

Review Comment Table

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| Board: | SLWB |
| Review Item: | Husky Annual Report for S13L1-005 and S12X-006 AND Annual Report for S13L1-006 |
| File(s): | S12X-006 S13L1-005 S13L1-006 |
| Proponent: | Husky Oil Operations Ltd. |
| Document(s): | Annual Report for S13L1-006 (9.3 MB) S13L1-005 - S12X-006 - Annual Report and Appendices ABC (16.5 MB) S13L1-005 - S12X-006 - Annual Report Appendix D (2.0 MB) S13L1-005 - S12X-006 - Annual Report Appendix E (23.5 MB) S13L1-005 - S12X-006 Annual Report Appendices FG (18.3 MB) |
| Item For Review Distributed On: | Nov 23 at 15:57 Distribution List |
| Reviewer Comments Due By: | Dec 10, 2020 |
| Proponent Responses Due By: | Dec 15, 2020 |
| Item Description: | <p>Husky Oil Operations Ltd. (Husky) submitted Annual Water Licence Reports required by Licences S13L1-005 and S13L1-006 for the Slater River Project on EL494. These reports document the well abandonment (S13L1-005) and groundwater well decommissioning (S12X-006) and progressive reclamation activities undertaken in the previous year under the site wide services Licence S13L1-006 and Permit S13X-003. Although formal approval of these Reports are not required under the Licences, the Board must be satisfied that the Licensee has met the requirements of the Licence.</p> <p>These licences and permits are now being consolidated under the S20X-006 and S20L1-004 Applications currently on the ORS and will be closed following Inspector approval.</p> |
| General Reviewer Information: | All documents that have been uploaded to this review are also available on our public Registry. If you have any questions or comments about the ORS or this review, please contact Board staff identified below. |

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| Contact Information: | Bonnie Bergsma Jenna Grandjambe |
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Comment Summary

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| GNWT - ENR - EAM (Environmental Assessment and Monitoring): Central Email GNWT | | | | |
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| ID | Topic | Reviewer Comment/Recommendation | Proponent Response | Board Staff Response |
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| 2 | General File | Comment: (doc) ENR Letter with Comments and Recommendations | | |
| 1 | Topic 1: Annual Report Appendix D – Sodium Adsorption Ratio Exceedances | <p>Comment: In reference to the following: 2018-2019 Annual Report, Appendix D, Little Bear N-09 Agricultural Land Use Table 1, Summary of Soil Analytical Results - Detailed Salinity. The following samples have exceeded the sodium absorption ratio guideline of 5.0 mg/kg:</p> <ul style="list-style-type: none"> • N-09 Floor - 16-03-2019 1.5-2.0 L2245353-1 - 11.0 mg/kg - sodium absorption ratio. • N-09 Wall - 3 16-03-2019 1.5-2.0 L2245353-4 - 6.35 mg/kg - sodium absorption ratio <p>Recommendation: 1) ENR recommends that the proponent provide an explanation for exceedances at sample locations N-09 that are discussed above, and a summary of the changes in sampling results for the sodium absorption ratio over the entire year.</p> | <p>Dec 16: Due to the remote nature of this well site, equipment work was completed through the winter of 2018 - 2019 while winter access was available. As the winter was ending, and temperatures were increasing drastically, the well centre needed to be closed prior to receiving full analysis from sampling. There were no recorded spills of any saline, calcium / magnesium sources at well centre and the small excavation was closed with clean fill mobilized by heavy equipment. As winter access was deteriorating quickly all equipment was demobilized from site and after March, the site could only be accessed by helicopter. Once analysis was received it was compared to pre-disturbance site assessment back ground results (as</p> | Response acceptable |

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| | | | <p>discussed in the annual report) and was exhibiting less sodium and other analytes when compared with another sample obtained at N-09 (viewed under WL S11L1-003, N-09 West Corner, ALS Environmental Analytical Report L1059394-9 on the public registry) showing analysis to have an SAR of 11.1 with Sodium (Na) at 1880 mg / kg, and both Calcium and Magnesium higher than other surrounding samples. These findings show the diversity of the soils in the area (including sodic soils). Also, as the samples were taken below any viable rooting zones, there is little to no risk associated with any potential receptors that would be affected in such a small area, especially when taking account of the shallow rooting vegetation already recovering in the area. Disturbing any restored vegetation through intrusive sampling may cause set backs to the current reclamation efforts. No further analysis was taken after this review. Any further plans for the site will be determined based on annual inspection results. The vegetation at well centre will continue to be monitored until it is deemed ready for file</p> | |
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| | | | closure by the GNWT Inspectors. | |
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| Sahtu Renewable Resource Board: Colin Macdonald | | | | |
| ID | Topic | Reviewer Comment/Recommendation | Proponent Response | Board Staff Response |
| 1 | Annual Report | <p>Comment: The SRRB has no comment on the annual report because it is designed to move toward returning the site to its natural state. Husky has applied to the SLWB for a 5-year permit to conclude the reclamation work. There was no new activity at the EL479 site; abandonment and reclamation work only were conducted in 2018 and 2019. The work was conducted under permit S13L1-006 or Water Licence S13L1-005. The report is clearly written and the data sheets from ALS Labs are presented in the Appendices. Lab-based QA/QC results are part of the field analysis. Summary of activities:</p> <ul style="list-style-type: none"> • Small amounts of water used (281 m3) out of a possible 11,300 m3 permitted under the Licence, • Wastes were low and managed by qualified companies, some were shipped to Alberta, • No data generated under the Surveillance Network Program because there was no drilling activity, treated water or effluents discharged on-site, • Spills from on-site activities were small and managed under the Emergency Response Plan and Spill | <p>Dec 16: Husky acknowledges the SRRB review of the documents.</p> | No issues |

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| | | <p>Contingency Plan, and reported to the NT/NU Spill Line. A full documentation of the spills and analysis of the contents are listed in the Appendix.</p> <p>Recommendation: None.</p> | | |
| 2 | <p>Appendices A, B and C</p> | <p>Comment: We have no specific comments on the work conducted by Husky in 2018/2019 to begin remediation of the site. Reclamation activities in 2018/2019 include:</p> <ul style="list-style-type: none"> • Two wells were abandoned and initial reclamation begun, • Deep source water wells abandoned, • Shallow water monitoring wells abandoned, • Permafrost monitoring wells were abandoned, and initial reclamation begun. <p>The work conducted thus far is clearly described and the data sheets for water analyses are included in the Appendices.</p> <p>Recommendation: None</p> | <p>Dec 16: Husky acknowledges the document review and comments from SRRB.</p> | <p>No issues</p> |



December 10, 2020

Bonnie Bergsma
Regulatory Specialist
Sahtu Land and Water Board
Box 1,
Fort Good Hope, NT
X0E 0H0

Dear Ms. Bergsma,

**Re: Husky Oil Operations Ltd.
Land Use Permit Application -S12X-006
Water Licence Application - S13L1-005 - S13L1-006
2018-19 Annual Water Licence Report
Request for Comment**

The Department of Environment and Natural Resources (ENR), Government of the Northwest Territories has reviewed the applications at reference based on its mandated responsibilities under the *Waters Act* and provides the following comments and recommendations for the consideration of the Board and the Proponent.

Topic 1: Annual Report Appendix D – Sodium Adsorption Ratio Exceedences

Comment(s):

In reference to the following:

2018-2019 Annual Report, Appendix D, Little Bear N-09 Agricultural Land Use Table 1, Summary of Soil Analytical Results - Detailed Salinity.

The following samples have exceeded the sodium absorption ratio guideline of 5.0 mg/kg:

- N-09 Floor - 16-03-2019 1.5-2.0 L2245353-1 - 11.0 mg/kg - sodium absorption ratio
- N-09 Wall - 3 16-03-2019 1.5-2.0 L2245353-4 - 6.35 mg/kg - sodium absorption ratio

Recommendation(s):

- 1) ENR recommends that the proponent provide an explanation for exceedances at sample locations N-09 that are discussed above, and a summary of the changes in sampling results for the sodium absorption ratio over the entire year.

Comments and recommendations were provided by ENR technical experts in the Sahtu Region, and were coordinated and collated by the Environmental Assessment and Monitoring Section (EAM), Environmental Stewardship and Climate Change Division.

Should you have any questions or concerns, please do not hesitate to contact Patrick Clancy, Environmental Regulatory Analyst at (867) 767-9233 Ext: 53096 or email patrick.clancy@gov.nt.ca.

Sincerely,



Patrick Clancy
Environmental Regulatory Analyst
Environmental Assessment and Monitoring Section
Environmental Stewardship and Climate Change Division
Department of Environment and Natural Resources
Government of the Northwest Territories