Verification Report

Soiltech AS – Slop Treatment Services

AUDITEE					
Soiltech AS					
AUDIT NO.					
3B					
APPROVAL					
Rev.no	Date:	Audit Lead:	QA by:	Auditee:	Comments:
00	24/04/2018	M. Laget	L. Lilledal A. Meisler G. Lønø	E. Røvde H. Kristoffersen	

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Summary

Reference is made to the notification sent 28th March 2018 with regards to the Well Expertise, Faroe Petroleum Norge and Wellesley Petroleum's Verification planned conducted at Soiltech's premises in Tananger.

The verification was conducted 16th of April. Well Expertise, Faroe and Wellesley were impressed by the attention and preparation given to the verification and are grateful to all concerned.

The auditor considers Soiltech's Slop Unit to be industry leading, with high slop treatment efficiency and flexibility without use of chemicals.

There were no non-conformances recorded, however two observations and five improvement suggestions were recorded.

The commitment as experienced from 2017 operations from offshore and managerial positions to participate in operational meetings, being "hands on", assist in various offshore tasks and proactive in delivery is something we can only encourage continues.

1.0 Introduction

Soiltech has been selected to provide Slop Treatment Services for Wellesley's and Faroe's exploration wells in 2018 planned drilled with the rig Transocean Arctic. Well Expertise's frame agreement with Soiltech will be limited assigned to the operators for the duration of the wells.

As part of the Well Expertise, Wellesley and Faroe - Audit, Review and Verification (ARV) plans for 2018, a verification activity of Soiltech was planned for the 16th of April. The objective of the verification was to verify Soiltech's operational preparedness and capacity for the wells, as well as confirming that management system and organization are in accordance with our company's expectations.

The scope covered management system, capacity & competence, service delivery process, performance, experience transfer and C&P system related to the drilling activities. Soiltech where asked to present information to cover the topics listed in scope.

The verification was based on the following documents:

- Appendix 1: Scope of verification
- NORSOK S-006

A summary of Soiltech's responses to the verification scope is attached in Appendix 2.

1.1. Deviations

Verification performed according to plan, no deviations.

1.2. Warrant

Verification is warranted in the Well Expertise, Faroe and Wellesley's Audit Plan for 2018. The audit plan is based on Well Expertise's service supplier criticality matrix which requires a verification of Soiltech's Slop Treatment services prior to start-up of operations.

1.3. Participants

Role	Name	Position	Company
Lead Auditor	Morten Laget	Engineering Manager	Well Expertise
QHSE Auditor	Anniken Meisler	Environmental Manager	Well Expertise
Auditor	Lars Lilledal	Sr. Drilling Advisor	Wellesley
Auditor	Grethe Lønø	Sr. Drilling Engineer	Wellesley
Auditee	Erik Røvde	Project Manager	Soiltech
Auditee	Hilde Kristoffersen	VP HR QHSE	Soiltech

1.4. Audit Process

- Notification – sent 28th of March 2018
- Scope and agenda – sent 7th of April (Appendix 1)
- Verification meeting – Soiltech's premises, Tananger, Hammaren 23. 16th of April 2018. 09.00 – 13:00
- Draft report - issued for review to Auditors, 20th April, 2018
- Final Report - 24th April 2018

2.0 Findings

2.1. Categories of findings

Findings are categorised as:

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

Non-conformances are classified as:

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

2.2. Non-conformances

There were no non-conformances registered.

2.3. Observations

Two observations were registered (see Table 1)

Table 1: Observations

O No.	Observation	Description/Action	Responsible
1	*Discussion regarding job preparation/preservation and internal QA/QC system*	*Internal tracking system for jobs makes it easy for management involvement to check status of jobs and operations during planning, mobilization, operational and demob phase.* *Secure that this is done in due time for all wells.*	*Erik Røvde*
2	*Discussion regarding ensuring ppm levels are kept below regulatory acceptance level*	*A dual oil filter ensures that oil level is kept below 15 ppm during discharge of treated slop as they will plug if level is higher. Spot checks are made with ppm measurement device during treatment to ensure <15 ppm. Soiltech internal requirement is <15 ppm, while regulatory requirement is <30 ppm.* *Soiltech to ensure more frequent spot testing during start- up of slop treatment when converting to OBM on rig and well test.*	*Erik Røvde*

2.4. Improvement suggestions

Five improvement proposals were identified during the verification (see Table 2).

Table 2: Improvement suggestions

IMP No.	Improvement point	Description/Action	Responsible
1	*Discussion on how to improve slop treatment efficiency*	*Include Soiltech involvement during displacement and pit plans (Soiltech to verify displacement plan), with DSV and mud engineer. Will be measured by KPI and written as a preparation requirement in section recommendations and DOPs issued to the rig.* *Make a list over what we plan to treat (reuse of fluids).*	*Morten Laget Soiltech offshore personnel*
2	*Discussion on operational procedures (offshore)*	*Maintain the good attitude Soiltech is known for with new personnel planned out to the rig. Report to DSV if available capacity to assist with various tasks required on rig.*	*Erik Røvde*
3	*Discussion on QA/QC process regading SDS*	*Need to send SDS to rig (Medic) for all chemicals planned used in the unit.*	*Erik Røvde*
4	*Discussion on QA/QC process regarding placement of equipment*	*Conduct a survey on the TOA to ensure sufficient space for unit and skip, and verify voltage for electrical output.*	*Erik Røvde*
5	*Mapping of significant aspects*	*Consider to implement mitigating actions in tool, as some significant aspects are weighted too strictly.*	*Hilde Kristoffersen*

The reported non-conformances, observations or improvement proposals shall be followed up as soon as possible. All relevant actions and/or mitigating measures shall be identified (including action owner and due date) within 14 days after receival of report.

2.5. Further actions

During the audit, it was requested that the following documentation should be sent over to Well Expertise:

- List of personnel planned to work on the TOA and CV's
- Erik Røvde get access to WELS (Raymond Sandve) and put in list of equipment

Appendices

Appendix No.	Description
1	Verification Scope
2	Soiltech's response to 'Scope of verification'

Appendix 1 – Verification Scope

Verification Scope

1. Short company information/presentation
    a. Organization chart, capacity and organizational risk assessment
    b. Selection of personnel to support the TOA Drilling Campaign for 2018 (impact of current market conditions, existing portfolio, tenders, upcoming jobs and resources available)
    c. Technical presentation of the slop unit
2. Introduction to Soiltech's Management system:
    a. Offshore safety statistics
    b. Alerts from Soiltech on equipment issues
    c. Non-conformance reporting and follow up
    d. Competence matrix, training and experience of selected personnel
    e. Incident / accident follow up system (Notification/Emergency Response)
    f. Environmental procedures & monitoring
3. Contracts and procurement system incl. assessment and follow-up of subcontractors (Ref newbuilds and upcoming jobs 2018).
4. Service Delivery process
    a. Job preparation
        i. Knowledge of rig and planned set up
        ii. Planned Survey on TOA and requirements for installation (skip, voltage, area, work container, vacuum unit availability, etc)
        iii. Present finding from survey if executed before 16th of April
        iv. Job specific risk assessments
    b. Updates on equipment specs and improvements
    c. Measurement of PPM oil, related equipment and procedure
    d. From customer call off to load out, explain the QA/QC checks
5. Current Soiltech Performance
    a. NPT associated with Soiltech equipment or personnel
    b. Slop Treatment efficiency for exploration drilling 2017 and 2018
    c. HSE Initiatives and activities for offshore personnel
    d. Equipment design changes potentially available for 2018 – new technology

e. Previous TOA experience incl. key issues and improvement items, rig up etc.

f. Job preparation

g. Involvement with mud/rig/cuttings containment company

Appendix 2 – Soiltech's Response to Scope of Verification – Auditor Notes

Presentation of Soiltech and Equipment intended for the TOA

A technical presentation was held on the current Slop Unit Technology planned used on TOA. A new type of unit using tricanter technology will be arriving in November 2018 which has double the capacity of the current unit. This is not required for normal exploration operations. Soiltech is also currently testing technology to wash cuttings to be able to dump cuttings offshore. Wash water will be treated with existing technology. The auditors would like to stay updated on the process.

Soiltech has currently 8 units operating in the Norwegian NCS and 3 more units will arrive in October. One unit is currently stored onshore and is used for training purposes. This unit is booked for a job in August.

Unit intended for TOA is ready to be shipped and set up with a 400v system as per rig specifications. A major maintenance was just conducted on the unit where all bearings was changed which is normally done on a 3 years interval. A backup unit will be stored onshore, as well as sufficient backup equipment so the unit can be repaired within the matter of days before being operational again.

Organization

Current organization is 5 onshore personnel and 22 offshore personnel, whereof 8 newly hired.

Educational program being developed for new personnel and the culture of assisting on the rig if any available time is incorporated in the mentality of the personnel when interviewed and hired. Courses is held to educate offshore personnel to get more detailed knowledge about drilling fluids or other relevant drilling technology to further increase drilling knowledge. H2S course is required for all offshore personnel.

Management System

Soiltech has been ISO 14001, ISO 9001 and OHSAS 18001 certified.

The software iQubes is used to store and track all project documents, risk, statistics, procedures, reports, non-conformances, maintenance systems and competency requirements. It is noted that especially the tracking system for planning, preparing shipment, during operation and demob engages management to further take ownership and keep updated on the company's current projects.

Incident alerts and notification/ Emergency response

Soiltech response duty number: 480 20 555

Service delivery process

Soiltech has recently conducted a verification of the supplier of the ppm measurement device (Analytic).

Work specific risk assessment

Risk analysis for every job prior to start up and a check list is filled out and uploaded to iQubes. Soiltech will send out MSDS sheet to the rig for all chemicals in closed system.

Lessons learned application

Tracked in iQubes

Current Soiltech performance

99% uptime and approx. 97% of available slop is treated and discharged to sea.

Transocean Arctic Survey.

A survey was conducted by Soiltech the 20.04.2018 and no findings or adjustment has been identified. Slop unit is ready to be placed on designated area with additional space for a skip for sludge.

Involvement in discharge and pit plans with DVS/Mud Engineer

It is important that Soiltech is part of planning the displacement/pit plans to further increase slop treatment efficiency. This will be noted in the Section Recommendation/DOP as part of job preparation and will also be measured in the KPI issued by the operation on-shore. It is important that spot checks are conducted more frequently when converting from WBM to OBM to ensure low ppm in treated slop. A second barrier of oil filters is also installed on the unit where the filters will plug if oil level exceeds 15 ppm.