

KELLY WM SCOTT & ASSOCIATES

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Calgary, Alberta, Canada
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July 19, 2013

Manitoba Conservation and Water Stewardship
Environmental Assessment and Licensing Branch
123 Main St Suite 160
Winnipeg MB R3C 1A5

Attention: Ms. Elise Dagdick,
Environmental Approvals Branch

Re: File 5635.00
Request for Additional Information
Environmental Assessment Report - Pierson to MIPL Pipeline Project
EOG Resources Canada Inc.

Please find attached the summary of the additional information requested by Manitoba Conservation's March 26, 2012 email regarding the proposed EOG Resources Canada Inc. Pierson to MIPL Pipeline Project. The responses are provided in the order requested in the March 22, 2013 letter. Please note that routing on the west half of Section 31-2-29WPM was not finalized prior to completing this request. The best possible options were selected based on additional field review and discussions with stake holders. Finalized survey plans will be forwarded upon receipt.

The following additional information is required:

- 1. Chapter 5.1.8.3 Rare Vascular Plants – “A summary of plants identified within 1 km of the proposed pipeline right-of-way (previously accessed for the Pipeline route for Waskada to Pierson and Pierson to MIPL) by the Manitoba Conservation Data Centre is provided in Table 5.5. A request to Manitoba CDC was made to update current information was made in January 2013 however the information was not provided prior to completing this report and will be forwarded upon receipt.” The Wildlife Branch – Manitoba Conservation Data Centre (CDC) did not receive a request for data for this project in January 2013. Furthermore, the data accessed for the Waskada to Pierson pipeline project may no longer be up-to-date, or applicable for this project. The Wildlife Branch requests that the proponent contact the CDC as soon as possible to inquire about access to the latest data.*

Response:

Attachment # 1 is the Manitoba CDC search results that were provided to EOG on June 18, 2013.

2. Chapter 5.1.7 - Wetlands states that “Wetlands were avoided as a result of routing criteria (e.g., avoidance of wetlands, minimizing impact) for the proposed pipeline route”. The Wildlife Branch requires further information on the potential effects on wetlands. Environmental assessments need to outline all the habitat types along the proposed route, including a detailed description of the class, size, and health of wetlands occurring along the route ROW, and site specific mitigation efforts including boring, trenching etc. More detailed information is required before the Wildlife Branch can properly review this project.

Response:

An update to Chapter 5.1.7 of the Environmental Assessment Report is provided as Table 3.1 below.

Requested information regarding environmental features including wetlands, drainages and low areas crossed by the proposed pipeline is included.

TABLE 3.1 ENVIRONMENTAL FEATURE/WETLAND/LOW AREAS ALONG THE PROPOSED PIPELINE ROUTE

LOCATION (WPM)	ENVIRONMENTAL FEATURE/WETLAND TYPE	CLASS*	WETLAND HEALTH	FEATURE/WETLAND SIZE WITHIN THE PROPOSED ROW (Acres)	% AREA OF THE TOTAL ROW	MITIGATION/ CONSTRUCTION METHOD
SW ¼ 6-3-29-WPM	Low wet area - In field drainage.	Class 1	Poor – Wet meadow vegetation. Cattails are dominant.	0.19	0.14	Bore
NW 31-2-29WPM Route 1: Surveyed	None	-	-	-	-	-
NW 31-2-29WPM Route 2: Not Surveyed	Slough	Class 3	Good – Open water. Variety of wetland vegetation.	Approx. 1.2	Approx. 0.9	Bore
SW 31-2-29WPM Route 1: Surveyed	Fenced livestock alley	-	-	-	-	Bore
SW ¼ 31-2-29WPM Route 2: Not Surveyed	Immediately south of ¼ line. Fenced livestock alley, low, dry treed area to North and South.	-	-	Approx. 2.0	Approx. 1.5	Bore
	Extreme SW corner. Slough – Low area and tree grove.	Class 2	Good – Variety wet meadow vegetation.	Approx. 0.49	Approx. 0.36	Bore

LOCATION (WPM)	ENVIRONMENTAL FEATURE/ WETLAND TYPE	CLASS*	WETLAND HEALTH	FEATURE/ WETLAND SIZE WITHIN THE PROPOSED ROW (Acres)	% AREA OF THE TOTAL ROW	MITIGATION/ CONSTRUCTION METHOD
SW ¼ 27-2-28 WPM	Low area – dry.	Class 1	Poor – No habitat value. Weeds.	0.1	0.07	If wet during time of construction, the area will be bored in conjunction with the road.
SW ¼ 23-2-29 WPM	Low wet area- slough. Adjacent to the ROW.	Class 2	Fair- wetland vegetation present.	N/A – outside ROW.	N/A – outside ROW.	Erosion control, timing restrictions, narrowed down ROW.
NW ¼ 18-2-28WPM	Low wet area. In field drainage.	Class 3	Good – Variety wet meadow vegetation.	0.19	0.14	Bore
NE ¼ 7-2-28WPM	Low wet area Immediately adjacent to ROW.	Class 2	Good – Variety wet meadow vegetation.	N/A – outside ROW.	N/A – outside ROW.	Erosion control, timing restrictions, narrowed down ROW.
SE ¼ 8-2-28WPM	Low, dry area. Cultivated.	Class 1	Poor – does not exhibit any wetland vegetation or wildlife habitat.	0.2	0.15	If wet during time of construction, the area will be bored.
N ½ - SW ¼ 3-2-28WPM	Gainsborough Creek and its respective riparian zone.	-	-	0.19	0.14	Bore
S ½ - SW ¼ 3-2-28WPM	Gainsborough Creek and its respective riparian zone.	-	-	0.01	0.01	Bore

*The wetlands were classified using the Stewart and Kantrud wetland classification system (Stewart, Robert E., and Harold A. Kantrud. 1971. Classification of natural ponds and lakes in the glaciated prairie region. Resource Publication 92, Bureau of Sport Fisheries and Wildlife, U.S. Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center).

3. *Table 5.1.8.1 states “The entire proposed pipeline route is located on cultivated land”. Please confirm that there is no pasture, prairie, wetlands or other natural cover along the pipeline ROW. It would be preferable for the proponent to provide a table outlining the distribution of vegetation communities along the pipeline ROW (cultivated, shrub, wetland, riparian, grasslands etc.). Where native prairie or pasture was not avoidable during the routing selection process, Wildlife Branch will require additional mitigation measures to prevent impacts to these important habitats.*

Response:

An update to Section 5.1.8.1 *Ecosystem Classification* of the Environmental Assessment Report is provided as Table 3.2 below.

TABLE 3.2

DISTRIBUTION OF VEGETATION COMMUNITIES WITHIN CULTIVATED LANDS ALONG THE PROPOSED PIPELINE ROUTE

LOCATION (WPM)	LAND TYPE	AREA (Ac) LAND WITHIN THE ROW	% OF AREA OF THE TOTAL ROW
SW 31-2-29 WPM (buffalo paddock)	Improved pasture – disturbed	<i>Approx. - 7.41</i>	5.42
NW 22-02-29 WPM	Improved pasture – disturbed	2.09	3.78
NE 22-02-29 WPM	Improved pasture – disturbed	4.02	2.94
NW 23-02-29 WPM	Improved pasture – disturbed	0.88	0.65
SW 23-02-29 WPM	Improved pasture – disturbed	4.20	3.07
NE 13-02-29 WPM	Cultivated - hayland	3.98	2.91
SW 3-02-28 WPM Gainsborough Creek	Riparian	0.20	0.15

4. *The survey data for rare and endangered species, in relation to the ROW is not provided. Table 5.5 provides some information but does not provide adequate spatial specific details for the purposes of a regulatory review by the Wildlife Branch. Although it is important to remain cautious about sharing endangered species locations, the Wildlife Branch requests a map of this data for the purposes of conducting a proper regulatory review.*

Response:

Table 5.5 of the EA provides data for potential rare and endangered species that may occur in the area. The ROW was scouted this spring and there was no rare plant species observed at this time. Table 5.6 of the EA provides data for potential wildlife species that may occur in the area. No nests or breeding areas were observed for any of the bird species mentioned in Attachment # 1. Attachment #2 provides individual Environmental Alignment Sheets (sheets 2 through 5) for the Great Plains Toad, the only species named rare and endangered that was located within proximity to the ROW. As indicated in Attachment #2, the Great Plains Toad was observed in the vicinity of the proposed route near or in Sections 18-2-28-WPM (Sheets 2 and 3), 13-2-29-WPM (Sheet 4) and 29-2-29WPM (Sheet 5). Wildlife survey results were limited to visual and/or auditory observations (i.e., for Great Plains Toad) along or in the vicinity of the ROW.

5. *An assessment of the impacts of the project on the Important Bird Area within which the project is located. p.5-11: “The proposed pipeline route is not proximal to any named lakes, Important Bird areas or NAWMP priority areas.” This is an error. This project is being carried out entirely in the Southwestern Manitoba Mixed Grass Prairie - Important Bird Area.*

Response:

The proposed EOG Pierson to MIPL Pipeline Project is located in the extreme southwestern corner

of Manitoba within the Southwestern Manitoba Mixed-grass Prairie Important Bird Area (IBA). This area is characterized by sandy soils, extensive rangeland and remnants of mixed grass prairie. The majority of the area is or has been cultivated. This area includes Poverty Plains, Lyleton-Pierson Prairies and the Souris River Lowlands. Grassland complexes in these areas account for a large proportion of Manitoba's overall nesting populations of grassland birds including species at risk such as Ferruginous hawk, burrowing owl, loggerhead shrike, Baird's sparrow and Sprague's pipit.

Routing of the proposed pipeline was selected to avoid native grassland and semi-permanent wetlands. These areas are utilized as nesting areas for a wide variety of birds. The proposed route will cross 45.97 ha (83.05% of the total ROW) cultivated land, 7.53 ha (13.60% of the total ROW) improved pasture land and 1.85 ha (3.34% of the total ROW) of wetland/riparian areas. No Wildlife Management Areas (WMAs) or Conservation easements lands will be crossed by the proposed pipeline route. Wildlife and bird surveys conducted along the proposed pipeline route in the spring of 2011 and June 19, 20 and 26, 2013 indicated no conflicts with breeding or nesting of rare or endangered bird species.

Potential effects to grassland birds and their habitat will be mitigated primarily by avoidance of grassland and wetland areas. Further, construction activities will occur outside the sensitive breeding window for most species (May 15 to July 15). Construction methods that minimize disturbance will be used; techniques where stripping will be limited to the ditchline and boring of wetland/riparian areas. Also, pipeline construction at road crossings will be bored so that disturbance to remnant roadside habitats will be avoided.

Given the pipeline route does not cross native habitat important to the grassland birds in the Southwestern Manitoba Mixed-grass Prairie IBA, the proposed construction schedule outside of the breeding bird window, and proposed construction and reclamation measures to minimize surface disturbance, potential effects to the Southwestern Manitoba Mixed-grass Prairie IBA as a result of the project will be minimal, of short duration and mitigable.

6. *Given the known occurrences of nesting endangered bird species in the vicinity of the pipeline route, it may be required that the construction phase of this project be restricted between May 1st through August 15th. This is a critical time of year for many endangered bird species. These requirements are, in part, derived from the guidebook: Petroleum Industry Activity Guidelines for Wildlife Species at Risk in the Prairie and Northern Region (2009), as developed by Environment Canada.*

Response:

EOG recognizes the importance of the nesting for endangered bird species in this area and is committed to any restrictions put forth by Environment Canada.

Should you have any questions or further information, please contact the undersigned by email at kwmScott@shaw.ca or by telephone at (403) 870-3285.

Sincerely,
KELLY WM SCOTT & ASSOCIATES

A handwritten signature in blue ink that reads "Carrie Courser".

for KELLY SCOTT, Ph. D., P. Biol.

Enclosures – 2 - Attachments

Attachment 1

Attachment 1 provides a table outlining Manitoba Conservation Data Centre search results.

Note: The information provided is considered current as of June 2013.

Scientific Name

Lanius ludovicianus excubitorides
 Calcarius ornatus
 Ammodramus savannarum
 Athene cunicularia
 Anthus spragueii
 Ammodramus bairdii
 Anaxyrus cognatus

Common Name

Loggerhead Shrike
 Chestnut-collared Longspur
 Grasshopper Sparrow
 Burrowing Owl
 Sprague's Pipit
 Baird's Sparrow
 Great Plains Toad

Common Name	S rank	ESA	SARA	COSEWIC	NW 28-02-29W	SW 27-02-29W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	SE 28-02-29W	NW 22-02-29W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		X
Grasshopper Sparrow	S2					X
Burrowing Owl	S1	Endangered	Endangered	Endangered		X
Sprague's Pipit	S2	Threatened	Threatened	Threatened		X
Baird's Sparrow	S1	Endangered		Special Concern		X
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	NE 22-02-29W	NW 23-02-29W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		X
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern	X	
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	SW 23-02-29W	SE 23-02-29W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened		
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened	X	
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered	X	
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern	X	
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		X

Common Name	S rank	ESA	SARA	COSEWIC	NE 15-29-02W	NE 14-02-29W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened		
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern	X	X
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		X

Common Name	S rank	ESA	SARA	COSEWIC	NW 13-02-29W	SW 13-02-29W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened		
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		X
Grasshopper Sparrow	S2					X
Burrowing Owl	S1	Endangered	Endangered	Endangered		X
Sprague's Pipit	S2	Threatened	Threatened	Threatened		X
Baird's Sparrow	S1	Endangered		Special Concern	X	X
Great Plains Toad	S2	Threatened	Special Concern	Special Concern	X	

Common Name	S rank	ESA	SARA	COSEWIC	SE 13-02-29W	NE 07-02-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened		X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2				X	
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened	X	
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	SW 17-02-28W	NW 08-02-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	SW 17-02-28W	NW 08-02-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	NW 05-02-28W	NE 05-02-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	SE 09-02-28W	NE 34-01-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		X
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	SW 02-02-28W	SE 02-02-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened	X	X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2					
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened		
Baird's Sparrow	S1	Endangered		Special Concern		
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Common Name	S rank	ESA	SARA	COSEWIC	NW 35-01-28W	NW 36-01-28W
Loggerhead Shrike	S2	Endangered	Threatened	Threatened		X
Chestnut-collared Longs	S1S2	Endangered	Threatened	Threatened		
Grasshopper Sparrow	S2				X	
Burrowing Owl	S1	Endangered	Endangered	Endangered		
Sprague's Pipit	S2	Threatened	Threatened	Threatened	X	
Baird's Sparrow	S1	Endangered		Special Concern	X	
Great Plains Toad	S2	Threatened	Special Concern	Special Concern		

Attachment 2

Attachment 2 provides - *o* outlining: a) the occurrences of identified rare and endangered species along the pipeline right of way (ROW).

Note the shapefiles are not included in this document but can be provided in electronic (digital) form upon request.

Environmental Alignment Sheets



Plan Showing
ALIGNMENT SHEET SHOWING ENVIRONMENTAL FEATURES
 S. 1/2 Sec. 18-2-28-W.1M.
SHEET 2

R.M. of EDWARD MANITOBA

LEGEND

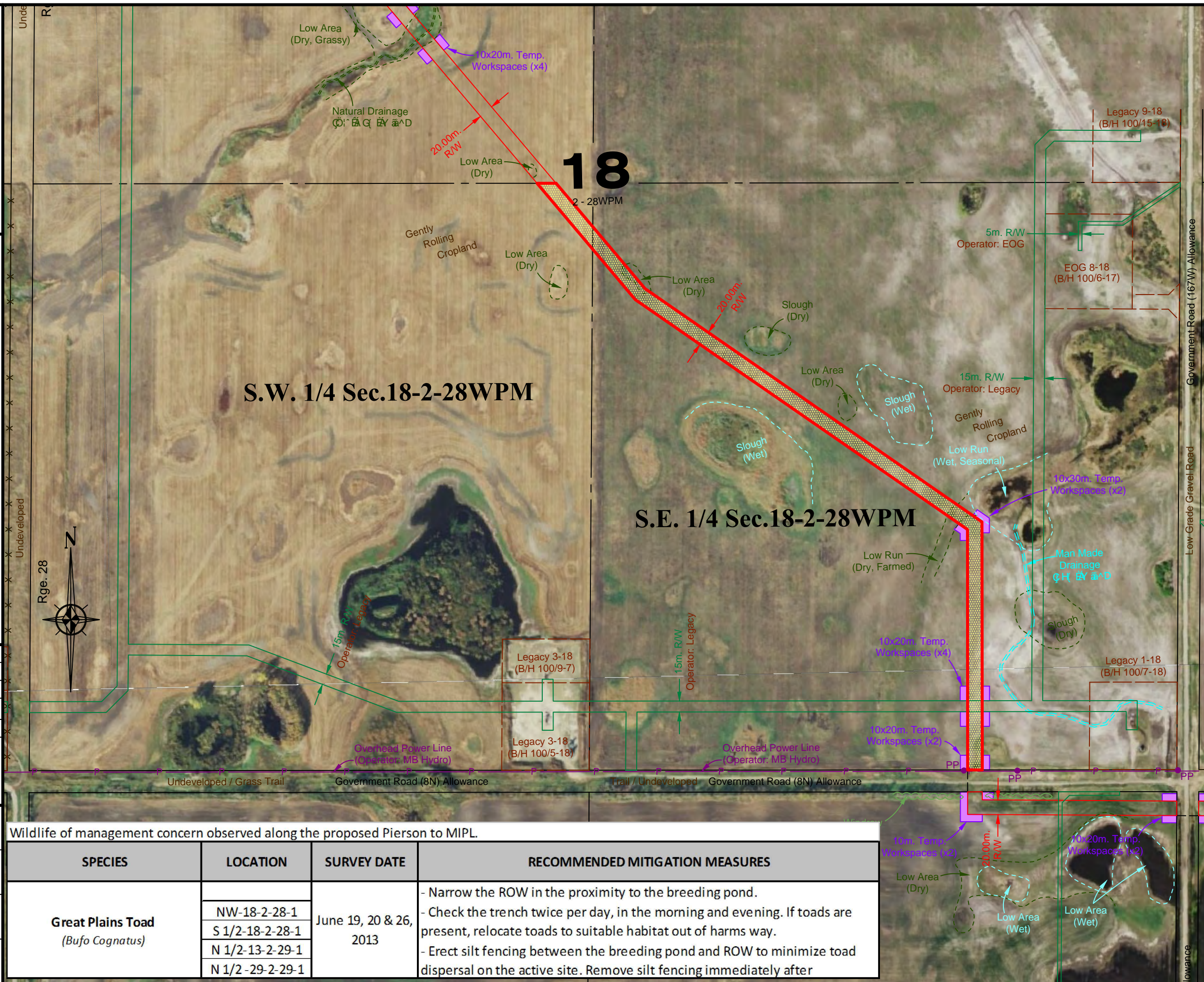
- Proposed Route:
- Featured Area of Proposed Route:
- Temporary Workspace:
- Existing Pipeline Right-of-Ways:
- Existing Wells and Access Roads:
- Native Grass Area:
- Bush:
- Low Areas (Dry):
- Low Areas (Wet):
- Buried Cable:
- Buried Water Line:
- Buried Pipe:
- Buried Power:
- Power Line:
- Easement:
- Bank:
- Fence:
- Body of Water:

0.	Issued	SB	July 10, 2013
NO.	REVISION	BY	DATE

Acad File: Env_Areas_Alignment_Sheets-West Portion Job No.: 129402-C



ENVIRONMENTAL PROTECTION	LAND TYPE	Cultivated
	AREA OF PIPELINE WITHIN FEATURED PORTION	2.185 ha (5.40 ac.)
	TOTAL AREA OF PIPELINE	55.329 ha (136.72 ac.)
	PERCENTAGE OF TOTAL AREA WITHIN FEATURED PORTION	3.95%



Wildlife of management concern observed along the proposed Pierson to MIPL.

SPECIES	LOCATION	SURVEY DATE	RECOMMENDED MITIGATION MEASURES
Great Plains Toad <i>(Bufo Cognatus)</i>	NW-18-2-28-1	June 19, 20 & 26, 2013	<ul style="list-style-type: none"> - Narrow the ROW in the proximity to the breeding pond. - Check the trench twice per day, in the morning and evening. If toads are present, relocate toads to suitable habitat out of harms way. - Erect silt fencing between the breeding pond and ROW to minimize toad dispersal on the active site. Remove silt fencing immediately after
	S 1/2-18-2-28-1		
	N 1/2-13-2-29-1		
	N 1/2 -29-2-29-1		



Plan Showing
ALIGNMENT SHEET SHOWING ENVIRONMENTAL FEATURES
 N.W. Sec. 18-2-28-W.1M.
SHEET 3

R.M. of EDWARD MANITOBA

LEGEND

- Proposed Route: - - - - -
- Featured Area of Proposed Route: - - - - -
- Temporary Workspace: - - - - -
- Existing Pipeline Right-of-Ways: - - - - -
- Existing Wells and Access Roads: - - - - -
- Native Grass Area: - - - - -
- Bush: - - - - -
- Low Areas (Dry): - - - - -
- Low Areas (Wet): - - - - -
- Buried Cable: - - - - - C
- Buried Water Line: - - - - - W-W
- Buried Pipe: - - - - -
- Buried Power: - - - - - PB
- Power Line: - - - - - P
- Easement: - - - - -
- Bank: - - - - -
- Fence: - - - - - X-X
- Body of Water: - - - - -

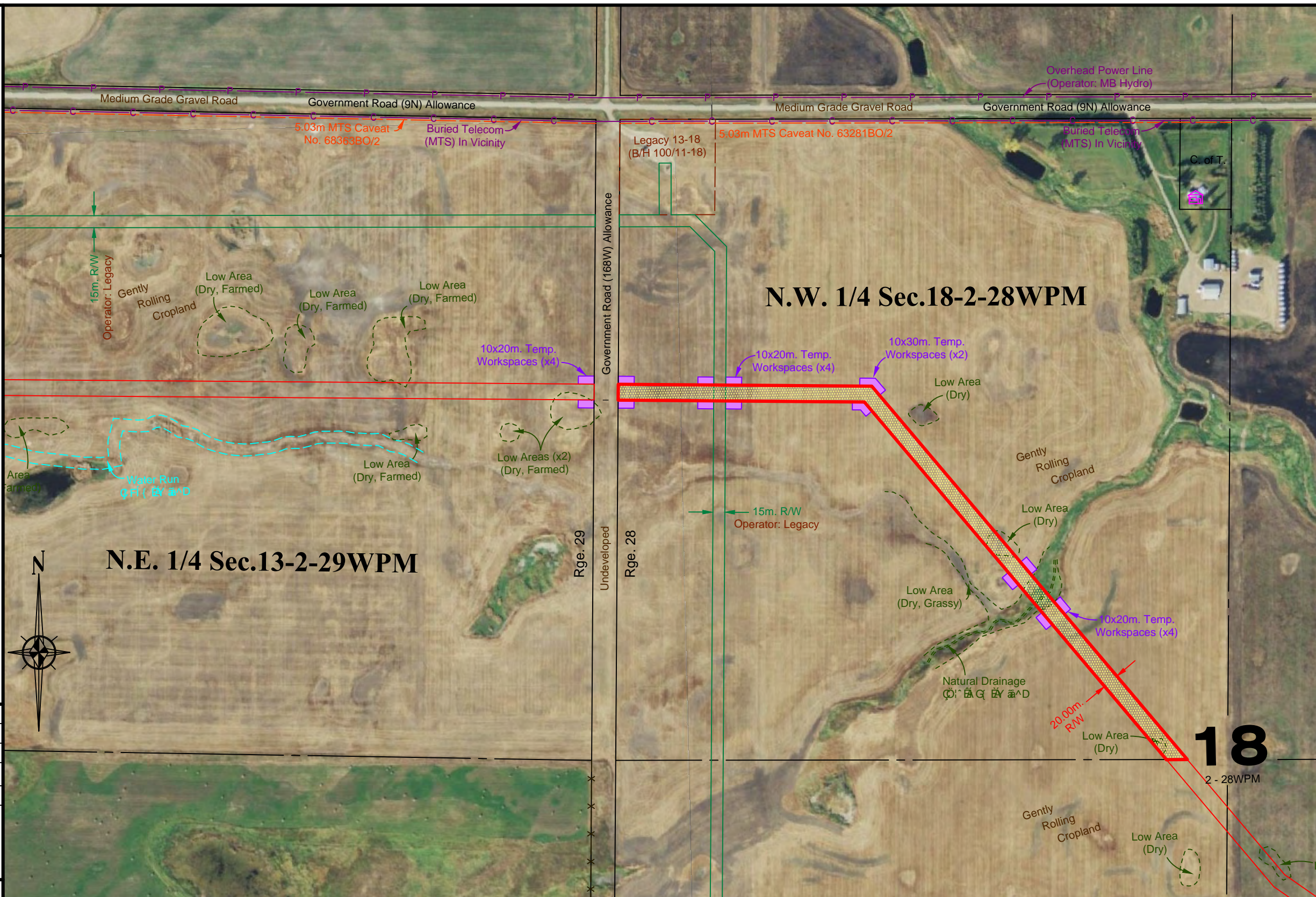
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0.	Issued	SB	July 10, 2013
NO.	REVISION	BY	DATE

Acad File: Env_Areas_Alignment_Sheets-West Portion Job No.: 129402-C



Toll Free: 1-800-465-6233
 www.altusgeomatics.com

ENVIRONMENTAL PROTECTION	LAND TYPE	Cultivated
	AREA OF PIPELINE WITHIN FEATURED PORTION	1.829 ha (4.52 ac.)
	TOTAL AREA OF PIPELINE	55.329 ha (136.72 ac.)
	PERCENTAGE OF TOTAL AREA WITHIN FEATURED PORTION	3.31%



18
2 - 28WPM

Wildlife of management concern observed along the proposed Pierson to MIPL.

SPECIES	LOCATION	SURVEY DATE	RECOMMENDED MITIGATION MEASURES
Great Plains Toad <i>(Bufo Cognatus)</i>	NW-18-2-28-1	June 19, 20 & 26, 2013	<ul style="list-style-type: none"> - Narrow the ROW in the proximity to the breeding pond. - Check the trench twice per day, in the morning and evening. If toads are present, relocate toads to suitable habitat out of harms way. - Erect silt fencing between the breeding pond and ROW to minimize toad dispersal on the active site. Remove silt fencing immediately after
	S 1/2-18-2-28-1		
	N 1/2-13-2-29-1		
	N 1/2 -29-2-29-1		

Sec.18-2-28WPM



Plan Showing
ALIGNMENT SHEET SHOWING ENVIRONMENTAL FEATURES

N. 1/2 Sec. 13-2-29-W.1M.

SHEET 4

R.M. of EDWARD

MANITOBA

LEGEND

- Proposed Route: -----
- Featured Area of Proposed Route: -----
- Temporary Workspace: -----
- Existing Pipeline Right-of-Ways: -----
- Existing Wells and Access Roads: -----
- Native Grass Area: -----
- Bush: -----
- Low Areas (Dry): -----
- Low Areas (Wet): -----
- Buried Cable: -----
- Buried Water Line: -----
- Buried Pipe: -----
- Buried Power: -----
- Power Line: -----
- Easement: -----
- Bank: -----
- Fence: -----
- Body of Water: -----

0.	Issued	SB	July 10, 2013
NO.	REVISION	BY	DATE

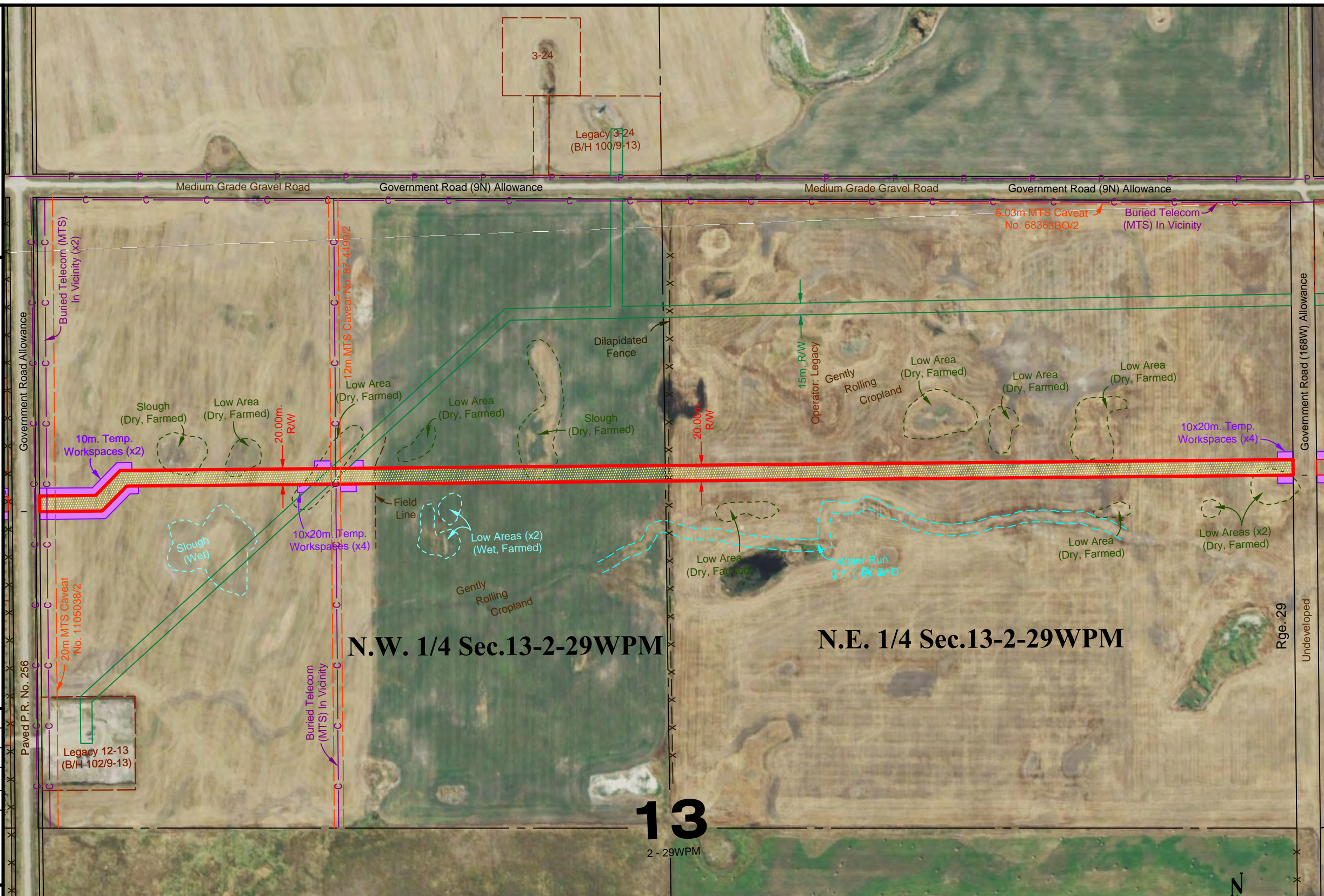
Acad File: Env_Areas_Alignment_Sheets-West Portion Job No.: 129402-C



Toll Free: 1-800-465-6233
 www.altusgeomatics.com

ENVIRONMENTAL PROTECTION

LAND TYPE	Cultivated
AREA OF PIPELINE WITHIN FEATURED PORTION	3.240 ha (8.01 ac.)
TOTAL AREA OF PIPELINE	55.329 ha (136.72 ac.)
PERCENTAGE OF TOTAL AREA WITHIN FEATURED PORTION	5.86%



Wildlife of management concern observed along the proposed Pierson to MIPL.

SPECIES	LOCATION	SURVEY DATE	RECOMMENDED MITIGATION MEASURES
Great Plains Toad <i>(Bufo Cognatus)</i>	NW-18-2-28-1	June 19, 20 & 26, 2013	<ul style="list-style-type: none"> - Narrow the ROW in the proximity to the breeding pond. - Check the trench twice per day, in the morning and evening. If toads are present, relocate toads to suitable habitat out of harms way. - Erect silt fencing between the breeding pond and ROW to minimize toad dispersal on the active site. Remove silt fencing immediately after
	S 1/2-18-2-28-1		
	N 1/2-13-2-29-1		
	N 1/2-29-2-29-1		



Plan Showing
ALIGNMENT SHEET SHOWING ENVIRONMENTAL FEATURES

N. 1/2 Sec. 29-2-29-W.1M.

SHEET 5

R.M. of EDWARD MANITOBA

LEGEND

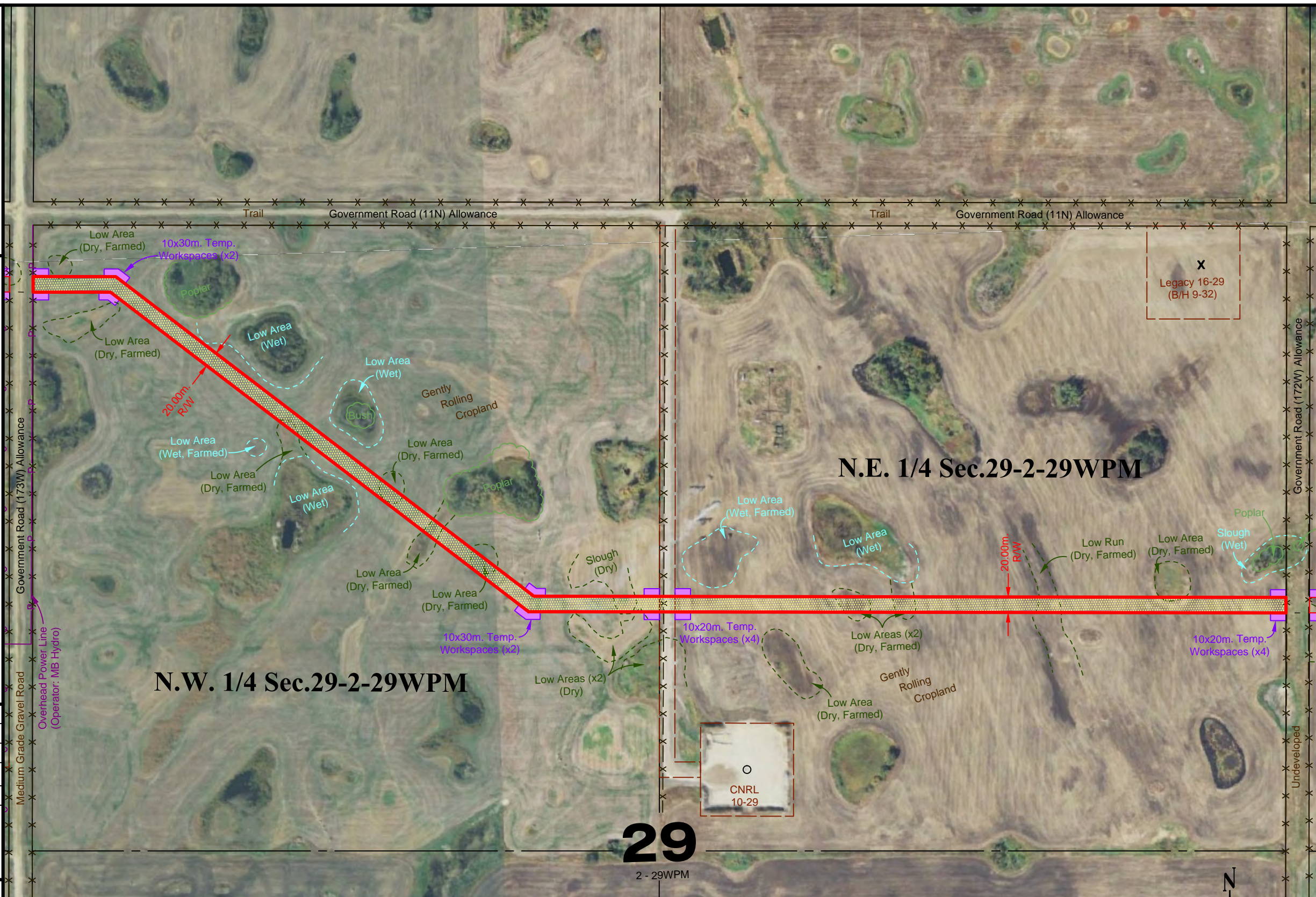
Proposed Route: - - - - -	
Featured Area of Proposed Route: - - - - -	
Temporary Workspace: - - - - -	
Existing Pipeline Right-of-Ways: - - - - -	
Existing Wells and Access Roads: - - - - -	
Native Grass Area: - - - - -	
Bush: - - - - -	
Low Areas (Dry): - - - - -	
Low Areas (Wet): - - - - -	
Buried Cable: - - - - -	
Buried Water Line: - - - - -	
Buried Pipe: - - - - -	
Buried Power: - - - - -	
Power Line: - - - - -	
Easement: - - - - -	
Bank: - - - - -	
Fence: - - - - -	
Body of Water: - - - - -	

-			
0.	Issued	SB	July 10, 2013
NO.	REVISION	BY	DATE

Acad File: Env_Areas_Alignment_Sheets-West Portion Job No.: 129402-C

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ENVIRONMENTAL PROTECTION	LAND TYPE	Cultivated
	AREA OF PIPELINE WITHIN FEATURED PORTION	3.511 ha (8.68 ac.)
	TOTAL AREA OF PIPELINE	55.329 ha (136.72 ac.)
	PERCENTAGE OF TOTAL AREA WITHIN FEATURED PORTION	6.34%



Wildlife of management concern observed along the proposed Pierson to MIPL.

SPECIES	LOCATION	SURVEY DATE	RECOMMENDED MITIGATION MEASURES
Great Plains Toad <i>(Bufo Cognatus)</i>	NW-18-2-28-1	June 19, 20 & 26, 2013	<ul style="list-style-type: none"> - Narrow the ROW in the proximity to the breeding pond. - Check the trench twice per day, in the morning and evening. If toads are present, relocate toads to suitable habitat out of harms way. - Erect silt fencing between the breeding pond and ROW to minimize toad dispersal on the active site. Remove silt fencing immediately after
	S 1/2-18-2-28-1		
	N 1/2-13-2-29-1		
	N 1/2 -29-2-29-1		