

Exola DAC



**Application for Approval to Conduct a Seabed Debris
Clearance, Environmental Baseline and Habitat Assessment
Site Survey**

Document Number: BAR-PGE-A1002

Introduction

Exola DAC, a wholly owned subsidiary of Providence Resources P.l.c. (hereafter referred to as 'Exola') is proposing to conduct a site survey within the Barryroe licence area (SEL 1/11); situated in the North Celtic Sea Basin approximately 43 kilometres (km) south east of the closest coastline at Ballymacshoneen, Butlerstown North, County Cork on the south coast of Ireland.

The site survey will comprise a seabed and shallow geophysical survey and an environmental baseline and habitat assessment survey to be conducted over three survey areas, encompassing four potential well locations, within two separate survey vessel activity areas at the Barryroe location, as illustrated in Figure 1, together with a single environmental control point approximately 10 kilometers to the east-southeast. The two survey vessel activity areas cover a total area of approximately 99 km² (25 km² and 74 km² respectively) and allow for a 1 km buffer around the survey areas within which the survey vessel may manoeuvre during line turns and during equipment deployment and recovery.

The key aims of the surveys are to:

- Accurately determine water depths and provide information on depth of sediments overlying chalk bedrock and to identify and map any chalk exposures;
- Provide information on seabed and sub seabed conditions to ensure the safe emplacement and operation of a semi-submersible drilling rig at four proposed well locations;
- Provide information on the cultural potential of the survey area, including the location of any shipwrecks or other underwater cultural heritage features;
- Assess the survey area for the presence of any Annex 1 habitats (as defined in the EC Habitats Directive 92/43/EC);
- Obtain environmental baseline samples across the survey area to establish a benchmark for ongoing environmental monitoring as per OSPAR guidelines.

A pre-survey fishery assessment, an Environmental Risk Assessment (EIA Screening) and an Appropriate Assessment Screening and Natura Impact Statement accompany this application.

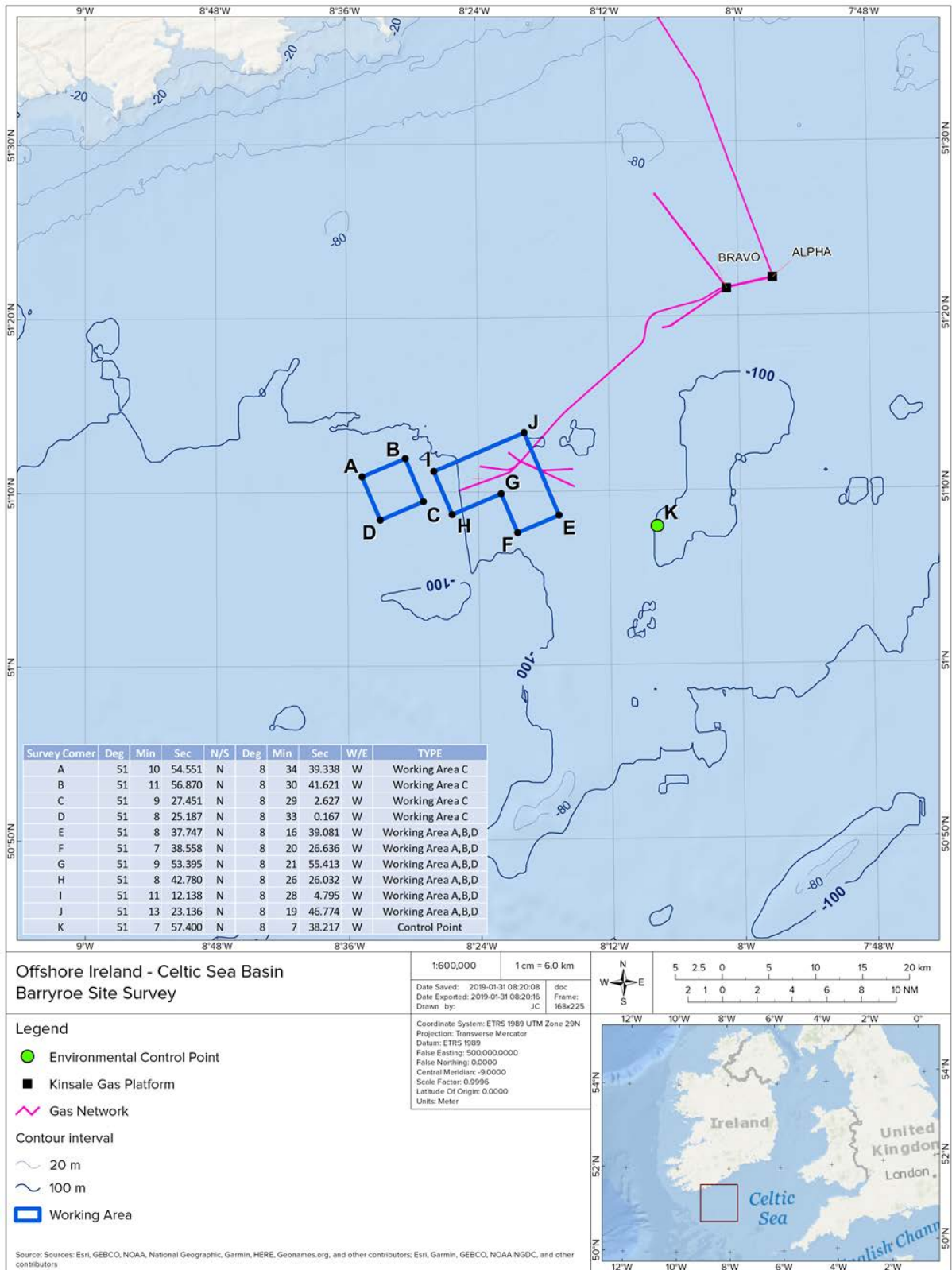


Figure 1: Proposed survey area.

Application Information

Ref.	Information Required	Survey Information
A	Name of Operator	Exola DAC, a wholly owned subsidiary of Providence Resources Plc.
B	Identification of the authorisation under which the survey is being conducted.	Petroleum Prospecting Licence 3/16 (PPL 3/16) Standard Exploration Licence 1/11 (SEL 1/11)
C	Type of survey and details of work to be undertaken.	<p>1. A geophysical acoustic survey will be conducted using the following geophysical tools:</p> <ul style="list-style-type: none"> • side scan sonar, • single-beam echosounder, • multi-beam echosounder, • pinger sub-bottom profiler • USBL, • magnetometer. <p>It is expected that the geophysical equipment will provide the required data for habitat assessment, an archaeological assessment of the site, as well as confirming the site does not have non-archaeological debris or hazards.</p> <p>The side scan sonar and magnetometer will be towed behind the survey vessel. The echosounders and pinger will be hull mounted. The USBL will be utilised to confirm the precise location of underwater equipment.</p> <p>2. A habitats assessment and environmental baseline survey will be conducted at each site survey area. Any potentially sensitive habitats identified from anomalies on the geophysical survey data will be investigated using high-resolution video or camera stills. Seabed samples will also be taken using a day corer, box corer or dual Van Veen grab, as appropriate, with sampling stations defined by the number of habitats delineated from the geophysical data, or in the absence of different habitats a standard cruciform pattern centred on potential future well locations. Provisional well locations are identified as Well A, B, C & D on figure 2, but are subject to change. These samples will be analysed to provide information on benthic faunal community</p>

			<p>composition and physico-chemical characteristics of the sediments.</p> <p>A habitat assessment and environmental baseline sampling location will also be taken outside of the primary site survey area, up to 10km to the ESE, to be used as a control point. As shown on Figure 2.</p>
D	Planned date of start of survey and estimated duration.		<p>Operations are currently scheduled to take place sometime from 1st April 2019 to 30th November 2019, subject to regulatory approval and vessel availability. If the survey has not commenced within this timeframe, the operations will be undertaken sometime between 1st February 2020 and 30th November 2020, again subject to regulatory approval and vessel availability.</p> <p>The anticipated duration of the site surveys is approximately 16 days per site survey area (approximately 6 days for the geophysical survey and approximately 10 days for the environmental survey). These estimates exclude port calls, transit and potential weather delays.</p>
E	Location of Survey (Lat, Long & Maps)		<p>Refer to Appendix A for Map and Tables of the proposed line layout and sample locations.</p> <p>Please note, the environmental and habitat assessment locations provided are schematic – based on a standard cruciform pattern centred on potential future well locations. This is likely to be updated during the survey to sample habitats delineated from the geophysical data.</p> <p>Please note, the line plans are provisional and subject to change for operational reasons.</p>
F	The positioning systems to be used for the survey.		<p>All records obtained will use the ETRS89 co-ordinate system for reporting.</p> <p>Positioning systems will include-</p> <ul style="list-style-type: none"> Differential Global Positioning System (DGPS) Dynamic Positioning (DP) system

			<p>Integrated Automation System (IAS). Utilising Starfix HP / XP & Starpack (primary & secondary); Seapath 200; Kongsberg SDP-21 (DP Class II).</p> <p>Equipment includes: 2 x Furuno FAR series, Robertson AP9 MkIII autopilot, SG Brown meridian gyrocompass</p>
G	Name and address of contractor performing the survey		<p>Gardline Limited Endeavour House Admiralty Road Great Yarmouth Norfolk, NR30 3NG, UK.</p>
H	Data and records expected to be obtained from the survey		<p>Marine Mammal Observer Report High resolution bathymetry Side Scan Sonar Single and Multi-beam Echosounder Pinger Sub-bottom profiler Seabed sediment samples Magnetic response High Resolution Video and Camera stills</p>
I	<p>In the case of seismic operations:</p> <p>i. Type of energy source(s) to be used.</p> <p>ii. Length and configuration of seismic cable(s), depth at which cable(s) are maintained, speed when towing and what radar-reflector-</p>		<p>Seismic data will not be acquired.</p> <p>For the geophysical survey the energy sources that will be used are:</p> <ul style="list-style-type: none"> • Side Scan Sonar, • Single-Beam Echosounder, • Multi-Beam Echosounder, • Pinger Sub-Bottom Profiler, • USBL. <p>Not applicable - Seismic Cable not required.</p>

	<p>supporting tail buoys are to be used.</p> <p>iii. An Environmental Risk Assessment (EIA Screening) of the proposed activity in relation to the sensitivities of marine mammals in the area of the proposed operations outlining specific impact mitigation and monitoring practices that will be applied during the survey in relation to marine mammals.</p> <p>iv. Appropriate assessment (Appropriate Assessment Screening and Natura Impact Statement) of the likely significant effects of a planned seismic survey on Natura 2000 sites within the survey area.</p> <p>v. An underwater Archaeological Assessment and interpretation of the marine geophysical survey data acquired</p>		<p>Attached, document number P1223-04-01, February 2019</p> <p>Attached, document number P1229-04-01, February 2019</p> <p>An underwater Archaeological Assessment will be conducted using the geophysical data acquired.</p>
J	<p>In the case of shallow borehole or seabed sampling operations</p> <p>i. Sample identification – quadrant, block and</p>		<p>No shallow boreholes are being acquired.</p>

	<p>chronological number.</p> <p>ii. Water Depth at location; proposed total depth; drilling programme; anticipated drilling problems.</p> <p>iii. Geological objectives; depths and Two-Way-Times; evaluation and analytical programme.</p> <p>iv. Other specific information as may be requested by DCCAÉ.</p>		<p>Seabed sampling for environmental baseline will follow guidelines on sample identification.</p> <p>Water depth over the survey area is predicted to be 100 metres. No shallow boreholes are being acquired; therefore, no drilling is taking place and a drilling programme and anticipated problems are not applicable.</p> <p>Seabed sampling will be conducted at various locations within the survey and analysed for environmental baseline and habitat assessment. Locations will be dependent upon geophysical data and video/camera.</p> <p>N/A</p>
K	<p>Details of the marine vessel being used in the survey</p>		<p>MV Kommandor Multi-role Survey Vessel IMO No. 8517205 Call Sign MCJO2 MMSI No. 232013164</p> <p>Full details are provided on the “Marine Vessel Details” table below.</p>
L	<p>The names of the persons under whose direct supervision survey operations are to be carried out:</p> <p>i. In the Operator’s office.</p>		<p>Fergus Roe Operations Manager Providence Resources Plc Airfield House, Airfield Park Donnybrook, Dublin, D04 CP49</p> <p>Tel: +353 (0)1 219 4074 Fax: +353 (0)1 219 4006 E-mail: froe@providenceresources.com</p>

	ii. In the Contractor's office.		Gardline Project Manager Tel: +44 1493 845 600 (Office)
	iii. On the survey vessel		Gardline Party Chief Tel: +44 1493 236 049 (V-Sat)

MARINE VESSEL DETAILS		
(i)	Name of vessel	MV Kommandor*
(ii)	Radio Call Sign	MCJO2 (IMO No. 8517205)
(iii)	General description of the survey vessel	MV Kommandor is a multi-role survey DP Class II vessel, under Lloyd's Register classification. She has berths for 44 crew and has labs, offices, mess, lounge, media room facilities and a hospital.
(iv)	Flag, port of registry and owner's name and address	Flag: UK Port: Lowestoft Owner: Gardline Shipping Limited, Endeavour House, Admiralty Road, Great Yarmouth, Norfolk, NR30 3NG, UK.
(v)	Length and usual maximum draught	Length: 68.5m / Beam: 11.5m / Draught: 4.1m / GRT: 1,573
(vi)	Main engine I.H.P. and normal maximum	2 x Cummins KTA19-D(M1) 2 x Cummins KTA38-G3
(vii)	Type and power of bow thruster units, if fitted	2 x Brunvoll 368 kW tunnel thrusters
(viii)	Name of the Society under which the vessel is classed	Lloyd's Register
(ix)	Description of radio communication equipment	V-Sat KU Band, Iridium Pilot, Fleet 250, Emergency GMDSS Handhelds (A1-A3), Sat-C Telex.

* EXOLA reserves the right to seek approval for an alternative equivalent vessel should this become necessary as a result of scheduling requirements.

APPENDIX A

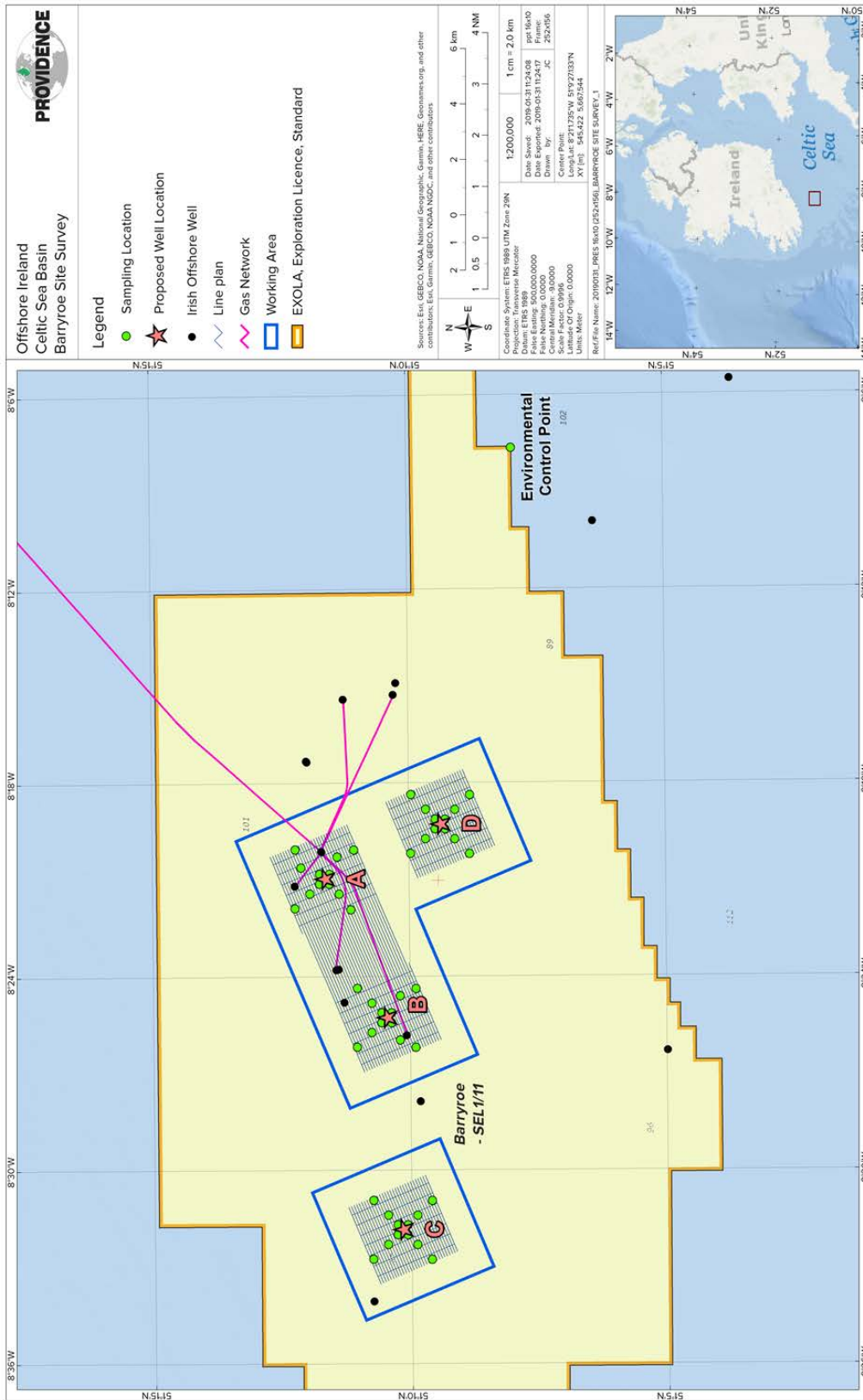


Figure 2: Provisional location of proposed survey lines and seabed samples. Provisional proposed future well locations identified as A, B, C & D.

Table 1: Provisional location of proposed seabed samples.

Site	Sample Name	X [m]	Y[m]	DDLon	DDLat	CRS
A	A01	545453.00	5671649.50	-8.349515	51.194446	ETRS89 / UTM zone 29N
A	A02	545629.78	5671826.28	-8.346963	51.196022	ETRS89 / UTM zone 29N
A	A03	545276.22	5671826.28	-8.352023	51.196050	ETRS89 / UTM zone 29N
A	A04	545276.22	5671472.72	-8.352067	51.192871	ETRS89 / UTM zone 29N
A	A05	545629.78	5671472.72	-8.347008	51.192843	ETRS89 / UTM zone 29N
A	A06	545858.00	5672498.00	-8.343611	51.202043	ETRS89 / UTM zone 29N
A	A07	544922.67	5672179.83	-8.357038	51.199257	ETRS89 / UTM zone 29N
A	A08	544922.67	5671119.17	-8.357171	51.189720	ETRS89 / UTM zone 29N
A	A09	546257.95	5671198.00	-8.338054	51.190322	ETRS89 / UTM zone 29N
A	A10	546513.66	5672710.16	-8.334200	51.203898	ETRS89 / UTM zone 29N
A	A11	544392.34	5672710.16	-8.364562	51.204067	ETRS89 / UTM zone 29N
A	A12	544357.65	5670698.00	-8.365307	51.185977	ETRS89 / UTM zone 29N
A	A13	546513.66	5670588.84	-8.334474	51.184824	ETRS89 / UTM zone 29N
B	B01	540457.00	5669400.60	-8.421263	51.174601	ETRS89 / UTM zone 29N
B	B02	540633.78	5669576.78	-8.418714	51.176172	ETRS89 / UTM zone 29N
B	B03	540280.22	5669576.78	-8.423772	51.176197	ETRS89 / UTM zone 29N
B	B04	540280.22	5669223.22	-8.423811	51.173018	ETRS89 / UTM zone 29N
B	B05	540633.78	5669223.22	-8.418754	51.172993	ETRS89 / UTM zone 29N
B	B06	540987.33	5669930.33	-8.413617	51.179326	ETRS89 / UTM zone 29N
B	B07	539926.67	5669930.33	-8.428790	51.179401	ETRS89 / UTM zone 29N
B	B08	539657.00	5668905.15	-8.432761	51.170202	ETRS89 / UTM zone 29N
B	B09	541257.00	5668905.15	-8.409876	51.170088	ETRS89 / UTM zone 29N
B	B10	541517.66	5670460.66	-8.405969	51.184056	ETRS89 / UTM zone 29N
B	B11	539396.34	5670460.66	-8.436319	51.184206	ETRS89 / UTM zone 29N
B	B12	539396.34	5668339.34	-8.436551	51.165132	ETRS89 / UTM zone 29N
B	B13	541517.66	5668339.34	-8.406214	51.164982	ETRS89 / UTM zone 29N
C	C01	532802.10	5668804.60	-8.530816	51.169732	ETRS89 / UTM zone 29N
C	C02	532978.78	5668981.78	-8.528273	51.171315	ETRS89 / UTM zone 29N
C	C03	532625.22	5668981.78	-8.533330	51.171335	ETRS89 / UTM zone 29N
C	C04	532625.22	5668628.22	-8.533362	51.168156	ETRS89 / UTM zone 29N
C	C05	532978.78	5668628.22	-8.528305	51.168136	ETRS89 / UTM zone 29N
C	C06	533332.33	5669335.33	-8.523183	51.174473	ETRS89 / UTM zone 29N
C	C07	532271.67	5669335.33	-8.538355	51.174534	ETRS89 / UTM zone 29N
C	C08	532271.67	5668274.67	-8.538450	51.164997	ETRS89 / UTM zone 29N
C	C09	533332.33	5668274.67	-8.523281	51.164936	ETRS89 / UTM zone 29N
C	C10	533862.66	5669865.66	-8.515547	51.179211	ETRS89 / UTM zone 29N
C	C11	531741.34	5669865.66	-8.545894	51.179333	ETRS89 / UTM zone 29N
C	C12	531741.34	5667744.34	-8.546082	51.160258	ETRS89 / UTM zone 29N
C	C13	533862.66	5667744.34	-8.515747	51.160136	ETRS89 / UTM zone 29N
D	D01	547458.00	5667474.60	-8.321375	51.156744	ETRS89 / UTM zone 29N
D	D02	547634.78	5667650.78	-8.318824	51.158314	ETRS89 / UTM zone 29N
D	D03	547281.22	5667650.78	-8.323879	51.158343	ETRS89 / UTM zone 29N
D	D04	547281.22	5667297.22	-8.323926	51.155164	ETRS89 / UTM zone 29N
D	D05	547634.78	5667297.22	-8.318871	51.155135	ETRS89 / UTM zone 29N
D	D06	547988.33	5668004.33	-8.313721	51.161463	ETRS89 / UTM zone 29N
D	D07	546927.67	5668004.33	-8.328889	51.161551	ETRS89 / UTM zone 29N
D	D08	546927.67	5666943.67	-8.329027	51.152014	ETRS89 / UTM zone 29N
D	D09	547988.33	5666943.67	-8.313863	51.151926	ETRS89 / UTM zone 29N
D	D10	548518.66	5668534.66	-8.306066	51.166187	ETRS89 / UTM zone 29N
D	D11	546397.34	5668534.66	-8.336404	51.166363	ETRS89 / UTM zone 29N
D	D12	546397.34	5666413.34	-8.336677	51.147289	ETRS89 / UTM zone 29N
D	D13	548518.66	5666413.34	-8.306352	51.147113	ETRS89 / UTM zone 29N
	Common Control Point	561062.76	5664934.33	-8.127286	51.132614	ETRS89 / UTM zone 29N

Table 2: Provisional location of proposed survey lines.

Start of Line X[m]	Start of Line Y[m]	End of Line X[m]	End of Line Y[m]	Start of Line DDLon	Start of Line DDLat	End of Line DDLon	End of Line DDLat	CRS
530835.25	5669599.26	533596.76	5670771.45	-8.558880	51.176987	-8.519266	51.187371	ETRS89 / UTM zone 29N
530874.32	5669507.21	533635.83	5670679.40	-8.558329	51.176157	-8.518716	51.186541	ETRS89 / UTM zone 29N
530913.39	5669415.16	533674.91	5670587.35	-8.557778	51.175327	-8.518165	51.185711	ETRS89 / UTM zone 29N
530952.47	5669323.11	533713.98	5670495.30	-8.557227	51.174497	-8.517615	51.184881	ETRS89 / UTM zone 29N
530991.54	5669231.06	533753.05	5670403.25	-8.556676	51.173667	-8.517065	51.184051	ETRS89 / UTM zone 29N
531030.61	5669139.01	533792.13	5670311.20	-8.556125	51.172838	-8.516514	51.183221	ETRS89 / UTM zone 29N
531069.68	5669046.96	533831.20	5670219.15	-8.555574	51.172008	-8.515964	51.182391	ETRS89 / UTM zone 29N
531108.76	5668954.91	533870.27	5670127.10	-8.555023	51.171178	-8.515414	51.181561	ETRS89 / UTM zone 29N
531147.83	5668862.86	533909.35	5670035.05	-8.554472	51.170348	-8.514863	51.180731	ETRS89 / UTM zone 29N
531186.90	5668770.81	533948.42	5669943.00	-8.553921	51.169518	-8.514313	51.179901	ETRS89 / UTM zone 29N
531225.98	5668678.76	533987.49	5669850.95	-8.553370	51.168688	-8.513763	51.179071	ETRS89 / UTM zone 29N
531265.05	5668586.71	534026.56	5669758.90	-8.552820	51.167859	-8.513212	51.178241	ETRS89 / UTM zone 29N
531304.12	5668494.65	534065.64	5669666.85	-8.552269	51.167029	-8.512662	51.177411	ETRS89 / UTM zone 29N
531343.20	5668402.60	534104.71	5669574.80	-8.551718	51.166199	-8.512112	51.176581	ETRS89 / UTM zone 29N
531382.27	5668310.55	534143.78	5669482.75	-8.551167	51.165369	-8.511562	51.175751	ETRS89 / UTM zone 29N
531421.34	5668218.50	534182.86	5669390.70	-8.550616	51.164539	-8.511012	51.174921	ETRS89 / UTM zone 29N
531460.42	5668126.45	534221.93	5669298.65	-8.550066	51.163709	-8.510461	51.174091	ETRS89 / UTM zone 29N
531499.49	5668034.40	534261.00	5669206.60	-8.549515	51.162879	-8.509911	51.173261	ETRS89 / UTM zone 29N
531538.56	5667942.35	534300.08	5669114.55	-8.548964	51.162050	-8.509361	51.172431	ETRS89 / UTM zone 29N
531577.64	5667850.30	534339.15	5669022.49	-8.548413	51.161220	-8.508811	51.171601	ETRS89 / UTM zone 29N
531616.71	5667758.25	534378.22	5668930.44	-8.547863	51.160390	-8.508261	51.170771	ETRS89 / UTM zone 29N
531655.78	5667666.20	534417.30	5668838.39	-8.547312	51.159560	-8.507711	51.169941	ETRS89 / UTM zone 29N
531694.85	5667574.15	534456.37	5668746.34	-8.546762	51.158730	-8.507161	51.169111	ETRS89 / UTM zone 29N
531733.93	5667482.10	534495.44	5668654.29	-8.546211	51.157900	-8.506611	51.168281	ETRS89 / UTM zone 29N
531773.00	5667390.05	534534.52	5668562.24	-8.545660	51.157070	-8.506061	51.167450	ETRS89 / UTM zone 29N
531812.07	5667298.00	534573.59	5668470.19	-8.545110	51.156240	-8.505511	51.166620	ETRS89 / UTM zone 29N
531851.15	5667205.95	534612.66	5668378.14	-8.544559	51.155410	-8.504961	51.165790	ETRS89 / UTM zone 29N
531890.22	5667113.90	534651.73	5668286.09	-8.544009	51.154581	-8.504411	51.164960	ETRS89 / UTM zone 29N
531929.29	5667021.85	534690.81	5668194.04	-8.543458	51.153751	-8.503861	51.164130	ETRS89 / UTM zone 29N
531968.37	5666929.80	534729.88	5668101.99	-8.542908	51.152921	-8.503311	51.163300	ETRS89 / UTM zone 29N
532007.44	5666837.75	534768.95	5668009.94	-8.542357	51.152091	-8.502761	51.162470	ETRS89 / UTM zone 29N
531111.40	5669716.48	532283.59	5666954.97	-8.554919	51.178026	-8.538398	51.153129	ETRS89 / UTM zone 29N
531479.60	5669872.77	532651.79	5667111.26	-8.549638	51.179411	-8.533120	51.154514	ETRS89 / UTM zone 29N
531847.80	5670029.06	533019.99	5667267.55	-8.544357	51.180796	-8.527841	51.155898	ETRS89 / UTM zone 29N
532216.00	5670185.36	533388.20	5667423.84	-8.539075	51.182181	-8.522561	51.157282	ETRS89 / UTM zone 29N
532584.21	5670341.65	533756.40	5667580.14	-8.533793	51.183565	-8.517282	51.158666	ETRS89 / UTM zone 29N
532952.41	5670497.94	534124.60	5667736.43	-8.528511	51.184949	-8.512002	51.160049	ETRS89 / UTM zone 29N
533320.61	5670654.23	534492.80	5667892.72	-8.523228	51.186333	-8.506722	51.161433	ETRS89 / UTM zone 29N
545491.15	5668269.26	548252.66	5669441.45	-8.349397	51.164050	-8.309749	51.174363	ETRS89 / UTM zone 29N
545530.22	5668177.21	548291.73	5669349.40	-8.348850	51.163219	-8.309202	51.173532	ETRS89 / UTM zone 29N
545569.29	5668085.16	548330.81	5669257.35	-8.348303	51.162388	-8.308655	51.172701	ETRS89 / UTM zone 29N
545608.37	5667993.11	548369.88	5669165.30	-8.347756	51.161557	-8.308109	51.171870	ETRS89 / UTM zone 29N
545647.44	5667901.06	548408.95	5669073.25	-8.347209	51.160726	-8.307563	51.171039	ETRS89 / UTM zone 29N
545686.51	5667809.01	548448.03	5668981.20	-8.346662	51.159896	-8.307016	51.170208	ETRS89 / UTM zone 29N
545725.58	5667716.96	548487.10	5668889.15	-8.346115	51.159065	-8.306470	51.169377	ETRS89 / UTM zone 29N
545764.66	5667624.91	548526.17	5668797.10	-8.345568	51.158234	-8.305923	51.168546	ETRS89 / UTM zone 29N
545803.73	5667532.86	548565.25	5668705.05	-8.345021	51.157403	-8.305377	51.167715	ETRS89 / UTM zone 29N
545842.80	5667440.81	548604.32	5668613.00	-8.344474	51.156572	-8.304830	51.166884	ETRS89 / UTM zone 29N
545881.88	5667348.76	548643.39	5668520.95	-8.343927	51.155741	-8.304284	51.166053	ETRS89 / UTM zone 29N
545920.95	5667256.71	548682.46	5668428.90	-8.343380	51.154911	-8.303738	51.165222	ETRS89 / UTM zone 29N
545960.02	5667164.65	548721.54	5668336.85	-8.342833	51.154080	-8.303191	51.164391	ETRS89 / UTM zone 29N
545999.10	5667072.60	548760.61	5668244.80	-8.342286	51.153249	-8.302645	51.163560	ETRS89 / UTM zone 29N
546038.17	5666980.55	548799.68	5668152.75	-8.341739	51.152418	-8.302099	51.162729	ETRS89 / UTM zone 29N
546077.24	5666888.50	548838.76	5668060.70	-8.341193	51.151587	-8.301553	51.161898	ETRS89 / UTM zone 29N
546116.32	5666796.45	548877.83	5667968.65	-8.340646	51.150756	-8.301006	51.161067	ETRS89 / UTM zone 29N
546155.39	5666704.40	548916.90	5667876.60	-8.340099	51.149926	-8.300460	51.160236	ETRS89 / UTM zone 29N
546194.46	5666612.35	548955.98	5667784.55	-8.339552	51.149095	-8.299914	51.159405	ETRS89 / UTM zone 29N
546233.54	5666520.30	548995.05	5667692.49	-8.339005	51.148264	-8.299368	51.158574	ETRS89 / UTM zone 29N
546272.61	5666428.25	549034.12	5667600.44	-8.338459	51.147433	-8.298822	51.157743	ETRS89 / UTM zone 29N

546311.68	5666336.20	549073.20	5667508.39	-8.337912	51.146602	-8.298275	51.156912	ETRS89 / UTM zone 29N
546350.75	5666244.15	549112.27	5667416.34	-8.337365	51.145771	-8.297729	51.156081	ETRS89 / UTM zone 29N
546389.83	5666152.10	549151.34	5667324.29	-8.336818	51.144941	-8.297183	51.155250	ETRS89 / UTM zone 29N
546428.90	5666060.05	549190.42	5667232.24	-8.336272	51.144110	-8.296637	51.154419	ETRS89 / UTM zone 29N
546467.97	5665968.00	549229.49	5667140.19	-8.335725	51.143279	-8.296091	51.153588	ETRS89 / UTM zone 29N
546507.05	5665875.95	549268.56	5667048.14	-8.335178	51.142448	-8.295545	51.152757	ETRS89 / UTM zone 29N
546546.12	5665783.90	549307.63	5666956.09	-8.334632	51.141617	-8.294999	51.151926	ETRS89 / UTM zone 29N
546585.19	5665691.85	549346.71	5666864.04	-8.334085	51.140786	-8.294453	51.151095	ETRS89 / UTM zone 29N
546624.27	5665599.80	549385.78	5666771.99	-8.333539	51.139955	-8.293907	51.150264	ETRS89 / UTM zone 29N
546663.34	5665507.75	549424.85	5666679.94	-8.332992	51.139125	-8.293361	51.149433	ETRS89 / UTM zone 29N
545767.30	5668386.48	546939.49	5665624.97	-8.345433	51.165081	-8.329030	51.140156	ETRS89 / UTM zone 29N
546135.50	5668542.77	547307.69	5665781.26	-8.340147	51.166457	-8.323747	51.141531	ETRS89 / UTM zone 29N
546503.70	5668699.06	547675.89	5665937.55	-8.334861	51.167833	-8.318463	51.142906	ETRS89 / UTM zone 29N
546871.90	5668855.36	548044.10	5666093.84	-8.329575	51.169208	-8.313179	51.144280	ETRS89 / UTM zone 29N
547240.11	5669011.65	548412.30	5666250.14	-8.324288	51.170583	-8.307895	51.145655	ETRS89 / UTM zone 29N
547608.31	5669167.94	548780.50	5666406.43	-8.319001	51.171958	-8.302610	51.147029	ETRS89 / UTM zone 29N
547976.51	5669324.23	549148.70	5666562.72	-8.313714	51.173332	-8.297325	51.148402	ETRS89 / UTM zone 29N
543486.15	5672444.16	546247.66	5673616.35	-8.377565	51.201745	-8.337890	51.212068	ETRS89 / UTM zone 29N
538490.15	5670195.26	546286.73	5673524.30	-8.449312	51.181882	-8.337343	51.211237	ETRS89 / UTM zone 29N
538529.22	5670103.21	546325.81	5673432.25	-8.448763	51.181051	-8.336795	51.210406	ETRS89 / UTM zone 29N
538568.29	5670011.16	546364.88	5673340.20	-8.448214	51.180221	-8.336248	51.209575	ETRS89 / UTM zone 29N
538607.37	5669919.11	546403.95	5673248.15	-8.447665	51.179391	-8.335700	51.208744	ETRS89 / UTM zone 29N
538646.44	5669827.06	546443.03	5673156.10	-8.447116	51.178560	-8.335153	51.207914	ETRS89 / UTM zone 29N
538685.51	5669735.01	546482.10	5673064.05	-8.446567	51.177730	-8.334605	51.207083	ETRS89 / UTM zone 29N
538724.58	5669642.96	546521.17	5672972.00	-8.446018	51.176900	-8.334058	51.206252	ETRS89 / UTM zone 29N
538763.66	5669550.91	546560.25	5672879.95	-8.445469	51.176069	-8.333511	51.205421	ETRS89 / UTM zone 29N
538802.73	5669458.86	546599.32	5672787.90	-8.444920	51.175239	-8.332963	51.204590	ETRS89 / UTM zone 29N
538841.80	5669366.81	546638.39	5672695.85	-8.444371	51.174409	-8.332416	51.203759	ETRS89 / UTM zone 29N
538880.88	5669274.76	546677.46	5672603.80	-8.443822	51.173578	-8.331869	51.202928	ETRS89 / UTM zone 29N
538919.95	5669182.71	546716.54	5672511.75	-8.443273	51.172748	-8.331322	51.202098	ETRS89 / UTM zone 29N
538959.02	5669090.65	546755.61	5672419.70	-8.442724	51.171918	-8.330774	51.201267	ETRS89 / UTM zone 29N
538998.10	5668998.60	546794.68	5672327.65	-8.442175	51.171087	-8.330227	51.200436	ETRS89 / UTM zone 29N
539037.17	5668906.55	546833.76	5672235.60	-8.441626	51.170257	-8.329680	51.199605	ETRS89 / UTM zone 29N
539076.24	5668814.50	546872.83	5672143.55	-8.441077	51.169426	-8.329133	51.198774	ETRS89 / UTM zone 29N
539115.32	5668722.45	546911.90	5672051.50	-8.440528	51.168596	-8.328586	51.197943	ETRS89 / UTM zone 29N
539154.39	5668630.40	546950.98	5671959.45	-8.439980	51.167766	-8.328038	51.197112	ETRS89 / UTM zone 29N
539193.46	5668538.35	546990.05	5671867.39	-8.439431	51.166935	-8.327491	51.196281	ETRS89 / UTM zone 29N
539232.54	5668446.30	547029.12	5671775.34	-8.438882	51.166105	-8.326944	51.195450	ETRS89 / UTM zone 29N
539271.61	5668354.25	547068.20	5671683.29	-8.438333	51.165275	-8.326397	51.194619	ETRS89 / UTM zone 29N
539310.68	5668262.20	547107.27	5671591.24	-8.437785	51.164444	-8.325850	51.193789	ETRS89 / UTM zone 29N
539349.75	5668170.15	547146.34	5671499.19	-8.437236	51.163614	-8.325303	51.192958	ETRS89 / UTM zone 29N
539388.83	5668078.10	547185.42	5671407.14	-8.436687	51.162783	-8.324756	51.192127	ETRS89 / UTM zone 29N
539427.90	5667986.05	547224.49	5671315.09	-8.436139	51.161953	-8.324209	51.191296	ETRS89 / UTM zone 29N
539466.97	5667894.00	547263.56	5671223.04	-8.435590	51.161123	-8.323662	51.190465	ETRS89 / UTM zone 29N
539506.05	5667801.95	547302.63	5671130.99	-8.435041	51.160292	-8.323115	51.189634	ETRS89 / UTM zone 29N
539545.12	5667709.90	547341.71	5671038.94	-8.434493	51.159462	-8.322568	51.188803	ETRS89 / UTM zone 29N
539584.19	5667617.85	547380.78	5670946.89	-8.433944	51.158631	-8.322021	51.187972	ETRS89 / UTM zone 29N
539623.27	5667525.80	547419.85	5670854.84	-8.433395	51.157801	-8.321474	51.187141	ETRS89 / UTM zone 29N
539662.34	5667433.75	542423.85	5668605.94	-8.432847	51.156971	-8.320927	51.186310	ETRS89 / UTM zone 29N
538766.30	5670312.48	539938.49	5667550.97	-8.445349	51.182917	-8.428885	51.158005	ETRS89 / UTM zone 29N
539134.50	5670468.77	540306.69	5667707.26	-8.440064	51.184297	-8.423603	51.159385	ETRS89 / UTM zone 29N
539502.70	5670625.06	540674.89	5667863.55	-8.434779	51.185677	-8.418320	51.160764	ETRS89 / UTM zone 29N
539870.90	5670781.36	541043.10	5668019.84	-8.429493	51.187057	-8.413037	51.162143	ETRS89 / UTM zone 29N
540239.11	5670937.65	541411.30	5668176.14	-8.424207	51.188437	-8.407753	51.163522	ETRS89 / UTM zone 29N
540607.31	5671093.94	541779.50	5668332.43	-8.418921	51.189816	-8.402470	51.164901	ETRS89 / UTM zone 29N
540975.51	5671250.23	542147.70	5668488.72	-8.413635	51.191195	-8.397186	51.166279	ETRS89 / UTM zone 29N
543762.30	5672561.38	544934.49	5669799.87	-8.373598	51.202778	-8.357167	51.177856	ETRS89 / UTM zone 29N
544130.50	5672717.67	545302.69	5669956.16	-8.368309	51.204155	-8.351880	51.179232	ETRS89 / UTM zone 29N
544498.70	5672873.96	545670.89	5670112.45	-8.363020	51.205531	-8.346593	51.180609	ETRS89 / UTM zone 29N
544866.90	5673030.26	546039.10	5670268.74	-8.357730	51.206908	-8.341305	51.181984	ETRS89 / UTM zone 29N
545235.11	5673186.55	546407.30	5670425.04	-8.352440	51.208284	-8.336017	51.183360	ETRS89 / UTM zone 29N
545603.31	5673342.84	546775.50	5670581.33	-8.347149	51.209660	-8.330729	51.184735	ETRS89 / UTM zone 29N
545971.51	5673499.13	547143.70	5670737.62	-8.341858	51.211036	-8.325441	51.186110	ETRS89 / UTM zone 29N

