Pr Pr C Le	roject name: roject numbe Sert name: N ocation: North	: UK-Norway NVDC Intercer: CB31 NorthConnect thern North Sea (Scotland	onnector / Norway)									Cable Pro	tection Ana							S	VNOR-	THEDN	CATHIE ASSOCIATES			
(RPLD9 Cont	(dor)	Constitution and Section (Section 2018) Substitution (Sect				Color Francelon Inval										Expected Geol	gy willhin Trenching Depth		Lower	e achieved, 5 - Depth Depth unlikey to	such sick Assessment weg. 3. Desight may be cycleved with landstone, C - point unlikely to be onlive and commands commands commands					
		from		To								Maximum gradient		Crossings on SCI, (ID' on-found by Environmented Designated Models) (Science to find)						Summary of Geology expected within assess	ed	Numbers indicate a Took rated only on the factors such	comment which applied offecting their self ability to penetrate as cost, speed etc she	es to all tools (althor mequally) s the seabed to ass ould be considered	ugh not necessar sessed depth. Off separately.	by
From	To .				Length [km]	Summary of Geology in upper Addition of Section (Sonal notes on shallow geology Sathymetr in sec yn beloe	range Seabed features 33 on MSII olignment chart survey centre-line (SCI)	Surface and subsurface boulder risk (surface boulder density (per 10 000m²) ⁶ Green:0-20/10/00m² Amber: 20-60/10 000m² Rect: >40/10 000m²	UKO Encounter Probability Green: Low (Sackground theat Item) Amber: Medium (Rackgroun freat Item) Red: High (Interfelia), munifors etc.)	* Maximum bedform helpht of potential mobile sediments foun in section*[m] d Green: <im &="" (ripples="" large="" ripple<br="">Amber 1-3m (Megaripples) Red: >3m (Sandwaves)</im>	Maximum gradient (survey centrie line) Green-cit? (i) Anther sit? to 45° (ii) Anther sit? to 45° (iii) Anther sit. (Maxistee shown in tracket it)	Rockfall and landslide sisk from Fjor side "(Highlight ad as potentially more critical)	Cossing up of CL (10° an dound by Levicemental Milectal (possible welca (Somoule Soldwar)) State (8° - Aulea 4 - Surtoca laid) 18' nead-one and-indef Soldwary care have controlled to the Cost (Soldwar) (Soldwar) (Soldwar) Special soldwar one she she cost (Soldwar) (Soldwar	Protection Level [Increase across of beclows to aclowering relative to mobile level.]		Samples in section	Sample route KP location Easing	Northing Tenchin deg (Target) protection allowence OD and surve	for product Consult logs for full detailed description. Where no present, CPT interpretation given.	Indicative VC sheaths/density (Lab / CPT data) of salts within	Jeffrencher (simultaneous/ post-log)	lay Plough Chain Ci (simultanea (oy)	Combine utler 10 Jet/Chol uu/ post- cuffing too (simultoneo post-los)	od Jet Assiste in Cobie But si [®] Plough [®] sus/ (simultaneou) post-kay)	ed didd a Tool-specific comments (o-f) Comments relevants multiple took (1-
		Easting Northin	ng Easting	Northing										Build droha in Fjord urknown.					5574	hiote that there may be differences with the geold used for the CBBA shipping assessment as that summarises the top 3m for anchoring assessmen purposes.	gy disested depm			post-log() post-lay)	
۰	0.11	212349 437761	5 21246	4377434	0.1	BEDROCE (HDD)	16 to 3	ıs			1	HDD					CPSVC A 001	LIVE BY LIVE SEE	6377204		ю	0				
0.1	-	212447 637763			0.75	SAND over dense SAND	24.5 10		۰	LOW	<0.2 (Imited creci)			Quecial protection area Social protection area	D 13		GP\$VC.A,003	1.277 213528	4378129	VC.A.,000 5 05.84 bity 54ND 1.56+1.5 v ery elly 54ND VC.A.,000 50.85 bity 54ND 1641 bity 54ND	CPSVC_A_001 Sand Dr 20-40% 0-1.5m	^	8 (c) 8 (c)	^	A/B (c)	pipinicistries iora may couse rais-cut elim piougin. (I lipsect increased chain-sear and possibly resolucion progress in sandy areas. piplancistrans and may couse ridd-cut
0.85	1.35	212467 437743	1 213566	4378141	0.5	SAND over dense SAND	28.5 to	40 Lorge Ropies KP: 1.336 - 1.346	•	LOW	0.7 (limited carecy)			appearage protection of the	C 08		GPSVC.A.SSM	3.374 215308	4279193		CPSVC_A_003 Sand Dr 405-075m Dr 305-075-1,0m	^ (A)	B (a) (3) B (c) (A(2)	A9 (a) (i)	in juvoju. [c] Epeci Evracuad chaîn-war and lossely reduced progress in handy area. [c] Epeci Evracuad chaîn-war and lossely reduced progress in handy area. [c] Epinosities enduced performance/tiks of lossel of pinosities in high interespit chaps.
1.25	37	212564 427816	a 215980	6379364	235	Veneer of SAND/GRAVEs over 0.5 4m CLAT over Till. SAND present under clayin some areas. (Clay medium to high strength)	40 to 3	High-dentity boulders +05% as +0.5min size Spoies 67: 1.465 - 2.000 2.581 - 2.000 2.169 - 3.452	۰	LOW	-02			pacing protection area white Learning 3.443,297m and resident dates 110	C GB					VC_A_SD4 ch-G_allim ally, very standy_GBANGL dare-Gala_finat_VC_ Mendium to High; shangth silly_CLAY	CPSVC_A_004 sity, very randy gravel 0- 0.elim Dr 5-605 0.el-0.lls Clay 75-110 kPa	C (b.a)	Ng (c) B/C (c	eg) R/C (c.g)	a (s)	teachers in reducinhigh shought day/RL. If Specif horseld date-was and specified specified by the producing and purpose in the producing specified by the producing specified by the producing specified by the producing specified by the producing specified
3.7	40 :	215583 a3793a	4 214245	6379758	0.77	Vinner of SAND/GRAVEL over 1- 2m CLAT over TILL, REPROCK outcrops, (Speech Clay resolute to light shength)	50 to	How of high density and runnerous boulders. 45% as a 5/3m in date. Report of 5 4500-4521 Hospitals EP date outcomes	260	LOW	0.5 (inhad area)			Security (Security Company) 99777 - 30, 300 - 304 - 309- 100, 100 - 40 - 400- 100, 100 - 40 - 400- 100 - 400 - 400- 100 - 400 - 400- 100 - 400 - 400- 100 -	C GB					section unamplied, expect day to be striken in character sample A, JOSA, with surficial gravel		C (5:g) (12.3) All	# (5) (5.23) #/C (c.g)	(1,23) A/C (c.g) (1)	2.24 B psj (12.3	periodia realizar partermonaria di locali anciano partermona di al locali anciano partermona di al locali anciano partermona di al locali periodi di locali di locali di locali periodi di locali di possibili periodi di locali di possibili periodi di locali di periodi di locali di locali di periodi periodi di periodi di periodi periodi di periodi
6.67	440 :	214245 437975	8 214349	4379035	0.13	Veneer of SAND/GRAVIL over 0.5 Ins CLAY over NL (Supect-clay of medium to high strength)	hallow bedrack KP 4.5 54 to	4.627 - 4.070	2040	LOW	0.3				C 0.8		VC 01-85-01	4.888 2145 <i>0</i>		Section uncompletel, expect clay to be similar in crosscoter sample A, (Dit, with sufficial grower)		C (6-(d) (1.3)	a political	i i forsi over letti	1.2) a p.) (1.2)	optivalism stacked performance and set of the ordinary option of the control option of the ordinary option of the control option of the ordinary option of the control option of the control option of the control option of the control option option option option and and and other control option option and option of the control option option option and option option option option option option and option option option option option option and option option option and option o
4.60	5.10	214348 437983	5 214487	4380193	0.50	Veneer of SAND/GEAVEL over NEL(Gupect RI/Cloy to be medium to high strength)	55 to	Numerout boulders <50% cre >6.75m in size. Rippies croil cope rippies 10°: 4.447 - 4.879	23-60	LOW	0.3				C 0.8					Sergie 61-65-61A only compiled surfacial 0.1m of GBA (Cobbie) promed in one bowel). It i predium to high elength cloyl or low to medium strength cloy expect	VEL ted.	8/C (d.0) (1.3)	A,G (1.3) B/C (5)	(1.3) BAC (6) (1.3	a (1.2)	com se a poverful jat trectore in medium treptor flycytimid candigrene ; gl all and catalone badden may impels badde gl all and catalone badden may impels badd badden and catalone badden processed blooders may be enabled and placence of blooders may be enabled and placence glovely endowed. g
5.1	5.75	216697 438019	9 217151	4300458	0.45	0.4-0.7m.GRAVEL or very grow ely SAND, over CLAY (Clay low- medium strength)	57 to		29-60	LOW	۰				C 08		OSVC01&0	ESO 3919	enegano mercen	emopouned not other unit to see.	and Medium dense sand and/o medium thength city	8/C (4g) (1)	AR (I) R/C (a)	in wellin	1) 6(1)	som site powerful jet terchorich medium therpful symbolic dipological gill sel and chash tolon may have geval terchoric symbolic dipological symbolic grovely readment.
575	14.20	217151 438045	a 223191	438x521	8.45	0.4-0.7m/GRAVEL or very growelly SAND, over CLAY (Clay low- medium strength)	59 to	Namerous bouldent (patchy from CP-9.5) - 455 or 9-1078 in situ. Spipier, K. Lorge Sippier EP- 4344 - 7.41 - 7.12 - 8899 - 895 - 10889 - 1122 - 11.94 - 1255 - 1.8571	23-60	LOW 5.75-59 MEDIUM 59-84 MISH 84 - 14:00	Q.S			10.544 Active coole (Bile progress)	C 0.8		CPSIVC 01-65-03	22210B	A16750	VC-01-05-02 9-03-Wey unanly CRAY-NL 1356-4-Vey low through CLAY 16-1-1 low 10-medium shreigh sandy CLAY VC-01-65-03 9-04-03-years Self-1 shreigh sandy CLAY 16-10-16-03 16-11 Self-10-16-03-03 16-11 Self-10-16-03 16-11 Self-10-03	CPSVC 01-45-02 Sandy gravel Dr 725 Clay 20-46 (pa CPSVC 01-45-03 Clay 484 Pa Sand Dr 705	exclass trad	Matrix 4 and total	13.4 8/0 (4) (13	8(124)	sphouble induced performance with come was powerful at hericines in
14.20	15:00	223191 438452	1 223896	438499	0.80	0.4-0.7m.GRAVEL or very growely SAND, over CLAY (Clay low- medium strength)	23 to	12354 - 14.571	5-20	MGH	-02				C 0.8		CP(IVC 0145-04	17,222 225902	4387974	seeigercay.	um. Medium dense sand and/o medium shength clay	8/C (4g) (1)	We (i) NC (a)	to acidit	il w (i)	State distance mouth; (SUP) of copy in bot in 1-1 (1-1) i
15.00	20:00	223894 438489	® 228191	4389279	5.00	See grovely SAND over CLAY [Clay borderine medium/low through)	78 to	Occosional boulders 455 are AOSm in dae. Rippine 87: 1455 - 1457 1455 - 15141 1609-192 pitrat alt-course) dee next section for alt-course	5-20	MGH	≪2			M. SPP Dissued cable & (MAT Incit Back) IB 528 Active pipelines S	C 0.8					VC GI SE GIA 500 gars ellip (AND) 500 gars ellip (AND) 500 Signi	CPSVC 01-95-04 Sond Dr 455, *Clay 456/Fb 0.4-1.7 right	N/C (tg) (1AS)	VB (1.4.5) B/C (<u>61</u> (1.4.5) B/C(<u>0)</u> (1.4	es ettes	It stated cand and clay conditions may make several optimization official when the several optimization official when the several optimization of the several condition of the several optimization of the several optimization optimizati
20.00	24.00 :	228191 638927	9 231912	4390441	4.00	Areas of CLAY and areas of SAND to depth.	78 to	Occasional boulier patiches on all course IP 3- IP D.35 40-course to be used on ciding standware / 169, 40-course mobile sediments: Occasional registe patiches, case of recogniques costs. 27- 270- 192-251 40-course and CLP 23.5- 277- 192-251 182-252 patiches confirms beyond and of section.	5-30 (Not easily avaidable)	NIGH	0.2 (0.5 Limited area)			20.197, 300 km (1290M michtig will control)	C Ga		(5°9)VC 62-55-01	23492 231832	4392095	NC CO-SCI Develop SAND SECTION OF SAND	CPRVC 00-55-01 fond Dr 45-85%	A(U)	1 (c.) (c.)	Iaj A(Ia)	A/9 (a) (U.	gildereckhown unverling count rifered by the place of the
2400	27.7 (Class Limit)	231952 639064				0.2-0.4m SAND over CLAY (low Shength)	78 to	<50% are >0.75m in size.	20-40 (patch avoidable by roufing to the north)	MGH	0.7				C 10		GP9VC 0245-02/A	28.29 235991	4392098	Supection strength day, with potentially thicker sor or start of section. VC 09-56-02 0.00 to superior	Loose-medium dense sond, low shength clay	AGIII A	B (s) (2,11) A/B (2,		A (0) (0,11)	em paught. reduce his of subsurface boulders
27.7 (Charles)		235431 429190				0.3-0.4m SAND over CLAY (low Shength)	89 to	34,590-e1,440 Numerous boulders KP 32,5-34, KP 35,9-40	20-40 jarrali part of section, not avoidable)	MISH 27.70-08:00 MEDIUM 28 - 32:50 MEDIUM 22:5-33.7	ω				C 1.0		CP5/VC024S-03/A/B	29.08 246124	4295774	VC00-66-00	CPSVC 02-55-03/A Sand Dr 35% Clay 35 kPa	A (1.3)	ADAI ADA		A(1.3)	
22.50		239944 429353				0.2-0 Am SAND Over CLAY low Strength 2m SAND over CLAY low strength	94 to	Numerous boulders KP 40-41.4 -50% cre- >0.75m in dae. Large Ripples KP: 24.505-41.460	20-40 20-40 (part of section, avaidable	MEGHM 32.5-33.7 MEGH 33.7-43	0.7 O.P. Tinterpreted conductive 4.5m, limbs	nd d			C 10		C7003-55-04/A	40.41 0.6555	4284299	Like 0.00 Elementy low changin sandy CLAY 100-1 2 Low shength sity CLAY 40 VC_CFF only CFF0 only CFF0 only CFF0 only CFF0 only CFF0 only	CPRIVIC 00-55-03(A)B Stand Dr IS-2005 Clay 25-36 lift to bellow 0/92m welclase 0.44-0.92 CPR 00-55-04A Grovelly silly sand Dr 5055	A (L3)	Medical atology	3 (4.3)	A[L3]	Internation in the American improvement (and in the American in the Amer
40.00						thecgra		Sandwaves (see note)* 69: 64.180 - 65.389	Deposits et al		Geog. Potentially immobile resid.									Deb growing in SMCID, locally day CLAY	Gravesy any tona or son.					(p) Grovel component may not be semoved when in the policy and to the semoved when jetting and forms log in the trench bottom, finiting buriot.
44.50	475	251227 439762	1 254140	4399408	5.25	CLAY (Very low thength) (Volicible thickness of bose SAND cover, up to 1.2m	sunence of sand not well stimed, section considered ength for anchoring, SAND very loose and ally.	Nik of occosional, numerous and high density boulders (F-4.5 - 48). 0 CSS are > 0.75 in high. large Riggiest (F): 44.55 - 45.54 45.54 - 50.345	22-60	NIGH	0.4	(seabed didge, Reily glacologenic teature, goodenin 13 foll degrees avoldable by marting to north of contact		\$76.20 - 66.36 APAISE1	C 1.0					2 Sepect conditions to be similar to following section	score and, low strength clay	A KURMA	(a) (c) (1,2)	(3) A (c.47) (t.	ARIORA	connections and may close this last of the connection of the conne
62.5	40 :	256143 62990	B 245035	44041.68	10.25	CLAY (Very low shangh) (Validate inscines of loses SAND cover, up to 1.2m		катара Карріна СР: 1288 — 30.702 10.717 — 40.423	۰	WCH	0.5			Sadi Badin popular	C Lé			50.00 25.690 25.690 25.100 25.100 25.100 26.		CC GS GC GS	CPRVC 00-95-05 Sond Dr. 5-255 CPR 00-95-06 Sond Dr. 5-455 CPRVC 00-95-01 Sond Dr. 5-135 Clay 40-400Pa	A July DAJ A	Tile (ca) (2.4) - Bill (ca) (2	lej Αjc.d/jβ.		Sent Followers over they class the fad in the place of the place over the place of the place of the place over the place over the place over the place over the place of which the place over the plac
40.00	72.75	262035 6404160	8 274319	4410105	12.75	CLAY (Very low strength) not work (Variable thickness of SAND cover Gramples suggest 0.75-2m) anchori	mence. Trickness of sond well-controlined, section sidered low thength for ing. SAND it very loose and sity.	Large Rippies KP: 59.717 - 42.433 Traw/marks KP 64.4 - 72.75	٠	NIGH	0.5			40.20x B Active pipeline	C 1.0		CPSIVC 03-55-03(A)8 CPSIVC 03-55-03	272094	4606077 6407983	VC 03-56-02 0-1.2 very illny SAND 2 VC 03-56-03 0-02 very illny SAND 079-1.2 Very low itempth sondy CLAY	CPRVC 00-95-02 Sand Dr 5-135 CPRVC 00-95-03 Sand Dr 5-135 Clay 10-20 Mrs	ARR4 A	910104 BESS	ADD4	A/R (0) (2)	giforn) disme eard may couse ride out with placing. If Special Transmit daily-lead and place is specially
72.75	79.50	274319 441010	6 202292	6412248	4.75	CLAY (Subsembly low throught) Cock (CLAY (Subsembly low throught) Cock (Noticella trickness of AAM) / SMT Cover (Samples suggest 0.8-2m. over CL	arence. Priciness of sand well-controlled, section sidered low theright for hing. VC necessit Dales SLT HAX, CPT suggests 1,4m very sity SAND.	20 Brawl marks across whole section.	٠	MGH	0				C 1.0		CPRVC 03-55-04	73.95 277389 80.455 280317		VC 00-55-04 2 Politik sondy SUI 085-12 Exhermely low strength sity CLAY	CPSVC 00-65-04 Sand Dr 5-15% Clay 1-10 kPa	^		• .		
79.50	102.00	282292 641324	B 301920	6424244	22.50	0.6-1m SAND/SHI over extremely/very low changin CLAY	108 to	Townmaks across whole section. Occasional pockmarks on an near centheline.	۰	MGH	0				C 1.0		CP9VC 03-55-05 CP9VC 03-55-07	80.455 280317 14.549 288487 19.243 298444		CC SS 655 SS 12 way year play for play SS 12 way year manipularing CLAF OF SSSSC SS 12 way year manipularing CLAF SS 12 way year manipularing county SS 12 SS 12 way year manipularing county SS 12 SS 12 way year manipularing county SS 12 SS 850 SS 12 was manipularing county SS 12 SS 12 was possed to say year was proposed to say year was y	CPSIVIC 08-95-05 fond 07-5-13%. Clay 16-97-0 CPSI 08-50-06 58-5-95-9 Clay 16-97-0 GONG 58-10-15-97-0 Clay 16-16-97-0 Clay 16-16-97-0 Clay 16-16-97-0 Clay 16-16-97-0 Clay 16-16-97-0	AN .	viero) viero)	KIR A (KIR)	A (4,10)	Is Expect increased chall-wear and spoiliby reduced progress or burial in supplicity capabilities of skape for took without busyloticy capabilities.
100,00	107.50	301920 642424	4 30670	6427016	5.90	CLAY (Sichemely low shength)	112 to	Maw/marks across whole section, Pockmark nearby at 67 105	٠	HGH 102:00-104.00 LOW 104.00-107.00	0				C 18		CPRINCIPLE.	107.039 306247		10-12 externels (ow thength tilly CLAY No successful VC CPT0545-68 0-1.2 Externels/ low to very low strength sondy sitly C	Clay \$10kPo CP10x5508 Clay \$15kPo	AN .	A (4,30) A (4,3	g A(610)	A (4.10)	Buoyancy capasinis
107.50	119.40	306670 662701	4 3171.69	6420064	12.10	CLAY (Schemely / very low strength)	112 to	Brawlmarks across whole section. 24 Occasional pockmarks from KP 114 anword, c.4m deep.	۰	LOW	0	12.6 (Pacitorate Ranks, avaidable)		(15.10) & Dissand catels (found in unespected position)	C 1.0		CP102-55-10	001.500 207530 117.990 215725		vC 03-549 56.75 einhemely low shength sondy SLI 56.75 einhemely low shength sondy SLI 575.11 einhemely low deningth sondy GLAY CPT03-55-10 61.13 denimely low to very low shength very sondy CAY	CPSIVC 00-55-09 SR/Clay 10-67a CPS 00-55-10 Clay 10-67a	A (54.7) A	SAZ10 A SAZ	(30) A(SA7.10	B) A (5.47.10	(S) Find, cut , move and weight disused cable (A) Route around pockmans; (7) Steep slopes may approach limitations of
178.60	124.00	3171eP 643306	4 322757	600.0	4.40	CLAY (Sixtremely low shength)	124 to	Sequent pockmarks.	٠	LOW	0				C 10		CPQVC 03-65-11	122.005 319272		VC 00-5-11 0-4-fallmently low shength-CLAY 0-6-05-Salternely low shength-CLAY 105-12-Low becoming medium shength-CLAY	CPS/VC 00-05-11 Clay 0-10 kPa 0-1m, 40 kPa 1 1.5m	- AN .	A (4.30) A (4.3	g A (4.10)	A (4.10)	
124.00 :	200.00	322757 643614	7 289427	6467085	74.00	CLAY (Subseriely low shrength)	128 to	Sa Secured positionists. Soulmorks EP 1454-200	۰	LOW	0	125 Puckmot Rank, avadate)		20 Cell 2 (Congress Anniverse propriete 20 Cell 2 (Congress Anniverse	C Lé		CY90+S-02 CY90+S-02	104.99 203421 105.270 344689 179.100 270410		in a scool of 1/C CFT064-01 Del 4 dishemely low to very low changith scool of CAY 8-12 Dienemely low to step CBC CAY 8-12 Dienemely low to step CBC CAY 8-12 Dienemely low the step CBC CAY 8-12 Dienemely low the step CBC CAY 8-12 Dienemely low the CBC CAY 8-12 Dienemely low the CBC CAY 8-12 Dienemely low the step CAC CAY 8-12 Dienemely low the step CBC CAY 9-12 Dienemely low the SEC CAY 9-12 DIENEMEL CAY 9	CP104 SS-01 Clay 0-10 kPa CP104 SS-02 Clay 0-10 kPa	A (6.6.7) A	[66730] A [667	(30) A (647,10	D) A (4.67,10)	ye Coas galantine saring designed crossing (All shows around publications). All shows around publications of a character for a finding poly or many manufactures of a character for a finding poly or manufacture, strictly all shows a finding poly or manufactures and a benefit of the polytopic or manufactures and a benefit or polytopic or manufactures and a benefit o
200.00	224 (802 (802)	209027 444700	5 411413	4477119	24.00	CLAY (Subsemily low shangib)	139 to	how/maks across c.53% of section. Request possible gas seeps, staff segged that Signal in valve column unlikely to be caused by fish.	٥	LOW	0			25.003 Aufter againtes 270.003	C 10		C79VC 0455-03 C79VC 0455-04 C79VC 0455-05	203,280 190987 115,985 40463 222,454 413106		VC C4 SC G3 36.5 Side temple (time-very low-sterright lands) CLAY 36.1 Side temple (time-very low-sterright lands) CLAY 37.2 Side temple (time-very low-sterright lands) CLAY 38.2 Side temple (time-very low-sterright lands) CLAY 38.3 Side temple (time-very low-sterright lands) CLAY	CP9VC 06-85-03 Clay 10-97-0 CP9VC 06-85-04 Clay 10-97-0 CP9VC 06-85-05 SB/Clay 10-97-0	A (47)	A (47)(0) A (47)	10) A (47,10)	A (4.2.10)	in Coas plantine unit gelacije di rozenio goli plantine unite gelacije di rozenio goli plantine unite gelacije di rozenio goli plantine di rozenio plantine di rozenio plantine di rozenio plantine unite di rozenio plantine unite di rozenio plantine unite di rozenio plantine unite di rozenio plantine di roz

Project Project Client o Localid	name: UK-Norw: number: CB31 ame: NorthConn n: Northern North	ray HVDC Interconner nect th Sea (Scotland / Nor	rctor inway)							Cable Protection Analysis																	√	Vnor	THEONI	MEGT CATHIE ASSOCIATES
EP (RPLD? Conidor)	Constitution of Constitution o							Gallet Full-office Name										Cobie Profection levels				Expected Geology within Ire	niching Depth		A - Depth likely to be achieved, 8 - Depth may be a chieved with Inflators, C Depth valley to be achieved with Inflators, C Depth valley to be achieved Low coss letter include a closipectic comment. Numbers include a comment with capies so to take, inglitude, and necessari descript them equally. Took street only on their obility or penetral in the washed to assessed depth. Oth				Comments	
		From		To	Length				Surface and subsurface boulder	UKO Encounter Probability ⁶	Maximum bedlorm height of	Maximum gradient			Crossings on SCL (KP as-foun	d by Environmental Designated Habitats	Wrecks/possible wrekes		Sorget DOL					Summary of Geology expected within assess depth (from VC samples)	ad .	Took rated only factors	offecting them on their ability to penetrate such as cost, speed etc sho	n equally the seabed to a suid be considere	memed depth. Other d separately.	
From To	Easting	Northing	Easting	Northing	_ pm	Jamin section* Additional notes on shallow geology	Softymety rang in section Im below MSI	Secbad features ²³ alignment charit survey centre-line (SCI)	Serface and siburations bookder risk purinces bookder density or 10 000cm ⁵ 10 000cm ⁵ Ambar 24/1000cm ⁵ Ambar 20-4/10 000cm ⁵ Rect >40/10 000cm ⁵	Geent Low (Background hard Bern) Ambet Medium (Rackground transf bern) Rad: High (Mindfelds, munitions etc.)	posensa modes sedament soun- in section*[m] Green: «Im (Ripples IL Large Ripples) Amber: 1-3m (Megaripples) Red: -3m (Gandworet)	Maximum gradient (survey contrive line) Green «102" Amber 192" to 412" Red 192" (Maximpe thown in brackets it > 107")	Slope Slobilly Risk	Rockhall and londalide hik hom Fjord side "(Highlighted on potentially more critical)	Status (B. Burlied, 5 - Surface to UK nearhors and North Sea surv found location given. Fjard section: as delected local Burlied status in Fjard unknown	d by Environmental Designated Hobbits George of the Control of t	h) Displayed perpendicular to KP, other to weak centre (other han, +we = Part, - ve Starboard)	Profection Level		Note	Somples in section	tample route EP location Earling	Intenching cases(ed) depth (m) (Target DCL born (Target DCL born Northing Northing Northing Northing Northing	Oscinfation private in College of the College of th	indicative strents/dentity (lab / CPT dota) of soils within assessed depth	Jeffrencher (imitaneous/ post-lay)	Pre-lay Flough Chain Cu (imultaneou lay)	Combin der lat/Ch a/post-cutting to jurnitarie post-lo	Jef Assisted Coble Burds Plough ¹⁰ Nout	Tool-specific commank (a-t) Commank relevant to multiple took (1-11)
254 (WE insending) 240.30	411413	4477119	425382	4485874	14.50	LAND and CLAT futherwisiyow steeright control to the section future section for section fo	in ad t , 112 to 134 w	Brawlmaks across c 50% of section. Sequest possible gas seeps. MMI suggest that signal in water column unlikely to be caused fish.	۰	LOW	0				235.929 B Active cobie	EP2940-294.1, 294.1 - 233.05 SSPAR Seopen and surrowing megafauna communities	237.061, 141.7m	ć	1.0		P005-50-01 D	9.32 6634		No VC OPISSS OI Dual sky SAID SAI-LOS SAND LOS-1 Zwey sky SAND	CP1 05-55-01 Sand 0-0.55 Dr 10-33%, 0.55- 1.2 Dr 70%		A/B (c) A/B (c	1 ^		Epiloracidines sord may couse ride out with psough scrossing, well psought scrossing, sord or
240.50 274.000	425382	4435974	437005	6492945	25.30	SAND to depth	88 to 111	Occasional Travil marks.	۰	IOW 240 50 - 274 2 WGM 274 2 - 274 0	0				244.00 3 Active pipeline 246.700 3 Active pipeline 243.384 8 Active cobie 246.464 5 2 Active pipeline 246.465 5 2 29.403 8 Active pipeline 246.355 Active pipeline 246.355 Active pipeline 246.355 Active pipeline 247.357 8 Active cobie			c	1.0	Co	PSIVC 05-55-03 PSIVC 05-55-03 PSIVC 06-55-01	0.138 60.474 3.400 665792 55.730 609569	6407988 4405467 4497852	NC 055 00 00 00 00 00 00 00 00 00 00 00 00	CPS/VC 05-05-02 Sand 0-0.55 ft 25-75%, 0.55- 1.2 ft 75-90% CPS/VC 05-03-03 0-0.25 Sand, ft 0-72% 0.25-1.2 Sand ft 45-90% CPS/VC 06-05-01 Sand 0-0.35 ft 25-40% 0.35-1.2 df 3-05-05-05-03-12-05-03-12-05-03-12-05-03-03-03-03-03-03-03-03-03-03-03-03-03-	A (44)	8 (s) (e.é) 8 (c) (e.	A) ^(4A	a R (s) (4.4)	Indivincibles and may case ide-oil with proops. In Electriconoid chair-vect and possing IN Electriconoid chair-vect and possing IN Electriconoid chair-vect and possing reduced proper or build in possing reduced proper or build
274.00 290.50	45980S	6492945	472700	4499251	14.50	SAND to depth	94 to 103	Fectureless	0	NGH	0				299.564 9 Disused cobie			c	1.0				1.2	Spect dense sand	Expect dense sand	A (5)	8 (c) (S) 8 (c) (S	(S) A (S)	8 (a) (5)	iptiand/dense and may coule ride-out with picught. [2] Expect Increased drain-wear and possibly reduced progress or buffol in and/pread-out promy pread-out
299.50 341.50	472700	4499253	.512994	4528958	51.00	**Loos clays dily and Ampute Environ, of SAND and CLAY (Saltered)/ 'vary Loo Shedgil selector, a reflect contended a selector contended	00 Pr 100 to 110 on 1	Towlmost IP 364-504 I Ripsis 67- 30 / Get - 70 / Get -	۰	ман	-d2, corre d.£				264.67 & Active cobin 264.208 & Active pipeline 238.765 Manned cobin			ć	1.0	C C C C C	9766-85-00 D 979N-C 04-55-00 D 979N-C 04-55-04 D 979N-C 07-55-01 D	93.194 47860 33.000 40355 97.930 464177 36.400 565777	6000944 601094 601094 601094 122	OTTO-LOG D 3 - Compay And D 10 - Compay And D 10 - Compay And D 10 - Log and and D 10	CP1 64-55-02 Sond Dr 1955 CP19VC 64-65-03 Sond Dr 4955 (Suffa clay CP19VC 64-65-04 (Suffa Clay CP19VC 64-66-04 (Suffa Clay CP19VC 64-66-05 (Suffa Clay CP19VC 64-66-05 Majority section 104/hockay	ARD4	ARRIDA ARRIS	24)	I Welston	Spirations and the polarities of the spiration of the spi
341.50 349.50	513994	4528958	519794	4530877	7.00	CLAY (Schemely/Very Low Strength)	123 to 152	Sppies 67: 208,480 - 345,408	۰	NGH	<02. some 0.4							c	1.0		P9VC0745-02	6.43 \$17253	431157	VC 07-55-02 0-0.34 dhy SAID 0-36-1.2 extremely low strength viery sandy sity CLAY	CPQ+VC 07-65-02 Sand Dr 15-605 Clay 0-10167a	A (I)	A(2,10) A(2,10) AQII	(p.tq)	(2) Increase build across small bedforms (10) Potentialists of shape for tools without buoyancy oppobilities
348.50 363.50	519794	A532877	530223	454(275	15.00	CLAY (Subsembly Low Strength)	152 to 238	Request roal pockmarks. Browlmark E 985-565, \$ 285-561.8	0	MIGSH	0	12.5 (Packmark Ranks, avaidable)			251.345 Manned cobile	EP2SPAR - 363.50 OSPAR Posible Deep-ses sponge aggregations		c	1.0		P9/VC 0745-04 3	0.420 53238	1.2	to VC CPTG-54-00 6-00 dishy SARO 6-28-12 eshamely low-shength-CLAY	CP1 07-55-00 Sand Dr 5-135 Clay 0-10 kPa	A (4.6.7)	A [442/0] A [442/	A (4.4.7.	10] A (4.47,10]	(ii) cross planifies using a singred ormaling iii) like the accomponents or markets or in cross the components or markets or in cross the components or cross or
343.50 290	532223	4541275	556180	4554111	26.30	CLAY (Satesmelly (Very Low Sheright)	103 to 285	Way frequent poclamarks up to film deep, c.000m across. Rowlimarks across whole section.	•	195# 313 59 - 280 5 MEDIUM 280 5 - 290 0	0	23.9 (Packmark Banks, avaidable)			274 KS Manned pipeline	(P3A3.50 - 367.k3 CSPAR Footble Deep-sed sponge aggregations (P3A7.43 - 3900 CSPAR Seapen and burrowing megalauna communities		c	1.0		9700-55-01 5	25.000 5521H4	454500	VC.07-66-04 b) 1.2 Differently low thength sity CLAY CPT08-65-01 b) 1.2 Editemently low thength landy CLAY	CP9VC 0F-65-04 Clay 6-10 kPa CP108-65-01 Clay 6-10 kPa	A (4.6.7)	A [64730] A [6473	A (4.47,	10) A (4.6.7,10)	(4) Choss (plantes using a designed crassing (3) Blade and consideration (3) Blade and consideration (3) Blade and consideration (3) Blade (3) Bla
390 409.30	554181	4554111	570008	4547028	19.50	CLAY (Subremely Low Strength)	274 to 290	Viery thequent pockmarks up to film disep, c.100m across. It awi marks across whole section.	۰	MEDIUM 300 - 6028 HISKI 4028 - 409 50	٥	22.8 (Pockmak Ranks, arcidoble)			390,461 B Active cobie 397,184 B Active cobie	(P390 - 404.31 CSPAR Seapen and burrowing megafouna communities	399.829, 104.7m	c	1.0				12	VC 08-95-02 0-1.3 Edmermely-low strength-CLAY	CP9/VC 08-85-02 Clay 0-10/67a	A (4.6.7)	A (667.10) A (667.1	10) A (4.6.7.	10) A (4.67,10)	(III) Cross pipelines using assigned crossing (III) Robustic crossing pipelines using assigned crossing (III) Steep dopen may approach intriduction of character look without prior amendations. Accordant look without prior amendations. Accordant look up to a vew seging to intriduction. Accordant look up to a vew seging to intelligent indicate the properties of accordant legal for fraction without the properties of accordant legal for fraction without
409.50 413.00	570008	4547028	573239	454907	3.50	CLAY (Extremely Low Strength)	269 to 274	travi marks across whole section.	٠	MIGH	0							С	1.0				1.2	No sample in section	Extremely low shength clay		A(10) A(10)	A (10)	J A(10)	(10) Potentialists of shape for tools without buoyancy capabillies
413.00 415.00	572239	A548907	5748%	4570107	2:00	CLAY Subremely Low Strength	267 to 271	toeberg plough maks throughouf section. Pocinrais on centre line of EP 413.	0	жсн	0	11.4 (Packmark Ranks, avaidable)						c	1.0				12	No sample in section	Subsemely low shength clay	y A (4.7.8)	A [67,810] A [67,81	10) A (4.7.8,	10) A (4.7.8.10)	(ii) Block classification in invalidate of Planes (see invalidate in invalidate of Planes (see invalidate in invalidate of rounding or pre-invalidate invalidation, Adoption (south) (see invalidation) in invalidation, Adoption (see invalidation or invalidation and see science (see invalidation or invalidation of see invalidation or invalidation or invalidation of see invalidation or invalidation or invalidation or invalidation of see invalidation or invalidation or invalidation or invalidation or invalidation or invalidation of see invalidation or invalidation
41500 427.75	5740%	457010.7	585440	4577245	12.75	CLAY (Subsembly Low Shangib)	254 to 247	Pocular di Celle III di 10 (12	0	MIGN	0							с	10		PQVC 08-55-00 6	9.8 57862	1.2	VC 08-55-03 O-1,2 extremely low shangth CLAY	CP9VC 08-03-03 Clay 0-10 kPa	A (7.8)	A (F.R.10) A (F.R.1)	0) A (7.8.1	OJ A(FA1O)	(7) Micro-excleto or pre-o-weeping to religate risper. (8) Possible rick placement opcore of size of the processor of the processor or reventife (7) Possible rick placement opcore or reventife (7) Possible rick placement opcore or reventife (7) Possible rick placement of the processor or reventife (7) Possible rick placement of the processor of
427.75 400.00	585440	4577245	587325	4578525	2.25	CLAY (Extremely Low Strength)	264 to 272	sceiberg plough marks throughout section. Occasional boulders, <50% are >0.75m in size	5-20	MGH	٥							С	1.0				1.2	No sample	Extremely low shength clay	A (1.8)	A (1.8.1) (01.8.1) A	(A)(A)	(I,R,10) (I	(1) indications bounders may repeate build (1) and (1) indication of the control
42000 447.20	587325	4578525	421825	4588000	17:50	CLAY Subsembly Low Strengths	231 to 274	iceberg plough marks throughouf section. Occosional boulders, 400% are >0.75m in size	5-20	MGM	o				444.595 \$ Active pipeline	shadae-adae, disco- discil Oshek Deep-era songe aggregations		c	1.0	c		2.720 SS9980 44.490 S99207	40/4030 405419 406402	No NC CPTG-65-GI 60-2 Gillenning low strength stay CLAY 60-2 Gillenning low strength CLAY CPTG-65-GI 61-3 Coloramity low strength CLAY CPTG-65-GI 60-65-GI 6	CP1 09-55-01 Clay 0-10 kPa CP1 09-55-02 Clay 0-10 kPa CP1 09-55-03 Clay 0-10 kPa	A (1.8)	(A1) (01A1) A	Q A(IAI	Q) A (1,8,1Q)	(I) Admirlios bouldon may impede buriel (III) Admirlios de pade de marco de la III Parallelle not a pade mente account eleg- cidanes por amanta. (III) elemente de mayor la trook without landered of capacidate.
467.50 454.25	401825	ASSMEDCE	409264	4592719	8.25 4	CLAY (very low to high strength) FYodoble degrees of cabes new owing and soft redinent if	9 145 to 225	Tondering plaugin marks throughout section. Numerout boulders; -doffs are >0.75m in size	20-40	жди	0	20.5 (possible kelberg plough more kelberg plough and kelberg deserve puring to the rooth, or clessely morted on MMT chart()						c	10	000	79/9/C 0945-04	20 Ann Ann Ann Ann Ann Ann Ann Ann Ann An	649631 489129 489129 1.2	COBS 64 15 medium insegin CLAY 15 COS 65 15 twey low insegin CLAY 15 COS 65 15 twey low insegin CLAY 15 COS 65	CPSVC 09-55-04 Clay 45-70 (Fig. CPSVC 09-55-05 Clay 9-023-25(cp. 925-93-25-940) SS-043-25-040(Fig. 925-94-05-05-05-05-05-05-05-05-05-05-05-05-05-	ii bo (1,7,8)	R (6) (17,8) (17,8)	A(1.7A	10) S (b.) (1.7.8,10)	If funds except primary and the second performance and of the second performance and the second perfor
454.25 460.75	609264	4292719	413407	4593354	4.90	CLAY (Sub-ernity low strength)	145 to 205	Fectureless	۰	MIGH	0				65.814 \$ Active pipeline			c	1.0		PTIVE OPSS OR 6	C.200 614M	1.2	VC 09-05-07 00-28 inthemaly low through bandy CLAY 02-08 inthemaly low throught very sondy CLAY 036-03 inthemaly low throught very sondy CLAY 0.56-0.7 inthemaly low throught CLAY 1.06-1.45-1.00 1.16-1.15-1.00 1.16-1.21 in	CP9VC 09-05-07 Clay 10 6Pa	A (4)	A (4.10) A (4.10	3 A (4.11	A (4.10)	(4) Cross pipuline using divelgment crossing (14) Puterfacilities of linkage for tools without bougancy apposition.
440.75 470.00	413607	4592054	421415	4596945	9.25	CAM Editornaly low strength, highly localized subcopping assector/mi.	190 to 200	niumerous toulidem, 42% dre h07/min dae, iji 84075-4425 Occasional soulidem, 42% dre h07/min in dae, iji 84075-4336	5-40 (To 87-844)	жан	6	possible motive feature, products of CAP 444.15 and RP 445.15-445.5 unarriddable)	sterprehed mass-hamport deposit: 12° 40°35'- 40°45			EP 44427 - EP 44474 ANDES EP 44579 5-46528 ANDES E EP 44737 10-44774 ANDES E	XI I	c	1.0				12	1.46 - Jose Bergell LLM COS BE BE DO 28 lbs in Breigh growing CLAY DO 28 lbs in Breigh growing CLAY BO 28 lbs in Breigh growing CLAY BE B	CTIVE OF \$4.08 COLVERN OF \$4.08 COLVERN OF \$4.09 COLVERN OF \$4.00 COLVERN OF \$4.10 COLVERN	A (17.9)	A (1.7.9.30) A (1.7.9.2)	A(1.79,	10) A (1.79.10)	Consist account of the consist of th
470.00 480.450	621415	4594941	420%	640314D	10.45	Machingreg liperones 1880CC, Machingreg liperones 1880CC, Machingress and Mach	AY 140 to 372	Integrant create of runnerscullings density bookstor (SIG care-O-Torin in as Clamicitor III. electrons to the complex. If appears to several care of the complex and care of the care of t	25.146		-62 (Brithed cases)	228 Cheep growth ET 472.5. 472.8 encreletable, but my be eased by rooking to the north)				CP 44984 to GF 17 ANNEX I CP CR3810 GF 255 ANNEX I CP CR3810 GF 265 ANNEX I CP 68524 to 685.8 ANNEX I	67 841 -133-7m 67 844 -135m 67 9366 4.1m 67 9363 842m 67 920 35m	c	1.0	W CC	COR-SE-1 COR-SE-1 SPANC-ORS-1-4 COR-SE-1 COR-SE-1 COR-SE-1 CORS-1-6 COR-SE-1 COR-SE-1 CORS-1-6 CORS-1-	79.417 422233 22249 422254 422255 422356 422366 422366 422368	600233 600437 600673	Accided List Accident List Control Con	VC 08-55-12A Coay F-108-ho VC 08-55-13A no leaf data- VC 08-55-13 Coay 5-Vin Coay 5-Vin Coay 18-Vin No. 08-55-14 Coay 18-Vin No. 08-55-14 No. 08-55-14 No. 08-55-14	A/816 (0.73.12)	A(8° (6) (1.25° (6) (1	9,10,12) AG*(c. (17.9,10)	.e) A/IP [6] [1.75 (0.12)	control de con o mai fi finare, como con de con como con de como como como como como como como com
480.45 482.25	625174	6401722	624254	6600969	1.40	MEMOCATAL	282.5 to 352	High dentify boulders +305 are > 0.75m in dae	240		0	24.6 Moraine ama, unavoldable gradents				07-400,85 to 402,22 ANNEX I		c	os.		reampled		1.2	Brisompled, Claricton III or Bedrack	Expect granular deposits of variable grain size possibly with very soft clay surficial veneer.	ARIBIDZIJI	A/8 (p) (1,7,12) 8 (c) (1,7,	(12) A/R (c.1) (1	(7.12) A/R (c) (1.7.12)	Applications want if they cause date in the place processes and the processes and it flexes for processes and the processes and it flexes for processes and the place place processes and the place place processes and the place place place place processes and the place place place place place pl
48225 50230	624204	6402949	634429	443634	20.05	CLAY (Satismosky) Very Low Strength	290 to 434	Occasional pinnacies of bedrack of seabed of PMTS - MB.S. (production) Occasional boulders EP - MB.S 489.1 - 450% ore > 0.75m in size Brow/marks EP - MB.S 501.0	Small areas of 5-90 Avaidable through nouling	HIGH (Low 492 - 498)	0		Patches interpreted mass transport deposits KP 483.25-484				456.661, -105m 489.82, 176m	С	1.0	C	Calossol 6 PQVCalosso2 6	87.723 42790 97.128 421809	4408737 4414449 1.2	VC 16-S-01 90-71 exhemely low strength sity CLAY 071-12 exhemely low to very low drength sity CLAY VC 410-SS-02 91-2 very low strength sity CLAY	VC-810-SE-01 Sity Clay! Clayey Sit, 1067-o CPS VC-810-SE-02 Sity Clay! Clayey Sit, 1067-o	*	V(td) V(td)	A (10)	A (10)	(15) Patentialists of drillage for tools without burgativy capacities.
500,30 505,75	634(2)	6618436	637330	6421055	3.45	CLAY (Sub-annealy/Very Low Strength), core cance of IBDIOCCUTE with varies of CLAY	217 to 334	routing should be able to avoid rock/hard sediment and bury the cable in soft day. Thus considered soft day for anchoring preservent.	Some and patches of denthy S40 Available apart frames. IP SALS-SALS-SALS-SALS-SALS-SALS-SALS-SALS	MGM	0	39.3 Unovoldoble steep godleth, routing accord rocky area will reduce maximum	Mass transport deposits across section (contains disturbed reflectors indicative of mass transport deposits.)		355435 Active cobie		503,546, 13,5m 504,34, 20,6m 504,405, -42,7m	c	1.0	V	C 10-55-03A	354454 354454	41/1650	VC 10-56-05A D-SL-00 (Snd VC) estimately low shangth silty CLAY	VC 10-55-03A Silty Cloy, 10kPo	A (1,47,12)	A(1.47.10,12) A(1.47.10	3.12) A (3.47.1	012) A(1,47,10,12)	p) Culturaliza I builder may impede hard with an exclusivation for provide production of the provide production of the provide production of the provided production of the p
505.75 508.75	637330	6427058	438422	662376A	3.00	MEMOCRIE with remote of CLEAR CANCER frameworks Line throught	217 to 120	Novie consistently on 'bedract' (MAII' interpretations), of 25.073 - 29.25 c. (MAII') intervisions), of 25.073 - 29.25 c. (MAII') intervisions), of the reverse Technique settlement Sealouter's roy to Big. (Other Allmin extens) on the Sealouter's roy to Big. (Other Allmin extens) on the Sealouter's roy to Big. (Maii') intervisions on the Sealouter's 25.05 - 25.07 c. (MAII') intervisions of Centre-Inne 67 207 555 - 257 74. Maii' Taddings on centre-Inne 67 207 555 - 257 74.	Mi	жди	Sections are Relative Sections are Relative Sections are Relative Section (Section 2).	25 Nonor pas, steep geodests unbrokkités					508.594, -20.7m	c	0.8				1.0	no sample. Interpretation augment dismictors or Bed oct.	Supect granular deposits of variable grain dee positoly with very soft city sufficial veneer.	AB* 例 (8.27.12)	A/8*(o) 9*(o) (1.27)(o) (2.27)(o)	A/8* (c (1,2,7,10)	7) A/8* [0] [1,27,10,12]	ispland/dama sord may couse ride-out (i) Subunhoce boulders may impade burist (c) Speci Porseand challe-were and boil and couse reduced burist possibly reduced progress or burist in PS (2) Section drops overwhelp burist

Pro Pro CB Loc	Frey of mans. M. Karawar WCC Messamentes Project Anname Anname Manamentes Annamentes Annamentes Ann											Cable Protection Analysis															V	NORTHEDN	NECT C	CATHIE ASSOCIATES
RPLD9 Corrid	Consider State of Sta																cable Protection levels				Exp	ected Geology within Tre	ching Depth		A - Depth Rely to b Lower Numbers indicate a	achieved, 5 - Depth m Depth unlikey to be	were y be achieved with limitations, C schieved	- Comments		
From		from		io	Length (km)	Summary of Geology in upp 3m in section ⁴	er Additional notes on shallow geology	# Softymetry range in section In below MSI.	Seabed feature ²³ alignment chart survey centre-line (SCL)	Surface and subsurface boulder this fundace boulder density (pen 10 0000m)* General SOS (10000m)* Antana 20-44/10 000m* Bact >40/10 000m*	UXO Encourier Probability* Creent low (liackground their lenn) Anther Medicine (liackground threat hern) Red High (Minefelials, muniform etc)	Maximum bedisem height of potential mobile sediment for in section ⁴ (m) Green: «Im (Ripples & Long Ripple Amber 1-3 in Negaryphera) Rect: «Nim (Sandwover)	Maximum graded four-ey-currier less for the state of the	Rockfall and londslilde fisk from Fjor side "(Highlighted as potentially more critical)	Crossings on SCI (RF as-found by MMT) ² d Statu (8 - Burled, 1 - Surface load) KK nearhore and Noth Sea survey: as-foundations of the Sea survey: as-foundationation given. Sport section: as-deed-cell-continual and setting in Figural unknown.	Environmental Designoised Richitins (Schreup carels S) (Sommulas buffler) (Sommulas buffl	Profection Level	Target DOL (Increase across oreas at bactions to achieve westing stative to non- mobile terel.		Samples in section	Sample route KP location	aling Northing	Trenching assessed depth (m) (Ingel DCI, horn protection level + 0.2m allowance for product OD and variation in survey date)	Summary of Geology especied within assessed depth (from VC complex) Description provides principal and major secondary bytes description for the anticipated sheet depth. Consult logs for full destalled description. Where no VY present, O'D'P'Interportation (2017)	d indicative strength (dentity (Lab.) CFT data) of soft within assessed depth	Took rated only on the factors such factors such factors such factors such factors such factors for the factors factors factors for the factors factors factors for the factors factors factors factors for the factors factor	case letters indicate a for comment which applies in offsctling them et ability to persette to the cost, speed etc should be cost, speed etc should be cost speed etc speed etc speed be cost speed etc speed	be considered separately.	Tool-specific comments (o-t)	Comments relevant to multiple took (1-11)
	Easting	Northing	Easting	Nothing											Buriol datus in Fjord unknown.	environmental areas ve starocarci							survey data)	Note that there may be differences with the geolog- used for the CBBA hipping assessment as that summarises the top 3m for anchoring assessment purposes.	assessed depth	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		post-lay) post-lay)		
508.75 32	80 638622	6623764	638211	4420745	1.05	BENCEYTEL with veneer of CLAY, and CLAY (Submerly)/ven Low Strength)	,	187 to 225	Numerous boulders , 4275, one >0.75m in size, 62° 528.75 539 à	20-40	MGH	o	Namo pass, steep gradests unevalable but through deposits on my be reduced basis to the following and deposits on about deep rocky artisps after 555.2	0.00			C (D 509-509.8)	Buridificarease is 1.0 (D.1.5) of yeast and ma	in vicinity oblikation				1.2 (0 1.7)	No sample	Supect granular deposits o variable grain size possibly with very soft clay sufficial veneer.	Arie (5 (0.2,12) Aries	(1,7,10,12) R* (c) (1,7,10,1	APP (c.f.) (1.7.10.12) APP (o) (1.7.6	iotions/derea and may couse ride-out- with plought. [c] Depict horizonted chain-werd and possibly reduced progress or build in particular progress or build in particular progress of progress of progress produced by the progress of progress of grant progress of progress of progress of pro- vention and progress of progress of progress of pro- vention.	(i) Subsurface boulders may impede burial tools and couse reduced burial. (f) Sheep dopes may exceed inhibition of charant tool, Inning year. (ii) ii) Potentialisis of inhipp does not boulder burial year. (iii) Potentialisis of inhipp does not book without buryancy capacity year. (iii) It bedanck encountriesed within assessed supprin, rarise of these tools will achieve target burial.
509-8 5	438011	6623745	644395	4432749	10.80	CLAY (Schemely/Very Low Strength)		290 to 364	Rock pinnacle at IP 519.5 (ovaldable) stumence bouldes 95 929.8-103.5 villa of numerous and accessional boulders IP 514.4-59.5 95 517.4-59.6 4295, are >0.75m in size.	Patches of boulders of density 5- 40 Not avaidable	MOH	ō	Demonstration gradients, Music hampon deposits out gradients of 20 20 20 20 20 20 20 20 20 20 20 20 20	10	\$10.914 Active octals \$11.114 Active octals \$11.129 Active octals \$11.297 Active octals \$11.397 Active octals \$11.397 Active octals \$11.548 Active octals	511.152, 247 den 311.279, -1027-7m 311.279, -1027-7m 311.625, 202-7m 511.625, 202-7m 511.625, 202-7m 512.026, 1-72-7m 512.026, 1-72-7m 512.026, 1-72-7m	D (B KP 520-520.8)	Buridincrease I 1.5 (B 0.5) of yards and me area	in vicinity	NC-BIOSEGS NC-1058-GS	539-983 A38-45 514-708 &41570	7 A423H1 1 A43M04	1.7 (8 0.7)	VC-01055-04 9-1-7 very low disength silty CLAY VC-10-56-65 VC-10-56-65 00555 very low through silty CLAY 005-1-7 exhammely low to very low shrength silty CLAY	CP(VC-810-55-04 Clay 108/to CP(VC-10-55-05 SBy Clay +108/to	A[1,47] A	(42,10) A (1,42,10)	A (1.47.10) A (1.47.10)		(1) Subsurbos boulden may impede build took and couse reduced build (of Cons cotters using edispred conting (1) Skep dope may exceed interface of couse not, interface using (1) Puterfacisis of sirkage for took without buoyancy capabilities
500.40 %	AS 644395	6631769	49271	6634614	405	IBLI with veneer of CLAY (Venes thickness unknown, Ibli, not sampled)	11-65-01 samples pocket of tricker clay (not representative surrounding geophysical interpretation of 18 with venee 11-65-01 samples CLAYveneer, 18 not reached after Lim	1 of 152 to 480	Ridead on to it interpreted on 18 with a day weeker. No joint laster feathers may have still glocal lare all laster feathers may have still glocal lare advancement during the overall first sheet. May be deathly boulders EP 501.1 - 564.4 + 505. on > 1,275 in Intia. Routing may be able to avoid exposed light behalf of 18 243-564.4 Asset portion of 19 251.7 See profession 19 31.7 See profession 19 31.7	240 (field unovokázbie)	WGH	0	24.2 Schrift, Marchen Carlotte Grand Carl		303.329 Active cobbe			0.4	vcel	811-65-60 811-65-60A	521.803 6451K 523.993 6467R	6430446 6430149	0.6	NC-811-6501 0-528 very low theregit sondy CLAY 0-528 very low theregith very sondy CLAY 0-508-64 very low theregith very sondy CLAY 0-56-64 very low theregith very LCAY VC-811-55-04A 0-59-very low shength very sondy CLAY 0-59-07 very low shength very growby CLAY 0-59-07 very low shength very growby CLAY	VC-811-6-01 Clay It8Pa VC-811-6-03A so isto test, ikely 10xPa Depending on veneral flicitiess, may expect of variable time with very soft clay sufficial venery soft clay sufficial venery	A[1A7] A	A[1A730] A[1A730]	A (1,47,10) A (1,47,10)	Sigmaamples, veneer appears thick enough such that \$10 may not be encountered.	[1] Suburiface boulders may impede build tools and coale reduced build. [7] Skep loges may exceed inhibition of charant tool, Intellige use. [8] Powerfamilies of inhibition of tools without buoyancy copositions.
534.45 (2)	30 447271	6634614	650232	4440121	485	CLAY (Schemely/Very Low Strength)	*Assuming cobie knowled frequency or older bedrack	gh ng 400 to 500	Interpretation for Just 21 Large very deep "Blands" of bedrock in Fjord bofforn Port/Blatboard survey lines sugged these needs are easily or oldstable to allow the code to be invited in soft sudmits Occasional boulders, <50% are >0.75m in size, 19 556.3 - 556.4 67 558.3 - 556.4	Small patches of 5-20 Avoidable through routing	жен	O	making care shall he most section consist mostly of m travers in city stopes is section pedicic. Talands 197 527.3 and LT stands 197 527.3 and LT section beduct/fill is bund.	GIL	35592 Active code	524,564, 194 (m 523,647, 54-6m 524, 637, 73-6m 524, 637, 73-6m 524, 625, 73-5m 524, 74, 155, 9m 526, 74, 155, 9m		0.5	drear.	ompled			0.7	Ao sample	Supect extremely low strength cloy	A (d)	(4.10) A (4.10)	A (410) A (410)		(e) Cross cables using designed crossing (10) Potential risk of linkage for tools without buoyancy capabilities
531.50 54	25 450232	6640121	439120	4453419	14.25	CLAY (Schemely/Very Low Shength)		464 10 547	Occasional boulders, 40% one ×3.75m in size: 69:334.25 - 334.5 Occasional boulders, x50% one ×3.75m in size: 69:540.5 - 684.0 Set 9-540.5 - 684.1 Numerous Doublers, x50% one ×3.75m in size: 69:546.9 - 564.1 Numerous Doublers, x50% one ×3.75m in size: 69:356.7 - 334.6	Small patiches of 5-70 Avoidable through nouting	NGH LOW beyond 87 S43	o	New parkers combined the combined of the combi	of 20% 4to 20% 4 interpreted from MSE of 20% 2th 20% 2	200.64 Active codes 30.378 Active codes 30.378 Active codes 30.380 Active codes 30.304 Active codes 30.470 Active codes 30.470 Active codes 30.471	254/354 161.7m 264/91, 452m 264/95, 452m 264/209, 100.2m	B D 27:543.2-544.8	-Protection to vicinity of fair objection (6.5-(0.1.5)) - Further cases stope state	welD in nform/	NC 11-65-00 NC 11-65-01 NC 12-65-01 NC 12-65-02	29.451 4296 50.718 4564 50.48 4551 50.48 4551 50.41 4288	6 M44994 M44993 I M450532 2 M531-67	0.7 [D1.7]	NC 11-65-03 0.1 7 very low shrought ally CLAY 0.1 7 very low shrought ally CLAY 0.003 very low shrought ally CLAY 0.003 very low shrought ally CLAY 1.10 13-05 0.12 sealmentally low 10 very low shrought ally CLAY 1.10 13-05 0.12 very low shrought ally CLAY 0.13 very low shrought ally CLAY 0.13 very low shrought ally CLAY	CYSVC 11-45-03 Cay 158'a CYSVC 11-45-04 Cay 16-158'fa CYSVC 12-65-01 Sty Cay 108'a CYSVC 12-65-02 Sty Cay 108'a CYSVC 12-65-02 Sty Cay 10-158'a	A(45) 1	A (45.10)	A (4.5.10) A (4.5.10)		(H) Cross cabiles using delegated crossing (S) Find, cut, move and weight disused cabile (Fig Patendalisis of pinkage for tools without buoyancy capabilities
548.25 .5	.00 439120	6653619	429419	4453179	0.75	BEDROCK/TEL with veneer of CLAY		50° to 405	Bedrack or B interpreted, with a veneer of City.	۰	LOW	o	11.7 Unovoidable, but routing may reduce godernto 410 degrees.					0.4	one can	ampled			0.6	No sampile. Diamicton III or Bedrack	Supect uncorted granular aleposits of variable size , with very soft clay surfacial venere. Suital to \$2 /m may be confined to soft venere	Apr (1) (7,12) Apr	oj (7,10,12) - Brijoj (7,10,1)	A/8* (c.); (730,12) A/8* (o.); (730,	polland/demes sord may cause ride-out with plought.	(7) Steep slopes may exceed limitations of chosen tool, Imiting use. (1)(3) Potenticalistic of landings for tools without buyparray cognizabilities. (1)(3) If heartack encountered within assessed algoth, none of these tools will achieve target build.
549.00 22	30 459619	6653179	645014	4429116	8.50	CLAY (Schemely/Very Low Shangth)		405 to 440	Baland area across Fjord: 19 554.9 - 555.3 Interpreted as Bedrock/III with averlying clay reas harriport disposit.	۰	LOW	o	24.7 (2.555) 24.7 (2.555) 10.509 10		6337 Active cobin	552.333, 99.1m	*	۰	WC III	H205546	572419 67140	6671667	0	NC 8135543 86 Sedermely low changin sity CLAY	VC 81245-63 Sity Clay 106Pa	N/A*	4/A" N/A"	N/A" N/A"		Protection Level A - Client significan no protection in this area
557.50 8	ab 645014	6459114	676238	4454411	25.10	CLAY (Schemely/Very Low Strength)		500 to 440	Balled on concess Fjort: 9784 - 388/95 interpreted on Bedock/B with veneer/cover of city. Occasional boulders, 455% one >0.75m in size: 67.556 9 - 584.45	Patch of 5-20 Not avaidable	LOW	o	Conscious States of States Sta		SATOP Active octals 577-24 Active octals 577-24 Active octals 577-24 Active octals 577-24 Active octals 590-357 Out of use octals 590-357 Out of use octals 590-357 Active octals		B (C) IOP 586-7 - 588-7, IOP 591 - 592-8)	-Protection le vicinity of ten vicinity of ten vicinity of ten sope dob	rvel D in h farms.	II365-01A II3-655-01	596,194 A7300 590,893 A7542	5 AMESSA - AMES	0.7 (D 1.7)	INC B135564 OLS advantedly low thength siby CLAY VC B135501A OLSS distantely low to very low thrength sondy CLAY SSC-Gall very closeys SAND Labb 1-2 very low thrength siby CLAY VS B145061 SOT makemely low thrength siby CLAY SST-ASS very low thrength siby CLAY SST-ASS very low thrength sondy CLAY SST-ASS very low thrength sondy CLAY SST-12 statemely low to very low thrength siby CLAY	VC 812-55-04 Sity Clay 5-10kPa VC 812-55-01A Sity Clay, 10kPa VC 816-55-01 Clay 5-10kPa	A(1,452) A	4.57,10] A (1,457,10]	A(I.452.10) A(I.452.11		[] Subsurface bouldern may impede burial tools and cause reduced burial. (If Cross coblex size of segregate clossing SI Find. cut, more and weight dissuant closles (SI Find. cut, more only weight dissuant closles (SI Find. cut, more presented infestions of colors tool, Inting use. (If I) Potentialistic of sinkage for tools without buoyancy capabilities.
592.40 31	a) 676238	6684411	677261	4486119	2:00	BEDBOCK/TEL with veneer of CLAY or SAND/GRAVEL	Sample records clay (8.7m) over SAND to 0.7-2m jund of sample	er 530 to 800	Raised area across Fjord interpreted as Bedrac/III with city or sand/gravel veneer. Very rapid despening from 530m to 400m from 17: 9927-955.5 Occasional boulders, 50% are 90.75m in size- 10? 504-545, dithough found on part and starboard survey freet throughout section.	5-20 Avoidable through routing	10W	O	273 New products error cidable	eg 90% 81 to 50% in interruption from well-	\$6.216 Active coble		۵	Protection le vicinity of fish	CPNV	VC 814-25-01	200,248 6.369 200,248 6.369	# AAPORO1	1.5	VC 81555 GLA 0G.7 very law chength silly CLAY G.7-1.7 very silly SAND	vic BitSBOBA Sily Clay S20 kPa Sand Dr- unknown Depending on veneer Bicitiess, may expect unsched granular deposits saft clay saft clay server. Build to 0.7m may be confined to soft veneer.	A/R* (1 (7,12) A/R*	oj (7,10,10) B*(c) (7,10,1	A/8* (c.1) (730,12) A/8* (c) (730	iscland/dense sord may course rick-out with placegist. It is present and the sort sore that the sort of the sort of the sort sort of the sort of the sort of the sort present sort present present sort present sort present sort present sort present present sort present sort present	(7) Steep stopes may exceed limitations of chosen tool, limiting use. (13) Powerfacilitis of sinkage for tools without two-group copatibilities. (12) If bedrack encountered within assessed depth, core of these tools will achieve target solid.
594.60 63	00 677261	6684119	41254T	4495306	15.40	CLAY (Schemely/Very Low Strength)		80.5 to 857	Bourte in prodetility of explosive dumping ground KP 489.5 - 411.5	۰	LOW NGH beyond 4055	o	11.3 Section 1.0 (1.0 (1.0 (1.0 (1.0 (1.0 (1.0 (1.0	of 387, has east, these side steps, could not distribute as the segment of the country of the co	SALSS Active cobe SALSS Active cobe SALSS Active cobe SALSS Active cobe ALSS Active cobe ALSS Active cobe ALSS Active cobe	623.327, -27 Am	A (D 10' 5844-584, 10' 584,539,9	Protection levicinity of file 0 (0 1.5) Further cases slope stob	vel Din hforms	VC8174601	409-308 48254 405-377 49035	ARNIS	0 (D 1.7)	VCB145501 0-17 very lov strength stly CLAY VCB145502 0-0 Sethernelly low strength CLAY	CPQVC 81455-01 SBy Cloy, 5-10xPa VC 814-55-02 SBy Cloy, 10xPa	A (4.5.7) A	157.70] A (45.7.70)	A (4.57,10) A (4.57,10)		(4) Cross cables using designed crossing (5) Find, cut, move and weight disused cable (7) Steep slopes may exceed inflations of chasen fool, limiting use. (18) Potential risk of link ages for took without buoyancy capabilities
470.00 45	.75 (62547	6678306	702765	6703392	34.75	CLAY (interms);//very.Low Strength)		714 to 857	numerous boulders, 4585 are 40/3/min date. Of 912 8+ 6364 Occosional deuters, 7595 are 14/2/m in size. Occosional deuters, 7595 are 14/2/m in size. Of 92/3/4-630 boulders, 7595 are 14/2/m in size. Of 92/3/4-630 boulders, 7595 are 14/2/m in size.	Small patches of 5×40 Available through nouting	16Gm until EP 417 15Gm	o	International Control of the Contr	3	423.95 Active cobie 601.05 Active cobie 601.05 Active cobie 601.05 Active cobie 603.05 Active cobie 603.05 Active cobie 604.01 Active cobie 604.01 Active cobie 604.01 Active cobie	62,677, 79.5m 67.544, 42m	A (D 5° 414.5-40°3, 10° 420'-423)	-Profescion to vicinity of the following of the full o		NC 817-55-02	630. 507 49938E	4704051	0 (D 1.7)	INCESTIGATI SIGNATURE THE SIGNATURE OF	CPSVC 81745-01 589; Cloy, Cloyey St 51-5570 CPSVC 81745-02 589; Cloy 10-15670	A [47]	A (47,10) A (47,10)	A (47.10) A (47.10)		Int Cross catales using designed consing Of these sides may exceed installation of 10 American in an interpretation of the 10 American in an interpretation without away and you capabilities
63475 &	.70.2745	670392	721786	£7123£7	23.55	CLAY (julnorals) (Very Low Stergib)		.300 to 750	Read settin constitution of the probed on heads of the constitution of the constitution of the following and the constitution of the following and the constitution of the following and the following and following and following and following and following and following and following and following and following and following f	Sruel particles 5-20 Avail dolle Through reviring	sow	۰	Content of a said and	or data in a data interpretation in table of the second of	NALE PER CASH CODE TO THE ACTION CODE AND THE ACTION CODE AND THE ACTION CODE AND THE ACTION CODE ACTION	633.3%, 63.4m 444.015,	^	© durber crimers o stope stope	CHV CHV	NC BISSON MISSON NC BISSON	208. 425. 1000-06. 208. 679. 1000-06. 460. 488. 700-16. 460. 469. 1000-06. 460. 469. 7100-06. 460. 469. 7100-06. 460. 469. 7100-06. 460. 469. 7100-06. 460. 469. 7100-06.	1 AFMACH 2 AFMACH 3 AFMACH 4 AFMACH 5 AFMACH 4 AFMACH 4 AFMACH 5 AFMACH 4 AFMACH 4 AFMACH 5 AFMACH 4 AFMACH 5 AFMACH 5 AFMACH 6 A	0	INCLINESS. INCLIN	CPSVC BBSSG0 BB GG0, ISBN	N/A*(4.5) P	N/A* (4.5)	NAA* (6.5) NAA* (6.5)		Pouletto Land A. Chart Houston on Michael And Chart Houston on Michael Chart Houston on Michael Chart Houston on Michael Chart House on Michael Chart House on Michael Chart House on Michael Chart House on Michael Chart
459.70 44	AO 721784	6712367	794305	6712302	2.70	CLAY (Schemely/Very Low divergits), Outcope of HIDHOC EP 4805 - 4413	"Sedrack outdrops appear to b avolidable	200 to 74	Complex section. Nik of soft sediment and Bediocic. Incidences of soft find order motivation policy groups and bearing time. Considered as policy groups and present groups of to remark the policy of to remark the policy of to remark the policy of the to remark the policy of to remark the policy of to possed this company of the Septiment of the policy of the policy of the policy of the policy of the the policy of the policy of the the policy of the the policy of the the the the the the the the	Patches 5-40 across section Largely-unavoidable	LOW	٥	34 Godinnis servendadale st. Pautore di Independan non della est. el demographic descon di silono della est. el demographic della della est. della est. della della est. della e	Happin choice action of SEA for SEA fo	Mei 344 Out of use cable		*	© -Further cases	tinual times of states	mpled			0	No sample	Ripact off-endiment sufficial covering when surface laying	N/A*[5] 1	N/A* (3) N/A* (3)	MA* [3] MA* [3]		Photection Level A - Client sliguidates no protection in this ones gli find, cut , move and weight disused coble
41.40	A 72405	6712502		6713622	3.26	CLAY (Very Low Strength)		76 to 13	Nigh-density boulders, 1525 are 10,75min size, 17 443,45 - 443,8	Small patch of 240 Available through routing	sow	o	Gradient of Impersorage may be exact by seeling in the year property of the Name of the minis copy. Gradient is final landfall of the Market of Impersoration (MATA) is the service of the Market of Impersoration (MATA). The Market of Impersoration (MATA) is the service of the Market of Impersoration (MATA) in the Matanata of Imperso	A - CF 463.72 to 463.82 - Lobe from south covering 1 /5 of condition, steep mountain us does with guily above. 11	642.8P Active code 644.018 Active code 644.273 Active code		۵	Nearby quary vessel anche increased b	CPNV nytreight orage, burid	VC 819-55-08	LEI LEP 75/53	2712493	1.7	VC 8 1855 d8 0-1,7 very low changth stily CLAY	CPSVC BIBSSOB Clay, 158Po		8.7,10) A (4.7,10)			[4] Cross cobies using designed crossing (7) Steep slopes may exceed limitations of chases hoot, infrating use. (11) Francetasties of link ages for tools without buoyancy capabilities.
Note: 1. HDD exit of 1 2. Intro-cone KP 3. Potches of m 4. See CBRA reg 5. Af precent it i	degrees from North 1 anges of potential mot site sediments are rec at for full details, not possible to accura	70m away perpendic ple sedments are giv orded to their full KP e telyreport the sub sur	cular from 87007 survey of en in the "Seabed feature others? they lie in part or frace boulder risk or disti	entreline of KP 0.1 M' column. The mobile fully within a zone. ct from the surface bo	sediments column	gives the largest thickness of pot the two have been grouped to	enticity mobile sediment within the	sone as described by N	ew.T. Bedform size classification range is given in th	e report.																Bock placement estimates Option It: Jetting Remediat 2000, Backtillo Option 2: Jetting + pre-lay Remediat 1000, Backtillo	Dosings 27100, Theoretica	backfff, inhamucture creatings), m*3 otal: 40900, Practical total (factored)		

Option 2. Juding - pre-kay proughing IPO-BID-10-17-1281; Benedict IROS. (bookte-DOSC, cooring: 27:00. Newnodical state; 2020). Proc feed state (floatweellay 1.4; 1972). Lee Not by (processive) consistence of cultimate state of bette delical of tenendal mock a sone-by-sone-bods, including and a breakdown of RETENI, IRC IIII and help balance of the scale 67:0-17-280 and 67:38:-70 MALKI.