

M	MSRA Approval Cover Sheet			
Contract	Iona Subsea Main – Clai	mshell	Repair	
Task	Clamshell Repair			
Contractor	Caldive			
Approved By	A Macleod	Date	03/04/2023	



Method Statement & Risk Assessment

Subsea Water Main Repair, Sound of Iona

May 2023

Client: MacAulay Askernish Ltd.	Contractor: Caldive Ltd. CALDIVE
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Approved, certified or verified by the following:



Revision Document No:	Date Written:	Project Job No:
Rev. 0	03/04/2023	Bid No. 3946/22



Record of Amendments

Details of changes to the risk assessment, method statement or emergency plan are to be logged as part of the permanent record. Reasons for change should also be recorded.

Change	:		Revisio	n No:
By:		Signadi	Data	
Dy:		Signed:	 Date:	
Change	:		Revisio	n No:
			Date:	
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Authorisation for Use

This dive plan has been prepared in accordance with the Diving at Work Regulations 1997 and the Approved Code of Practice for Commercial Diving Projects Inland/Inshore L104 (Second edition) Published 2014.

The information contained in this document is confidential and proprietary. The contents must not be disclosed to any third party without the express and written approval of Caldive Ltd.

In accordance with the Diving at Work Regulations 1997 (SI 2776), Regulation 6(2)(b) (I) and Regulation 9, **John Mullen** is appointed by Caldive Ltd as a Diving Supervisor for this project as covered by the Approved Code of Practice for Commercial Diving Projects Inland/Inshore.(L104)

TBA will be allocated as Caldive's site safety representative and will assist the Supervisor in ensuring the safety on site.

This document has been prepared in accordance with Caldive Limited's quality procedures and has been authorised for issue by the following signatory.

[Redacted]



03/04/2023 Date of Issue

Jonn Beaton) Managing Director



Document Title: Document Ref:

1.0 Project Management Overview

Project Title	Mull to Iona Subsea Water Main Repair.		
Project Location	Sound of Iona		
Workscope Summary	Dive crew and equipment will be mobilised to the Isle of Mull.		
	The diving operation will be vessel based launching form the		
	ferry slipway at Fionnphort.		
Contract Conditions	Purchase order no. TBC		
Diving Contractor	Caldive Limited		
On-site Date	May 2023 TBC		
Health and Safety	Conduct on site will be consistent with the Caldive Health,		
	afety and Environment manuals, copies of which will be		
	available on site.		
	Diving will take place in compliance with the UK Diving at Work		
	Regulations 1997, the Inland/Inshore Diving Projects Approved		
	Code of Practice, and Caldive Limited diving procedures.		
Permit Details and	Scottish Water access permit and SEPA's Controlled Activities		
Notifications	Regulations		

Chart Extract of Repair Location





2.0 Project Information Summary

Diving Contractor	Caldiv	e Ltd, is contrac	ted to Mac	Aulay Asker	nish Ltd under	
Diving Supervisor		Mullon is appointe	d as diving s	uporvisor fo	r this project in	
Diving Supervisor (3 John I	source with Regulation 6(2) (b) (l) and Regulation 0 of the				
	accor			(I) and Reg	ulation 9 of the	
	Diving	g at Work Regulati	ons 1997.			
	All su	pervisors are famil	iar with the o	conduct of di	ving operations	
	on res	servoirs. All nomi	nated divers	are qualified	d to a minimum	
	of HSI	E Part III and have	in-date HSE	diving media	cal certificates.	
Team size and	A 5–m	han team will be us	sed for this p	roject. All no	ominated divers	
specialist skills	are qu	ualified to a minim	num of HSE P	art III and h	ave in-date HSE	
	diving	medical certi	ficates. P	erson spec	cific tasks or	
	respo	nsibilities are to b	e itemised.			
	* At leas	t two personnel should be	qualified in First Ai	d – The Superviso	r will be responsible for	
	arrangin	g their responsibilities.		Specialist		
Dive Name	Supervisor No.	Dive Certificate No.	Expiry	Ticket(s)	Role	
John Mullen						
ТВС						
TBC						
Dive equipment /	Allea	uipment will be d	esigned and	certified in a	ccordance with	
system	the I	nternational Mar	ine Contrac	tors Associ	ation Code of	
-,	Practi	ce for the Inspec	tion Testing	and Certific	ration of Diving	
	Plant	and Equipment a	s specified in	n document		
	Plait	Tost and Inspect	ion cortificat	oc will be on		
	D040.	Test and inspect		es will be of	i site.	
Additional equipm	ent Hand	scrapers and wire	brush. Ratch	net & socket	S.	
Subcontractor	N/A					
General site	Stron	g tidal currents an	d exposed to	passing ves	sels	
characteristics						
Access / Egress /	Acces	s with be by supp	ort vessel. D	iver access	& egress will be	
Stricken diver reco	very over t	he vessel's drop b	ow.			
PPE required	Sectio	on 6.2.1				
Medical Emergence	y 'Med	Dive' provides a d	iving emerge	ency medical	service	
Care	world	wide. Specialist m	edical advice	e is available	on a 24/7 basis.	
	+44 2	0 8762 8347 (See .	Appendix B)		-	
	In the	event of connect	ion problems	contact To	nside sunnort	
	on +4	4 20 8762 8379				



3.0 Dive Plan

Item	Details
Exposure	Open exposed site from North & South. Passing vessels.
	Potential access by public/fishing. Strong tidal currents.
Depth	Maximum water depth will be 4m. Working depth 4m.
Underwater visibility	Anticipated visibility (with lights if required) is 10m
Dive equipment	The diving equipment will consist of a portable surface
	supplied dive system using a high-pressure air reduced to low pressure provide the main air supply with two high pressure reserves on both the diver and stand-by diver supply lines. The divers will use KMB 37 and 18 hats with voice
	communication, hat mounted camera and lights. The length of the diver umbilicals will be 75m.The divers will carry 121 bailout cylinders on integrated recovery and weight jackets.
Recompression chamber	Twin lock recompression chamber is available at Caldive Ltd, Invergordon. The travel time from site to the recompression chamber is less than 6 hours.
Diver's gas supply	The diver's main supply will be air at 424 L/min and 10 Bar. Bailouts will be 12I minimum capacity at 230 Bar.
Dive times	Dives will be carried out using USN Revision 7 decompression tables and all dive times will be kept within no- decompression limits. Exposure limits will be restricted in accordance with Table 1 of ACOP I 104
Pollution	All dive equipment will be clean and free from grease.
	None significant anticipated.
Weather cut-offs	Weather cut-offs will be determined on site by the supervisor.
Air temperature	~12°C anticipated.
Water temperature	~10°C anticipated.
Diver access to water	From the vessel.
Surface communications	Mobile phones and VHF radio.
Signs, symbols and	Diving operation warning signs. Flag Alpha.
notices to be displayed	Daylight diving ops only will be carried out.
Vehicle access	Available at site.
Crew welfare facilities	Available locally
First aid personnel	1 x Diver Medic
	4 x First Aid at Work
Medical equipment	First aid kit and oxygen administration set available on site. Thorough examination will be done prior to use by the dive supervisor as part of mobilisation.
Casualty evacuation	See emergency procedures below.



4.0 Health and Safety

All site activity will be subject to a detailed risk assessment which will allow a safe, efficient method to be documented in advance of any site activity taking place.

Site incidents will be managed using the Caldive Emergency Procedures Manual, a copy of which will be held in dive control.

The closest known recompression chamber to the site is listed below. Journey time by road to this facility is 120 minutes.

Caldive Base – John Beaton
29 Mackean Crescent
Castle Avenue Industrial Estate
Invergordon IV18 0ES

Dav Time Telephone: +44 (0) 1349 853688 [Redacted]

In the event of a decompression incident, the Caldive site manager will contact the **'MedDive' hyperbaric consultant** on call on:

+44 20 8762 8347

They will advise on the most appropriate course of action; this may include transfer of the casualty to a chamber other than that named above.

First aid, including therapeutic oxygen, is to be administered as appropriate. The supervisor is to record the onset and development of any condition and accompany the casualty to the point of qualified medical evaluation.

In the event of an accident or incident on site requiring external assistance, contact the emergency services by telephone (999 or 112); at sea the coastguard may be contacted on VHF Channel 16. Upon making contact, follow their instructions. Take steps necessary to make the site safe and prevent further incident where possible. First aid is to be administered on site. Minor injuries are to be treated with first aid on site, the casualty is then to be taken to a place of treatment as required to allow evaluation of the injury and treatment by trained medical personnel if necessary.

All accidents, incidents and near misses are to be recorded and reported to management. Accident investigation will be carried out in accordance with company operating procedures. Minor incidents requiring first aid are to be recorded, reported and first aid kit used is to be replaced.

Emergency Services may be contacted by telephone on 999 or 112 or by using VHF on Ch16.



4.1 Hazard identification

Risks relevant to civil engineering diving operations will be reviewed prior to commencement of operations on site by:

Name:	Role:	Signed:	Date:
John Mullen	Dive Supervisor		
ТВА	Diver		

With regard to site operations, risks are accounted for in the risk assessment shown in Appendix A, which includes all the items considered in the Caldive Limited risk assessment requirements. Following risk assessment, all residual risk ratings will be judged to be acceptable before diving operations commence.

4.2 General note

All injuries, accidents and dangerous incidents must be reported to John Beaton, and accident report forms completed as appropriate.

In the event of an accident, the diving supervisor will contact Iain Beaton, Caldive MD and Angus McDowall (Client rep) at the earliest opportunity.



Document Title: Document Ref:

5.0 Key Contacts

Name / Position	Company	Contact Details
Managing Director		Tel: [Redacted]
lain Beaton	CALDIVE	Mob:
	DIVING SERVICES WORLDWIDE	E-mail:
Ops Director	CALDIVE	Mob: [Redacted]
John Mullen	DIVING SERVICES WORLDWIDE	E-mail:
Caldive Office	CALDIVE	Tel: [Redacted]
Admin	DIVING SERVICES WORLDWIDE	E-mail:
Angus McDowall	ANACHULAR ADRESMEDT (D	Mob: [Redacted]
Contracts Manager		Email:
	outerrichquorry com	[Redacted]
Andy	MACHILA AMERICA IS	Mob:
		Email:
	colemit/dquary.com	[Redacted]
TBA	Castlink	Mob:
On-site Contact	Scottisn	
	Trusted to serve Scotland	
Coastguard	Stornoway	Tel: 01851 702013
	Medical Assistance	9
Local Doctors	The Surgery,	Tel: 01681 700261
	Bunessan,	
	Isle of Mull, PA67 6DG	
Hospital	Lorne & Islands General	Tel: 01631 567500
	Hospital,	
	Glengallan Rd.	
	Oban, PA34 4HH	
MedDive, diving		Tel: +44 20 8762 8347
emergency medical		
service (See Appendix B)		
Any problems with		Tel: +44 20 8762 8379
connection, contact		
Topside support		



6.0 Method Statement

6.1 General Conduct

Diving operations will be carried out in accordance with standard operating procedures and Caldive Diving Rules.

All personnel will wear appropriate PPE.

Where there is likely to be interaction with the public, barriers must be put in place to prevent interference to diving equipment and to safeguard the public against injury from diving plant and equipment. Personnel will be briefed on appropriate behaviour and client confidentiality when dealing with the general public both on and off site.

6.2 Site Safety

6.2.1 PPE

All personnel will wear standard personal protective equipment when on site.

This will consist of high visibility jackets or waistcoats, minimum Class II, 150n Auto Inflation 'Crewsaver' type lifejackets, protective footwear with mid-sole protection, and hard hats. Additional hand, eye and face protection will be worn when using power tools.

Hearing protection must be worn in noisy environments.

Diving will be carried out using Kirby Morgan 37 hard hats c/w hat mounted lights and camera. The divers will use neoprene dry suits. Gloves will be 5mm neoprene in good condition and free of holes with elasticised wristbands.

6.2.2 Task Briefing, Tool Box Talks (TBTs), Site Inductions

The Caldive project manager will ensure that the dive team is fully briefed and understands the precise nature of the project including equipment and methods to be used, site conditions and rules and client requirements.

All personnel will attend a site induction where applicable, usually carried out by the client, and task specific briefing and daily tool box talks to be carried out by Caldive Limited site supervisors.



6.3 Resources Supplied by Caldive Limited

- RAMS
- Five-man dive team
- Dive control system
- Support Vessel
- Video system

6.4 Schedule of Work

6.4.1 Site Documentation

Prior to the commencement of the site operations, the following will be in place;

- The Caldive method statement and risk assessment
- All divers' certification to be approved.
- The dive system certification to be issued and approved.
- Scottish Water access permit.

6.4.2 General Site Management

- The dive supervisor will maintain a day log recording the site activity for each shift. The supervisor will compile a dive plan which will be communicated to and agreed by the client.
- The stand by diver will be at immediate readiness at all times whilst the diver is in the water.
- The air inlet for the dive compressor is to be situated upwind at all times and must be regularly checked to ensure that the wind has not changed direction.
- All refuelling of machinery to be carried out while engines are off and cool. The vessel is equipped with a range of fire extinguishers which will be used to control any fire resulting from a spillage of fuel.
- Drip trays will be supplied for all engine driven units. In the event of a fuel spill, the team will immediately use the containment kit to control and neutralise the effect of the spill.
- The dive team will immediately contain and neutralise any spills of oil or fuel using appropriate containment equipment.
- All personnel will monitor the area for vessel movements and will ensure that non-essential personnel remain outside the area of the diving operation.



6.4.3 General Method

- Caldive will mobilise plant and personnel to Fionnphort, Isle of Mull
- The dive team will meet with the Scottish water representative to carry out tool box talks and sign onto access and isolations
- The diving equipment will be assembled on the support vessel.
- Dive times will be planned around periods of slack water.
- The vessel will transit to the repair location.
- The vessel will moor in close proximity to the repair location.
- The diver will carry out a video survey of the repair locations.
- The repair locations will be cleaned of all marine growth.
- If required, the diver will use a lift bag to raise the pipe string clear of the seabed.
- The vessel will lower the repair units to the diver.
- The diver will fit the repair units to the pipe at both locations.
- The video survey and report will be produced for the client.



Appendix A – Risk Assessment

Job Number: Bid No. 3946/22

RISK ASSESSMENT / TASK SAFETY ANALYSIS RECORD

Date(s):	May 2023
Location:	Scottish Water, Sound of Iona
Procedures:	Hazard Identification and Risk Assessment
Activity:	Subsea Water Main Protection Repair
Customer:	MacAulay Askernish Ltd

Basic HSE Requirements							
1. Basic PPE / Coverall	~	8. Respirator		15. Electrical Isolation		22. Competent Personnel	~
2. Basic PPE/ Hard Hats	~	9. Life Vest	~	16. Permit to Work	~	23. Toolbox Talks / Briefings	~
3. Basic PPE/ Safety Boots	~	10. Safety Harness		17. Risk Assessment	~	24. Certified Equipment	~
4. Basic PPE/ Goggles	~	11. Face Shield	~	18. Life Buoy		25. Spill trays	~
5. Basic PPE / Gloves	~	12. Ventilation	~	19. Guarding		26. other	
6. Basic PPE /Hearing Protection	~	13. Fire Extinguisher	~	20. Lockout/Tag out	~	27. other	
7. Basic PPE /Eye Protection	~	14. Equipment Rigging/Lifting	~	21. Communications	~	28. other	

HSE Procedures:

- 1. Health, Safety and Environment Policy
- 2. Air Diving Procedure Manual
- 3. Accidents and Incidents Procedure
- 4. Environment Protection Procedure
- 5. Hazard Identification and Risk Assessment
- 6. Diving Emergency Response Plan
- 7. Lifting & Rigging Strategy

Quality Management	t System			
Section 3:	Standard Forms	CALDIVE	Document Title:	MS & RA
Standard Revision:	4 (Mar. 2021)	DIVING SERVICES WORLDWIDE	Document Ref:	SF-14.1

	Severity of Harm						= Probability	x Severity		
-		1	2	3	Probability	Severity	Rating			
		Slightly		Extremely	1	1	1			
		Harmful	Harmful	Harmful	1	2	2			
		Highly	Minimal	Tolerable	Moderate	2	1	2		
÷	1	Indikabu	Diele		Diek	3	1	3		
e / o		Uniikely	RISK	RISK	RISK	1	3	3		
lity nc	2	2	2	Unlikoly	Tolerable	Moderate	Substantial	2	2	4
abi rre	2	Unikely	Risk	Risk	Risk	2	3	6		
ob; cu	•	Likoby	Moderate	Substantial	Intolerable	3	2	6		
Pro 3		сікеју	Risk	Risk	Risk	3	3	9		

	Risk Assessment Guide					
Risk Rating	Description	Hierarchy of Risk Control				
0.2	Minimal/Tolerable	The probability of occurrence and severity of harm is minimal. The task/operation will be able to commence.				
0-2	Risk	No additional controls required or at least with very little implication.				
3-5	Moderate Risk	Risk needs to be reduced but only balanced with cost. Actions and control measures can be agreed to carry out the task in a safe manner. If moderate risk is linked to high severity then further reviews may be necessary to implement correct control and procedures.				
6	Substantial Risk	Agreed actions, costs, timescale and reviewed controls to be authorised by management.				
9	Intolerable Risk	Task must not proceed until risk has been reduced to tolerable level. Agreed actions, costs, timescale and reviewed controls to be authorised by management.				

Quality Management System Section 3: Standa

Standard Revision:



		LE	VEL	1 AS	SSES:	SMENT				
		Potential Effects	Se	everi	ty	Decomposed of Cofe Job	Recommended	R	esid	ual
Activity	Hazard Description	& Personnel	Ratin		g	Recommended Sale Job	Safety	Seve		ity
Description		Exposed	S	Р	R	Procedures	Requirements	S	Р	R
		Table Legend: S	= Se	veri	ty P :	= Probability R = Risk				
Manual Handling	Load Weight, Size Shape, Location. Lifting, Moving, Carrying, Lowering.	Injury to Personnel/ Third Party Personnel. Physical Damage to Equipment e.g./ Equipment Dropped. Company reputation.	3	2	6	Manual Handling/ Trained Personnel/ Onshore Base Safety Handbook/ Site Toolbox Talk/ Weight Identification/ Warning Signs/PPE / Posted Safety Notices.	1-7	3	1	3
Mobilising onto Site	Pollution of the surrounding environment.	Damage to site. Pollution. Damage/disturbance to wildlife and vegetation. Company reputation.	3	3	9	Follow strict guidelines set out by client. All plant and equipment to be in good condition free from leaks. Place all plant on spill mats. Regularly check plant for leaks. Fueling to be carried out at least 10m from water. TBT and site briefings. Good supervision.	16, 17. 19 – 25.	3	1	3
Maintenance & Use of HP Systems	225 Bar high pressure	Serious injury to, Compressor Sets- servicing personnel. Physical Damage to Equipment. Company reputation.	3	3	9	Isolate all power supplies / Support/restrain equipment to prevent movement / Before dismantling ensure all residual pressure in all parts of equipment, on the panels of air supply, in hoses are released / Trained Personnel / Certified Equipment / Warning Signs	1,2,3, 20 - 24	3	1	3
Use of All Type of Air Diving Equipment (General)	Equipment used outside operating parameters / Mixing/ use of uncertified equipment	Physical Injury personnel/Third party Personnel. Damage/Down time of equipment. Company reputation.	3	3	9	Use trained competent personnel / Operate within Caldive Operating procedures / Check all equipment for certification / Secure/dispose of all non-certified equipment	21 - 24	3	1	3
General Movement of Personnel Around Site	Slip/Trip/Fall	Injury to Personnel/Third Party Personnel. Equipment/Device Damaged/Dropped Company reputation.	2	2	4	Site Toolbox Talk / Good Housekeeping / Anti-slip Surfaces / Warning Signs / To keep working place clean	17, 23	2	1	2

Standard Revision:



		LE	VEL	1 AS	SES	SMENT				
		Potential Effects	Se	everi	ty	Decomposed of Cofe Job	Recommended	R	esid	ual
Activity	Hazard Description	& Personnel	F	Rating		Recommended Sale Job	Safety	Sever		ity
Description		Exposed	S	Р	R	Procedures	Requirements	S	Р	R
		Table Legend: S	= Se	verit	ty P :	= Probability R = Risk				
General Movement of Personnel Around Site	Quayside ropes trip hazard	Injury to Personnel/Third Party Personnel. Equipment/Device Damage Company reputation	2	2	4	Keep loading activity clear of vessel moorings/do not interfere with 3 rd party mooring ropes	17, 21 - 23	2	1	2
Dropped/Falling Items During Handling or Transport Movements	Dropped / Failure of Lifting Equipment	Injury to personnel / Third party personnel Equipment Damaged/Dropped Company reputation.	2	2	4	HSE instructing at the working place before operations commencement / Inspection/certification of lifting equipment. Trained Personnel / Follow procedures.	1 – 7, 21 - 23	2	1	2
Personnel Environment	Weather conditions	Injury to personnel./ Third Party Personnel / Equipment/device damage Company reputation.	2	2	4	Risk Assessment – Delay work, Use appropriate protective equipment	21 - 23	2	1	2
Adjacent Work	Hazards generated by other work parties	Injury to personnel./ Third Party Personnel Equipment/Device damage Company reputation.	2	2	4	Use PTW System / Discuss interface with supervisory personnel / Where conflict cannot be avoided work to be prioritized by Management / HSE instructing at the working place before operations commencement /_Trained Personnel	20 - 24	2	1	2
Working Excessive Hours	Fatigued Personnel	Physical Injury to personnel. Damage to equipment. Company reputation.	2	2	4	Provide adequate manning levels / Take regular rest breaks / Working in excess of normal hours must be authorized by client and to be controlled by supervision.	16, 21 - 23	2	1	2
Working With Hand Tools	Injury to Personnel	Physical Injury to personnel/Third Party personnel Damage to equipment. Company reputation.	3	2	6	HSE instructing at the working place before operations commencement / Ensure all hand tools are operational / Personnel trained in tool use / Take relevant precautions.	1 – 7, 22 , 23	3	1	3

Quality Management System Section 3: Standar

Standard Revision:



	LEVEL 1 ASSESSMENT									
Activity Hazard Description & Potential Effect		Potential Effects & Personnel	Severity Rating		ty g	Recommended Safe Job	Recommended Safety	R S	esid ever	ual ity
Description		Exposed	S	Р	R	Troccures	Requirements	S	Р	R
		Table Legend: S	= Se	veril	ty P :	= Probability R = Risk			-	
Equipment Unfit for Purpose	Use of potentially unfit/hazardous equipment.	Physical Injury personnel/Third party Personnel. Damage/Down time of equipment. Company reputation.	3	3	9	Ensure work-scope is fully detailed and supplied equipment is of correct standard / Follow mob/demob. procedures / Unfit equipment must be off-hired	17, 22 - 24	3	1	3
Fueling of Plant	Pollution/ Fire Risk	Severe Injury to Personnel/Contaminati on of harbour area / physical injury Down time of equipment/ Damage	3	3	9	Correct storage containers and fuel transfer systems/ Use of drip trays / Emergency spill kits on site/ No refueling of hot engines/ Fire extinguishers of the correct type to be immediately available	17, 22, 23	3	1	3
Recovery of an Injured and/or Unconscious Diver	Time Delay in securing and recovering the diver to a Place of Safety Further Injury to the Diver	Injury to diver, Death Company reputation.	3	3	9	Provision of FRC to Recover the Diver from the Water/ Use trained competent personnel / Site Toolbox Talk/ Provide adequate manning levels	17, 21 - 23	3	1	3
Tending the Diver	Fouling of the Diver's Umbilical, Damage to Diver's Umbilical	Injury to Diver/ Physical Damage to Equipment Company reputation.	3	3	9	The tender will constantly monitor the position of the umbilical, the tender will be in direct communication with the supervisor,	17, 21 - 23	3	1	3
Diver Worksite Access and Egress	Injury to diver, diver exhaustion due to insufficient access system.	Injury to Personnel/ Third Party Personnel. Physical Damage to Equipment e.g./ Equipment Dropped. Company reputation.	3	3	9	Establish safe access and egress system/Use trained competent personnel / Site Toolbox Talk/ Provide adequate manning levels	17, 21 - 24	3	1	3
Diver Buoyancy Control	Uncontrolled, Rapid Ascent or Descent	Serious Injury to the Diver Company reputation.	3	3	9	Detailed Planning/ Establish Down Line(s) to Job Site /	17, 21 - 23	3	1	3

Quality Management System Section 3: Standard

Standard Revision:



		LE	VEL	1 AS	SSES:	SMENT				
A	Potential Effects		Se	Severity		Decommonded Cofe Job	Recommended		Residua	
Activity	Hazard Description	& Personnel	F	Rating		Recommended Sale Job	Safety	Severit		ity
Description		Exposed	S	Р	R	Procedures	Requirements	S	Р	R
	·	Table Legend: S	= Se	veri	ty P :	= Probability R = Risk				
Loss of Primary Air Supply	Interruption to Diver's Air Supply	Injury to diver, Death Company reputation.	3	3	9	Use of bail-out cylinder fully charged, 2no. HP reserve lines to the diver's supply on the dive control panel	17, 21 - 24	3	1	3
Loss of Communication with the Diver	Failure of Voice Comms	Hazard to Diver due to loss of direction by supervisor Company reputation.	3	2	6	Detailed planning of Diver Recovery Plan in the Event of Comms Failure/ Alternative Communication Plan e.g. Use of Hat Light to Signal Diver	17, 23	2	1	2
Diving in Poor In-water Visibility	Diver Entrapment, Diver Unable to Locate Worksite	Physical Injury to Diver, Lost time. Company reputation.	3	2	6	Detailed planning of work site access/ diver familiarization with the vessel and task location/ establish down lines and work lines/	17, 21 - 23	3	1	3
Diving in a Tideway	Diver Entrapment	Injury to diver/ Death/ Physical Damage to Equipment	3	3	9	Detailed Planning of Task/ Site Assessment to Cover Tidal Conditions/ Diving Ops Restricted to Slack Water Period or Period of Reduced Tidal Flow/ Diver to be Aware	17, 21 - 23	3	1	3
Passing vessels	Wash, Collision, Propellers	Fatal injury to diver if struck by vessel or propeller. Disruption to job/delays. Lost tide due to delays	3	2	6	Maintain a good watch. VHF radio to contact passing vessels	21 - 23	3	1	3

THIS RA/TSA MUST BE DISCUSSED WITH PERSONNEL DIRECTLY INVOLVED WITH THE JOB PRIOR TO JOB EXECUTION!

Attendees of Job:

Full Name	Position	Signature
	Supervisor	
	Diver/Safety	
	Diver	
	Diver	
	Diver	

Prepared by:	John Mullen	Operations Director	03/04/2023
	(name, surname)	(position)	(date)
Reviewed by:	Karen Mullen	Administrator	03/04/2023
	(name, surname)	(position)	(date)
Authorised By:	John Beaton	Managing Director	03/04/2023
	(name, surname)	(position)	(date)



Safety Representative's Responsibilities

To assist in ensuring the health and safety of all personnel, one member of the dive team shall be appointed 'Safety Representative'.

Caldive shall appoint one member of the Dive team as a Site Safety Representative. The Site Safety Representative's responsibilities will include:

- Assisting the Dive Supervisor with monitoring site safety
- Maintaining crew awareness of site safety
- Report any Hazards or Concerns (HOC) raised by the dive team to the Dive Supervisor
- Where required, attend site safety meetings



Appendix B – MedDive Procedure





Contract for the provision of MedDive Services DD021

APPENDIX 6

This is the Procedure for use of The Diving Medical Support Emergency Service

Calls will be handled by International SOS which is a 24/7 emergency call facility Emergency telephone number

+44 20 8762 8347

This number operates 24 hours a day.

- The operator will request caller details in case of disconnection
- State you have Diving Emergency
- State your contract is with the National Hyperbaric Centre
- You will be connected with the on-call Diving Doctor

If there is any problem with the connection or number please contact Topside support on

+44 20 8762 8379



Appendix C – COSHH Assessment

Job Number: Bid No. 3946/22



COSHH Assessment

Oxygen

Material Name	Oxygen
Area of Use	Site. Open air in proximity to dive control and welding plant
Method of Application	By pressure hose to diver from pressurised cylinder.
Storage	Keep cylinder below 50 degrees C in well ventilated space.
	Secure cylinder from falling over.
	Segregate from other flammable materials.
Exposure Period	10 hours per day.
Health Risks	Not poisonous.
Spillage Controls	Ensure cylinder is closed when not in use.
	Ensure that delivery hoses are in good condition
	Check system for leaks
PPE	Hand and eye protection to be worn when handling cylinders.
Disposal	Return cylinder to supplier
Additional Comments	See attached data Sheet Do not smoke while handling this product.
First Aid	Inhalation not hazardous.
Fire Fighting	Exposure to fire may cause cylinders to rupture/explode.
	Oxidant. Strongly supports combustion.
	May react violently with combustible materials e.g. hydrocarbons.

Diesel Fuel

Material Name	Diesel Fuel
Area of Use	Site. Open air in proximity to dive control and welding plant
Method of Application	From steel storage containers.
Storage	To be stored in secure area. Containers (max.25l capacity) to be
	secured to prevent them from falling over. Segregate from other
	flammable materials.
Exposure Period	10 hours per day.
Health Risks	Toxic. Avoid direct skin contact and inhalation of fumes and exhaust
	gases.
Spillage Controls	Ensure cylinder is closed when not in use.
	Ensure that delivery hoses are in good condition
	Check system for leaks Spill kit available. Do not allow to pollute
	natural watercourse or drains. Store in bunded area
PPE	Hand and eye protection to be worn during refuelling of plant.
Disposal	Return all fuel to base.
Additional Comments	See attached data sheet. Do not smoke while handling this product.
First Aid	In the event of swallowing do not induce vomiting. Seek immediate
	medical assistance.
Fire Fighting	Exposure to fire may cause cylinders to rupture/explode.
	Oxidant. Strongly supports combustion. Foam or dry powder
	extinguishers only to be used.



Document Title: Document Ref:

Petrol

Material Name	Petrol Fuel
Area of Use	Site. Open air in proximity to dive control and welding plant
Method of Application	From steel storage containers.
Storage	To be stored in secure area. Containers (max. 25l capacity) to be
	secured to prevent them from falling over. Segregate from other
	flammable materials. Store away from sources of ignition. Designate
	storage area a no-smoking zone. Spill kit available. Do not allow to
	pollute natural watercourse or drains.
Exposure Period	10 hours per day.
Health Risks	Toxic. Irritant. Avoid direct skin contact and inhalation of fumes and
	exhaust gases.
Spillage Controls	Ensure cylinder is closed when not in use. Ensure that delivery hoses
	are in good condition. Check system for leaks. Spill kit available. Do
	not allow to pollute natural watercourse or drains. Store in bunded
	area
PPE	Hand and eye protection to be worn during refuelling of plant.
Disposal	Return all fuels to base.
Additional Comments	See attached data sheet. Do not smoke while handling this product.
First Aid	In the event of swallowing do not induce vomiting. Seek immediate
	medical assistance.
Fire Fighting	Exposure to fire may cause cylinders to rupture/explode.
	Highly flammable. Strongly supports combustion. Foam or dry powder
	extinguishers only to be used.



Appendix D – Repair Method

Job Number: Bid No. 3946/22



Document Title: Document Ref:



Vos Prodect Innovations BV Doorndistel 1 7891 WV Klazienaveen The Netherlands Email: info@vos-prodect.com Tel: +31 (0) 591 315 600

MANUAL SCOTTISH WATER SOLUTIONS REPAIR SET This manual describes how to repair an existing cable protection string, while enlarging the internal diameter of the protector string to accommodate a repair kit. Step1 After repairing the water main supply first assemble the "cross-over M160 to F235" parts to the existing CPS-160-500 male end and secure those with the M12 bolts and nuts (see Figure 1). CPS-160-500 CPS-160-500 er M160 to F235 c Secure with M12 bolts & nuts Figure 1 Step2 Assemble the necessary amounts of CPS-235-333 to the "cross-over M160 to F235" parts and secure those with the M10 bolts and nuts (see Figure 2). CPS-235-333 Figure 2 page 1 of 2



Document Title: Document Ref:



Vos Prodect Innovations BV

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Step3

Assemble the "cross-over F160 to M235" parts to the CPS-235-33 and the existing CPS-160-500 female end and secure those with the M12 bolts and nuts (see Figure 3).



After assembling and securing all the parts, the water main supply and repair kit are fully protected again.

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