Rig Visit Verification Report

Borgland Dolphin

AUDITEE
Dolphin Drilling
AUDIT NO.
EA-2020-9
APPROVAL

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Contents

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Introduction

Wellesley Petroleum AS (Wellesley) is planning to drill the well 6204/11-3 Schweinsteiger in production license 829 using Dolphin Drilling's semi-submersible drilling unit Borgland Dolphin.

As part of the rig intake plan and the Schweinsteiger audit, review and verification plan, Wellesley has committed to conduct an HSE and technical rig verification including IT and communication solutions.

Wellesley will use the Borgland again in 2021 to drill a second firm well called Hemispheres and also have two slot options for other possible wells in 2021. This rig verification of Borgland will therefore be the foundation for the well specific assessments that will be done in 2021 to build on the rig intake performed in 2020.

The rig visit/verification was carried out 30th of June to 1st July 2020, while the rig was receiving equipment at Feda in Norway.

A marine inspection was carried out during transit from Knarr to Green Base Feda 13th-15th June 2020. This inspection is covered in a separate report.

Purpose

The purpose was to verify that Dolphin is following contractual requirements, relevant regulations, and standards and that the 4th generation semisubmersible drilling rig Borgland Dolphin is fit for purpose for drilling the Schweinsteiger exploration well.

Scope

- Perform verification activities on identified issues from rig intake plan
- Assess rig status prior to startup of Wellesley operations
- Follow up onshore rig intake verification meetings, HSE and technical
- Spot check findings from previous operator, Shell rig intake and verify closed status

Abbreviations and definitions

The following abbreviations and definitions are used in this document:

Abbreviations/Definitions	Term
AFFF	Aqueous film forming foams
BAT	Best Available Techniques/Technology
BEP	Best Environmental Practice
BMS	Business Management System
BOP	Blowout Preventer
BSR	Blind Shear Ram

CCR	Central Control Room
DDM	Top Drive
DDMS	Dolphin Drilling Management System
EHBS	Emergency Hydraulic Backup System
EoW	End of Well
ESD	Emergency Shutdown
EX	Explosive Proof
GA	General Assembly (Drawings)

Abbreviations/Definitions	Term
HAZID	Hazard Identification – a systematic assessment to identify hazards and problem areas associated with systems, operation, design, and maintenance.
HPU	Hydraulic Pumping Unit
HSEQ	Health, Safety, Environment and Quality
IBC	Intermediate bulk containers
K/C	Kill and choke
LED	light-emitting diodes
LGA	Lower Guiding Arm
LTE	Long-Term Evolution (Wireless Broadband)
MOU	Mobile Offshore Unit
MP1 & MP2	Mud pump 1 & 2
MWM	Maritime Waste Management
MWP	Maximum Working Pressure
NAS	Network-Attached Storage
NCR	Non Conformance Report?
NCS	Norwegian Continental Shelf
NEA	Norwegian Environment Agency
Non-Conformity (NC)	A non-conformity is an inconsistency between actual conditions and specified requirements e.g. in form of legislation, contracts or conditions specified in Dolphins Management System. Any Nonconformity found during the verification requires written corrective actions from Dolphin.
NOROG	Norwegian Oil and Gas Association
NORSOK	Norsk Sokkels Konkurranseposisjon
Observation (O)	An observation is not a non-conformance, but something that could lead to a non-conformance, if allowed to continue uncorrected; or an existing condition without adequate supporting evidence to verify that it constitutes a non-conformance. Observations found during the verification require written comments from Dolphin with actions taken.
OIM	Offshore Platform Manager
OHS	Occupational Health Services
PA	Public Address

PLC	Programmable Logic Controller
PPE	Personal Protective Equipment
RIT	Rig Intake Team
ROV	Remotely Operated Vehicle
SAP	Maintenance System
SDir	Sjøfartsdirektoratet
SDS	Safety Data Sheet
STT	Slop Treatment Technology
Synergi	Reporting System
Sypol	Chemical database
TaTo	Time-out for Safety
TBT	Toolbox talk
UKCS	United Kingdom Continental Shelf (region of waters surrounding the United Kingdom)
UPS	Uninterrupted Power Supply
VSAT	Very Small Aperture Terminal
WAN	Wide Area Network
Abbreviations/Definitions	**Term**
WEAC	Working Environment Area Chart
WP	Work Permits

References

The Petroleum Safety Authority:

- The Framework Regulations
- The Management Regulations
- The Facilities Regulations
- The Activities Regulations

Wellesley Petroleum

- WE-M-PDP-P-03 How WE Manage Rig Intake
- SCHW-WLSLY-D-TA-0609 Rig Intake Plan
- WE-S-QHSE-PL-02 Audit, review, and verification plan
- SCHW-WLSLY-S-TA-0602 HSE Plan
- 2020 Rig Contract Borgland Dolphin

Dolphin Drilling AS:

- Relevant procedures from DDMS

Summary

The Rig Intake Team (RIT) would like to acknowledge the support provided by Dolphin personnel during the verification. All persons involved from Dolphin were helpful and positive. The rig was in Feda to pick up equipment for the Schweinsteiger well. During the verification, none of the service providers were present. Wellesley plan to install a Soiltech unit for slops handling and vacuum cleaning and Schlumberger unit for wireline operations. Follow up of the service providers and the installation work will be done on the next rig visit/verification in August.

A site inspection was carried out after the opening meeting. The general impression is that this is a well function rig. Housekeeping was good despite being in between wells with ongoing maintenance work and equipment installations to get ready for the Schweinsteiger operation.

The RIT identified 31 findings, which included 3 non-conformances and 28 observations. The findings are described in chapter 0 and summed up in an action list for follow up in chapter 0. The overall impression of the verification was positive and none of the findings are considered critical for the Schweinsteiger operation.

Method

General

The verification was conducted by a site visit on Borgland Dolphin at Feda while preparing for the Schweinsteiger well operations. The rig verification activities are described in chapter 3.2. The verification started with an opening meeting with relevant personnel, followed up by interviews and rig inspections. The preliminary findings were presented in a close-out meeting.

Rig activities

Activities 30st of June (IT Lars Solvang)

- Arrived rig: 08:30 30th June
- Familiarize with rig and personnel onboard
- Tour of the rig with Safety officer
- Meeting with Øyvind Ellingsen, IT Operation Lead.
- Departed from rig 17:00

Activities 30th June – 1st of July (QHSE - Anniken B. Meisler/ Åse K. Pettersen)

- Arrive rig: 08:30 30th June
- Held startup meeting
- Performed safety round and induction
- Checked availability of relevant personnel to be interviewed
- Performed scope according to Rig visit check list
- Interviewed OIM, Safety, Medic, Safety Delegate, Toolpusher, Onshore HSEQ Advisor, Camp Boss
- Performed inspection outside/Tour of the rig with Safety
- Participated in Permit to work meeting
- Held closeout meeting
- Departed from rig 18:30 1st of July

Activities 30th June – 1st of July (Technical - Stig Seland)

- Arrived rig: 08:30 30th June
- Held startup meeting
- Performed safety round and induction
- Checked availability of relevant personnel to be interviewed
- Performed scope according to Rig visit check list
- Interviewed Crane Driver, Driller, Derrickman, Electrician, OIM, Toolpusher
- Performed inspection outside/Tour of the rig with OIM, Safety rep and Toolpusher
- Held closeout meeting
- Departed from rig 18:30 1st of July

Activities 30th June – 1st of July (Environmental - Christina S. Rødne)

- Arrived rig: 08:30 30th June
- Held startup meeting
- Performed safety round and induction
- Checked availability of relevant personnel to be interviewed
- Performed scope according to Rig visit check list
- Interviewed HSEQ Advisor, OIM, Subsea, Medic, Safety, Chief Engineer and Storekeeper
- Performed inspection outside/Tour of the rig with Safety
- Held closeout meeting
- Departed from rig 18:30 1st of July

Participants

Rig Intake Team

Name	Position	Company
Stig Seland	Rig Intake Lead	Wellesley/Well Expertise
Anniken B. Meisler	QHSE Coordinator	Wellesley/Well Expertise
Christina Sæland Rødne	Environmental Coordinator	Wellesley/Well Expertise
Åse K. Pettersen	QHSE Coordinator/Lead	Wellesley/Well Expertise
Lars Solvang	IT/Comms. Focal Point	Wellesley/Well Expertise

Dolphin Drilling

Name	Position	Participated in:		
		Opening meeting	Interview	Closing meeting
Rune Eikeland	OIM	X	X	X
Kim R. Jensen	Toolpusher		X	X
Irving Haraldson	Safety Coordinator	X	X	X
Bruno Lalic	Ass. Rig Manager	X		X
Roger Vangman	Medic		X	
Donald MacKenzie	Crane Operator		X	
Hermod Kvalvik	HSEQ Advisor	X	X	X
Anne Vegge	SVP HSEQ	X	X	X
Morten Haugland	Rig Manager	X		X
Harald Andersen	Camp Boss		X	
Geir Vik	VO		X	X
Gaute Kvamme	Driller	X		
Stuart Smith	Toolpusher	X		
Knut Kaland	Manager Lay-up	X		X
Lawrence Nevin	Chief Engineer	X	X	
Birger Lødner	Technical Supt.	X		
Øyvind Ellingsen	IT Operation	X	X	
Johnny Sanne	Subsea Sup.	X	X	X
Sigve Jordal	Derrickman		X	

Ståle Kvaalen	Electrician		X	
Jens Døsjeland	Sr. Electrical Instrumentation Technical Engineer		X	

rig visit/verification findings

Categories of findings

Findings are categorised as:

- Non-conformance (NC)
- Observation (O)

Each finding is classified according to Wellesley Risk Matrix. The reported non-conformances and observations shall be followed up as soon as possible. All relevant actions and/or mitigating measures from this visit, including action owner and due date, will be transferred to the Rig Intake Follow-up Register for follow up by Wellesley who is the overall responsible. Deadline for responding to the actions are set to **14 days** after receival of this report.

Working Environment and Health Related Matters

Health, medical preparedness, and hygiene was not part of the Rig visit scope, this topic was covered through the medical statement from Company doctor and a separate visit from the Company doctor 30th July. However, medic was interviewed during the Rig visit. The medic has the full overview over all first aid equipment onboard the rig and when its overdue. The safety delegate has the responsibility to check the first aid equipment in each area, se example in Figure 0-1. Stretchers were placed around the rig, however there were no stretcher plan or survey prepared to verify that all doors, corridors, and passages are constructed so that an injured person on a stretcher can be transported around the rig safely. Hygiene inspections are carried out each hitch and the reports are registered in Synergi for follow up.

Figure 0-1: Stretcher (left) and Eye flushing station (right)

Several spot checks of eye wash and emergency shower stations was performed and the eye wash at the drill floor needs some maintenance (Figure 0-2). The “perlator” was not working properly.

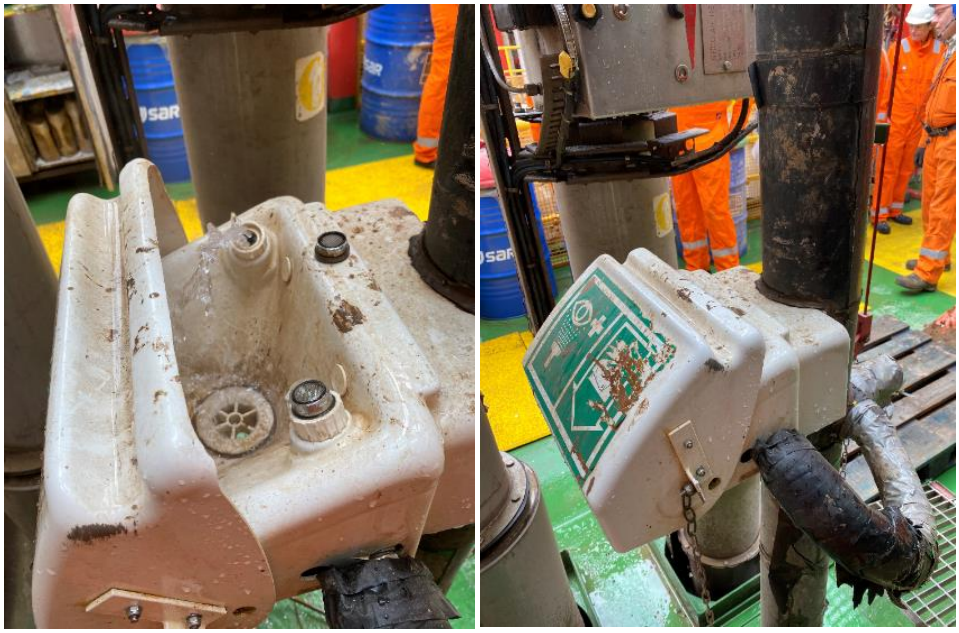


Figure 0-2: Eye wash at drill floor

Working environment mappings have not been conducted for the galley and accommodation in many years. A verification is planned to review the effects of the modifications of the exhaust in the galley and the curtains in the welding shop.

Noise measurements were carried out in 2019 when operating in the UKCS, WEACS are therefore currently under review by OHS.

A procedure for management of benzene is lacking. A Quality Health Risk Assessment was carried out in Autumn 2019 and the risk of benzene exposure was considered as low. However, drilling in reservoirs with gas have previous given indication of benzene in shaker rooms. Wellesley wants special attention on this issue as Schweinsteiger is expected to have a gas cap.

Classification:	Observation # 1

Title:	Eye shower
Risk classification:	Medium
Description:	The eye shower at the drill floor needs some maintenance. The "perlator" was not working properly.

Classification:	Observation # 2
Title:	Stretcher Plan/Survey
Risk classification:	Medium
Description:	There were no stretcher plan or survey prepared to verify that all doors, corridors, and passages are constructed so that an injured person on a stretcher can be transported around the rig safely.

Classification:	Observation # 3
Title:	Benzen procedure
Risk classification:	Medium
Description:	A procedure for Management of benzene is lacking. Drilling in reservoirs with gas has previous given indication of benzene in shaker area.

Handling of pandemic diseases

Dolphin's procedure: *"L3 MS Management of Communicable Diseases",* describes how diseases shall be handled onboard. A rig specific guideline for handling of Covid 19 was under preparation during the rig visit. Borgland Dolphin has already implemented several mitigating measures to prevent Covid-19 spread.

Disinfecting gel in dispensers are put up several places in the accommodation, also on entrance into the messroom/galley. The cleaning frequency of contact points, such as handrails, doorknobs, etc. has been increased. Several stations with single pack disinfecting napkins are established (phonebooths, pantry 3rd floor). Meetings on board have been reduced to a minimum. All meals were served on plate from the galley and a barrier tape has been put up in front of serving station. Sufficient space between chairs were made.

Personnel coming from outside Scandinavia had to conduct a quarantine period of 10 days on the rig. That means separate cabins, eating times and recreational rooms. Separate guidelines had been made for handling quarantine on the rig.

The number of Catering personnel were increased from 6 to 8 persons in order to handle the situation with Covid-19.

The RIT's impression is that Borgland has established good routines and procedures onboard to prevent and handle any infection.

Experience transfer

Dolphins procedure: "*PR-900-0001 Safety Alerts, Product Alerts and Operations notices",* describes how Alerts and Experience transfers shall be handled in Dolphin Drilling.

All Alerts and Operations Notices shall be sent to Dolphin Safety notice mailbox (Dolphin.Safetynotice@dolphindrilling.no). The mailbox is monitored on regular basis by the HSEQ Department. The Alerts and Notices are then registered in a record held by the HSEQ Department prior to evaluation of relevance.

Thereafter Safety alerts/Product Notices etc. are sent for review as applicable (affected rigs and systems/equipment). All applicable alerts/notices/bulletins are registered with dedicated actions in Synergi for further follow up.

Personal Protective Equipment

Procedure for PPE: "*PR -0059 Personlig verneutstyr",* describes requirements for PPE.

Rig PPE storage was checked and found satisfactory. Several green cabinets with PPE available outside Shaker room, Main deck, and Drilling area.

Dolphin uses blue hardhats, safety delegate uses green hardhats, and the lifting personnel yellow hardhats.

Breathing apparatus and PPE are available in the shaker room. Dolphin has a glove guide and a poster for respiratory protection, but the RIT did not see these posted on any walls on the rig.

Classification:	Observation # 4
Title:	Glove guide and poster for respiratory protection
Risk classification:	Medium
Description:	Dolphin has a glove guide and a poster for respiratory protection, but none seen posted on the rig.

Work Permit System

The Rig Intake Team (HSE) participated in the daily work permit meeting scheduled every day at 17:30. The OIM, Toolpusher and Chief Engineer were present. Dolphin's procedure: "*PR-900-0049 Work Permit",* states that the OIM and Department heads shall participate as a minimum, however the RIT suggest also to include the safety officer in this meeting.

Planned work for next 24 hours was reviewed by rig Department Managers, tasks separated into night/day shift. A visualization of the work permits on GA drawings was not used during the meeting; however, we were told that they have the tool to visualize and that they have used it earlier. The WP system is paper based (see Figure 0-3), but there is a possibility to digitalize this system in SAP. There are several benefits with digitalizing the work permit system. One benefit is that work permits can be made onshore and on any PC that have access to the system, and it is also easier to send permits for approval.

WP are monitored at a daily basis by the OIM, Safety Officer and Department Managers. Checks are primarily conducted as random inspections focusing on assurance of that the conditions, the equipment and barriers specified on the WP form. An 'on the job' monitoring form is printed on the back of the last page of the WP. This is used to record the inspection. There shall be performed documented control of at least 20 % of all hot permits, cold permits, and entry permits. Post-check of WPs shall also be performed for at least 10 % of the total amount.

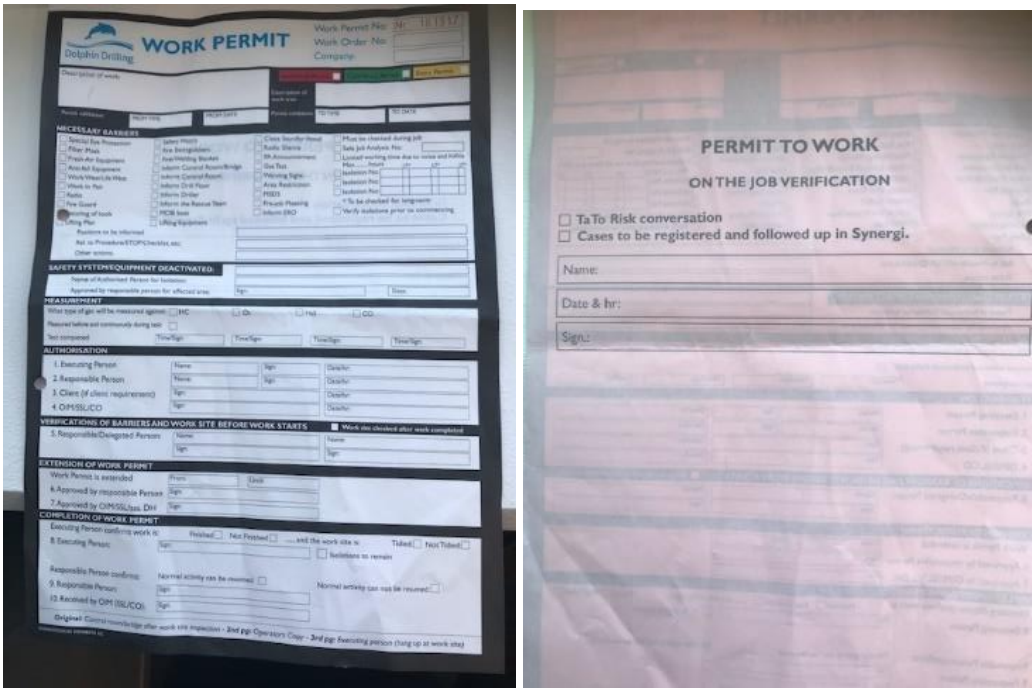


Figure 0-3: Work permit form (left) and Verification of work permit (right)

Classification:	Observation # 5
Title:	Work Permit System
Risk classification:	Low
Description:	A visualization of the work permits on GA drawings was not used during the meeting; however, the RIT was told that Dolphin have the tool to visualize and that it has been used earlier. The Safety officer was not participating in the meeting.

	The work permit system is paper based.

Reporting System

The Observation Card System is described in the procedure: *"PR-900-0076 Observation Card System"*. Dolphin is using a paper-based reporting system. The Safety Officer is responsible for the collection and input of Observation Card information into the Electronic Reporting System; Synergi.

Synergi has launched the Synergi Life Mobile App that makes it possible for personnel to write observation cards with their own mobiles in the accommodation or EX safe tablets placed in the coffee shops, etc. Dolphin are considering using Synergi version 16 that allows the app to be used.

The Observation Card has six classifications available for selection:

- Incident
- Near Miss
- Condition
- Observation
- NCR
- HSEQ Recommendation

A definition of the classifications is available in "*PR-900-0018, Incident Reporting"*.

Dolphin procedure: "ST-0115 Registration and handling of reports in Synergi – BGL" describes how the observation cards (Figure 0-4) are handled on the rig. Observation Cards will be reviewed daily by the OIM, Drilling Supervisor, Safety Delegate and Safety Officer. Where applicable, Observation Cards shall be read out at offshore pre-shift meetings to relay information to the crew in a timely manner.

The Safety Officer will distribute the daily observation card report to the Wellesley distribution list every evening so that they can be reviewed in the well operations morning meeting. Open actions will be reviewed in a weekly meeting offshore where the drilling supervisor also attends.

Figure 0-4: Observation card

Classification:	Observation # 6
Title:	Safety Observation Card system
Risk classification:	Low
Description:	Dolphin is using a paper-based reporting system, that takes a lot of time for the Safety Officer to register.

Risk Assessment System

Dolphin uses TaTo Risk assessment and Conversation. The purpose is to provide an aid and means of documentation for the Toolbox Talk (TBT)/pre-job meeting. TaTo Risk Assessments shall be performed prior to all tasks that takes place on Dolphin Drillings MOUs to ensure that all work operations will be executed in a safe, attentive, and predictable way. The TaTo Risk Assessment shall also performed for tasks which do not require a WP. If a WP exists, a TaTo Risk Assessment shall still be performed. After completion of the task, the TaTo Risk Assessment Card (Figure 0-5) shall be attached to the WP. If a Safe Job Analysis (SJA) exists, a TaTo Risk Assessment shall still be performed to ensure that all possible changes are captured before work commences.

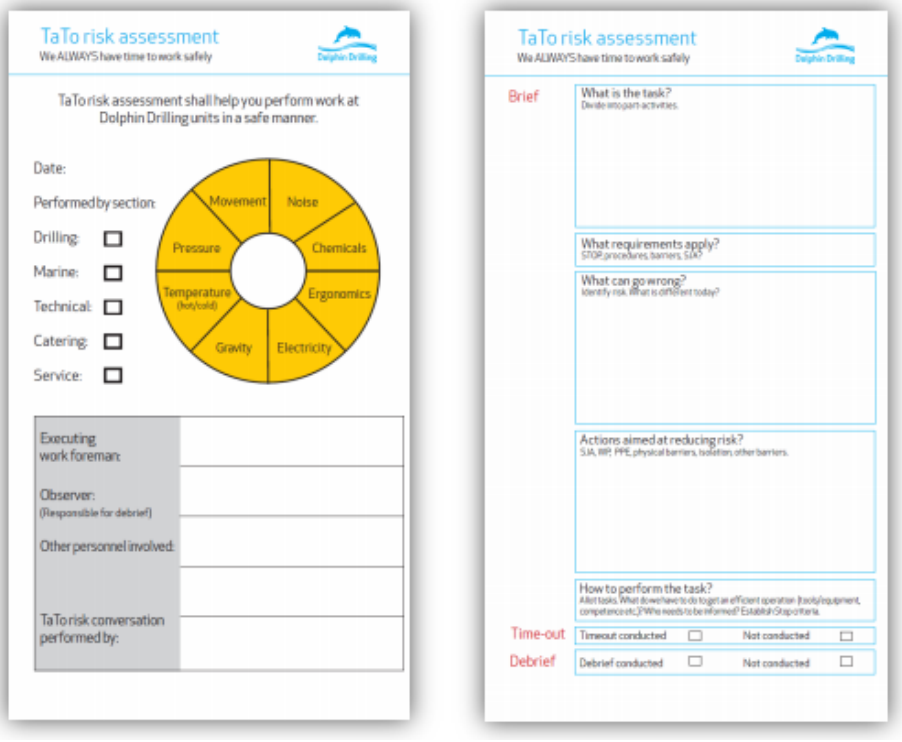


Figure 0-5: TaTo risk assessment card

Emergency Preparedness

"S-MA-00612 Emergency Preparedness Plan", describes the rig's preparedness, including procedures to handle situations of hazard or accident that may arise on board Borgland Dolphin. It is the OIM's responsibility to ensure that drills and training for the crew are organized.

The procedure: "*ST-450-0086 Well Control drills*", describes requirement for well control drills and is referring to NORSOK D-010 rev. 4. The drills shall be logged in Daily Drilling Reports, Drill log form FO-101-0009 and loaded up to Report Hub. The well control response team is logged by names in «Rig Manager».

Dolphin will present the Competence Management System, including training and exercises in a separate meeting 4th of August.

Housekeeping

During rig tour the general housekeeping standard was regarded as good. High activity within several areas cordoned off due to ongoing maintenance e.g. painting. Weekly inspections are carried out by Department Managers with focus on housekeeping. Each Area Responsible is leaving the rig with a picture of the work area to show correct standard on the housekeeping. Dolphin procedure: "*ST-0068 Area responsible on the rig",* describes who is responsible for which area and equipment.

Barrier Management

Dolphins procedure: "*PR-01960099 Barrier Management",* describes how barriers against major accident hazard shall be established, maintained, and controlled., however this was a finding in the PSA audit and will be not a new finding in this report.

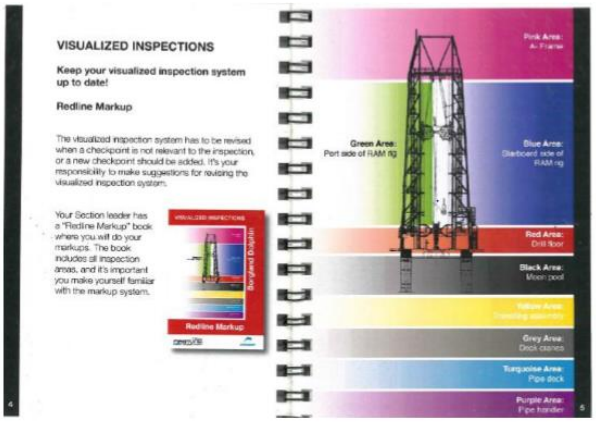
Monitoring of Technical, Operational and Organizational barriers is a requirement in *the Management Regulation §5*. This was also a focus for the PSA audit in January 2020. Several non-conformances were identified regarding performance standards and monitoring of barriers. According to Dolphin's reply to PSA this work should be completed, however the work is still ongoing.

Dropped Objects

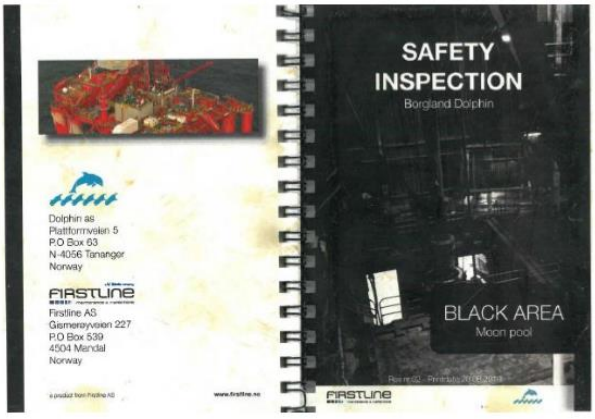
Axess completed a DROPS inspection in May 2020, a total of 1839 findings were identified and 222 failed to pass and should be corrected. Dropped object inspections are managed by the Maintenance system, SAP.

Dropped object inspections are managed by the Maintenance system SAP. Visual check of equipment over 9 areas on the rig are carried out each month using Borgland Dolphin Visualized Safety Inspection Books. Two areas are inspected each week (1 area for day shift and 1 for night shift) until all 9 areas are completed by the end of the month and then they start over again. Below is an example of the inspection book for the moon pool area. The inspection book contains a checklist of equipment as well as pictures describing what to check on each piece of equipment.

The drilling area is divided into 9 different zones, each having its own picture book.



Eksample showing black area which is Moonpool area.



All departments have their own tool locker for work at height and one person is responsible for the key. For example, on the drill floor, the driller is responsible but may delegate to the Assistant Driller. Tools are tagged with a unique ID number. Tags are removed and left in cupboard when a tool is in use (see photos). Tools are checked in and out in the register located in the drillers cabin. If tools are missing from the cabinet or are not accounted for in the register, then operations will not be started on the drill floor until these are found. For the drill floor, the Driller has the responsibility for checking both the locker and the logbook, to do a check for tools before crew enter the RAM and to confirm that all tools are returned after the job.

The rig uses “Samarbeid for sikkerhet” handbook; Best Practice Dropped Object Prevention (Figure 0-6). Several books were available in the meeting room for personnel to use.

Figure 0-6: Best Practice Dropped Object Protection Handbook provided by SfS

Figure 0-7 shows chains shackles to secure pipes. The RIT were told that the chains were not used or maintained. Figure 0-8 shows potential dropped object, a mounting bracket for the hook was broken.

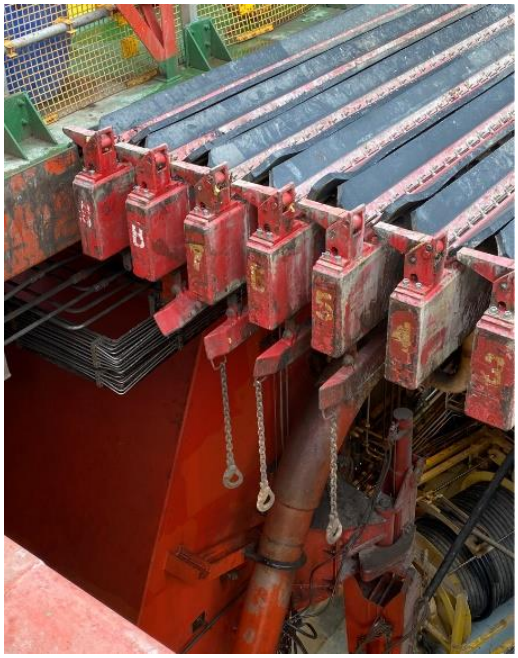


Figure 0-7: Fingerboard

Figure 0-8: Potential Dropped Object

Classification:	Observation # 7
Title:	Potential Dropped Objects
Risk classification:	Medium
Description:	A mounting bracket for the hook on the fingerboard was broken. Chain schakles to secure pipes were not used or maintained.

Work at height

All departments have their own tool locker for work at height and one person is responsible for the key. For example, on the drill floor, the driller is responsible but may delegate to the Assistant Driller. Tools are tagged with a unique ID number. Tags are removed and left in cupboard when a tool is in use (see Figure 0-9). Tools are checked in and out in the register located in the drillers cabin, Figure 0-10. If tools are missing from the cabinet or are not accounted for in the register, operations will not be started on the drill floor until these are found. For the drill floor, the Driller has the responsibility for checking both the locker and the logbook, to do a check for tools before crew enter the RAM and to confirm that all tools are returned after the job.

A spot check of the working at height cabinets and logging of tools used at height was performed. The cabinets are kept very tidy and no unconventional tools were found. The inventory check is being performed regularly, but the logging of equipment in and out could be improved. A new spot check will be performed on next rig visit.

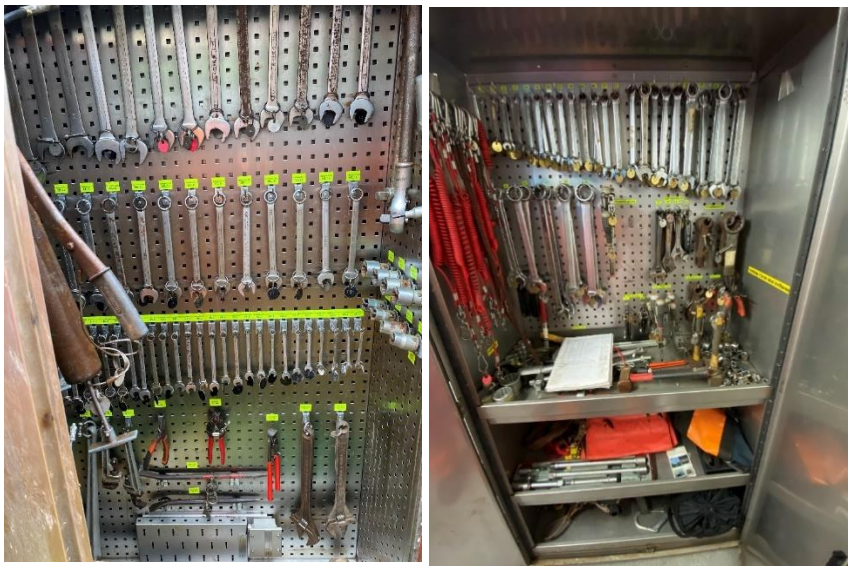


Figure 0-9: Working at height cabinets

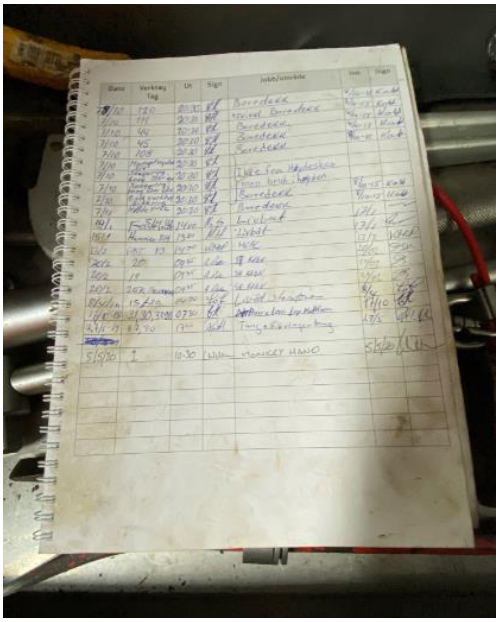


Figure 0-10: Logbook (Register)

Pipehandling equipment

The pipehandling matrix was revised 13th of January 2020, however the rig could not present the HAZID performed for manual pipe handling according to the requirements in NOROG 081 Remote Operated Pipehandling.

When it comes to labelling of loose pipehandling equipment, the rig is using the recommendations from the 2009 version. The guidline says in Chapter 7 that labelling shall not come in conflict with other relevant labelling. The loose pipehandling equipment has a sticker that shows the certification. This can easily fall off.

Posters on the wall in the rigger loft and storage room on the BOP roof were not according to the colour coding described in the book "*Checklists for offshore installations*". Posters were removed during verification.

The Pipehandling matrix should be available for personell on the drill floor and personell should be trained in manual pipe handling every hitch.

When performing lifting operations on drill floor personell are not always aware of their roles and responsibilities according to NORSOK R-004. The RIT recommends to go through the standard with focus on lifting operations on drillfloor before spud.

Classification:	Non-Conformance # 1
Description:	HAZID for manual pipehandling
Evidence:	The rig could not present a HAZID for manual pipe handling.
Requirement:	NOROG: Recommended guideline For Remote Operated Pipehandlig 081, Ch. 5. General Requirements Handling procedures shall be established for all planned manual pipe handling operations marked "M" in the matrix. These must be based on risk analysis (HAZID). HAZID must be repeated at least every 3 years and in connection with changes that are important for pipe handling. HAZID must be stored so that it is accessible on a rig. HAZID shall be performed in accordance with ISO 17776.
Risk classification:	High

Classification:	Observation # 8
Title:	Labelling of loose pipehandling equipment
Risk classification:	Medium
Description:	When it comes to labelling of loose pipehandling equipment, the rig is using the reccomendations from the 2009 version. The guidline says in chapter 7 that labelling shall not come in conflict with other relevant labelling. The loose pipehandling equipment has a sticker that shows the certification. This can easily fall off. Posters on the wall in the rigger loft and storage room on the BOP roof were not accoring to the colour coding described in the book; "*Checklists for offshore installations*".

Classification:	Observation # 9
Title:	Pipehandling matrix

Risk classification:	Low
Description:	The Pipehandling matrix were not available for personell on the drill floor

Classification:	Observation # 10
Title:	Lifting operations on drillfloor
Risk classification:	Medium
Description:	When performing lifting operations on drill floor personell are not always aware of their roles and responsibilities according to NORSOK R-004.

Chemical Management System

"*PR-0202 Procedure handling chemicals*", describes how chemicals are managed on Borgland Dolphin. Sypol is used to register chemicals on Dolphin rigs. A list of all rigs is available when logging in on Sypol. Borgland is registered under two segments; Chemicals allowed on UKCS (Borgland UK), and Chemicals allowed on NCS (Borgland NOR). It is expected that all personnel know that Borgland NOR is the only segment to be used during the Schweinsteiger operation.

Chemicals are first risk assessed in Sypol by the Department head. Based on input the chemicals risk will automatically be available for users. The risk assessment is quality checked by an occupational hygienist and answer shall be given back no later than 14 days. All relevant personnel that were interviewed were familiar with this process and basic functions in Sypol. When the chemical risk assessment is available in the Sypol database, the Storekeeper can purchase the chemical. SAP is used for purchasing chemicals and is only used by the Storekeeper. This is a common procurement system and the storekeeper thought it was working fine. Wellesley find the routines of purchasing chemicals satisfying as it limits the number of persons purchasing chemicals and thereby increase the likelihood of avoiding non-approved chemicals getting onboard.

Sypol is also used to electronically store SDS's. Spot checks were carried out and all checked chemicals were available in Sypol. The Medic also keeps hard copies of SDS in the hospital, including 3rd party chemicals. SDS were also stored in COSHH and in the control room.

It is recommended that SDS's from Halliburton Drilling Fluids are removed from the storage areas as Schlumberger will provide this service during the Schweinsteiger operation. It is expected that Schlumberger will provide SDS and chemical risk assessment to Medic and relevant storage areas. For chemicals used by Dolphin Drilling the Department head is responsible for delivering SDS to Medic. The routines for checking SDS' in storage areas seems to be working good as the Safety Delegate does weekly spot checks and a more thorough check every 6th month.

Chemical risk assessments have been done by Halliburton Cement and Schlumberger/MI Swaco Drilling Fluids and it is expected that these are available in relevant areas. Other 3rd party risk assessment is also expected to be available and delivered to Medic. This will be followed up before mobilization of the rig.

The RIT agreed with the subsea department to use the same reporting scheme that has been used on the Shell operation. A rig specific measurement program was sent to the RIT before the rig visit, but the document control front page was blank. The document included information about the Knarr field and chemicals used on UKCS. The RIT recommend Dolphin to update this document.

Classification:	Observation # 11
Title:	Rig specific measurement program
Risk classification:	Low
Description:	The measurement program is not updated to reflect the Schweinsteiger operation. The document is referring to the Knarr field and chelicals used on the UKCS. Document numbering etc. on the front is missing.

Classification:	Observation # 12
Title:	Halliburton Drilling Fluids SDS
Risk classification:	Low
Description:	Folders with Halliburton Drilling Fluids were observed in derrick man's office and hospital.

Chemicals and Chemical storage areas

"*RD-0231 Kjemikalieplassering Borgland Dolphin*", describes storage areas onboard Borgland. There are several chemical lockers onboard, and the chemical locker on drill floor was checked. The first impression was good as some of chemicals had tags on where they should be placed, see Figure 0-11. However, when looking closer, the chemicals were not placed on the correct tag, Figure 0-12 It is recommended that all chemicals have tags and are placed where they belong to keep it organized. All chemical lockers shall also have marking signs, a list of which chemicals are in the locker and SDS nearby, see Figure 0-13 for correctly marked locker.

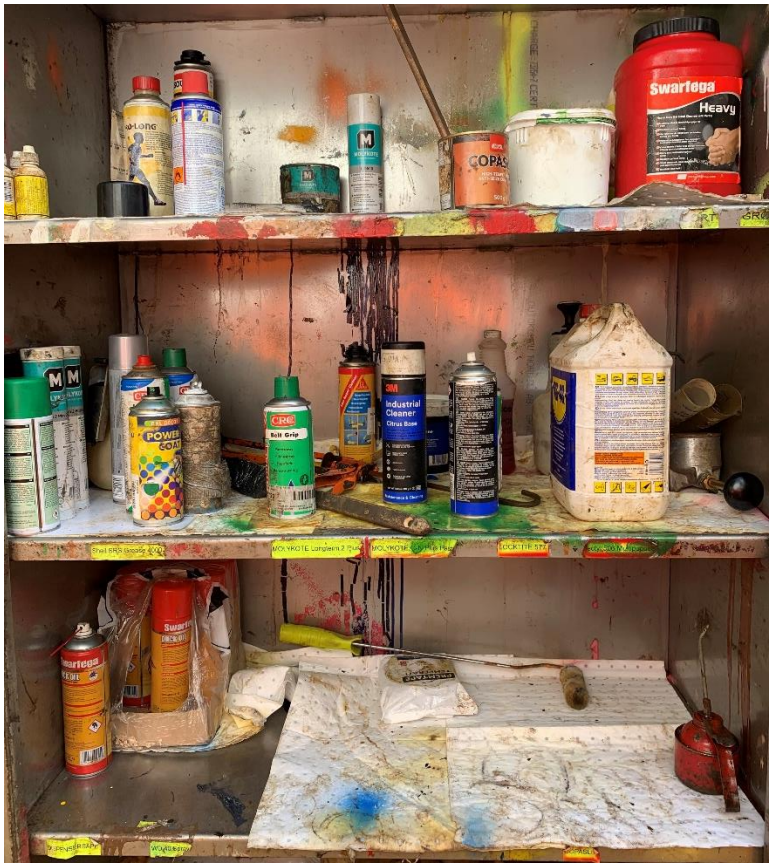


Figure 0-11: Good first impression with chemical tags

Figure 0-12: Spray cans misplaced

Figure 0-13: Correctly marked chemical locker

As the rig is currently at Feda and some suppliers are removed from the rig, the sack store was emptied for mud and cement chemicals (Figure 0-14). It is expected that service companies keep it tidy when storing chemicals and only approved chemicals are on the rig. This will be checked before start-up of operation.

Figure 0-14: Sack store and mud pump room.

Jet-Lube Alco-EP ECF were observed in the BOP roof and COSHH-store and Jet-Lube Alco EP-73 Plus was observed in a corner on drill floor (Figure 0-15). Two IBCs with base oil and Erifon CLS 6C were stored outside Storekeeper office, Figure 0-16 and Figure 0-17. Use of these products have not been applied for under the Schweinsteiger operation and must therefore be removed or put in quarantine before start-up. No one could confirm if the IBC where planned backloaded or not. If the Jet-lube products are put in quarantine they must be clearly marked and stored separately from the commonly used chemicals. The IBCs must be removed.

An environmental poster giving an overview over chemicals planned used and waste management will be prepared for the Schweinsteiger operation. This should be distributed and put up at relevant places before start-up of operation and it is expected that all crew familiarize oneself with the poster to know which chemicals can be used.

It is recommended that Dolphin implement a routine to check chemical areas after each operation to avoid chemicals from different operators and service companies to stay onboard the rig.

Figure 0-15: Jet-Lube Alco-EP ECF on BOP roof (left) and Jet-Lube Alco EP-73 on drill floor (right)

Figure 0-16: Base oil outside storekeeper's office

Figure 0-17: Erifon CLS 6C outside storekeeper's office

The COSHH-store was inspected, and spot checks on SDS where done. The SDS folder was well organized with an inventory list and datasheets placed alphabetically making it easy to find. It is recommended to have the same system for all chemical storage areas.

The RIT learned that spot checks are done weekly to keep the storage areas organized. There is also a sign-out list to use when removing chemicals from the COSHH store. Subsea department does daily check of their area. These routines are supported by Wellesley

Wellesley have been informed that RE-HEALING RF 3% is used on helideck and Re-healing RF1% are used in all other fire foam systems on Borgland. A sign with AFFF was observed during inspection but it was confirmed that this was an old sign and was removed by the Safety officer. Wellesley have also been notified that fire foam provider have developed a more environmentally friendly fire foam, RE-HEALING RF-AG 1%, and this have been communicated to Rig Manager and OIM. Wellesley recommend that this will be included in substitution plan for 2020. RE-HEALING RF 3% will not be available soon as the supplier will stop produce it. The RIT has been informed that the two foam systems can be mixed.

Classification:	Non-Conformance # 2
Description:	Non-applied chemicals onboard
Evidence:	Jet-Lube products, Erifon CLS 6C and Base oil observed
Requirement:	Application for Discharge for the Schweinsteiger well
Risk classification:	Medium

Classification:	Observation # 13
Title:	Routines for checking chemicals between operators
Risk classification:	Low
Description:	Several chemicals used by previous operator still onboard.

Waste management

"*450-445-Z-XD-001-003 Garbage disposal plants*", describes areas where waste segregations stations are placed and "*PR-0063 Procedure for waste sorting*" describes responsibilities and work processes on how to sort waste. Maritime Waste Management was onboard Borgland in week 26 to check that waste segregation stations and routines are according to regulations and inform relevant crew about waste segregation. Therefore, waste management was not checked in this rig intake.

A preliminary report from MWM's visit has been sent to Rig Manager and HSEQ Advisor. Final report will be sent as soon as possible. The findings will be followed up and it is expected that Dolphin will register the report in Synergi to ensure that learnings from the visit is transferred to all relevant crews. "*AB-50-MA-033 Borgland Dolphin Garbage Management Plan*" is the current waste management plan at Borgland. However, a well specific waste management plan has been made for this operation and it is also expected that all crew are familiar with this.

Energy management and emissions to air

There are five diesel generators, including one emergency generator on Borgland. Power management Is described in Power Management System and flowchart and uncertainty are descries in the Measurement Program. The Power Management System document lacks proper document control front page and it is recommended that this is updated. The diesel consumption is manually recorded and logged.

During the safety round the RIT learned that the rig uses diesel trucks. Wellesley recommends Dolphin to consider electrical forklift, as according to NOROG 044 that describes BAT and BEP related to emissions.

Classification:	Observation # 14
Title:	Diesel forklift used onboard
Risk classification:	Low
Description:	To reduce emissions it is recommended to use electrical forklift instead of diesel forklift.

Maintenance

Maintenance is a focus area for Wellesley, and this has been communicated since the initial verification meeting of the Dolphin onshore organisation. This was also communicated to Dolphin, during rig visit at Feda. Dolphin confirmed that Dolphin had high focus on maintenance and that a lot of the outstanding maintenance work would be carried out while staying in Fedafjorden and prior to the Schweinsteiger well. He also confirmed that 3rd party equipment such as for Oceaneering and Halliburton cement unit etc. are all included in Dolphin's SAP maintenance program for follow up. Since Wellesley are going to use Soiltech for slop treatment and vacuum cleaning and Schlumberger for wireline operations, it is important that their equipment also is included into the SAP system. This process is ongoing and will be followed up as part of the rig intake.

At the time of rig visit, the following maintenance status was provided:

- *Total Open Non-Safety Critical Elements (SCE) Corrective Work Orders (CWO) = 205*
- *Total Open Planned Non-SCE WO = 480*
- *Total Open SCE CWO= 85*
- *Total Open SCE Planned Work Orders (WO) = 131*
- *Total Overdue SCE CWO = 25*
- *Total Overdue SCE Planned WO = 18*
- *5 x Modification WO's (Non-Safety Critical)*

Operational Risk Assements (ORA's) have been carried out and Synergi cases created for all the above overdue SCE CWO and Planned WO's:

- *ORA-BGL-036 Overdue Deck Crane Maintenance – (Work in progress by Original Equipment Manufacturer (OEM) NOV) (Synergi Case 441379306)*
- *ORA-BGL-039 Overdue CWO planned for End of Contract (Synergi Case 441380279)*
- *ORA-BGL-043 Overdue Planned Maintenance SCE (Synergi Case 441381083)*
- *ORA-BGL-044 Overdue Maintenance During Shipyard (Synergi Case 441381268)*

Items of concern within these overdue WOs are all planned to be actioned within this yard visit and the appropriate 3rd party Company are booked to attend.

- *Main deck cranes – NOV onboard*
- *Shale Shakers – MI Swaco due*
- *Generator D exciter frame replacement – Karsten Moholt due*
- *Dual Agent Firefighting Inspection – BSS onboard*

A similar status update will be performed prior to rig handover. This final status prior to rig handover will be stated in the Final Rig Intake Report.

Figure 0-18 and Figure 0-19 show a couple of findings that were communicated to Dolphin in the closing meeting on the rig.

Figure 0-18: Safety cage on ladder could use some maintenance

Figure 0-19: Safety gate spring on choke manifold platform level needs to welded back on

Classification:	Observation # 15
Title:	Safety cage on ladder outside hospital on port side in poor condition
Risk classification:	Medium
Description:	In order to prevent dropped objects (steel pieces) fallong off the safety cage on ladder maintenance is required.

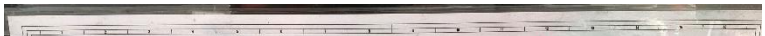
Classification:	Observation # 16
Title:	Safety gate spring on choke manifold platform level is broken
Risk classification:	Medium
Description:	In order for the safety gate to be self closing a spring needs to be welded back on.

Well Control

At the time of the rig visit the BOP was disassembled. Various personnel were interviewed and asked if any issues with well control equipment on the rig. None mentioned that there are any issues with this equipment on Borgland. Dolphin informed that the BOP was new in 2015 and that there are no issues with the BOP and that in terms of spare parts Borgland is covered.

The current and planned set up of the BOP configuration was also verified. For the Schweinsteiger well a 9 5/8" casing ram will have to be replaced with a BSR (Blind Shear Ram) (Figure 0-22). This will need to be followed up.

On rig floor up to date plasticized schematics showing standpipe, choke and cement manifold line-ups were in place, Figure 0-20. This will assist the crews with "walking the line". A check was also performed to see if the choke control panel had all gauges labelled. This was found OK, but since Wellesley are going to use two



sets of BSR's it is important to follow up that the "Lower casing Shear Ram" label, is replaced by "Lower BSR" on the BOP control panel.

Figure 0-20: Manifold line-up

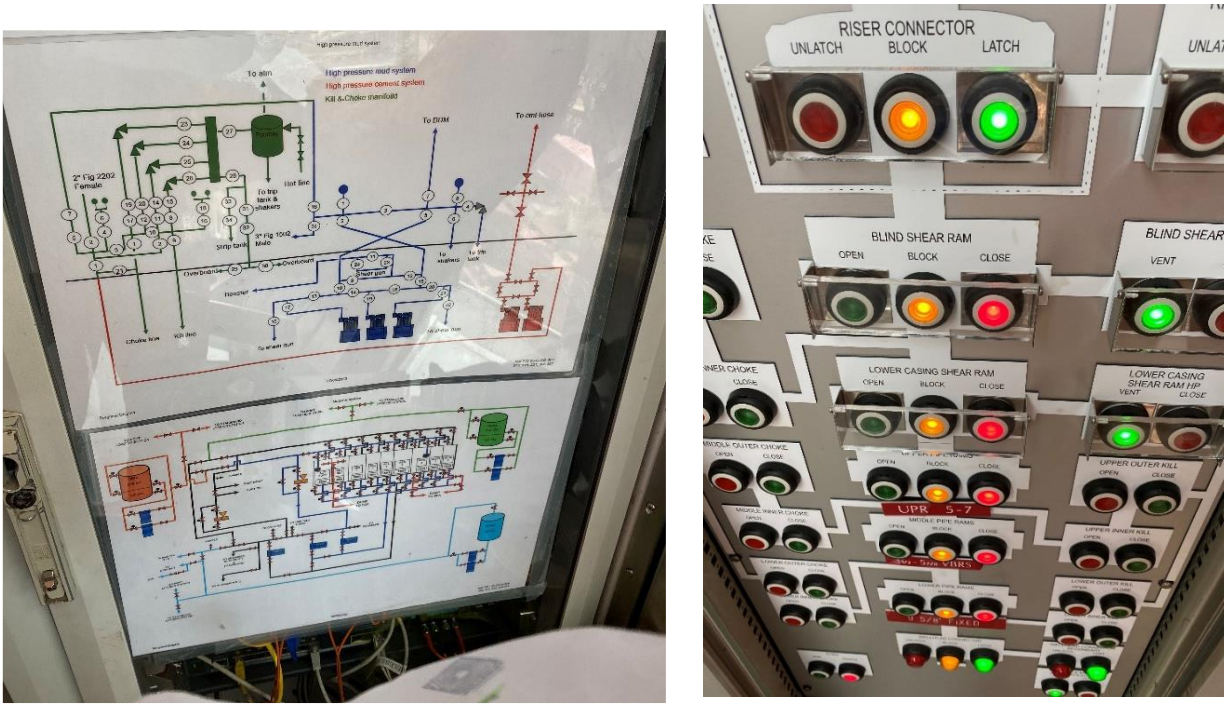


Figure 0-21: Mud mixing & high-pressure mud system schematics (left) and BOP Control panel (right)

For information, the liquid seal on Mud gas separator on Borgland is 6.3 m.

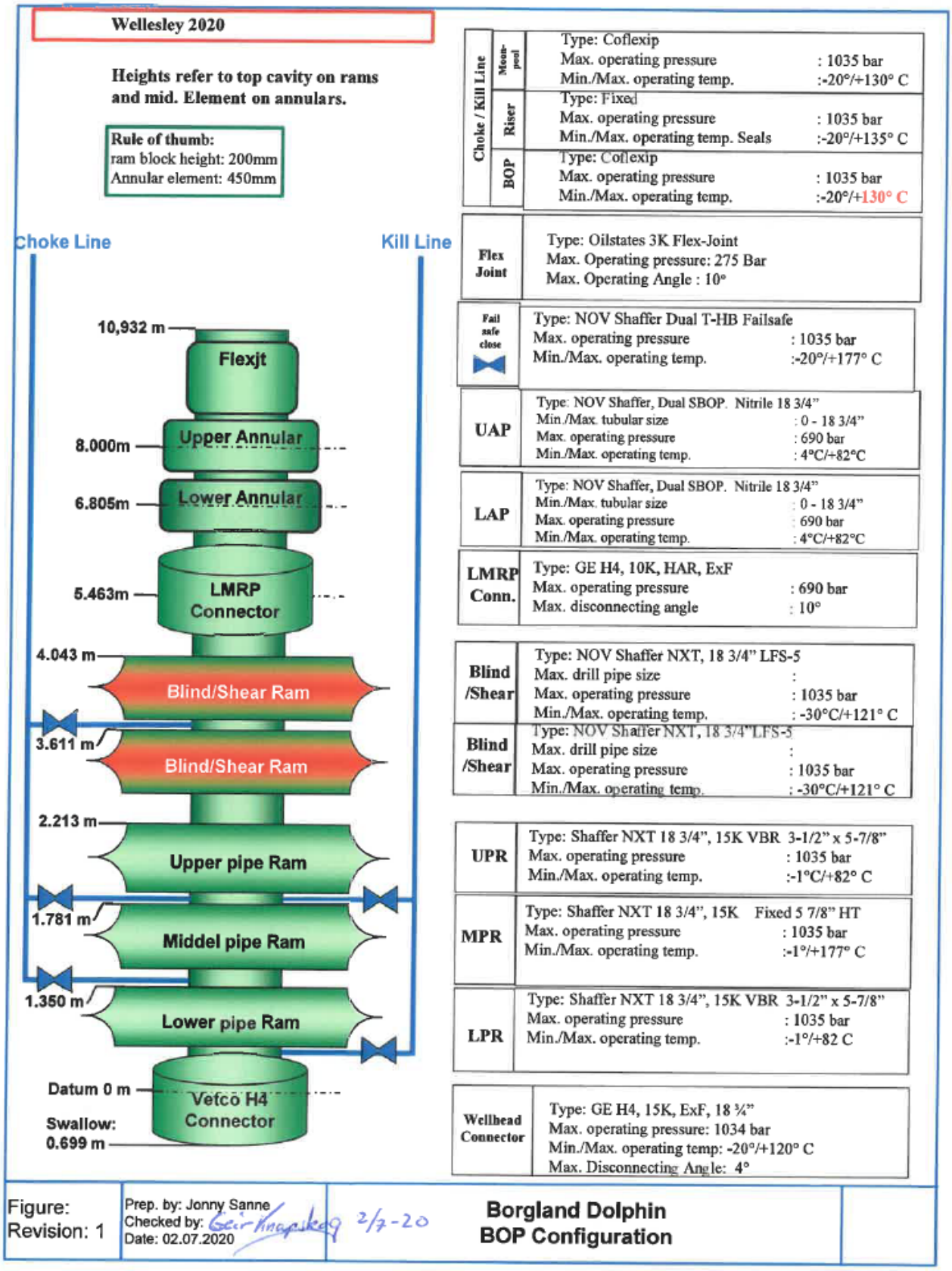


Figure 0-22: Planned Schweinsteiger BOP configuration

Emergency Hydraulic Backup System/ Deadman/Autoshear system (EHBS)

EHBS will Close Upper Blind Shear Ram. Deadman will be executed automatically if both pilot and hydraulic POD supply is lost to BOP. It is required to test DMAS every time the BOP is at surface.

Full function test of BOP control system including EHBS, Acoustic controls and ROV intervention (every EoW).

Riser K/C lines were tested to MWP (15000 Psi) before pulling BOP on Shells Knarr well.

Accumulator Drawdown test will be done yearly according to DNVGL 101.

Choke manifold was pressure tested according to NORSOK D-010 Annex A during the Knarr wells for Shell.

BOP will be pressure tested according to NORSOK D-010 Annex A.

Annex A - Test pressures and frequency for well control equipment

The tables in this section are requirements (shall).

Table 38 – Routine pressure / leak testing of drilling BOP and well control equipment

	Frequency / Element	Stump	Before drilling out of casing		Before well testing	Periodic		
			Surface casing	Deeper casing and liners		Weekly	Each 14 days	Each 6 months
BOP	Annular preventers	WDP[1]	Function	SDP[1]	WDP[1]	Function	SDP[1]	WPx0,7
	Pipe rams	WDP[14]	Function	SDP	WDP	Function	SDP	WP
	Shear rams	WDP	Function	SDP	WDP	Function[15]		WP
	BOP choke and kill valves[3]	WDP	WDP[6]	SDP	WDP	Function	SDP	WP
	Well head connector	WDP	WDP[12]		WDP		SDP	WP
	Ram locking system	Function[10]						
	Casing shear ram	Function	Function	Function	Function			
BOP control system	Shear boost system	Function						Check[8]
	Accumulator precharge pressure	Check						
	Hydraulic chambers[5]	WP						
Secondary emergency systems	Emergency Acoustic system	Function	Function[11]	Function[11]		Communication	Close one ram	
	All ROV hot stab functions	WP						
	Emergency disconnect system	Function	Function[9]					
	Deadman (el. & hyd.power lost)	Function	Function[9]					
	Autoshear (when disconnecting)	Function	Function[9]					
Choke/kill line and manifold	Choke/kill lines	WDP	WDP	SDP	WDP		SDP	WP
	Manifold valves[3]	WDP		SDP	WDP		SDP	WP
	Chokes	Function		Function	Function	Function	Function	
Other equipment	Kill pump	WP[2]		SDP			SDP	WP
	Inside BOP	WDP[2]		SDP	WDP		SDP	WP
	Stabbing valves	WDP[2]		SDP	WDP		SDP	WP
	Upper kelly valve	WDP[2]		SDP			SDP	WP
	Lower kelly valve	WDP[2]		SDP			SDP	WP
	Standpipe manifold	WP[2]		WP[4]			WP[4]	
	Kelly hose	WP[2]		WP[4]			WP[4]	
	Diverter system		Function[13]					
	Riser slip joint	WP[7]						

Shut down for critical well scenarios

Interviewed relevant personell regarding blackout tests, emergency generator supplies, ESD philosophy, power management upgrade and power shedding. Status is listed below:

Blackout test carried out and witnessed by DNV Surveyor 25th June 2020

Test method, trip main engine by low lubricating oil pressure, resulting in main switchboard loss of power and resulting no voltage to emergency switchboard.

Auto start and connection of emergency generator.

Result pass and this will be accredited towards 2020 annual survey

Emergency generator supplies (Simplified list)

Ballast valve Hydraulic Pumping Unit (HPU)

BOP Power pump B

Cement pump B blower

Compressor start air Emergency Generator (EMG).

Compressor breather air

Emergency lighting

Fire & Gas alarm system

PA System

Navigation systems

Compressor C service air

Crane deck port EMG power

EMG generator pre-charge pump

Foam monitoring system

Generator A & C prelube and bearing oil pumps

Heating, ventilation, and air conditioning (HVAC) essential areas

Mud mix transfer pump C

Shale Shakers B C

Communication equipment

Cement pump B blower

Wire line unit

Steering gear

Anchor winch servo pumps

Liferaft davits

Utility freshwater cooling pump B

ROV Magnum Winch HPU

ROV equipment Oceaneering container and winch

Seawater main cooling pump C

Triplex pilot pump JB

ESD philosophy

Three levels 1, 2 and 3, plus "Fuel oil shut down" of fuel system pumps.

Level 1 Manual activation or Automatic by fire detection or gas detection

Local HVAC shut down, Cranes shut down, fuel oil systems shut down

Level 2 Manual activation or Automatic by confirmed gas for main engines

Main engines shut down, emergency generator start, HVAC shut down apart from essential areas (EM Gen room, Shakers, Mud pump room etc)

Level 3 Manual from CCR, Lifeboats, Helideck or Driller Cabin

UPS and battery supplies only, emergency generator shut down. Only items such as emergency lighting, PA system, general alarm, navigation lights, anchor emergency release remain.

Power Management upgrade 2019

Full service, optimisation and testing by Goodtech of the power management system. Including upgrade of PLC controls and system communication.

Power shedding

The main functions are Phase Back and Preferential tripping

Phase back when generator highest power passes 3500Kw, after a short delay the highest consumers will be limited on output (E.g. HPU MP1 & MP2).

Preferential Tripping, in two stages. First set at 20 sec delay, second set after 25 sec delay, again at over 3500Kw. (SET 1 Eg, Nitrogen Compressors, Mud Pits HPU) (SET 2 Eg, Ramrig HPU pump C, HPU Feeder Pump B).

Elektro instrument and safety systems

Interviewed relevant personnel. Main focus was to follow up the PSA audit (60% complete) and perform various maintenance work such as transistor/EX inspections, Arc guard on electrical boards. It was confirmed that there were no major issues with the electrical instruments on Borgland. Status on the PSA audit follow-up will be followed up during the rig intake process.

Comms Installation

Interviewed relevant personnell and discussed available communication options for the Schweinsteiger well.

- WAN (4G, radio link, VSAT) are supported by the rig without need for additional installations. Additional installation is required on shore for the radio link. Rig is currently waiting for speed cast to investigate how to connect with a radio link. VSAT will be main backup @ 2 x 2MB and can within 12 hours been increased. 4G (LTE) will be used if possible as a supplement.
- Two offices are dedicated for Drilling Supervisor, Drilling Engineer, Geologist and Test Engineer. These offices have space for NAS and Printer. Phone system are included in these rooms. The rooms

also have screens available. Only need to bring a computer and mouse / keyboards, printer and NAS. Backup printer is available on the rig.

- Teams conference system installed and ready to be used.
- Physical network including both coper and fiber is included both inside and outside. LAN system is set up enabling any config required.

Final decision regarding comms solution during Schweinsteiger well will be made closer to rig takeover and will be followed up as part of the rig intake process.

Fishing Inventory

Fishing inventory was not checked at the time of the rig visit. Dolphin informed that the content of the fishing package was planned and that they were in a process of renting the package. Dolphin promised that the fishing package would be available prior to the Schweinsteiger well. This needs to be followed up with Dolphin.

Lighting

The rig intake team did not get any impression that there is any issue with lighting on the rig. This specific question was asked to the crane driver and he did not have any issues. One thing that was noted is that on Borgland LED light fixtures are not being used yet. Instead it is the old fashion lighting fixtures that tends to cause more waste. Having that said the rig intake team was impressed with the way Dolphin handled fluorescent light tubes when considered waste, Figure 0-23.

Figure 0-23: Waste bins for handling fluorescent light tubes

Signs and Labels

The majority of signs and labels are of very good condition on Borgland and these signs are part of maintenance program in SAP.

Drilling Related Equipment

Interviewed personnell regarding drilling related equipment and impression is that most of this equipment is working fine and are in good condition. He also informed that there are no issues with the standpipe manifold, the heave compensation nor tensioning system.

A review of the latest oil sample analysed from the DDM gear was performed and this analysis revealed no abnormal wear or contamination in the oil. Water content was normal.

At the time of the rig visit, the verification team was informed that Maritime Hydraulic (MH) will come on to the rig 15th July to perform a verification on the anti-collision system on the DDM, implement a software for gear oil pressure reading and to change the logic for the cooling fan. In addition, MH will replace a wire sensor and look at the logic on anti-collision on the Lower Guiding Arm (LGA). The RIT pointed out that the rollers on the DDM should be replaced (Figure 0-24), that the rig floor indicating when entering red zone could use some new paint (Figure 0-25) and that various hoses underneath the driller cabin should be secured properly and not only by ropes etc. (Figure 0-26). Status on this work will be followed up during the rig intake and checked during next rig visit.

Tubulars are not on the rig at the time of the visit/verification. Everything is onshore to be checked and re-certified. This will be followed up during next rig visit.

Drill Pipe used on Borgland 5 7/8” Range 3 (14m) DS 55, HWDP 5 7/8” Range 2 (9m) XT57 and cement stinger 3 ½’’ Range2 NC38.

Figure 0-24: Worn rollers on Iron Roughneck

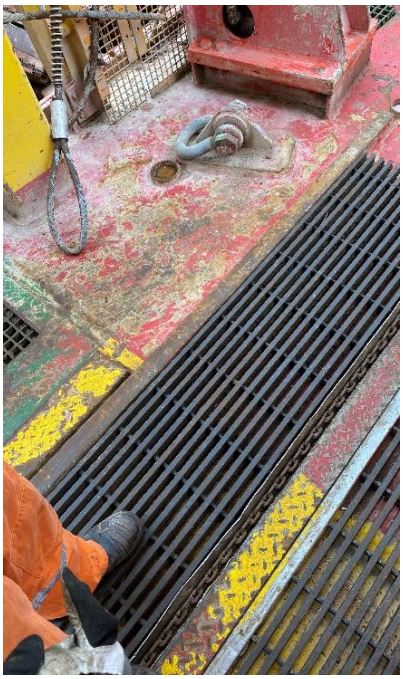


Figure 0-25: Worn paint on floor when entering red zone

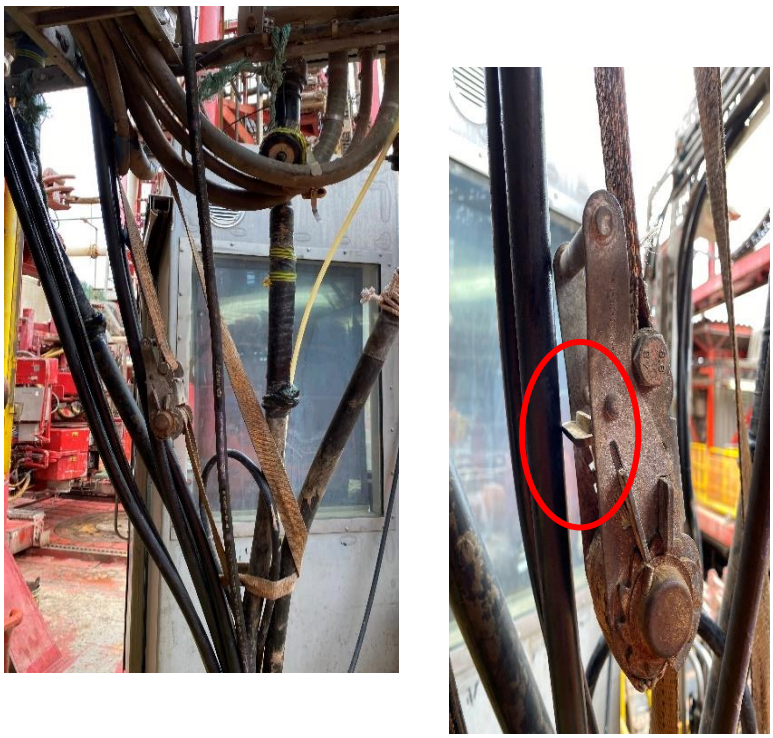


Figure 0-26: Hose securing are "homemade"

Classification:	Observation # 17
Title:	Hose securing on rig floor is "home made"

Risk classification:	Medium
Description:	In order to prevent damage to hoses and avoid potential spill and downtime, a more “fit for purpose” solution should be used.

Classification:	Observation # 18
Title:	Worn paint on floor indicating red zone
Risk classification:	Medium
Description:	In order to better visuallize the red zone on drillfloor, the paint job should be refreshed.

Classification:	Observation # 19
Title:	Rollers on Iron Roughneck are significantly worn
Risk classification:	High
Description:	In order to prevent downtime and potential damage to tubulars, the rollers on the iron roughneck should be replaced.

Fire Stations and Accosiated Equipment

A spot check on the fire stations revealed no major issues. Inventory lists are in place and correct, and fire equipment are nicely stored. Ample amount of breathing air bottles is available. One thing to point out is that in the main fire station (station #1) clothing can be positioned so that it is easy to put on in an emergency case (Figure *0-27*). Rig Intake team also suggests that a sign is put on the side of fire station #1 to make it easier to spot (Figure *0-27*), that a lock arrangement is put in place on the fire cabinet outside station #1 and that Dolphin looks into a more permanent and suitable solution to store the fire safety plans (Figure *0-28*).

At the time of the rig verification BSS was checking and recertifying fire equipment, so some of the fire extinguisher had still not been recertified (Figure *0-28*). This will be followed up and checked during next rig visit.

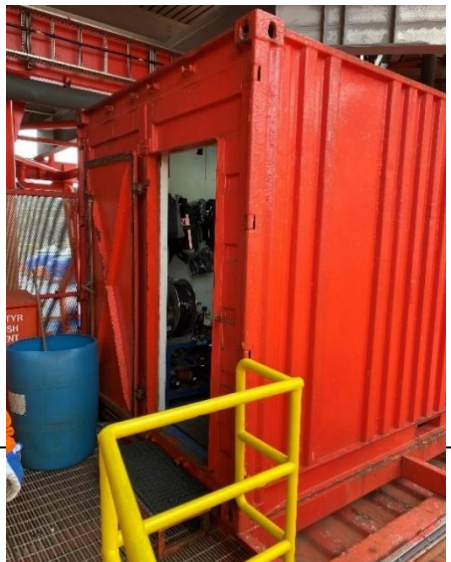


Figure 0-27: Fire station #1

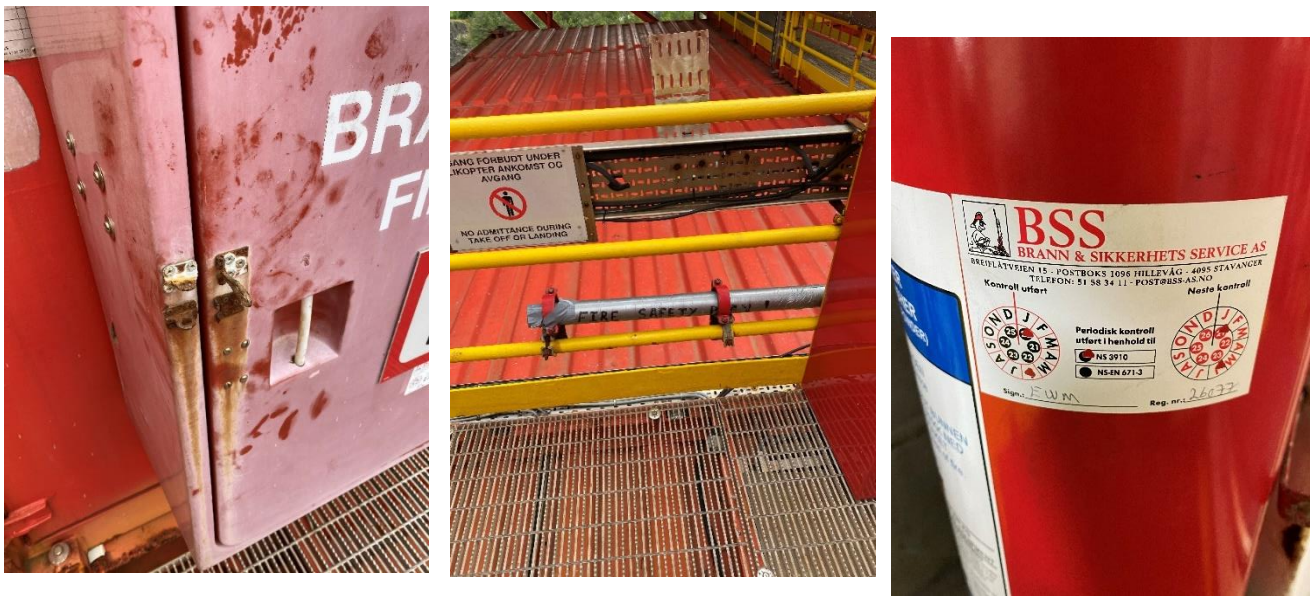


Figure 0-28: Fire equipment that should be improved

Classification:	Observation # 20
Title:	Fire clothing not prepared in advance
Risk classification:	Medium
Description:	In order to save time in an emergency, the fire clothing should be prepared in advance so it is easy to get dressed.

Classification:	Observation # 21
Title:	Marking on Fire station #1 not visible
Risk classification:	Low
Description:	Marking on the side of fire station #1 container should be done to make it easier to spot in an emergency

Classification:	Observation # 22
Title:	Missing lock on fire cabinet outside fire station # 1
Risk classification:	Low
Description:	Fire cabinet outside fire station # 1 is missing a locking device. This should be in place in order to prevent equipment from falling out of the cabinet.

Classification:	Observation # 23
Title:	Fire safety plans outside fire station # 1 not properly stored
Risk classification:	Medium
Description:	The fire safty plans are stored in a home made device. This should be replaced by a better suited fit for purpose storage box/ holder.

Classification:	Observation # 24
Title:	Fire extingusher with expired certificate
Risk classification:	Medium
Description:	Certification of the fire extingusher has expired. It should be re-certified.

Tight Rig

Loading stations and bulk hoses were inspected during the rig visit (Figure 0-29). Equipment appears to be in very good condition apart from a damage that was discovered on the cement bulk hose on the port loading station, see Figure *0-30*. All hoses for fuel have a weak link and shut off system in case of a leak or overpull on the hose. Procedures related to bulk transfer are in place and being utilized.

A separate tight rig verification will be performed by an Environmental Coach during the Schweinsteiger operation. The rig has registered six loss of primary containment in 2020, however all, except one, are closed out in Synergi. One actual spill of 50 L base oil from riser occurred late May. Wellesley has requested the investigation report and necessary measures will be followed up before operation start.

Figure 0-29: Loading stations Starboard and Port

Figure 0-30: Port loading stations with damage on cement bulk hose

Classification:	Observation # 25
Title:	Bulk hose on port loading station
Risk classification:	Medium
Description:	Damage on cement bulk hose on port loading station

Emergency Escape Routes

During rig visit a spot check of the escape routes outside on the rig was performed and mostly found OK. However, it was discovered that aft escapeway was missing yellow colour on the gangway, see Figure 0-31,. Dolphin was informed and this will be followed up during next rig visit. It was also checked if there would be any objects falling over escape routes in the event the rig would be tilted. Nothing was alarming but the area outside Storekeeper could be tidied up and sea fastened better, Figure *0-32*.

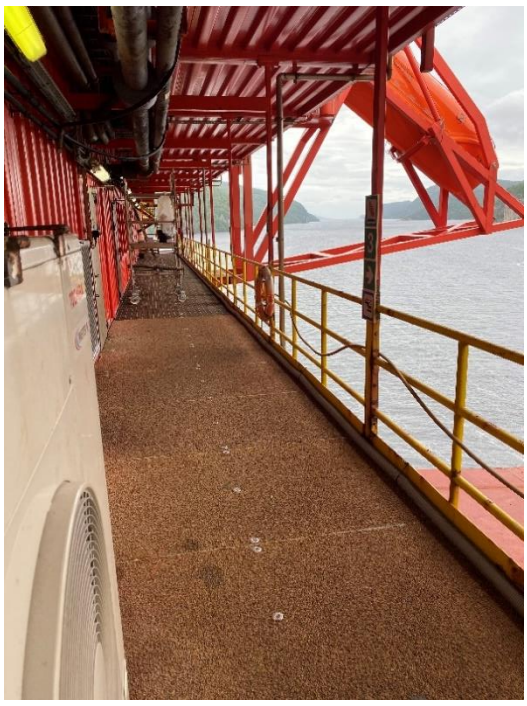


Figure 0-31: Escape ways missing yellow colour

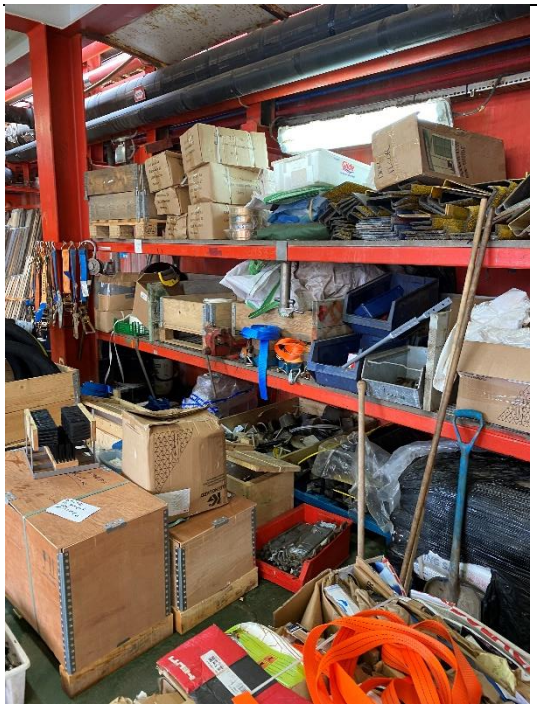


Figure 0-32: Area outside Storekeeper

Classification:	Non-Conformance # 3
Description:	Escape ways
Evidence:	Aft escapeway was missing yellow colour on the gangway.
Requirement:	*Framework regulations § 3* on the use of maritime requirements, cf. *SDir 859/87 VMS regulations § 15* on marking, warning signs and notices, *SDir 90/16 rescue regulations § 8* on marking of evacuation routes
Risk classification:	High

Classification:	Observation # 26
Title:	Untidy area outside materials man
Risk classification:	Medium

Description:	Potential for dropped objects from untidy storage shelves

Service Companies

At the time of the rig verification none of the service companies were present. Therefore, only a visual inspection of the equipment and how it was stored were performed. A more thorough inspection of the various service companies and associated units will have to be performed on the next rig visit verification.

Oceaneering

Borgland is equipped with a Sea Owl in addition to a WorkROV (Figure *0-33*).

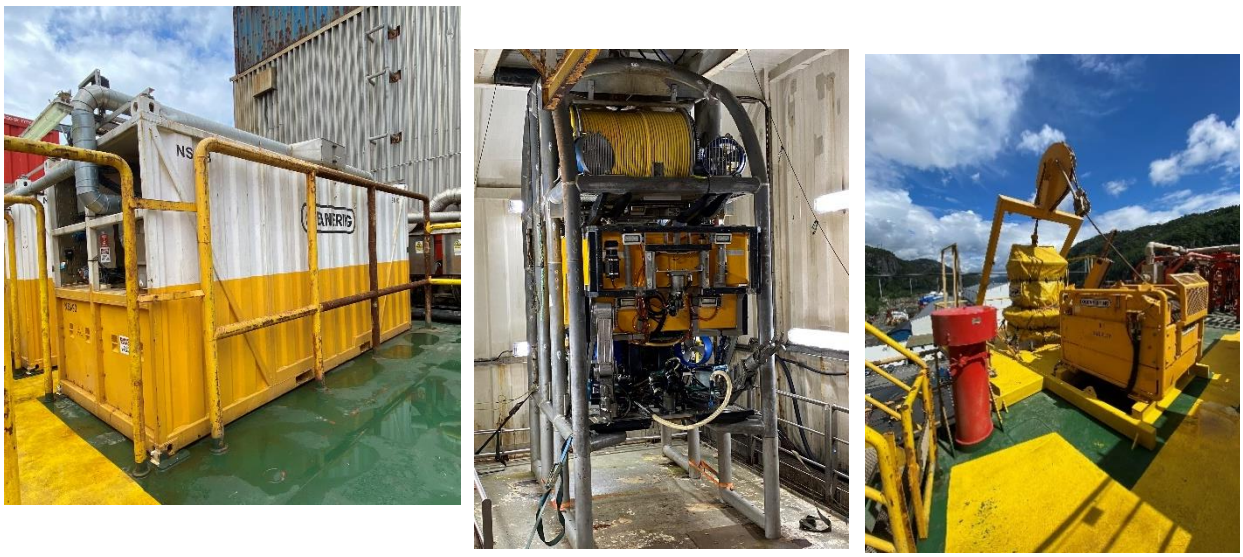


Figure 0-33: ROV unit with WROV and Sea Owl

Halliburton Cement

Borgland is equipped with a Halliburton cement unit (Figure 0-34).

Figure 0-34: Cement unit

Soiltech Slop and Vacum unit

At the time of the rig visit a Soiltech slop unit as well as a vacuum unit were planned to be hooked up.

Schlumberger (MI Swaco) Fluids

Interviewed Derrickman Sigve Jordal and he confirmed that there are no major issues with the mud mixing system. The only thing that he mentioned was that Driller and mudlogger have no access to volumes on the large storage tanks. This makes it more difficult during displacement jobs. The “workaround” is to transfer the fluid from storage tanks via a separate pit. The mud pit layout is shown in Figure 0-35.

The mud lab was also inspected. As no work was ongoing, it appeared very clean and tidy, see Figure 0-36.

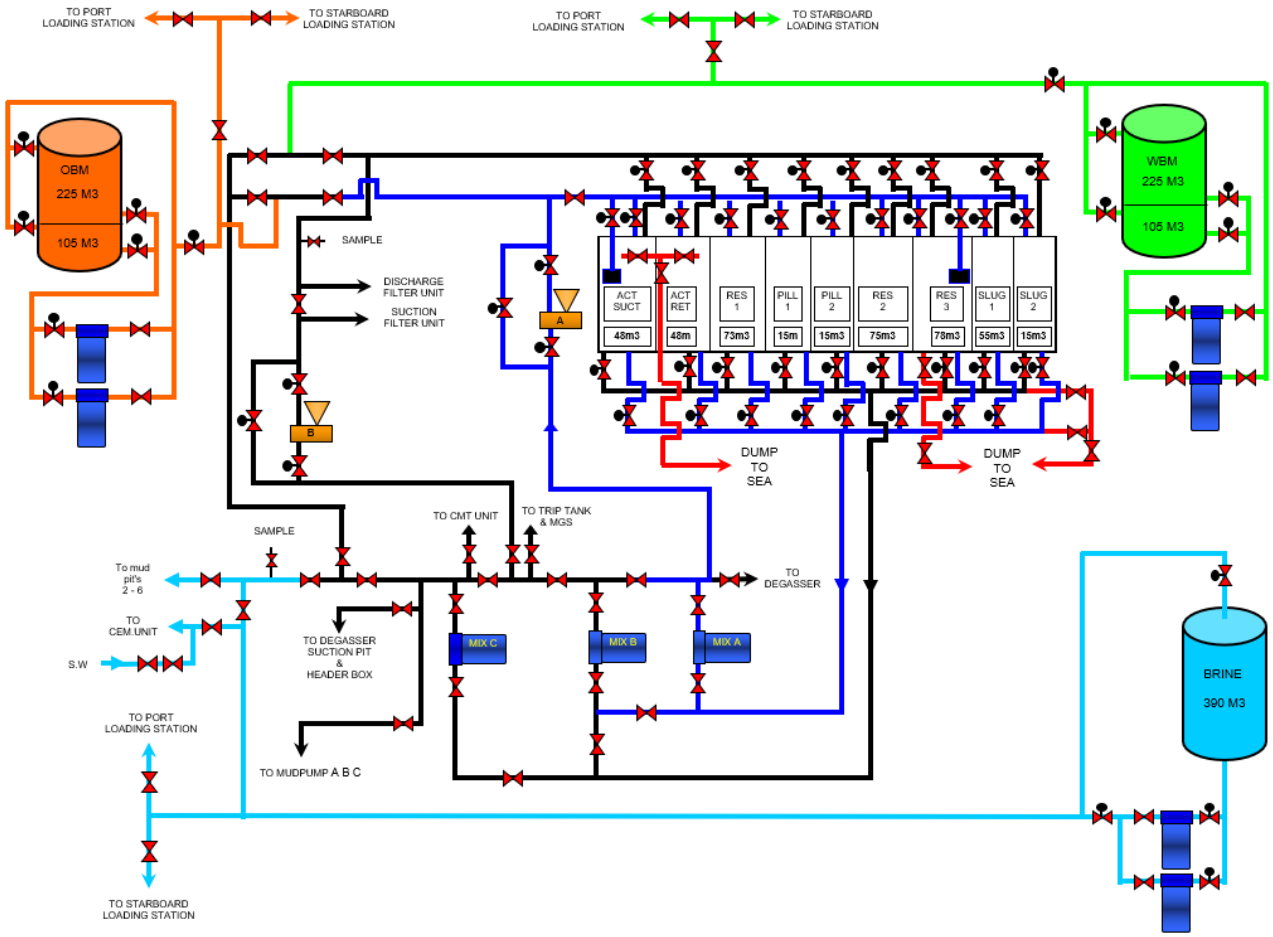


Figure 0-35: Mud pit layout

Figure 0-36: Mud Lab

Cranes and Loose lifting Equipment

An inspection round together with Toolpusher was performed and general impression was that loose lifting gear is stored and maintained well (Figure 0-37). It is the Crane Operator that is responsible for this equipment and the rigging loft register is updated every Sunday. The RIT pointed out that the marking of the “Rigger Loft” and quarantine “box” were not properly labelled. It was therefore suggested to put a new sign outside the “Rigger Loft” container as well as on the quarantine box. In addition, it was pointed out that a chain hoist with both expired certificate and yearly colour should be trashed, see Figure 0-38.

Yearly colour code for lifting appliances on the rig is blue.

When it comes to the cranes, the crane operator was interviewed, and he mentioned that both cranes are working fine.

Figure 0-37: Lifting equipment storage

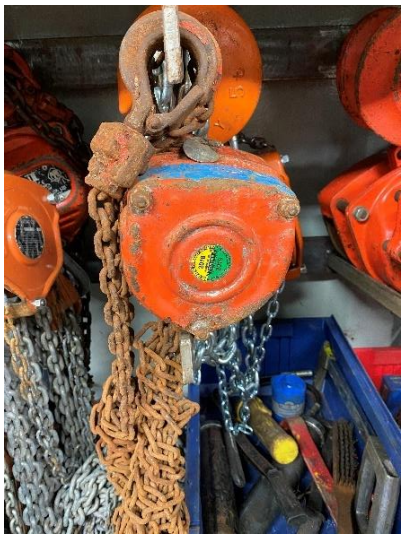


Figure 0-38: Old and rusty chain hoist labelled with both expired certificate and yearly color

Classification:	Observation # 27
Title:	Rigger loft
Risk classification:	Low
Description:	Poor marking of rigger loft and quarantine box

Classification:	Observation # 28
Title:	Chain hoist
Risk classification:	Medium
Description:	Old and rusty chain hoist with wrong labelling

Personnel mentioned that they use a lifting clamp (Figure 0-39) from Rig tools when handling lifting subs, but they were unsure if they have received an Safety Alert from the supplier. The lifting clamp could not the spotted onboard. It was also unclear if the clamp is part of yearly inspection in the maintenance system.

Figure 0-39: Lifting Clamp

Classification:	Observation # 28
Title:	Lifting clamp from Rig Tools
Risk classification:	Low

Description:	It was unclear if a safety alert had been received from Rig Tools and if the clamp is registered in SAP.

Other Areas

Rig Overview

Figure 0-40, Figure 0-41, Figure 0-42 and Figure 0-43 show Borgland Dolphin from forward, aft, port, and starboard side, respectively.

Figure 0-40: Forward

Figure 0-41: Aft

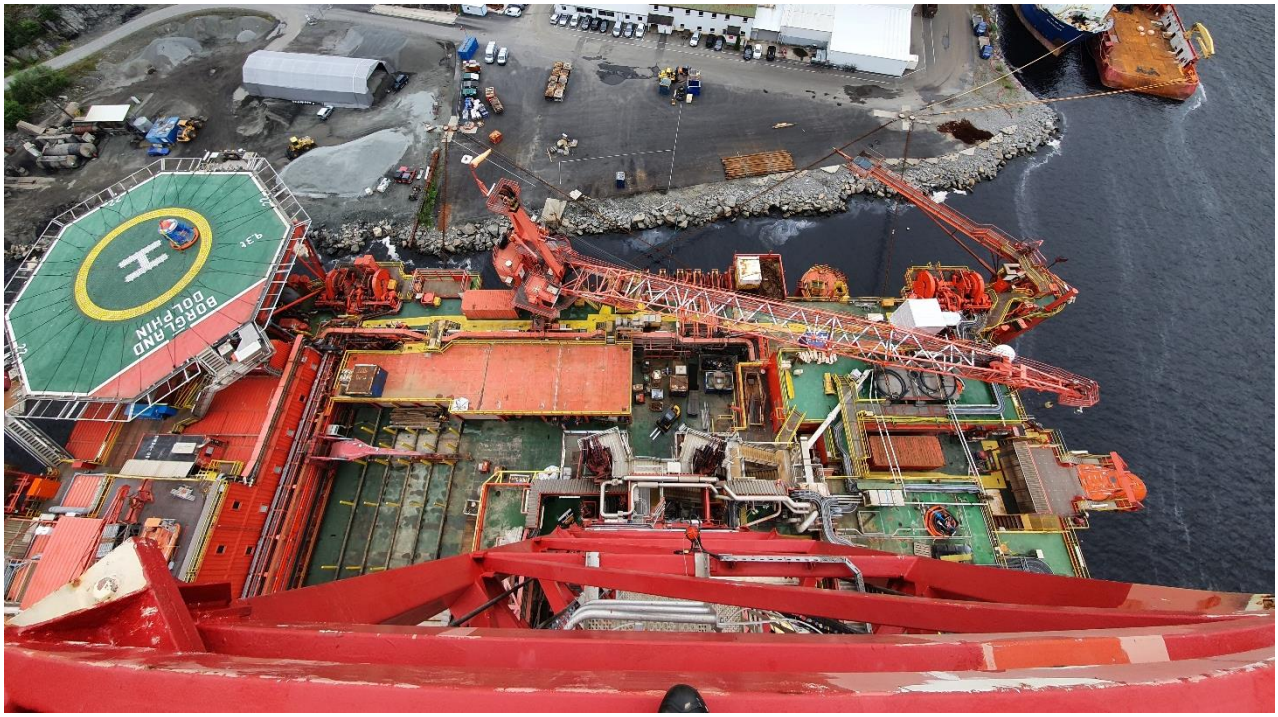


Figure 0-42: Port

Figure 0-43: Starboard

Wireline Unit Area

Wellesley are going to use Schlumberger for the wireline work. At the time of the rig visit/verification the Wireline unit was not on the rig. This will have to be checked prior to rig handover. Schlumberger are planning to perform a rig survey. This needs to be followed up.

Figure 0-44: Wireline unit area

Follow up

Actions

Below is a summary of actions that were captured during the HSE and technical verification meetings. Findings classified as red shall be rectified before spud.

No.	Ref.	Finding	Description	Suggested Action	Risk
1	NC #1	Non-conformance	The rig could not present a HAZID for manual pipe handling.	A HAZID must be prepared for manual pipe handling on the drill floor.	Medium
2	NC #2	Non-conformance	Non-applied chemicals onboard (Jet-Lube Alco produccts, Erifon CLS 6C, Base oil)	Remove the chemicals	Medium
3	NC #3	Non-conformance	Aft escapeway missing yellow colour on the gangway	Mark the escapeway as according to regulations	High
4	O #1	Observation	The “perlator” not working properly	The eye shower at the drill floor needs maintenance	Medium
5	O #2	Observation	There were no stretcher plan or survey prepared to verify that all doors, corridors, and passages are constructed so that an injured person on a stretcher can be transported around the rig safely.	Recommend carrying out a stretcher survey.	Medium
6	O #3	Observation	A procedure for management of benzene is lacking. Drilling in reservoirs with gas have previous given indication of benzene in shaker rooms.	Preparation of procedure in agreement with Wellesley.	Medium
7	O #4	Observation	Dolphin has a glove guide and a poster for respiratory protection, we did not see these posted on the wall on the rig.	Recommend posting the glove guide and the poster for respiratory protection in relevant areas of the rig	Medium

No.	Ref.	Finding	Description	Suggested Action	Risk
8	O #5	Observation	A visualization of the work permits on GA drawings was not used during the meeting; however, we were told that they have the tool to visualize and that they have used it earlier.	Evaluate to Visualize work permits on GA drawings and include safety officer in the meeting. Evaluate to digitalize the WP system in SAP.	Low
9	O #6	Observation	Dolphin is using a paper-based reporting system, that takes a lot of time for the safety officer to register.	Evaluate to use the Synergi app for reporting of safety observation cards	Low
10	O #7	Observation	A mounting bracket for the hook on the fingerboard was broken. Chain schakles to secure pipes were not used or maintained.	The mounting bracket should be replaced or removed. Consider removing the chains and shackles.	Medium
11	O #8	Observation	When it comes to labelling of loose pipehandling equipment, the rig is using the reccomendations from the 2009 version. The guidline says in chapter 7 that labelling shall not come in conflict with other relevant labelling. The loose pipehandling equipment has a sticker that shows the certification. This can easily fall off.	Suggest evaluating other labelling of such equipment.	Medium
12	O #9	Observation	The Pipehandling matrix were not available for personell on the drill floor	The Pipehandling matrix should be available for personell on the drill floor and personell should be trained in manual pipe handling every hitch.	Low
13	O #10	Observation	When performing lifting operations on drill floor personell are not always aware of their roles and responsibilities according to NORSOK R-004.	The RIT reccomends to go through the standard with focus on lifting operations on drillfloor before spud.	Medium
14	O #11	Observation	The measurement program is not updated to reflect the Schweinsteiger operation. The document is referring to the Knarr field and	Update the measurement plan to reflect operations on NCS and Document control page	Low

No.	Ref.	Finding	Description	Suggested Action	Risk
			chelicals used on the UKCS. Document numbering etc. on the front is missing.		
15	O #12	Observation	Folders with Halliburton Drilling Fluids SDS's were observed in derrick man's office and hospital.	Remove Halliburton Drilling Fluids SDS's	Low
16	O #13	Observation	Several chemicals used by previous operator still onboard	Implement routines for checking chemicals between operators	Low
17	O #14	Observation	Diesel forklift used onboard	Use electrical forklifts to reduce emissions	Low
18	O #15	Observation	Safety cage on ladder outside hospital on port side in poor condition	The RIT recommends that the safety cage on ladder outside hospital on port side are better maintained	Medium
19	O #16	Observation	Safety gate spring on choke manifold platform level is broken	The RIT recommends the self closing spring to be welded back on	Medium
20	O #17	Observation	Hose securing on rig floor is "home made"	In order to prevent damage to hoses and avoid potential spill and downtime, the RIT recommends a more "fit for purpose" solution to be used	Medium
21	O #18	Observation	Worn paint on floor indicating red zone	In order to better visuallize the red zone on drillfloor, the RIT recommends the paint job to be refreshed	Medium
22	O #19	Observation	Rollers on Iron Roughneck are significantly worn	In order to prevent downtime and potential damage to tubulars, the RIT recommends the rollers on the iron roughneck to be replaced	High
23	O #20	Observation	Fire clothing not prepared in advance	In order to save time in an emergency, the RIT recommends fire clothing to be prepared in advance so it is easy to get dressed	Medium

No.	Ref.	Finding	Description	Suggested Action	Risk
24	O #21	Observation	Marking on Fire station #1 not visible	The RIT recommends that the marking on the side of fire station #1 container to be done to make it easier to spot in an emergency	Low
25	O #22	Observation	Missing lock on fire cabinet outside fire station # 1	The RIT recommends a locking device to be in place in order to prevent equipment from falling out of the cabinet	Low
26	O #23	Observation	Fire safety plans outside fire station # 1 not properly stored	The RIT recommends the fire safty plans are stored in a better suited fit for purpose storage box/ holder	Medium
27	O #24	Observation	Fire extingusher with expired certificate	The RIT recognizes that BSS was onboard the rig to re-certify fire equipment at the time of the rig verification. The RIT recommends that Dolhin performs a spot check to ensure BSS has recertified all fire extingushers.	Medium
28	O #25	Observation	Damage on cement bulk hose on port loading station	In order to prevent potential spill to sea the RIT recommends the cement bulk hose on port loading station to be replaced	Medium
29	O #26	Observation	Untidy area outside materials man	In order to prevent dropped objects and equipment falling out and blocking escape way, the RIT recommends the area outside material man to be tidied up.	Medium
30	O #27	Observation	Poor marking of rigger loft and quarantine box	The RIT recommends that the rigger loft and quarantine box to be better marked so people on the rig can find it easier	Low
31	O #28	Observation	Old and rusty chain hoist with wrong labelling	The RIT recommends the old and rusty chain hoist to be replaced	Medium

Appendices

APPENDIX A – NOTIFICATION INCLUDING TOPICS FOR THE verification

Rig Visit Scope on Borgland Dolphin 2020

Location: Fedafjorden

Participants:

Helge Hamre (Sr. Ops & HSE Advisor - Wellesley)

Lars Lilledal (Sr. Drilling Advisor – Wellesley)

Tommy Johnsen (CEO - Well Expertise)

Stig Seland (Rig Intake Lead - Well Expertise)

Anniken B. Meisler (QHSE Coordinator - Well Expertise)

Rune Andre Smenes (Marine Advisor - Well Expertise)
Christina Sæland Rødne (Environmental Coordinator - Well Expertise)
Lars Solvang (IT Responsible - Well Expertise)
Carsten Jepsen (DSV – Well Expertise)
Rob Banbury (DSV – Well Expertise)

Note! Separate schedule of participants to be sent later.

QHSE Scope (Anniken & Christina)

Working Environment and Health Related Matters

- Interview with Medic regarding working environment mapping, chemicals, VO representatives (3rd party reps), catering crew inclusion, Covid-19 routines/adjustments
- Interview with catering
    - Galley (ergonomics, hygiene), number of personnel (workload), Covid-19 precautions

Personal Protective Equipment

- Check storage and use (and access/availability – to gloves and respiratory protection)

Work Permit System

- Attend WP meeting if possible (routines for SJA (requirements) in connecting with WP, toolbox talk, WP check outdoors)

Reporting System

- Assess system and culture/ knowledge/follow-up (case-handling) of reporting system
- Safety alerts

Risk assessment system

- Ask to join risk assessment (SJA) if possible
- Review latest assessments

Emergency Preparedness

Review and spot check documentation on:

- Emergency response plans
- Emergency Drills- fulfilment of performance requirements
- Competence matrix
- Mob Boat Drills
- Winch off drills
- DFUs
- Review crew familiarisation (e.g. stretcher team – if manned with catering personnel not familiar outdoor) and training
- Covid-19 routines

Housekeeping

- Assess general housekeeping standard.
- Spot check waste handling.

Dropped object

- How is the use of DROPS inspections implemented in the rig's routines?
- How is DROPS followed up?
- Any planned PDO (DROPS) inspection by professionals (climbers) before operation start-up in August? After the stay in Fedafjorden there might be items left in height and possible items/equipment not sufficiently secured.
- What standard for secondary retention does Dolphin use. Does it follow Norwegian industry DROPS forum "best practice"?
- Shell commissioned a "whole of rig, top of crown block to pontoon" DROP survey of the rig (by Axess in May 2019). Can we review and agree a ranking process for continuing to close out during our short time on the well but also continuing going forward?
- Highest risk issues (1): review day-to-day documentation used by crews to check derrick and cranes for PDOs. Should include zoned areas with photographs of what to check. Review records – looking for grubby, dated records going back weeks and months to demonstrate they are used.
- Highest risk issues (2): review WAH (Working At Height) tool cupboards for derrick and cranes. Should use specific industry-standard lanyards for securing ALL tools aloft all clipped into a toolbag.

Review records – again looking for grubby, dated records going back weeks and months to demonstrate they are used.

External Environment

Chemical management

- Check the Chemical system for storing, compiling, presenting and distributing information about chemicals and their safe handling, transportation and management. Check with Medic and Storekeeper.
- System for securing that only approved chemicals get onboard
- Chemical storage incl. catering and related SDS'
- Choice of chemicals
- Contingency chemicals and chemicals in closed systems
- Check chemical procedures incl. measurement program
- Reporting (format and content). Interview Technical Chief
- (Implementation of environmental poster)

Waste management

- Waste management plan - familiarization
- Spot check of waste stations and waste handling
- Check waste procedures
- Routines for declaration of hazardous waste. Storekeeper.

Slop treatment

- Check the unit and routines (if unit is mounted, or observe if it is being mounted, check area)

Diesel consumption and emissions to air

- Interview Barge/ Stability Section Leader
- Rig specific NOx factor
- Routines and calibration
- Generators
- Thruster use

Barrier management

- Barrier philosophy including overview of hazardous vs storm water drains work, holding tanks, bilge alarms etc. Record keeping for slop backloaded to PSVs.
- Drains philosophy and mapping and how are they monitored?
- Spot check drains
- SOPEP equipment

- Inspection of loading hoses and loading stations
- Riser and BOP cleaning procedures

Technical Scope (Stig, Tommy, Rune, Lars, Rob, Carsten)

The following technical scope is planned to be covered during the rig visit/ inspection and access to relevant personnel is required.

- Full tour of the rig covering all levels and all systems simulating an integrated "working rig" (Drilling, well control, ballast control, fire and gas, emergency shutdown, cuttings handling)
    - Get status on maintenance program and understand what is ongoing to evaluate if anything Wellesley would like to witness
    - Cement unit and bulk transfer. Frank and honest discussion – any known weak points that need attention before and during jobs? eg bends that suffer blockages, problems feeding surge can, overheating of unit, actuators on silo valves in difficult-to-reach places if they fail....who runs the bulk system? Marine (usual) or derrickmen (what some Maersk rigs now do). Experience? Any people new to the system who will need support?
    - Fluid circulation and mixing system. Same as above – any known problems with particular pumps? Fluid end inventory: liners, swabs, modules. Schematic of surface pits, which pit used for LCM. Column tanks and pumps – is there redundancy if a column tank pump fails?
    - Top Drive: stock kept on board for spare washpipe assembly. Any vulnerability in umbilicals eg "very few or no spare cores left"
    - Critical spares inventory (if not closed out before).
    - ROV setup
    - Well Control systems including BOP.
    - WL setup (Schlumberger installation - new to the rig)
    - Transducer and MWD/LWD equipment setup with Schlumberger in the existing Halliburton Mudlogging unit (coming on new to the rig)
    - Hull and pontoons
    - WEPCO Anchors
    - Soiltech unit location and setup including vacuum unit system and Slop unit. Check ease or otherwise of how proposed interface of Soiltech equipment with rig is going to work including layout, interface with rig pits and column tanks.

Maintenance

- Interview with Technical Section Leader
    - Review maintenance system and status
    - Status on the PSA audit?
    - Follow up of safety critical maintenance
    - Involvement in 3rd party service equipment maintenance
    - Potential upcoming maintenance projects/repairs

Well control systems

- Interview with Subsea Supervisor and Toolpusher

- Review BOP, choke and kill systems, degasser, operation of critical drilling system on emergency power. Interface with capping stack (Extended guideposts on the lower BOP)
- Are there schematics on rig floor (preferably plasticised) showing standpipe, choke and cement manifold line-ups to assist crews with "walking the line"? Are they up to date?
- Review choke control panel. All gauges well labelled?
- Training related to well control exercises are covered in ST-450-0086, but this does not require logging/documentation of participants and that datalogger/ cementer shall participate. Check status on if Dolphin has updated their procedure/ practice. Ref. Verification report and Non-Conformance # 5
- DMAS/ EHBS and related procedures for when it should be armed and dis-armed

Shut Down for critical well scenarios

- Emergency shut-down, cause &effect, ESD philosophy and power shedding philosophy.
- What runs on the emergency generators?
- Any blackout tests performed? Results?

Lifting operations including cranes and loose lifting gear

- Interview with Stability Section Leader/Barge
  - Status on the Axess yearly inspection?
  - Review Lifting manual: Lifting equipment & operations
  - Spot check yearly colour coding for lifting appliances.
  - Spot check loose lifting gear.
  - If possible, interview with crane operator

Electro instrument and safety systems

- Status on system and check if any issues with electrician
- Follow-up on the PSA audit and status

Fishing inventory

- Review rental equipment and obtain list from Dolphin

Work at height

- Spot check work at height cabinets including log and inventory list
- Spot check salablocks and manriding equipment

Lighting

- Spot check lighting fixtures

Signs and Labels

- Marking and quality of signs and labels.
    - Pit rooms
- Assess status on escape signs both inside and outside accommodation.

Drilling Related Equipment

- Interview with Toolpusher and driller
    - Top drive, Iron roughneck, fingerboards, catwalk, standpipe manifold, mud pumps etc.
    - Anti-collision system
    - Heave compensation (Ram rig) and tensioning system.
    - Any ongoing verifications that Wellesley can witness?
    - Any issues to be aware of?

Fire Stations

- Spot check inventory lists
- Assess status on training and competence
- Assess status on equipment such as helmets, shoes, breathing apparatus etc.

Emergency Escape Routes

- Spot check of emergency escape routes
- Check securing of loose items in the event the rig should tilt

Service companies (if any present)

- Interview with service companies (Oceaneering, Halliburton, Schlumberger, Soiltech)
- Any issues to be aware of?

Marine Scope (Rune)

The following marine scope is planned to be covered during the rig visit/ inspection and access to marine personnel is required:

Marine general

- Marine documentation for operation on the Norwegian shelf
- Location specific operating guideline available yet?
- Certificates crew
- Competence on winch specific training
- Staffing maritime positions
- Rich specific training of marine personnel on equipment on board
- Navigation equipment
- Radio equipment
- Life-saving equipment
- Status on the damaged PS propeller

- ISPS
- Anti-collision systems
- Mooring equipment
- Anchor equipment certification
- Outstanding actions on the marine equipment/ documentation
- Bulk transfer procedures
- Disconnect procedures

If the following documentation could be made available prior to the rig visit it would be greatly appreciated:

- Rig marine operations manual

IT Scope (Lars)

The following IT scope is planned to be covered during the rig visit/ inspection and access to relevant personnel is required.

- What WAN connections are supported by the rig without need for additional installations? 4G, radio link, VSAT?
- Current setup and physical location for comms and equipment (i.e. printers, phone conference, PCs).
- How to link the operator provided comms to operator equipment (i.e. DSV, DE and Geo workstations, Network file storage (NAS) and printers).
- Check the connection between service companies to operator provided comms (physically and virtually).
- Asses the equipment need to be provided by the operator (i.e. screens, keyboard/mouse, NAS and printer).
- Get overview of current virtual LAN (different companies are placed in virtually separated LANs).
- Look how to minimize mobilization of excessive equipment.
- Discuss the use of existing infrastructure to minimize rig up time and avoid unplanned events.
- Review and get overview of comms related to emergency.

APPENDIX B – RIG VISIT/VERIFICATION CHECK LIST

Appendix C – Rig Visit Check List **Item # C.1.0**	**HSE Topic**	**Risk Evaluation**	**Scope/ Topic Risk Grade**	**Selected Scope**	**Reference**	**Status (Blank, In progress, Completed)**	**Comments**
C.1.1	Working Environment and Health Related Matters	The rig crew has a 2 x 2 rotation, which means both structure and organizational matters should be addressed in detail now that it has been decided to move to a 2 x 4 rotation.		- Interview with Medic regarding working environment mapping, chemicals, VO representatives (3rd party reps), catering crew inclusion - Interview with catering	The Activities Regulations Chapter II and III NORSOK C-001 chapter 7.21 Reference rigs internal procedures		
C.1.2	Personal Protective Equipment	The rig crew has a 2 x 2 rotation, which means both structure and organizational matters should be addressed in detail now that it has been decided to move to a 2 x 4 rotation.		- Check storage and use	Reference rigs internal Procedures		

Appendix C – Rig Visit Check List **Item # C.1.0**	**HSE Topic**	**Risk Evaluation**	**Scope/ Topic Risk Grade**	**Selected Scope**	**Reference**	**Status (Blank, In progress, Completed)**	**Comments**
C.1.3	Work Permit System	The rig crew has a 2 x 2 rotation, which means both structure and organizational matters should be addressed in detail now that it has been decided to move to a 2 x 4 rotation.		- Ask to attend WP meeting	NOROG 088 Anbefalte retningslinjer for arbeidstillatelser Reference rigs internal procedures		
C.1.4	Reporting system	The rig crew has a 2 x 2 rotation and has now decided to move to a 2 x 4 rotation. Assessing the culture of reporting is important to operation.		- Assess system and culture of reporting	The Management Regulations Chapter VI Reference rigs internal procedures		
C.1.5	Risk assessment system	The rig crew has a 2 x 2 rotation and has now decided to move to a 2 x 4 rotation. Assessing the culture of performing risk assessments is important to operation.		- Ask to join risk assessment (SJA) - Review latest assessments	The Management Regulations chapter II NOROG 090 Anbefalte retningslinjer for felles modell for Sikker Jobb Analyse Reference rigs internal procedures		

Appendix C – Rig Visit Check List **Item # C.1.0**	**HSE Topic**	**Risk Evaluation**	**Scope/ Topic Risk Grade**	**Selected Scope**	**Reference**	**Status (Blank, In progress, Completed)**	**Comments**
C.1.6	Emergency Preparedness	The rig crew has a 2 x 2 rotation and has now decided to move to a 2 x 4 rotation. Assessing the emergency preparedness is critical to operation.		Review and spot check documentation on: - Emergency response plans - Emergency drills - Mob Boat drills - Fire drills - Winch off drills - DFU's - Review crew familiarization and training.	The Activities Regulations Section 21, 23 and Chapter XIII Reference rigs internal procedures		
C.1.7	Housekeeping	The rig crew has a 2 x 2 rotation and has now decided to move to a 2 x 4 rotation. Assessing the housekeeping and waste handling is important to operation.		- Assess general housekeeping standard. - Spot check waste handling.	Reference rigs internal procedures		

Appendix C – Rig Visit Check List **Item # C.1.0**	**HSE Topic**	**Risk Evaluation**	**Scope/ Topic Risk Grade**	**Selected Scope**	**Reference**	**Status (Blank, In progress, Completed)**	**Comments**
C.1.8	Environment	The rig crew has a 2 x 2 rotation and has now decided to move to a 2 x 4 rotation. Assessing waste management and focus on the environment is important to operation.		- Use of environmental poster (current operator). Hazardous chemicals storing - Waste management	Reference rigs internal procedures		Separate environmental verification may be performed.
C.1.9	Dropped object	The rig crew has a 2 x 2 rotation and has now decided to move to a 2 x 4 rotation. Assessing focus on DROPS inspections and routines are important to operation.		- How is the use of DROPS inspections implemented in the rigs routines? - How is the follow up?	SFS Beste praksis forebygging av fallende gjenstander Reference rigs internal procedures		

C.2.0	Technical Topic	Risk Evaluation	Scope / Topic Risk Grade	Selected Scope	Reference	Status (Blank, In progress, Completed)	Comments
C.2.1	Maintenance	The rig has previously been "smart stacked", however maintenance may have suffered. Critical to operation.		- Interview Technical Leader regarding status on safety critical issues, NPT during the last year and potential upcoming maintenance projects/ repairs.	The Activities Regulations Chapter IX NORSOK Z 008 Reference rigs internal procedure		
C.2.2	BOP/ Riser /Choke and Kill System / Degasser Status	Critical to operation		- Interview with subsea Supervisor/ Engineer and Toolpusher. - Any issues to be aware of? - Discuss latest BOP Inspection report with regards to possible findings. - Any issues with the well control equipment?	The Facilities Regulations § 49 NORSOK D-001/ D-010 Reference rigs internal procedures		
C.2.3	Station Keeping	Critical to operation		- Interview with OIM, on procedures. Discuss winch and thruster conditions.	The Facilities Regulations Section 63 NMA The Anchoring regulations §17 NORSOK N-001 Reference rigs internal procedures		
C.2.4	Mooring Equipment	Critical to operation		- Interview with Stability section leader / OIM on status on Mooring equipment, chain and anchor winches etc.	Reference rigs internal procedures		

C.2.0	Technical Topic	Risk Evaluation	Scope / Topic Risk Grade	Selected Scope	Reference	Status (Blank, In progress, Completed)	Comments
C.2.5	Lifting Operations and Equipment	Critical to operation		- Lifting Operations and Equipment	The Facilities Regulations section 69		
C.2.6	Comms Installation	Important to operation		Review and check comms installation.	The Facilities Regulations section 18/19 NORSOK S-001 Reference rigs internal procedure		
C.2.7	Fishing Inventory	Important to operation		- Review status/ condition of fishing equipment.	Reference rigs internal procedures		
C.2.8	Work at Height	Important to operation		- Spot check Work at height cabinets and inventory list. - Spot check use of logging of equipment removed from cabinet as well as people working at height are checked in and out. - Spot check sala-blocks and man-riding equipment/ gear.	Reference rigs internal procedure		

C.2.0	Technical Topic	Risk Evaluation	Scope / Topic Risk Grade	Selected Scope	Reference	Status (Blank, In progress, Completed)	Comments
C.2.9	Lighting	Important to operation		- Spot check lighting fixtures.	The Facilities Regulations Section 25 Reference rigs internal procedures		
C.2.10	Signs and Labels	Important to operation		- Marking and quality of signs and labels. - Assess status on escape signs both inside and outside accommodation. - Pit rooms – labels and signs. - What is the philosophy around maintenance of signs and labels?	The Facilities Regulations Section 28 Reference rigs internal procedures		
C.2.11	Drilling Related Equipment	Important to operation		- Interview with Toolpusher and driller. - Top drive, Iron roughneck, fingerboards, catwalk, standpipe manifold, mud pumps etc. - Heave compensation and tensioning system. - Check latest Oil analysis of the DDM. - Any issues to be aware of?	The Facilities Regulations Chapter VIII NORSOK D-001 Reference rigs internal procedures		

C.2.0	Technical Topic	Risk Evaluation	Scope / Topic Risk Grade	Selected Scope	Reference	Status (Blank, In progress, Completed)	Comments
C.2.12	Fire Stations	Safety Critical		- Review Inventory list in fire stations. - Assess status on equipment such as breading apparatus, helmets, shoes etc. - Spot check that certificates are in place and training has been performed.	Reference rigs internal procedures		
C.2.13	Tight Rig	Important to operation		- Spot check status and procedures related to drains. - Review status on loading stations and bulk hoses. - Review bulk and fuel transfer procedures are in place. - Interview with Stability section leader/ OIM.	Reference rigs internal procedures		
C.2.14	Emergency Escape Routes	Safety Critical		- Spot check of emergency escape routes. - Check securing of loose item with regards to a tilted rig.	The Facilities Regulations Section 13 NORSOK S-001 Reference rigs internal procedures		Routes are established, but will be checked free from obstacles

C.2.0	Technical Topic	Risk Evaluation	Scope / Topic Risk Grade	Selected Scope	Reference	Status (Blank, In progress, Completed)	Comments
C.2.15	Service Companies	Some unfamiliar to rig		- Interview with service companies: - Oceaneering – Status on the ROV - Halliburton Cement – bulk transfer and cement unit. - Mud Engineer – fluid circulation and mixing system, installation of new mud lab - Schlumberger - Installation of new Wireline unit - Soiltech - Installation of Vacuum system and Slop unit - Schlumberger – Intallation of Trancducer and LWD/MWD equipment/computer in Hallliburton Mudlogging Unit - - Any issues to be aware of?			
C.2.16	Cranes and Loose Lifting Gear	Important to operations		- Interview stability section leader and spot check relevant lifting documentation. Spot check yearly colour coding for lifting appliances. - Interview with crane driver. - Spot check loose lifting gear.	Reference rigs internal procedures		-

C.3.0	Extended rig visit activities	Risk Evaluation	Scope/ Topic Risk Grade	Selected Scope	Reference	Status (Blank, In progress, Completed)	Comments
C.3.1	Covid-19	Lack of personnel		- Review procedures	Reference rigs internal procedures		