

□ Local Study Area (LSA)  
**ROW by Land Use**  
  Modified Grassland  
  Cultivated  
**Wetland Class**  
  Class I - Ephemeral Wetland  
  Class II - Temporary Wetland  
  Class III - Seasonal Pond or Lake  
~ Watercourse  
 Road  
 Pipeline  
● Well (Surface Hole)  
● Breeding Bird Survey

Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

NAD 1983 UTM Zone 14N

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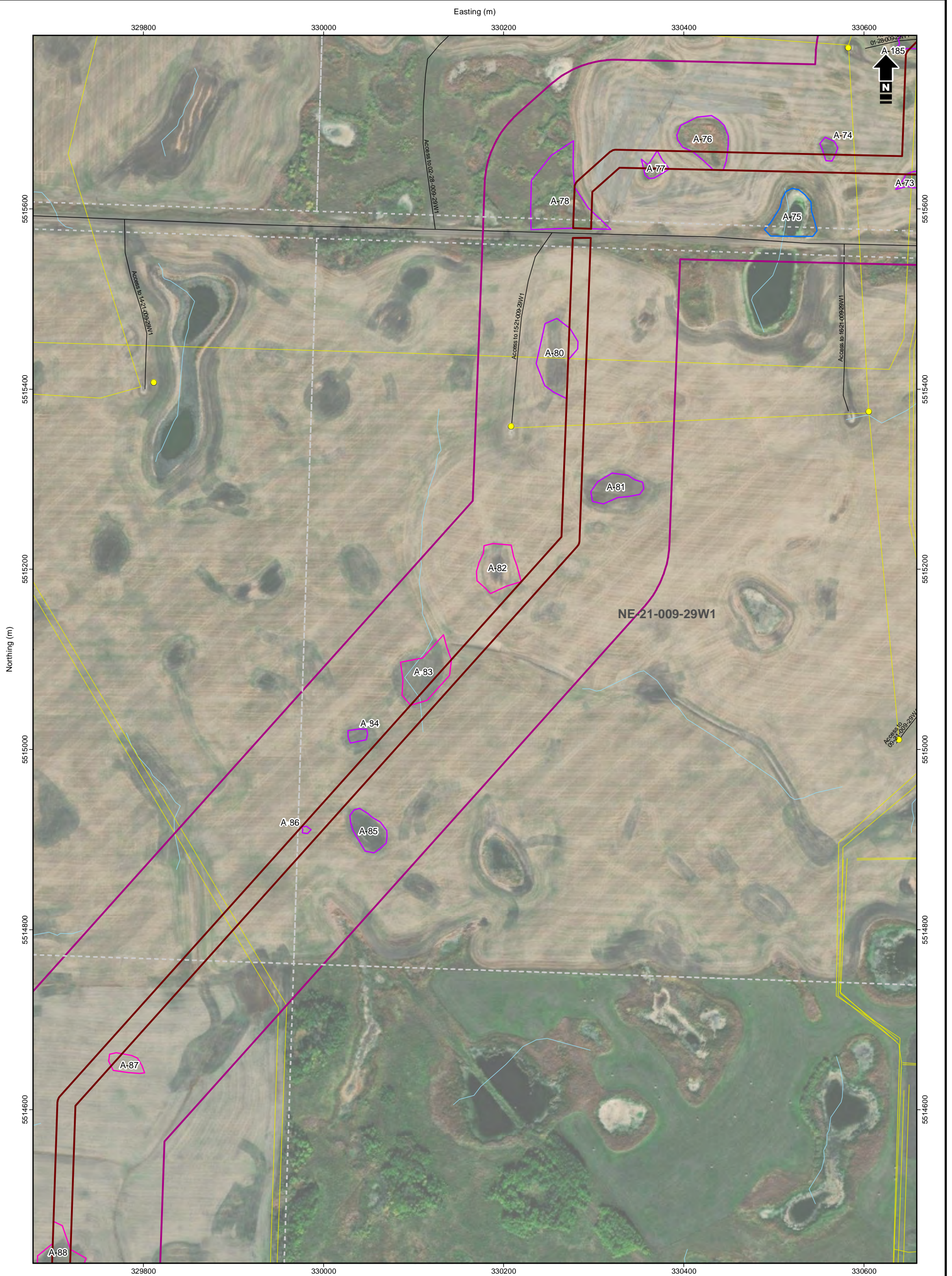
**Tundra Oil & Gas Limited**  
 46 km Flowline Gas Gathering System

Detailed Routing

Date: November 2021	Project: 29047	Submitter: D. Chranowski	Reviewer: L. May
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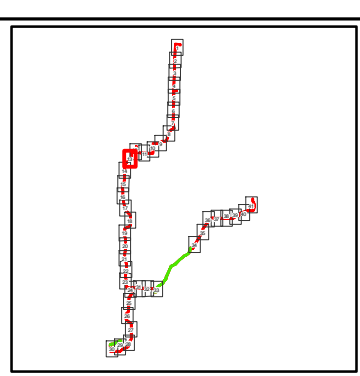
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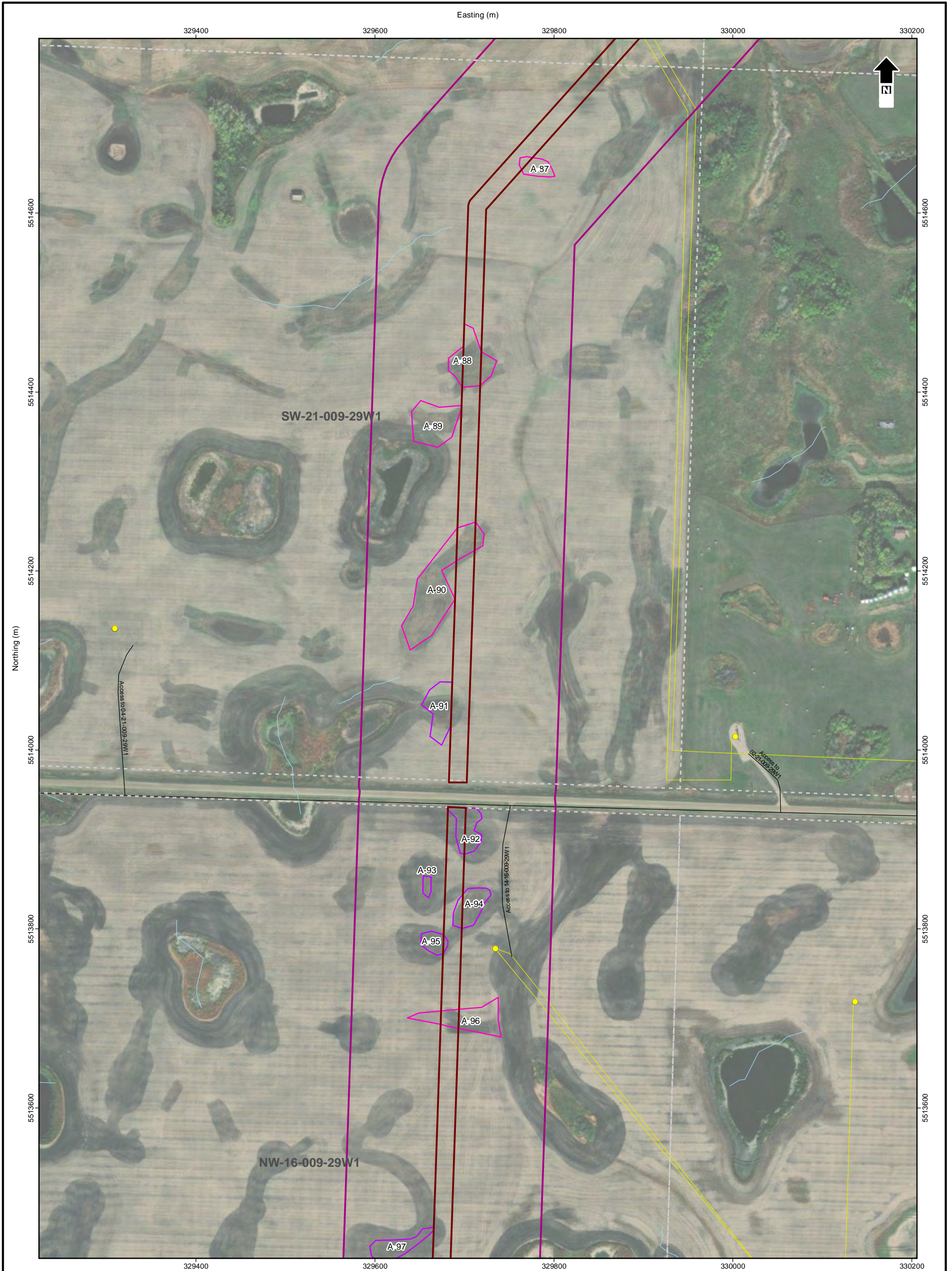
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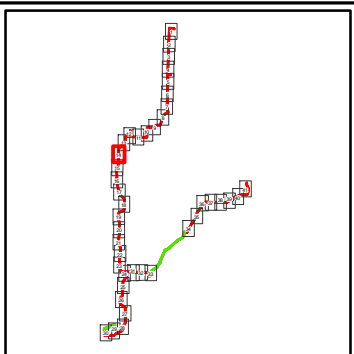
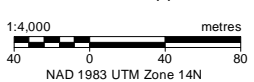
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Figure 2-13



- Local Study Area (LSA)
- ROW by Land Use**
- Cultivated
- Wetland Class**
- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Watercourse
- Road
- Pipeline
- Well (Surface Hole)

Note: The land use is mapped to ROW

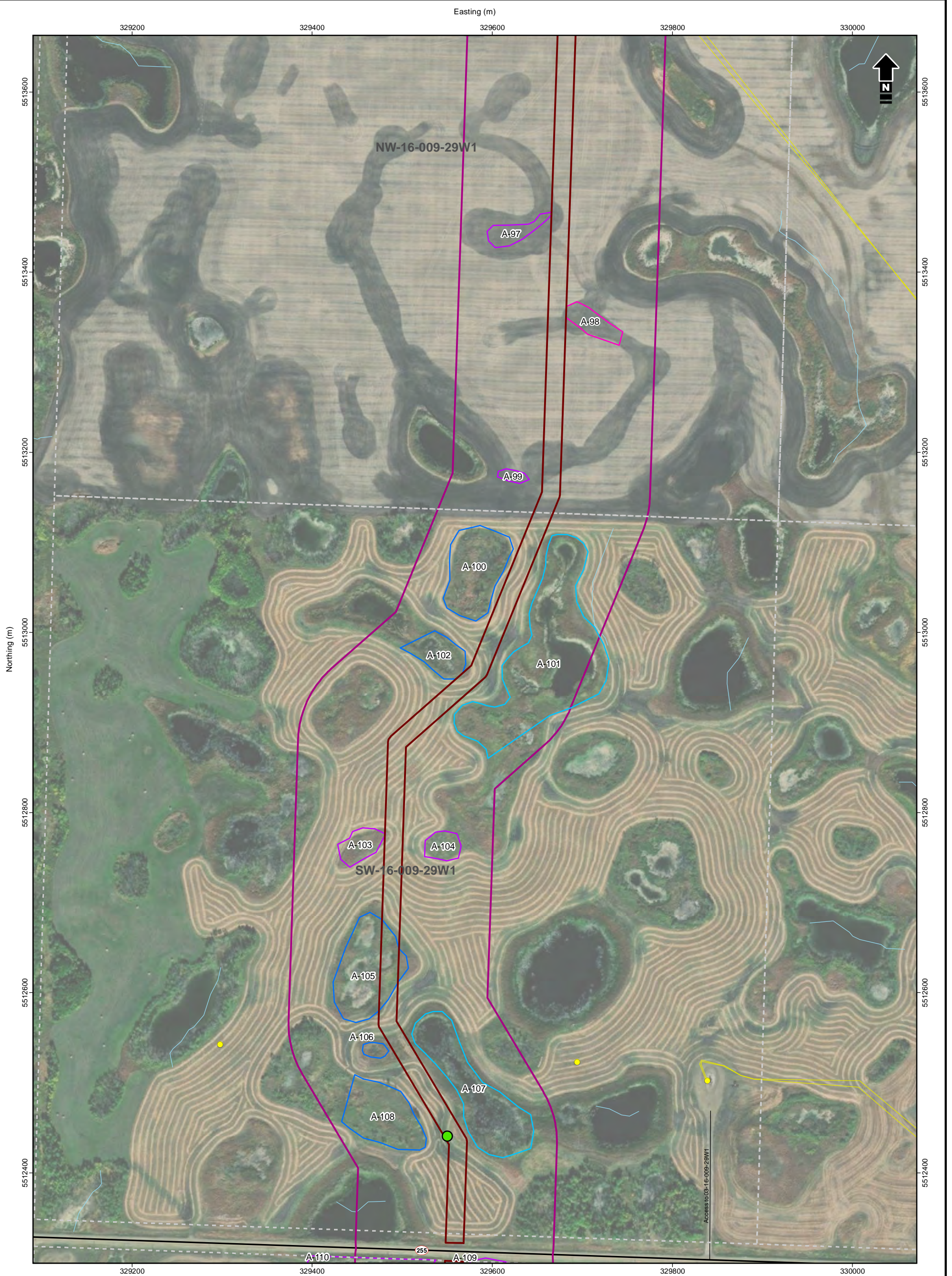


Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

### Detailed Routing

Date: November 2021 Project: 29047 Submitter: D. Chranowski Reviewer: L. May

Reference: GDM midstream, transportation infrastructure data and IHS well data provided by IHS© 2021. Imagery (2018) Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User



**Local Study Area (LSA)**  
 Local Study Area (LSA)

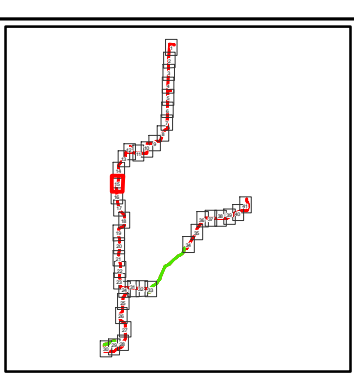
**ROW by Land Use**  
 Cultivated

**Wetland Class**  
 Class I - Ephemeral Wetland  
 Class II - Temporary Wetland  
 Class III - Seasonal Pond or Lake  
 Class IV - Semi-permanent Pond or Lake

Watercourse  
 Highway  
 Road  
 Pipeline  
 Well (Surface Hole)  
 Breeding Bird and Amphibian Surveys

Note: The land use is mapped to ROW

1:4,000 metres  
 40 0 40 80  
 NAD 1983 UTM Zone 14N



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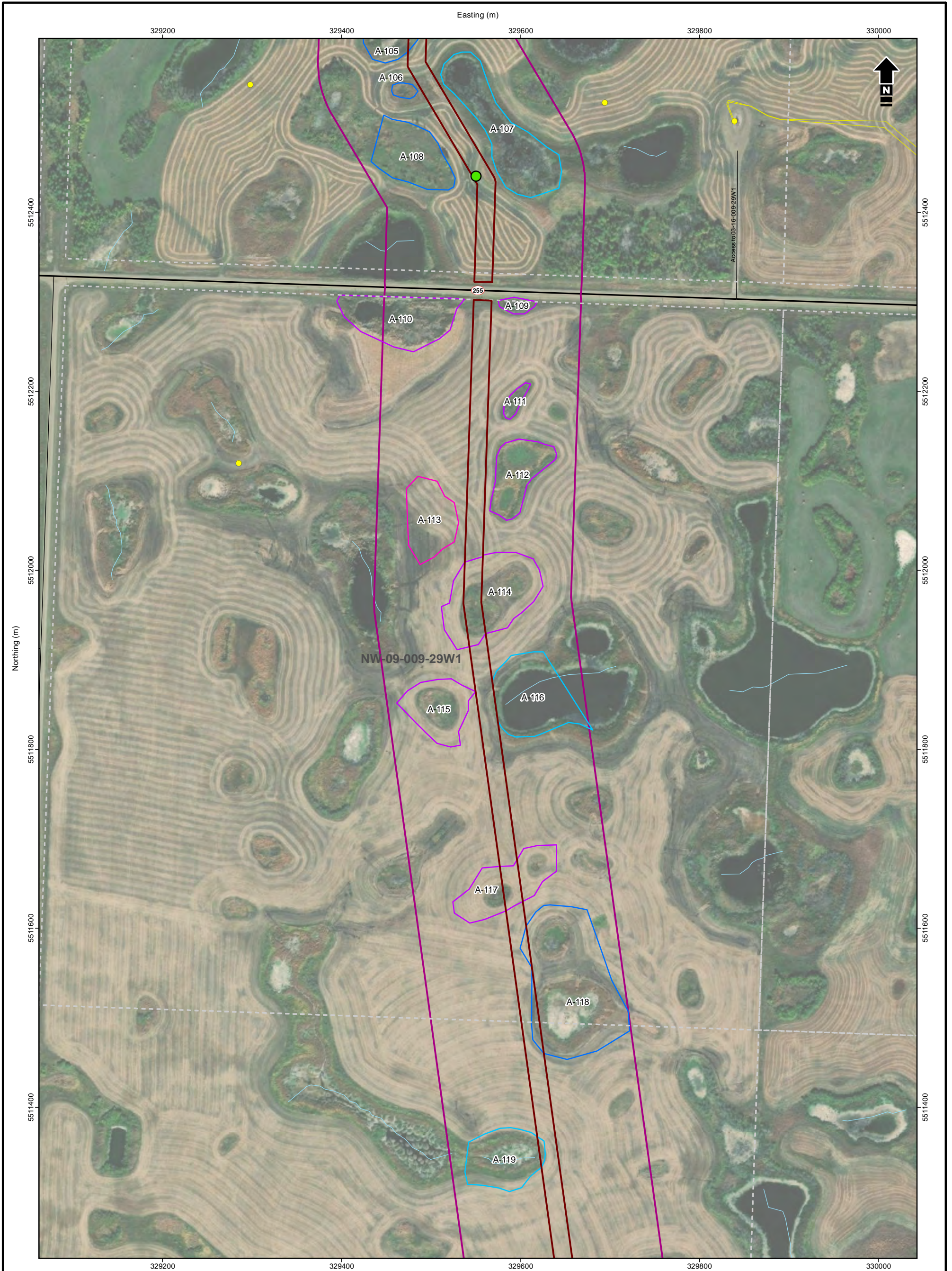
Tundra Oil & Gas Limited  
 46 km Flowline Gas Gathering System

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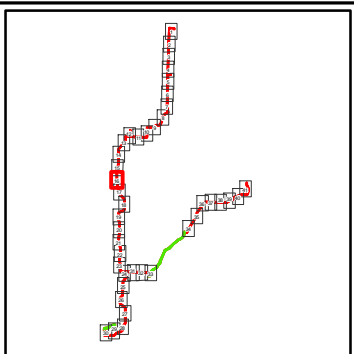
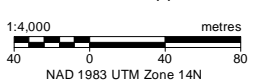
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- Local Study Area (LSA)
- ROW by Land Use**
- Cultivated
- Wetland Class**
- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Class III - Seasonal Pond or Lake
- Class IV - Semi-permanent Pond or Lake
- ~ Watercourse
- Highway
- Road
- Pipeline
- Well (Surface Hole)
- Breeding Bird and Amphibian Surveys

Note: The land use is mapped to ROW

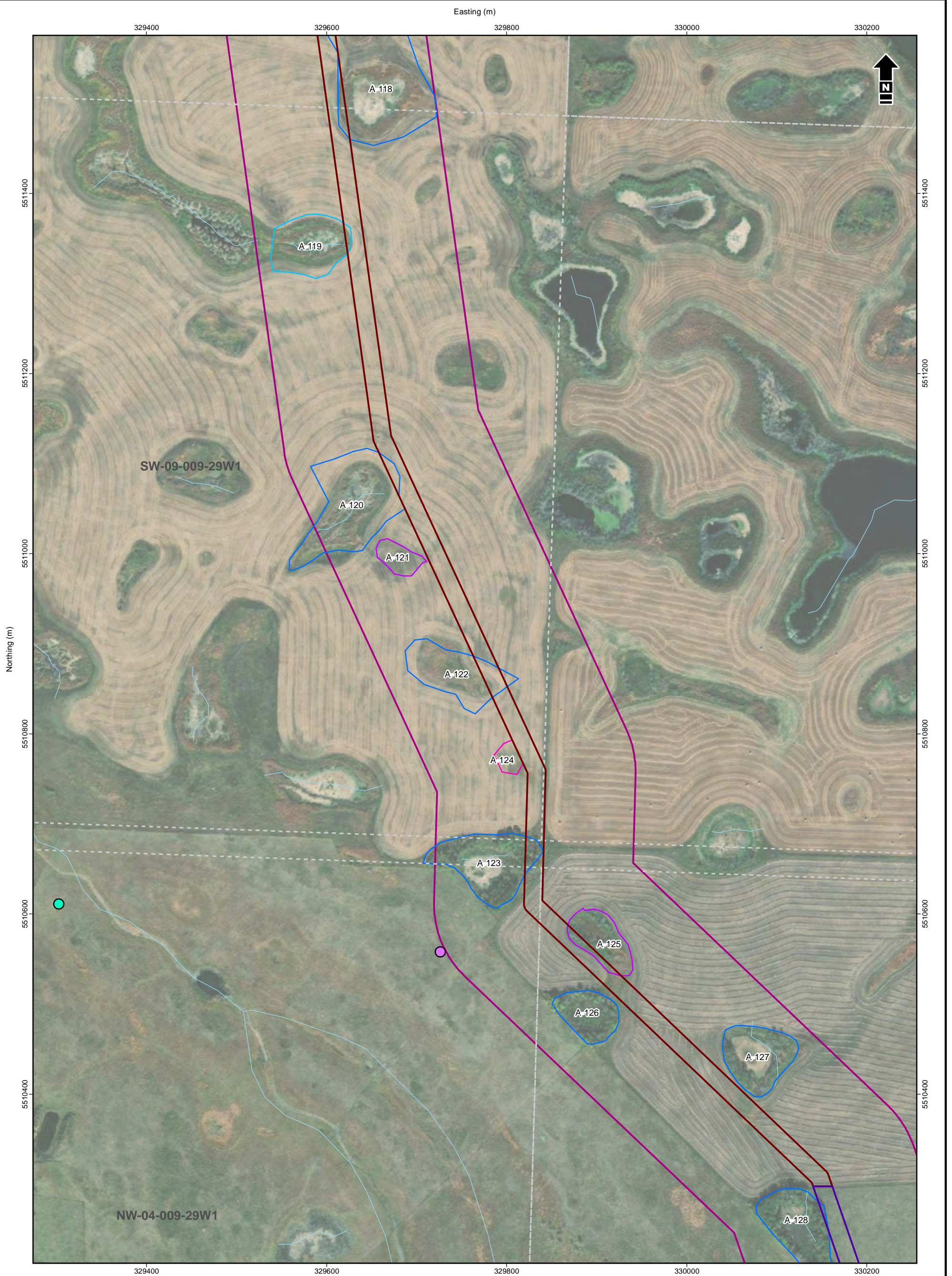


Tundra Oil & Gas Limited  
46 km Flowline Gas Gathering System

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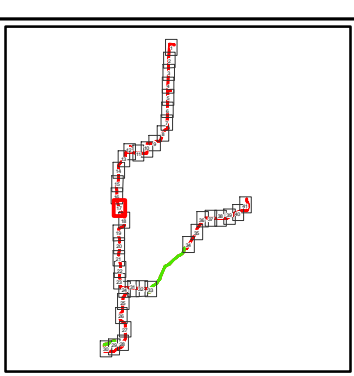
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□ Local Study Area (LSA)  
**ROW by Land Use**  
▬ Hay Land  
▬ Cultivated  
**Wetland Class**  
▭ Class I - Ephemeral Wetland  
▭ Class II - Temporary Wetland  
▭ Class III - Seasonal Pond or Lake  
▭ Class IV - Semi-permanent Pond or Lake  
~ Watercourse  
● Sharp-Tailed Grouse Survey  
● Sharp-Tailed Grouse Lek

Note: The land use is mapped to ROW

1:4,000 metres  
 40 0 40 80  
 NAD 1983 UTM Zone 14N



  
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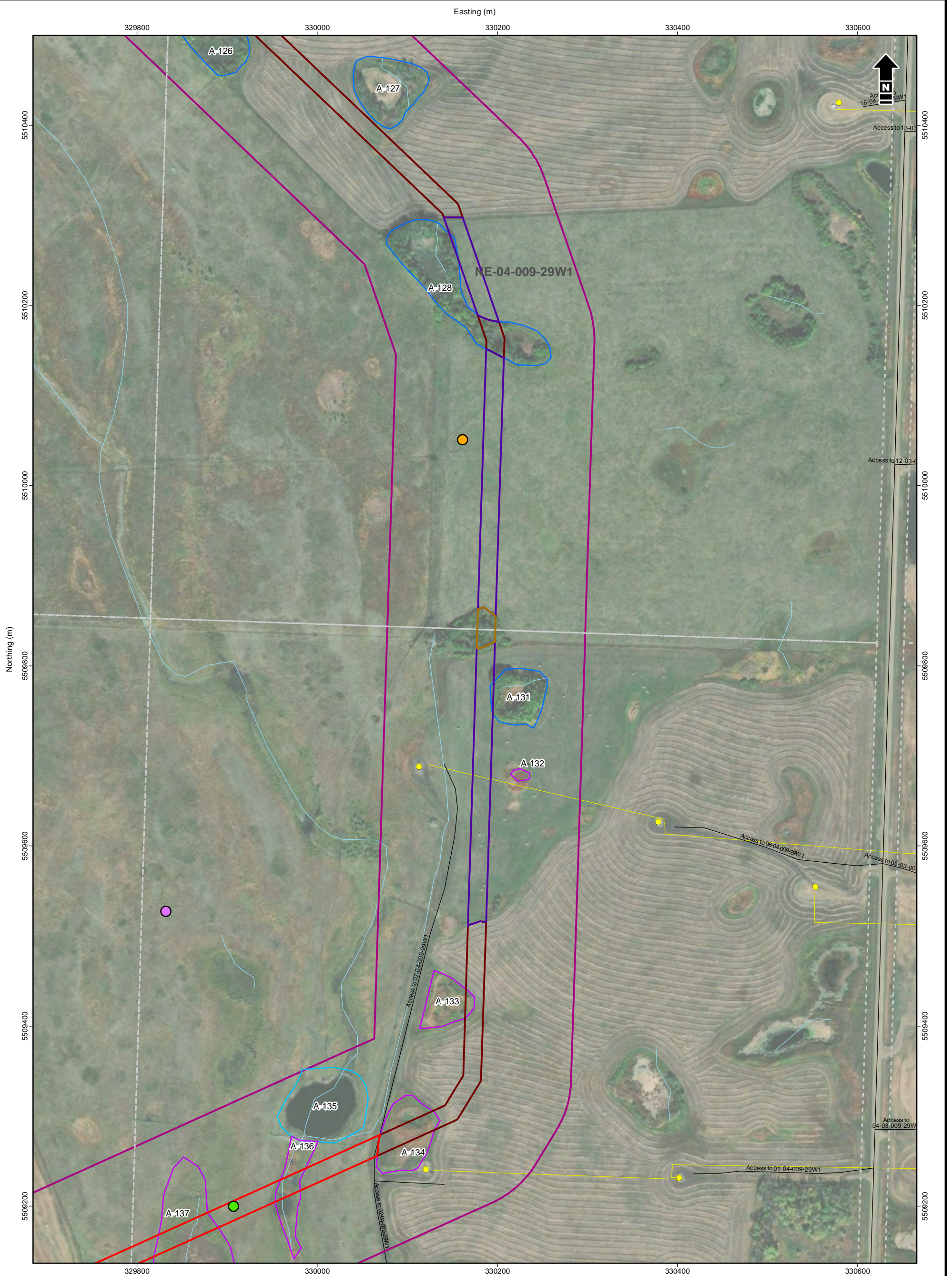
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**Local Study Area (LSA)**

**ROW by Land Use**

- Native Grassland
- Hay Land
- Cultivated
- Woodland

**Wetland Class**

- Class II - Temporary Wetland
- Class III - Seasonal Pond or Lake
- Class IV - Semi-permanent Pond or Lake

**Watercourse**

**Road**

**Pipeline**

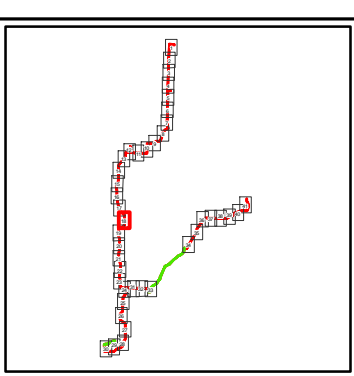
- Well (Surface Hole)
- Sharp-Tailed Grouse Survey
- Breeding Bird Survey
- Breeding Bird and Amphibian Surveys

Note: The land use is mapped to ROW

1:4,000 metres

40 0 40 80

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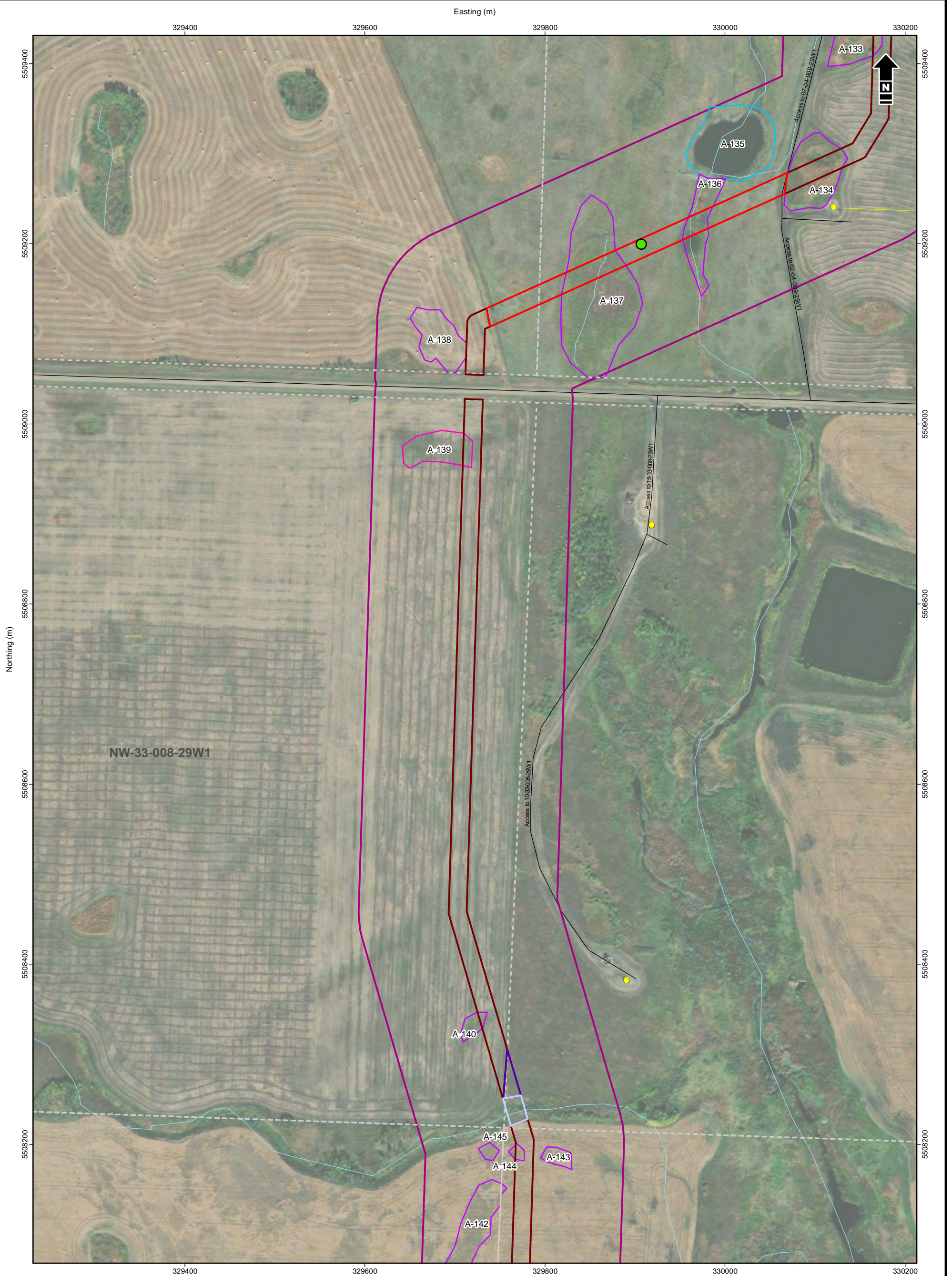
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**2-18**



**Local Study Area (LSA)**

**ROW by Land Use**

- Native Grassland
- Hay Land
- Cultivated
- Seasonal Waterway

**Wetland Class**

- Class I - Ephemeral Wetland
- Class II - Temporary Wetland
- Class IV - Semi-permanent Pond or Lake

Watercourse

Road

Pipeline

Well (Surface Hole)

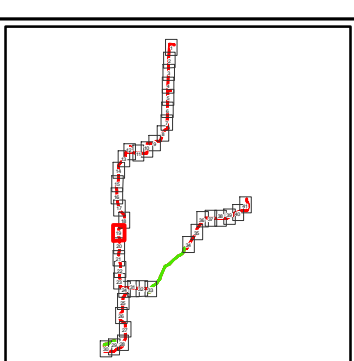
Breeding Bird and Amphibian Surveys

Note: The land use is mapped to ROW

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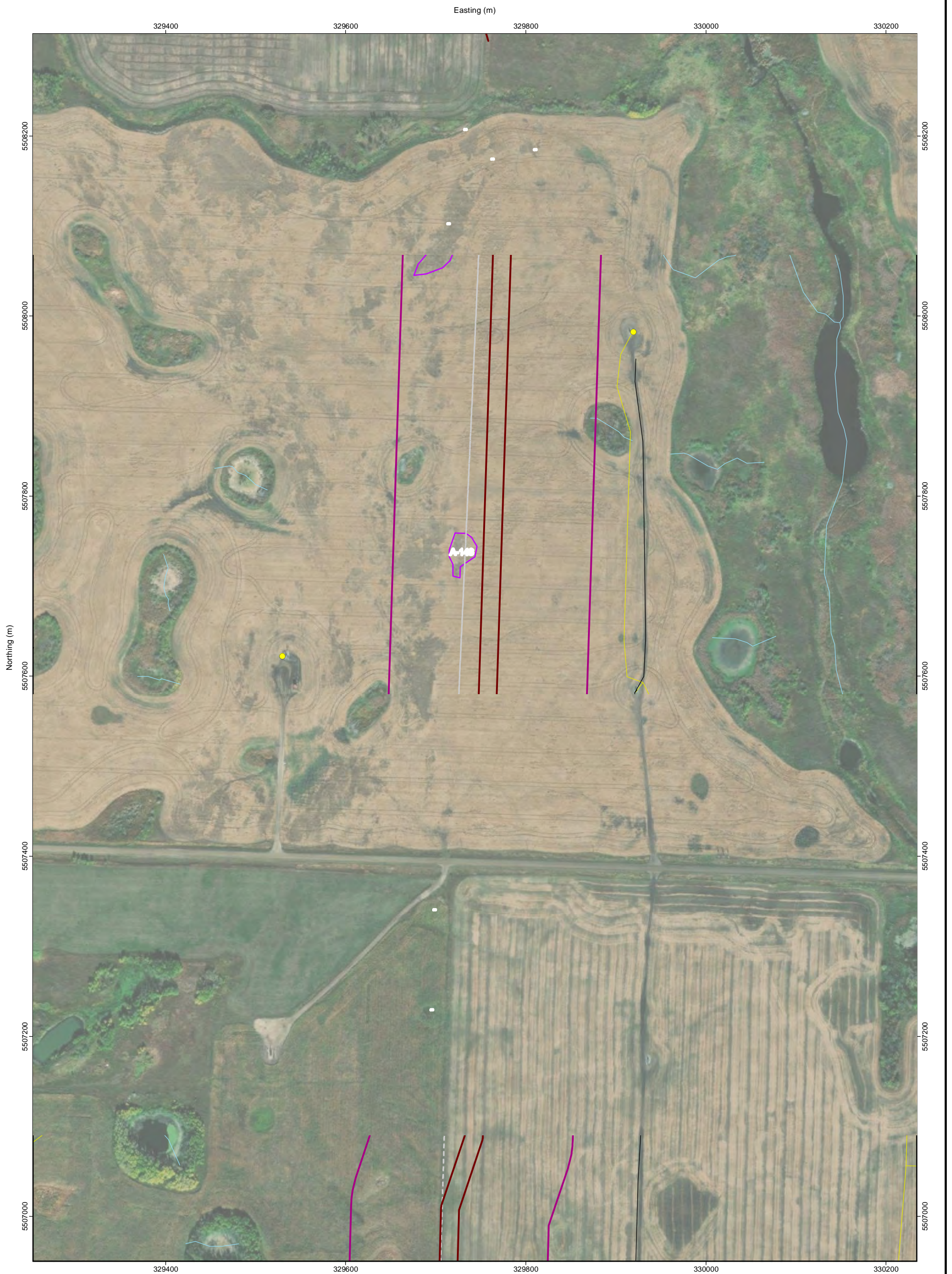
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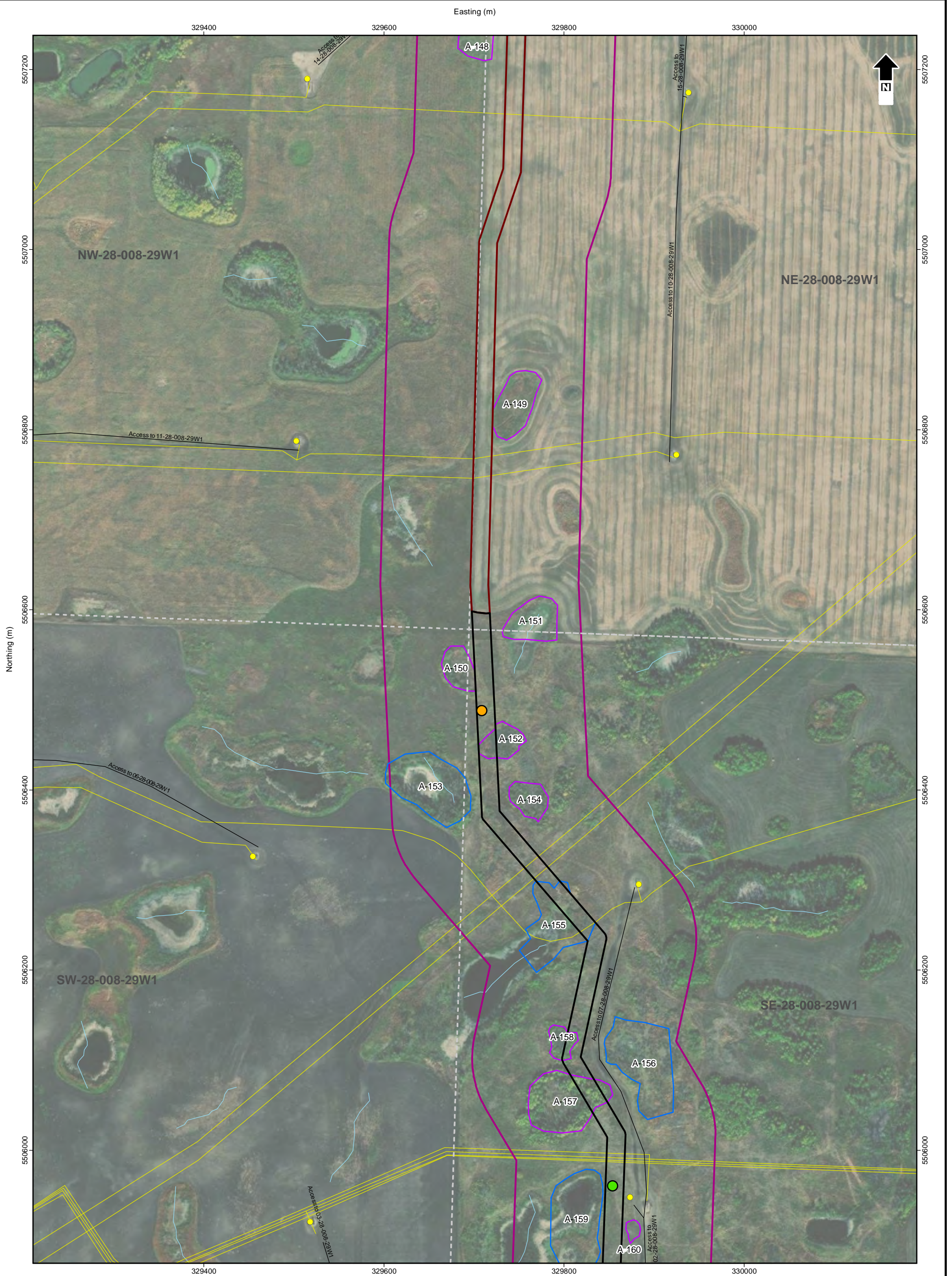
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**2-19**



<p><b>Local Study Area (LSA)</b></p> <p><b>ROW by Land Use</b></p> <ul style="list-style-type: none"> <li> Hay Land</li> <li> Cultivated</li> <li> Seasonal Waterway</li> </ul> <p><b>Wetland Class</b></p> <ul style="list-style-type: none"> <li> Class II - Temporary Wetland</li> </ul>	<ul style="list-style-type: none"> <li> Watercourse</li> <li> Road</li> <li> Pipeline</li> <li> Well (Surface Hole)</li> </ul> <p style="text-align: center;">Note: The land use is mapped to ROW</p> <p style="text-align: center;">1:4,000 metres</p> <p style="text-align: center;">40 0 40 80</p> <p style="text-align: center;">NAD 1983 UTM Zone 14N</p>		<div style="text-align: right;"> <p><b>Matrix Solutions Inc.</b> ENVIRONMENT &amp; ENGINEERING</p> </div> <p style="text-align: center;"><b>Tundra Oil &amp; Gas Limited</b> 46 km Flowline Gas Gathering System</p> <p style="text-align: center;"><b>Detailed Routing</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Date: November 2021</td> <td style="width: 25%;">Project: 29047</td> <td style="width: 25%;">Submitter: D. Chranowski</td> <td style="width: 25%;">Reviewer: L. May</td> </tr> </table> <p style="text-align: right; background-color: #008000; color: white; padding: 5px;"><b>2-20</b></p>	Date: November 2021	Project: 29047	Submitter: D. Chranowski	Reviewer: L. May
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**Local Study Area (LSA)**

- Local Study Area (LSA)

**ROW by Land Use**

- Modified Grassland
- Cultivated

**Wetland Class**

- Class II - Temporary Wetland
- Class III - Seasonal Pond or Lake

**Other Features**

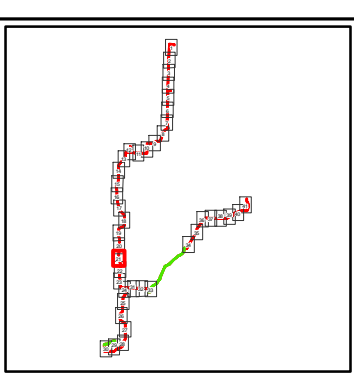
- Watercourse
- Road
- Pipeline
- Well (Surface Hole)
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- Breeding Bird and Amphibian Surveys

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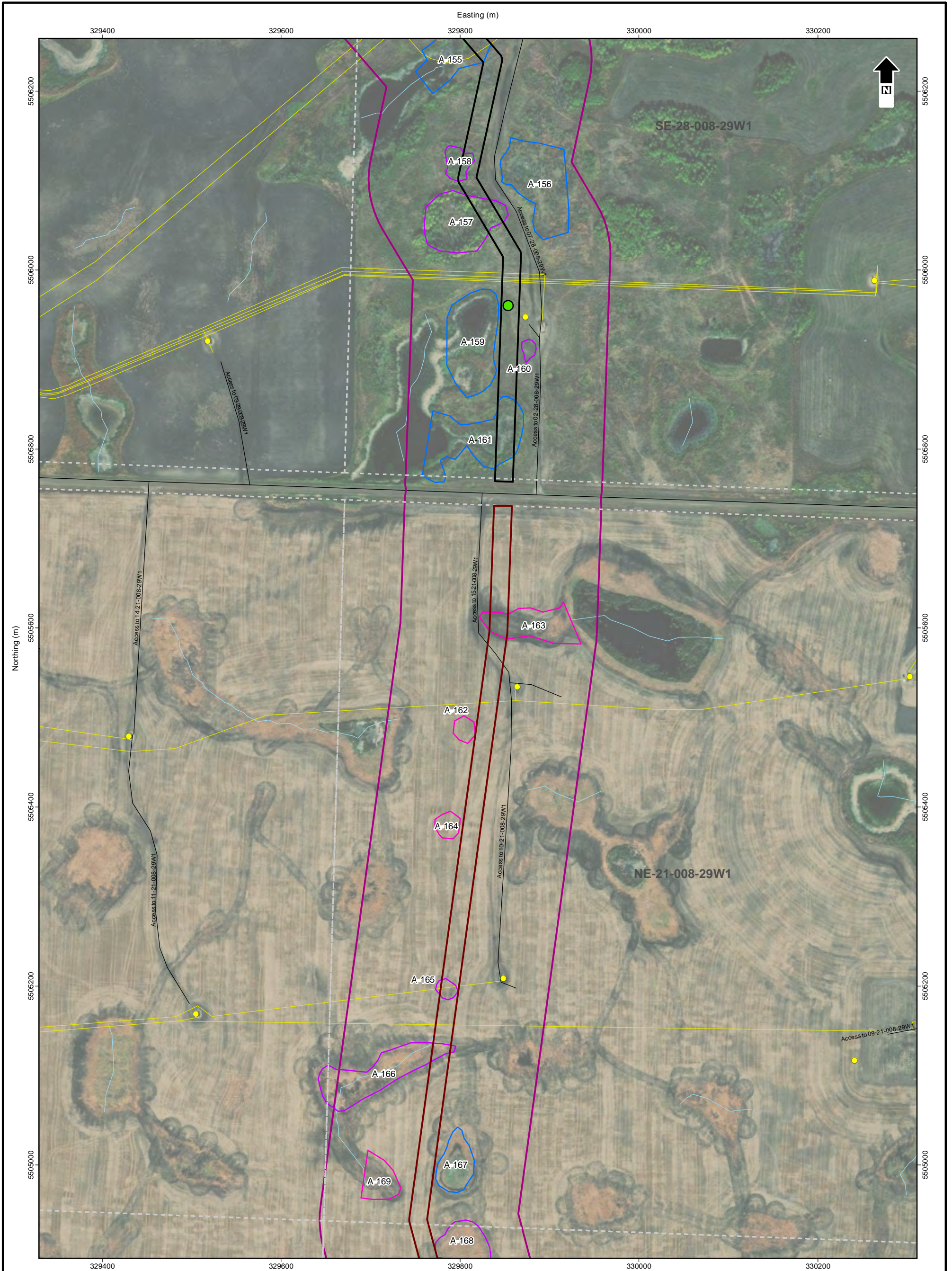
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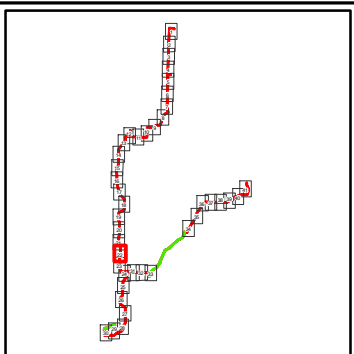
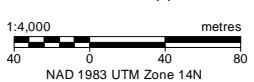
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Figure 2-21



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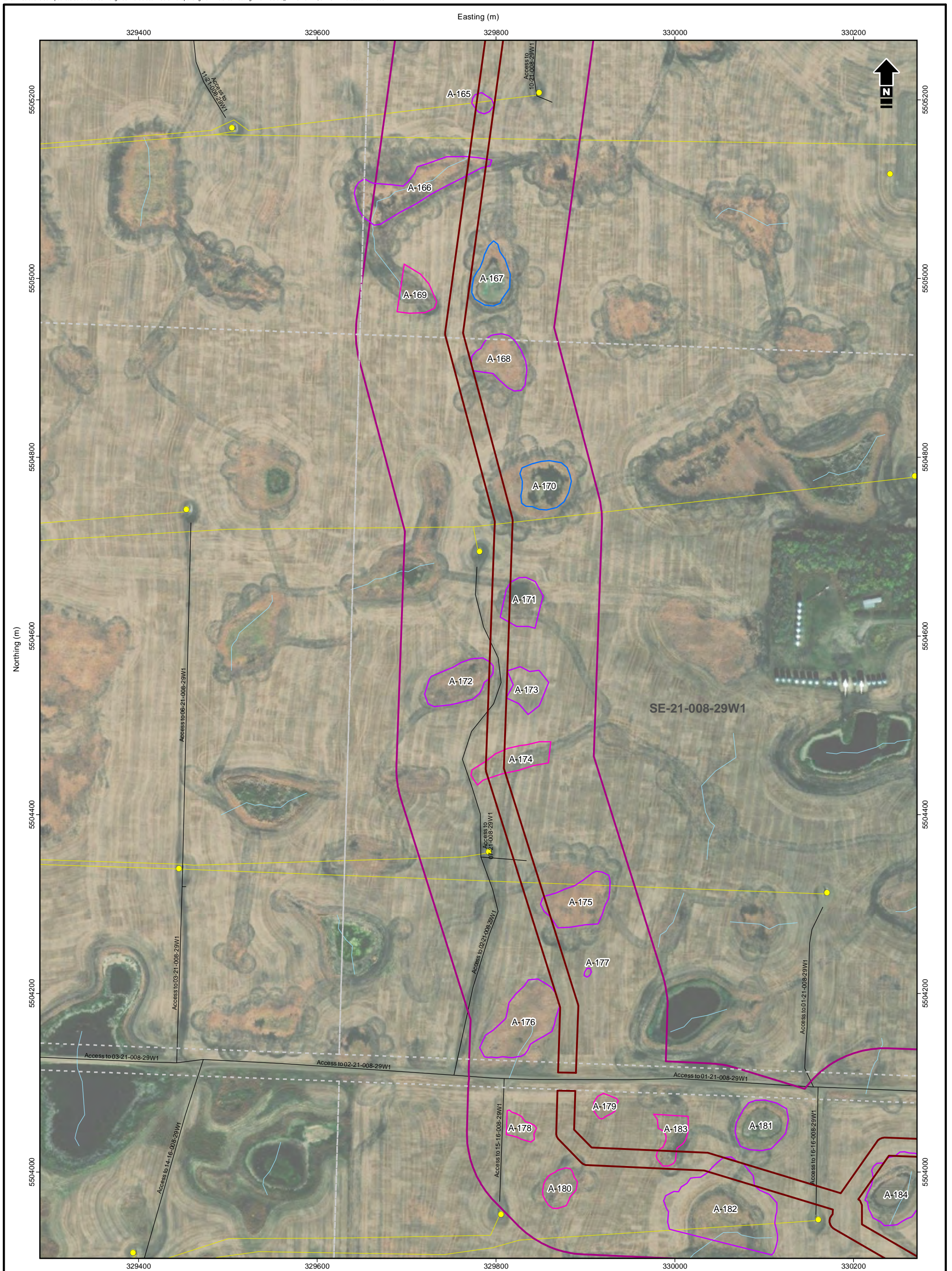


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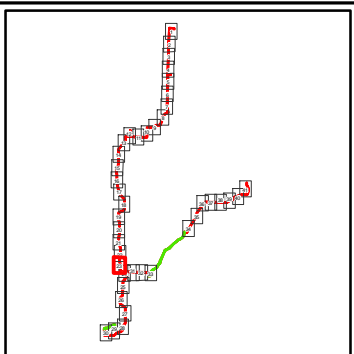
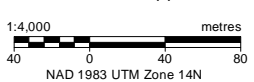
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