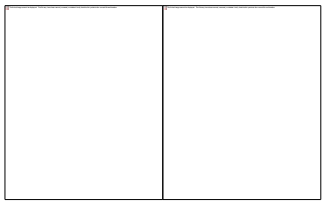
5000 Dominion Blvd

Glen Allen, VA 23060

Scott.lawton@dominionenergy.com

T - (804) 273-2600

M - (804) 205-6077



From: Alicia Nelson <alicia.nelson@mrc.virginia.gov>
Sent: Tuesday, June 8, 2021 11:13 AM
To: Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>
Subject: [EXTERNAL] RE: RE: Dominion CVOW Project and VMRC Artificial Reef Program

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I have a number of conference calls this afternoon- do you have any time tomorrow morning? I am free all morning until noon.

From: scott.lawton@dominionenergy.com <scott.lawton@dominionenergy.com>
Sent: Tuesday, June 8, 2021 11:06 AM

To: Alicia Nelson <alicia.nelson@mrc.virginia.gov>
Subject: RE: RE: Dominion CVOW Project and VMRC Artificial Reef Program

Alicia,

Do you have time today to discuss?

Thanks,

Scott Lawton

Environmental Technical Advisor

Dominion Energy Environmental Services

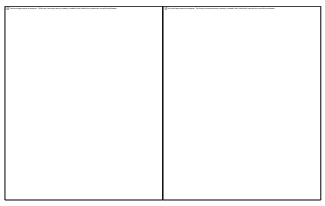
5000 Dominion Blvd

Glen Allen, VA 23060

Scott.lawton@dominionenergy.com

T - (804) 273-2600

M - (804) 205-6077



From: Alicia Nelson <alicia.nelson@mrc.virginia.gov>
Sent: Wednesday, June 2, 2021 8:03 AM
To: Scott Lawton (Services - 6) <scott.lawton@dominionenergy.com>
Subject: [EXTERNAL] RE: Dominion CVOW Project and VMRC Artificial Reef Program

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Good morning!

Yes, I am still the contact. Please feel free to either email or call and chat.

Have a great day!

Alicia

757.247.8155

From: scott.lawton@dominionenergy.com <scott.lawton@dominionenergy.com>
Sent: Tuesday, June 1, 2021 1:17 PM
To: Alicia.Nelson@mrc.virginia.gov
Cc: Mitchell.M.Jabs@dominionenergy.com
Subject: Dominion CVOW Project and VMRC Artificial Reef Program

Alicia,

I'm Scott Lawton and I am working on the Dominion Energy CVOW offshore wind projects and I had a few questions regarding the artificial reef program, specifically the Triangle Wrecks area. Are you still the contact for that program? If not do you know who is?

If you have any questions or require additional information, let me know.

Thanks,

Scott Lawton

Environmental Technical Advisor

Dominion Energy Environmental Services

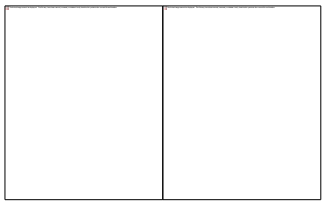
5000 Dominion Blvd

Glen Allen, VA 23060

Scott.lawton@dominionenergy.com

T - (804) 273-2600

M - (804) 205-6077



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--

Alicia Nelson

Virginia Marine Resources Commission
380 Fenwick Road, Bldg. 96,

Fort Monroe, VA
757-247-8155

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CONSTRUCTION AND OPERATIONS PLAN

Coastal Virginia Offshore Wind Commercial Project

Appendix L, Attachment B

Cultural Resources Clearance for Geotechnical Investigation Submittals

Prepared for:

Dominion Energy®

707 E. Main Street,
Richmond, VA 23219

Prepared by:

TETRA TECH

Tetra Tech, Inc.
4101 Cox Road, Suite 120
Glen Allen, VA 23060

www.tetratech.com

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

June 3, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 9, 11, 13 and 17

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridors 9, 11, 13 and 17 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

Cultural Resource Report - Corridor 9

May 28, 2020

Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project (Project). The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests (CPTs); this memorandum reviews 11 of these locations for gathering geologic information (Tables 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 328.1 ft (100 m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 11 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landscapes through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer (TVG) array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

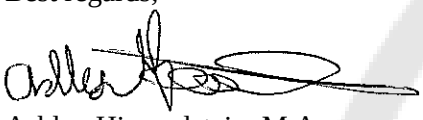
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



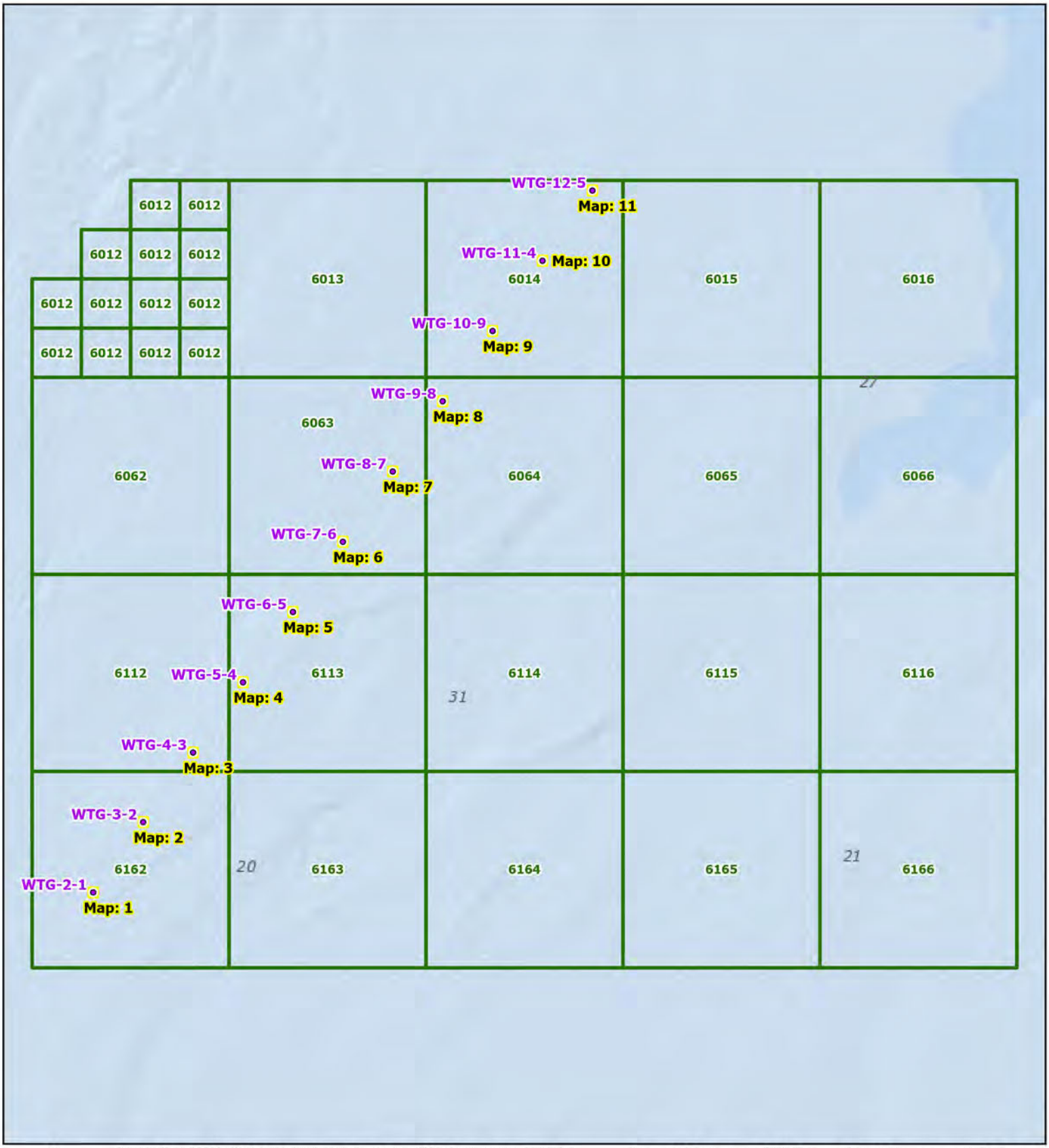
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 9

Core ID	Easting	Northing	Longitude	Latitude
WTG-2-1	458290.1442	4077036.172	-75.46778757	36.83830184
WTG-3-2	459507.144	4078748.172	-75.4542303	36.85378737
WTG-4-3	460723.1438	4080459.171	-75.44067875	36.86926231
WTG-5-4	461940.1435	4082171.171	-75.42711057	36.88474474
WTG-6-5	463156.1433	4083883.17	-75.41354815	36.90022558
WTG-7-6	464373.1431	4085595.17	-75.39996904	36.91570491
WTG-8-7	465589.1429	4087306.169	-75.38639564	36.93117362
WTG-9-8	466806.1427	4089018.169	-75.37280557	36.94664983
WTG-10-9	468022.1424	4090730.169	-75.35922126	36.96212443
WTG-11-4	469239.1422	4092442.168	-75.34562023	36.9775975
WTG-12-5	470455.142	4094153.168	-75.33202489	36.99305996

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 9



N
W E
S
Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

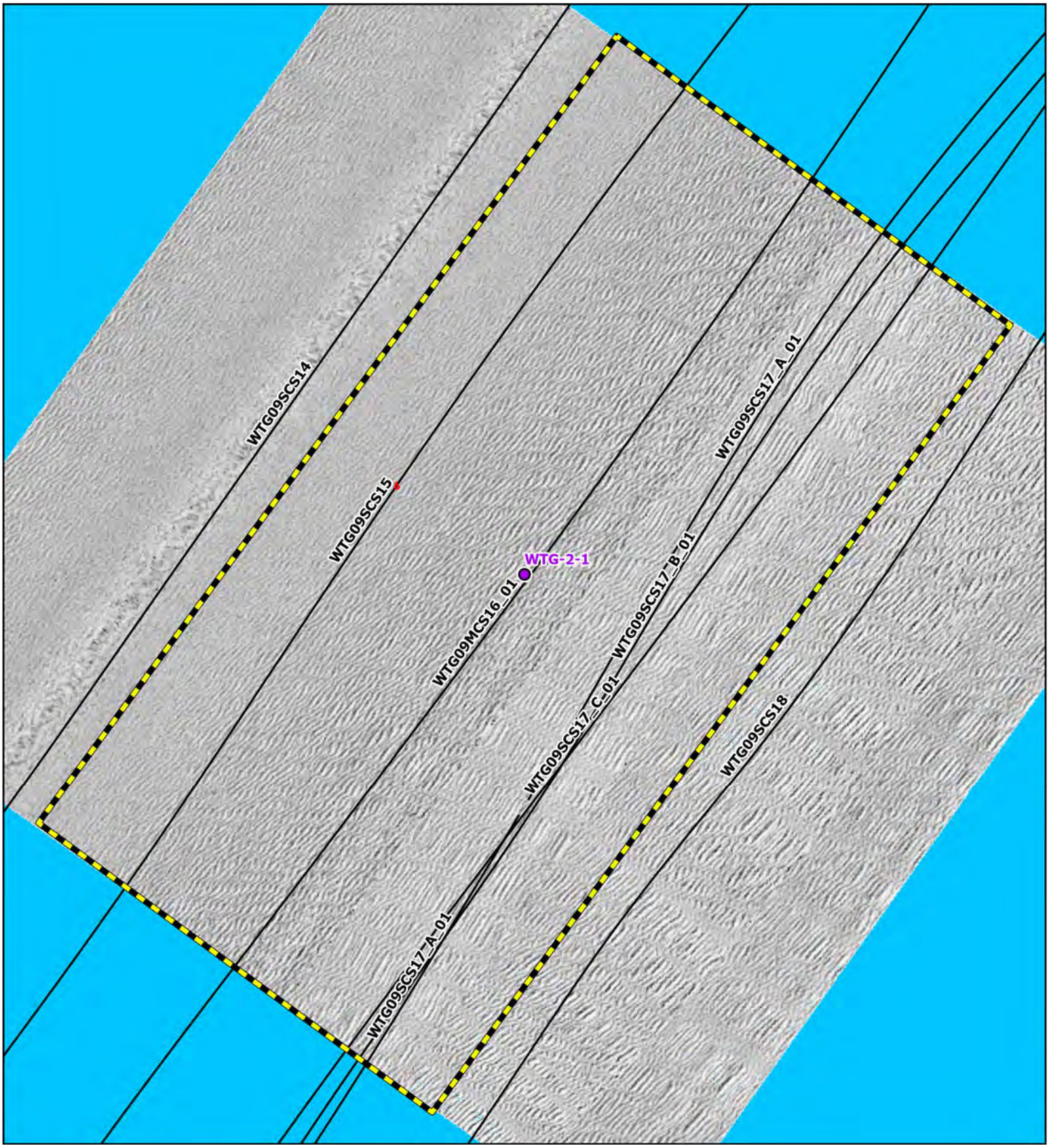
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 09

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

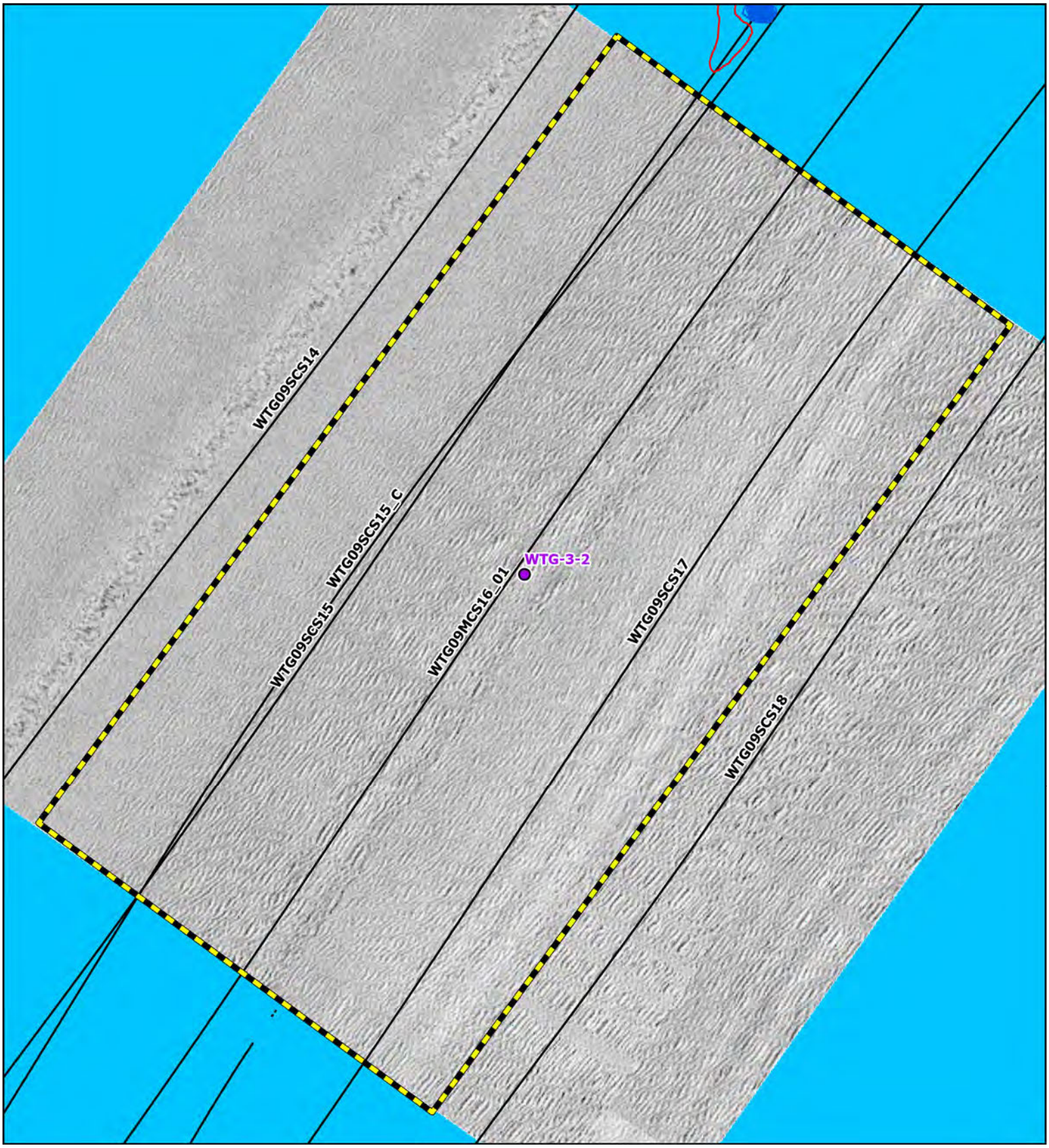
Geotechnical Clearance: Corridor 09

Map: 1

WTG-2-1

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

www.rcgoodwin.com | kmay, 5.26.2020



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

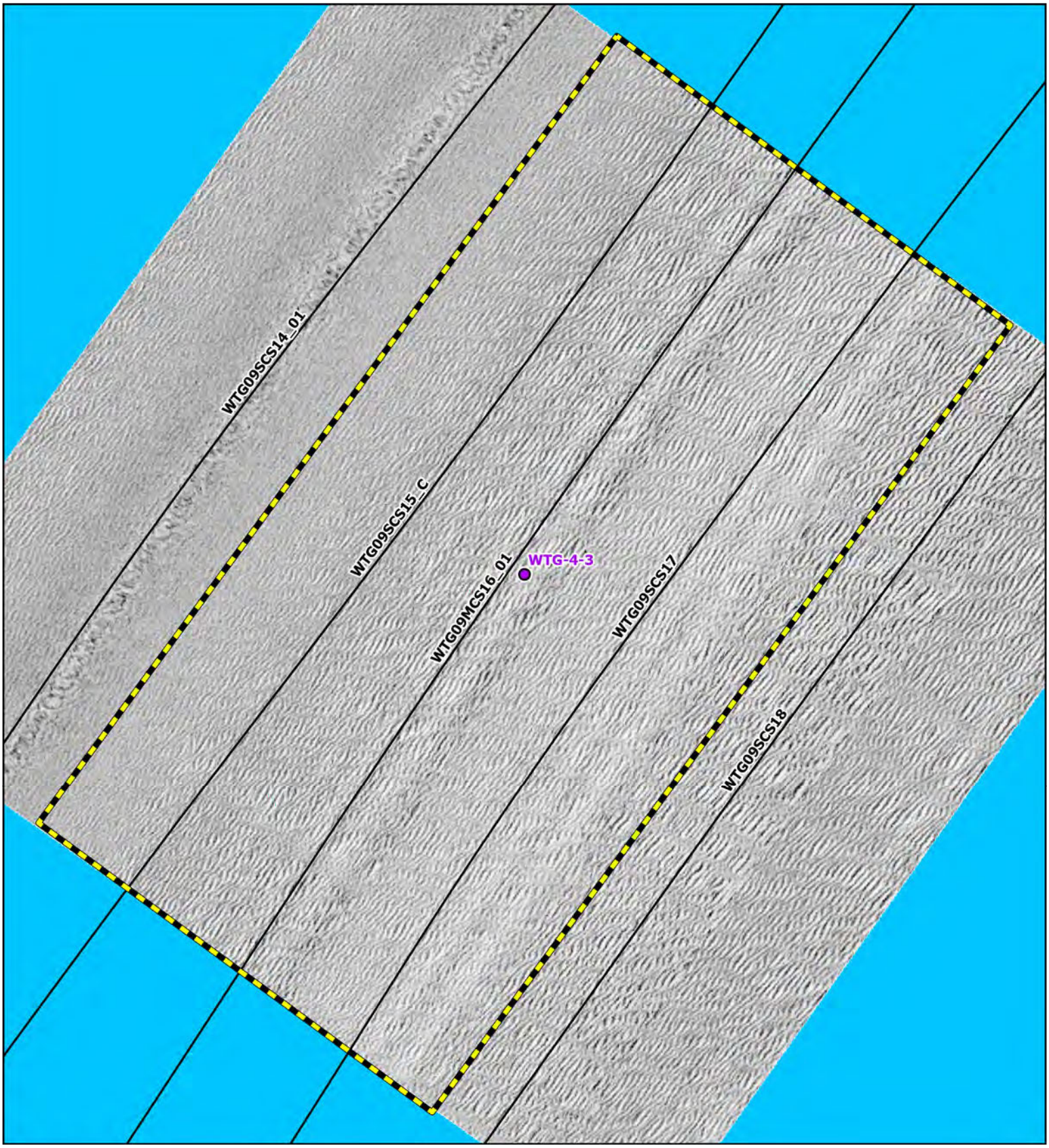
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 2

WTG-3-2

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

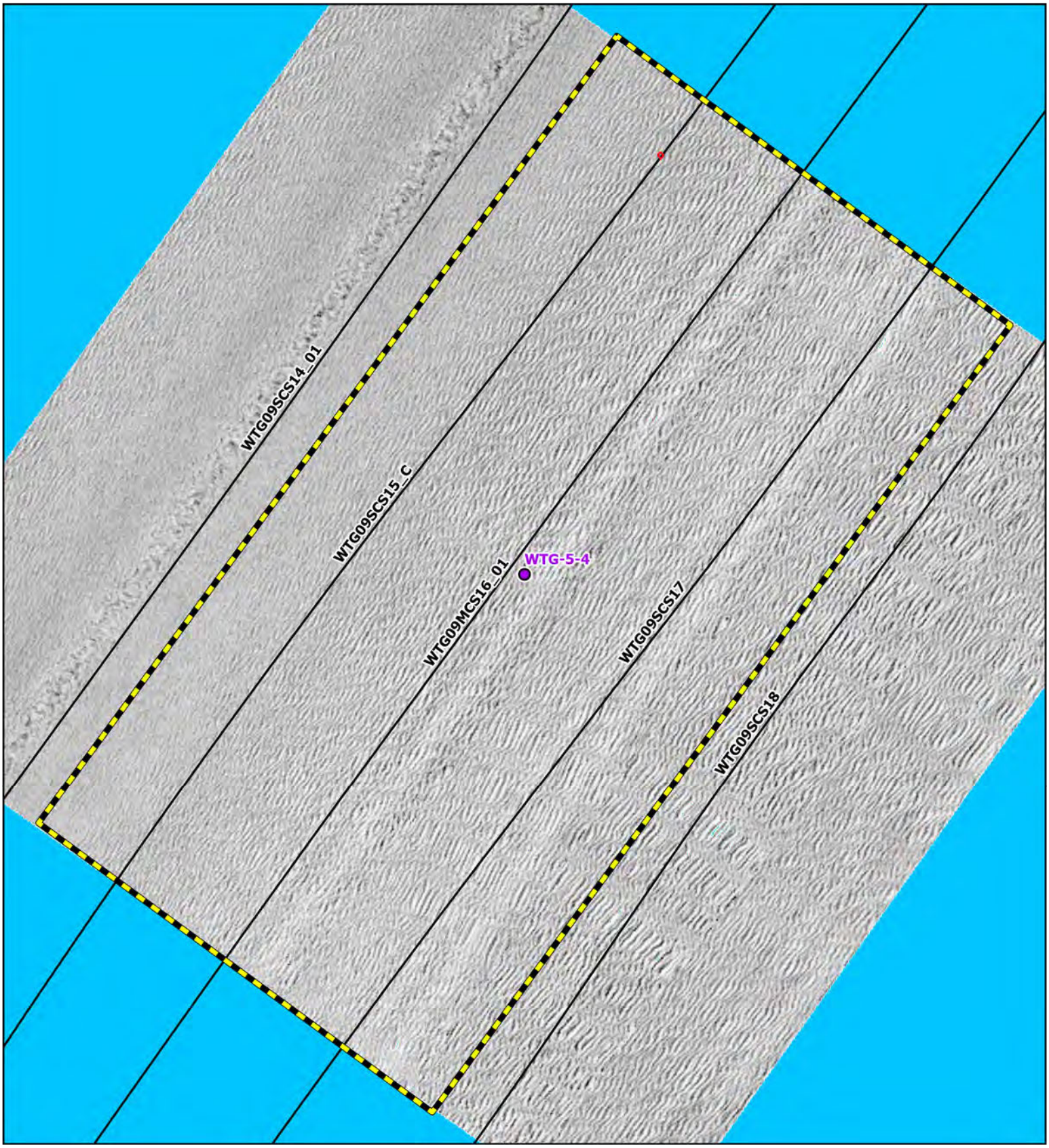
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 3

WTG-4-3

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

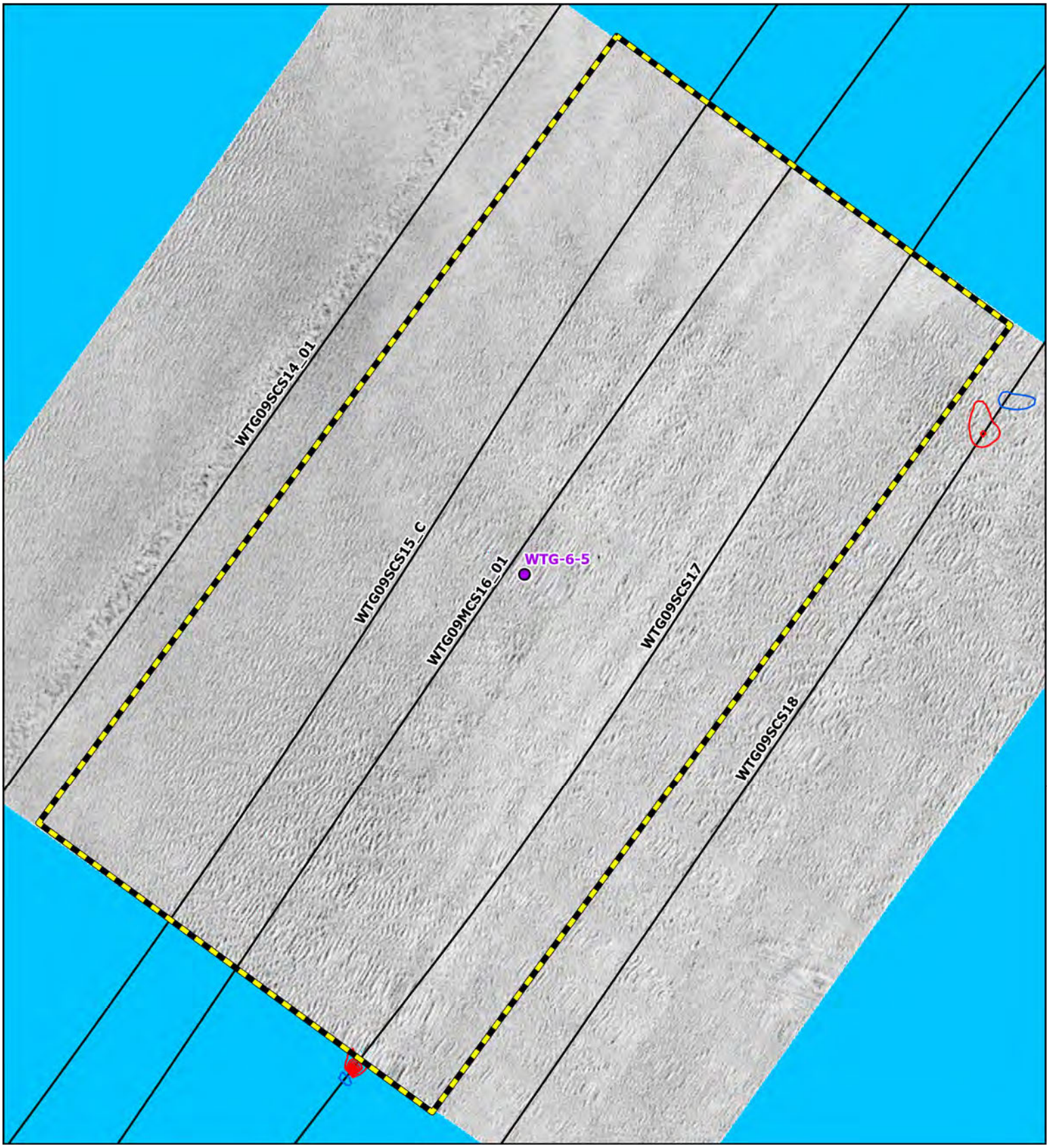
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 09

Map: 4

WTG-5-4

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

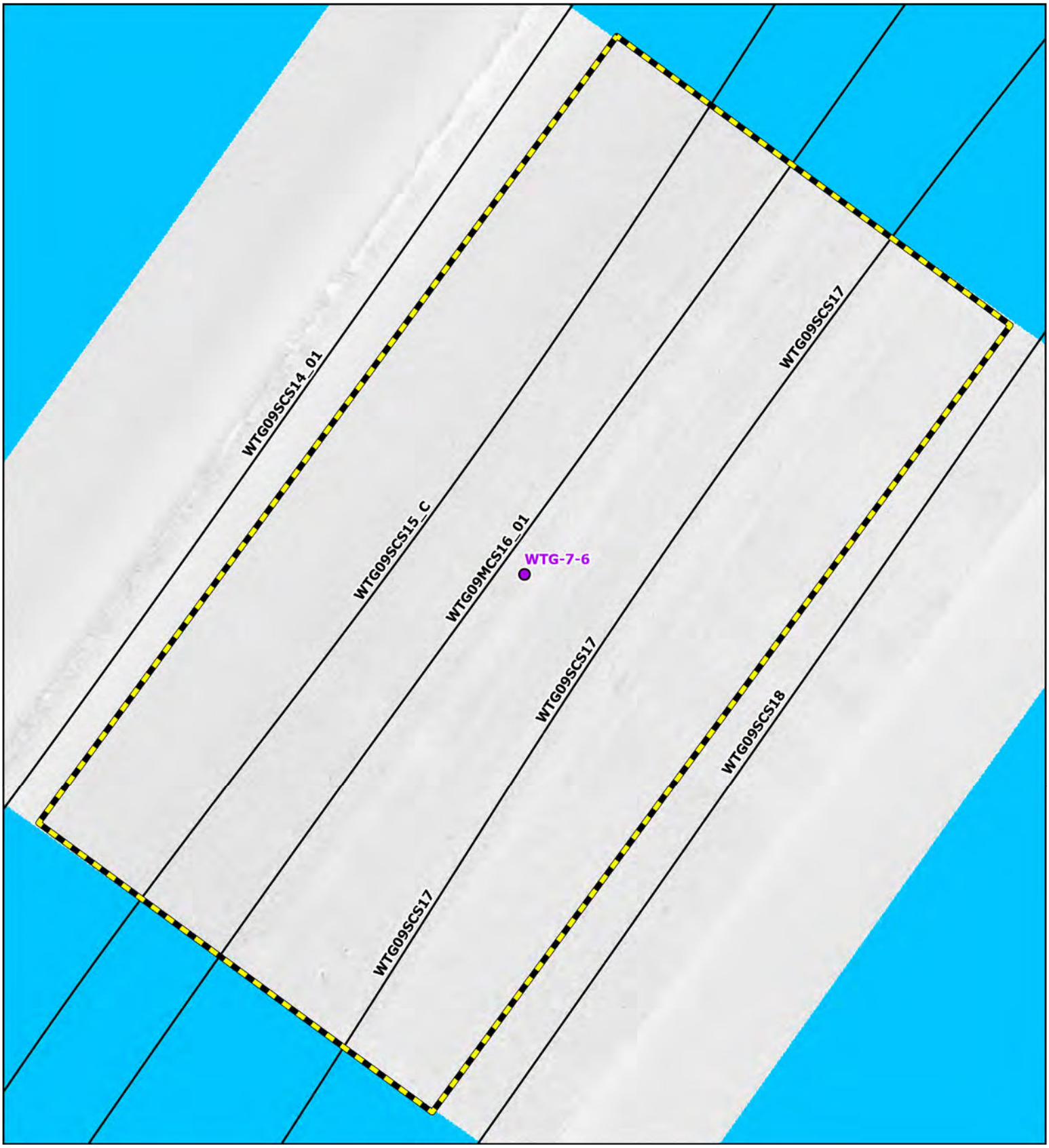
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 5

WTG-6-5

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

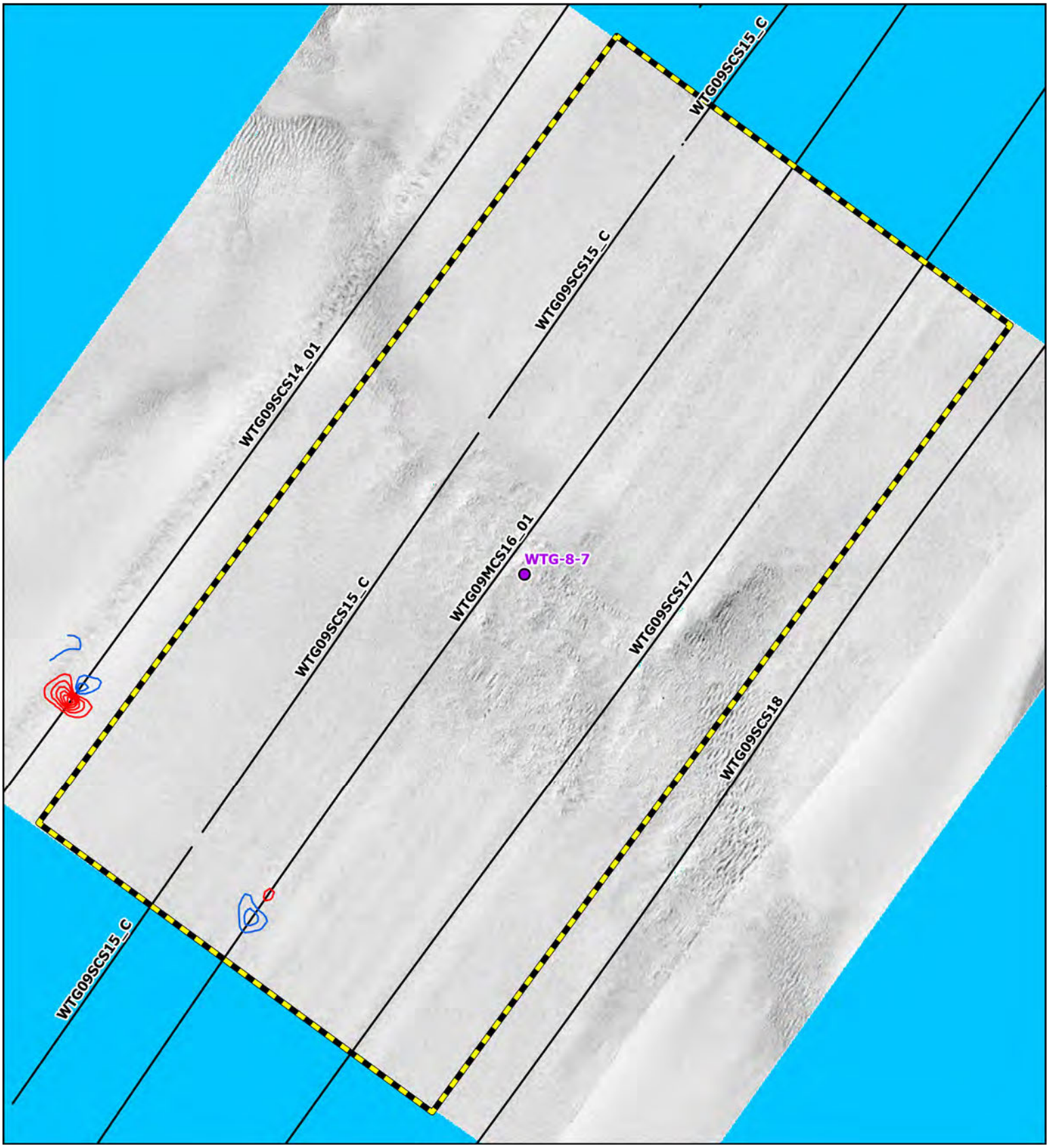
Map: 6

WTG-7-6

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

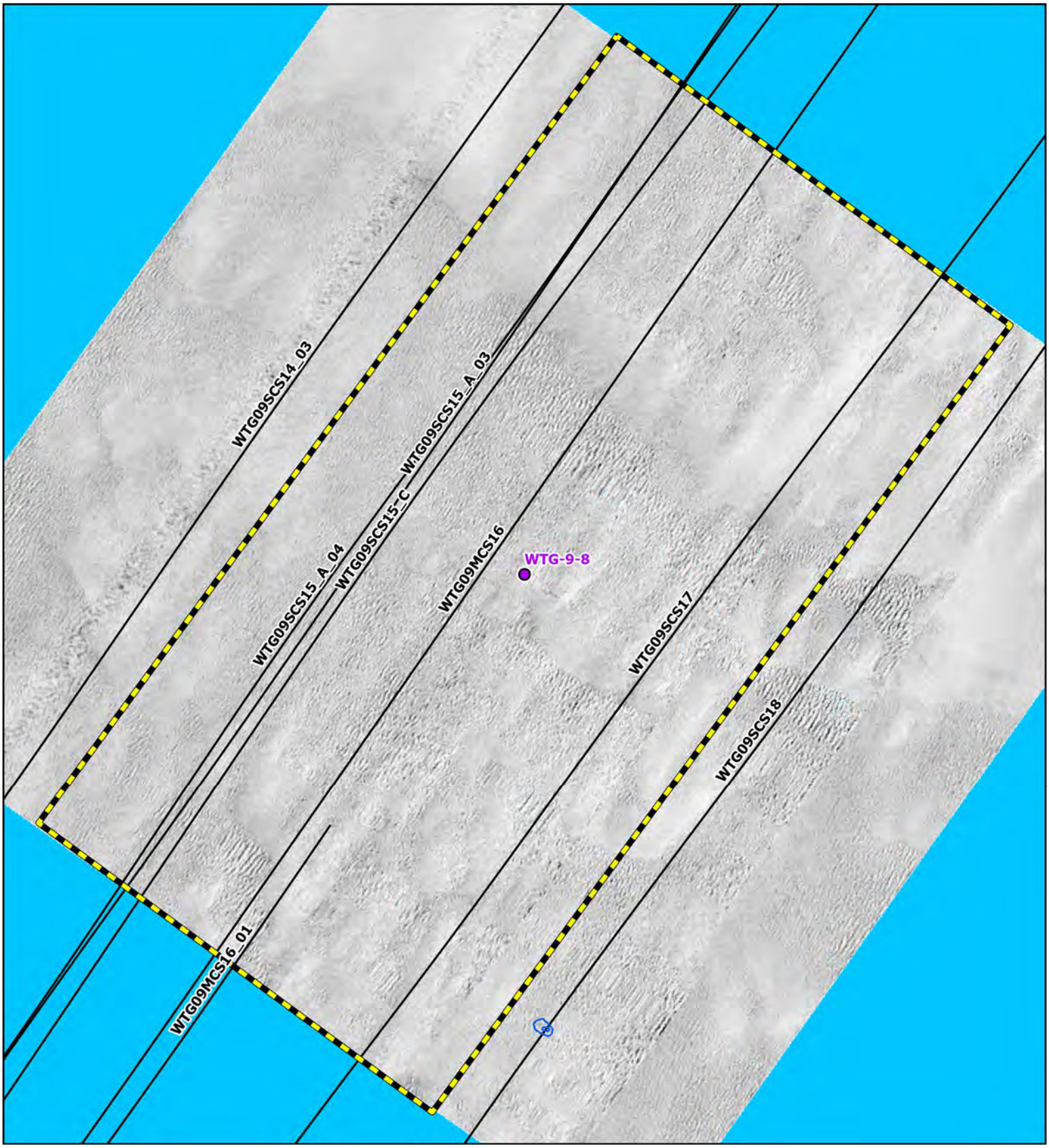
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 09

Map: 7

WTG-8-7

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

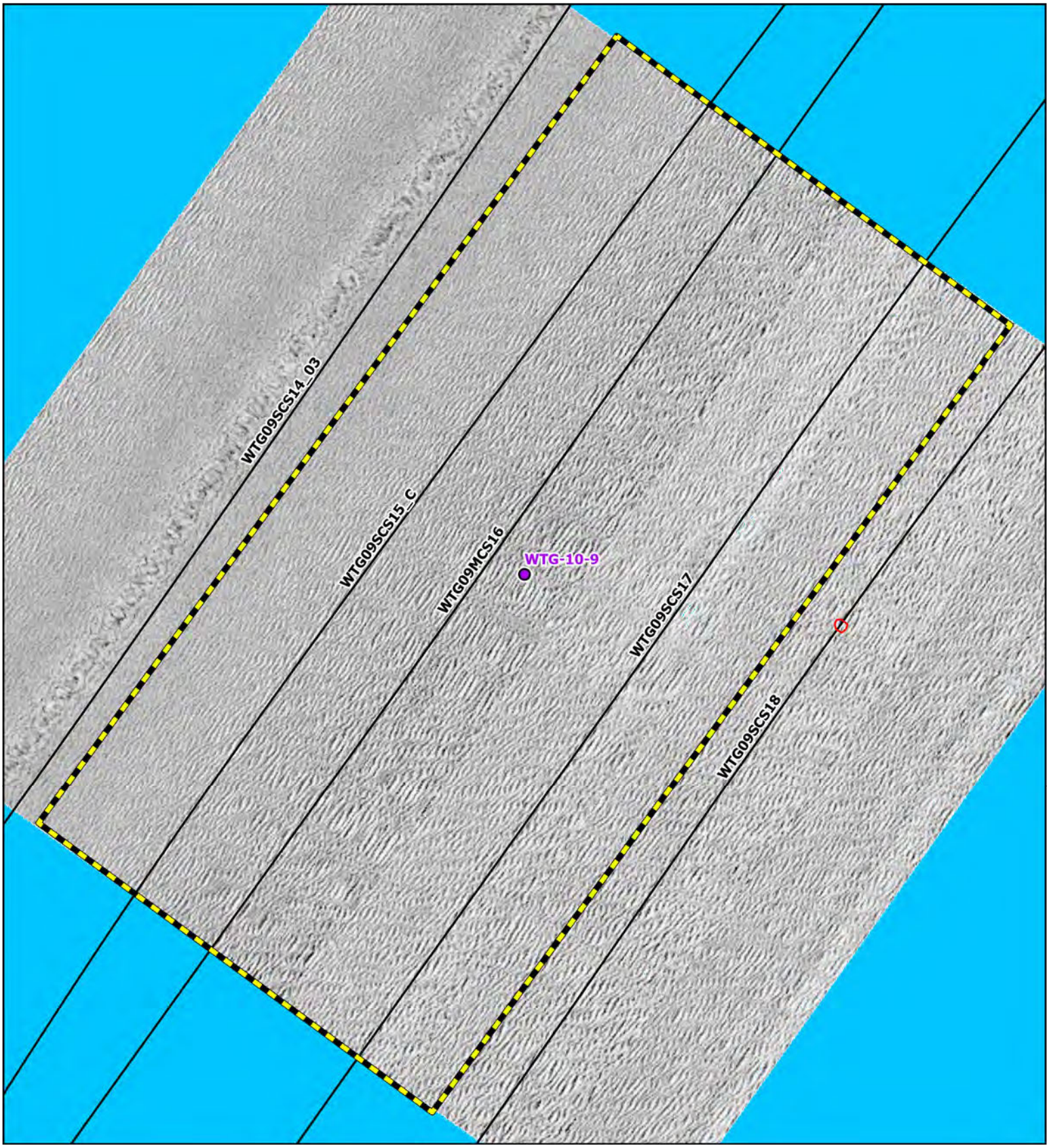
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 8

WTG-9-8

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

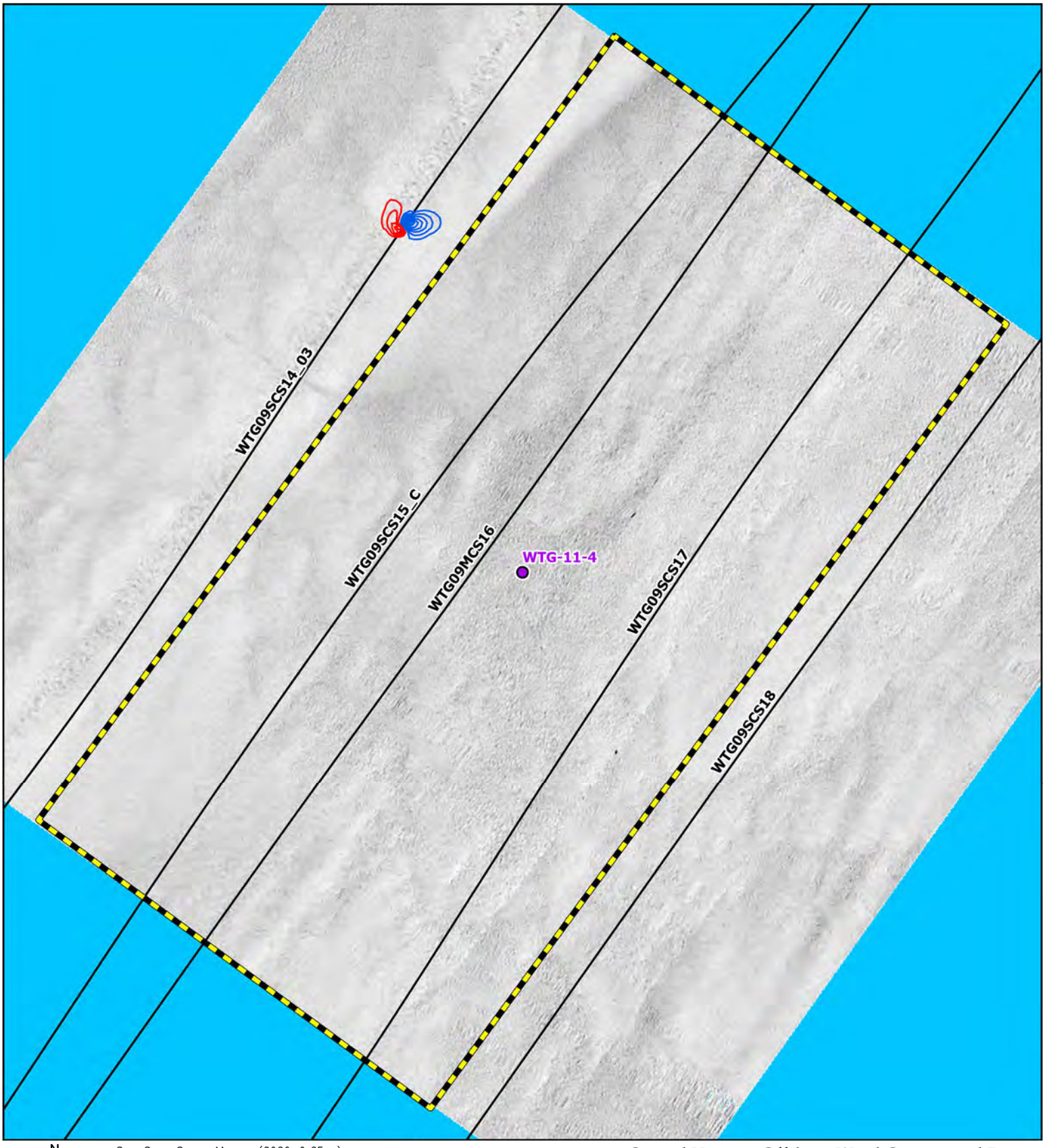
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 9

WTG-10-9

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

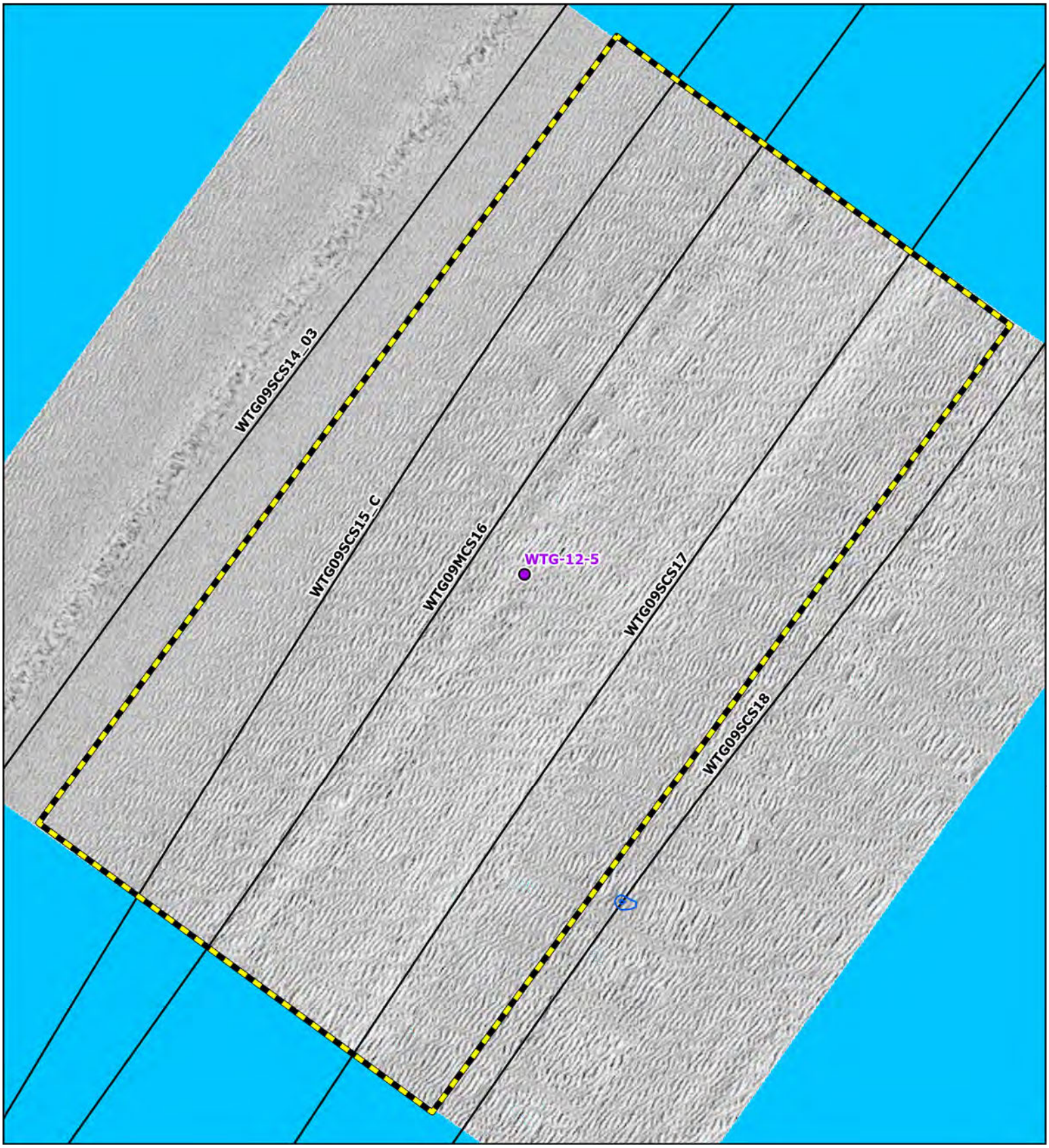
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 10

WTG-11-4

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Analytic Area

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 09

Map: 11

WTG-12-5

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MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

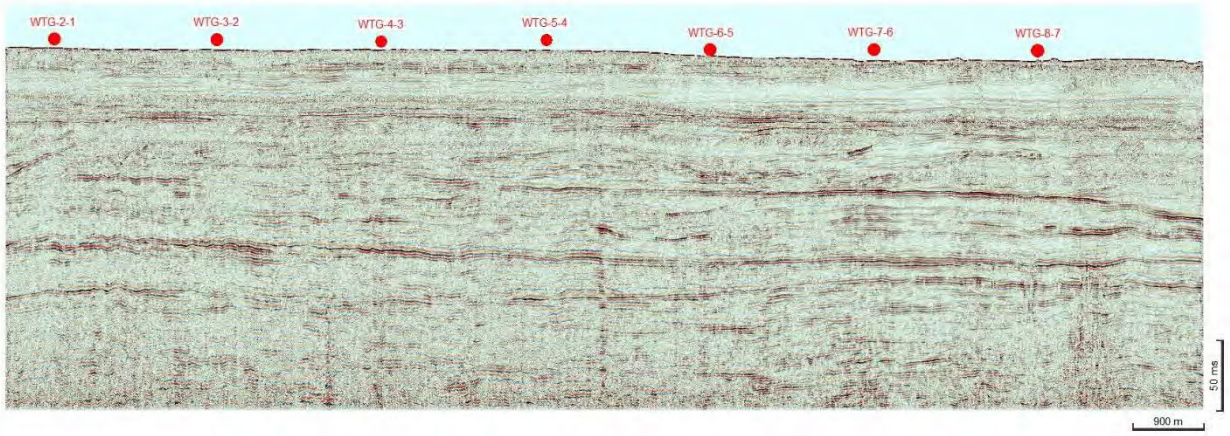


Figure 1: Geotechnical core WTG-2-1, WTG-3-2, WTG-4-3, WTG-5-4, WTG-6-5, WTG-7-6, WTG-8-7 along Corridor 9 on line WTG09MCS16_01_MIG

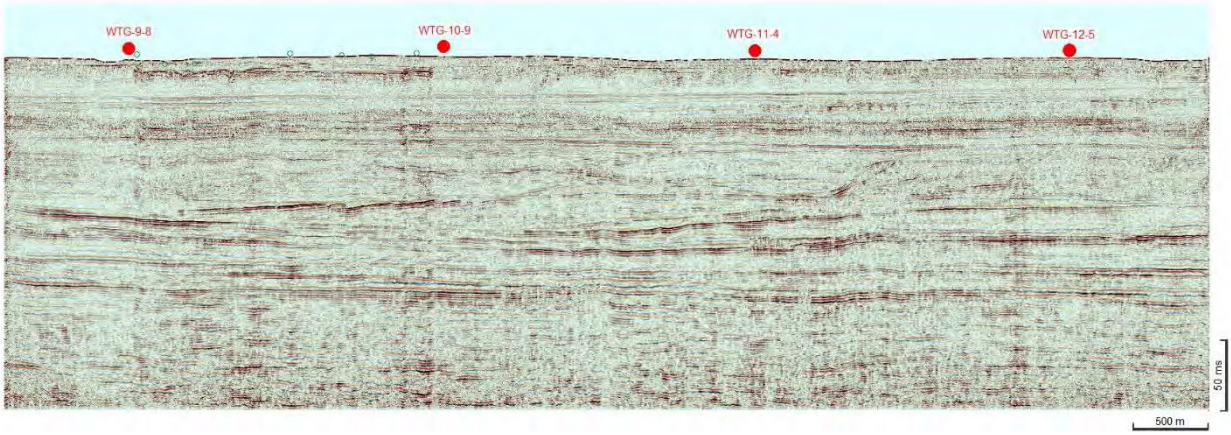


Figure 2: Geotechnical core locations WTG-9-8, WTG-10-9, WTG-11-4, WTG-12-5 along Corridor 9 on line WTG09MCS16_MIG

Cultural Resource Report - Corridor 11

June 2, 2020

Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project (Project). The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests (CPTs); this memorandum reviews 12 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 328.1 ft (100 m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 12 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landscapes through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer (TVG) array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

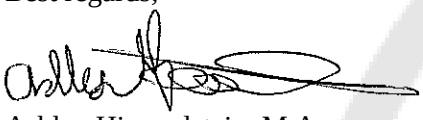
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



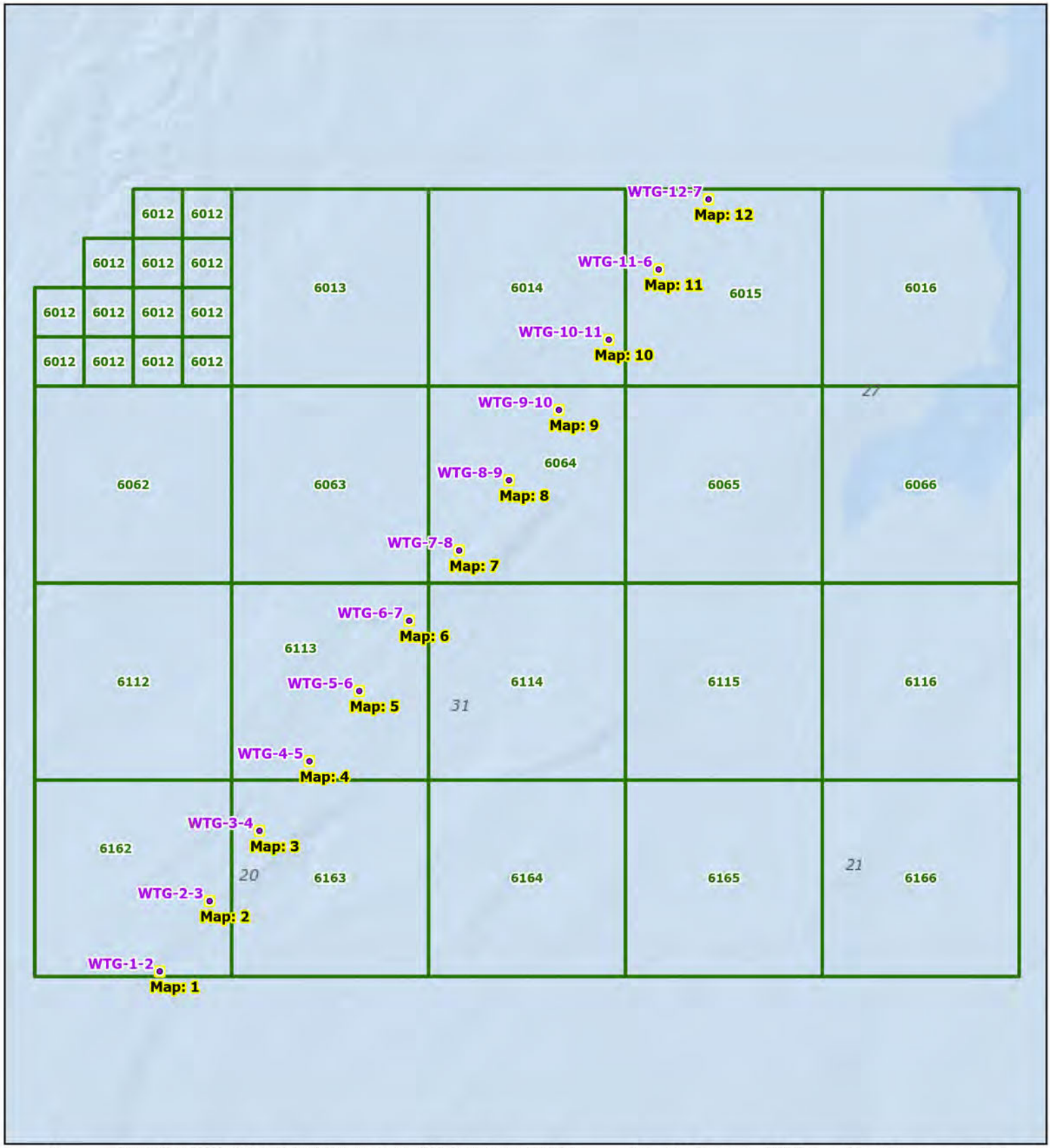
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 11

Core ID	Easting	Northing	Longitude	Latitude
WTG-1-2	459846.143	4075324.172	-75.450247	36.822937
WTG-2-3	461062.143	4077036.172	-75.4367	36.83842
WTG-3-4	462279.143	4078748.171	-75.423136	36.853902
WTG-4-5	463495.143	4080459.171	-75.409578	36.869374
WTG-5-6	464712.143	4082171.171	-75.396004	36.884852
WTG-6-7	465928.143	4083883.170	-75.382435	36.90033
WTG-7-8	467145.143	4085595.170	-75.36885	36.915806
WTG-8-9	468361.142	4087306.169	-75.35527	36.931271
WTG-9-10	469578.142	4089018.169	-75.341673	36.946743
WTG-10-11	470794.142	4090730.169	-75.328083	36.962215
WTG-11-6	472011.142	4092442.168	-75.314475	36.977684
WTG-12-7	473227.142	4094153.168	-75.300874	36.993143

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 11



N
W E
S
GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS
MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.5 1 1.5 2 MILES
0 1 2 3 4 KILOMETERS

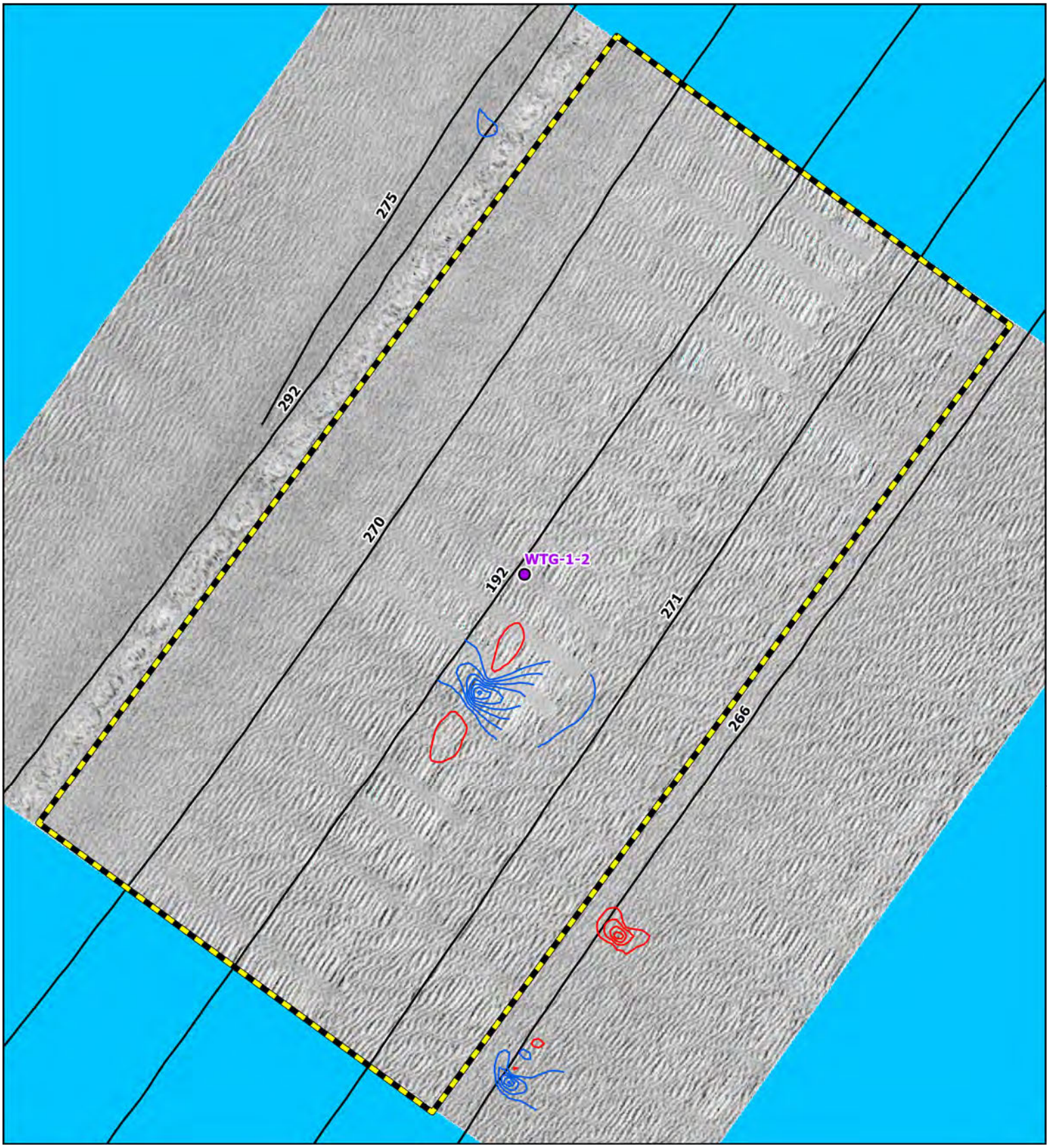
- GEOTECHNICAL LOCATION
- MAP SHEET EXTENT
- LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

WWW.RCGOODWIN.COM | KMAY, 6.2.2020



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

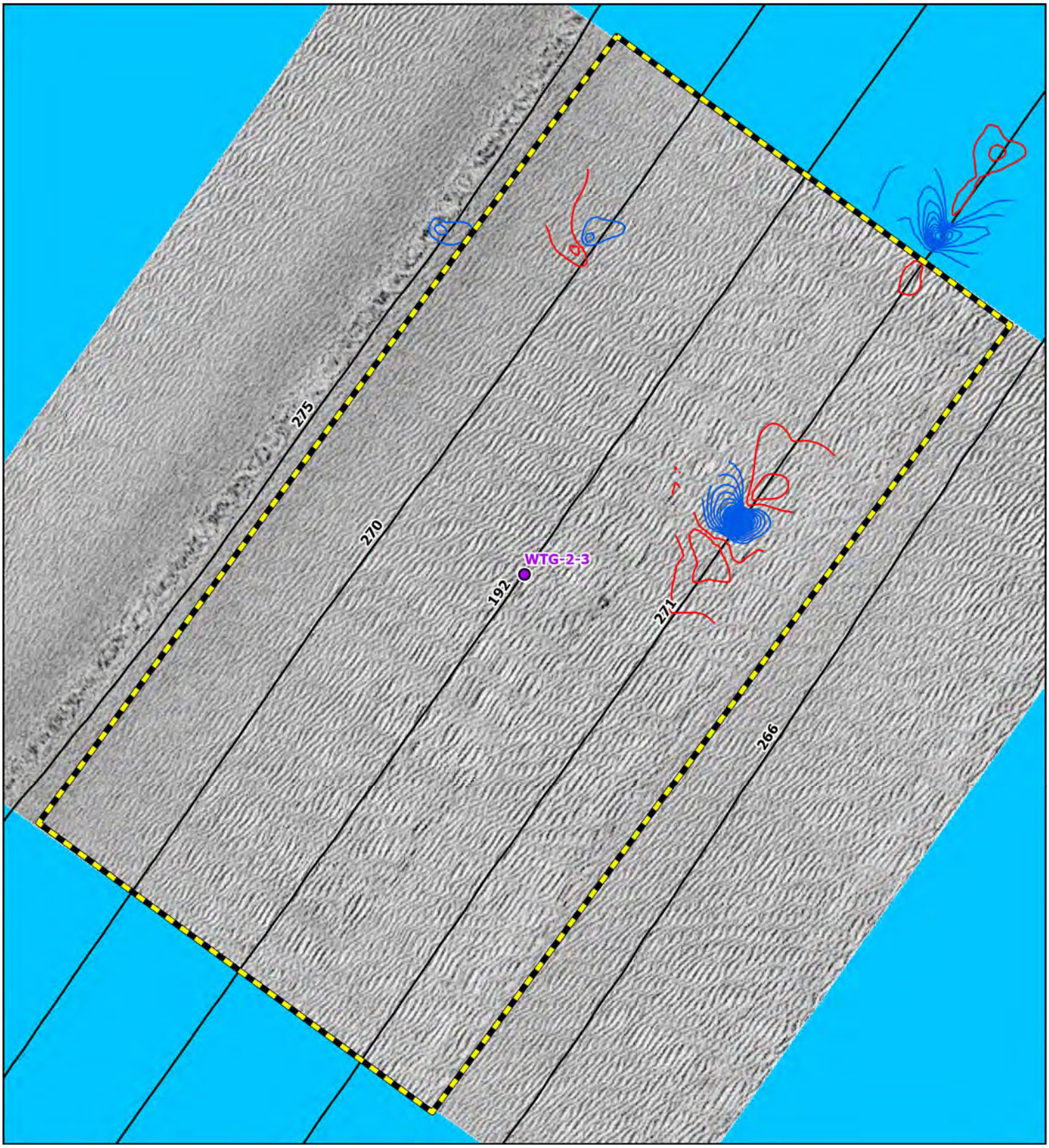
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 11

Map: 1

WTG-1-2

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

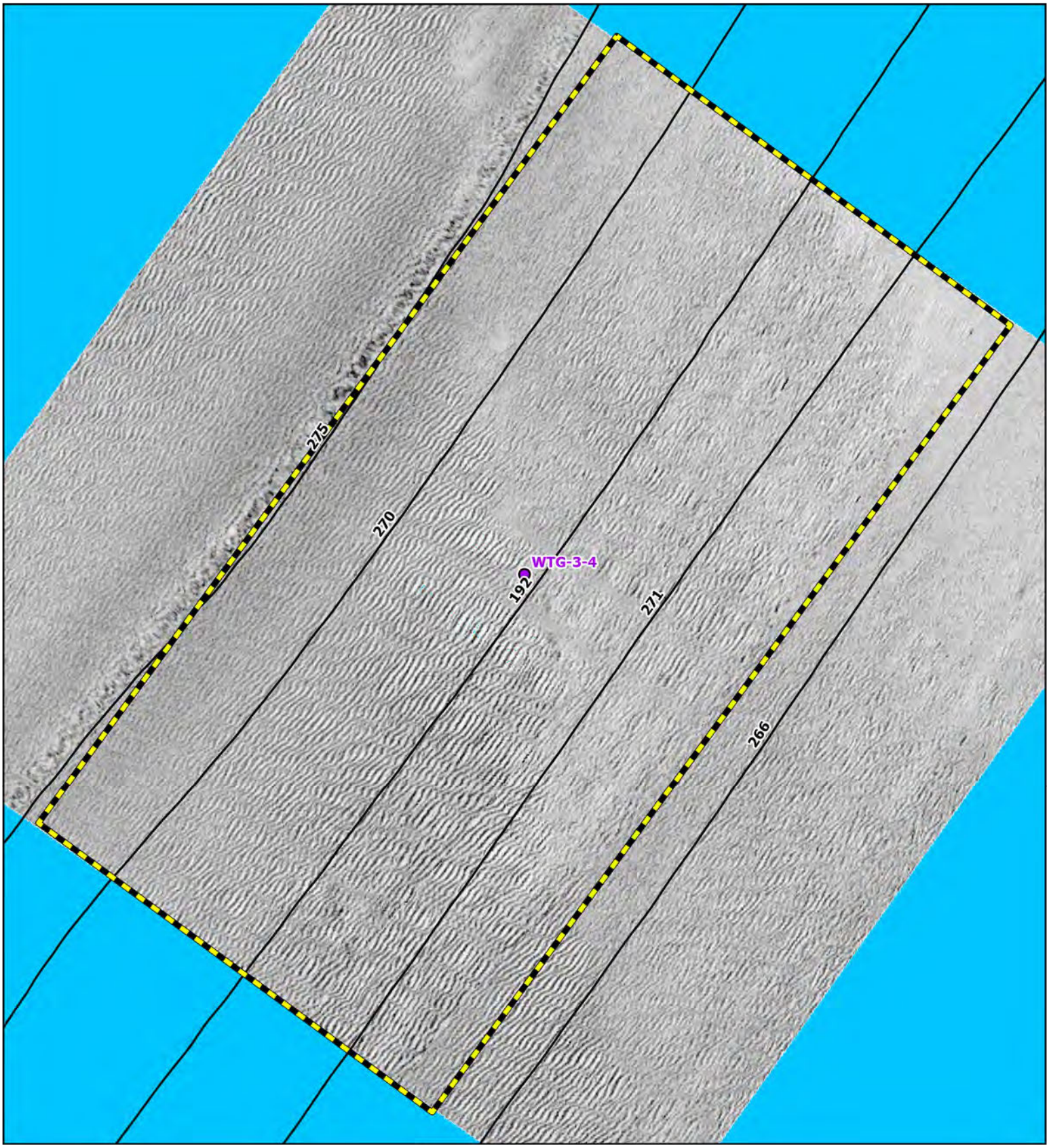
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 2

WTG-2-3

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

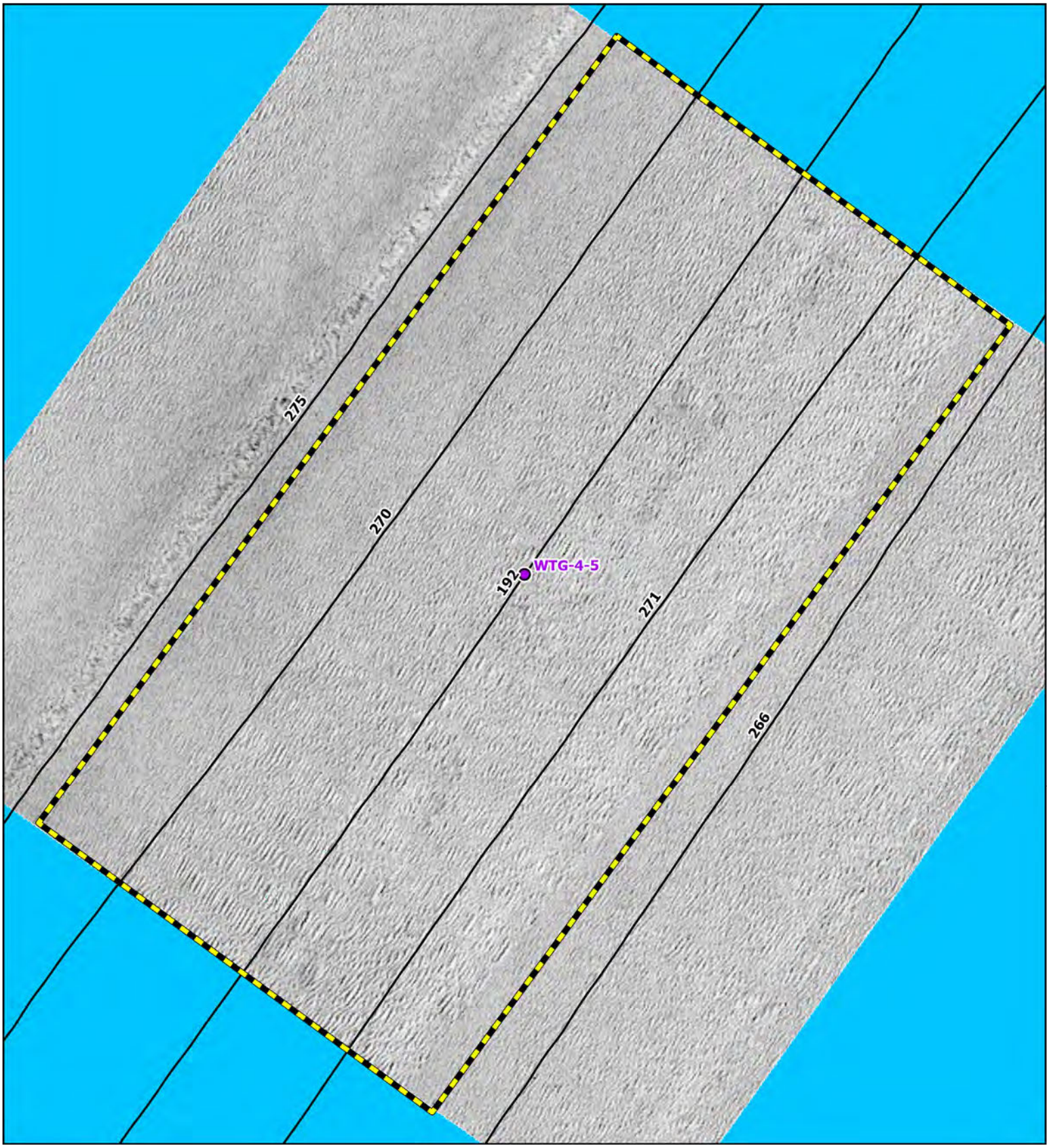
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 3

WTG-3-4

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

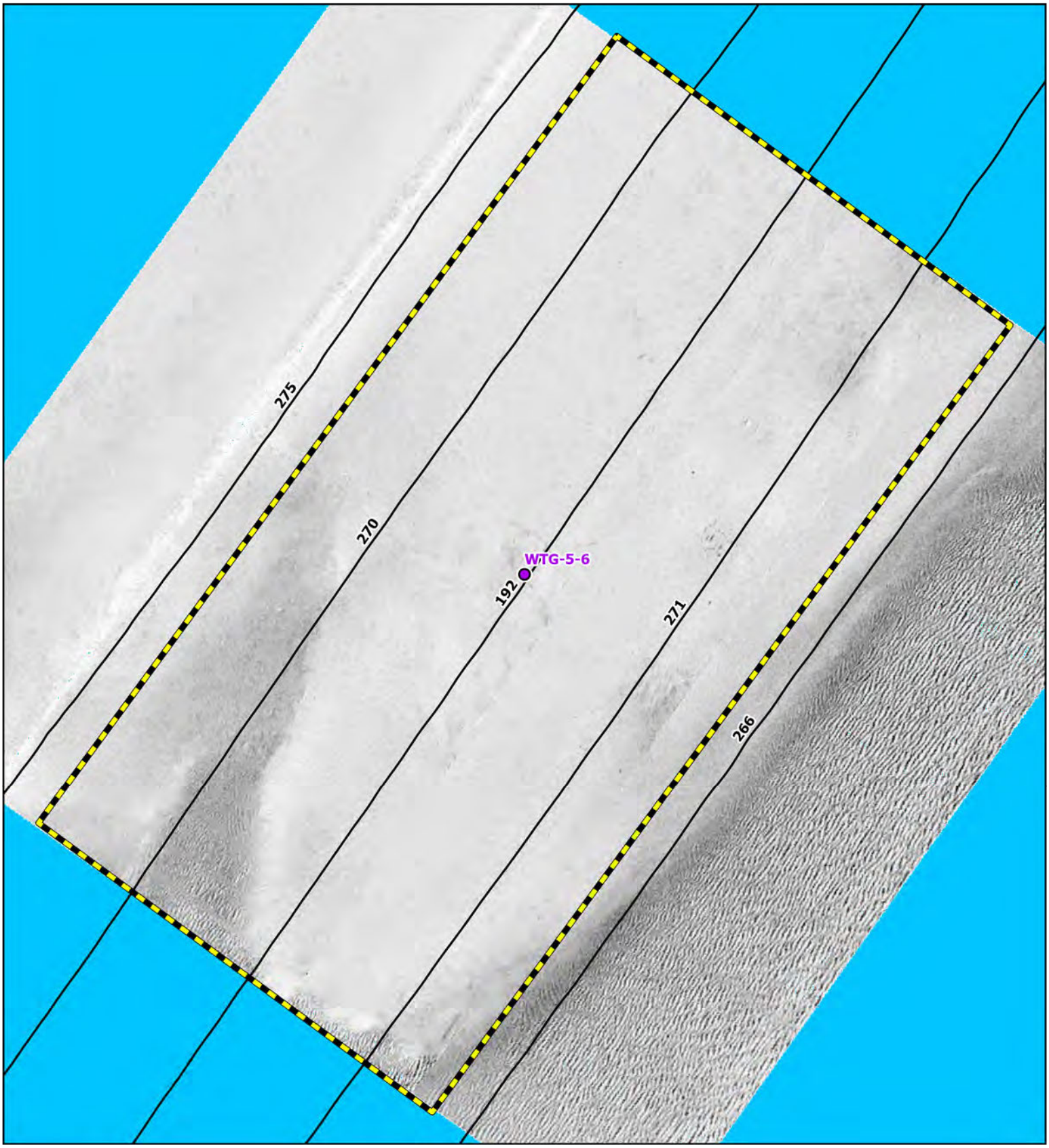
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 11

Map: 4

WTG-4-5

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

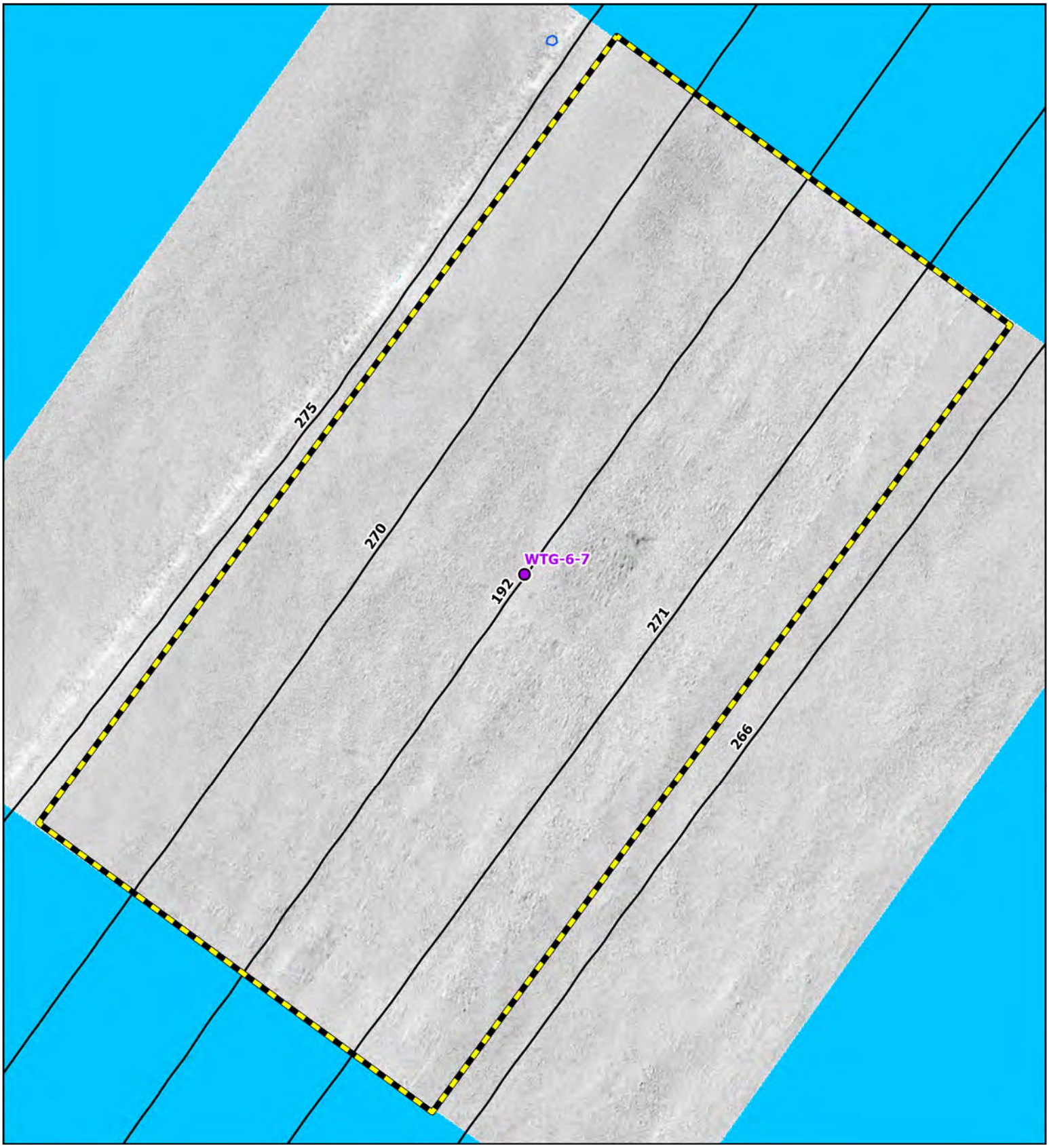
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 5

WTG-5-6

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

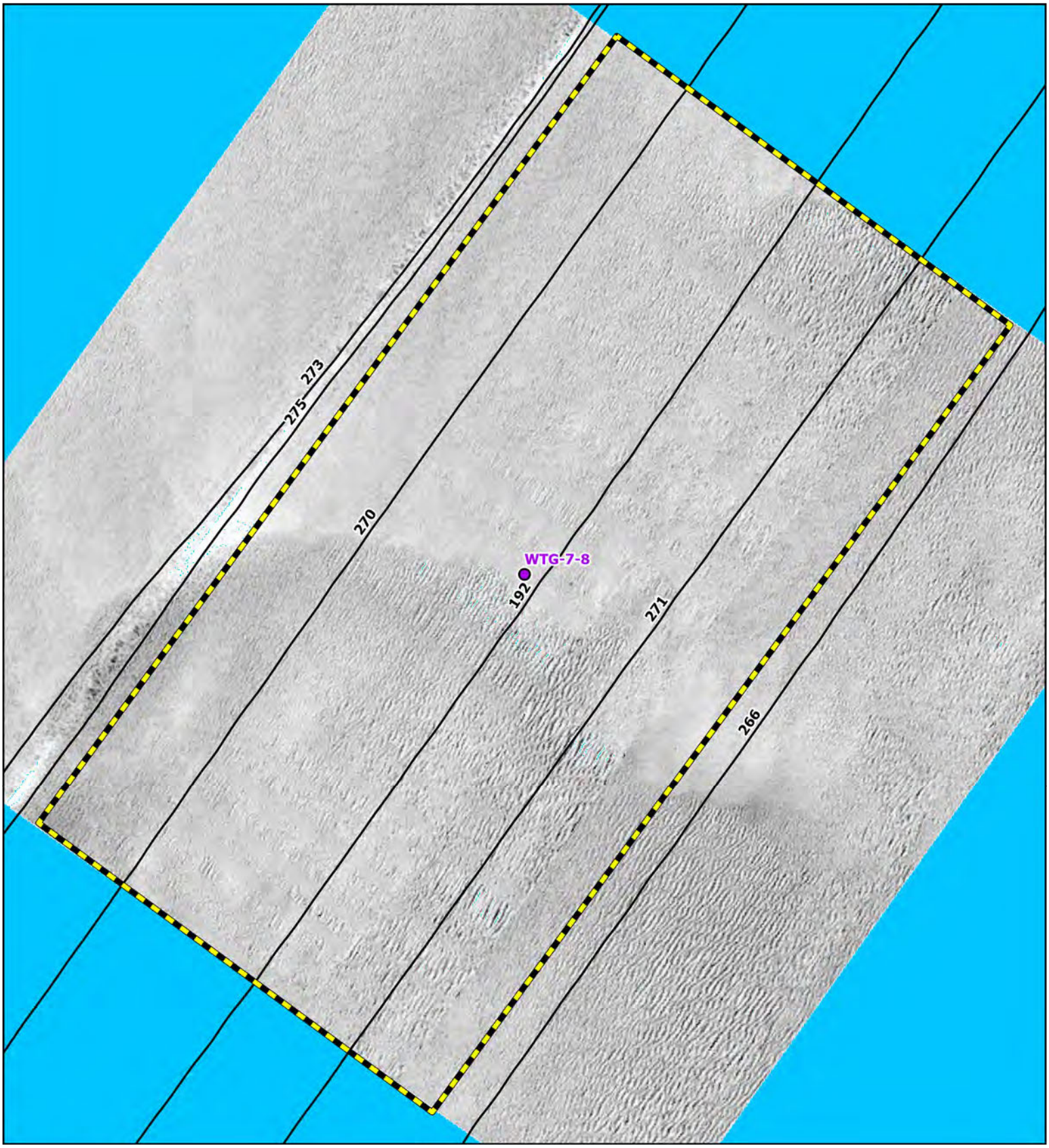
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 6

WTG-6-7

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

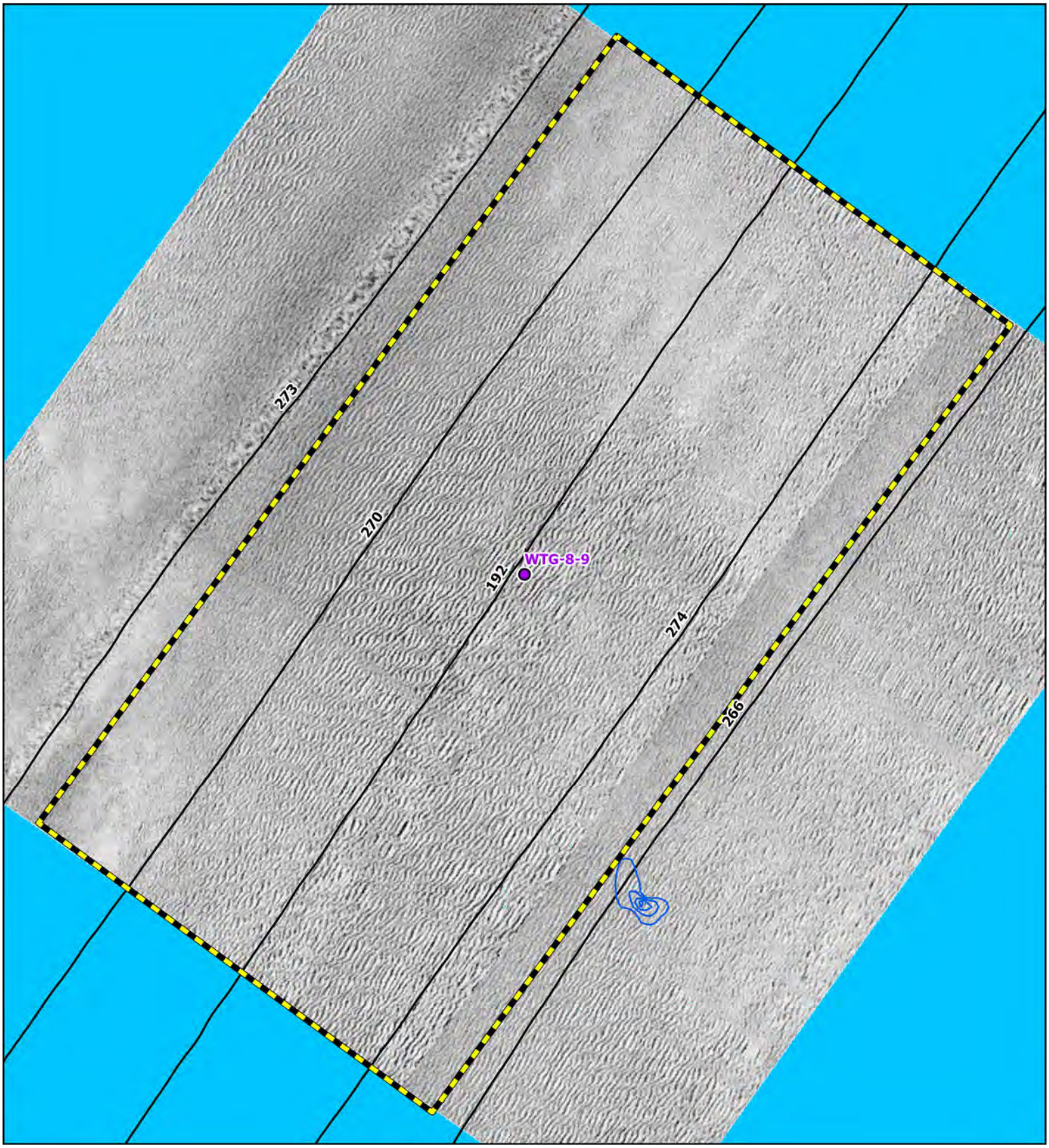
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 7

WTG-7-8

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

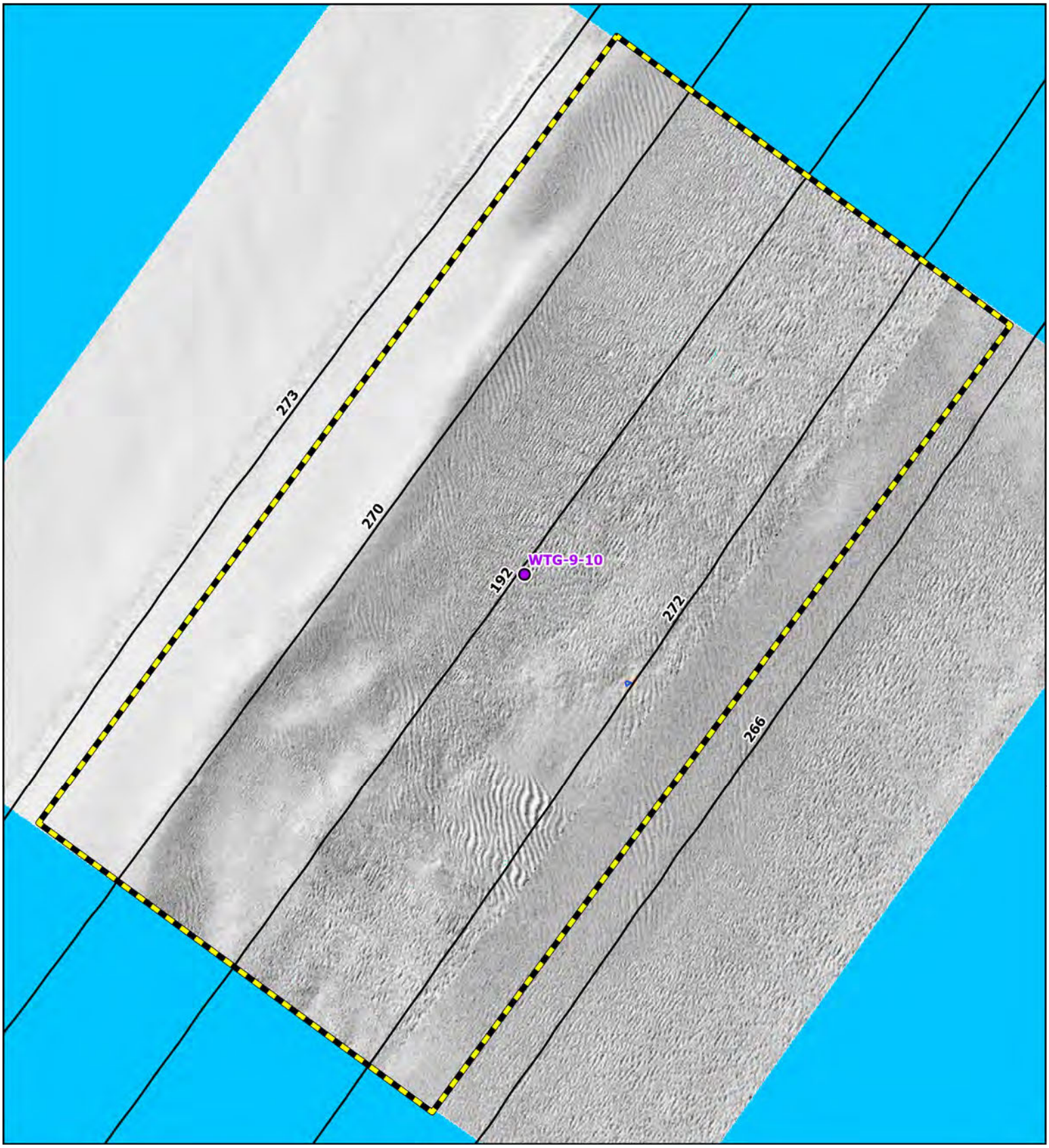
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 11

Map: 8

WTG-8-9

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

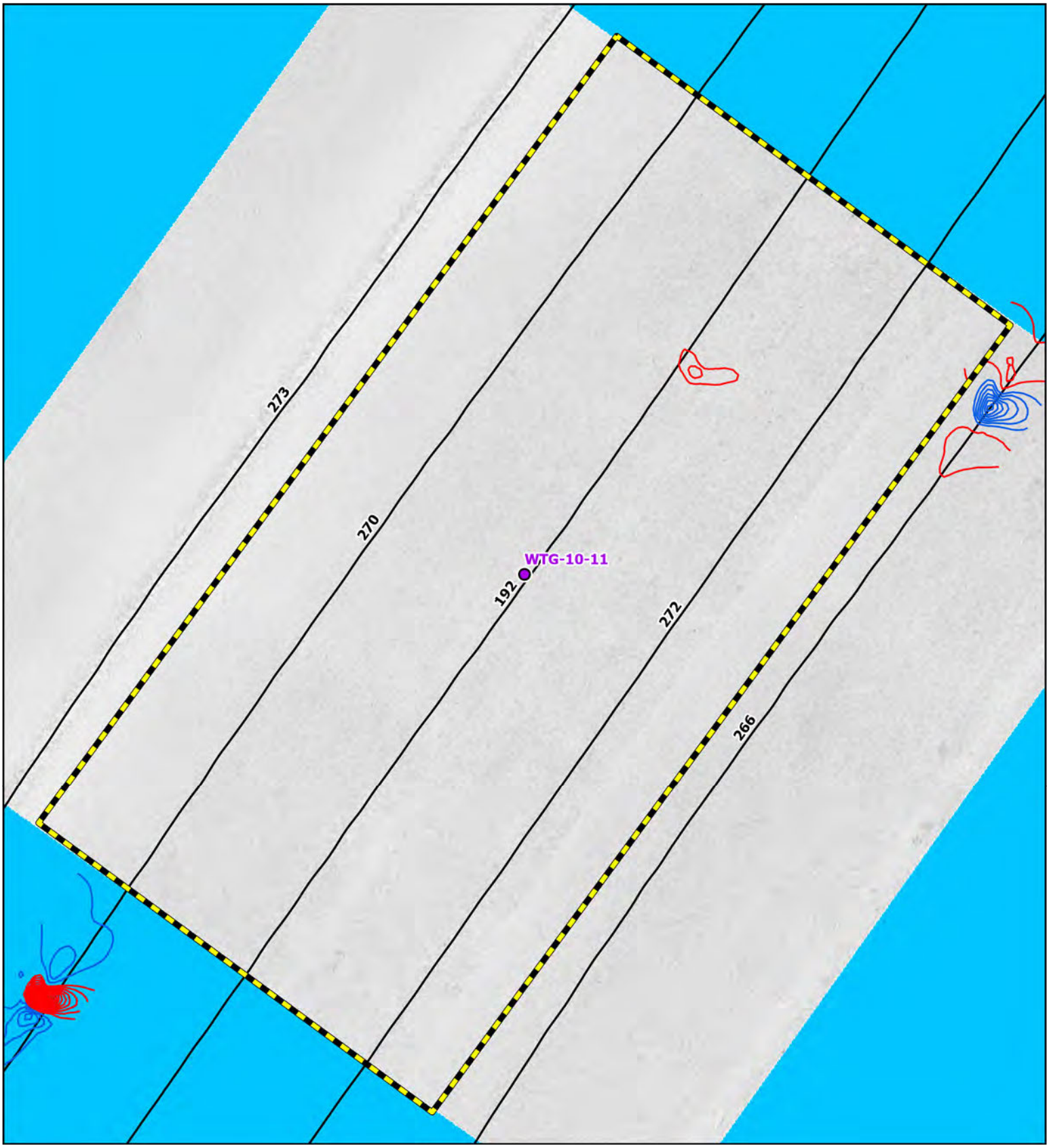
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 11

Map: 9

WTG-9-10

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

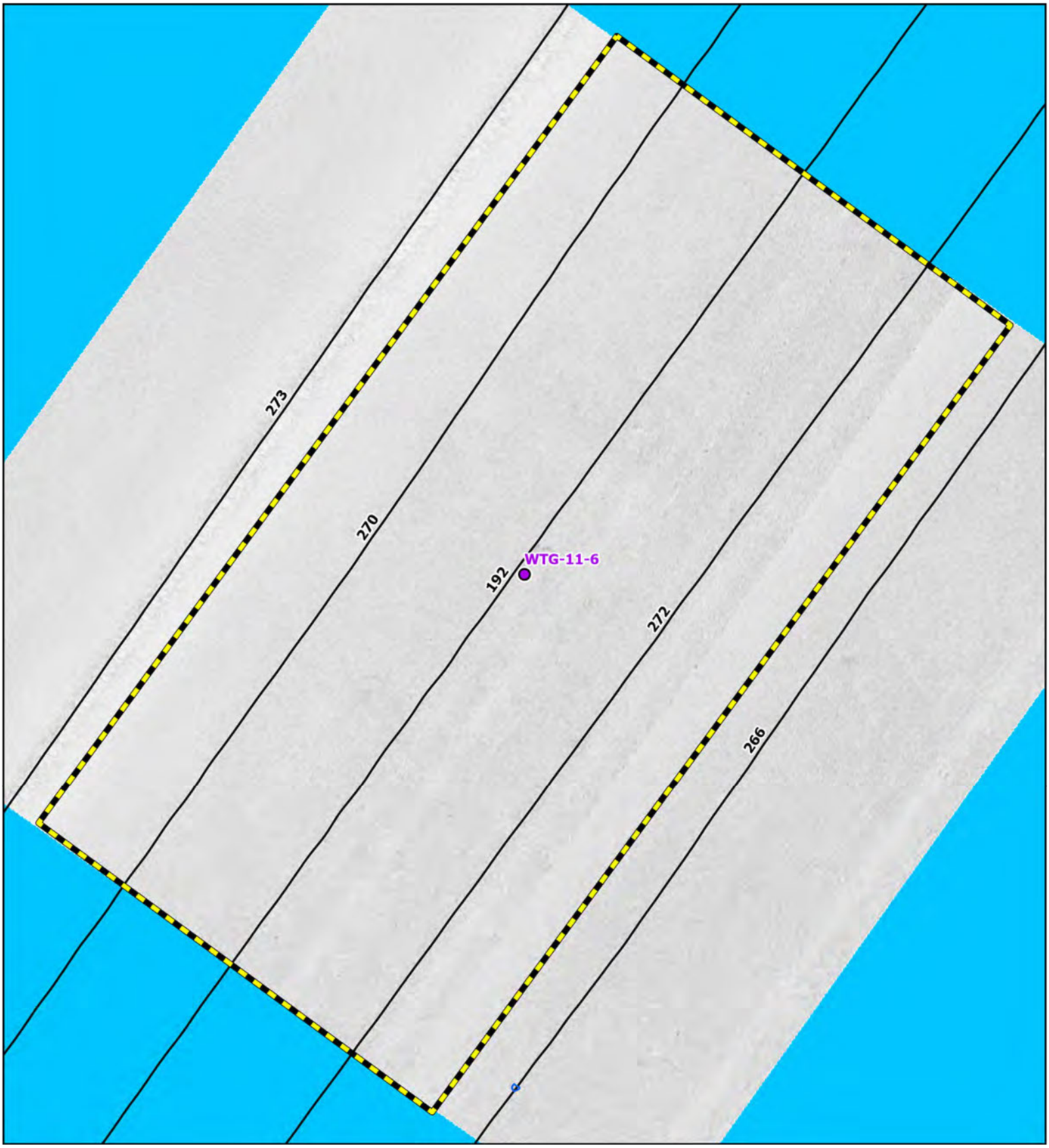
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 10

WTG-10-11

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

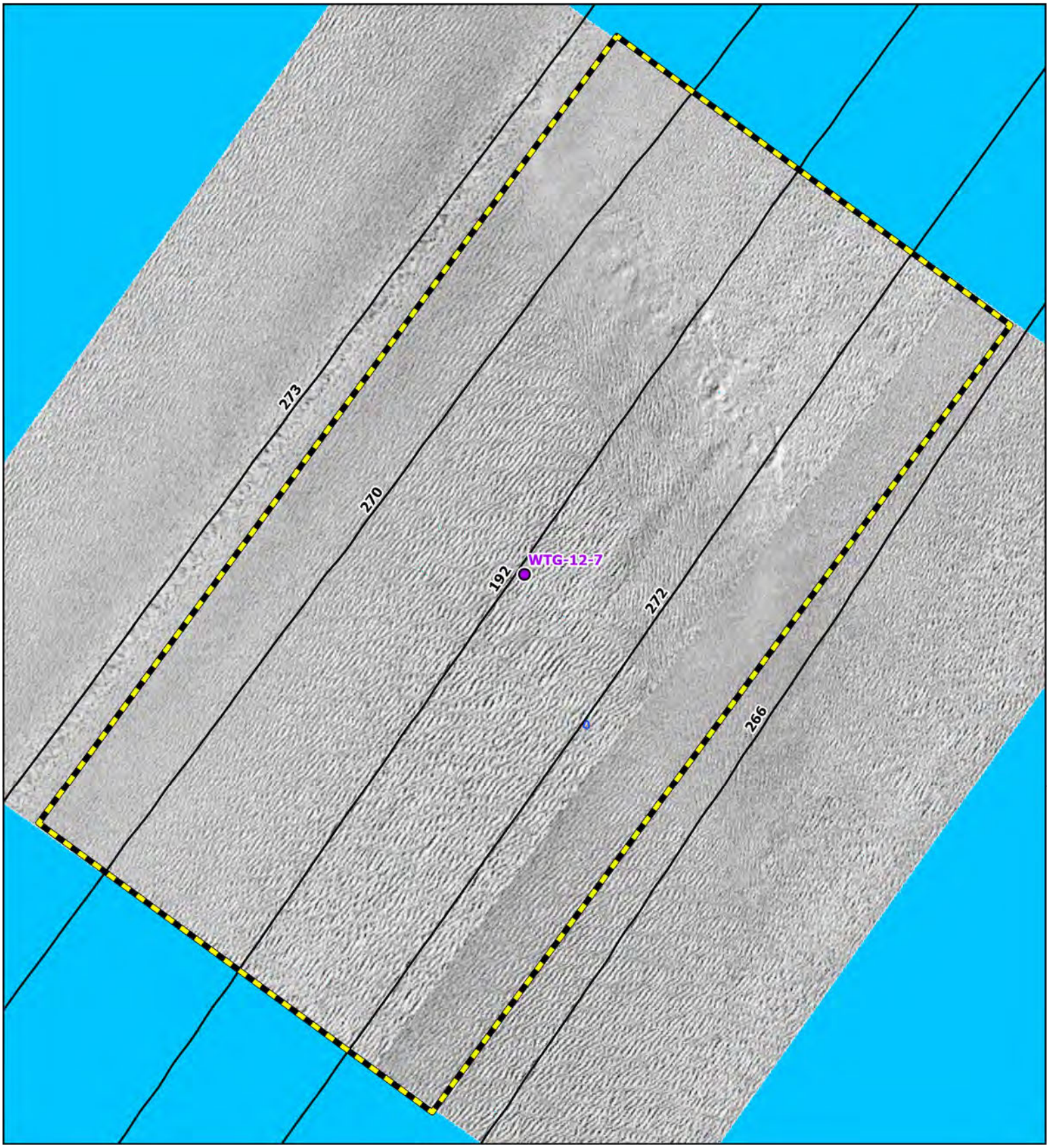
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 11

WTG-11-6

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 11

Map: 12

WTG-12-7

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MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

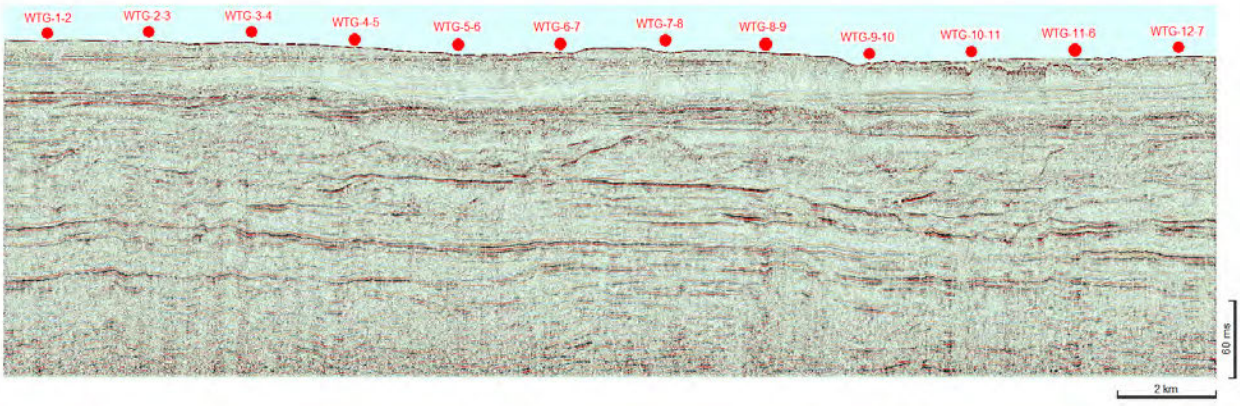


Figure 1: Geotechnical Core Locations WTG-1-2, WTG-2-3, WTG-3-4, WTG-4-5, WTG-5-6, WTG-6-7, WTG-7-8, WTG-8-9, WTG-9-10, WTG-10-11, WTG-11-6, and WTG-12-7 on line WTG11MCS16_MIG

Cultural Resource Report - Corridors 13 & 17

May 28, 2020

Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project (Project). The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests (CPTs); this memorandum reviews 23 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 328.1 ft (100 m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 23 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landscapes through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1 and 2). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer (TVG) array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1 and 2). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

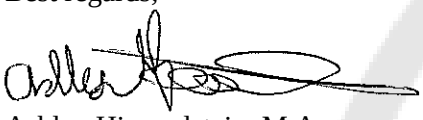
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 3). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1 and 2; Appendices 1, 2 and 3). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1 and 2), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 13

Core ID	Easting	Northing	Longitude	Latitude
WTG-1-4	462618.1432	4075324.172	-75.4192	36.82305
WTG-2-5	463834.143	4077036.172	-75.4056	36.83853
WTG-3-6	465051.1428	4078748.171	-75.392	36.85401
WTG-4-7	466267.1426	4080459.171	-75.3785	36.86948
WTG-5-8	467484.1424	4082171.171	-75.3649	36.88495
WTG-6-9	468700.1421	4083883.17	-75.3513	36.90043
WTG-7-10	469917.1419	4085595.17	-75.3377	36.9159
WTG-8-11	471133.1417	4087306.169	-75.3241	36.93136
WTG-9-12	472350.1415	4089018.169	-75.3105	36.94683
WTG-10-13	473566.1413	4090730.169	-75.2969	36.9623
WTG-11-8	474783.141	4092442.168	-75.2833	36.97776
WTG-12-9	475999.1408	4094153.168	-75.2697	36.99322
WTG-1-4	462618.1432	4075324.172	-75.4192	36.82305
WTG-2-5	463834.143	4077036.172	-75.4056	36.83853
WTG-3-6	465051.1428	4078748.171	-75.392	36.85401
WTG-4-7	466267.1426	4080459.171	-75.3785	36.86948
WTG-5-8	467484.1424	4082171.171	-75.3649	36.88495
WTG-6-9	468700.1421	4083883.17	-75.3513	36.90043
WTG-7-10	469917.1419	4085595.17	-75.3377	36.9159
WTG-8-11	471133.1417	4087306.169	-75.3241	36.93136
WTG-9-12	472350.1415	4089018.169	-75.3105	36.94683
WTG-10-13	473566.1413	4090730.169	-75.2969	36.9623
WTG-11-8	474783.141	4092442.168	-75.2833	36.97776

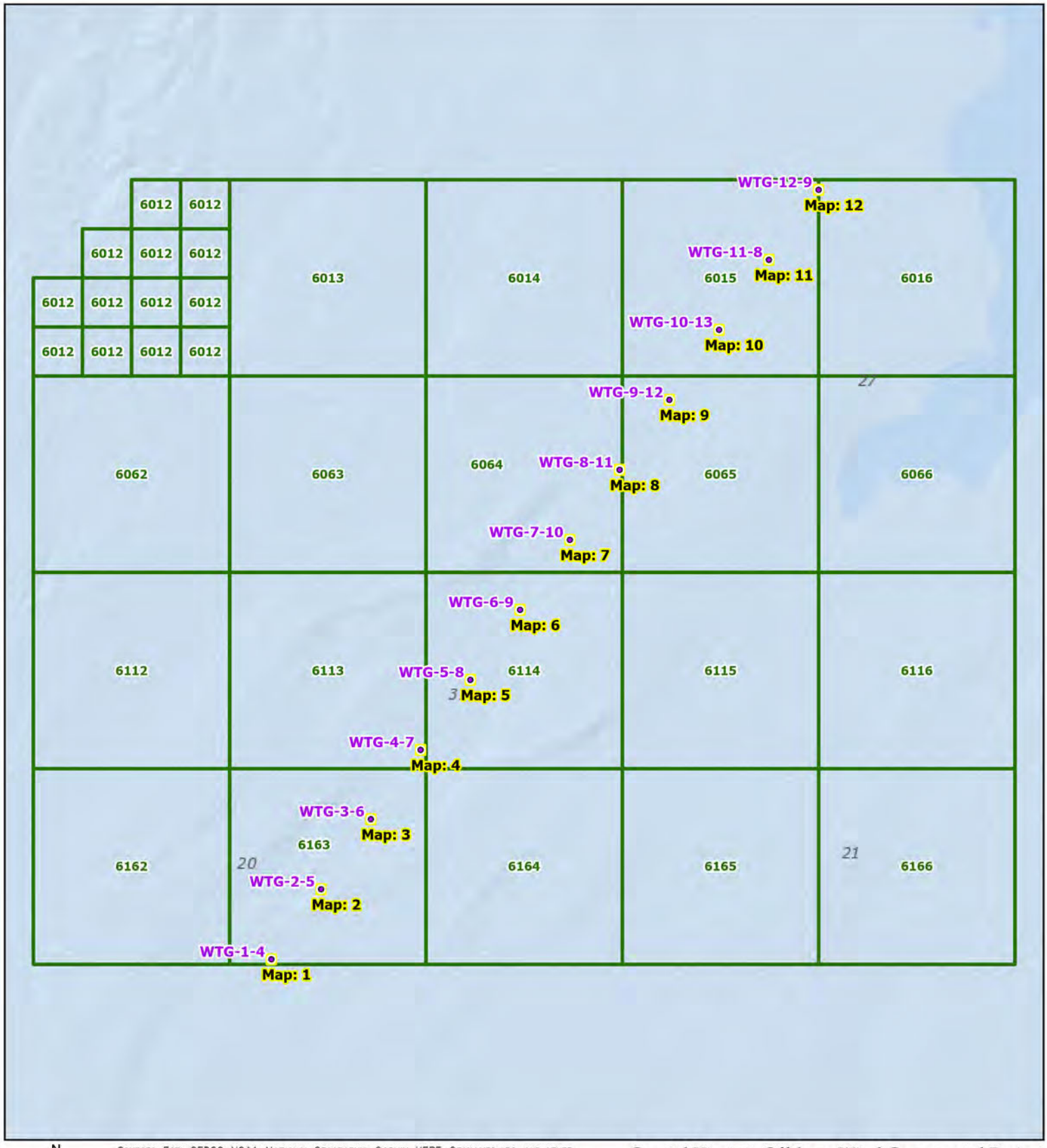
[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2 Proposed WTG geotechnical locations for Corridor 17

Core ID	Easting	Northing	Longitude	Latitude
WTG-1-8	468162.1421	4075324.172	-75.35700128	36.82325307
WTG-2-9	469378.1418	4077036.172	-75.34343541	36.83872609
WTG-3-10	470595.1416	4078748.171	-75.32985287	36.85419758
WTG-4-11	471811.1414	4080459.171	-75.31627604	36.86965846
WTG-5-12	473028.1412	4082171.17	-75.30268257	36.88512682
WTG-6-13	474244.141	4083883.17	-75.28909485	36.90059358
WTG-7-14	475461.1407	4085595.17	-75.27549042	36.91605879
WTG-8-15	476677.1405	4087306.169	-75.26189171	36.93151339
WTG-9-16	477894.1403	4089018.169	-75.24827632	36.94697545
Spare WTG-10-17	479110.1401	4090730.169	-75.23466666	36.96243591
Spare WTG-11-12	480327.1399	4092442.168	-75.22104028	36.97789481

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 13



N
W E
S
Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

0 1 2 3 4 Kilometers

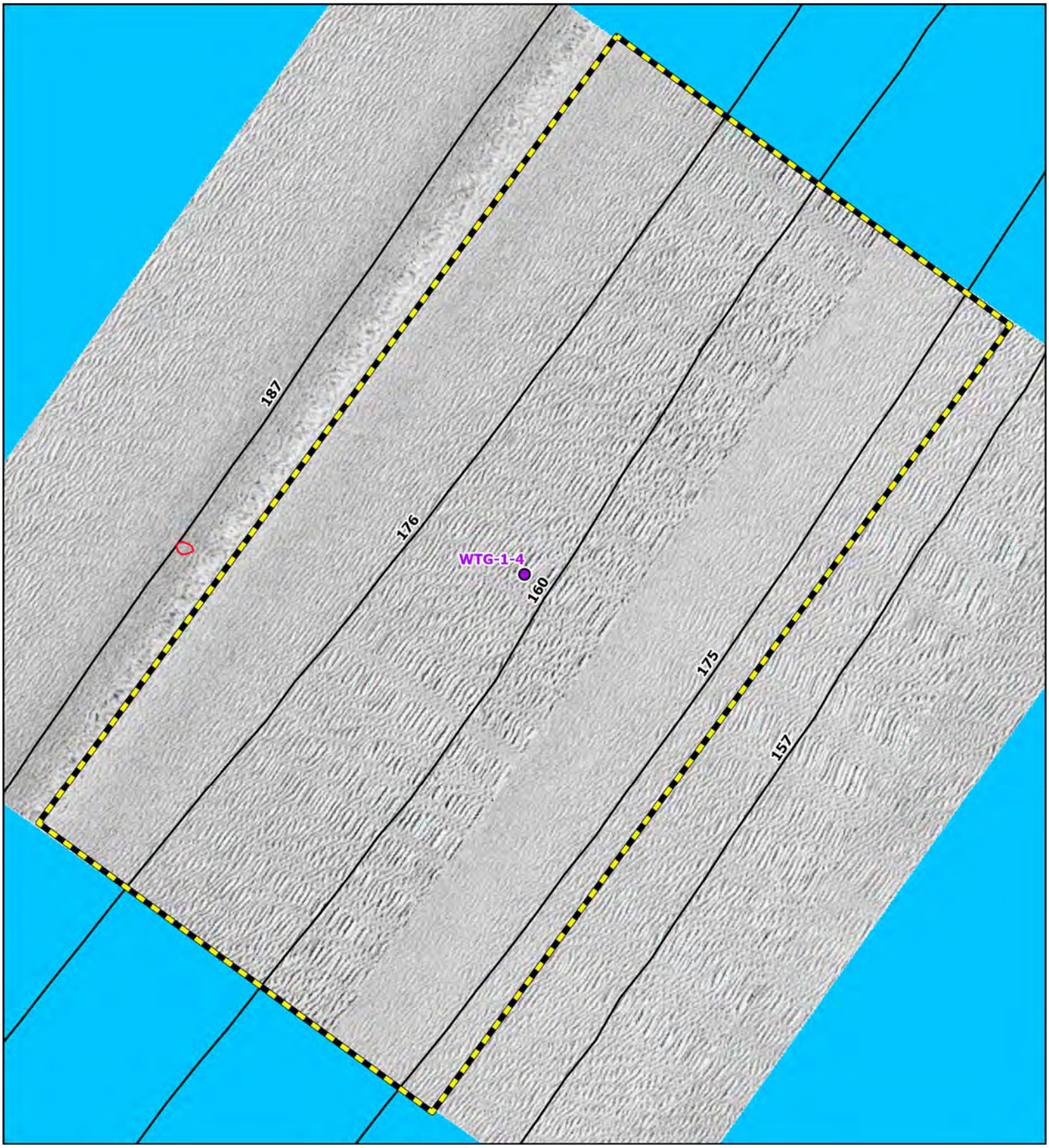
- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 13

Index Map

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

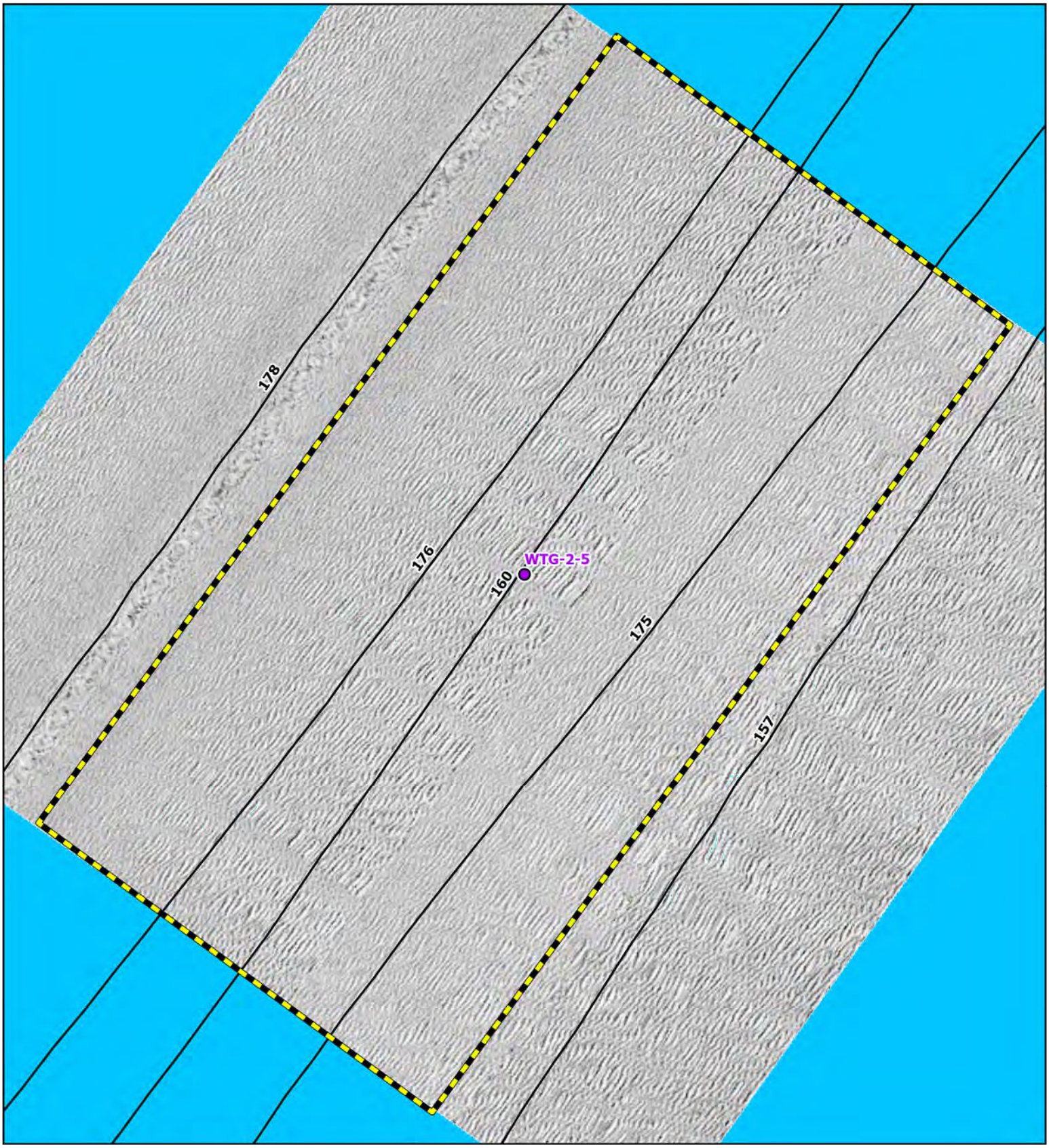
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 13

Map: 1

WTG-1-4

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

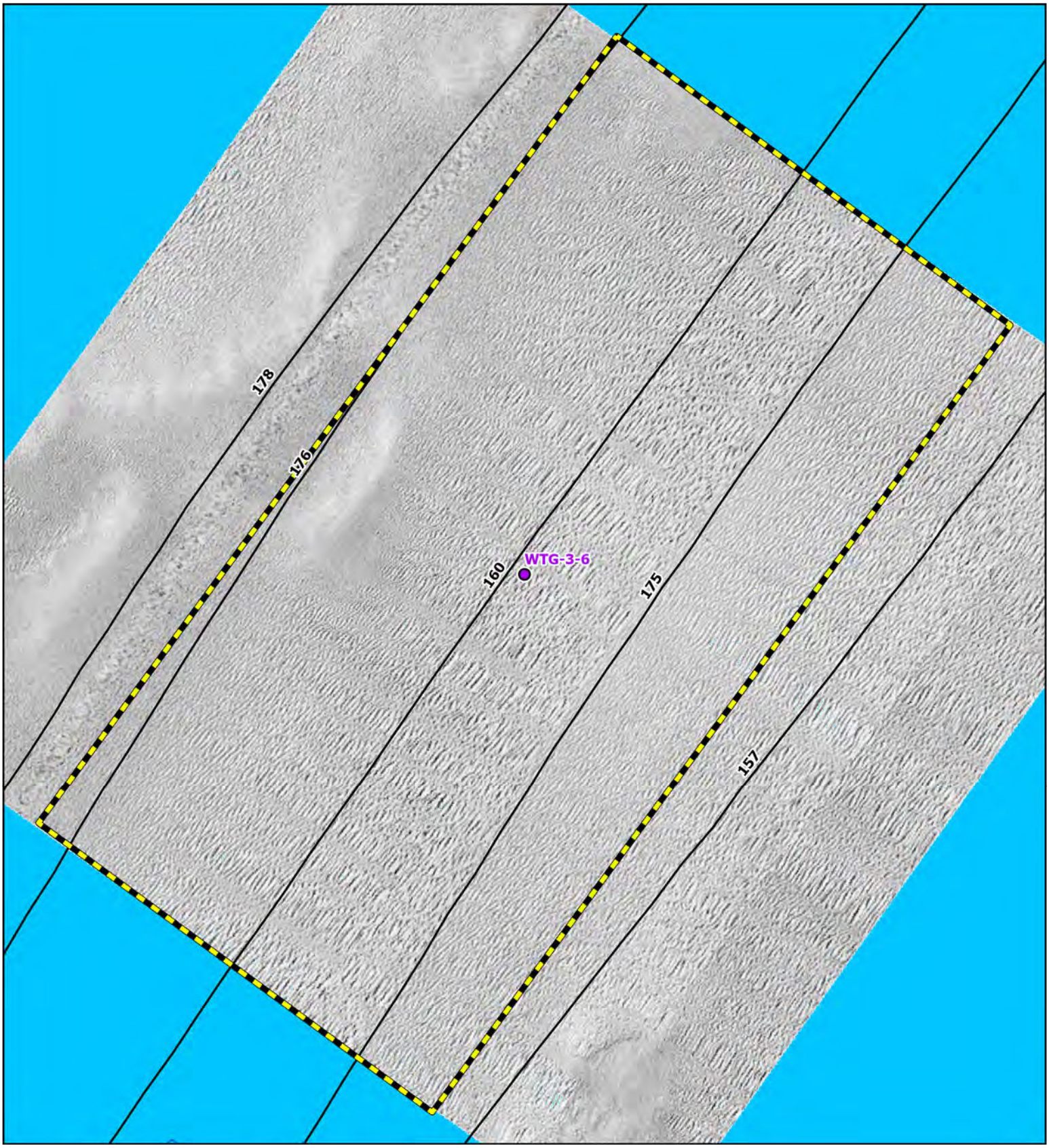
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 13

Map: 2

WTG-2-5

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

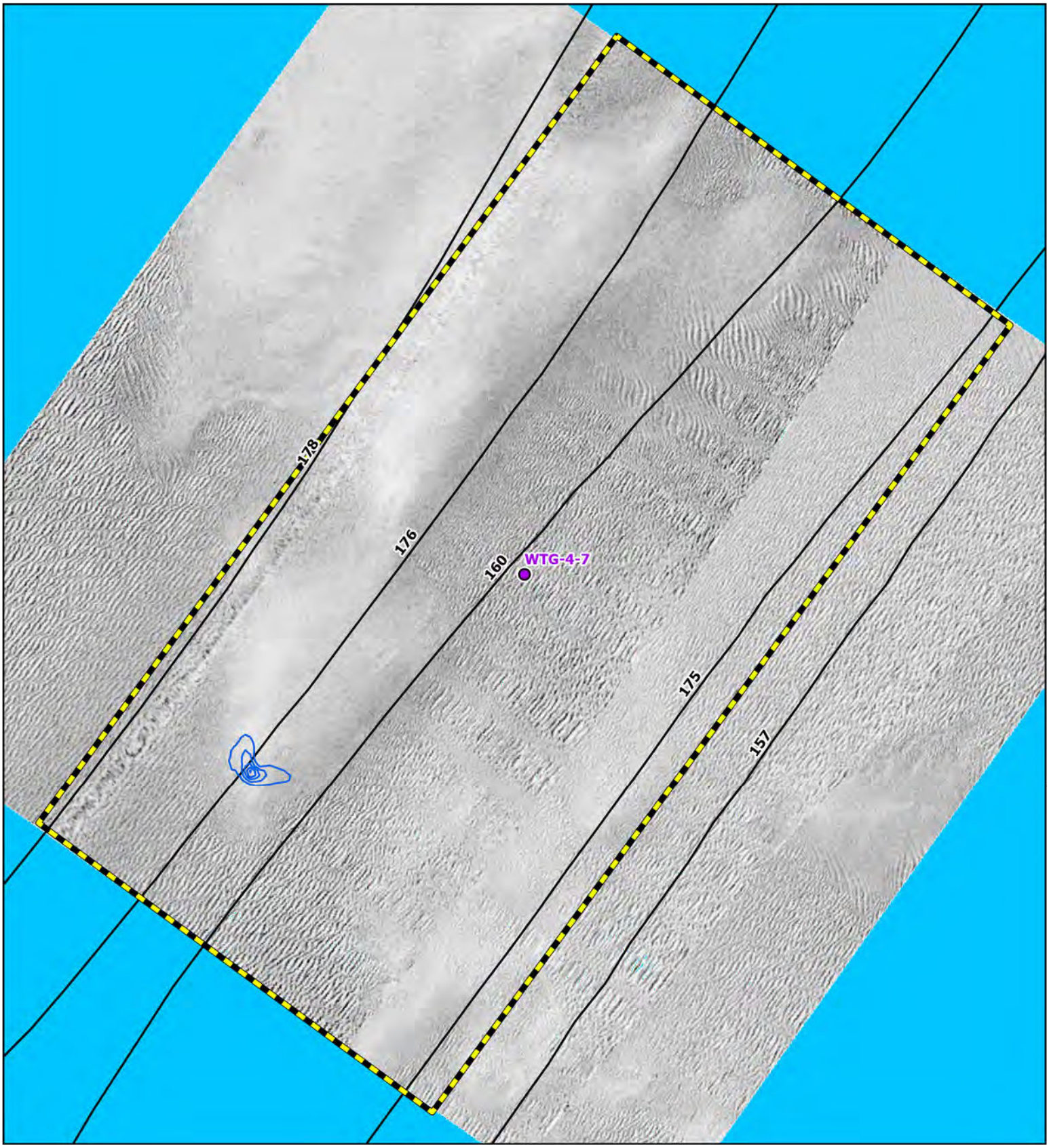
Geotechnical Clearance: Corridor 13

Map: 3

WTG-3-6

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

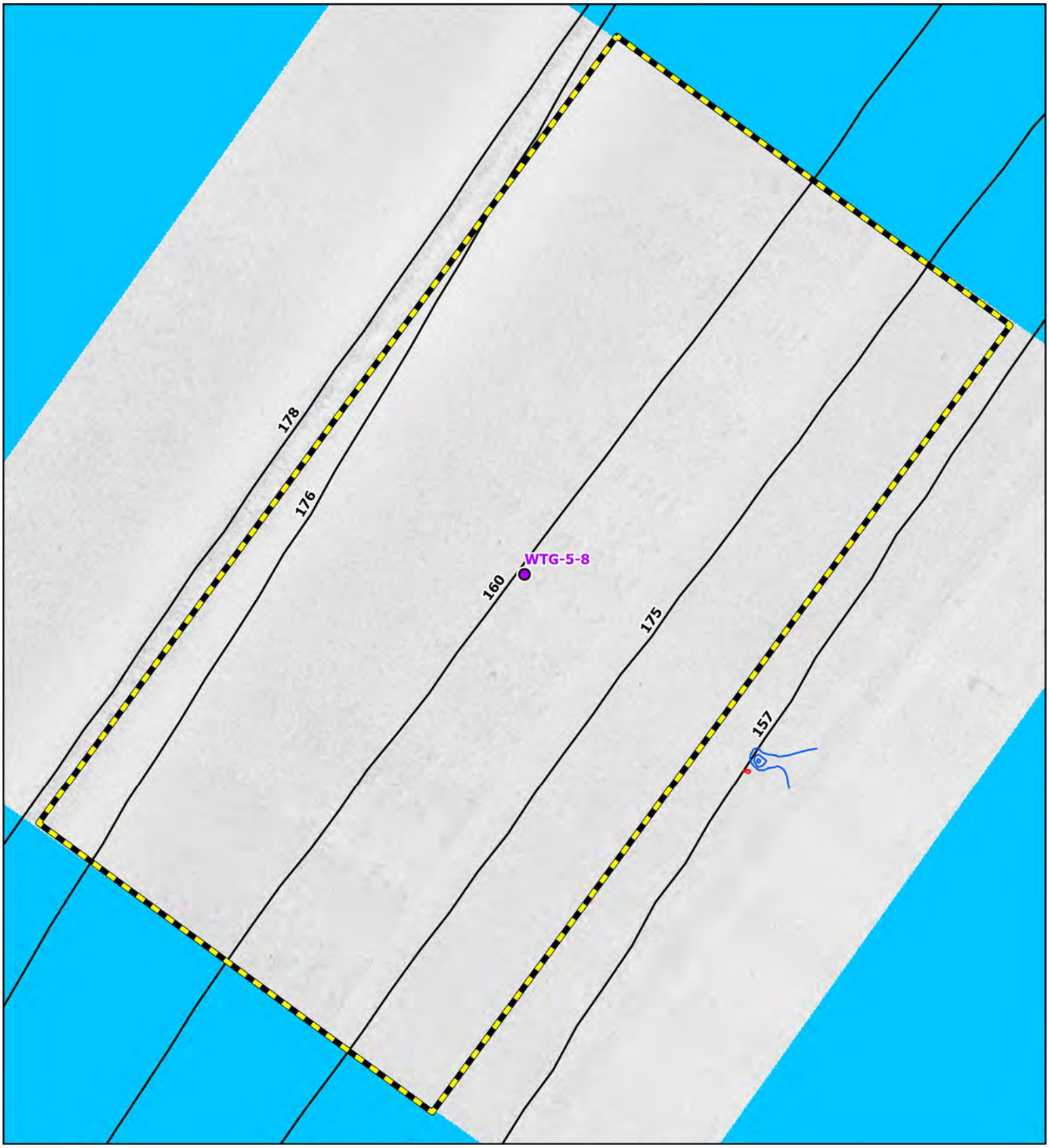
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 13

Map: 4

WTG-4-7

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

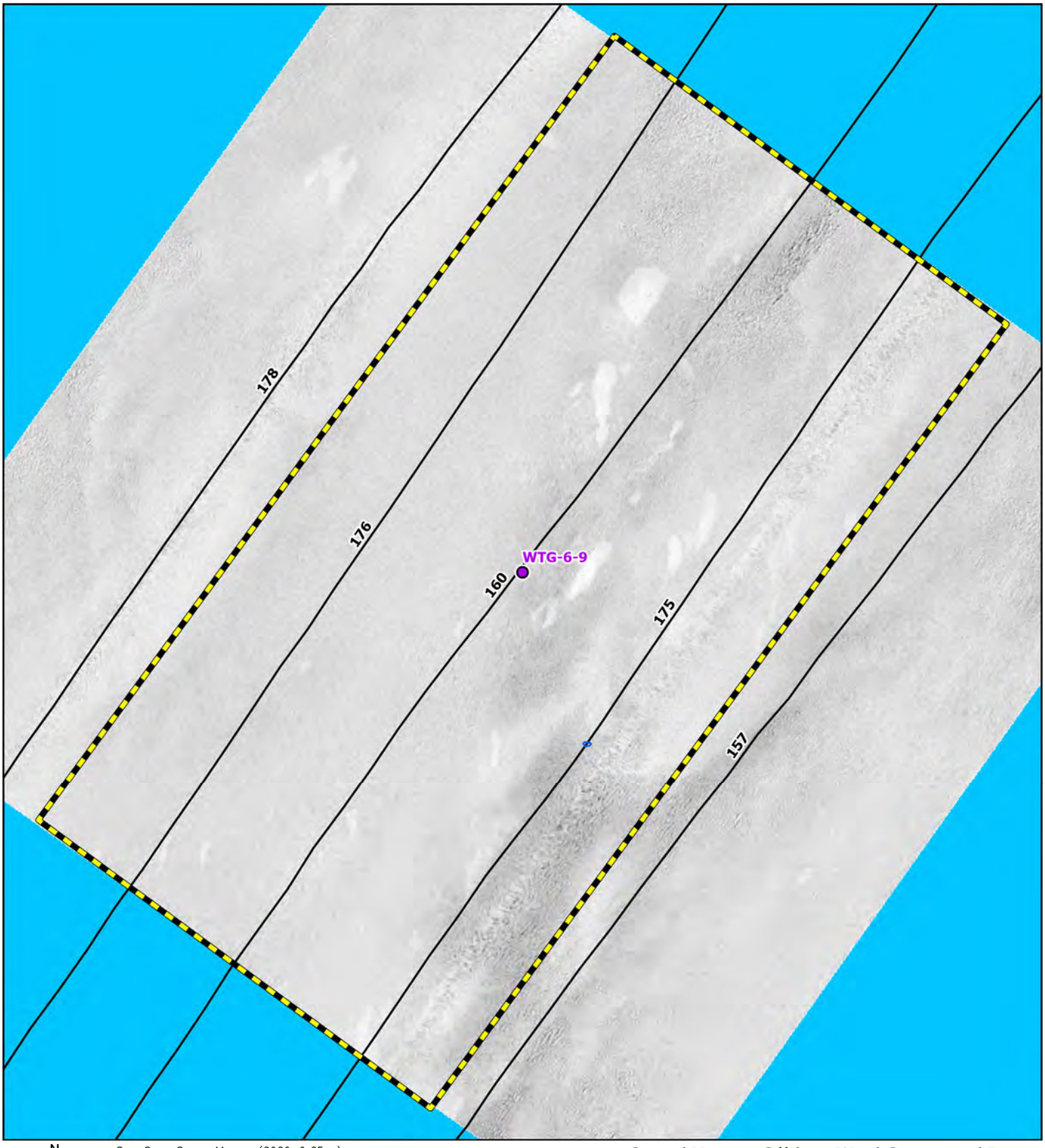
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 13

Map: 5

WTG-5-8

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 13

Map: 6

WTG-6-9

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

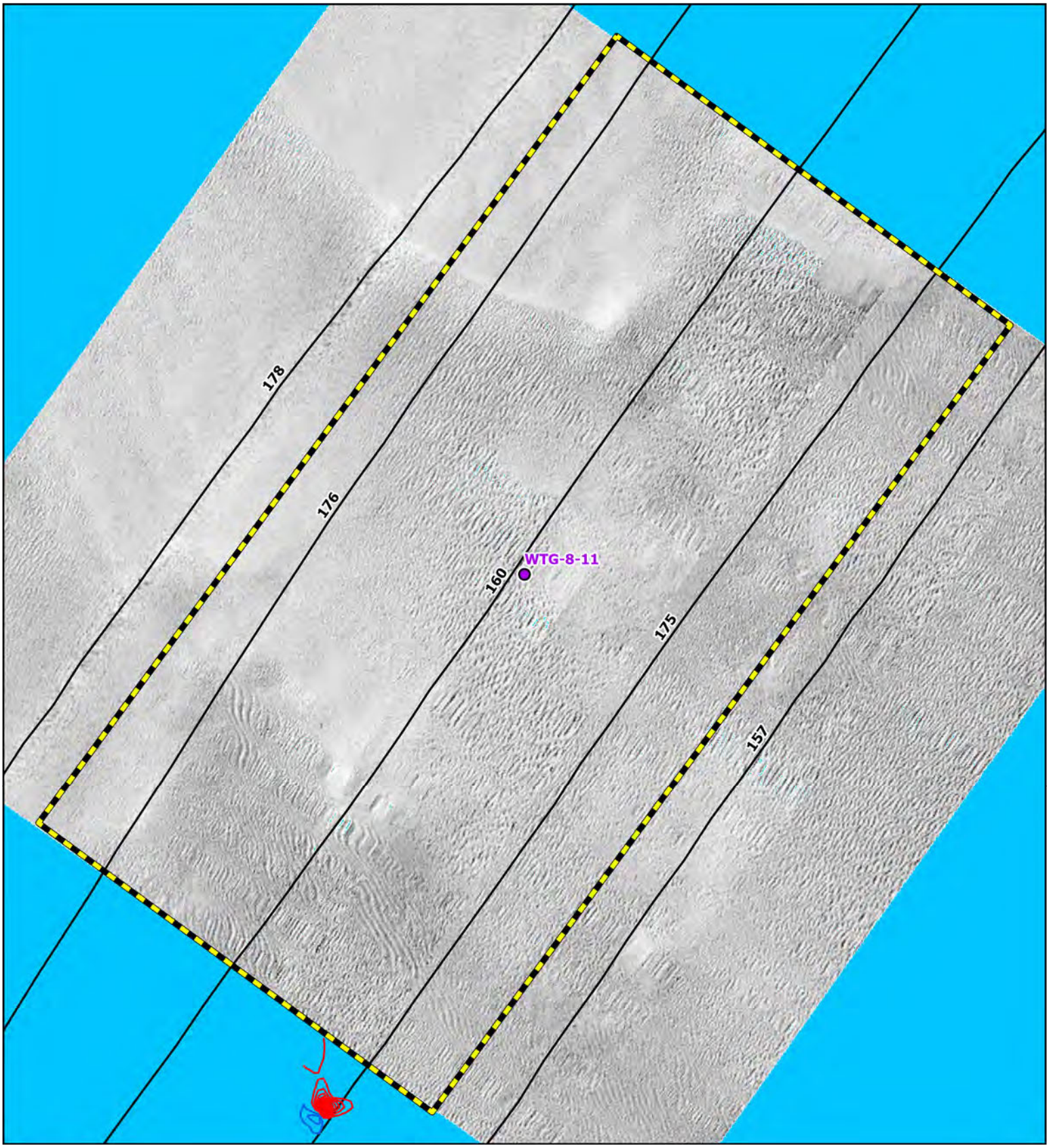
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 13

Map: 7

WTG-7-10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

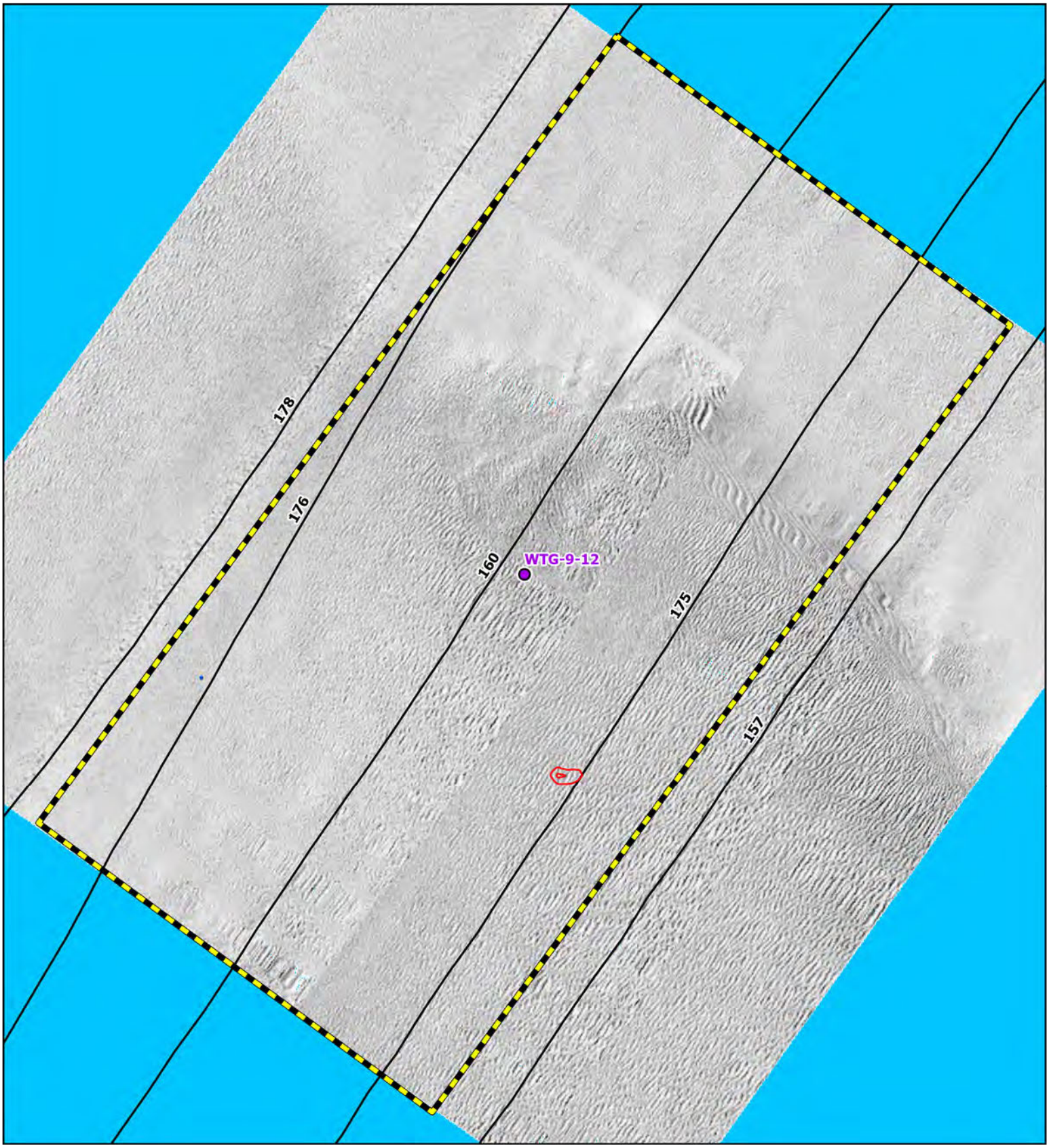
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 13

Map: 8

WTG-8-11

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

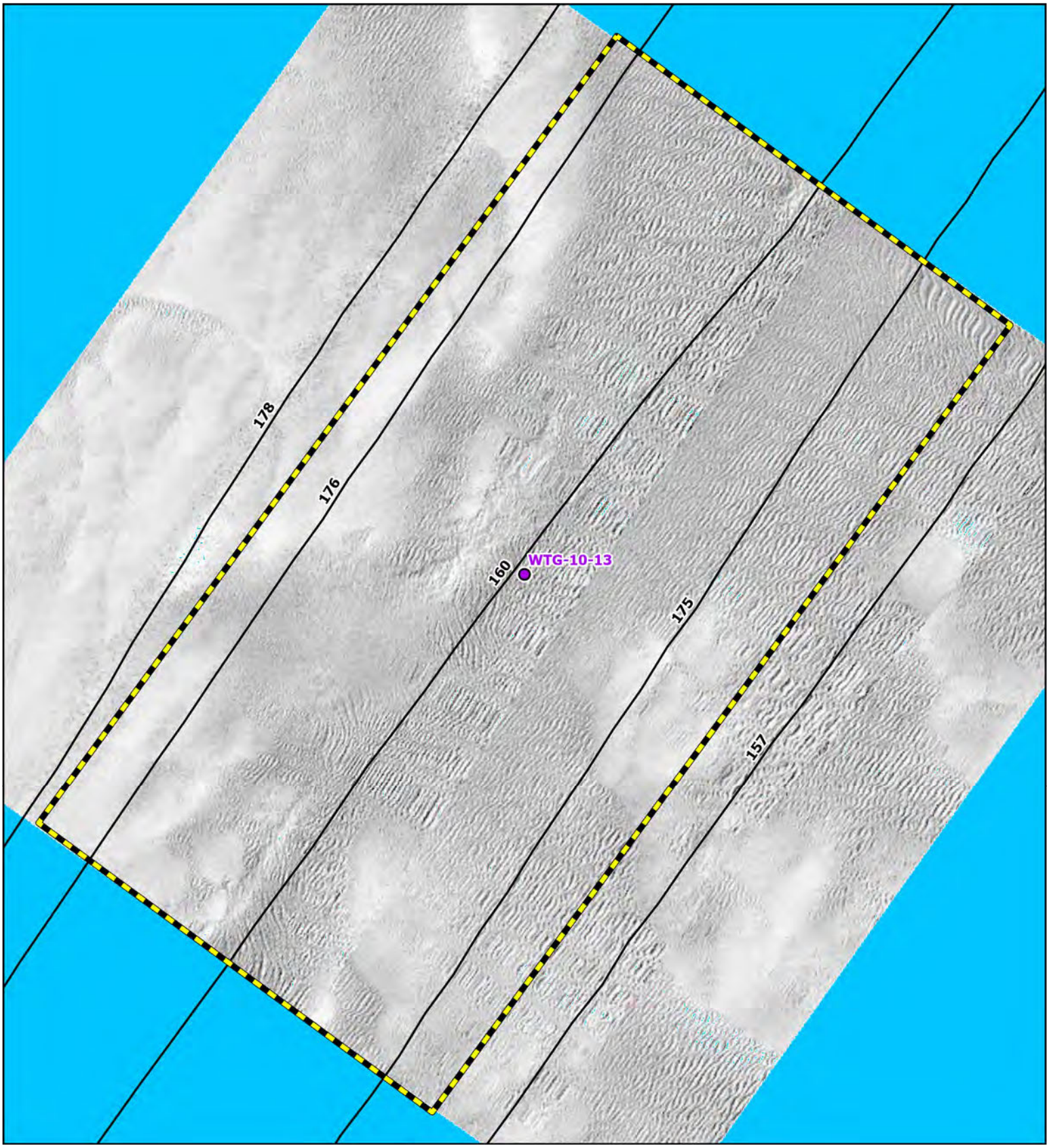
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 13

Map: 9

WTG-9-12

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

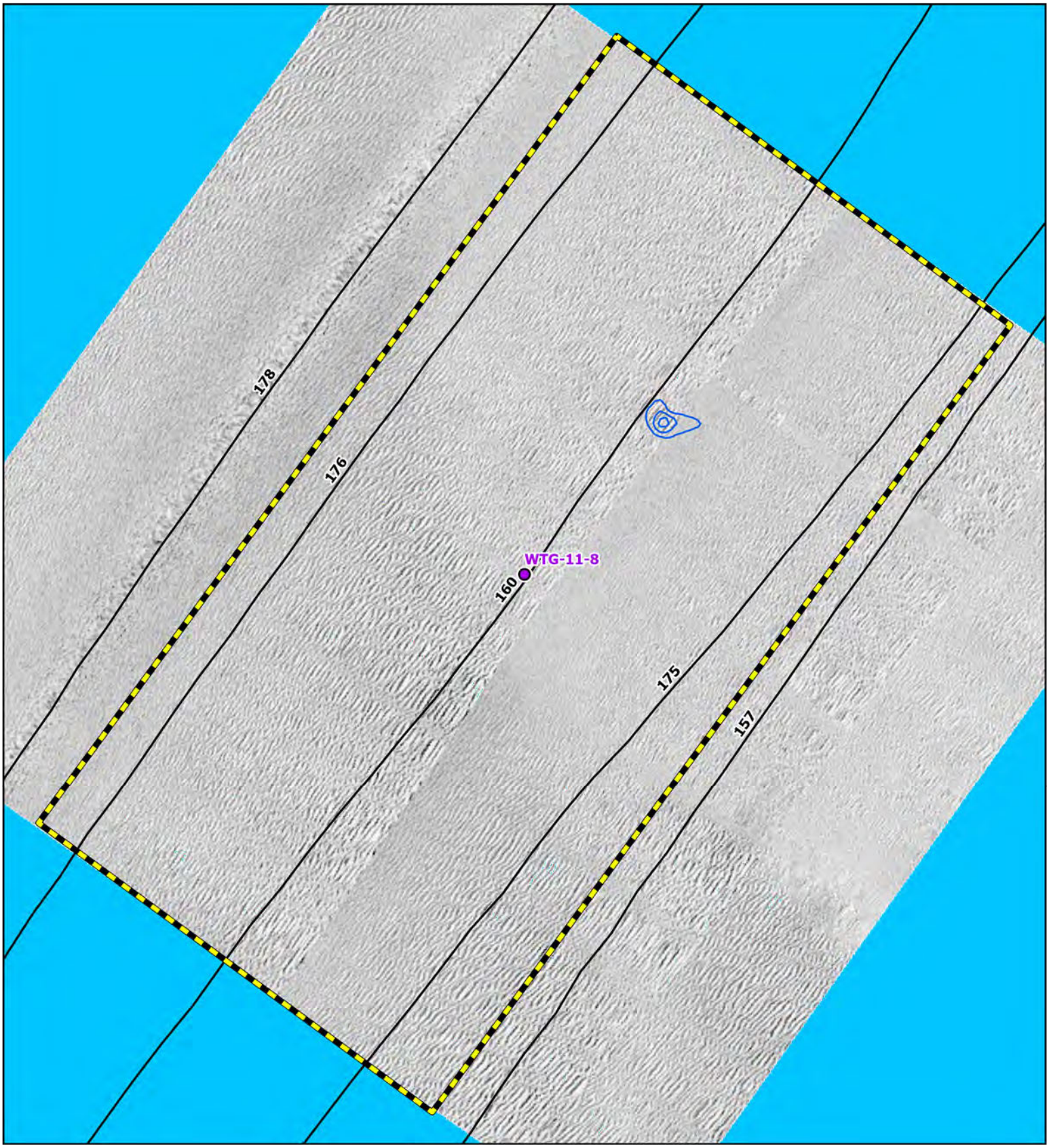
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 13

Map: 10

WTG-10-13

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

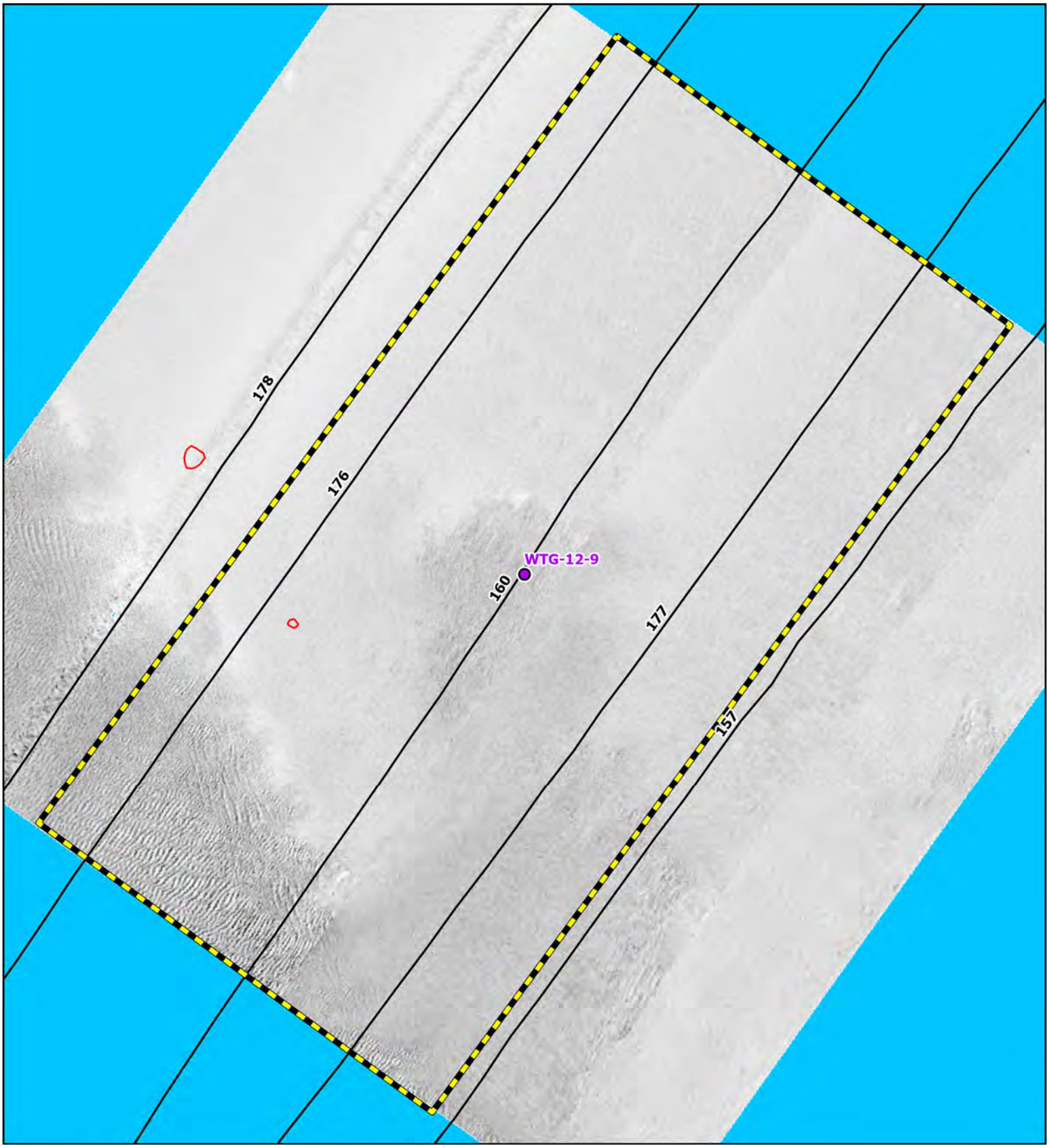
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 13

Map: 11

WTG-11-8

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

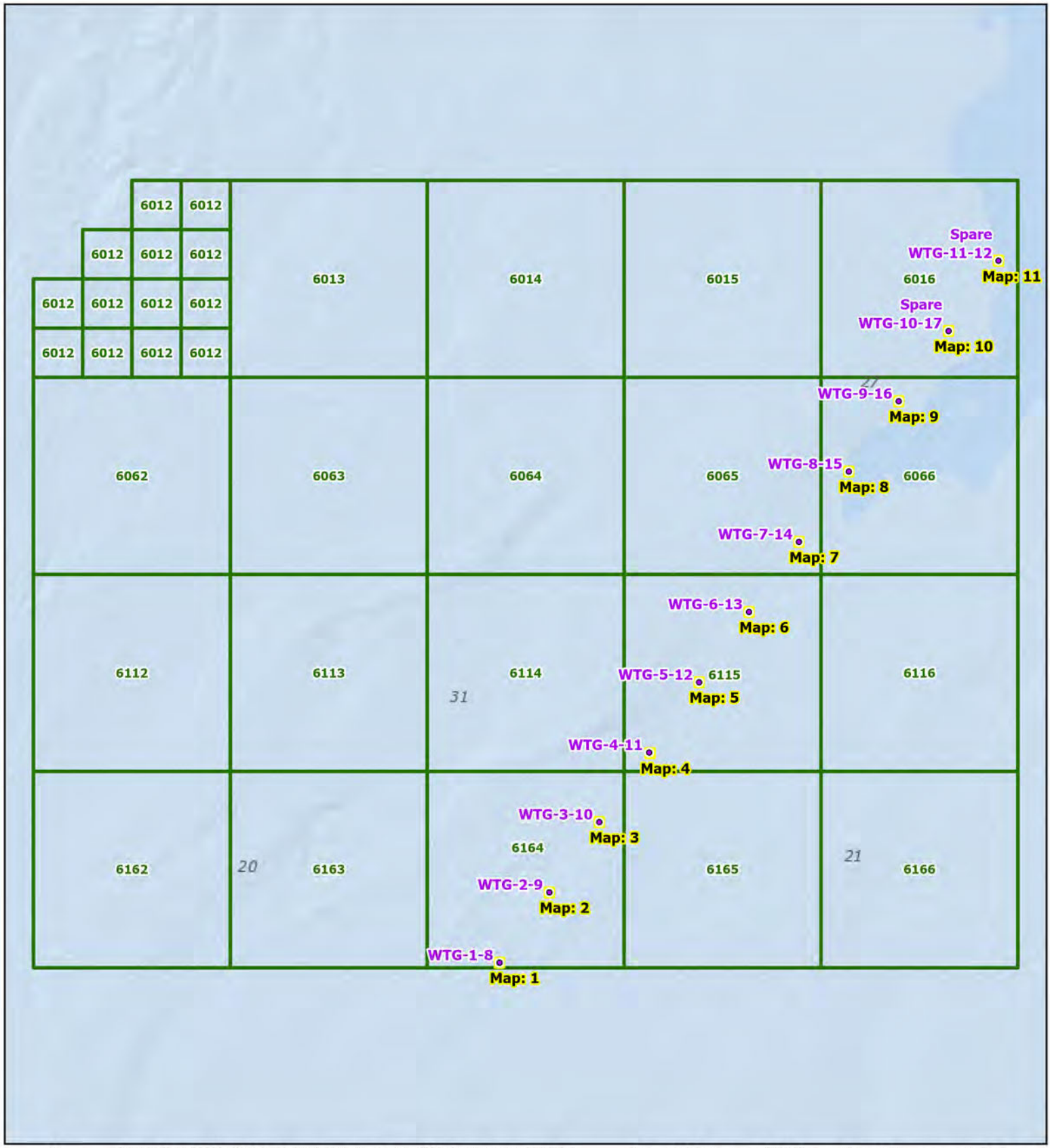
Geotechnical Clearance: Corridor 13

Map: 12

WTG-12-9

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 17



N
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Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

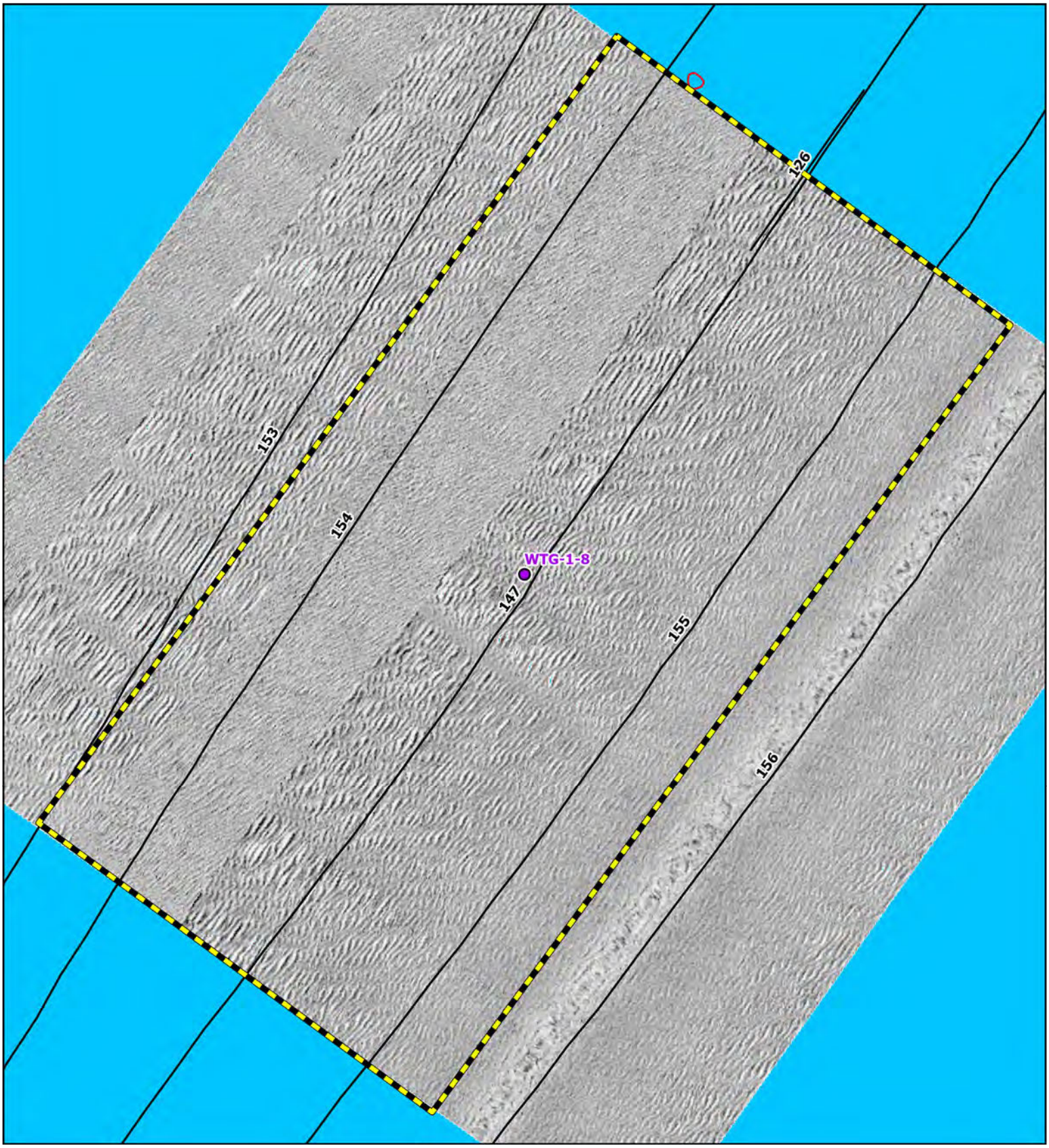
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
WWW.RCGOODWIN.COM | KMAY, 5.20.2020



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

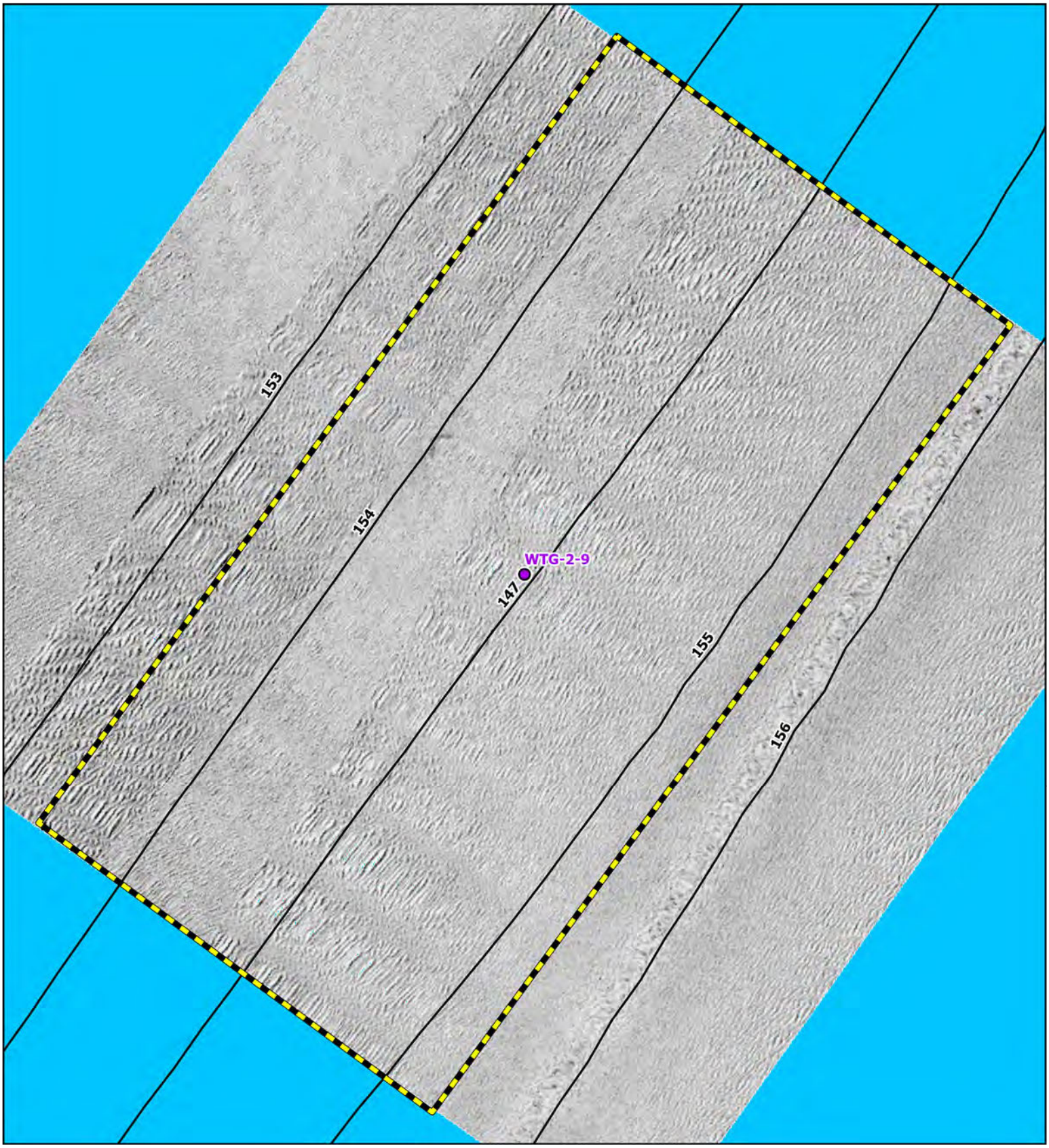
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 1

WTG-1-8

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

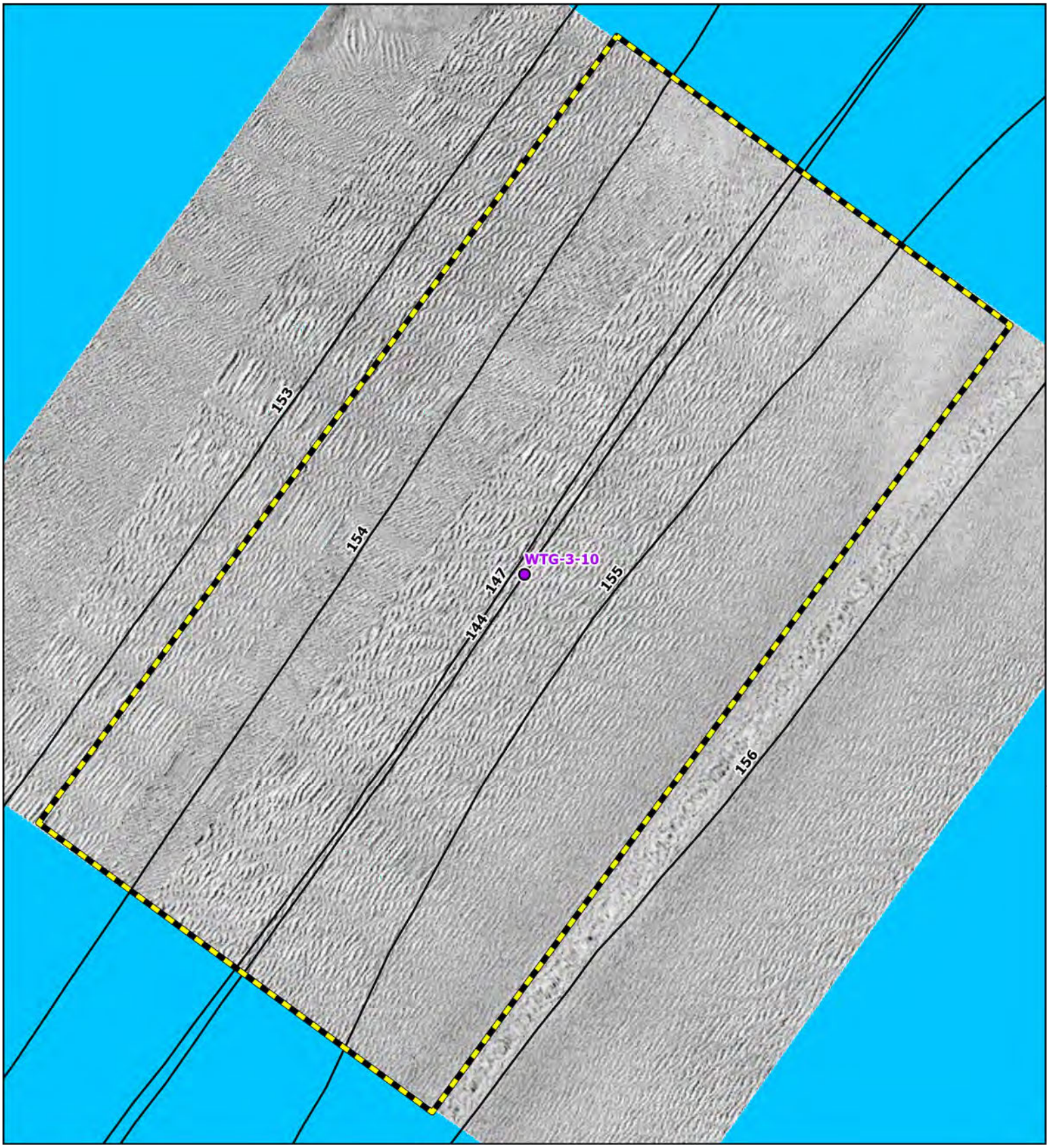
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 2

WTG-2-9

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

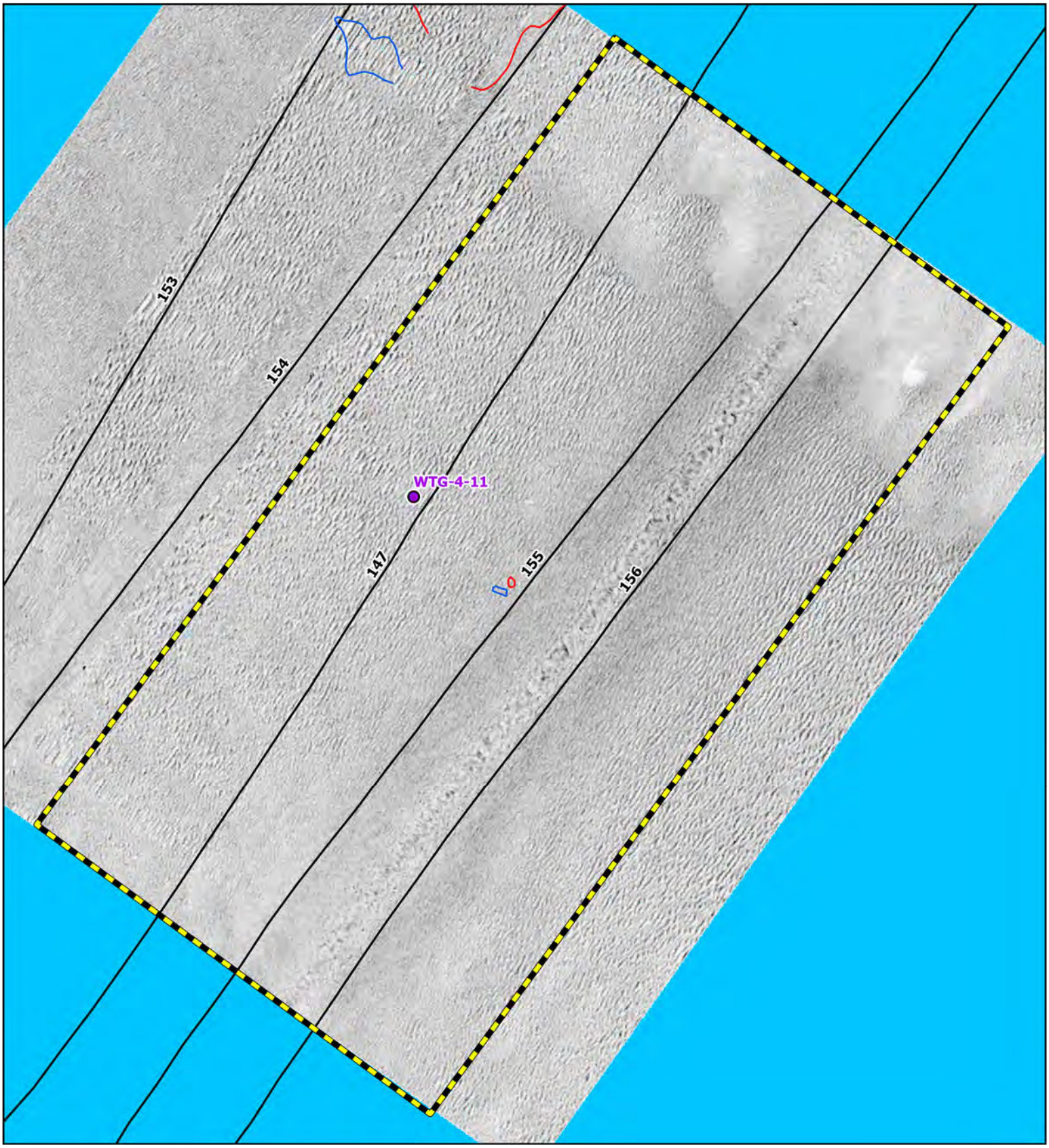
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 3

WTG-3-10

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

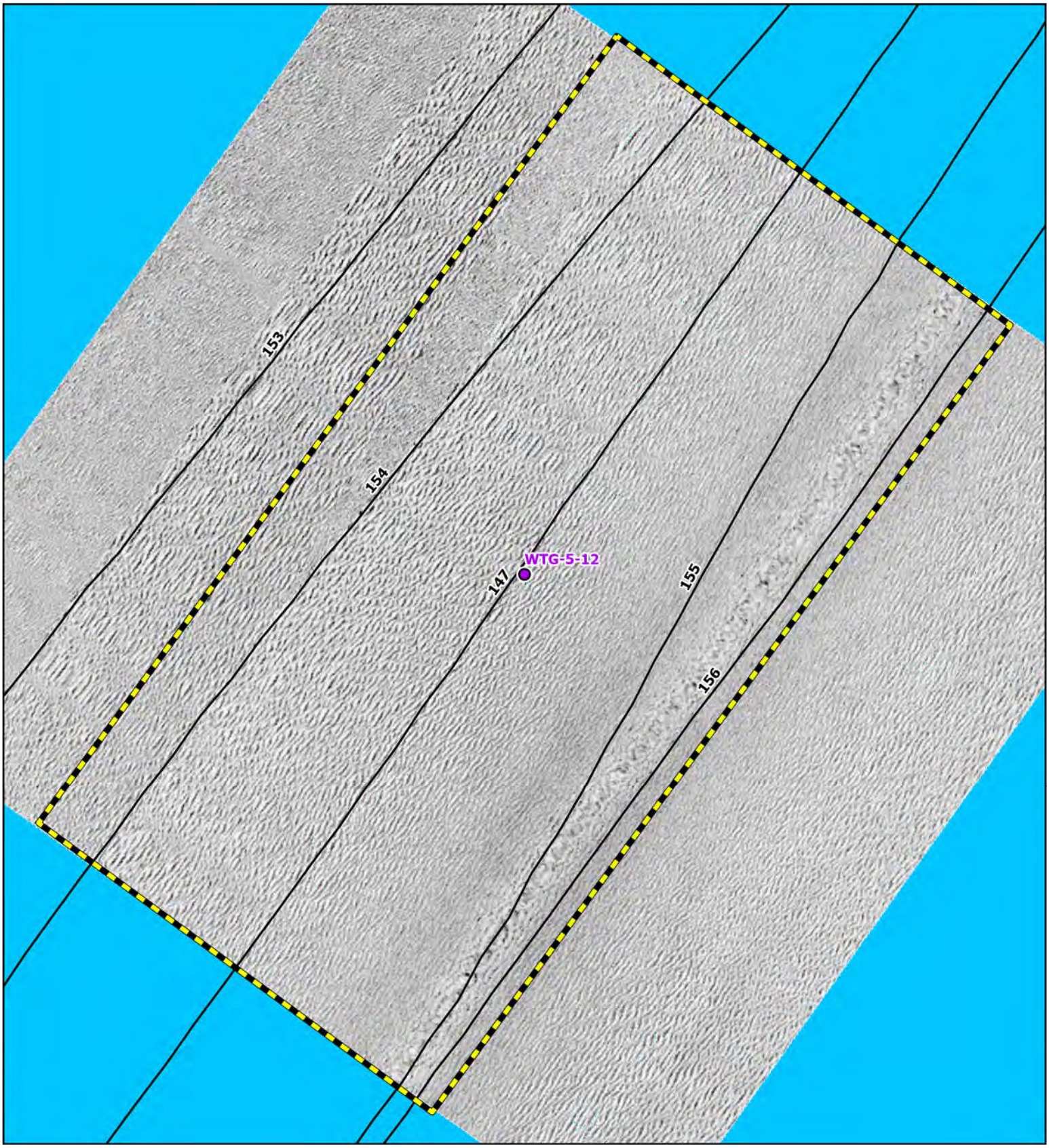
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 4

WTG-4-11

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

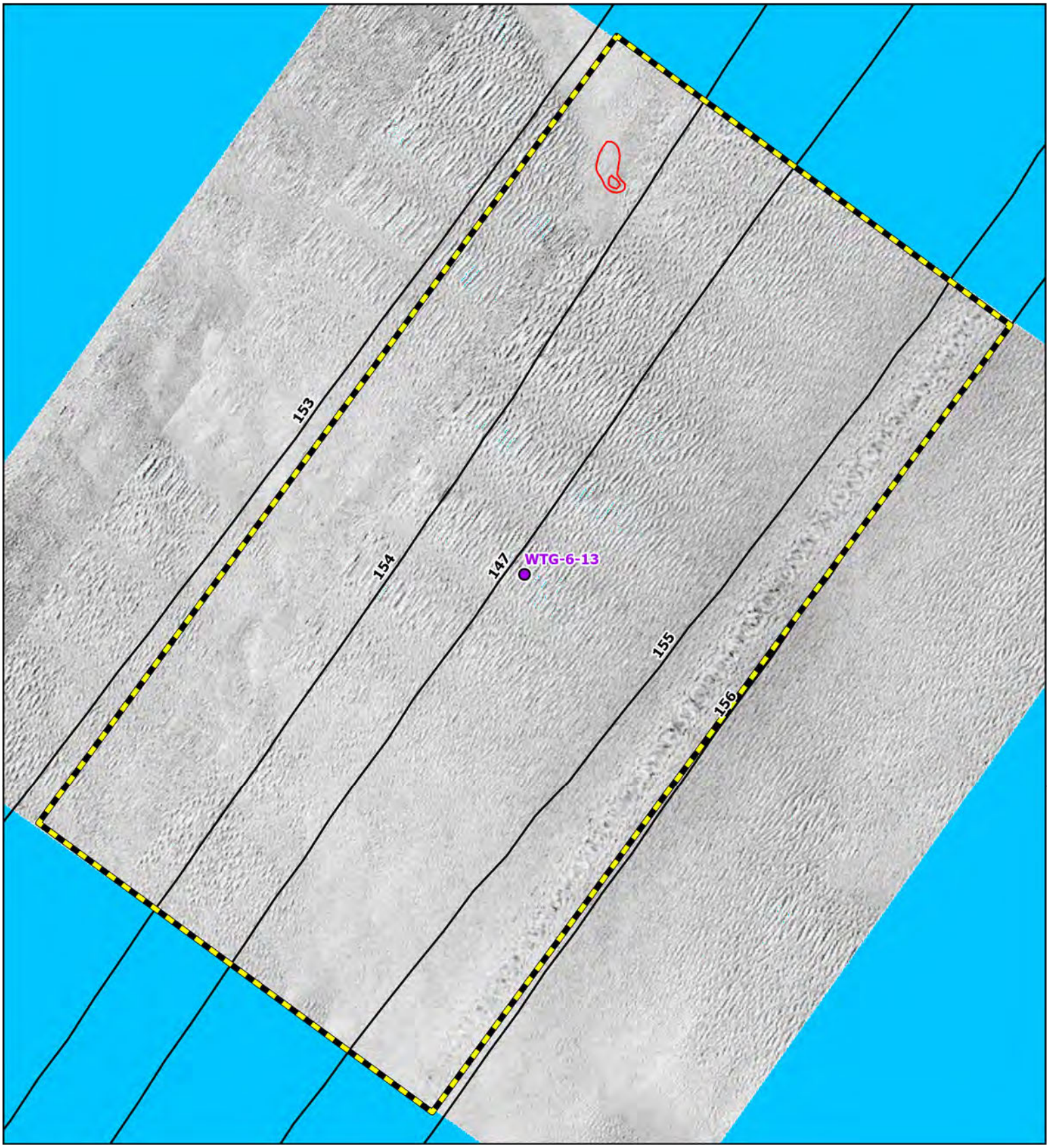
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 17

Map: 5

WTG-5-12

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

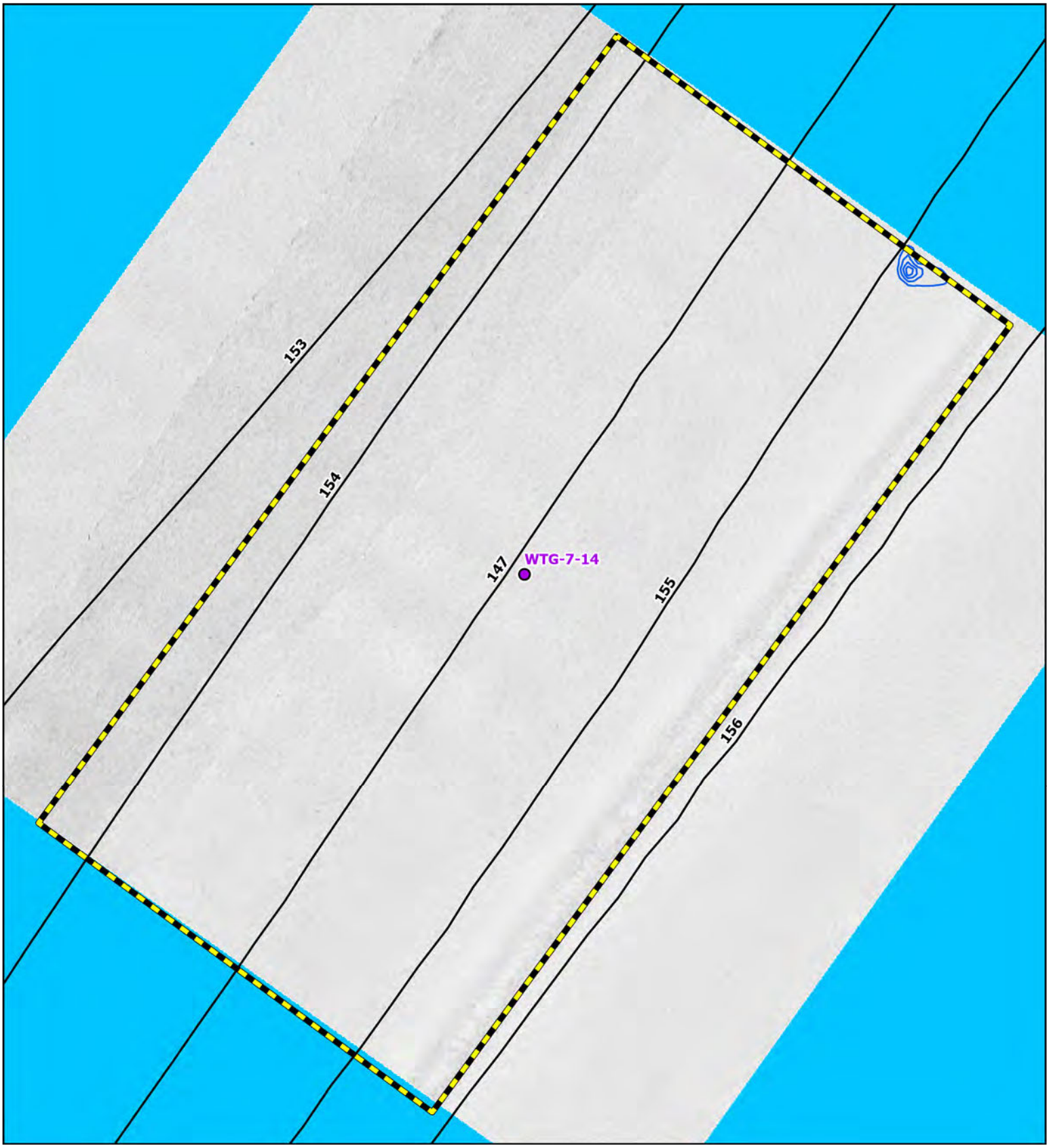
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 6

WTG-6-13

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

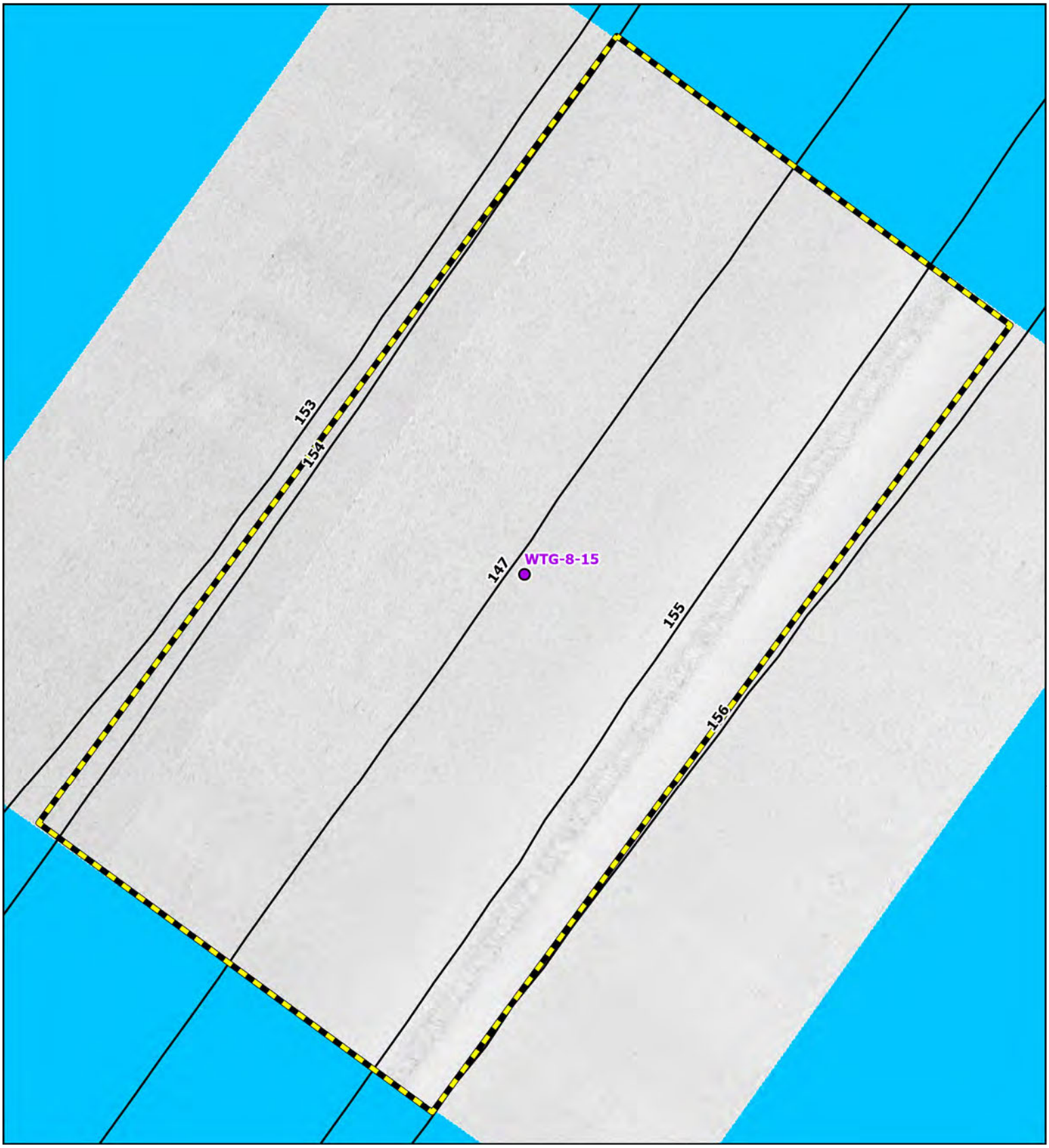
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 7

WTG-7-14

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

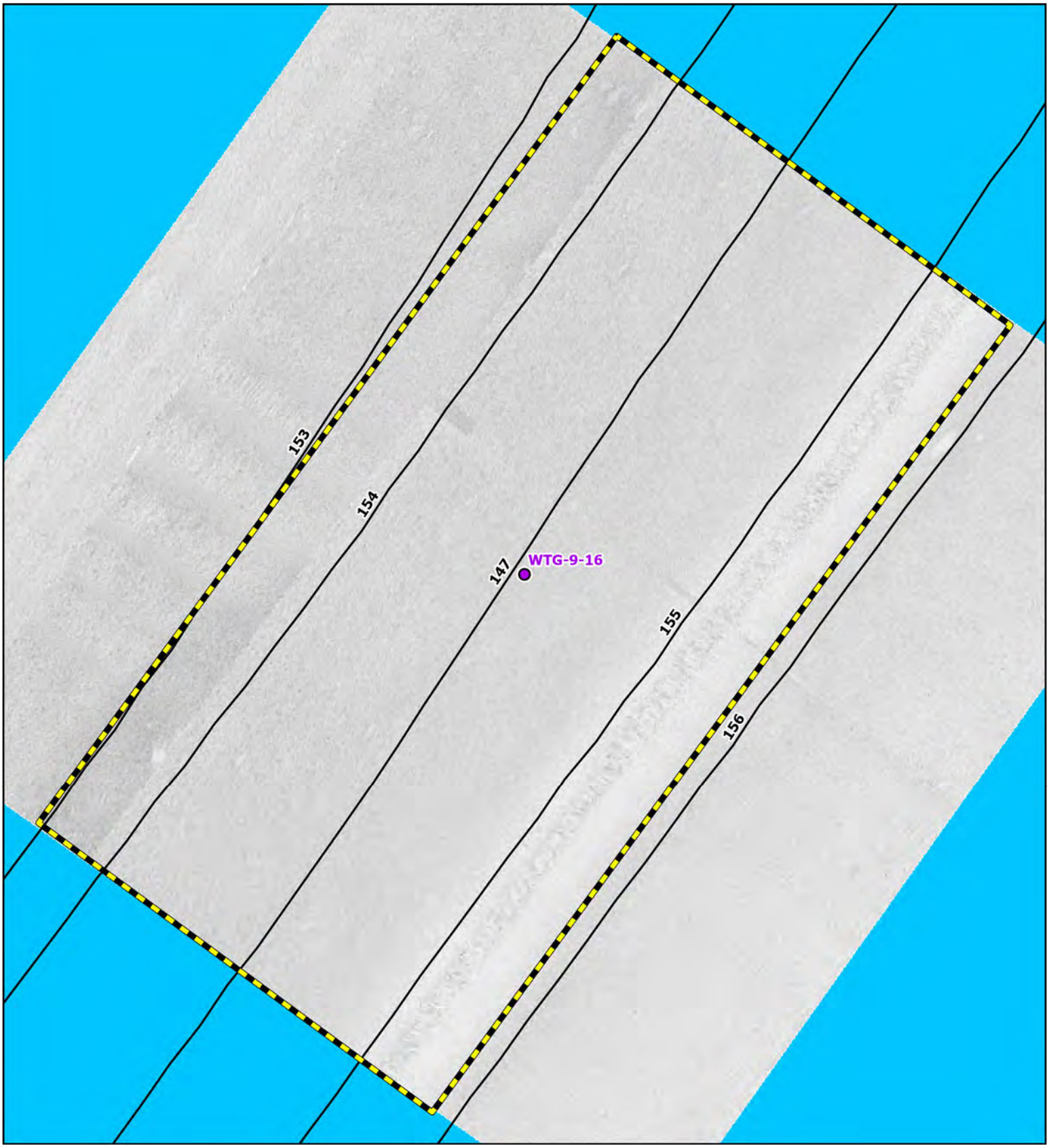
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 17

Map: 8

WTG-8-15

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

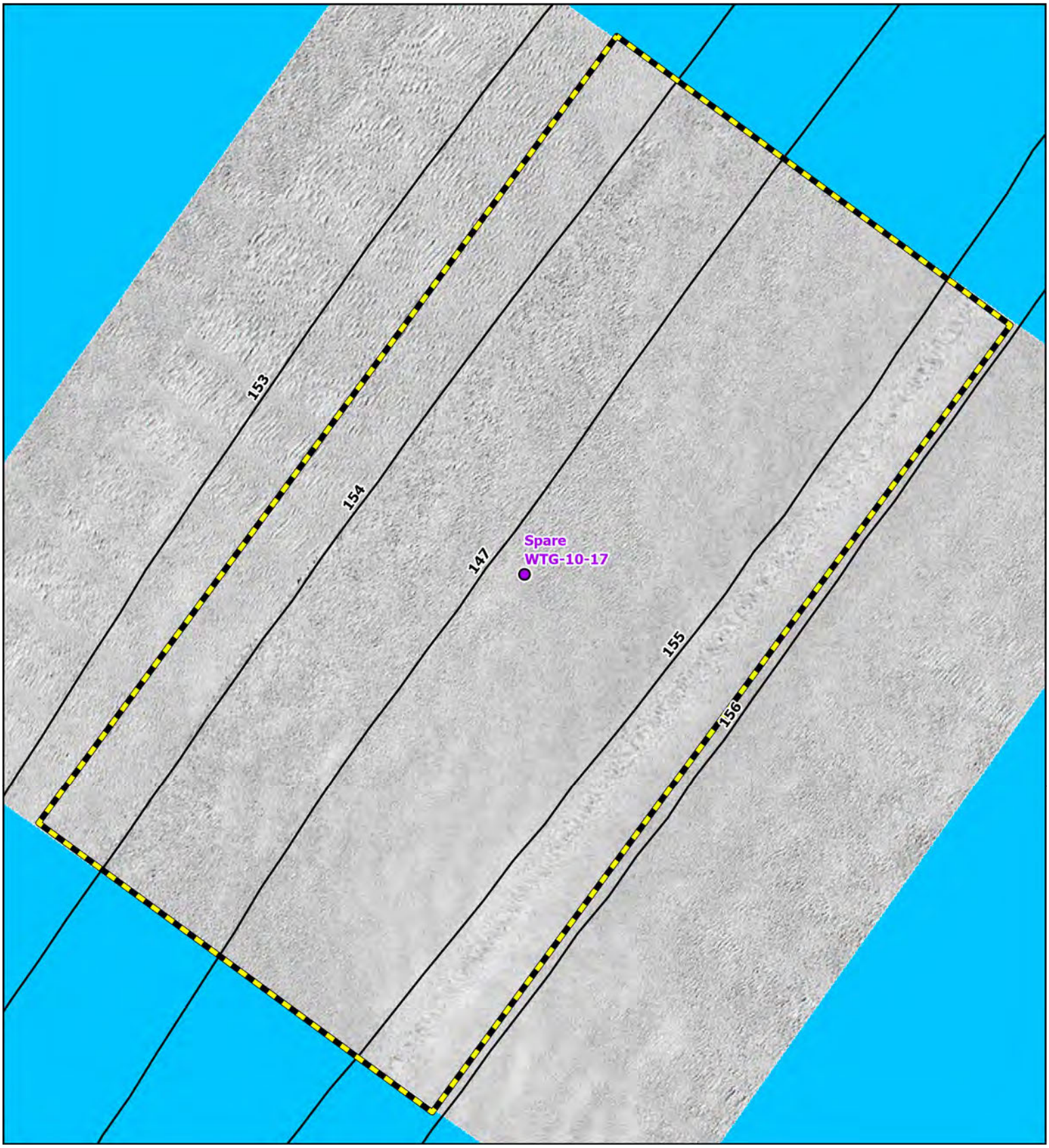
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 17

Map: 9

WTG-9-16

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

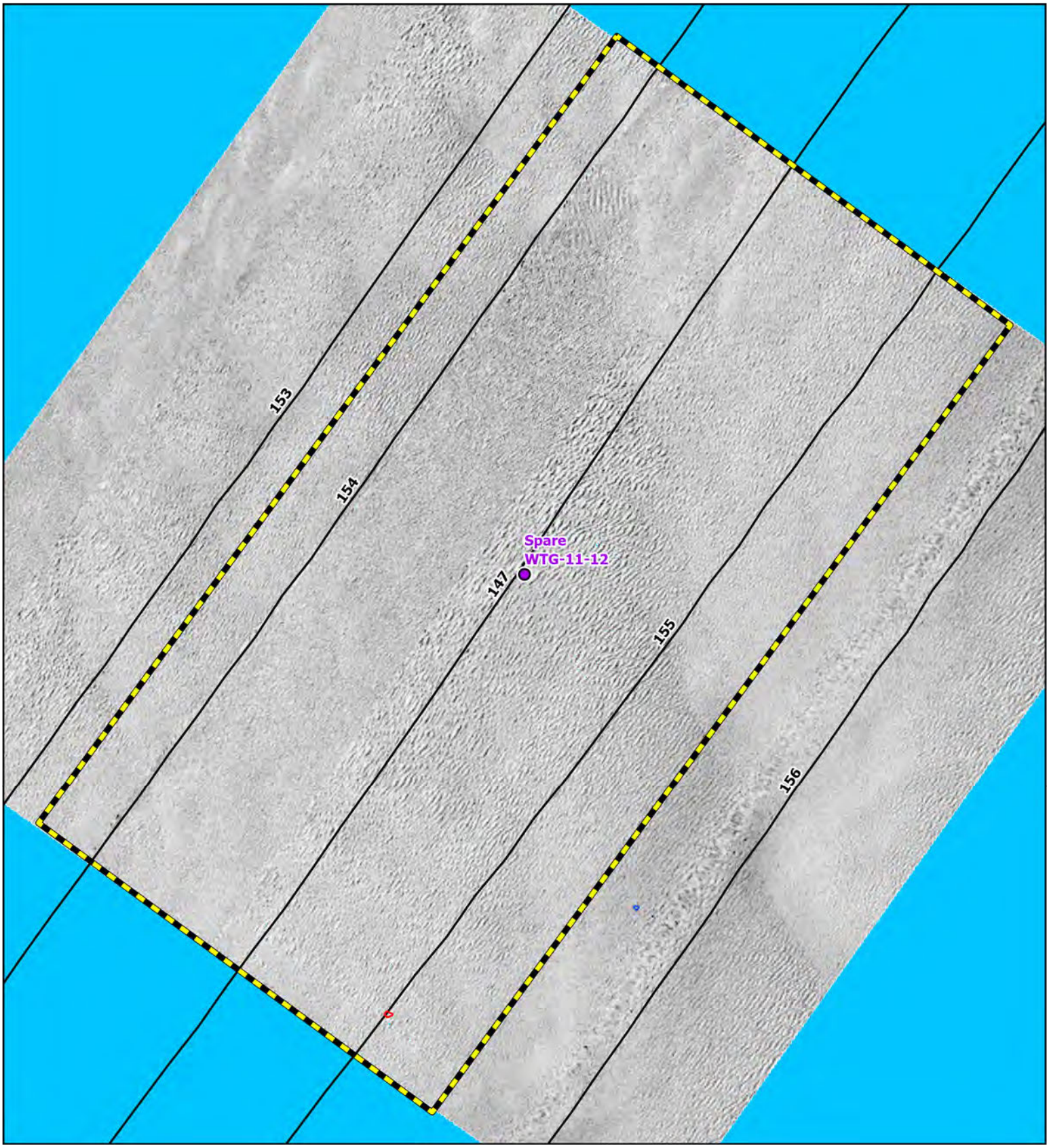
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 17

Map: 10

Spare WTG-10-17

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (10 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 17

Map: 11

Spare WTG-11-12

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 3
SUB-BOTTOM PROFILE IMAGES

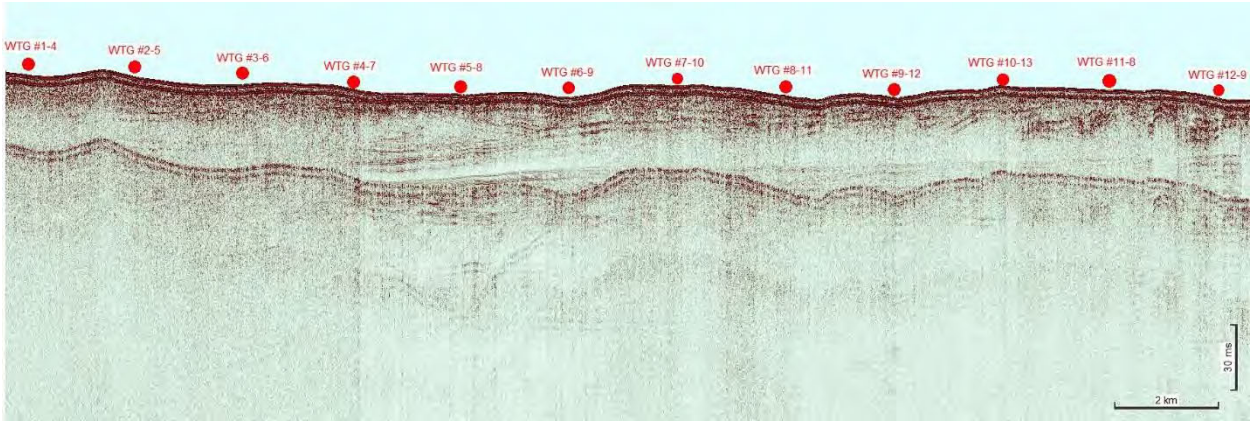


Figure 1: Core locations WTG #1-4, WTG #2-5, WTG #3-6, WTG #4-7, WTG #5-8, WTG #6-9, WTG #7-10, WTG #8-11, WTG #9-12, WTG #10-13, WTG #11-8 AND WTG #12-9 along Corridor 13 on line 0157_JD123_WTG13SCS18

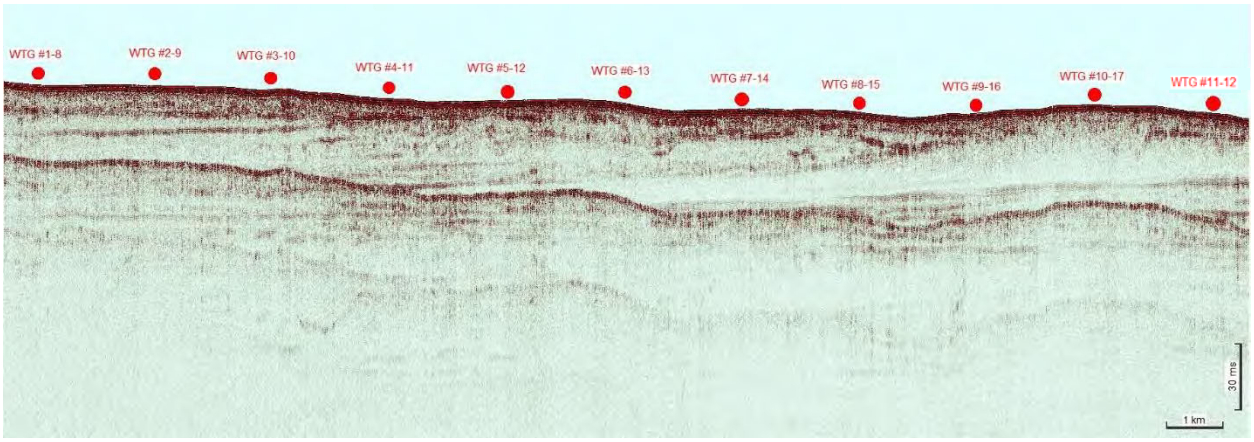


Figure 2: Core locations WTG #1-8, WTG #2-9, WTG #3-10, WTG #4-11, WTG #5-12, WTG #6-13, WTG # 7-14, WTG #8-15, WTG #9-16, WTG #10-17 and WTG #11-12 along Corridor 17 on line 0153_JD120_WTG17SCS14

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

June 11, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridor 15

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridor 15 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

June 10, 2020

Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews 12 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 12 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landscapes through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

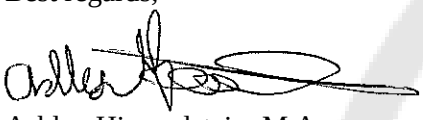
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



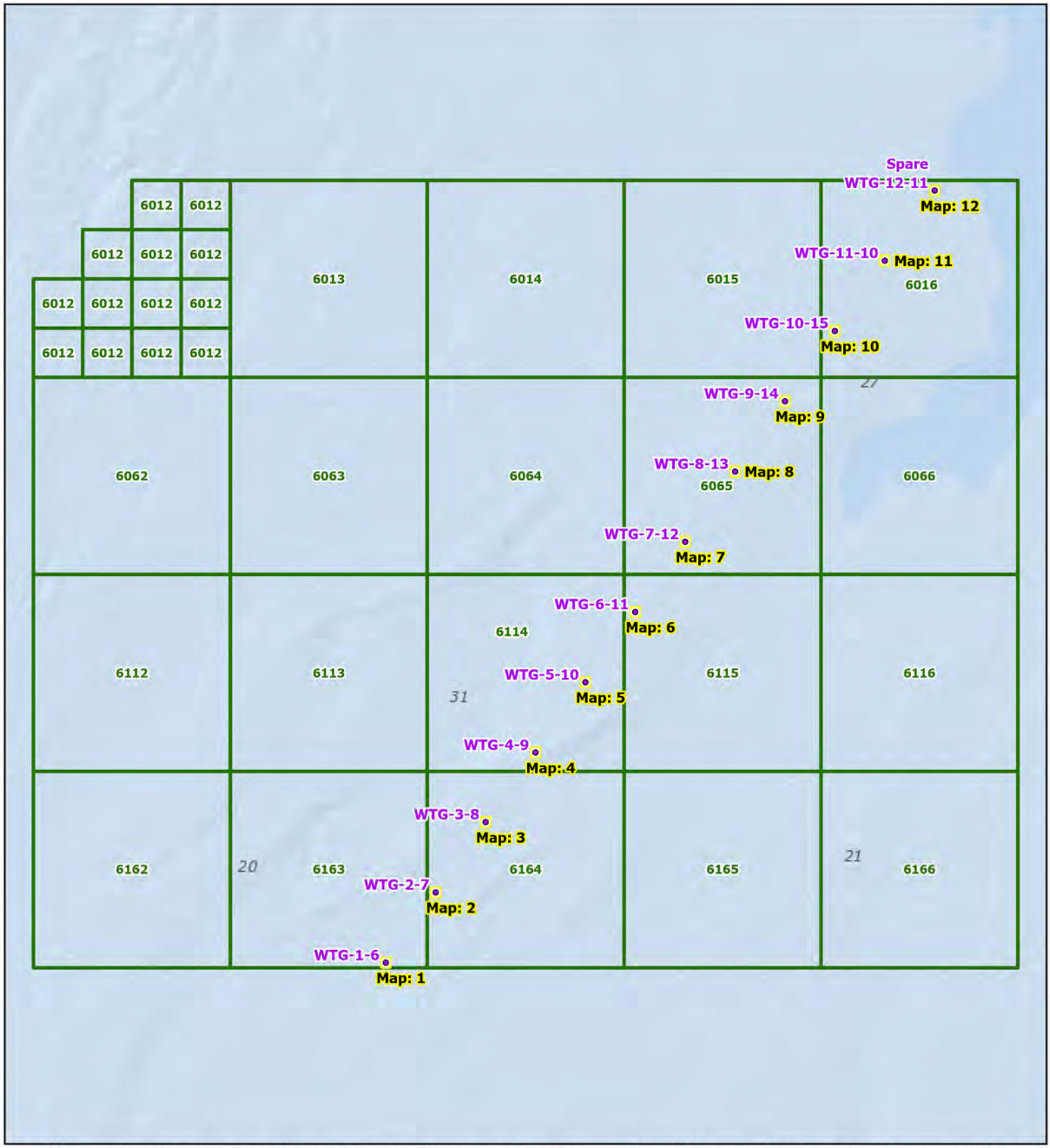
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 15

Core ID	Easting	Northing	Longitude	Latitude
WTG-1-6	465390.1426	4075324.172	-75.38808325	36.82315569
WTG-2-7	466606.1424	4077036.172	-75.37452369	36.83863222
WTG-3-8	467823.1422	4078748.171	-75.36094746	36.85410723
WTG-4-9	469039.142	4080459.171	-75.34737694	36.86957163
WTG-5-10	470256.1418	4082171.170	-75.33378978	36.88504351
WTG-6-11	471472.1415	4083883.170	-75.32020838	36.9005138
WTG-7-12	472689.1413	4085595.170	-75.30661028	36.91598255
WTG-8-13	473905.1411	4087306.169	-75.29301788	36.93144068
WTG-9-14	475122.1409	4089018.169	-75.27940881	36.94690629
WTG-10-15	476338.1407	4090730.169	-75.26580549	36.96237029
WTG-11-10	477555.1405	4092442.168	-75.25218543	36.97783273
Spare WTG-12-11	478771.1402	4094153.168	-75.23857108	36.99328456

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 15



N
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Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

0 1 2 3 4 Kilometers

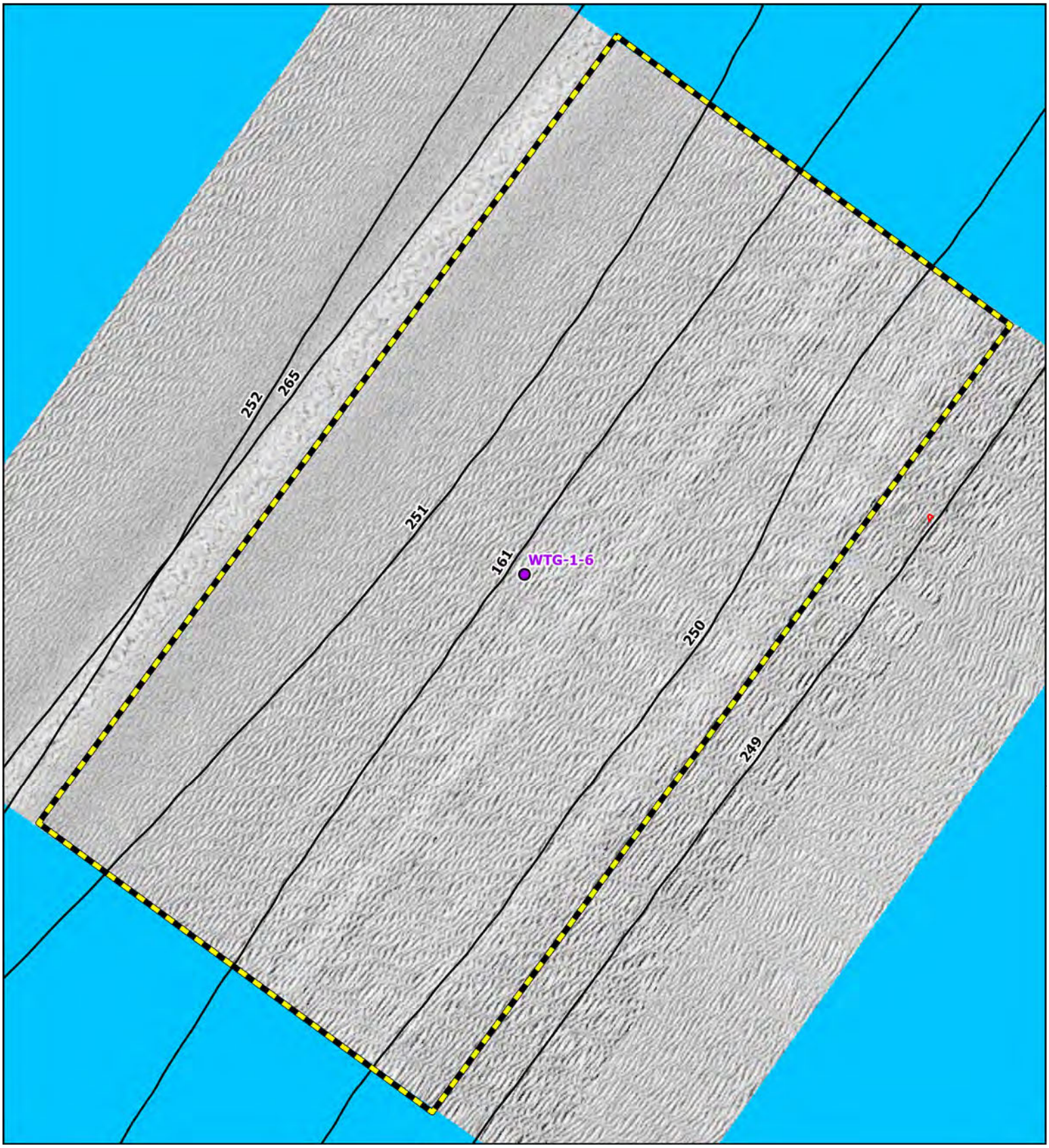
- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

www.rcgoodwin.com | kmay, 6.10.2020



N
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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
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0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

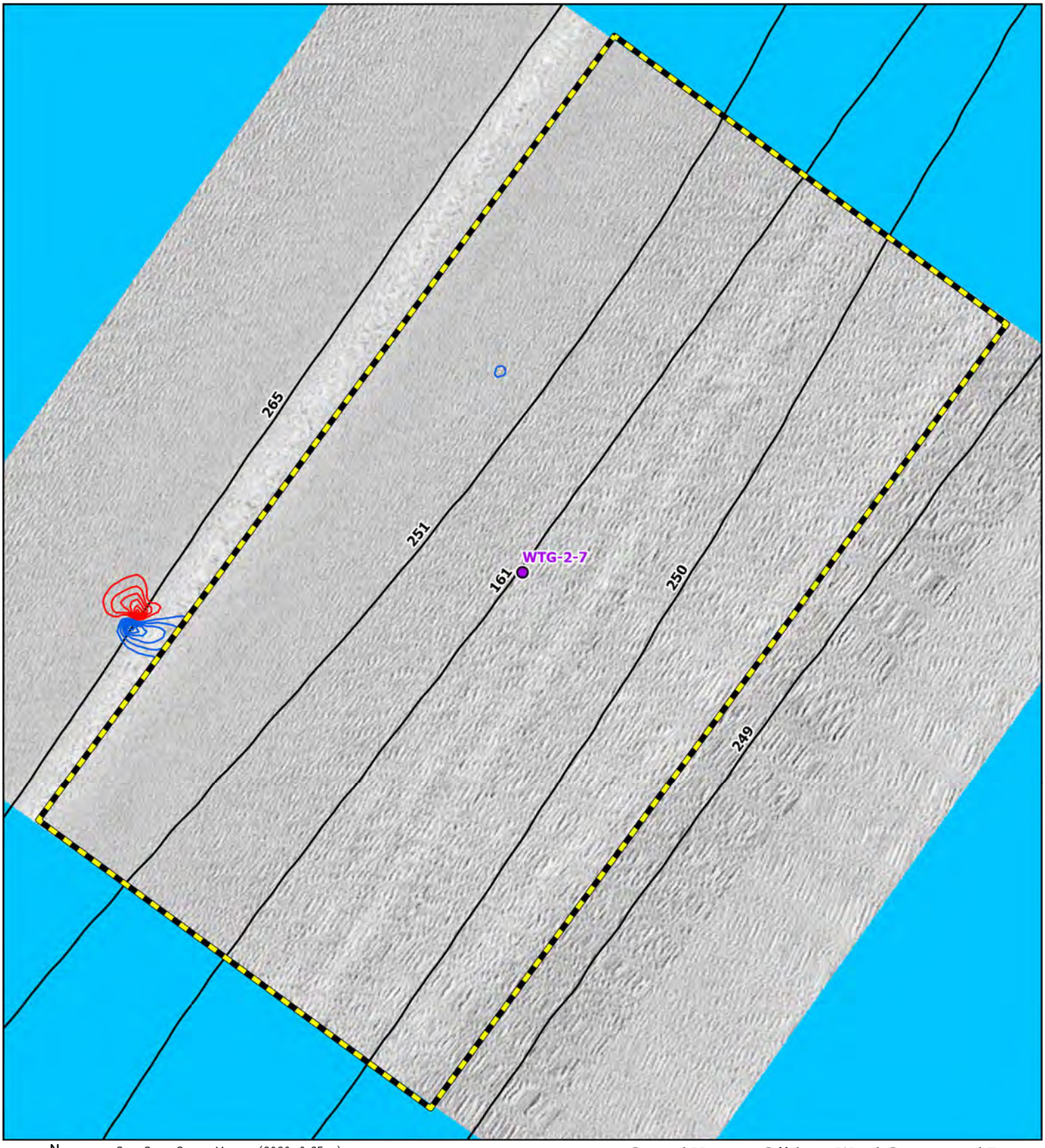
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 1

WTG-1-6

R. Christopher Goodwin & Associates, Inc.
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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

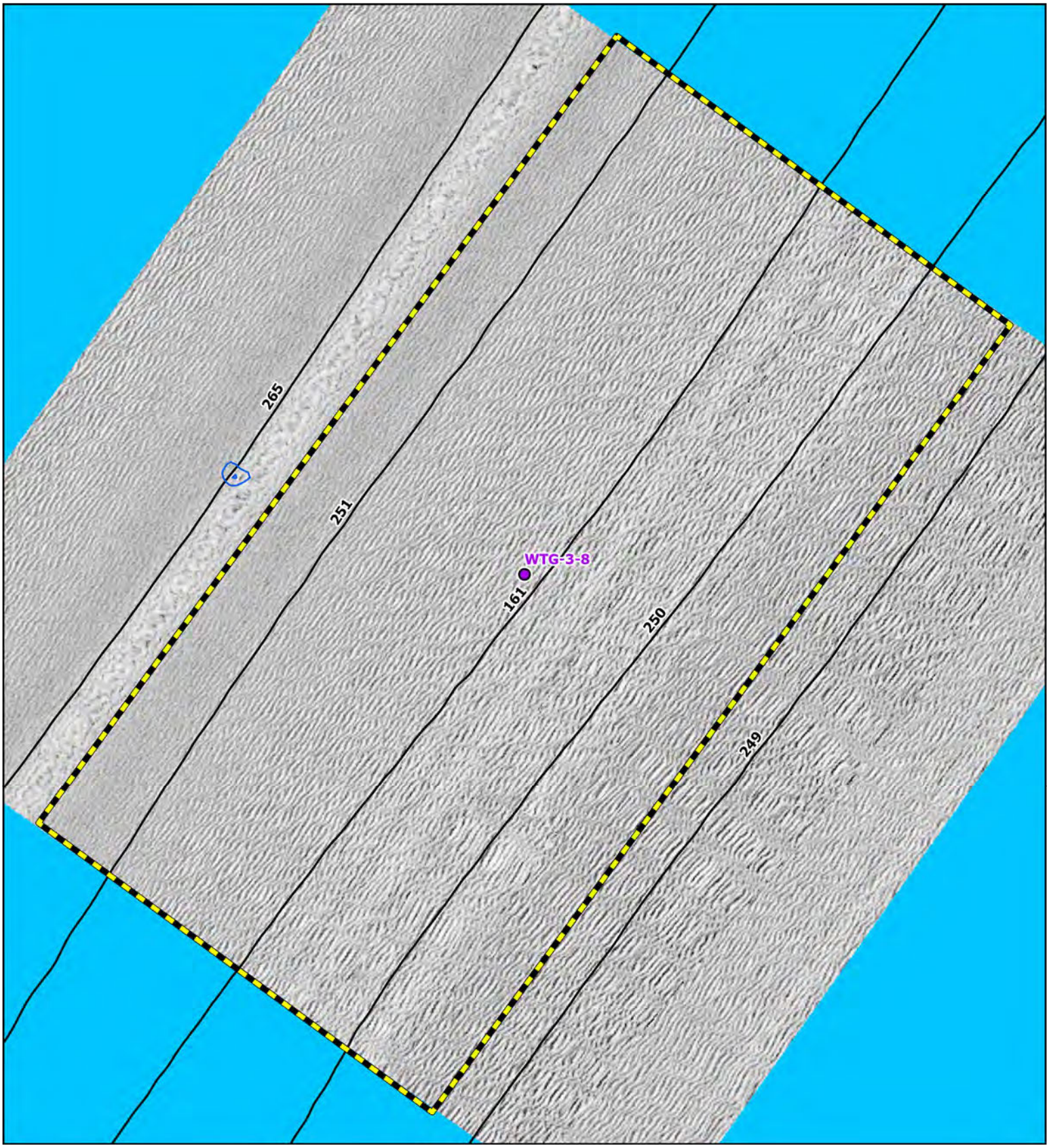
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 2

WTG-2-7

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

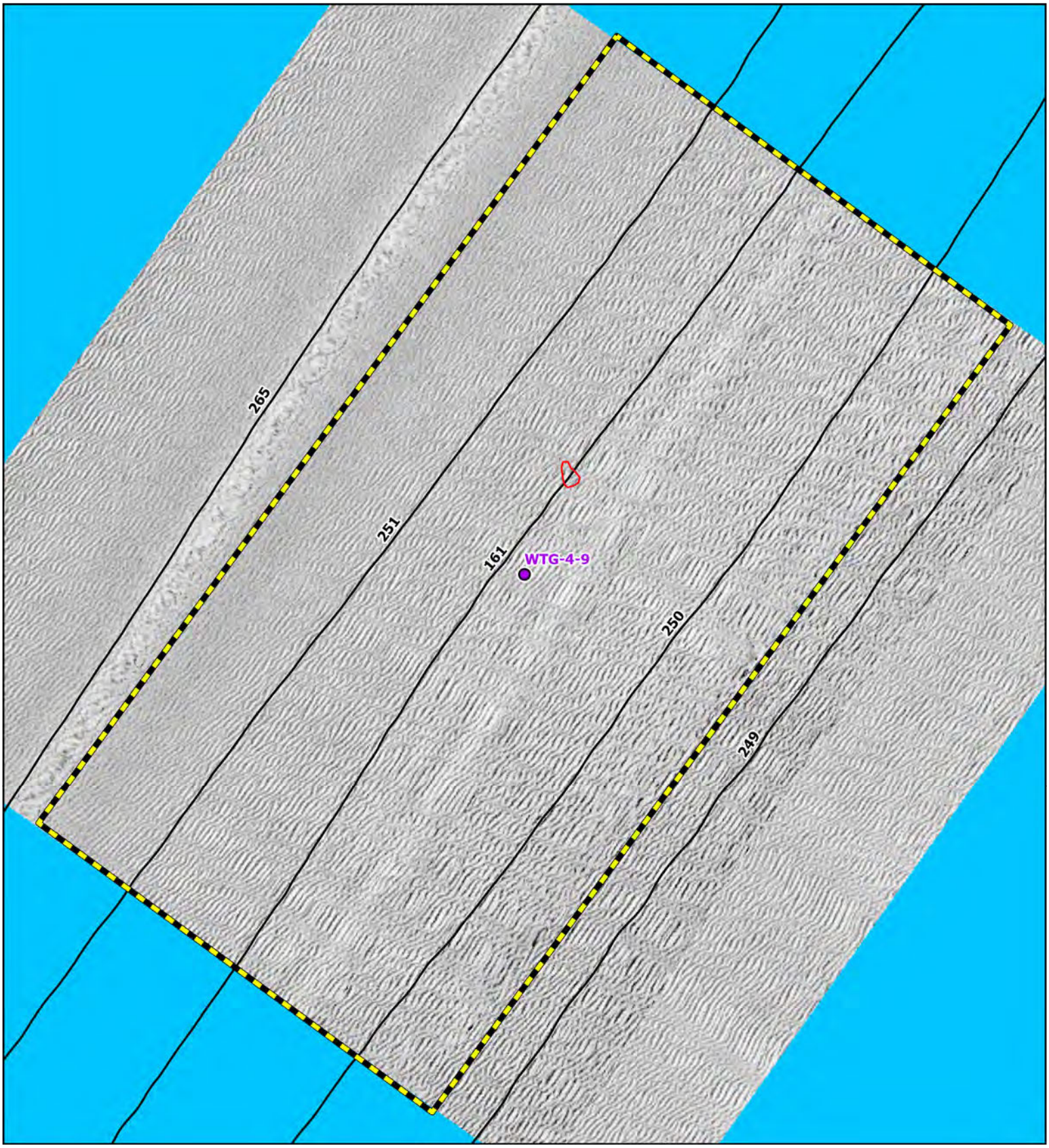
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 15

Map: 3

WTG-3-8

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

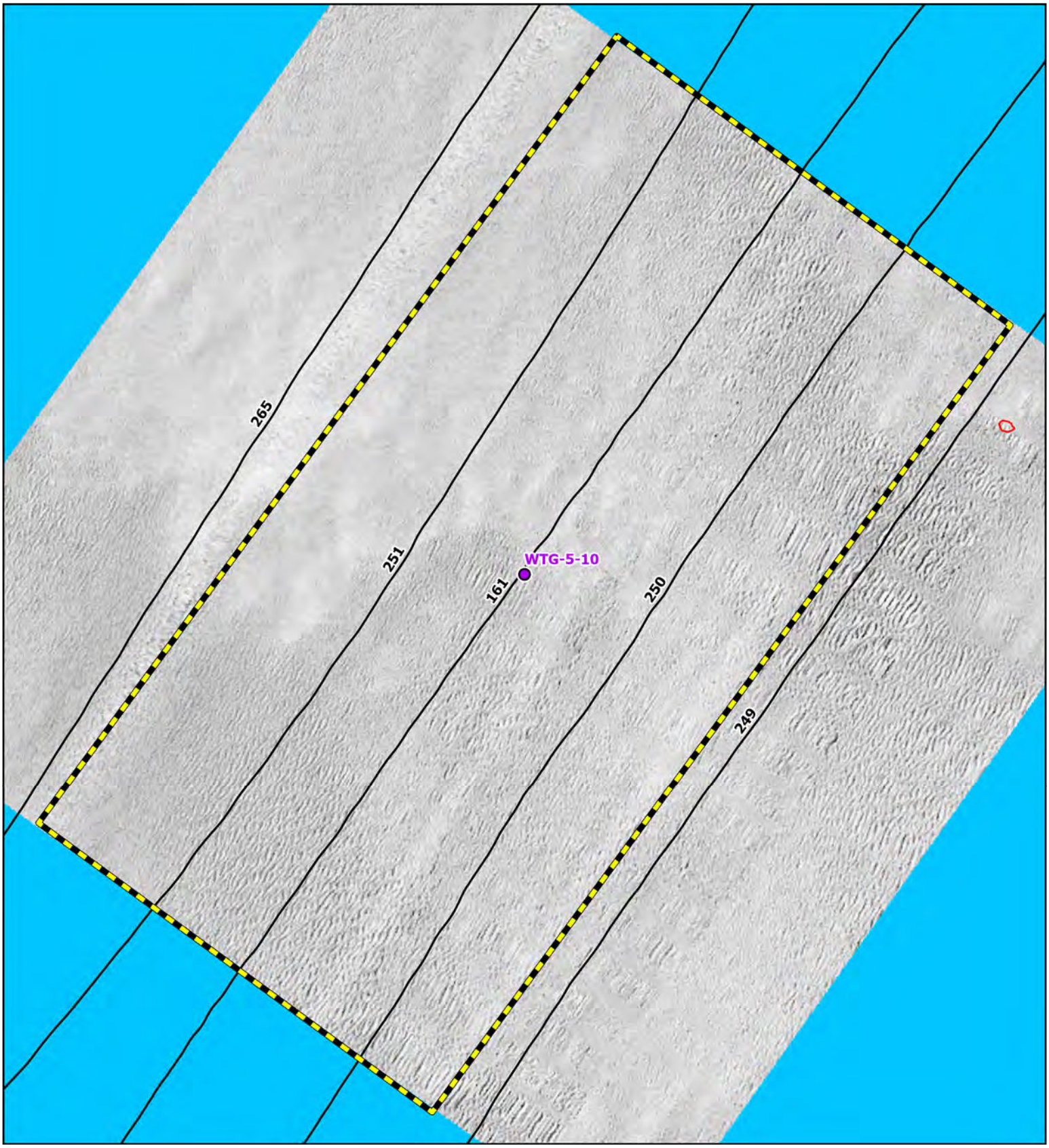
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 4

WTG-4-9

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

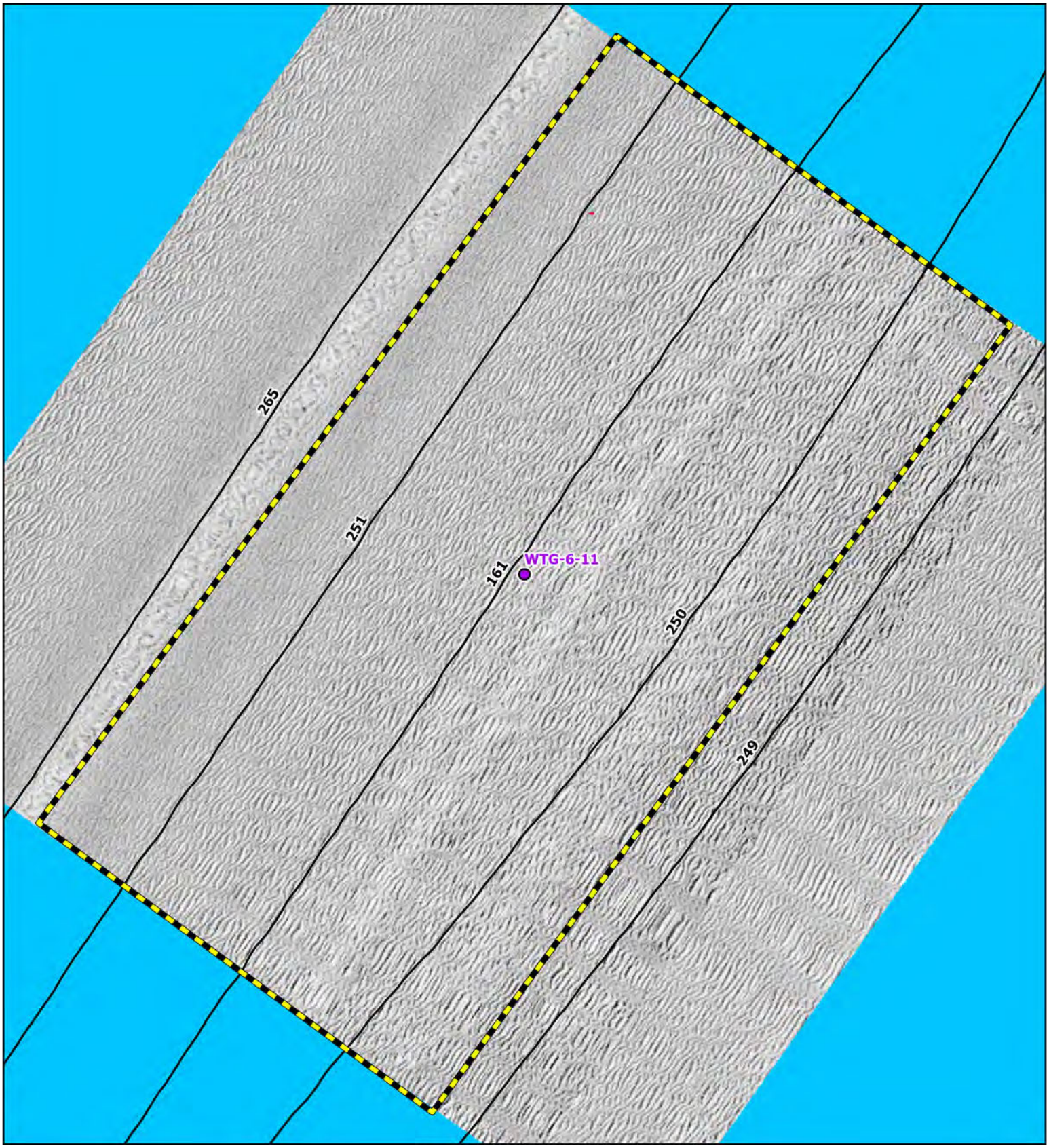
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 15

Map: 5

WTG-5-10

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

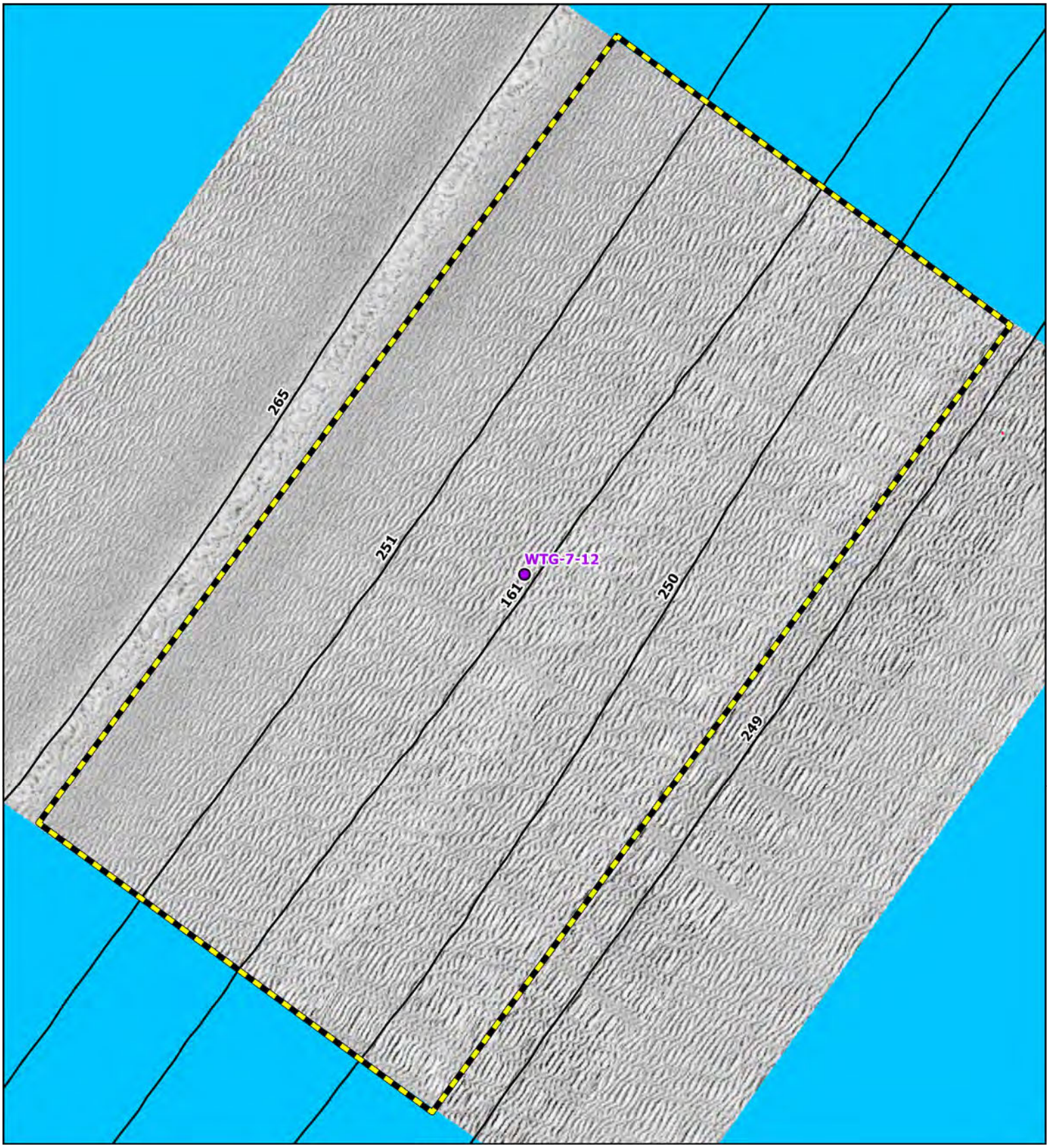
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Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 6

WTG-6-11

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

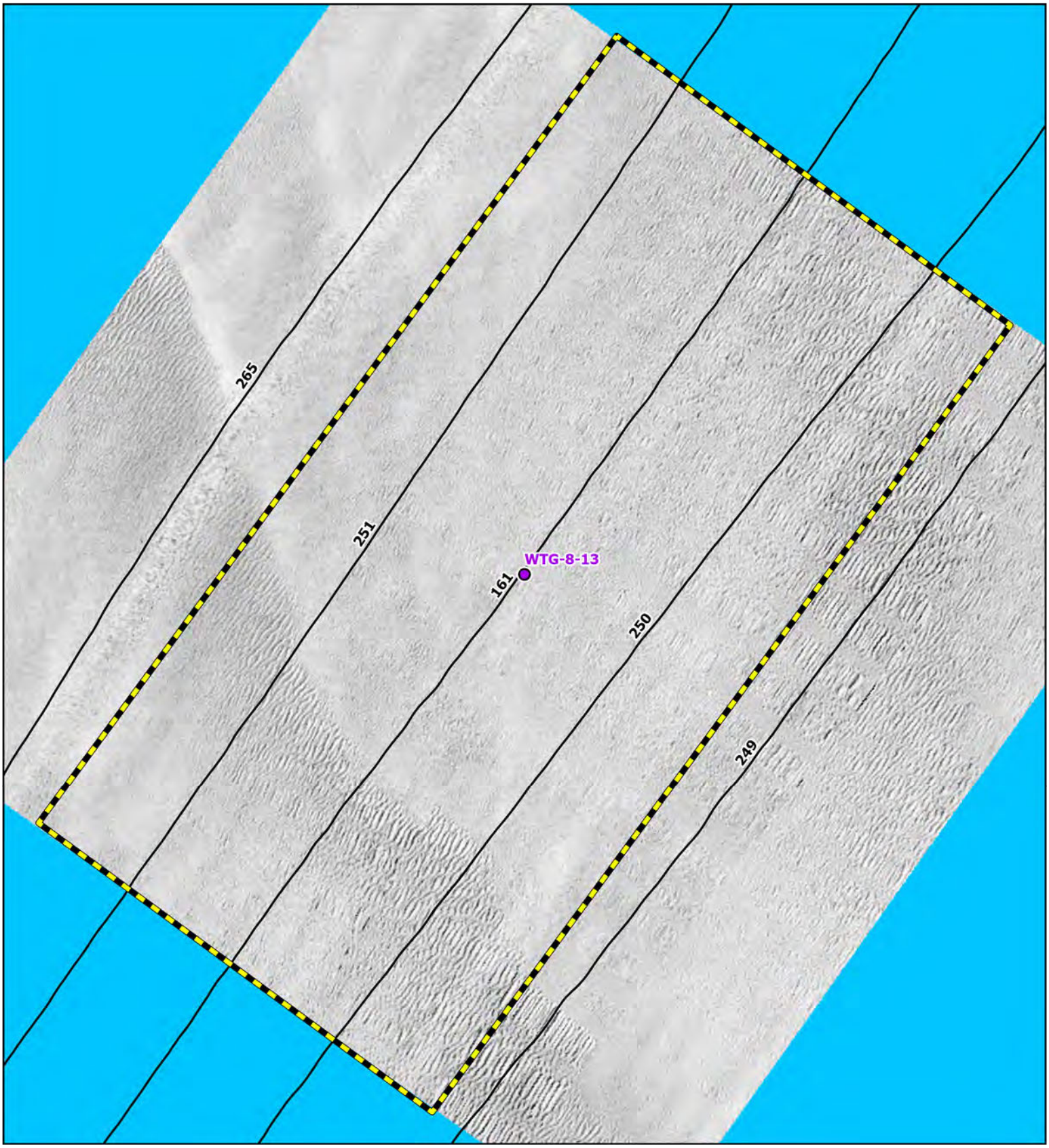
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Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 7

WTG-7-12

R. Christopher Goodwin & Associates, Inc.
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

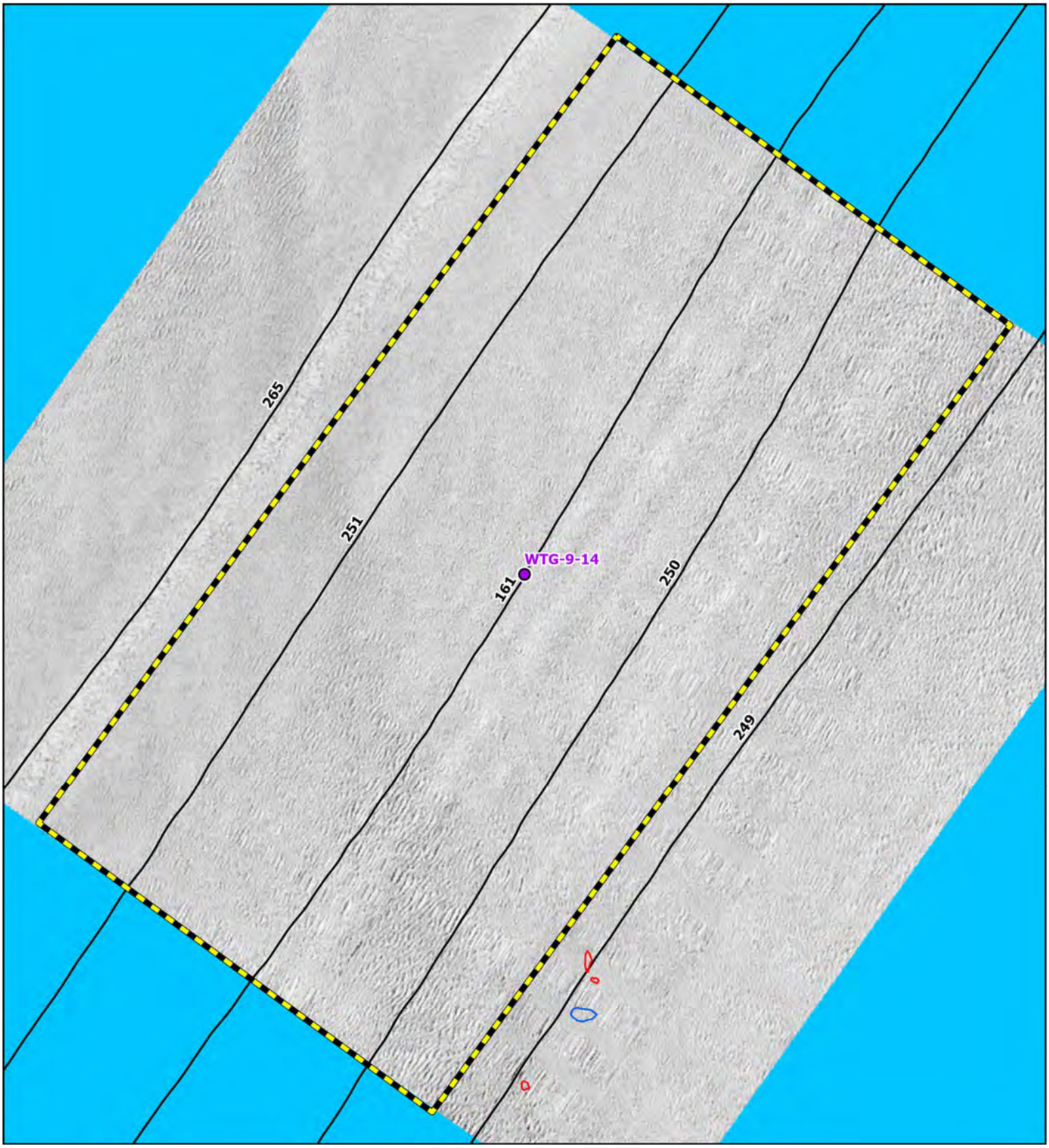
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 8

WTG-8-13

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

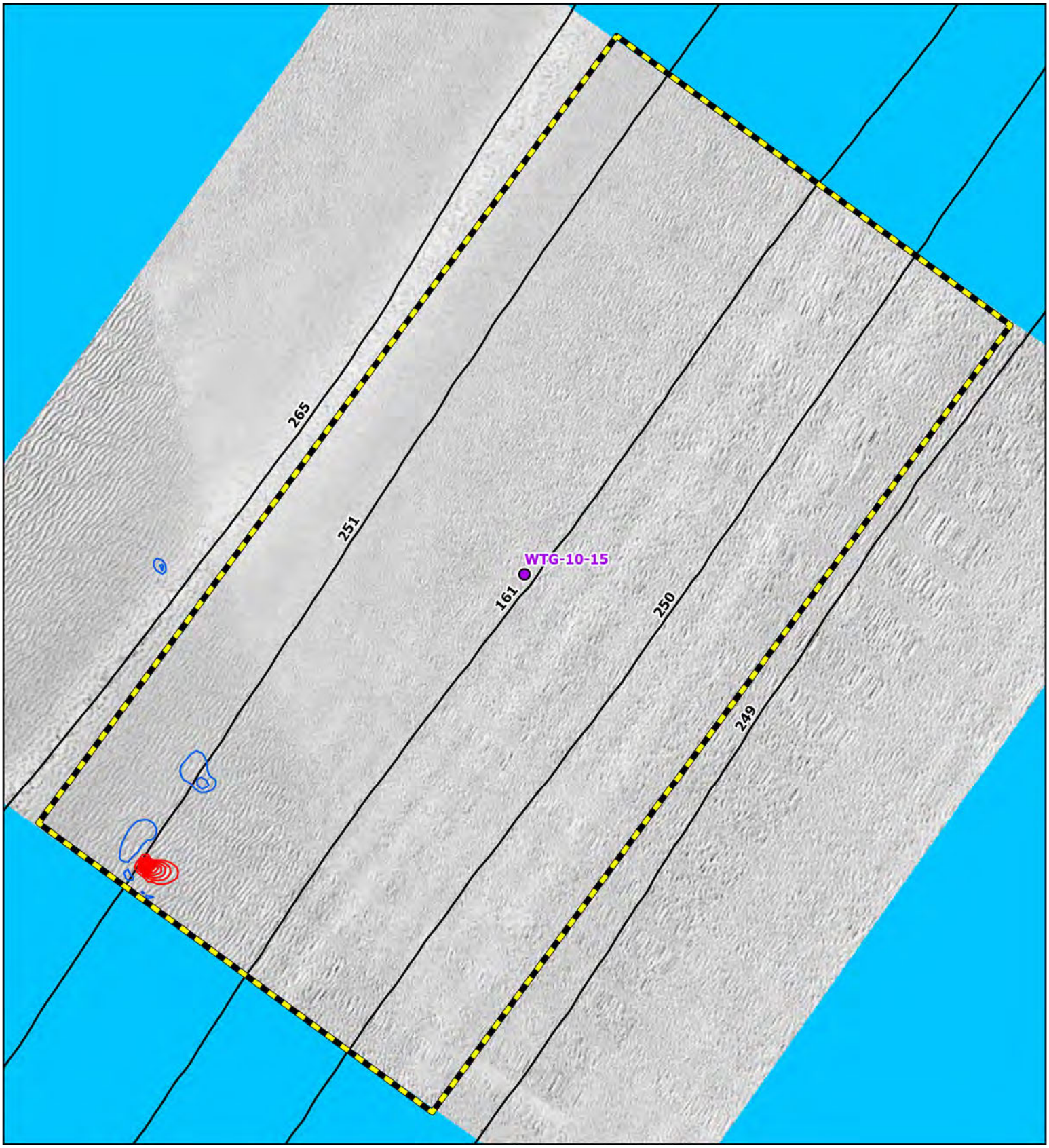
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Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 9

WTG-9-14

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

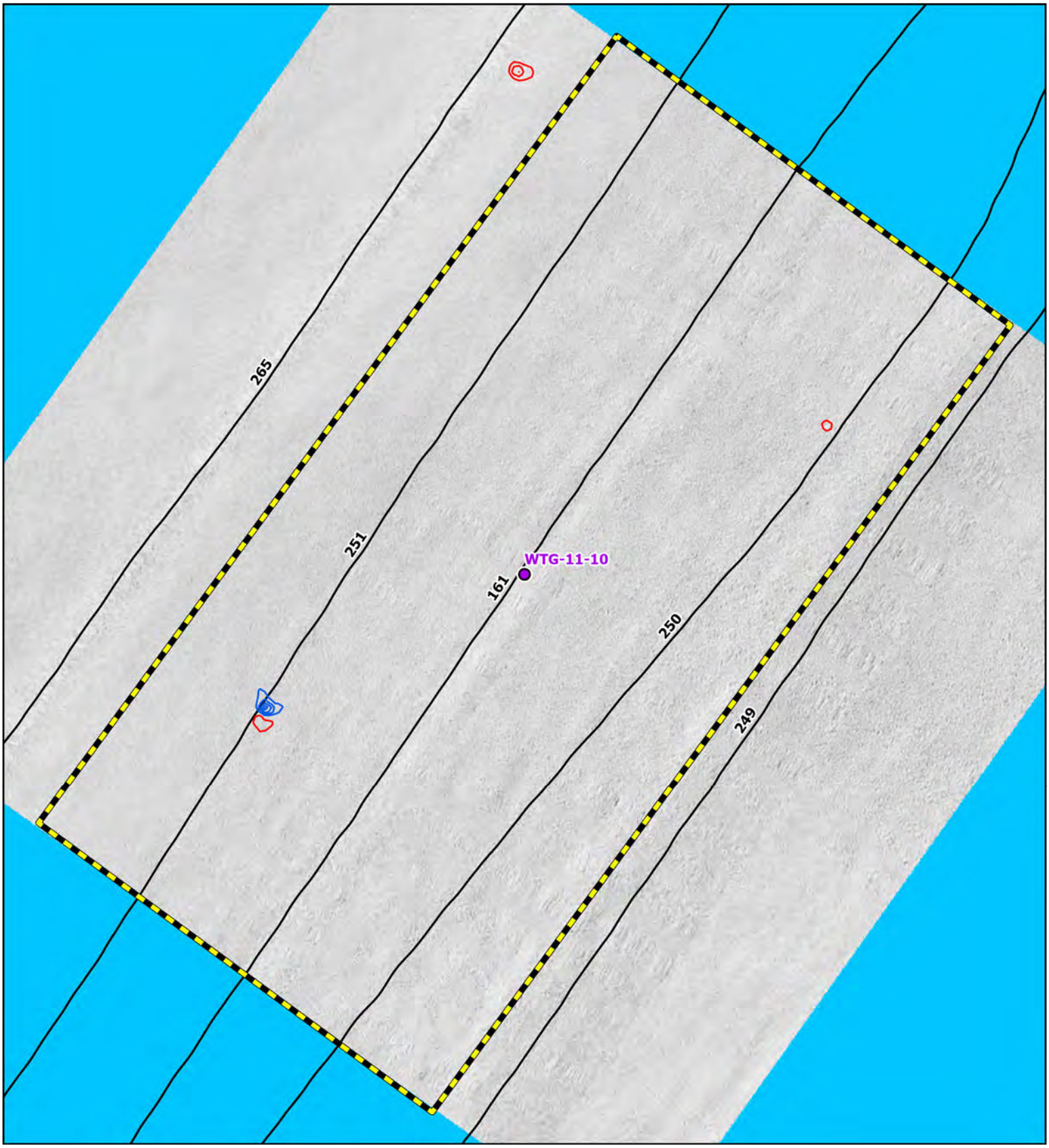
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 10

WTG-10-15

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
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Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

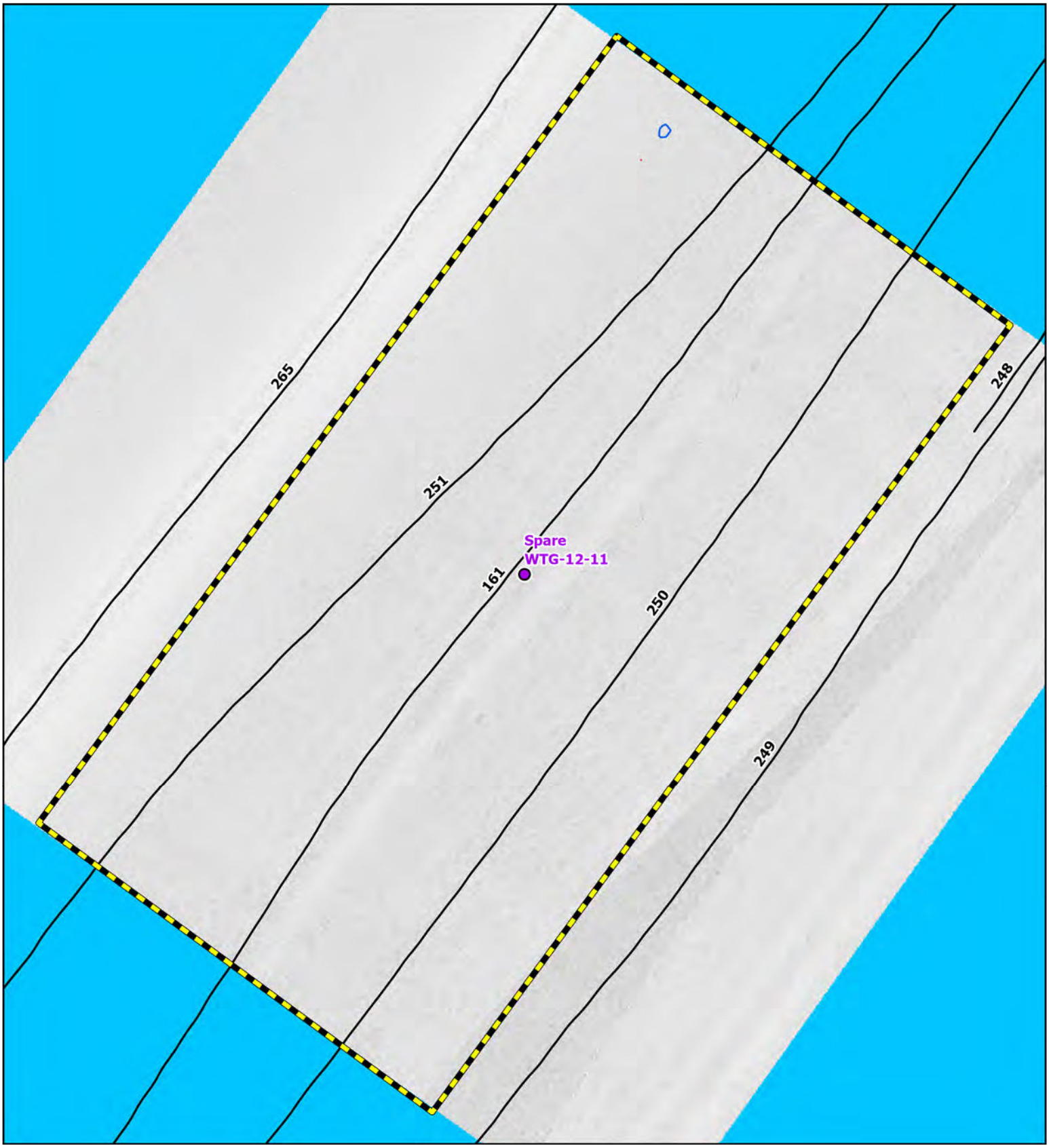
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 11

WTG-11-10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 15

Map: 12

Spare WTG-12-11

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MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

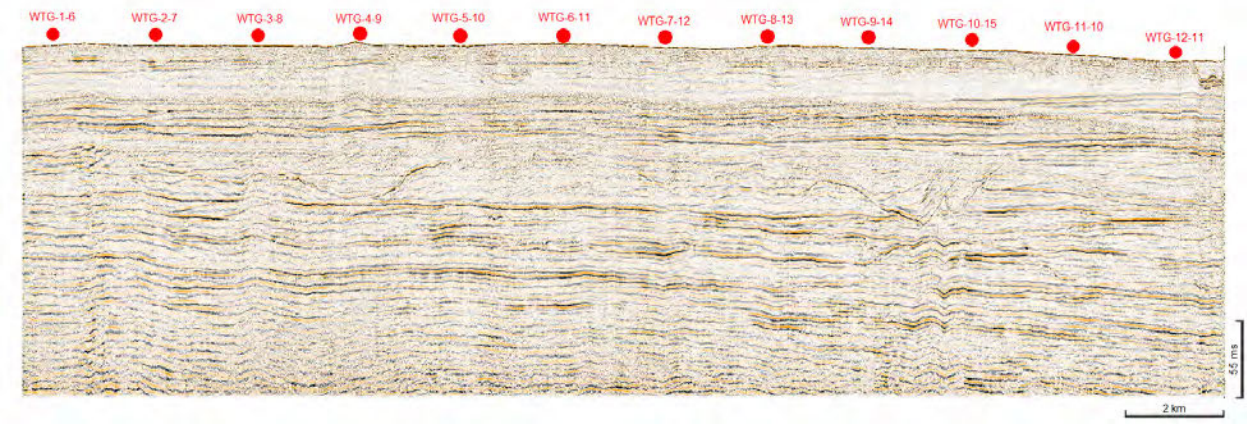


Figure 1: Geotechnical core locations WTG-1-6, WTG-2-7, WTG-3-8, WTG-4-9, WTG-5-10, WTG-6-11, WTG-7-12, WTG-8-13, WTG-9-14, WTG-10-15, WTG-11-10, and WTG-12-11 in Corridor 15 on line WTG15MCS16_MIG

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

June 23, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridor 7

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridor 7 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Jeff Browning, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Renewable Reporting - BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

June 17, 2020

Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews six (6) of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the six (6) proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

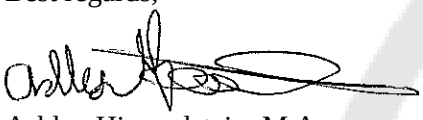
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



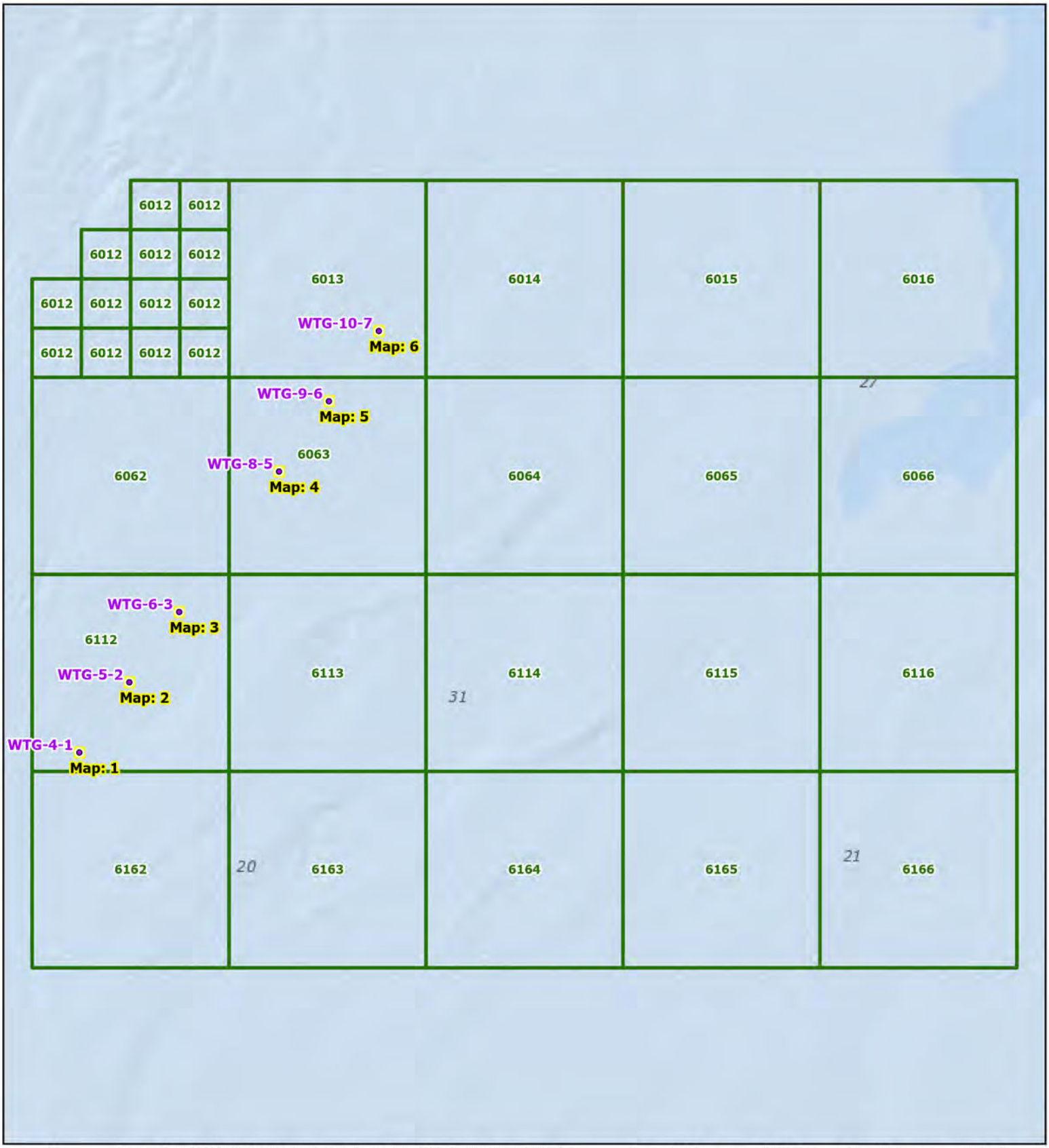
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 7

Core ID	Easting	Northing	Longitude	Latitude
WTG-4-1	457951.1443	4080459.171	-75.47177901	36.86914292
WTG-5-2	459168.1441	4082171.171	-75.45821717	36.88462887
WTG-6-3	460384.1439	4083883.170	-75.44466109	36.90011322
WTG-8-5	462817.1435	4087306.170	-75.41752126	36.93106829
WTG-9-6	464034.1432	4089018.169	-75.40393754	36.94654802
WTG-10-7	465250.1430	4090730.169	-75.39035958	36.96202615

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 7



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GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS
MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

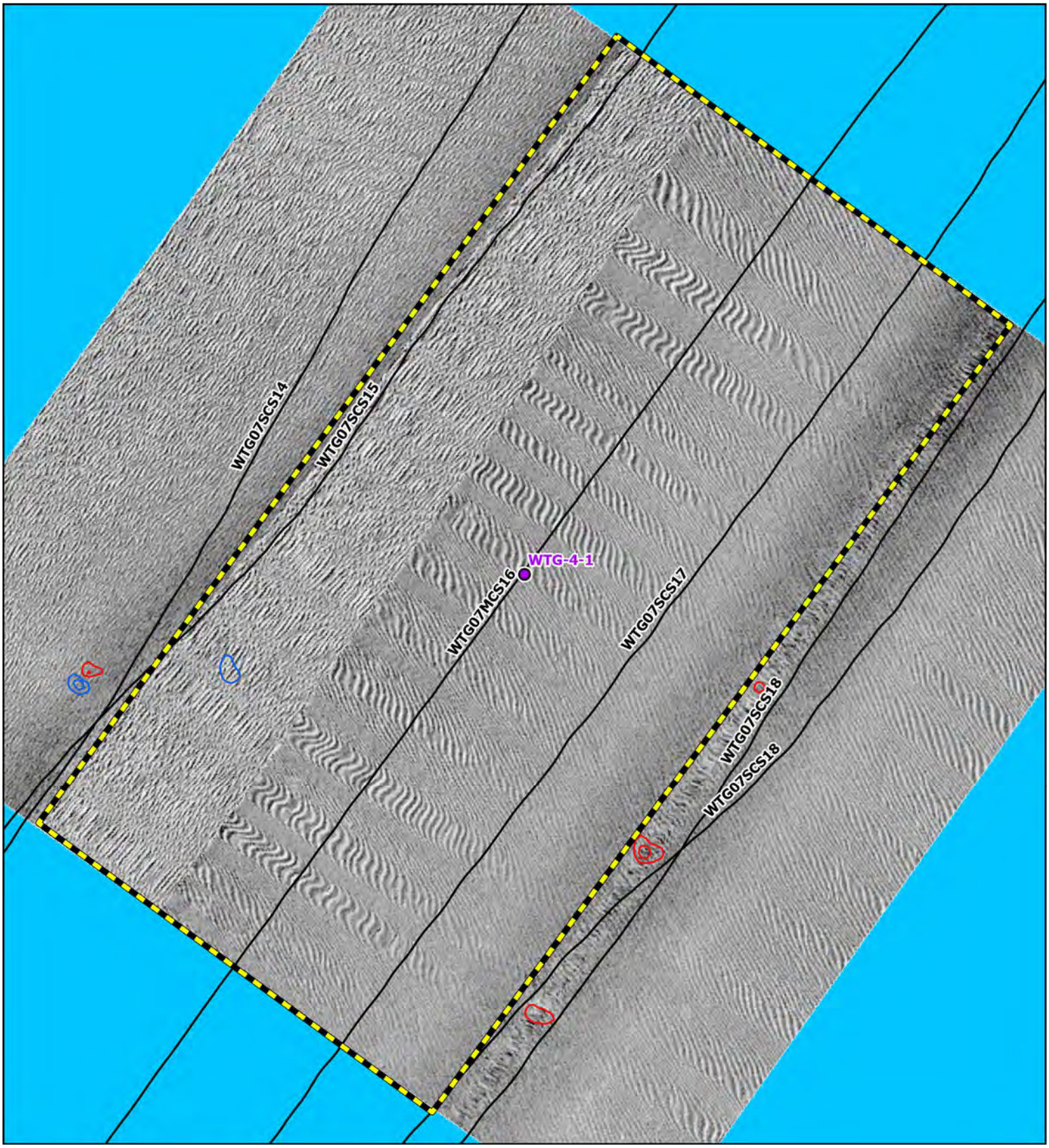
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- GEOTECHNICAL LOCATION
- MAP SHEET EXTENT
- LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 07

Index Map

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WWW.RCGOODWIN.COM | KMAY, 6.17.2020



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

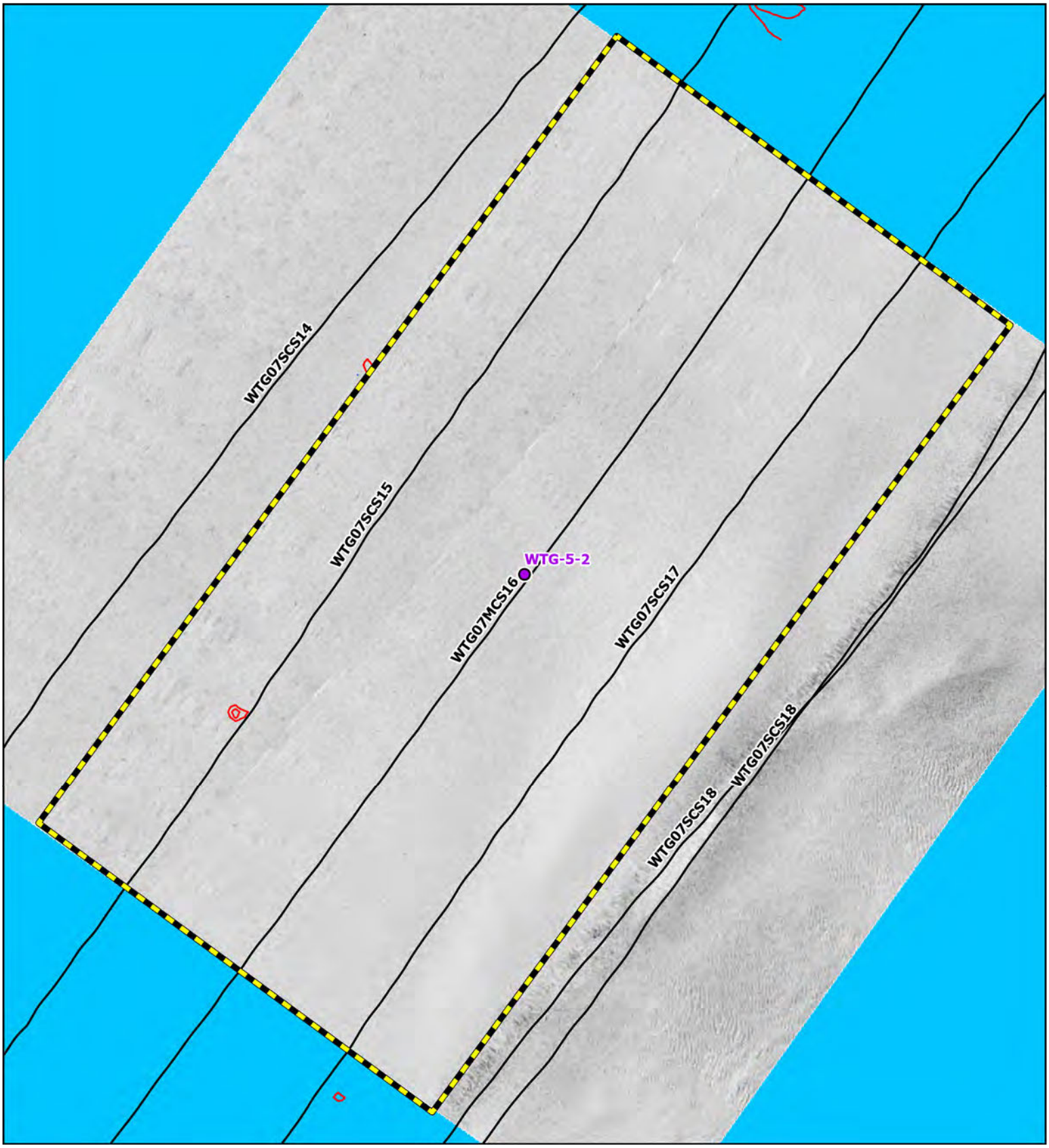
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 07

Map: 1

WTG-4-1

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

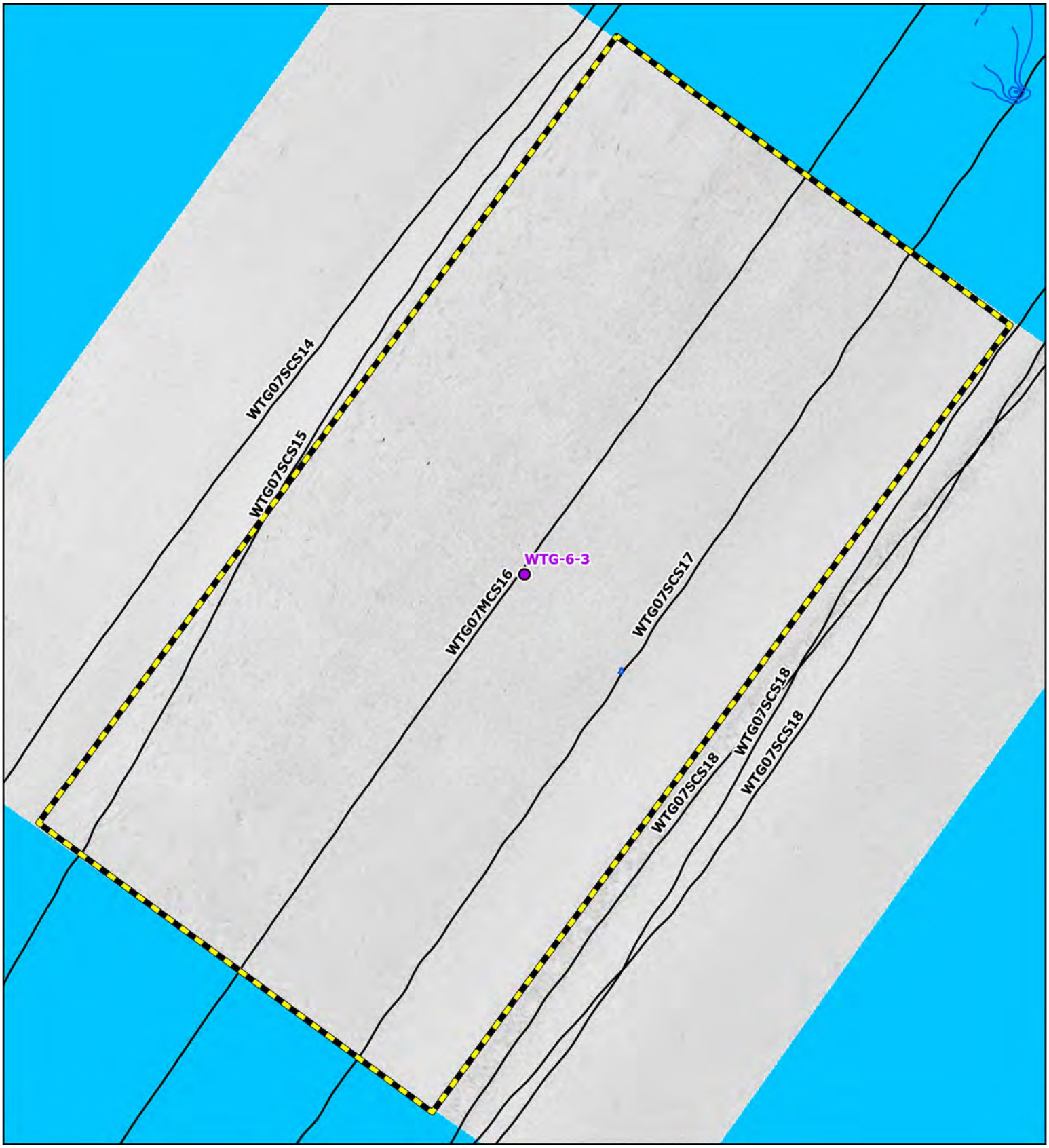
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 07

Map: 2

WTG-5-2

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 07

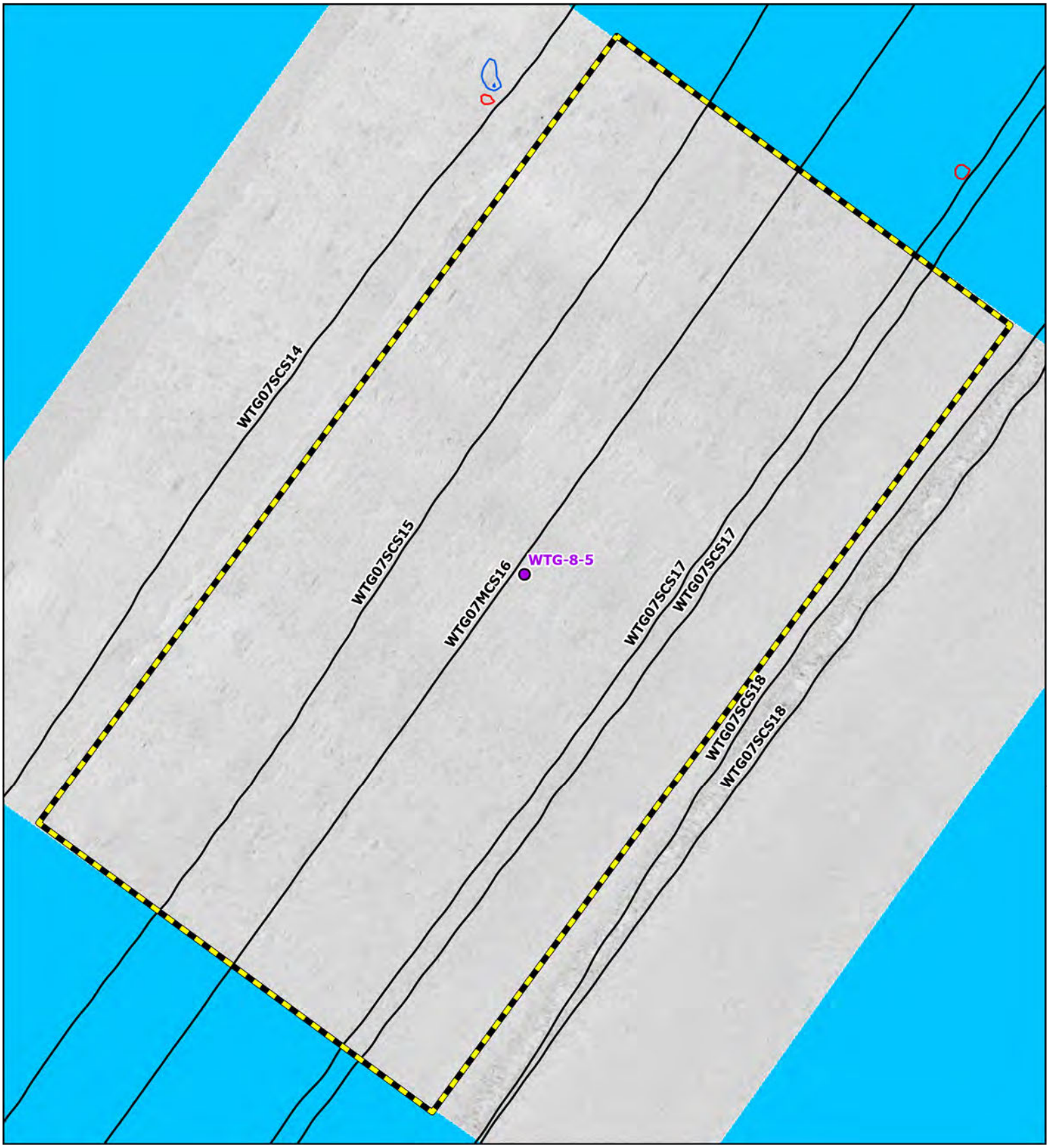
Map: 3

WTG-6-3

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
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Meters

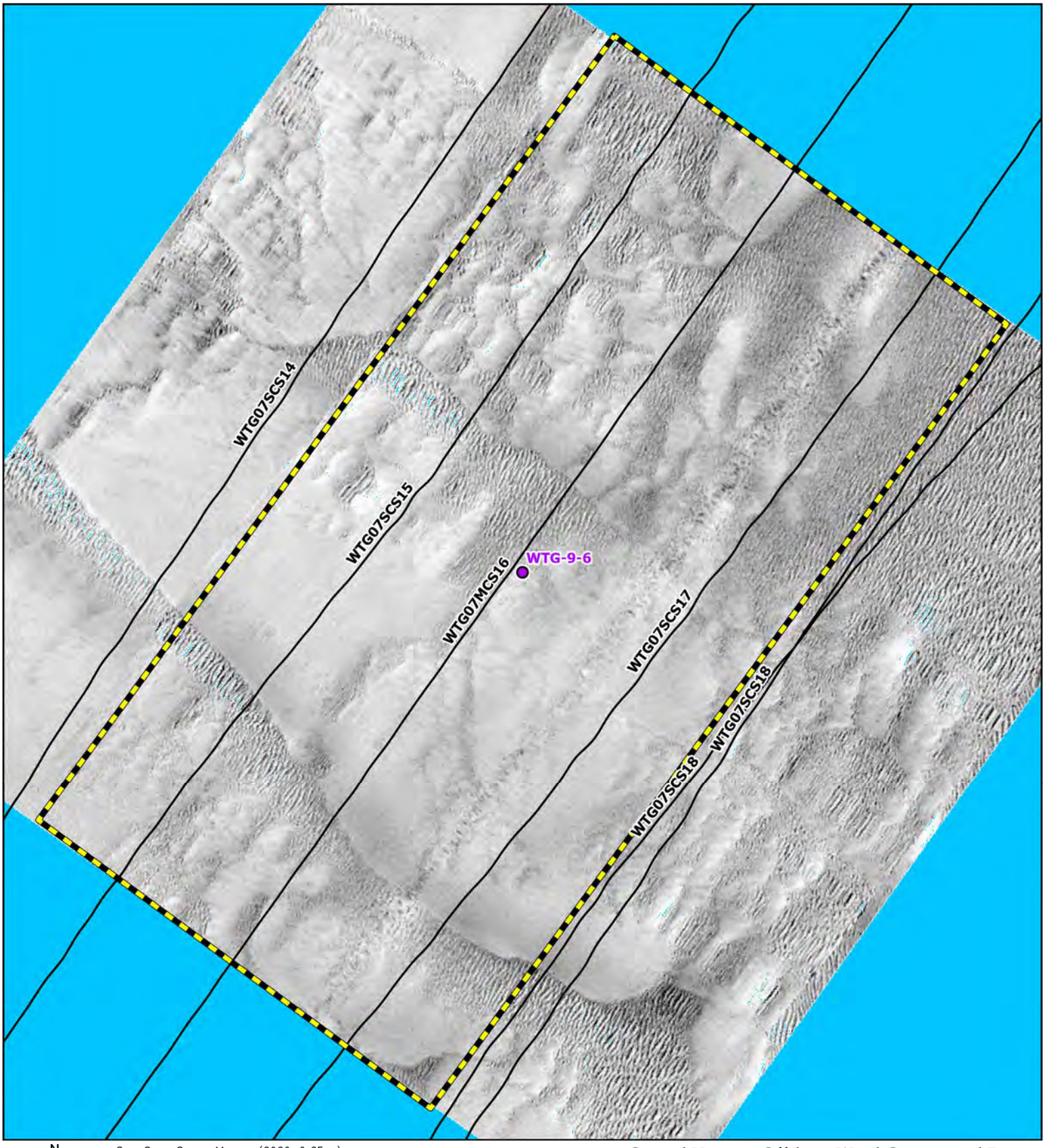
Geotechnical Location
Analytic Area
Trackline
Magnetic Contours (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 07

Map: 4

WTG-8-5

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

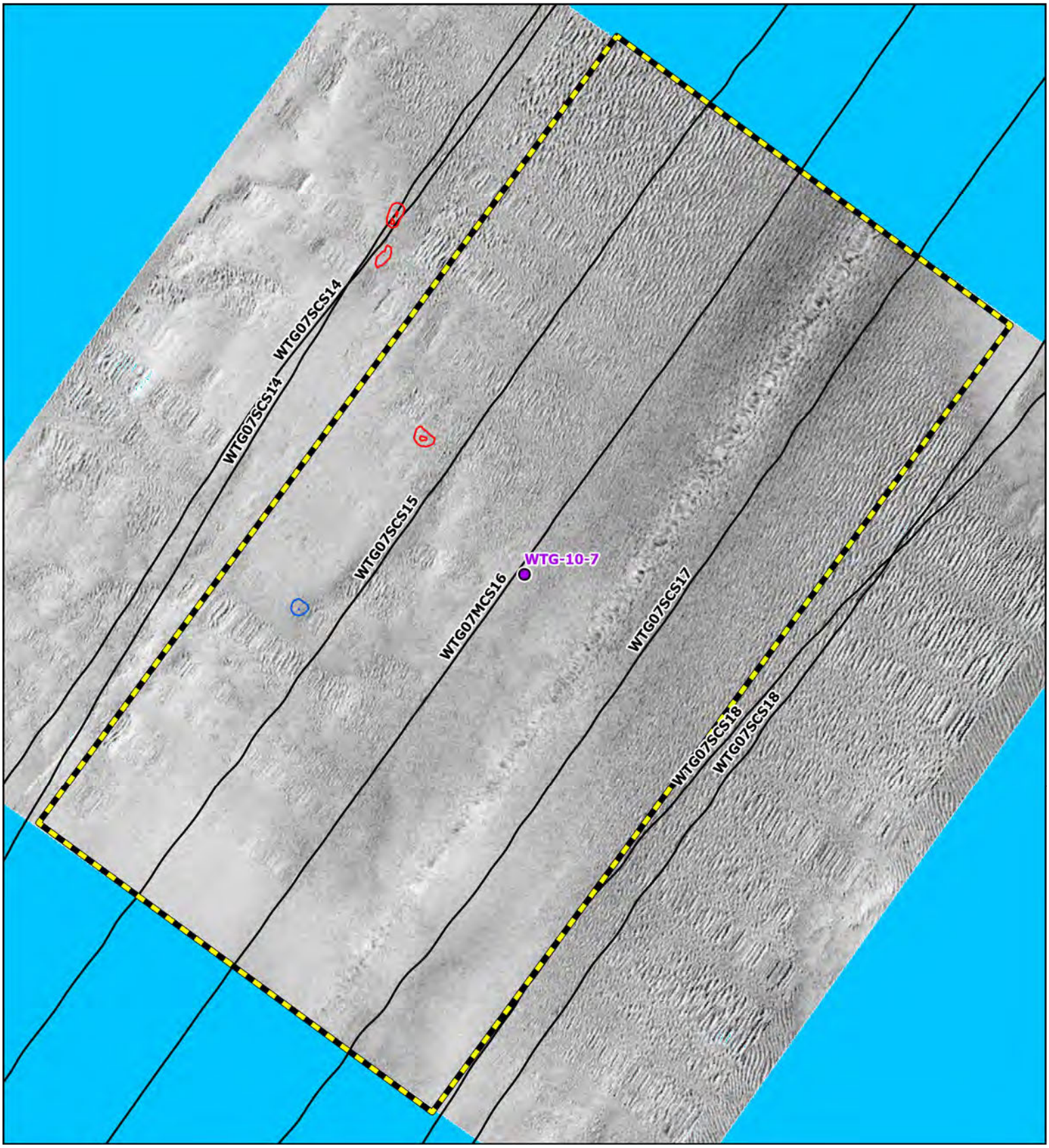
Geotechnical Location
Analytic Area
Trackline
Magnetic Contours (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 07

Map: 5

WTG-9-6

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 07

Map: 6

WTG-10-7

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

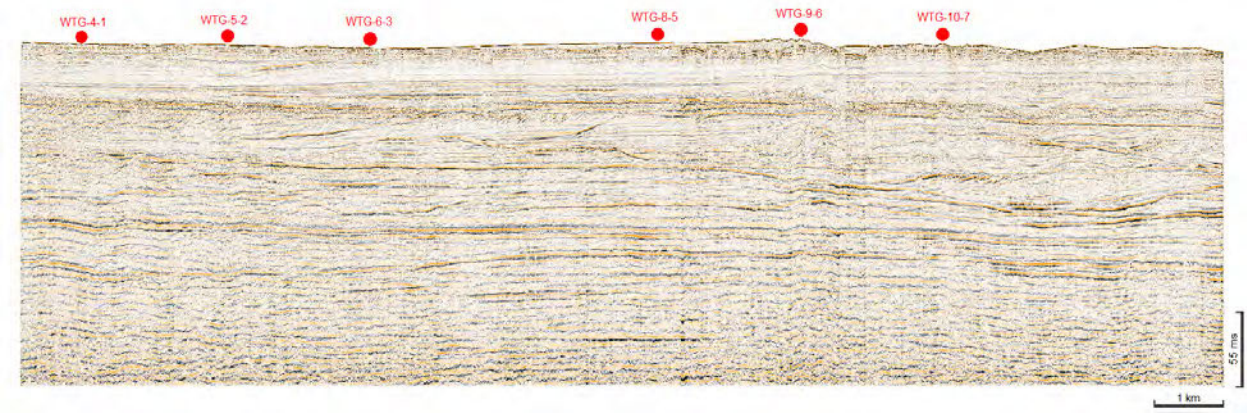


Figure 1: Proposed geotechnical locations WTG-4-1, WTG-5-2, WTG-6-3, WTG-8-5, WTG-9-6, and WTG-10-7 in Corridor 7 on line WTG07MCS16_MIG

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

June 25, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 3 and 23 and Blocks C and D

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridors 3 and 23 and Blocks C and D within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Jeff Browning, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Renewable Reporting - BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

Corridors 3 & 23 Report

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
cultural resource management and preservation planning

June 23, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews nine (9) of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the nine (9) proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendices 1 and 2). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendices 1 and 2). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

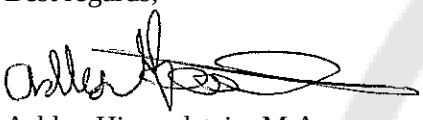
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 3). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1 and 2; Appendices 1,2 and 3). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1 and 2), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 3

Core ID	Easting	Northing	Longitude	Latitude
WTG-8-1	457273.1446	4087306.170	-75.47977199	36.93083316
WTG-9-2	458490.1444	4089018.169	-75.46620098	36.94631992
WTG-10-3	459706.1442	4090730.169	-75.45263573	36.96180509
WTG-11-3	460923.1440	4092442.169	-75.43905377	36.97728874
WTG-12-3	462139.1438	4094153.168	-75.4254775	36.99276178

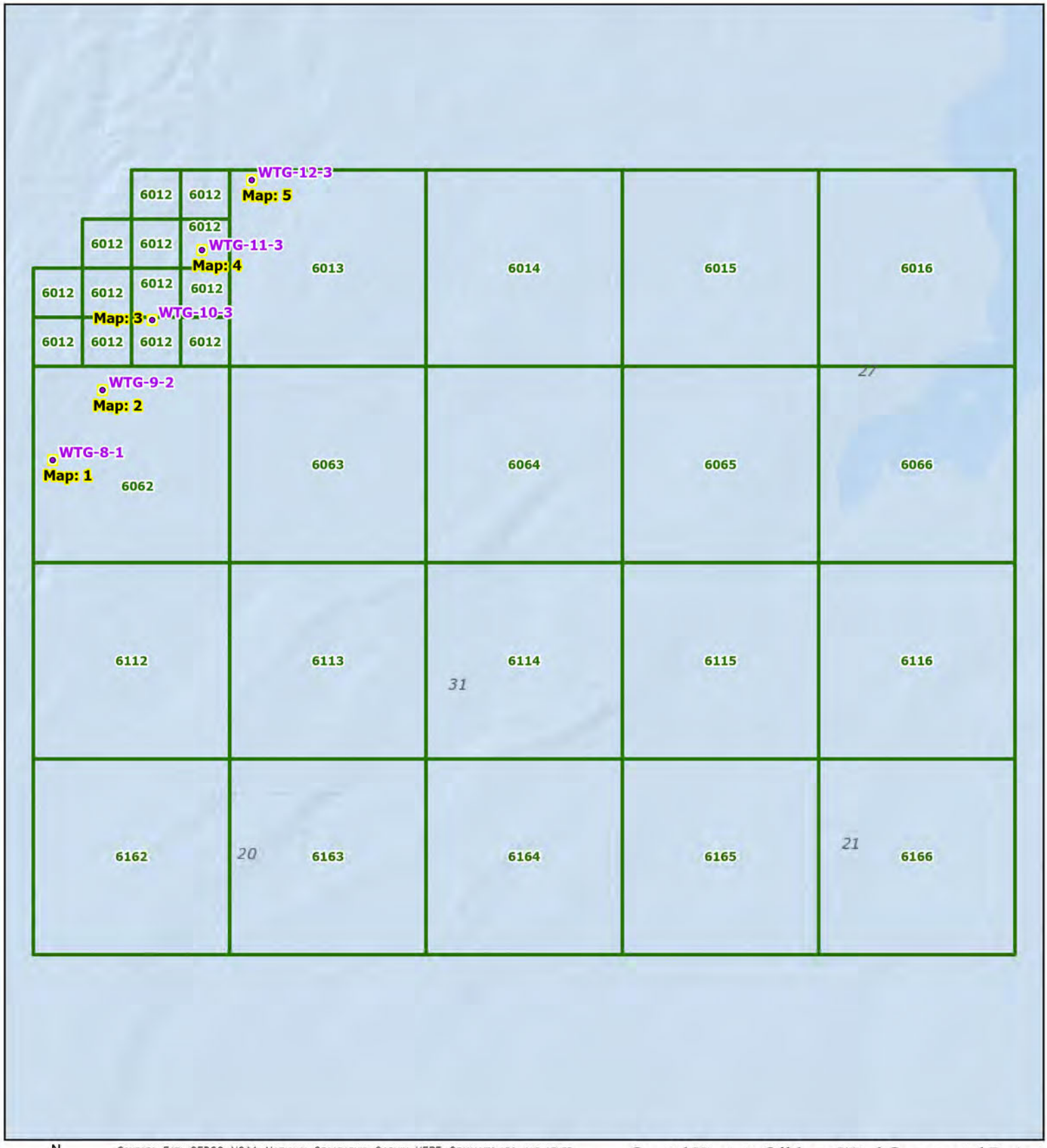
[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed WTG geotechnical locations for Corridor 23

Core ID	Easting	Northing	Longitude	Latitude
WTG-1-14	476478.1403	4075324.172	-75.26375456	36.82349646
WTG-2-15	477694.1401	4077036.171	-75.2501698	36.83895892
WTG-3-16	478911.1398	4078748.171	-75.23656836	36.85441983
WTG-4-17	480127.1396	4080459.171	-75.22297264	36.86987012

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 3



N
W E
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GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000

SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.5 1 1.5 2 MILES

0 1 2 3 4 KILOMETERS

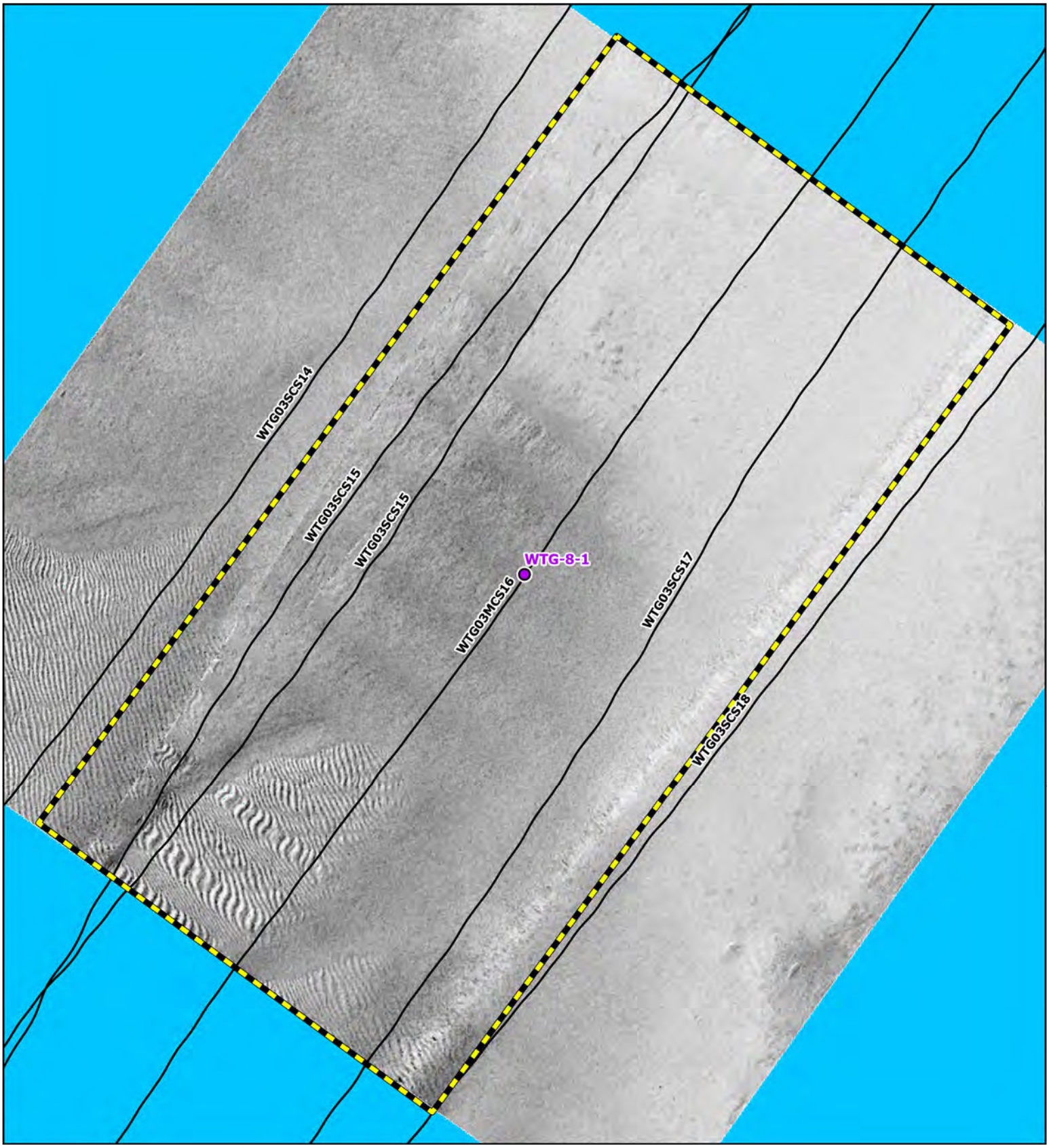
- GEOTECHNICAL LOCATION
- MAP SHEET EXTENT
- LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 03

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

WWW.RCGOODWIN.COM | KMAY, 6.23.2020



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

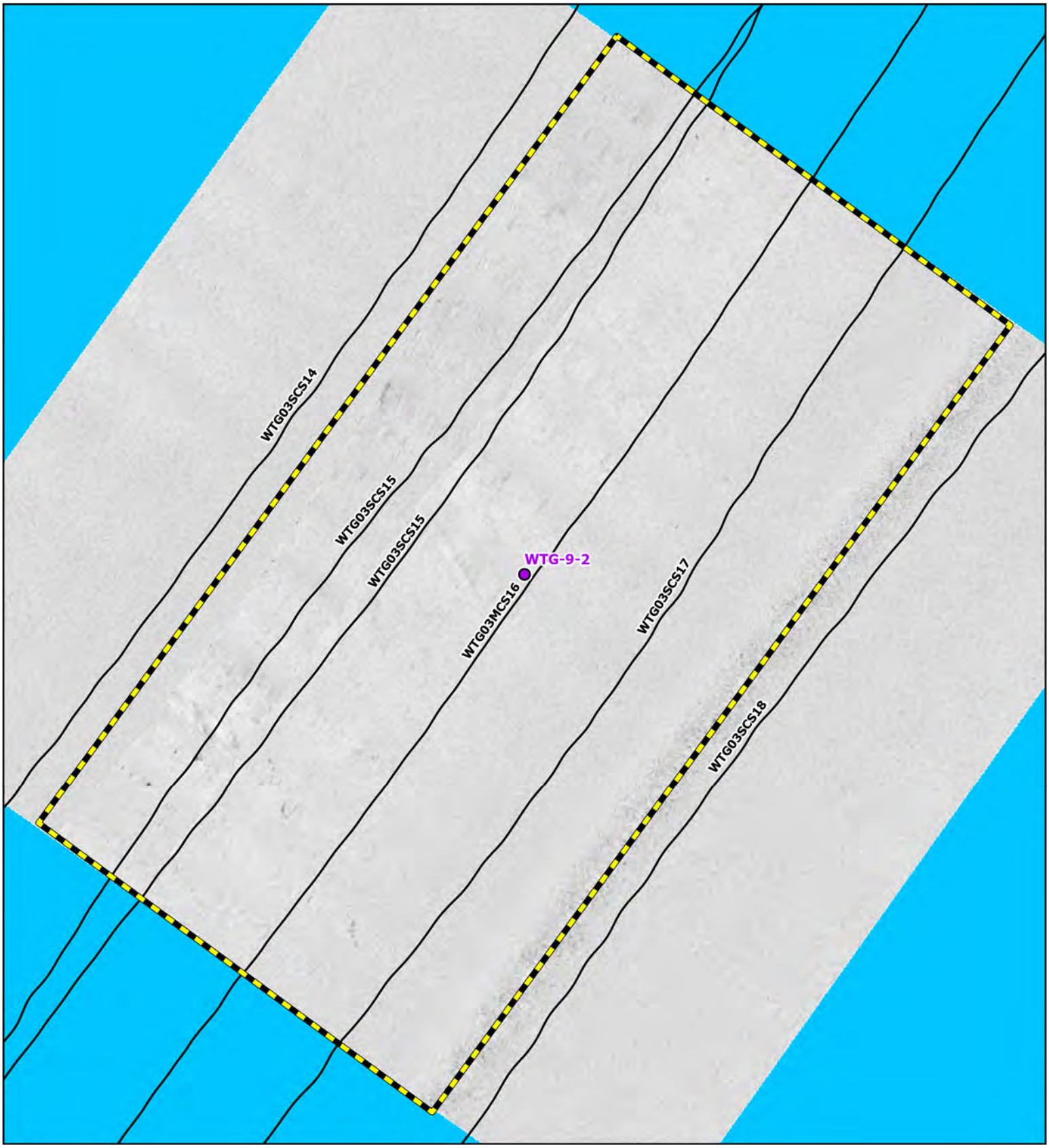
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 03

Map: 1

WTG-8-1

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

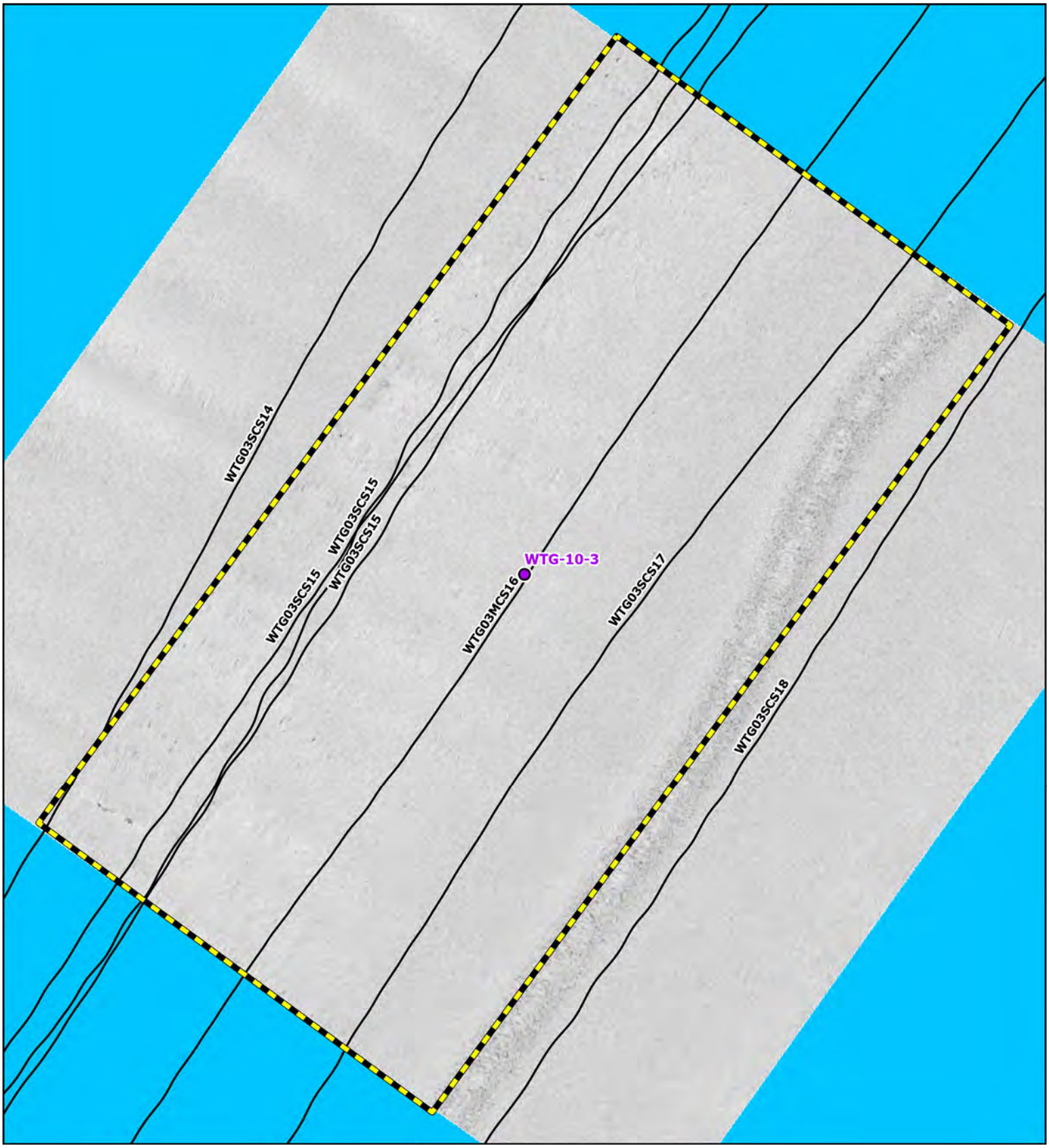
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 03

Map: 2

WTG-9-2

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 03

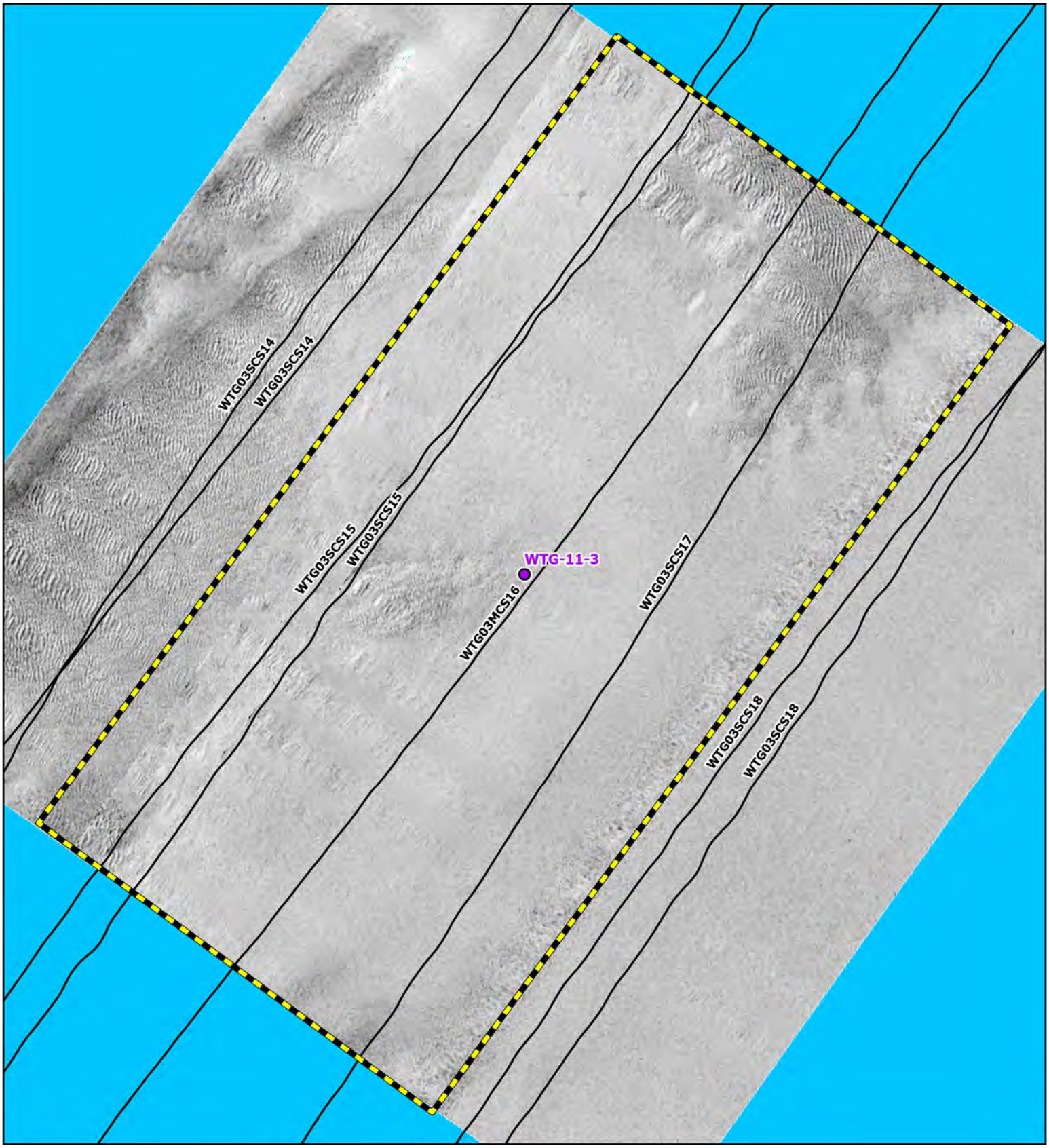
Map: 3

WTG-10-3

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet
0 10 20 30 40
Meters

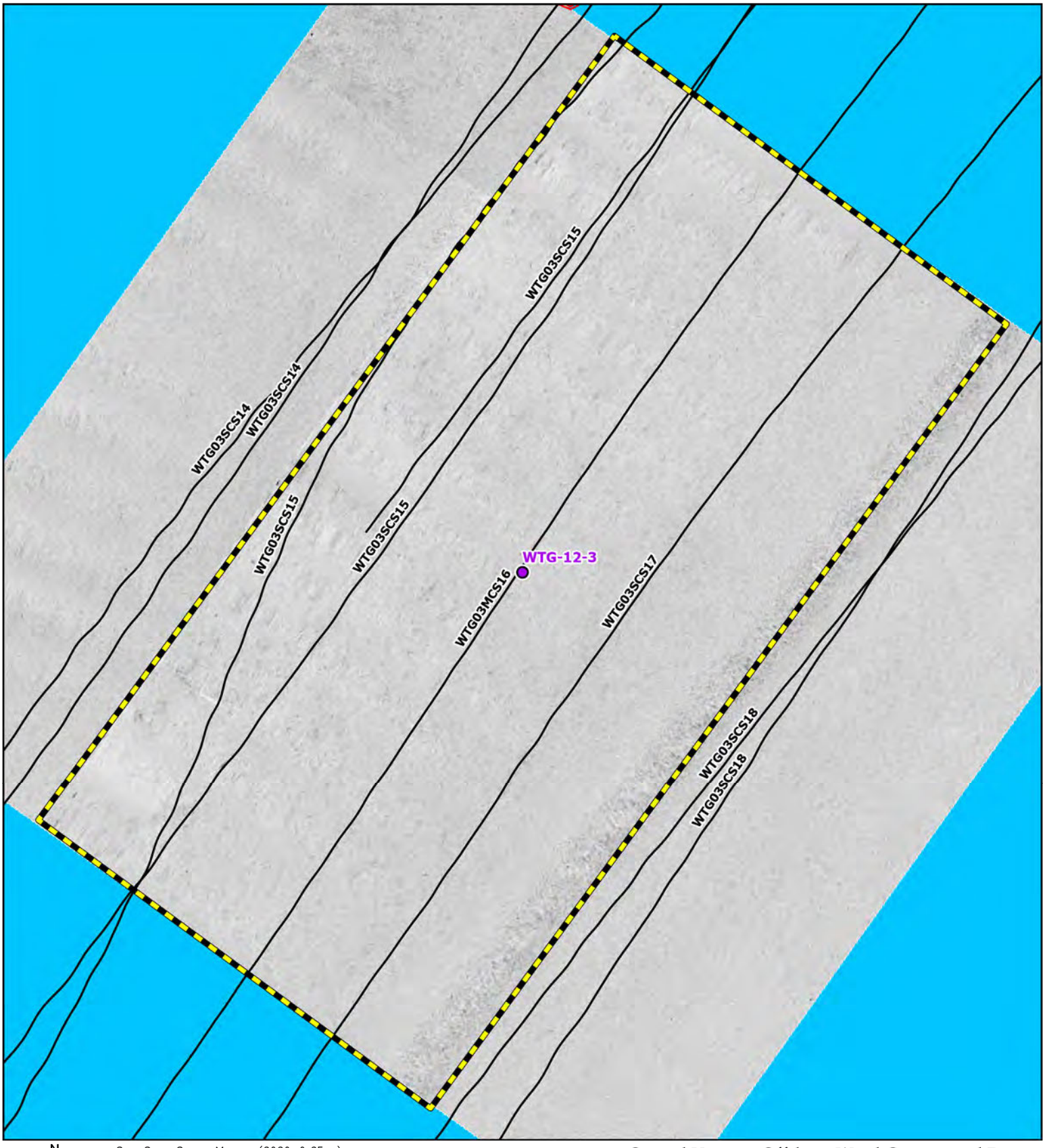
Geotechnical Location
Analytic Area
Trackline
Magnetic Contours (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 03

Map: 4

WTG-11-3

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Analytic Area
Trackline
Magnetic Contours (5 nT)
Negative
Positive

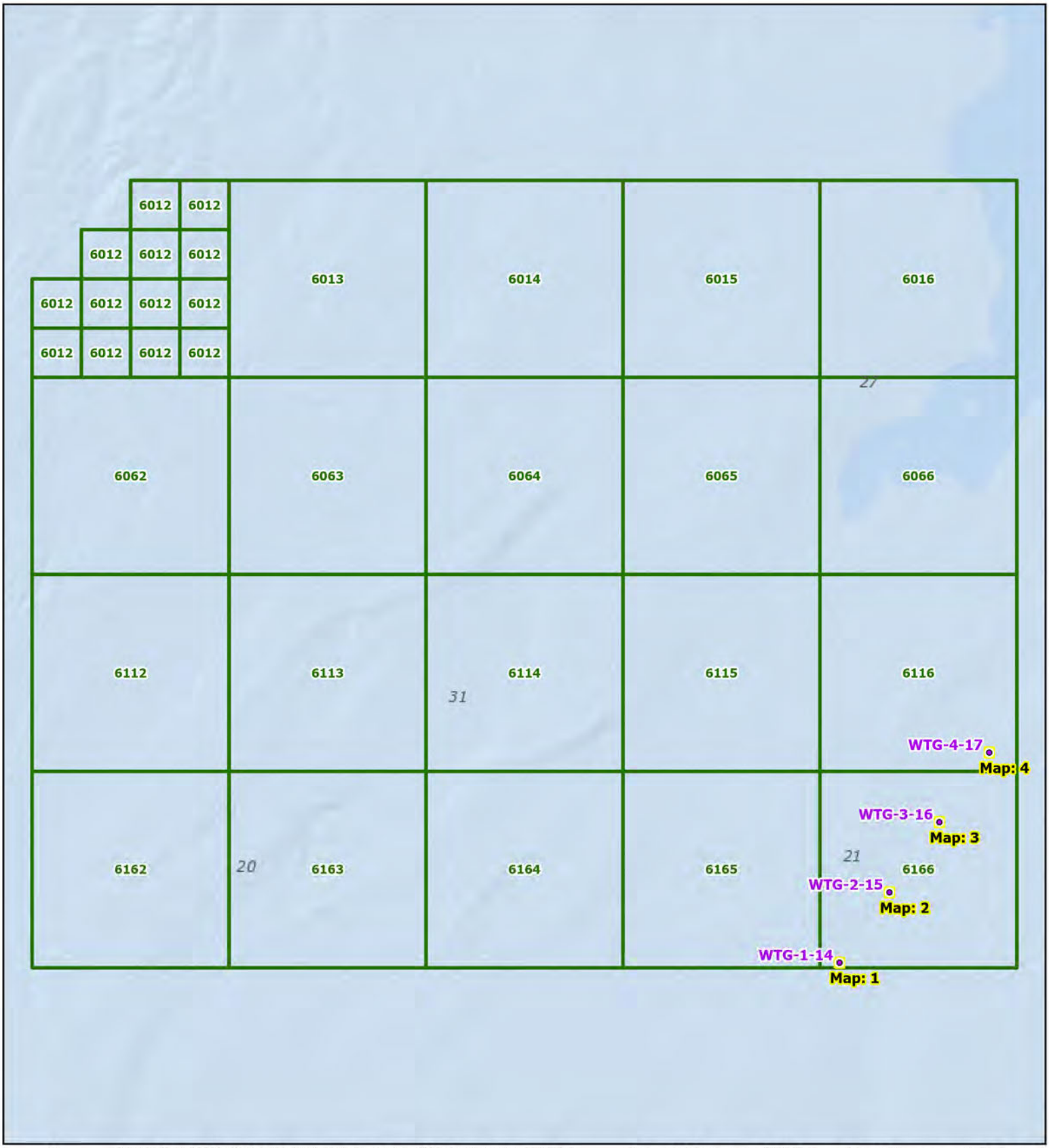
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 03

Map: 5

WTG-12-3

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 23



N
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GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000

SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.5 1 1.5 2 MILES

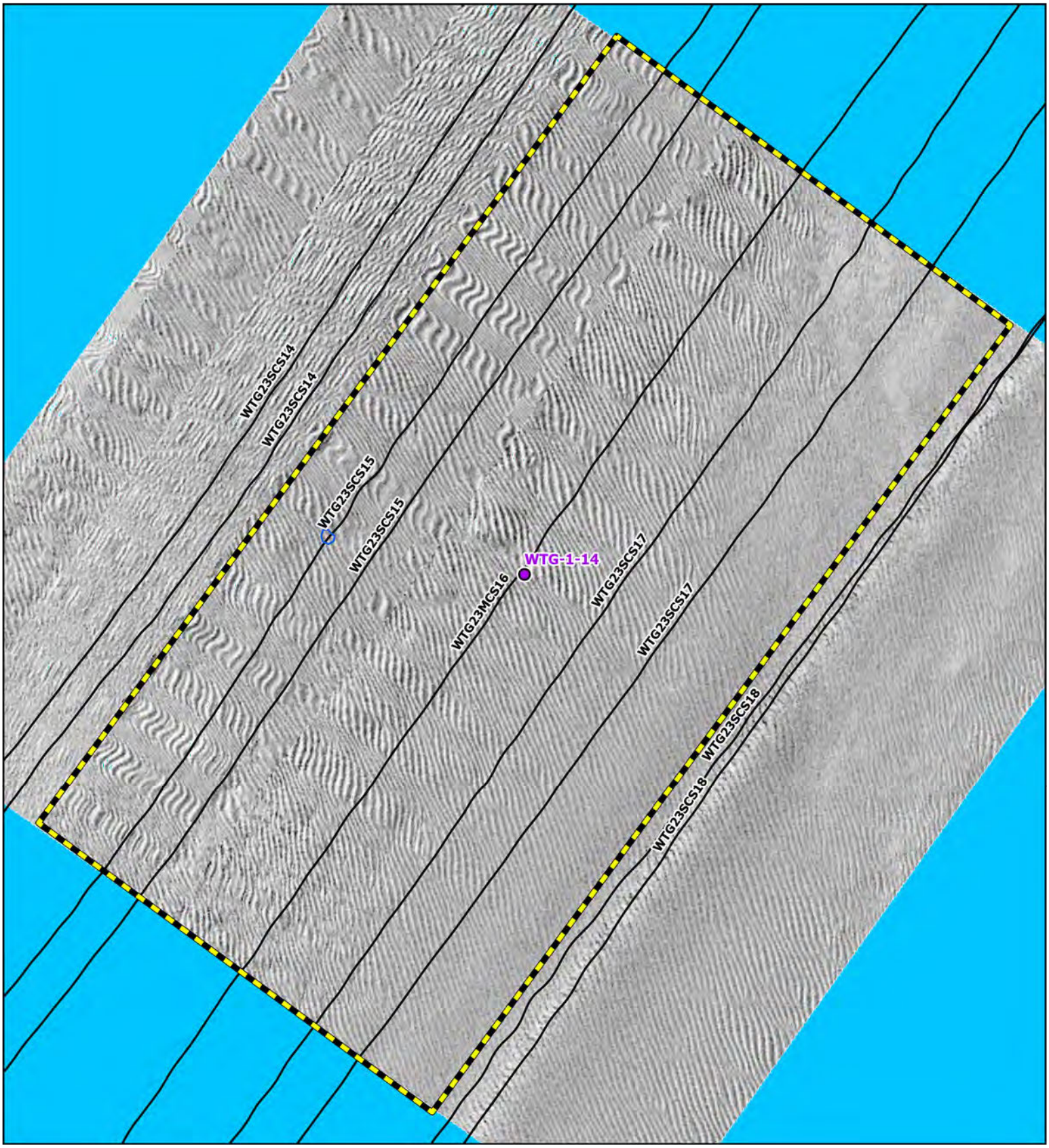
0 1 2 3 4 KILOMETERS

- GEOTECHNICAL LOCATION
- MAP SHEET EXTENT
- LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 23

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
WWW.RCGOODWIN.COM | KMAY, 6.23.2020



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 23

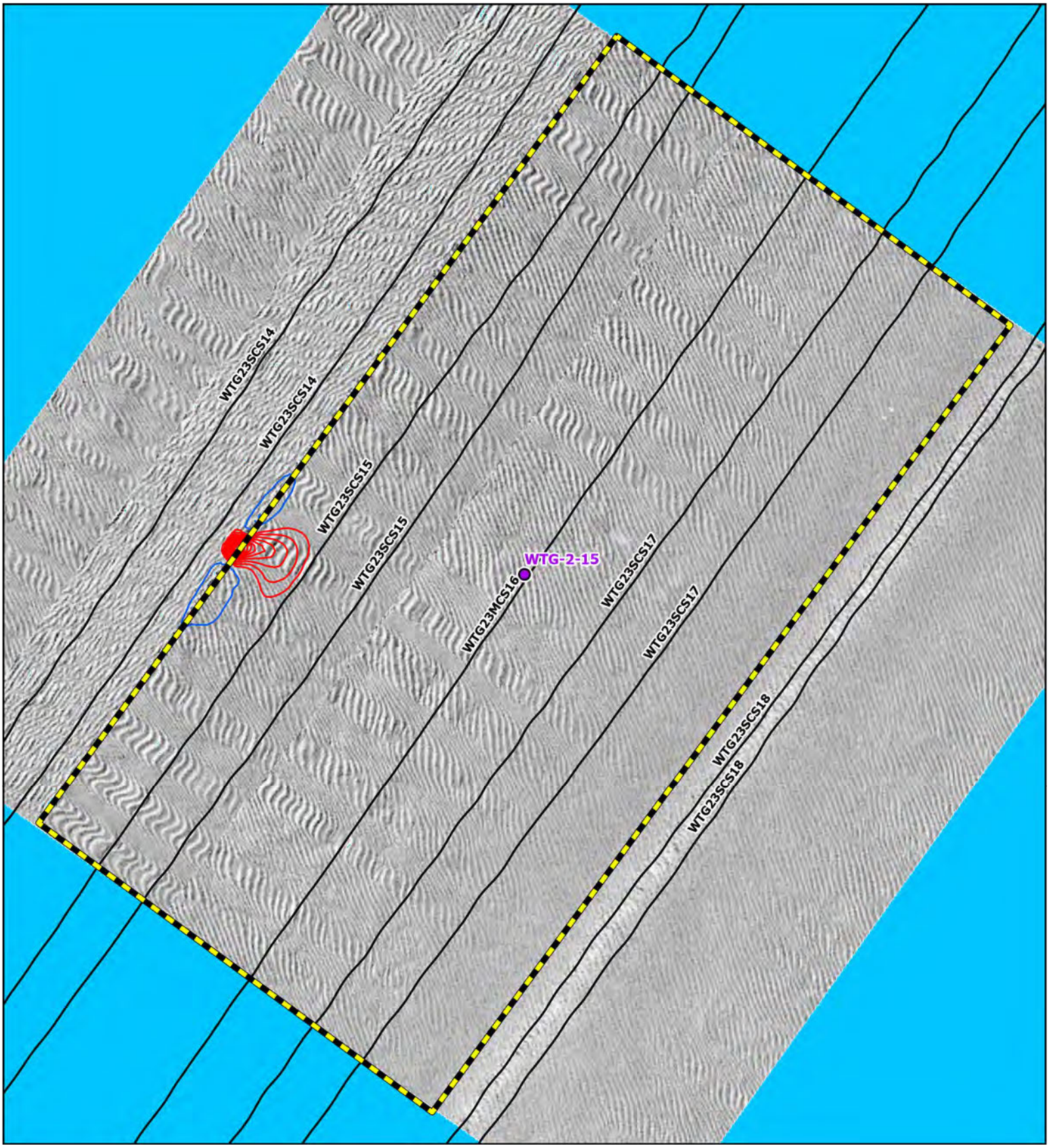
Map: 1

WTG-1-14

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

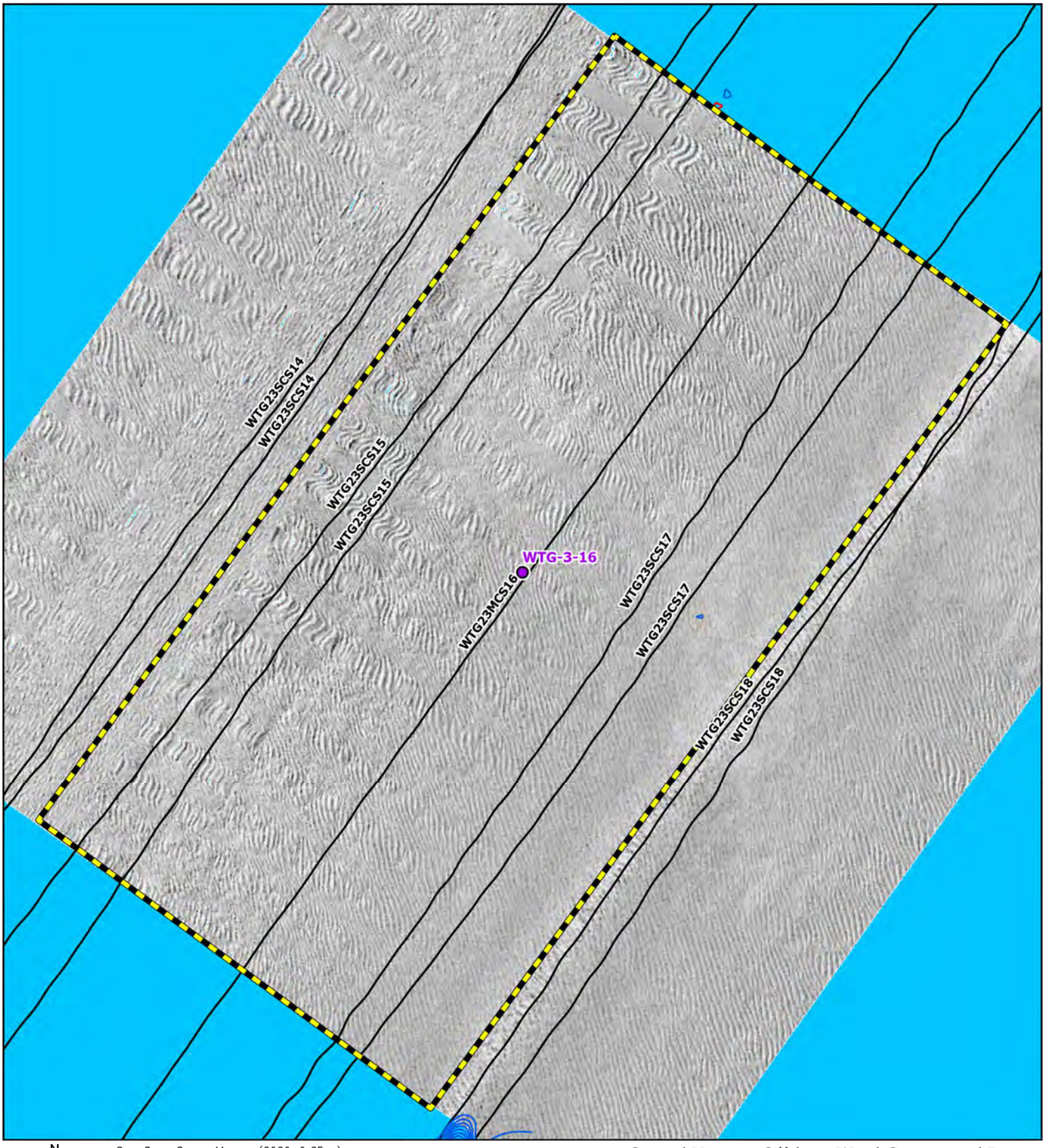
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 23

Map: 2

WTG-2-15

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 23

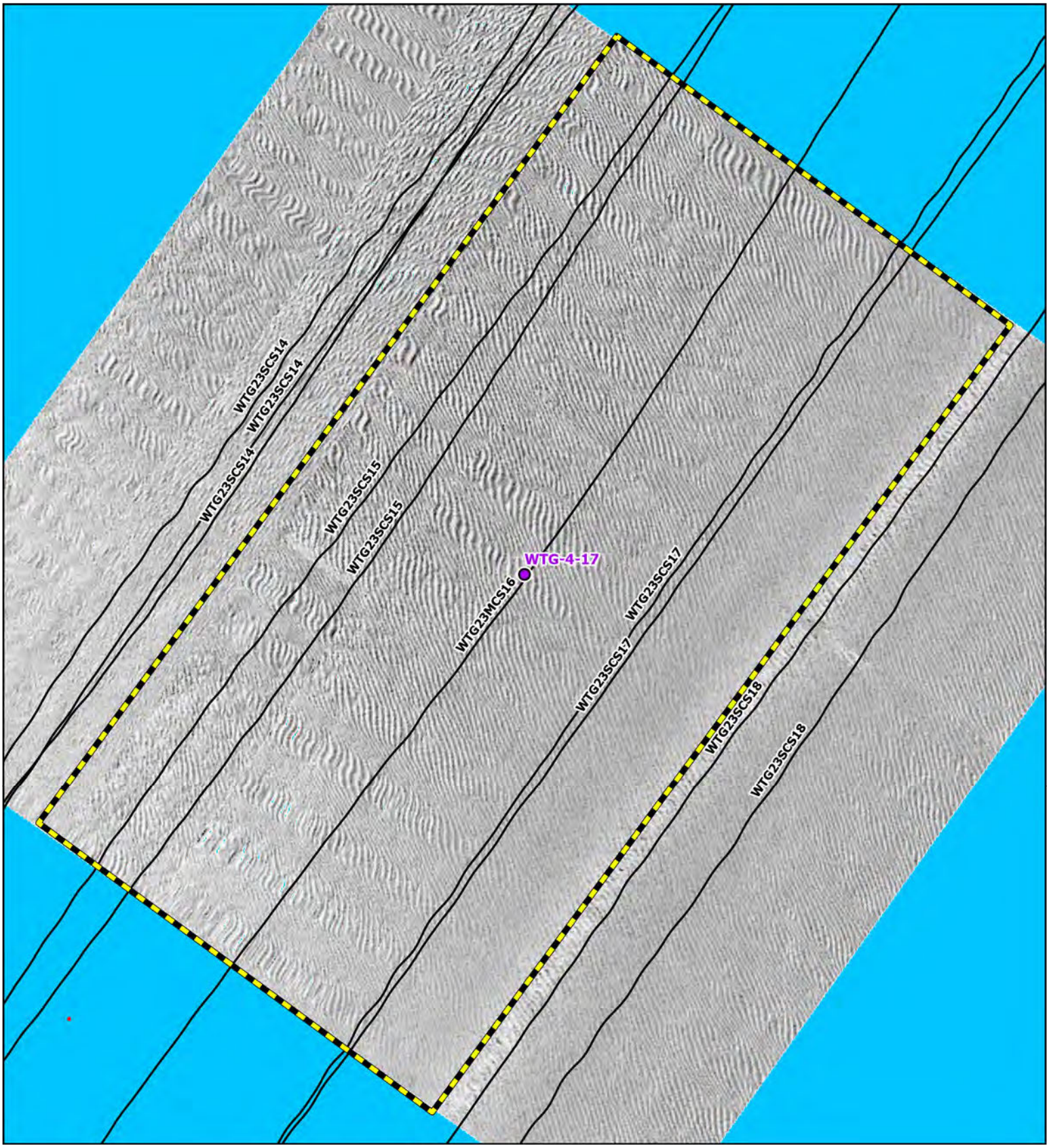
Map: 3

WTG-3-16

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 23

Map: 4

WTG-4-17

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 3
SUB-BOTTOM PROFILE IMAGES

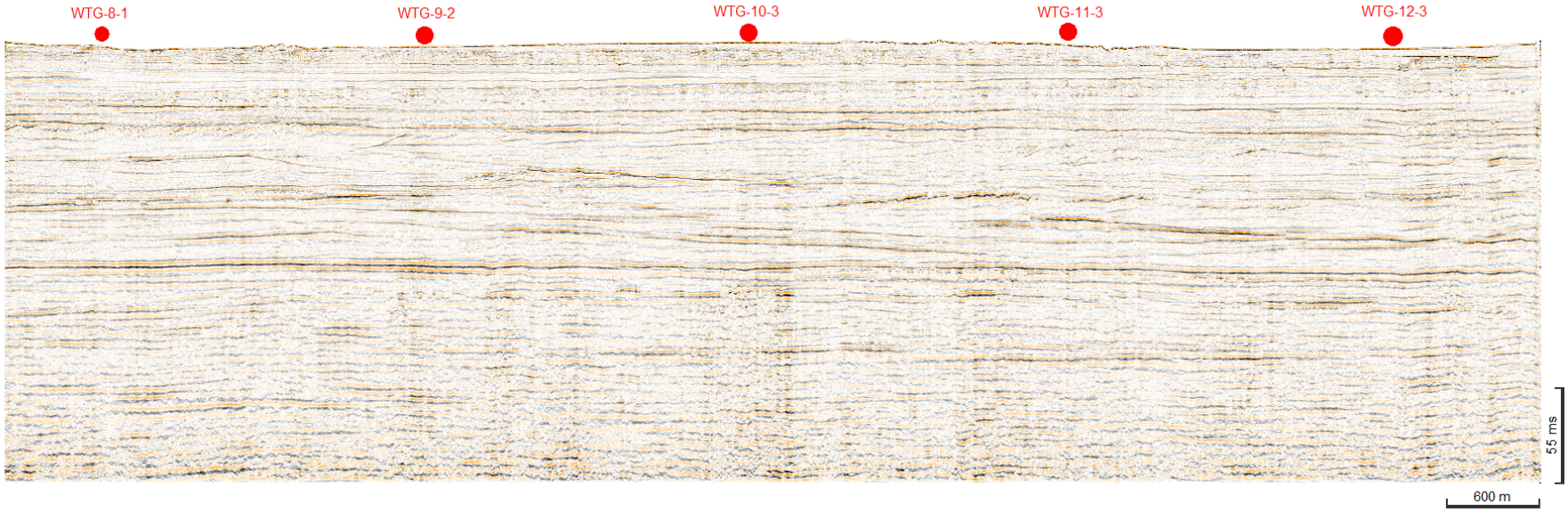


Figure 1: Proposed geotechnical locations WTG-8-1, WTG-9-2, WTG-10-3, WTG-11-3 and WTG-12-3 in Corridor 3 on line WTG03MCS16_MIG



Figure 2: Proposed geotechnical locations WTG-1-14, WTG-2-15, WTG-10-3, WTG-3-16 and WTG-4-17 in Corridor 23 on line WTG23MCS16_MIG

Block C Report

June 24, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 20 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 20 proposed geotechnical locations located along the Export Cable Route (ECR). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

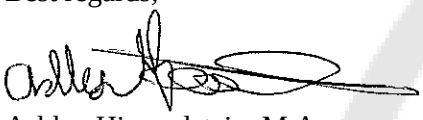
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



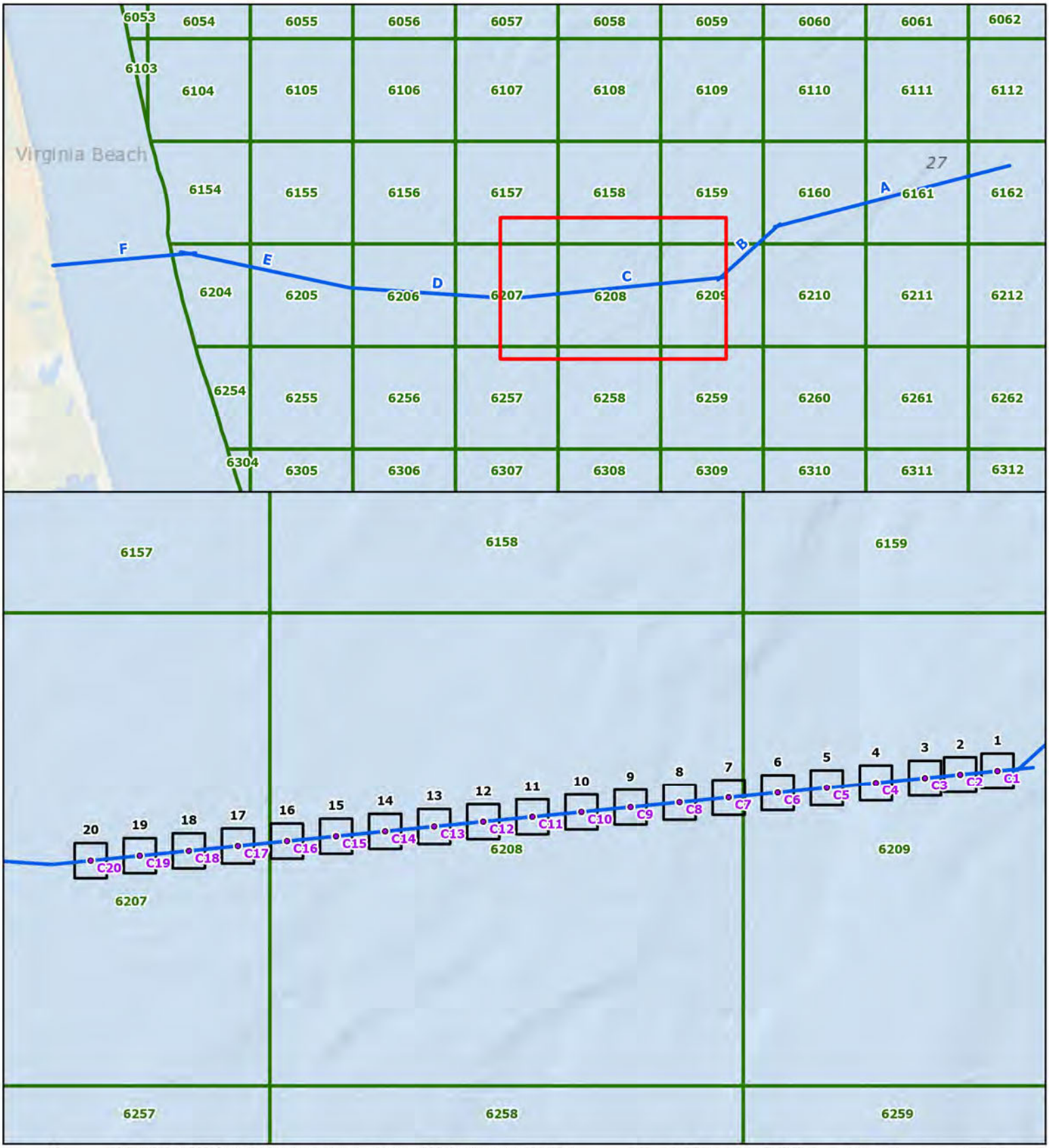
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block C

Core ID	Easting	Northing	Longitude	Latitude
C20	435783.3375	4072681.954	-75.71982424	36.79779186
C19	436280.8886	4072731.38	-75.71425158	36.79827101
C18	436778.4397	4072780.806	-75.70867884	36.7987499
C17	437275.9908	4072830.231	-75.70310604	36.79922852
C16	437773.5419	4072879.657	-75.69753316	36.79970689
C15	438271.093	4072929.083	-75.6919602	36.80018499
C14	438768.6441	4072978.508	-75.68638718	36.80066284
C13	439266.1952	4073027.934	-75.68081408	36.80114042
C12	439763.7463	4073077.36	-75.6752409	36.80161775
C11	440261.2974	4073126.785	-75.66966766	36.80209481
C10	440758.8485	4073176.211	-75.66409434	36.80257161
C9	441256.3996	4073225.637	-75.65852094	36.80304815
C8	441753.9507	4073275.063	-75.65294748	36.80352444
C7	442251.5018	4073324.488	-75.64737394	36.80400046
C6	442749.0529	4073373.914	-75.64180033	36.80447622
C5	443246.604	4073423.34	-75.63622664	36.80495172
C4	443744.1551	4073472.765	-75.63065288	36.80542696
C3	444241.7062	4073522.191	-75.62507905	36.80590194
C2	444598.2758	4073557.612	-75.62108453	36.80624217
C1	444977.1421	4073595.248	-75.61684018	36.80660353

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES
MAPS FOR BLOCK C



N
W E
S
GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:52,000

SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.25 0.5 0.75 1 MILES

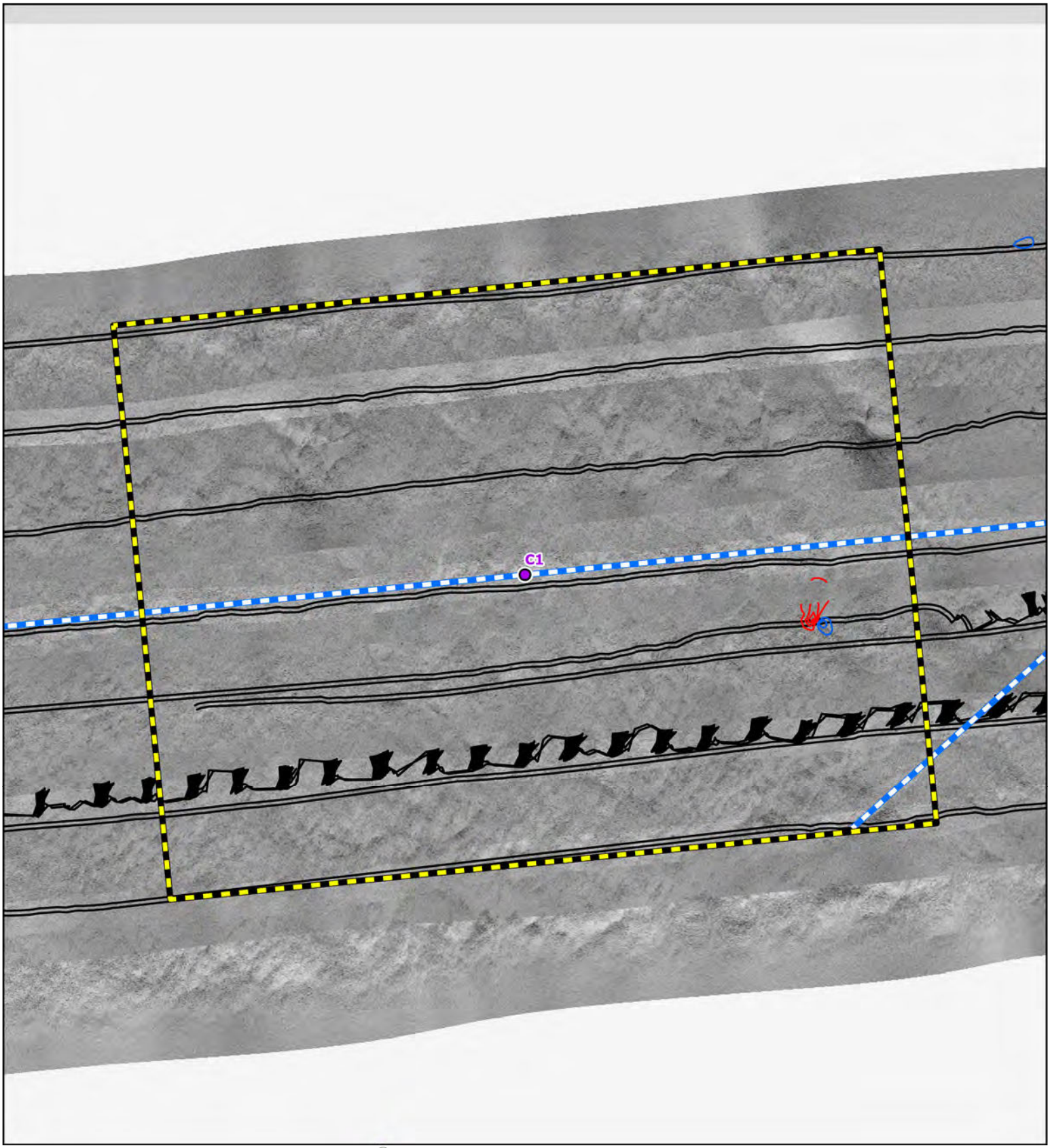
0 0.25 0.5 0.75 1 KILOMETERS

- GEOTECHNICAL LOCATION
- ECR CENTERLINE
- MAP SHEET EXTENT
- BOEM LEASE BLOCK

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
WWW.RCGOODWIN.COM | KMAY, 6.24.2020



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

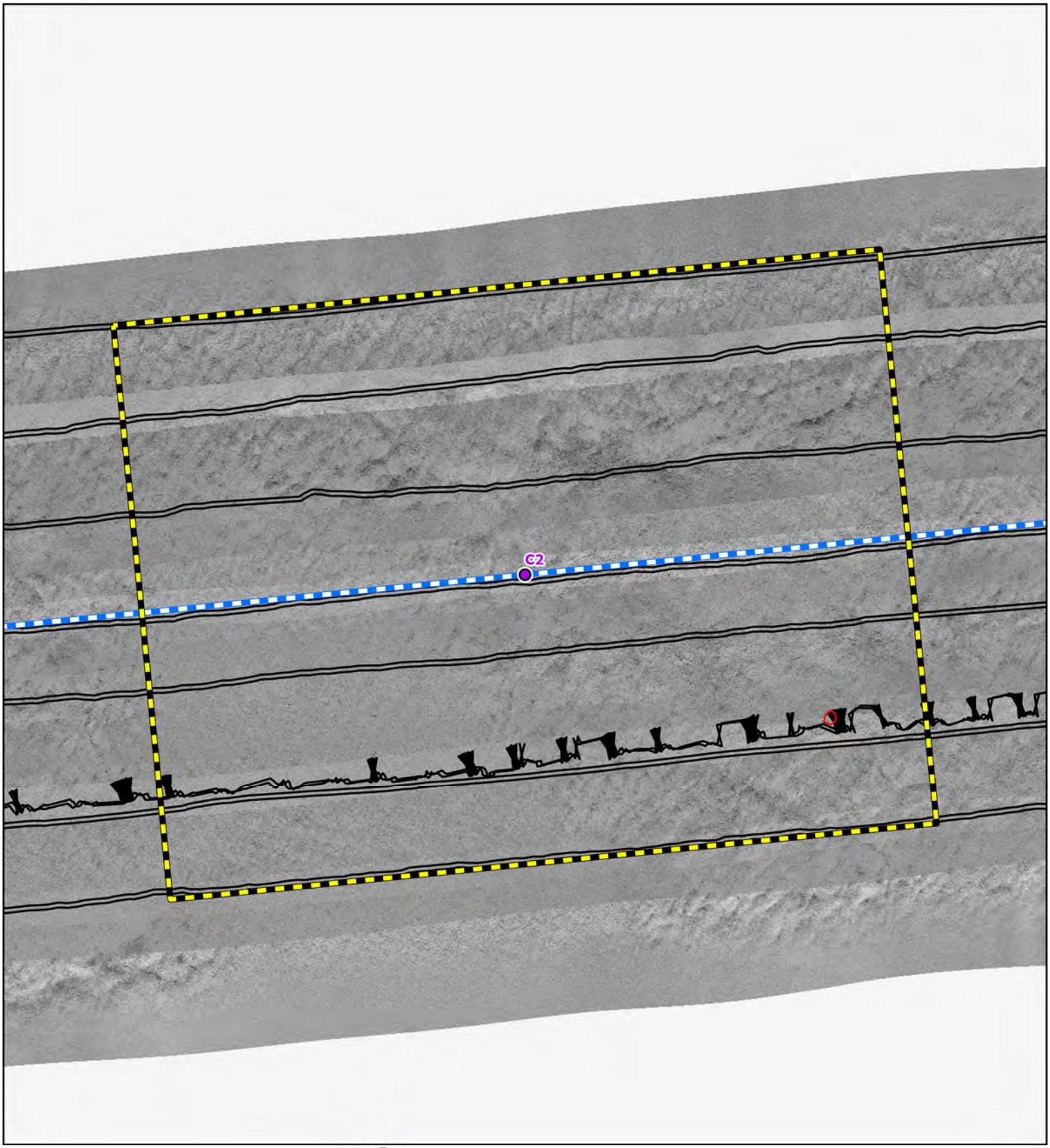
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 1

C1

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

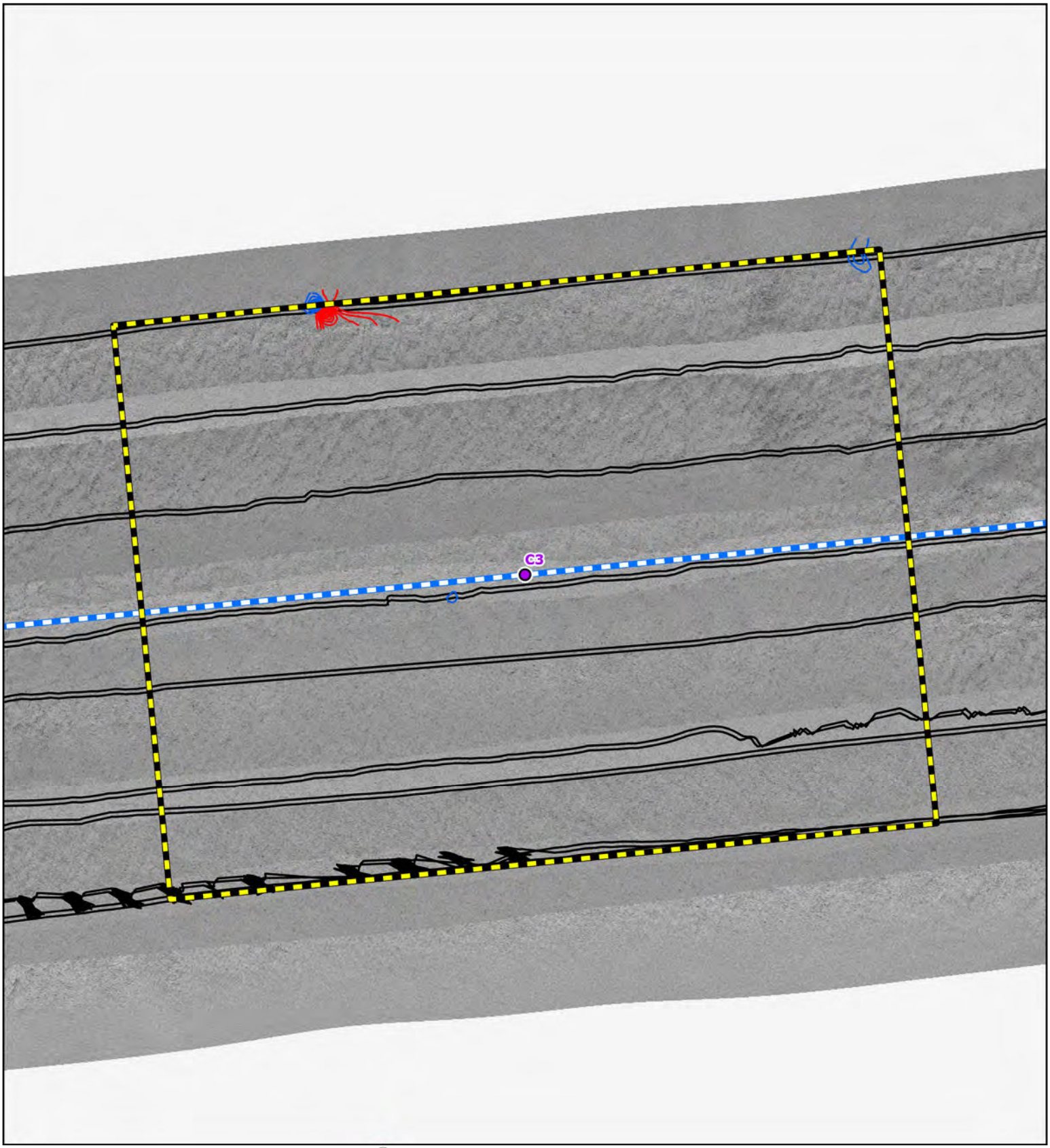
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 2

C2

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

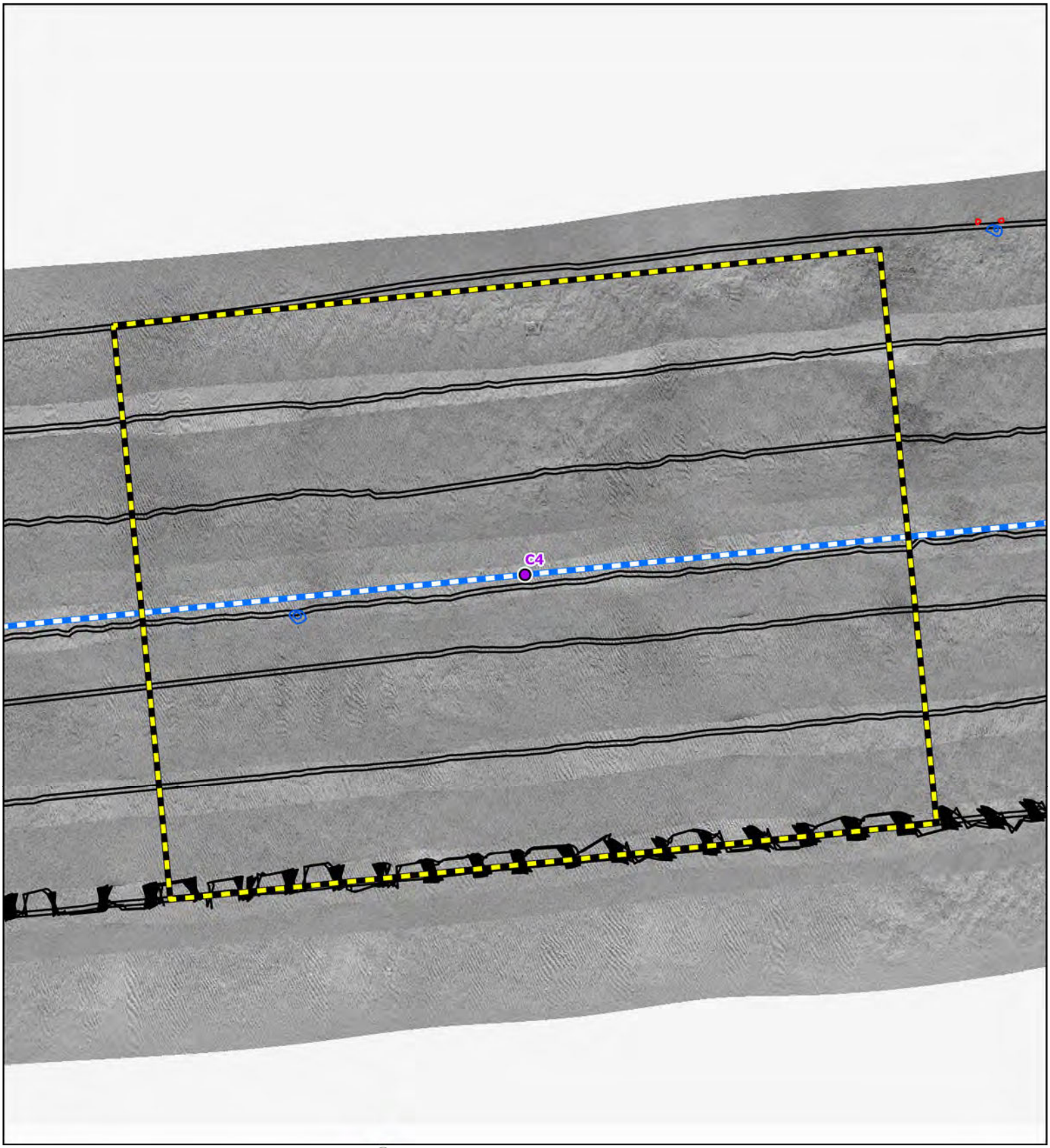
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 3

C3

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

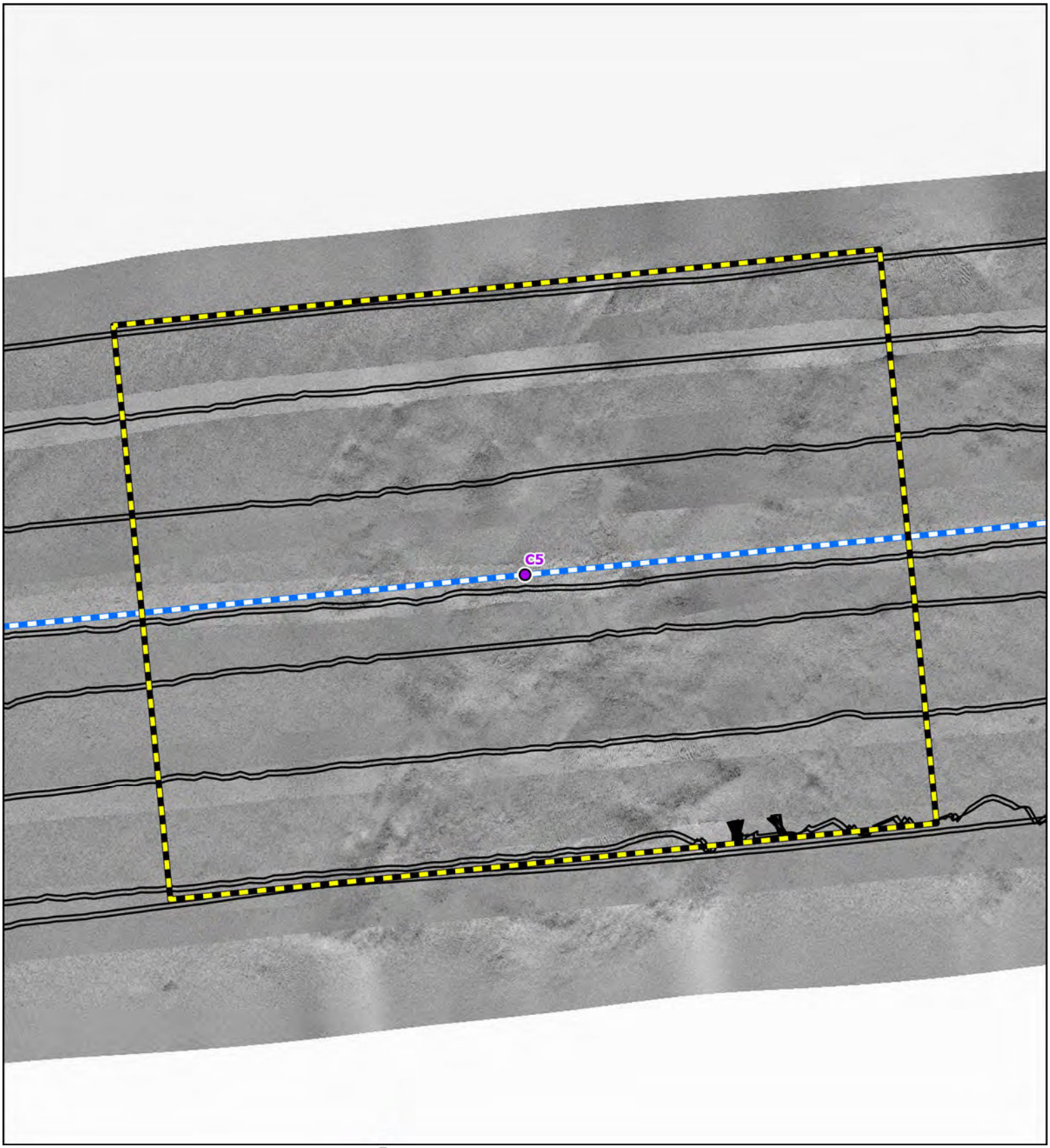
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 4

C4

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

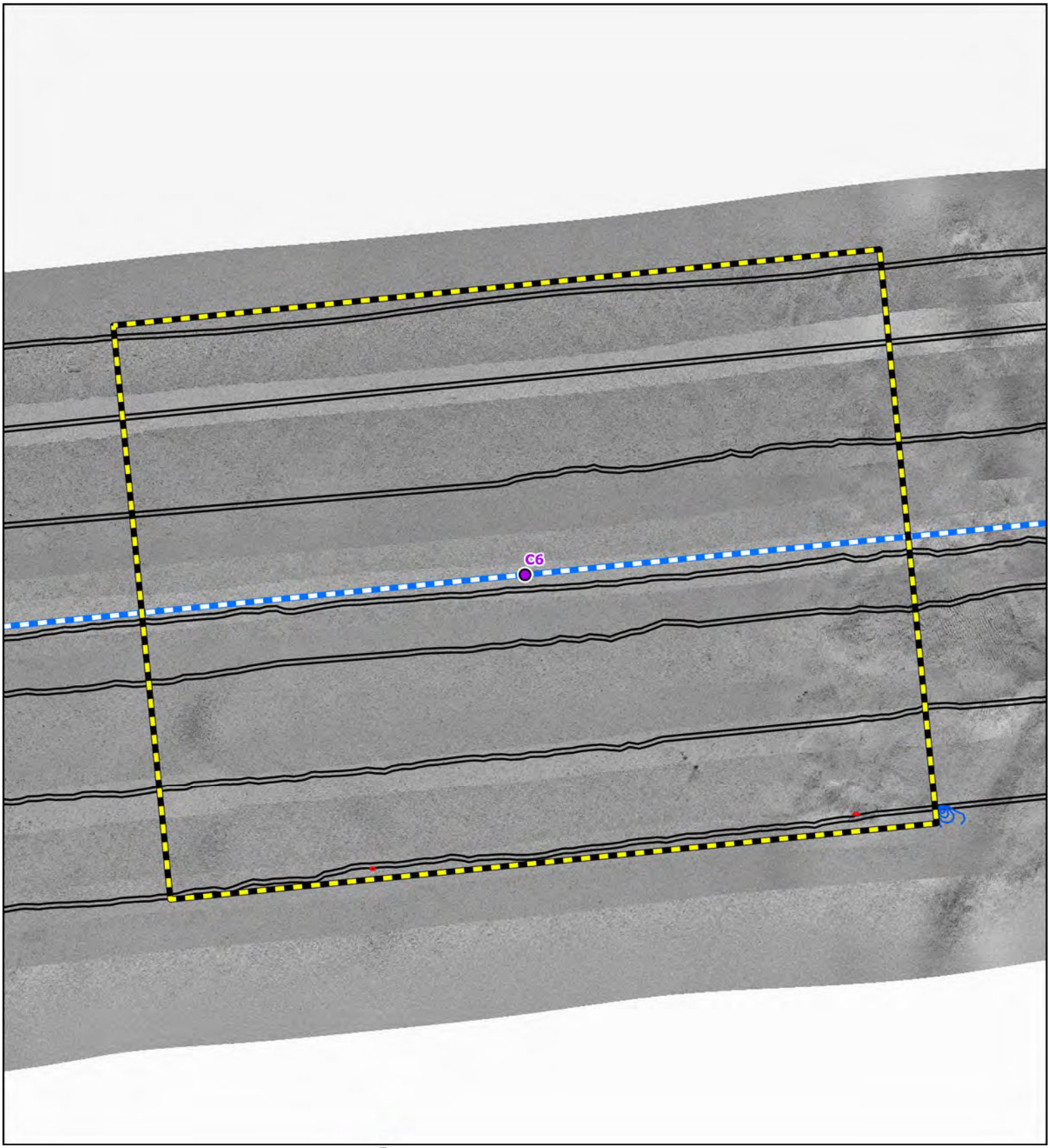
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 5

C5

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

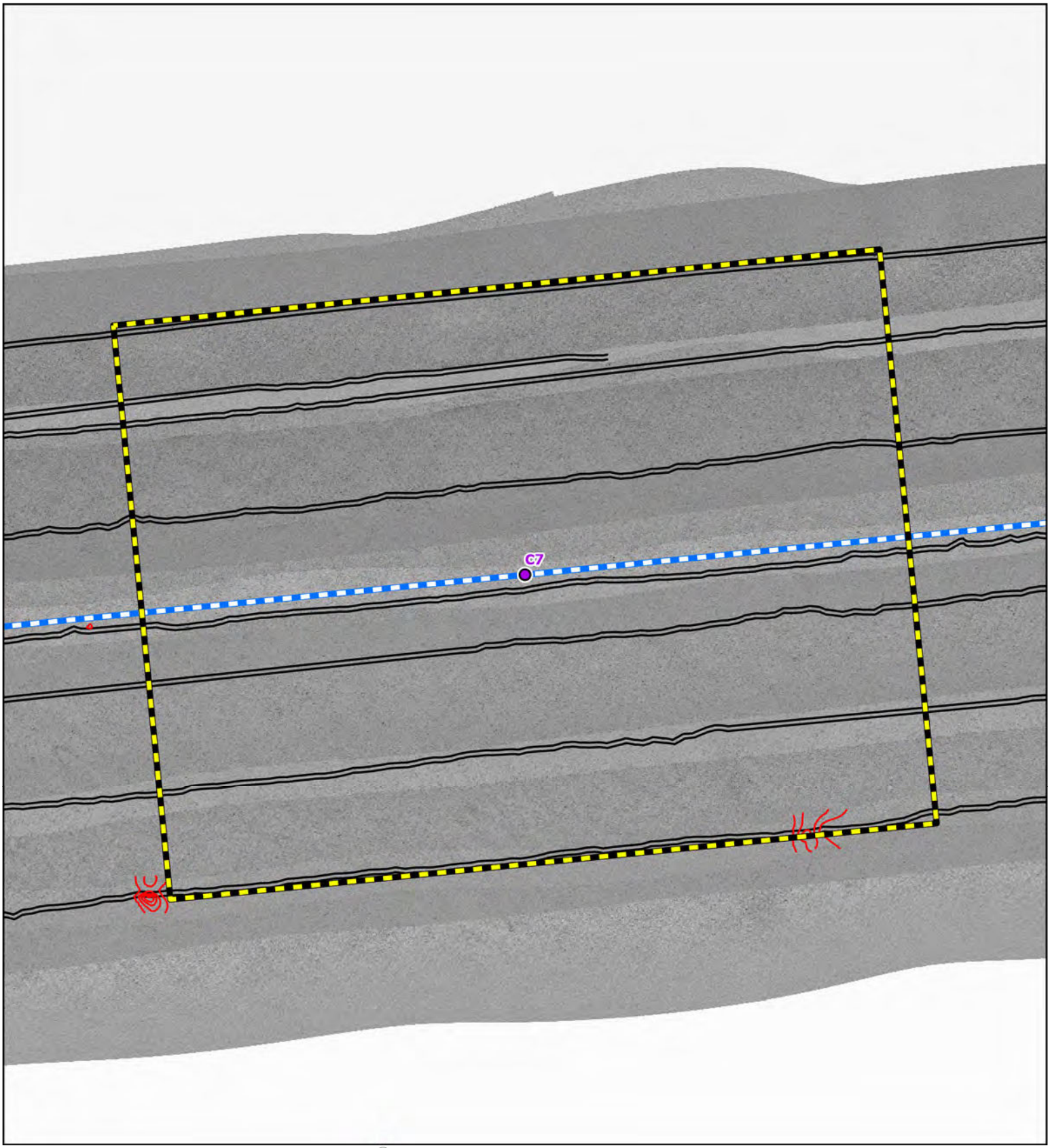
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 6

C6

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

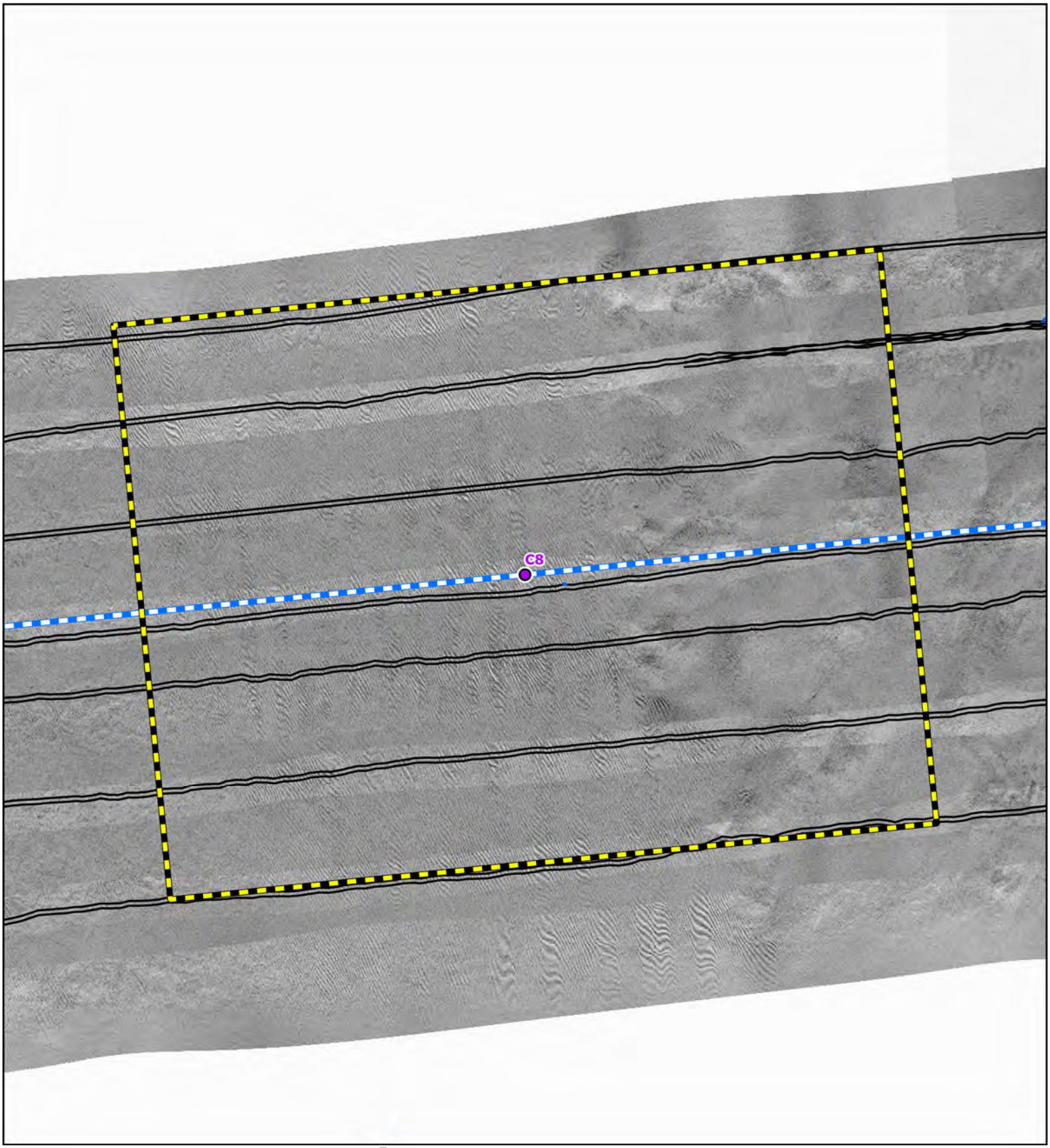
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 7

C7

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

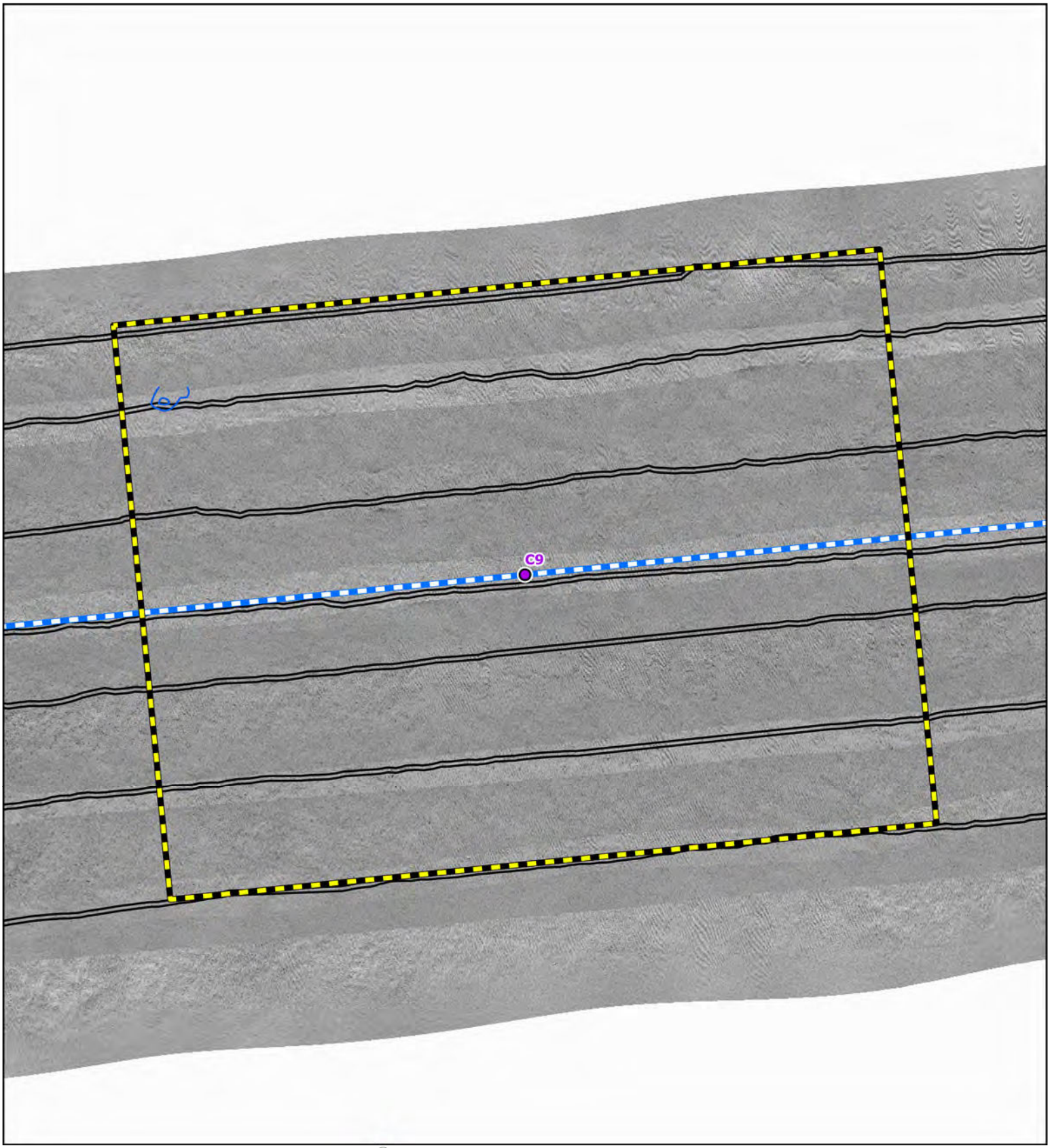
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 8

C8

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

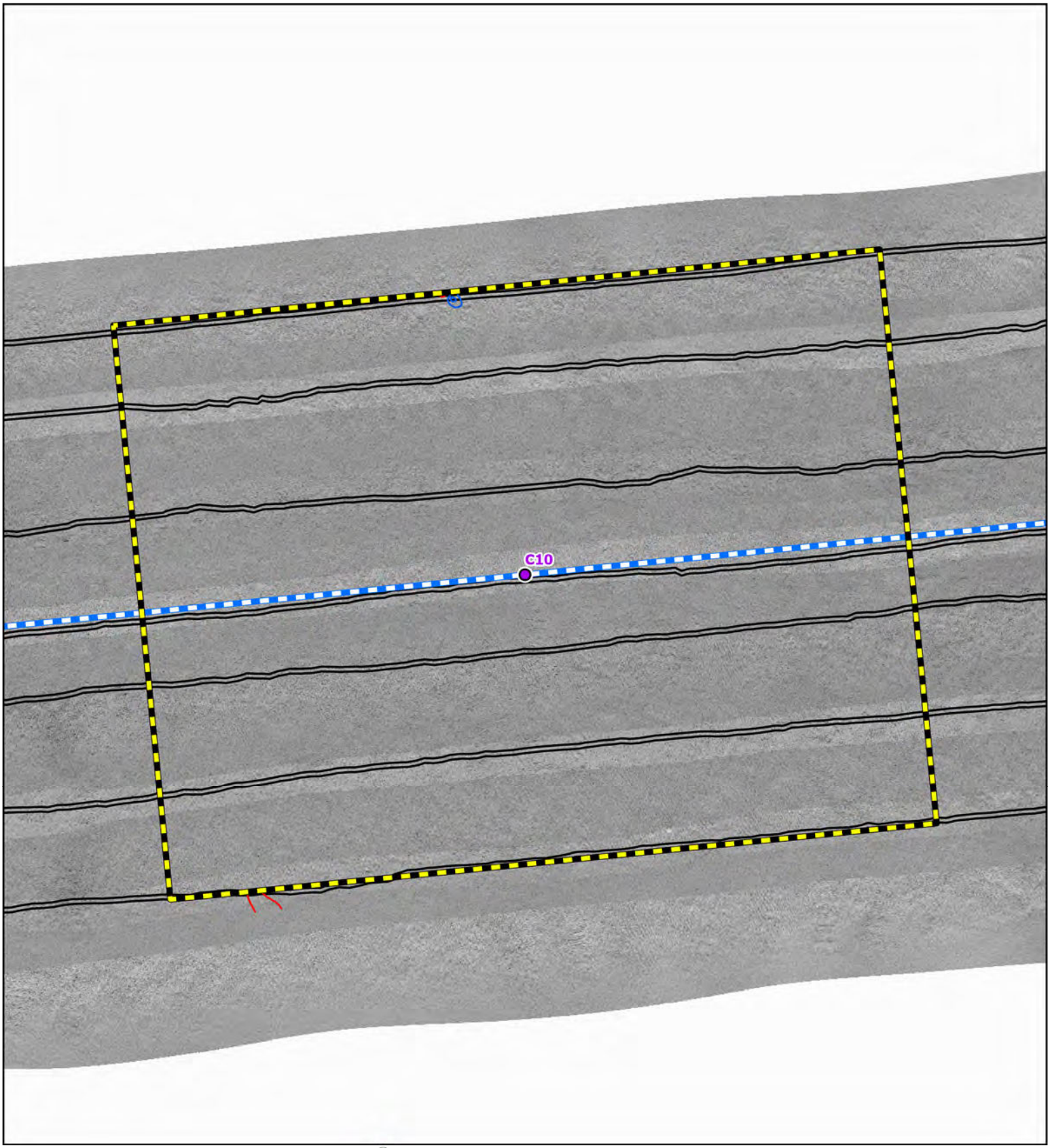
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 9

C9

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

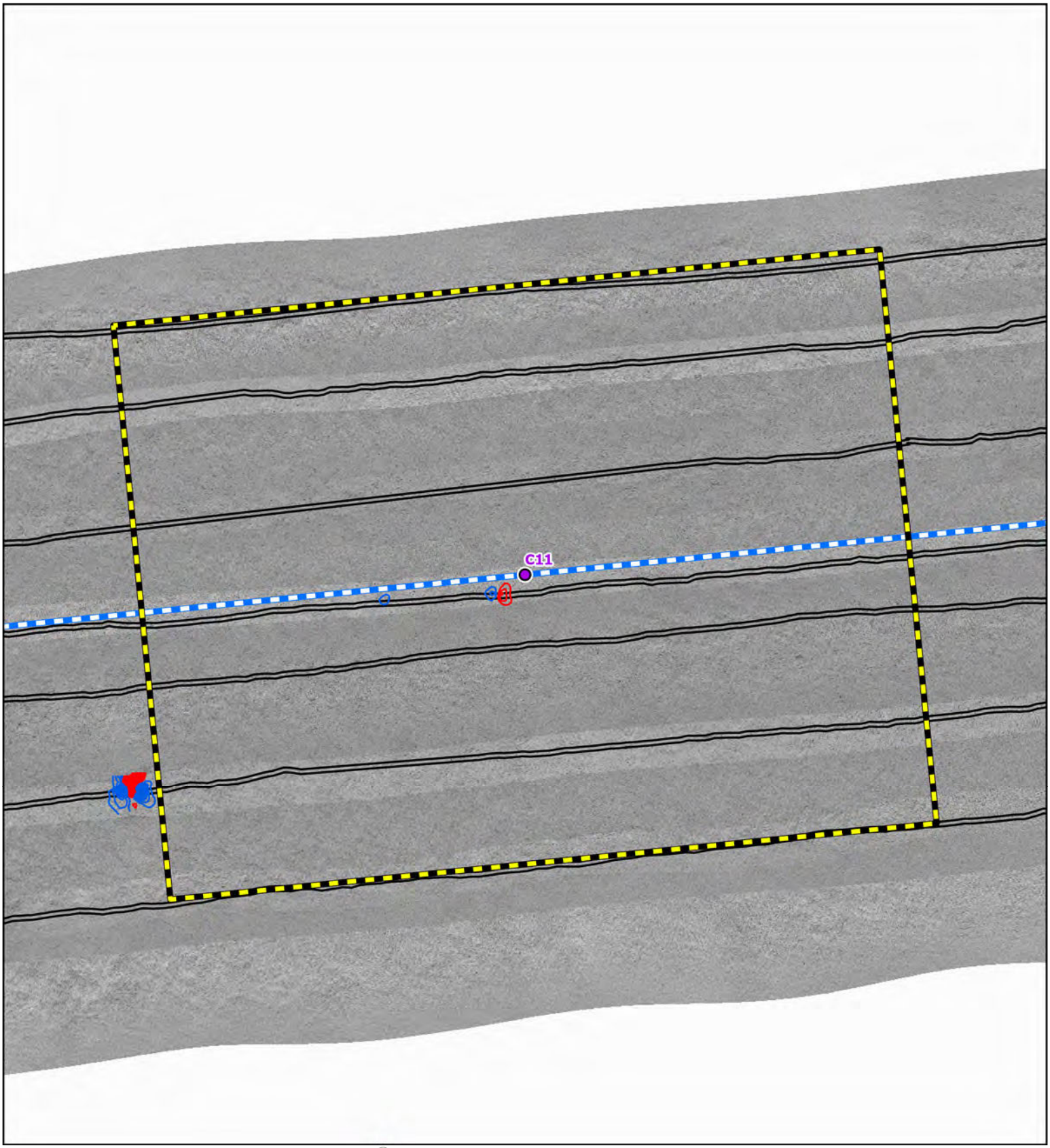
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 10

C10

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

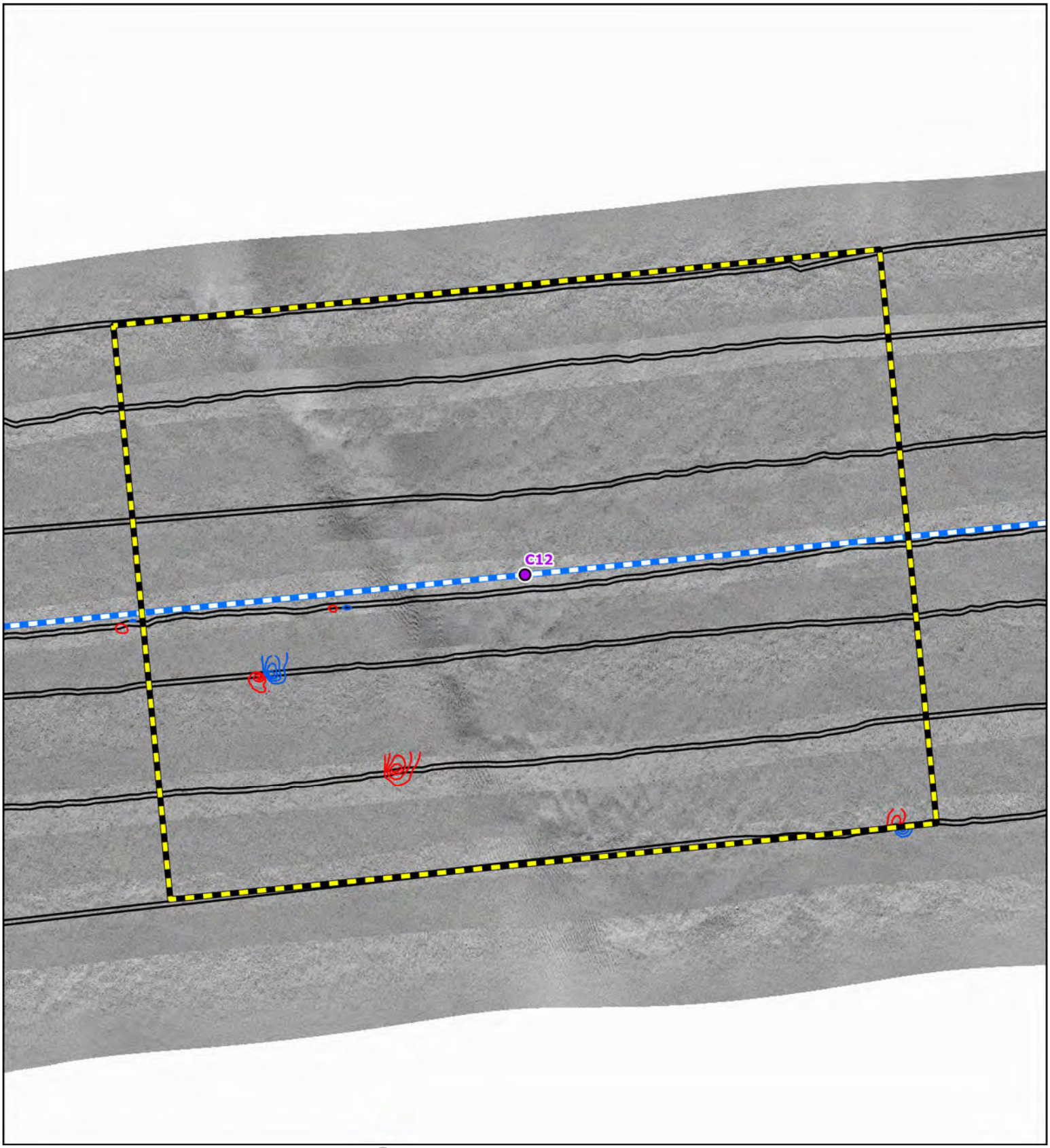
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 11

C11

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

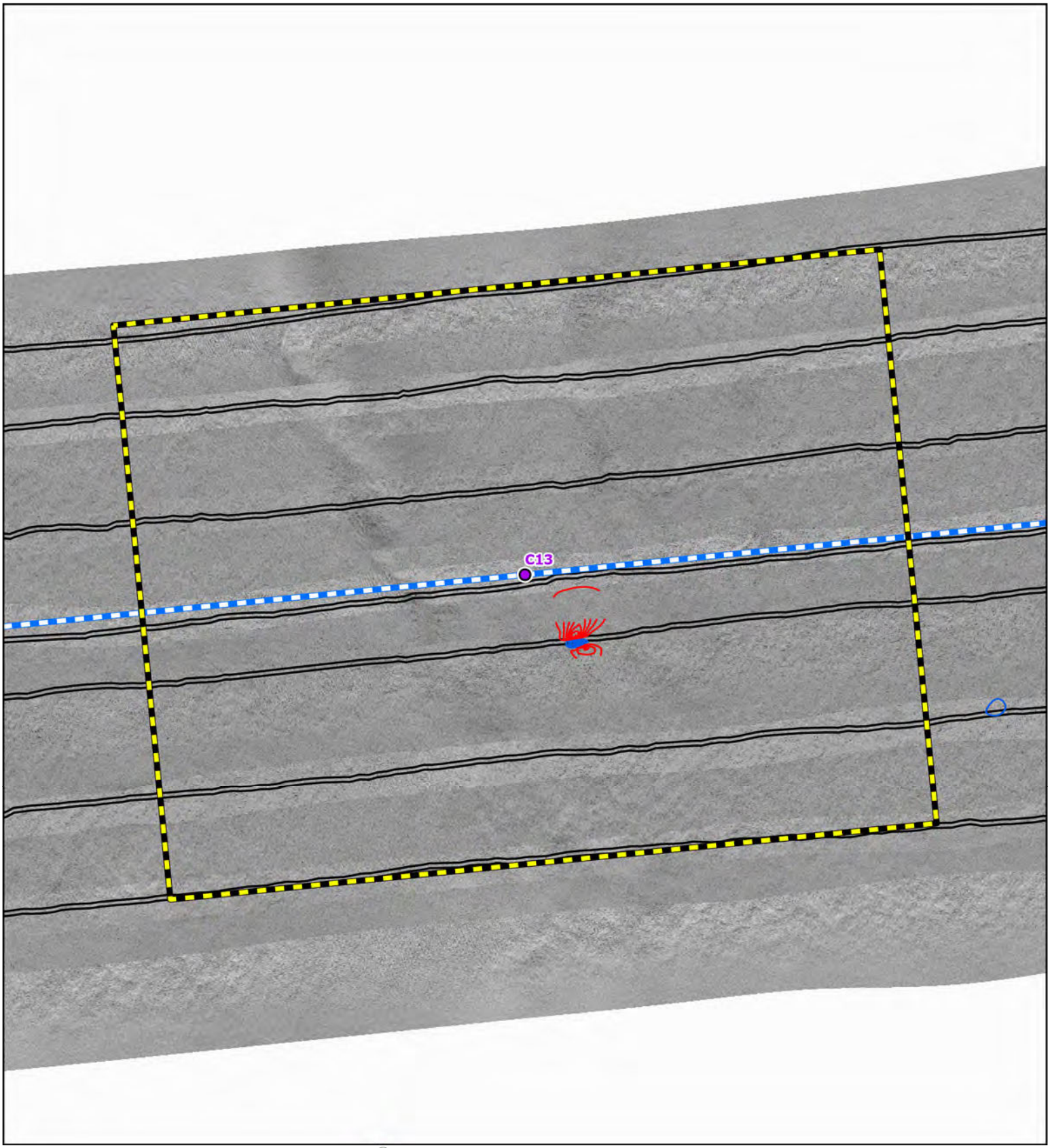
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 12

C12

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Side Scan Sonar Contact
- ECR Centerline
- Trackline

Magnetic Contours (5 nT)

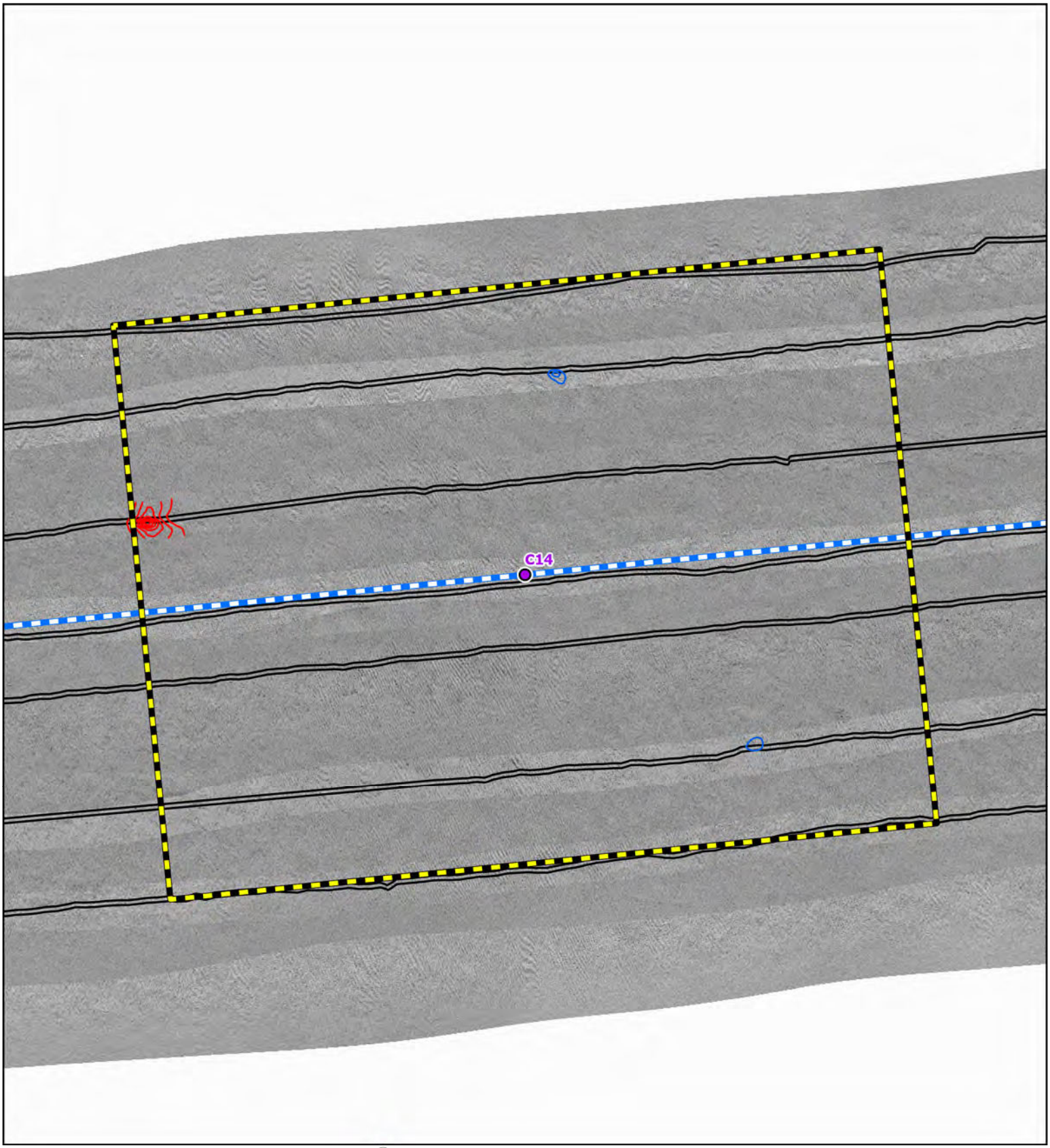
- Negative
- Positive
- Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 13

C13

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

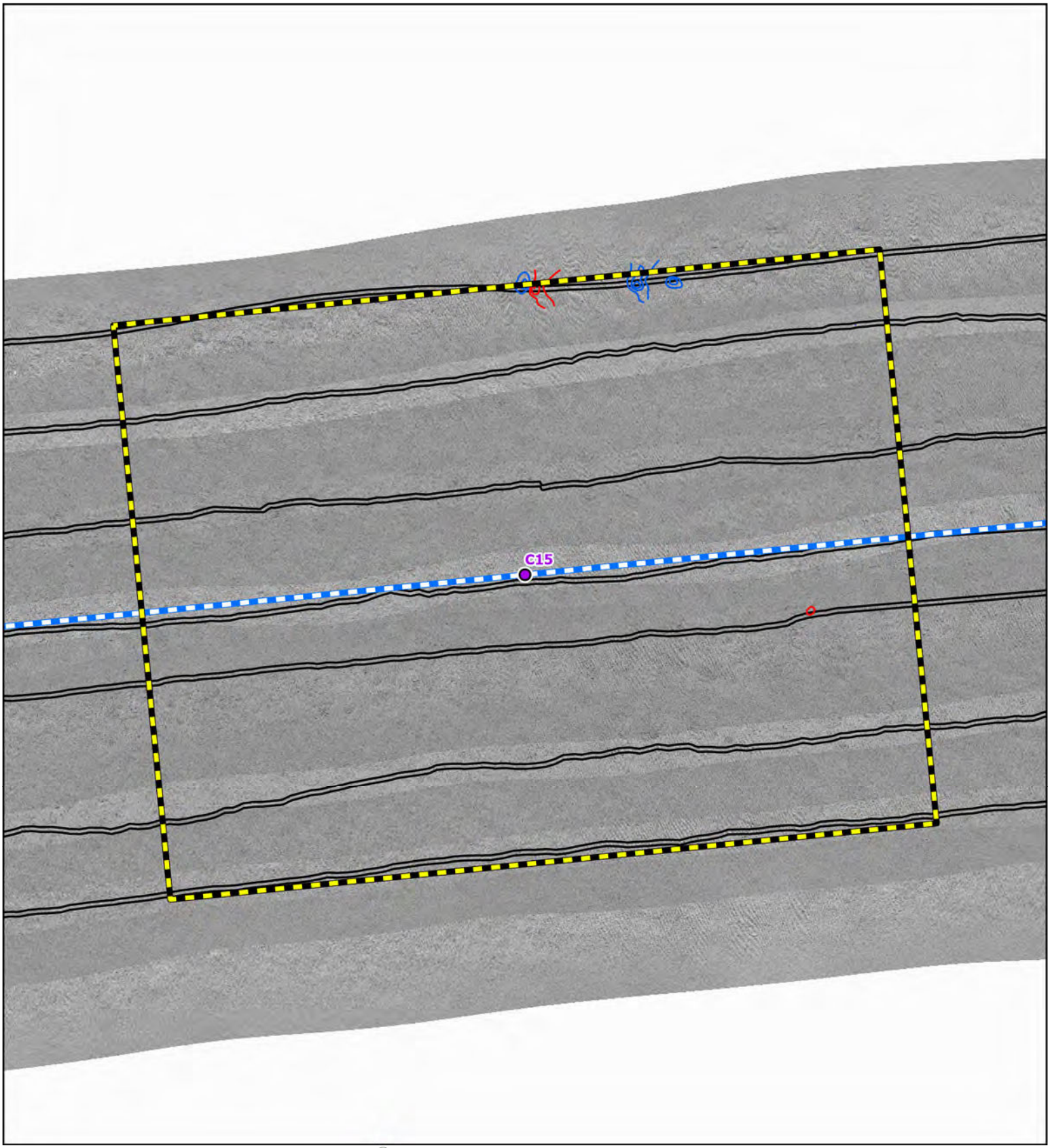
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 14

C14

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet
0 10 20 30 40
Meters

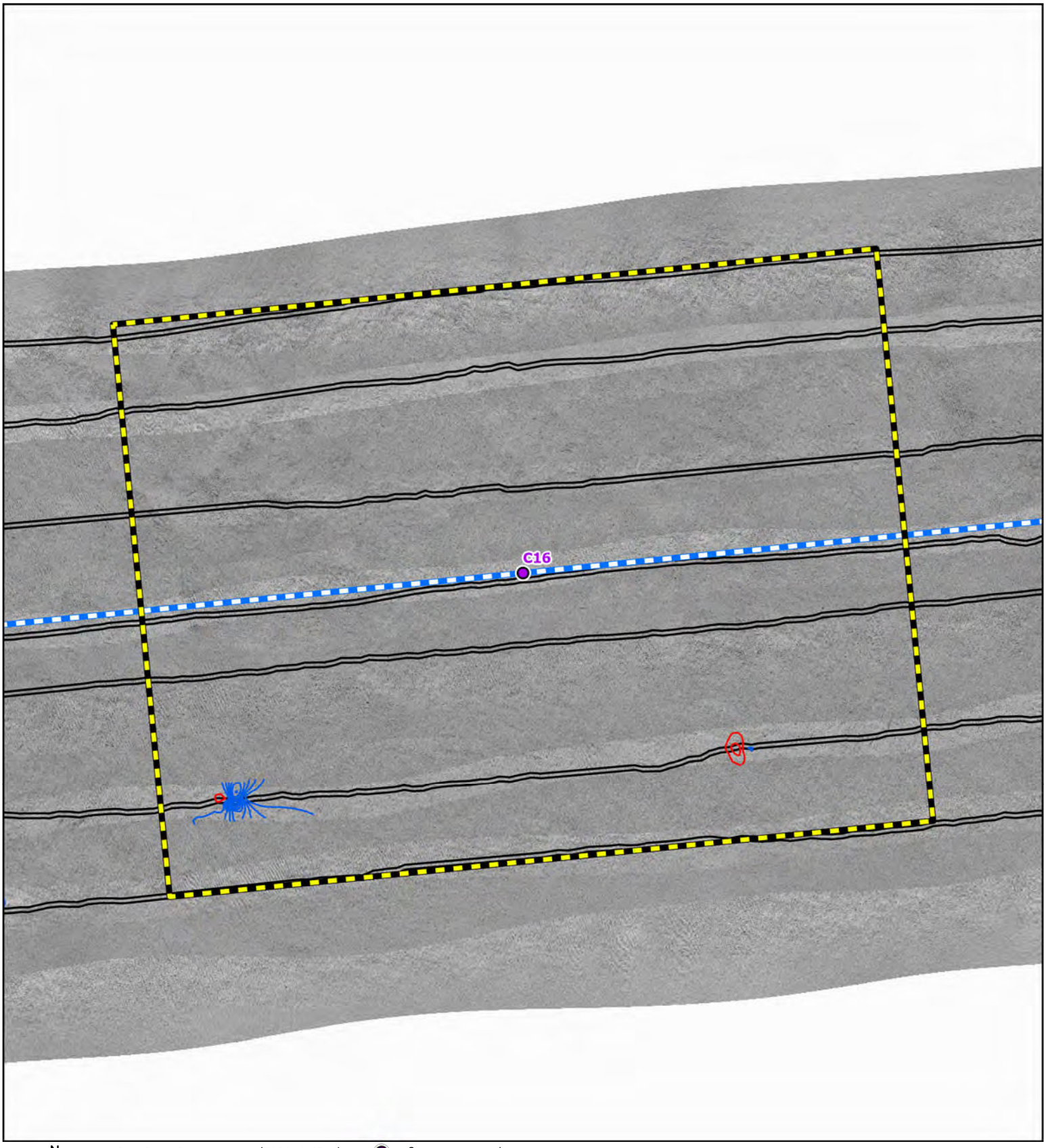
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 15

C15

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

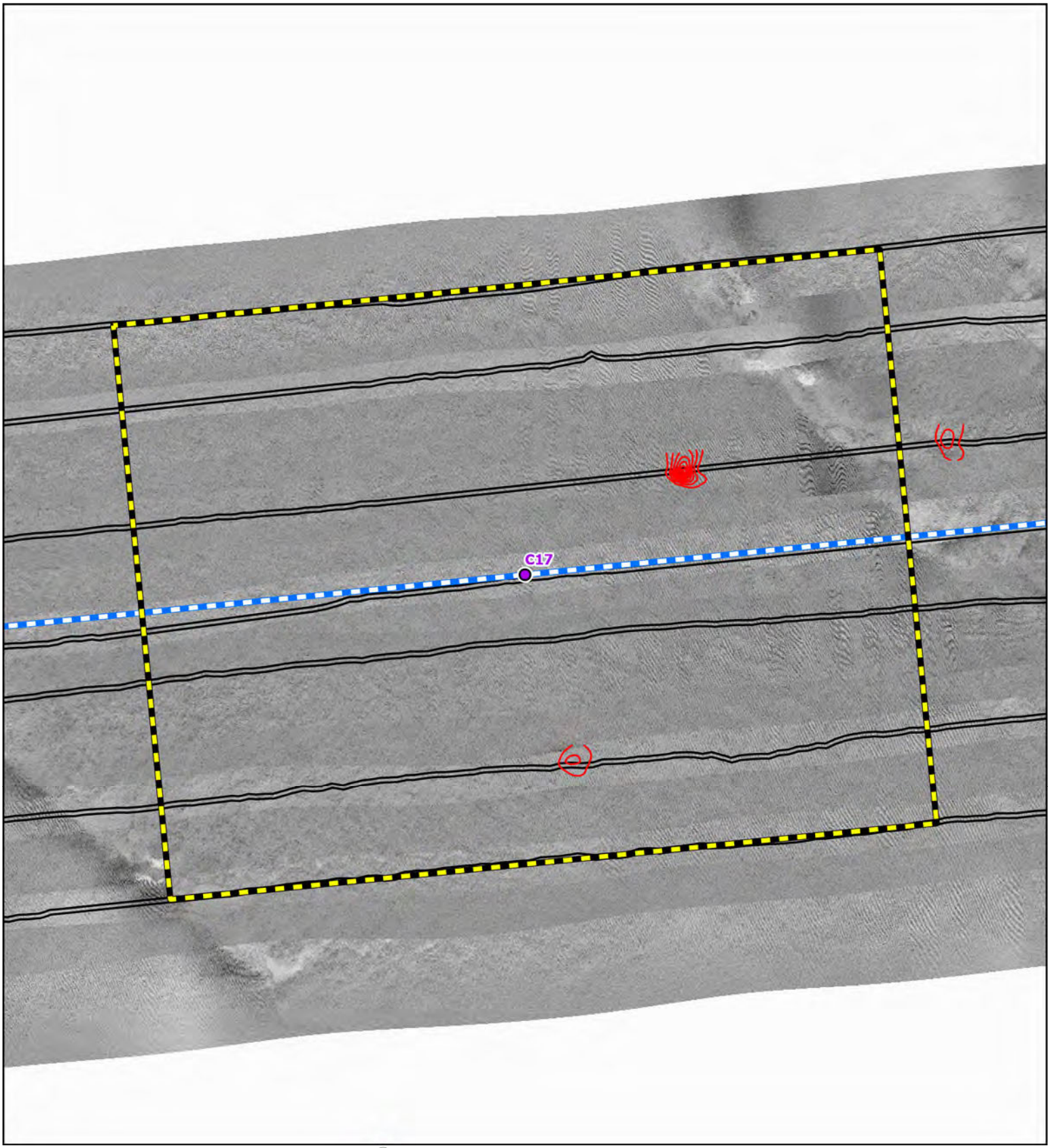
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 16

C16

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

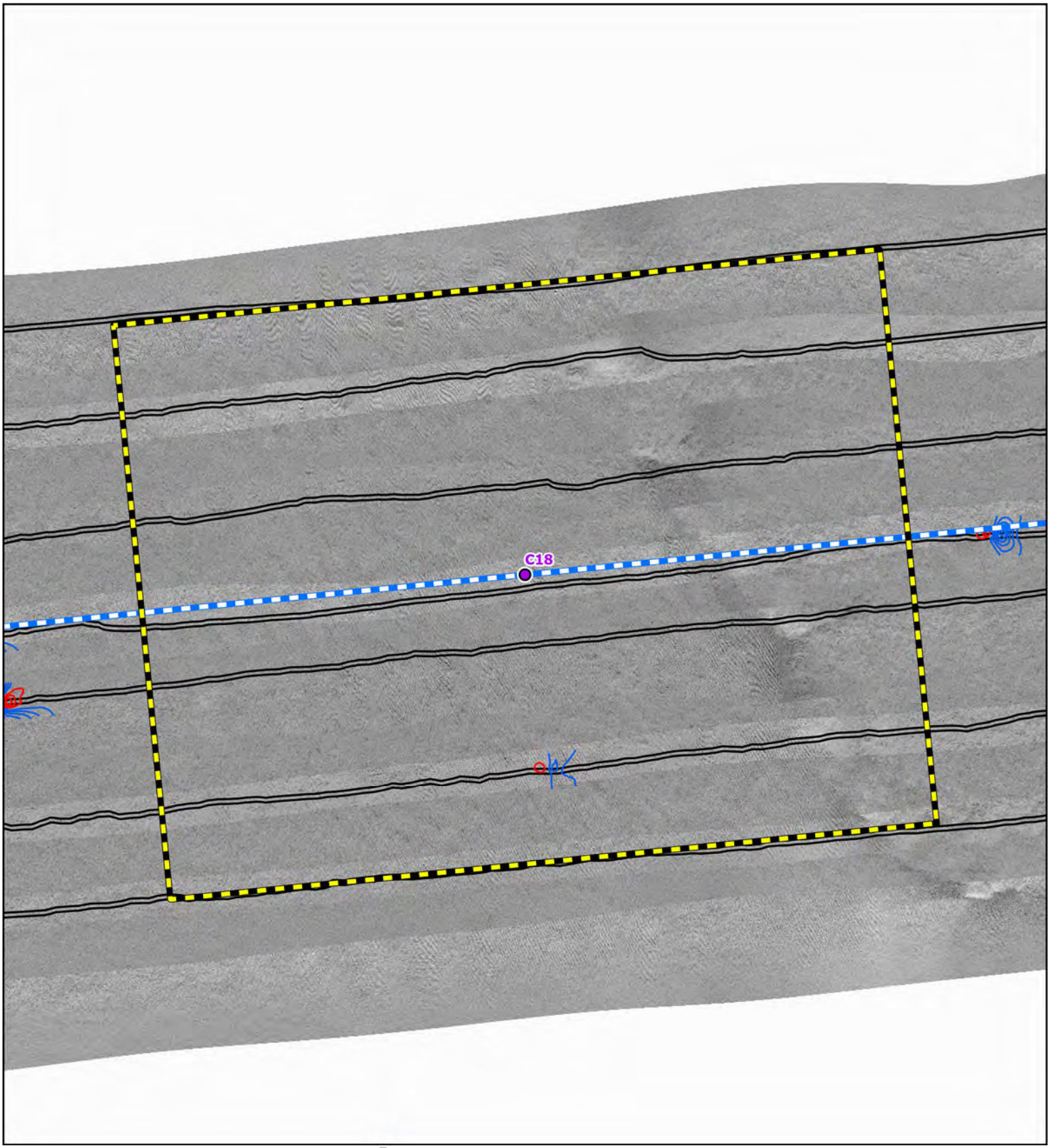
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 17

C17

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

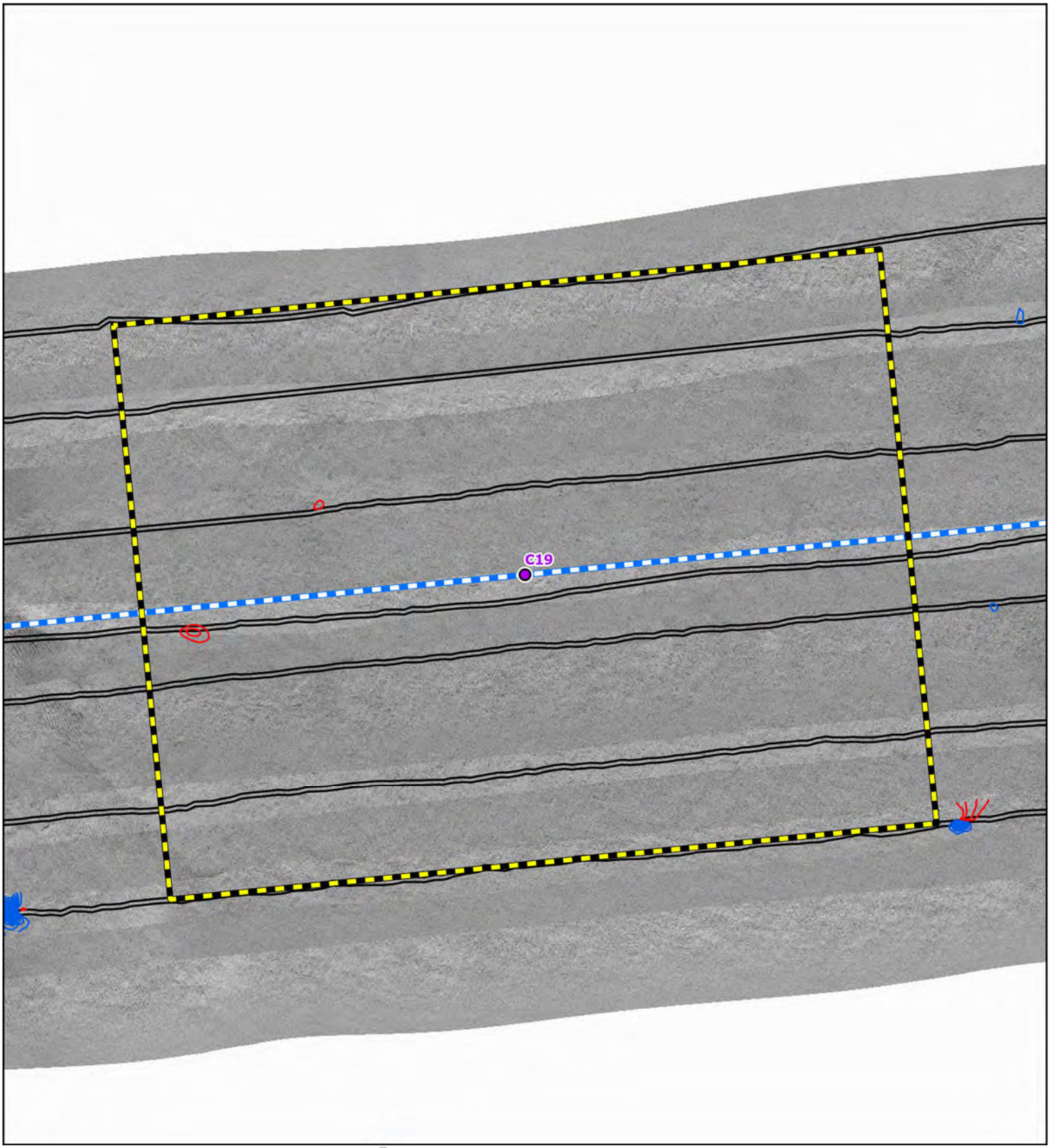
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 18

C18

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

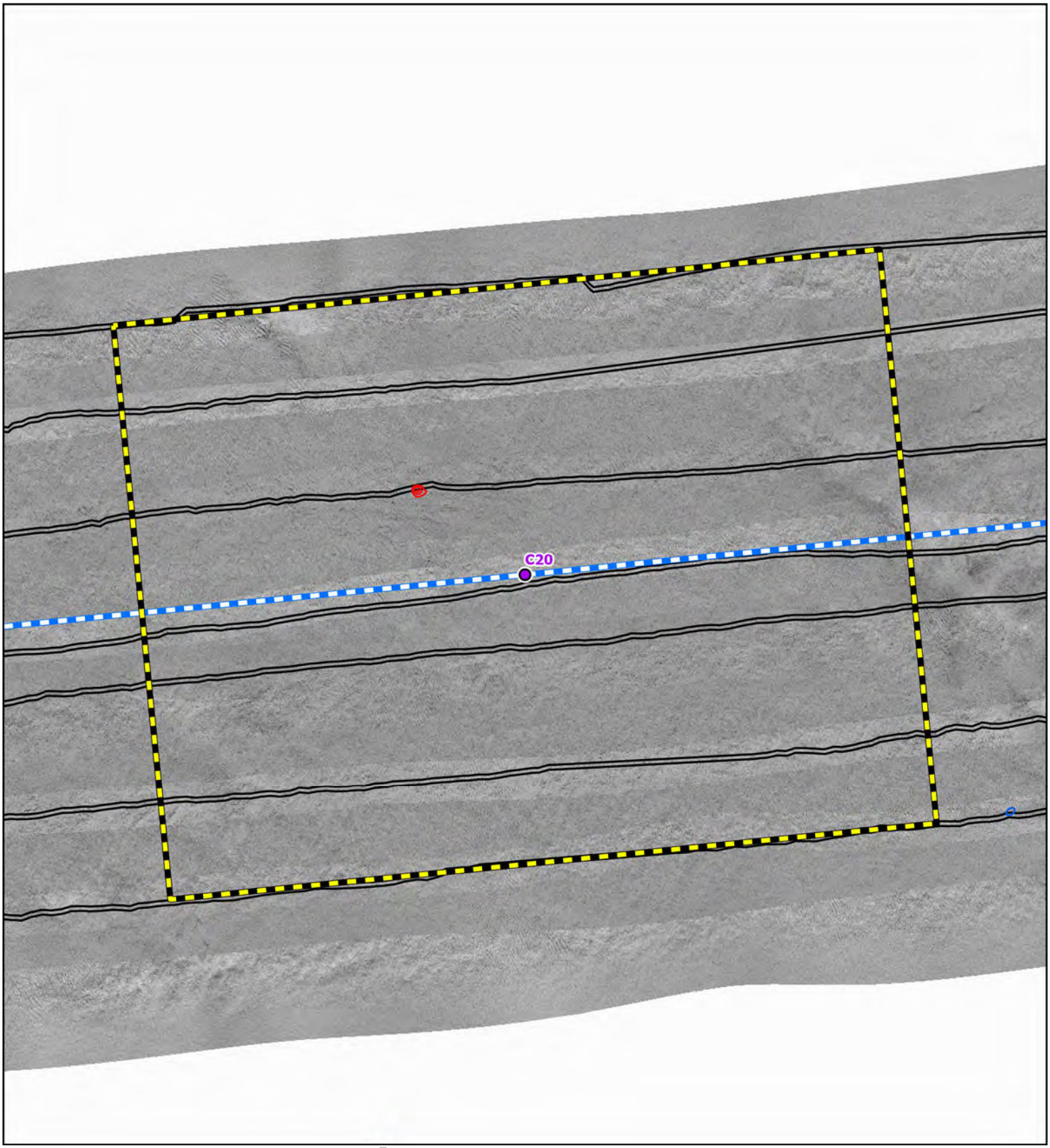
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 19

C19

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 20

C20

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

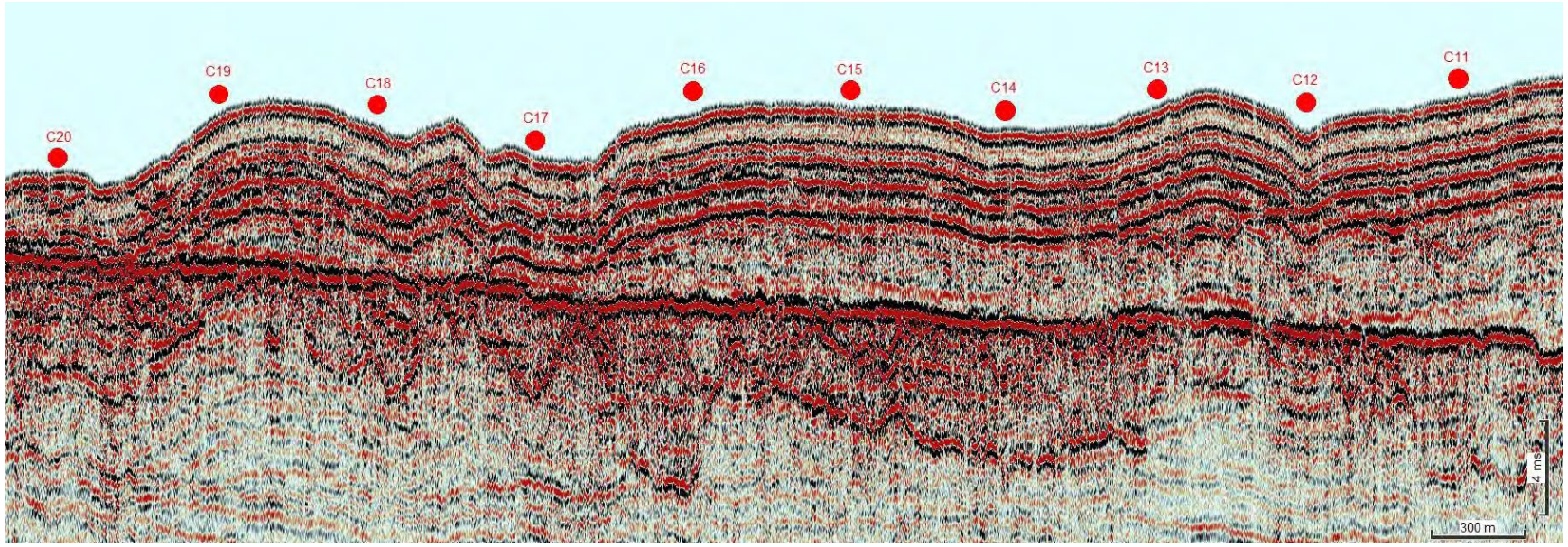


Figure 1: Proposed geotechnical locations C20, C19. C18. C17. C16. C15. C14. C13, C12, and C11 in Block C along line UHRS_166_C-C_Split1_Proc

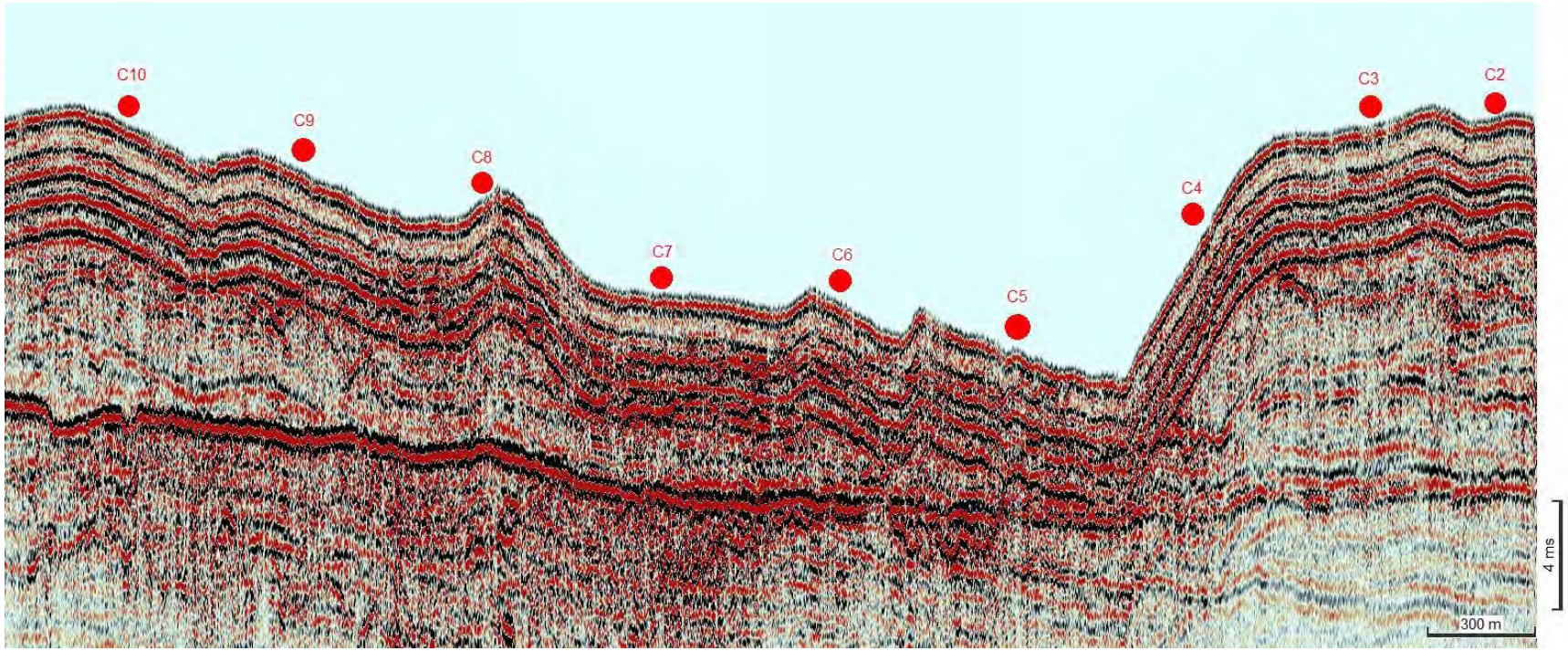


Figure 2: Proposed geotechnical locations C10, C9. C8. C7. C6. C5. C4. C3, and C2 in Block C along line UHRS_166_C-C_Split1_Proc

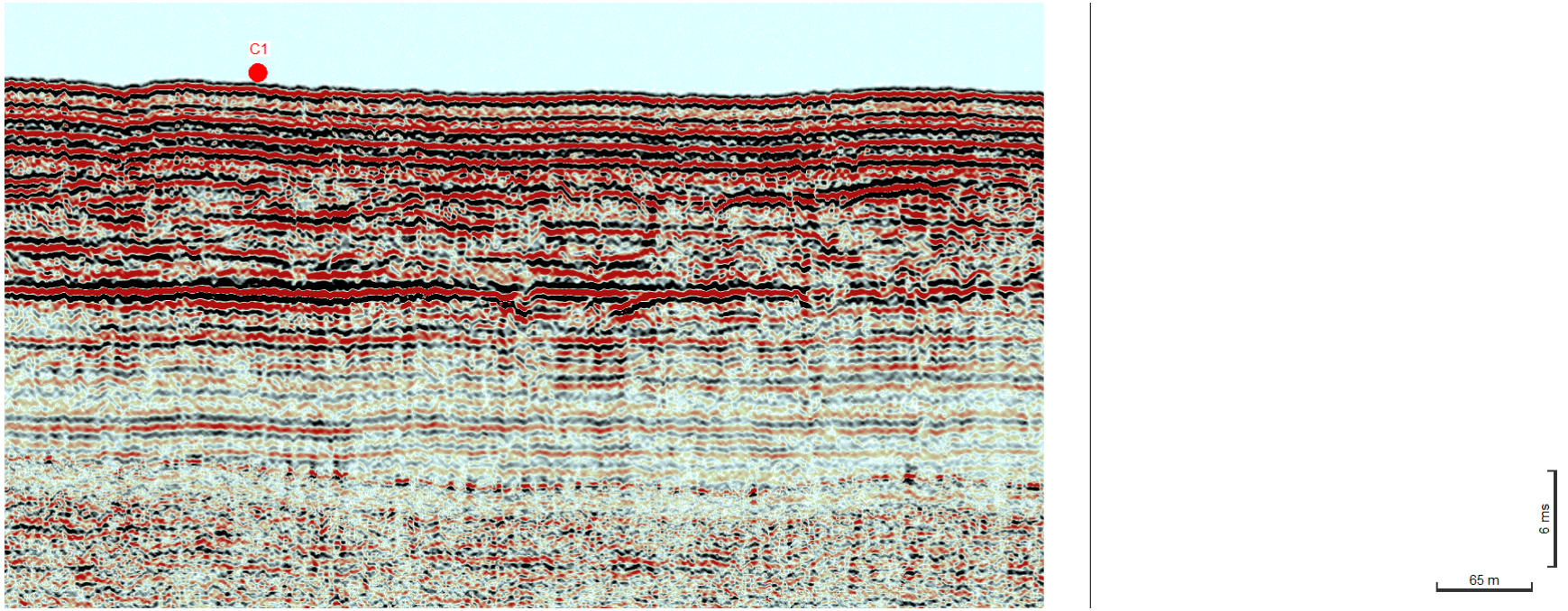


Figure 3: Proposed geotechnical location C1 in Block C along line UHRS_177_C-3N_Split2_Proc

Block D Report

June 24, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 16 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 16 proposed geotechnical locations located along the Export Cable Route (ECR). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

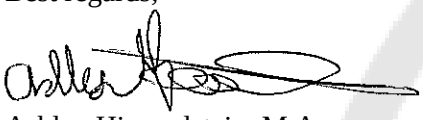
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



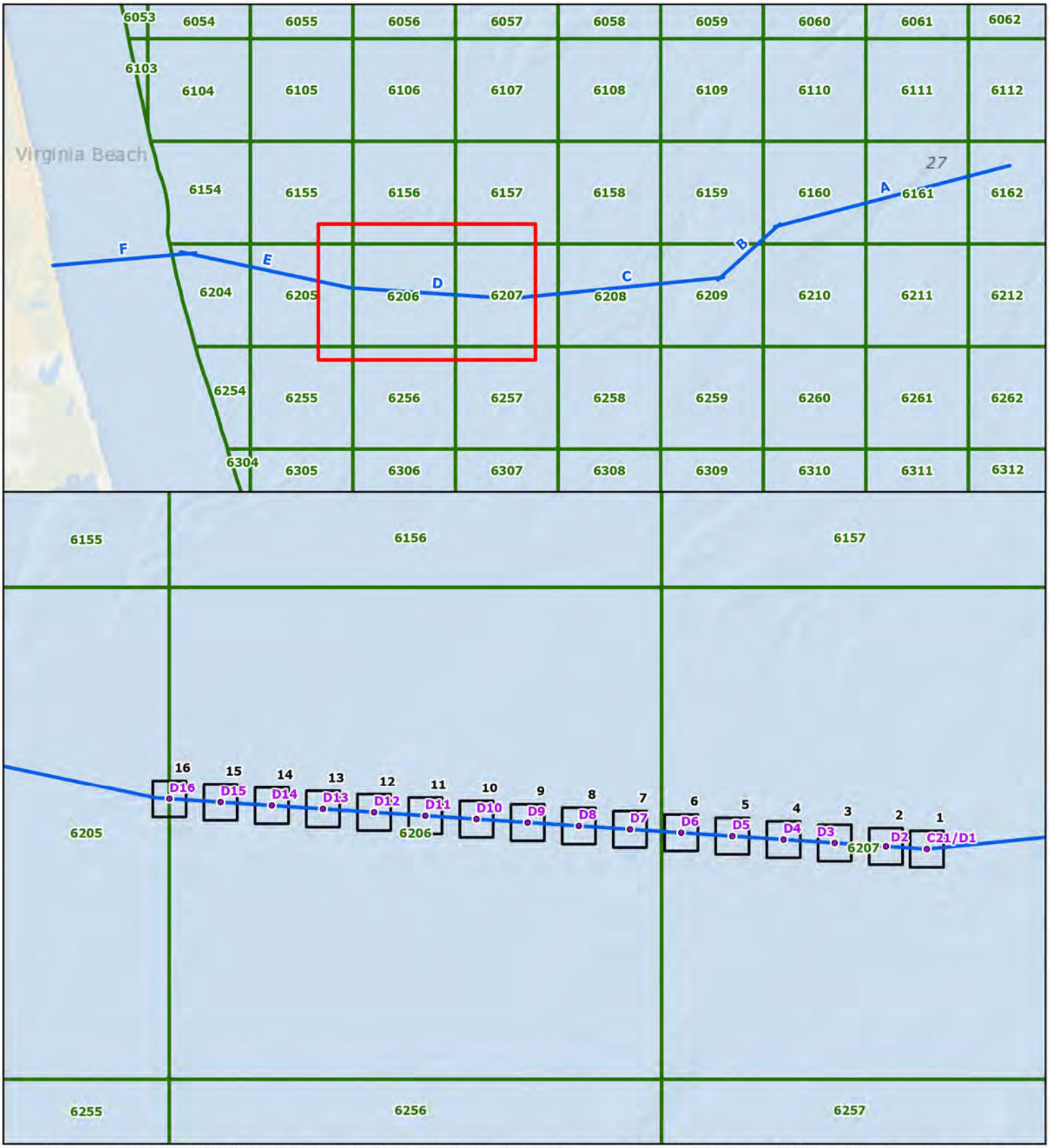
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table. Proposed geotechnical locations for ECR Block D

Core ID	Easting	Northing	Longitude	Latitude
D16	428002.2457	4073133.557	-75.80707998	36.80130272
D15	428501.1439	4073100.381	-75.80148482	36.8010415
D14	429000.042	4073067.206	-75.7958897	36.80078001
D13	429498.9402	4073034.03	-75.79029462	36.80051826
D12	429997.8384	4073000.855	-75.78469956	36.80025625
D11	430496.7365	4072967.679	-75.77910454	36.79999397
D10	430995.6347	4072934.504	-75.77350956	36.79973143
D9	431494.5329	4072901.328	-75.7679146	36.79946863
D8	431993.431	4072868.152	-75.76231969	36.79920556
D7	432492.3292	4072834.977	-75.7567248	36.79894223
D6	432991.2273	4072801.801	-75.75112995	36.79867864
D5	433490.1256	4072768.626	-75.74553513	36.79841478
D4	433989.0237	4072735.45	-75.73994034	36.79815066
D3	434487.9219	4072702.275	-75.73434559	36.79788627
D2	434986.8201	4072669.099	-75.72875088	36.79762162
C21/D1	435385.9484	4072642.558	-75.72427502	36.79740971

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK D



N
W E
S
Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:50,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.25 0.5 0.75 1 Miles

0 0.25 0.5 0.75 1 Kilometers

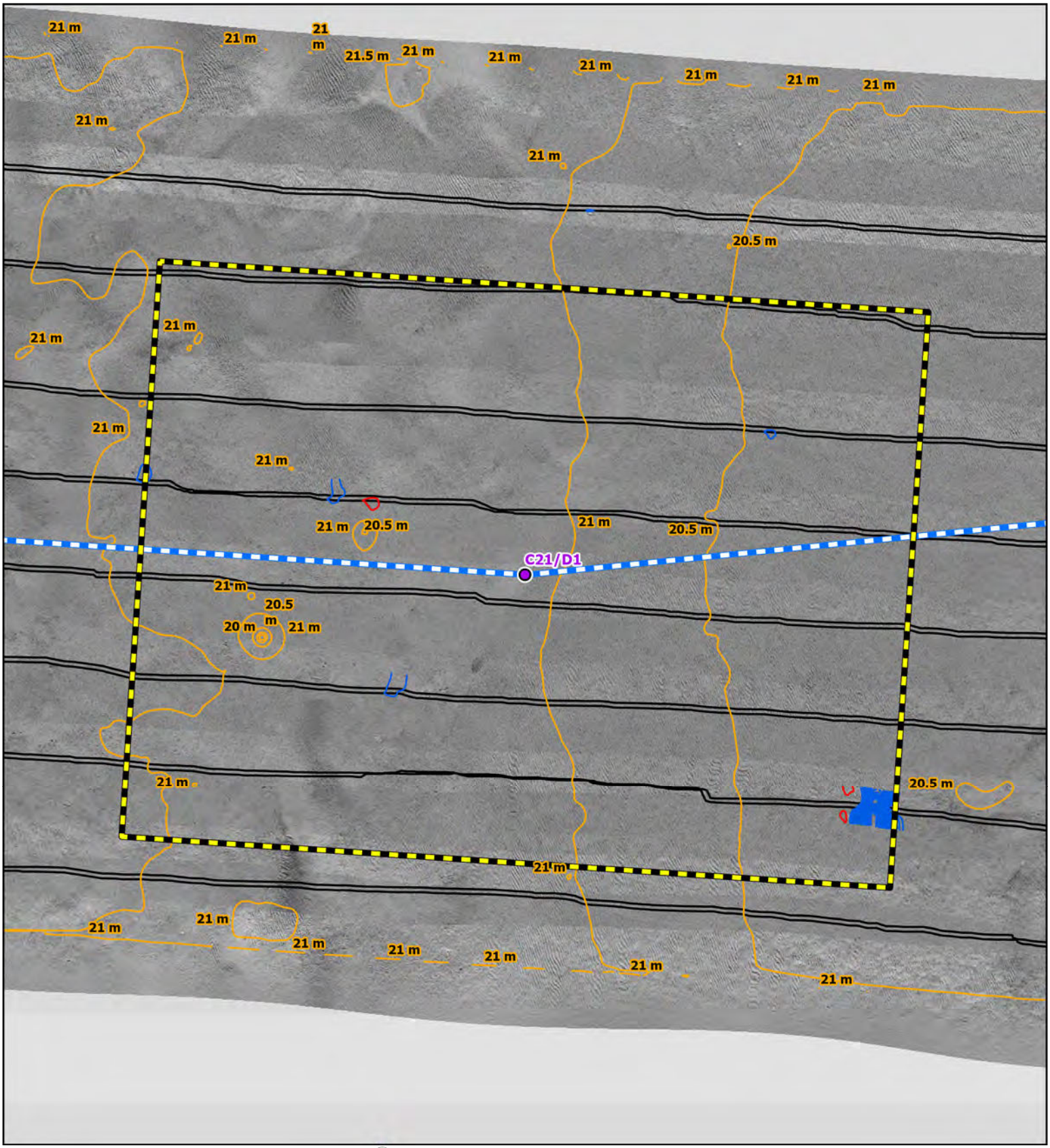
- Geotechnical Location
- ECR Centerline
- BOEM Lease Block
- Map Sheet Extent

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

www.rcgoodwin.com | kmay, 6.24.2020



N

W E

S

Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100

Feet

0 10 20 30 40

Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

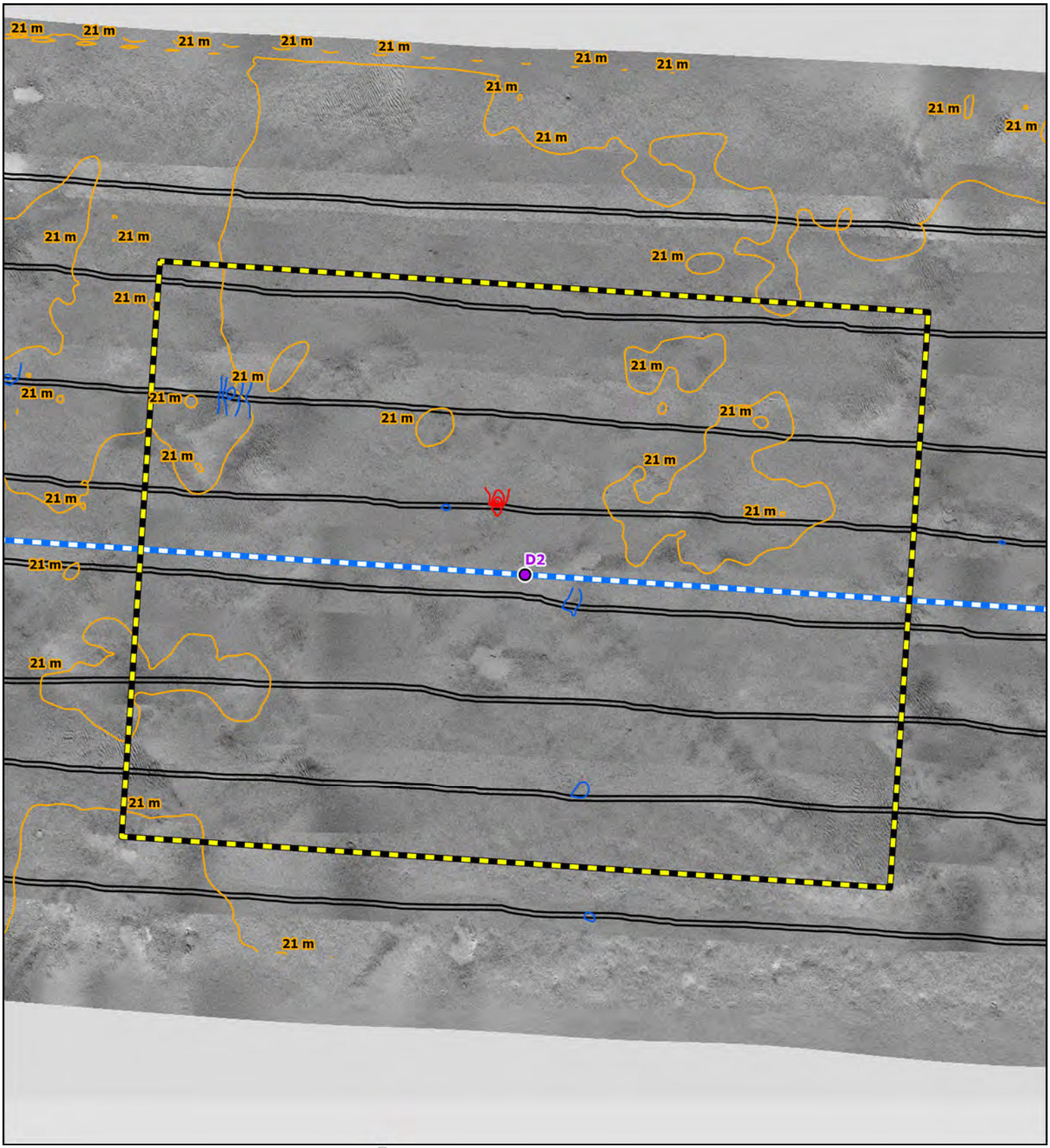
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 1

C21/D1

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

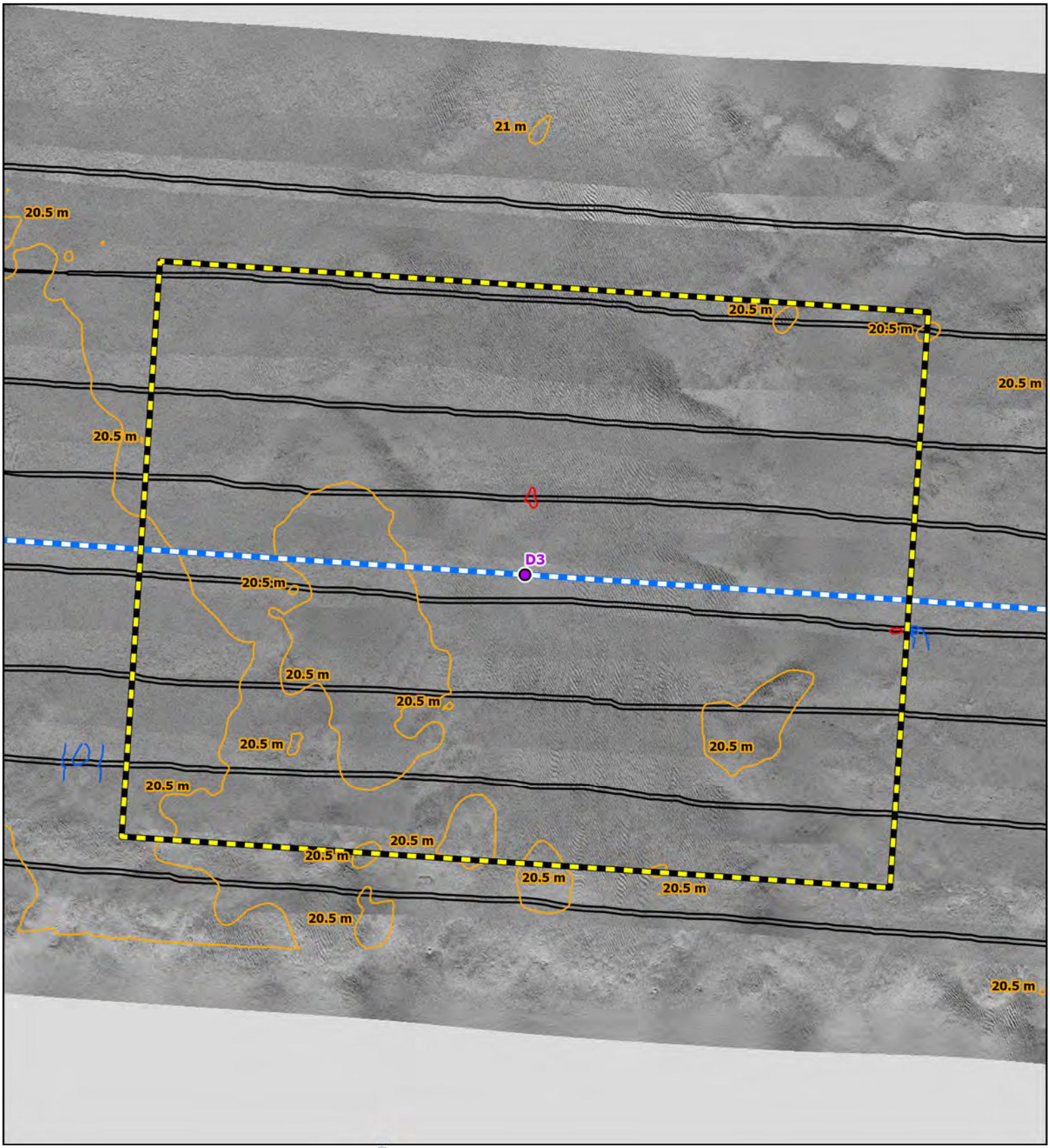
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block D

Map: 2

D2

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (0.5m interval)
- Trackline

Magnetic Contours (5 nT)

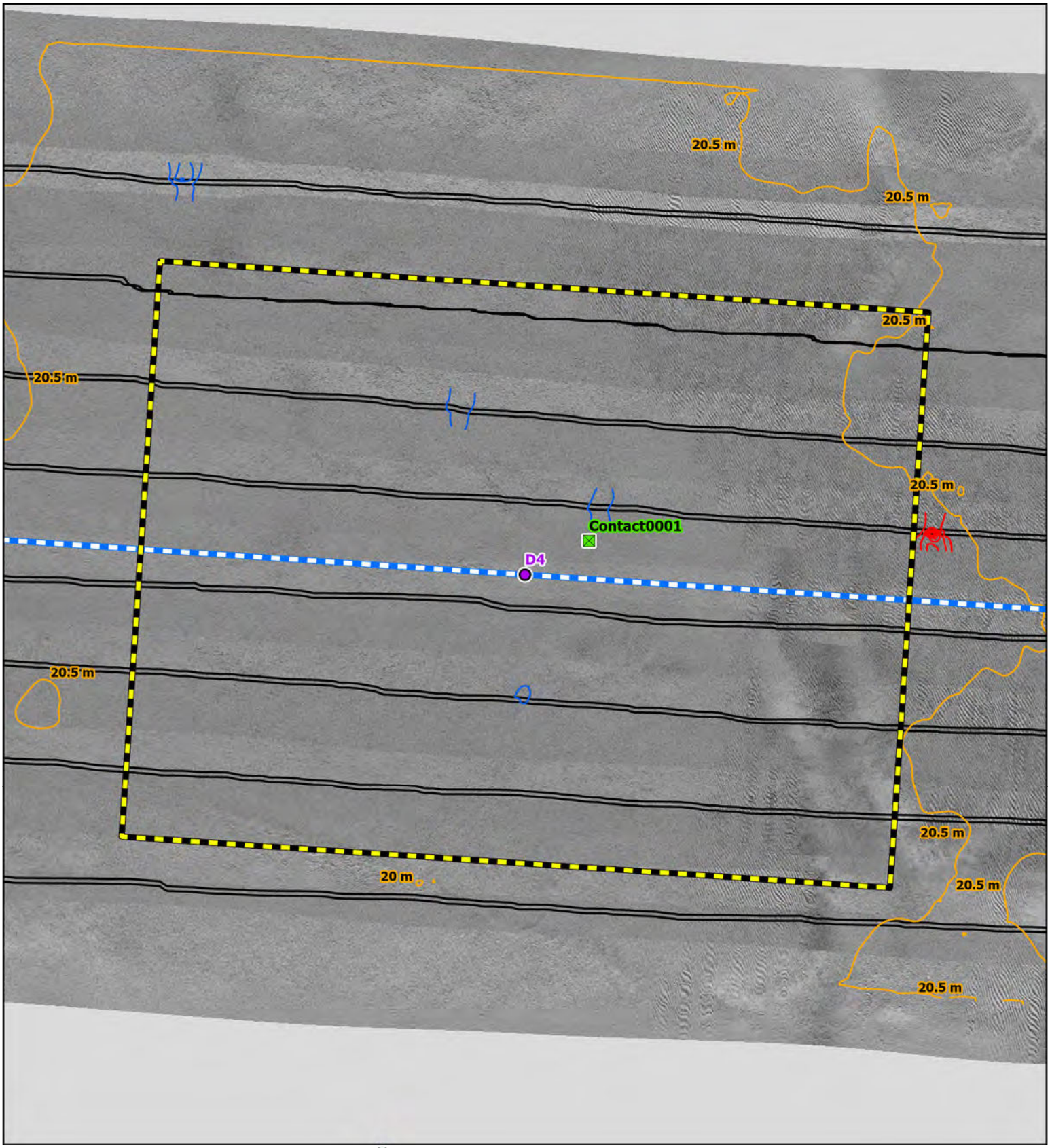
- Negative
- Positive
- Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 3

D3

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (0.5m interval)
- Trackline

Magnetic Contours (5 nT)

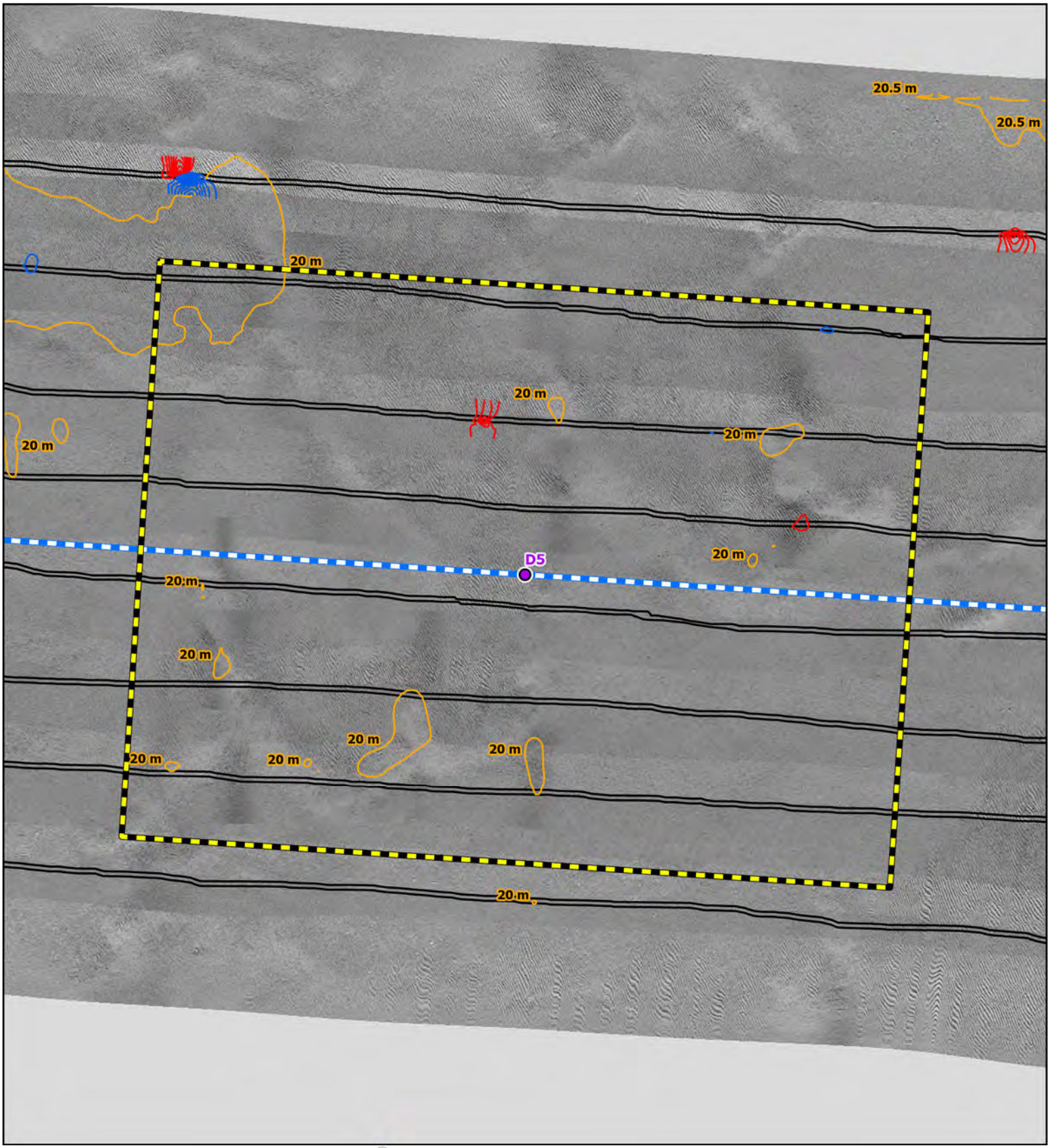
- Negative
- Positive
- Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 4

D4

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

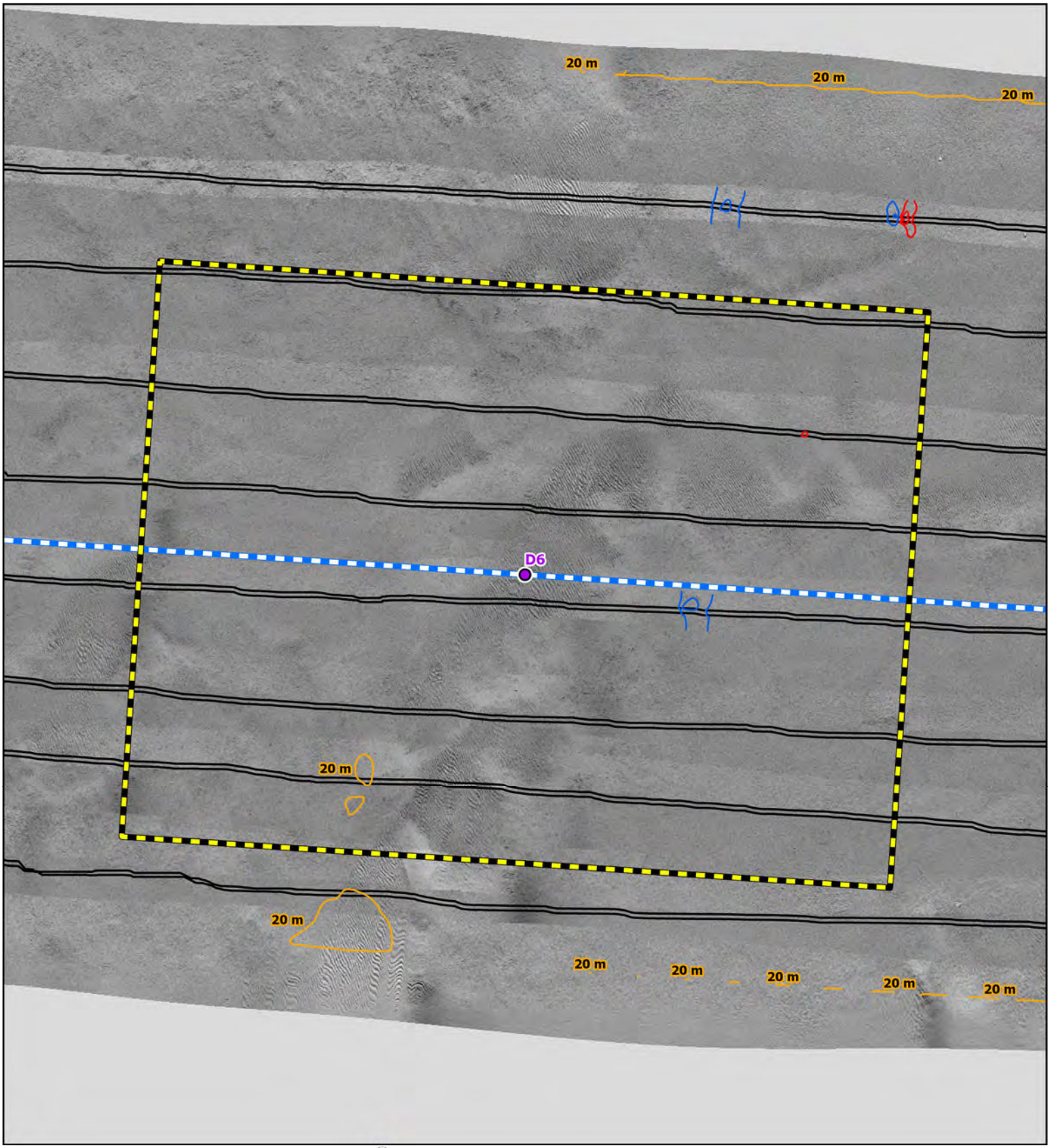
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 5

D5

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

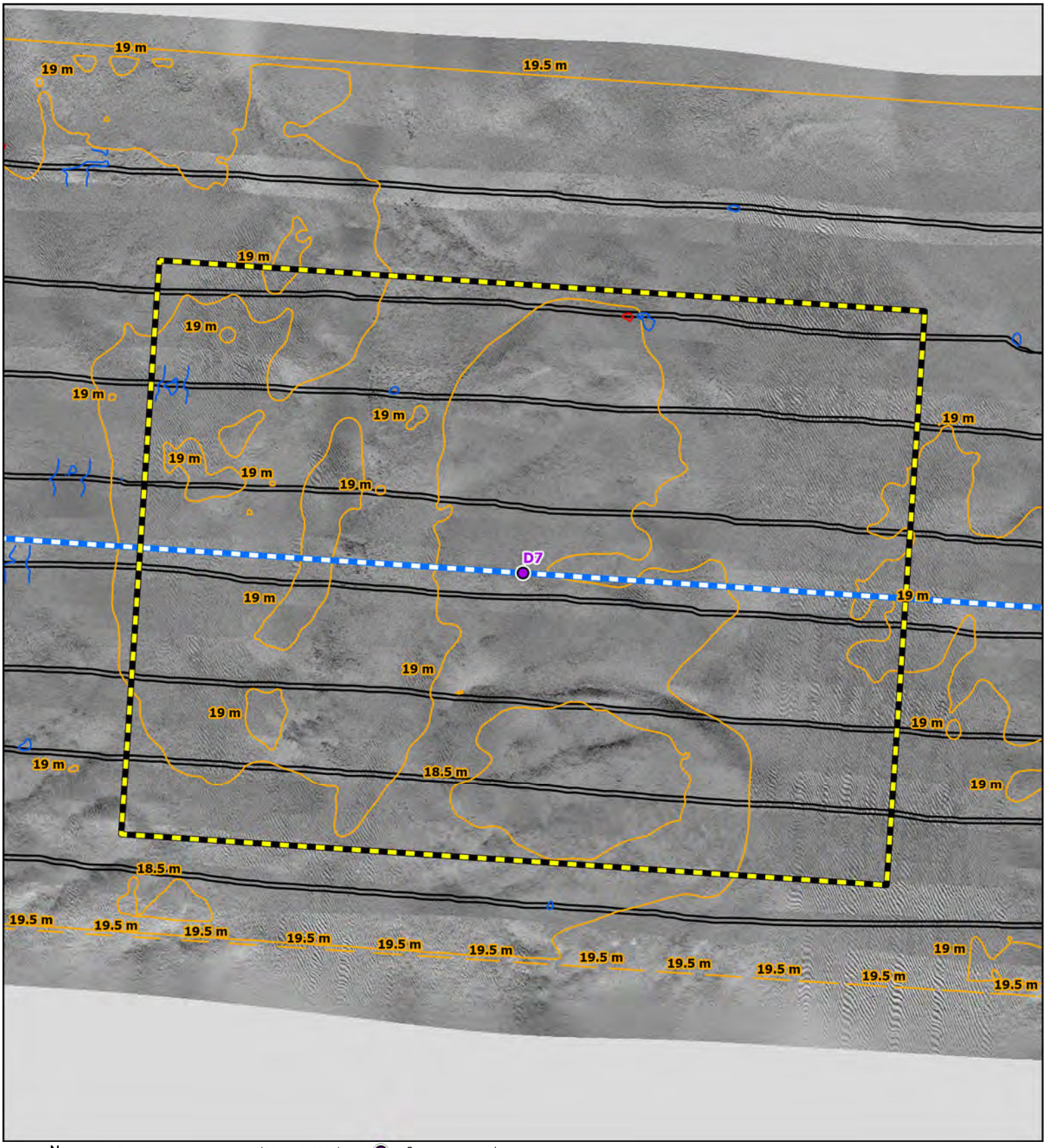
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 6

D6

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

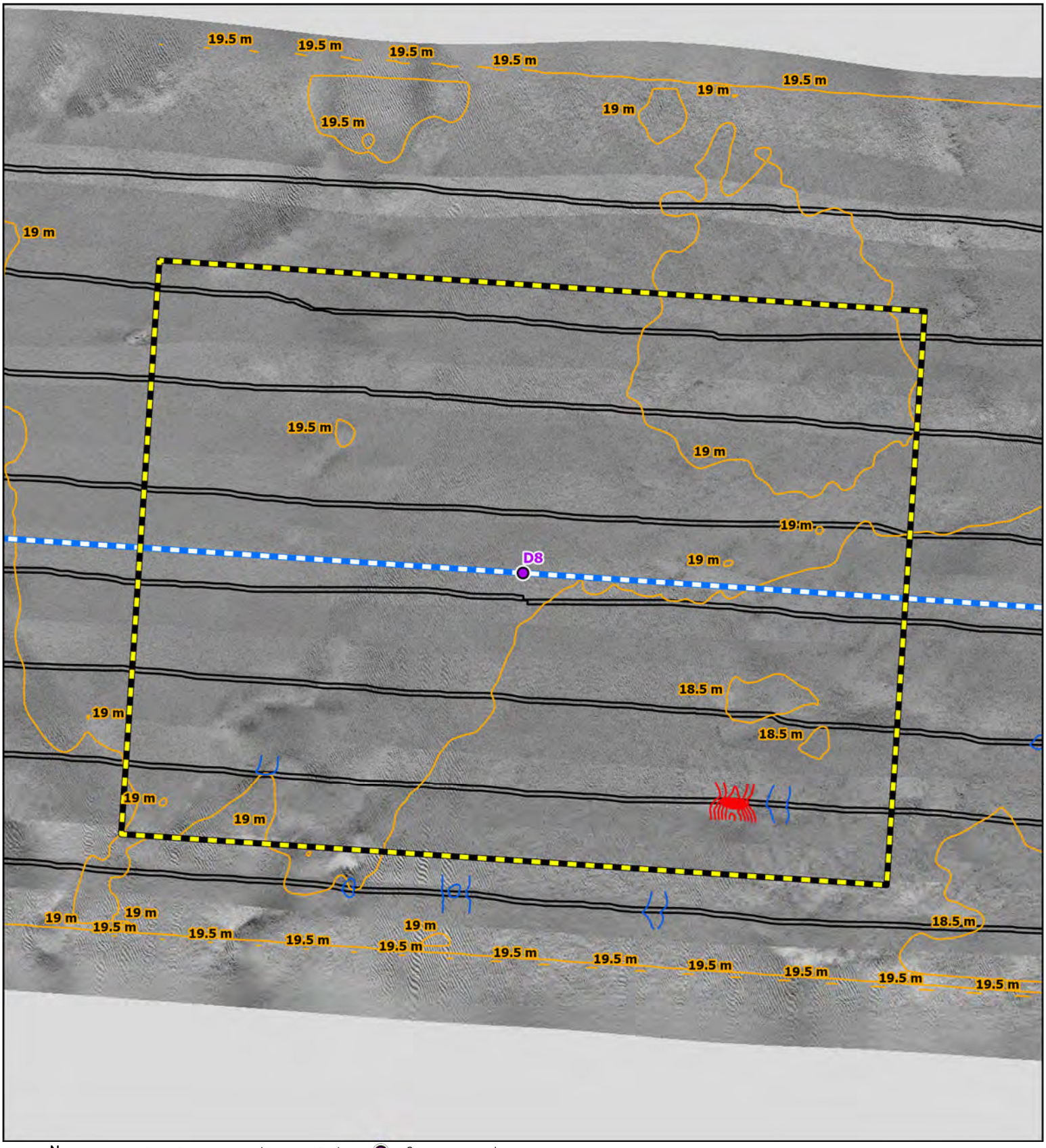
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 7

D7

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (0.5m interval)
- Trackline

Magnetic Contours (5 nT)

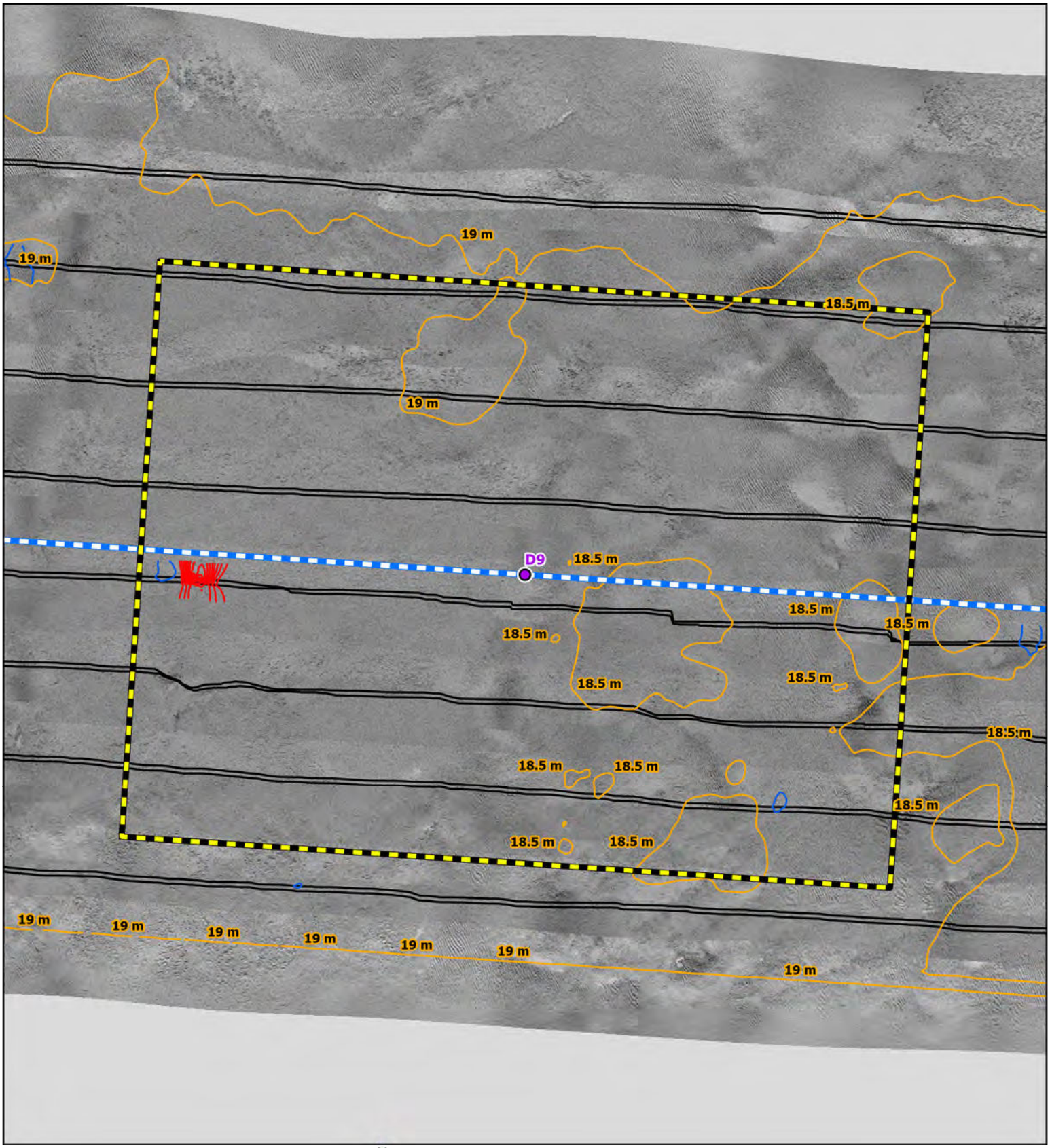
- Negative
- Positive
- Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 8

D8

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

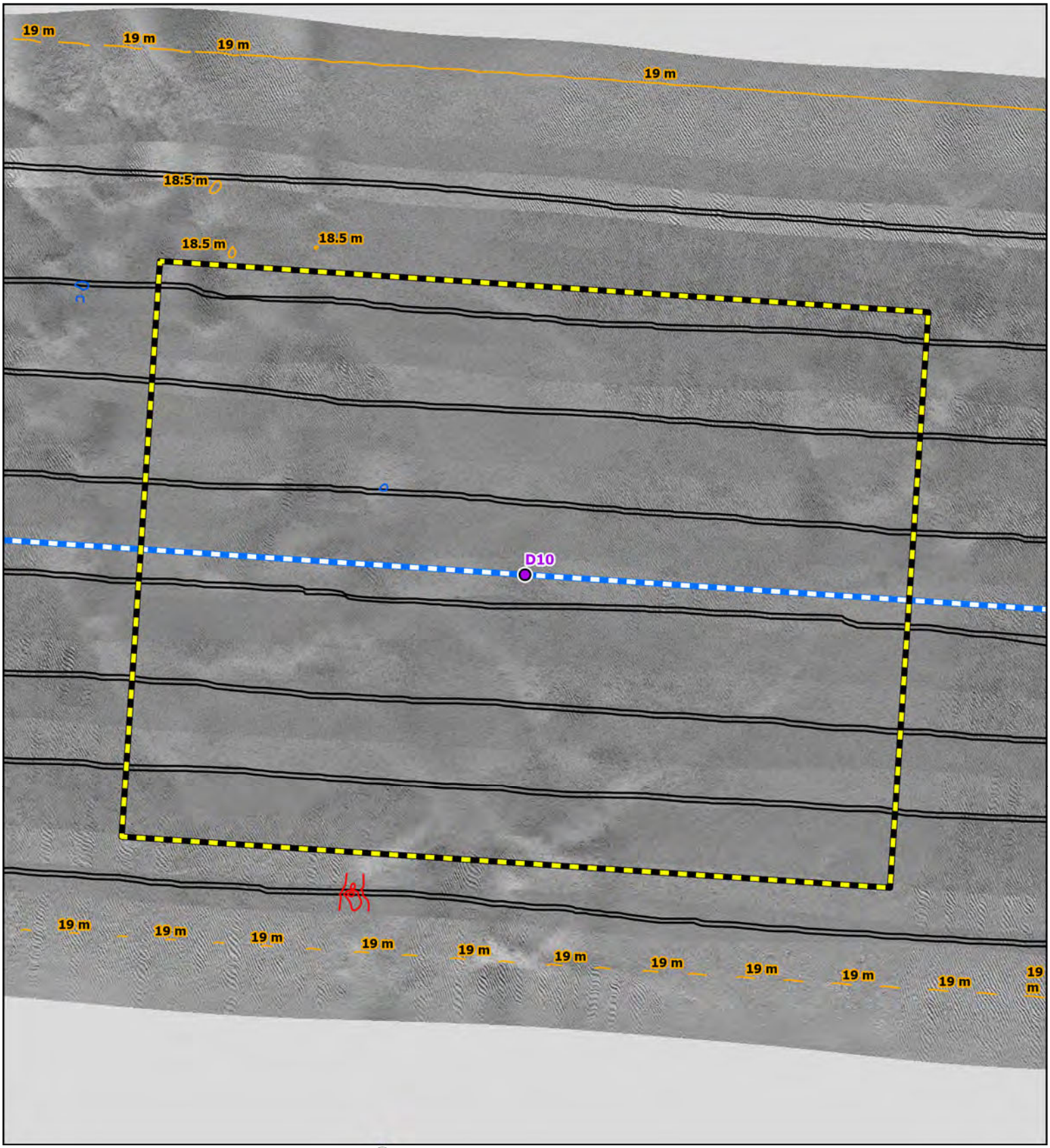
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 9

D9

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

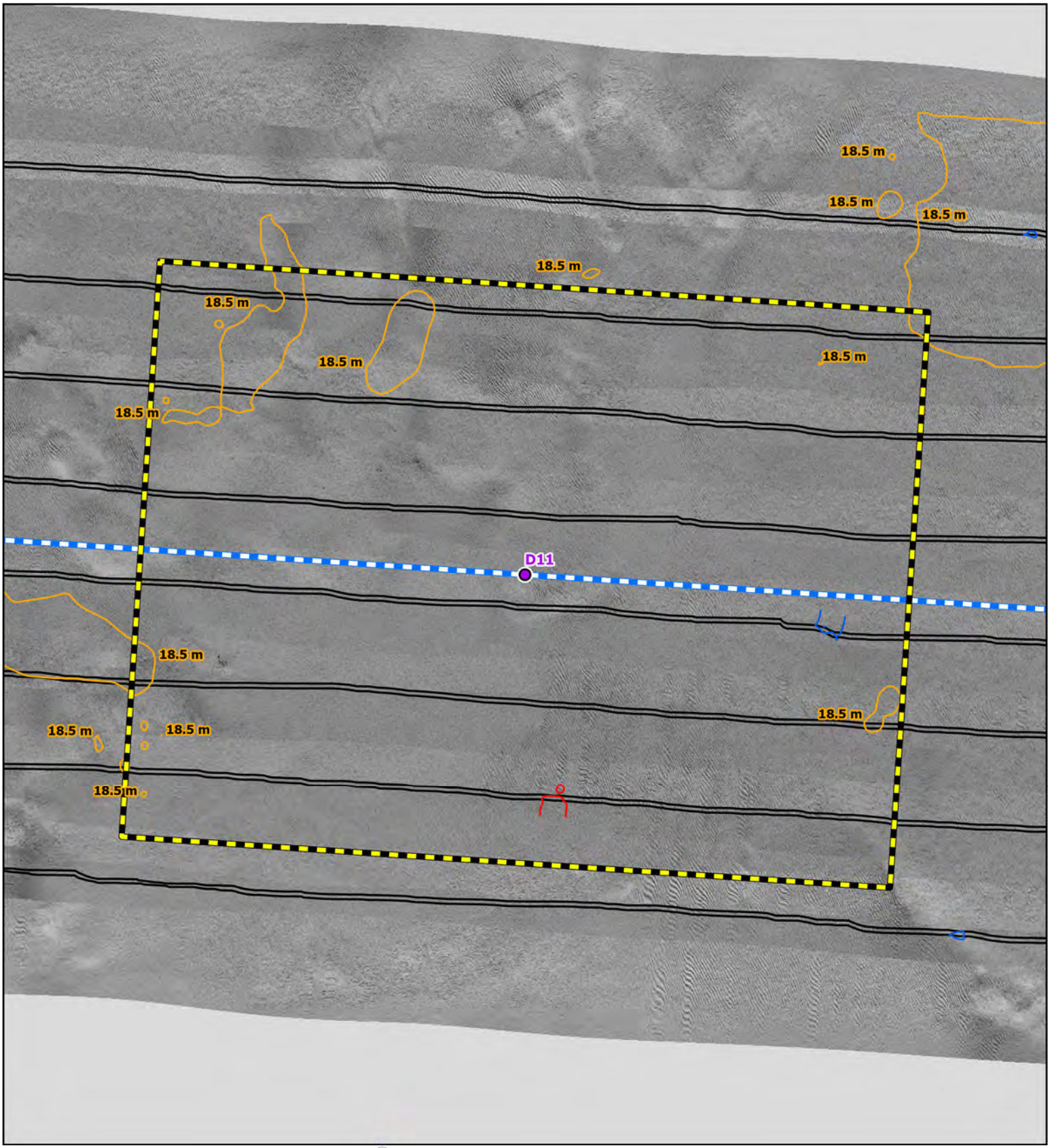
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 10

D10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

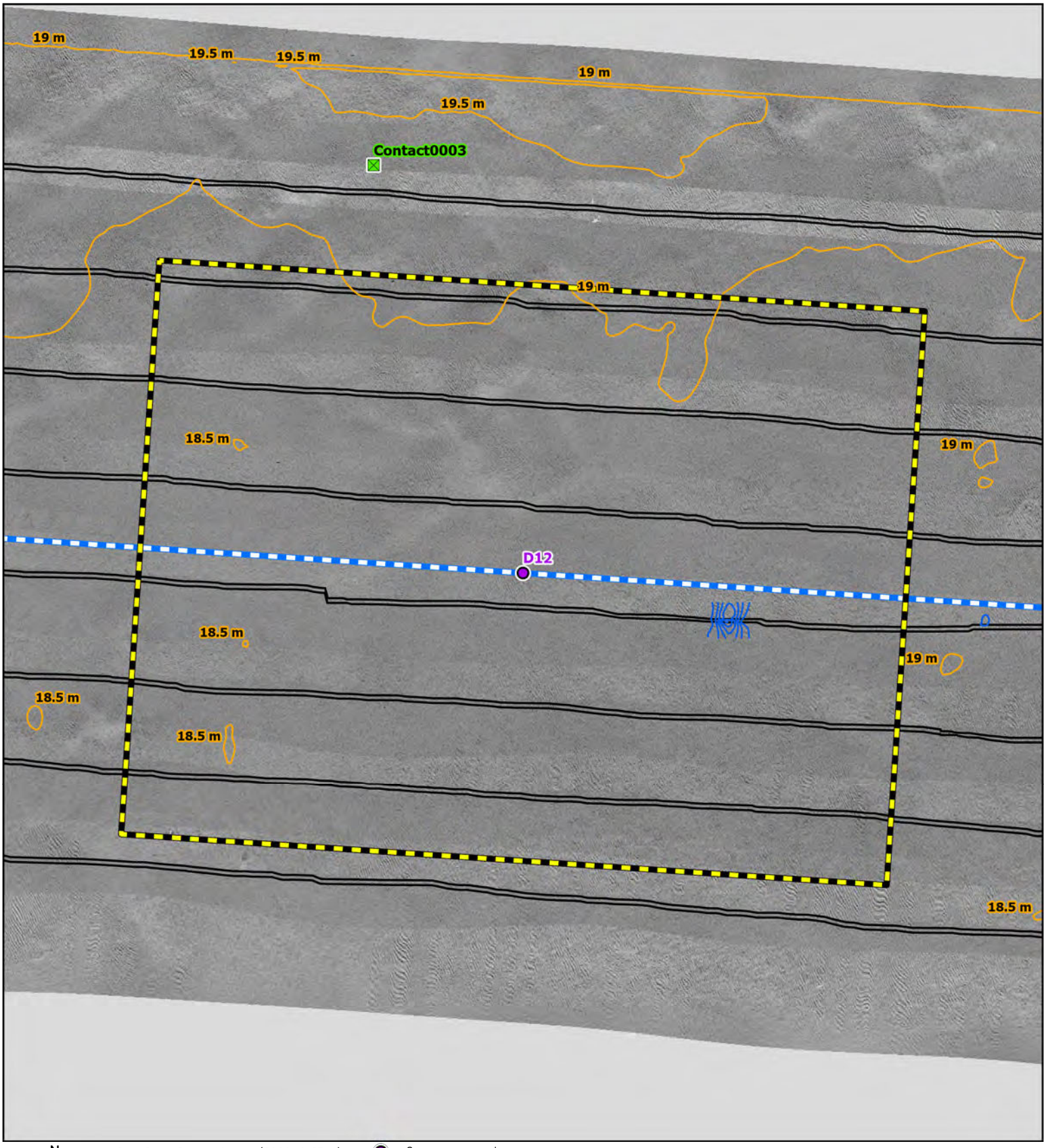
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 11

D11

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

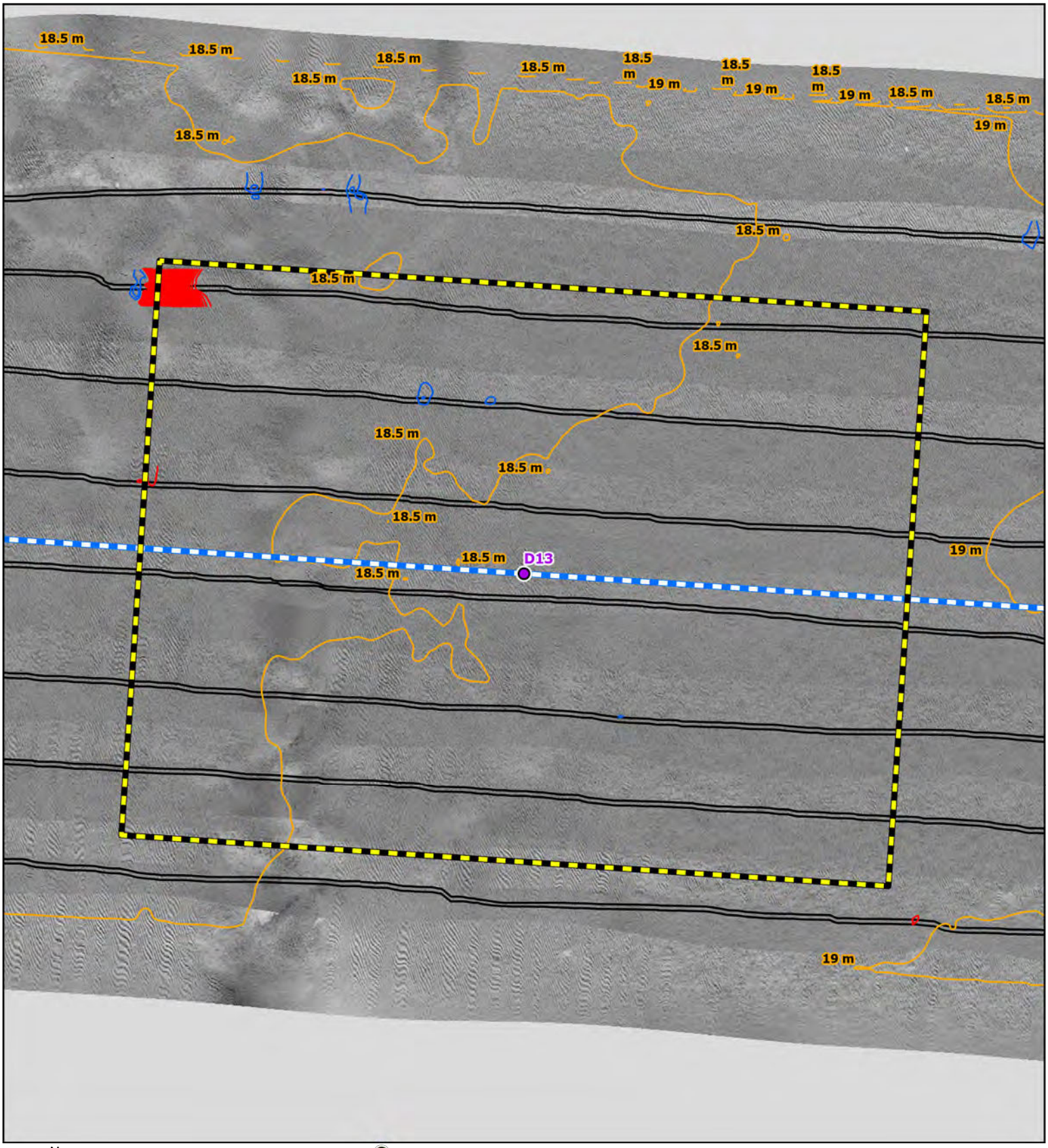
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 12

D12

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

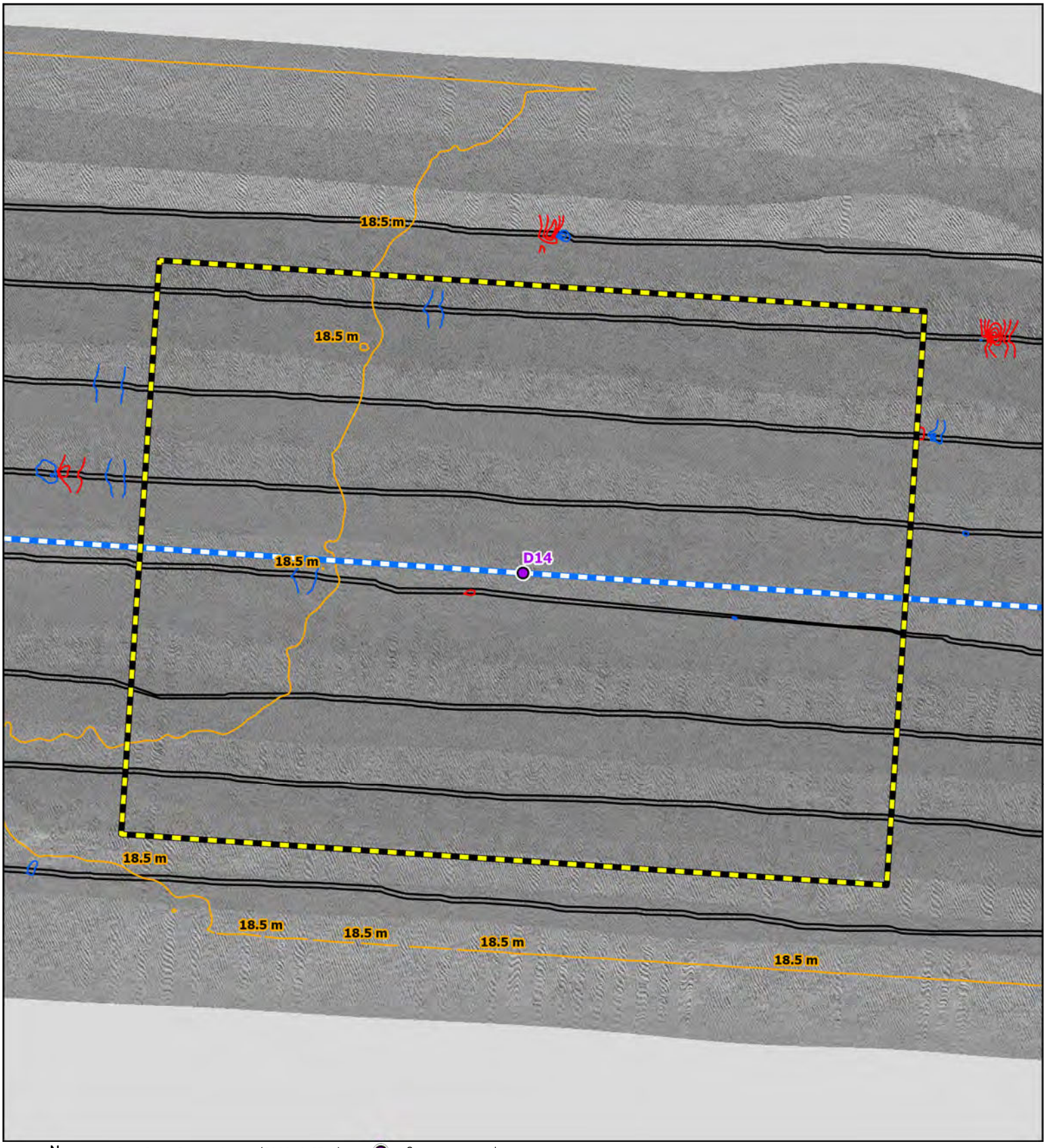
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 13

D13

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

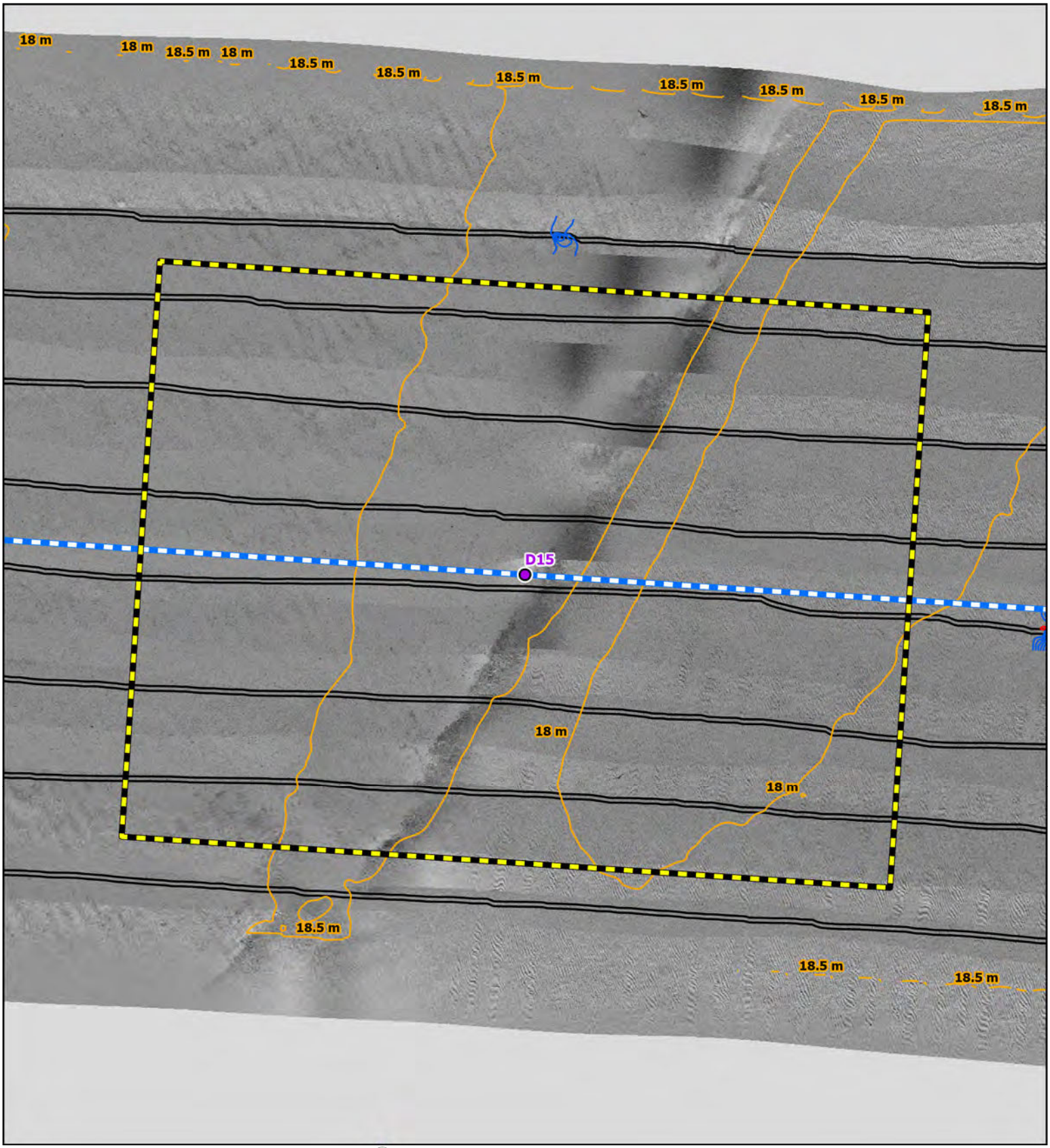
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 14

D14

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (0.5m interval)
- Trackline

Magnetic Contours (5 nT)

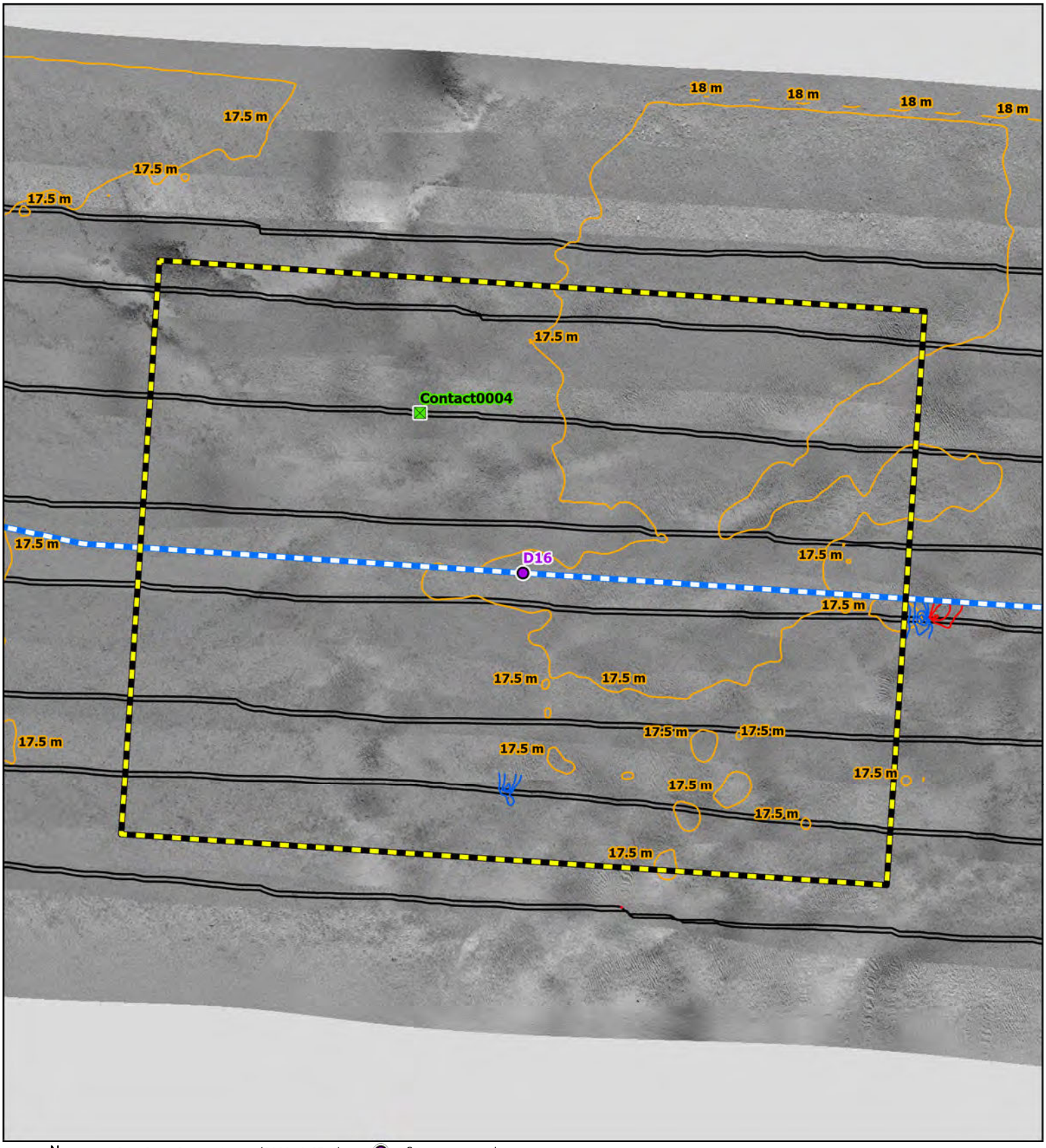
- Negative
- Positive
- Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 15

D15

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block D

Map: 16

D16

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MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

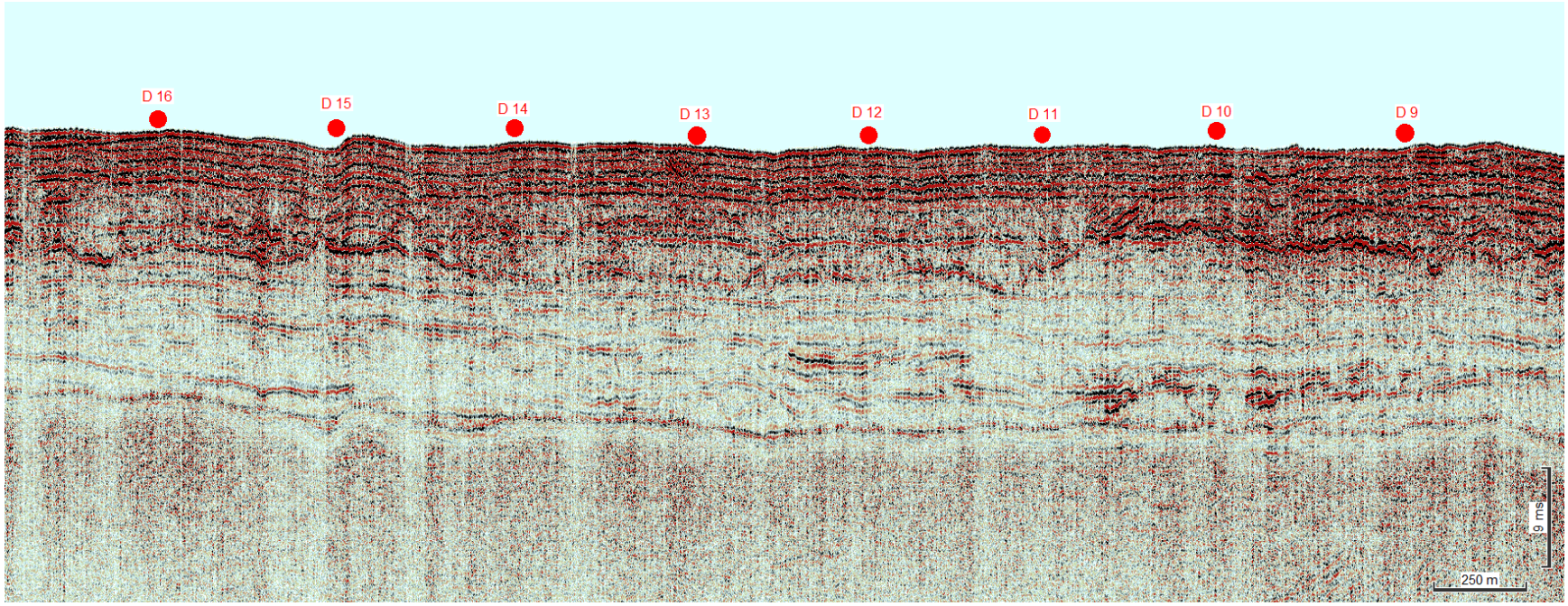


Figure 1: Proposed geotechnical locations D-16, D-15, D-14, D-13, D-12, D-11, D-10, and D-9 in Block D along line UHRS_150_D-C_Proc

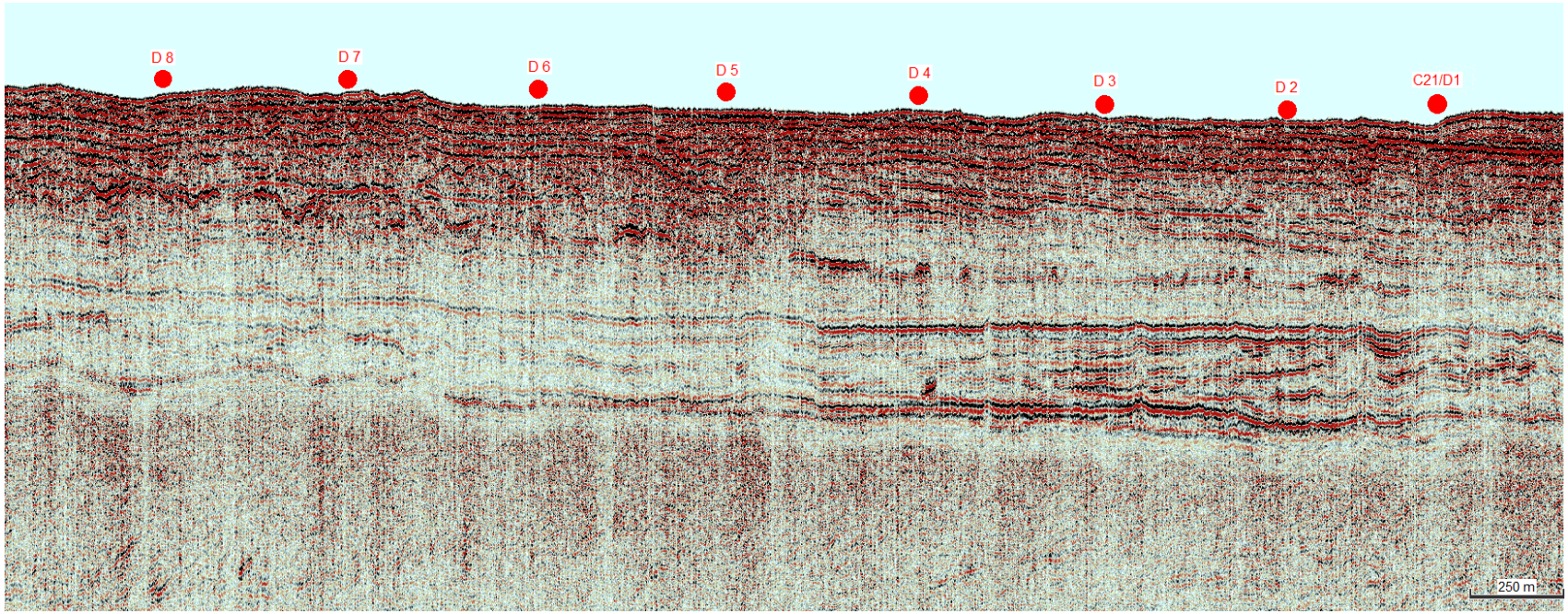


Figure 2: Proposed geotechnical locations D-8, D-7, D-6, D-5, D-4, D-3, D-2, and C-21/D-1 in Block D along line UHRS_150_D-C_Proc

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

June 30, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations Block B

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached revised geotechnical clearance reports for Block B within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Jeff Browning, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Renewable Reporting - BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

June 25, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews nine (9) of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the nine (9) proposed geotechnical locations located along the Export Cable Route (ECR). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

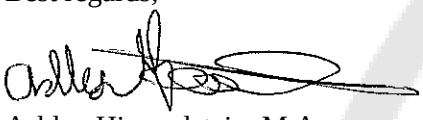
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



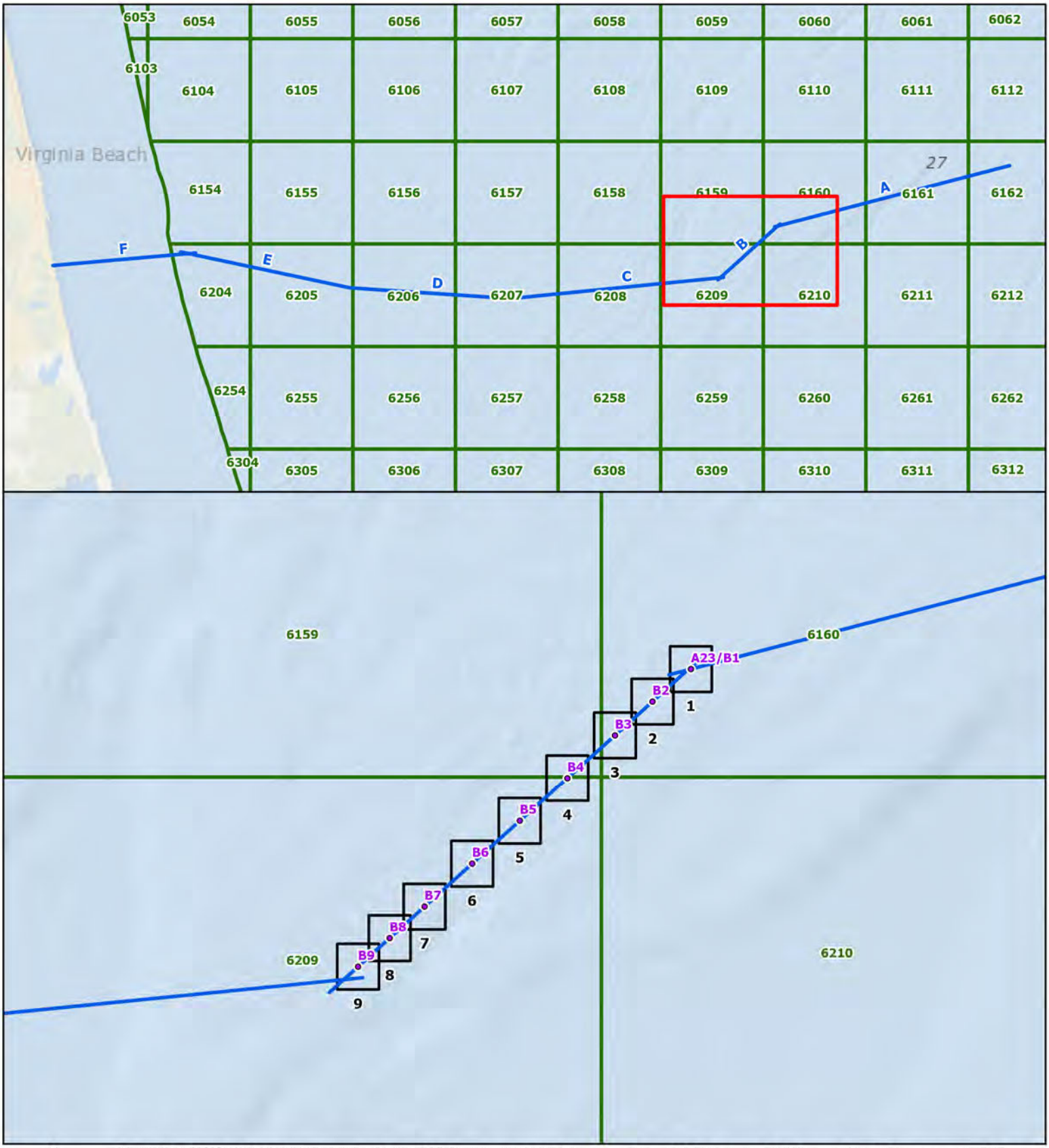
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block B

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
B9	445302.4418	4073717.429	-75.61320235	36.80772375
B8	445549.1372	4073939.96	-75.61045278	36.80974392
B7	445821.3078	4074185.47	-75.6074191	36.81197263
B6	446192.5766	4074520.373	-75.60328057	36.8150127
B5	446563.8455	4074855.275	-75.5991417	36.81805262
B4	446935.1144	4075190.177	-75.59500251	36.8210924
B3	447306.3833	4075525.079	-75.59086299	36.82413204
B2	447598.8504	4075788.898	-75.58760186	36.82652642
A23/B1	447898.5942	4076042.293	-75.58425821	36.82882714

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK B



N
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Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:40,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.25 0.5 0.75 1 Miles

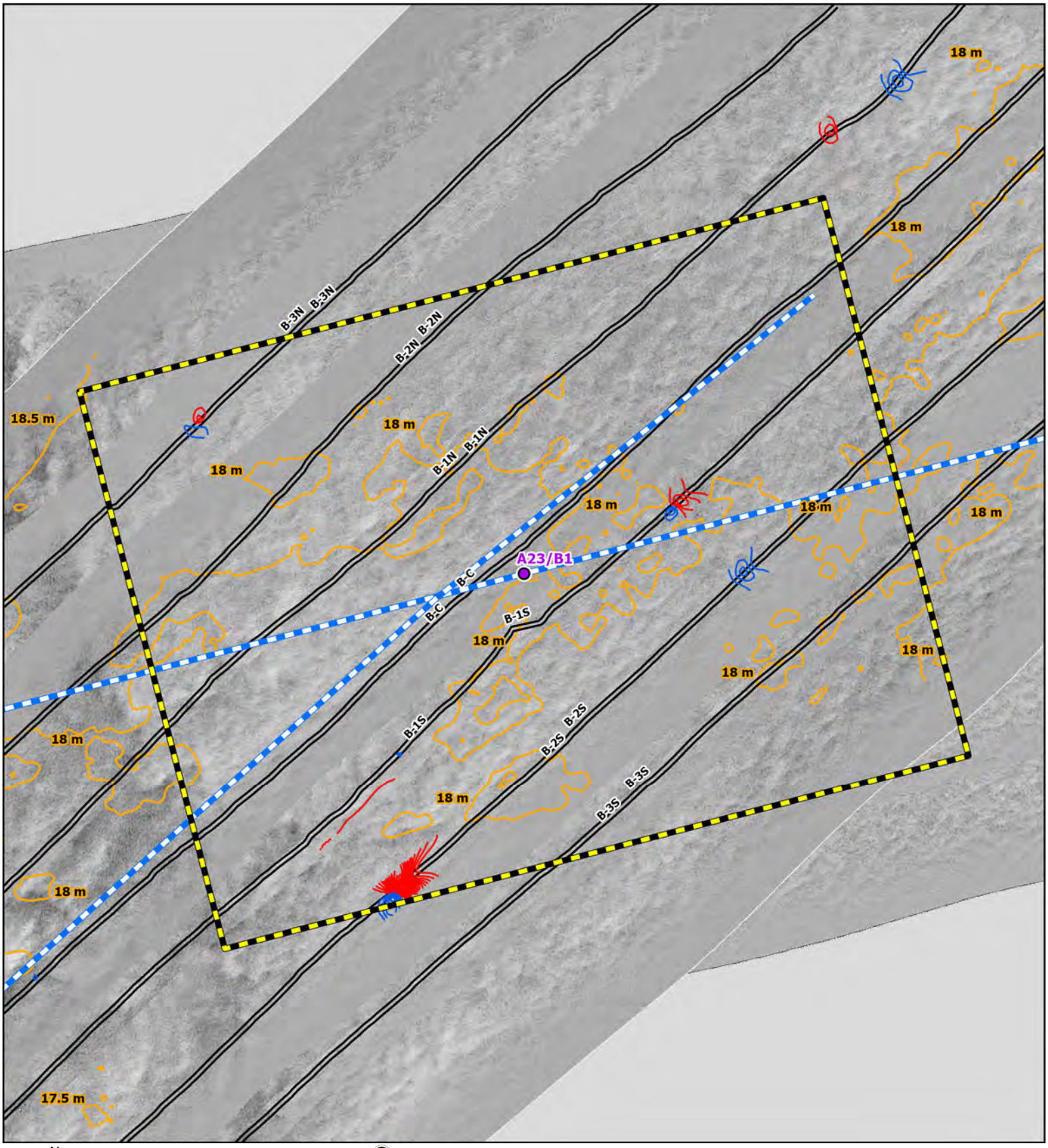
0 0.25 0.5 0.75 1 Kilometers

- Geotechnical Location
- ECR Centerline
- Map Sheet Extent
- BOEM Lease Block

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
WWW.RCGOODWIN.COM | KMAY, 6.25.2020



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Grid North

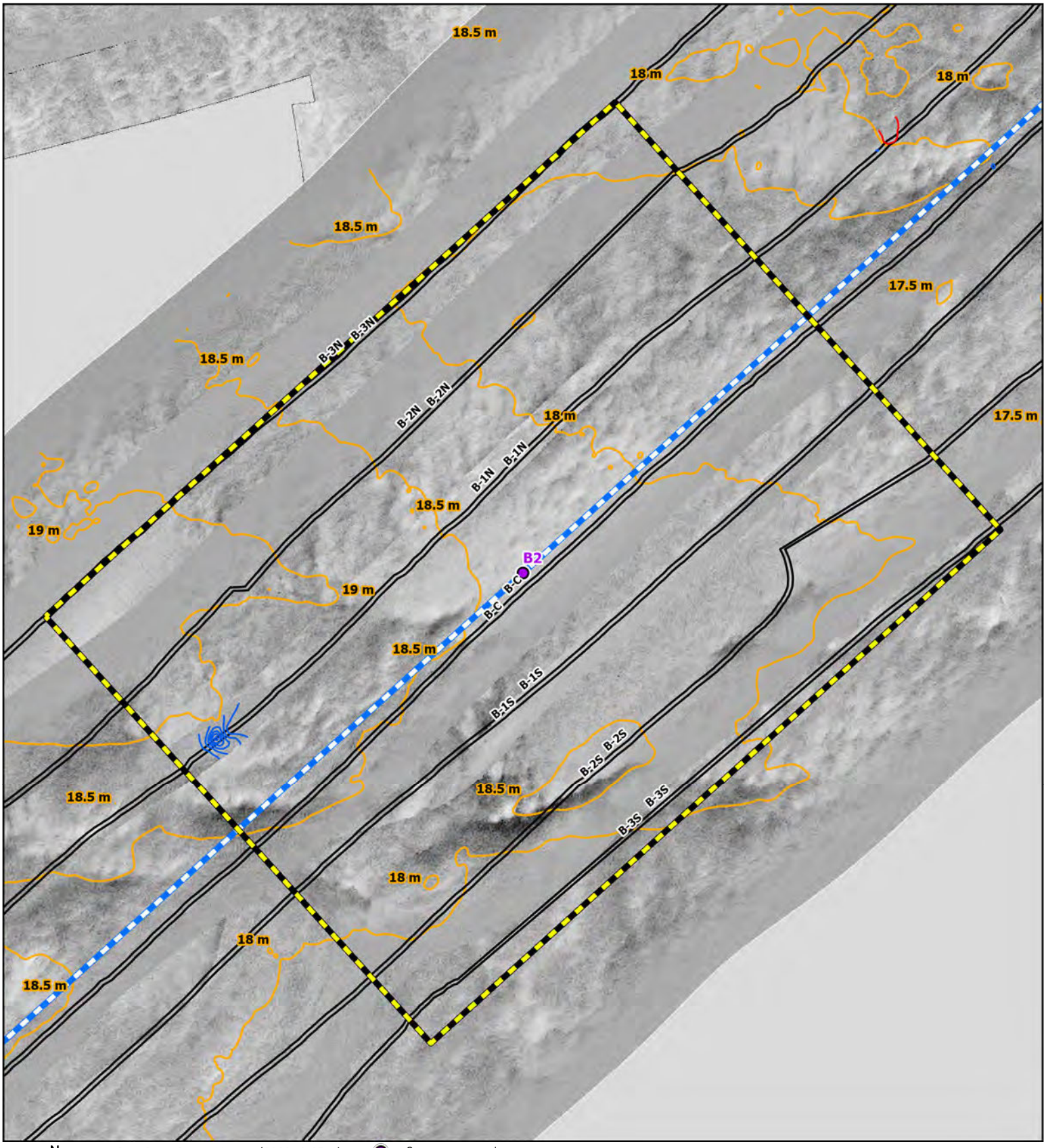
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 1
A23/B1

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

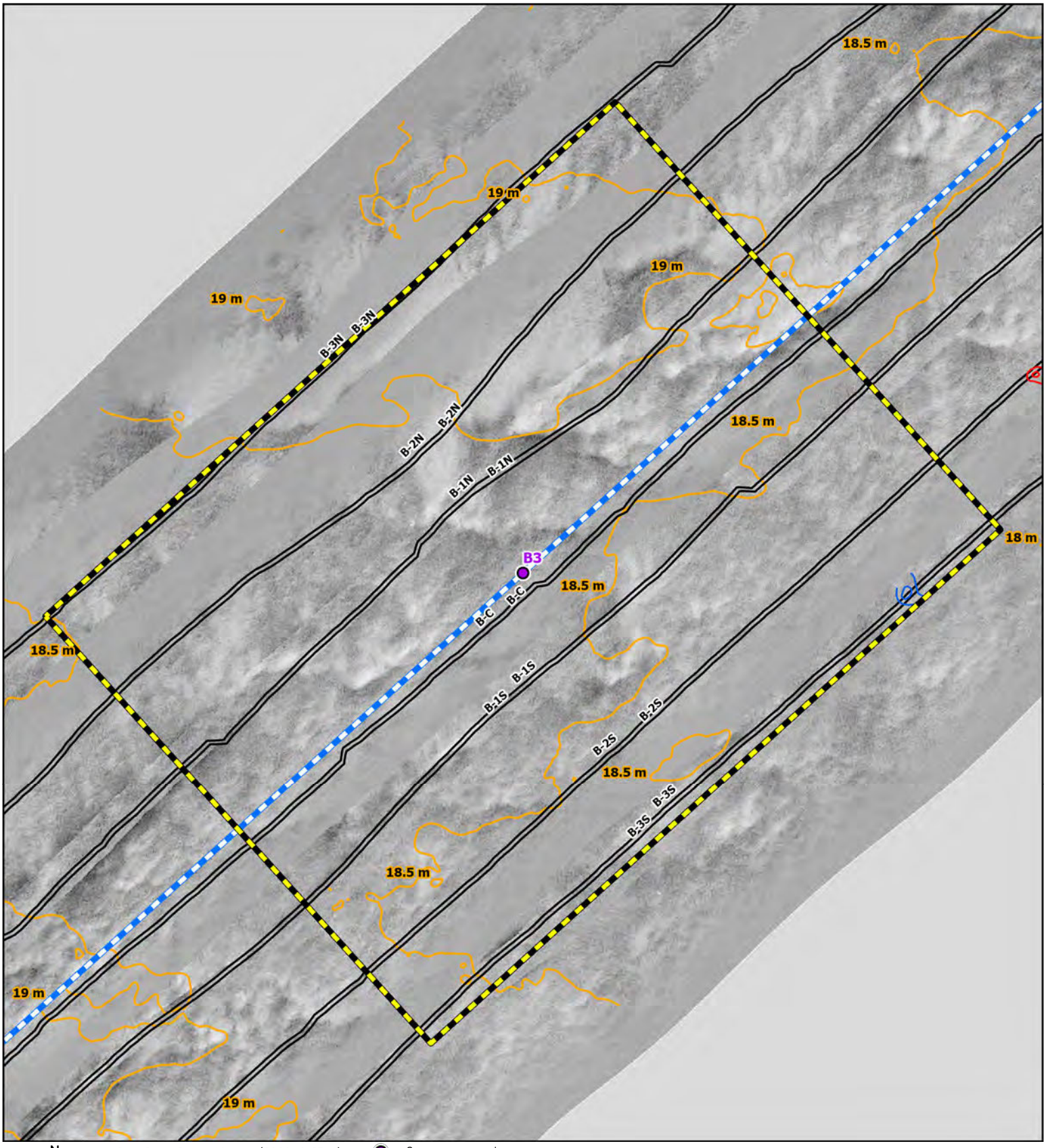
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block B

Map: 2

B2

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

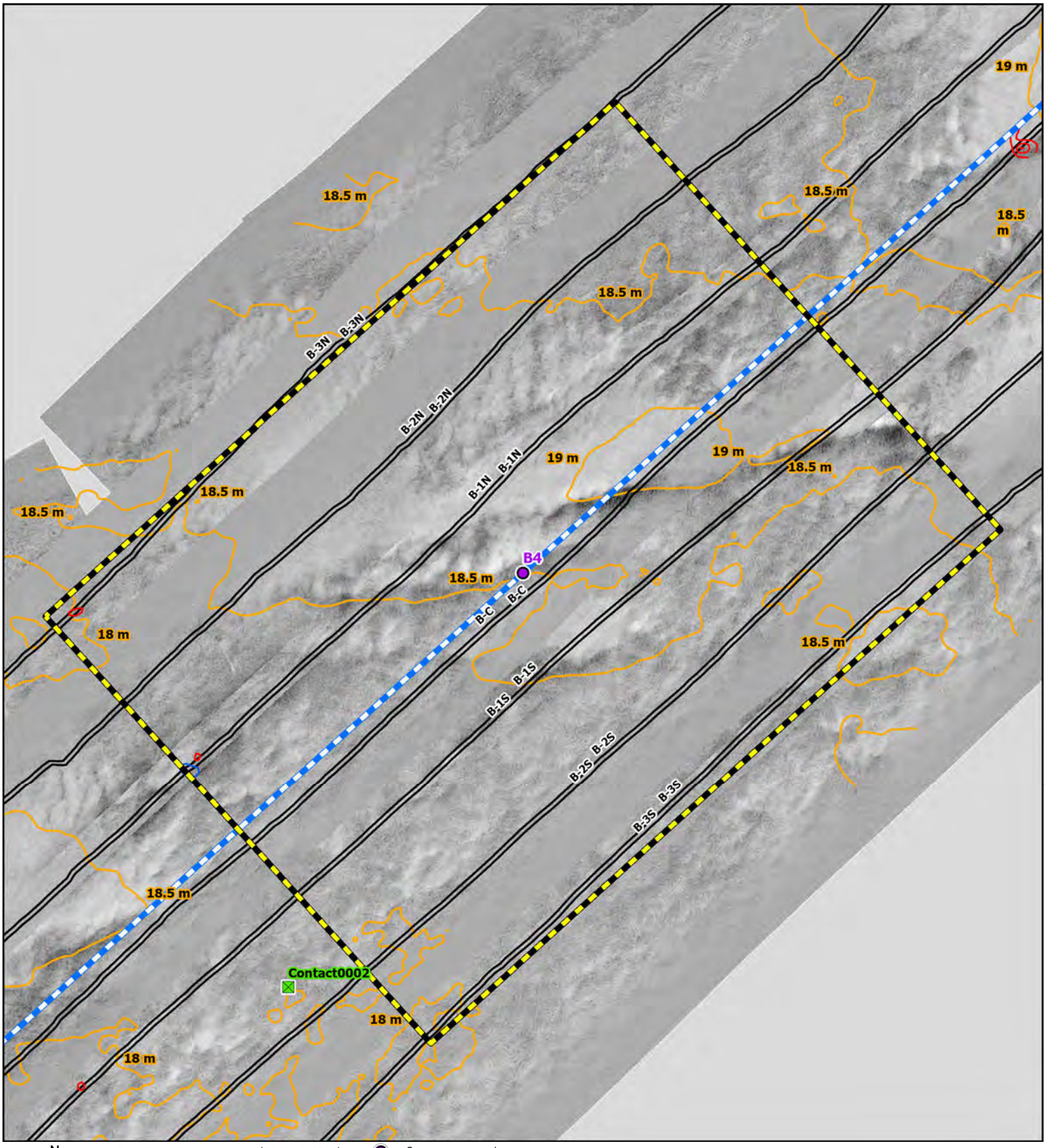
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 3

B3

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

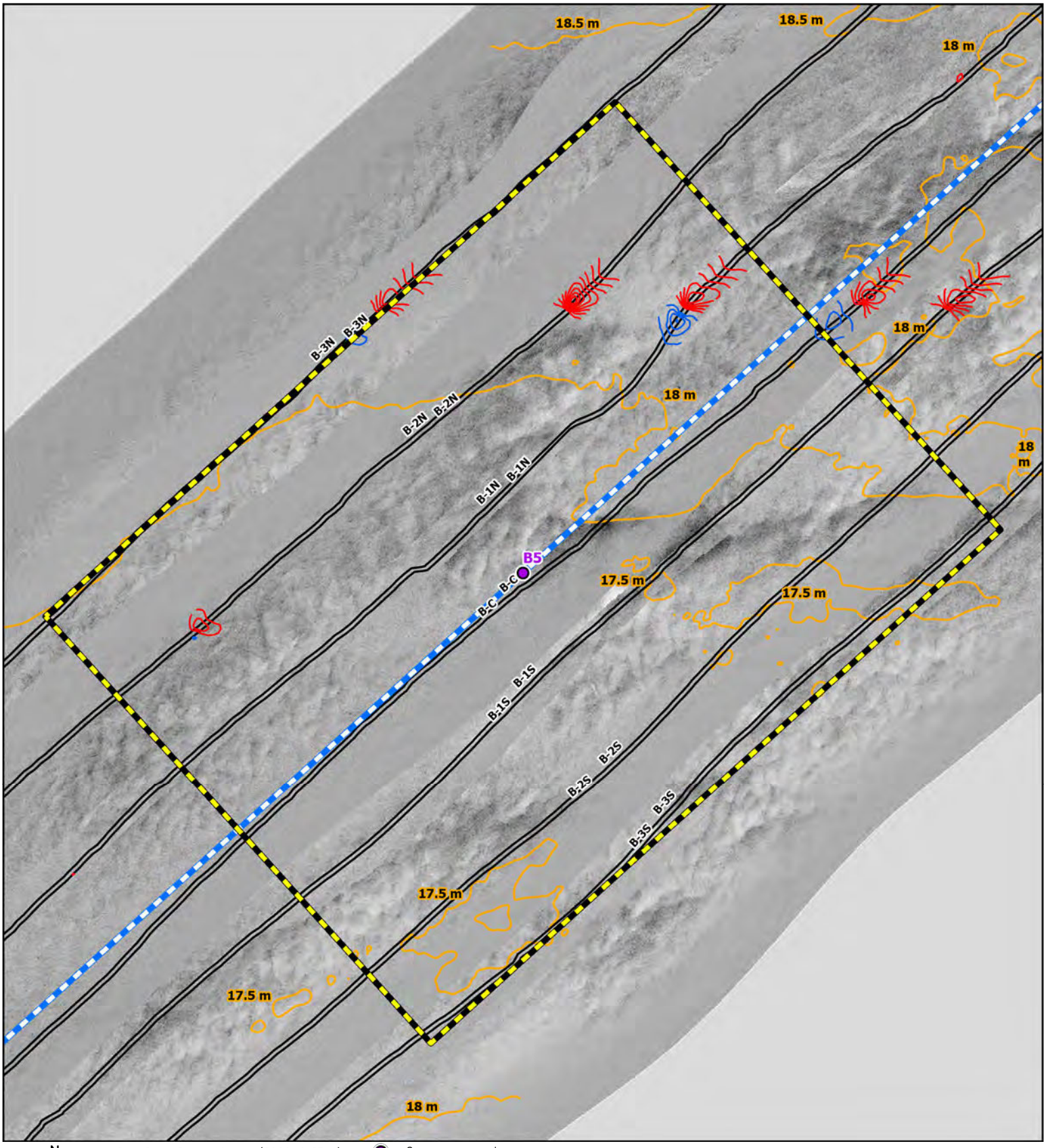
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 4

B4

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

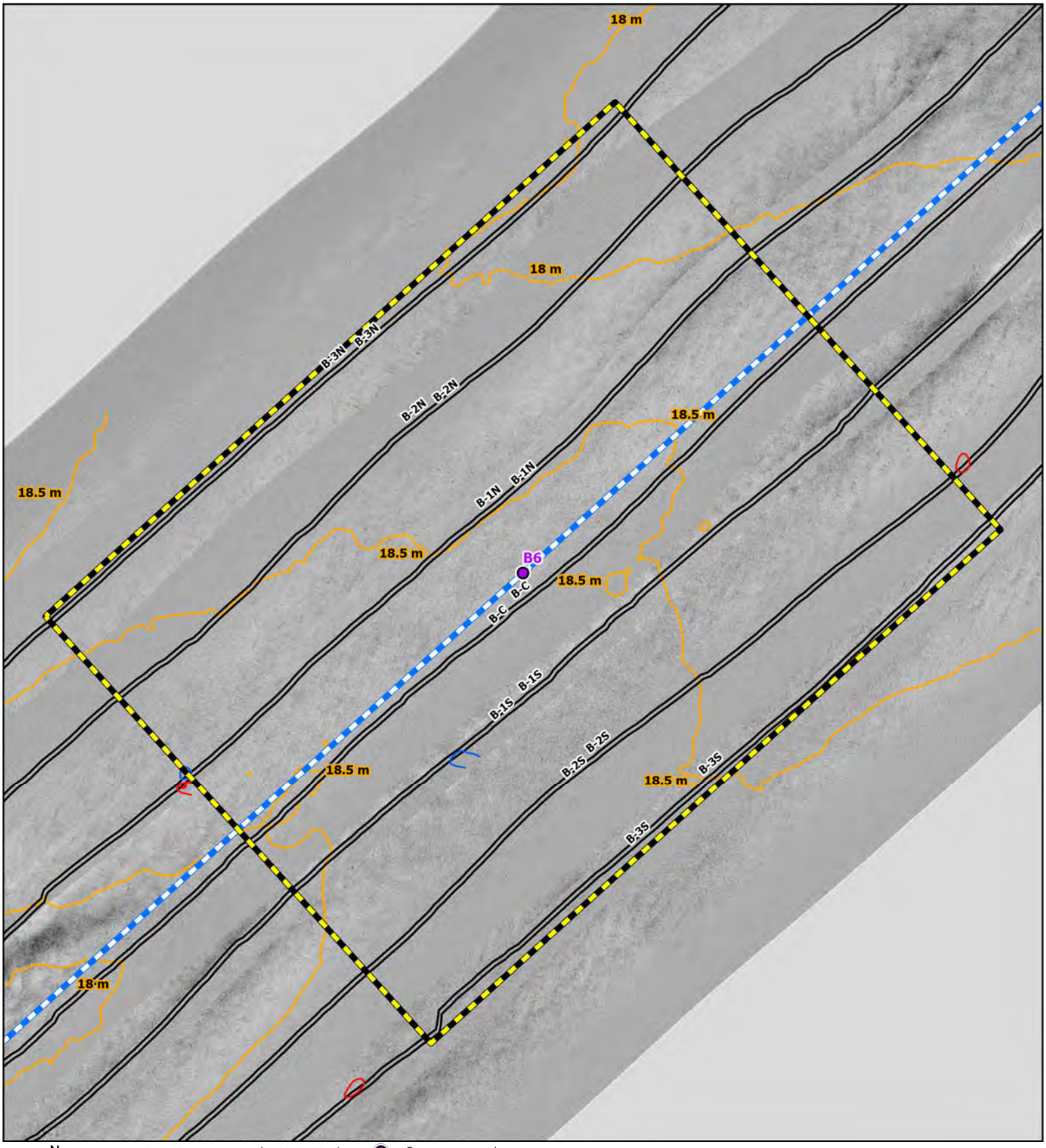
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 5

B5

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

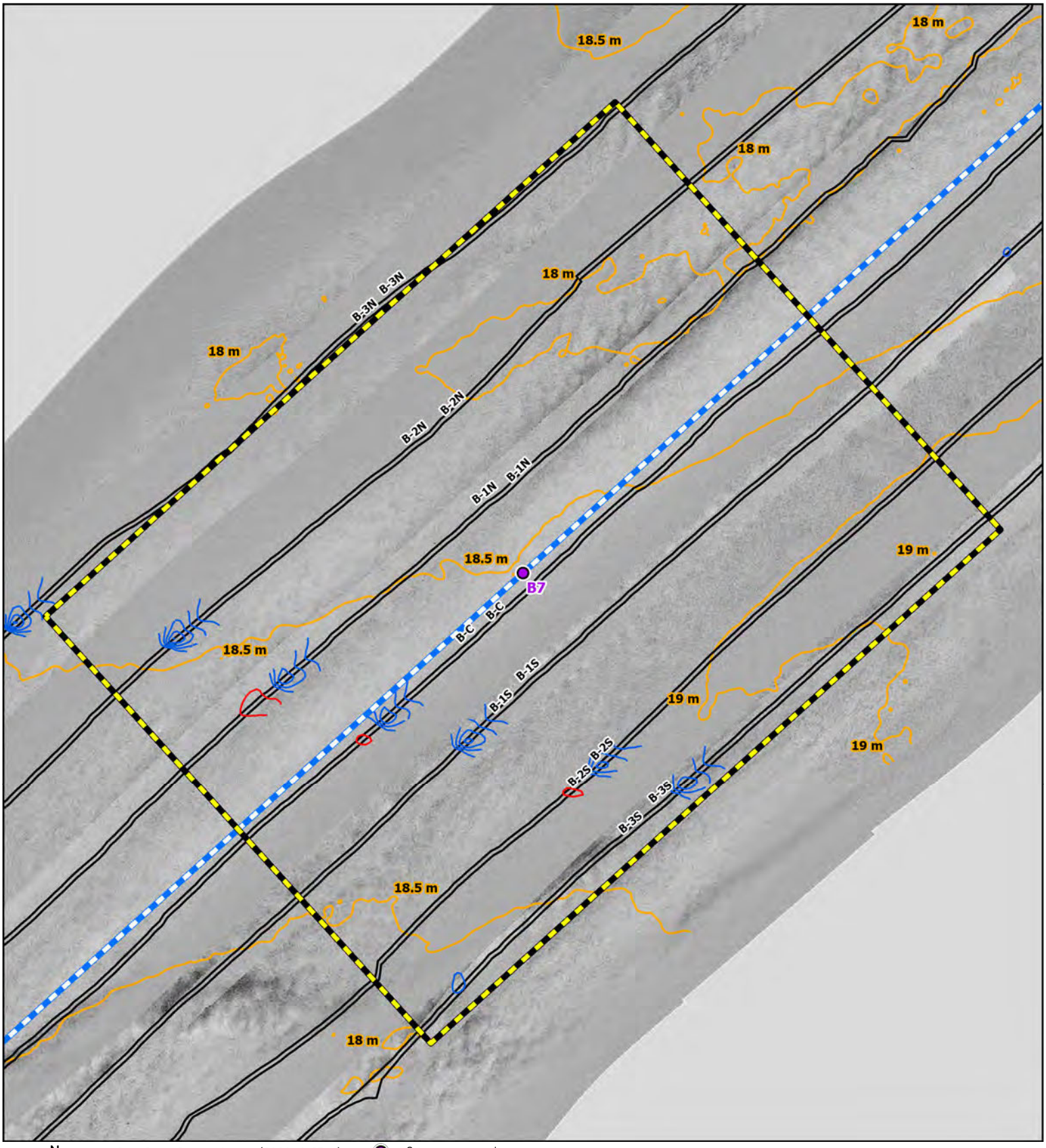
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 6

B6

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

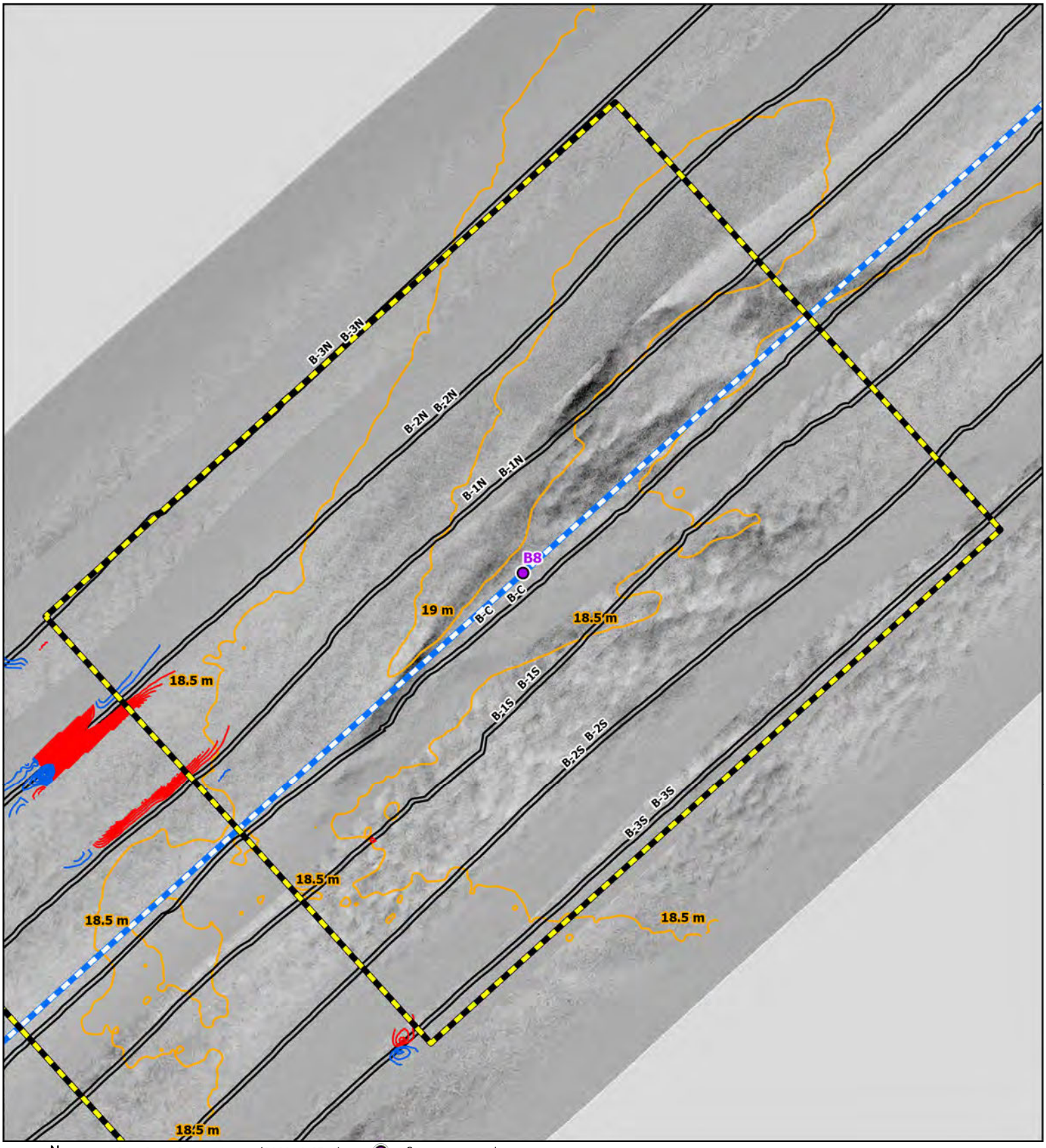
Geotechnical Location
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 7

B7

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

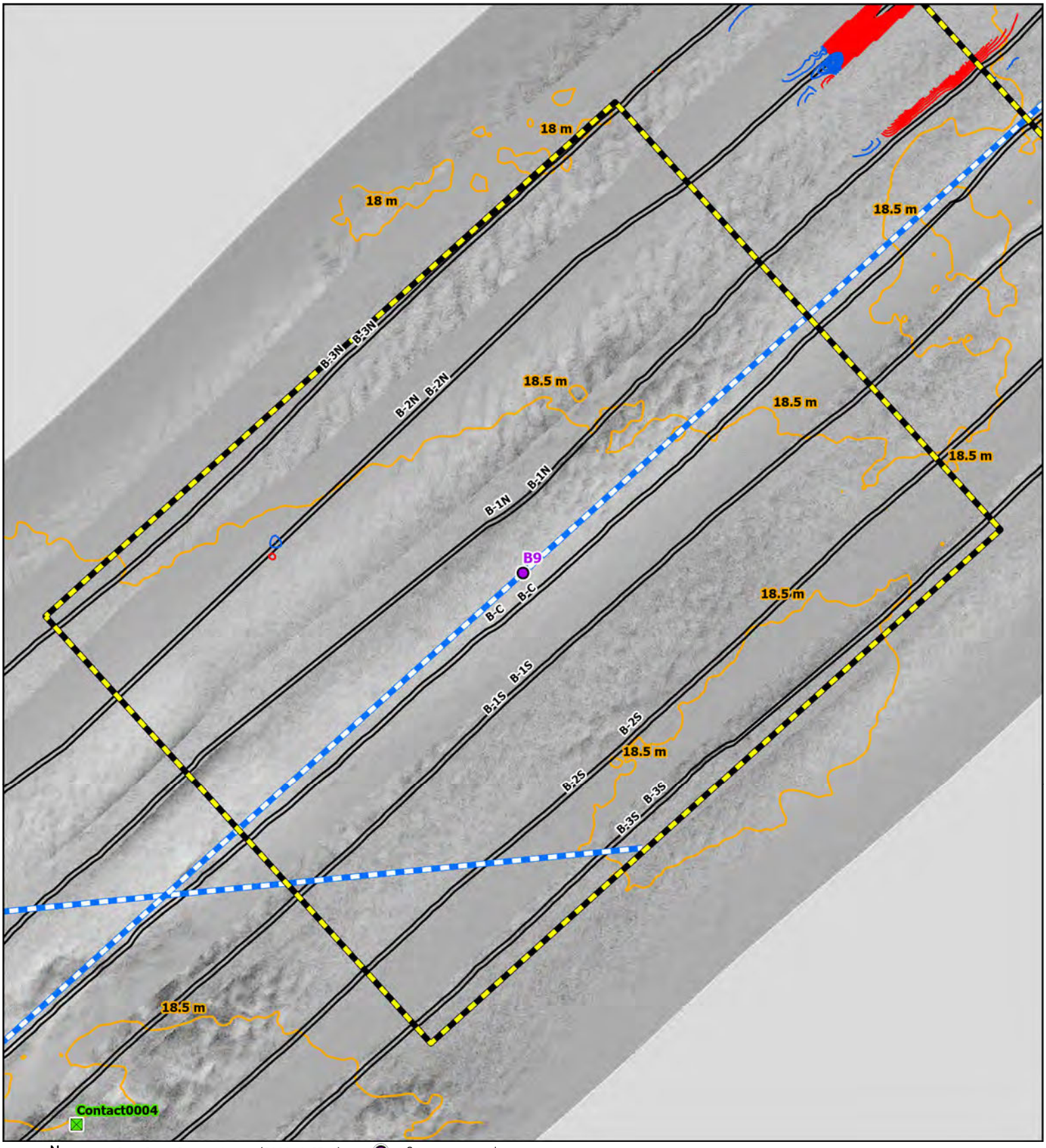
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 8

B8

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 9

B9

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

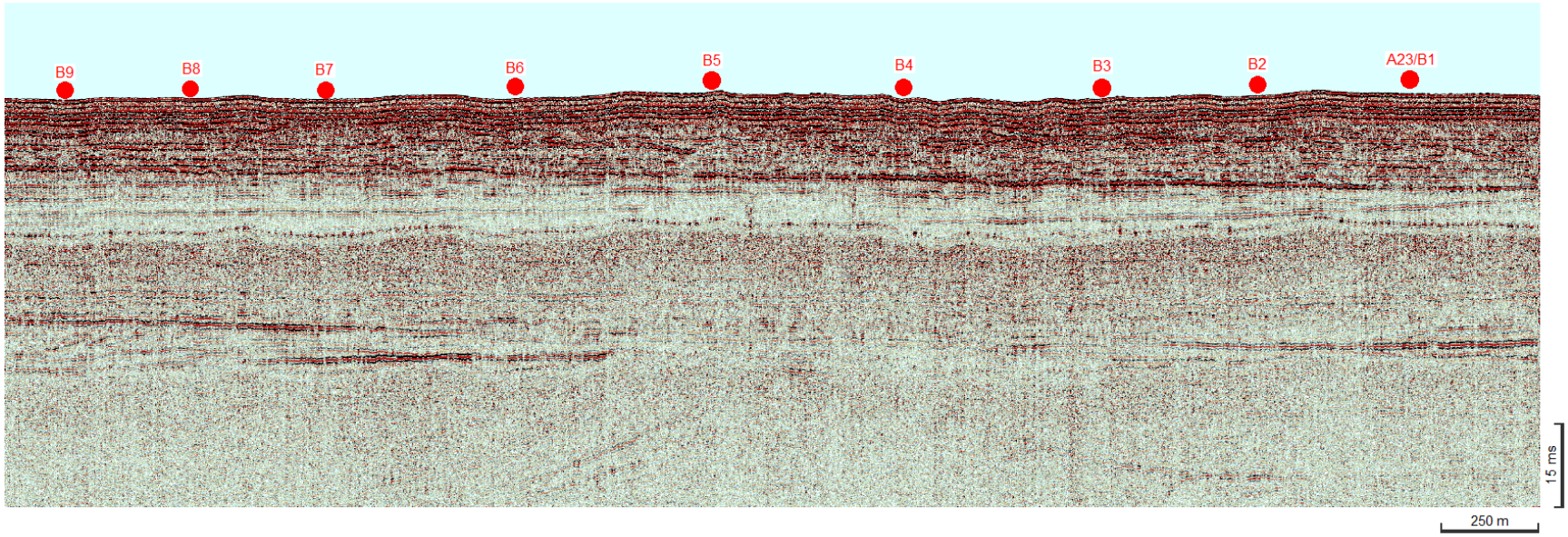


Figure 1: Proposed geotechnical core locations B9, B8, B7, B6, B5, B4, B3 B2, and A23/B1 in Block B along line UHRS_181_B-1S_Proc

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

July 6, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 5, 21, Blocks A and F

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridors 5, 21, Blocks A and F within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

Corridor 5 & 21

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
cultural resource management and preservation planning

July 01, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 5 and Corridor 21

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews 11 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis, Dina Polaris,* and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 11 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendices 1 and 2). No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendices 1 and 2). Numerous magnetic anomalies were detected within analytic areas in Corridors 5 and 21. In Corridor 5, the analytic area for WTG-6-1 was reduced to 167 m by 100 m to avoid a potential cultural resource. No other magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 3). All seismic data were reviewed to their full vertical extent. The geotechnical

locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1 and 2; Appendices 1,2 and 3). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1 and 2), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 5

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-6-1	457612.1445	4083883.17	-75.47577385	36.89999271
WTG-7-2	458829.1443	4085595.17	-75.46220743	36.91547906
WTG-8-3	460045.1441	4087306.17	-75.44864671	36.9309548
WTG-9-4	461262.1438	4089018.169	-75.43506935	36.94643805
WTG-10-5	462478.1436	4090730.169	-75.42149774	36.9619197

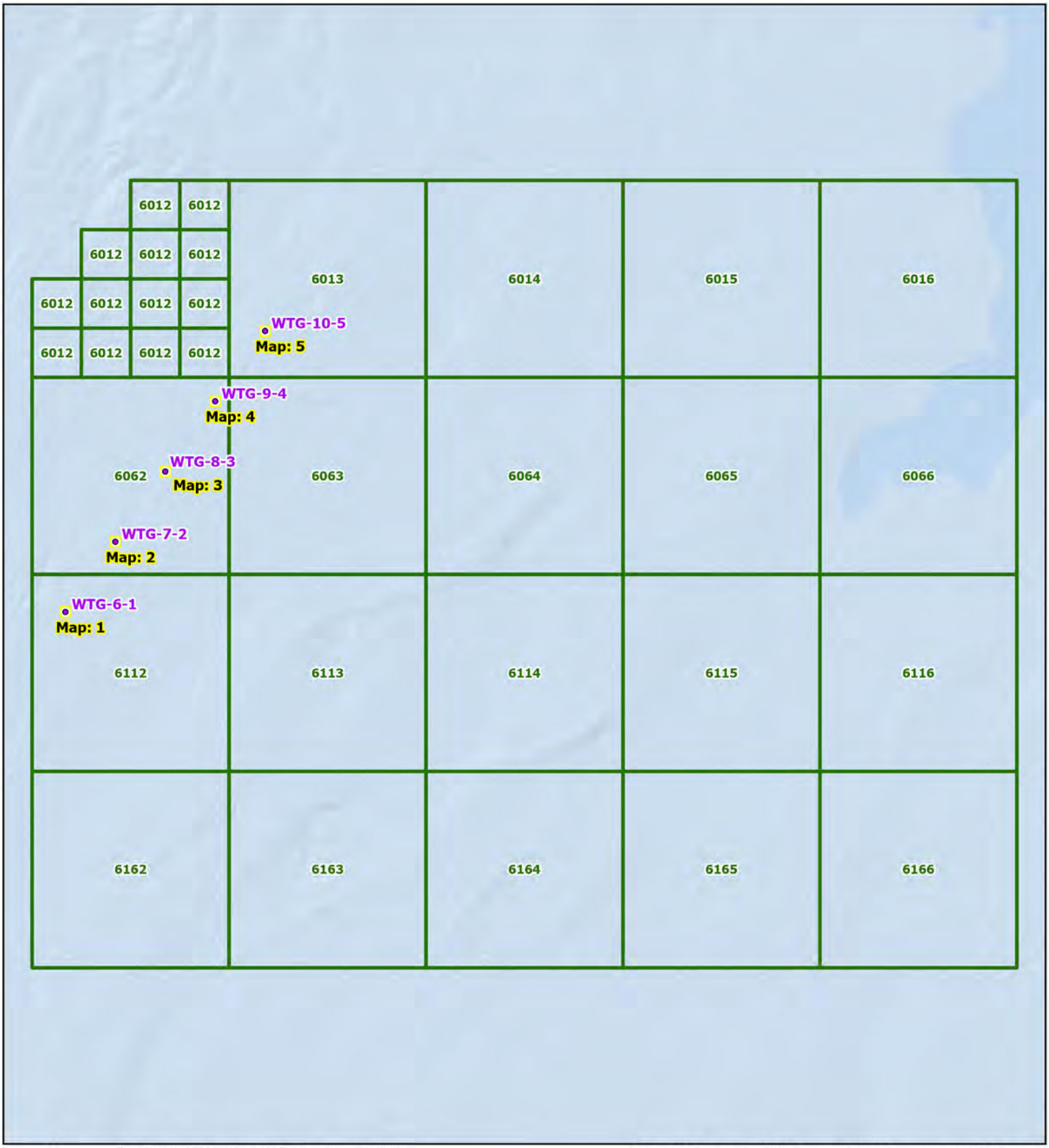
[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed WTG geotechnical locations for Corridor 21

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-12	473706.1409	4075324.172	-75.29483692	36.82342345
WTG-2-13	474922.1407	4077036.171	-75.28125845	36.83888944
WTG-3-14	476139.1404	4078748.171	-75.26766331	36.85435388
WTG-4-15	477355.1402	4080459.171	-75.25407388	36.86980771
WTG-5-16	478572.14	4082171.17	-75.24046779	36.885269
WTG-6-17	479788.1398	4083883.17	-75.22686745	36.90072869

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 5



N
W E
S
GRID NORTH

ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

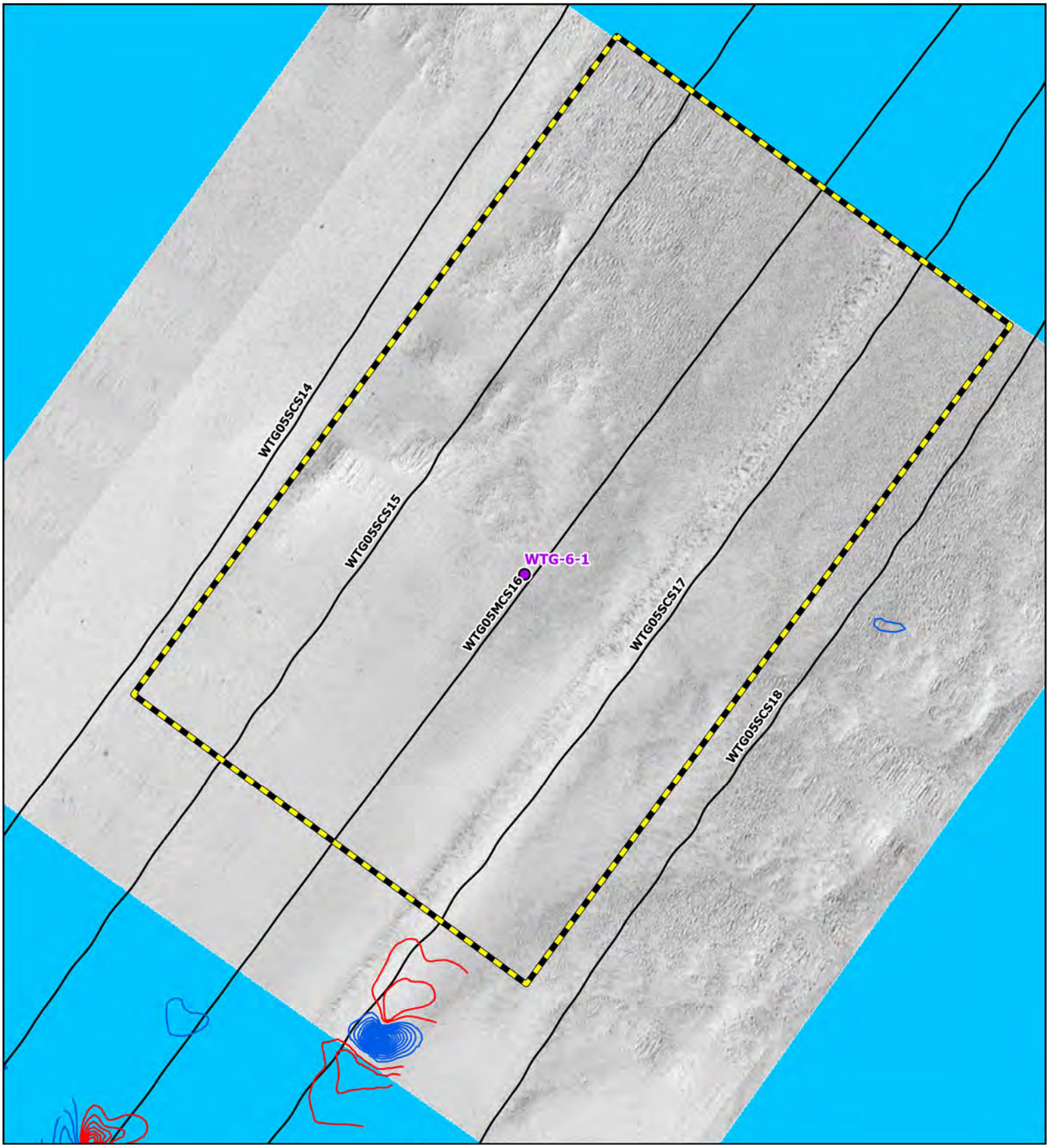
0 0.5 1 1.5 2 MILES
0 1 2 3 4 KILOMETERS

GEOTECHNICAL LOCATION
MAP SHEET EXTENT
LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 05

Index Map

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

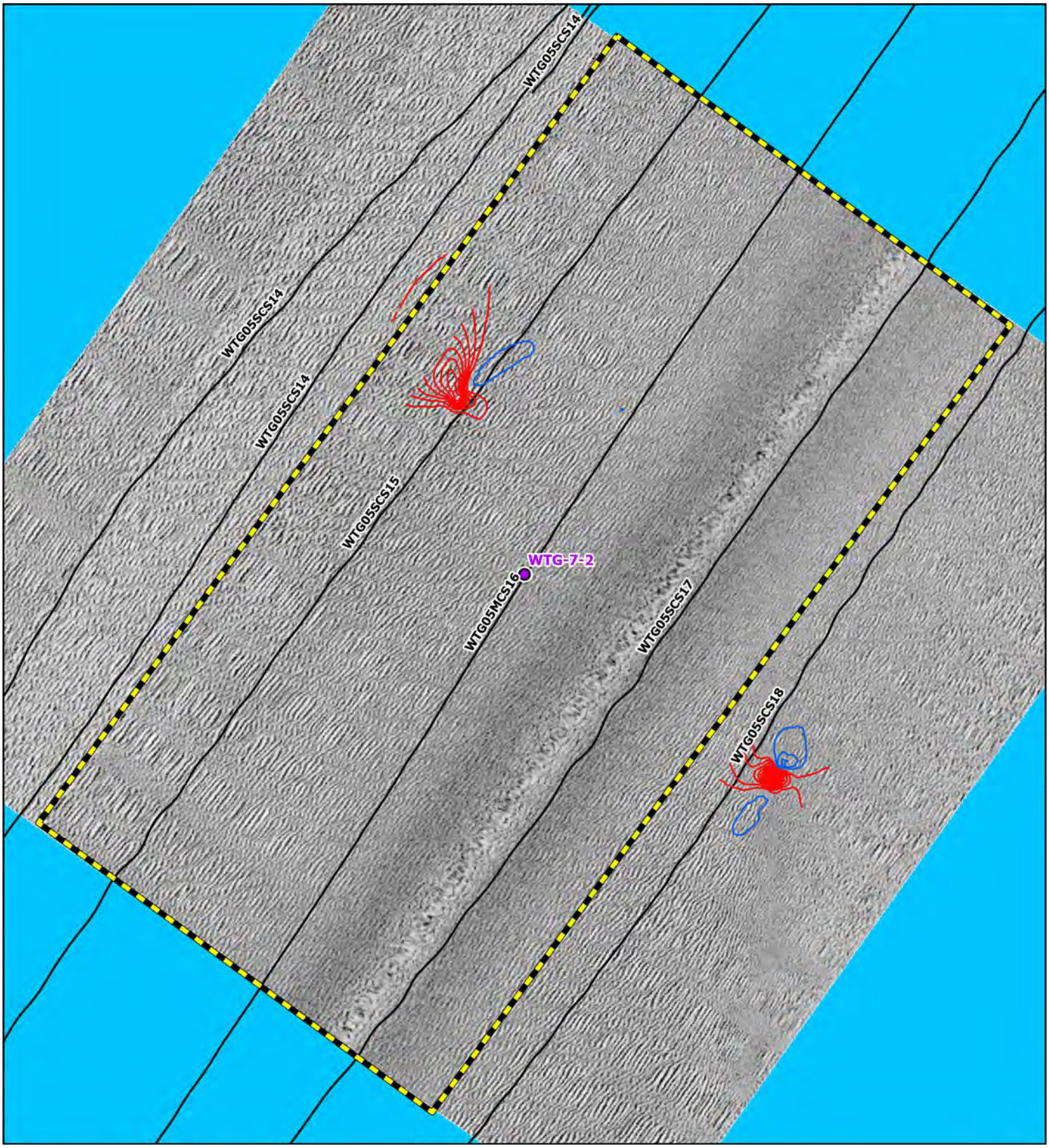
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 05

Map: 1

WTG-6-1

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

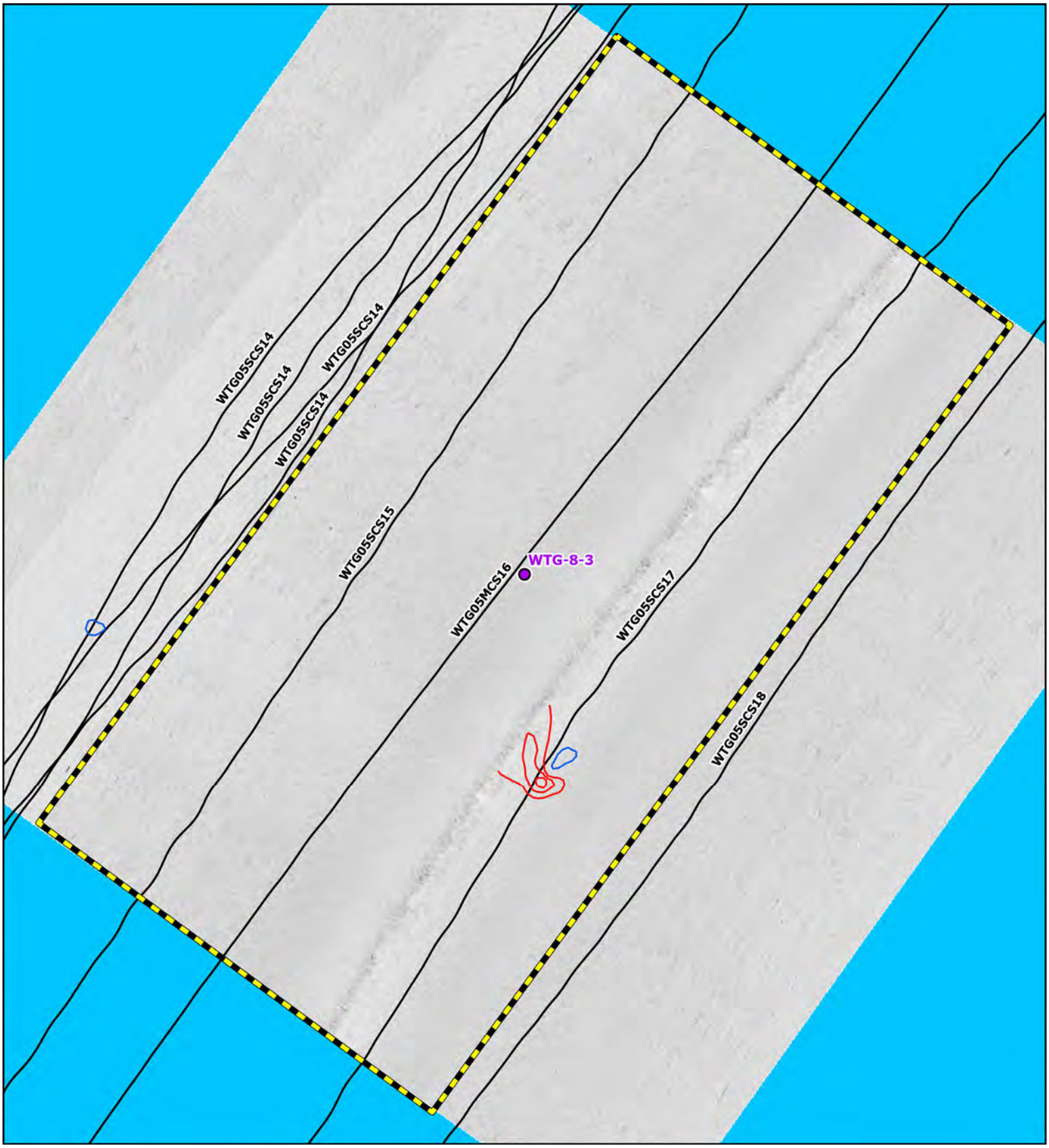
Geotechnical Clearance: Corridor 05

Map: 2

WTG-7-2

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

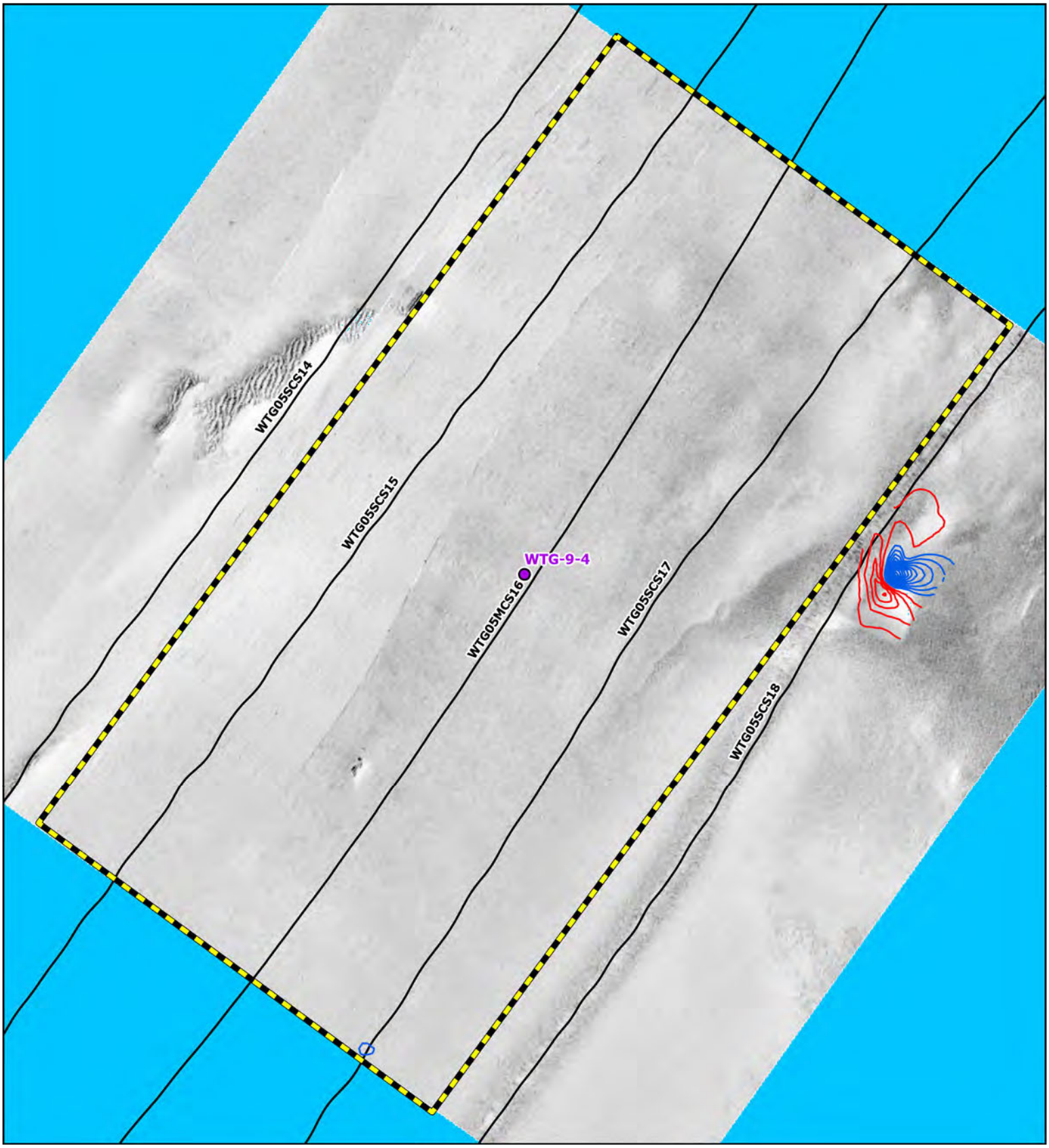
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 05

Map: 3

WTG-8-3

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

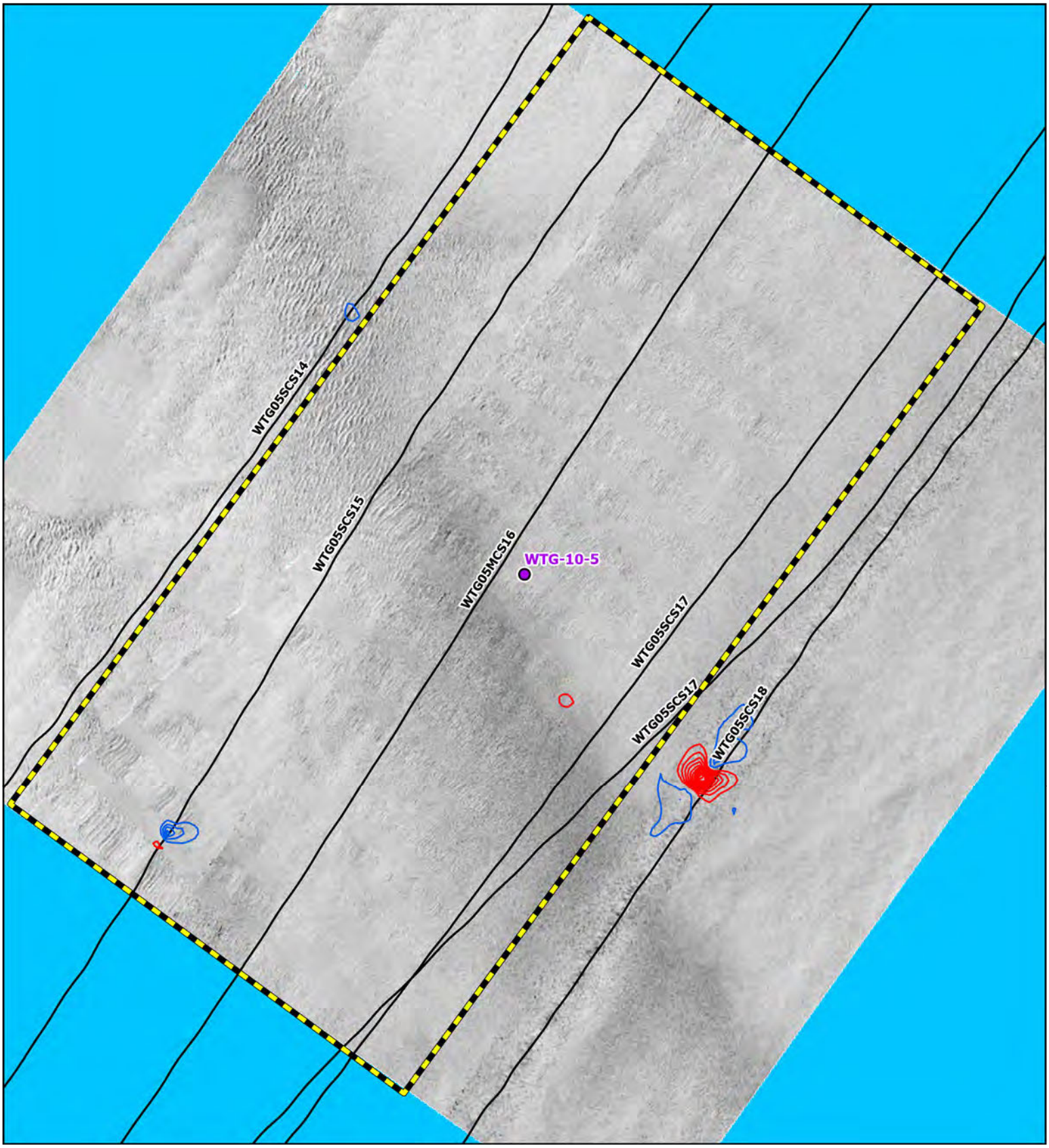
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 05

Map: 4

WTG-9-4

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytic Area

Trackline

Magnetic Contours (5 nT)

Negative

Positive

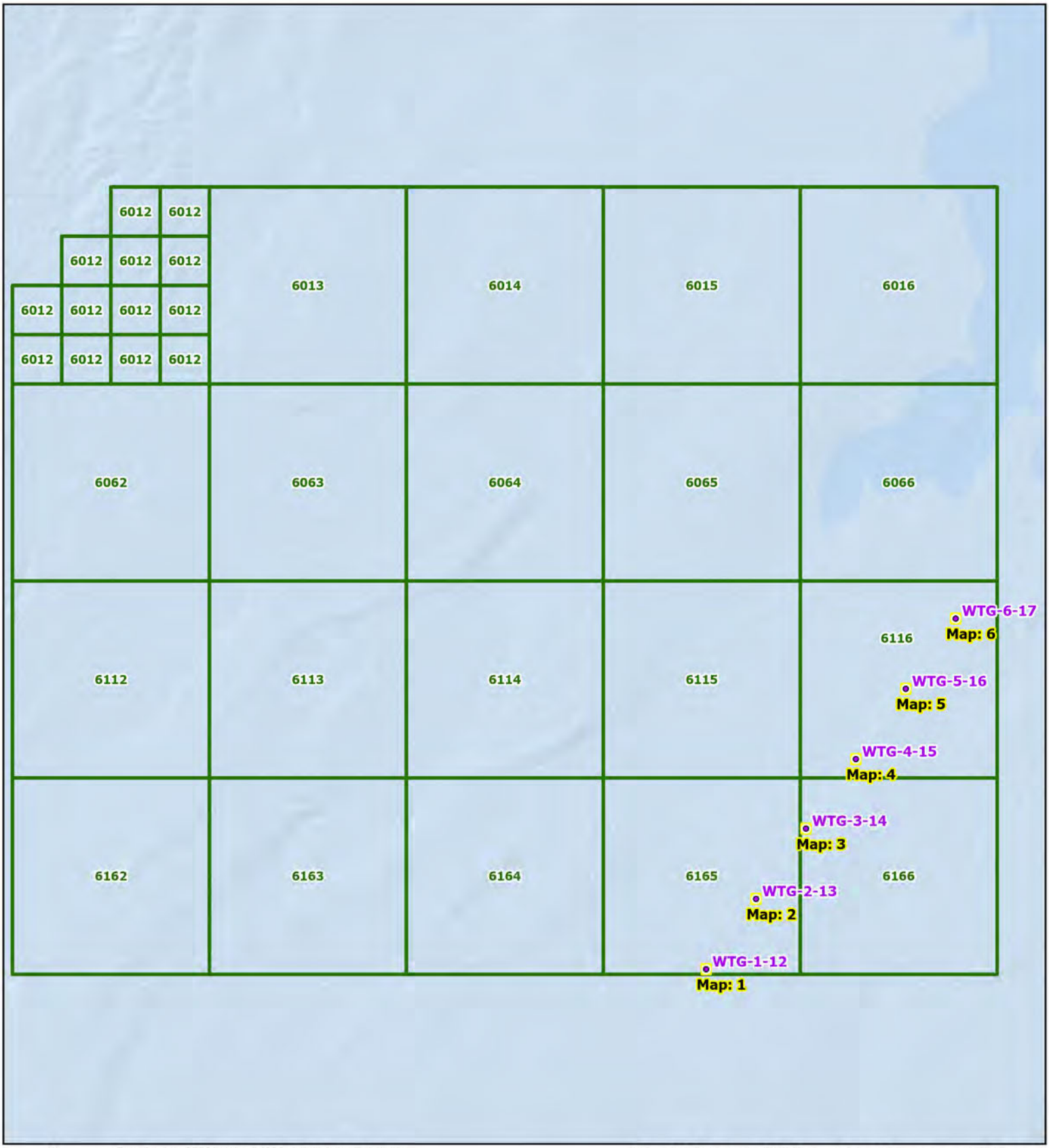
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 05

Map: 5

WTG-10-5

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APPENDIX 2
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 21



N
W E
S
GRID NORTH

ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.5 1 1.5 2 MILES
0 1 2 3 4 KILOMETERS

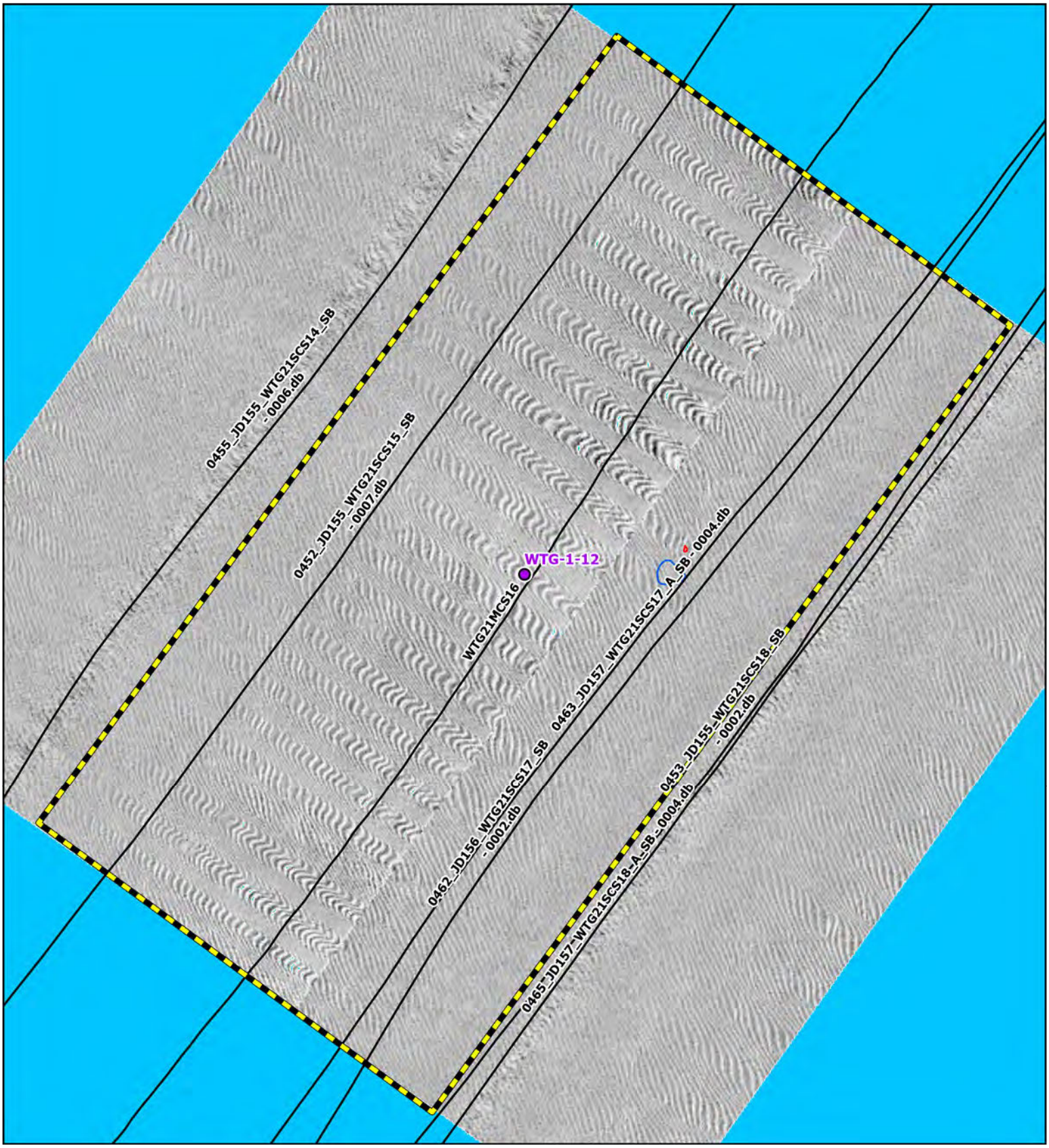
- GEOTECHNICAL LOCATION
- MAP SHEET EXTENT
- LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 21

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

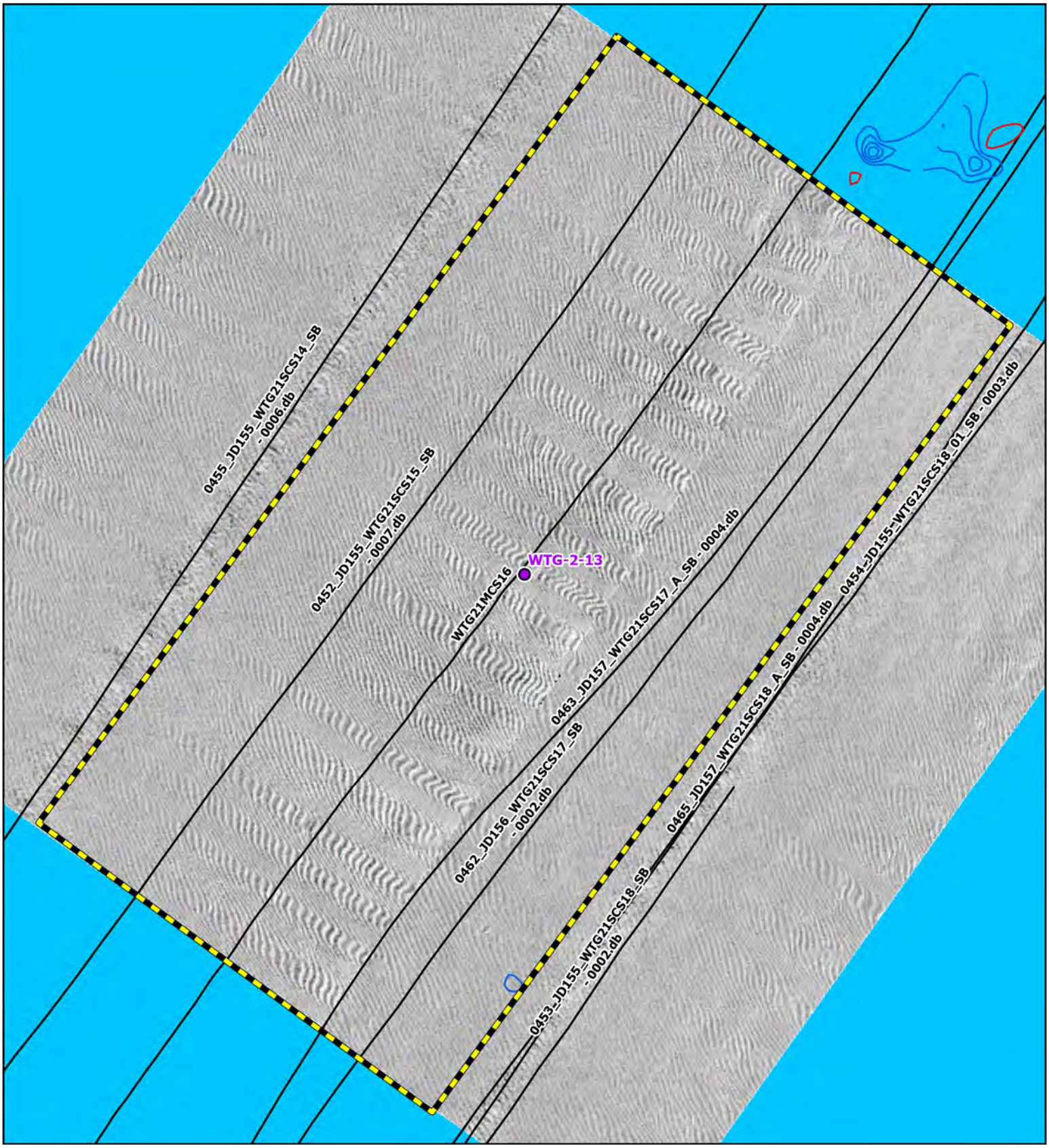
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 21

Map: 1

WTG-1-12

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

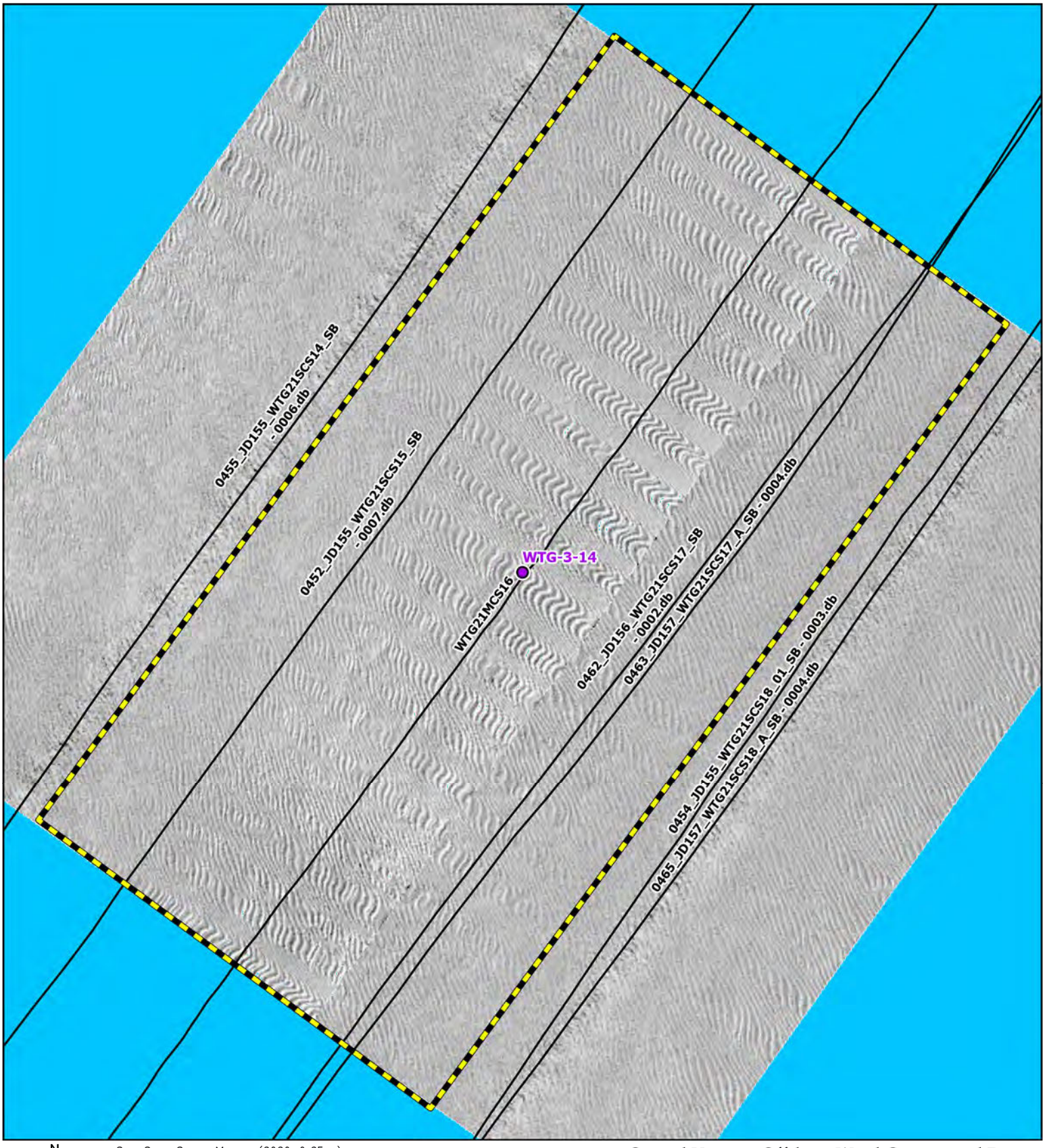
Geotechnical Clearance: Corridor 21

Map: 2

WTG-2-13

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

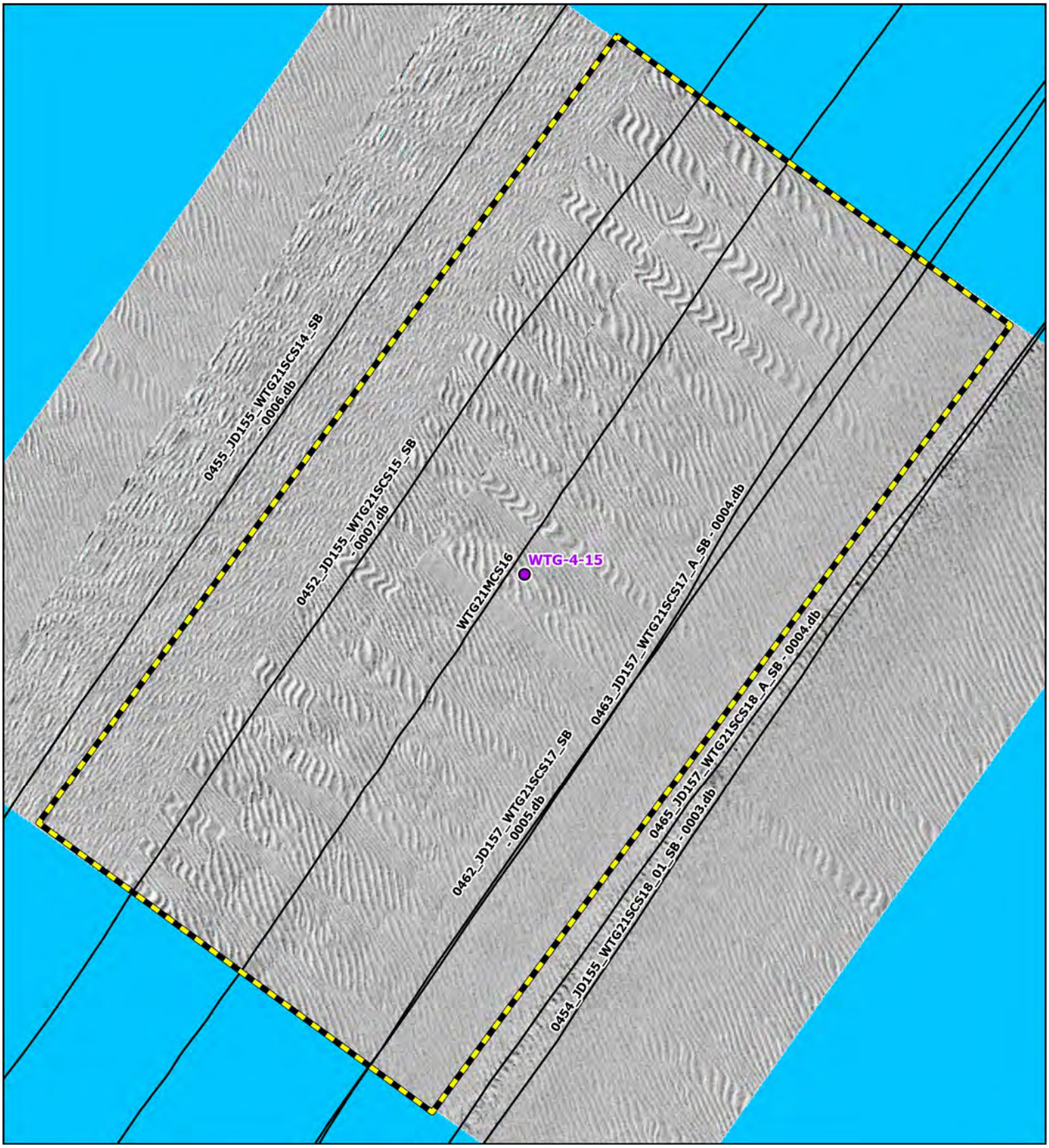
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 21

Map: 3

WTG-3-14

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 21

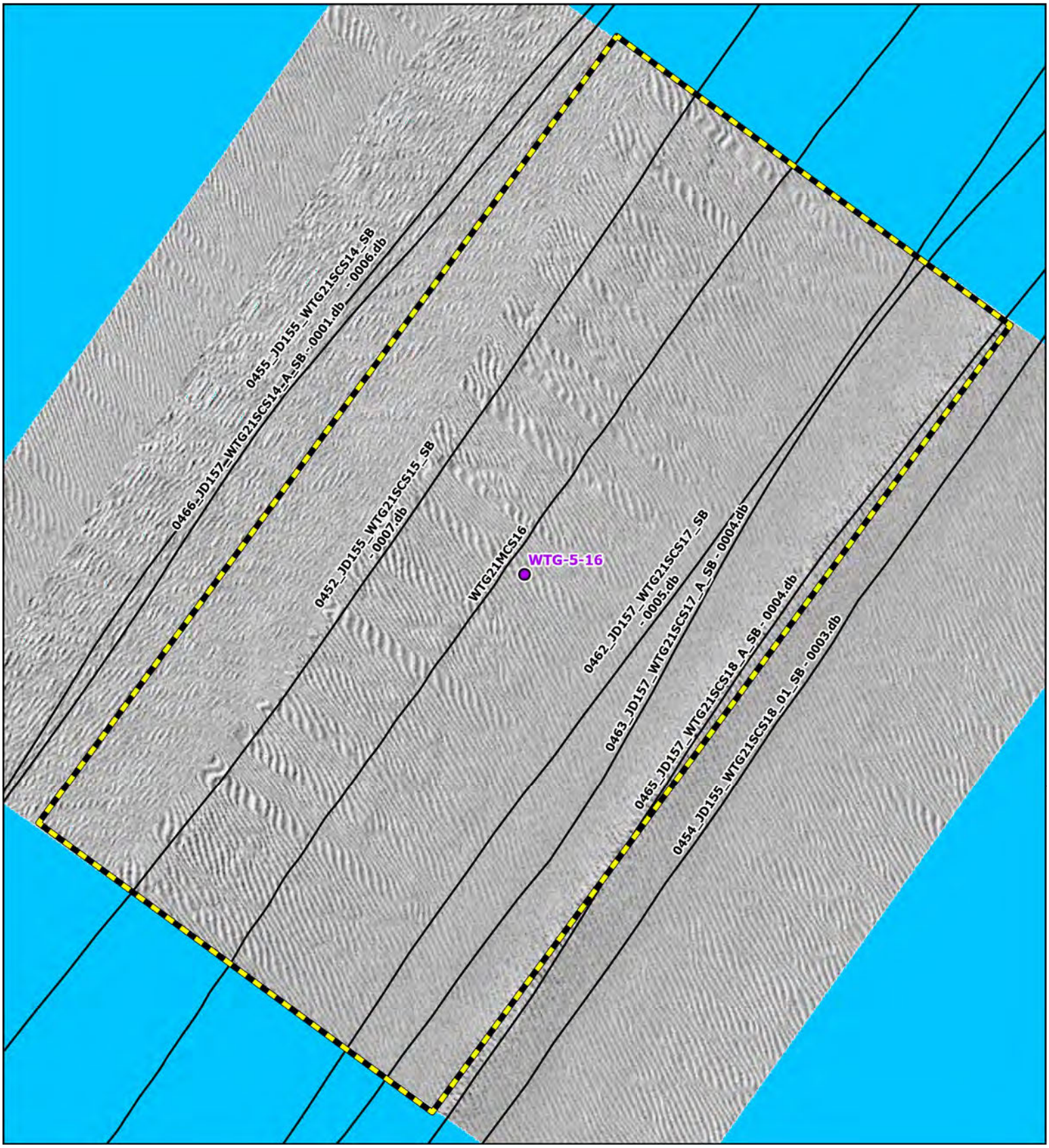
Map: 4

WTG-4-15

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 21

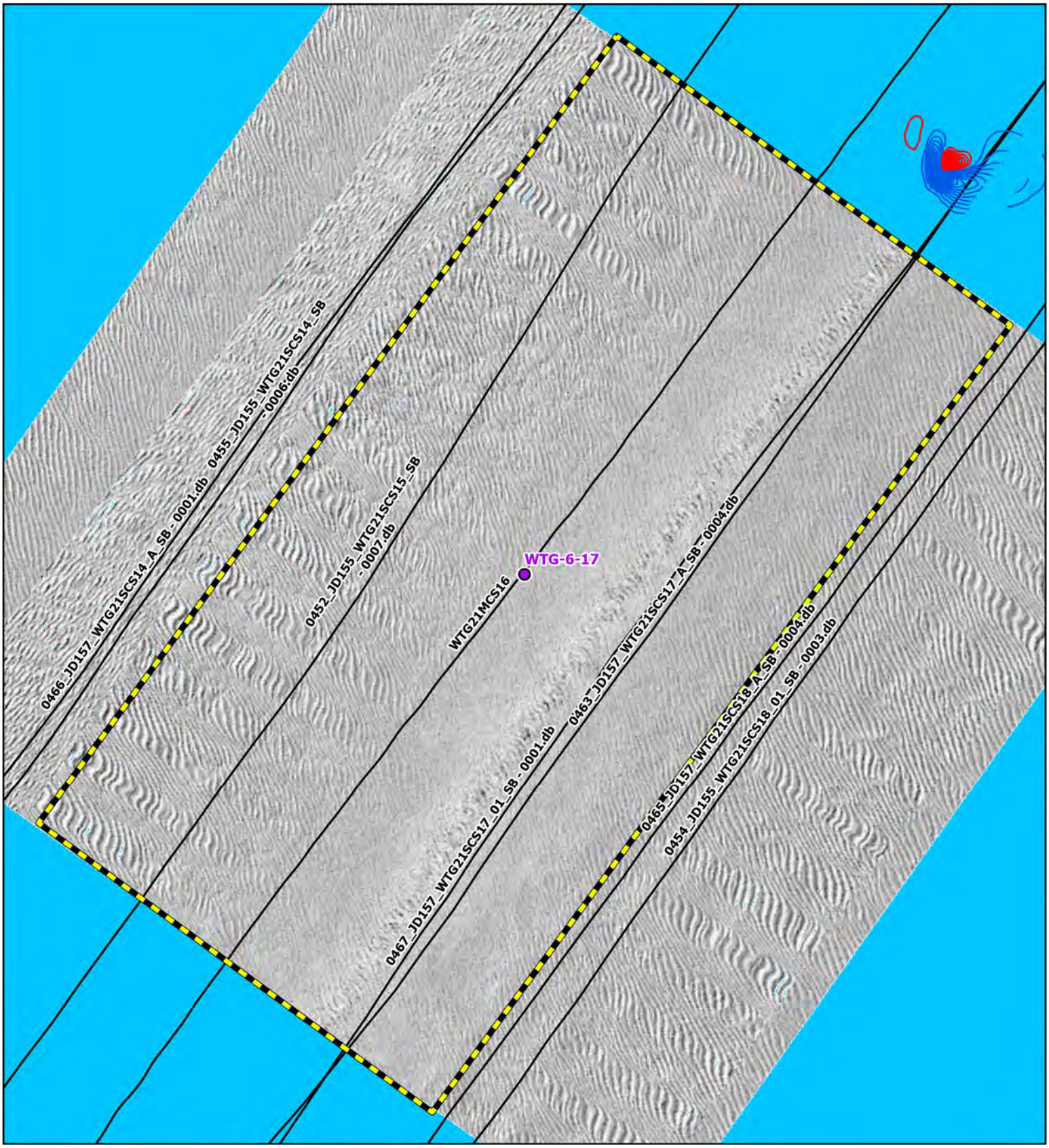
Map: 5

WTG-5-16

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 21

Map: 6

WTG-6-17

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APPENDIX 3
SUB-BOTTOM PROFILE IMAGES

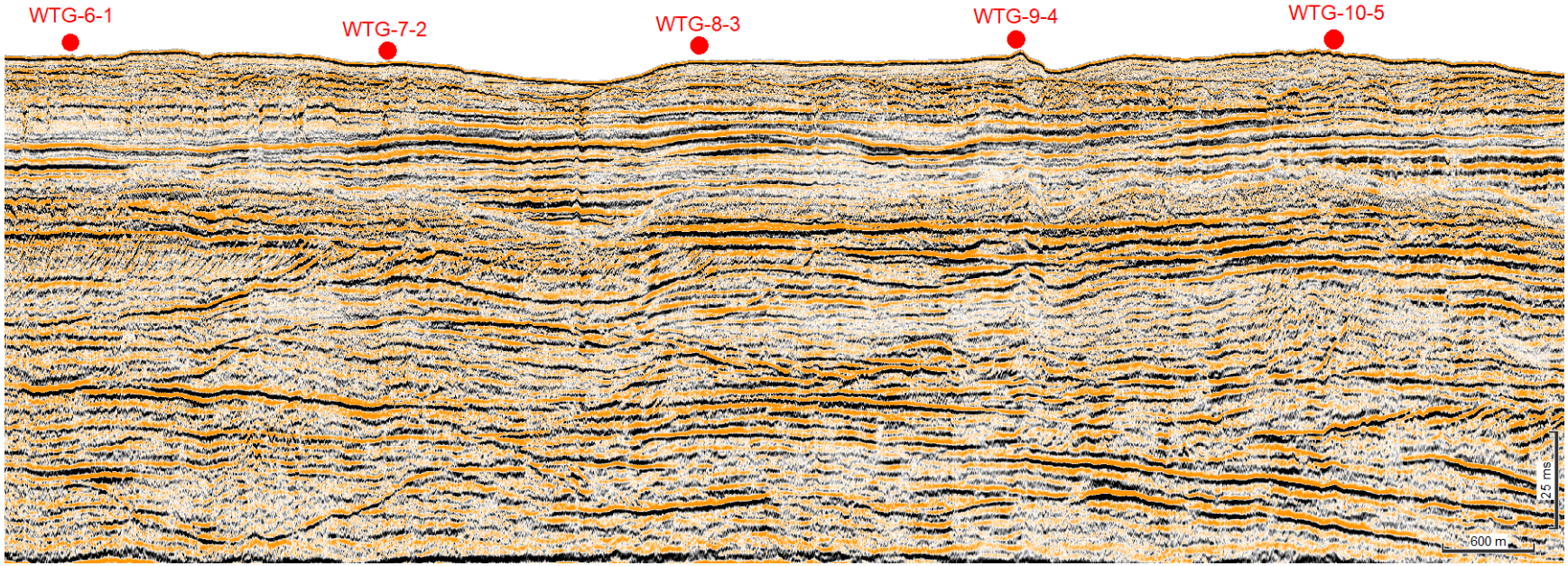


Figure 1: Proposed geotechnical locations WTG-6-1, WTG-7-2, WTG-8-3, WTG-9-4 and WTG-10-5 in Corridor 05 along line WTG05MCS167_MIG

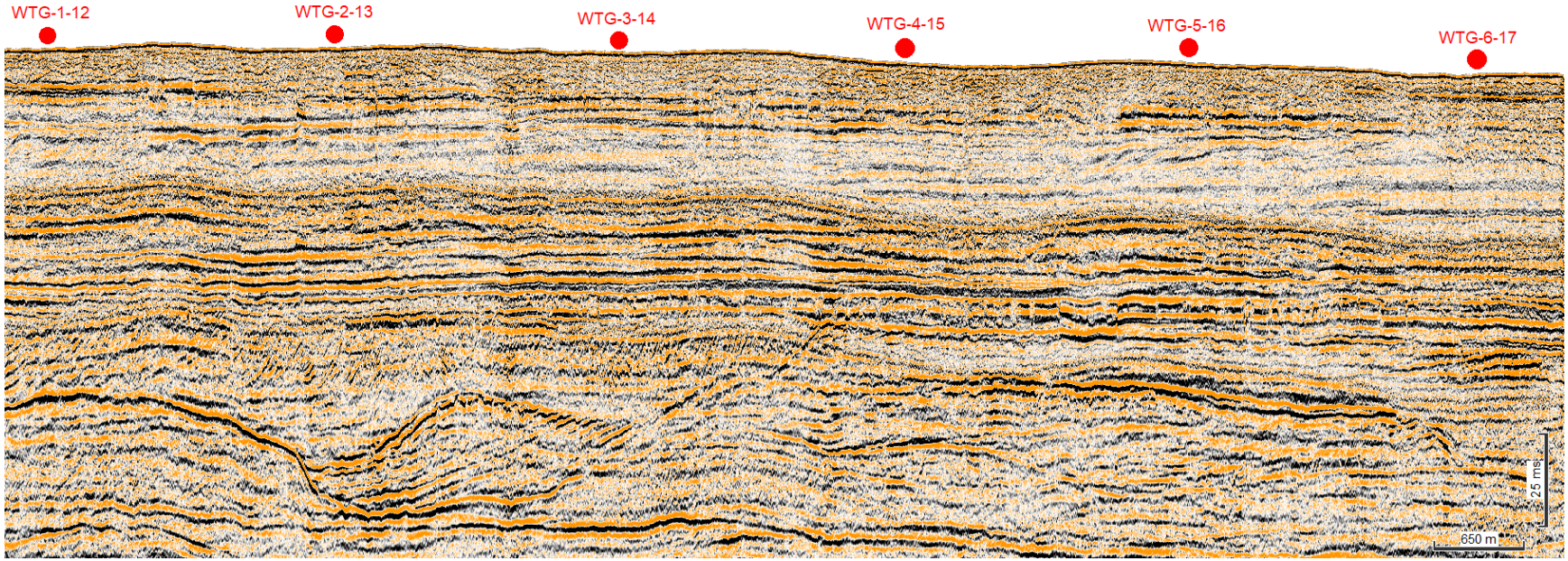


Figure 2: Proposed geotechnical location WTG-1-12, WTG-2-13, WTG-3-14, WTG-4-15, WTG-5-16 and WTG-6-17 in Corridor 21 along line WTG21MCS16_MIG

ECR Block A

July 01, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, ECR Block A

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 22 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 22 proposed geotechnical locations located along the Export Cable Route (ECR). The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that could represent cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). A large magnetic anomaly, with an amplitude with a peak spread of 275 nanoTeslas and a duration of approximately 113 meters, was observed within the analytic area initially established at A14. No side scan sonar targets or seismic reflectors were observed in proximity to this anomaly. In order to avoid this potential cultural resource, the geotechnical core was shifted 15 meters to the south east and the analytic area was reduced to 120 m by 240 m. No other magnetic anomalies that could represent cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block A

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
A22	448305.075	4076148.137	-75.57970741	36.82980355
A21	448693.9591	4076249.399	-75.57535351	36.83073753
A20	449177.8242	4076375.394	-75.56993606	36.83189941
A19	449661.6892	4076501.388	-75.56451844	36.83306104
A18	450145.5542	4076627.383	-75.55910066	36.83422243
A17	450629.4193	4076753.377	-75.55368271	36.83538357
A16	451113.2844	4076879.372	-75.54826459	36.83654446
A15	451597.1495	4077005.366	-75.5428463	36.83770511
A14_rev	452085.9268	4077116.248	-75.53737181	36.83872954
A13	452564.8795	4077257.355	-75.53200924	36.84002567
A12	453048.7446	4077383.35	-75.52659045	36.84118558
A11	453532.6097	4077509.344	-75.5211715	36.84234525
A10	454016.4747	4077635.339	-75.51575239	36.84350467
A9	454500.3398	4077761.333	-75.51033311	36.84466384
A8	454984.2048	4077887.328	-75.50491366	36.84582277
A7	455468.0699	4078013.322	-75.49949404	36.84698145
A6	455951.935	4078139.317	-75.49407426	36.84813988
A5	456435.8	4078265.311	-75.48865431	36.84929807
A4	456919.6651	4078391.306	-75.4832342	36.85045601
A3	457403.5302	4078517.3	-75.47781392	36.85161371
A2	457887.3951	4078643.294	-75.47239347	36.85277116
A1	458371.2602	4078769.289	-75.46697286	36.85392836

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES
MAPS FOR BLOCK A



N
W E
S
GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:54,000

SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.25 0.5 0.75 1 MILES

0 0.25 0.5 0.75 1 KILOMETERS

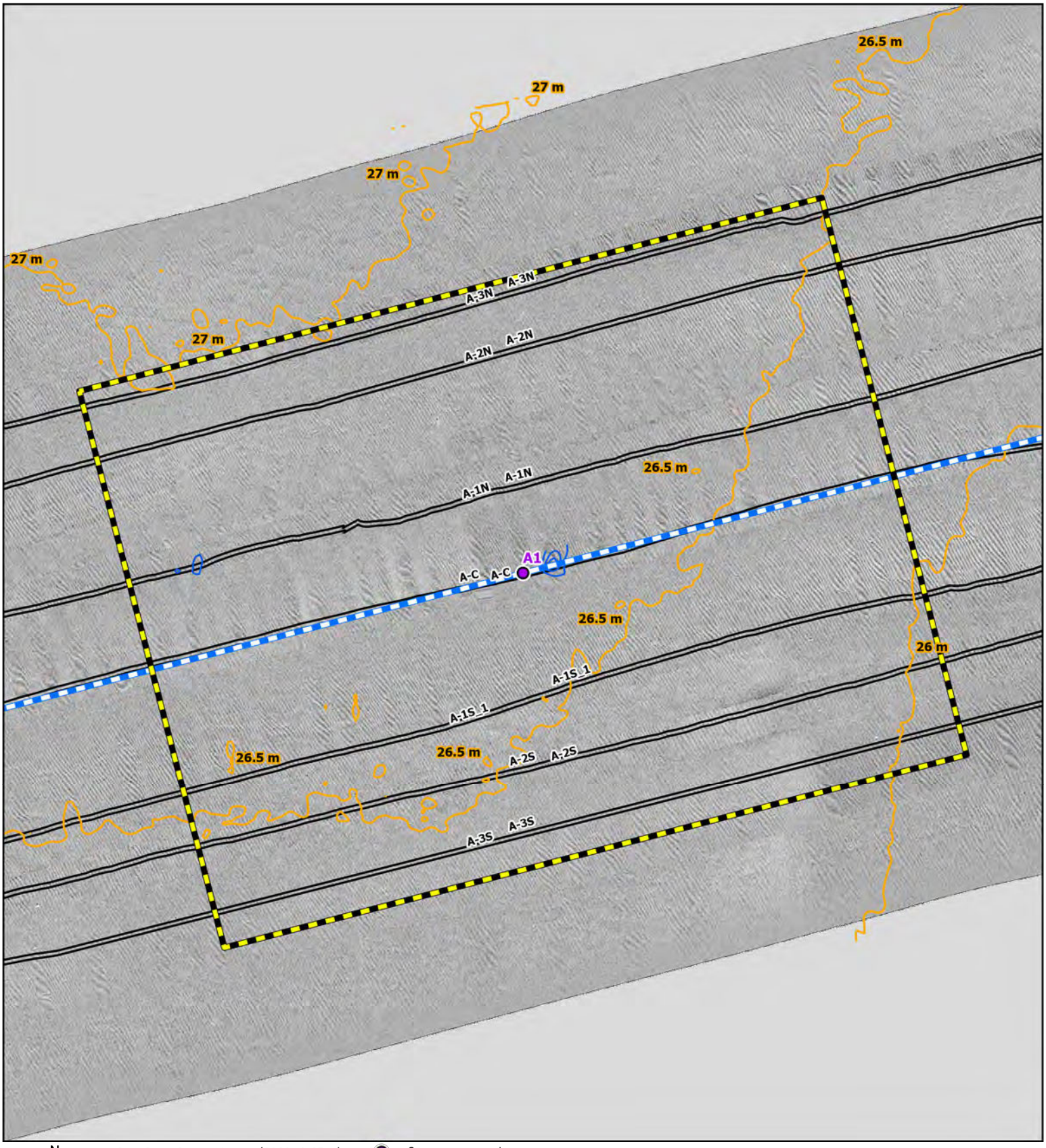
- Geotechnical Location
- ECR Centerline
- Map Sheet Extent
- BOEM Lease Block

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

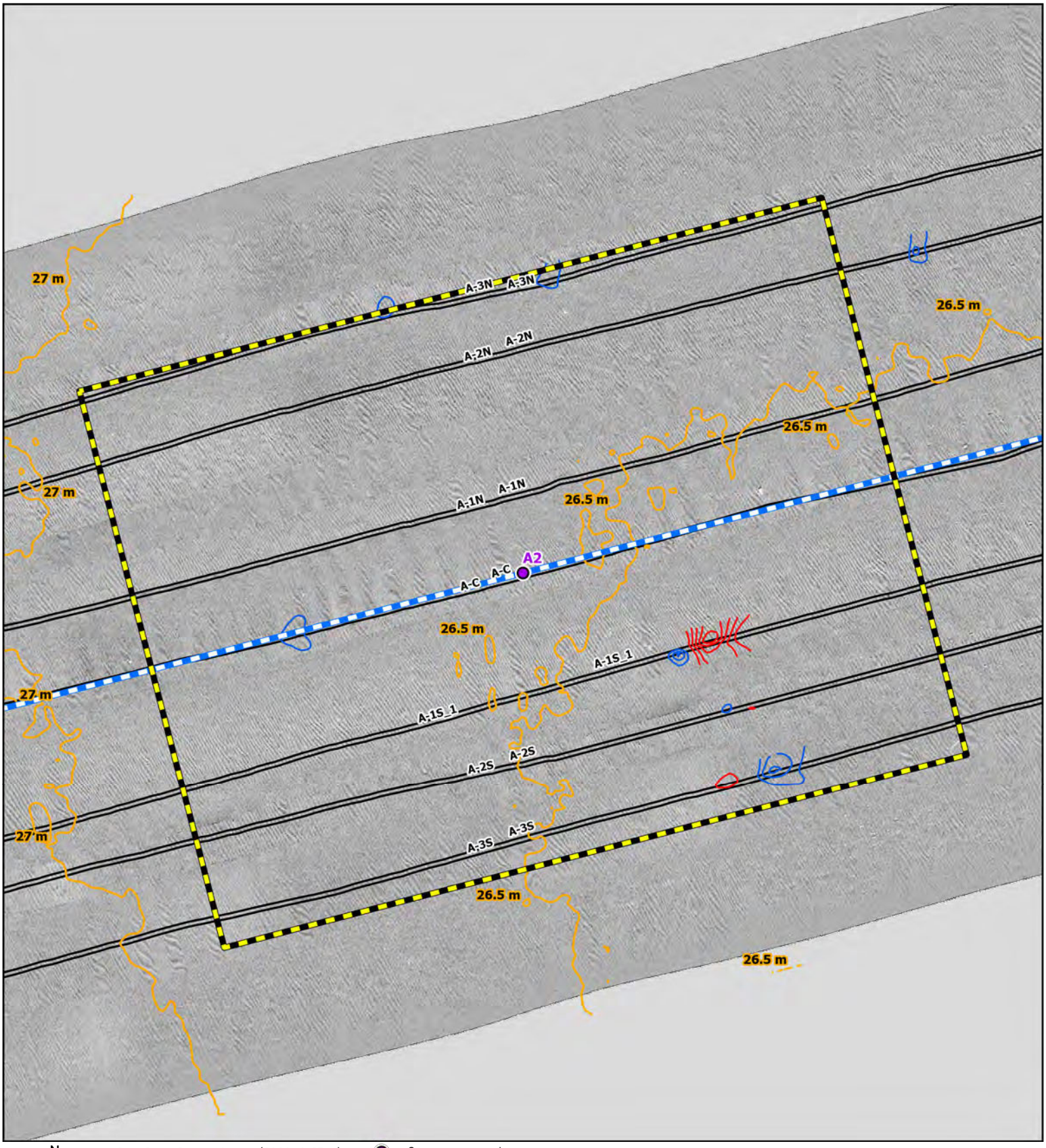
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 1

A1

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

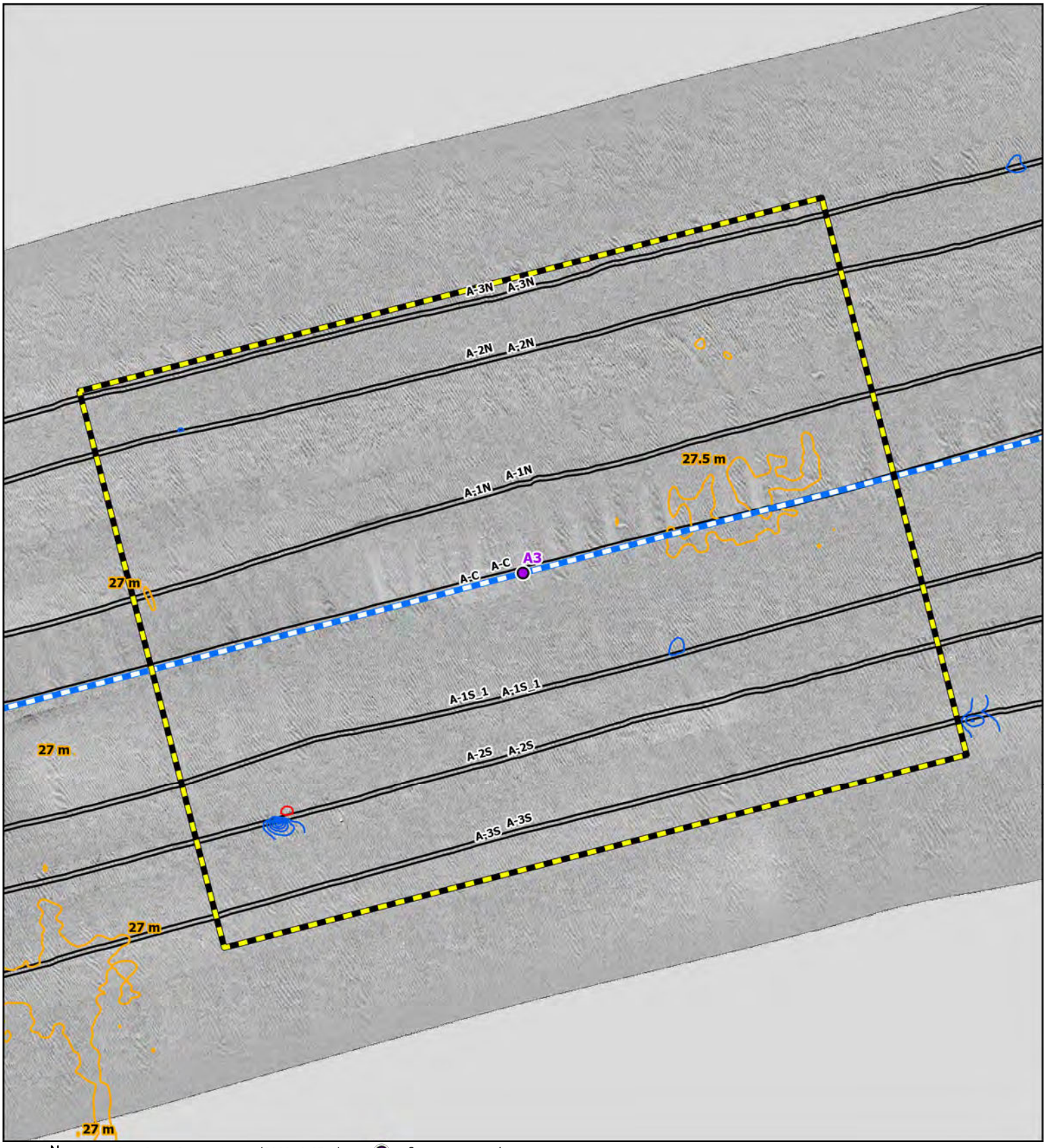
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 2

A2

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

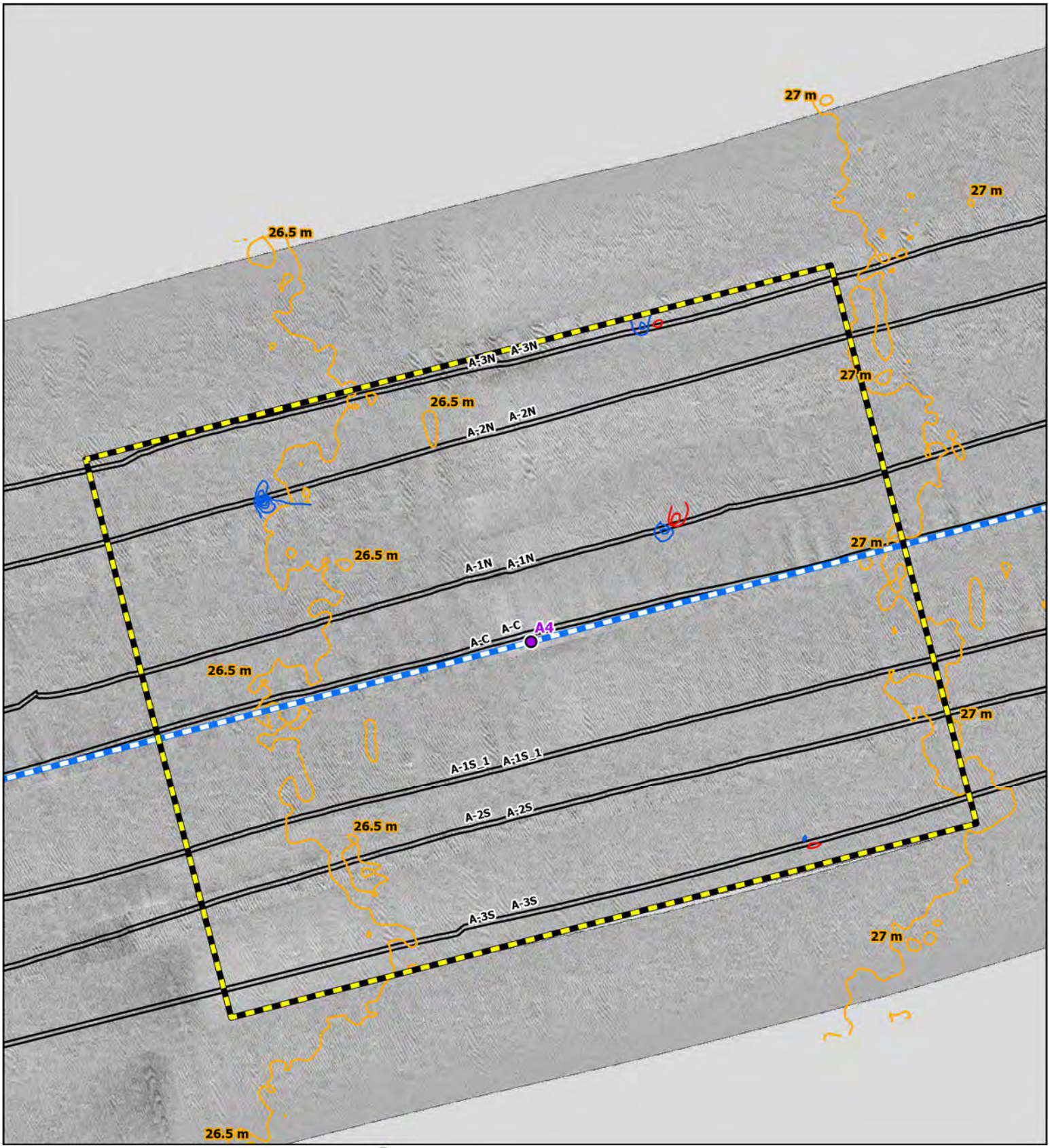
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 3

A3

R. Christopher Goodwin & Associates, Inc.
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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

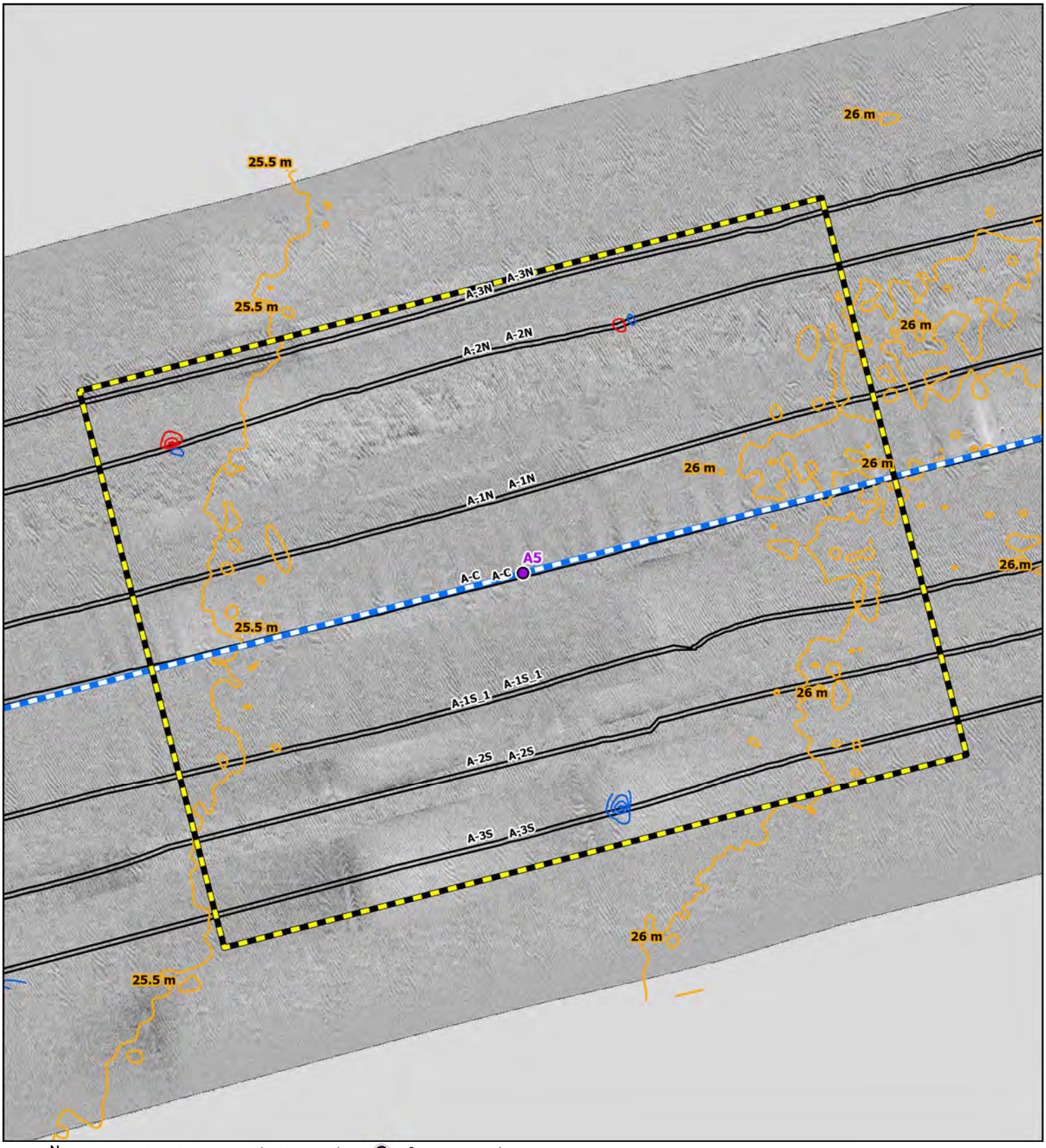
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 4

A4

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MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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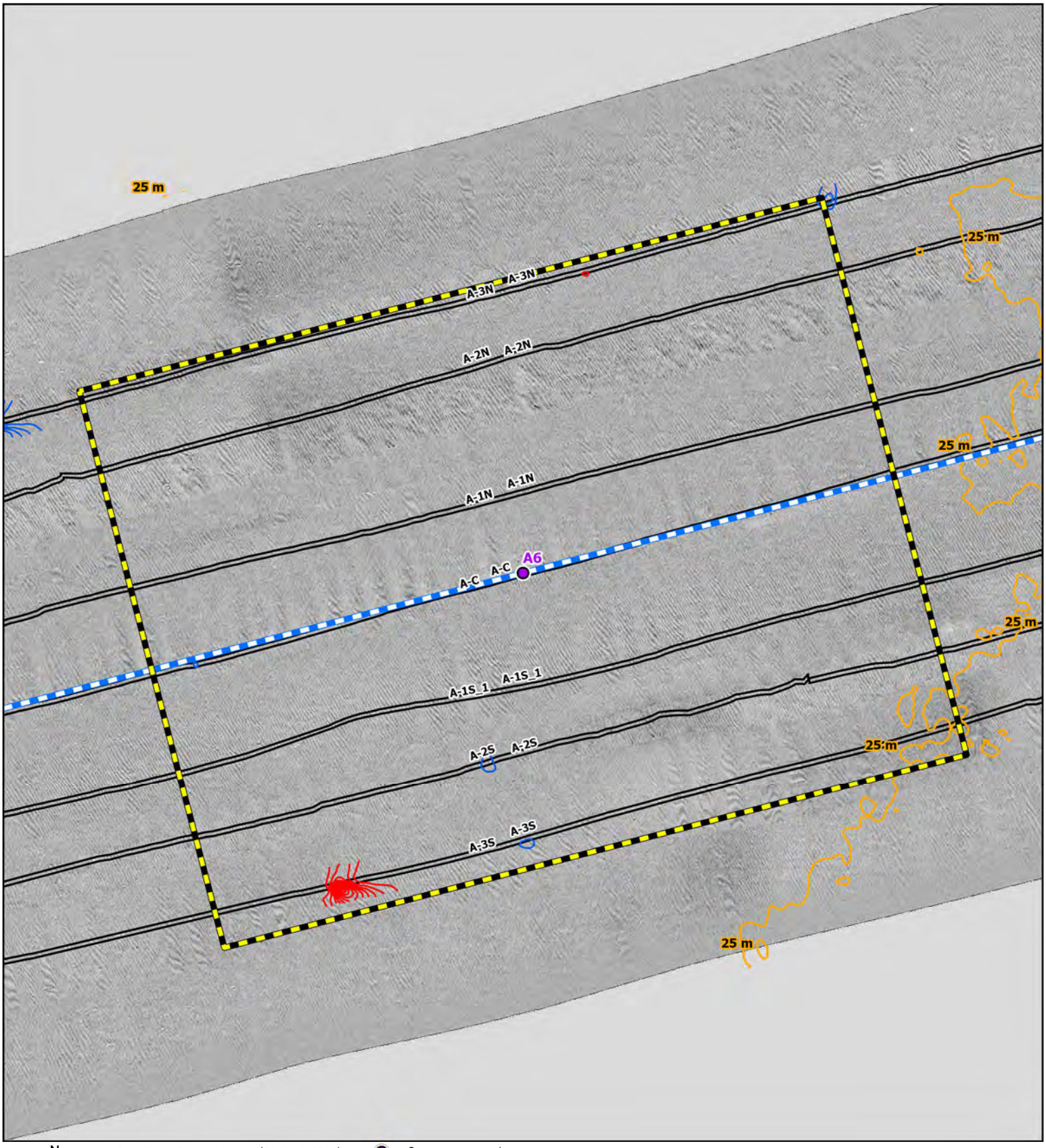
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 5

A5

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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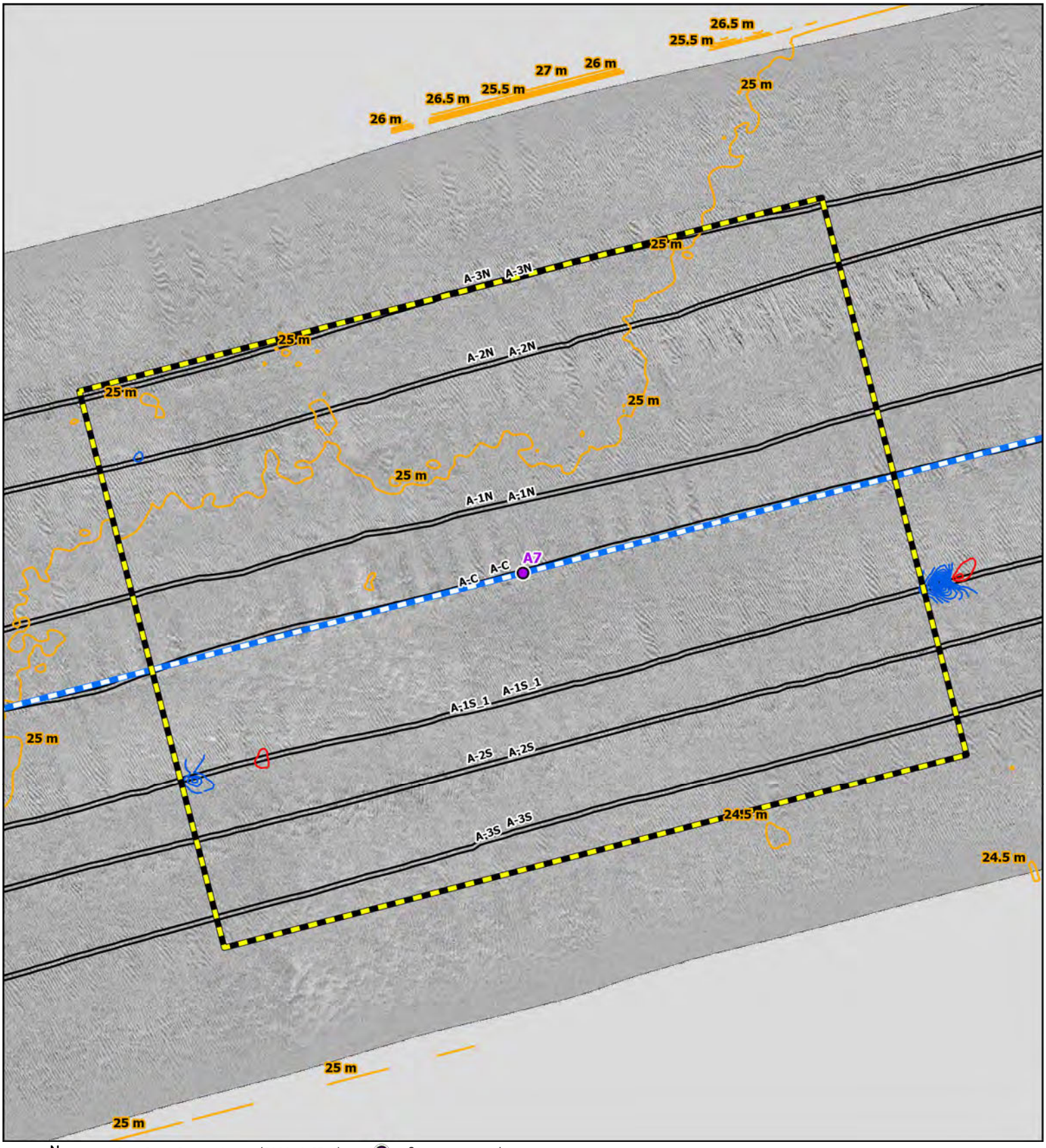
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 6

A6

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

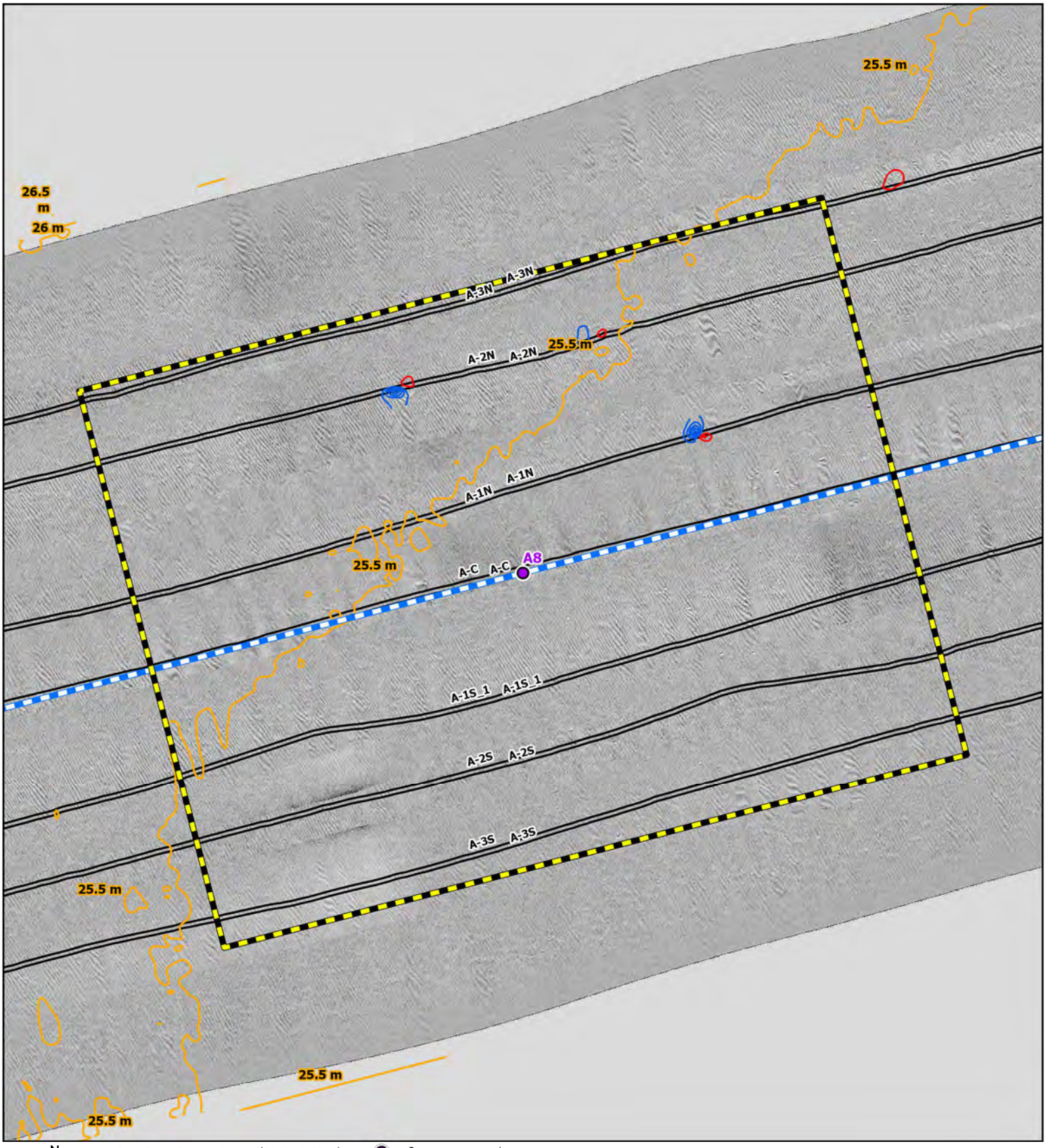
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 7

A7

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

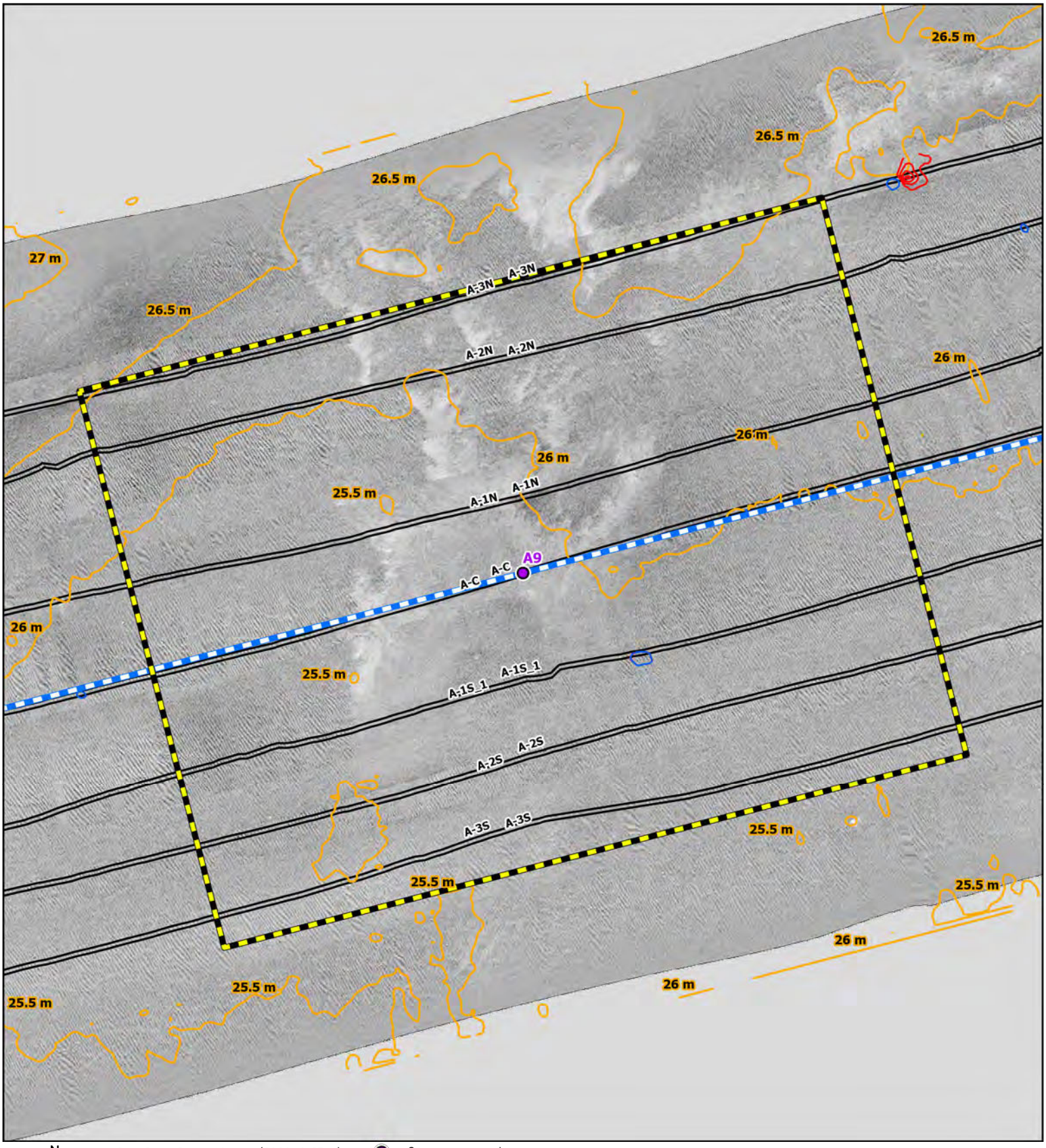
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
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Geotechnical Clearance: Block A

Map: 8

A8

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

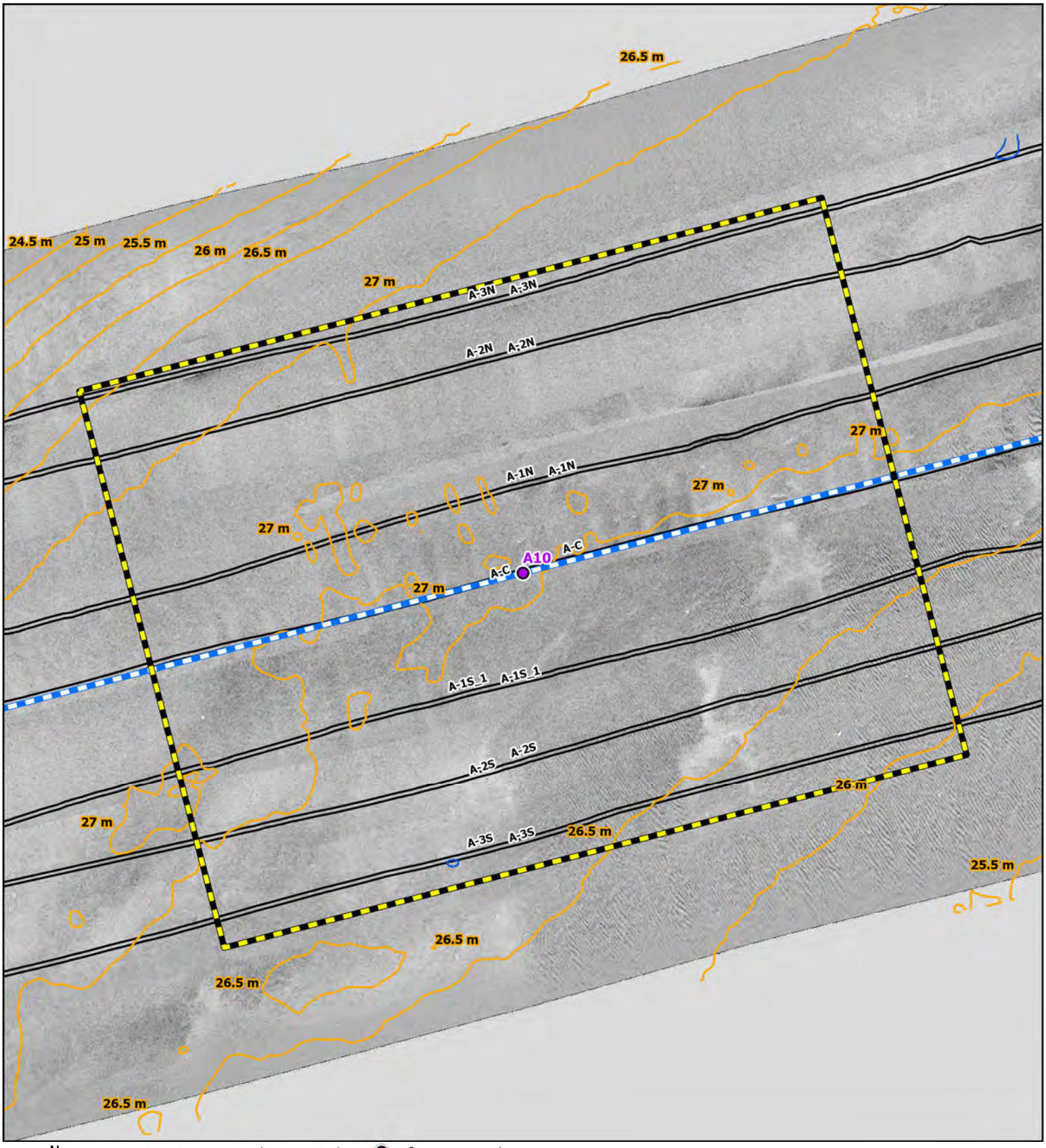
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 9

A9

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Side Scan Sonar Mosaic (2020, 0.25 m)

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SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

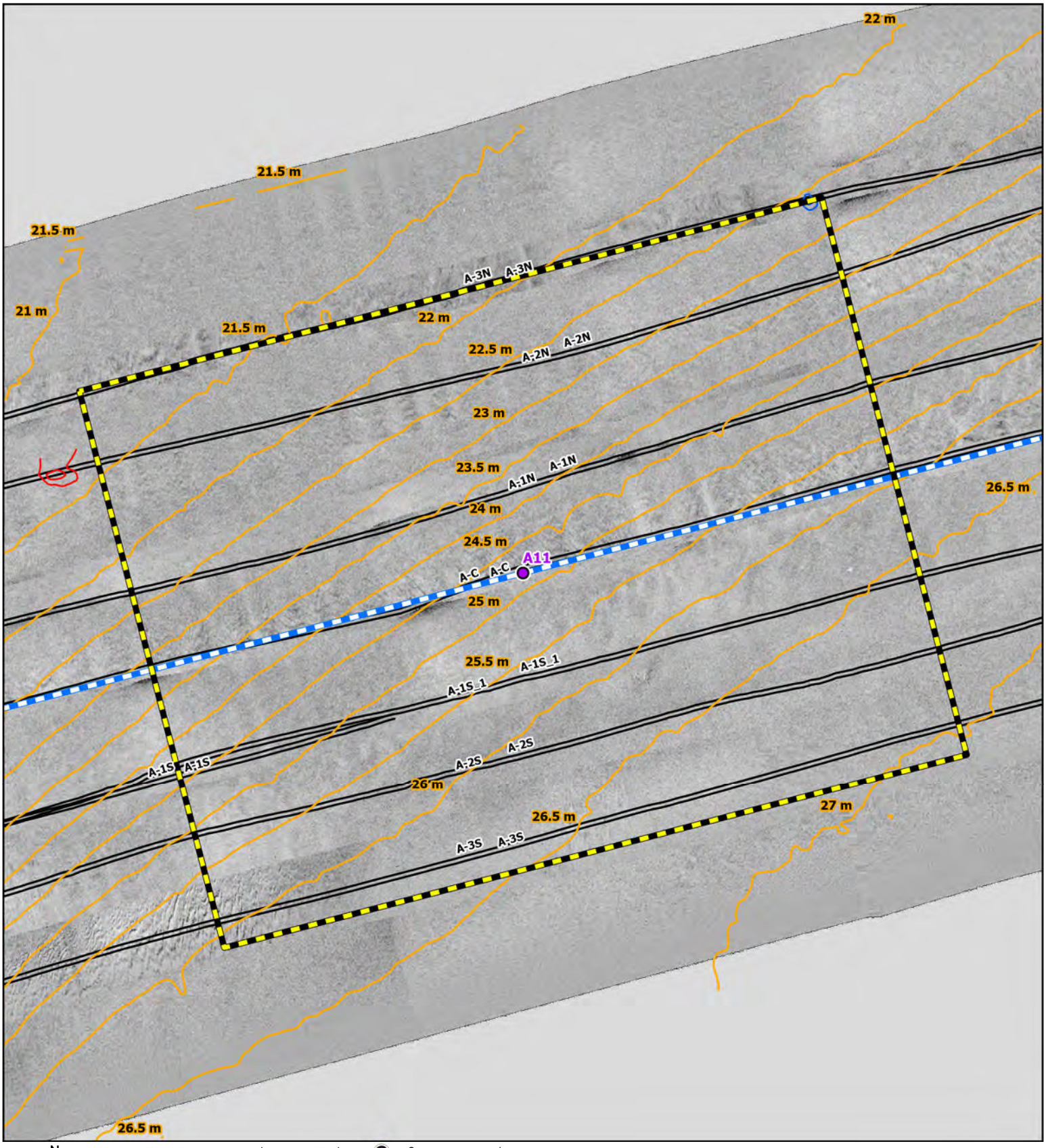
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 10

A10

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

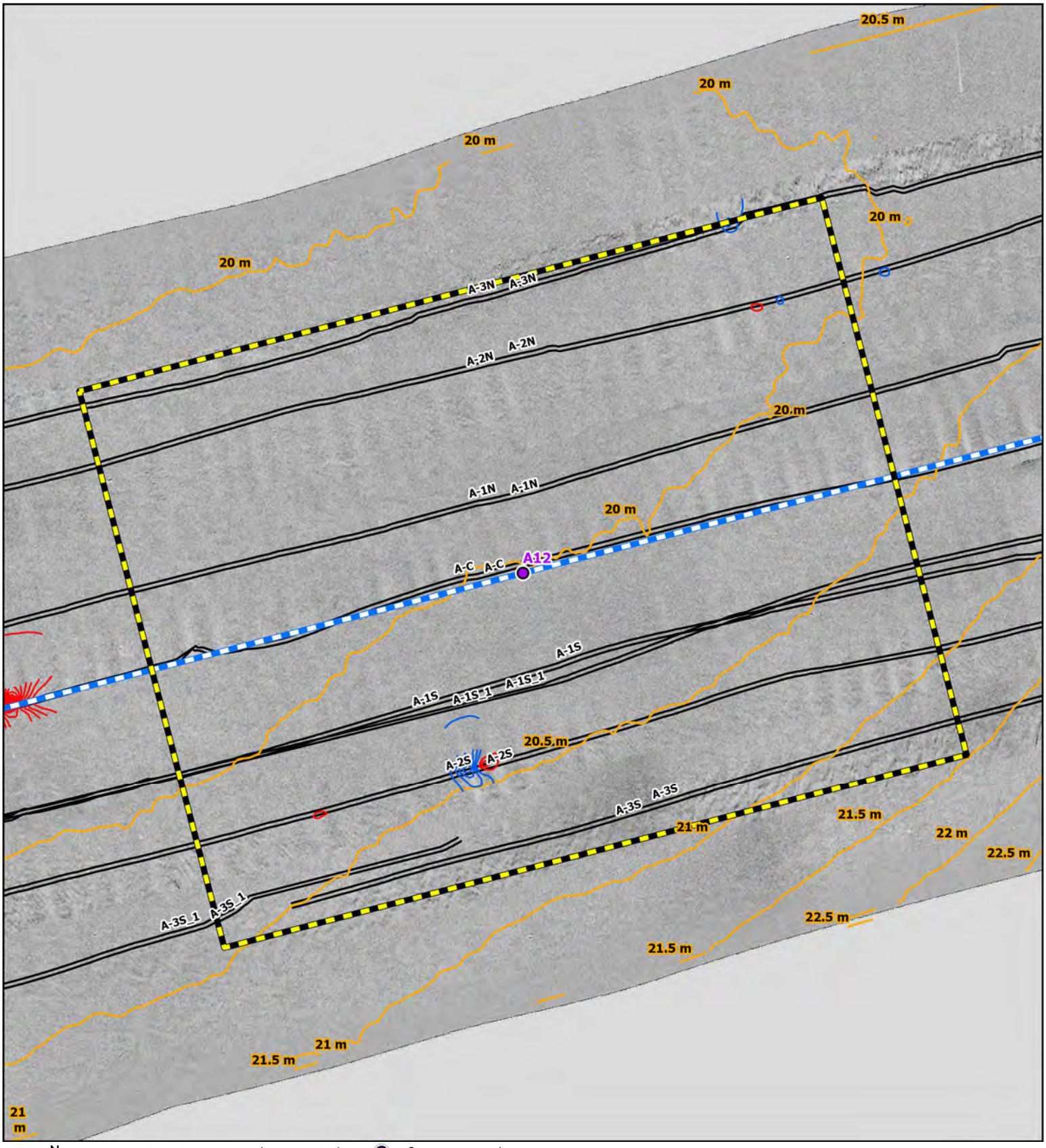
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 11

A11

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- ECR Centerline
- Bathymetric Contour (0.5m interval)
- Trackline

Magnetic Contours (5 nT)

- Negative
- Positive
- Analytic Area

Coastal Virginia Offshore Wind Commercial Project

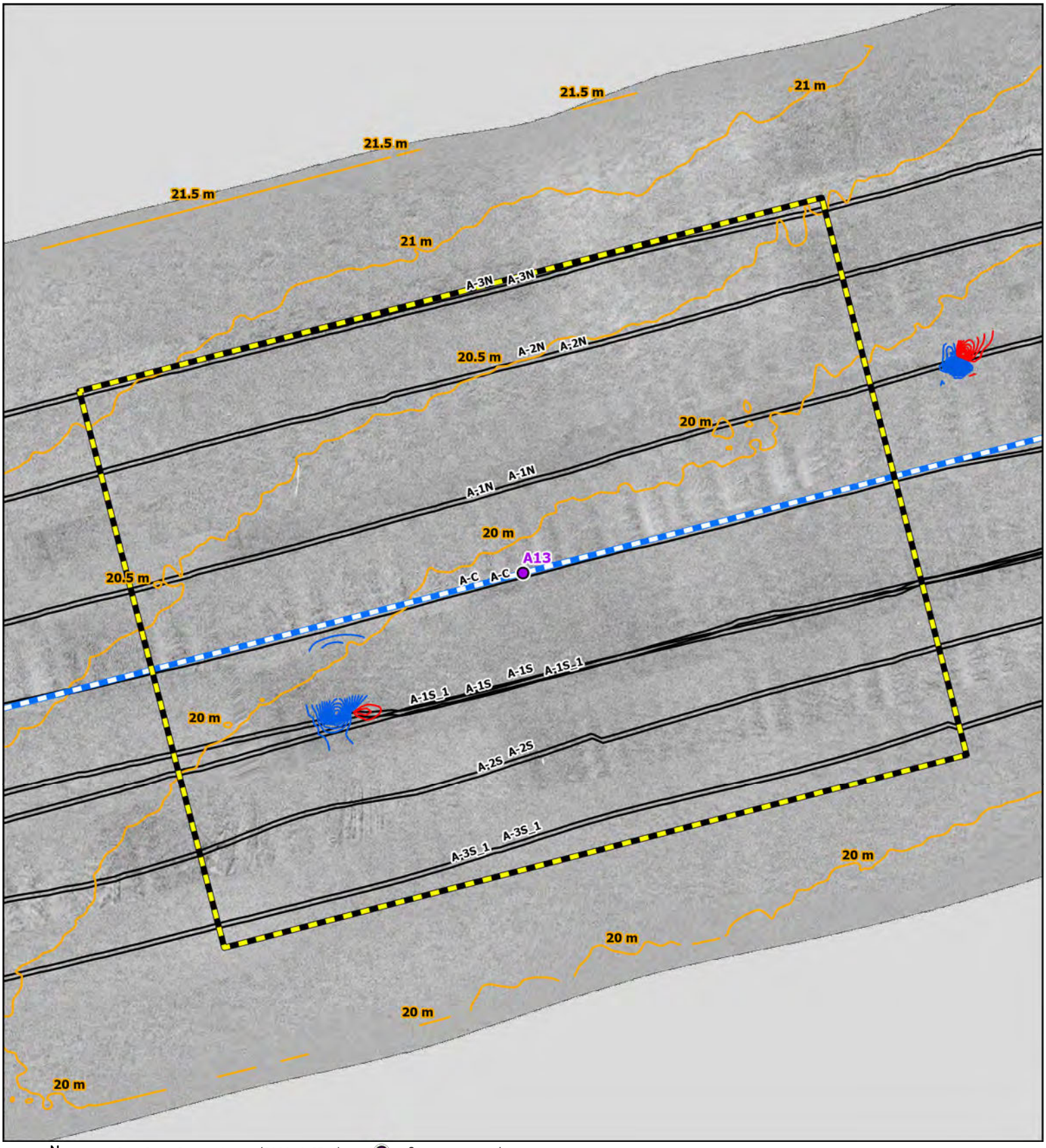
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

Map: 12

A12

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

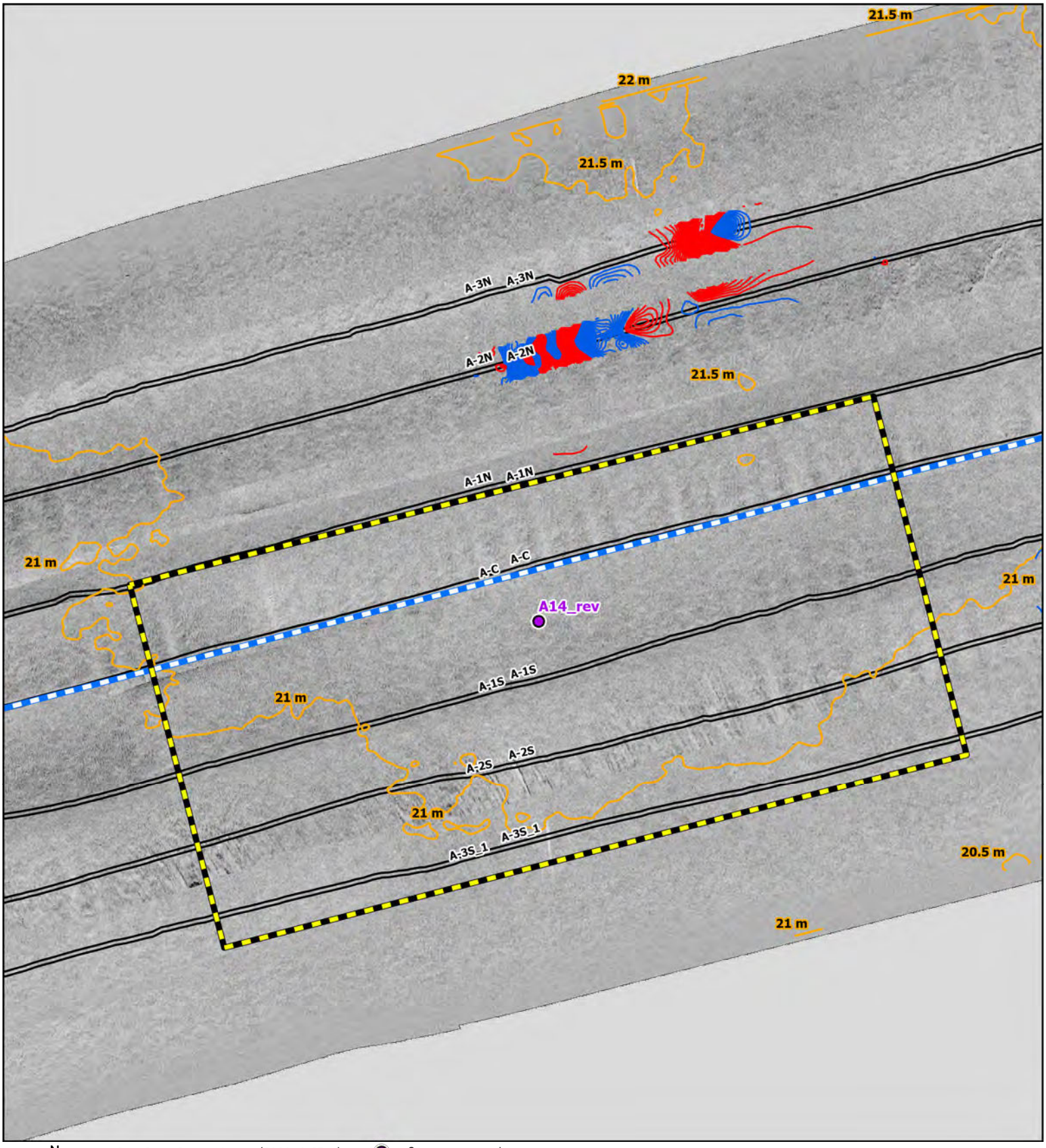
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 13

A13

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

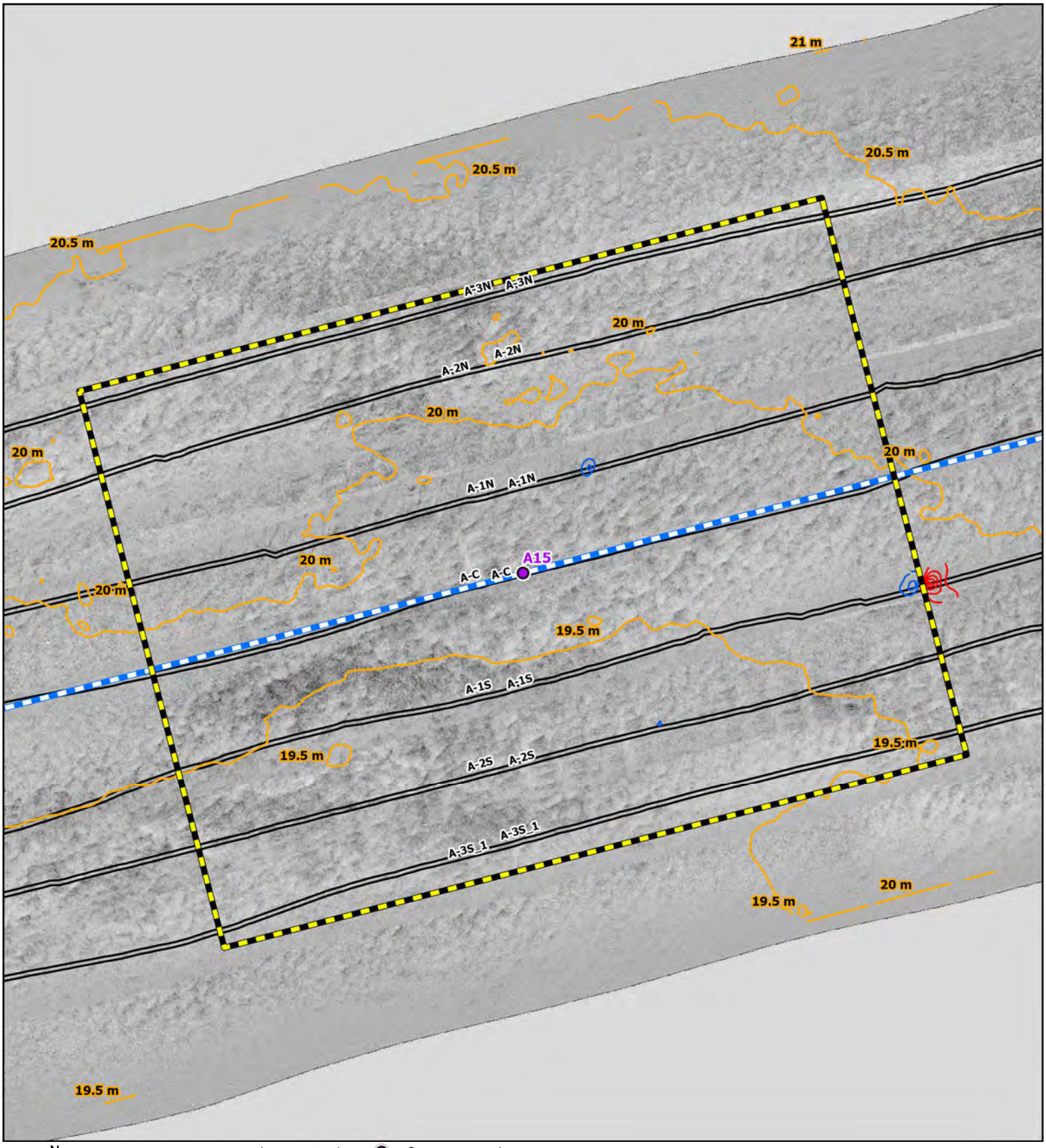
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 14

A14

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

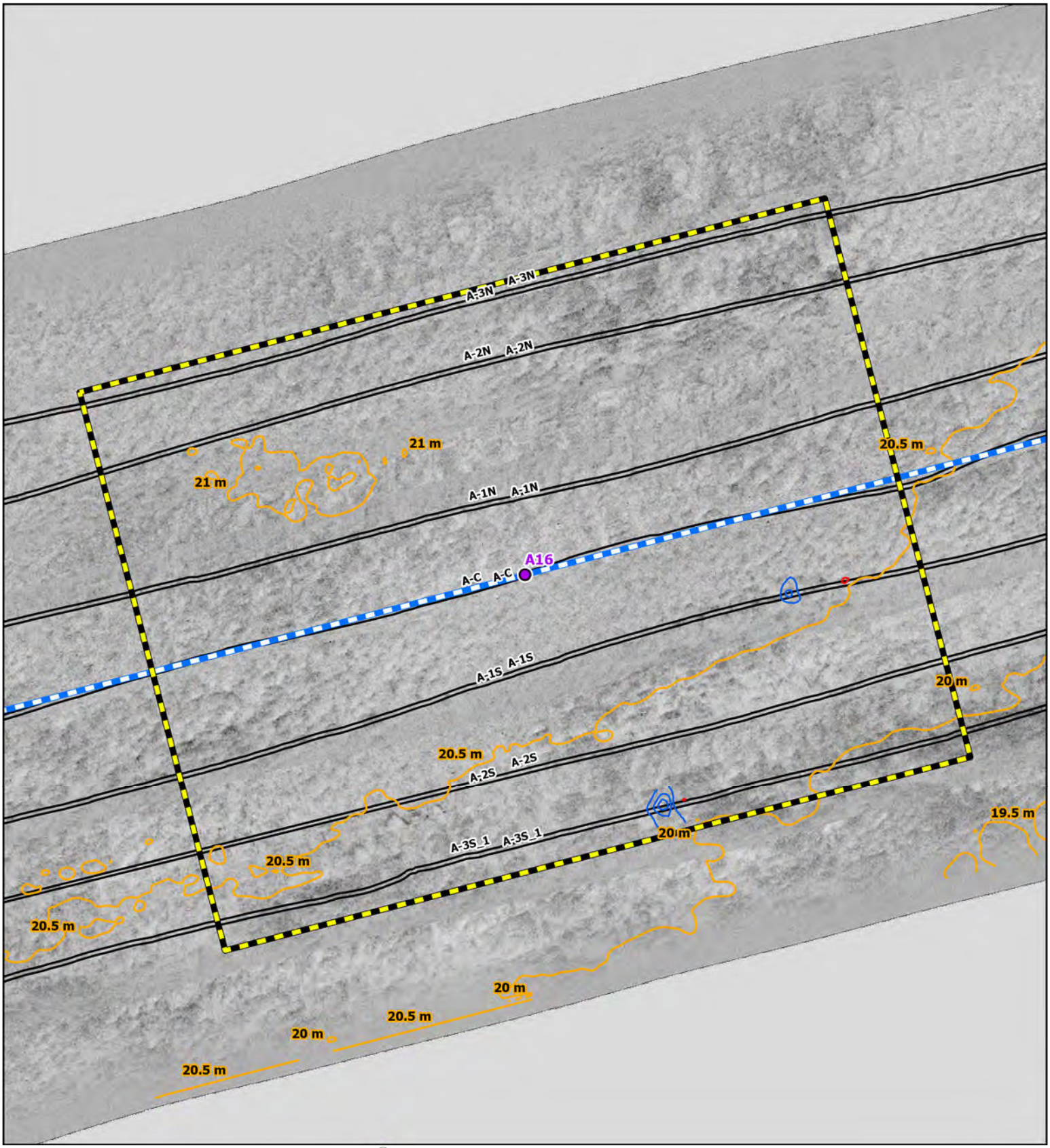
Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 15

A15

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

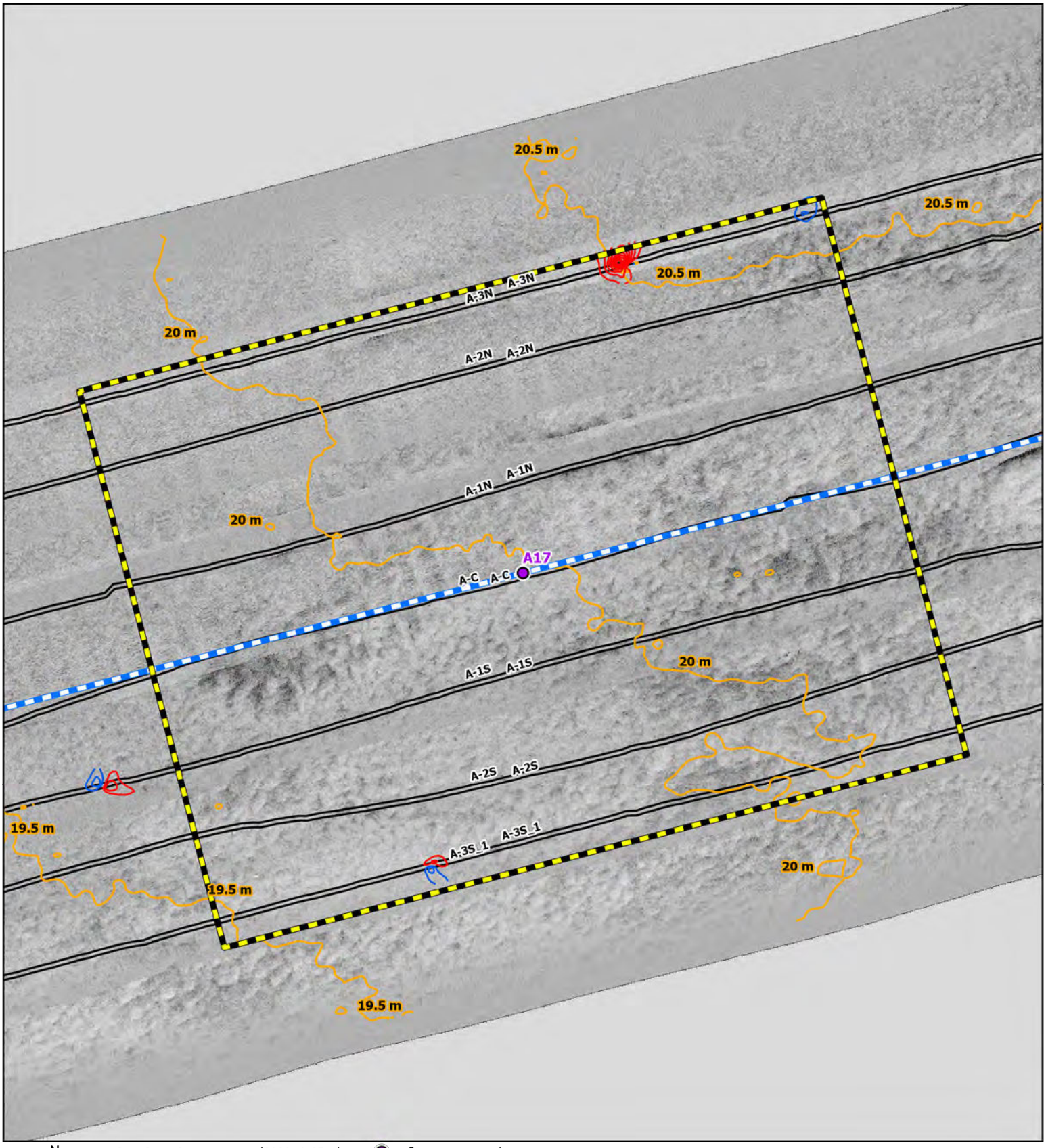
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 16

A16

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

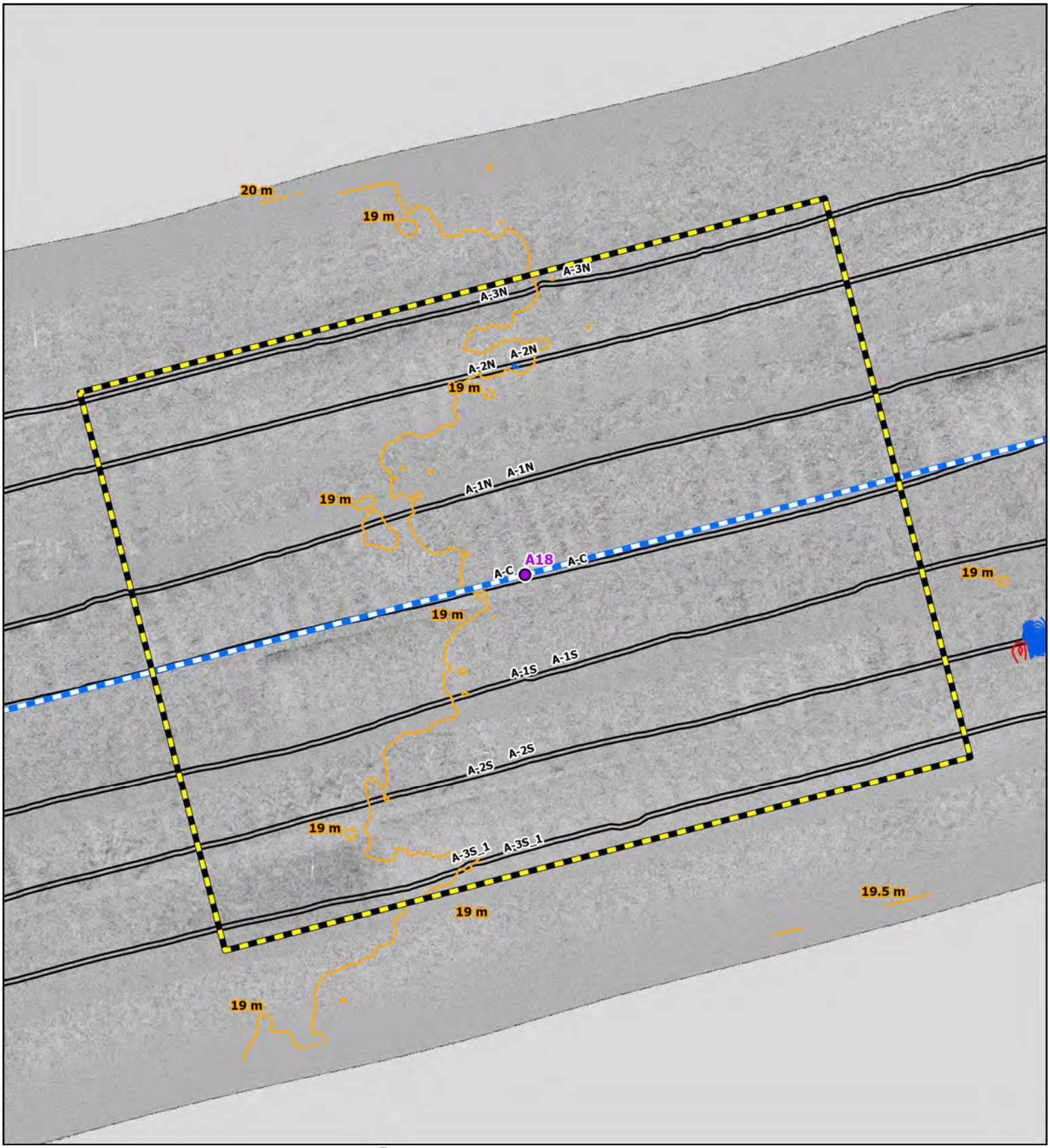
Map: 17

A17

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

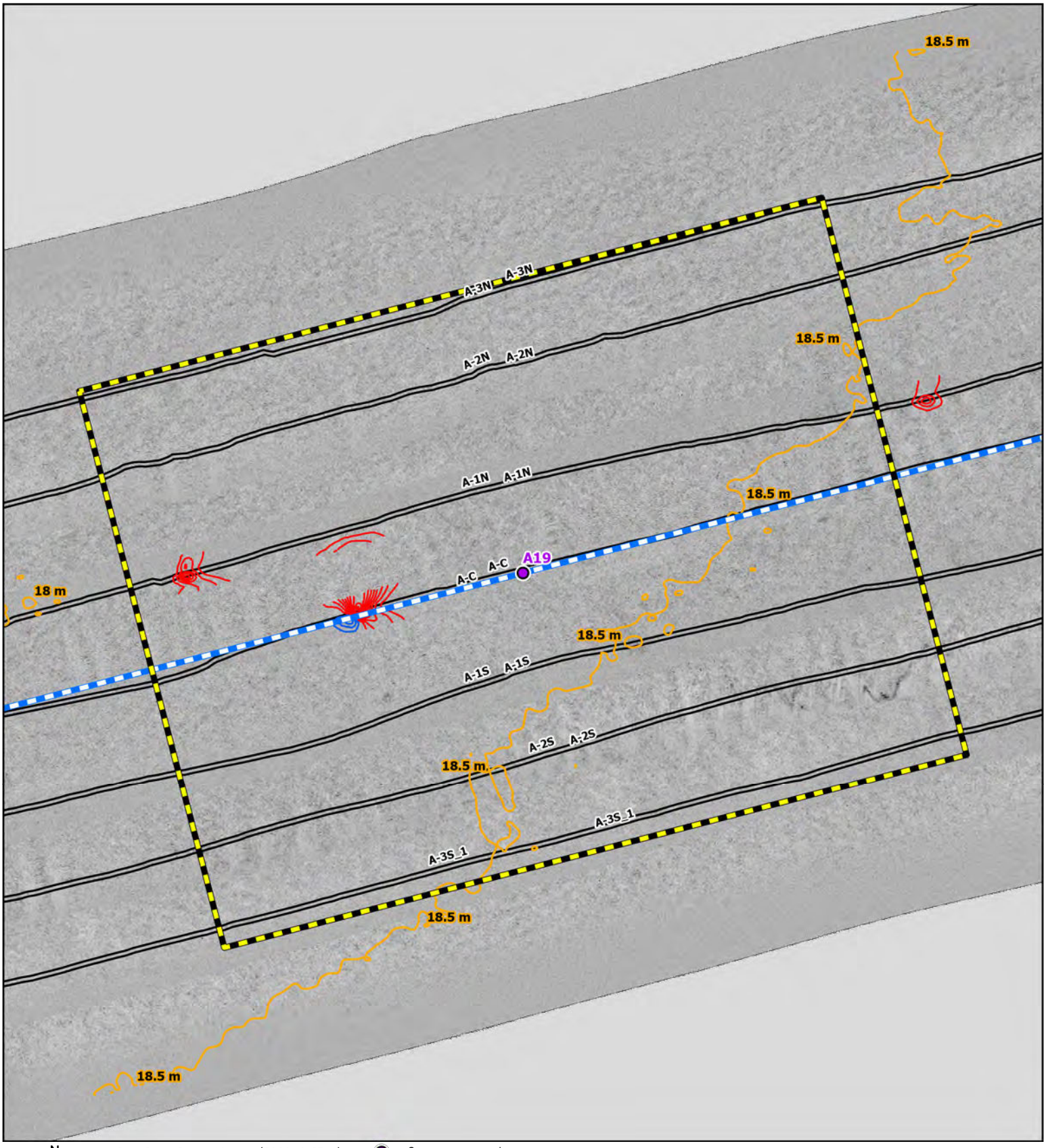
Map: 18

A18

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

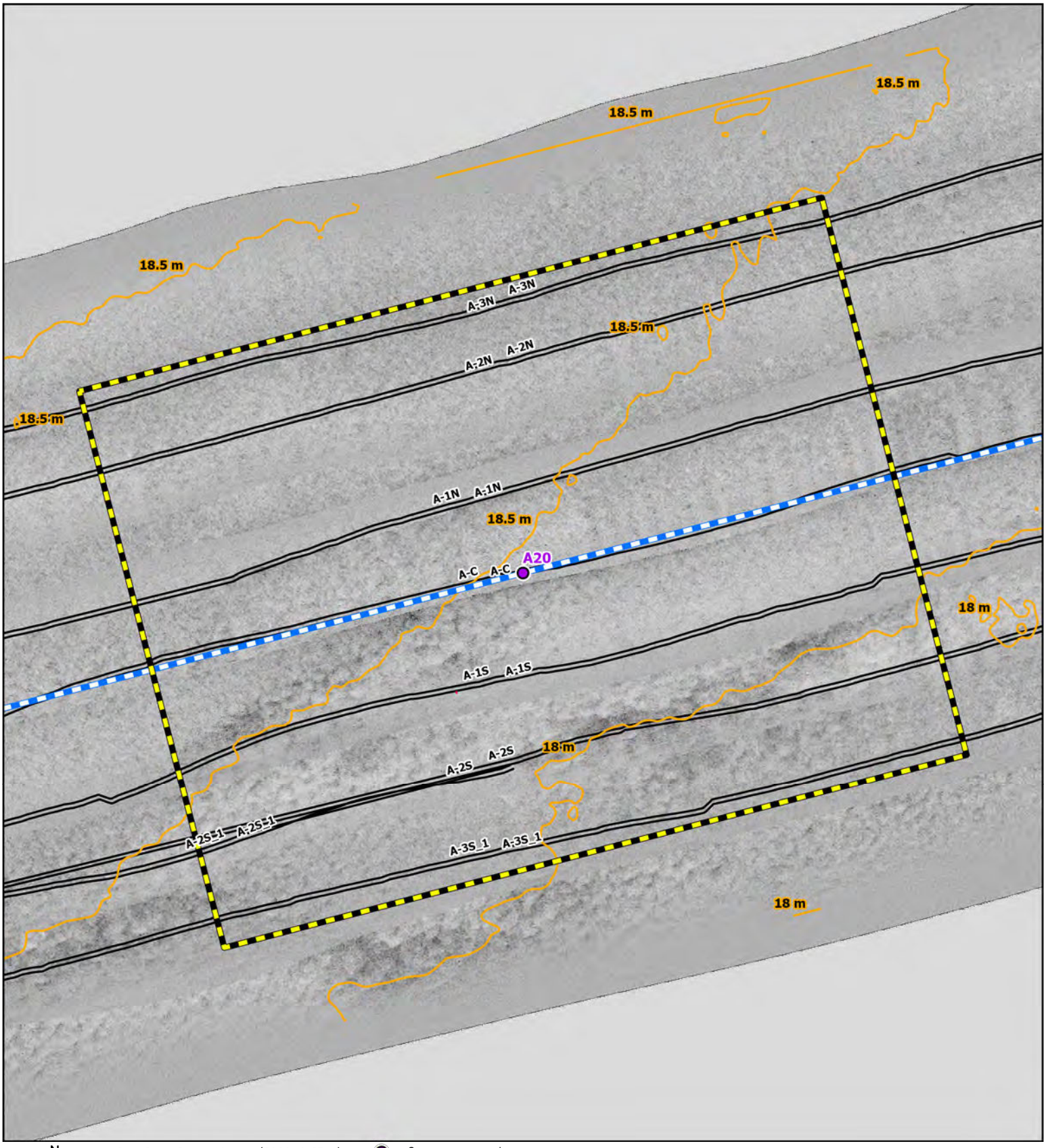
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 19

A19

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
ECR Centerline
Bathymetric Contour (0.5m interval)
Trackline
Magnetic Contours (5 nT)
Negative
Positive
Analytic Area

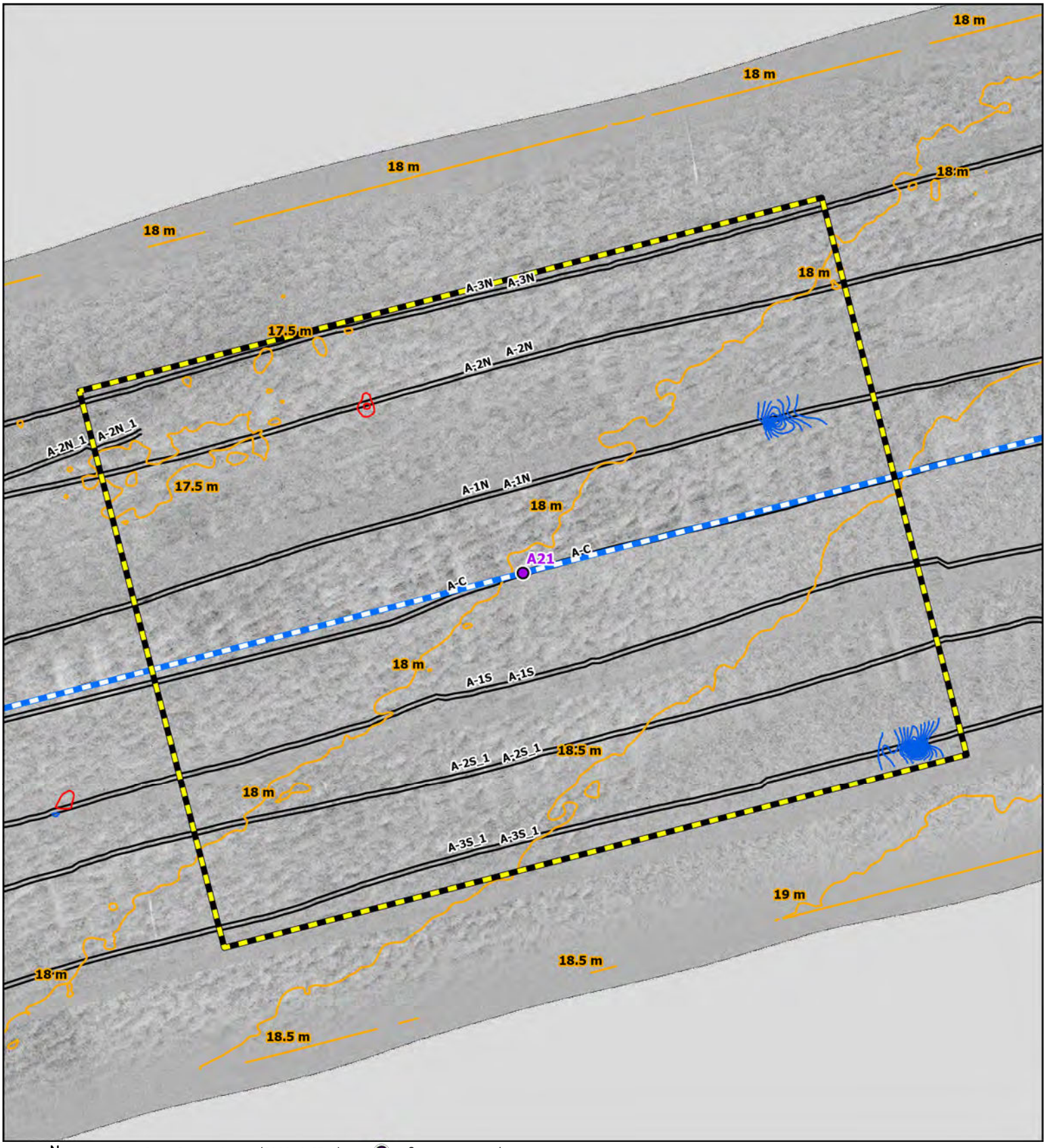
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 20

A20

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

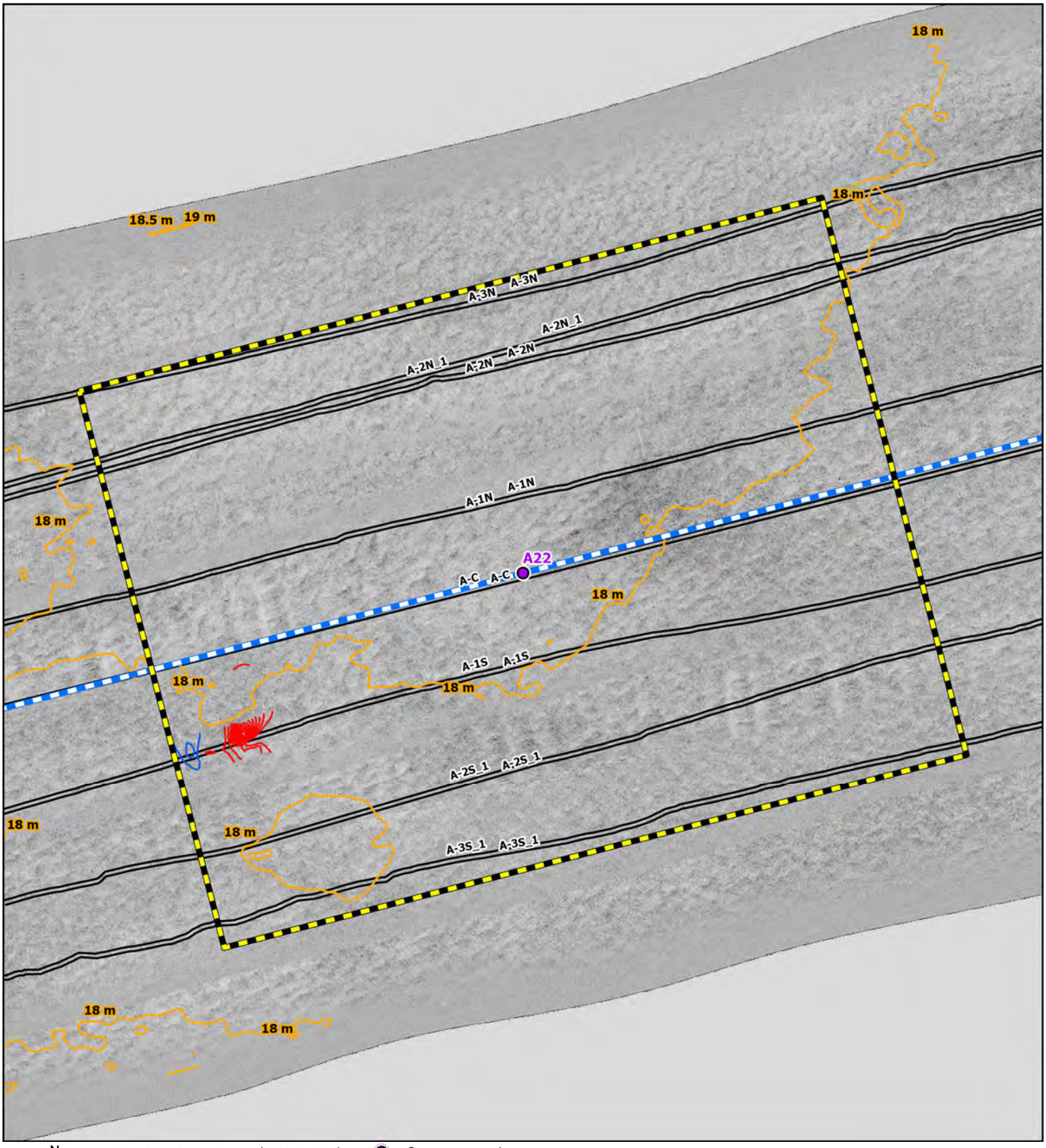
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 21

A21

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 22

A22

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

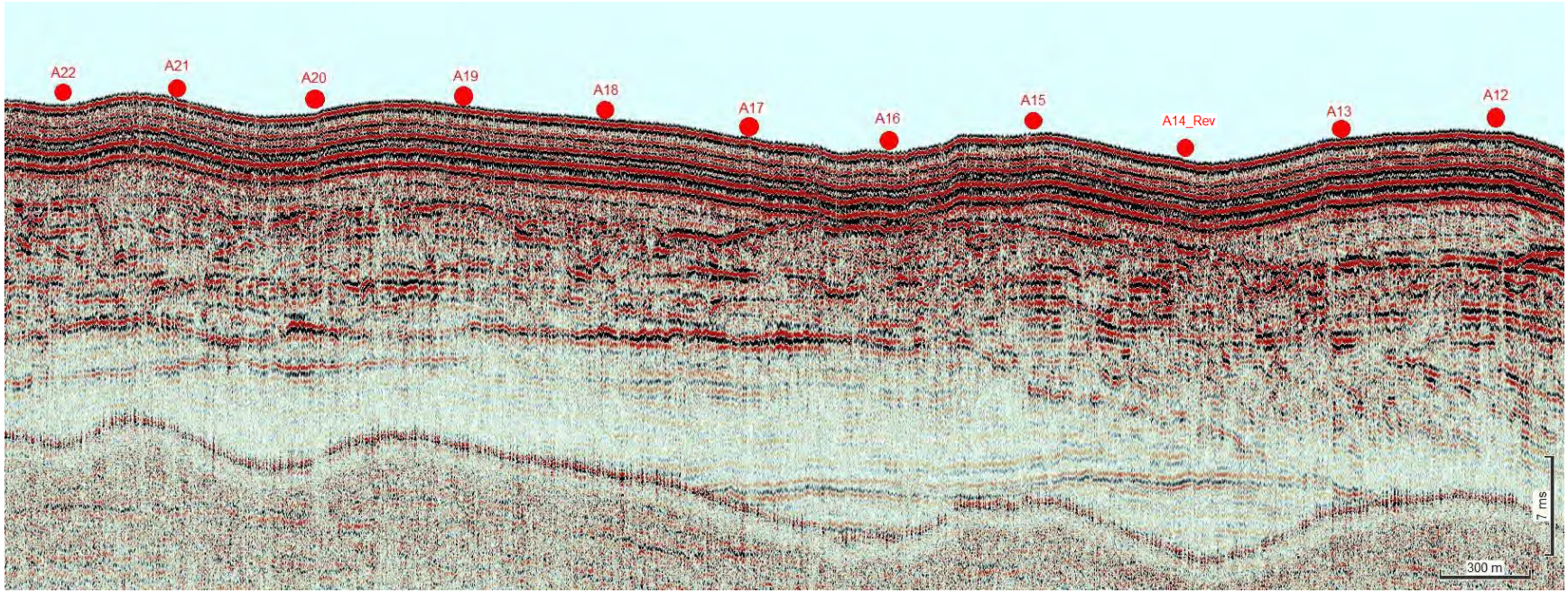


Figure 1: Proposed geotechnical locations A22, A21, A20, A19, A18, A17, A16, A15, A14_Rev, A13, and A12 in Block A along UHRS_201_A-1N_Split1_Proc

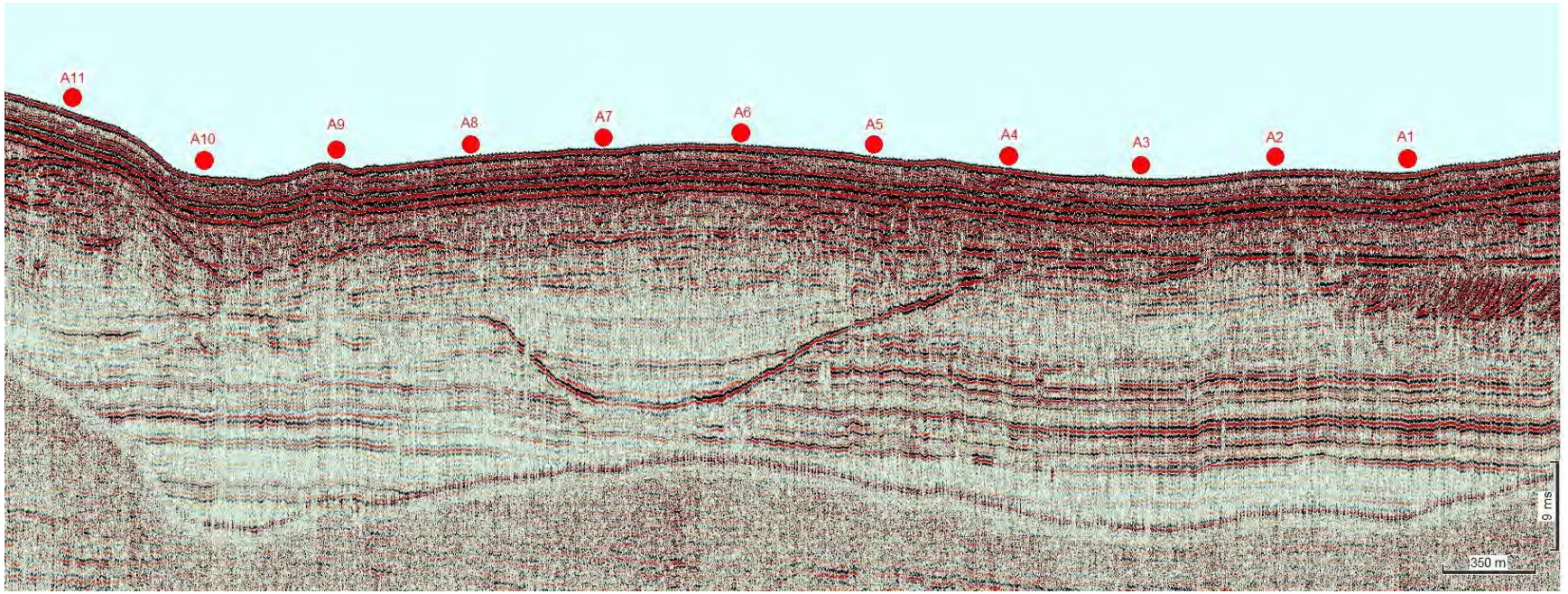


Figure 2: Proposed geotechnical locations A11, A20, A9, A8, A7, A6, A5, A4, A3 A2, and A1 in Block A along UHRS_202_A-2N_Split1_Proc

ECR Block F

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
cultural resource management and preservation planning

July 01, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, ECR Block F

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 11 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 11 proposed geotechnical locations located along the Export Cable Route (ECR). The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that could represent cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). Numerous magnetic anomalies were detected within analytic areas in Block F. One analytic area, F10, was moved approximately 15 meters north, to avoid a potential cultural resource. No other magnetic anomalies that could represent cultural resources were identified within the analytical areas.

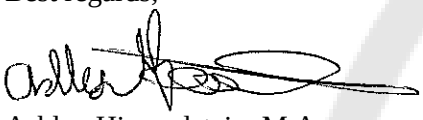
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical

locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



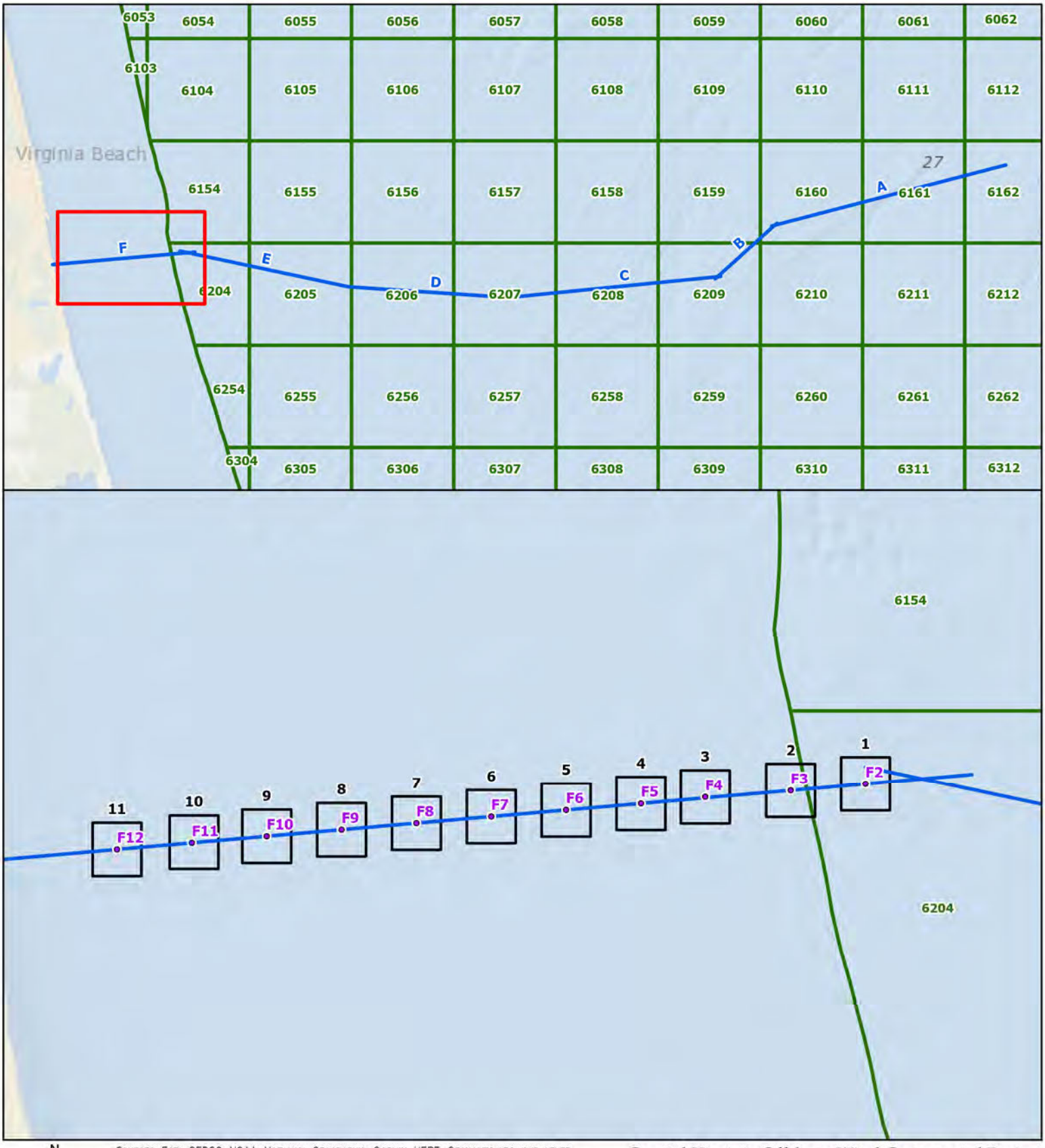
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block F

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
F12	414952.4652	4074274.238	-75.95347555	36.81050165
F11	415450.5427	4074318.042	-75.94789713	36.81094111
F10	415948.6203	4074361.846	-75.94231864	36.81138031
F9	416446.6978	4074405.65	-75.93674009	36.81181925
F8	416944.7754	4074449.453	-75.93116146	36.81225793
F7	417442.8529	4074493.257	-75.92558276	36.81269635
F6	417940.9304	4074537.061	-75.920004	36.81313451
F5	418439.0079	4074580.865	-75.91442516	36.81357241
F4	418937.0854	4074624.669	-75.90884626	36.81401004
F3	419435.163	4074668.473	-75.90326728	36.81444742
F2	419933.2405	4074712.277	-75.89768824	36.81488453

[1] Core ID may not be sequential.
[2] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES
MAPS FOR BLOCK F



N
W E
S
Grid North

Sources: Esri, GEBCO, NOAA, National Geographic, Garmin, HERE, Geonames.org, and other contributors, Esri, Garmin, GEBCO, NOAA NGDC, and other contributors

MSR: 1:34,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.25 0.5 0.75 1 Miles

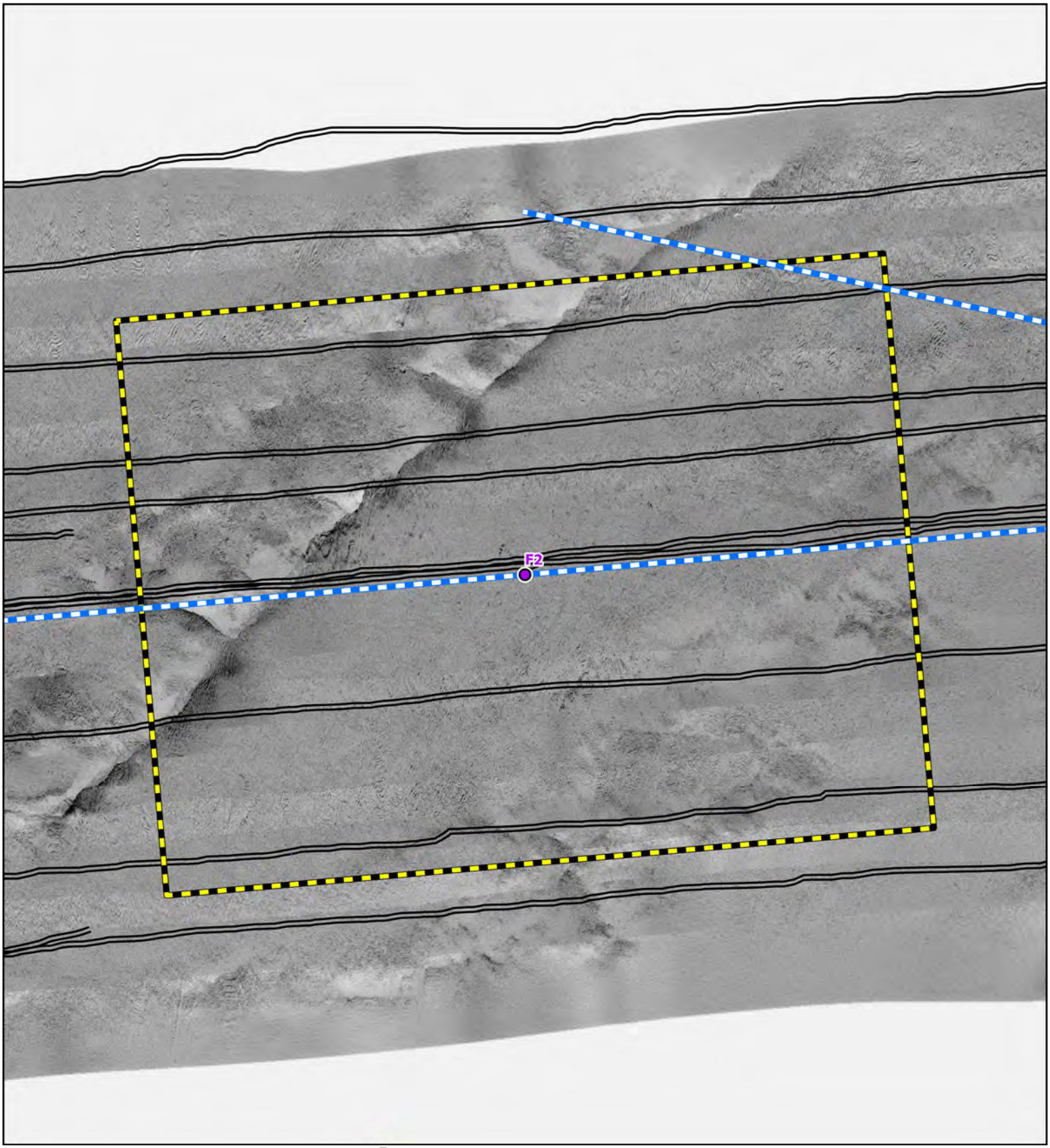
0 0.25 0.5 0.75 1 Kilometers

- Geotechnical Location
- ECR Centerline
- Map Sheet Extent
- BOEM Lease Block

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Index Map

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

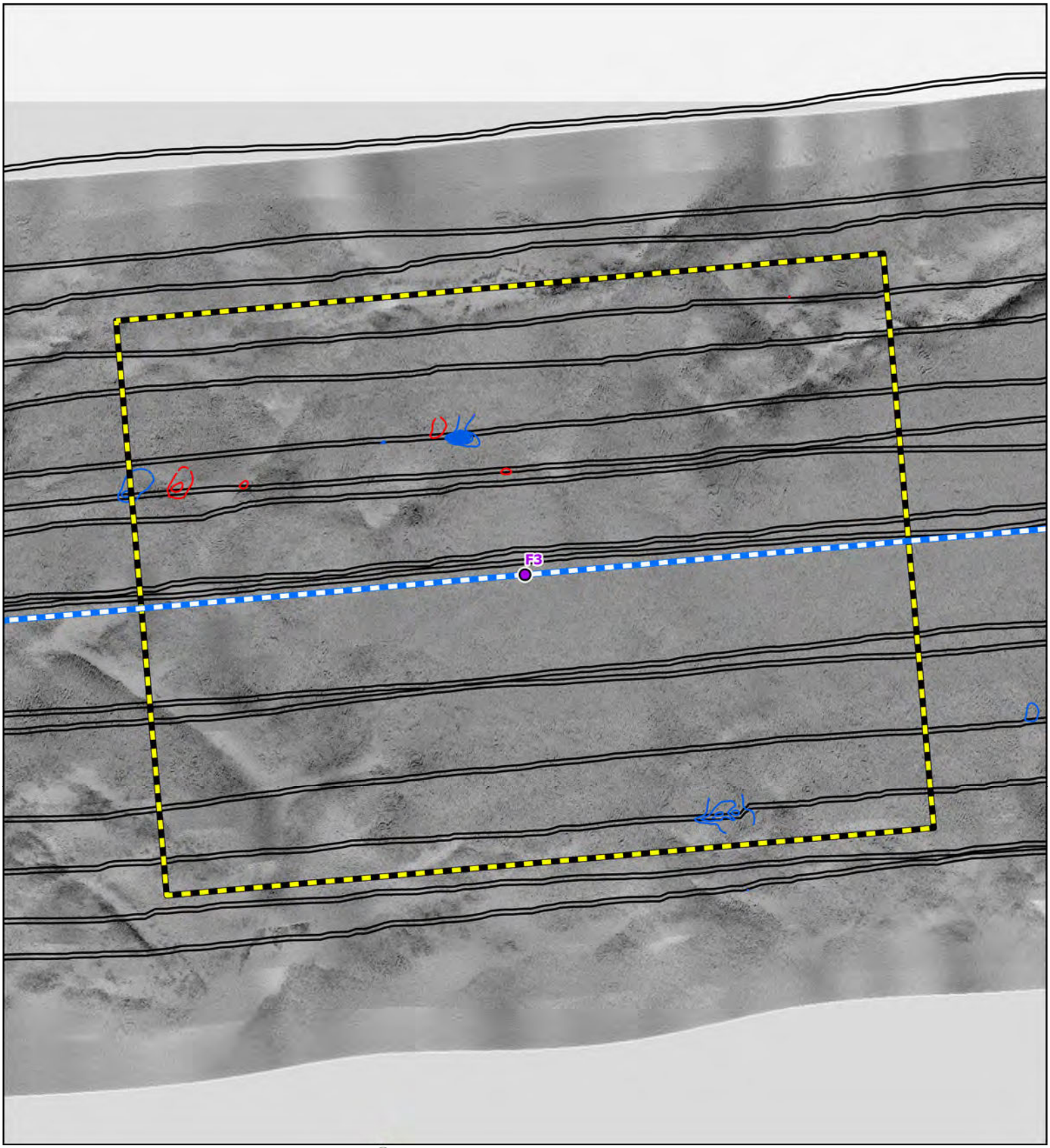
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 1

F2

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

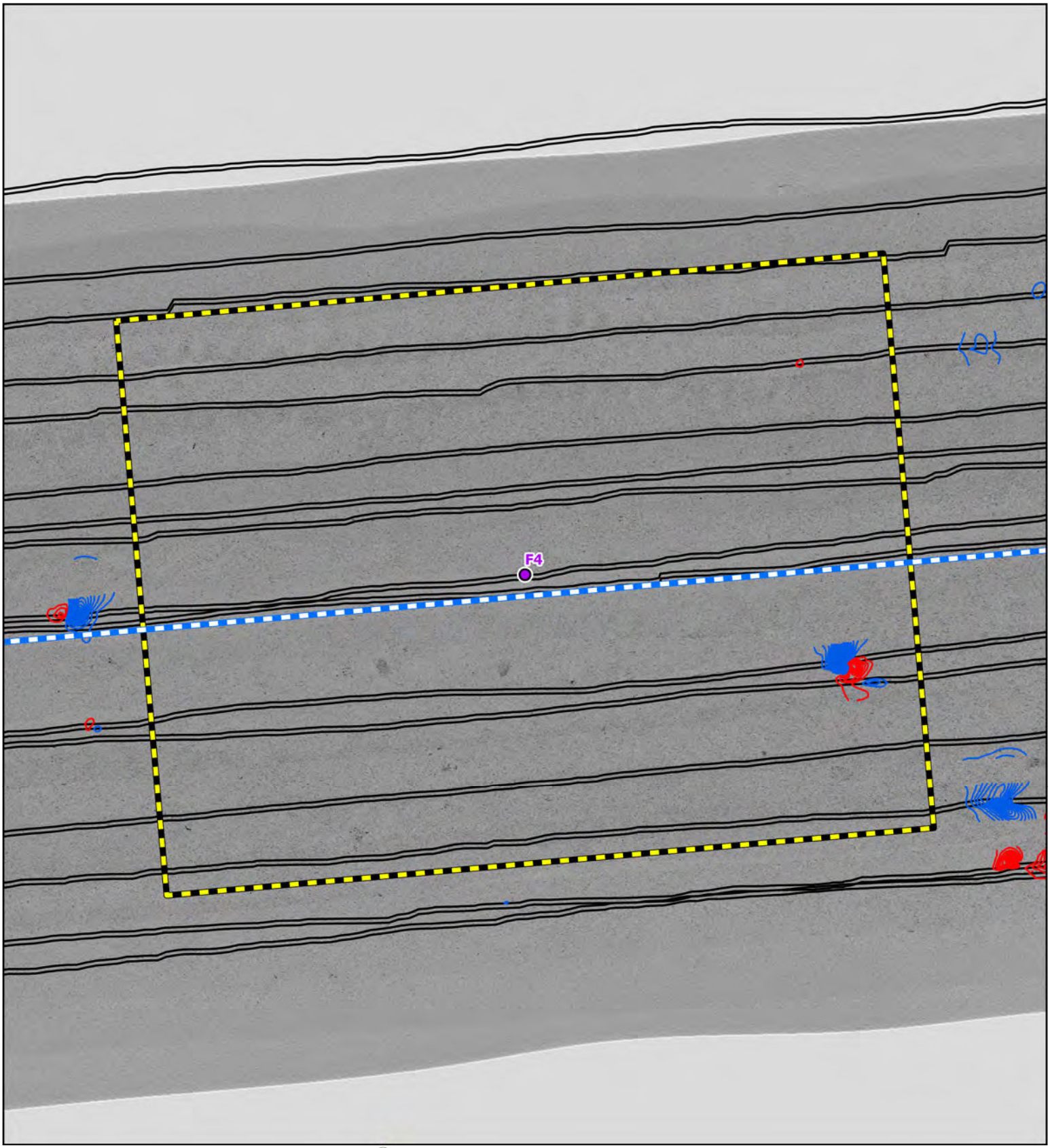
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 2

F3

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

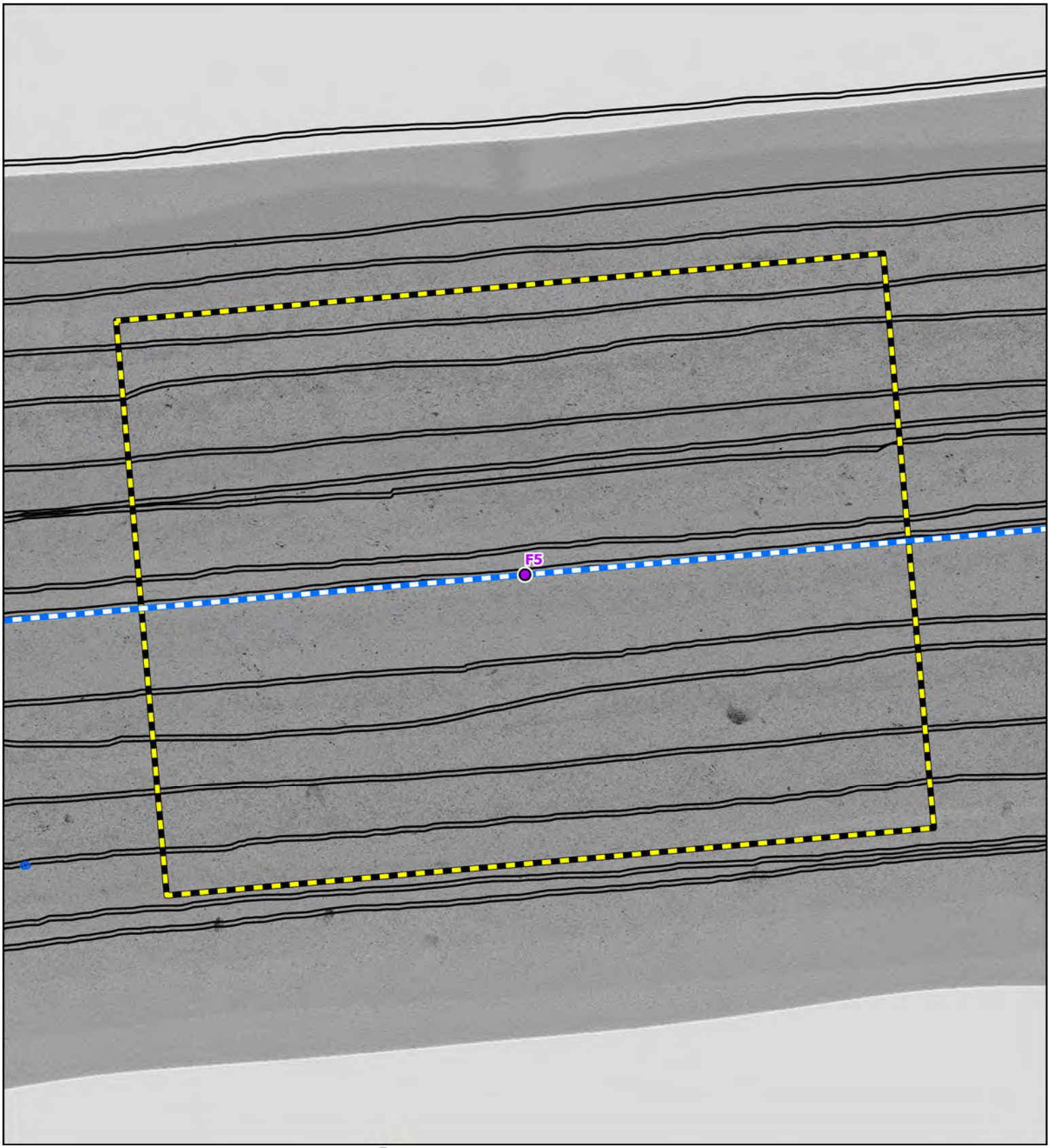
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 3

F4

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

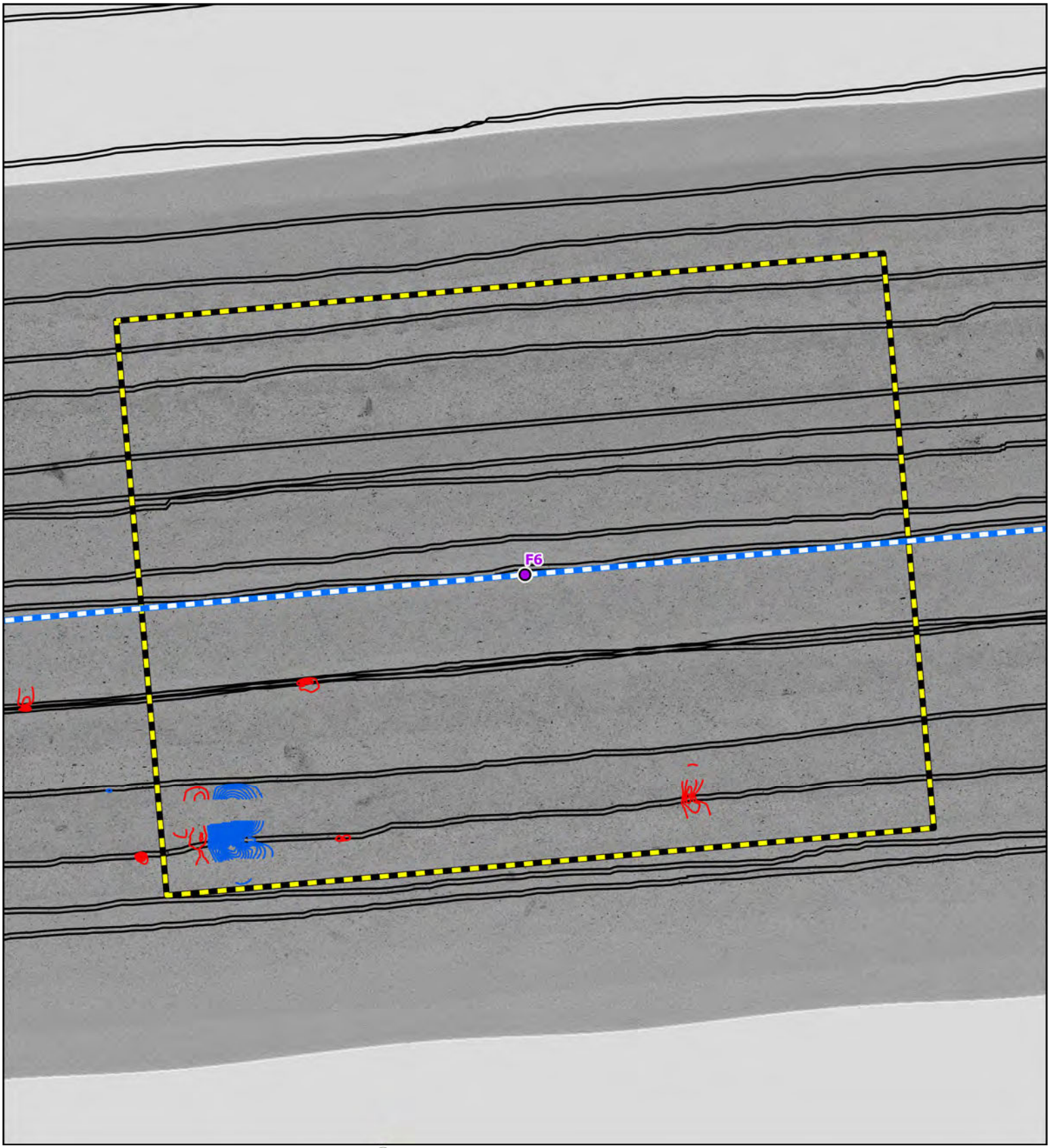
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 4

F5

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

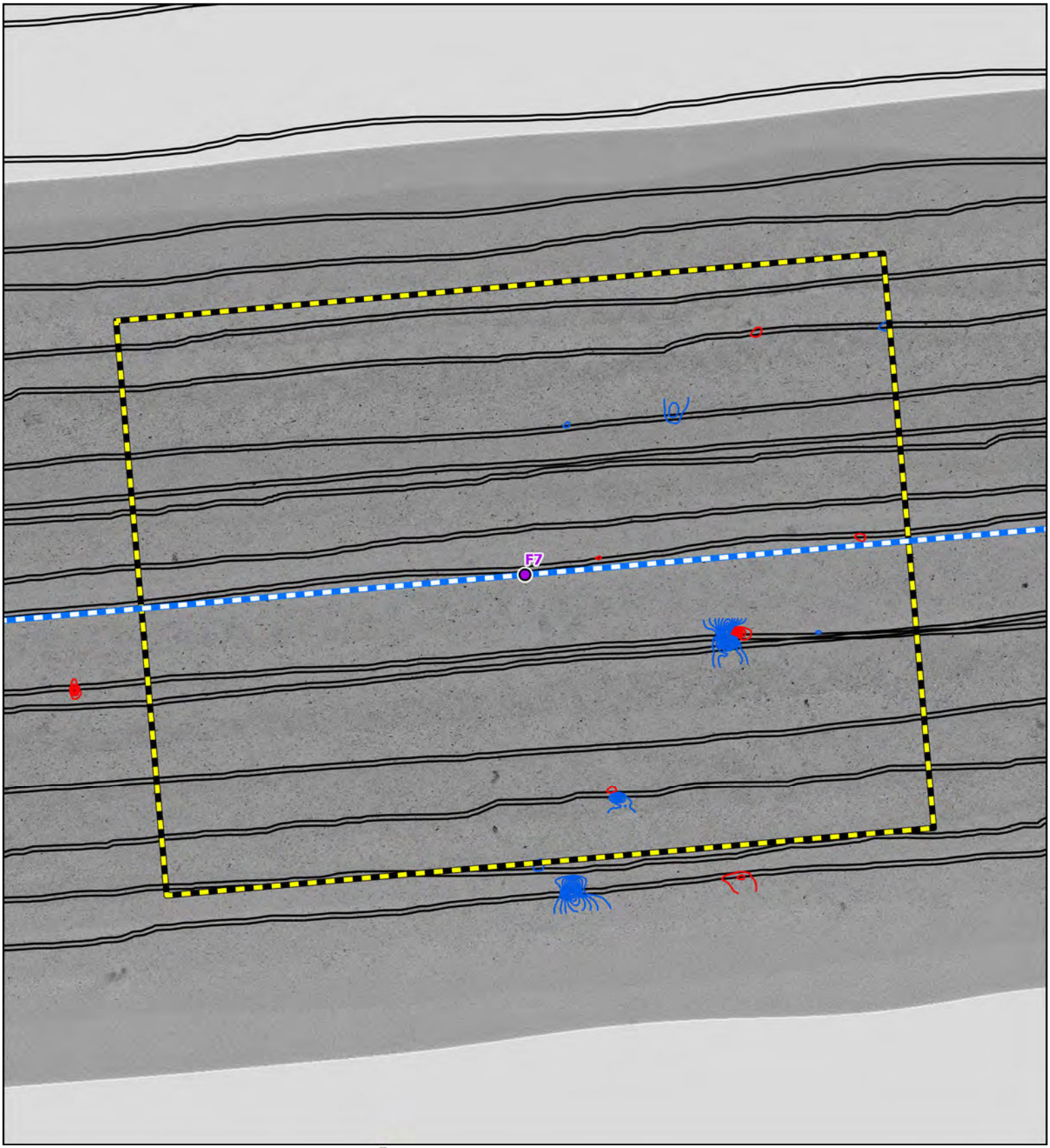
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 5

F6

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

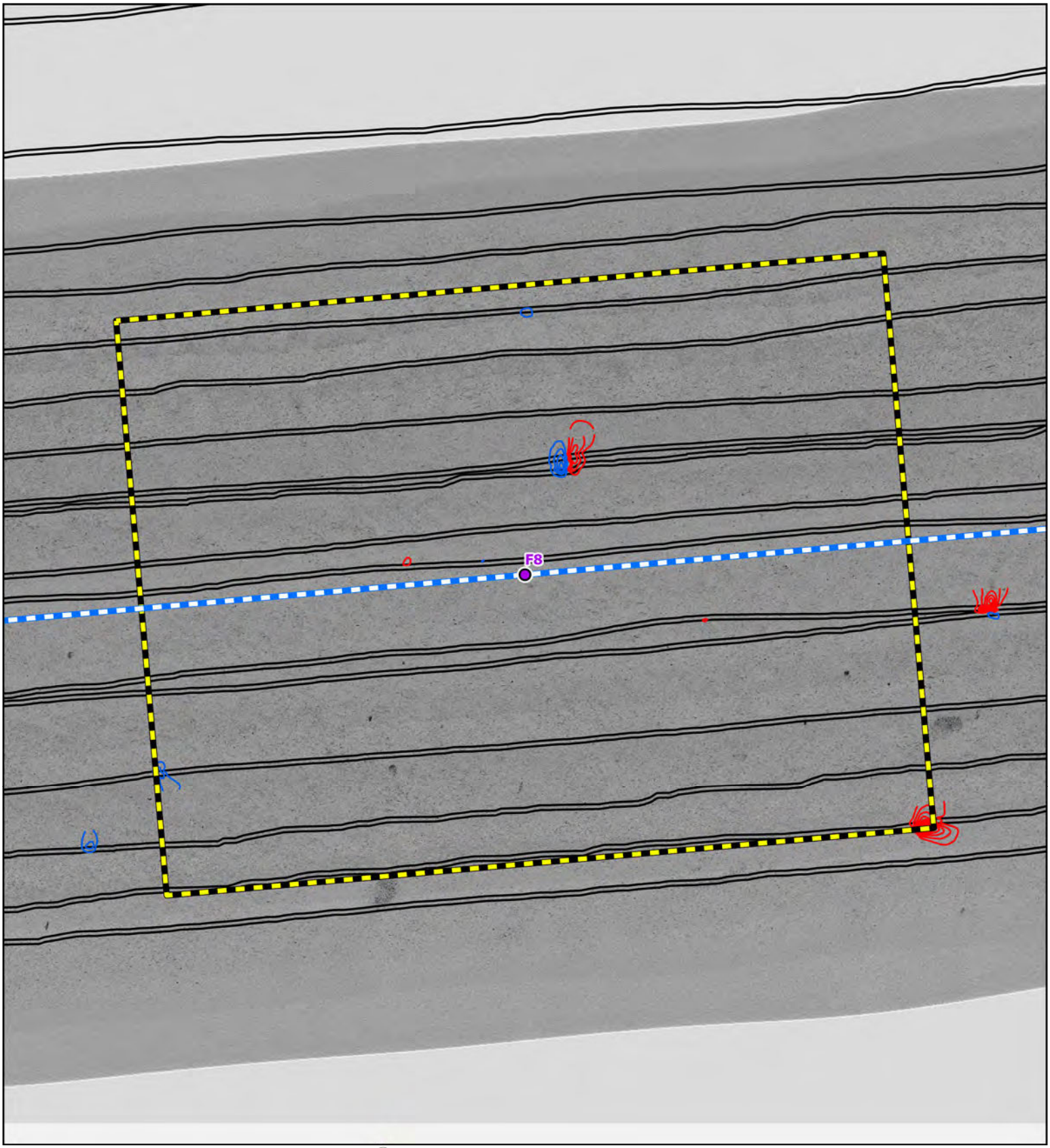
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 6

F7

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

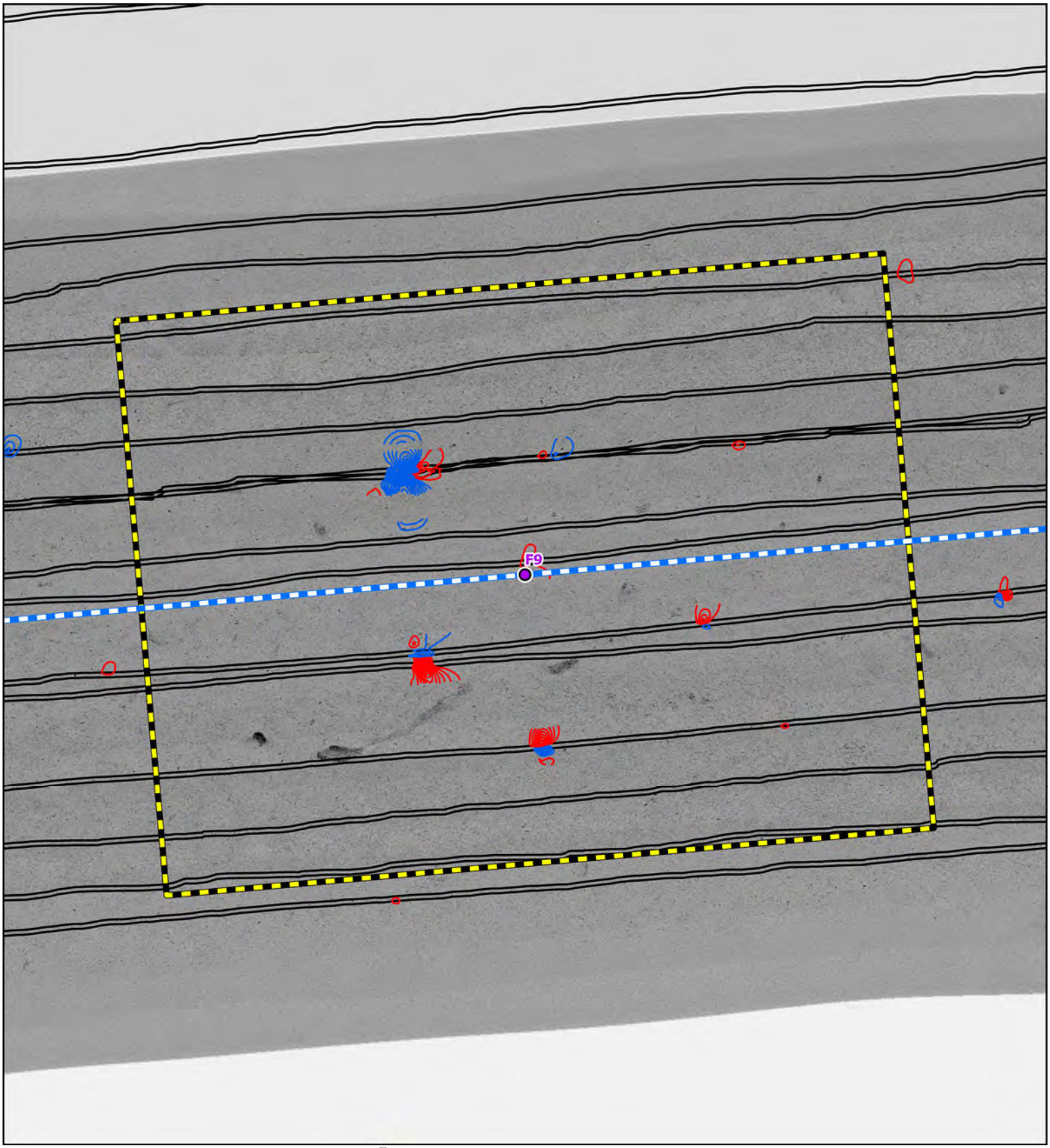
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 7

F8

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location
ECR Centerline
Trackline

Magnetic Contours (5 nT)
Negative
Positive

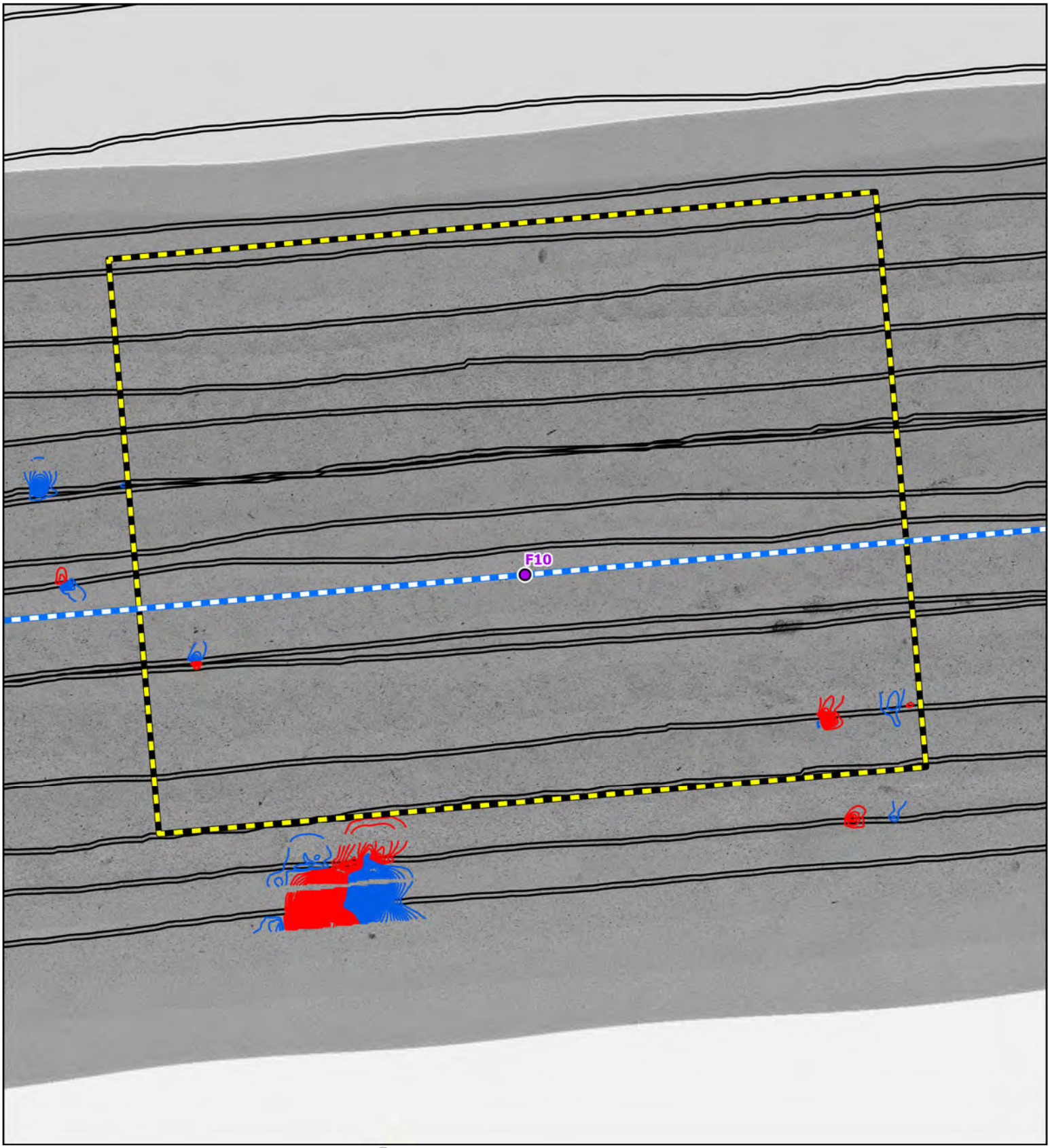
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 8

F9

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

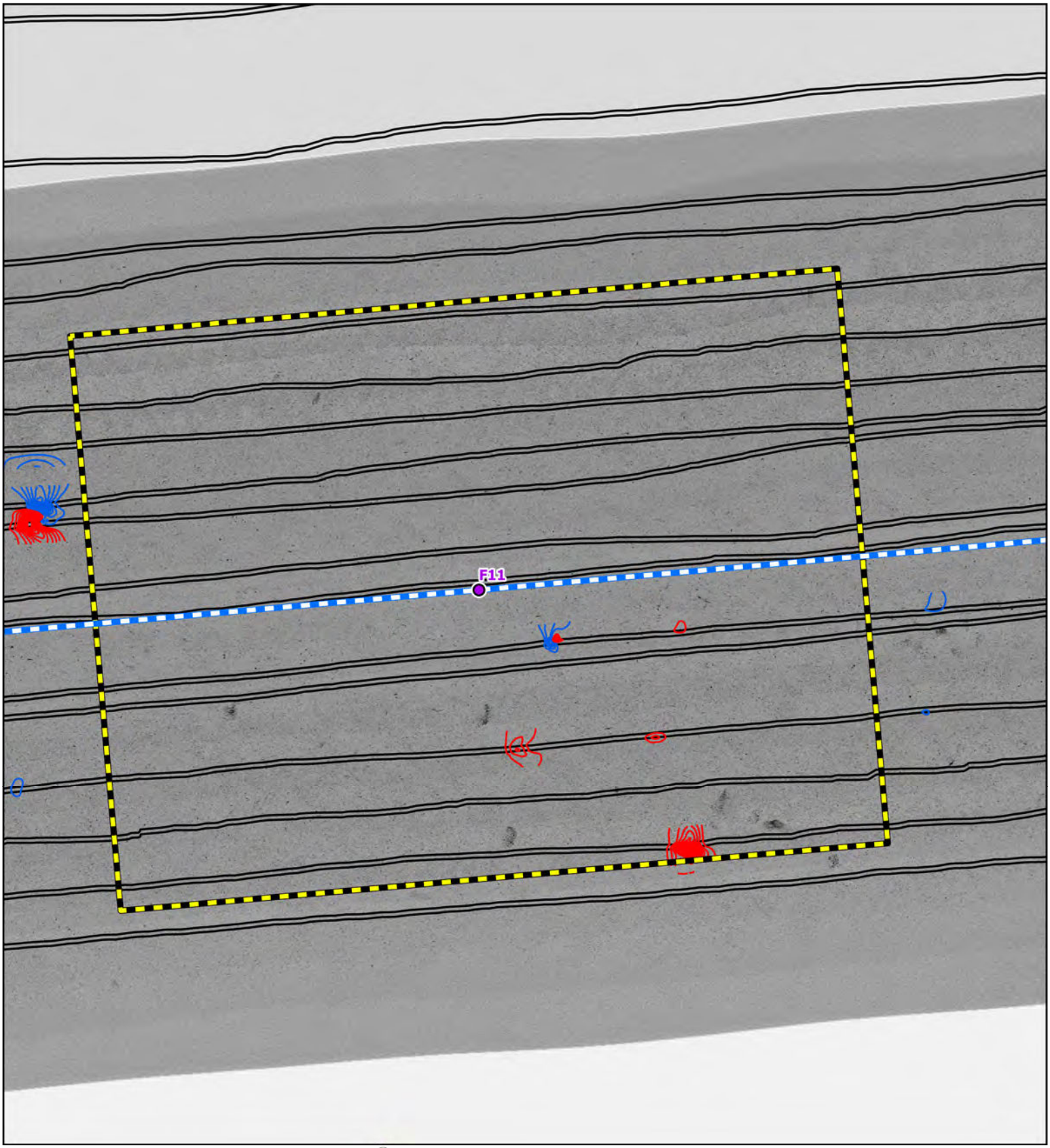
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 9

F10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

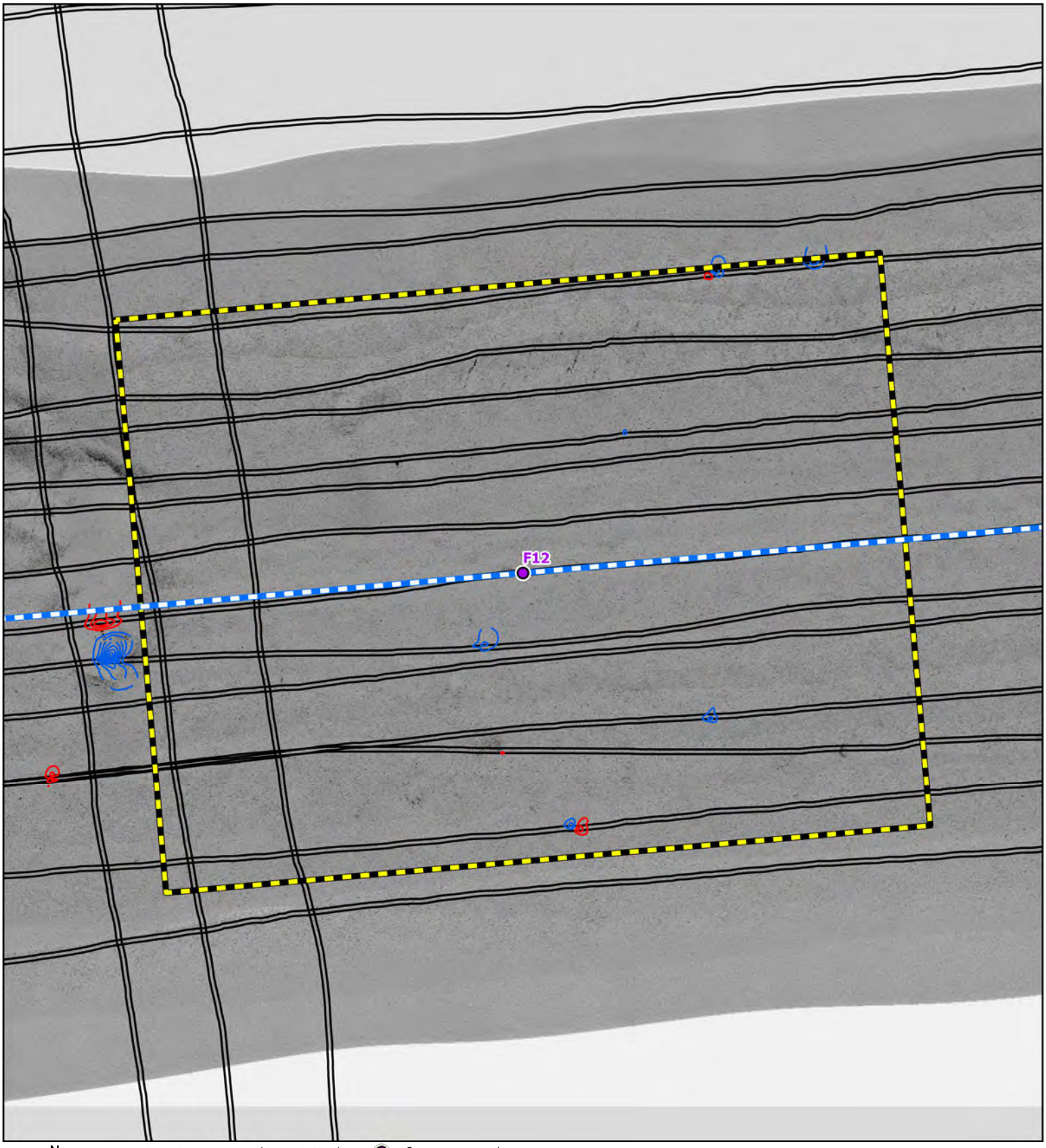
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block F

Map: 10

F11

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block F

Map: 11

F12

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

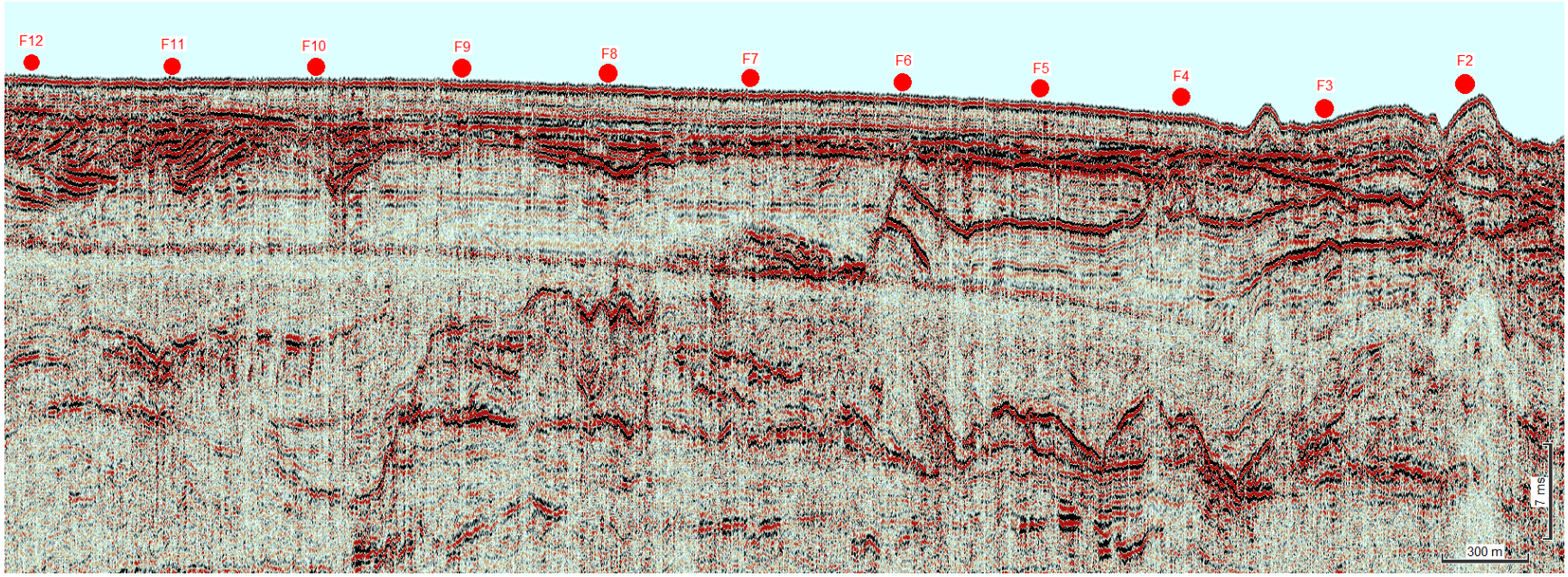


Figure 1: Proposed geotechnical locations F12, F11, F10, F9, F8, F7, F6, F5, F4, F3, and F2 in Block F along line UHRS_124_F-C_Proc

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

July 6, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 1, 19 and 25

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridors 1, 19 and 25 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech
Tom McNeilan, McNeilan and Assoc.

July 02, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 1, Corridor 19, and Corridor 25

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews 14 of these locations for gathering geologic information (Tables 1, 2, and 3). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 14 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendices 1, 2, and 3). No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendices 1, 2, and 3). No magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

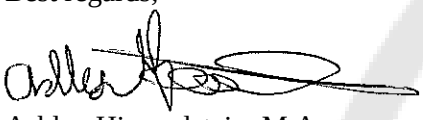
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 4). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1, 2, and 3; Appendices 1, 2, 3, and 4). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1, 2, and 3), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 1

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-10-1	456934.1448	4090730.169	-75.48377354	36.96168231
WTG-11-1	458151.1446	4092442.169	-75.47019794	36.97716948
WTG-12-1	459367.1444	4094153.168	-75.45662805	36.99264604

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed WTG geotechnical locations for Corridor 19

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-10	470934.1415	4075324.172	-75.32591917	36.82334232
WTG-2-11	472150.1412	4077036.171	-75.31234699	36.83881183
WTG-3-12	473367.141	4078748.171	-75.29875815	36.85427979
WTG-4-13	474583.1408	4080459.171	-75.28517502	36.86973715
WTG-5-14	475800.1406	4082171.17	-75.27157523	36.88520198
WTG-6-15	477016.1404	4083883.17	-75.2579812	36.90066521
WTG-7-16	478233.1401	4085595.17	-75.24437046	36.91612688
WTG-8-17	479449.1399	4087306.169	-75.23076544	36.93157794
Spare WTG-9-18	480666.1397	4089018.169	-75.21714373	36.94703646

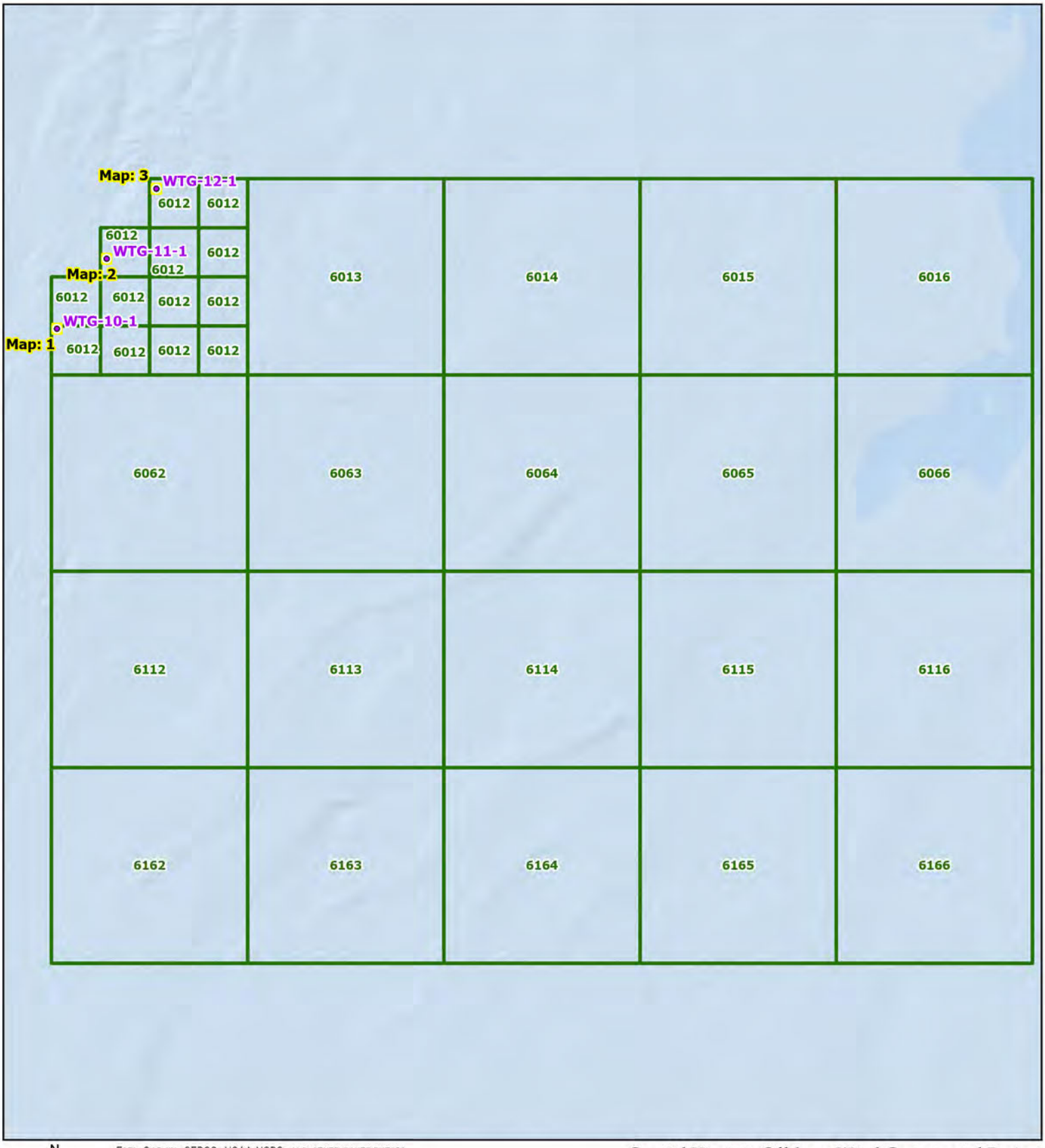
[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3. Proposed WTG geotechnical locations for Corridor 25

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-16	479250.1397	4075324.172	-75.23267209	36.82356134
WTG-2-17	480466.1395	4077036.171	-75.21908104	36.83902027

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 1



N
W E
S
GRID NORTH

ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

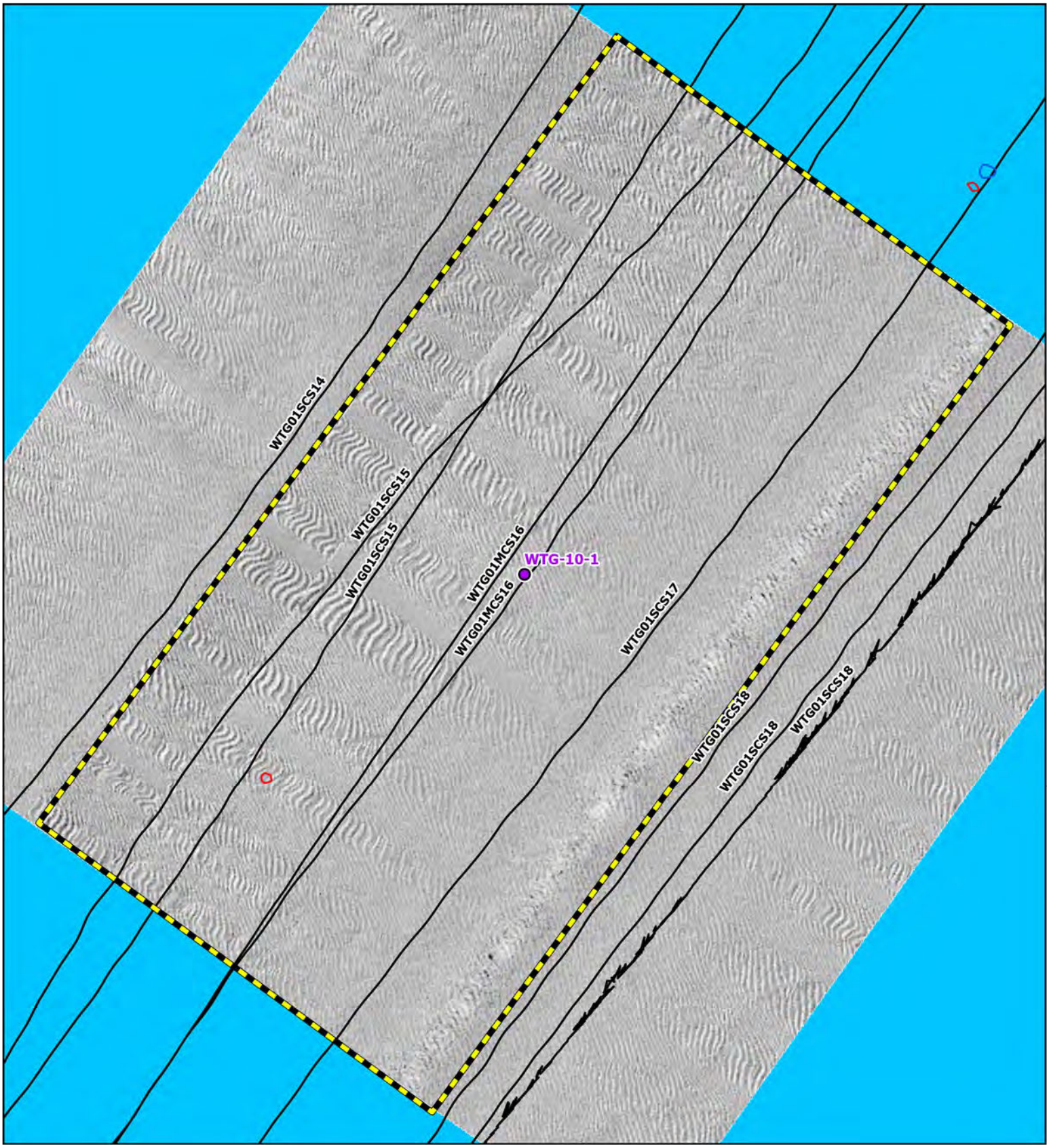
0 0.5 1 1.5 2 MILES
0 1 2 3 4 KILOMETERS

GEOTECHNICAL LOCATION
MAP SHEET EXTENT
LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 01

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

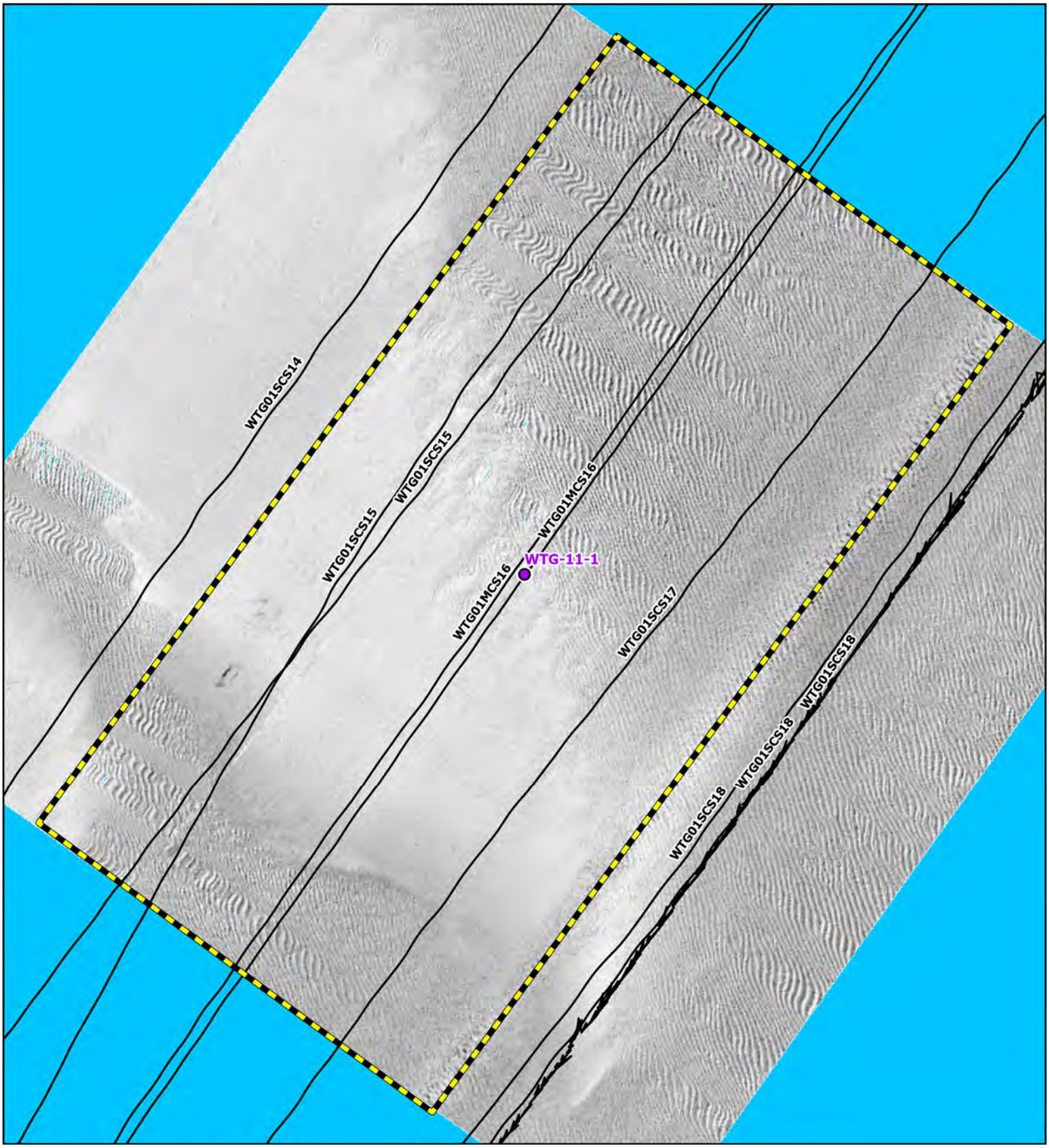
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 01

Map: 1

WTG-10-1

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

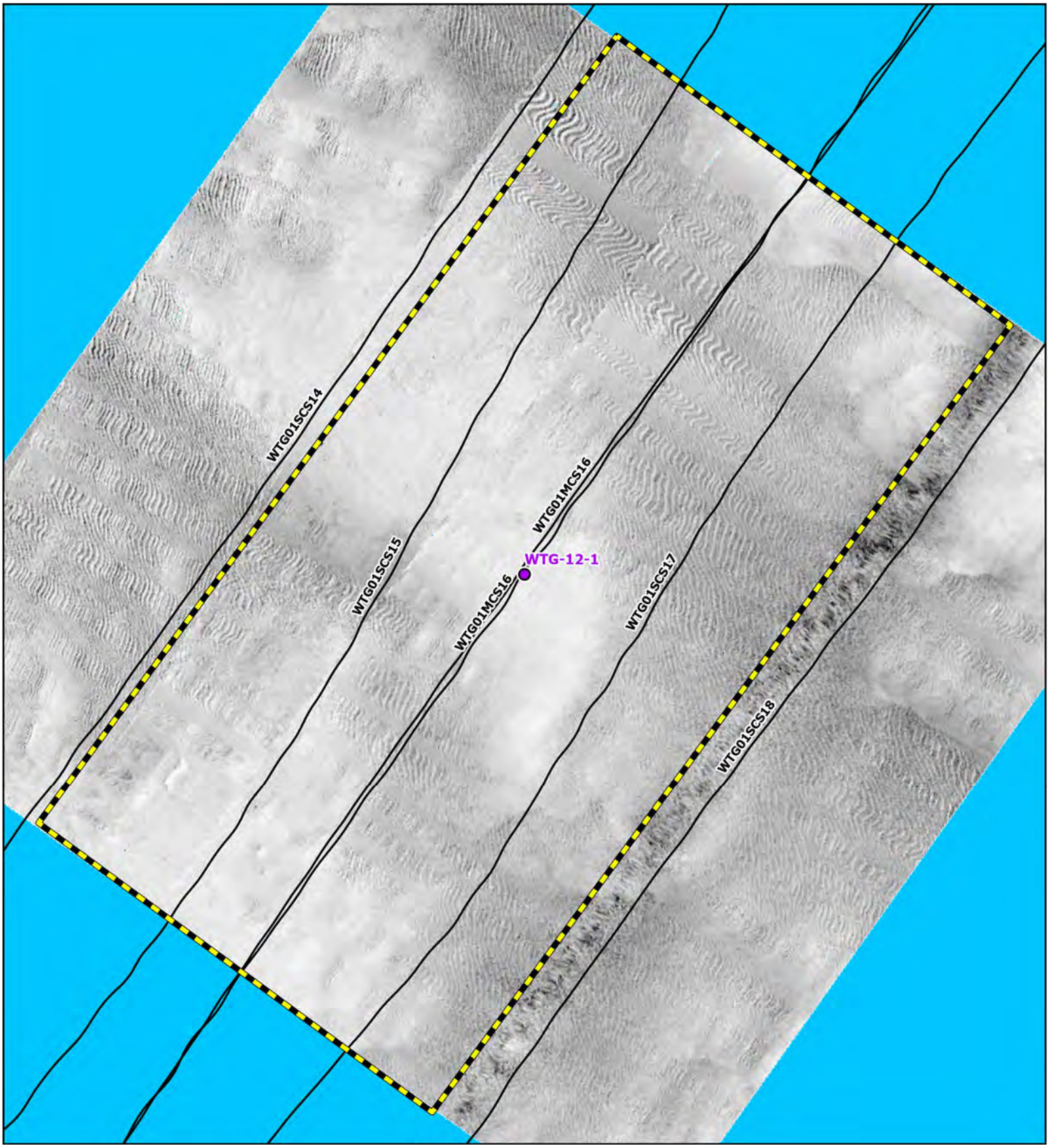
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 01

Map: 2

WTG-11-1

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 01

Map: 3

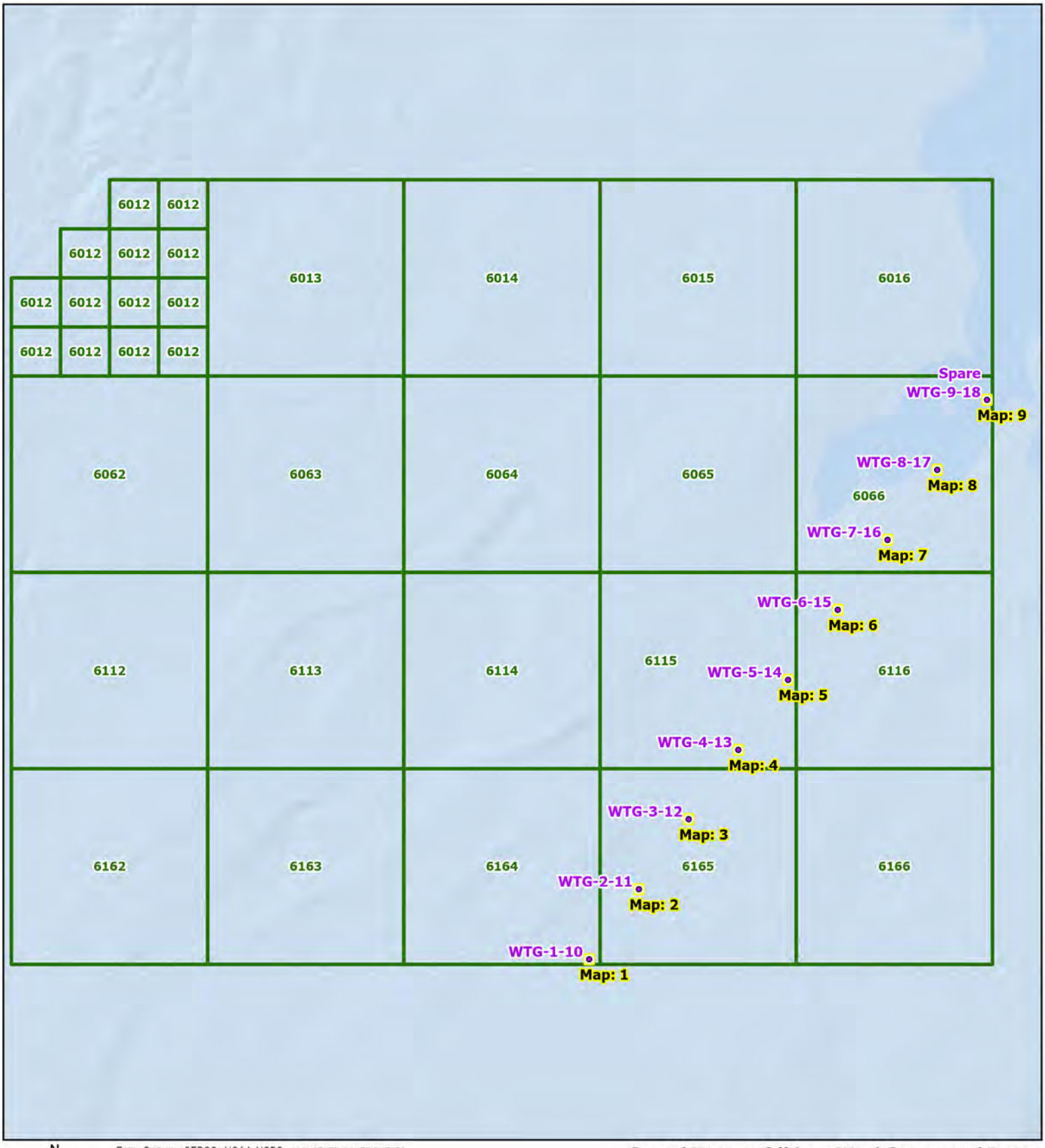
WTG-12-1

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 19



N
W E
S
GRID NORTH

ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

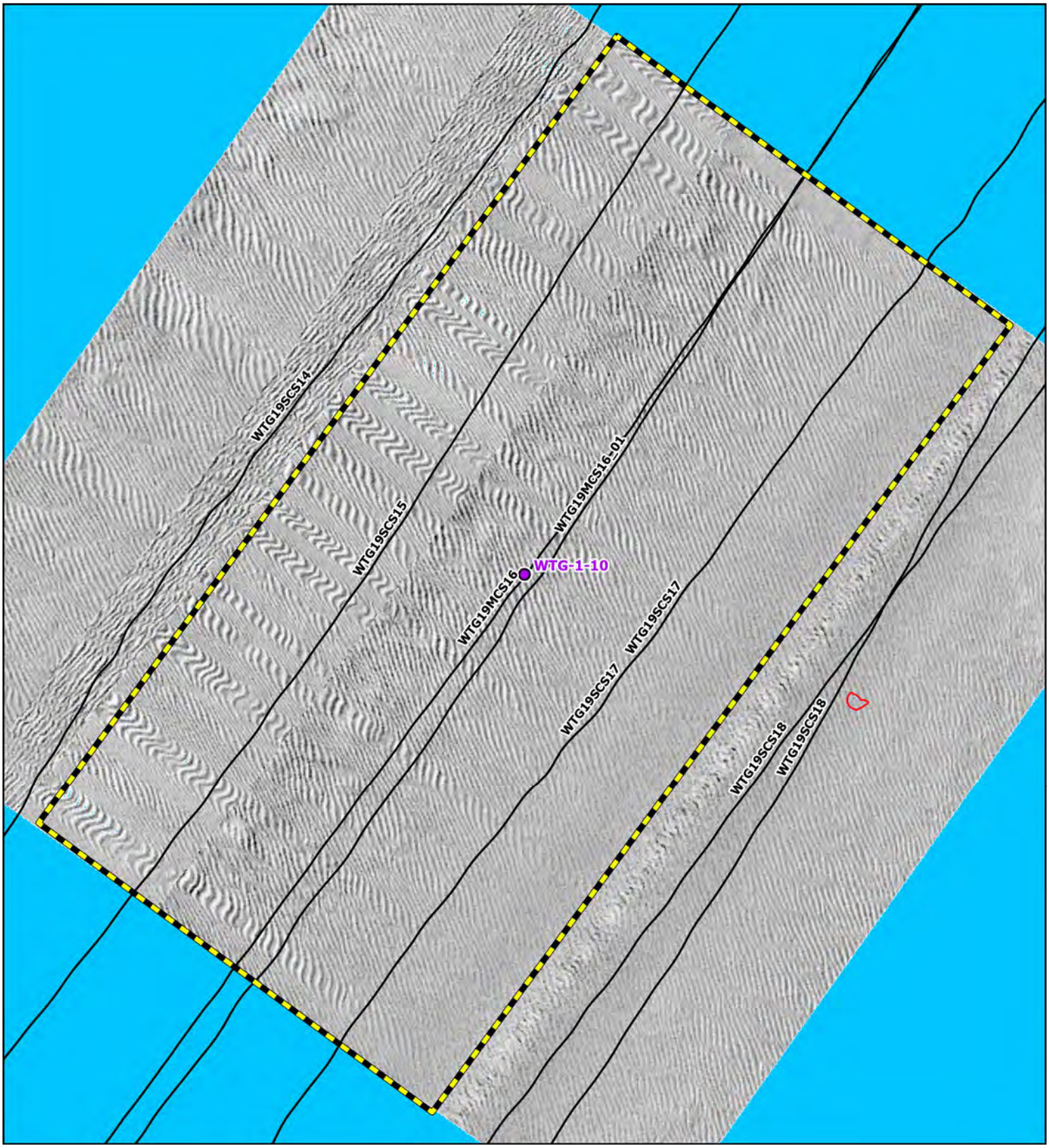
0 0.5 1 1.5 2 MILES
0 1 2 3 4 KILOMETERS

GEOTECHNICAL LOCATION
MAP SHEET EXTENT

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 19

Index Map

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MARINE ARCHAEOLOGY FROM STEM TO STERN
WWW.RCGOODWIN.COM | KMAY, 7.2.2020



N
W E
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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 19

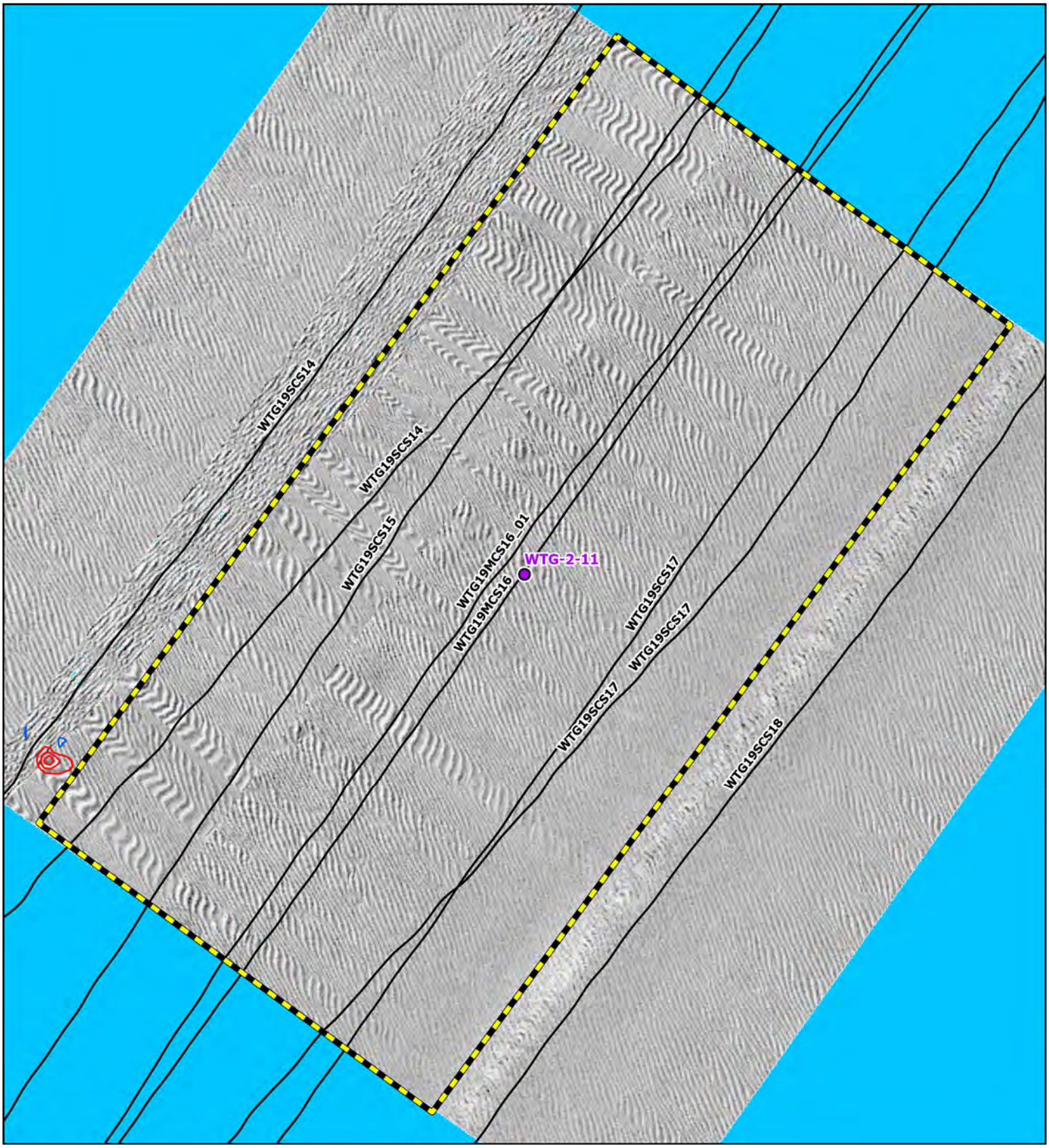
Map: 1

WTG-1-10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 19

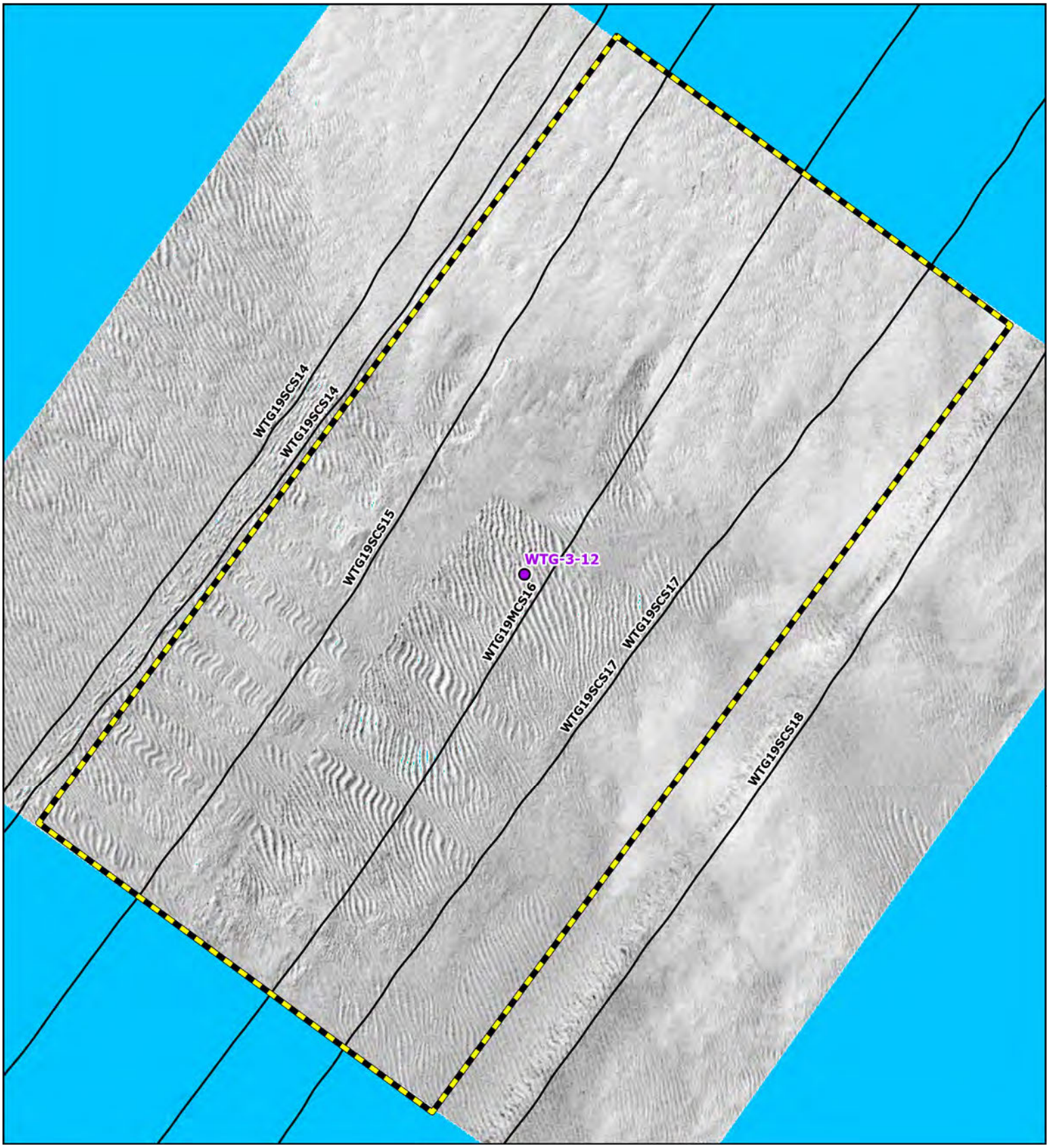
Map: 2

WTG-2-11

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 19

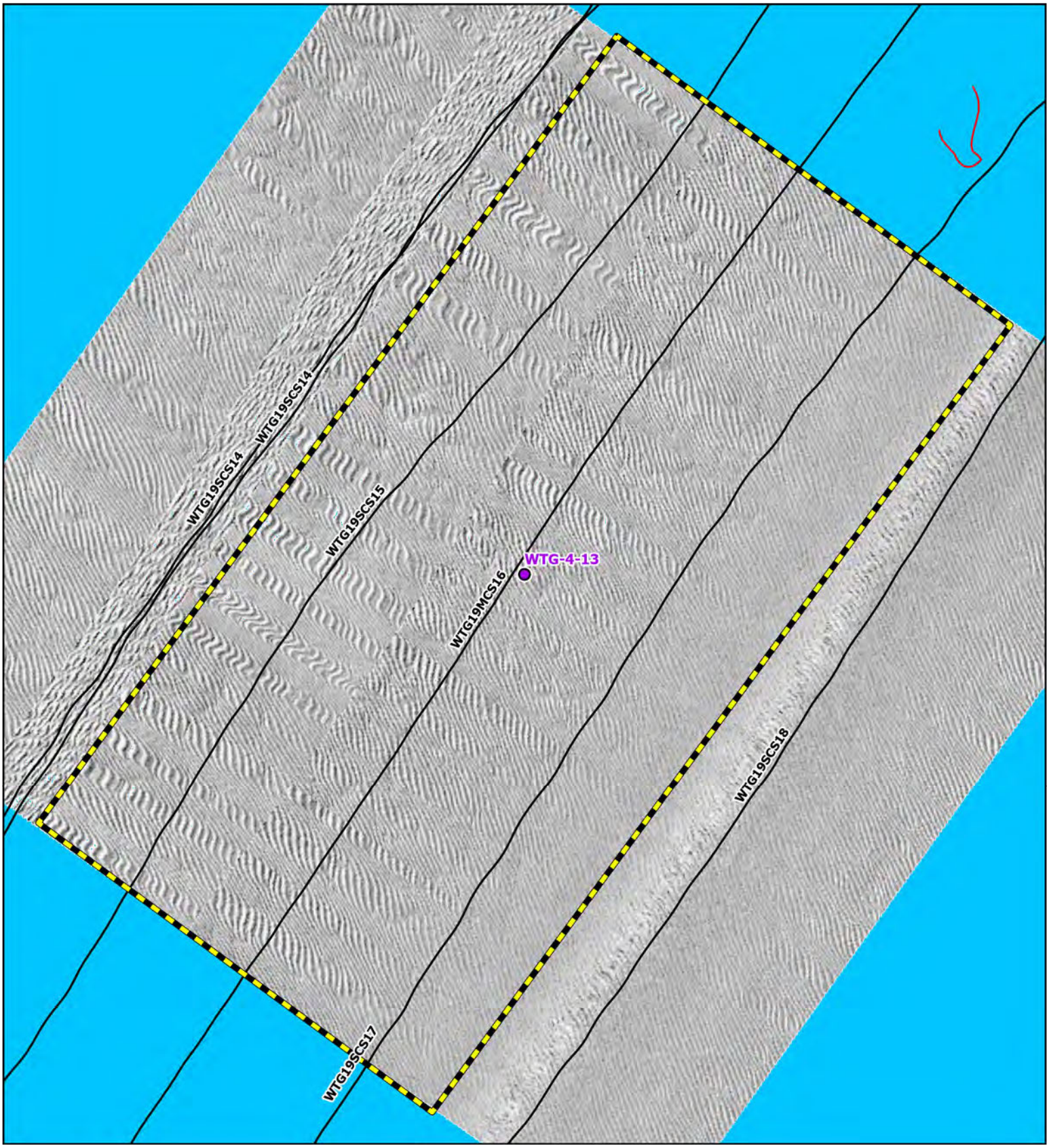
Map: 3

WTG-3-12

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 19

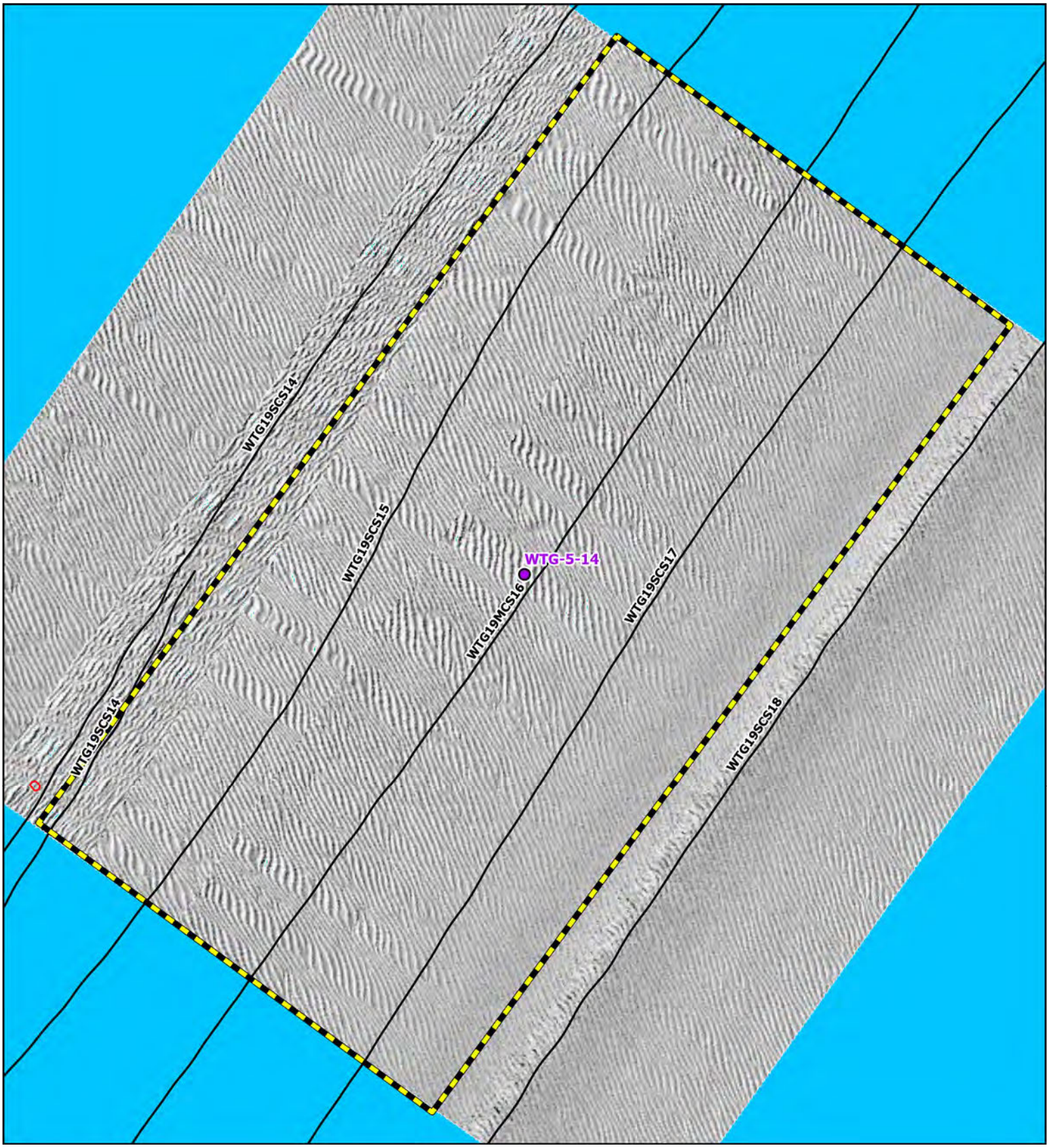
Map: 4

WTG-4-13

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

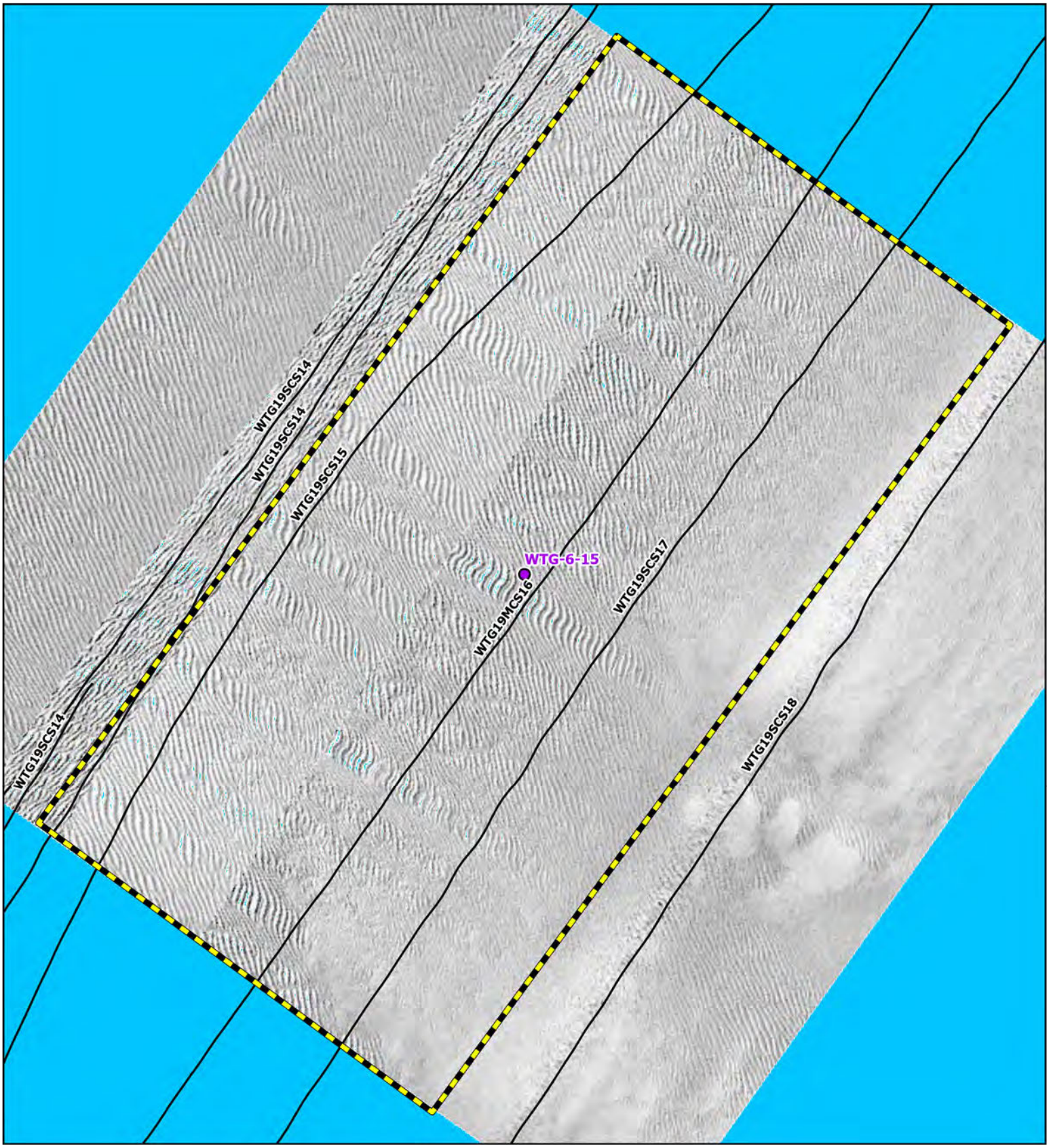
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 19

Map: 5

WTG-5-14

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

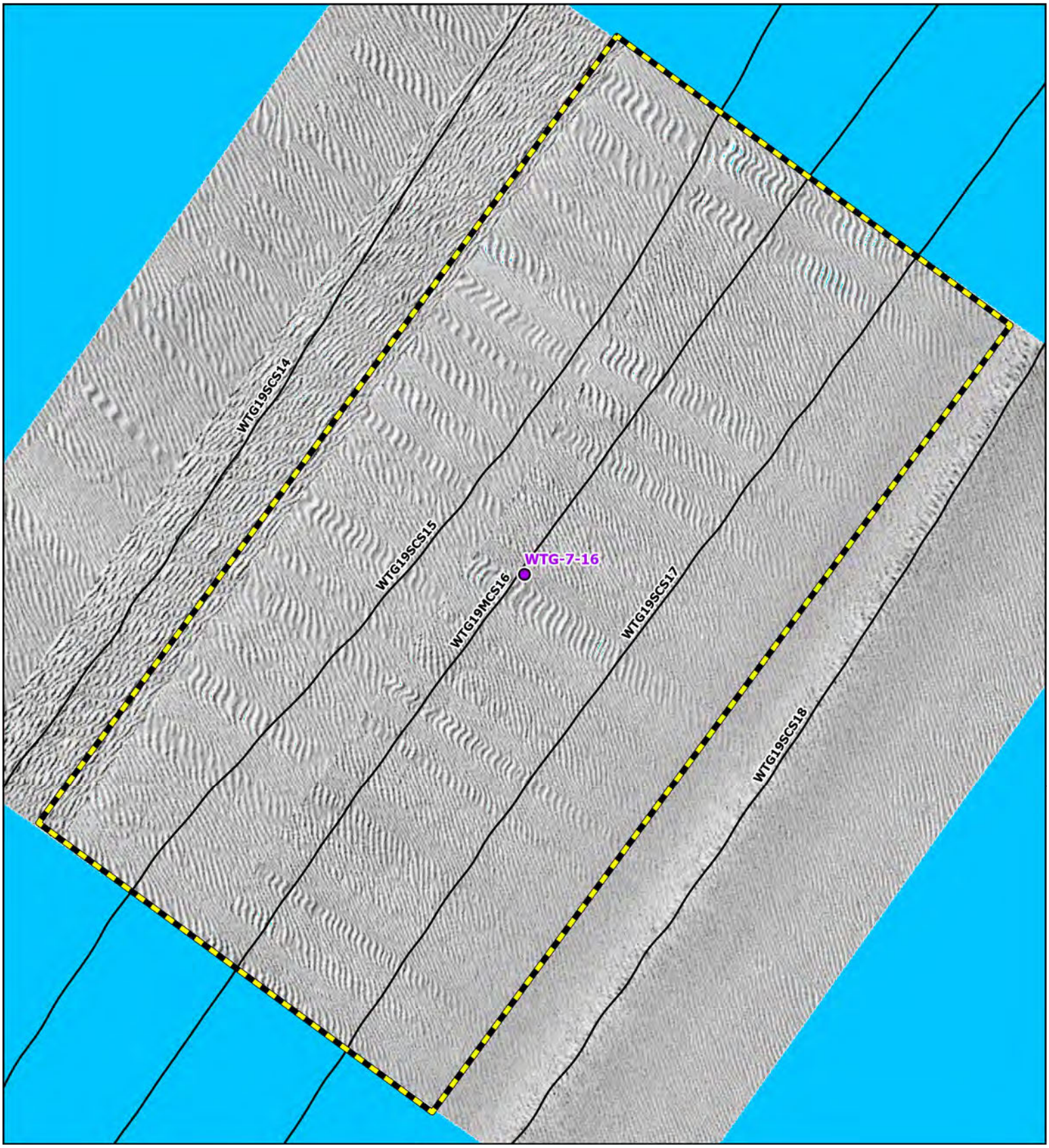
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 19

Map: 6

WTG-6-15

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

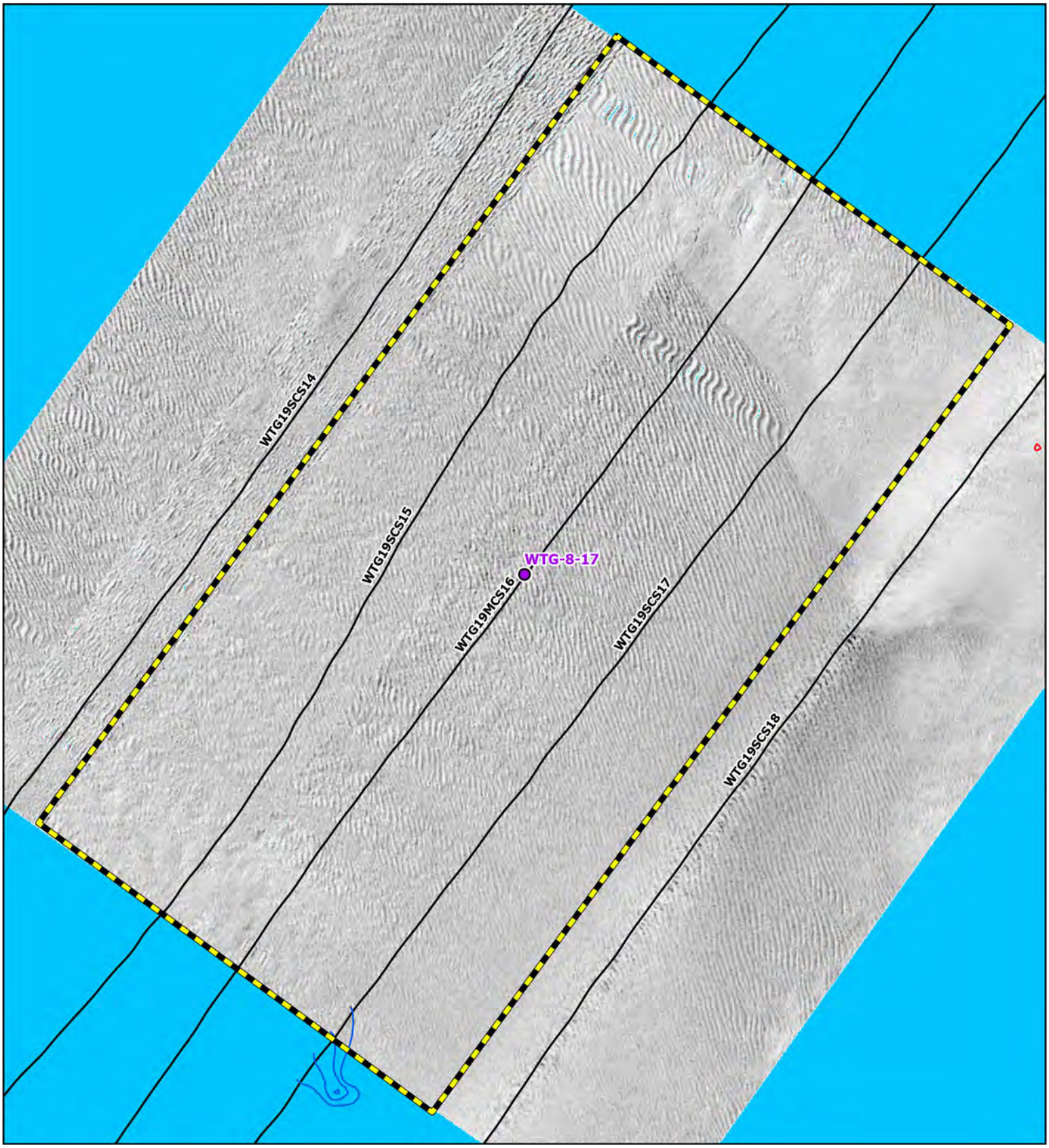
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 19

Map: 7

WTG-7-16

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

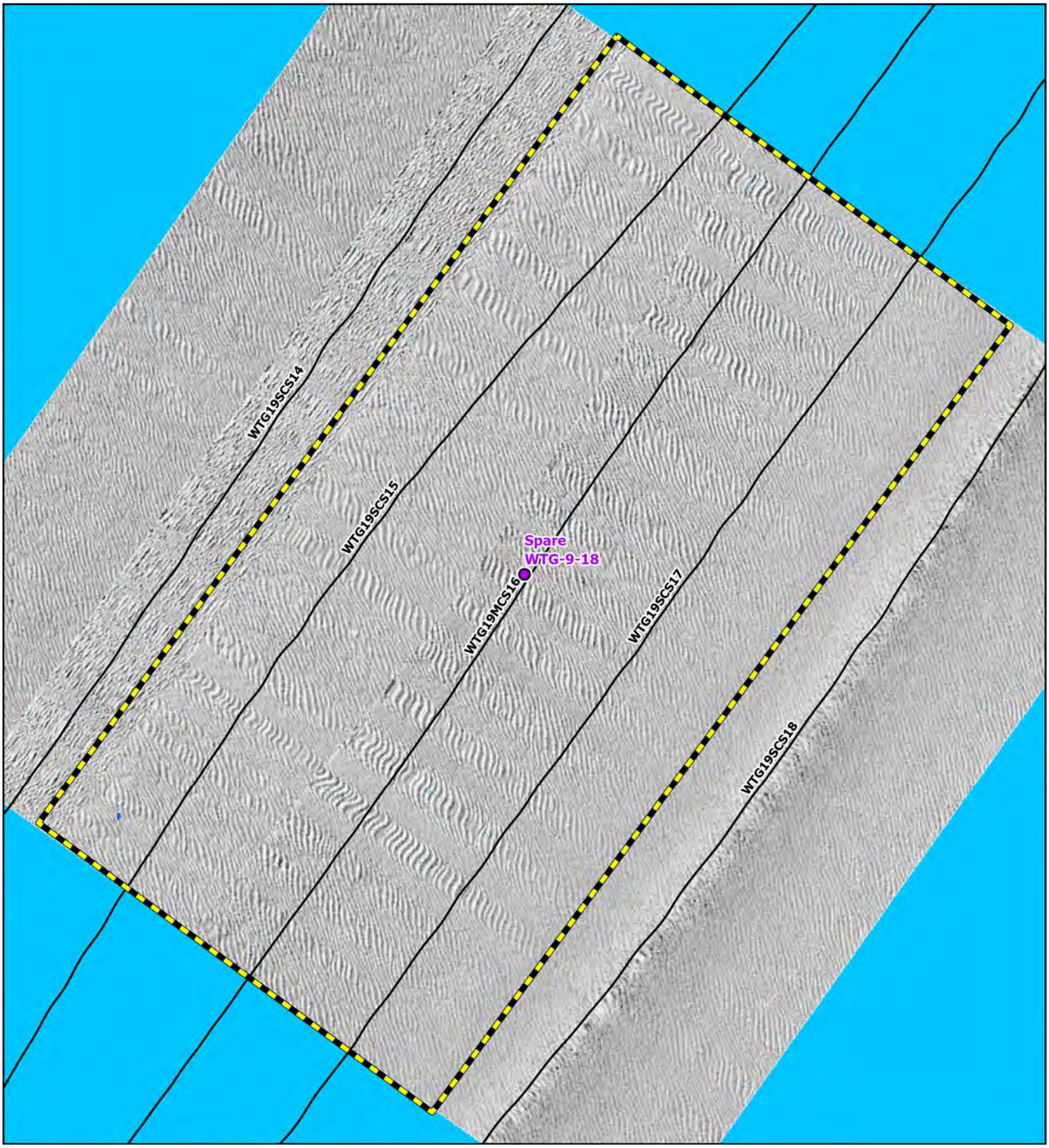
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 19

Map: 8

WTG-8-17

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 19

Map: 9

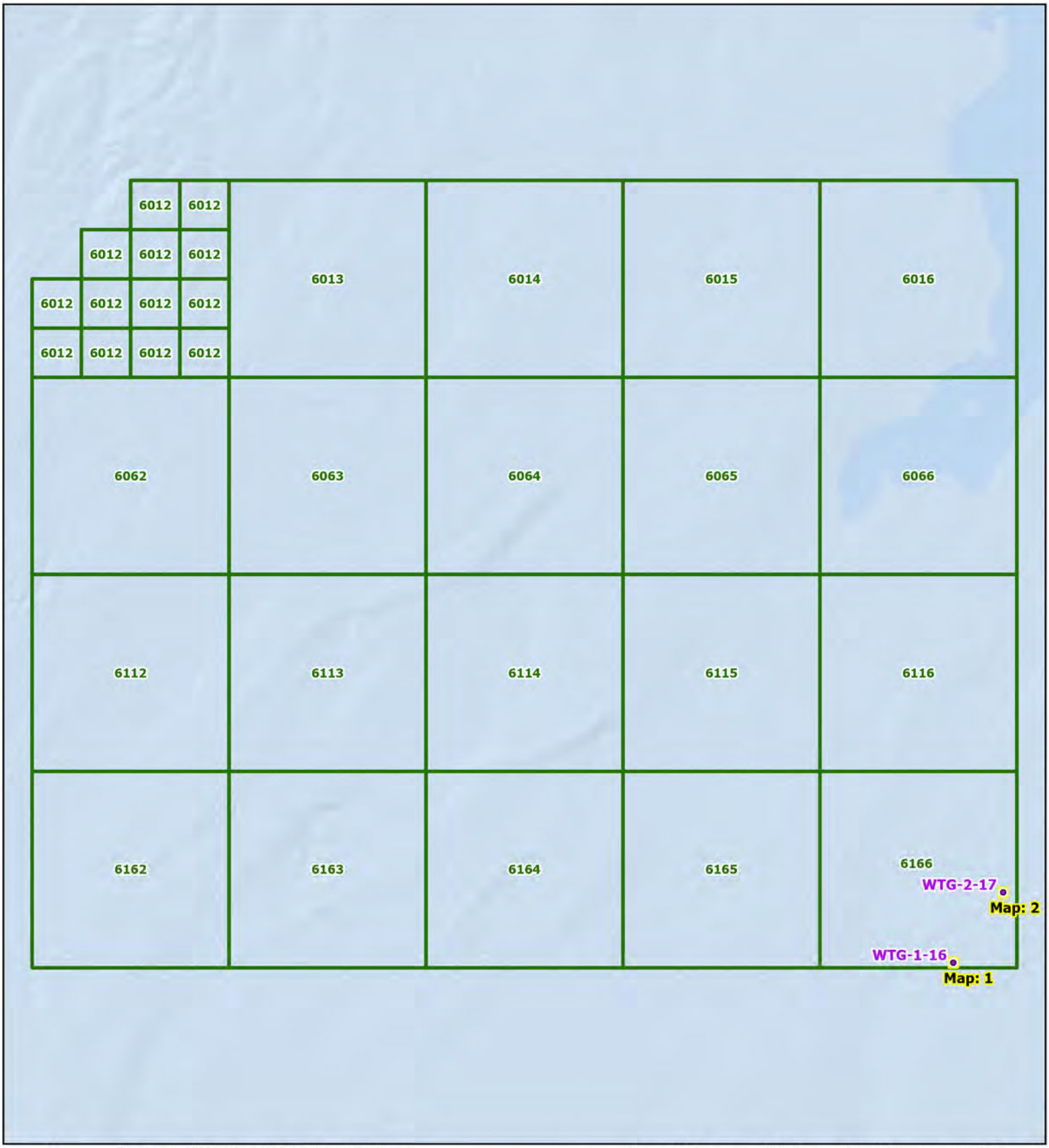
Spare WTG-9-18

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APPENDIX 3
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 25



N
W E
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GRID NORTH

ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:125,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

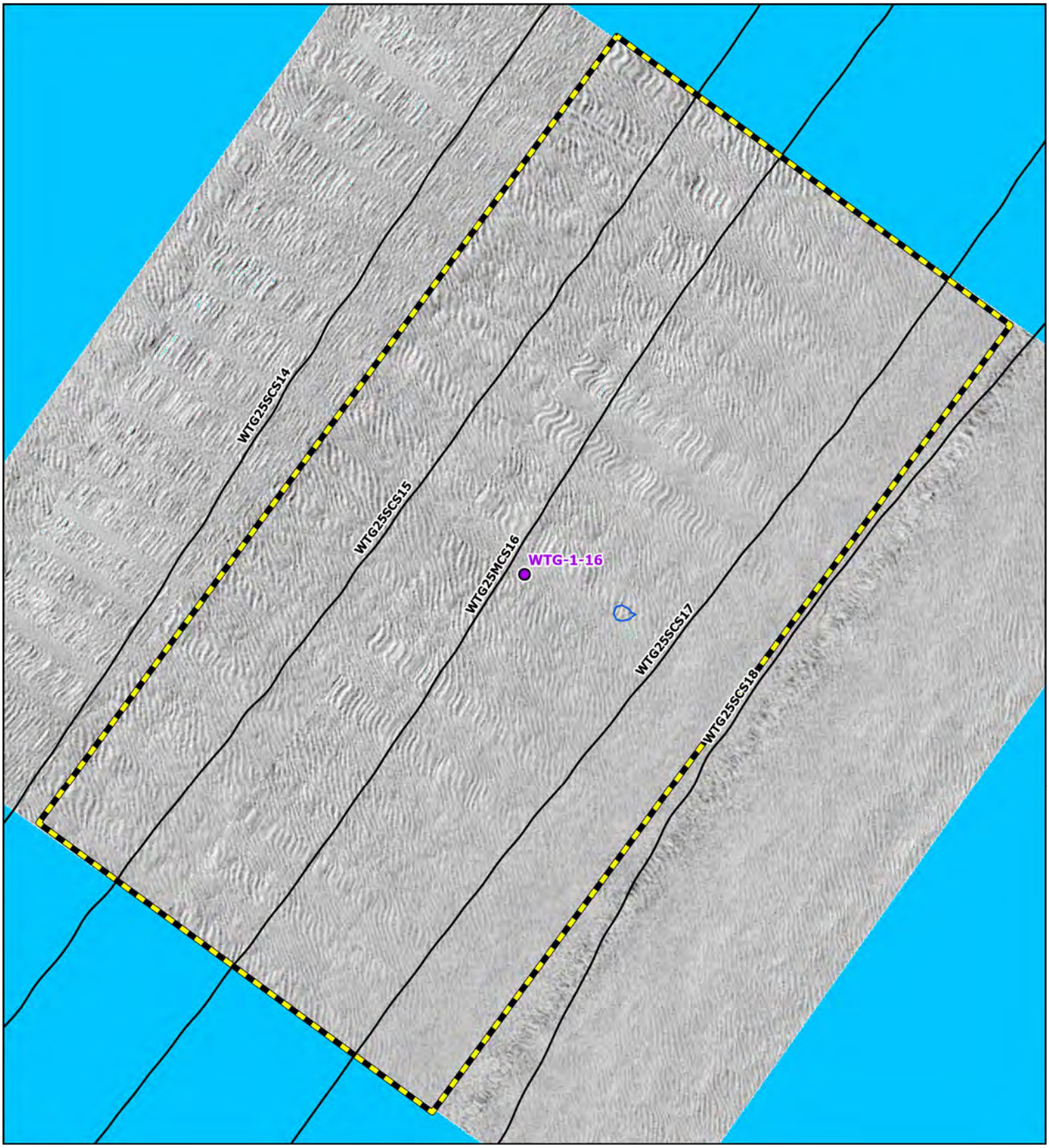
0 0.5 1 1.5 2
MILES
0 1 2 3 4
KILOMETERS

GEOTECHNICAL LOCATION
MAP SHEET EXTENT
LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 25

Index Map

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

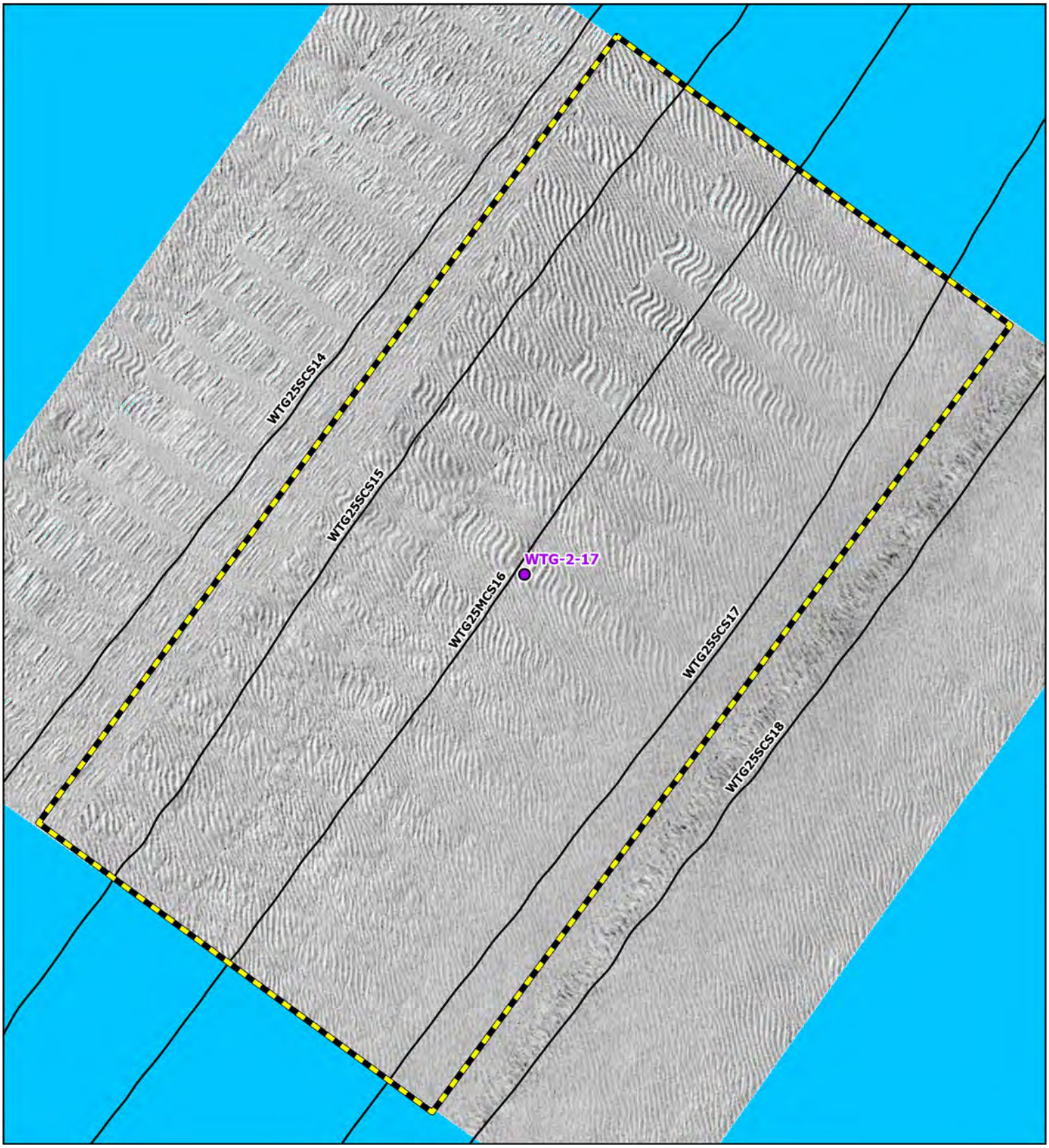
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 25

Map: 1

WTG-1-16

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contours (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 25

Map: 2

WTG-2-17

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APPENDIX 4
SUB-BOTTOM PROFILE IMAGES

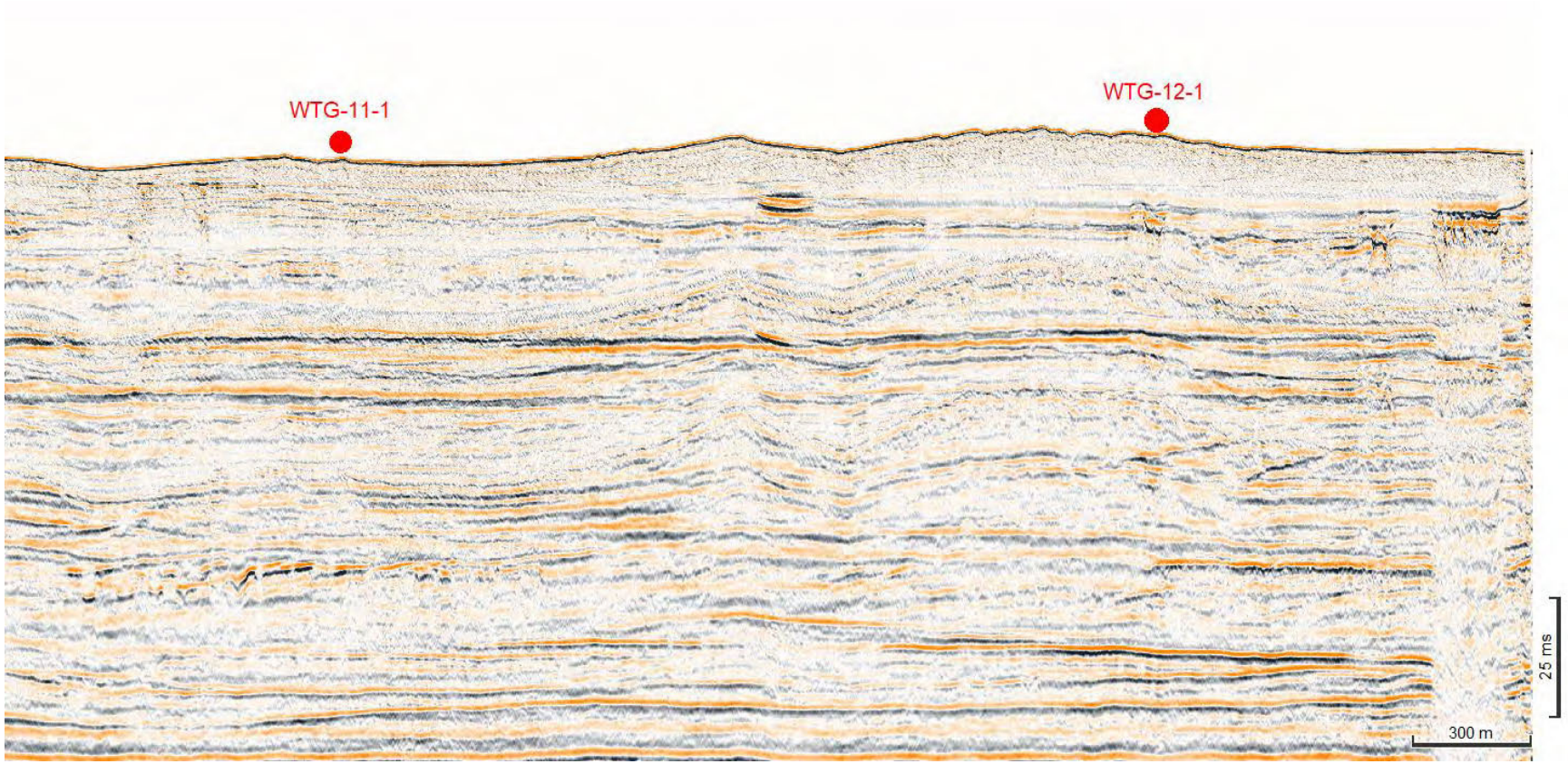


Figure 1: Proposed geotechnical cores WTG-11-1 and WTG-12-1 in Corridor 1 along line WTG01MCS16_01_MIG

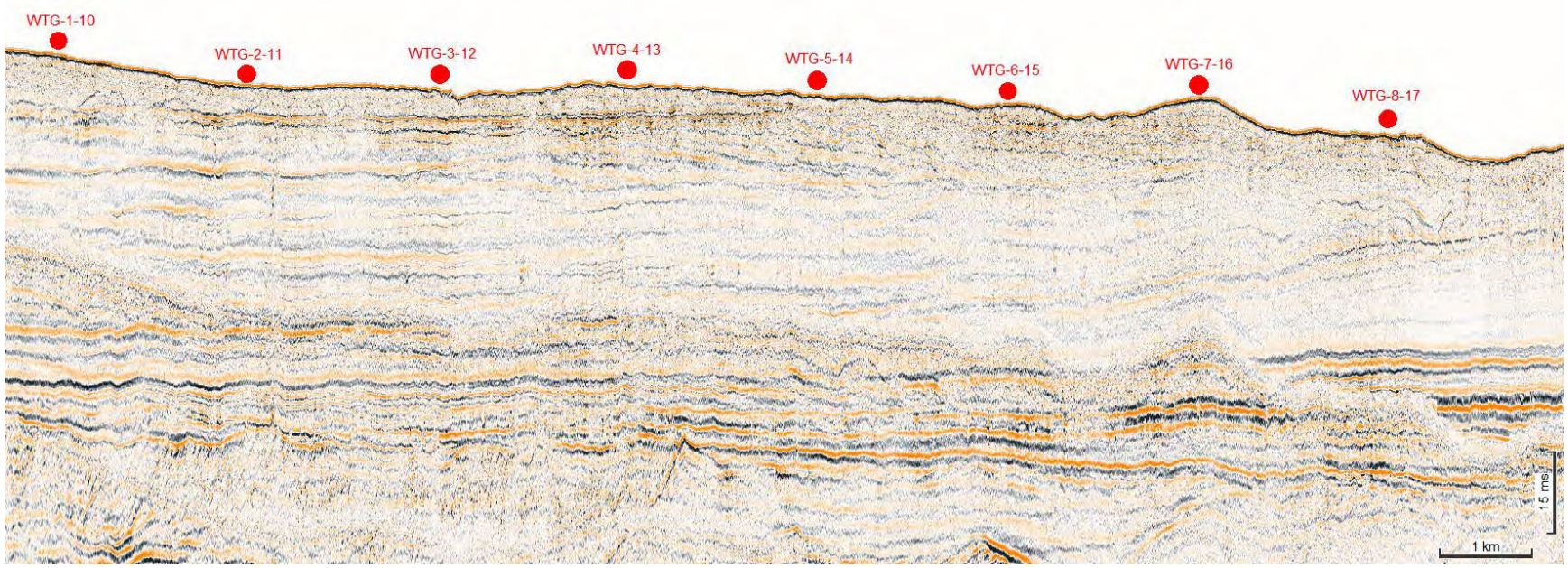


Figure 2: Proposed geotechnical locations WTG-1-10, WTG-2-11, WTG-3-12, WTG-4-13, WTG-5-14, WTG-6-15, WTG-7-16, and WTG-8-17 in Corridor 19 along line WTG19MCS16_MIG

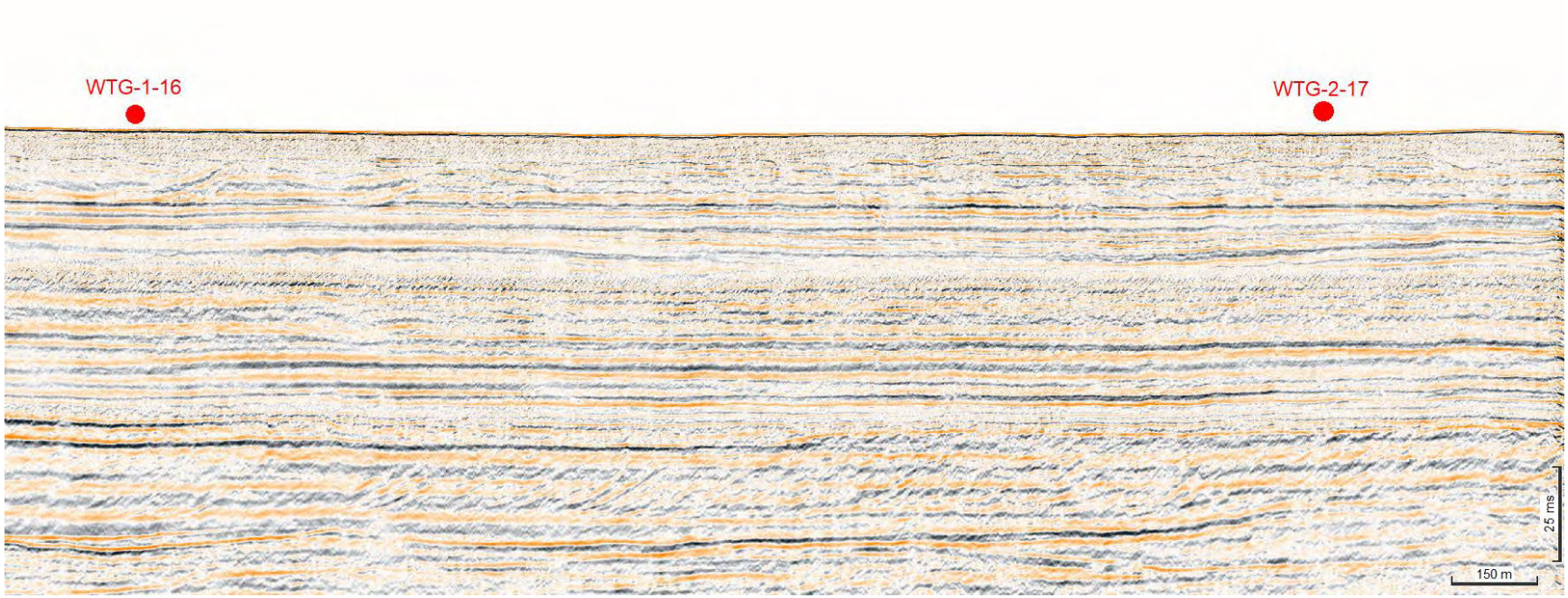


Figure 3: Proposed geotechnical locations WTG-1-16 and WTG-2-17 in Corridor 25 along like WTG25MCS16_MIG

Dominion Energy Inc.
120 Tredegar Street
Richmond, VA 23219

July 13, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations Block E

Dear Mr. Bennett,

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached revised geotechnical clearance reports for Block E within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW Commercial) Project.

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. No sonar contacts that represent significant cultural resources were identified within the analytical areas. No magnetic anomalies that represent significant cultural resources were identified within the analytical areas. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have any question of concerns regarding the enclosed application, please do not hesitate to contact Scott Lawton at Scott.Lawton@dominionenergy.com or (804) 205-6700.

Sincerely,

Mark D. Mitchell
Vice President – Generation Construction

Enclosures

Cc: Richard Gangle, Dominion
Darrel Shier, Dominion
GT Hollett, Dominion
Lloyd Eley, Dominion
Casey Reeves, BOEM
Jeff Browning, BOEM
Algene Byrum, BOEM
Willie Hoffman, BOEM
Renewable Reporting - BOEM
Janelle Lavallee, Tetra Tech
Alex Gibson, Tetra Tech

July 06, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, ECR Block E

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 16 of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 16 proposed geotechnical locations located along the Export Cable Route (ECR). The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that could represent cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution. A number of magnetic anomalies were observed within in and in proximity to a charted dump site; therefore, multiple geotechnical locations were relocated to avoid large magnetic anomalies. Additionally, some analytical areas were reduced in size to show full magnetometer coverage (Appendix 1). No magnetic anomalies that could represent cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

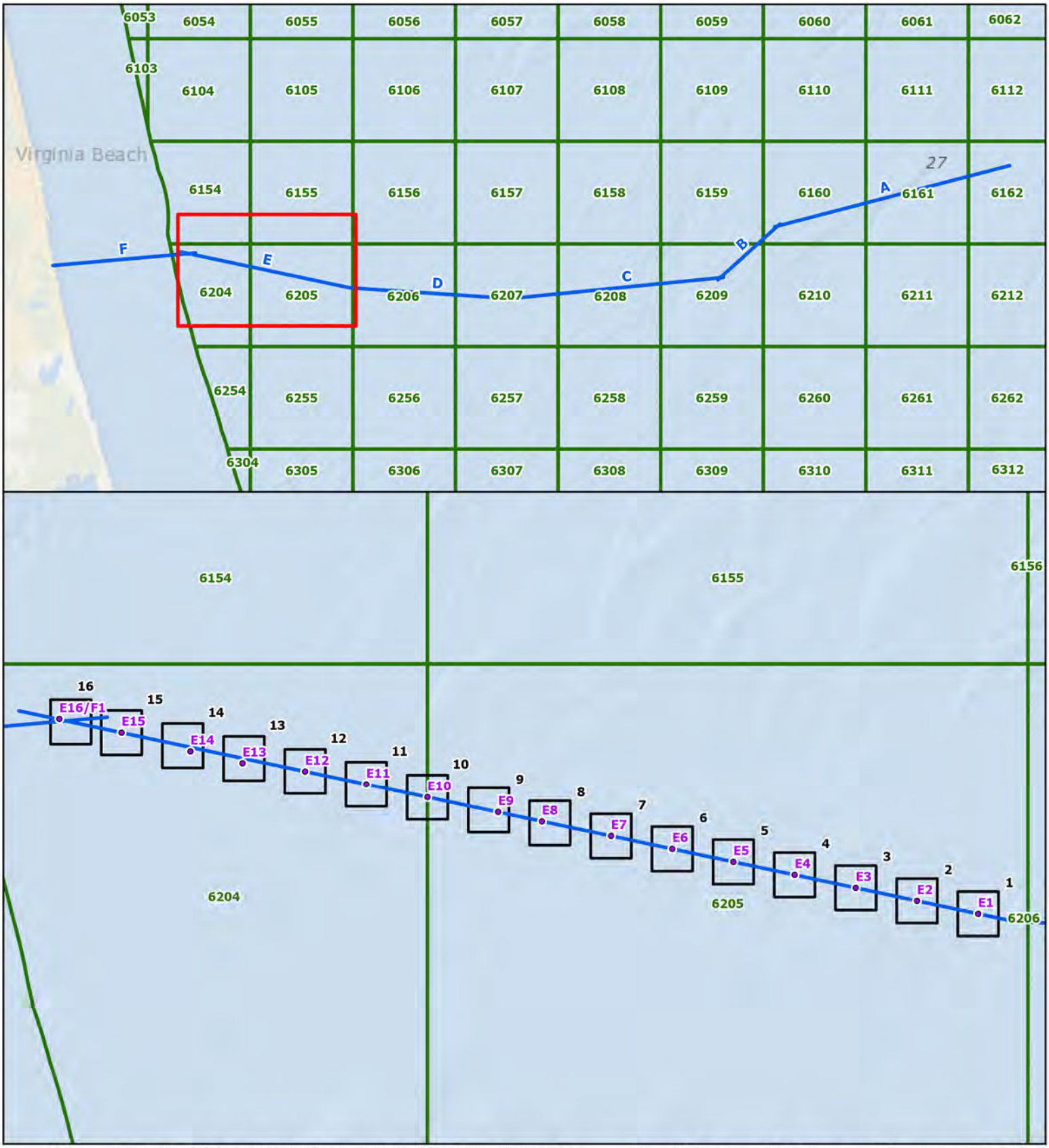
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block E

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
E16/F1	420348.9156	4074737.14	-75.89303092	36.81514373
E15	420754.3865	4074651.12	-75.88847641	36.81440243
E14	421243.5009	4074547.356	-75.88298248	36.81350798
E13	421732.6154	4074443.591	-75.87748867	36.81261327
E12	422221.7298	4074339.827	-75.87199498	36.8117183
E11	422710.8442	4074236.062	-75.86650141	36.81082308
E10	423199.9586	4074132.298	-75.86100797	36.80992761
E9	423689.0731	4074028.533	-75.85551465	36.80903188
E8	424178.1875	4073924.769	-75.85002145	36.80813589
E7	424667.3019	4073821.004	-75.84452838	36.80723965
E6	425156.4163	4073717.24	-75.83903543	36.80634315
E5	425645.5308	4073613.475	-75.8335426	36.8054464
E4	426134.6453	4073509.711	-75.8280499	36.80454939
E3	426623.7596	4073405.946	-75.82255732	36.80365212
E2	427112.8741	4073302.182	-75.81706486	36.8027546
E1	427601.9885	4073198.417	-75.81157253	36.80185683

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK E



N
W E
S
GRID NORTH

SOURCES: ESRI, GEBCO, NOAA, NATIONAL GEOGRAPHIC, GARMIN, HERE, GEONAMES.ORG, AND OTHER CONTRIBUTORS, ESRI, GARMIN, GEBCO, NOAA NGDC, AND OTHER CONTRIBUTORS

MSR: 1:41,000

SRS: NAD 1983 2011 UTM ZONE 18N METER

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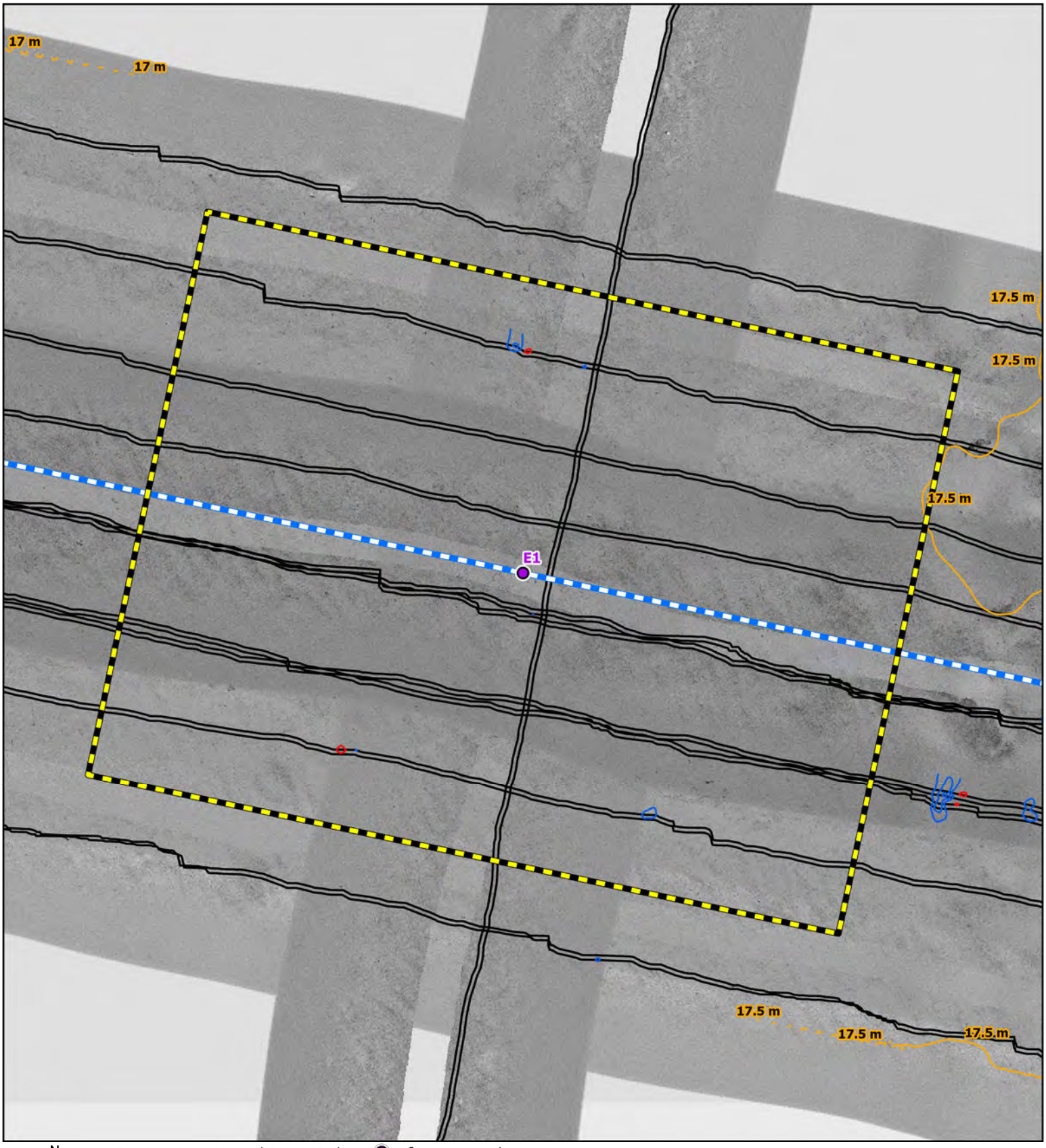
0 0.25 0.5 0.75 1 KILOMETERS

- GEOTECHNICAL LOCATION
- ECR CENTERLINE
- MAP SHEET EXTENT
- BOEM LEASE BLOCK

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Index Map

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

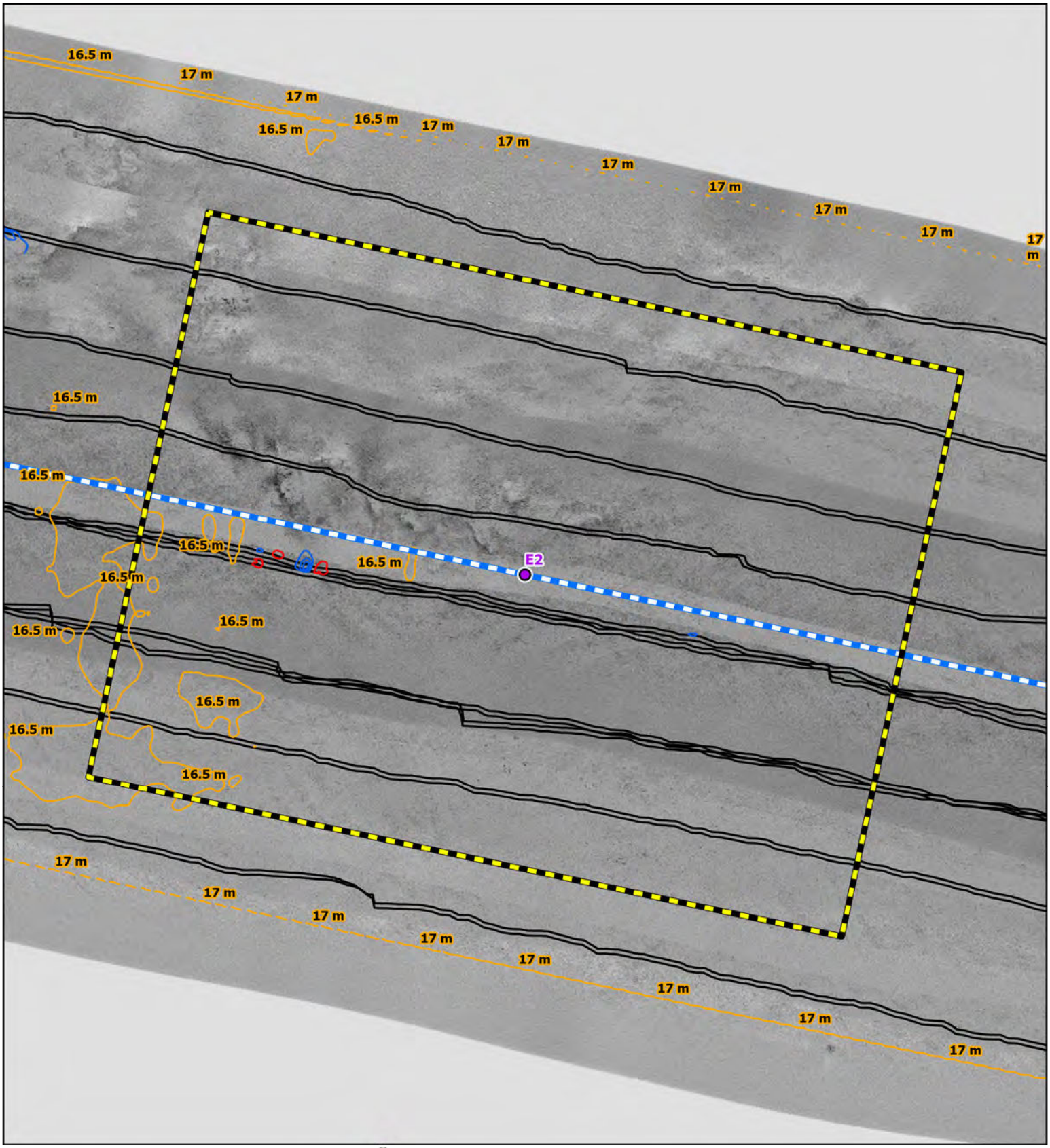
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 1

E1

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

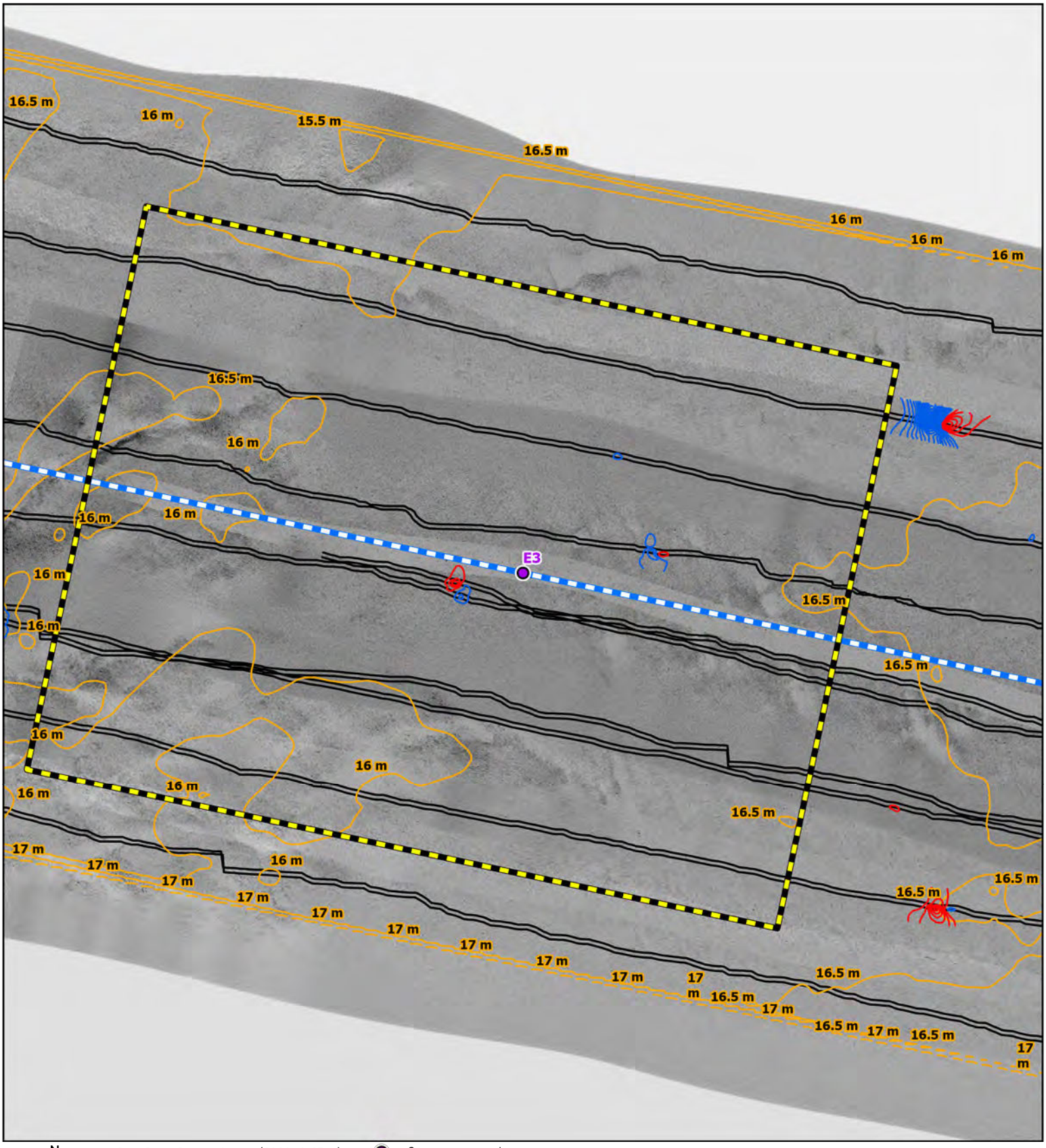
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 2

E2

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

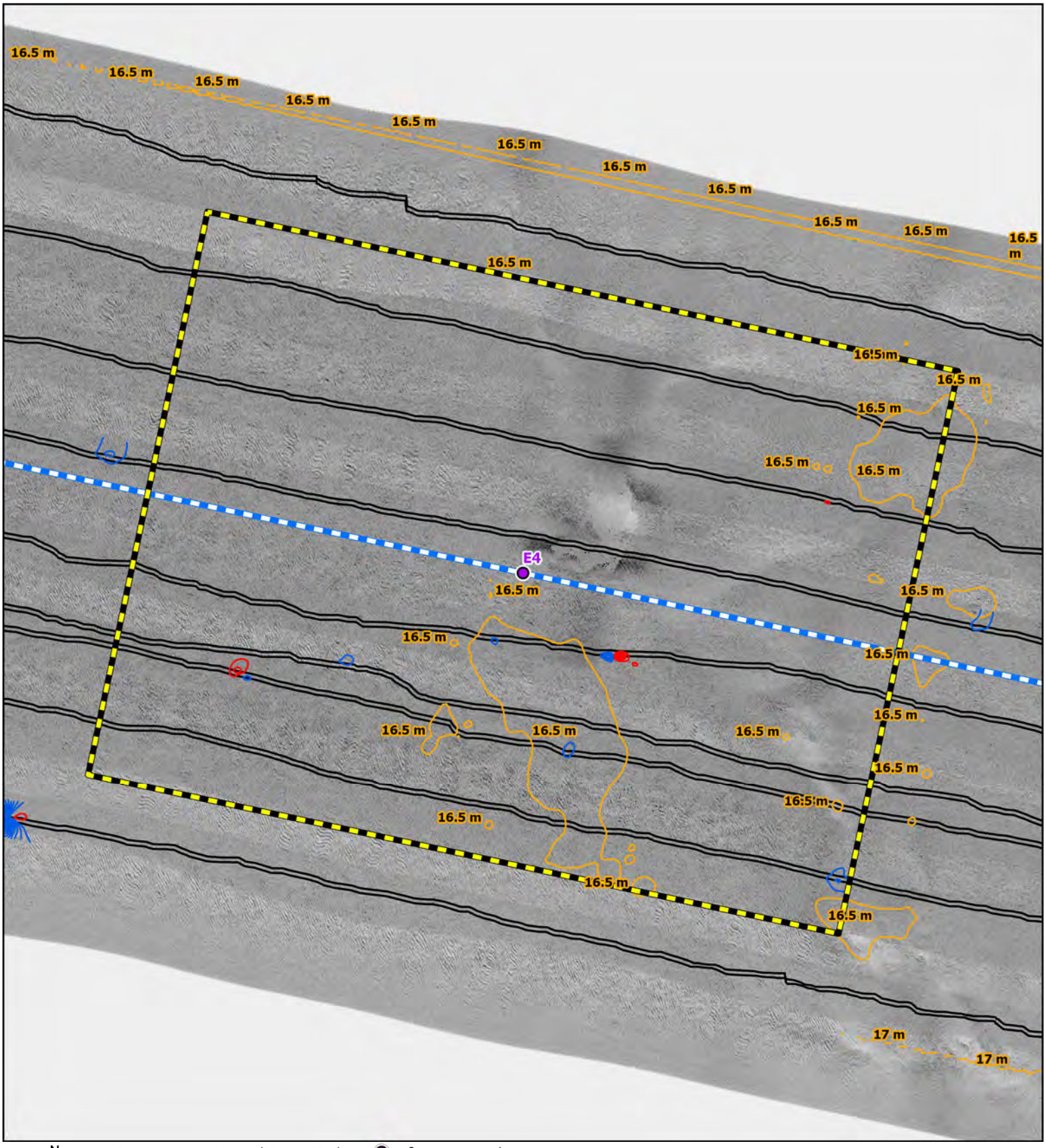
Analytic Area

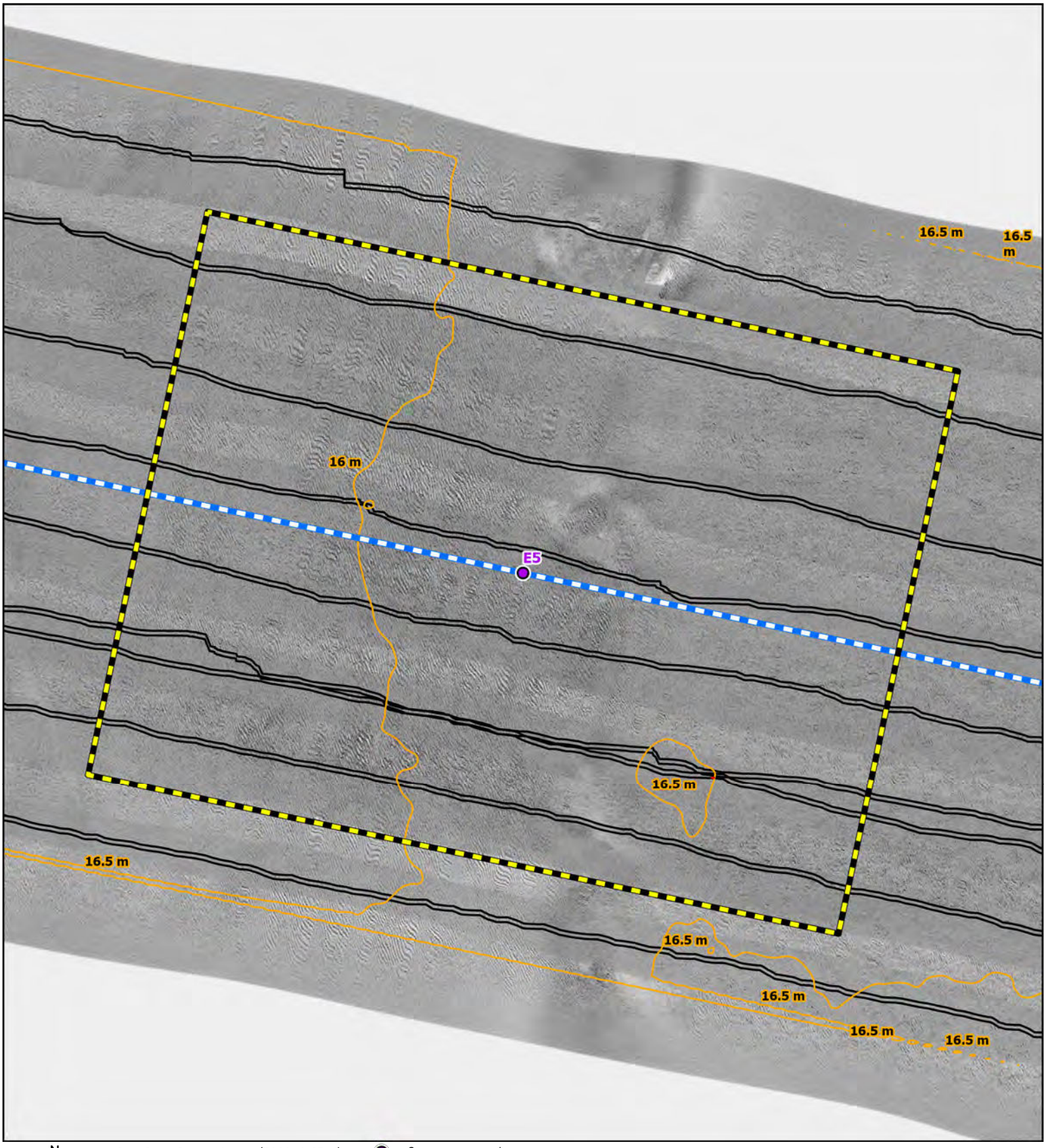
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 3

E3

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16.5 m
16.5 m
16.5 m



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

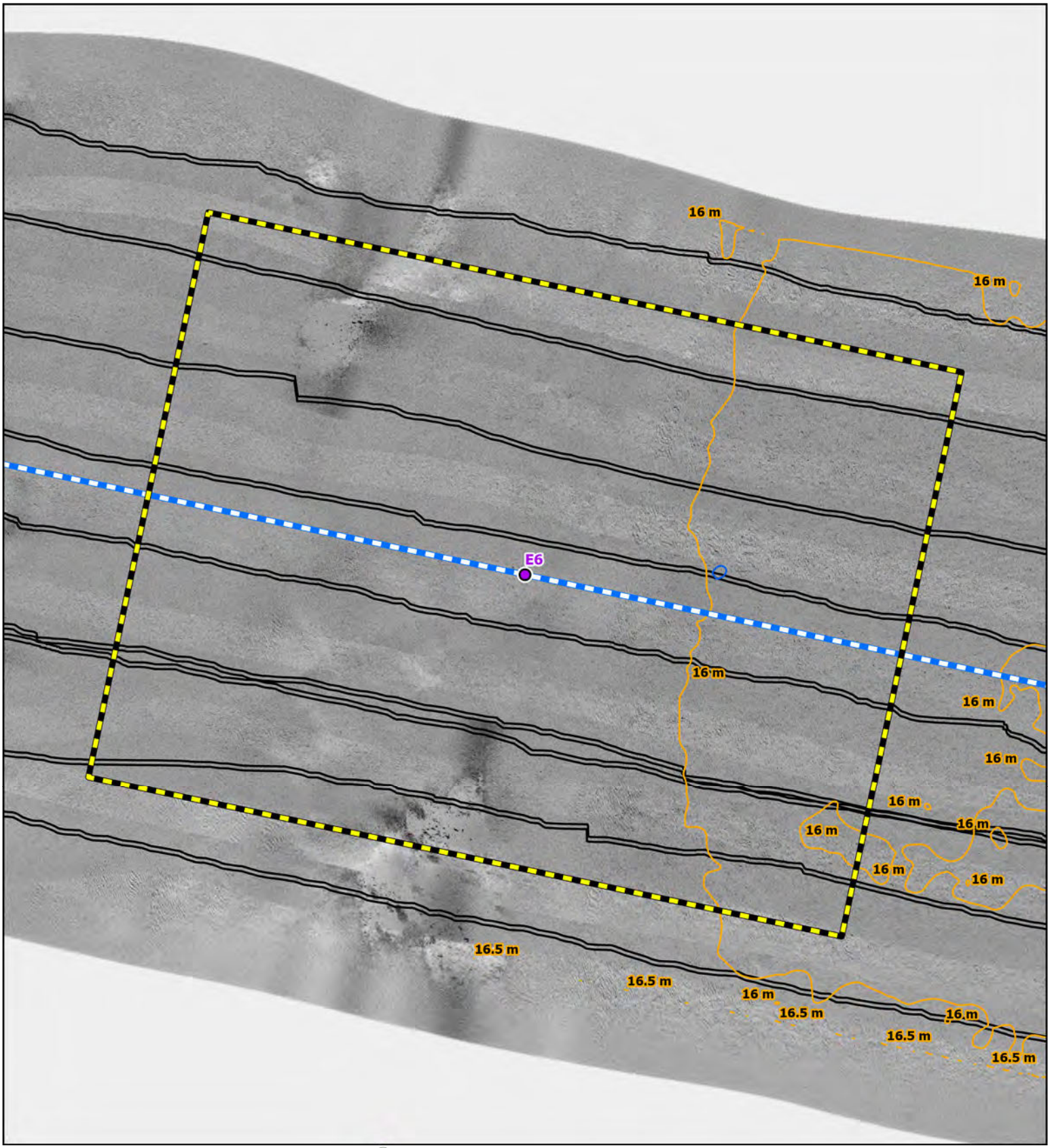
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 5

E5

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

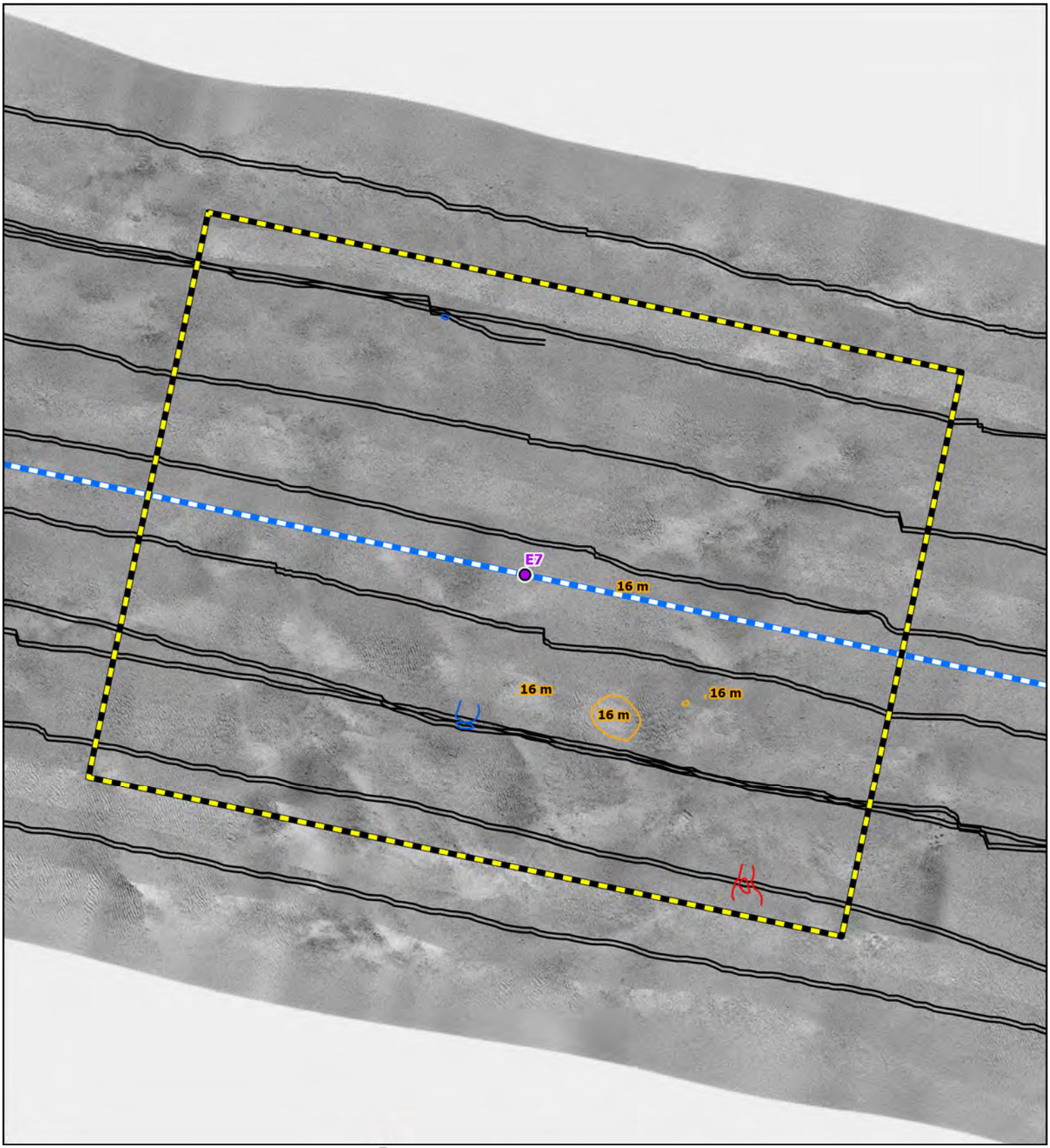
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 6

E6

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

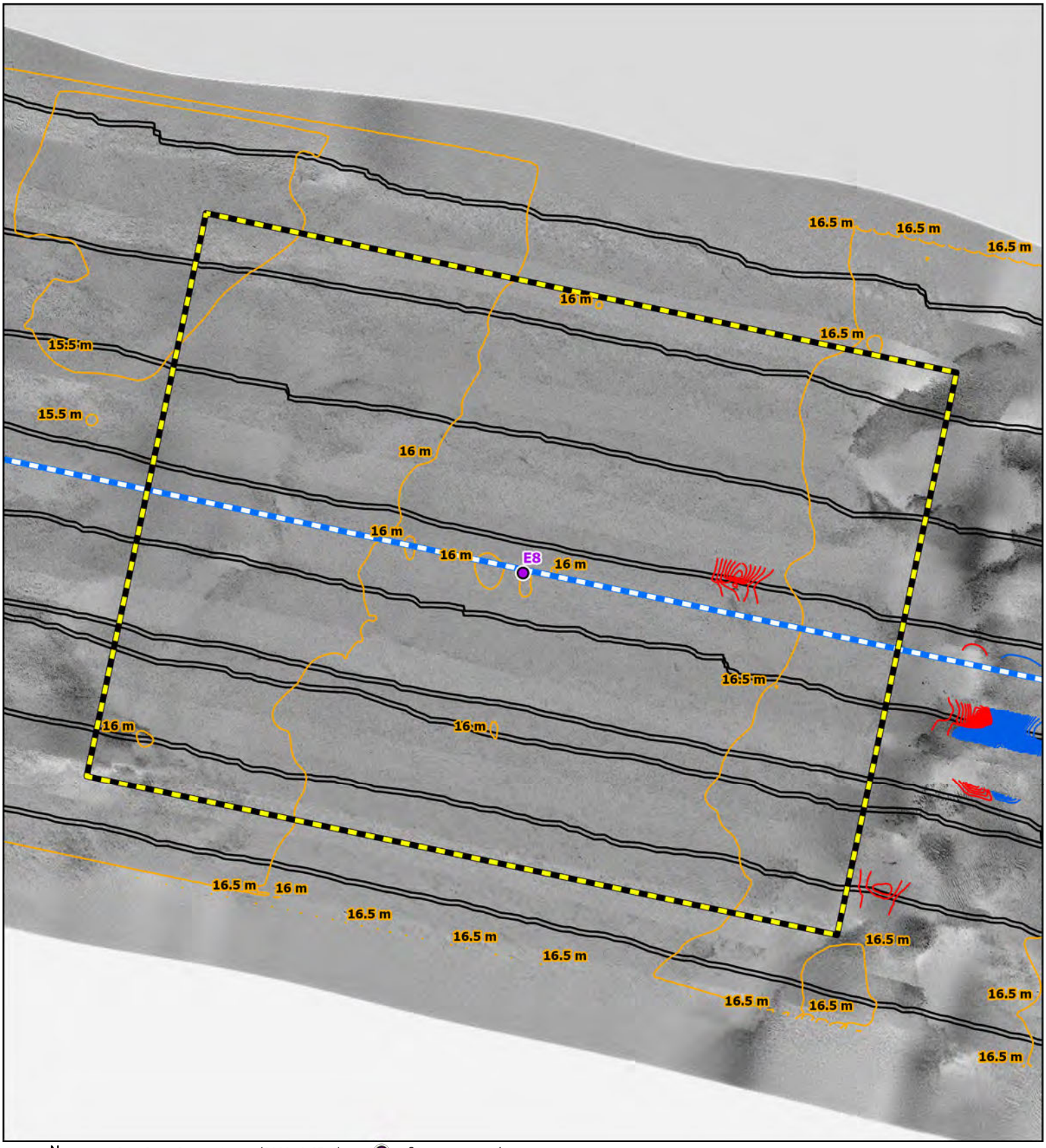
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 7

E7

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

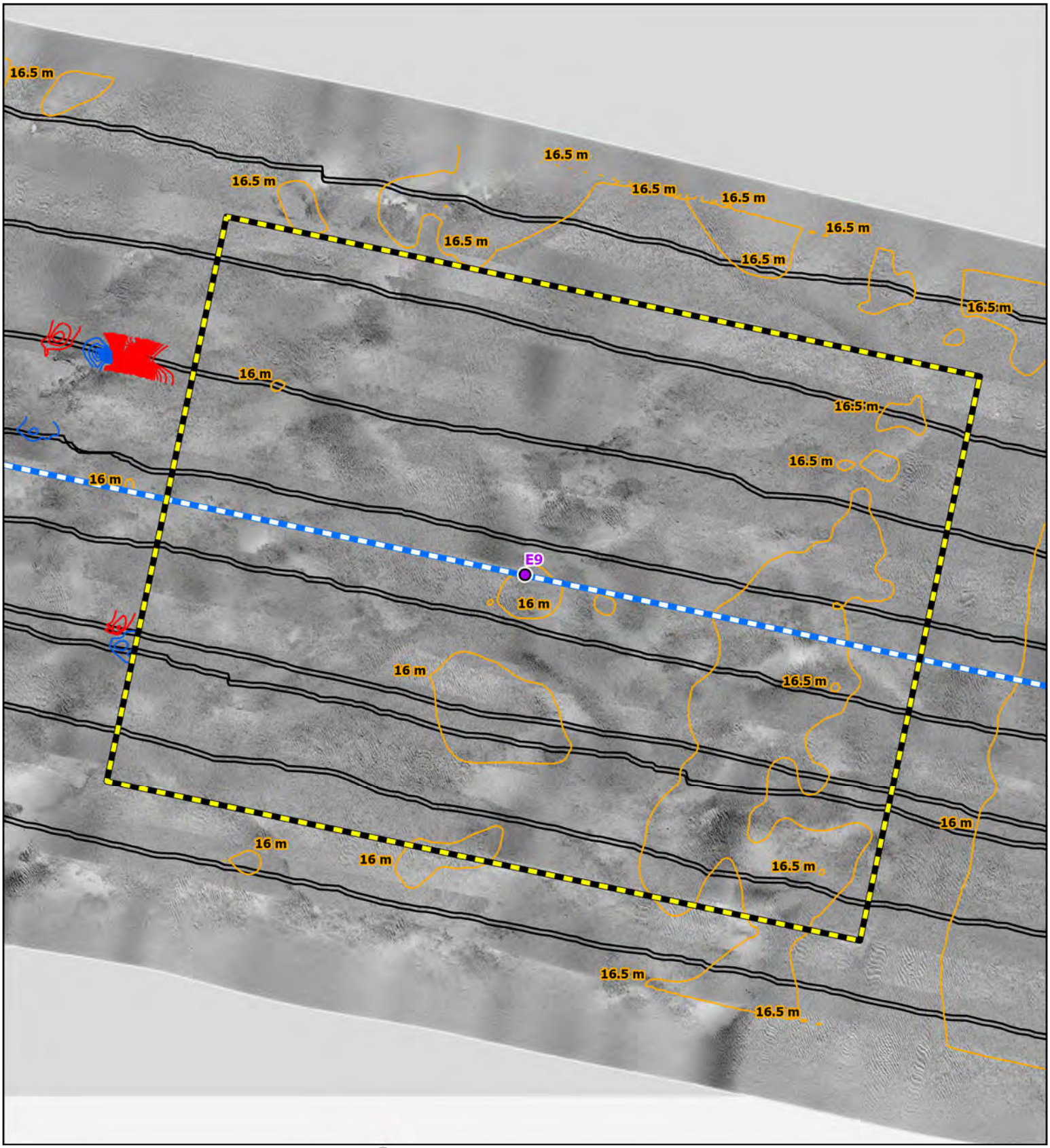
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 8

E8

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

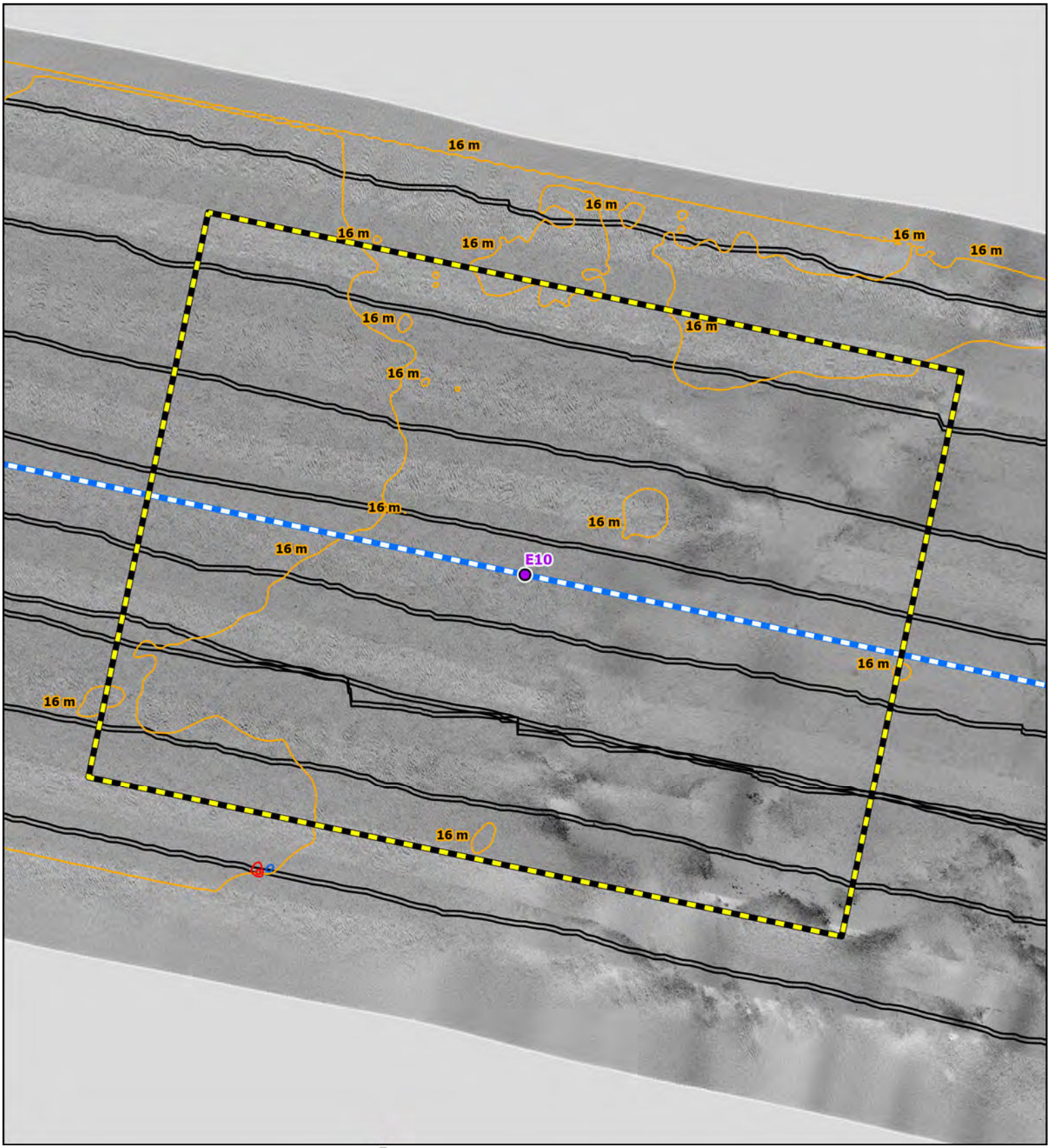
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 9

E9

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

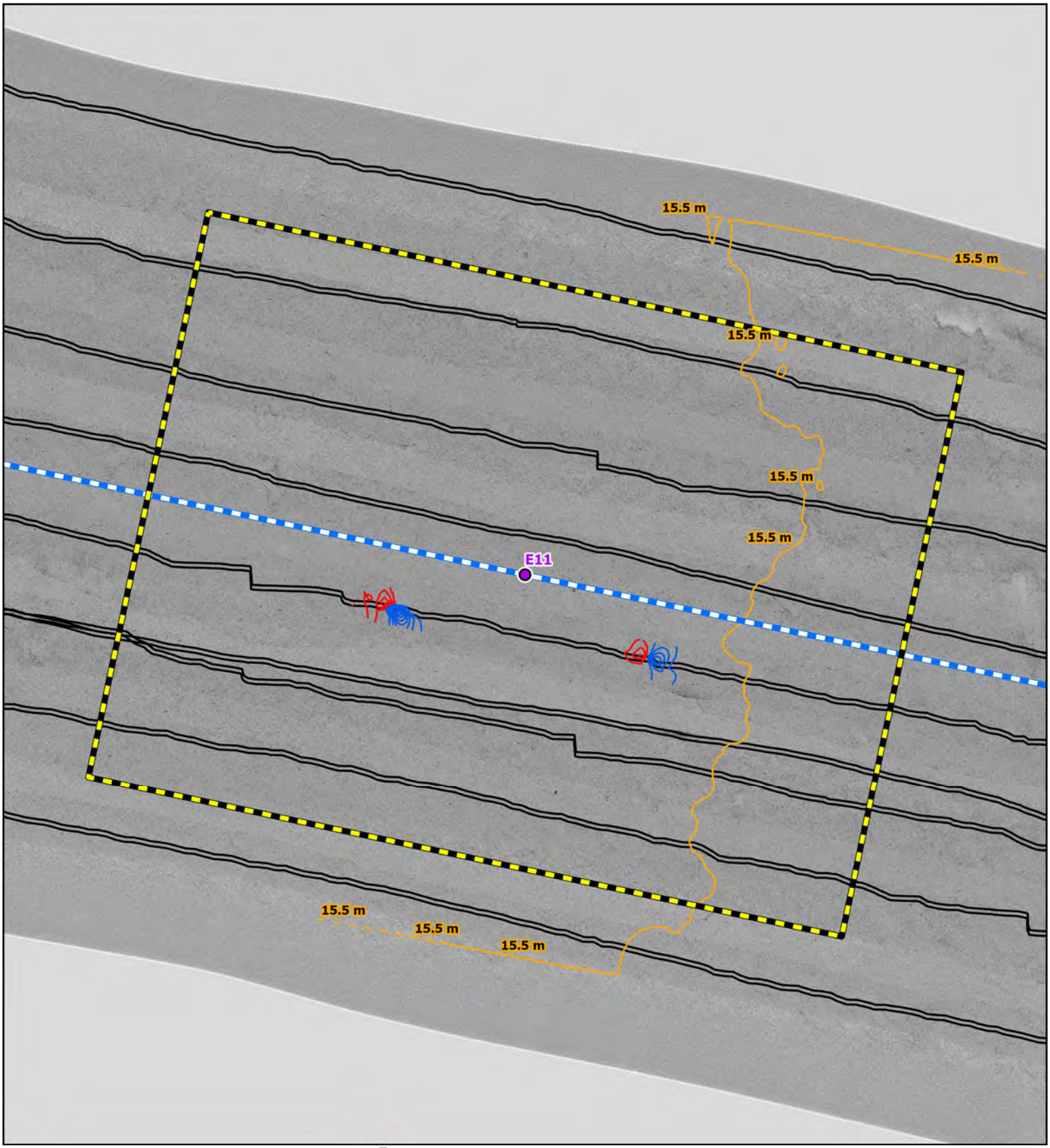
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 10

E10

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

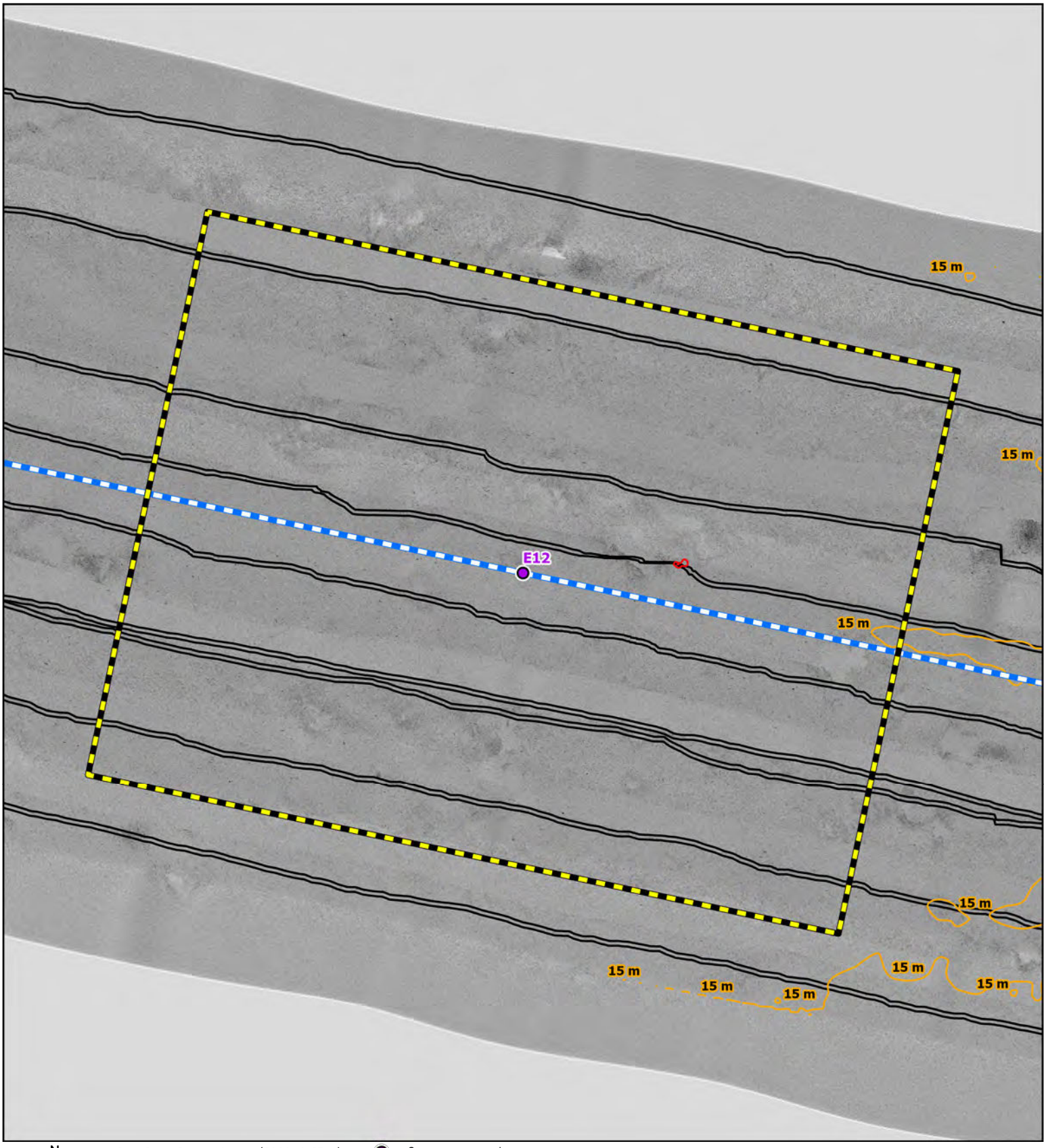
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 11

E11

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

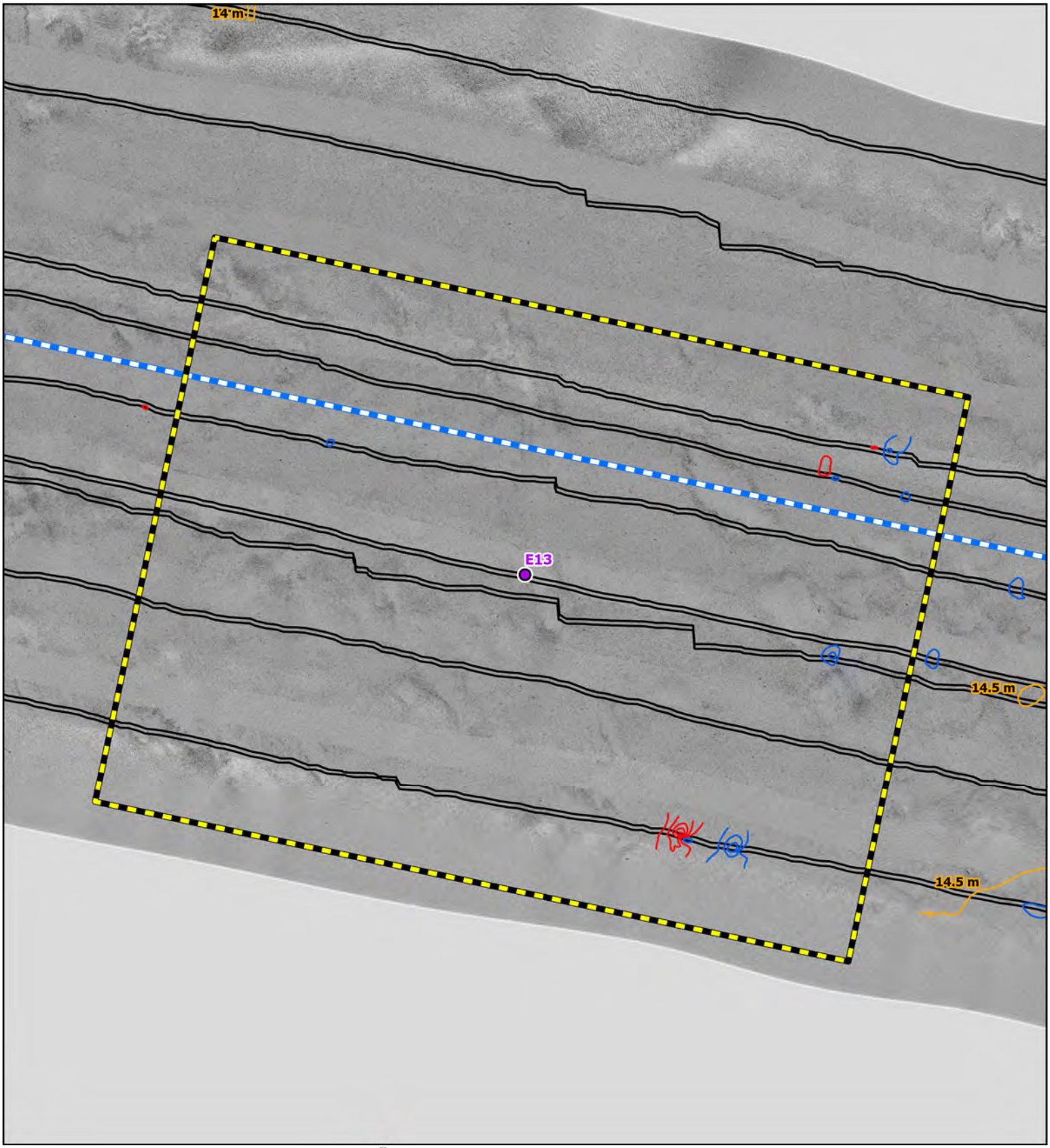
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 12

E12

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

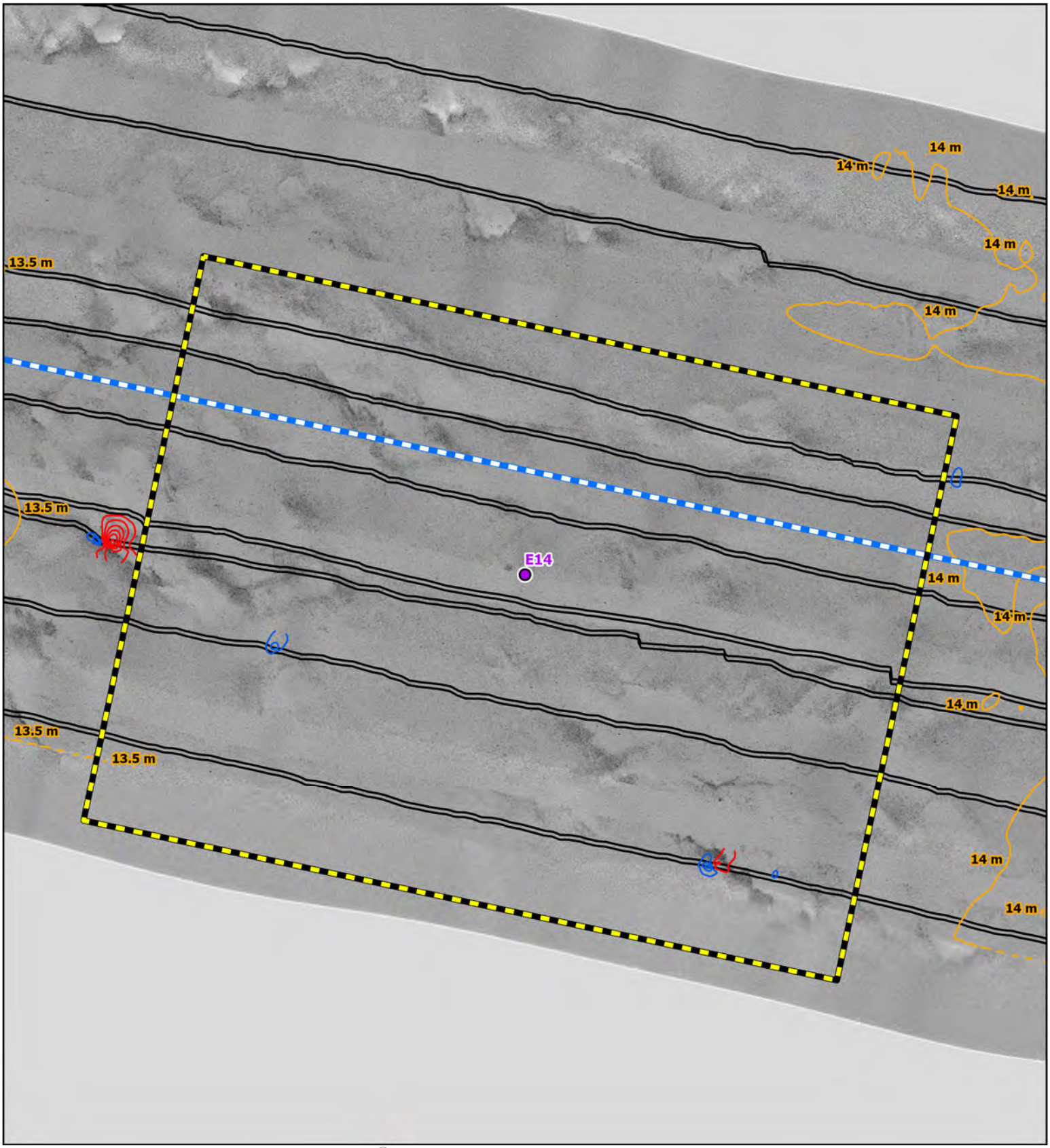
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block E

Map: 13

E13

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

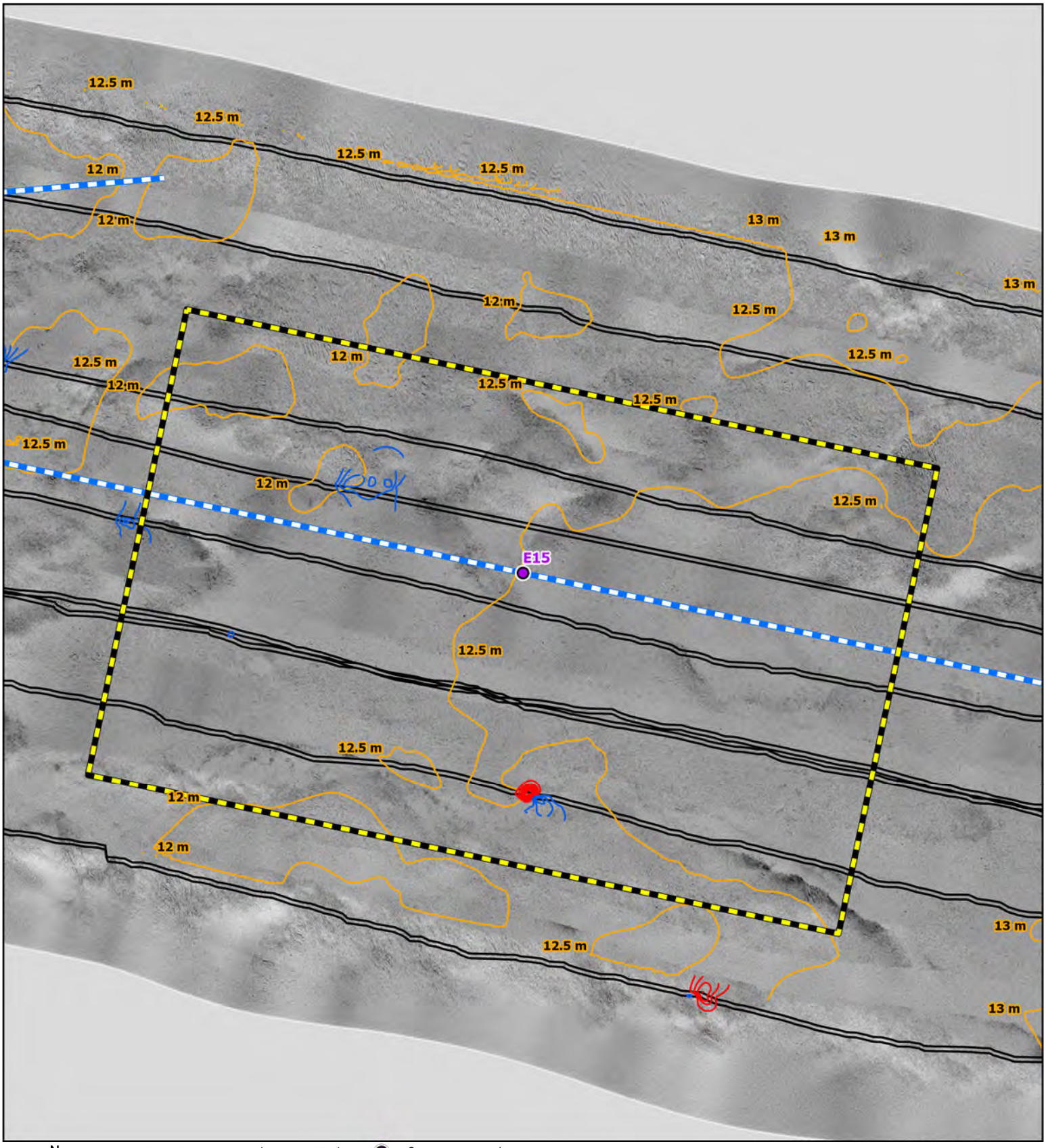
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 14

E14

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

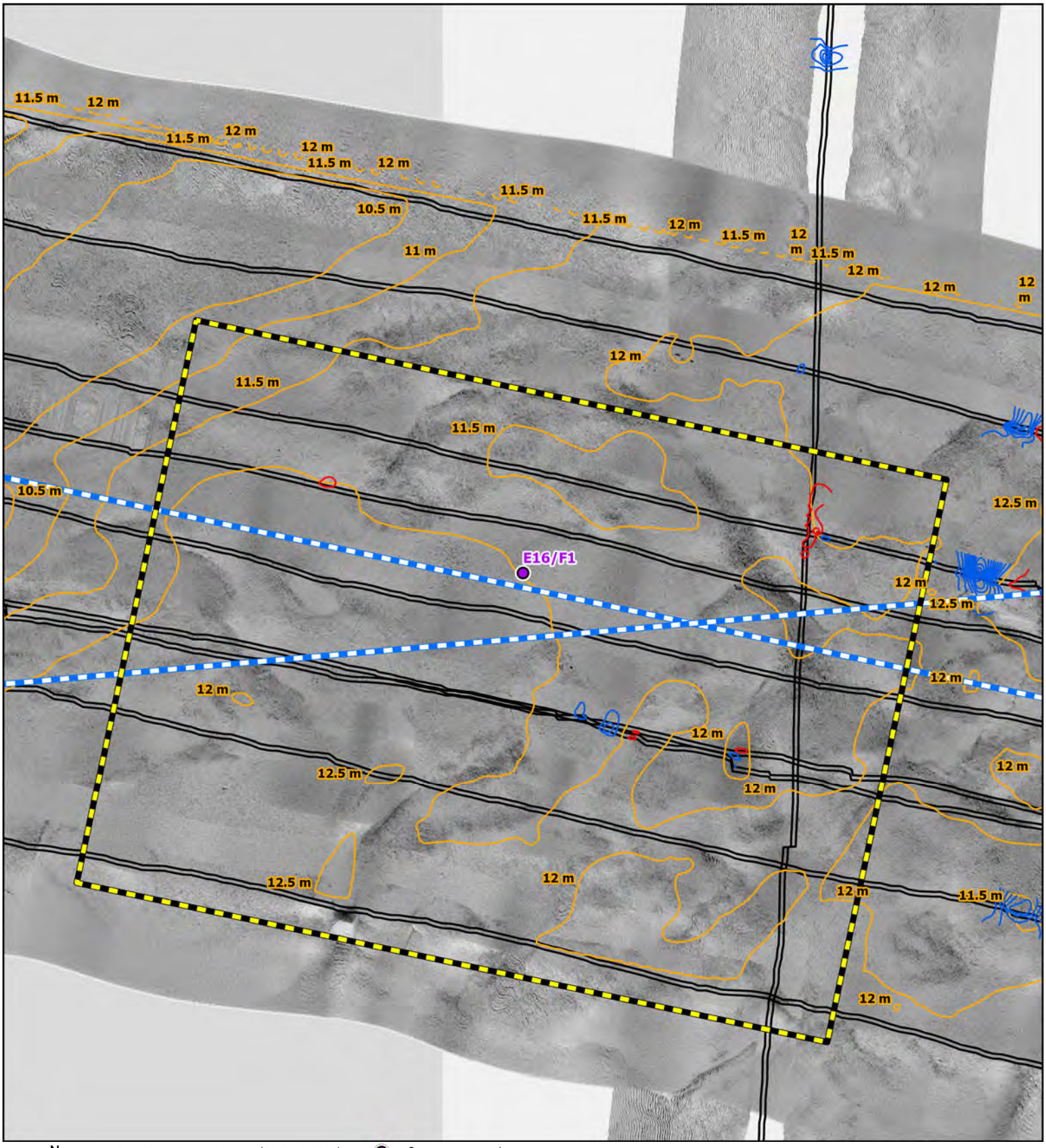
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 15

E15

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Bathymetric Contour (0.5m interval)

Magnetic Contours (5 nT, Residual Field)

Negative

Positive

Trackline

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 16

E16/F1

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

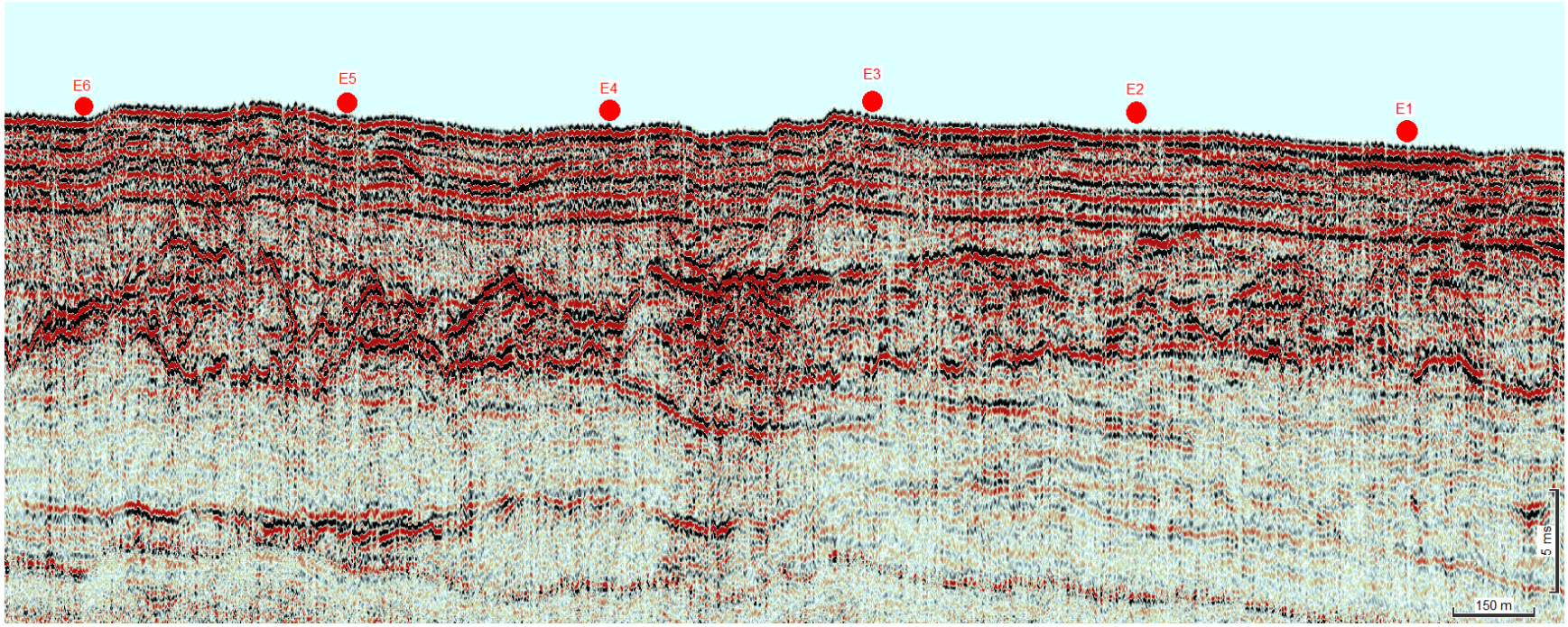


Figure 1: Proposed geotechnical locations E6, E5, E4, E3, E2, and E1 in Block E along line UHRS_144_E-2N_Proc

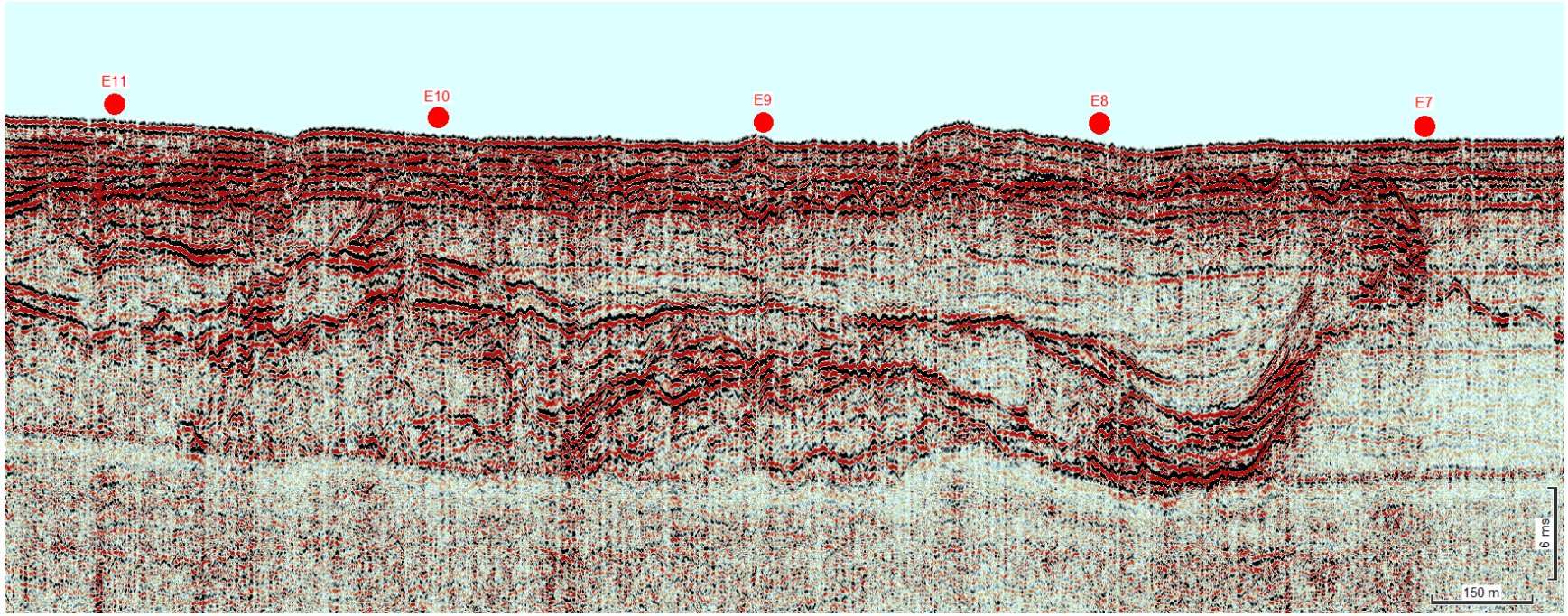


Figure 2: Proposed geotechnical locations E11, E10, E9, E8, and E7 in Block E along line UHRS_144_E-2N_Proc

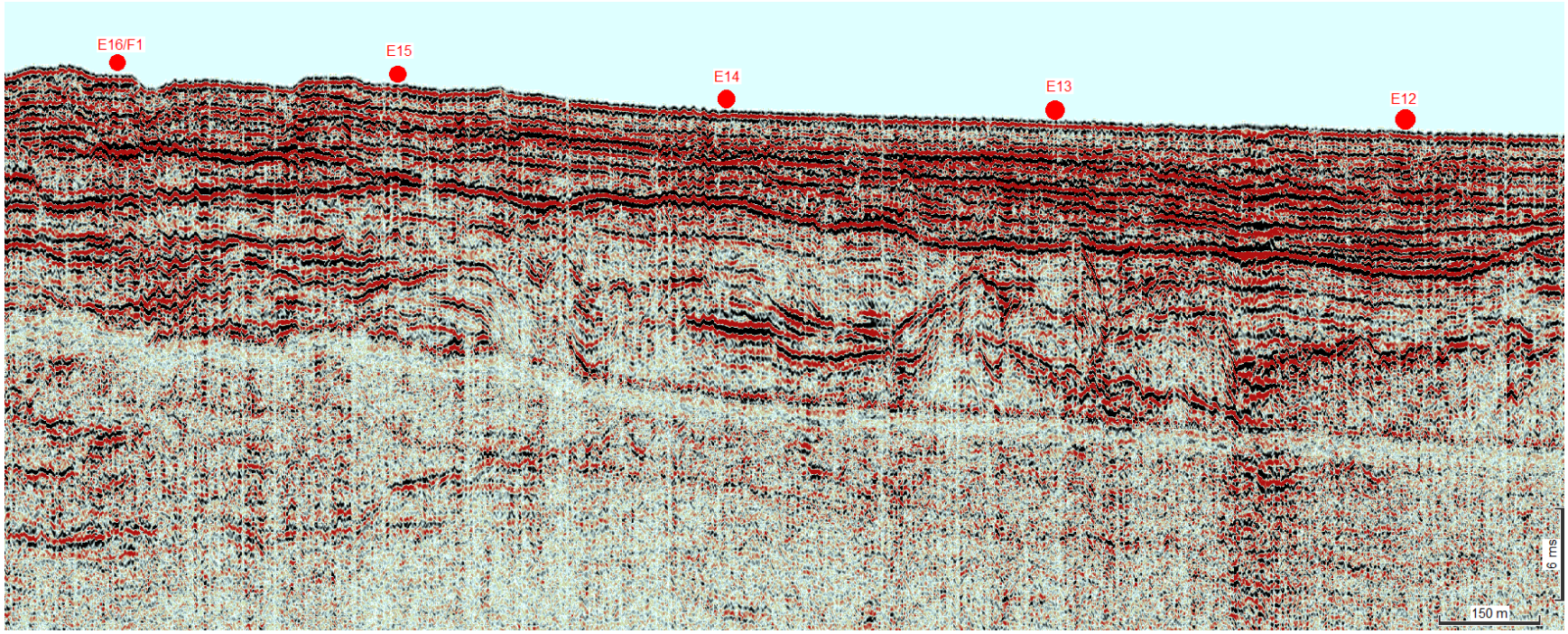


Figure 3: Proposed geotechnical locations E16/F1, E15, E14, E13, and E12 in Block E along line UHRS_144_E-2N_Proc

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

November 25, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 4, 6, 12, 20, and 26

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for corridors 4, 6, 12, 20, and 26 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.
- Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,

Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrel Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett,, Will Kinnan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Gibson
McNeilan and Assoc. - Tom McNeilan

November 16, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 4, Corridor 6, Corridor 12, Corridor 20 and Corridor 26

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews 30 of these locations for gathering geologic information (Tables 1, 2, 3, 4, and 5). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 30 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendices 1, 2, 3, 4, and 5) No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of

amplitude, duration, magnetic signature, and spatial distribution (Appendices 1, 2, 3, 4, and 5). Magnetic contours were observed within some analytical areas but were determined not to be cultural resources due to low amplitudes, low durations and no corresponding side scan sonar contacts. No magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendices 6, 7, 8, 9 and 10). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1, 2, 3, 4, and 5; Appendices 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1, 2, 3, 4, and 5), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 4

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-7-1	457443.14	4085595.17	-75.47776697	36.9154175
WTG-8-2	458659.14	4087306.17	-75.46420942	36.930895
WTG-9-3	459876.14	4089018.17	-75.45063524	36.94638001
WTG-10-4	461092.14	4090730.17	-75.4370668	36.96186342

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed WTG geotechnical locations for Corridor 6

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-5-1	457782.14	4082171.17	-75.47377045	36.88456787
WTG-6-2	458998.14	4083883.17	-75.46021754	36.90005398
WTG-7-3	460215.14	4085595.17	-75.44664794	36.91553858
WTG-8-4	461431.14	4087306.17	-75.43308405	36.93101257
WTG-9-5	462648.14	4089018.17	-75.41950351	36.94649406
WTG-10-6	463864.14	4090730.17	-75.40592872	36.96197395

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3. Proposed WTG geotechnical locations for Corridor 12

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-3	461232.14	4075324.17	-75.43470595	36.82299436
WTG-2-4	462448.14	4077036.17	-75.42115586	36.83847616
WTG-3-5	463665.14	4078748.17	-75.4075891	36.85395644
WTG-4-6	464881.14	4080459.17	-75.39402805	36.86942611
WTG-5-7	466098.14	4082171.17	-75.38045038	36.88490328
WTG-6-8	467314.14	4083883.17	-75.36687846	36.90037886
WTG-7-9	468531.14	4085595.17	-75.35328984	36.9158529
WTG-8-10	469747.14	4087306.17	-75.33970694	36.93131633
WTG-9-11	470964.14	4089018.17	-75.32610736	36.94678725
WTG-10-12	472180.14	4090730.17	-75.31251353	36.96225656
WTG-11-7	473397.14	4092442.17	-75.29890298	36.97772433
WTG-12-8	474613.14	4094153.17	-75.28529813	36.99318147

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 4: Proposed WTG geotechnical locations for Corridor 20

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-11	472320.14	4075324.17	-75.31037808	36.82338389
WTG-2-12	473536.14	4077036.17	-75.29680275	36.83885163
WTG-3-13	474753.14	4078748.17	-75.28321075	36.85431784
WTG-4-14	475969.14	4080459.17	-75.26962447	36.86977344
WTG-5-15	477186.14	4082171.17	-75.25602153	36.8852365
WTG-6-16	478402.14	4083883.17	-75.24242434	36.90069797
WTG-7-17	479619.14	4085595.17	-75.22881044	36.91615787

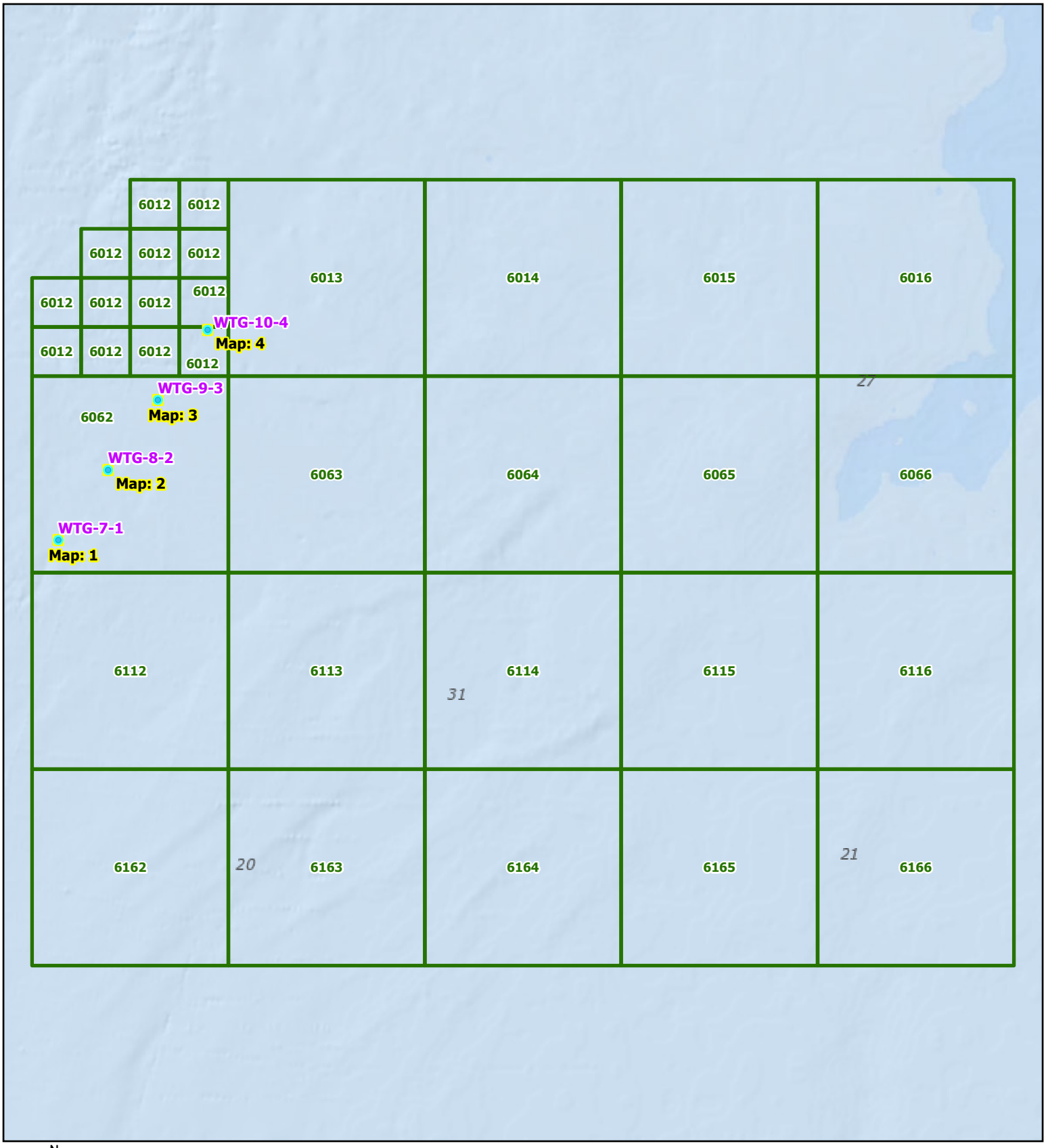
[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 5: Proposed WTG geotechnical locations for Corridor 26

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-17	480636.14	4075324.17	-75.21713082	36.82359072

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

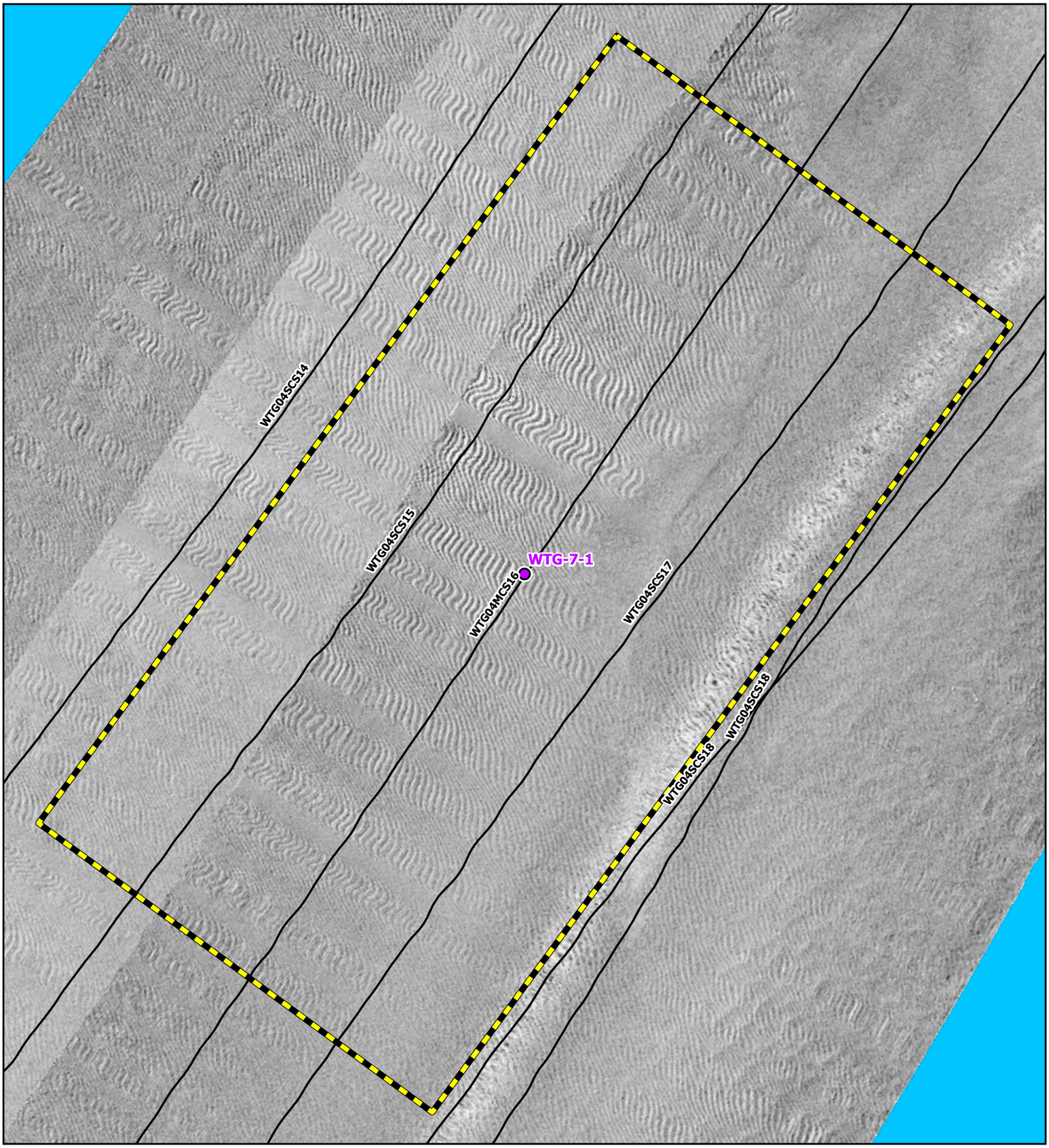
APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 4



Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 04

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 04

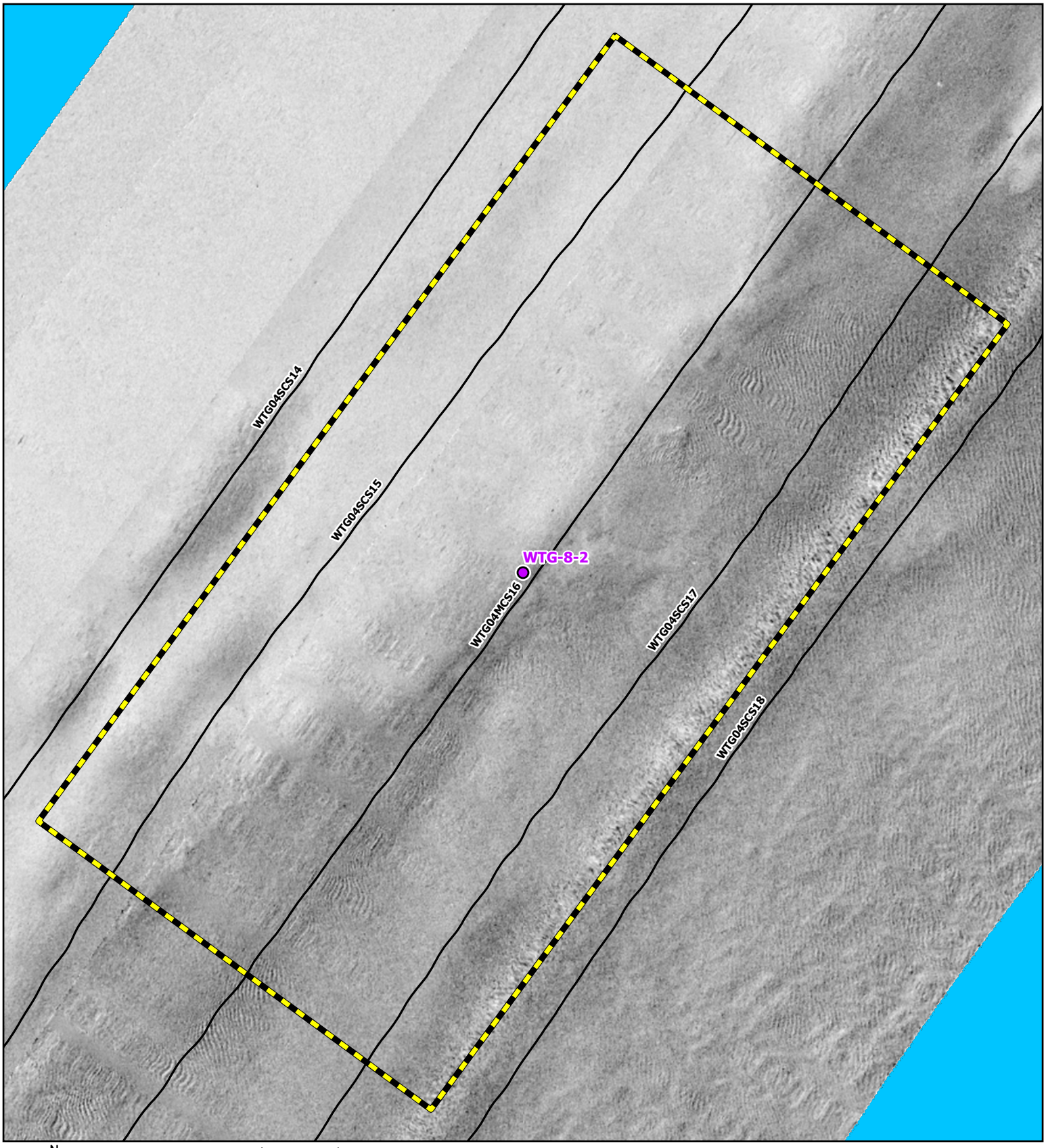
Map: 1

WTG-7-1

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 04

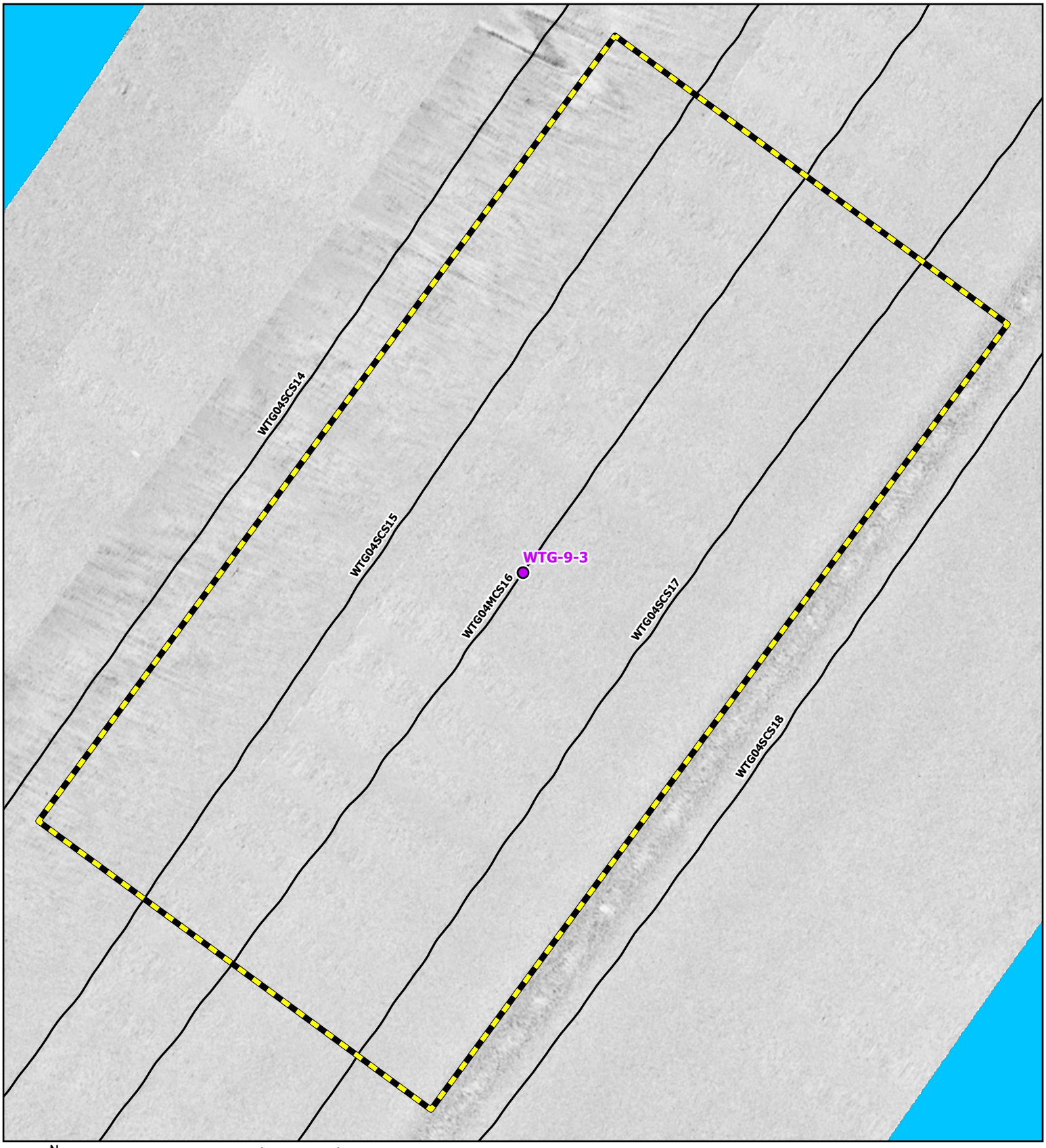
Map: 2

WTG-8-2

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

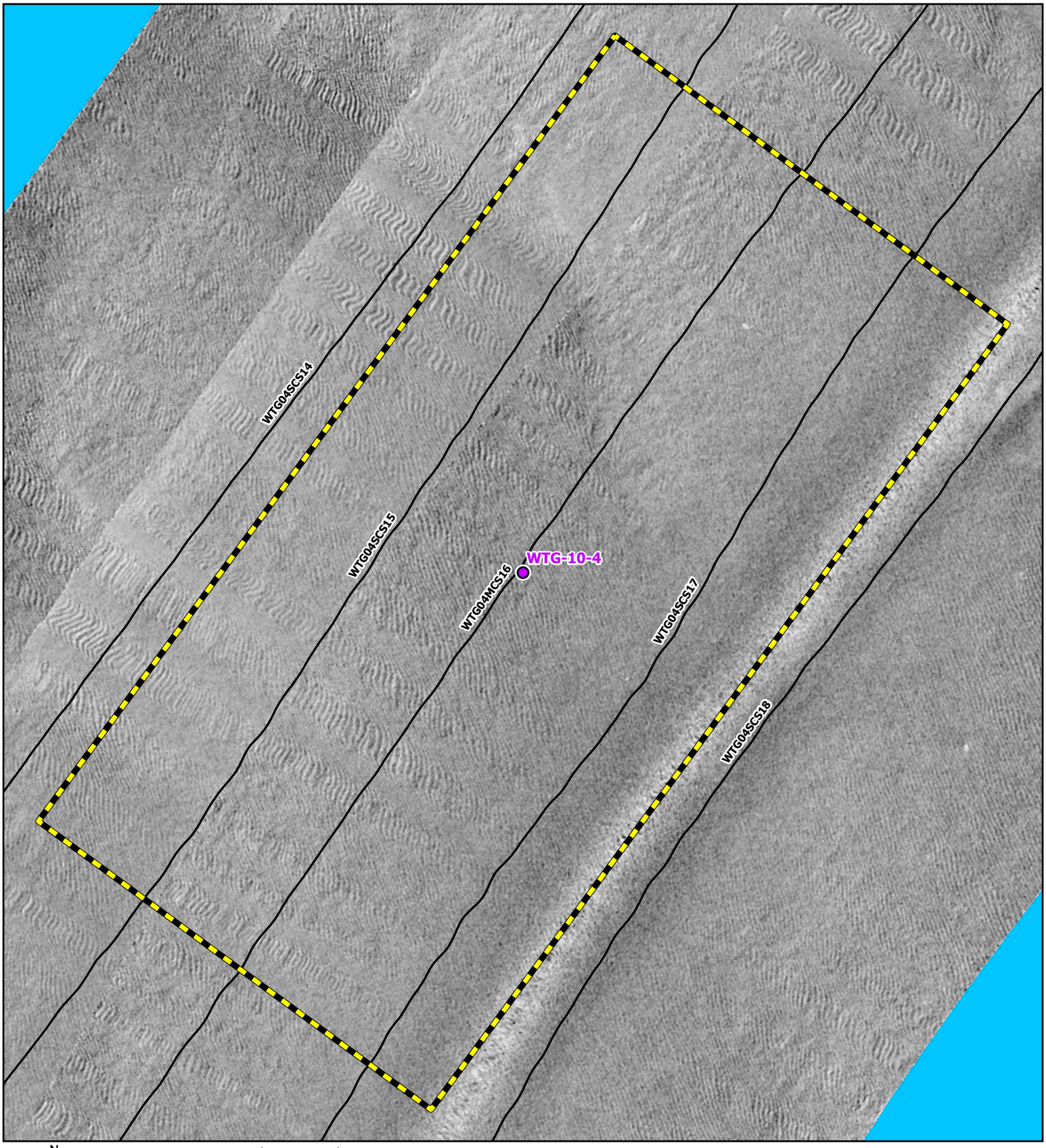
Geotechnical Clearance: Corridor 04

Map: 3

WTG-9-3

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 04

Map: 4

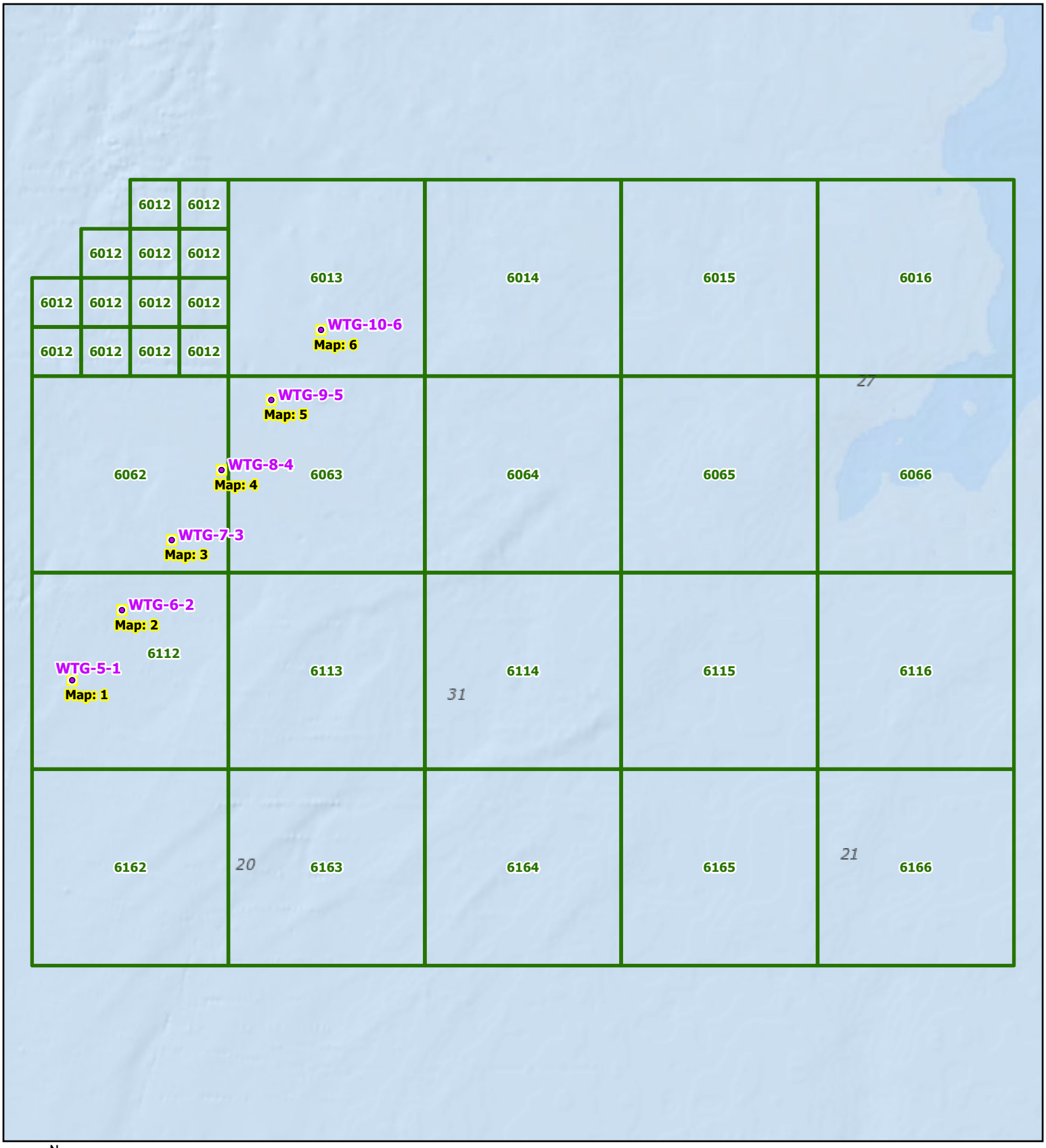
WTG-10-4

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 2
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 6



N
W E
S
Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:125,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

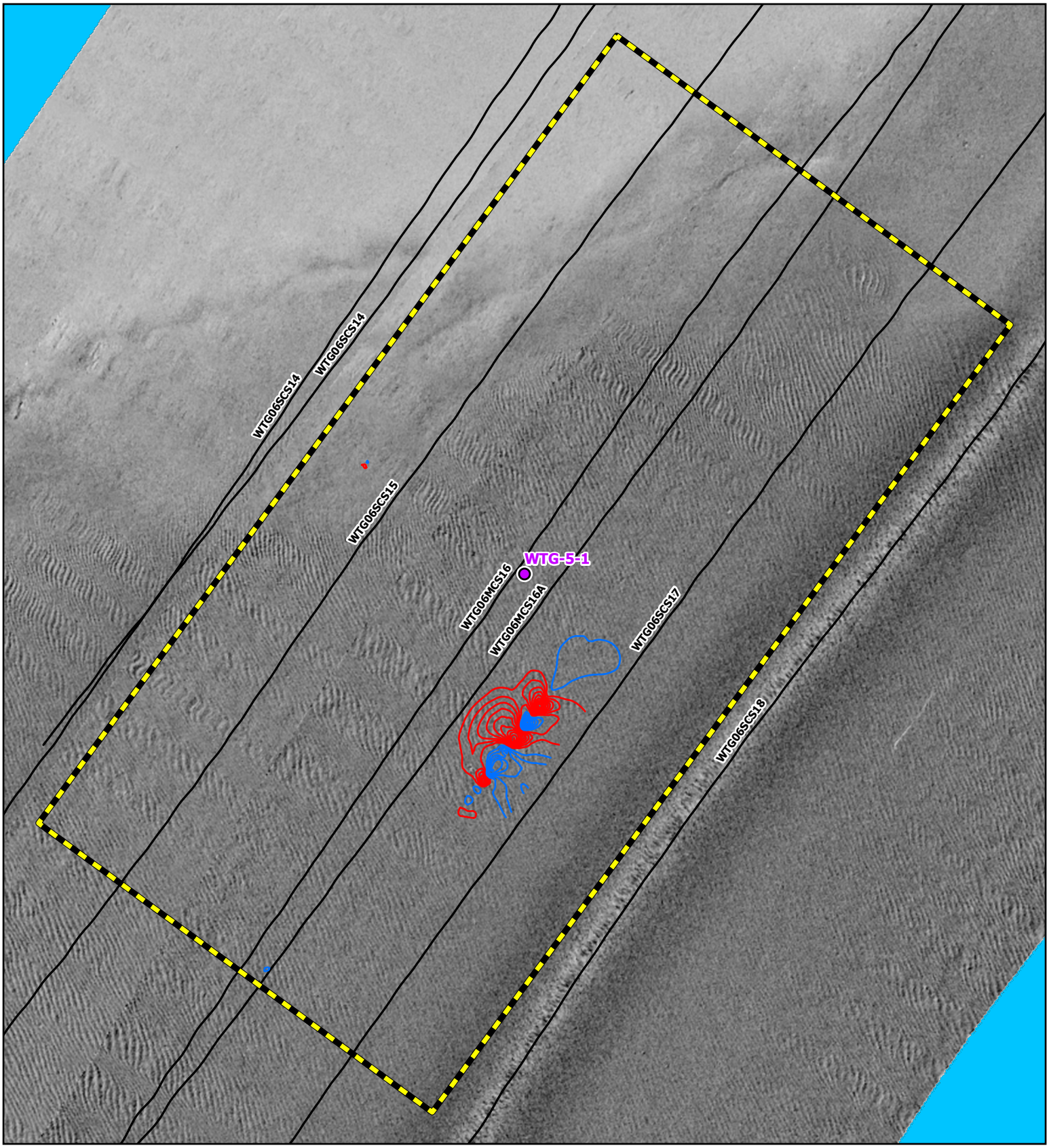
0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 06

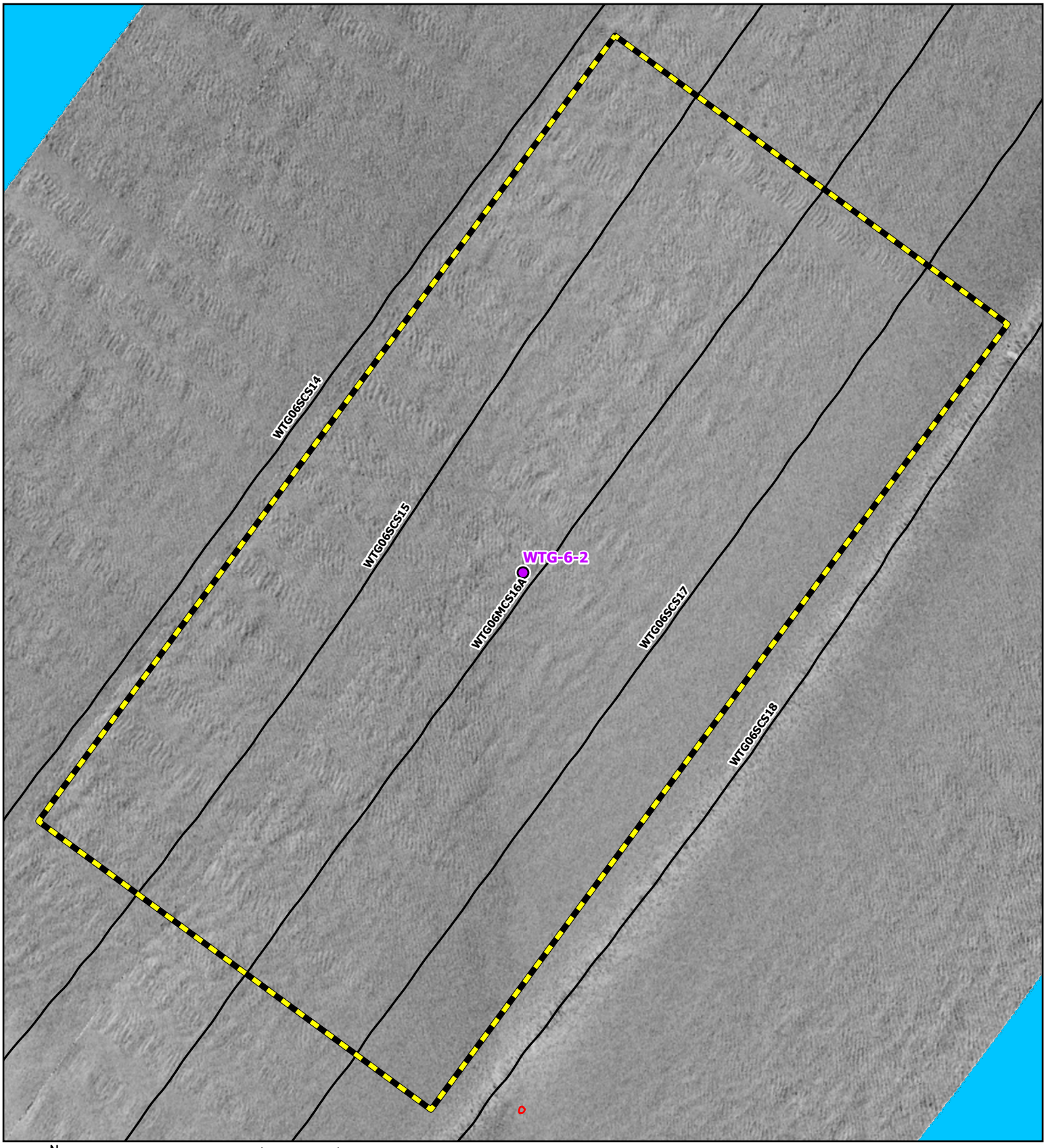
Map: 1

WTG-5-1

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

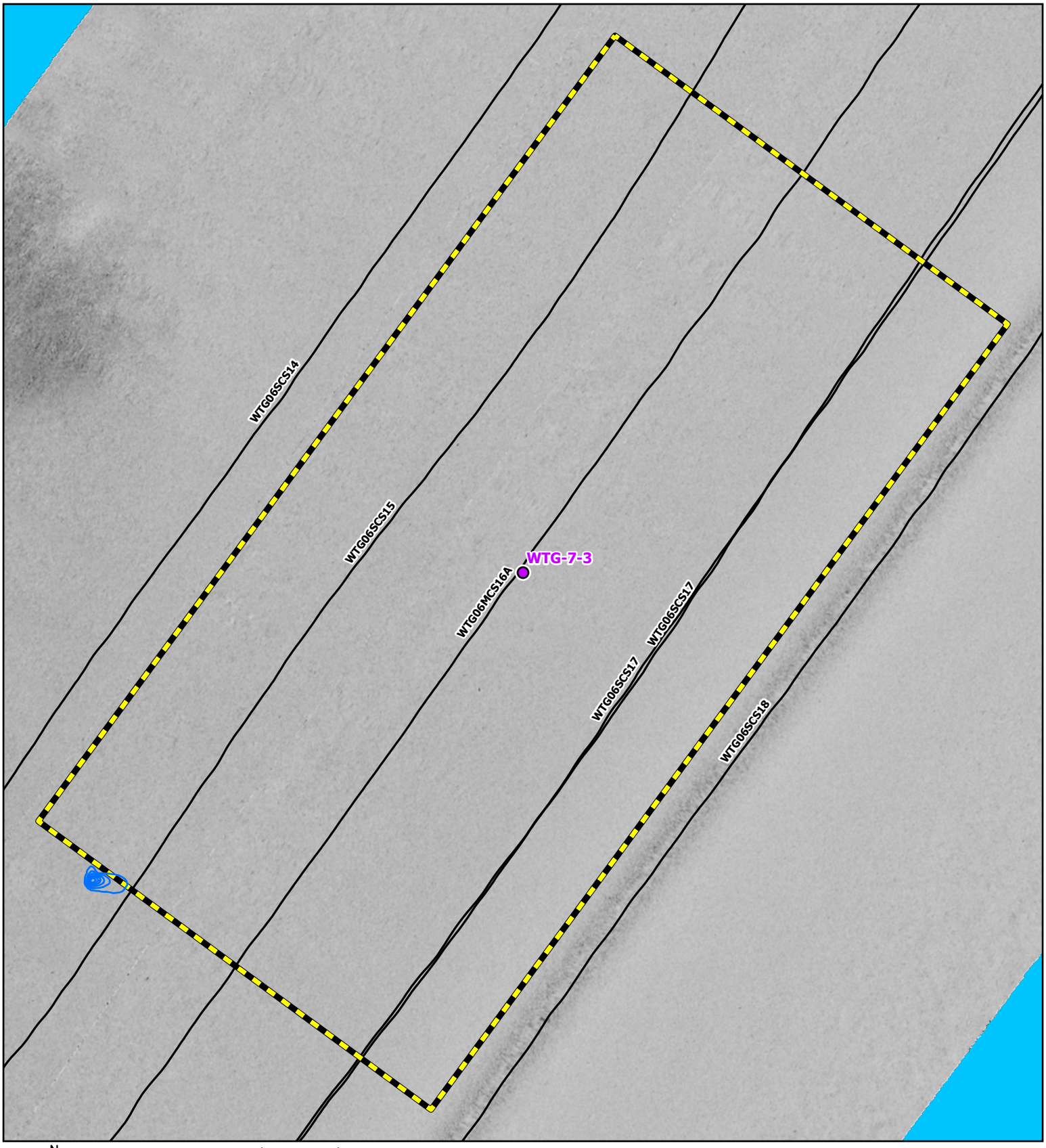
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06

Map: 2

WTG-6-2

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

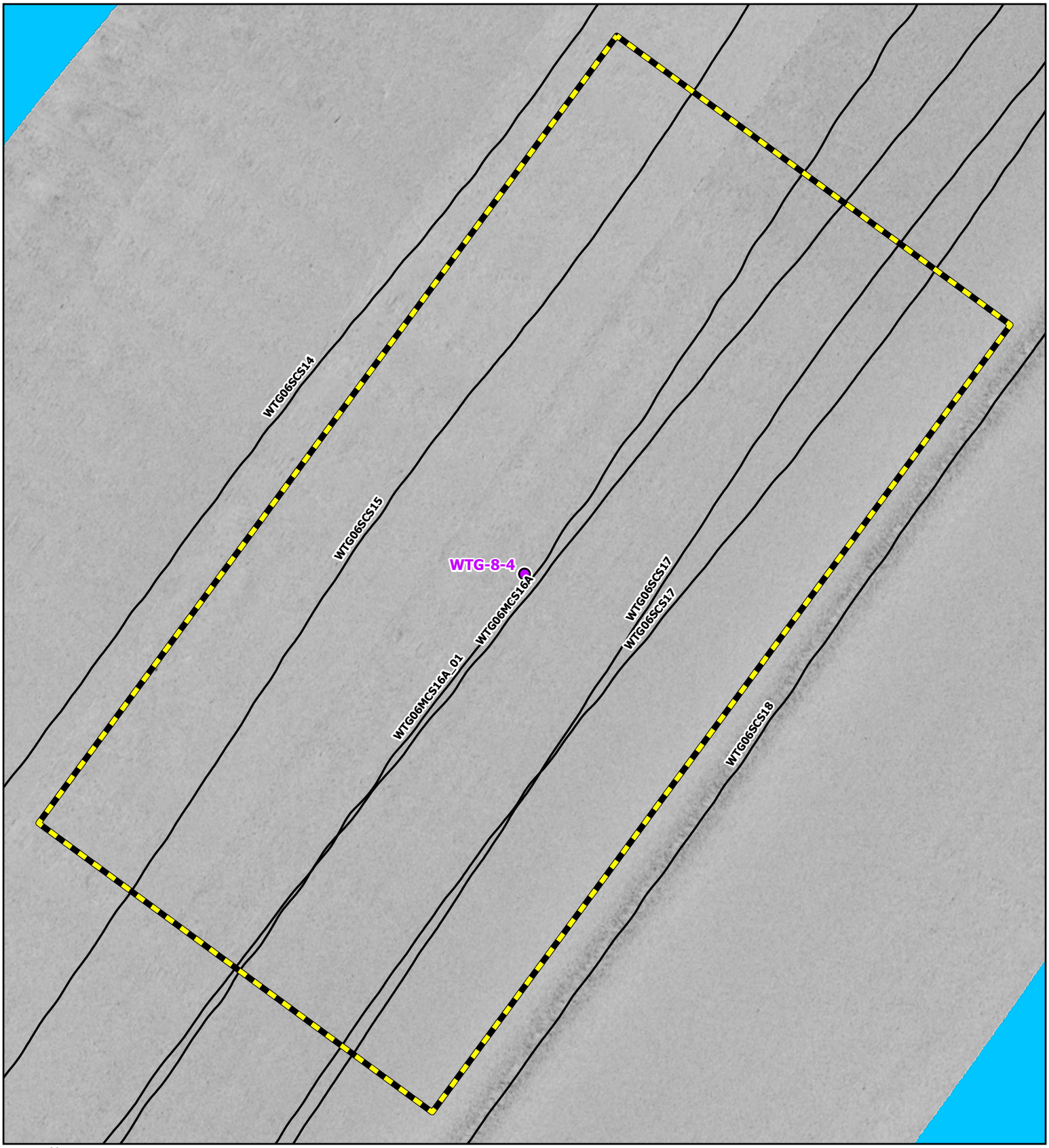
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 06

Map: 3

WTG-7-3

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 06

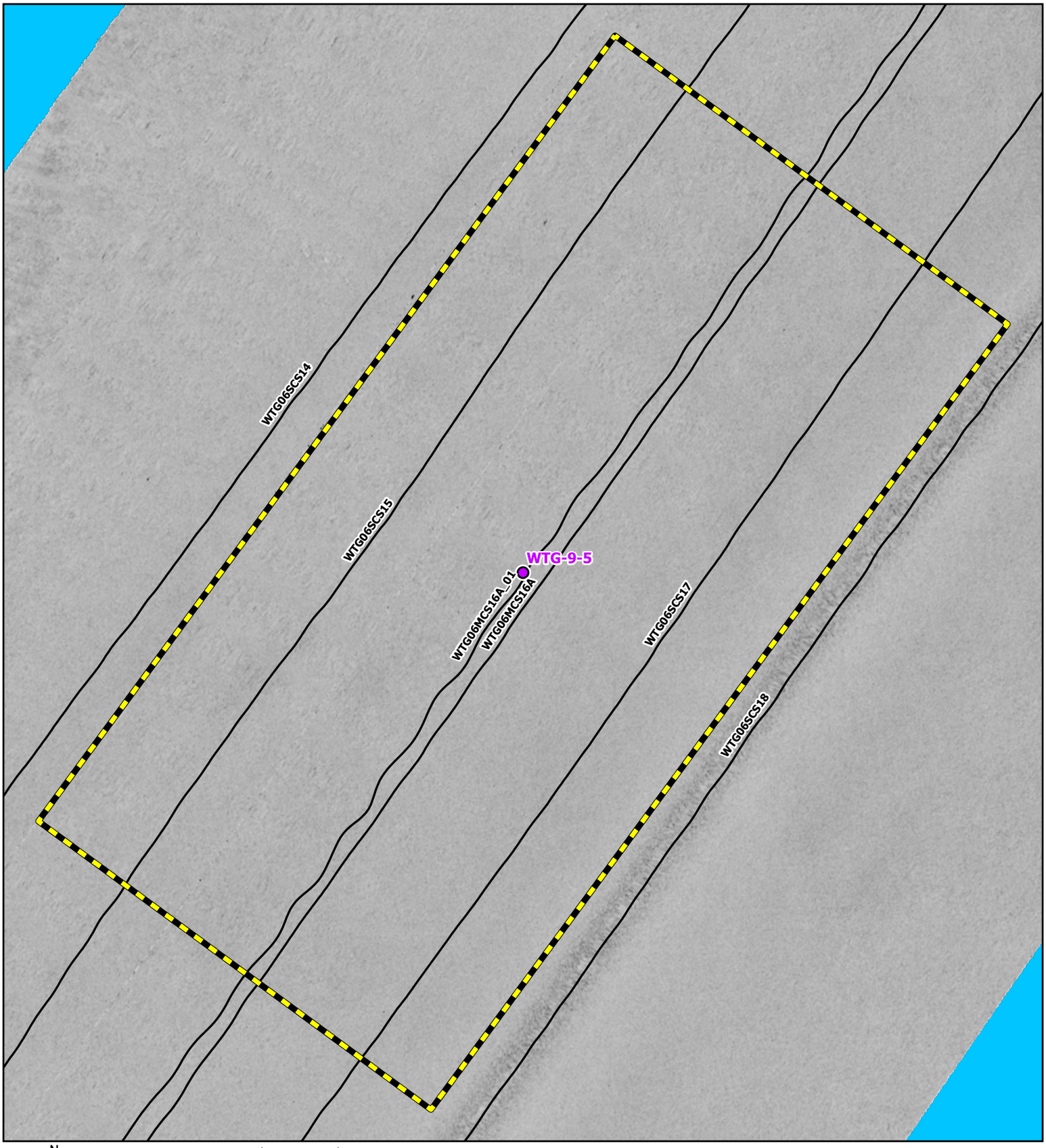
Map: 4

WTG-8-4

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MARINE ARCHAEOLOGY FROM STEM TO STERN



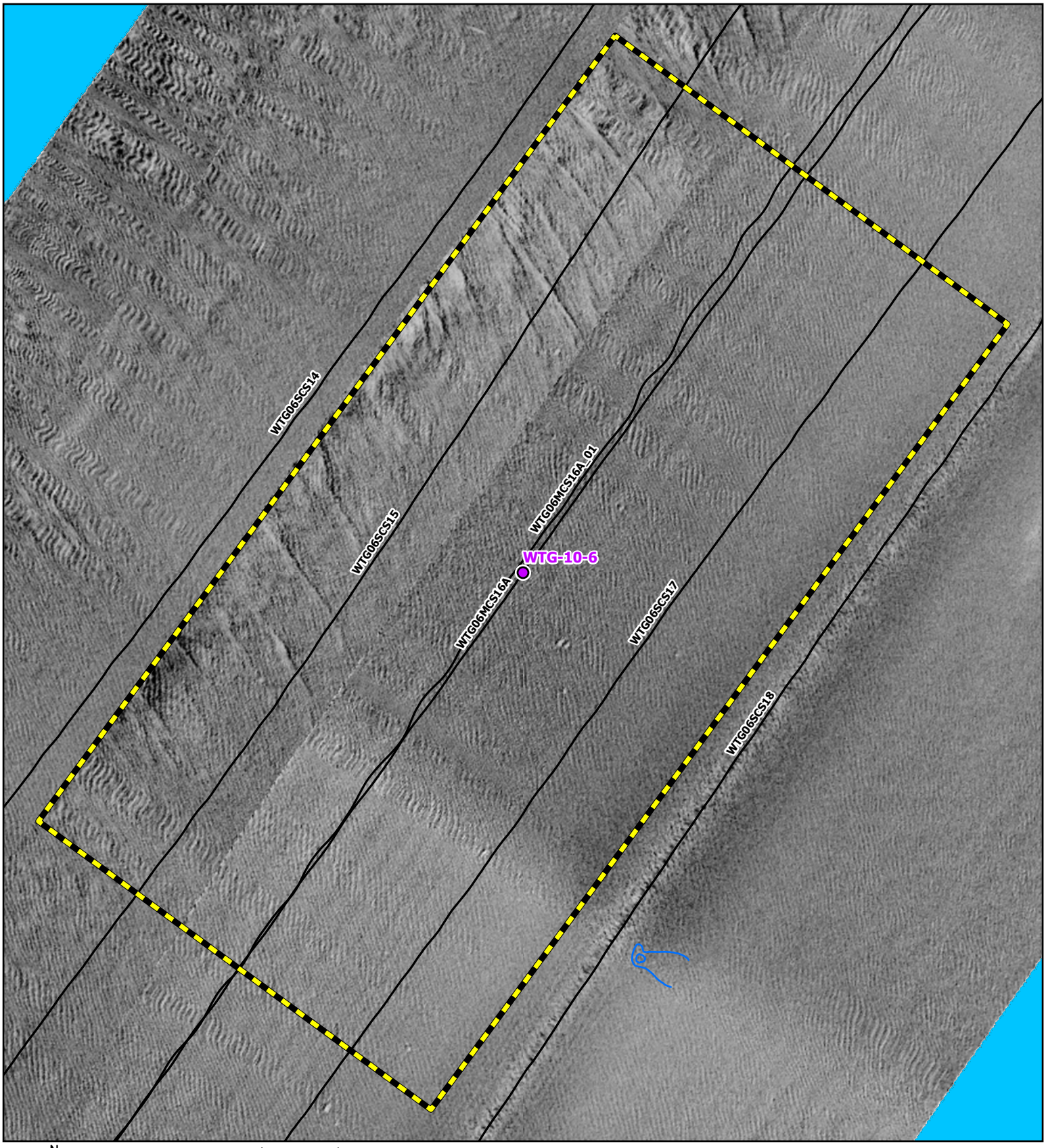
N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06
Map: 5
WTG-9-5

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06

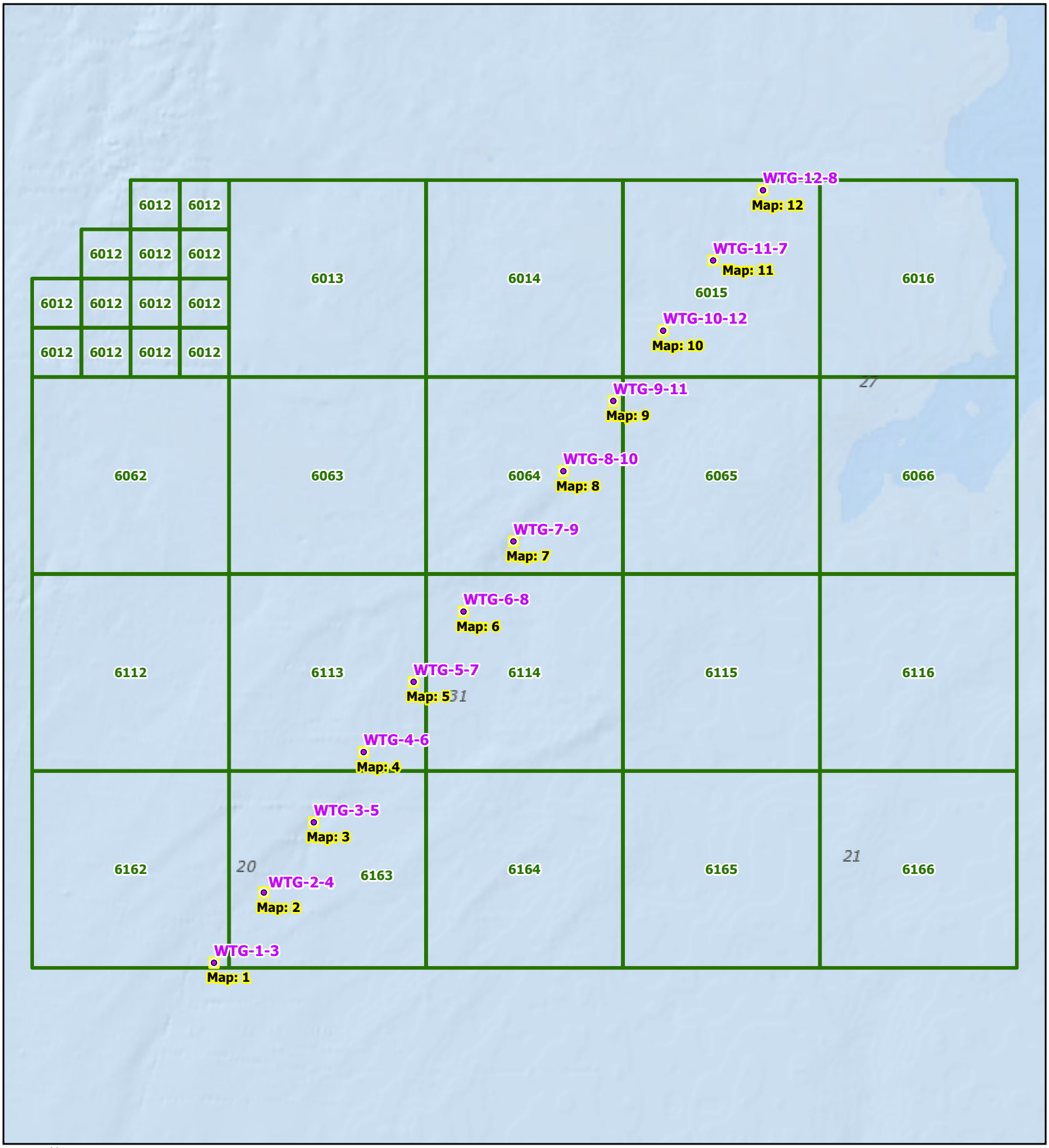
Map: 6

WTG-10-6

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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APPENDIX 3
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 12



N
W E
S
Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:125,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

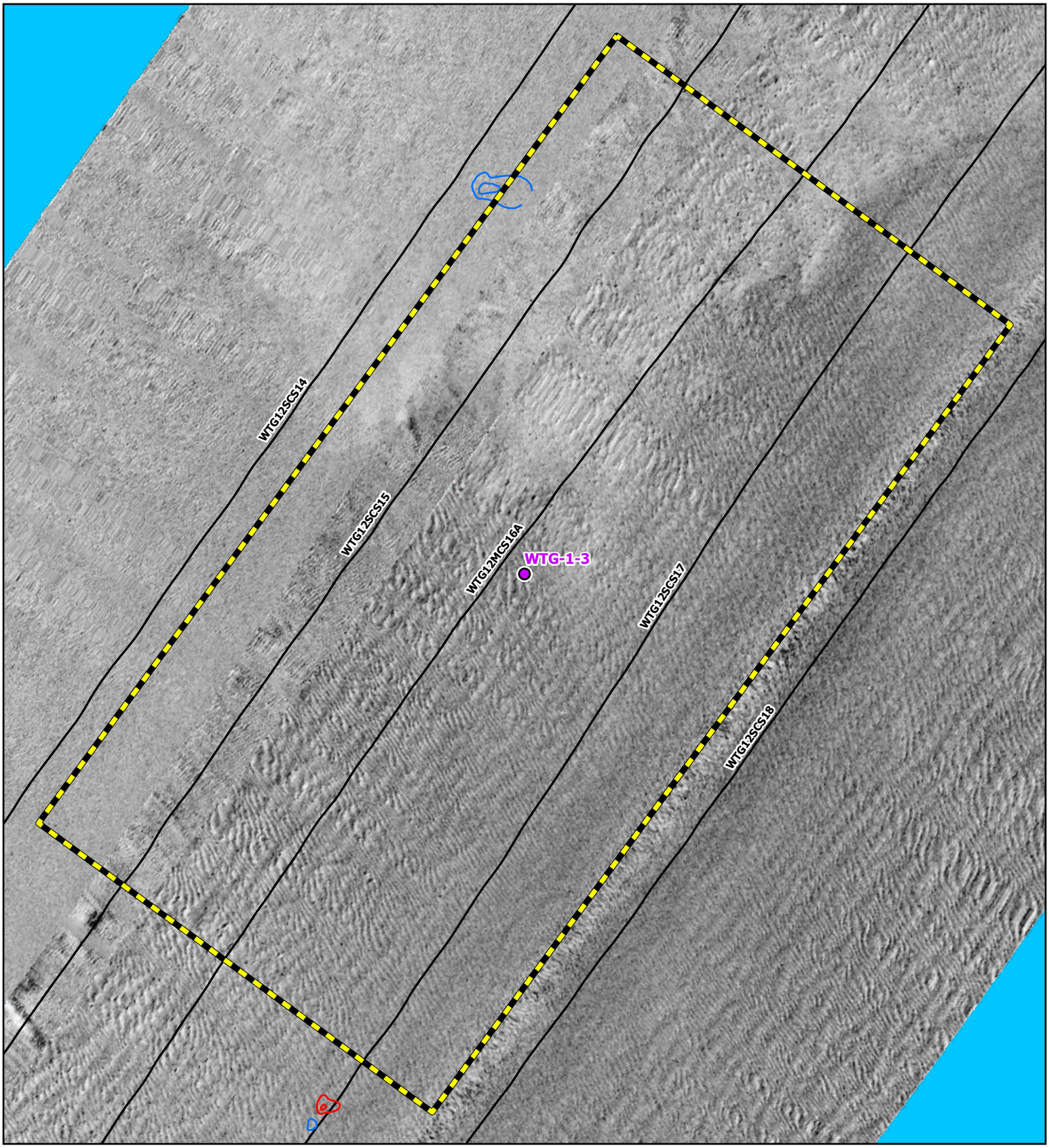
0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

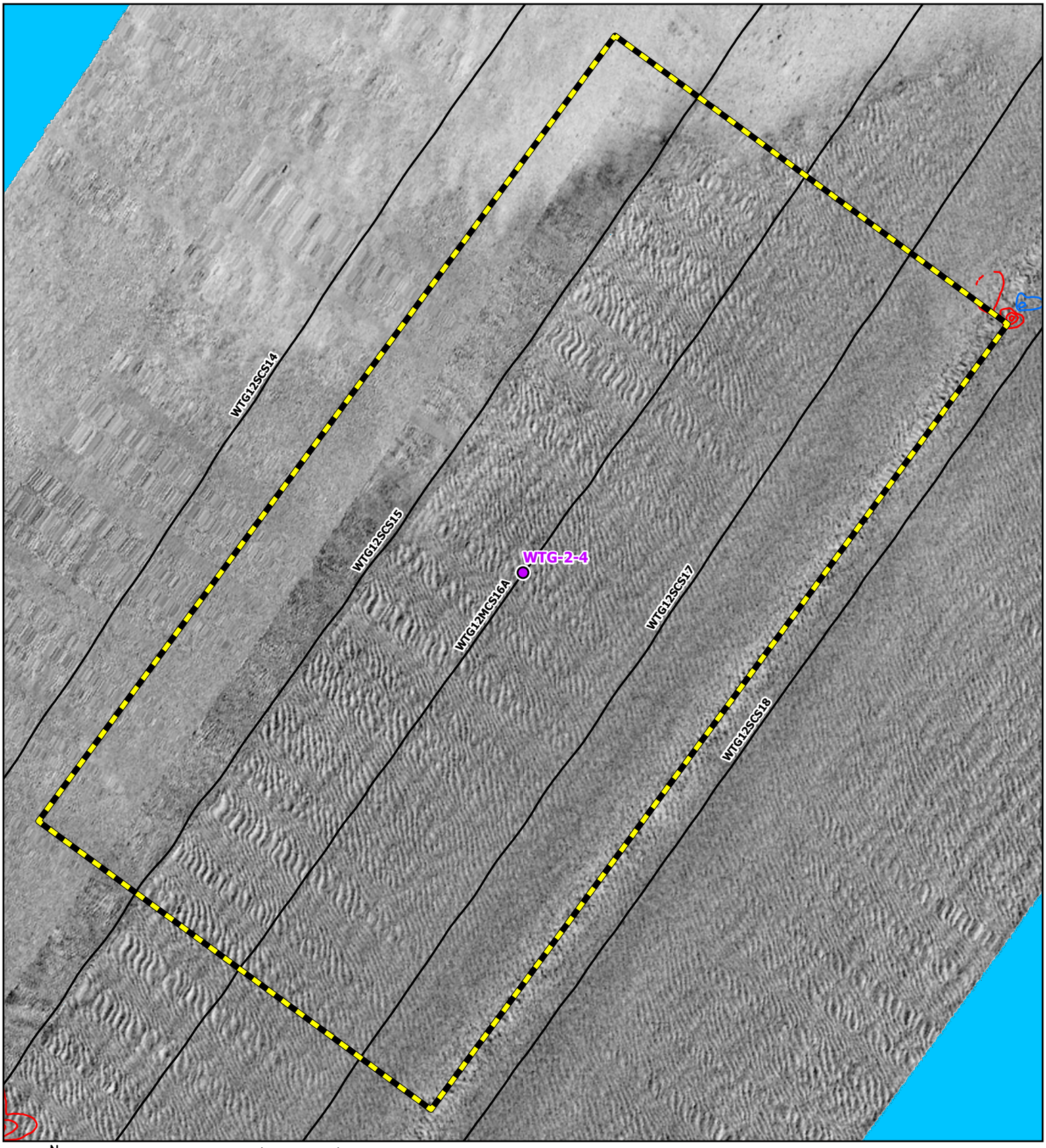
Map: 1

WTG-1-3

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

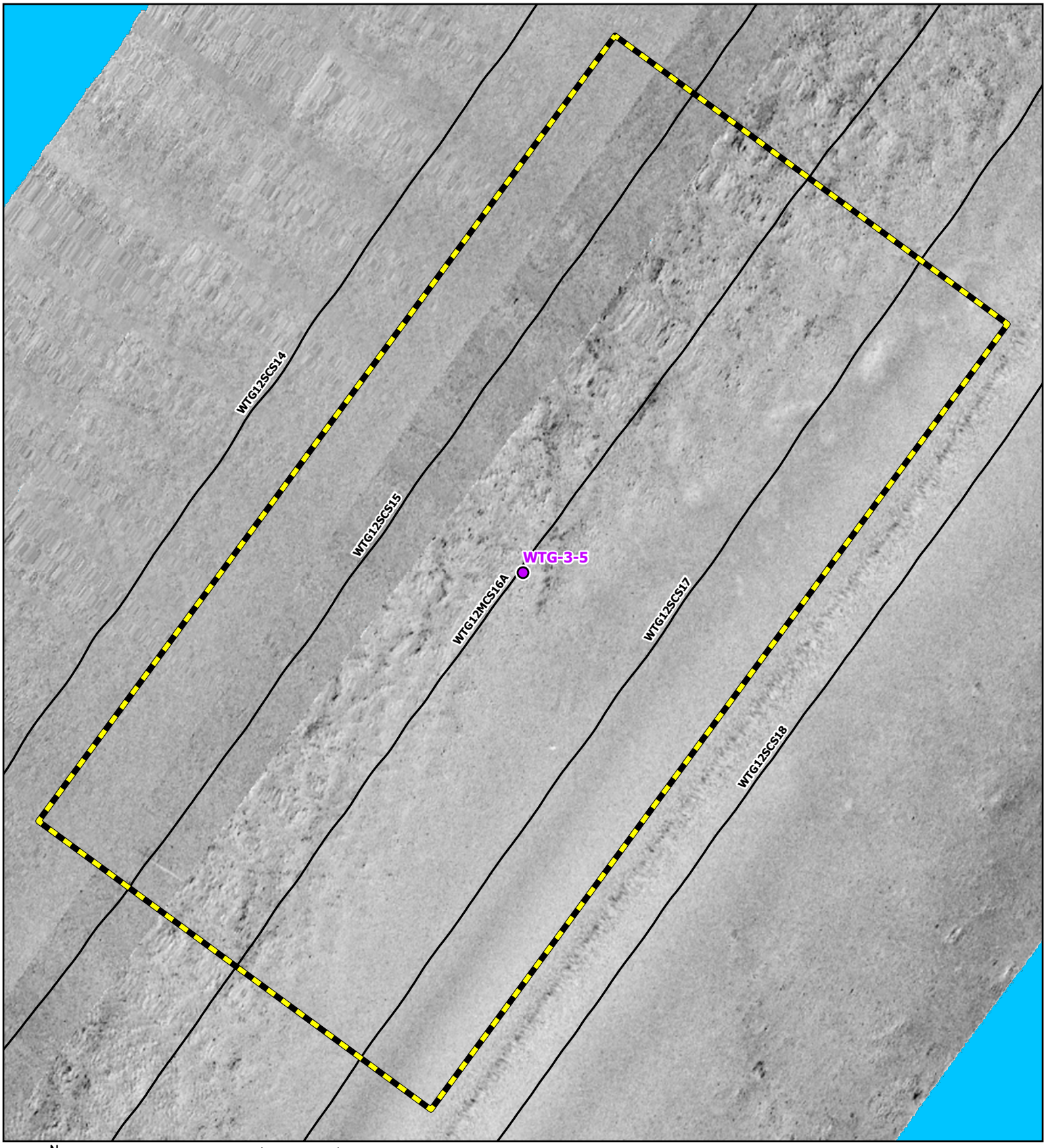
Map: 2

WTG-2-4

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

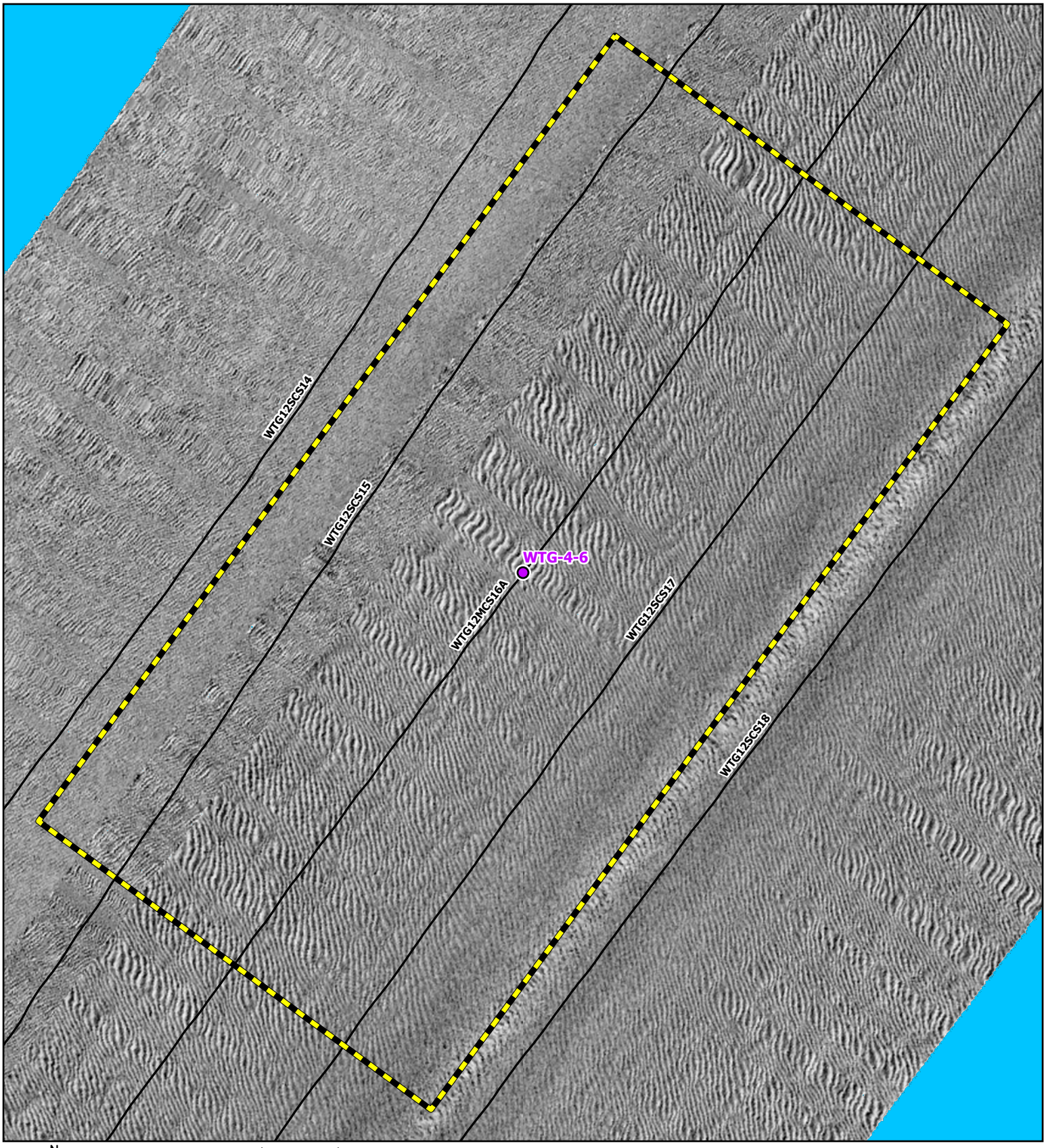
Map: 3

WTG-3-5

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

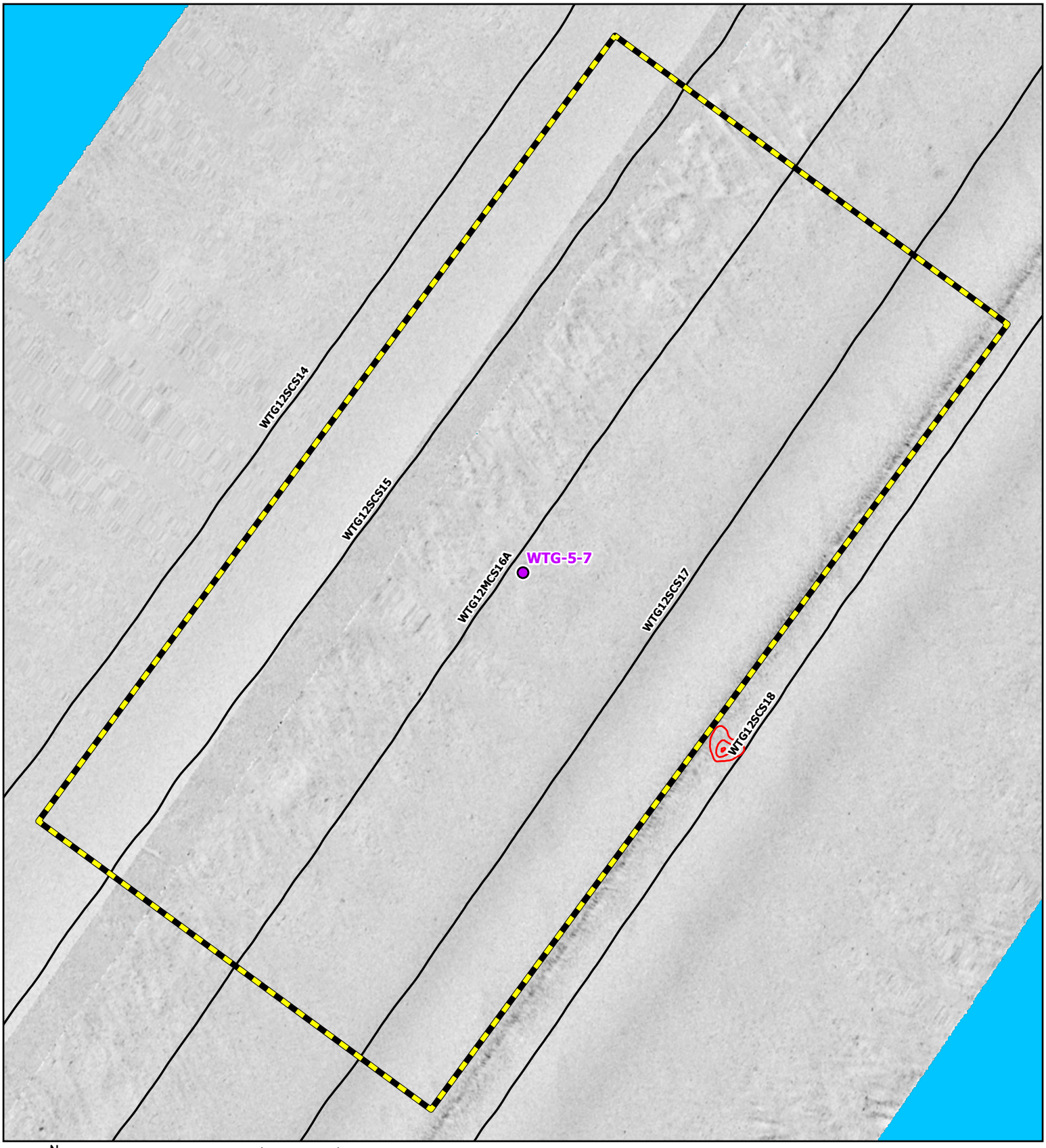
Map: 4

WTG-4-6

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MARINE ARCHAEOLOGY FROM STEM TO STERN



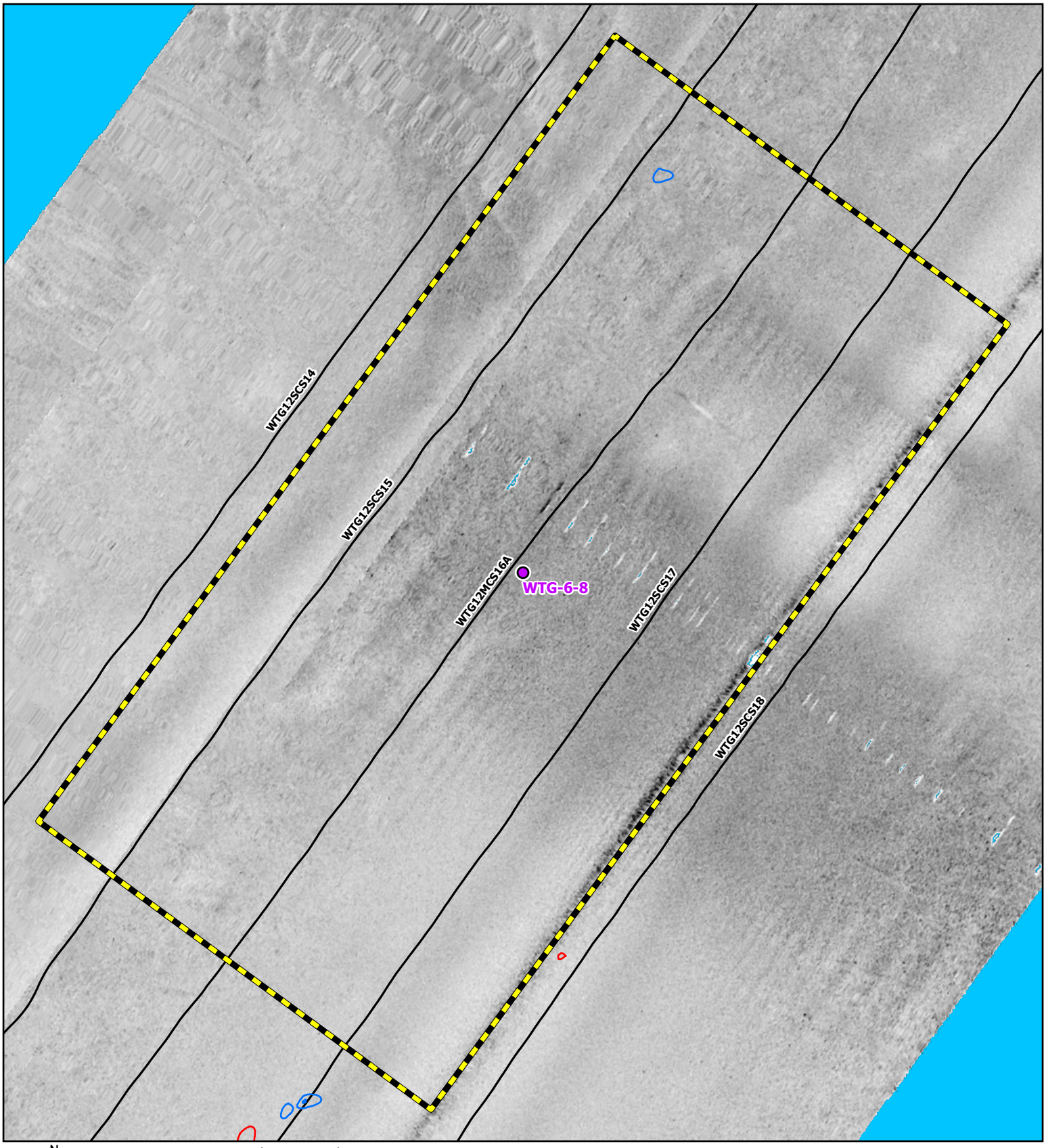
N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12
Map: 5
WTG-5-7

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

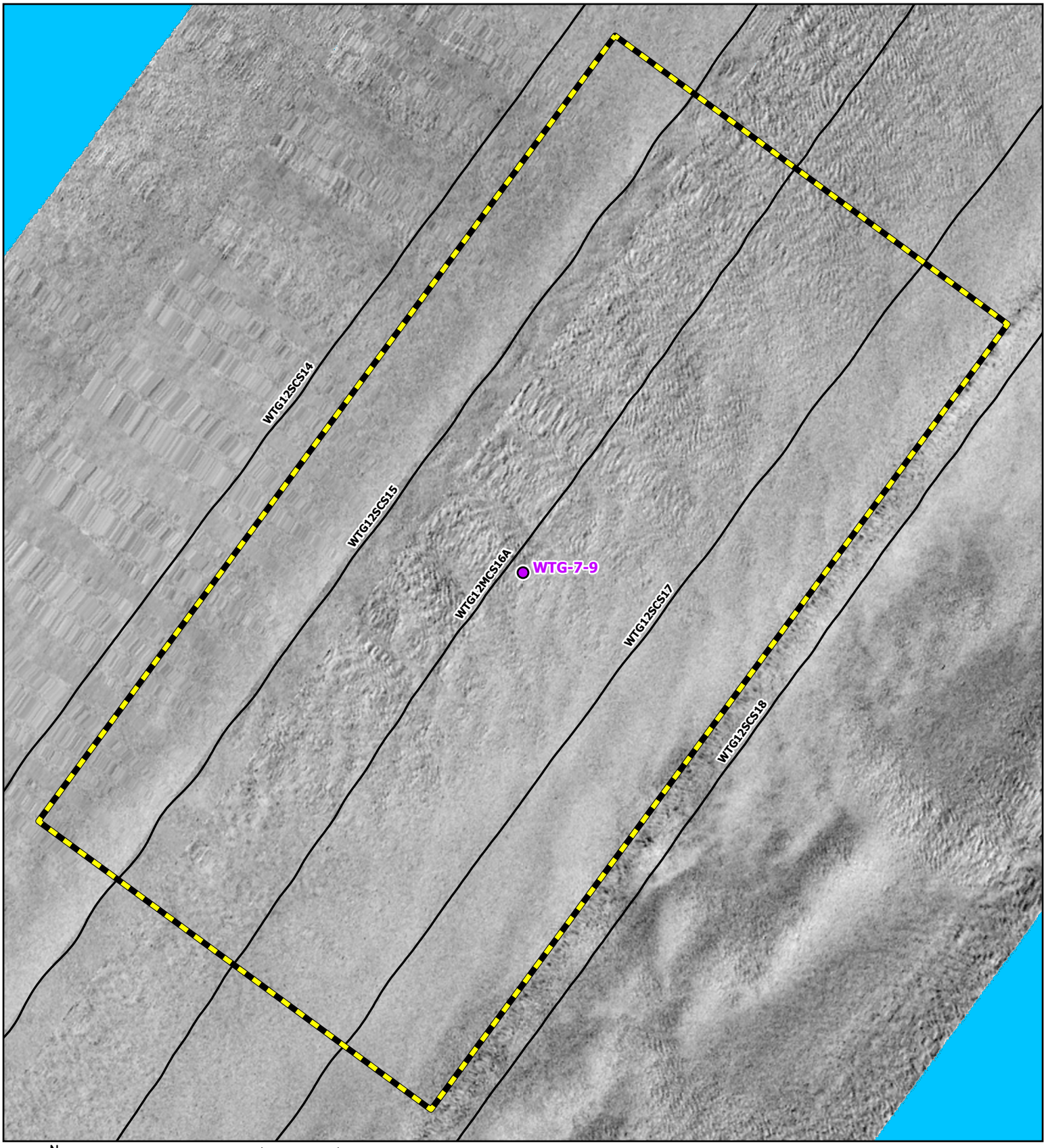
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12
Map: 6
WTG-6-8

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

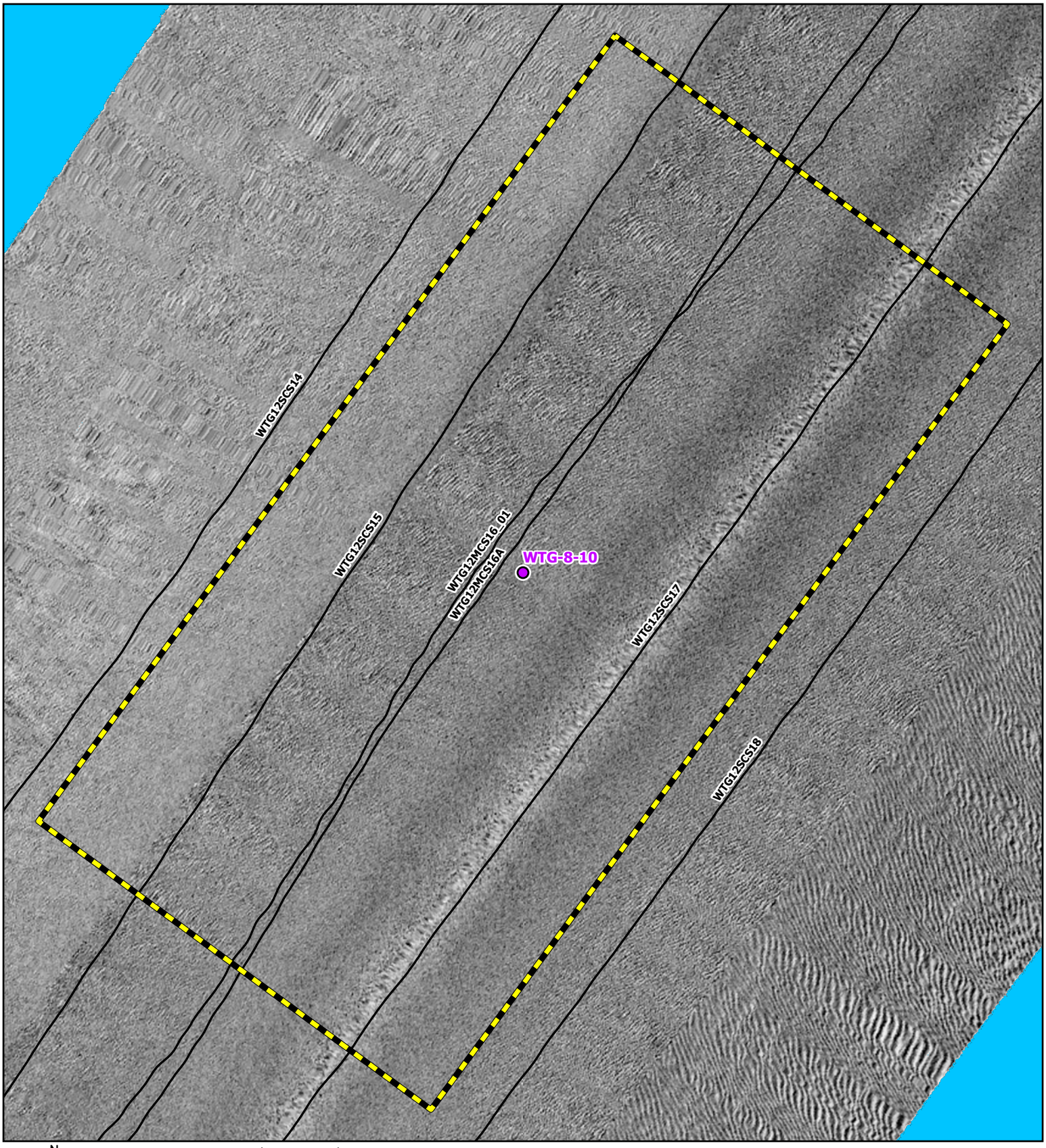
Map: 7

WTG-7-9

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

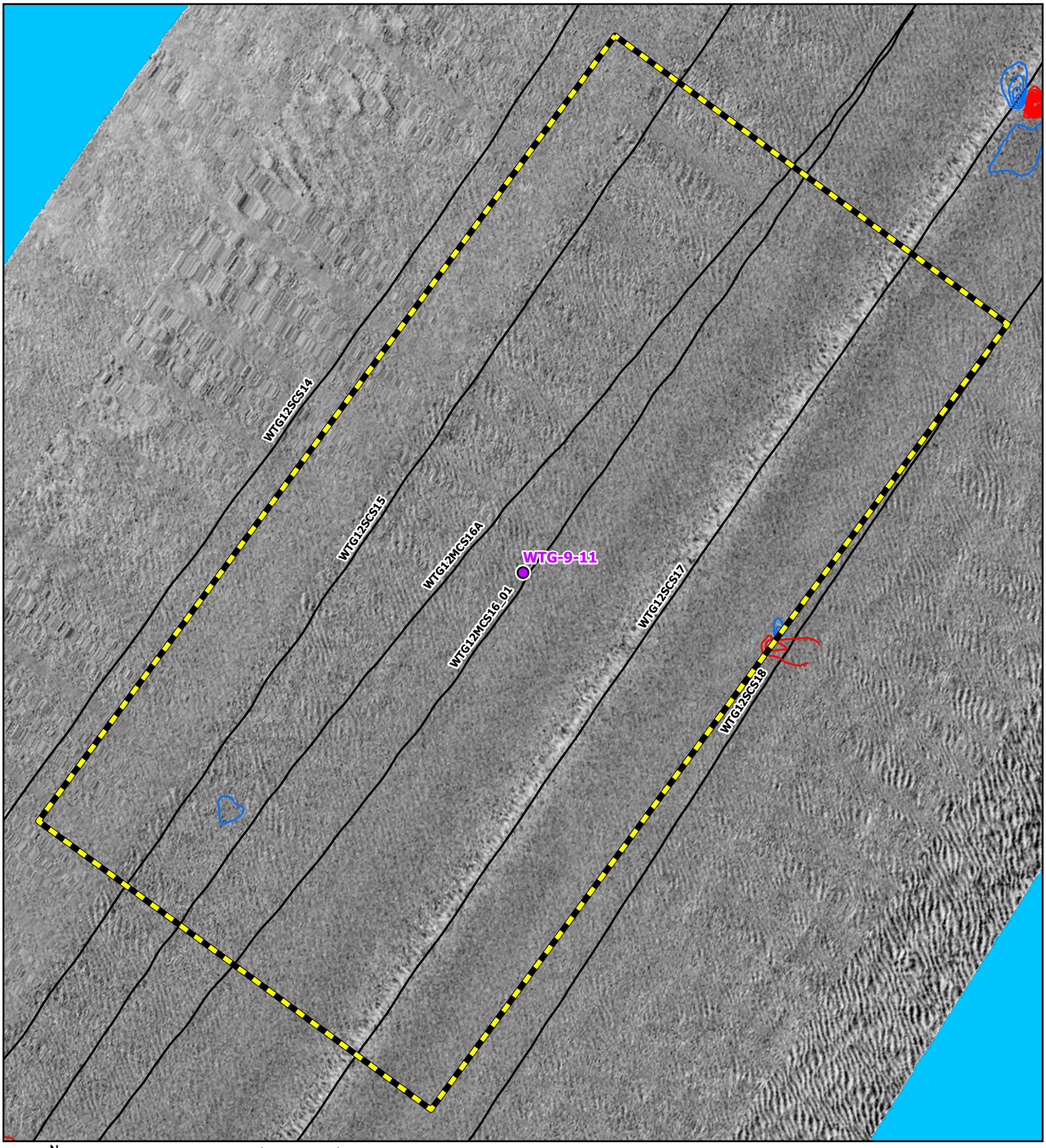
Map: 8

WTG-8-10

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

Map: 9

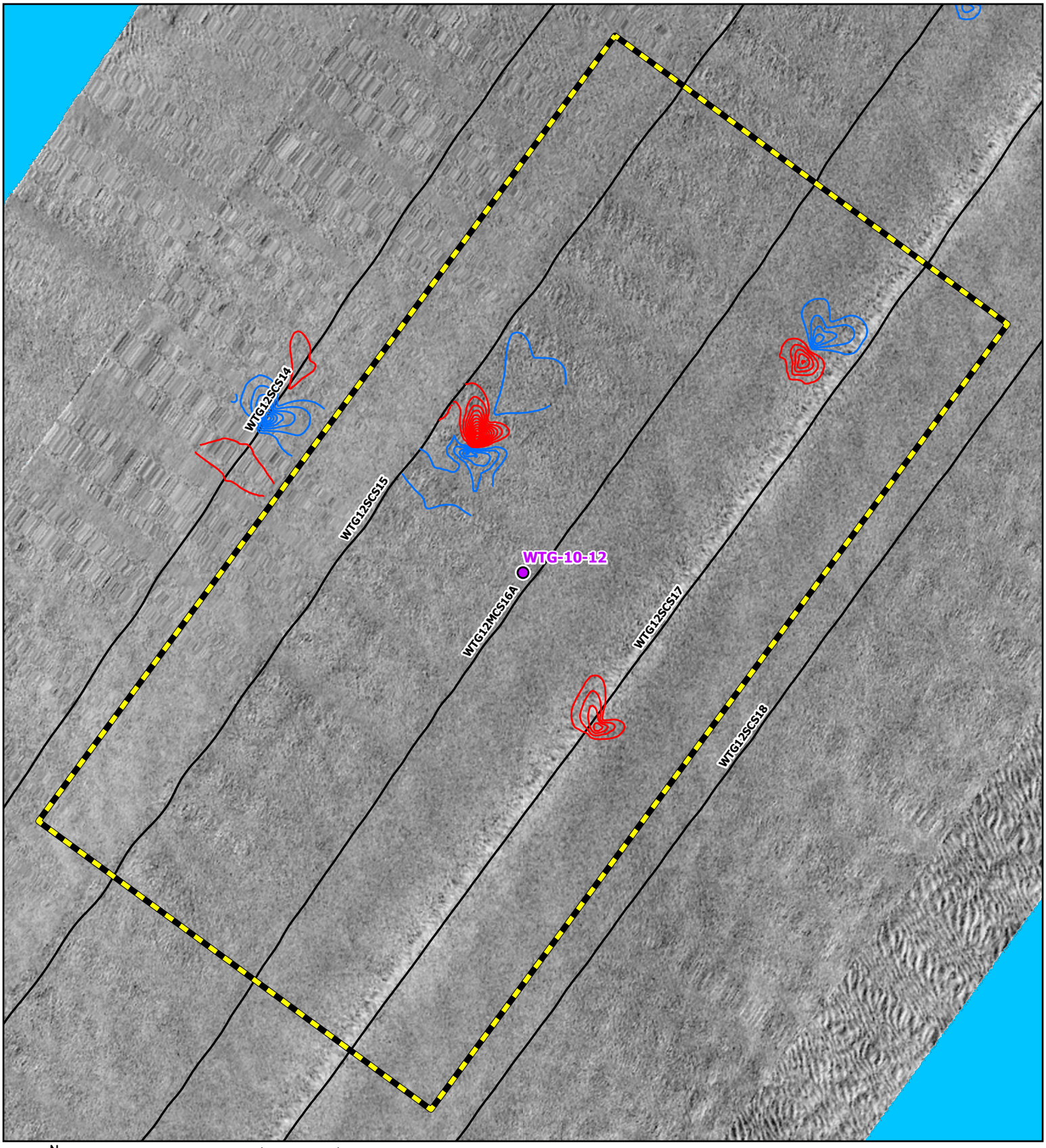
WTG-9-11

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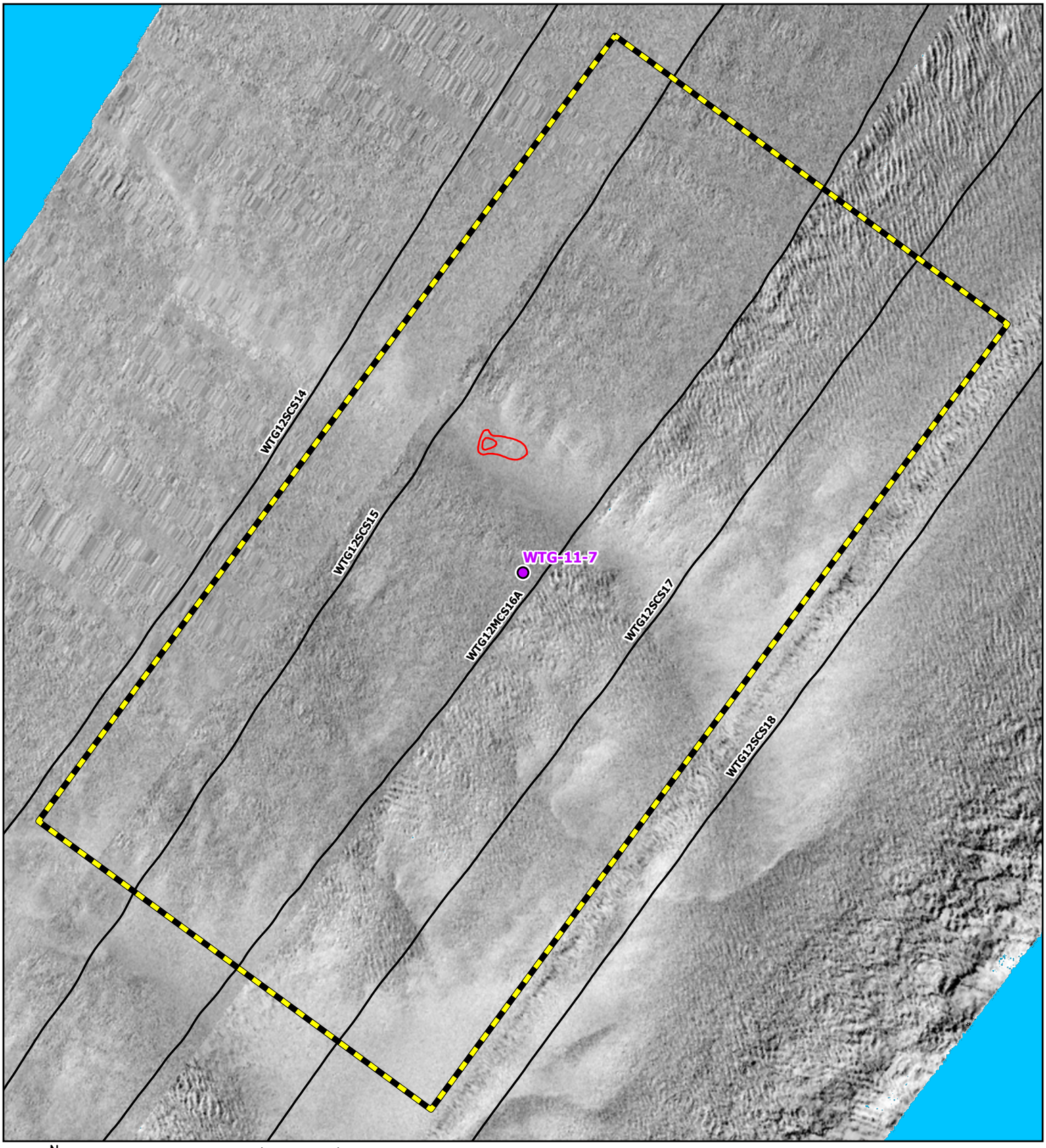
N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12
Map: 10
WTG-10-12

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

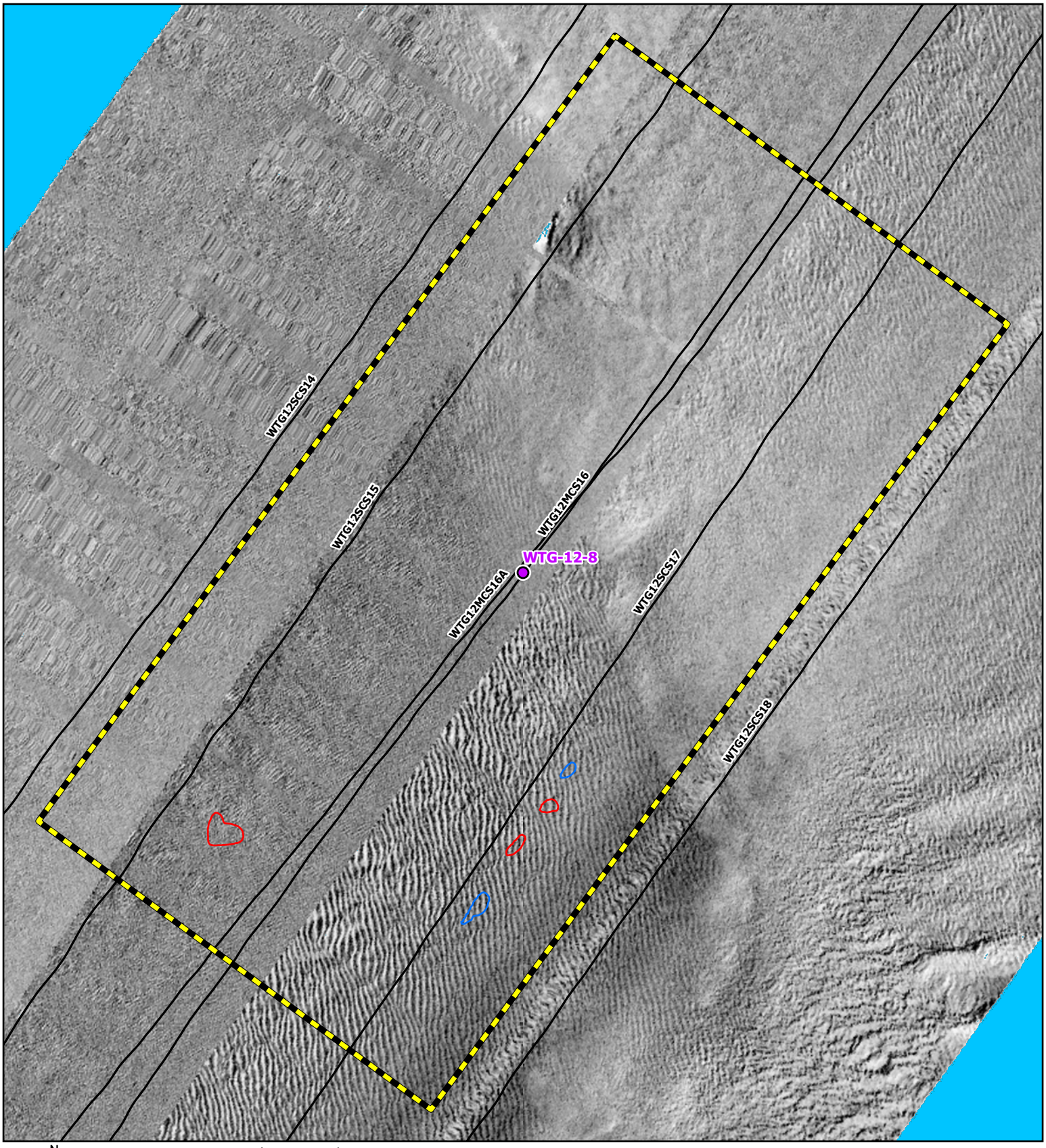
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12

Map: 11

WTG-11-7

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

Map: 12

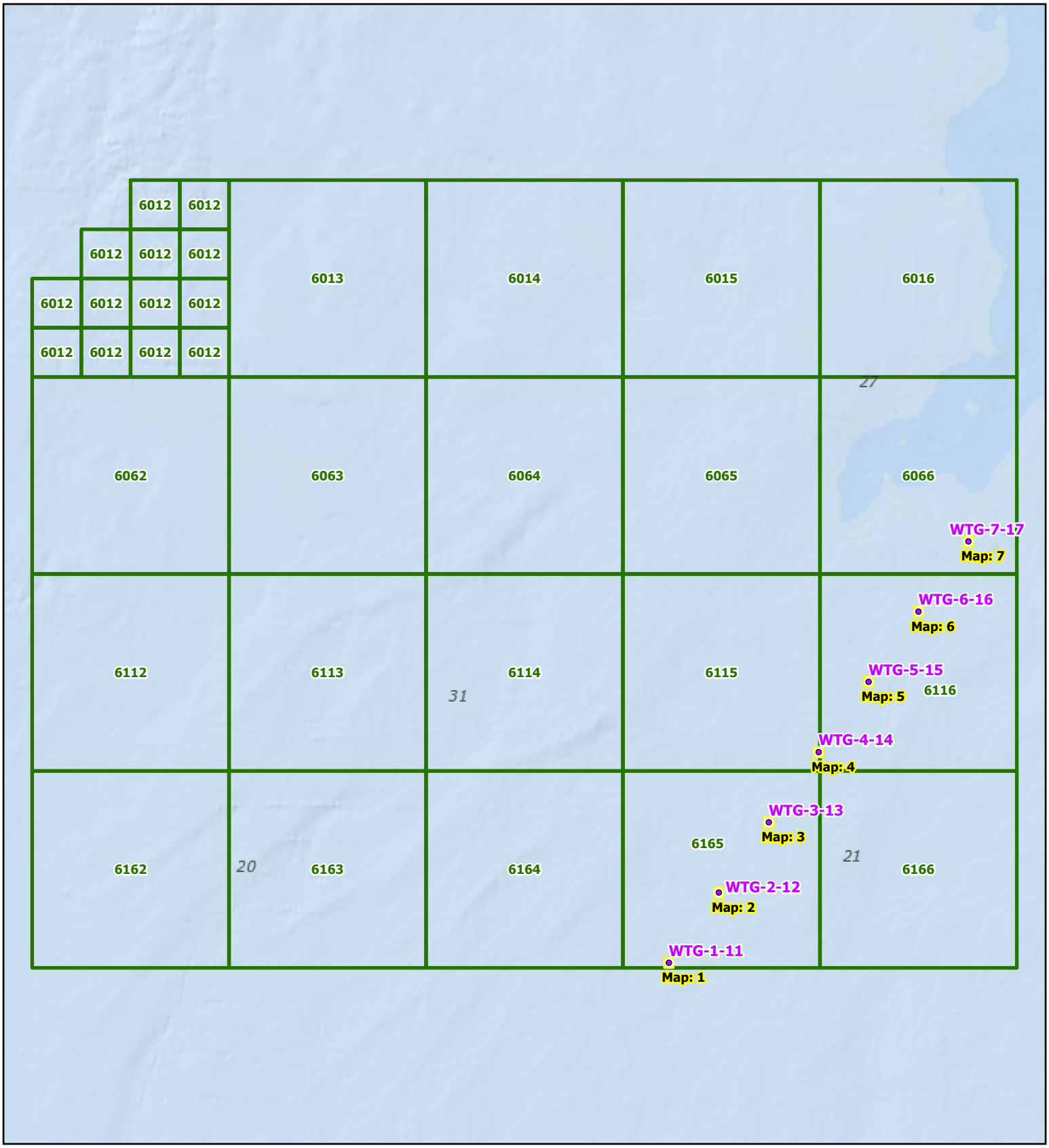
WTG-12-8

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APPENDIX 4
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 20



N
W E
S
Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:125,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

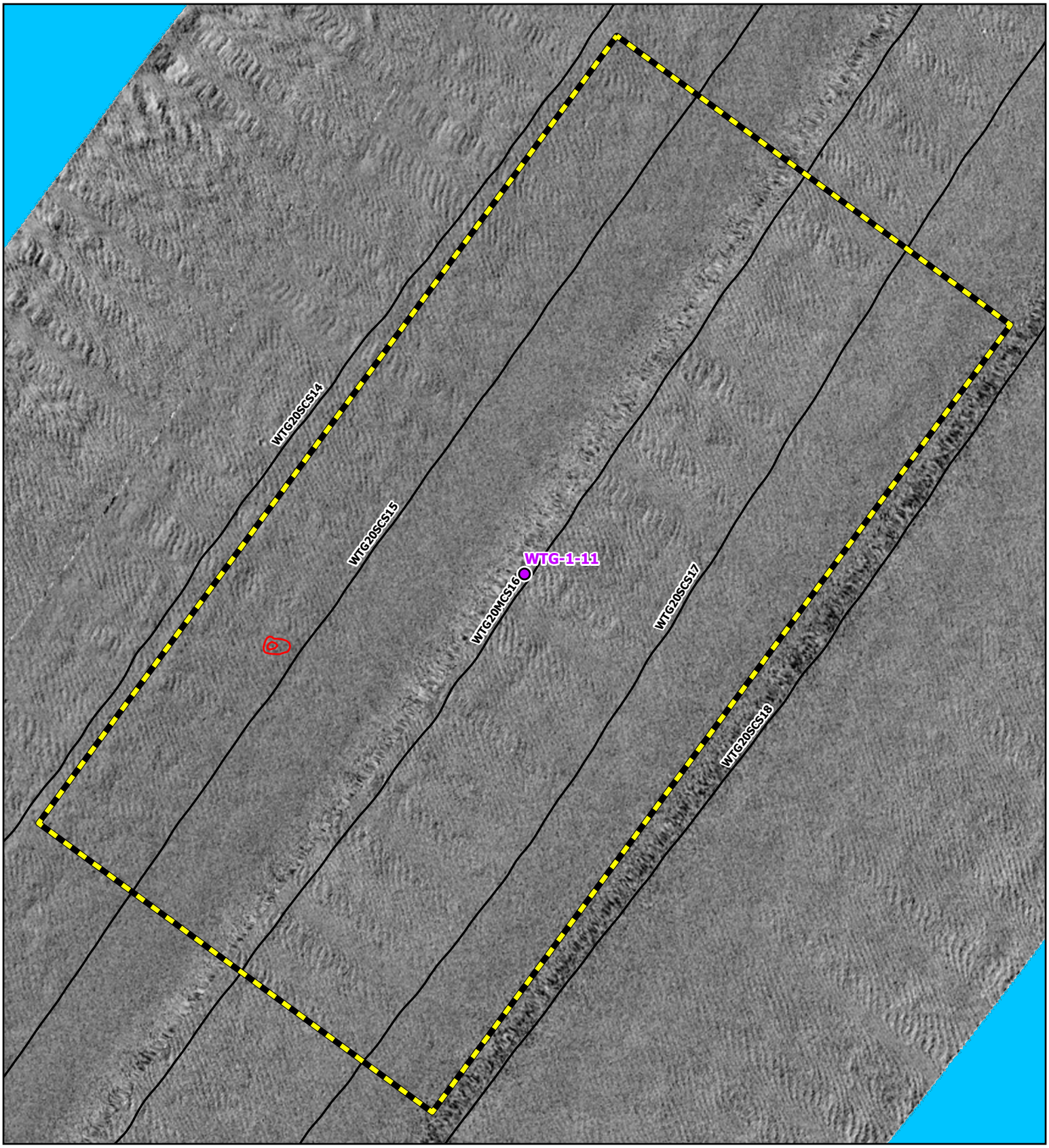
0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

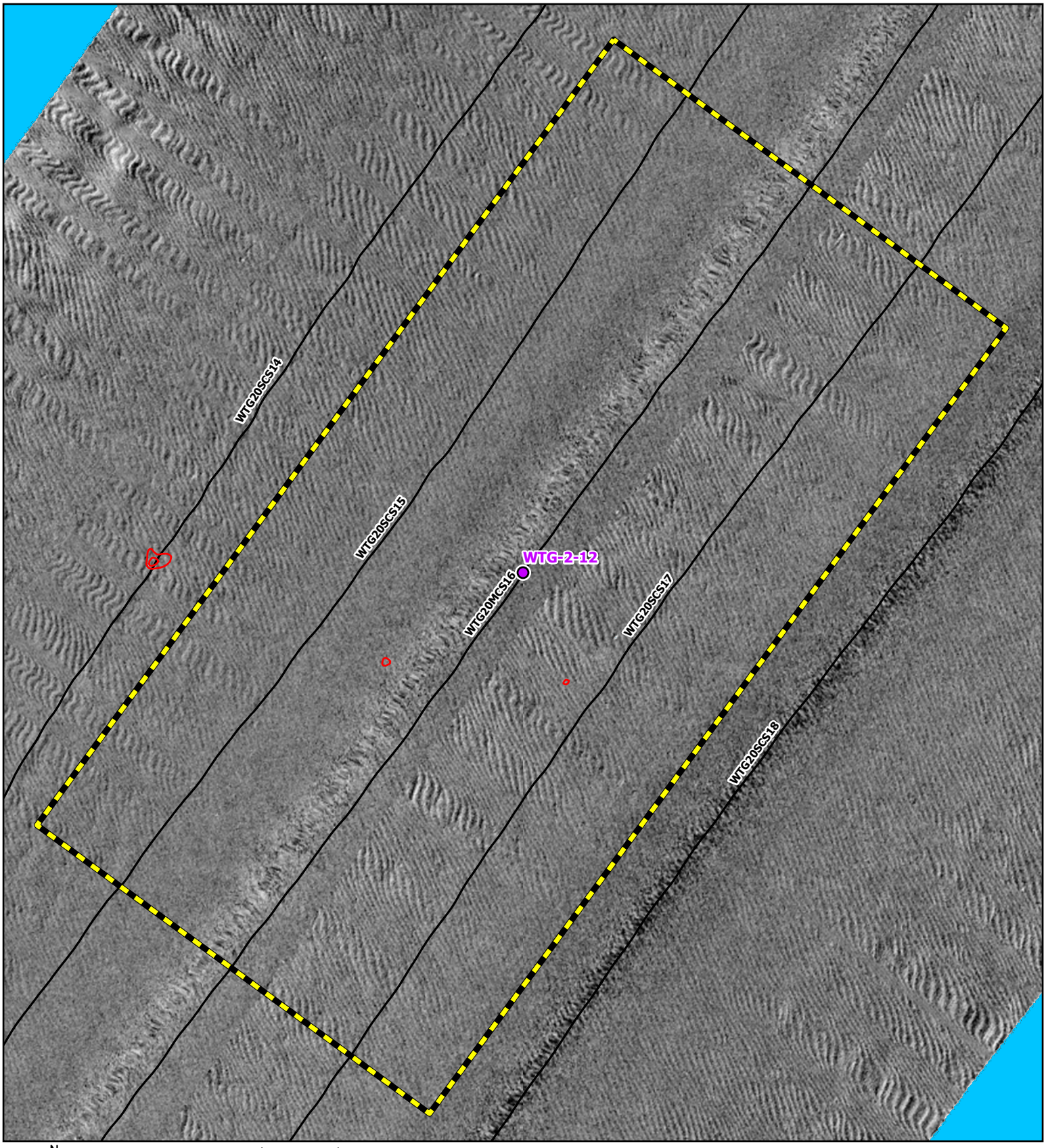
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Map: 1

WTG-1-11

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

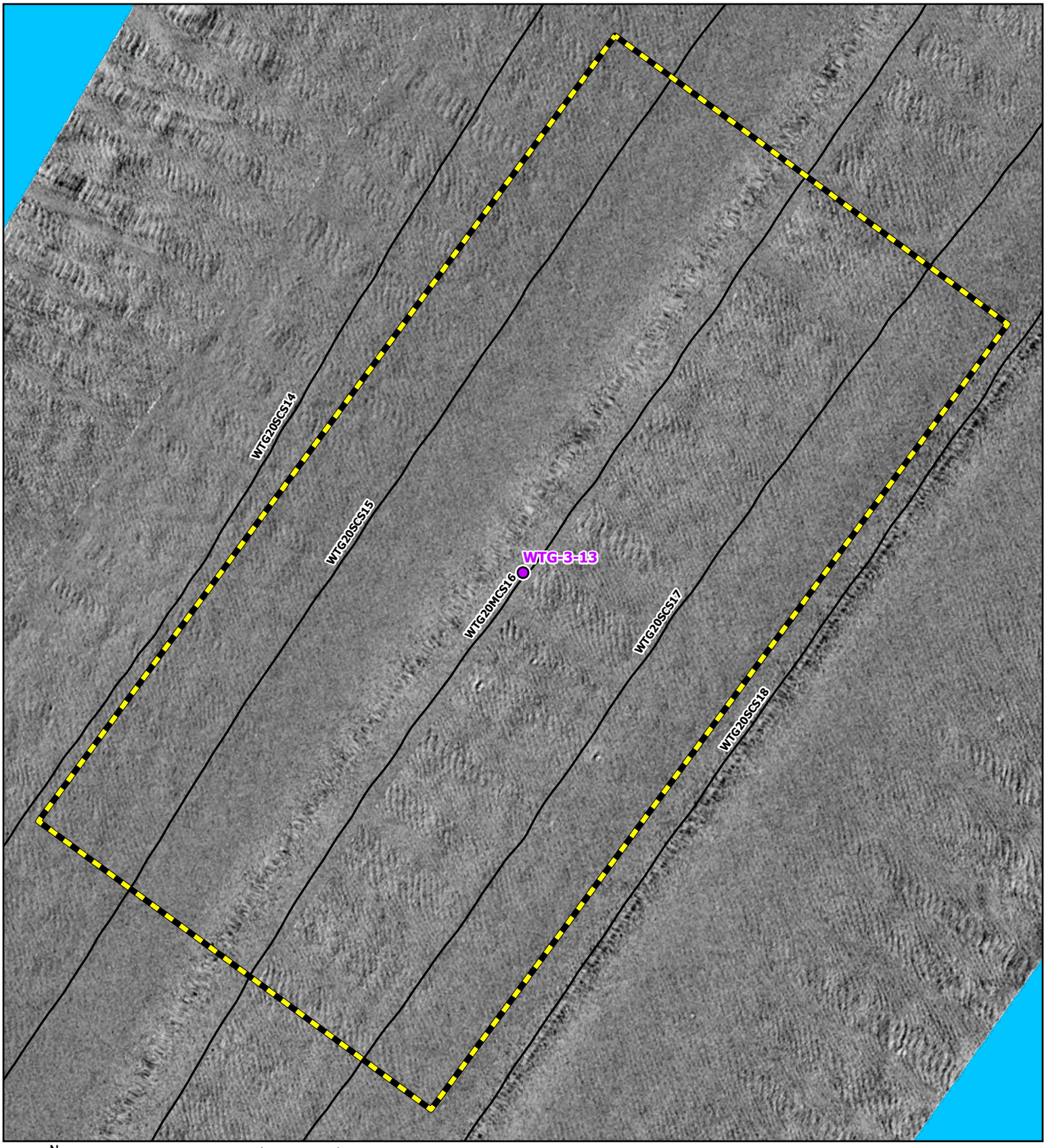
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Map: 2

WTG-2-12

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 20

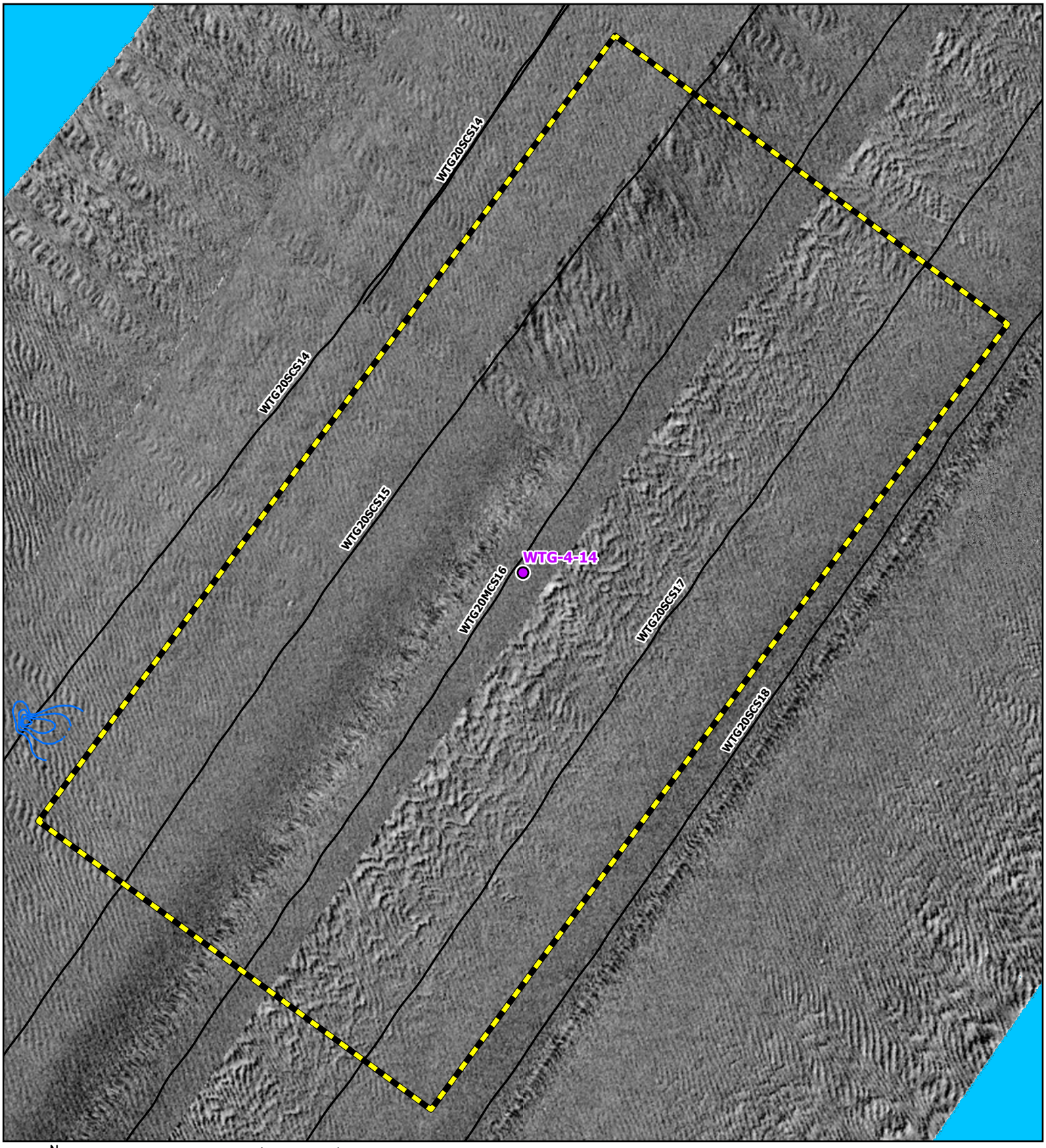
Map: 3

WTG-3-13

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

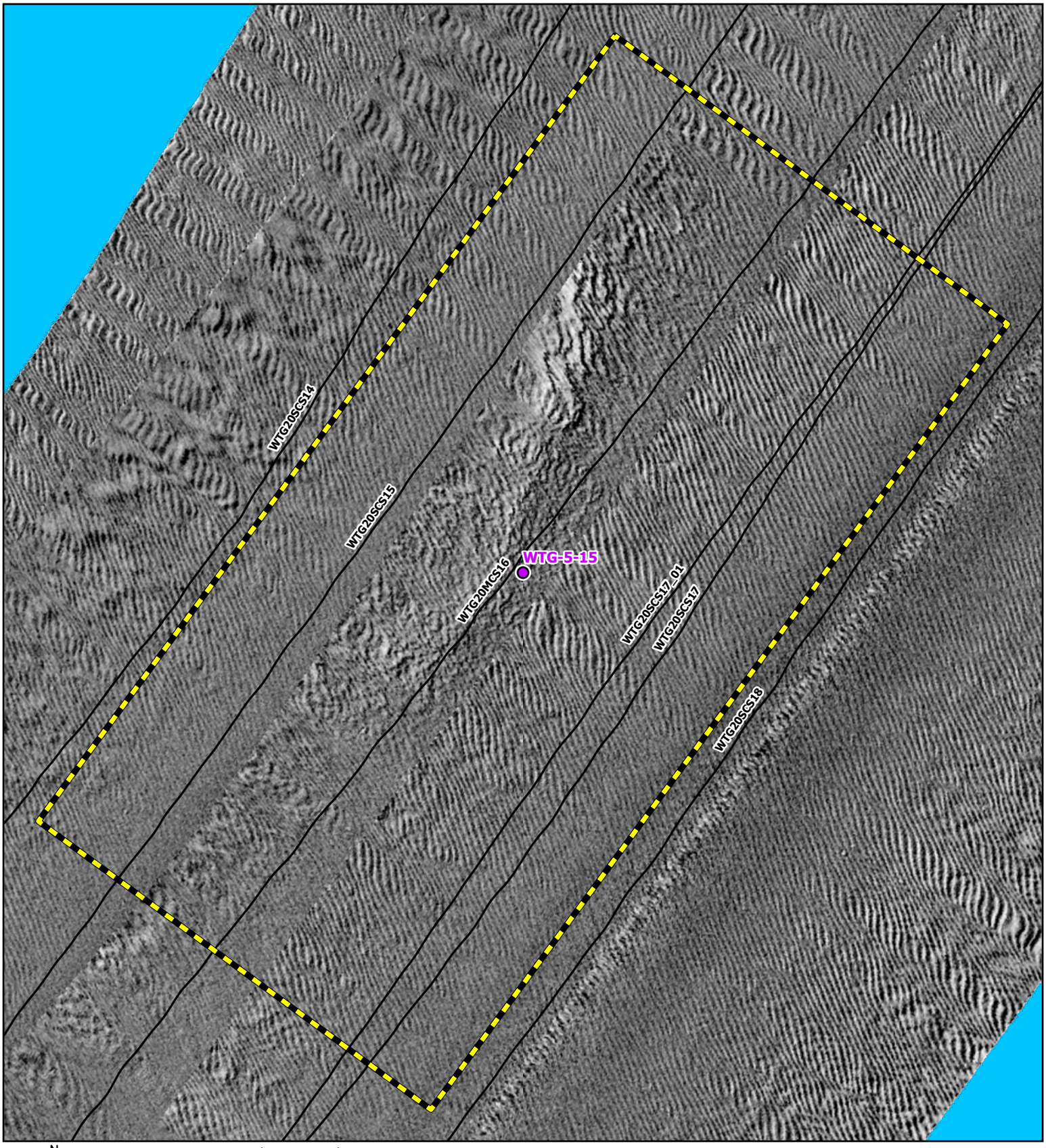
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Map: 4

WTG-4-14

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 20

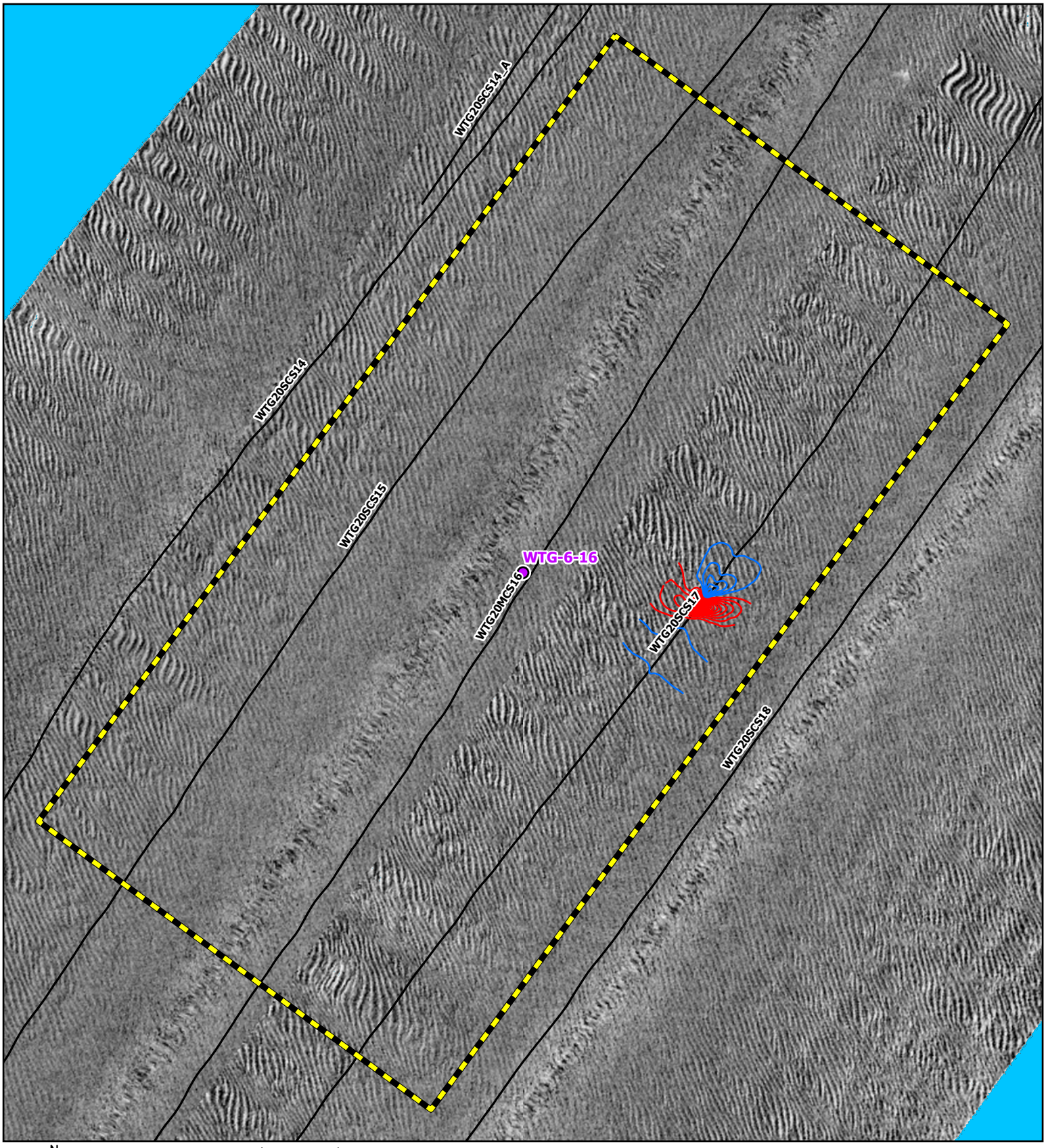
Map: 5

WTG-5-15

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 20

Map: 6

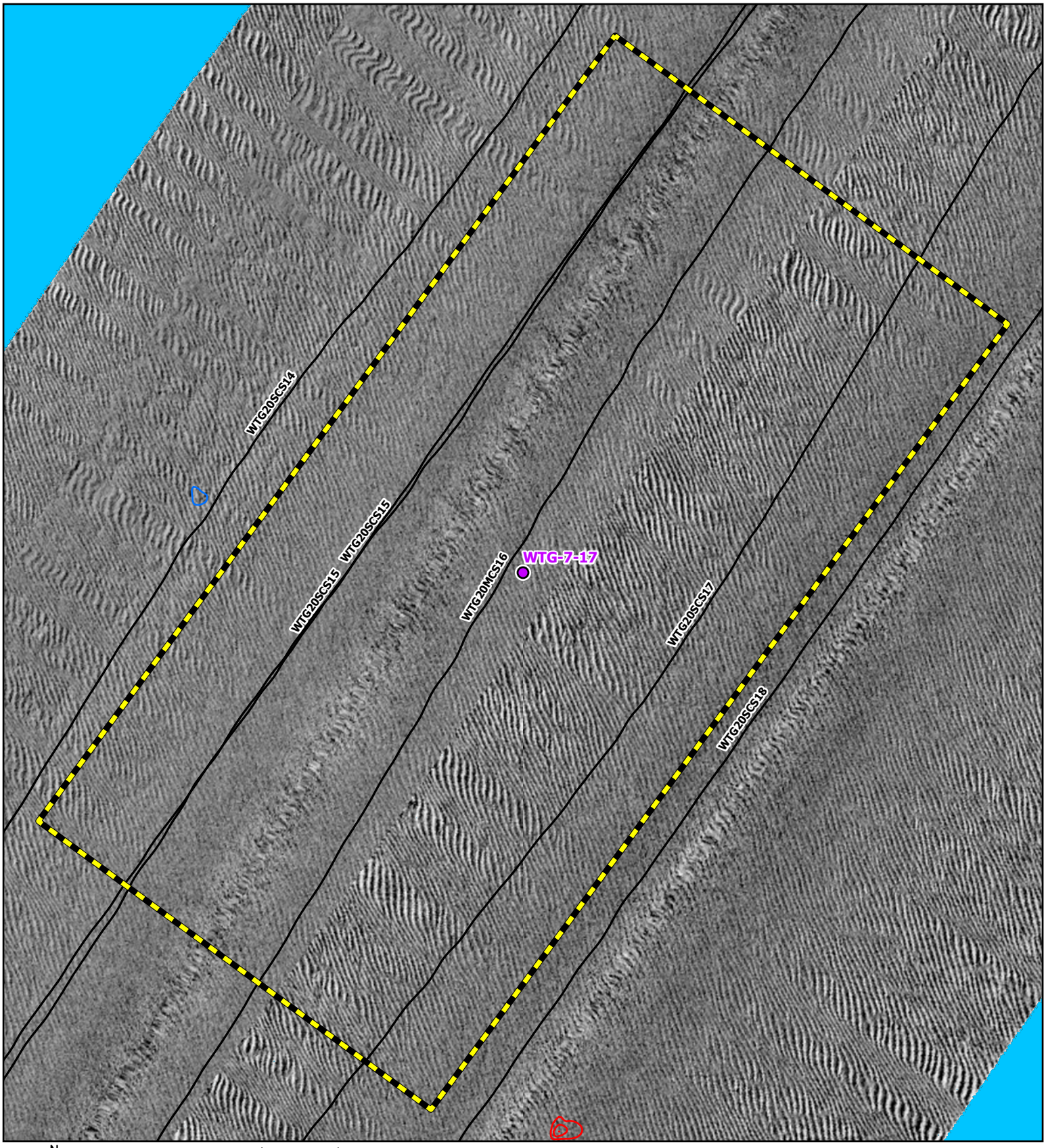
WTG-6-16

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

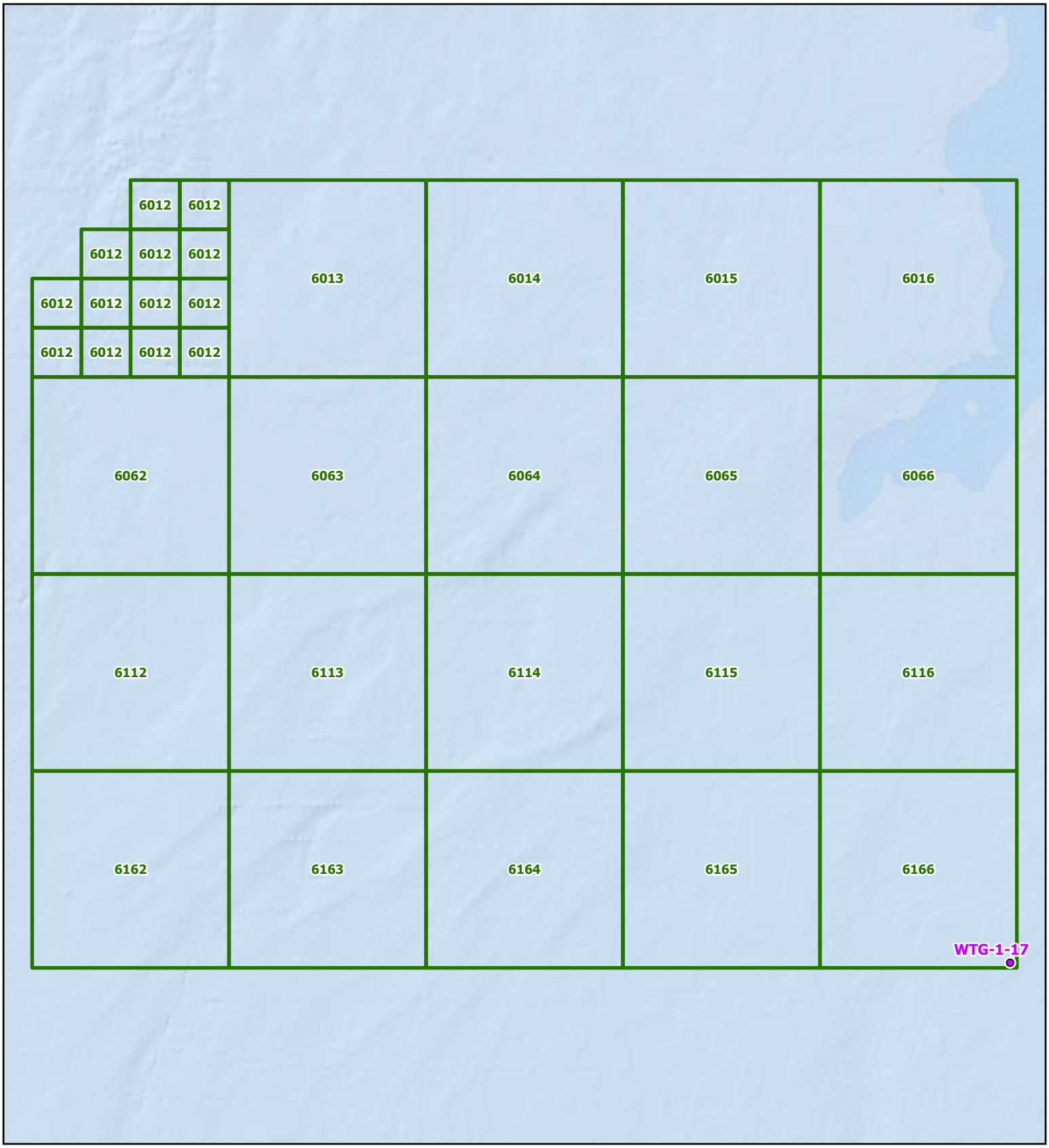
Map: 7

WTG-7-17

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APPENDIX 5
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 26



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

0 1 2 3 4 Kilometers

Geotechnical Location

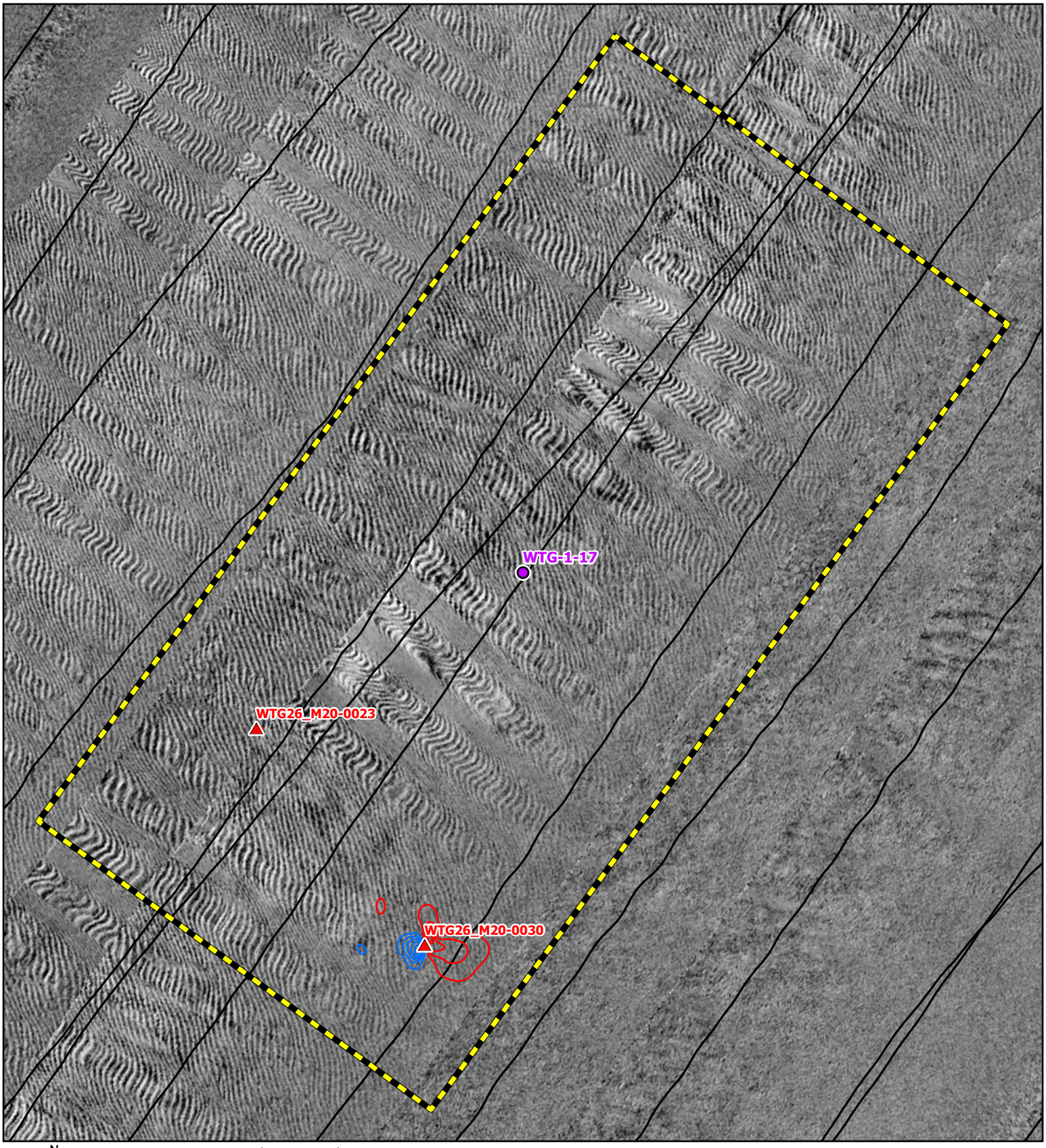
Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 26

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 26

WTG-1-17

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APPENDIX 6
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 4

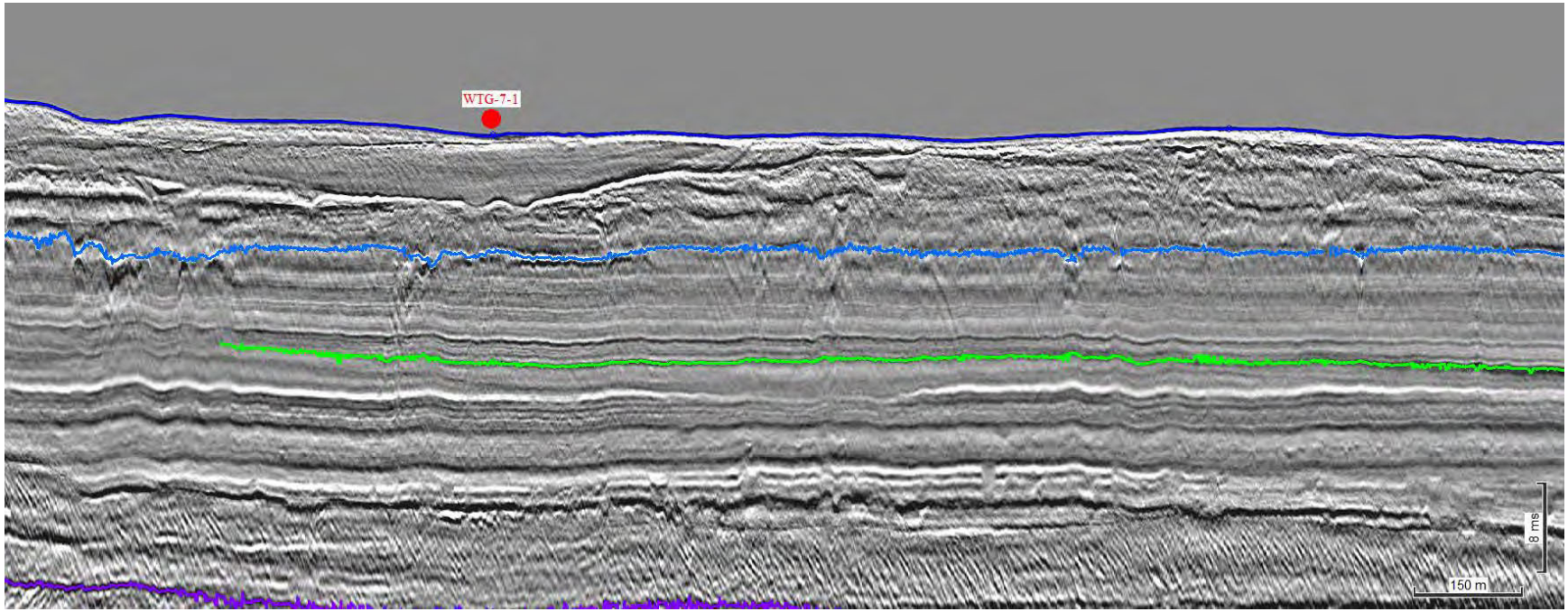


Figure 6-1: Proposed geotechnical location WTG-7-1 in Corridor 4 along line WTG04MCS16_FAST_MIG

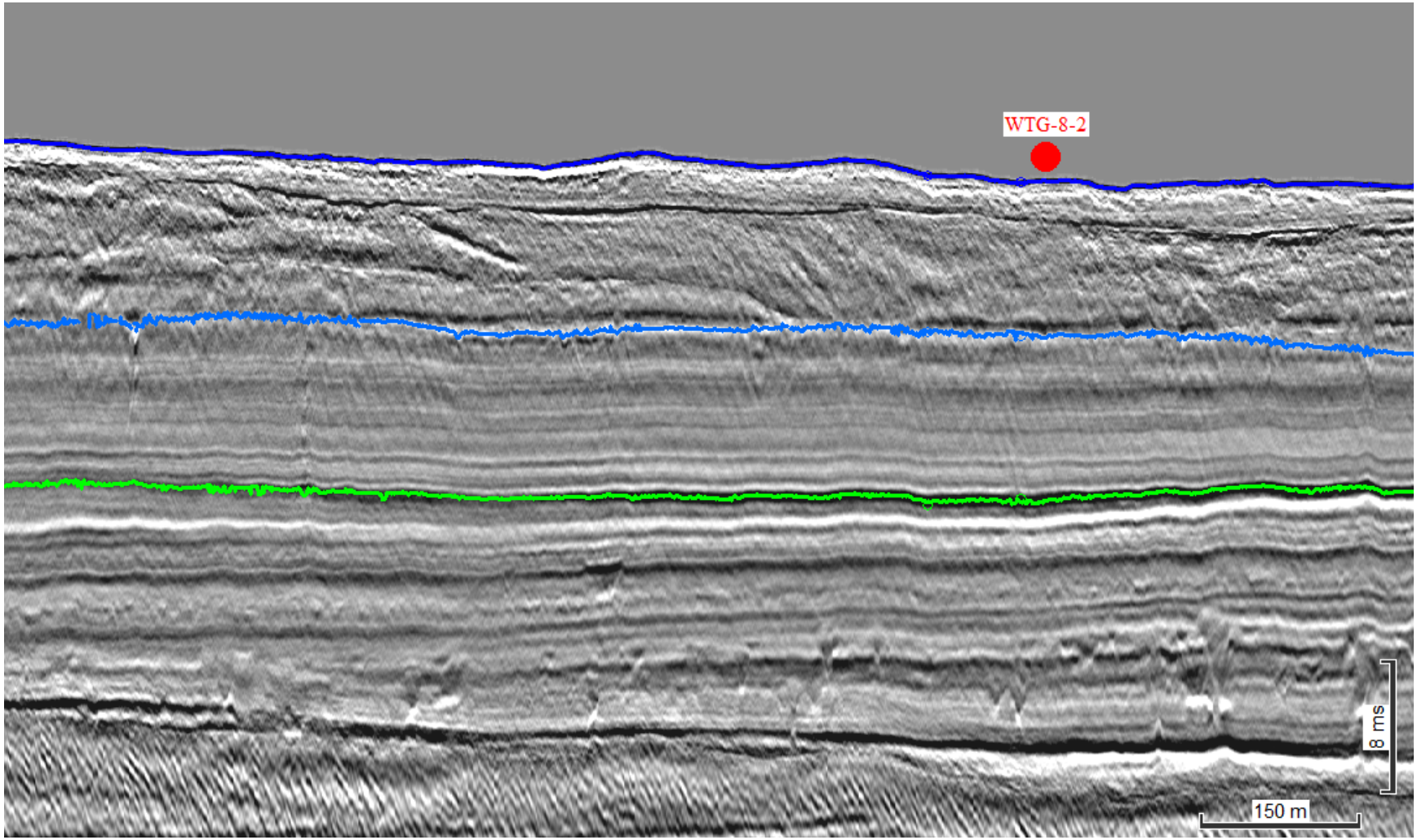


Figure 6-2:Proposed geotechnical location WTG-8-2 in Corridor 4 along line WTG04MCS16_FAST_MIG

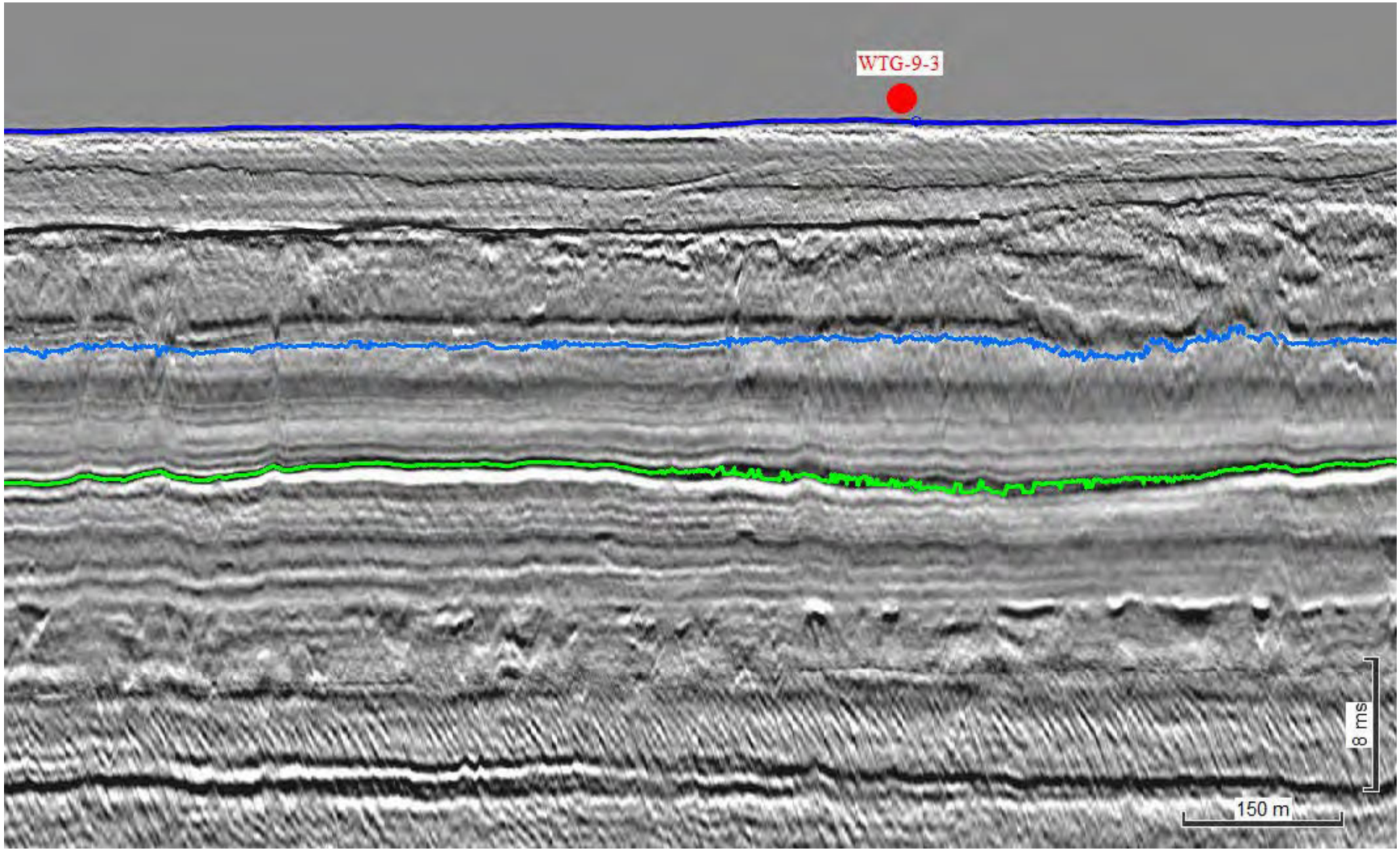


Figure 6-3: Proposed geotechnical location WTG-9-3 in Corridor 4 along line WTG04MCS16_FAST_MIG

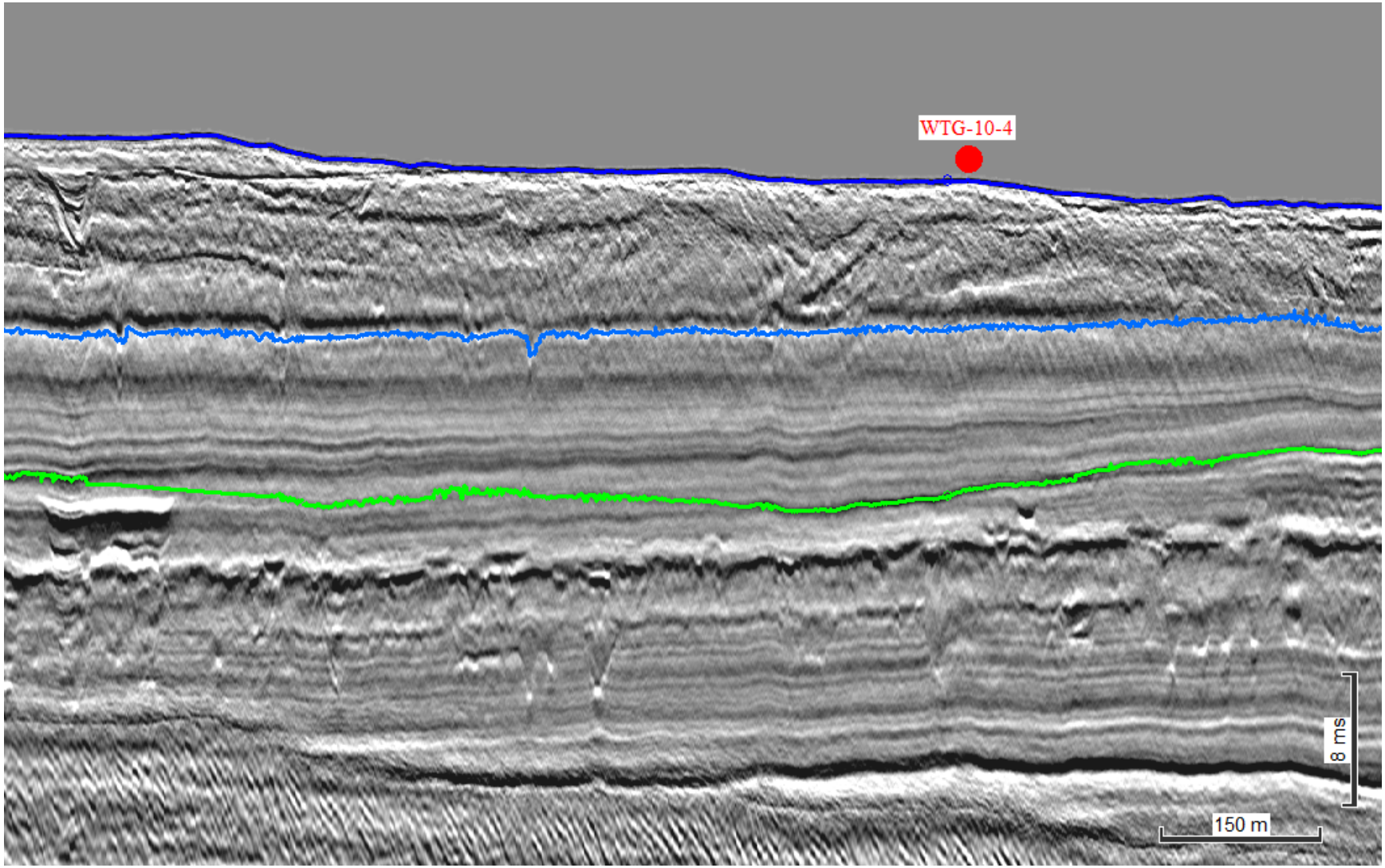


Figure 6-4: Proposed geotechnical location WTG-10-4 in Corridor 4 along line WTG04MCS16_FAST_MIG

APPENDIX 7
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 6

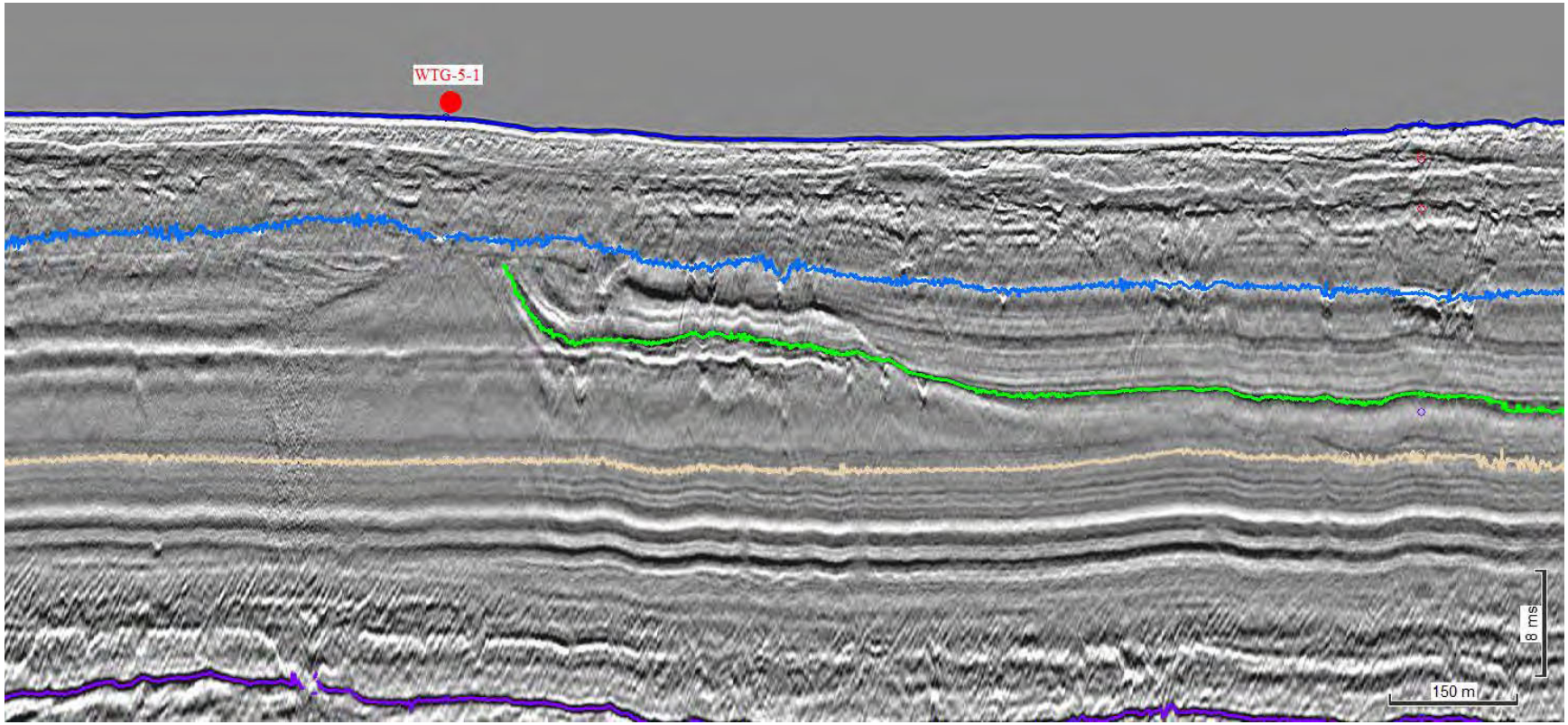


Figure 7-1: Proposed geotechnical location WTG-5-1 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

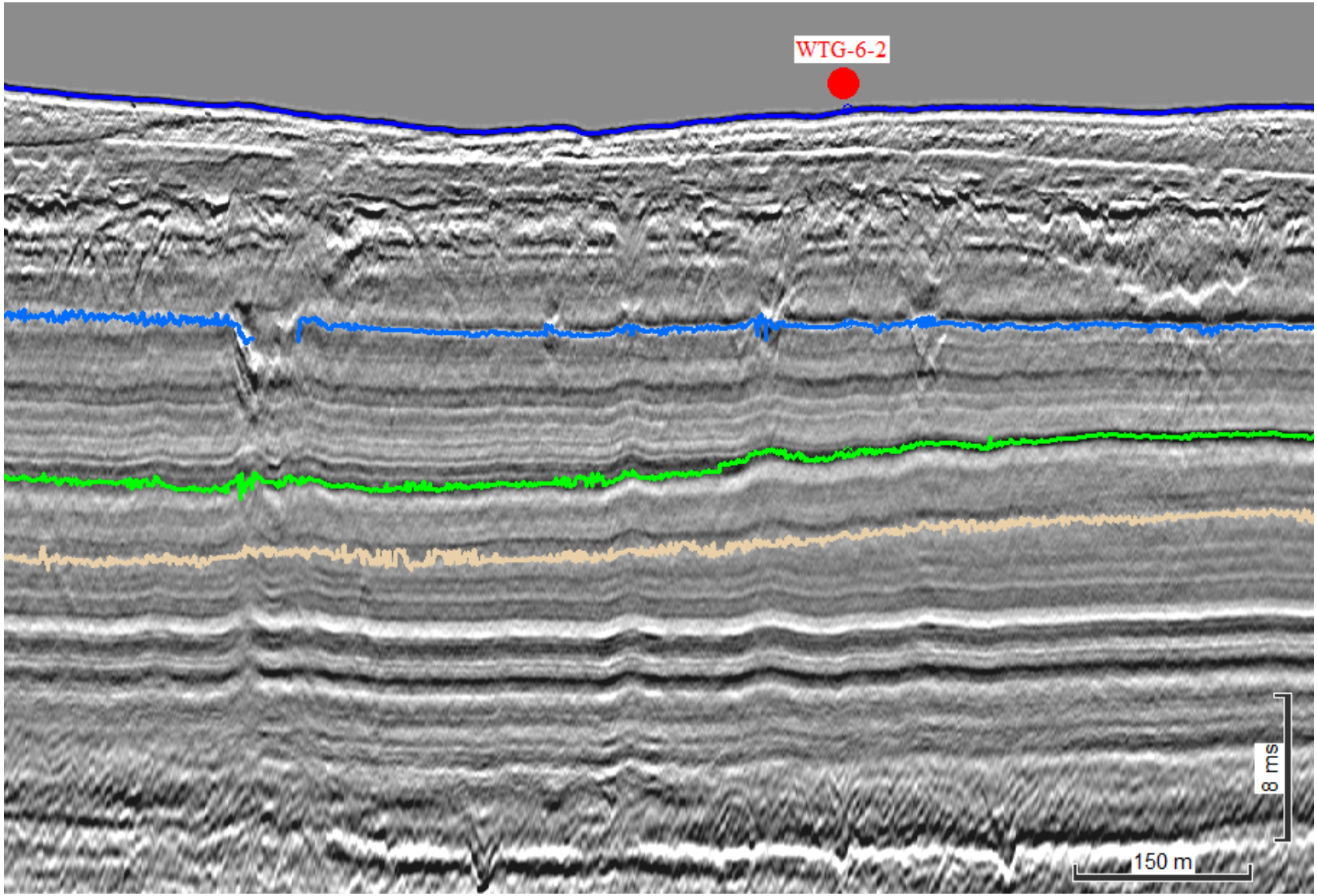


Figure 7-2: Proposed geotechnical location WTG-6-2 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

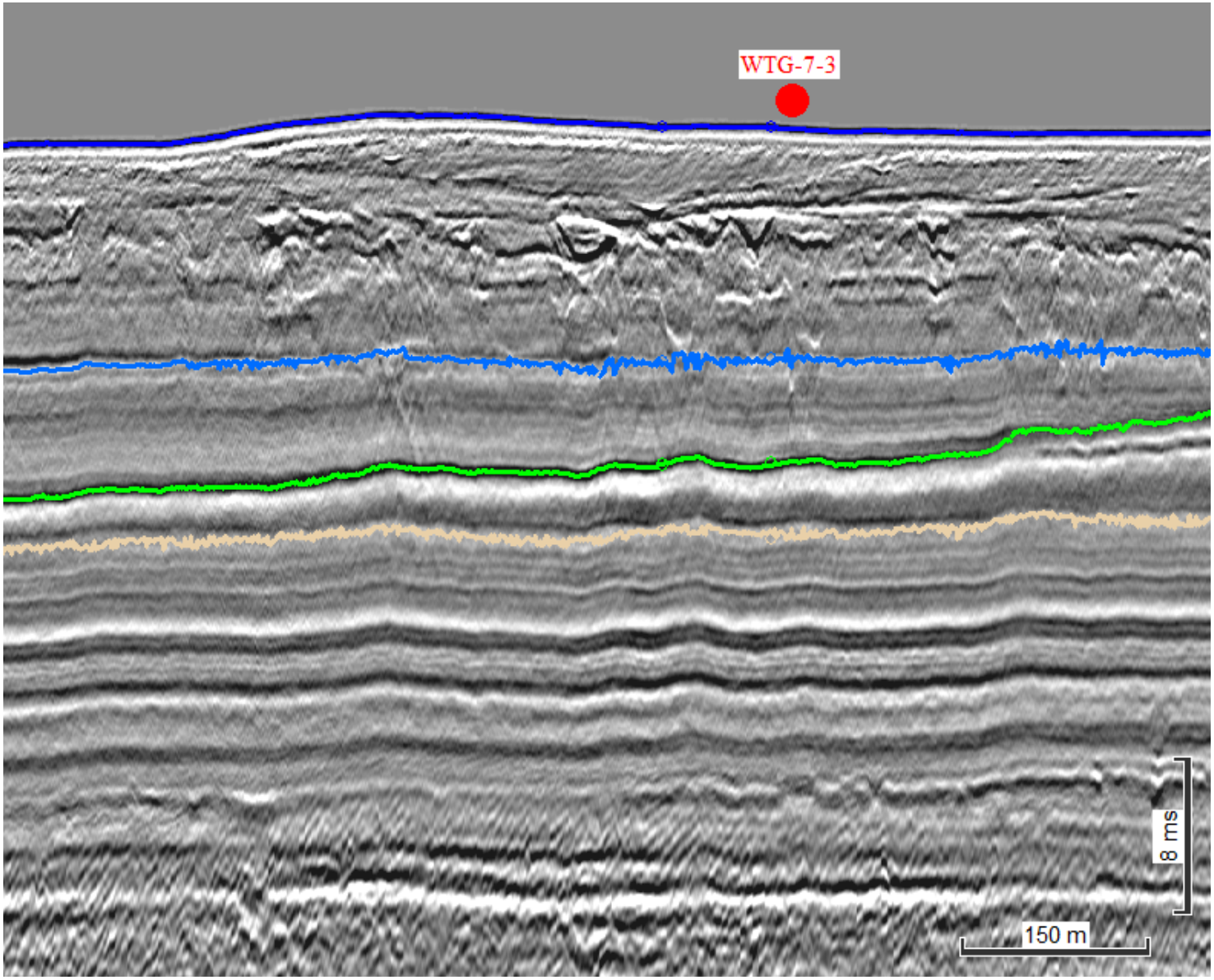


Figure 7-3: Proposed geotechnical location WTG-7-3 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

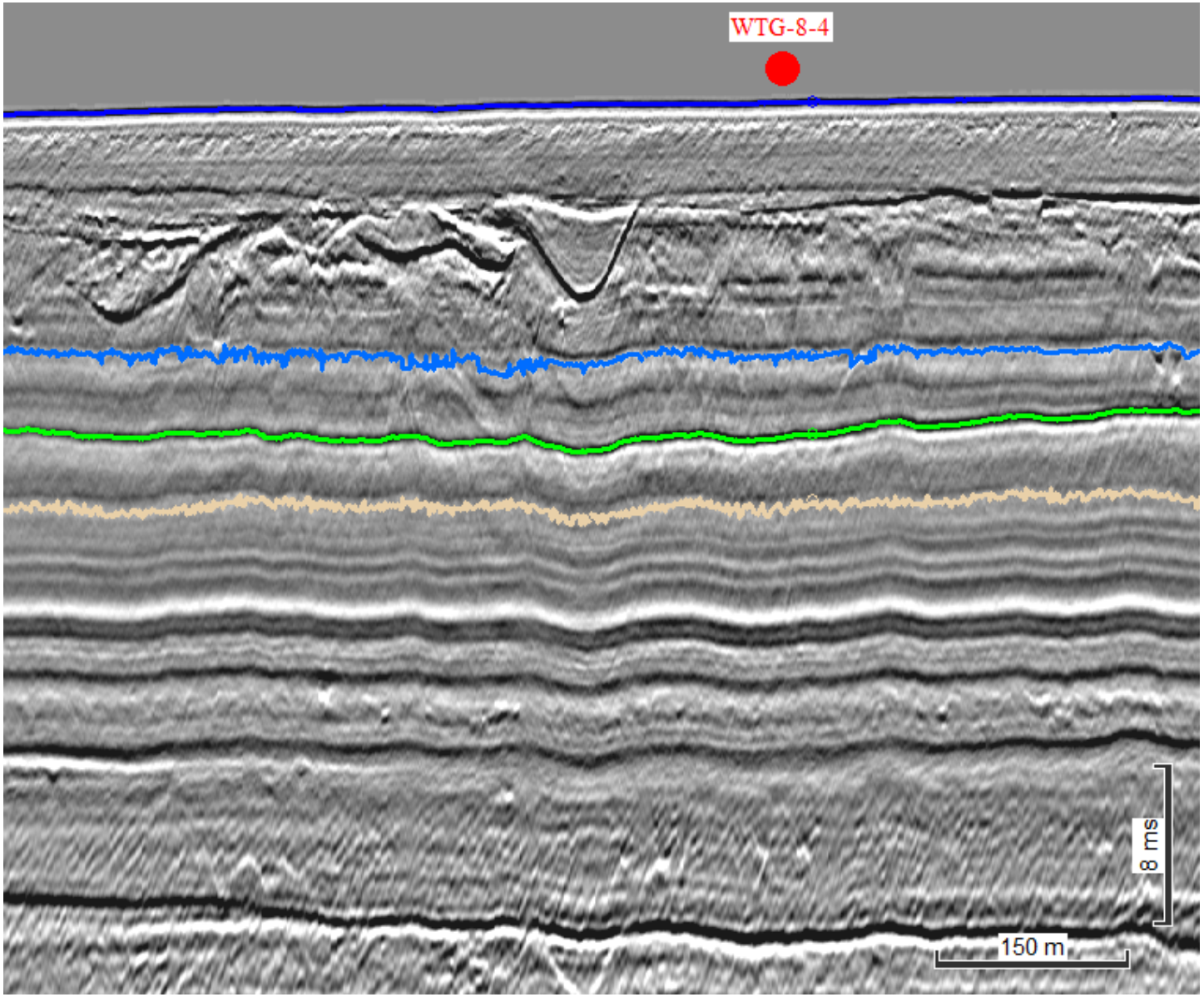


Figure 7-4: Proposed geotechnical location WTG-8-4 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

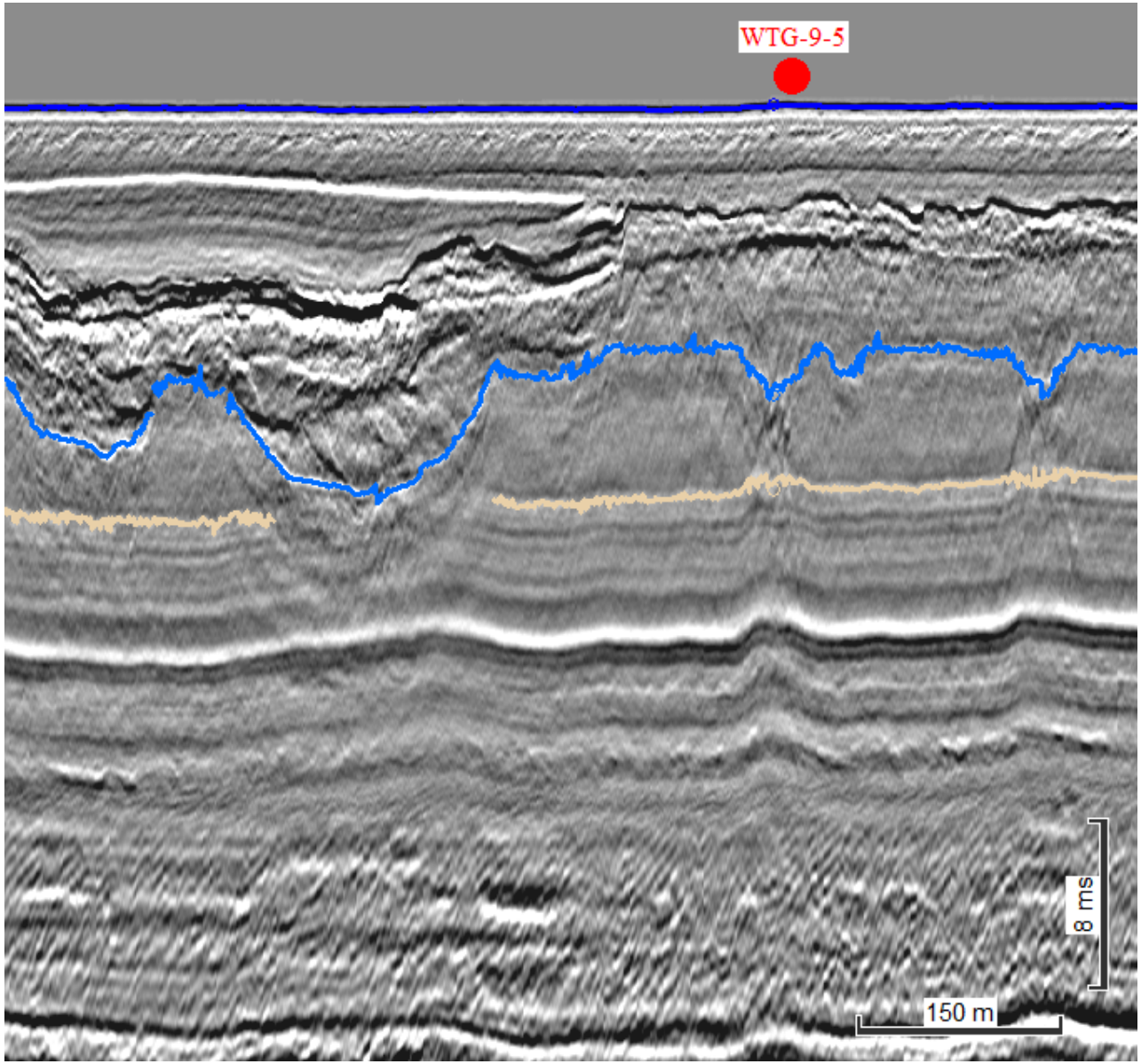


Figure 7-5: Proposed geotechnical location WTG-9-5 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

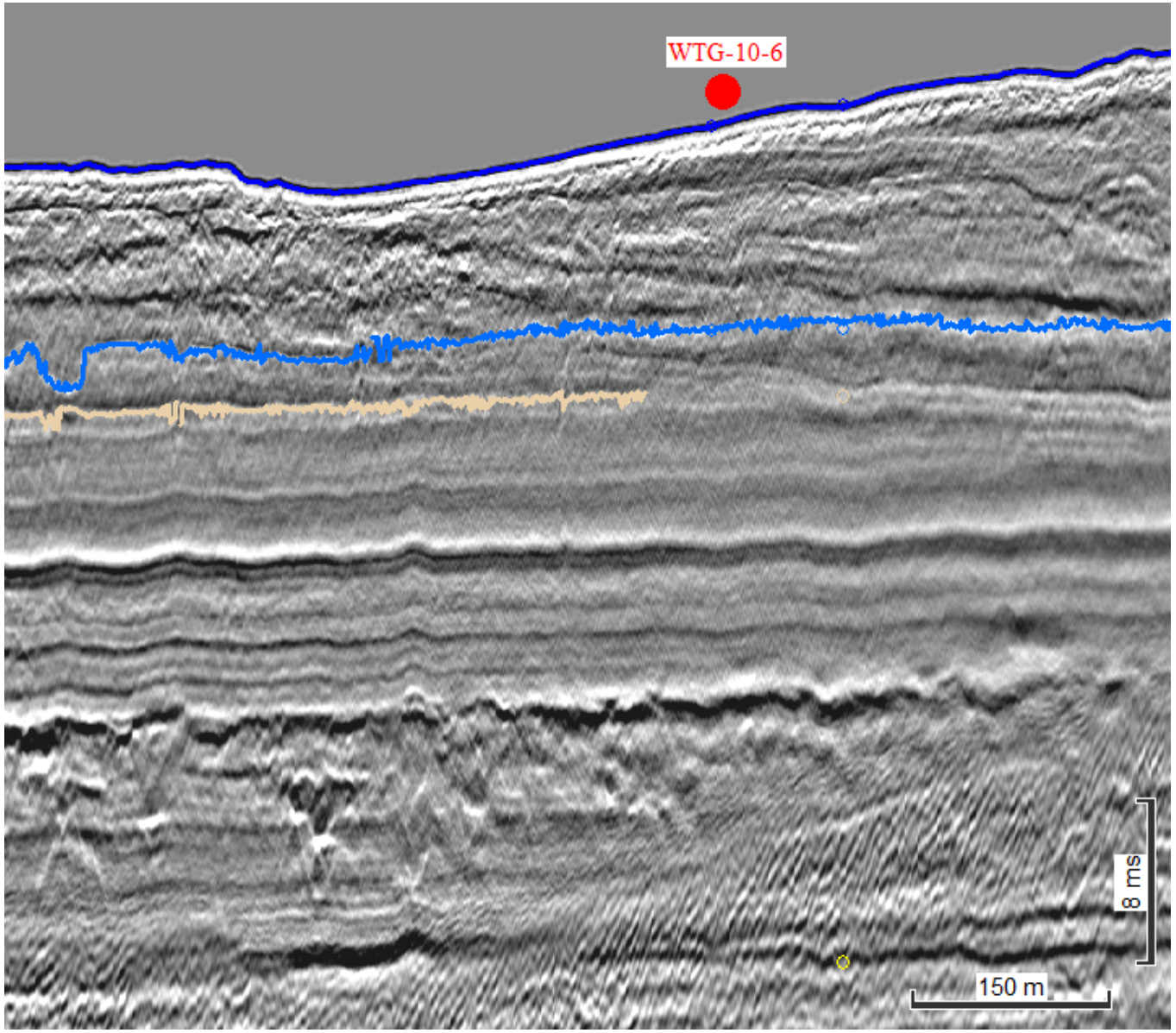


Figure 7-6: Proposed geotechnical location WTG-10-6 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

APPENDIX 8
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 12

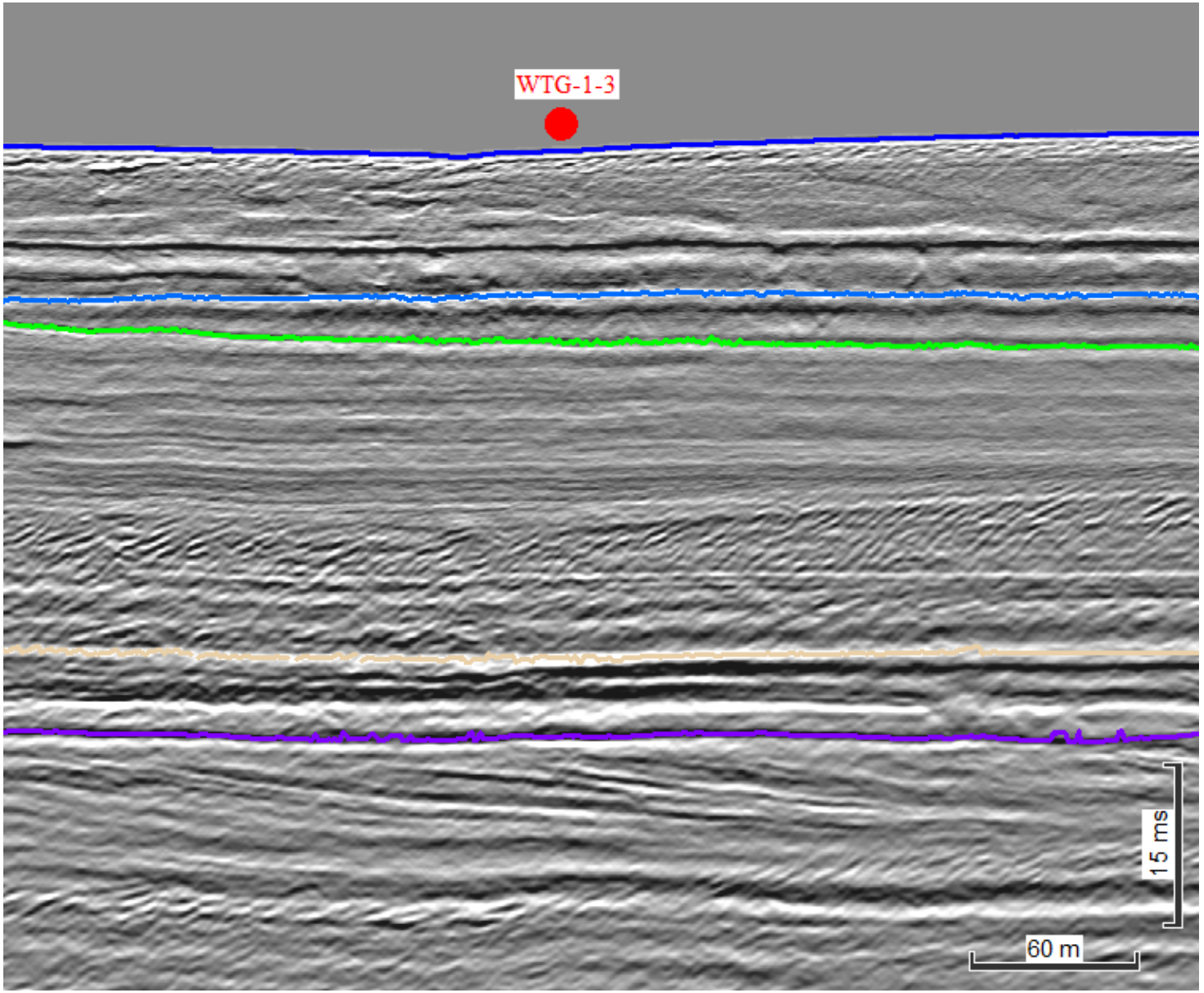


Figure 8-1: Proposed geotechnical location WTG-1-3 in Corridor 12 along line TLB08_FAST_MIG_PSDEMULl

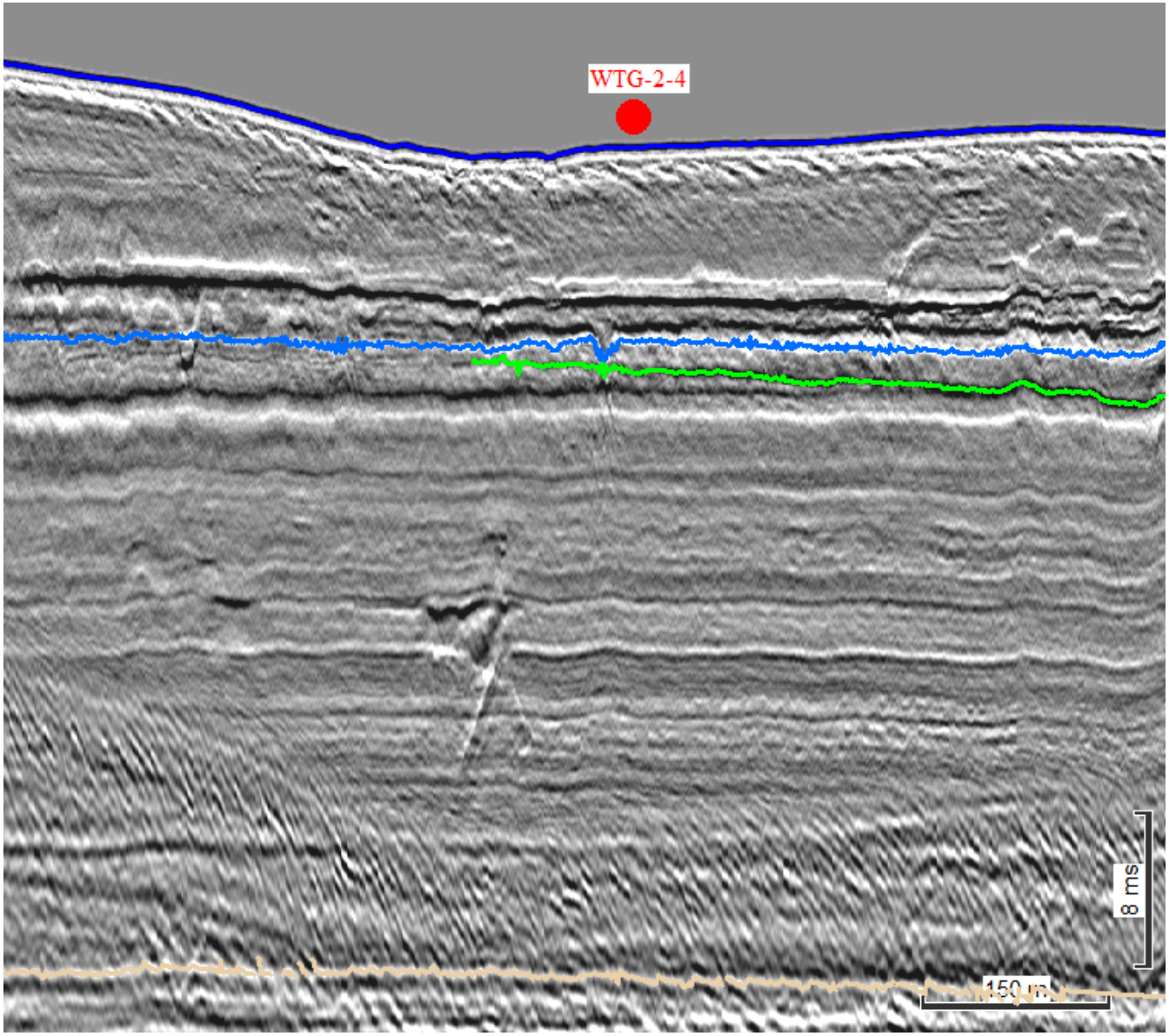


Figure 8-2: Proposed geotechnical location WTG-2-4 in Corridor 12 along line TLB14_FAST_MIG_PSDEMULl

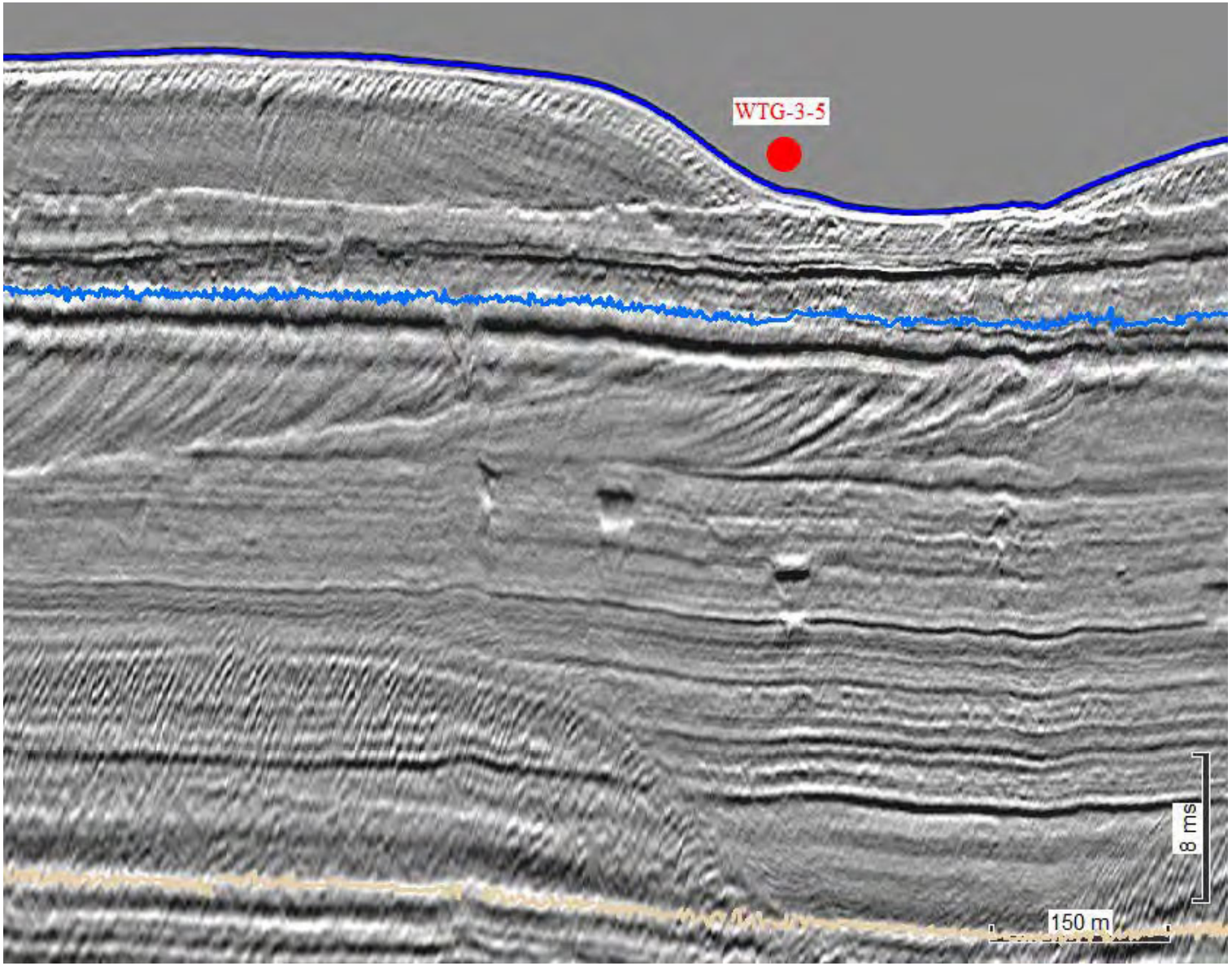


Figure 8-3: Proposed geotechnical location WTG-3-5 in Corridor 12 along line TLB20_FAST_MIG_PSDEMULl

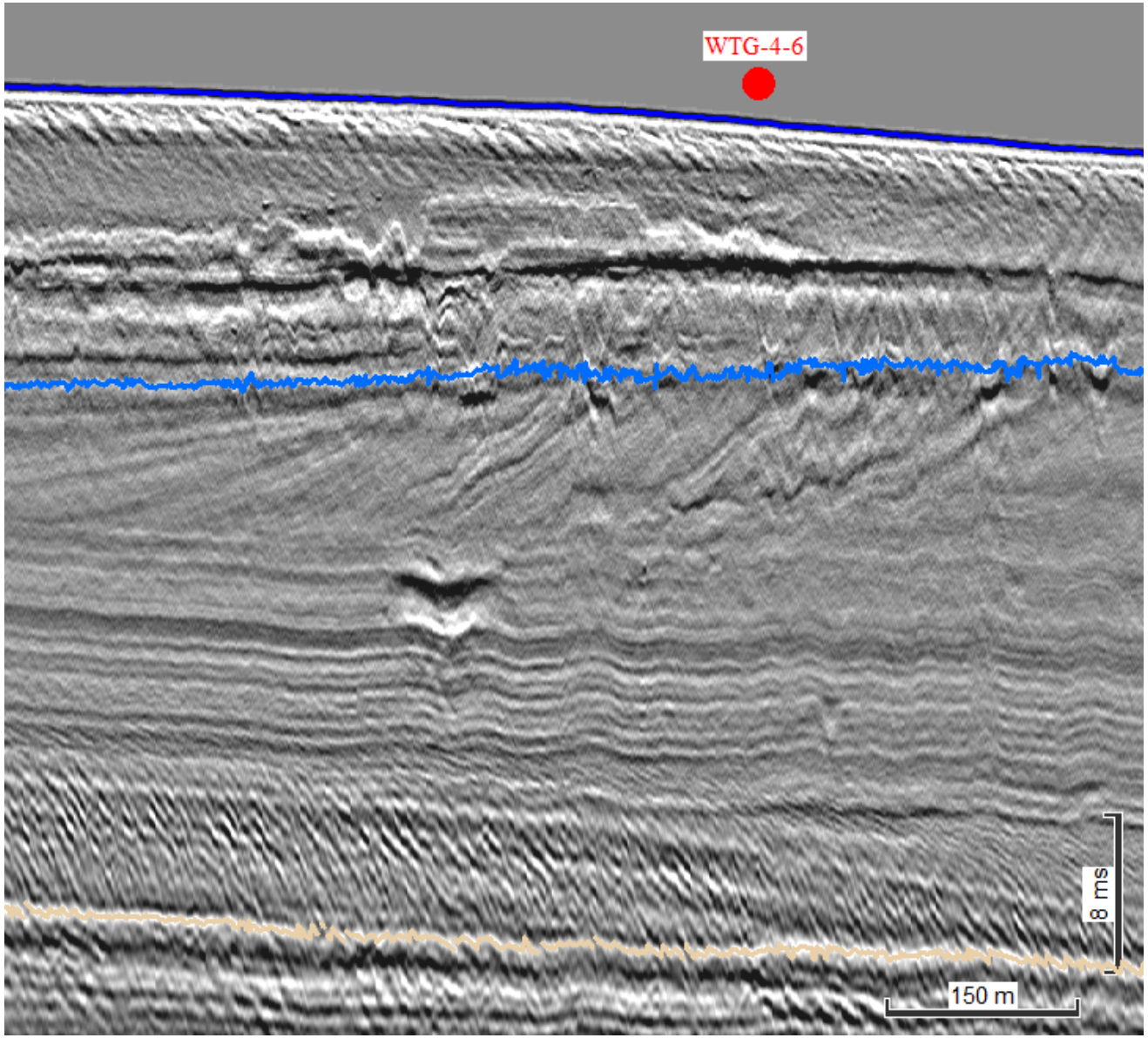


Figure 8-4: Proposed geotechnical location WTG-4-6 in Corridor 12 along line TLB26_FAST_MIG_PSDEMULl

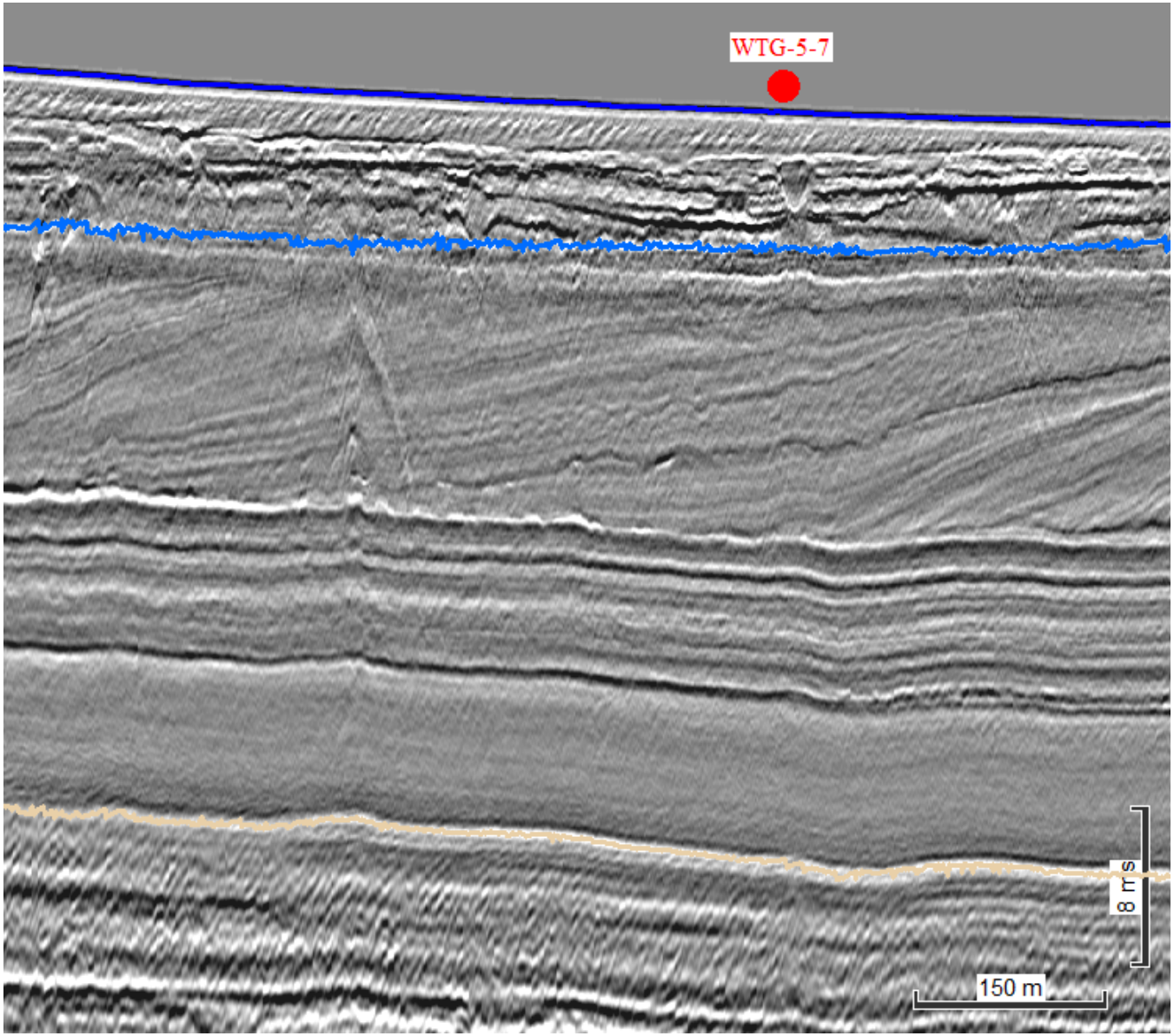


Figure 8-5: Proposed geotechnical location WTG-5-7 in Corridor 12 along line TLB32_FAST_MIG_PSDEMULl

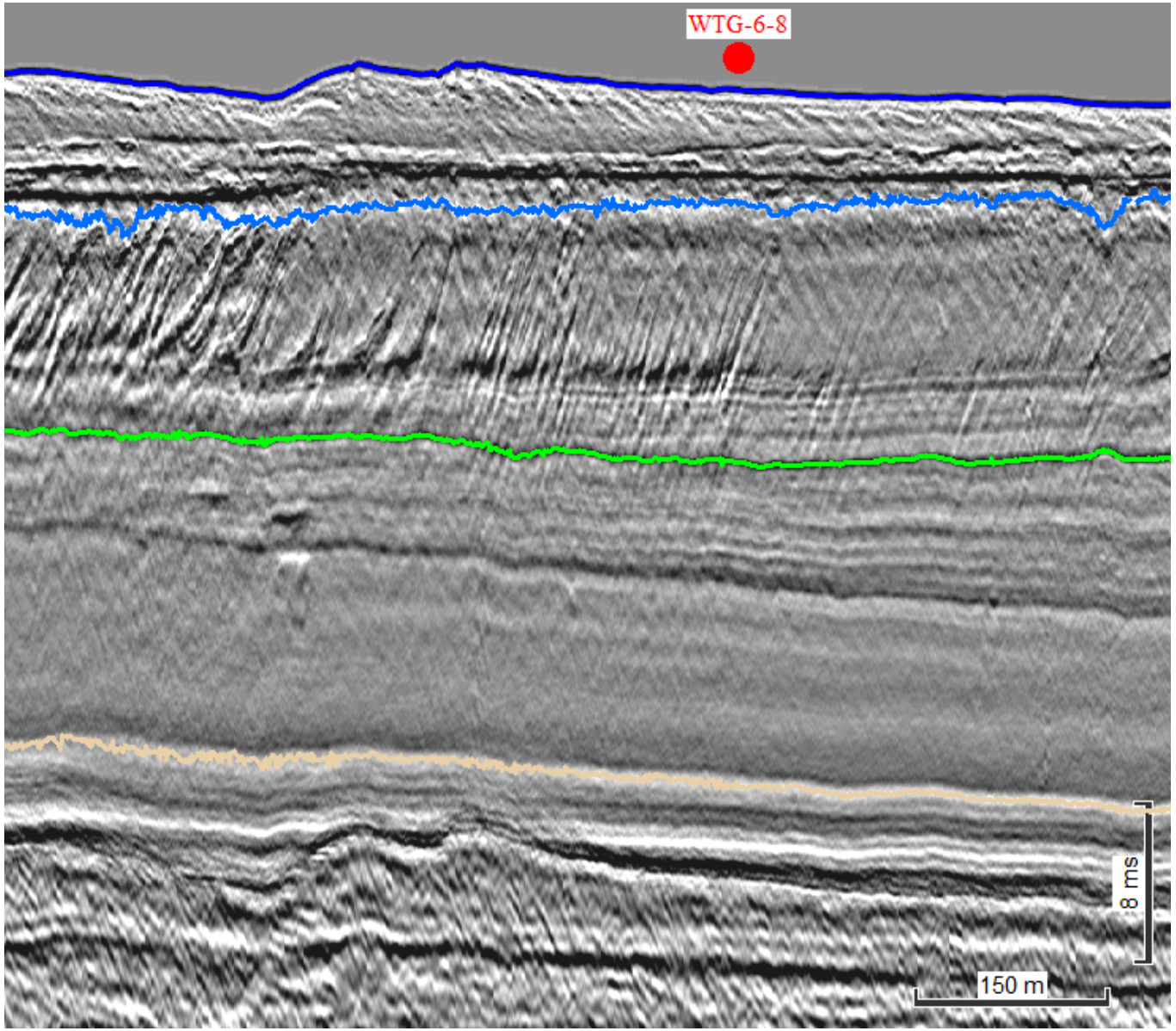


Figure 8-6: Proposed geotechnical location WTG-6-8 in Corridor 12 along line TLB38_01_FAST_MIG_PSDEMULl

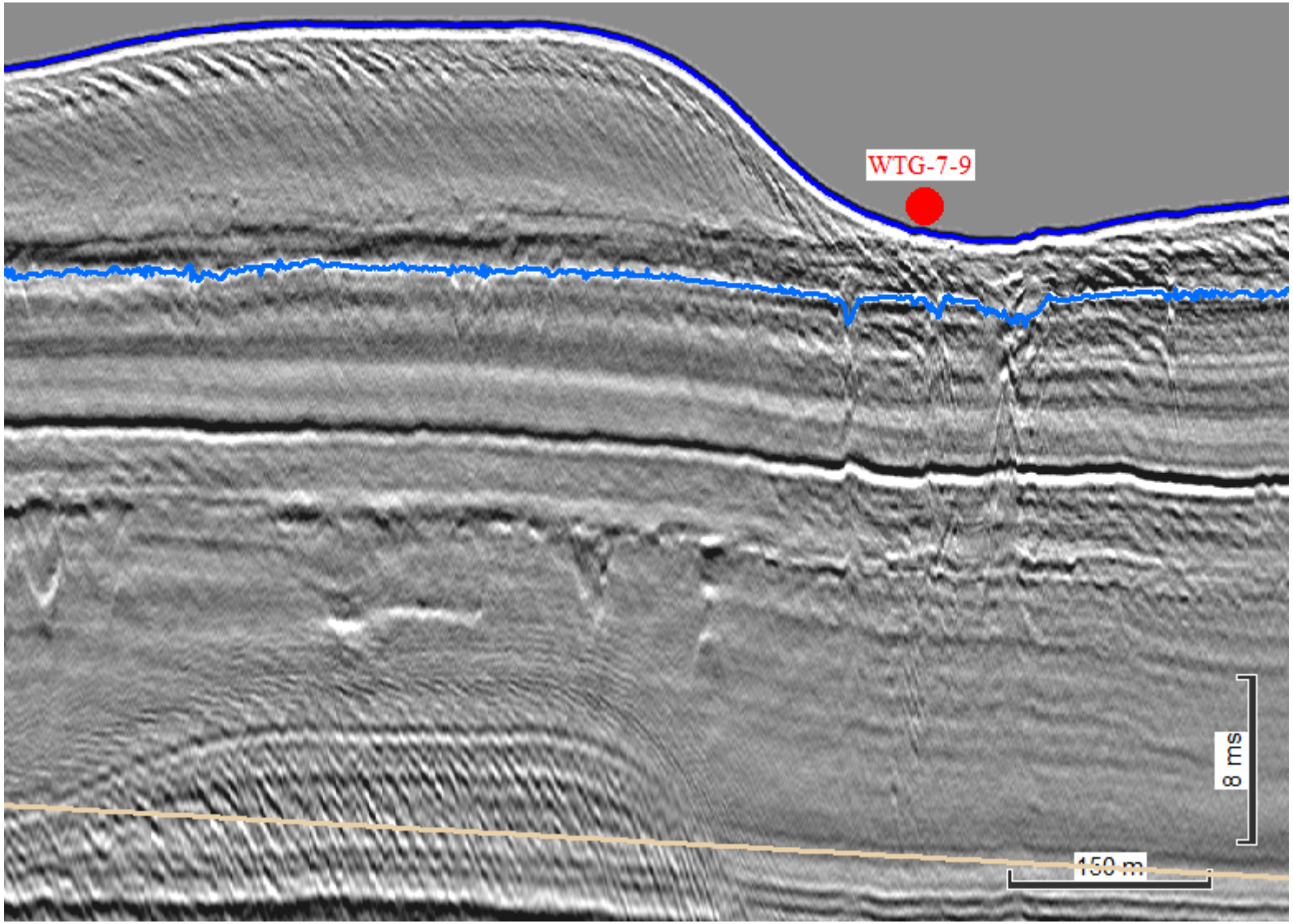


Figure 8-7: Proposed geotechnical location WTG-7-9 in Corridor 12 along line TLB44_01_FAST_MIG_PSDEMULl

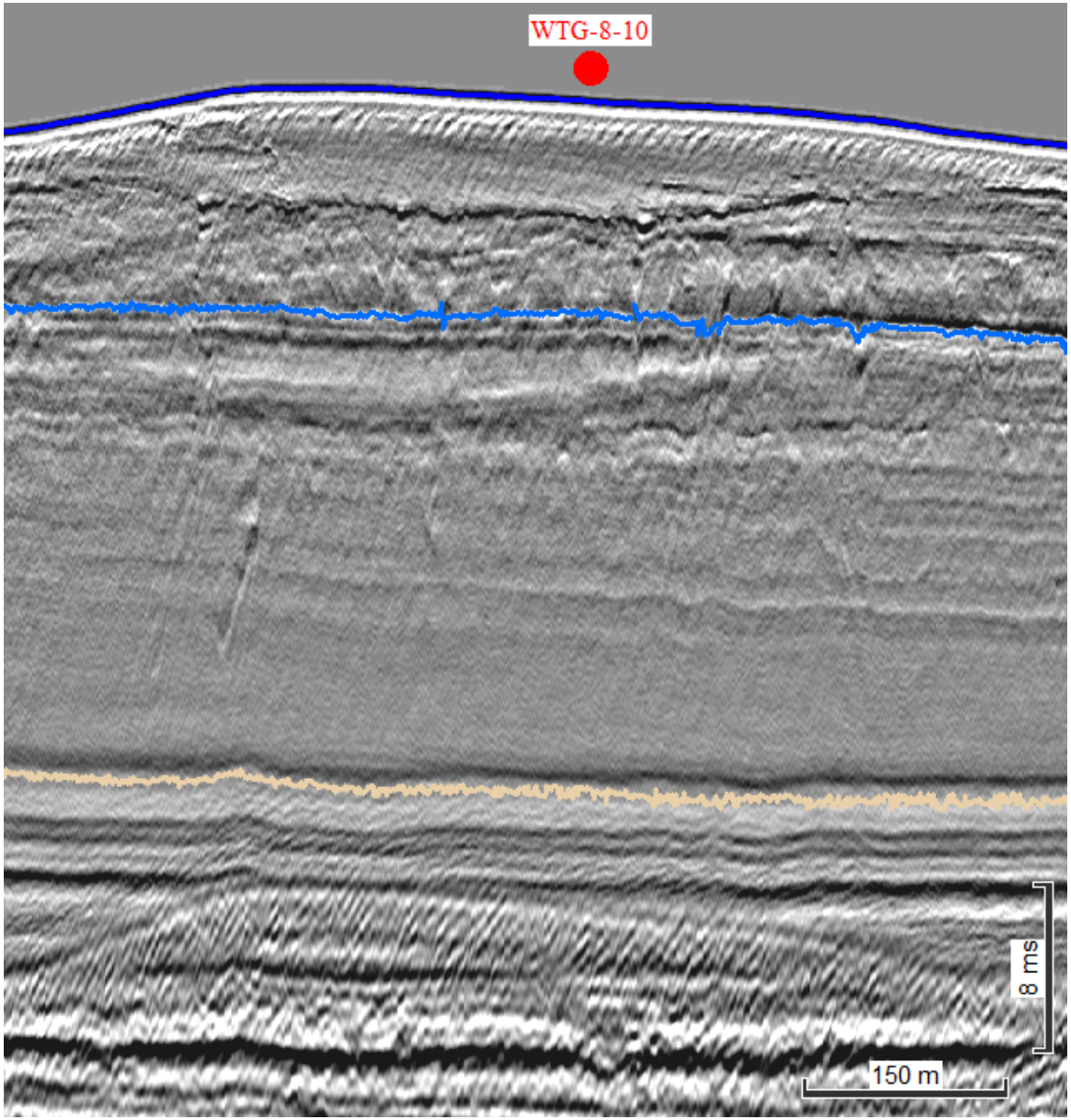


Figure 8-8: Proposed geotechnical location WTG-8-10 in Corridor 12 along line TLB50_01_FAST_MIG_PSDEMULl

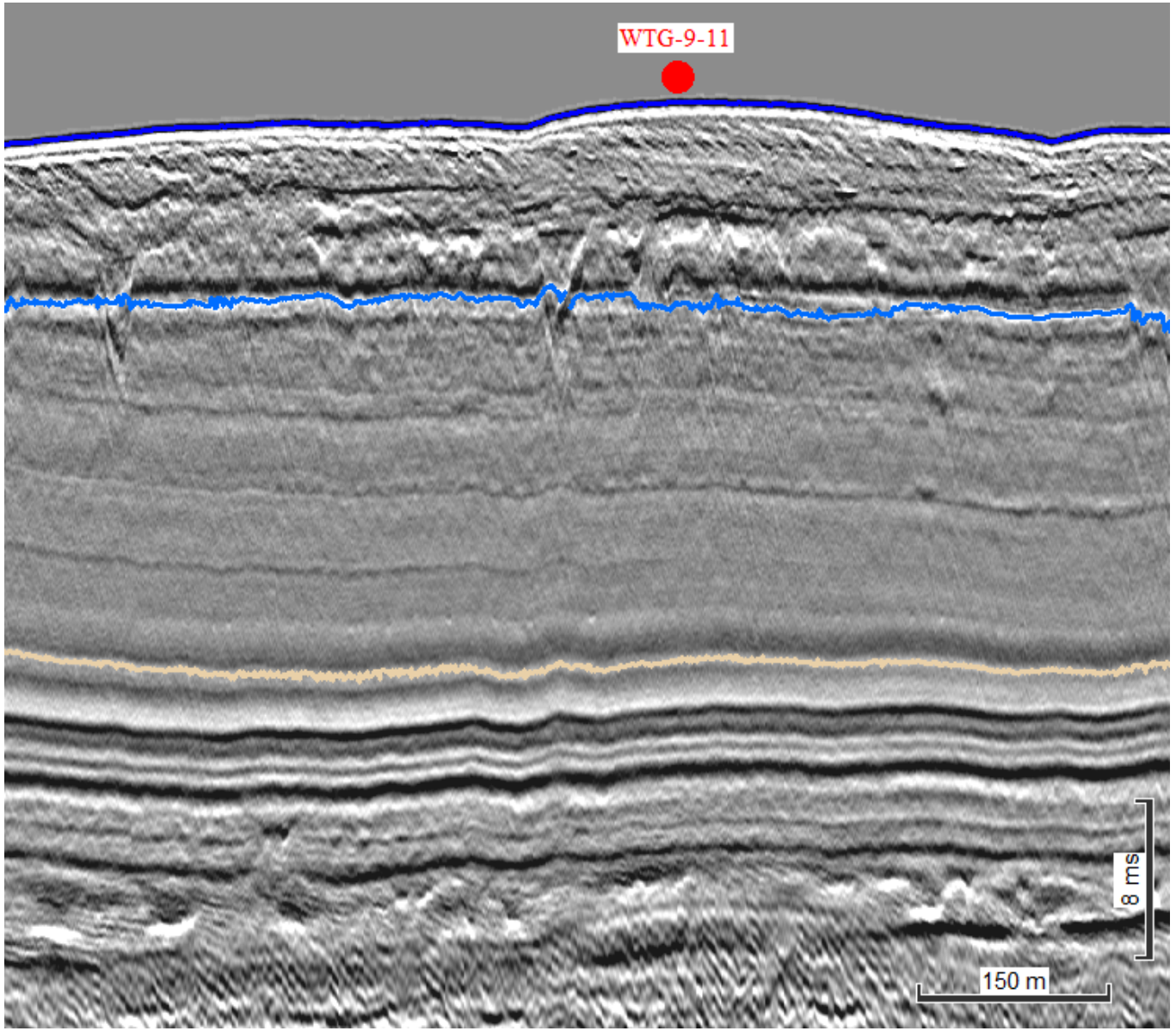


Figure 8-9: Proposed geotechnical location WTG-9-11 in Corridor 12 along line TLB56_FAST_MIG_PSDEMULl

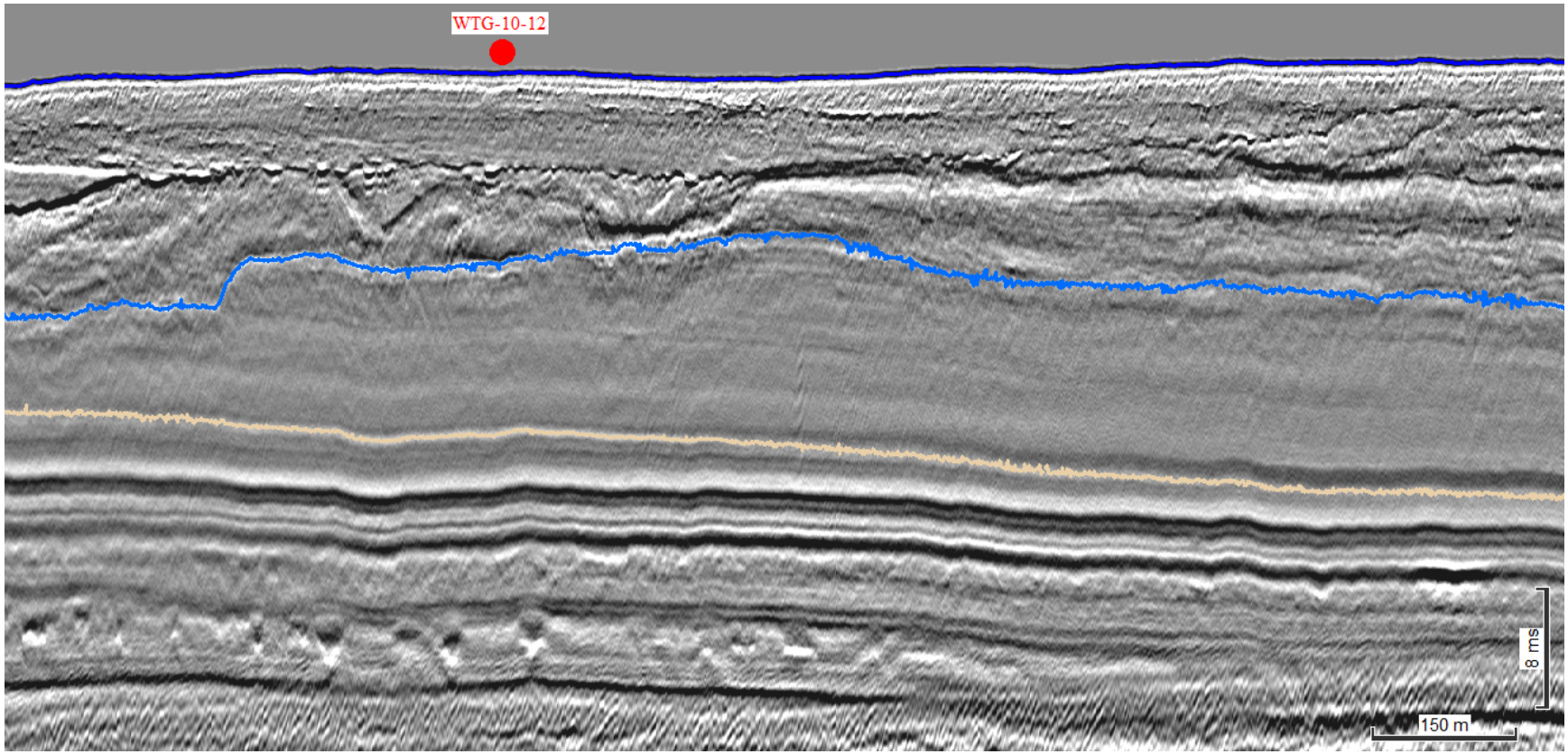


Figure 8-10: Proposed geotechnical location WTG-10-12 in Corridor 12 along line TLB62_01_FAST_MIG_PSDEMULl

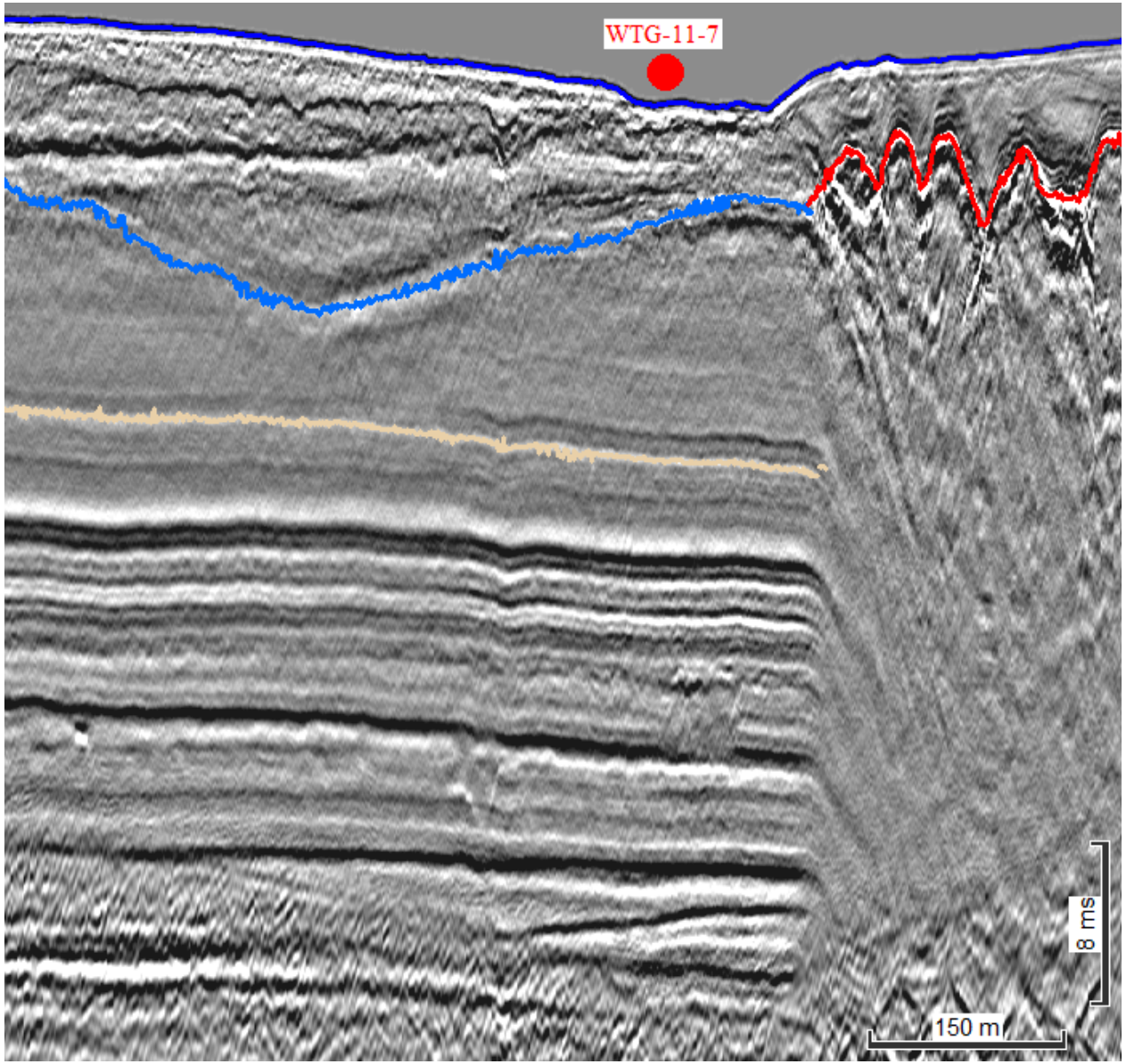


Figure 8-11: Proposed geotechnical location WTG-11-7 in Corridor 12 along line TLB68_FAST_MIG_PSDEMULl

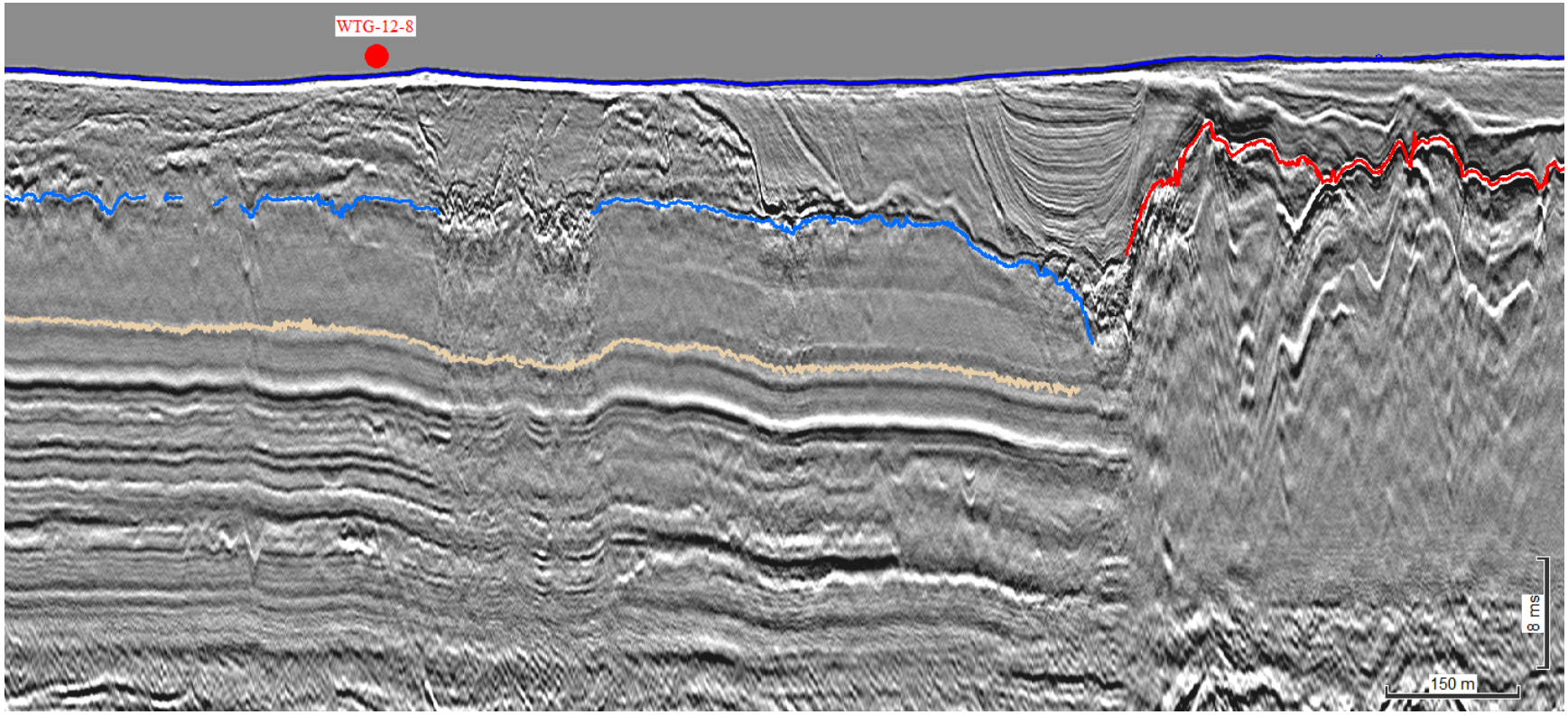


Figure 8-12: Proposed geotechnical location WTG-12-8 in Corridor 12 along line TLB74A_FAST_MIG_PSDEMULl

APPENDIX 9
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 20

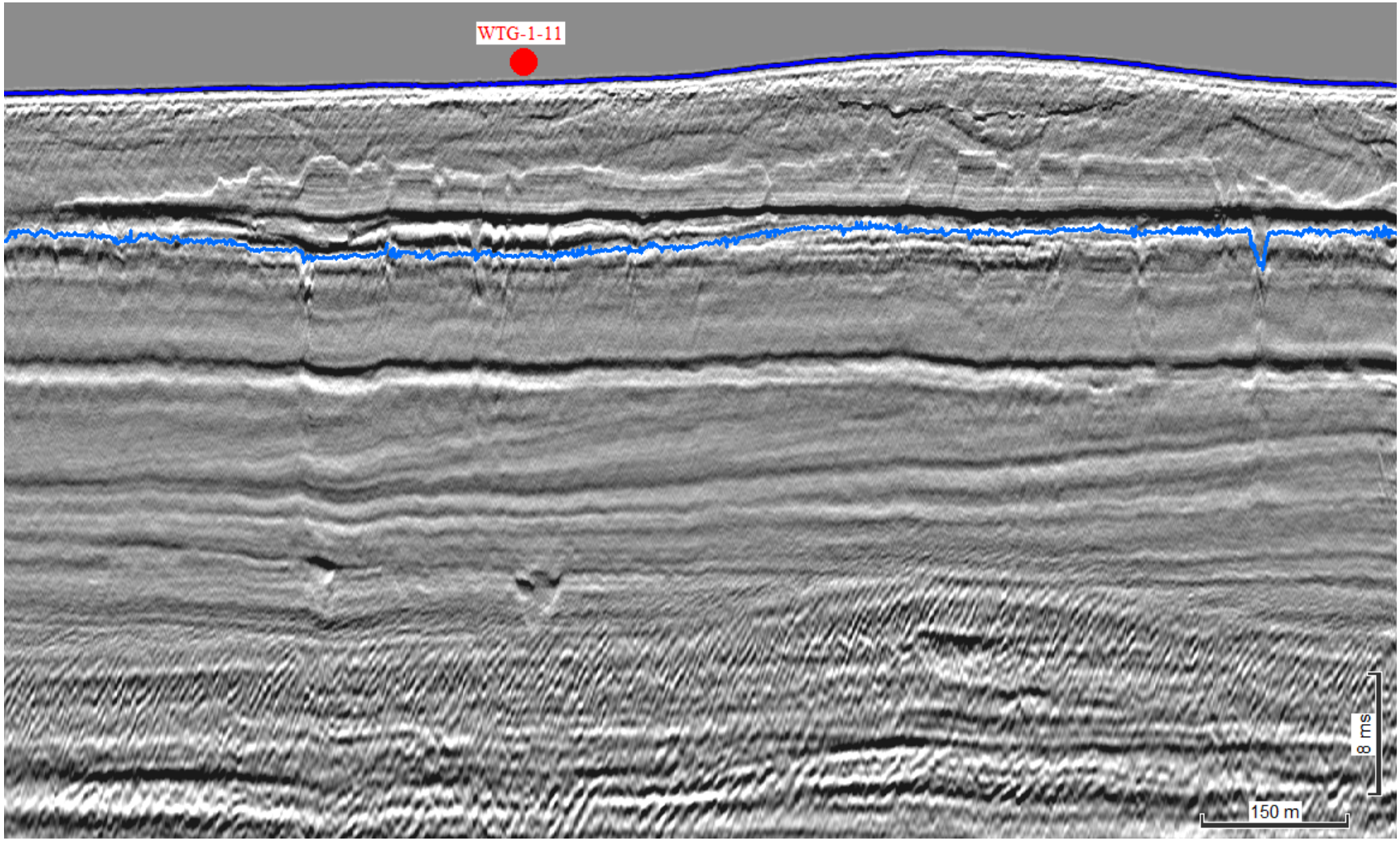


Figure 9-1: Proposed geotechnical location WTG-1-11 in Corridor 20 along line TLB32_FAST_MIG_PSDEMULl

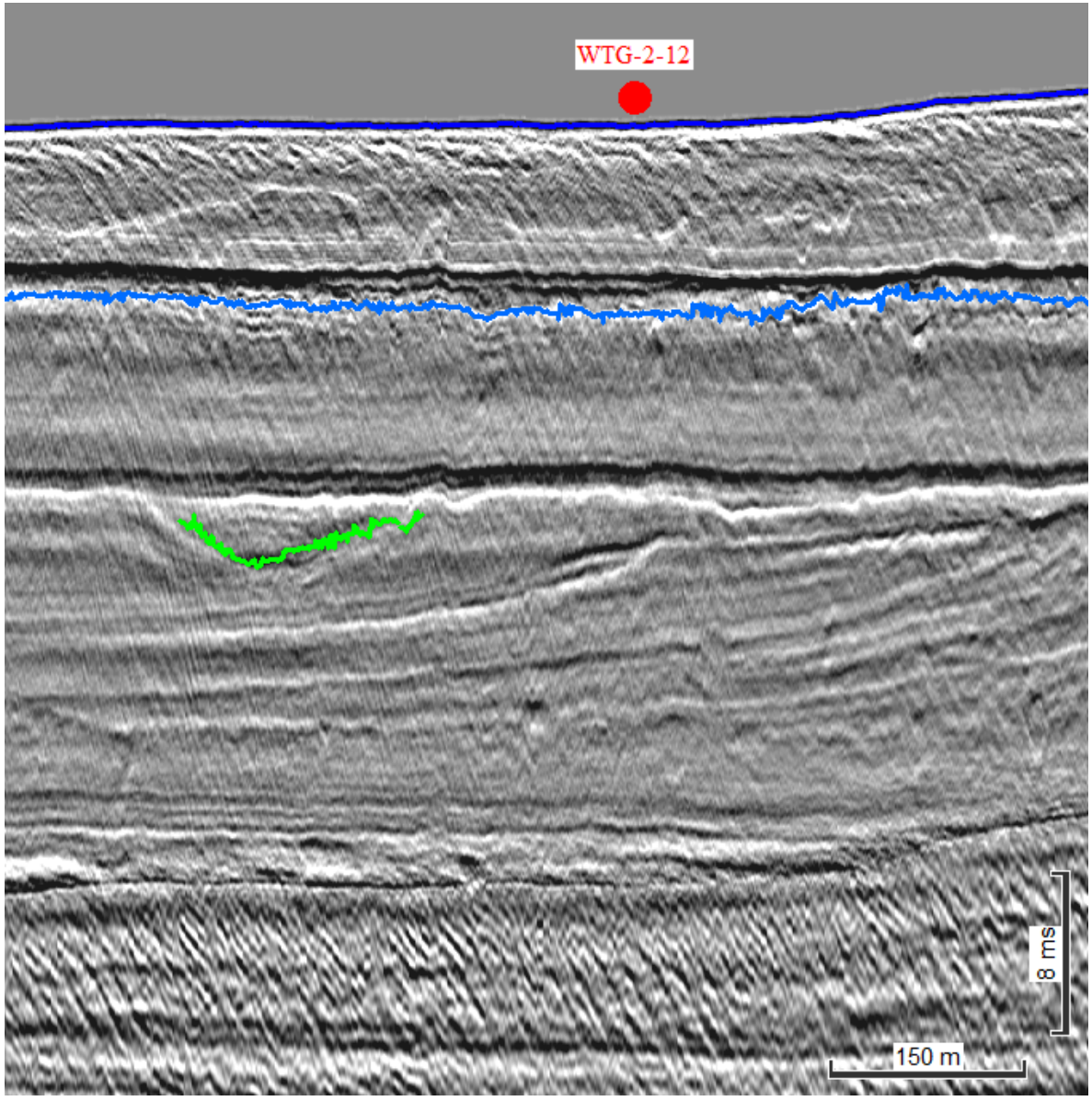


Figure 9-2: Proposed geotechnical location WTG-2-12 in Corridor 20 along line TLB38_FAST_MIG_PSDEMULl

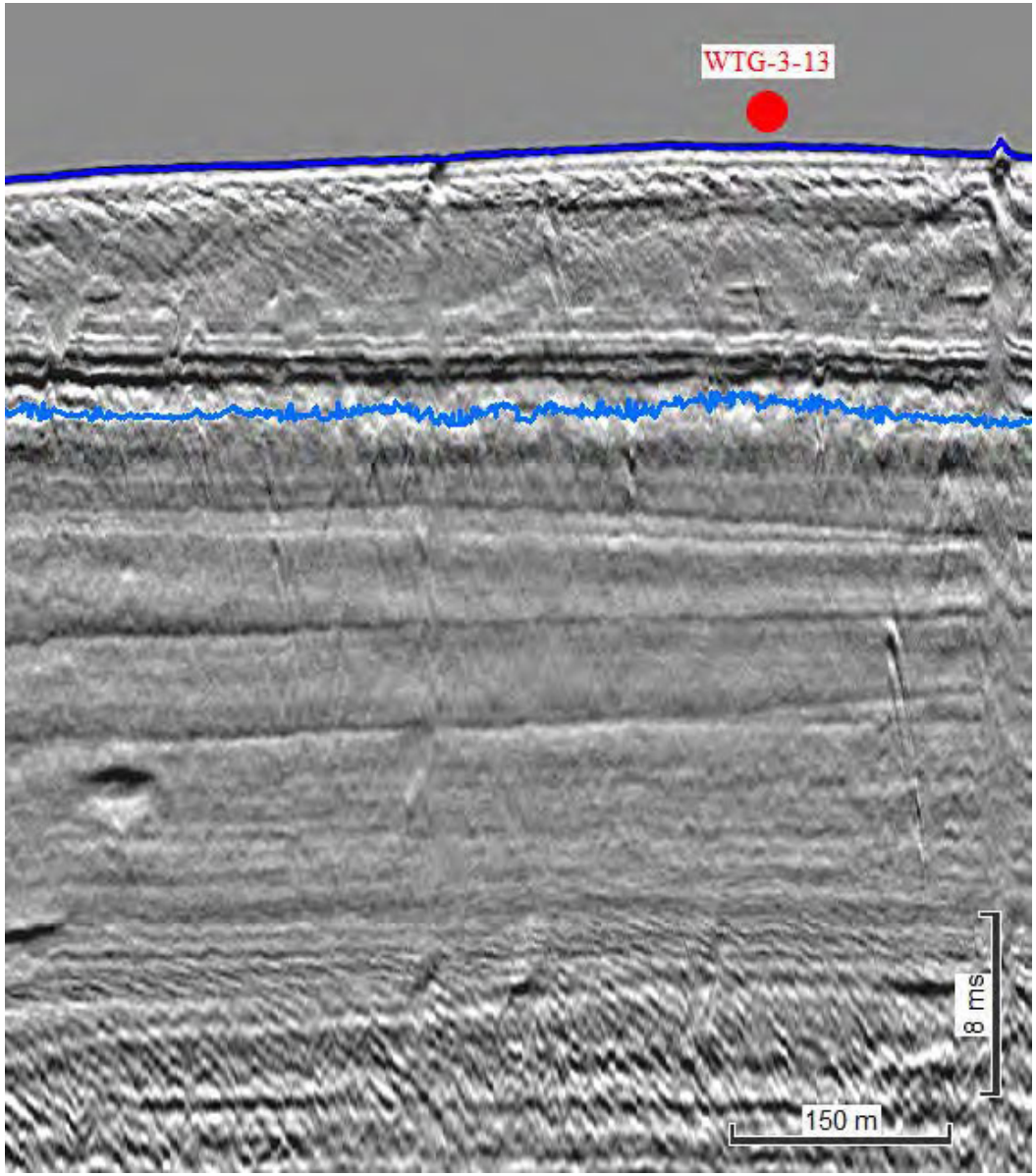


Figure 9-3: Proposed geotechnical location WTG-3-13 in Corridor 20 along line TLB44_FAST_MIG_PSDEMULl

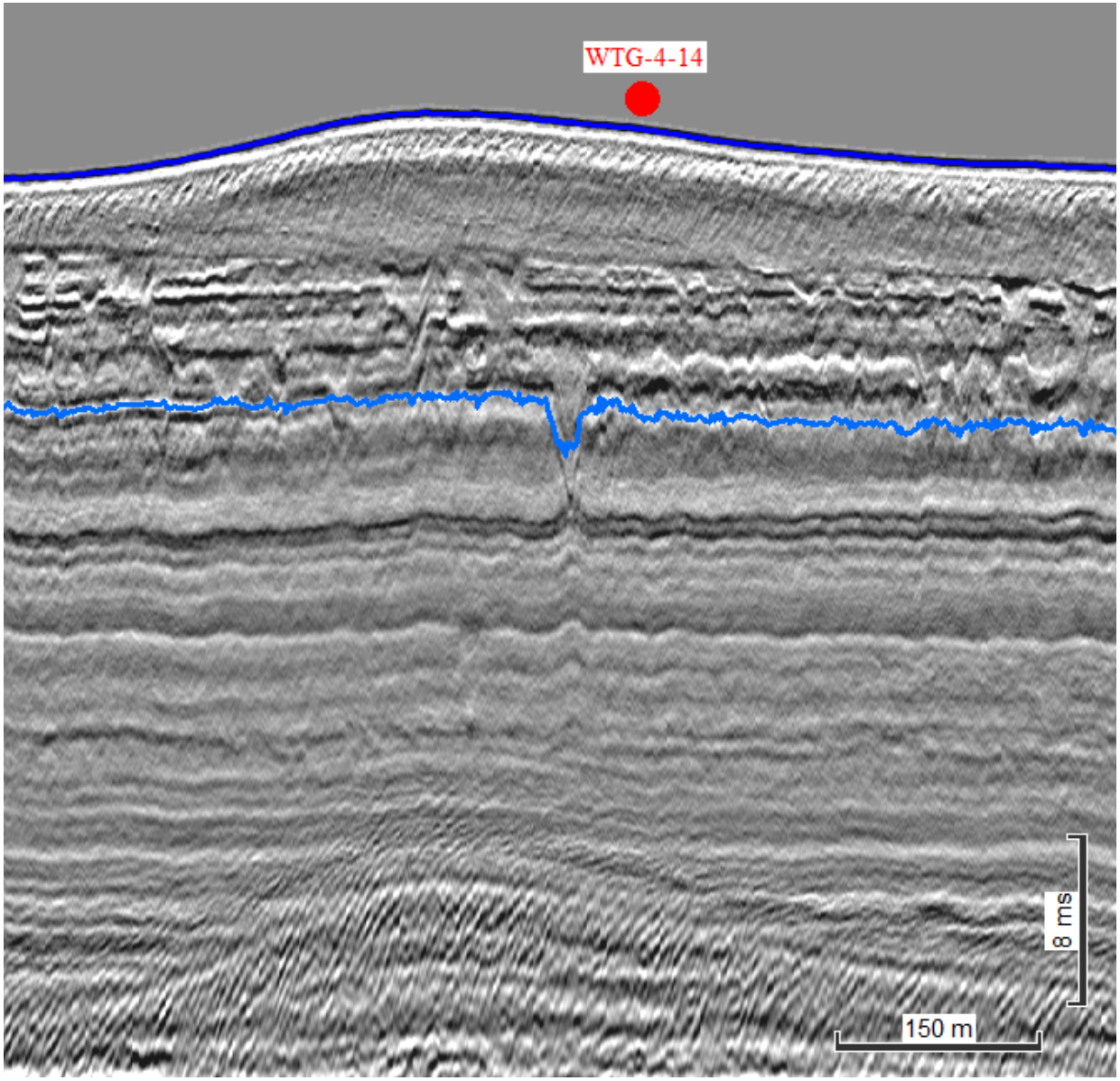


Figure 9-4: Proposed geotechnical location WTG-4-14 in Corridor 20 along line TLB50_01_FAST_MIG_PSDEMULl

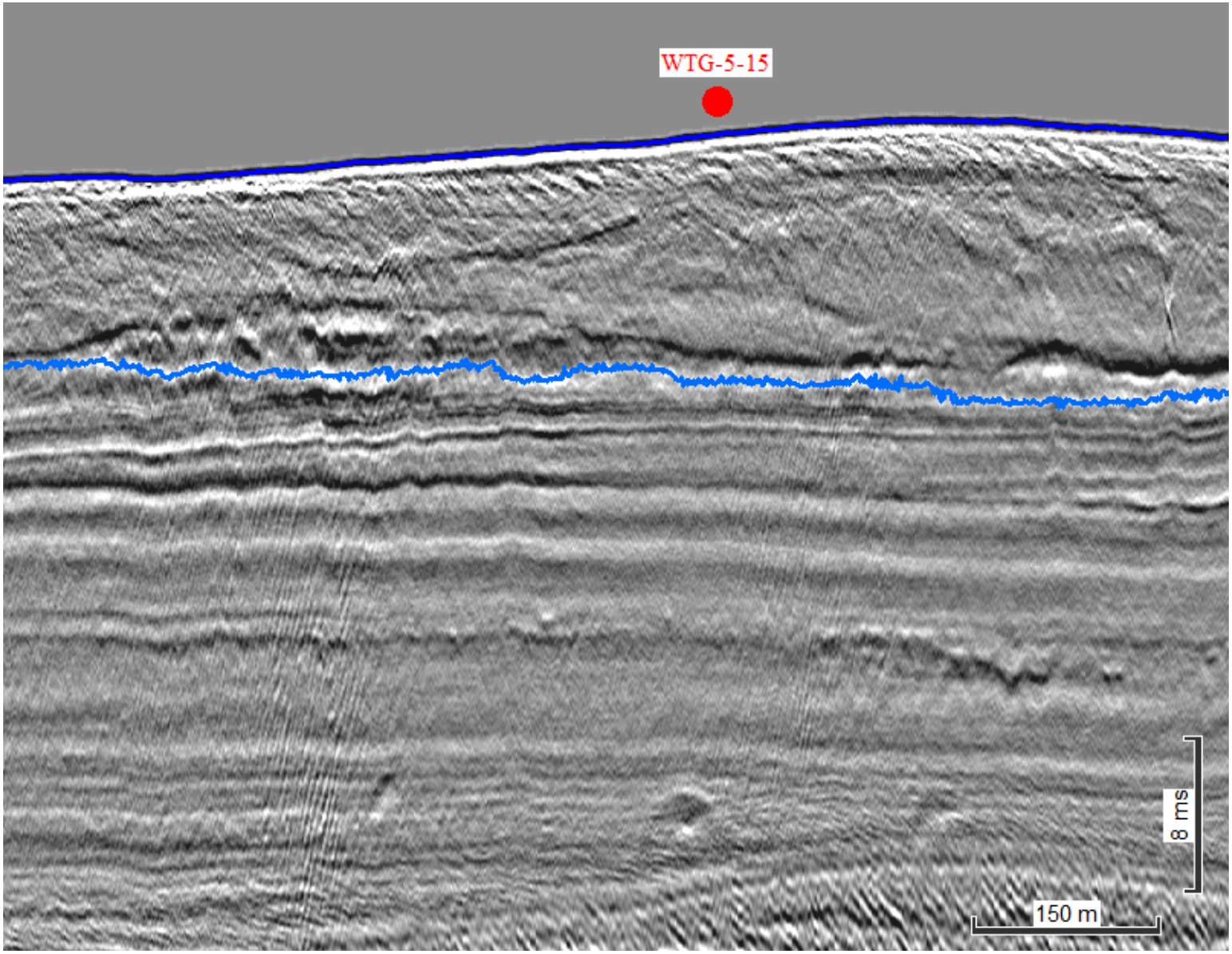


Figure 9-5: Proposed geotechnical location WTG-5-15 in Corridor 20 along line TLB56_FAST_MIG_PSDEMULl

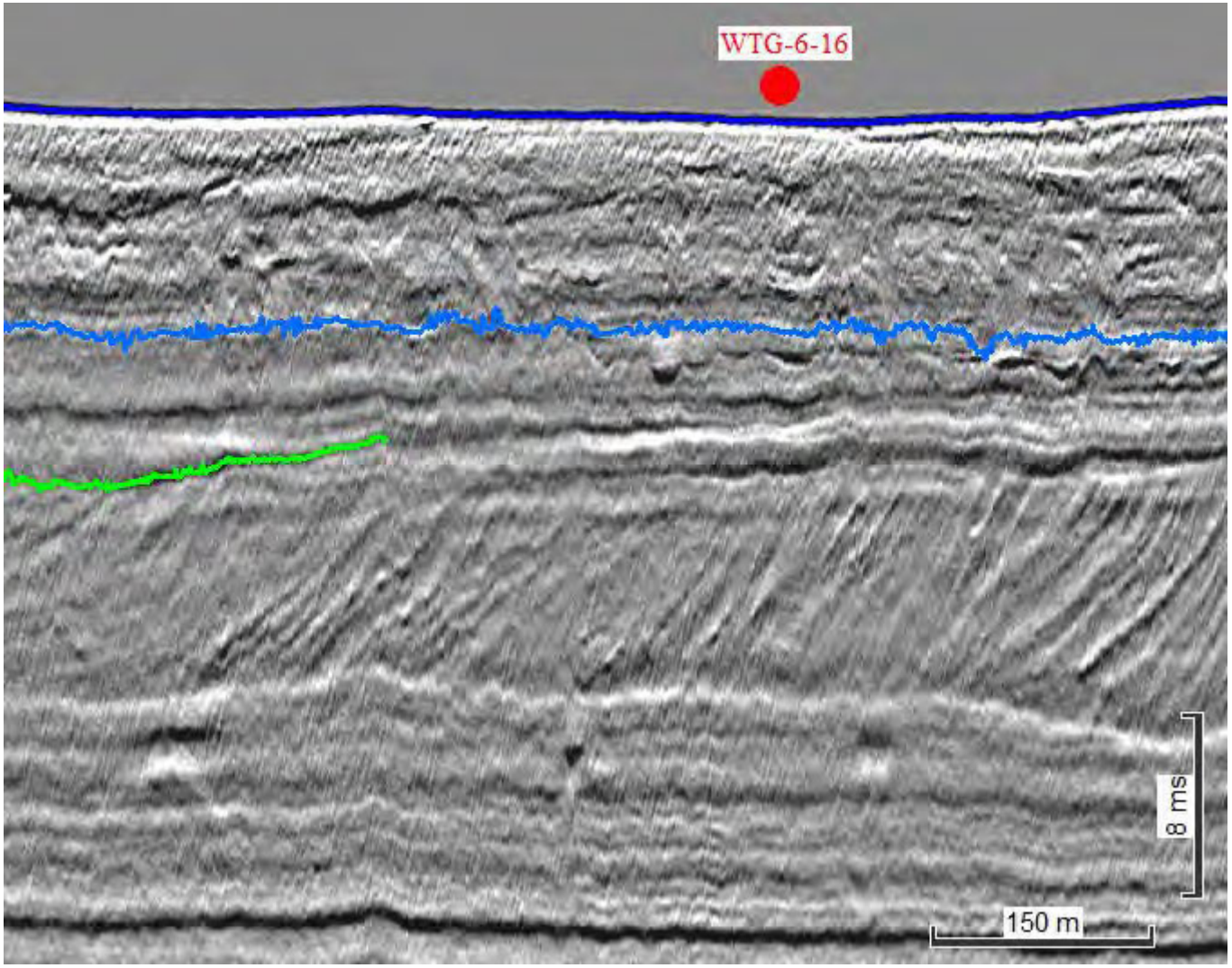


Figure 9-6: Proposed geotechnical location WTG-6-16 in Corridor 20 along line TLB62_01_FAST_MIG_PSDEMULl

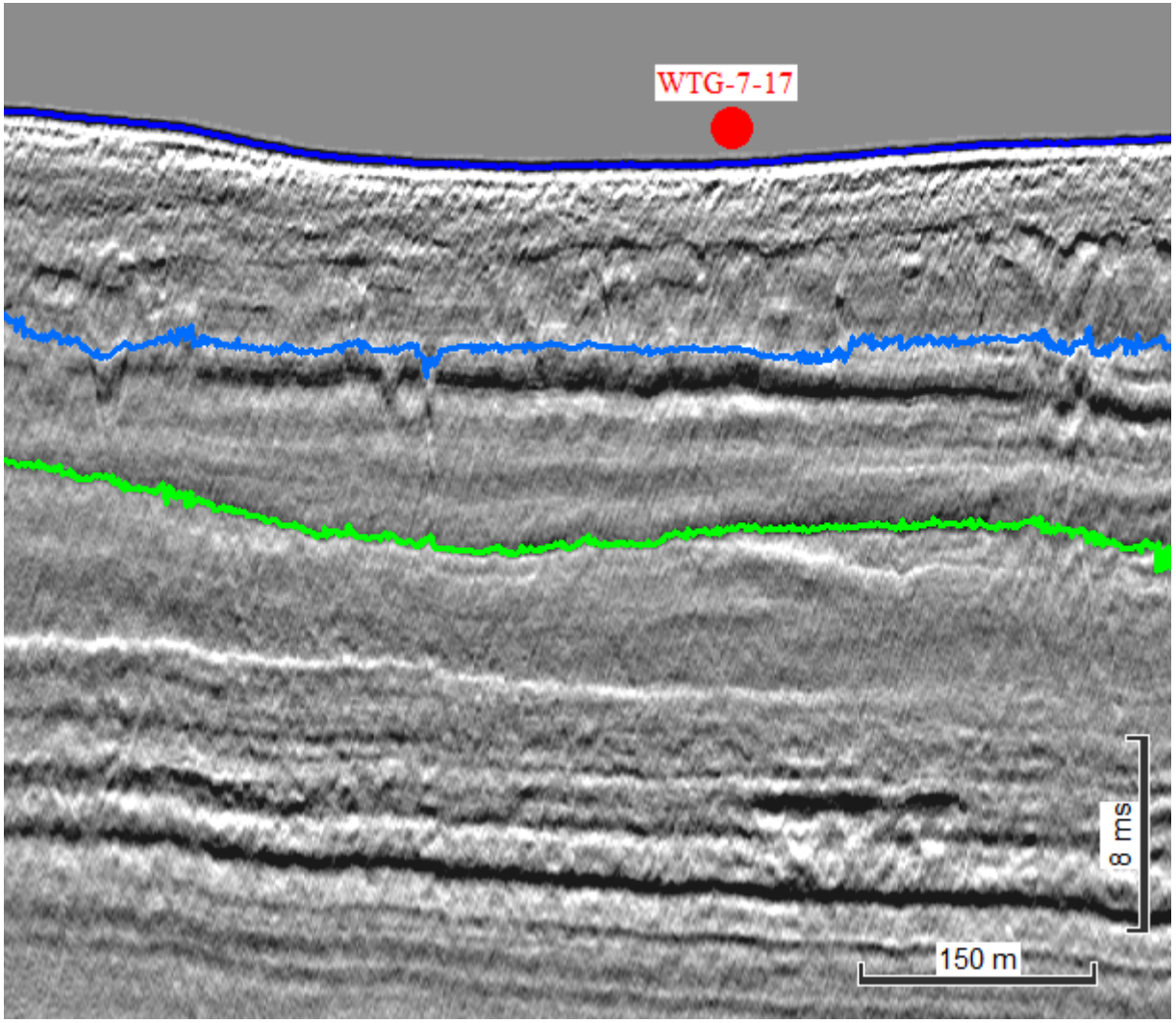


Figure 9-7: Proposed geotechnical location WTG-7-17 in Corridor 20 along line TLB68_01_FAST_MIG_PSDEMULl

APPENDIX 10
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 26

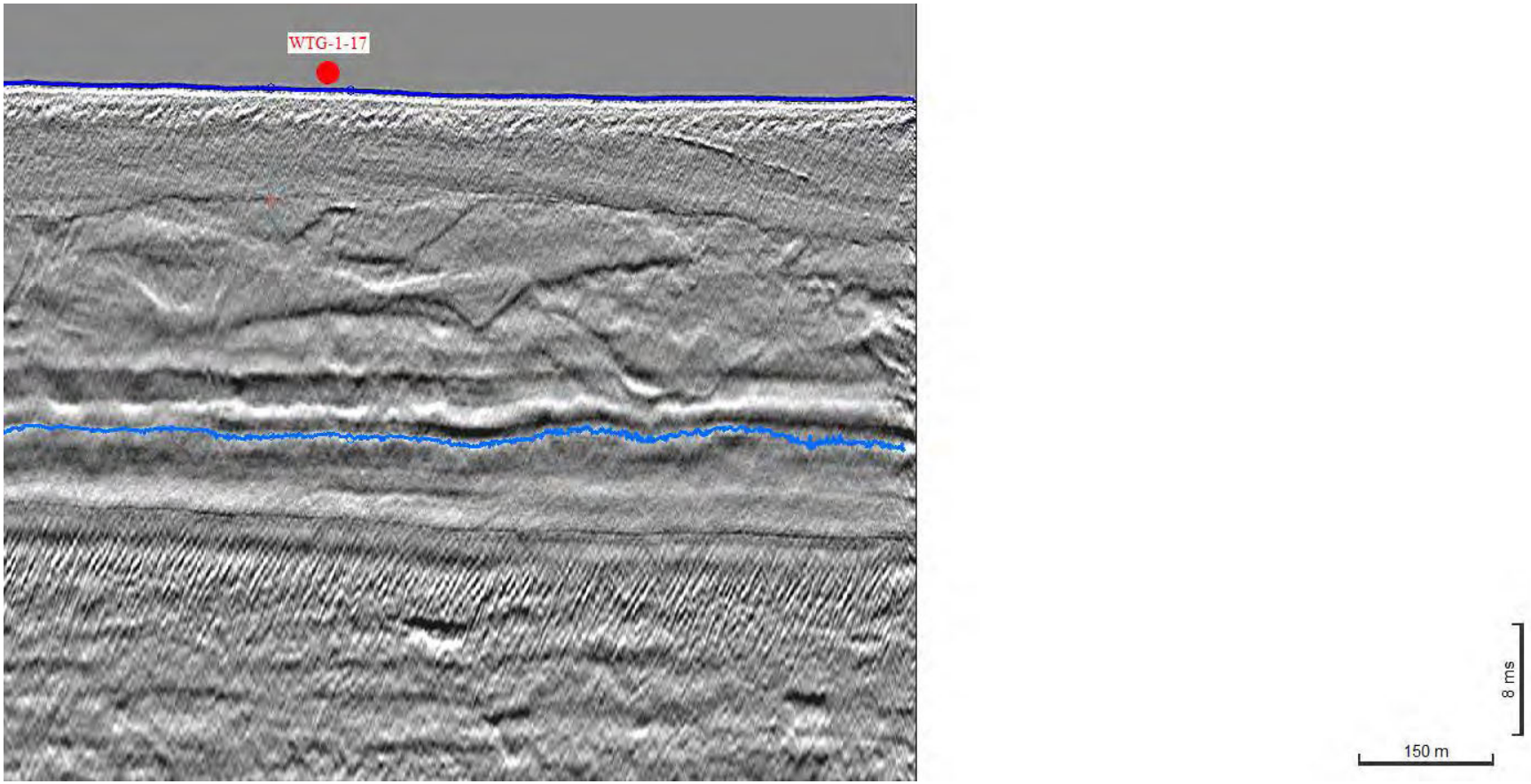


Figure 10-1: Proposed geotechnical location WTG-1-17 in Corridor 26 along line WTG26MCS16A_FAST_MIG

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

December 8, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Offshore Substation Locations and Corridor 24

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for three Offshore Substation (OSS) locations (OSS-01, OSS-02, and OSS-03) and corridor 24 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.
- Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,

Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Gibson
McNeilan and Assoc. - Tom McNeilan

December 3, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 24

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews three (3) of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the three (3) proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution (0.25 m [x, y] cell size), georeferenced mosaicked files (Appendix 1). No anthropogenic seafloor disturbances were noted within the analytical areas. No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

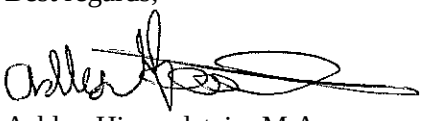
Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). Magnetic contours (5-nanotesla increments) were observed within some analytical areas, but were determined not to be cultural resources due to low amplitudes, low durations and no corresponding side scan sonar contacts. No magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the subsurface ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



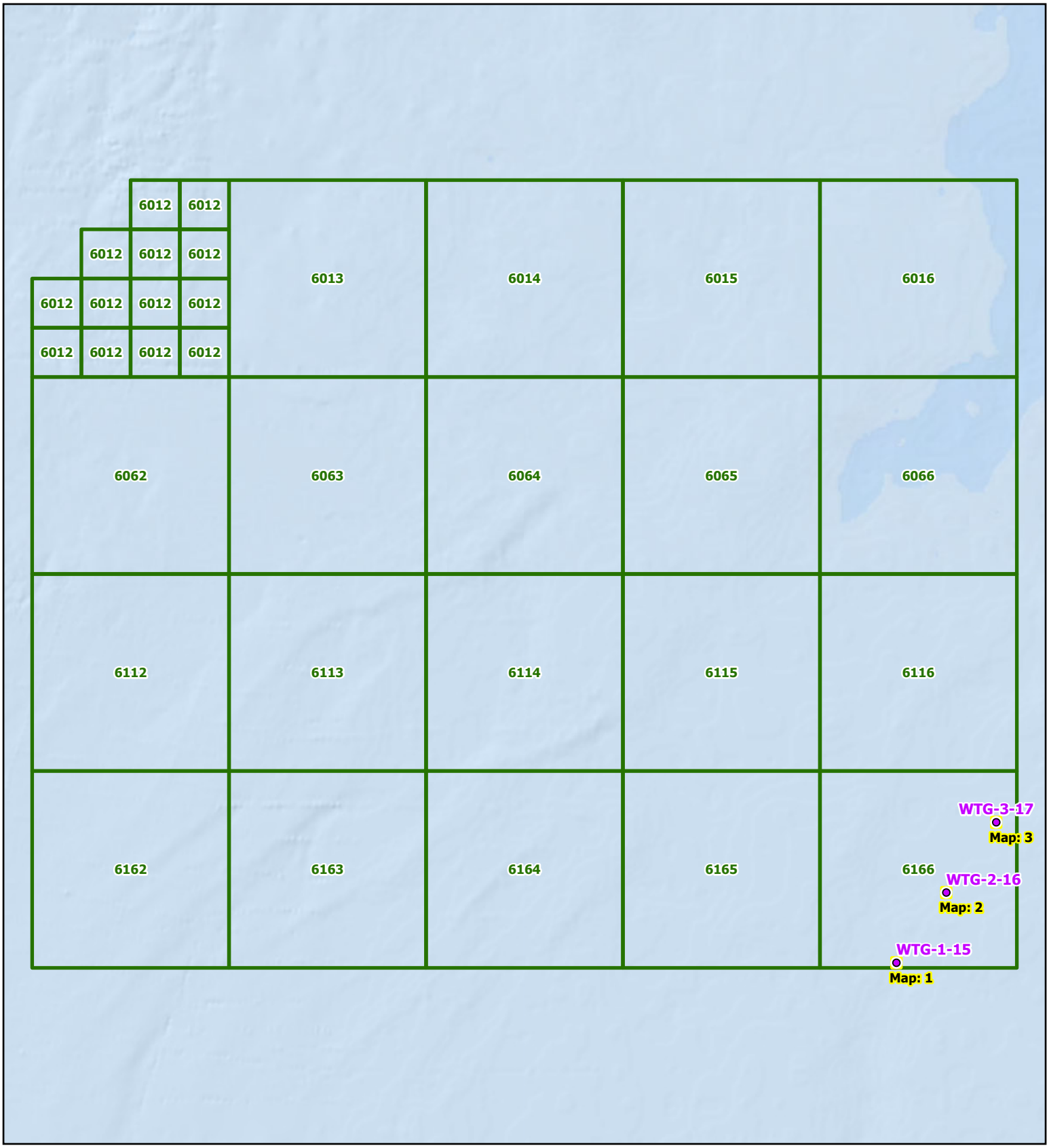
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 24

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-15	477864.14	4075324.17	-75.24821334	36.8235299
WTG-2-16	479080.14	4077036.17	-75.23462543	36.8389906
WTG-3-17	480297.14	4078748.17	-75.22102084	36.85444974

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 24



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

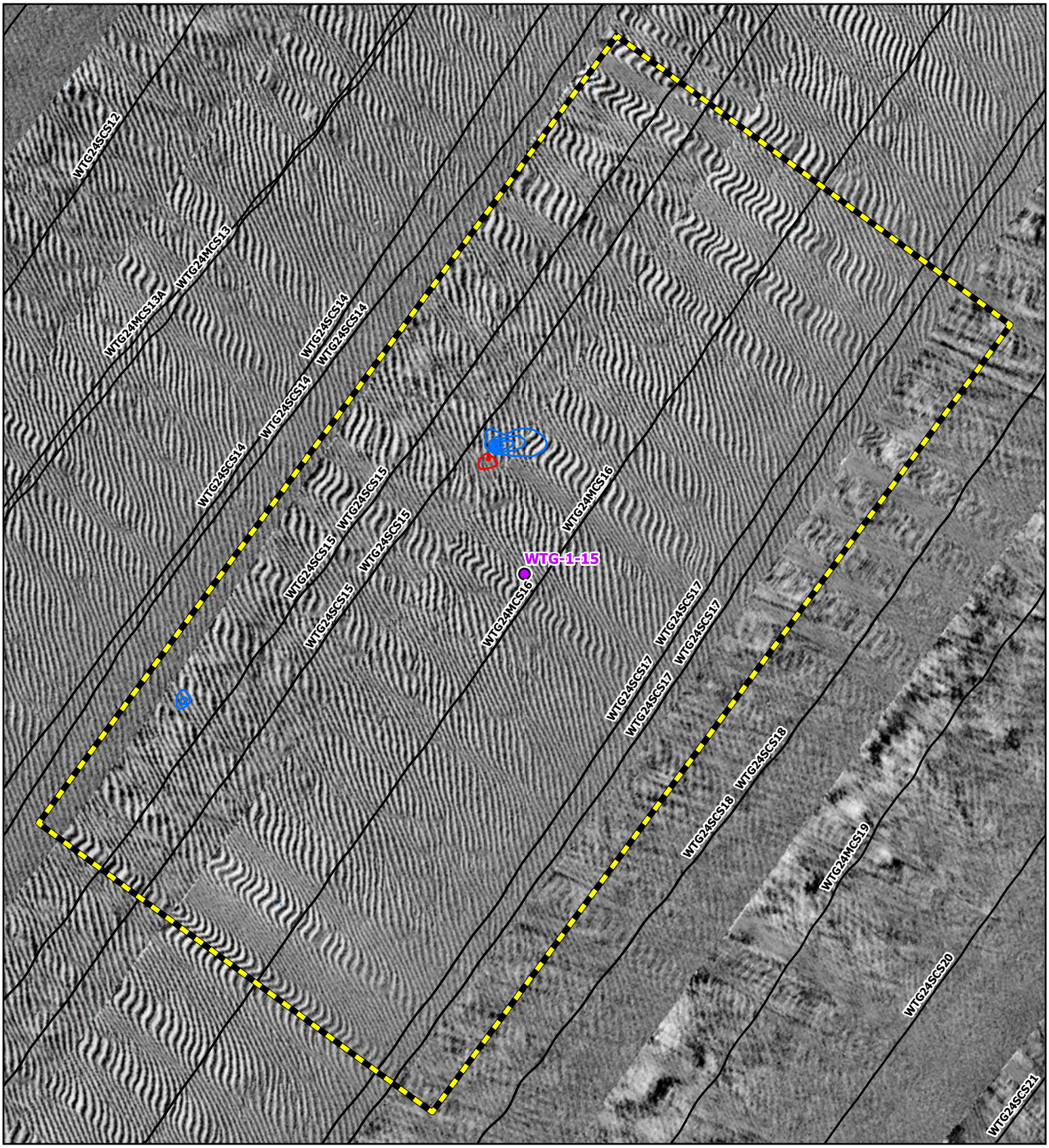
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 24

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

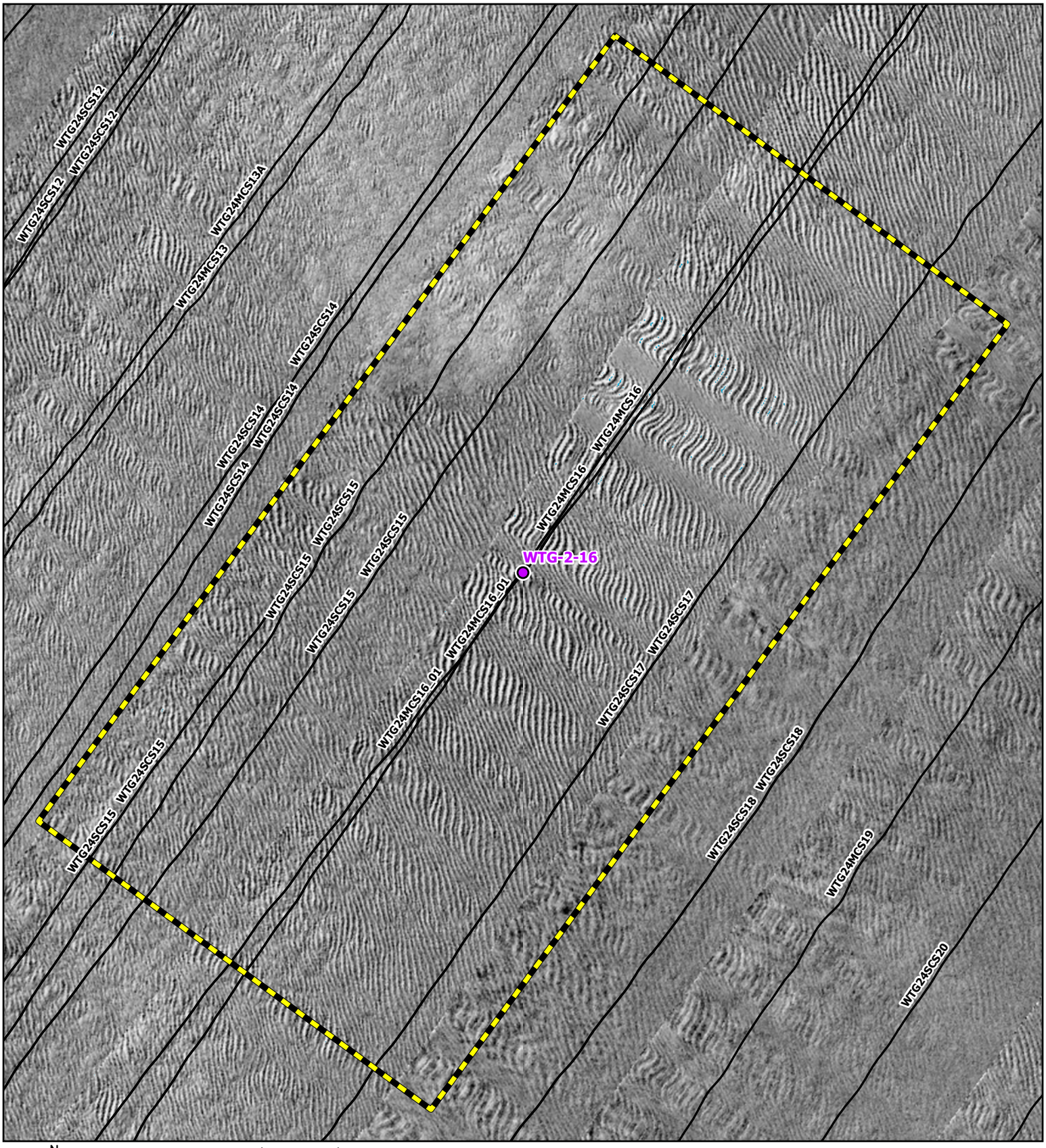
Geotechnical Clearance: Corridor 24

Map: 1

WTG-1-15

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

www.rcgoodwin.com | kmay, 12.2.2020



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

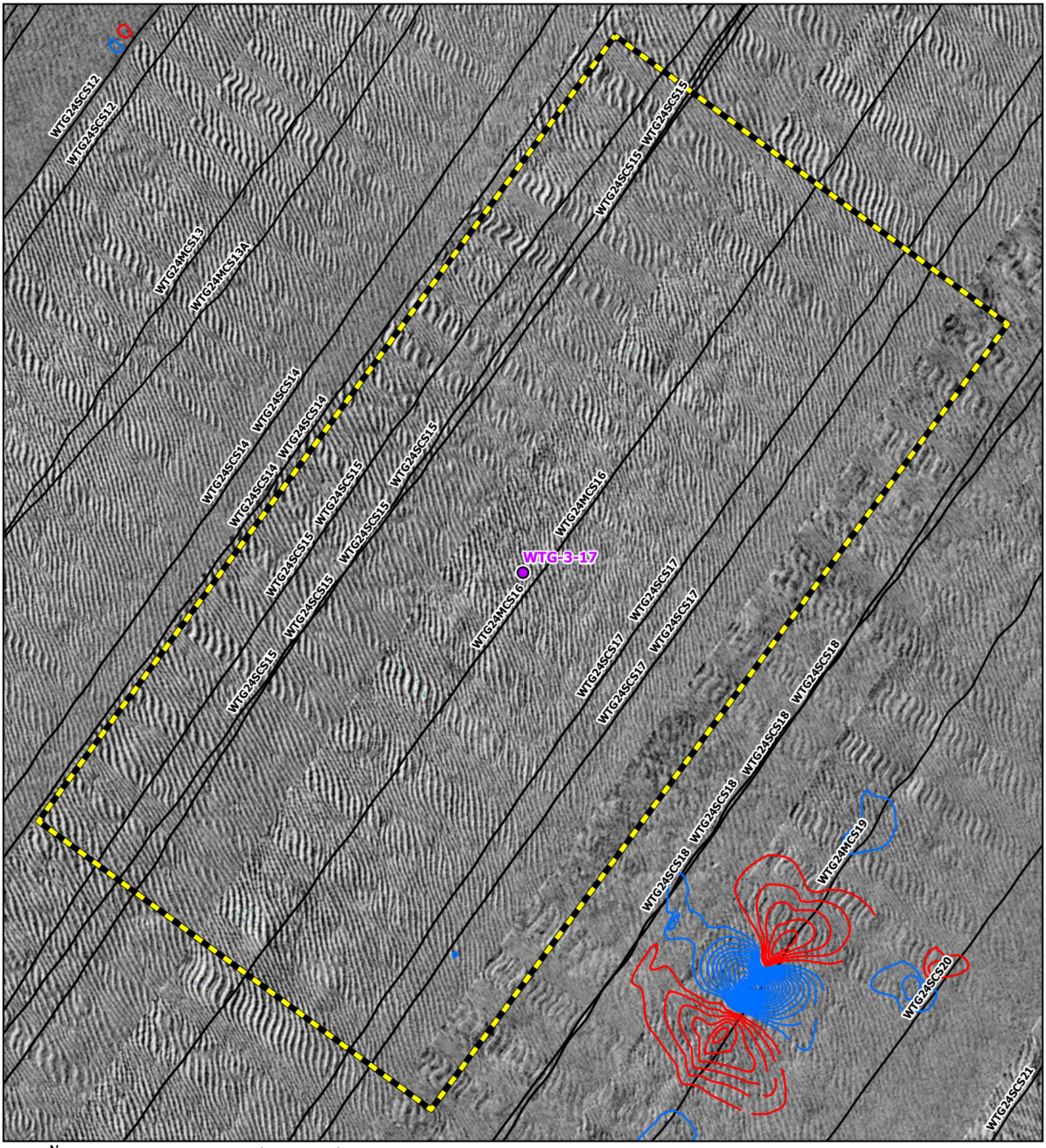
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 24

Map: 2

WTG-2-16

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 24

Map: 3

WTG-3-17

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

www.rcgoodwin.com | kmay, 12.2.2020

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

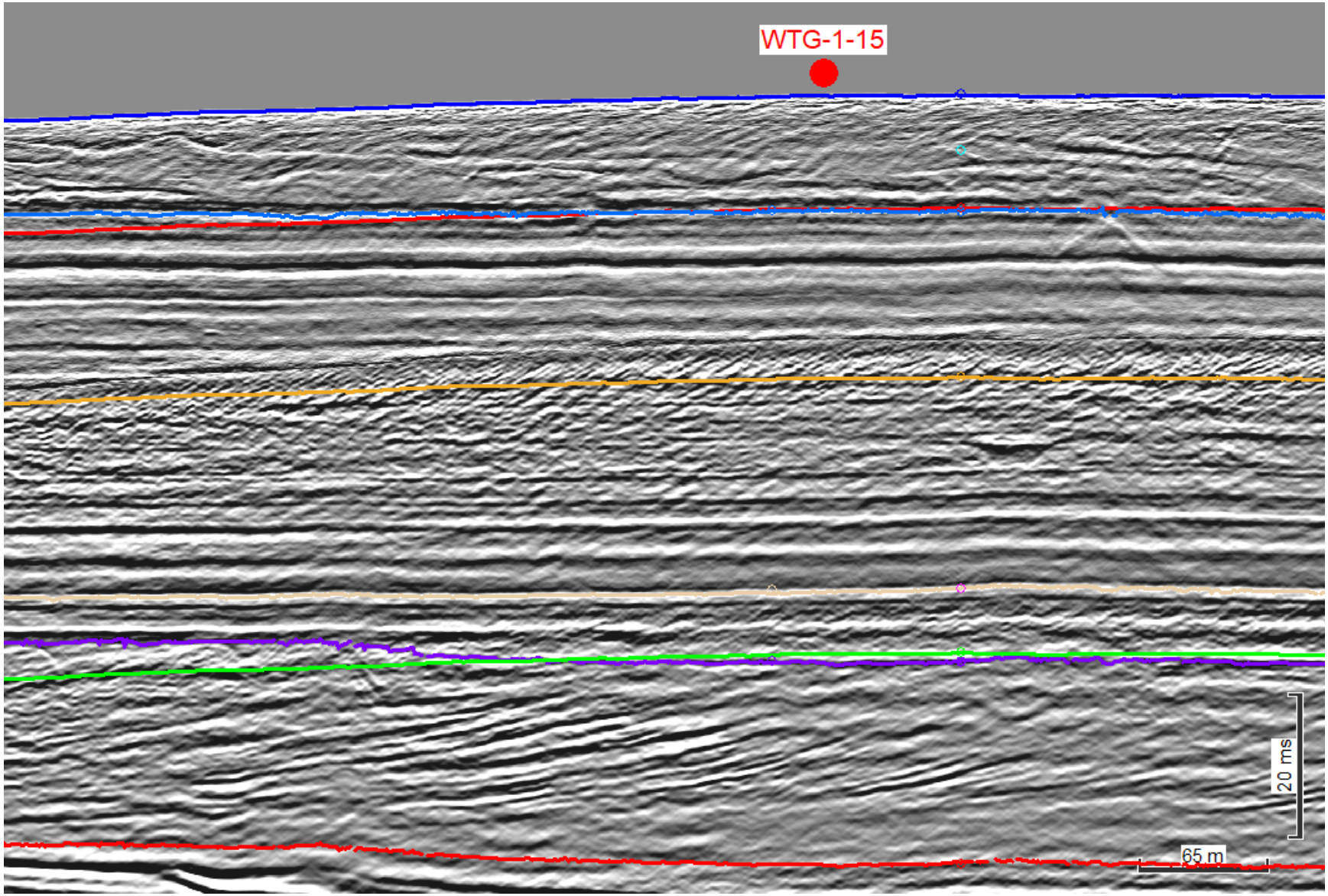


Figure 1: Proposed geotechnical location WTG-1-15 in Corridor 24 along line WTG24MCS19_FAST_MIG

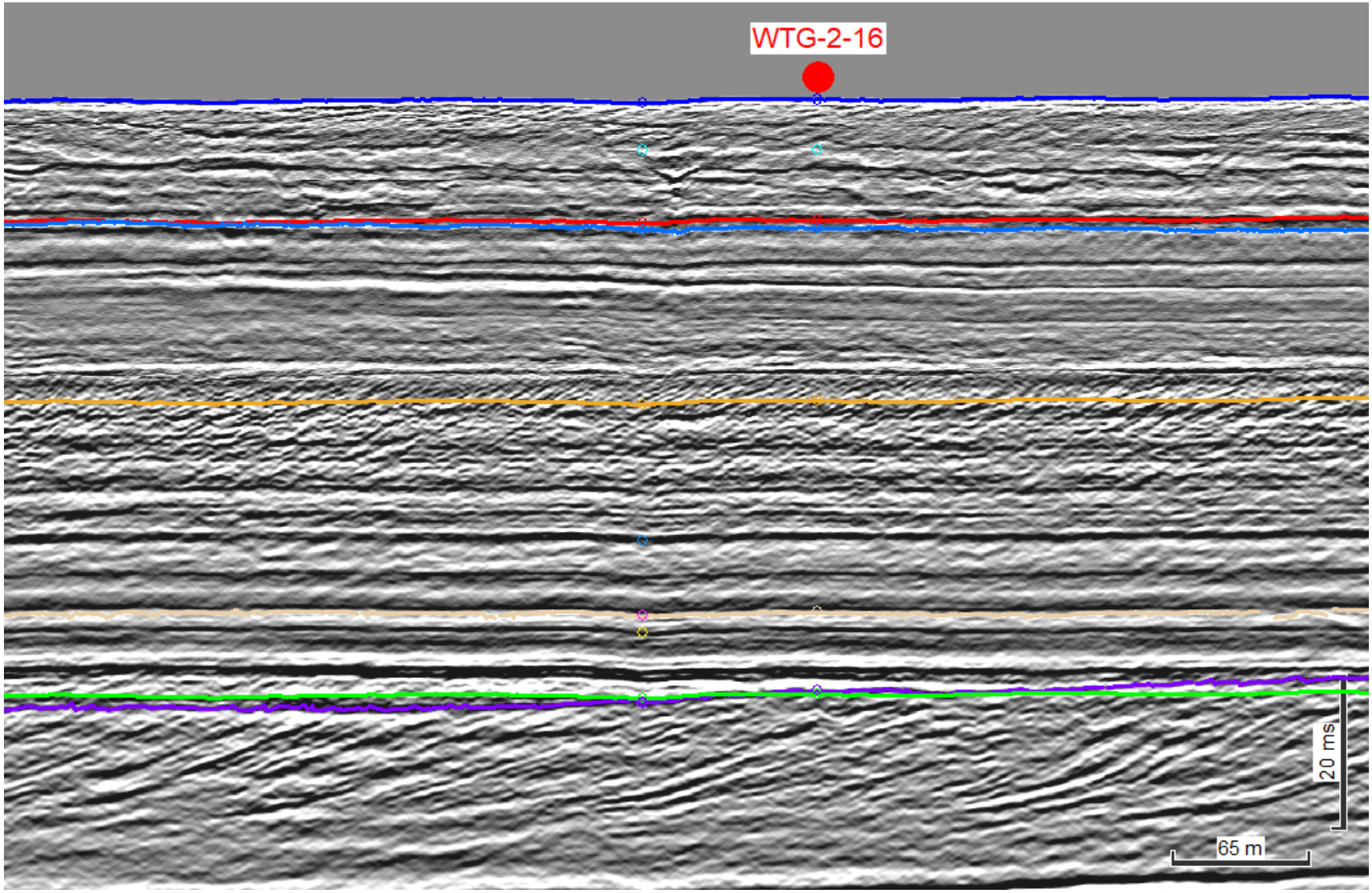


Figure 2: Proposed geotechnical location WTG-2-16 in Corridor 24 along line WTG24MCS19_FAST_MIG

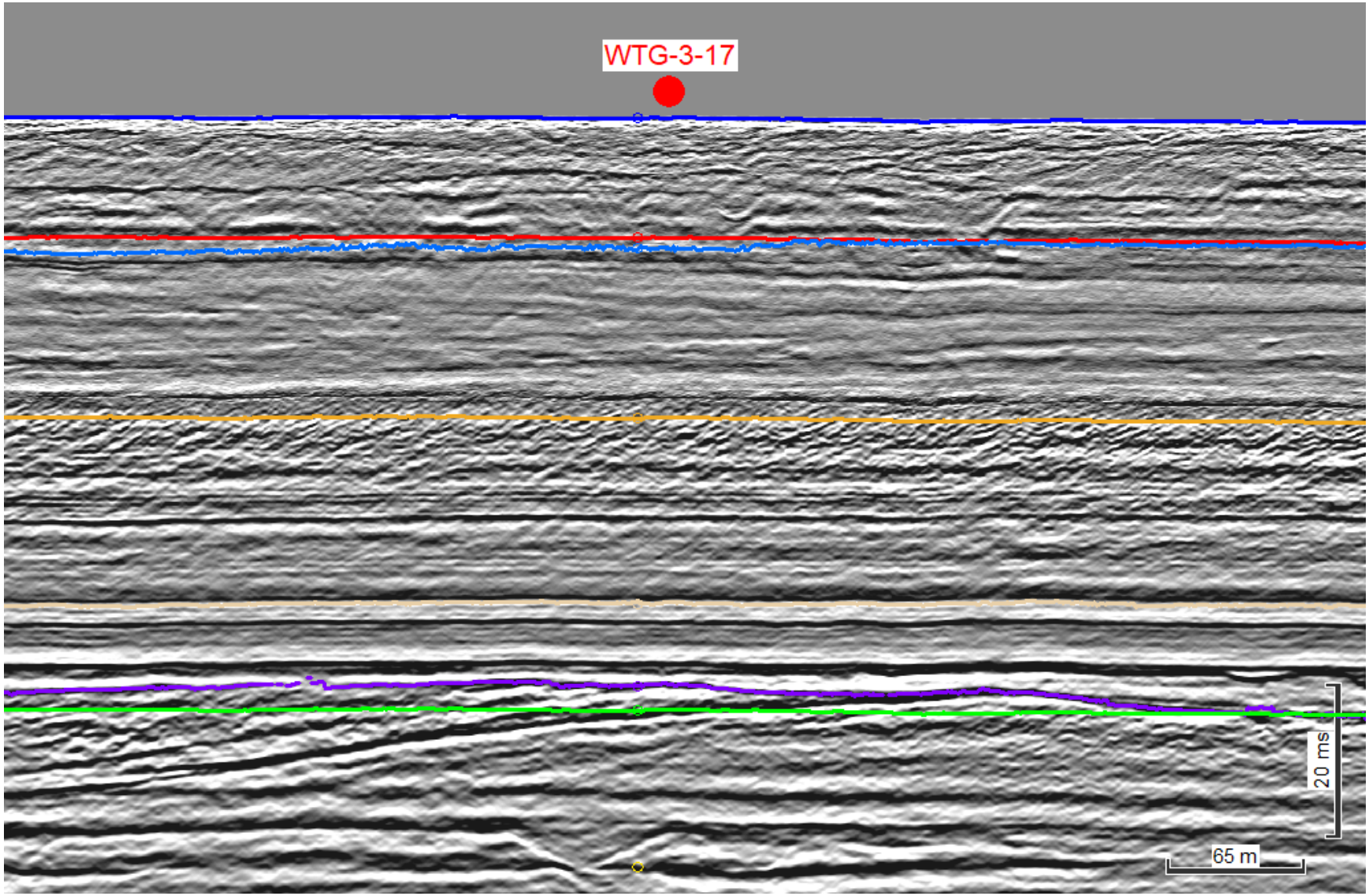


Figure 3: Proposed geotechnical location WTG-3-17 in Corridor 24 along line WTG24MCS19_FAST_MIG

December 3, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, OSS Locations

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews three (3) of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the three (3) proposed geotechnical locations co-located at each proposed Offshore Substation (OSS) location. The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution (0.25 m [x, y] cell size), georeferenced mosaicked files (Appendix 1). No anthropogenic seafloor disturbances were noted within the analytical areas. No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

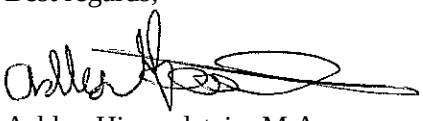
Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). Magnetic contours (5-nanotesla increments) were observed within some analytical areas, but were determined not to be cultural resources due to low amplitudes, low durations and no corresponding side scan sonar contacts. No magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the subsurface ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



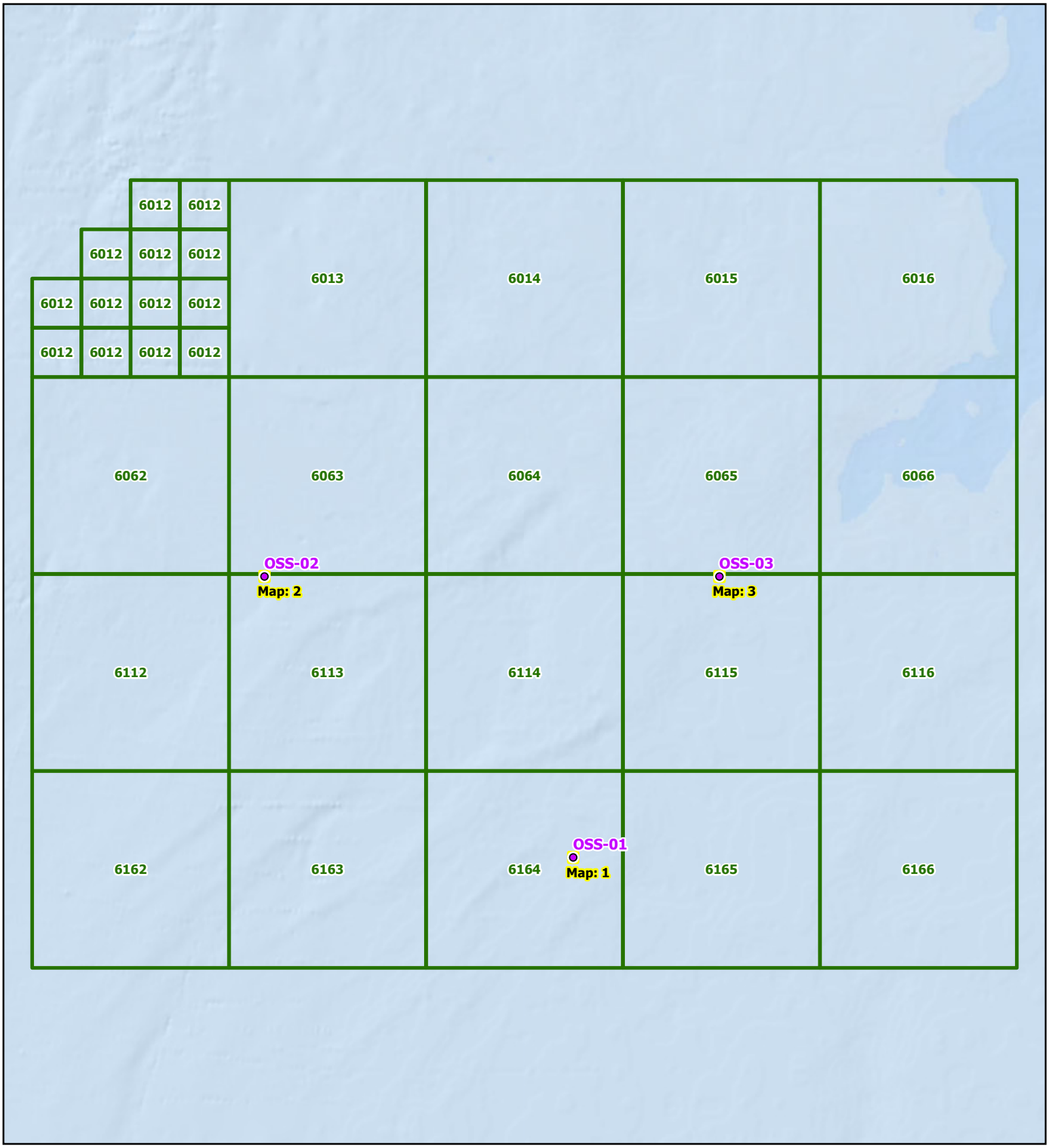
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for OSS Locations

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
OSS-01	469987.00	4077892.00	-75.3366408	36.84646049
OSS-02	462463.00	4084739.00	-75.42137043	36.90791299
OSS-03	473551.00	4084739.00	-75.29690472	36.90828923

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR OSS LOCATIONS



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

0 1 2 3 4 Kilometers

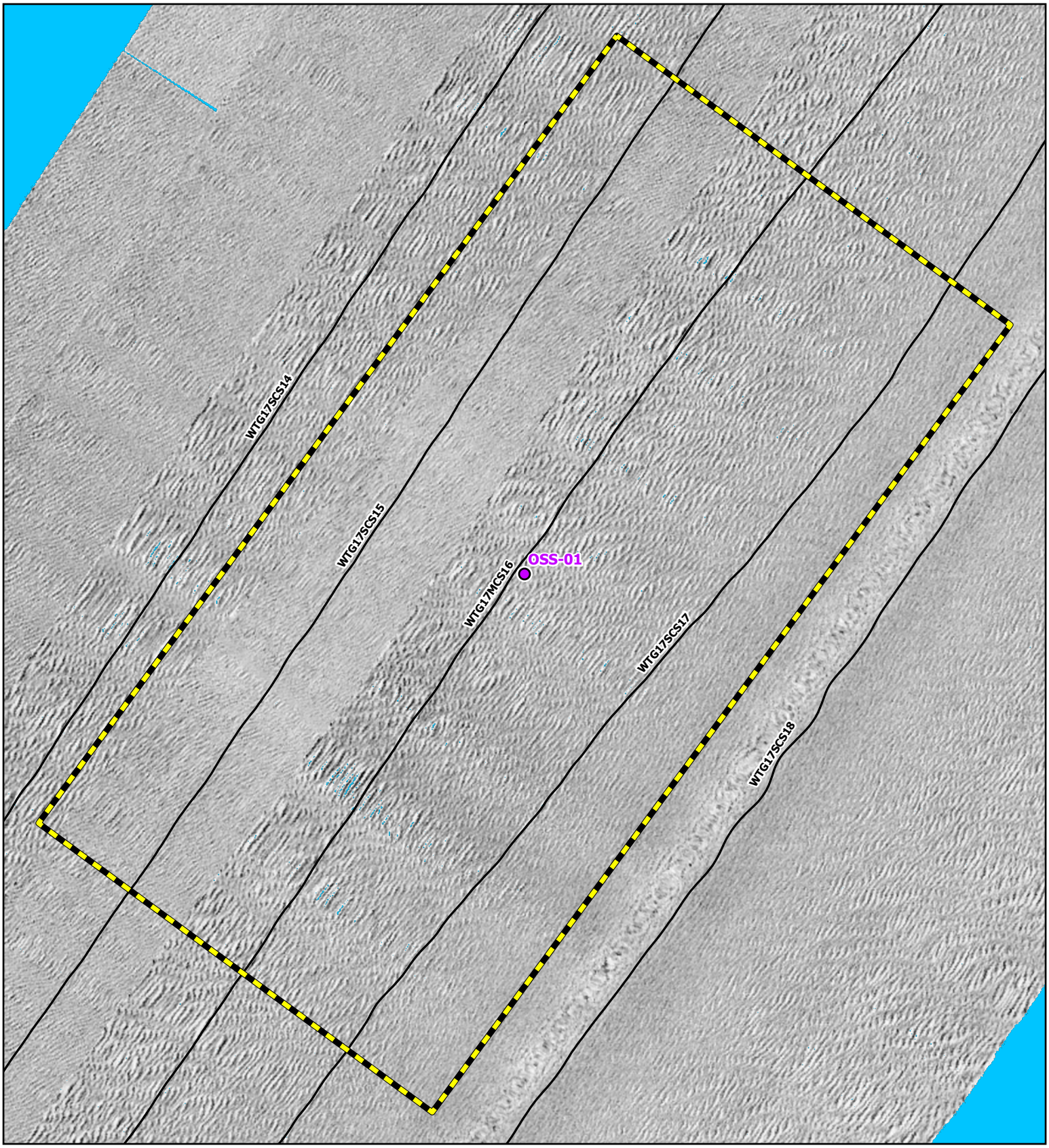
- OSS Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: OSS

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

OSS Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

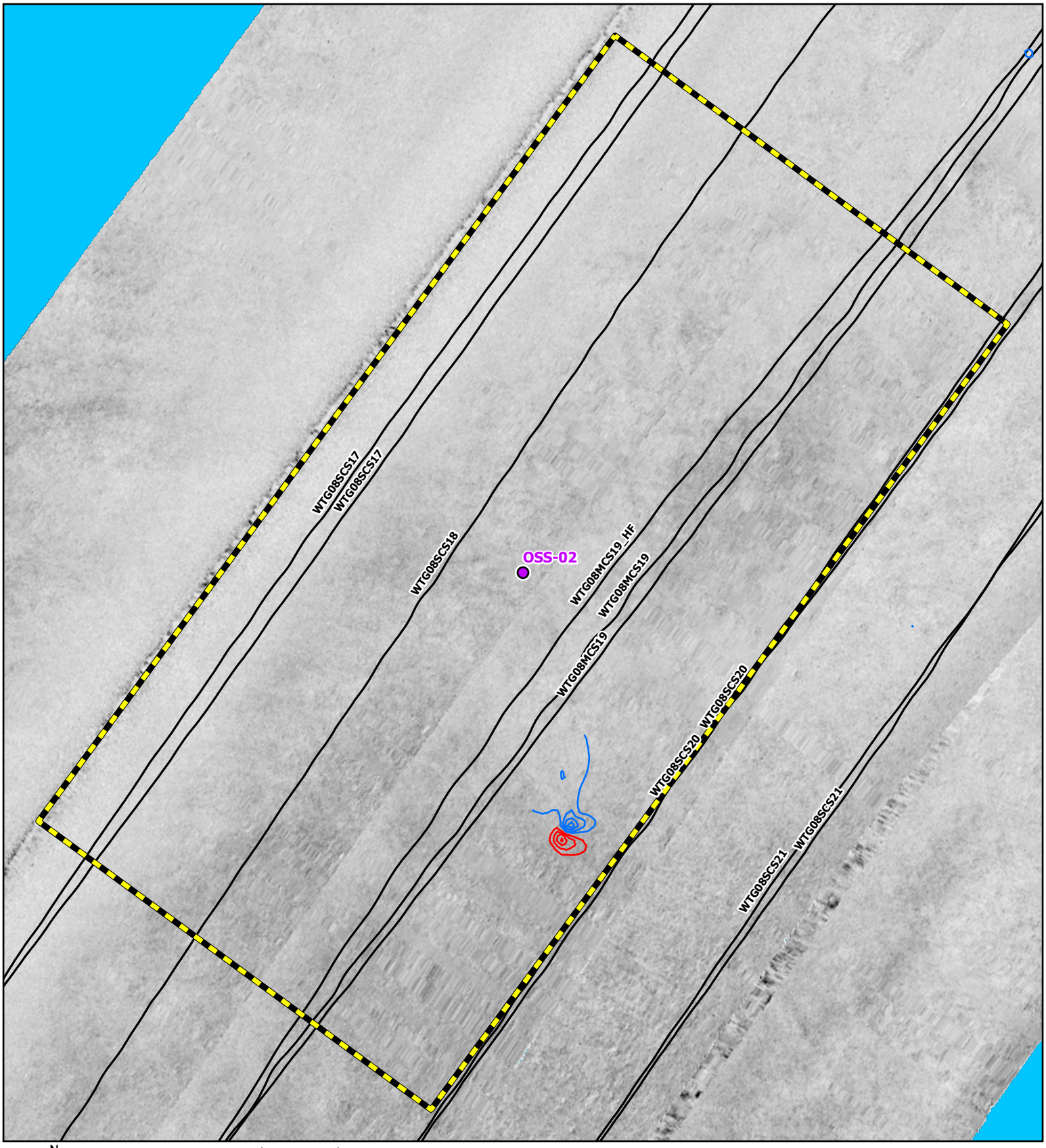
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: OSS

Map: 1

OSS-01

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

OSS Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: OSS

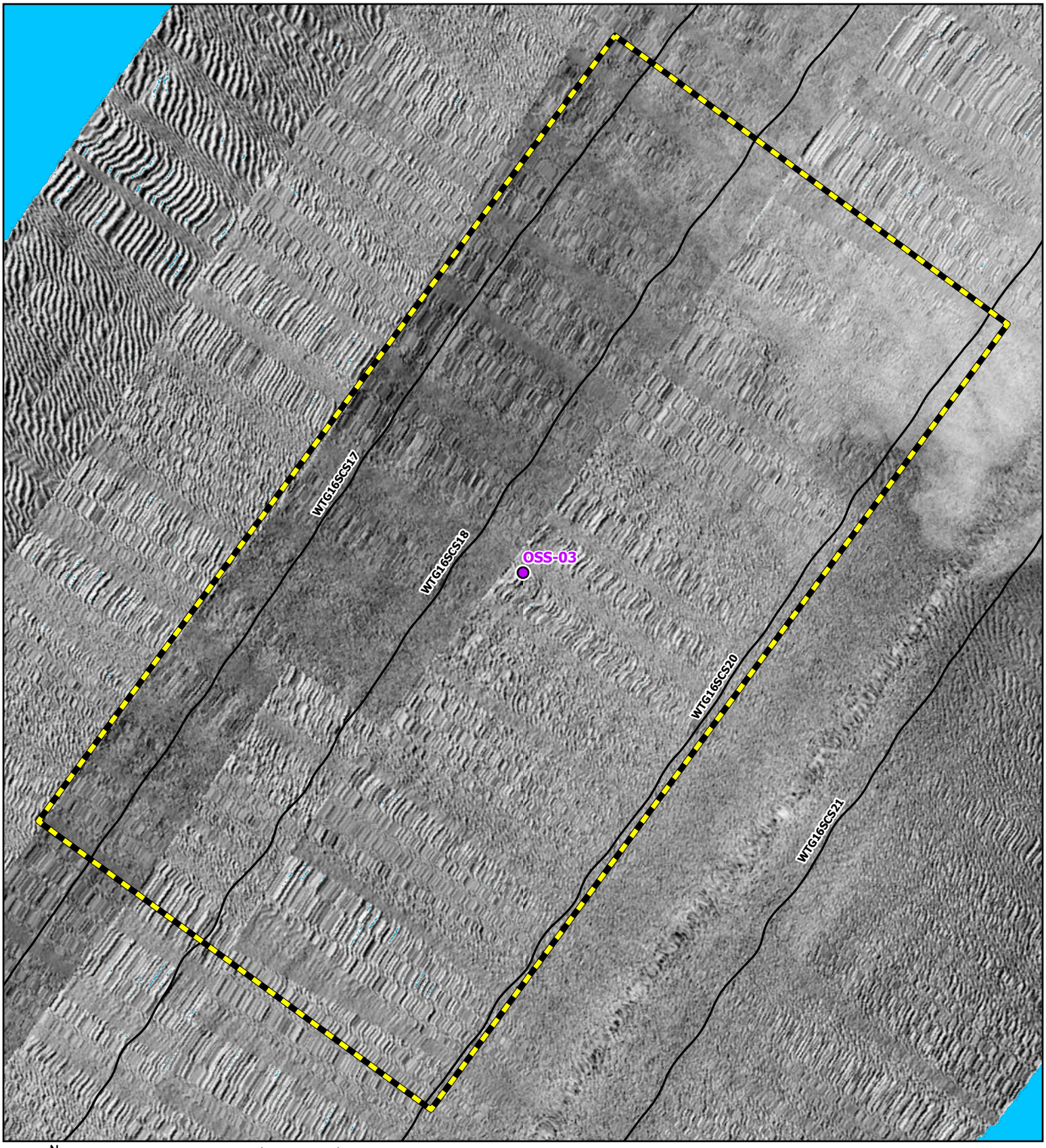
Map: 2

OSS-02

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

OSS Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: OSS

Map: 3

OSS-03

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

www.rcgoodwin.com | kmay, 12.2.2020

APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

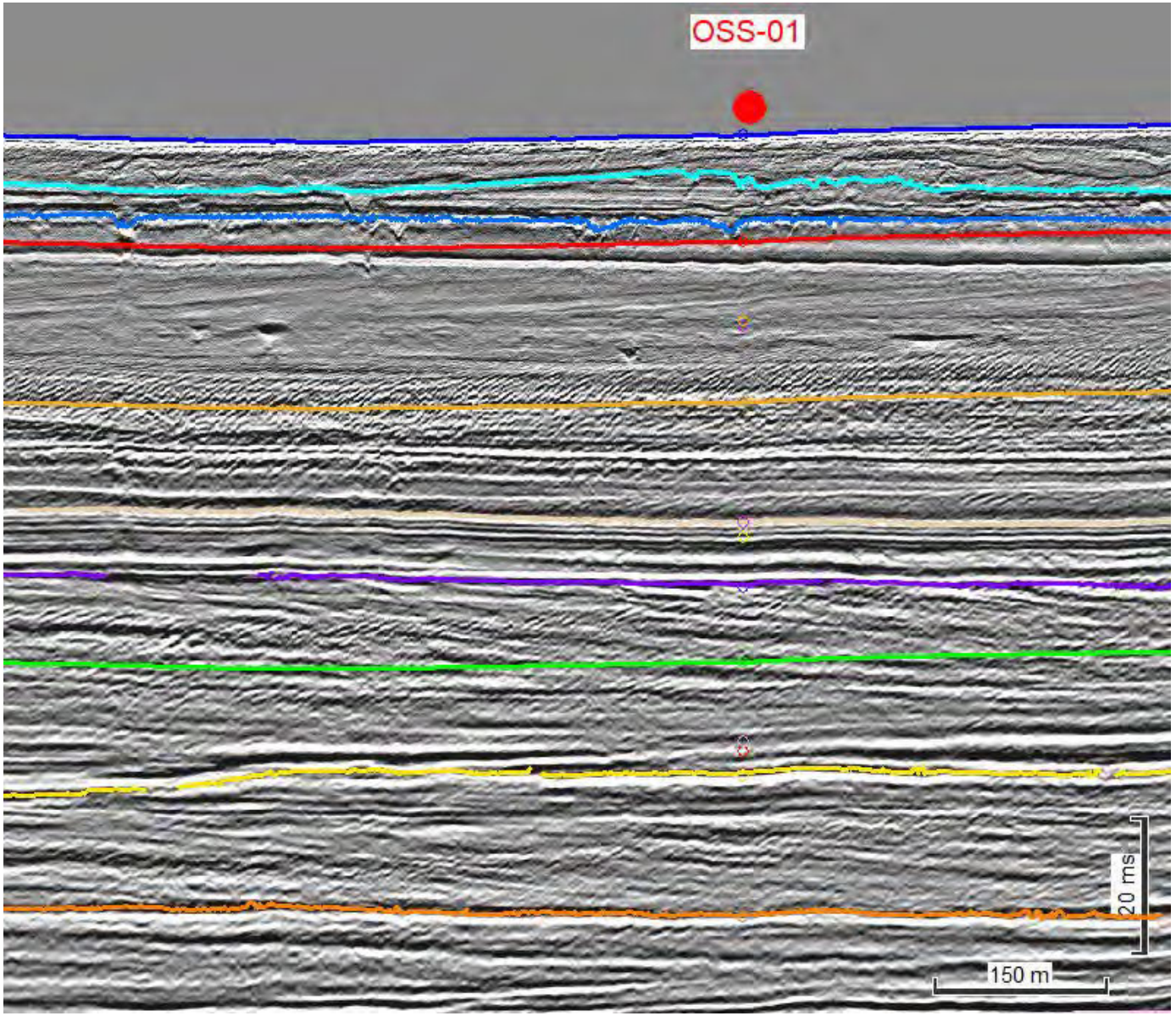


Figure 1: Proposed geotechnical location OSS-01 along line TLB32_FAST_MIG

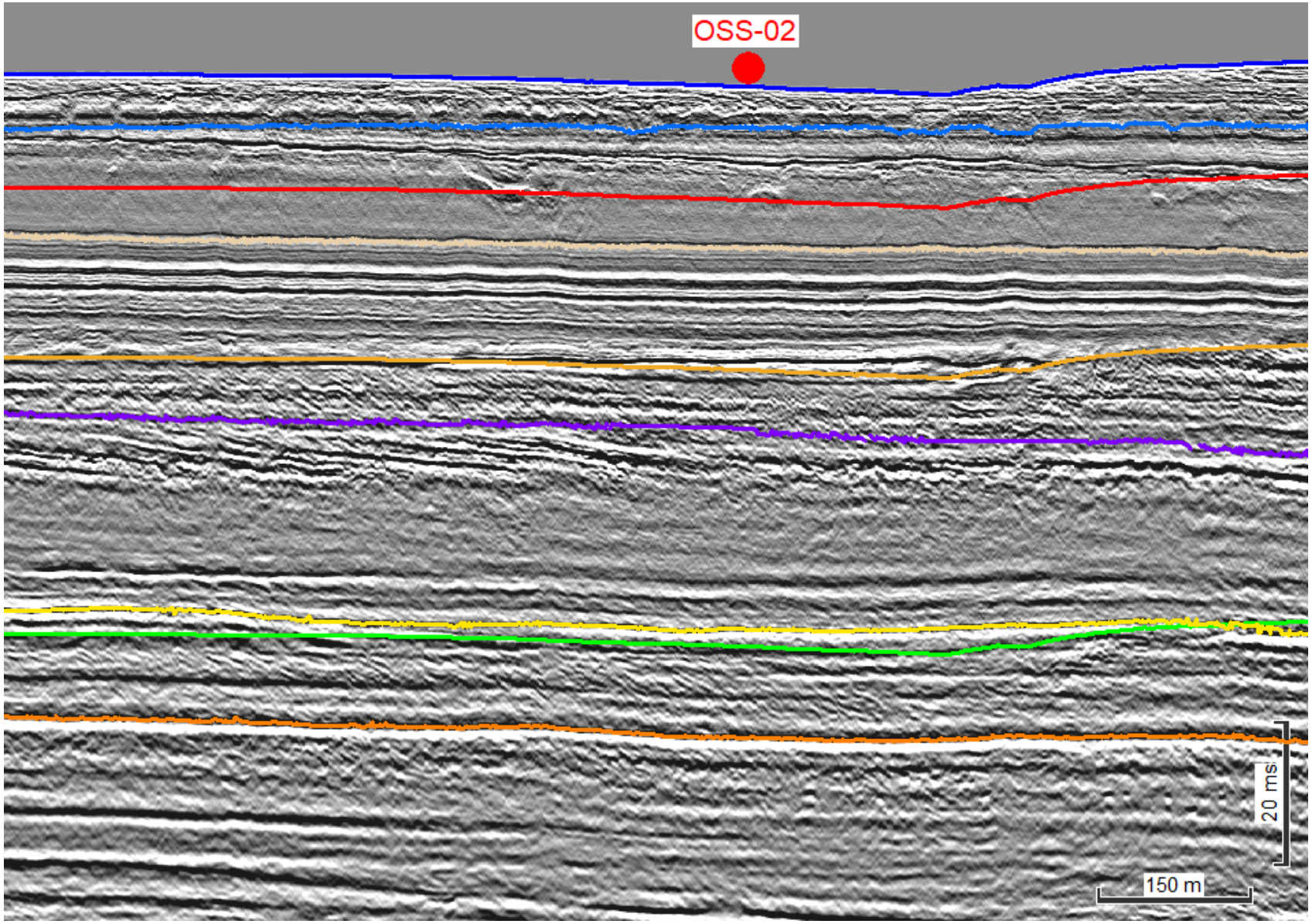


Figure 2: Proposed geotechnical location OSS-02 along line TLB29_FAST_MIG_PSDEMUL

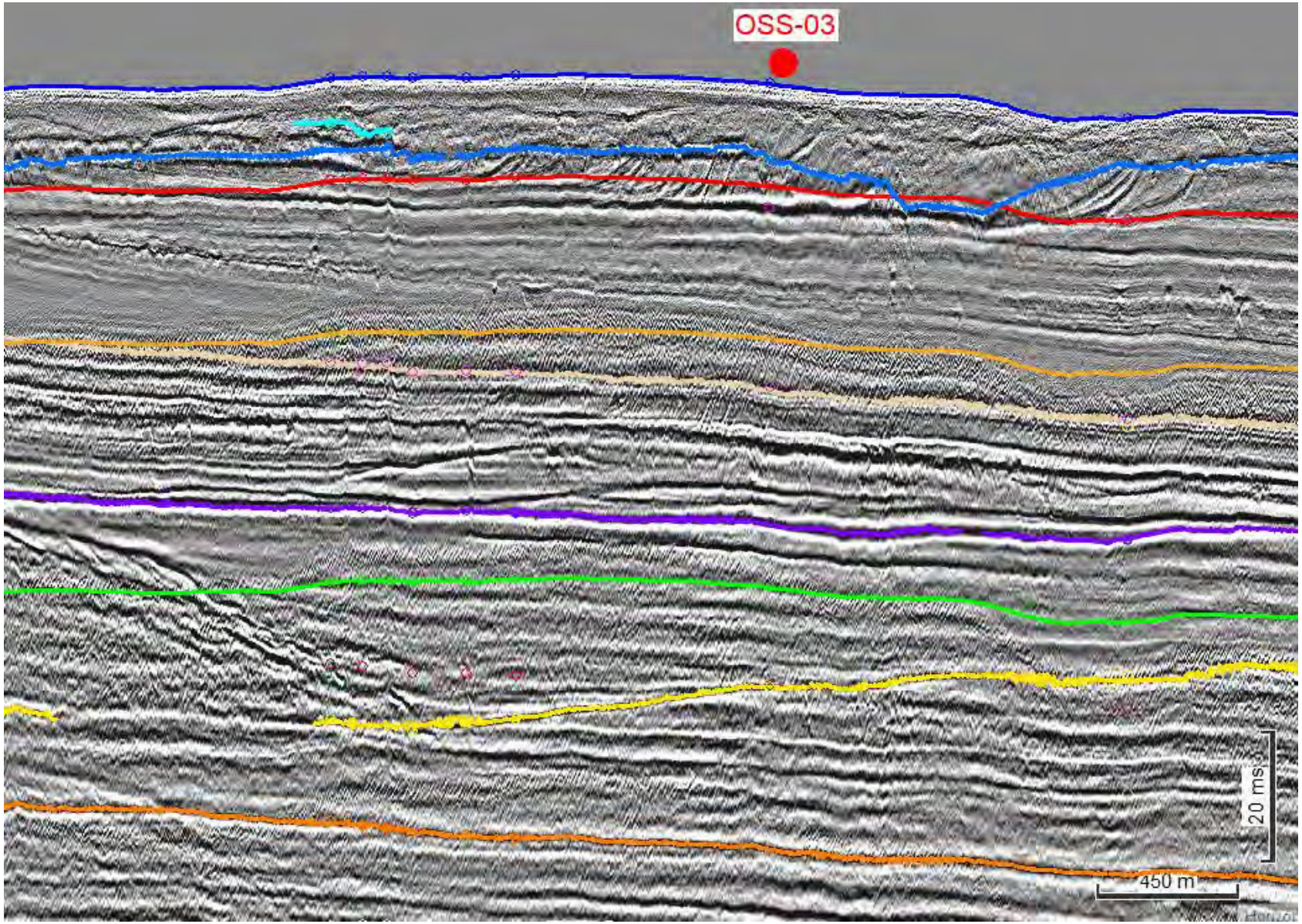


Figure 3: Proposed geotechnical location OSS-03 along line LBB53_FAST_MIG

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

November 25, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 4, 6, 12, 20, and 26

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for corridors 4, 6, 12, 20, and 26 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.
- Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,

Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrel Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett,, Will Kinnan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Gibson
McNeilan and Assoc. - Tom McNeilan

November 16, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 4, Corridor 6, Corridor 12, Corridor 20 and Corridor 26

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews 30 of these locations for gathering geologic information (Tables 1, 2, 3, 4, and 5). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 30 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendices 1, 2, 3, 4, and 5) No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of

amplitude, duration, magnetic signature, and spatial distribution (Appendices 1, 2, 3, 4, and 5). Magnetic contours were observed within some analytical areas but were determined not to be cultural resources due to low amplitudes, low durations and no corresponding side scan sonar contacts. No magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendices 6, 7, 8, 9 and 10). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1, 2, 3, 4, and 5; Appendices 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1, 2, 3, 4, and 5), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 4

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-7-1	457443.14	4085595.17	-75.47776697	36.9154175
WTG-8-2	458659.14	4087306.17	-75.46420942	36.930895
WTG-9-3	459876.14	4089018.17	-75.45063524	36.94638001
WTG-10-4	461092.14	4090730.17	-75.4370668	36.96186342

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed WTG geotechnical locations for Corridor 6

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-5-1	457782.14	4082171.17	-75.47377045	36.88456787
WTG-6-2	458998.14	4083883.17	-75.46021754	36.90005398
WTG-7-3	460215.14	4085595.17	-75.44664794	36.91553858
WTG-8-4	461431.14	4087306.17	-75.43308405	36.93101257
WTG-9-5	462648.14	4089018.17	-75.41950351	36.94649406
WTG-10-6	463864.14	4090730.17	-75.40592872	36.96197395

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3. Proposed WTG geotechnical locations for Corridor 12

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-3	461232.14	4075324.17	-75.43470595	36.82299436
WTG-2-4	462448.14	4077036.17	-75.42115586	36.83847616
WTG-3-5	463665.14	4078748.17	-75.4075891	36.85395644
WTG-4-6	464881.14	4080459.17	-75.39402805	36.86942611
WTG-5-7	466098.14	4082171.17	-75.38045038	36.88490328
WTG-6-8	467314.14	4083883.17	-75.36687846	36.90037886
WTG-7-9	468531.14	4085595.17	-75.35328984	36.9158529
WTG-8-10	469747.14	4087306.17	-75.33970694	36.93131633
WTG-9-11	470964.14	4089018.17	-75.32610736	36.94678725
WTG-10-12	472180.14	4090730.17	-75.31251353	36.96225656
WTG-11-7	473397.14	4092442.17	-75.29890298	36.97772433
WTG-12-8	474613.14	4094153.17	-75.28529813	36.99318147

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 4: Proposed WTG geotechnical locations for Corridor 20

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-11	472320.14	4075324.17	-75.31037808	36.82338389
WTG-2-12	473536.14	4077036.17	-75.29680275	36.83885163
WTG-3-13	474753.14	4078748.17	-75.28321075	36.85431784
WTG-4-14	475969.14	4080459.17	-75.26962447	36.86977344
WTG-5-15	477186.14	4082171.17	-75.25602153	36.8852365
WTG-6-16	478402.14	4083883.17	-75.24242434	36.90069797
WTG-7-17	479619.14	4085595.17	-75.22881044	36.91615787

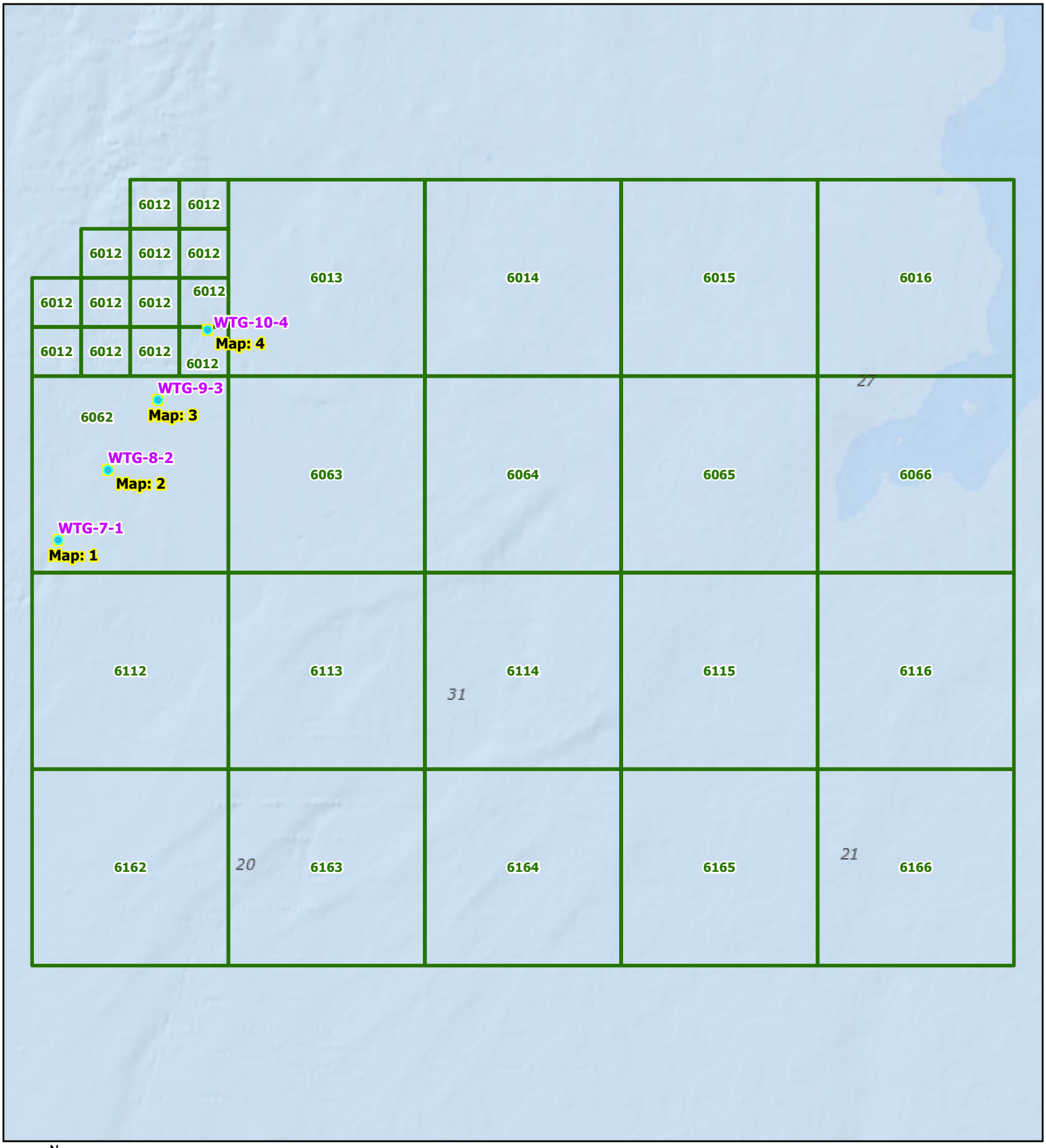
[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 5: Proposed WTG geotechnical locations for Corridor 26

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-17	480636.14	4075324.17	-75.21713082	36.82359072

[1] Projected coordinates are referenced to UTM Zone 18S, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

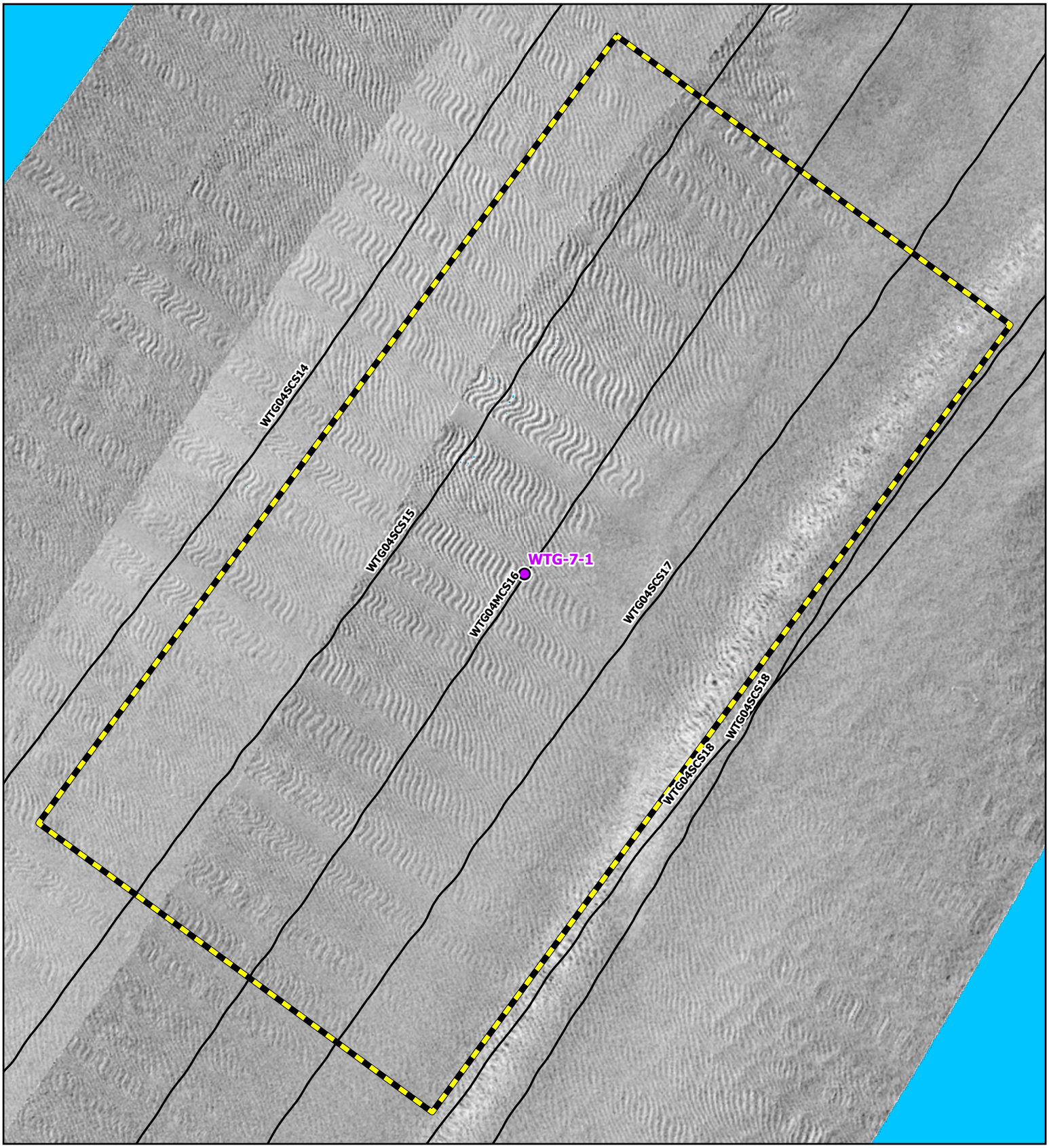
APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 4



Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 04

Index Map

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 04

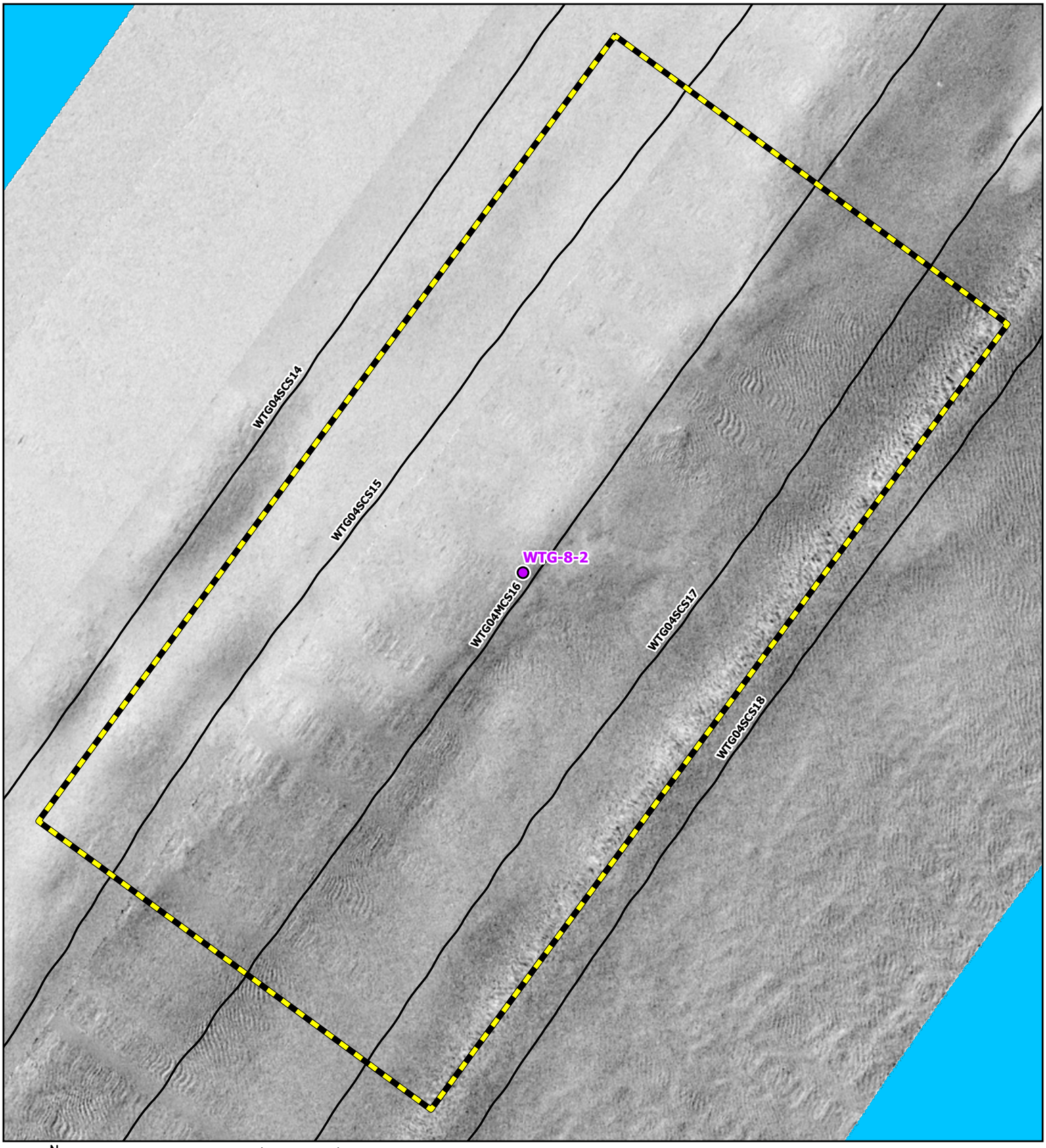
Map: 1

WTG-7-1

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

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Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 04

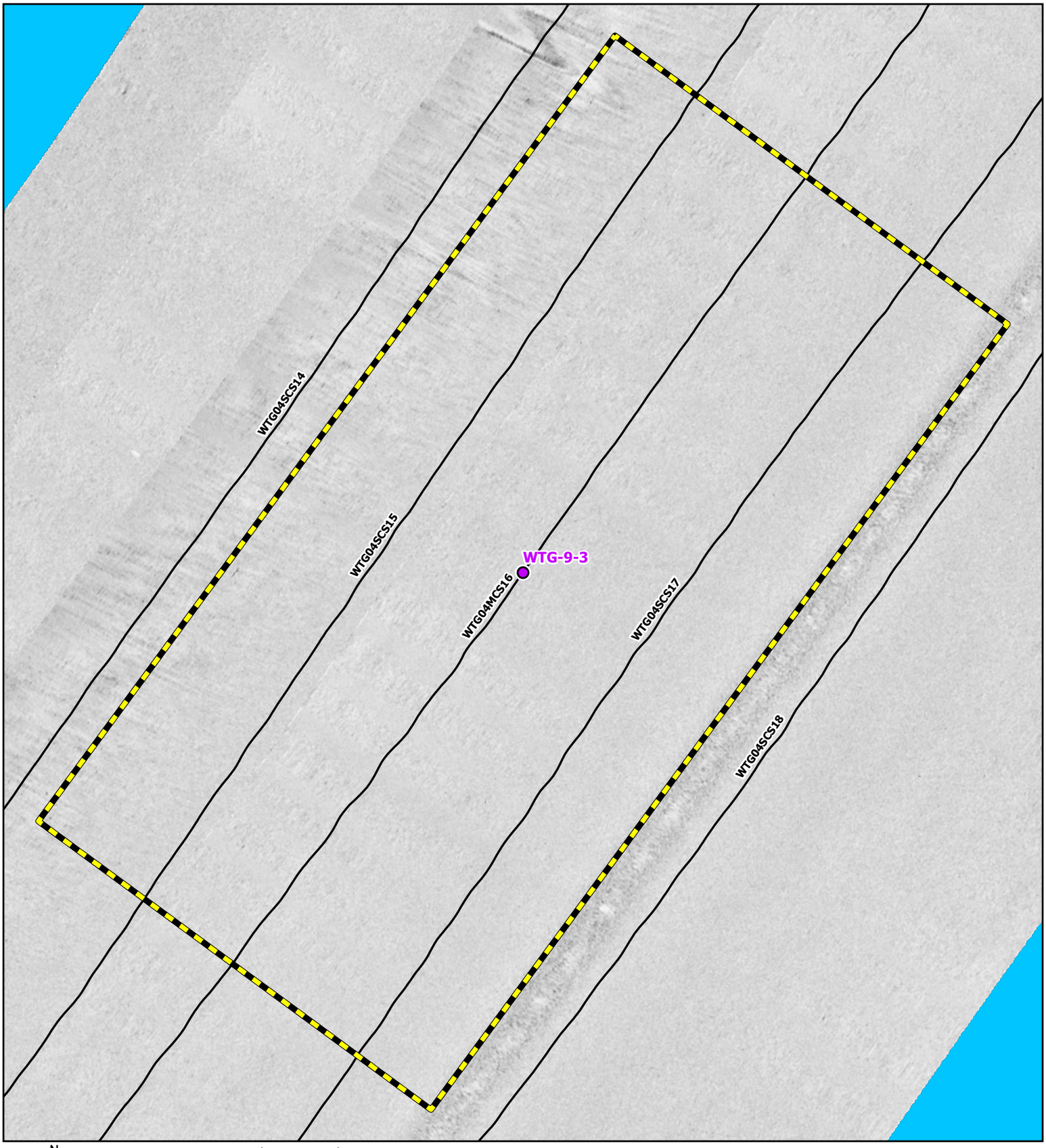
Map: 2

WTG-8-2

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

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SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

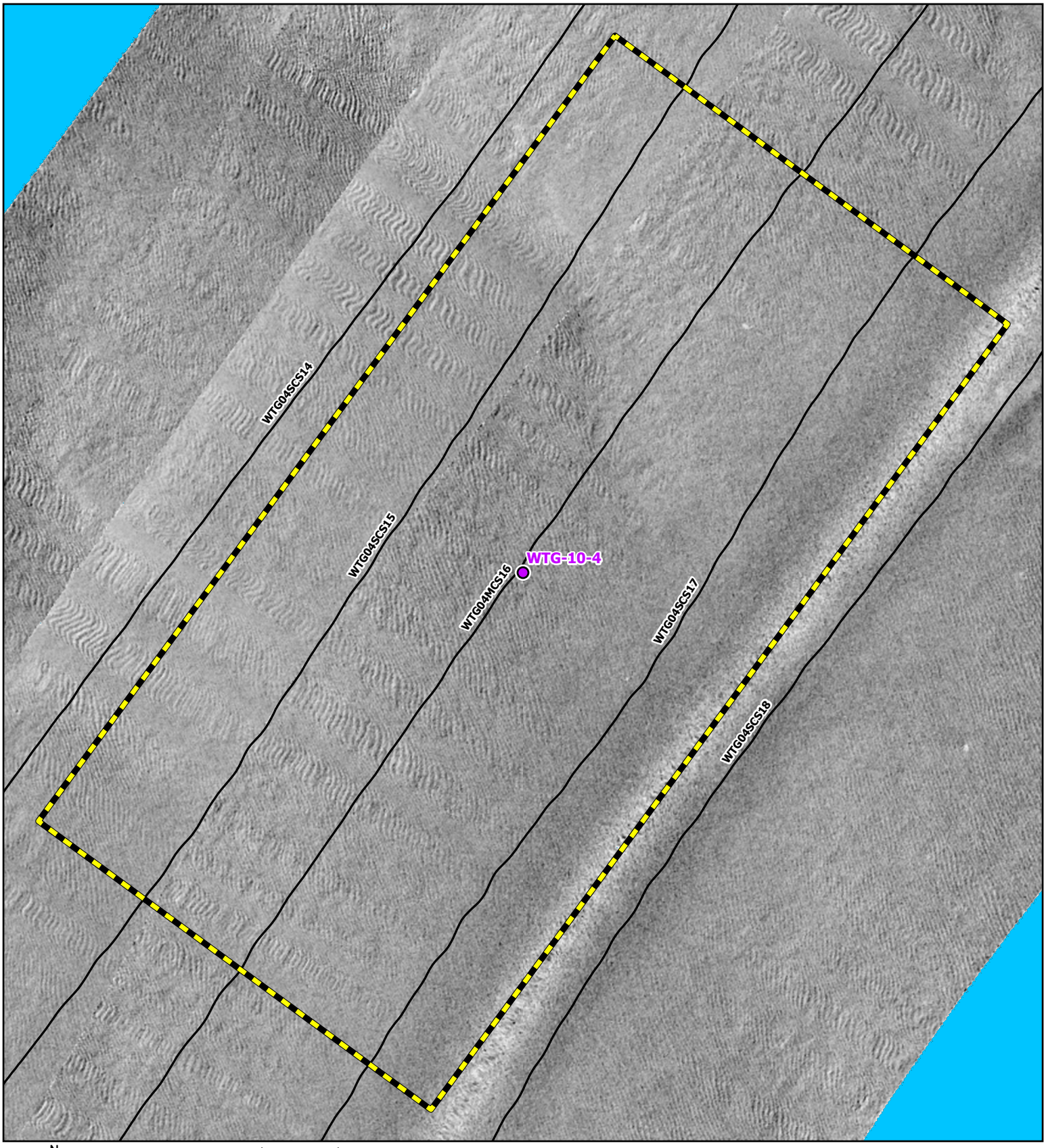
Geotechnical Clearance: Corridor 04

Map: 3

WTG-9-3

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Side Scan Sonar Mosaic (2020, 0.25 m)

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SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

Geotechnical Location

Analytical Area

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 04

Map: 4

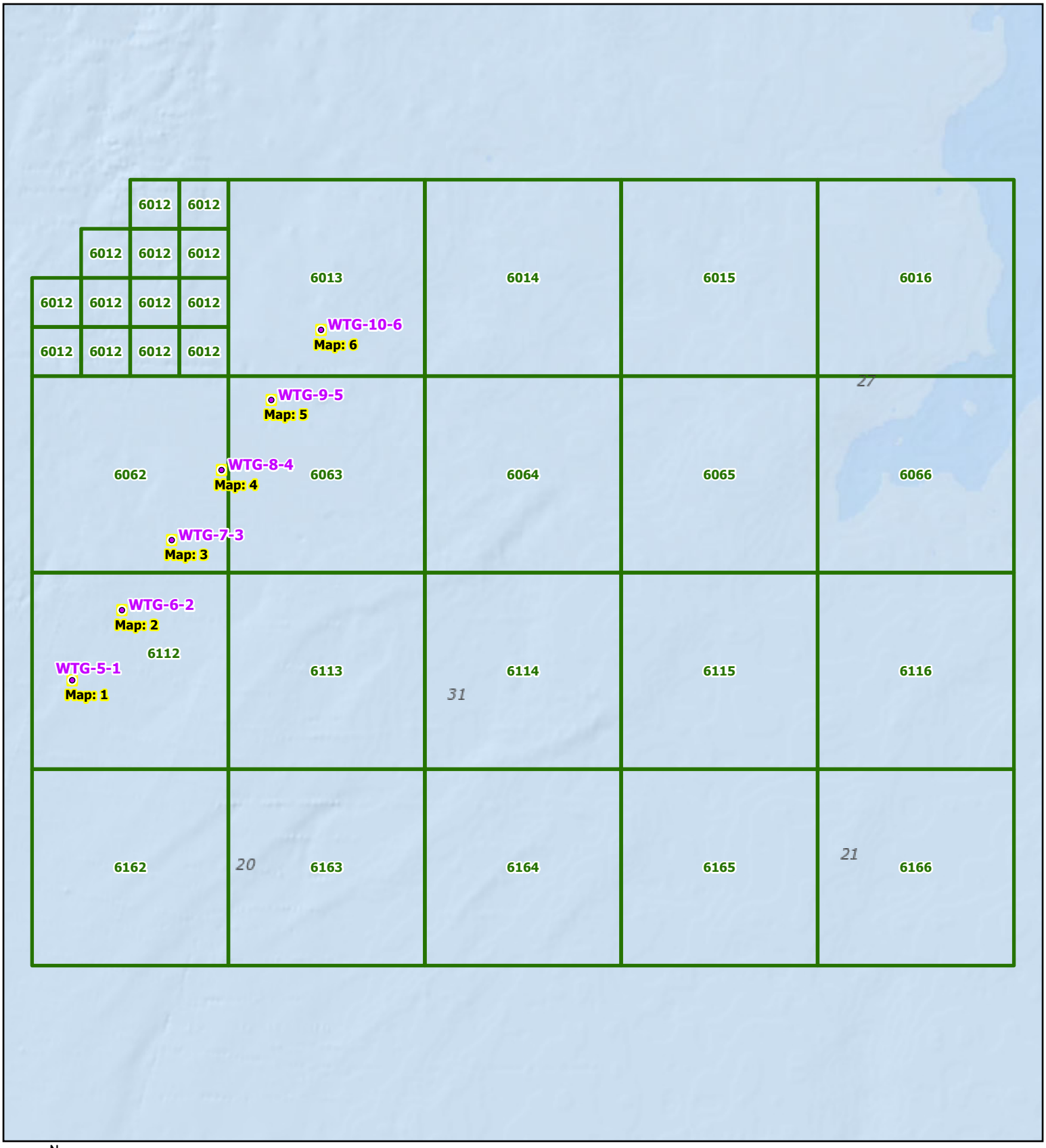
WTG-10-4

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APPENDIX 2
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 6



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NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

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SRS: NAD 1983 2011 UTM Zone 18N Meter

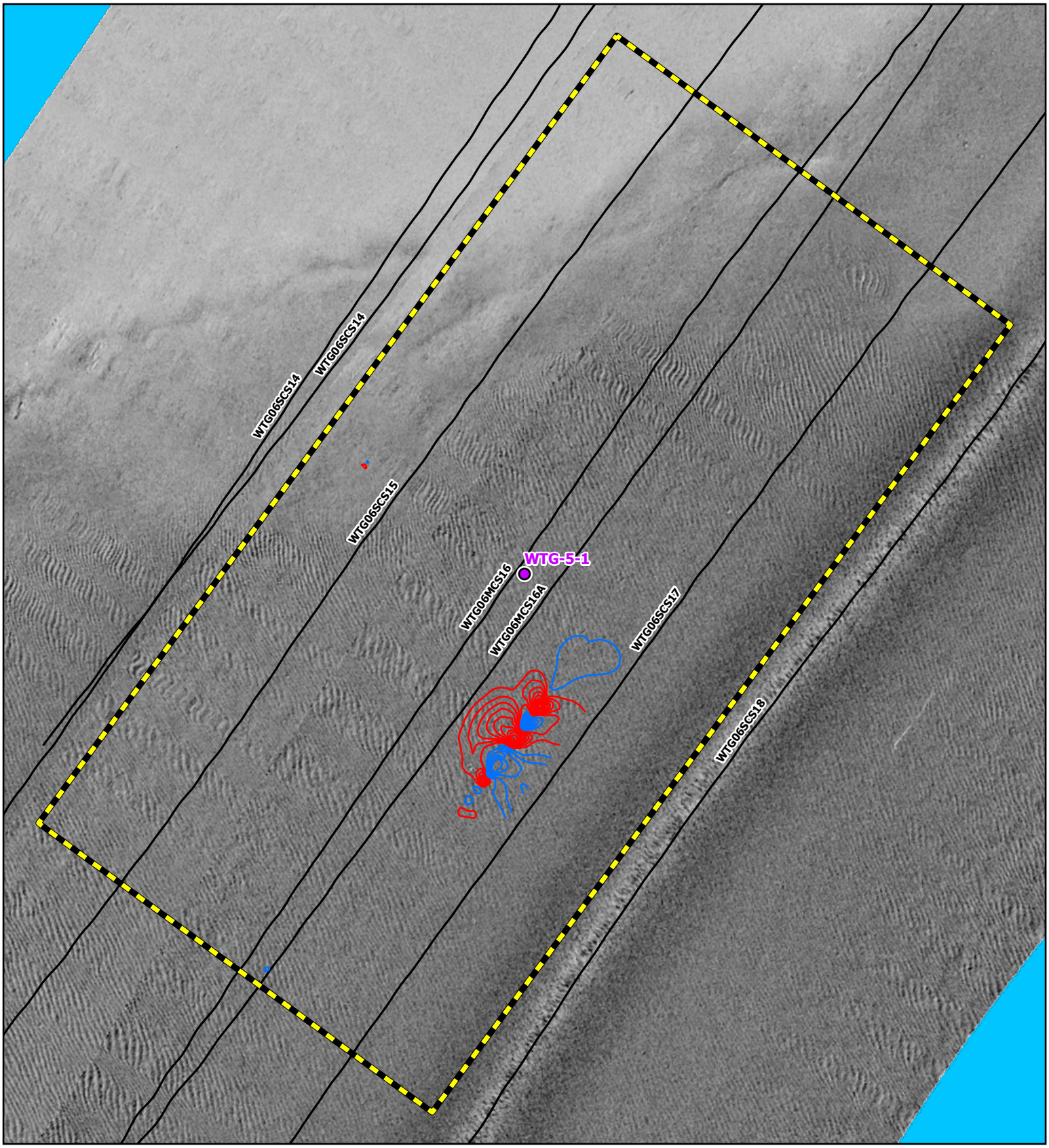
0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06

Index Map

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 06

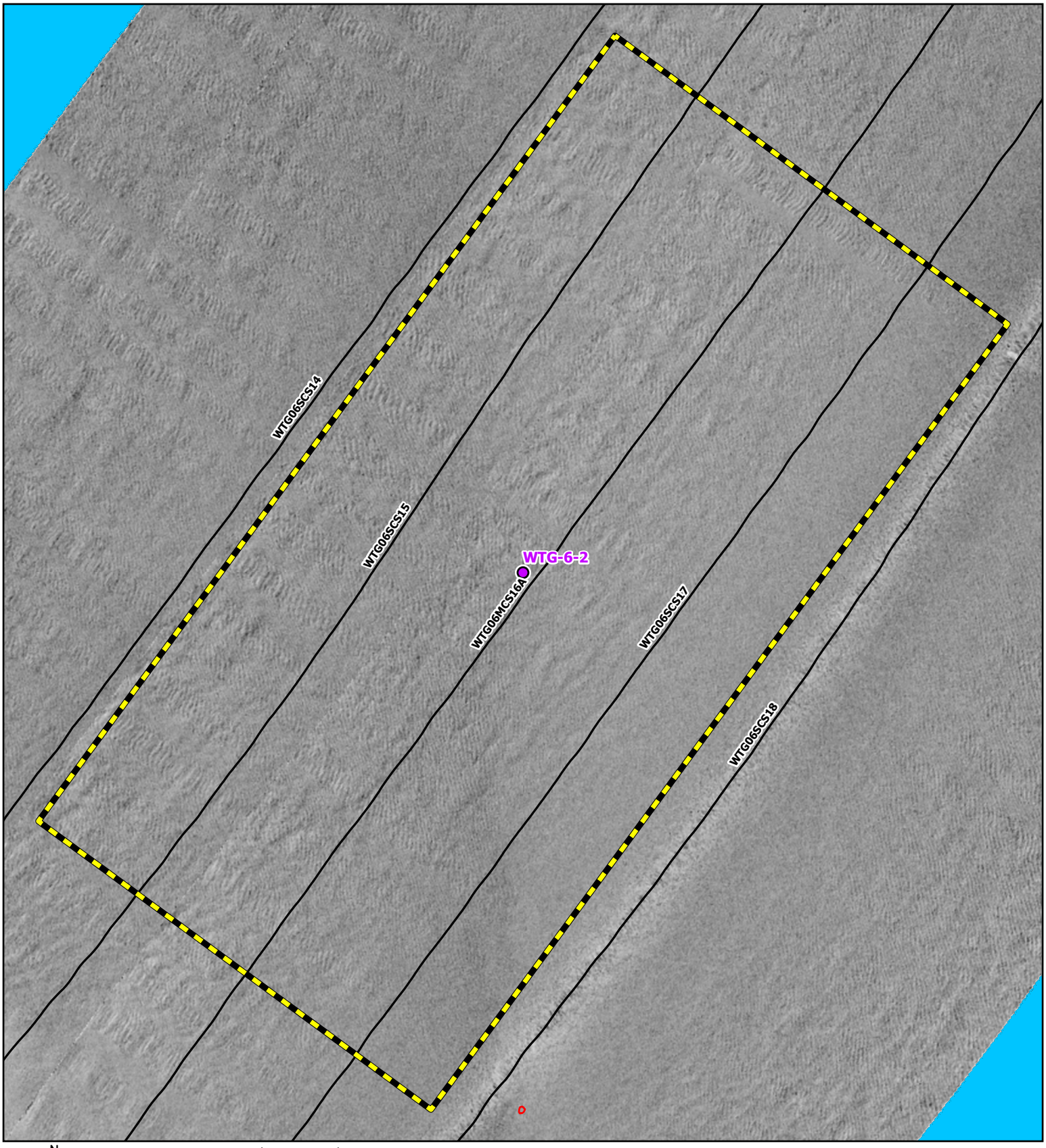
Map: 1

WTG-5-1

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

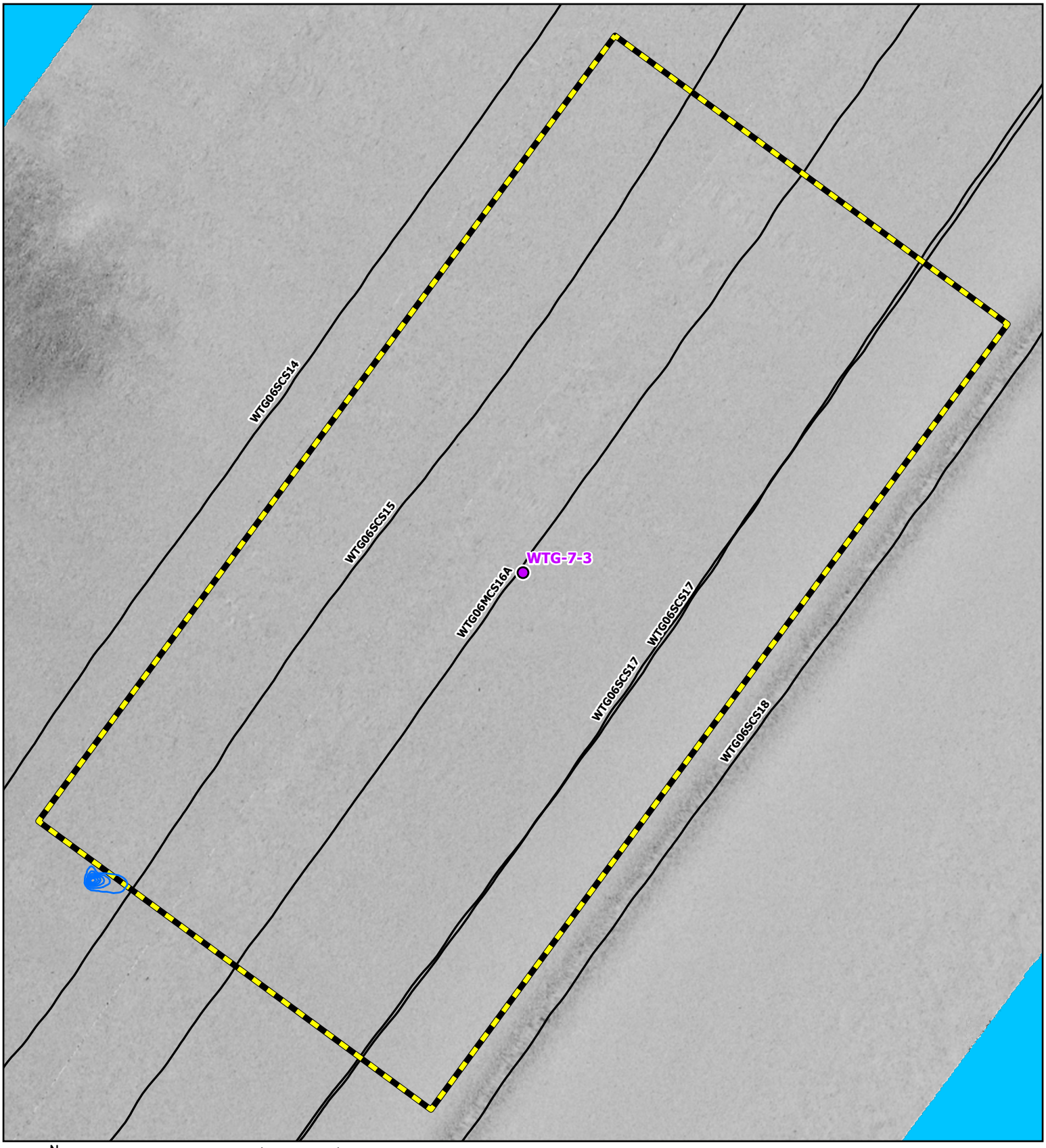
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06

Map: 2

WTG-6-2

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

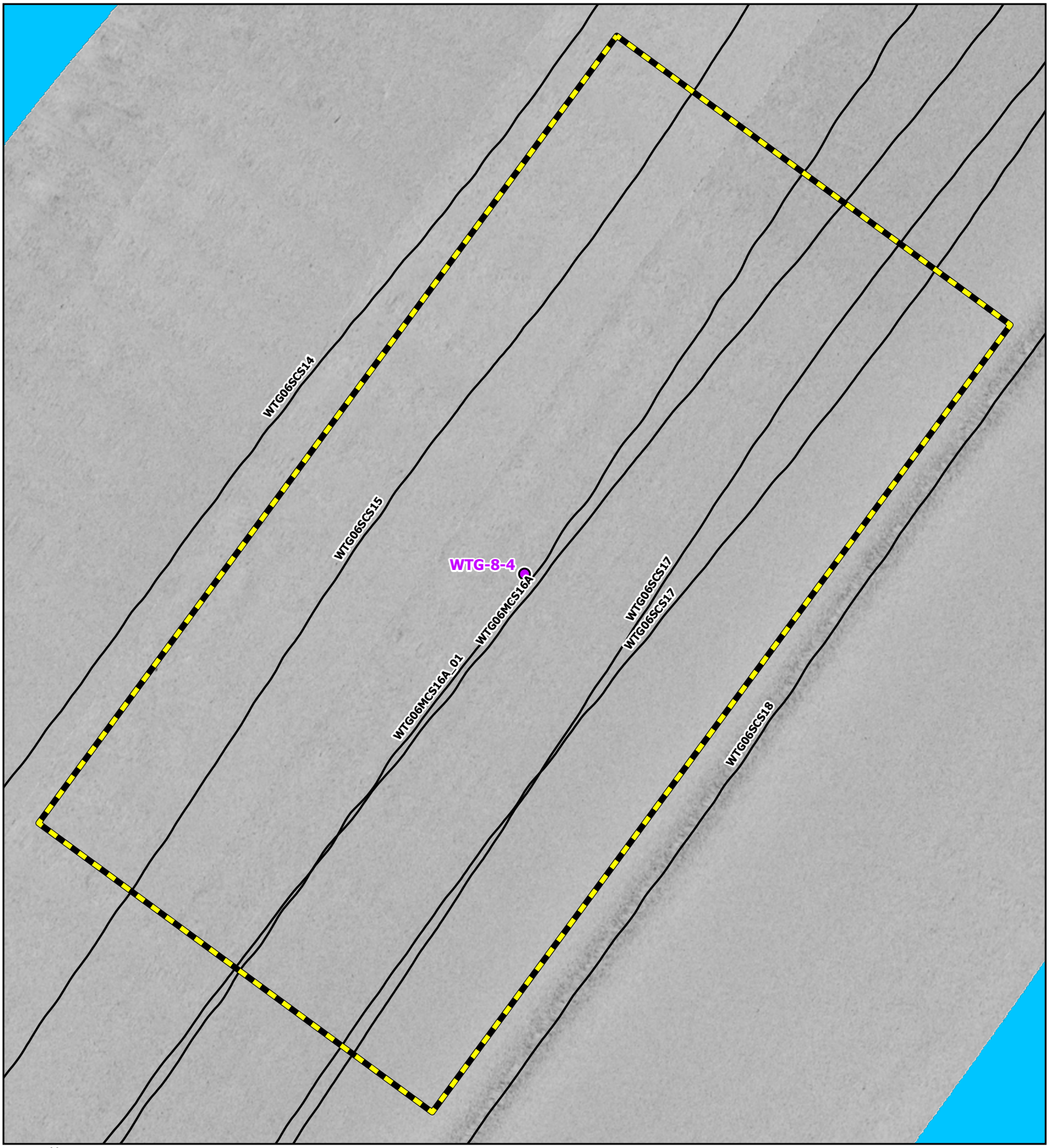
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 06

Map: 3

WTG-7-3

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MARINE ARCHAEOLOGY FROM STEM TO STERN



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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 06

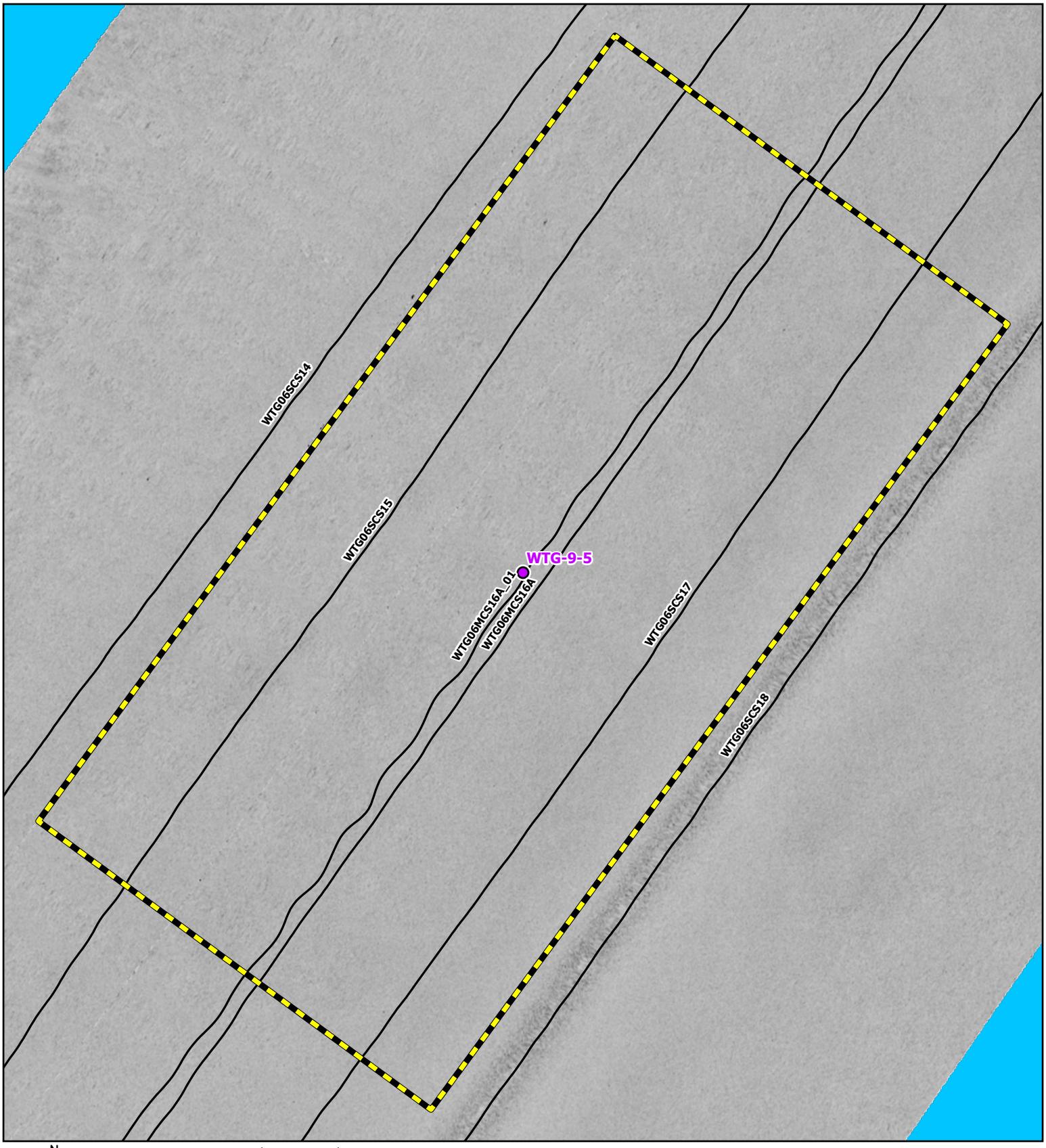
Map: 4

WTG-8-4

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MARINE ARCHAEOLOGY FROM STEM TO STERN



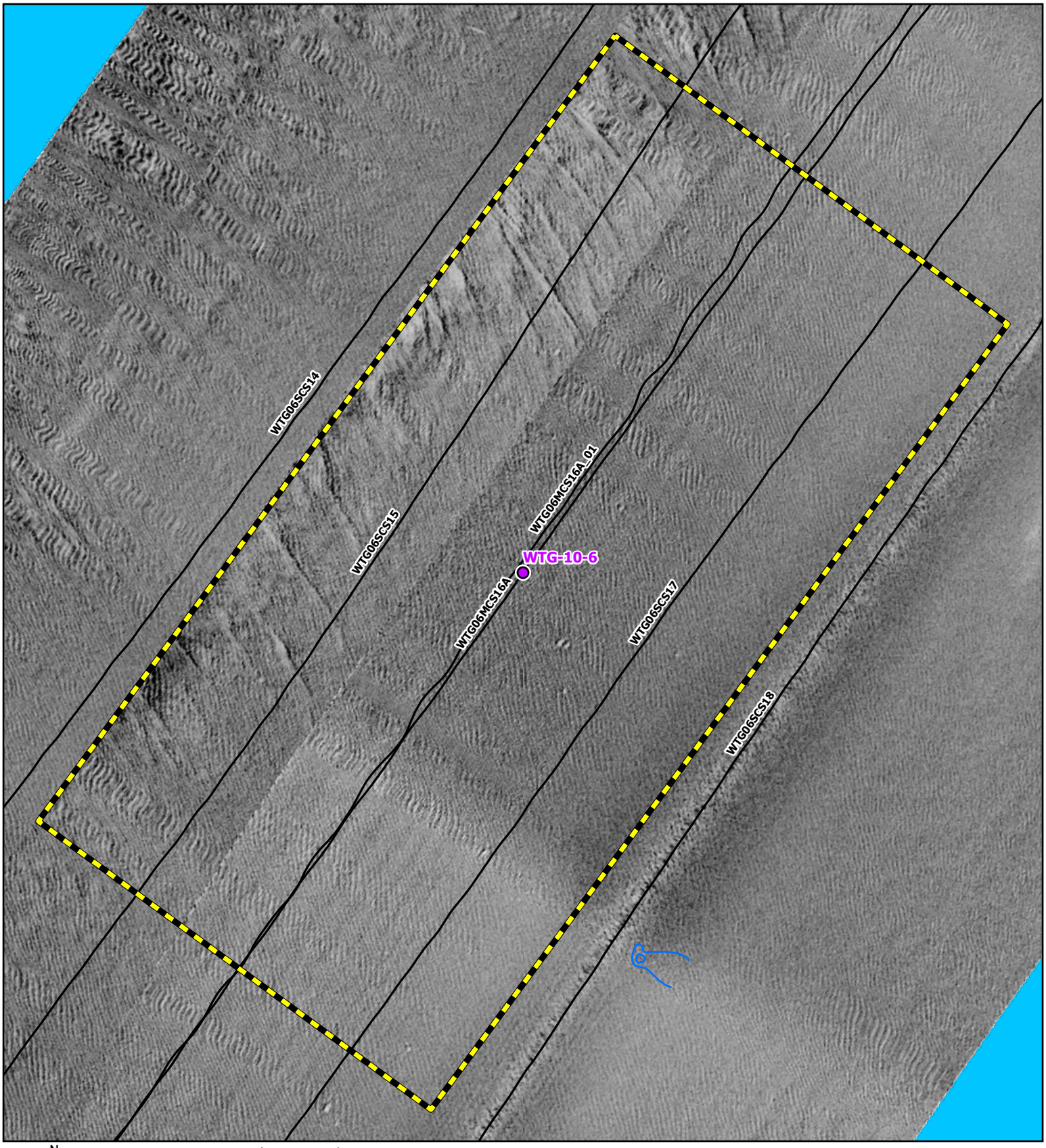
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Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06
Map: 5
WTG-9-5

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 06

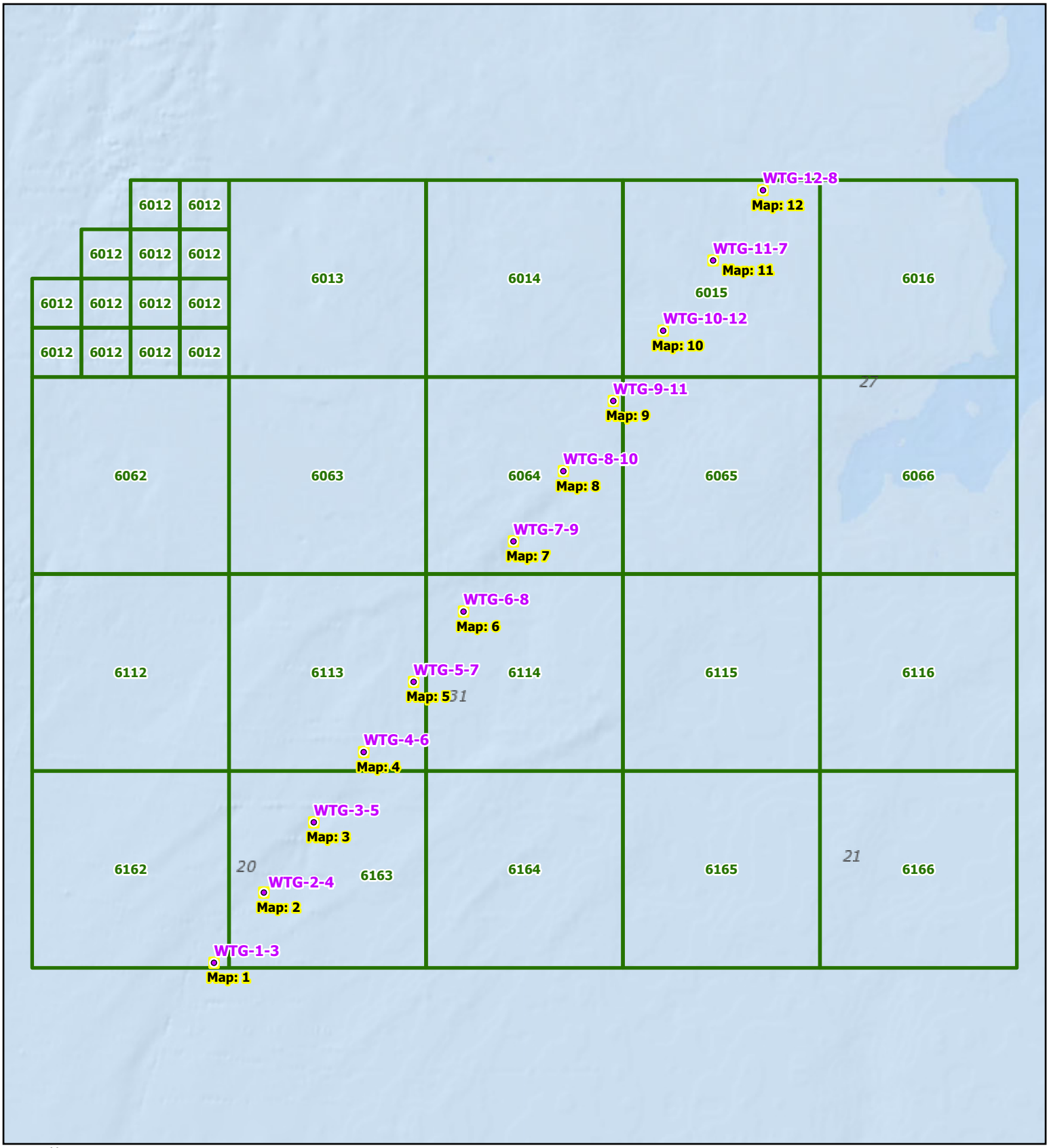
Map: 6

WTG-10-6

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APPENDIX 3
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 12



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NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:125,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

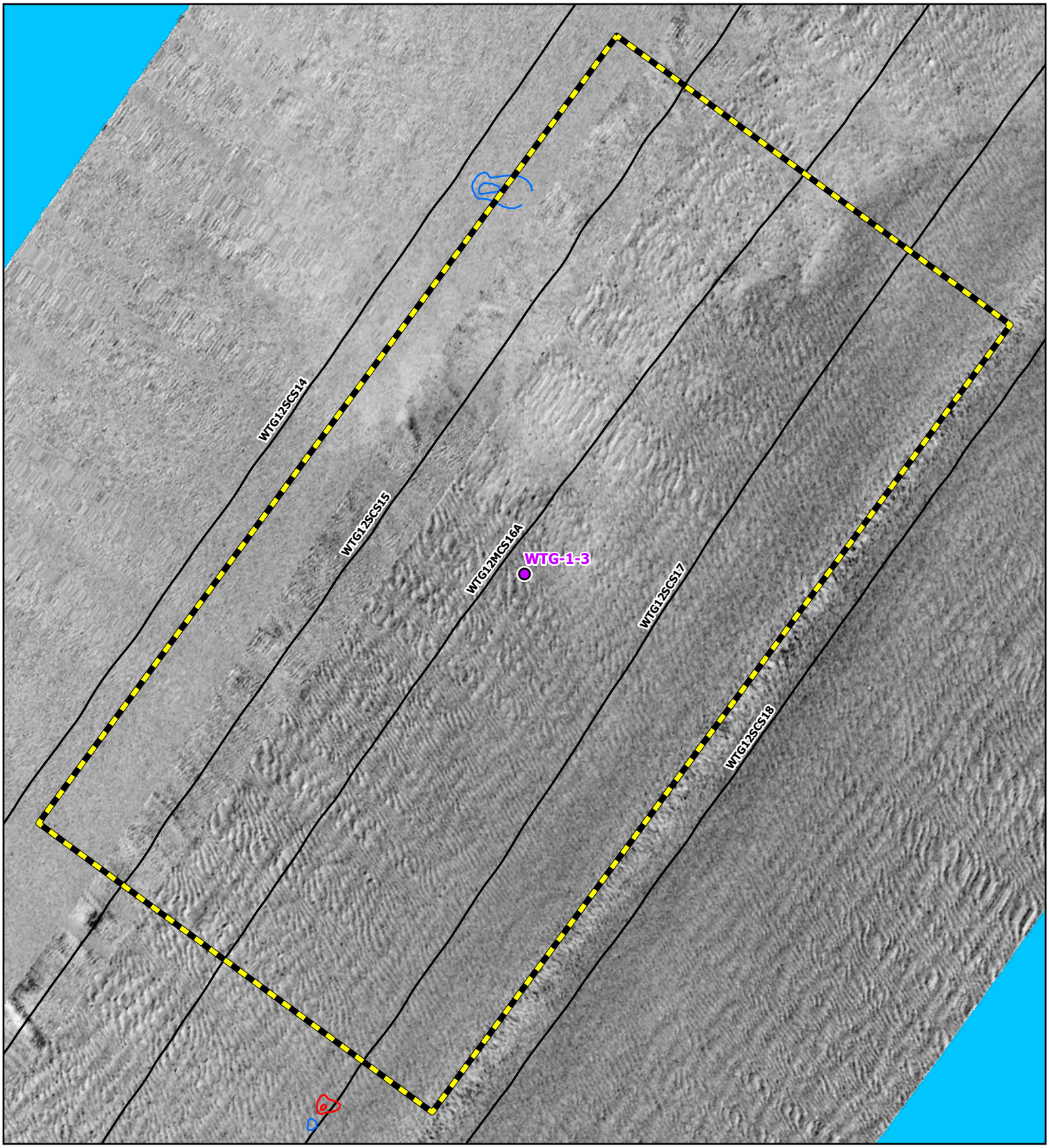
0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

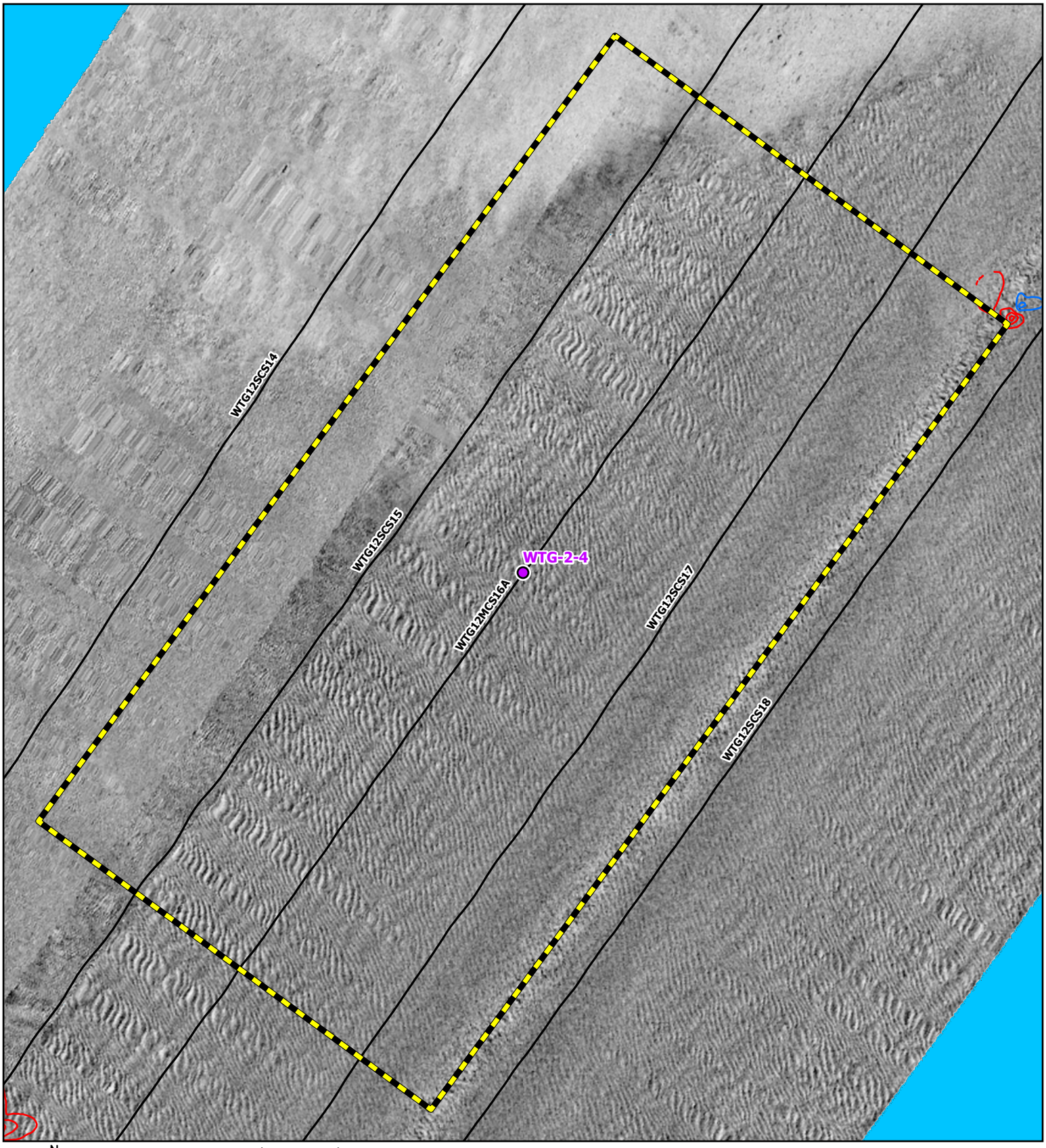
Map: 1

WTG-1-3

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

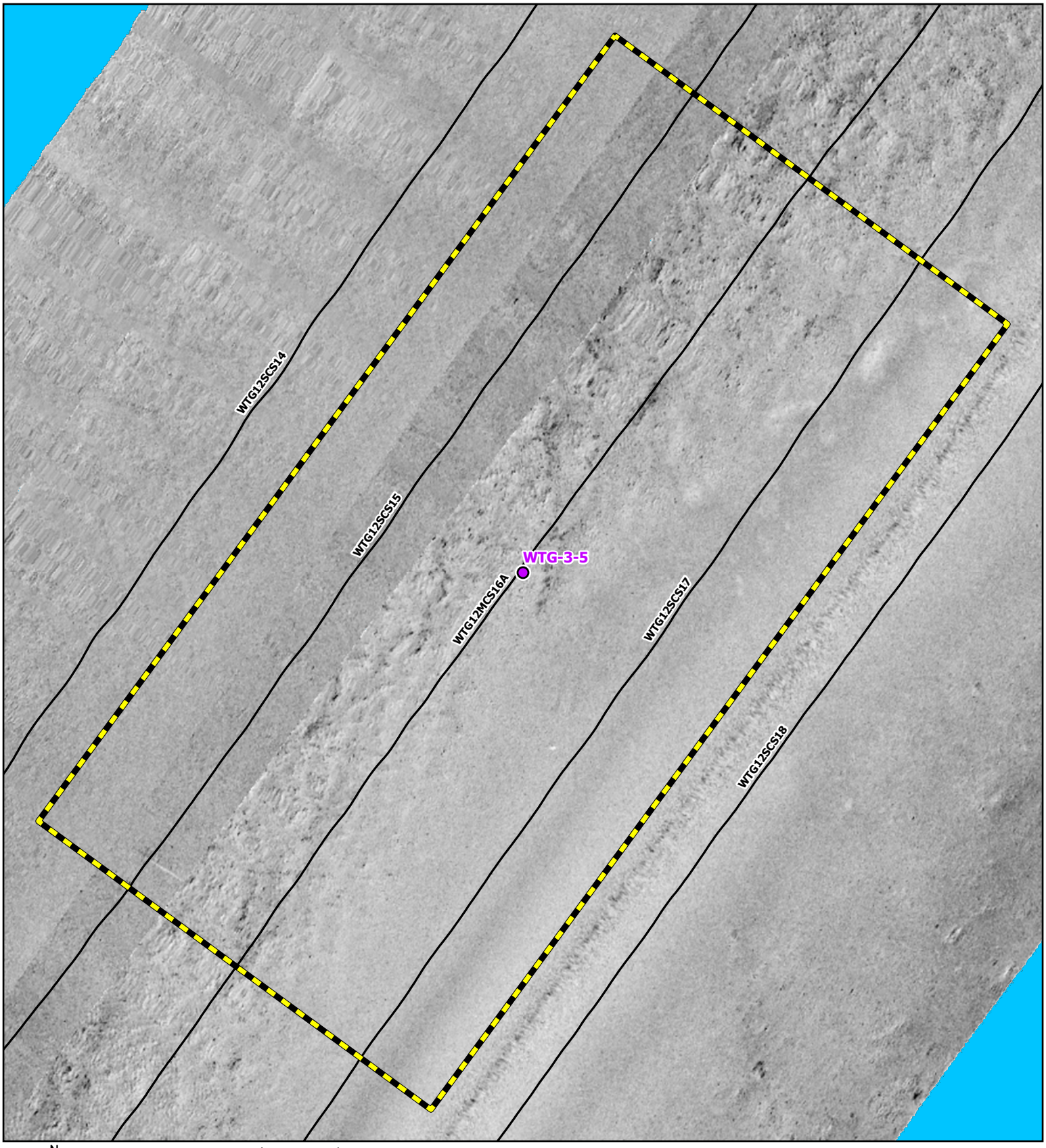
Map: 2

WTG-2-4

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

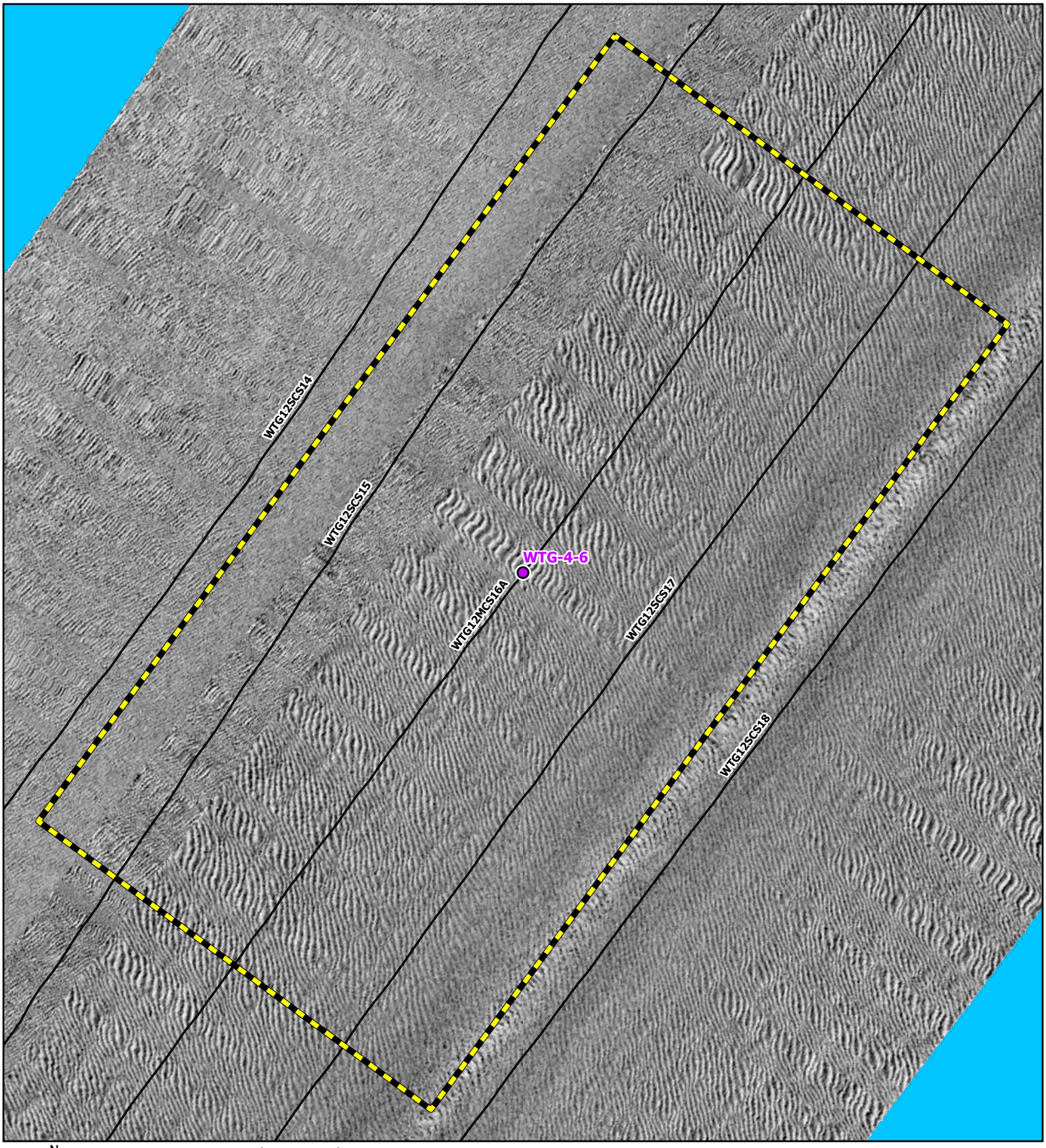
Map: 3

WTG-3-5

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

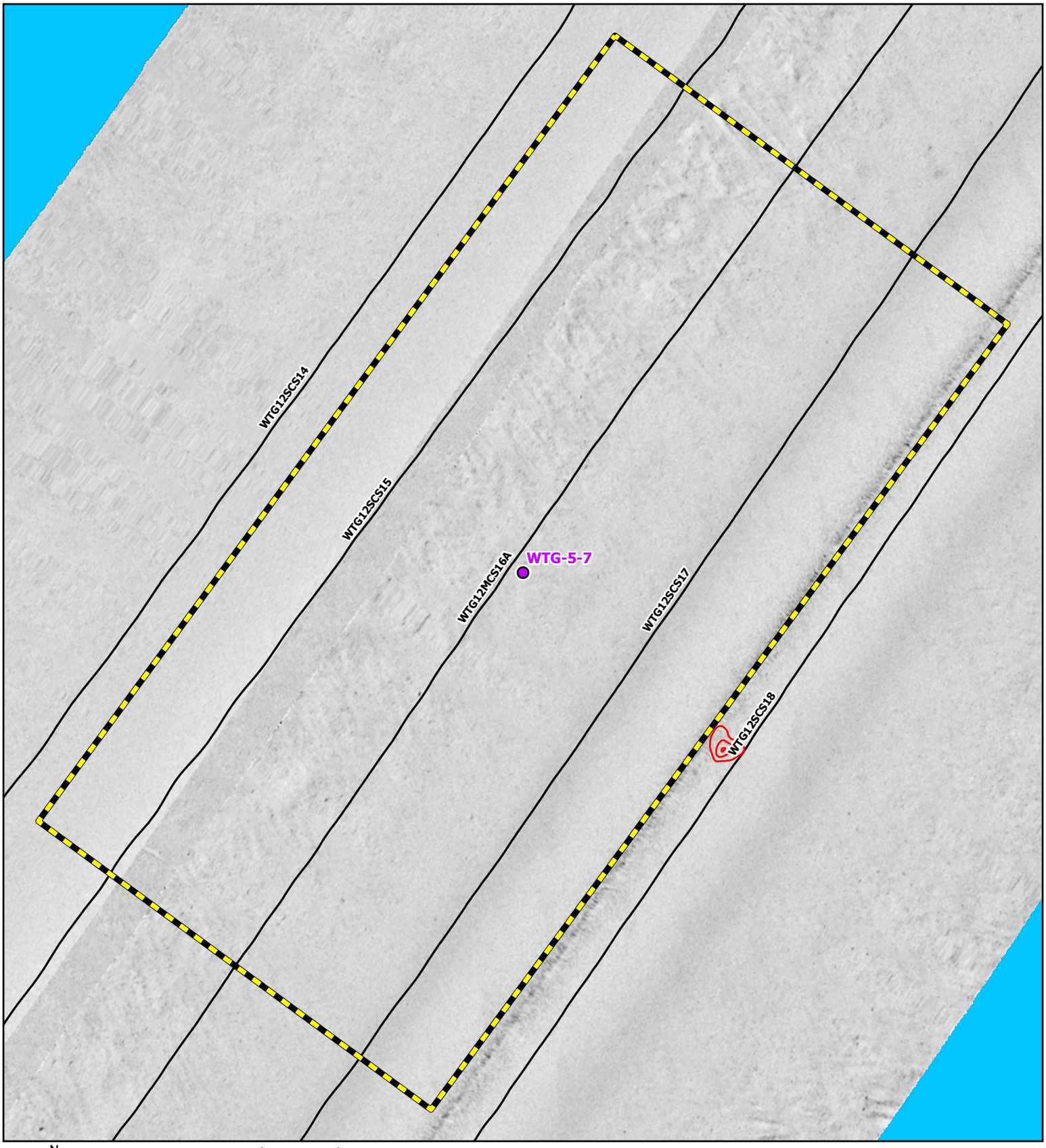
Map: 4

WTG-4-6

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MARINE ARCHAEOLOGY FROM STEM TO STERN



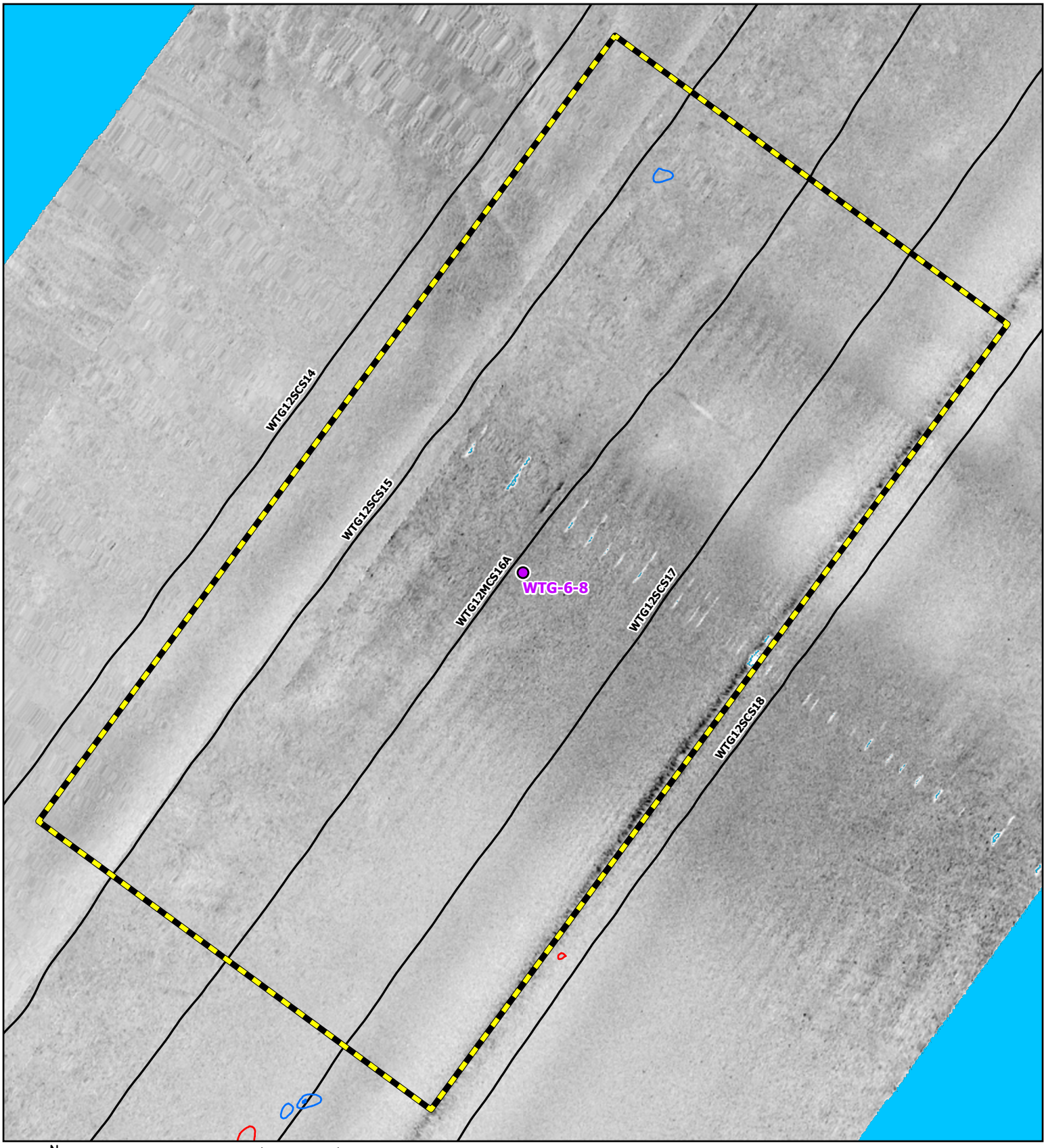
N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12
Map: 5
WTG-5-7

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N
W E
S
Grid North

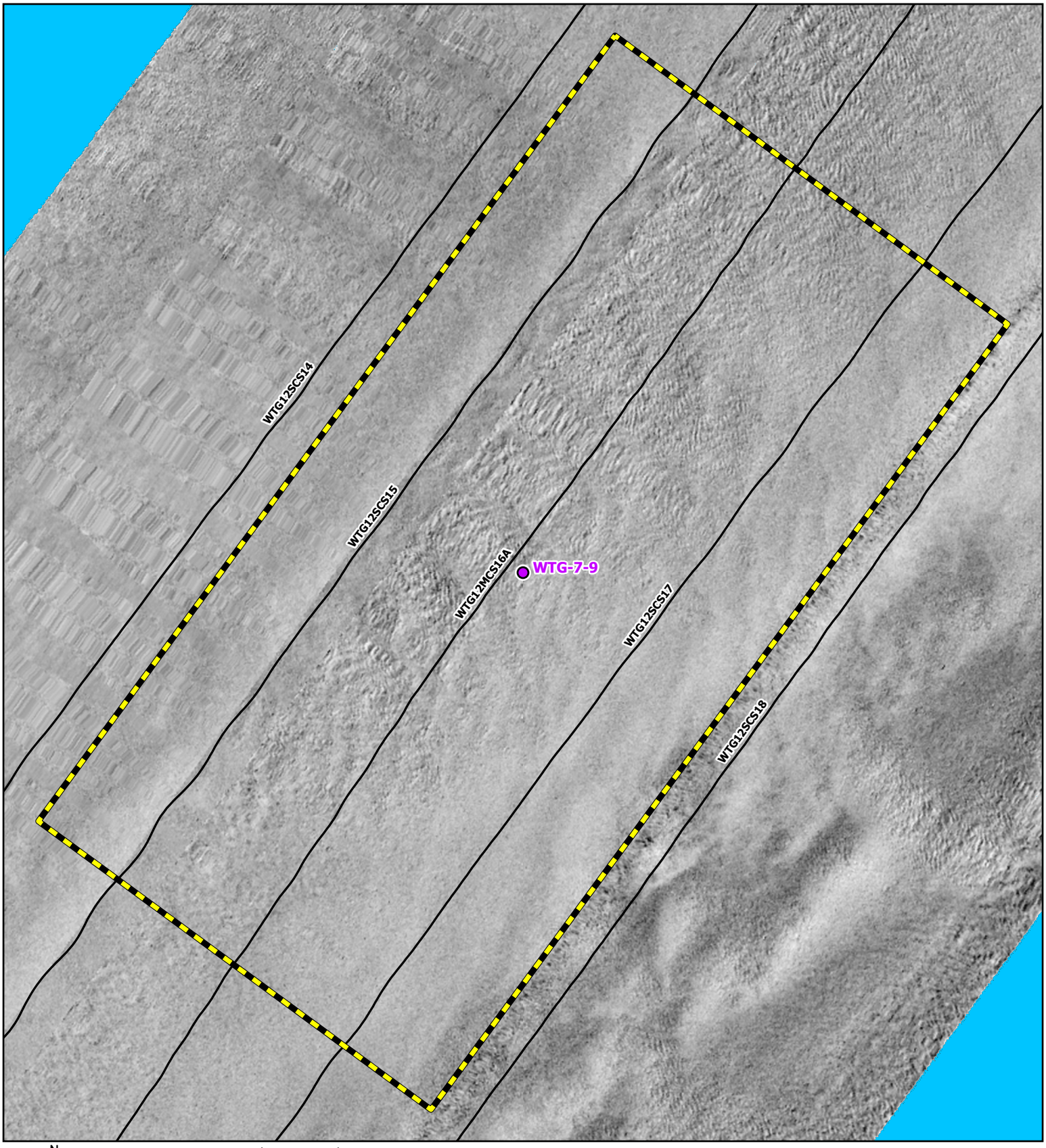
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12
Map: 6
WTG-6-8

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

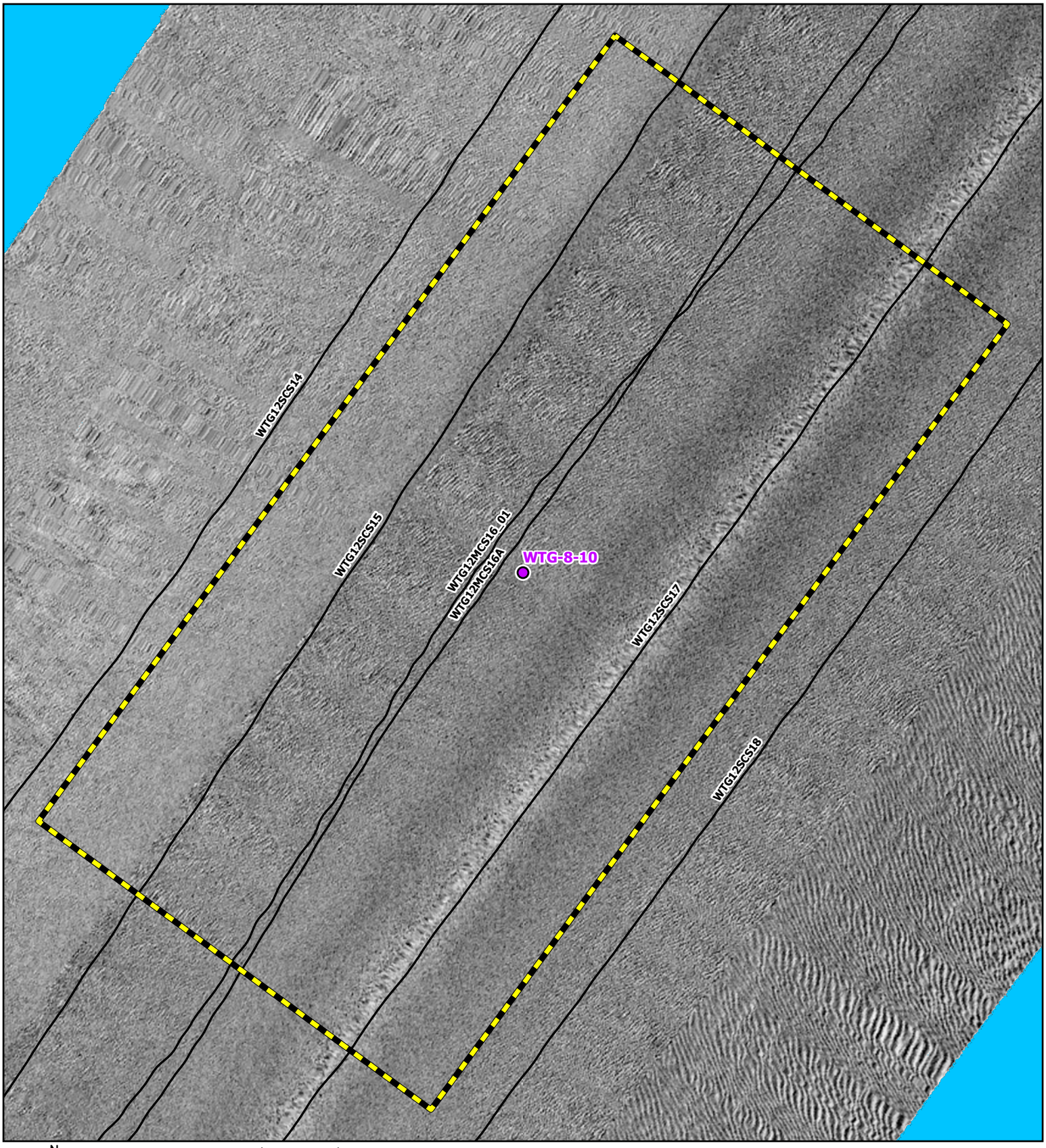
Map: 7

WTG-7-9

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

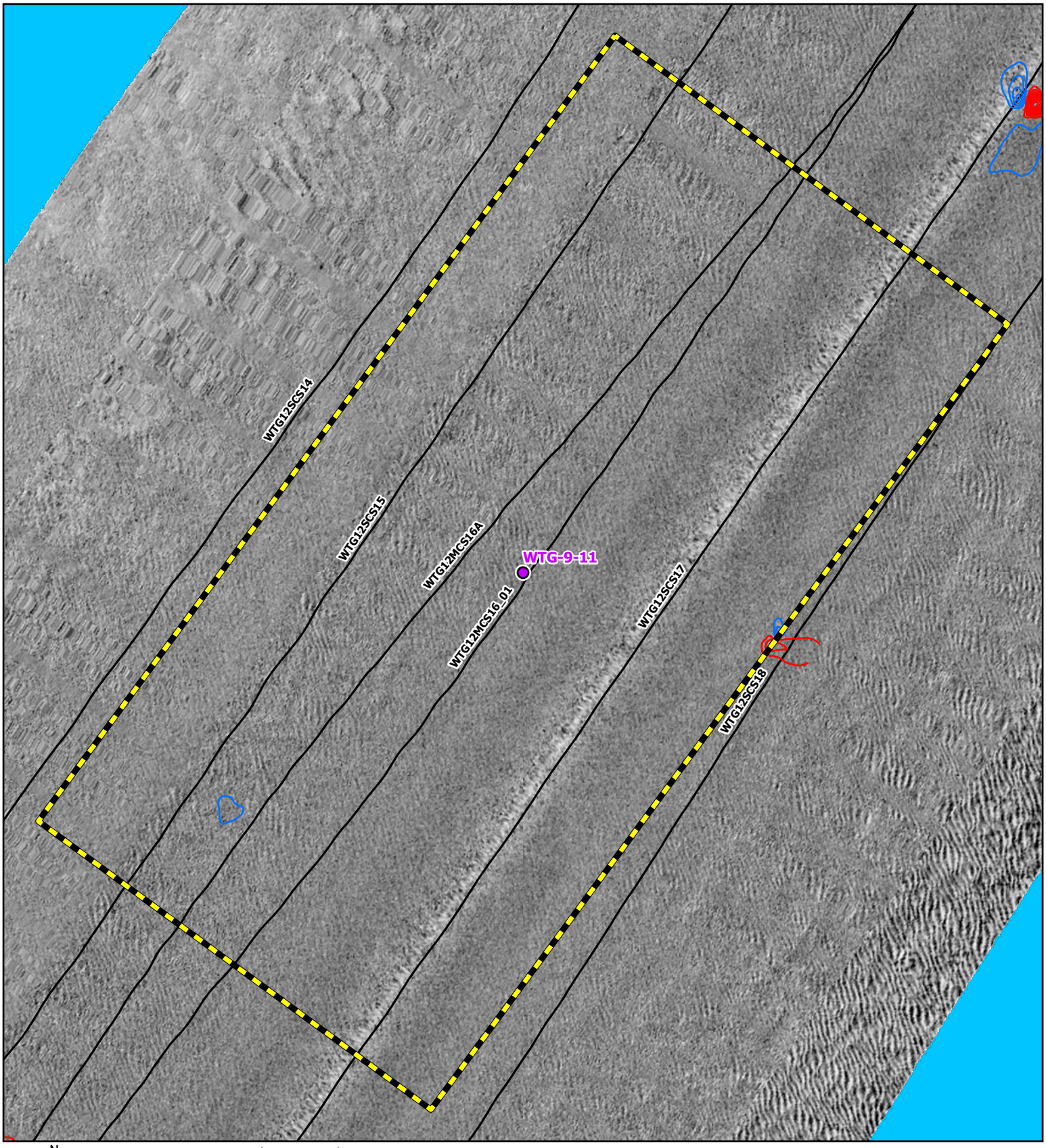
Map: 8

WTG-8-10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

Map: 9

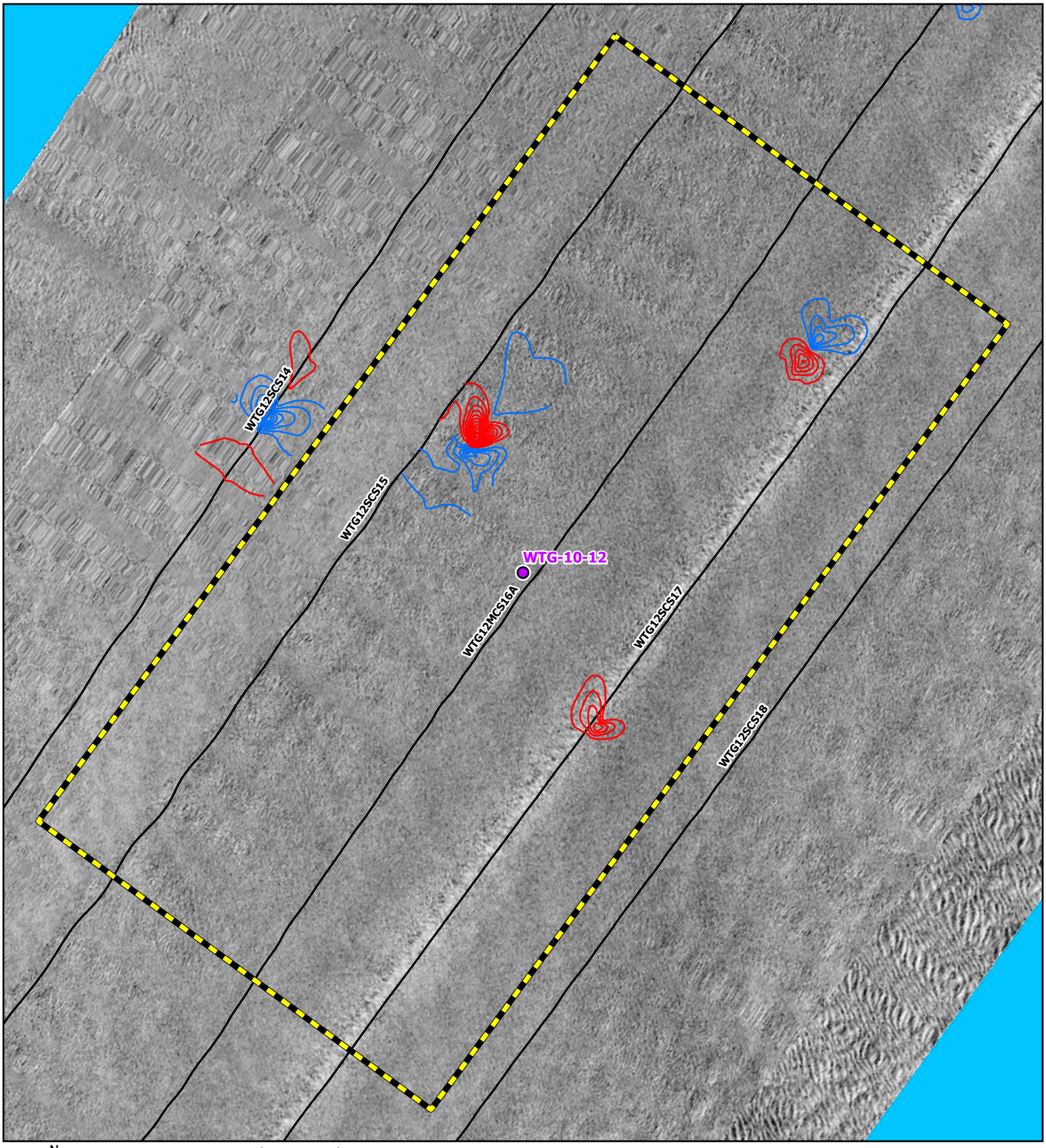
WTG-9-11

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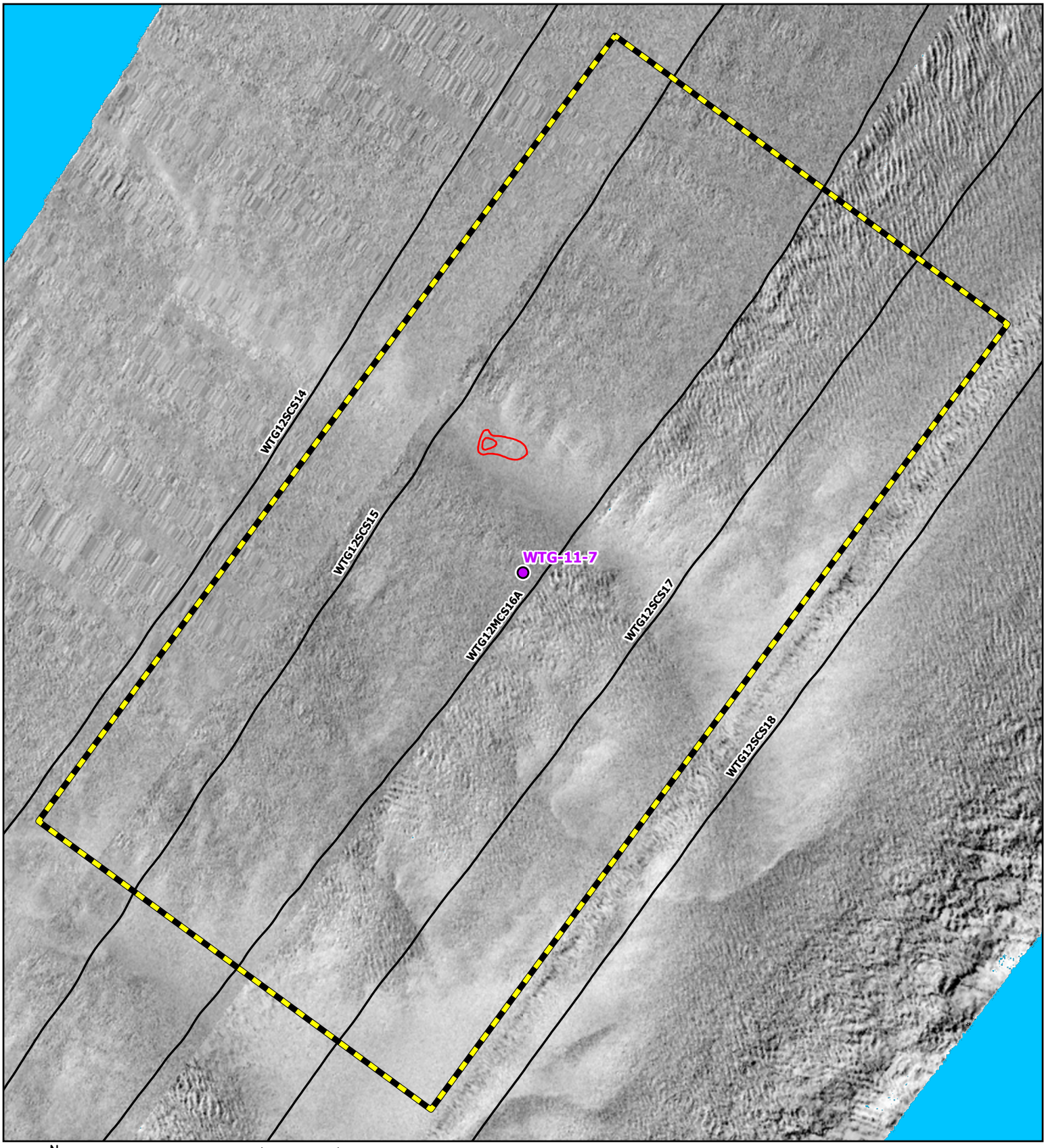
N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytic Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12
Map: 10
WTG-10-12

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

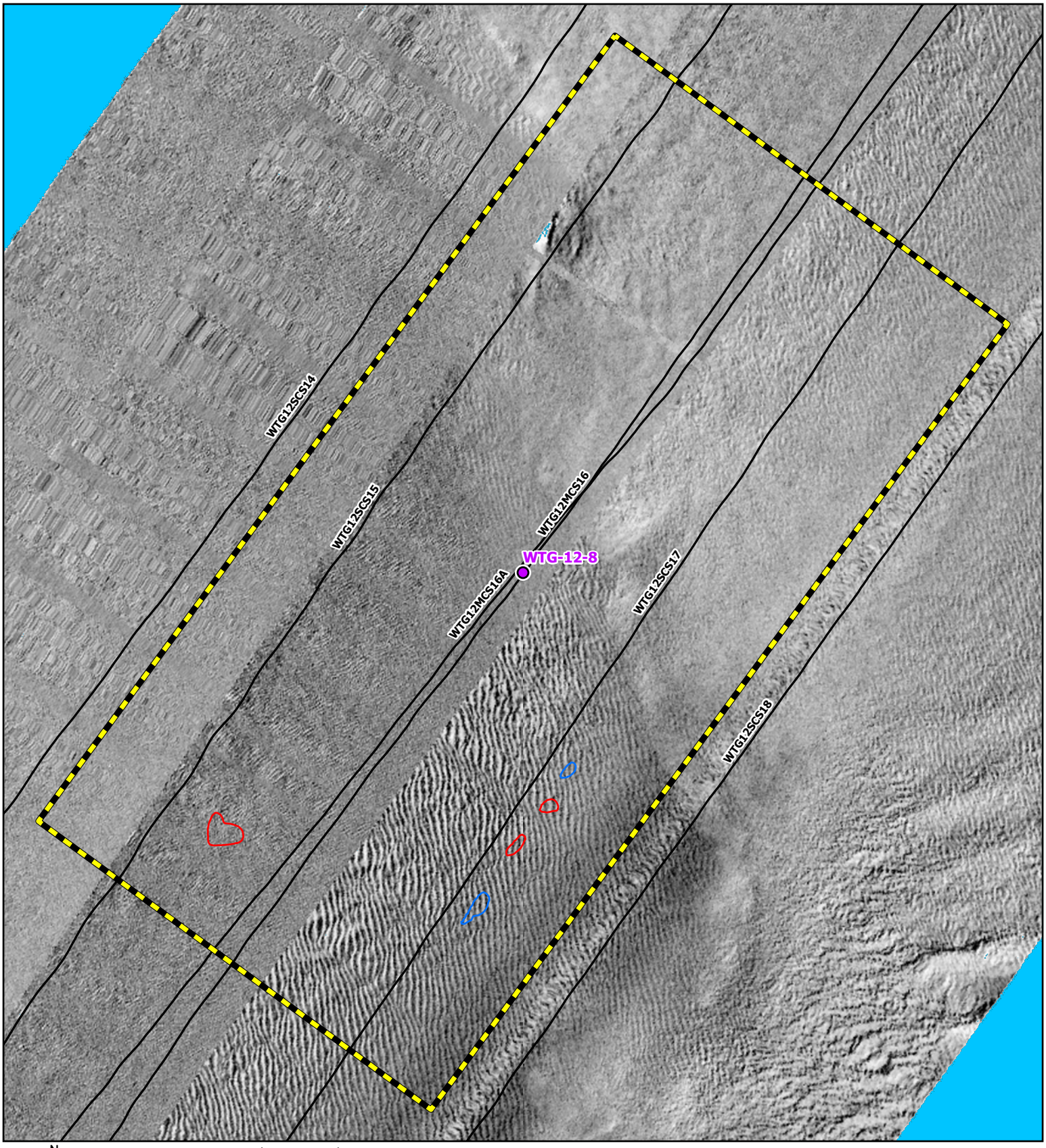
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 12

Map: 11

WTG-11-7

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytic Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 12

Map: 12

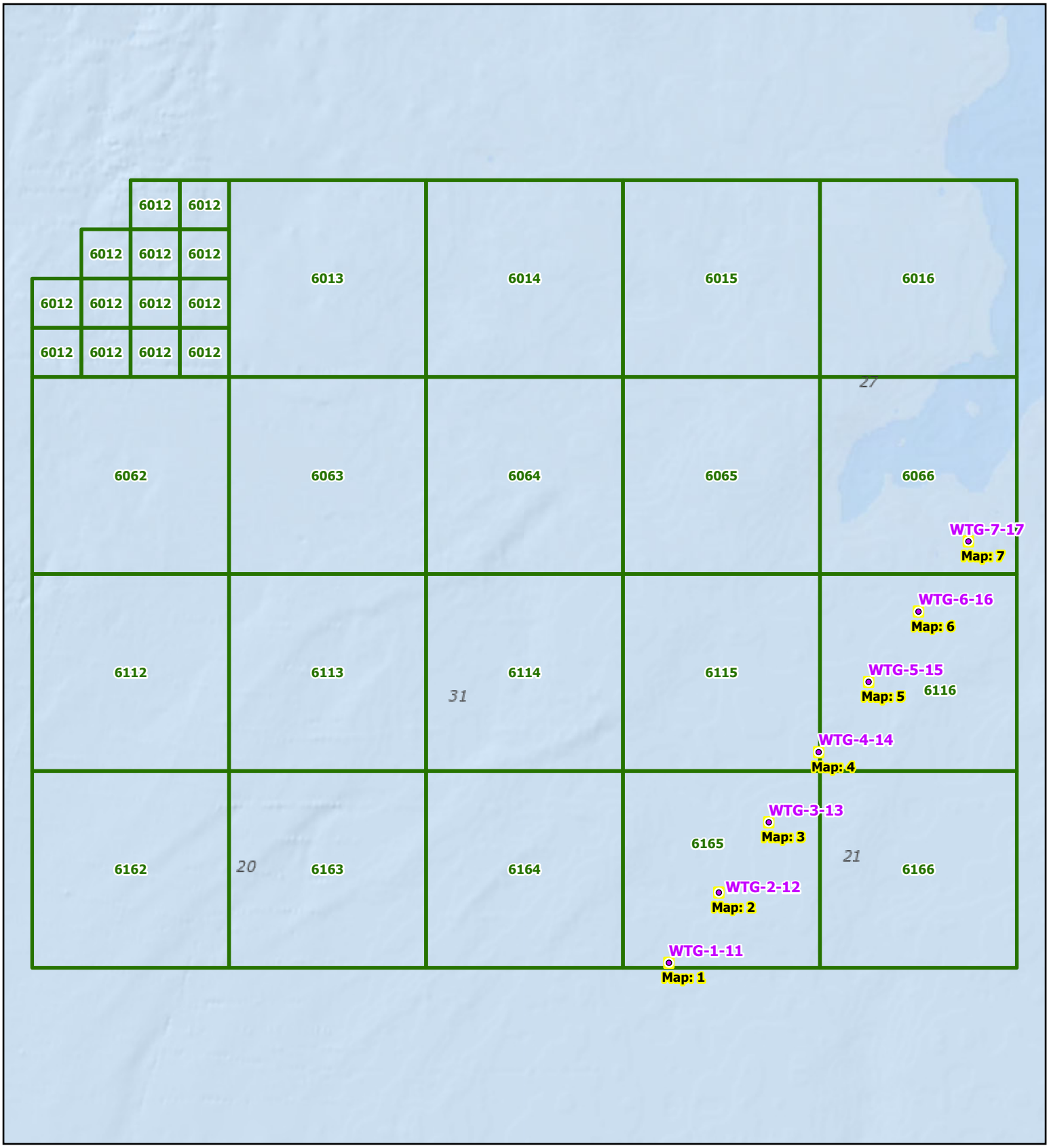
WTG-12-8

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APPENDIX 4
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 20



N
W E
S
Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:125,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

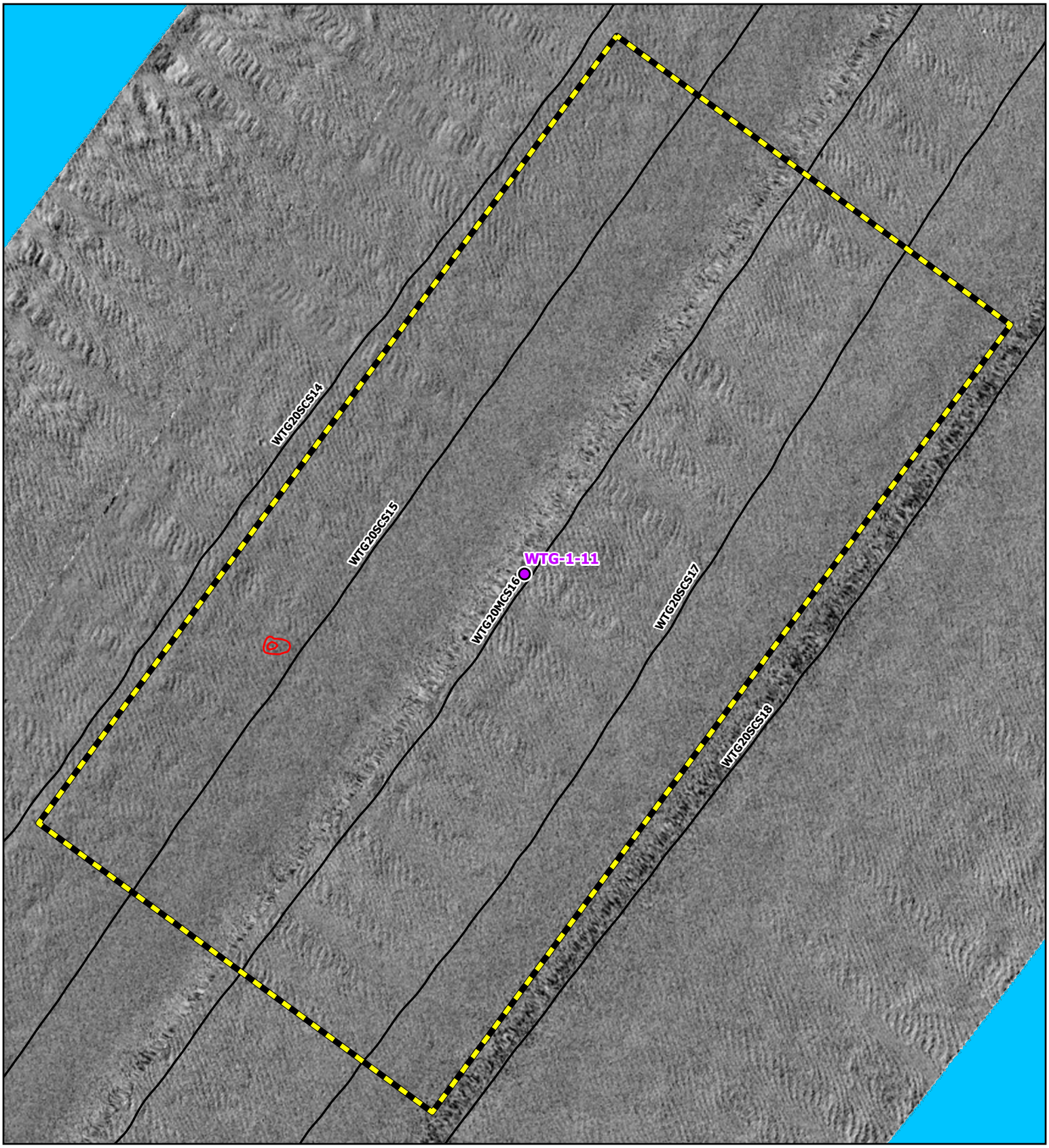
0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Index Map

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

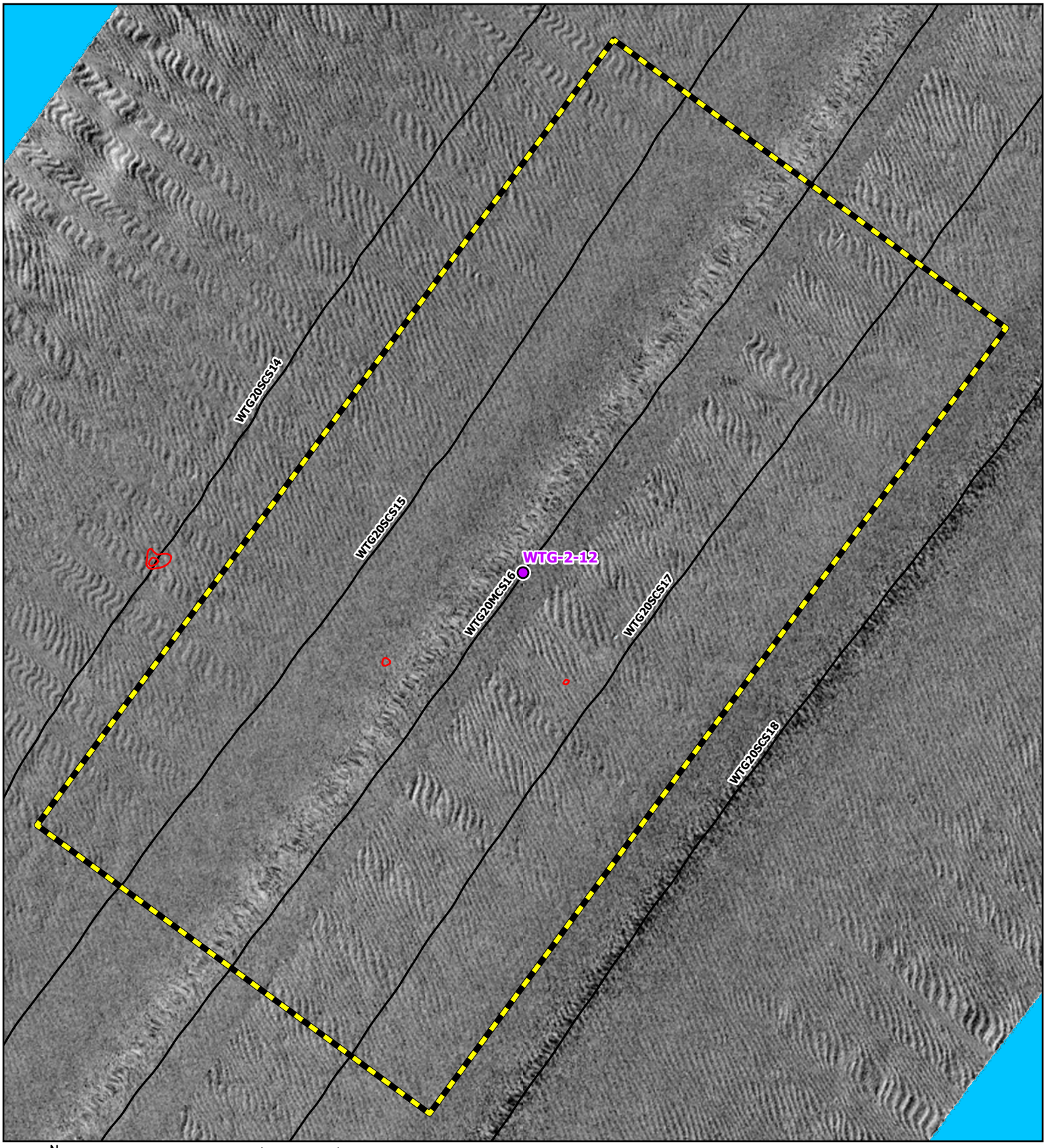
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Map: 1

WTG-1-11

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

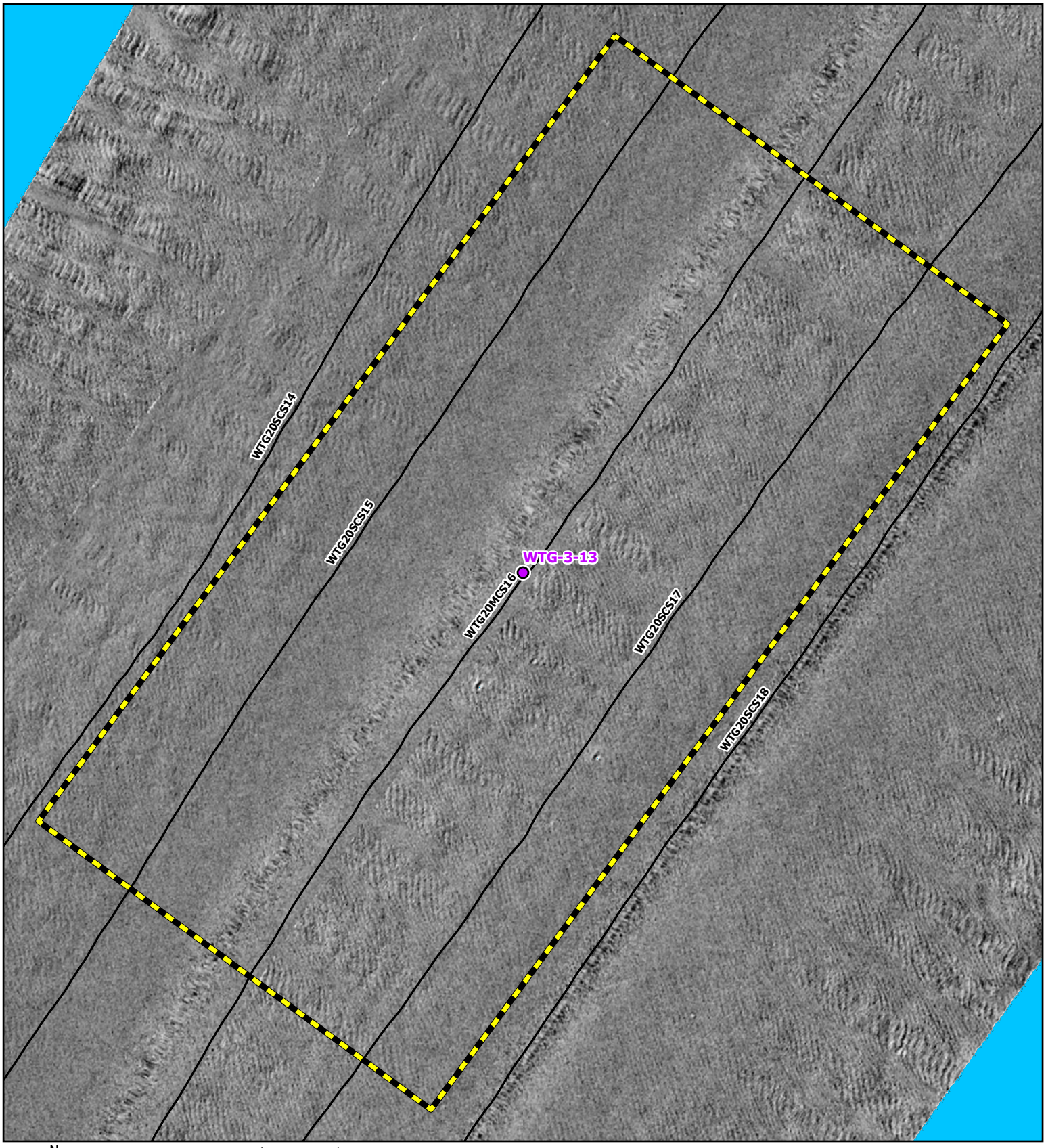
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Map: 2

WTG-2-12

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 20

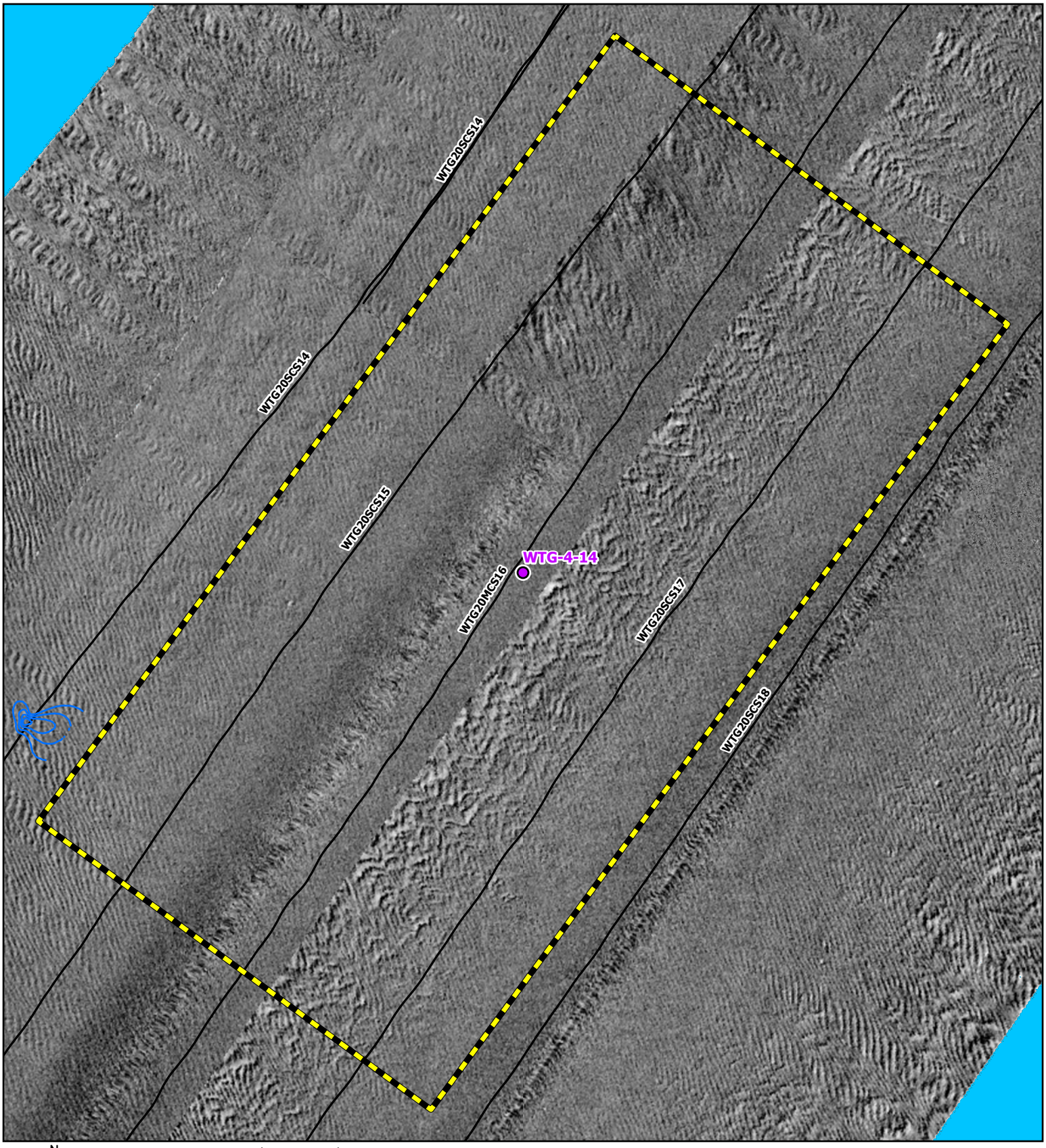
Map: 3

WTG-3-13

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

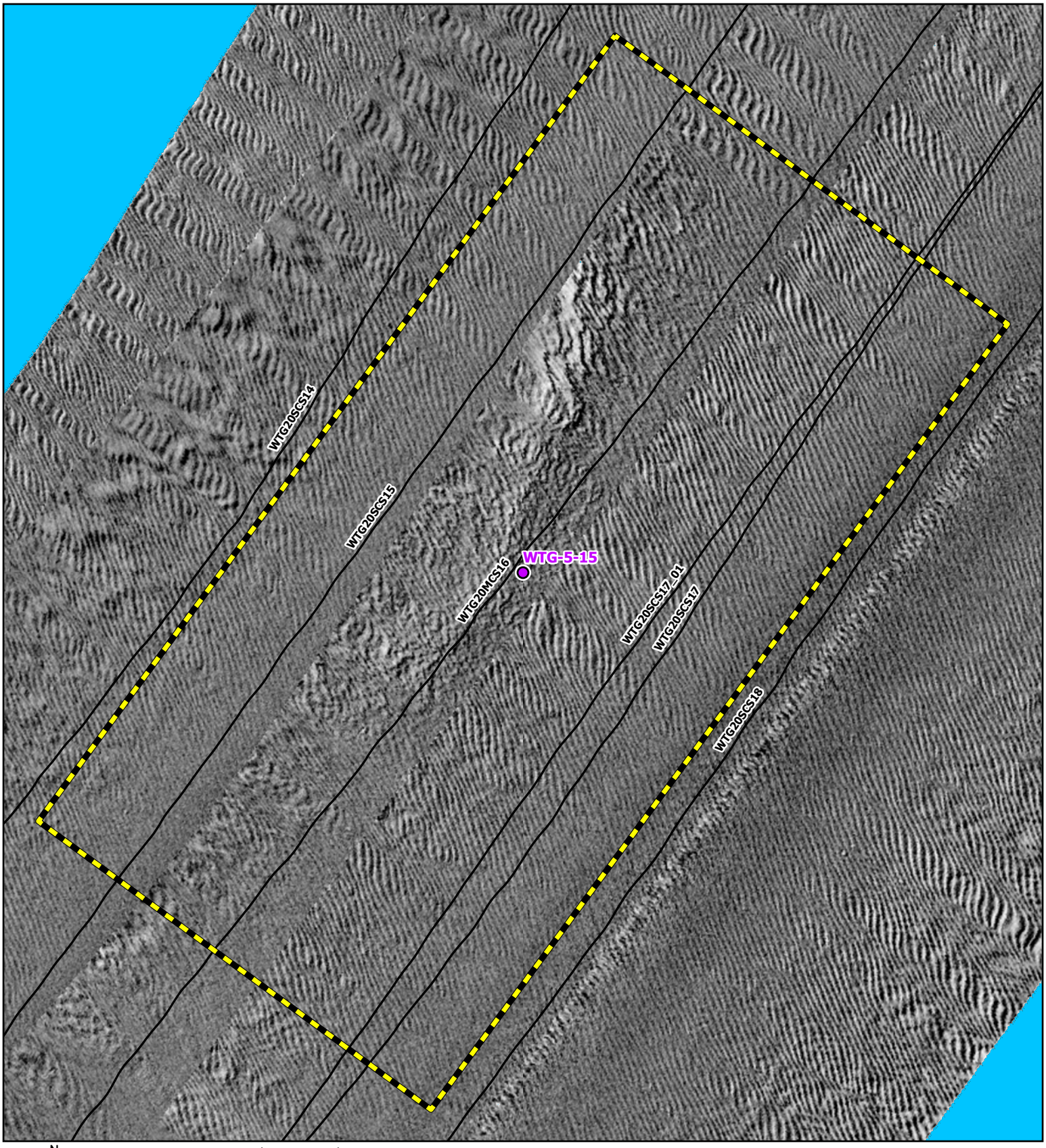
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

Map: 4

WTG-4-14

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 20

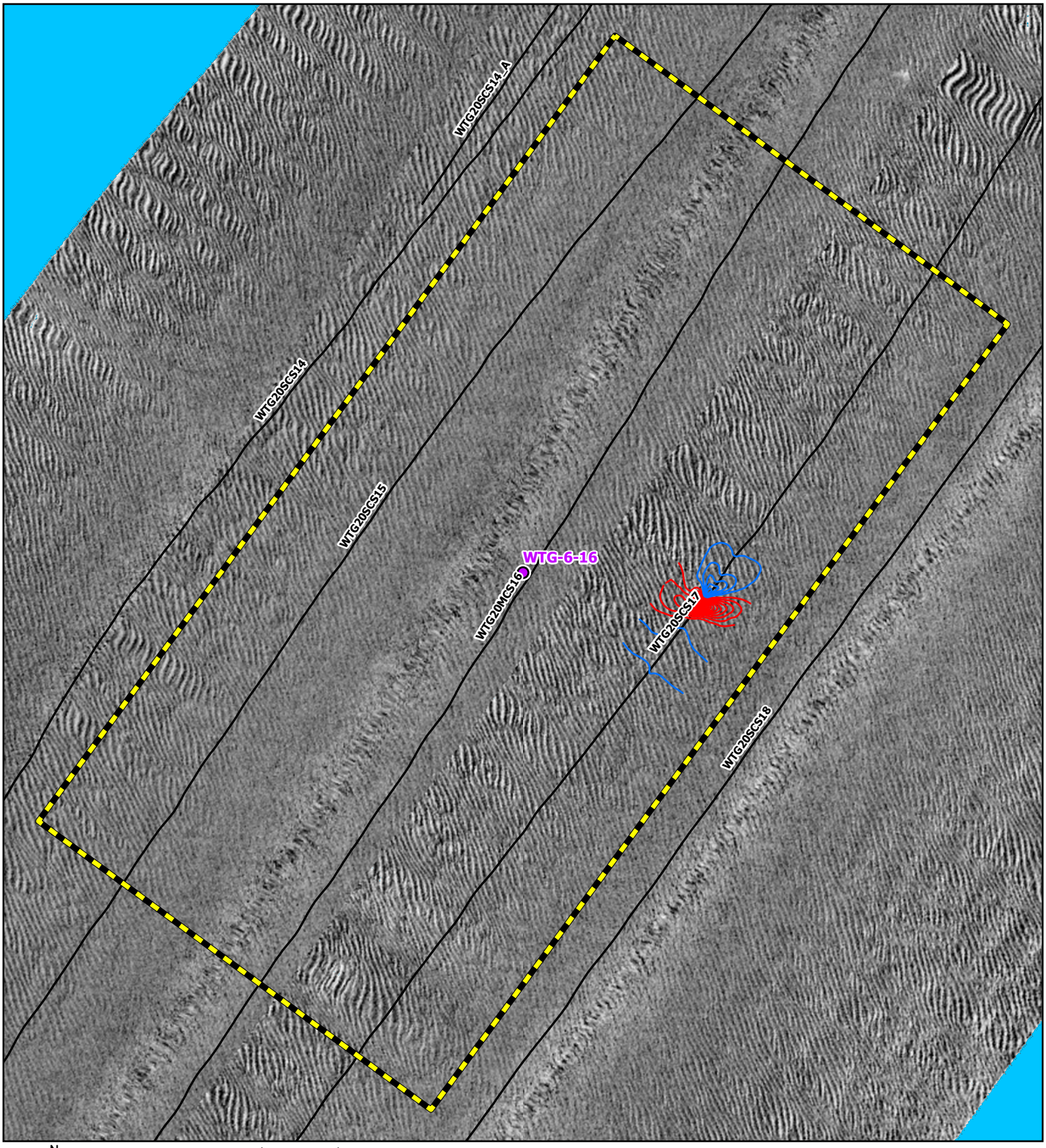
Map: 5

WTG-5-15

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 20

Map: 6

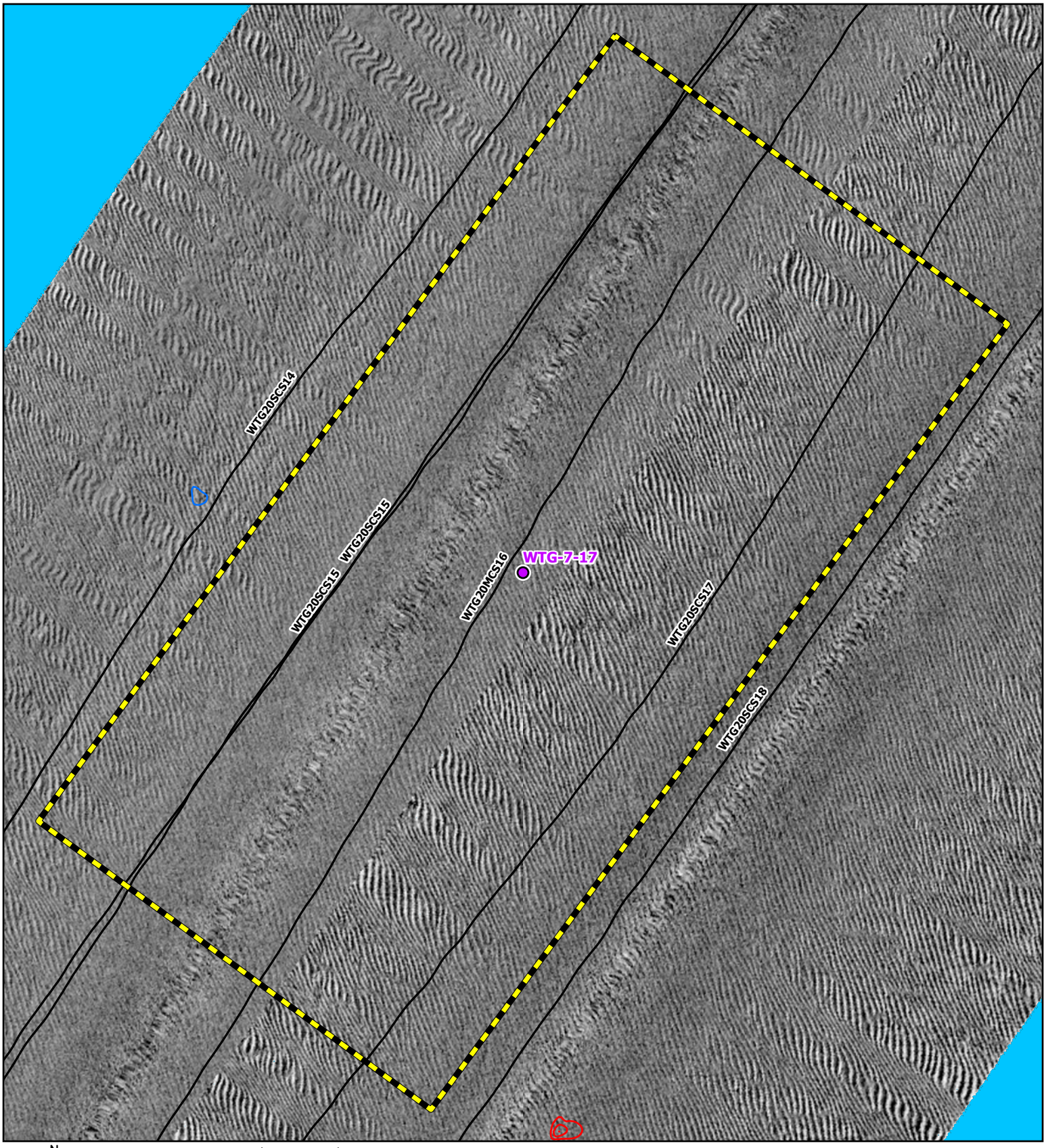
WTG-6-16

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 20

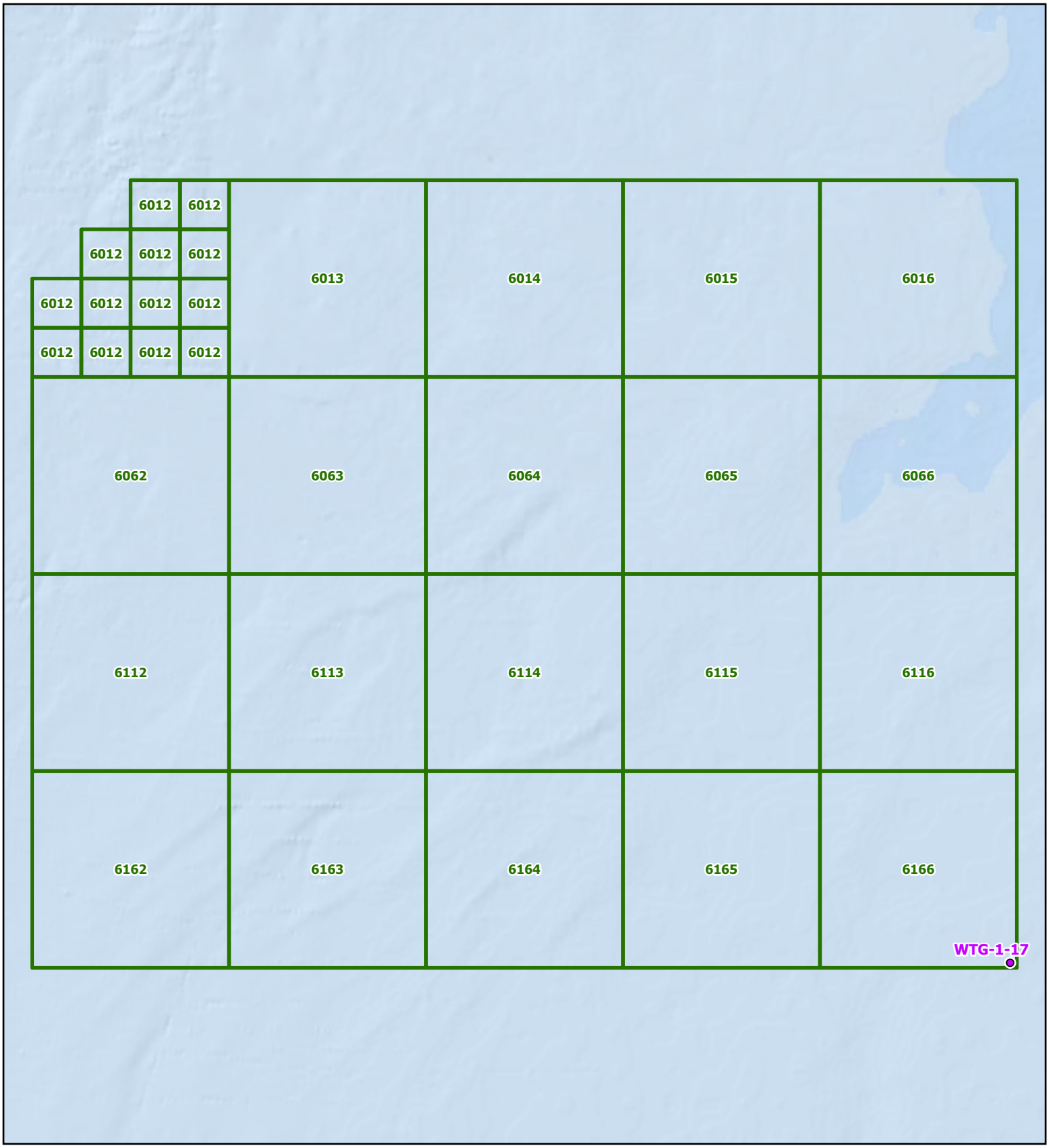
Map: 7

WTG-7-17

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APPENDIX 5
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 26



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

0 1 2 3 4 Kilometers

Geotechnical Location

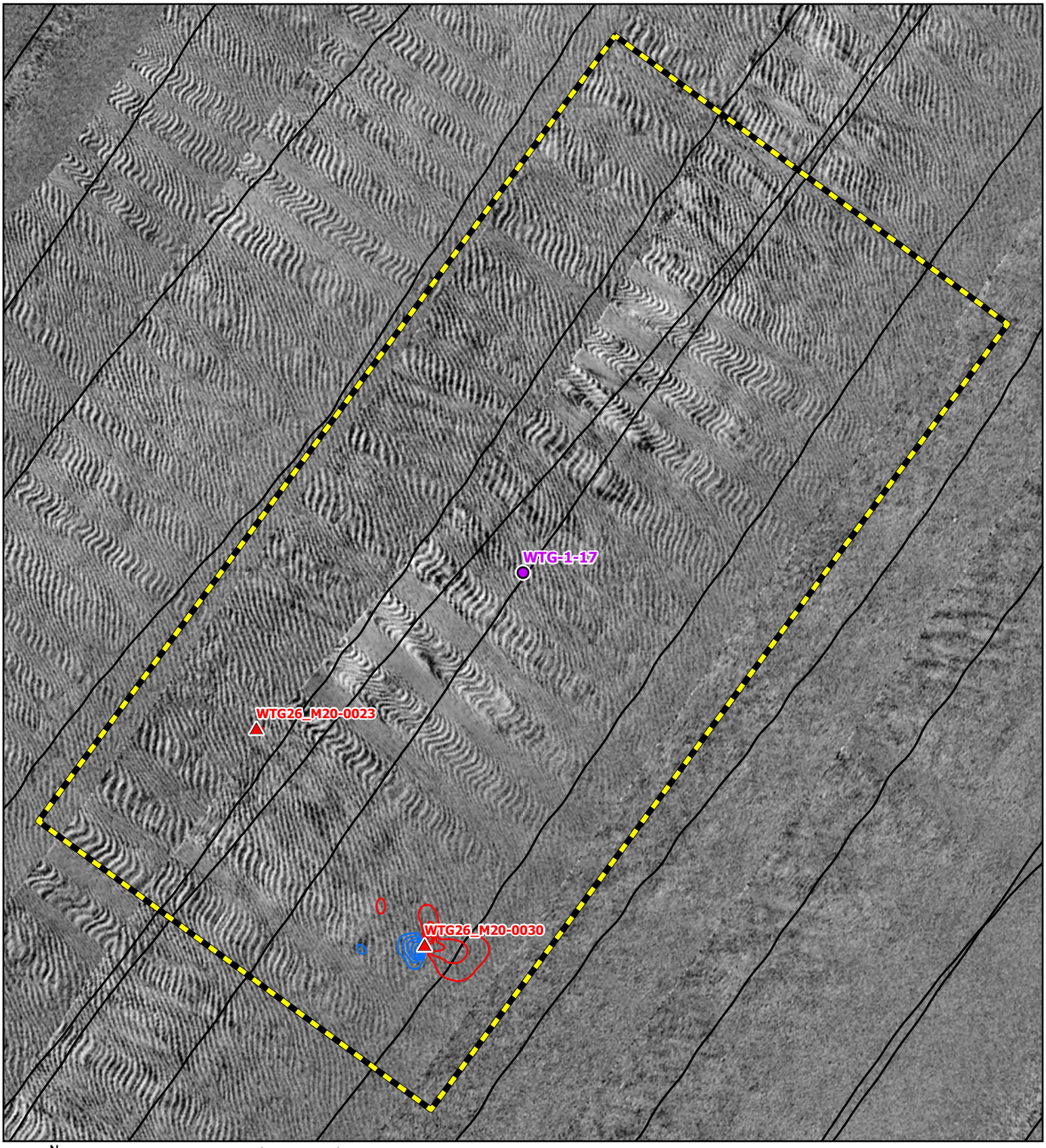
Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 26

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 26

WTG-1-17

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APPENDIX 6
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 4

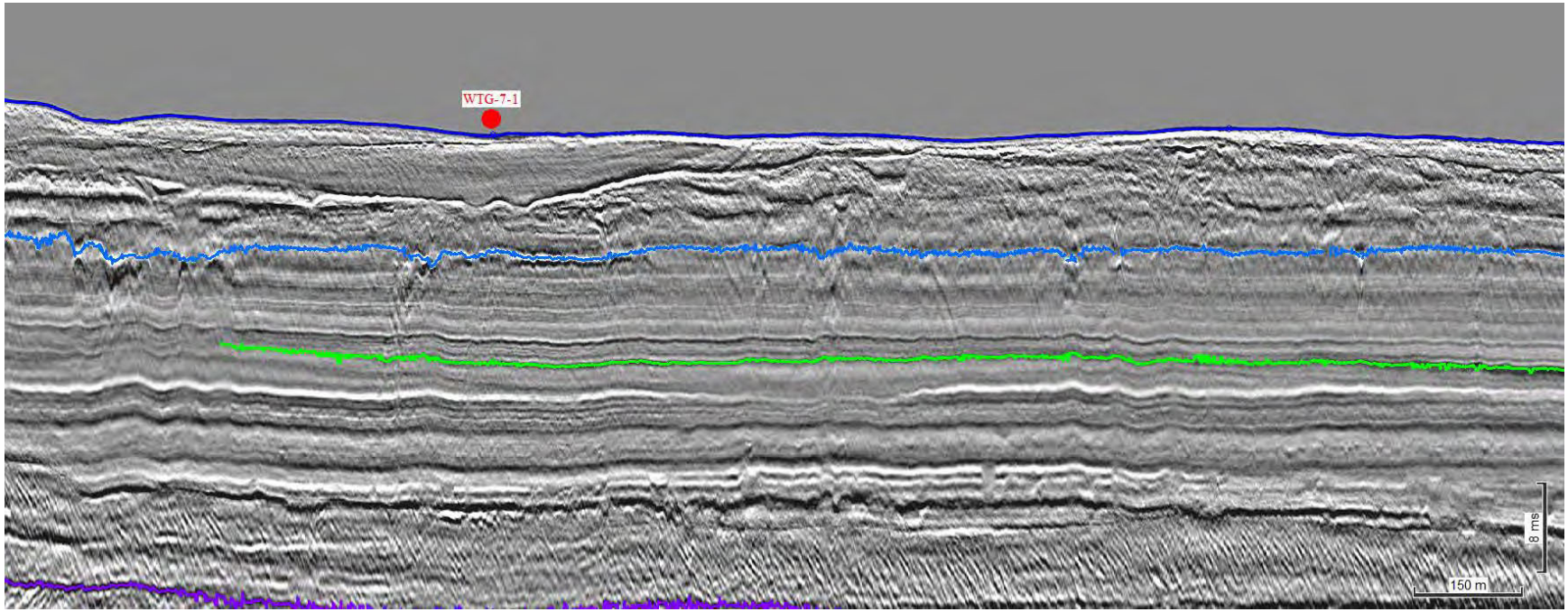


Figure 6-1: Proposed geotechnical location WTG-7-1 in Corridor 4 along line WTG04MCS16_FAST_MIG

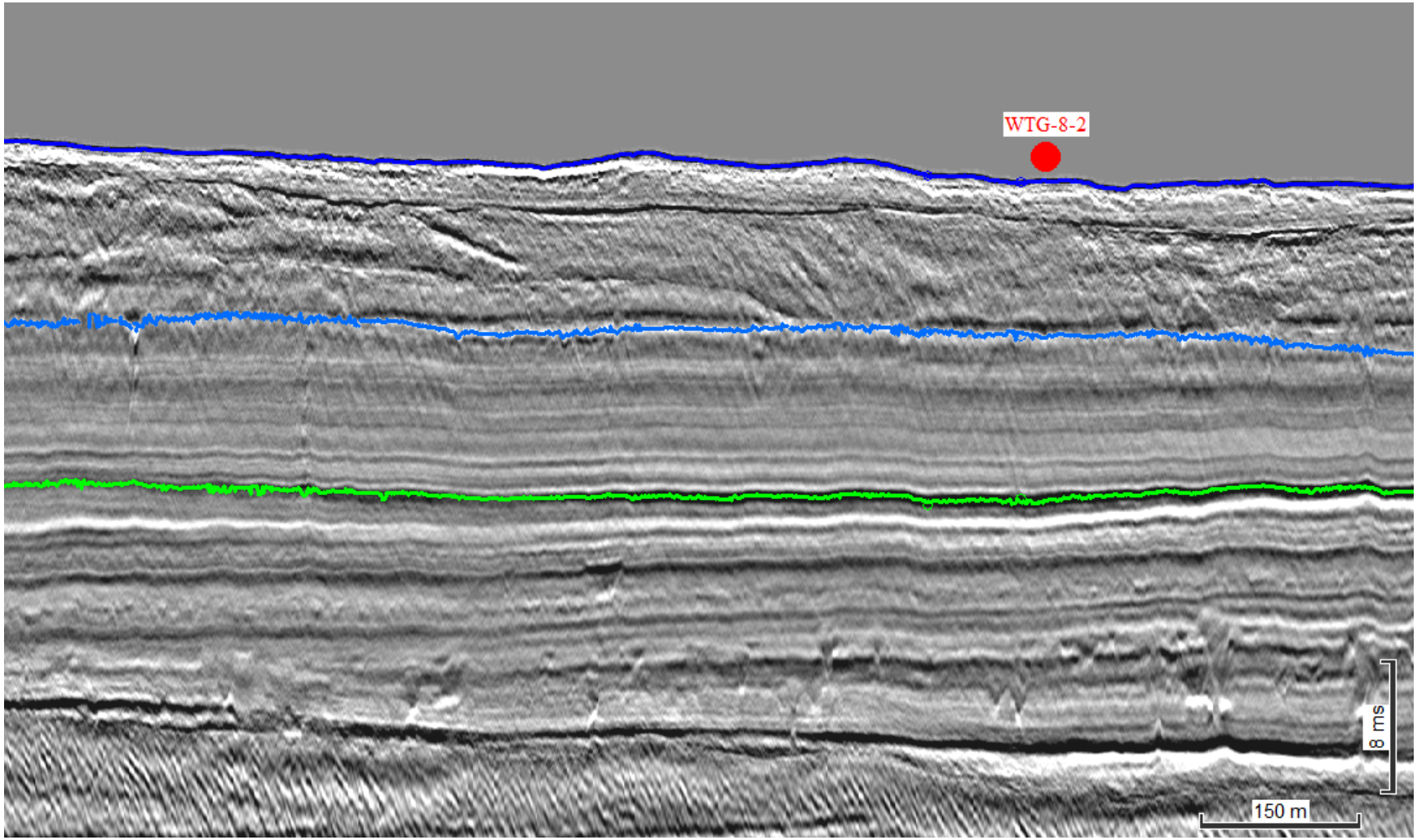


Figure 6-2:Proposed geotechnical location WTG-8-2 in Corridor 4 along line WTG04MCS16_FAST_MIG

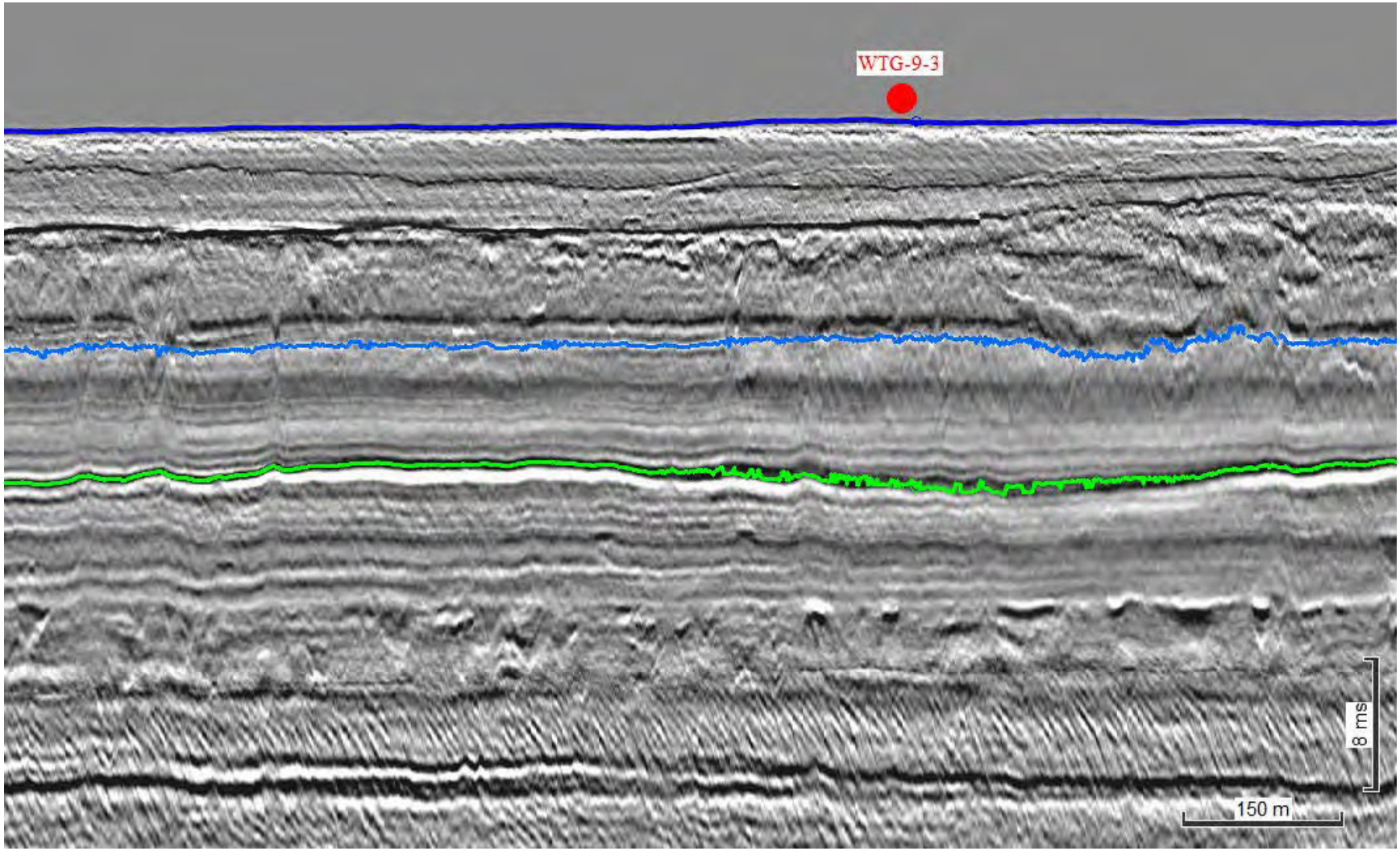


Figure 6-3: Proposed geotechnical location WTG-9-3 in Corridor 4 along line WTG04MCS16_FAST_MIG

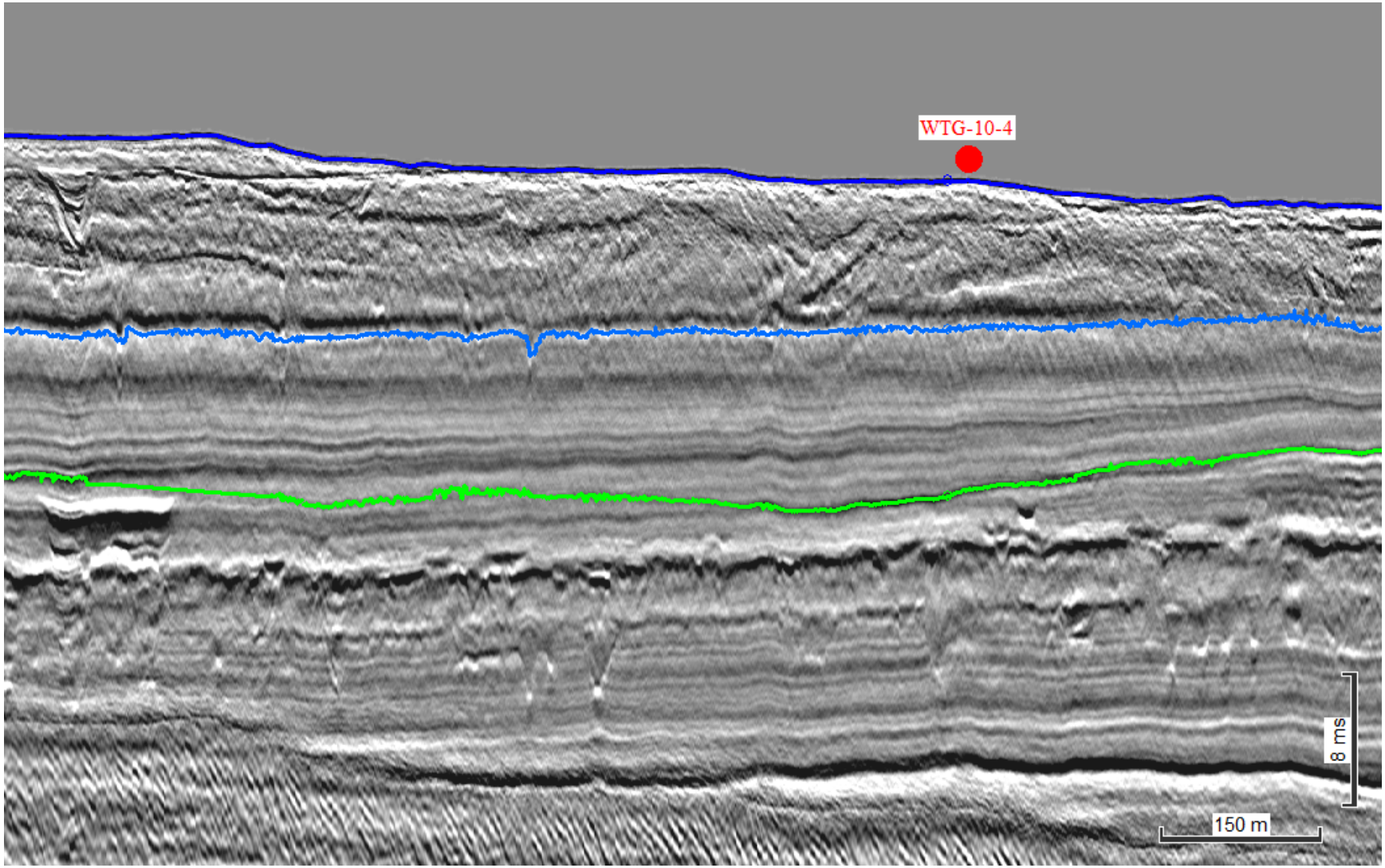


Figure 6-4: Proposed geotechnical location WTG-10-4 in Corridor 4 along line WTG04MCS16_FAST_MIG

APPENDIX 7
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 6

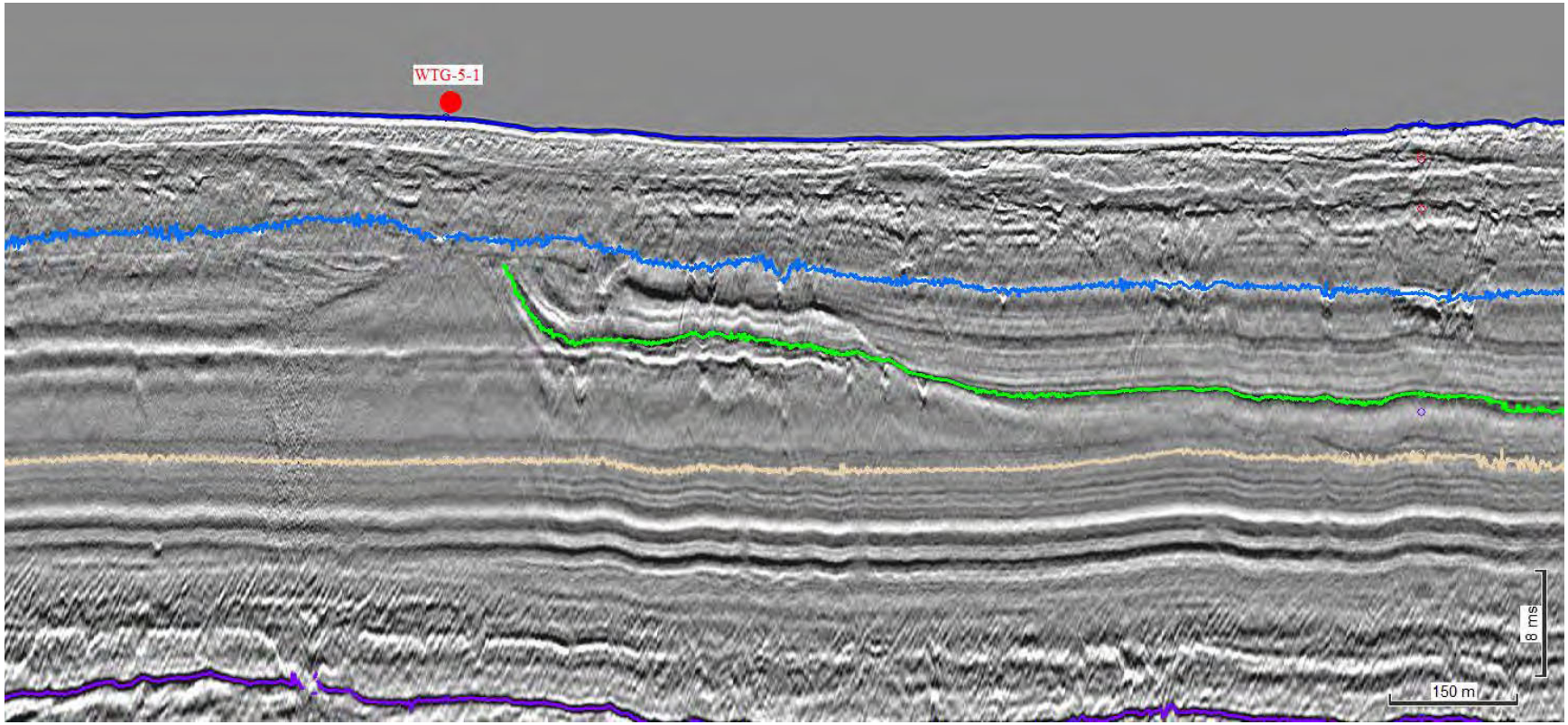


Figure 7-1: Proposed geotechnical location WTG-5-1 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

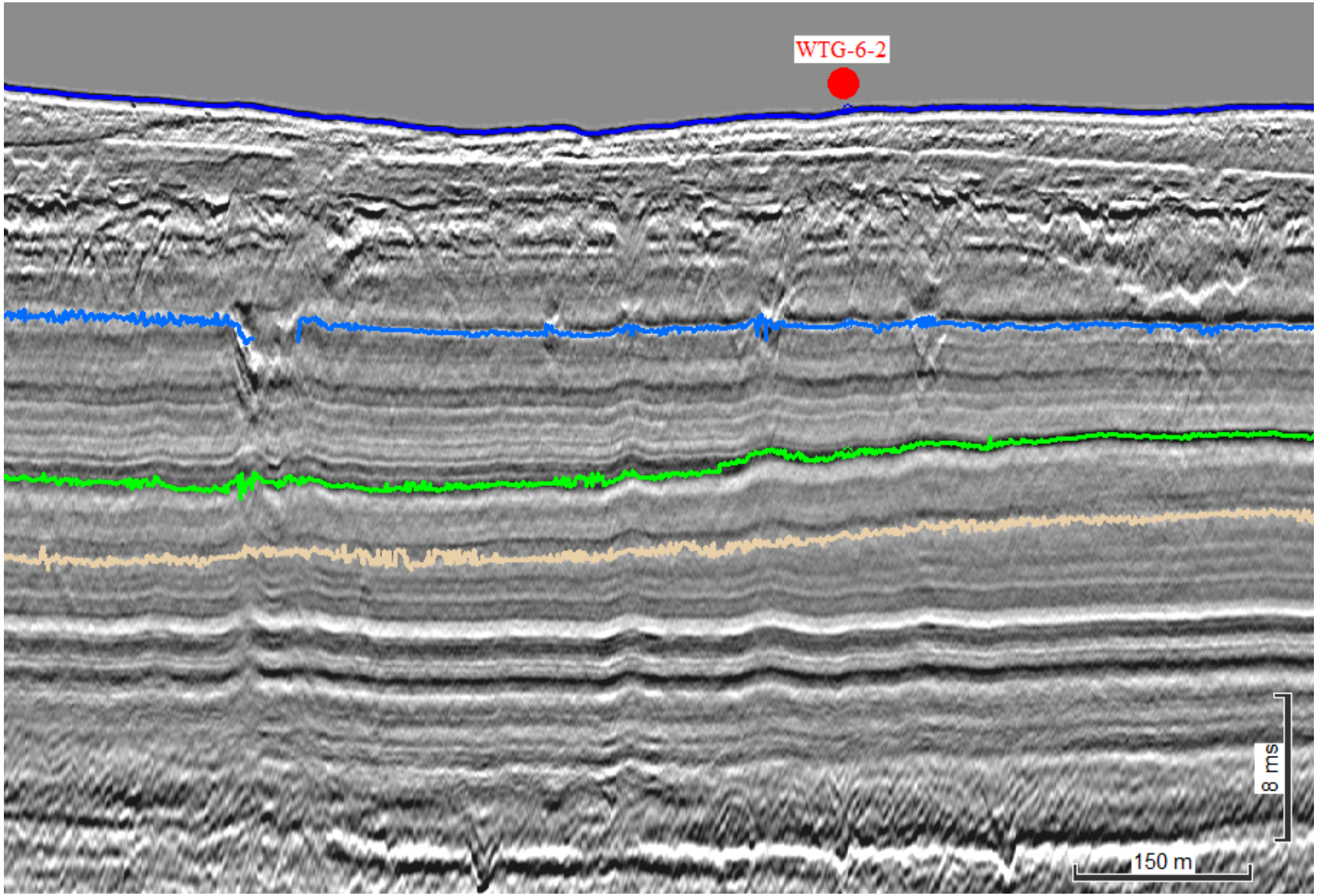


Figure 7-2: Proposed geotechnical location WTG-6-2 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

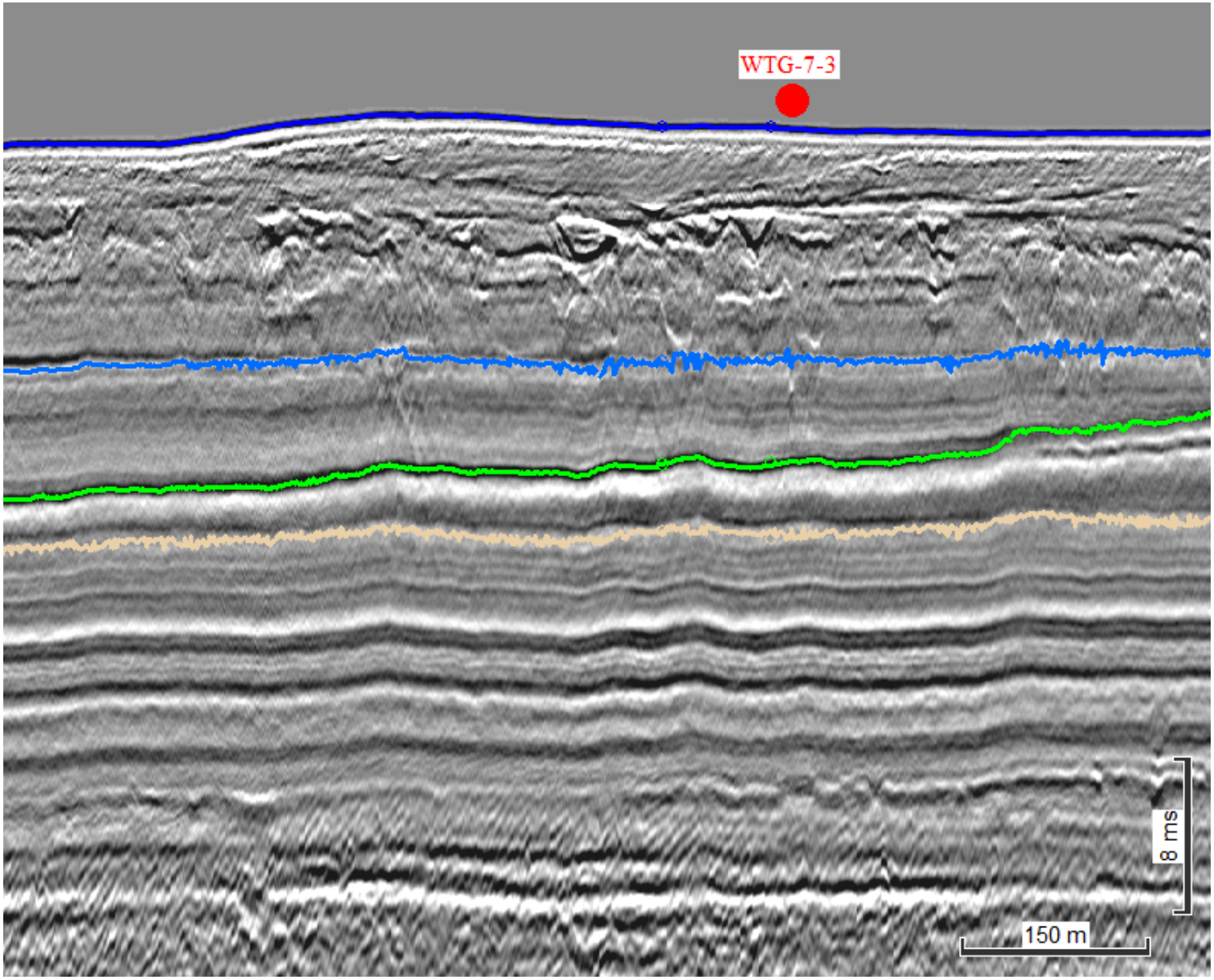


Figure 7-3: Proposed geotechnical location WTG-7-3 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

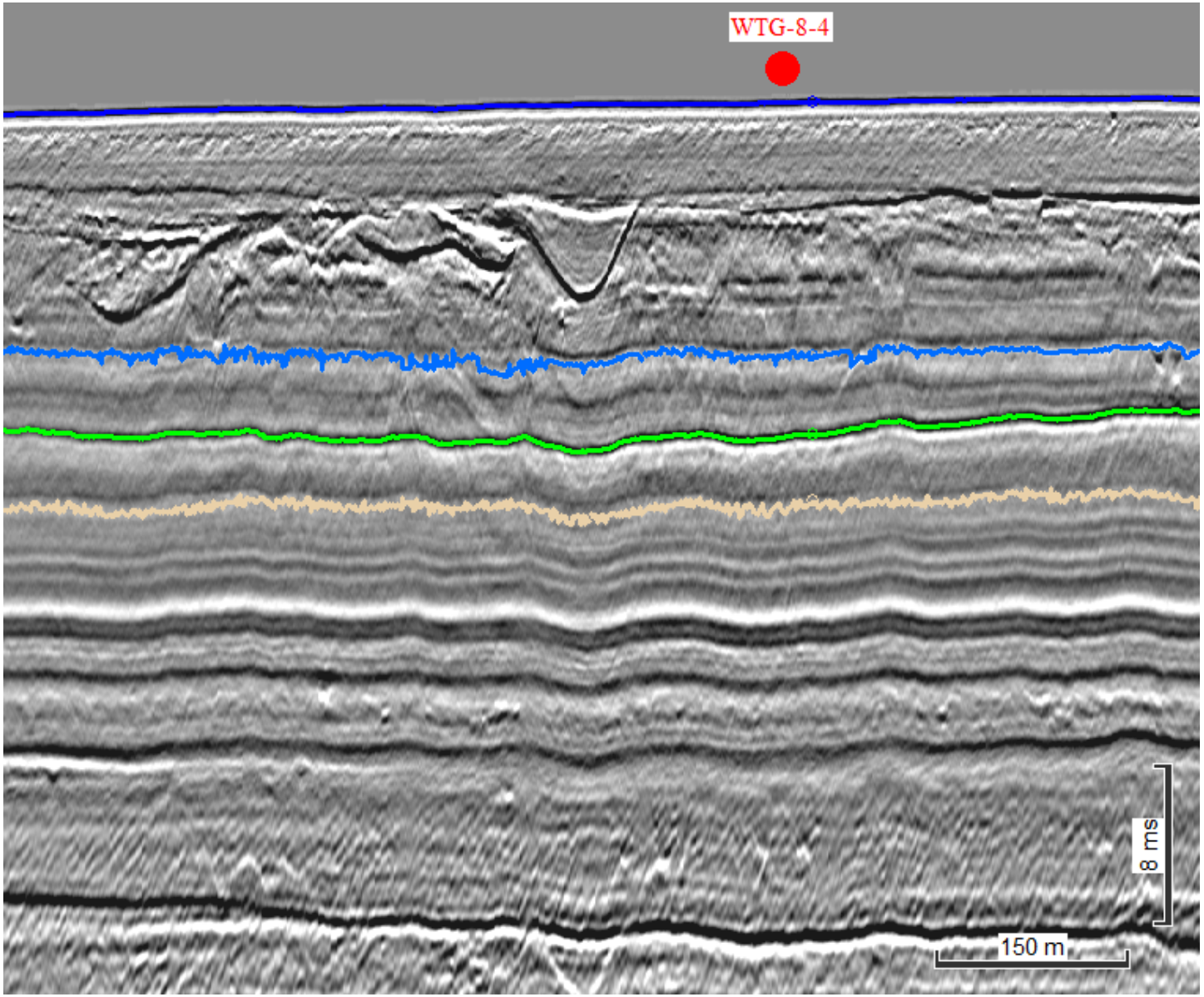


Figure 7-4: Proposed geotechnical location WTG-8-4 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

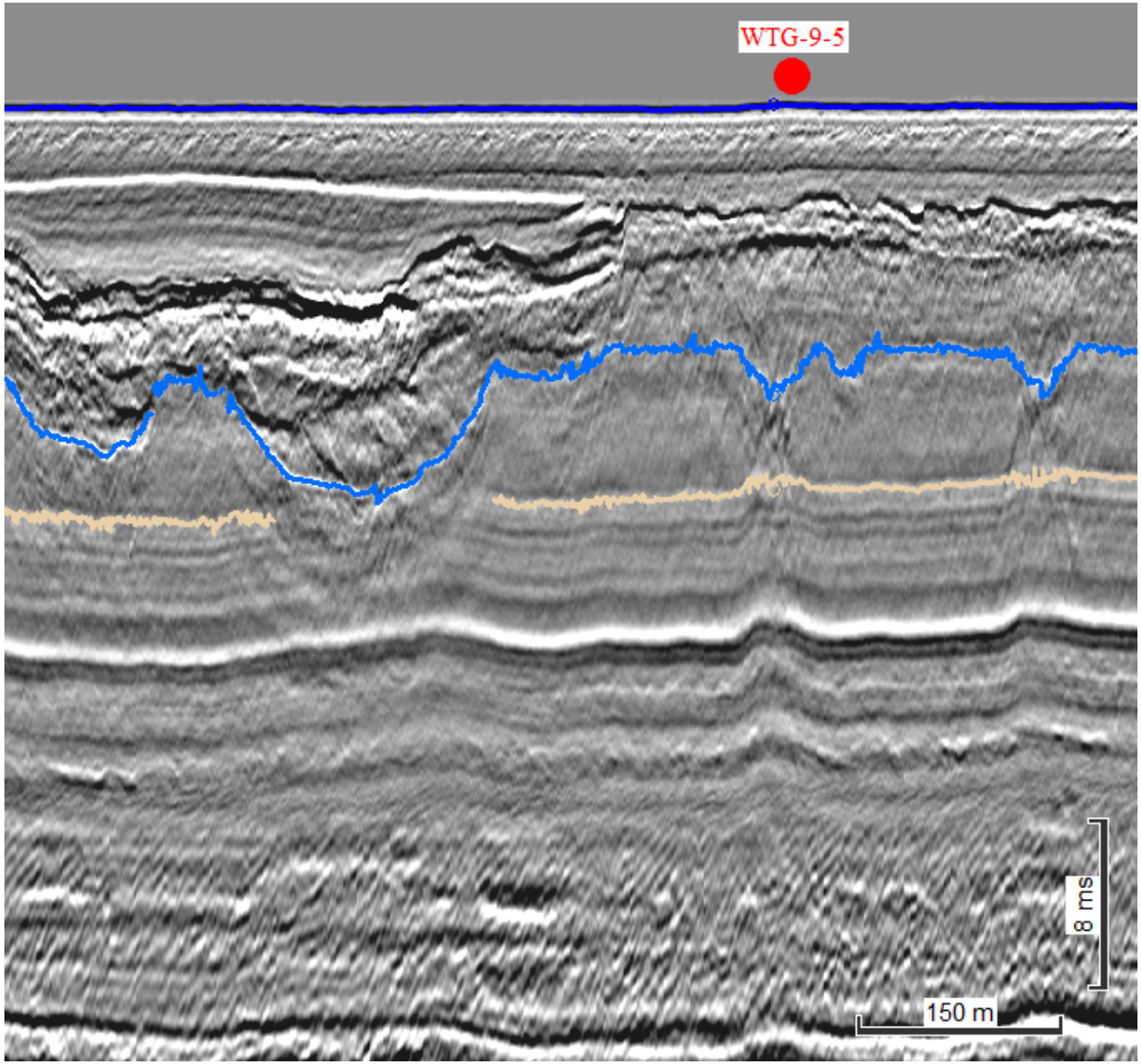


Figure 7-5: Proposed geotechnical location WTG-9-5 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

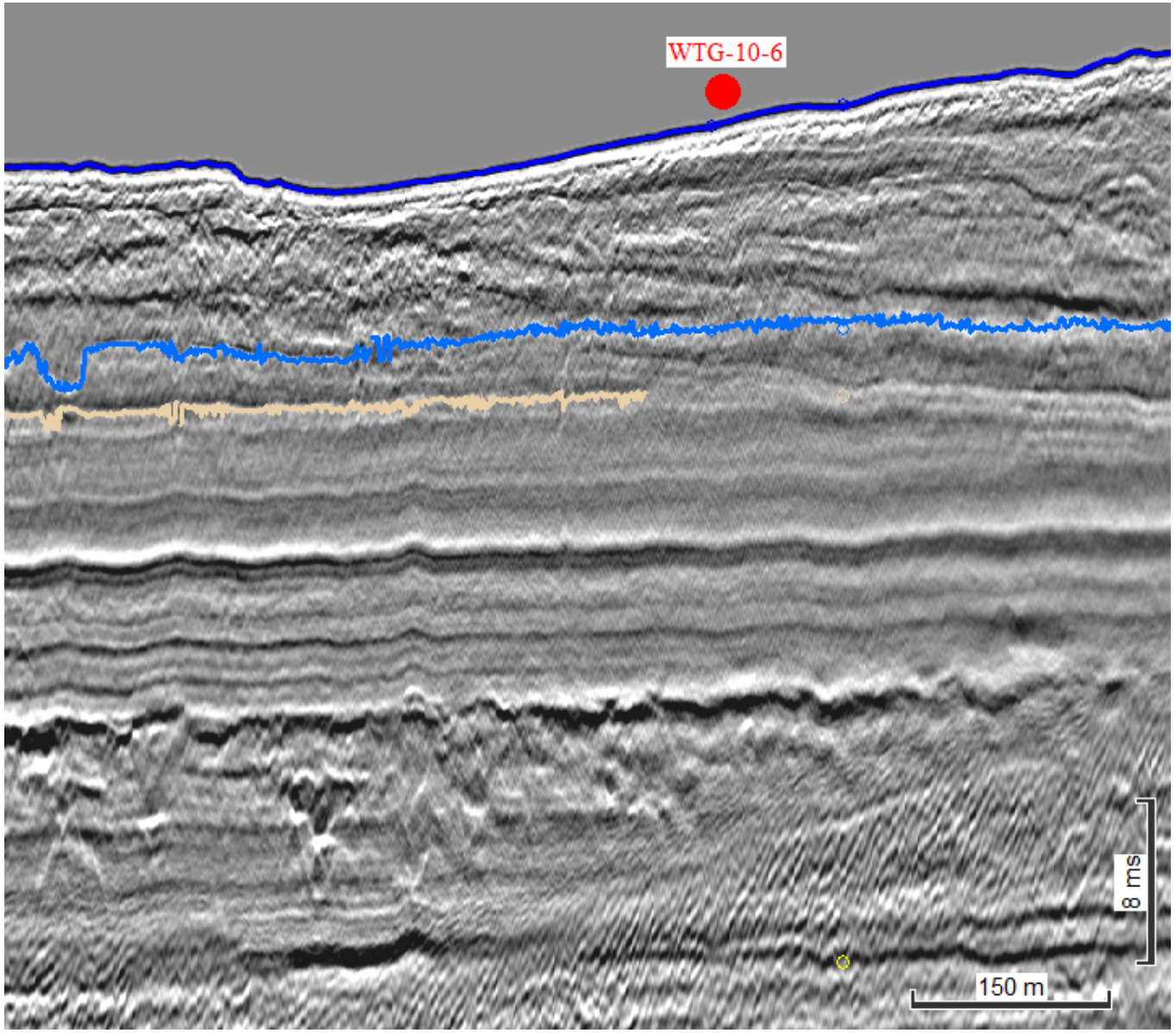


Figure 7-6: Proposed geotechnical location WTG-10-6 in Corridor 6 along line WTG06MCS16A_FAST_MIG_PSDEMUL

APPENDIX 8
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 12

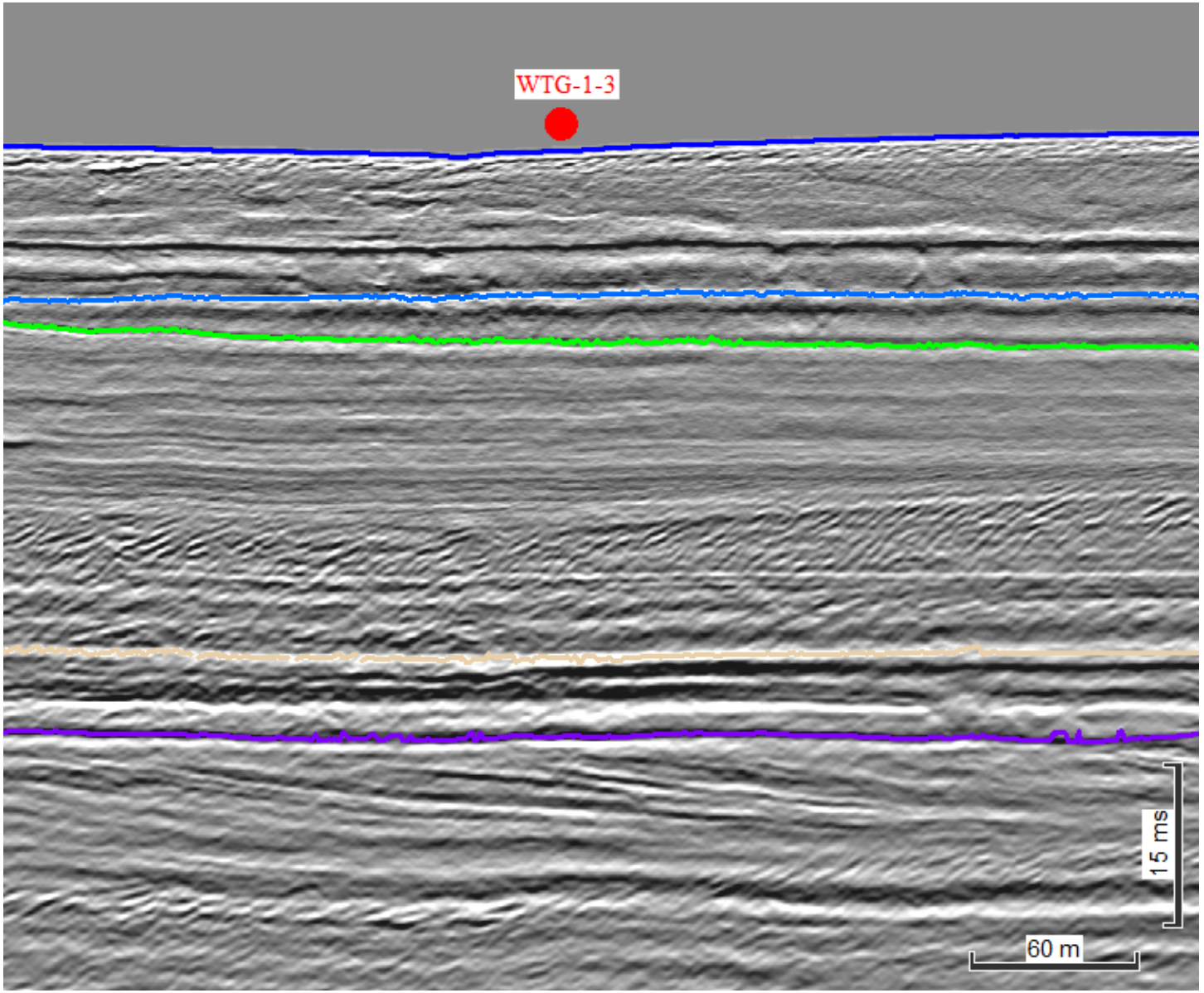


Figure 8-1: Proposed geotechnical location WTG-1-3 in Corridor 12 along line TLB08_FAST_MIG_PSDEMULl

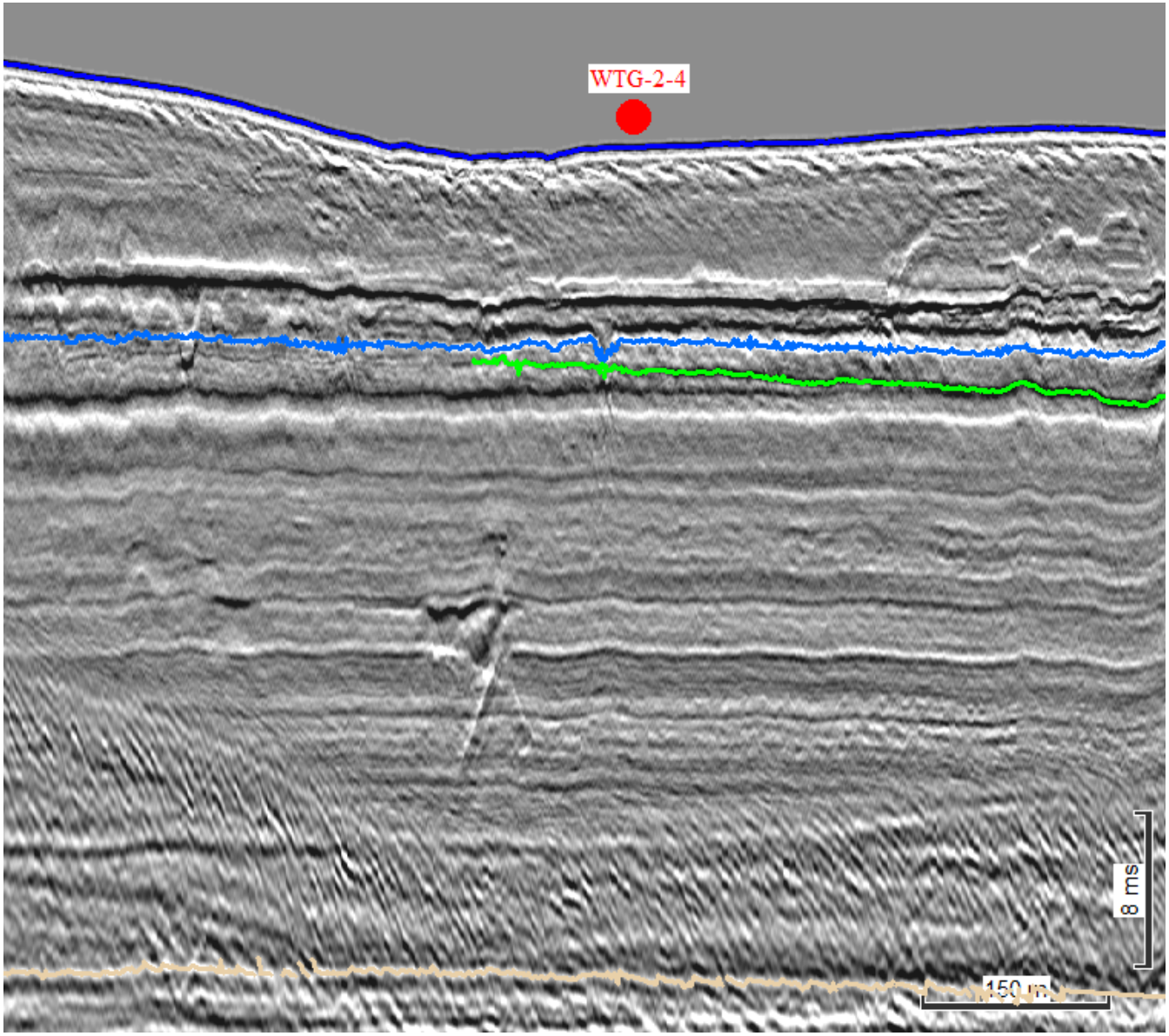


Figure 8-2: Proposed geotechnical location WTG-2-4 in Corridor 12 along line TLB14_FAST_MIG_PSDEMULl

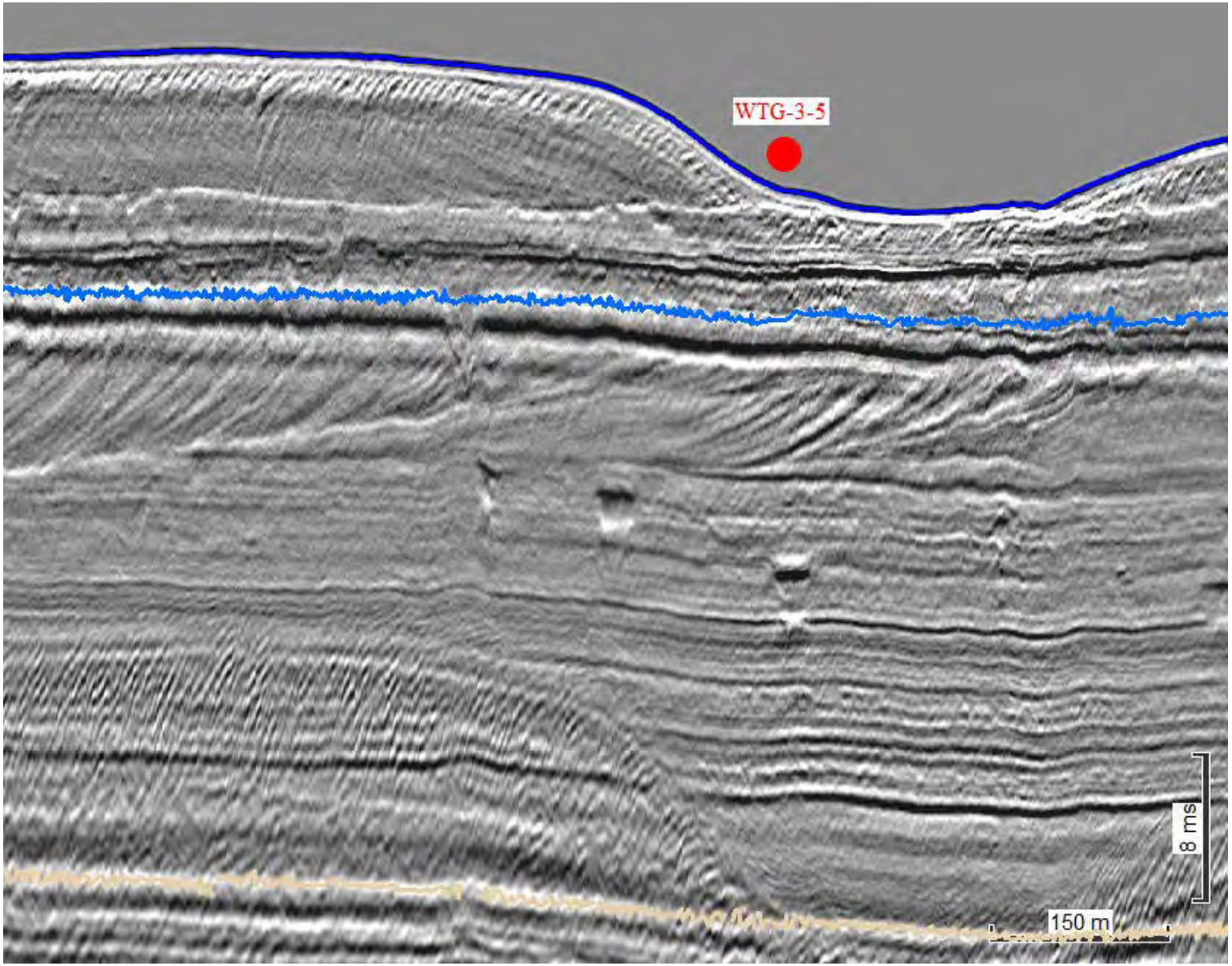


Figure 8-3: Proposed geotechnical location WTG-3-5 in Corridor 12 along line TLB20_FAST_MIG_PSDEMULl

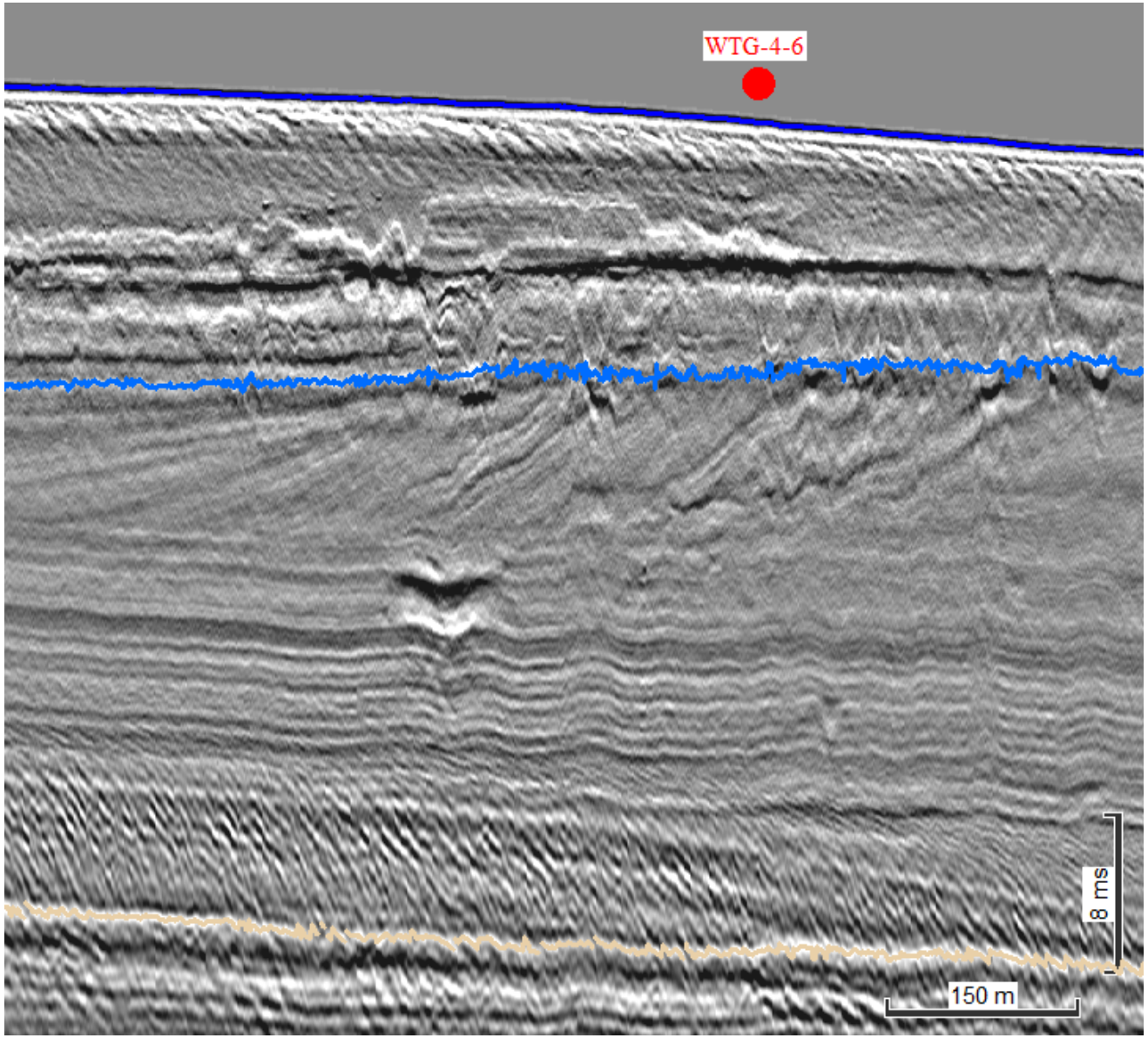


Figure 8-4: Proposed geotechnical location WTG-4-6 in Corridor 12 along line TLB26_FAST_MIG_PSDEMULl

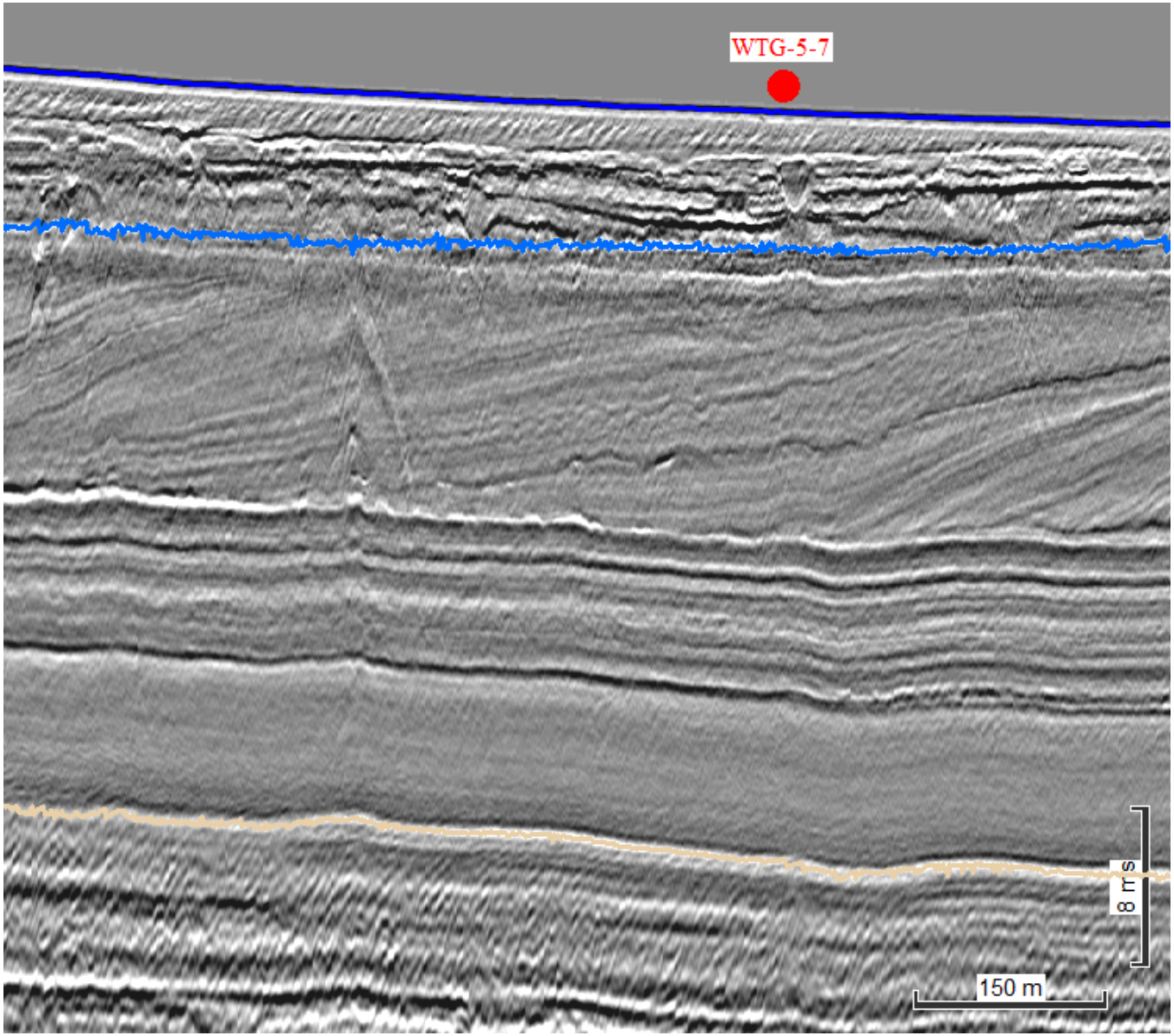


Figure 8-5: Proposed geotechnical location WTG-5-7 in Corridor 12 along line TLB32_FAST_MIG_PSDEMULl

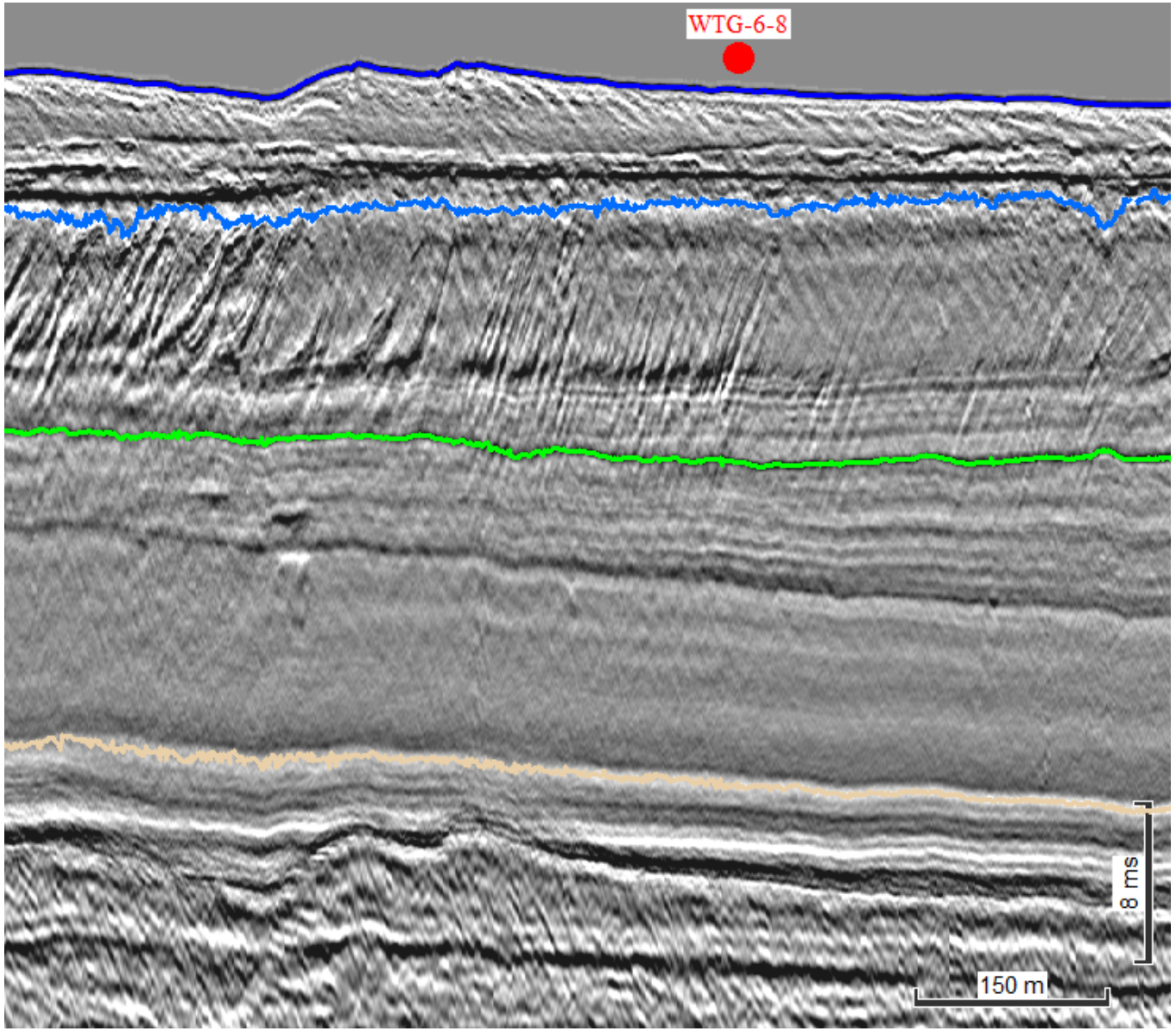


Figure 8-6: Proposed geotechnical location WTG-6-8 in Corridor 12 along line TLB38_01_FAST_MIG_PSDEMULl

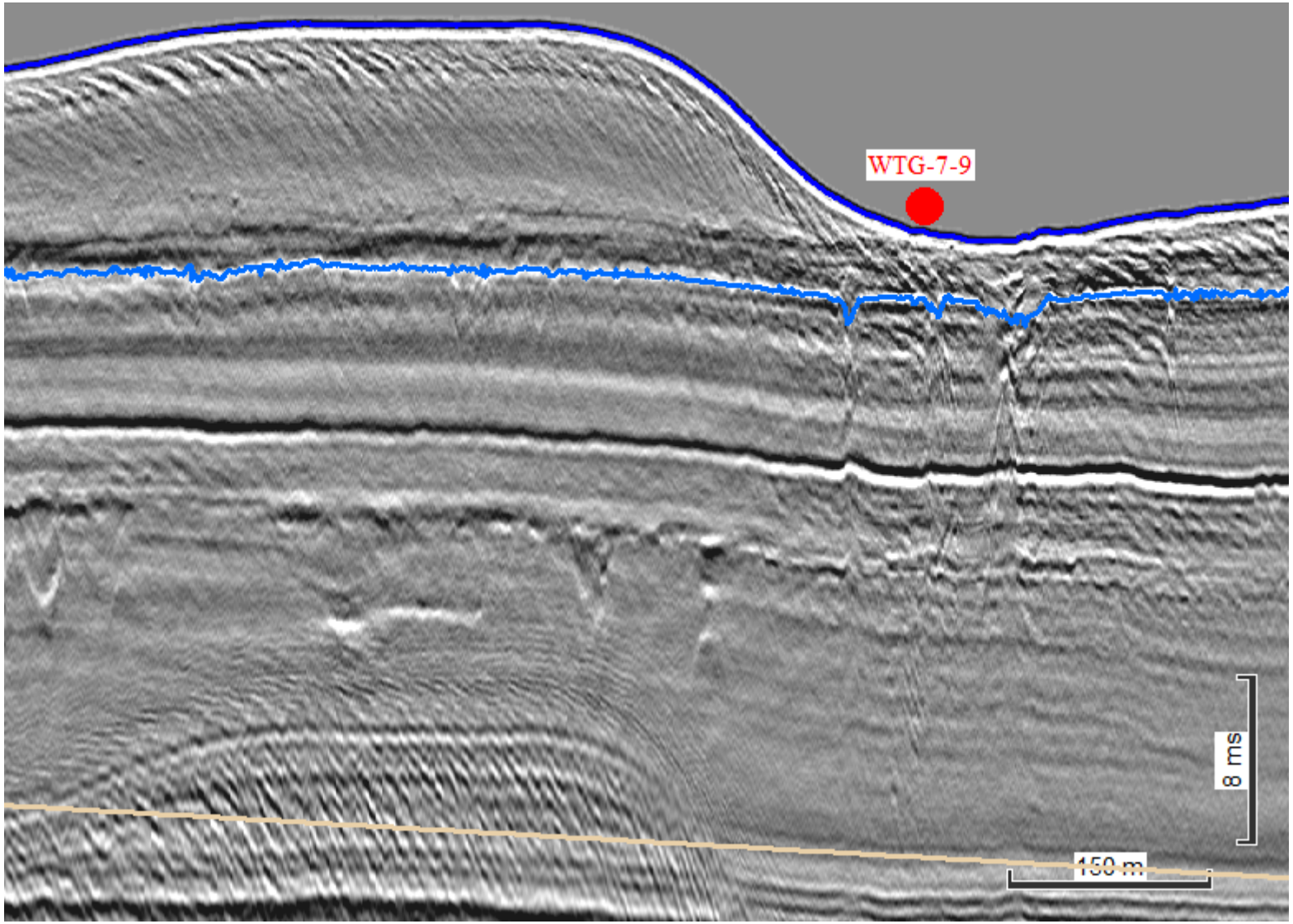


Figure 8-7: Proposed geotechnical location WTG-7-9 in Corridor 12 along line TLB44_01_FAST_MIG_PSDEMULl

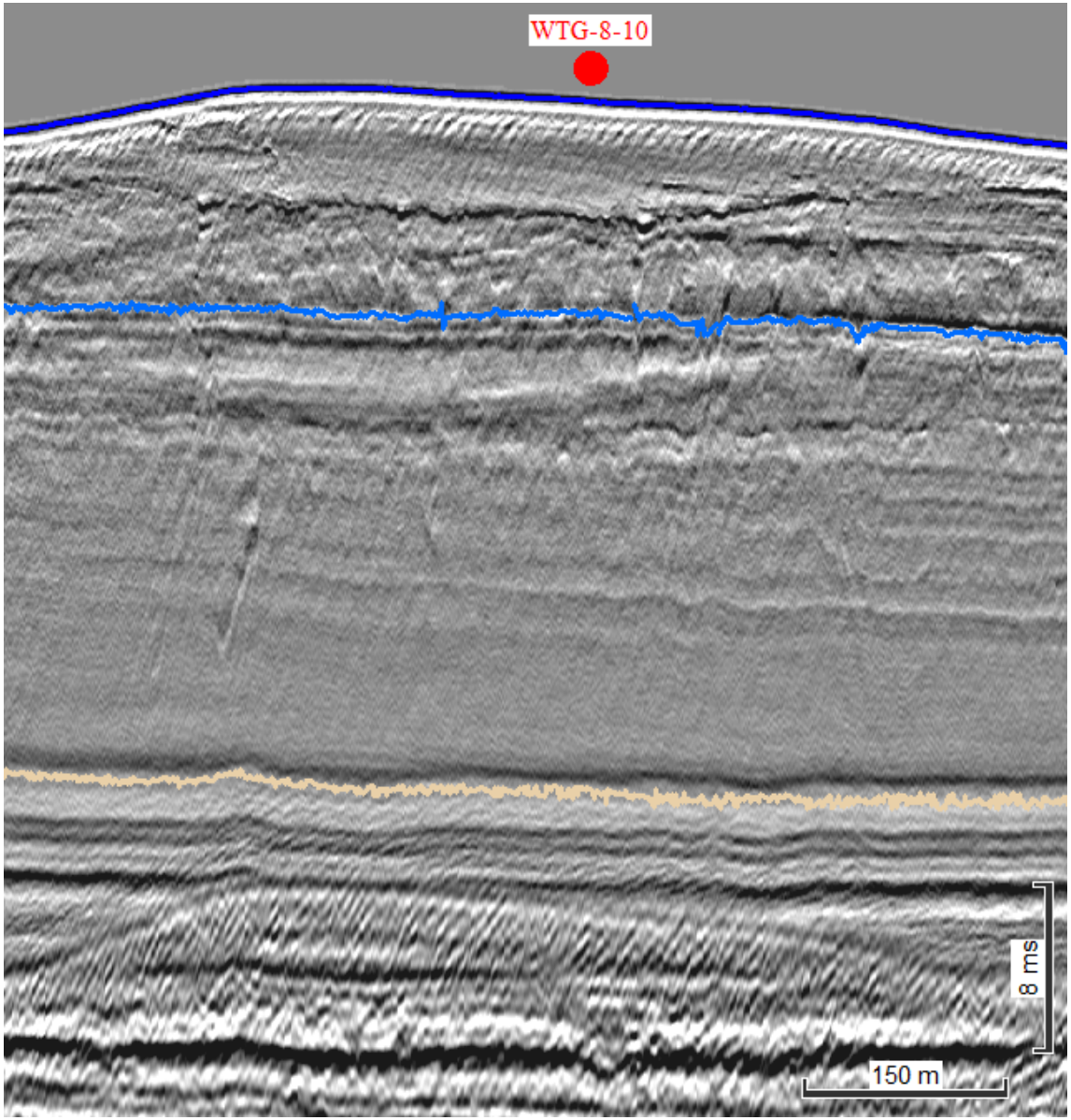


Figure 8-8: Proposed geotechnical location WTG-8-10 in Corridor 12 along line TLB50_01_FAST_MIG_PSDEMULl

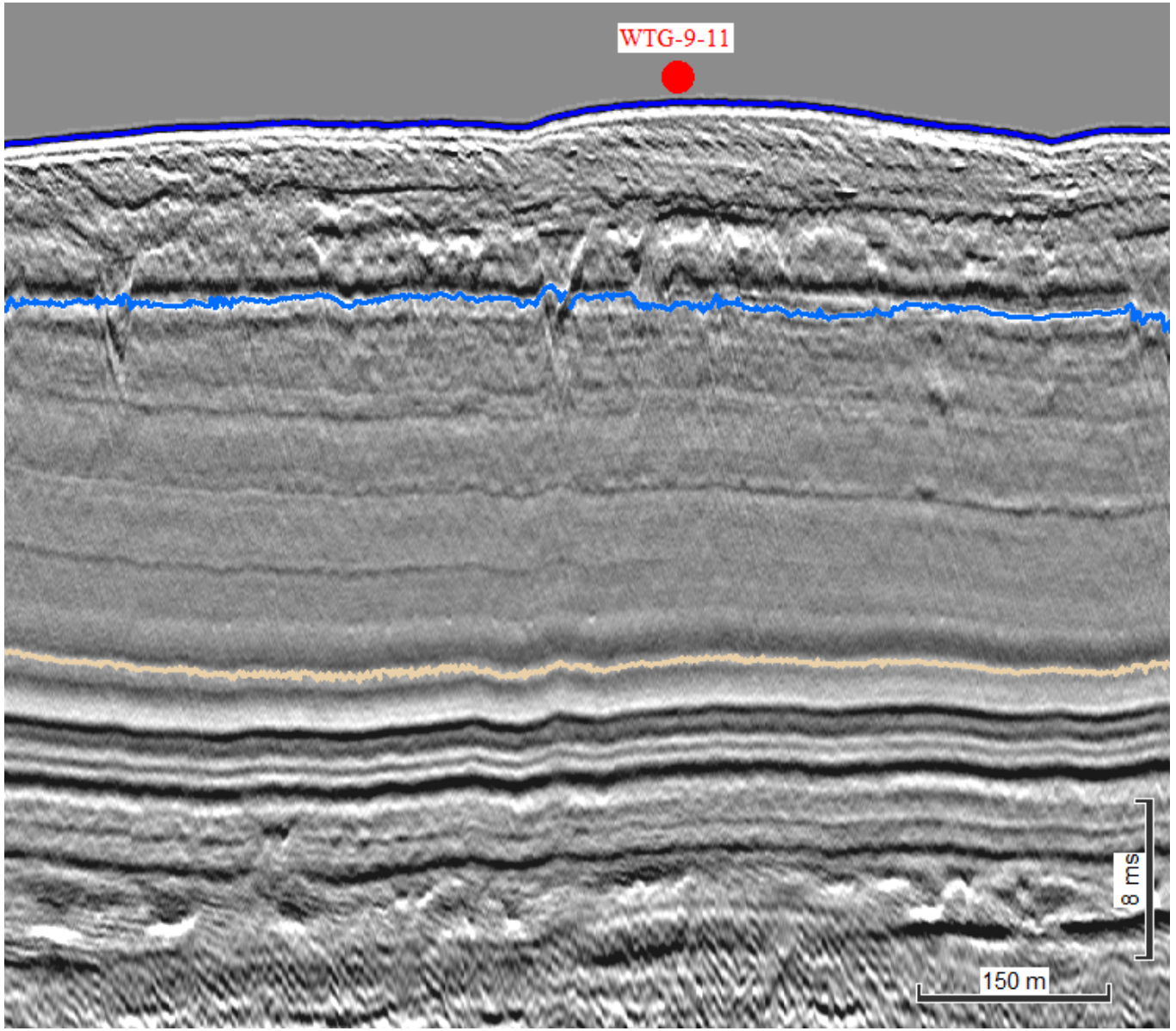


Figure 8-9: Proposed geotechnical location WTG-9-11 in Corridor 12 along line TLB56_FAST_MIG_PSDEMULl

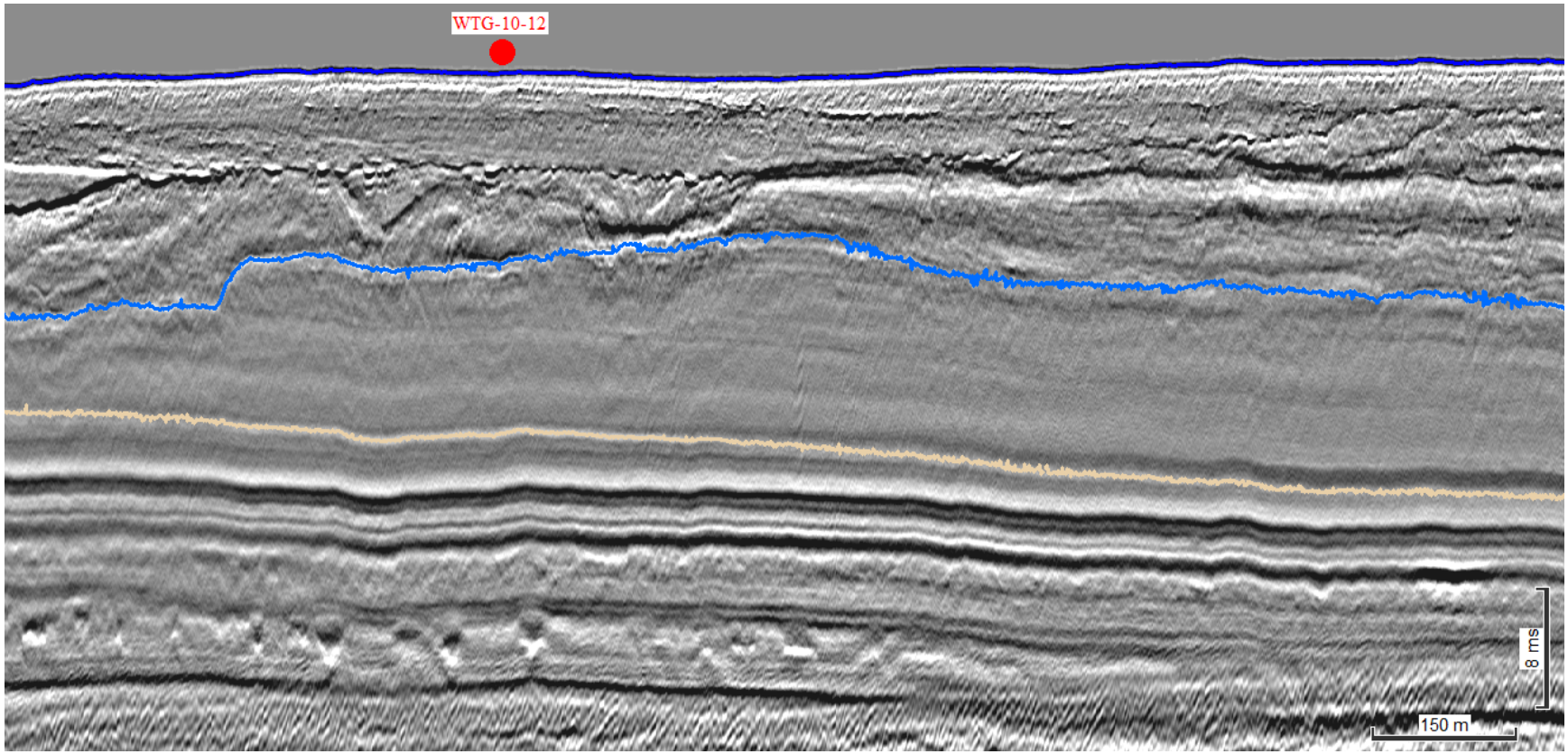


Figure 8-10: Proposed geotechnical location WTG-10-12 in Corridor 12 along line TLB62_01_FAST_MIG_PSDEMULl

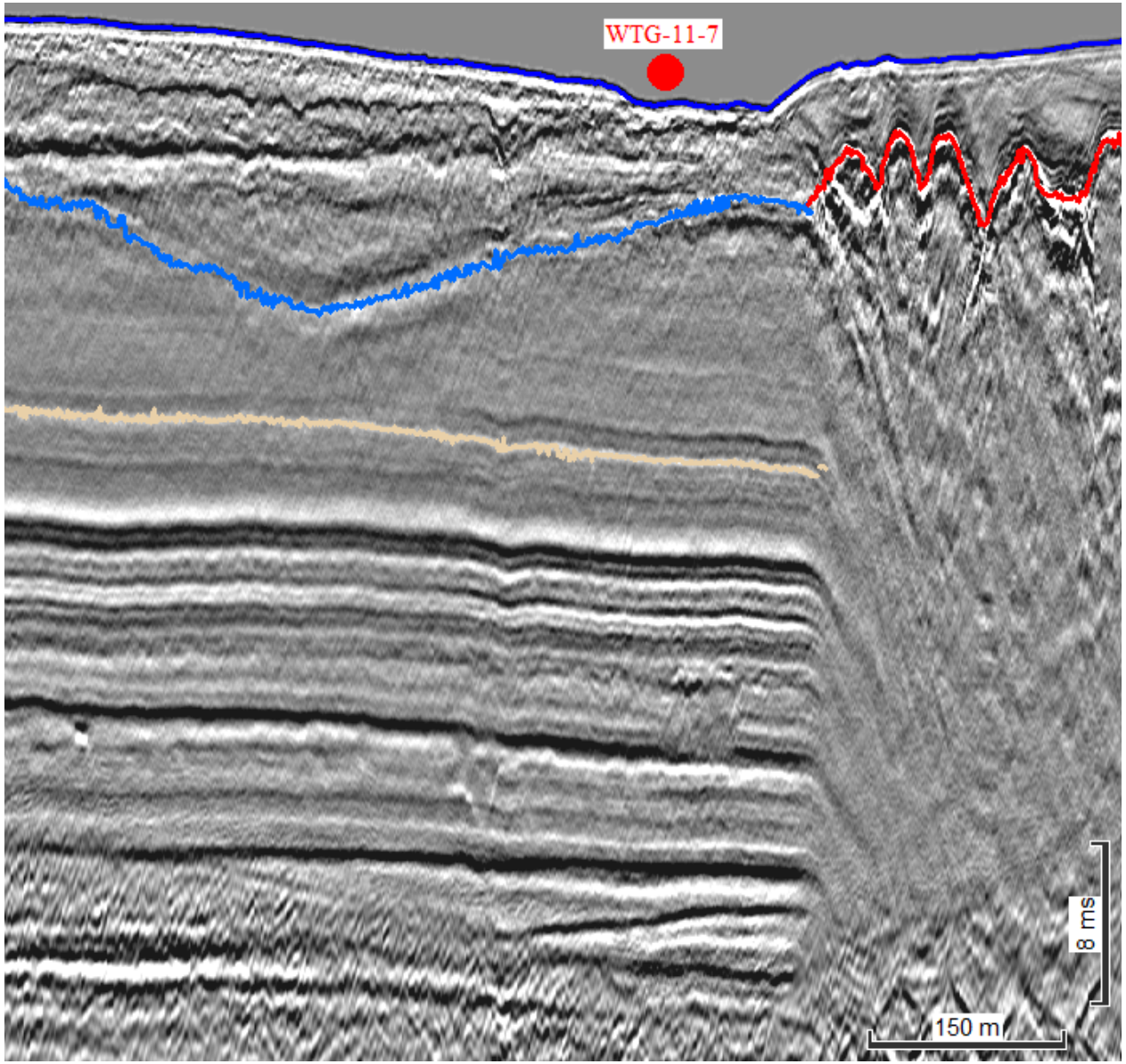


Figure 8-11: Proposed geotechnical location WTG-11-7 in Corridor 12 along line TLB68_FAST_MIG_PSDEMULl

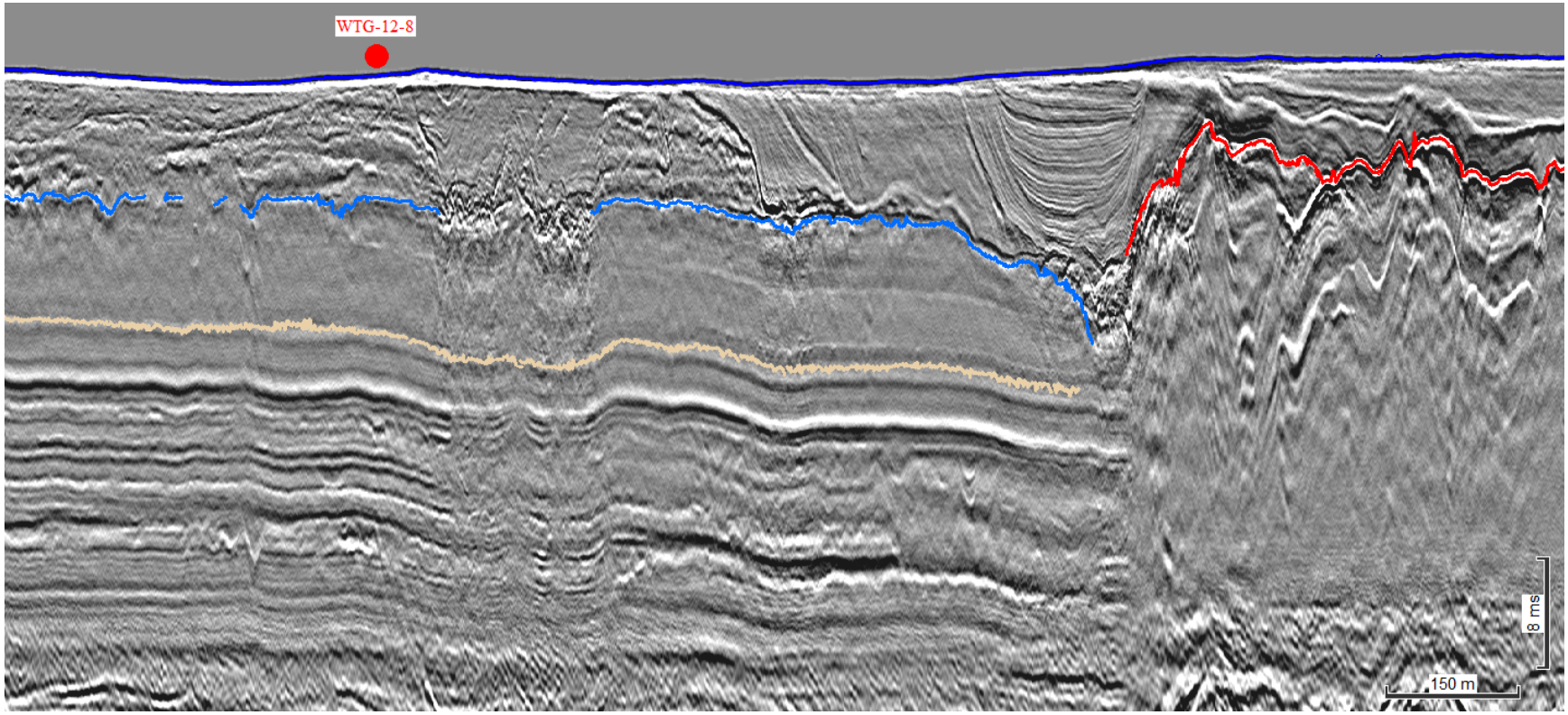


Figure 8-12: Proposed geotechnical location WTG-12-8 in Corridor 12 along line TLB74A_FAST_MIG_PSDEMULl

APPENDIX 9
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 20

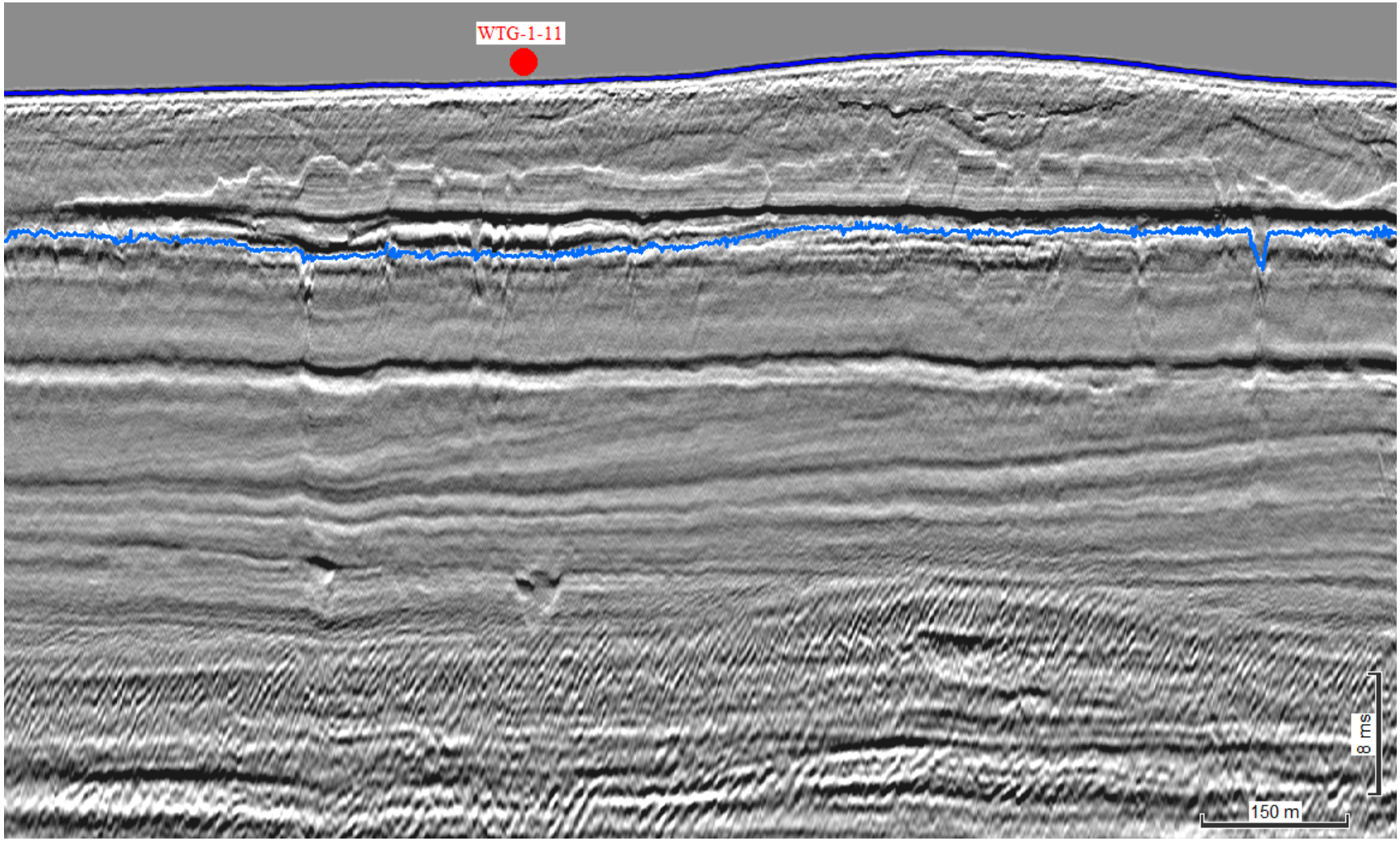


Figure 9-1: Proposed geotechnical location WTG-1-11 in Corridor 20 along line TLB32_FAST_MIG_PSDEMULl

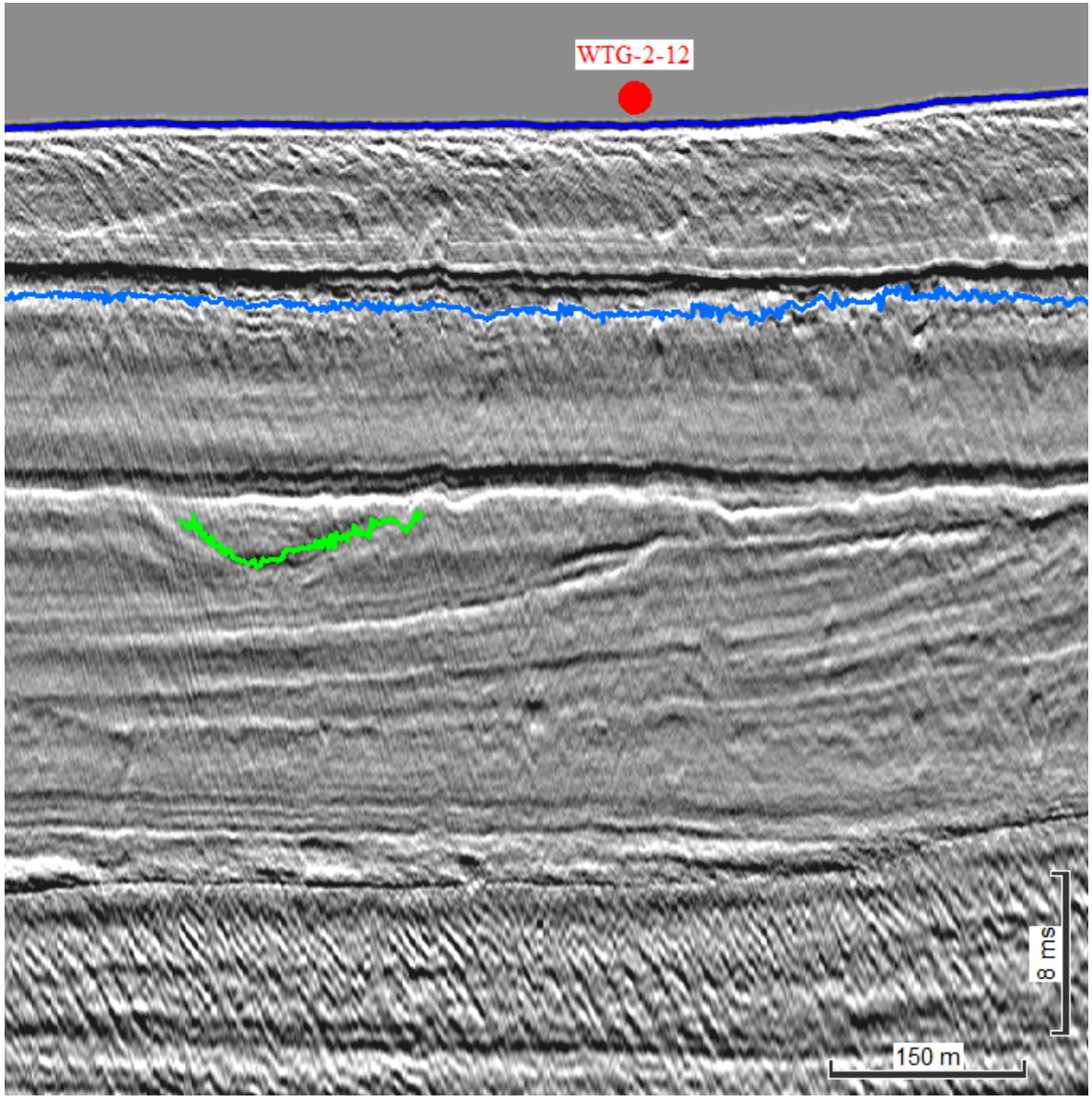


Figure 9-2: Proposed geotechnical location WTG-2-12 in Corridor 20 along line TLB38_FAST_MIG_PSDEMULl

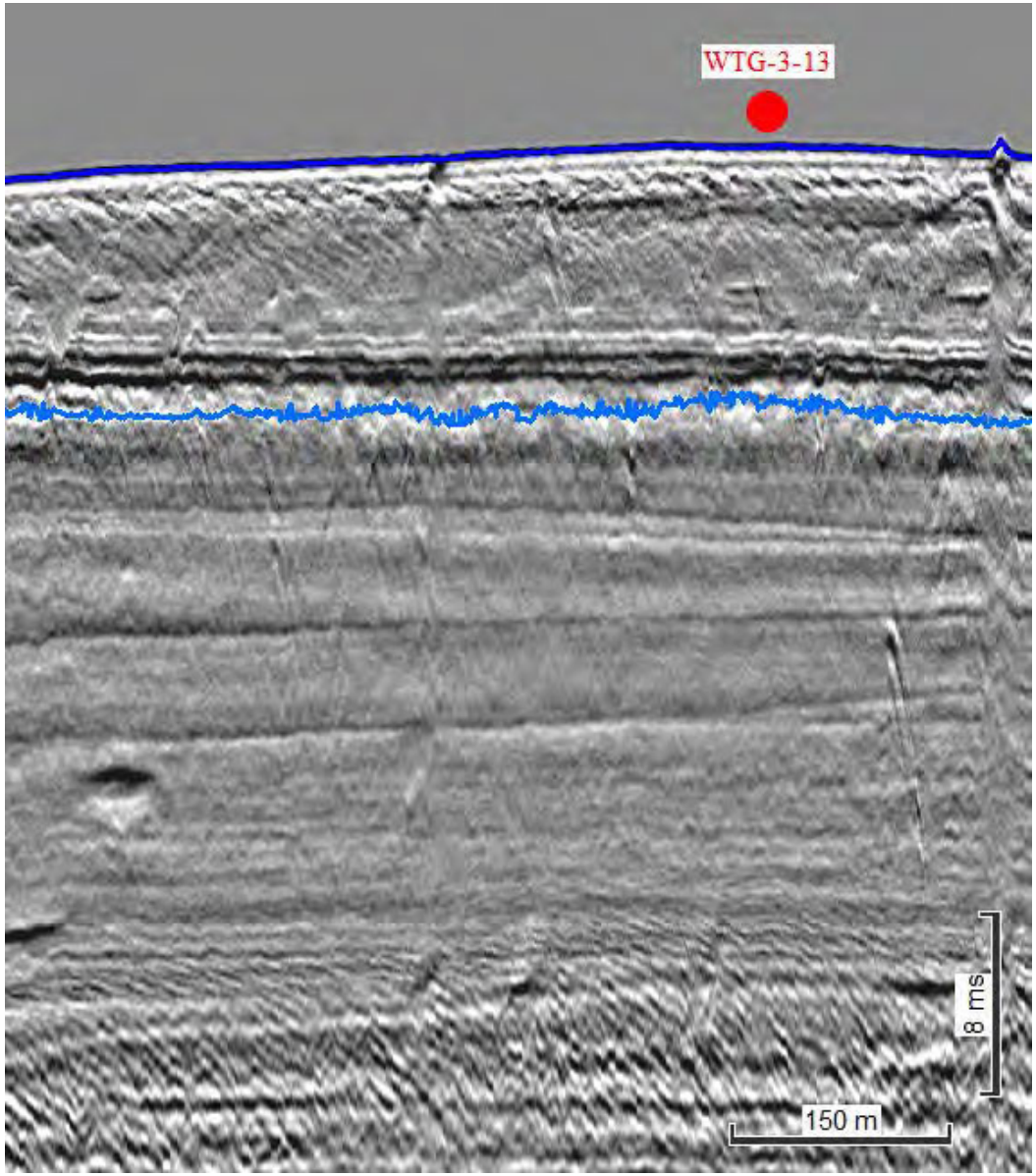


Figure 9-3: Proposed geotechnical location WTG-3-13 in Corridor 20 along line TLB44_FAST_MIG_PSDEMULl

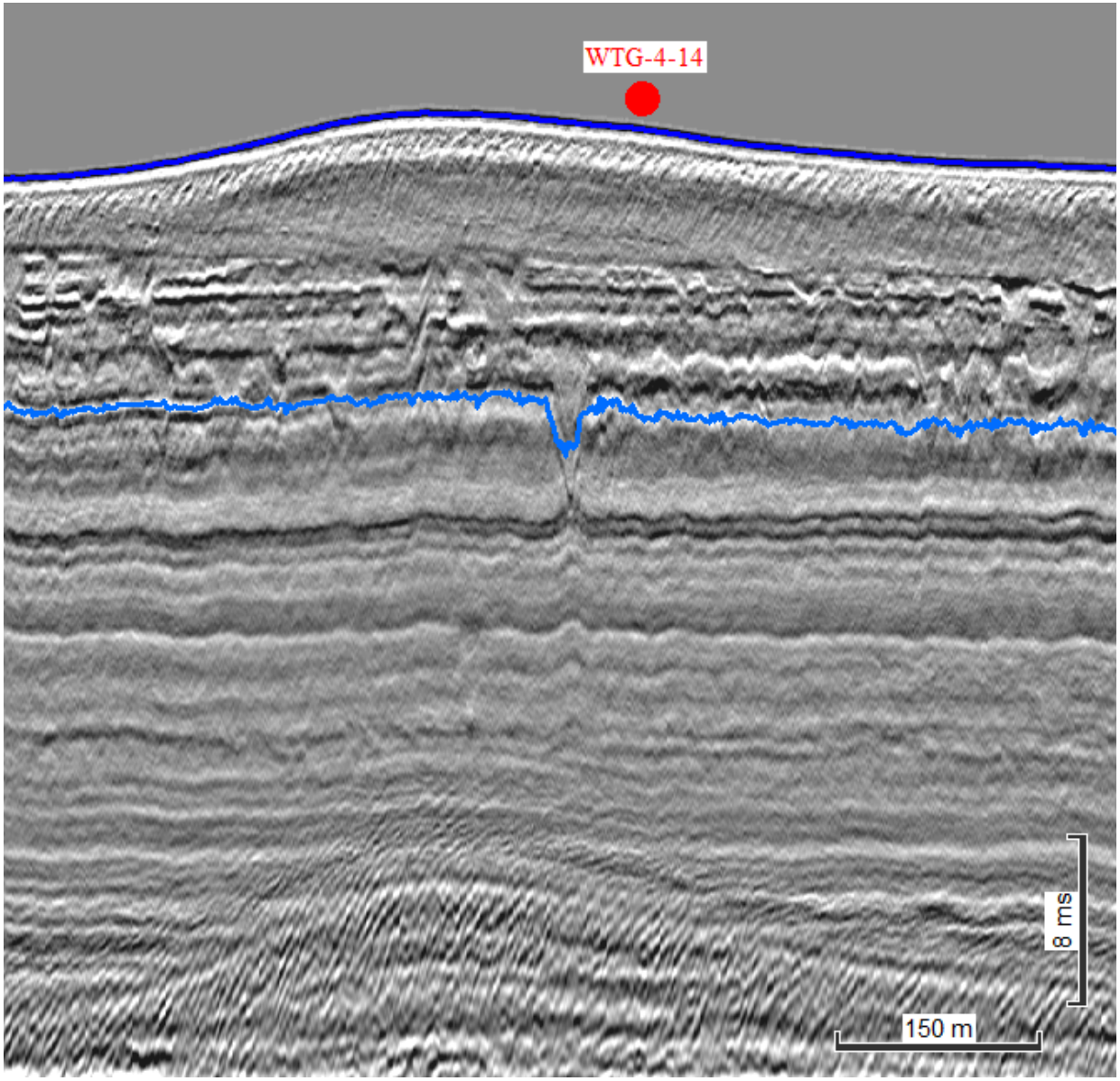


Figure 9-4: Proposed geotechnical location WTG-4-14 in Corridor 20 along line TLB50_01_FAST_MIG_PSDEMULl

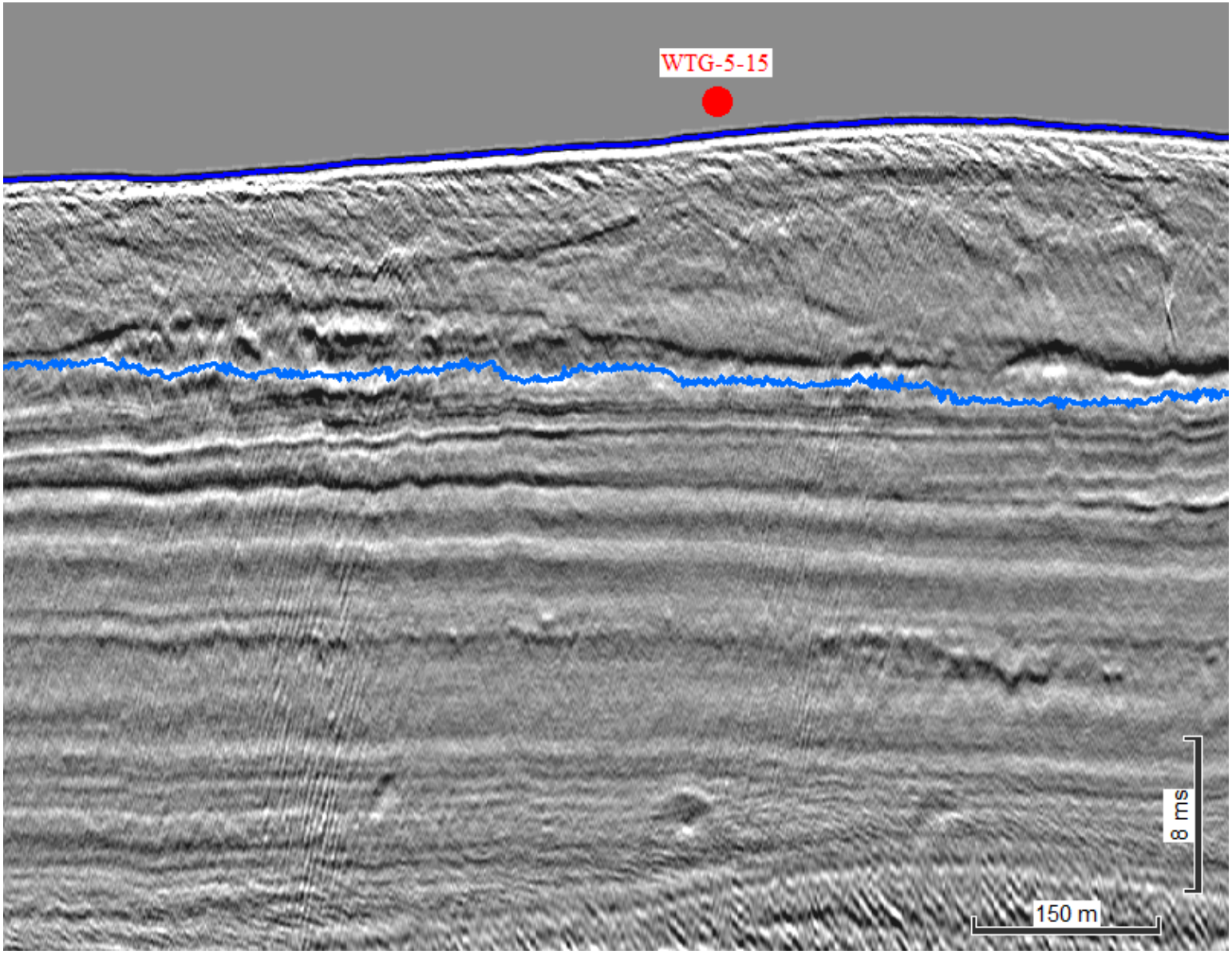


Figure 9-5: Proposed geotechnical location WTG-5-15 in Corridor 20 along line TLB56_FAST_MIG_PSDEMULl

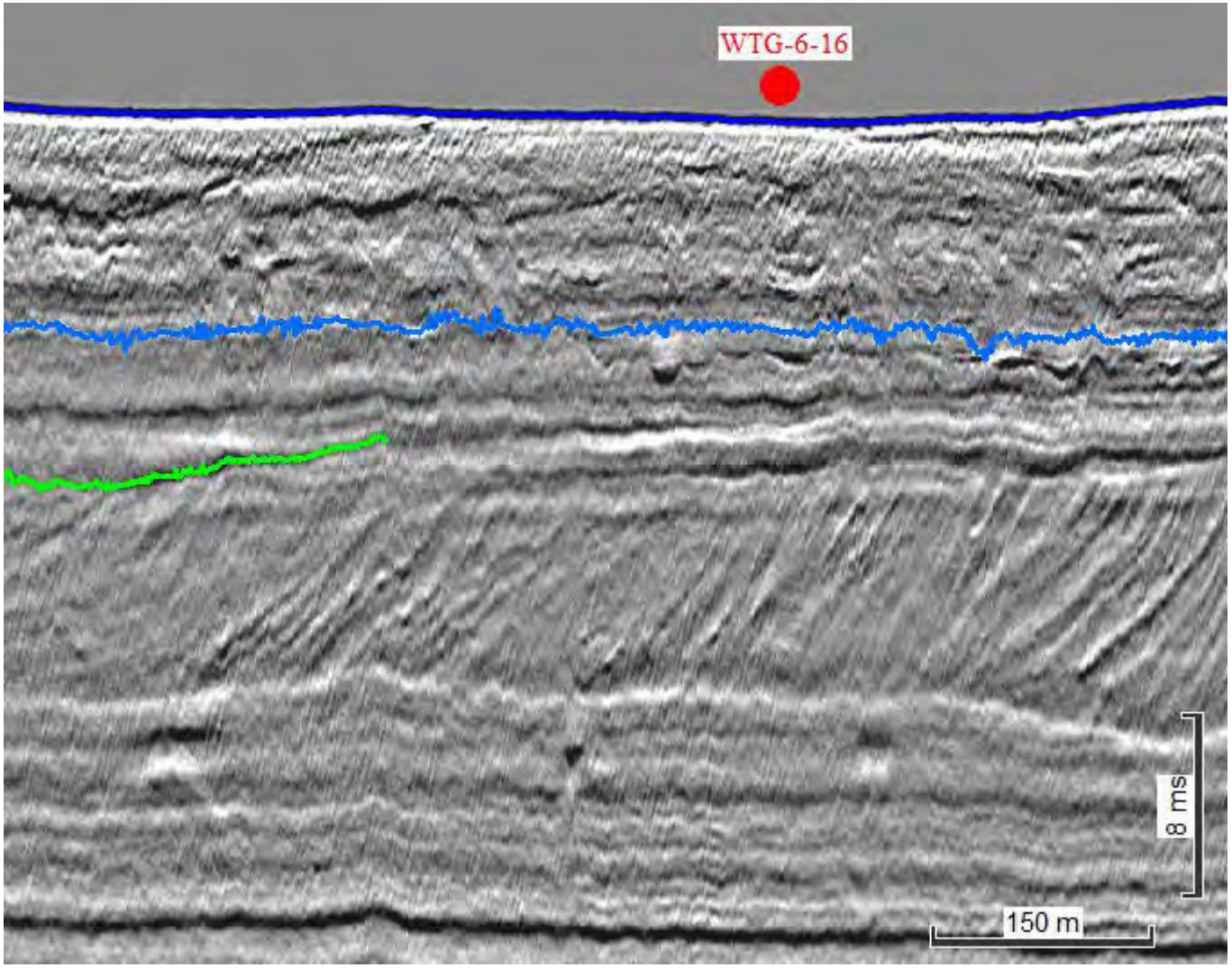


Figure 9-6: Proposed geotechnical location WTG-6-16 in Corridor 20 along line TLB62_01_FAST_MIG_PSDEMULl

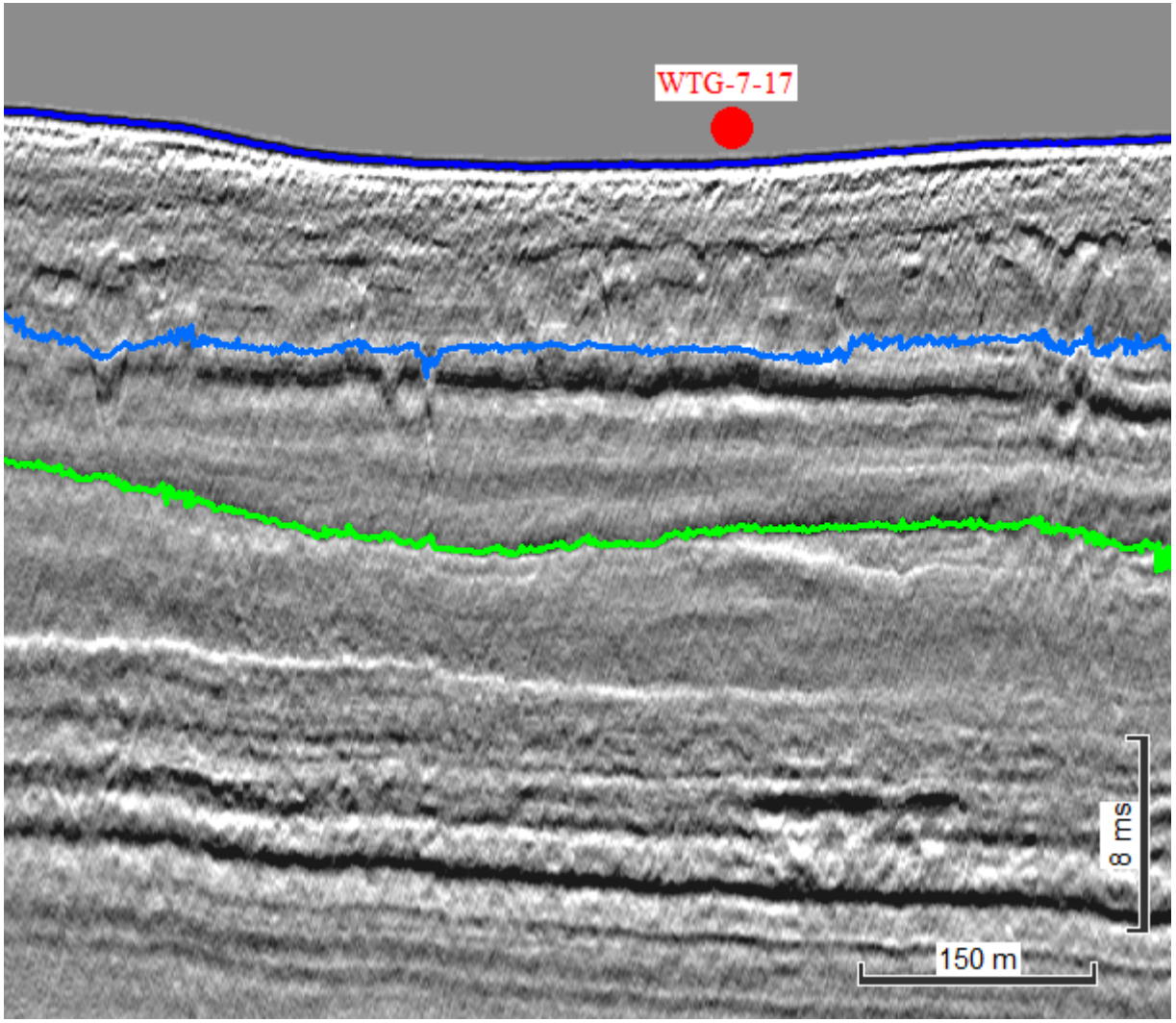


Figure 9-7: Proposed geotechnical location WTG-7-17 in Corridor 20 along line TLB68_01_FAST_MIG_PSDEMULl

APPENDIX 10
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 26

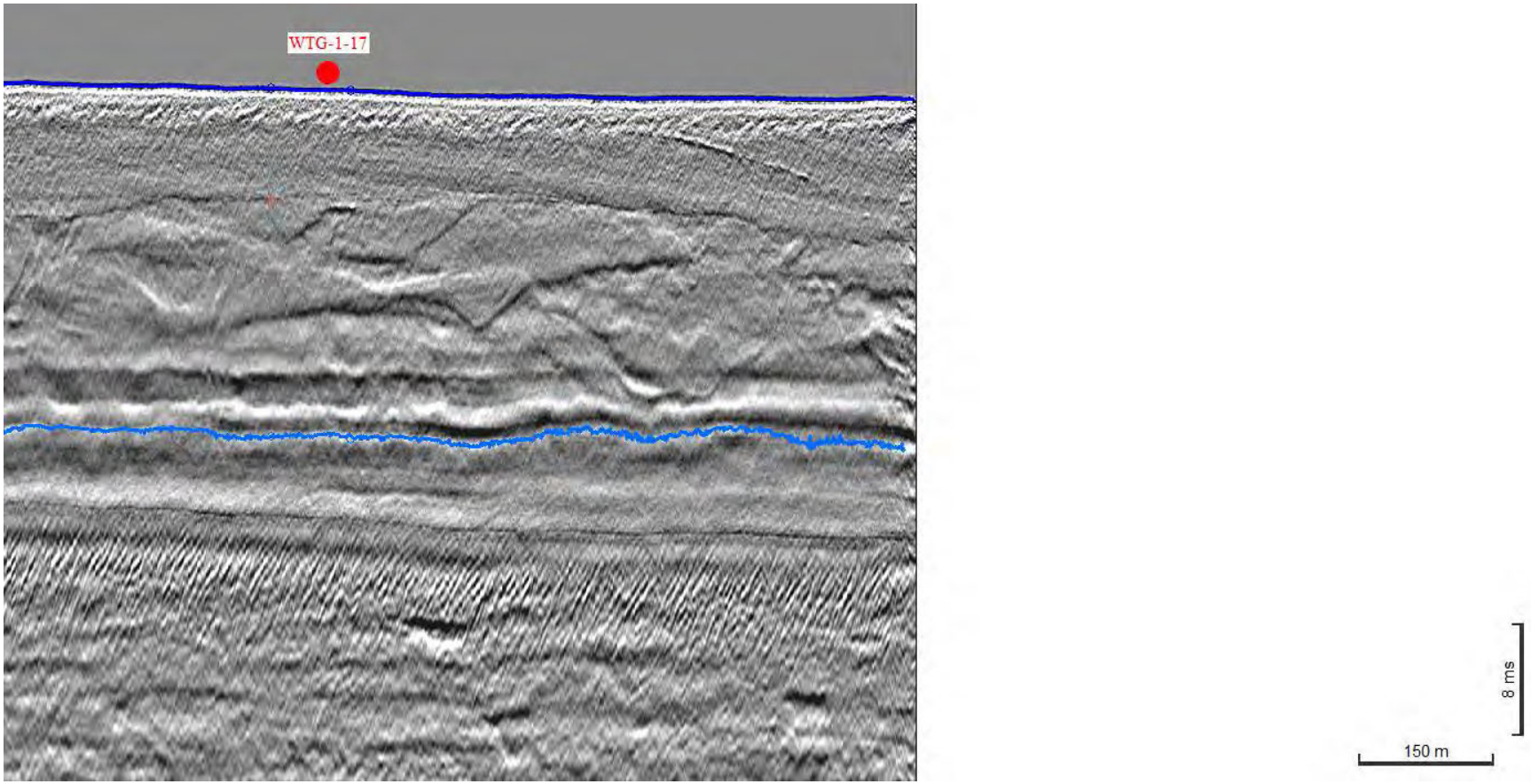


Figure 10-1: Proposed geotechnical location WTG-1-17 in Corridor 26 along line WTG26MCS16A_FAST_MIG

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

December 11, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations for Corridors 2, 8, 10, 14, 16, 18, and 22

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for Corridors 2, 8, 10, 14, 16, 18, and 22 within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations.

In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- One magnetic anomaly, with the potential to represent significant cultural resources, was identified within Corridor 2 within the analytical area associated with Wind Turbine Generator (WTG) location WTG-11-2. Based on the characteristics of the of the anomaly, the analytical area was extended and a 50-meter avoidance buffer was centered around the anomaly.
- No magnetic anomalies that represent significant cultural resources were identified within any of the other the analytical areas.
- Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,



Joshua J. Bennett
Vice President – Offshore Wind
Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Gibson
McNeilan and Assoc. - Tom McNeilan

December 4, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 02

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews four (4) of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the three (3) proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution (0.25 m [x, y] cell size), georeferenced mosaicked files (Appendix 1). No anthropogenic seafloor disturbances were noted within the analytical areas. No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). The residual grid contours revealed one high-amplitude (845.9 nT), dipolar anomaly, with a 28.3-m duration, identified within the analytical area of WTG-11-2. Based on the anomaly's characteristics, the analytical area was extended to 100m by 300m and a 50-m avoidance buffer was centered around the anomaly. Because WTG-11-2 is located within the avoidance buffer it will need to be relocated within the extended analytical area (Appendix 1). No other

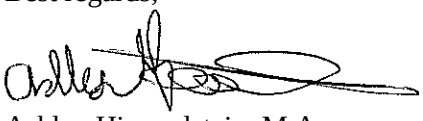
magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the subsurface ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), and adhere to the avoidance buffer on WTG-11-2, no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



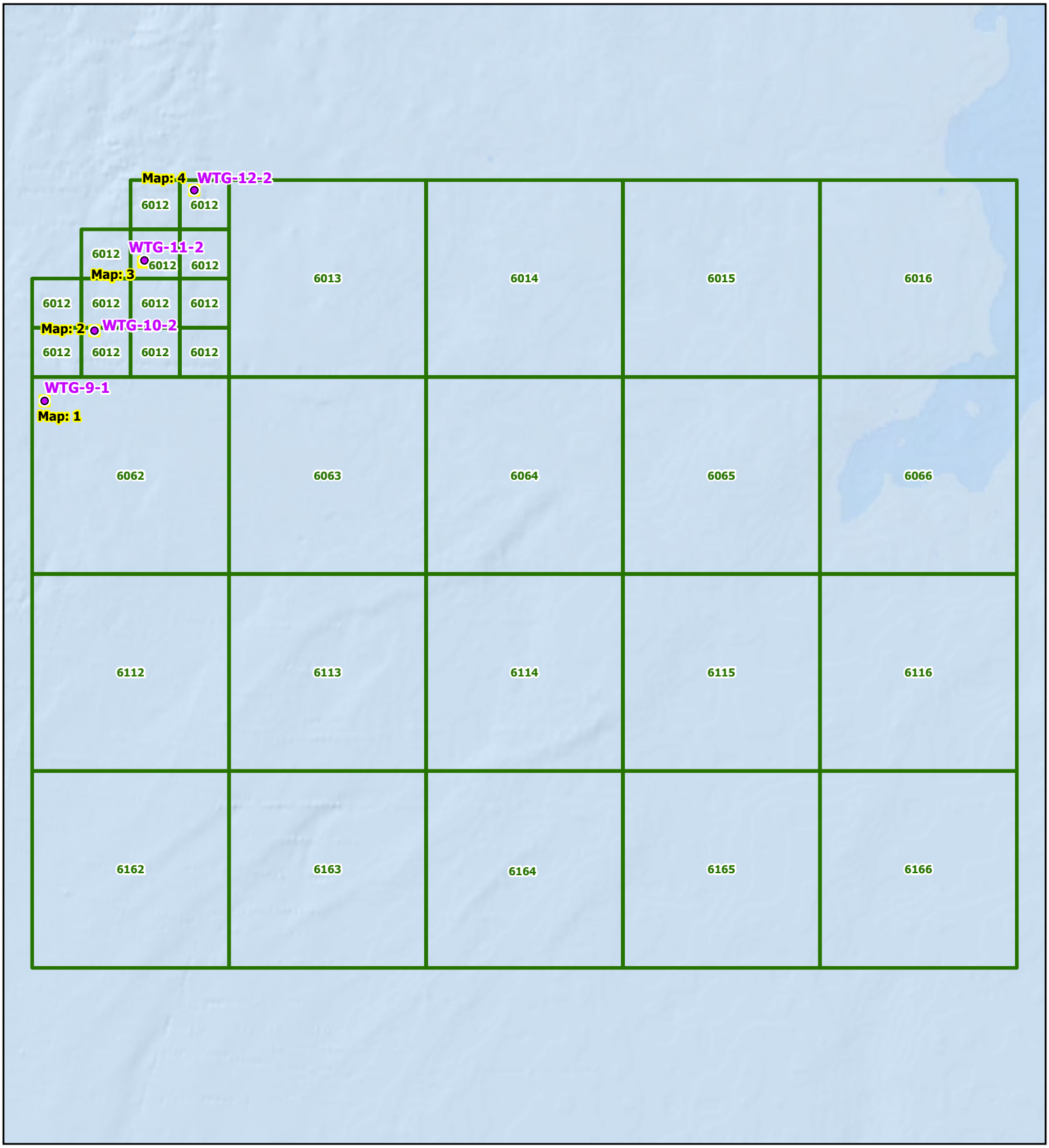
Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 02

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-9-1	457104.14	4089018.17	-75.48176678	36.9462578
WTG-10-2	458320.14	4090730.17	-75.46820471	36.96174473
WTG-11-2	459537.14	4092442.17	-75.45462593	36.97723014
WTG-12-2	460753.14	4094153.17	-75.44105284	36.99270495

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 02



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

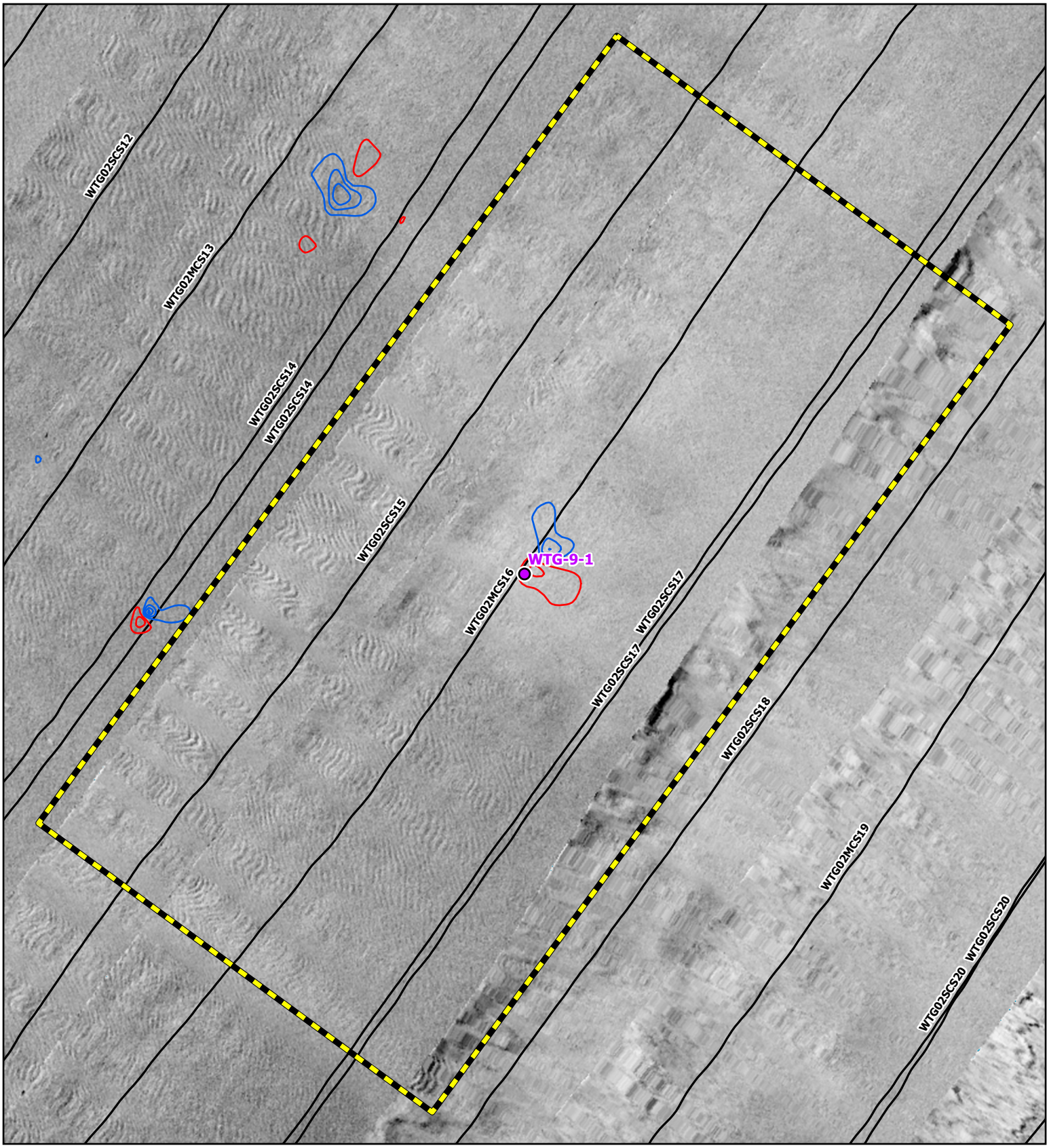
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 02

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
www.rcgoodwin.com | kmay, 12.3.2020



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Avoidance Area
- Analytical Area
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

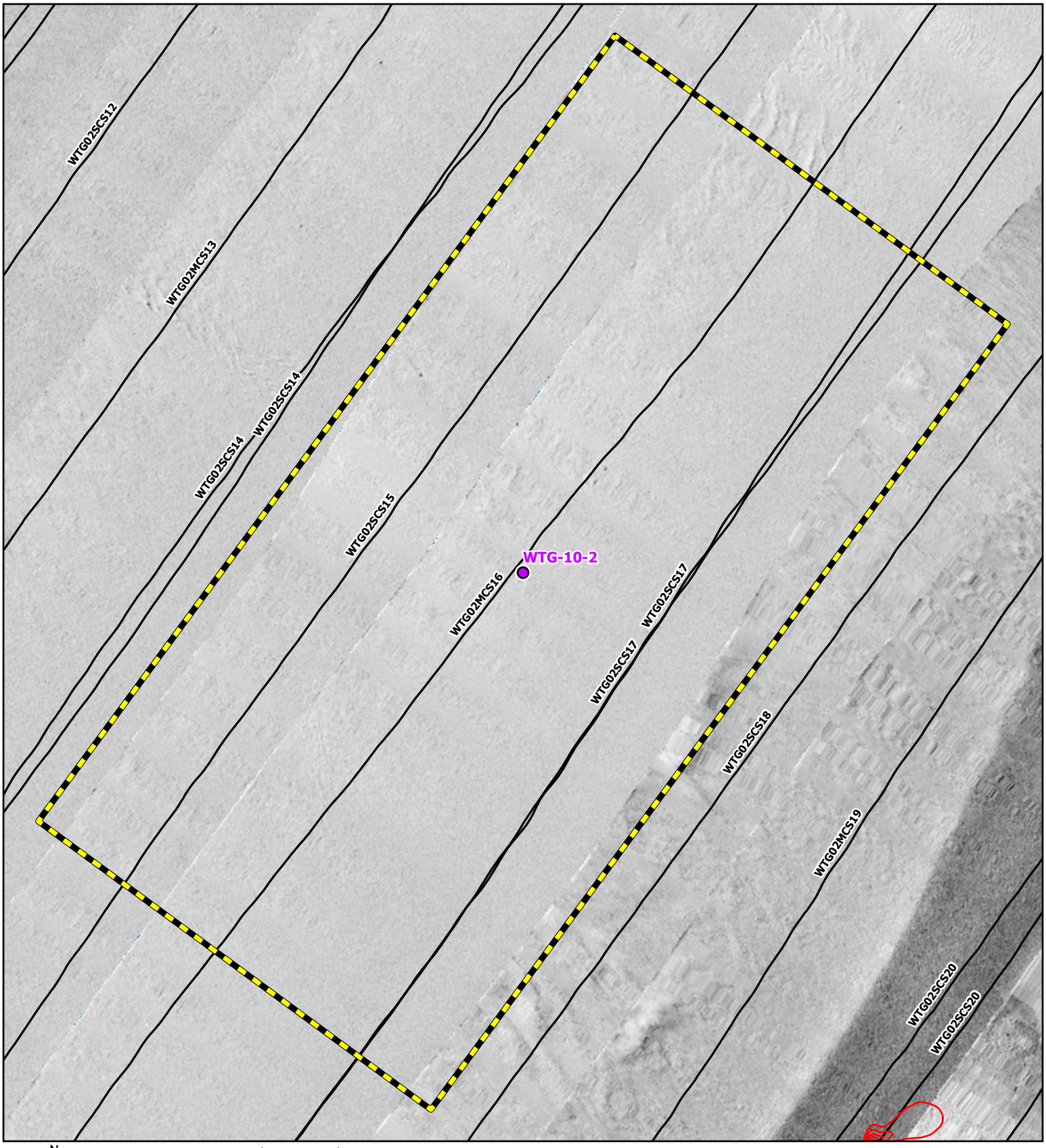
Geotechnical Clearance: Corridor 02

Map: 1

WTG-9-1

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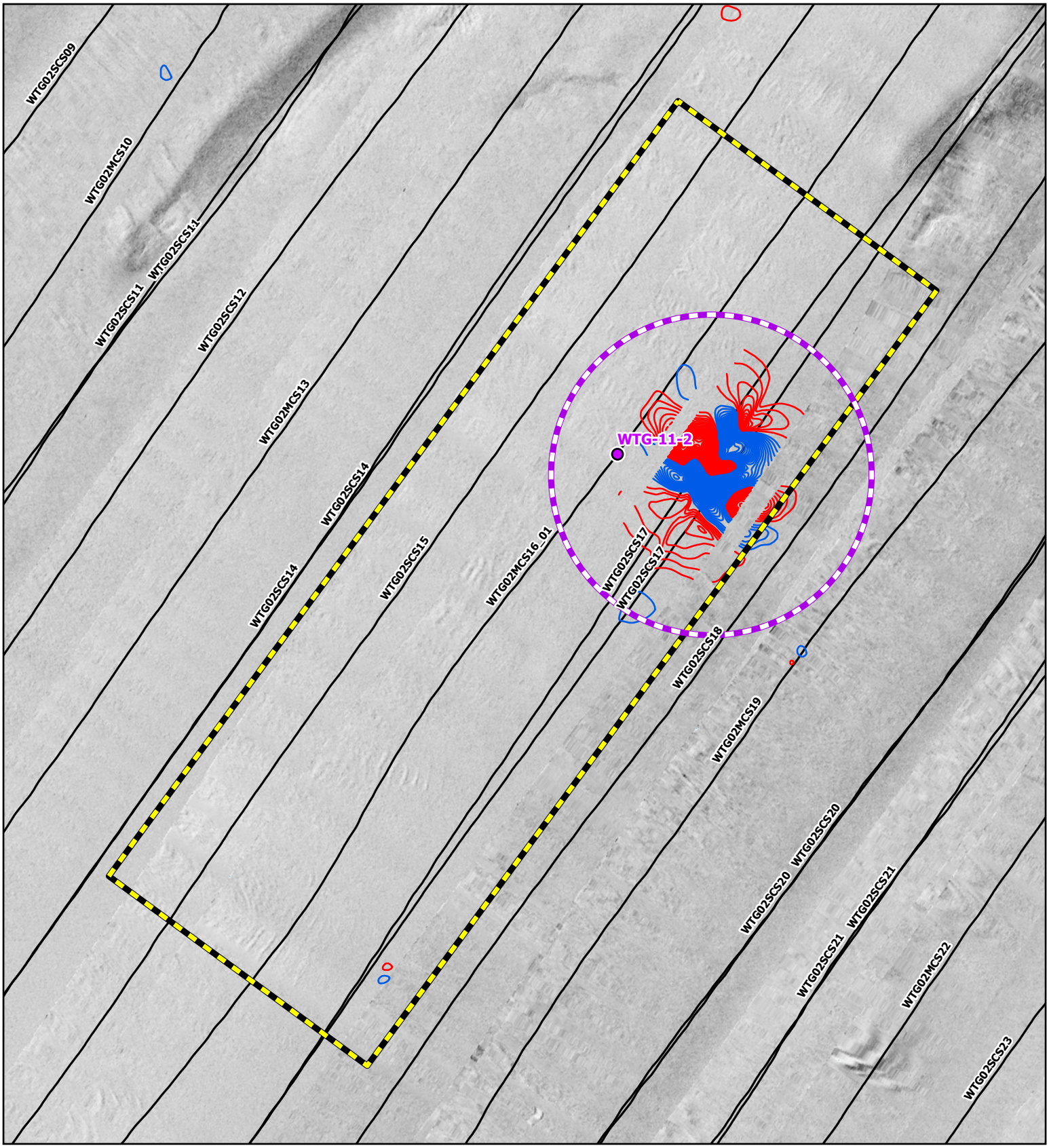
N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Avoidance Area
Analytical Area
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 02
Map: 2
WTG-10-2

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location
Avoidance Area
Analytical Area
Trackline
Magnetic Contour (5 nT)
Negative
Positive

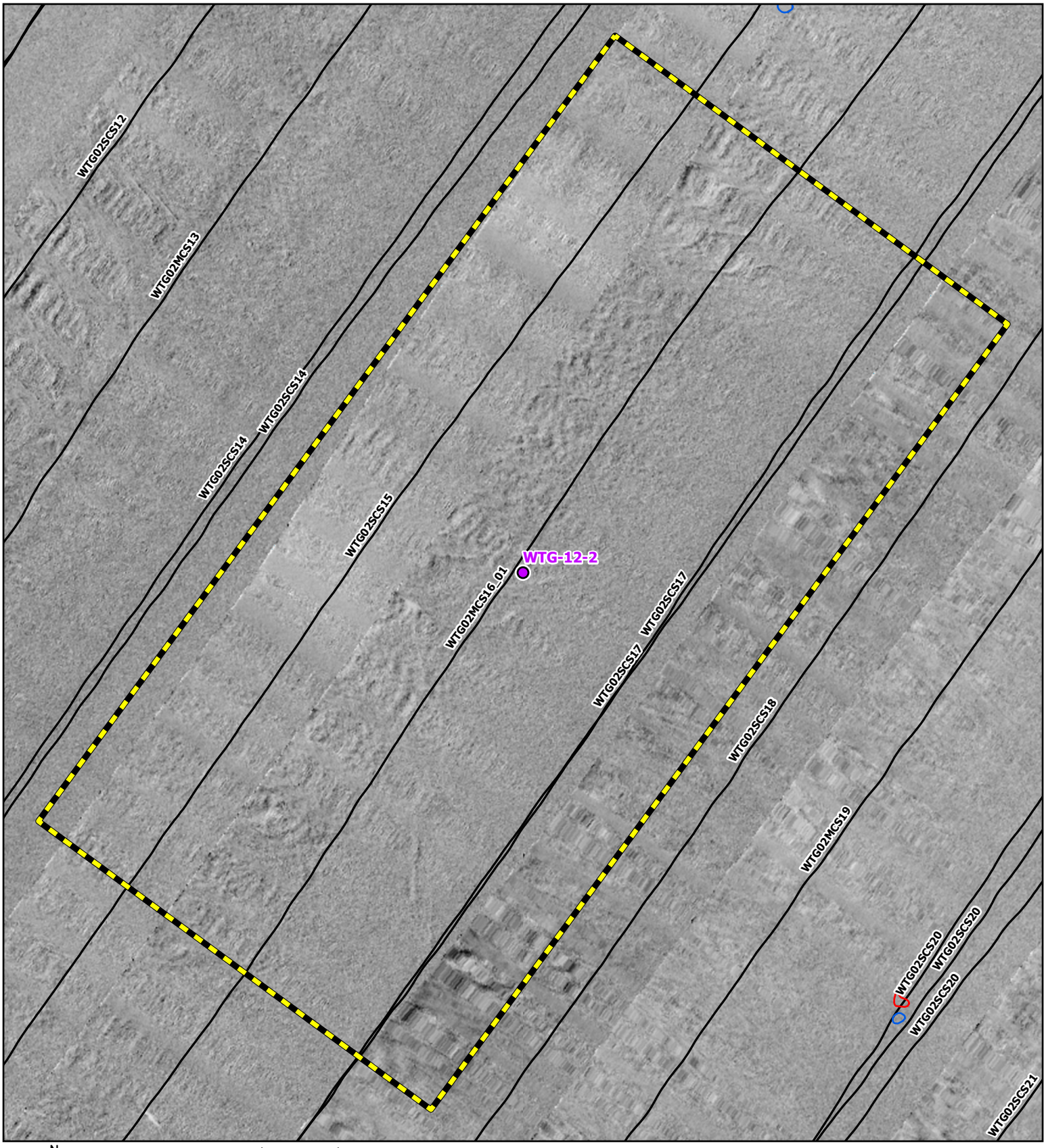
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 02

Map: 3

WTG-11-2

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Avoidance Area
- Analytical Area
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 02

Map: 4

WTG-12-2

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

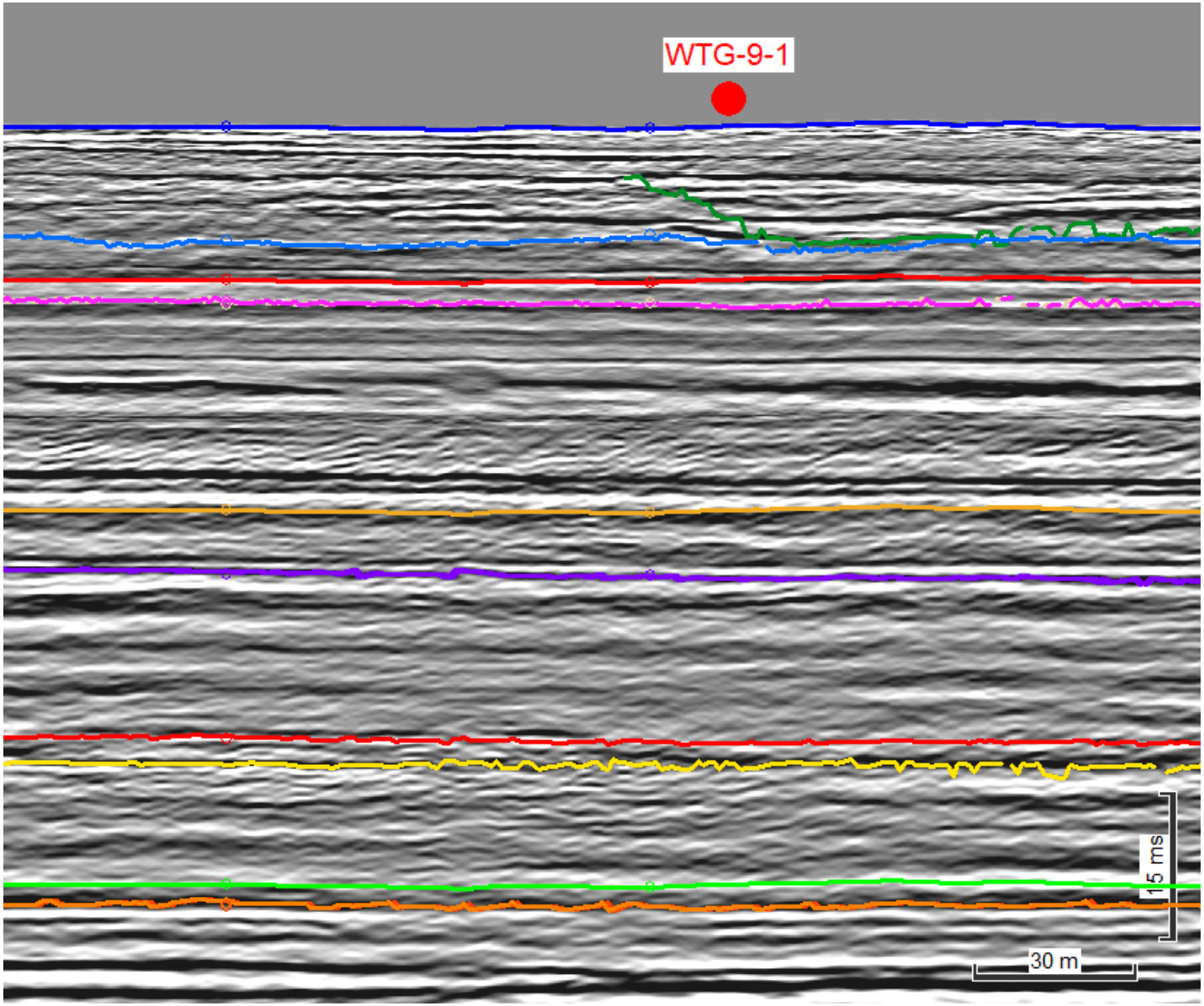


Figure 1: Proposed geotechnical location WTG-9-1 in Corridor 2 along line WTG02MCS16_FAST_MIG

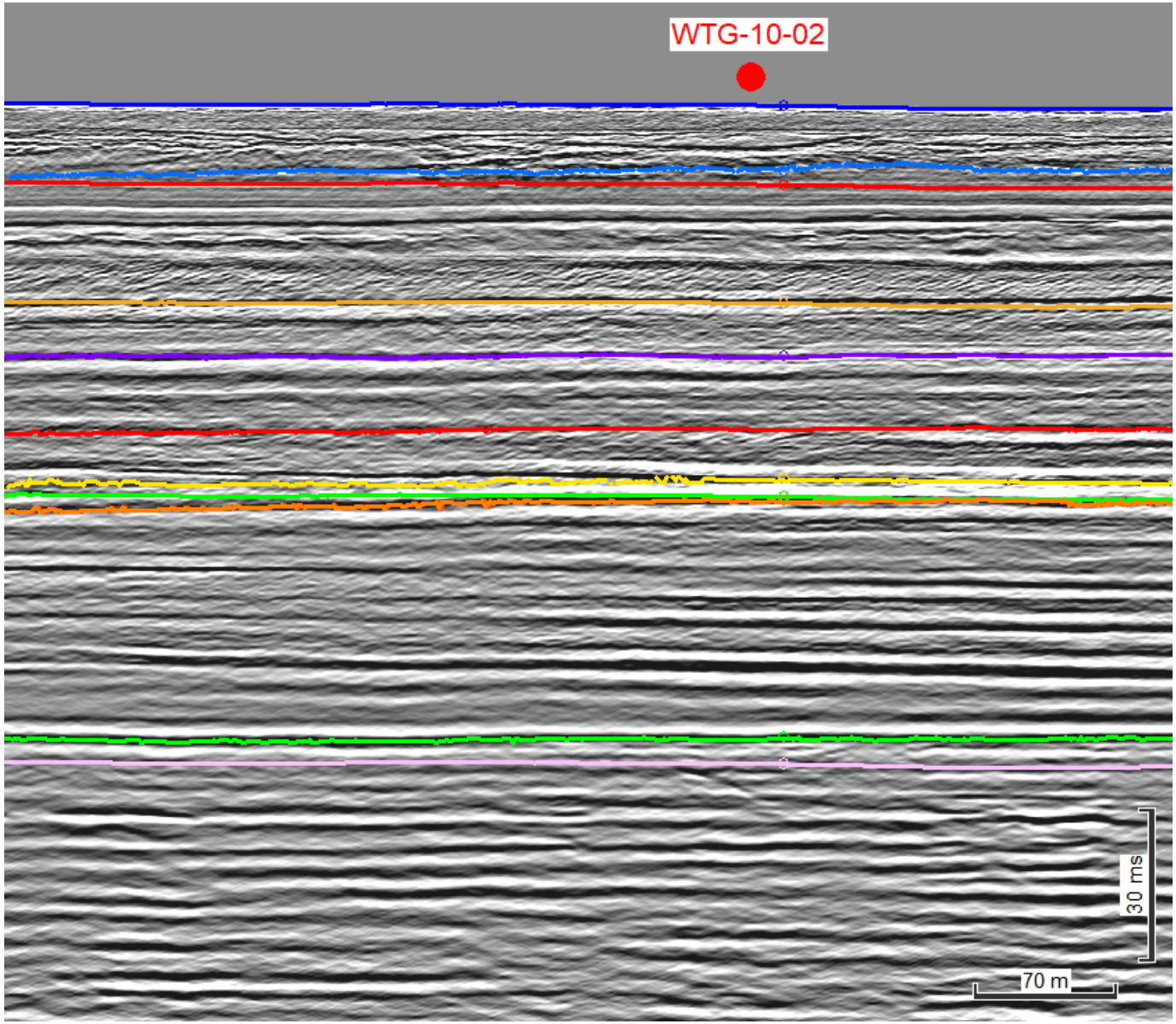


Figure 2: Proposed geotechnical location WTG-10-02 in Corridor 2 along line WTG02MCS16_FAST_MIG

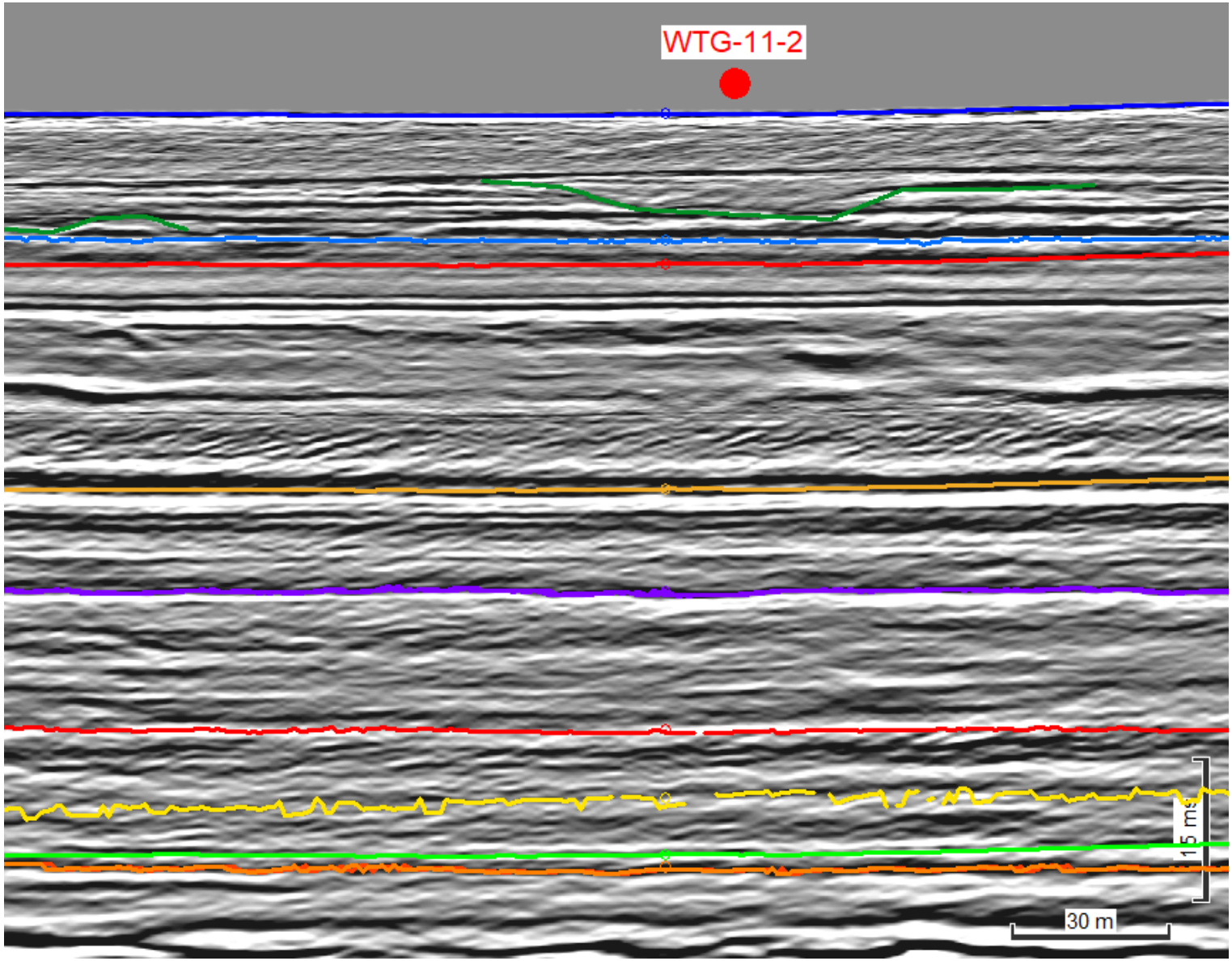


Figure 3: Proposed geotechnical location WTG-11-2 in Corridor 2 along line WTG02MCS16_01_FAST_MIG

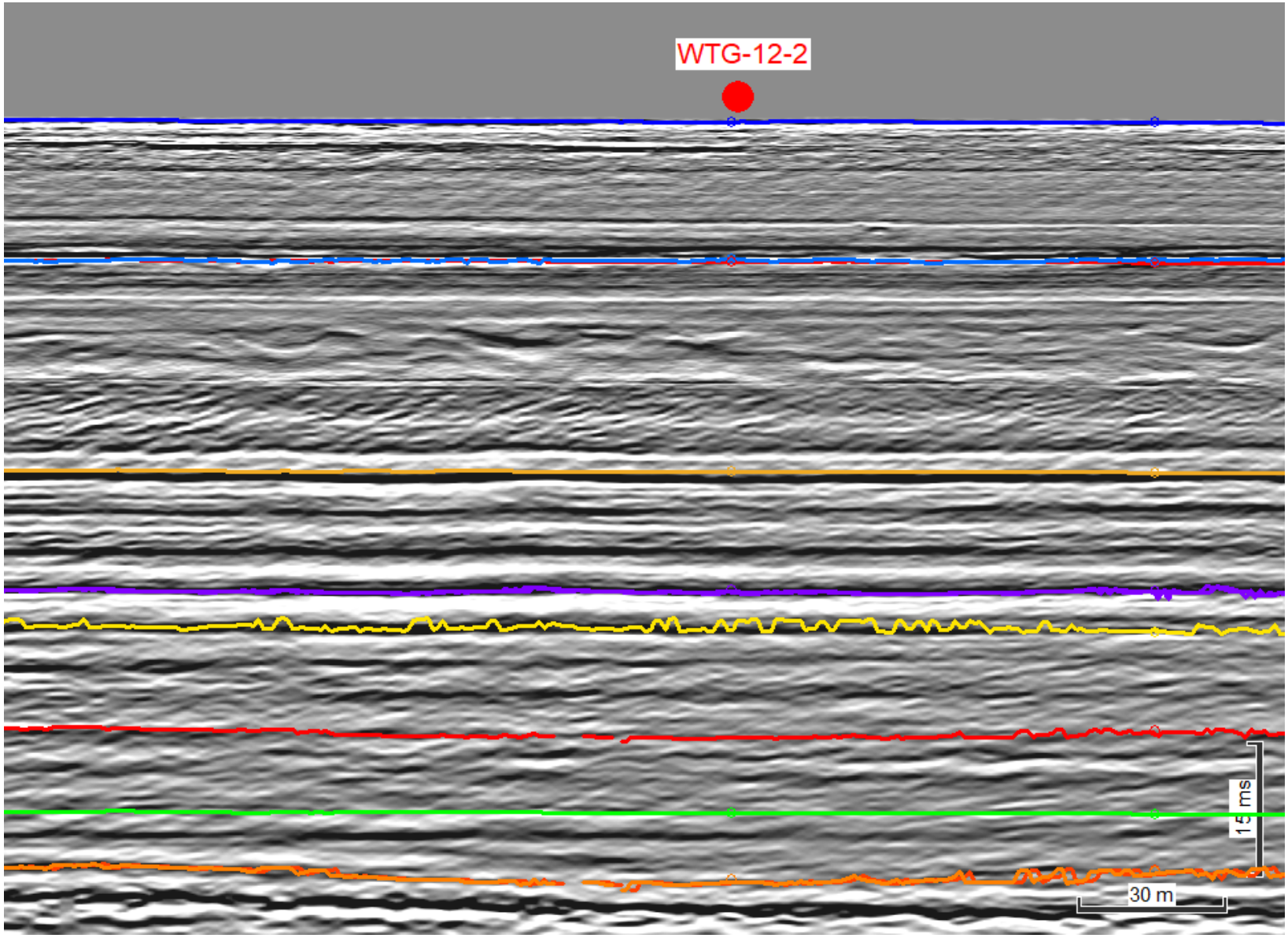


Figure 4: Proposed geotechnical location WTG-12-2 in Corridor 2 along line WTG02MCS16_01_FAST_MIG

November 27, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations, Corridor 8, Corridor 10, Corridor 14, Corridor 16, Corridor 18 and Corridor 22

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of deep borings and seabed Cone Penetrometer Tests; this memorandum reviews 60 of these locations for gathering geologic information (Tables 1, 2, 3, 4, 5, and 6). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a maximum depth of 100 meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 60 proposed geotechnical locations co-located at each proposed Wind Turbine Generator (WTG). The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution (0.25 m [x, y] cell size), georeferenced mosaicked files (Appendices 1, 2, 3, 4, 5 and 6). No anthropogenic seafloor disturbances were noted within the analytical areas. No sonar contacts that could represent potential cultural resources were identified within the analytical areas.

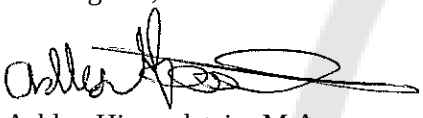
Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetometer altitude grid data, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendices 1, 2, 3, 4, 5 and 6). Magnetic contours (5-nanotesla increments) were observed within some analytical areas, but were determined not to be cultural resources due to low amplitudes, low durations and no corresponding side scan sonar contacts. No magnetic anomalies that could represent potential cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendices 7, 8, 9, 10, 11 and 12). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the subsurface ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1, 2, 3, 4, 5 and 6; Appendices 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1, 2, 3, 4, 5 and 6), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed WTG geotechnical locations for Corridor 8

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-3-1	458121.14	4078748.17	-75.46977734	36.85372694
WTG-4-2	459337.14	4080459.17	-75.45622895	36.86920362
WTG-5-3	460554.14	4082171.17	-75.44266393	36.88468782
WTG-6-4	461770.14	4083883.17	-75.42910468	36.90017042
WTG-7-5	462987.14	4085595.17	-75.41552874	36.9156515
WTG-8-6	464203.14	4087306.17	-75.4019585	36.93112198
WTG-9-7	465420.14	4089018.17	-75.38837161	36.94659995
WTG-10-8	466636.14	4090730.17	-75.37479047	36.96207632
WTG-12-4	469069.14	4094153.17	-75.34760045	36.99301539

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed WTG geotechnical locations for Corridor 10

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-1	458460.14	4075324.17	-75.46578752	36.82287667
WTG-2-2	459676.14	4077036.17	-75.45224374	36.83836196
WTG-3-3	460893.14	4078748.17	-75.43868331	36.85384575
WTG-4-4	462109.14	4080459.17	-75.42512858	36.86931894
WTG-5-5	463326.14	4082171.17	-75.41155724	36.88479962
WTG-6-6	464542.14	4083883.17	-75.39799165	36.90027871
WTG-7-7	465759.14	4085595.17	-75.38440937	36.91575628
WTG-8-8	466975.14	4087306.17	-75.37083279	36.93122324
WTG-9-9	468192.14	4089018.17	-75.35723956	36.94669768
WTG-10-10	469408.14	4090730.17	-75.34365207	36.96217052
WTG-11-5	470625.14	4092442.17	-75.33004786	36.97764183
WTG-12-6	471841.14	4094153.17	-75.31644935	36.99310252

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3. Proposed WTG geotechnical locations for Corridor 14

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-5	464004.14	4075324.17	-75.40362421	36.82310393
WTG-2-6	465220.14	4077036.17	-75.3900678	36.83858222
WTG-3-7	466437.14	4078748.17	-75.37649472	36.85405899
WTG-4-8	467653.14	4080459.17	-75.36292736	36.86952515
WTG-5-9	468870.14	4082171.17	-75.34934336	36.8849988
WTG-6-10	470086.14	4083883.17	-75.33576512	36.90047085
WTG-7-11	471303.14	4085595.17	-75.32217017	36.91594137
WTG-8-12	472519.14	4087306.17	-75.30858094	36.93140128
WTG-9-13	473736.14	4089018.17	-75.29497503	36.94686865
WTG-10-14	474952.14	4090730.17	-75.28137487	36.96233443
WTG-11-9	476169.14	4092442.17	-75.26775798	36.97779865
WTG-12-10	477385.14	4094153.17	-75.25414679	36.99325226

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 4: Proposed WTG geotechnical locations for Corridor 16

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-7	466776.14	4075324.17	-75.37254231	36.82320537
WTG-2-8	467992.14	4077036.17	-75.35897959	36.83868015
WTG-3-9	469209.14	4078748.17	-75.3454002	36.85415341
WTG-4-10	470425.14	4080459.17	-75.33182653	36.86961605
WTG-5-11	471642.14	4082171.17	-75.31823621	36.88508618
WTG-6-12	472858.14	4083883.17	-75.30465164	36.90055471
WTG-7-13	474075.14	4085595.17	-75.29105038	36.91602169
WTG-8-14	475291.14	4087306.17	-75.27745482	36.93147806
WTG-9-15	476508.14	4089018.17	-75.26384259	36.9469419
WTG-10-16	477724.14	4090730.17	-75.25023609	36.96240413
Spare WTG-11-11	478941.14	4092442.17	-75.23661287	36.97786481
Spare WTG-12-12	480157.14	4094153.17	-75.22299535	36.99331486

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 5: Proposed WTG geotechnical locations for Corridor 18

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-9	469548.14	4075324.17	-75.34146026	36.82329869
WTG-2-10	470764.14	4077036.17	-75.32789124	36.83876996
WTG-3-11	471981.14	4078748.17	-75.31430554	36.85423969
WTG-4-12	473197.14	4080459.17	-75.30072556	36.86969881
WTG-5-13	474414.14	4082171.17	-75.28712893	36.88516541
WTG-6-14	475630.14	4083883.17	-75.27353805	36.90063041
WTG-7-15	476847.14	4085595.17	-75.25993046	36.91609386
WTG-8-16	478063.14	4087306.17	-75.24632859	36.93154669
Spare WTG-9-17	479280.14	4089018.17	-75.23271003	36.94700698
Spare WTG-10-18	480496.14	4090730.17	-75.21909721	36.96246567

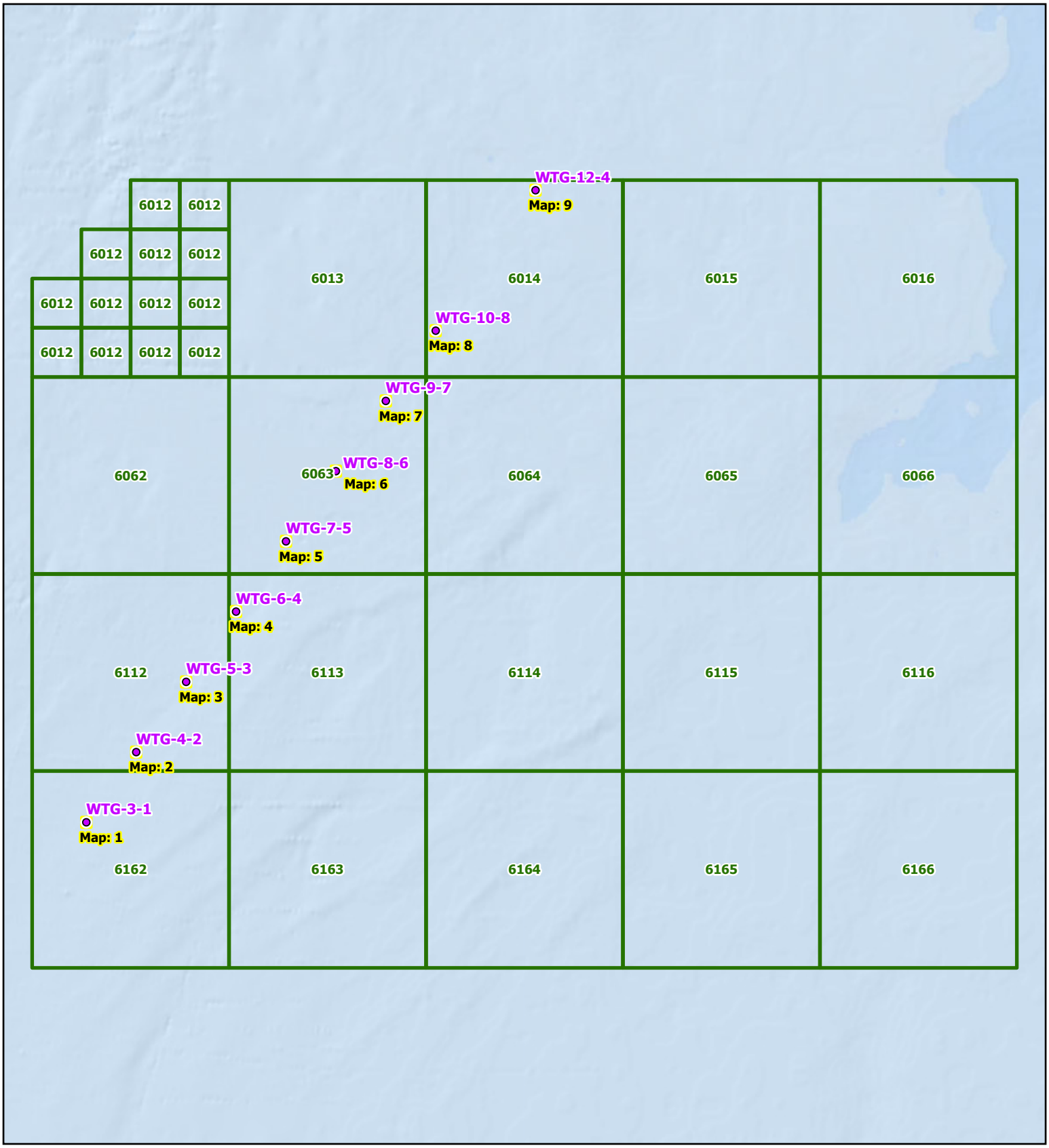
[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 6: Proposed WTG geotechnical locations for Corridor 22

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG-1-13	475092.14	4075324.17	-75.27929576	36.82346096
WTG-2-14	476308.14	4077036.17	-75.26571414	36.83892518
WTG-3-15	477525.14	4078748.17	-75.25211584	36.85438786
WTG-4-16	478741.14	4080459.17	-75.23852327	36.86983993
WTG-5-17	479958.14	4082171.17	-75.22491403	36.88529945

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 8



N
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WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

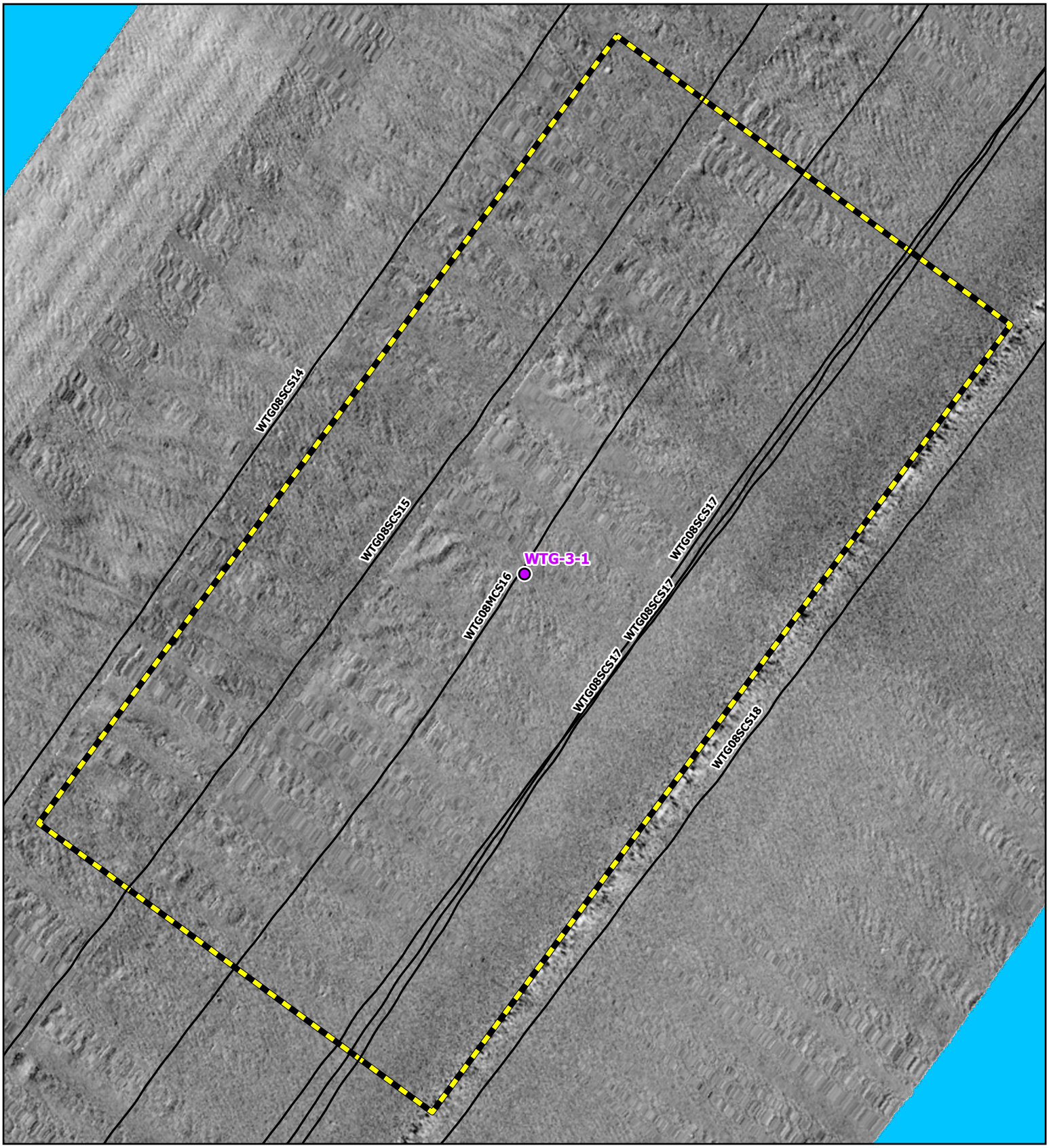
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 08

Index Map

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

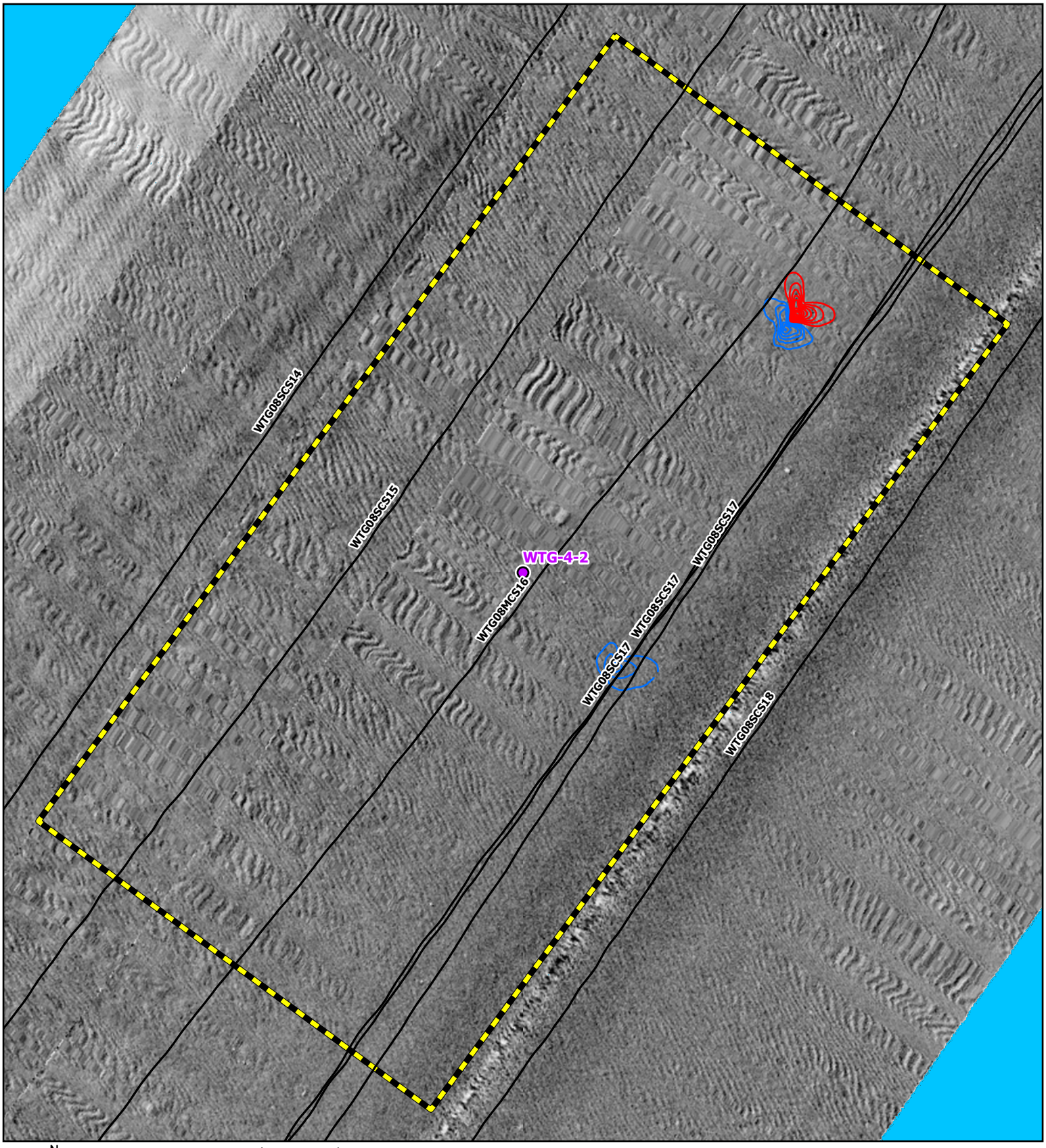
Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 08

Map: 1
WTG-3-1

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Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet
0 10 20 30 40
Meters

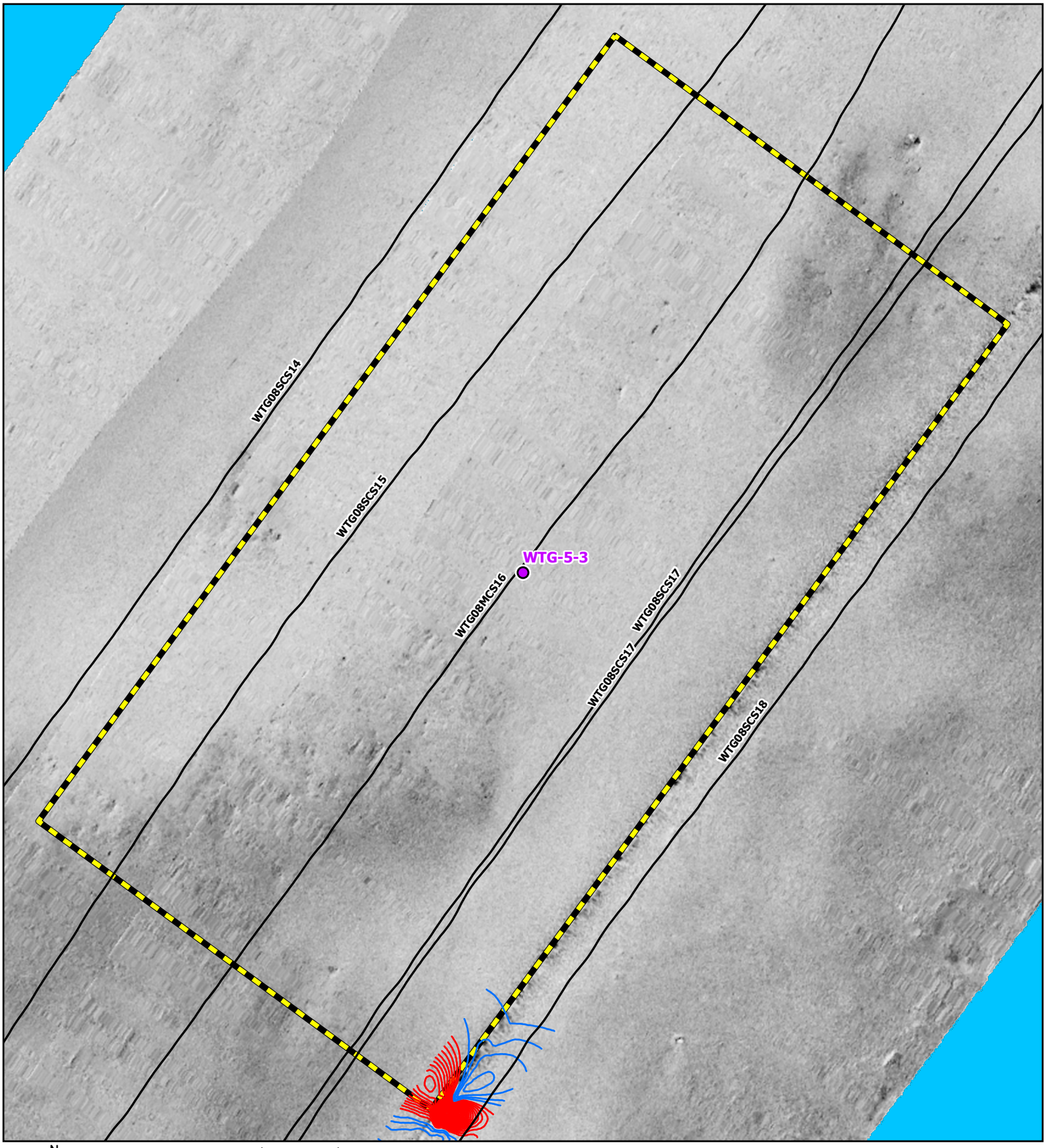
Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 08

Map: 2
WTG-4-2

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 08

Map: 3

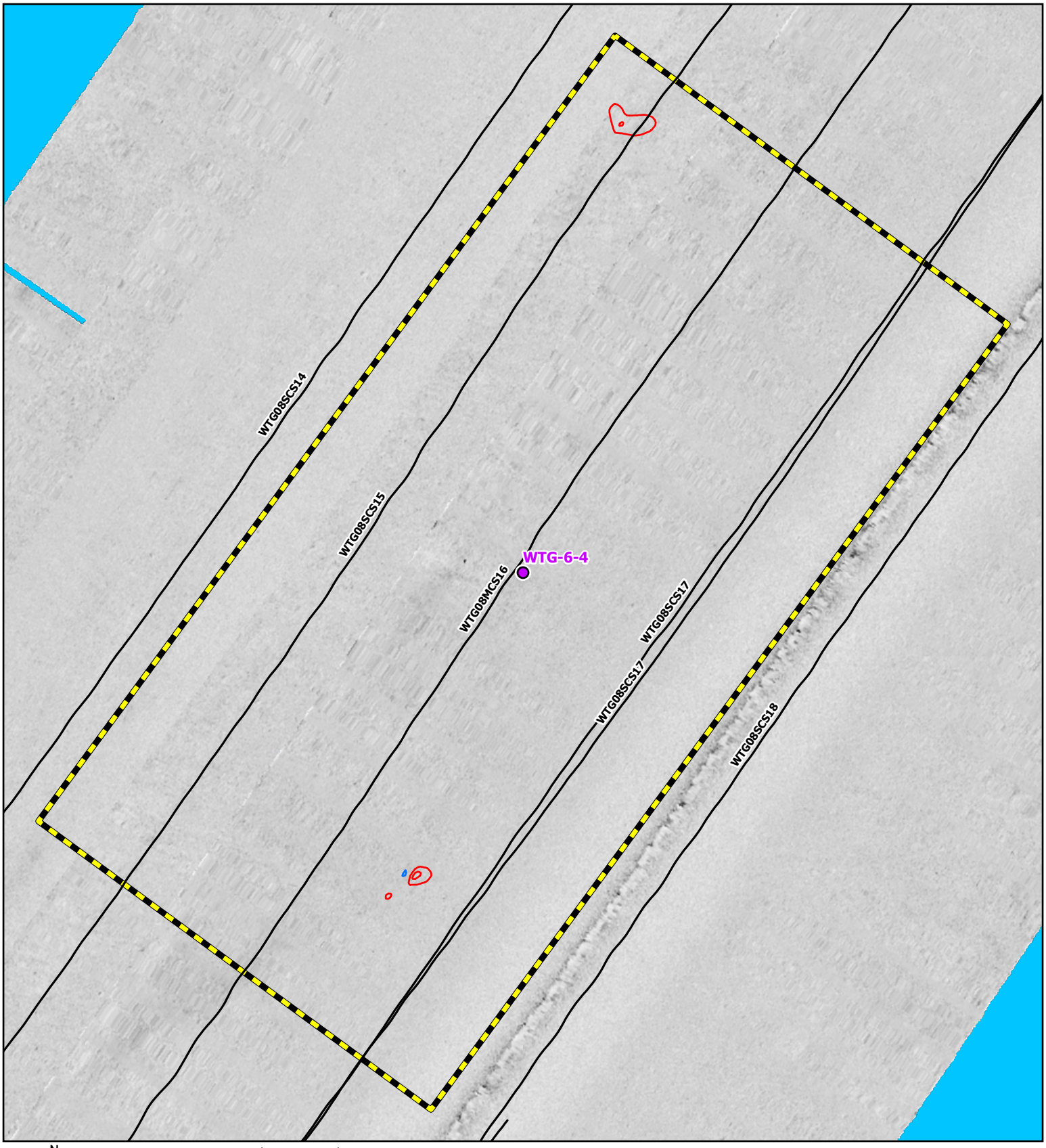
WTG-5-3

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 08

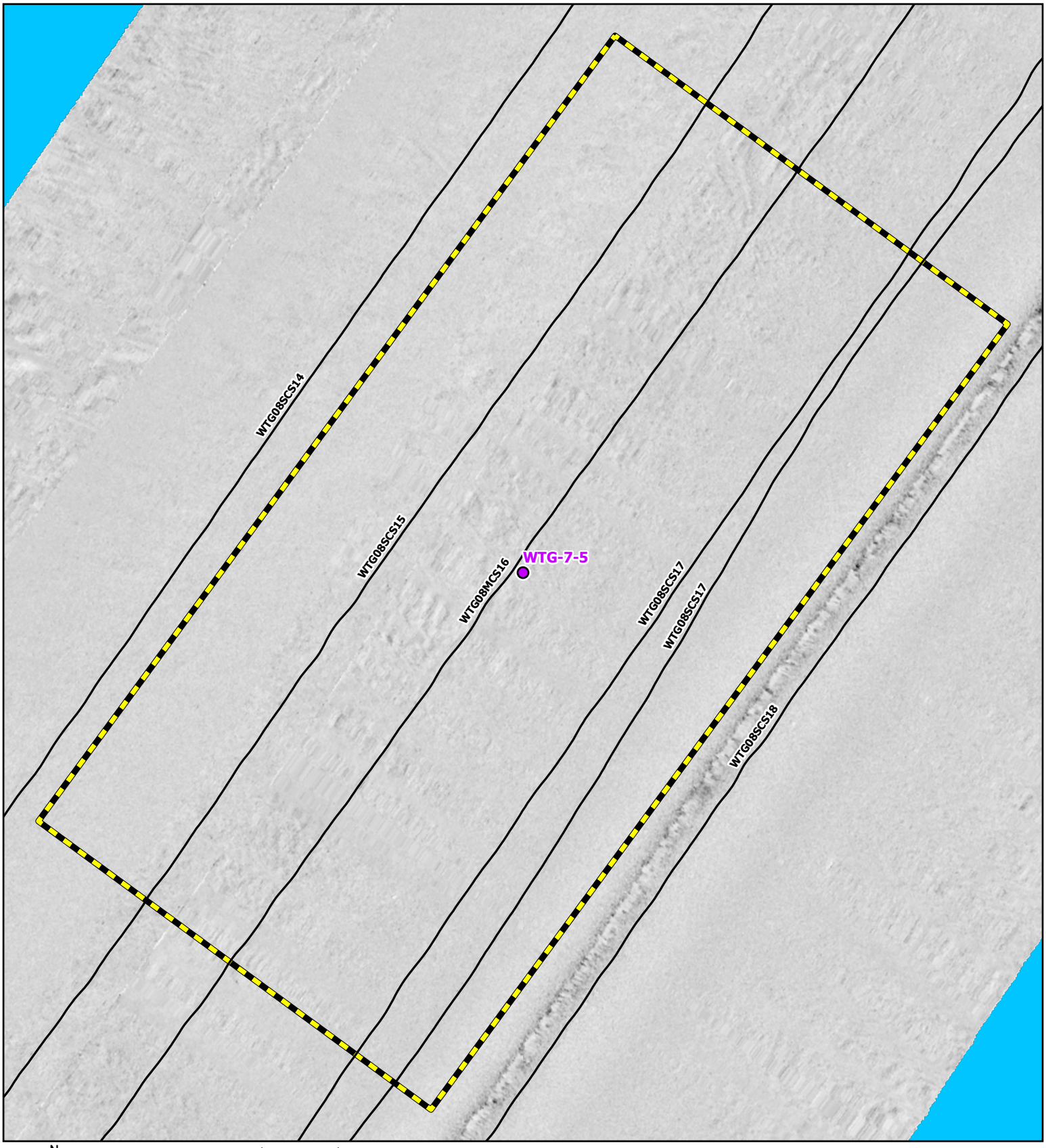
Map: 4

WTG-6-4

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 08

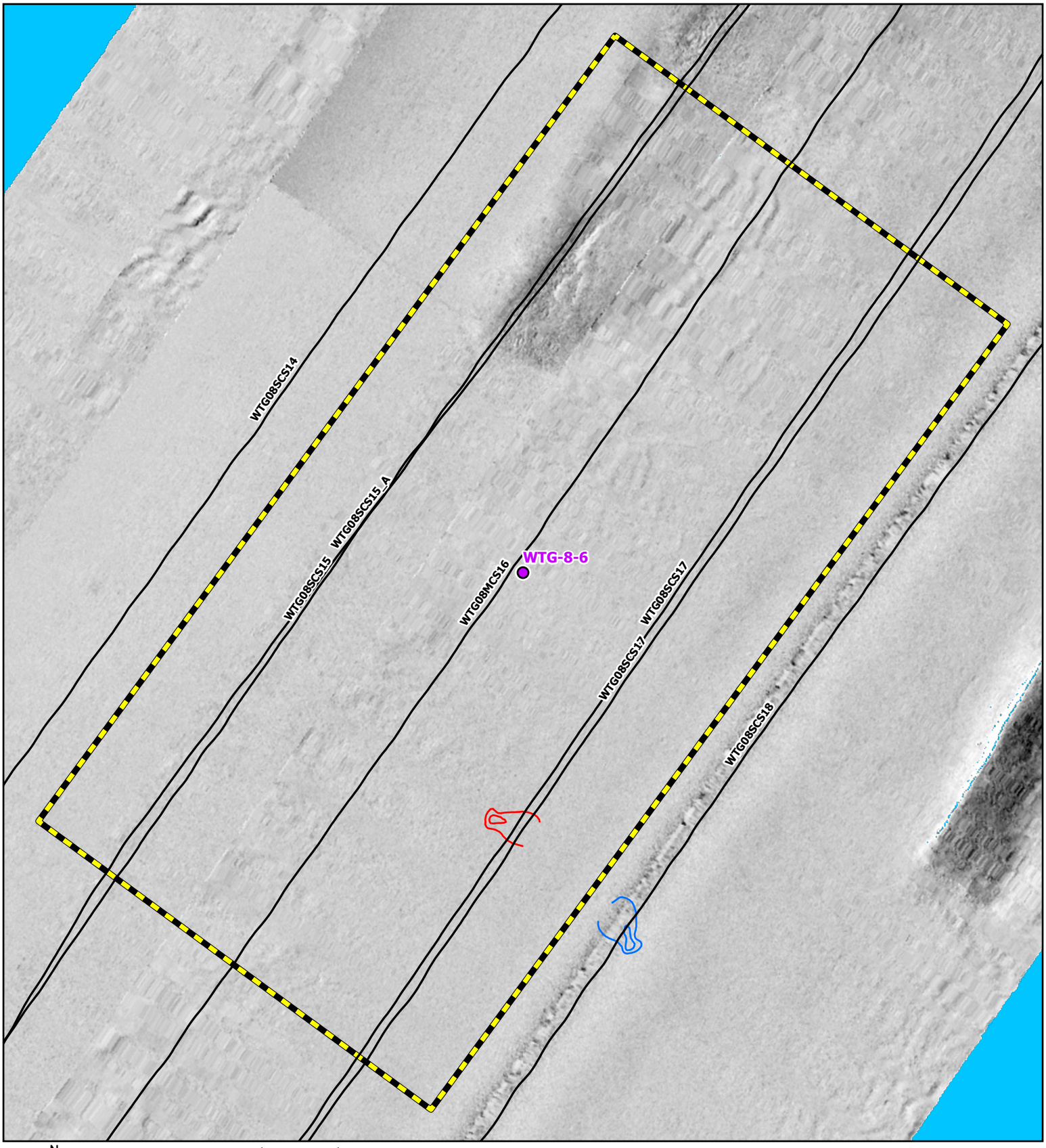
Map: 5

WTG-7-5

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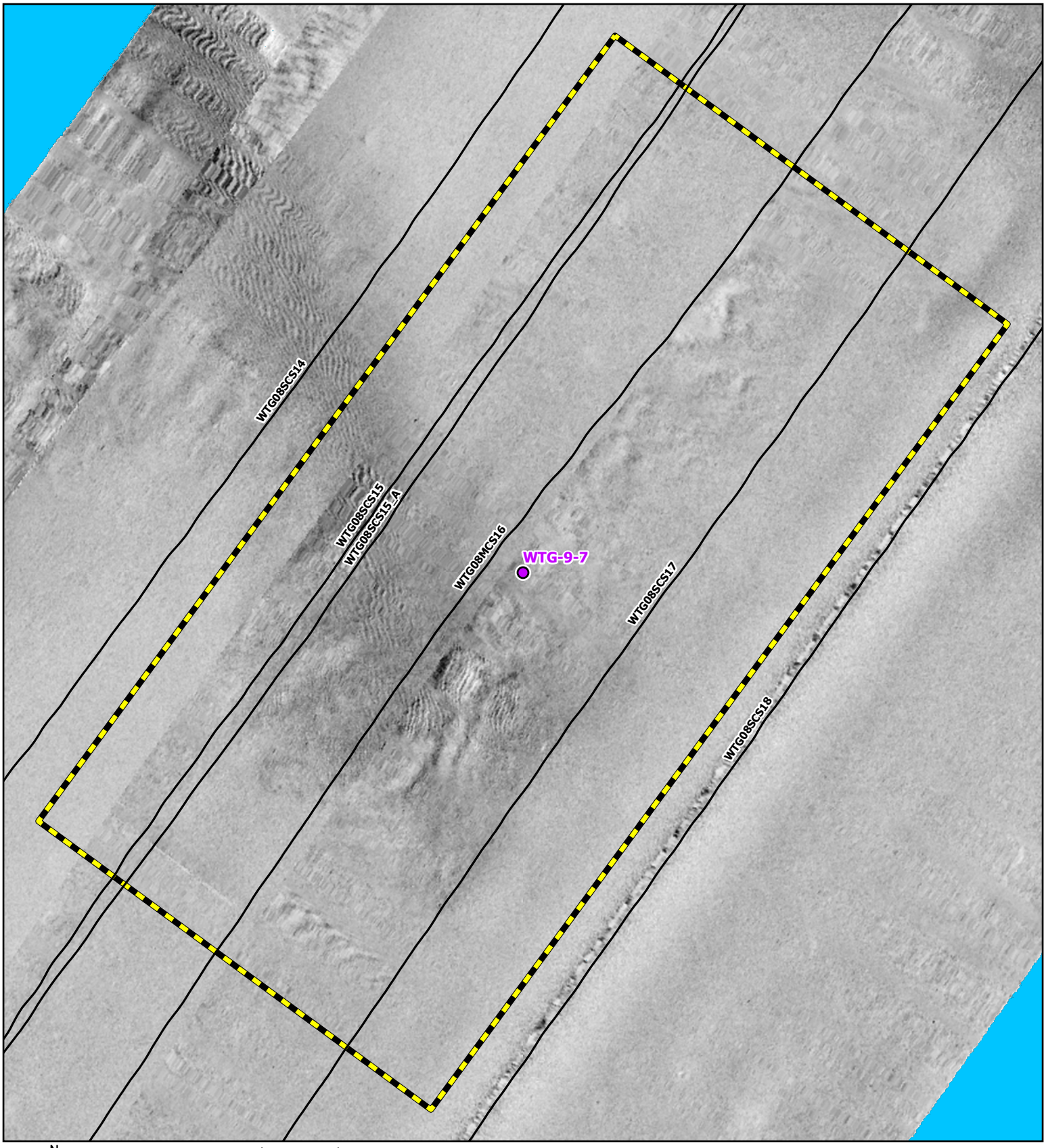
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 08
Map: 6
WTG-8-6

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 08

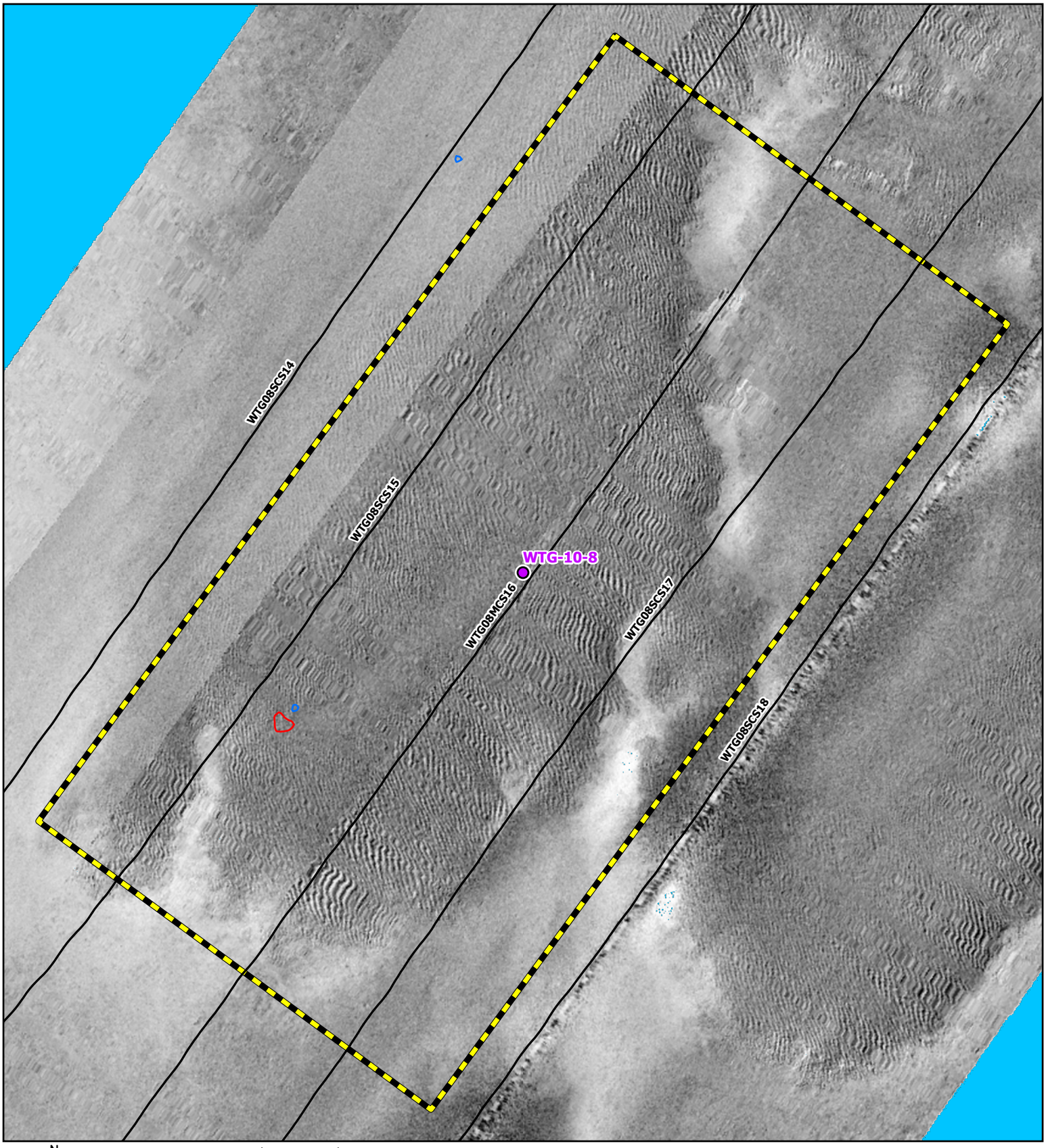
Map: 7

WTG-9-7

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

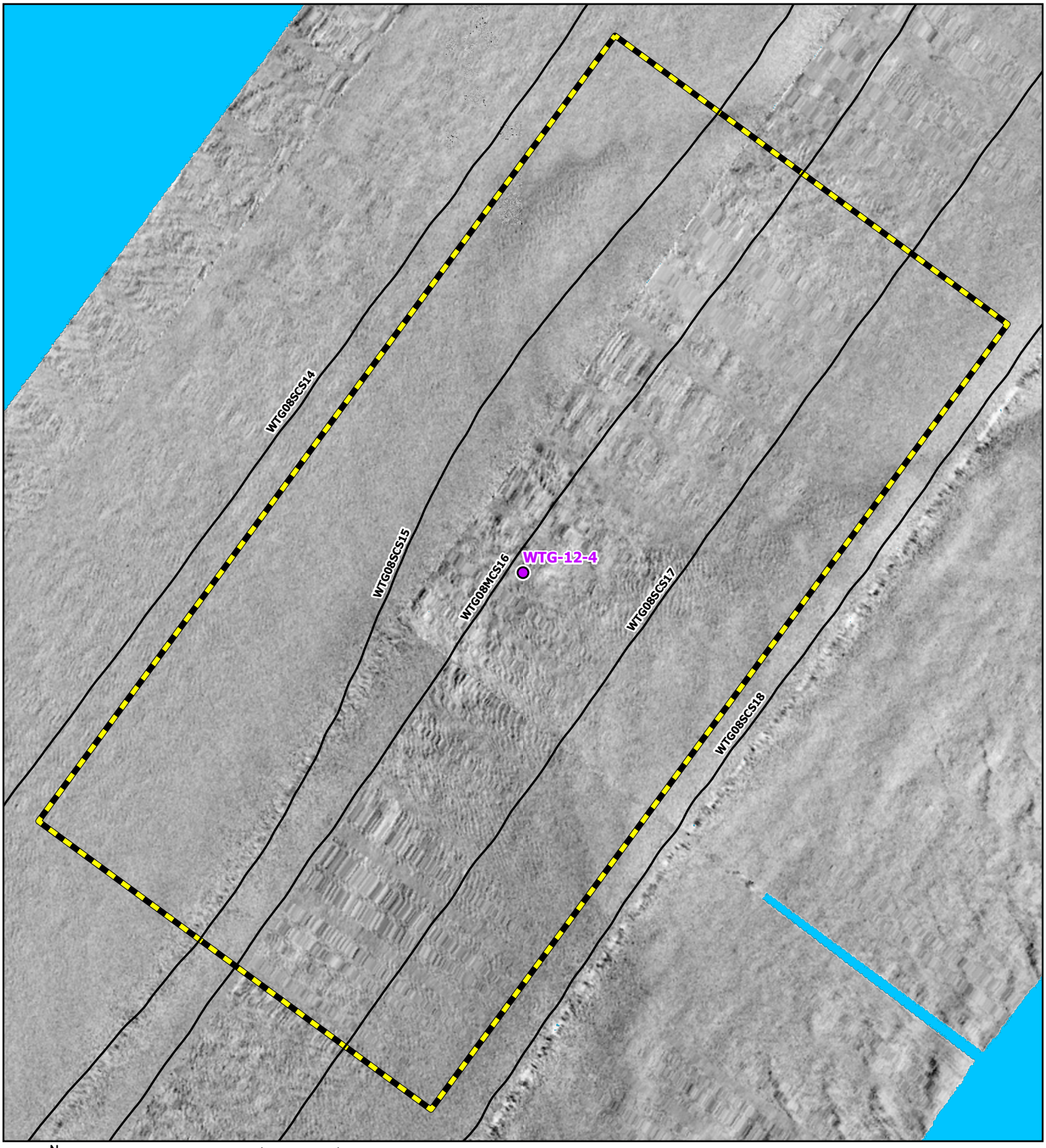
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 08

Map: 8

WTG-10-8

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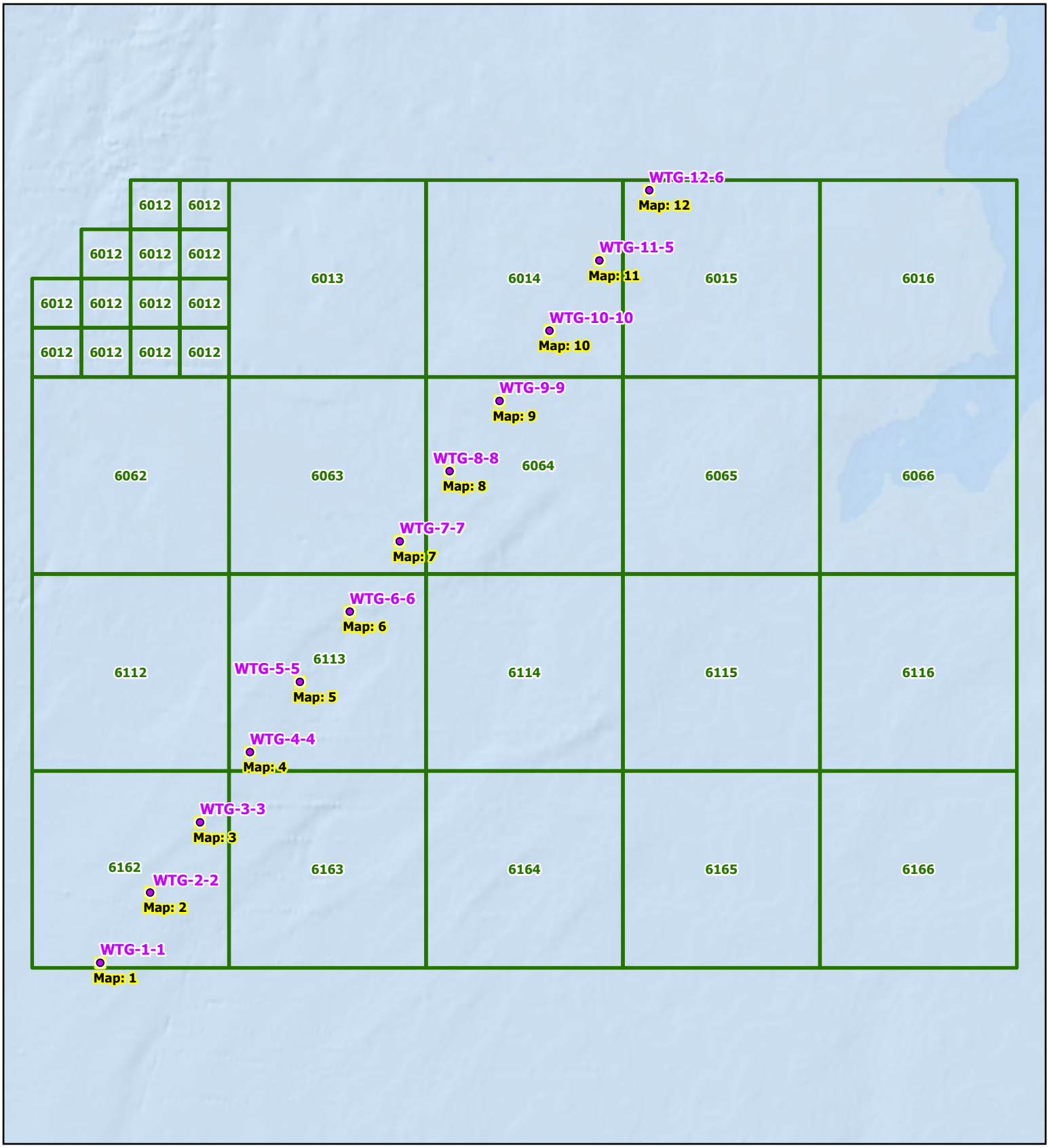
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
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MARINE ARCHAEOLOGY FROM STEM TO STERN

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ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 10

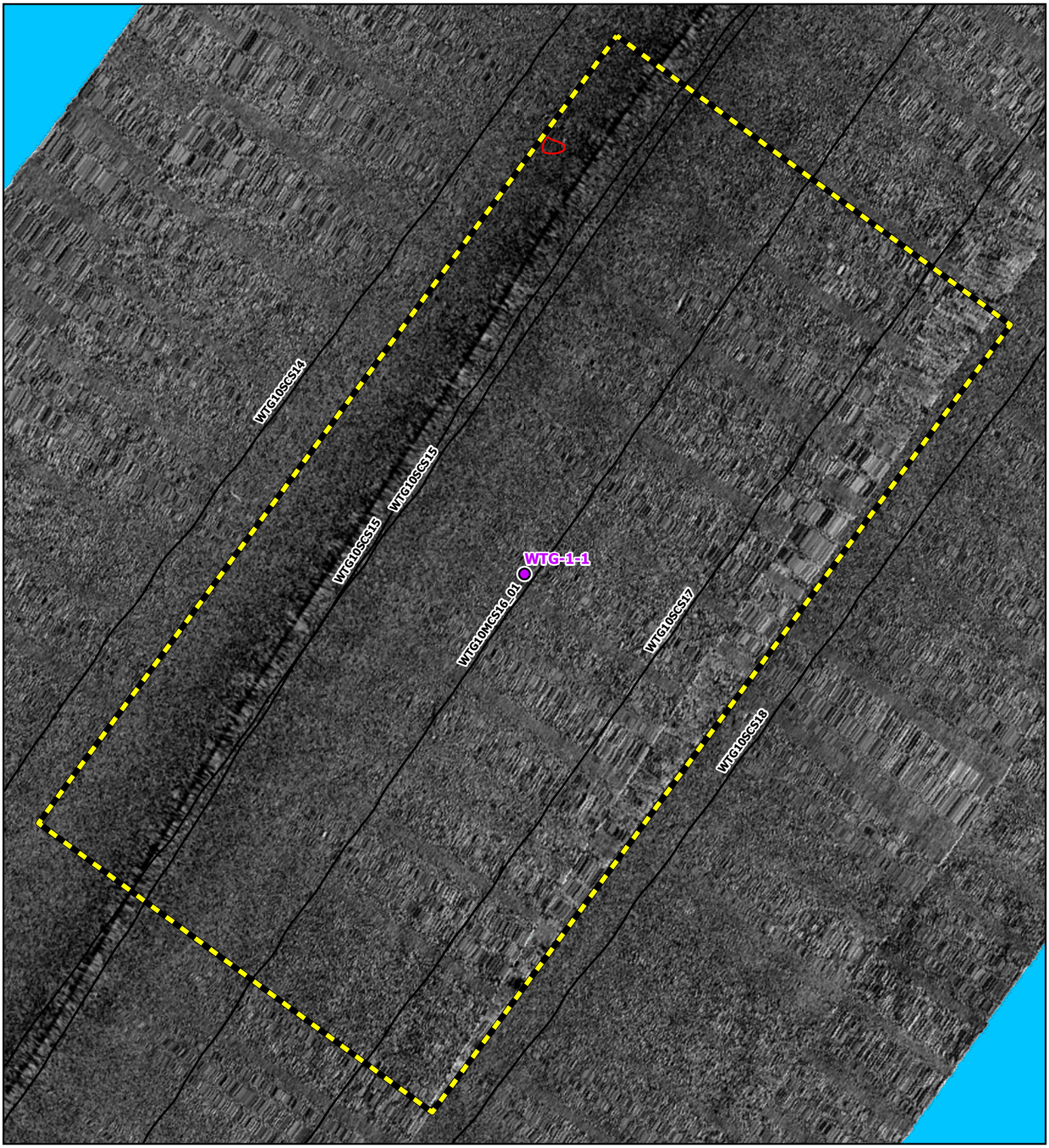


Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

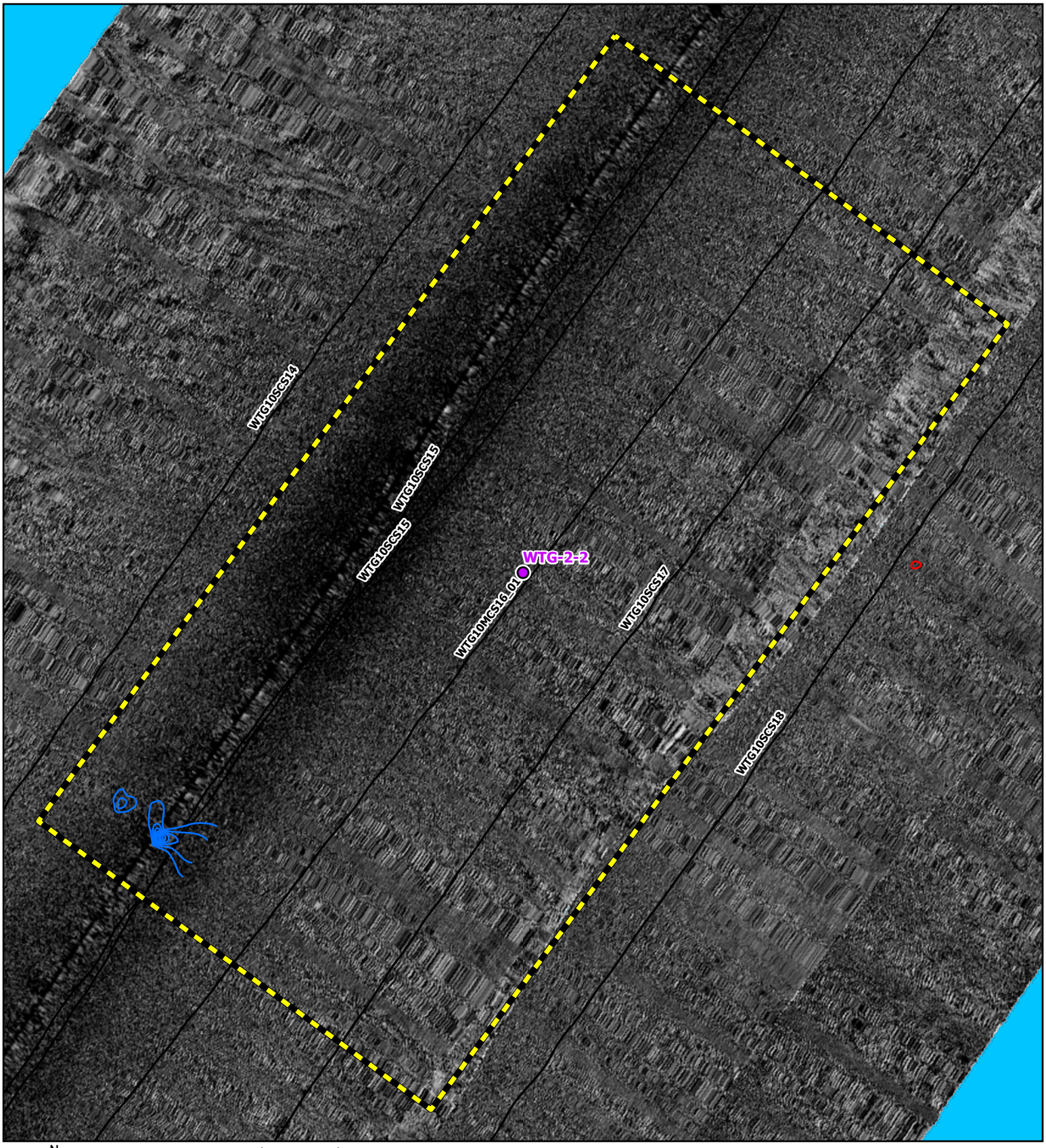
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
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WTG-1-1

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

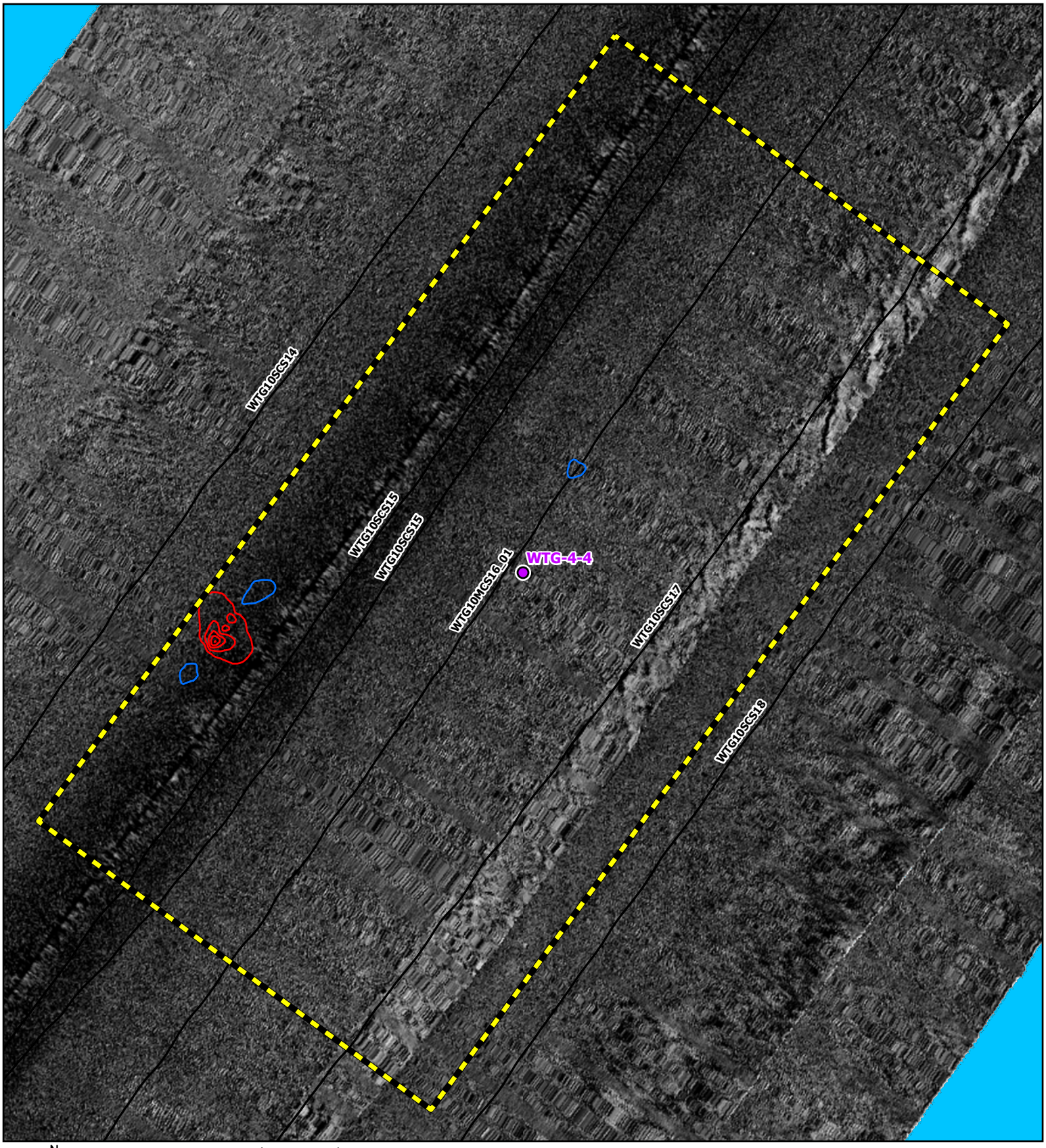
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 10

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

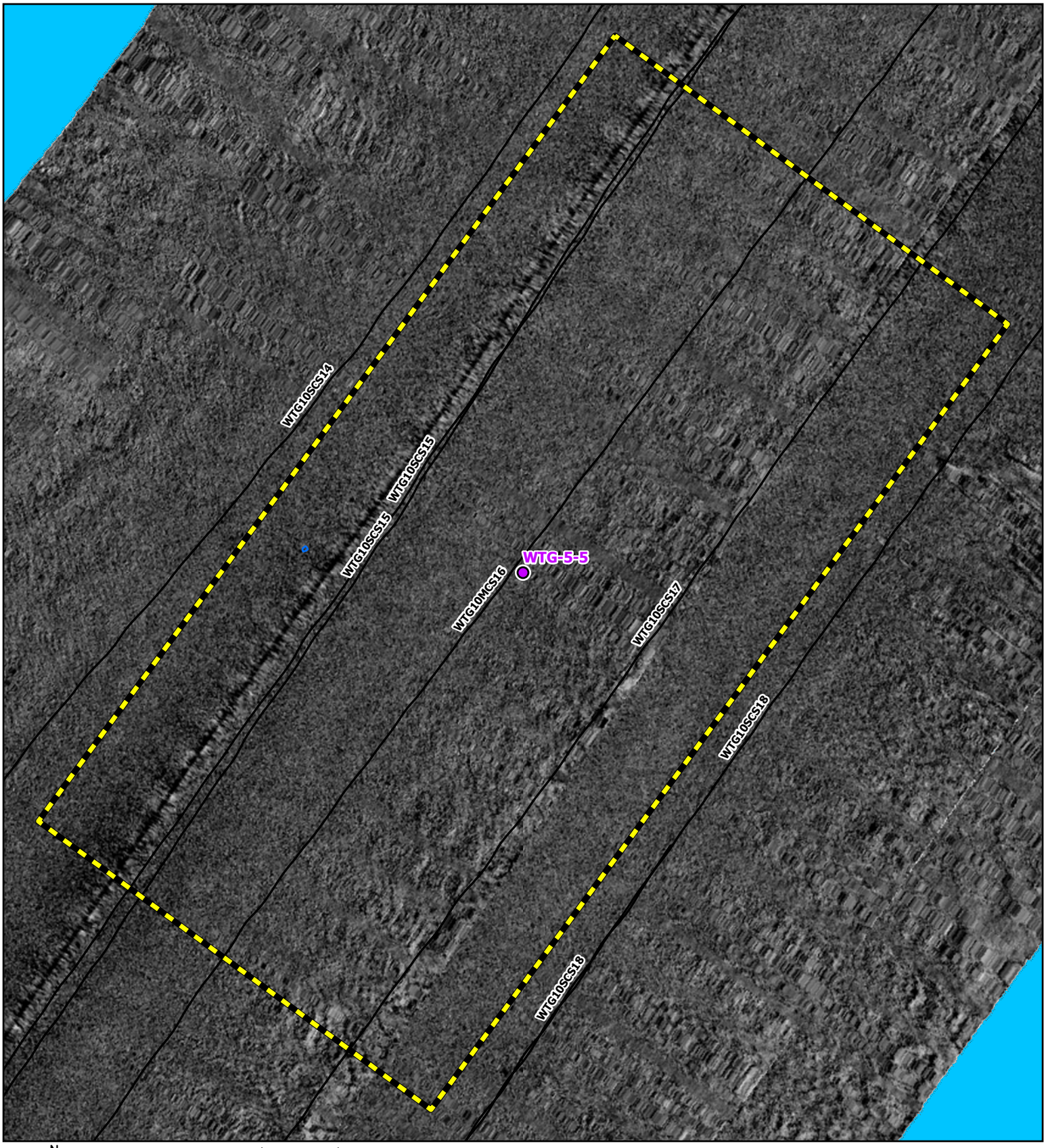
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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

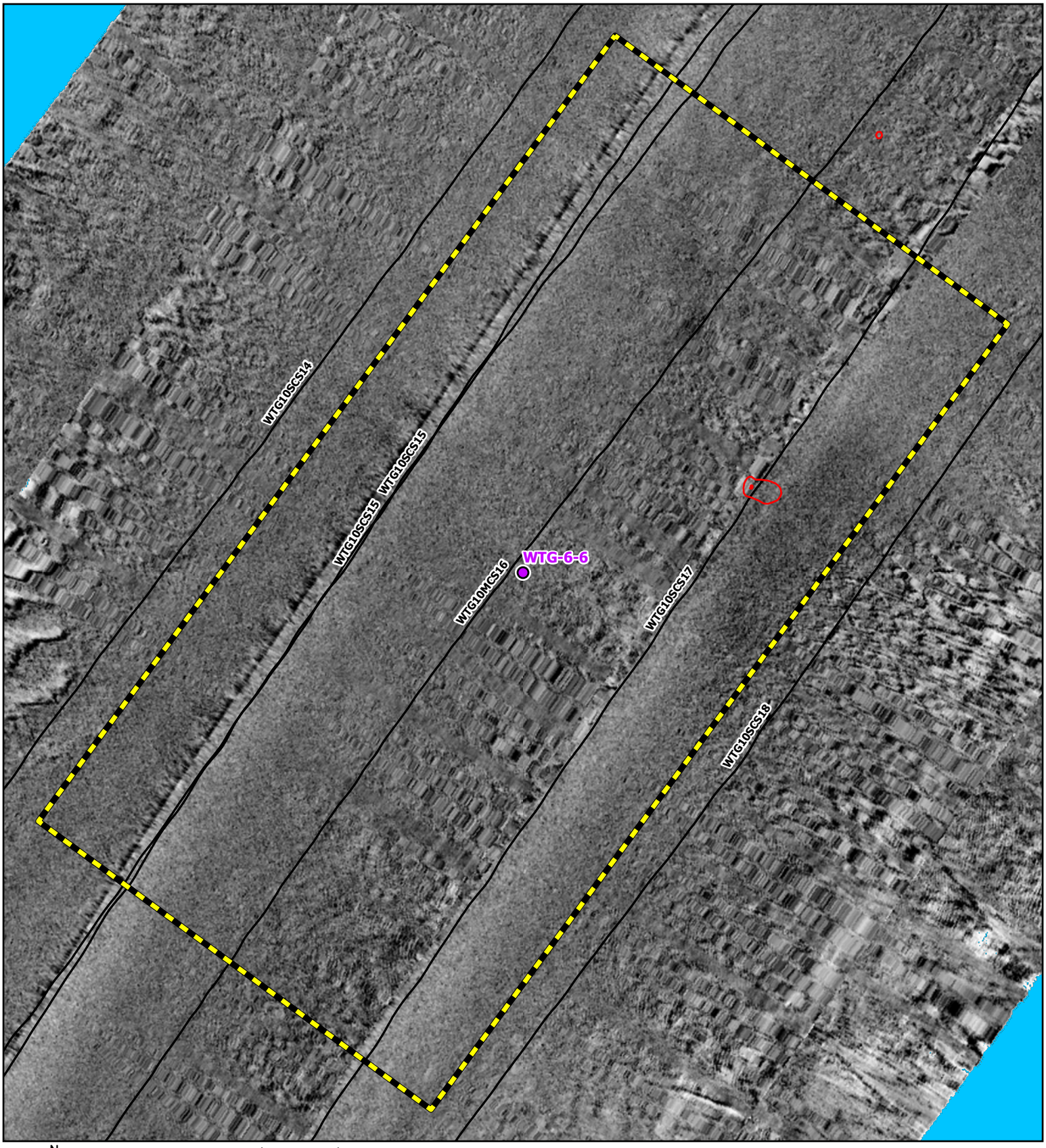
Map: 5

WTG-5-5

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

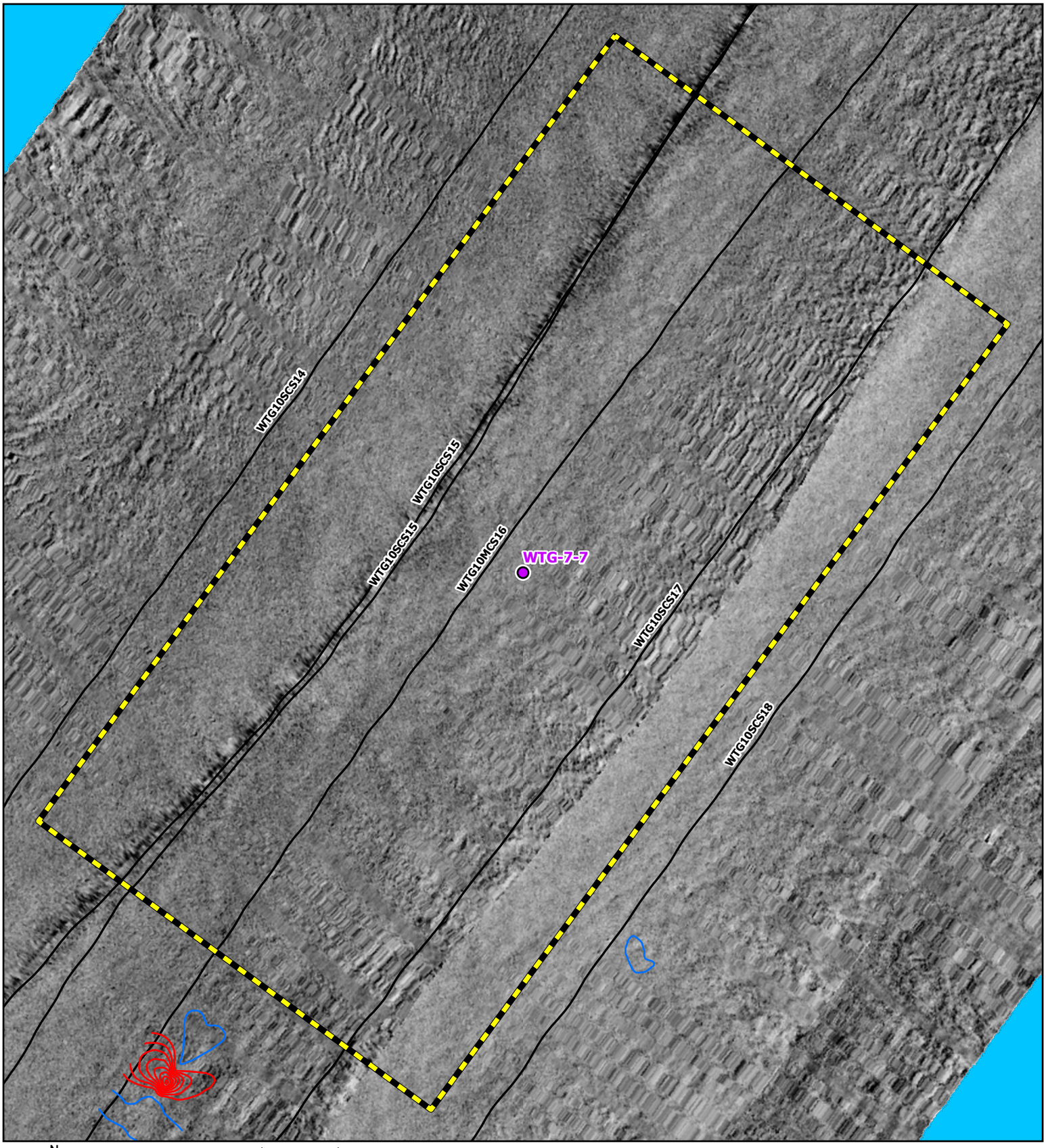
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 10

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

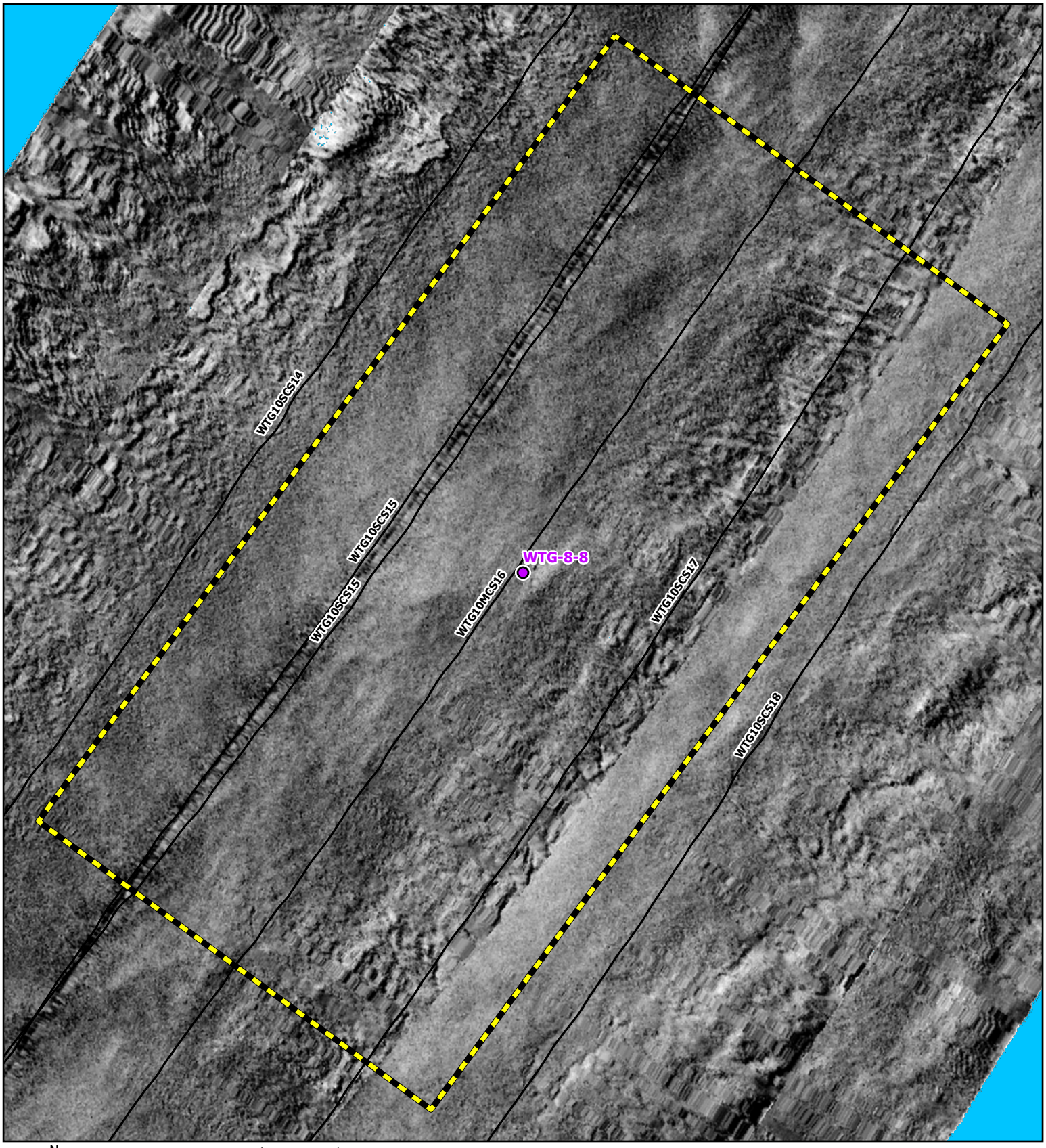
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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

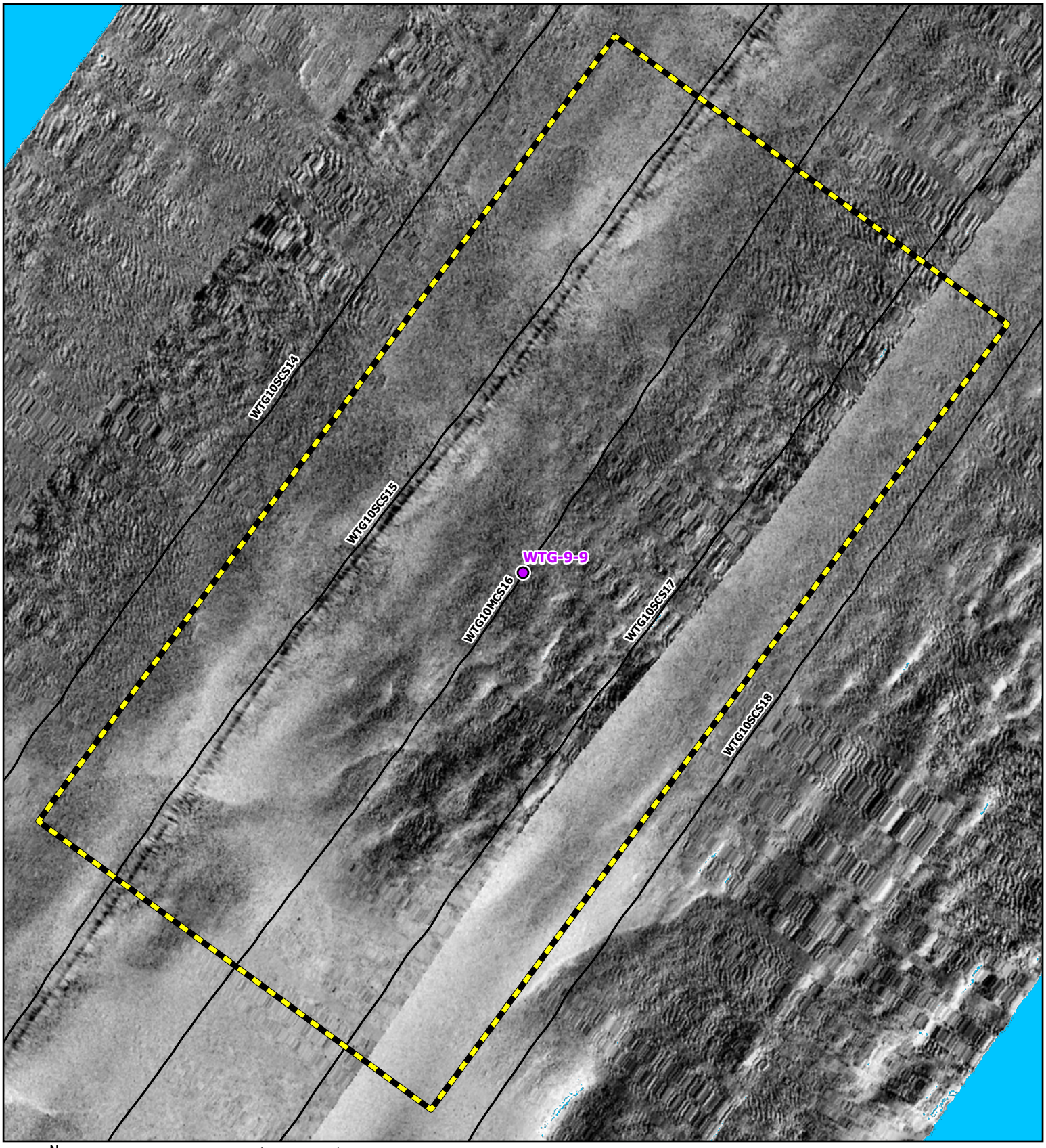
Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

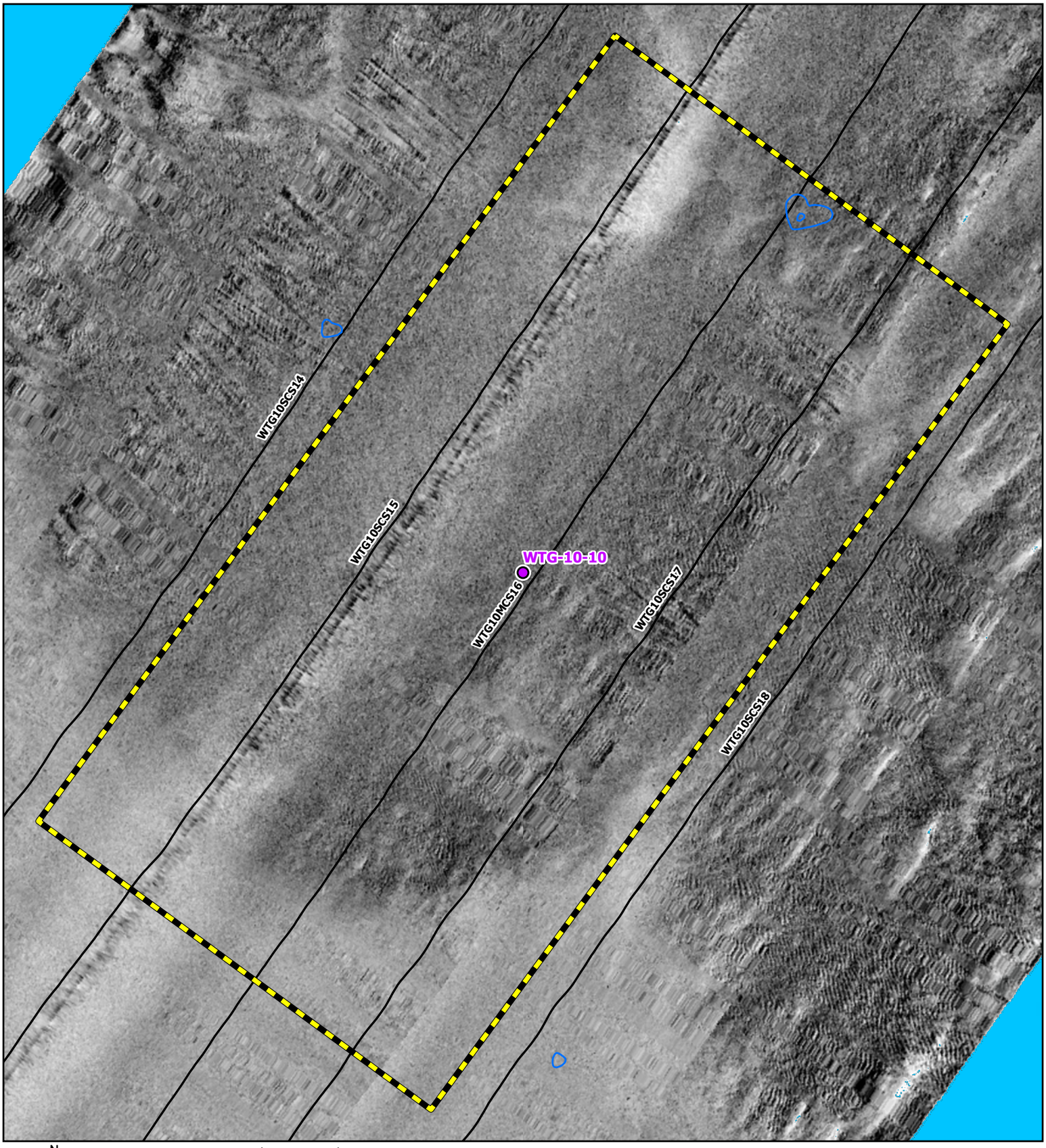
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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

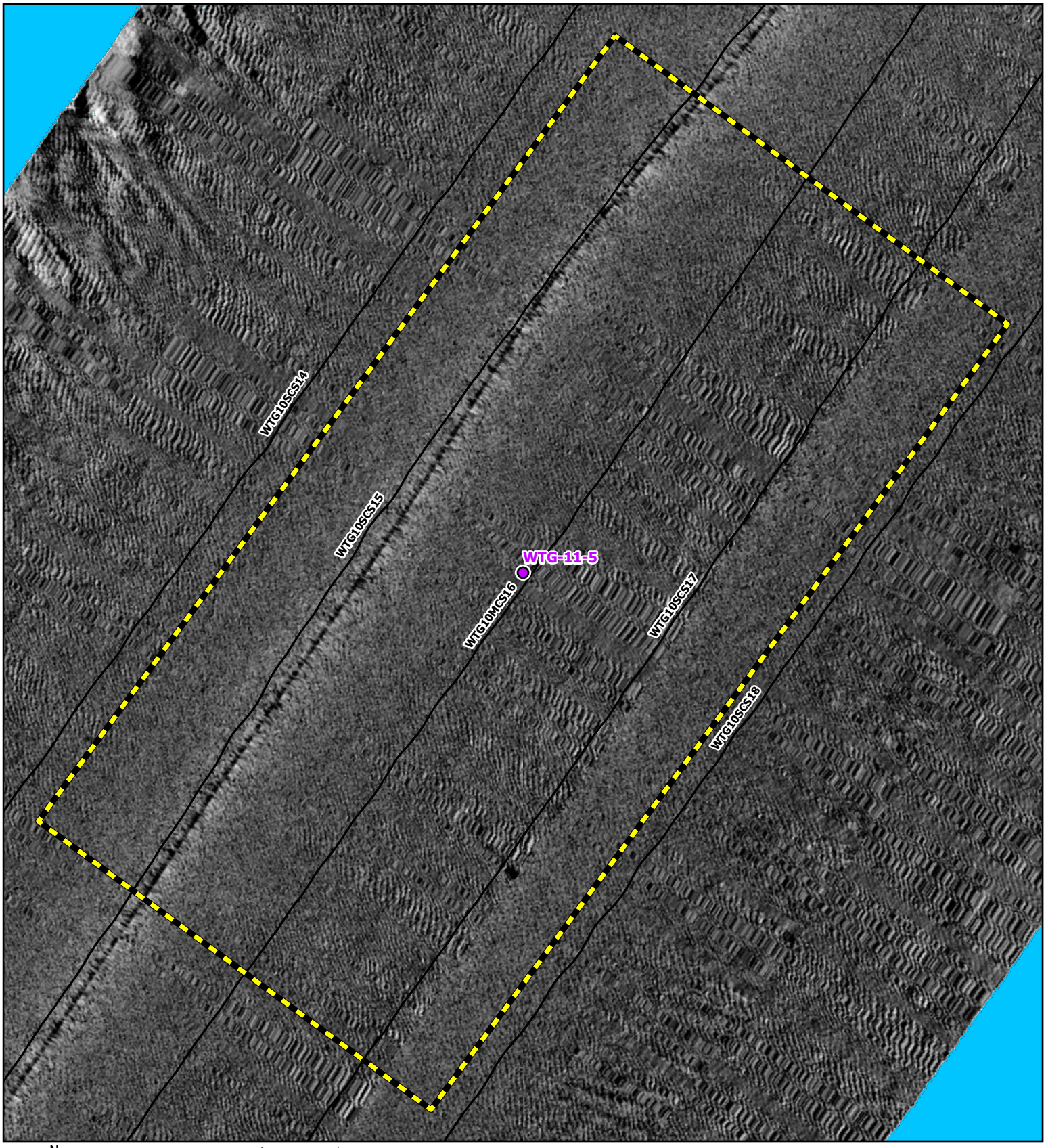
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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

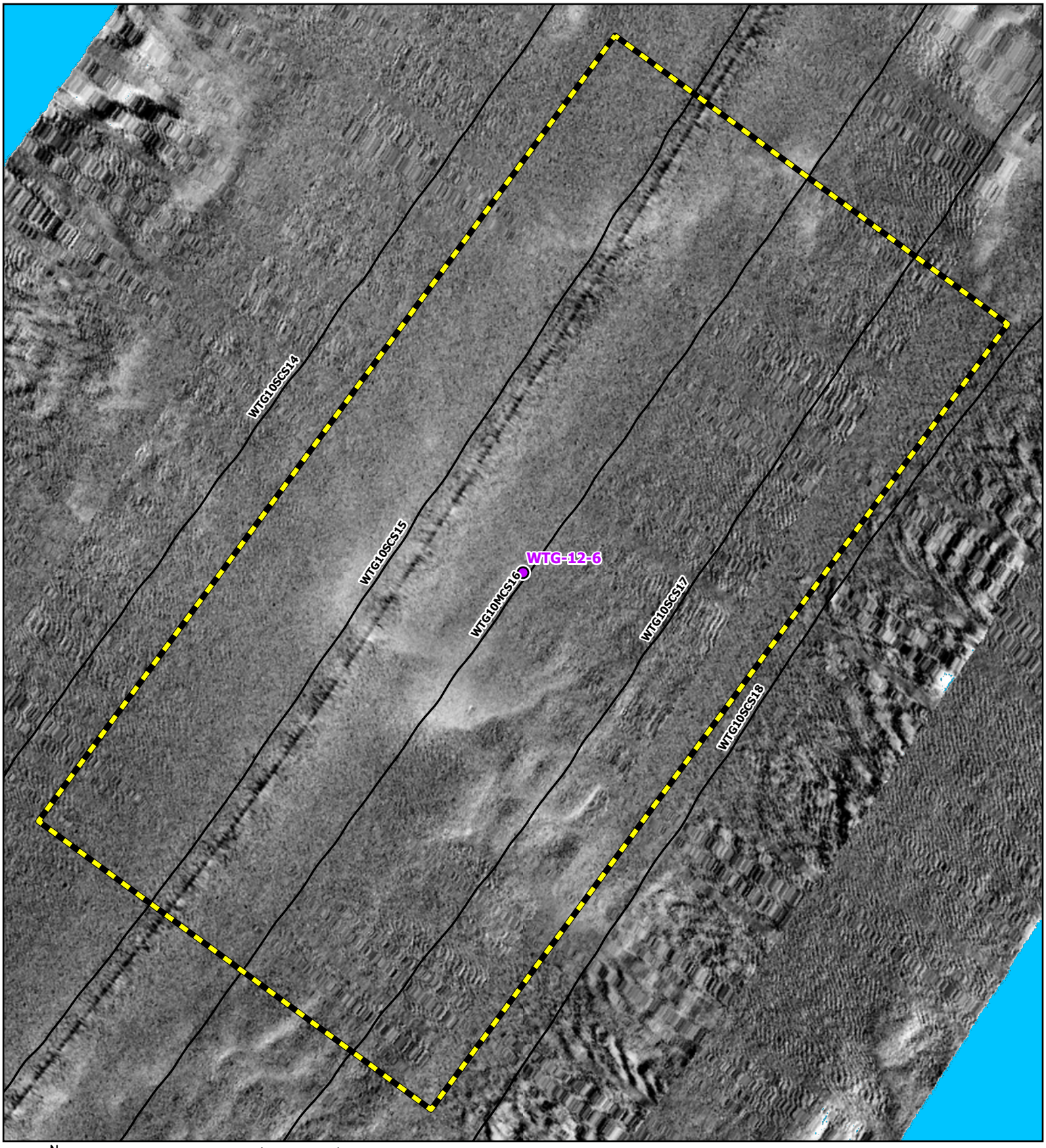
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 10

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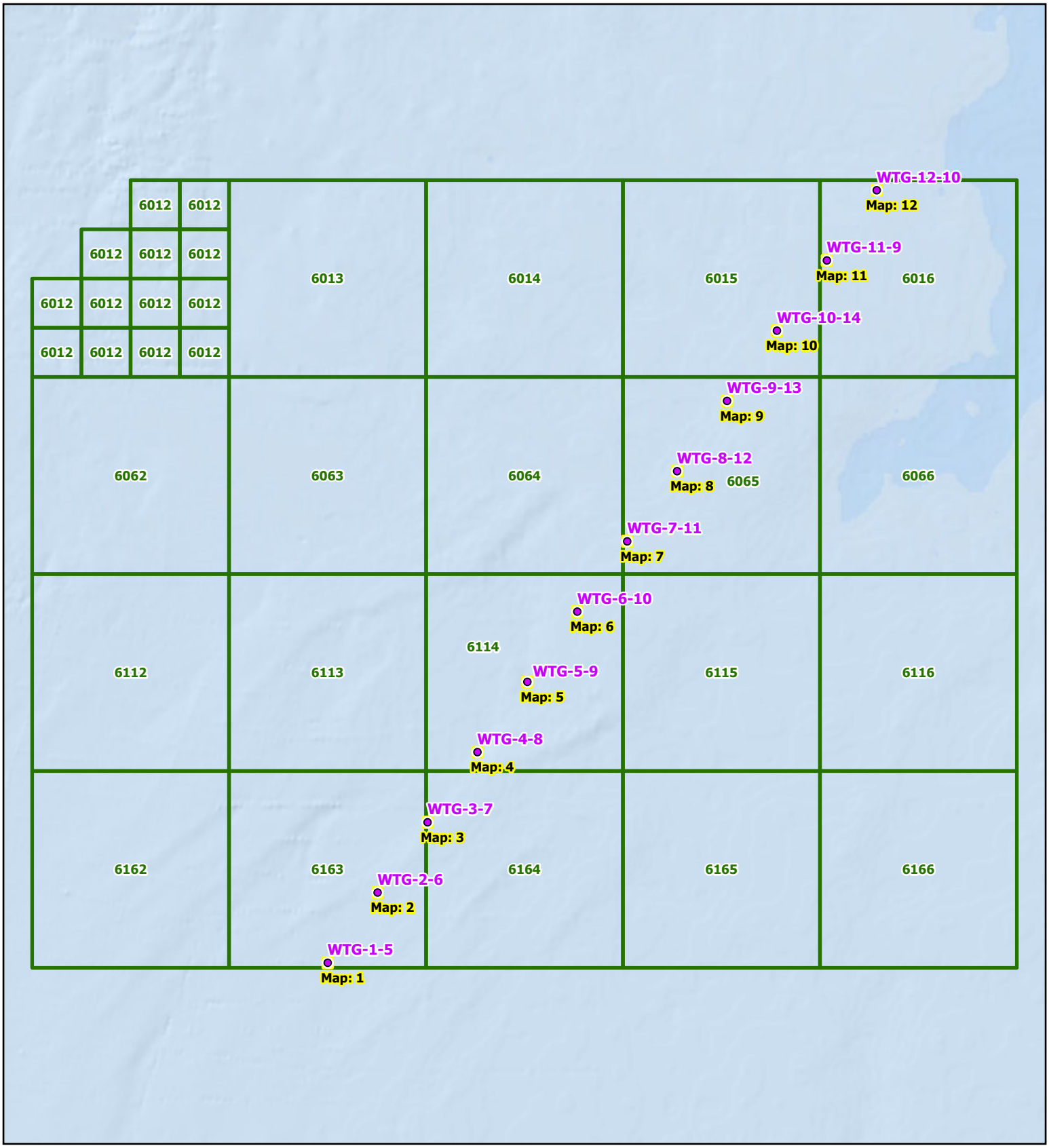
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APPENDIX 3
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 14



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue
MSR: 1:125,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles
0 1 2 3 4 Kilometers

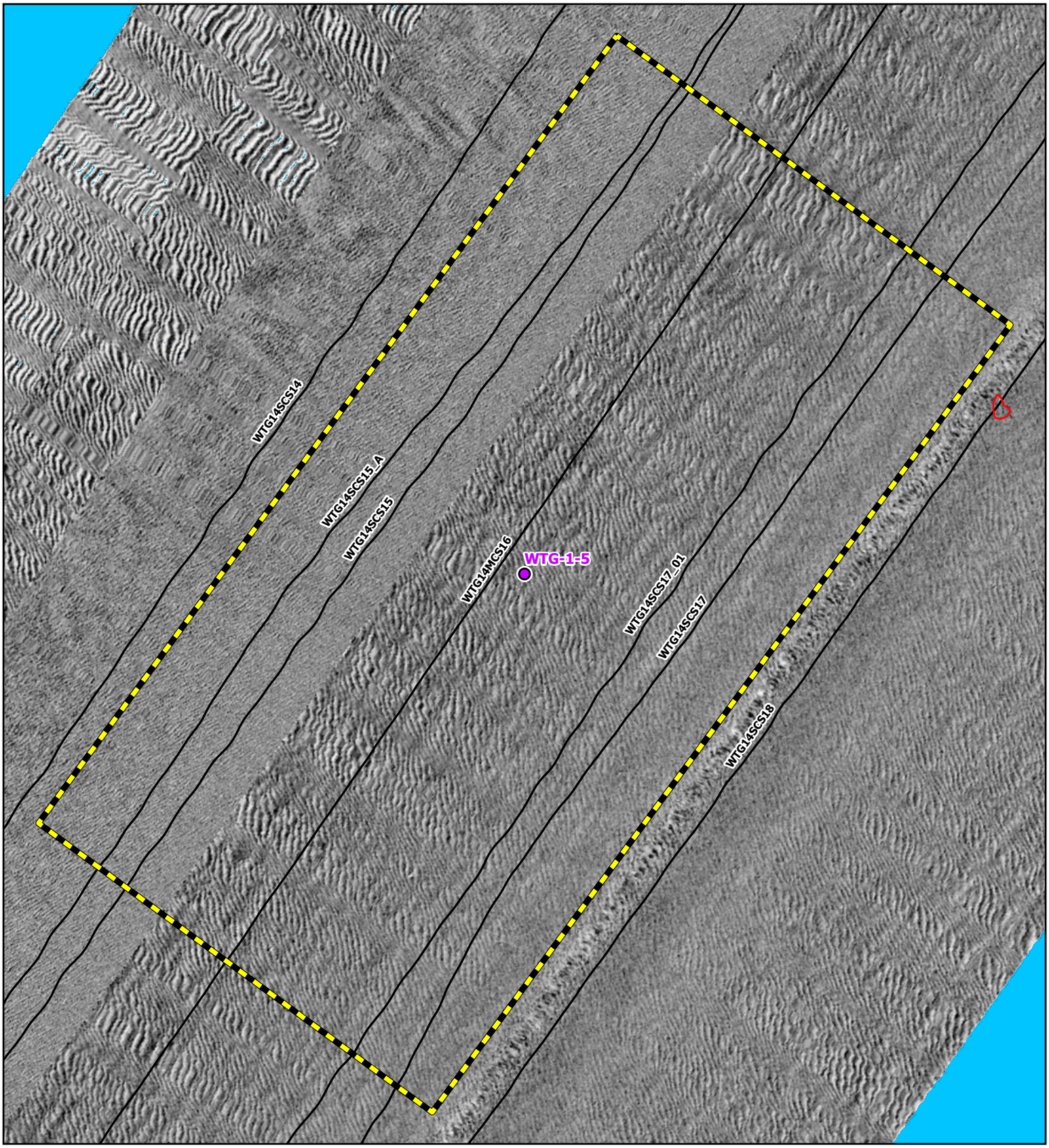
Geotechnical Location
Map Sheet Extent
Lease Area

Coastal Virginia Offshore Wind Commercial Project
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W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

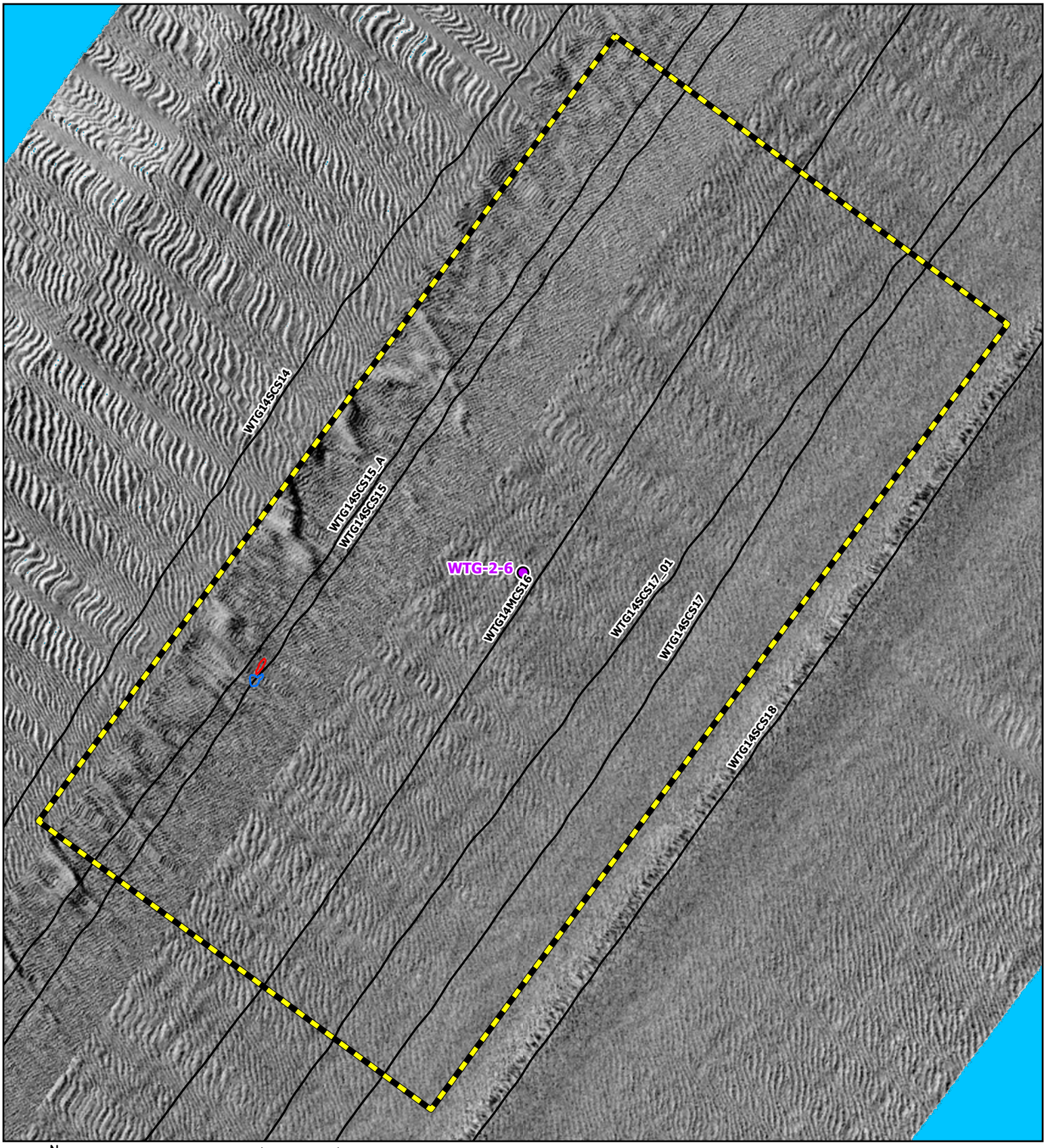
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

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Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

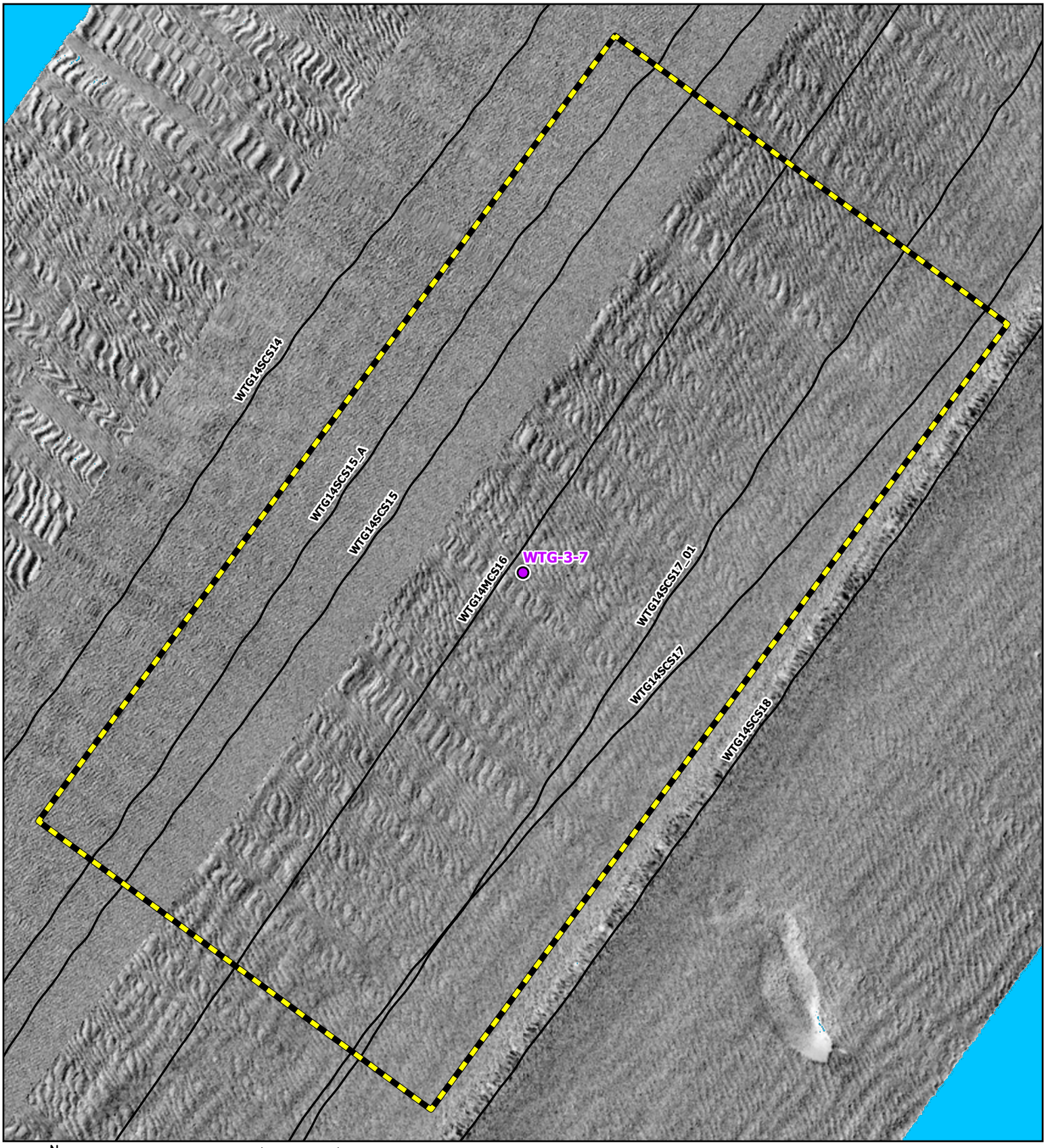
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

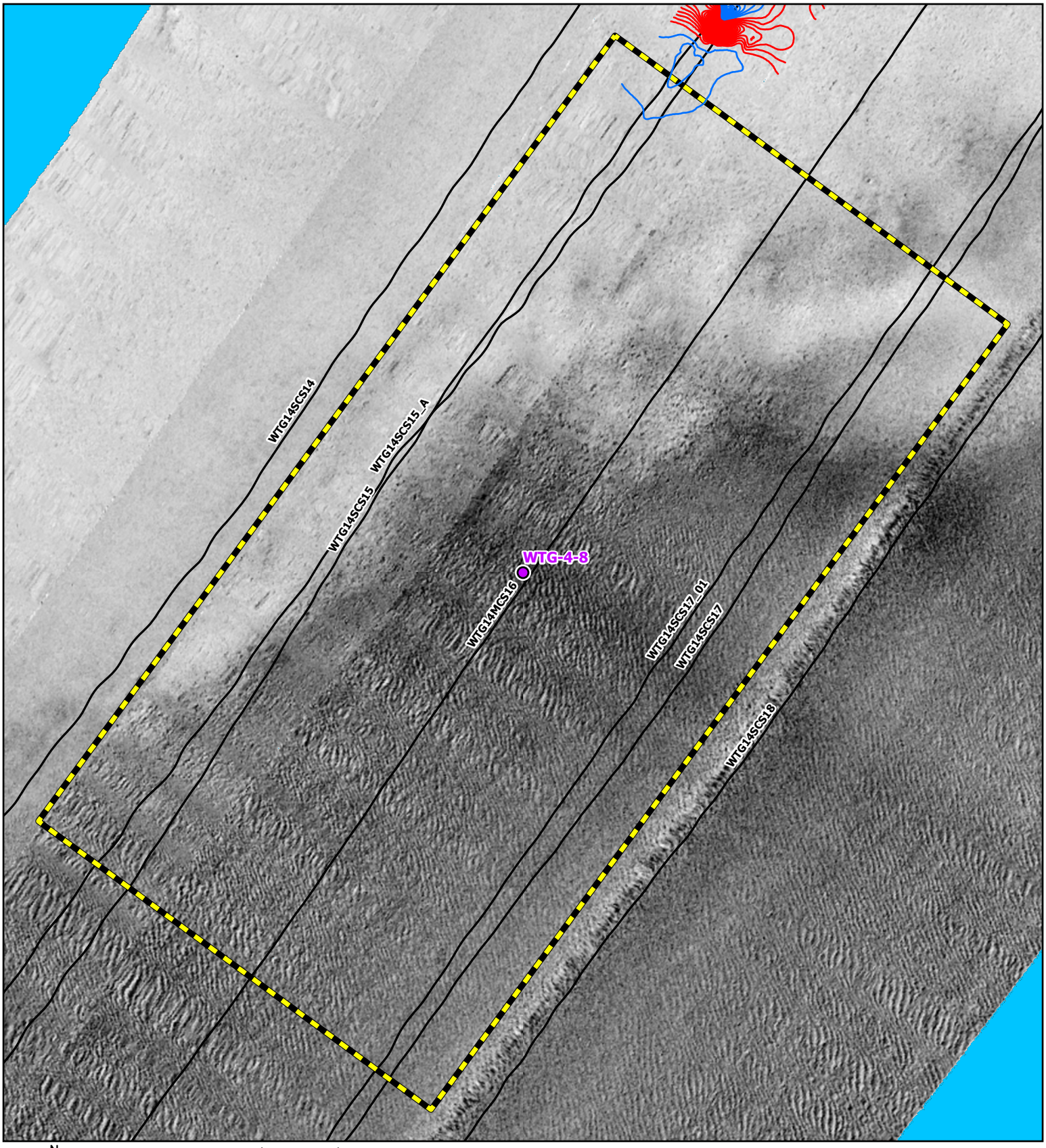
Map: 3

WTG-3-7

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

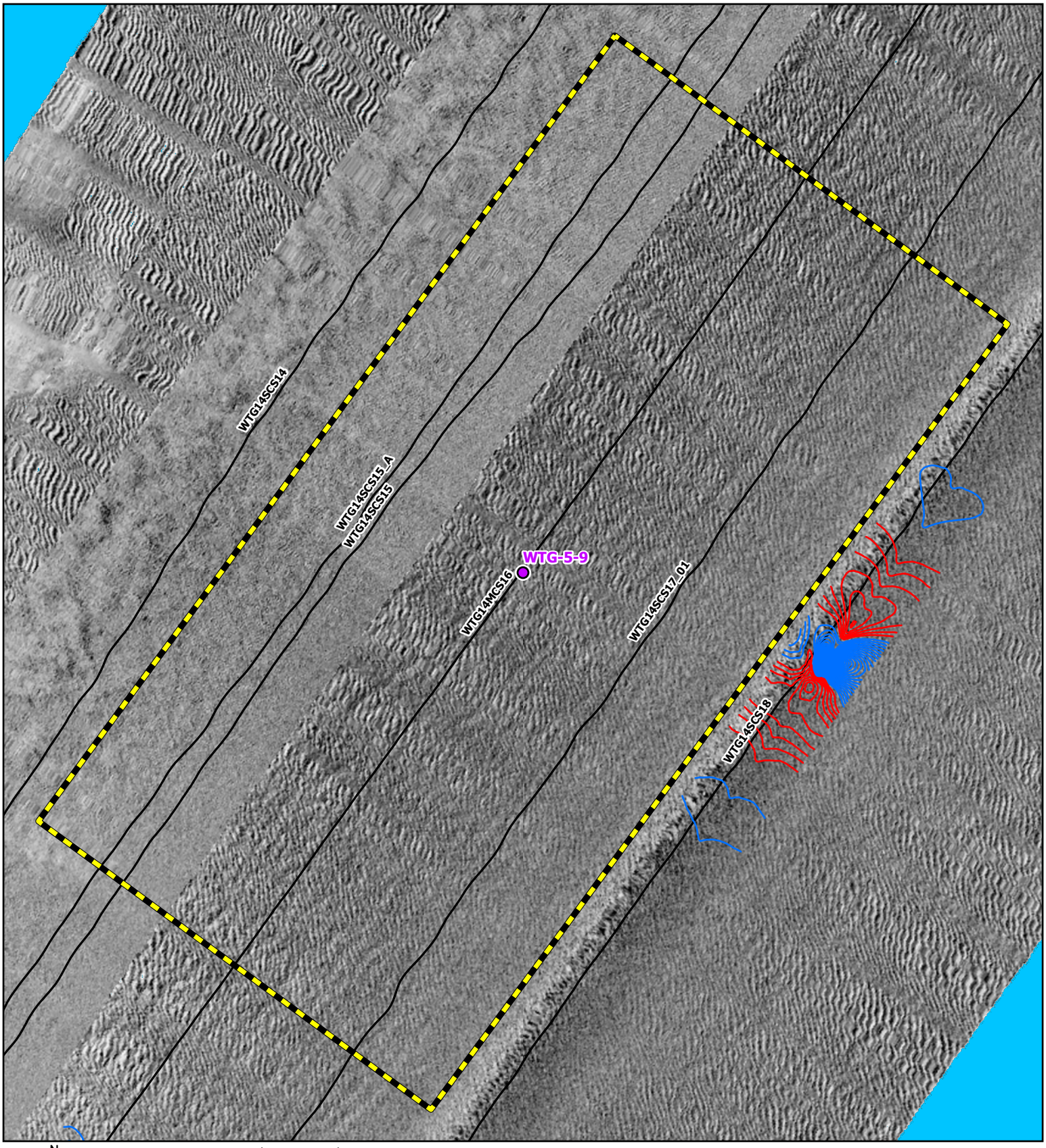
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N
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S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

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Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

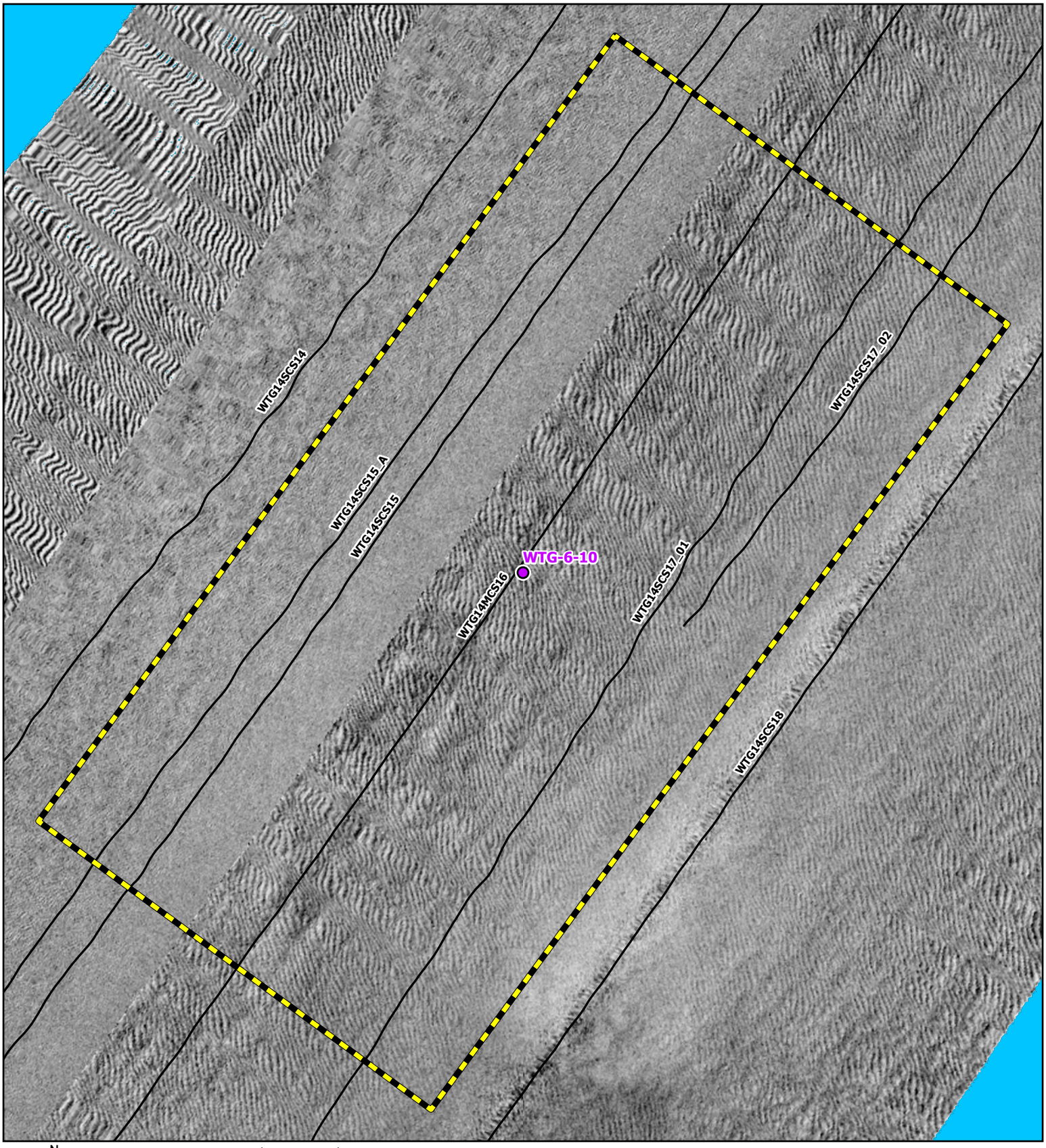
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Map: 5

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

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Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

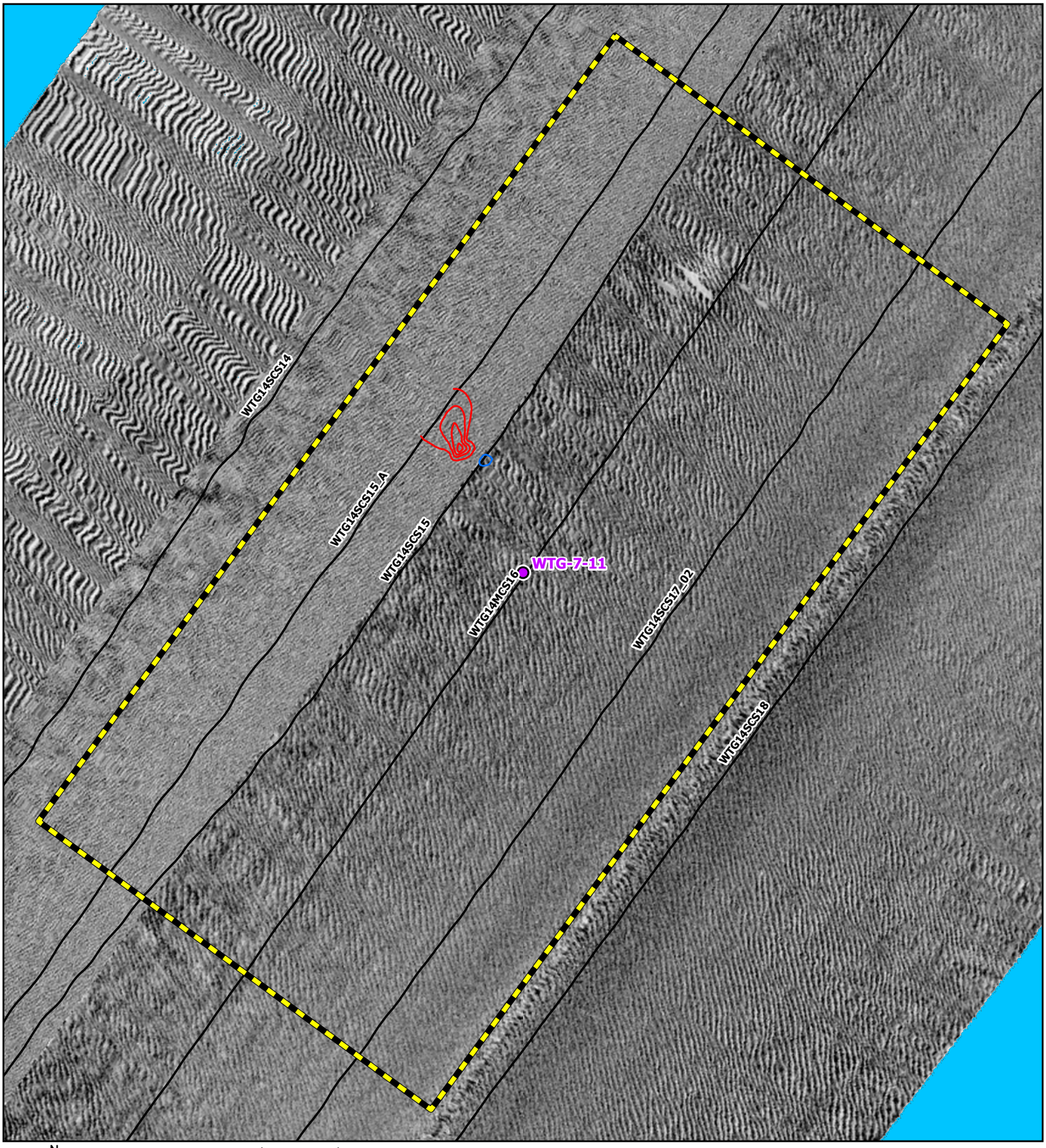
Map: 6

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

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Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

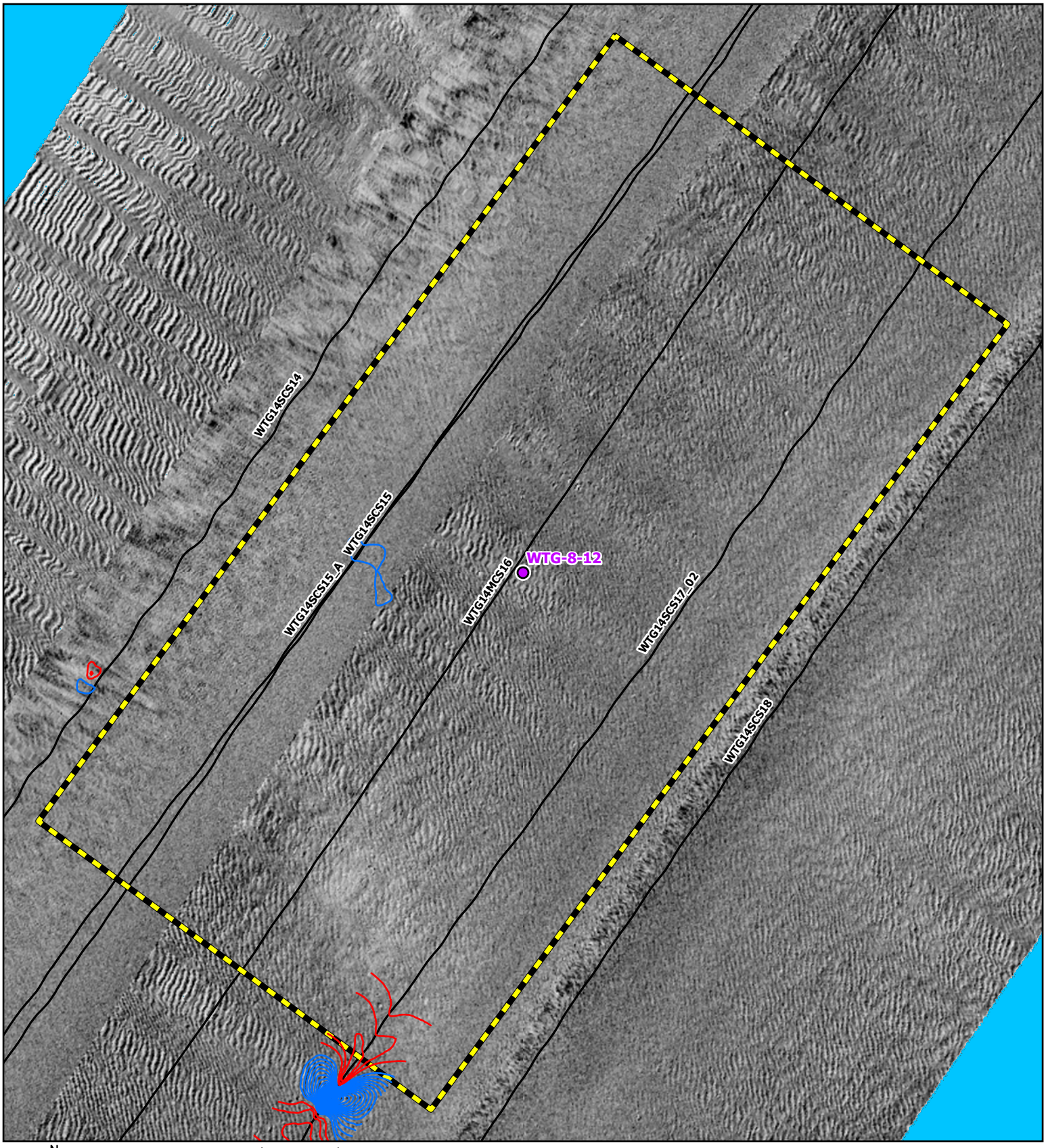
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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

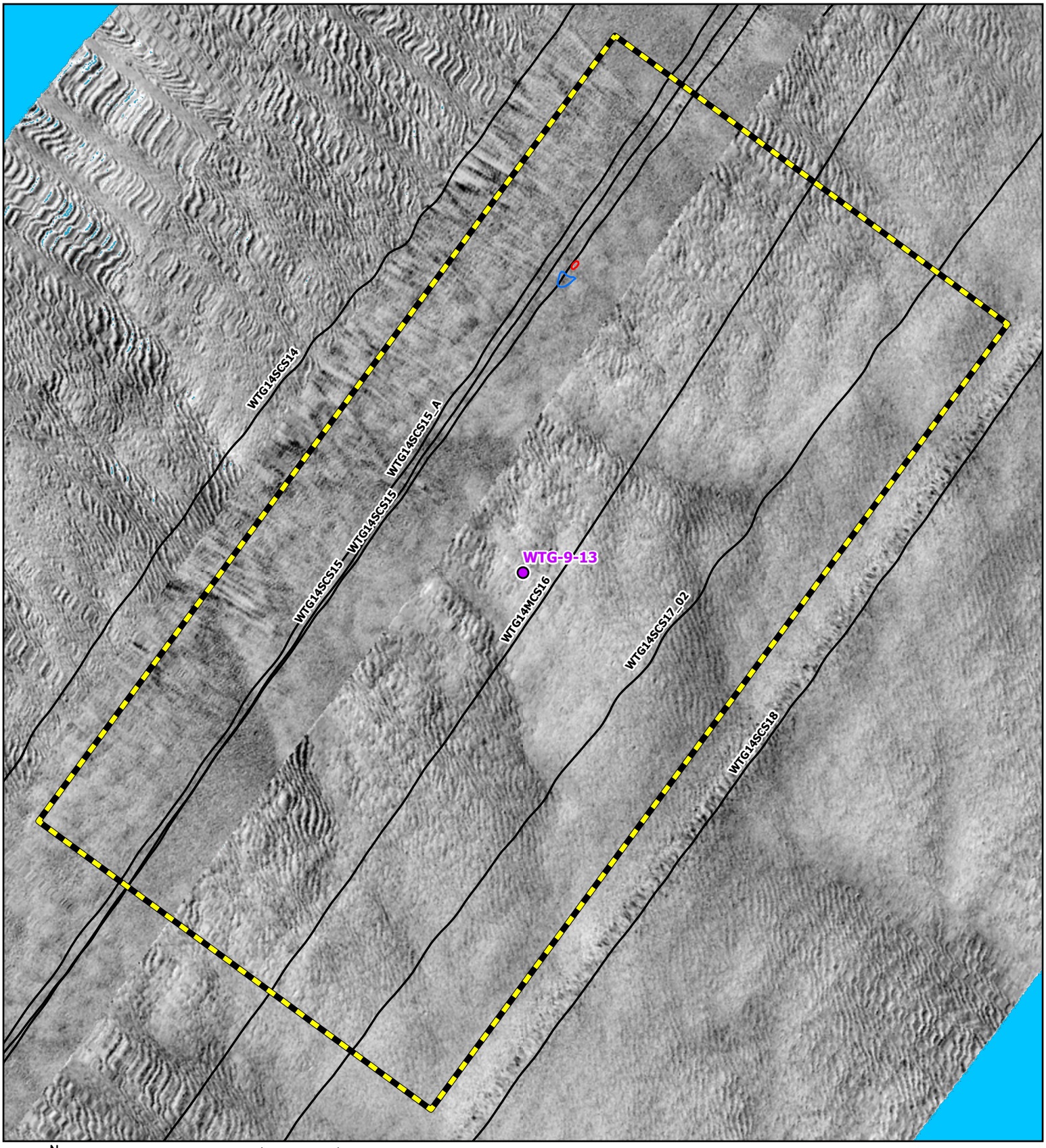
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 14

Map: 8

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

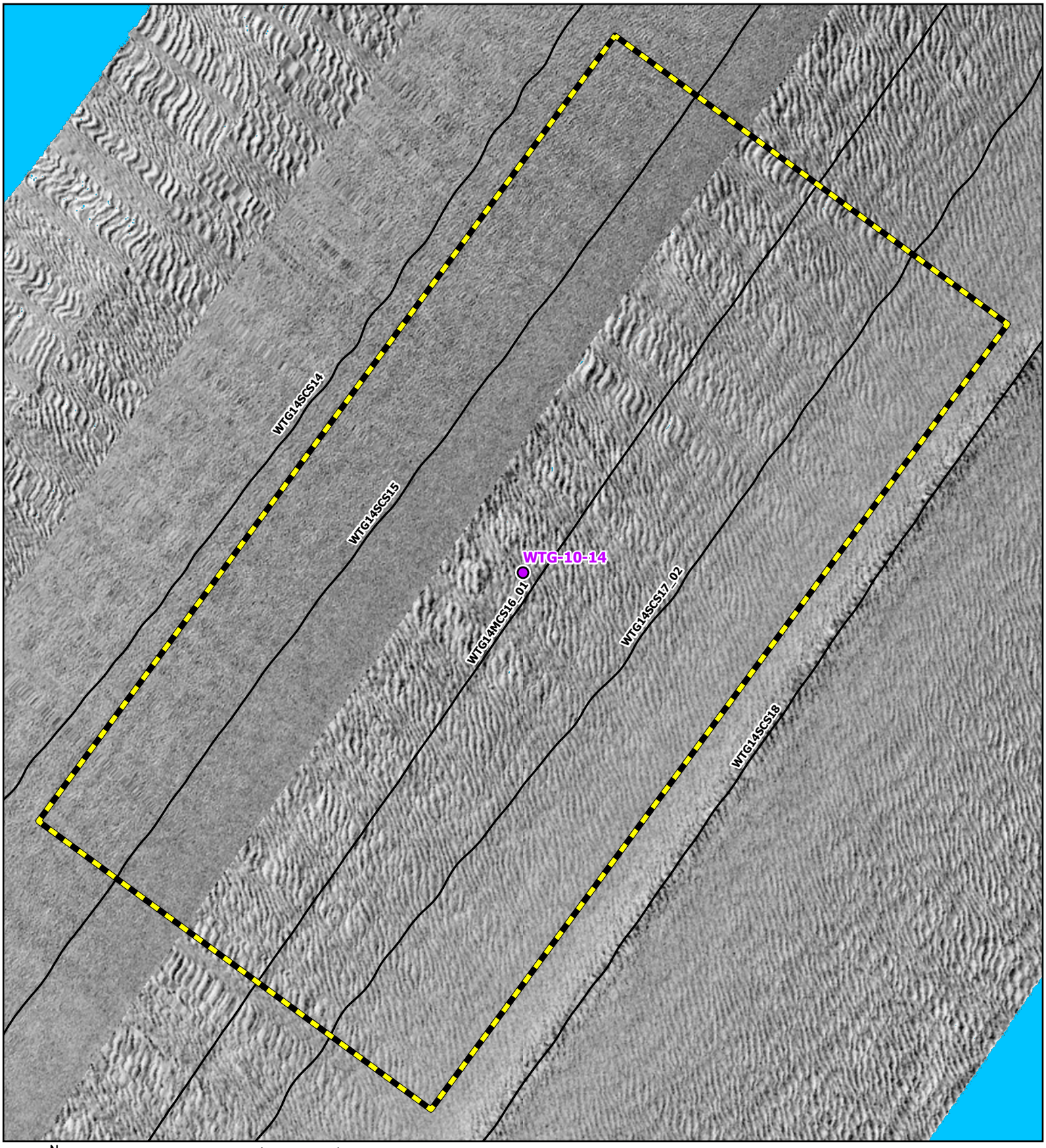
Map: 9

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

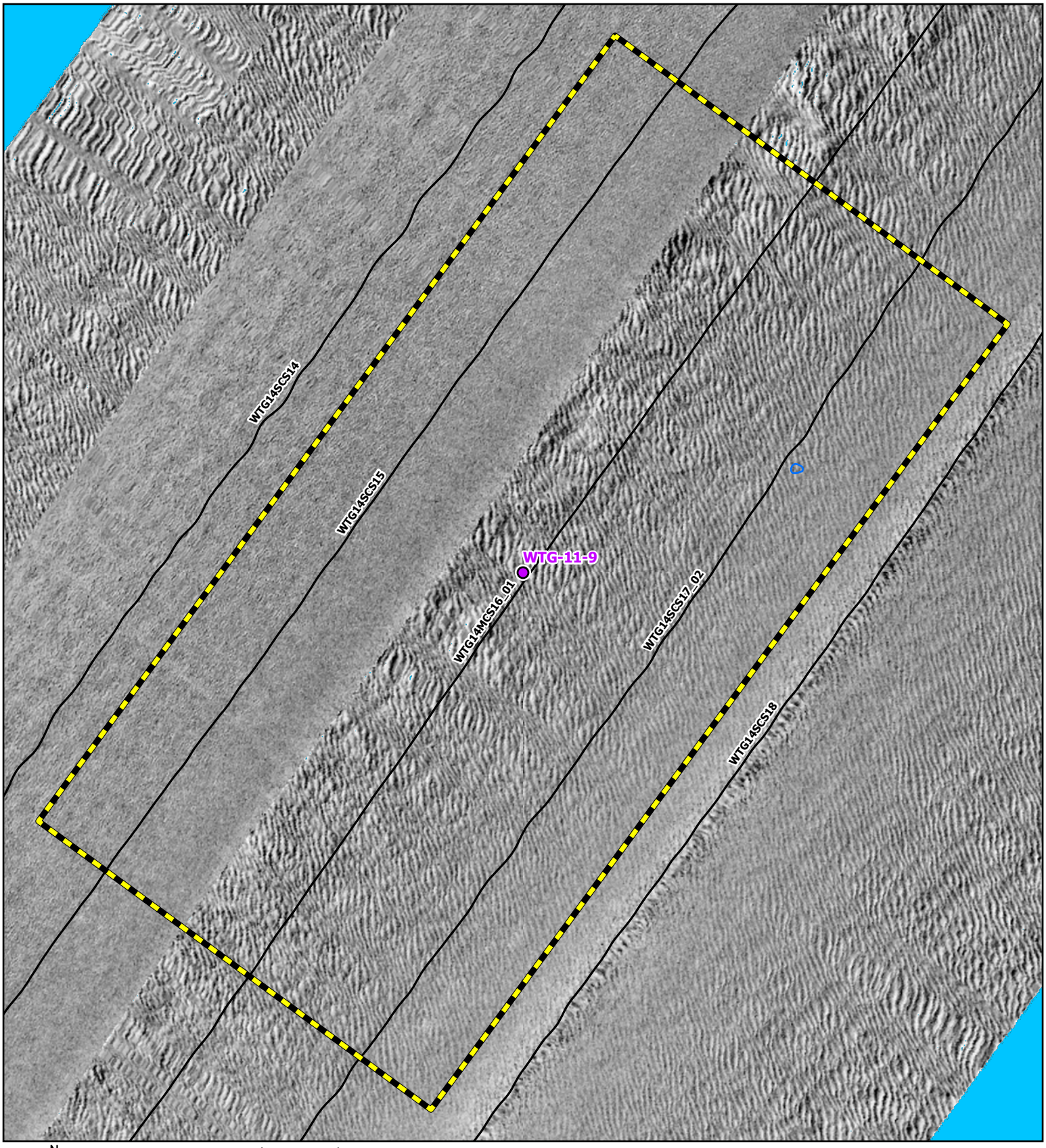
Map: 10

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

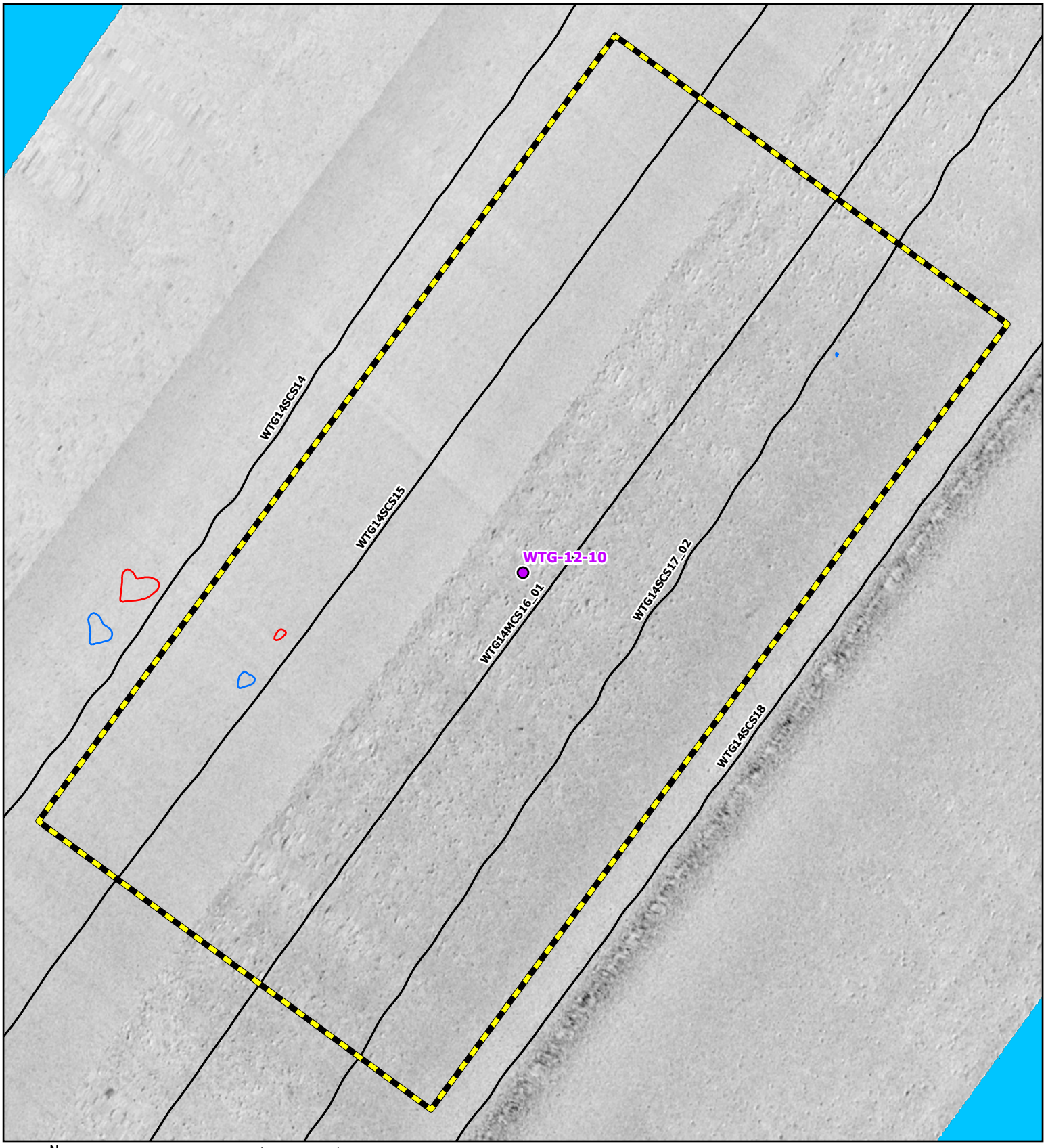
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 14

Map: 11

Spare WTG-11-9

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

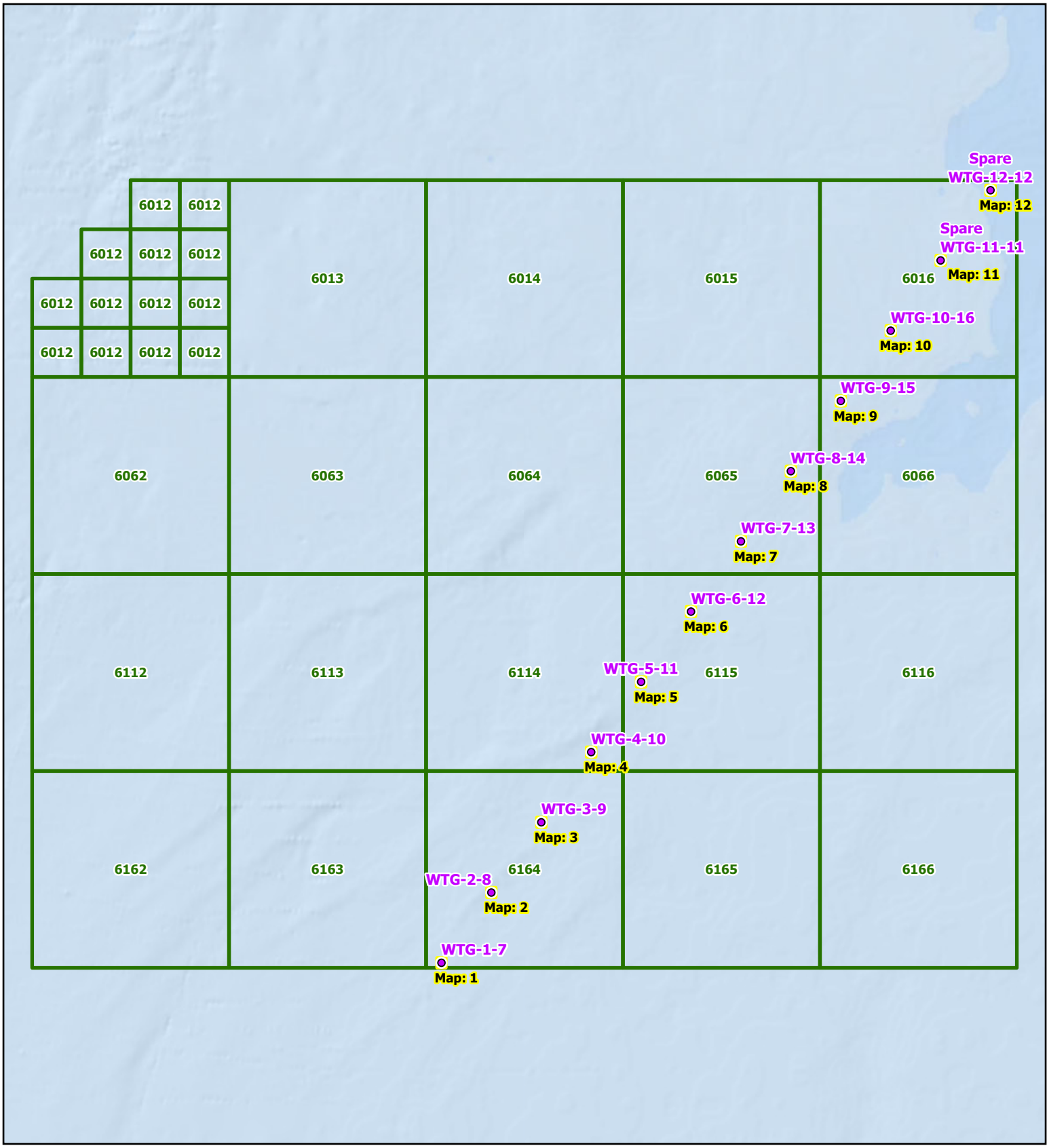
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 14
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Spare WTG-12-10

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NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 4
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 16



N
W E
S
Grid North

WMS: Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

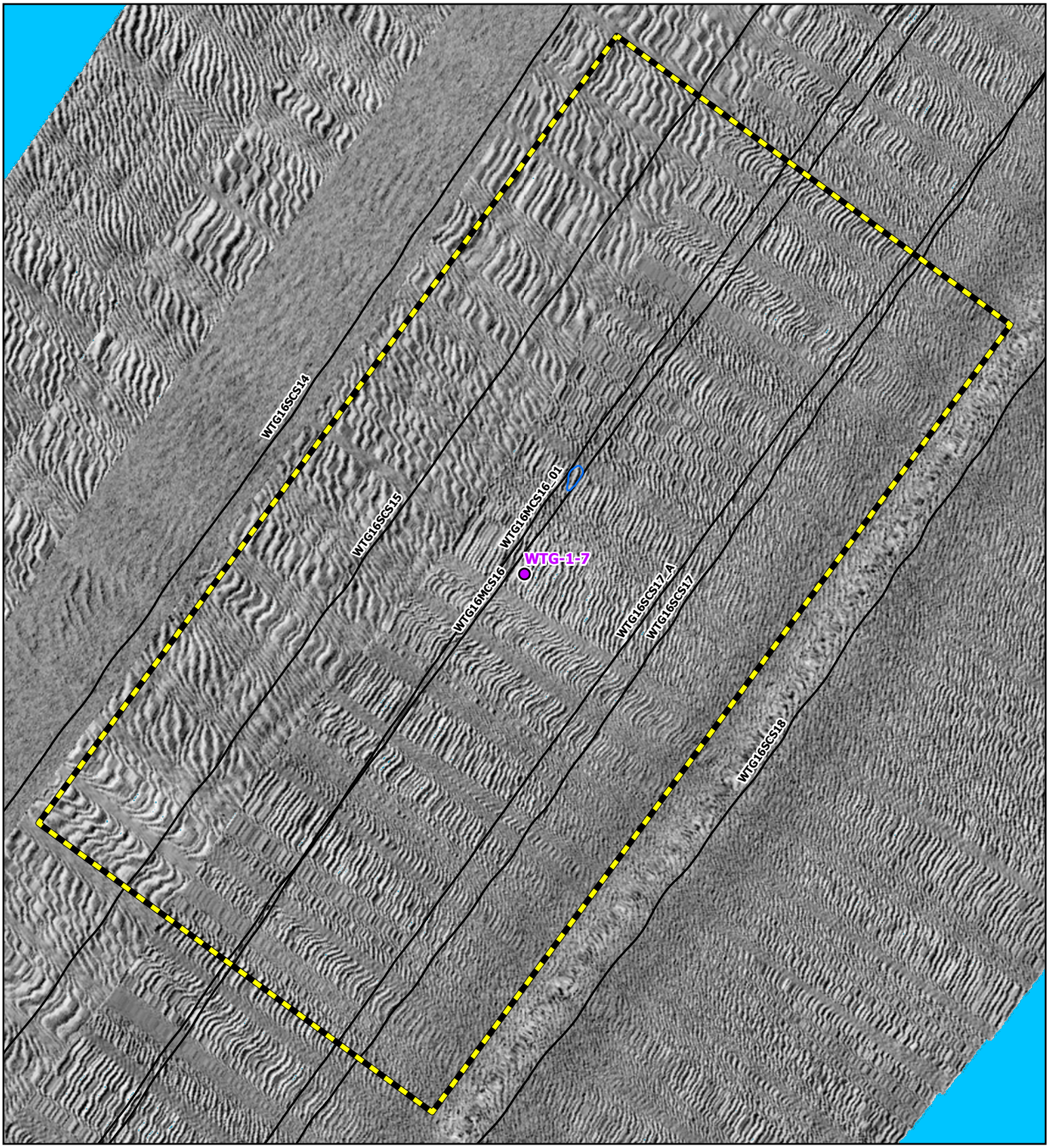
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 16

Index Map

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NAUTICAL DIVISION
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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

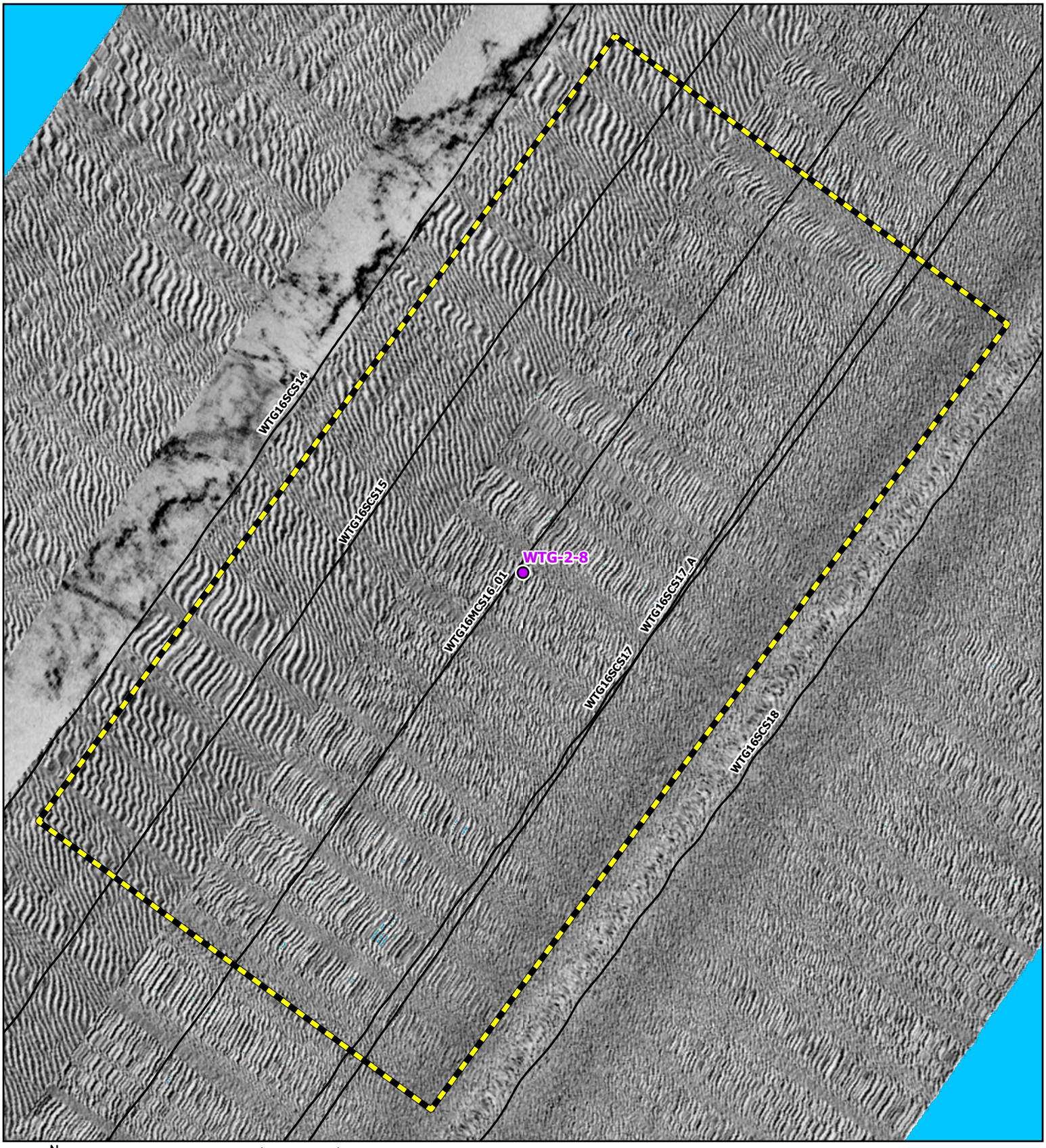
Map: 1

WTG-1-7

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

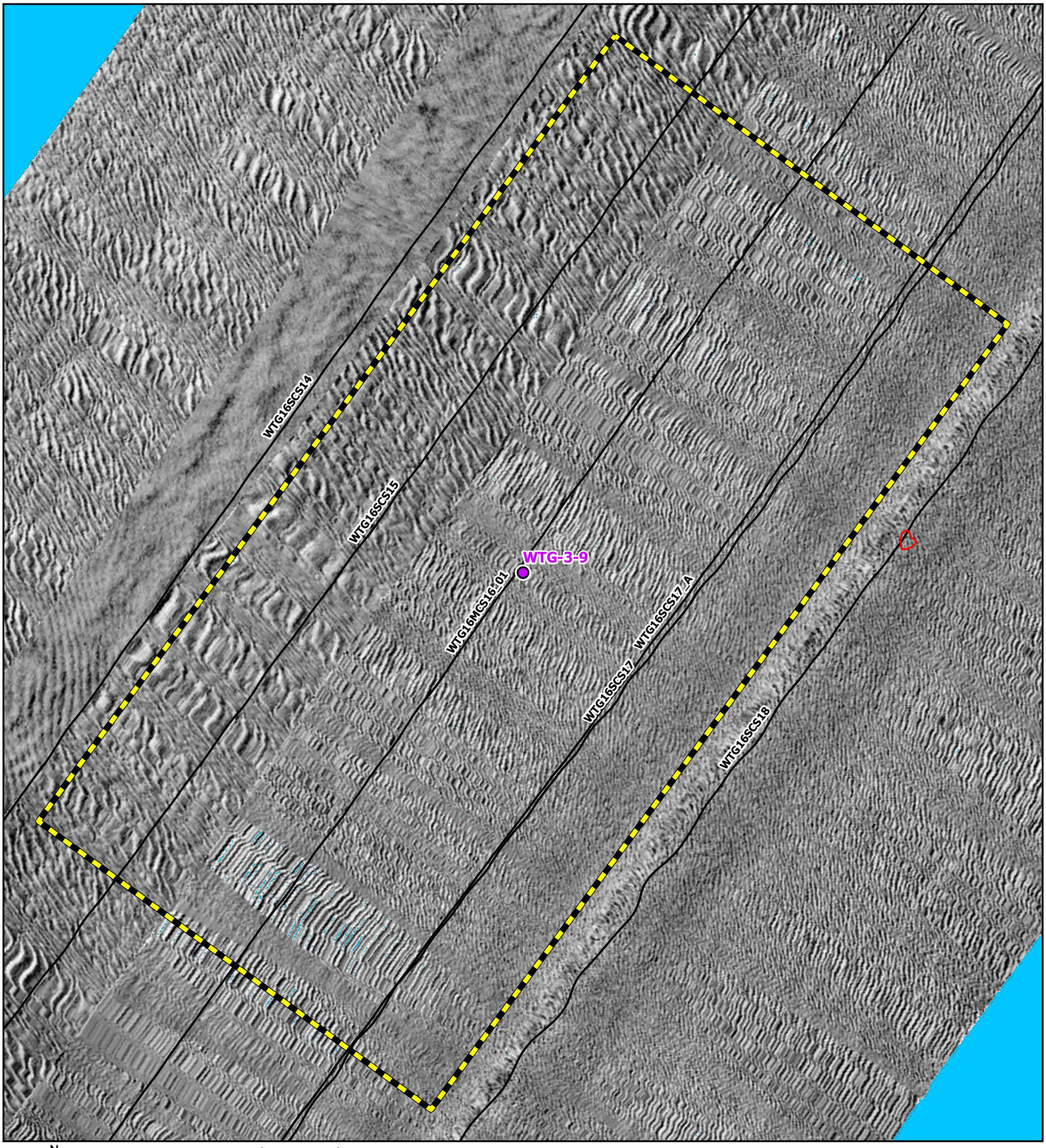
Map: 2

WTG-2-8

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

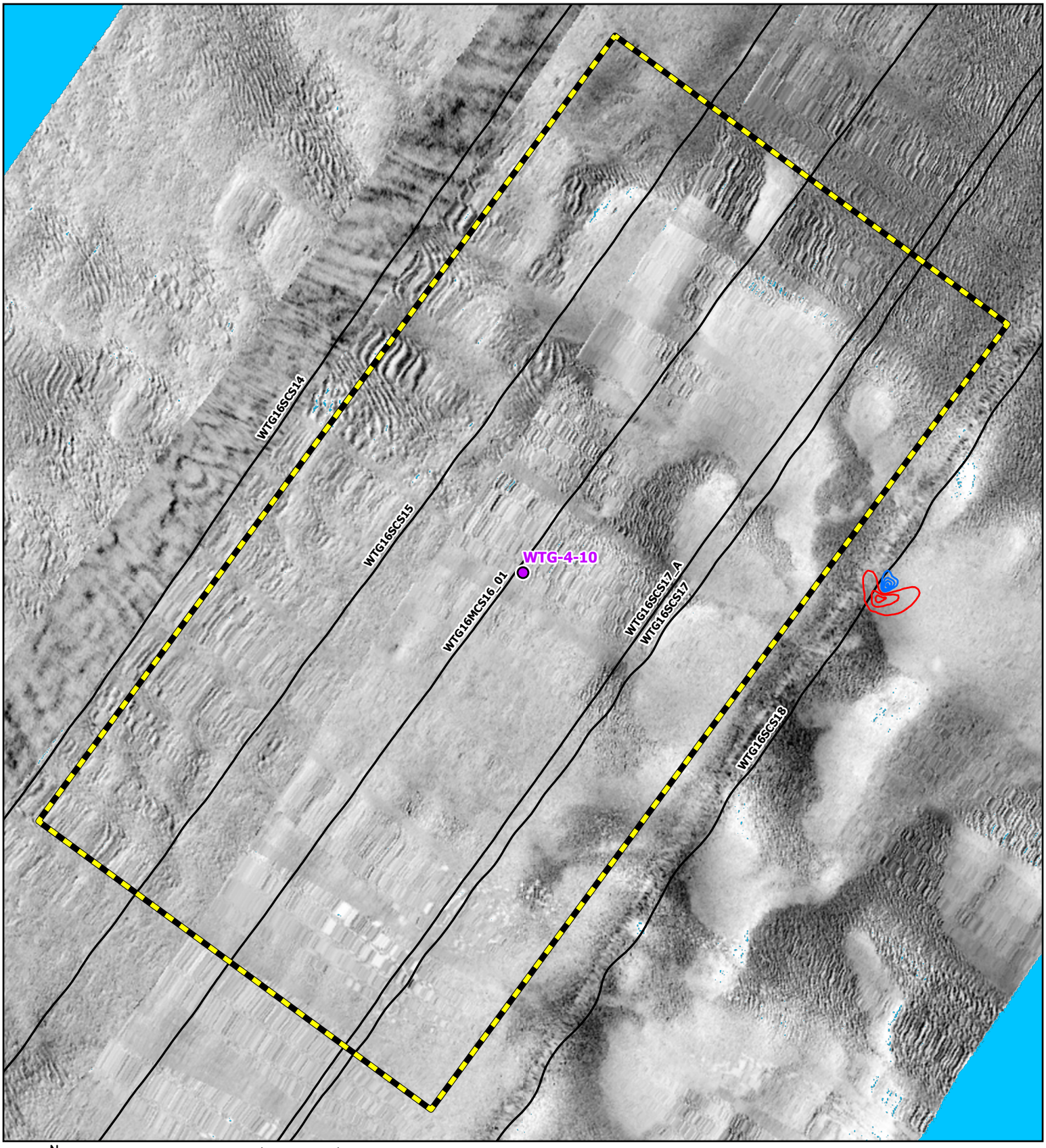
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 16

Map: 3

WTG-3-9

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

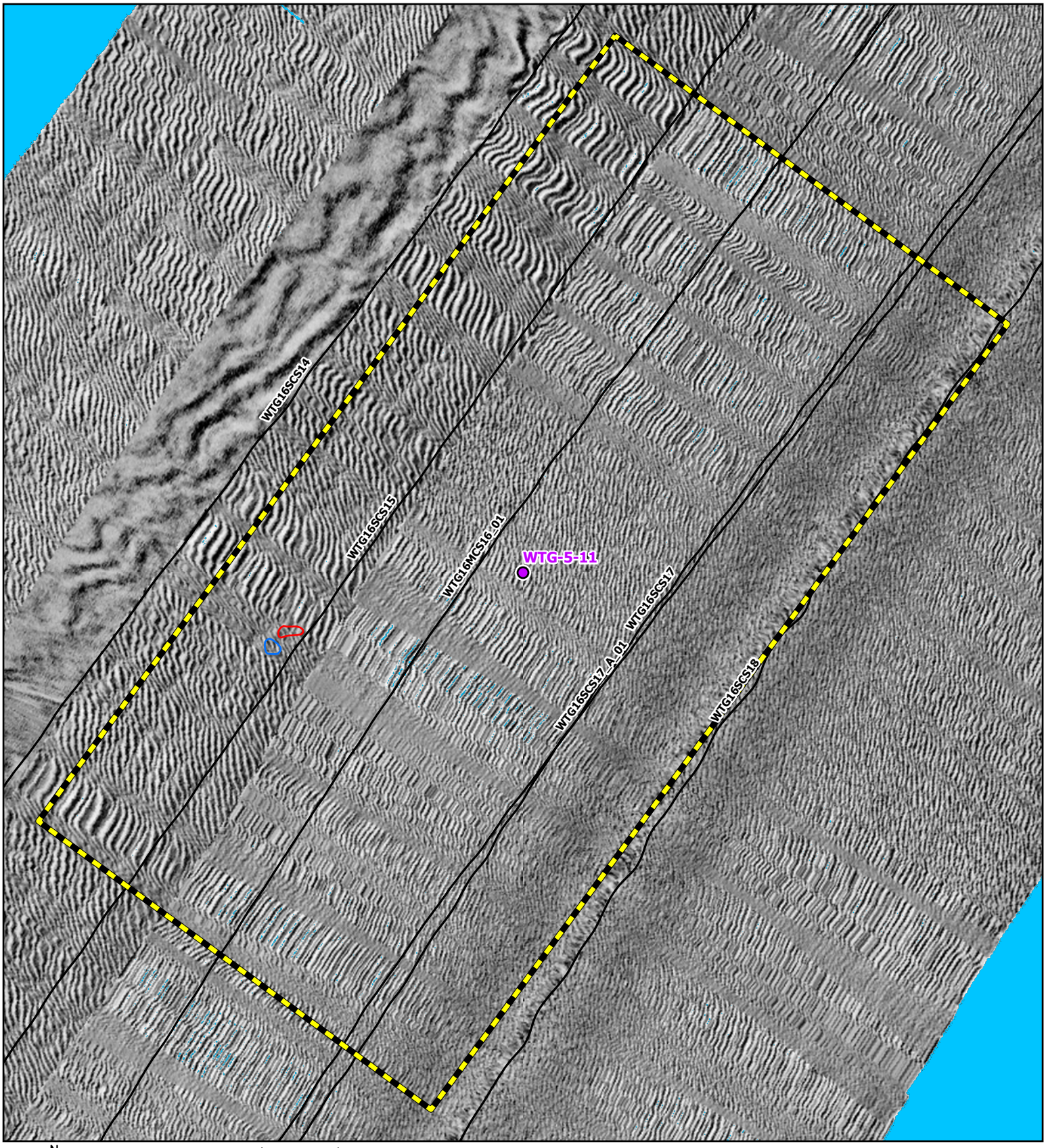
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 16

Map: 4

WTG-4-10

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

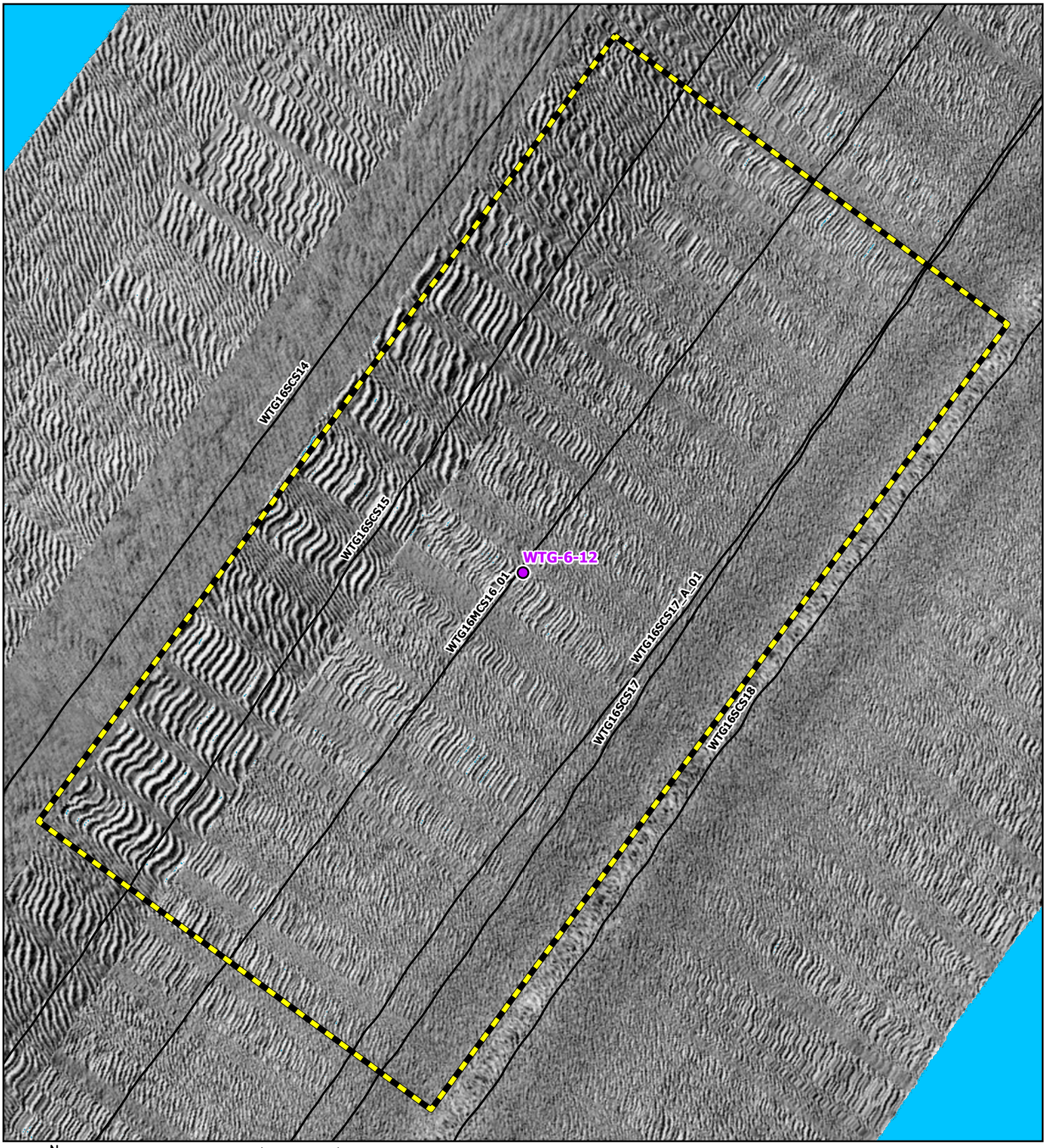
Map: 5

WTG-5-11

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

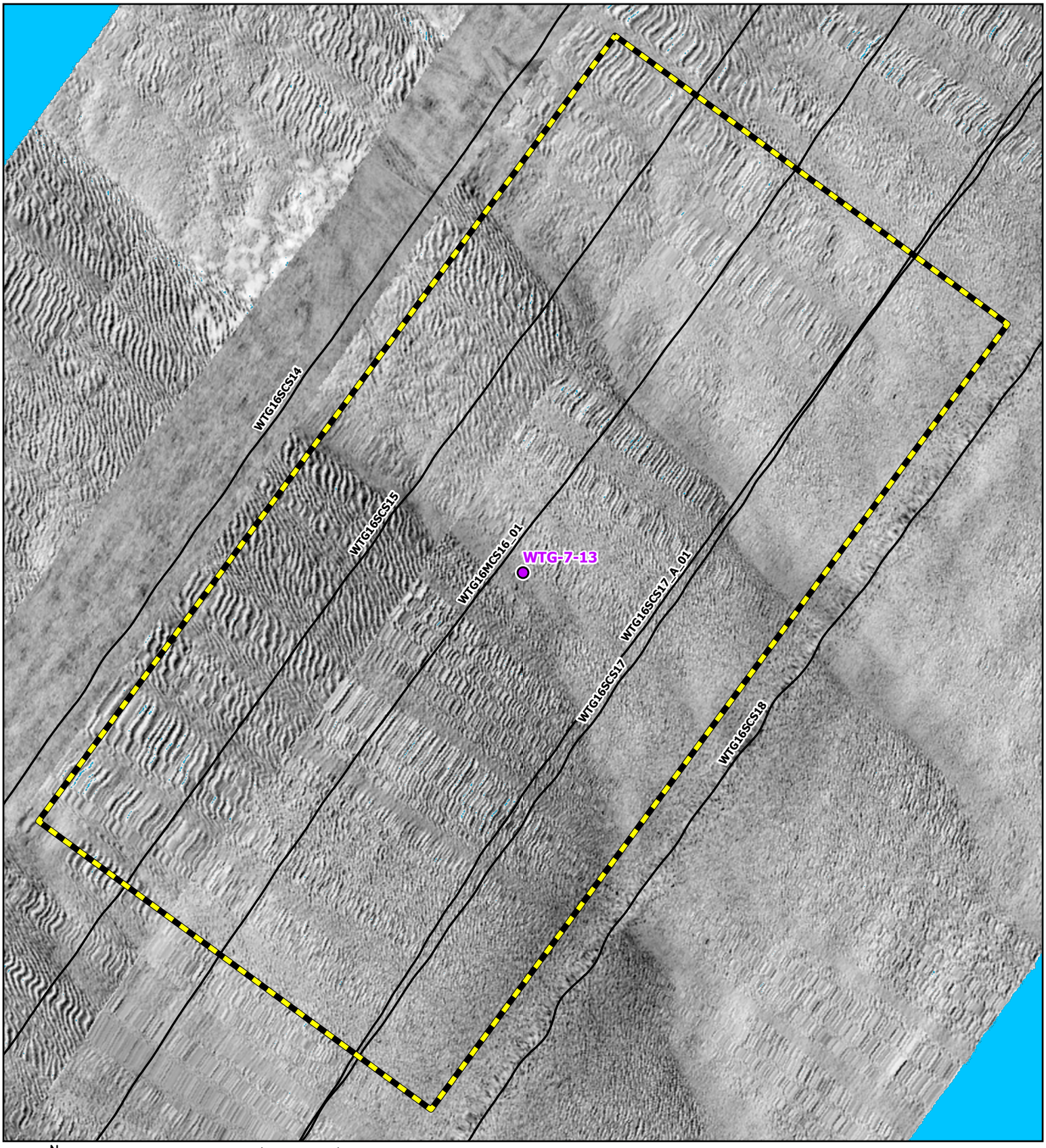
Map: 6

WTG-6-12

R. Christopher Goodwin & Associates, Inc.

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

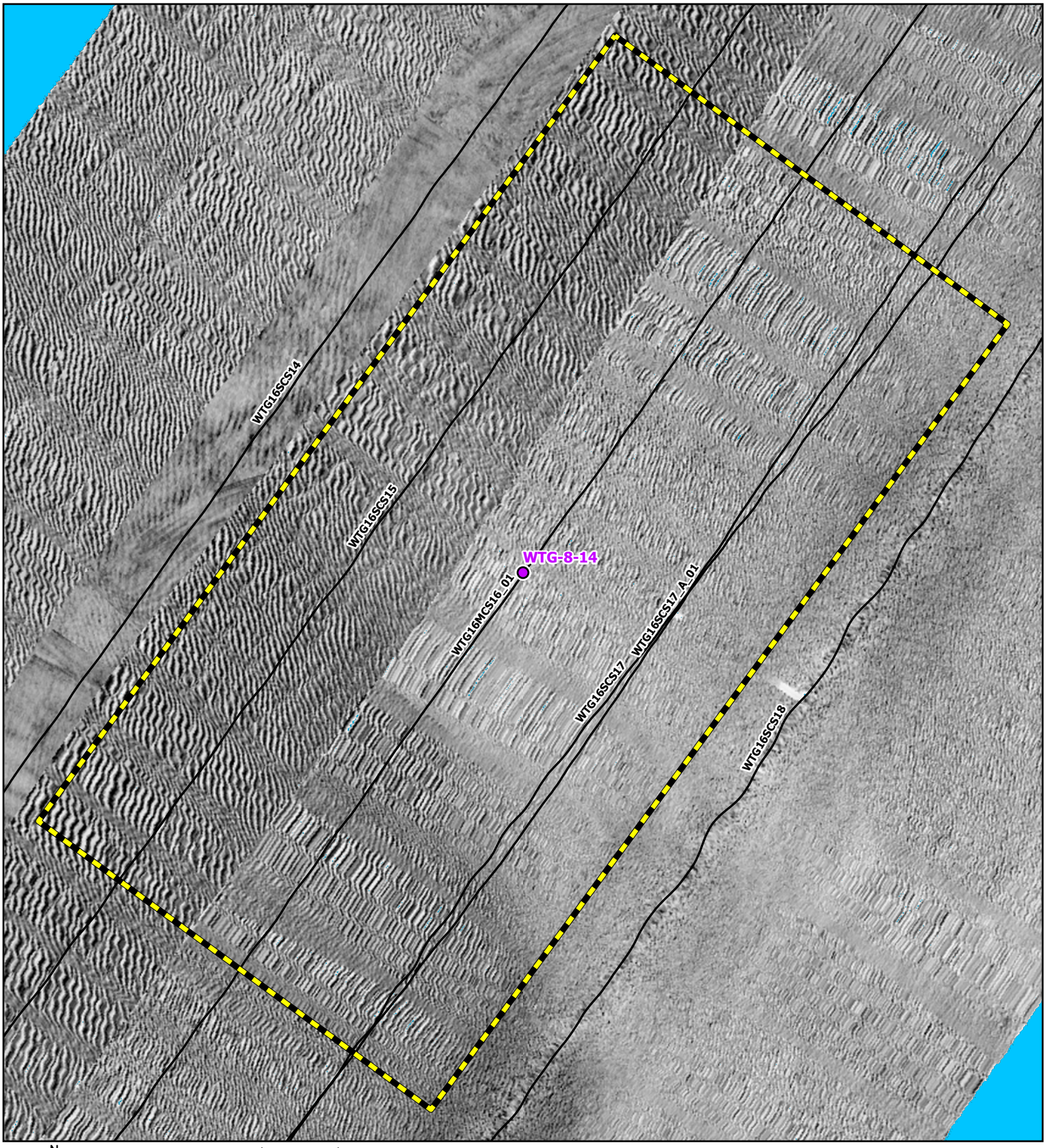
Map: 7

WTG-7-13

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

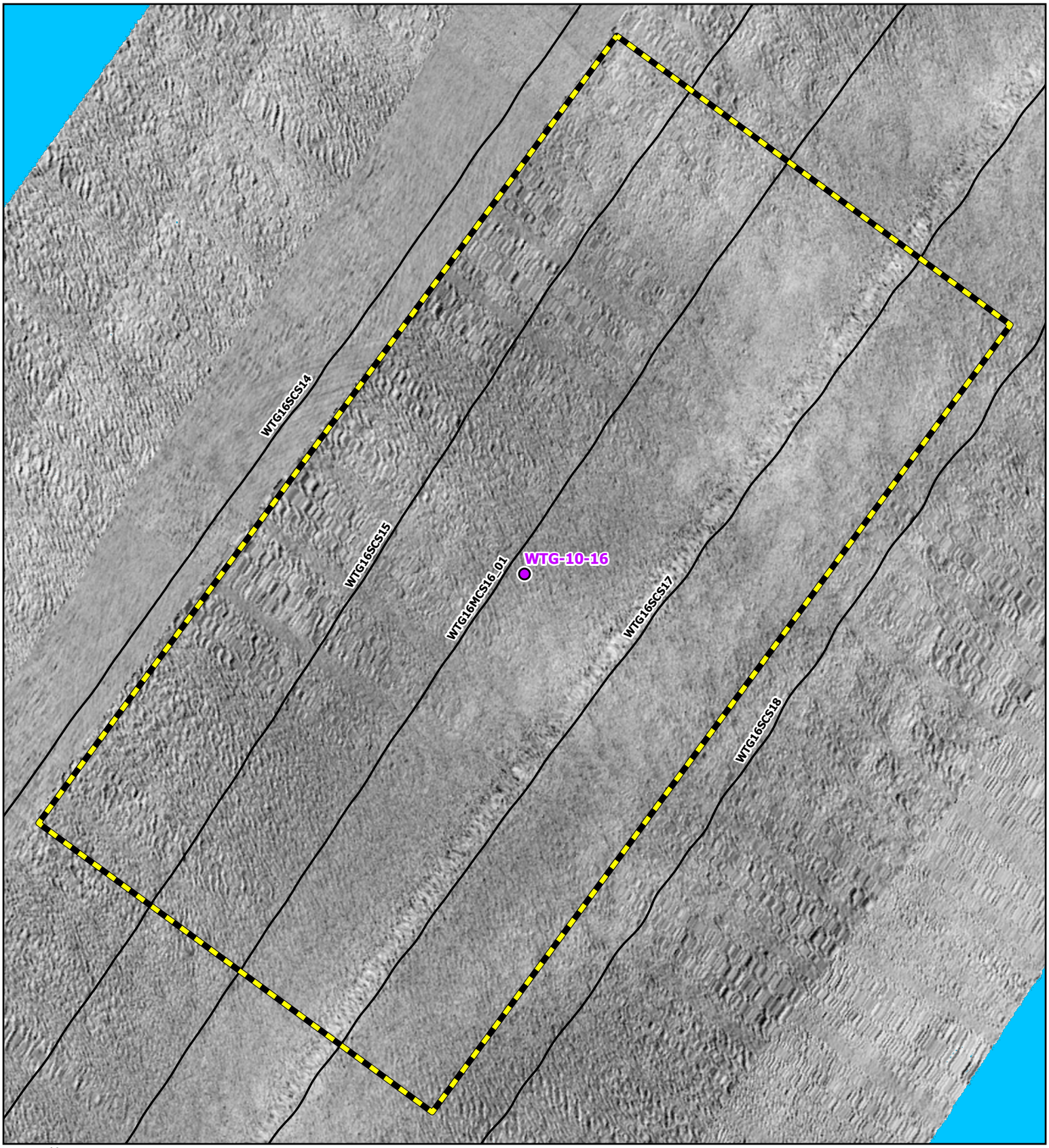
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

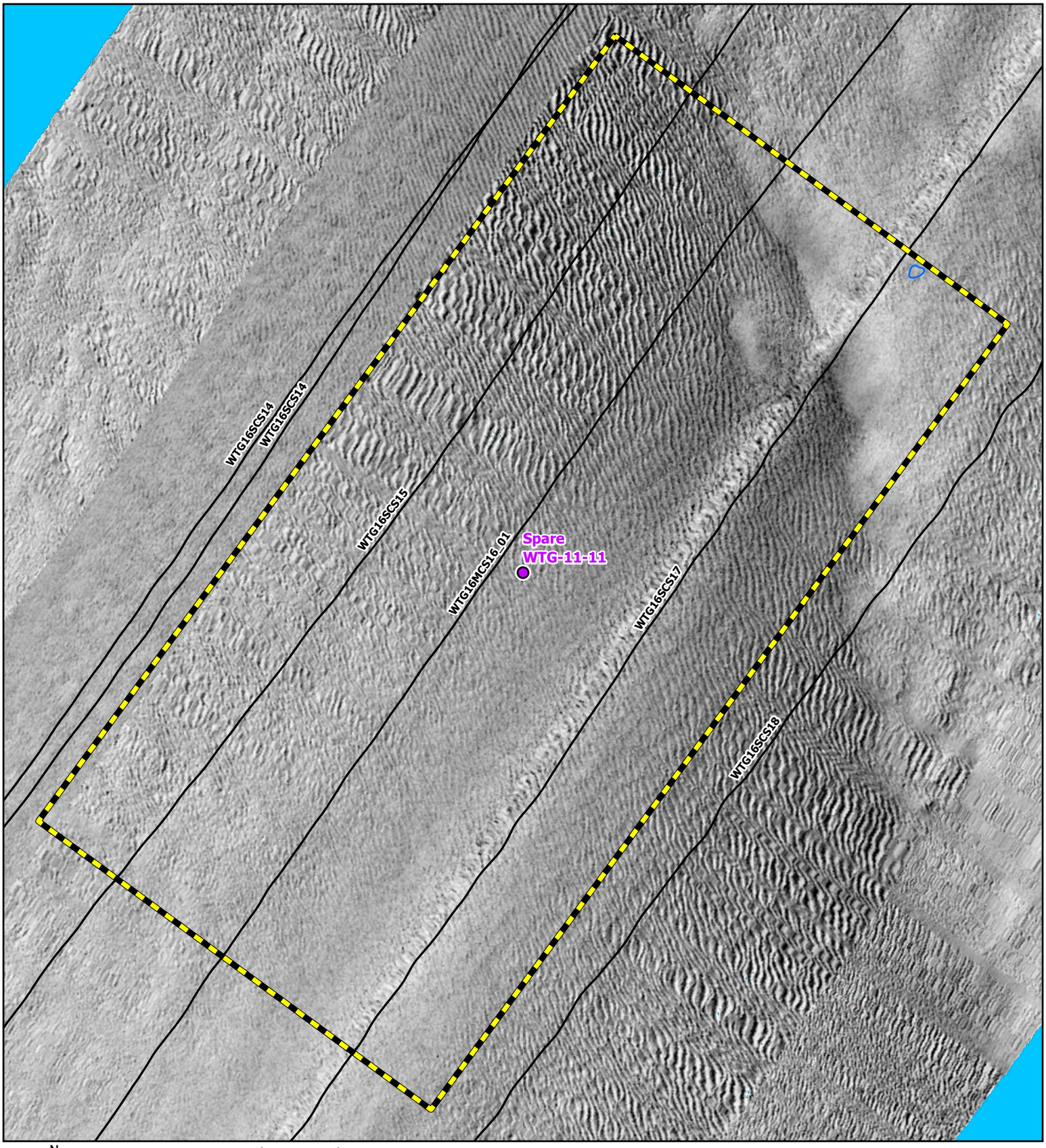
Map: 10

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

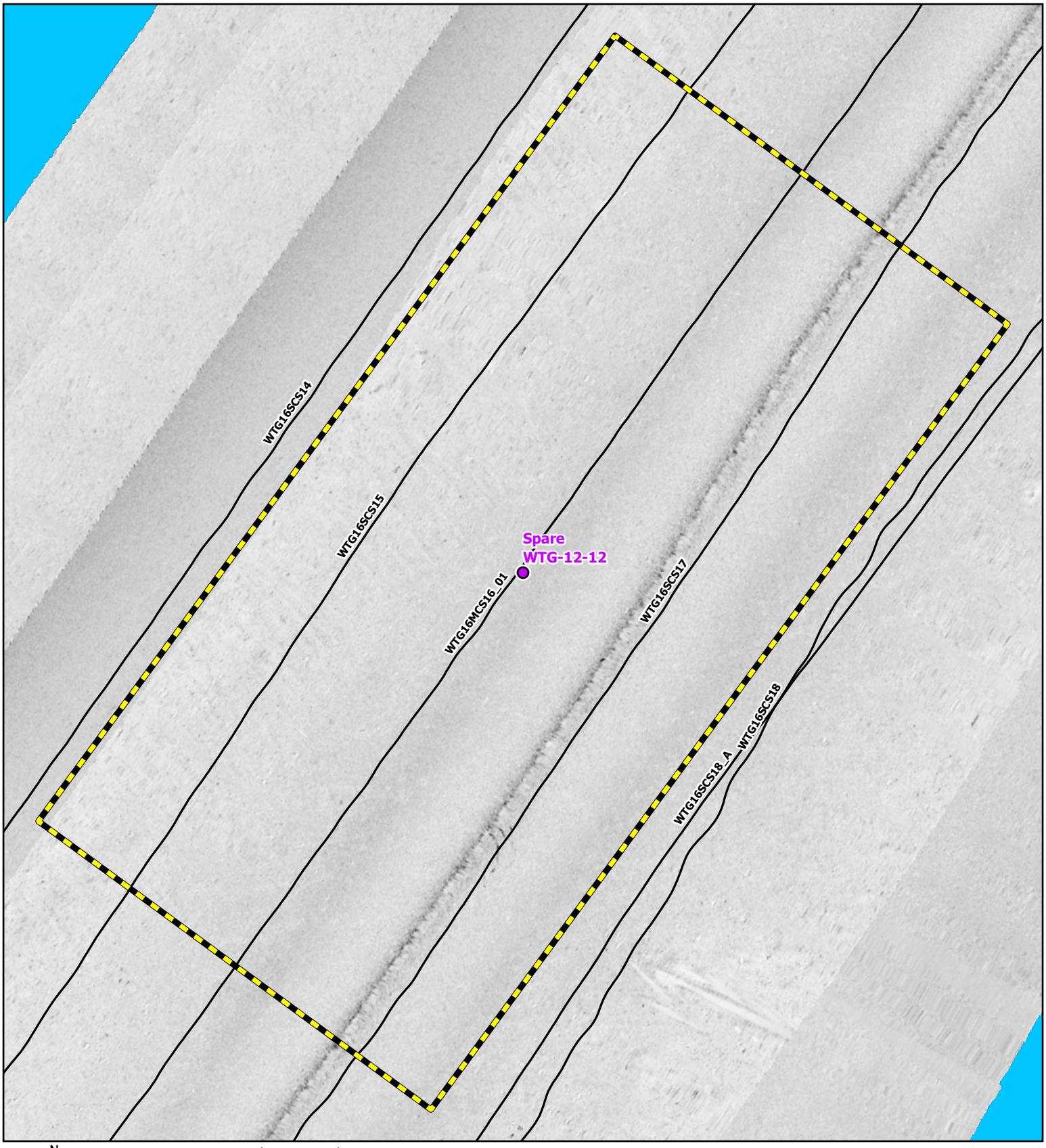
Map: 11

Spare WTG-11-11

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 16

Map: 12

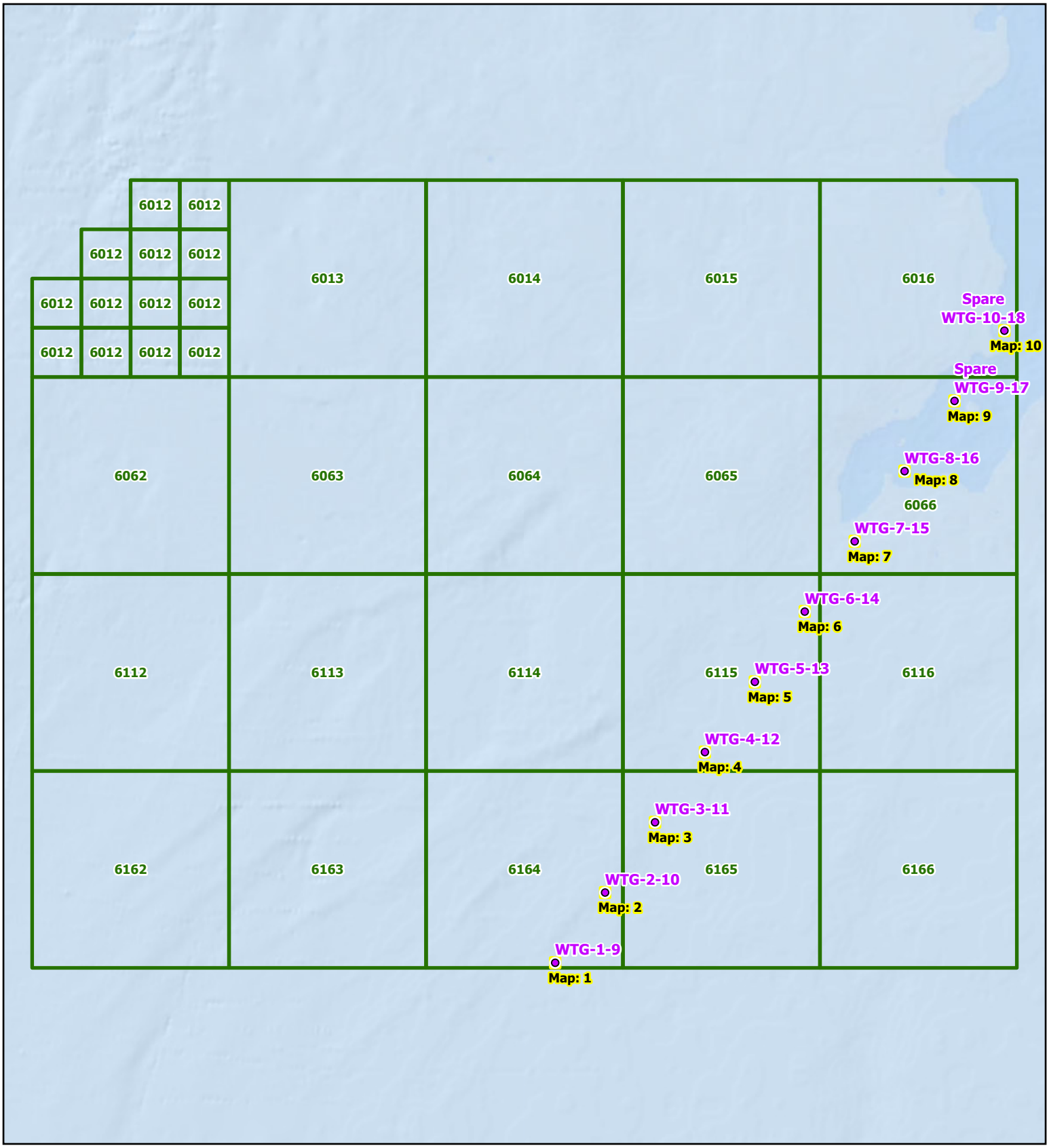
Spare WTG-12-12

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APPENDIX 5
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 18



N
W E
S
Grid North

WMS: Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

0 1 2 3 4 Kilometers

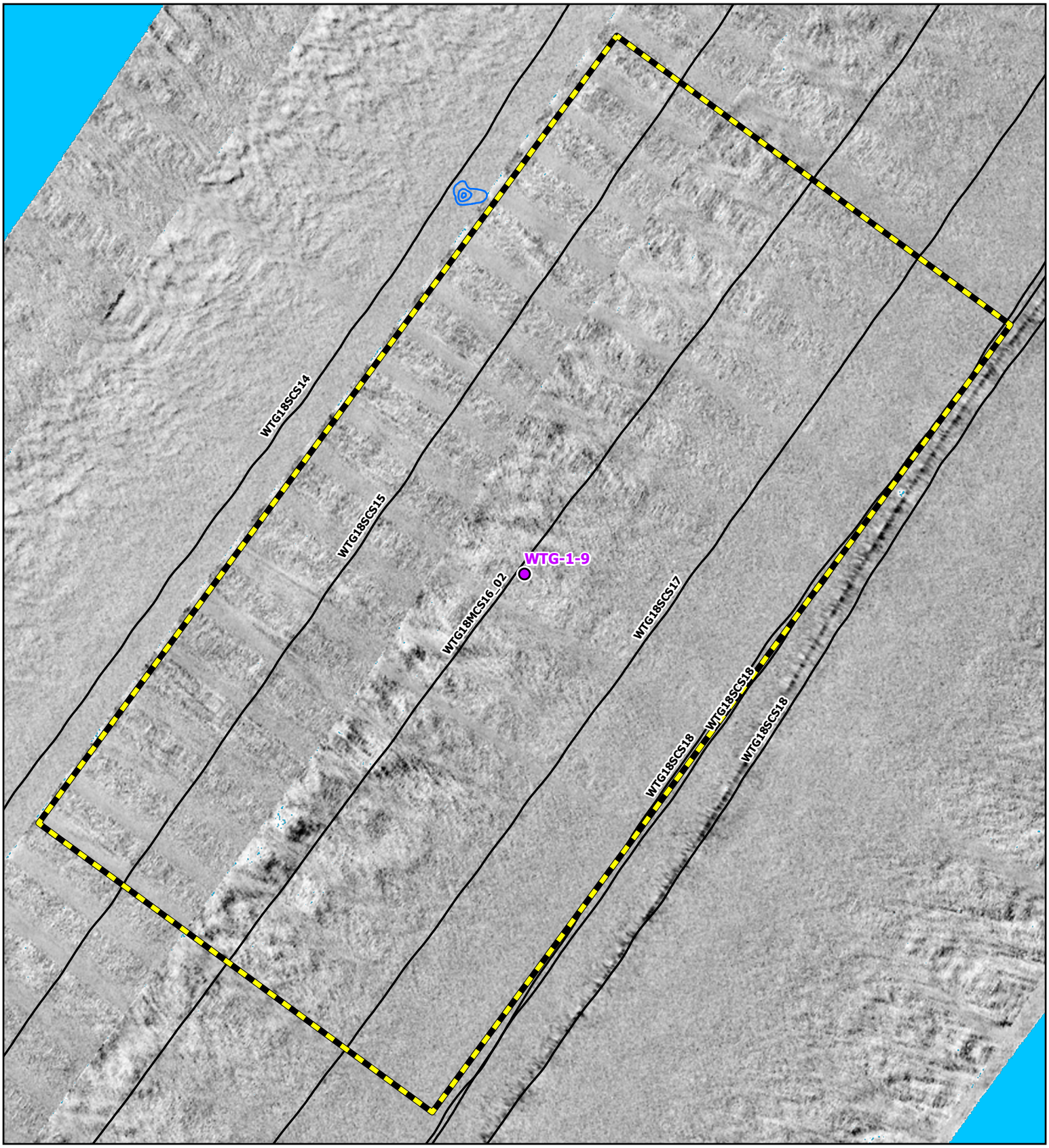
- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 18

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

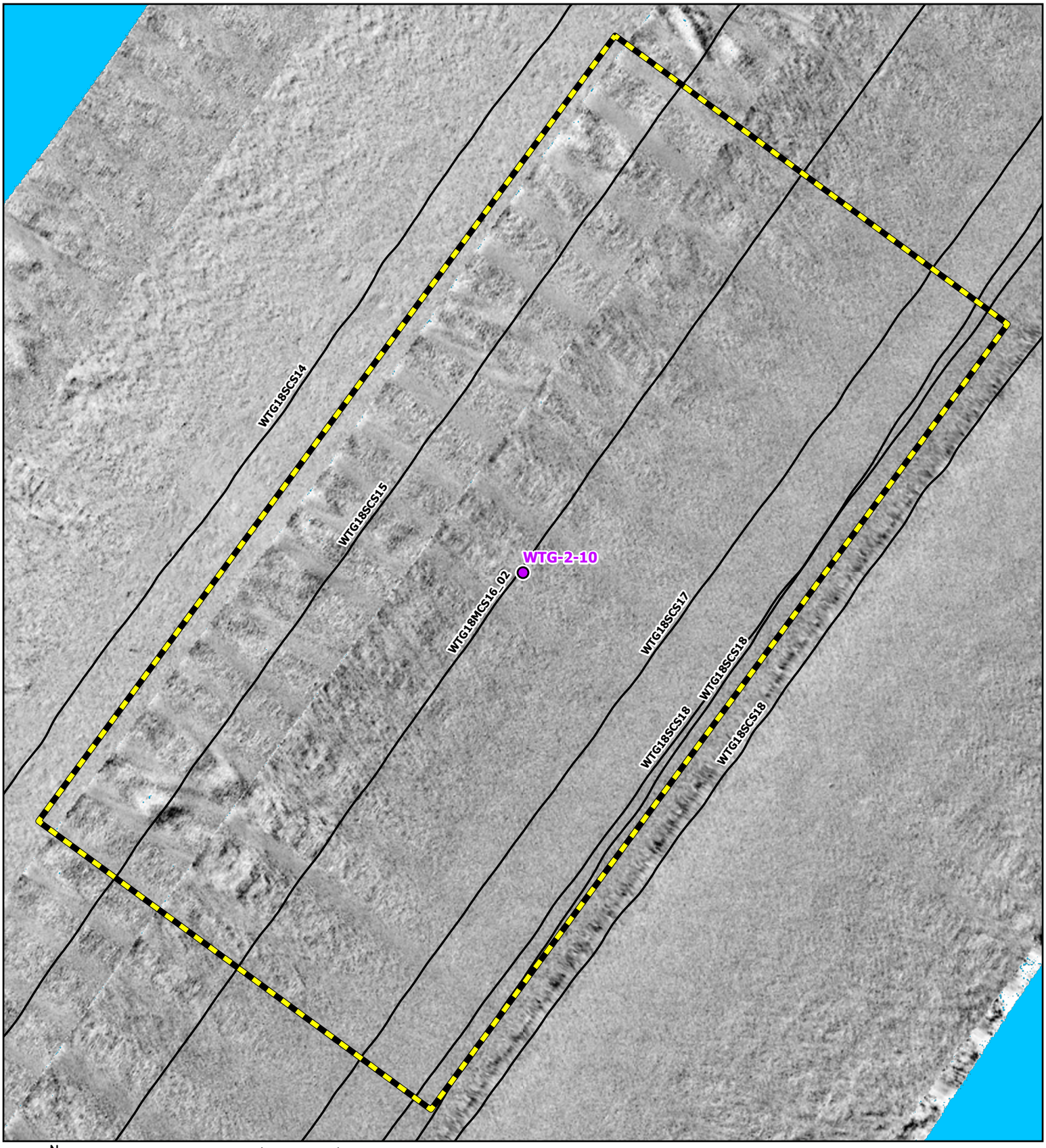
Map: 1

WTG-1-9

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

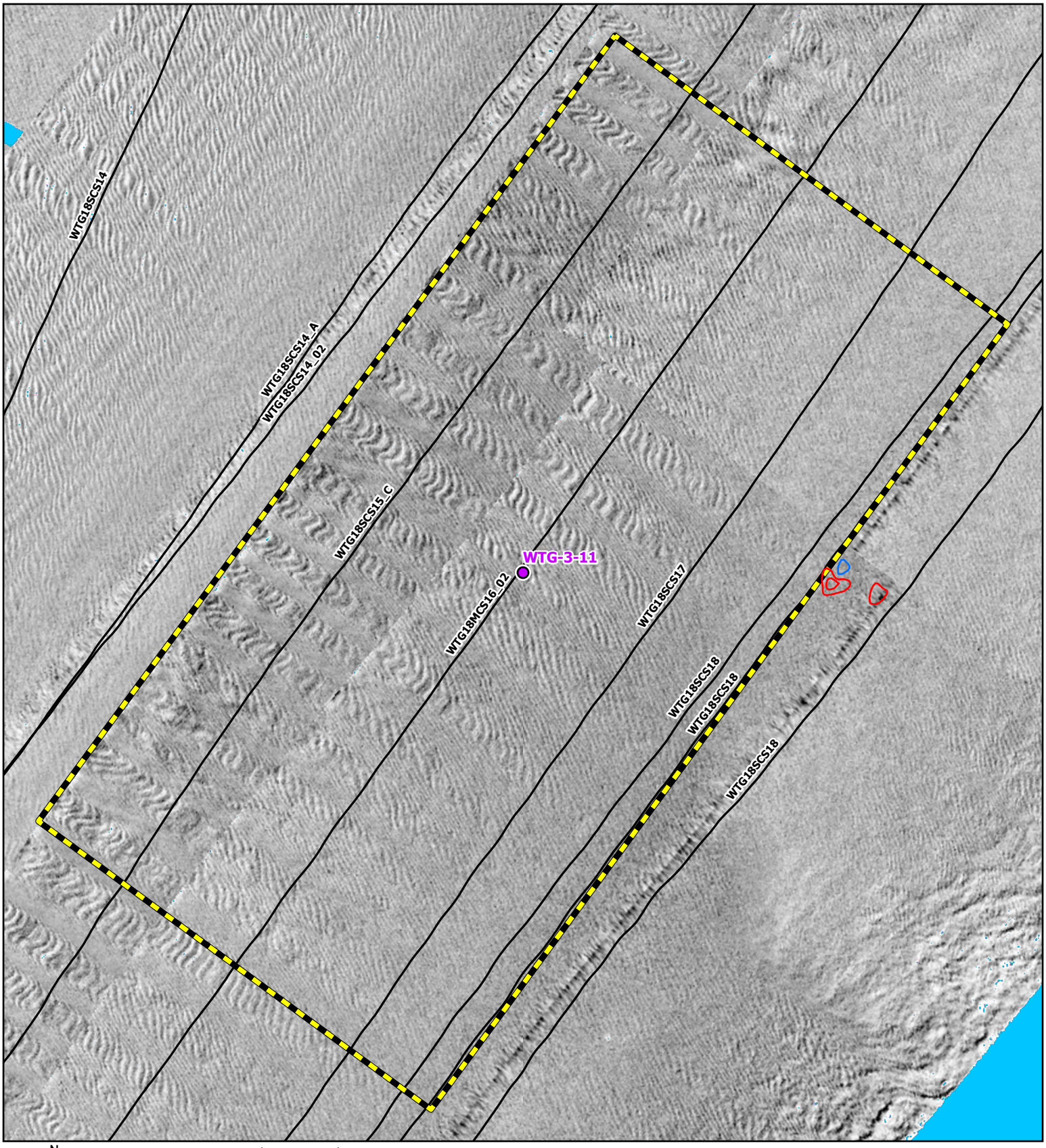
Map: 2

WTG-2-10

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

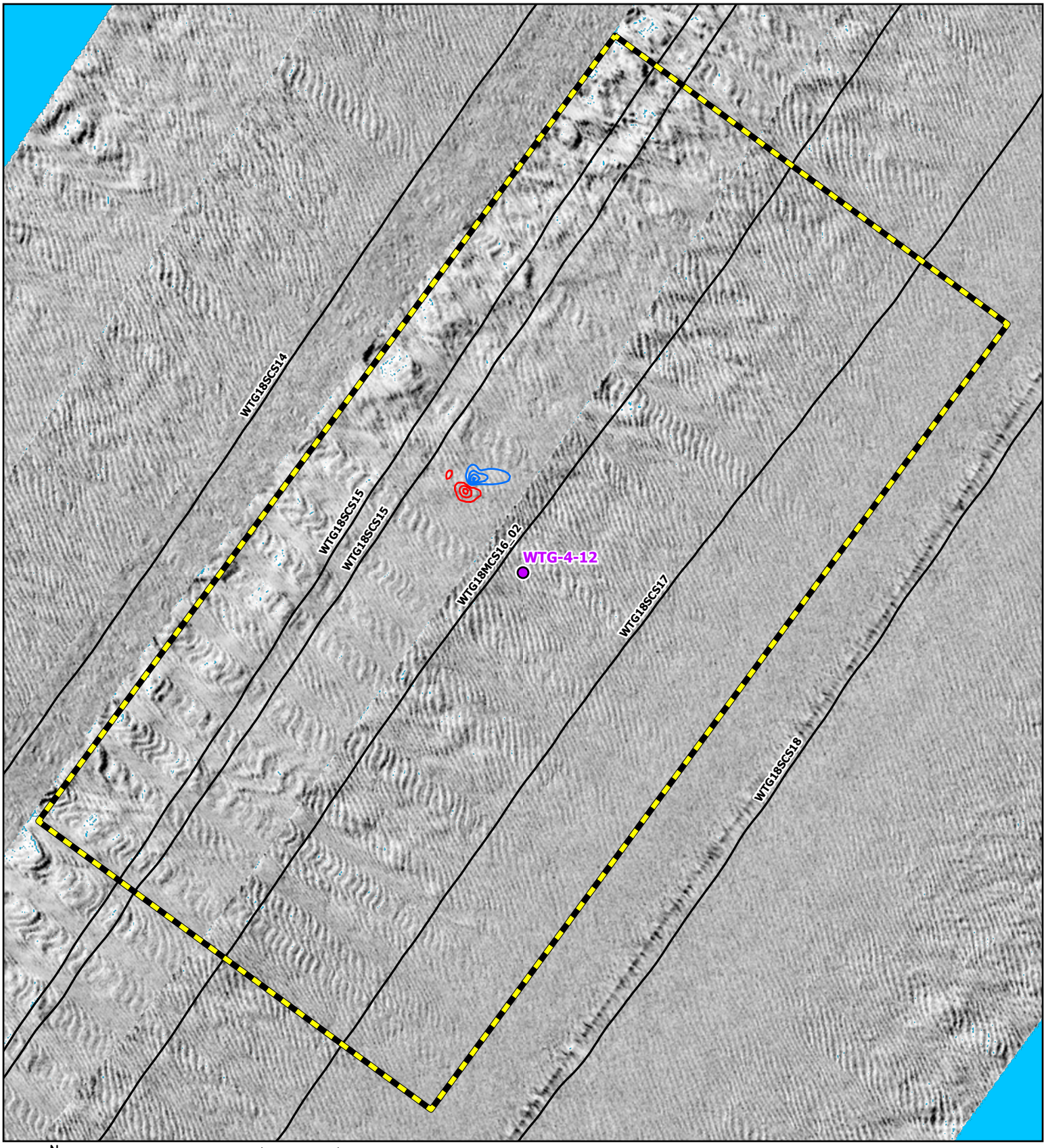
Geotechnical Clearance: Corridor 18

Map: 3

WTG-3-11

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

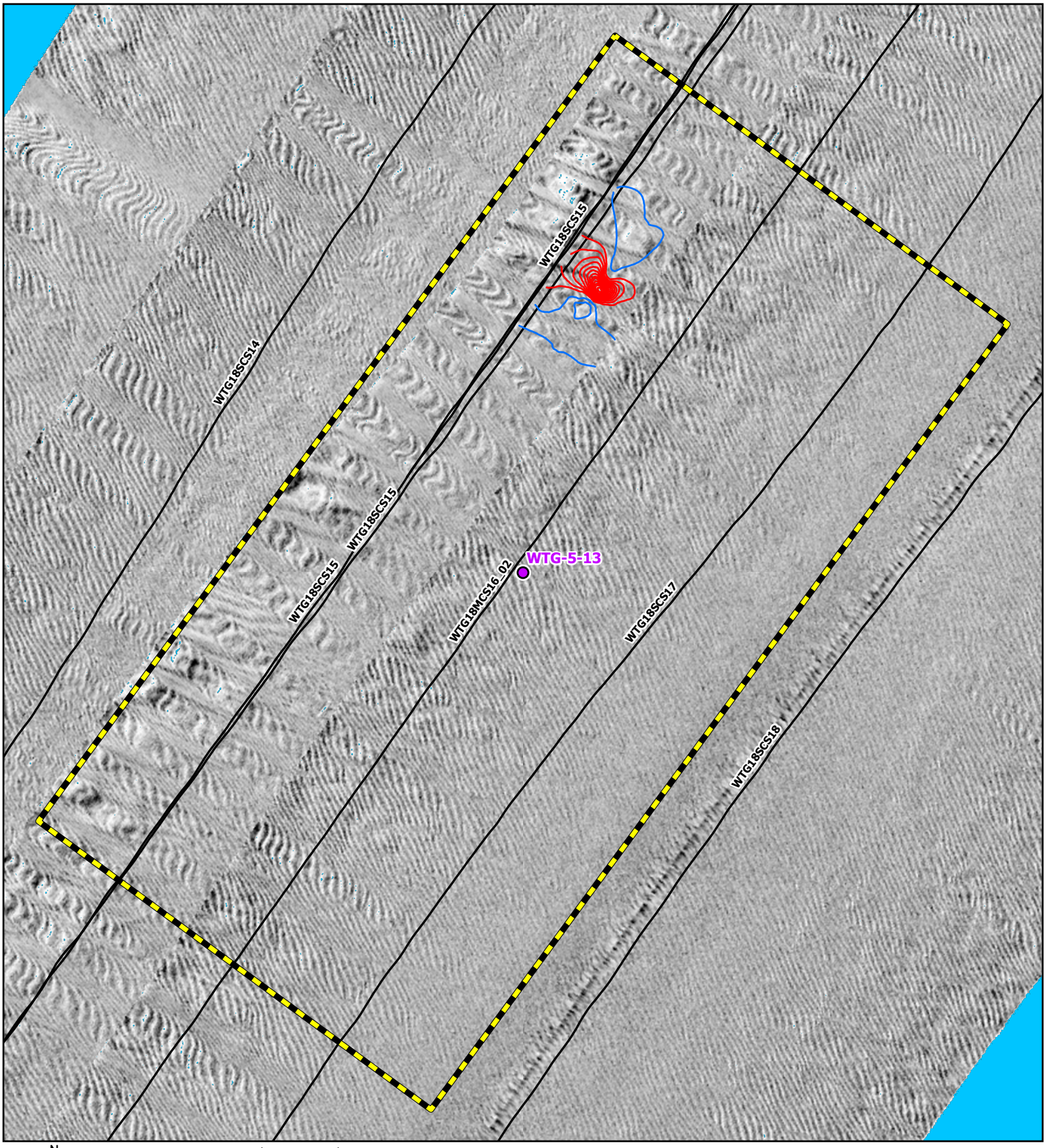
Map: 4

WTG-4-12

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

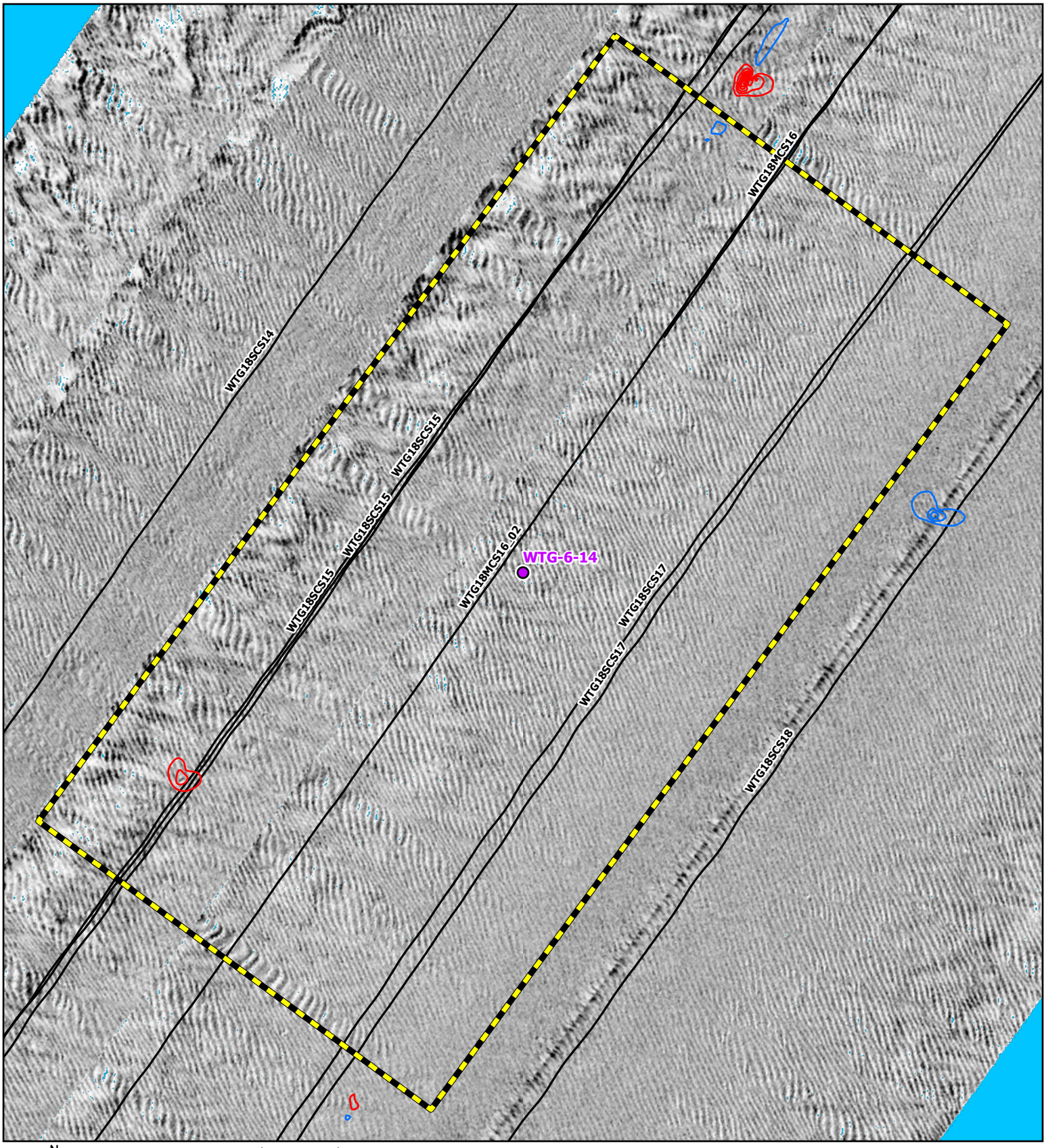
Map: 5

WTG-5-13

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MARINE ARCHAEOLOGY FROM STEM TO STERN



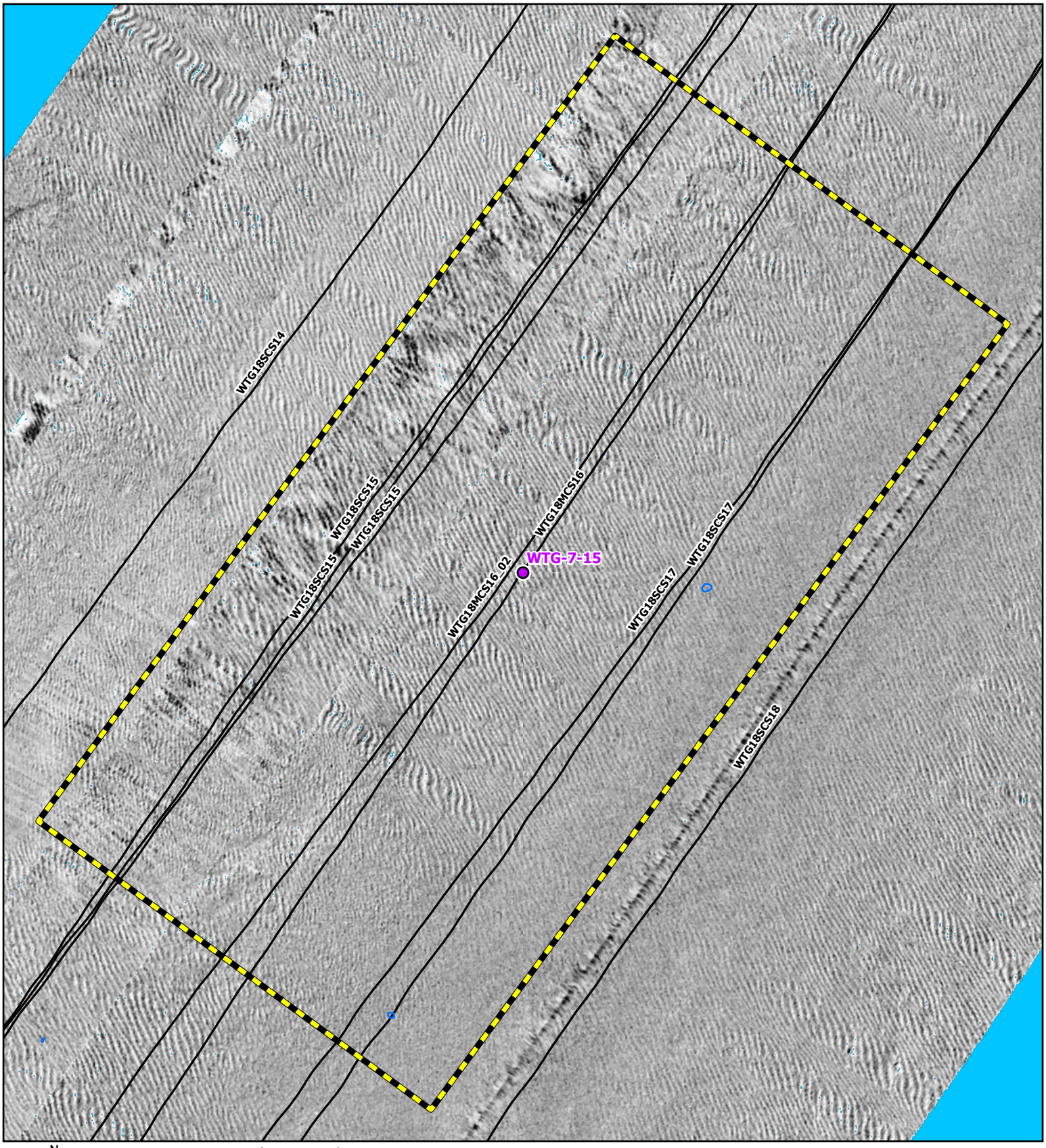
N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 18
Map: 6
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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

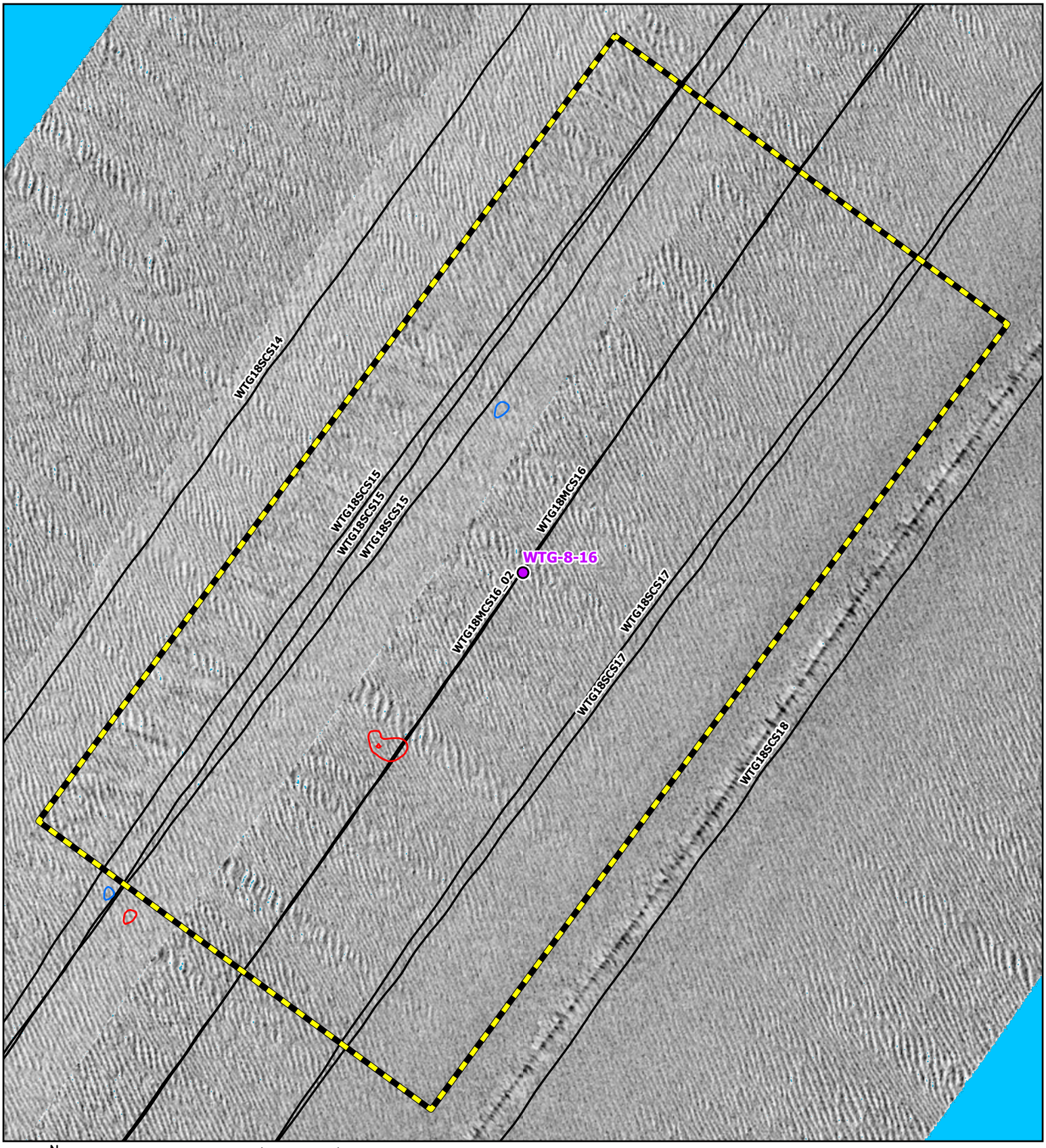
Map: 7

WTG-7-15

R. Christopher Goodwin & Associates, Inc.

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,050
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 18

Map: 8
WTG-8-16

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

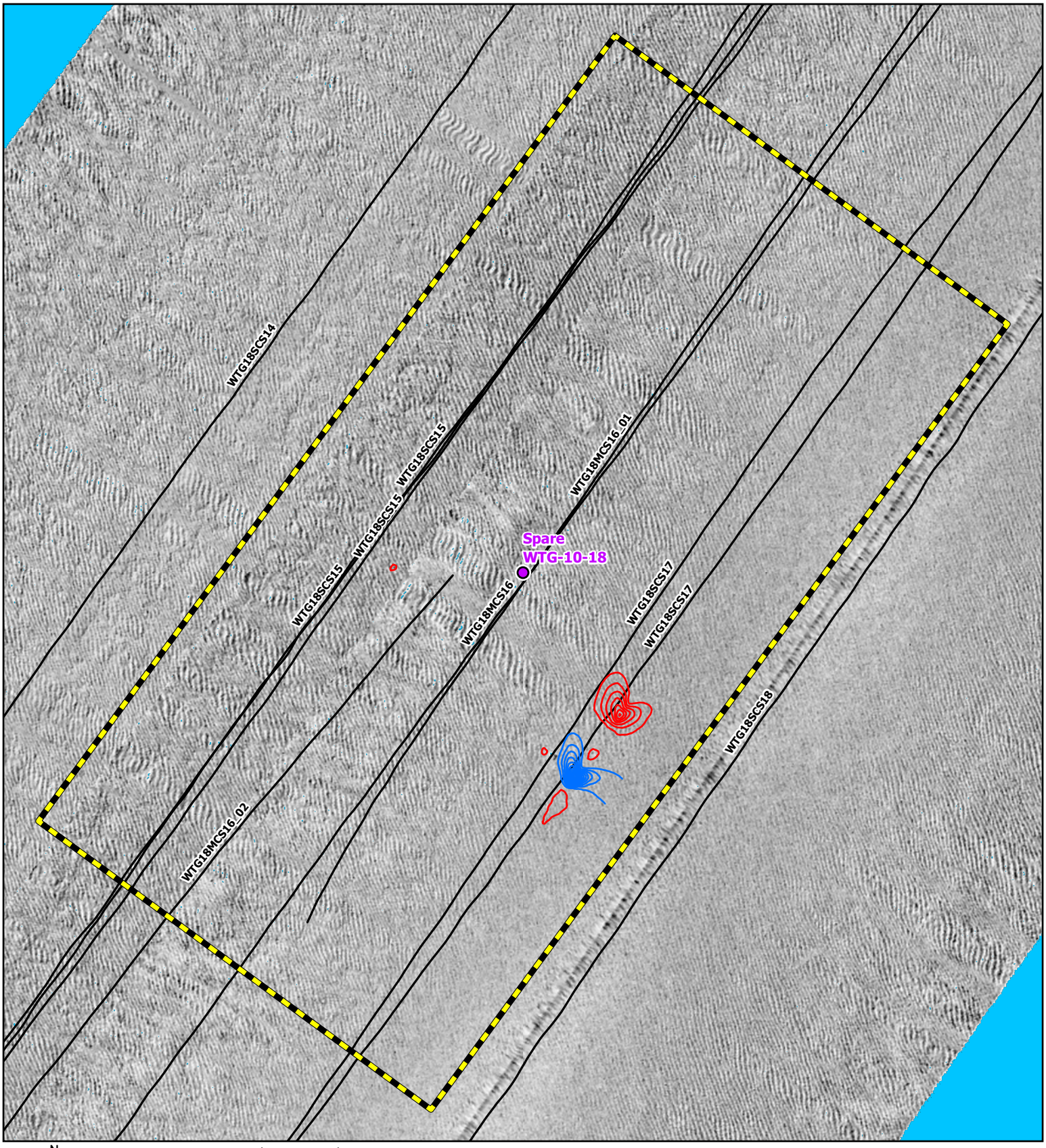
Map: 9

Spare WTG-9-17

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 18

Map: 10

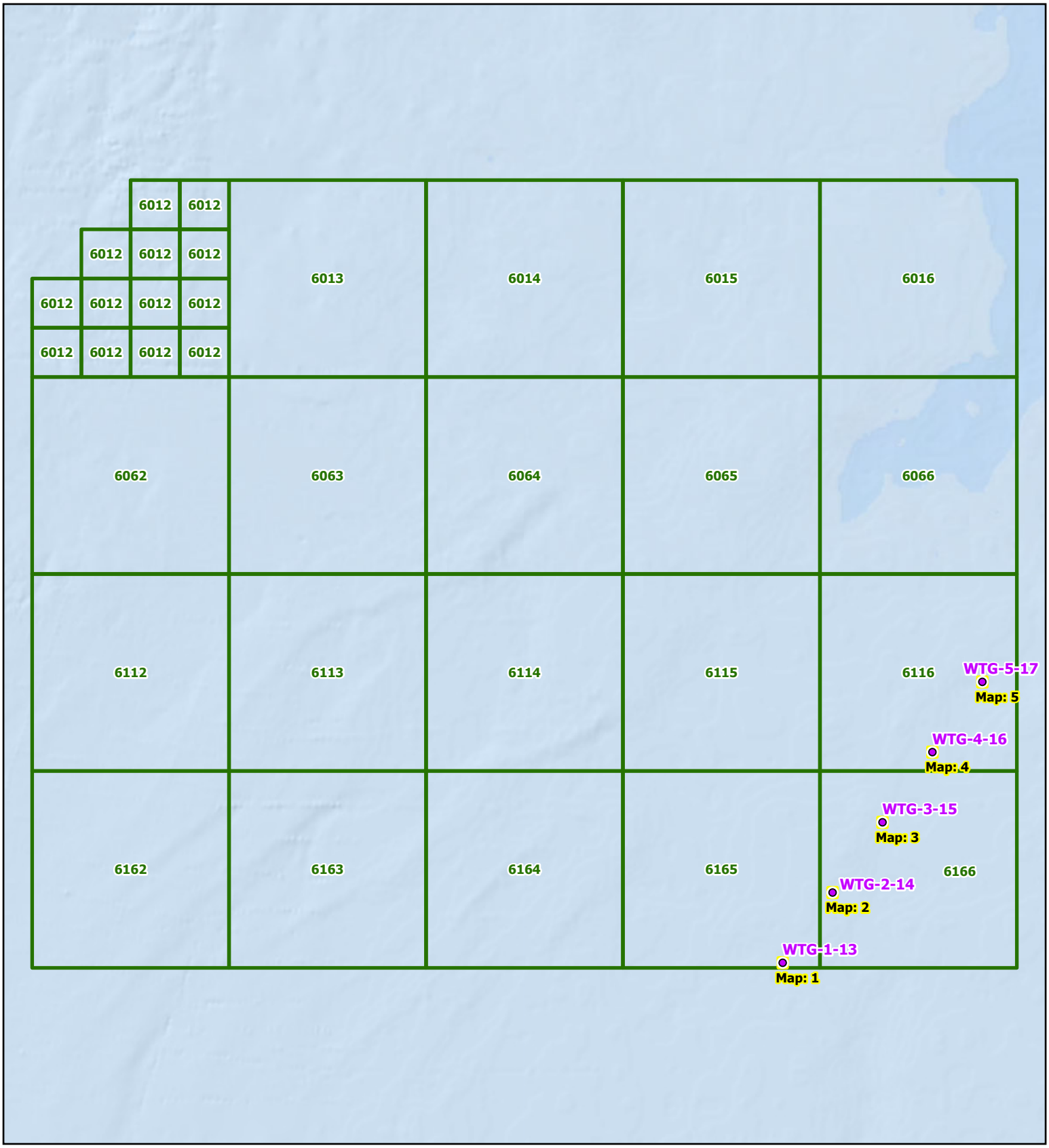
Spare WTG-10-18

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APPENDIX 6
ARCHAEOLOGICAL RESOURCES MAPS FOR CORRIDOR 22



N
W E
S
Grid North

WMS:Esri, DeLorme, NaturalVue

MSR: 1:125,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 0.5 1 1.5 2 Miles

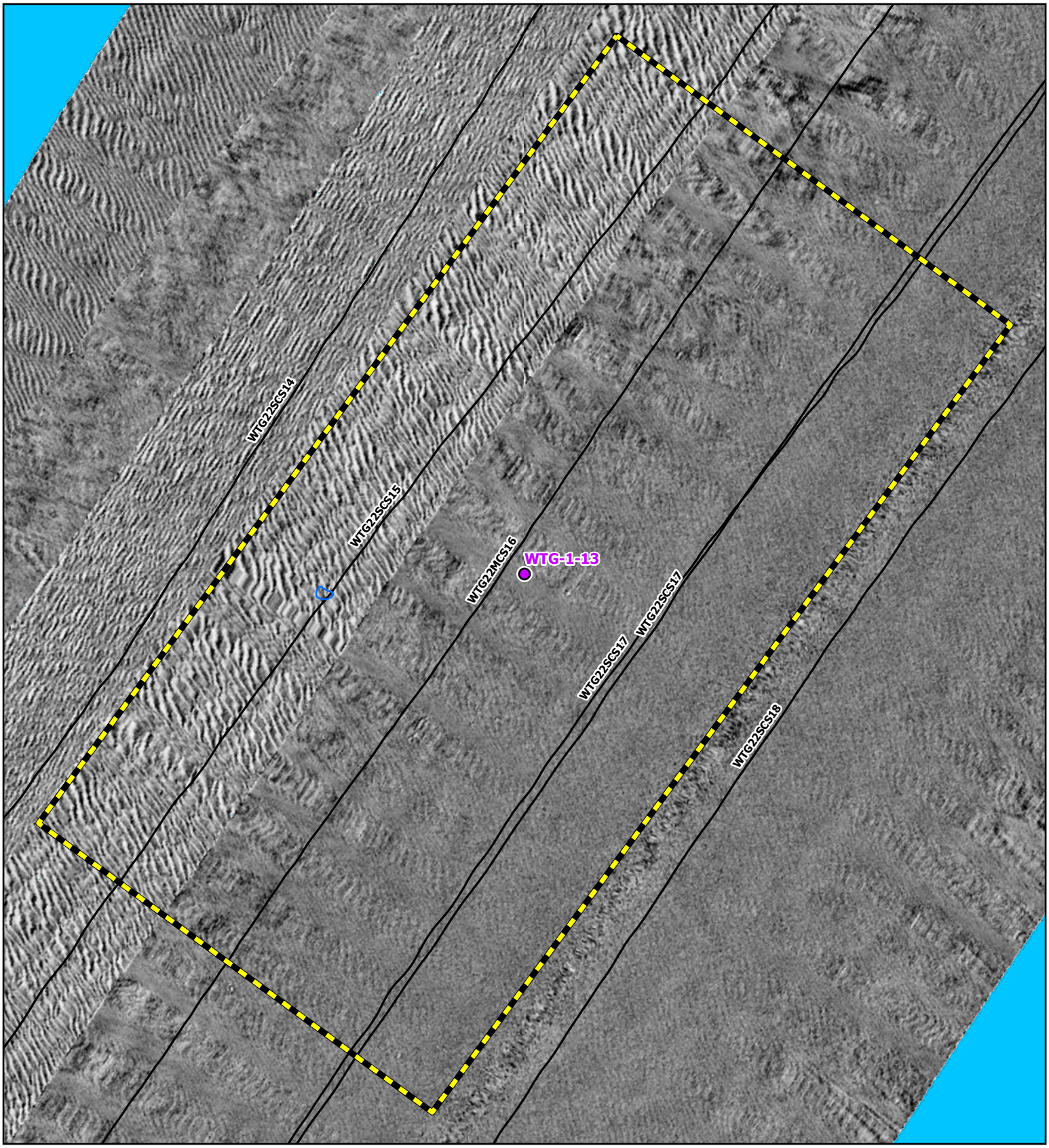
0 1 2 3 4 Kilometers

- Geotechnical Location
- Map Sheet Extent
- Lease Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 22

Index Map

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

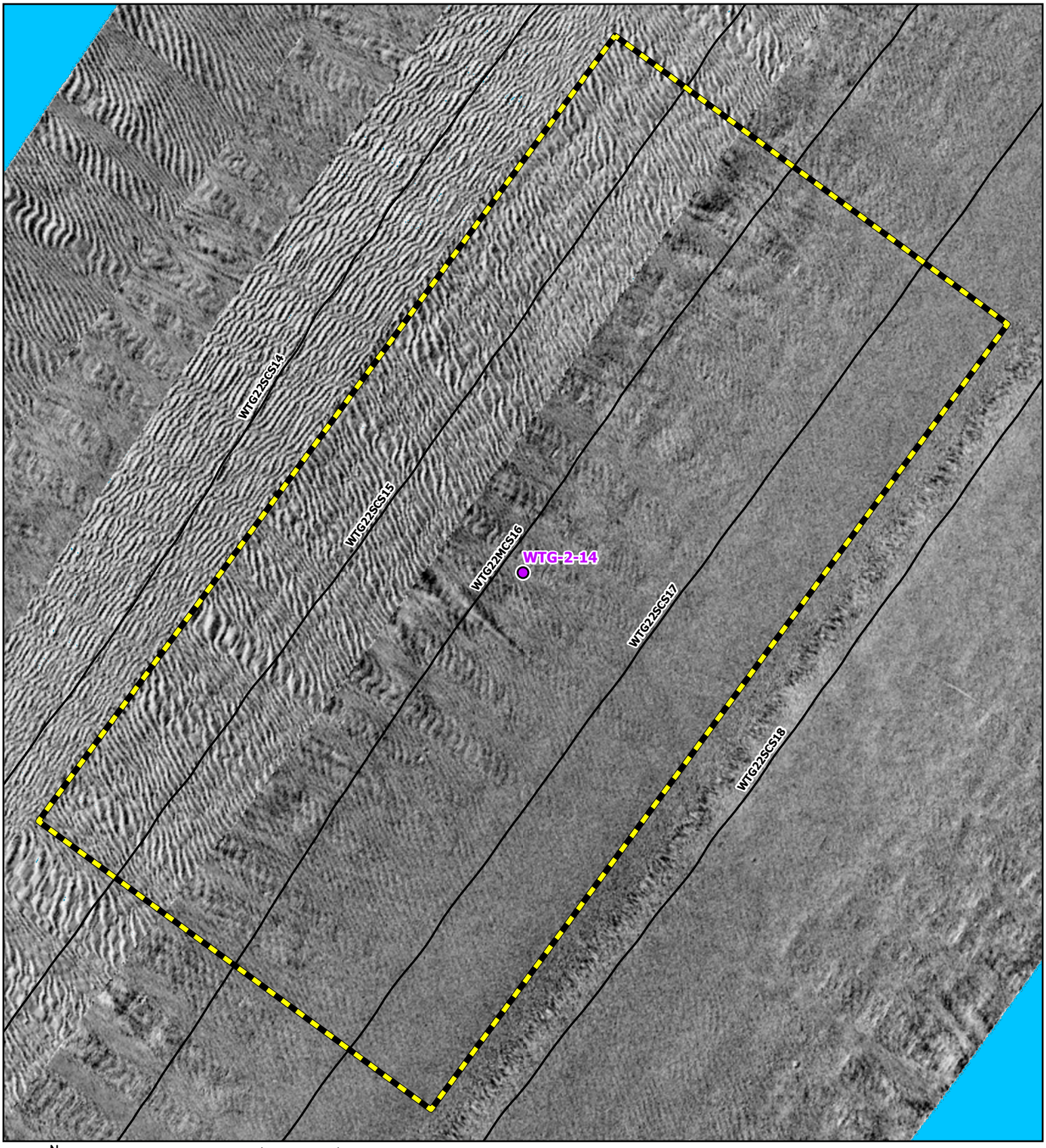
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 22

Map: 1

WTG-1-13

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

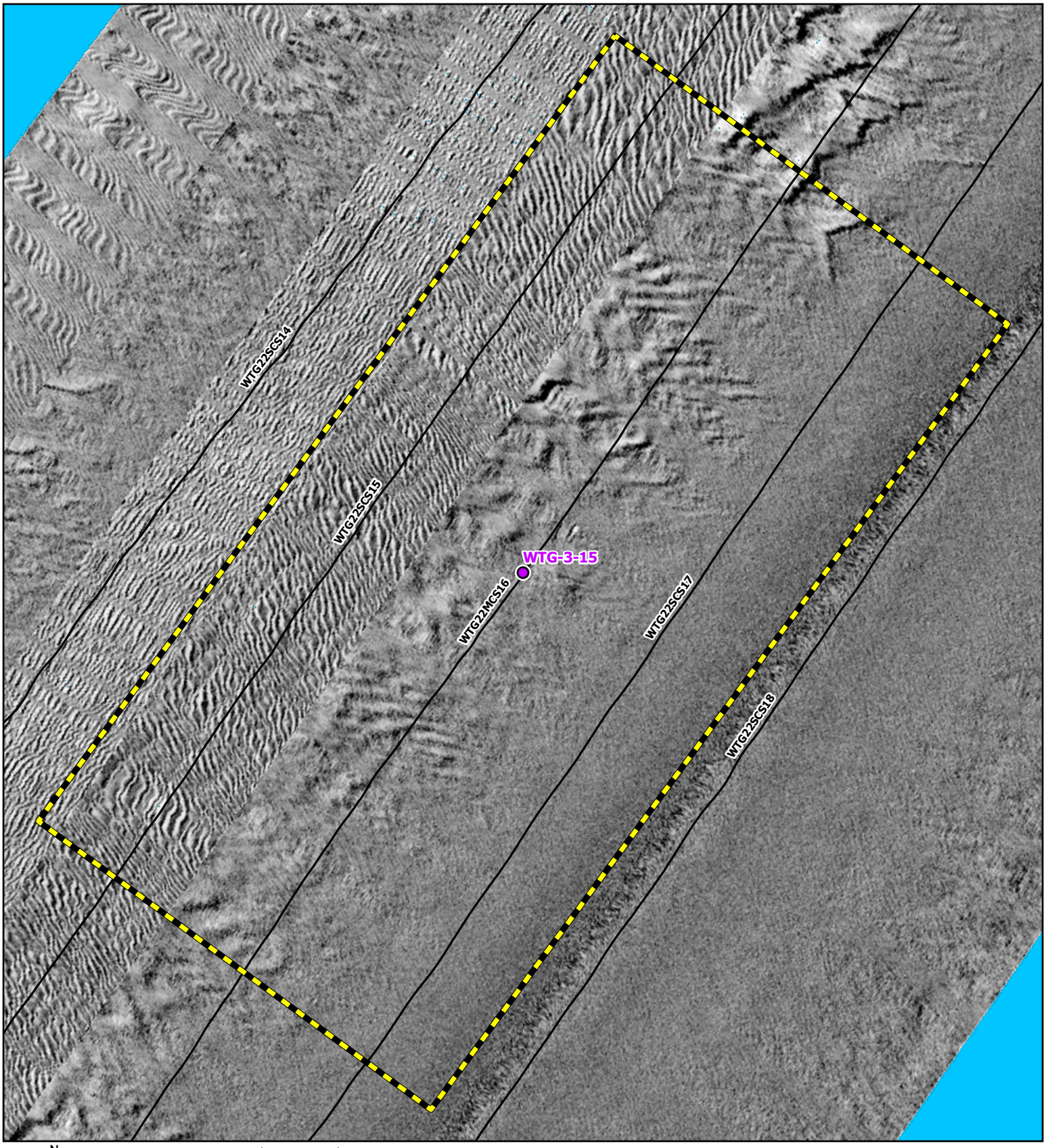
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 22

Map: 2

WTG-2-14

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 22

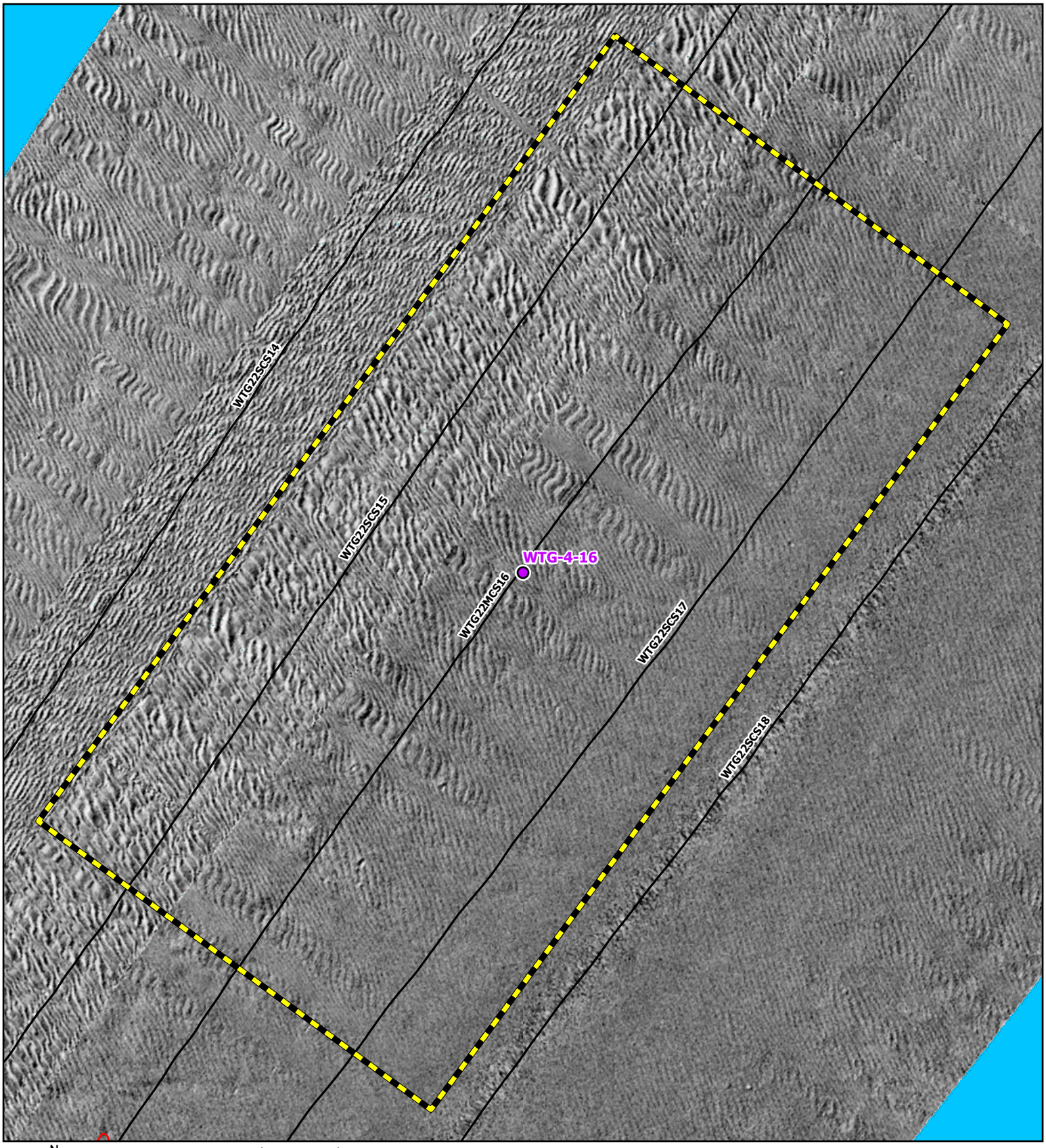
Map: 3

WTG-3-15

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

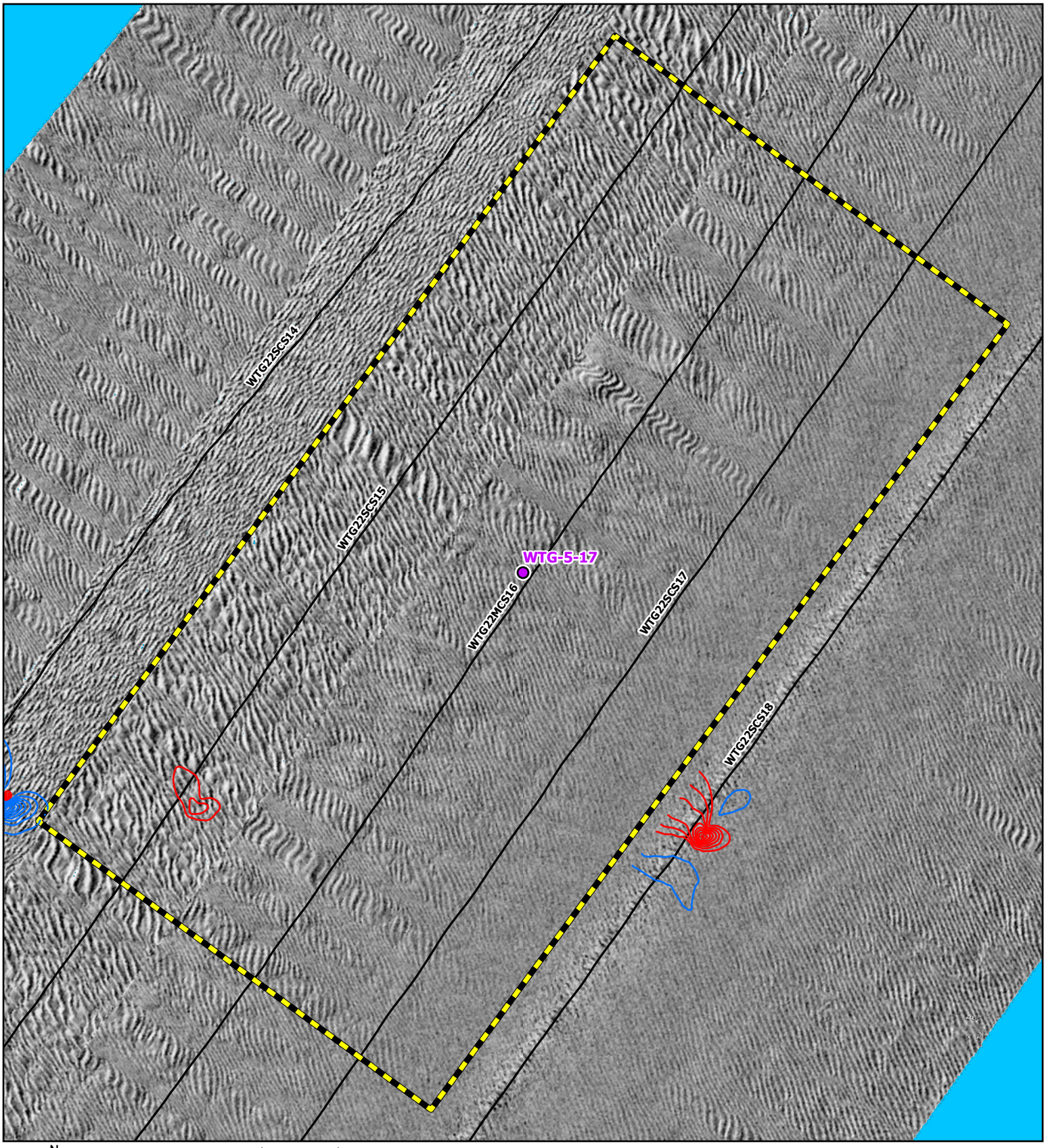
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 22

Map: 4

WTG-4-16

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,050

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 20 40 60 80
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Corridor 22

Map: 5

WTG-5-17

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MARINE ARCHAEOLOGY FROM STEM TO STERN

APPENDIX 7
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 8

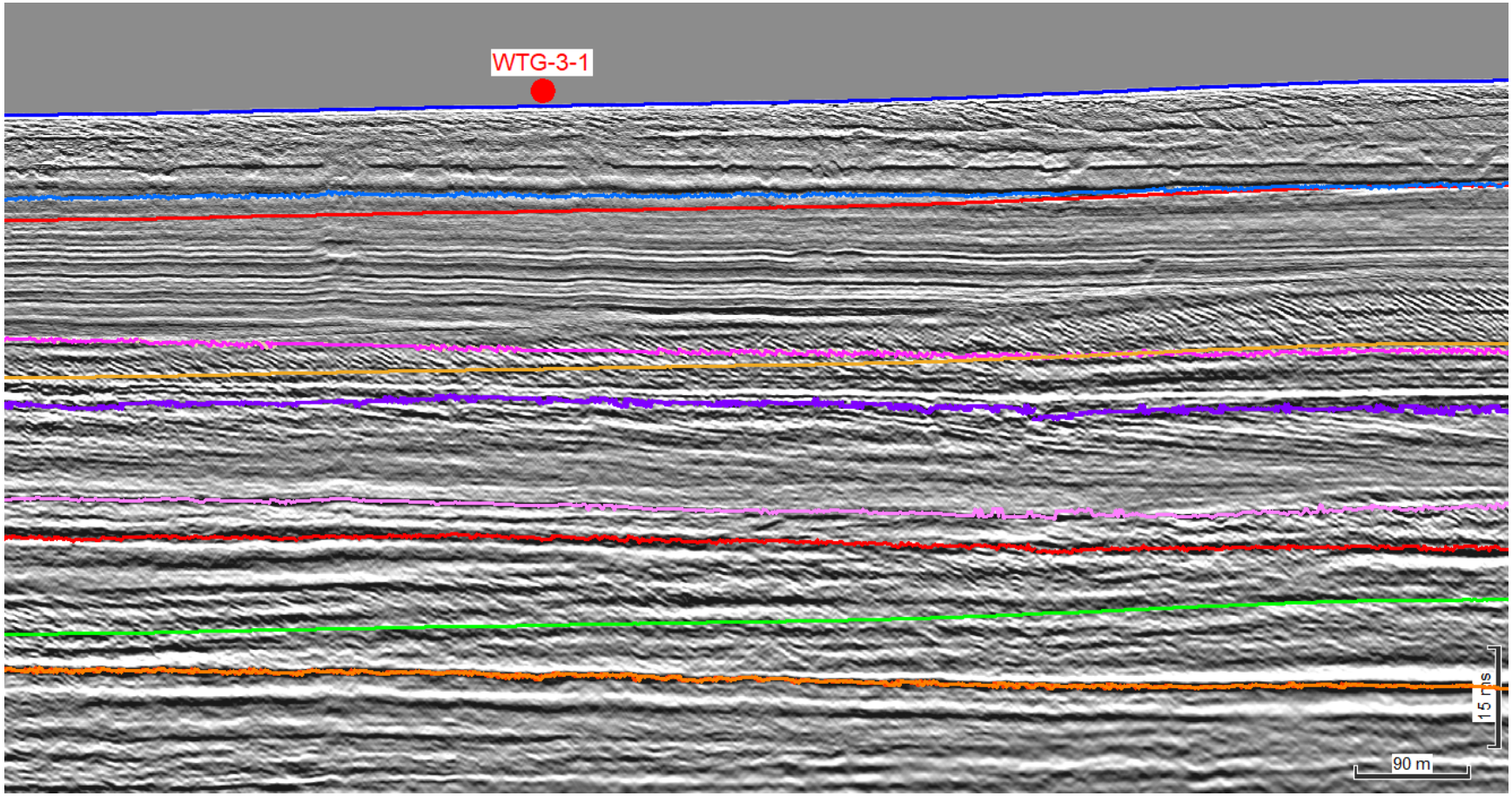


Figure 7-1: Proposed geotechnical locations WTG-3-1 in Corridor 8 along seismic line TLB07_A_FAST_MIG

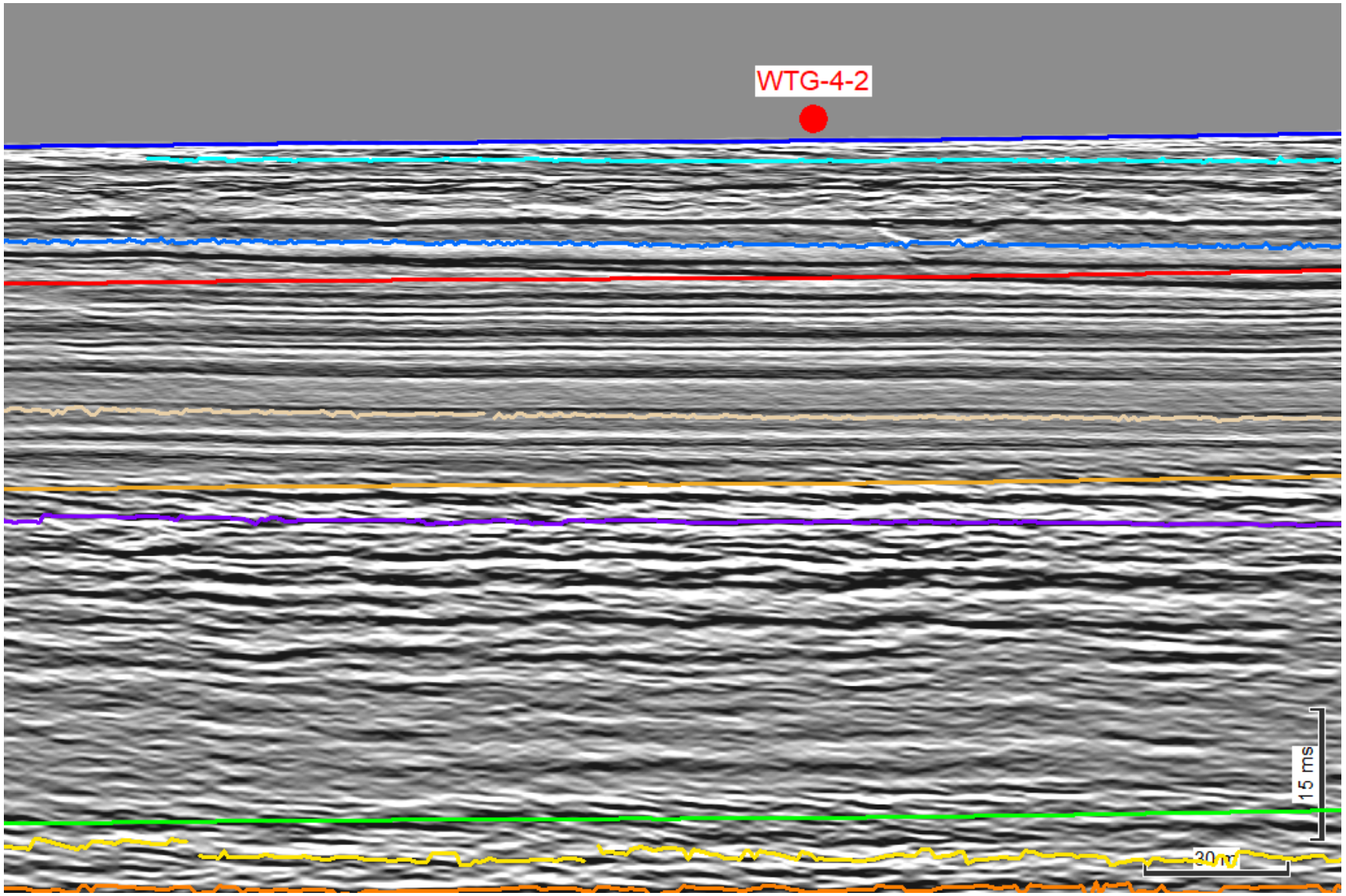


Figure 7-2: Proposed geotechnical locations WTG-4-2 in Corridor 8 along seismic line TLB14_FAST_MIG_PSDEMUL

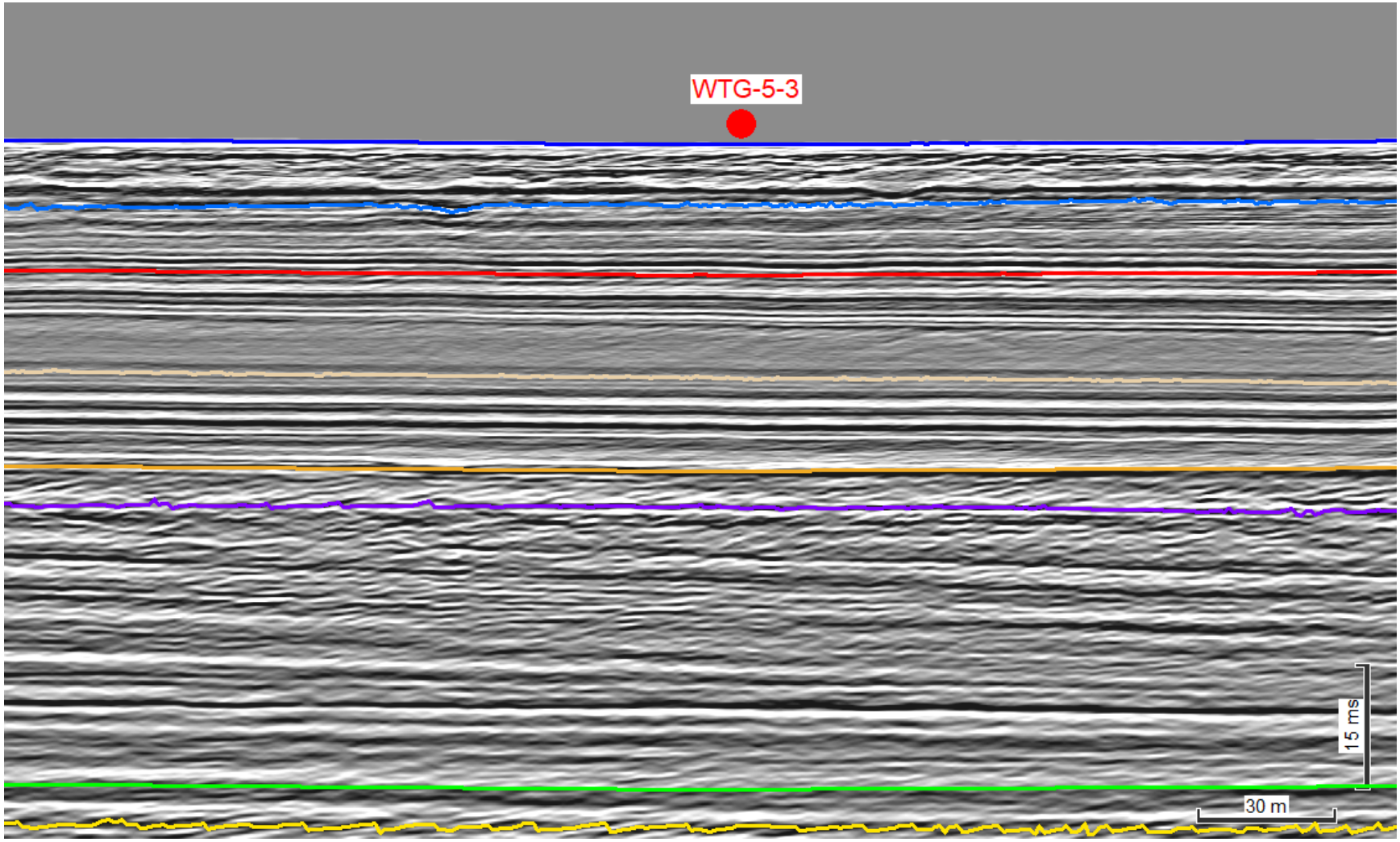


Figure 7-3: Proposed geotechnical locations WTG-5-3 in Corridor 8 along seismic line TLB20_FAST_MIG_PSDEMUL

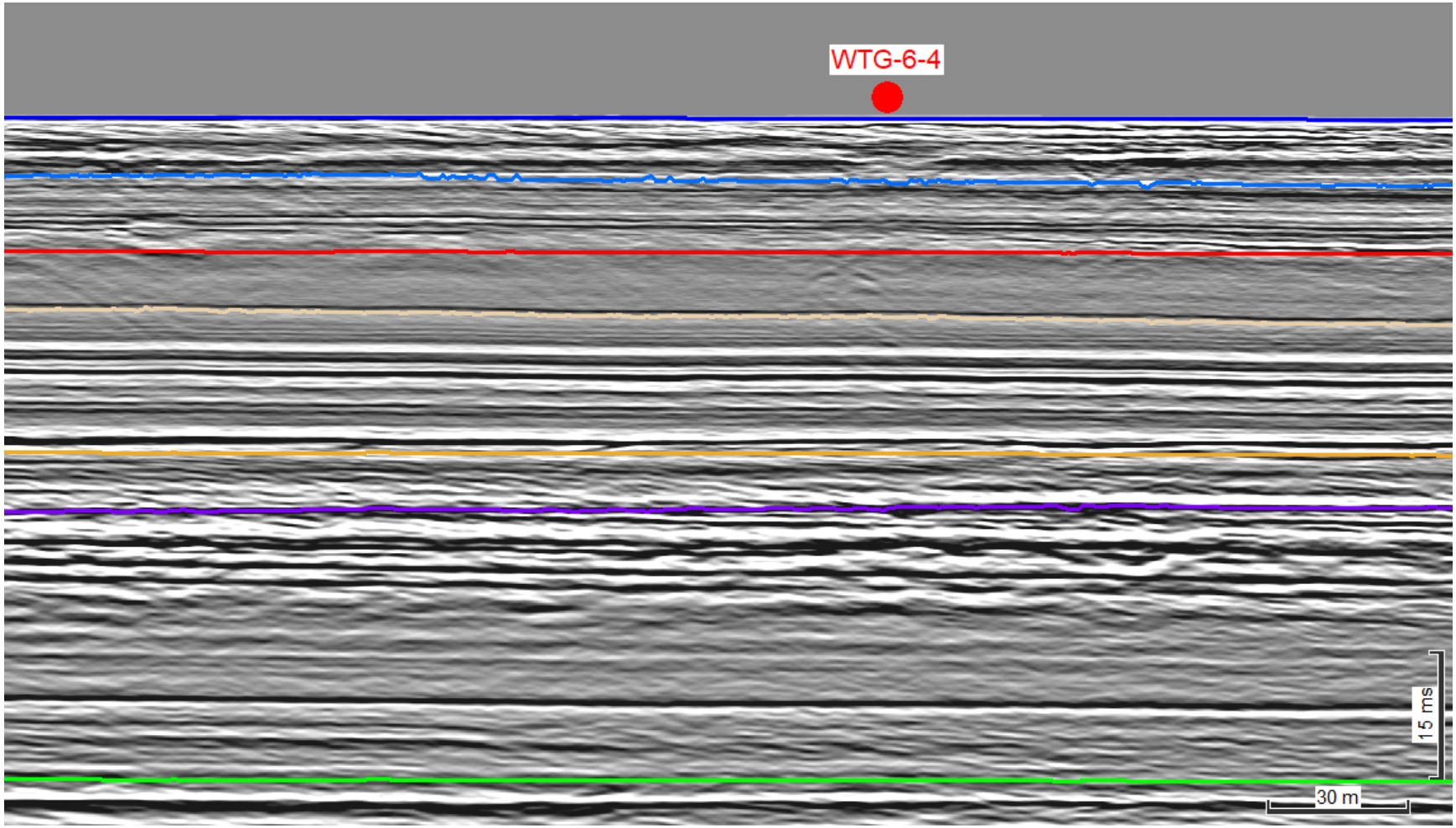


Figure 7-4: Proposed geotechnical locations WTG-6-4 in Corridor 8 along seismic line TLB26_FAST_MIG_PSDEMUL

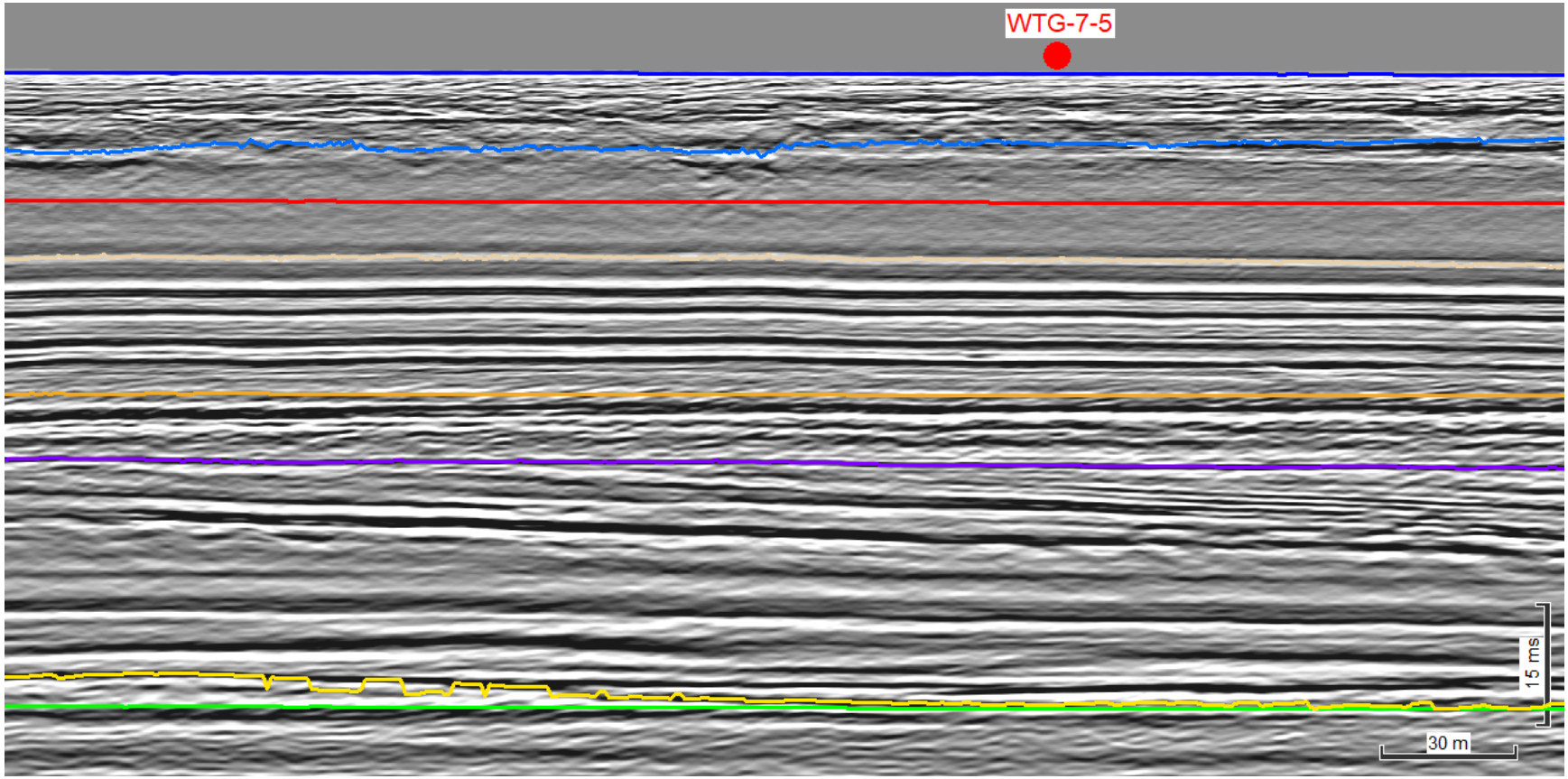


Figure 7-5: Proposed geotechnical locations WTG-7-5 in Corridor 8 along seismic line TLB32_FAST_MIG_PSDEMUL

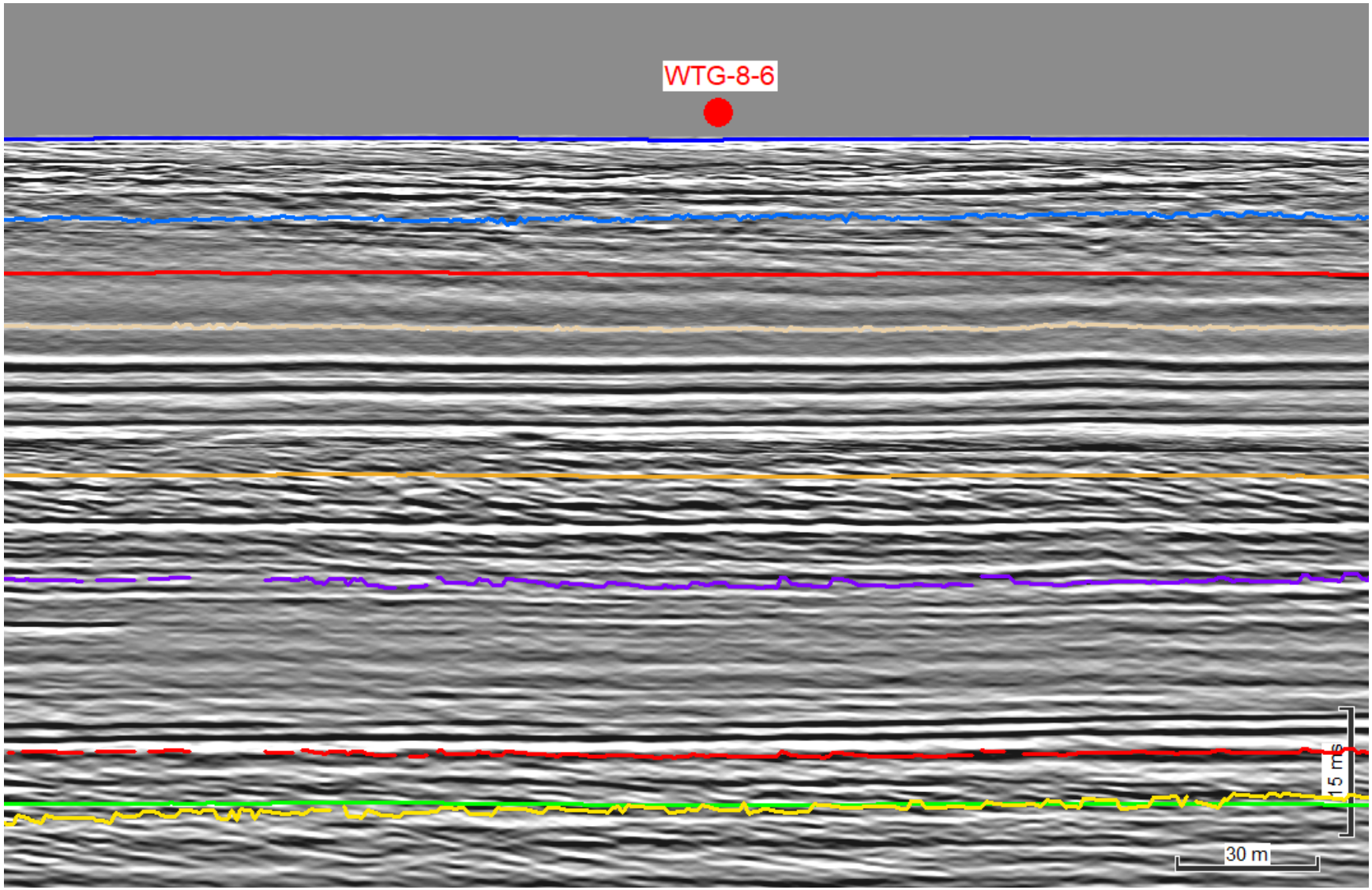


Figure 7-6: Proposed geotechnical locations WTG-8-6 in Corridor 8 along seismic line TLB32_02_FAST_MIG_PSDEMUL

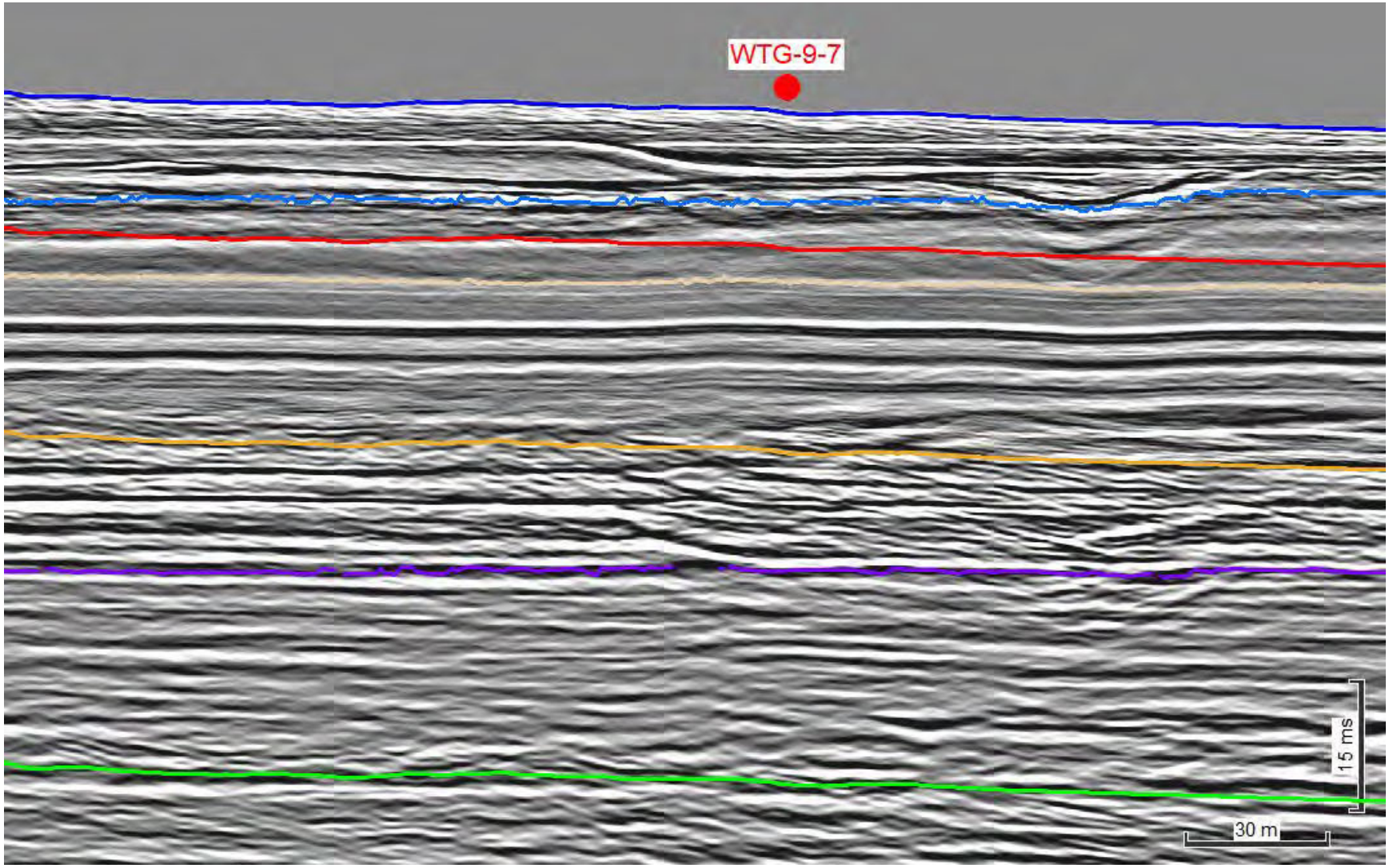


Figure 7-7: Proposed geotechnical locations WTG-9-7 in Corridor 8 along seismic line TLB44_01_FAST_MIG_PSDEMUL

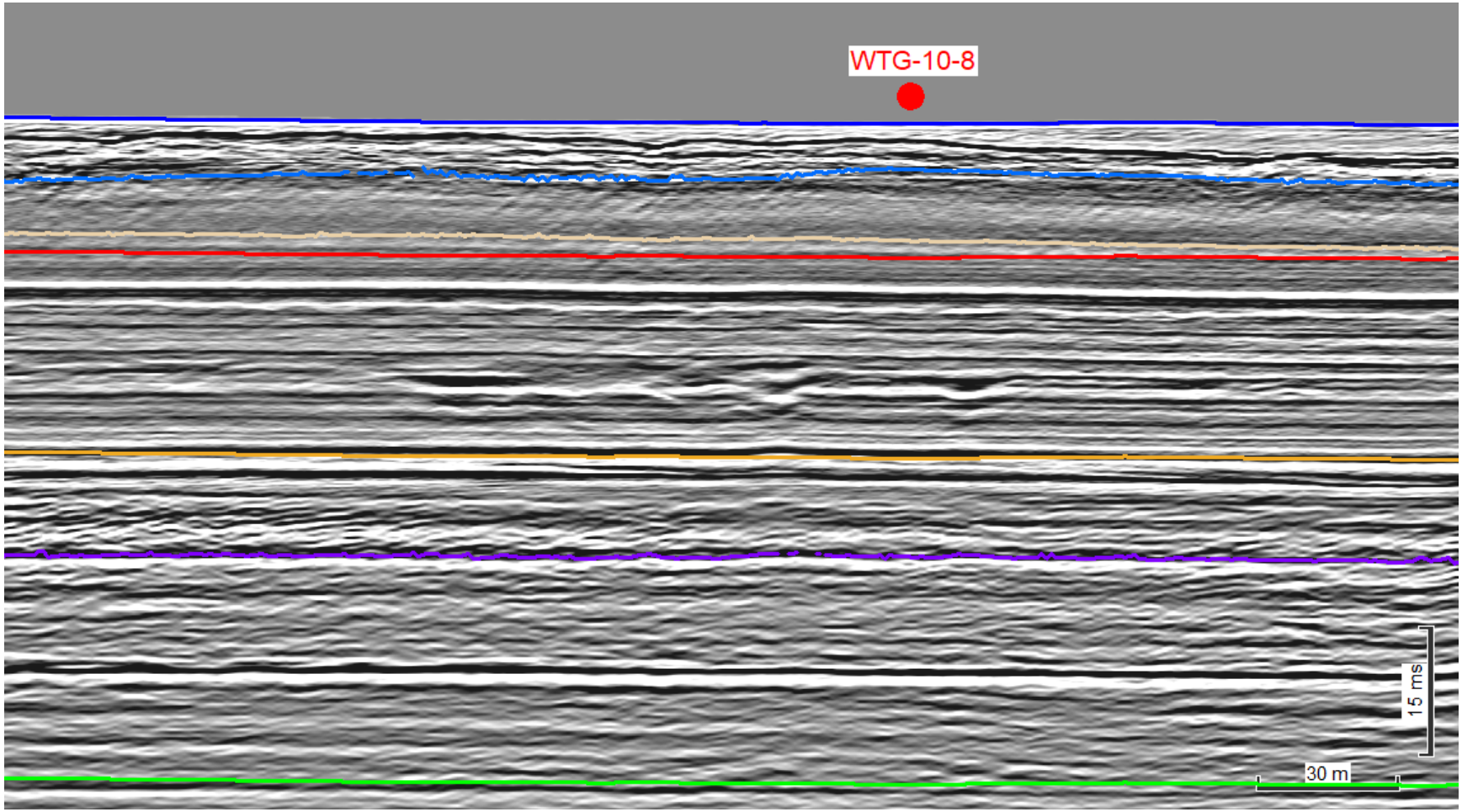


Figure 7-8: Proposed geotechnical locations WTG-10-8 in Corridor 8 along seismic line TLB50_01_FAST_MIG_PSDEMUL

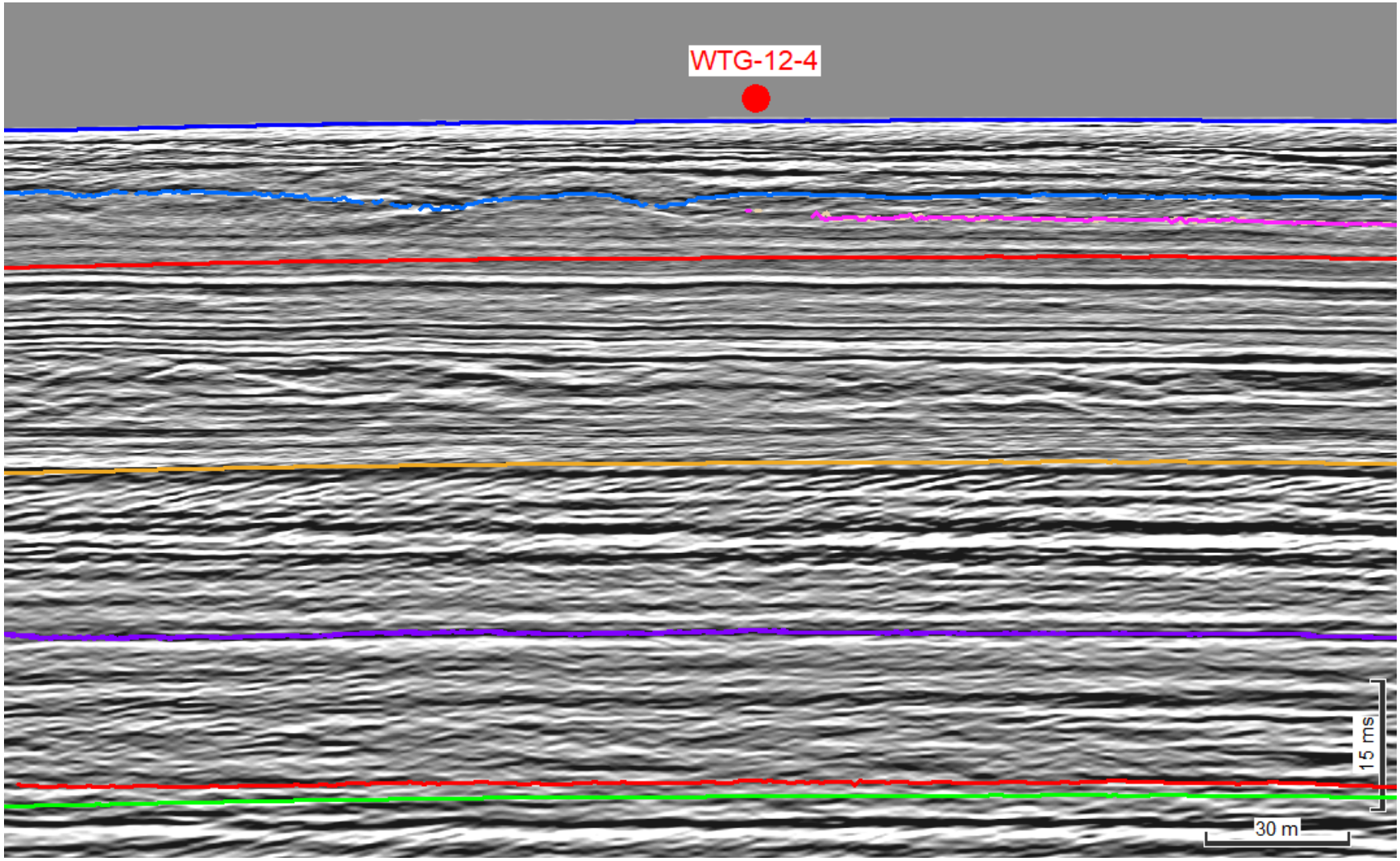


Figure 7-9: Proposed geotechnical locations WTG-12-4 in Corridor 8 along seismic line TLB61_FAST_MIG_PSDEMUL

APPENDIX 8
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 10

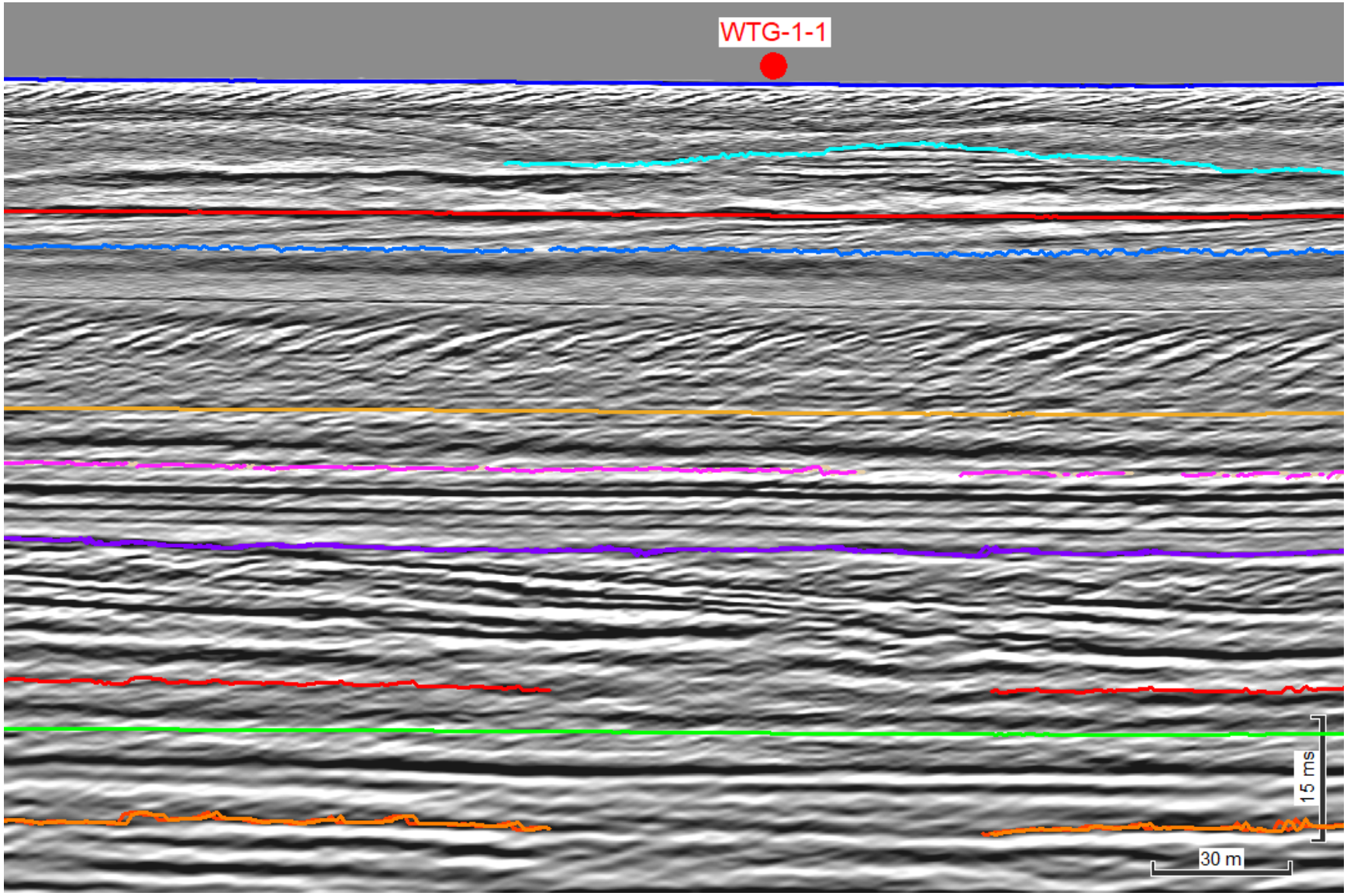


Figure 8-1: Proposed geotechnical locations WTG-1-1 in Corridor 10 along seismic line TLB02_FAST_MIG

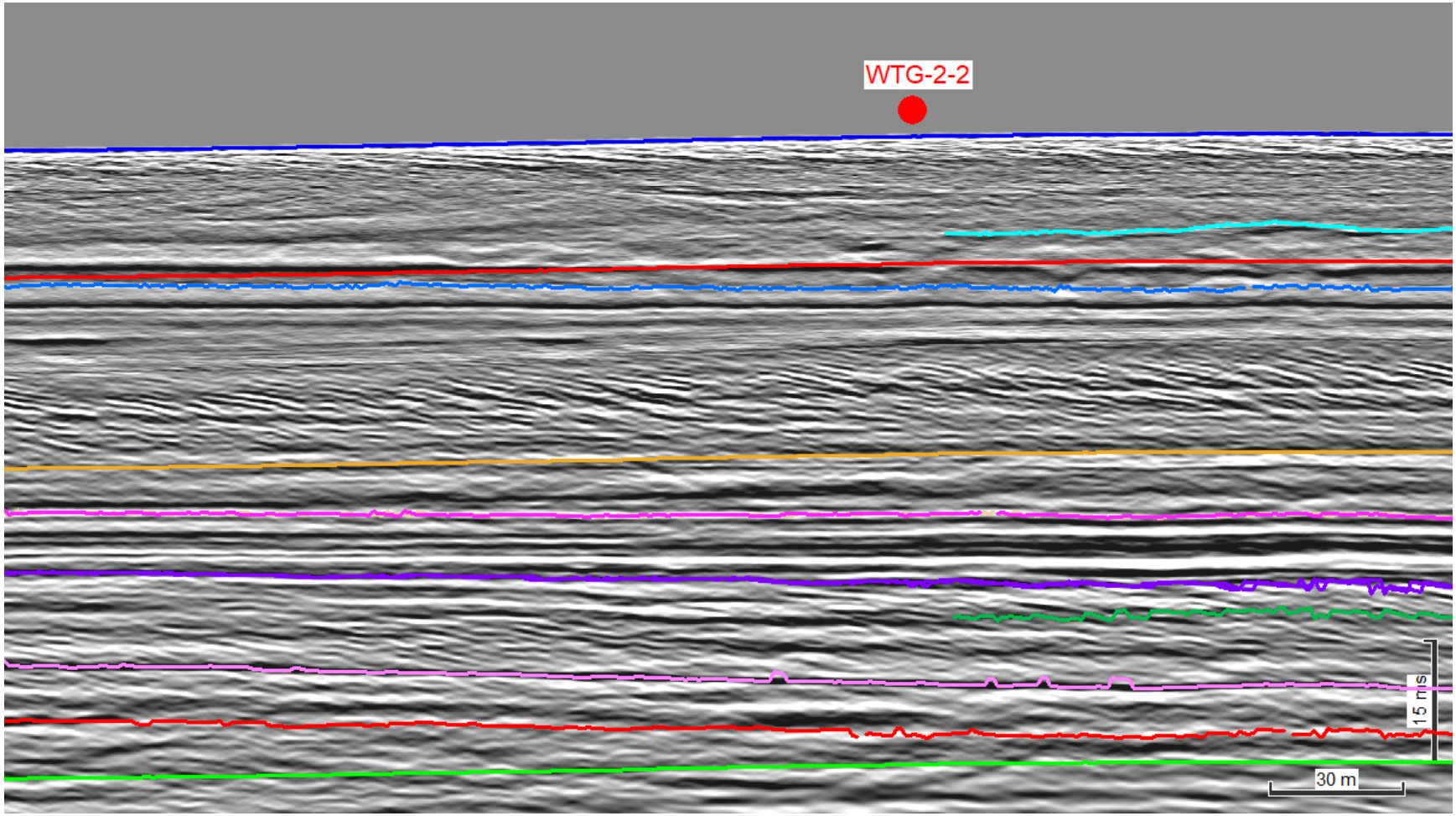


Figure 8-2: Proposed geotechnical locations WTG-2-2 in Corridor 10 along seismic line TLB07_A_FAST_MIG

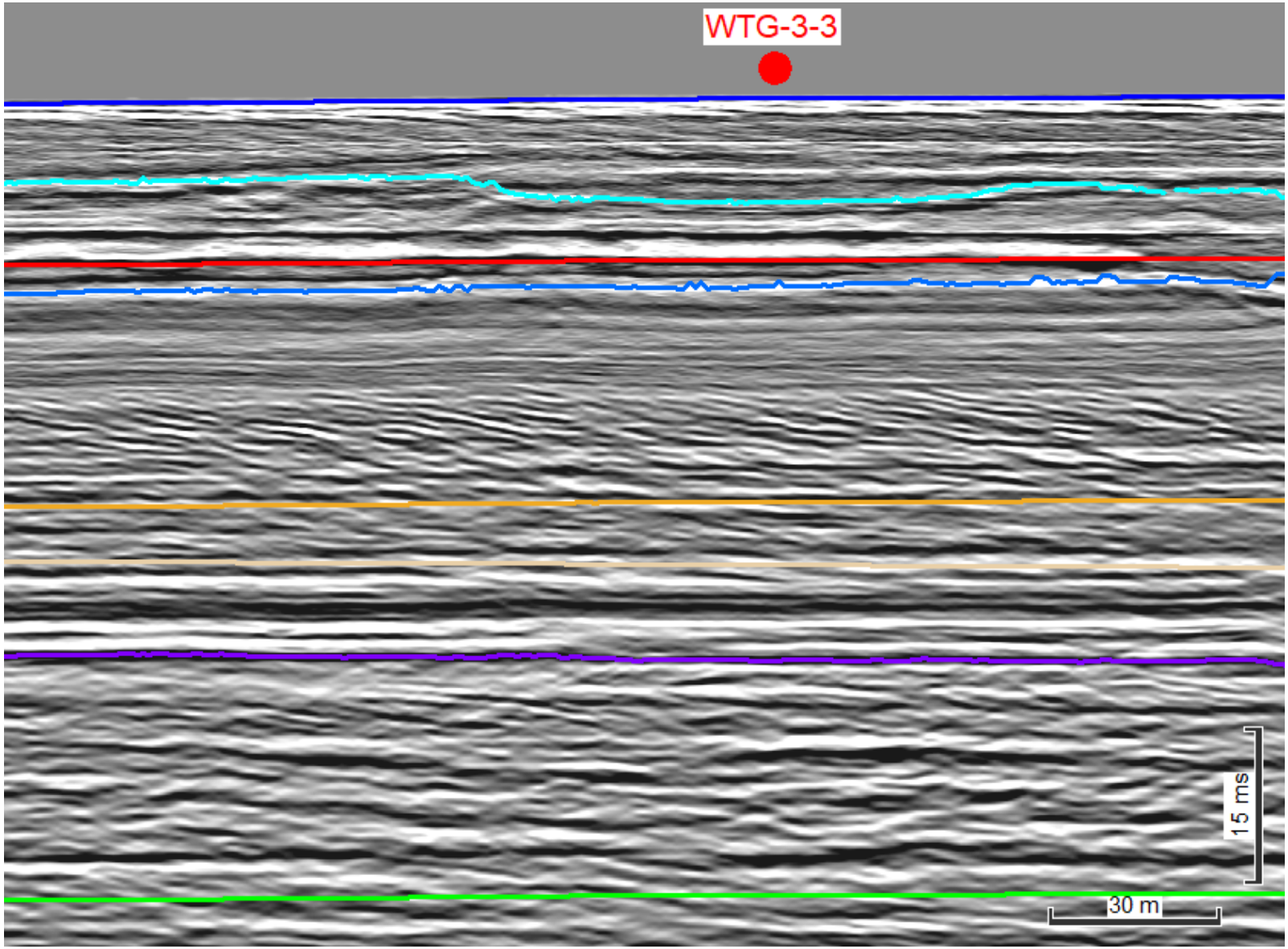


Figure 8-3: Proposed geotechnical locations WTG-3-3 in Corridor 10 along seismic line TLB14_FAST_MIG

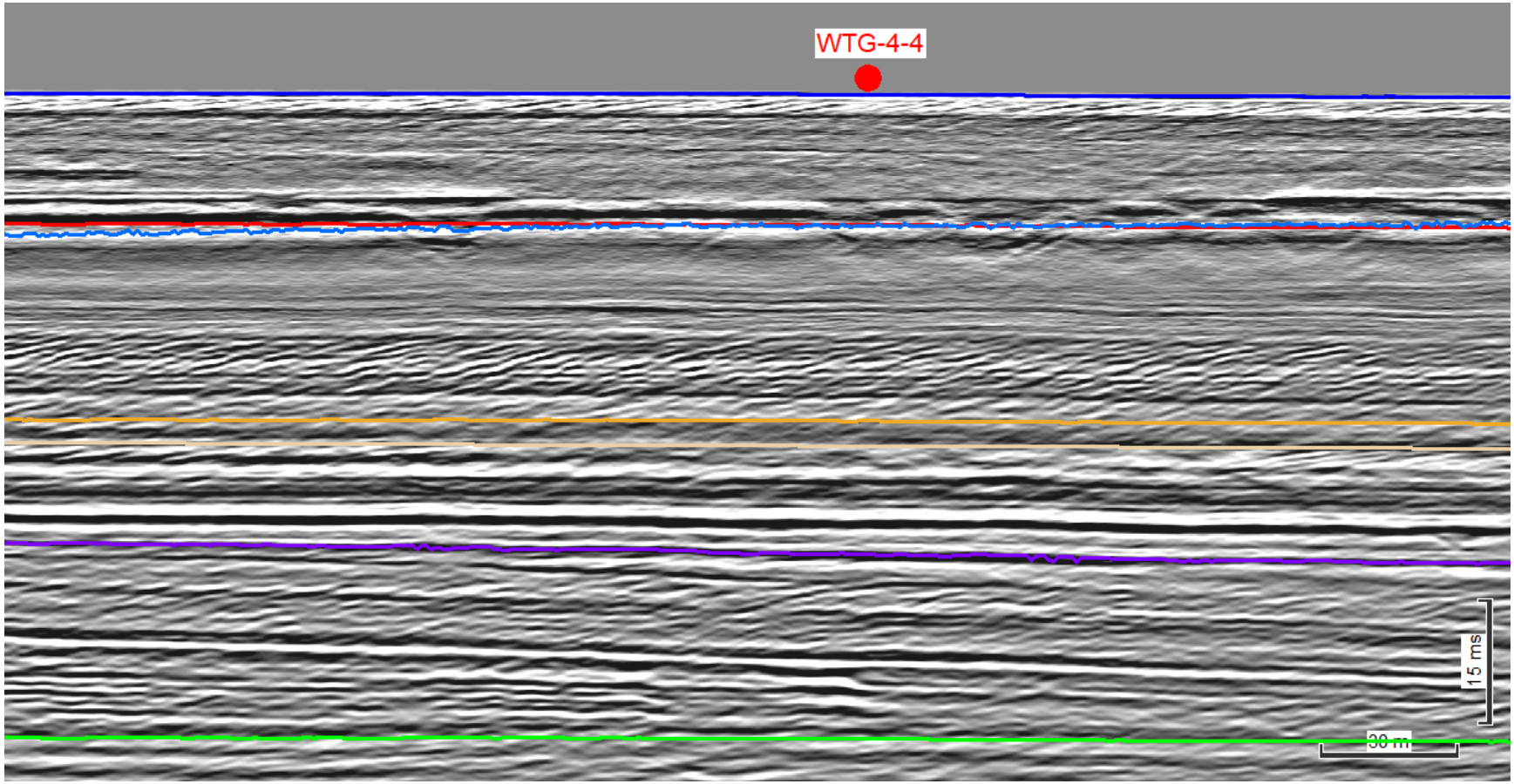


Figure 8-4: Proposed geotechnical locations WTG-4-4 in Corridor 10 along seismic line TLB20_FAST_MIG_PSDEMUL

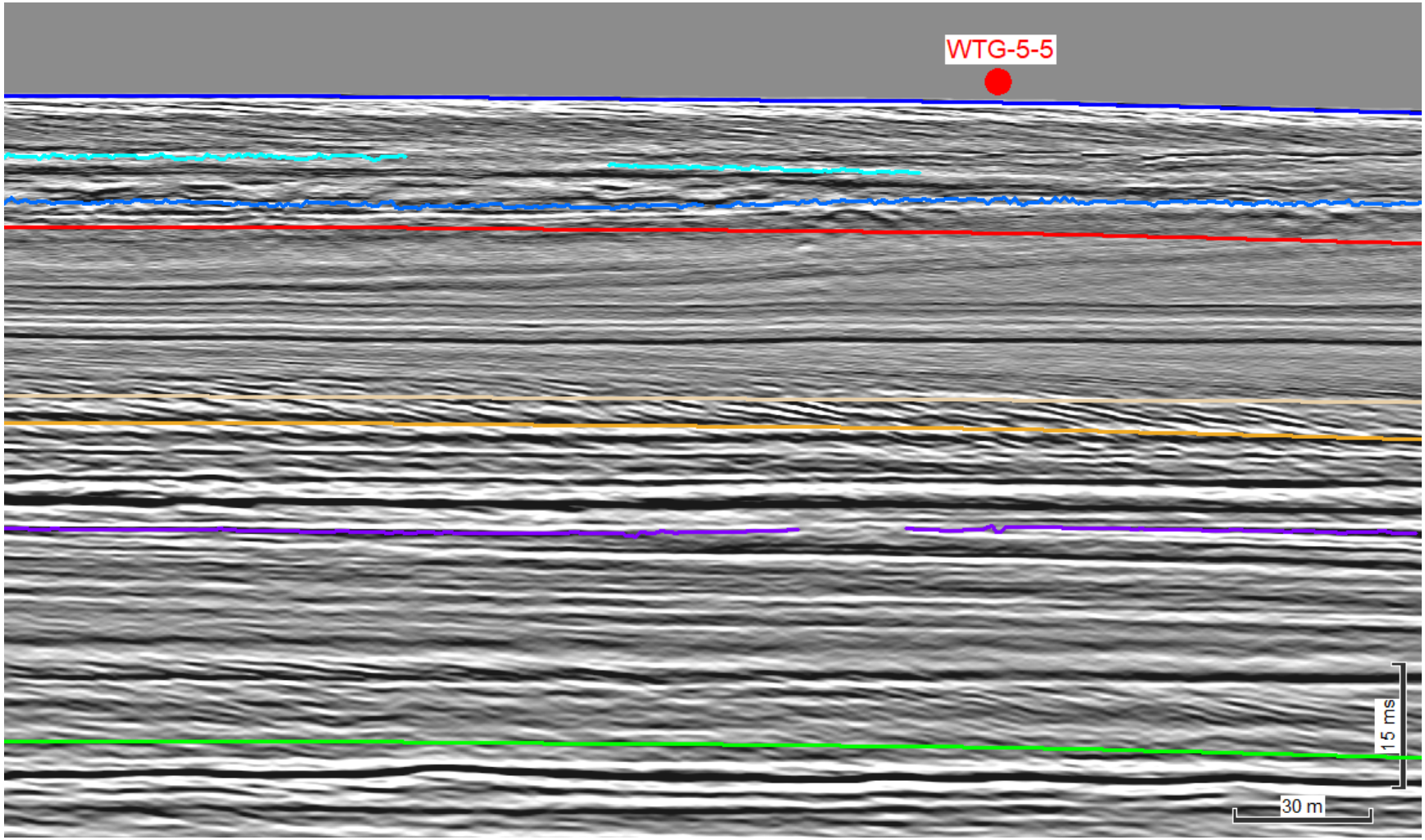


Figure 8-5: Proposed geotechnical locations WTG-5-5 in Corridor 10 along seismic line TLB26_FAST_MIG_PSDEMUL

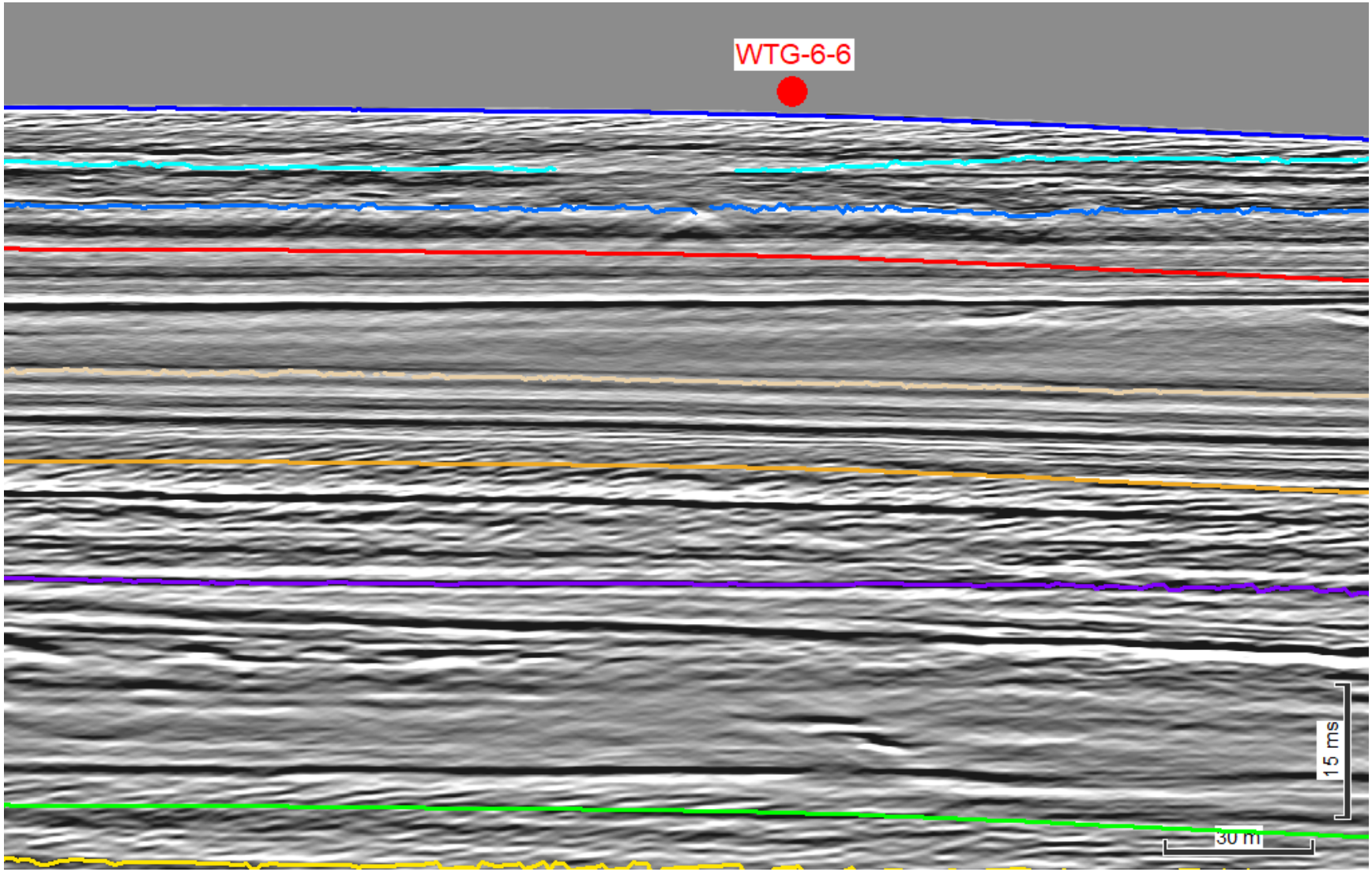


Figure 8-6: Proposed geotechnical locations WTG-6-6 in Corridor 10 along seismic line TLB32_FAST_MIG_PSDEMUL

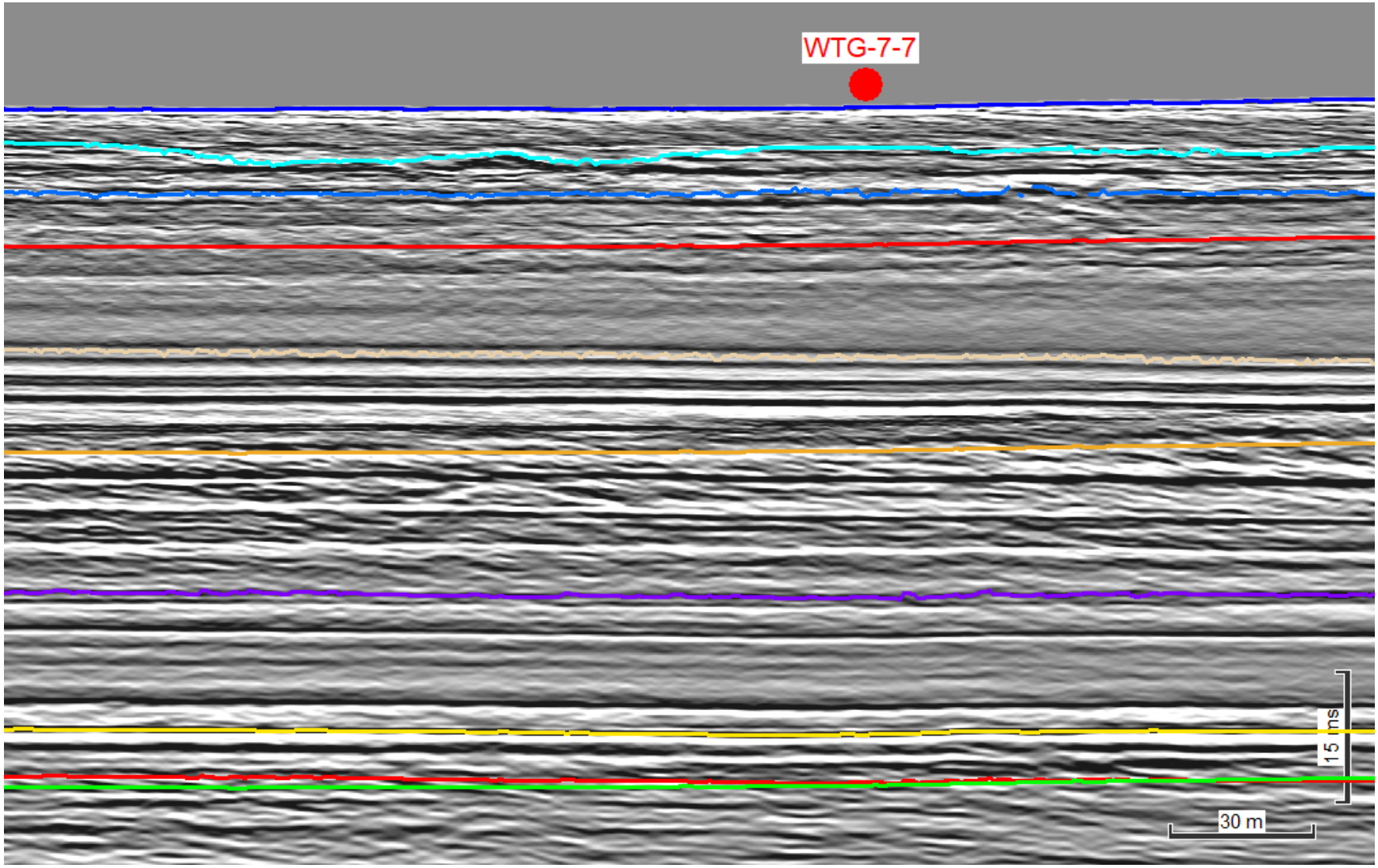


Figure 8-7: Proposed geotechnical locations WTG-7-7 in Corridor 10 along seismic line TLB38_01_FAST_MIG_PSDEMUL

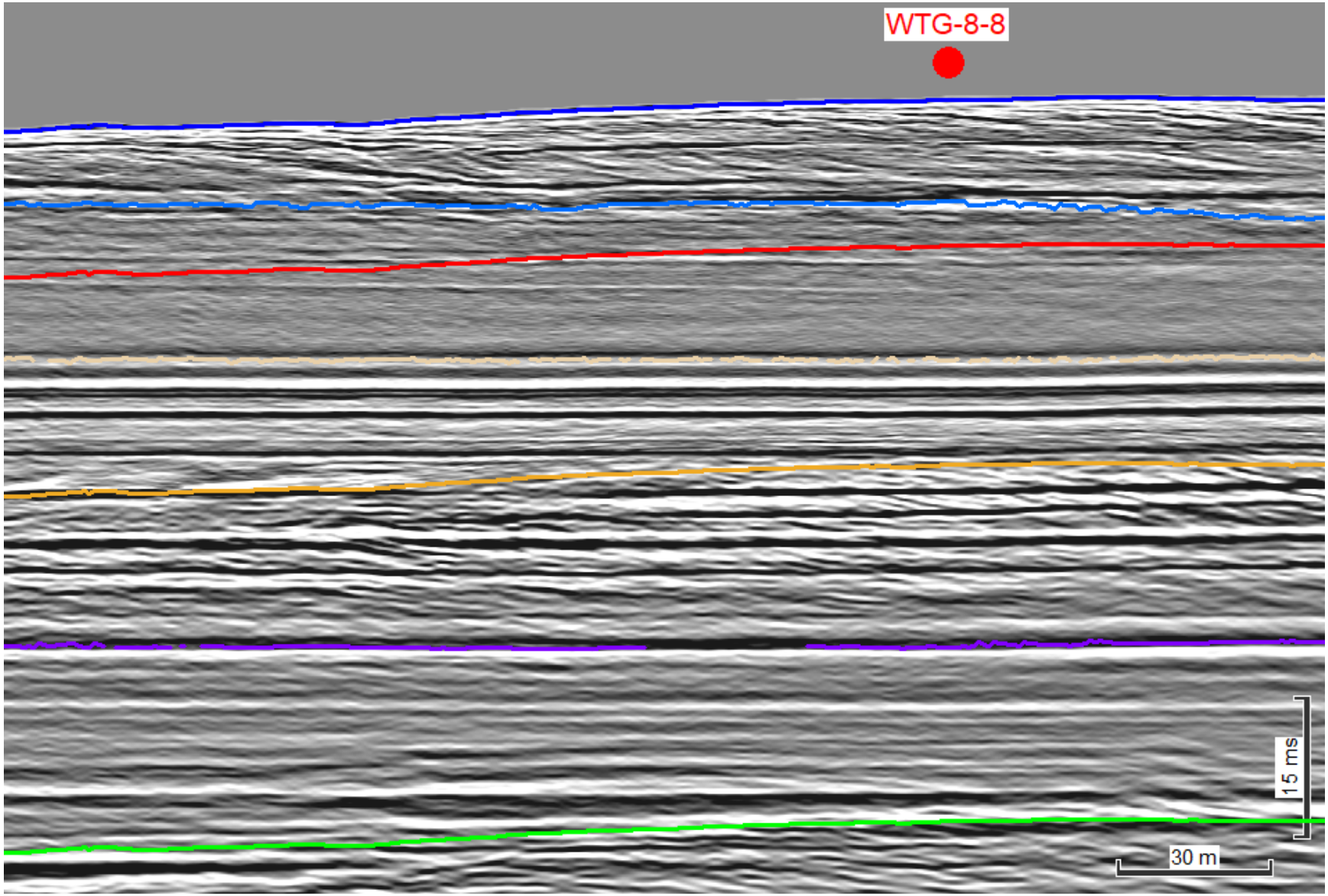


Figure 8-8: Proposed geotechnical locations WTG-8-8 in Corridor 10 along seismic line TLB44_01_FAST_MIG_PSDEMUL

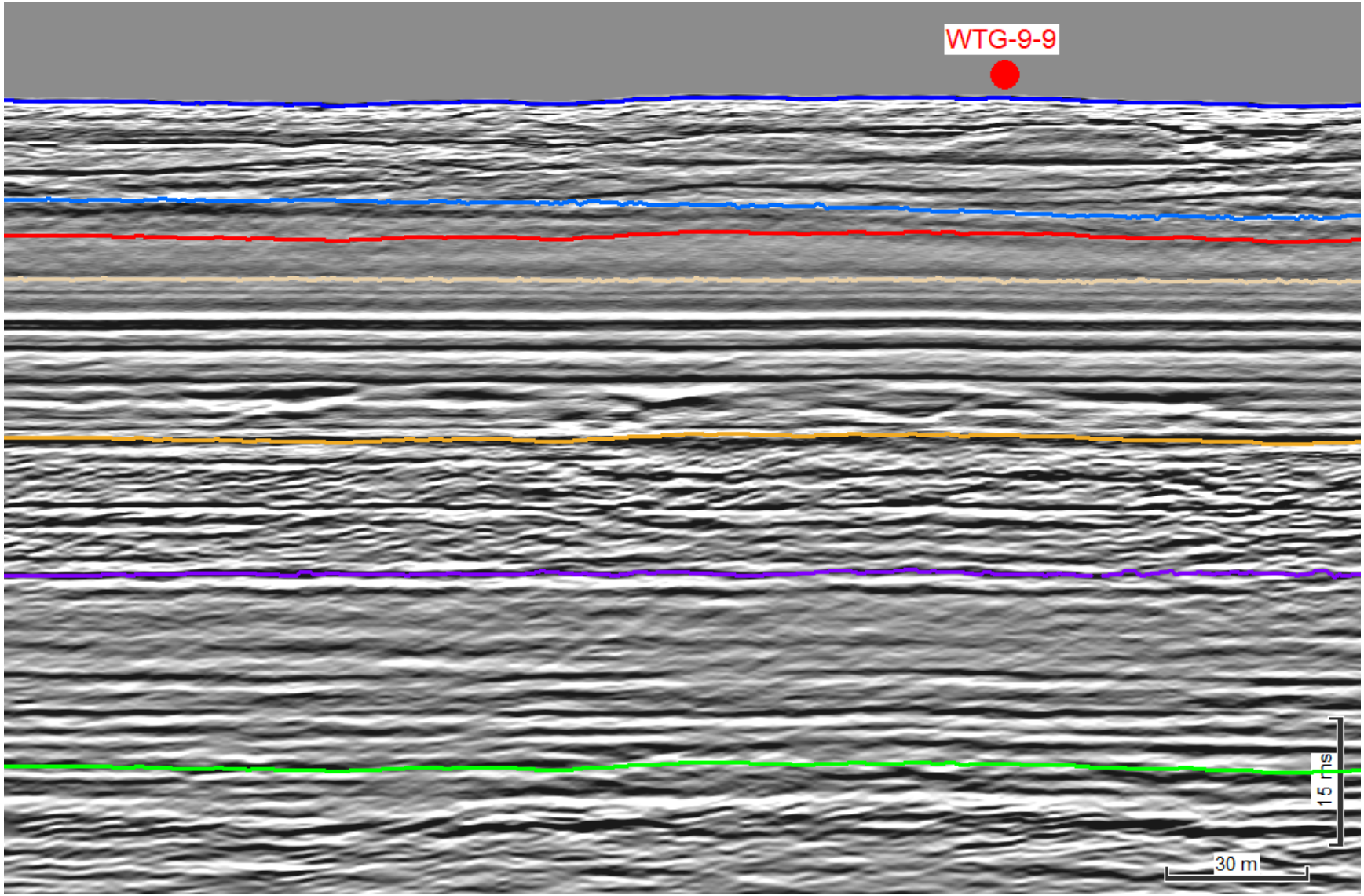


Figure 8-9: Proposed geotechnical locations WTG-9-9 in Corridor 10 along seismic line TLB50_01_FAST_MIG_PSDEMUL

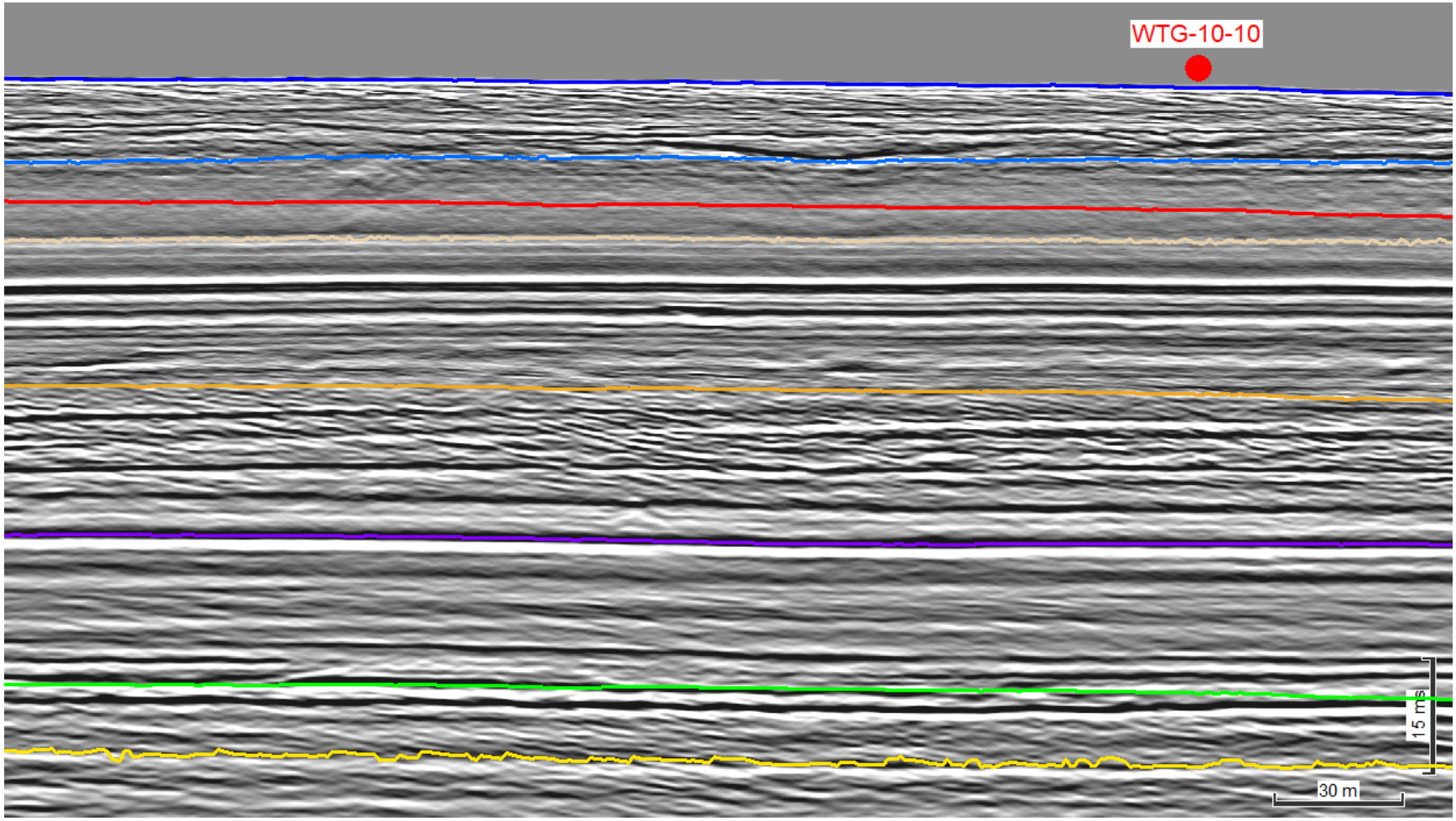


Figure 8-10: Proposed geotechnical locations WTG-10-10 in Corridor 10 along seismic line TLB56_FAST_MIG_PSDEMUL

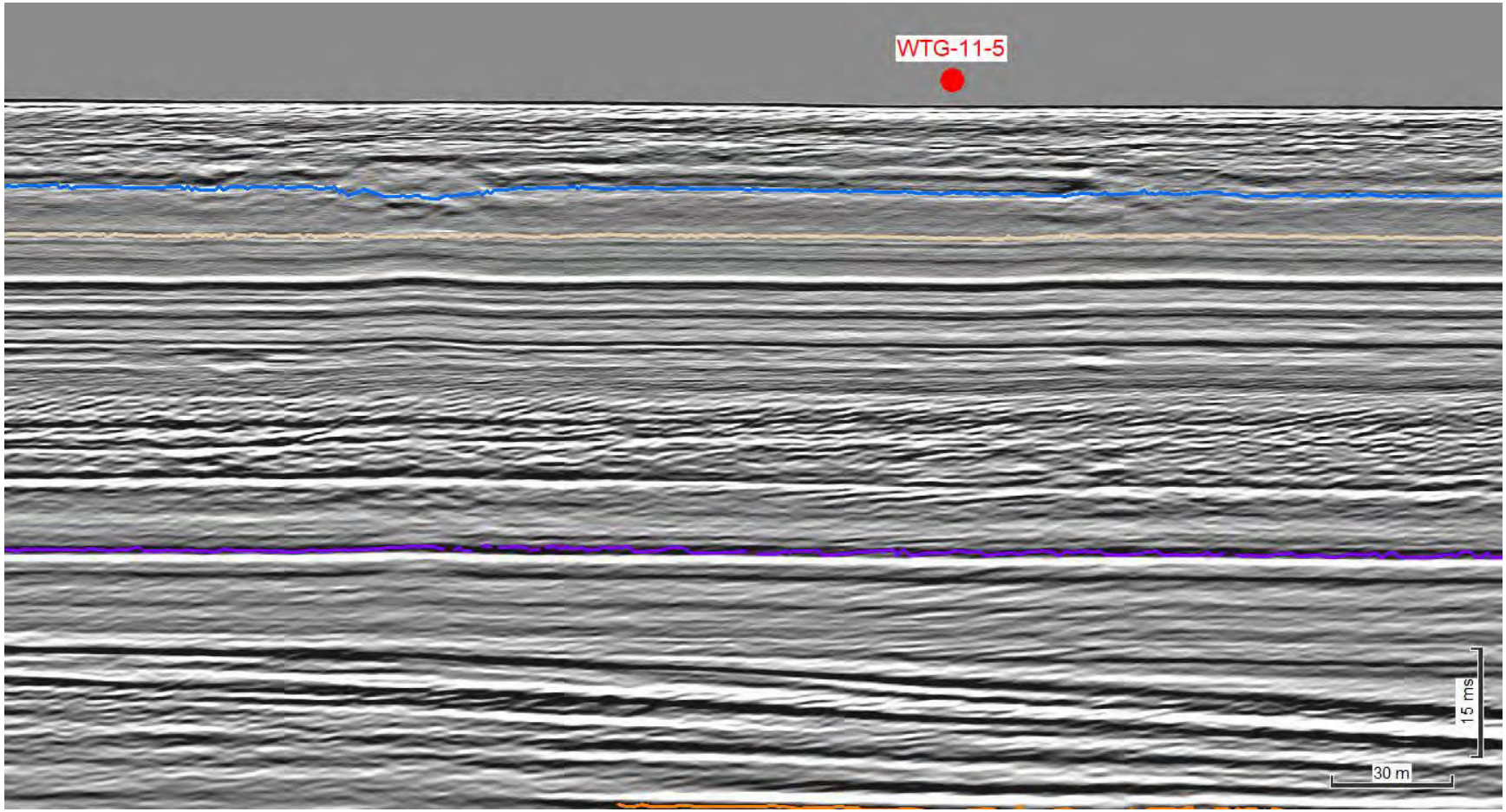


Figure 8-11: Proposed geotechnical locations WTG-11-5 in Corridor 10 along seismic line TLB62_FAST_MIG_PSDEMUL

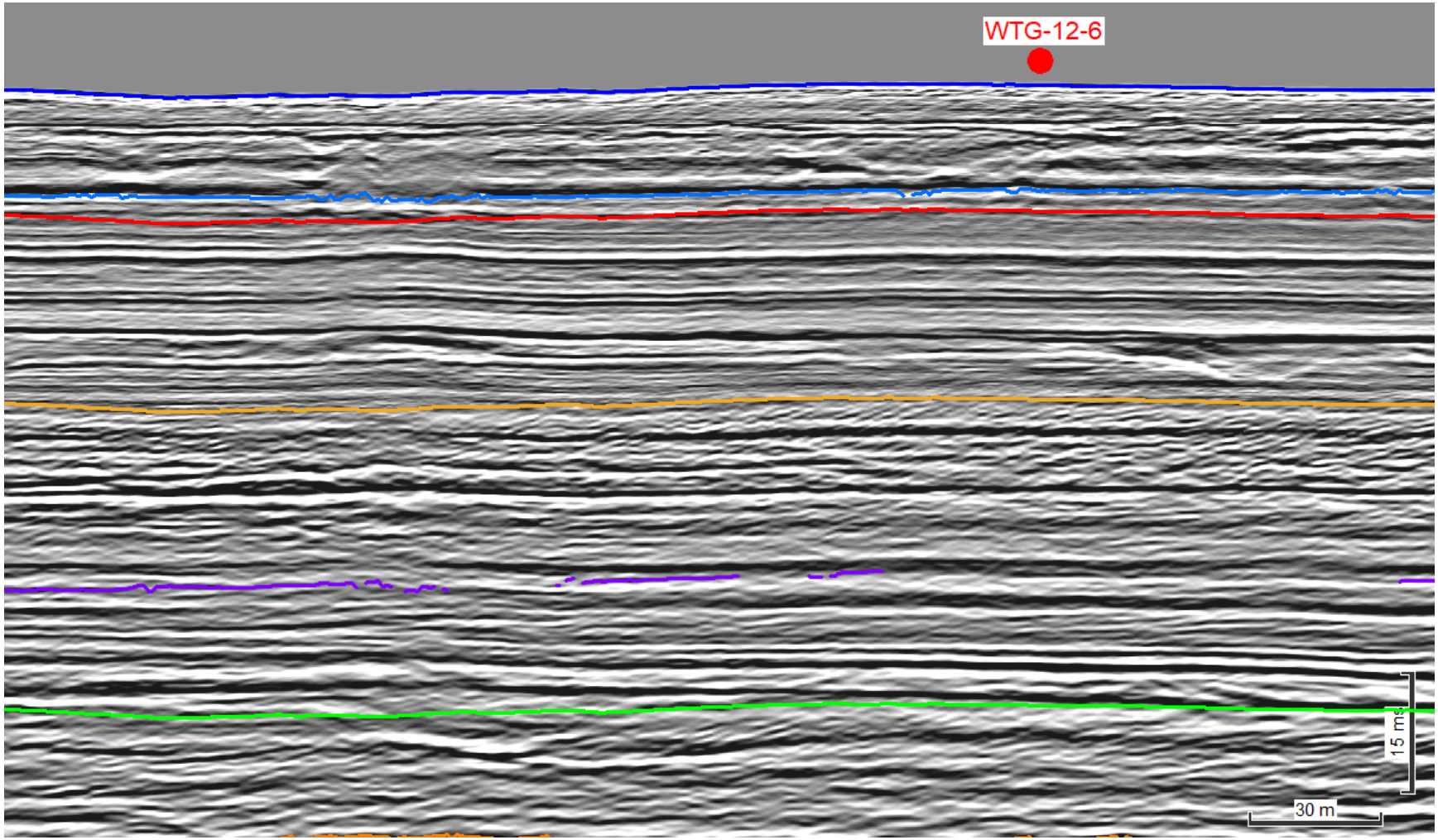


Figure 8-12: Proposed geotechnical locations WTG-12-6 in Corridor 10 along seismic line TLB68_FAST_MIG_PSDEMUL

APPENDIX 9
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 14

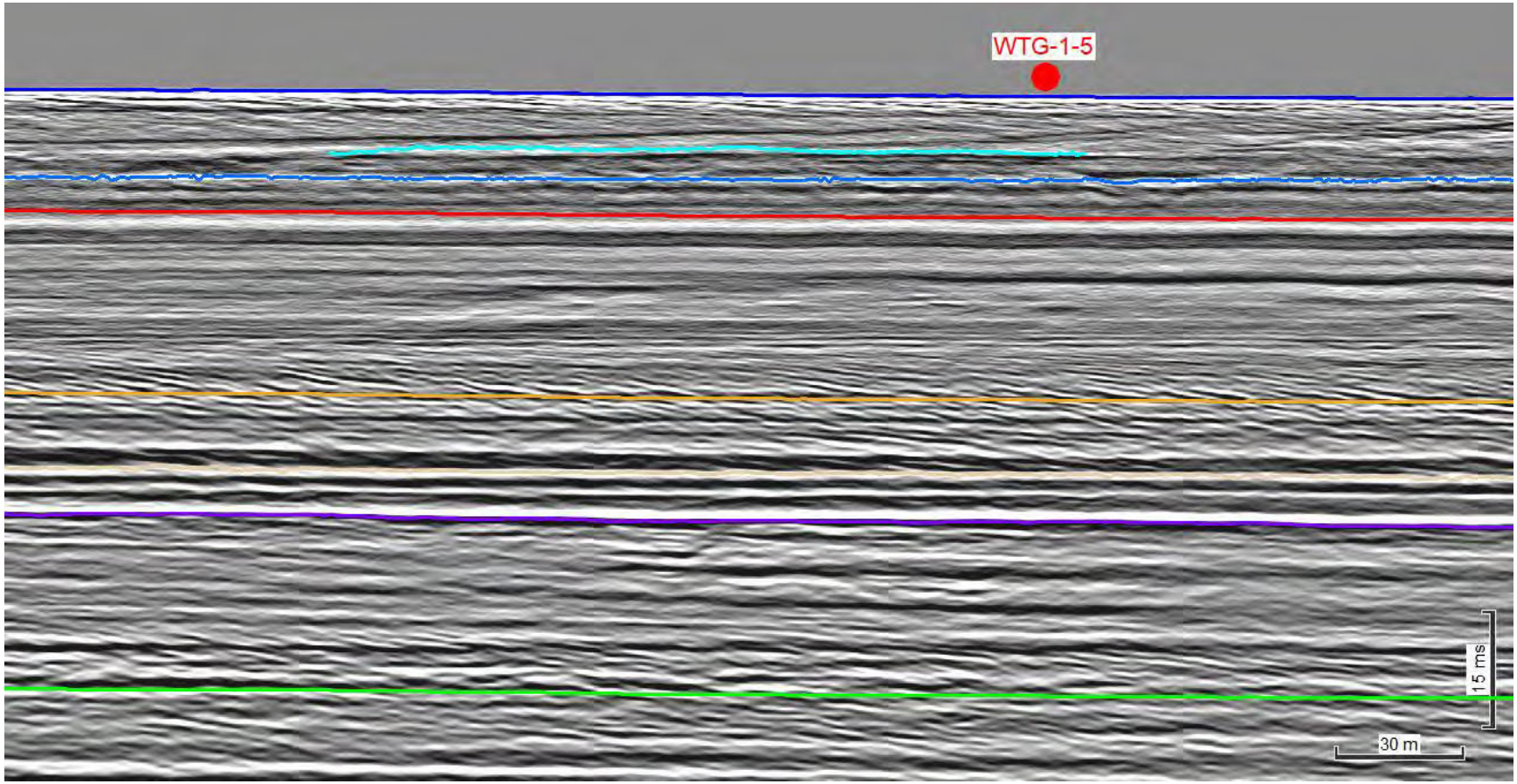


Figure 9-1: Proposed geotechnical locations WTG-1-5 in Corridor 14 along seismic line TLB14_FAST_MIG_PSDEMUL

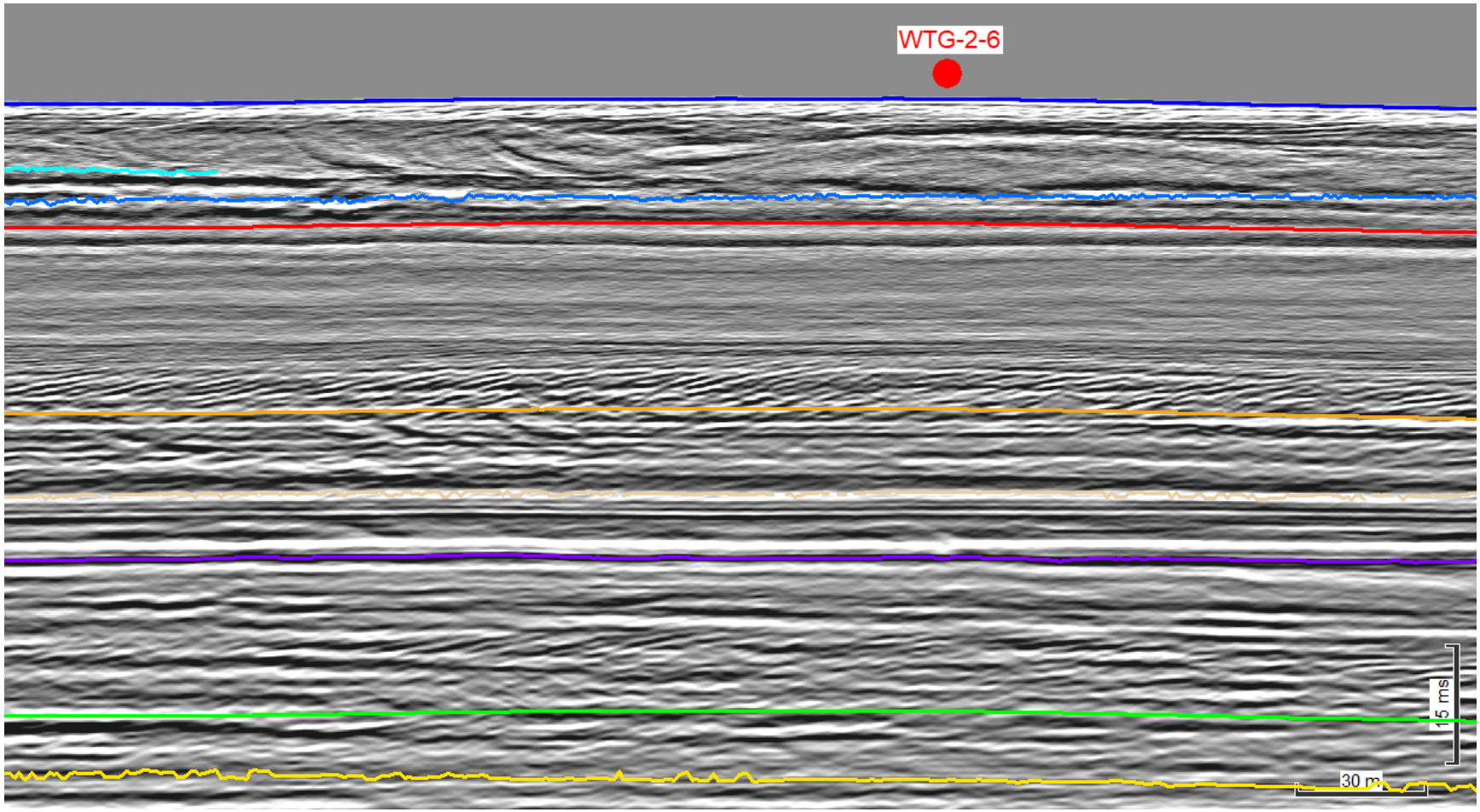


Figure 9-2: Proposed geotechnical locations WTG-2-6 in Corridor 14 along seismic line TLB20_FAST_MIG_PSDEMUL

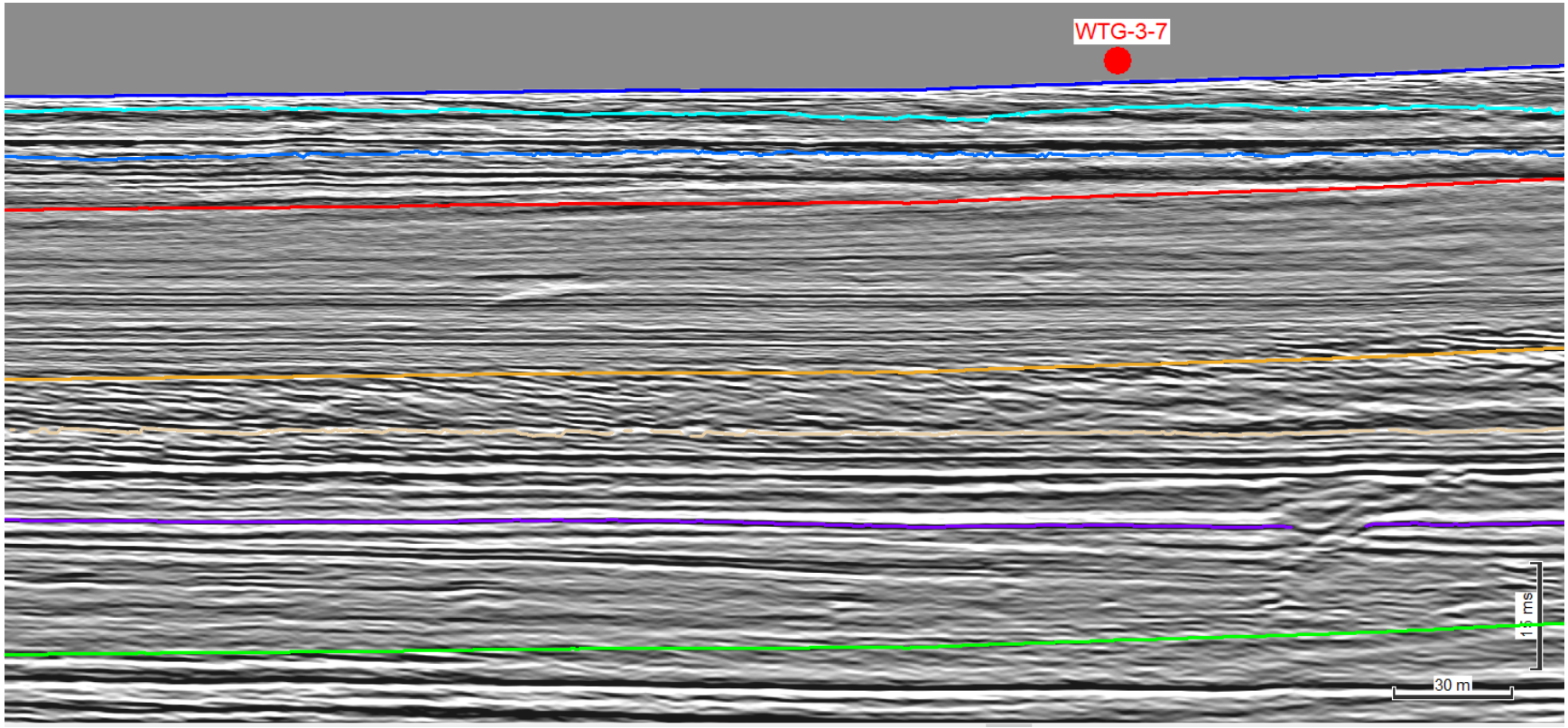


Figure 9-3: Proposed geotechnical locations WTG-3-7 in Corridor 14 along seismic line TLB26_FAST_MIG_PSDEMUL

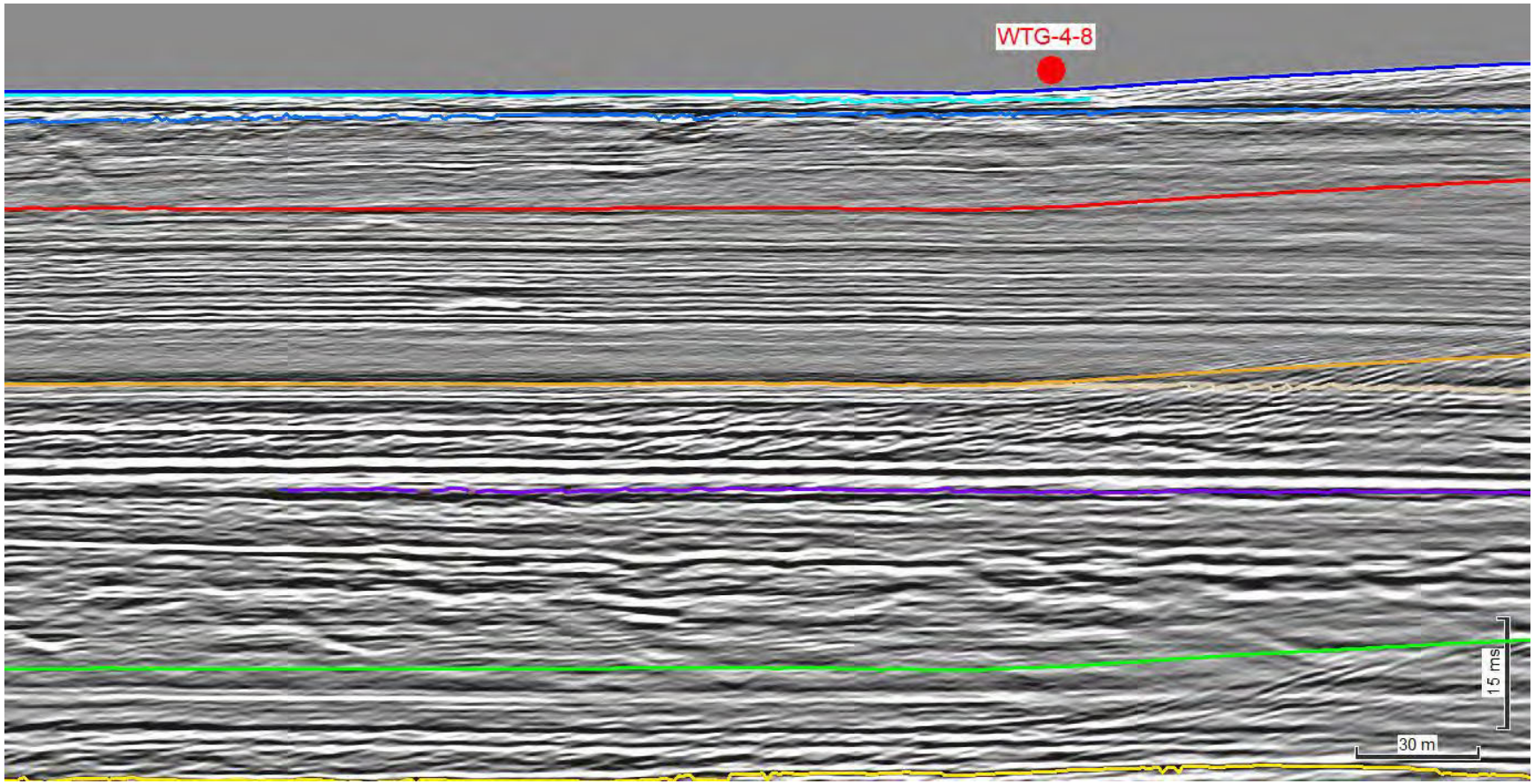


Figure 9-4: Proposed geotechnical locations WTG-4-8 in Corridor 14 along seismic line TLB32_FAST_MIG_PSDEMUL

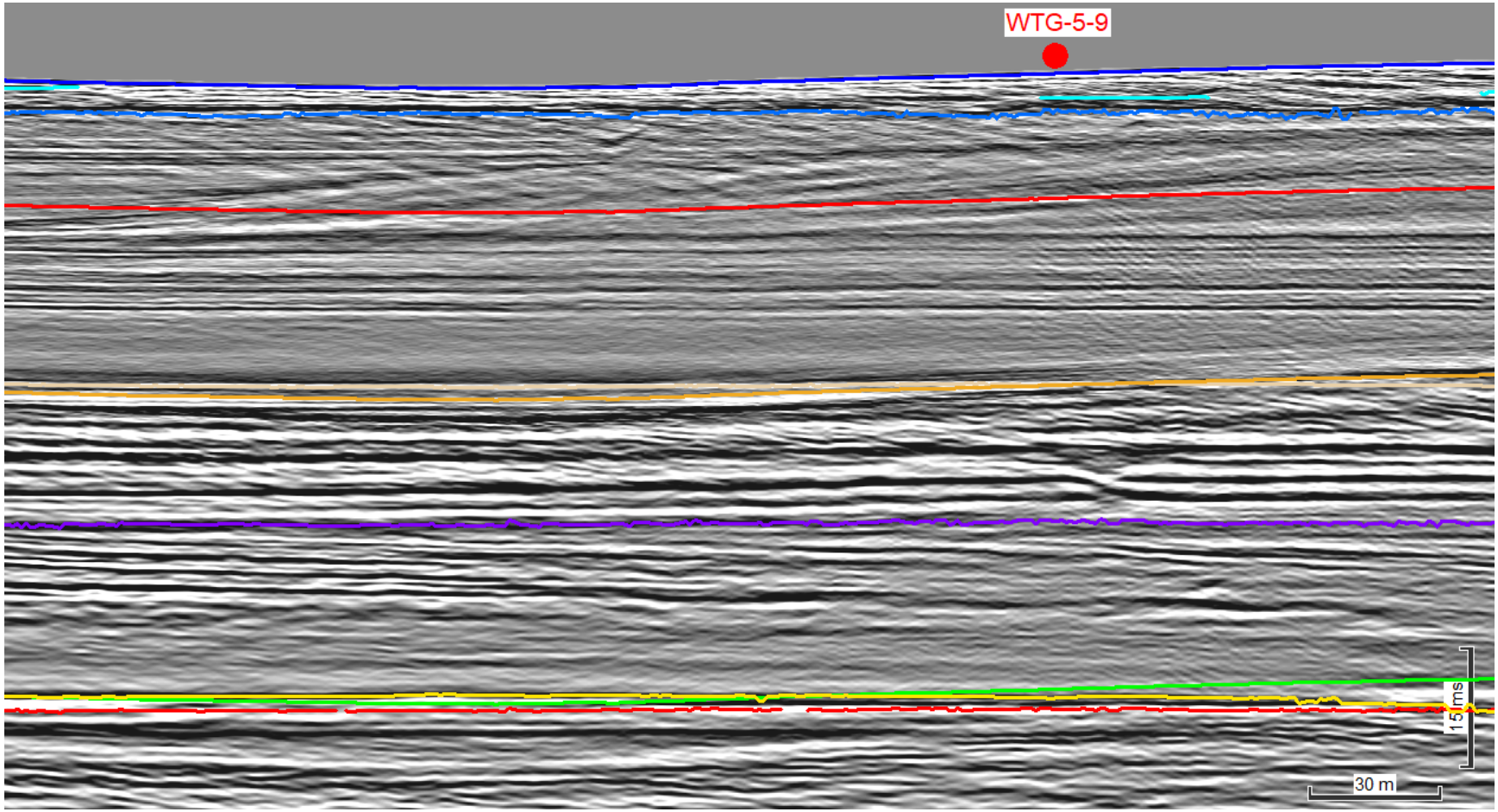


Figure 9-5: Proposed geotechnical locations WTG-5-9 in Corridor 14 along seismic line TLB38_FAST_MIG

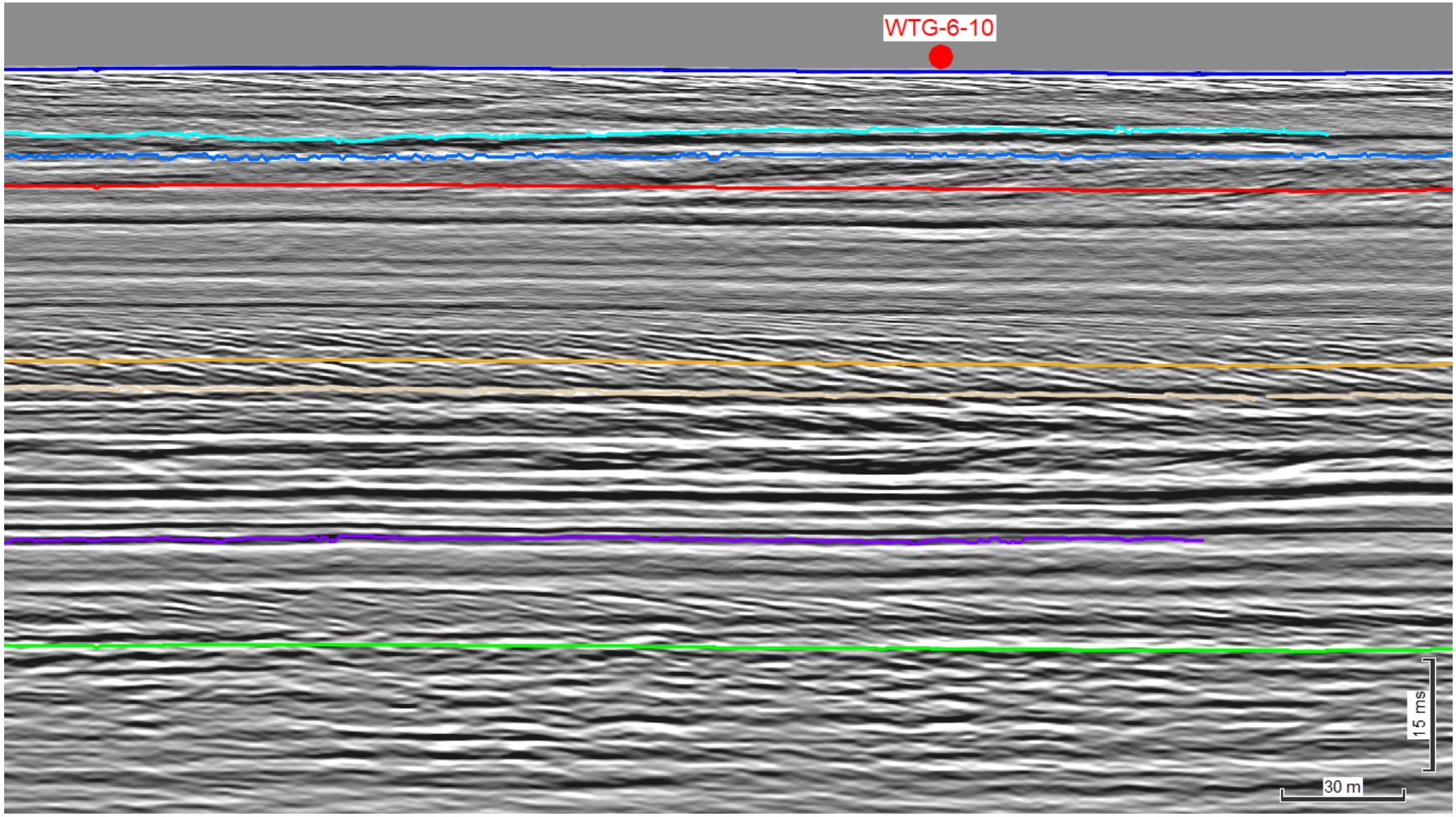


Figure 9-6: Proposed geotechnical locations WTG-6-10 in Corridor 14 along seismic line TLB44_01_FAST_MIG_PSDEMUL

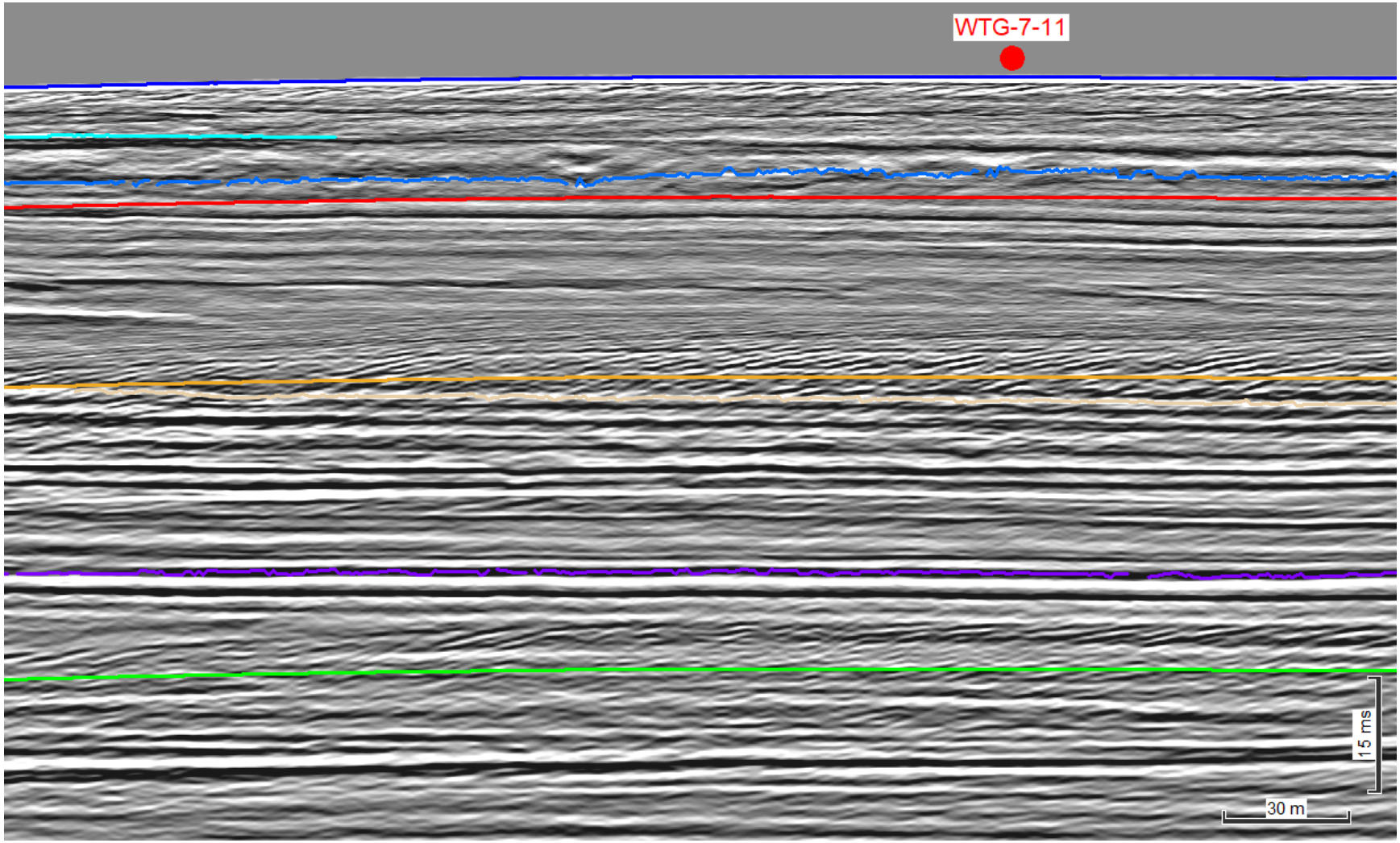


Figure 9-7: Proposed geotechnical locations WTG-7-11 in Corridor 14 along seismic line TLB50_01_FAST_MIG_PSDEMUL

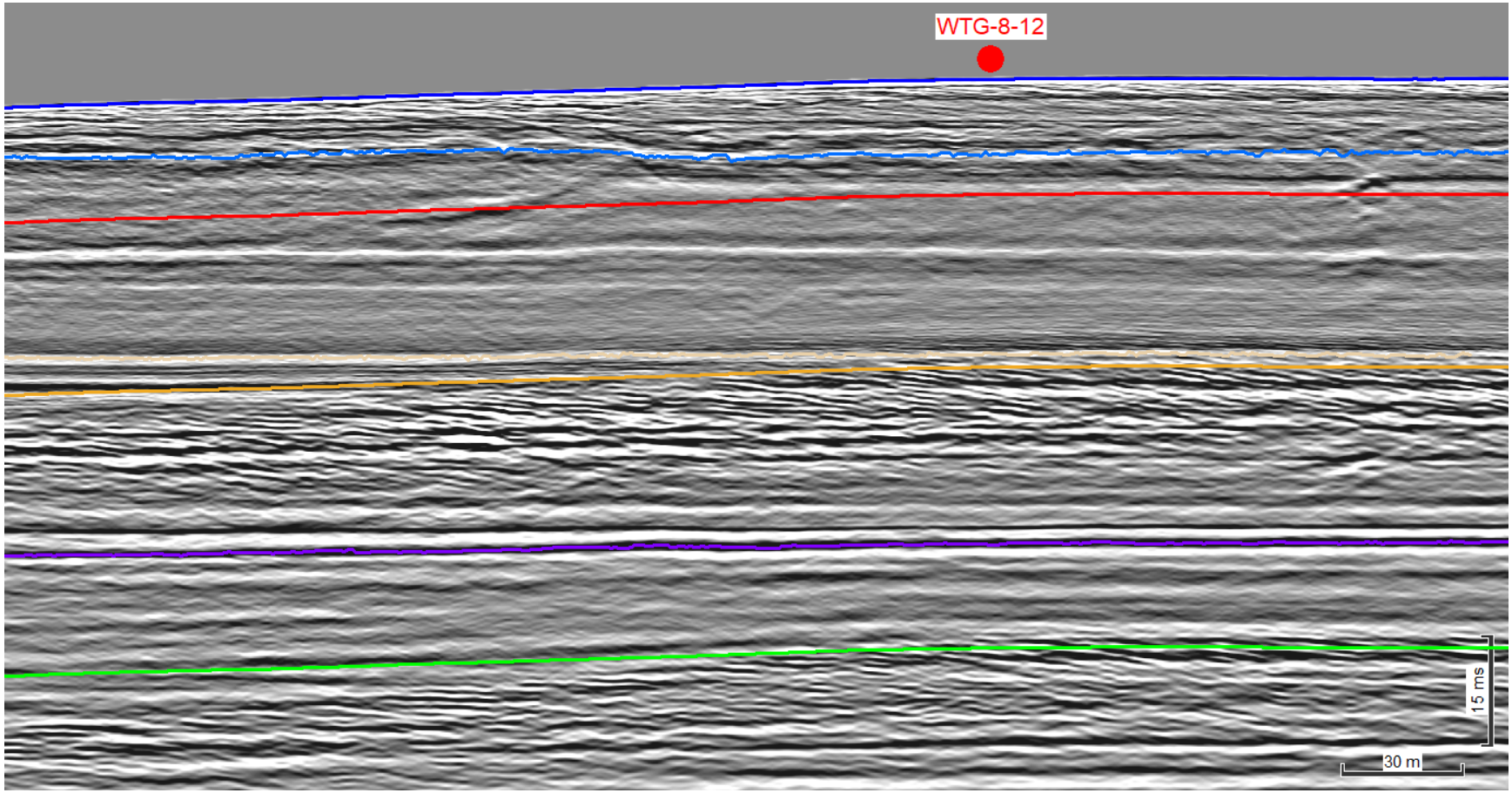


Figure 9-8: Proposed geotechnical locations WTG-8-12 in Corridor 14 along seismic line TLB56_FAST_MIG_PSDEMUL

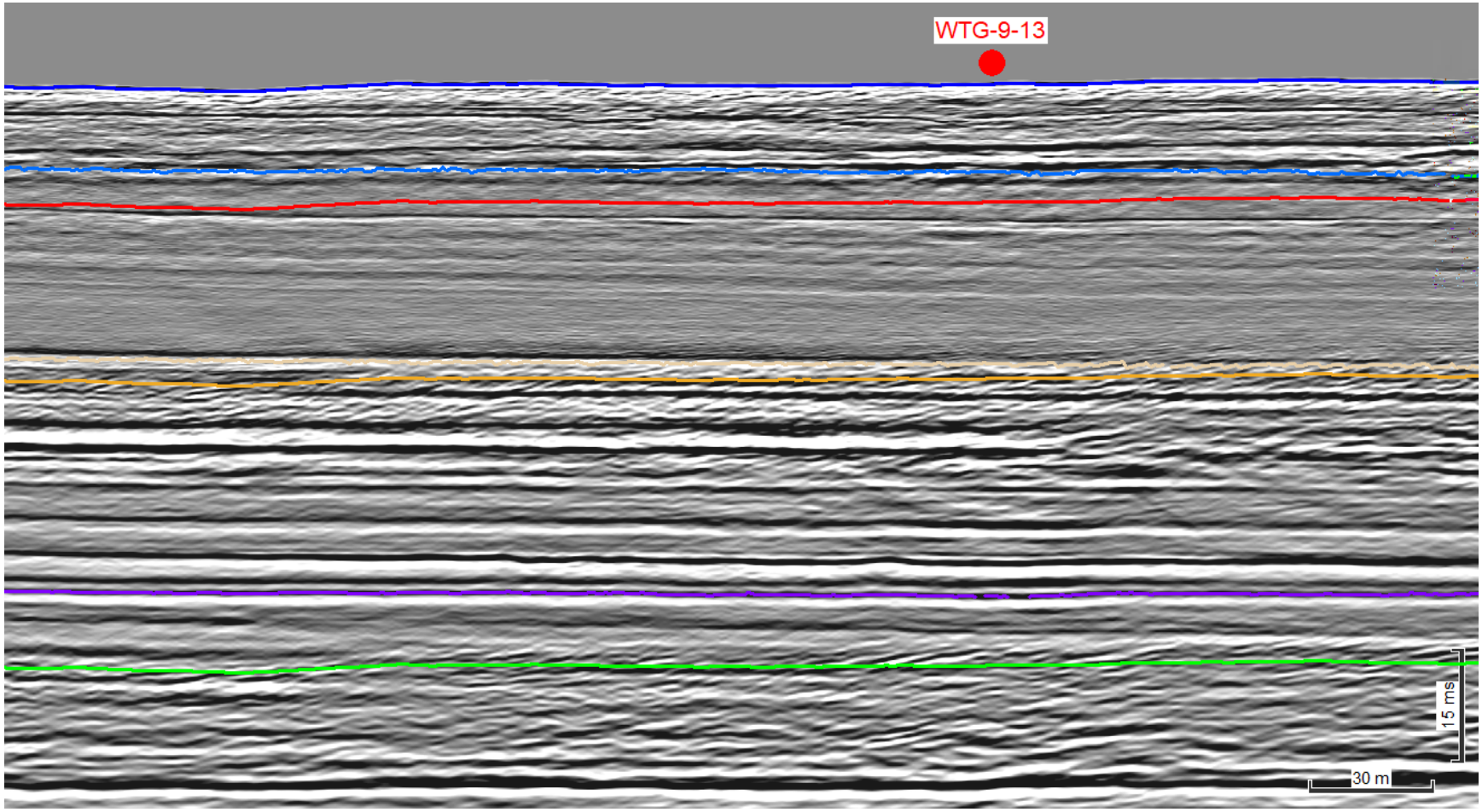


Figure 9-9: Proposed geotechnical locations WTG-9-13 in Corridor 14 along seismic line TLB62_FAST_MIG_PSDEMUL

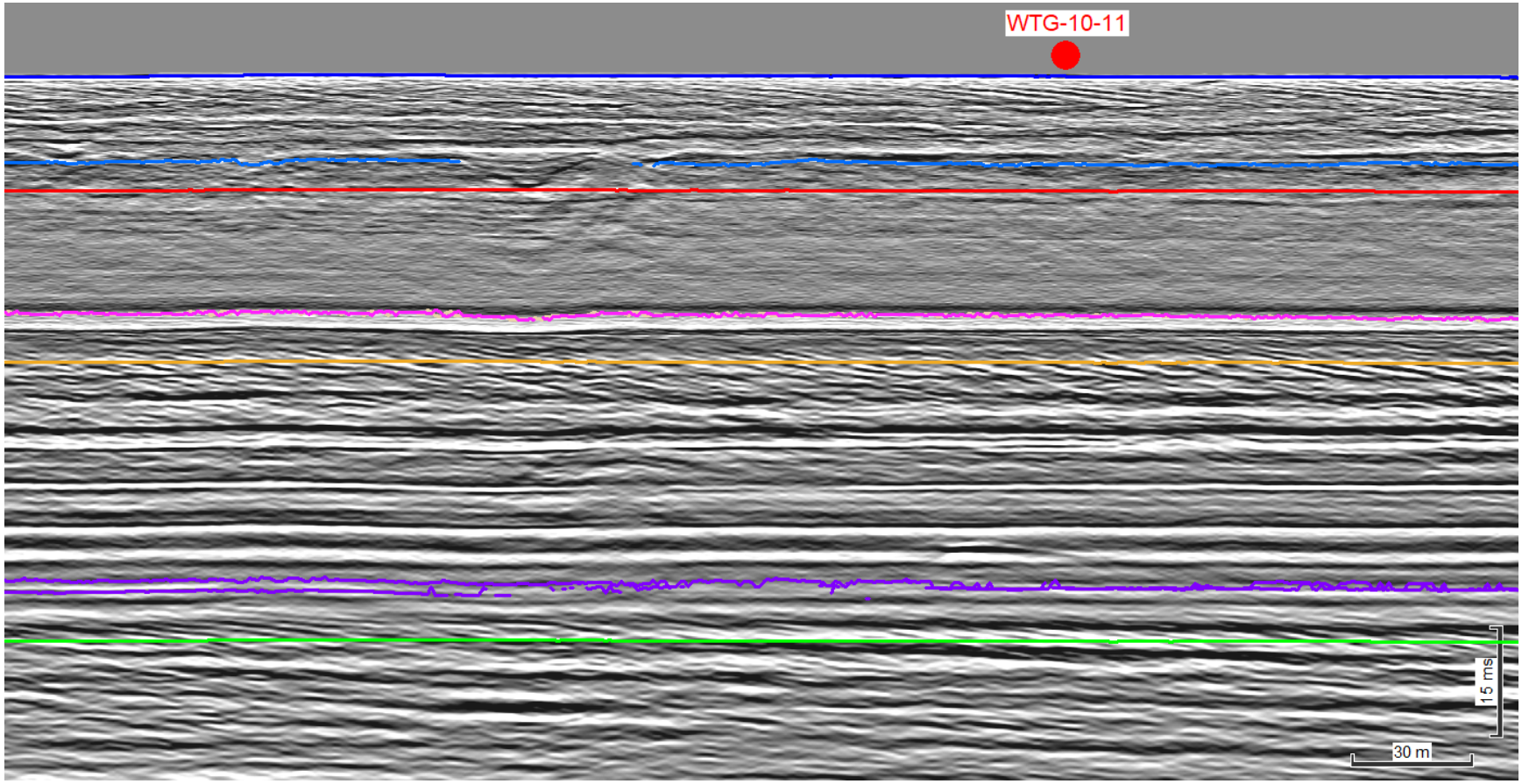


Figure 9-10: Proposed geotechnical locations WTG-10-11 in Corridor 14 along seismic line TLB69_FAST_MIG

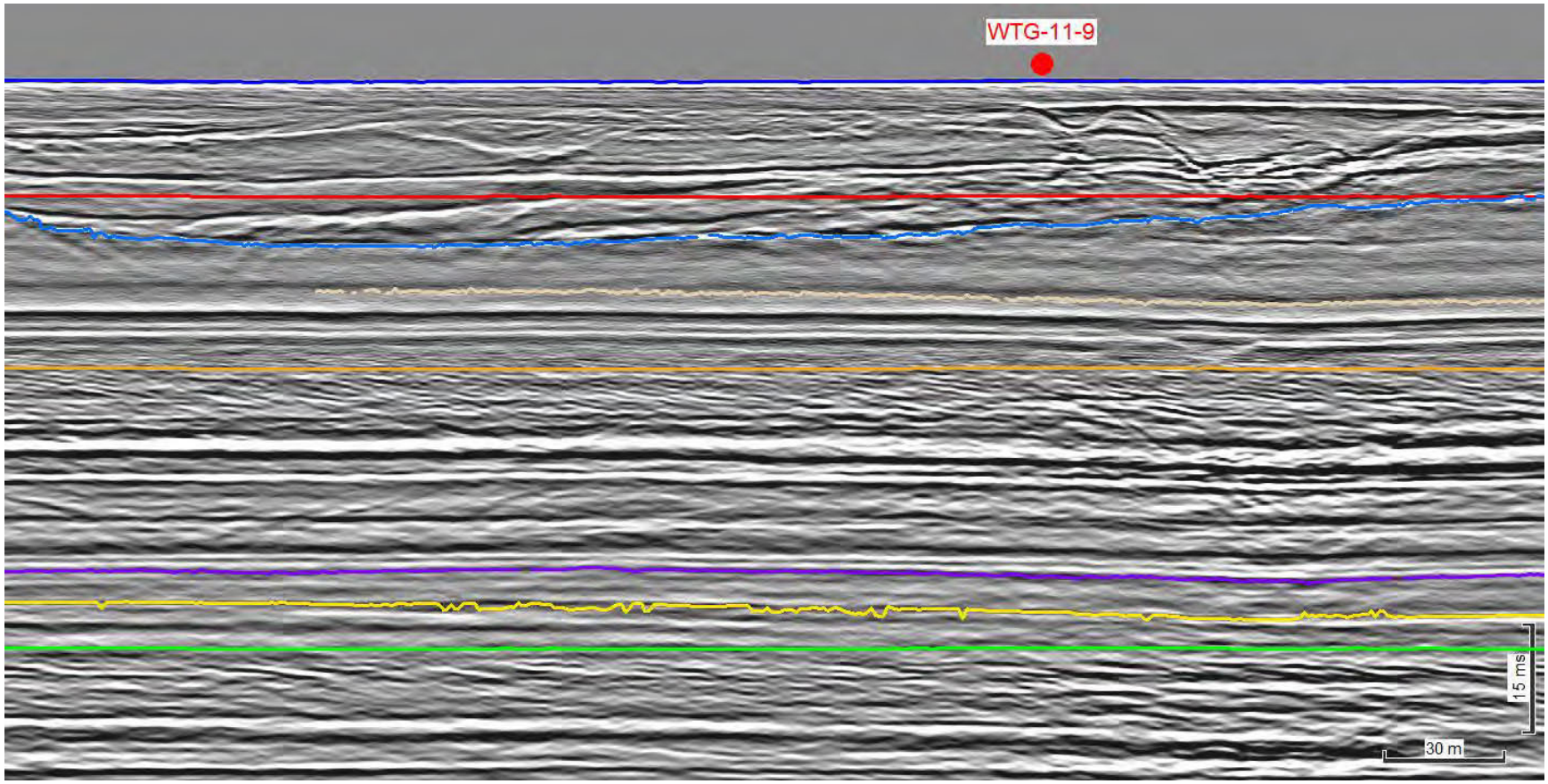


Figure 9-11: Proposed geotechnical locations WTG-11-9 in Corridor 14 along seismic line TLB674A_FAST_MIG_PSDEMUL

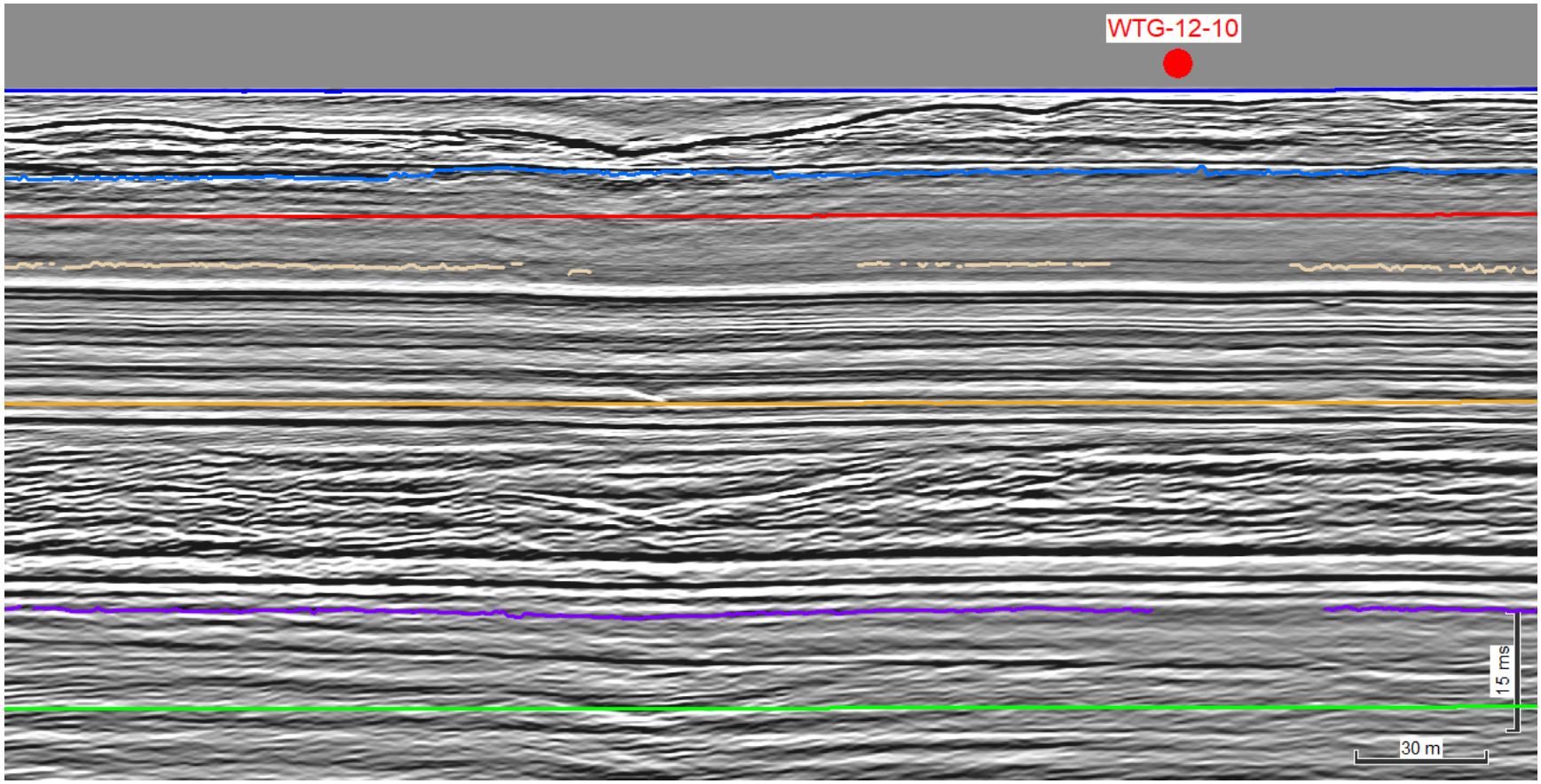


Figure 9-12: Proposed geotechnical locations WTG-12-10 in Corridor 14 along seismic line TLB80_FAST_MIG_PSDEMUL

APPENDIX 10
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 16

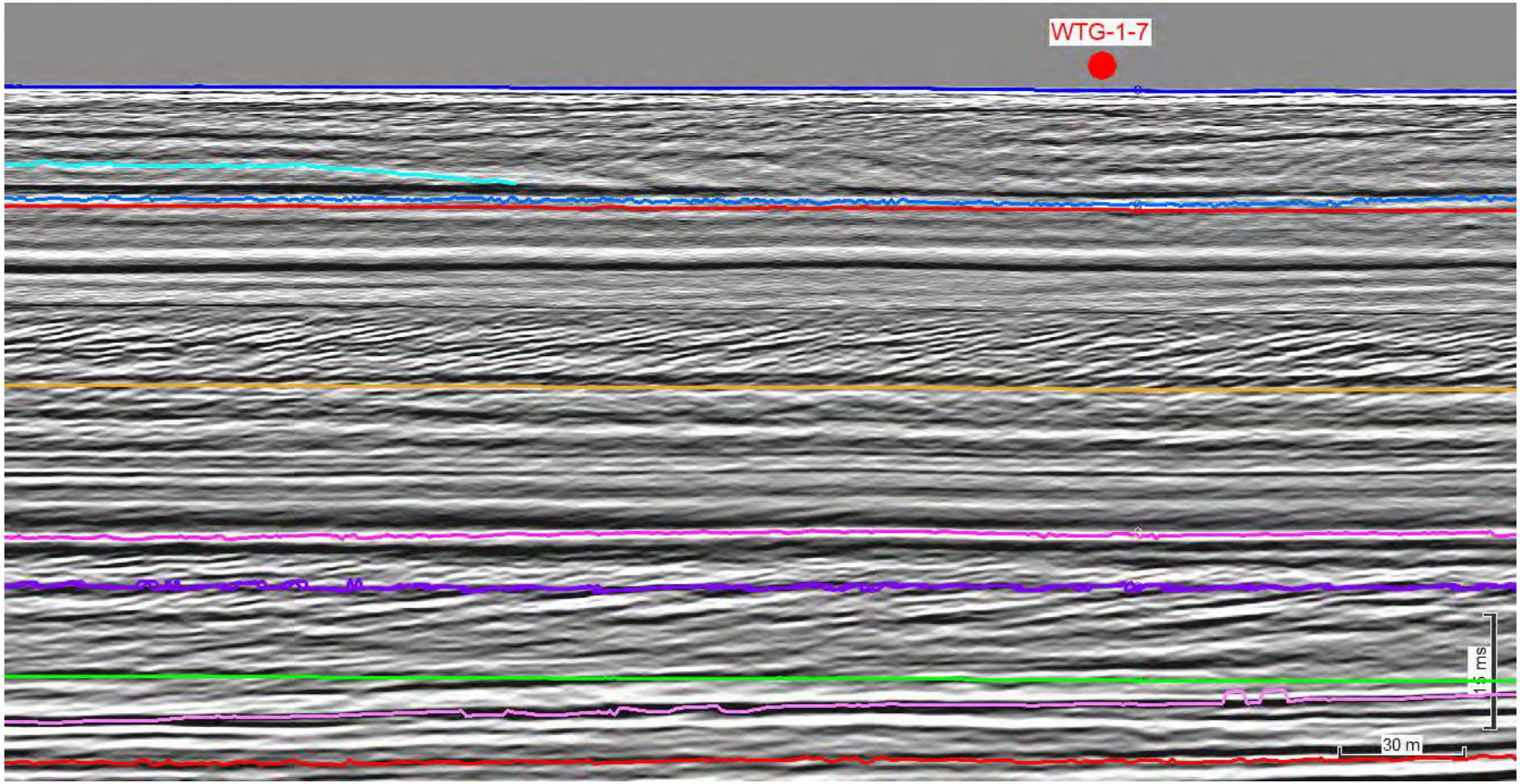


Figure 10-1: Proposed geotechnical locations WTG-1-7 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

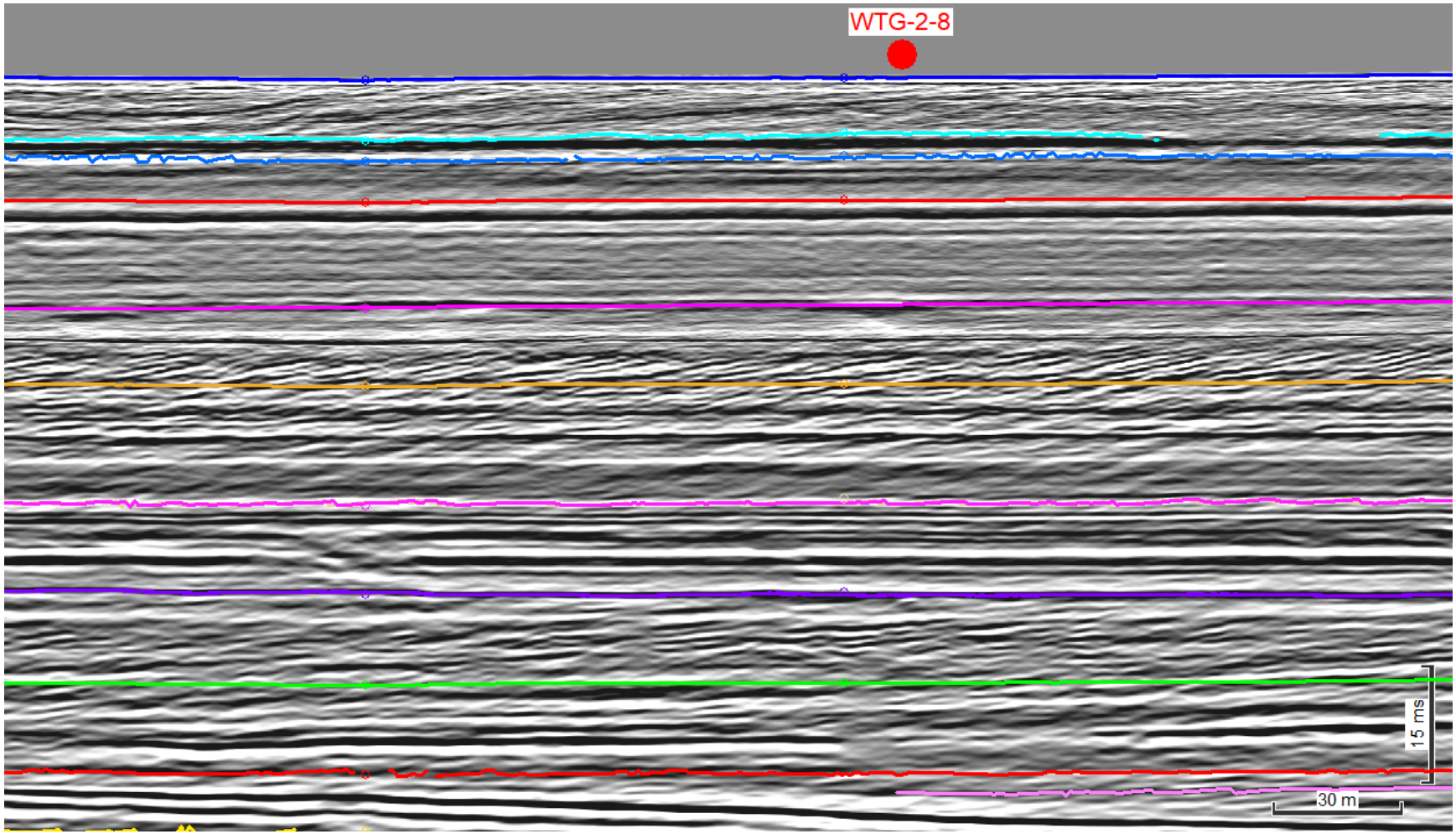


Figure 10-2: Proposed geotechnical locations WTG-2-8 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

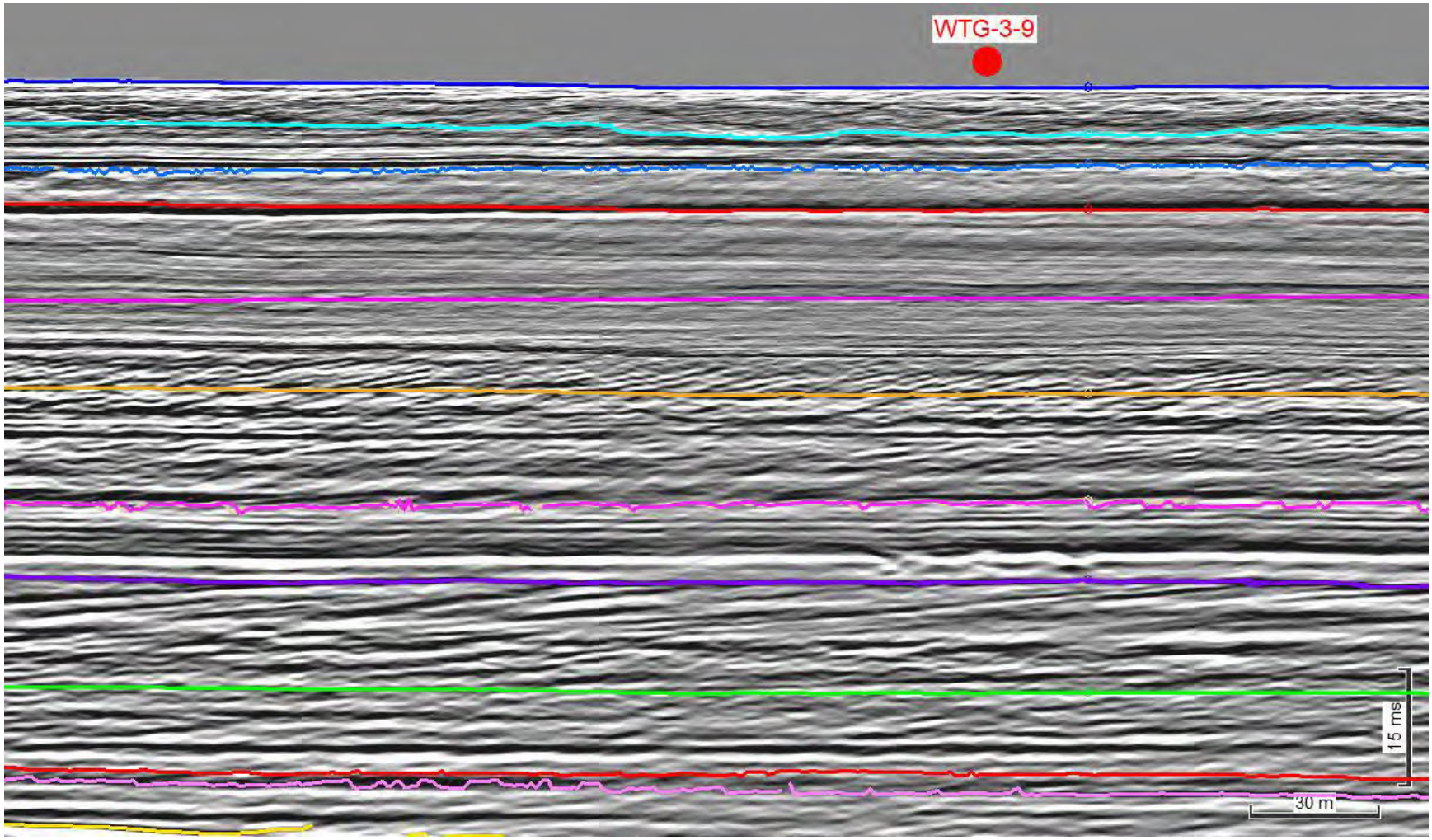


Figure 10-3: Proposed geotechnical locations WTG-3-9 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

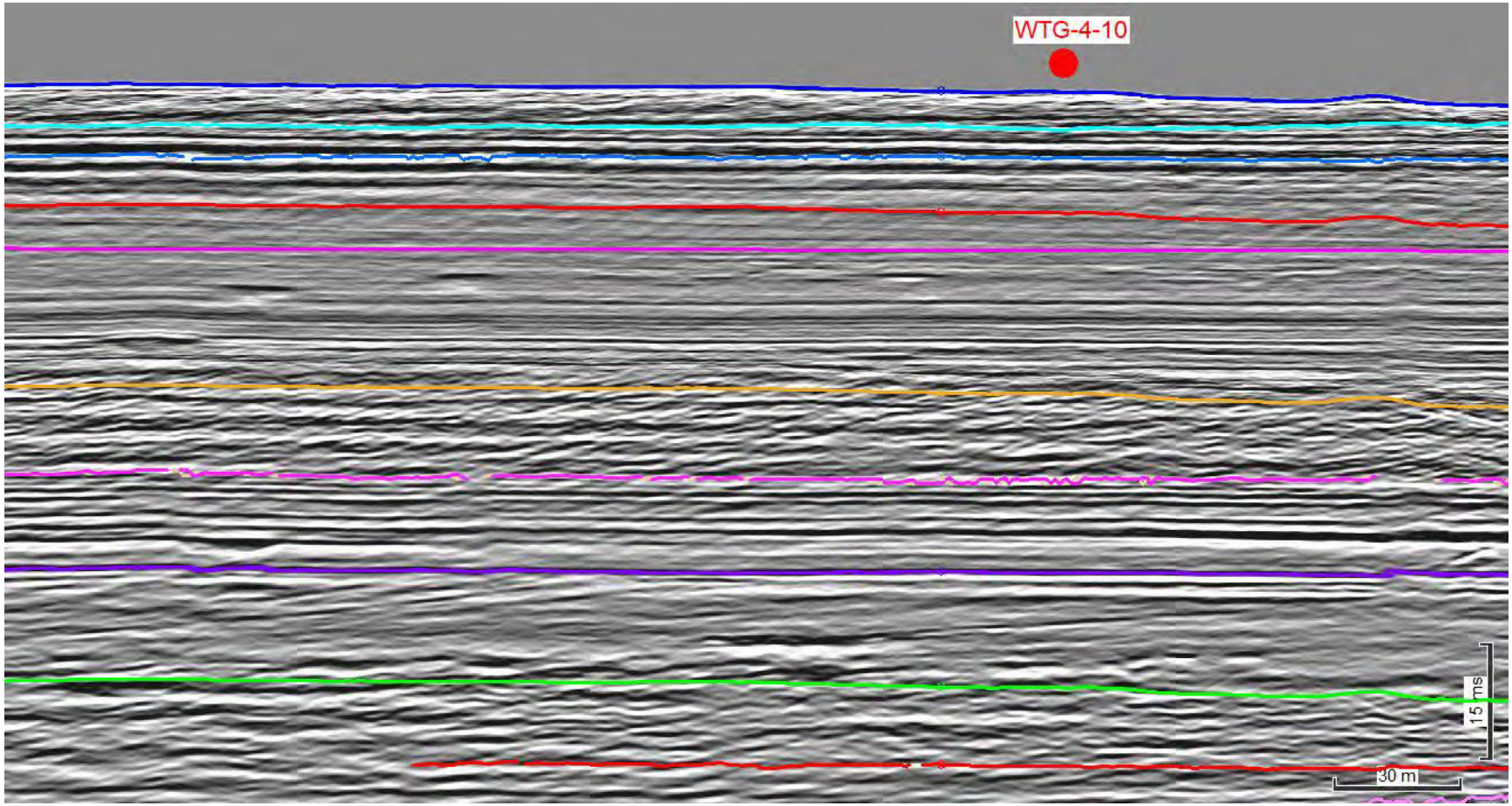


Figure 10-4: Proposed geotechnical locations WTG-4-10 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

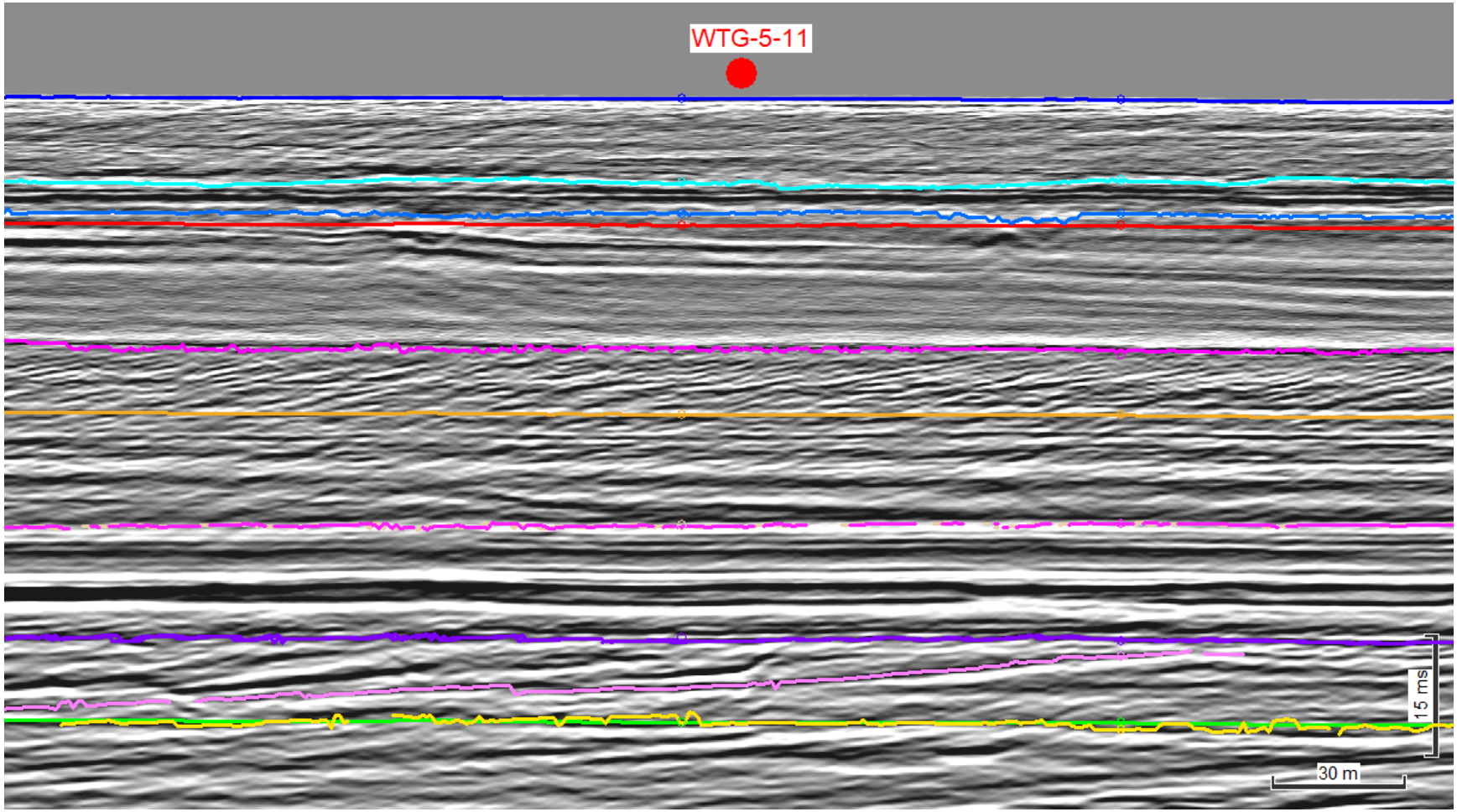


Figure 10-5: Proposed geotechnical locations WTG-5-11 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

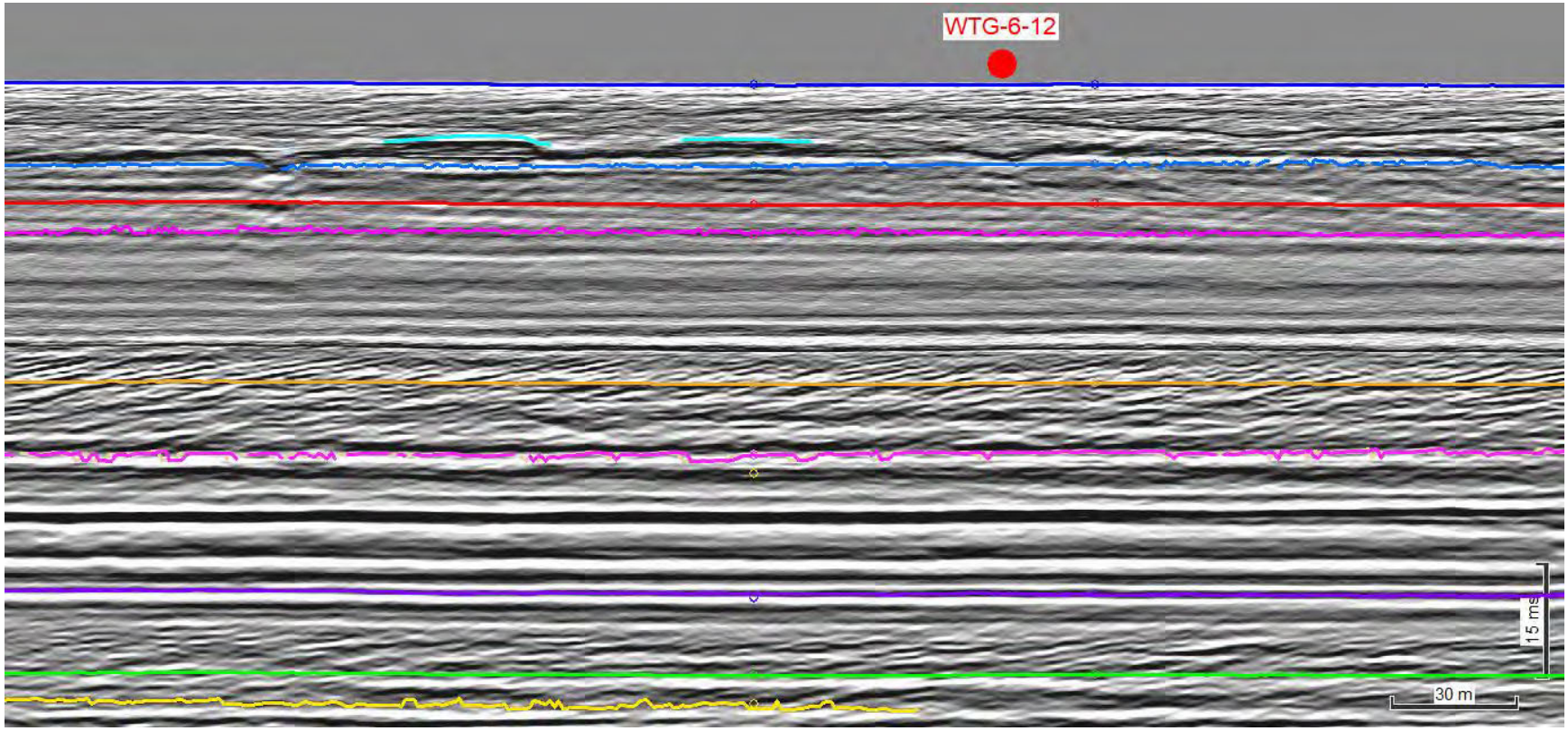


Figure 10-6: Proposed geotechnical locations WTG-6-12 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

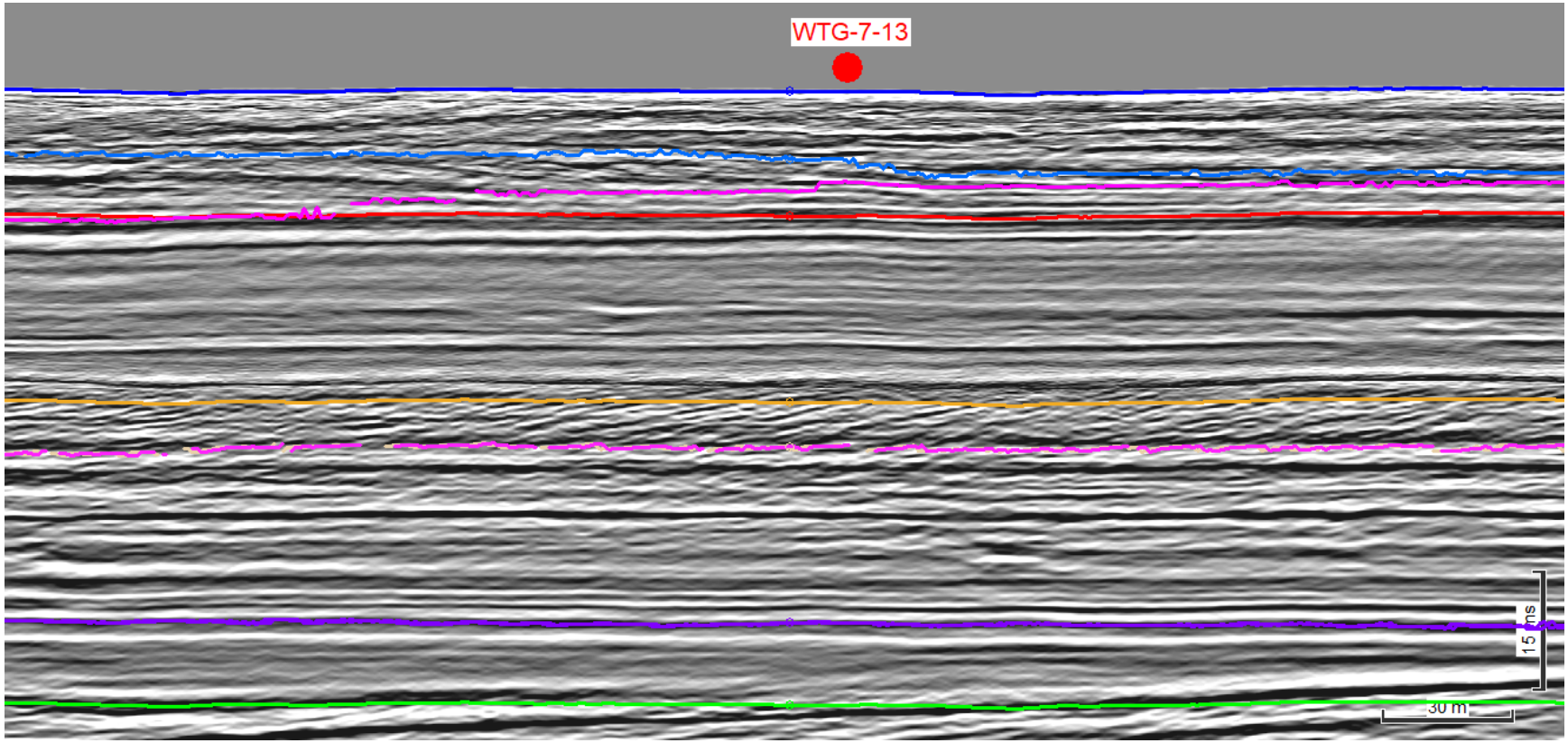


Figure 10-7: Proposed geotechnical locations WTG-7-13 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

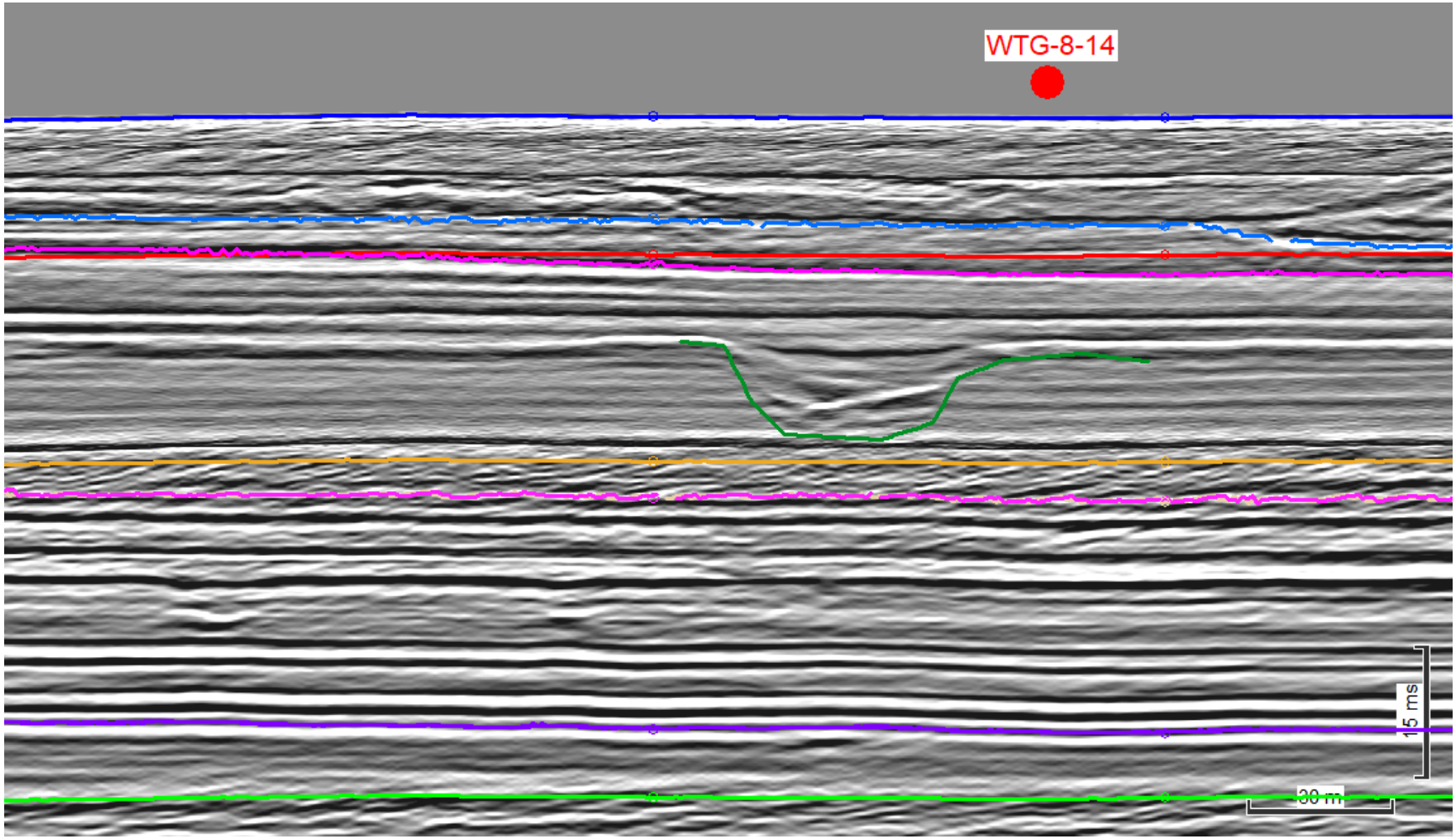


Figure 10-8: Proposed geotechnical locations WTG-8-14 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

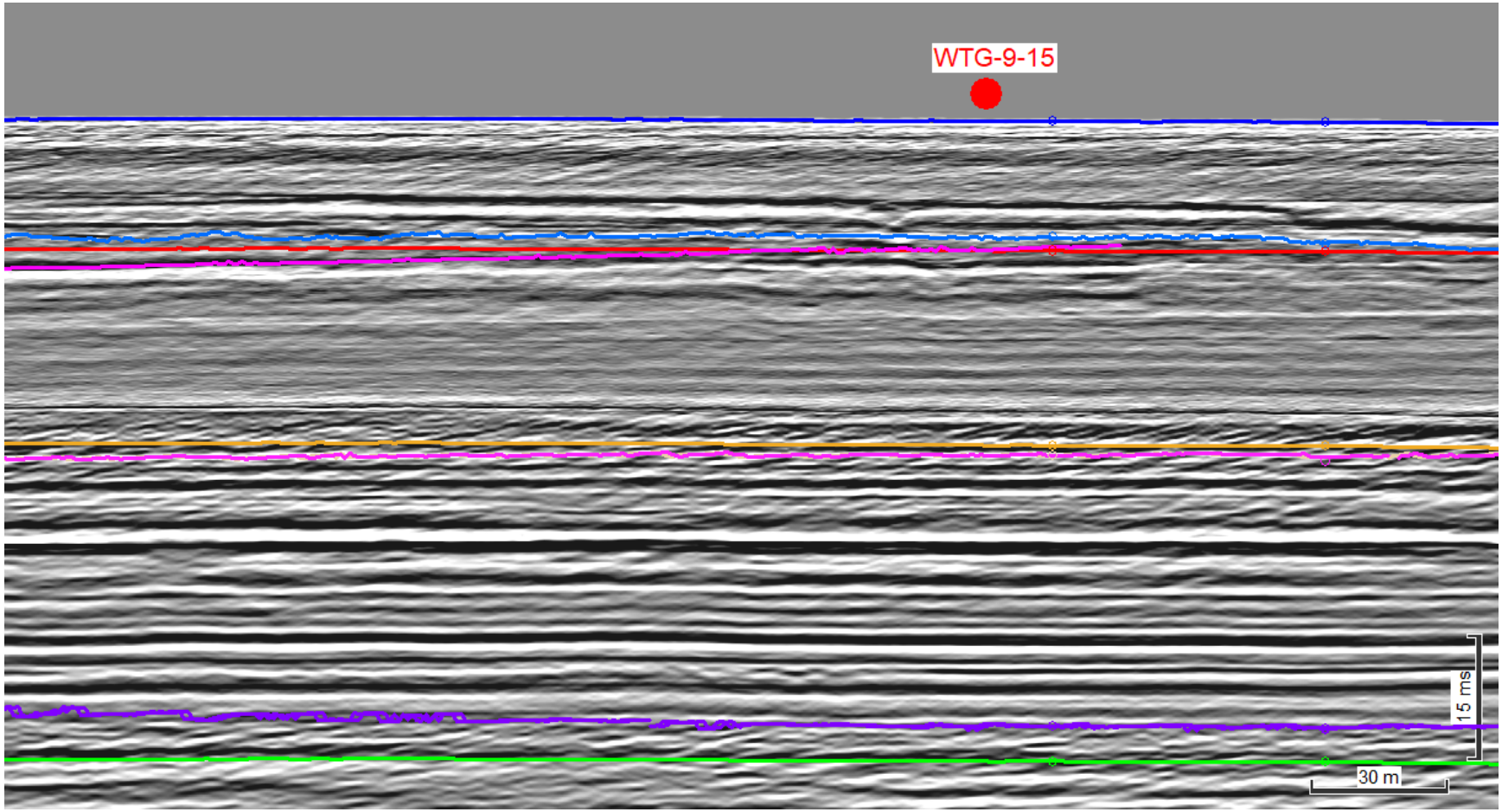


Figure 10-9: Proposed geotechnical locations WTG-9-15 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

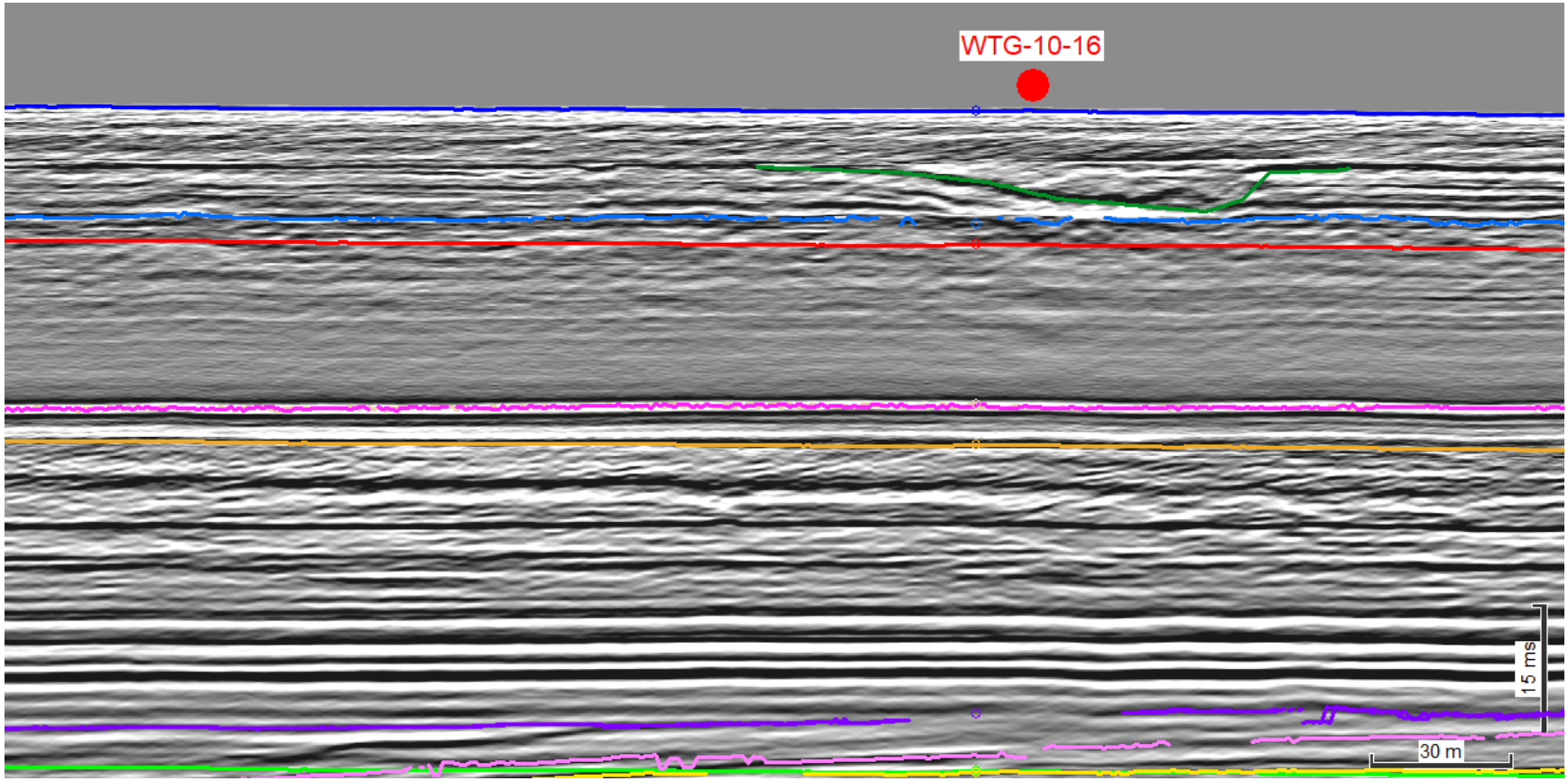


Figure 10-10: Proposed geotechnical locations WTG-10-16 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

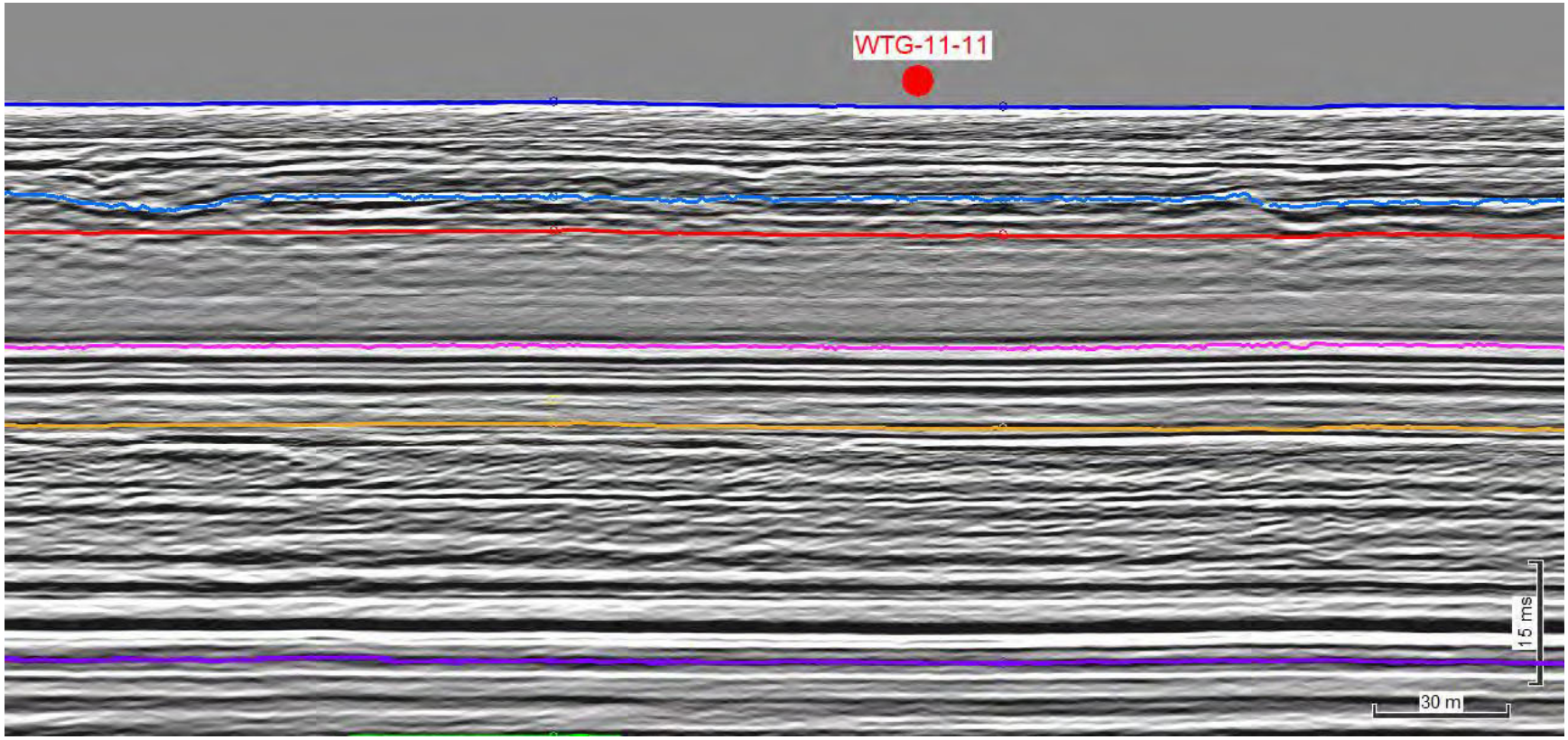


Figure 10-11: Proposed geotechnical locations WTG-11-11 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

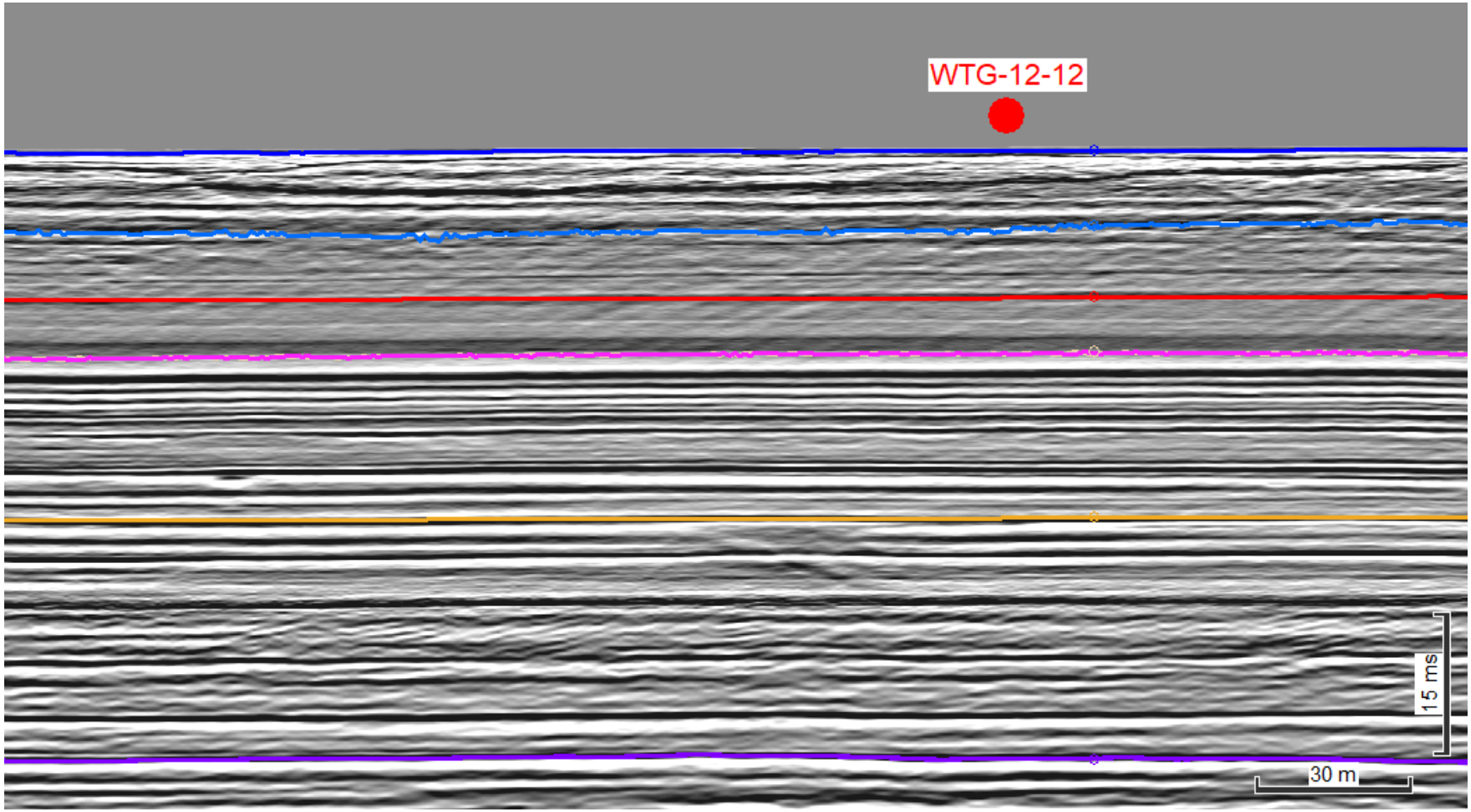


Figure 10-12: Proposed geotechnical locations WTG-12-12 in Corridor 16 along seismic line WTG16MCS16_01_FAST_MIG

APPENDIX 11
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 18

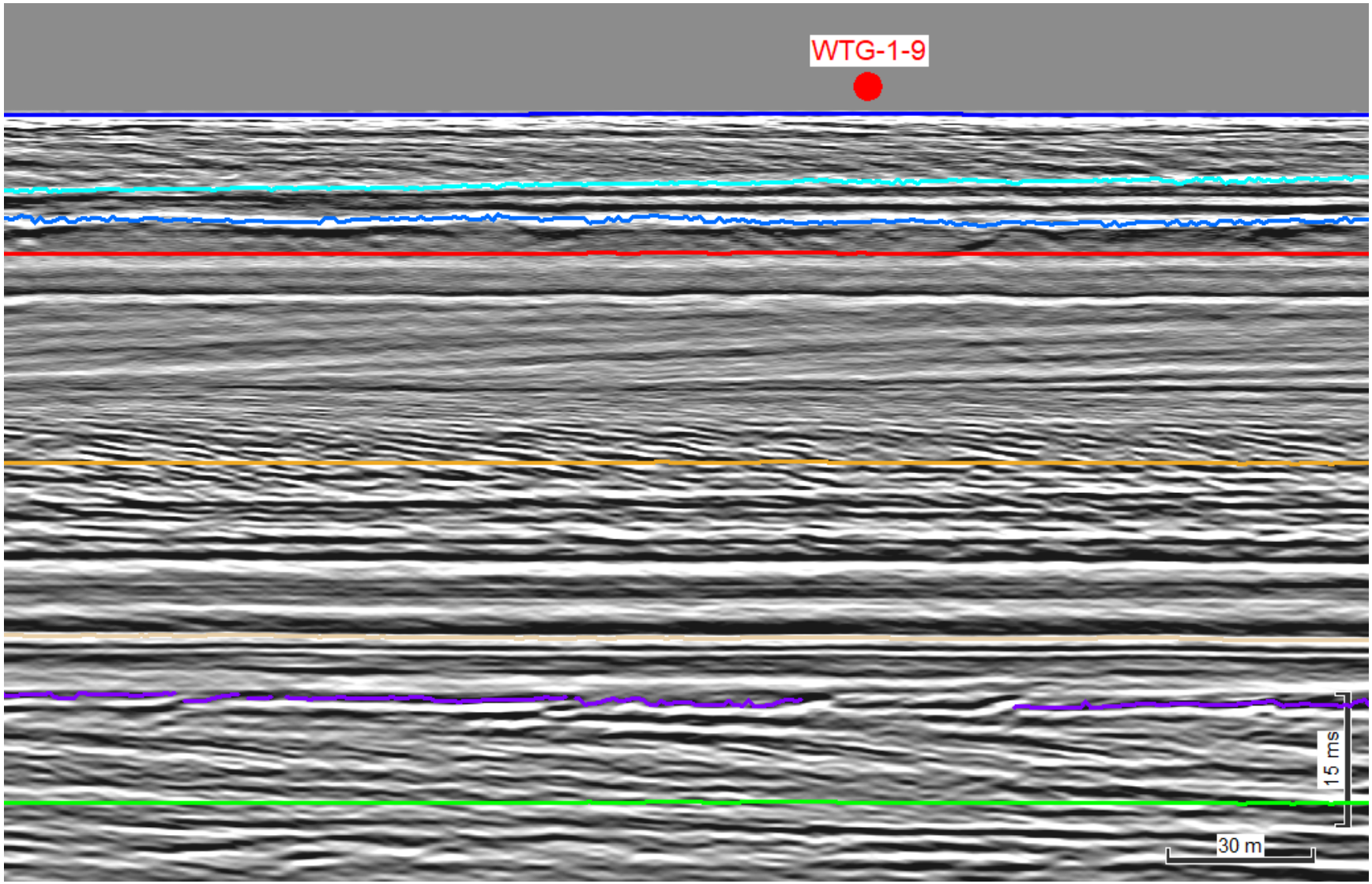


Figure 11-1: Proposed geotechnical locations WTG-1-9 in Corridor 18 along seismic line TLB26_FAST_MIG_PSDEMUL

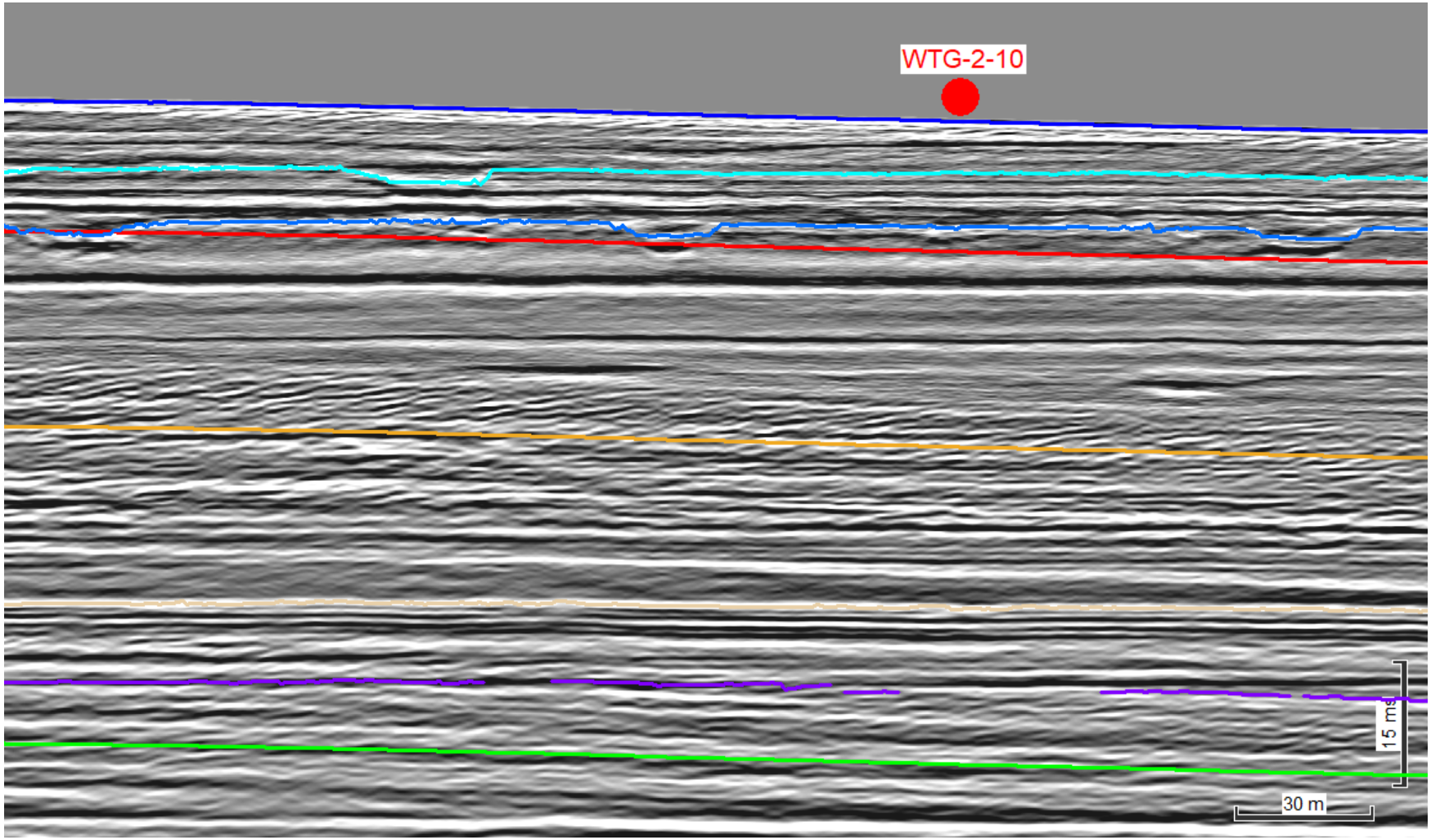


Figure 11-2: Proposed geotechnical locations WTG-2-10 in Corridor 18 along seismic line TLB32_FAST_MIG_PSDEMUL

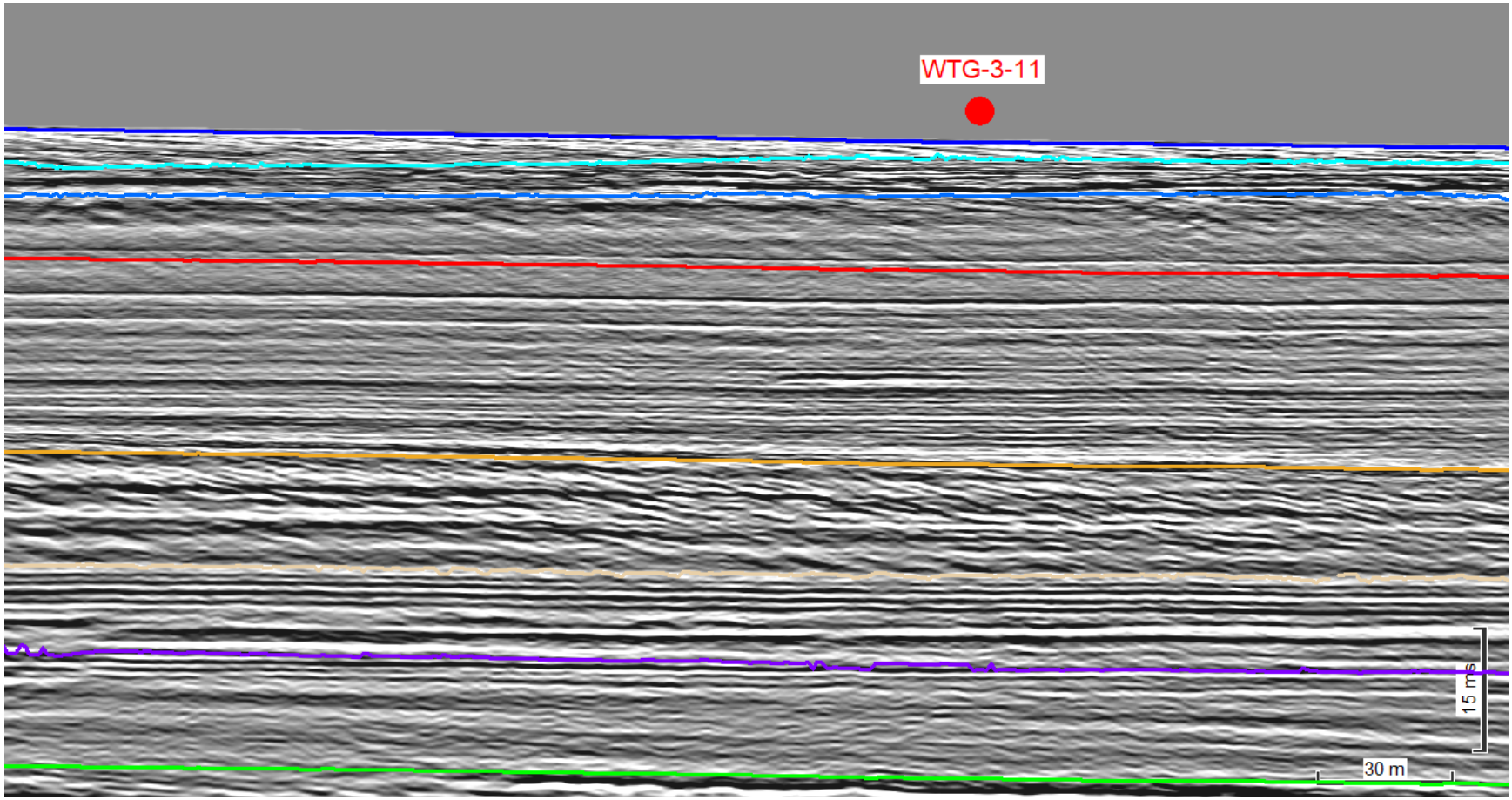


Figure 11-3: Proposed geotechnical locations WTG-3-11 in Corridor 18 along seismic line TLB38_FAST_MIG

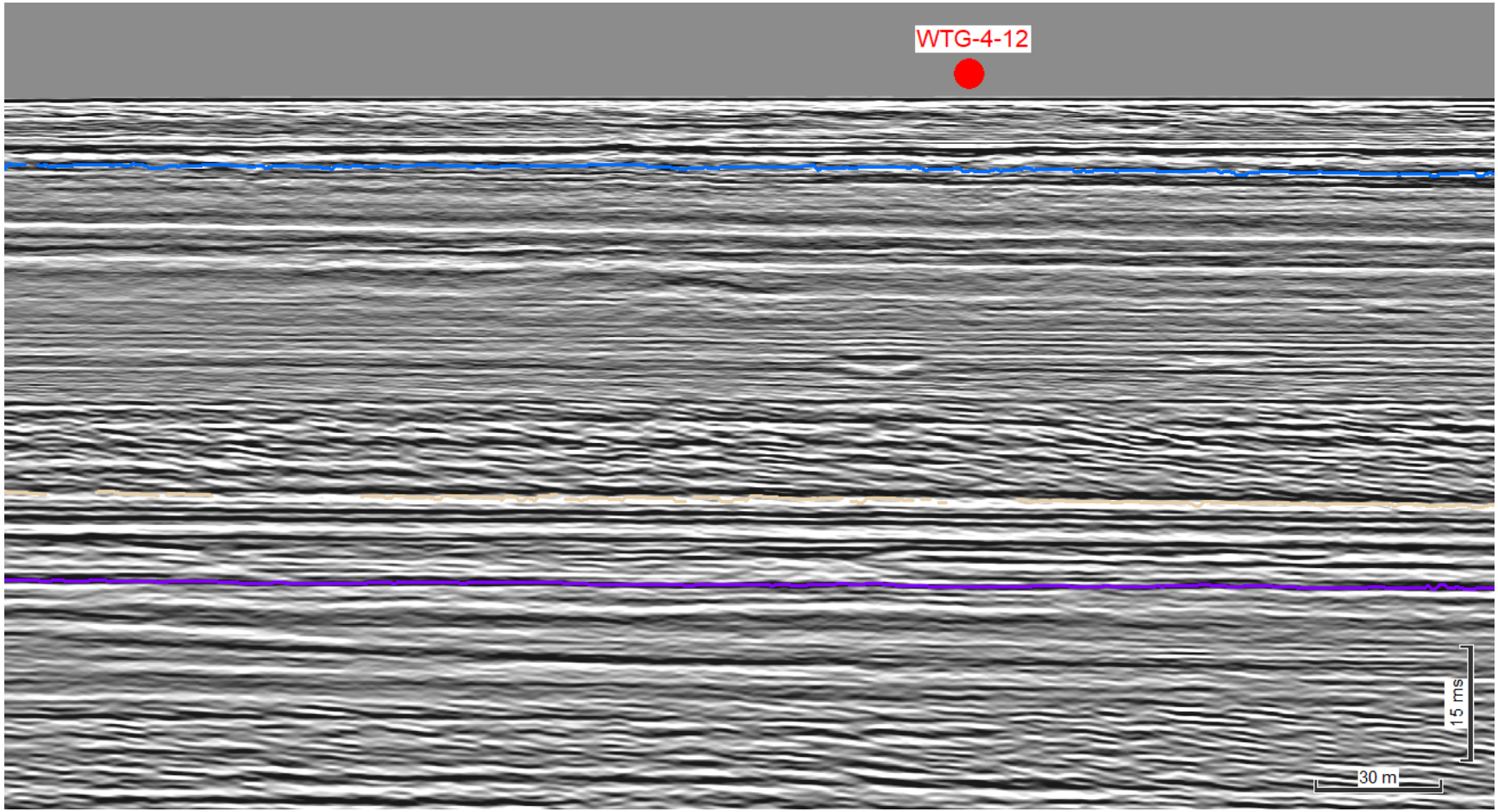


Figure 11-4: Proposed geotechnical locations WTG-4-12 in Corridor 18 along seismic line TLB44_FAST_MIG_PSDEMUL

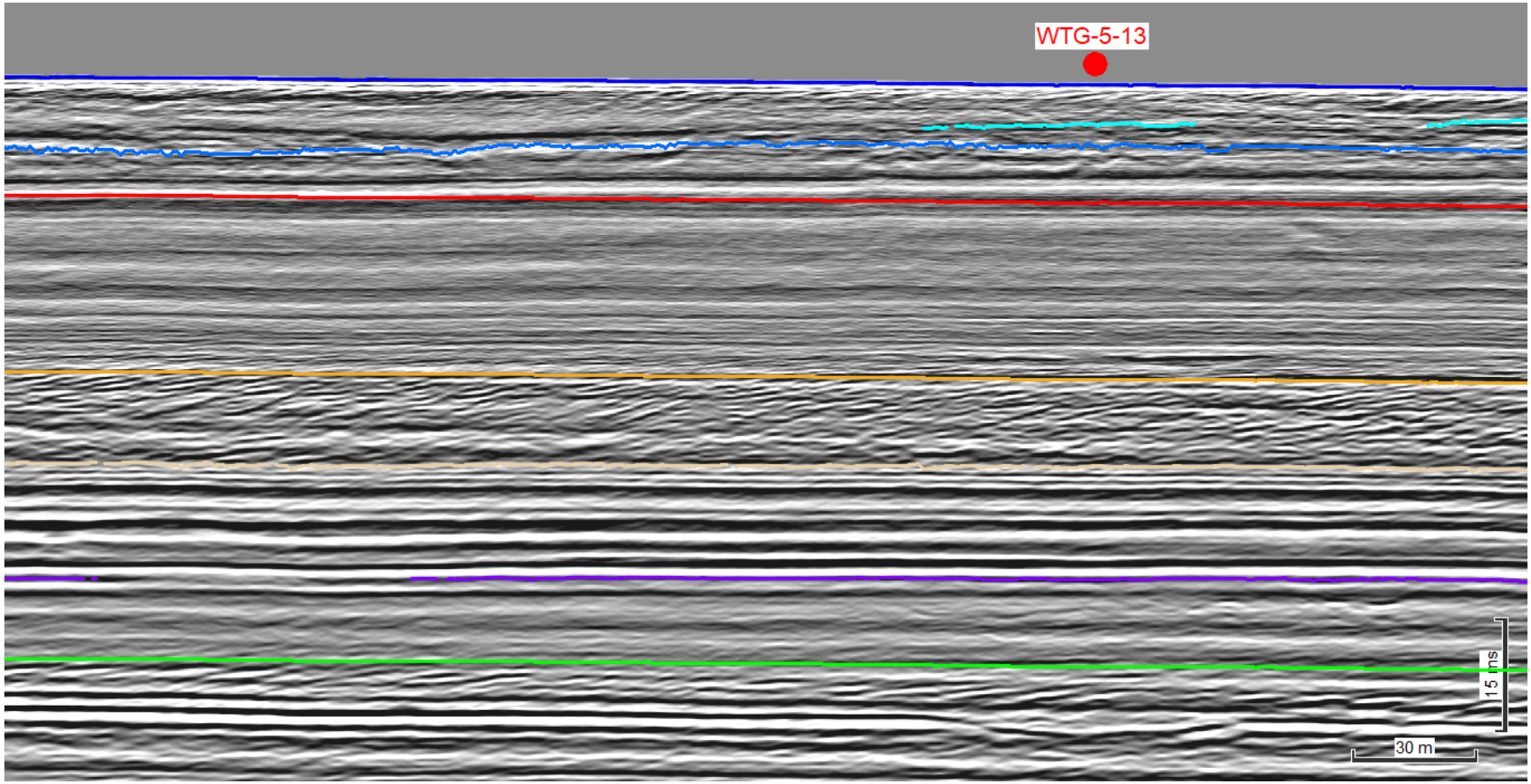


Figure 11-5: Proposed geotechnical locations WTG-5-13 in Corridor 18 along seismic line TLB50_01_FAST_MIG_PSDEMUL

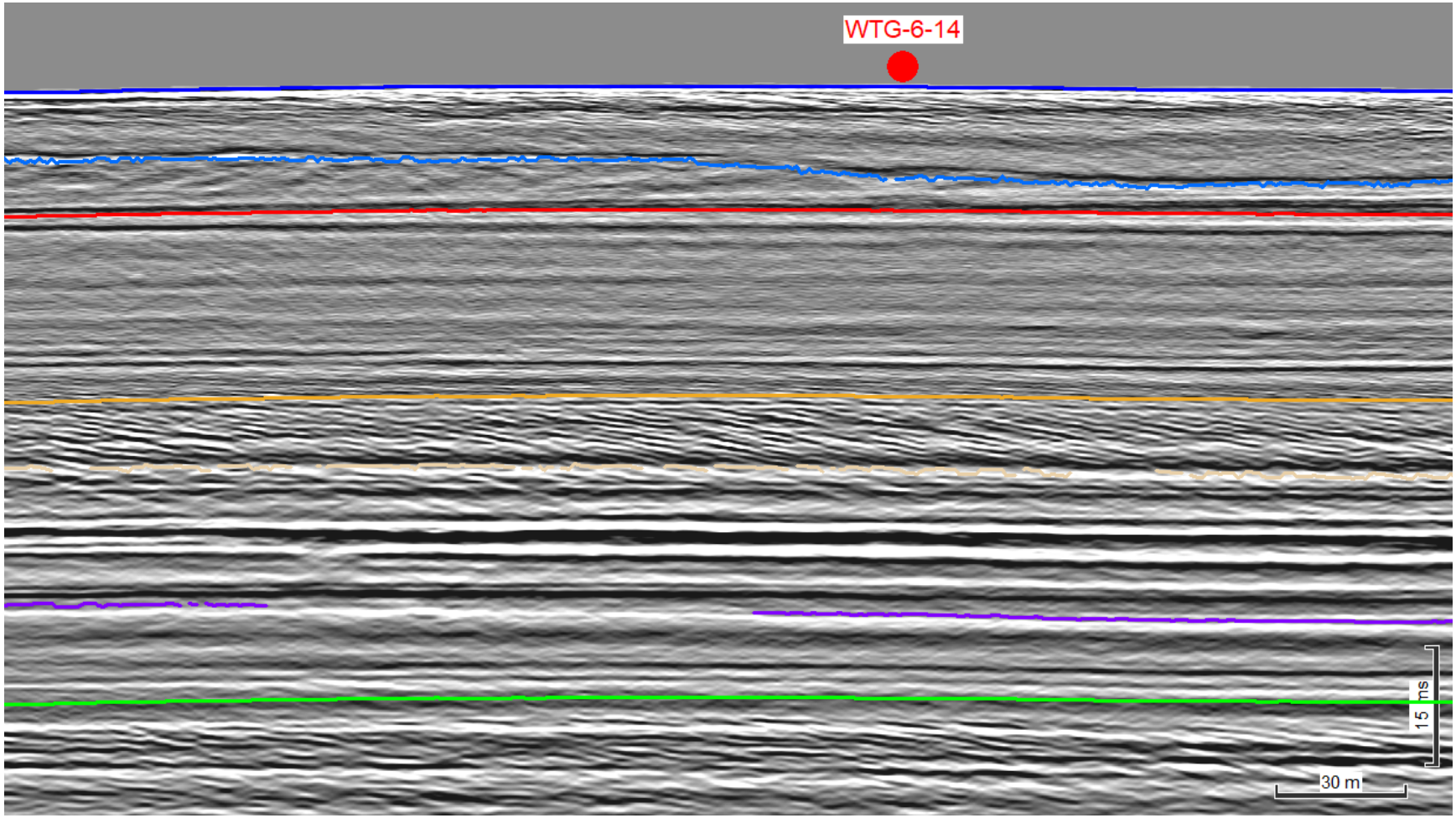


Figure 11-6: Proposed geotechnical locations WTG-6-14 in Corridor 18 along seismic line TLB56_FAST_MIG_PSDEMUL

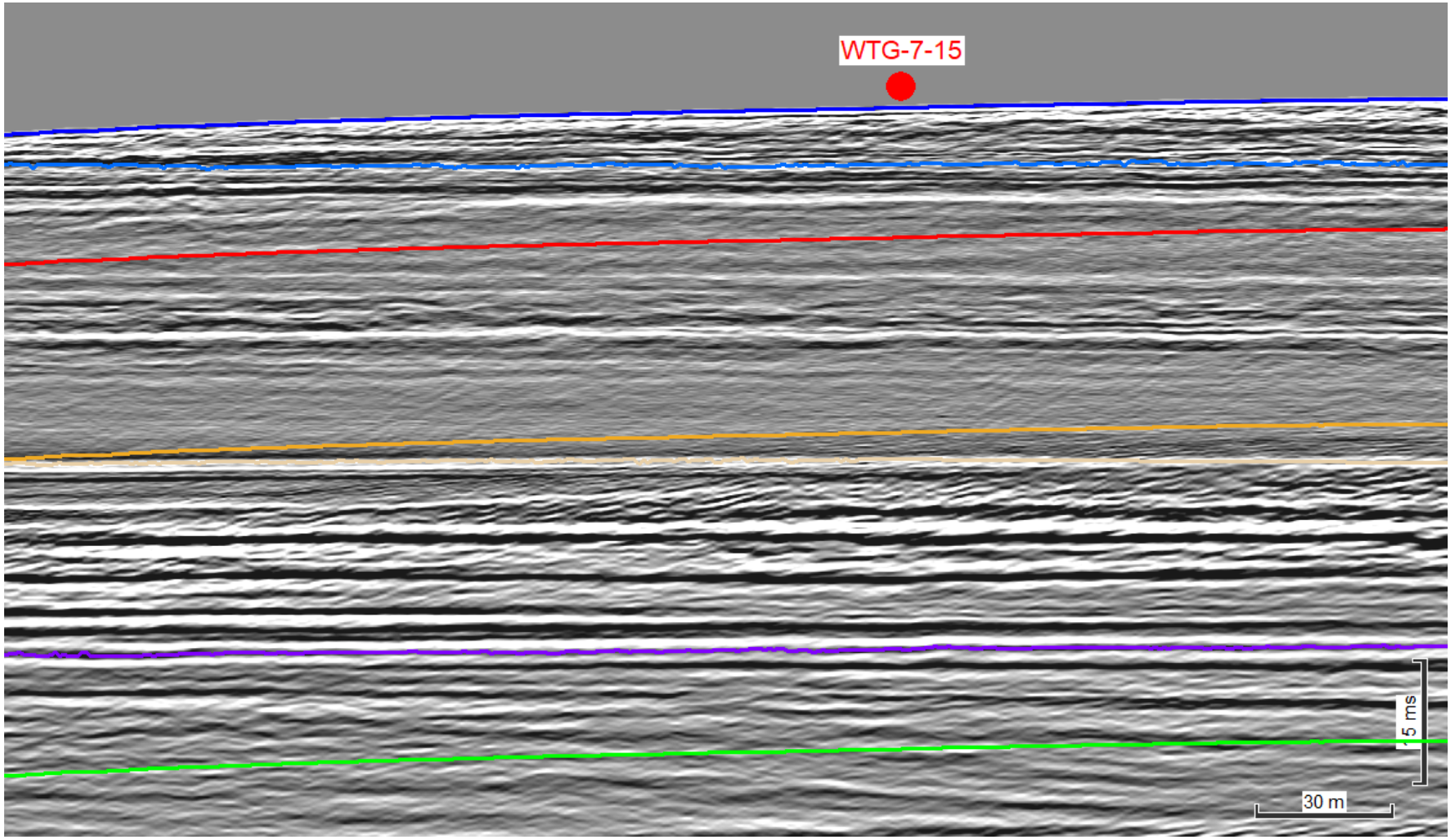


Figure 11-7: Proposed geotechnical locations WTG-7-15 in Corridor 18 along seismic line TLB62_01_FAST_MIG_PSDEMUL

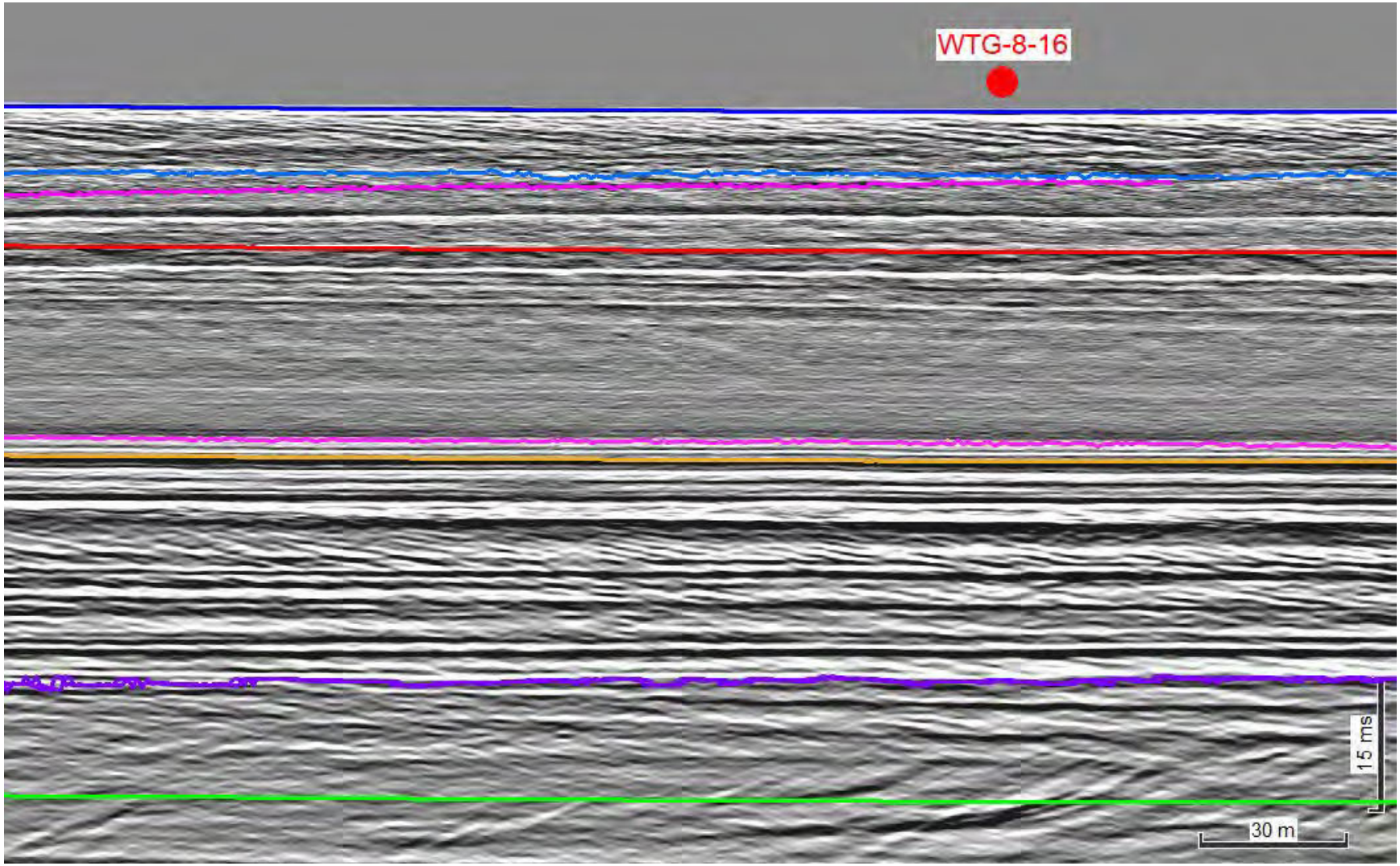


Figure 11-8: Proposed geotechnical locations WTG-8-16 in Corridor 18 along seismic line TLB69_FAST_MIG_PSDEMUL

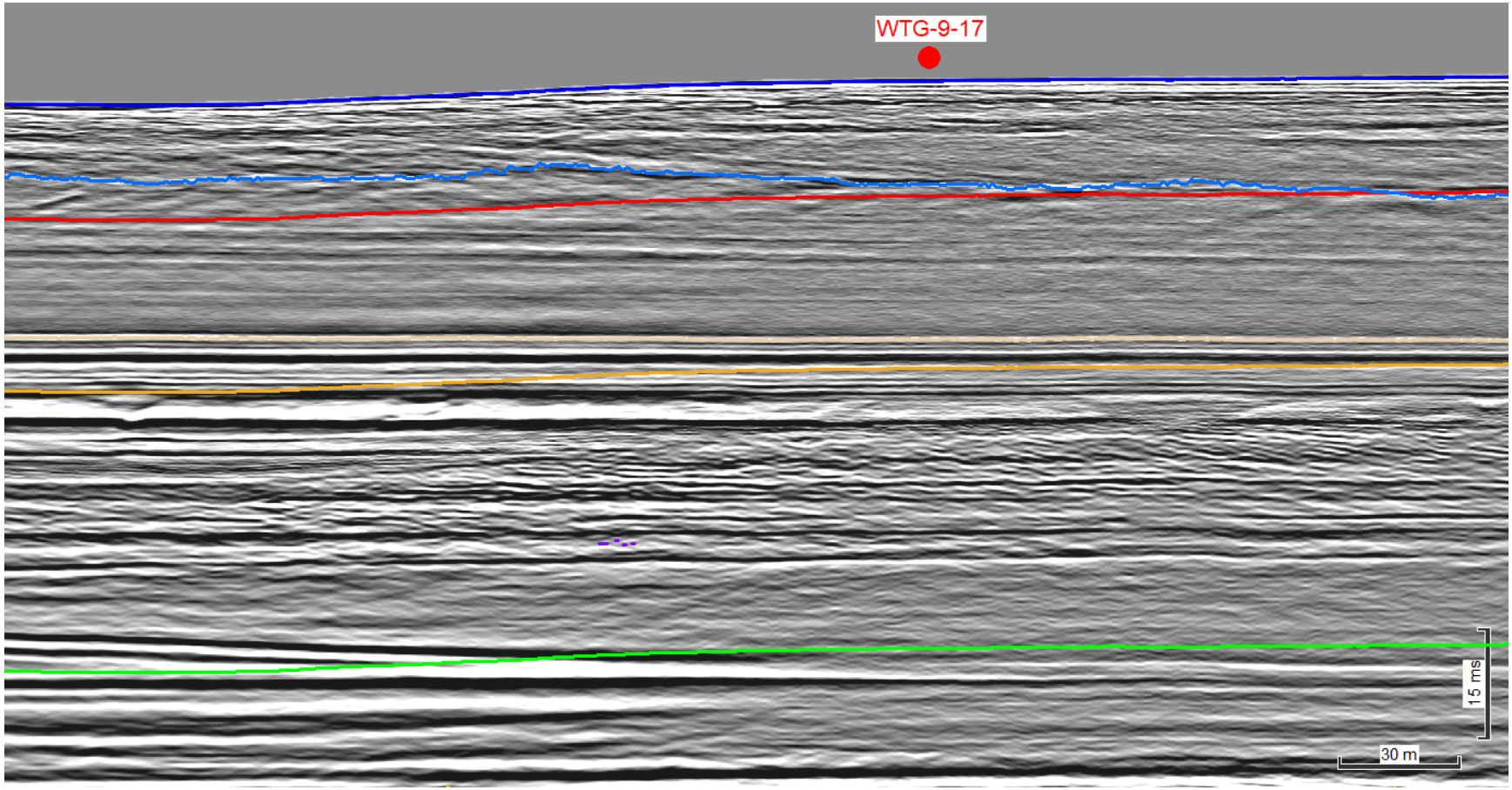


Figure 11-9: Proposed geotechnical locations WTG-9-17 in Corridor 18 along seismic line TLB74A_FAST_MIG_PSDEMUL

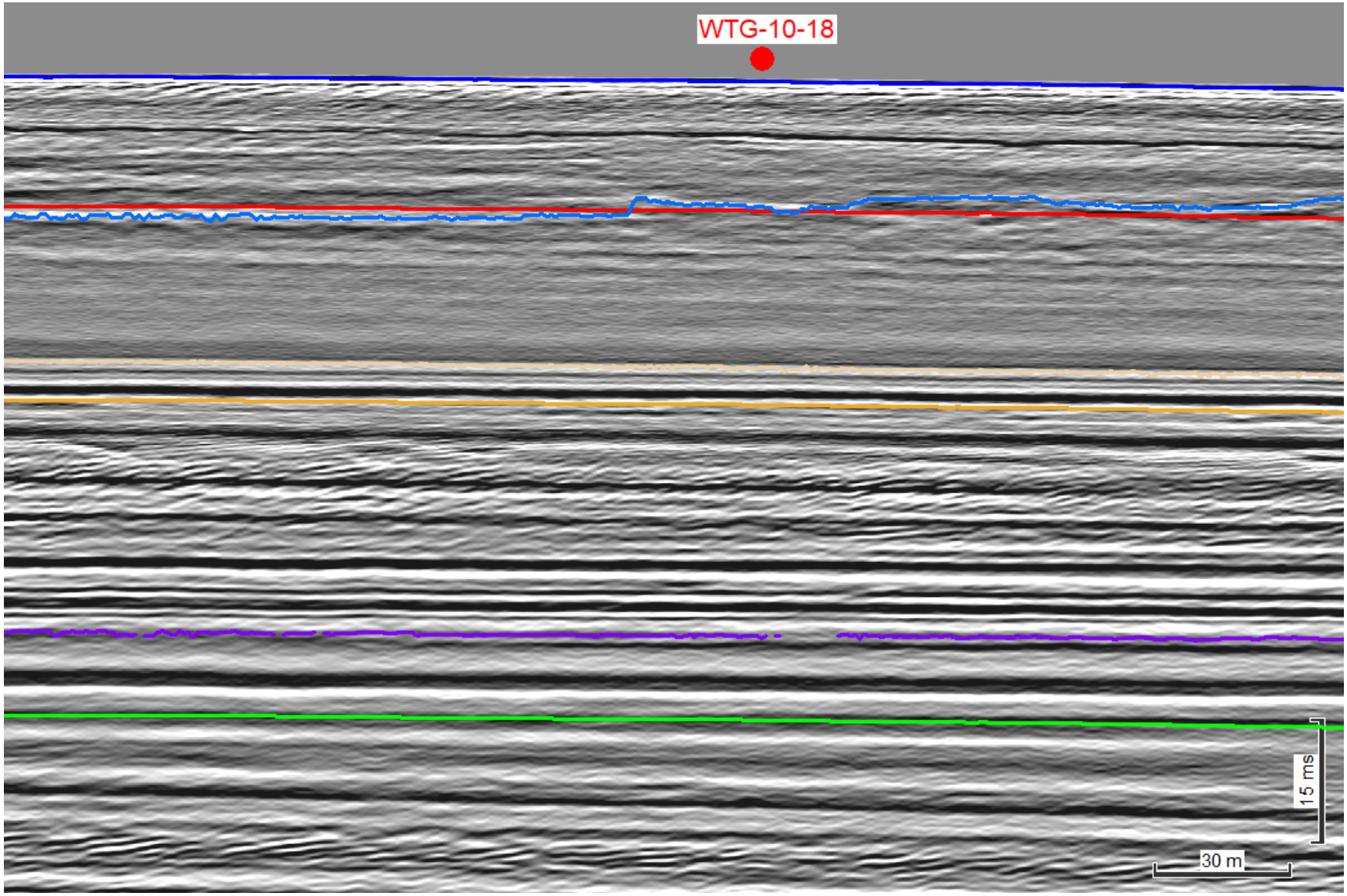


Figure 11-10: Proposed geotechnical locations WTG-10-18 in Corridor 18 along seismic line TLB80_FAST_MIG_PSDEMUL

APPENDIX 12
SUB-BOTTOM PROFILE IMAGES FOR CORRIDOR 22

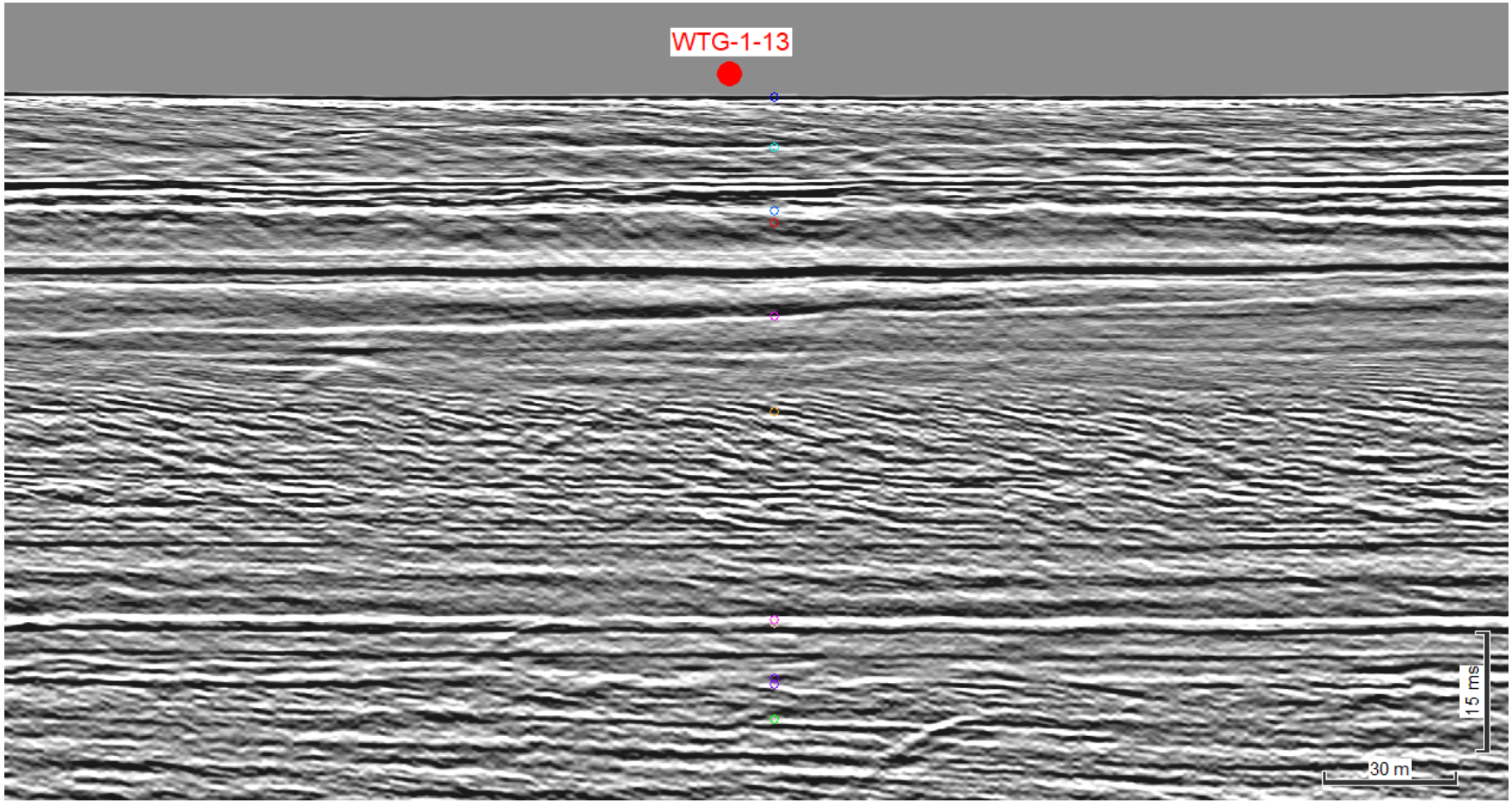


Figure 12-1: Proposed geotechnical locations WTG-1-13 in Corridor 22 along seismic line TLB38_FAST_MIG_PSDEMUL

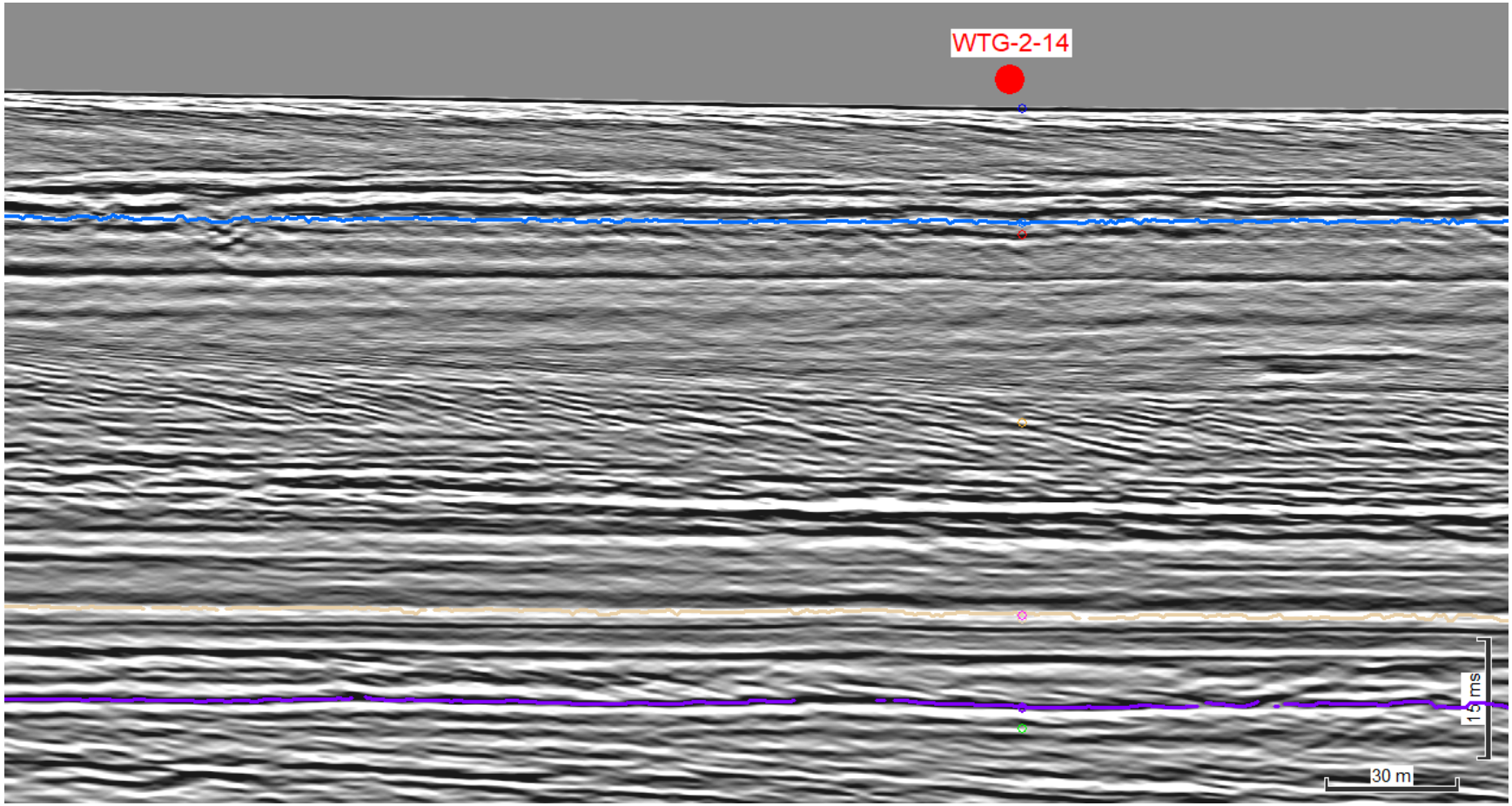


Figure 12-2: Proposed geotechnical locations WTG-2-14 in Corridor 22 along seismic line TLB44_FAST_MIG_PSDEMUL

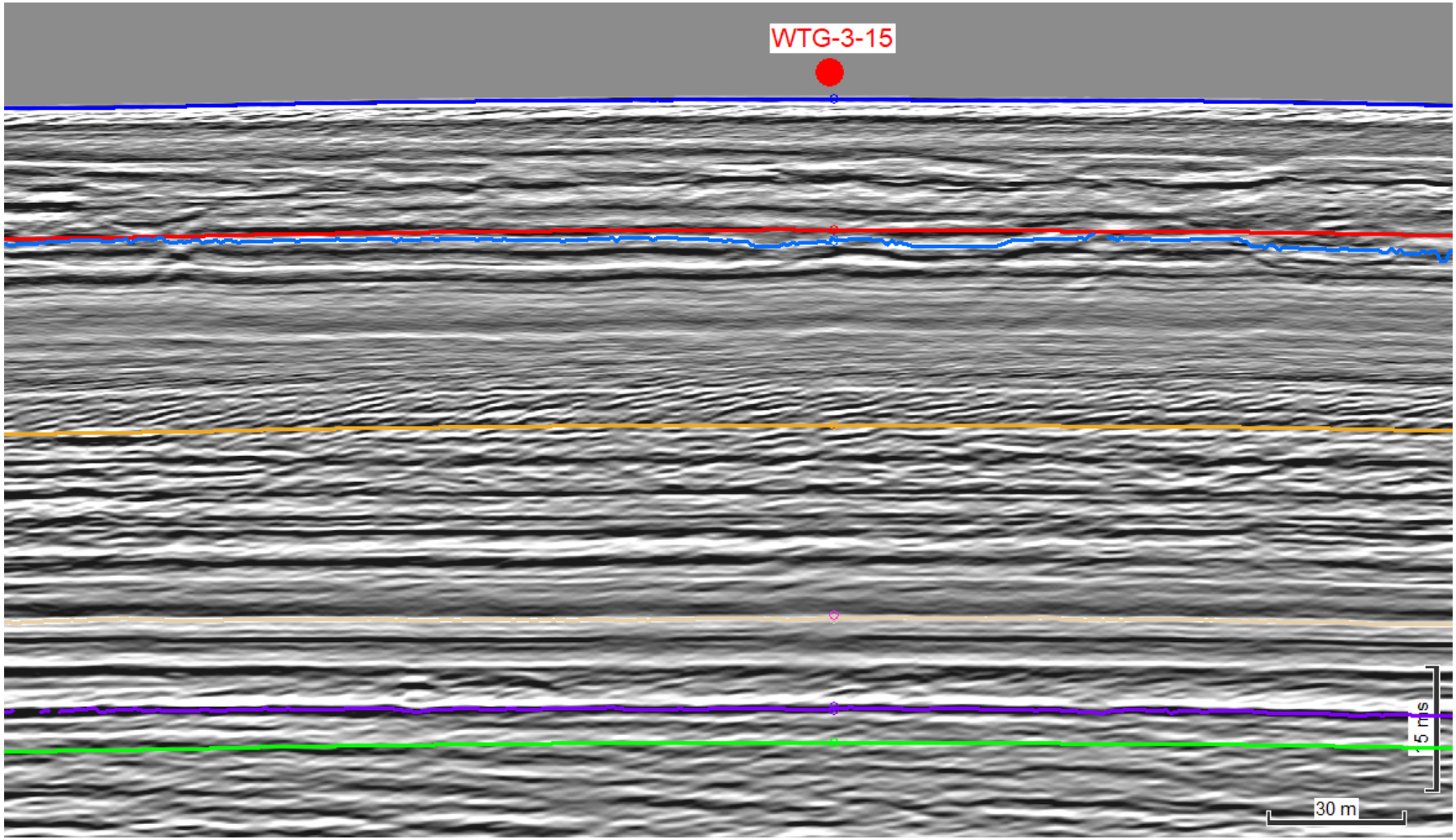


Figure 12-3: Proposed geotechnical locations WTG-3-15 in Corridor 22 along seismic line TLB50_01_FAST_MIG_PSDEMUL

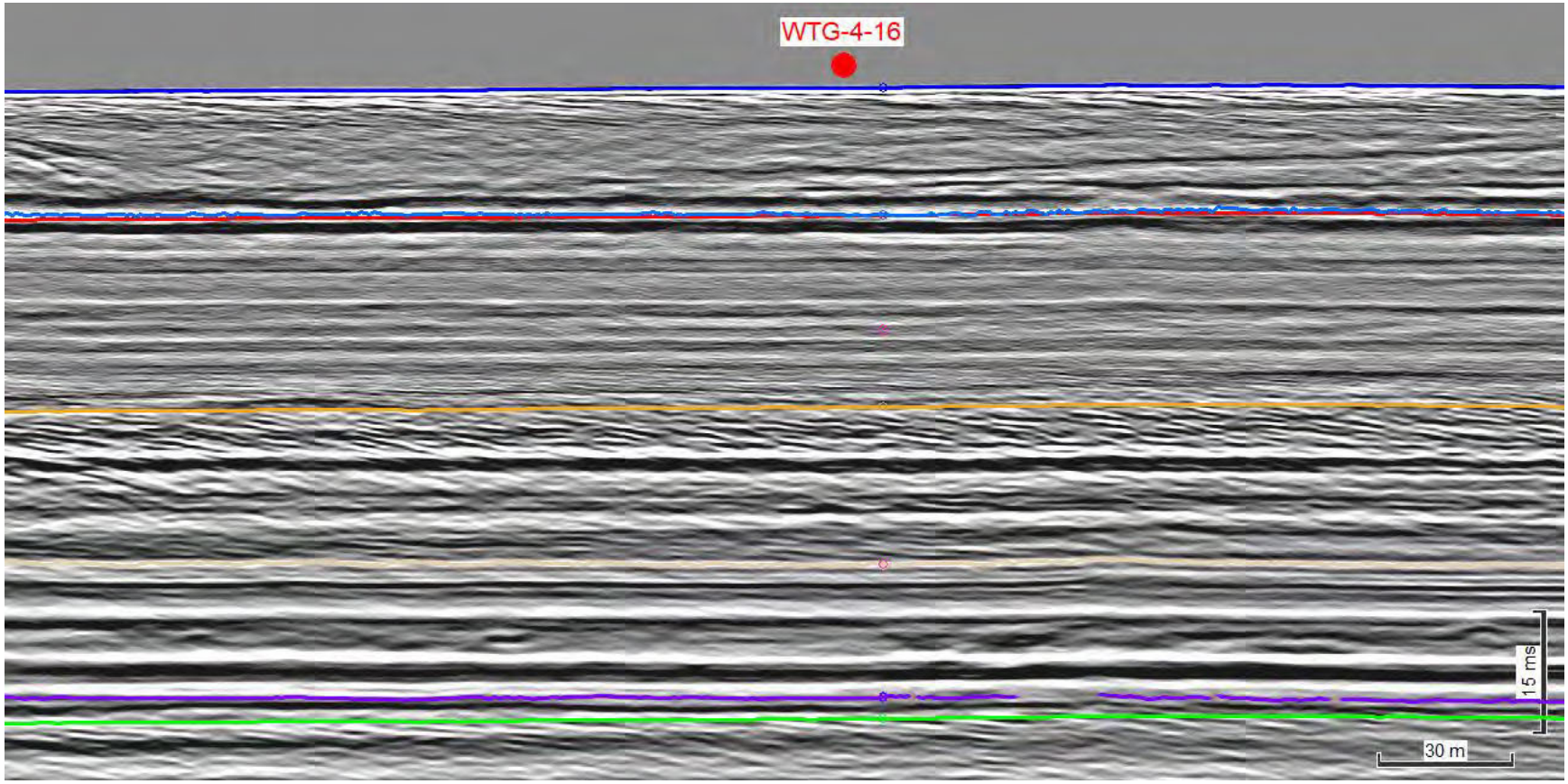


Figure 12-4: Proposed geotechnical locations WTG-4-16 in Corridor 22 along seismic line TLB56_FAST_MIG_PSDEMUL

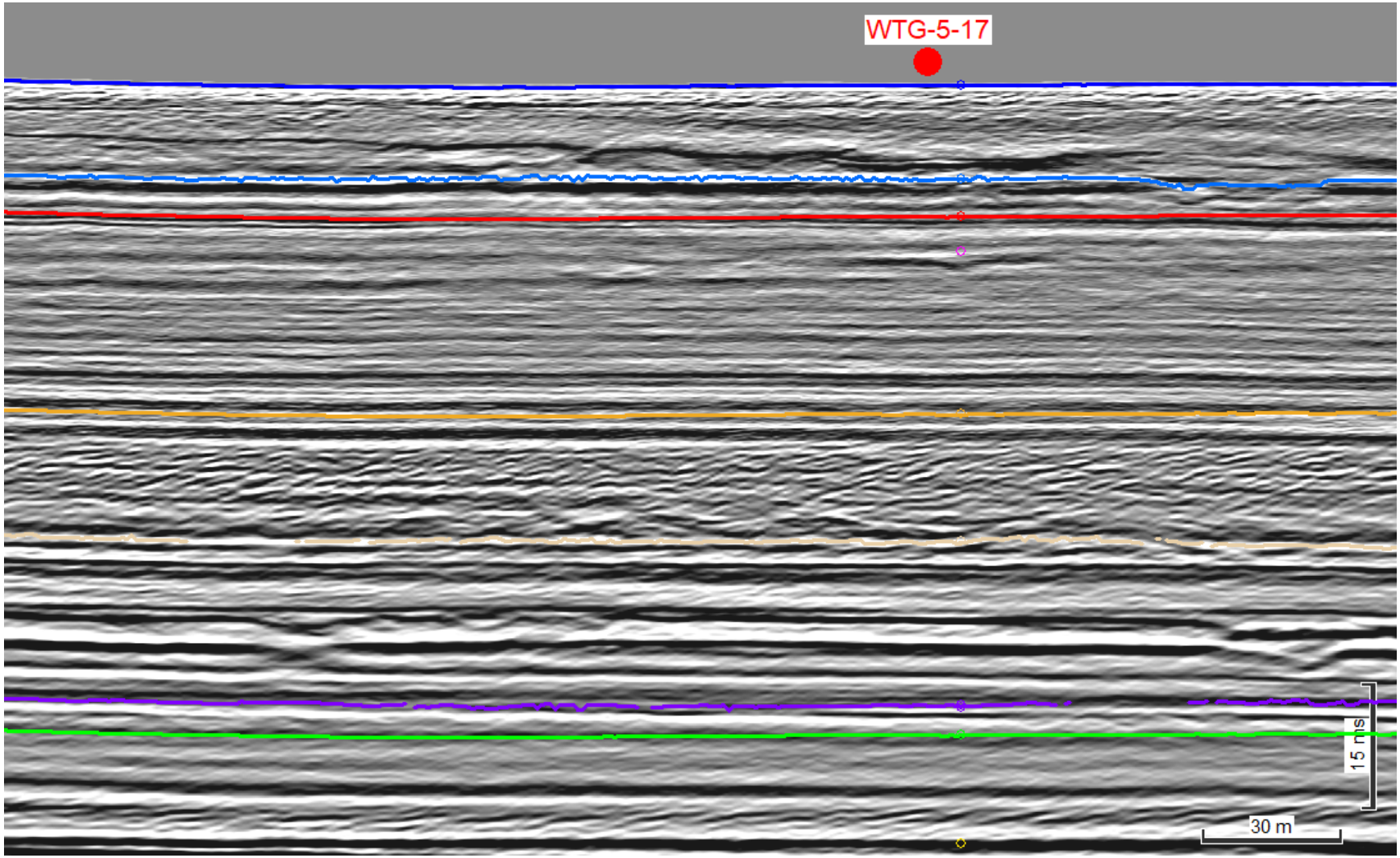


Figure 12-5: Proposed geotechnical locations WTG-5-17 in Corridor 22 along seismic line TLB62_01_FAST_MIG_PSDEMUL

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

December 30, 2020

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations along the Export Cable Route Block A and Block C Wing Corridors

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for the Export Cable Route Block A and Block C Wing Corridors within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by TerraSond to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas for Block A or Block C.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas pertaining to 36 of the 46 proposed geotechnical sampling locations for Block A. Further analysis is required at 10 locations.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas pertaining to 37 of the 42 proposed geotechnical sampling locations for Block C. Further analysis is required at five locations.
- Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources within Block A or Block C.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations for Block A or Block C.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,



Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Cross
McNeilan and Assoc. - Tom McNeilan

December 23, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Block A Wing Corridors

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 46 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 46 proposed geotechnical locations located along the Export Cable Route (ECR), Block A. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas pertaining to 36 of the 46 proposed geotechnical sampling locations. Further analysis is required for A8N, A9N, A11N, A15N, A23N/B1N, A3S, A4S, A15S, A17S, and, A22S.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to 36 of the 46 the proposed sampling locations (Tables 1 and 2; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block A, Northern Wing Corridor

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
A1N	458273.25	4079162.13	-75.46809381	36.85746523
A2N	457787.08	4079036.67	-75.47354053	36.8563127
A3N	457297.57	4078910.97	-75.47902463	36.85515758
A4N	456815.23	4078787.52	-75.48442816	36.85402287
A5N	456335.18	4078661.76	-75.4898057	36.85286719
A6N	455849.12	4078534.43	-75.49525042	36.85169679
A7N	455367.52	4078407.12	-75.500645	36.85052656
A10N	453917.35	4078028.24	-75.51688793	36.84704157
A12N	452946.05	4077779.47	-75.52776668	36.84475121
A13N	452461.62	4077648.90	-75.53319185	36.84354994
A14N	451977.08	4077525.83	-75.53861843	36.84241606
A16N	451492.90	4077400.51	-75.54404065	36.8412617
A17N	451007.19	4077270.36	-75.54947958	36.84006344
A18N	450528.43	4077146.97	-75.55484081	36.83892627
A19N	450036.31	4077017.24	-75.56035135	36.83773091
A20N	449559.72	4076898.58	-75.56568824	36.83663602
A21N	449070.98	4076768.13	-75.57116052	36.83543391
A22N	448593.23	4076643.90	-75.57650976	36.83428818
A24N/B2N	447239.55	4076290.90	-75.59166549	36.83103162

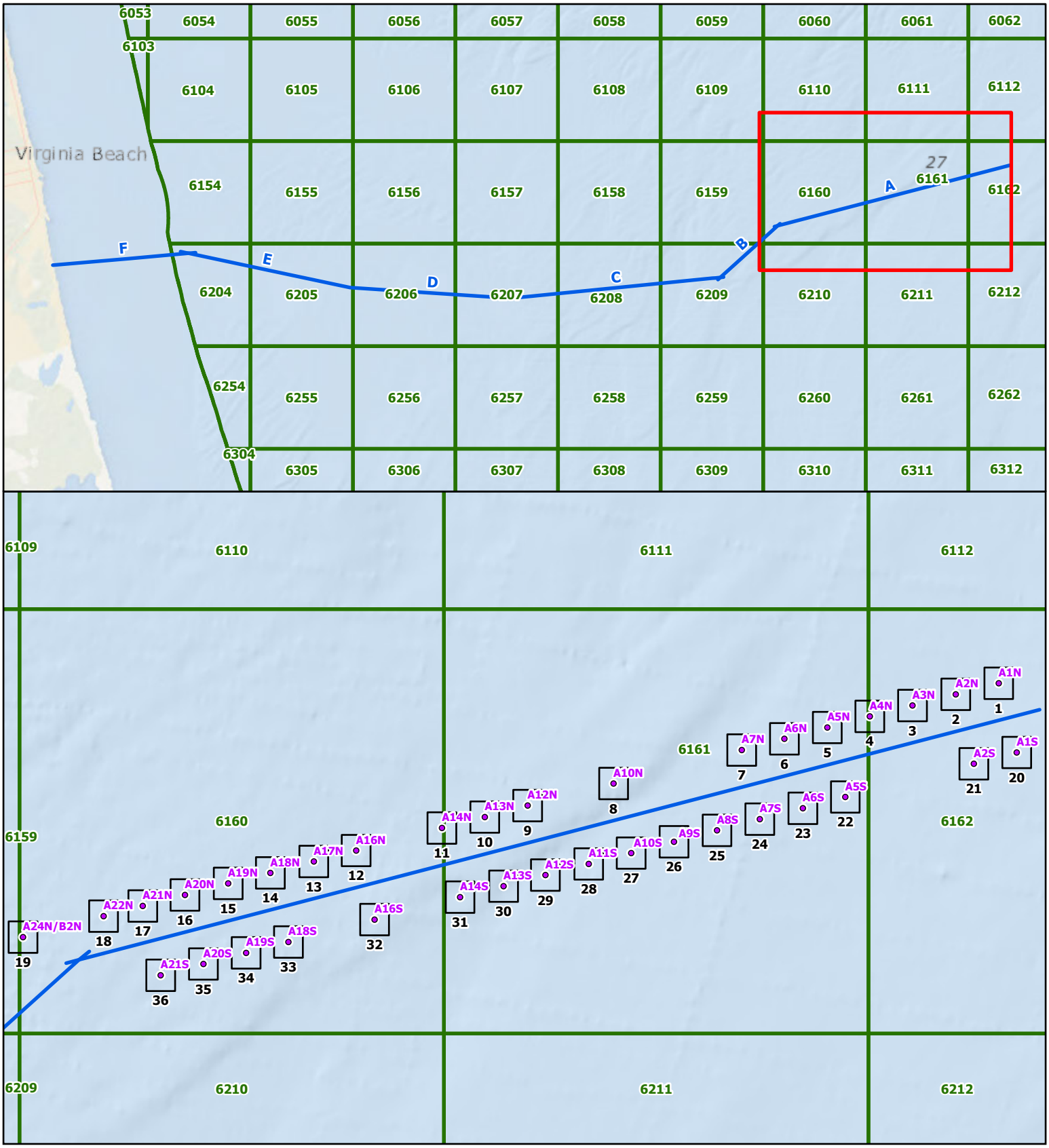
[1] Core IDs may not be sequential; A8N, A9N, A11N, A15N and A23N/B1N are pending additional analyses.
[2] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

Table 2. Proposed geotechnical locations for ECR Block A, Southern Wing Corridor

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
A1S	458476.36	4078379.28	-75.46577256	36.85041735
A2S	457991.71	4078252.05	-75.47120178	36.84924898
A5S	456538.08	4077876.12	-75.48748479	36.84579452
A6S	456058.37	4077748.76	-75.49285783	36.8446242
A7S	455571.30	4077625.26	-75.49831353	36.84348814
A8S	455087.38	4077498.90	-75.5037335	36.84232627
A9S	454600.68	4077369.60	-75.50918425	36.84113742
A10S	454117.09	4077241.76	-75.51460015	36.83996167
A11S	453636.79	4077118.96	-75.51997927	36.83883131
A12S	453147.46	4076993.36	-75.5254593	36.83767496
A13S	452673.43	4076867.32	-75.53076755	36.83651524
A14S	452181.97	4076742.96	-75.53627121	36.83536944
A16S	451215.04	4076489.18	-75.54709836	36.83303242
A18S	450240.67	4076236.08	-75.55800845	36.83070016
A19S	449762.63	4076112.75	-75.56336085	36.8295631
A20S	449279.57	4075987.56	-75.56876919	36.82840884
A21S	448795.76	4075859.55	-75.57418571	36.82722887

[1] Core IDs may not be sequential; A3S, A4S, A15S, A17S, and A22S are pending additional analyses.
[2] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK A WING CORRIDORS



N
W E
S
Grid North

NOAA NGDC, Esri, DeLorme, NaturalVue, NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:58,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

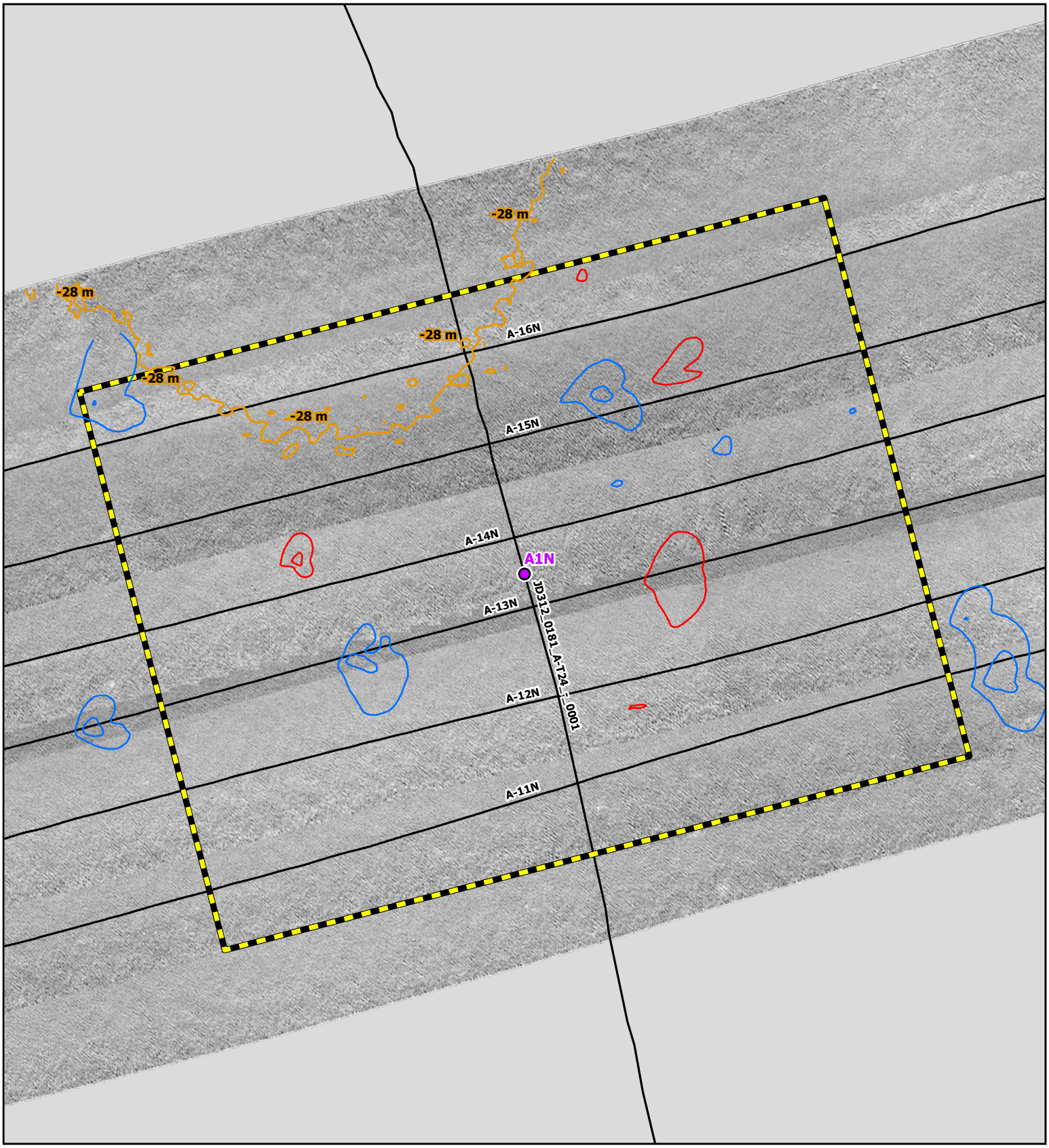
0 0.25 0.5 0.75 1
Miles
0 0.250.50.75 1
Kilometers

- Geotechnical Location
- ECR Centerline
- Map Sheet Boundary
- BOEM Lease Block

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

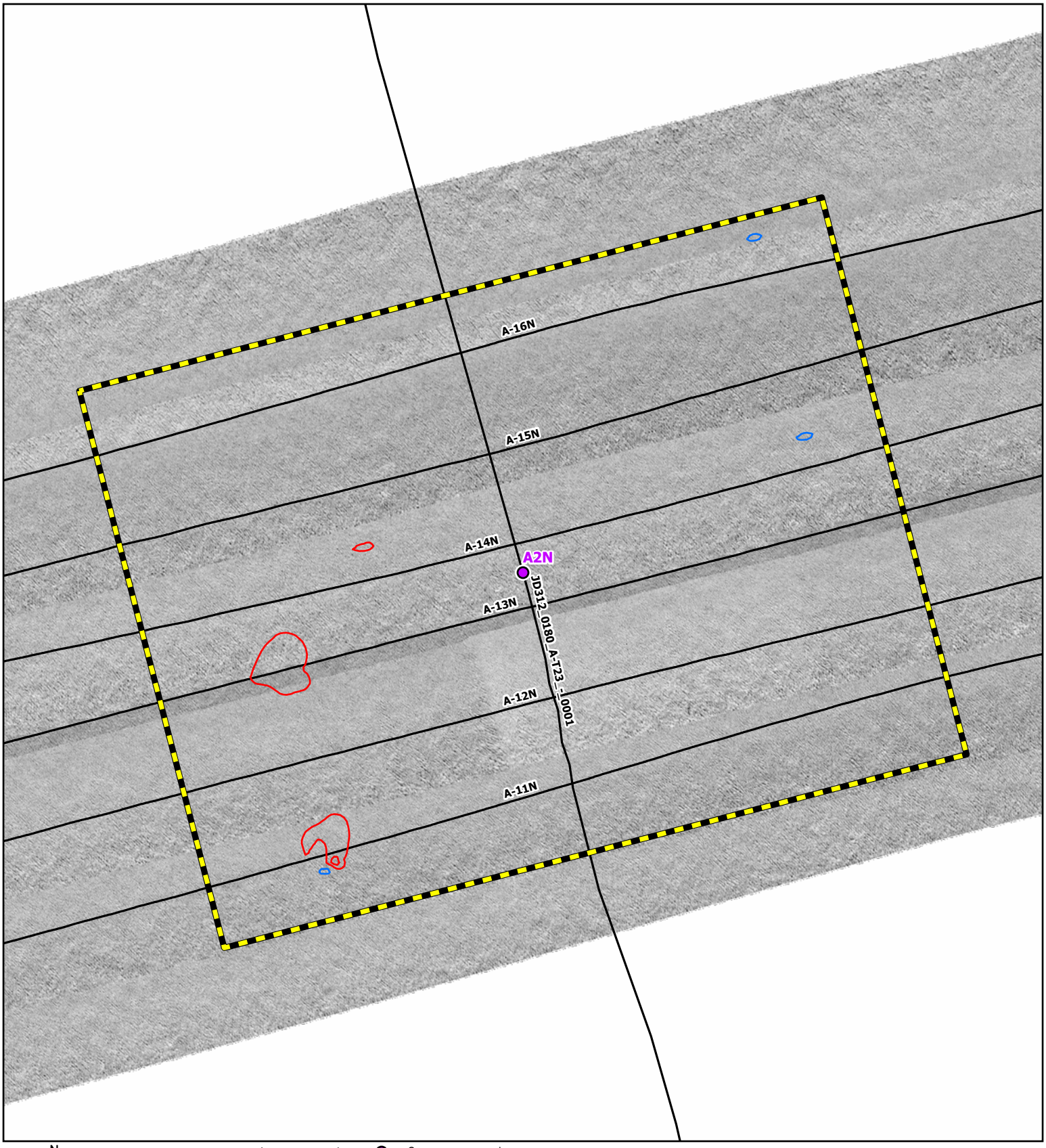
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 1

A1N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

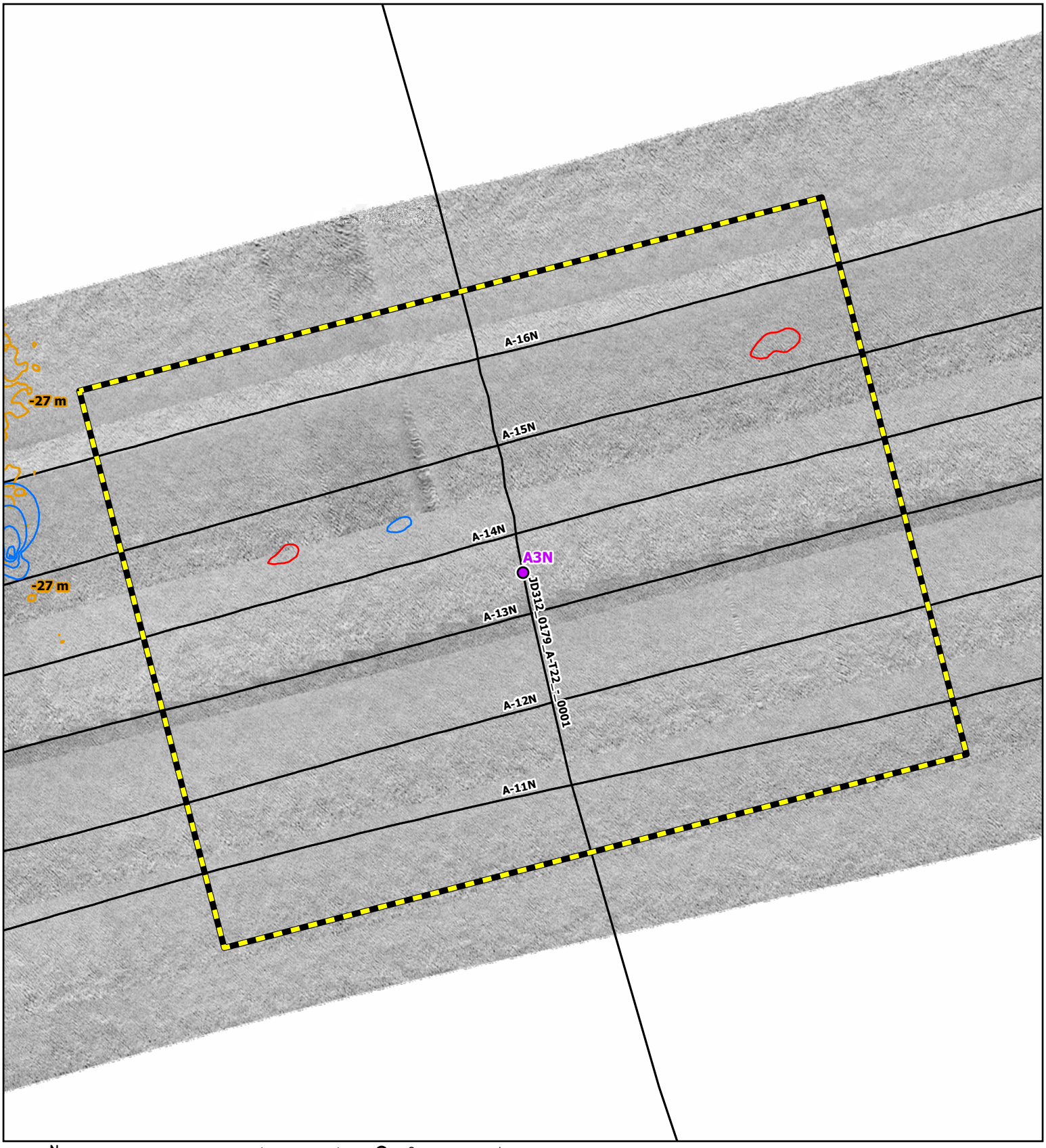
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 2

A2N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

Map: 3

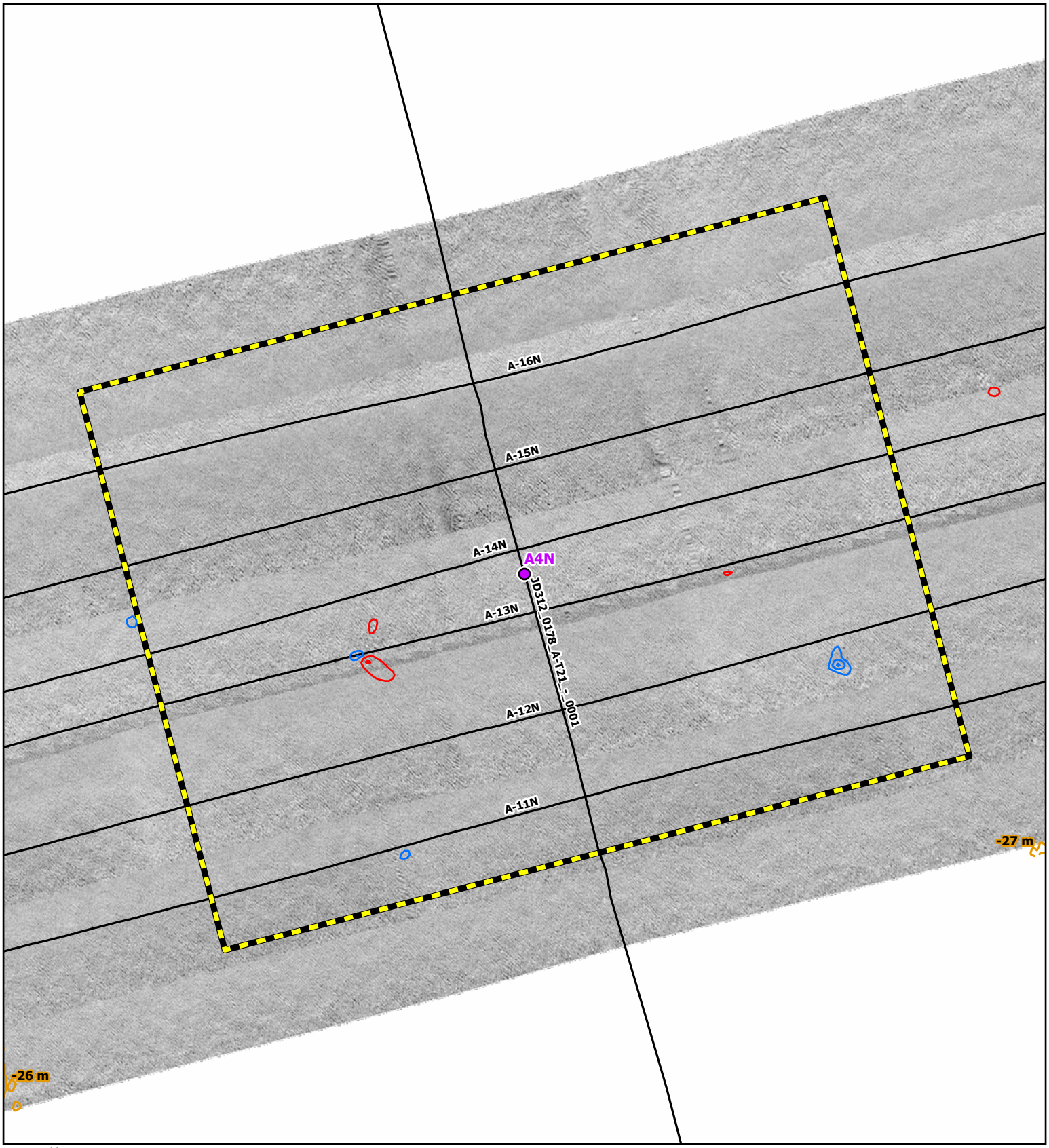
A3N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

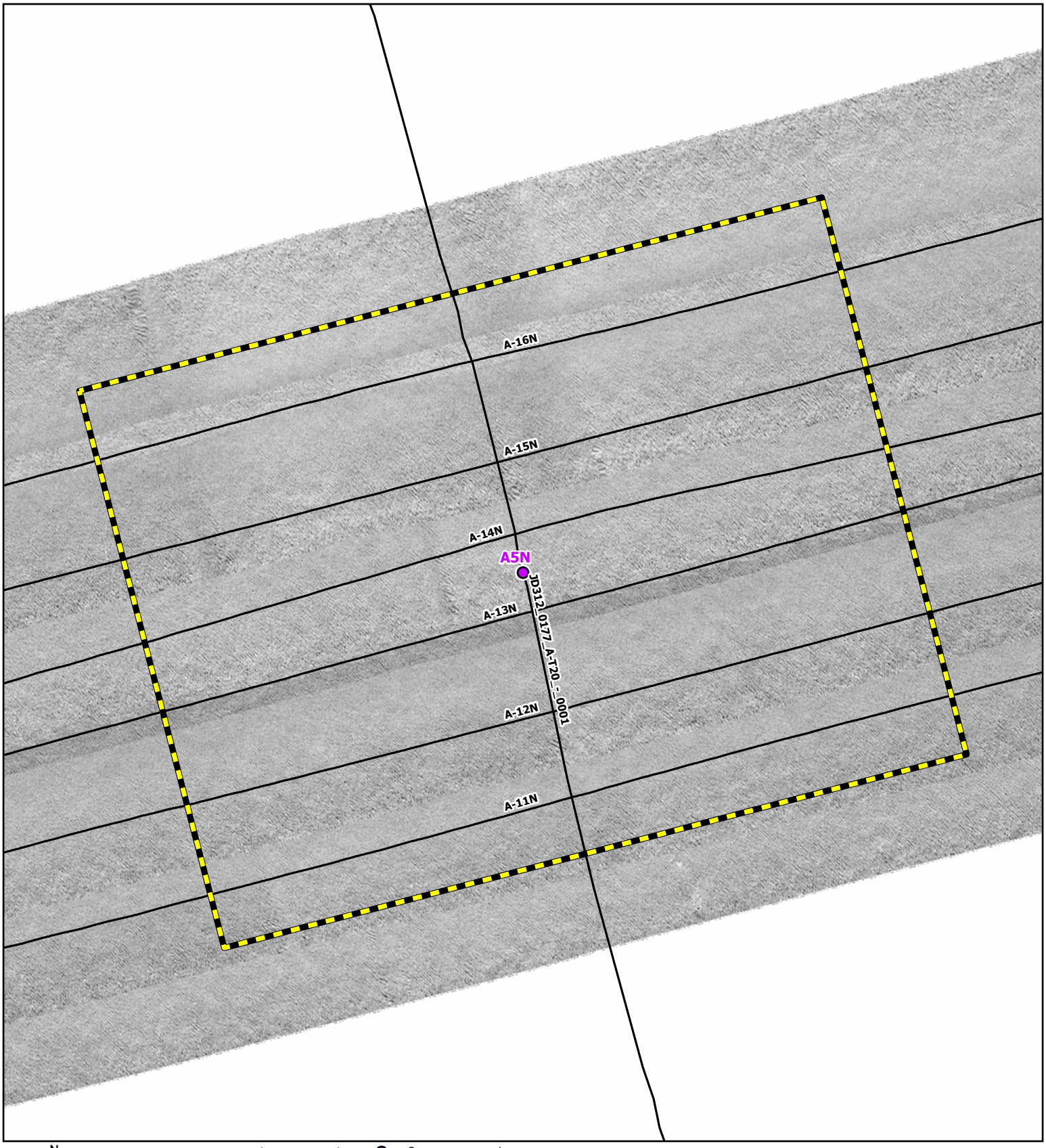
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 4

A4N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

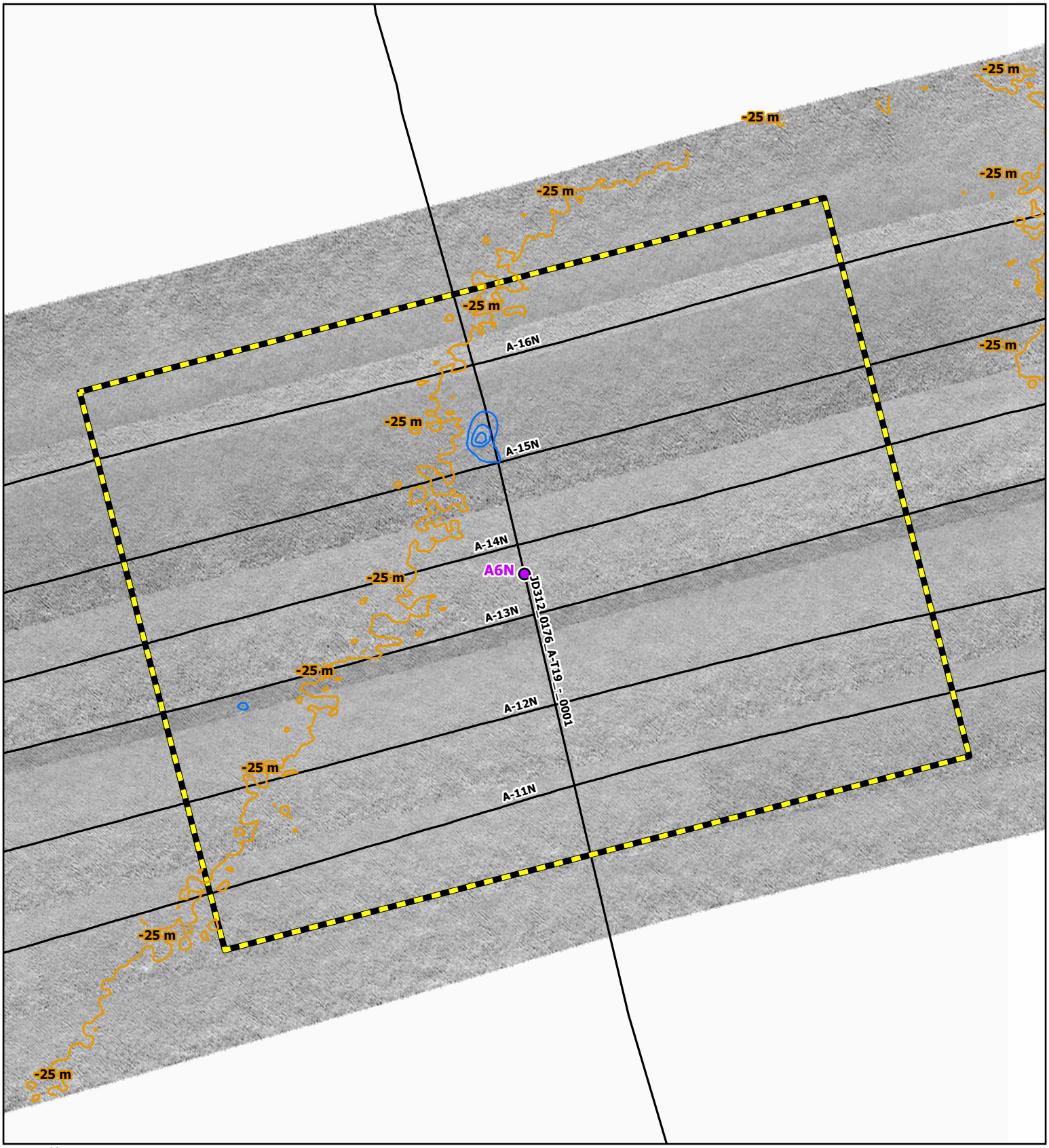
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
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Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 5

A5N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

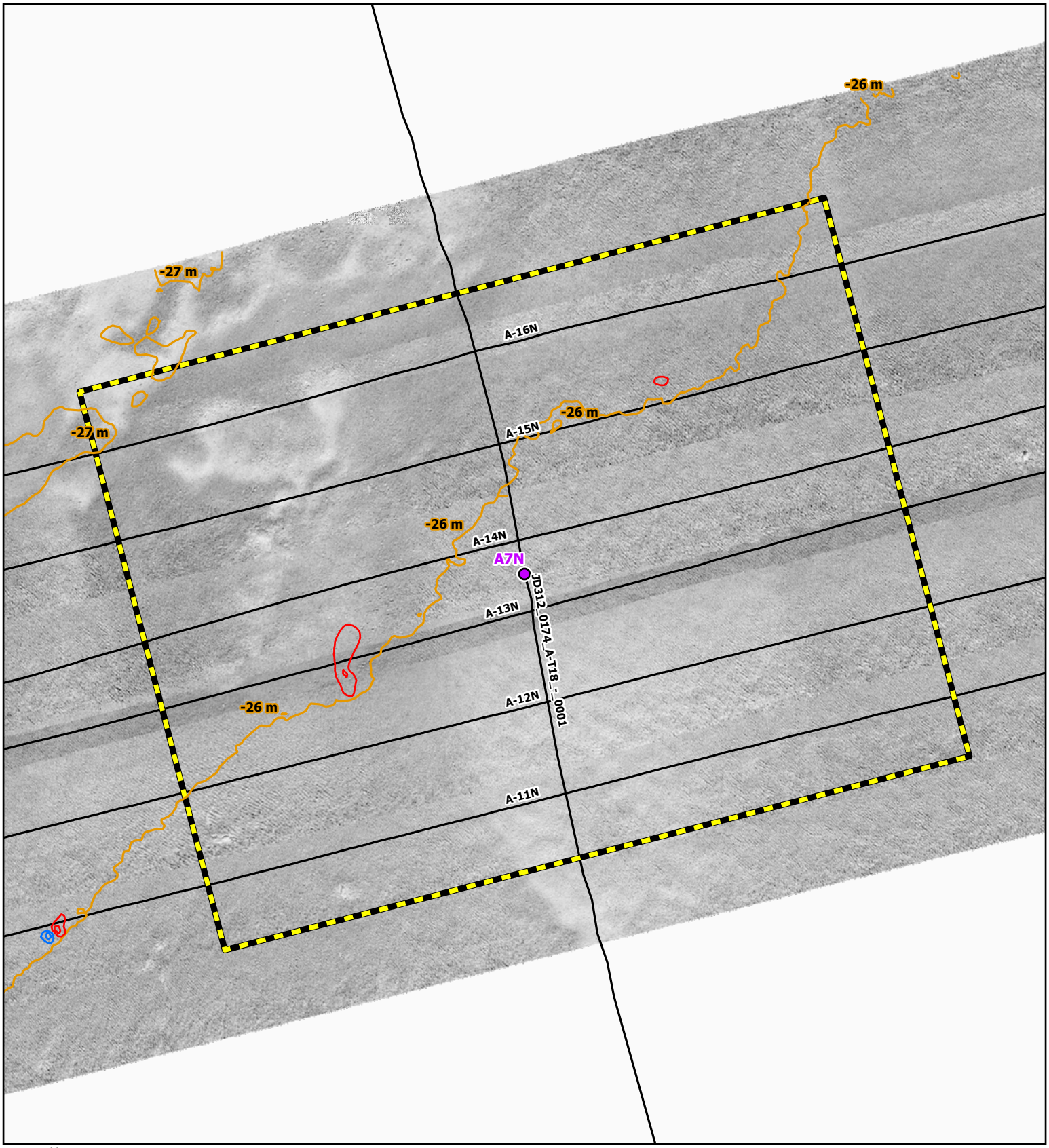
Geotechnical Clearance: Block A

Map: 6

A6N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

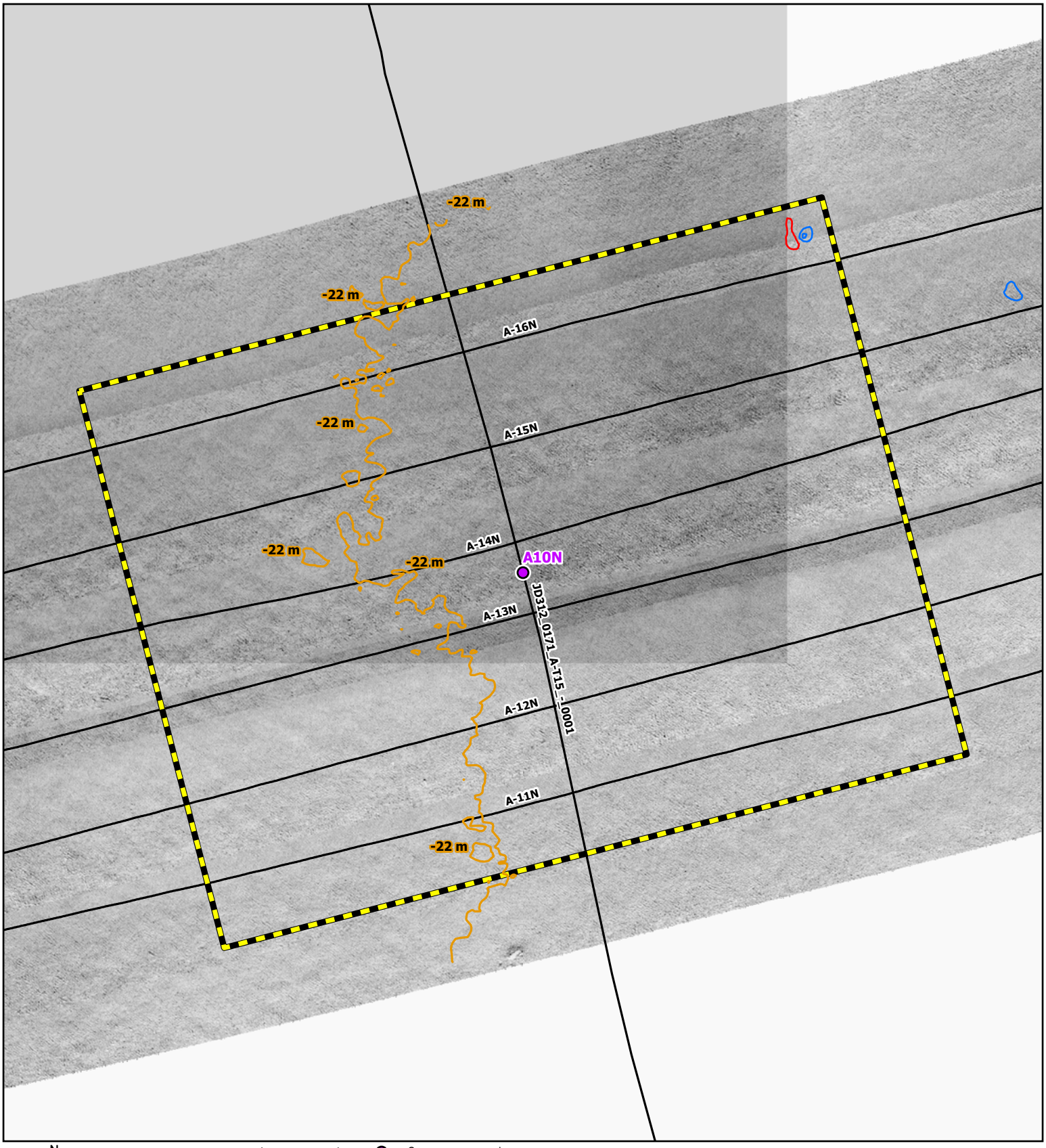
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 7

A7N

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N
W E
S
Grid North

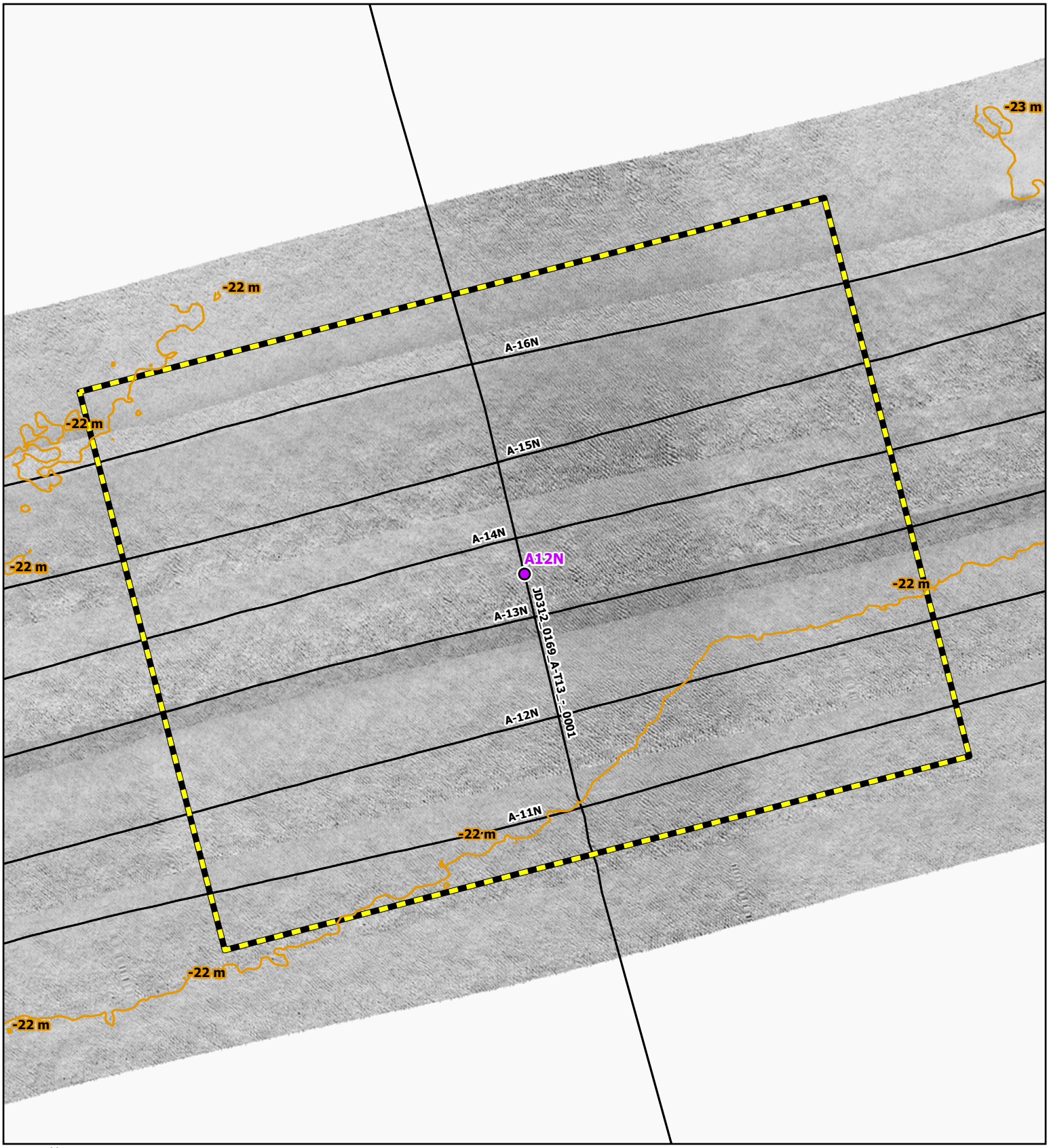
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A
Map: 8
A10N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

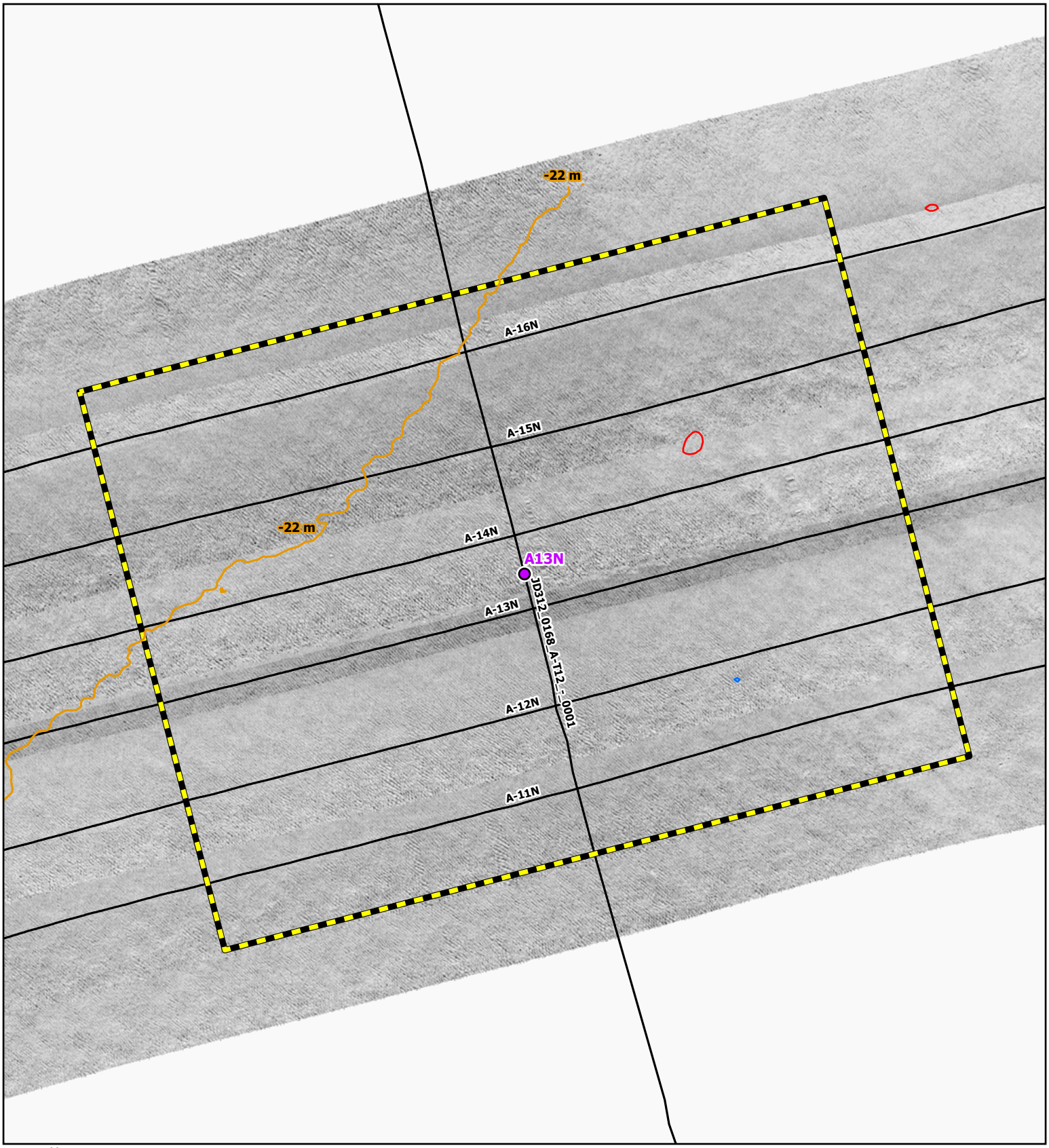
Geotechnical Clearance: Block A

Map: 9

A12N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

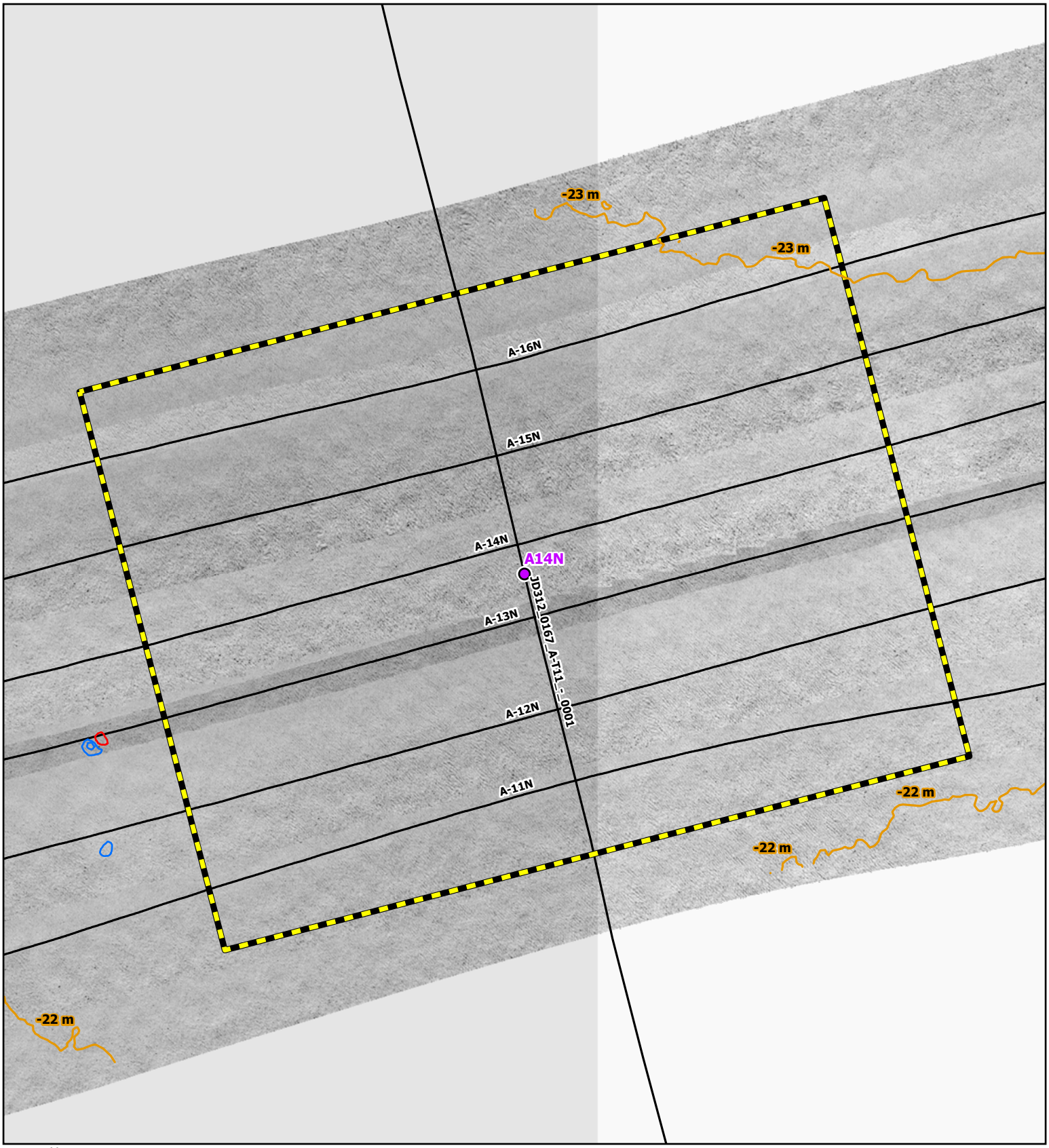
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 10

A13N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

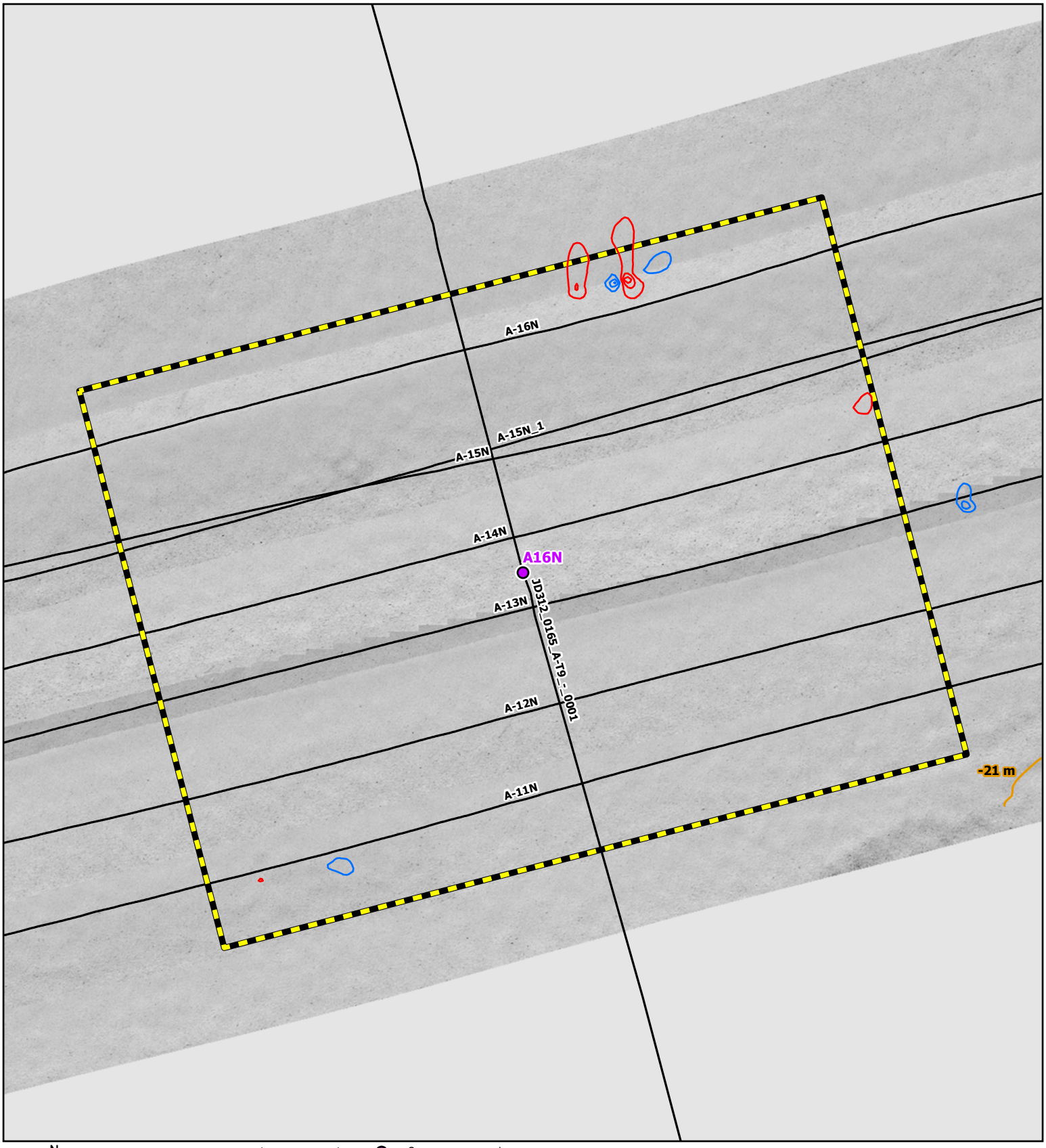
Map: 11

A14N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

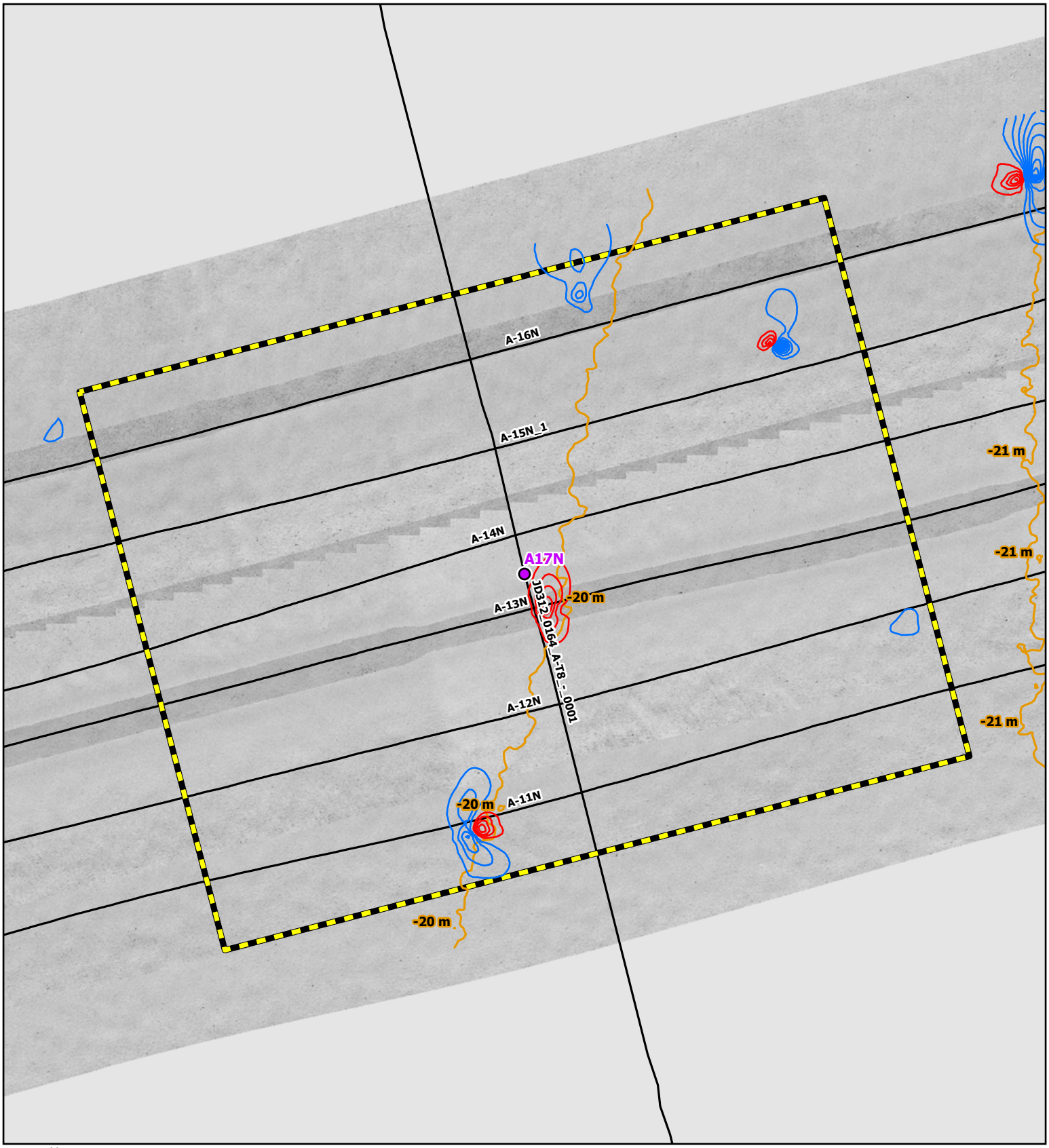
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 12

A16N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

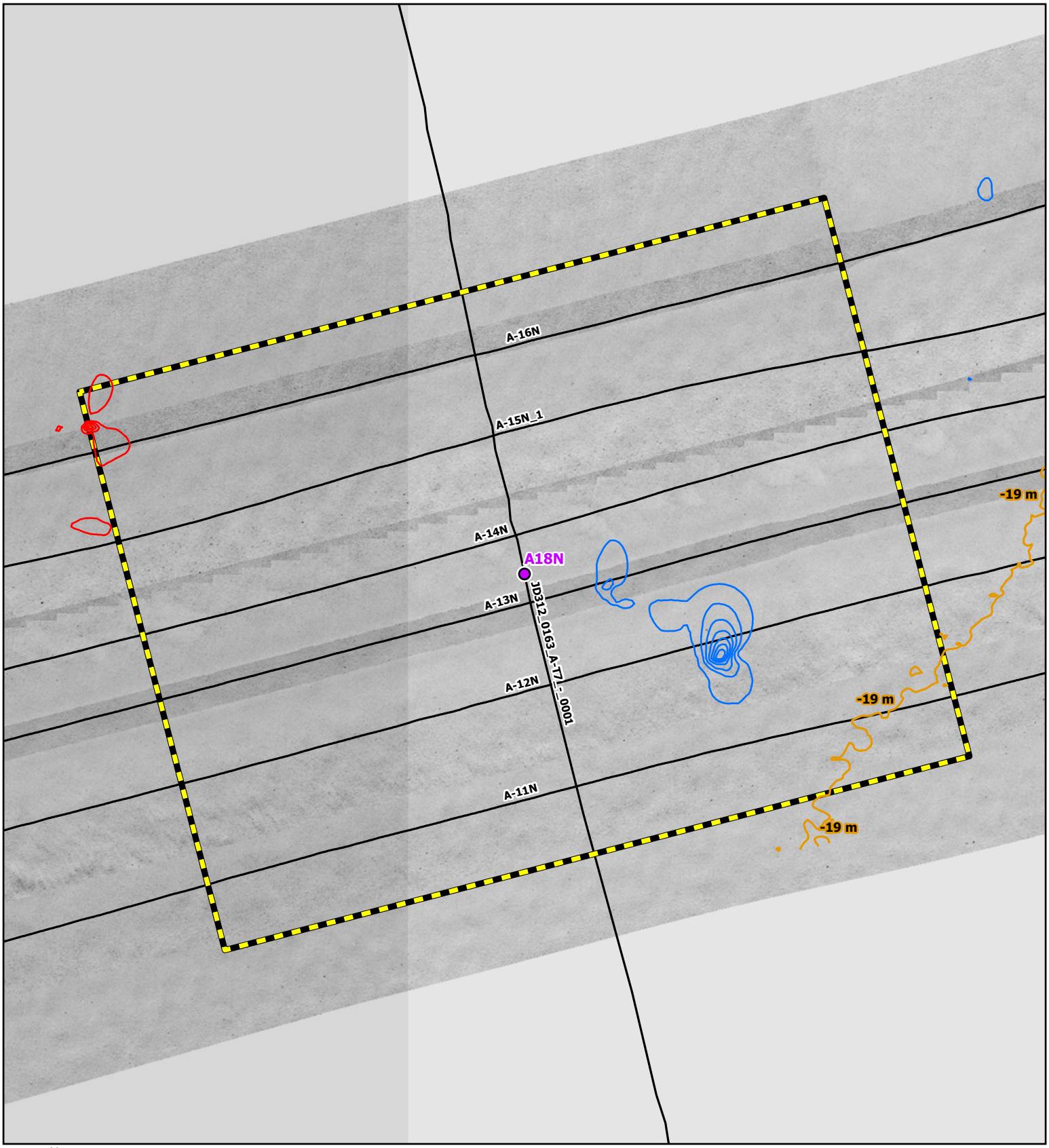
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Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 13

A17N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

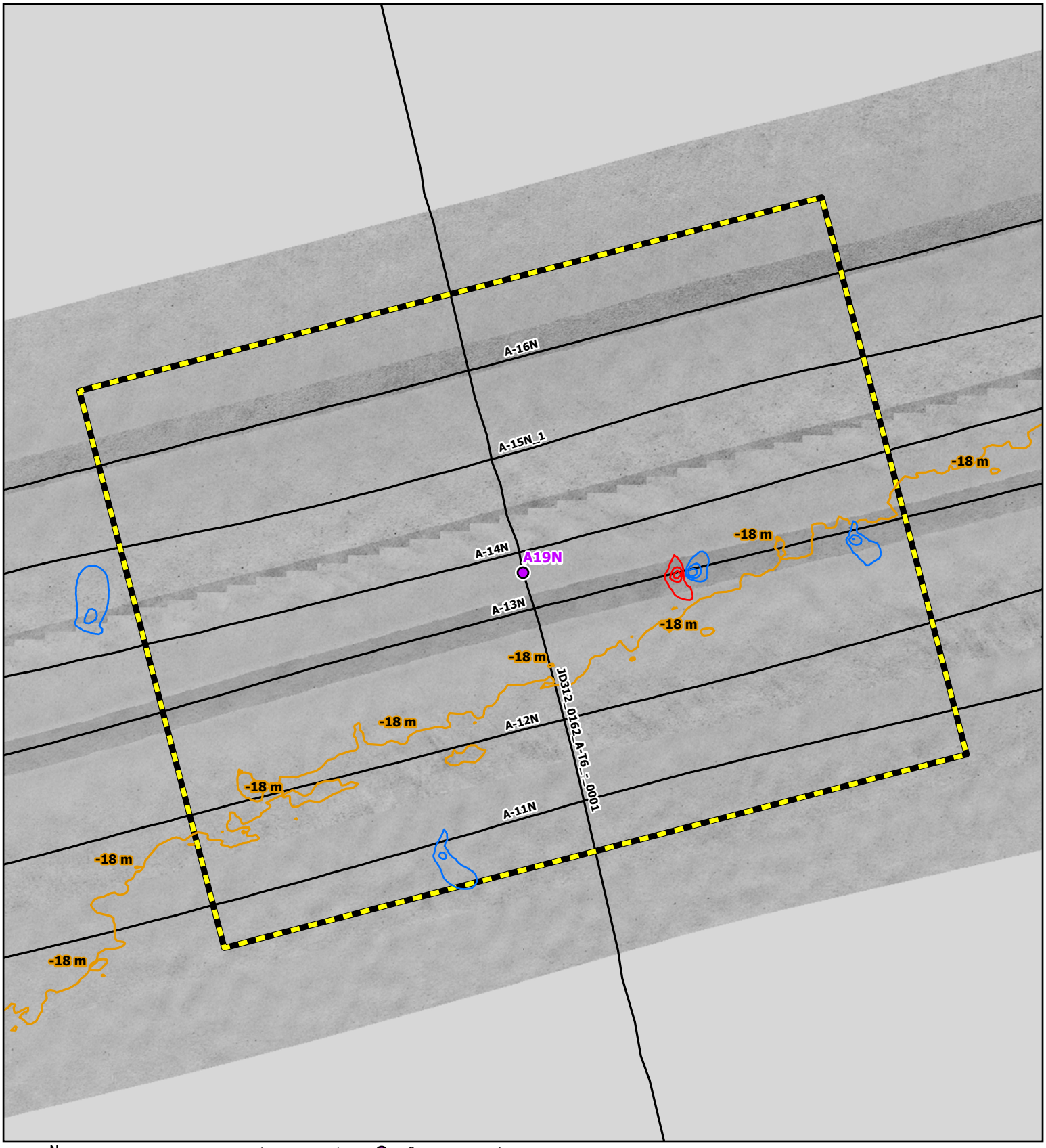
Map: 14

A18N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

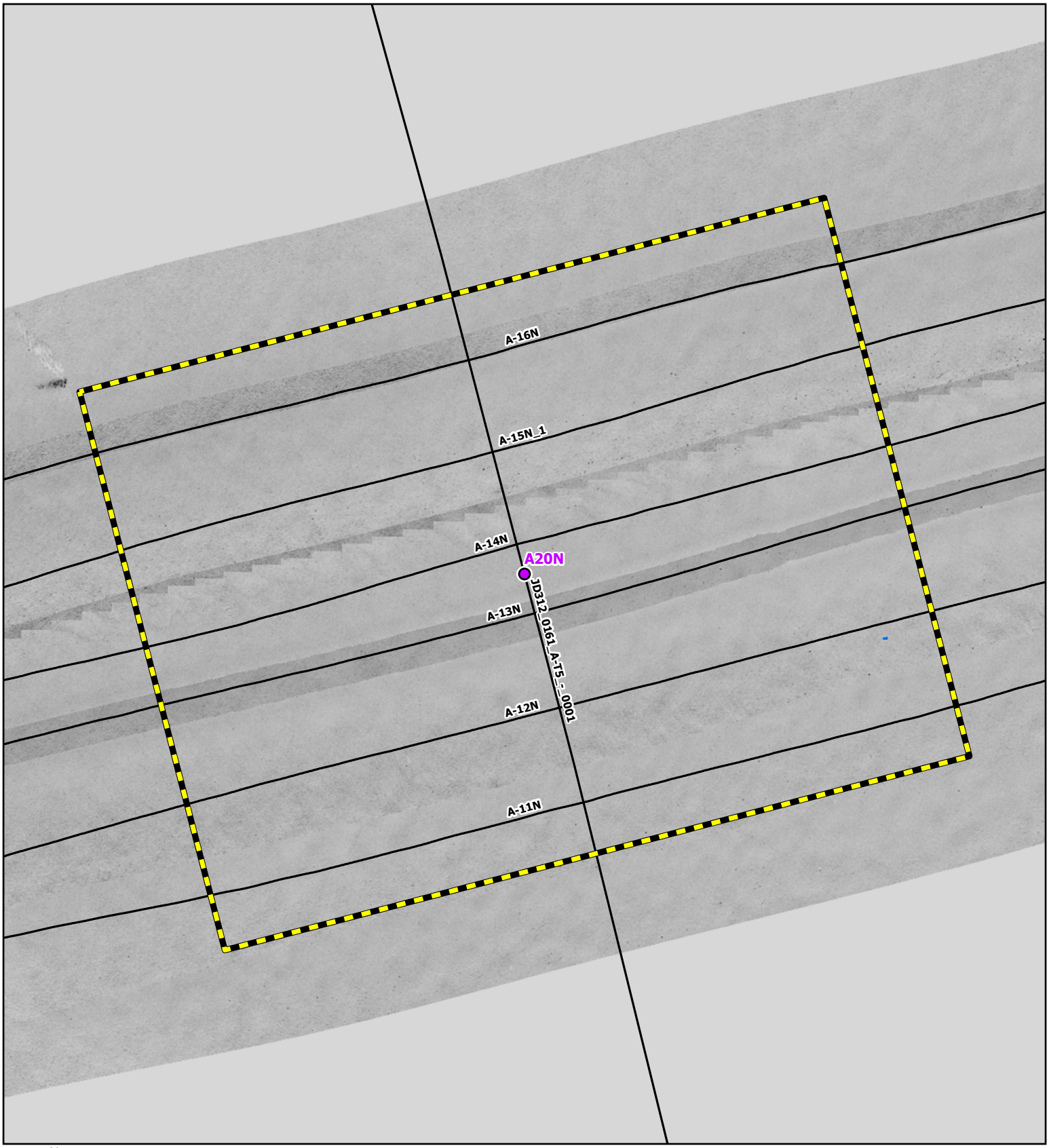
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 15

A19N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

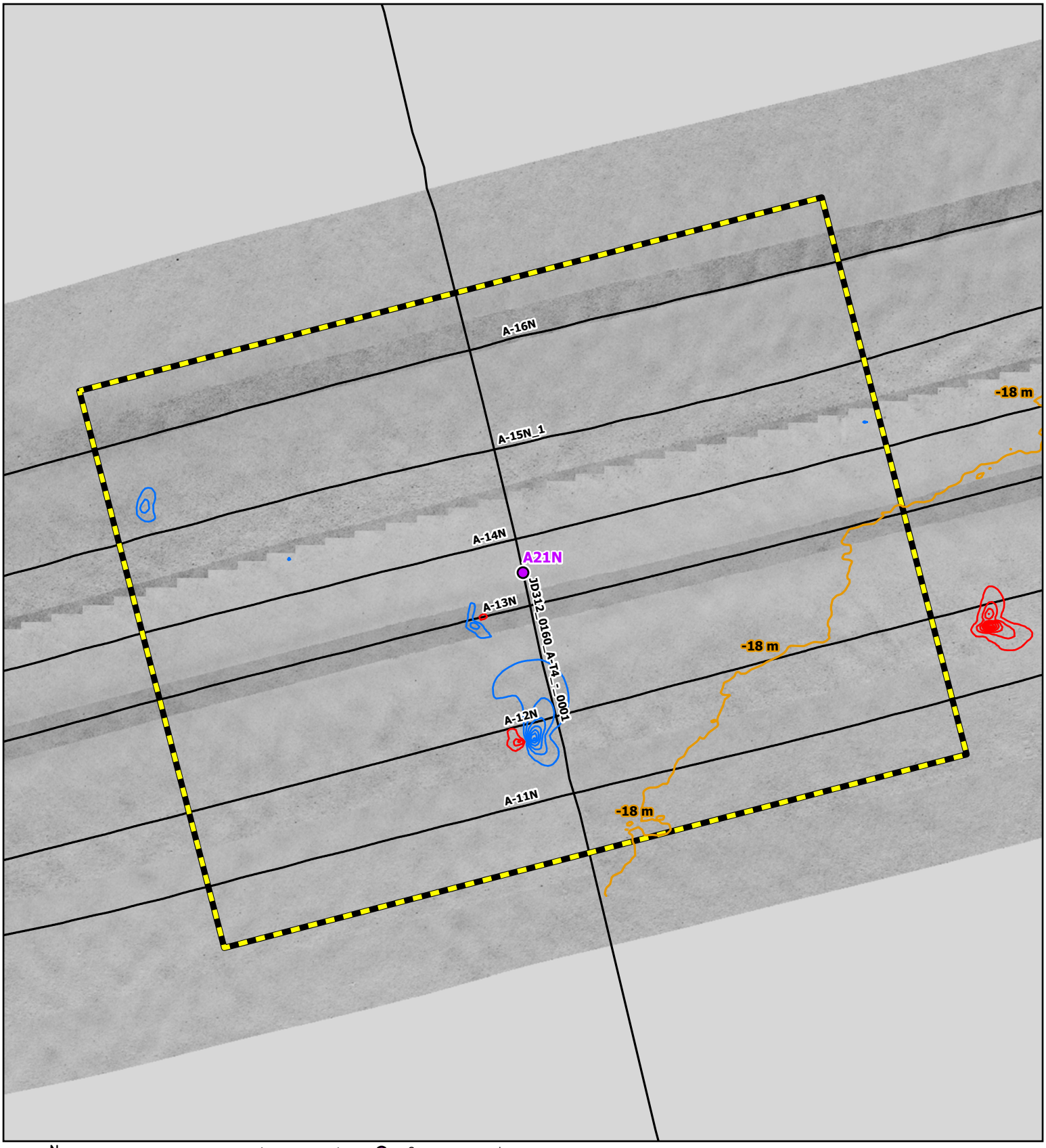
Map: 16

A20N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

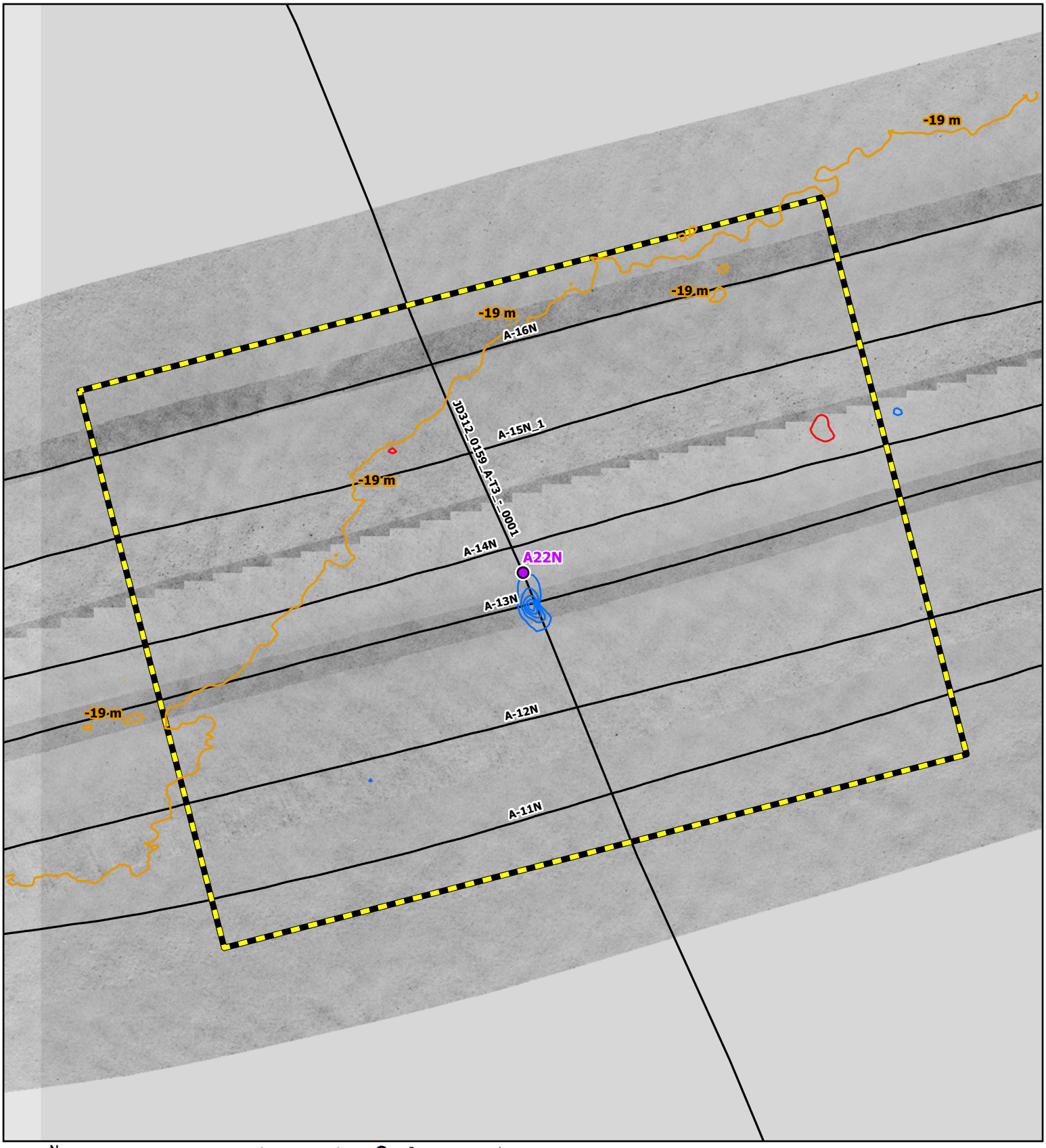
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Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 17

A21N

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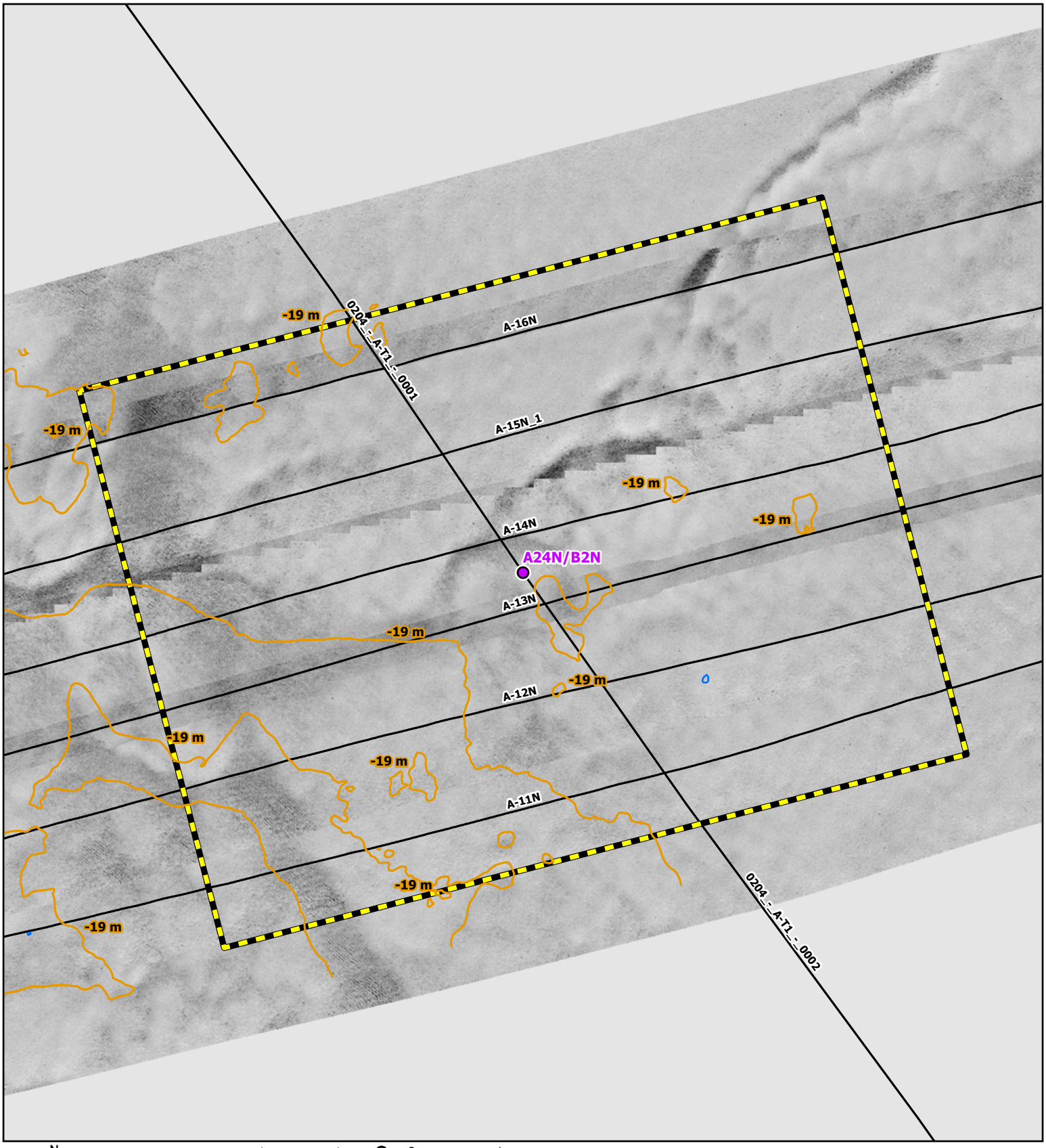
N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A
Map: 18
A22N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

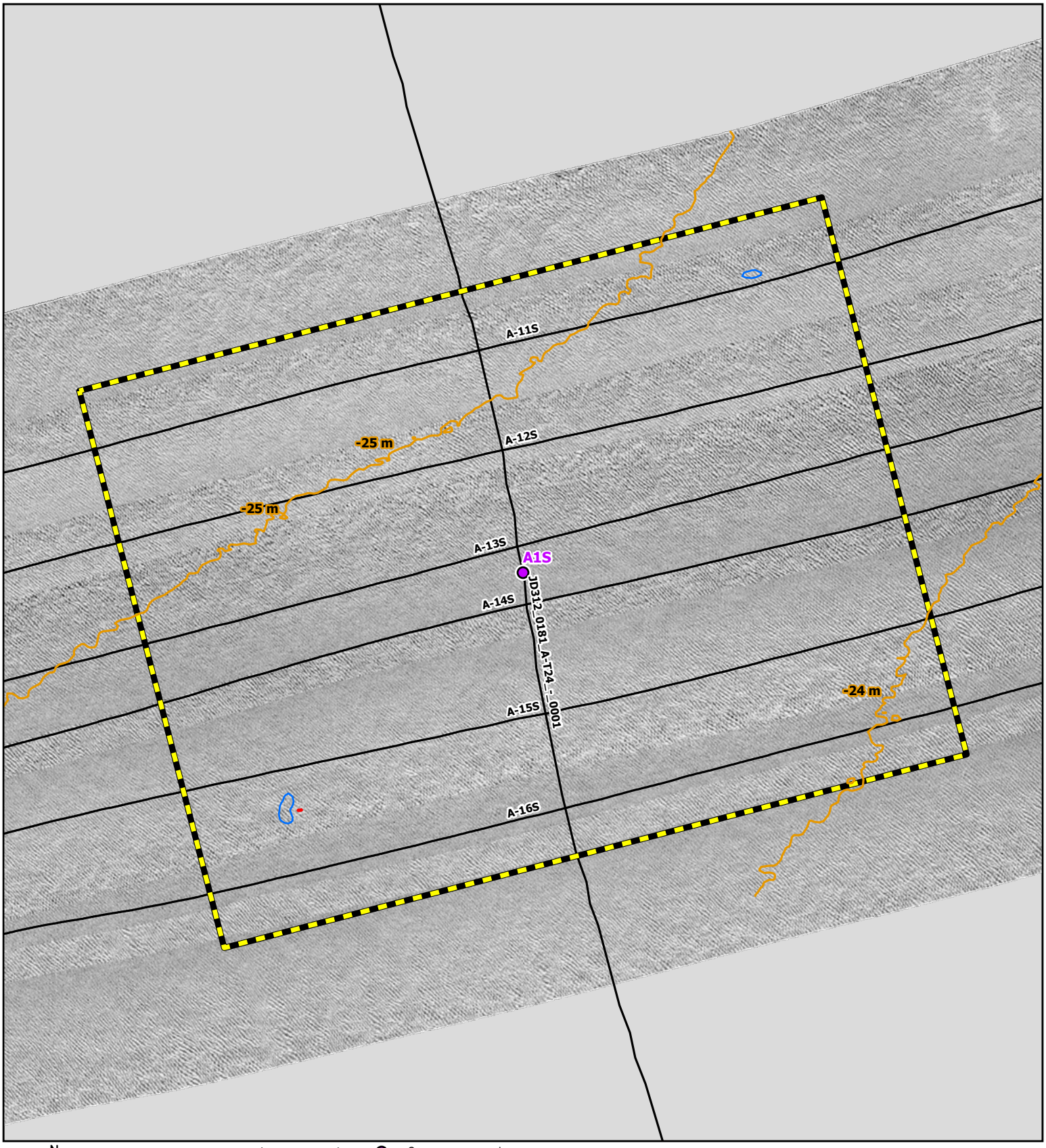
Geotechnical Clearance: Block A

Map: 19

A24N/B2N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

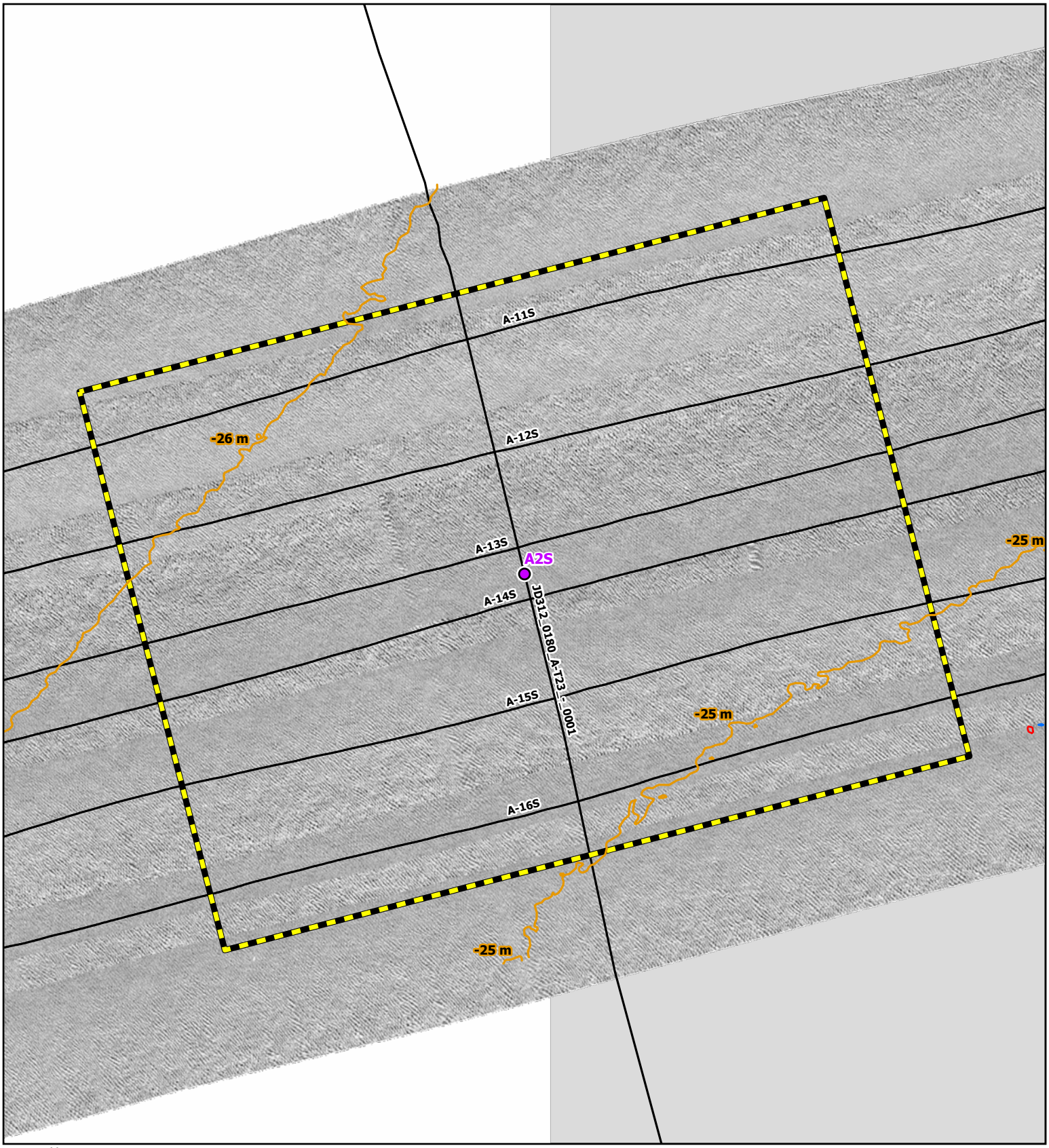
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 20

A1S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

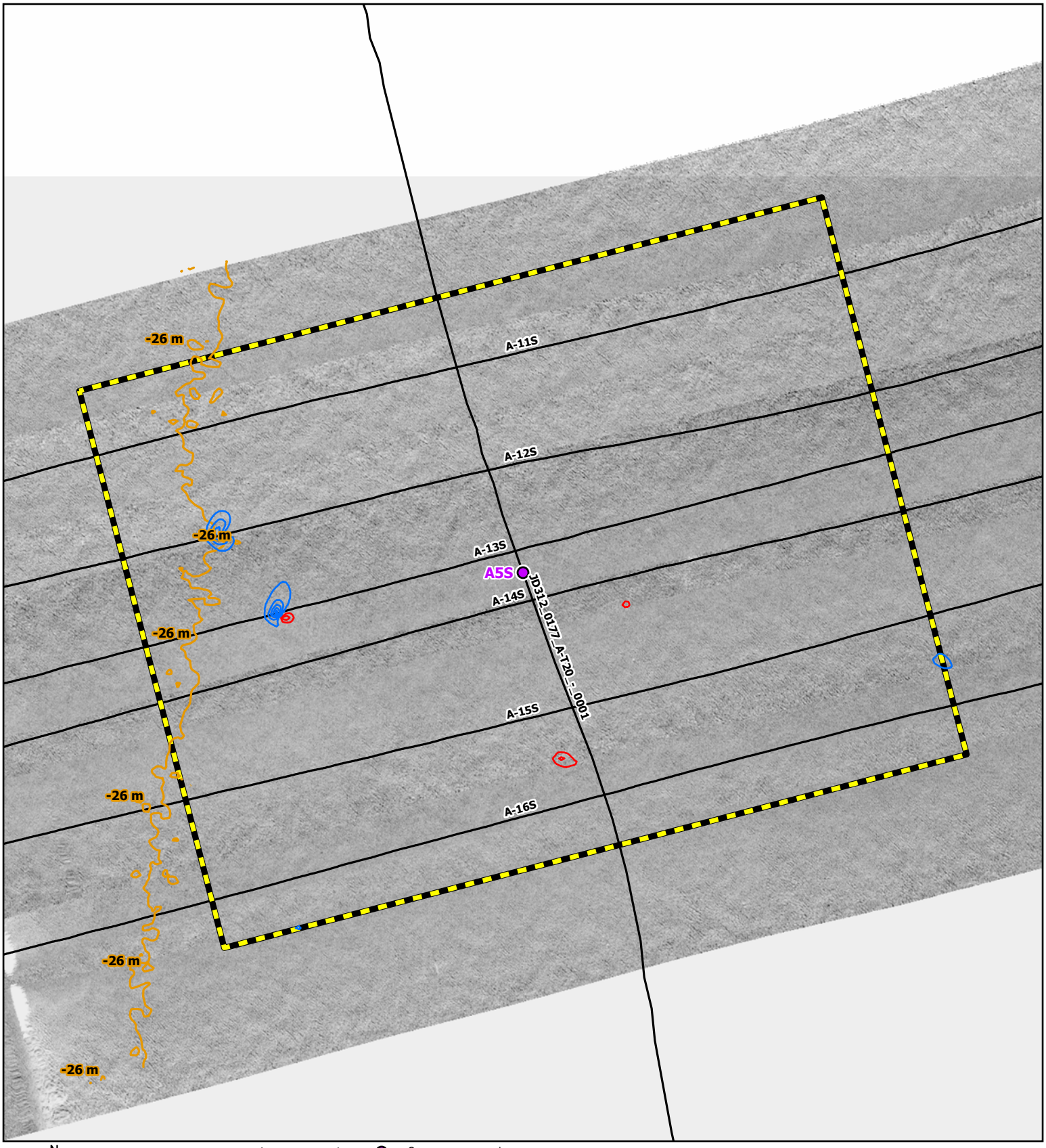
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 21

A2S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

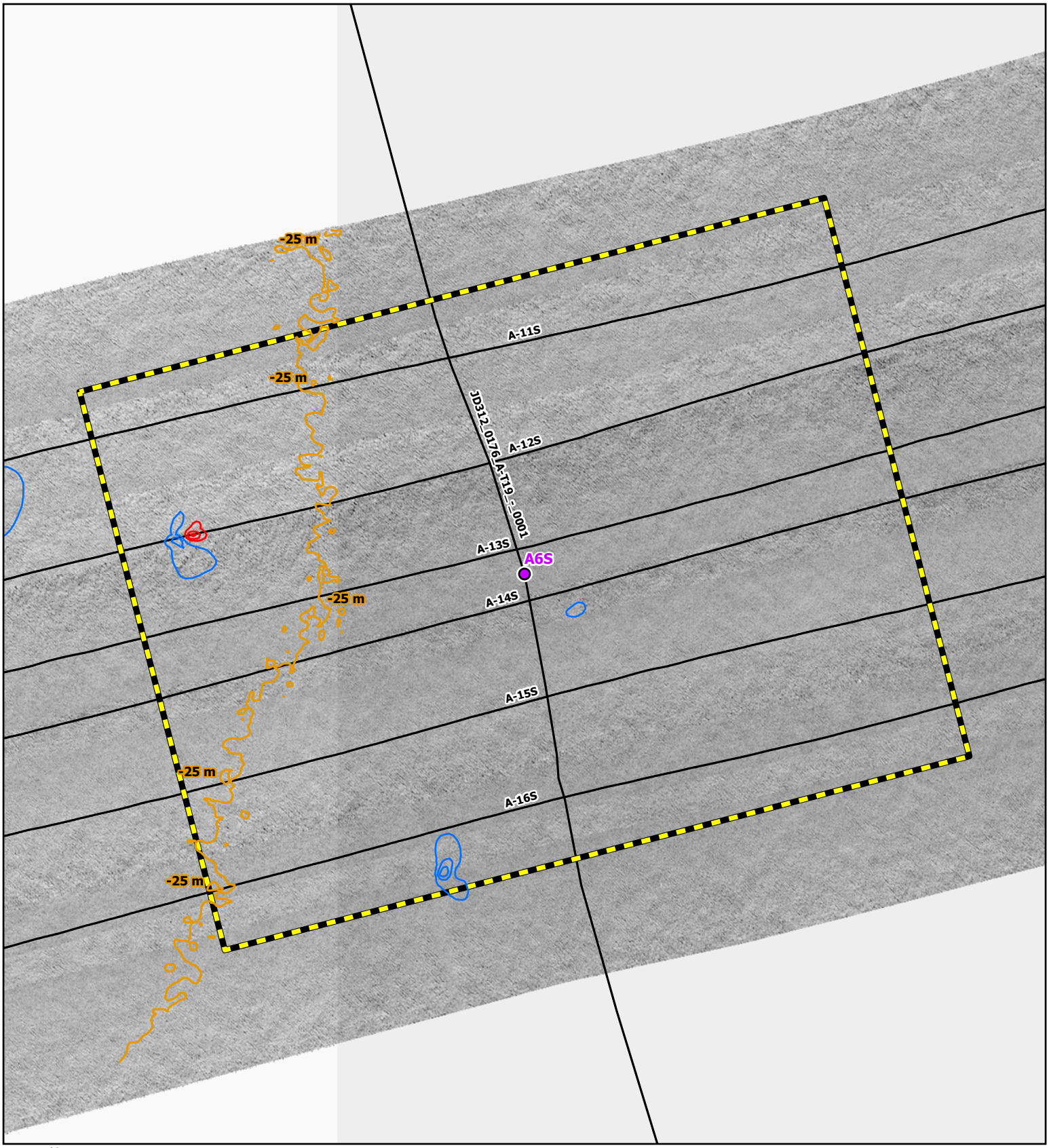
Map: 22

A5S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

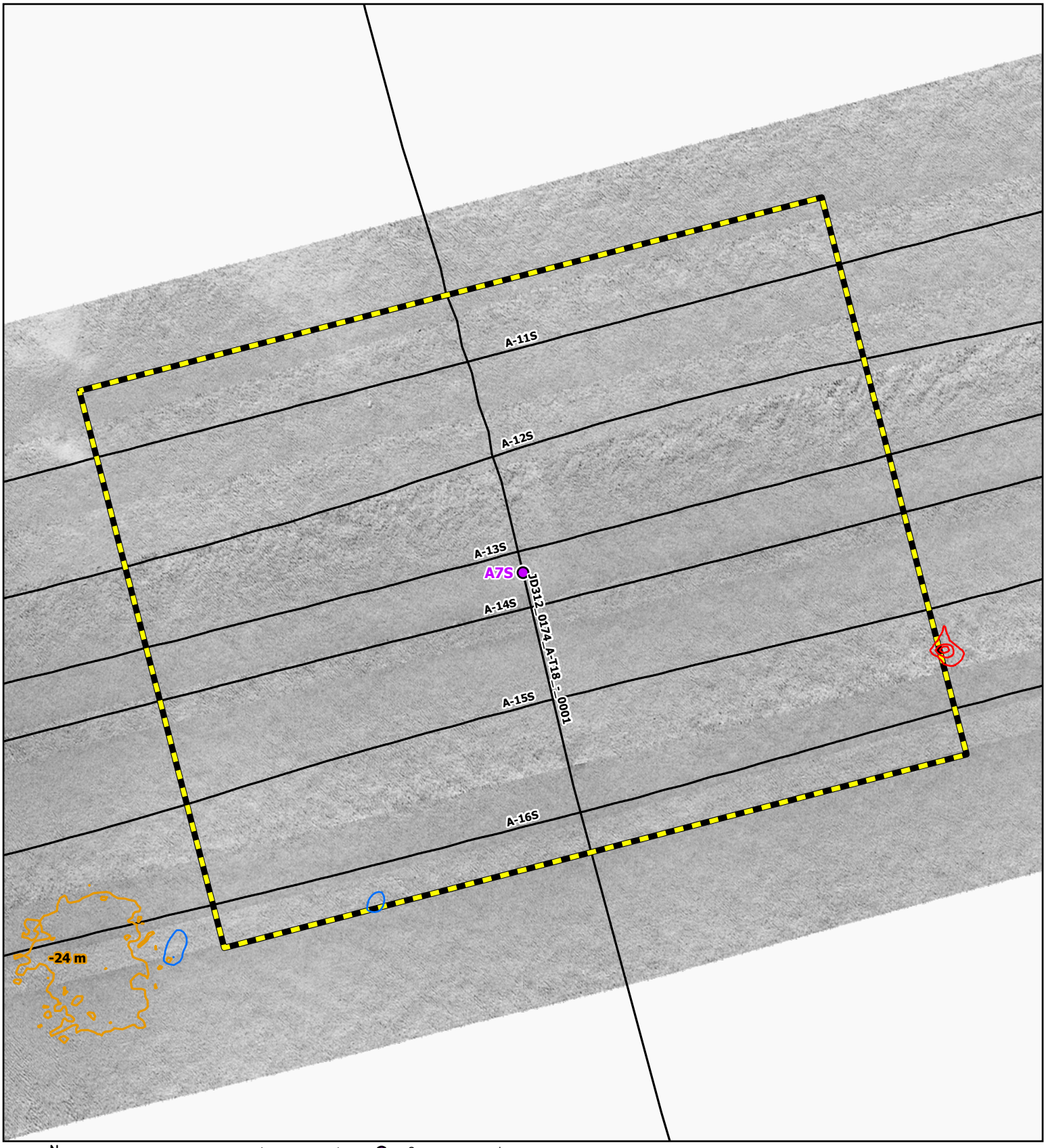
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 23

A6S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

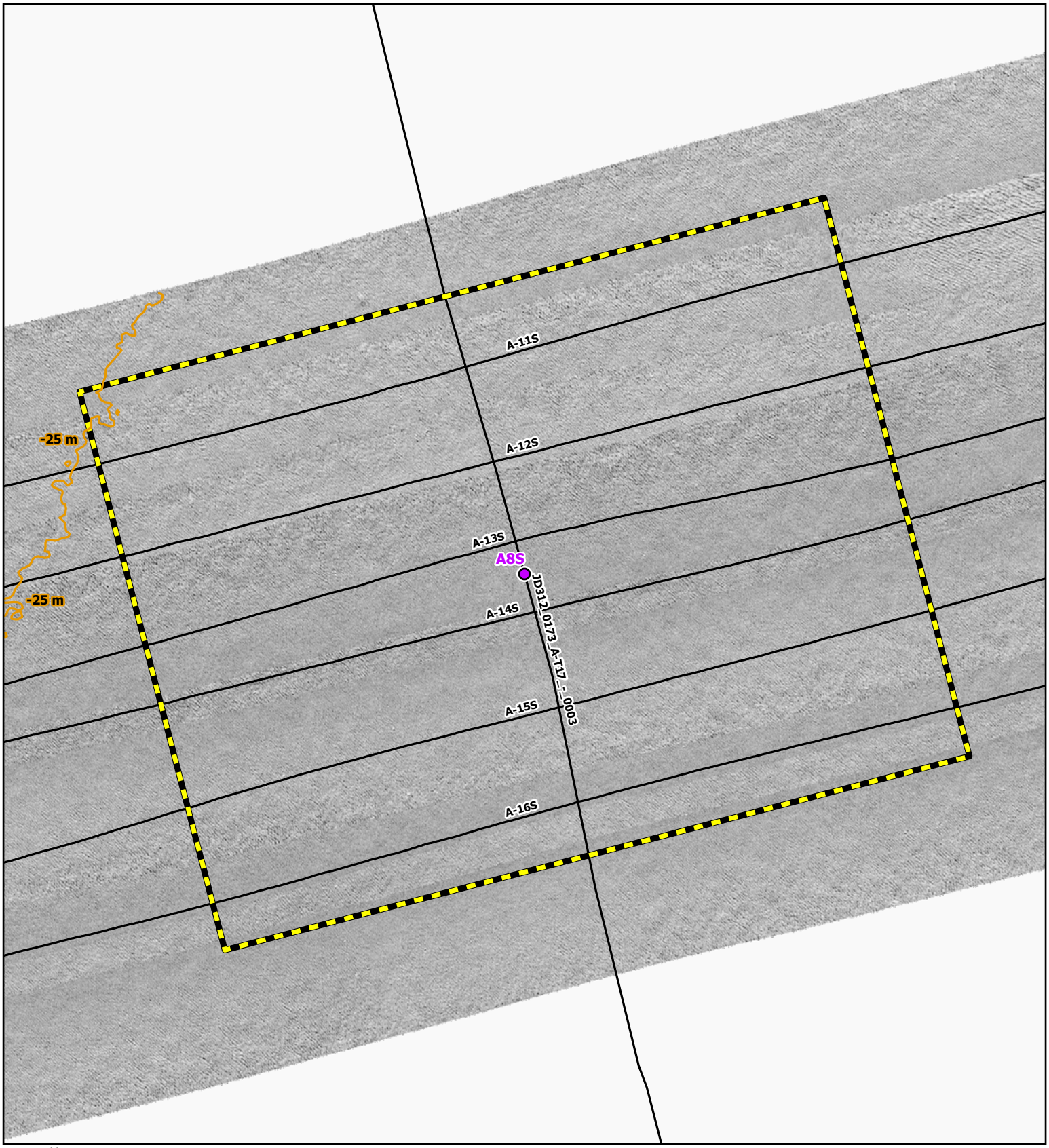
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 24

A7S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

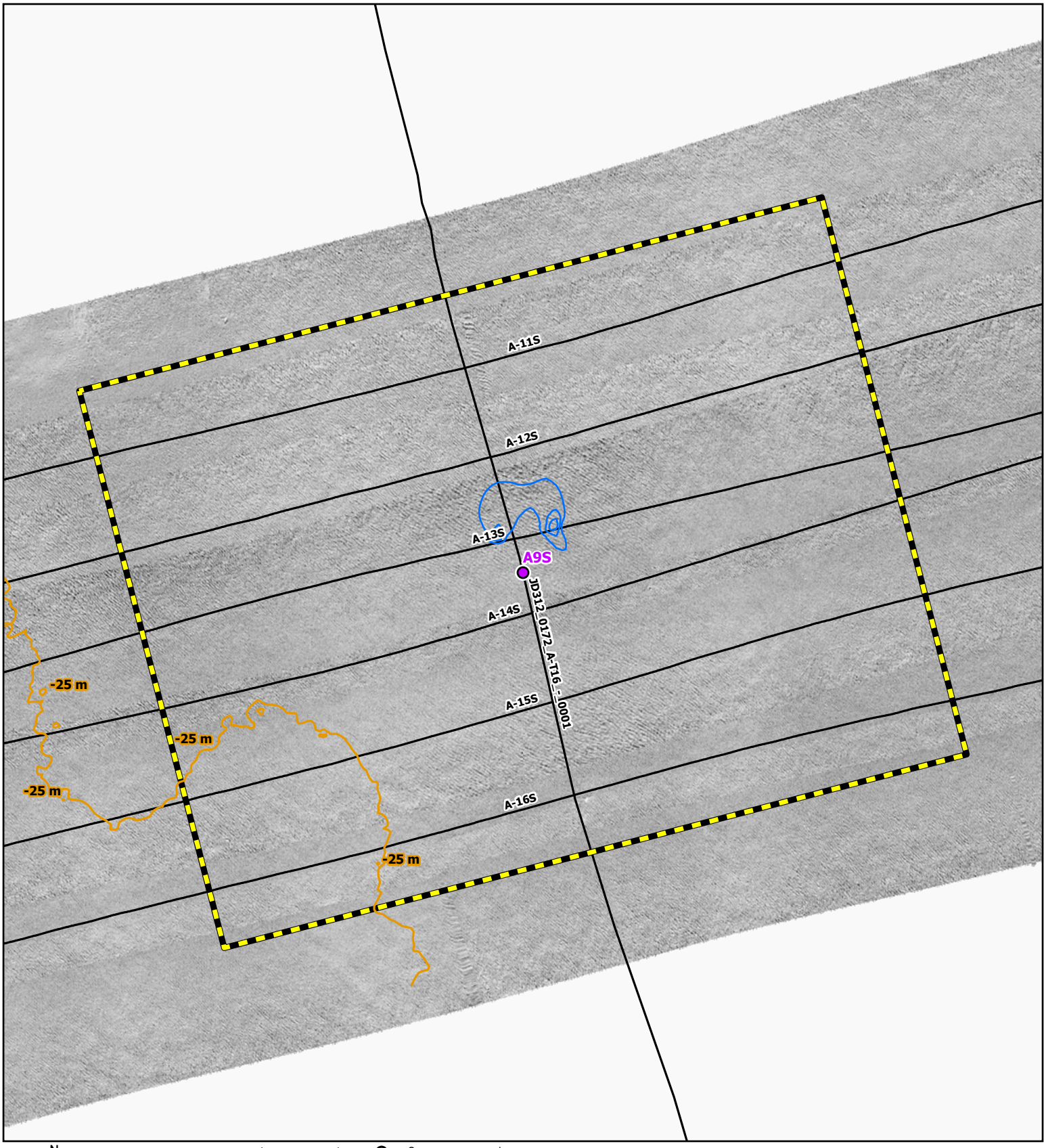
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 25

A8S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

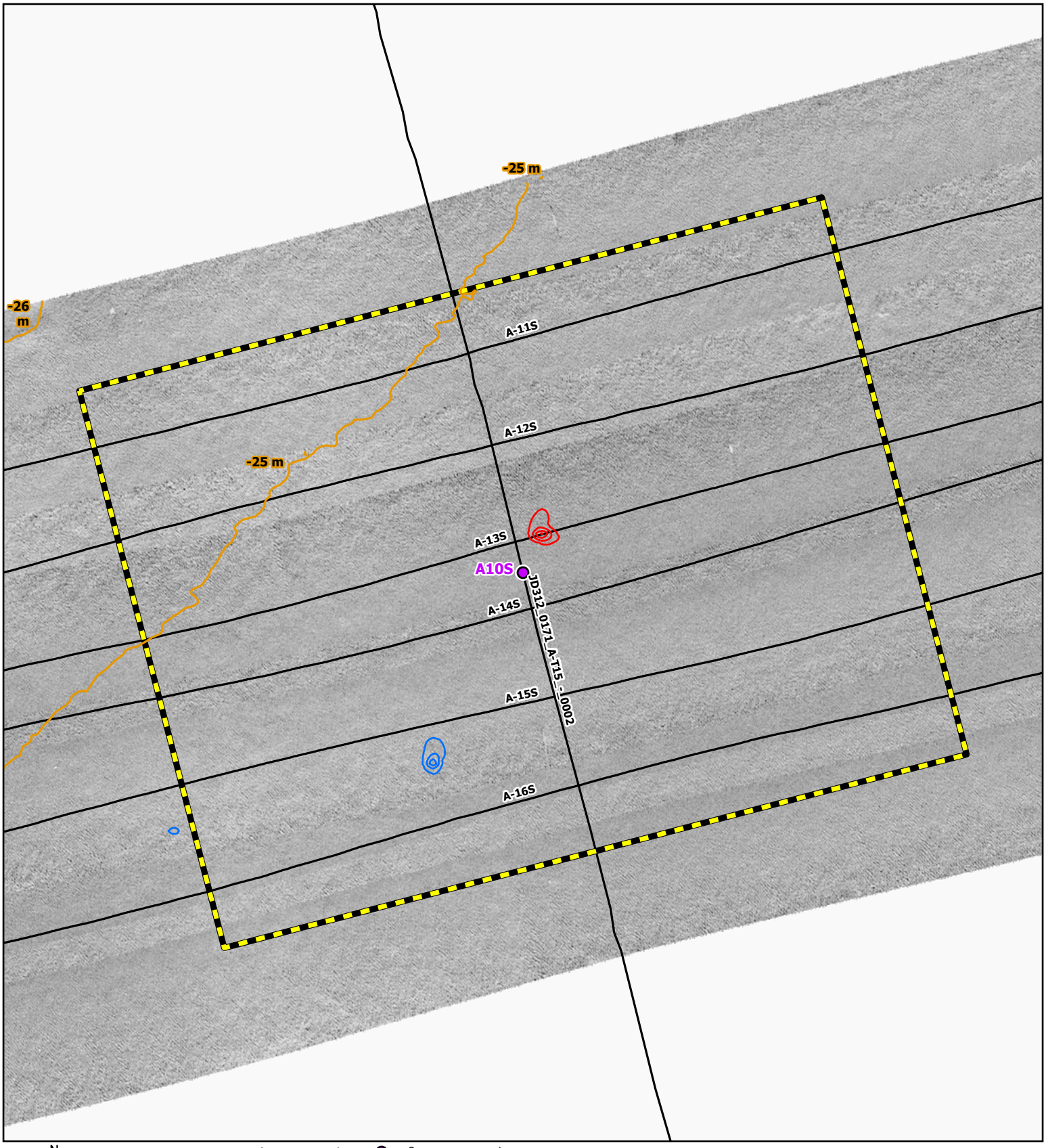
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 26

A9S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

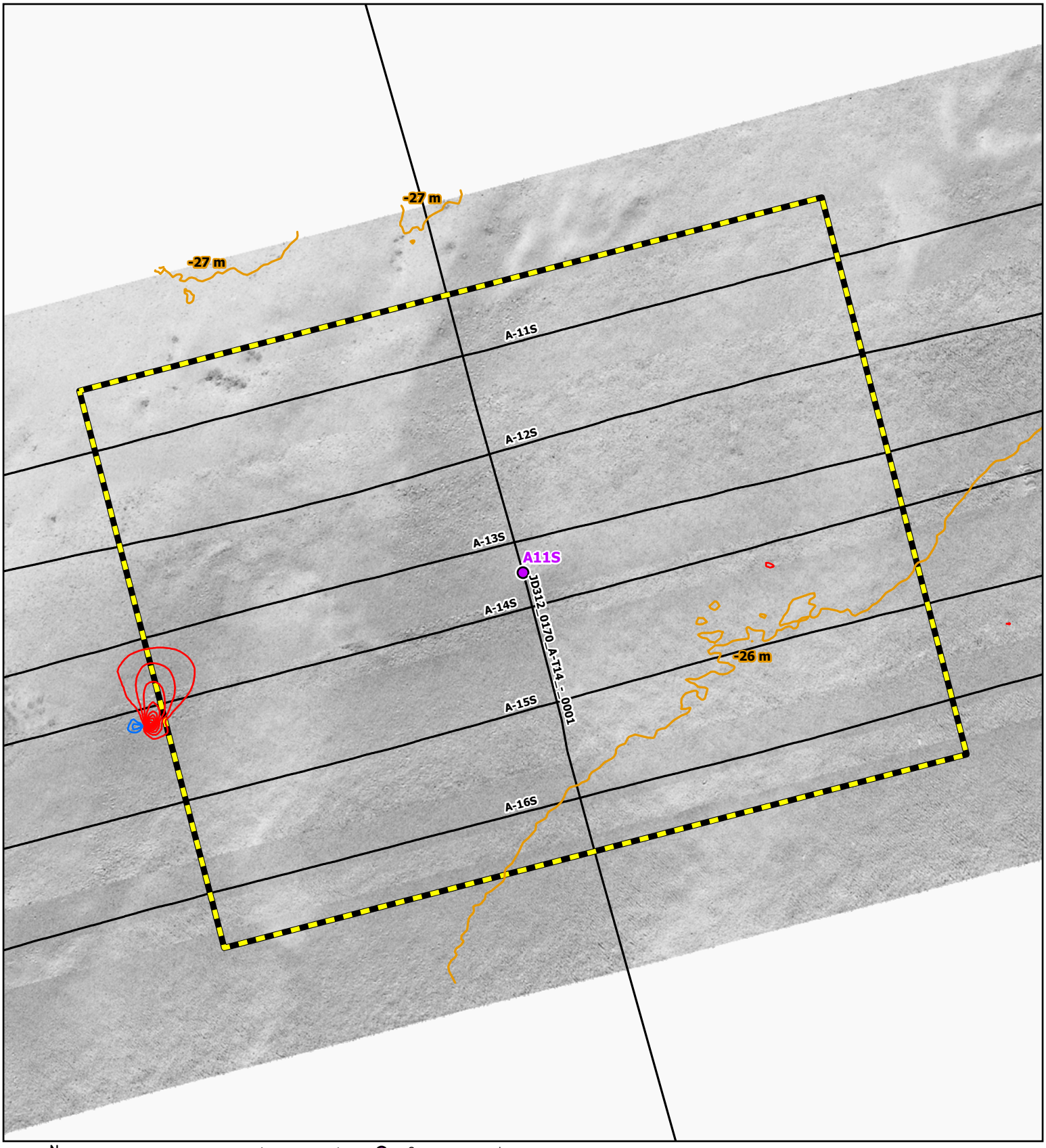
Map: 27

A10S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

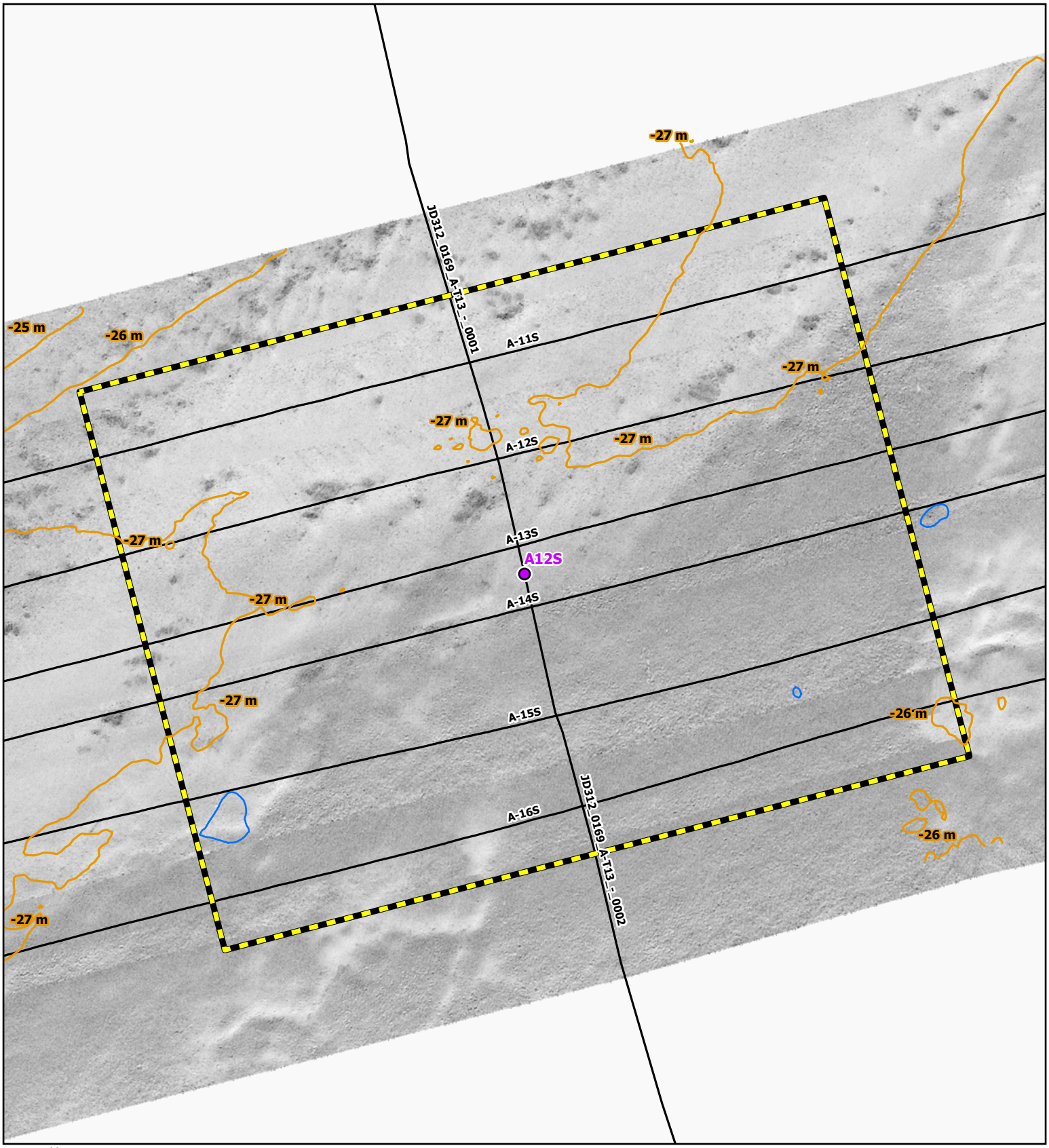
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 28

A11S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

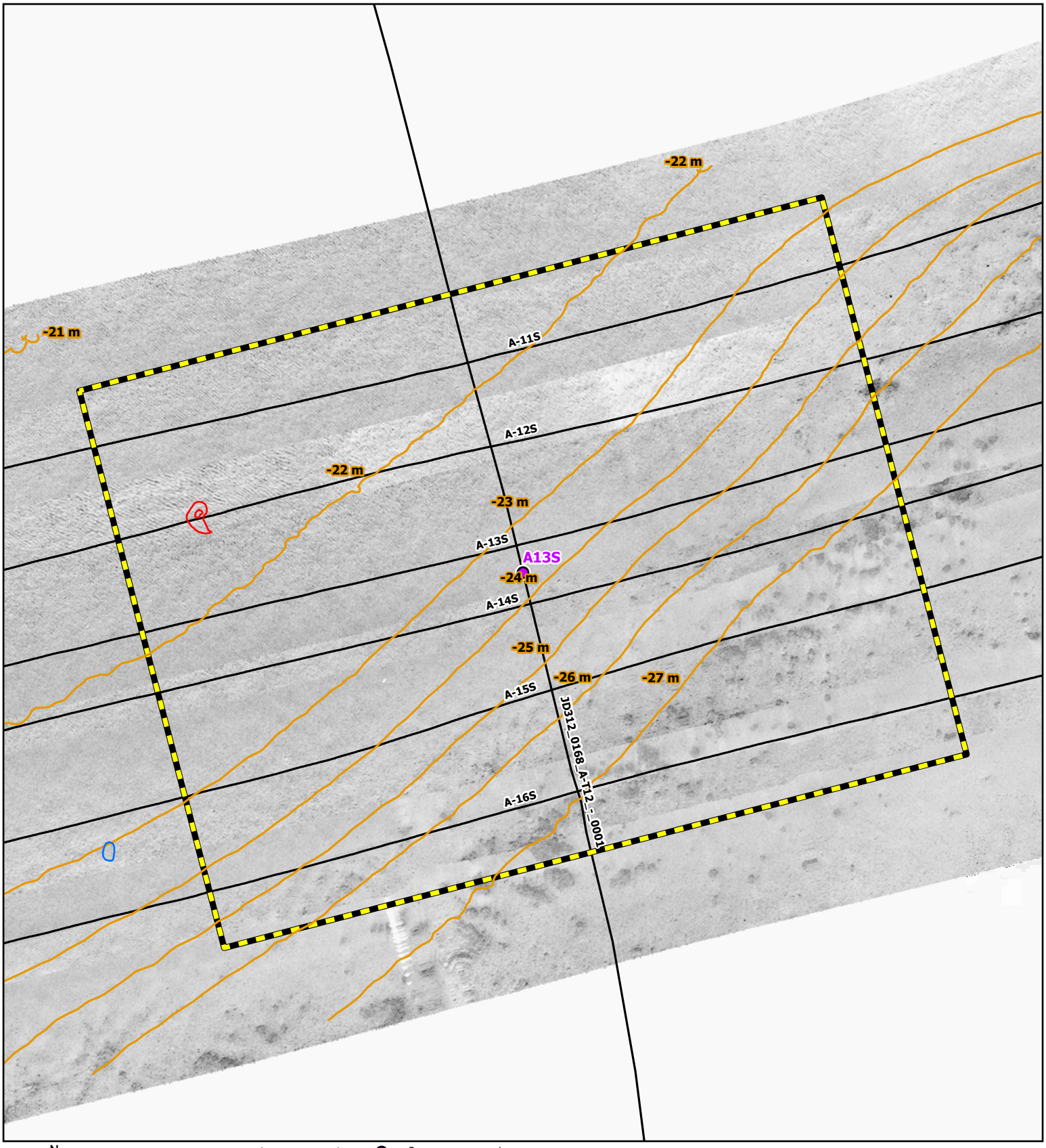
Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 29
A12S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

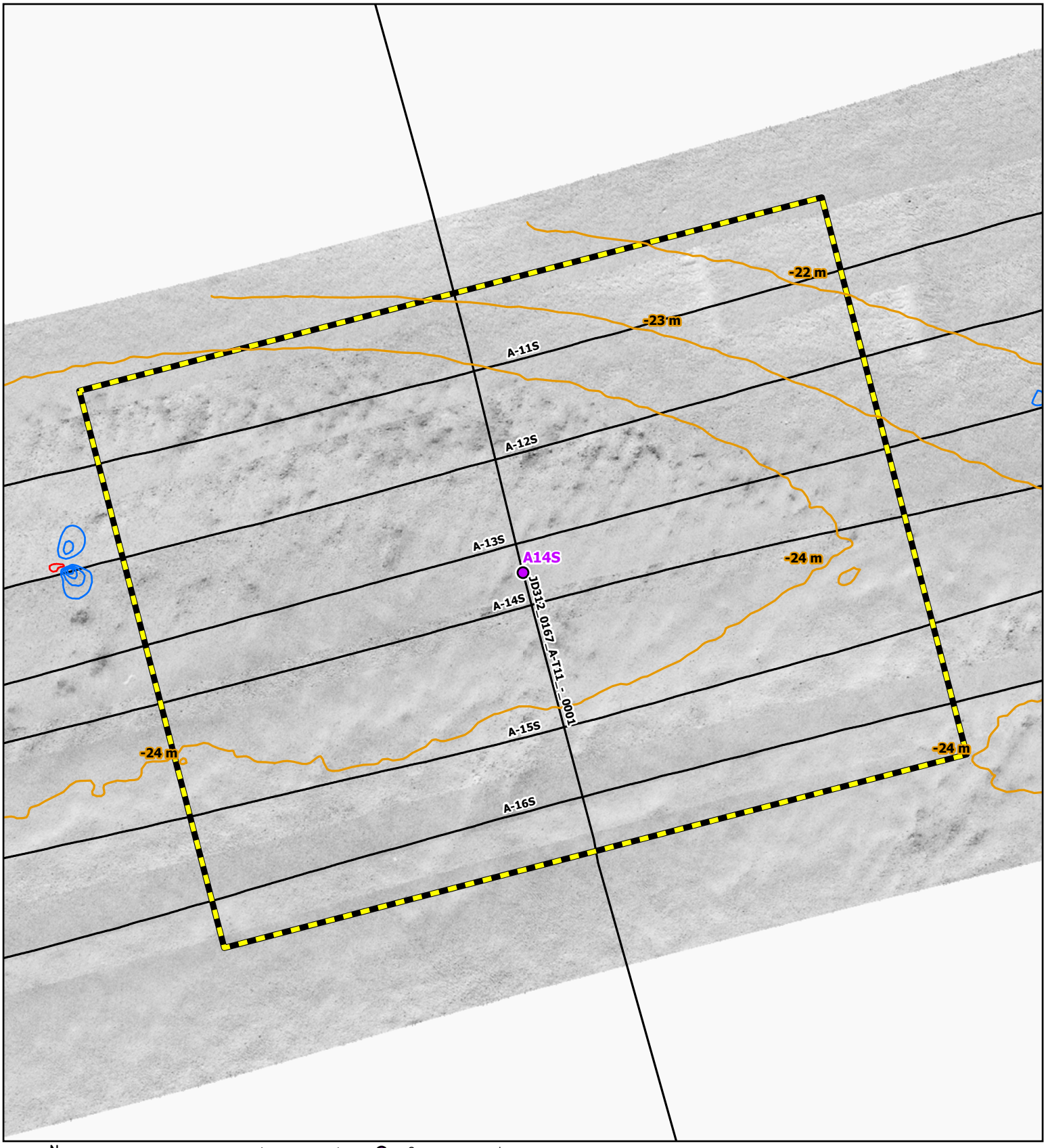
Map: 30

A13S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

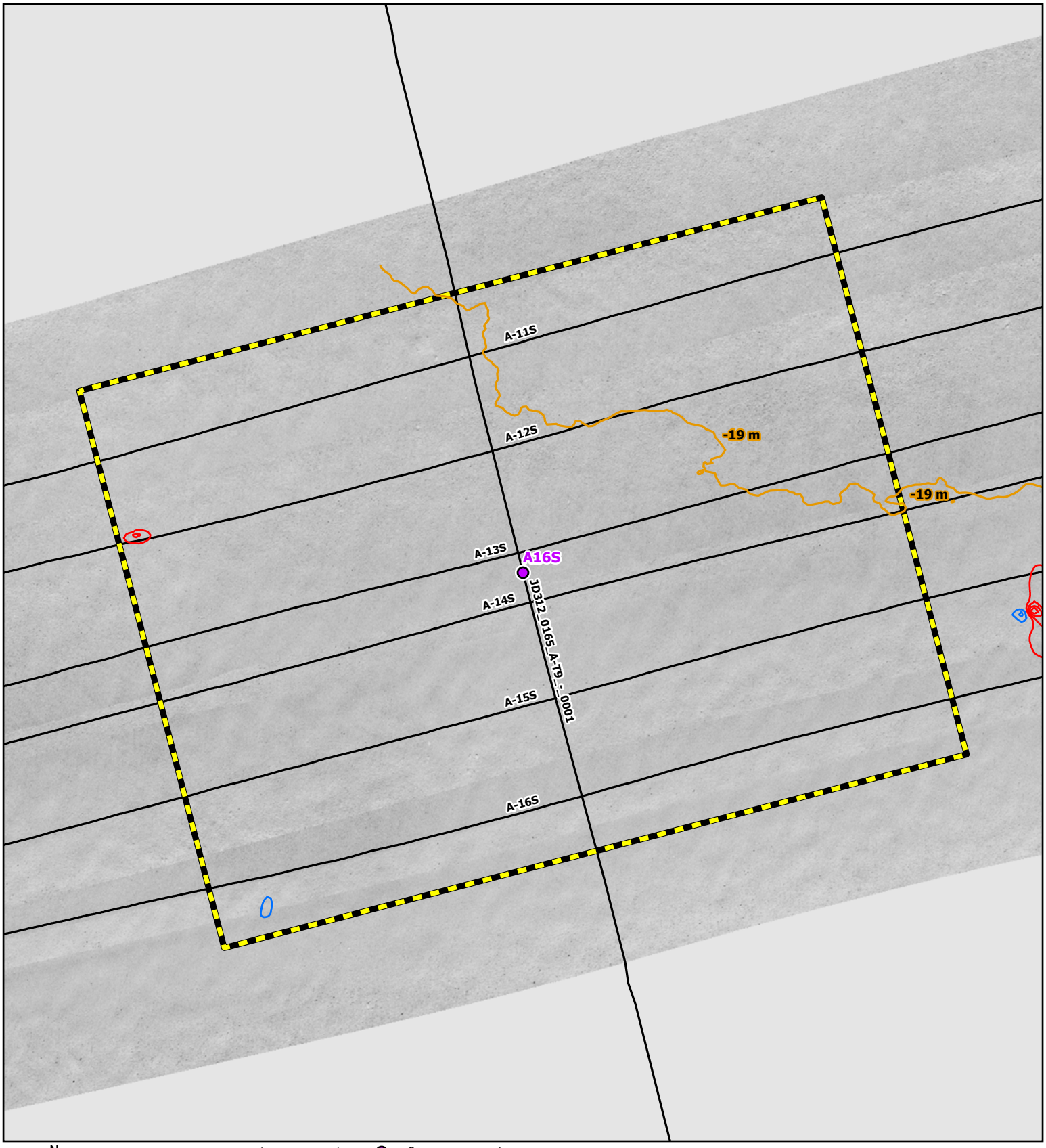
Map: 31

A14S

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N
W E
S
Grid North

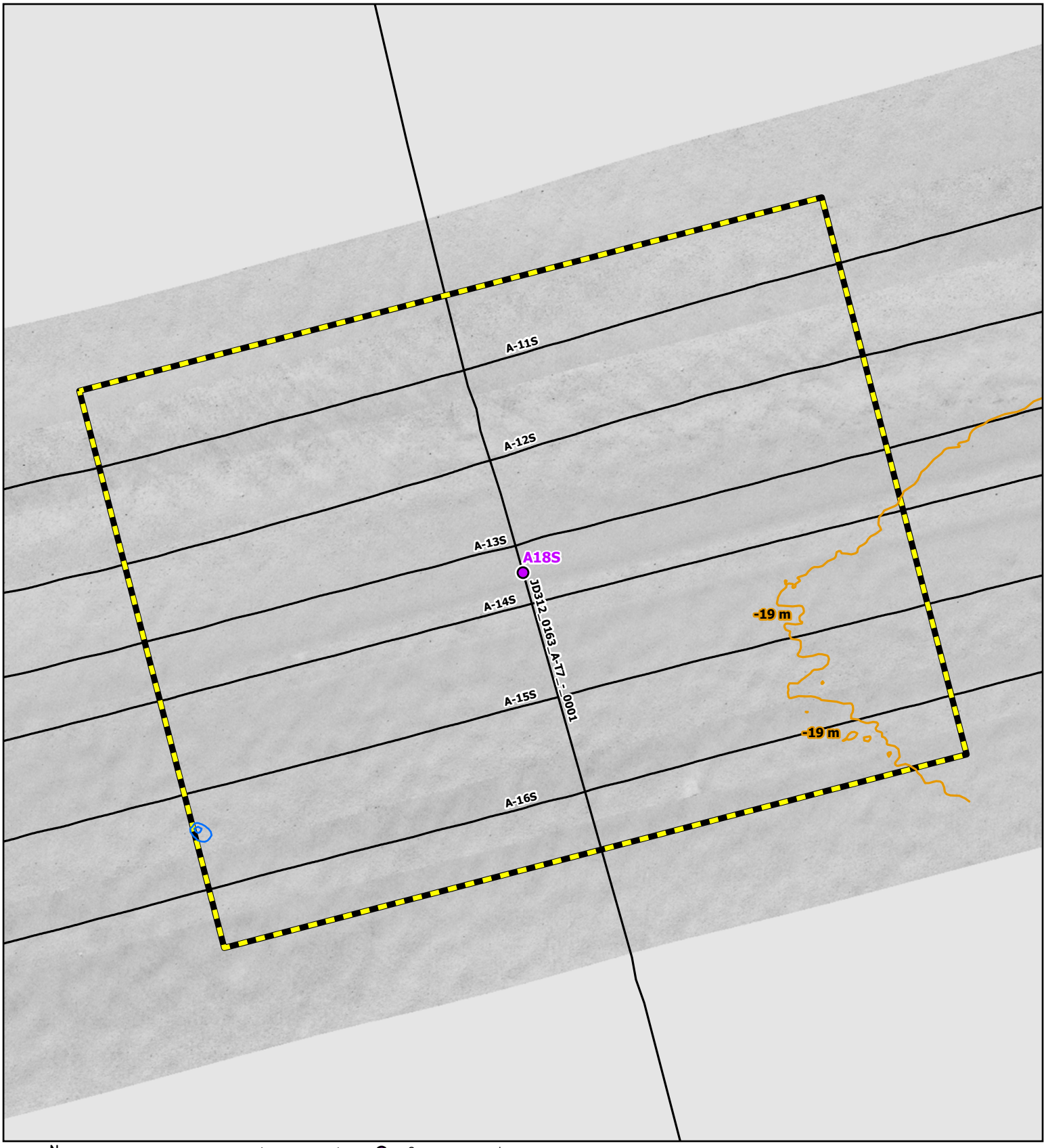
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A
Map: 32
A16S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block A

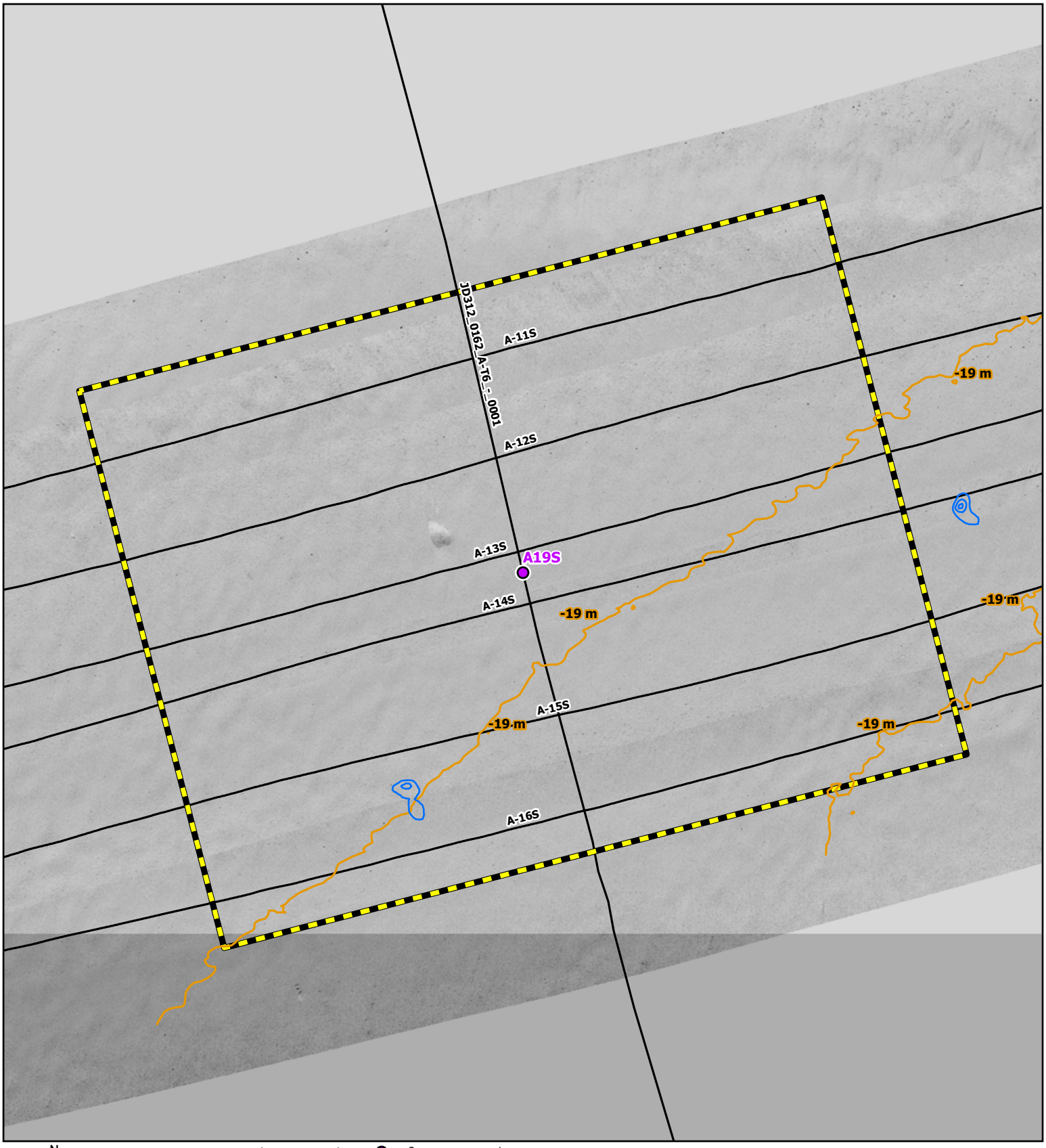
Map: 33

A18S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

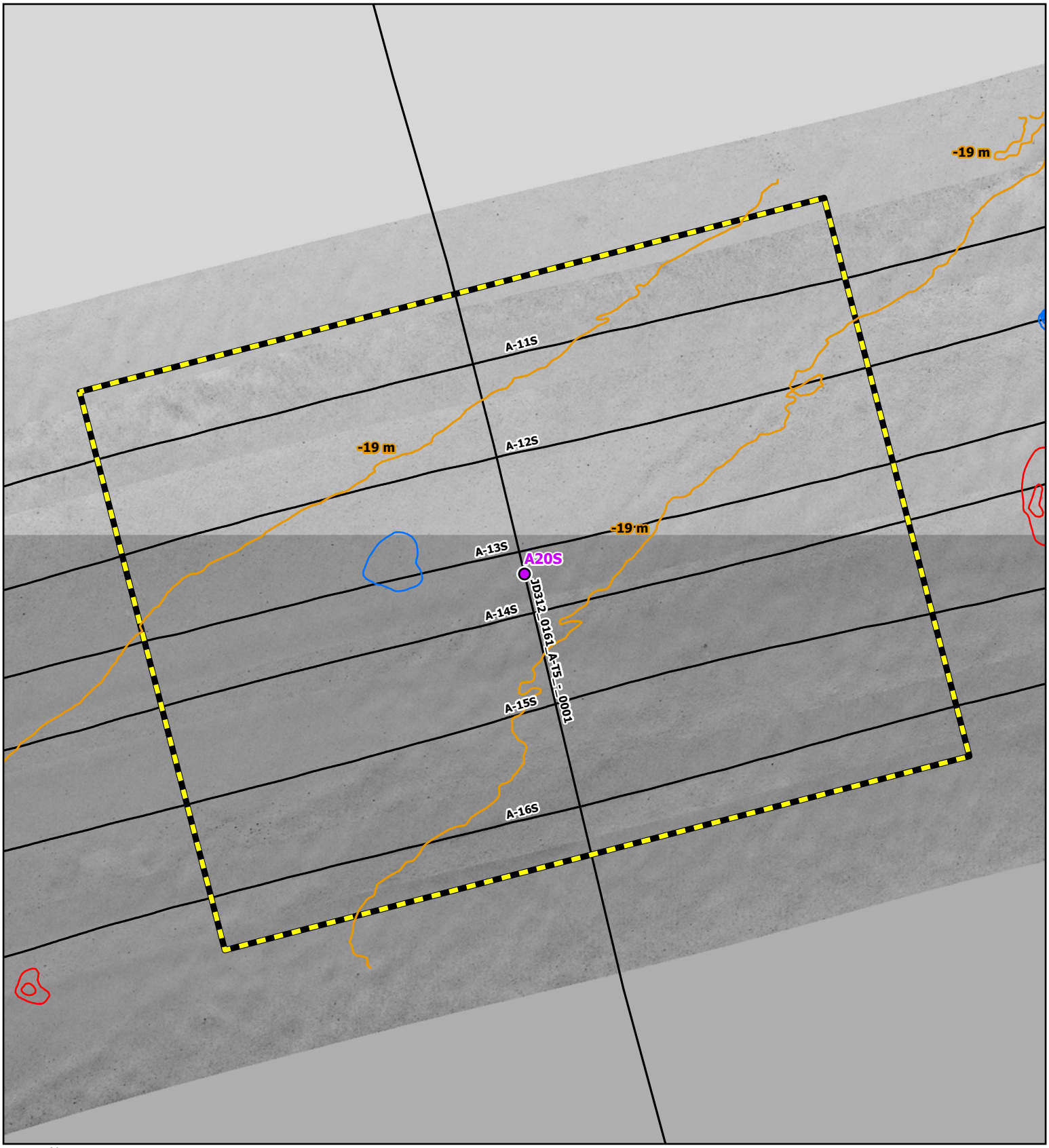
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 34

A19S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

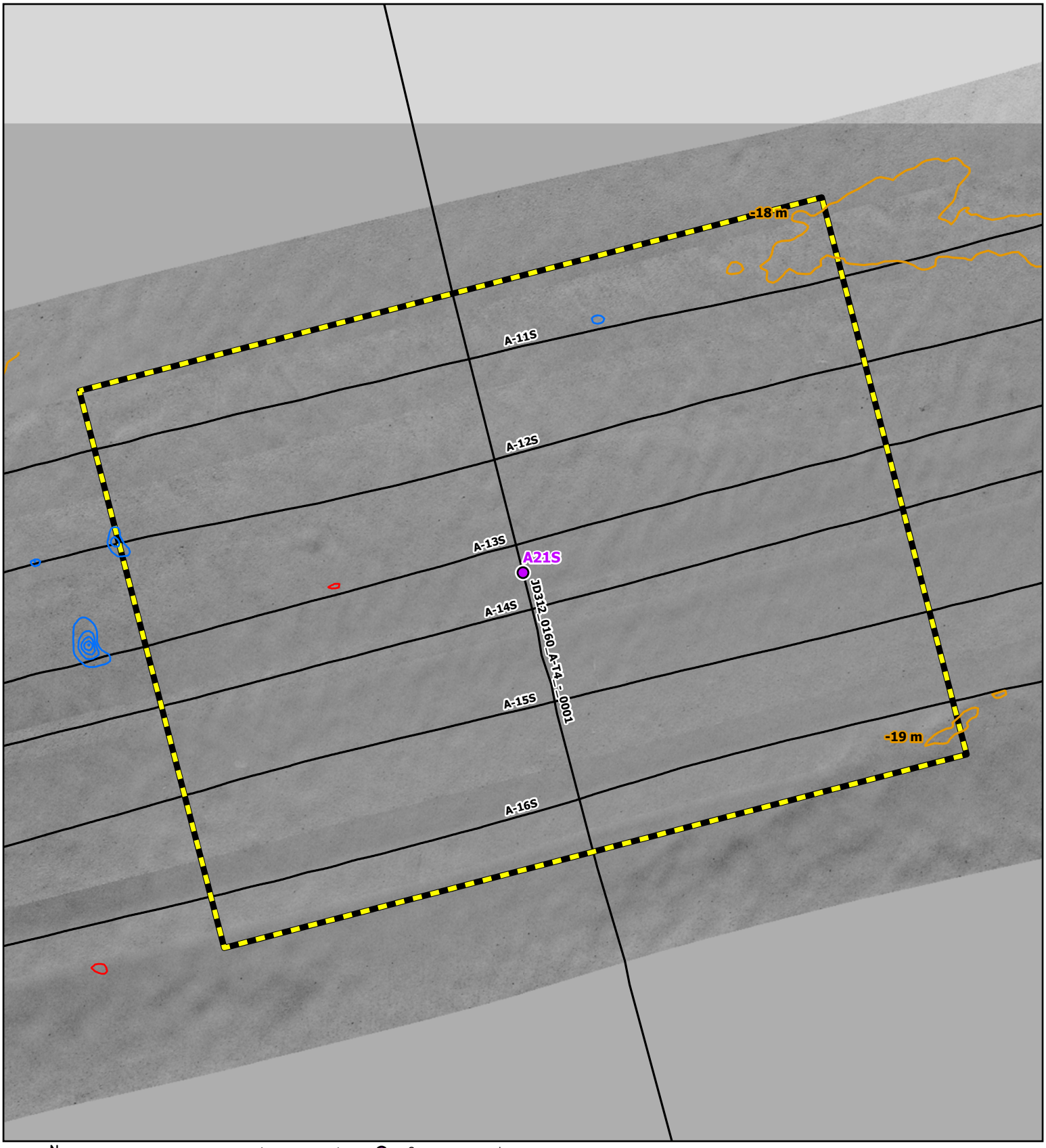
Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 35
A20S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block A

Map: 36

A21S

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

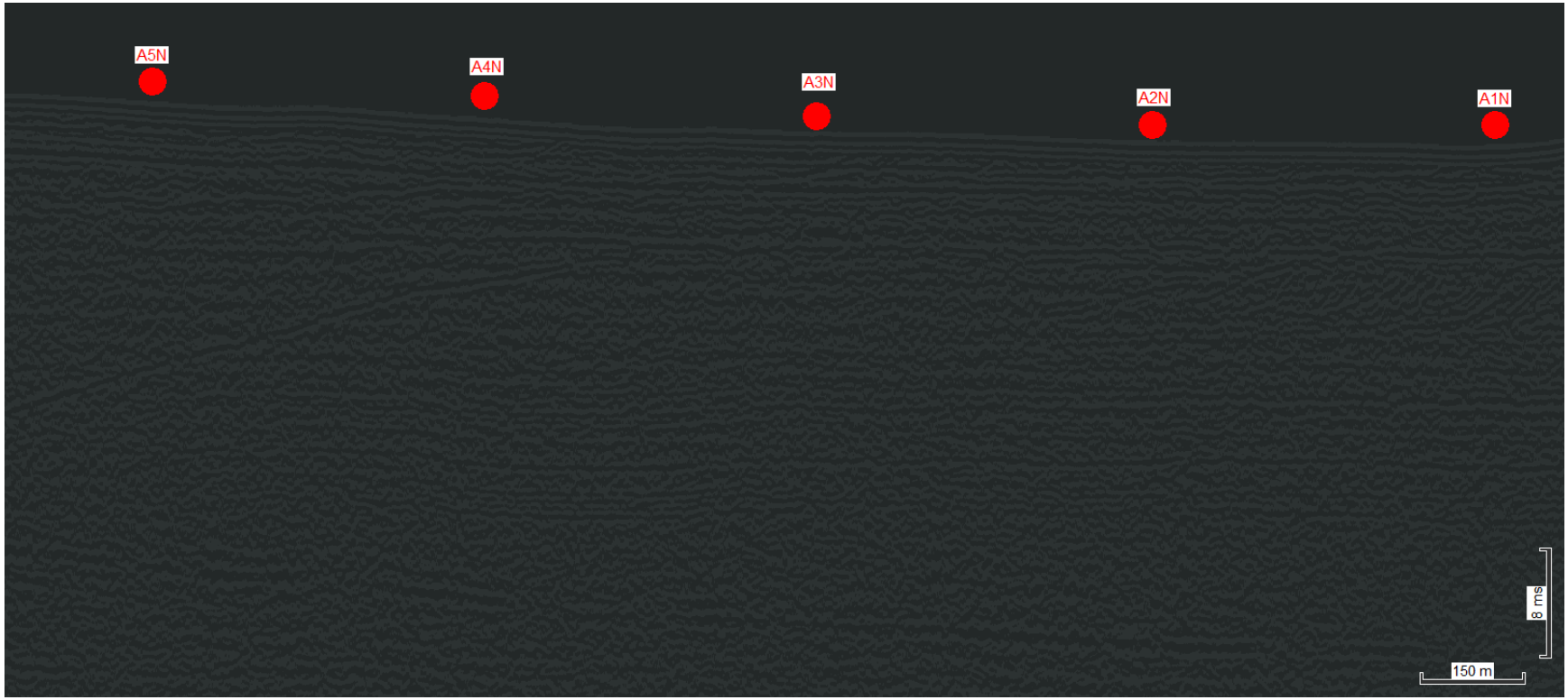


Figure 1: Proposed geotechnical locations A1N, A2N, A3N, A4N, and A5N in ECR Block A, Northern Wing Corridor along sub-bottom line JD309_Seq0123_A-16N_A

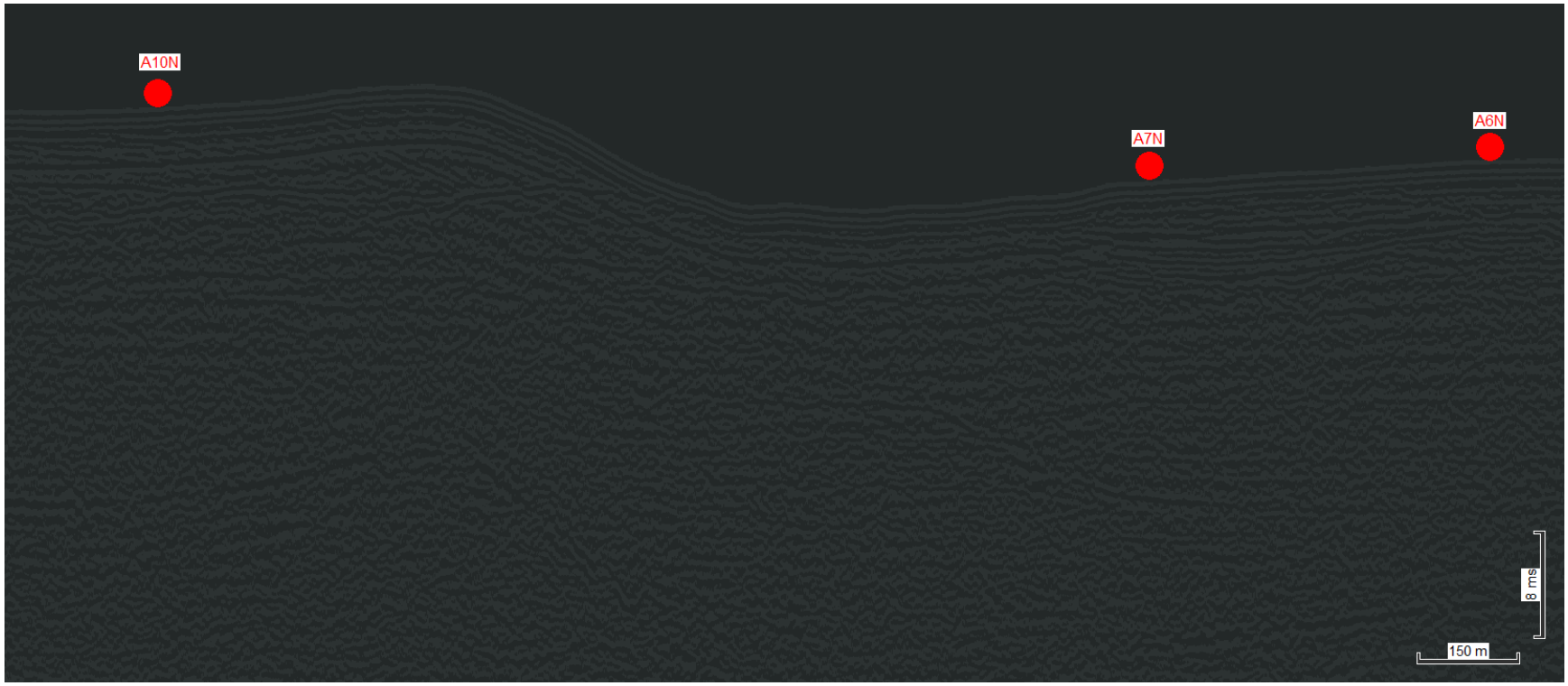


Figure 2: Proposed geotechnical locations A6N, A7N, and A10N in ECR Block A, Northern Wing Corridor along sub-bottom line JD309_Seq0123_A-16N_A

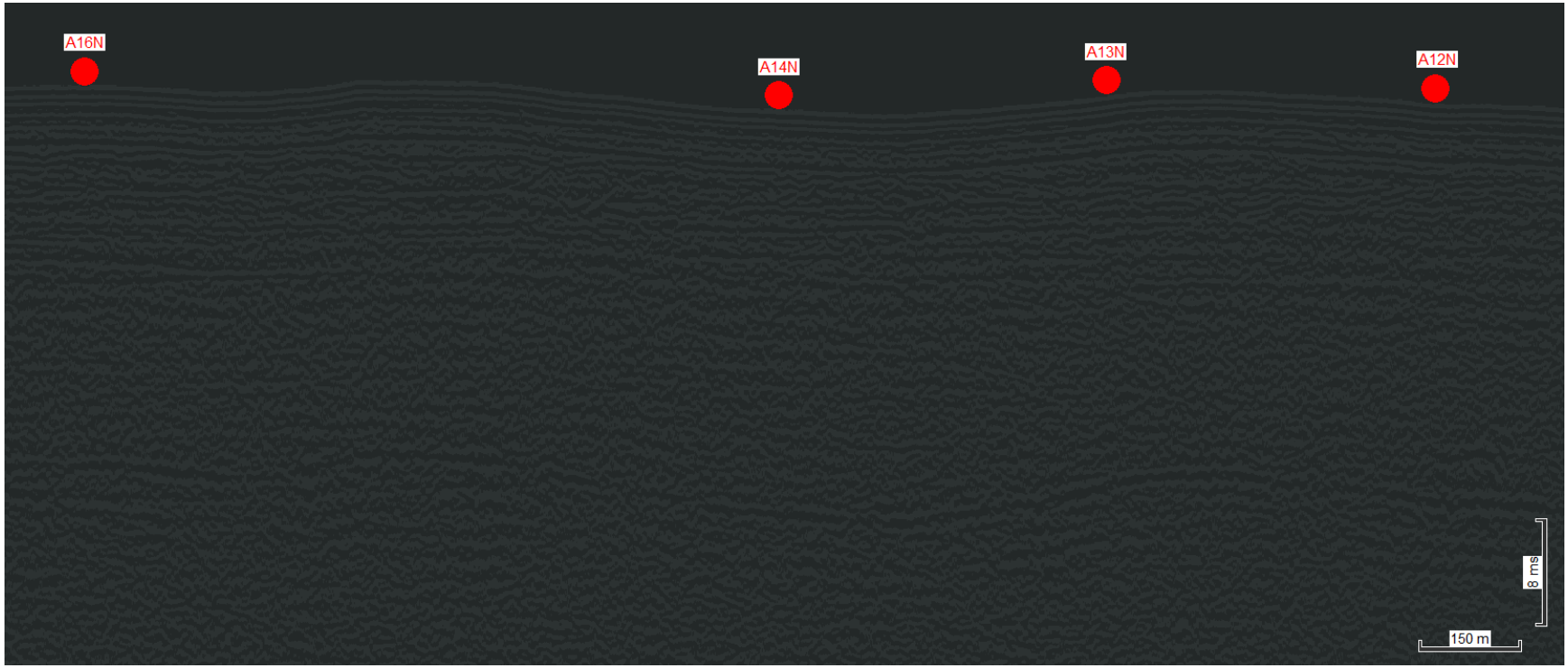


Figure 3: Proposed geotechnical locations A12N, A13N, A14N, and A16N in ECR Block A, Northern Wing Corridor along sub-bottom line JD309_Seq0123_A-16N_A

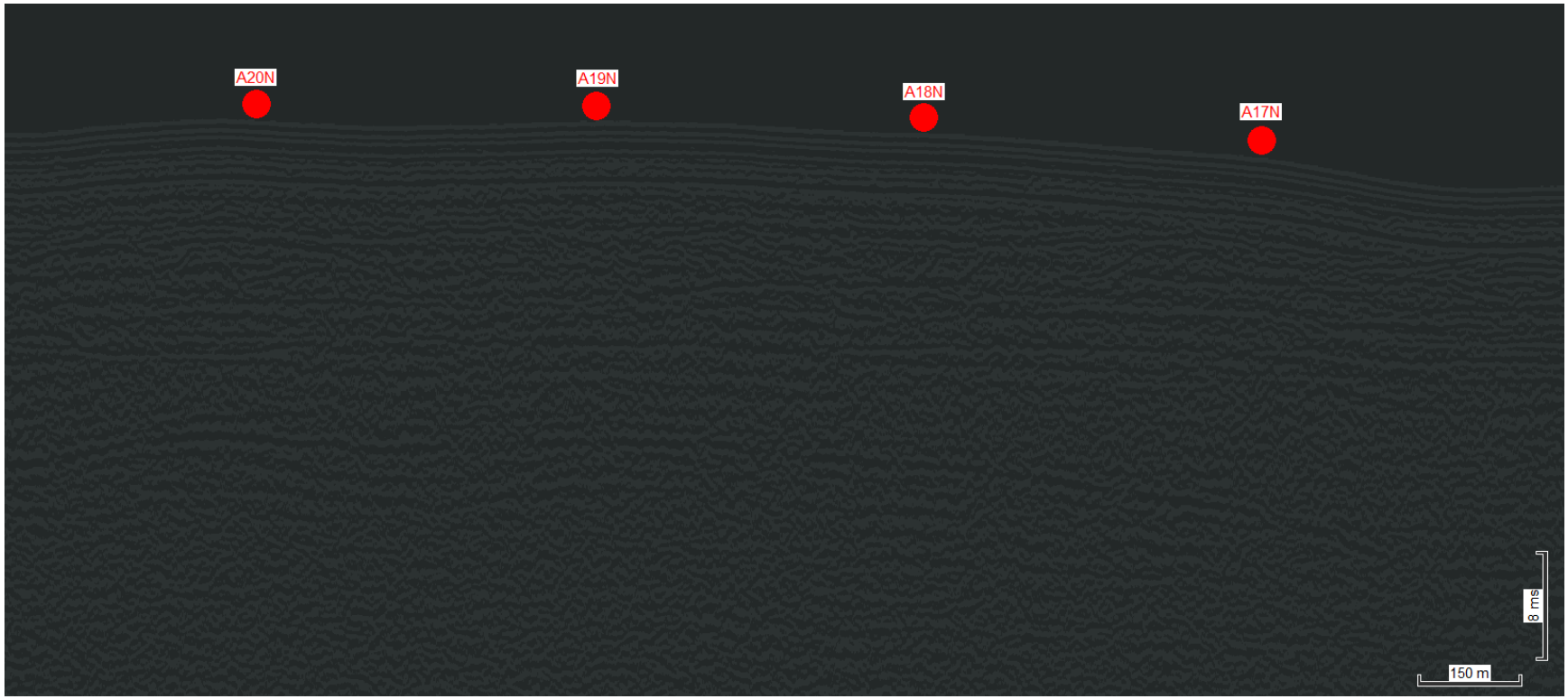


Figure 4: Proposed geotechnical locations A17N, A18N, A19N, and A20N in ECR Block A, Northern Wing Corridor along sub-bottom line JD309_Seq0123_A-16N_A

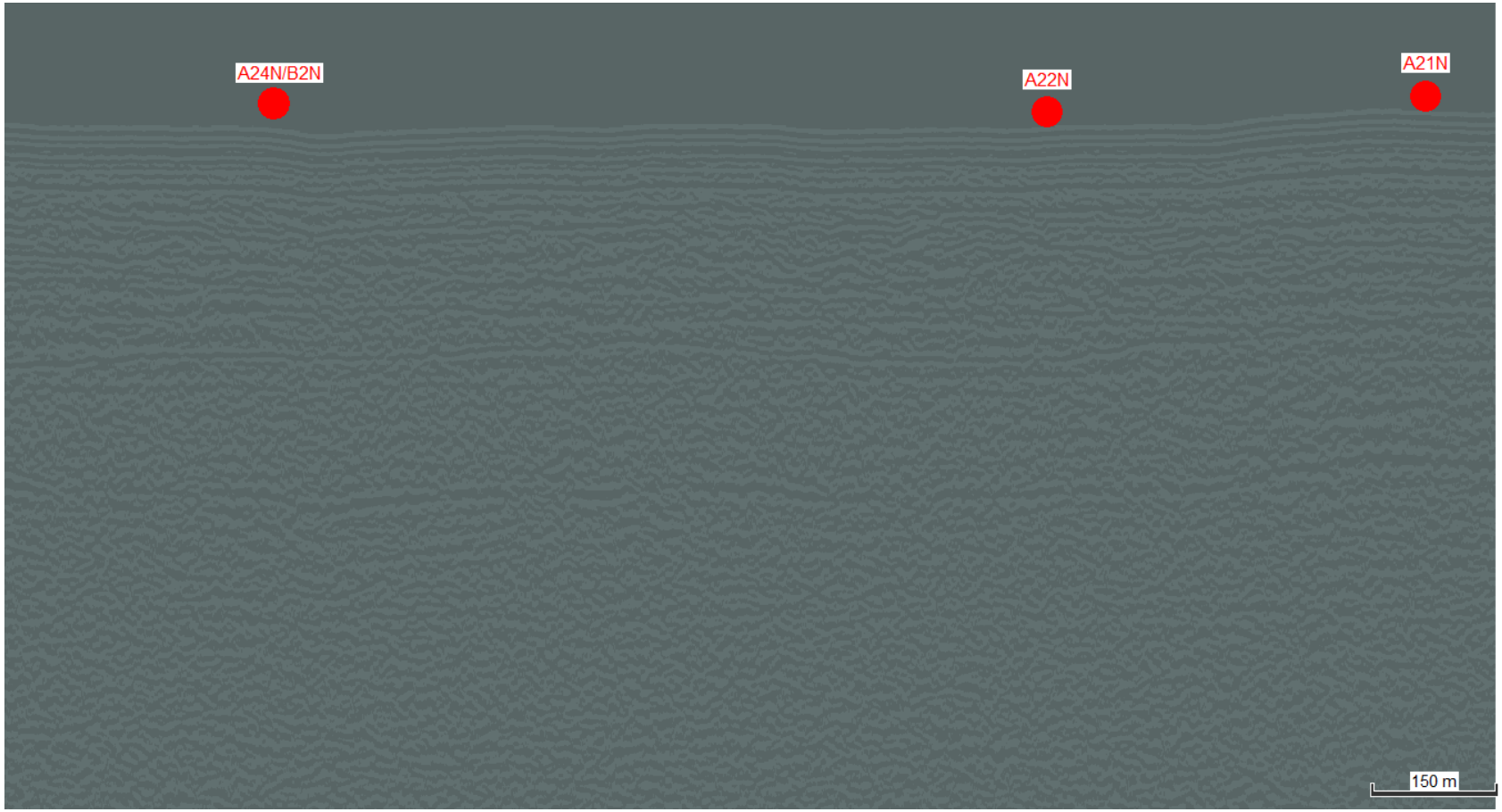


Figure 5: Proposed geotechnical locations A21N, A22N, and A24N/B2N in ECR Block A, Northern Wing Corridor along sub-bottom line JD309_Seq0123_A-16N_B

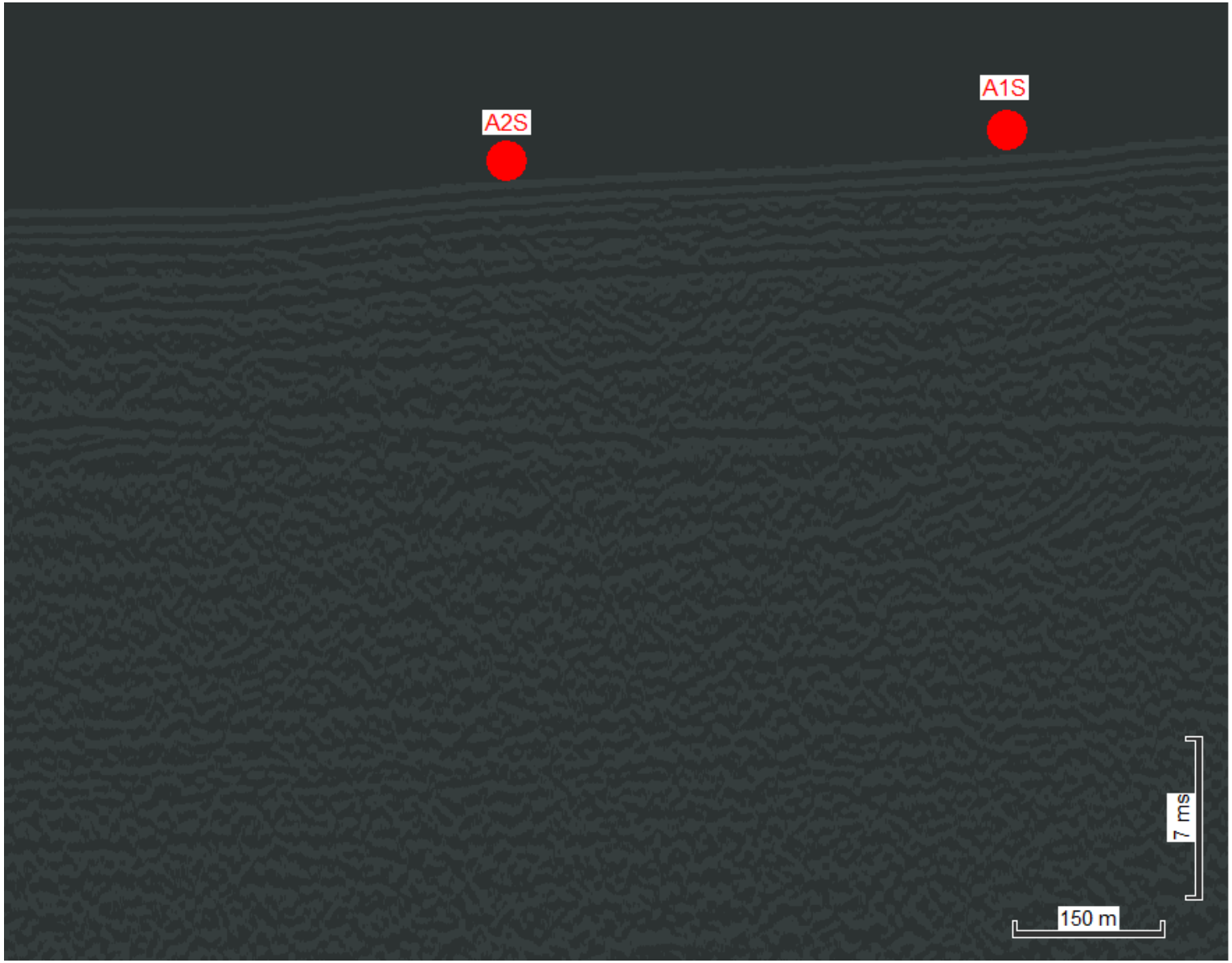


Figure 6: Proposed geotechnical locations A1S and A2S in ECR Block A, Southern Wing Corridor along sub-bottom line JD309_Seq0129_A-14S_A

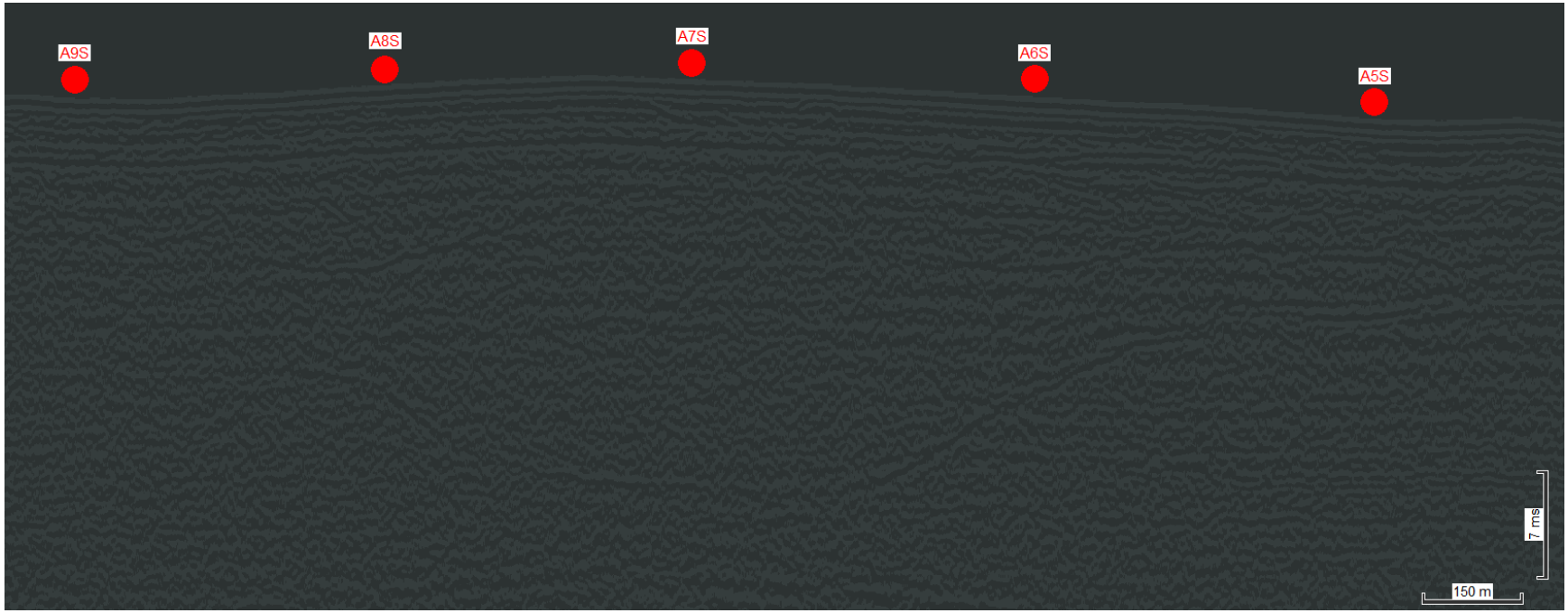


Figure 7: Proposed geotechnical locations A5S, A6S, A7S, A8S and A9S in ECR Block A, Southern Wing Corridor along sub-bottom line JD309_Seq0129_A-14S_A

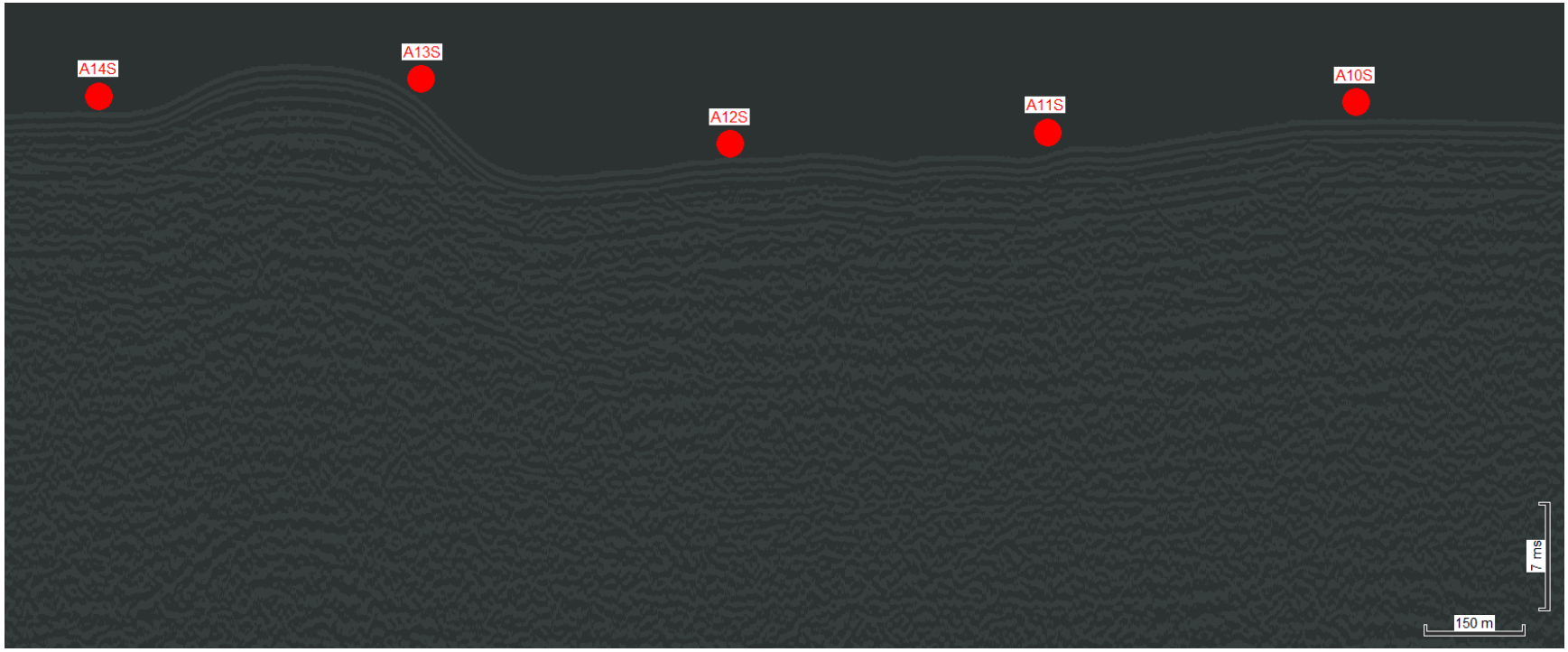


Figure 8: Proposed geotechnical locations A10S, A11S, A12S, A13S and A14S in ECR Block A, Southern Wing Corridor along sub-bottom line JD309_Seq0129_A-14S_A

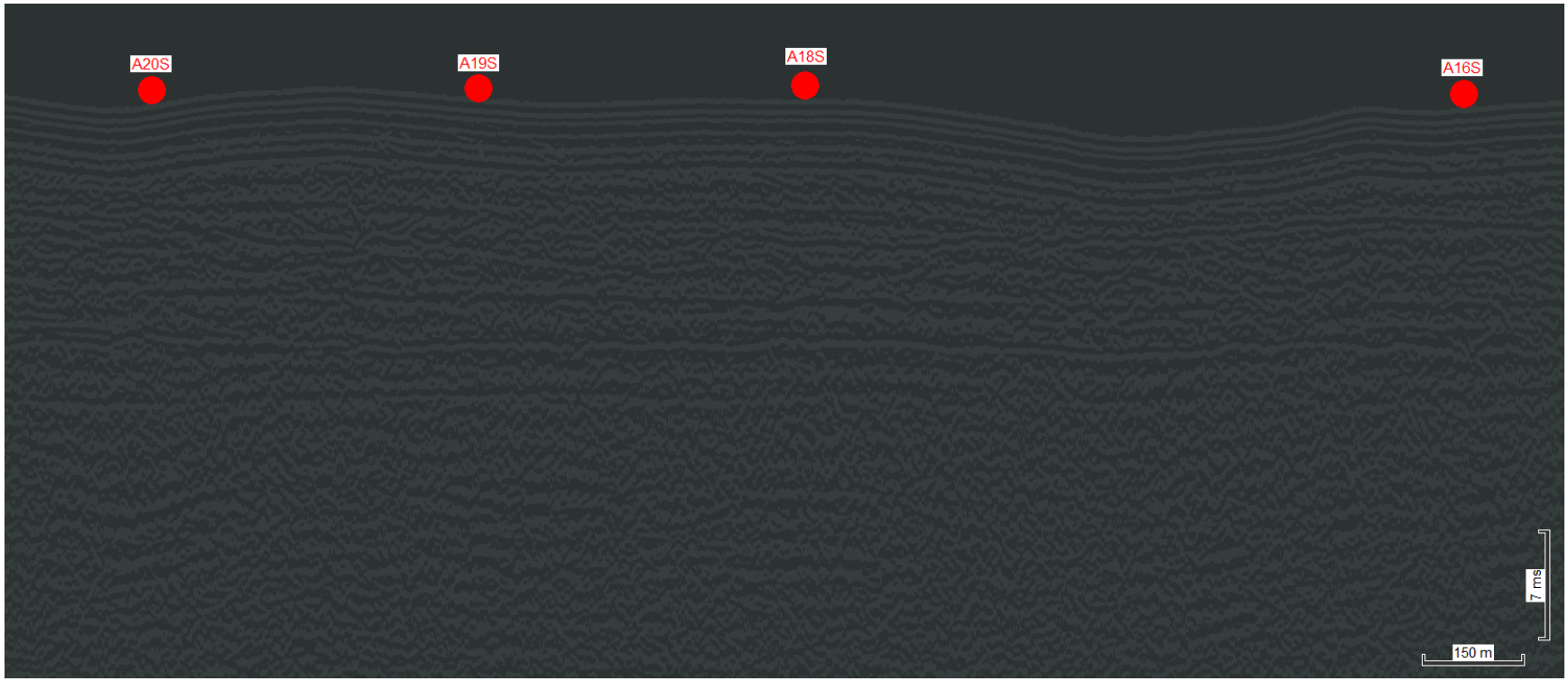


Figure 9: Proposed geotechnical locations A16S, A18S, A19S and A20S in ECR Block A, Southern Wing Corridor along sub-bottom line JD309_Seq0129_A-14S_A

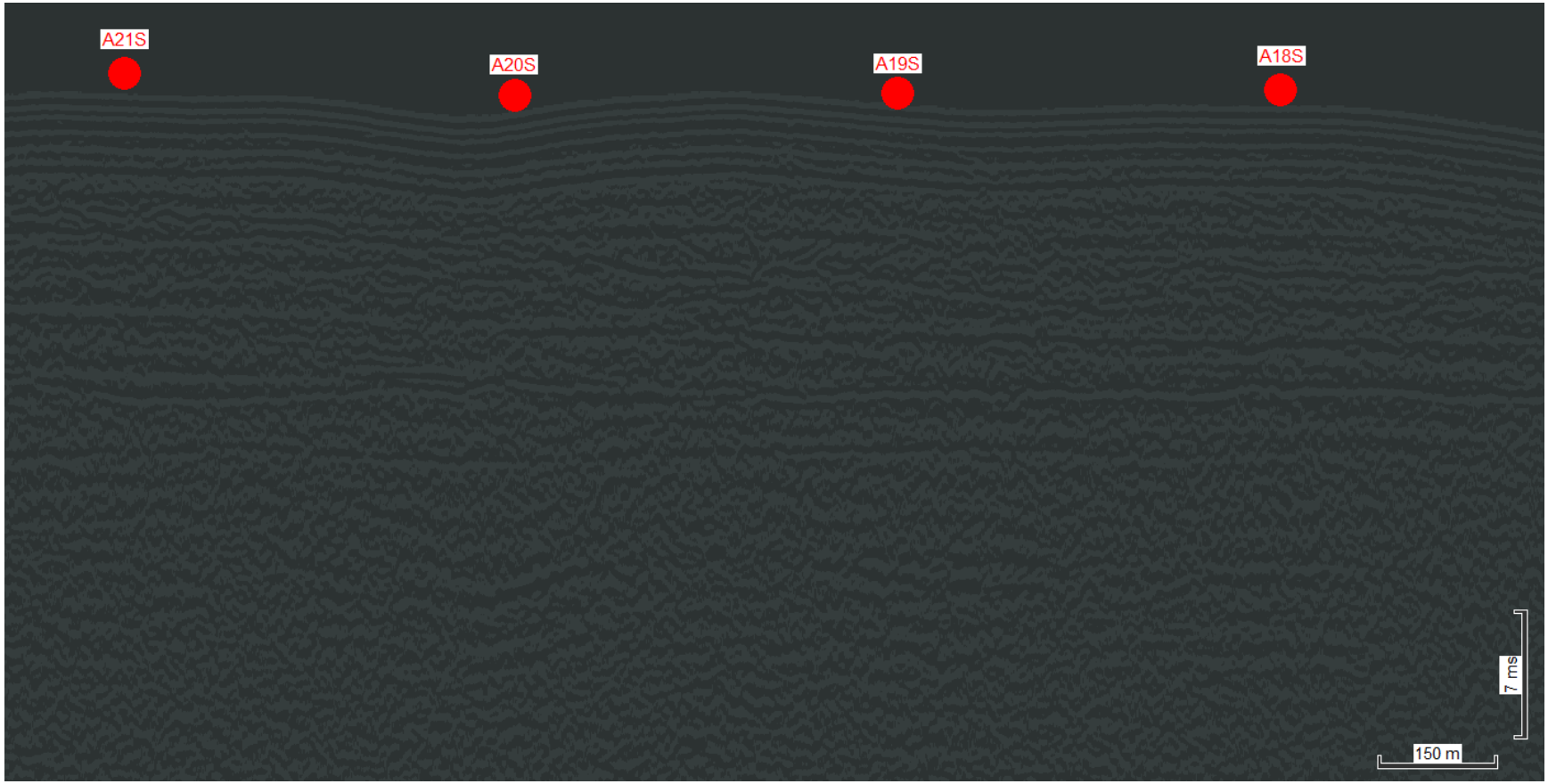


Figure 10: Proposed geotechnical locations A18S, A19S, A20S, and A21S in ECR Block A, Southern Wing Corridor along sub-bottom line JD309_Seq0129_A-14S_A

December 23, 2020

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Block C Wing Corridors

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 42 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 42 proposed geotechnical locations located along the Export Cable Route (ECR), Block C. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas pertaining to 37 of the 42 proposed geotechnical sampling locations. Further analysis is required for C3N, C7N, C15N, C16S and C19S.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical

locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that the geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to 37 of the 42 the proposed sampling locations (Tables 1 and 2; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block C, Northern Wing Corridor

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
C1N	444795.39	4073993.70	-75.61890648	36.8101847
C2N	444481.67	4073956.48	-75.62242075	36.80983078
C4N	443708.16	4073877.15	-75.63108626	36.80906999
C5N	443208.04	4073823.47	-75.63668884	36.80855622
C6N	442708.68	4073776.89	-75.64228319	36.80810629
C8N	441717.08	4073682.97	-75.65339201	36.80719908
C9N	441212.59	4073629.86	-75.65904328	36.80668919
C10N	440722.70	4073580.69	-75.66453109	36.80621537
C11N	440220.26	4073532.77	-75.67015956	36.80575185
C12N	439723.86	4073484.49	-75.67572021	36.80528512
C13N	439226.10	4073429.80	-75.68129556	36.80476029
C14N	438726.46	4073384.48	-75.68689265	36.8043196
C16N	437730.70	4073281.54	-75.69804625	36.80332668
C17N	437237.19	4073236.35	-75.70357446	36.80288669
C18N	436741.05	4073187.62	-75.70913169	36.80241446
C19N	436245.75	4073136.08	-75.71467928	36.80191663
C20N	435742.17	4073071.06	-75.72031855	36.80129647
C21N/D1N	435379.52	4073041.69	-75.72438099	36.80100701

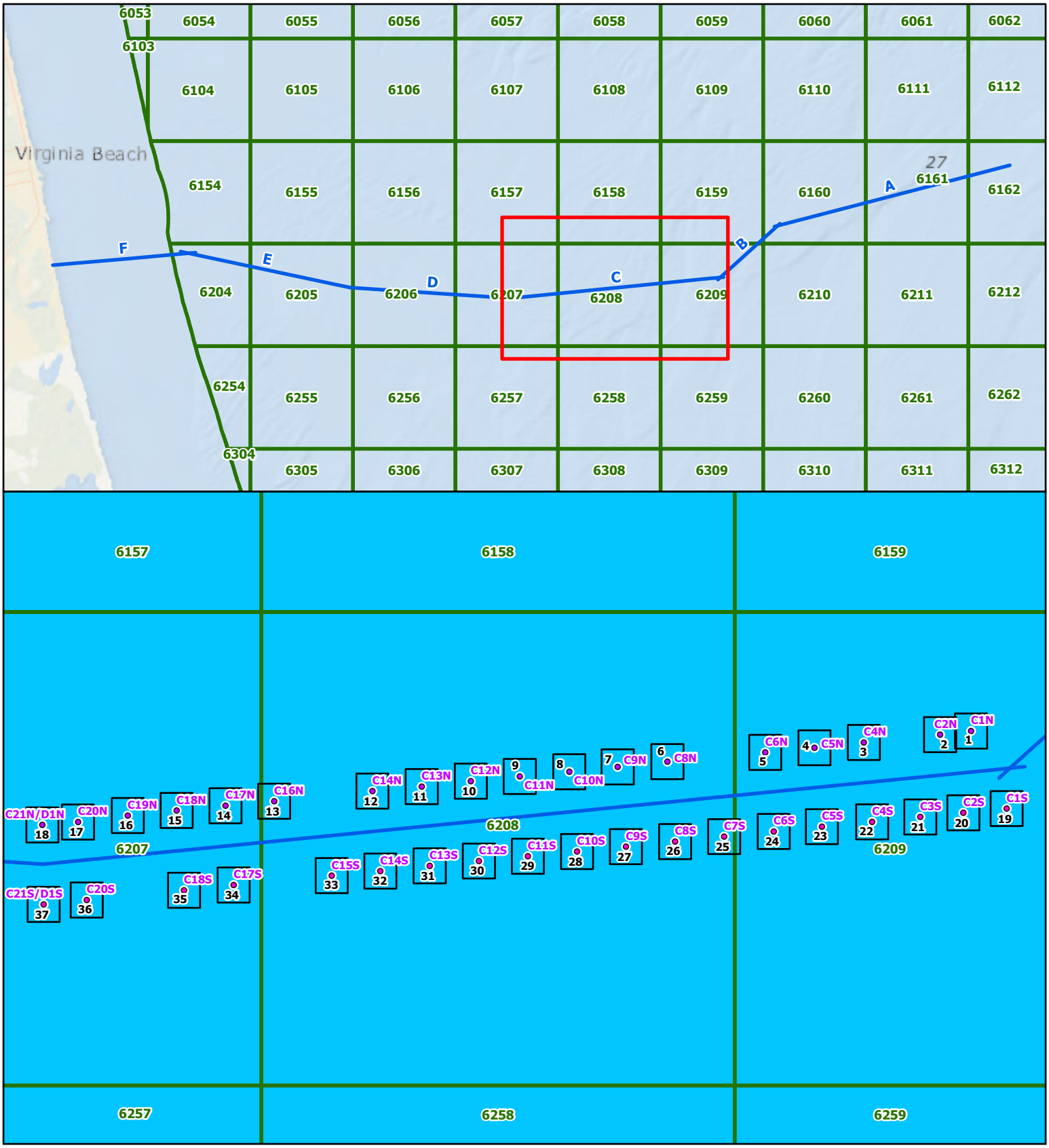
[1] Core IDs may not be sequential; C3N, C7N and C15N are pending additional analyses.
[2] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

Table 2. Proposed geotechnical locations for ECR Block C, Southern Wing Corridor

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
C1S	445156.41	4073207.28	-75.61480258	36.80311674
C2S	444716.93	4073164.50	-75.61972589	36.80270555
C3S	444280.51	4073122.51	-75.62461478	36.80230138
C4S	443792.45	4073072.55	-75.63008199	36.8018222
C5S	443283.56	4073023.61	-75.63578261	36.80135066
C6S	442794.76	4072974.79	-75.64125799	36.80088121
C7S	442292.61	4072922.93	-75.64688269	36.80038323
C8S	441794.85	4072872.69	-75.65245823	36.79989988
C9S	441296.46	4072820.99	-75.65804064	36.79940307
C10S	440800.92	4072771.52	-75.66359131	36.7989263
C11S	440302.14	4072723.91	-75.66917819	36.79846578
C12S	439805.71	4072675.27	-75.67473869	36.79799594
C13S	439306.89	4072625.91	-75.68032593	36.79751916
C14S	438806.35	4072572.90	-75.68593195	36.79700905
C15S	438313.51	4072526.82	-75.69145214	36.79656176
C17S	437319.33	4072432.07	-75.70258744	36.79564238
C18S	436815.75	4072378.33	-75.70822723	36.79512442
C20S	435830.05	4072279.94	-75.71926677	36.79417125
C21S/D1S	435392.85	4072235.33	-75.72416313	36.79373939

[1] Core IDs may not be sequential; C16S and C19S are pending additional analyses.
[2] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK C WING CORRIDORS



N
W E
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Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:52,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

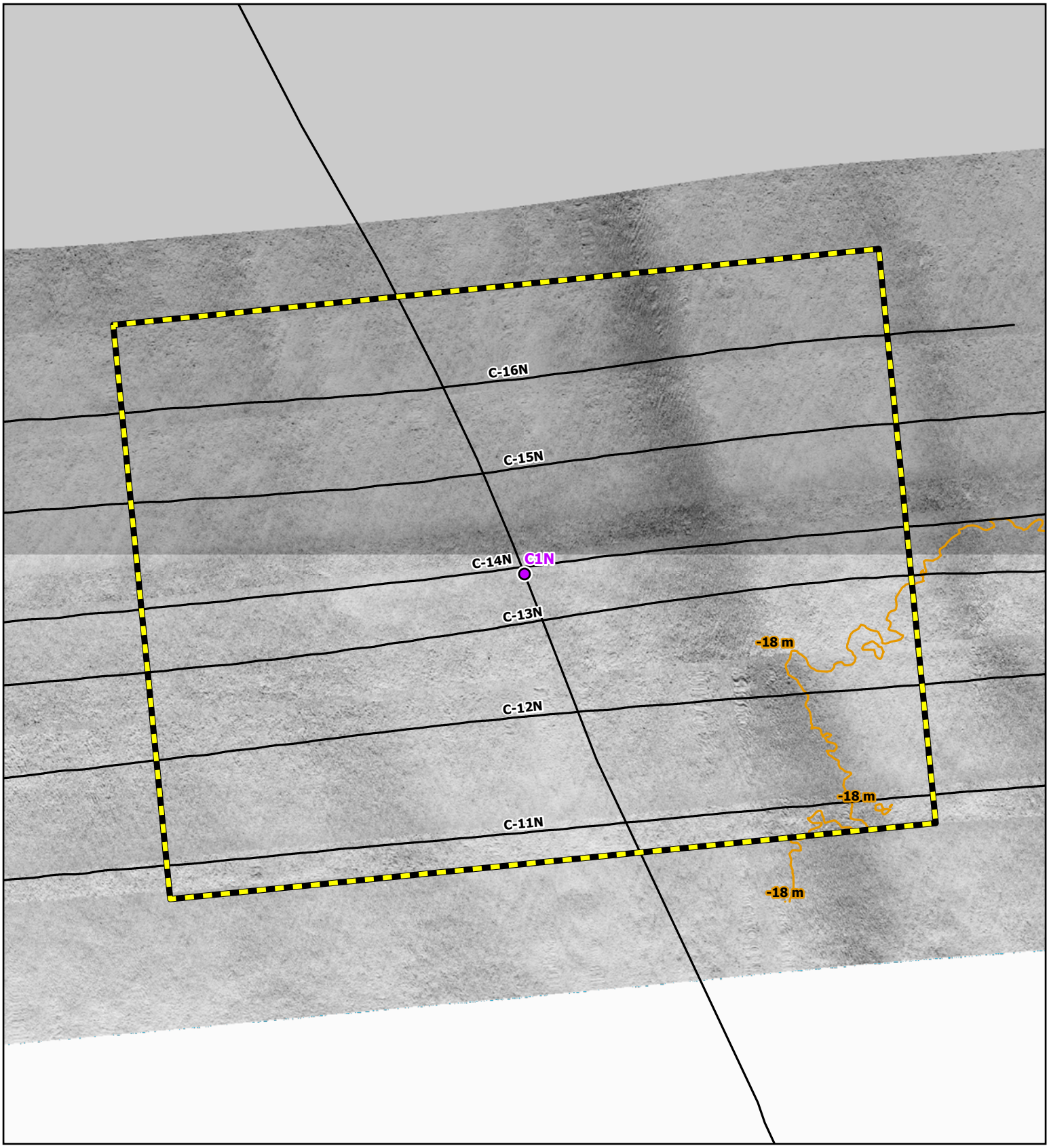
0 0.25 0.5 0.75 | Miles
0 0.25 0.5 0.75 | Kilometers

- Geotechnical Location
- ECR Centerline
- Map Sheet Boundary
- BOEM Lease Block

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

tracklines_s2_vessel_crosslines_mu_block_b_no_z

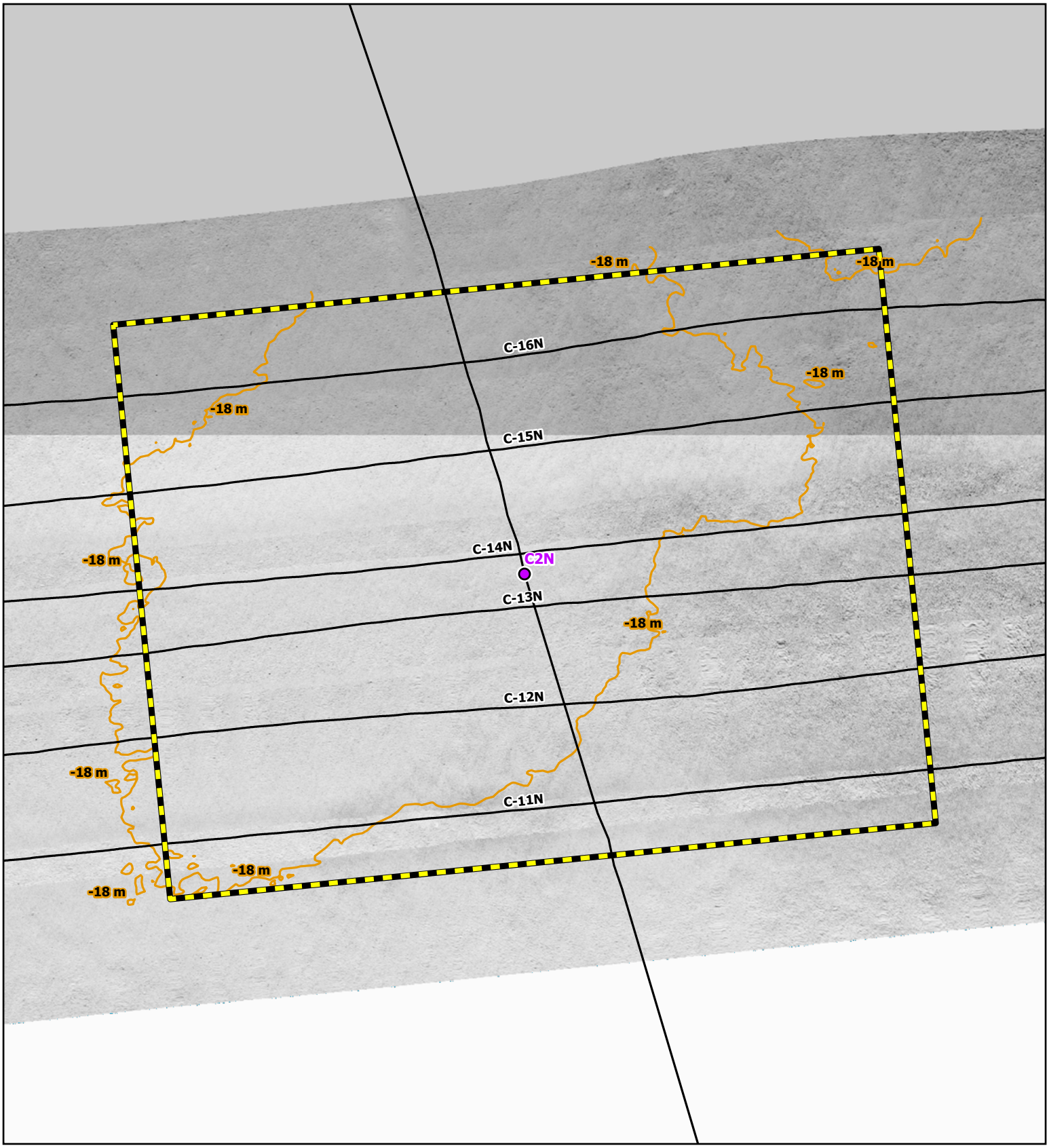
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 1

C1N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

tracklines_s2_vessel_crosslines_mu_block_b_no_z

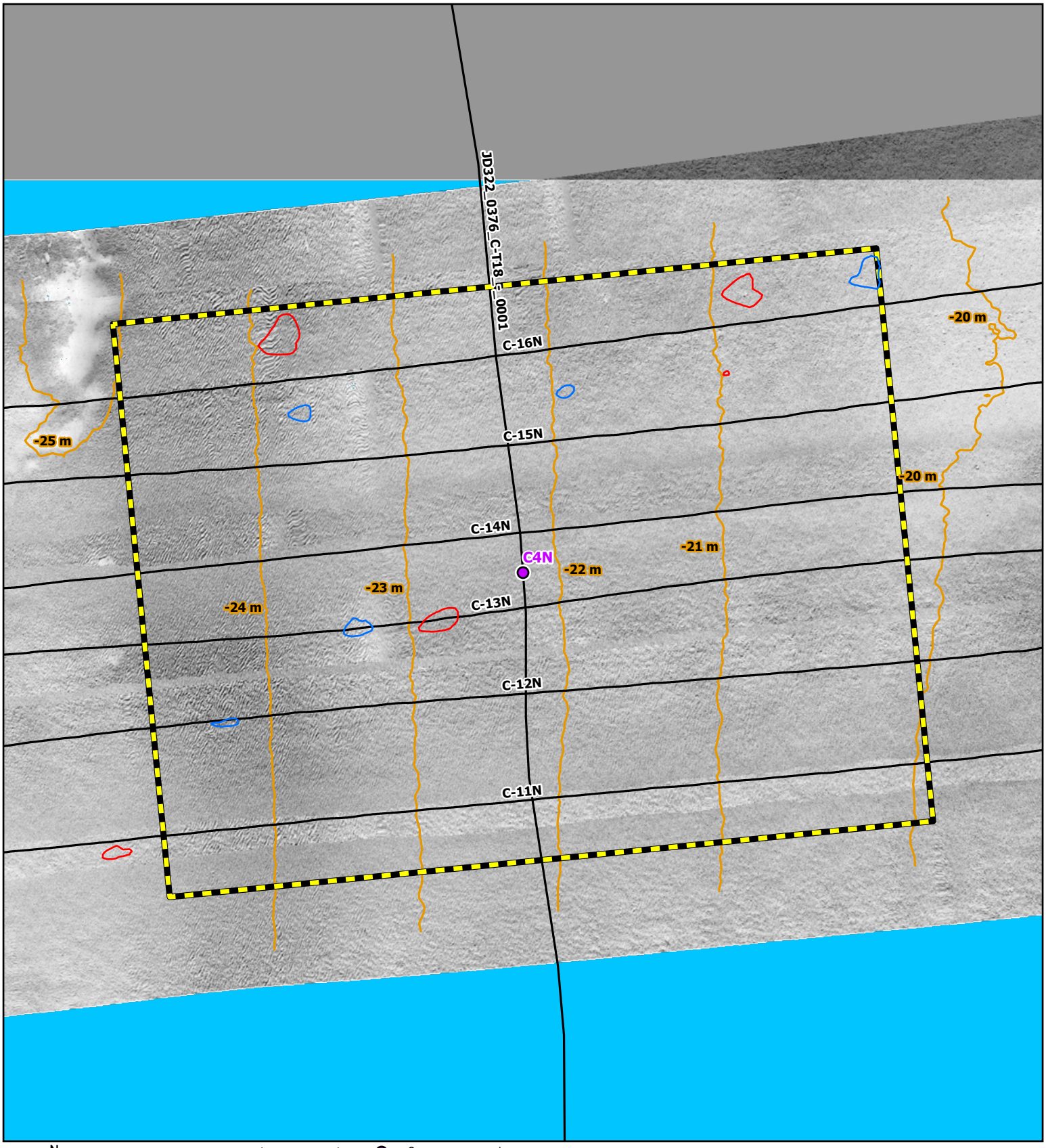
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 2

C2N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

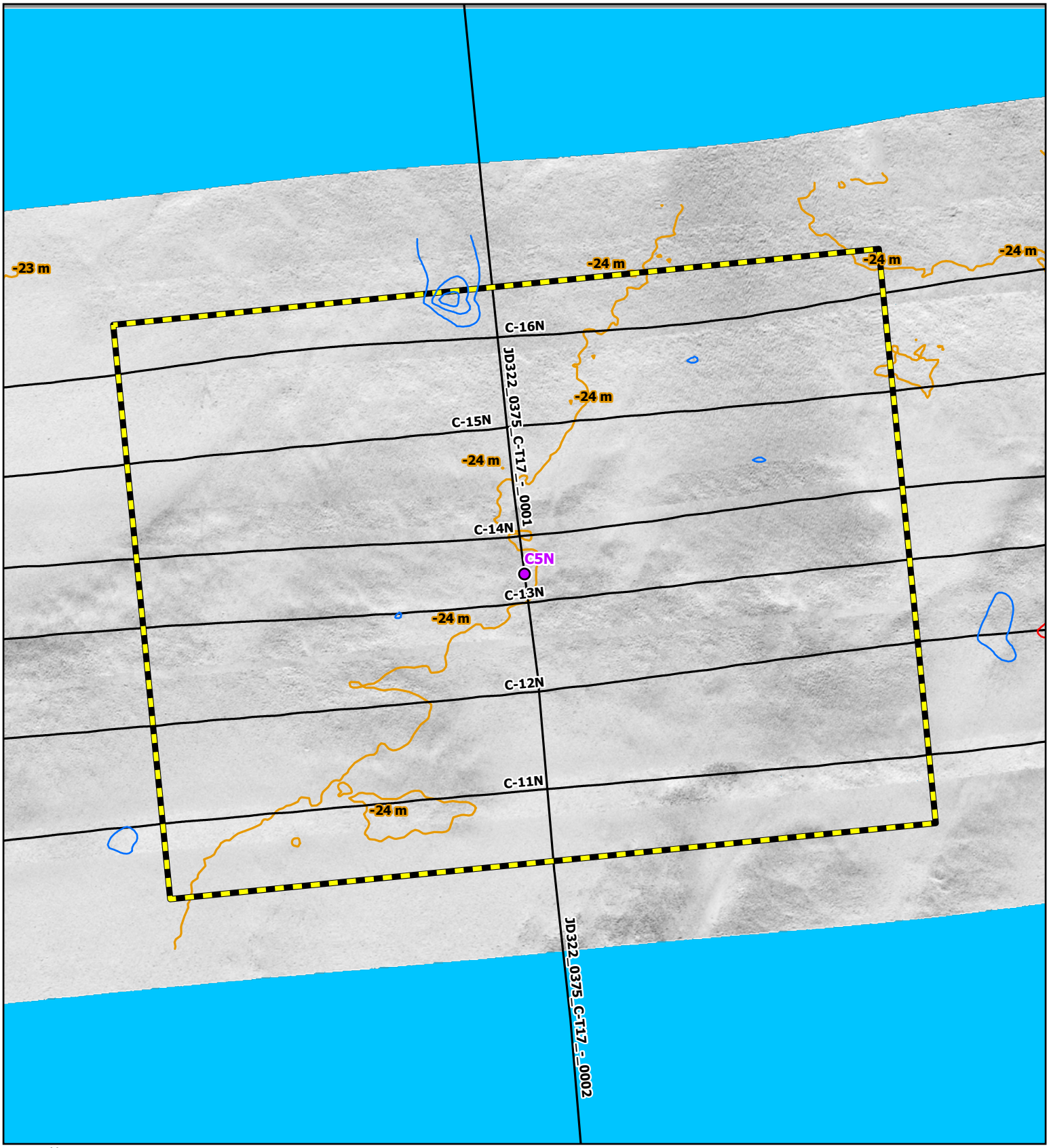
Geotechnical Clearance: Block C

Map: 3

C4N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

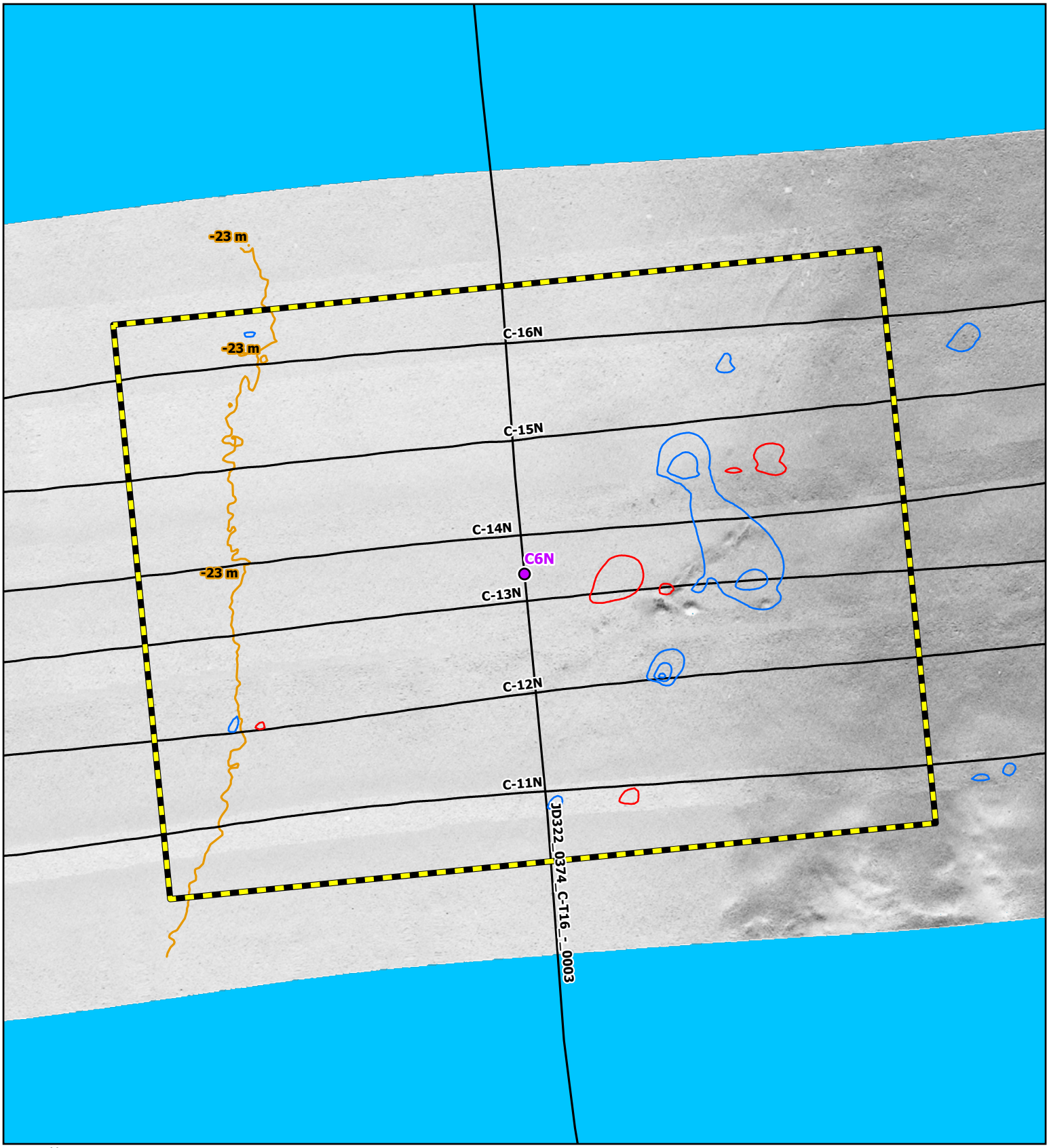
Geotechnical Clearance: Block C

Map: 4

C5N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

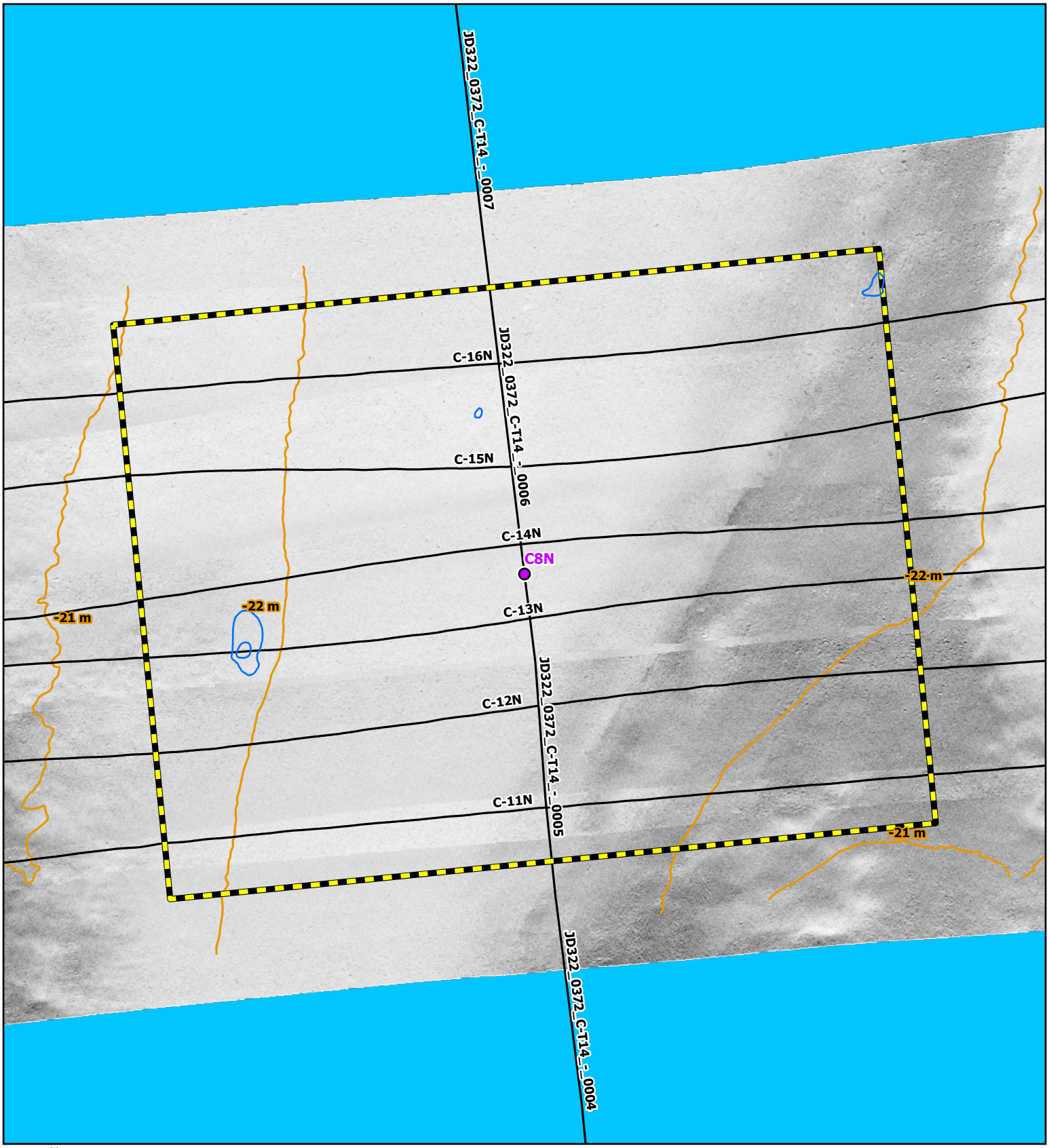
Map: 5

C6N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

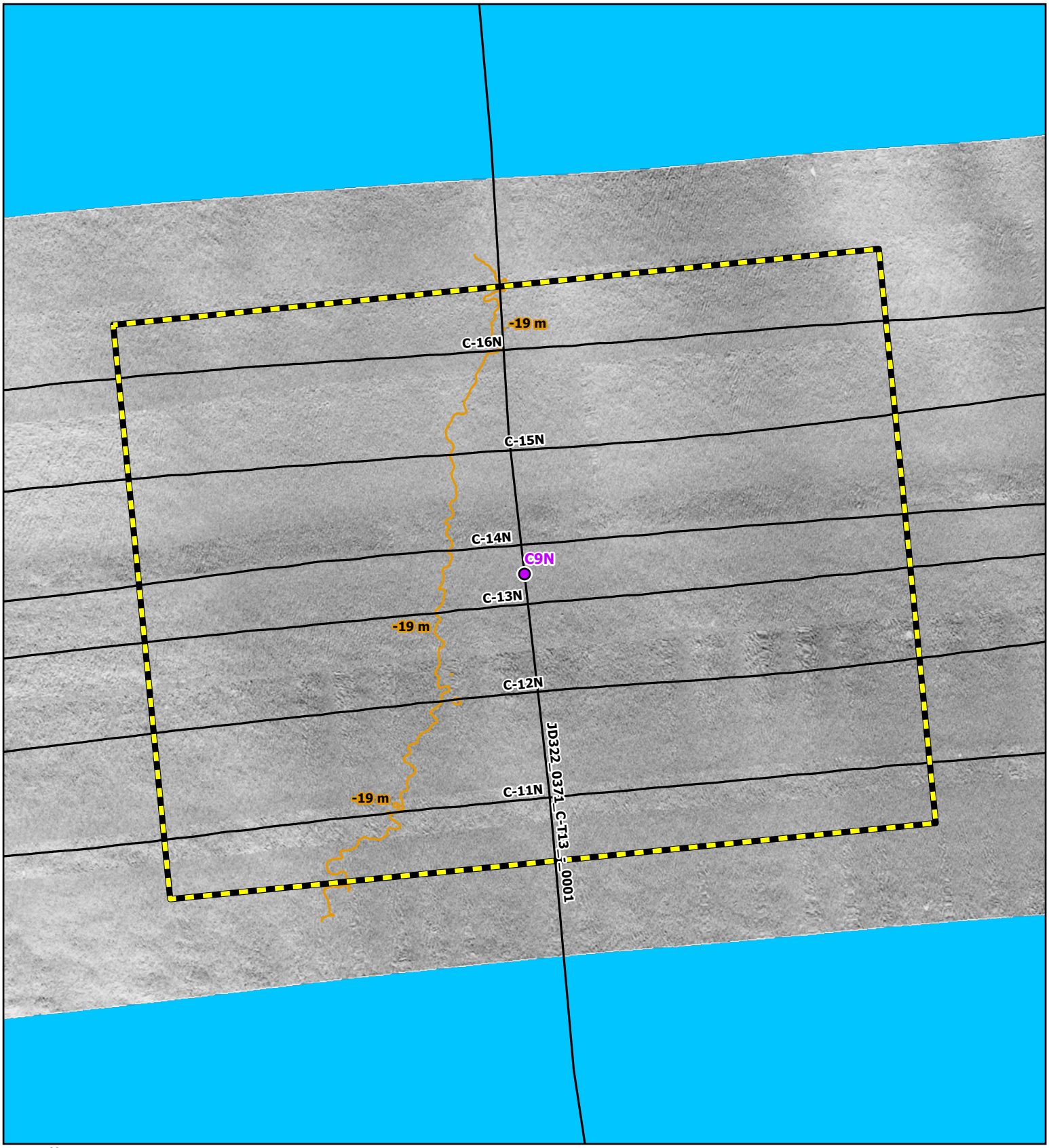
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 6

C8N

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

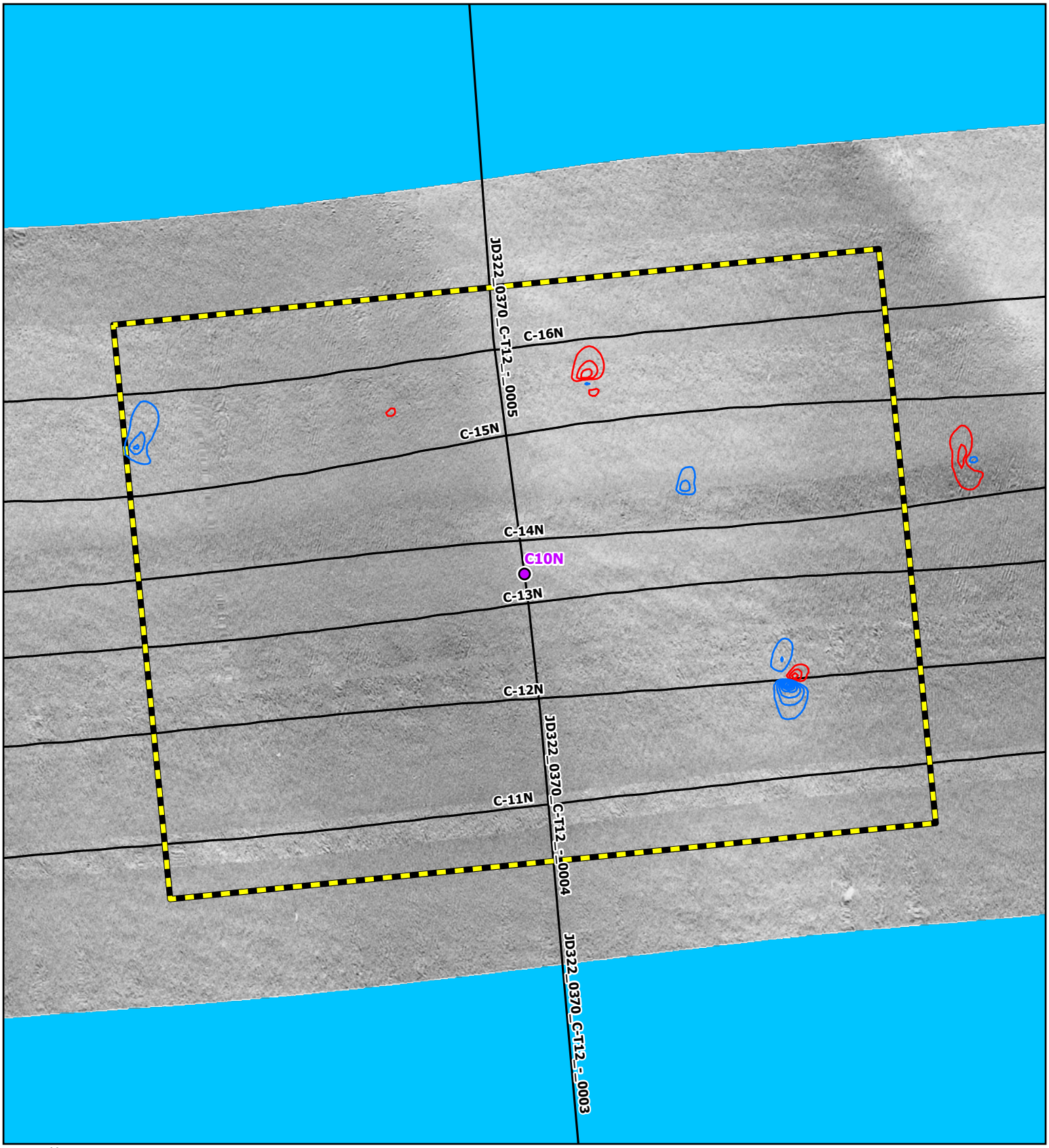
Map: 7

C9N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

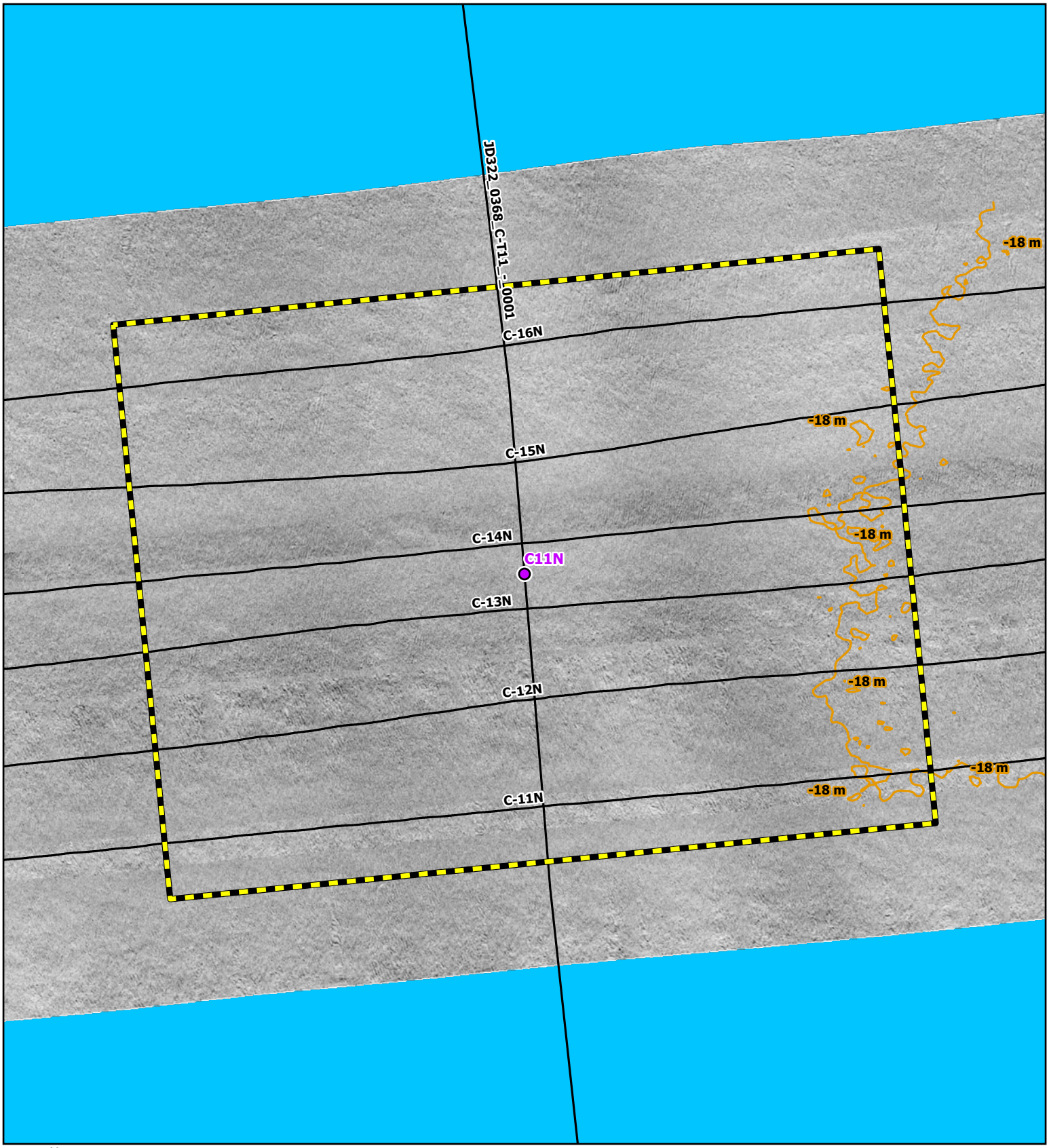
Map: 8

C10N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

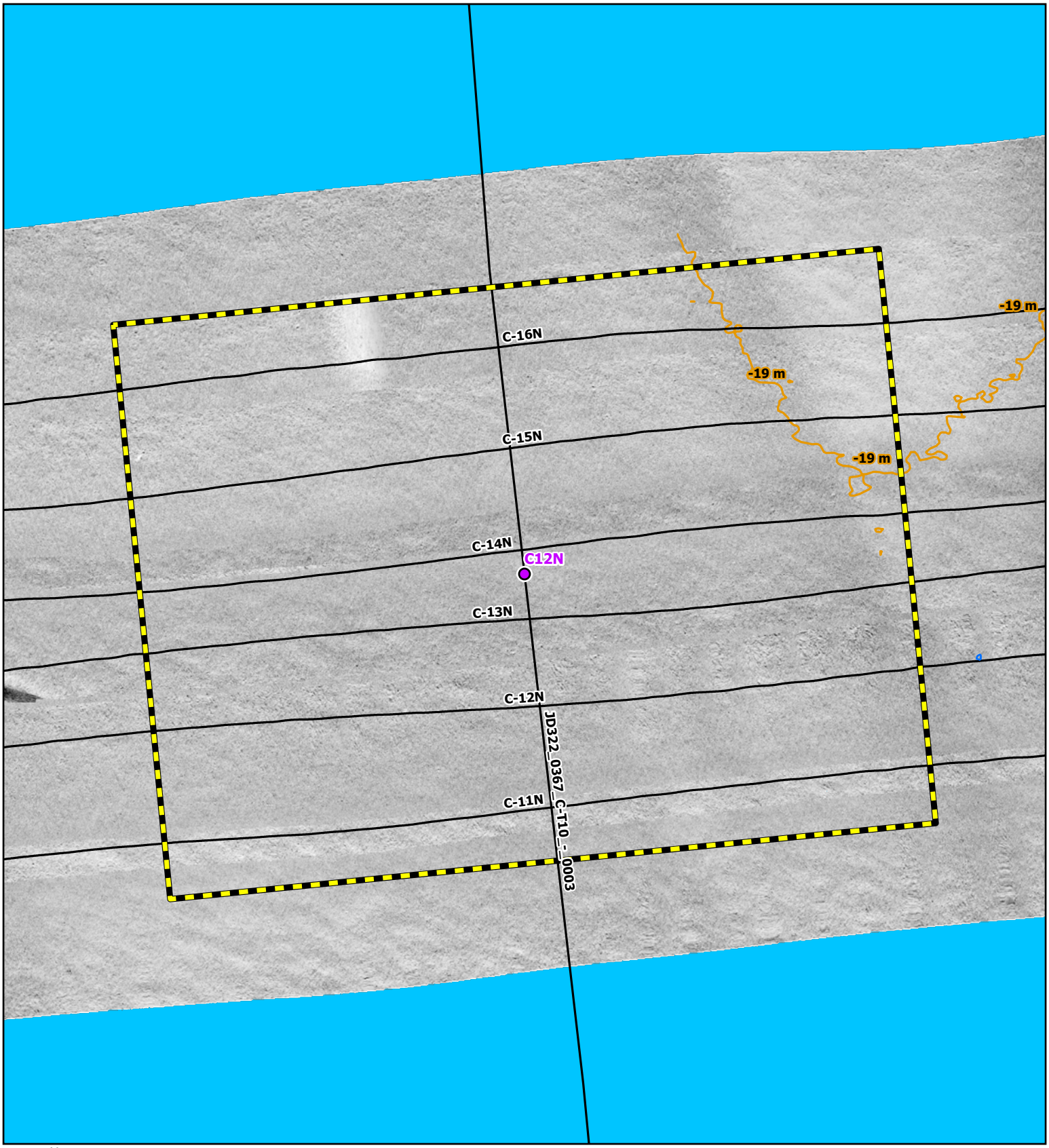
Map: 9

C11N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

Map: 10

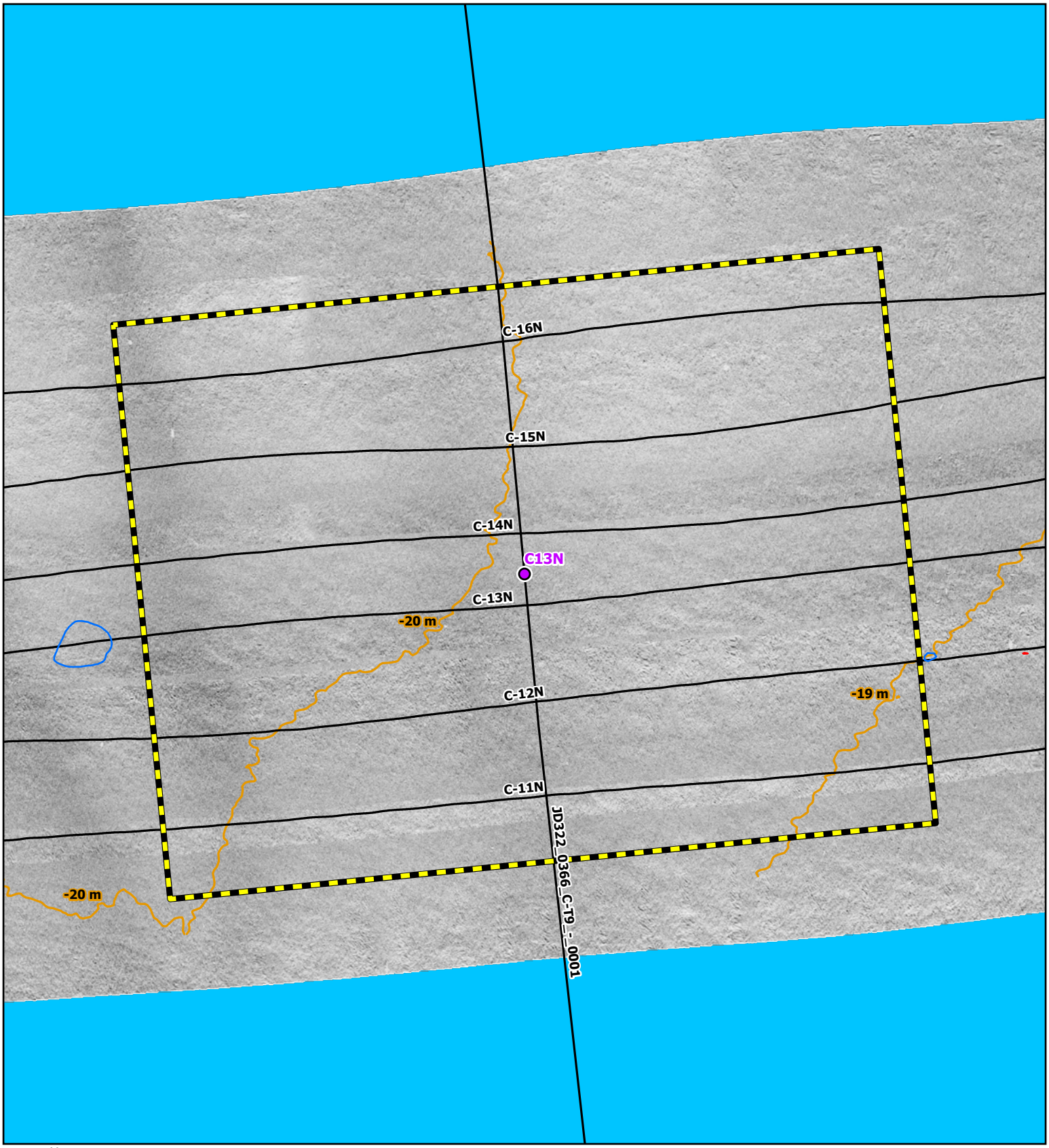
C12N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

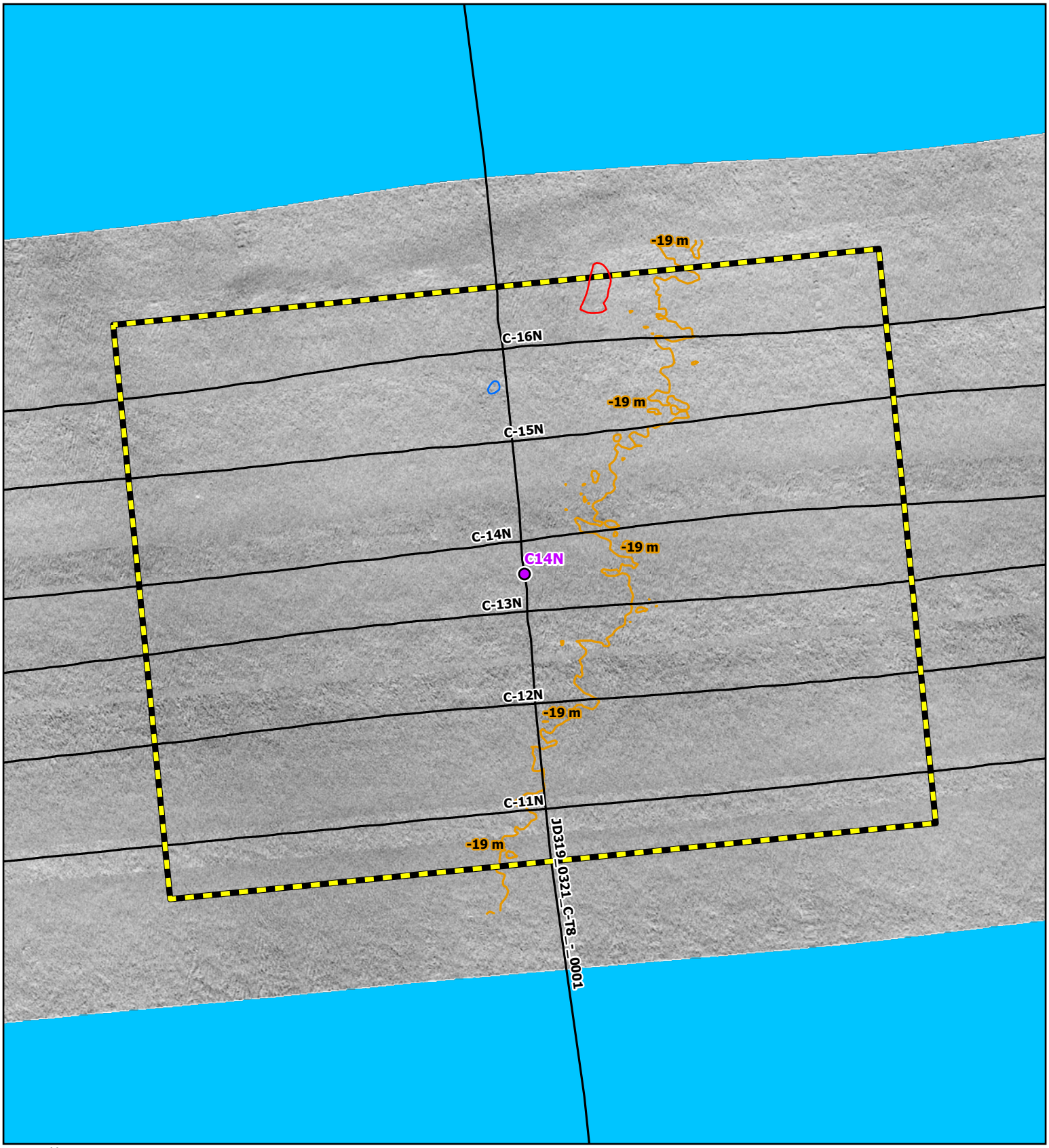
Map: 11

C13N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

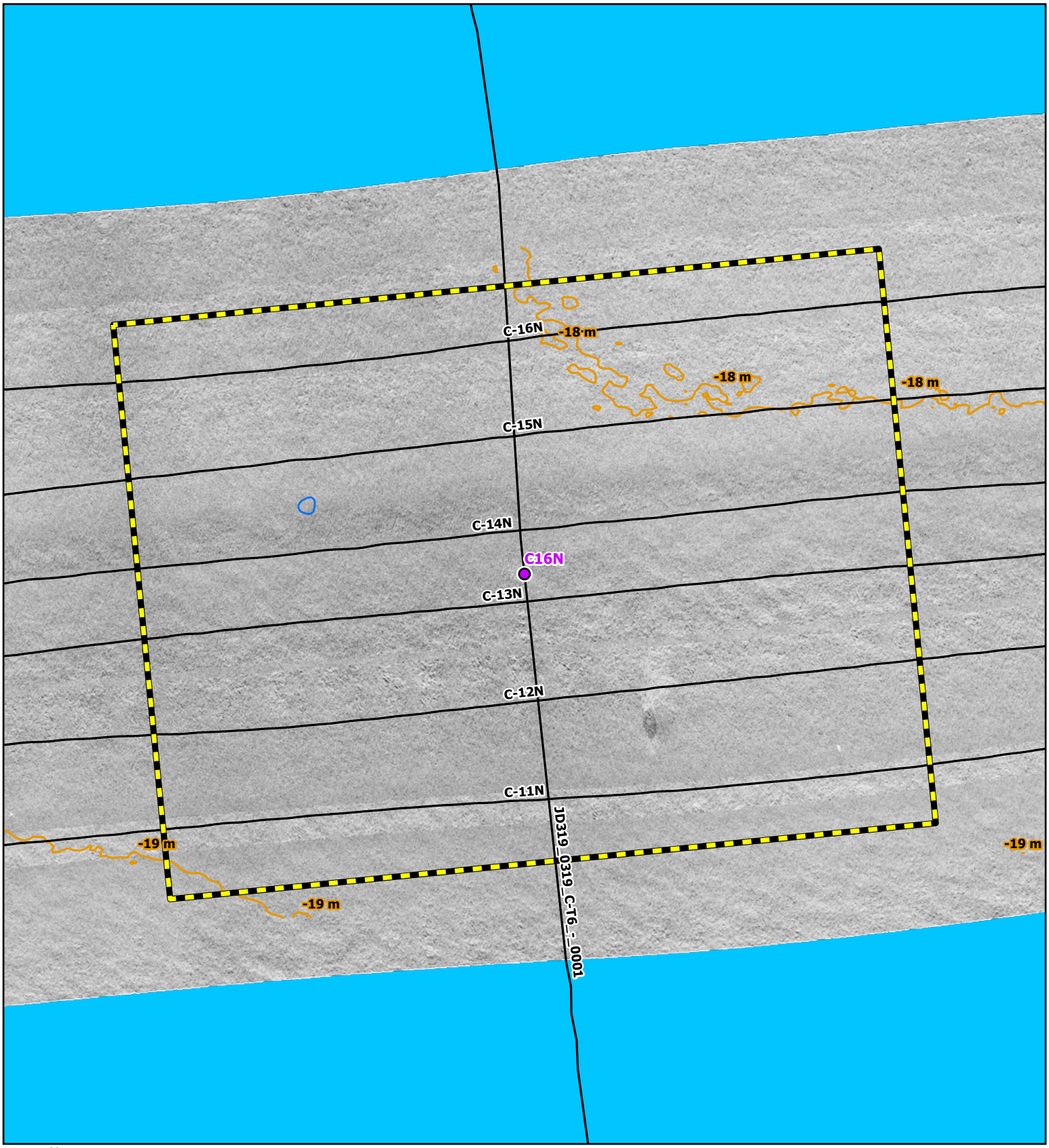
Map: 12

C14N

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

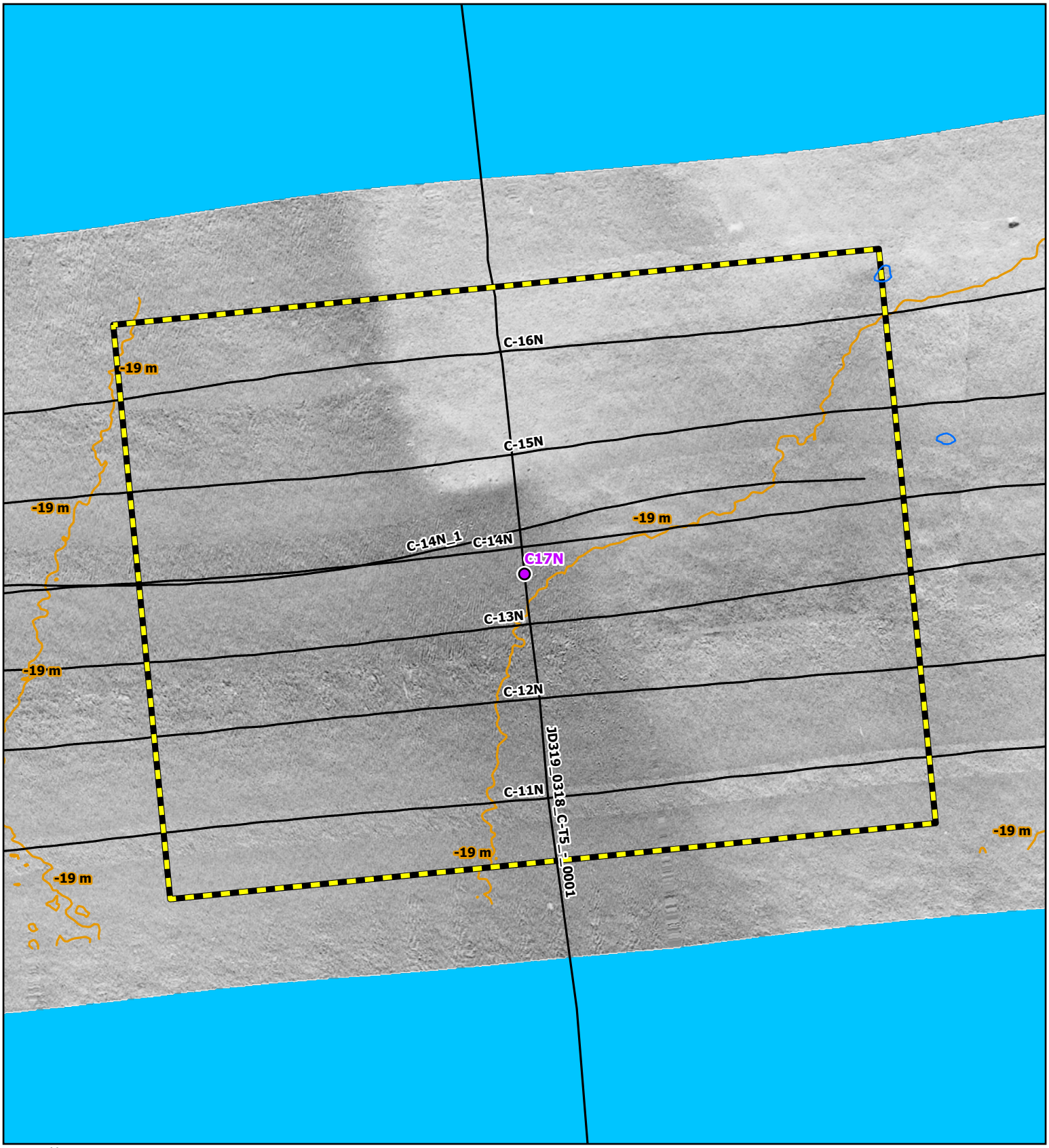
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 13

C16N

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

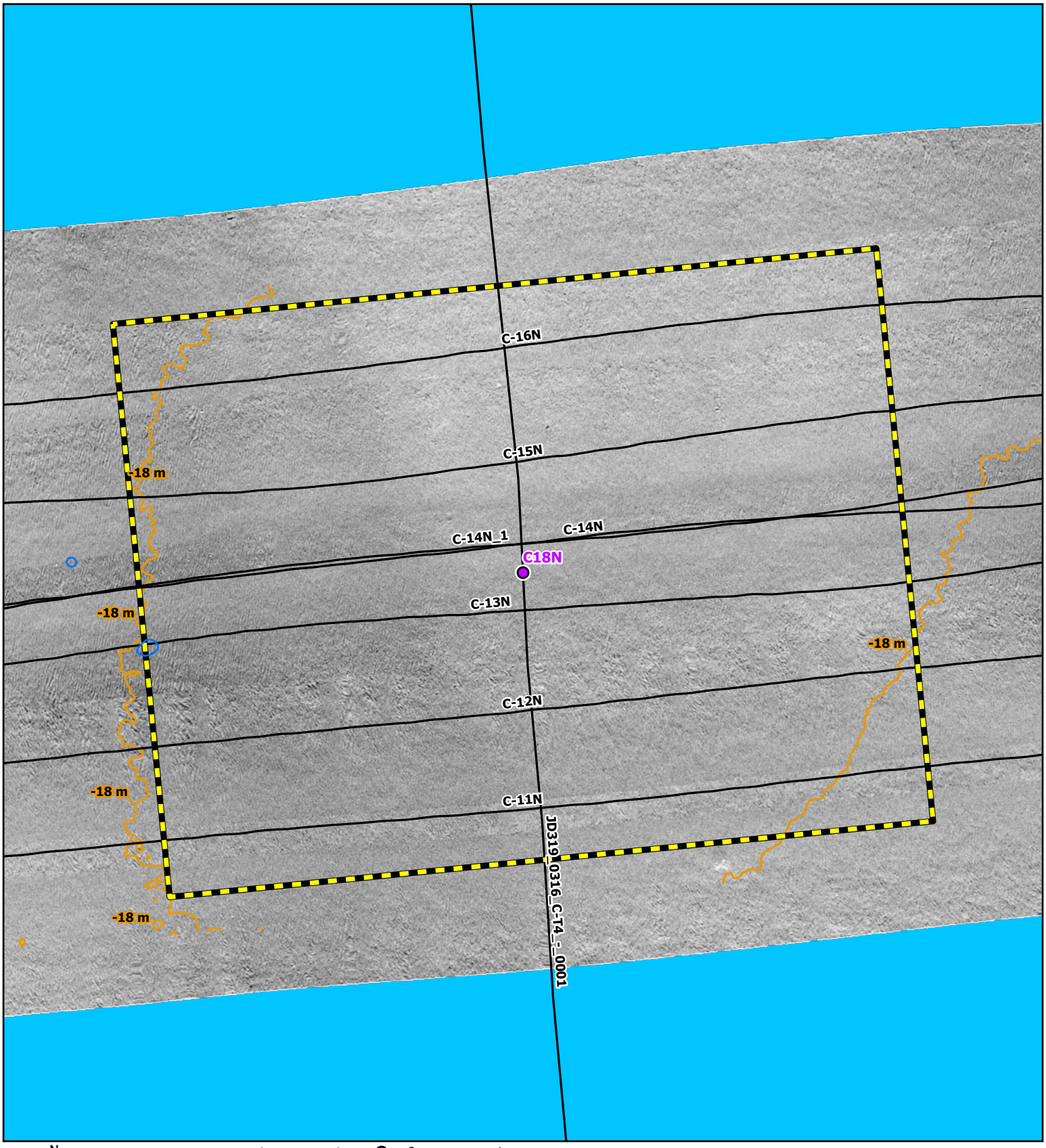
Map: 14

C17N

R. Christopher Goodwin & Associates, Inc.

NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

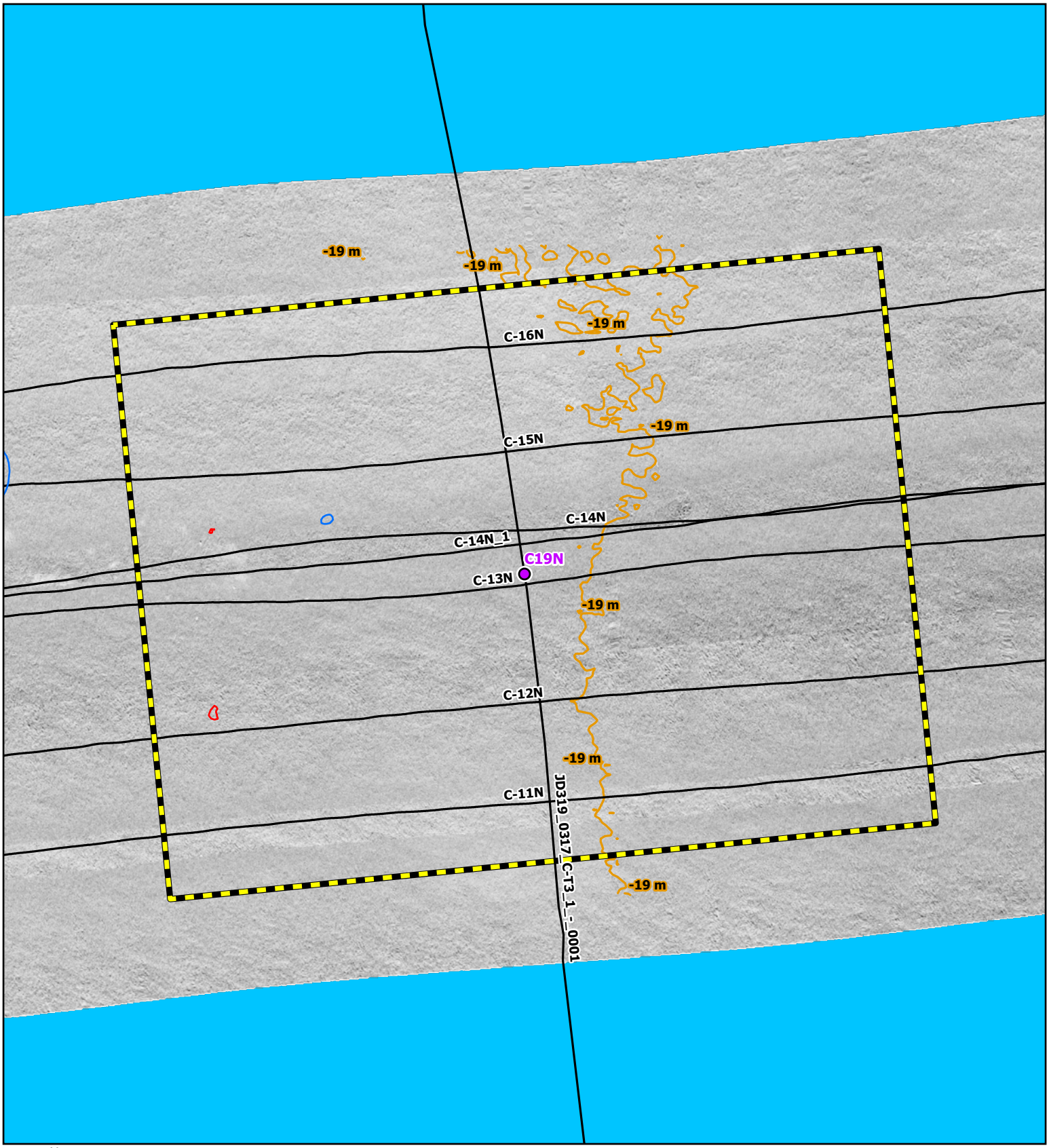
Map: 15

C18N

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

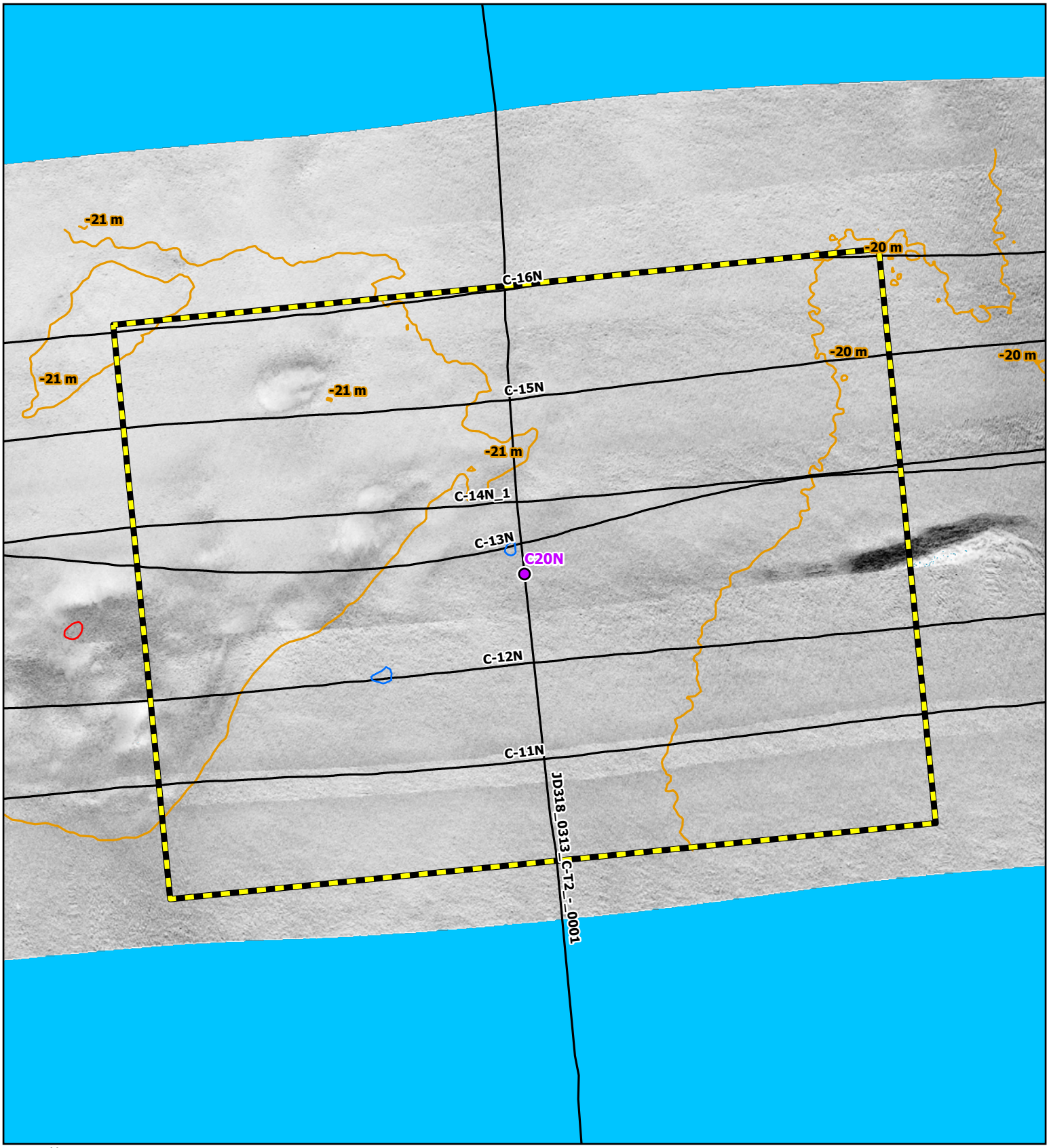
Map: 16

C19N

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

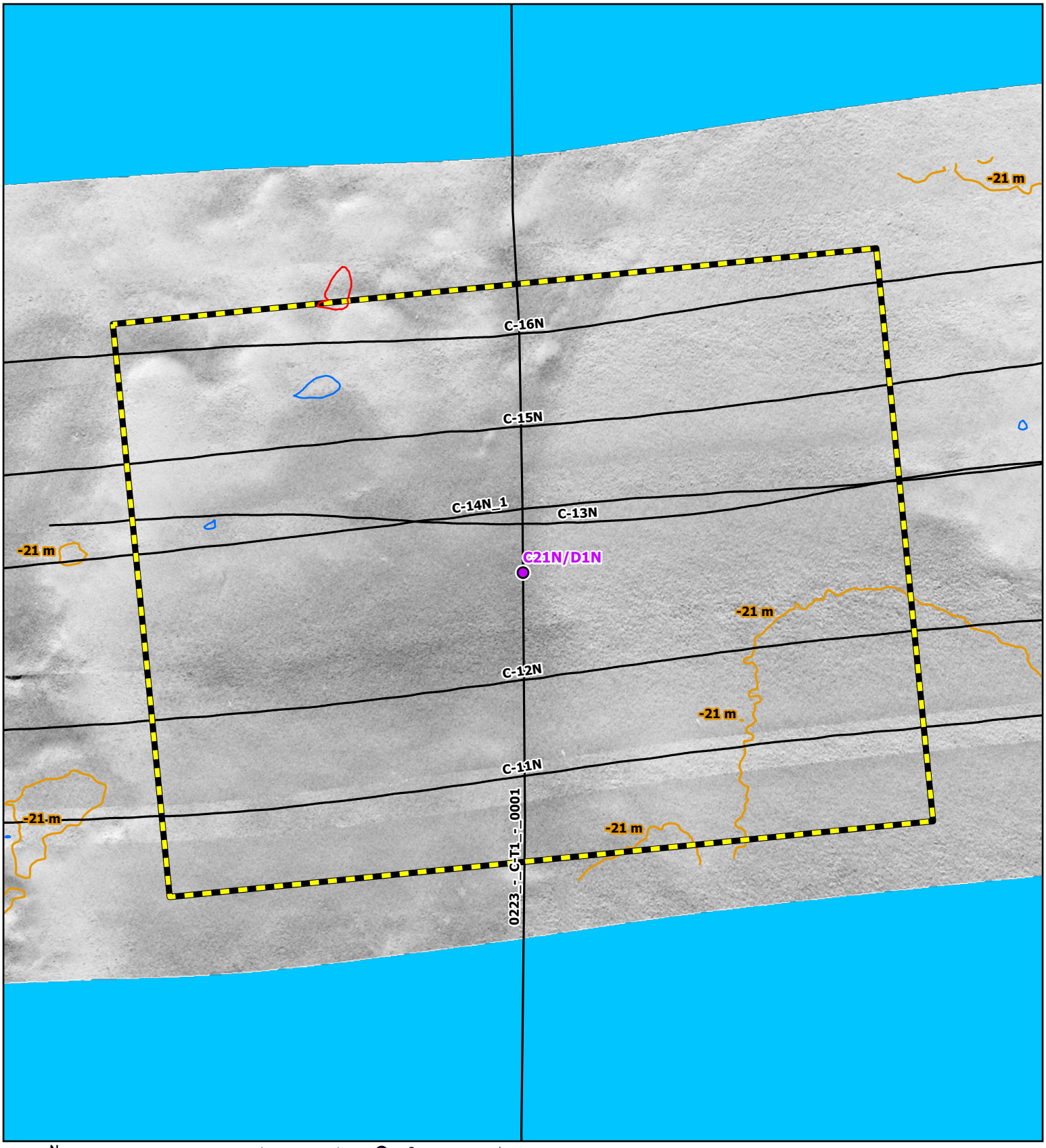
Map: 17

C20N

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

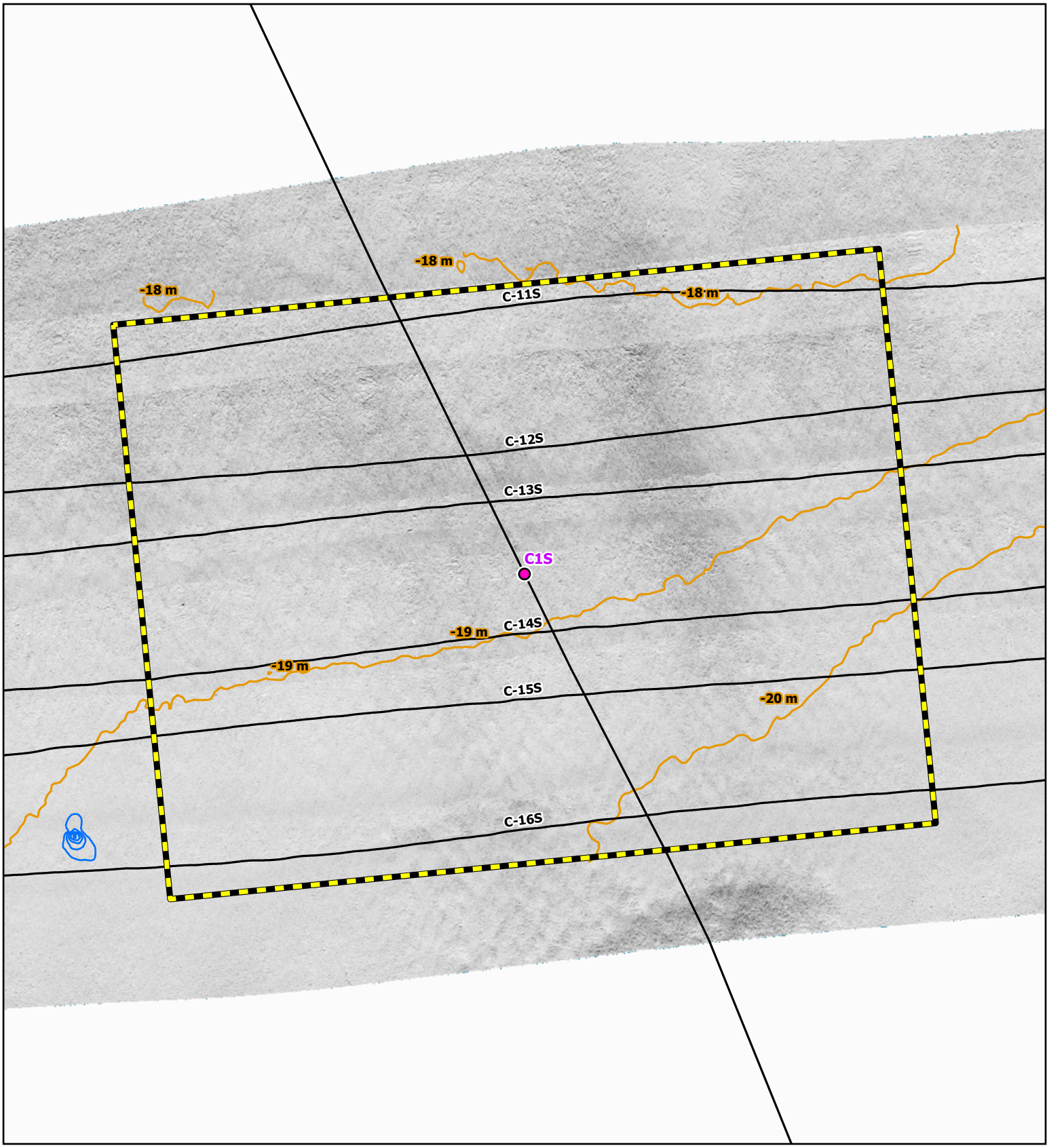
Map: 18

C21N/D1N

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

tracklines_s2_vessel_crosslines_mu_block_b_no_z

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

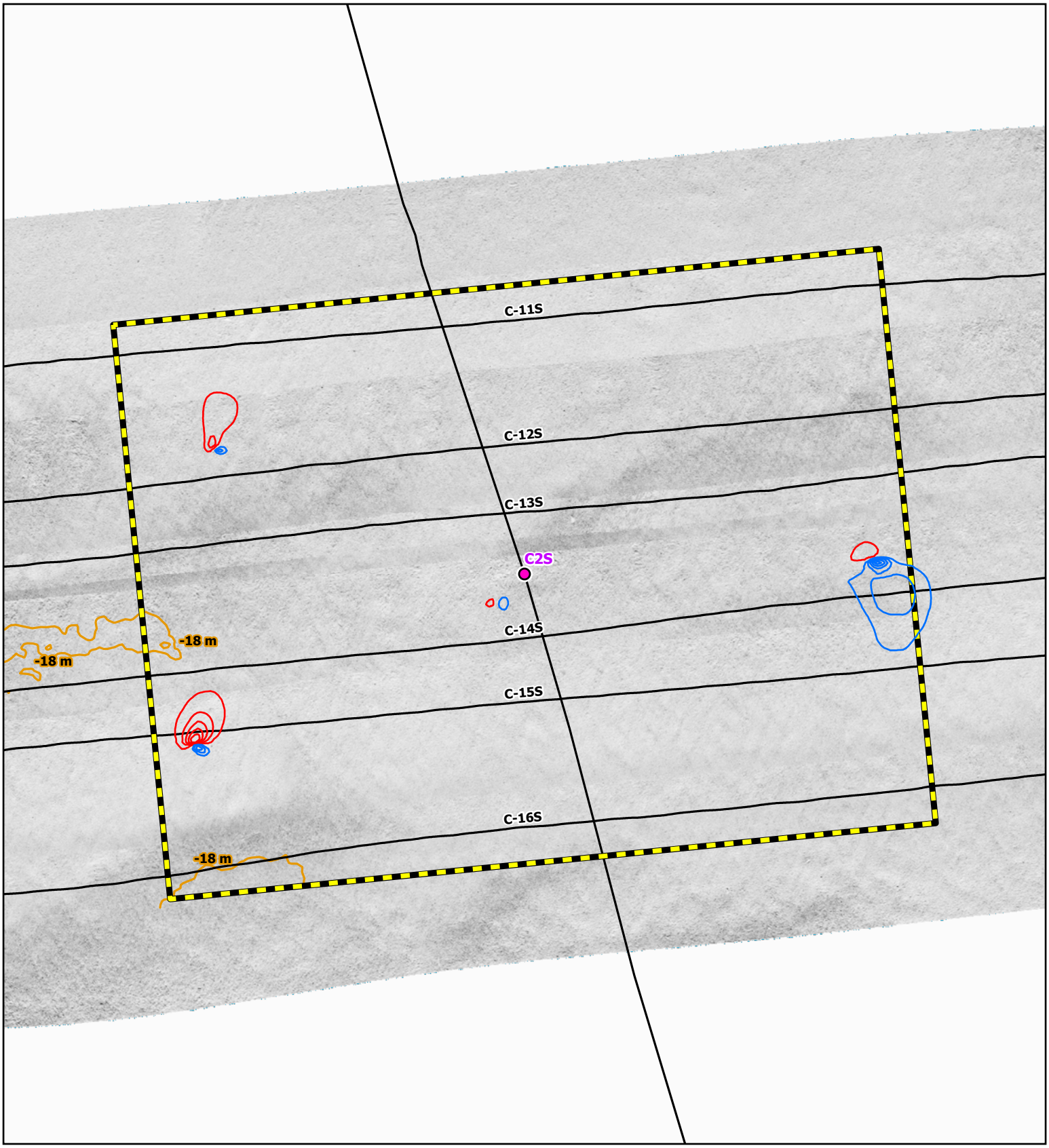
Geotechnical Clearance: Block C

Map: 19

C1S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

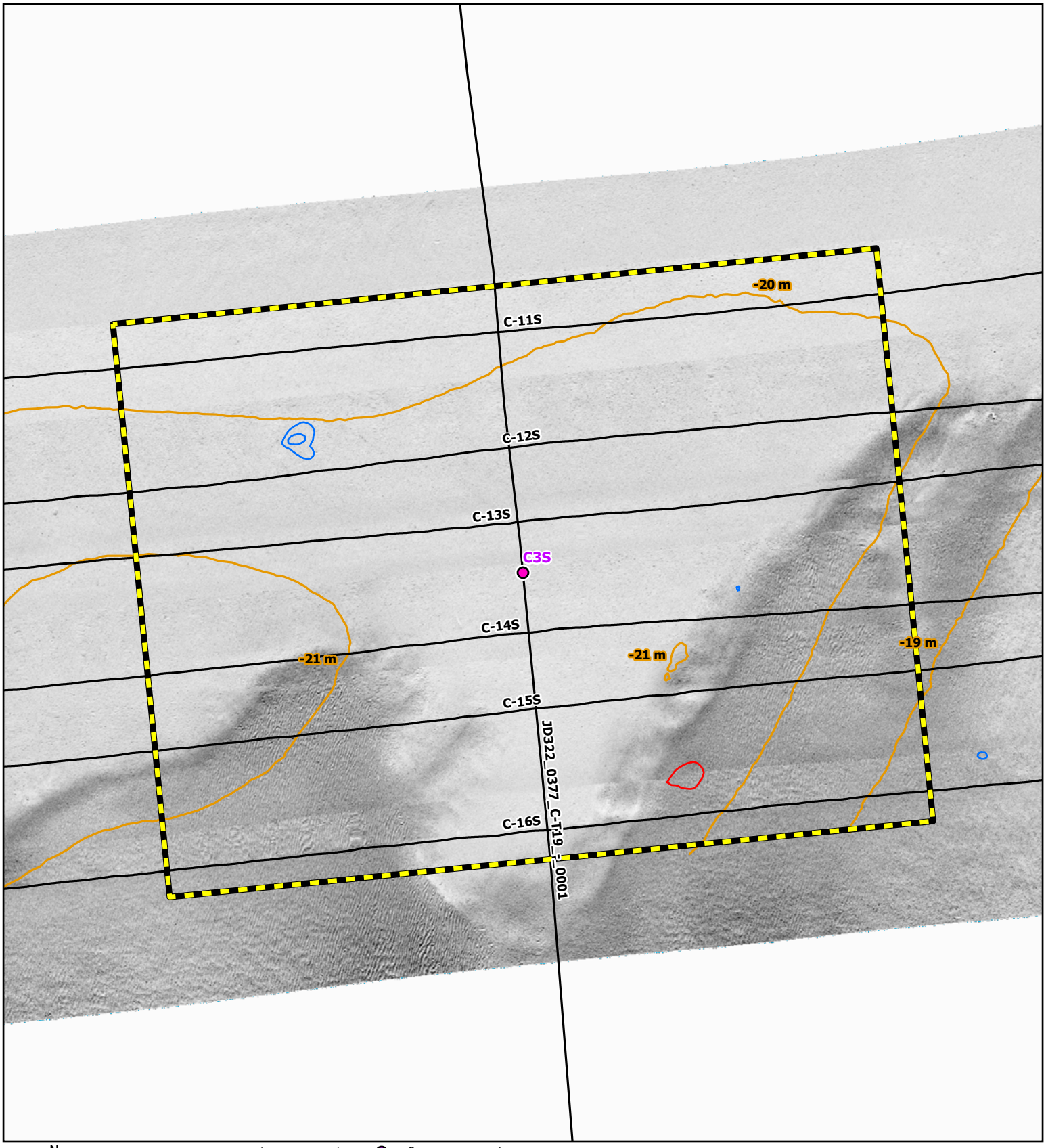
Geotechnical Location
Trackline
Bathymetric Contour (1 m)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area
tracklines_s2_vessel_crosslines_mu_block_b_no_z

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 20

C2S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

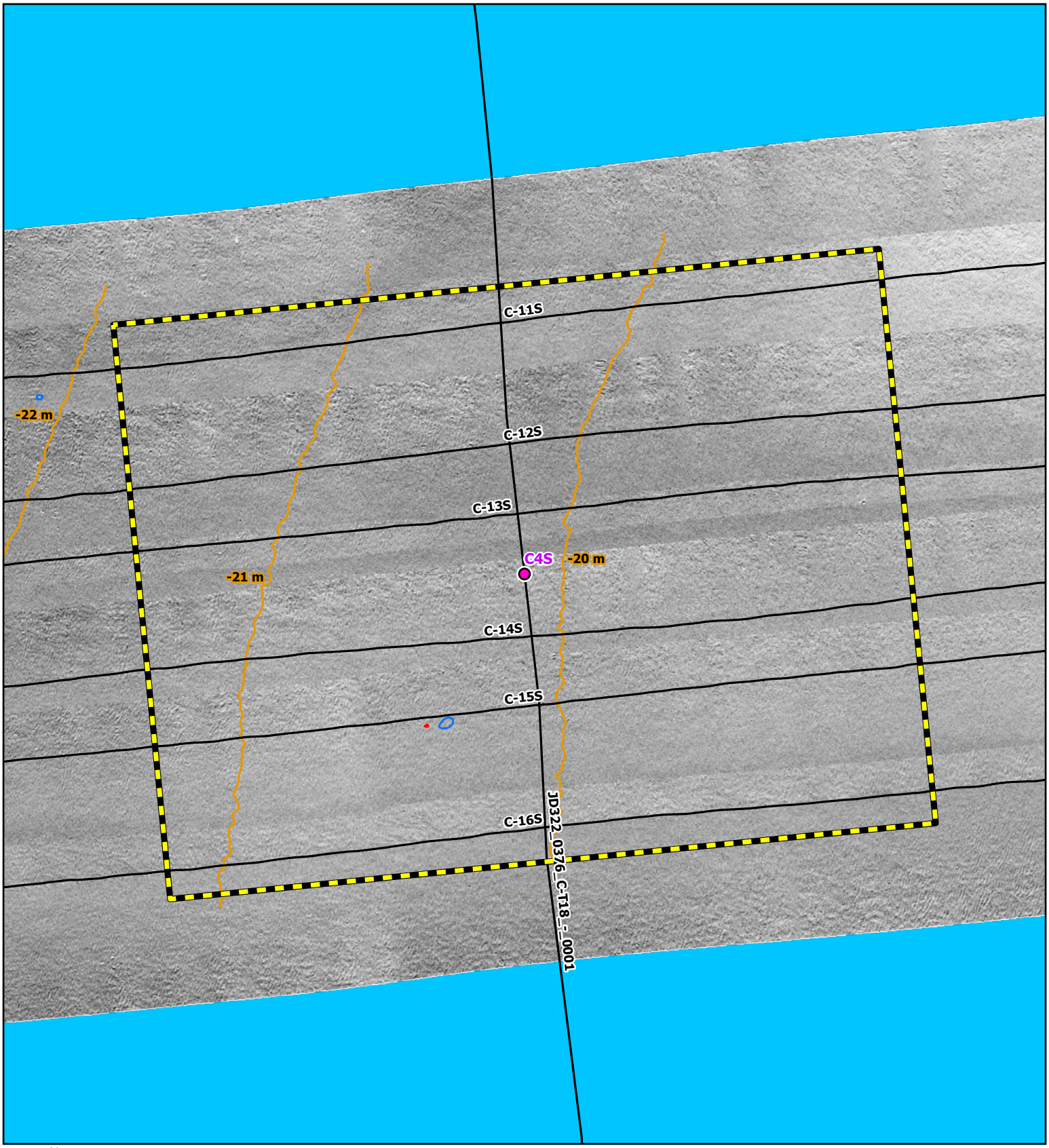
Map: 21

C3S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

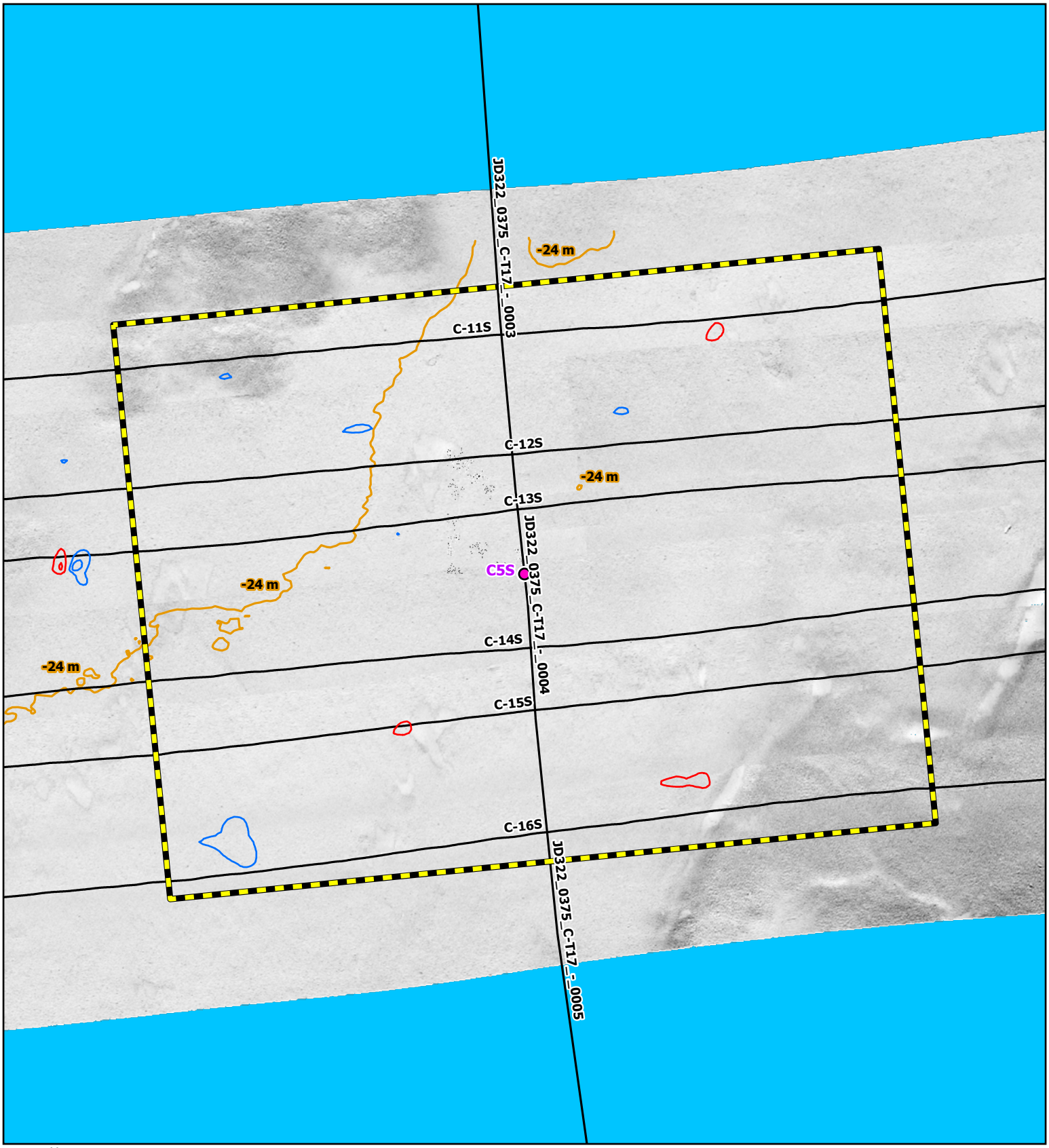
Geotechnical Clearance: Block C

Map: 22

C4S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

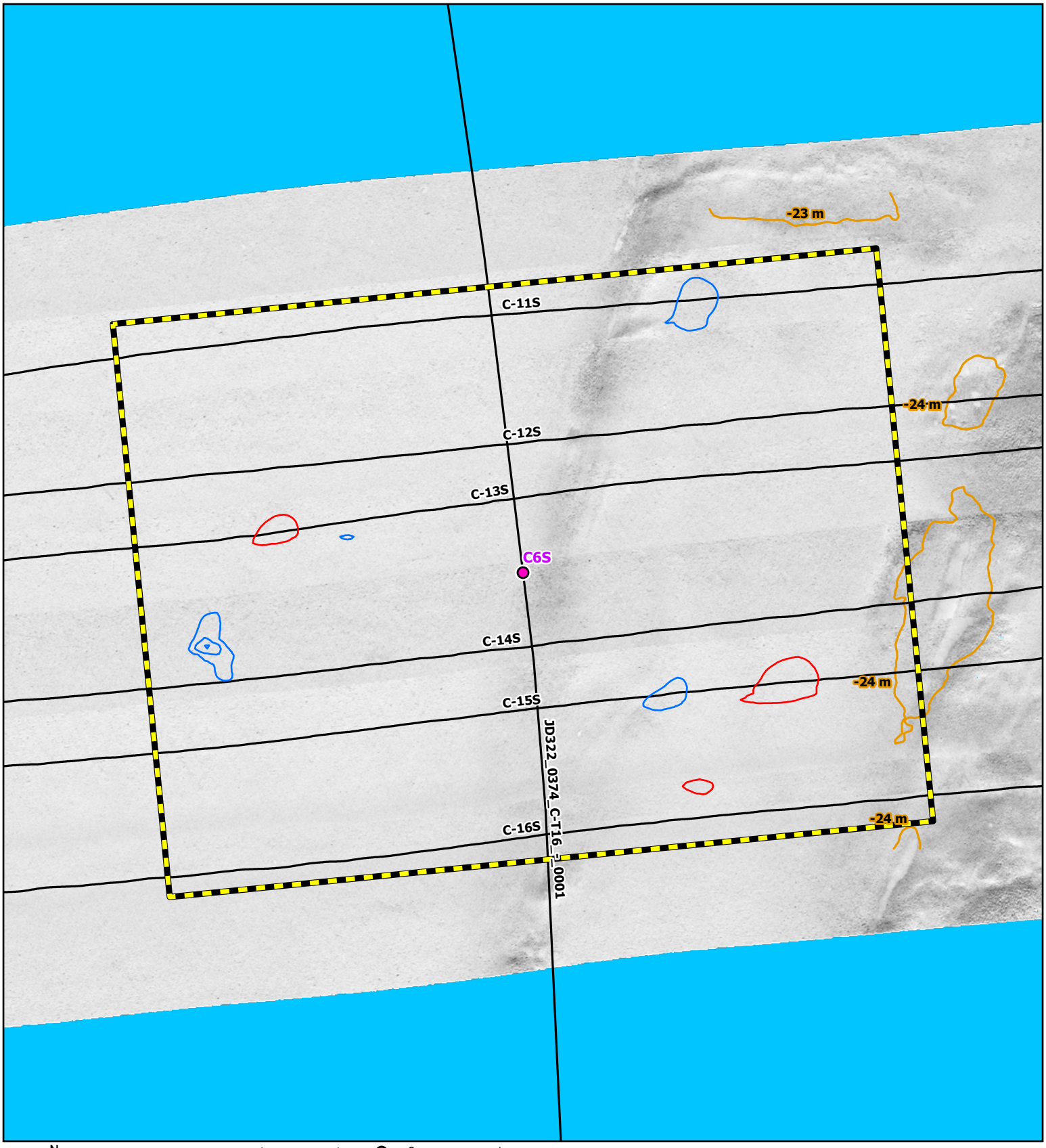
Map: 23

C5S

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

Map: 24

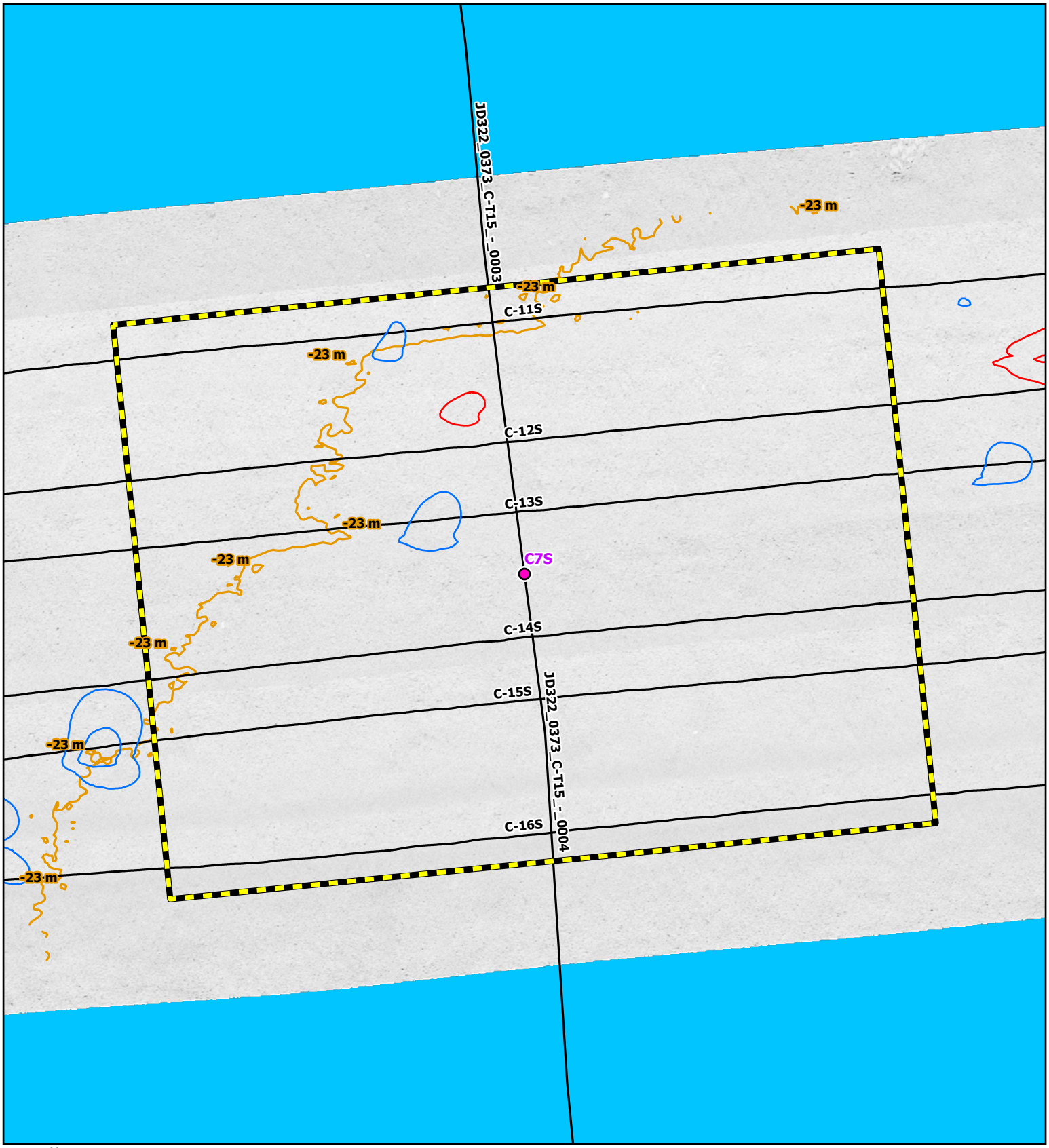
C6S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

Map: 25

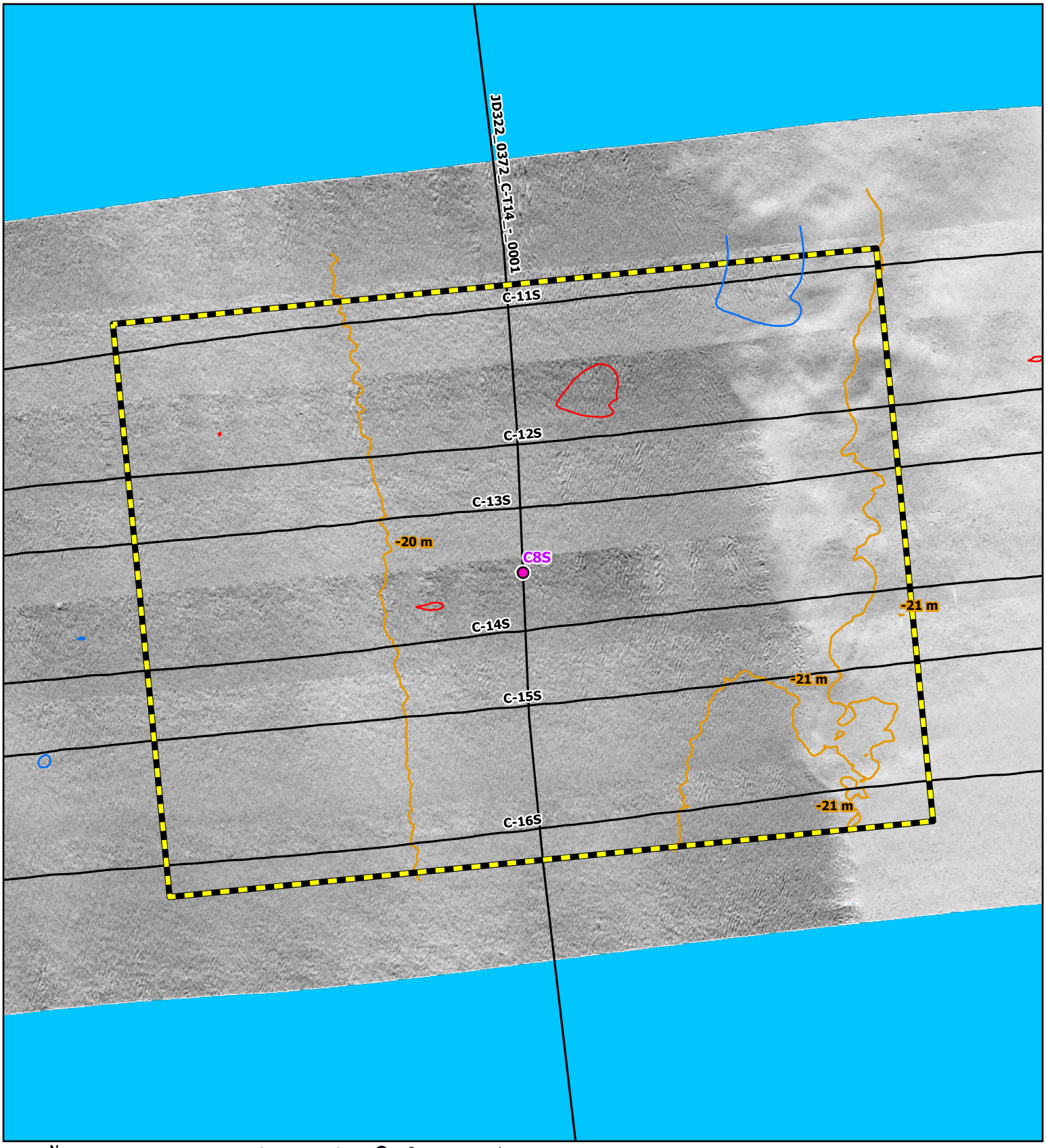
C7S

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

Map: 26

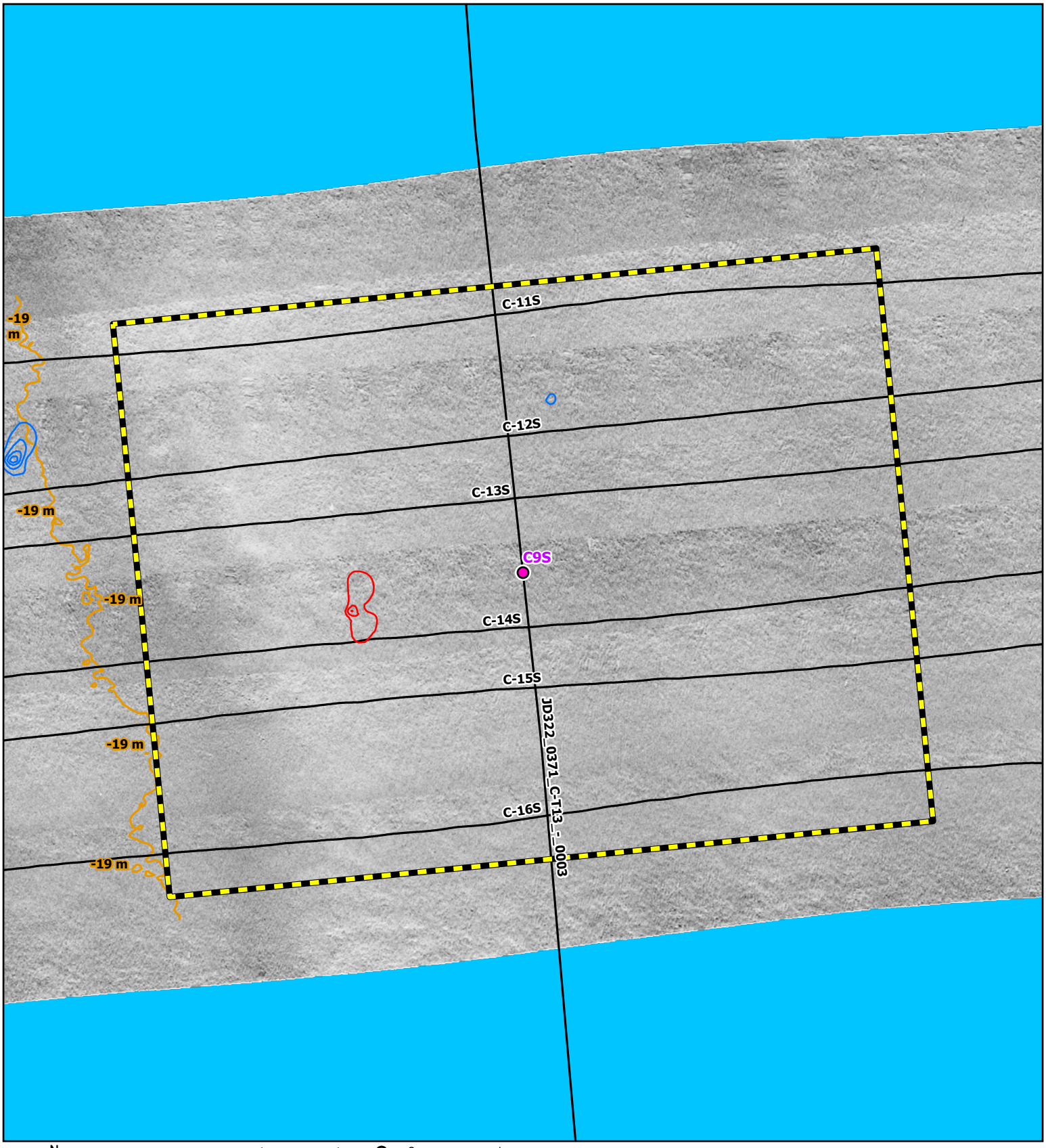
C8S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

Map: 27

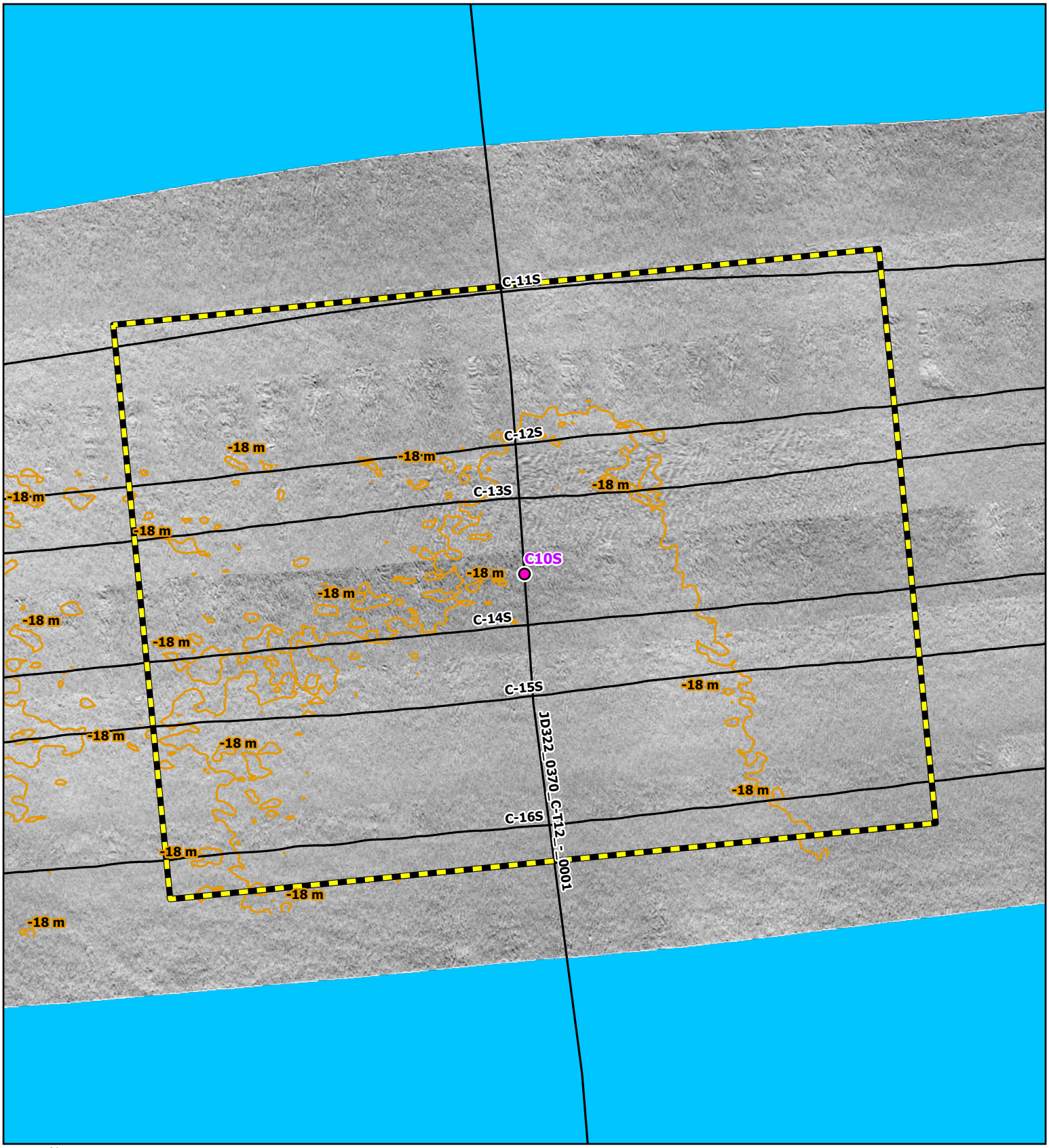
C9S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

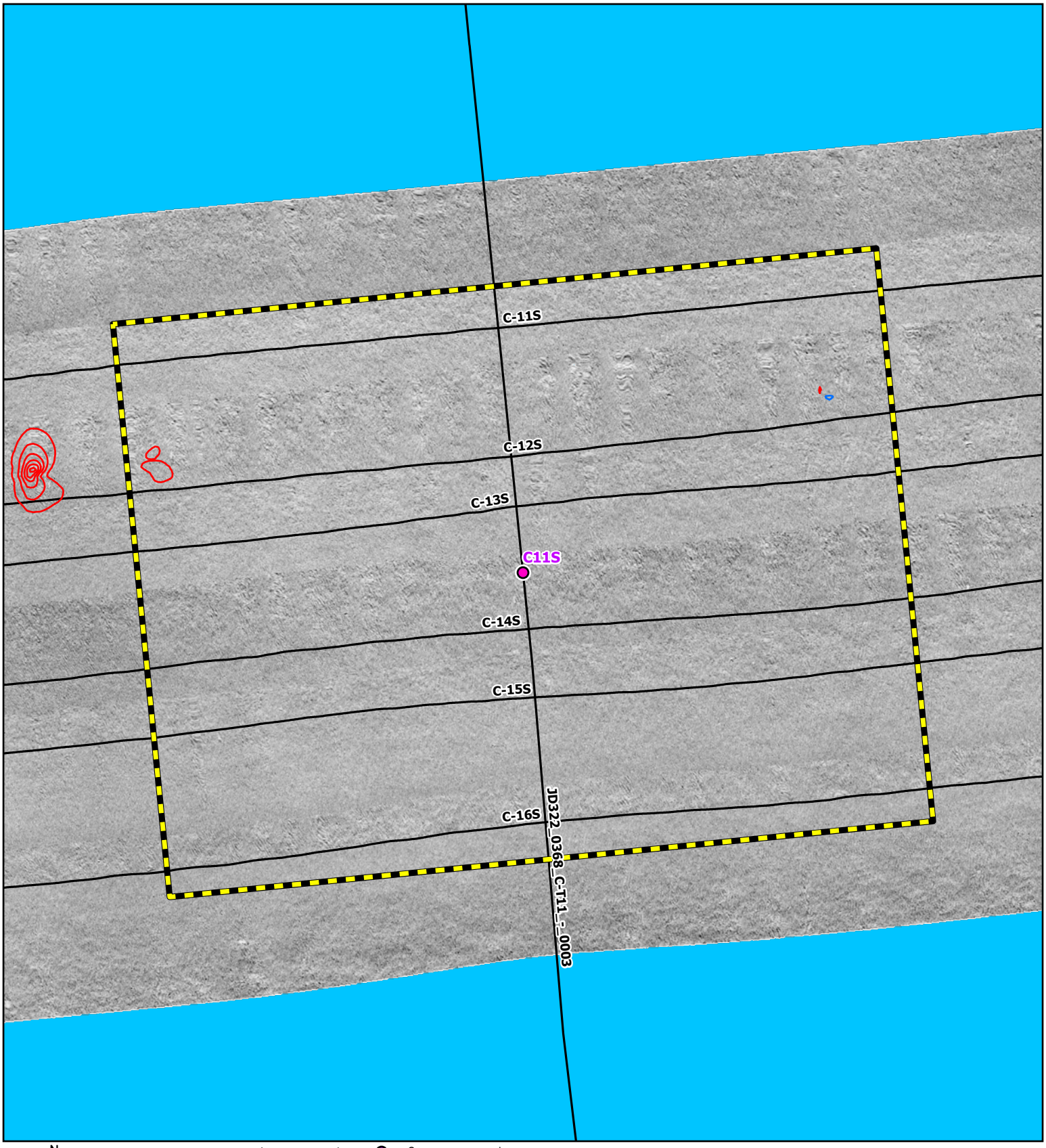
Map: 28

C10S

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NAUTICAL DIVISION

MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

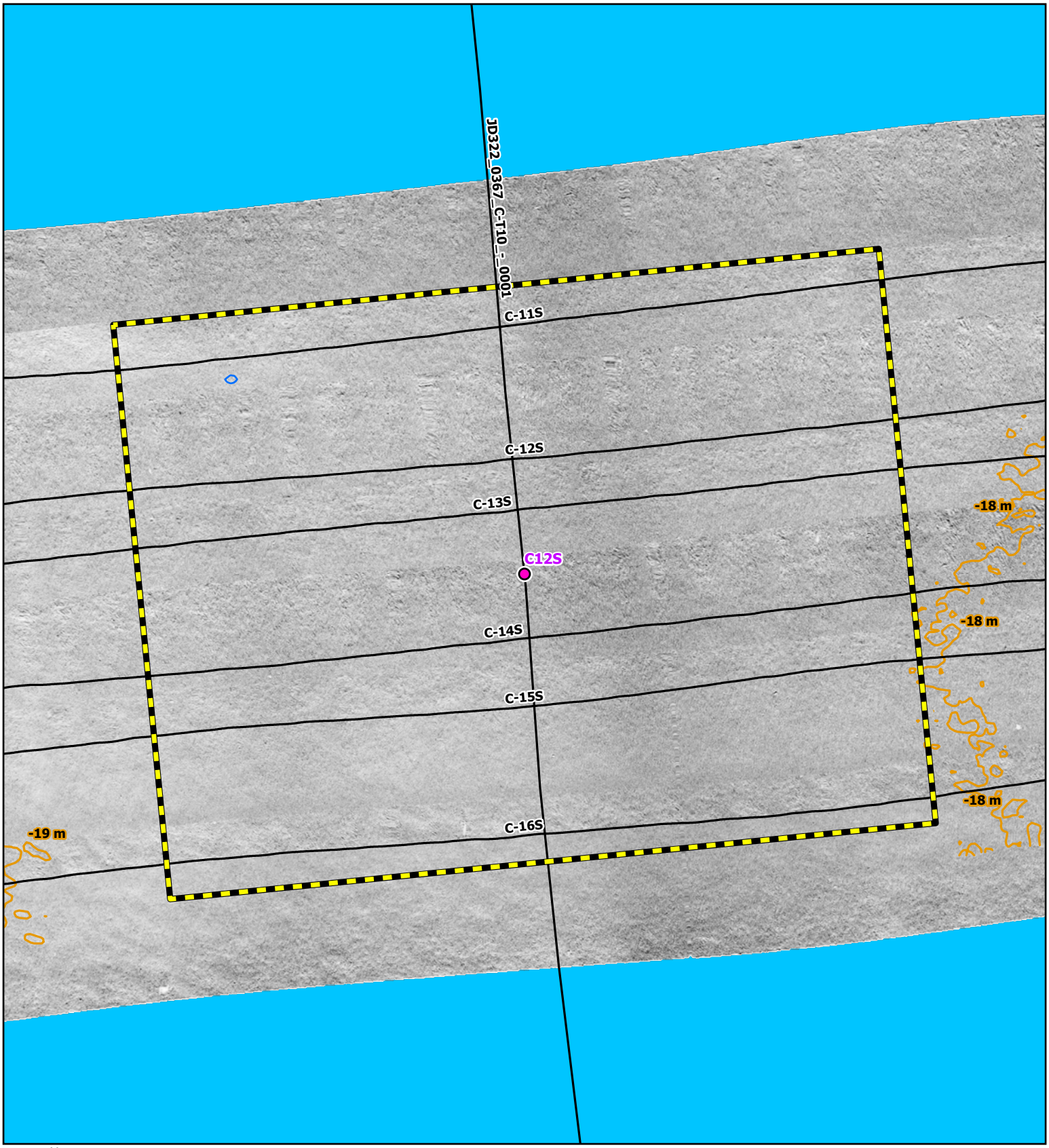
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 29

C11S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

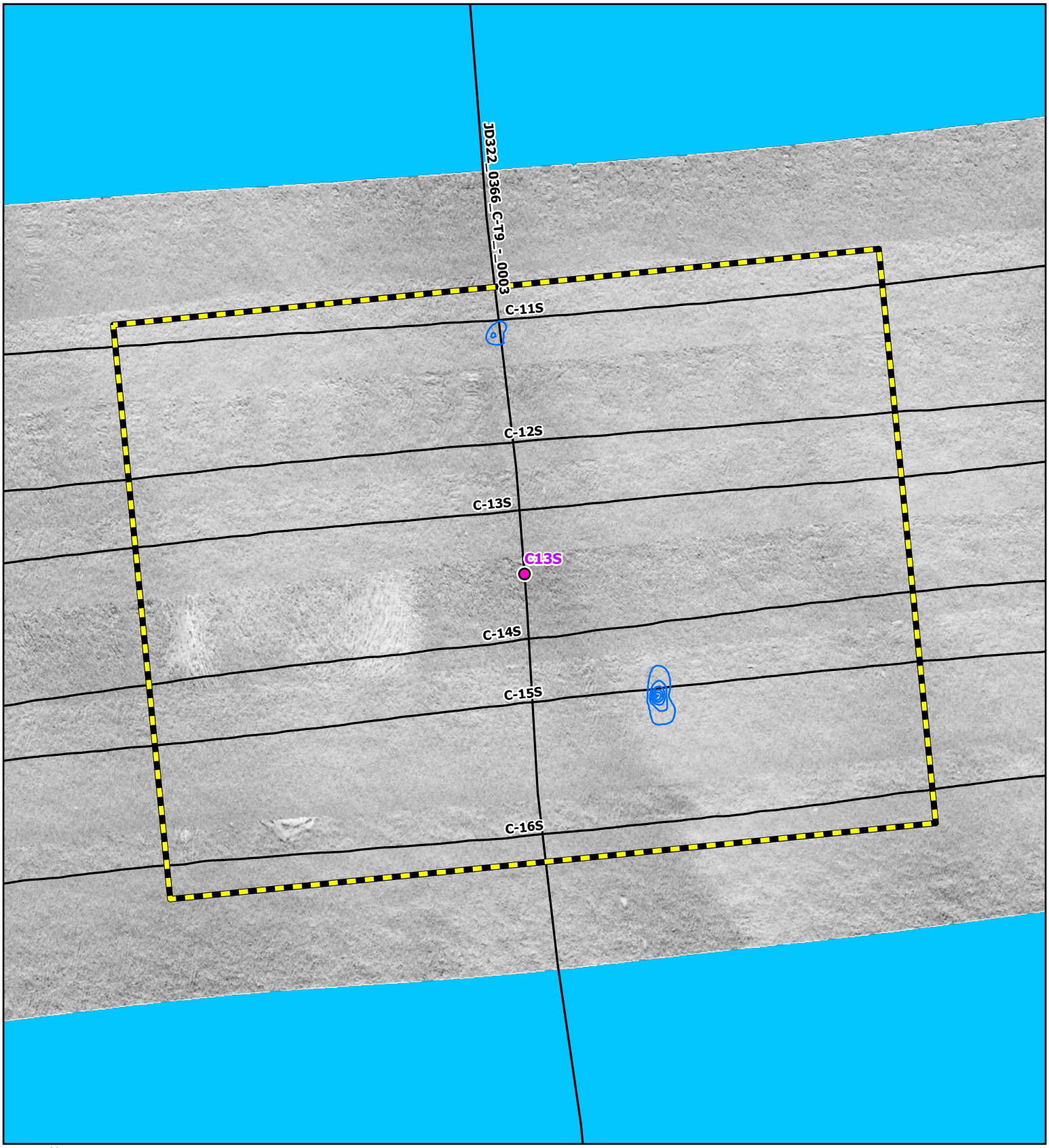
Geotechnical Clearance: Block C

Map: 30

C12S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

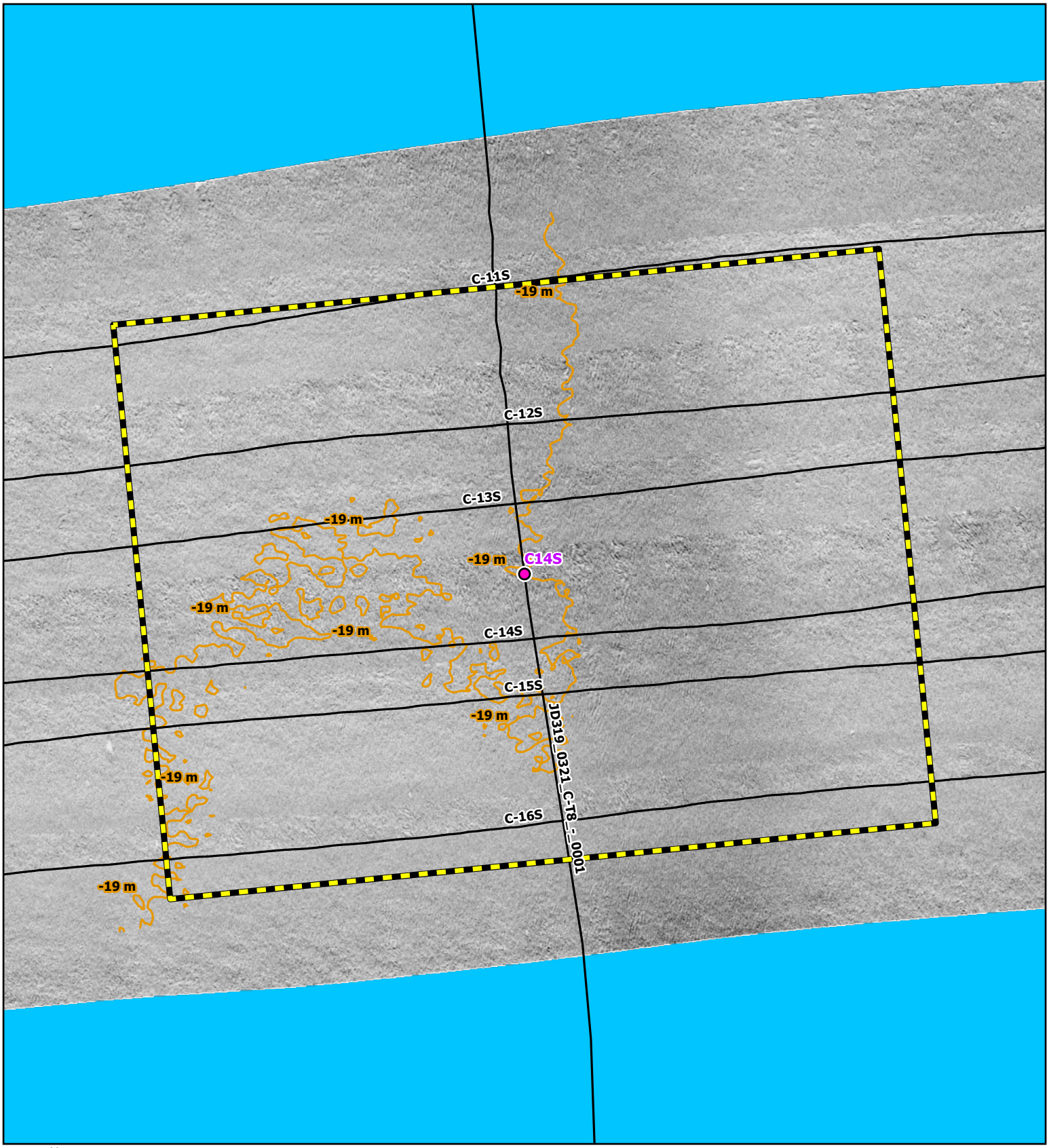
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block C

Map: 31

C13S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

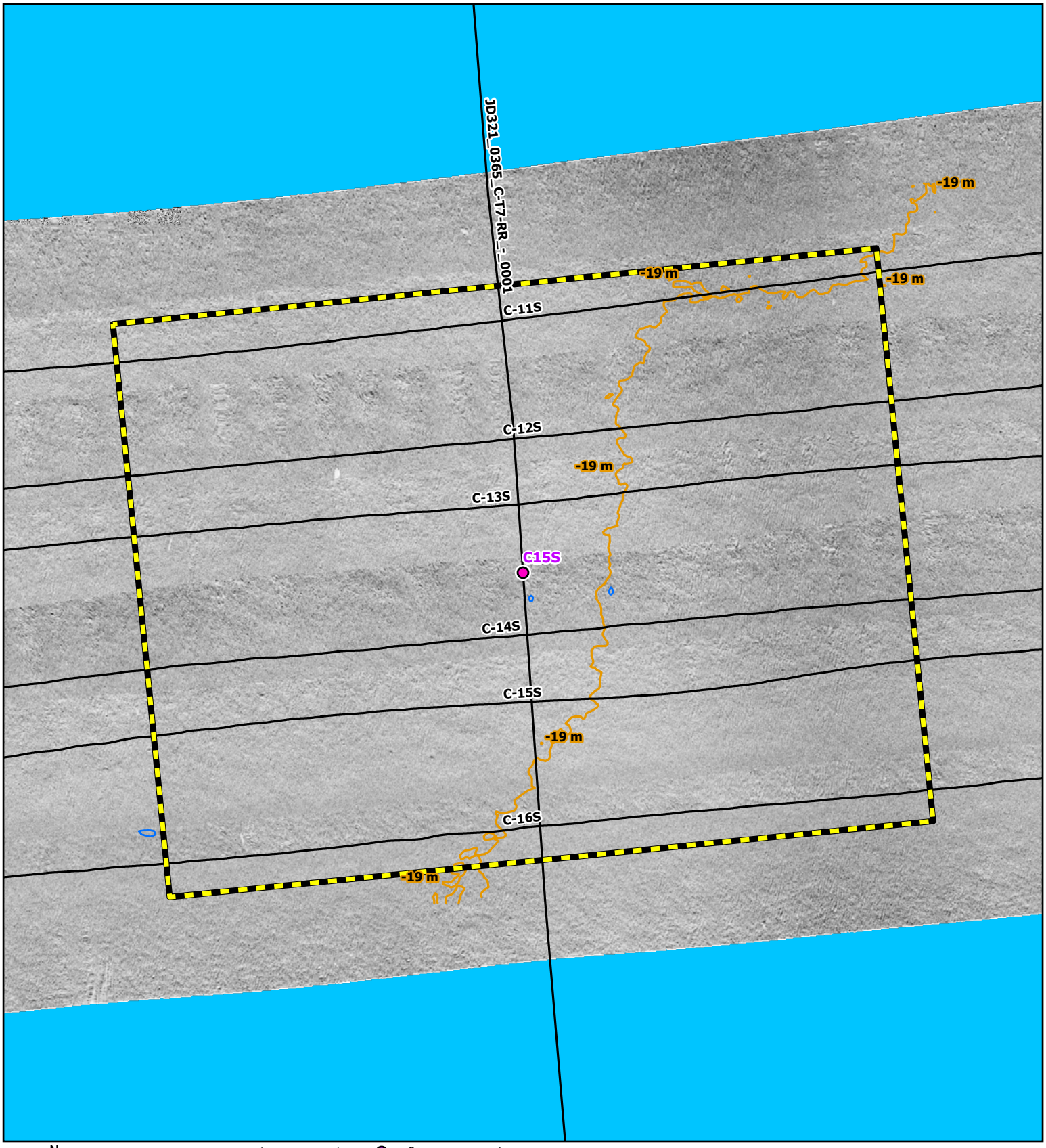
Map: 32

C14S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

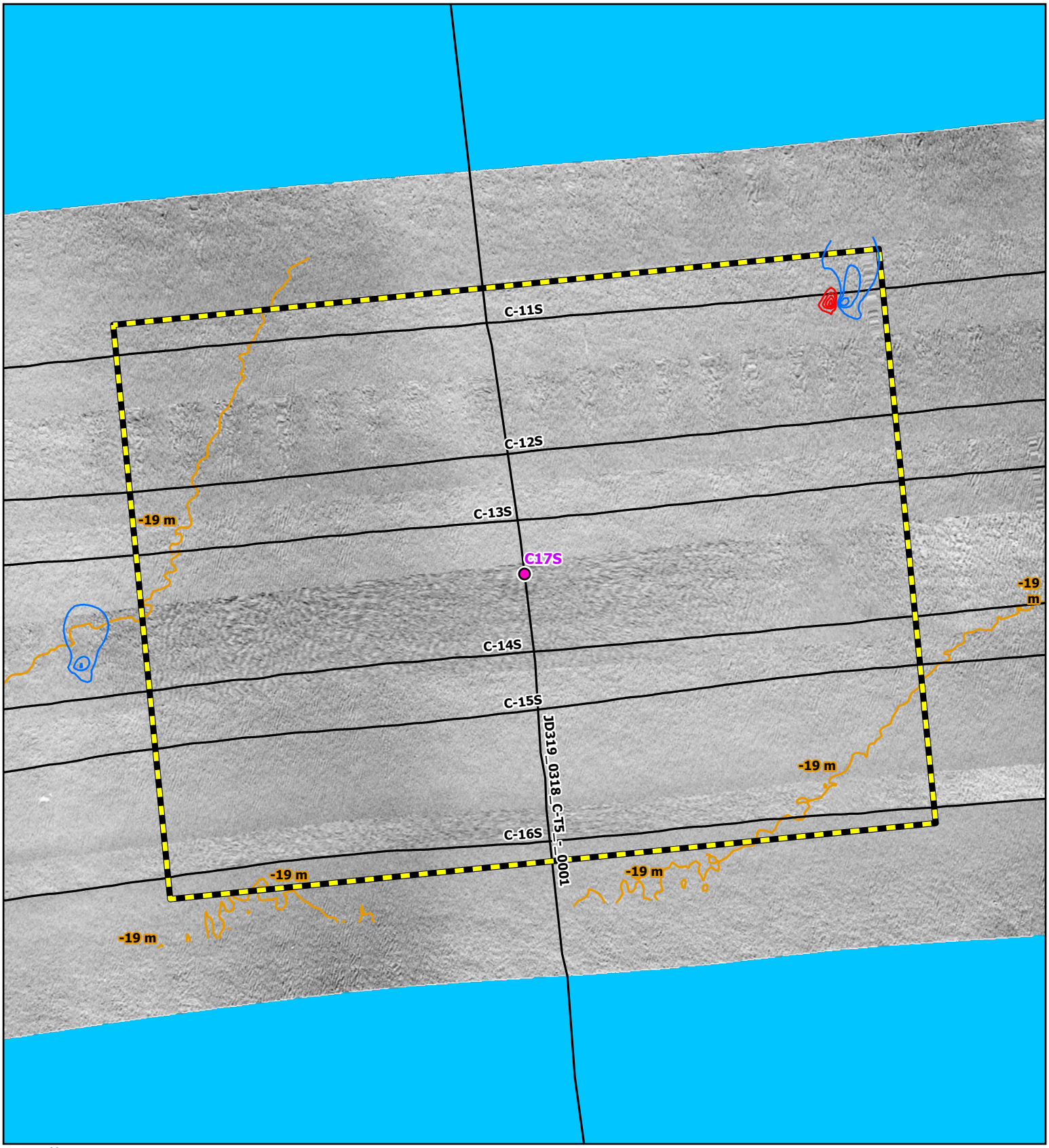
Map: 33

C15S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

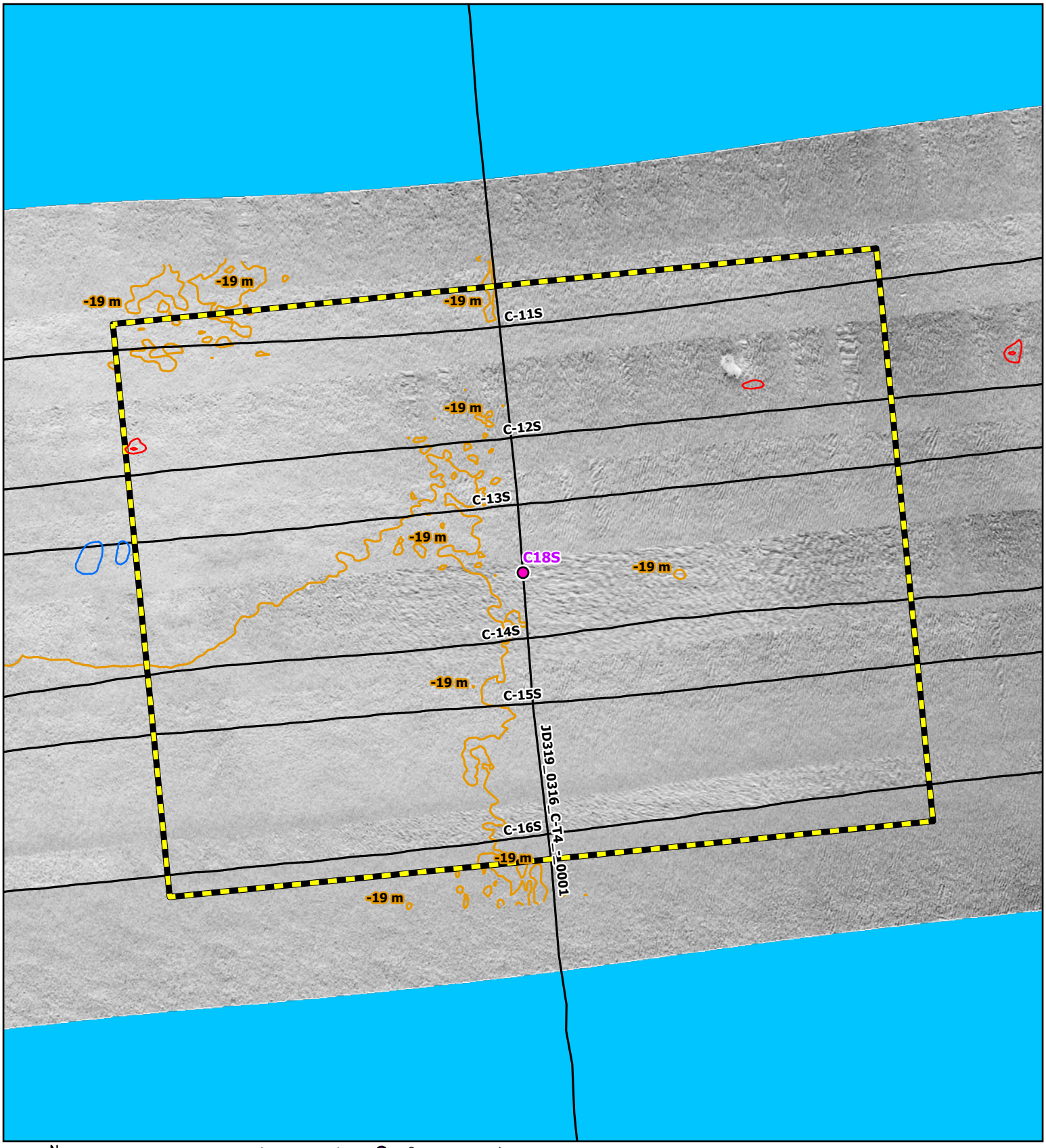
Map: 34

C17S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

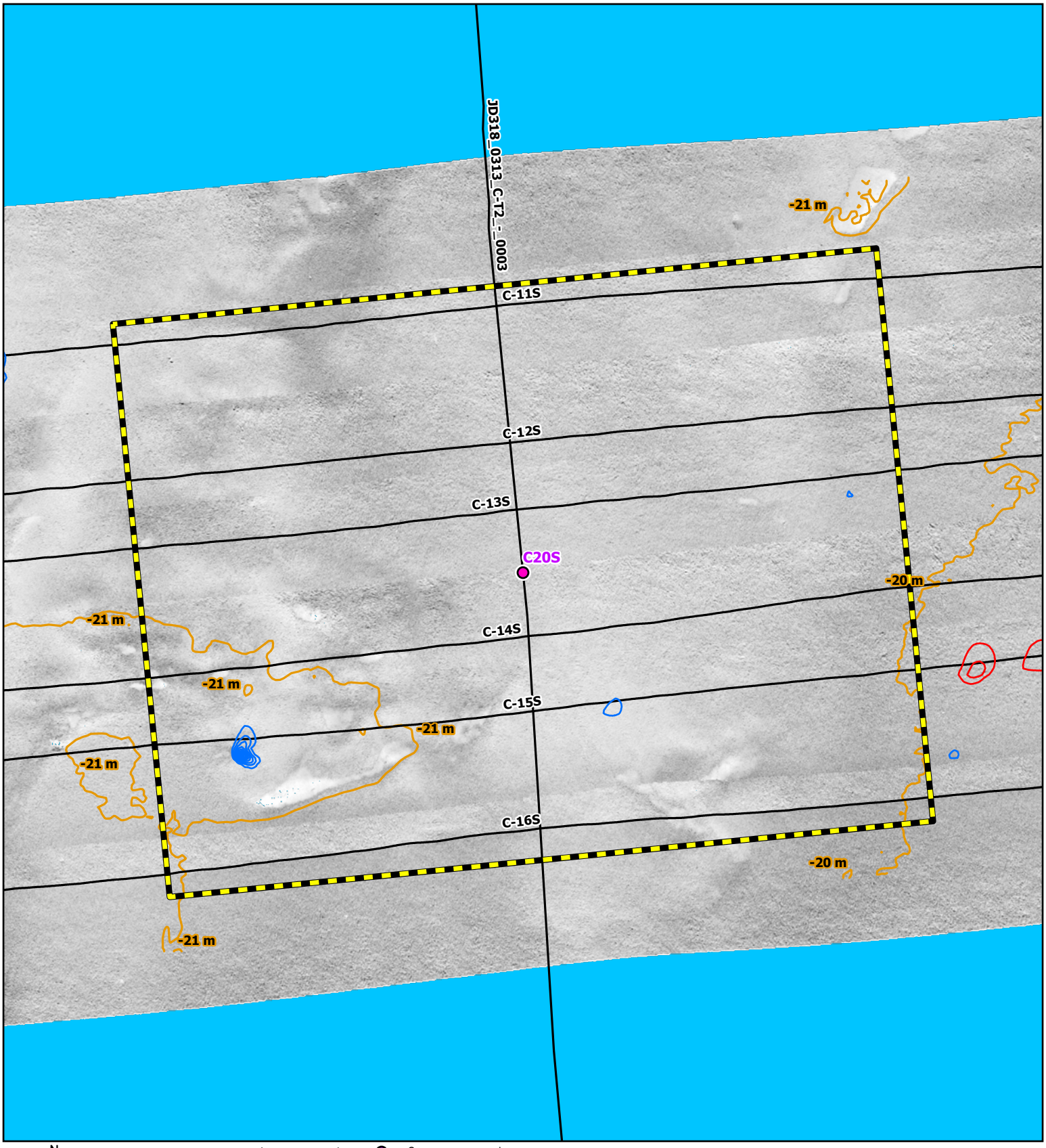
Map: 35

C18S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

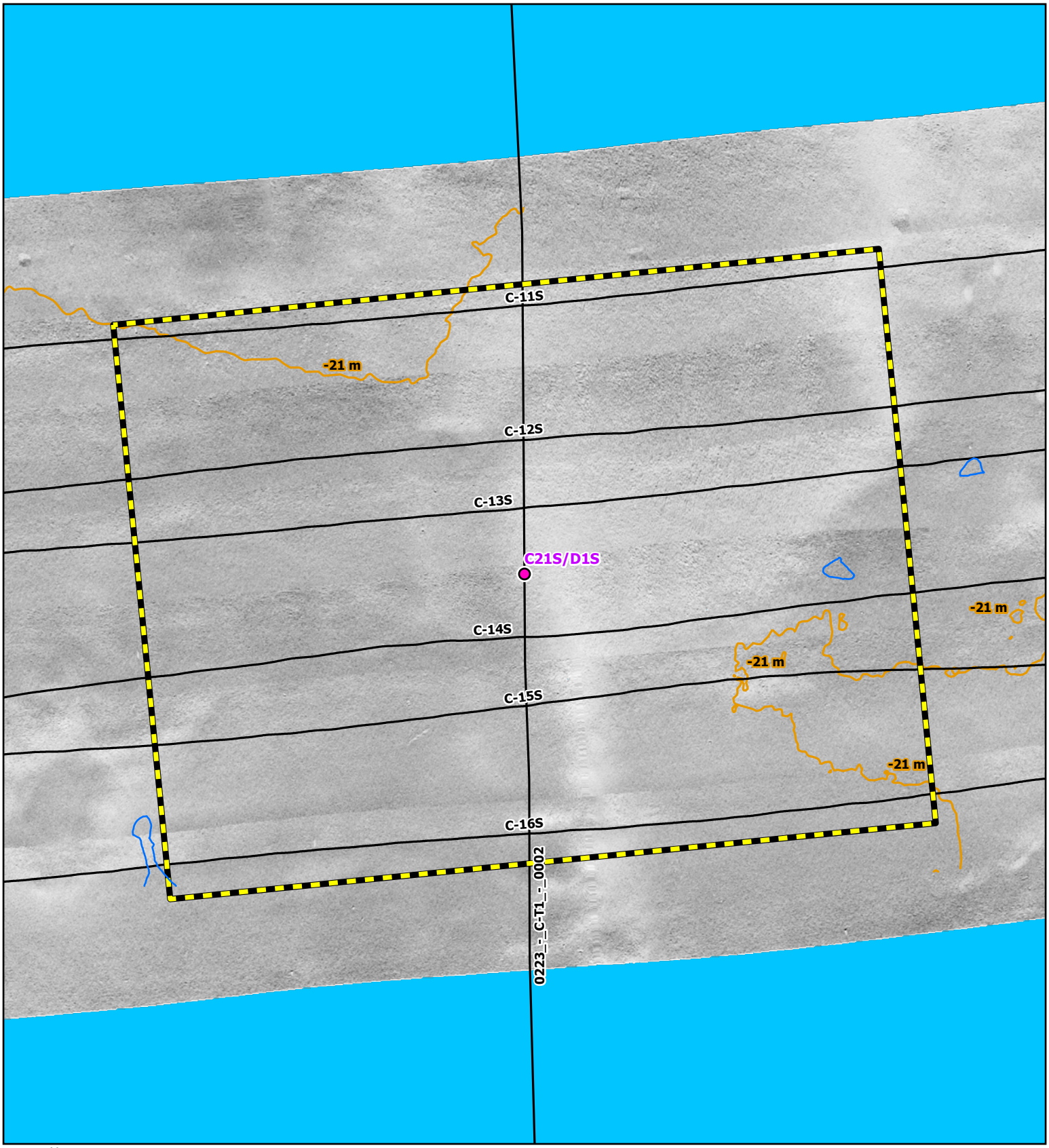
Map: 36

C20S

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MARINE ARCHAEOLOGY FROM STEM TO STERN



N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Trackline

Bathymetric Contour (1 m)

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block C

Map: 37

C21S/D1S

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

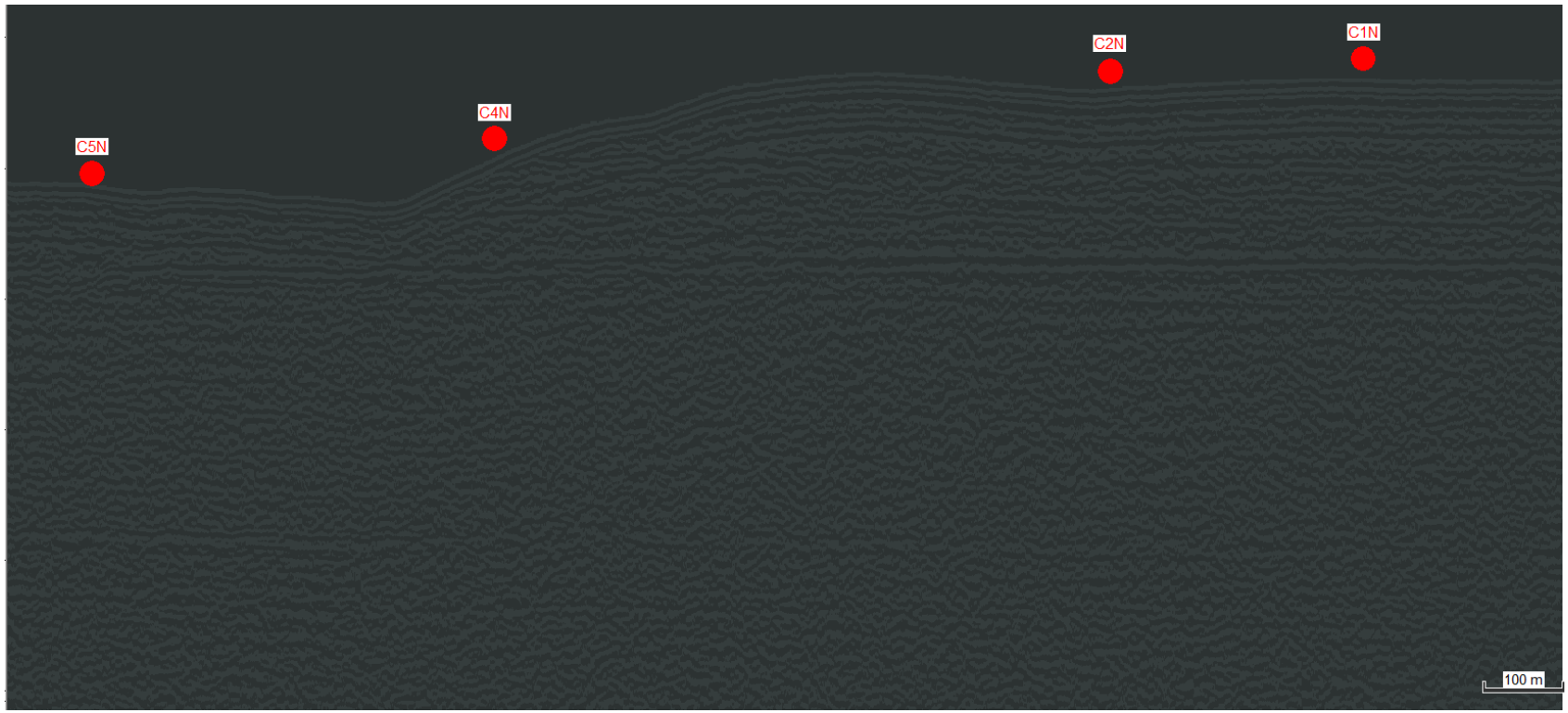


Figure 1: Proposed geotechnical locations C1N, C2N, C4N, and C5N in ECR Block C, Northern Wing Corridor along sub-bottom line JD302_Seq0062_C-15N

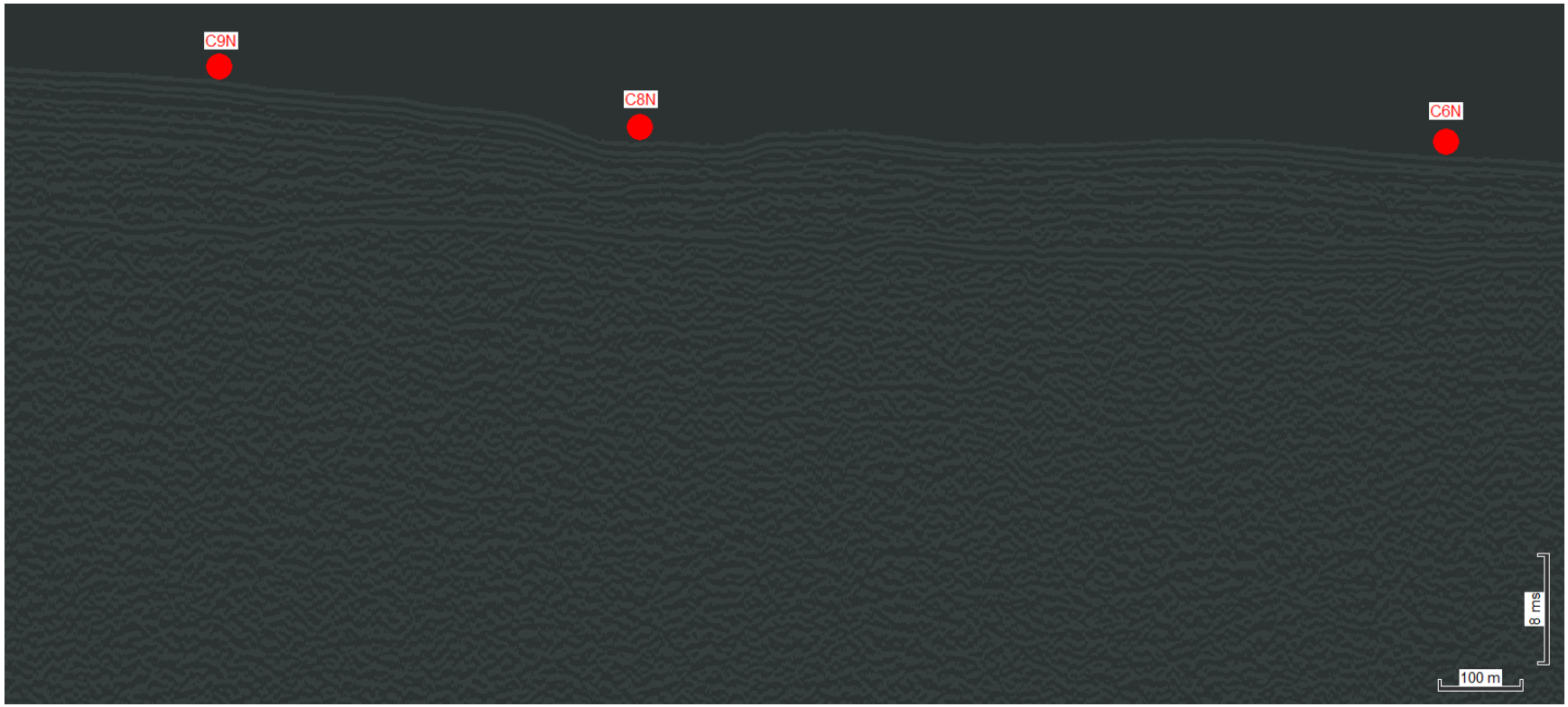


Figure 2: Proposed geotechnical locations C6N, C8N, and C9N in ECR Block C, Northern Wing Corridor along sub-bottom line JD302_Seq0062_C-15N

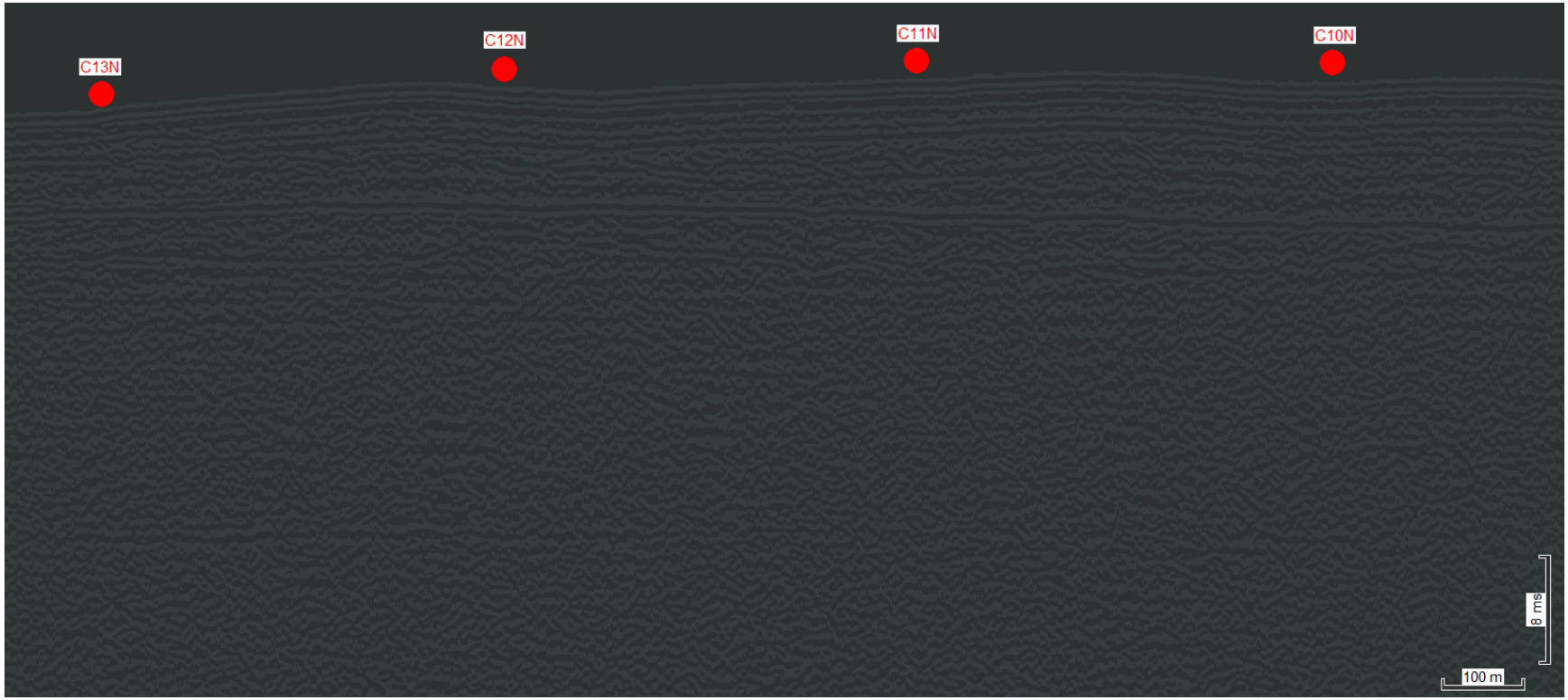


Figure 3: Proposed geotechnical locations C10N, C11N, C12N, and C13N in ECR Block C, Northern Wing Corridor along sub-bottom line JD302_Seq0062_C-15N

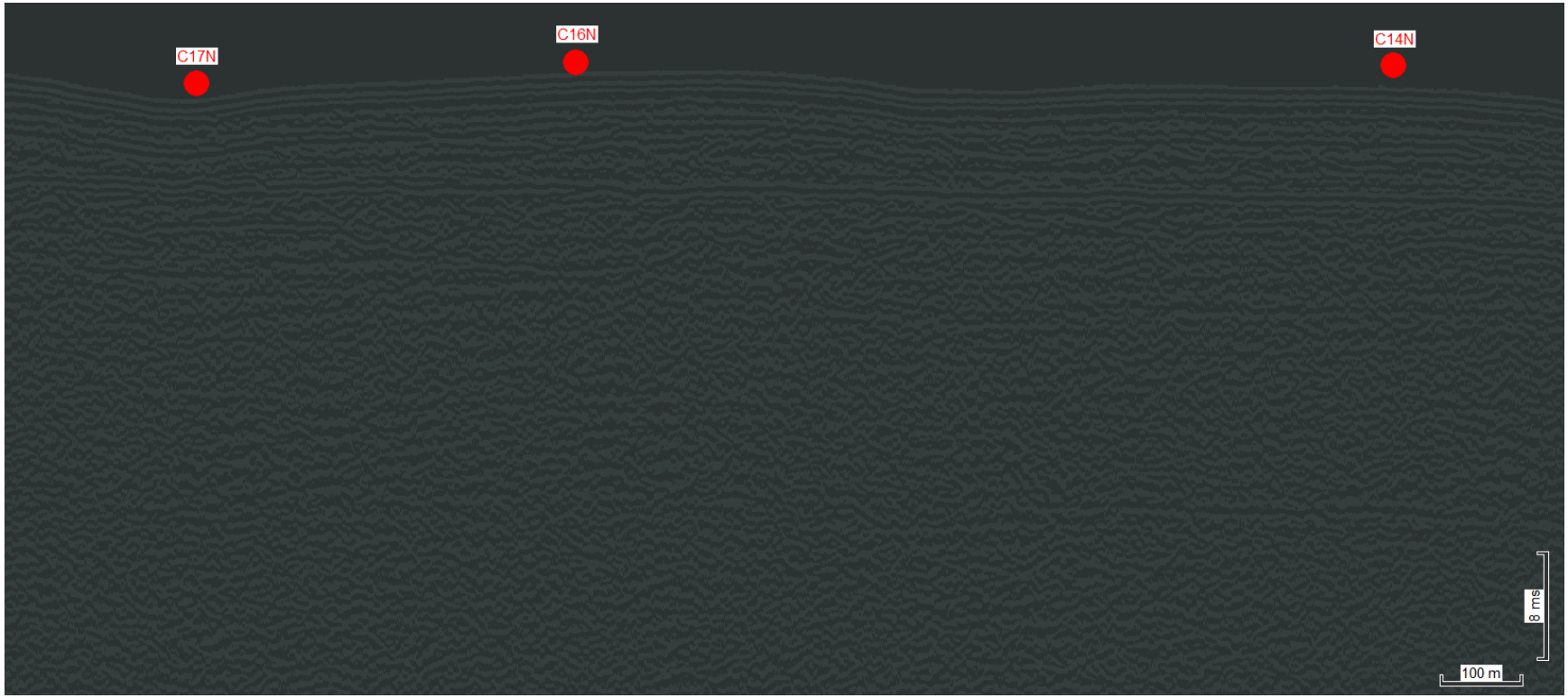


Figure 4:Proposed geotechnical locations C14N, C16N, and C17N in ECR Block C, Northern Wing Corridor along sub-bottom line JD302_Seq0062_C-15N

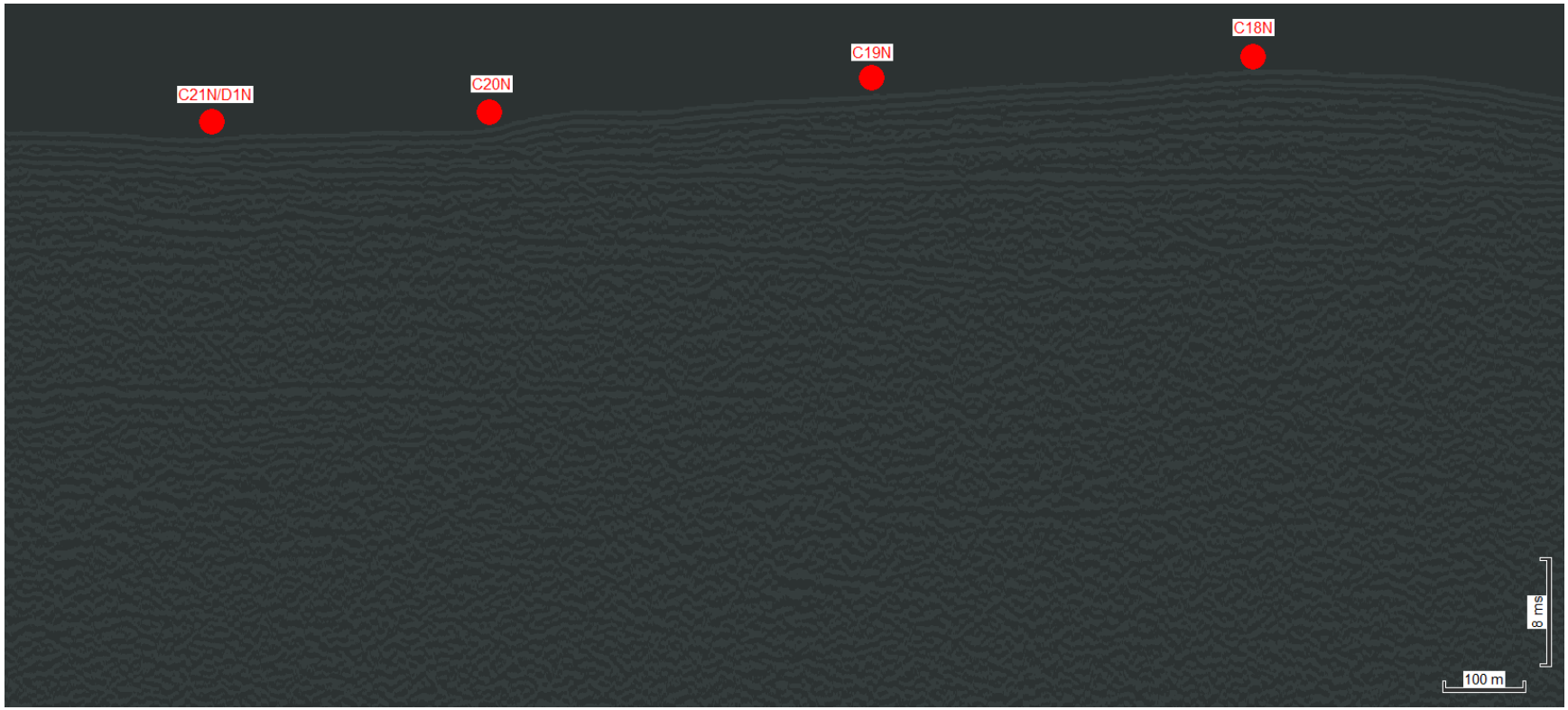


Figure 5: Proposed geotechnical locations C18N, C19N, C20N, and C21N/D1N in ECR Block C, Northern Wing Corridor along sub-bottom line JD302_Seq0062_C-15N

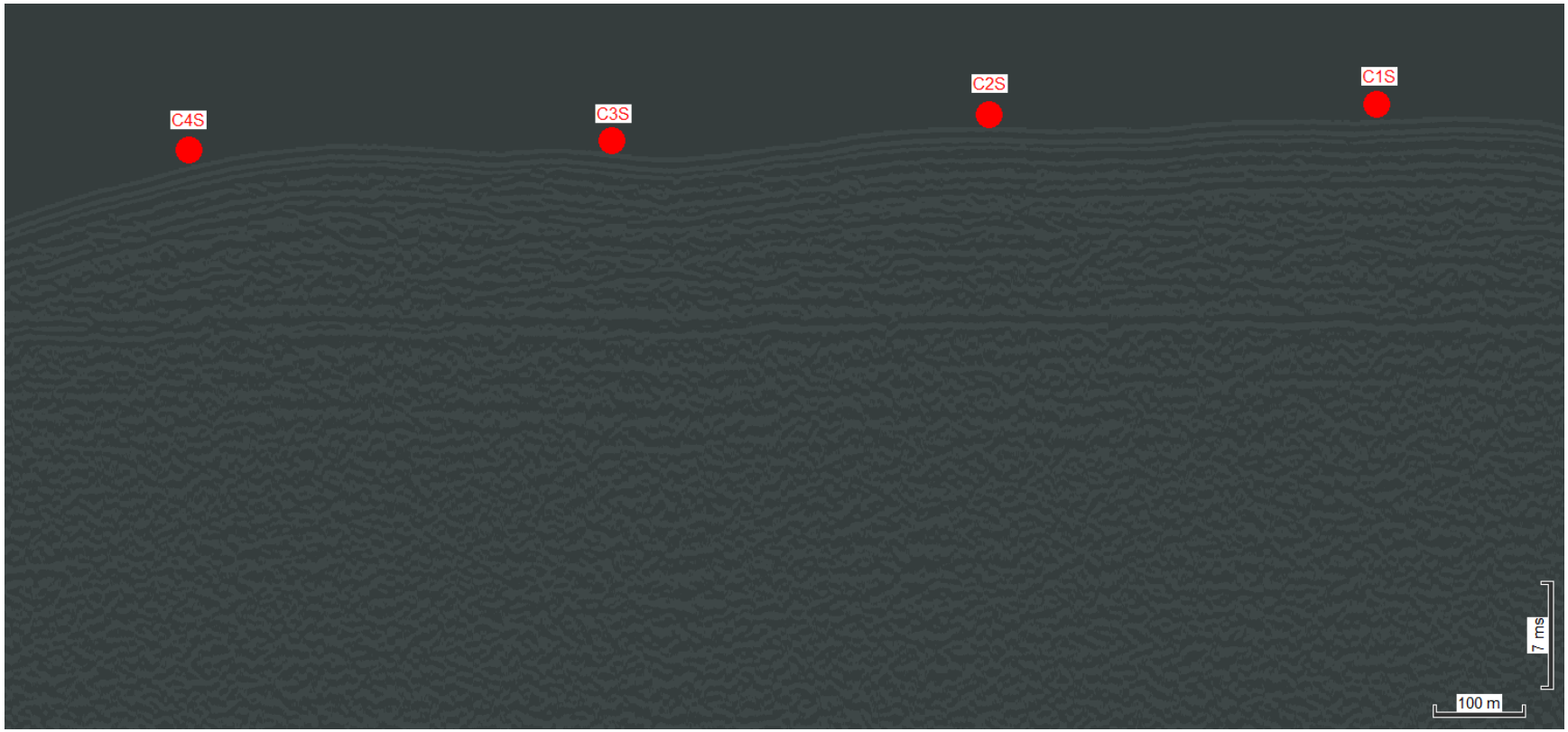


Figure 6: Proposed geotechnical locations C1S, C2S, C3S, and C4S in ECR Block C, Southern Wing Corridor along sub-bottom line JD302_Seq0059_C-11S_A

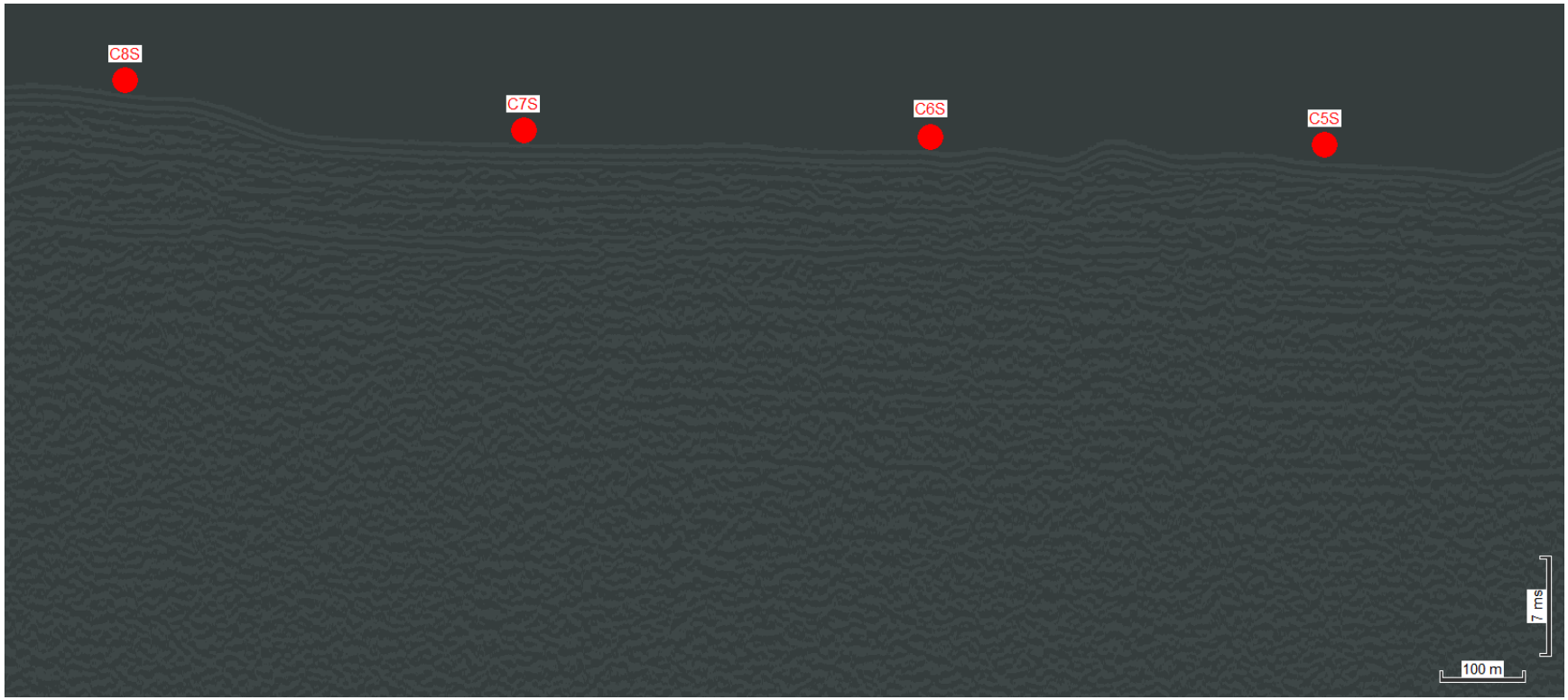


Figure 7: Proposed geotechnical locations C5S, C6S, C7S, and C8S in ECR Block C, Southern Wing Corridor along sub-bottom line JD302_Seq0059_C-11S_A

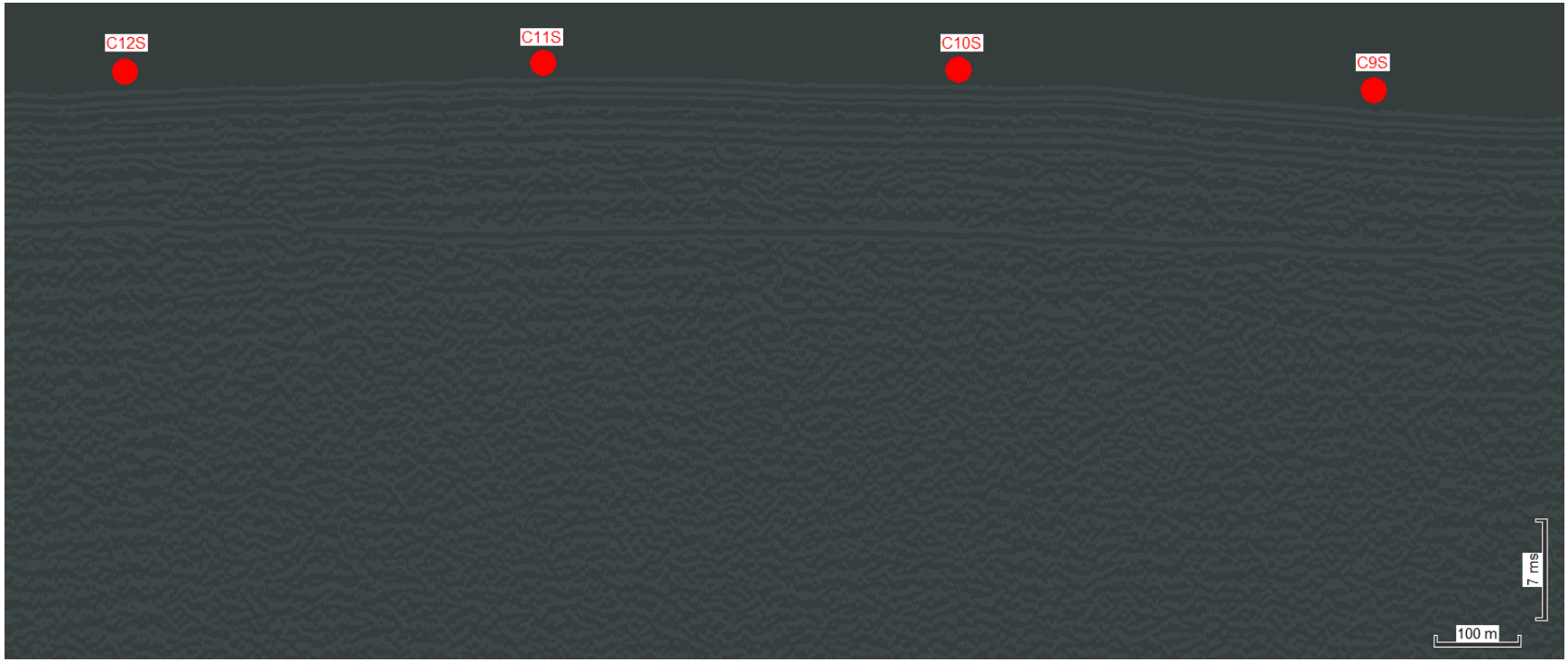


Figure 8: Proposed geotechnical locations C9S, C10S, C11S, and C12S in ECR Block C, Southern Wing Corridor along sub-bottom line JD302_Seq0059_C-11S_A

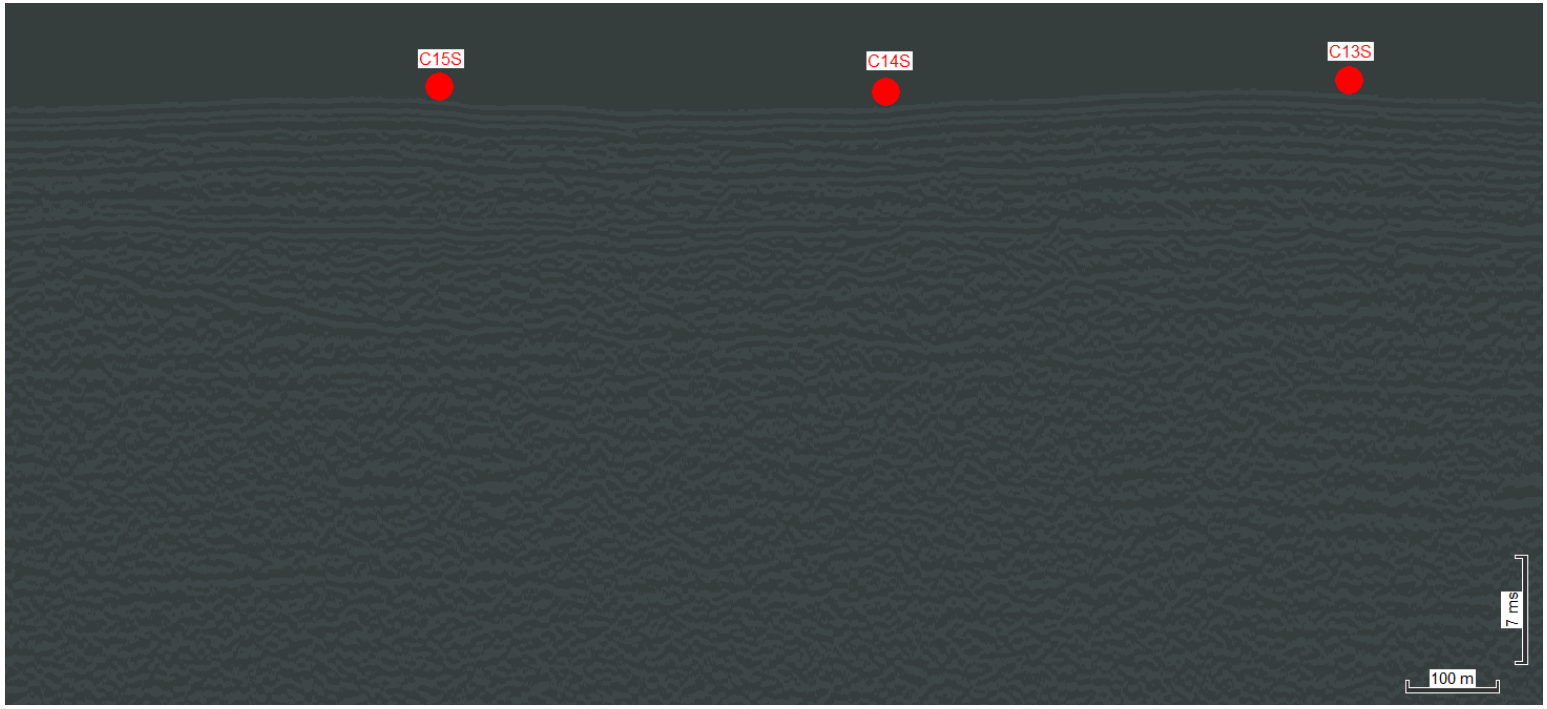


Figure 9: Proposed geotechnical locations C13S, C14S, and C15S in ECR Block C, Southern Wing Corridor along sub-bottom line JD302_Seq0059_C-11S_A

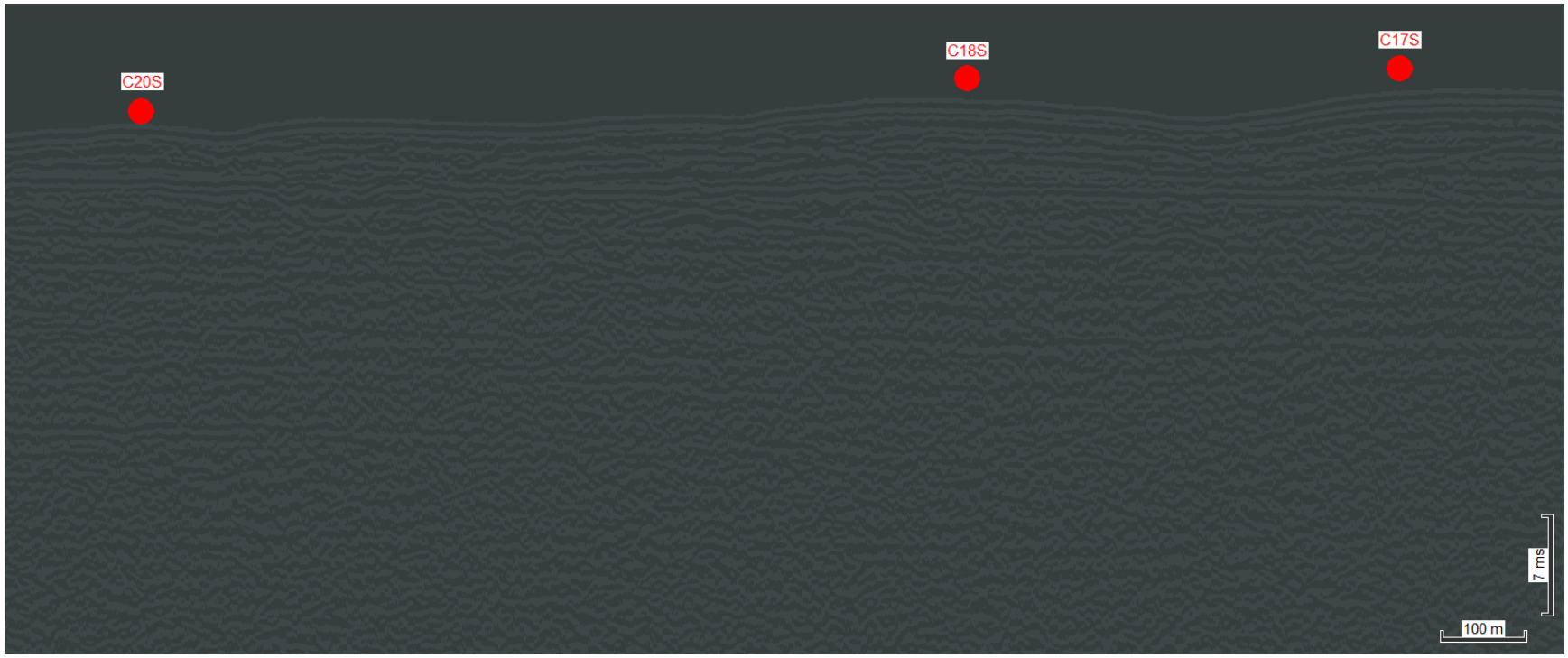


Figure 10: Proposed geotechnical locations C17S, C18S, and C20S in ECR Block C, Southern Wing Corridor along sub-bottom line JD302_Seq0059_C-11S_A

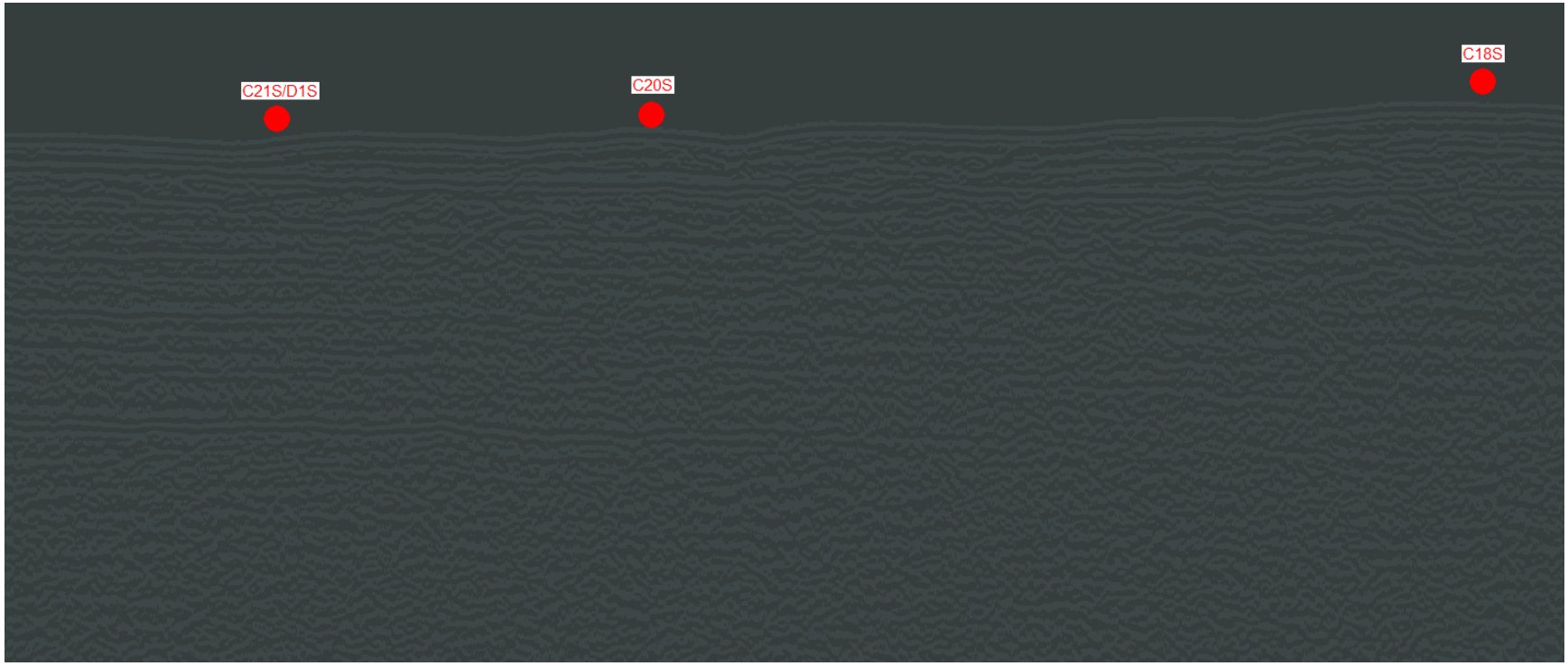


Figure 11: Proposed geotechnical locations C18S, C20S, and C21S/D1S in ECR Block C, Southern Wing Corridor along sub-bottom line JD302_Seq0059_C-11S_A

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

February 5, 2021

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations along the Export Cable Route Block B Wing Corridors

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for the Export Cable Route Block B Wing Corridors within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas pertaining to 15 of the 33 proposed geotechnical sampling locations. Further analysis is required at 18 locations.
- Analyses of the seismic data suggest that 32 of the 33 geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. Additional seismic data and further analysis is required at one location.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,



Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan, Ed Buchanan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Cross
McNeilan and Assoc. - Tom McNeilan

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
cultural resource management and preservation planning

January 27, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Block B Wing Corridors

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 33 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 33 proposed geotechnical locations located along the Export Cable Route (ECR), Block B Wing Corridors. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas pertaining to 15 of the 33 proposed geotechnical sampling locations. Further analysis is required for B9Na, B8Na, B6Na, B4Na, B7Nb, B6nb, B4Nb, B9Sa, B6Sa, B4Sa, B3Sa, B2Sa, B1Sa, B9Sb, B8Sb, B6Sb, B3Sb, and B2Sb.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that 32 of the 33 proposed geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources. Additional seismic data and further analysis is required for B9Sb.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to 15 of the 33 the proposed sampling locations (Tables 1 and 2; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block B, Northern Wing Corridor

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
B7Na	445497.83	4074543.70	-75.61107118	36.81518324
B5Na	446244.62	4075212.12	-75.60274593	36.82125117
B3Na	446984.85	4075884.60	-75.59449325	36.82735484
B2Na	447300.69	4076204.89	-75.59097396	36.83025966
B3Nb	446644.31	4076259.44	-75.59833814	36.83071457
B5Nb	445906.60	4075584.57	-75.6065624	36.82458931
B8Nb	444973.61	4074743.07	-75.61696278	36.81695004
B9Nb	444790.92	4074574.92	-75.61899885	36.8154236

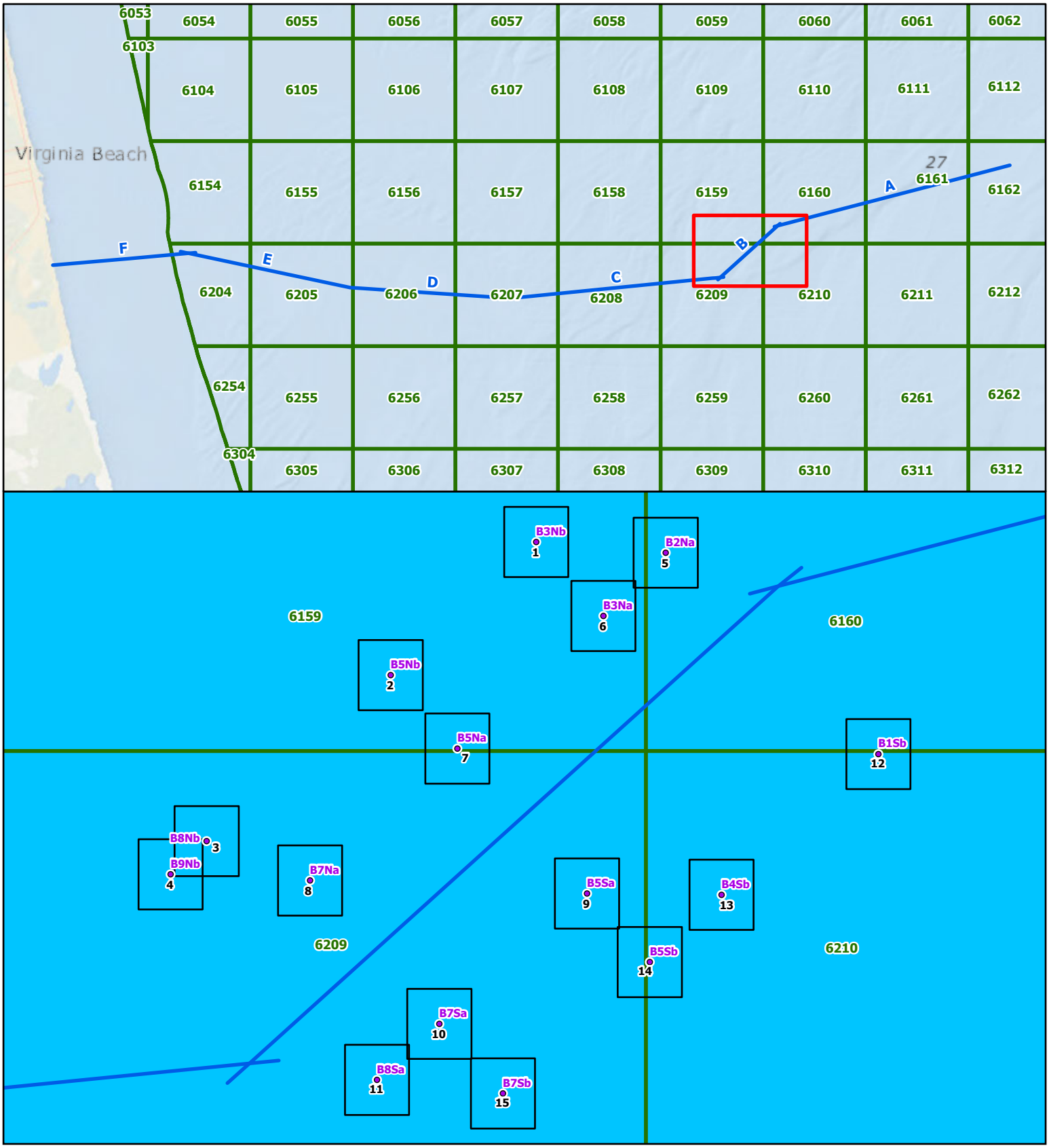
[1] Core IDs may not be sequential; B9Na, B8Na, B6Na, B4Na, B7Nb, B6nb, and B4Nb are pending additional analyses.
[2] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

Table 2. Proposed geotechnical locations for ECR Block B, Southern Wing Corridor

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
B8Sa	445837.16	4073532.75	-75.60719493	36.80608977
B7Sa	446153.21	4073816.59	-75.60367211	36.80866637
B5Sa	446901.93	4074477.44	-75.59532485	36.81466574
B1Sb	448378.93	4075184.09	-75.57881377	36.82111741
B4Sb	447583.91	4074470.68	-75.58767851	36.81464284
B5Sb	447220.13	4074130.05	-75.59173328	36.81155215
B7Sb	446475.65	4073464.01	-75.60003265	36.80550649

[1] Core IDs may not be sequential B9Sa, B6Sa, B4Sa, B3Sa, B2Sa, B1Sa, B9Sb, B8Sb, B6Sb, B3Sb, and B2Sb. are pending additional analyses.
[2] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK B WING CORRIDORS



N
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Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:26,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

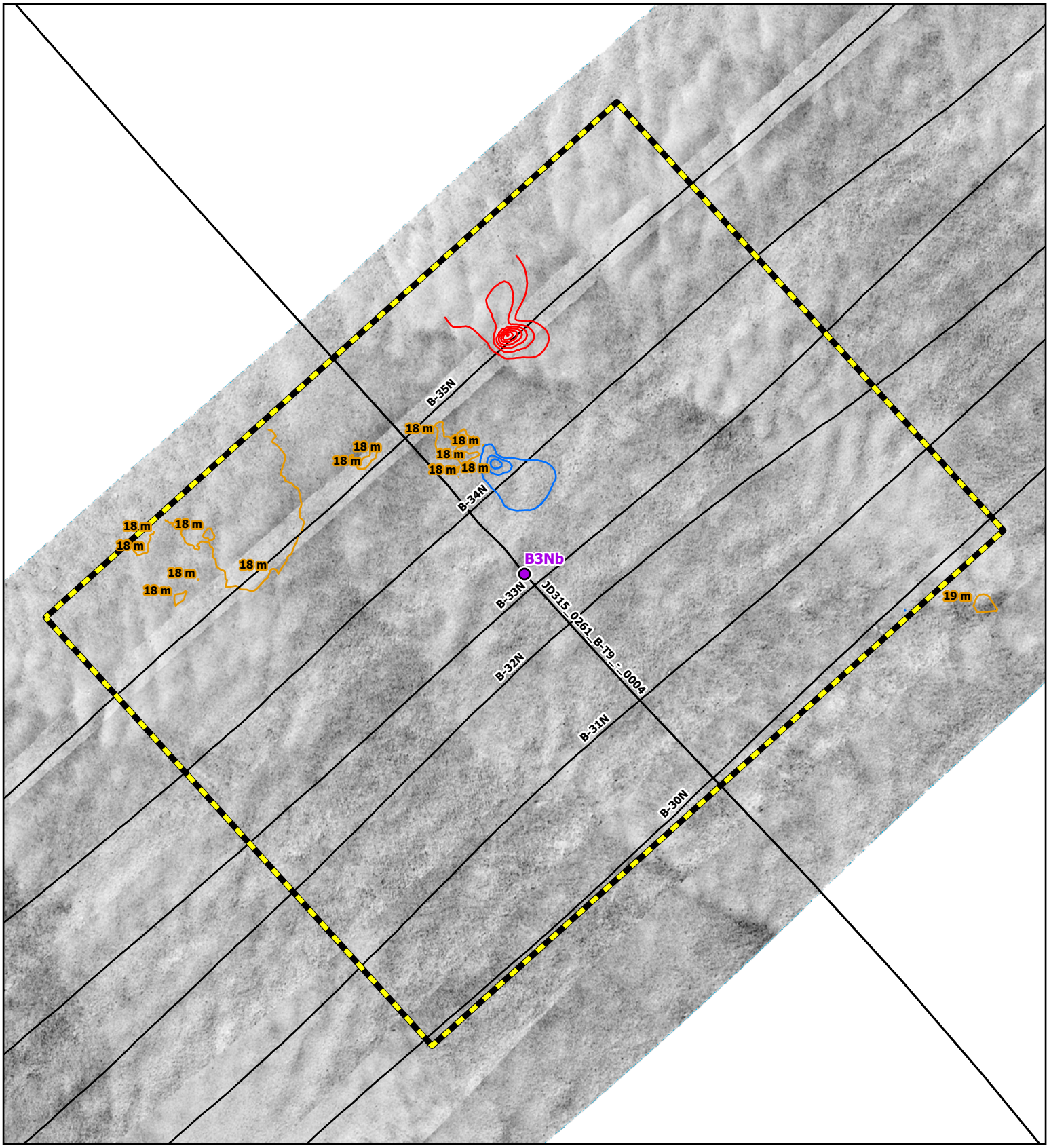
0 500 1,000 1,500 2,000
Feet
0 200 400 600 800
Meters

- Geotechnical Location
- ECR Centerline
- Map Sheet Boundary
- BOEM Lease Block

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Index Map

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

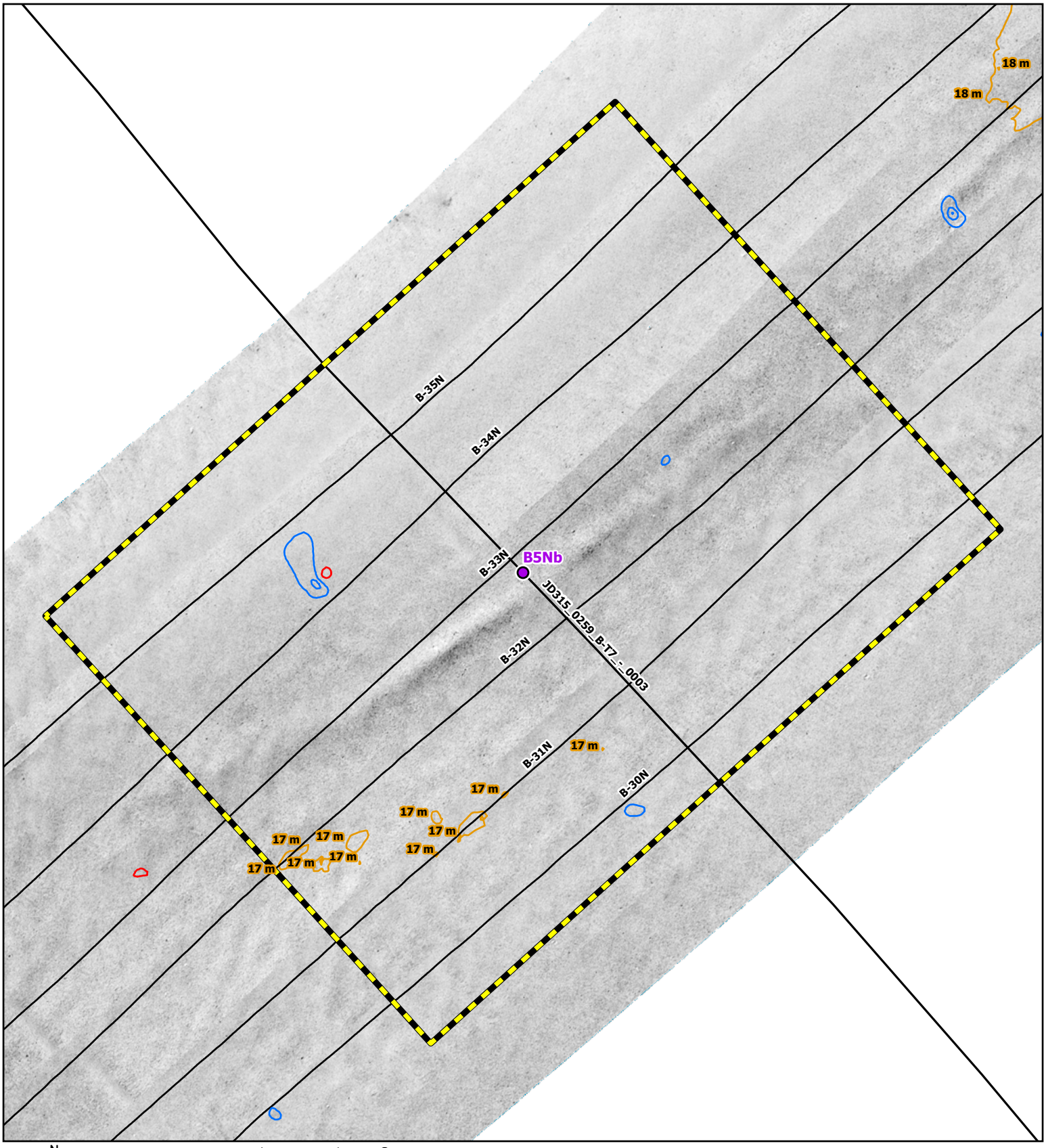
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 1

B3Nb

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

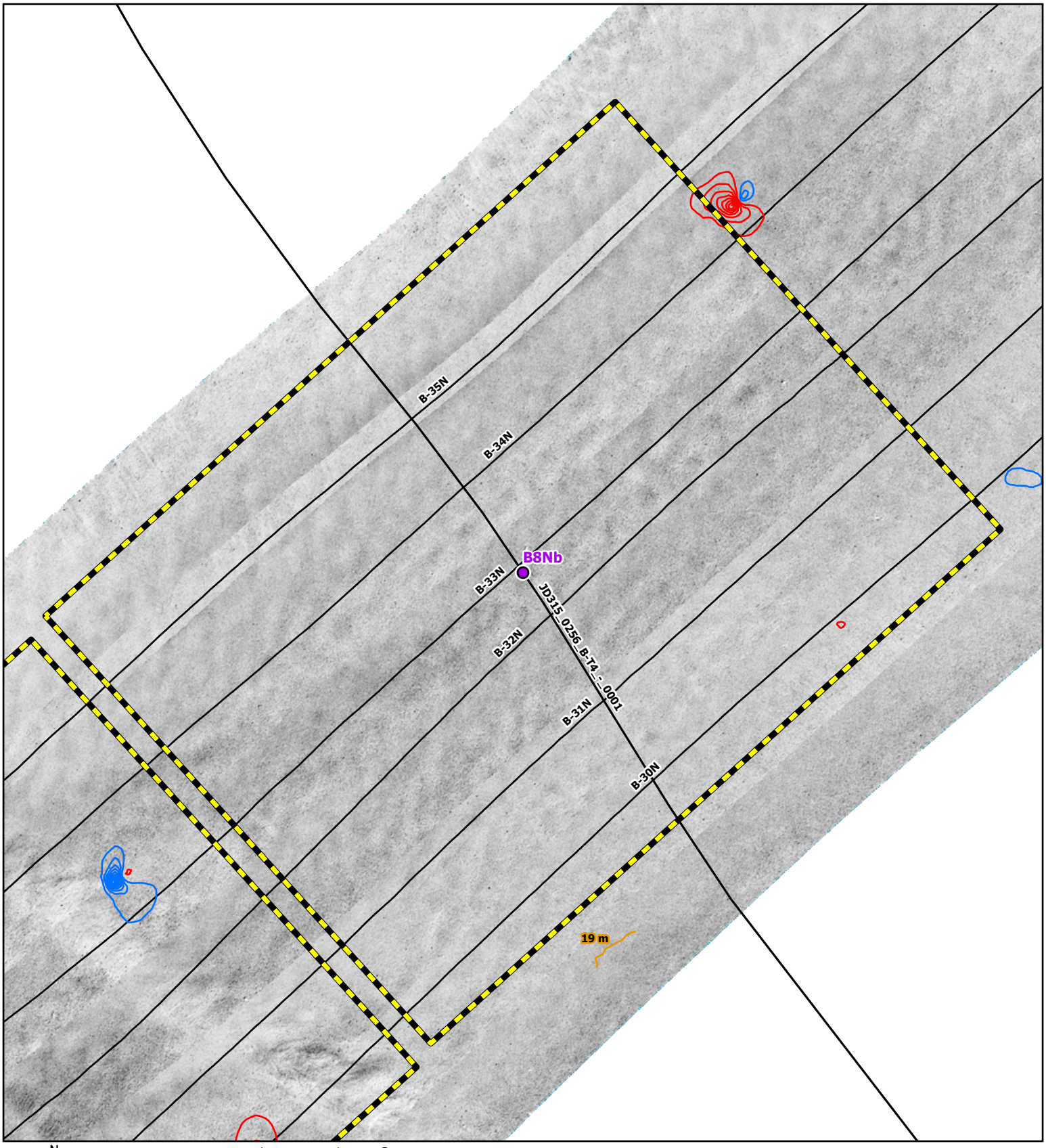
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 2

B5Nb

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

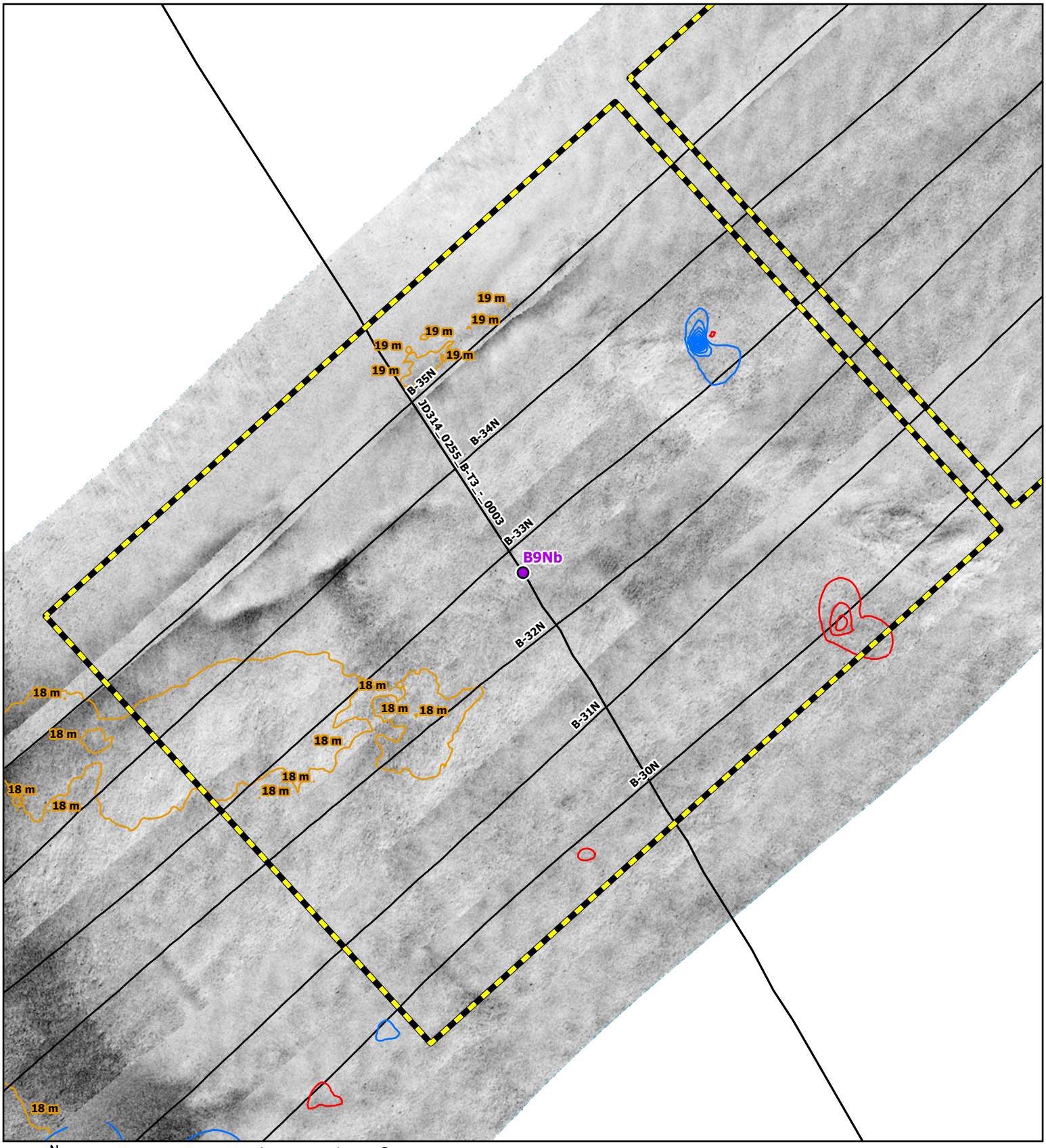
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 3

B8Nb

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

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Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

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Analytical Area

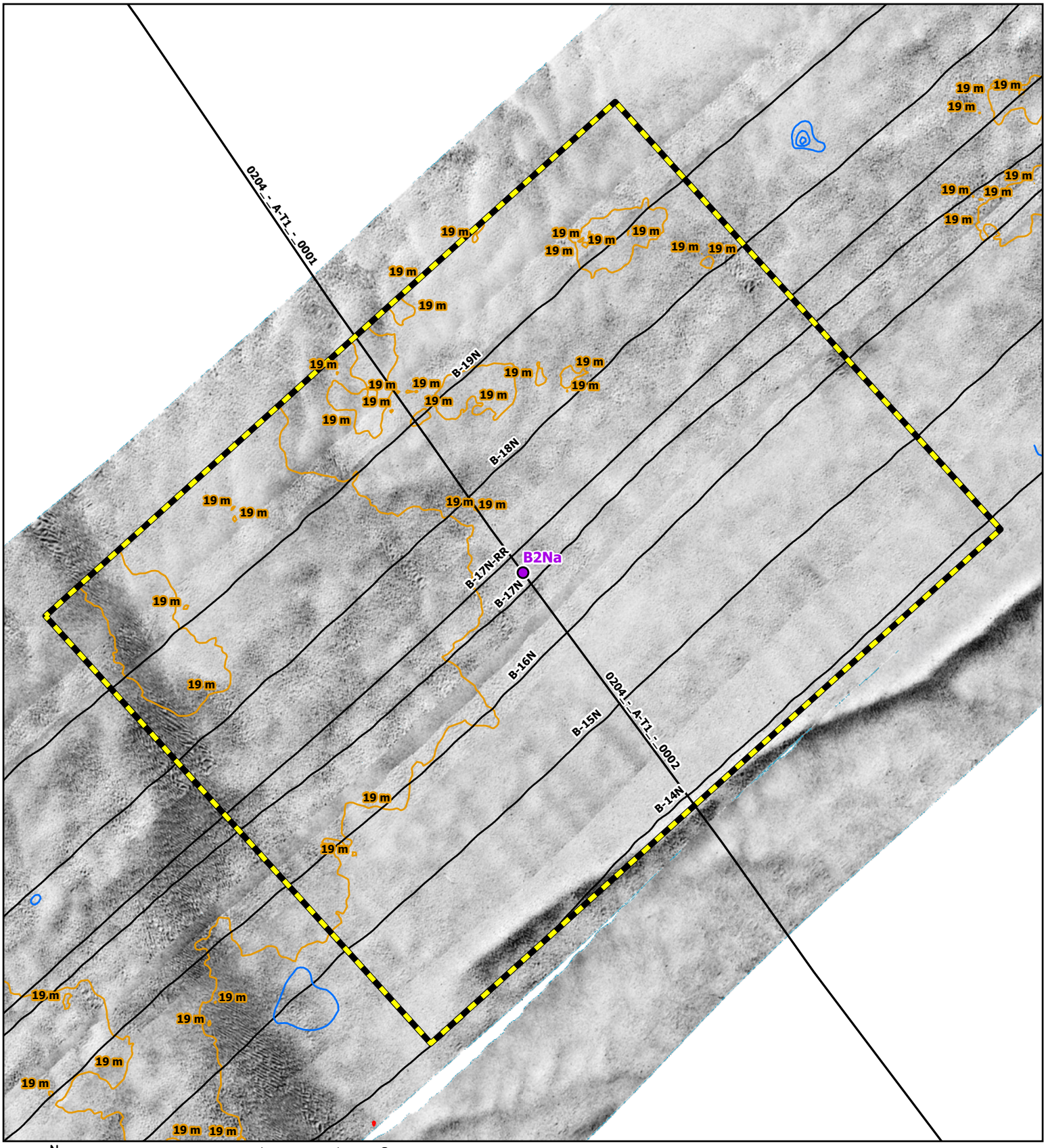
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 4

B9Nb

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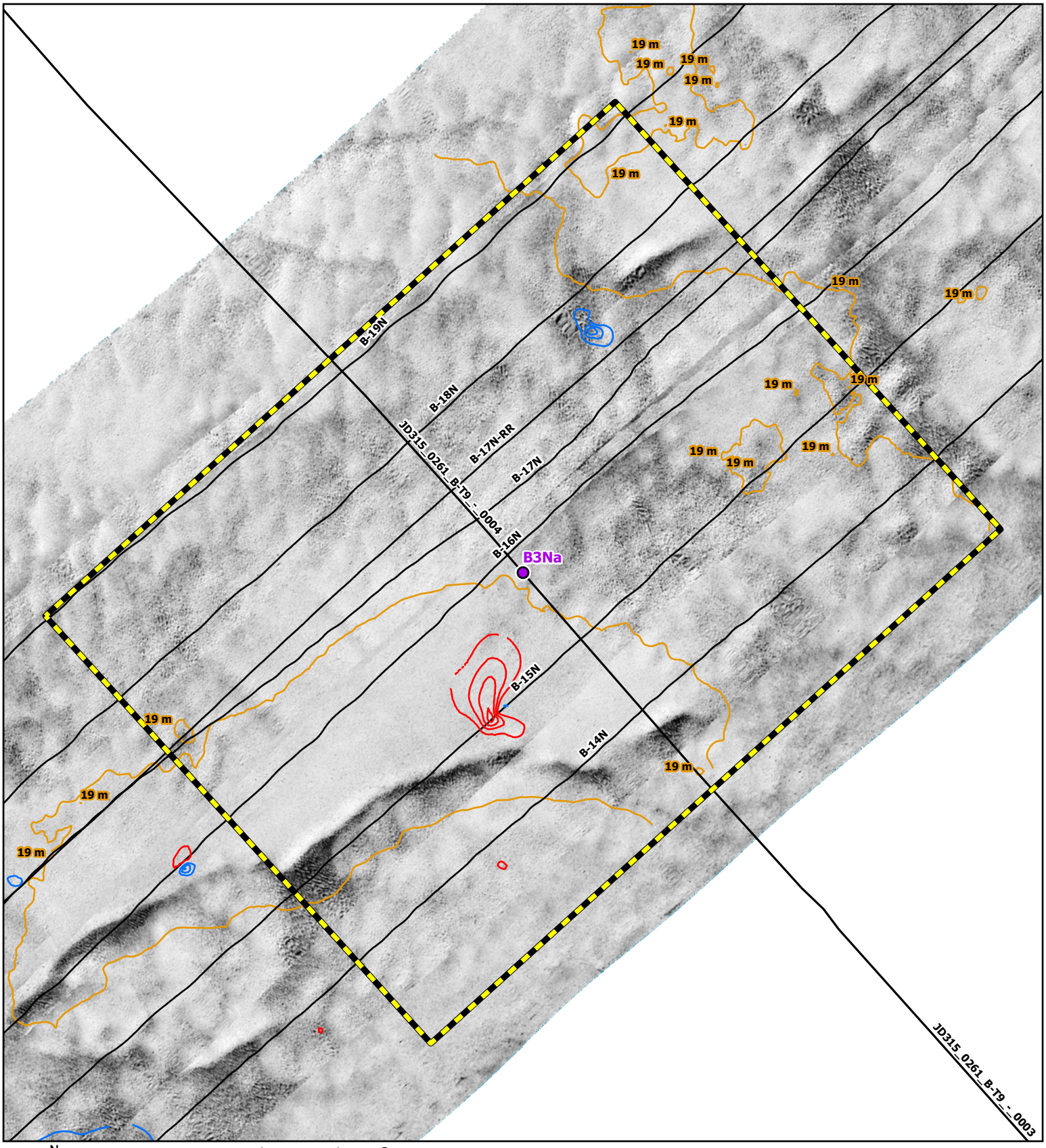
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MSR: 1:1,600
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Meters

Geotechnical Location
ECR Centerline
Trackline
Bathymetric Contour (1 m interval)
Magnetic Contours (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B
Map: 5
B2Na

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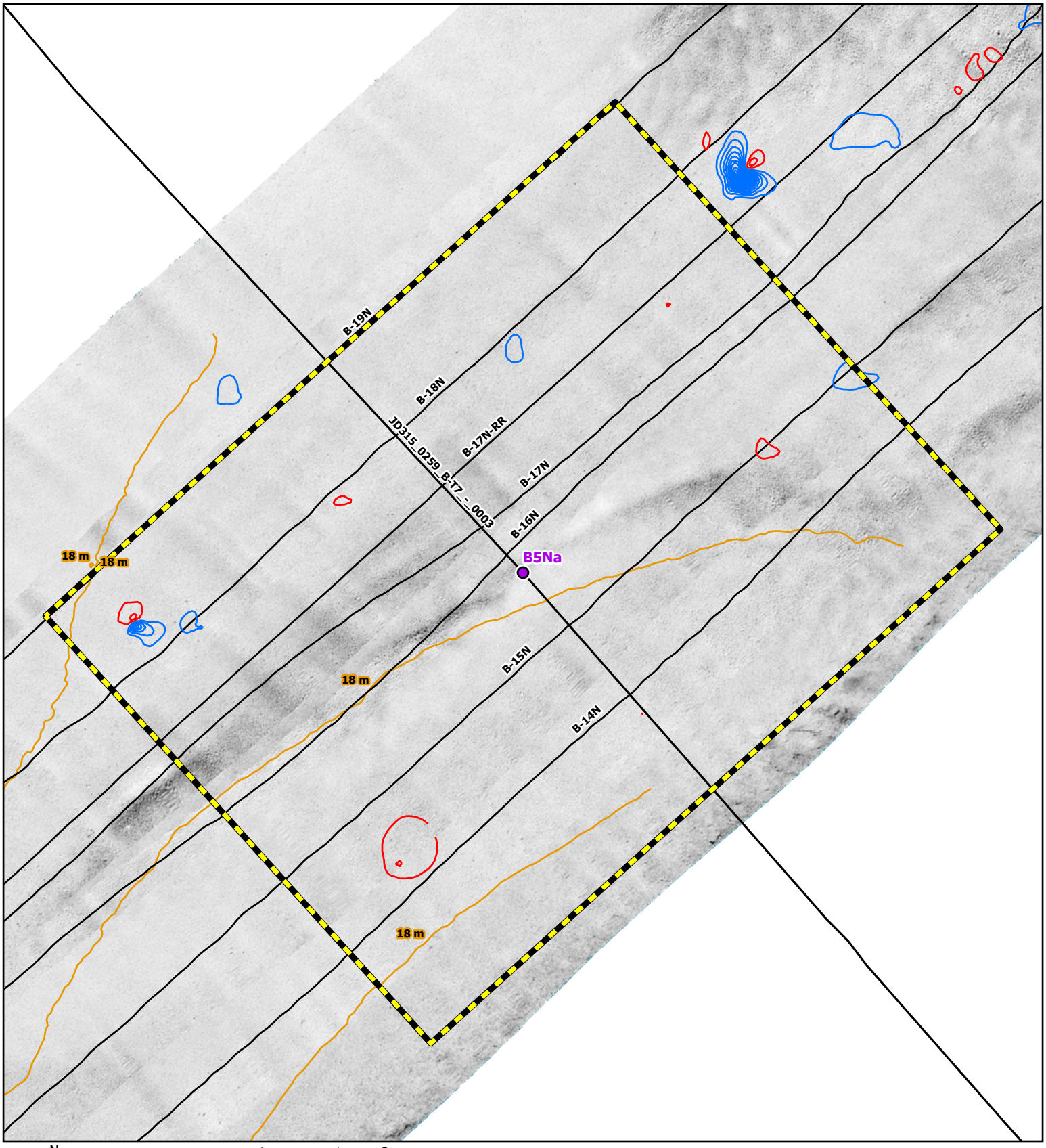
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MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
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Geotechnical Location
ECR Centerline
Trackline
Bathymetric Contour (1 m interval)
Magnetic Contours (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B
Map: 6
B3Na

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

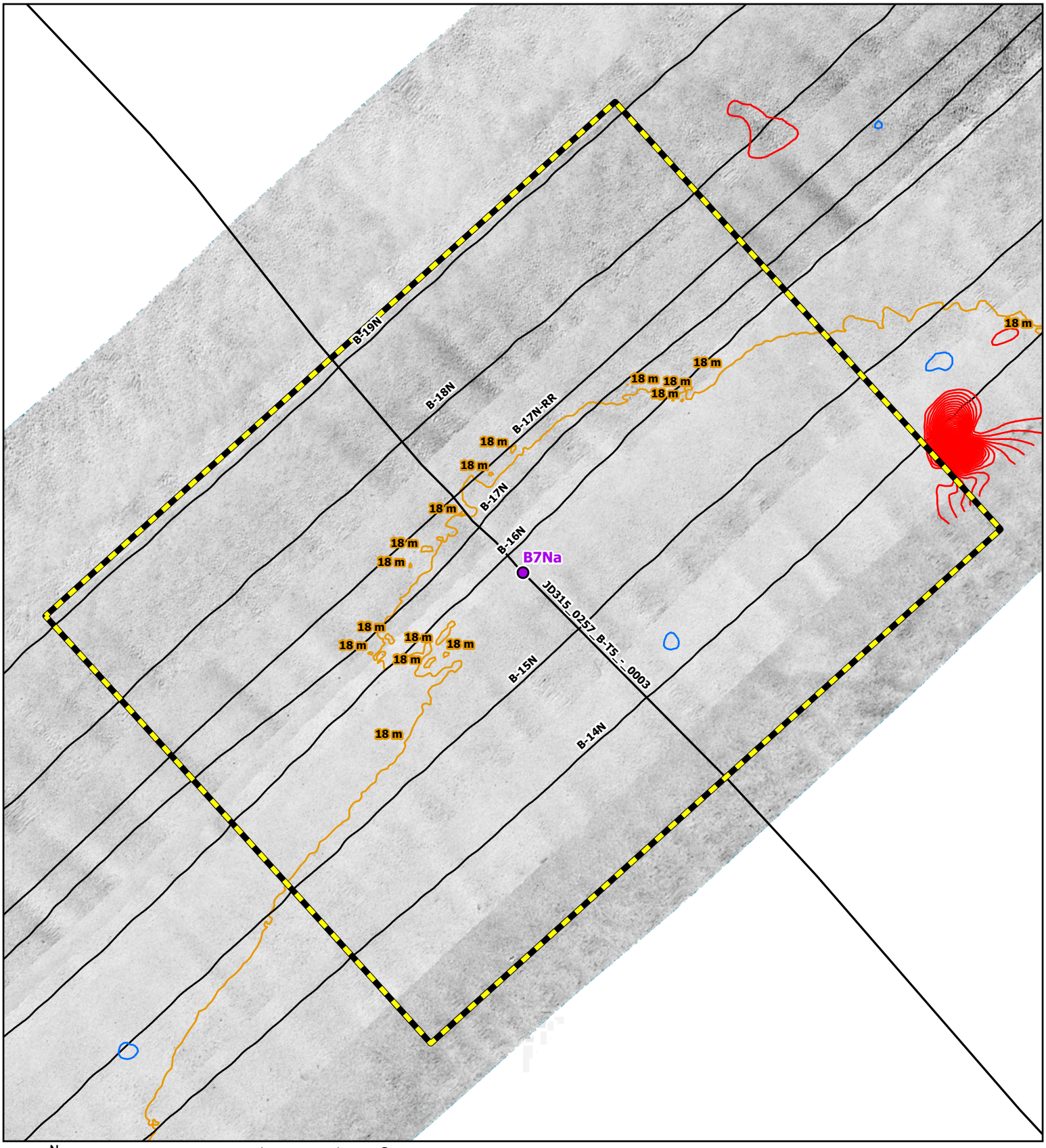
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 7

B5Na

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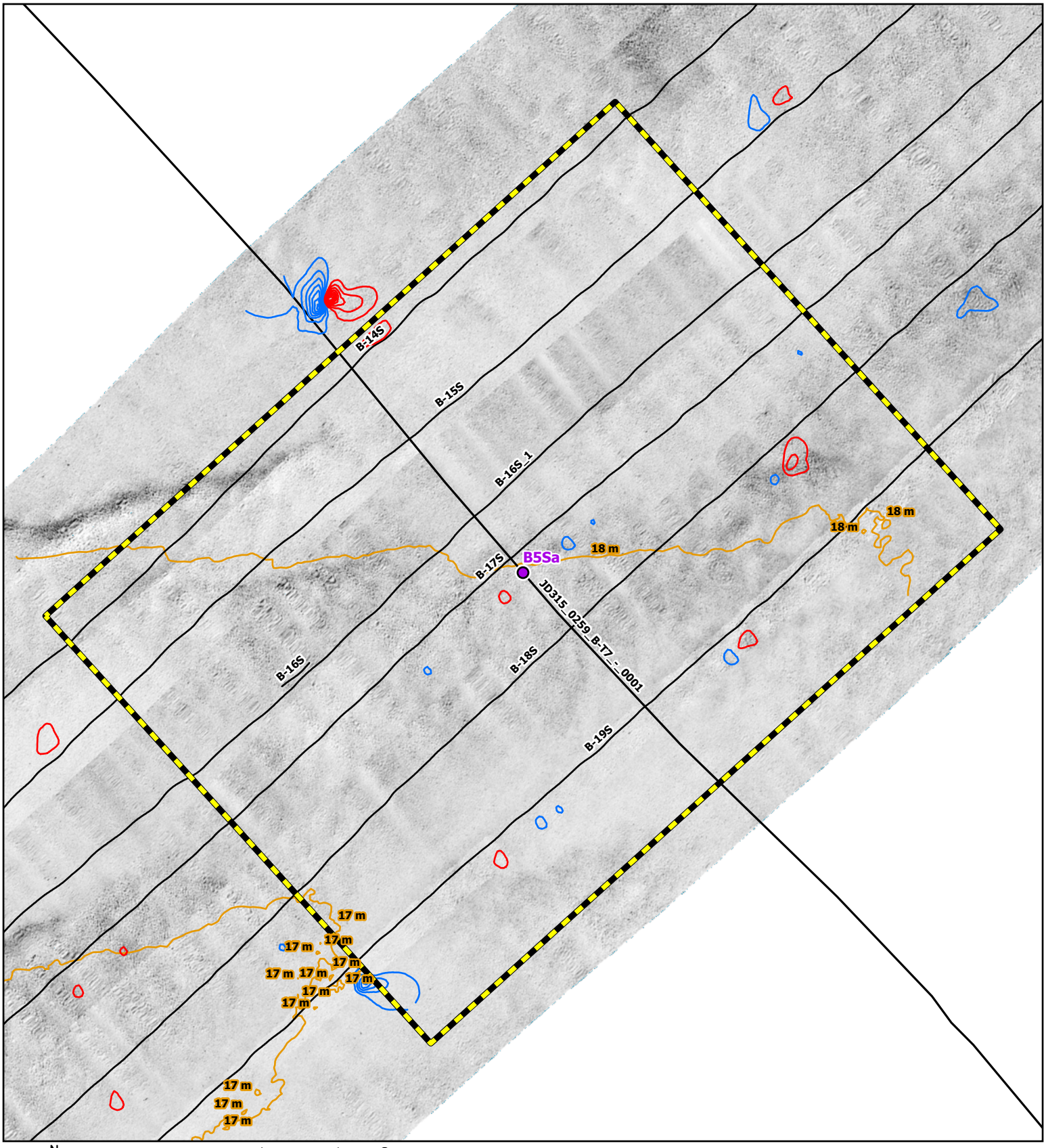
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MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
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Feet
0 10 20 30 40
Meters

Geotechnical Location
ECR Centerline
Trackline
Bathymetric Contour (1 m interval)
Magnetic Contours (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B
Map: 8
B7Na

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

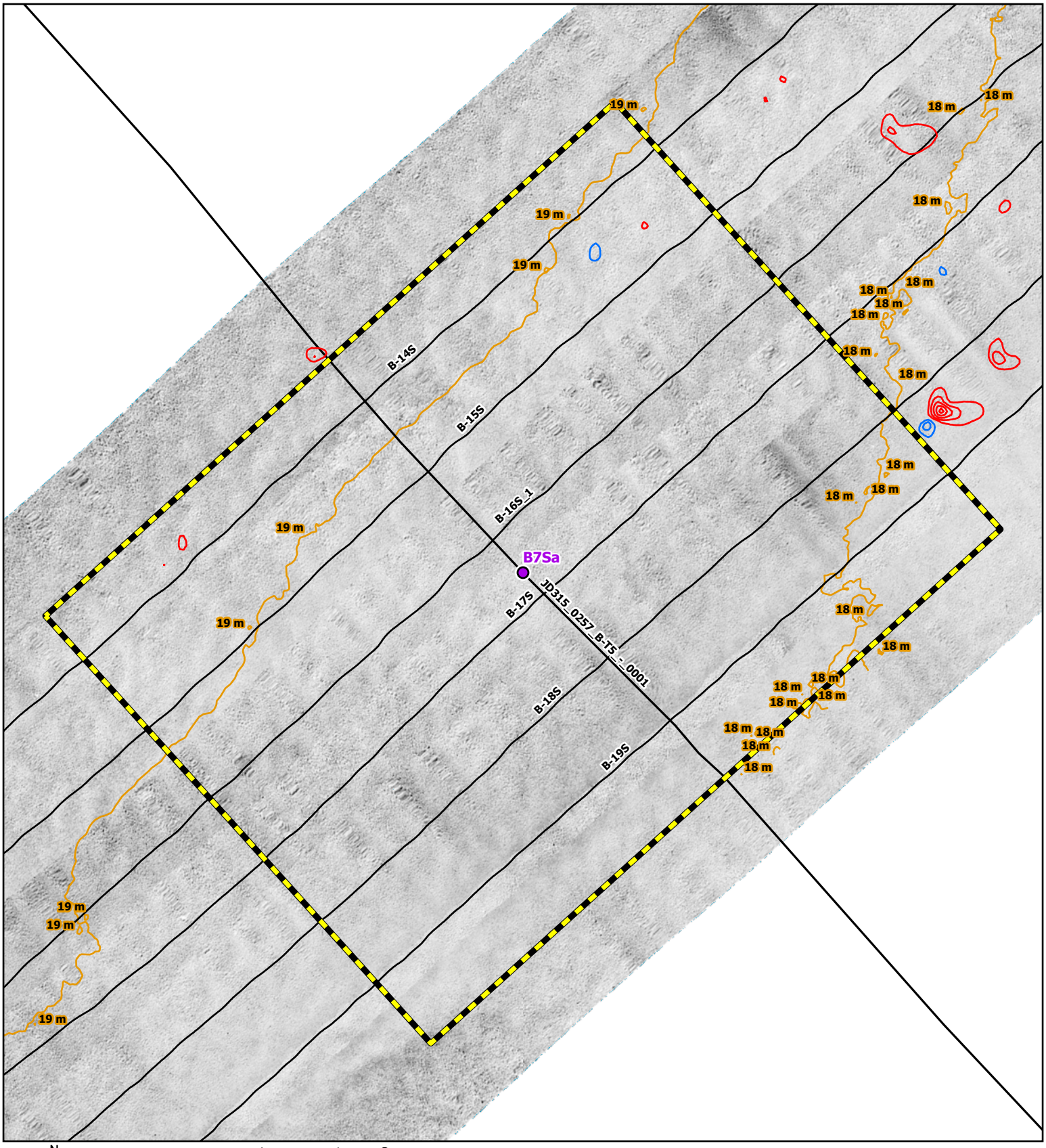
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 9

B5Sa

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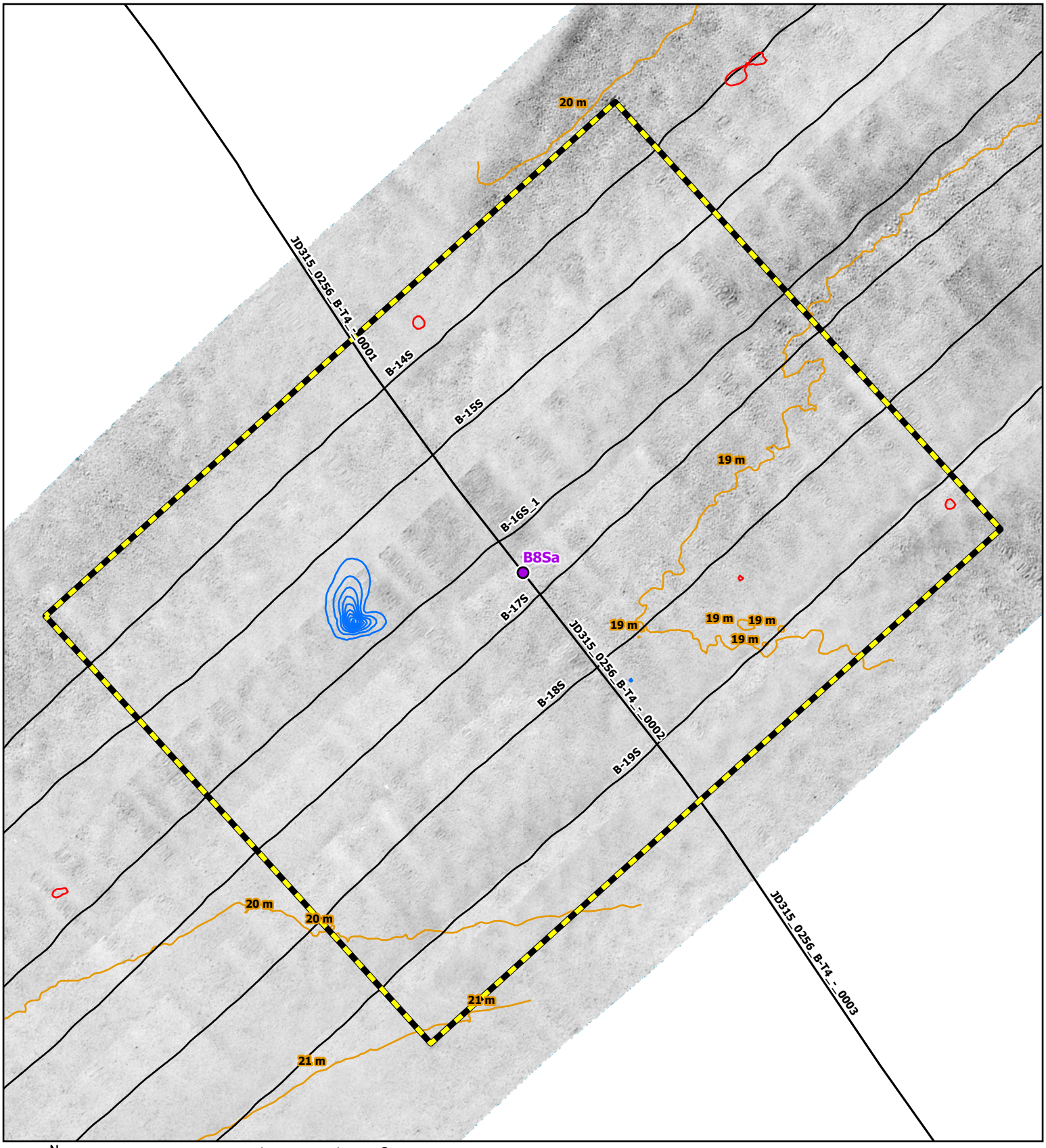
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
ECR Centerline
Trackline
Bathymetric Contour (1 m interval)
Magnetic Contours (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B
Map: 10
B7Sa

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

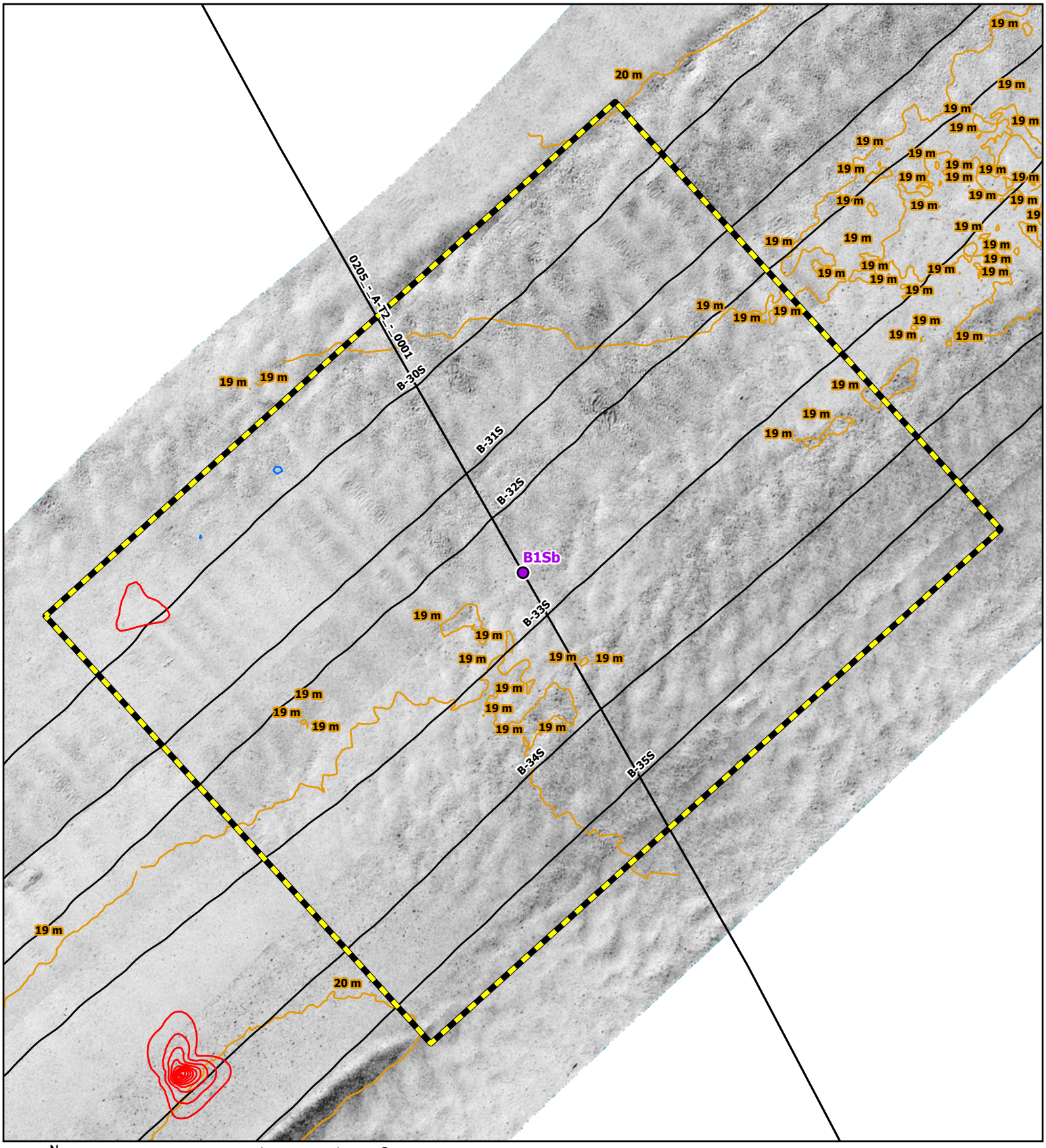
Geotechnical Clearance: Block B

Map: 11

B8Sa

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

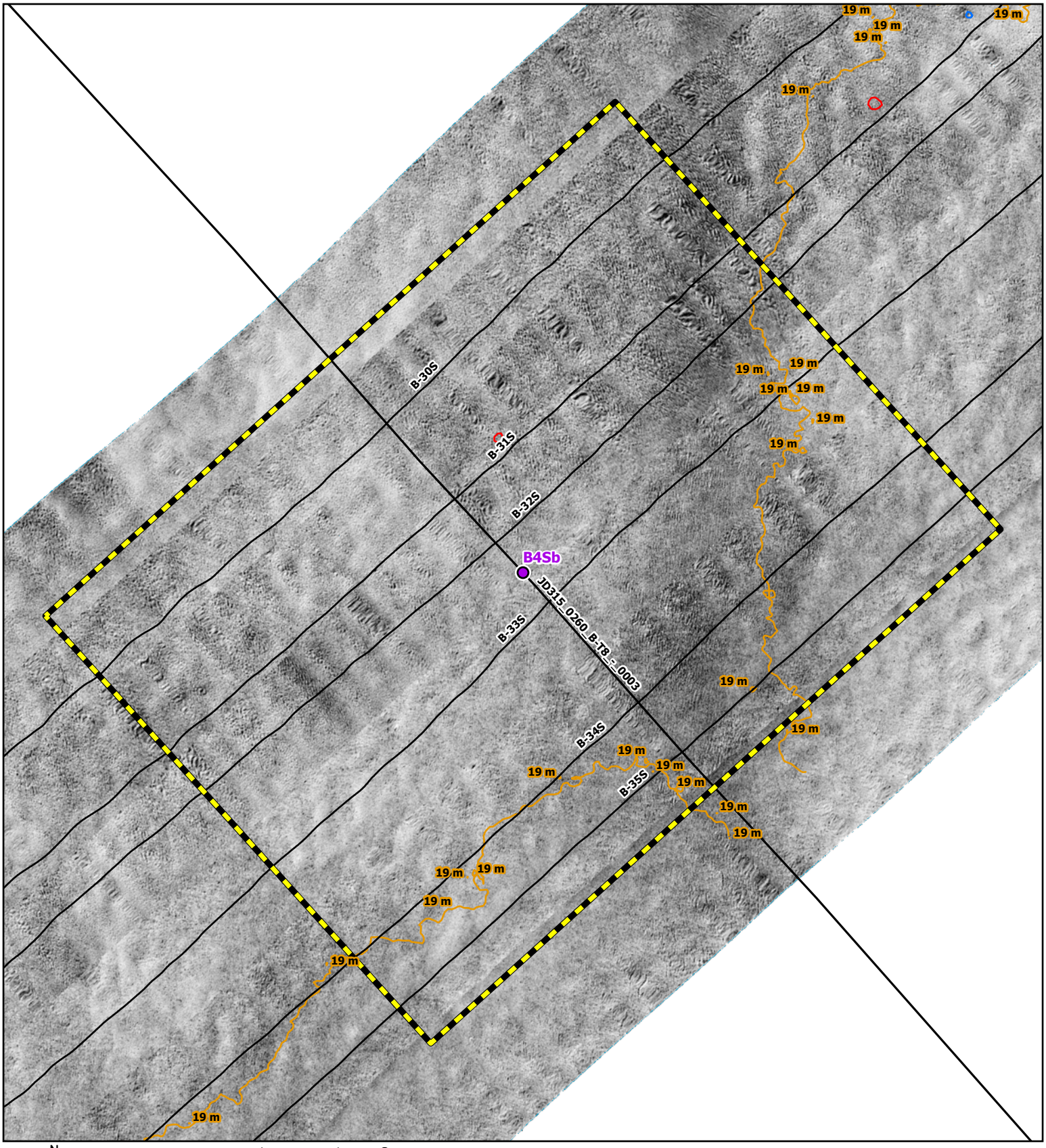
Geotechnical Clearance: Block B

Map: 12

B1Sb

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

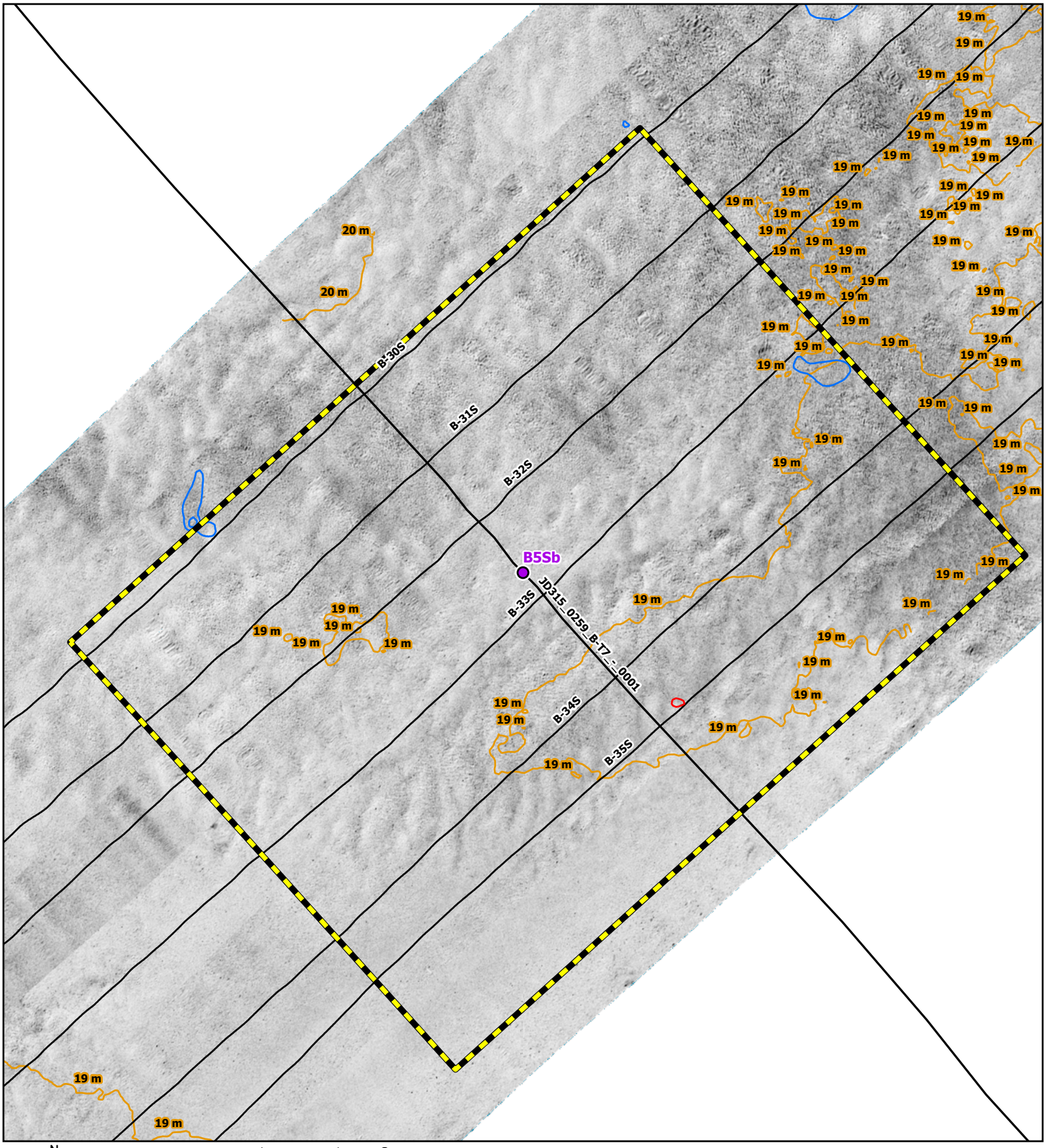
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 13

B4Sb

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MARINE ARCHAEOLOGY FROM STEM TO STERN
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N
W E
S
Grid North

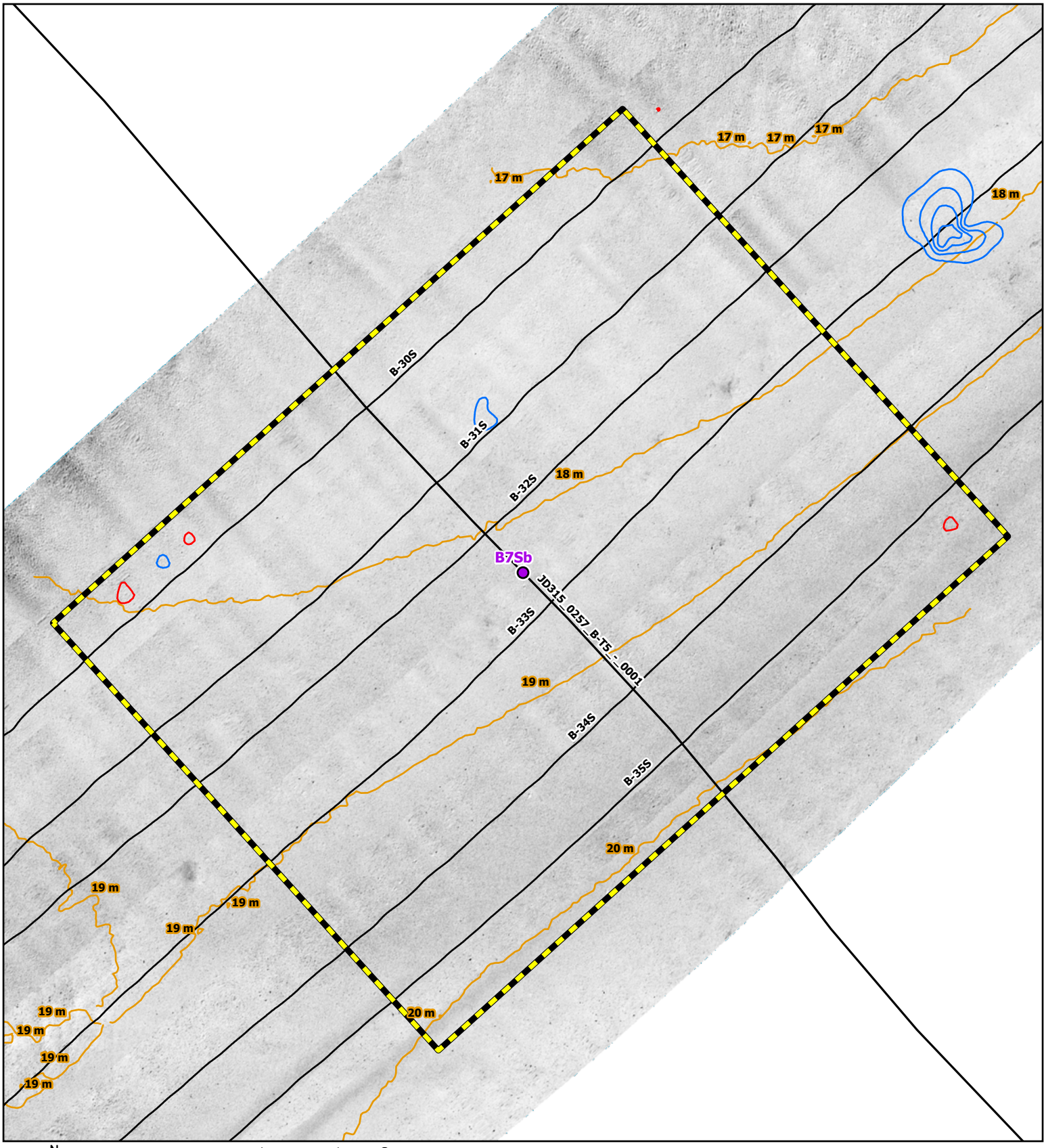
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
ECR Centerline
Trackline
Bathymetric Contour (1 m interval)
Magnetic Contours (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B
Map: 14
B5Sb

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MARINE ARCHAEOLOGY FROM STEM TO STERN

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

ECR Centerline

Trackline

Bathymetric Contour (1 m interval)

Magnetic Contours (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 15

B7Sb

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

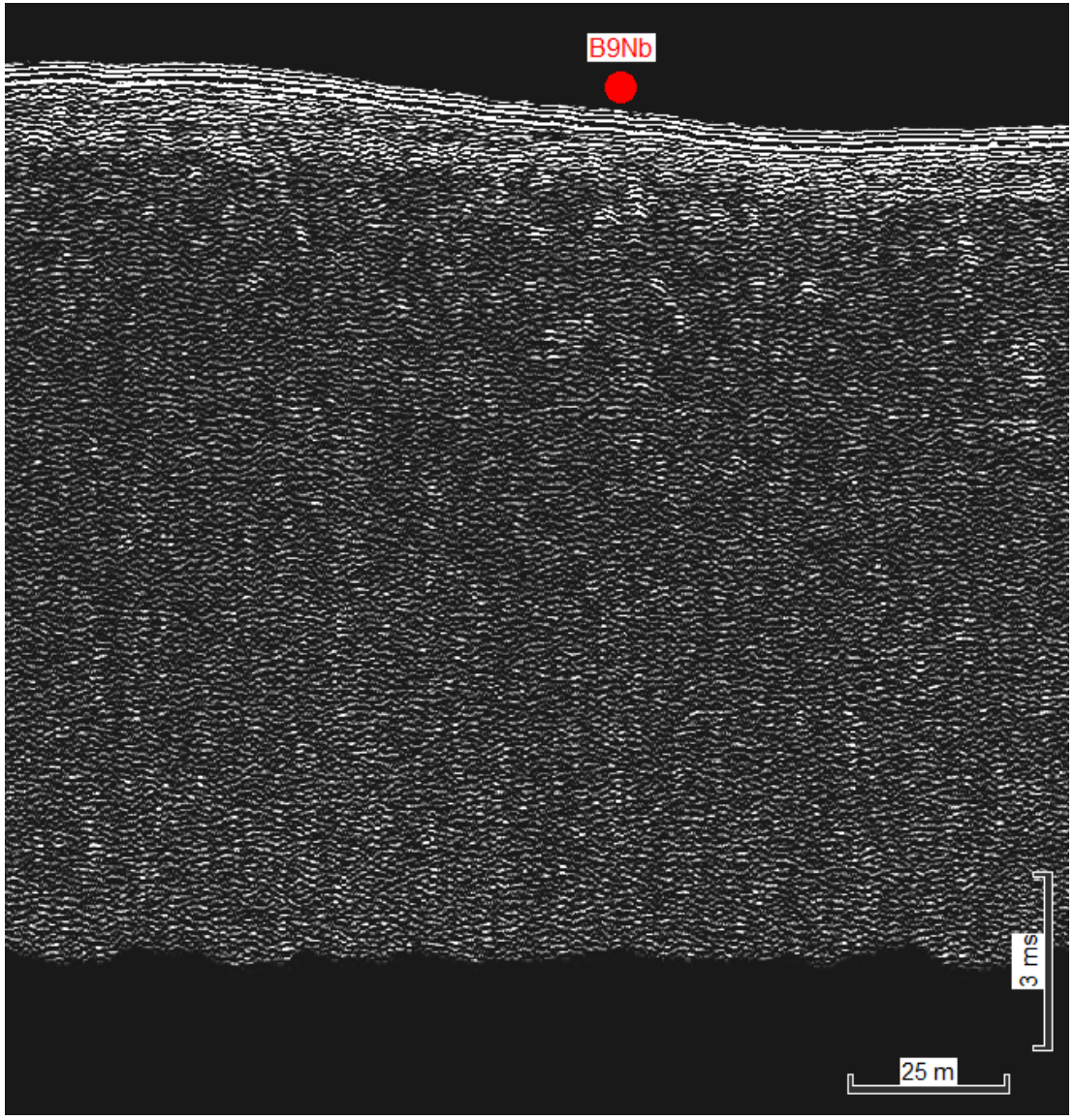


Figure 1: Proposed geotechnical location B9Nb in Corridor B North Wing Line B along seismic line JD309_0120_B-33N

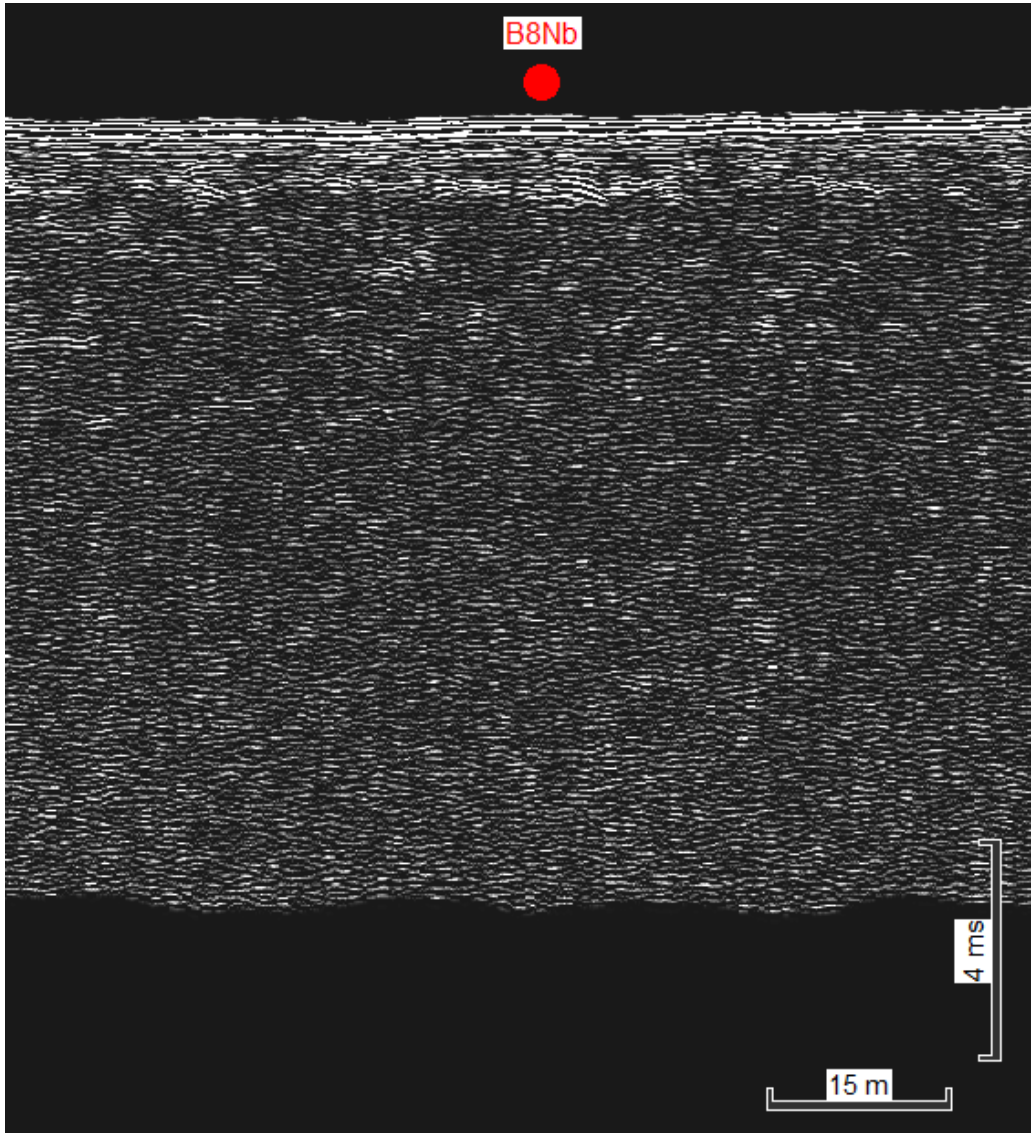


Figure 2: Proposed geotechnical location B8Nb in Corridor B North Wing Line B along seismic line JD309_0120_B-33N

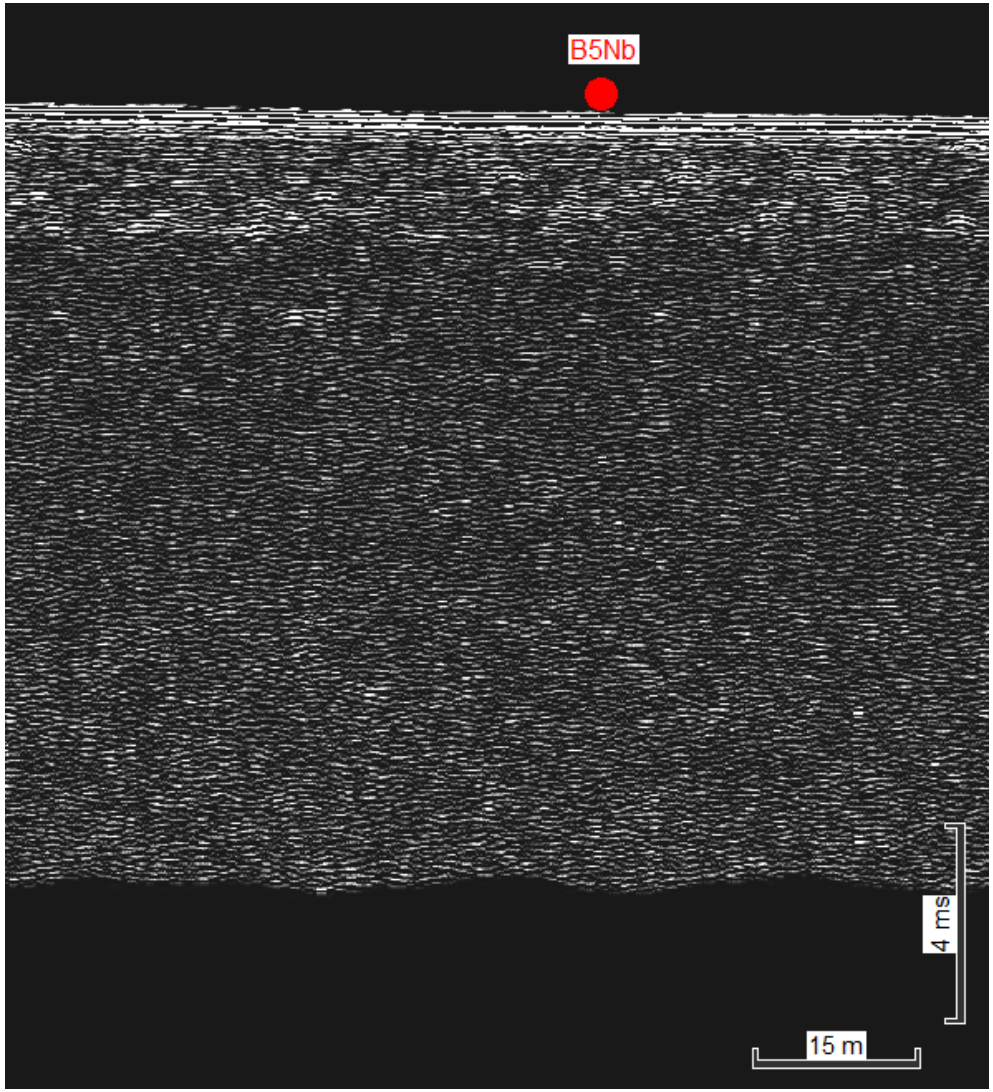


Figure 3: Proposed geotechnical location B5Nb in Corridor B North Wing Line B along seismic line JD309_0120_B-33N

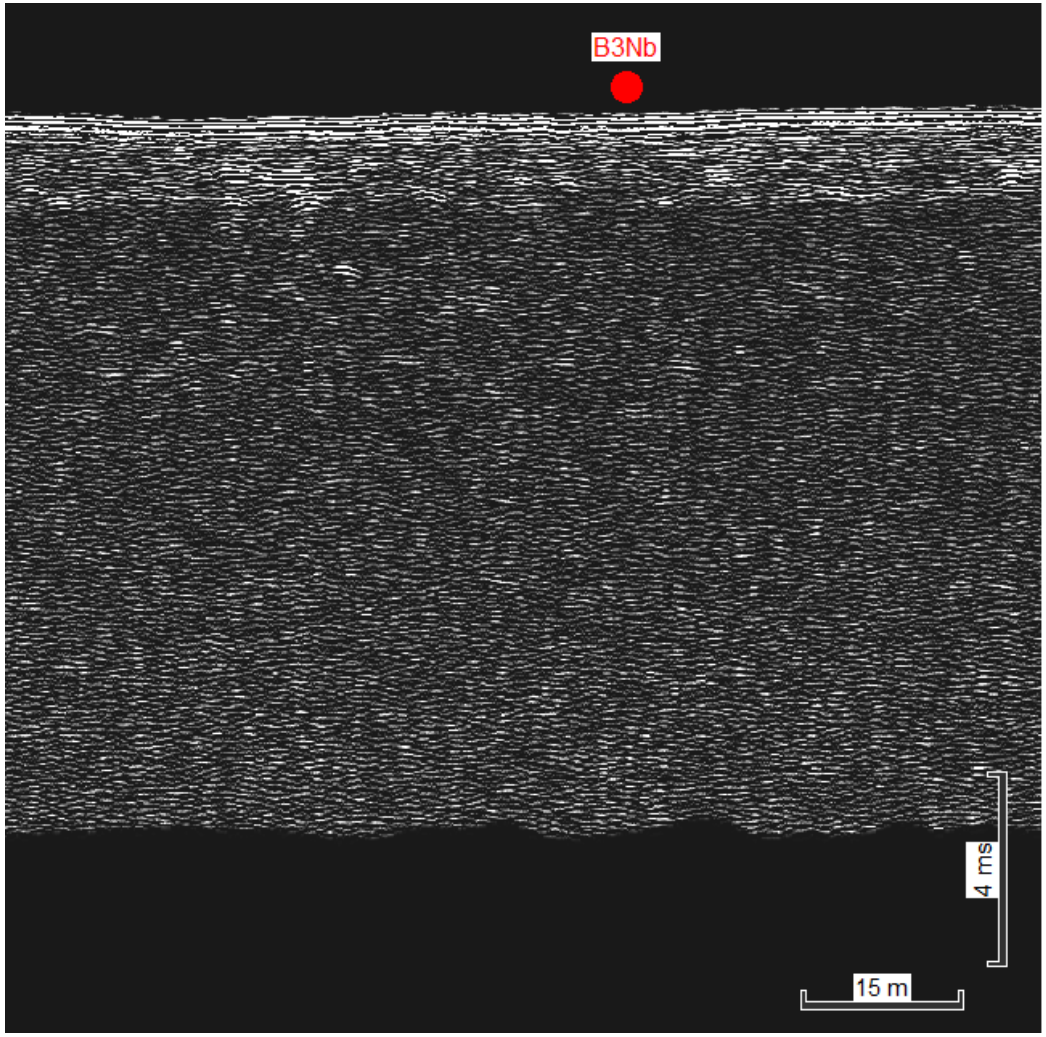


Figure 4: Proposed geotechnical location B3Nb in Corridor B North Wing Line B along seismic line JD309_0120_B-33N

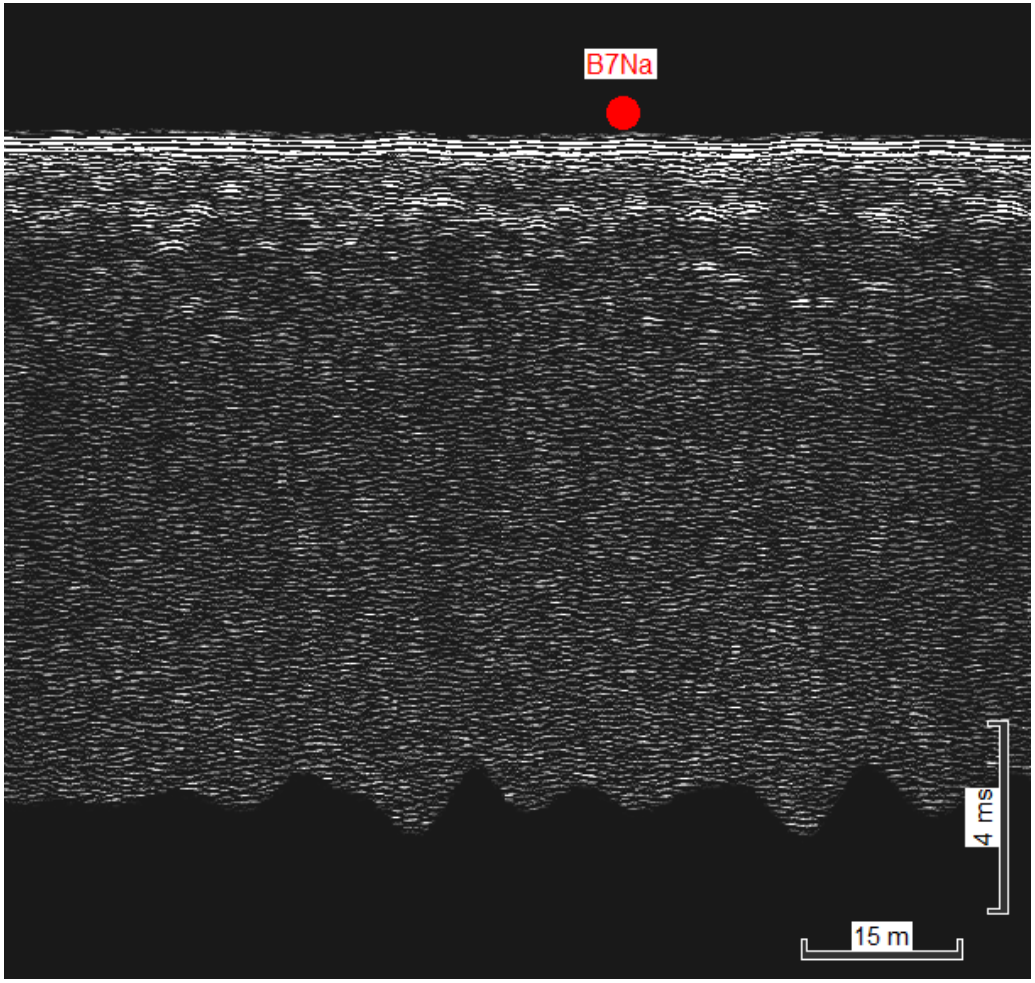


Figure 5: Proposed geotechnical location B7Na in Corridor B North Wing Line A along seismic line JD306_0095_B-16N

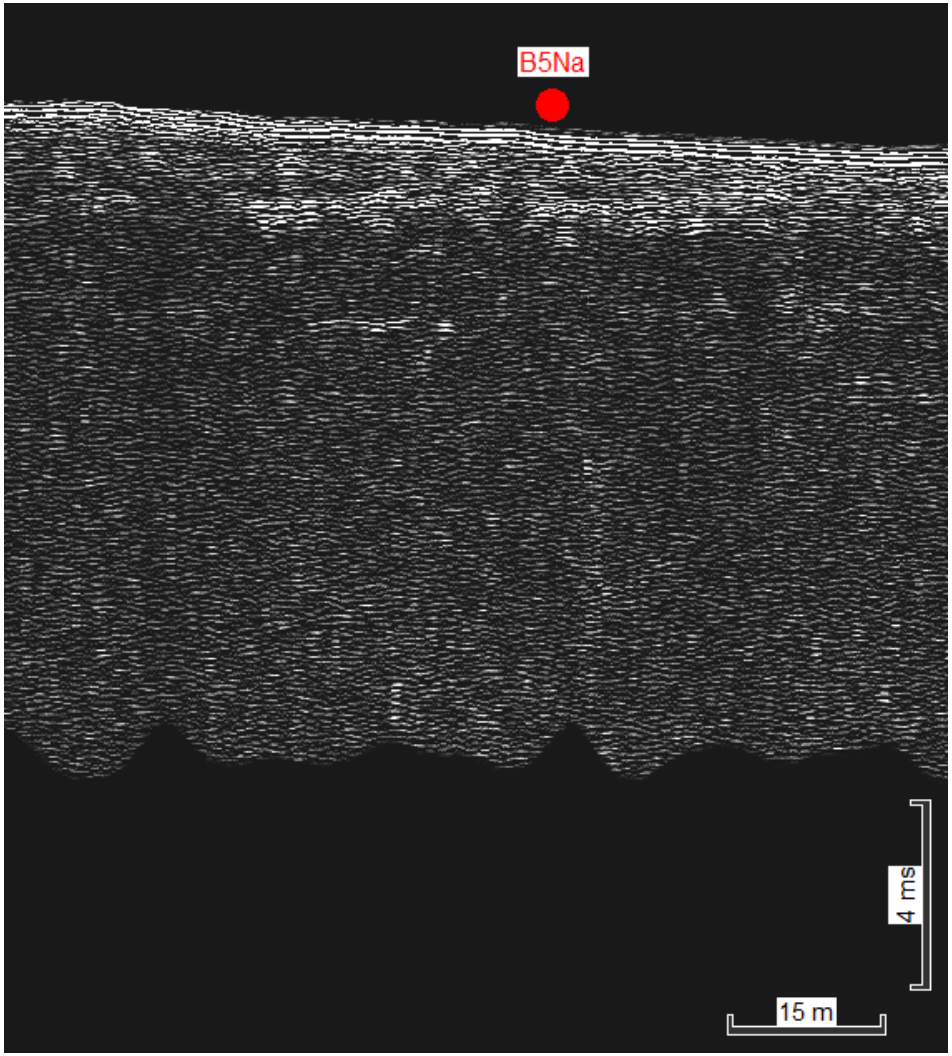


Figure 6: Proposed geotechnical location B5Na in Corridor B North Wing Line A along seismic line JD306_0095_B-16N

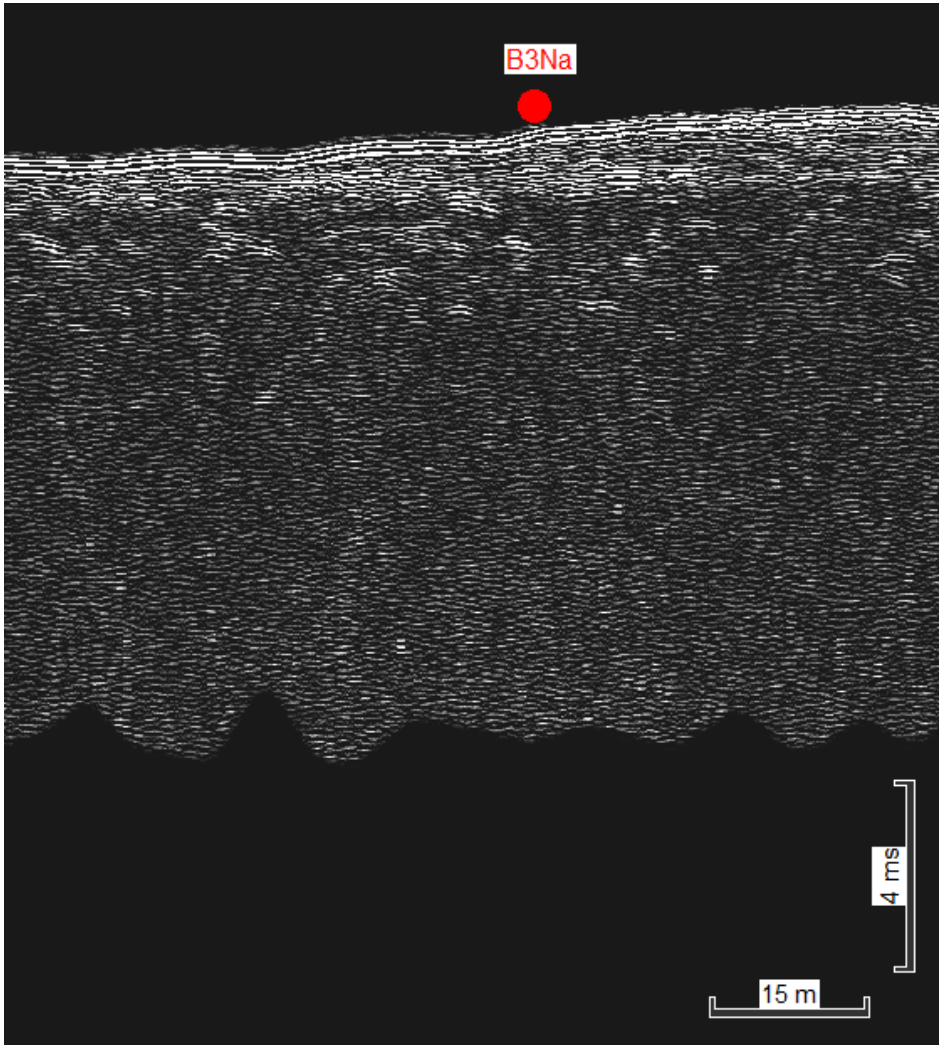


Figure 7: Proposed geotechnical location B3Na in Corridor B North Wing Line A along seismic line JD306_0095_B-16N

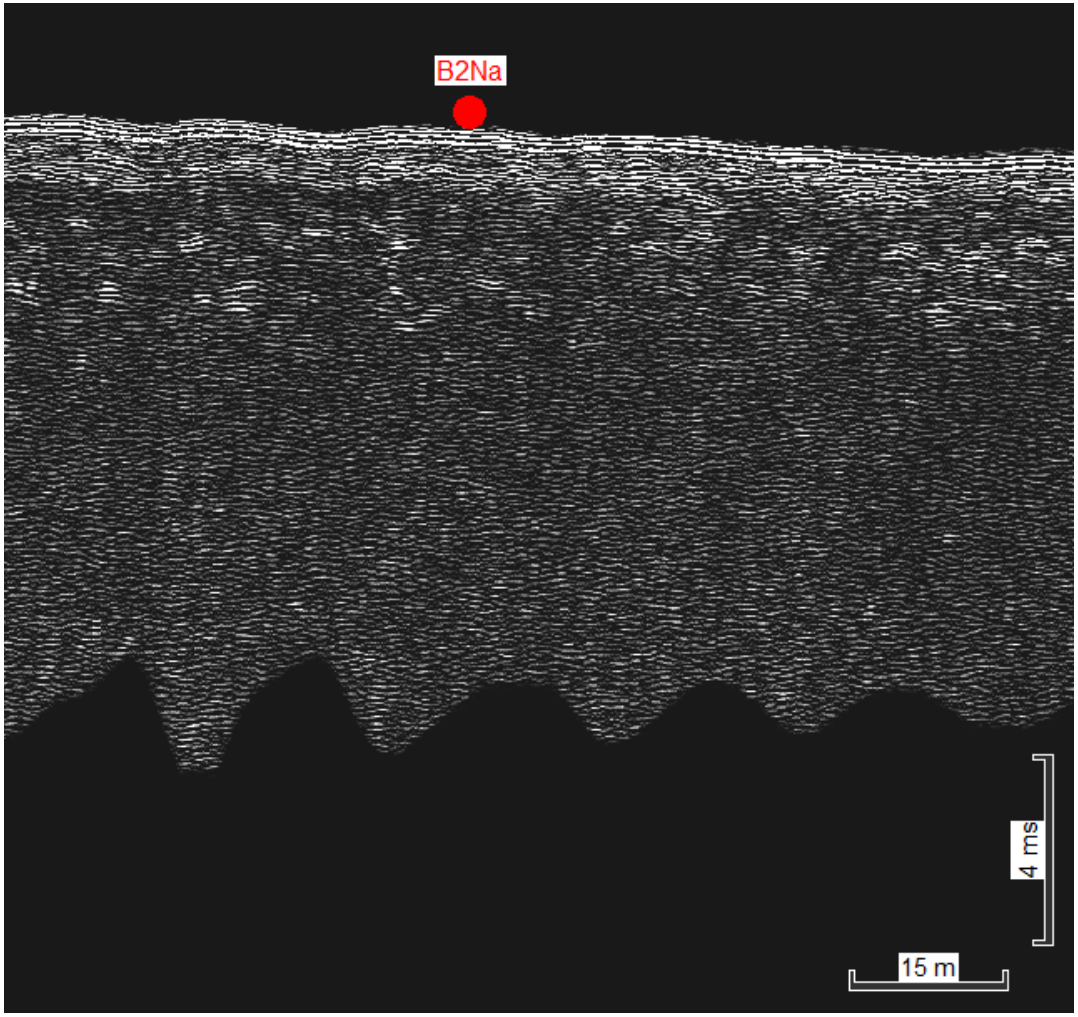


Figure 8: Proposed geotechnical location B2Na in Corridor B North Wing Line A along seismic line JD306_0095_B-16N

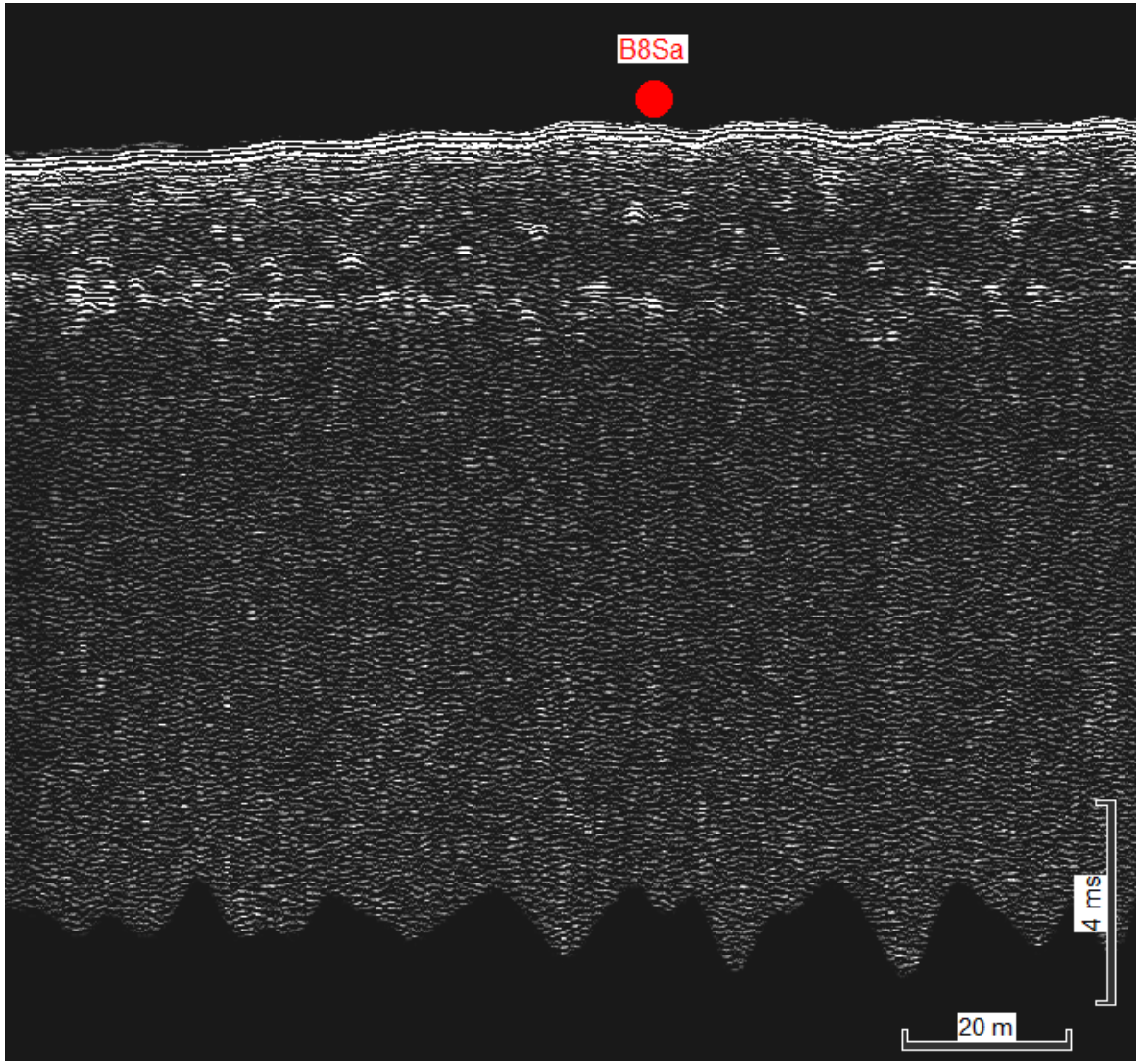


Figure 9: Proposed geotechnical location B8Sa in Corridor B South Wing Line A along seismic line JD306_0086_B-17S_A

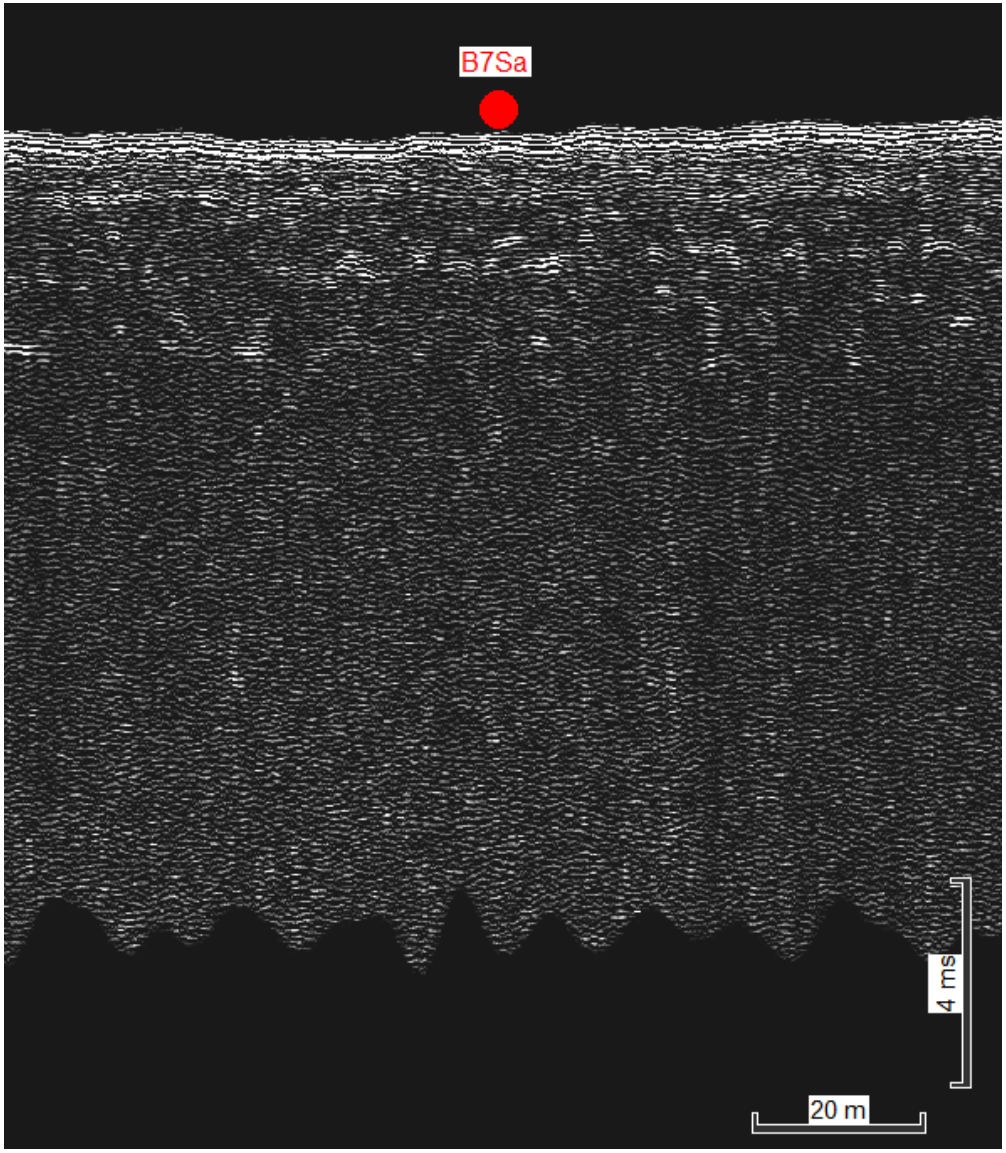


Figure 10: Proposed geotechnical location B7Sa in Corridor B South Wing Line A along seismic line JD306_0086_B-17S_A

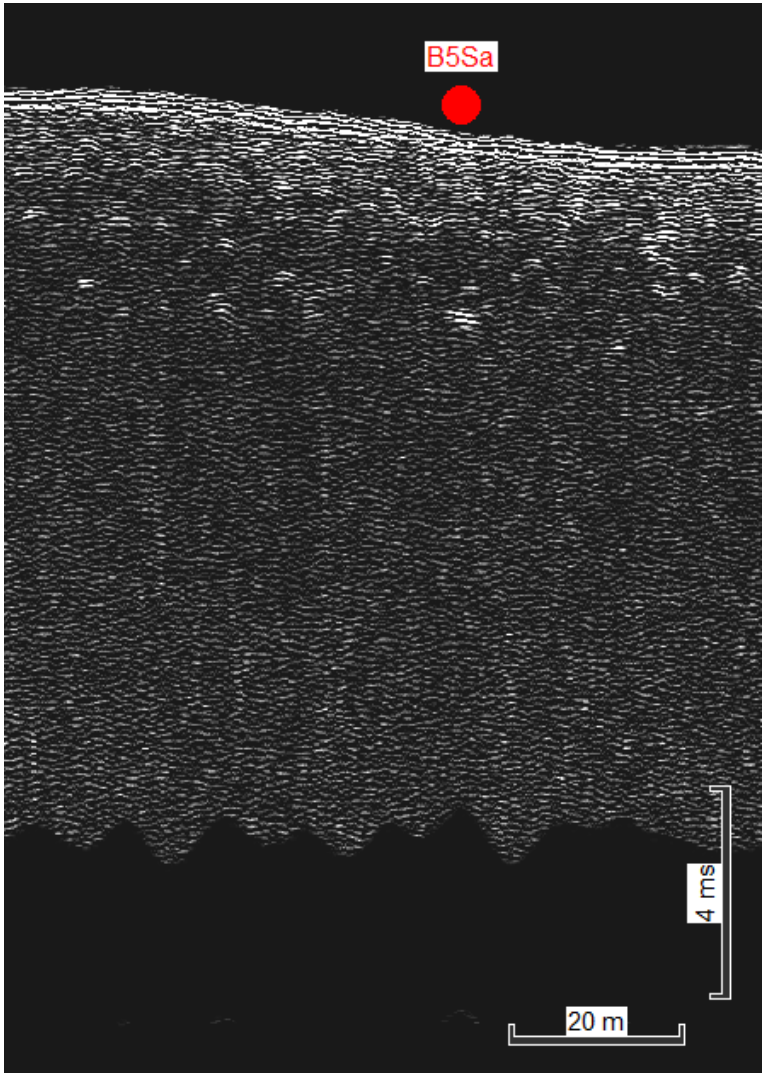


Figure 11: Proposed geotechnical location B5Sa in Corridor B South Wing Line A along seismic line JD306_0086_B-17S_A

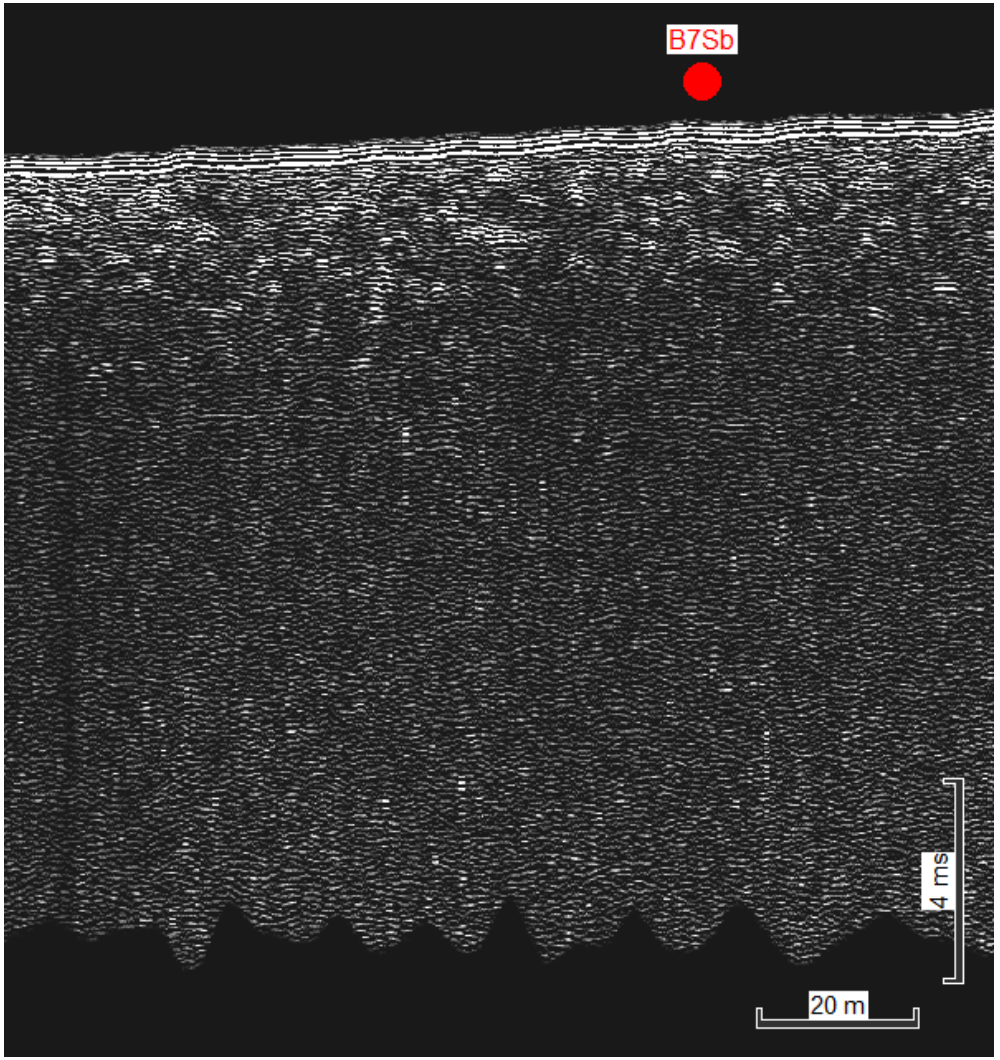


Figure 12: Proposed geotechnical location B7Sb in Corridor B South Wing Line B along seismic line JD306_0082_B-33S_A

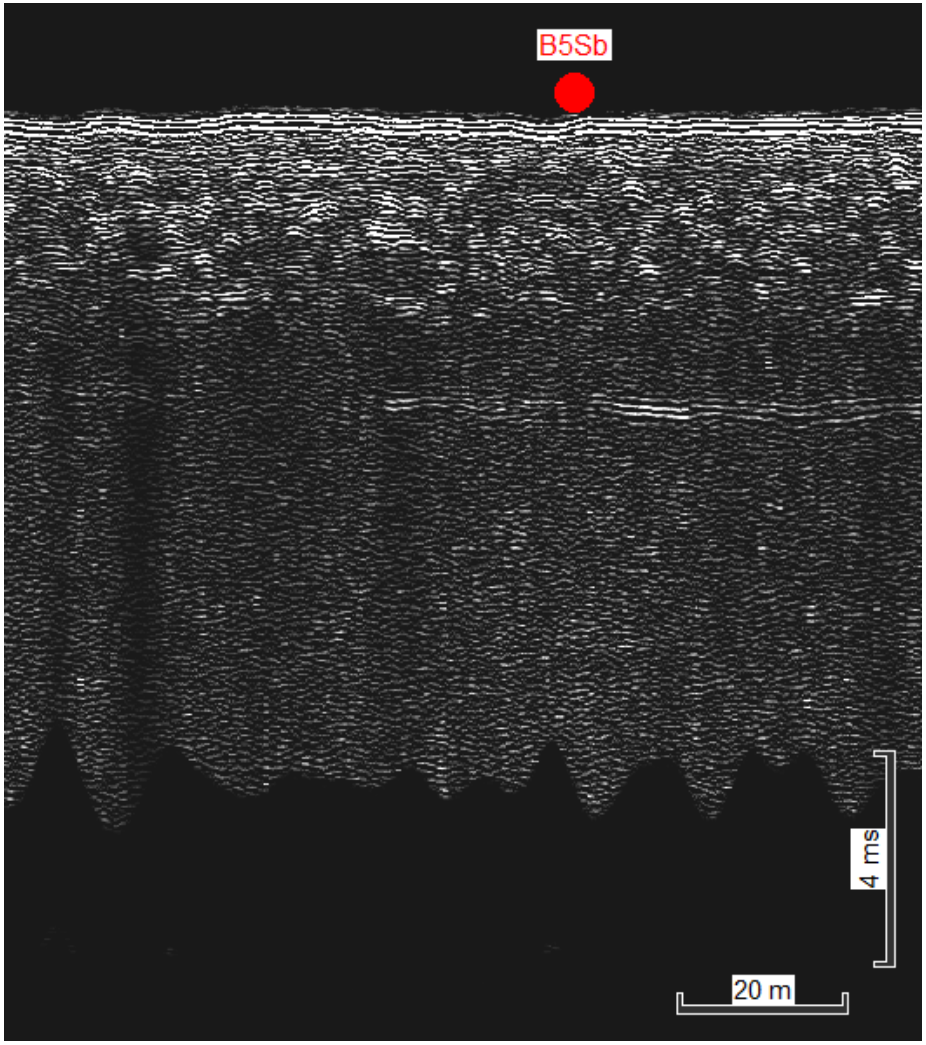


Figure 13: Proposed geotechnical location B5Sb in Corridor B South Wing Line B along seismic line JD306_0082_B-33S_A

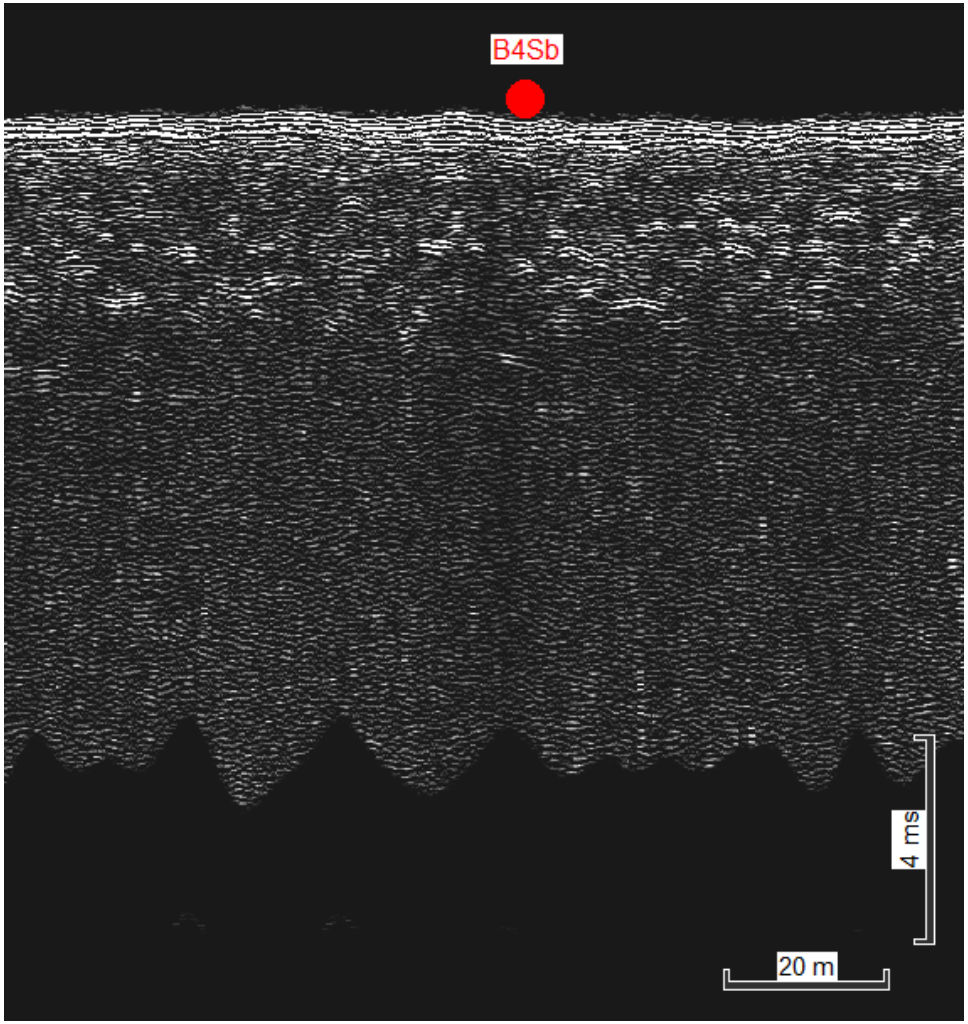


Figure 14: Proposed geotechnical location B4Sb in Corridor B South Wing Line B along seismic line JD306_0082_B-33S_A

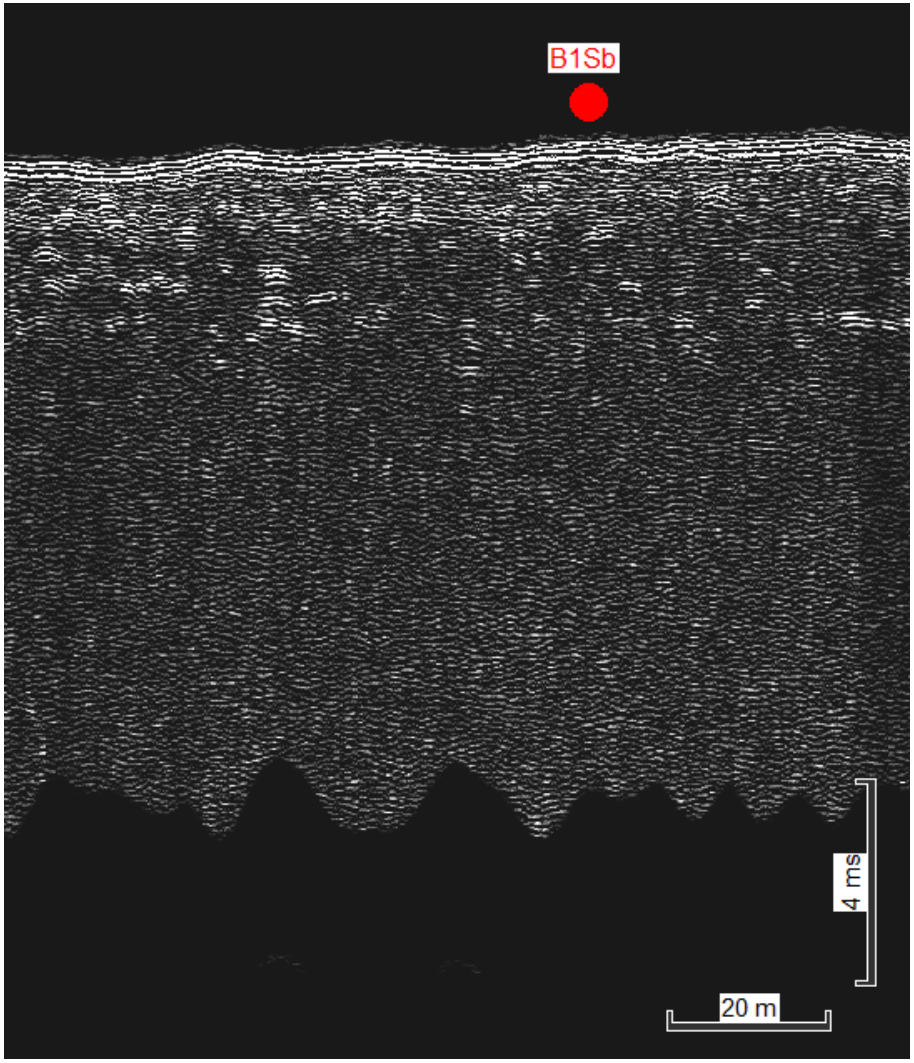


Figure 15: Proposed geotechnical location B1Sb in Corridor B South Wing Line B along seismic line JD306_0082_B-33S_A

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

February 23, 2021

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations along the Export Cable Route Block D and Block E Wing Corridors

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for the Export Cable Route Block D and Block E Wing Corridors within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.
- Analyses of the seismic data suggest that geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,

Joshua J. Bennett

Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan, Ed Buchanan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Cross
McNeilan and Assoc. - Tom McNeilan

February 12, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Block E Wing Corridors

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 23 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 23 proposed geotechnical locations located along the Export Cable Route (ECR), Block Wing Corridors. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). Sixty-nine magnetic anomalies were detected withing the analytical areas (Table 3). The anomalies ranged in amplitude from -21.35 to 19.18 nT, with short (<20.4 m) to medium durations (<60.9 m). Three of the anomalies, MAG_0932, MAG_0939 and MAG_1241, exhibited complex signatures; but their individual amplitudes measured less than 5 nT and durations were extremely short (<5 m) (Table 3). The low TVG tow heights (2.68 - 4.92 m) aided the anomaly interpretations. The above factors, combined with low mass estimations (<1-28 kilograms) are indicative of miscellaneous

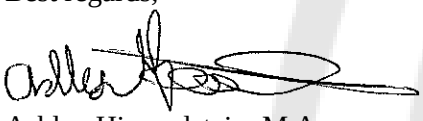
ferrous debris. None of the anomalies corresponded to a side scan sonar or seismic anomaly which could represent a cultural resource. Therefore, no magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Table 4 and Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that 62 proposed geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to 23 the proposed sampling locations (Tables 1 and 2; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas, no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block E, Northern Wing Corridor

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
E1N	427688.42	4073600.57	-75.81064191	36.80548835
E2N	427197.62	4073702.59	-75.81615323	36.80637032
E3N	426707.66	4073798.34	-75.82165466	36.8071956
E4N	426220.24	4073905.36	-75.82712881	36.80812233
E6N	425240.05	4074118.00	-75.83813735	36.80996213
E7N	424748.60	4074220.62	-75.84365656	36.81084819
E9N	423770.86	4074425.62	-75.85463767	36.81261773
E10N	423284.65	4074533.33	-75.86009906	36.8135493
E11N	422796.09	4074634.02	-75.86558614	36.81441711
E12N	422304.94	4074737.92	-75.8711028	36.8153134
E15N	420841.06	4075047.43	-75.88754599	36.81798189

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed geotechnical locations for ECR Block E, Southern Wing Corridor

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
E16S/F1S	420321.80	4074322.11	-75.89329147	36.81140051
E15S	420670.52	4074254.04	-75.88937519	36.81081624
E14S	421157.83	4074147.63	-75.88390141	36.80989783
E12S	422135.72	4073942.25	-75.87291842	36.80812762
E11S	422626.38	4073835.88	-75.86740757	36.80720911
E10S	423116.20	4073734.33	-75.86190672	36.80633368
E9S	423601.99	4073627.01	-75.85645049	36.80540563
E7S	424581.37	4073419.40	-75.84545187	36.80361284
E5S	425563.64	4073220.84	-75.83442212	36.80190081
E4S	426050.53	4073112.37	-75.82895415	36.80096124
E3S	426532.95	4073011.08	-75.82353713	36.80008587
E2S	427027.87	4072907.18	-75.81797976	36.79918757

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3: Magnetic Anomalies within Analytical Areas for ECR Block E, North and South Wing Corridors

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_0825	E16S/F1S	3.01	0.70	3.57	Dipole	-	4074270.82	4074270.82	-75.8944464	36.81092949
MAG_0839	E16S/F1S	3.02	5.16	3.23	Monopole (+)	-	4074383.94	4074383.94	-75.89398878	36.81195264
MAG_0854	E16S/F1S	4.13	-8.70	25.87	Monopole (-)	-	4074329.01	4074329.01	-75.89363283	36.81146016
MAG_0867	E16S/F1S	3.13	2.13	3.47	Monopole (+)	-	4074334.96	4074334.96	-75.89341082	36.81151546
MAG_0868	E16S/F1S	3.47	3.35	3.62	Monopole (+)	-	4074365.06	4074365.06	-75.89341352	36.81178677
MAG_0874	E16S/F1S	4.02	-5.07	30.37	Monopole (-)	-	4074280.3	4074280.3	-75.89329031	36.81102364
MAG_0889	E16S/F1S	4.13	1.52	1.44	Monopole (+)	-	4074329.18	4074329.18	-75.89308591	36.8114658
MAG_0898	E16S/F1S	3.37	-0.80	3.40	Dipole	-	4074223	4074223	-75.89289196	36.81051011
MAG_0932	E16S/F1S	3.41	3.80	4.80	Complex	-	4074377.23	4074377.23	-75.89220333	36.81190557
MAG_0939	E16S/F1S	3.22	2.28	4.89	Complex	-	4074343.95	4074343.95	-75.89192117	36.81160768
MAG_0995	E15S	4.05	-5.52	16.95	Monopole (-)	-	4074196.35	4074196.35	-75.89052244	36.81028764
MAG_1006	E15S	4.17	0.31	3.27	Dipole	-	4074275.44	4074275.44	-75.89014575	36.81100341
MAG_1015	E15S	3.54	2.98	1.60	Monopole (+)	-	4074269.14	4074269.14	-75.88973895	36.81094966
MAG_1024	E15S	3.41	-4.91	28.28	Monopole (-)	-	4074168.15	4074168.15	-75.88909451	36.81004412
MAG_1030	E15S	3.80	0.38	3.25	Dipole	-	4074288.44	4074288.44	-75.88885908	36.81113022
MAG_1033	E15N	4.29	9.05	3.19	Monopole (+)	-	4075078.81	4075078.81	-75.88881803	36.81825524
MAG_1036	E15S	3.74	5.76	1.43	Monopole (+)	-	4074280.8	4074280.8	-75.88856223	36.81106357
MAG_1038	E15S	3.91	-6.84	16.45	Monopole (-)	-	4074156.32	4074156.32	-75.88838291	36.8099428
MAG_1040	E15S	3.63	4.77	2.29	Monopole (+)	-	4074274.24	4074274.24	-75.88834923	36.81100603
MAG_1042	E15S	3.30	4.14	3.15	Monopole (+)	-	4074274.54	4074274.54	-75.88823234	36.8110096
MAG_1043	E15N	3.79	16.53	2.11	Monopole (+)	-	4075147.95	4075147.95	-75.88804225	36.8188843
MAG_1047	E15N	4.42	-6.61	8.29	Dipole	-	4075126.85	4075126.85	-75.88788994	36.81869523
MAG_1063	E15N	4.12	-8.79	20.19	Monopole (-)	-	4074988.11	4074988.11	-75.88695272	36.81745157
MAG_1065	E15N	3.35	-5.40	9.44	Monopole (-)	-	4075008.25	4075008.25	-75.88679372	36.8176343
MAG_1071	E15N	3.32	1.57	3.98	Dipole	-	4075034.25	4075034.25	-75.8864324	36.81787137

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_1074	E15N	4.92	0.00	2.12	Dipole	-	4074999.05	4074999.05	-75.88632683	36.81755485
MAG_1102	E15S	4.33	3.46	2.93	Monopole (+)	-	4074174.86	4074174.86	-75.88444739	36.81013926
MAG_1105	E15S	3.91	3.00	2.54	Monopole (+)	-	4074198.35	4074198.35	-75.88433784	36.81035182
MAG_1126	E15S	3.29	-3.06	13.61	Dipole	-	4074164.5	4074164.5	-75.88260062	36.81005959
MAG_1241	E12S	2.93	6.50	4.13	Complex	-	4073954.06	4073954.06	-75.87423288	36.80822441
MAG_1243	E12S	3.50	7.83	4.07	Monopole (+)	-	4074037	4074037	-75.8740238	36.8089736
MAG_1245	E12S	3.89	3.26	3.15	Monopole (+)	-	4074032.62	4074032.62	-75.87381182	36.80893567
MAG_1273	E11S	3.21	7.90	3.17	Monopole (+)	-	4073774.32	4073774.32	-75.86805301	36.80664942
MAG_1280	E11S	4.16	-0.01	3.70	Dipole	-	4073888.91	4073888.91	-75.86624705	36.80769556
MAG_1290	E11N	4.21	4.62	4.06	Dipole	-	4074653.72	4074653.72	-75.86451501	36.81460249
MAG_1320	E9S	3.63	6.42	2.29	Monopole (+)	-	4073647.01	4073647.01	-75.85657941	36.80558499
MAG_1327	E9N	4.50	-5.65	52.62	Monopole (-)	-	4074514.58	4074514.58	-75.8558076	36.8134112
MAG_1329	E9N	3.73	19.18	2.80	Monopole (+)	-	4074470.01	4074470.01	-75.8551323	36.81301429
MAG_1393	E7S	2.68	5.39	2.76	Monopole (+)	-	4073347.21	4073347.21	-75.84628501	36.80295617
MAG_1396	E7S	3.32	-5.20	38.26	Monopole (-)	-	4073444.51	4073444.51	-75.84606533	36.80383483
MAG_1400	E7S	4.34	-21.35	22.24	Monopole (-)	-	4073431.35	4073431.35	-75.84534418	36.80372133
MAG_1402	E7S	3.44	-5.05	25.45	Monopole (-)	-	4073327.7	4073327.7	-75.84471563	36.80279145
MAG_1403	E7S	3.11	-5.03	16.33	Monopole (-)	-	4073365.75	4073365.75	-75.84470987	36.80313449
MAG_1414	E7N	3.80	12.84	2.99	Monopole (+)	-	4074284.1	4074284.1	-75.84349606	36.81142152
MAG_1415	E7N	4.35	-9.32	25.23	Monopole (-)	-	4074262.52	4074262.52	-75.84348317	36.81122708
MAG_1416	E7N	3.67	9.69	3.45	Monopole (+)	-	4074249.19	4074249.19	-75.84340181	36.8111075
MAG_1445	E6N	3.67	0.19	5.99	Dipole	-	4074051.67	4074051.67	-75.83735318	36.80936971
MAG_1459	E5S	3.87	5.39	2.79	Monopole (+)	-	4073194.83	4073194.83	-75.83570087	36.80165739
MAG_1462	E5S	3.15	15.20	2.61	Monopole (+)	-	4073182.7	4073182.7	-75.83506639	36.8015525
MAG_1464	E5S	3.40	13.17	2.58	Monopole (+)	-	4073261.55	4073261.55	-75.83483054	36.80226495
MAG_1468	E5S	3.69	-11.27	34.28	Monopole (-)	-	4073288.38	4073288.38	-75.83424559	36.80251091
MAG_1502	E4S	3.09	-2.75	3.85	Dipole	-	4073172.81	4073172.81	-75.83006543	36.80149836

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_1520	E4N	4.39	-0.69	2.25	Dipole	-	4073848.23	4073848.23	-75.8285034	36.8075978
MAG_1524	E4S	3.52	5.45	2.13	Monopole (+)	-	4073047.09	4073047.09	-75.82798365	36.80037957
MAG_1569	E3S	3.35	-0.02	3.76	Dipole	-	4072989.13	4072989.13	-75.82489793	36.79987854
MAG_1573	E3S	3.30	4.90	4.80	Monopole (+)	-	4072948.7	4072948.7	-75.82462031	36.79951601
MAG_1588	E3S	3.65	5.48	2.60	Monopole (+)	-	4072926.73	4072926.73	-75.82338313	36.79932653
MAG_1594	E3S	3.61	0.58	2.82	Dipole	-	4073069.37	4073069.37	-75.82286247	36.80061596
MAG_1613	E2N	4.05	5.74	3.58	Monopole (+)	-	4073750.77	4073750.77	-75.8214714	36.80676803
MAG_1651	E2S	3.52	-5.16	21.39	Monopole (-)	-	4072836.19	4072836.19	-75.81829243	36.79854549
MAG_1653	E2S	3.34	-9.26	16.04	Monopole (-)	-	4072862.95	4072862.95	-75.818244	36.79878705
MAG_1657	E2S	3.14	-0.01	2.29	Dipole	-	4072853.38	4072853.38	-75.81772683	36.79870434
MAG_1659	E2S	4.12	0.01	6.14	Dipole	-	4072878.73	4072878.73	-75.81720885	36.79893642
MAG_1660	E2S	3.39	13.88	2.32	Monopole (+)	-	4072845.25	4072845.25	-75.81719802	36.79863469
MAG_1661	E2S	3.66	13.64	2.70	Monopole (+)	-	4072901.77	4072901.77	-75.81720254	36.79914416
MAG_1663	E2S	3.26	-6.02	12.82	Monopole (-)	-	4072959.9	4072959.9	-75.81712012	36.79966873
MAG_1665	E2S	3.64	7.03	3.48	Monopole (+)	-	4072921.46	4072921.46	-75.81683847	36.79932415
MAG_1666	E2S	3.29	-15.51	57.61	Monopole (-)	-	4072838.25	4072838.25	-75.81682557	36.79857415
MAG_1724	E1N	4.20	4.00	2.58	Dipole	-	4073605.33	4073605.33	-75.81051954	36.80553211

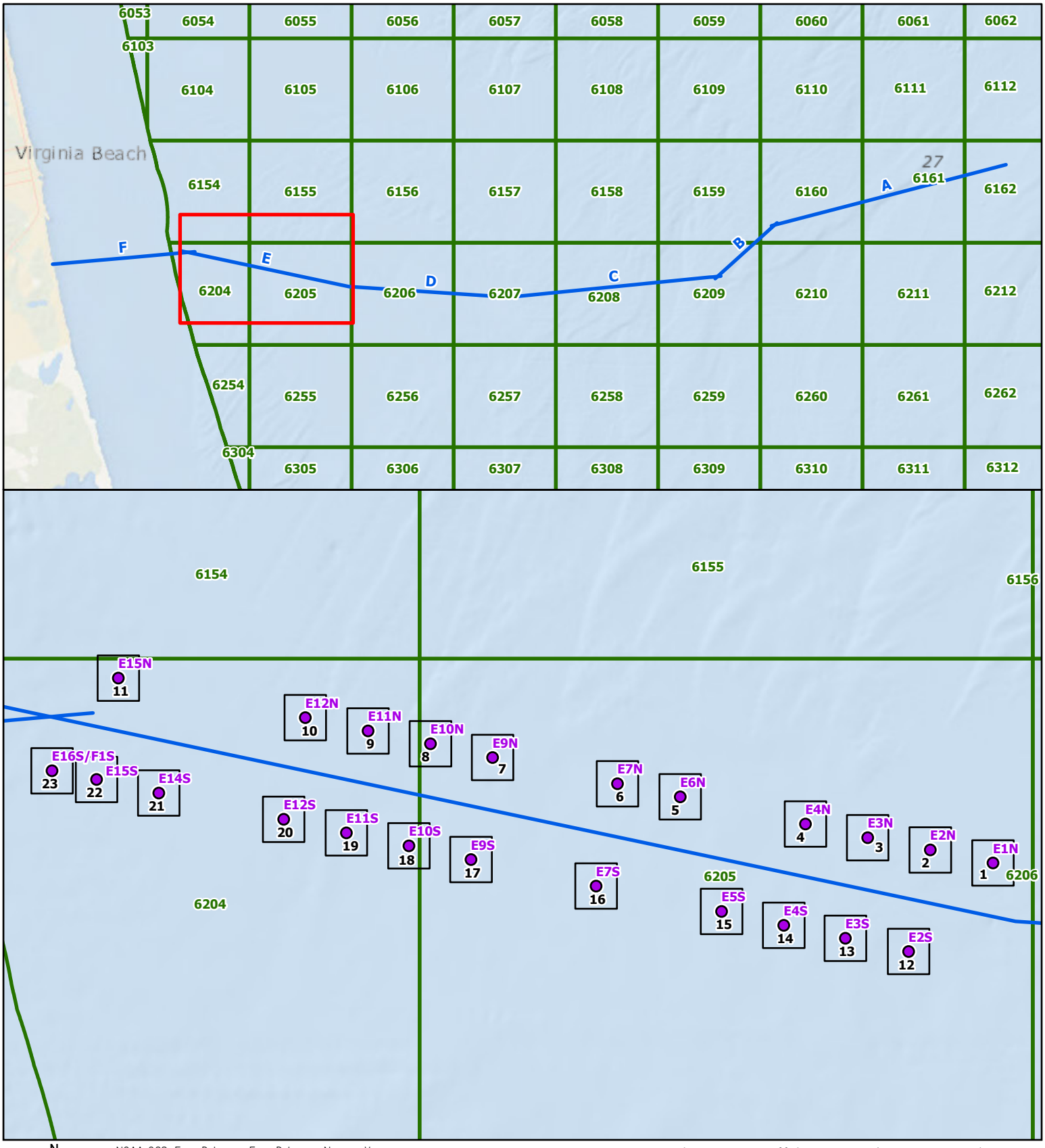
[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 4: Side Scan Sonar Contact within Analytical Areas for ECR Block E, North and South Wing Corridors

SSS ID	Associated Geotechnical Location	Height (m)	Width (m)	Length (m)	Depth (m)	Associated Mag Anomaly	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
SSS_E_61	E7S	0.37	0.58	1.43	12.1	-	424498.99	4073479.83	-75.84638121	36.80415102

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK E WING CORRIDORS



N
W E
S
Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:40,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

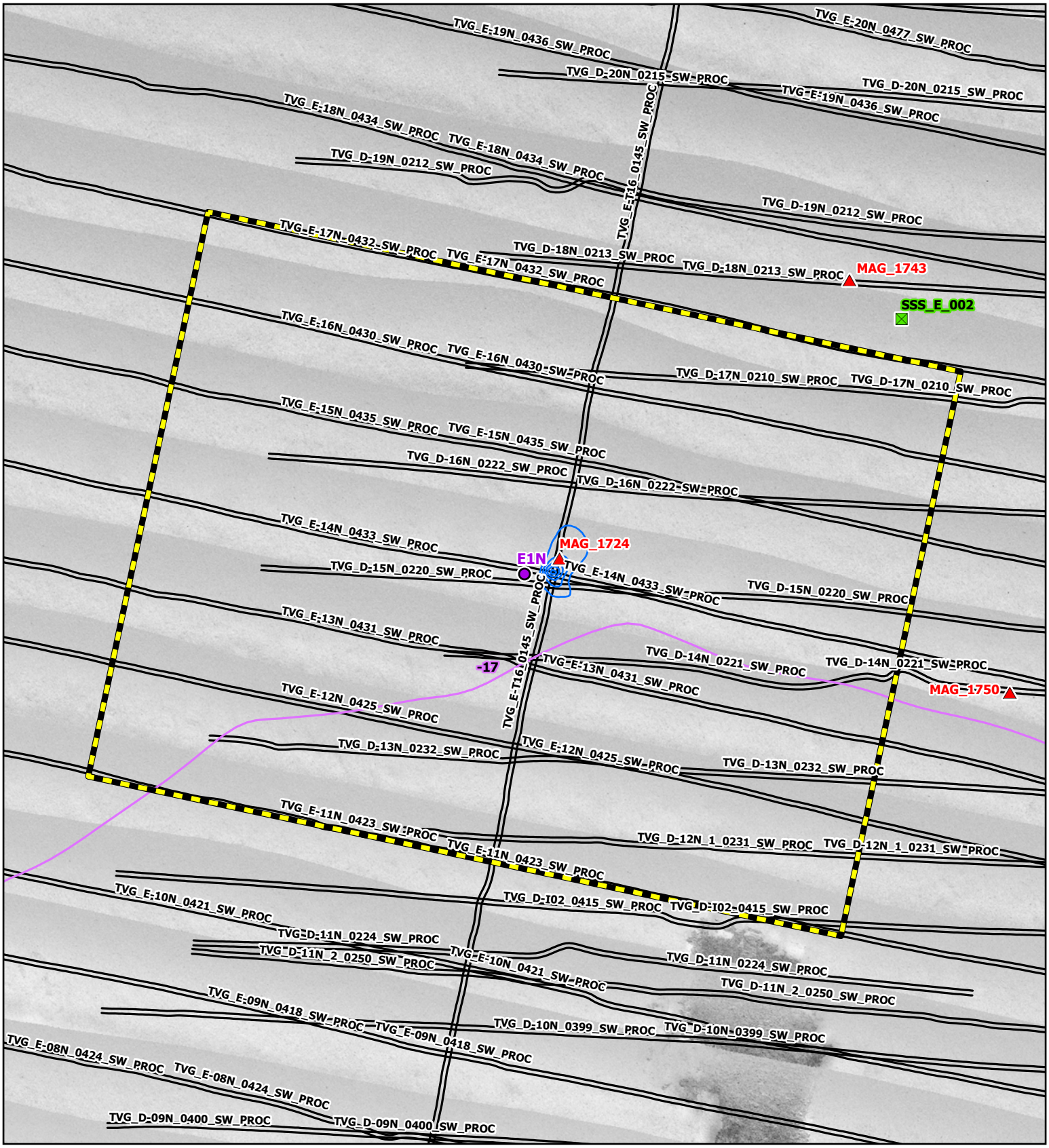
0 0.25 0.5 0.75 Miles
0 0.25 0.5 0.75 Kilometers

Geotechnical Location
ECR Centerline
BOEM Lease Block
Map Sheet Extent

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Analytical Area

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Coastal Virginia Offshore Wind Commercial Project

Outer Continental Shelf,

Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block E

Map: 1

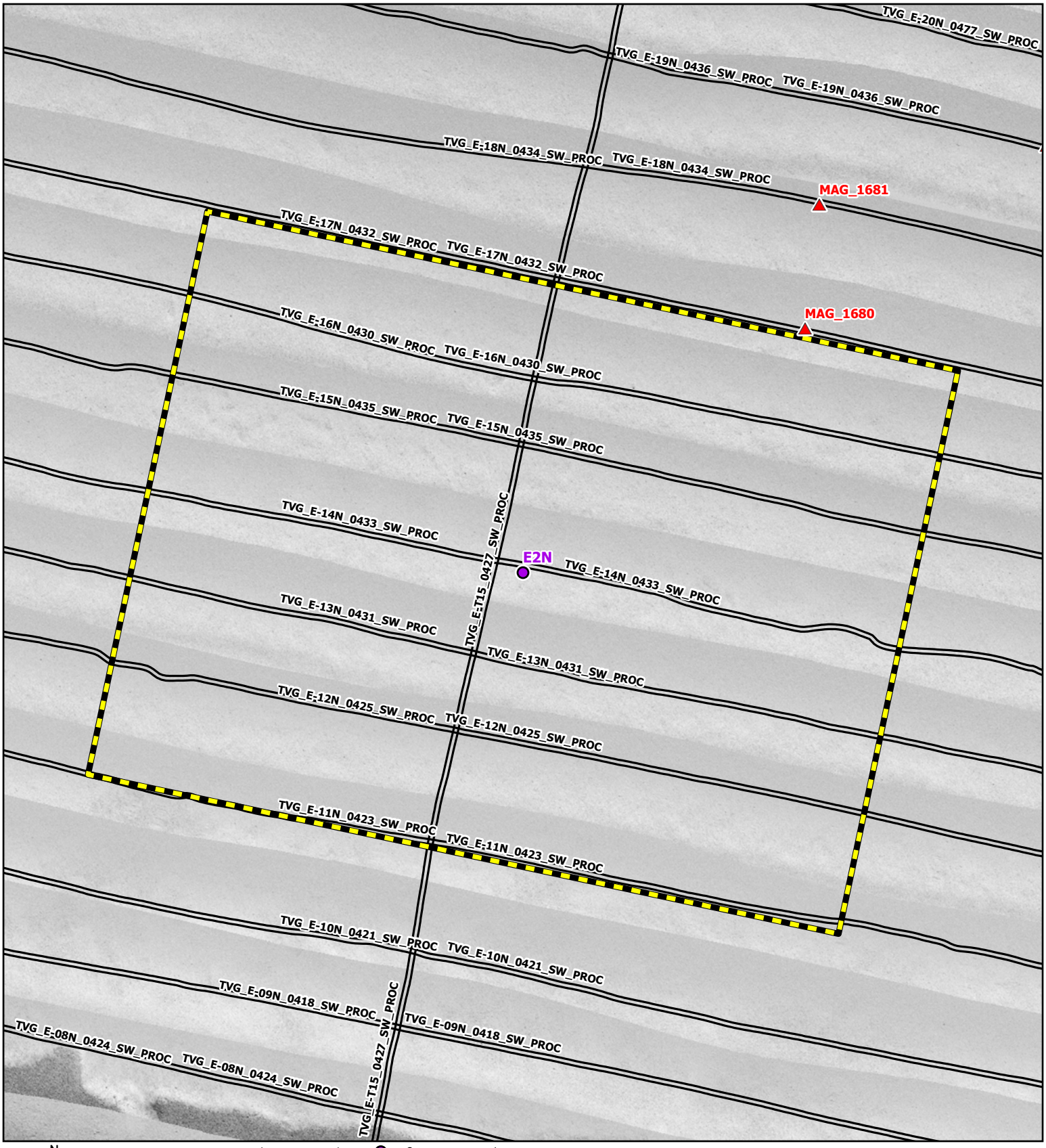
E1N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

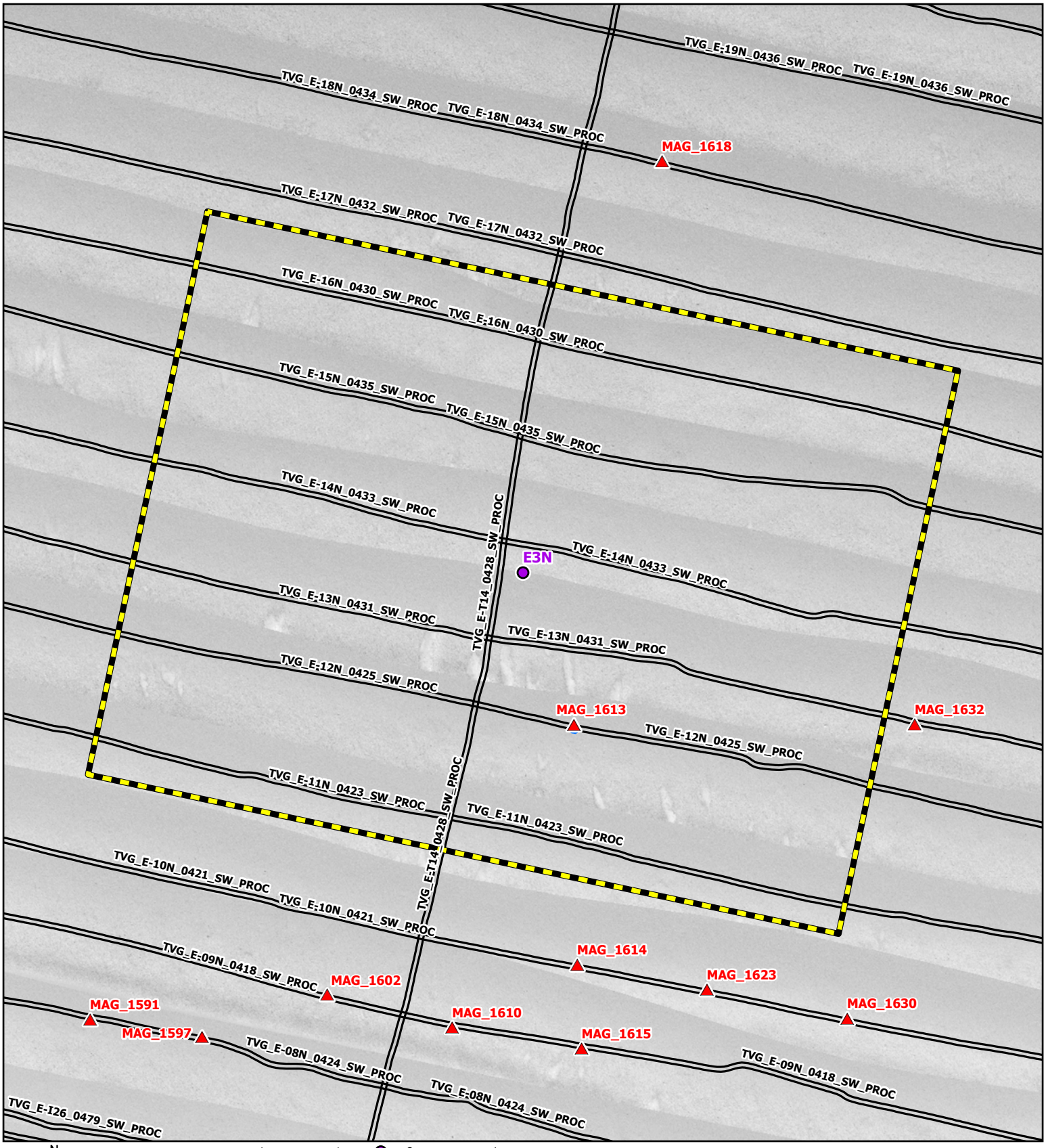
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 2

E2N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

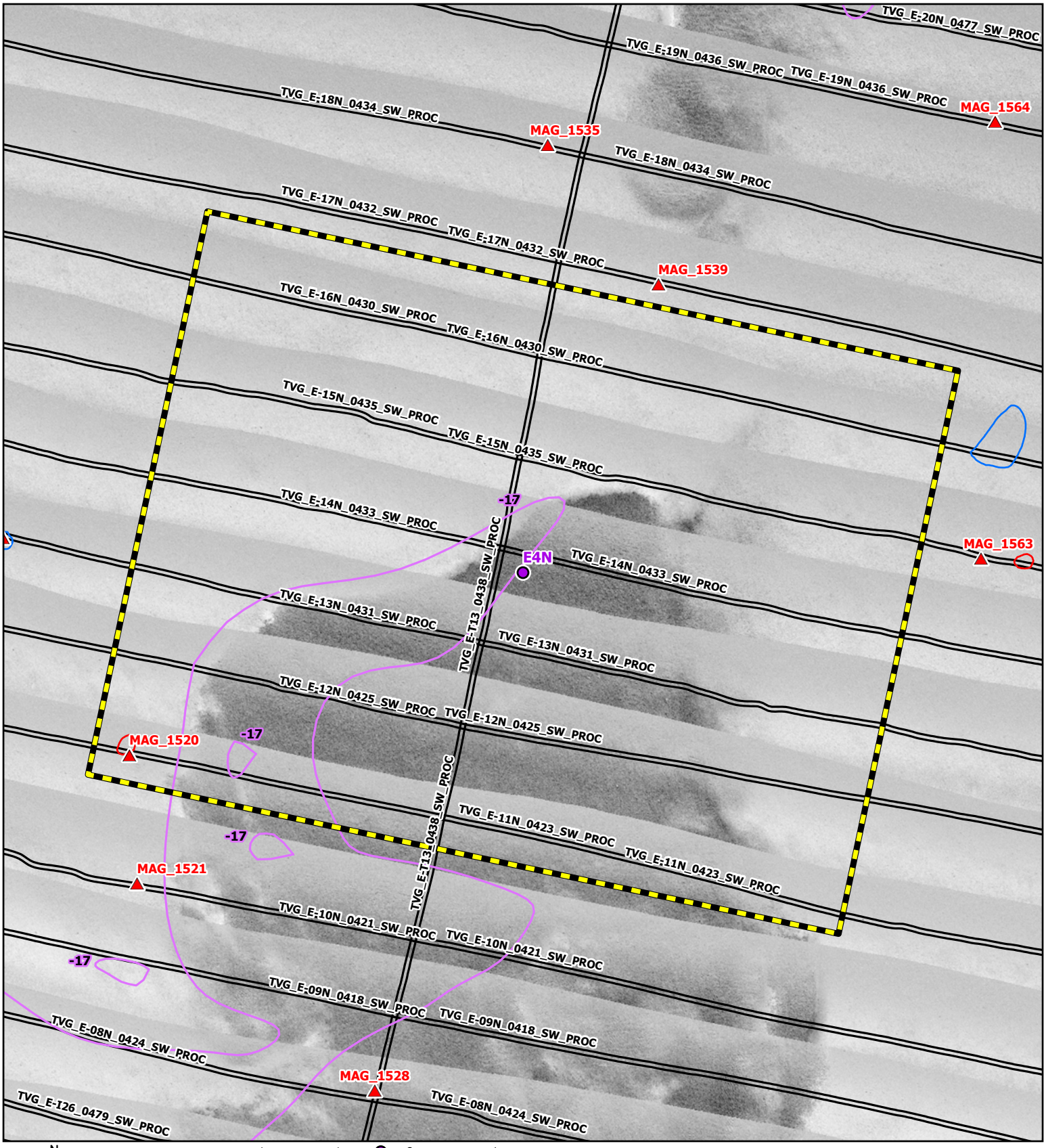
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 3
E3N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

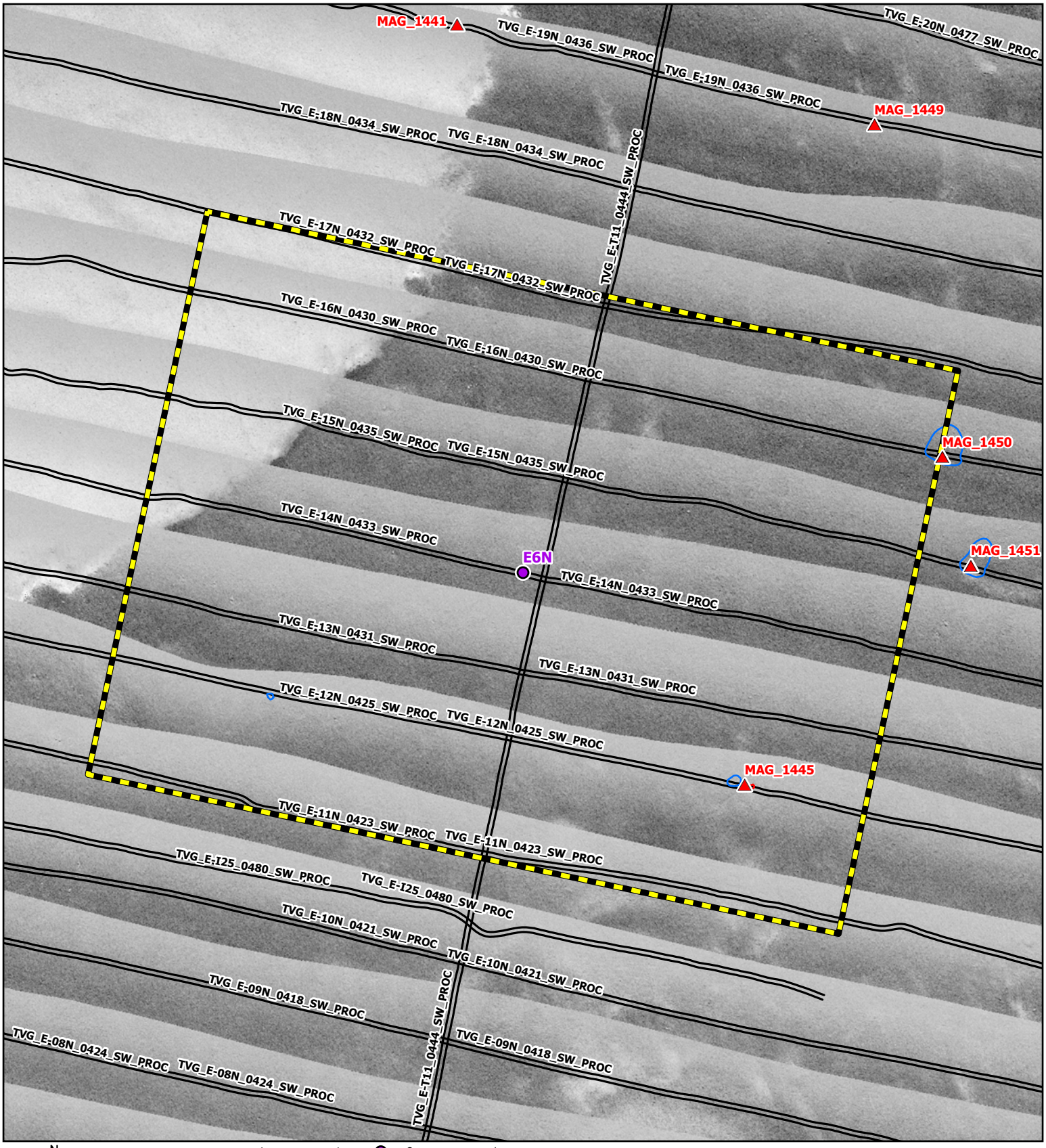
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 4

E4N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

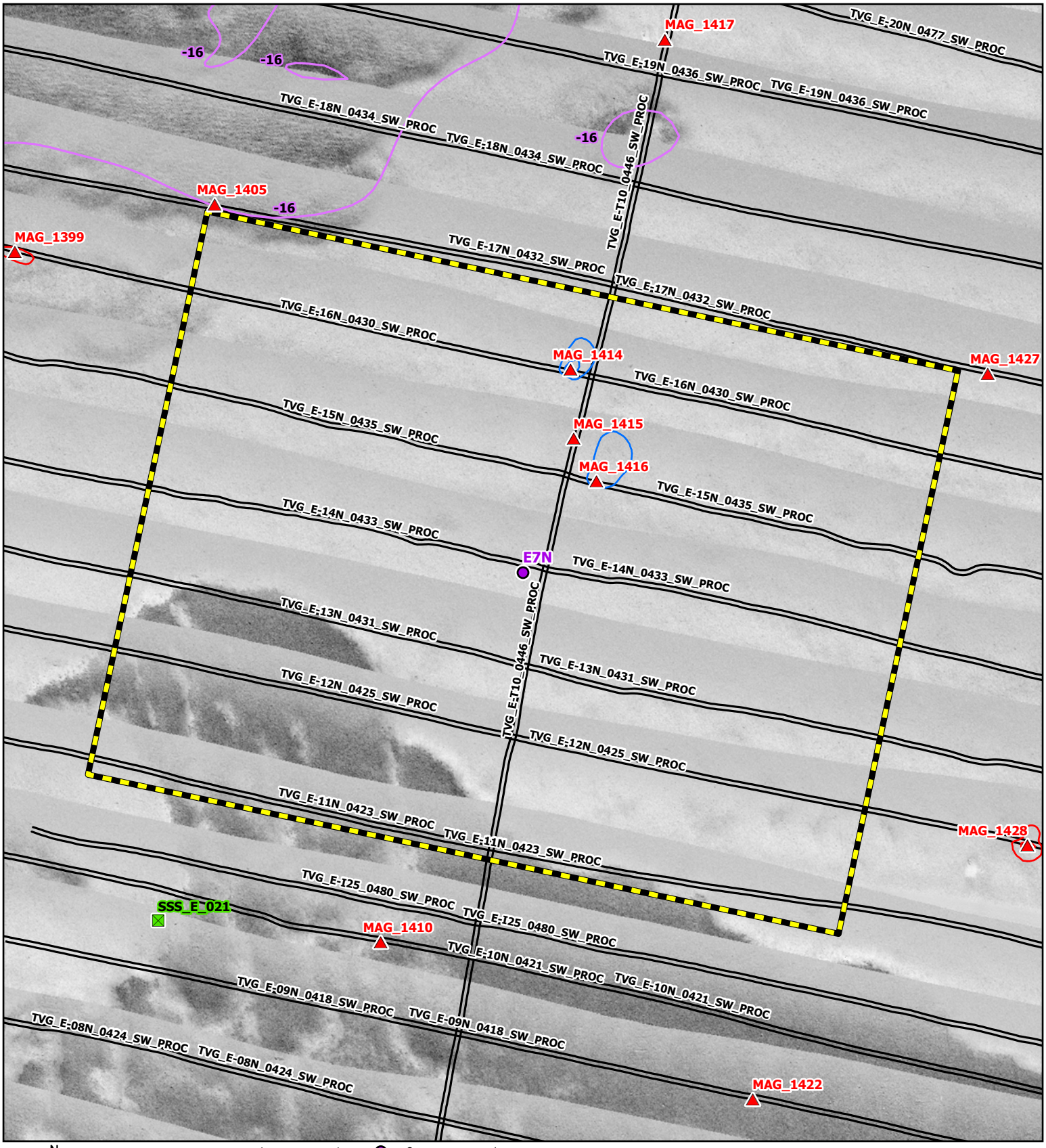
- Negative
- Positive

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Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 5

E6N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

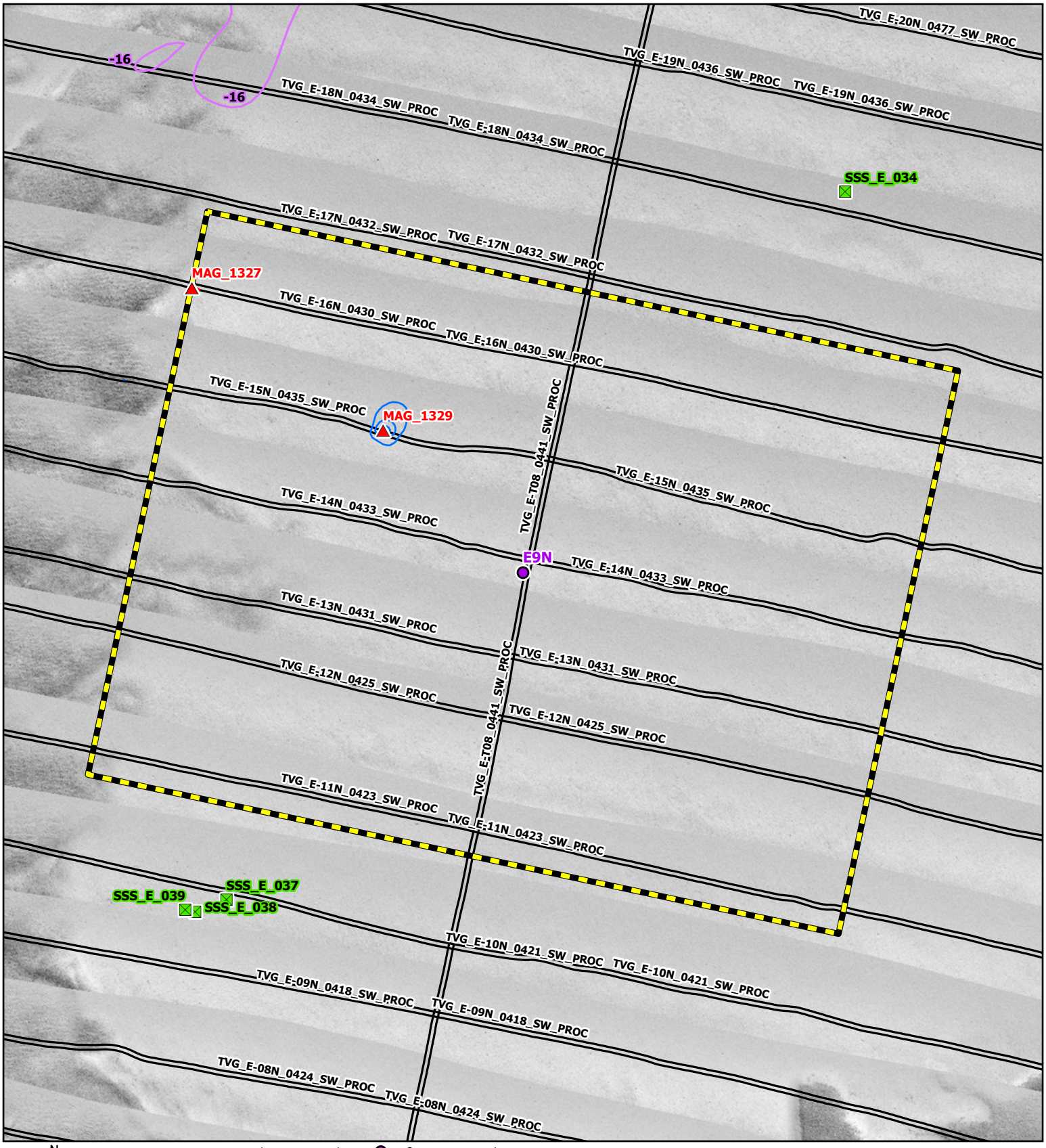
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 6
E7N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

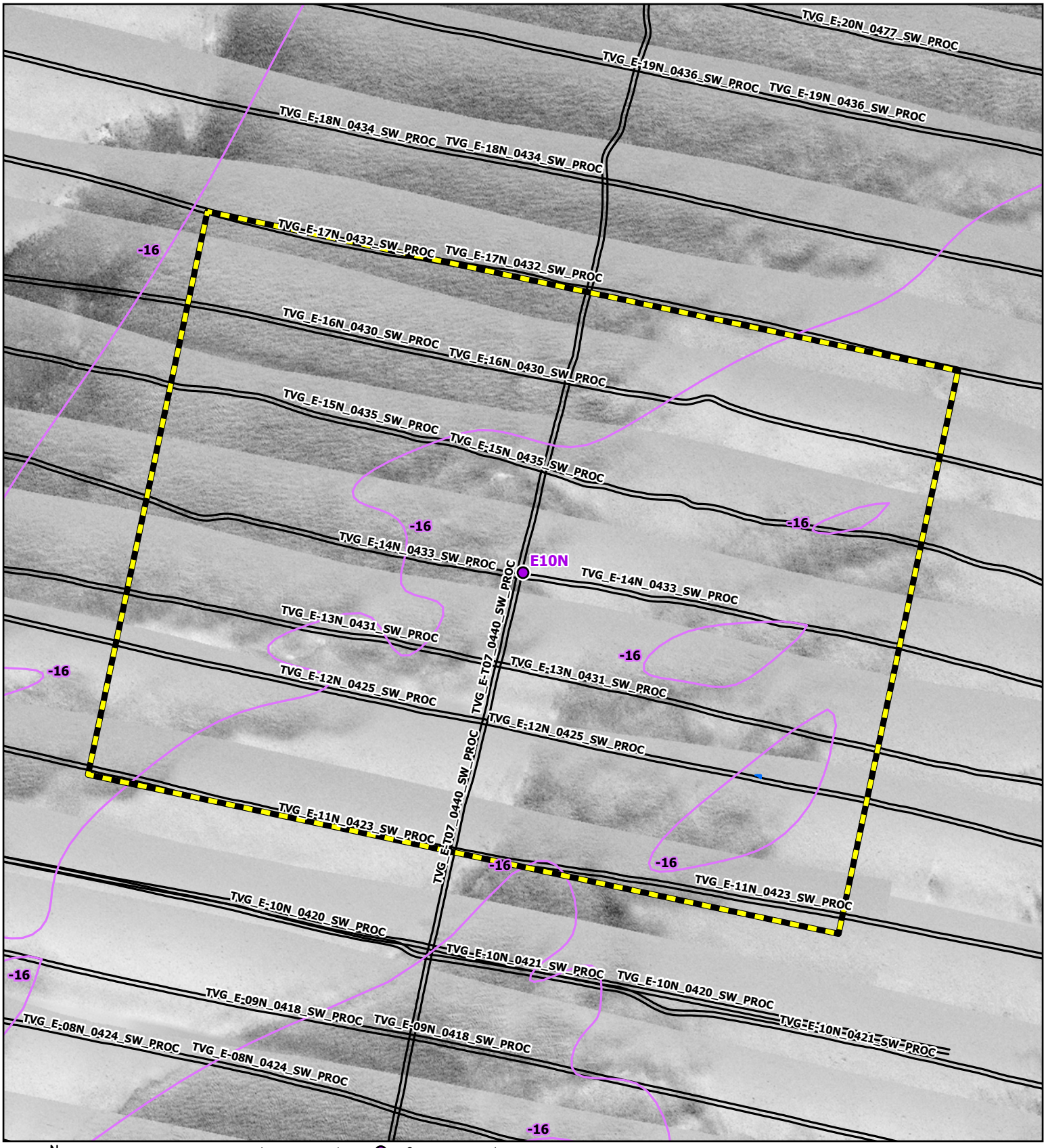
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

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Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 7

E9N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive

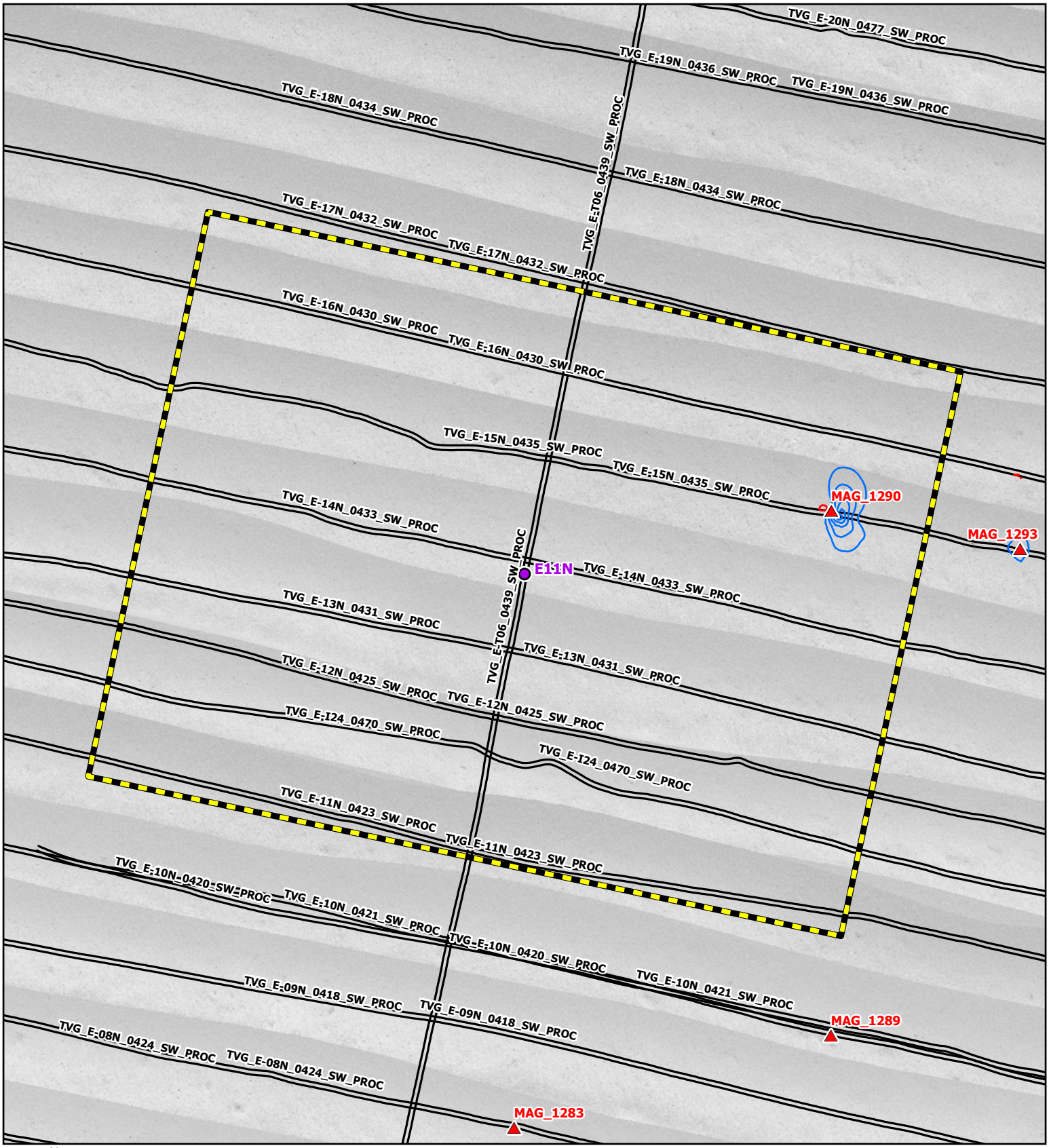
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Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 8

E10N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

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Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Block E

Map: 9

E11N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

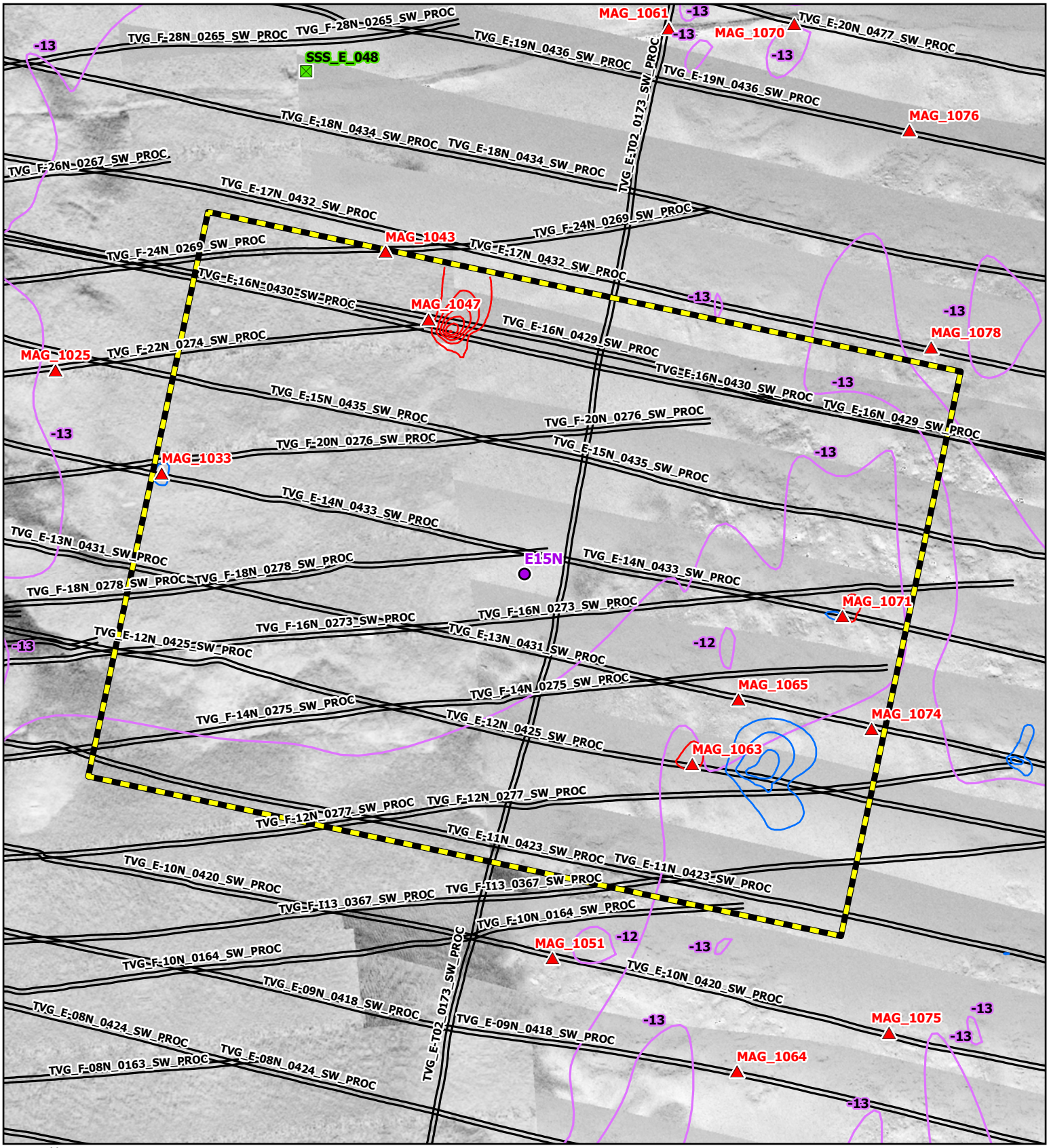
- Negative
- Positive

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Geotechnical Clearance: Block E

Map: 10

E12N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

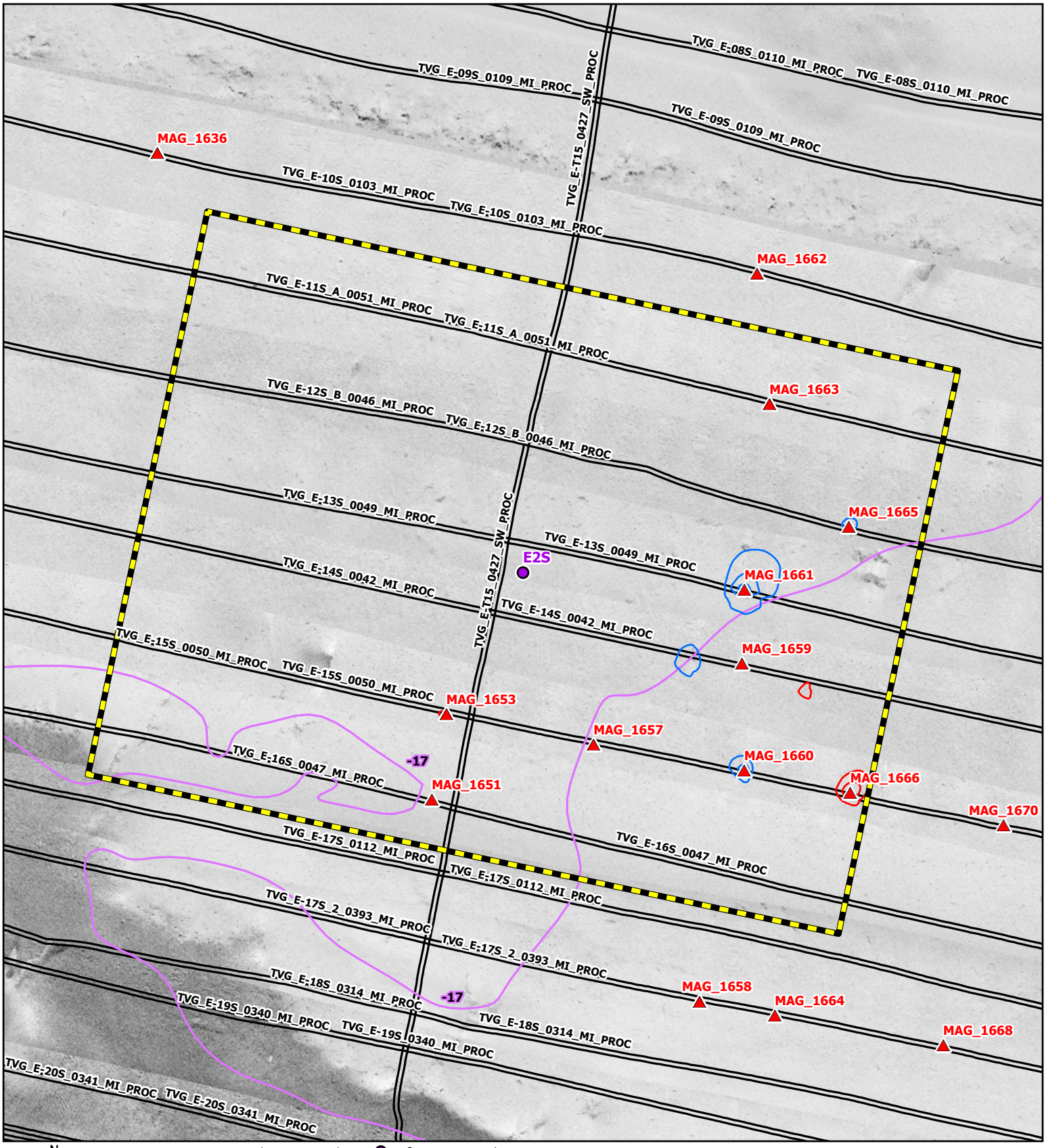
- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 11
E15N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

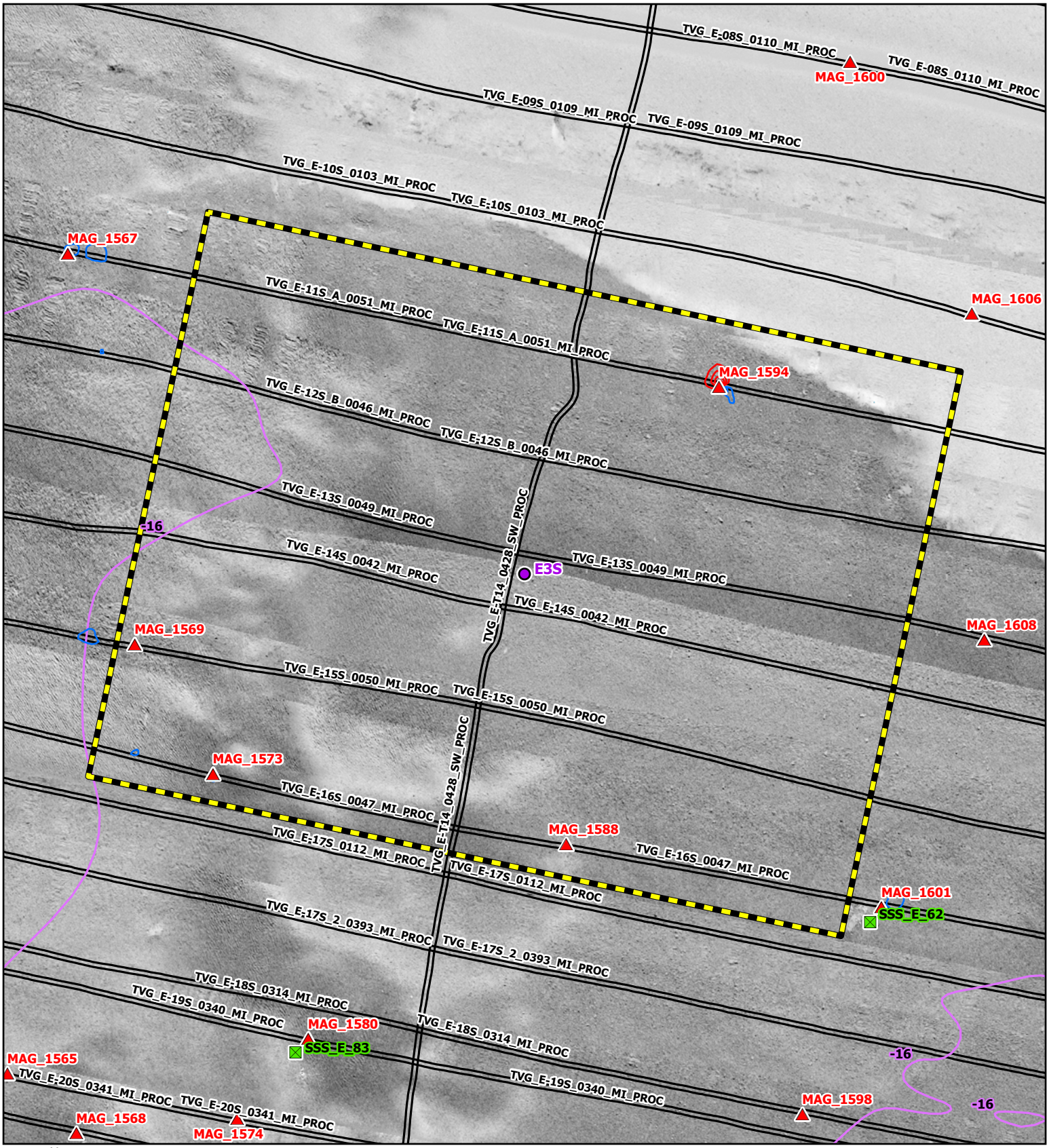
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 12

E2S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

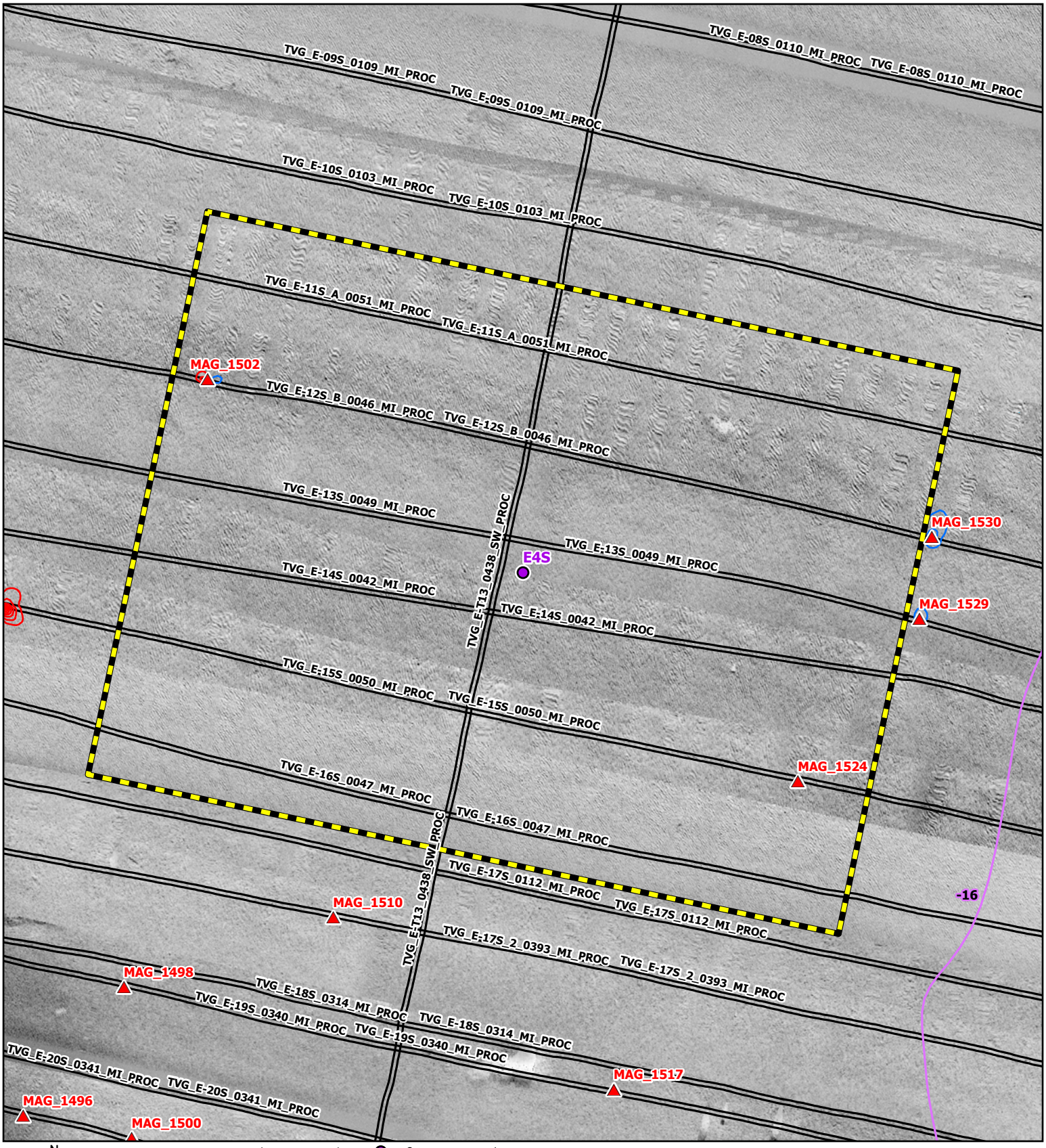
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 13

E3S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

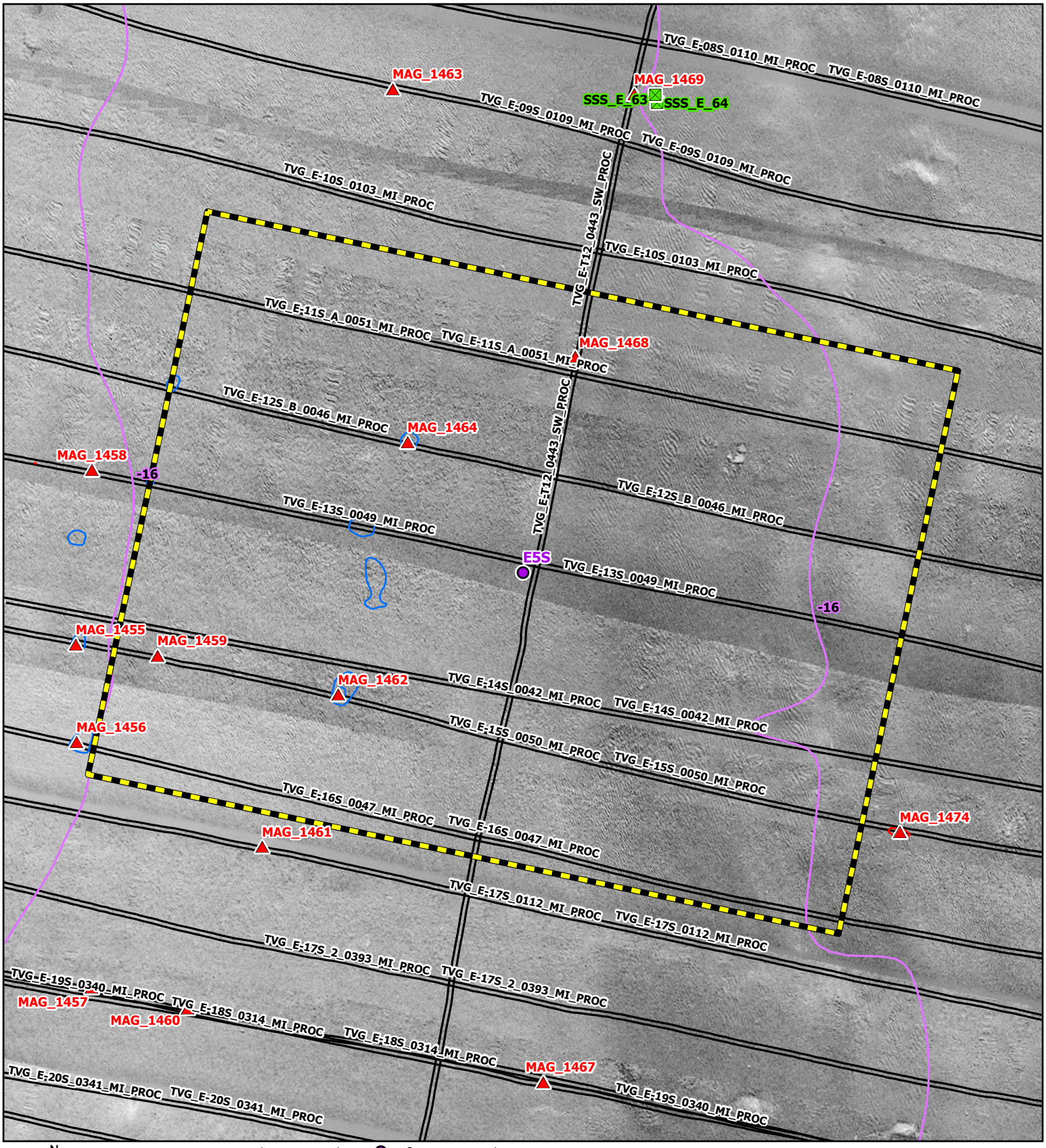
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 14

E4S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

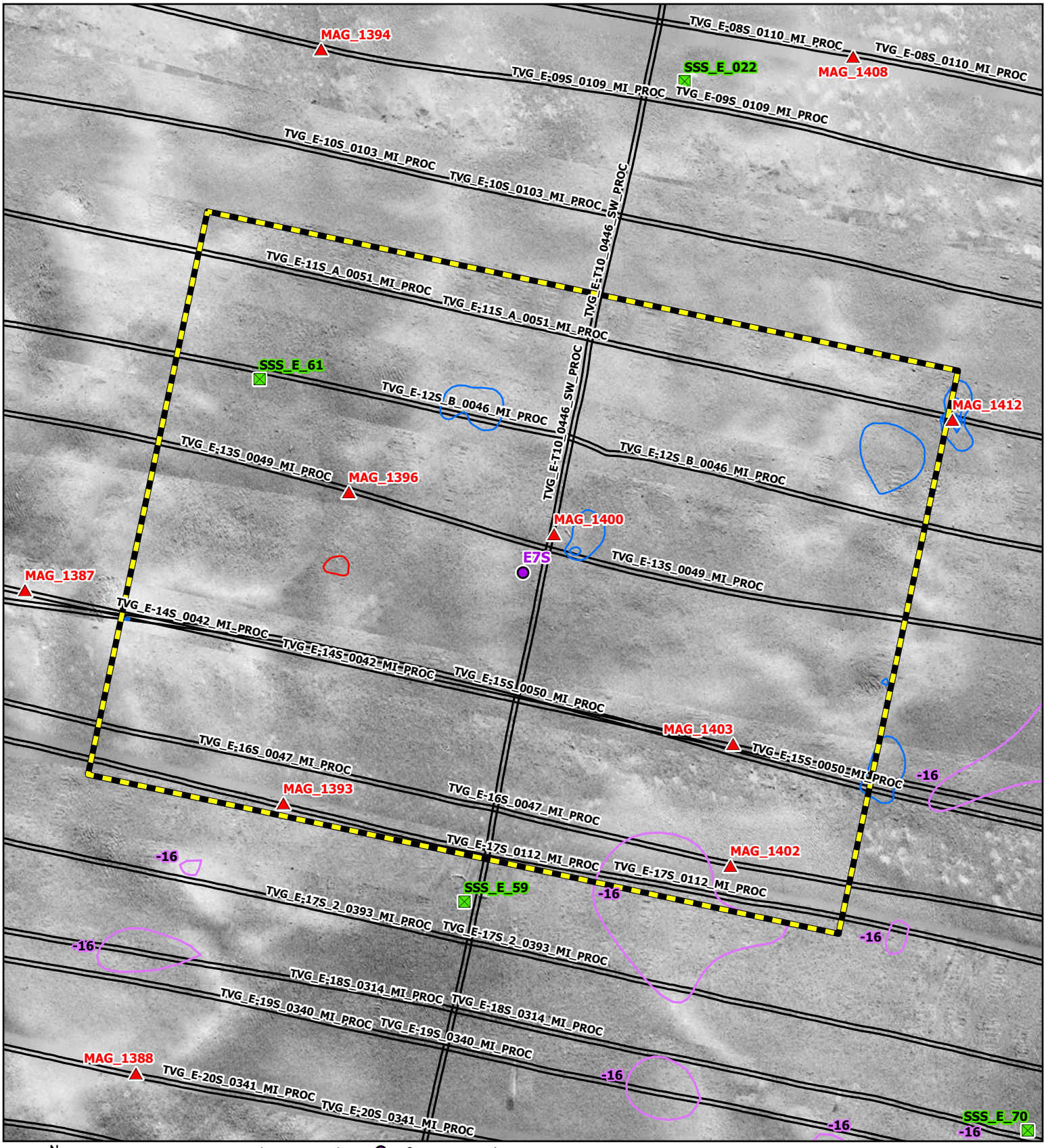
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 15

E5S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

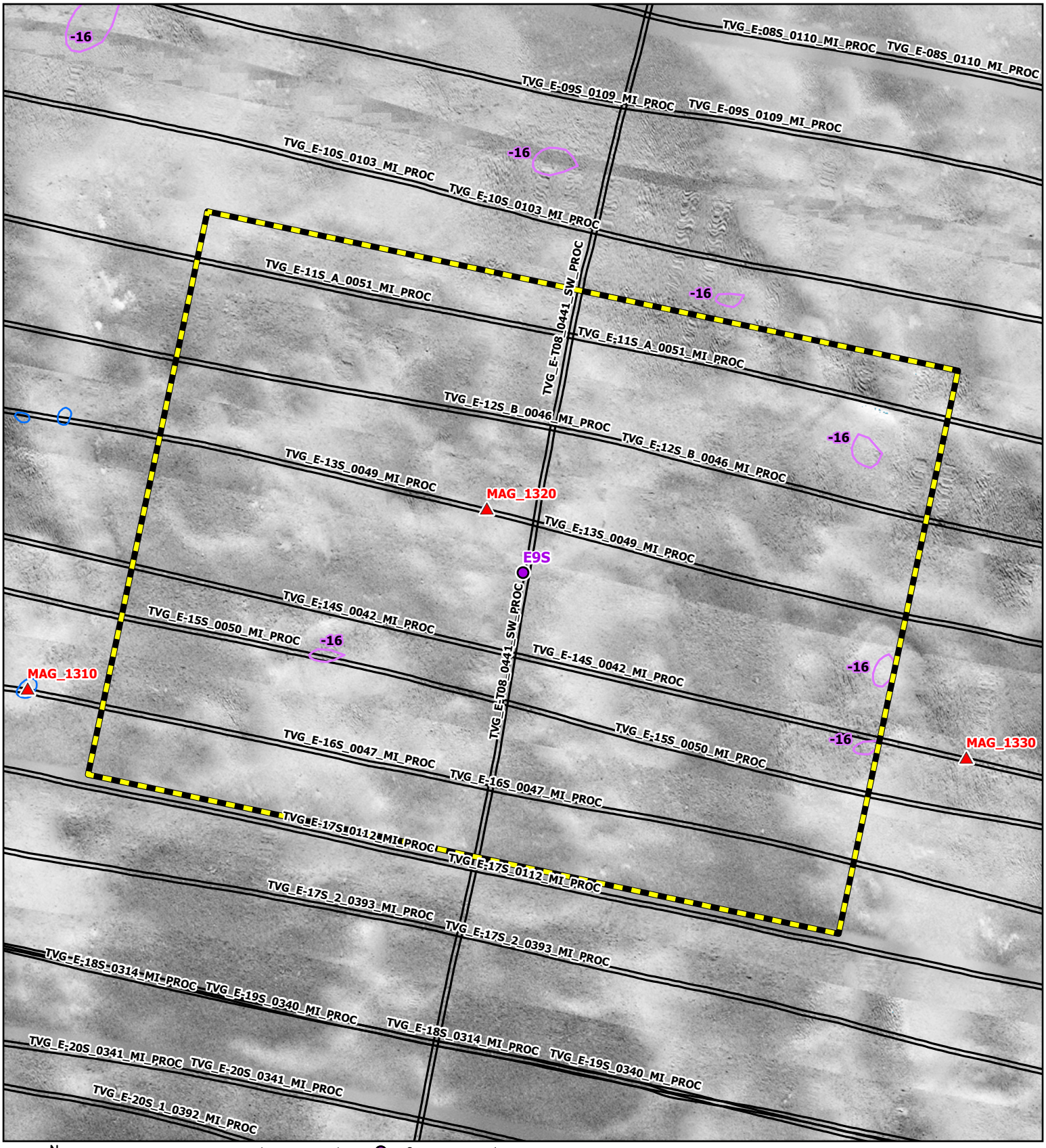
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 16

E7S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

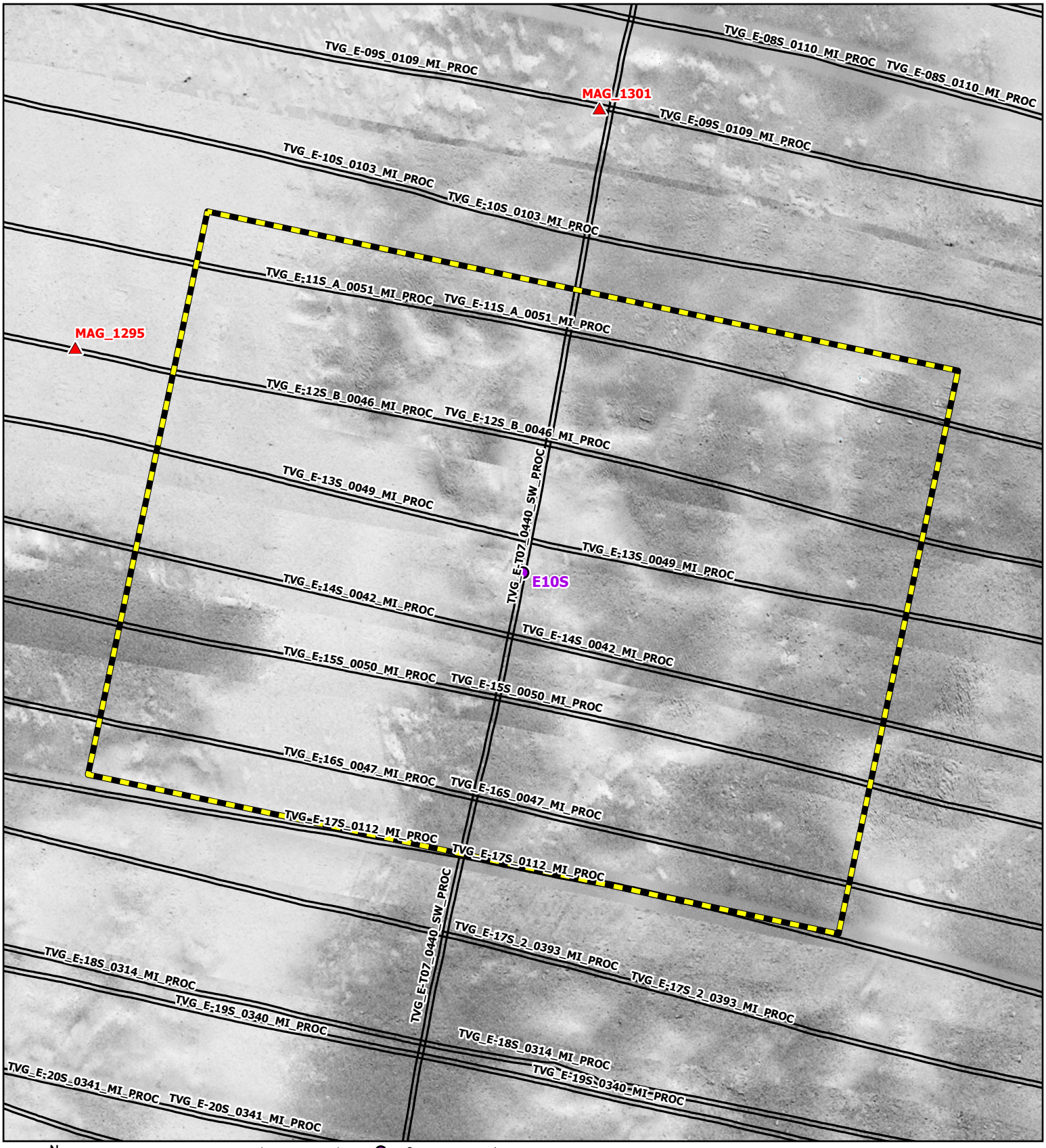
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 17

E9S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

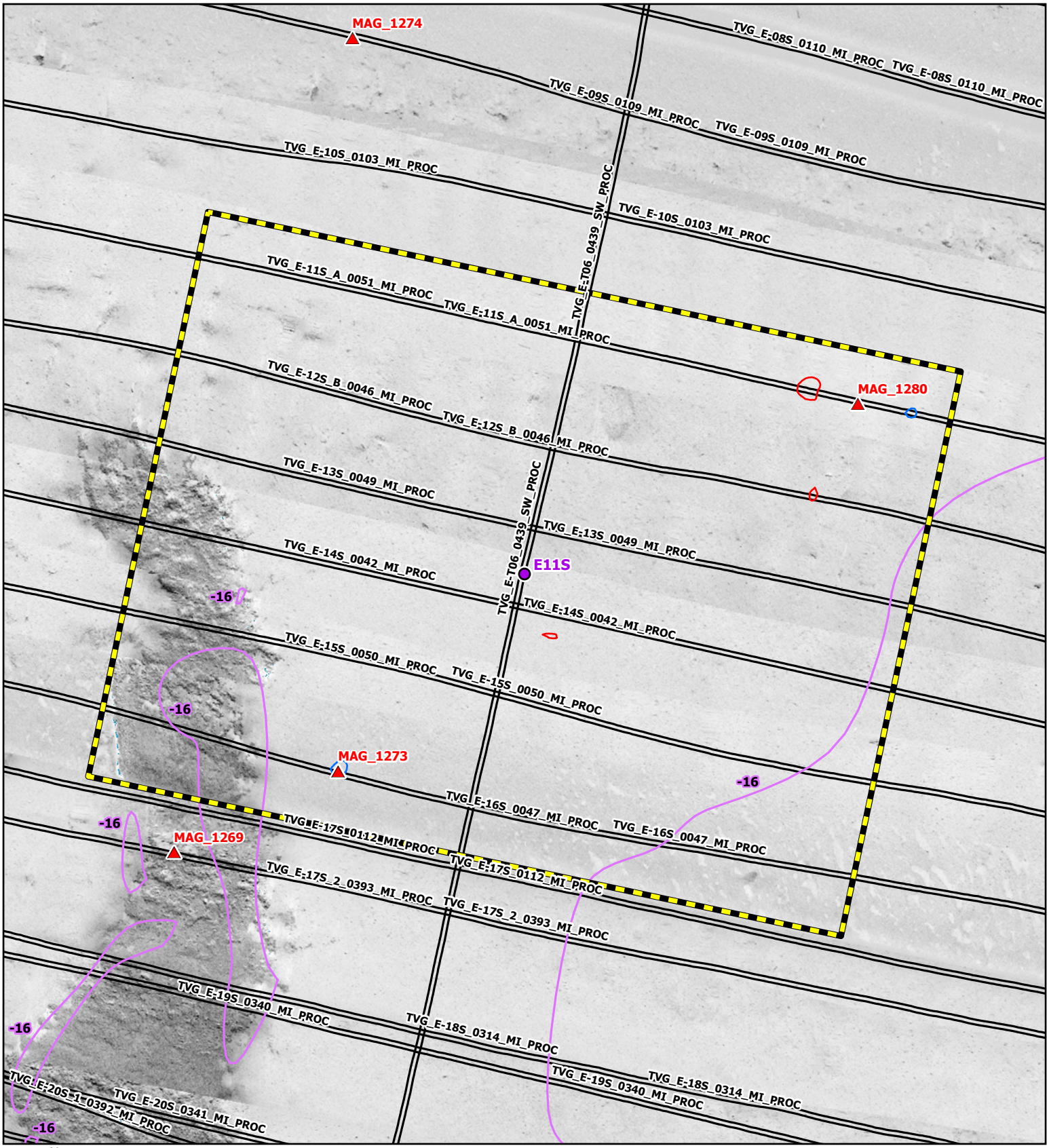
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 18

E10S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

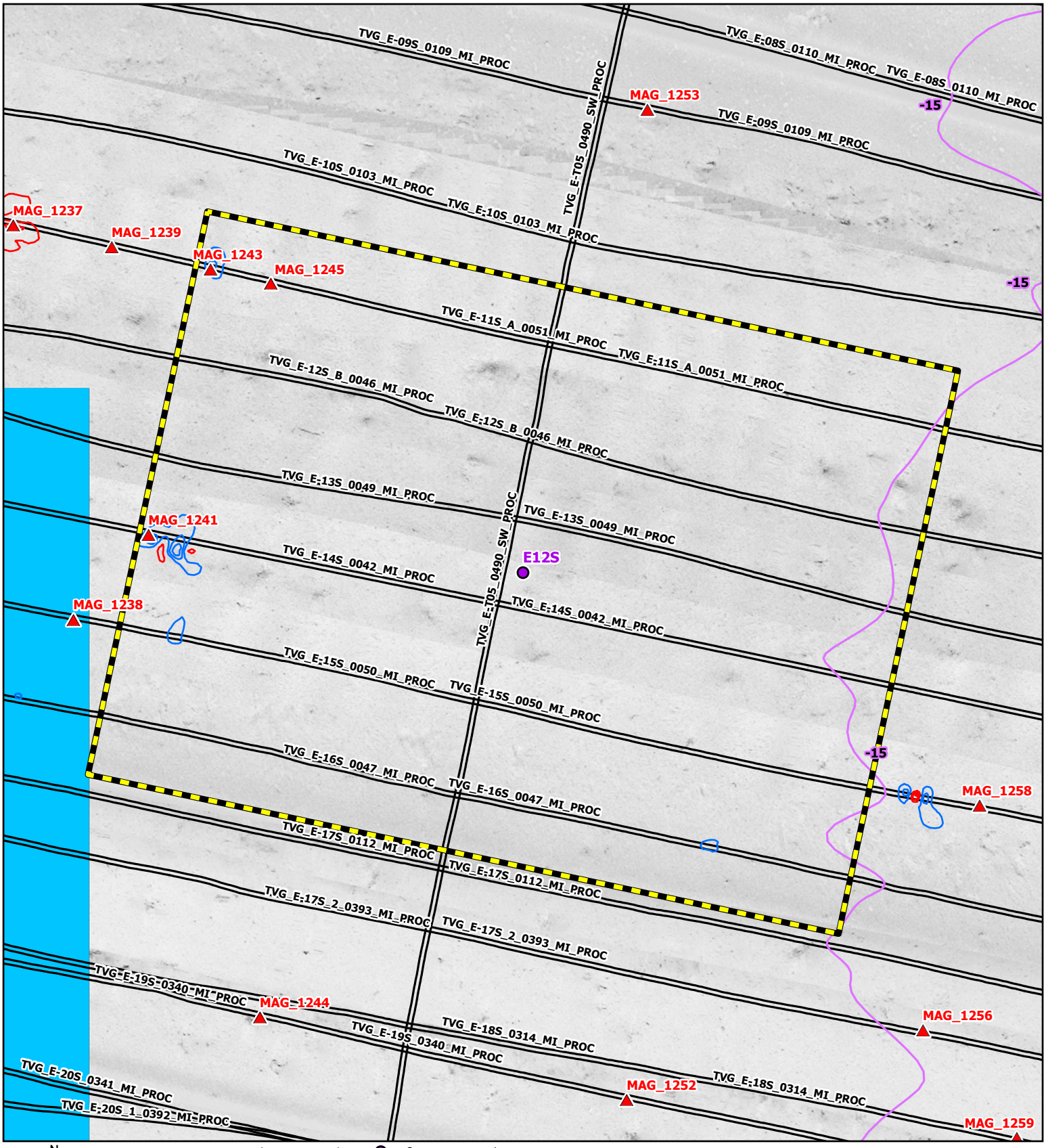
- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 19
E11S

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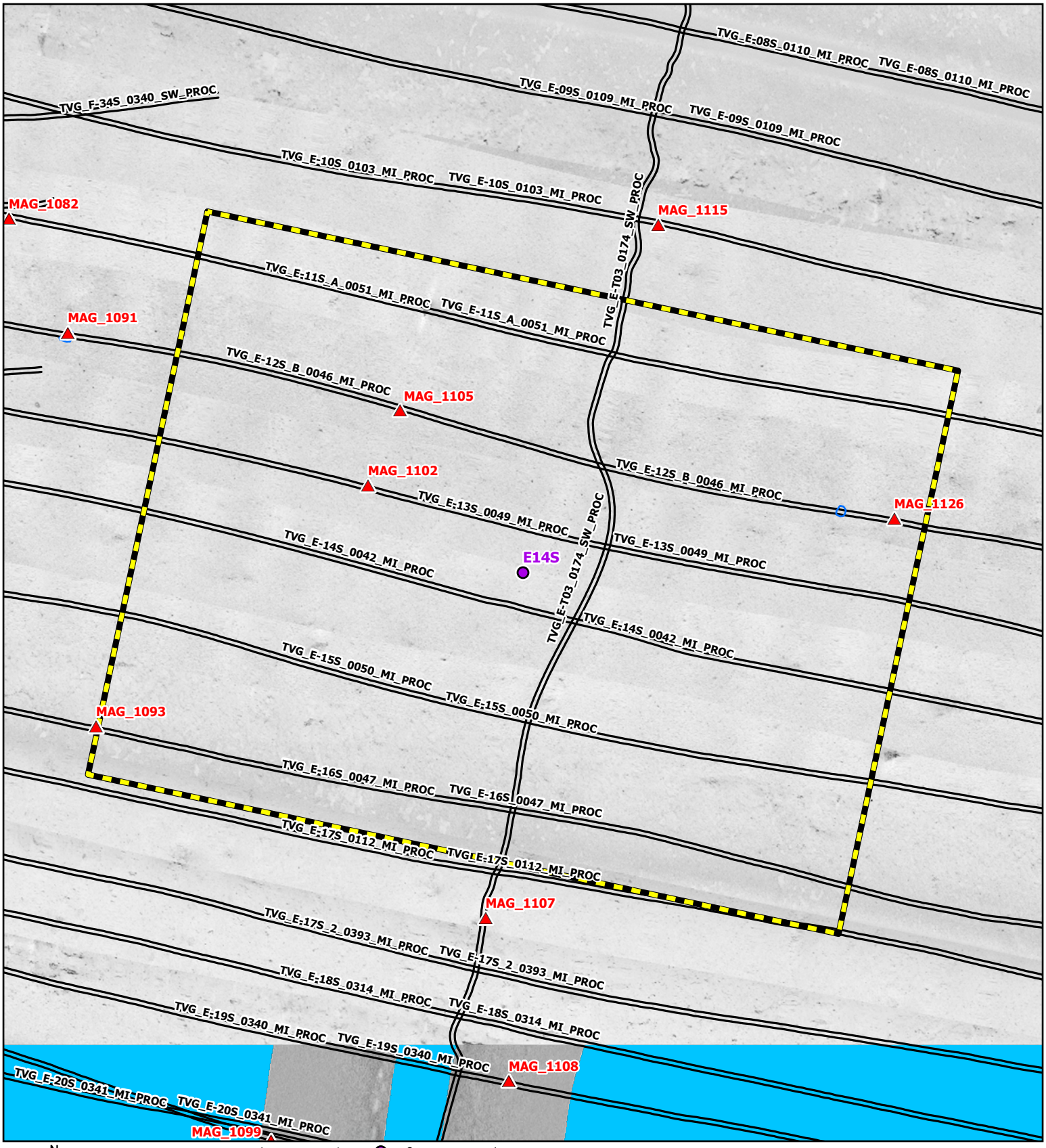
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 20

E12S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Analytical Area
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

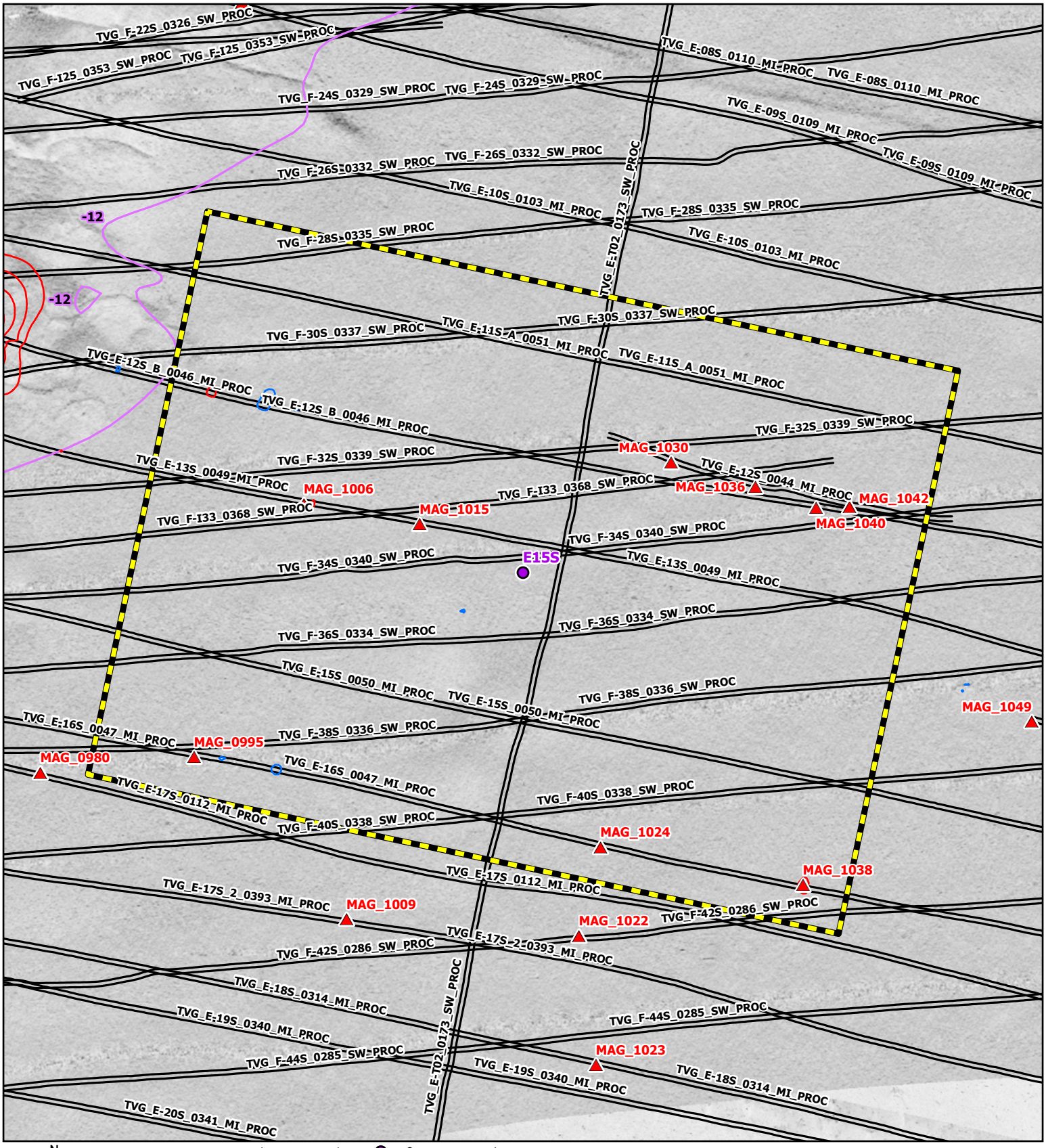
- Negative
- Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 21

E14S

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

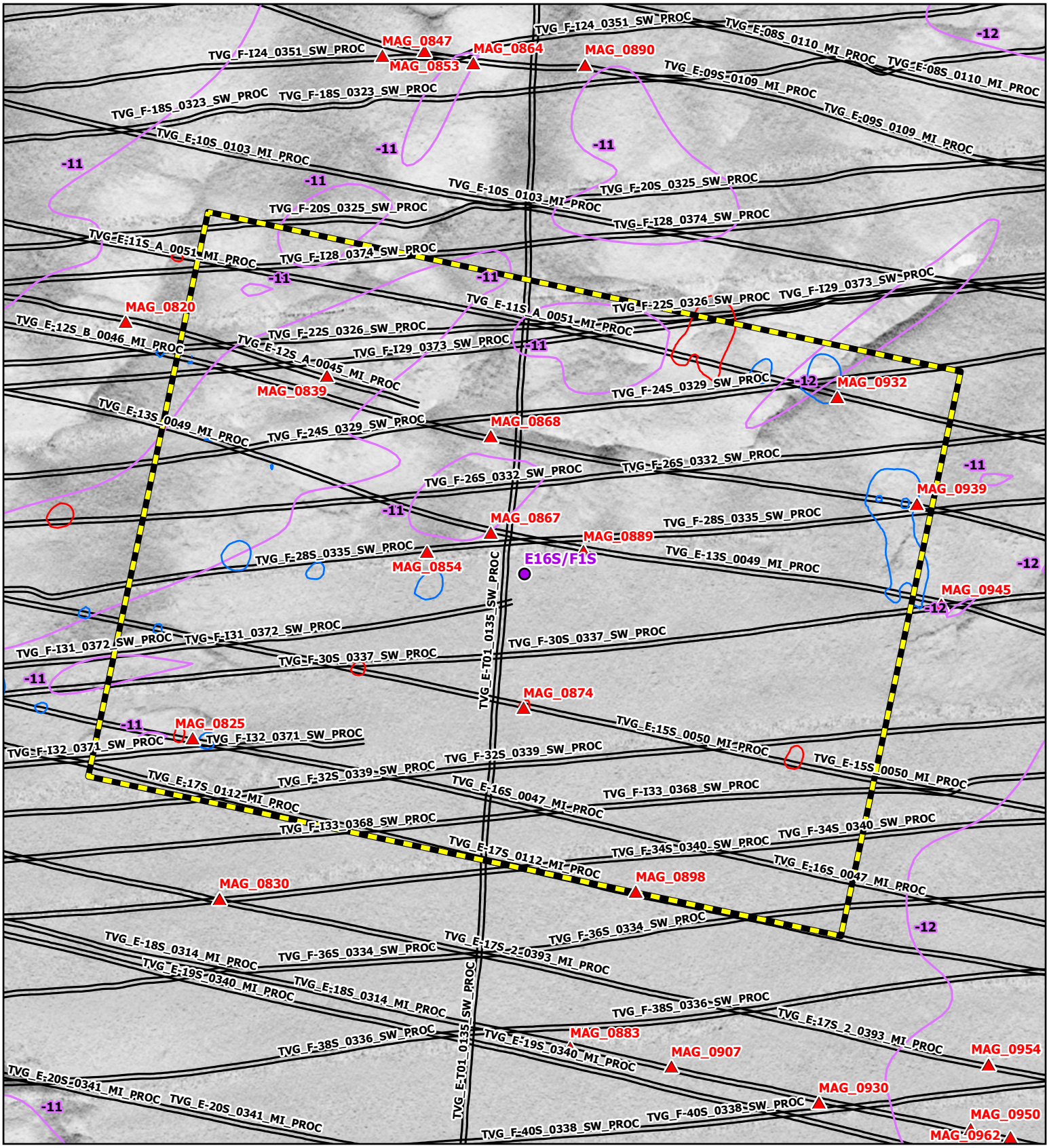
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E

Map: 22
E15S

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Analytical Area
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block E
Map: 23
E16S/F1S

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MARINE ARCHAEOLOGY FROM STEM TO STERN
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APPENDIX 2
SEISMIC PROFILES FOR BLOCK E WING CORRIDORS

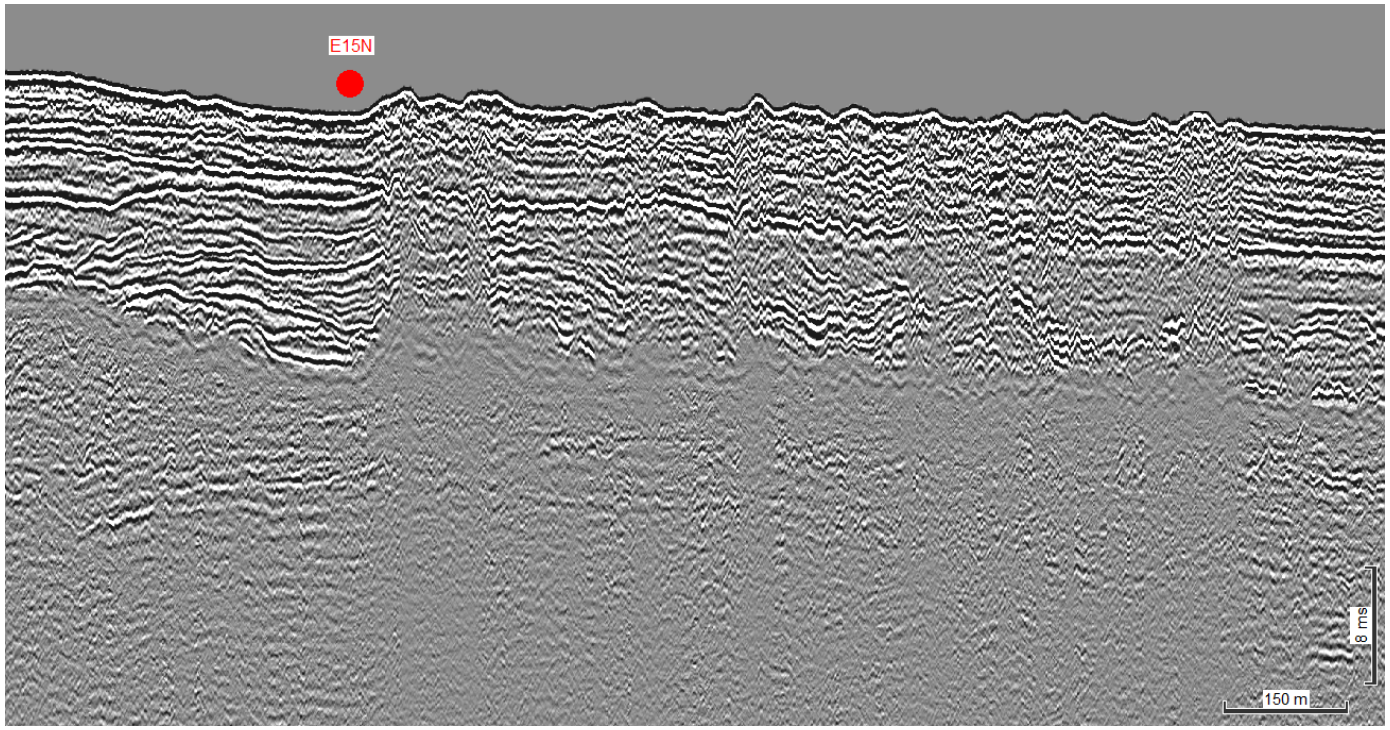


Figure 1: Proposed geotechnical location E15N in ECR Corridor E Wing North along seismic line UHRS_E-13N_SW_431_Proc_MLLW

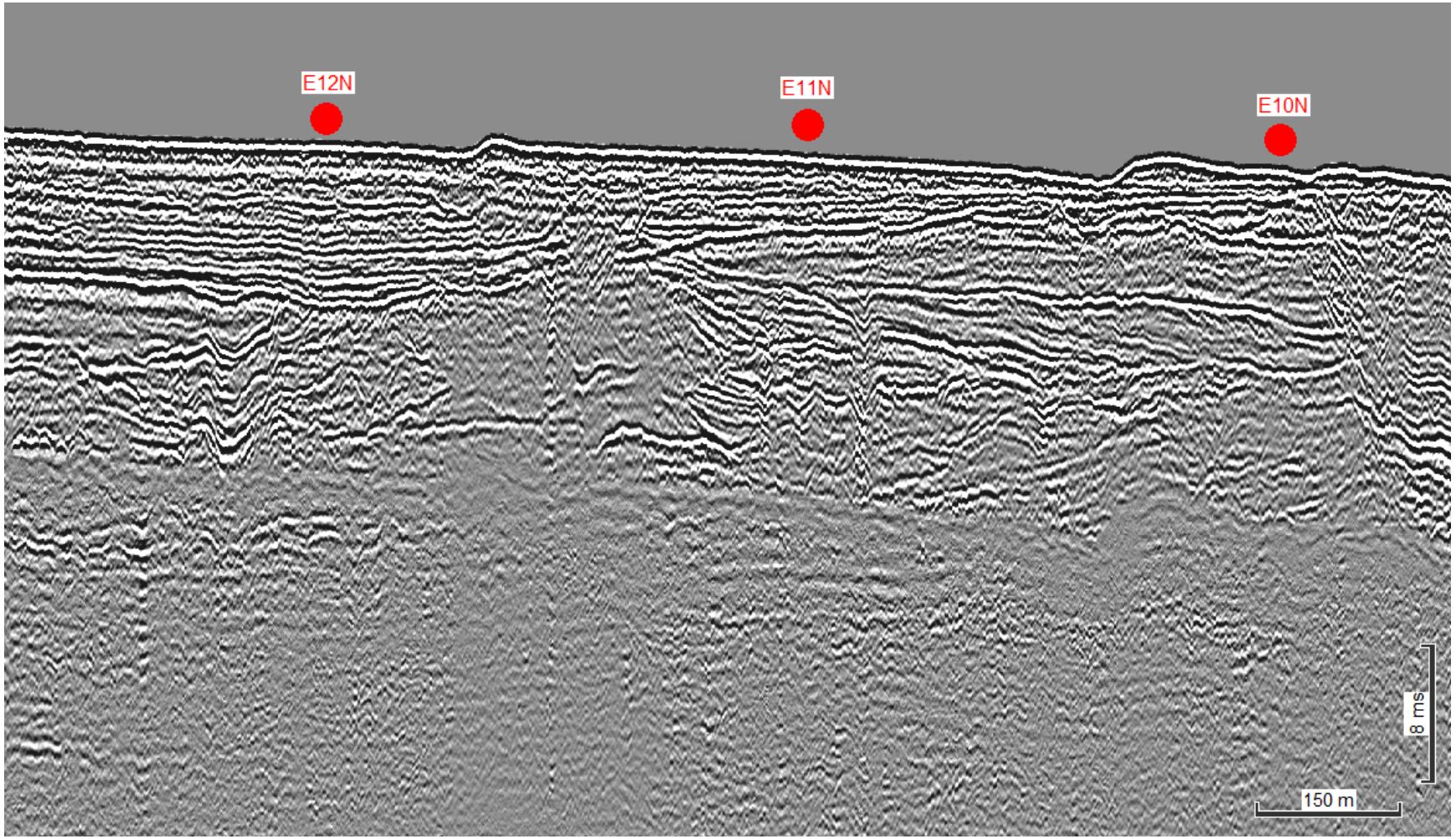


Figure 2: Proposed geotechnical locations E12N, E11N, and E10N in ECR Corridor E Wing North along seismic line UHRS_E-13N_SW_431_Proc_MLLW

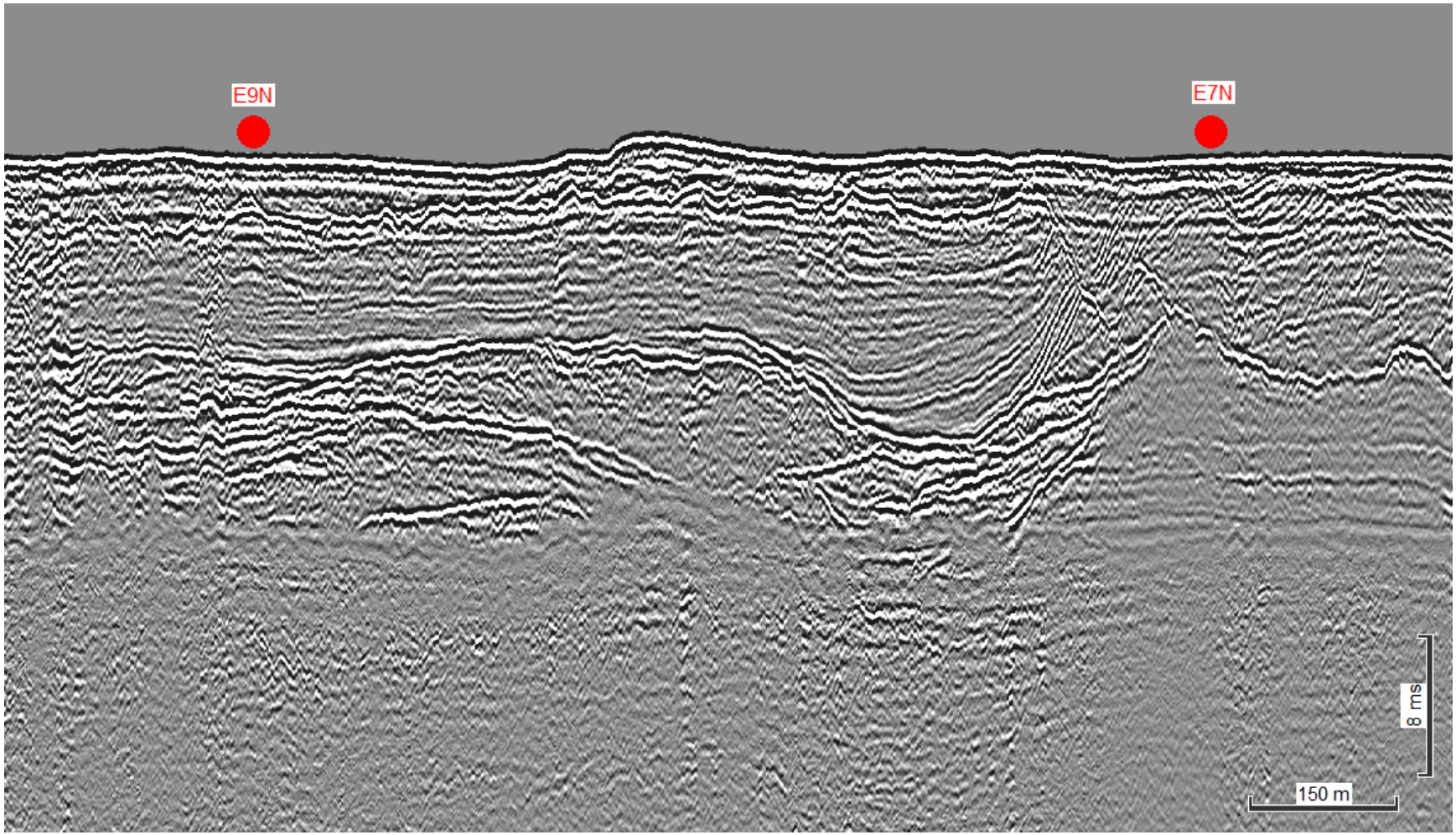


Figure 3: Proposed geotechnical locations E9N and E7N in ECR Corridor E Wing North along seismic line UHRS_E-13N_SW_431_Proc_MLLW

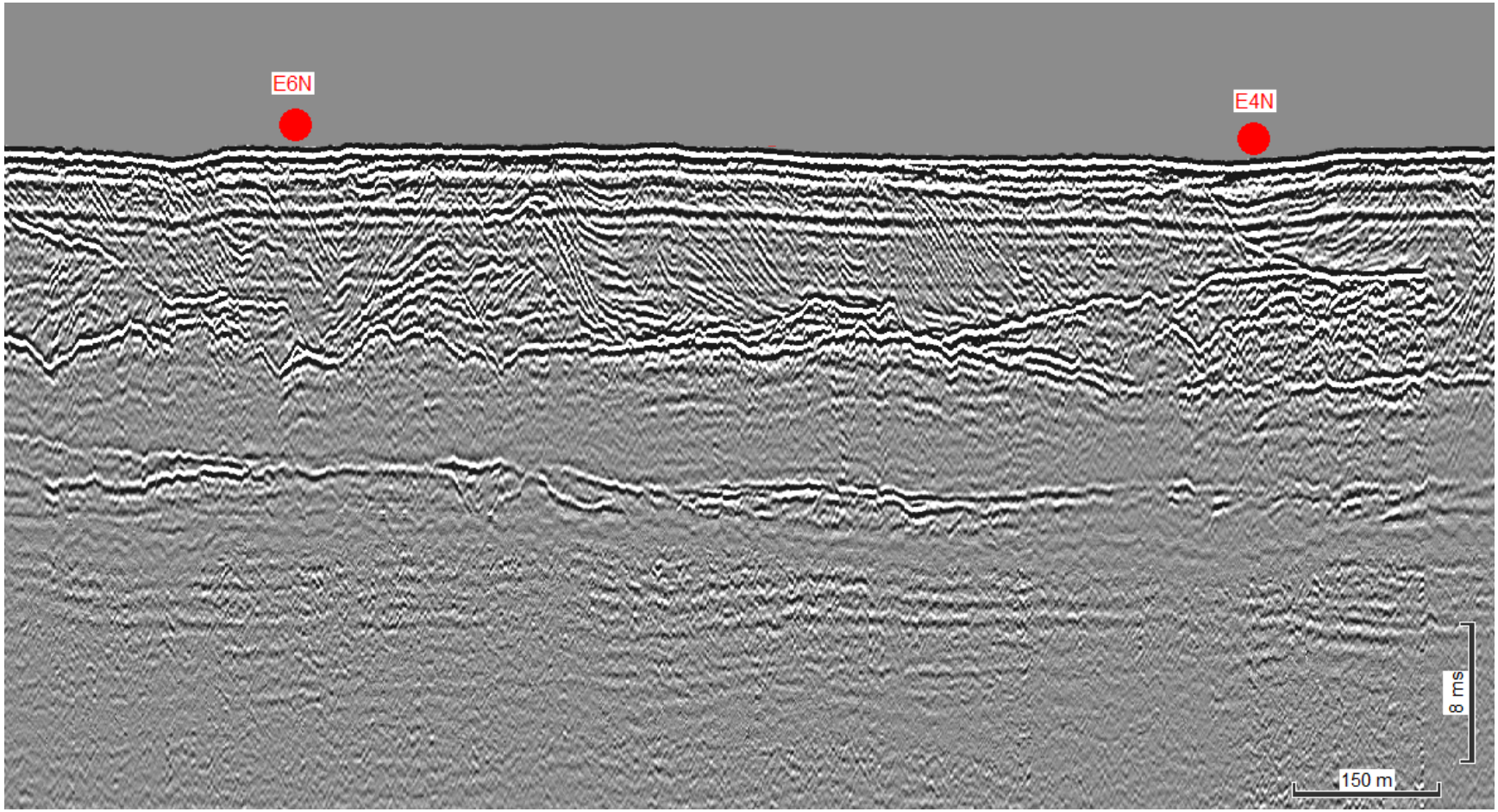


Figure 4: Proposed geotechnical locations E6N and E4N in ECR Corridor E Wing North along seismic line UHRS_E-13N_SW_431_Proc_MLLW

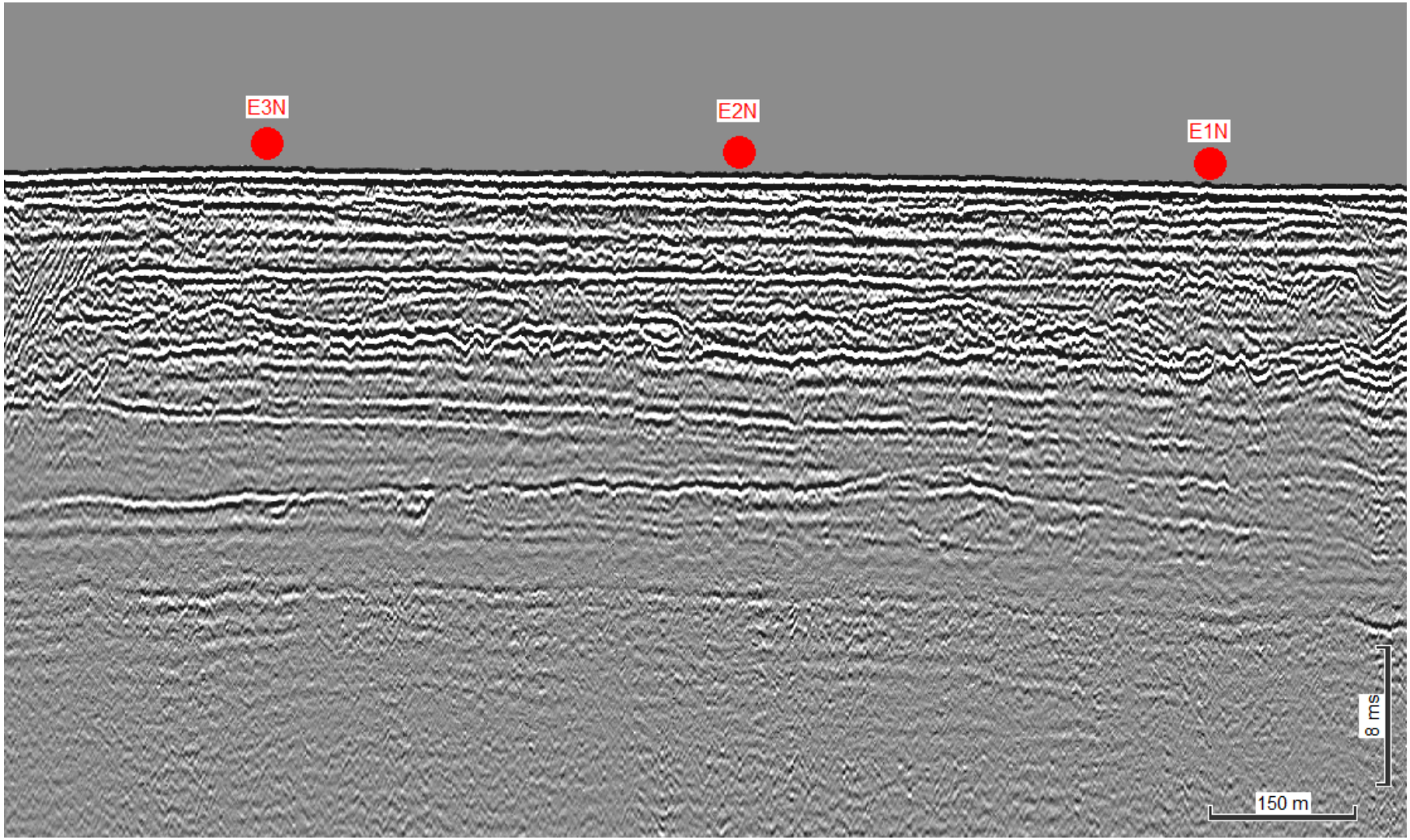


Figure 5: Proposed geotechnical locations E3N, E2N, and E1N in ECR Corridor E Wing North along seismic line UHRS_E-13N_SW_431_Proc_MLLW

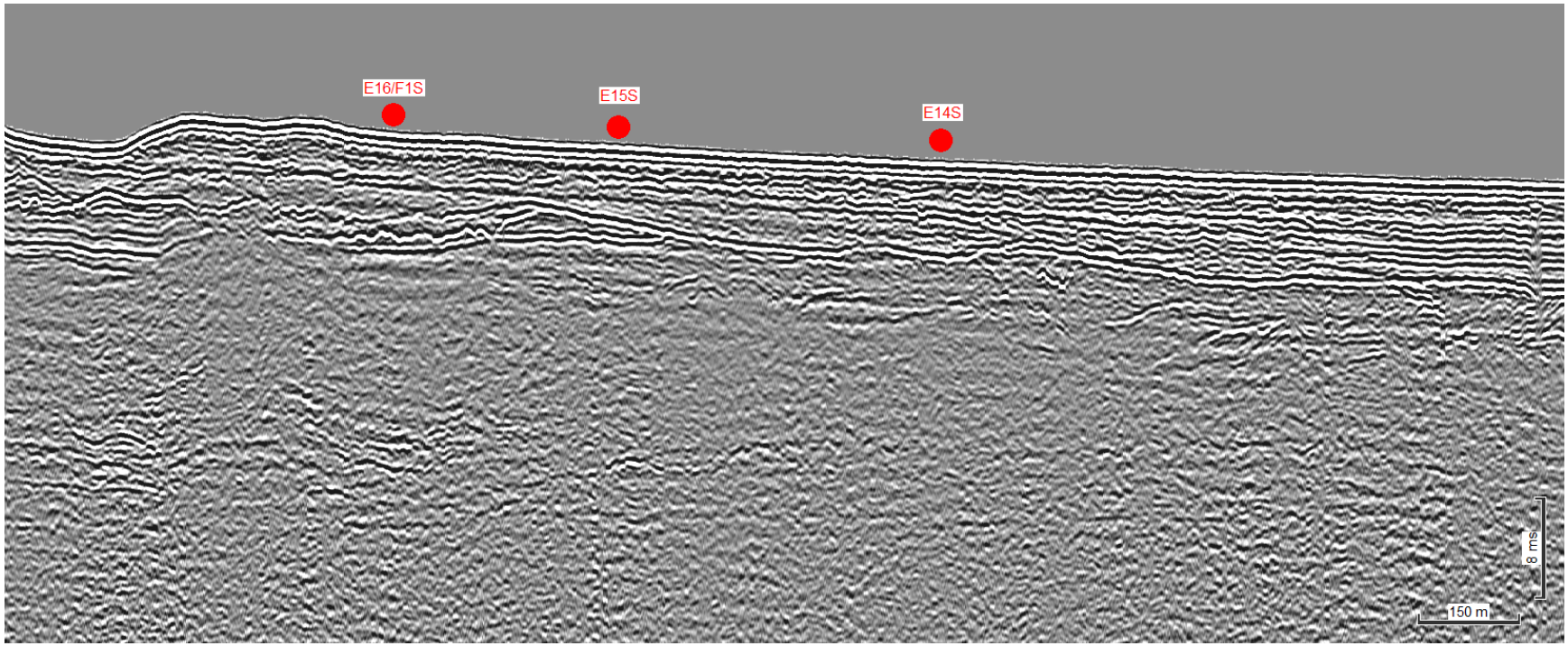


Figure 6: Proposed geotechnical locations E16/F1S, E15S, and E14S in ECR Corridor E Wing South along seismic line JD301_Seq0040_E-14S

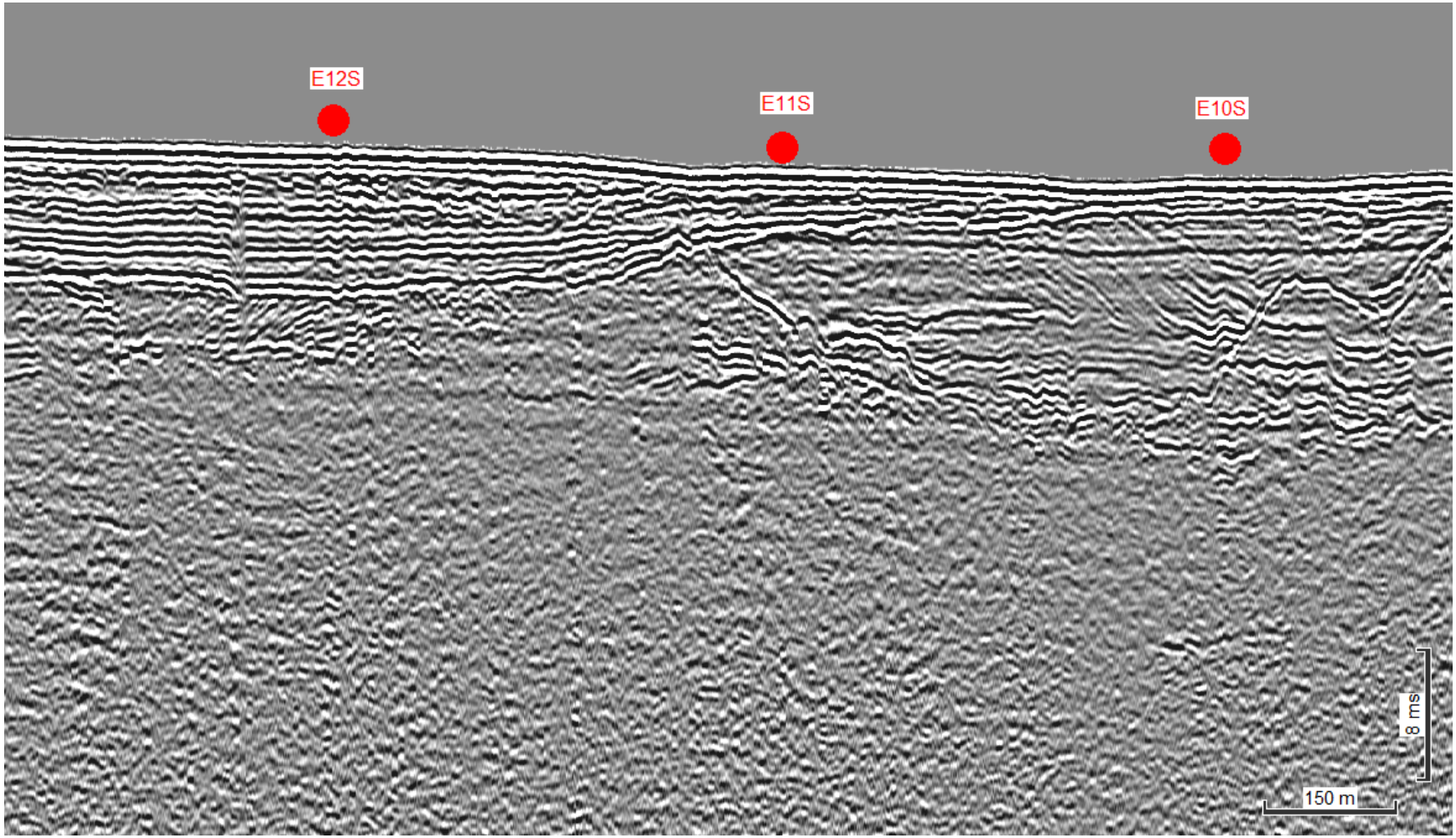


Figure 7: Proposed geotechnical locations E12S, E11S, and E10S in ECR Corridor E Wing South along seismic line JD301_Seq0040_E-14S

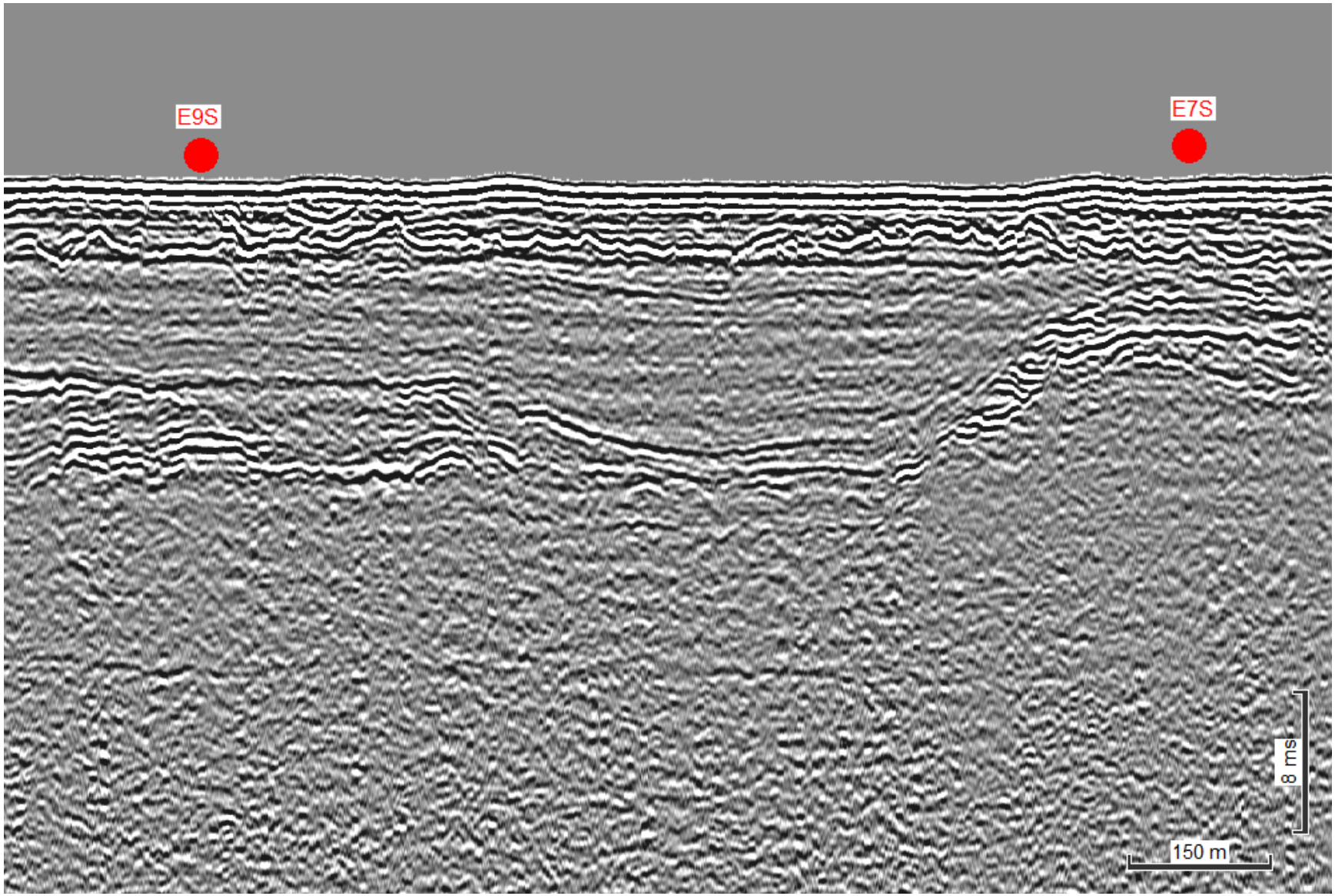


Figure 8: Proposed geotechnical locations E9S and E7S in ECR Corridor E Wing South along seismic line JD301_Seq0040_E-14S

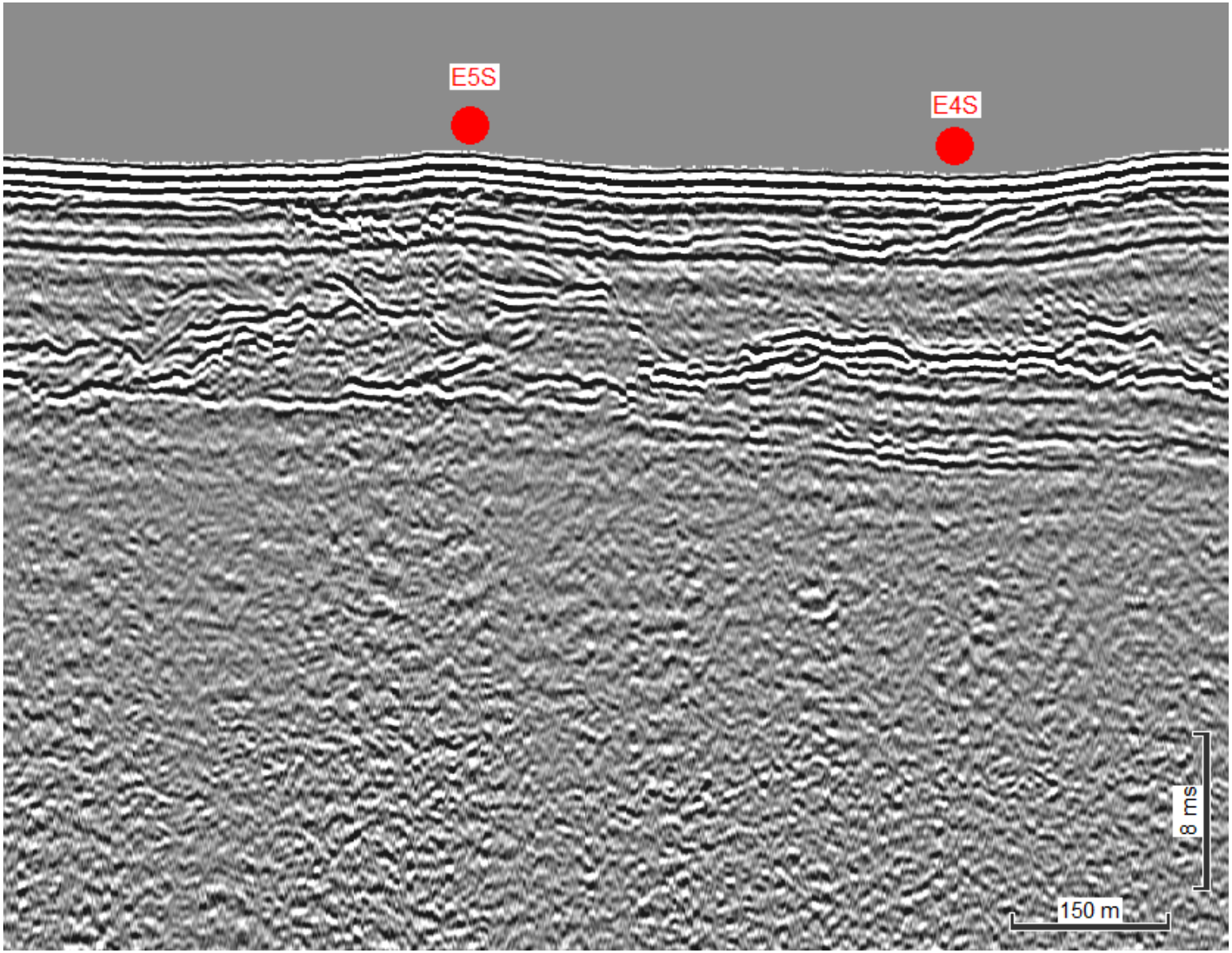


Figure 9: Proposed geotechnical locations E5S and E4S in ECR Corridor E Wing South along seismic line JD301_Seq0040_E-14S

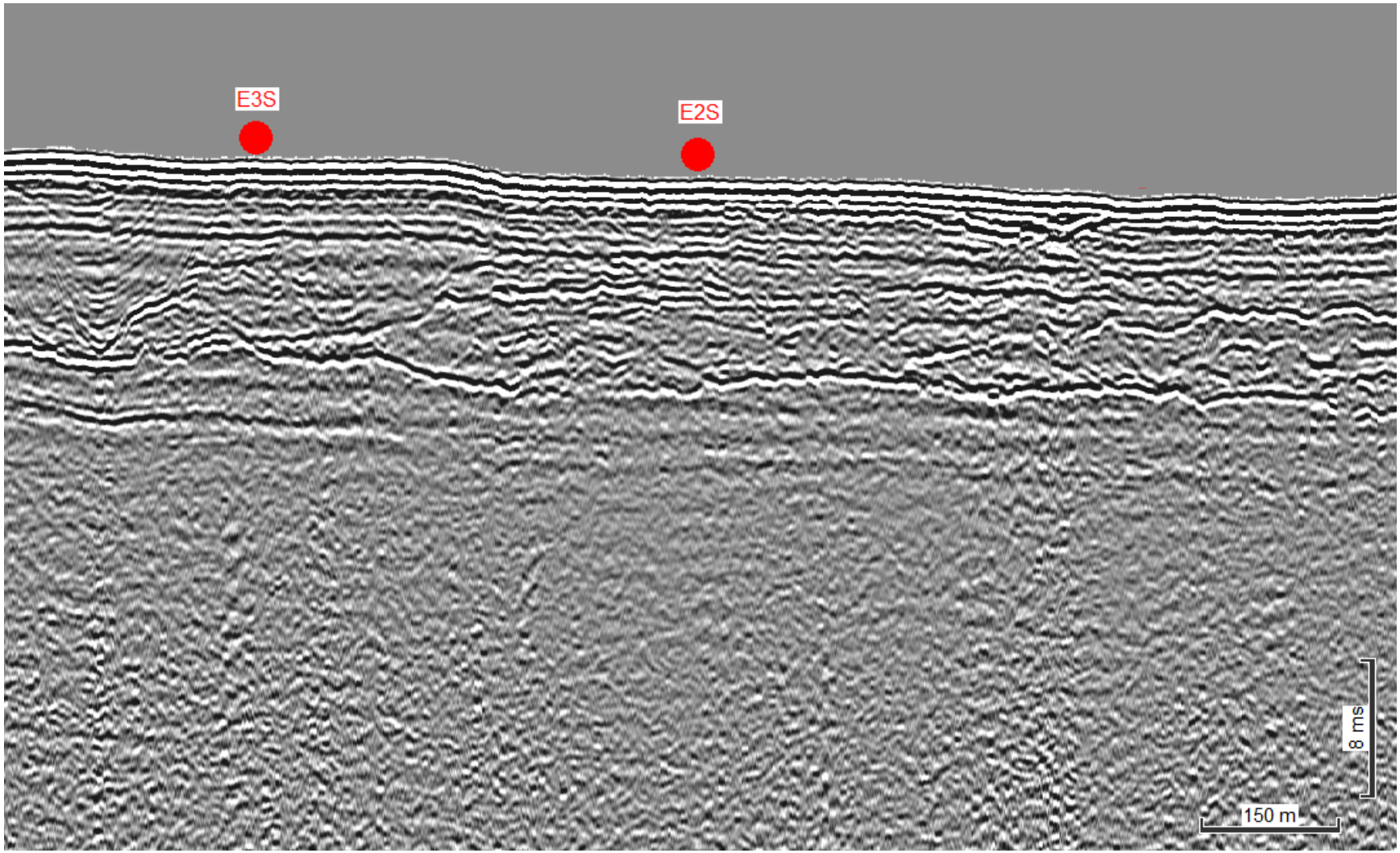


Figure 10: Proposed geotechnical locations E3S, E2S, and E1S in ECR Corridor E Wing South along seismic line JD301_Seq004

February 12, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Block D Wing Corridors

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned 2020 geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 26 of these locations for gathering geologic information (Tables 1 and 2). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the 26 proposed geotechnical locations located along the Export Cable Route (ECR), Block D Wing Corridors. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). Eighty-three magnetic anomalies were detected withing the analytical areas (Table 3). The anomalies ranged in amplitude from -30.58 to 20.42 nT, with short (<20.4 m) to medium durations (<60.9 m); none of the anomalies exhibited complex signatures. The low TVG tow heights (2.7 - 4.82 m) aided the anomaly interpretations. The above factors, combined with low mass estimations (<1-37 kilograms) are indicative of miscellaneous ferrous debris. None of the anomalies corresponded to a side scan sonar or seismic anomaly which could represent a cultural resource. Therefore,

no magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Table 4 and Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that 26 proposed geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to 26 the proposed sampling locations (Tables 1 and 2; Appendices 1, and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas, no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block D, Northern Wing Corridor

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
D16N	428031.73	4073524.34	-75.80678644	36.80482744
D15N	428529.46	4073492.33	-75.80120425	36.80457661
D14N	429026.52	4073457.51	-75.79562923	36.80430020
D12N	430025.43	4073391.04	-75.78442611	36.80377538
D11N	430521.79	4073358.41	-75.77885938	36.80351781
D10N	431021.91	4073325.14	-75.77325049	36.80325450
D9N	431521.92	4073292.55	-75.76764281	36.80299707
D8N	432019.27	4073259.26	-75.76206505	36.80273283
D7N	432519.97	4073226.34	-75.75644974	36.80247196
D5N	433517.00	4073160.54	-75.74526819	36.80194935
D4N	434018.22	4073126.23	-75.73964702	36.80167520
D3N	434509.82	4073093.28	-75.7341338	36.80141230
D2N	435013.75	4073062.43	-75.72848263	36.80116900

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2. Proposed geotechnical locations for ECR Block D, Southern Wing Corridor

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
D16S	427976.70	4072722.26	-75.8073274	36.79759341
D15S	428474.28	4072688.03	-75.80174719	36.79732259
D13S	429472.12	4072622.07	-75.79055707	36.79680295
D12S	429971.66	4072586.30	-75.78495489	36.79651753
D11S	430470.82	4072558.15	-75.77935763	36.79630057
D10S	430966.97	4072521.60	-75.77379335	36.79600747
D9S	431468.67	4072505.11	-75.76816885	36.79589527
D8S	431964.39	4072453.31	-75.76260809	36.79546415
D7S	432463.51	4072420.64	-75.75701107	36.79520538
D5S	433460.58	4072354.12	-75.74583007	36.79467638
D4S	433962.01	4072339.81	-75.74020877	36.7945825
D3S	434459.71	4072308.29	-75.73462793	36.79433295
D2S	434961.37	4072252.83	-75.72900058	36.79386761

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3: Magnetic Anomalies within Analytical Areas for ECR Block D, North and South Wing Corridors

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_1762	D16S	3.30	2.99	4.62	Dipole	-	4072726.42	4072726.42	-75.80787991	36.79762716
MAG_1765	D16N	2.71	12.78	2.04	Monopole (+)	-	4073579.83	4073579.83	-75.80733176	36.80532393
MAG_1768	D16N	4.82	5.20	2.34	Monopole (+)	-	4073598.06	4073598.06	-75.80719236	36.80548921
MAG_1773	D16N	2.70	7.70	2.66	Monopole (+)	-	4073520.97	4073520.97	-75.80679532	36.80479698
MAG_1781	D16N	4.06	-7.05	27.59	Monopole (-)	-	4073430.34	4073430.34	-75.8057165	36.80398731
MAG_1816	D15N	3.56	-2.85	2.22	Dipole	-	4073469.17	4073469.17	-75.80230203	36.80436043
MAG_1819	D15N	2.96	4.71	4.36	Monopole (+)	-	4073547.62	4073547.62	-75.80164166	36.80507206
MAG_1828	D15N	3.97	5.00	2.92	Monopole (+)	-	4073442.39	4073442.39	-75.80124013	36.80412618
MAG_1900	D14N	3.84	-8.76	12.19	Monopole (-)	-	4073541.56	4073541.56	-75.79597242	36.80505552
MAG_2011	D12S	4.17	6.50	2.18	Monopole (+)	-	4072529.8	4072529.8	-75.78602462	36.79600118
MAG_2015	D12S	3.56	1.49	3.58	Dipole	-	4072581.78	4072581.78	-75.78578261	36.79647135
MAG_2027	D12N	3.78	9.87	3.74	Monopole (+)	-	4073428.66	4073428.66	-75.7853081	36.80410868
MAG_2028	D12N	4.37	20.42	4.60	Monopole (+)	-	4073345.32	4073345.32	-75.78512231	36.80335864
MAG_2030	D12N	4.35	-5.39	38.69	Monopole (-)	-	4073478.13	4073478.13	-75.78489981	36.80455732
MAG_2031	D12S	3.55	1.06	3.71	Dipole	-	4072612.84	4072612.84	-75.78469502	36.79675852
MAG_2035	D12N	3.66	5.02	2.20	Monopole (+)	-	4073339.03	4073339.03	-75.78435895	36.80330698
MAG_2043	D12S	2.91	5.64	2.52	Monopole (+)	-	4072545.83	4072545.83	-75.78384064	36.7961601
MAG_2045	D12N	3.78	7.48	3.97	Monopole (+)	-	4073414.67	4073414.67	-75.78358776	36.80399392
MAG_2068	D11S	3.97	2.31	2.88	Dipole	-	4072485.56	4072485.56	-75.77975314	36.79564366
MAG_2079	D11N	3.11	1.52	3.86	Dipole	-	4073439.02	4073439.02	-75.77790388	36.80425073
MAG_2080	D11N	3.27	-10.63	44.44	Monopole (-)	-	4073437.06	4073437.06	-75.77764353	36.80423477
MAG_2109	D10S	4.60	4.98	4.34	Monopole (+)	-	4072490.48	4072490.48	-75.77450409	36.79572231
MAG_2111	D10N	3.01	-6.57	20.99	Monopole (-)	-	4073412.73	4073412.73	-75.77413473	36.80403834
MAG_2113	D10S	4.46	-7.10	25.38	Monopole (-)	-	4072607.54	4072607.54	-75.77401135	36.79678075
MAG_2117	D10S	4.19	-4.88	14.67	Monopole (-)	-	4072554.72	4072554.72	-75.77395377	36.79630498

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_2121	D10N	3.90	5.04	2.44	Monopole (+)	-	4073276.78	4073276.78	-75.77335961	36.80281786
MAG_2124	D10S	4.22	-0.07	4.79	Dipole	-	4072507.05	4072507.05	-75.77289981	36.79588212
MAG_2167	D9S	3.32	4.82	2.67	Monopole (+)	-	4072524.79	4072524.79	-75.76920824	36.79606597
MAG_2168	D9S	3.07	16.71	3.02	Monopole (+)	-	4072548.49	4072548.49	-75.76917911	36.7962798
MAG_2171	D9S	3.47	5.84	4.03	Monopole (+)	-	4072426.22	4072426.22	-75.76906565	36.79517833
MAG_2179	D9S	3.24	7.34	4.21	Monopole (+)	-	4072482.47	4072482.47	-75.76874097	36.79568749
MAG_2182	D9S	3.61	7.30	4.70	Monopole (+)	-	4072456.15	4072456.15	-75.76866889	36.7954507
MAG_2205	D9N	4.62	-30.58	49.23	Monopole (-)	-	4073238.11	4073238.11	-75.7669905	36.80251052
MAG_2229	D8S	2.82	4.75	2.90	Monopole (+)	-	4072450.57	4072450.57	-75.76364652	36.79543275
MAG_2230	D8S	3.66	5.82	4.80	Monopole (+)	-	4072424.51	4072424.51	-75.76360765	36.79519808
MAG_2236	D8S	3.21	6.70	2.67	Monopole (+)	-	4072490.26	4072490.26	-75.76322406	36.79579325
MAG_2245	D8S	4.81	4.92	2.56	Monopole (+)	-	4072418.88	4072418.88	-75.76266445	36.79515338
MAG_2329	D7N	4.15	5.04	2.98	Monopole (+)	-	4073156.88	4073156.88	-75.75760533	36.80183842
MAG_2330	D7N	3.43	6.05	2.80	Monopole (+)	-	4073259.96	4073259.96	-75.75749152	36.80276836
MAG_2332	D7S	4.29	15.45	5.11	Monopole (+)	-	4072385.86	4072385.86	-75.75723741	36.7948904
MAG_2334	D7S	4.33	7.34	2.20	Monopole (+)	-	4072335.36	4072335.36	-75.75714192	36.79443577
MAG_2336	D7S	3.90	6.22	2.78	Monopole (+)	-	4072508.09	4072508.09	-75.75703642	36.79599352
MAG_2339	D7S	3.51	-7.11	13.69	Monopole (-)	-	4072458.02	4072458.02	-75.756958	36.79554266
MAG_2340	D7N	4.19	5.73	3.10	Monopole (+)	-	4073142.93	4073142.93	-75.7569644	36.80171675
MAG_2346	D7S	4.11	-4.89	51.93	Monopole (-)	-	4072410.58	4072410.58	-75.75657272	36.79511747
MAG_2354	D7S	3.62	17.15	2.47	Monopole (+)	-	4072472.22	4072472.22	-75.75574464	36.79567839
MAG_2457	D5N	3.01	3.81	5.45	Dipole	-	4073162.31	4073162.31	-75.74605415	36.8019604
MAG_2460	D5N	3.37	-10.49	26.12	Monopole (-)	-	4073135.22	4073135.22	-75.74558616	36.80171913
MAG_2462	D5N	3.99	5.10	2.76	Monopole (+)	-	4073230.66	4073230.66	-75.74528827	36.80258134
MAG_2465	D5N	4.65	-5.14	29.63	Monopole (+)	-	4073072.47	4073072.47	-75.74513983	36.80115626
MAG_2466	D5N	3.85	8.98	5.68	Monopole (+)	-	4073111.49	4073111.49	-75.74506467	36.80150848
MAG_2505	D4S	3.14	0.00	2.60	Dipole	-	4072362.59	4072362.59	-75.74131825	36.79478092

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_2512	D4S	3.62	5.38	3.78	Monopole (+)	-	4072389.24	4072389.24	-75.74078	36.79502451
MAG_2518	D4S	3.85	6.85	2.47	Monopole (+)	-	4072363.61	4072363.61	-75.74026523	36.79479667
MAG_2523	D4S	3.46	-5.97	15.56	Monopole (-)	-	4072407.62	4072407.62	-75.73971414	36.79519683
MAG_2552	D3N	3.54	6.32	3.26	Monopole (+)	-	4073047.68	4073047.68	-75.73546933	36.80099299
MAG_2554	D3S	4.09	6.21	2.10	Monopole (+)	-	4072355.18	4072355.18	-75.73533175	36.79475128
MAG_2562	D3S	3.76	-13.58	40.24	Monopole (-)	-	4072318.21	4072318.21	-75.73410219	36.79442561
MAG_2565	D3N	4.04	5.89	4.22	Monopole (+)	-	4073017.54	4073017.54	-75.73372308	36.80073208
MAG_2568	D3N	3.48	5.01	3.91	Monopole (+)	-	4073060.42	4073060.42	-75.73350438	36.80111997
MAG_2601	D2N	3.61	-6.56	19.04	Monopole (-)	-	4072984.47	4072984.47	-75.7288899	36.80046369
MAG_2617	D2N	4.21	-9.78	17.06	Monopole (-)	-	4073142.45	4073142.45	-75.72790926	36.80189381
MAG_2622	D2N	4.16	7.52	3.94	Monopole (+)	-	4073105.54	4073105.54	-75.72742514	36.80156405
MAG_2624	D2N	2.91	6.22	2.19	Monopole (+)	-	4072974.98	4072974.98	-75.72730573	36.80038784

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

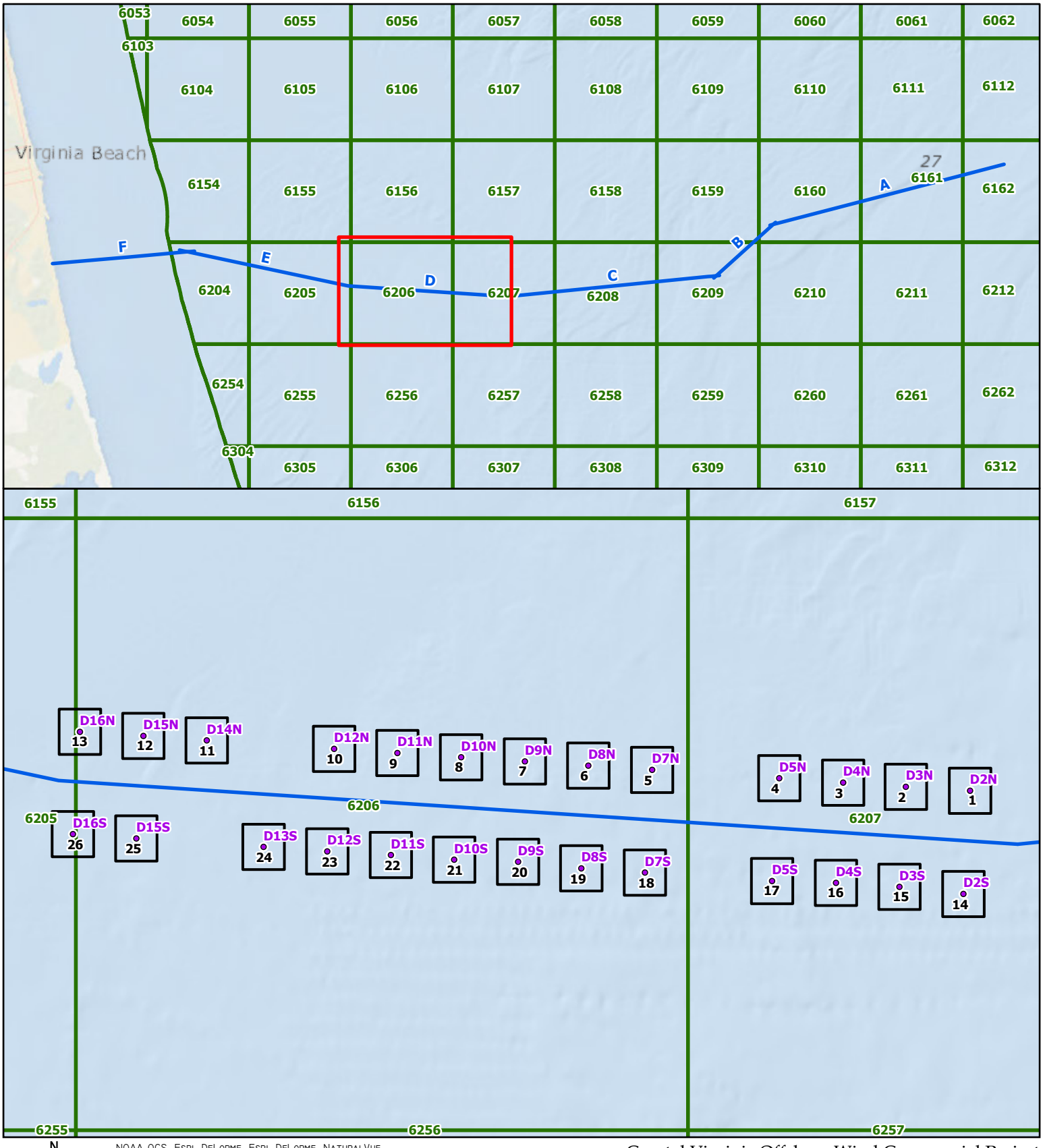
Table 4: Side Scan Sonar Contacts within Analytical Areas for ECR Block D, North and South Wing Corridors

SSS ID	Associated Geotechnical Location	Height (m)	Width (m)	Length (m)	Depth (m)	Associated Mag Anomaly	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
SSS_D_059	D8N	0.11	0.46	0.8	19.8	-	431983.73	4073265.41	-75.76246392	36.80278572
SSS_D_101	D14N	0.13	0.48	1.38	19.7	-	428983.82	4073530.14	-75.79611473	36.80495162
SSS_D_027	D4N	0.41	0.54	1.6	21.64	-	434095.91	4073195.16	-75.73878211	36.80230192
SSS_D_045	D5N	0.28	0.38	0.76	21.43	-	433530.38	4073149.94	-75.74511723	36.80185476
SSS_D_091	D12N	0.16	0.13	1.1	20.72	-	429924.84	4073416.94	-75.78555609	36.80400139
SSS_D_063	D10N	0.34	0.19	0.41	19.93	-	431102.8	4073232.77	-75.77233538	36.80242779
SSS_D_028	D4N	0.45	0.67	1.87	21.57	-	434095.27	4073032.23	-75.73877518	36.80083323
SSS_D_124	D16S	0.11	1.14	2.65	18.84	-	427971.58	4072811.87	-75.80739326	36.79840075
SSS_D_102	D14N	0.23	4.46	7.85	19.77	-	428968.31	4073386.79	-75.7962752	36.80365832
SSS_D_009	D2N	0.18	0.28	0.86	21.79	-	434971.83	4073133.02	-75.72895852	36.80180238
SSS_D_130	D2S	0.33	0.26	1.18	16.11	-	434885.67	4072269.98	-75.72985048	36.79401701
SSS_D_137	D2S	0.13	0.54	3.74	16.22	-	435080.52	4072261.4	-75.72766592	36.79395307
SSS_D_146	D2S	0.2	0.75	1.09	16.2	-	434838.11	4072174.65	-75.73037537	36.79315446
SSS_D_148	D2S	0.22	0.48	1.17	16.71	-	435034.27	4072253.1	-75.7281835	36.79387508
SSS_D_149	D5S	0.28	0.23	1.06	15.34	-	433477.12	4072414.05	-75.74564991	36.7952177
SSS_D_152	D15S	0.18	0.37	3.09	13.89	-	428438.96	4072769.97	-75.80215071	36.79805855
SSS_D_185	D15S	0.39	0.59	1.42	13.86	-	428513	4072612.66	-75.80130616	36.79664617
SSS_D_190	D2S	0.11	0.18	1.43	16.78	-	434864.92	4072187.37	-75.73007599	36.7932709
SSS_D_193	D2S	0.17	0.16	2.5	16.41	-	435066.27	4072181.87	-75.72781878	36.79323518
SSS_D_194	D2S	0.25	0.2	2.32	16.22	-	435037.12	4072172.2	-75.72814474	36.79314603
SSS_D_196	D2S	0.25	0.39	1.67	16.28	-	435068.97	4072169.54	-75.72778754	36.79312419
SSS_D_200	D2S	0.32	0.4	1.55	16.13	-	434852.31	4072289.59	-75.73022604	36.79419145
SSS_D_201	D2S	0.18	0.75	1.58	16.22	-	434881.83	4072282.16	-75.72989461	36.79412654
SSS_D_205	D3S	0.33	0.54	2.22	16.13	-	434519.24	4072310.21	-75.7339609	36.79435437
SSS_D_207	D4S	0.21	0.3	1.35	15.24	-	434078.73	4072402.87	-75.73890604	36.79515899
SSS_D_208	D4S	0.22	0.56	1.03	15.5	-	434084.01	4072407.45	-75.73884727	36.79520069

SSS ID	Associated Geotechnical Location	Height (m)	Width (m)	Length (m)	Depth (m)	Associated Mag Anomaly	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
SSS_D_209	D4S	0.37	0.36	1.17	15.35	-	434081.28	4072392.66	-75.73887656	36.79506717
SSS_D_211	D5S	0.26	1	3	16.53	-	433341.79	4072342.67	-75.74716043	36.79456476

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK D WING CORRIDORS



N
W E
S
GRID NORTH

NOAA OCS, ESRI, DELORME, ESRI, DELORME, NATURALVUE

MSR: 1:40,000
SRS: NAD 1983 2011 UTM ZONE 18N METER

0 0.25 0.5 0.75 1 MILES
0 0.25 0.5 0.75 1 KILOMETERS

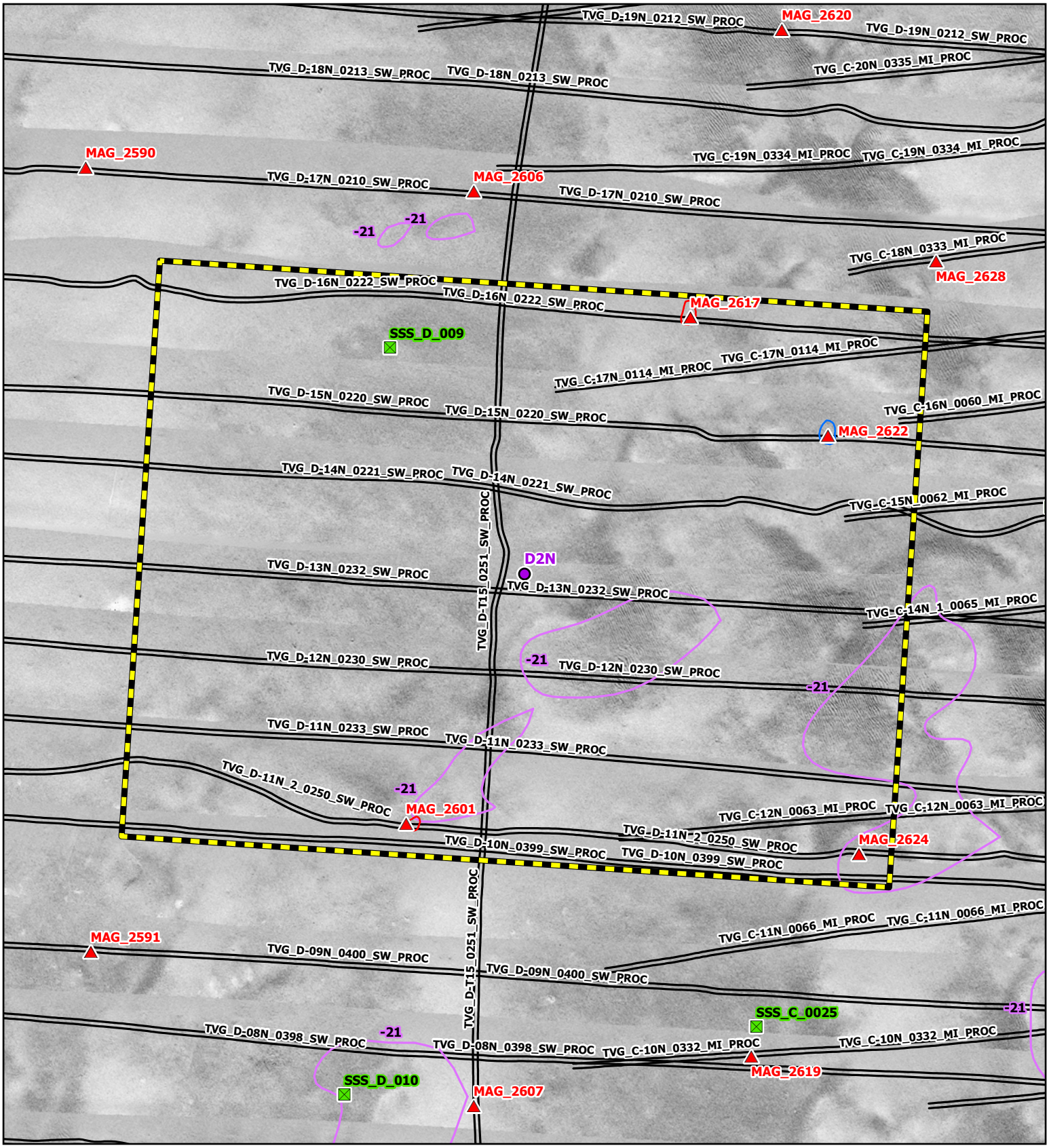
- GEOTECHNICAL LOCATION
- ECR CENTERLINE
- BOEM LEASE BLOCK
- MAP SHEET EXTENT

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Index Map

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

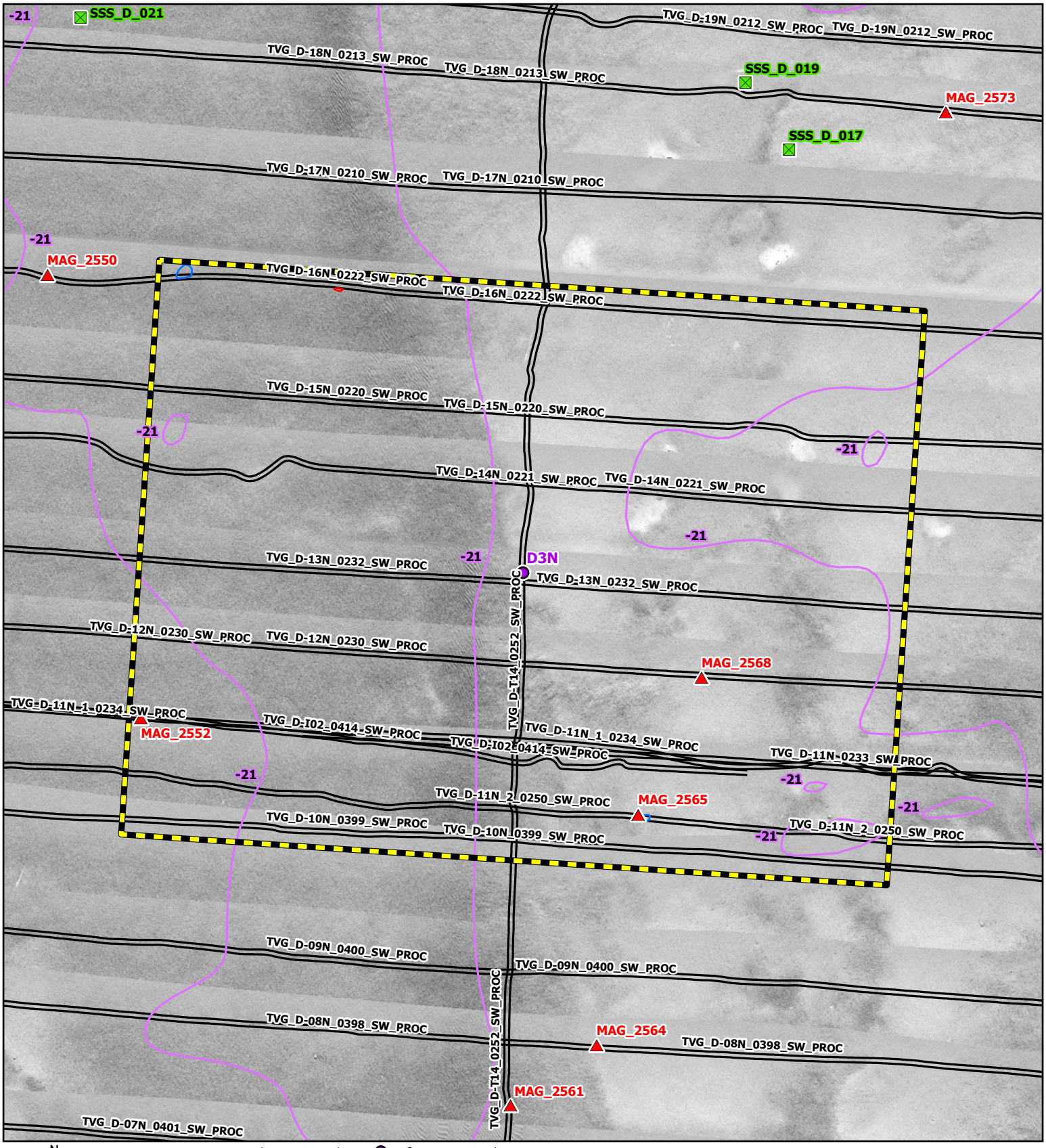
Geotechnical Clearance: Block D

Map: 1

D2N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

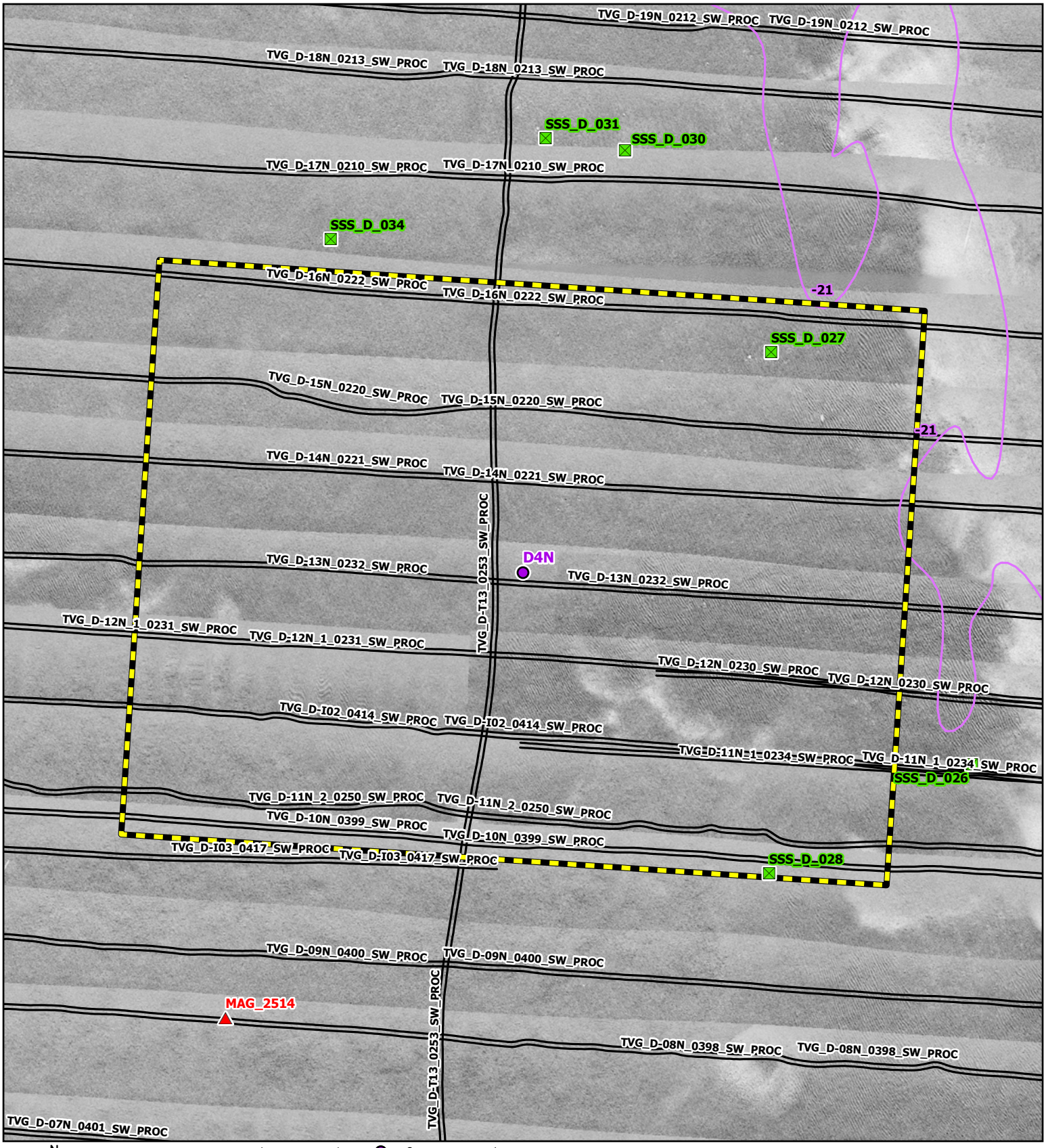
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 2

D3N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

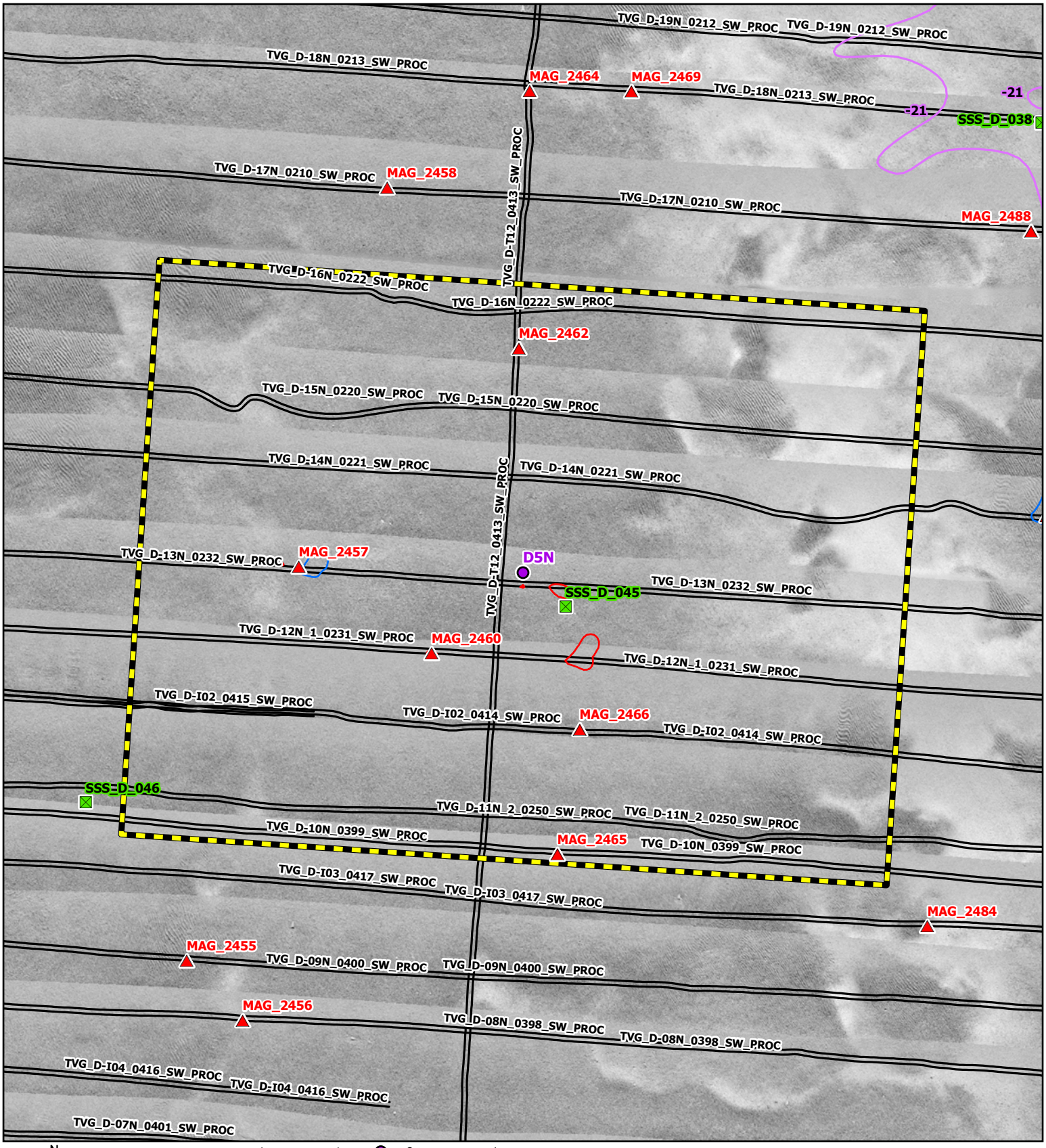
- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 3

D4N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

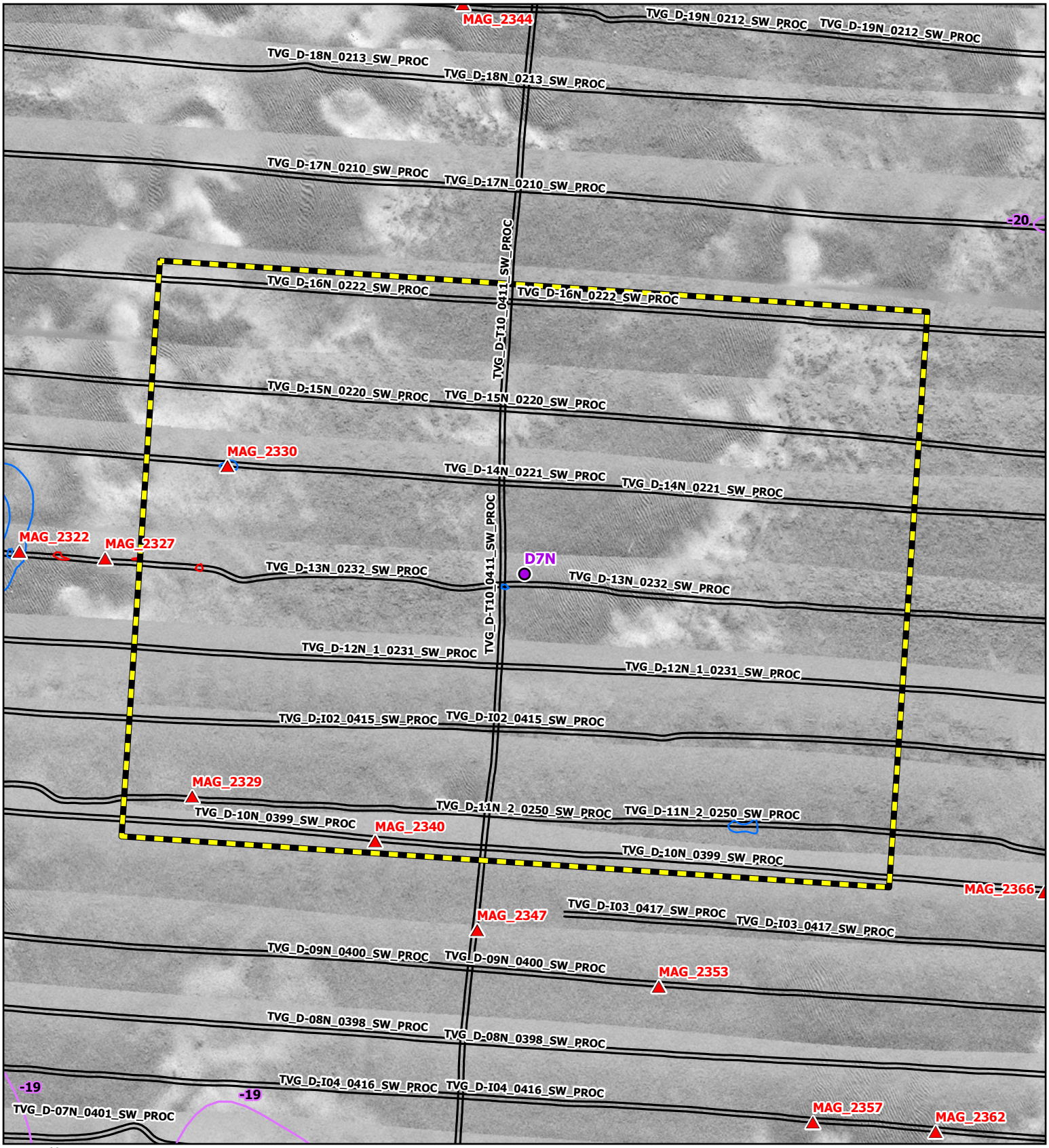
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 4

D5N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

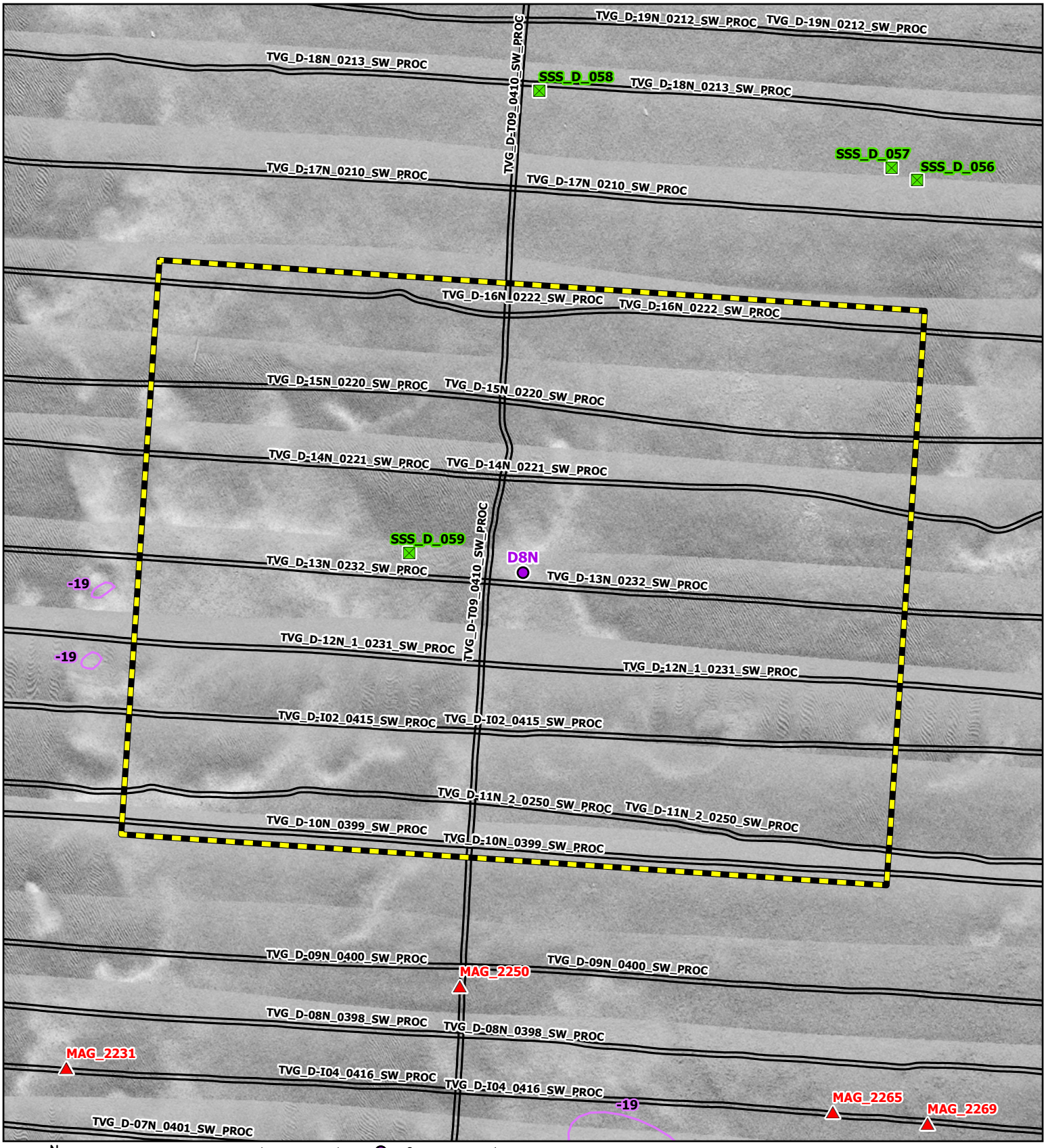
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 5

D7N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

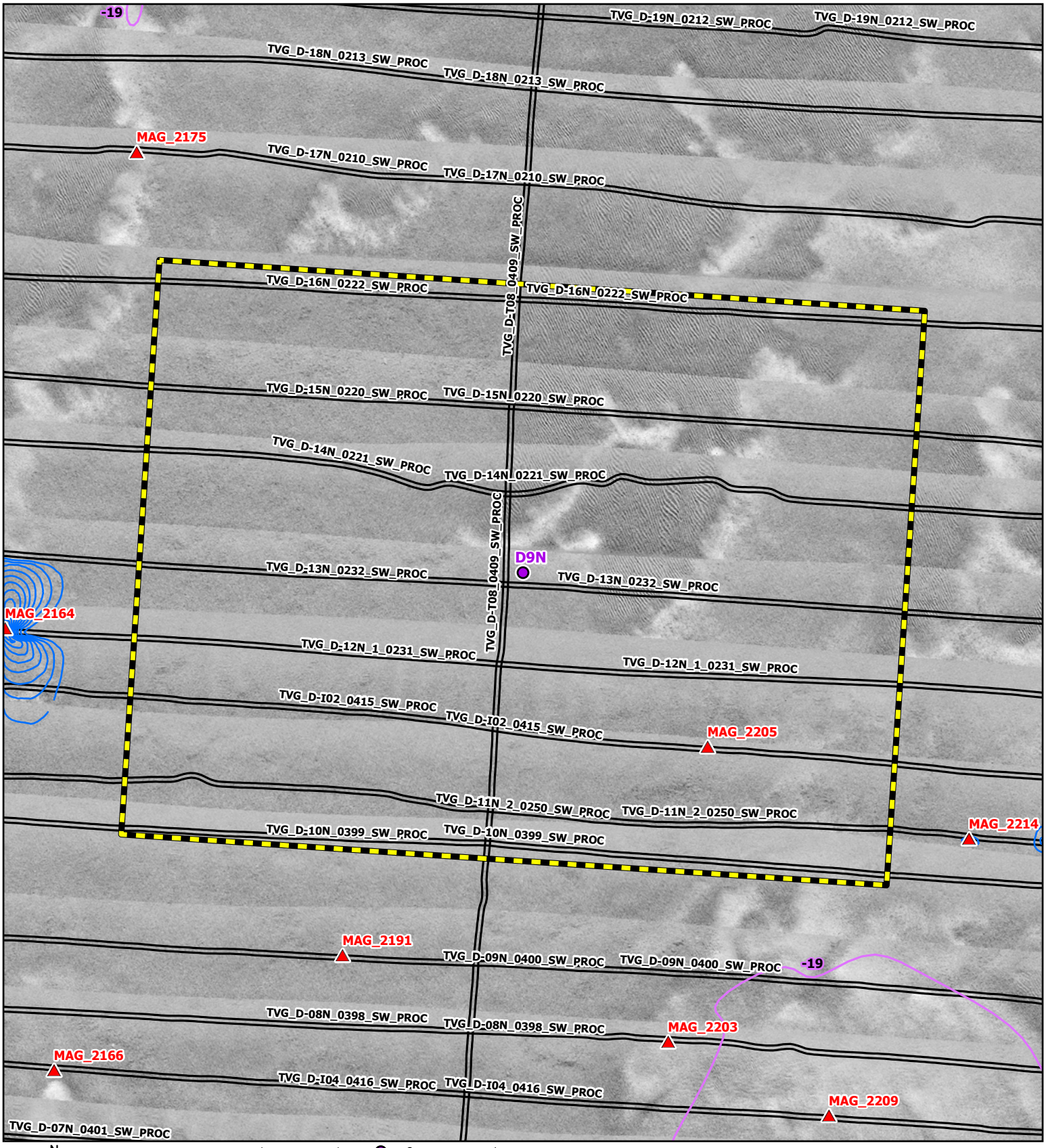
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 6

D8N

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

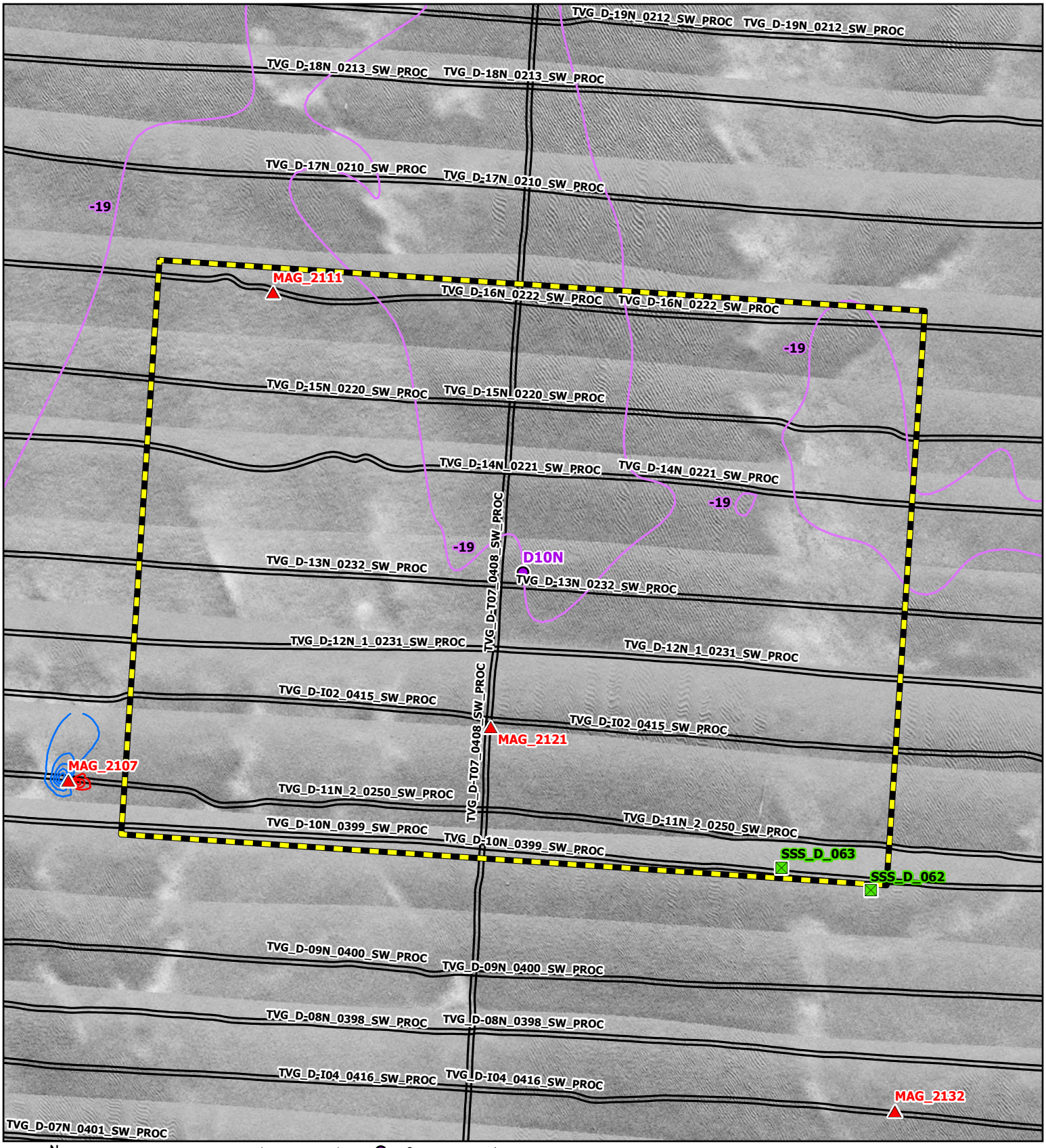
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 7

D9N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

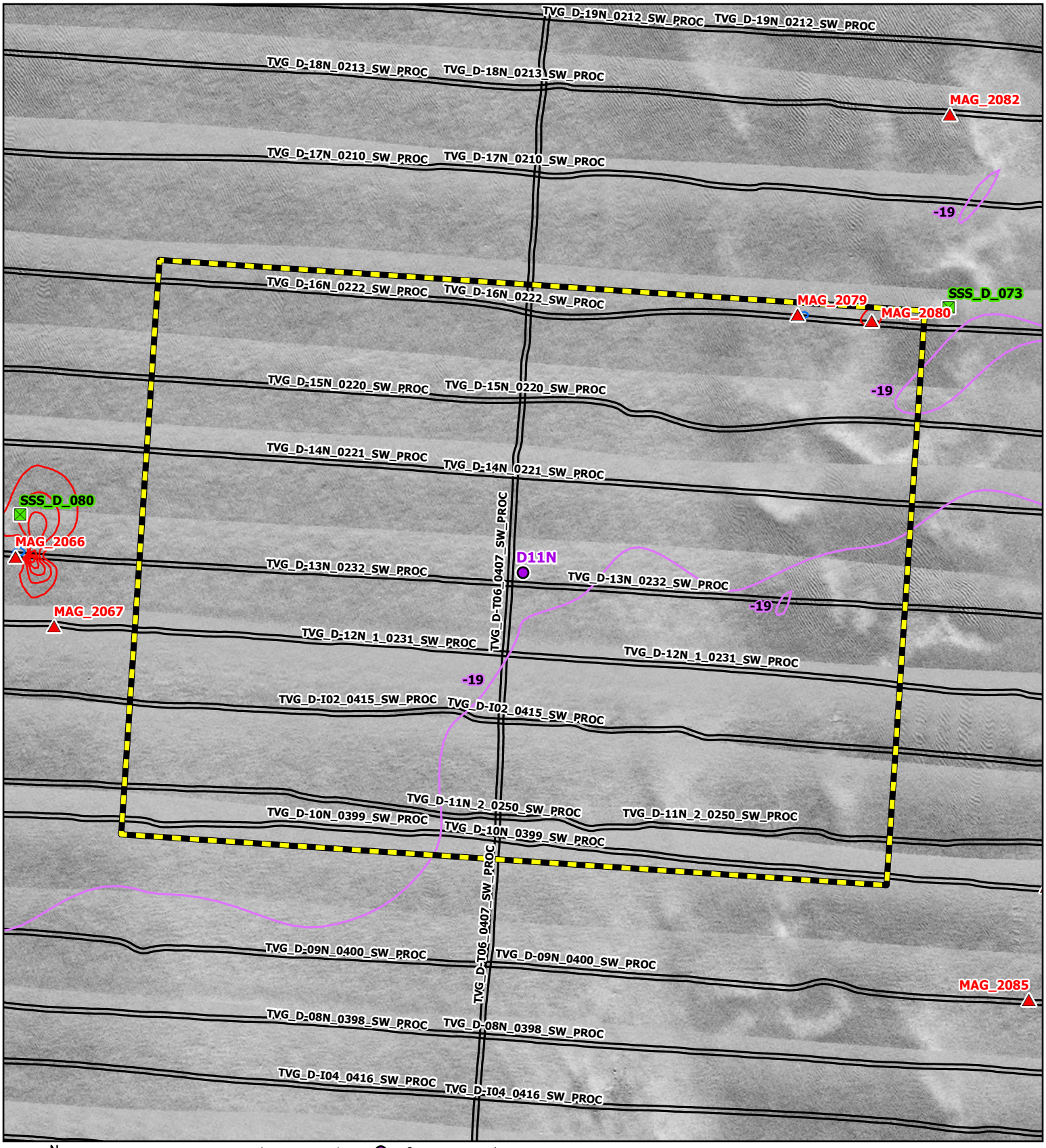
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 8

D10N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

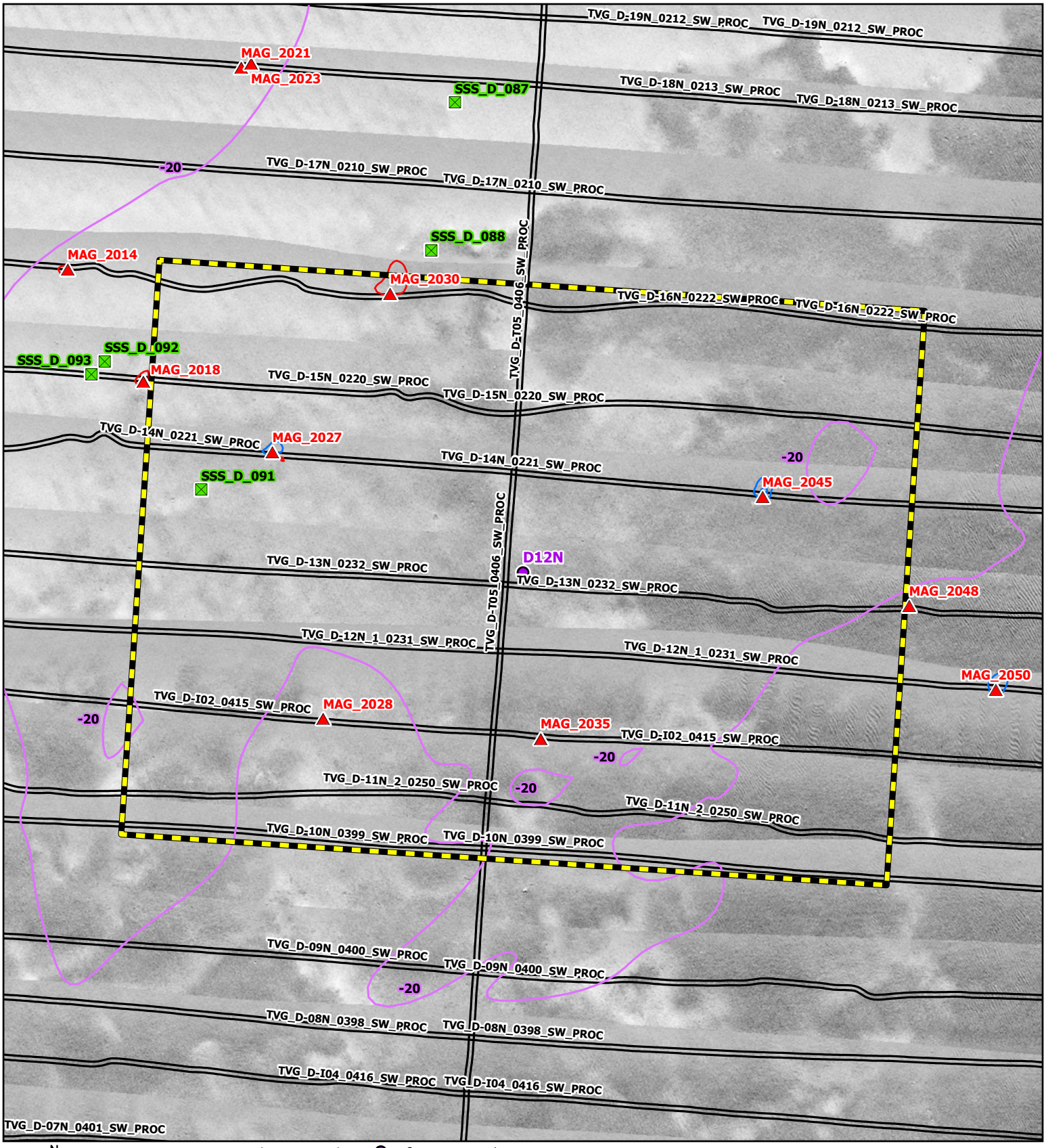
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 9

D11N

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

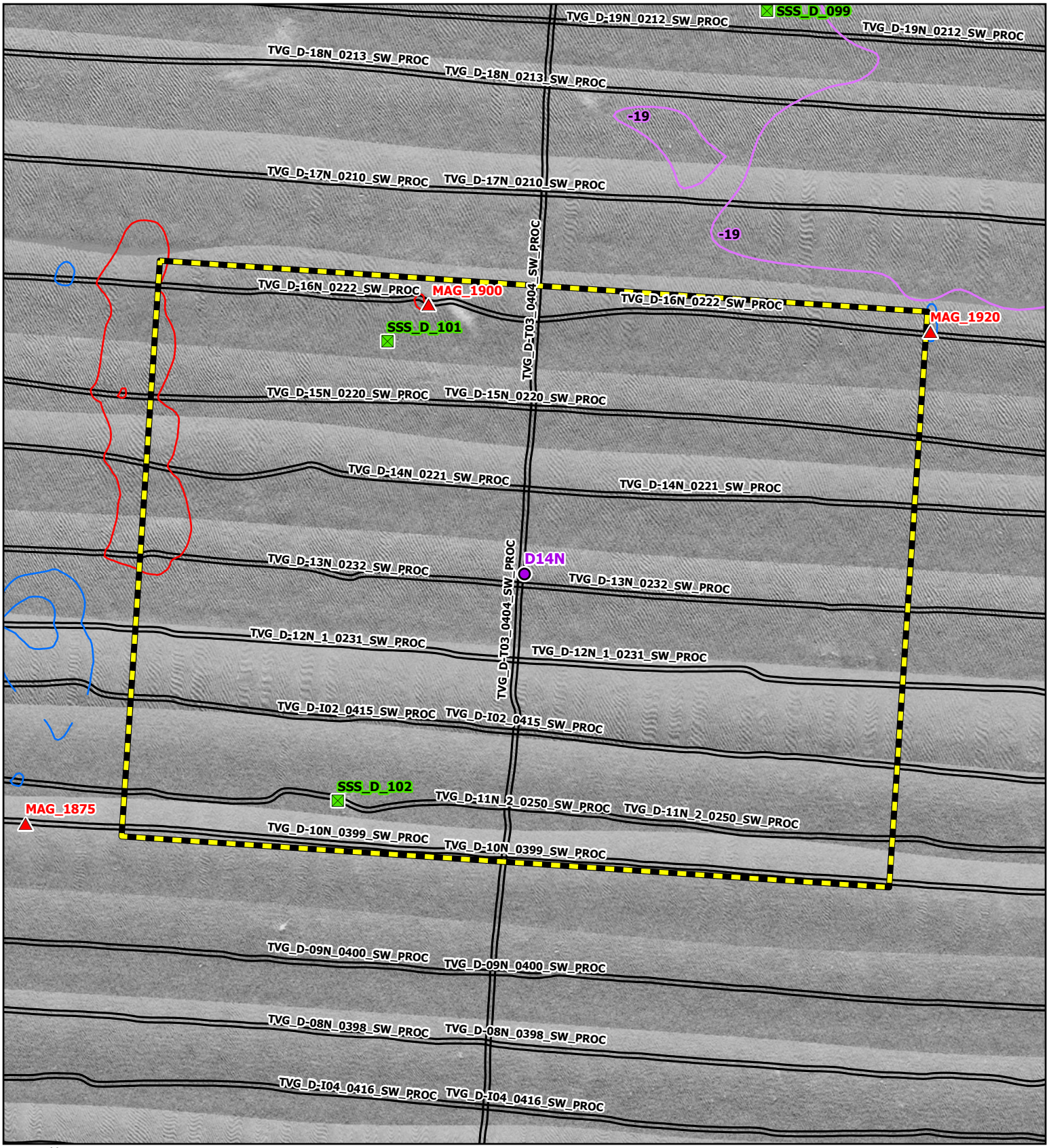
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 10

D12N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

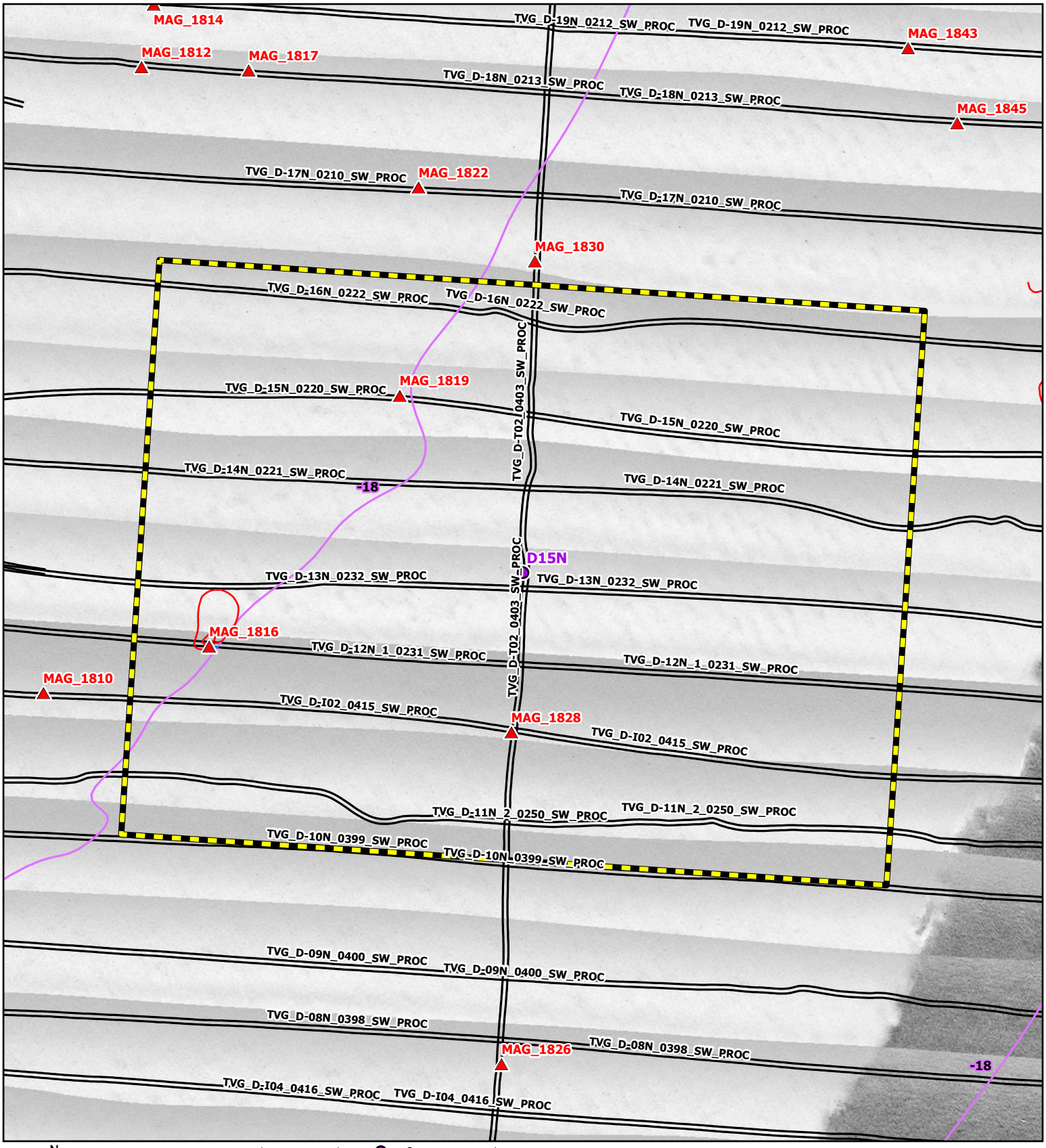
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 11

D14N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

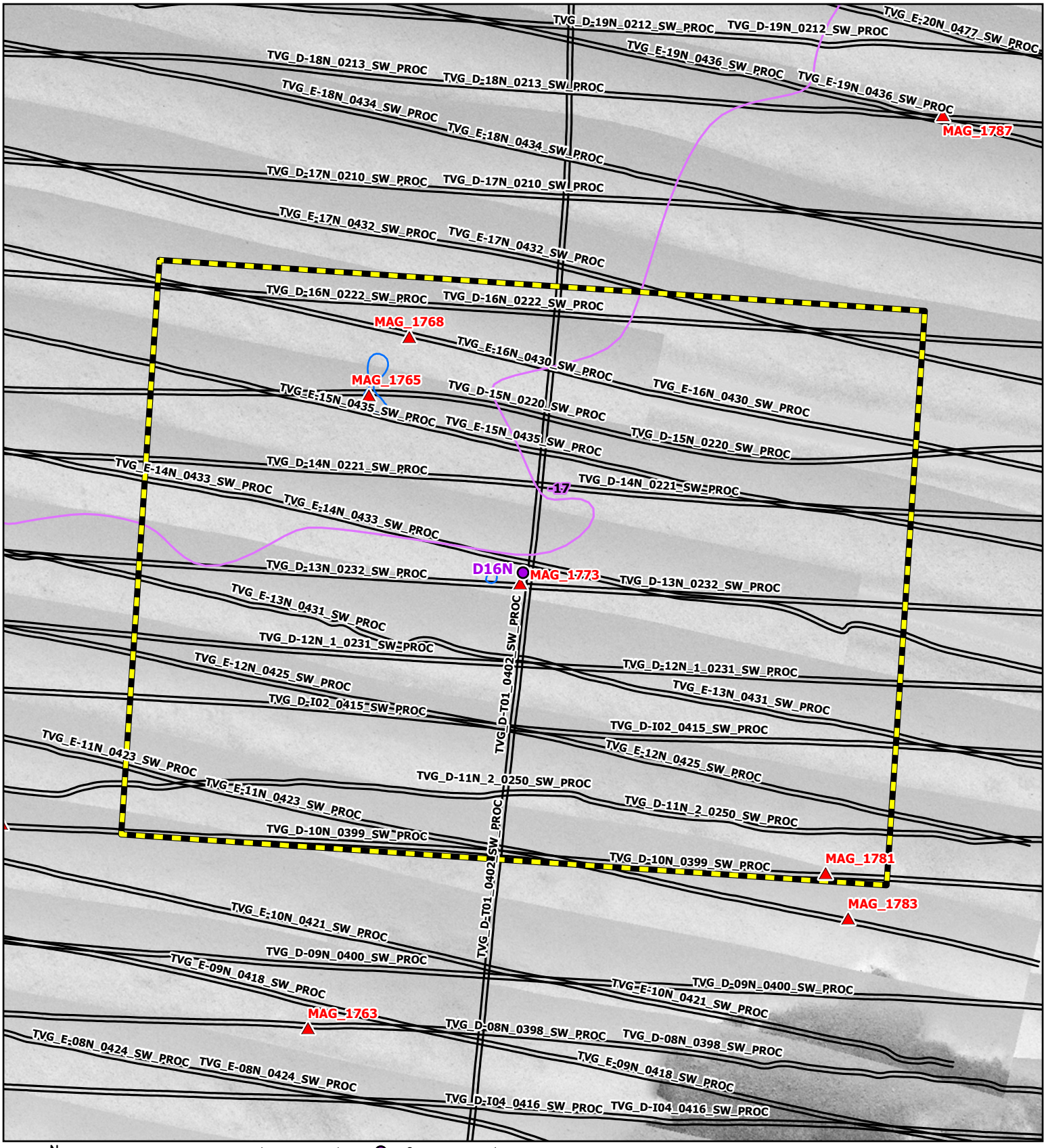
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 12

D15N

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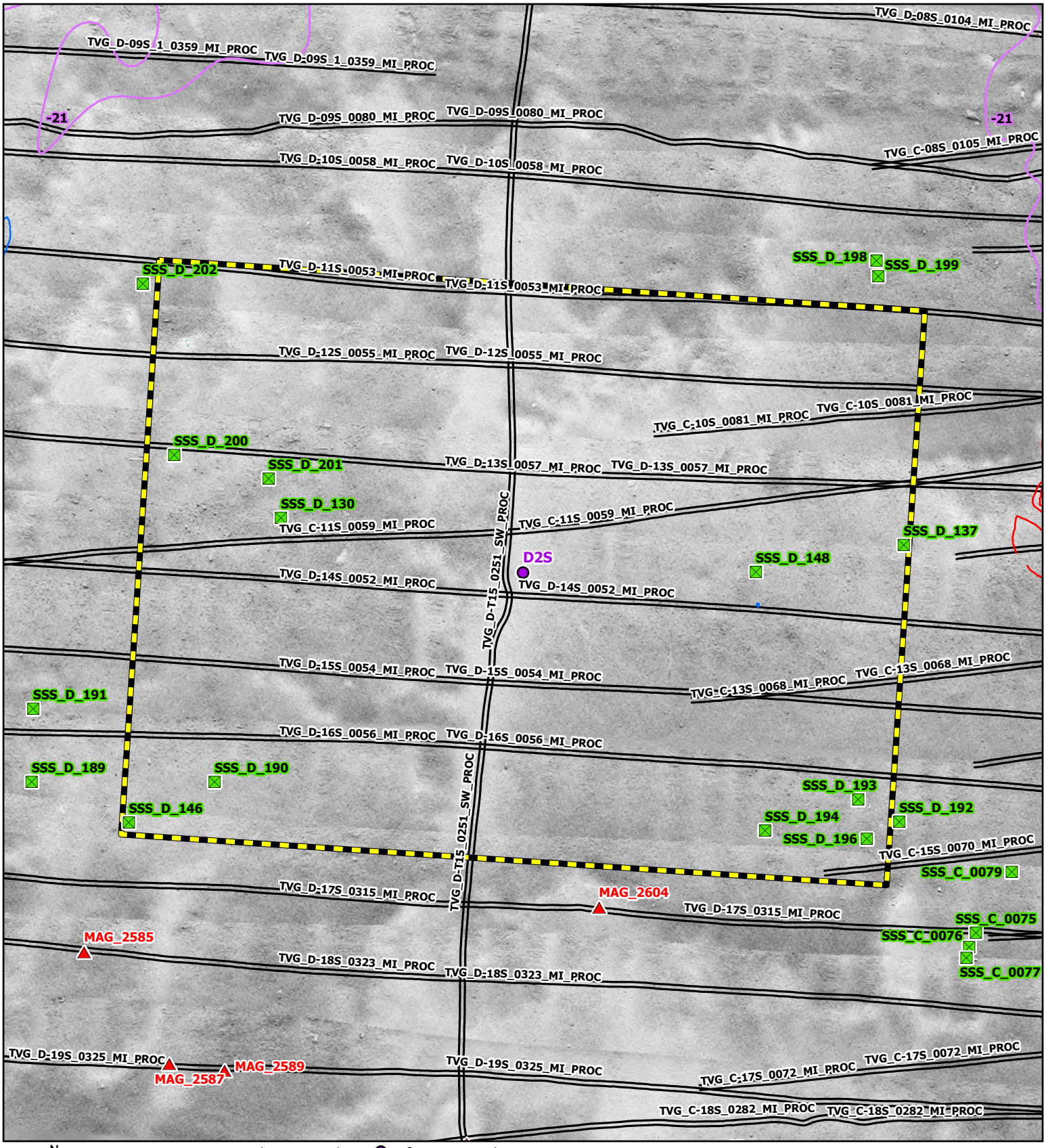
Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 13
D16N

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

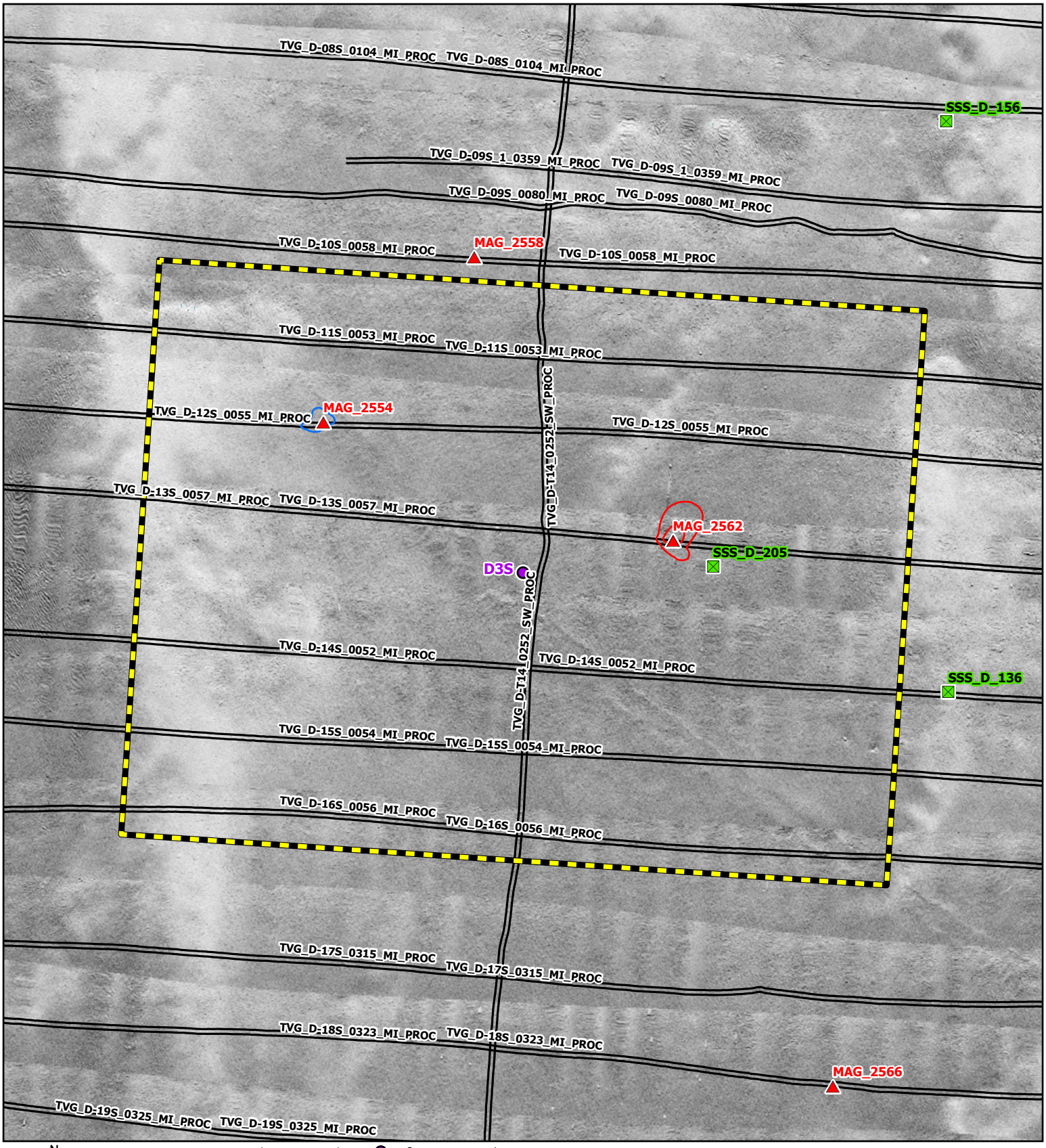
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 14

D2S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

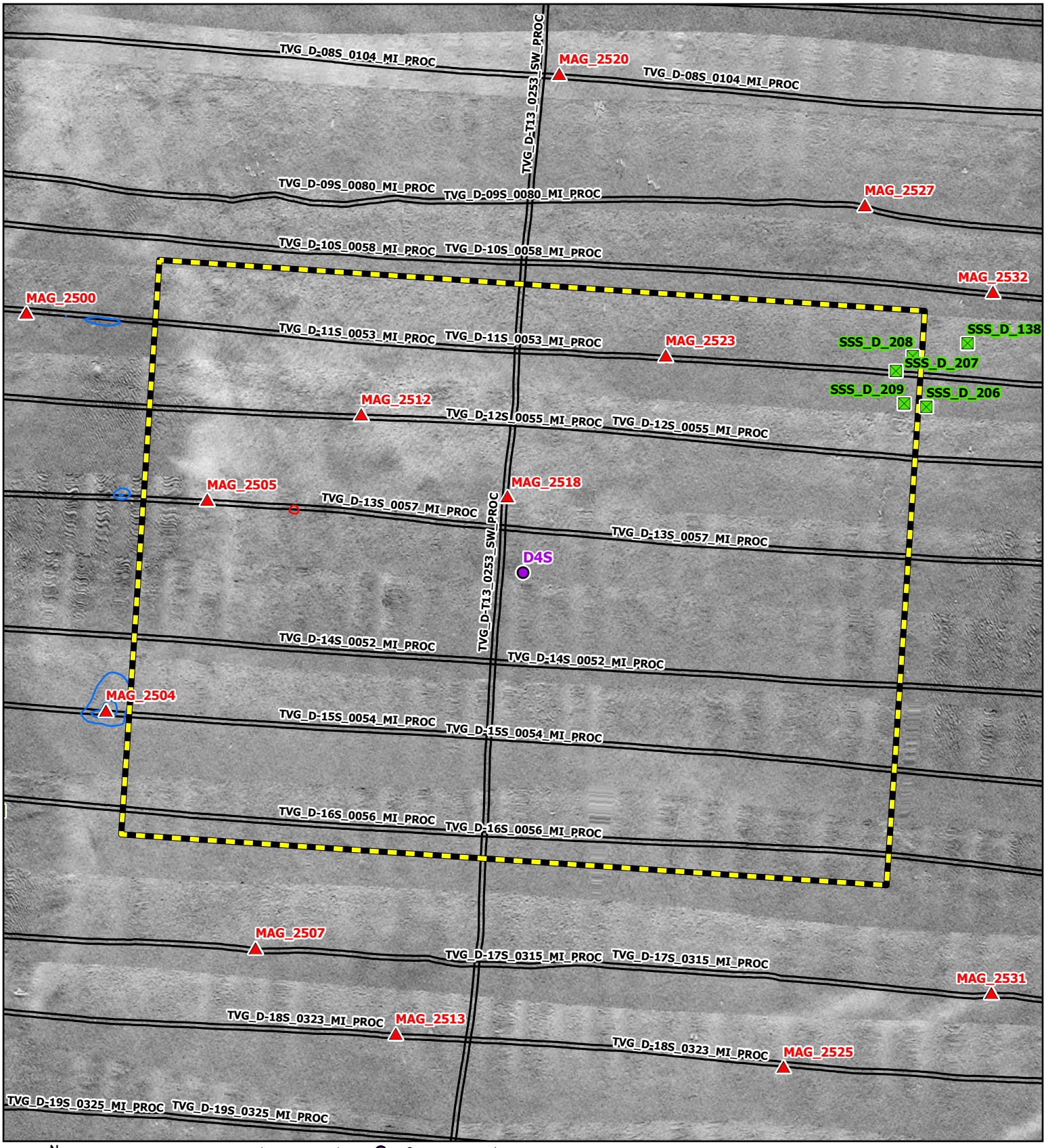
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 15

D3S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

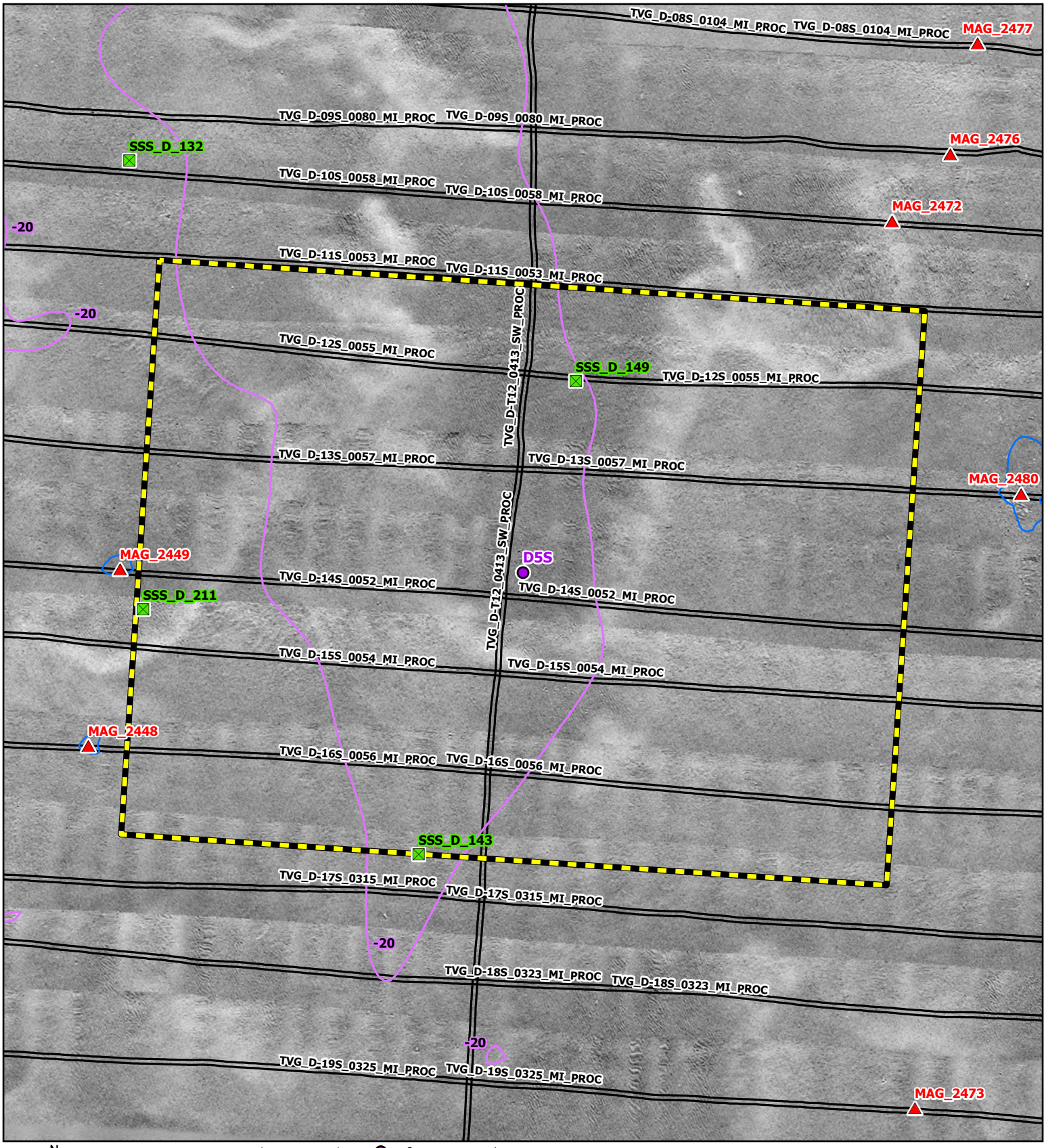
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 16

D4S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Bathymetric Contour (1m interval)
- Trackline

Magnetic Contour (5 nT)

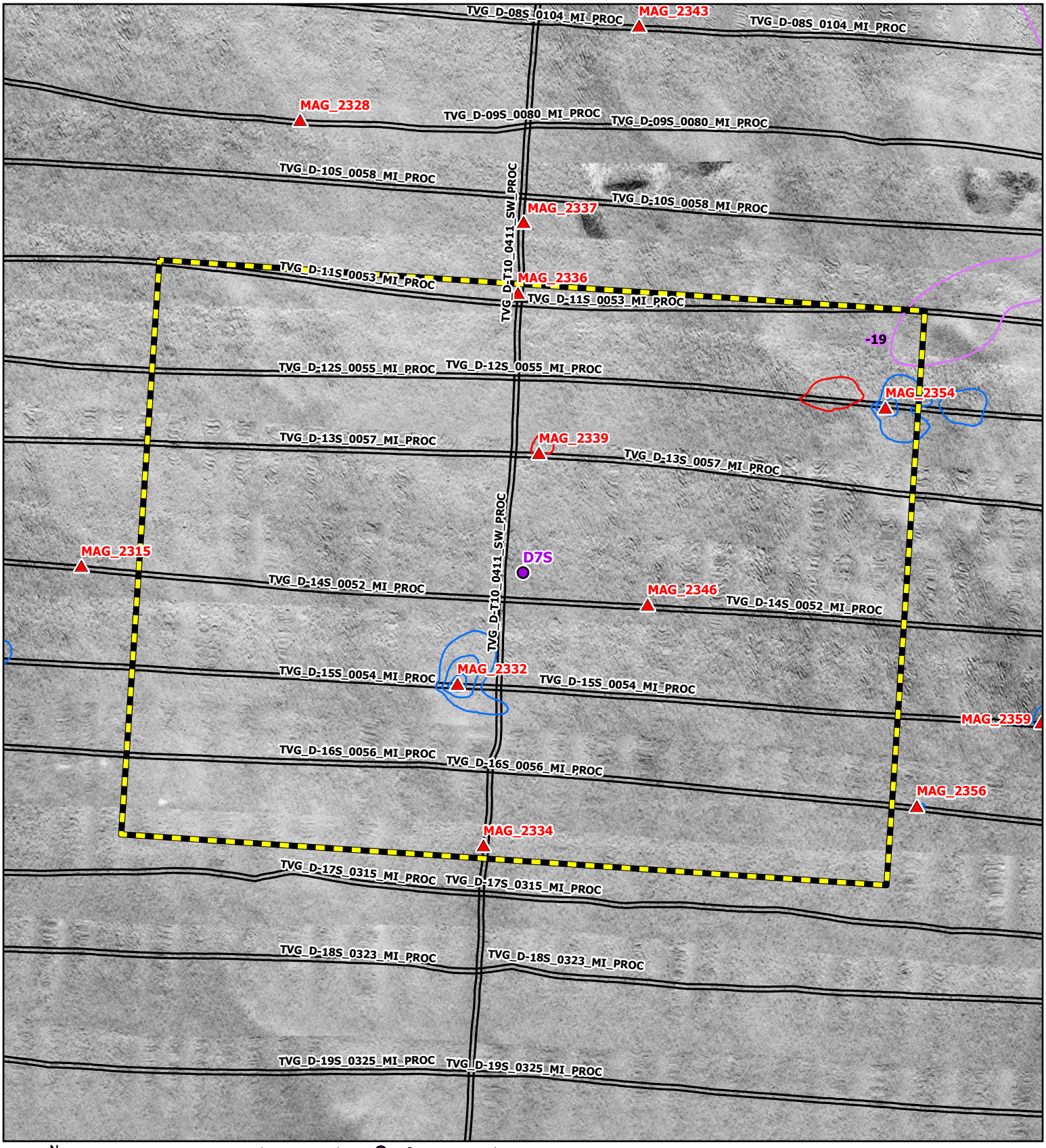
- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 17

D5S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

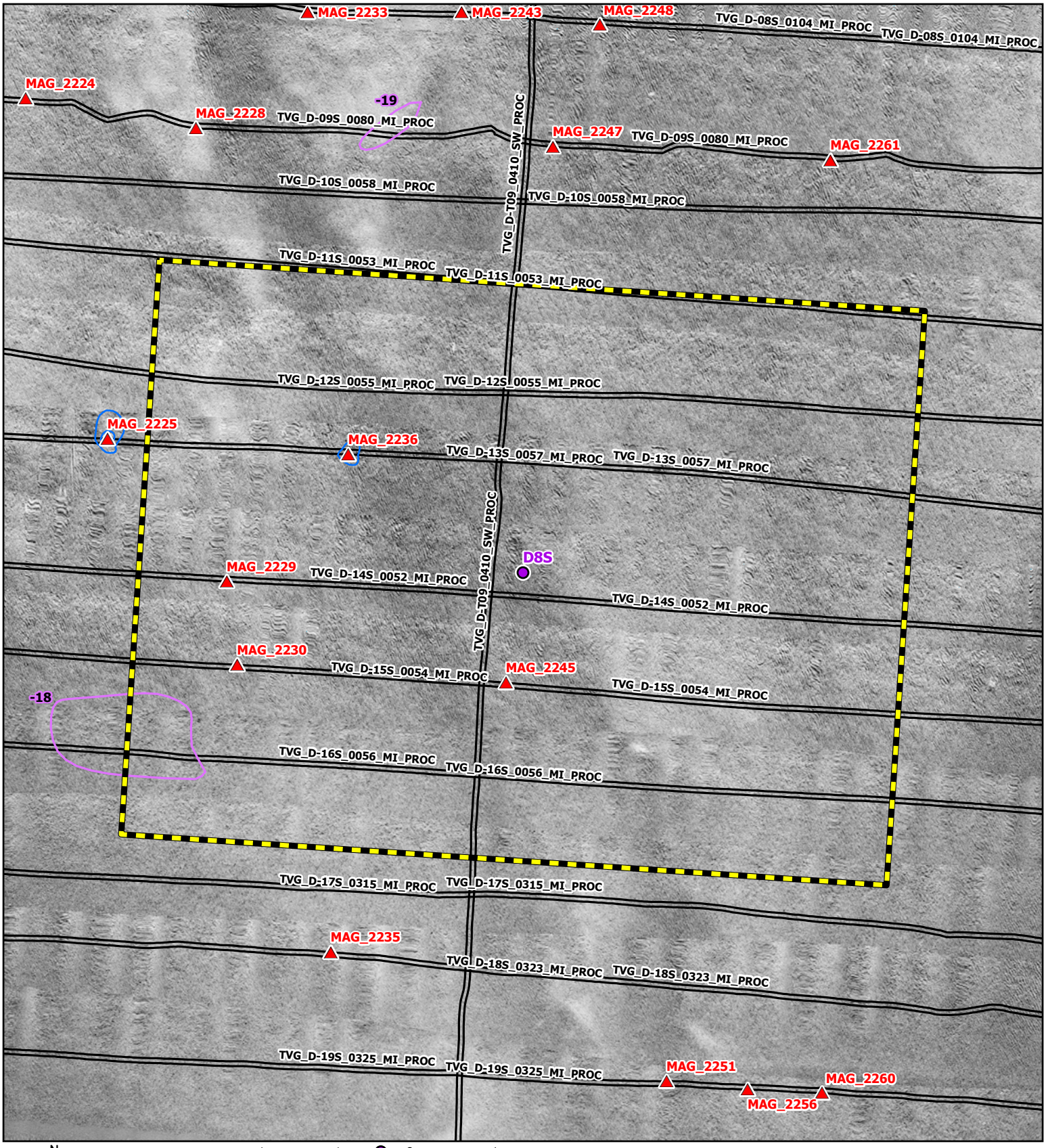
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 18

D7S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

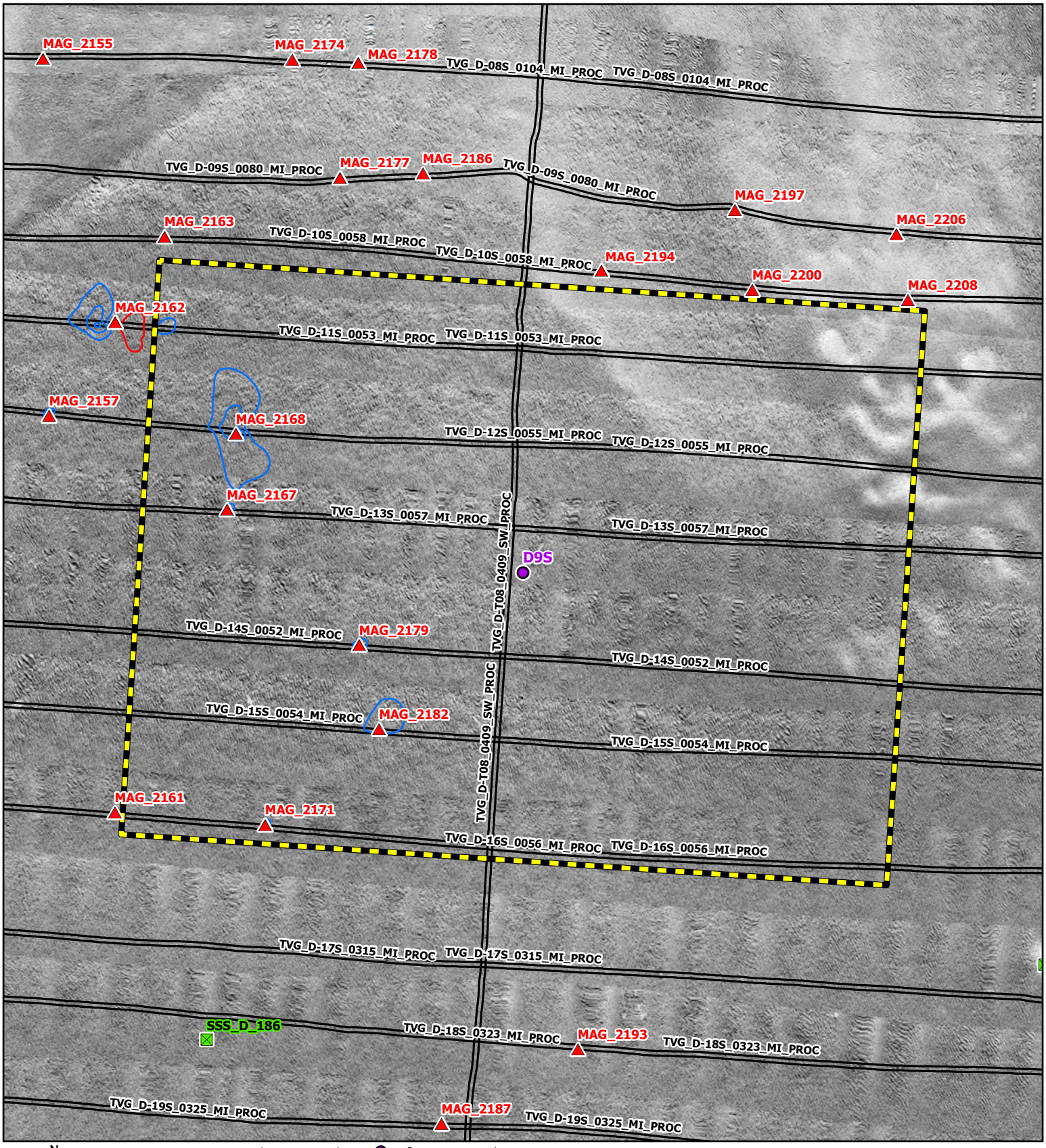
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 19

D8S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

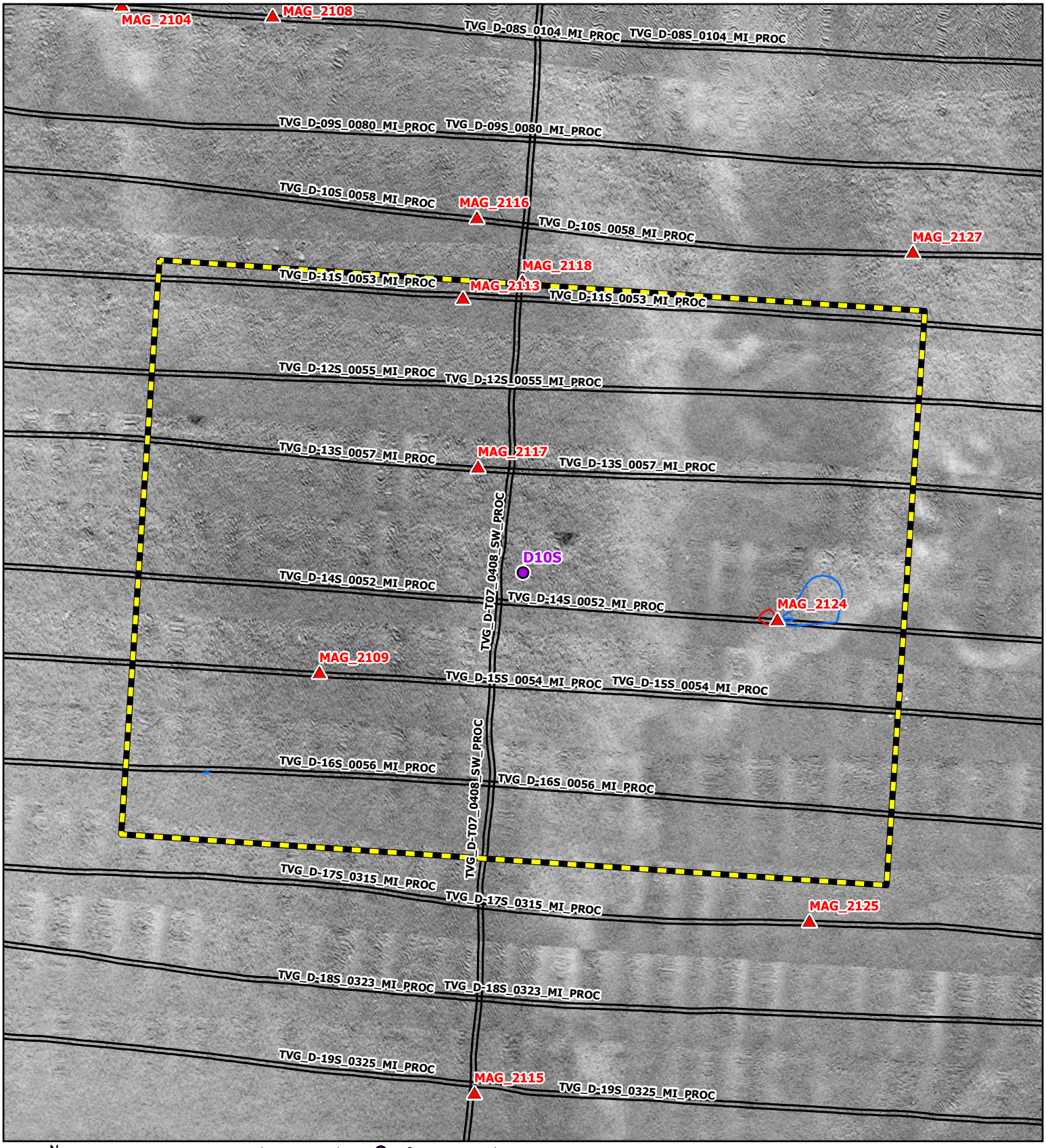
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 20

D9S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

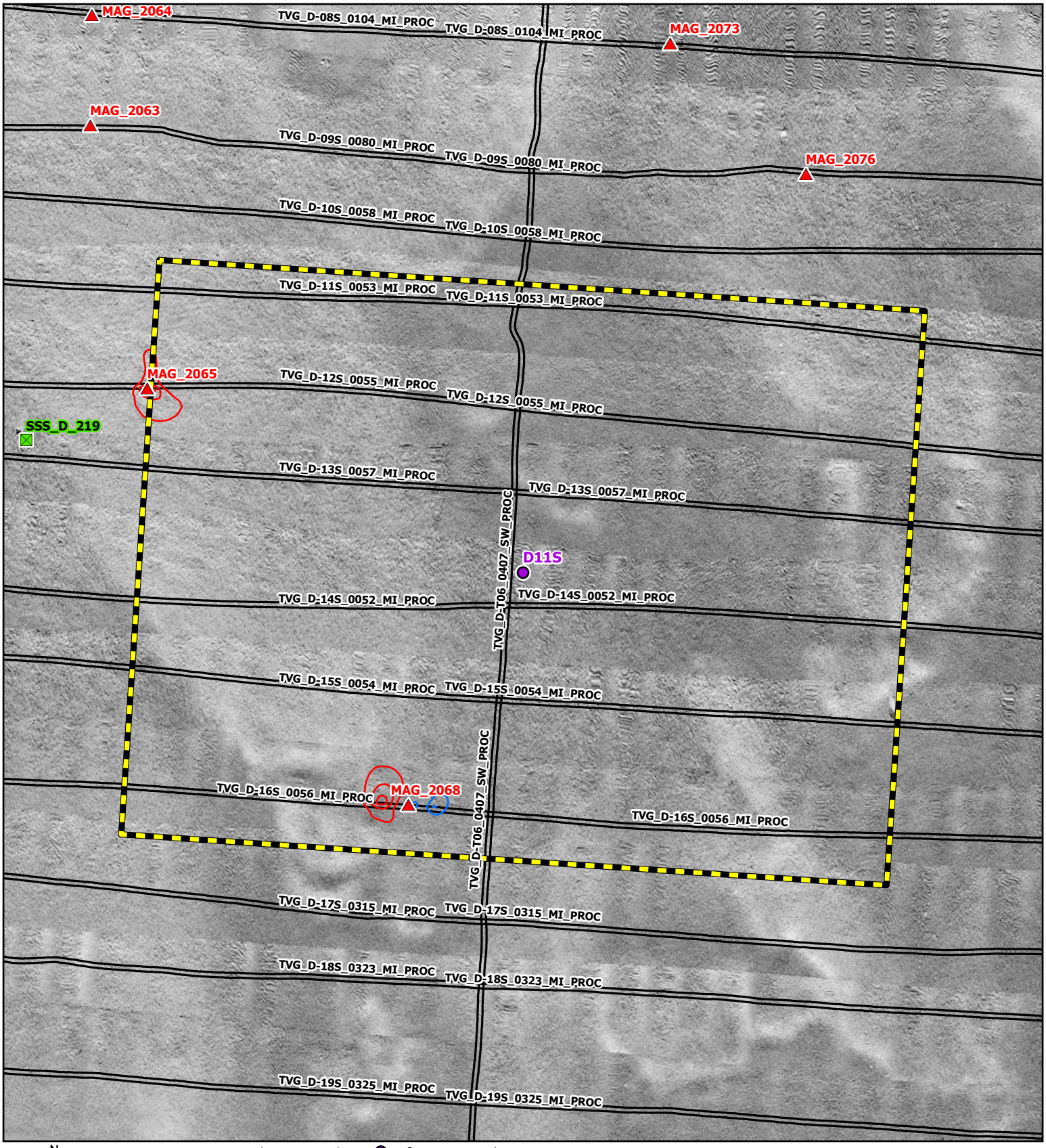
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 21

D10S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

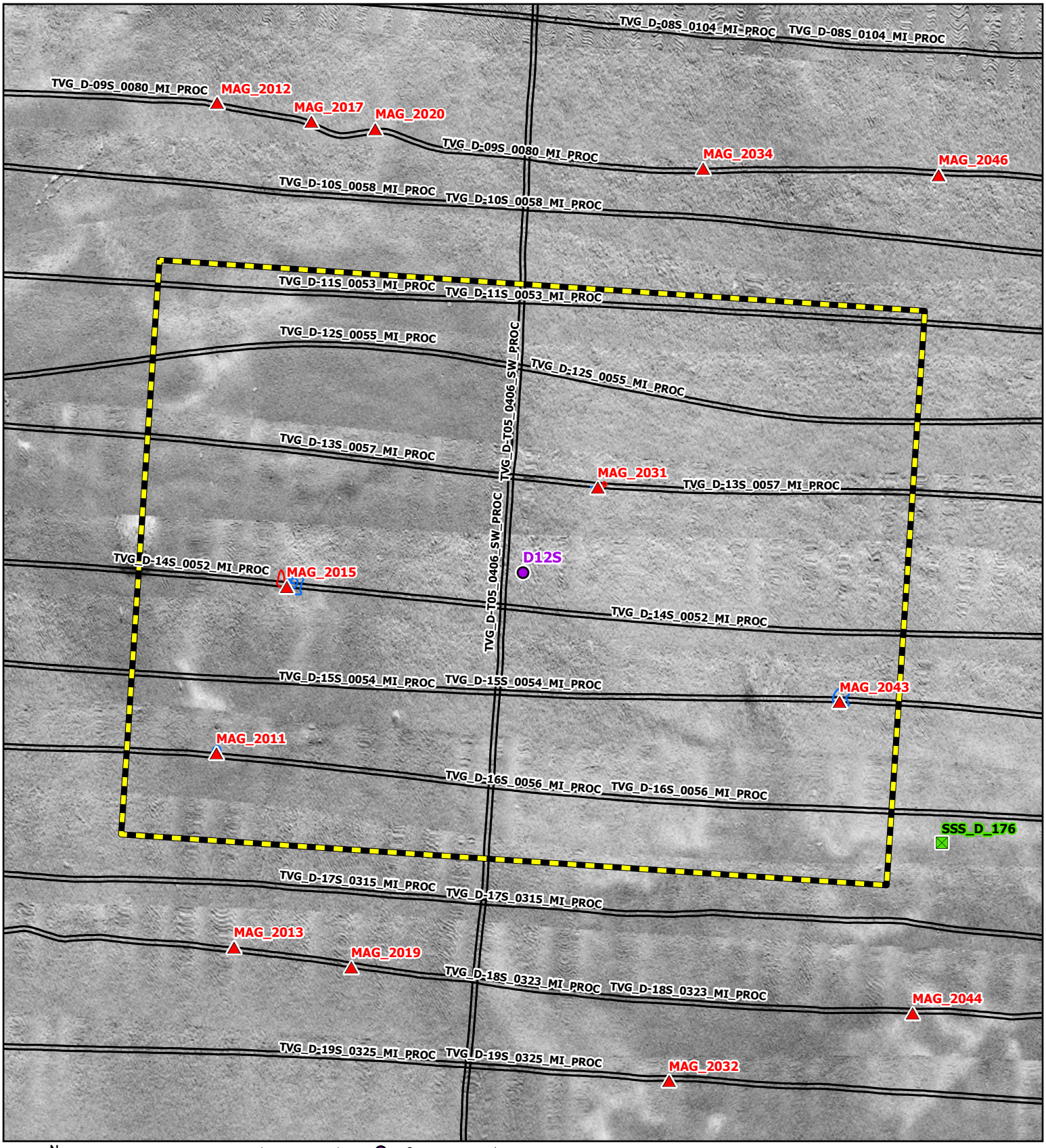
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 22

D11S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet

0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

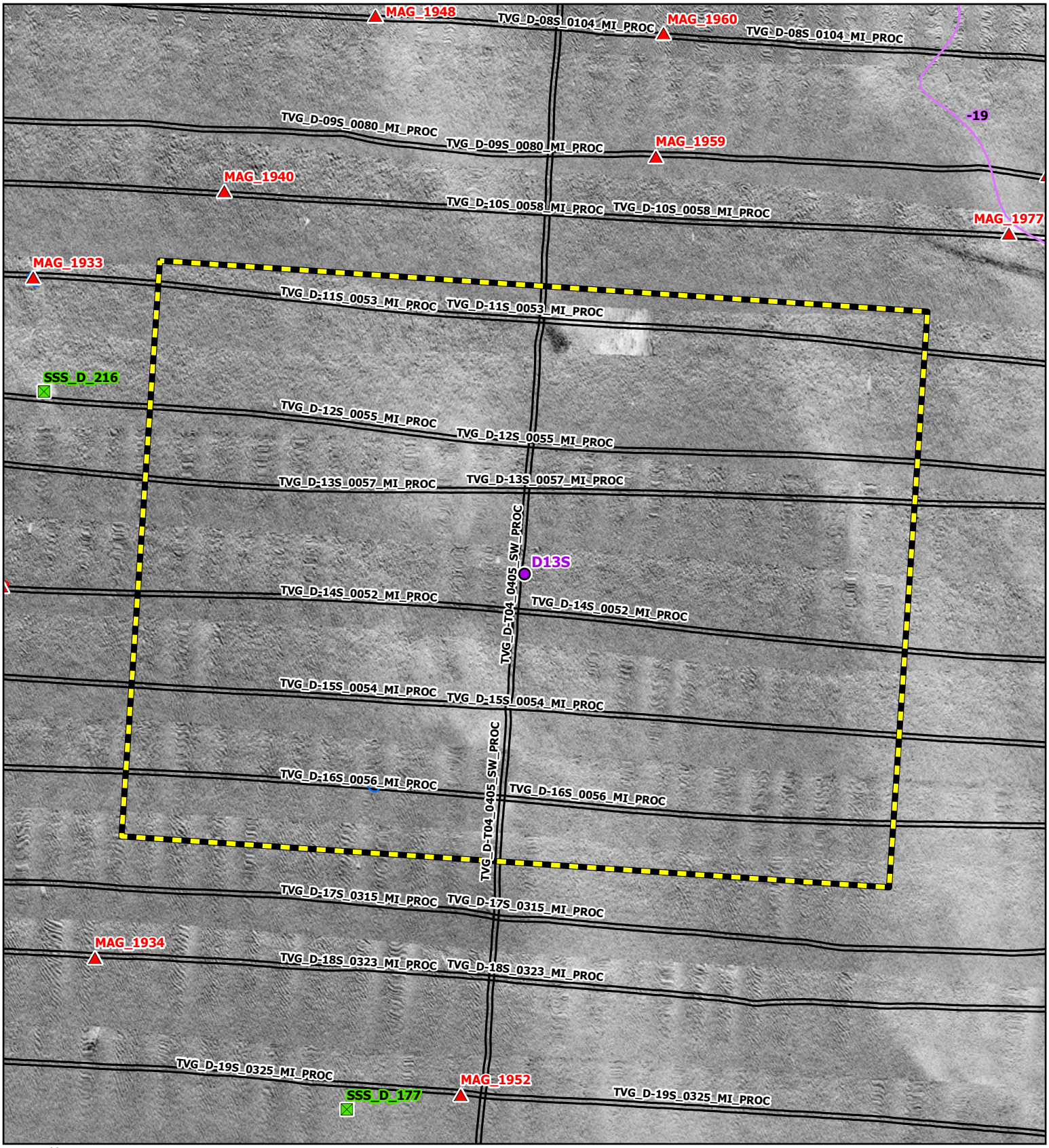
Geotechnical Clearance: Block D

Map: 23

D12S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

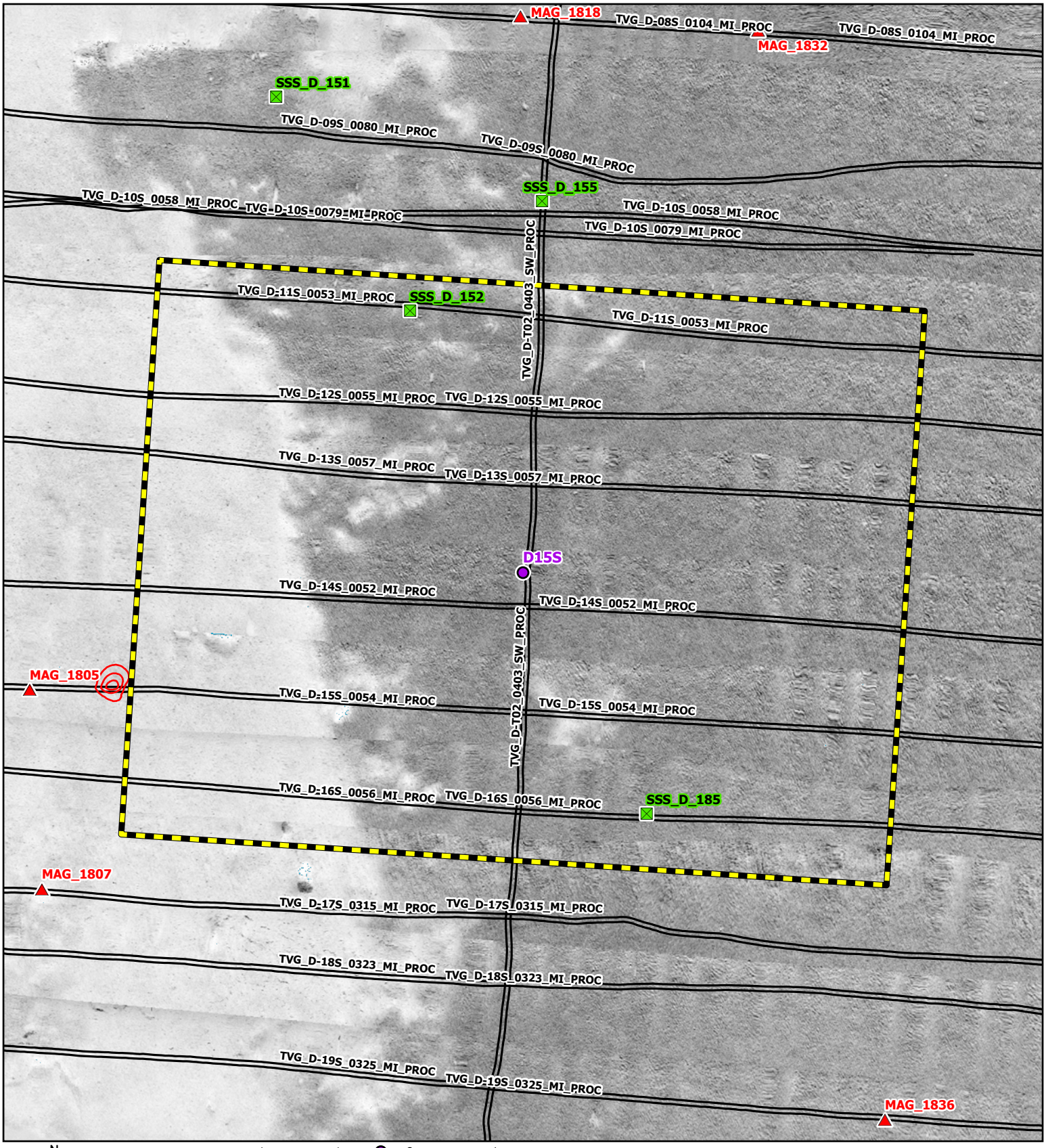
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 24

D13S

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N
W E
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

Bathymetric Contour (1m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

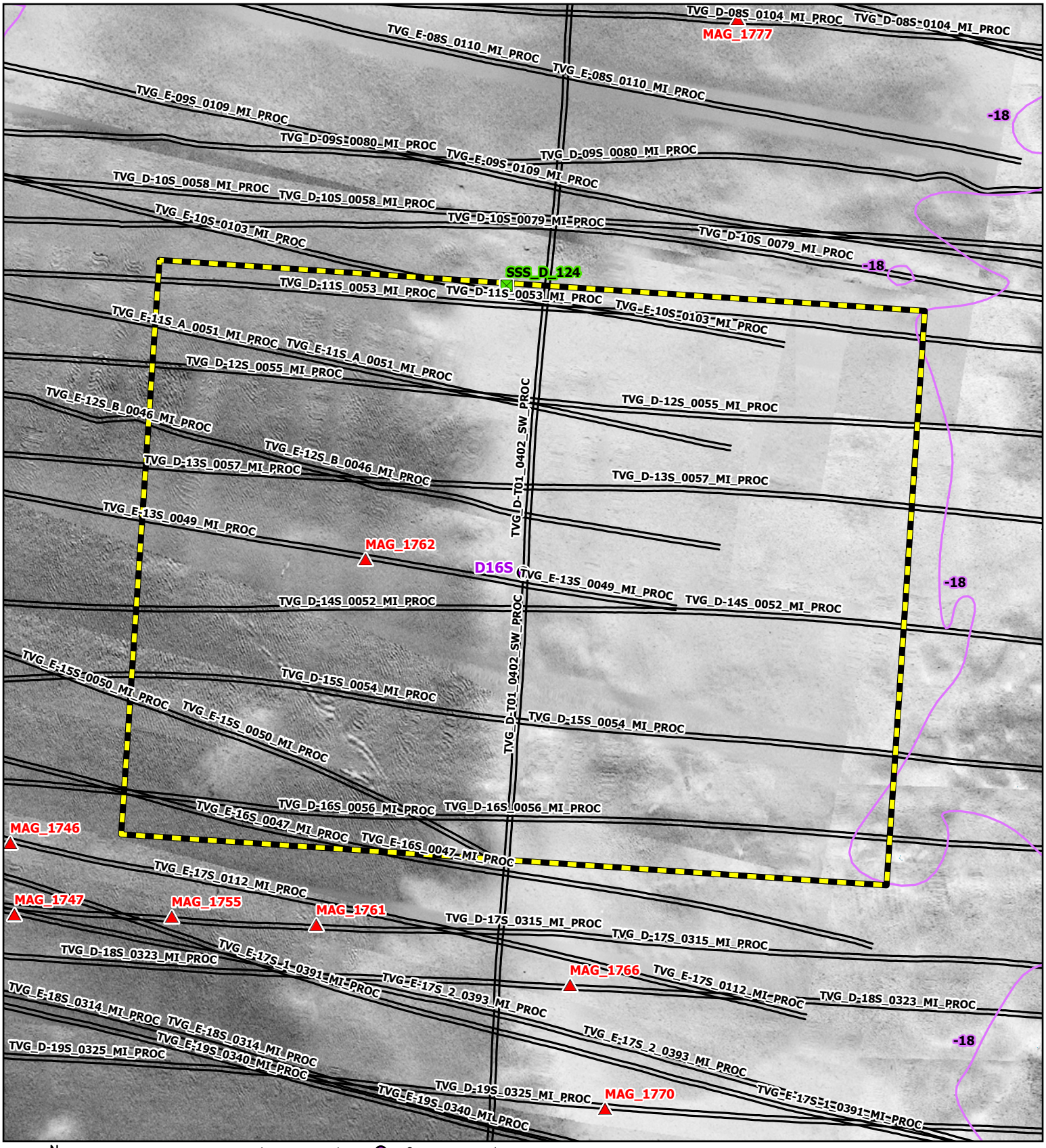
Geotechnical Clearance: Block D

Map: 25

D15S

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Bathymetric Contour (1m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block D

Map: 26

D16S

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APPENDIX 2
SEISMIC PROFILES FOR BLOCK D WING CORRIDORS

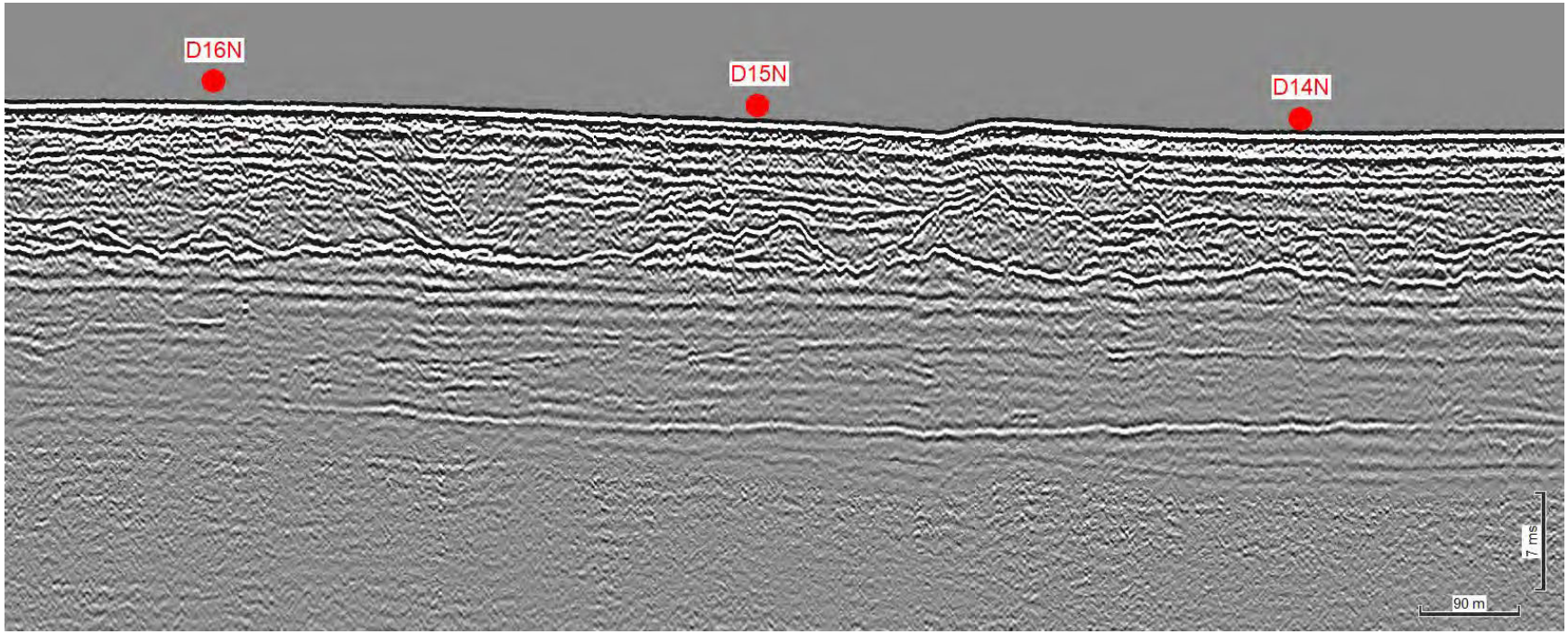


Figure 1: Proposed geotechnical D16N, D15N, and D14N in ECR Corridor D Wing North along seismic line UHRS_D-13M_SW_232_Proc_MLLW

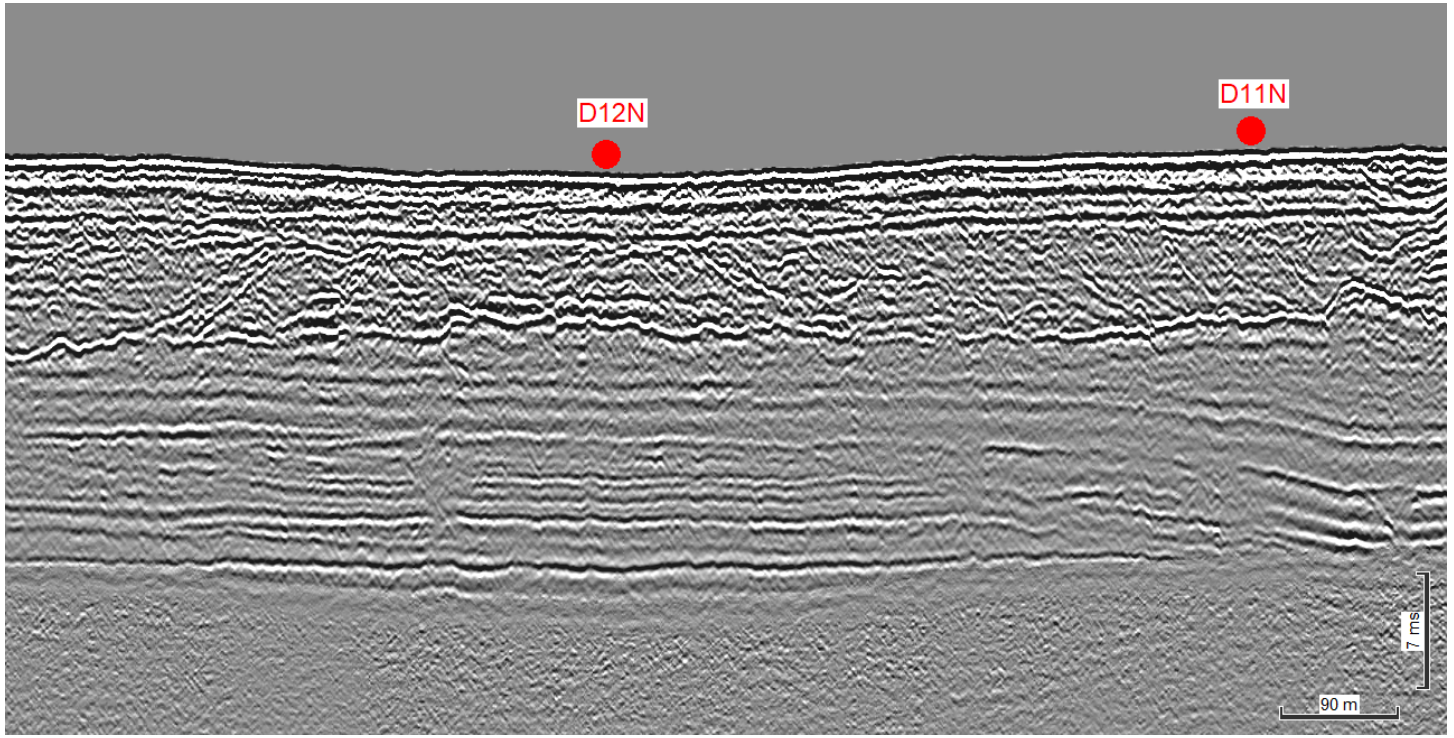


Figure 2: Proposed geotechnical D12N and D11N in ECR Corridor D Wing North along seismic line UHRS_D-13M_SW_232_Proc_MLLW

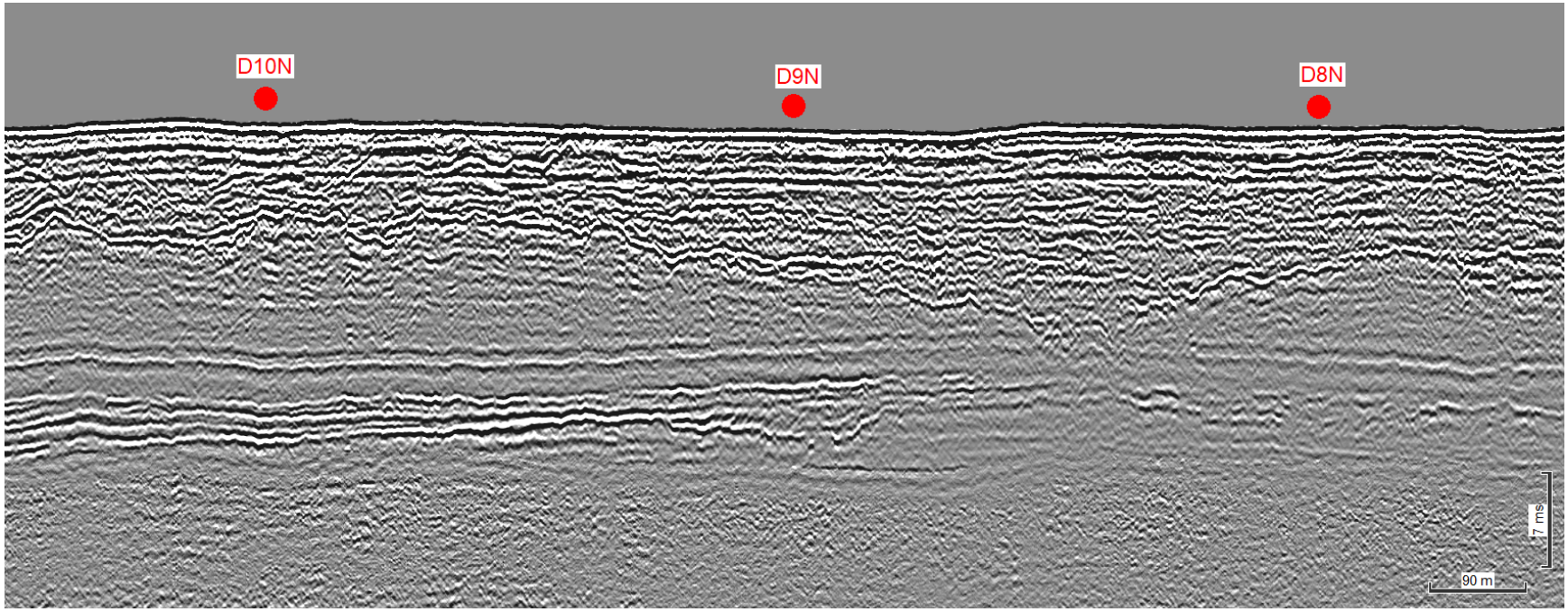


Figure 3: Proposed geotechnical D10N, D9N, and D8N in ECR Corridor D Wing North along seismic line UHRS_D-13M_SW_232_Proc_MLLW

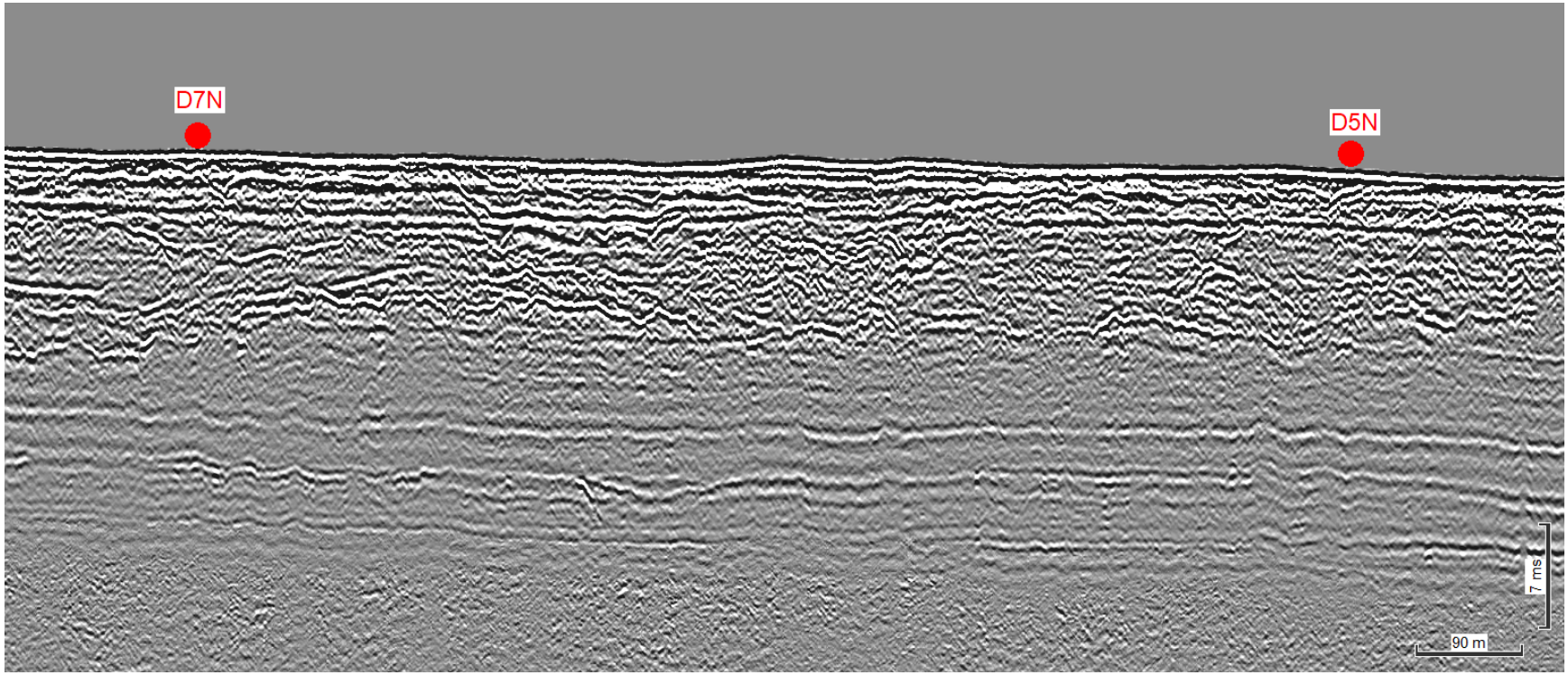


Figure 4: Proposed geotechnical D7N and D5N in ECR Corridor D Wing North along seismic line UHRS_D-13M_SW_232_Proc_MLLW

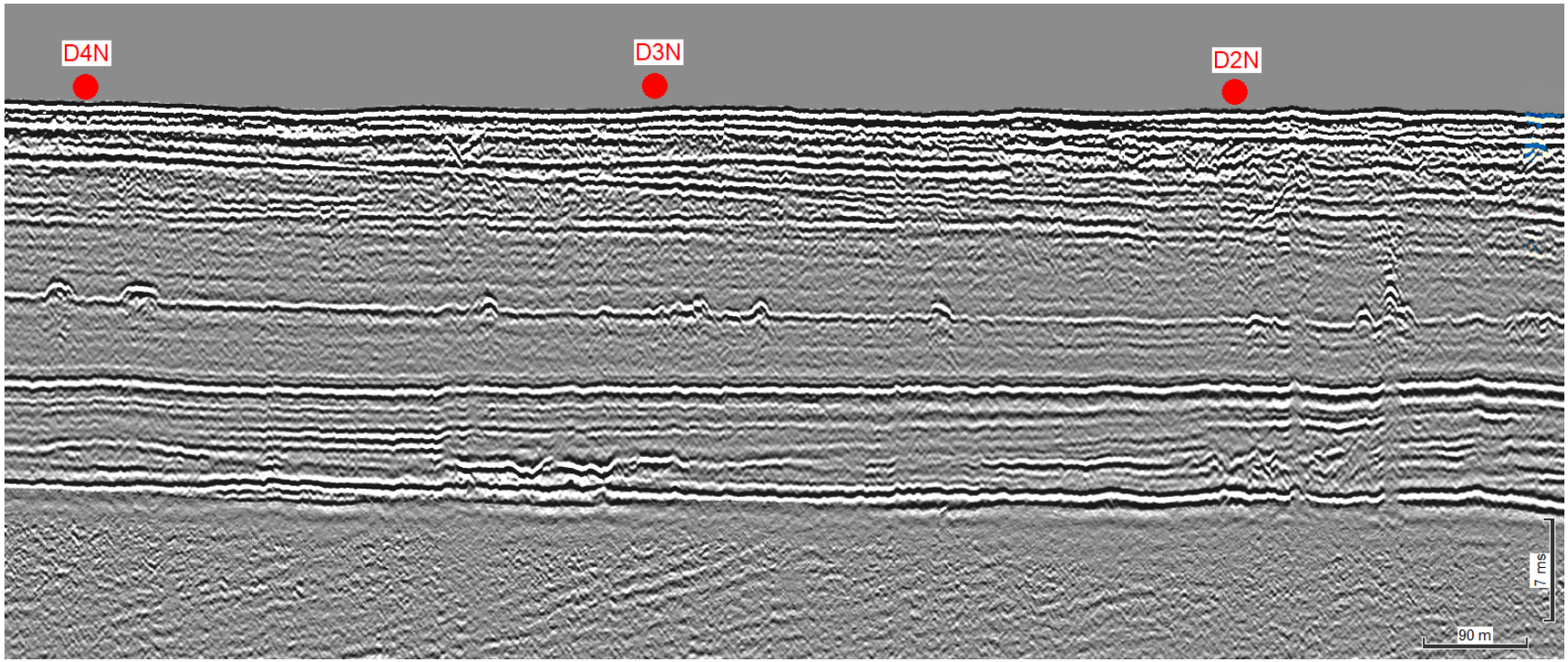


Figure 5: Proposed geotechnical D4N, D3N, and D2N in ECR Corridor D Wing North along seismic line UHRS_D-13M_SW_232_Proc_MLLW

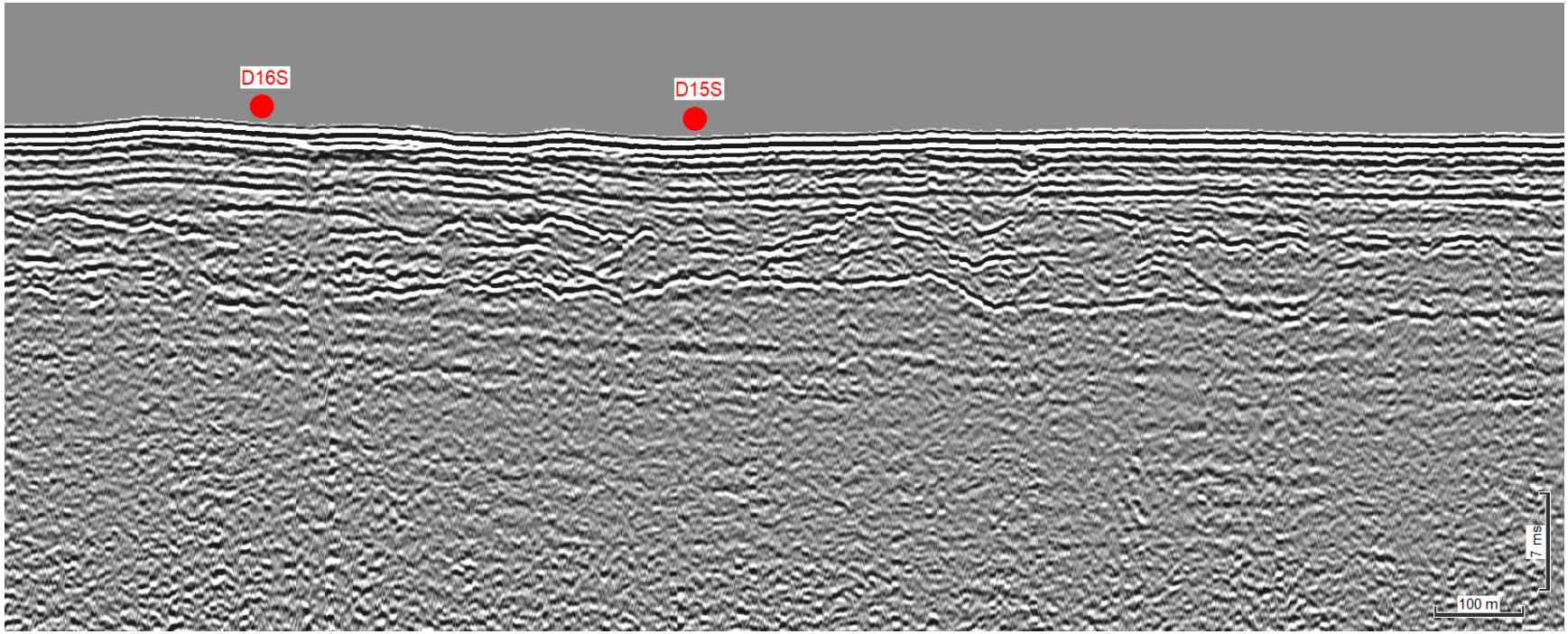


Figure 6: Proposed geotechnical locations D16S and D15S in the ECR Corridor D Wing Line South along seismic line JD302_Seq0052_D-14S

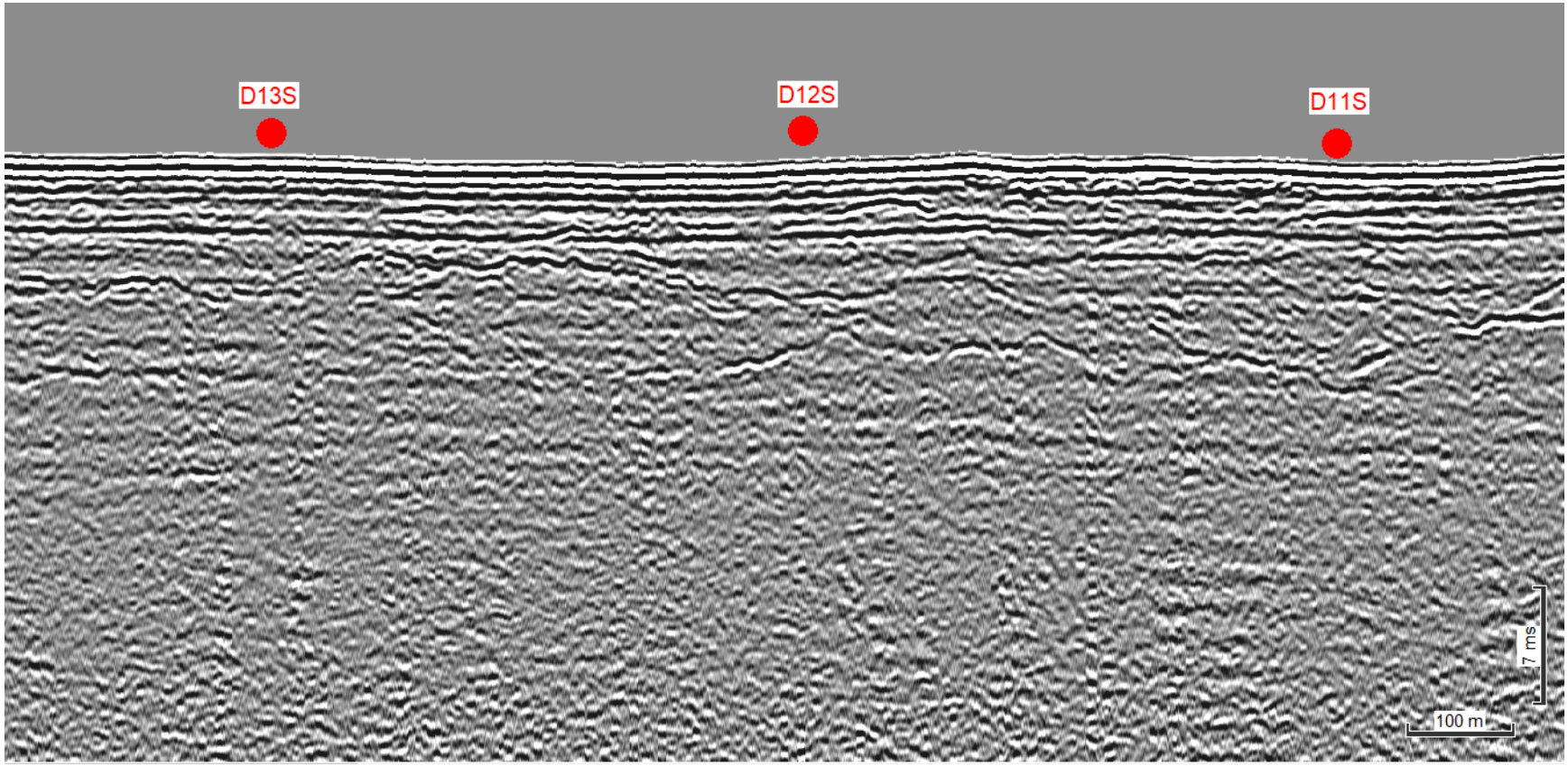


Figure 7: Proposed geotechnical locations D13S, D12S, and D11S in the ECR Corridor D Wing Line South along seismic line JD302_Seq0052_D-14S

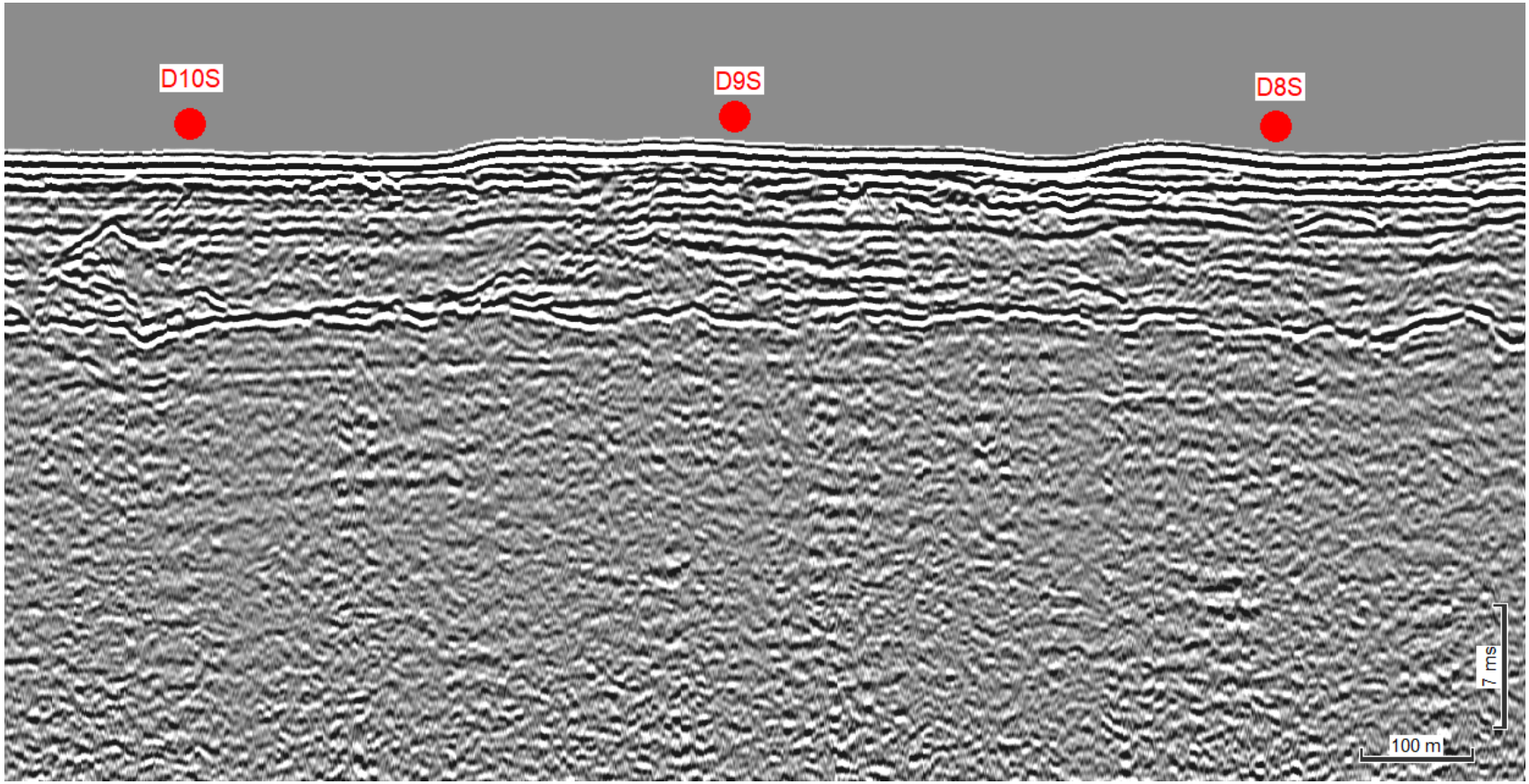


Figure 8: Proposed geotechnical locations D10S, D9S, and D8S in the ECR Corridor D Wing Line South along seismic line JD302_Seq0052_D-14S

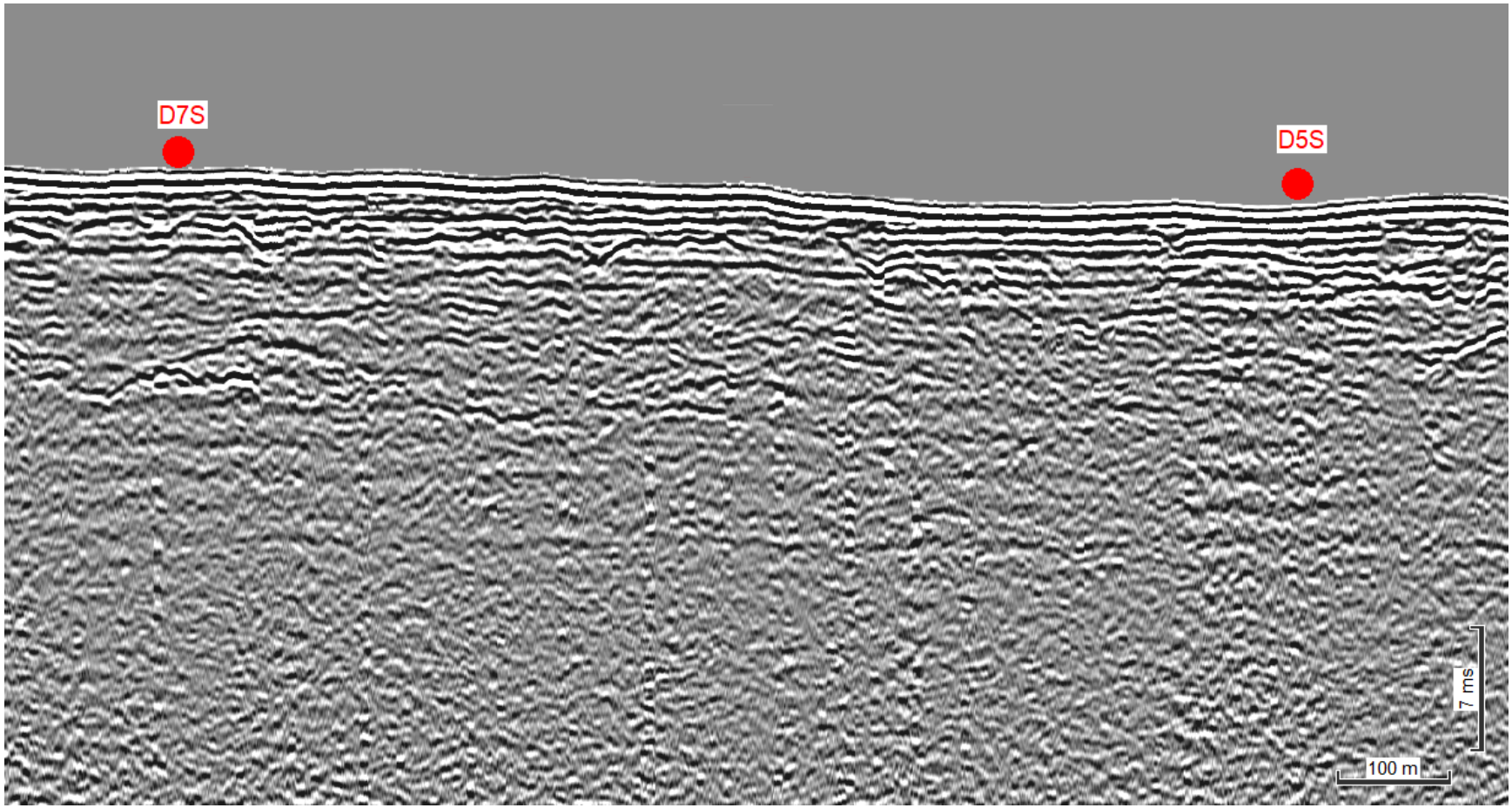


Figure 9: Proposed geotechnical locations D7S and D5S in the ECR Corridor D Wing Line South along seismic line JD302_Seq0052_D-14S

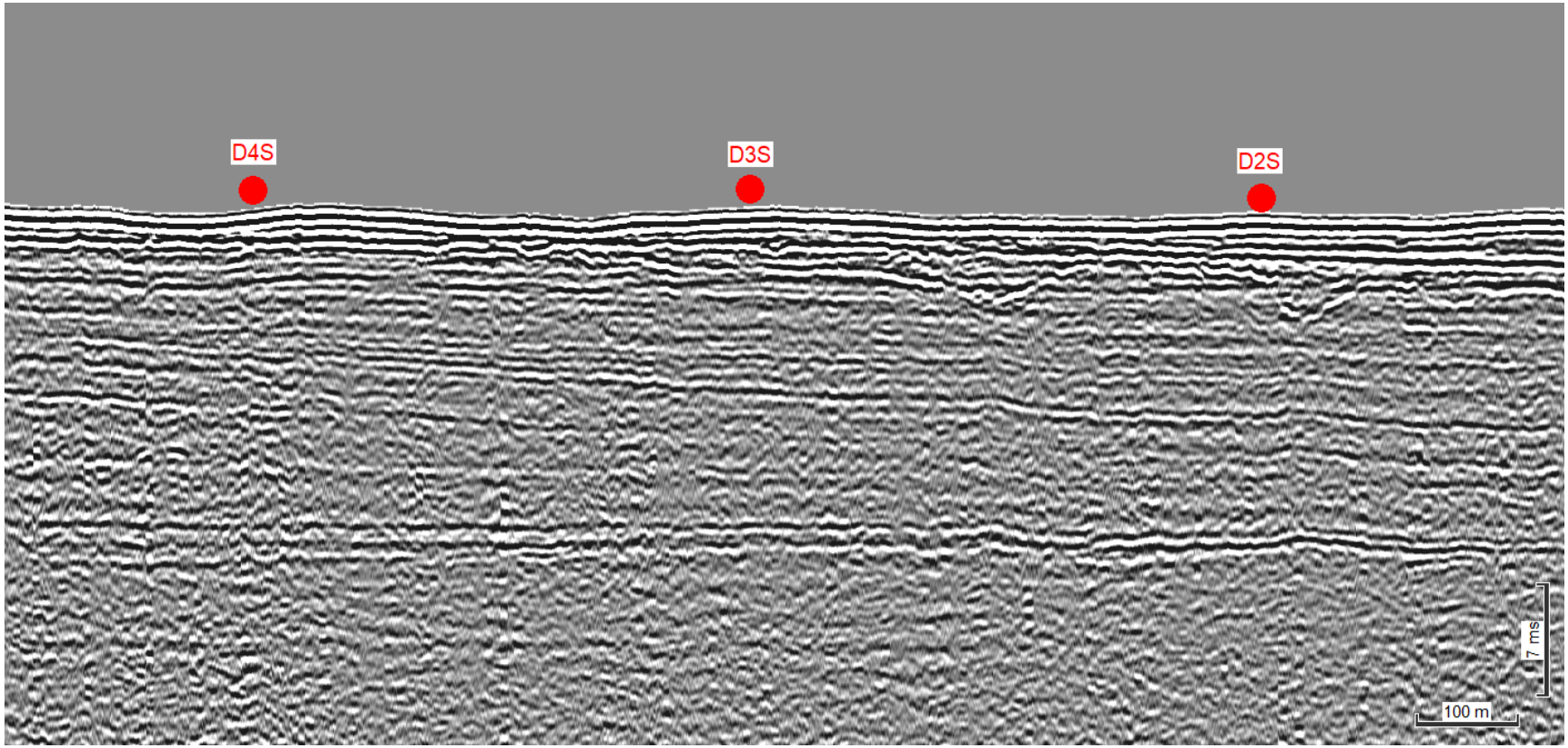


Figure 10: Proposed geotechnical locations D4S, D3S, and D2S in the ECR Corridor D Wing Line South along seismic line JD302_Se

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

March 5, 2021

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations along the Export Cable Route Block B Corridor, Alternate Locations for WTG 11-2, and Gassy/Non-Gassy Sediment Exploration

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for three additional geotechnical locations within the Export Cable Route Block B Corridor, alternate locations for Wind Turbine Generator (WTG) 11-2, and eight geotechnical borehole locations proposed for gassy and non-gassy sediment exploration within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.
- Analyses of the seismic data suggest that geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,

Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan, Ed Buchanan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Cross
McNeilan and Assoc. - Tom McNeilan

March 2, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Block B Corridor

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews three (3) of these locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (180 m by 240 m) centered on each of the three (3) proposed geotechnical locations located along the Export Cable Route (ECR), Block B. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1, Table 2). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1, Table 3). All of the recorded anomalies expressed characteristics atypical of shipwreck signatures (i.e., a low amplitude [<50 nT] and short duration [<20.4 m]). No magnetic anomalies that represent significant cultural resources were identified within the analytical area.

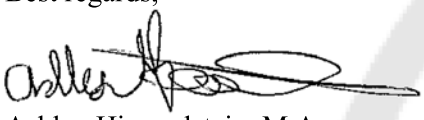
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that none of the proposed geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block B

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
B_New--003	446230.48	4074554.56	-75.60285635	36.81531559
B_New--002	447043.20	4075287.68	-75.59379571	36.8219699
B_New--001	447737.10	4075913.60	-75.58605858	36.82765074

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2: Side Scan Sonar Contacts within Analytical Areas

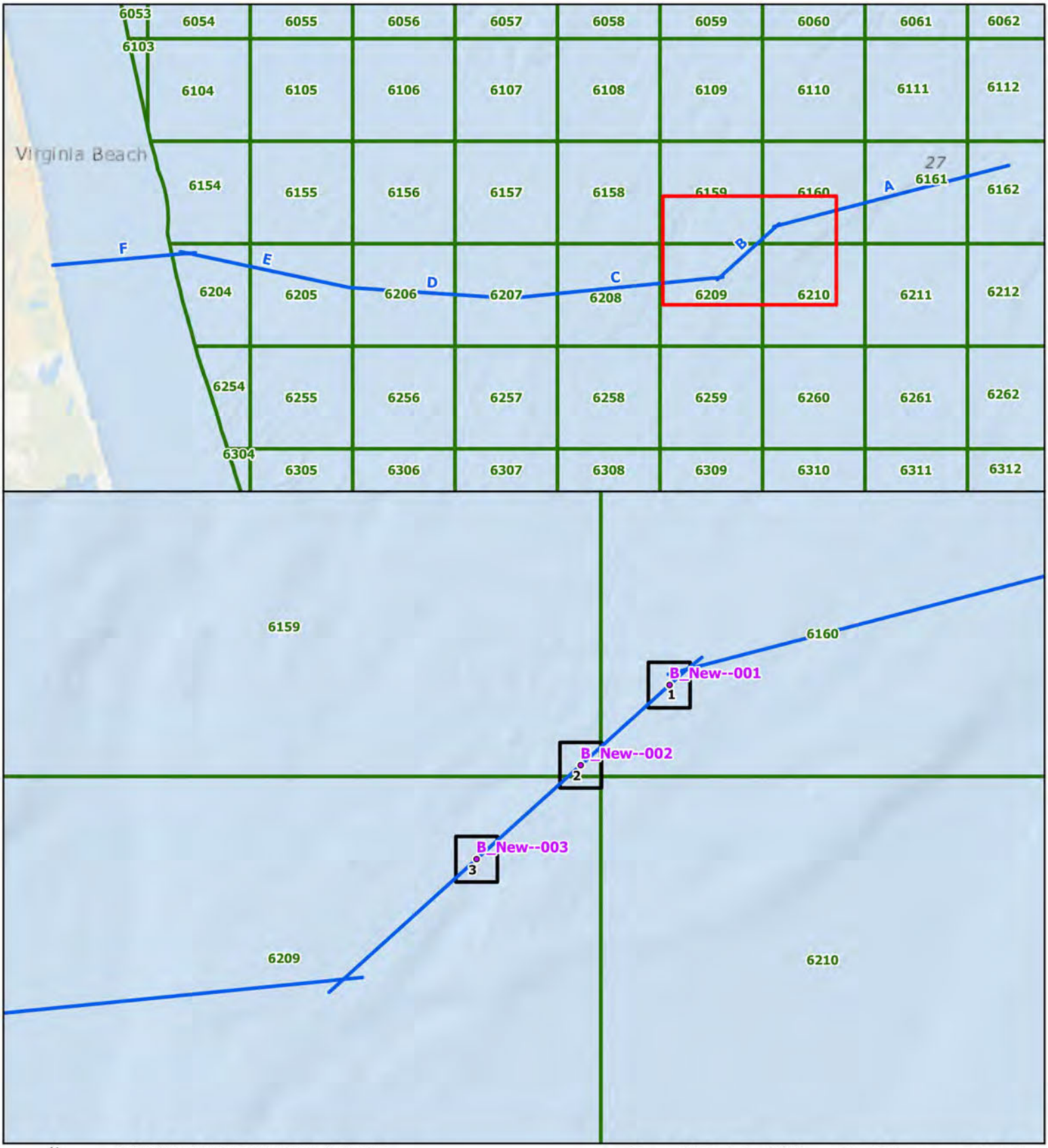
SSS ID	Associated Geotechnical Location	Height (m)	Width (m)	Length (m)	Associated Mag Anomaly	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
SSS_B_002	B New--002	0.17	0.36	2.47	-	447107.17	4075381.46	-75.5930867	36.82282631

Table 3: Magnetic Anomalies within Analytical Areas

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Depth (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_3707	B New--003	4.19	8.22	3.35	3.95	+ Monopole	-	4074463.29	4074463.29	-75.60350598	36.81449698
MAG_3749	B New--003	3.53	-5.39	8.25	4.65	- Monopole	-	4074553.00	4074553.00	-75.60172671	36.81531469
MAG_3936	B New--002	3.75	-5.11	18.37	5.66	- Monopole	-	4075389.53	4075389.53	-75.59399312	36.82289453
MAG_3950	B New--002	3.70	-16.91	37.67	5.55	- Monopole	-	4075323.20	4075323.20	-75.59326306	36.82230024
MAG_4084	B New--001	3.53	10.80	2.04	2.88	+ Monopole	-	4075970.92	4075970.92	-75.58683419	36.82817105
MAG_4093	B New--001	3.28	-9.17	20.38	4.75	- Monopole	-	4075924.35	4075924.35	-75.58632595	36.82775375
MAG_4104	B New--001	3.20	6.35	2.12	2.05	+ Monopole	-	4075916.04	4075916.04	-75.58595826	36.82768065
MAG_4124	B New--001	3.57	-20.32	3.76	4.22	Dipole	-	4075942.65	4075942.65	-75.58469378	36.82792676

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS



N
W E
S
Grid North

NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:40,000
SRS: NAD 1983 2011 UTM Zone 18N Meter

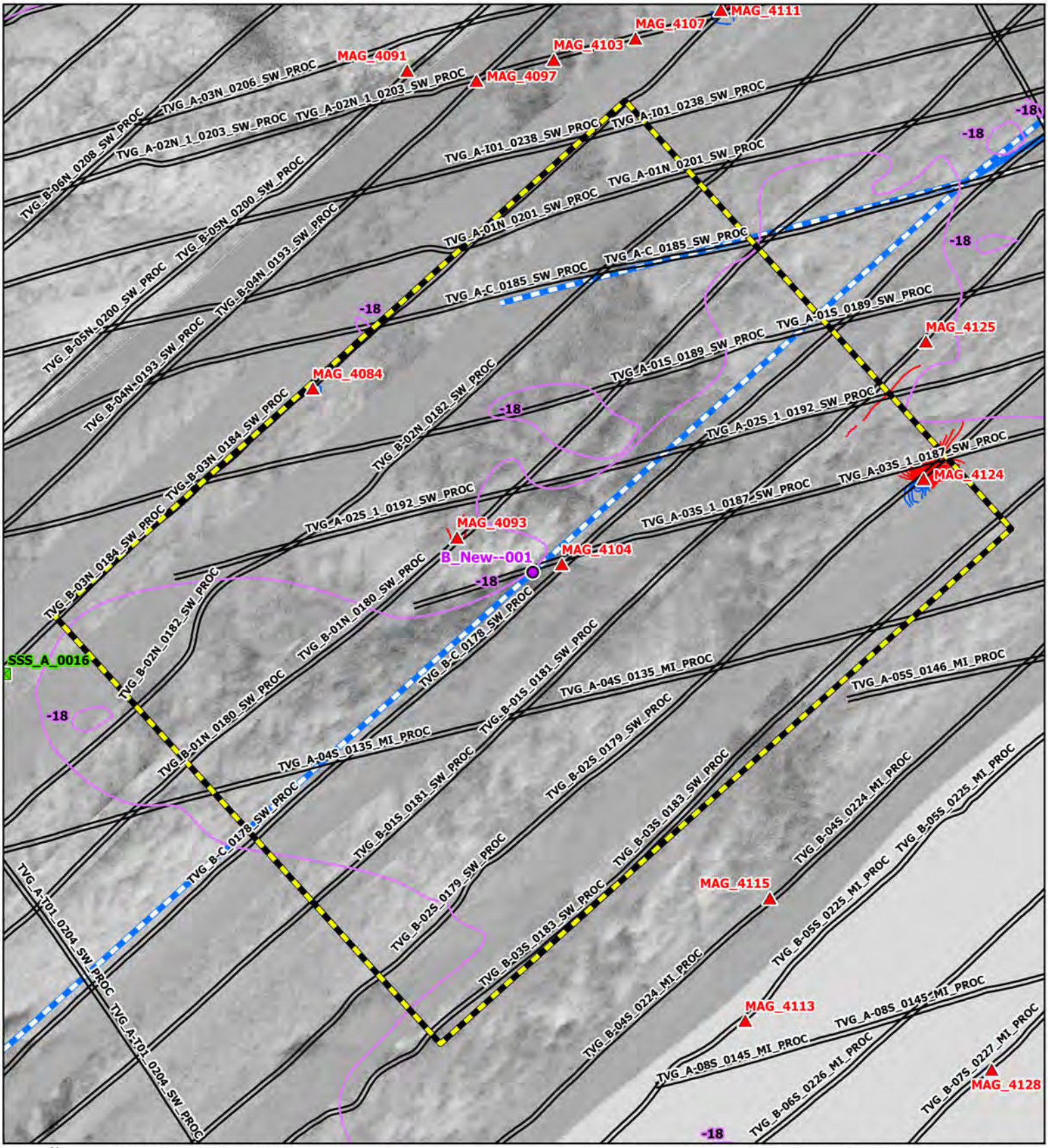
0 0.25 0.5 0.75 1 Miles
0 0.25 0.5 0.75 1 Kilometers

- Geotechnical Location
- ECR Centerline
- BOEM Lease Block
- Map Sheet Extent

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Index Map

R. Christopher Goodwin & Associates, Inc.
NAUTICAL DIVISION
MARINE ARCHAEOLOGY FROM STEM TO STERN
WWW.RCGOODWIN.COM | KMAY, 3.2.2021



N
W E
S
GRID NORTH

SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM ZONE 18N METER
0 25 50 75 100
FEET
0 10 20 30 40
METERS

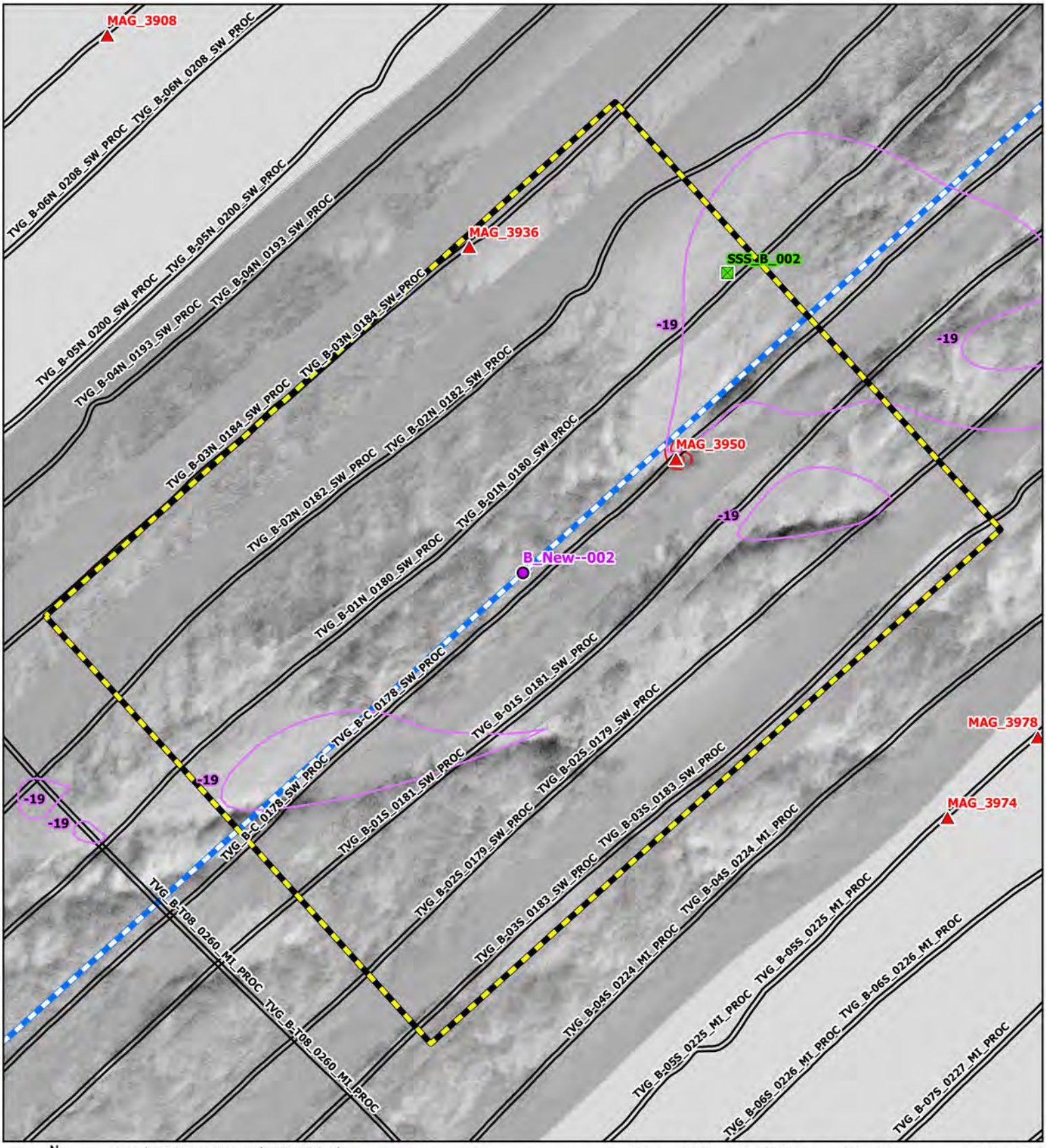
GEOTECHNICAL LOCATION
MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
ECR CENTERLINE
TRACKLINE
BATHYMETRIC CONTOUR (1M INTERVAL)
MAGNETIC CONTOURS (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 1

B_New--001

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N
W E
S
GRID NORTH

SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM ZONE 18N METER
0 25 50 75 100
FEET
0 10 20 30 40
METERS

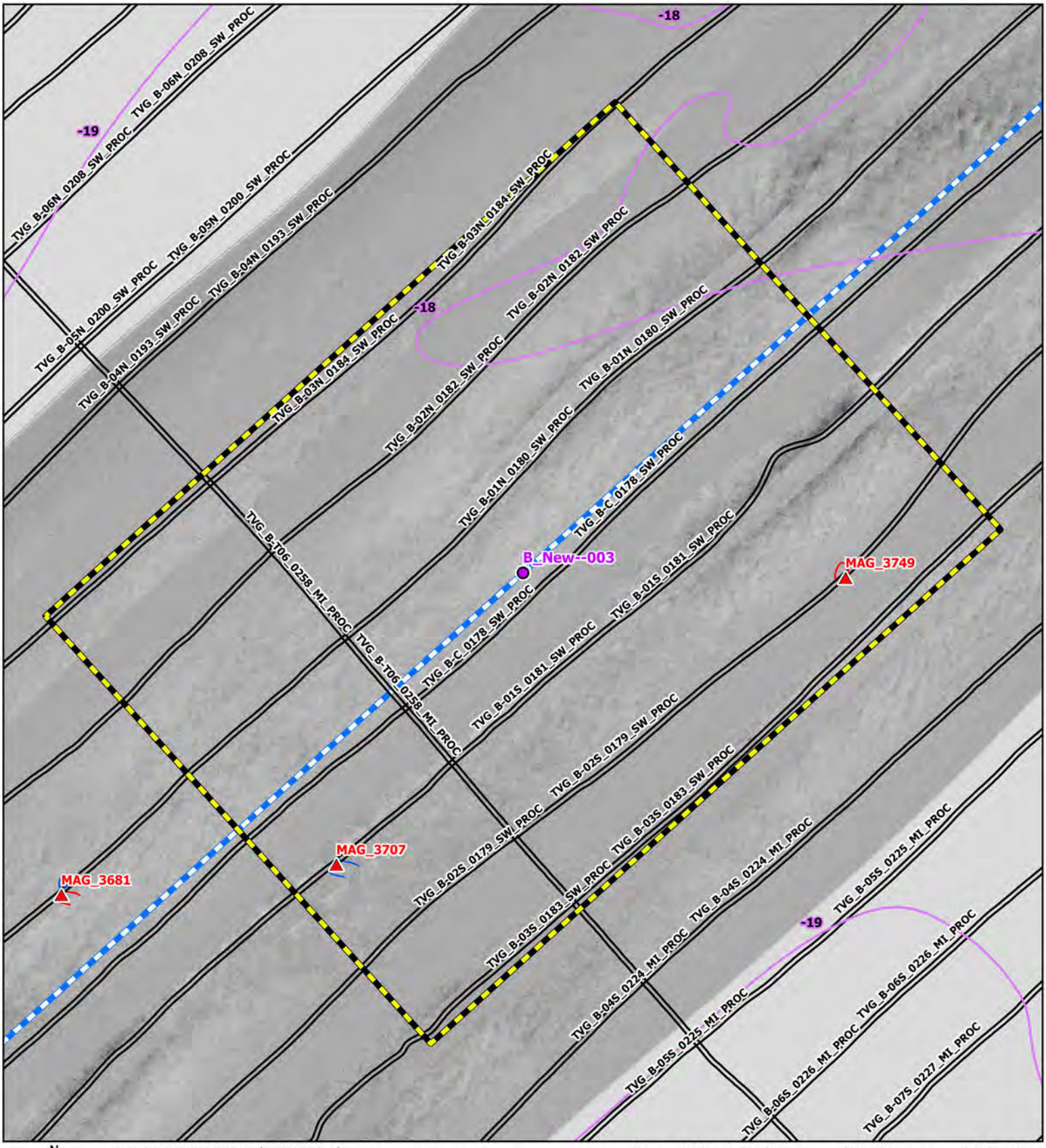
GEOTECHNICAL LOCATION
MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
ECR CENTERLINE
TRACKLINE
BATHYMETRIC CONTOUR (1M INTERVAL)
MAGNETIC CONTOURS (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 2

B_New--002

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N
W E
S
GRID NORTH

SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM ZONE 18N METER
0 25 50 75 100
FEET
0 10 20 30 40
METERS

GEOTECHNICAL LOCATION
MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
ECR CENTERLINE
TRACKLINE
BATHYMETRIC CONTOUR (1M INTERVAL)
MAGNETIC CONTOURS (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Block B

Map: 3

B_New--003

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

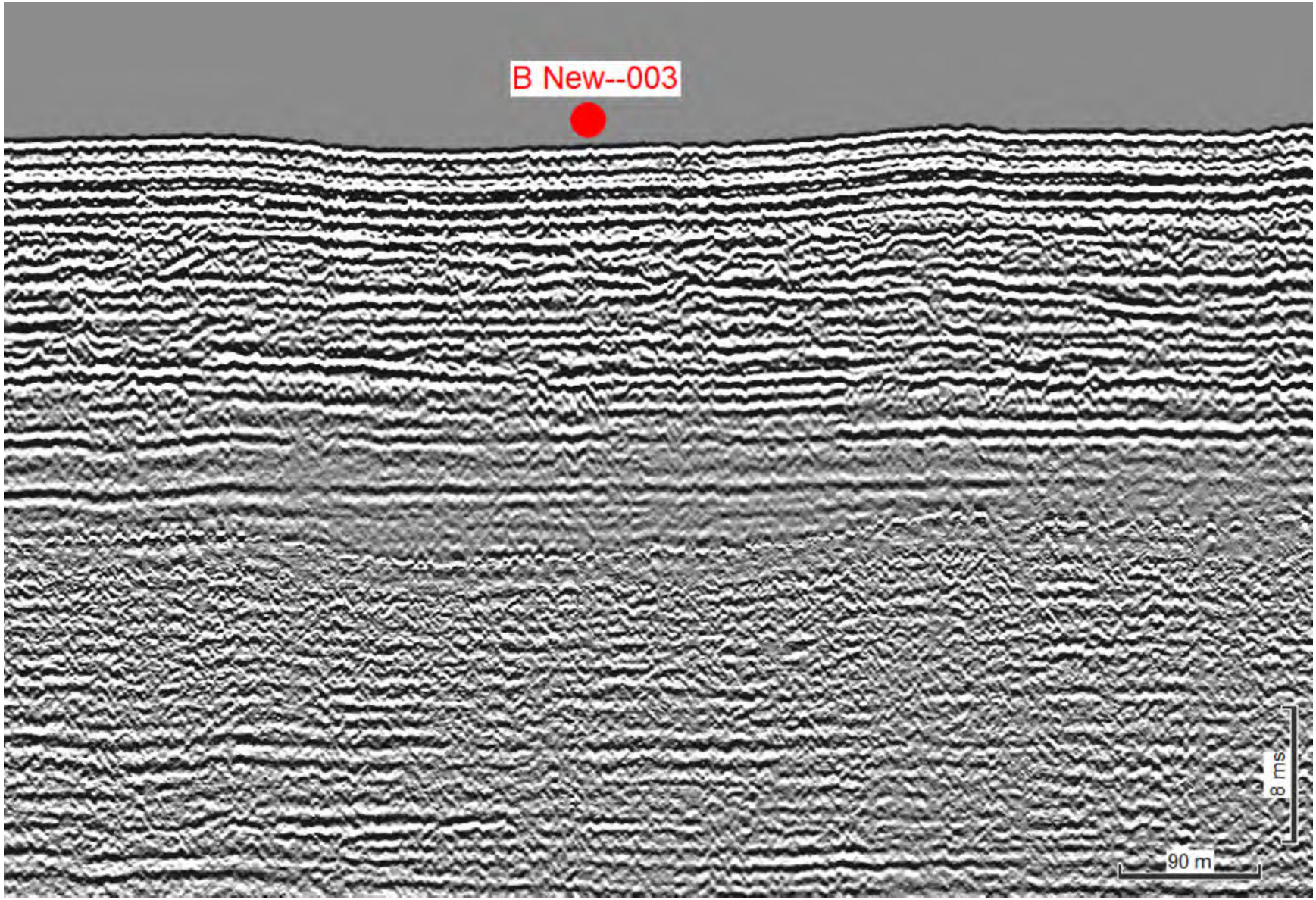


Figure 1: Proposed geotechnical location B New--003 in ECR Corridor B along seismic line UHRS_178_B-C_Proc

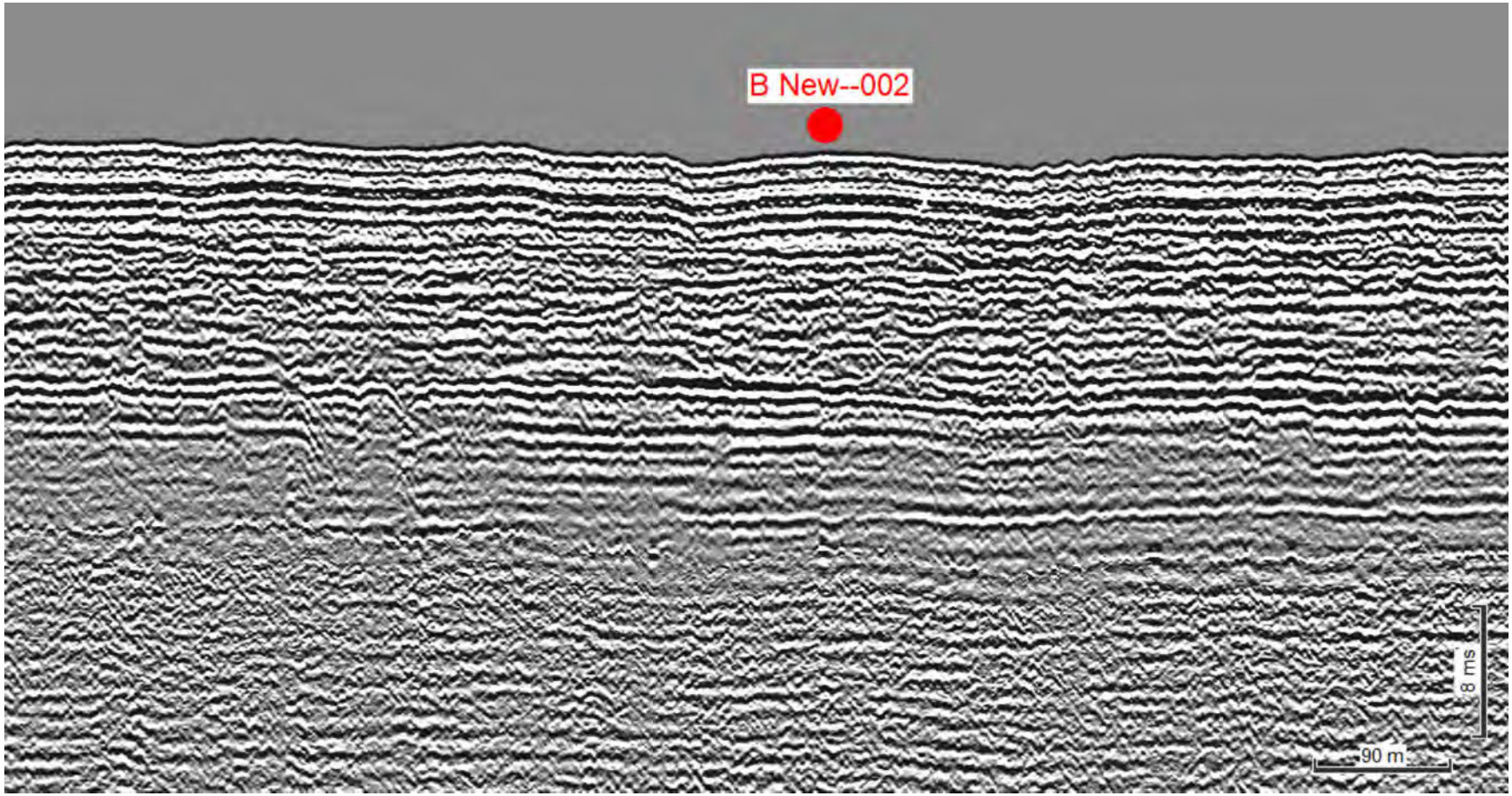


Figure 2:Proposed geotechnical location B New--002 in ECR Corridor B along seismic line UHRS_178_B-C_Proc

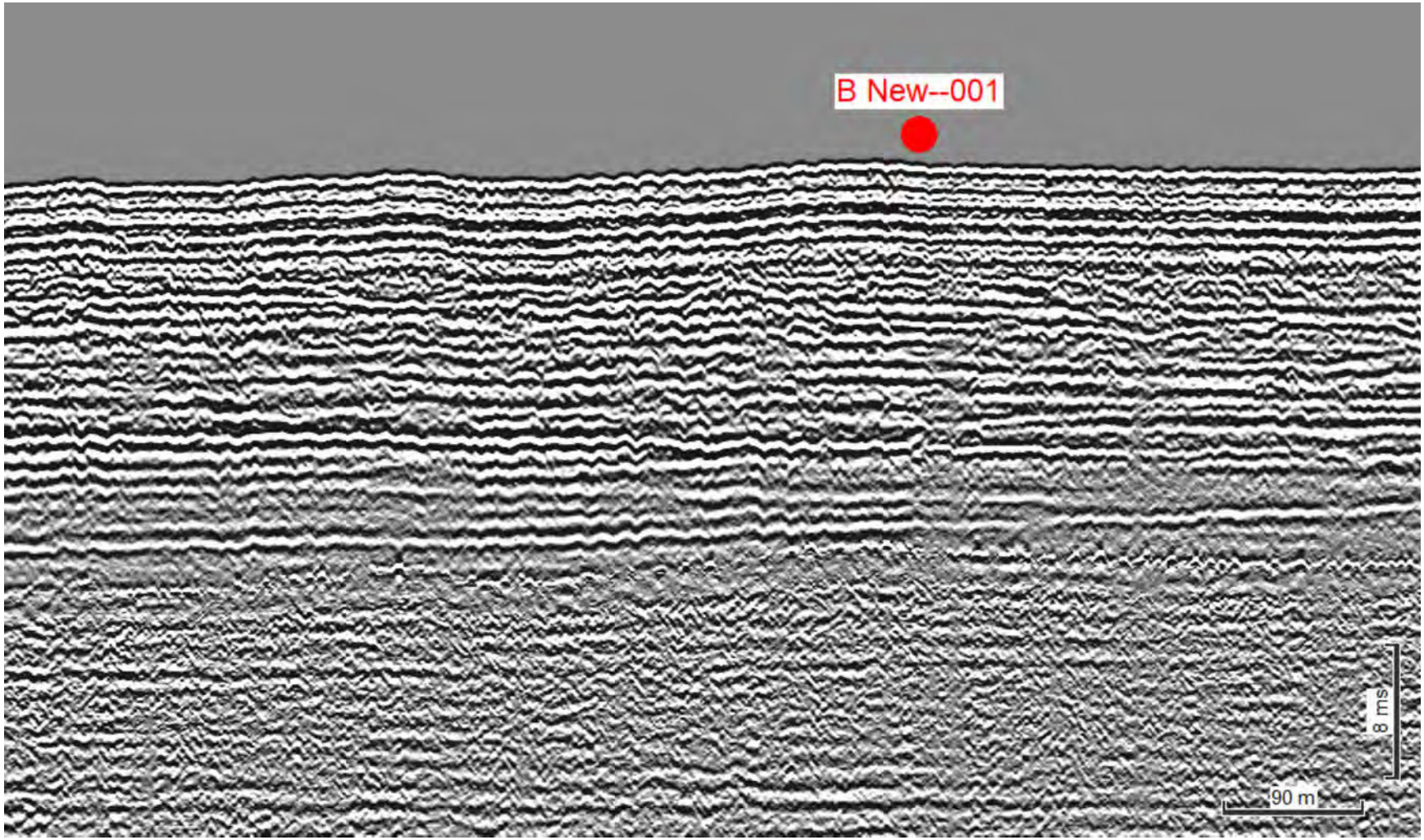


Figure 3: Proposed geotechnical location B New--001 in ECR Corridor B along seismic line UHRS_178_B-C_Proc

March 4, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Alternate Geotechnical Locations for 11-2

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. This memorandum reviews two (2) geotechnical borehole location for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of 328.1 ft (100 m) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (700 m by 700 m) that contains both proposed geotechnical locations within the CVOW Lease Area. As these locations are subject to change, the entire analytical area has been cleared to the full depth and breadth of impacts associated with the geotechnical activity and any changes will include a letter detailing the "as cored" location(s). This review focused on identification of any potential submerged cultural resources and buried, preserved landscapes through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical area.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Table 2). Based on the observed characteristics, a typical of shipwreck sites, no magnetic anomalies that could represent significant cultural resources were identified within the analytical area.

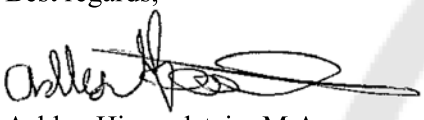
Seismic data were collected and interpreted along each survey line located within the analytical area (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical location was also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data

suggest that the proposed geotechnical sampling will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed geotechnical investigations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical area, no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1: Proposed geotechnical locations

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
Alternate_WTG-11-2_West	459439.00	4092460.30	-75.45572953	36.97738934
Alternate_WTG-11-2_South-West	459479.00	4092361.10	-75.45527479	36.97649686

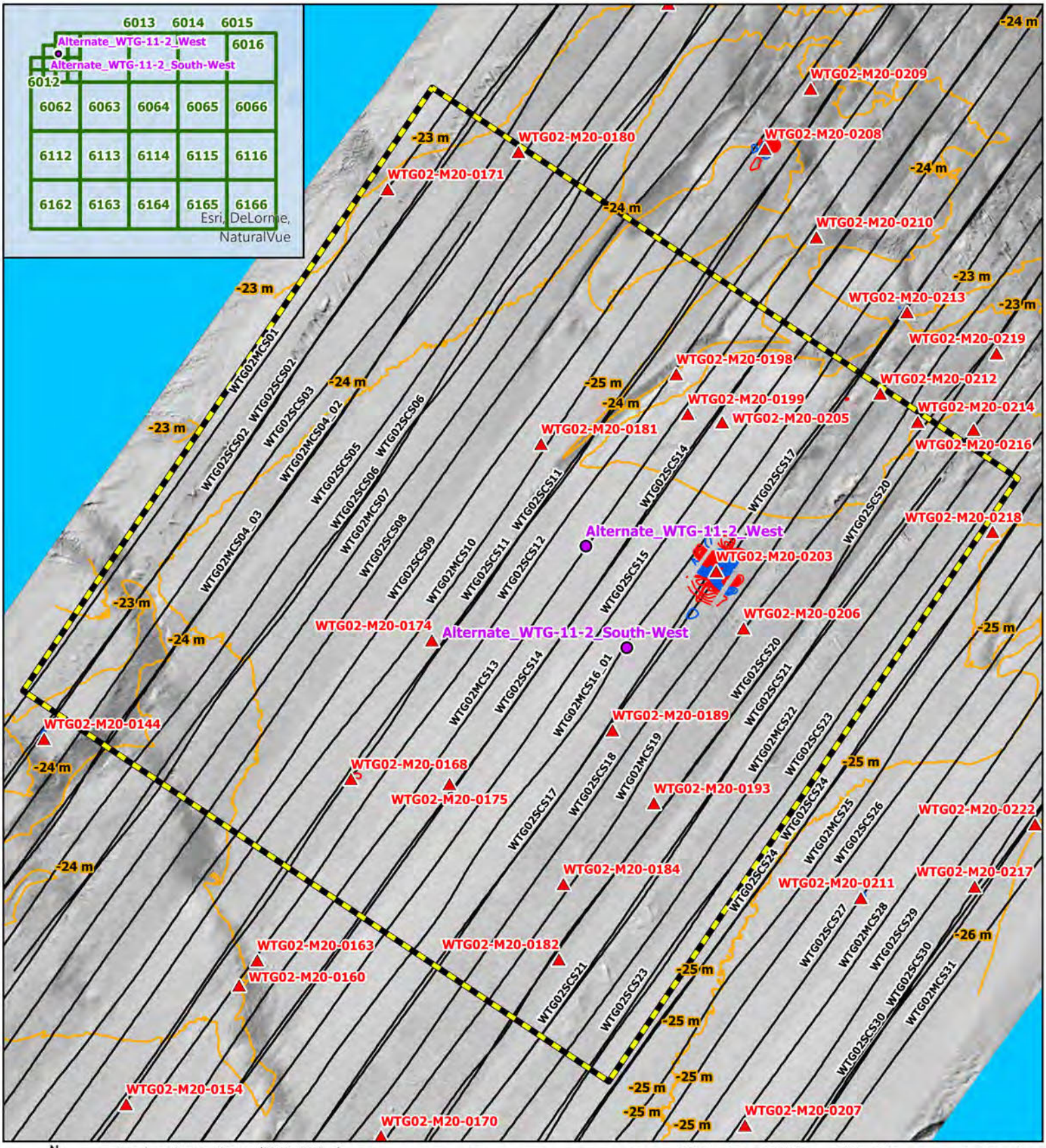
[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2: Magnetic Anomalies within Analytical Areas

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Depth (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
WTG02-M20-0168	11-2	3.06	27.04	3.88	-30.91	Dipole	-	459209.27	4092232.64	-75.458297	36.97532
WTG02-M20-0171	11-2	3.56	16.58	4.04	-30.48	+ Monopole	-	459245.18	4092808.91	-75.457924	36.980516
WTG02-M20-0174	11-2	3.34	7.79	3.22	-29.31	Dipole	-	459288.44	4092368.07	-75.457414	36.976544
WTG02-M20-0175	11-2	2.49	9.19	3.22	-32.48	+ Monopole	-	459305.66	4092227.69	-75.457213	36.975279
WTG02-M20-0180	11-2	3.61	12.48	5.4	-32.50	Dipole	-	459373.16	4092845.48	-75.456488	36.980851
WTG02-M20-0181	11-2	3.56	11.32	3.48	-28.92	- Monopole	-	459395.19	4092560.00	-75.456225	36.978279
WTG02-M20-0182	11-2	2.88	5.97	7.03	-28.90	- Monopole	-	459412.64	4092056.29	-75.456002	36.973739
WTG02-M20-0184	11-2	3.66	15.32	3.55	-28.82	Dipole	-	459417.04	4092130.05	-75.455957	36.974404
WTG02-M20-0189	11-2	3.63	14.34	3.62	-30.93	- Monopole	-	459464.98	4092280.14	-75.455426	36.975759
WTG02-M20-0193	11-2	2.92	7.14	4.64	-34.80	Dipole	-	459505.43	4092208.95	-75.454968	36.975119
WTG02-M20-0198	11-2	2.86	16.38	3.67	-30.91	+ Monopole	-	459527.30	4092628.20	-75.454745	36.978899
WTG02-M20-0199	11-2	3.24	10.94	4.89	-30.48	Dipole	-	459538.70	4092589.26	-75.454615	36.978549
WTG02-M20-0203	11-2	3.58	852.98	4.62	-29.31	+ Monopole	-	459566.42	4092435.71	-75.454295	36.977166
WTG02-M20-0205	11-2	2.89	16.51	2.78	-32.48	Dipole	-	459572.21	4092581.40	-75.454238	36.978479
WTG02-M20-0206	11-2	3.76	13.33	3.75	-32.50	- Monopole	-	459593.27	4092379.63	-75.45399	36.976661
WTG02-M20-0212	11-2	3.29	15.62	4.98	-28.92	- Monopole	-	459726.73	4092609.16	-75.452503	36.978736
WTG02-M20-0214	11-2	2.49	18.02	4.3	-28.90	Dipole	-	459763.49	4092581.58	-75.452089	36.978489

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS



N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:5,000
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 100 200 300 400 Feet
0 25 50 75 100 Meters

Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
Trackline
Bathymetric Contour (1 m interval)
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Corridor 02
Expanded Archaeological Clearance Area
WTG-11-2

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MARINE ARCHAEOLOGY FROM STEM TO STERN
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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

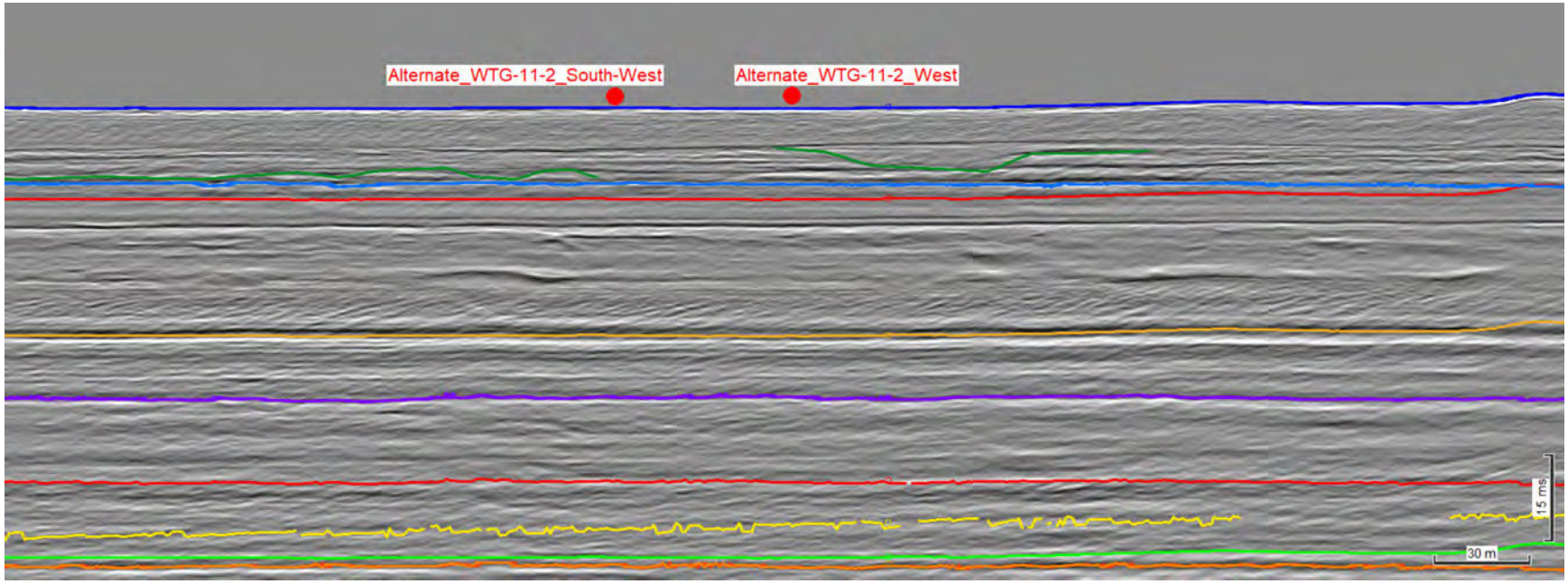


Figure 1: Proposed geotechnical locations Alternate_WTG-11-2_South-West and Alternate_WTG-11-2_West in the CVOW Lease Area along seismic line WTG02MCS16_01_FAST_MIG

March 2, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Gassy/Non-Gassy Sediment Exploration in the Northeast Portion of the Lease Area

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. This memorandum reviews eight (08) planned geotechnical borehole, locations for gathering geologic information (Table 1). The geotechnical investigation will be conducted by Geoquip Marine aboard the vessels, *Geoquip Saentis*, *Dina Polaris*, and *Geoquip Speer*, or a similar type of vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of 328.1 ft (100 m) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 8 proposed geotechnical locations located within the CVOW Lease Area. The reviewed data included at minimum three (3) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landscapes through geophysical investigations.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1). Within the analytical areas for C-G-1 and C-NG-1 there are numerous magnetic contours representing geology and not represent anthropogenic sources. No magnetic anomalies that represent significant cultural resources were identified within the analytical area.

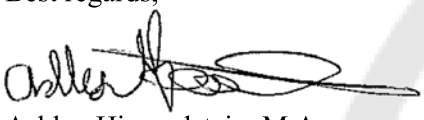
Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the

seismic data suggest that none of the proposed geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Table 1; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Table 1), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,



Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for Gassy/Non-Gassy Sediment Exploration in the Northeast Portion of the Lease Area

Core ID	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
A-G-1	474063.00	4091722.00	-75.29139692	36.97125106
A-NG-1	474284.00	4092040.00	-75.28892491	36.97412369
A-NG-2	474350.00	4091400.00	-75.28816165	36.9683563
A-NG-3	474650.00	4091050.00	-75.28477964	36.9652094
B-G-1	476809.00	4093250.00	-75.2605936	36.98509672
B-NG-1	476109.00	4094021.00	-75.26848369	36.99202926
C-G-1	478437.00	4094408.00	-75.2423334	36.99557411
C-NG-1	478900.00	4094590.00	-75.23713519	36.99722523

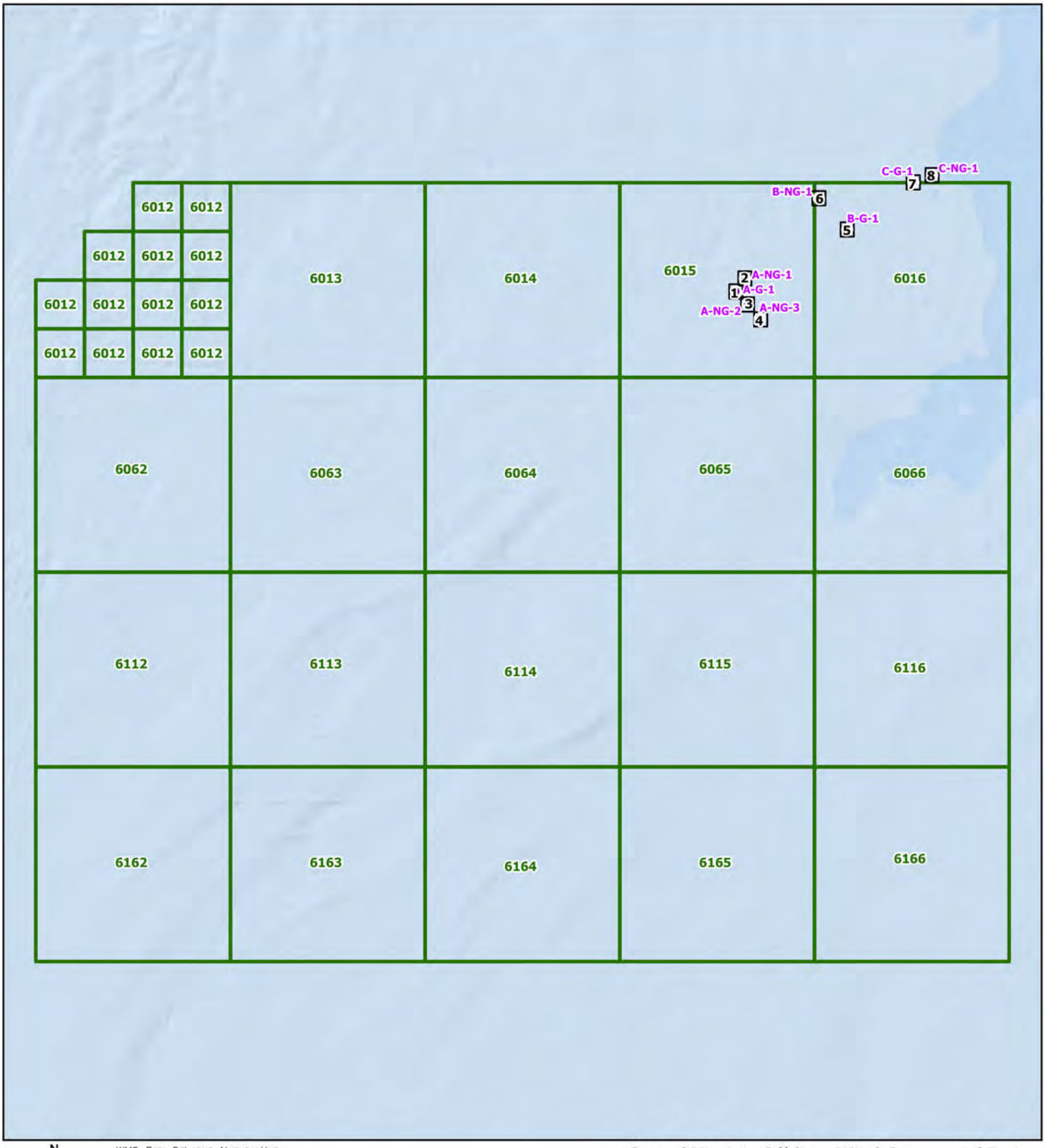
[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 2: Magnetic Anomalies within Analytical Areas

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Depth (m)	Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
TLB-M20-1091	B-G-1	2.06	12.26	2.47	-30.91	Dipole	-	476739.54	4093202.24	-75.26137263	36.98466448
WTG13-M20-1040	A-NG-1	3.05	7.46	1.61	-30.48	+Monopole	-	474293.50	4092183.52	-75.28882306	36.97541769
WTG13-M20-1045	A-NG-2	2.51	18.61	2.52	-29.31	Dipole	-	474369.76	4091287.81	-75.28793585	36.96734552
WTG13-M20-1140	B-NG-1	2.69	20.79	2.70	-32.48	+Monopole	-	476138.32	4093945.38	-75.26815181	36.99134834
WTG13-M20-1142	B-NG-1	2.85	28.07	2.08	-32.50	Dipole	-	476156.94	4093973.65	-75.26794346	36.99160365
WTG14-M20-0917	A-NG-3	3.43	41.81	2.53	-28.92	- Monopole	-	474590.32	4090994.06	-75.28544818	36.96470353
WTG14-M20-0920	A-NG-3	3.13	8.27	2.55	-28.90	- Monopole	-	474626.12	4091046.17	-75.28504777	36.96517424
WTG14-M20-0923	A-NG-3	3.19	108.30	3.16	-28.62	Dipole	-	474743.26	4091038.30	-75.28373159	36.96510644
WTG14-M20-0924	A-NG-3	3.37	6.09	2.21	-28.82	Dipole	-	474747.98	4091136.26	-75.28368184	36.96598962
WTG14-M20-1012	B-G-1	3.39	22.58	2.77	-30.93	- Monopole	-	476785.50	4093147.89	-75.26085452	36.98417569
WTG15-M20-1295	C-NG-1	2.97	8.39	2.81	-34.80	- Monopole	-	478992.21	4094678.60	-75.23610136	36.99802597

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS



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GRID NORTH

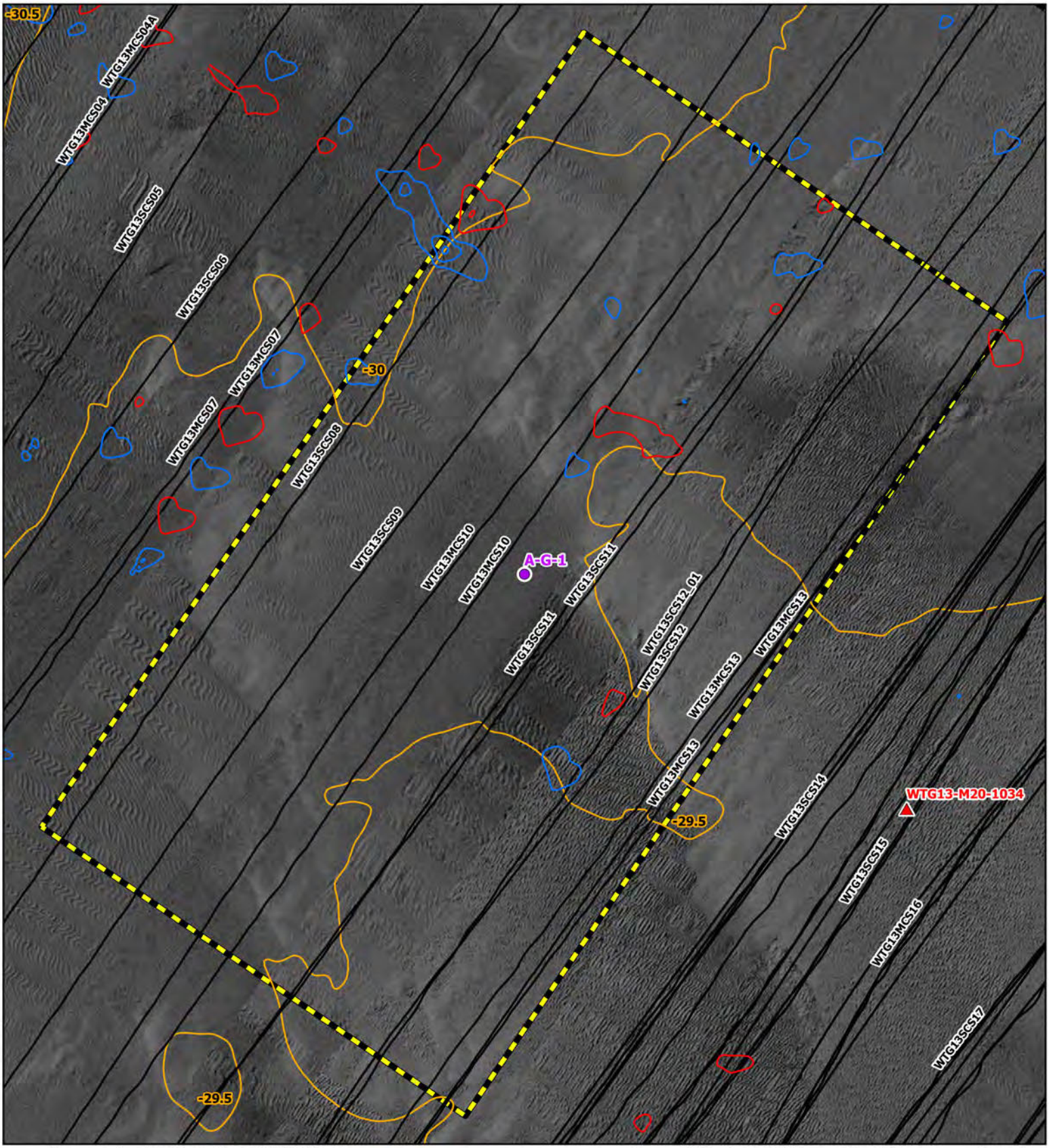
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MSR: 1:126,000
SRS: NAD 1983 2011 UTM ZONE 18N METER
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0 1 2 3 4 KILOMETERS

● GEOTECHNICAL LOCATION
MAP SHEET EXTENT
LEASE AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Index Map

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N
W E
S
GRID NORTH

SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM ZONE 18N METER
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FEET
0 10 20 30 40
METERS

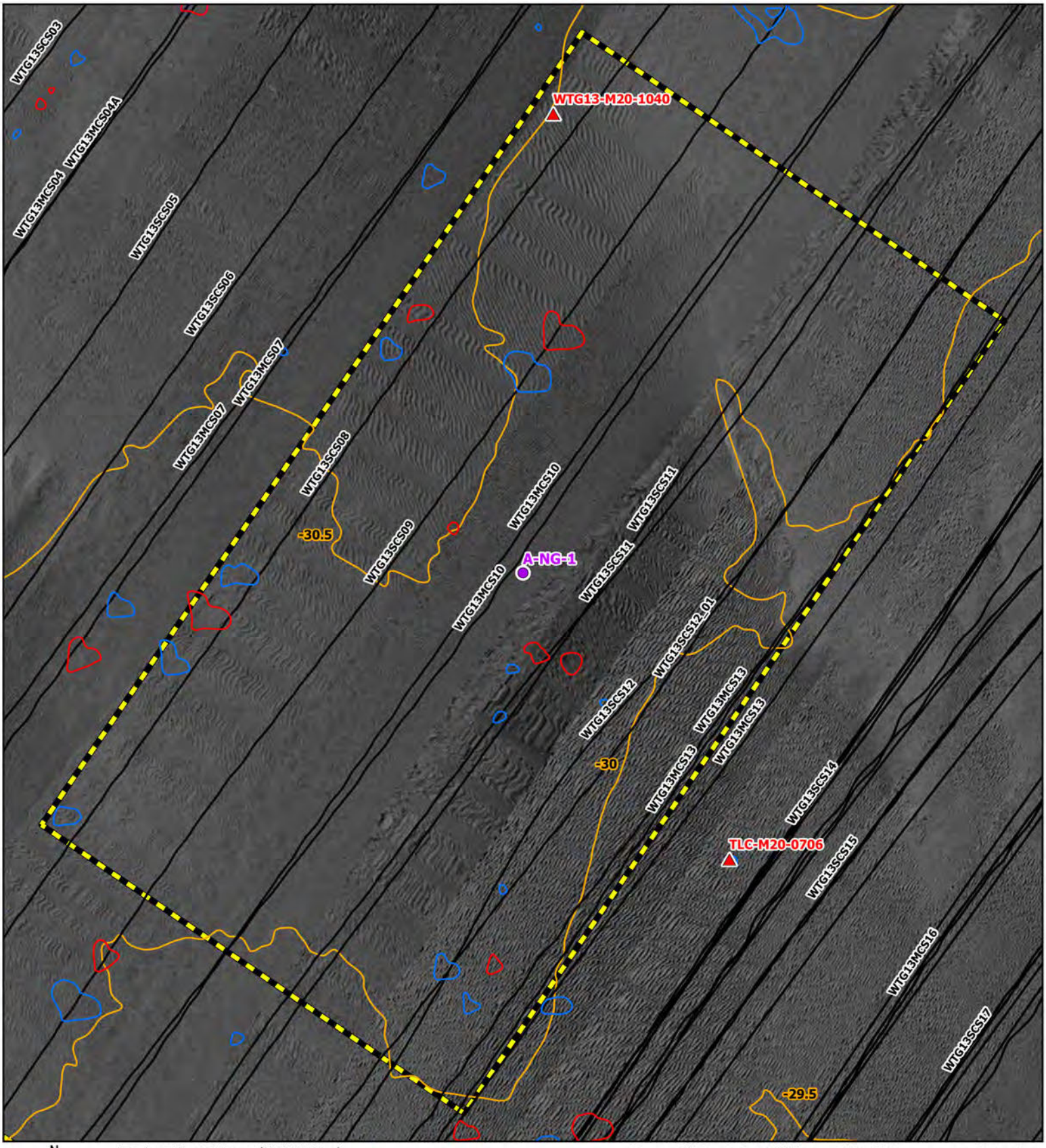
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MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
TRACKLINE
BATHYMETRIC CONTOUR (0.5 M)
MAGNETIC CONTOUR (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 1
A-G-1

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SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM ZONE 18N METER
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METERS

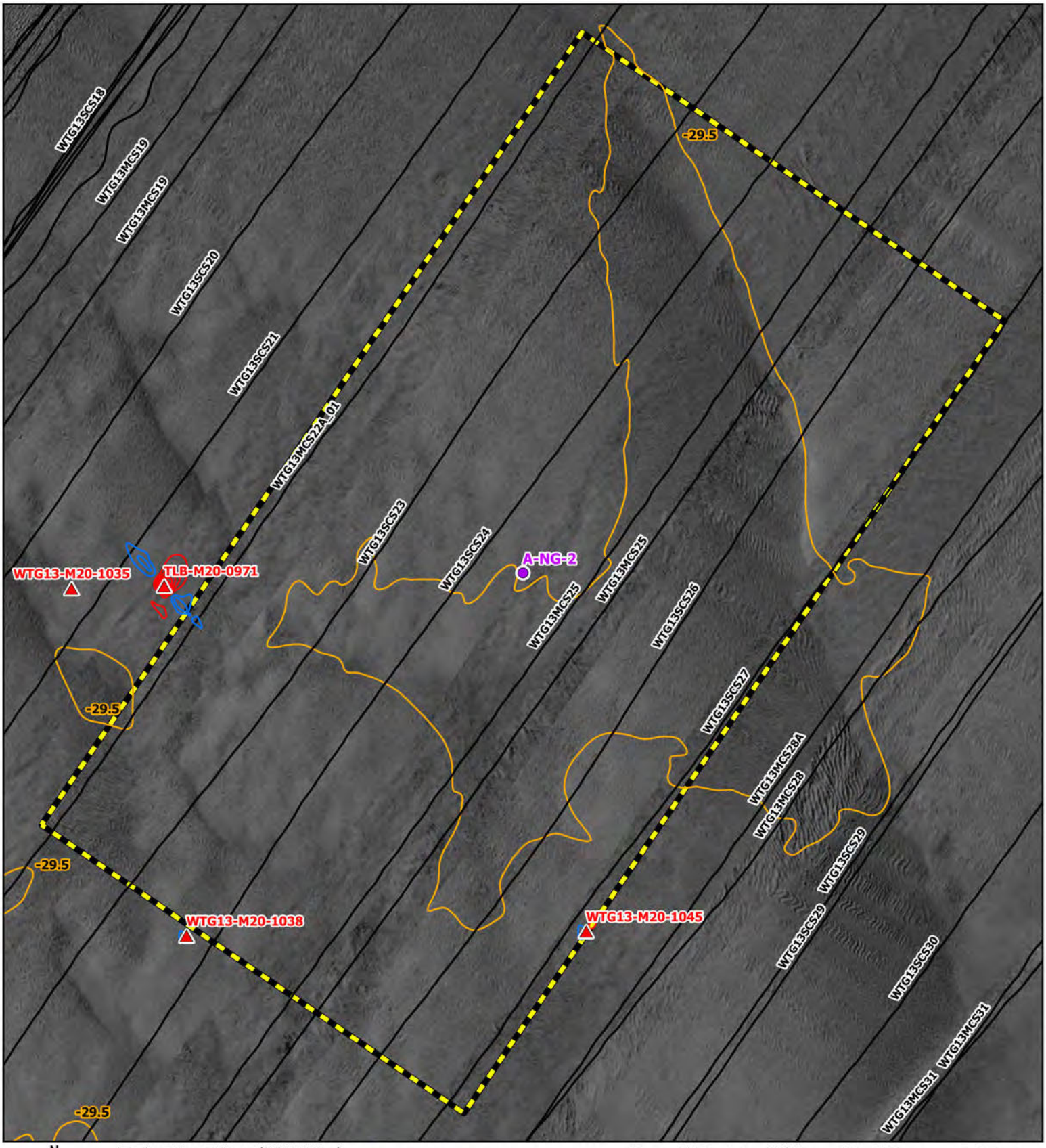
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MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
TRACKLINE
BATHYMETRIC CONTOUR (0.5 M)
MAGNETIC CONTOUR (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 2
A-NG-1

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SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
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FEET
0 10 20 30 40
METERS

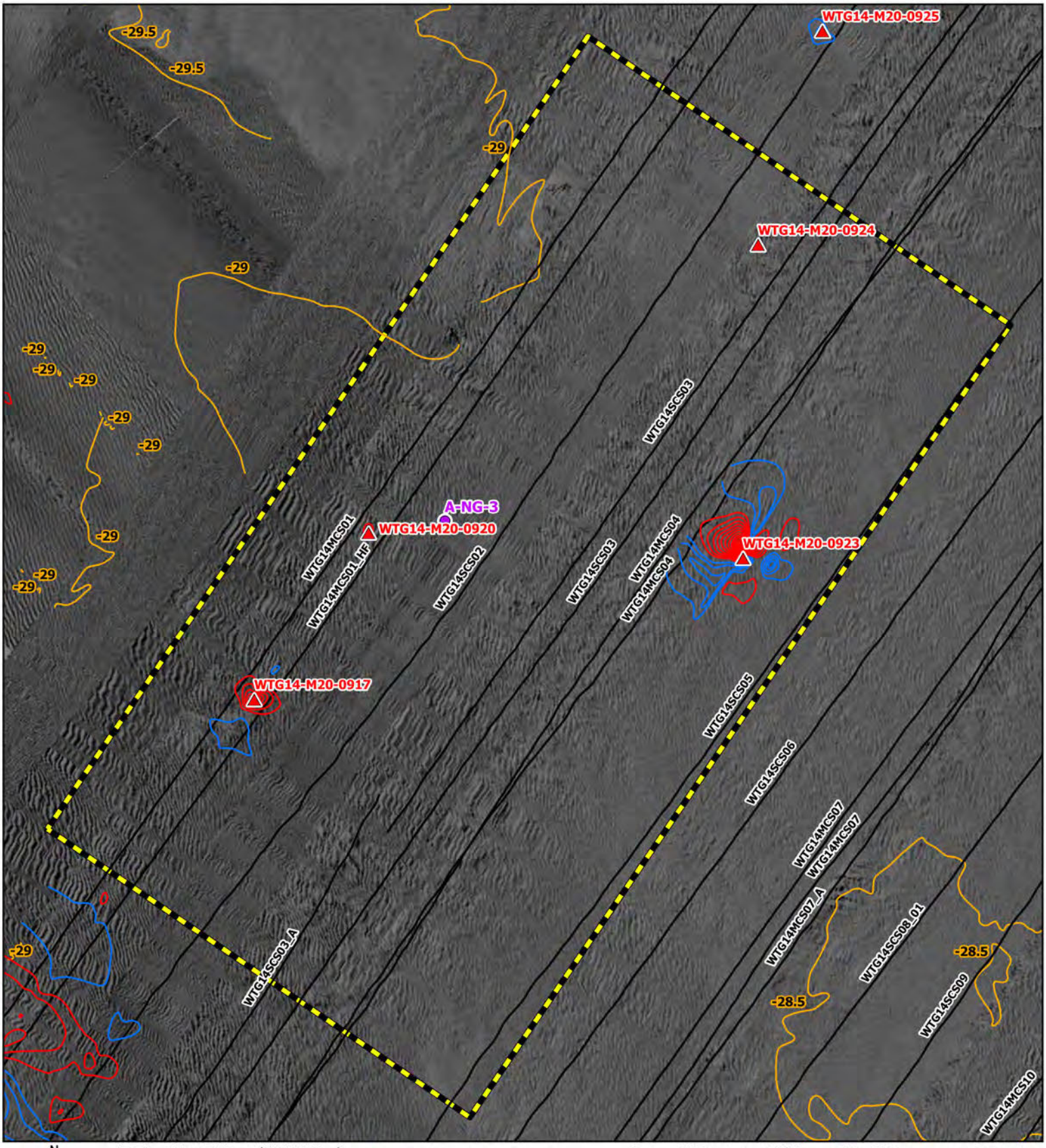
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SIDE SCAN SONAR CONTACT
TRACKLINE
BATHYMETRIC CONTOUR (0.5 M)
MAGNETIC CONTOUR (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 3
A-NG-2

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter
0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Trackline
- Bathymetric Contour (0.5 m)

Magnetic Contour (5 nT)

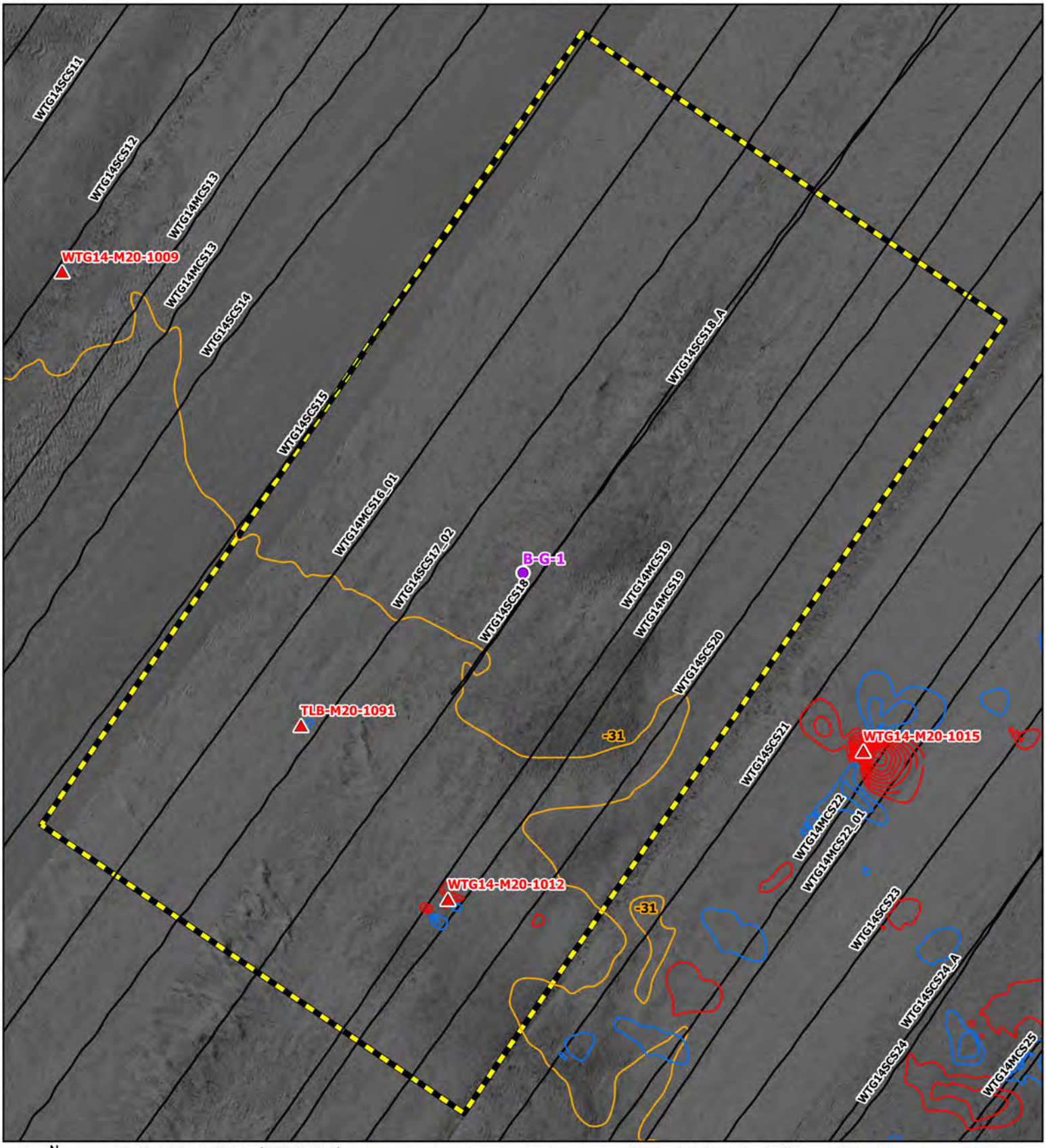
- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 4
A-NG-3

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GRID NORTH

SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
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0 25 50 75 100
FEET
0 10 20 30 40
METERS

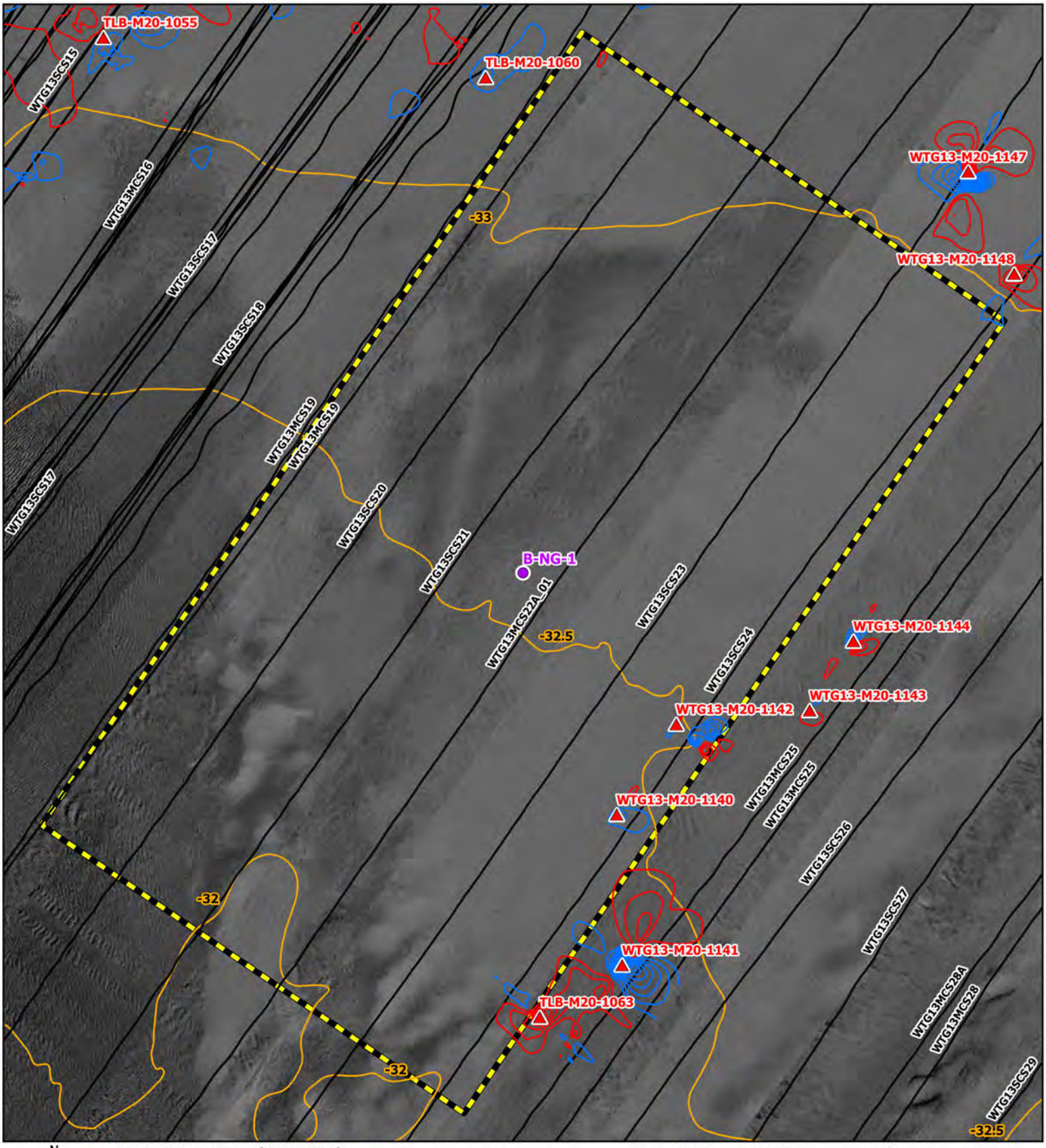
GEOTECHNICAL LOCATION
MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
TRACKLINE
BATHYMETRIC CONTOUR (0.5 M)
MAGNETIC CONTOUR (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 5
B-G-1

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Trackline
- Bathymetric Contour (0.5 m)

Magnetic Contour (5 nT)
- Negative
- Positive
- Analytical Area

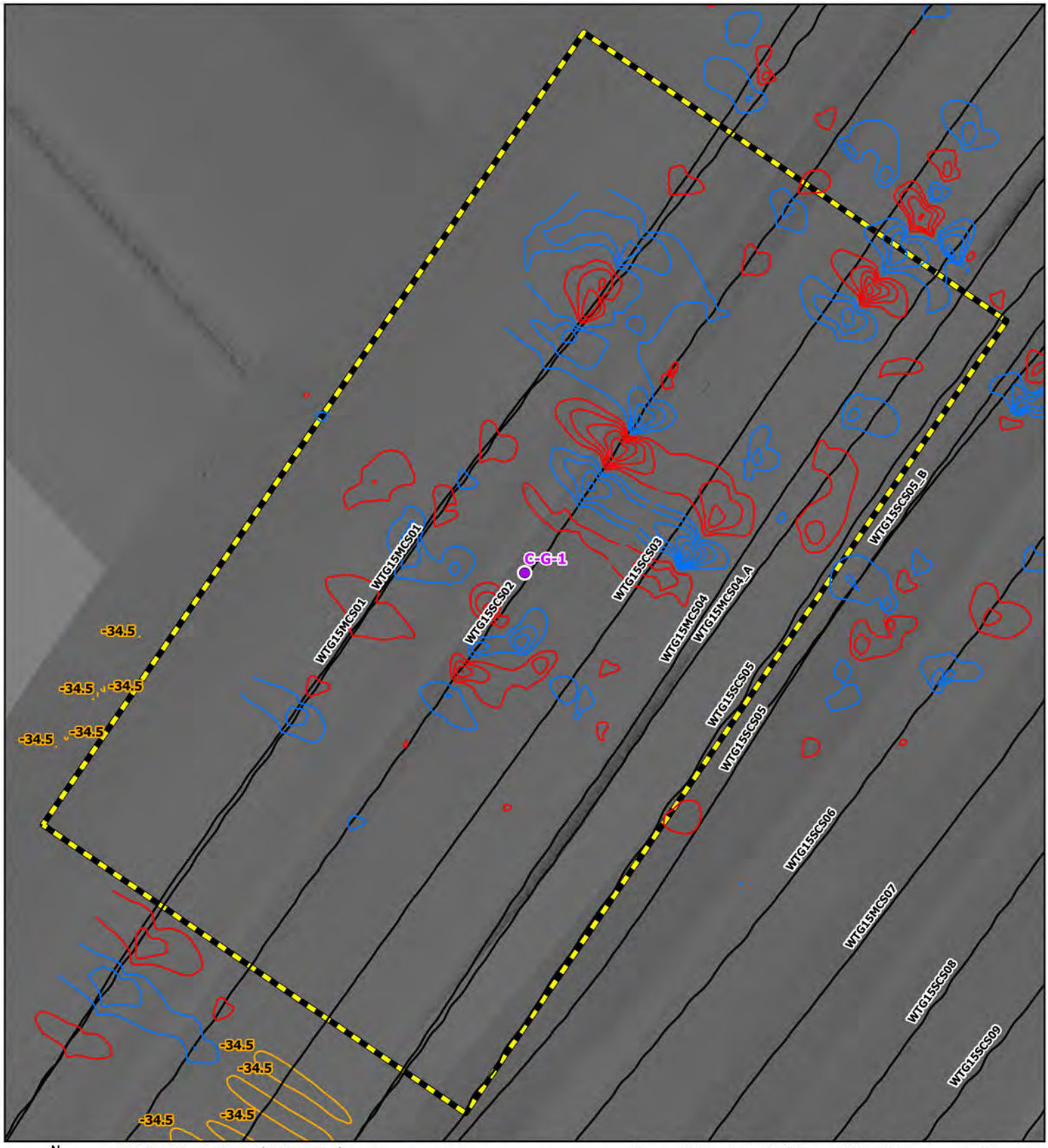
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 6

B-NG-1

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N

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100

Feet

0 10 20 30 40

Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- Trackline
- Bathymetric Contour (0.5 m)

Magnetic Contour (5 nT)

- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project

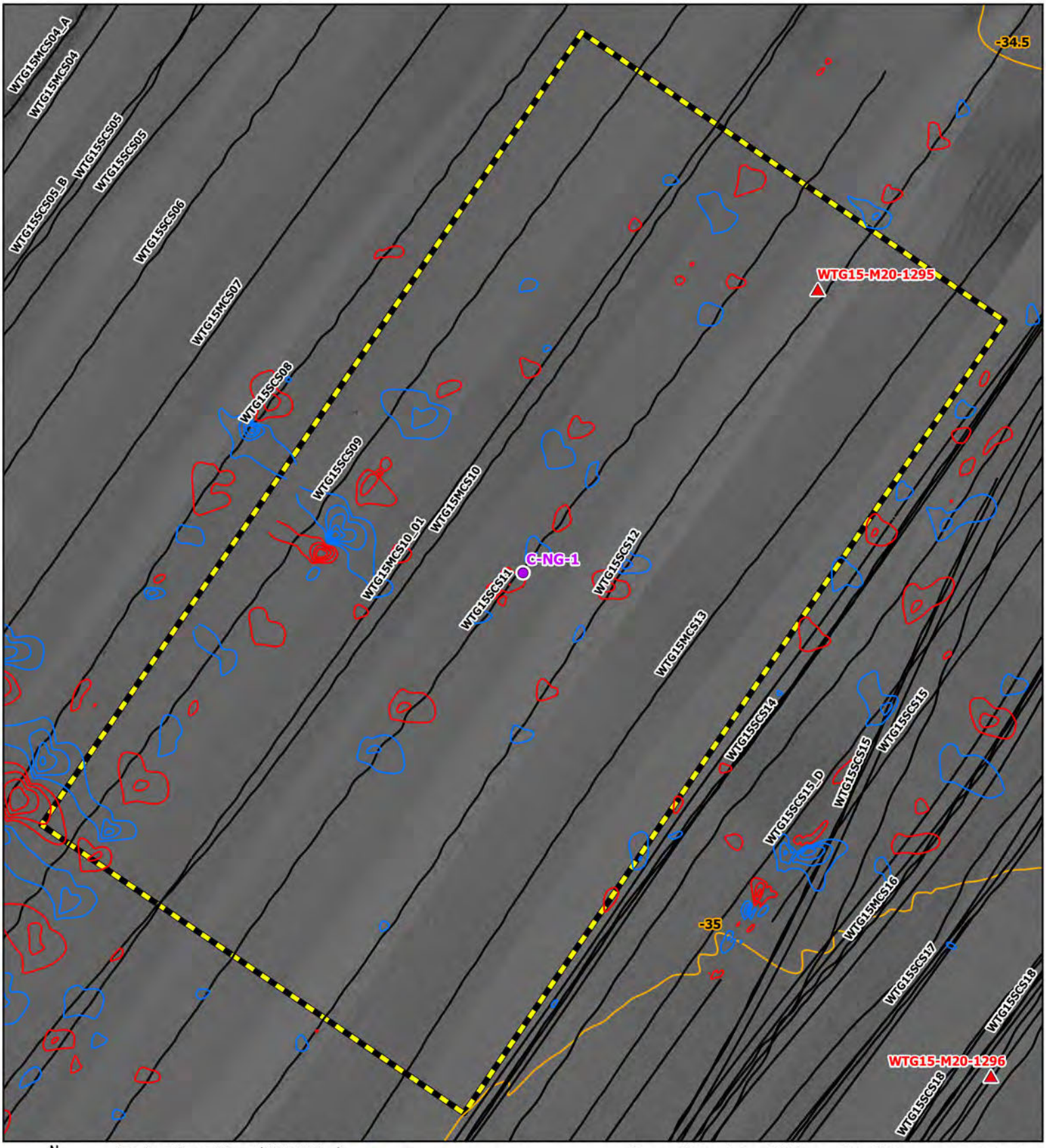
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration

Map: 7

C-G-1

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GRID NORTH

SIDE SCAN SONAR MOSAIC (2020, 0.25 M)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM ZONE 18N METER
0 25 50 75 100
FEET
0 10 20 30 40
METERS

GEOTECHNICAL LOCATION
MAGNETIC ANOMALY
SIDE SCAN SONAR CONTACT
TRACKLINE
BATHYMETRIC CONTOUR (0.5 M)
MAGNETIC CONTOUR (5 NT)
NEGATIVE
POSITIVE
ANALYTICAL AREA

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Gassy/Non-Gassy for Sediment Exploration
Map: 8
C-NG-1

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APPENDIX 2
SUB-BOTTOM PROFILE IMAGES

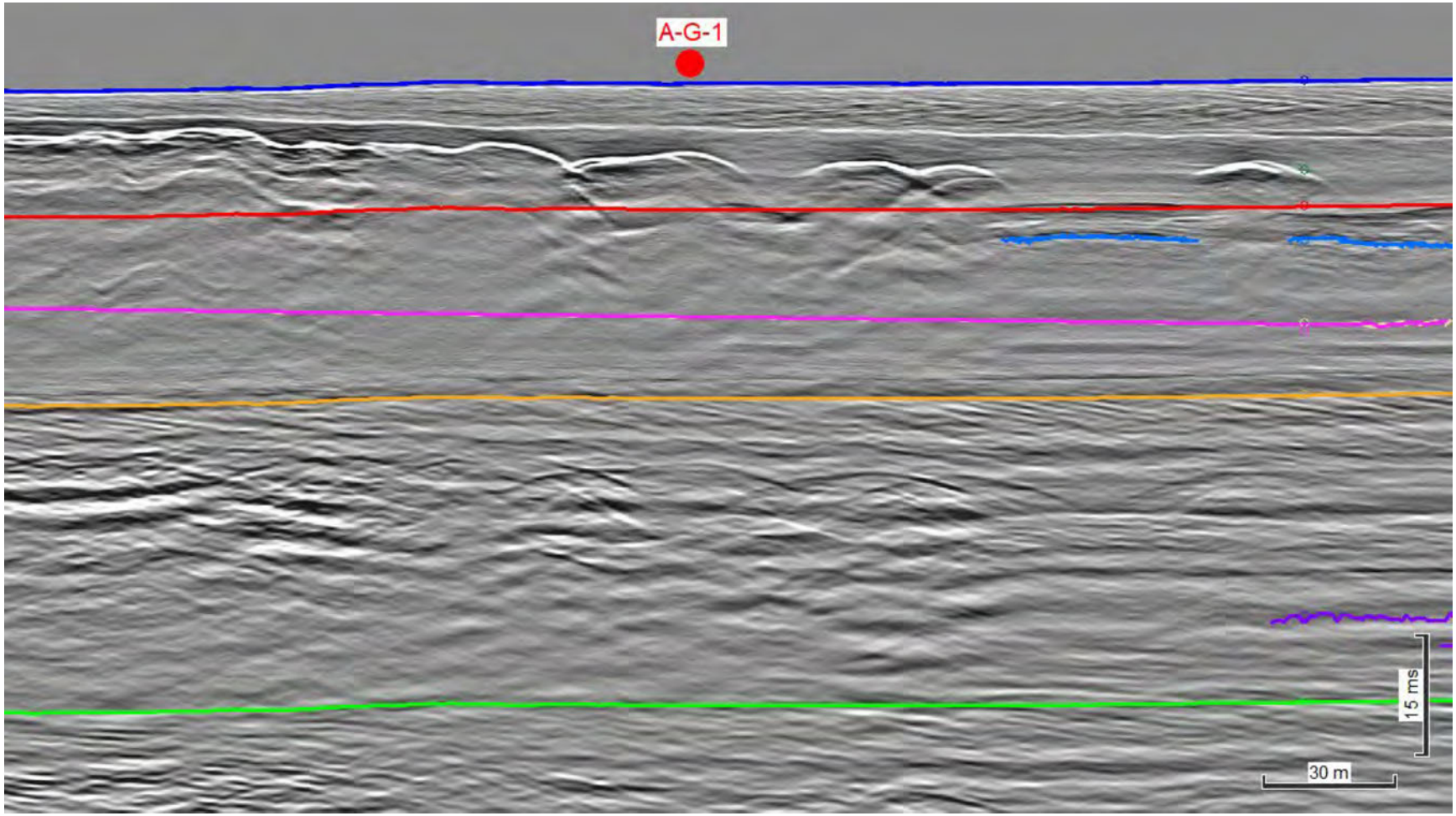


Figure 1: Proposed geotechnical location A-G-1 along seismic line TLB69_FAST_MIG

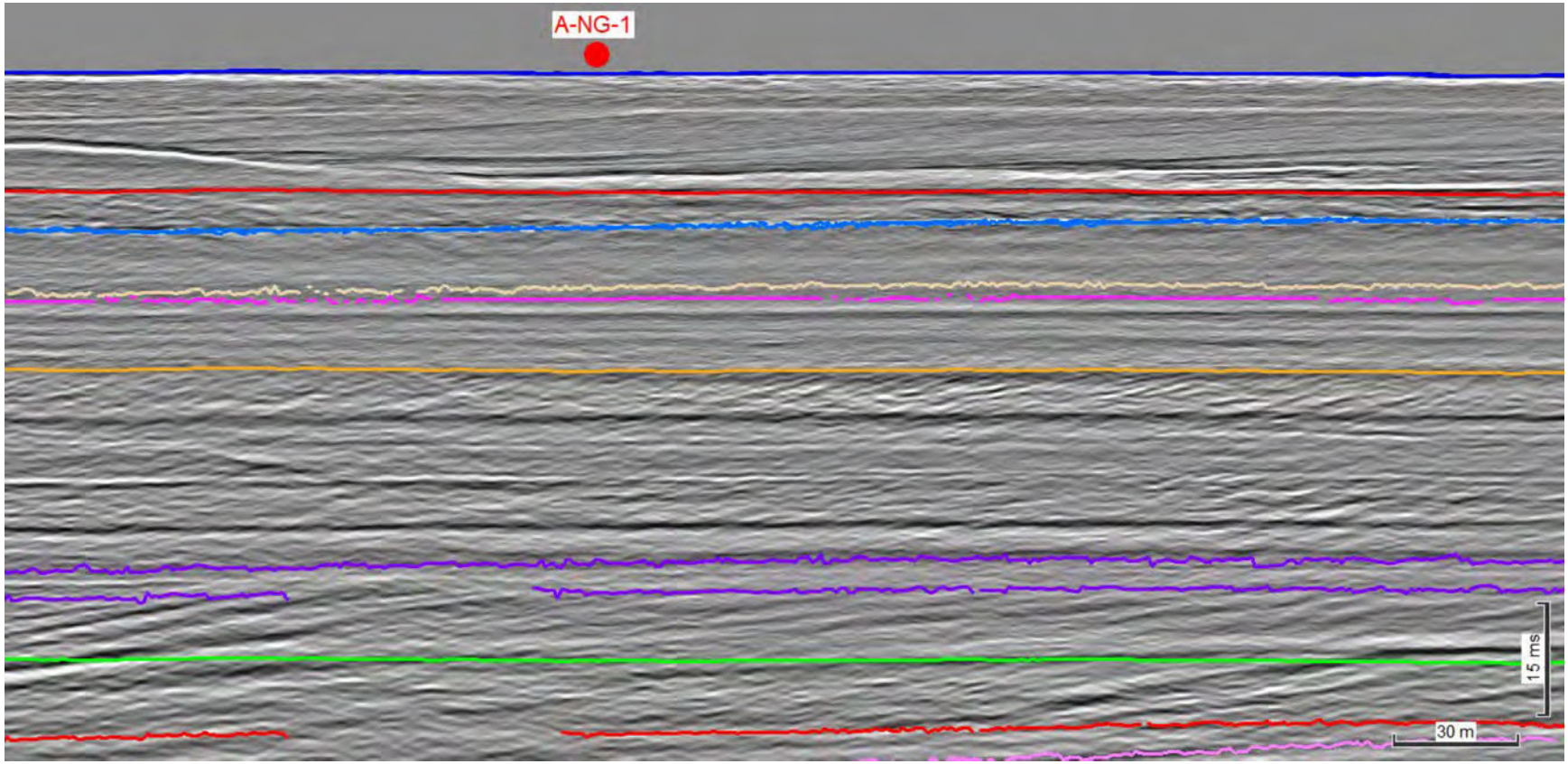


Figure 2:Proposed geotechnical location A-NG-1along seismic lineWTG13MCS16_FAST_MIG

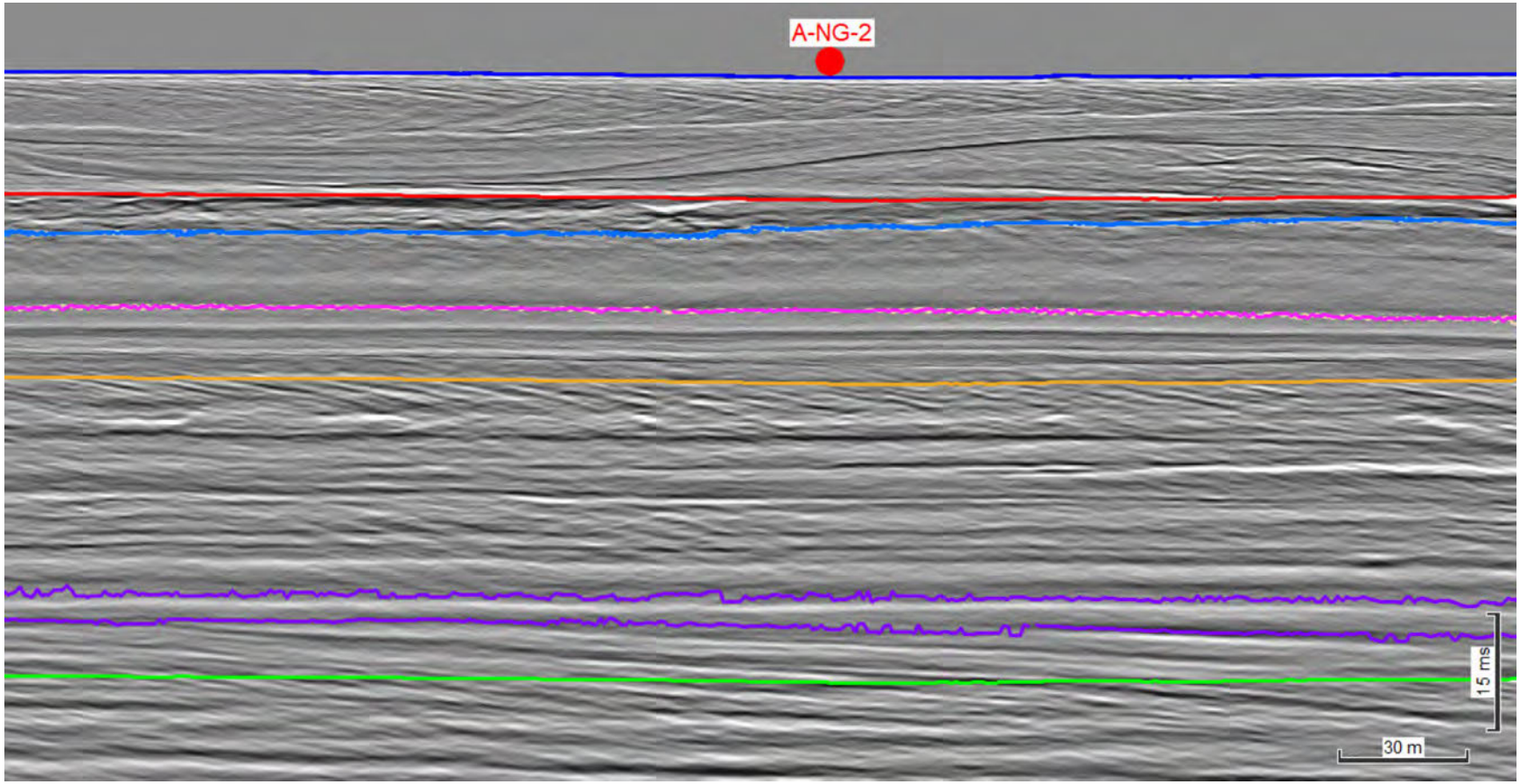


Figure 3: Proposed geotechnical location A-NG-2 along seismic line TLB69_FAST_MIG

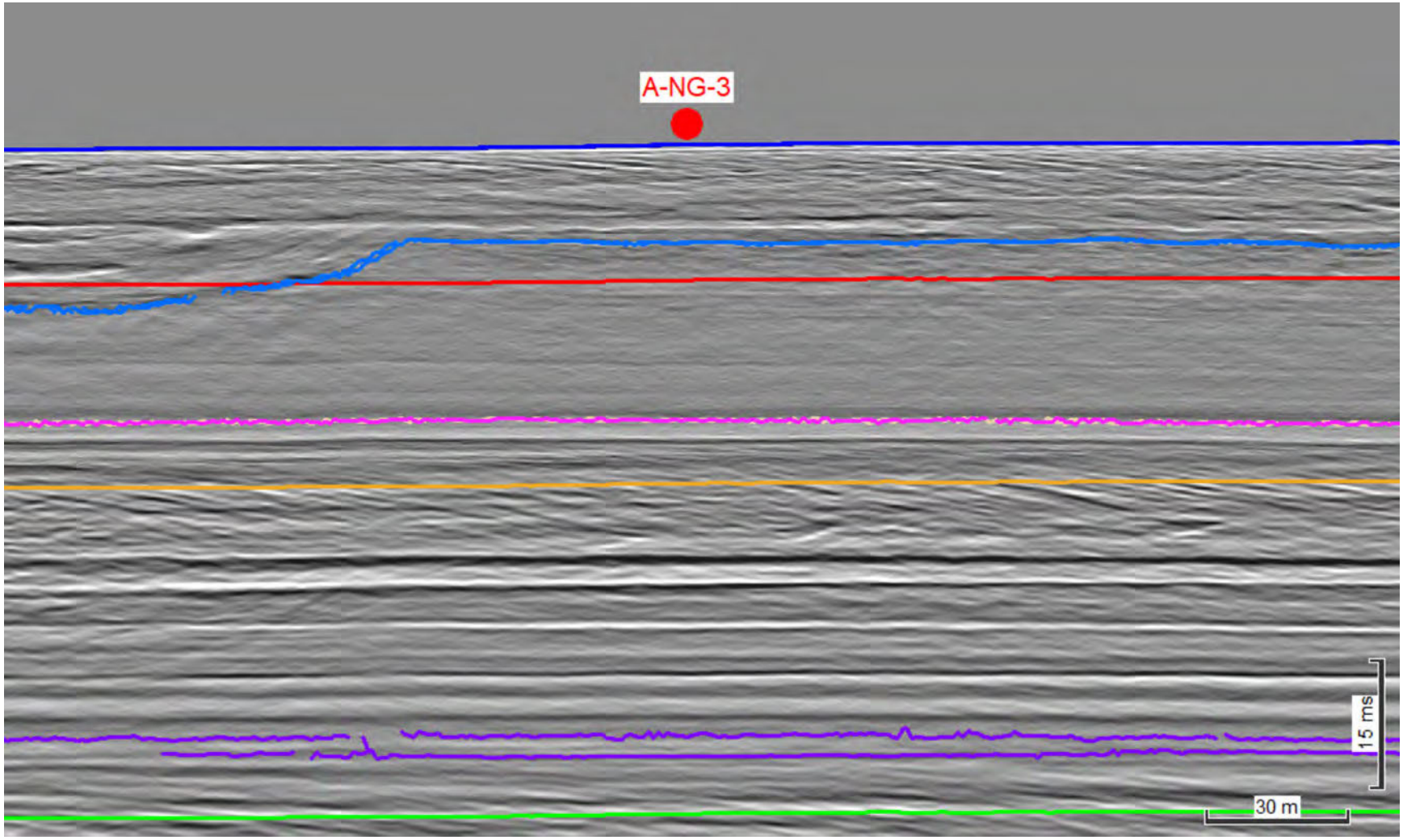


Figure 4: Proposed geotechnical location A-NG-3 along seismic line TLB69_FAST_MIG

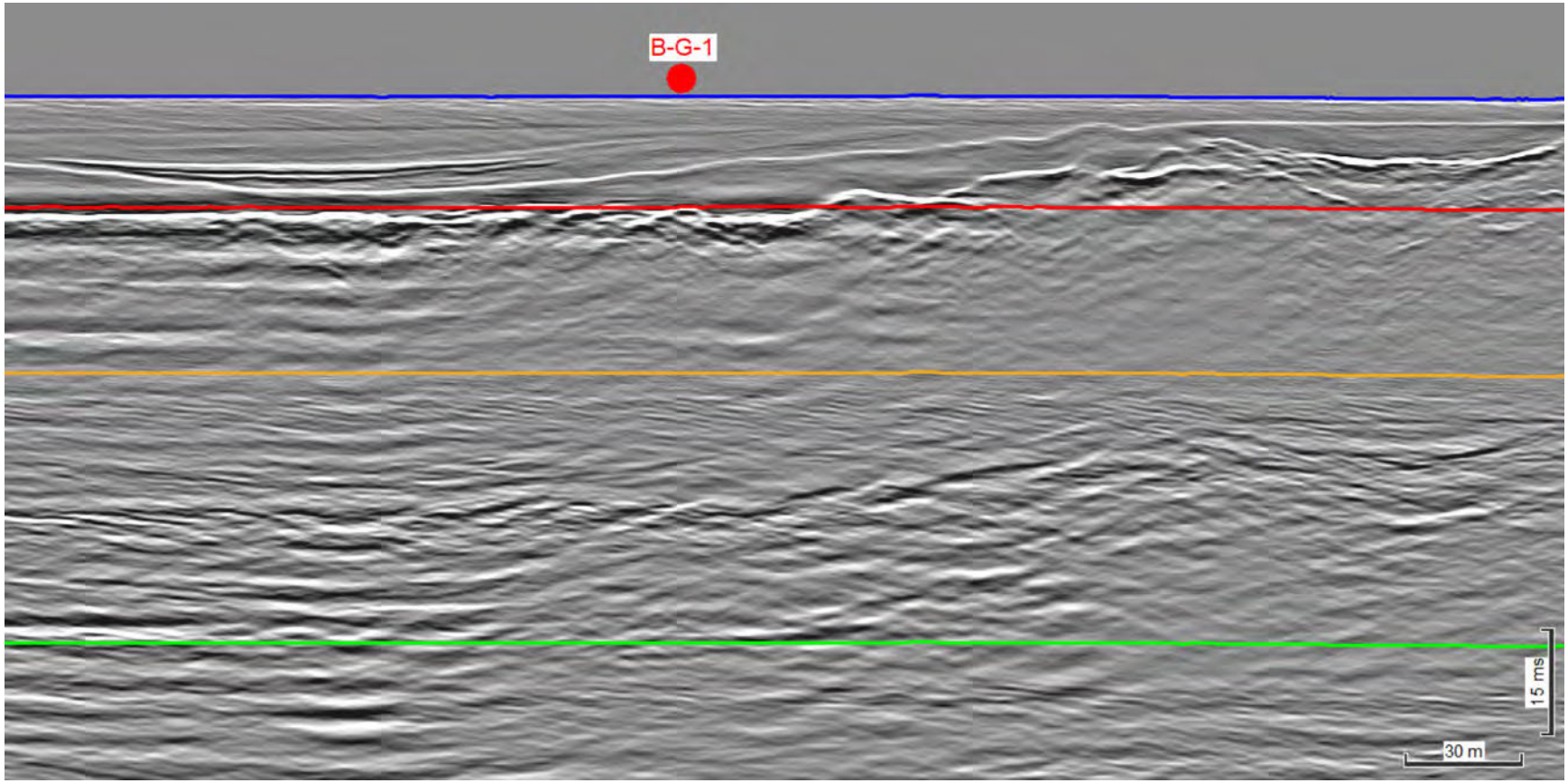


Figure 5: Proposed geotechnical location B-G-1 along seismic line TLB77B_FAST_MIG_PSDEMUL

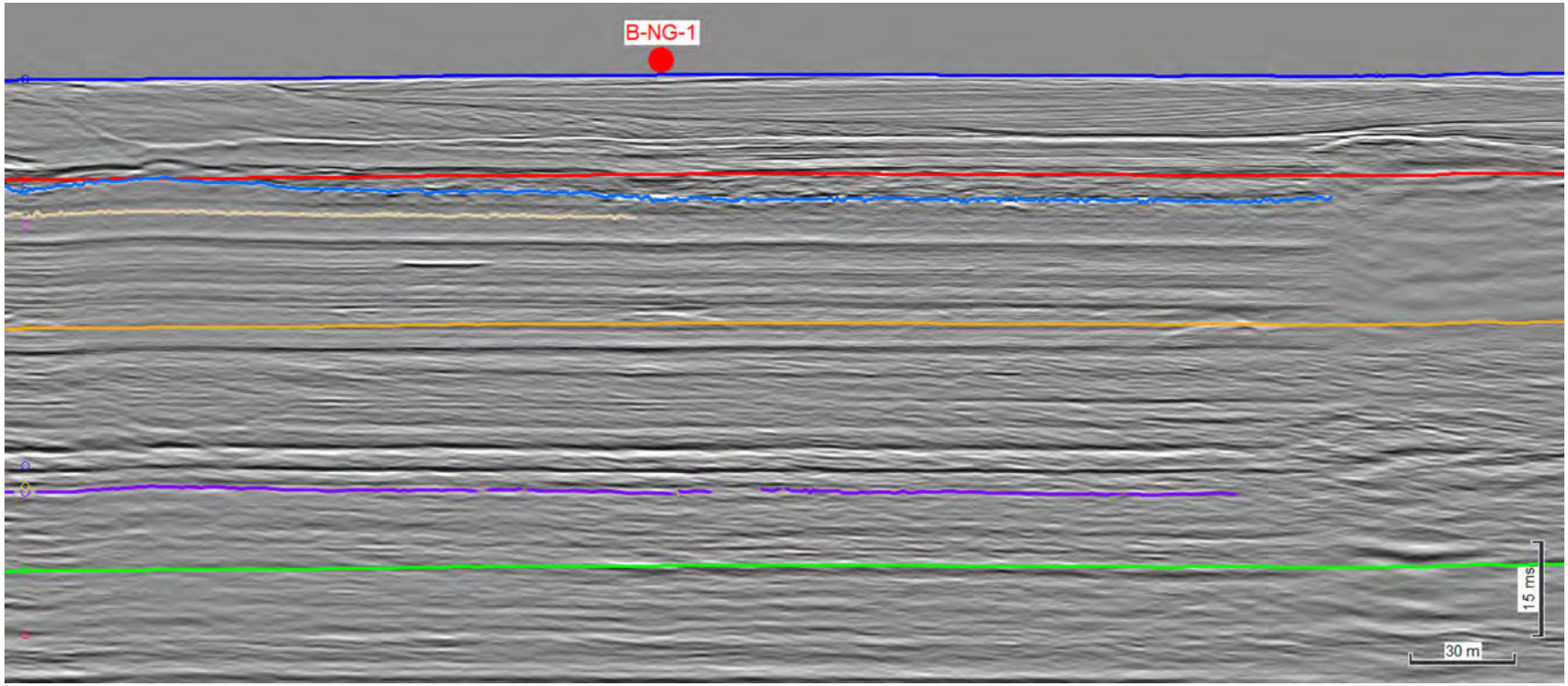


Figure 6: Proposed geotechnical location B-NG-1 along seismic line TLB77B_FAST_MIG_PSDEMUL

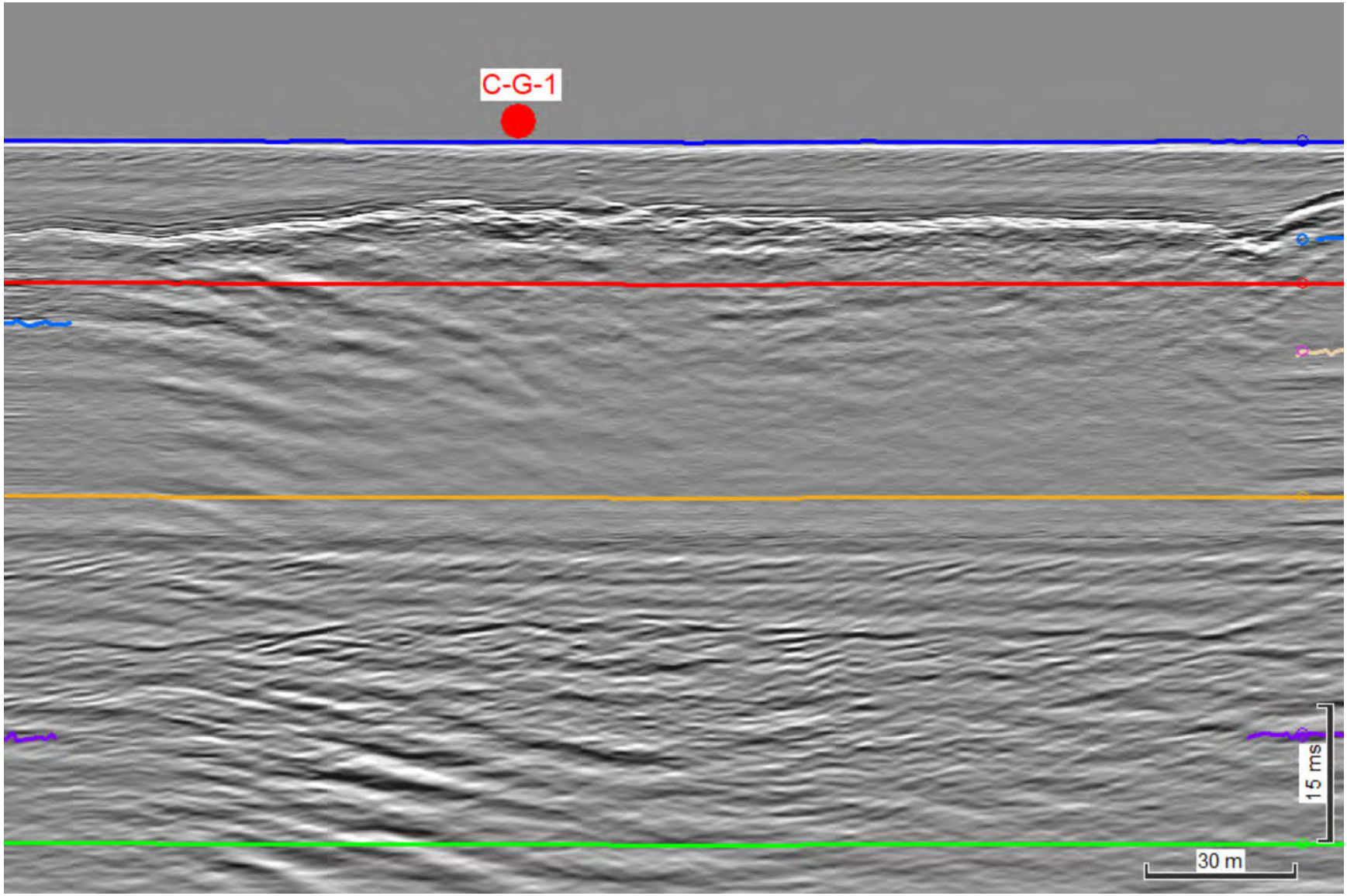


Figure 7: Proposed geotechnical location C-G-1 along seismic line TLB83A_01_FAST_MIG

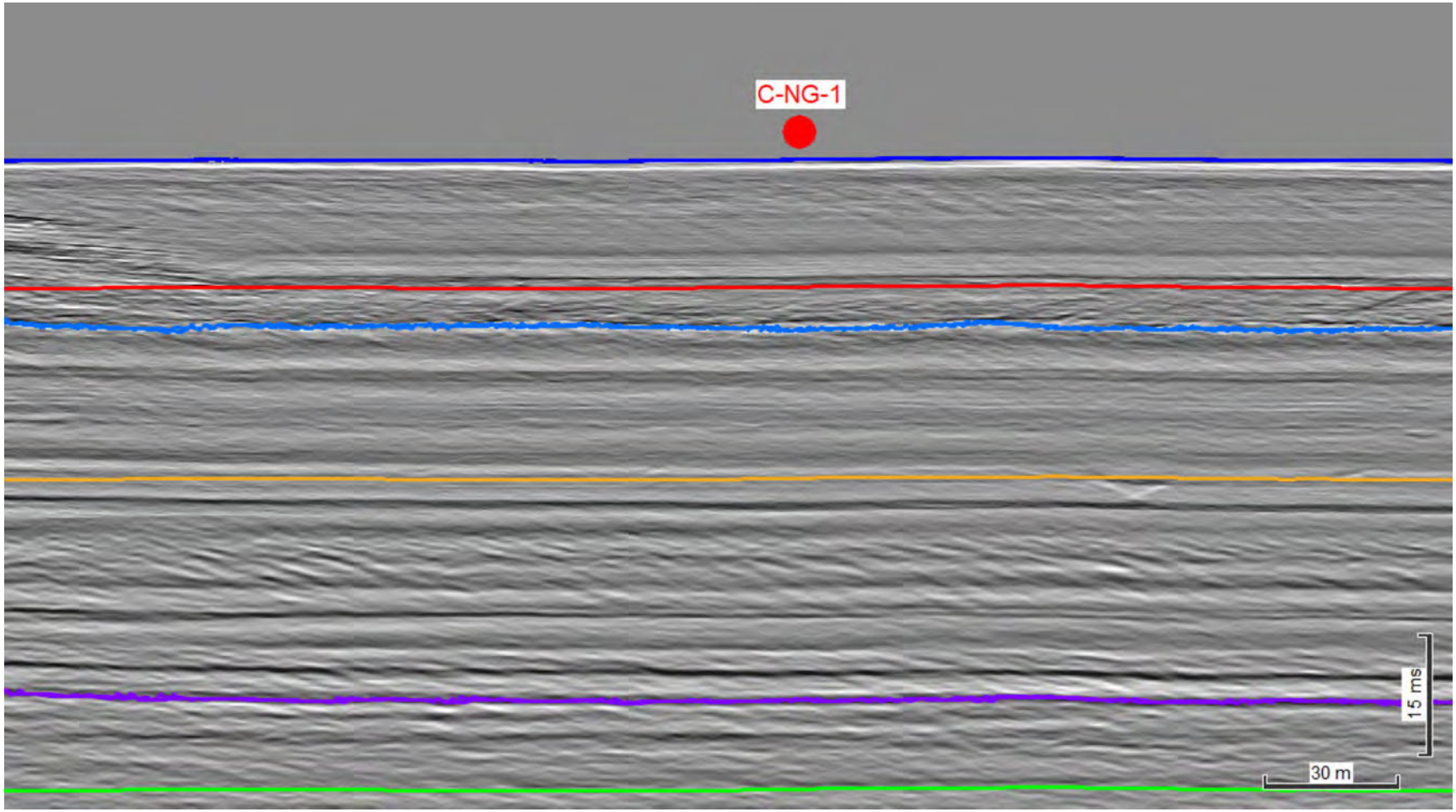


Figure 8: Proposed geotechnical location C-NG-1 along seismic line WTG15MCS10_FAST_MIG

Dominion Energy, Inc.
707 East Main Street
Richmond, VA 23219
dominionenergy.com

April 5, 2021

Mr. James Bennett, Chief
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road, VAM-OREP
Sterling, VA 20166

Dear Mr. Bennett:

RE: Coastal Virginia Offshore Wind Commercial Project - Cultural Resources Clearance for Geotechnical Investigations Along the Export Cable Route, Block E and Block F

Virginia Electric and Power Company d/b/a Dominion Energy Virginia (Dominion Energy, the Applicant), is submitting the attached geotechnical clearance reports for 11 proposed geotechnical locations located along the Export Cable Route, Block E and Block F within the Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Offshore Virginia (Lease No. OCS-A-0483) Condition 4.2.2 in support of the Coastal Virginia Offshore Wind Commercial (CVOW) Commercial Project.

This letter and attached report provide the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations. In summary:

- No sonar contacts that represent significant cultural resources were identified within the analytical areas.
- No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.
- Analyses of the seismic data suggest that geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.
- No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

Please contact Scott Lawton at scott.lawton@dominionenergy.com or (804) 273-2600 if you have any questions or require additional information.

Sincerely,

Joshua J. Bennett
Vice President – Offshore Wind

Enclosure(s)

Cc: Dominion Env. - Jason Ericson, Darrell Shier, Scott Lawton, Mitchell Jabs
Dominion Offshore Wind – GT Hollett, Will Kinnan, Ed Buchanan
BOEM - Casey Reeves, Algene Byrum, Jen Draher, Willie Hoffman
Tetra Tech - Janelle Lavallee, Alex Cross
McNeilan and Assoc. - Tom McNeilan

March 31, 2021

Mr. Lloyd Eley
Project Manager
Dominion Energy
5000 Dominion Boulevard
Glen Allen, MD 23060

RE: Coastal Virginia Offshore Wind Commercial Project – Cultural Resources Clearance for Geotechnical Investigations along the Blocks E and F

Dear Mr. Eley:

This letter report provides the results of Phase I cultural resources analyses of high-resolution geophysical (HRG) survey data collected by Alpine Ocean Seismic Survey, Inc. to support geotechnical investigations for the Coastal Virginia Offshore Wind Commercial Project. The planned geotechnical campaign consists of shallow coring (piston or vibracores) and seabed Cone Penetrometer Tests; this memorandum reviews 11 of these locations for gathering geologic information (Tables 1, 2, 3, 4, and 5). The geotechnical investigation will be conducted by a vessel that is equipped with a dynamic positioning system. Activities at the geotechnical locations will not exceed a targeted depth of five (5) to seven (7) meters (m) below seabed.

The QMA reviewed the HRG survey data within a rectangular analytical area (100 m by 200 m) centered on each of the 11 proposed geotechnical locations located along the Export Cable Route (ECR), within Blocks E and F. The reviewed data included at minimum six (6) parallel lines of survey data that captured each of the proposed locations. This review focused on identification of any potential submerged cultural resources and buried, preserved landforms through geophysical investigations.

There are eight (8) proposed geotechnical locations within the Dam Neck Ocean Disposal Site (DNODS). The DNODS was authorized by the Environmental Protection Agency for the placement of dredged materials from the Thimble Shoal Channel, Atlantic Ocean Channel and the Cape Henry Channel. The earliest use of the DNODS began in 1967, with the deepening of the Thimble Shoals Channel. Dredged materials been typically disposed of using either a hopper dredge or bottom pump scow. There are numerous magnetic anomalies and seabed contacts throughout the DNODS boundary, which are likely associated with dredged material placement activities.

High-resolution side scan sonar imagery was recorded throughout the survey area and viewed as high-resolution mosaicked files (Appendix 1, Table 6). No sonar contacts that represent significant cultural resources were identified within the analytical areas.

Two marine magnetometers configured into a transverse gradiometer array collected magnetic data along each survey line. Magnetic anomalies were interpreted using magnetic residual field grid data, magnetic

contour mapping, and by observing their characteristics in terms of amplitude, duration, magnetic signature, and spatial distribution (Appendix 1, Table 7). All of the recorded anomalies expressed characteristics atypical of shipwreck signatures (i.e., a low amplitude [<50 nT] and short to medium duration 1.8-55.2 m]). No magnetic anomalies that represent significant cultural resources were identified within the analytical areas.

Seismic data were collected and interpreted along each survey line associated with the geotechnical locations (Appendix 2). All seismic data were reviewed to their full vertical extent. The geotechnical locations were also reviewed with respect to the ground model and interpreted horizons. Analyses of the seismic data suggest that none of the proposed geotechnical samples will not impact any submerged and buried landforms that exhibit the potential to contain preserved archaeological resources.

The analyses considered all portions of the seafloor within the limits of bottom-disturbing activities as they pertain to the proposed sampling locations (Tables 1, 2, 3, 4, 5, 6, and 7; Appendices 1 and 2). Based on the current data, if the geotechnical sampling activities are contained within the established analytical areas (Tables 1, 2, 3, 4, and 5), no potential archaeological resources will be affected by the proposed geotechnical activities. No historic properties, such as shipwrecks, were detected at the proposed sampling locations.

If you have questions, please do not hesitate to contact us.

Best regards,

Ashley Himmelstein, M.A.
Nautical Archaeologist

Table 1. Proposed geotechnical locations for ECR Block E

Core ID[1]	Easting (X)[2]	Northing (Y)[2]	Longitude[3]	Latitude[3]
E-08	424178.20	4073924.80	-75.85002132	36.80813617
E-09	423689.10	4074028.50	-75.85551434	36.80903158
E-16/F01	420348.90	4074737.10	-75.89303109	36.81514337

[1] E-16/F01 are located within the DNODS.
[2]Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[3] Geographical coordinates are referenced to NAD83.

Table 2: Proposed geotechnical locations for ECR Block F

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
F-04rev	418932.19	4074658.12	-75.90890467	36.81431111
F-09	416450.00	4074410.00	-75.93670355	36.81185876

[1]Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 3: Proposed geotechnical locations for ECR X Locations, located within the DNODS

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
X-03	419945.00	4074535.00	-75.89753775	36.81328762
X-04	421055.00	4075100.00	-75.88515299	36.8184736
X-05	421100.00	4074835.00	-75.88462101	36.81608874
X-06rev	421352.56	4074995.79	-75.88180626	36.81755907
X-07rev	421825.18	4074873.44	-75.87649517	36.81649543
X-08rev	421685.49	4074966.25	-75.87807076	36.81732043

[1]Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 4: Proposed geotechnical locations for ECR Block F South

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
Fs-08rev	416989.67	4073977.58	-75.93060674	36.80800864

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 5: Proposed geotechnical locations for ECR Block E North

Core ID	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
En-13	421819.00	4074841.00	-75.8766	36.8162

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

Table 6: Side Scan Sonar Contacts within Analytical Areas

SSS ID	Associated Geotechnical Location	Height (m)	Width (m)	Length (m)	Associated Mag Anomaly	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
SSS_E_030	E-08	0.70	0.66	1.95	MAG_1362	424181.97	4073933.67	-75.84997994	36.80821643
SSS_E_045	X-06rev	0.44	0.68	1.18	-	421392.98	4074986.65	-75.88135217	36.81748005
SSS_F_007	E-16/F-01	0.33	0.36	0.63	-	420269.04	4074732.65	-75.8939259	36.81509653

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

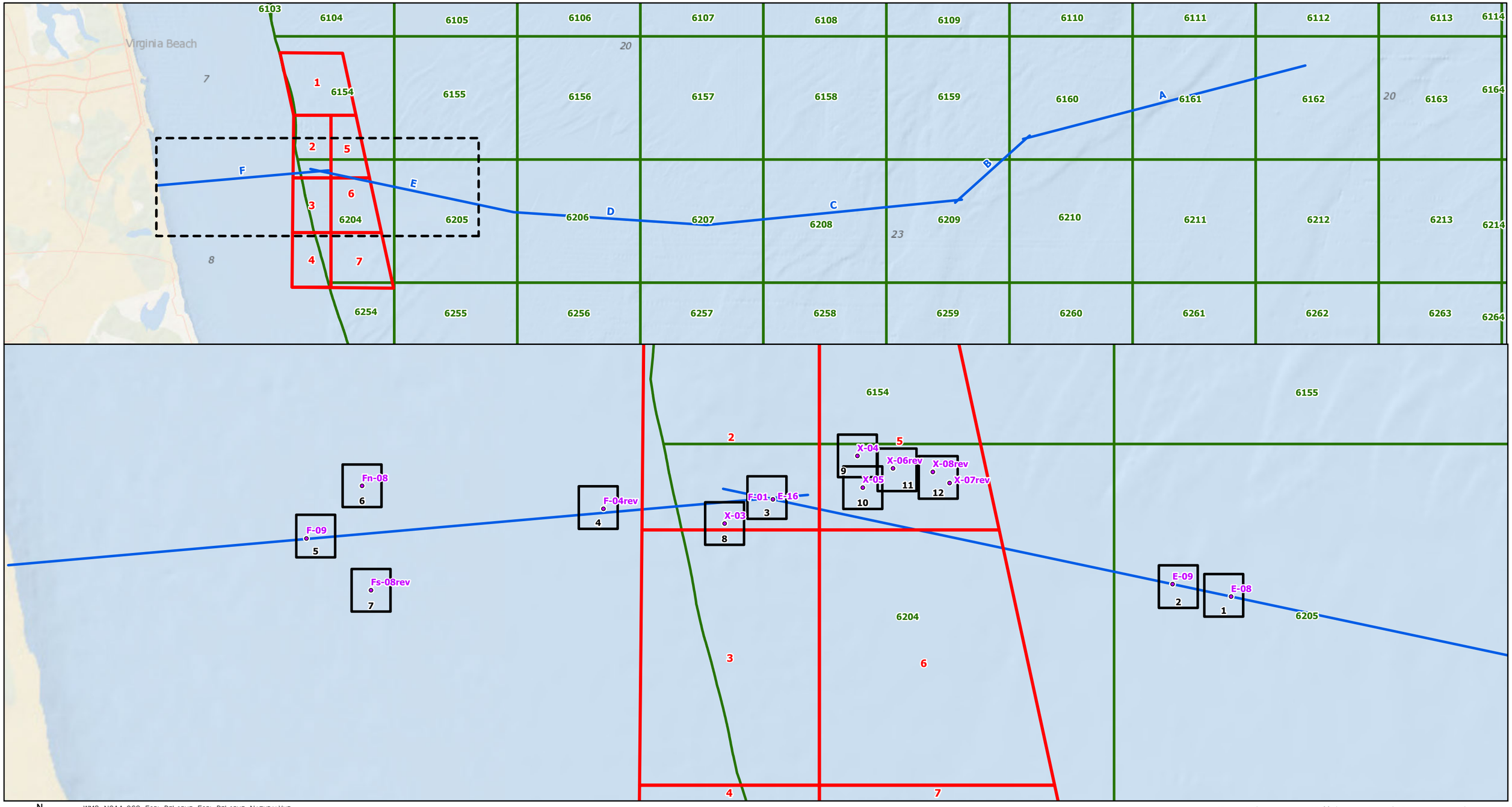
Table 7: Magnetic Anomalies within Analytical Areas

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Depth (m)	Signature Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_0243	F-09	2.95	0.60	2.38	1.74	Dipole	-	416436.89	4074439.72	-75.93685377	36.81212548
MAG_0244	F-09	4.21	0.45	4.03	4.30	Dipole	-	416448.79	4074406.00	-75.93671667	36.81182259
MAG_0247	F-09	2.83	1.59	4.90	4.60	Dipole	-	416454.00	4074443.03	-75.93666233	36.81215683
MAG_0251	F-09	2.56	0.00	3.11	1.89	Dipole	-	416484.67	4074443.39	-75.93631856	36.81216278
MAG_0255	F-09	2.18	-21.02	10.38	2.95	Monopole	-	416502.40	4074391.15	-75.93611408	36.81169348
MAG_0257	F-09	2.65	-10.41	10.92	3.14	Monopole	-	416513.14	4074446.09	-75.93599971	36.81218963
MAG_0276	F-09	2.01	-10.85	6.90	2.05	Dipole	-	416595.49	4074399.13	-75.93507142	36.81177362
MAG_0282	F-09	2.07	0.01	2.84	1.70	Dipole	-	416626.59	4074403.78	-75.93472331	36.81181827
MAG_0583	F-04rev	4.22	1.46	3.62	3.24	Dipole	-	418956.25	4074692.57	-75.90863865	36.81462372
MAG_0770	X-03	3.85	-4.80	15.07	8.36	Monopole	-	419980.73	4074584.30	-75.8971424	36.81373502
MAG_0819	E-16/F-01	4.23	-6.03	21.38	6.02	Monopole	-	420195.29	4074788.68	-75.89475855	36.81559534
MAG_0822	E-16/F-01	4.30	-0.59	5.09	4.87	Dipole	-	420205.82	4074815.29	-75.8946433	36.81583608
MAG_0827	E-16/F-01	4.75	-25.54	22.59	4.79	Monopole	-	420221.46	4074713.89	-75.89445733	36.81492342
MAG_0837	E-16/F-01	4.23	0.00	2.38	1.21	Dipole	-	420245.62	4074720.04	-75.89418713	36.81498089
MAG_0843	E-16/F-01	4.03	-7.28	11.92	4.63	Monopole	-	420268.67	4074703.91	-75.89392704	36.81483745
MAG_0852	E-16/F-01	3.66	1.54	3.40	5.89	Complex	-	420287.35	4074711.96	-75.89371847	36.81491158
MAG_0863	E-16/F-01	3.57	0.01	3.35	1.23	Dipole	-	420305.24	4074709.73	-75.89351768	36.81489299

Mag ID	Associated Geotechnical Location	Sensor Altitude (m)	Amplitude (nT)	Duration (m)	Depth (m)	Signature Characteristics	Associated SSS Contact	Easting (X)[1]	Northing (Y)[1]	Longitude[2]	Latitude[2]
MAG_0875	E-16/F-01	3.76	6.32	2.28	2.58	Monopole	-	420324.12	4074791.28	-75.89331457	36.81562964
MAG_0877	E-16/F-01	3.22	-10.70	12.50	2.54	Monopole	-	420324.68	4074705.46	-75.8932993	36.81485614
MAG_0881	E-16/F-01	3.47	-8.42	22.41	4.16	Monopole	-	420329.39	4074784.12	-75.89325474	36.81556554
MAG_0895	E-16/F-01	3.98	0.43	1.87	3.98	Dipole	-	420349.37	4074772.29	-75.89302951	36.81546059
MAG_0900	E-16/F-01	3.45	0.01	4.55	2.24	Dipole	-	420357.31	4074785.85	-75.89294192	36.81558349
MAG_0917	E-16/F-01	3.71	-2.64	7.96	4.40	Dipole	-	420374.96	4074767.60	-75.89274214	36.81542047
MAG_1078	X-04	4.21	-12.63	55.29	17.05	Monopole	-	420967.95	4075118.04	-75.88613079	36.81862894
MAG_1088	X-05	4.18	0.00	3.05	-1.61	Dipole	-	421010.07	4074891.35	-75.88563504	36.81658915
MAG_1095	X-05	3.41	35.34	2.32	2.50	Monopole	-	421047.03	4074827.99	-75.88521411	36.81602114
MAG_1100	X-05	4.41	2.61	2.80	6.00	Dipole	-	421105.13	4074847.46	-75.88456479	36.81620148
MAG_1125	X-06rev	4.57	-5.80	25.73	4.99	Monopole	-	421266.59	4074998.40	-75.88277033	36.81757545
MAG_1128	X-06rev	3.65	3.27	2.03	3.68	Dipole	-	421282.31	4074994.84	-75.88259373	36.81754467
MAG_1133	X-06rev	4.54	4.90	2.43	3.68	Monopole	-	421308.89	4074958.94	-75.88229203	36.81722329
MAG_1154	X-06rev	4.04	11.99	2.74	3.53	Monopole	-	421429.53	4075018.32	-75.88094568	36.81776855
MAG_1181	X-08rev	4.27	-5.34	43.27	5.01	Monopole	-	421624.52	4074980.27	-75.87875574	36.81744175
MAG_1186	X-08rev	3.90	-6.32	12.10	4.88	Monopole	-	421659.65	4075005.14	-75.87836446	36.81766883
MAG_1188	X-08rev	3.66	10.52	2.25	3.00	Monopole	-	421672.08	4075001.50	-75.87822473	36.81763705
MAG_1192	X-07rev	4.07	-24.91	3.04	3.25	Dipole	-	421698.84	4074869.33	-75.87791112	36.81644793
MAG_1194	X-08rev	3.73	0.23	2.04	4.55	Dipole	-	421710.42	4074929.85	-75.87778753	36.8169944
MAG_1362	E-08	3.88	7.95	2.93	3.64	Dipole	SSS_E_030	424186.43	4073932.28	-75.84992981	36.80820425

[1] Projected coordinates are referenced to UTM Zone 18N, NAD83 (2011), meters.
[2] Geographical coordinates are referenced to NAD83.

APPENDIX 1
ARCHAEOLOGICAL RESOURCES MAPS FOR BLOCK E AND F CORRIDORS



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GRID NORTH

WMS: NOAA OCS, Esri, DeLorme, Esri, DeLorme, NaturalVue

MSR: 1:30,000

SRS: NAD 1983 2011 UTM Zone 18N Meter

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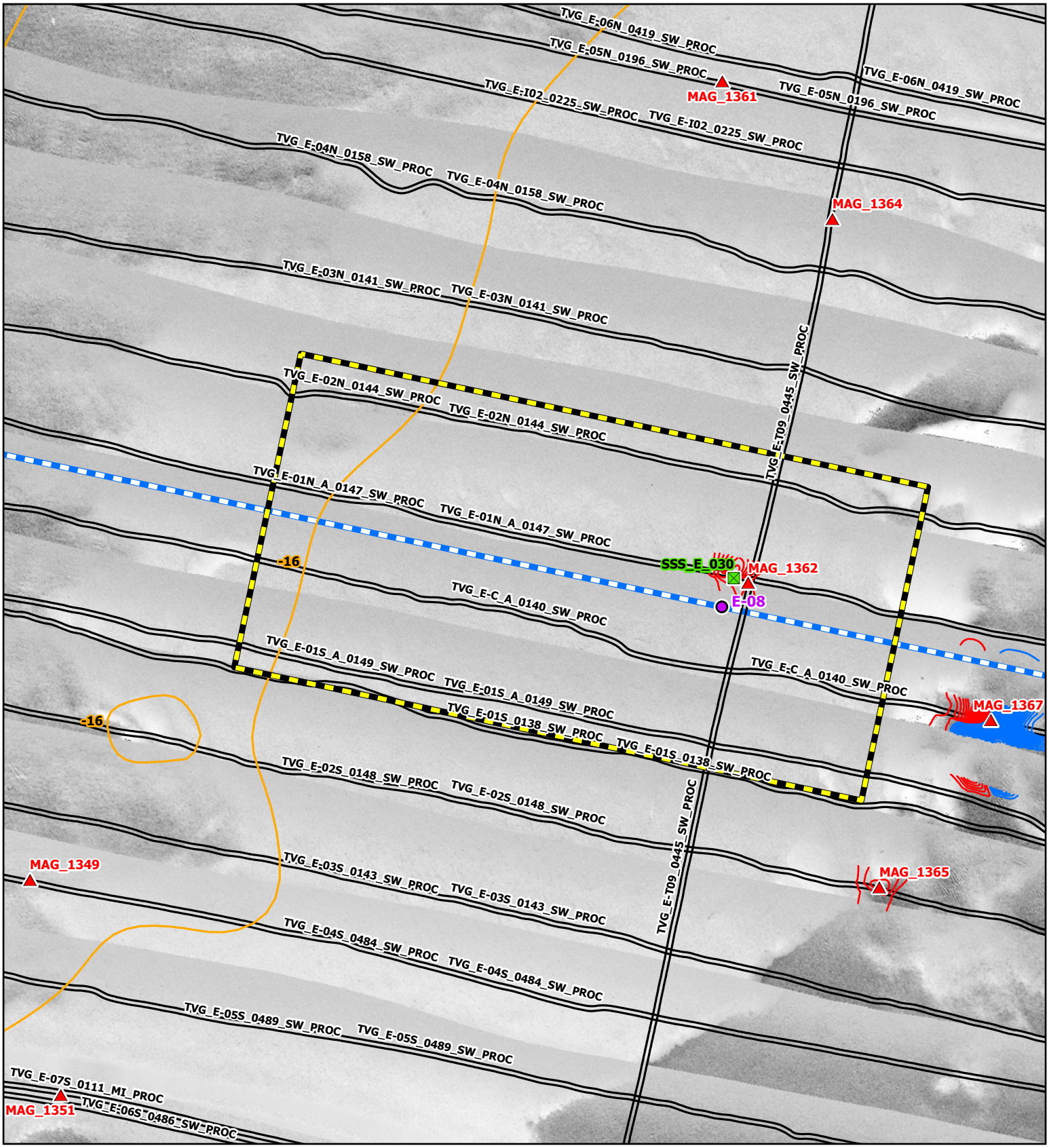
- Geotechnical Location
- ECR Centerline
- Dam Neck Ocean Disposal Site
- BOEM Lease Block
- Map Sheet Extent

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Index Map

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N
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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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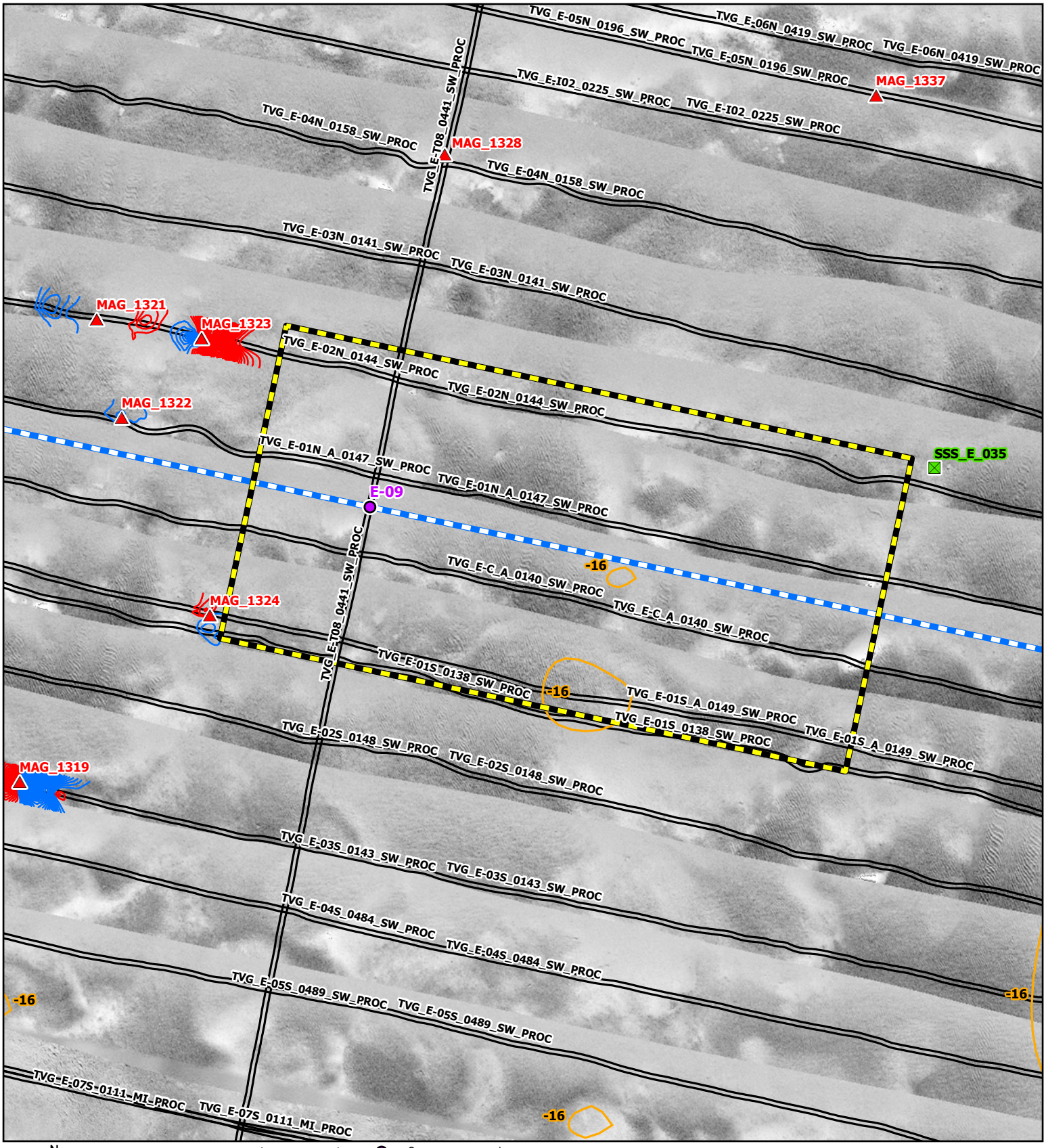
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (1 m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 1

E-08

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Side Scan Sonar Mosaic (2020, 0.25 m)
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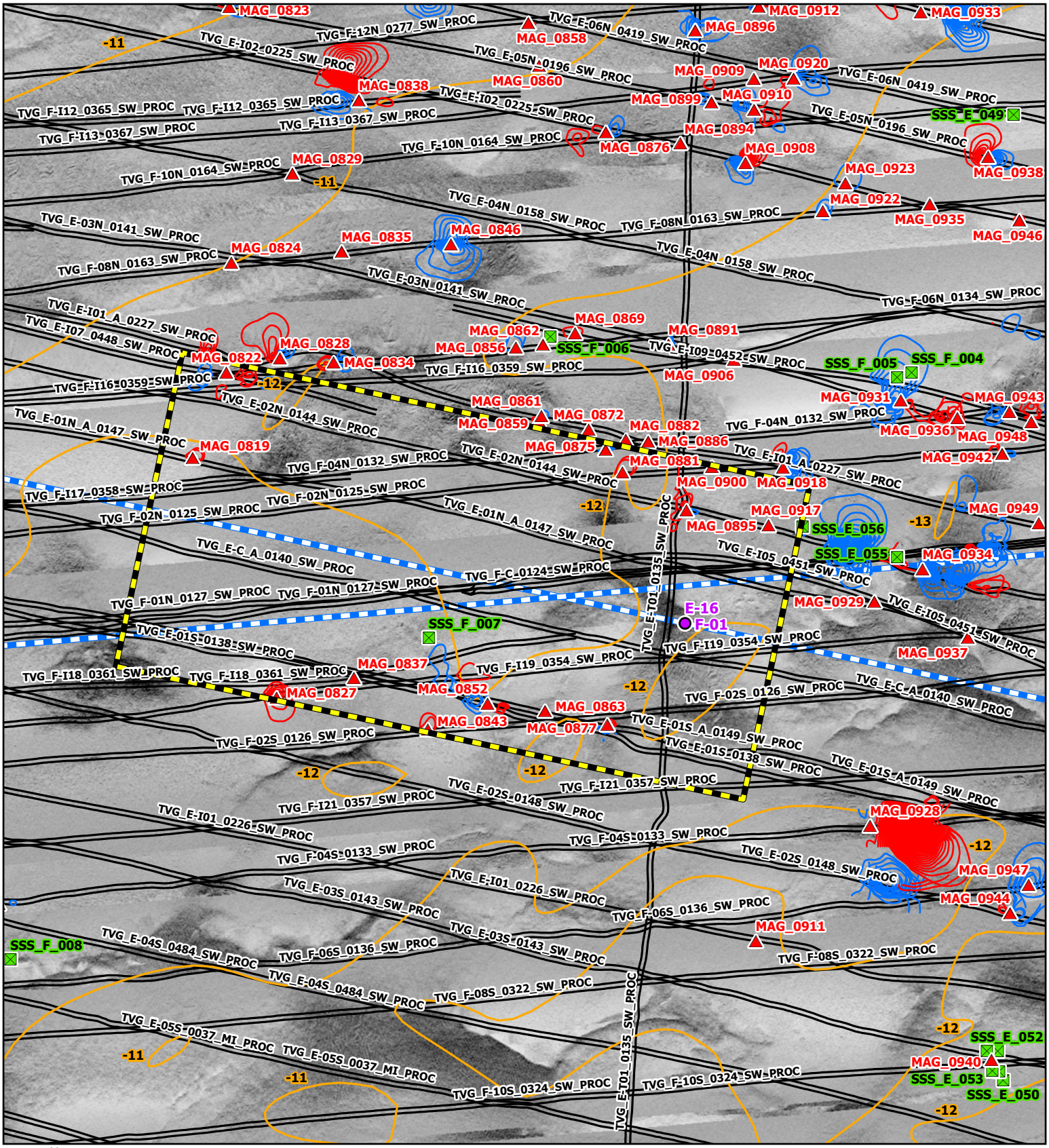
Geotechnical Location
Magnetic Anomaly
Side Scan Sonar Contact
ECR Centerline
Bathymetric Contour (1 m interval)
Trackline
Magnetic Contour (5 nT)
Negative
Positive
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 2

E-09

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Side Scan Sonar Mosaic (2020, 0.25 m)

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SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (1 m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

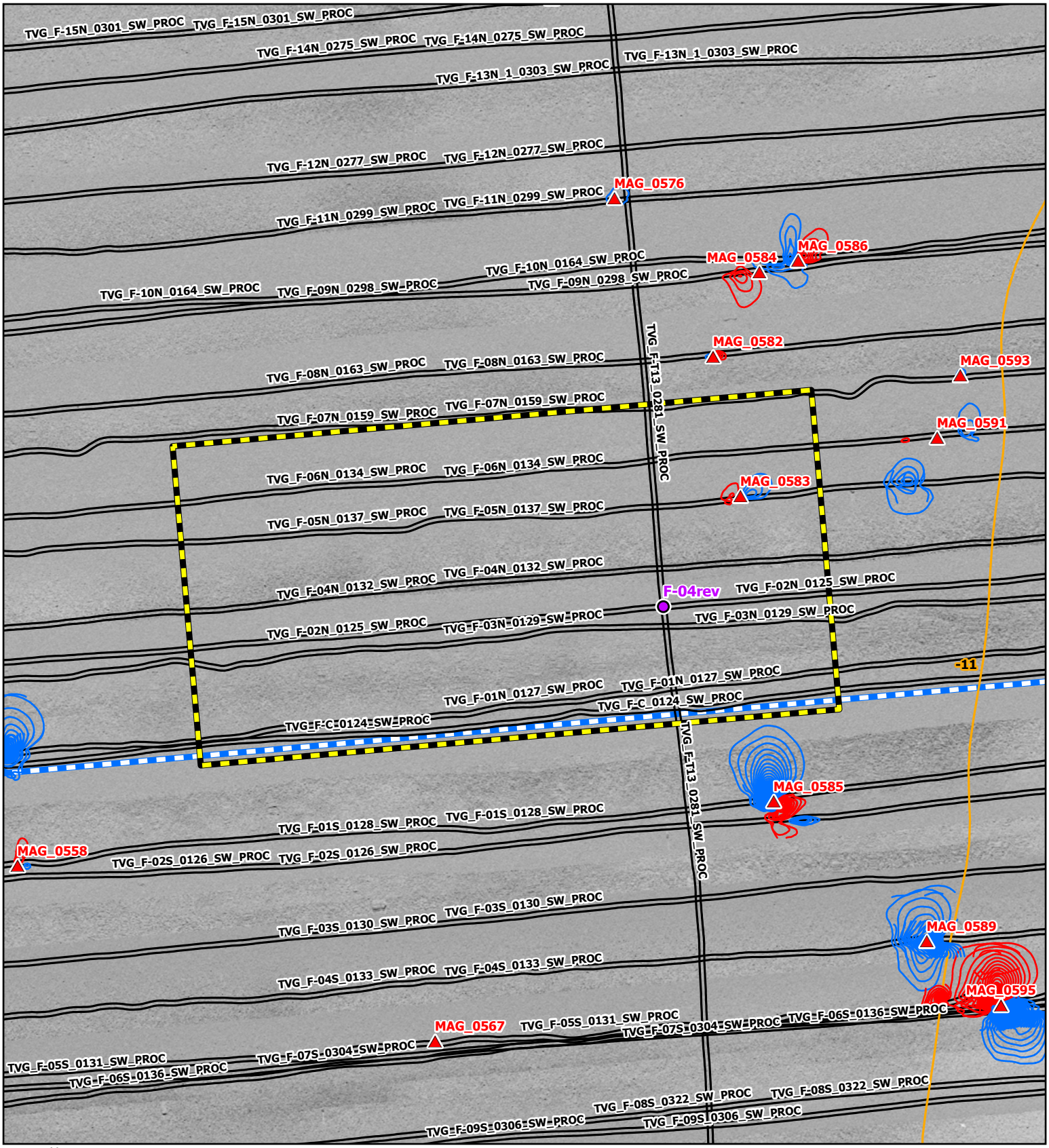
Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 3

E-16/F-01

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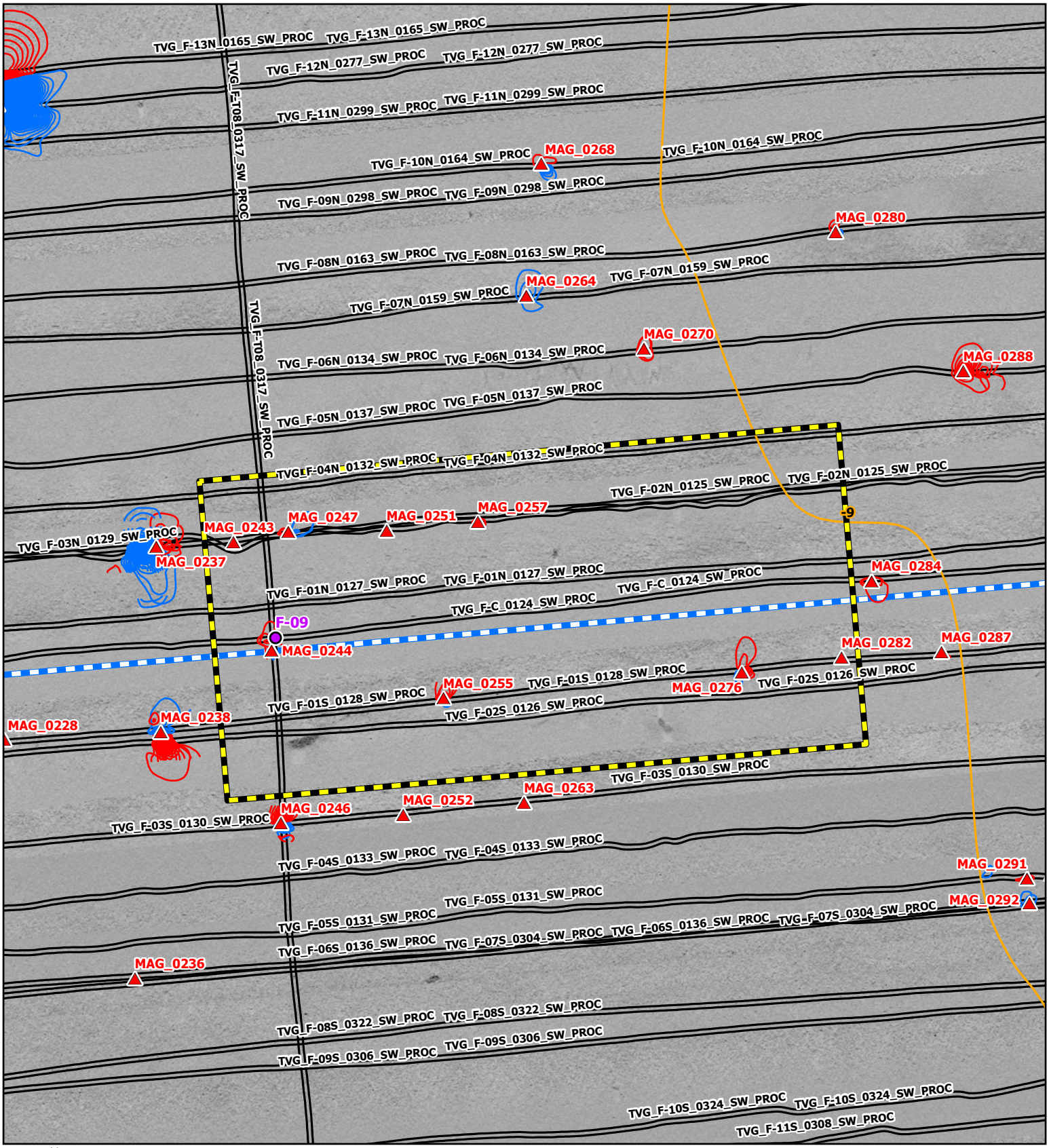
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Blocks E and F

Map: 4

F-04rev

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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (1 m interval)
- Trackline

Magnetic Contour (5 nT)

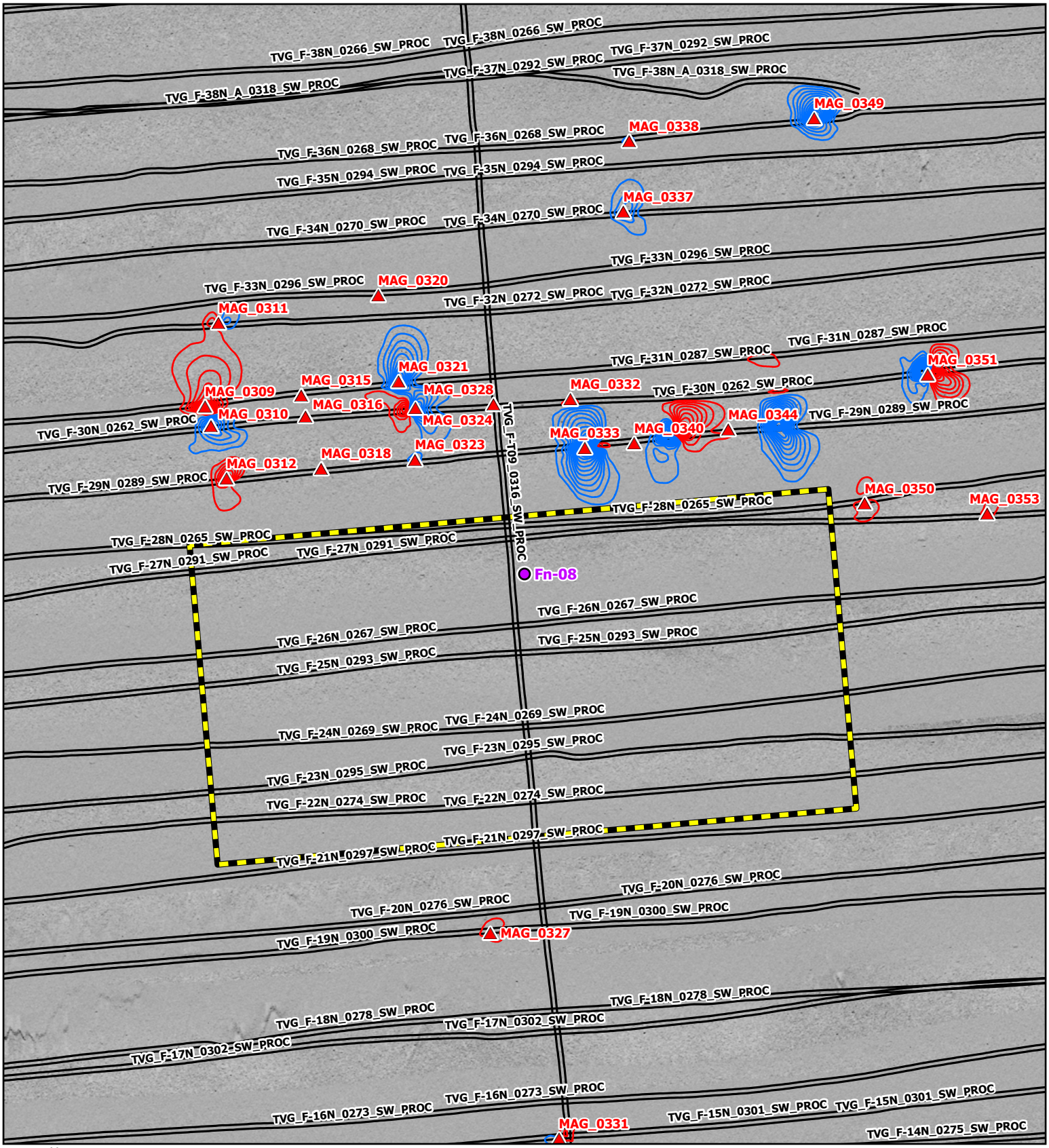
- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 5

F-09

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Side Scan Sonar Mosaic (2020, 0.25 m)

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SRS: NAD 1983 2011 UTM Zone 18N Meter

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- Geotechnical Location
- Magnetic Anomaly
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- ECR Centerline
- Bathymetric Contour (1 m interval)
- Trackline

Magnetic Contour (5 nT)

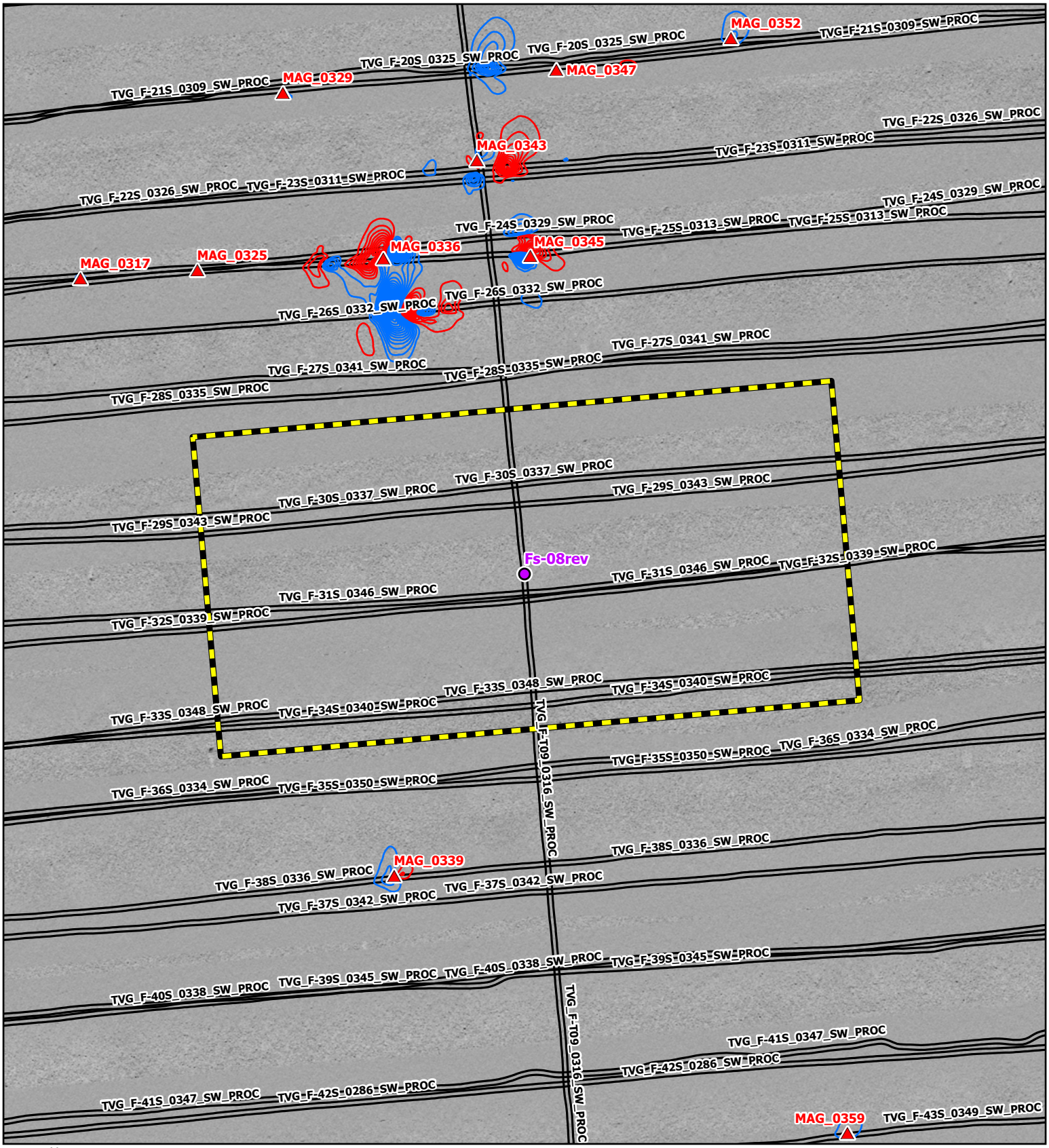
- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 6

Fn-08

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MARINE ARCHAEOLOGY FROM STEM TO STERN
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Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

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Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (1 m interval)
- Trackline

Magnetic Contour (5 nT)

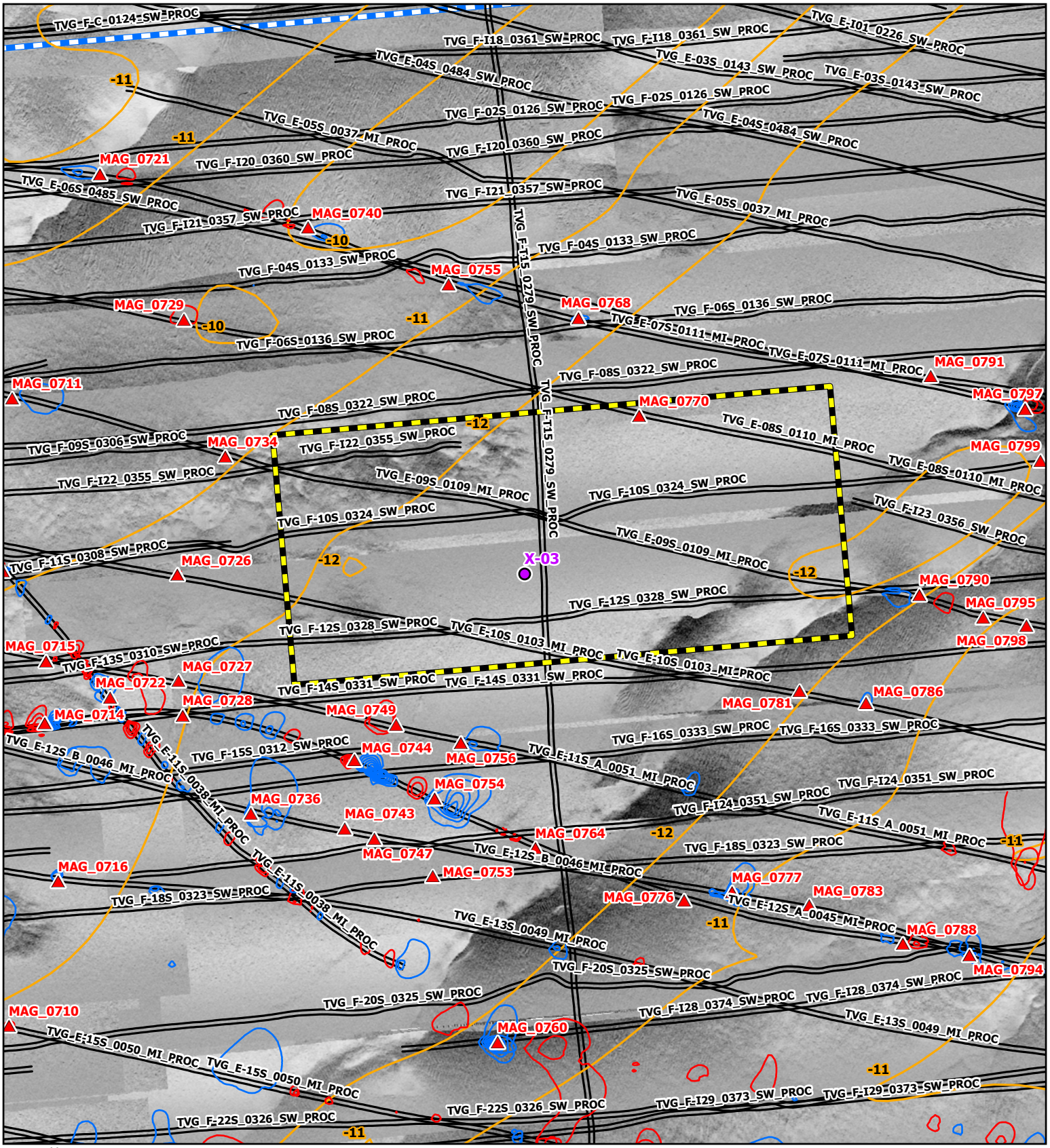
- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 7

Fs-08rev

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Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (1 m interval)
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive
- Analytical Area

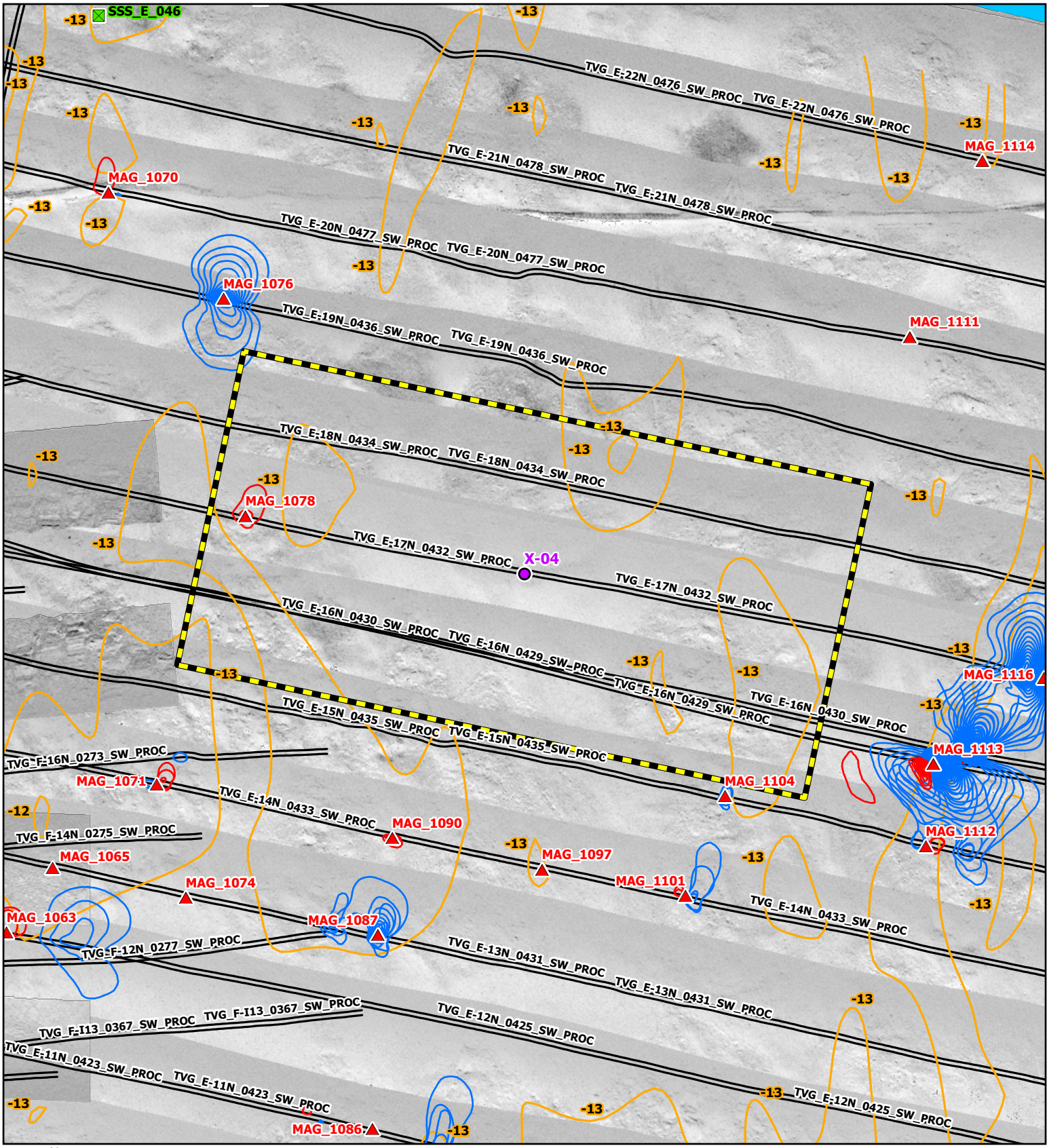
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Blocks E and F

Map: 8

X-03

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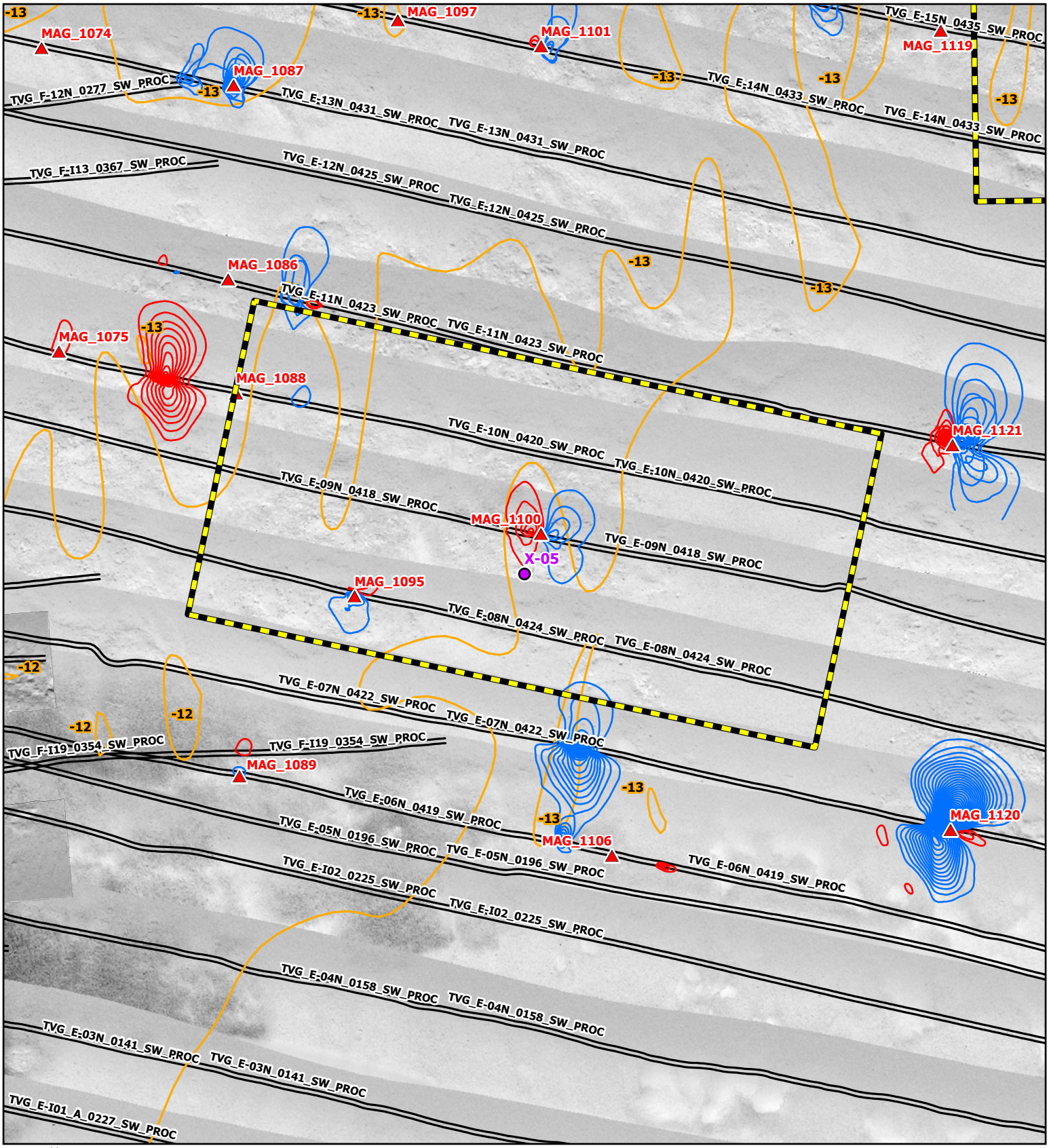
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Blocks E and F

Map: 9

X-04

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)
MSR: 1:1,600
SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (1 m interval)
- Trackline

Magnetic Contour (5 nT)
- Negative
- Positive

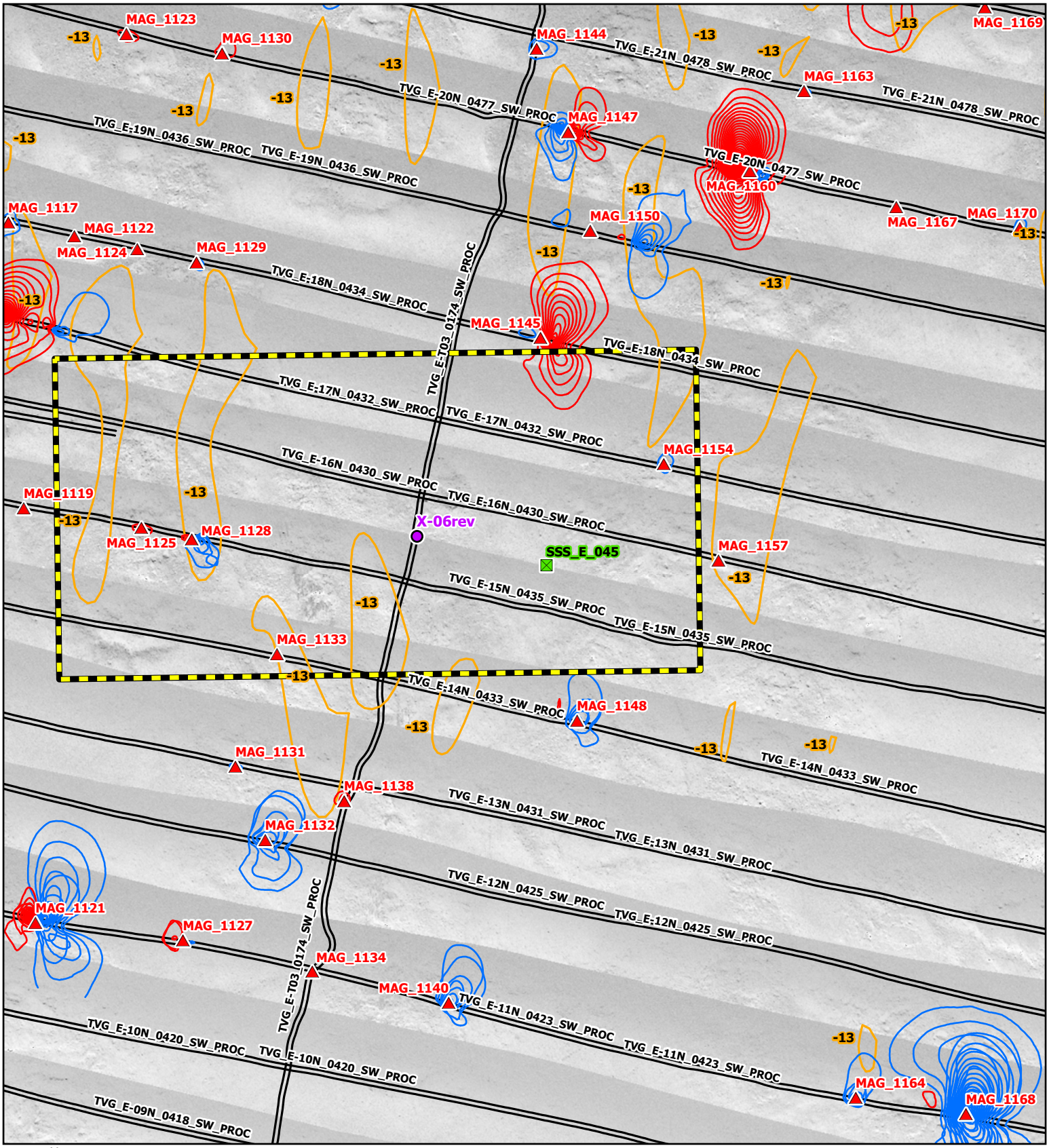
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)
Geotechnical Clearance: Blocks E and F

Map: 10

X-05

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

Geotechnical Location

Magnetic Anomaly

Side Scan Sonar Contact

ECR Centerline

Bathymetric Contour (1 m interval)

Trackline

Magnetic Contour (5 nT)

Negative

Positive

Analytical Area

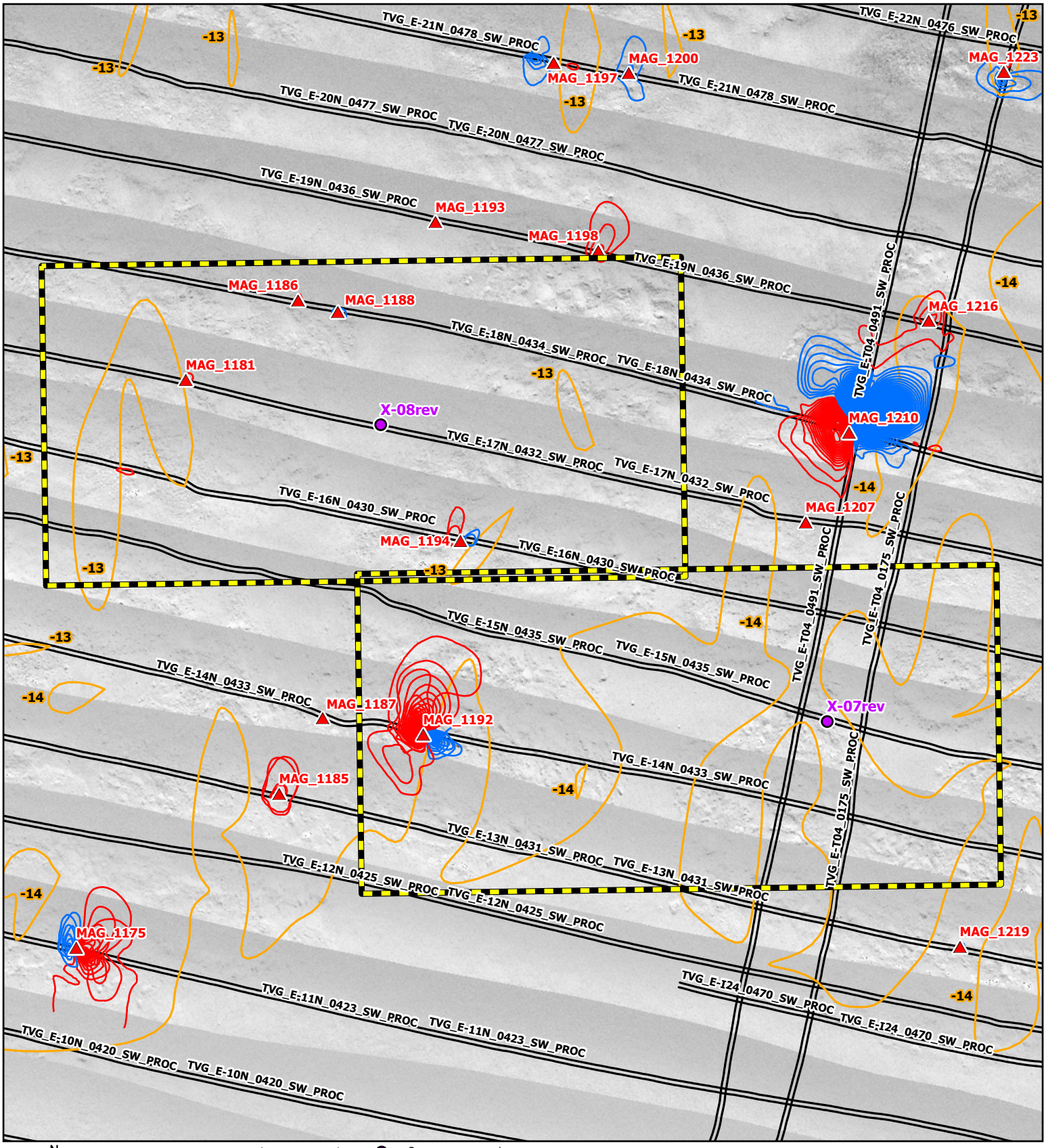
Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf, Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Blocks E and F

Map: 11

X-06rev

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N
W E
S
Grid North

Side Scan Sonar Mosaic (2020, 0.25 m)

MSR: 1:1,600

SRS: NAD 1983 2011 UTM Zone 18N Meter

0 25 50 75 100
Feet
0 10 20 30 40
Meters

- Geotechnical Location
- Magnetic Anomaly
- Side Scan Sonar Contact
- ECR Centerline
- Bathymetric Contour (1 m interval)
- Trackline

Magnetic Contour (5 nT)

- Negative
- Positive
- Analytical Area

Coastal Virginia Offshore Wind Commercial Project
Outer Continental Shelf,
Offshore Virginia (Lease No. OCS-A-0483)

Geotechnical Clearance: Blocks E and F

Map: 12

X-07rev, X-08rev

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APPENDIX 2
SEISMIC PROFILES

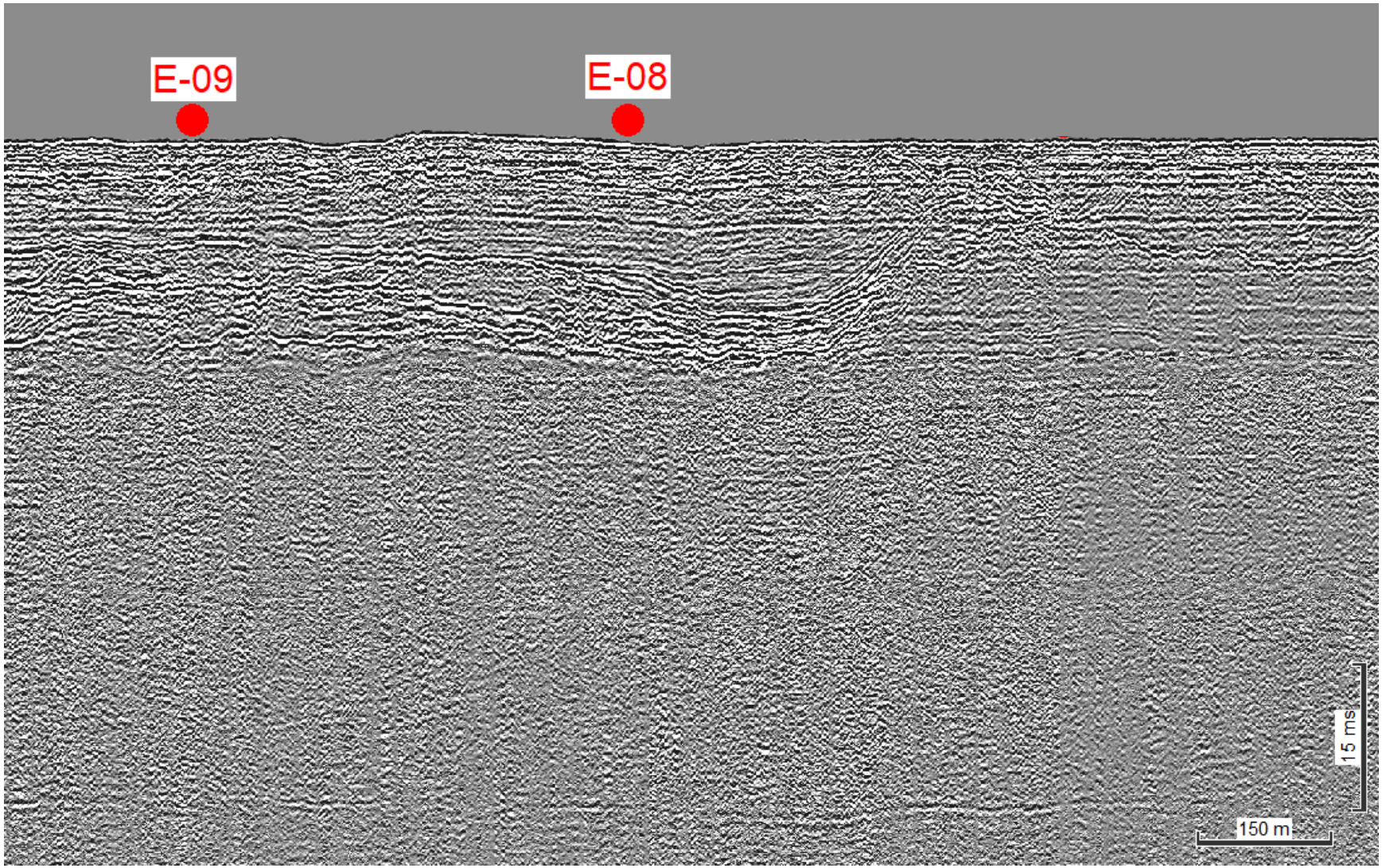


Figure 1: Proposed geotechnical locations E-09 and E-08 in ECR Corridor E along seismic line UHRS_140_E-C_A_Proc

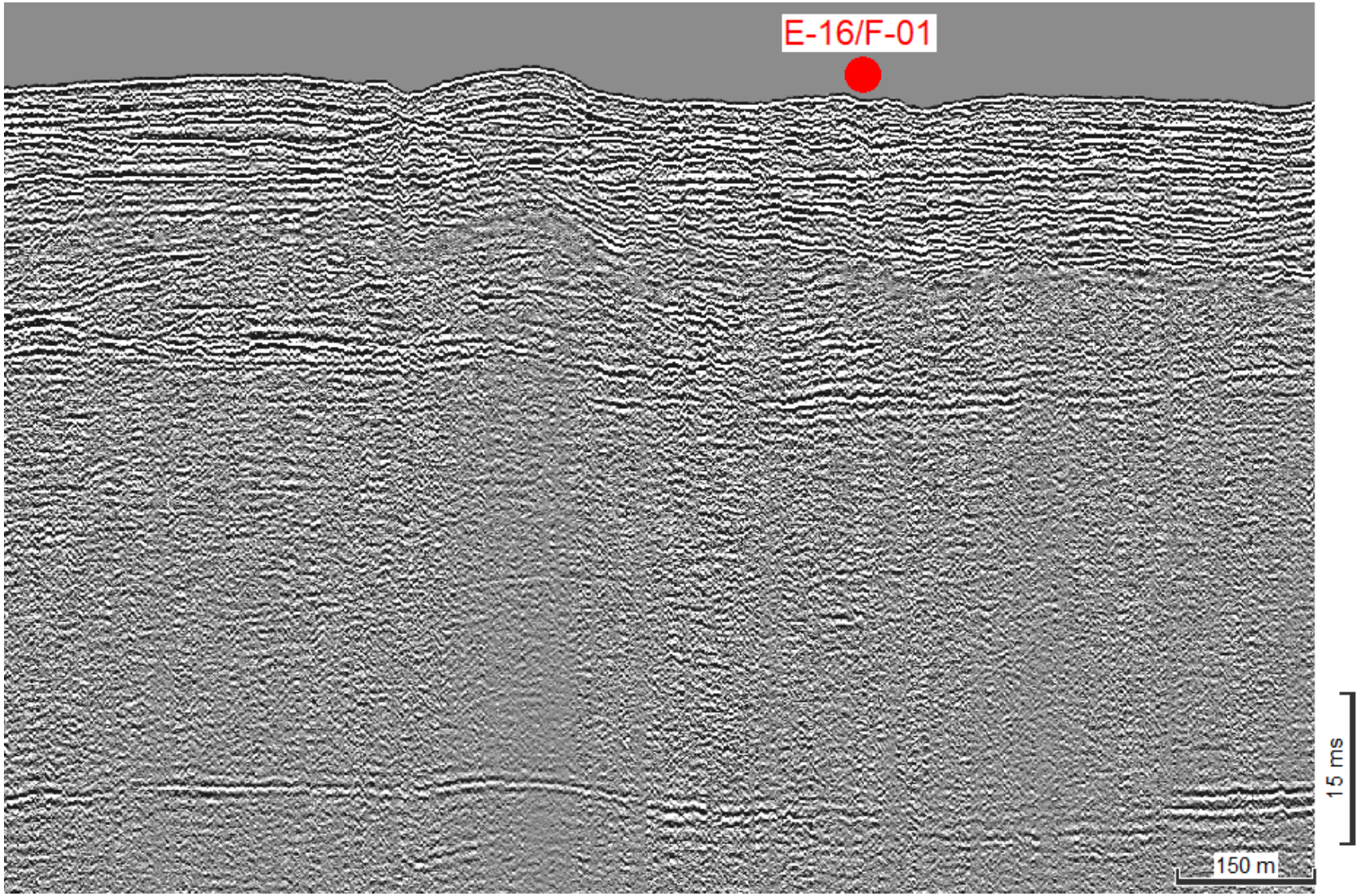


Figure 2: Proposed geotechnical locations E-16/F01 in ECR Corridor E along seismic line UHRS_124_F-C_Proc

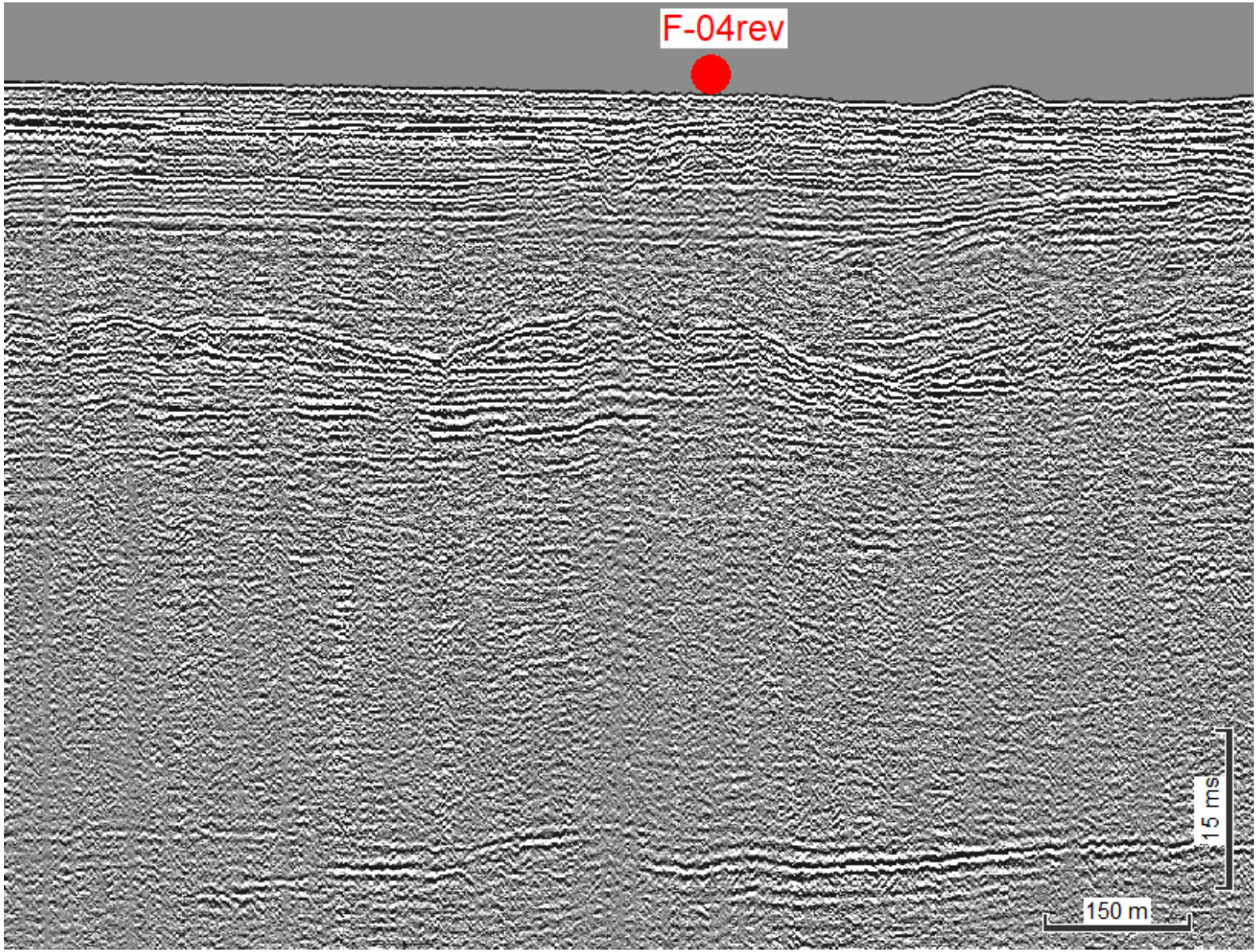


Figure 3:Proposed geotechnical locations F-04rev in ECR Corridor E along seismic line UHRS_124_F-C_Proc

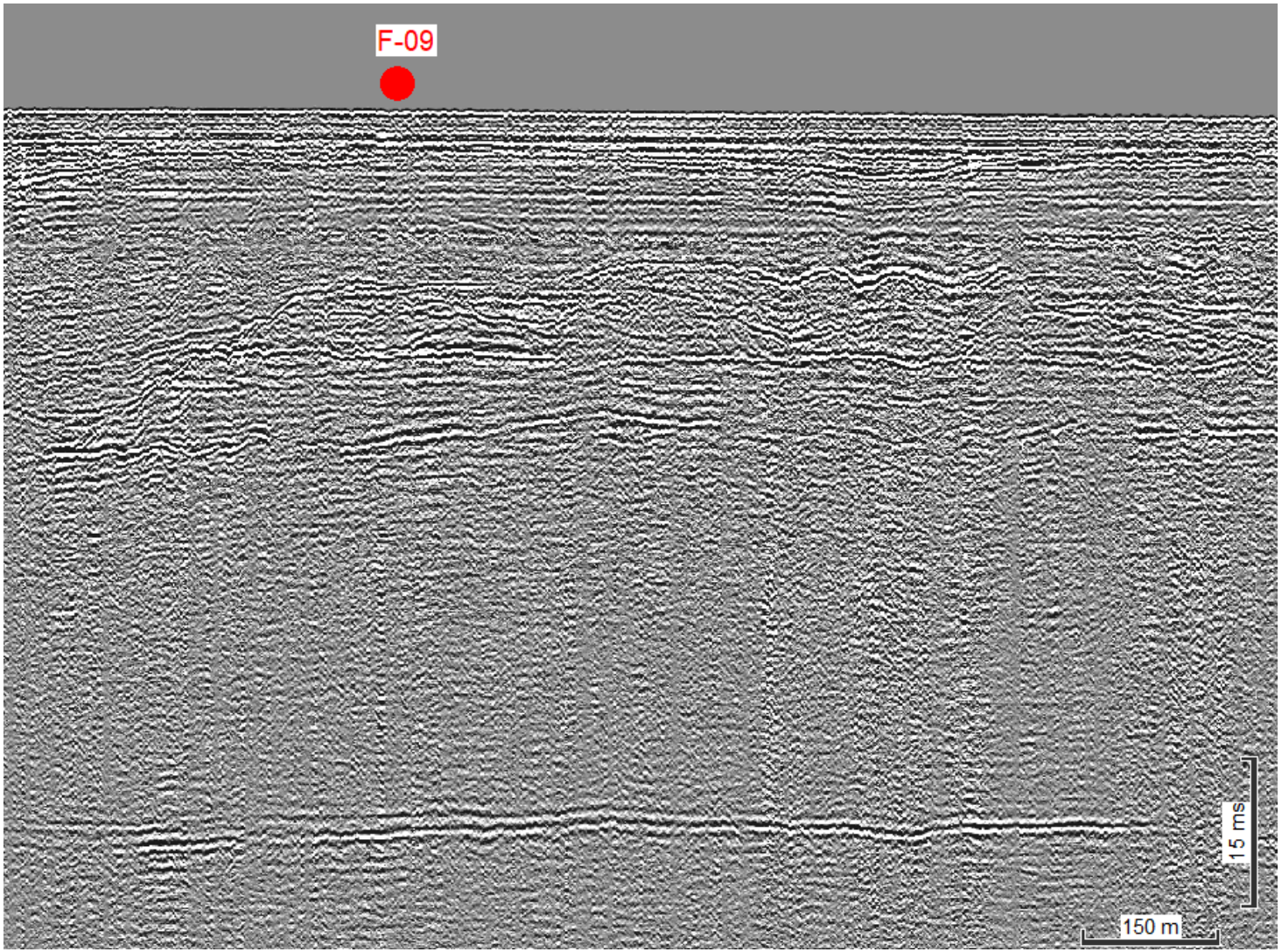


Figure 4: Proposed geotechnical locations F-09 in ECR Corridor E along seismic line UHRS_124_F-C_Proc

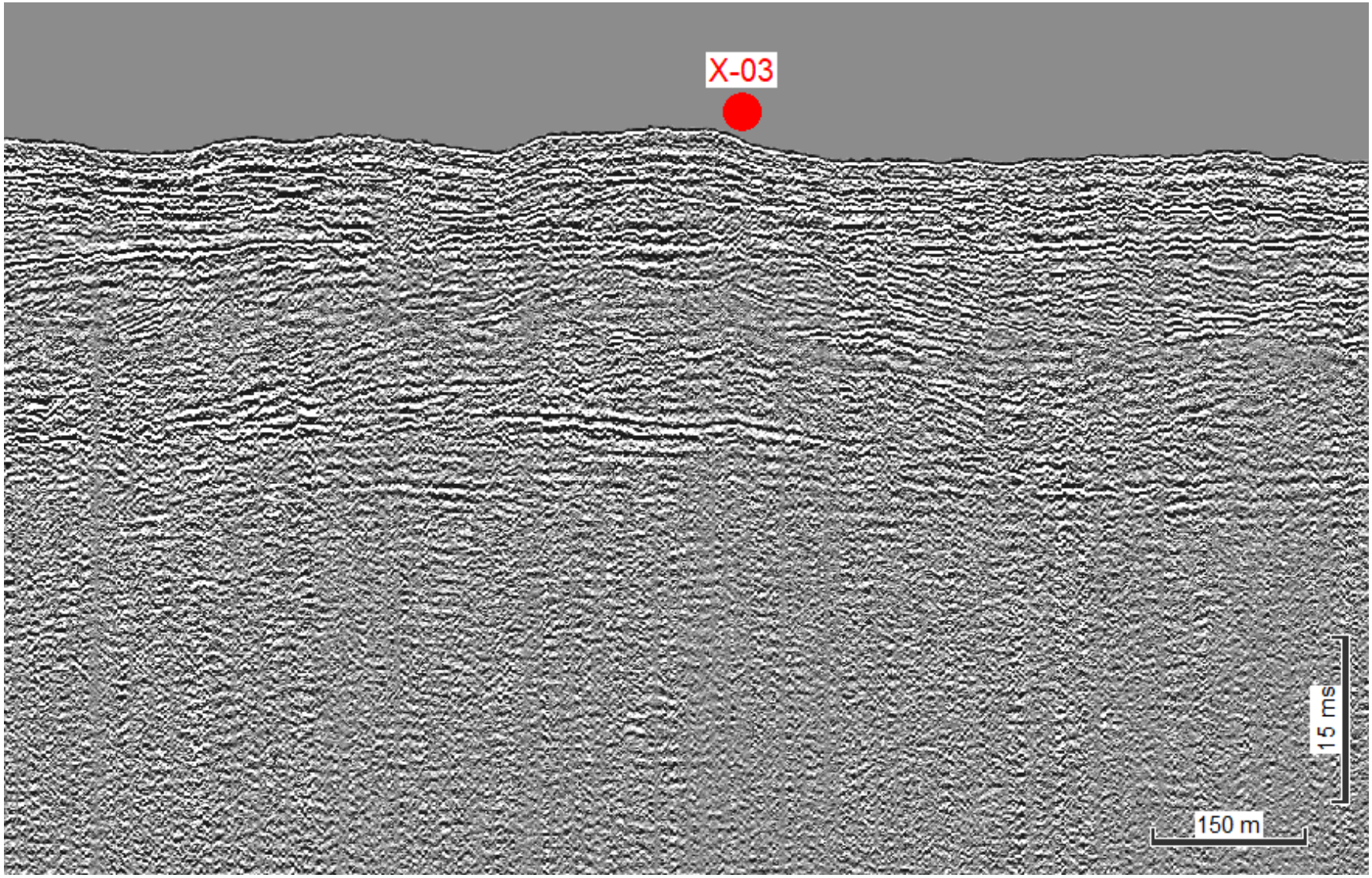


Figure 5: Proposed geotechnical locations X-03 in ECR Corridor E along seismic line UHRS_136_F-6S_Proc

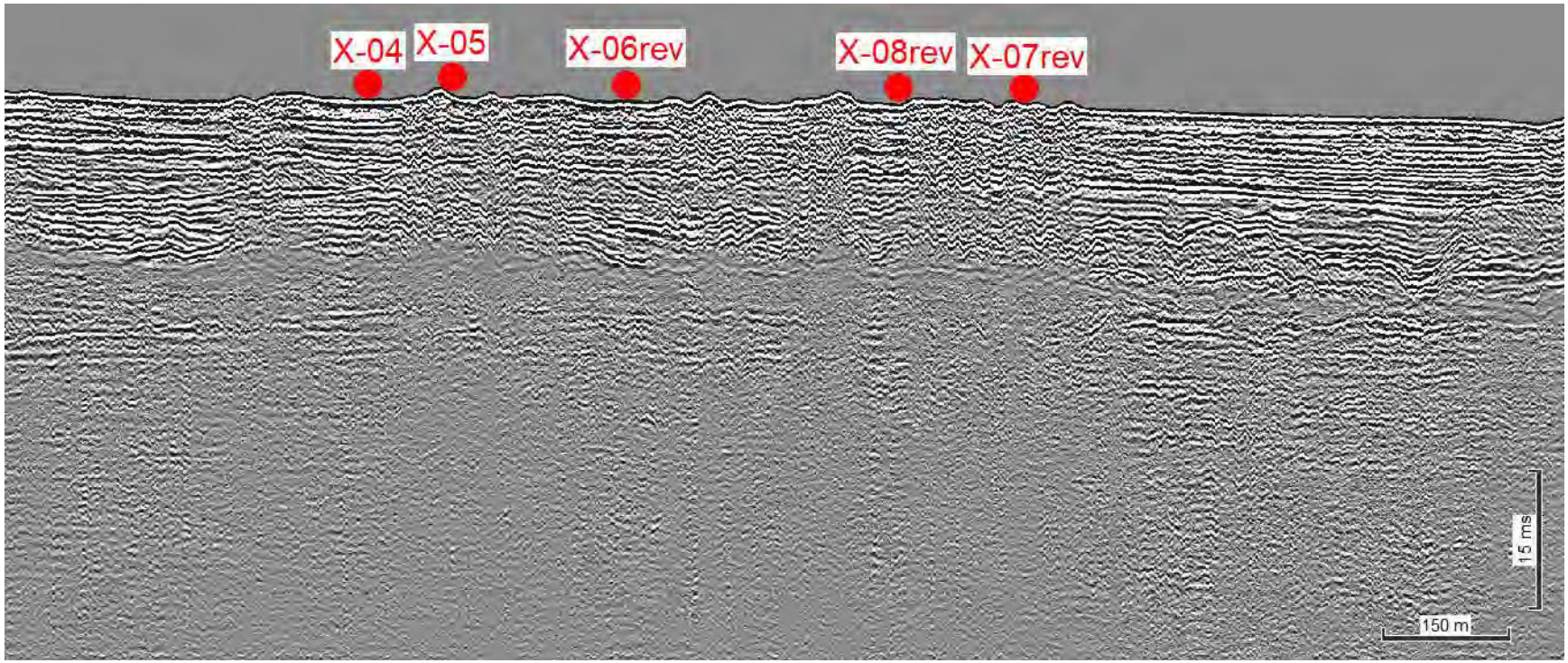


Figure 6: Proposed geotechnical locations X-04, X-05, X-06rev, X-07rev, and X-08rev in the ECR along seismic line UHRS_E-17N_SW_432_Proc_MLLW

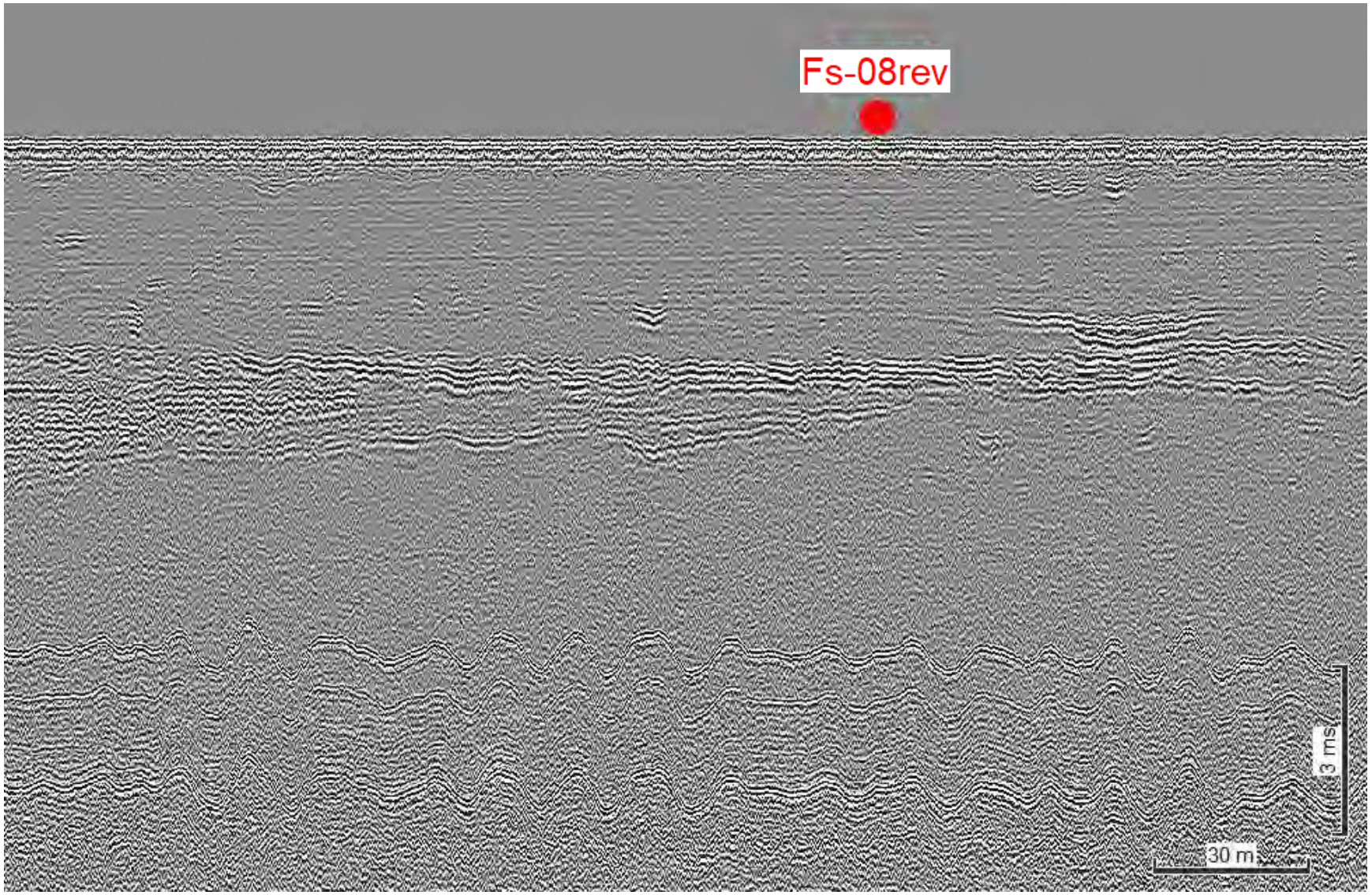


Figure 7: Proposed geotechnical location Fs-08rev in ECR Corridor E along seismic line SPB_F-27S_SW_341_PROC1_MLLW

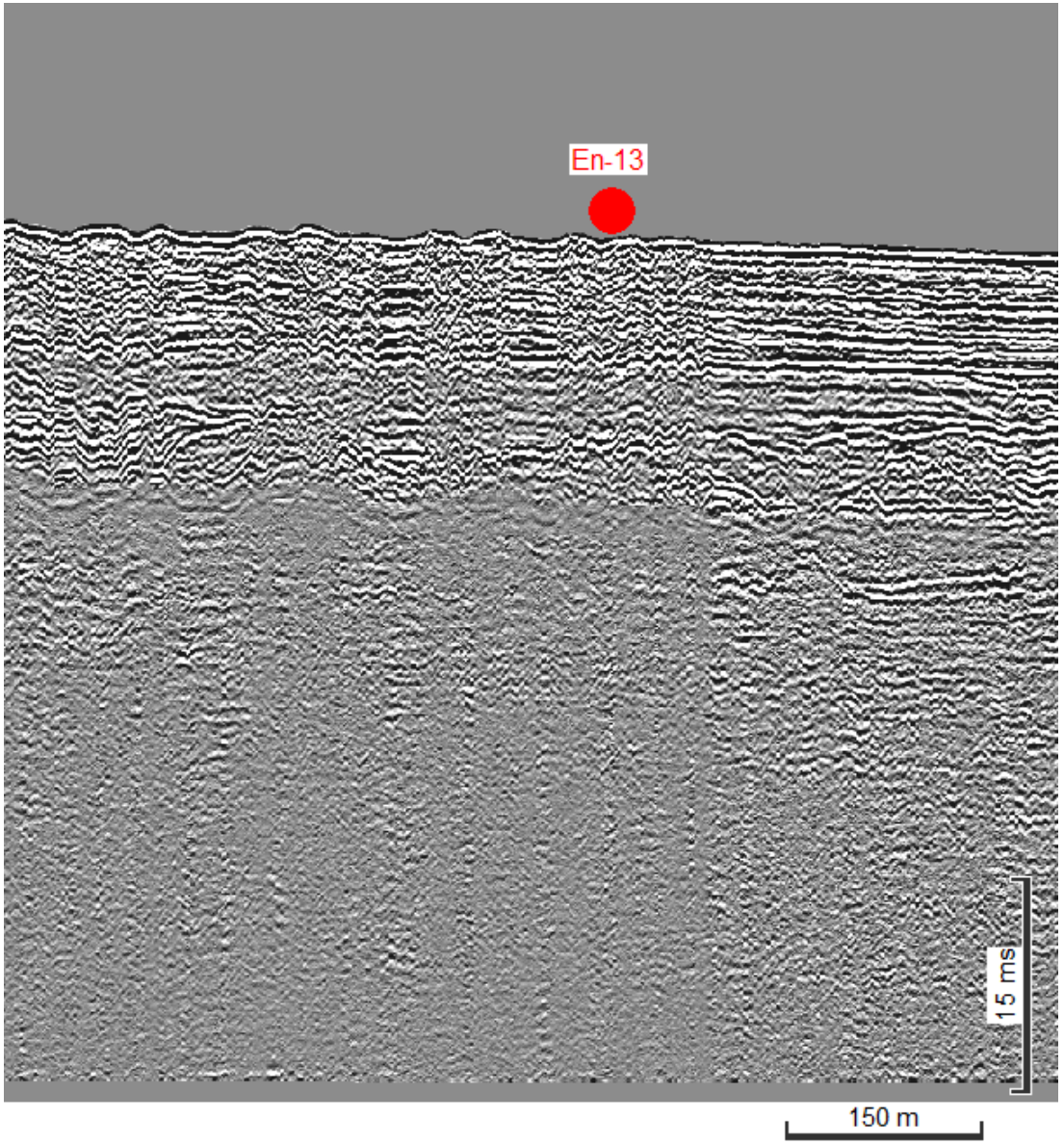


Figure 8: Proposed geotechnical location En13 in ECR Corridor E along seismic line UHRS_E-14N_SW_433_Proc_MLLW