

## 2.4 TERRESTRIAL

- 10) Volume 1, Section 1.2, Page 14-19; Volume 1, Tables 1.3-3, 3.3-1 and 14.4-1, Pages 23, 67 and 387; SIR 1, Response 13: Tables 13-1 to 13-3, Pages 25-30; SIR 1, ESRD Response 69: Figures 69-1 to 69-13, Pages 162-174. Section 1.2 provides a history of applications for the CLTP. Tables 13-1 and 13-2 identify the status of approved and existing well pads and Table 13-1 identifies the applied for Phase H pads. Figures 69-1 to 69-4 visually illustrate the progression of Phase H by year.

This information is useful, however it should be consolidated in tabular form to improve readability. To provide consistency the table should include the entire Christina Lake project. This information would allow the Phase H expansion to be understood in the context of the entire Christina Lake project footprint and provide a baseline conceptual well pad development schedule.

Table 1.3-3 provides a summary of approved and proposed pads for the CLTP. The totals provided differ slightly from those indicated in Table 13-4 of the SIR responses (203 versus 206 total well pads). In the application 20 pads are referred to as currently approved and planned versus 22 identified in the SIR responses. In addition, the surface disturbance estimate of 1723 ha from Table 3.3-1 differs from the 1893 ha vegetation disturbance from Table 14.4-1.

- a) Provide a visual chronology for the Christina Lake project by expanding each phase (A – H) into its own figure. Illustrate the applied-for and approved project footprint for each Phase.
- b) Understanding that well pad development schedules are conceptual and subject to change, in order to illustrate the development and status of the full project footprint and the conceptual build-out footprint, augment the above illustration of the project area expansion by filling in the quantification tables provided in Appendix A. This information should also address inconsistencies in the number of pads estimated and the surface disturbance associated with the project. For consistency, indicate the facility types included in each disturbance footprint expansion application's quantification (e.g., CPF, well pads, camps, seismic, disposal wells, ROWs, access roads, exploration wells, etc.).

**Response:**

- a. The Christina Lake Thermal Project (CLTP) visual chronology of the footprint progression for each major development phase is provided in [Figures 10-1 to 10-4](#). The figures represent the applied-for and approved project footprint from each major project expansion application as follows:
- Phases A to D ([Figure 10-1](#));
  - Phase EFG Expansion ([Figure 10-2](#));
  - Phase FG Amendment ([Figure 10-3](#)); and
  - Phase H and Eastern Expansion ([Figure 10-4](#)).

Note that the Phase A and B footprints are included in the Phases A to D footprint figure ([Figure 10-1](#)) as application case footprints are not available for these early applications.

- b. The requested Round 2 Supplemental Information Request (SIR) Appendix A quantification tables for the CLTP expansion phases are provided in [Tables 10-1 to 10-4](#). [Tables 10-1](#) and [10-3](#) provide clarification of the number of well pads and well pairs that are existing, approved and proposed for the CLTP. As given in [Table 10-1](#), the CLTP currently has 32 existing and approved well pads and 322 existing and approved well pairs. This total is reflective of well pad reconfiguration applications that were filed subsequent to the Phase H and Eastern Expansion Application (Application No. 1758947), as described in the following applications:
- H01, H03, H09, J01, J03, J05 and B07b Well Pads Amendment (Application No. 1775246); and
  - L03, L05, L05b, B11b, H07, H09, J05, J09, L01b, and H01 Well Pads Amendment (Application No. 1799137).

With these amendments included, the well pad and well pair totals will not match the totals provided in [Round 1 AER SIR 13, Tables 13-1 and 13-2](#). Also, with the inclusion of the above referenced scheme amendments, the Phase A to H approved and proposed well pad and well pair totals are 205 and 2,164, respectively.

A breakdown of the total CLTP project disturbance areas are provided in [Table 10-2](#). The Project (Phase H) total disturbance is 1873 ha at the Local Study Area (LSA) scale (excluding exploration activities), which is consistent with [Volume 5, Table 6.4-6](#) of the Application. The Project disturbance of 1723 ha provided in [Volume 1, Table 3.3-1](#), represents new disturbance associated with the Project and excludes the existing disturbance area of 155 ha.

Table 10-4 (Table 4 of Appendix A) has been divided into two tables to quantify the surface disturbances related to vegetation and soils. Table 10-4a includes the vegetation data, whereas Table 10-4b represents the soils data.

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**Table 10-1 Christina Lake Thermal Project Development Chronology**

Application Description	Application No.	Approval No.	Approval Date	Approved Production Capacity (cubic meters)	Incremental Footprint <sup>(1)</sup> (ha)	Cumulative Footprint <sup>(1)</sup> (ha)	Project Area <sup>(2)</sup>		Development Area		DA Expansion	PA Expansion	Comments
							Well Pads	Well Pairs	Well Pads	Well Pairs			
<b>Phase I, II, III</b>	<b>1023589 (30-Mar-98)</b>	<b>8591</b>	<b>3/Apr/00</b>	<b>11200</b>	<b>704</b>	<b>704</b>	<b>97</b>	<b>350</b>	<b>97</b>	<b>350</b>	<b>Yes</b>	<b>Yes</b>	Initial Project Application and EIA proposed a 3 phase development. Phase 1 includes 20 pads and 50 well pairs, Phase 2 = 38 pads and 150 well pairs and Phase 3 = 39 pads with 150 well pairs. A01 (5 wps) approved in initial development.
<b>Phase 1A-D</b>													
-Application for Addition of 6th Well Pair to A01 Pad	1326365 (24-Jul-03)	8591B	27/Jan/04	N/C	N/A	N/A	1	6	1	6	No	No	Application to add 1 well pair on well pad A01. No additional footprint proposed.
-Phase IB Amendment	1402255 (20-May-05)	8591E	8/Dec/05	N/C	N/A	N/A	16	89	16	89	No	No	Update of the Phase 1 central processing facility. No change to overall production capacity. 15 additional pads (A02, B01-B11, B19, B22 and B23) with 83 additional well pairs. No additional footprint proposed.
-Well Pad A2 Geological Update	1501083 (01-Feb-07)	8591G	8/May/07	N/C	N/A	N/A	16	90	16	90	No	No	Well Pair Update for A02 Pad to 6 wps.
-Phase IC/D Expansion	1520084 (20-Jul-07)	8591I	17/Jul/08	15700	521.62	521.62	13	96	13	96	Yes	Yes	Update of the Phase 1 CPF to include Phases 1C and 1D. Application included an update to the Phase A-D Project Area to 13 well pads and 96 wps. Updated Project footprint proposed.
-B05-9 Well Pair Scheme Amendment	1632389 (30-Nov-09)	8591L	7/Jun/10	N/C	N/A	N/A	13	97	13	97	No	No	Application to add 1 well pair on well pad B05.
-Application for Addition of Well Pair B01-7 and Testing of Rise Rate Control	1645804 (08-Mar-10)	8591M	20/Sep/10	N/C	N/A	N/A	13	98	13	98	No	No	Application to add 1 well pair on well pad B01.
-Downspacing of B02 and B11 Pads	1693087 (15-Jul-11)	8591S	2/Nov/11	N/C	N/A	N/A	13	106	13	106	No	No	Application to add 4 wps on B02 and 4 wps on B11 pads.
-Downspacing of B08, B09, B10 and B14 Pads	1718313 (08-Feb-12)	8591W	30/May/12	N/C	N/A	N/A	13	115	13	115	No	No	Application to add 2 wps on B08, 3 wps on B10, and 4 wps on B14 (now F01). B09 is a Phase EFG Pad.
<b>Phase 1E/F/G</b>													
Phase 1E/F/G Expansion	1626781 (02-Oct-09)	8591Q	26/Apr/11	34789	395.9	917.52	19	140	19	140	Yes	Yes	Application for Phase 1E/F/G plant expansion and the addition of 19 well pads and 140 wps in the Phase EFG Project Area.
Phase F/G Amendment	1720889 (01-Dec-11)	8591Y	19/Dec/12	37969	180.36	1097.88	20	227	20	227	No	No	Application to update the Phase EFG drainage patterns to 20 well pads and 227 wps.
H01, H03, H09, J01, J03, J05 and B07b Well Pads Amendment	1775246 (02-Oct-13)	8591FF	20/Nov/13	N/C	N/A	N/A	20	225	20	225	No	No	Reconfiguration of the southern drainage patterns of the Phase EFG Project Area. Resulted in 2 less wps.
L03, L05, L05b, B11b, H07, H09, J05, J09, L01b and H01 Well Pads Amendment	1799137 (09-Jun-14)	8591JJ	26/Aug/14	N/C	N/A	N/A	19	207	19	207	No	No	Reconfiguration of the Phase EFG Project Area drainage patterns. Resulted in 1 less well pad and 18 less wps.
<b>2013 Project Area Expansion</b>	<b>1736961 (20-Aug-12)</b>	<b>8591BB</b>	<b>24-Jul-13</b>	<b>37969</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>Yes</b>	<b>Yes</b>	<b>Added 6 sections to the Project Area. No additional footprint or wps included in the application.</b>
<b>Phase CDE 2nd Stage OTSG Amendment</b>	<b>1750498 (20-Dec-12)</b>	<b>8591DD</b>	<b>19-Sep-13</b>	<b>41335</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>Plant capacity update only, no change to well pads proposed.</b>
<b>Phase H and Eastern Expansion</b>	<b>1758947 (22-Mar-13)</b>	<b>TBD</b>	<b>TBD</b>	<b>49284</b>	<b>2508.92</b>	<b>3606.8</b>	<b>173</b>	<b>1842</b>	<b>35</b>	<b>359</b>	<b>Yes</b>	<b>Yes</b>	<b>Application under review.</b>
<b>Totals</b>				<b>49284</b>		<b>3606.8</b>	<b>205</b>	<b>2164</b>	<b>67</b>	<b>681</b>			

Notes:

<sup>(1)</sup> Disturbance area based on Application footprint.

<sup>(2)</sup> Project Area well pads and well pairs include the Development Area well pads and well pairs.

N/C = No change.

N/A = Not applicable.

**Table 10-2 Project Footprint Breakdown**

Footprint	Cumulative Area	Incremental Area <sup>1</sup>	Borrow Pit	Corridor	Disposal Pad	Pad	Plant	Sump	Laydown	Other	Camp	Air Injection Pad	CLTP - H - OSE	CLTP - H - Seismic
ABCD	521.62	521.62	58.22	283.78	5.39	105.16	69.07	-	-	-	-	-	-	-
EFG	917.53	395.90	58.22	581.78	9.87	198.58	69.07	-	-	-	-	-	-	-
FG Amendment	1,097.89	180.36	156.26	416.27	8.17	192.48	254.40	5.22	42.00	11.25	10.22	1.62	-	-
Phase H	3,606.81	2,508.92	332.22	1,097.92	8.17	1,199.85	237.93	5.22	42.00	35.09	10.22	1.62	502.89	133.67

Note:

<sup>(1)</sup> The Phase H footprint overlaps existing and approved disturbances, so the incremental area does not match the Application footprint exactly. Indicate these elements were not present in the previous application footprint.

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
A01	-	1326365	8591B	Phase A/B	6	110	2000	2001	2002	2045	Rampdown/ Blowdown
A02	-	1501083	8591G	Phase A/B	6	100	2007	2007	2008	2029	Operating
B01	-	1645804	8591M	Phase A/B	7	100	2006	2007	2008	2022	Operating
B02	-	1693087	8591S	Phase A/B	10	4-100m, 6-50m	2006	2006	2006	2022	Operating
B03	-	1520084	8591I	Phase A-D	8	100	2009	2010	2011	2022	Operating
B04	-	1520084	8591I	Phase A-D	8	100	2009	2010	2011	2022	Operating
B05	-	1632389	8591L	Phase A-D	9	100	2009	2010	2011	2022	Operating
B06	-	1520084	8591I	Phase A-D	8	100	2010	2011	2012	2023	Operating
B07	-	1520084	8591I	Phase A-D	8	100	2010	2010	2012	2023	Operating
B08	-	1718313	8591W	Phase A-D	10	70	2010	2012	2013	2024	Operating
B11	-	1693087	8591S	Phase A-D	12	67	2010	2012	2013	2024	Operating
F01	B23/B14	1718313	8591W	Phase A-D	12	67	2013	2013	2015	2026	Drilled
J03	B10/C04	1775246	8591FF	Phase A-D	11	67	2014	2015	2016	2027	Constructed
B07b	C11	1775246	8591FF	Phase A-G	11	67	2013	2014	2015	2026	Drilled
B09	-	1718313	8591W	Phase A-G	11	63.6	2012	2013	2014	2025	Operating
B10	-	1798271	8591JJ	Phase A-G	10	74	2014	2014	2016	2027	Drilled
B12	-	1720889	8591Y	Phase A-G	11	63.6	2015	2016	2019	2030	Approved
B13	-	1817487	8591NN	Phase A-G	12	67	2014	2015	2017	2028	Pending Approval
H01	C01	1799137	8591JJ	Phase A-G	12	67	2014	2014	2016	2027	Drilled
H03	C02	1775246	8591FF	Phase A-G	12	67	2014	2014	2015	2026	Drilled
H07	C05	1799137	8591JJ	Phase A-G	12	67	2015	2016	2018	2029	Approved
H09	C09	1799137	8591JJ	Phase A-G	11	67	2015	2016	2018	2029	Approved
J01	C07	1775246	8591FF	Phase A-G	11	67	2015	2015	2016	2027	Approved
J05	C06	1799137	8591JJ	Phase A-G	10	65	2015	2016	2018	2029	Approved
J07	C10	1720889	8591Y	Phase A-G	12	67	2015	2016	2017	2028	Approved
J09	C08	1799137	8591JJ	Phase A-G	12	67	2015	2015	2017	2028	Approved
L01	D04	1720889	8591Y	Phase A-G	12	67	2012	2020	2021	2032	Cleared
L01b	L02/C02	1799137	8591JJ	Phase A-G	11	67	2015	2017	2019	2030	Approved
L03	D01	1799137	8591JJ	Phase A-G	7	67	2014	2015	2016	2027	Constructed
L05	D05	1799137	8591JJ	Phase A-G	7	69	2015	2015	2017	2028	Approved
L05b	L09/D02	1799137	8591JJ	Phase A-G	11	67	2015	2015	2017	2028	Approved
L06	D03	1720889	8591Y	Phase A-G	12	68	2019	2020	2021	2032	Approved

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
A02*	-	1758947	Pending	Phase A-H	8 (6 Approved)	100	2007	2017	2018	2029	Pending Approval
A03	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A04	-	1758947	Pending	Phase A-H	6	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A05	-	1758947	Pending	Phase A-H	9	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A07	-	1758947	Pending	Phase A-H	12	67	2019	2020	2021	2032	Pending Approval
A09	-	1758947	Pending	Phase A-H	7	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A11	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A13	-	1758947	Pending	Phase A-H	13	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
A15	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A19	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A21	-	1758947	Pending	Phase A-H	11	67	2019	2020	2021	2032	Pending Approval
A23	-	1758947	Pending	Phase A-H	9	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
A25	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
A27	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
A29	-	1758947	Pending	Phase A-H	8	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A31	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
A33	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
A35	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
A37	-	1758947	Pending	Phase A-H	9	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
A39	-	1758947	Pending	Phase A-H	14	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
B15	-	1758947	Pending	Phase A-H	12	67	2017	2018	2019	2030	Pending Approval
B17	-	1758947	Pending	Phase A-H	8	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
B19	-	1758947	Pending	Phase A-H	11	67	2017	2018	2019	2030	Pending Approval
B21	-	1758947	Pending	Phase A-H	7	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
B23	-	1758947	Pending	Phase A-H	12	67	2016	2018	2019	2030	Pending Approval
B25	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
B27	-	1758947	Pending	Phase A-H	3	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
C01	-	1758947	Pending	Phase A-H	5	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C03	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C05	-	1758947	Pending	Phase A-H	10	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C07	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C09	-	1758947	Pending	Phase A-H	13	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C11	-	1758947	Pending	Phase A-H	15	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C13	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C15	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C17	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval



**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
C19	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
C21	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
C23	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
C27	-	1758947	Pending	Phase A-H	9	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
C29	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
F03	-	1758947	Pending	Phase A-H	8	67	2018	2019	2020	2031	Pending Approval
F05	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
F07	-	1758947	Pending	Phase A-H	11	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
F09	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
F11	-	1758947	Pending	Phase A-H	10	67	2016	2017	2018	2029	Pending Approval
F13	-	1758947	Pending	Phase A-H	6	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
F15	-	1758947	Pending	Phase A-H	13	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
F17	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
F19	-	1758947	Pending	Phase A-H	12	67	2016	2017	2018	2029	Pending Approval
F21	-	1758947	Pending	Phase A-H	11	67	2019	2020	2021	2032	Pending Approval
F23	-	1758947	Pending	Phase A-H	12	67	2017	2018	2019	2030	Pending Approval
F25	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
F27	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
F29	-	1758947	Pending	Phase A-H	13	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
F31	-	1758947	Pending	Phase A-H	15	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
H02	-	1758947	Pending	Phase A-H	10	67	2017	2018	2019	2030	Pending Approval
H04	-	1758947	Pending	Phase A-H	8	67	2017	2018	2019	2030	Pending Approval
H05	-	1758947	Pending	Phase A-H	11	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
H11	-	1758947	Pending	Phase A-H	4	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
H13	-	1758947	Pending	Phase A-H	12	67	2016	2017	2019	2030	Pending Approval
H15	-	1758947	Pending	Phase A-H	10	67	2016	2017	2019	2030	Pending Approval
H17	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
H19	-	1758947	Pending	Phase A-H	10	67	2019	2020	2021	2032	Pending Approval
H21	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
H23	-	1758947	Pending	Phase A-H	16	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
H25	-	1758947	Pending	Phase A-H	10	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
H27	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
H29	-	1758947	Pending	Phase A-H	5	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
H31	-	1758947	Pending	Phase A-H	4	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
H33	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
H35	-	1758947	Pending	Phase A-H	10	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
J11	-	1758947	Pending	Phase A-H	9	67	2019	2020	2021	2032	Pending Approval
J13	-	1758947	Pending	Phase A-H	10	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
J15	-	1758947	Pending	Phase A-H	15	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
J17	-	1758947	Pending	Phase A-H	15	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
J19	-	1758947	Pending	Phase A-H	13	67	2019	2020	2021	2032	Pending Approval
J21	-	1758947	Pending	Phase A-H	14	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
J23	-	1758947	Pending	Phase A-H	17	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
K01	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K03	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K05	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
K07	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K09	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K11	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K13	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K15	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K17	-	1758947	Pending	Phase A-H	10	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K19	-	1758947	Pending	Phase A-H	9	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
K21	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
L04	-	1758947	Pending	Phase A-H	13	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
L07	-	1758947	Pending	Phase A-H	12	67	2018	2019	2020	2031	Pending Approval
L11	-	1758947	Pending	Phase A-H	8	67	2016	2017	2018	2029	Pending Approval
L13	-	1758947	Pending	Phase A-H	13	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
L15	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
L17	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
L19	-	1758947	Pending	Phase A-H	12	67	2016	2017	2018	2029	Pending Approval
M01	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
M03	-	1758947	Pending	Phase A-H	13	67	2018	2019	2020	2031	Pending Approval
M05	-	1758947	Pending	Phase A-H	4	67	2017	2018	2019	2030	Pending Approval
M07	-	1758947	Pending	Phase A-H	14	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
M09	-	1758947	Pending	Phase A-H	7	67	2017	2018	2019	2030	Pending Approval
M11	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
M13	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
M15	-	1758947	Pending	Phase A-H	10	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
M17	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
M19	-	1758947	Pending	Phase A-H	12	67	2017	2018	2019	2030	Pending Approval
M21	-	1758947	Pending	Phase A-H	16	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
M23	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
M25	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
M27	-	1758947	Pending	Phase A-H	9	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
N01	-	1758947	Pending	Phase A-H	14	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
N03	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
N05	-	1758947	Pending	Phase A-H	14	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
N07	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N09	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N11	-	1758947	Pending	Phase A-H	4	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N13	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
N15	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N17	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N19	-	1758947	Pending	Phase A-H	4	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N21	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
N23	-	1758947	Pending	Phase A-H	11	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
Q01	-	1758947	Pending	Phase A-H	14	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
Q03	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Q05	-	1758947	Pending	Phase A-H	12	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
Q07	-	1758947	Pending	Phase A-H	10	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Q09	-	1758947	Pending	Phase A-H	15	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
Q11	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Q13	-	1758947	Pending	Phase A-H	13	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
R01	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
R03	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
R05	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R07	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R09	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
R11	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R13	-	1758947	Pending	Phase A-H	11	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R15	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R17	-	1758947	Pending	Phase A-H	9	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R19	-	1758947	Pending	Phase A-H	10	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R21	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R23	-	1758947	Pending	Phase A-H	5	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
R25	-	1758947	Pending	Phase A-H	13	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
R27	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
R29	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
S01	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
S03	-	1758947	Pending	Phase A-H	14	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
S05	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
S07	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
S09	-	1758947	Pending	Phase A-H	12	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
S11	-	1758947	Pending	Phase A-H	14	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
S13	-	1758947	Pending	Phase A-H	11	67	2020-2024	2021-2025	2022-2026	2033-2037	Pending Approval
S15	-	1758947	Pending	Phase A-H	8	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
S17	-	1758947	Pending	Phase A-H	6	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
S19	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
U01	-	1758947	Pending	Phase A-H	10	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
U02	-	1758947	Pending	Phase A-H	10	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
U03	-	1758947	Pending	Phase A-H	16	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
U05	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
U07	-	1758947	Pending	Phase A-H	9	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
U09	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
U11	-	1758947	Pending	Phase A-H	10	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval

**Table 10-3 Christina Lake Thermal Project Phase A to H Well Pad and Well Pair Status Review**

Well Pad	Original Well Pad Name	Application No.	Scheme Approval No.	Project Area	Approved Well Pairs	Interwell Spacing (m)	Clear Pad Start Date	Drill Start Date	Steam Start Date	Reclamation Start Date <sup>(1)</sup>	Current Status
U13	-	1758947	Pending	Phase A-H	4	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
U15	-	1758947	Pending	Phase A-H	8	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
U17	-	1758947	Pending	Phase A-H	5	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
U19	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
U21	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
U23	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Y01	-	1758947	Pending	Phase A-H	12	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Y02	-	1758947	Pending	Phase A-H	11	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Y03	-	1758947	Pending	Phase A-H	16	67	2025-2029	2026-2030	2027-2031	2038-2042	Pending Approval
Y08	-	1758947	Pending	Phase A-H	9	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval
Y09	-	1758947	Pending	Phase A-H	9	67	2030-2034	2031-2035	2032-2036	2043-2047	Pending Approval

<sup>(1)</sup> Future dates are conceptual and subject to change based on reservoir and market conditions.



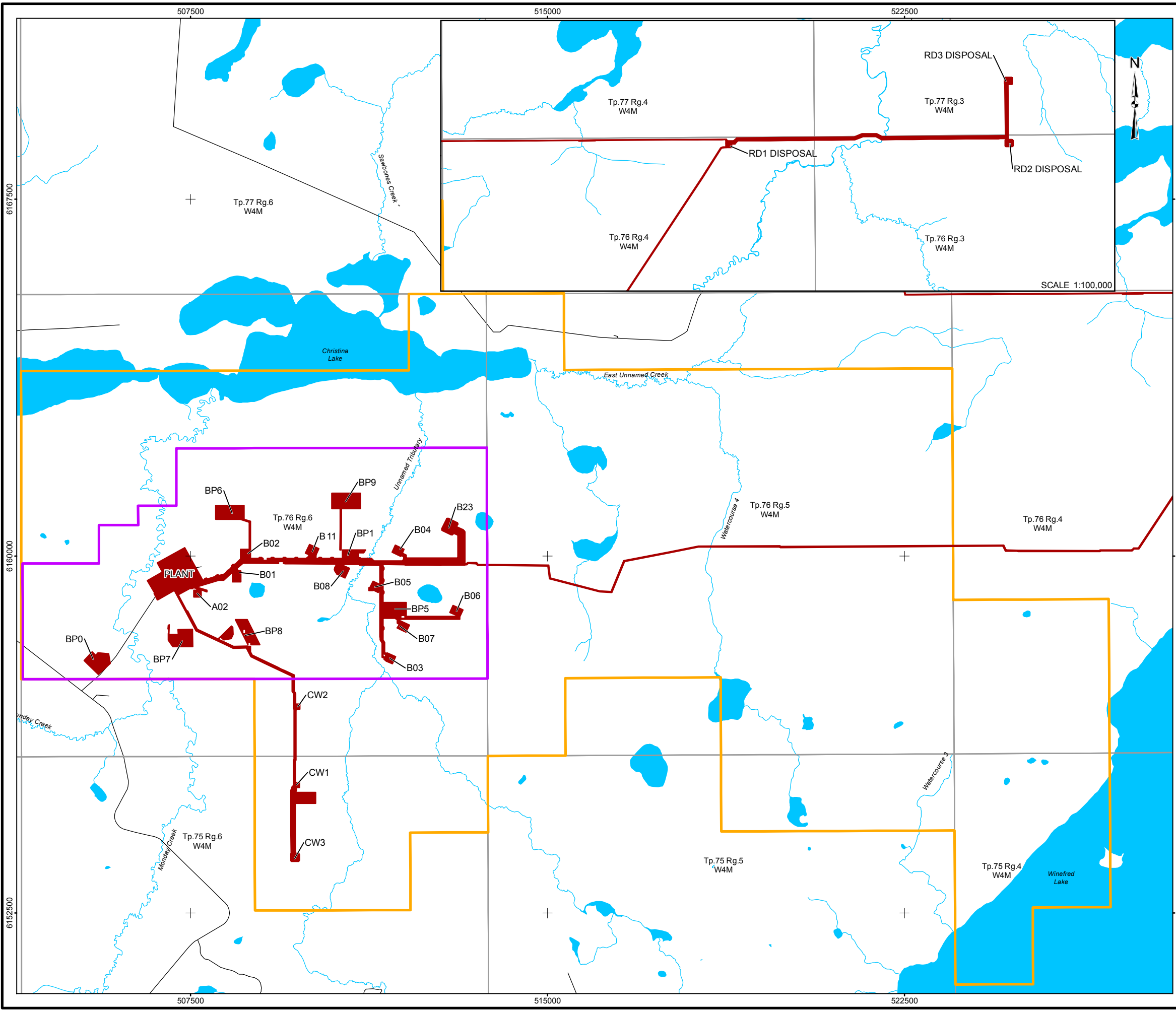
**Table 10-4a Vegetation Data for the Project Local Study Area**

Ecosite Phase/Wetland Class	Previously Approved Footprint Within the Project Local Study Area							Phase H				
	Phase ABCD	Phase EFG	Total disturbed within LSA [ha]	Total within LSA [ha]	Total % of LSA	Total % of ELC in LSA	Phase FG Amendment	Phase H	Total disturbed within LSA [ha]	Total within LSA [ha]	Total % of LSA	Total % of ELC in LSA
a1	3.40	0.55	3.95	71.61	0.02	5.51	5.58	4.40	9.98	71.61	0.06	13.94
b1	3.94	0.00	3.94	382.64	0.02	1.03	8.01	38.08	46.09	382.64	0.28	12.04
b2	2.06	0.00	2.06	31.01	0.01	6.65	1.47	3.48	4.95	31.01	0.03	15.95
b3	0.72	0.00	0.72	57.96	0.00	1.24	0.72	2.28	3.00	57.96	0.02	5.17
b4	0.00	0.00	0.00	10.20	0.00	0.00	0.00	0.99	0.99	10.20	0.01	9.70
BFNN	0.00	0.00	0.00	14.56	0.00	0.00	0.00	0.89	0.89	14.56	0.01	6.14
BTNN	96.42	53.34	149.75	1,773.64	0.92	8.44	236.93	228.29	465.22	1,773.64	2.84	26.23
BUu	4.22	16.72	20.95	98.23	0.13	21.33	19.52	14.24	33.76	98.23	0.21	34.37
BUw	8.88	32.69	41.56	446.52	0.25	9.31	32.06	46.45	78.51	446.52	0.48	17.58
c1	46.69	31.31	78.01	1,731.80	0.48	4.50	80.67	218.98	299.65	1,731.80	1.83	17.30
d1	24.85	15.02	39.87	1,211.43	0.24	3.29	71.28	155.20	226.48	1,211.43	1.38	18.70
d2	0.46	18.59	19.05	440.23	0.12	4.33	26.07	40.42	66.49	440.23	0.41	15.10
d3	0.02	2.04	2.06	65.92	0.01	3.12	0.06	3.13	3.19	65.92	0.02	4.84
DIS	8.44	0.85	9.29	139.33	0.06	6.67	18.25	6.06	24.31	139.33	0.15	17.45
e1	0.00	0.00	0.00	47.05	0.00	0.00	0.00	4.28	4.28	47.05	0.03	9.11
e2	0.00	0.00	0.00	29.65	0.00	0.00	2.08	0.00	2.08	29.65	0.01	7.02
e3	0.00	0.00	0.00	4.92	0.00	0.00	0.00	0.00	0.00	4.92	0.00	0.00
f3	0.12	0.00	0.12	5.86	0.00	2.06	0.50	1.56	2.06	5.86	0.01	35.20
FFNN	0.00	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00	0.00	0.00
FONG	2.84	2.59	5.43	381.23	0.03	1.42	7.26	6.52	13.79	381.23	0.08	3.62
FONS	11.23	7.23	18.47	1,265.59	0.11	1.46	17.67	133.68	151.36	1,265.59	0.93	11.96
FOPN	3.90	0.04	3.94	34.85	0.02	11.31	2.59	1.07	3.66	34.85	0.02	10.50
FTNI	1.28	5.14	6.43	593.74	0.04	1.08	6.11	98.82	104.92	593.74	0.64	17.67
FTNN	120.32	113.86	234.17	5,035.29	1.43	4.65	290.44	642.04	932.48	5,035.29	5.70	18.52
FTPN	1.78	8.35	10.12	187.81	0.06	5.39	11.58	5.94	17.53	187.81	0.11	9.33
g1	55.91	31.85	87.76	1,646.39	0.54	5.33	110.97	196.83	307.79	1,646.39	1.88	18.70
h1	0.00	0.00	0.00	149.70	0.00	0.00	0.86	14.16	15.02	149.70	0.09	10.03
lake	0.00	0.00	0.00	200.25	0.00	0.00	0.00	0.00	0.00	200.25	0.00	0.00
Me	0.00	0.00	0.00	8.97	0.00	0.00	0.00	1.28	1.28	8.97	0.01	14.32
MONG	0.00	0.16	0.16	29.66	0.00	0.54	0.00	0.63	0.63	29.66	0.00	2.13
SONS	3.38	0.00	3.38	210.67	0.02	1.60	4.01	1.57	5.58	210.67	0.03	2.65
STNN	0.49	0.00	0.49	14.59	0.00	3.35	1.22	2.50	3.72	14.59	0.02	25.51
WONN	0.00	0.00	0.00	26.06	0.00	0.00	0.00	0.56	0.56	26.06	0.00	2.16
<b>Total</b>	<b>401.35</b>	<b>340.32</b>	<b>741.66</b>	<b>16,352.35</b>	<b>4.54</b>		<b>955.91</b>	<b>1,874.35</b>	<b>2,830.26</b>	<b>16,352.35</b>	<b>17.31</b>	

**Table 10-4b Soils Data for the Project Local Study Area**

SMU	Previously Approved Footprint Within the Project Local Study Area							Phase H				
	Phase ABCD	Phase EFG	Total disturbed within LSA [ha]	Total within LSA [ha]	Total % of LSA	Total % of SMU within LSA	Phase FG Amendment	Phase H	Total disturbed within LSA [ha]	Total within LSA [ha]	Total % of LSA	Total % of SMU within LSA
BMT3	10.99	3.06	14.05	660.81	0.09	2.13	37.75	58.55	96.30	660.81	0.59	14.57
DOV2	2.22	1.53	3.76	57.55	0.02	6.53	3.58	9.02	12.60	57.55	0.08	21.89
DOV6	0.36	0.00	0.36	39.24	0.00	0.92	0.42	1.99	2.40	39.24	0.01	6.12
ELS3	0.89	0.00	0.89	34.47	0.01	2.59	2.58	4.64	7.22	34.47	0.04	20.95
HRR1	0.00	0.00	0.00	20.41	0.00	0.00	0.07	0.15	0.22	20.41	0.00	1.08
HRR2	22.55	29.08	51.63	1,405.28	0.32	3.67	65.25	133.40	198.65	1,405.28	1.21	14.14
HRR5	0.00	0.00	0.00	2.95	0.00	0.00	0.00	0.00	0.00	2.95	0.00	0.00
HRR6	30.46	67.64	98.10	2,868.58	0.60	3.42	129.11	382.99	512.10	2,868.58	3.13	17.85
HRR6	0.00	0.00	0.00	16.54	0.00	0.00	0.00	3.27	3.27	16.54	0.02	19.77
MIL2	0.05	0.00	0.05	93.79	0.00	0.06	0.43	29.57	30.00	93.79	0.18	31.99
MIL5	41.91	0.00	41.91	686.60	0.26	6.10	65.67	69.18	134.85	686.60	0.82	19.64
MLD1	7.44	6.38	13.81	948.52	0.08	1.46	18.43	113.92	132.35	948.52	0.81	13.95
MLD1-U	36.59	35.00	71.60	1,336.27	0.44	5.36	96.26	146.06	242.32	1,336.27	1.48	18.13
MLD2-3	102.05	102.55	204.61	4,567.03	1.25	4.48	266.88	468.34	735.22	4,567.03	4.50	16.10
MMW3	0.00	0.00	0.00	201.90	0.00	0.00	0.00	5.97	5.97	201.90	0.04	2.96
MUS1	11.66	13.97	25.63	971.59	0.16	2.64	36.96	159.73	196.69	971.59	1.20	20.24
MUS1-U	91.36	54.40	145.76	872.77	0.89	16.70	150.62	95.14	245.76	872.77	1.50	28.16
MUS2-3	18.38	23.29	41.67	654.42	0.25	6.37	44.47	120.63	165.10	654.42	1.01	25.23
PEA6	0.00	0.00	0.00	65.44	0.00	0.00	0.00	2.23	2.23	65.44	0.01	3.40
STP3	0.52	0.00	0.52	166.68	0.00	0.31	1.53	28.12	29.65	166.68	0.18	17.79
SUT2	0.00	1.98	1.98	28.64	0.01	6.90	0.00	4.96	4.96	28.64	0.03	17.32
SUT5	23.91	1.42	25.33	426.45	0.15	5.94	35.37	35.84	71.21	426.45	0.44	16.70
SUT6	0.00	0.00	0.00	14.85	0.00	0.00	0.53	0.68	1.21	14.85	0.01	8.13
Water	0.00	0.00	0.00	204.58	0.00	0.00	0.00	0.00	0.00	204.58	0.00	0.00
WNF5	0.00	0.00	0.00	7.01	0.00	0.00	0.00	0.00	0.00	7.01	0.00	0.00
<b>Total</b>	<b>401.35</b>	<b>340.32</b>	<b>741.66</b>	<b>16,352.35</b>	<b>4.54</b>		<b>955.91</b>	<b>1,874.35</b>	<b>2,830.26</b>	<b>16,352.35</b>	<b>17.31</b>	

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**LEGEND**

- ROAD
- WATERCOURSE
- LEASE AREA
- PHASE CD PROJECT AREA
- WATERBODY

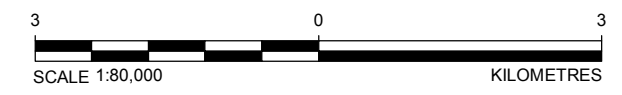
**FOOTPRINT**

- PHASE A, B, C, D

SCALE 1:100,000

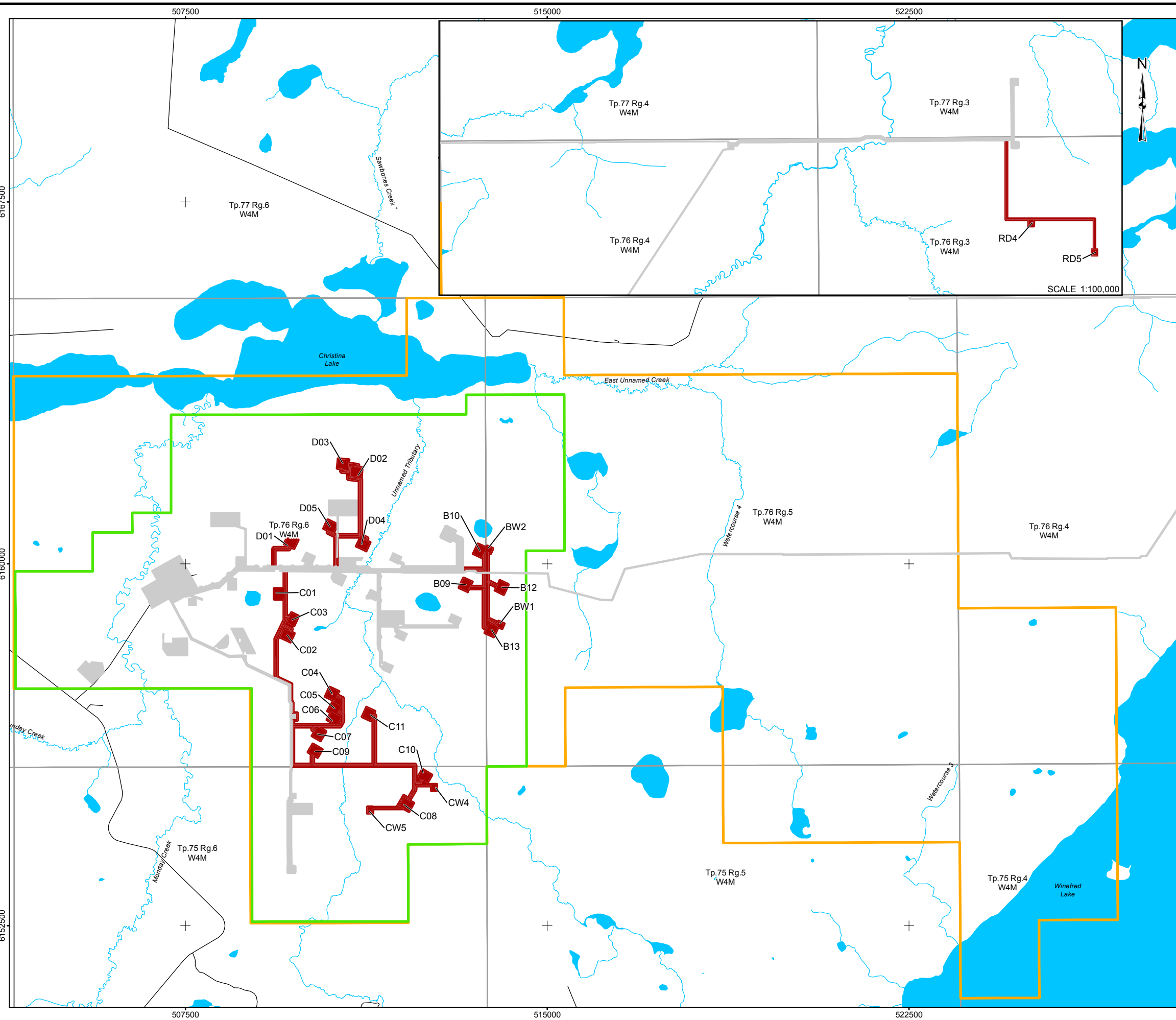
**NOTES**  
 \*UNNAMED WATERCOURSE LOCALLY KNOWN AS SAWBONES CREEK

**REFERENCE**  
 ALBERTA DIGITAL BASE DATA OBTAINED FROM ALTALIS LTD. © GOVERNMENT OF ALBERTA 2004-2012 (ALL RIGHTS RESERVED), AND FROM IHS ENERGY INC. DATUM: NAD 83 PROJECTION: UTM ZONE 12



PROJECT		14-1346-0011		FILE No.	
<b>cenovus</b> ENERGY		CHRISTINA LAKE THERMAL PROJECT PHASE H AND EASTERN EXPANSION			
TITLE					
<b>CHRISTINA LAKE THERMAL PROJECT FOOTPRINT PHASE A, B, C, D</b>					
	DESIGN	SS	20 Jan. 2015	SCALE AS SHOWN	REV. 0
	GIS	AJW	06 Feb. 2015		
	CHECK	RL	08 Apr. 2015		
	REVIEW	SNS	08 Apr. 2015		
					<b>FIGURE: 10-1</b>

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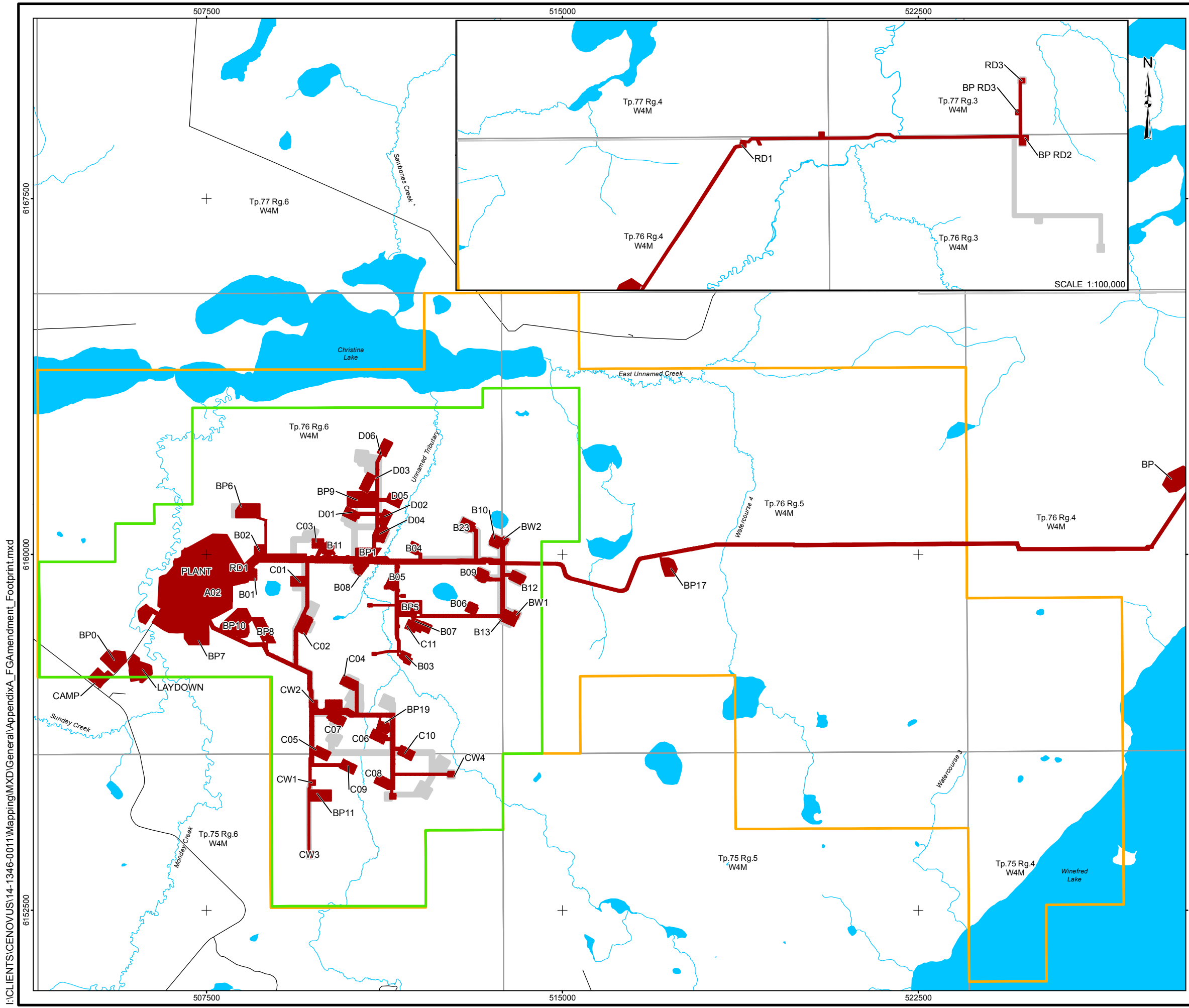
- LEGEND**
- ROAD
  - WATERCOURSE
  - LEASE AREA
  - PHASE EFG PROJECT AREA
  - WATERBODY
- FOOTPRINT**
- PHASE A, B, C, D
  - PHASE E, F, G

**NOTES**  
 \*UNNAMED WATERCOURSE LOCALLY KNOWN AS SAWBONES CREEK

**REFERENCE**  
 ALBERTA DIGITAL BASE DATA OBTAINED FROM ALTALIS LTD. © GOVERNMENT OF ALBERTA 2004-2012 (ALL RIGHTS RESERVED), AND FROM IHS ENERGY INC.  
 DATUM: NAD 83 PROJECTION: UTM ZONE 12



PROJECT		14-1346-0011		FILE No.	
<b>cenovus</b> ENERGY		CHRISTINA LAKE THERMAL PROJECT PHASE H AND EASTERN EXPANSION			
TITLE					
<b>CHRISTINA LAKE THERMAL PROJECT FOOTPRINT PHASE A, B, C, D, E, F, G</b>					
	DESIGN	SS	20 Jan. 2015	SCALE AS SHOWN	REV. 0
	GIS	AJW	06 Feb. 2015		
	CHECK	RL	08 Apr. 2015		
	REVIEW	SNS	08 Apr. 2015		
					<b>FIGURE: 10-2</b>



**LEGEND**

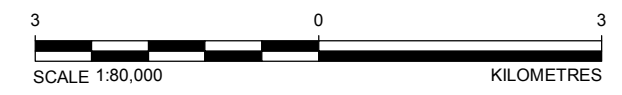
- ROAD
- WATERCOURSE
- LEASE AREA
- PHASE EFG PROJECT AREA
- WATERBODY

**FOOTPRINT**

- FG AMENDMENT
- PHASE A, B, C, D, E, F, G

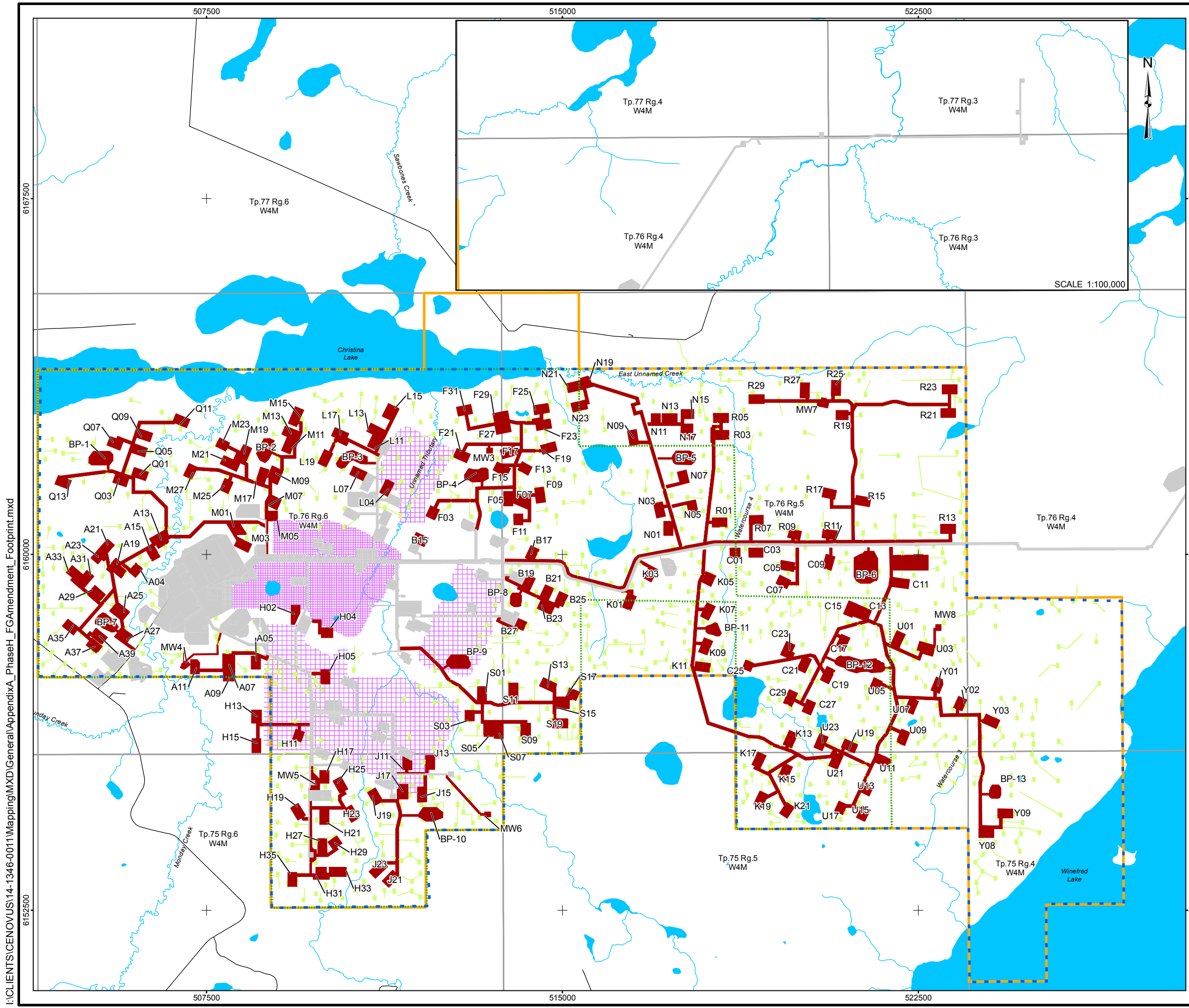
**NOTES**  
 \*UNNAMED WATERCOURSE LOCALLY KNOWN AS SAWBONES CREEK

**REFERENCE**  
 ALBERTA DIGITAL BASE DATA OBTAINED FROM ALTALIS LTD. © GOVERNMENT OF ALBERTA 2004-2012 (ALL RIGHTS RESERVED), AND FROM IHS ENERGY INC. DATUM: NAD 83 PROJECTION: UTM ZONE 12



PROJECT		14-1346-0011		FILE No.	
<b>cenovus</b> ENERGY		CHRISTINA LAKE THERMAL PROJECT PHASE H AND EASTERN EXPANSION			
TITLE					
<b>CHRISTINA LAKE THERMAL PROJECT FOOTPRINT FG AMENDMENT</b>					
	DESIGN	SS	20 Jan. 2015	SCALE AS SHOWN	REV. 0
	GIS	AJW	09 Feb. 2015		
	CHECK	RL	08 Apr. 2015		
	REVIEW	SNS	08 Apr. 2015		
					<b>FIGURE: 10-3</b>

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**LEGEND**

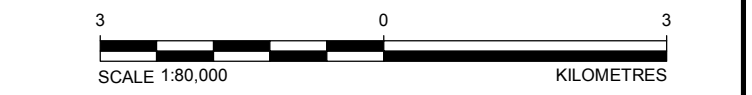
- ROAD
- WATERCOURSE
- LEASE AREA
- PHASE H PROJECT AREA (PPA)
- PHASE H DEVELOPMENT AREA
- WATERBODY

**FOOTPRINT**

- PHASE H
- PHASE H OSE WELLS
- PHASE H SEISMIC
- FG AMENDMENT

**NOTES**  
 \*UNNAMED WATERCOURSE LOCALLY KNOWN AS SAWBONES CREEK

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 DATUM: NAD 83 PROJECTION: UTM ZONE 12



PROJECT		14-1346-0011		FILE No.	
DESIGN		SS	20 Jan. 2015	SCALE AS SHOWN	REV. 0
GIS		AJW	09 Feb. 2015		
CHECK		RL	08 Apr. 2015		
REVIEW		SNS	08 Apr. 2015		

**FIGURE: 10-4**

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