



WELL EXPERTISE

Well Expertise Review Report

Review of Soiltech's swarf and cuttings containment deliveries

AUDITEE Soiltech		DATE 17/12/2020		
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DOCUMENT APPROVAL				
	Date:	Name:	Position	Signature:
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Approved by:	Stig Seland	03.02.2021	Drilling Superintendent	<i>Stig Seland</i>

Revision history

Revision	Date	Chapter	Reason for revision
02	03/02/2021	All	Issued for use
01	22/01/2021	All	Issued for review
00	20/01/2021	All	Issues for IDC

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1 Introduction

Together with DNO Norge AS (DNO), Well Expertise (WE) conducted a review of Soiltech. DNO will be conducting Permanent Plug and Abandonment (PP&A) on the Oselvar field by using the semi-submersible drilling rig Borgland Dolphin with planned start-up leaving Fedafjord 20th March 2021 and setting the BOP 1st April at the earliest.

A risk-based approach is applied for follow up of contractors and subcontractors and an audit, review, and verification (ARV) plan has been established to assure DNO that critical activities and services related to the project are following contractual and regulatory expectations. The main goal is to ensure that DNO, contractors and subcontractors involved in the Oselvar PP&A, are competent to perform the activities in a safe and prudent manner.

As a part of the ongoing preparations for PP&A of the Oselvar wells, WE and DNO performed a review of Soiltech AS (Soiltech) on planning and readiness related to the deliveries for Oselvar PP&A.

The verification was conducted 17th December 2020 on Teams according to agenda given in [Chapter 3](#).

The review was based on the following documents:

Soiltech KPIs 2020

Soiltech Risk assessment - Borgland Dolphin - August 2020 v2

Soiltech Competency and competency Matrix (Copies from Soiltech's HSEQ Manual)

Soiltech Introduction of new employees. Document no.: 20-06892. Rev. 1.1.

SCHW-WLSLY-S-RA-0617 Wellesley verification report on Soiltech deliveries. 11.06.2020

Other requested documents and processes were shown to the review team under the review.

Sideskift

1.1 Scope and Objectives

The objective of the review was to ensure high level of quality and to deliver a safe and efficient operation for the upcoming Oselvar PP&A operation for DNO.

Soiltech was asked to present information to cover the following topics:

1. Short company information/presentation
 - a. Soiltech organization chart, capacity, and organizational risk assessment
 2. Service Delivery process
 - a. Job preparation
 - Knowledge of rig and planned set-up
 - Planned Survey on Borgland Dolphin and requirements for installation (skip, voltage, area, work container, vacuum unit availability, etc.)
 - Job specific risk assessments
 - b. Functionality of the Swarf Removal System (SRS/ST-SRU) including how Swarf treatment is handled for Borgland Dolphin and applicable procedures for the job. Updates on equipment specs and improvements
 - c. Functionality of the cuttings containment system
 - d. From customer call off to load out, explain the QA/QC checks
 - e. Current Soiltech Performance
 - NPT associated with Soiltech equipment or personnel
 - Swarf treatment efficiency
 - HSE initiatives and activity for offshore personnel
 - Involvement with mud/rig/cuttings containment company
 3. System for preventing dropped objects
 4. Corona/Covid-19 risk assessment(s) and handling of the pandemic
 5. Status on manning, resources, offshore/onshore personnel, equipment, training of personnel.
- Doc. No. / Name

2 Verification Process

A notification letter ([Appendix A](#)) was sent to Soiltech 4th December 2020. The verification date was accepted, and relevant documentation sent to DNO before the review meeting.

The meeting was held on Teams according to agenda presented in [Chapter 3.1](#), and relevant personnel from Soiltech Management, DNO and Well Expertise were present (see [Chapter 3.2](#) and "Signatures" in [Appendix B](#)).

At the end of the meeting, an action list ([Chapter 4.1](#)) was presented to Soiltech. This was also sent to Soiltech after the meeting. The verification team identified no (0) non-conformances, improvement points or observations.

2.1 Agenda

The agenda and timing were:

09:00 – 09:15 Presentation of attendees, DNO introduction to the Oselvar PP&A project

09:15 – 09:30 Presentation of Soiltech company

09:30 – 10:15 Presentation of Service Delivery process

10:15 – 10:30 Short break

10:30 – 10:45 Presentation of System for preventing dropped objects

10:45 – 11:00 Handling of Corona/Covid-19 incl. risk assessments

11:00 – 11:45 Presentation of Soiltech project personnel and follow up in operation. Status on offshore crew and workload, equipment, and training of personnel

11:45 – 12:00 Review team time - summing up

12:00 – 12:15 Closure meeting

2.2 Participants

Role	Name	Position	Company
Lead Auditor	Anniken B. Meisler	Review Team Lead/HSEQ Coordinator	DNO/Well Expertise
Auditor	Arild E. Lund	HSEQ and Risk Lead	DNO
Auditor	Eirik Enge	HSE Advisor	DNO
Auditor	Grethe Lønø	Sr. Drilling Engineer	DNO
Observer	Stig Seland	Drilling Superintendent	DNO/Well Expertise
Observer	Karina Helle	HSE Graduate	DNO/Well Expertise
Observer	Helge Hamre	Asset Manager	Wellesley
Auditee	Erik Røvde	Operations Manager	Soiltech
Auditee	Patrick Åsland	Project Manager	Soiltech
Auditee	Bente Skogen	HR Manager	Soiltech

2.3 Abbreviations

HR	Human Resources
HSE	Health, Safety, and Environment
HSEQ	Health, Safety, Environment and Quality
IMP	Improvement Suggestion
M	Minor
MA	Major
NC	Non-conformance
NPT	Non-Productive Time
O	Observation
PP&A	Permanently Plug and Abandon
S	Significant

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SRS *Swarf Removal System*
ST-SRU SWARF *removal unit*
QA *Quality Assurance*
QC *Quality Check*

3 Findings

Findings are categorised as:

- *Non-conformance (NC)*
- *Improvement Suggestion (IMP)*
- *Observation (O)*

Non-conformances are classified as:

- *Major (MA)*
- *Significant (S)*
- *Minor (M)*

*Under the review, no NC, IMP, or O were identified. All actions identified shall be answered out with an action owner and due date **within 14 days** after receipt of this report.*

4 Actions

During the review, some actions were identified, presented in **Error! Reference source not found..**

Figure 41: Identified Actions

ID	Action	Sender	Receiver
1	Soiltech to include swarf in daily cuttings report	P. Åsland	A. Meisler
2	Soiltech to report tracking of cleaning (weight and volumes, meters milled)	P. Åsland	A. Meisler
3	Soiltech to check with DDAS: <ul style="list-style-type: none"> Power supply/emergency power for the swarf unit at a shut-down Length needed on the 16" hose 	P. Åsland	A. Meisler
4	Soiltech to check hand tools and marking	P. Åsland	A. Meisler
5	DNO to inspect the systems when installed onboard BD – as part of rig intake	A. Meisler	E. Røvde
6	DNO to communicate plan (HAZOP) and section when milling is possible – so Soiltech can secure personnel	A. Meisler	E. Røvde
7	DNO to send PP&A programs to Soiltech*	A. Meisler	E. Røvde

5 Conclusion

The goal of the review was to verify Soiltech's readiness for the Oselvar PP&A related to swarf handling and cuttings containment, and to identify possible areas for improvement.

The review team's impression was Soiltech will strengthen the deliveries in planning and operation for DNO and the Oselvar PP&A operations. The systems are appropriate and appear robust and easy to handle and follow-up.

6 Appendices

[Appendix A](#): Notification letter

[Appendix B](#): "Signature list"

A – Notification letter

Review notification



DATE and TIME : 17.12 2020, at 09:00-12:00
WHERE : Online on Teams
TO : Soiltech
ATT. : Erik Røvde
E-MAIL : erik.rovde@soiltech.no
OUR REF. : Oselvar PP&A delivery review
COPY TO : Patrick Åsland, Bente Skogen, Eric Skjæveland, Grethe Løng, Arild Lund, Eirik Enge, Iselin Håland, Einar Framnes, Stein A. Tønning, Bjarne Syre, Morten Laget, Sigve K. Næsheim, Øystein Prytz, Stig Seland, Christina S. Rødne, Åse Pettersen, Karina Helle.
FROM : Anniken B. Meisler
E-MAIL : anniken@wellexpertise.com
MOBILE : +47 476 67 507

NOTIFICATION OF WELL DELIVERY REVIEW SWARF HANDLING AND CUTTINGS CONTAINMENT AT BORGLAND DOLPHIN

Dear Erik.

As a part of the RfQ process and input to the tender evaluation, DNO Norge AS plan to perform a review of Soiltech on resourcing, experience, and readiness related to swarf treatment and cuttings containment services.

We plan to perform the review 17th December 2020 according to scope and timing given below.

Scope

Soiltech is asked to present information to cover the topics listed below. The review team will ask questions and may require checks of records and documentation during or after the presentation.

1. Short company information/presentation (DNO, Soiltech)
 - a. Soiltech organization chart, capacity, and organizational risk assessment
 2. Service Delivery process
 - a. Job preparation
 - Knowledge of rig and planned set up
 - Planned Survey on Borgland Dolphin and requirements for installation (skip, voltage, area, work container, vacuum unit availability, etc.)
 - Job specific risk assessments
 - b. Functionality of the Swarf Removal System (SRS/ST-SRU) including how Swarf treatment is handled for Borgland Dolphin and applicable procedures for the job. Updates on equipment specs and improvements
 - c. Functionality of the cuttings containment system
 - d. From customer call off to load out, explain the QA/QC checks
 - e. Current Soiltech Performance
-



Review notification



- NPT associated with Soiltech equipment or personnel
 - Swarf treatment efficiency
 - HSE initiatives and activity for offshore personnel
 - Involvement with mud/rig/cuttings containment company
3. System for preventing dropped objects
 4. Corona/Covid-19 risk assessment(s) and handling of the pandemic
 5. Status on manning, resources, offshore/onshore personnel, equipment, training of personnel.

Timing

17th December - online via Teams.

Indicative time plan:

09:00 - 09:15	Presentation of attendees, DNO introduction to the Oselvar PP&A project
09:15 - 09:30	Presentation of Soiltech company
09:30 - 10:15	Presentation of Service Delivery process
10:15 - 10:30	Short break
10:30 - 10:45	Presentation of System for preventing dropped objects
10:45 - 11:00	Handling of Corona/Covid-19 incl. risk assessments
11:00 - 11:45	Presentation of Soiltech project personnel and follow up in operation. Status on offshore crew and workload, equipment, and training of personnel
11:45 - 12:00	Review summing up

Please send email addresses of relevant Soiltech personnel to the undersigned for invitation to Teams meeting.

Request for information

Prior to the review, and within 11th December, the review team would like to receive the following documentation:

- Competence, experience, and training documentation related to delivery
- Procedure for prevention of dropped objects
- Business continuity plan
- Work task risk assessments

The review team

Anniken B. Meisler	HSEQ Coordinator (DNO/WE)	Review Team Lead
Arild E. Lund	HSEQ and Risk Lead Oselvar (DNO)	HSEQ Auditor
Eirik Enge	HSE Advisor (DNO)	Observer
Grethe Lønd	Sr. Drilling Engineer (DNO)	Observer
Stig Seland	Drilling Superintendent (DNO/WE)	Observer
Karina Helle	Graduate	Observer



Review notification



Reporting

The review team will present a summary with observations and/or improvement items in a closing meeting at the end of the review. The formal report will be issued within three (3) weeks after the review.

Please confirm by e-mail (anniken@wellexpertise.com) that date and timing for this review is OK for required Soiltech personnel.

If need for clarifications related to this notification or the review activity, please contact the undersigned. We look forward to meeting the Soiltech personnel and hope that this review will be to our mutual benefit.

Kind Regards

A handwritten signature in blue ink that reads 'Anniken B. Meisler'.

Anniken B. Meisler
Review Team Leader
DNO Norge AS
anniken@wellexpertise.com
476 67 507



Appendix B – “Signature List”

As the review was held on Teams, a screenshot of the persons present was taken to document presence.

