



Manitoba's Designated Oil Fields & Pools 2013

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Manitoba Innovation Energy & Mines
Manitoba Petroleum Branch

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Fulton-Regula, P.J. 2013: Manitoba's Designated Oil Fields and Pools 2012 (NTS 62F/1-3, 6-11, 14-16; 62K/1-3, 6-8); Manitoba Innovation, Energy and Mines, Manitoba Petroleum Branch.

NTS grid: NTS 62F/1-3, 6-11, 14-16; 62K/1-3, 6-8

Keywords: Manitoba; Oil; Pools; Fields; Daly; Sinclair; Daly Sinclair; Tilston; Waskada; Lulu Lake; Virden; Whitewater; Pierson; Kirkella; Souris Hartney; Regent; Mountainside; Birdtail; Manson; Other Areas; Favel; Melita; Lower Amaranth; Mission Canyon; Lodgepole; Bakken; Bakken-Three Forks; Three Forks.

Published by:

Manitoba Innovation Energy & Mines

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FOREWORD

This annual report was compiled by P. Fulton-Regula, M.Sc., P.Geo. for the Director of the Petroleum Branch in accordance with section 11(4) of The Oil & Gas Act. This order does not include previously designated fields and pools that have been amalgamated or reassigned.

This report details the boundaries of the known oil fields and pools in Manitoba on January 1st 2013. It states the names and numerical codes used in the Manitoba Oil and Gas Information System to track the area and stratigraphic interval producing oil. Further information pertaining to the history of field or pool designations may be obtained by contacting the Petroleum Branch.

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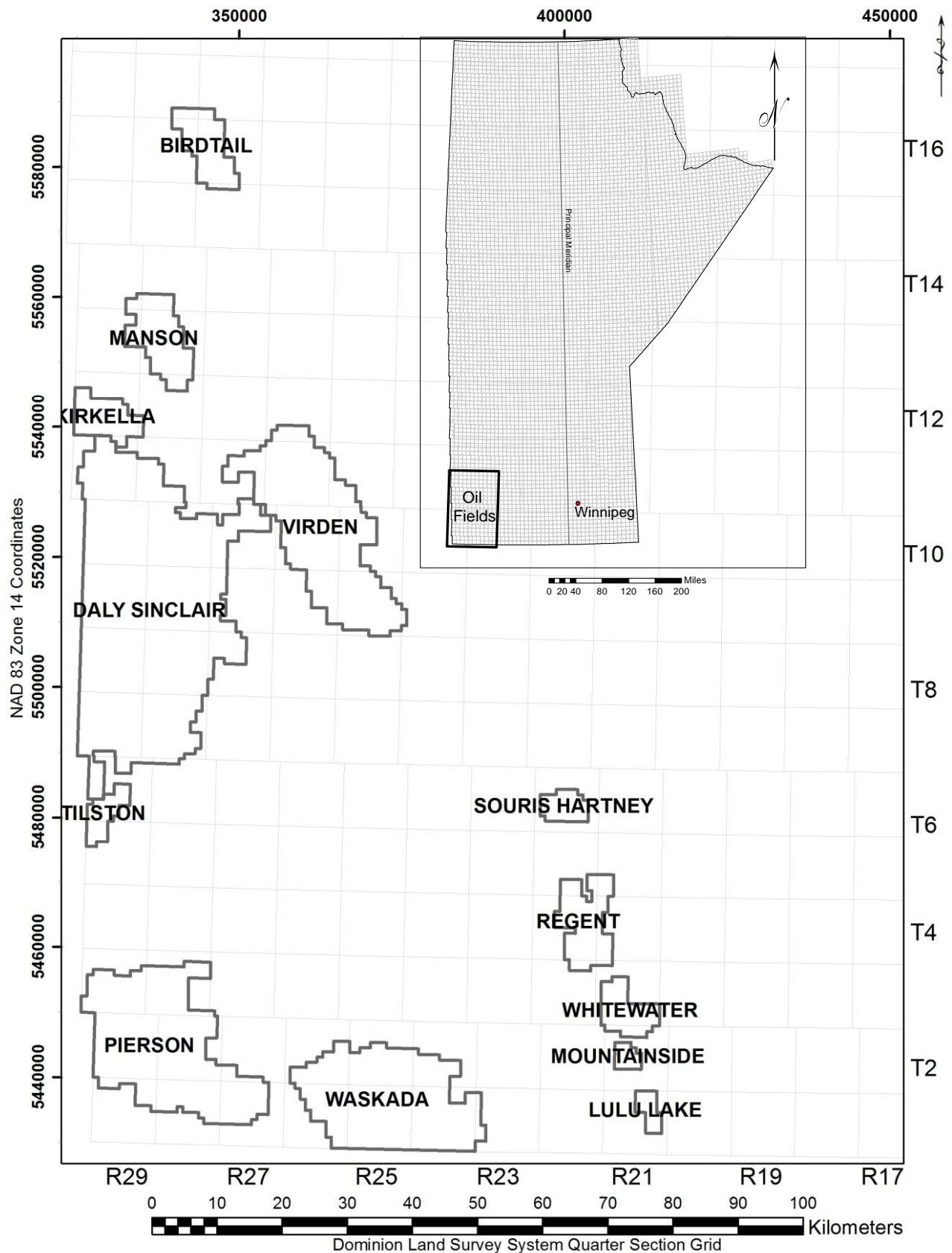


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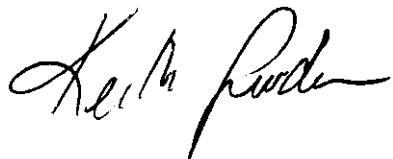
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MANITOBA'S DESIGNATED FIELDS

Effective **January 1, 2013**, the following Fields are designated under clause 11(4)(b) of The Oil and Gas Act.

The area encompassed by each Field is outlined on the reference plats listed on pages 10 to 19. All Fields and Pools are drawn on the Dominion Land Survey System Grid, a description of which can be found on page 64.



Keith Lowdon, Director

FIELD	CODE	PLAT
Daly Sinclair Field	01	p. 10
Tilston Field	02	p. 11
Waskada Field	03	p. 12
Lulu Lake Field	04	p. 13
Virden Field	05	p. 14
Whitewater Field	06	p. 13
Pierson Field	07	p. 15
Kirkella Field	09	p. 16
Souris Hartney Field	10	p. 17
Regent Field	13	p. 17
Mountainside Field	14	p. 13
Birdtail Field	15	p. 18
Manson Field	17	p. 19

**MANITOBA'S DESIGNATED FIELDS
(FIELD PLATS)**

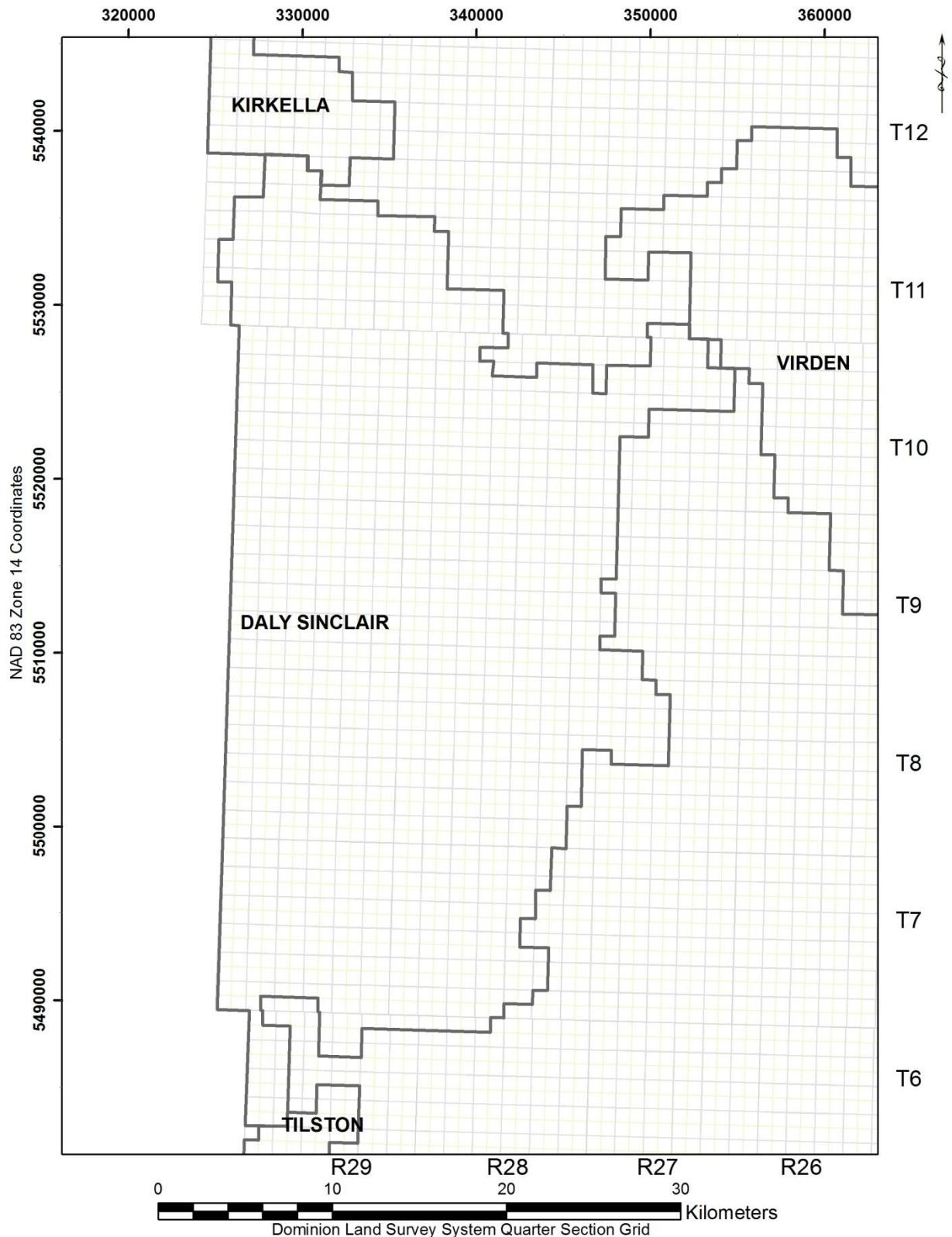


Figure 2 - Daly Sinclair Field (01)

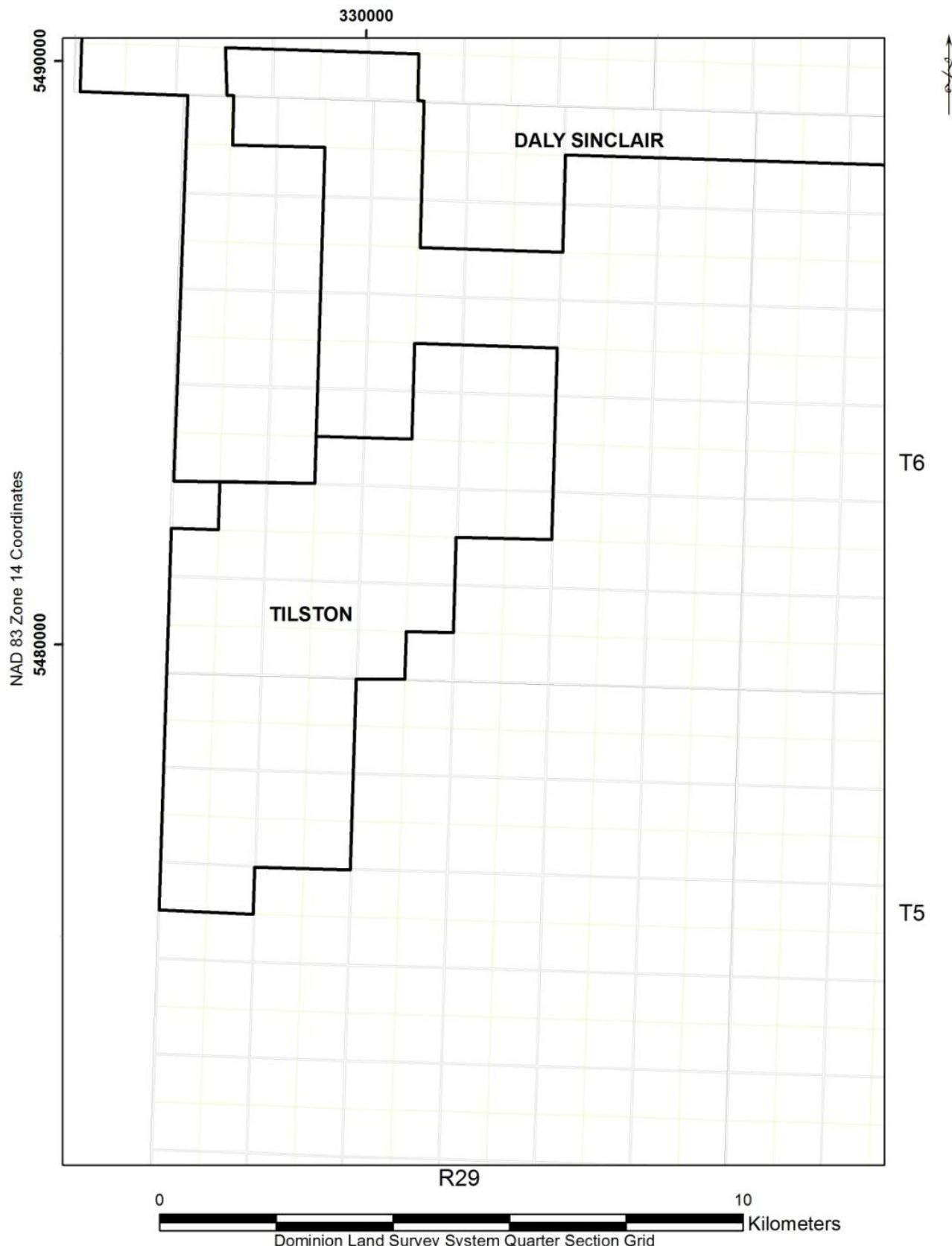


Figure 3 - Tilston Field (02)

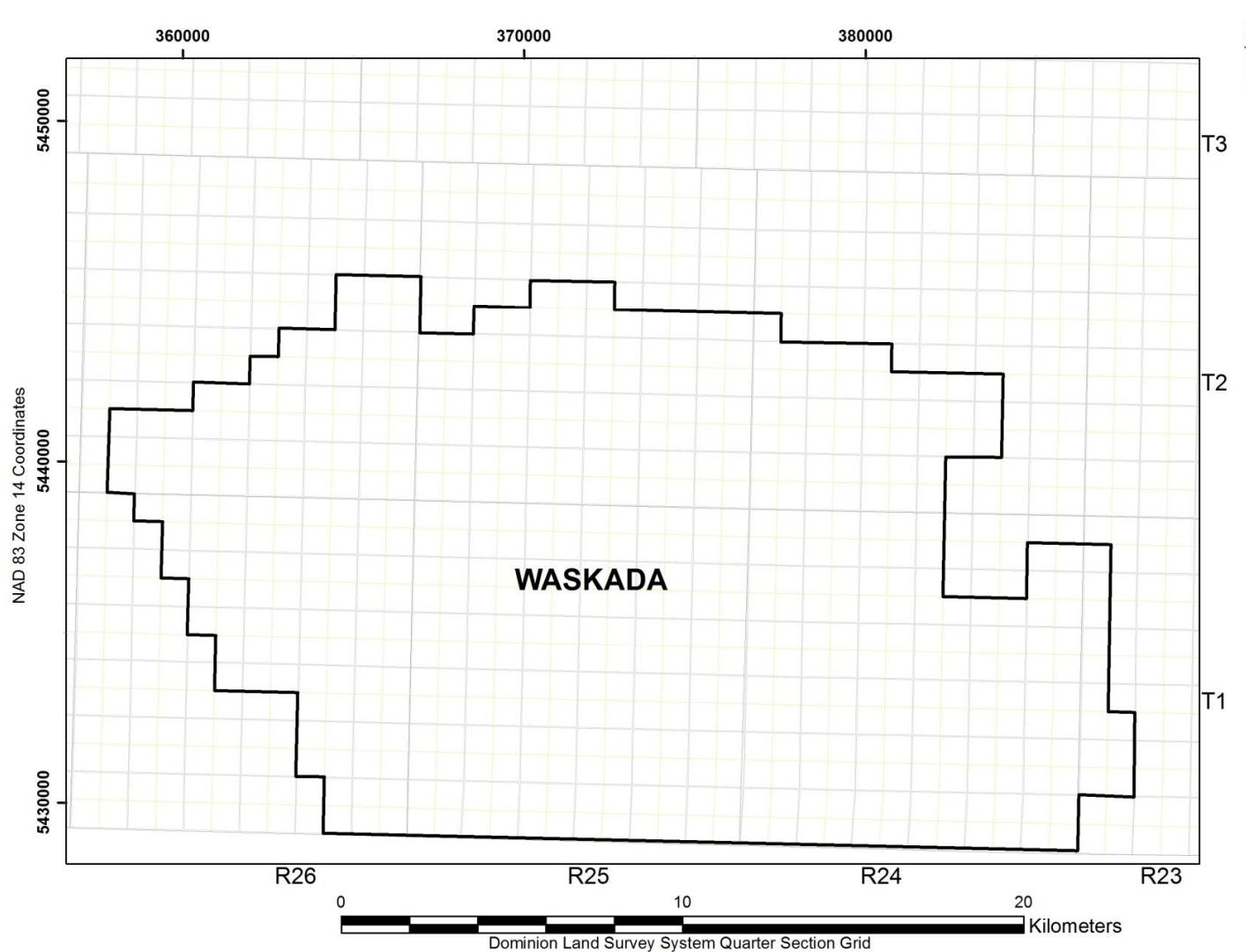


Figure 4 - Waskada Field (03)

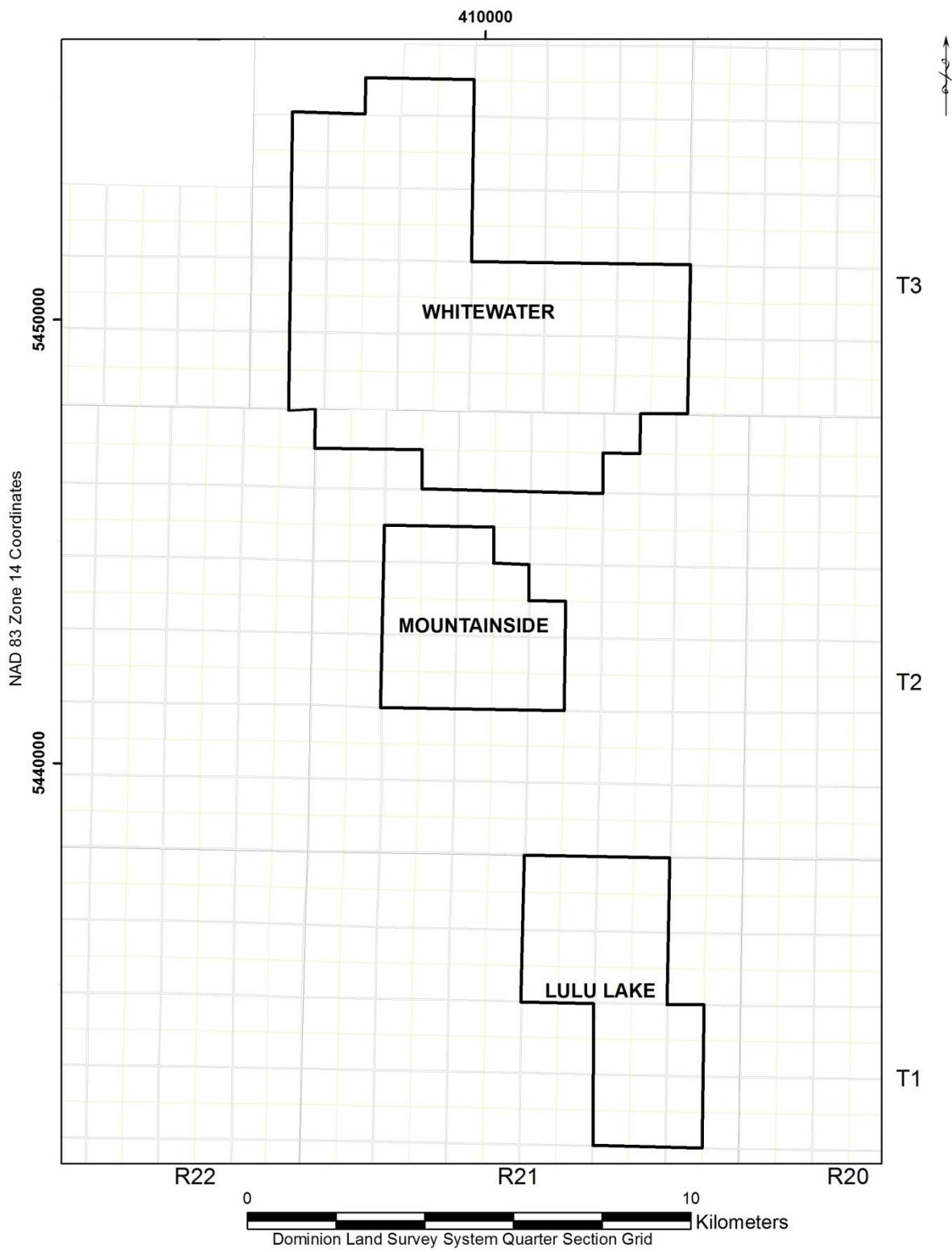


Figure 5 - Whitewater (06), Mountainside (14) And Lulu Lake (04) Fields

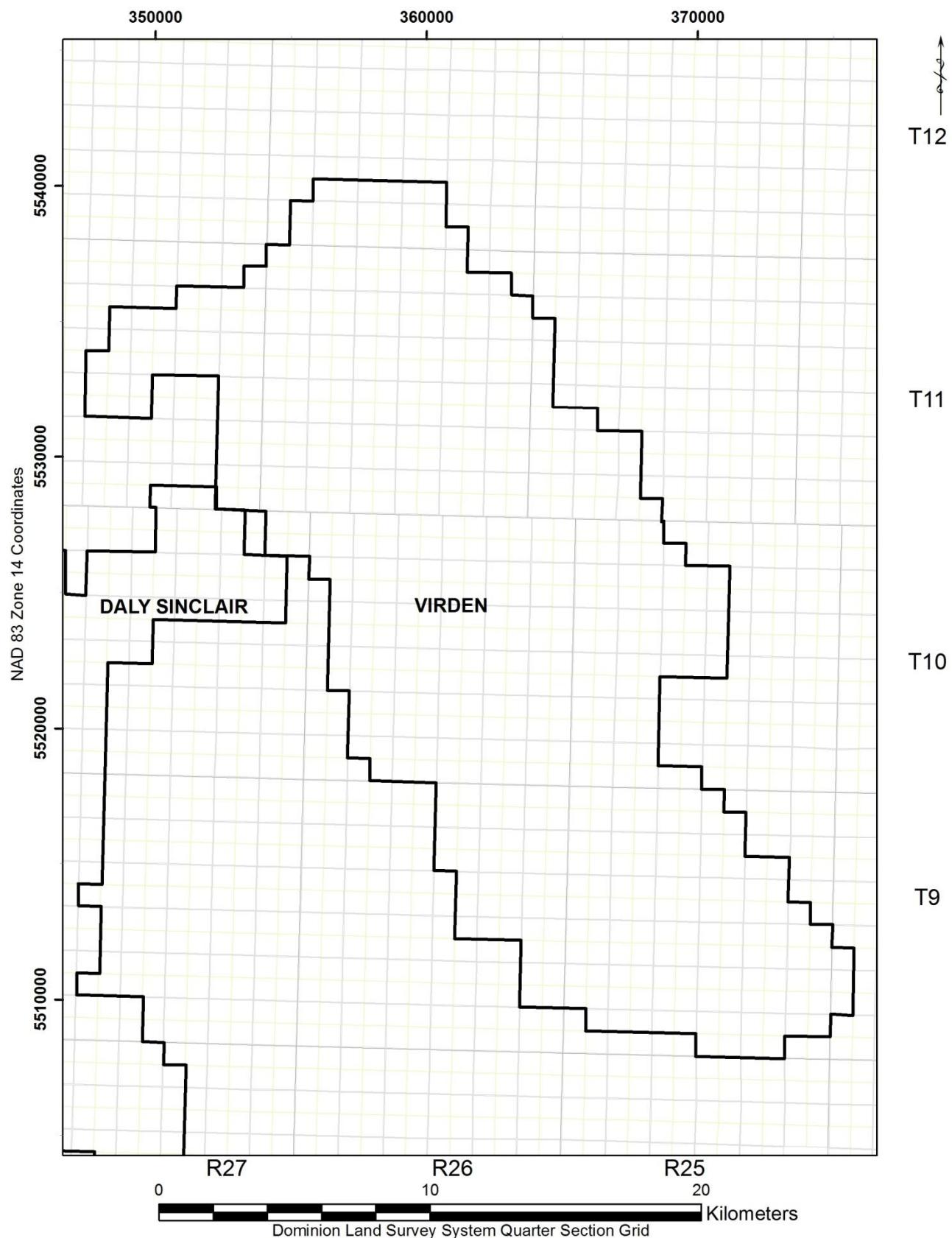


Figure 6 - Virden Field (05)

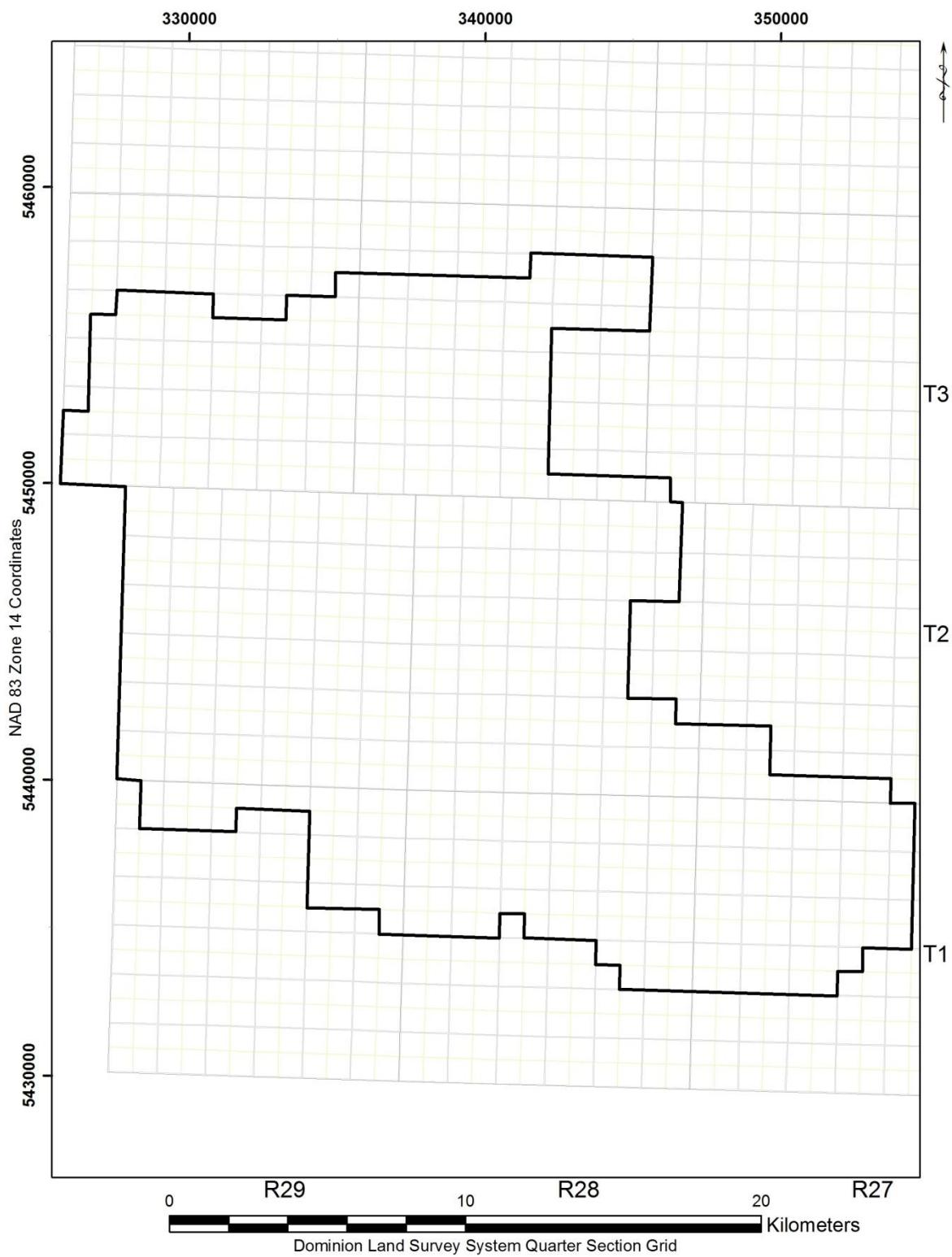


Figure 7 - Pierson Field (07)

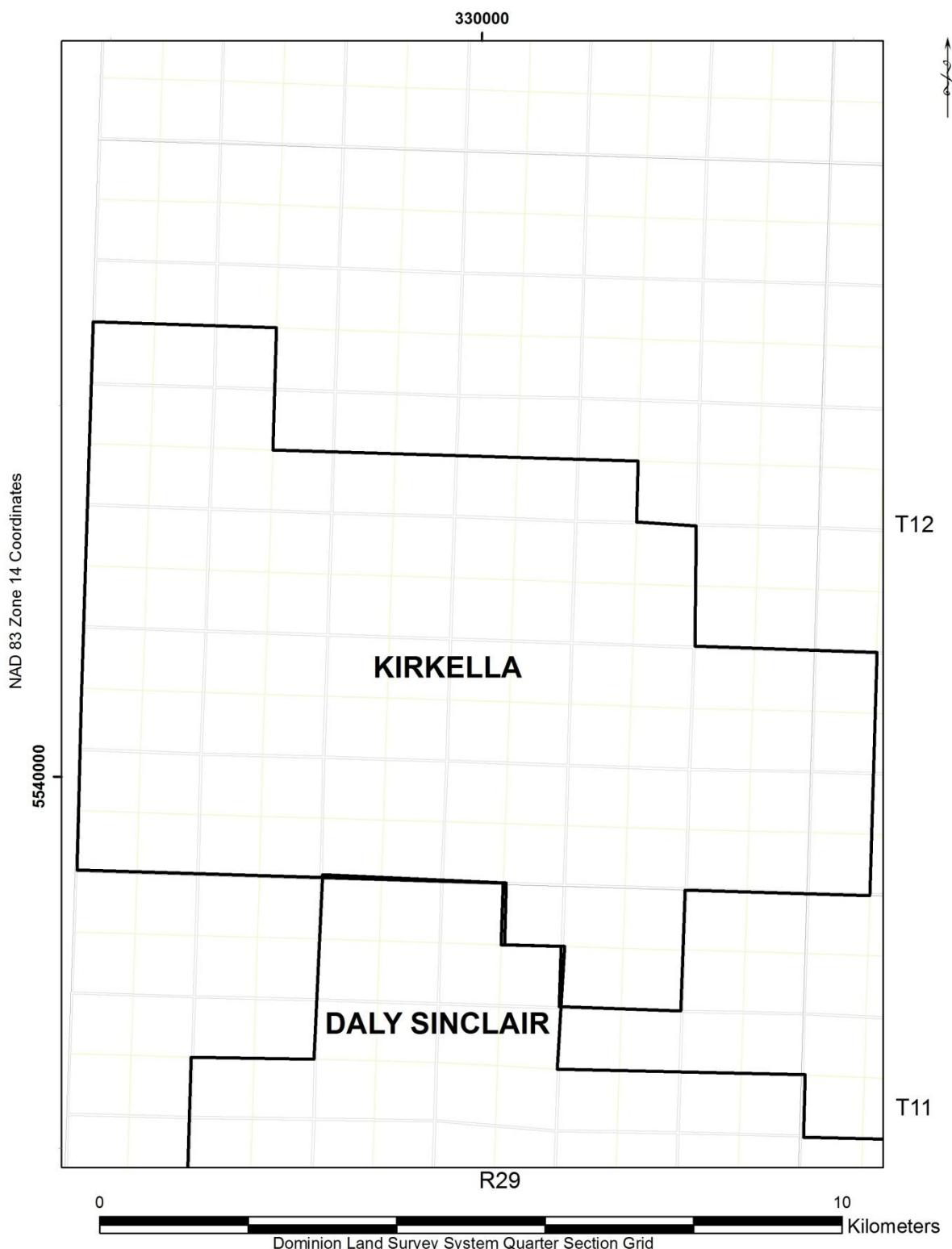


Figure 8 - Kirkella Field (09)

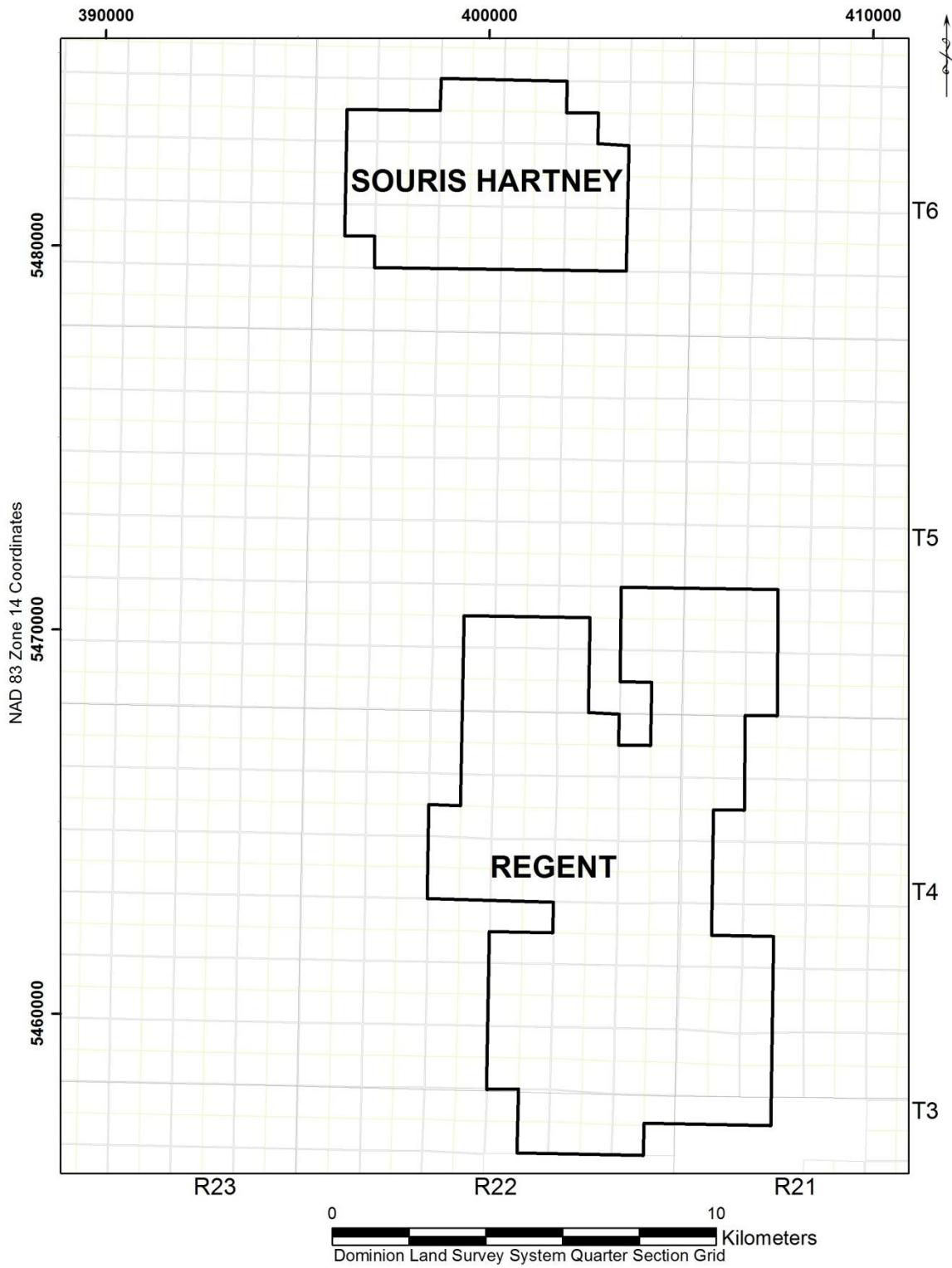


Figure 9 - Souris Hartney (10) and Regent Fields (13)

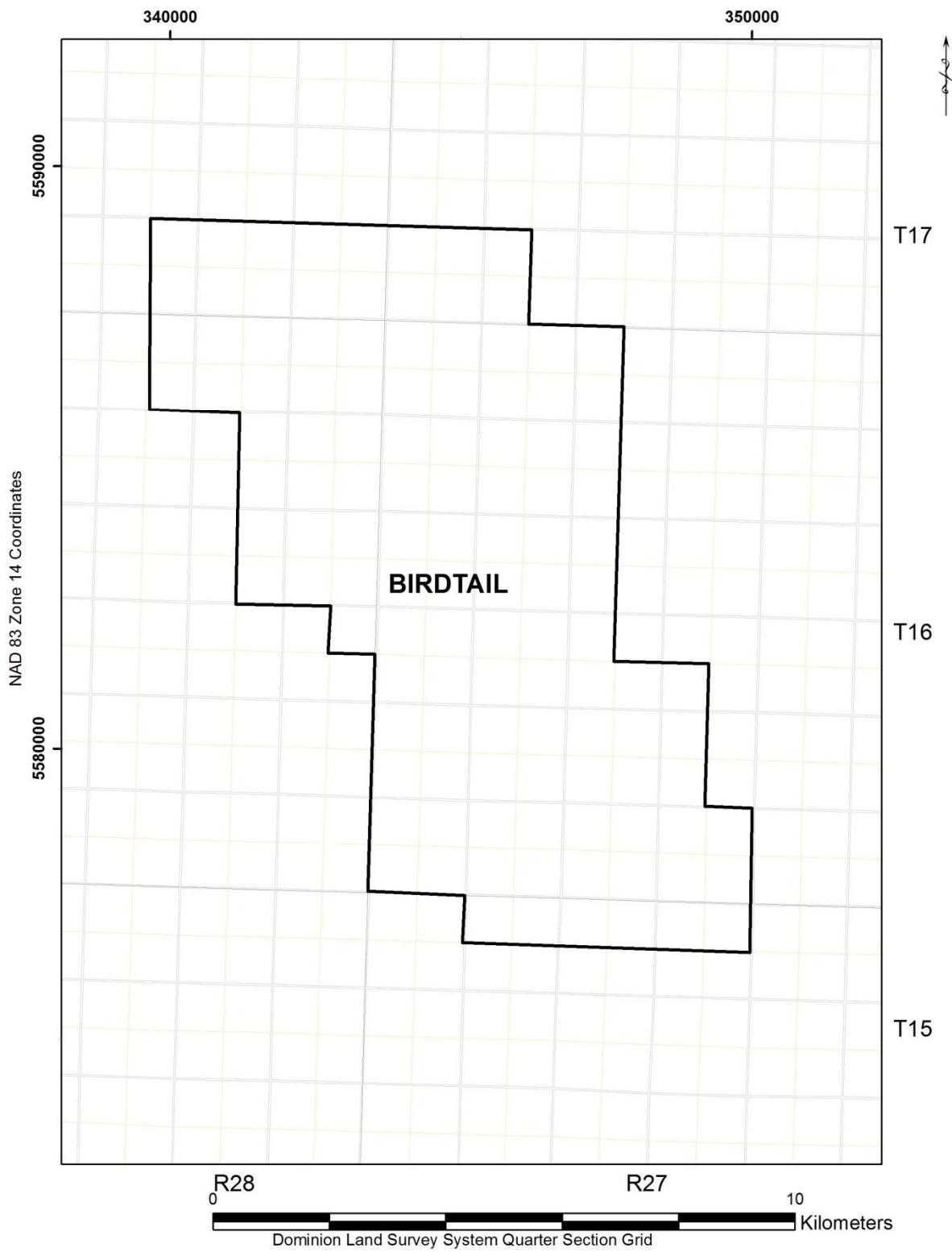


Figure 10 – Birdtail Field (15)

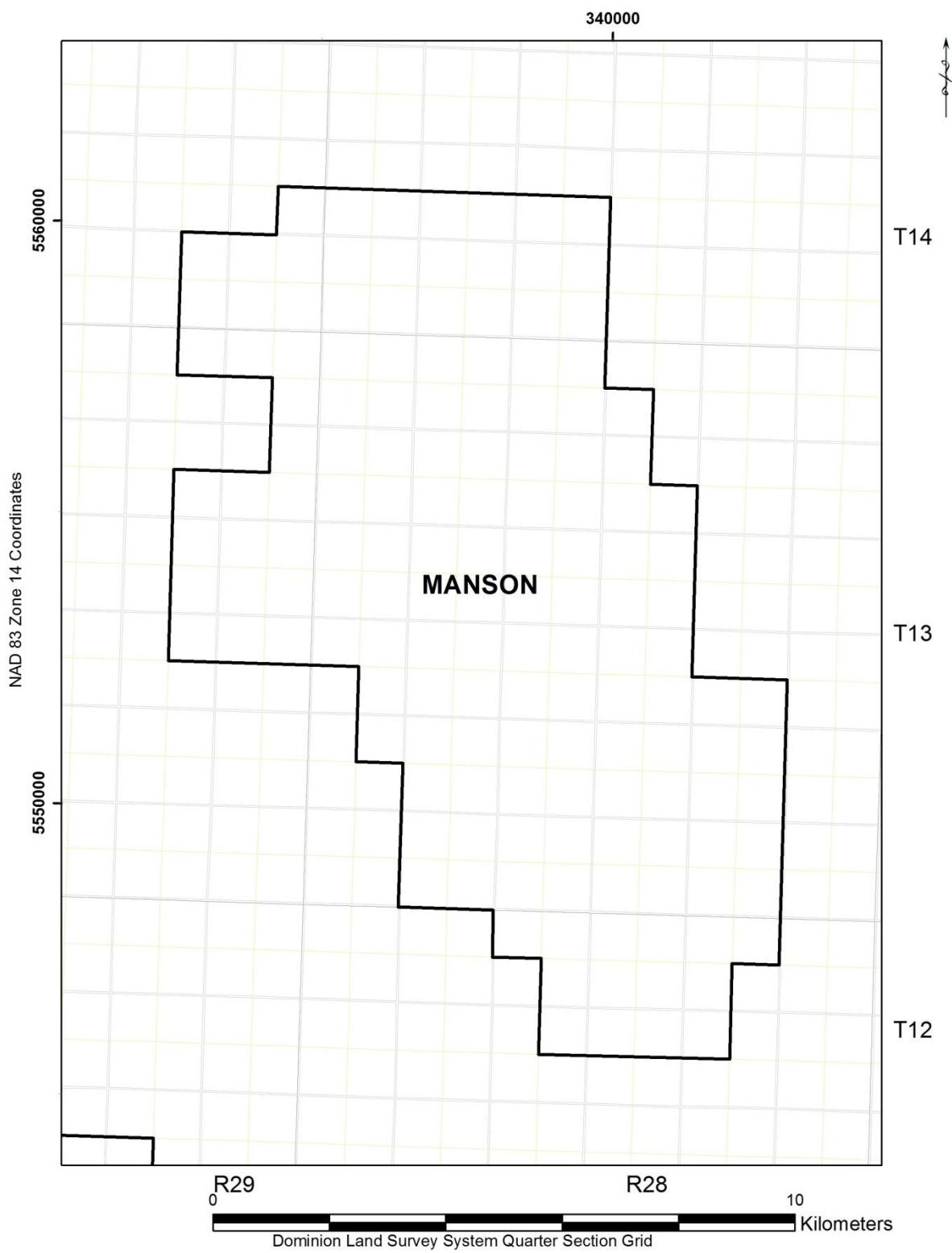
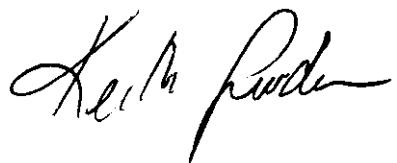


Figure 11 - Manson Field (17)

MANITOBA'S DESIGNATED POOLS

Effective **January 1, 2013** the following Pools are designated under clause 11(4)(a) of the Oil and Gas Act.

The area encompassed by each Pool and stratigraphic interval is described herein, or outlined on the reference plats listed on pages 28 to 63.

A handwritten signature in black ink, appearing to read "Keith Lowdon".

Keith Lowdon, Director

MANITOBA'S DESIGNATED POOLS

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
DALY SINCLAIR FIELD				
Lodgepole A	01 59A	29	100/14-04-010-28W1/00	725.4-821.4
Lodgepole B	01 59B	29	100/13-14-009-28W1/00	736.4-832.7
Lodgepole C	01 59C	29	100/03-33-008-27W1/00	736.7-837.0
Lodgepole D	01 59D	29	100/07-26-009-29W1/00	783.3-883.3
Lodgepole E	01 59E	29	100/13-21-010-28W1/00	718.5-802.2
Lodgepole I	01 59I	29	100/05-07-010-29W1/00	822.0-865.0
Lodgepole K	01 59K	29	100/08-30-010-29W1/00	788.0-877.5
Lodgepole P	01 59P	29	100/03-27-010-29W1/00	769.0-853.2
Lodgepole S	01 59S	29	100/15-12-009-29W1/00	816-819
Lodgepole T	01 59T	29	100/08-17-010-29W1/00	808.0-813.0
Lodgepole W	01 59W	29	100/10-18-007-29W1/00	927.5-932.5
Lodgepole X	01 59X	29	100/02-21-007-28W1/00	
Lodgepole Y	01 59Y	29	100/03-03-009-29W1/00	822.5-825.5
Lodgepole Z	01 59Z	29	100/16-35-008-29W1/00	812.0-880.0
Lodgepole AA	01 59AA	29	100/06-15-008-28W1/00	778.0-888.0
Lodgepole BB	01 59BB	29	100/15-17-008-28W1/00	793.0-903.0
Lodgepole CC	01 59CC	29	100/12-05-009-29W1/00	839.0-951.0
Lodgepole DD	01 59DD	29	100/06-33-008-28W1/00	769.0-872.0
Lodgepole EE	01 59EE	29	100/15-05-008-28W1/00	826.5-832.5
Lodgepole FF	01 59FF	29	100/12-11-011-29W1/00	730.5-733.5; 748.5-751
Lodgepole GG	01 59GG	29	100/06-16-011-29W1/00	744-783.3
Lodgepole HH	01 59HH	29	100/05-10-011-29W1/00	826.6-827.7
Lodgepole II	01 59II	29	100/11-27-011-29W1/00	836.5-838; 839-840
Lodgepole JJ	01 59JJ	29	100/12-34-011-29W1/00	730-748.2
Lodgepole LL	01 59LL	29	100/04-25-008-29W1/00	818.91
Bakken G	01 60G	30	100/13-06-009-27W1/00	828.0-832.0
Bakken J	01 60J	30	100/07-18-010-27W1/02	780.3-784.6
Bakken L	01 60L	30	100/16-10-010-28W1/02	809.5-813.0
Bakken P	01 60P	30	100/12-28-009-28W1/02	842.7-845.7
Bakken Q	01 60Q	30	100/03-27-009-28W1/02	746.0-748.0
Bakken-Three Forks A	01 62A	30	100/01-22-010-29W1/00	859.5-866.0
Bakken-Three Forks B	01 62B	30	100/04-21-009-29W1/02	917.0-927.0
Bakken-Three Forks N	01 62N	30	100/03-24-010-28W1/02	814.0-917.0
Bakken-Three Forks Q	01 62Q	30	100/08-30-009-27W1/00	834.0-873.0
Bakken-Three Forks R	01 62R	30	100/16-31-009-27W1/02	832.5-834.5
Bakken-Three Forks S	01 62S	30	100/10-18-007-29W1/00	1061.5-1063
Bakken-Three Forks T	01 62T	30	100/11-07-007-29W1/00	1066-1072.4
Bakken-Three Forks X	01 62X	30	100/03-34-006-29W1/00	1029-1041
Bakken-Three Forks Z	01 62Z	30	100/07-16-011-29W1/00	753-757.5; 842-846

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
Bakken-Three Forks AA	01 62AA	30	100/16-21-011-29W1/00	842-843
Bakken-Three Forks CC	01 62CC	30	100/12-24-011-29W1/00	837-840; 842-846
Bakken-Three Forks DD	01 62DD	30	100/12-34-010-27W1/00	765-774.34
Bakken-Three Forks GG	01 62GG	30	102/02-30-006-29W1/00	1096.18-1106.81
Bakken-Three Forks HH	01 62HH	30	102/01-26-010-27W1/00	770.22-782.03
Bakken-Three Forks II	01 62II	30	100/16-18-006-29W1/00	1099-1105.95
Three Forks A	01 65A	31	100/01-14-008-29W1/00	967.0-969.0
Three Forks B	01 65B	31	100/09-30-007-28W1/00	969.0-971.0
TILSTON FIELD				
Mission Canyon 1 A	02 44A	32	100/06-31-005-29W1/00	940.0-969.0
Mission Canyon 1 C	02 44C	32	100/02-08-006-29W1/00	925.0-940.0
Mission Canyon 1 D	02 44D	32	100/11-15-006-29W1/00	907.0-910.5
Bakken-Three Forks A	02 62A	33	100.13-29-005-29W1.00	1118.7-1120.7
WASKADA FIELD				
Favel A	03 10A	34	100/01-03-002-25W1/02	479.5-841.0
Favel B	03 10B	34	100/03-27-001-25W1/02	478.0-479.5
Favel C	03 10C	34	100/10-17-001-24W1/00	481.5-484.5
Lower Amaranth A	03 29A	35	100/11-30-001-25W1/03	884.5-920.5
Lower Amaranth I	03 29I	35	100/03-01-001-25W1/00	873.7-910.0
Lower Amaranth J	03 29J	35	100/01-03-001-25W1/00	885.0-920.5
Lower Amaranth K	03 29K	35	100/03-24-001-25W1/02	866.0-898.0
Lower Amaranth O	03 29O	35	100/13-10-002-24W1/00	869.5-879.5
Mission Canyon 3b A	03 42A	36	100/11-30-001-25W1/03	920.5-929.6
Mission Canyon 3b B	03 42B	36	100/13-27-001-26W1/00	920.0-936.5
Mission Canyon 3b C	03 42C	36	100/05-07-001-25W1/00	931.5-941.0
Mission Canyon 3b E	03 42E	36	100/04-08-001-25W1/00	936.0-948.0
Mission Canyon 3b F	03 42F	36	100/11-22-001-26W1/02	929.5-948.0
Mission Canyon 3b G	03 42G	36	100/11-05-002-26W1/00	929.0-955.5
Mission Canyon 3a A	03 43A	37	100/01-25-001-26W1/00	928.0-950.0
Mission Canyon 3a B	03 43B	37	100/12-23-001-25W1/00	904.6-912.6
Mission Canyon 3a C	03 43C	37	100/12-26-001-26W1/00	924.0-940.0
Mission Canyon 3a D	03 43D	37	100/10-30-001-25W1/00	921.0-931.0
Mission Canyon 3a E	03 43E	37	100/02-12-001-26W1/02	930.0-944.0
Mission Canyon 3a F	03 43F	37	100/15-05-001-25W1/00	931.0-941.0
Mission Canyon 3a G	03 43G	37	100/12-31-001-25W1/00	912.5-929.0
Mission Canyon 3a H	03 43H	37	100/06-18-002-25W1/00	899.0-907.0

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
Mission Canyon 3a I	03 43I	37	100/07-35-001-26W1/00	917.0-935.0
Mission Canyon 3a K	03 43K	37	100/06-19-001-25W1/00	924.0-934.0
Mission Canyon 3a L	03 43L	37	100/08-32-001-25W1/00	909.5-917.0
Mission Canyon 3a M	03 43M	37	100/10-10-001-25W1/00	915.0-925.0
Mission Canyon 3a N	03 43N	37	100/02-20-001-25W1/00	919.5-930.0
Mission Canyon 3a O	03 43O	37	100/10-04-001-25W1/00	931.5-933
Mission Canyon 1 A	03 44A	38	100/01-30-001-25W1/00	917.4-947.9
Mission Canyon 1 B	03 44B	38	100/09-13-001-26W1/00	920.5-967.4
Mission Canyon 1 C	03 44C	38	100/02-22-001-25W1/00	908.3-943.0
Mission Canyon 1 D	03 44D	38	100/04-09-002-25W1/00	986.0-912.0
Mission Canyon 1 E	03 44E	38	100/06-33-001-25W1/00	905.5-942.0
Mission Canyon 1 F	03 44F	38	100/02-27-001-25W1/00	902.5-930.0
Mission Canyon 1 G	03 44G	38	100/04-05-001-24W1/00	910.0-937.0
Mission Canyon 1 H	03 44H	38	100/03-24-001-25W1/00	898.0-910.0
Mission Canyon 1 I	03 44I	38	100/02-14-002-25W1/00	882.0-915.0
Mission Canyon 1 J	03 44J	38	100/04-24-002-26W1/00	898.0-900.0
Mission Canyon 1 K	03 44K	38	100/02-33-001-24W1/00	871.7-900.0
Mission Canyon 1 L	03 44L	38	100/04-12-001-24W1/00	941.5-946.0
Mission Canyon 1 M	03 44M	38	100/09-25-001-24W1/00	939.5-941.5
Mission Canyon 1 N	03 44N	38	100/06-07-001-24W1/00	897.5-898.5
Mission Canyon 1 O	03 44O	38	100/13-09-002-24W1/00	865.0-873.0
Mission Canyon 1 P	03 44P	38	100/15-10-002-24W1/00	888.8-893.8
Mission Canyon 1 Q	03 44Q	38	100/07-06-002-24W1/00	876.5-878.5
LULU LAKE FIELD				
Lodgepole WL A	04 52A	40	100/08-23-001-21W1/00	1008.5-1027.0
Lodgepole WL B	04 52B	40	100/15-27-001-21W1/00	1005.5-1024.0
VIRDEN FIELD				
Lodgepole A	05 59A	42	102/06-27-011-26W1/00	563.9-667.0
Lodgepole B	05 59B	42	100/06-28-010-26W1/00	623.0-726.0
Lodgepole C	05 59C	42	100/10-21-009-25W1/00	595.0-648.0
Lodgepole D	05 59D	42	100/07-11-009-25W1/00	598.9-655.3
Lodgepole E	05 59E	42	100/07-26-009-26W1/00	634.0-732.1
Lodgepole G	05 59G	42	100/10-01-011-27W1/00	647.0-710.0
Lodgepole K	05 59K	42	100.15-16-011-27W1.00	
WHITEWATER FIELD				
Lower Amaranth A	06 29A	39	100/04-21-003-21W1/02	745.0-757.7
Lodgepole WL A	06 52A	40	100/16-17-003-21W1/00	759.6-786.1

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
Lodgepole WL B	06 52B	40	100/16-02-003-21W1/00	790.5-812.5
Lodgepole Virden A	06 53A	41	100/05-12-003-21W1/00	787.0-804.5
PIERSON FIELD				
Lower Amaranth A	07 29A	43	100/04-26-003-28W1/00	915.7-949.5
Lower Amaranth B	07 29B	43	100/12-30-002-28W1/02	955.0-992.0
Lower Amaranth E	07 29E	43	100/04-01-002-29W1/00	1016.0-1025.0
Lower Amaranth L	07 29L	43	100/02-26-001-29W1/00	1000.0-1038.0
Lower Amaranth R	07 29R	43	100/02-11-002-28W1/00	959-963.67
Lower Amaranth S	07 29S	43	100/02-31-002-29W1/00	
Lower Amaranth T	07 29T	43	100/15-32-001-29W1/02	
Lower Amaranth U	07 29U	43	100.11-35-002-28W1.00	952.94
Lower Amaranth W	07 29W	43	100.06-07-002-29W1.00	1029.5-1032.5
Lower Amaranth – Mission Canyon 3b A	07 35A	44	100/14-17-002-29W1/02	1023.5-1028.5; 1036.5-1038.8
Lower Amaranth – Mission Canyon 3b B	07 35B	44	100/01-35-002-28W1/00	959.0-963.0; 950.5-956.5
Lower Amaranth – Mission Canyon 3b C	07 35C	44	100/11-34-002-28W1/00	974-975; 955-961
Lower Amaranth – Mission Canyon 3b D	07 35D	44	100/15-20-002-28W1/02	975.0-979.0; 988.5-990
Mission Canyon 3 B	07 41B	45	100/14-05-002-28W1/02	1007.5-1030.0
Mission Canyon 3 C	07 41C	45	100/12-06-003-29W1/00	1165.0-1605.0 md
Mission Canyon 3 D	07 41D	45	100/07-21-001-27W1/00	
Mission Canyon 3b B	07 42B	46	100/08-07-003-28W1/00	981.5-990.6
Mission Canyon 3b C	07 42C	46	100/06-17-003-29W1/00	1002.0-1016.0
Mission Canyon 3b D	07 42D	46	100/13-32-002-29W1/00	1021.1-1033.3
Mission Canyon 3b E	07 42E	46	100/11-30-002-28W1/00	990.0-1002.0
Mission Canyon 3b F	07 42F	46	100/14-20-002-28W1/02	987.5-1003.4
Mission Canyon 3b J	07 42J	46	100/13-33-001-28W1/00	1002.0-1026.0
Mission Canyon 3b K	07 42K	46	100/05-30-001-28W1/00	1025.0-1043.5
Mission Canyon 3b L	07 42L	46	100/06-23-002-29W1/00	1012-1020
Mission Canyon 3b M	07 42M	46	100/08-06-002-27W1/00	967.7-969.7
Mission Canyon 3b N	07 42N	46	100/04-34-002-28W1/00	974.5-975.8
Mission Canyon 3b O	07 42O	46	100/09-26-002-28W1/00	963-965
Mission Canyon 3b P	07 42P	46	102.06-15-002-29W1.00	1029.49-1032.35
Mission Canyon 3b Q	07 42Q	46	100.10-29-002-29W1.00	1029.5-1031.5
Mission Canyon 3a A	07 43A	47	100/08-16-003-29W1/00	999.7-1018.0
Mission Canyon 3a B	07 43B	47	100/09-18-003-28W1/00	976.9-990.6

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
Mission Canyon 3a E	07 43E	47	100/06-10-003-28W1/00	970.3-985.0
Mission Canyon 3a F	07 43F	47	100/14-05-003-29W1/03	1085.0-1385.0 md
Mission Canyon 3a G	07 43G	47	100/06-36-002-29W1/02	1002.8-1003.85
Mission Canyon 3a H	07 43H	47	100.10-29-02-29W1.00	1029.5-1031.5
Mission Canyon 1 A	07 44A	48	100/04-25-003-28W1/00	948.0-980.0
KIRKELLA FIELD				
Lodgepole Dolomite A	09 51A	49	100/14-08-012-29W1/00	725.0-742.0
Lodgepole Dolomite B	09 51B	49	100/04-19-012-29W1/00	729.0-744.0
Lodgepole Daly A	09 54A	50	100/14-10-012-29W1/00	722.4-734.3
Lodgepole Daly B	09 54B	50	100/05-17-012-29W1/00	746.0-755.0
Lodgepole Daly C	09 54C	50	100/04-18-012-29W1/00	745.5-757.0
Lodgepole Daly D	09 54D	50	100/14-01-012-29W1/00	714.0-740.0
Lodgepole Daly E	09 54E	50	100/16-06-012-29W1/00	746.0-758.0
Lodgepole Crinoidal A	09 55A	51	100/10-03-012-29W1/00	758.0-761.5
Lodgepole Crinoidal B	09 55B	51	100/11-15-012-29W1/00	716.0-720.0 md
Lodgepole Crinoidal C	09 55C	51	100/15-10-012-29W1/00	715.0-729.0
Lodgepole A	09 59A	52	100/16-16-12-29W1/03	741.5-742.5; 752.5-753.5
Bakken-Three Forks A	09 62A	53	100/12-15-012-29W1/02	786.5-791.5
Bakken-Three Forks B	09 62B	53	100/16-03-012-29W1/02	809.0-811.0
Bakken-Three Forks C	09 62C	53	100/14-35-011-29W1/00	817-818.5
SOURIS HARTNEY FIELD				
Lodgepole Virden A	10 53A	55	100/04-16-006-22W1/00	653.2-671.8
REGENT FIELD				
Lodgepole WL A	13 52A	54	100/16-02004-22W1/00	761.5-780.0
Lodgepole WL B	13 52B	54	100/15-21-004-22W1/00	758.6-777.8
Lodgepole Virden A	13 53A	55	100/06-07-004-21W1/00	766.9-781.8
Lodgepole Virden B	13 53B	55	100/14-13-004-22W1/00	759.0-780.0
Lodgepole Virden D	13 53D	55	100/12-31-004-21W1/00	733.0-738.4
Lodgepole Virden E	13 53E	55	100/02-07-005-21W1/00	713.5-715
MOUNTAININSIDE FIELD				

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
Lodgepole WL A	14 52A	40	103/11-16-002-21W1/00	1078.0-1451.4
BIRDTAIL FIELD				
Bakken A	15 60A	56	100/05-04-016-27W1/00	518.5-524.5
Bakken B	15 60B	56	100/09-09-016-27W1/00	518.5-527.5
Bakken E	15 60E	56	103/09-08-016-27W1/00	520.0-525.0
Bakken-Three Forks A	15 62A	56	100/09-30-016-27W1/00	535.5-538
Bakken-Three Forks C	15 62C	56	100/14-35-016-28W1/00	499.5-502
MANSON FIELD				
Bakken-Three Forks A	17 62A	57	100/01-34-012-28W1/00	700.41-707.44
Bakken-Three Forks B	17 62B	57	100/14-09-013-28W1/00	672-674
Bakken-Three Forks D	17 62D	57	100/09-05-013-28W1/00	691-694
Bakken-Three Forks F	17 62F	57	100/01-34-012-28W1/00	700.41-707.44
Bakken-Three Forks G	17 62G	57	100/04-06-014-28W1.00	
Bakken-Three Forks H	17 62H	57	100.11-04-014-28W1.00	625.7-629.2; 630.9-633.2
OTHER AREAS				
Melita A	99 19A	58	100/14-15-016-29W1/00	432.3-446.0
Melita B	99 19B	58	100/06-17-016-29W1/00	438-441
Lower Amaranth-Lodgepole	99 40A	61	100/03-33-008-24W1/00	570.0-584.0
Mission Canyon 1 A	99 44A	63	100/08-31-002-23W1/00	812.0-843.0
Mission Canyon 1 D	99 44D	62	100/16-02-003-26W1/00	879.0-922.0
Mission Canyon 1 E	99 44E	60	100/16-06-006-28W1/00	905.0-908.0
Mission Canyon 1 G	99 44G	60	100/02-16-006-26W1/00	855.0-1229.0 md
Mission Canyon 1 H	99 44H	60	100/03-13-006-27W1/00	786.5-790.0
Mission Canyon 1 J	99 44J	60	100/11-36-005-29W1/00	923.0-927.5
Mission Canyon 1 K	99 44K	60	100/09-02-007-27W1/00	777.0-779.5
Mission Canyon 1 L	99 44L	60	100/06-03-007-27W1/00	789.7-794.0
Mission Canyon 1 M	99 44M	63	100/05-35-002-24W1/00	842.0-845.0
Mission Canyon 1 O	99 44O	63	100/14-36-001-23W1/00	944-948
Mission Canyon 1 R	99 44R	60	100/12-21-005-28W1/00	905-908; 899-902
Lodgepole WL C	99 52C	63	100/13-19-004-22W1/00	762.0-775.7
Lodgepole Virden C	99 53C	63	100/05-32-002-23W1/00	827.0-828.5
Lodgepole I	99 59I	63	100/11-35-002-24W1/00	960.0-1955 md, 1063-1308 md

POOL	CODE	PLAT (Page #)	REFERENCE WELL	
			UWI	TVD INTERVAL (meters KB)
Lodgepole J	99 59J	63	100/10-18-005-22W1/00	757.0-759; 764.0-765.5
Lodgepole N	99 59N	59	100.01-34-12-27W1.00	556-557
Bakken-Three Forks L	99 62L	60	100/05-08-004-29W1/00	1209.5-1214.5
Bakken-Three Forks M	99 62M	60	100/10-08-006-28W1/00	1064.0-1066.0
Bakken-Three Forks U	99 62U	59	100/01-11-010-27W1/00	779.7-789.4
Bakken-Three Forks DD	99 62DD	58	100/15-32-017-28W1/00	511-513
Bakken-Three Forks GG	99 62GG	59	100.01-34-12-27W1.00	644-645
Bakken-Three Forks HH	99 62HH	59	100.08-36-013-28W1.00	606-608
Bakken-Three Forks JJ	99 62JJ	59	100.08-10-12-28W1.02	740.62-759.93

Appendix B Manitoba Pool Codes page 66.

**MANITOBA'S DESIGNATED POOLS
(POOL PLATS)**

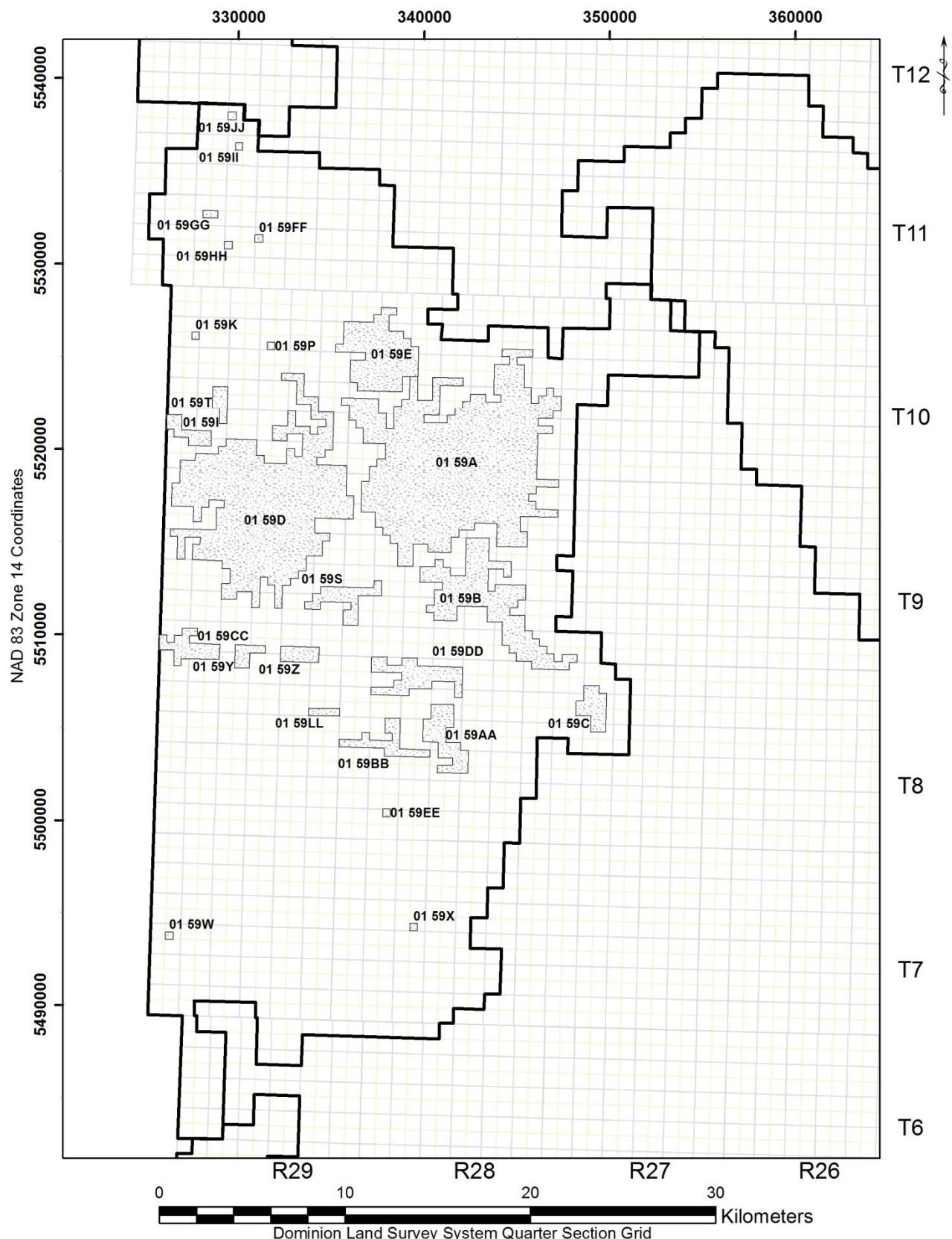
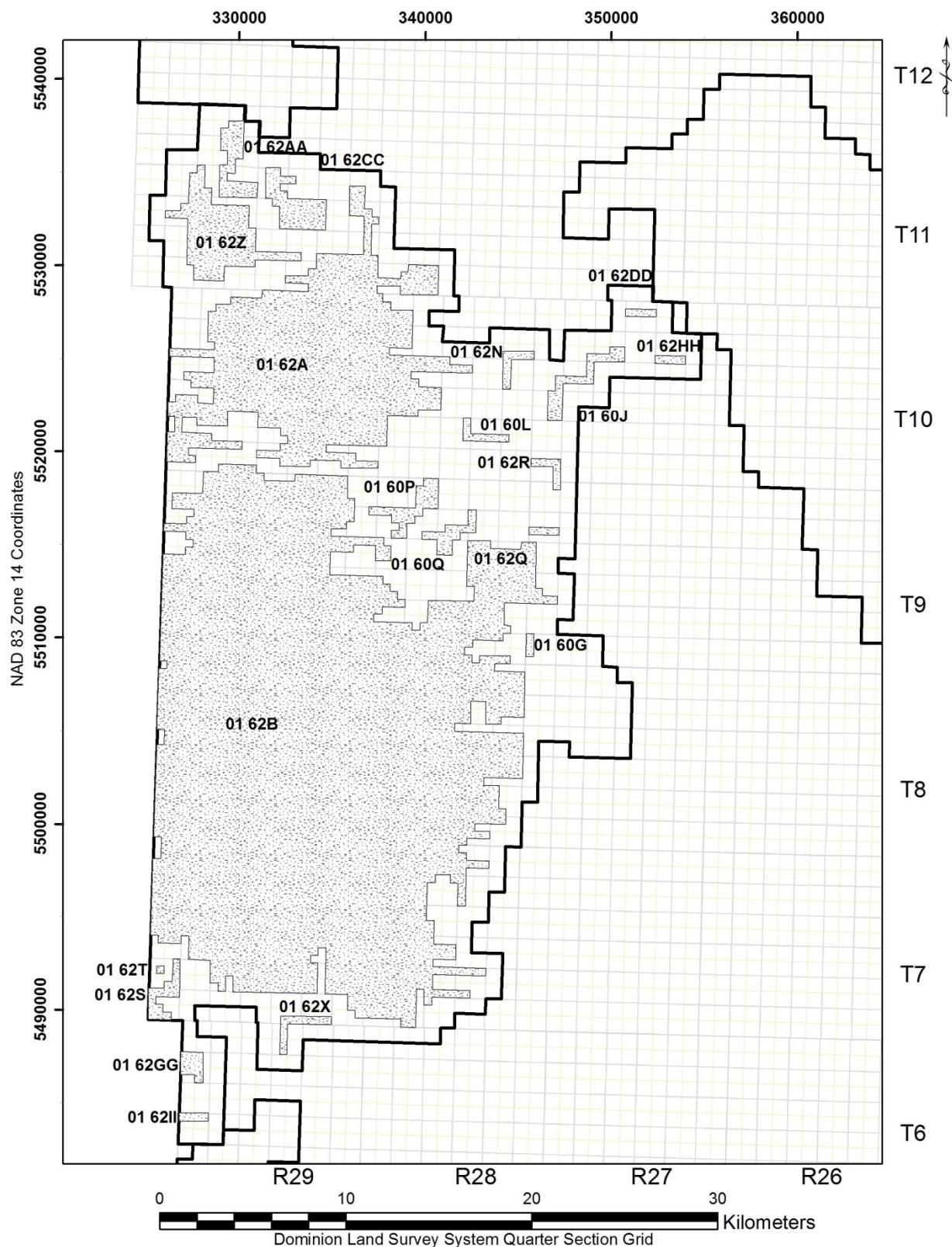


Figure 12 - Daly Sinclair Lodgepole Pools (01 59A - 01 59JJ)



**Figure 13 - Daly Sinclair Bakken & Bakken-Three Forks Pools
(01 60A - 01 60BB & 01 62A – 01 62II)**

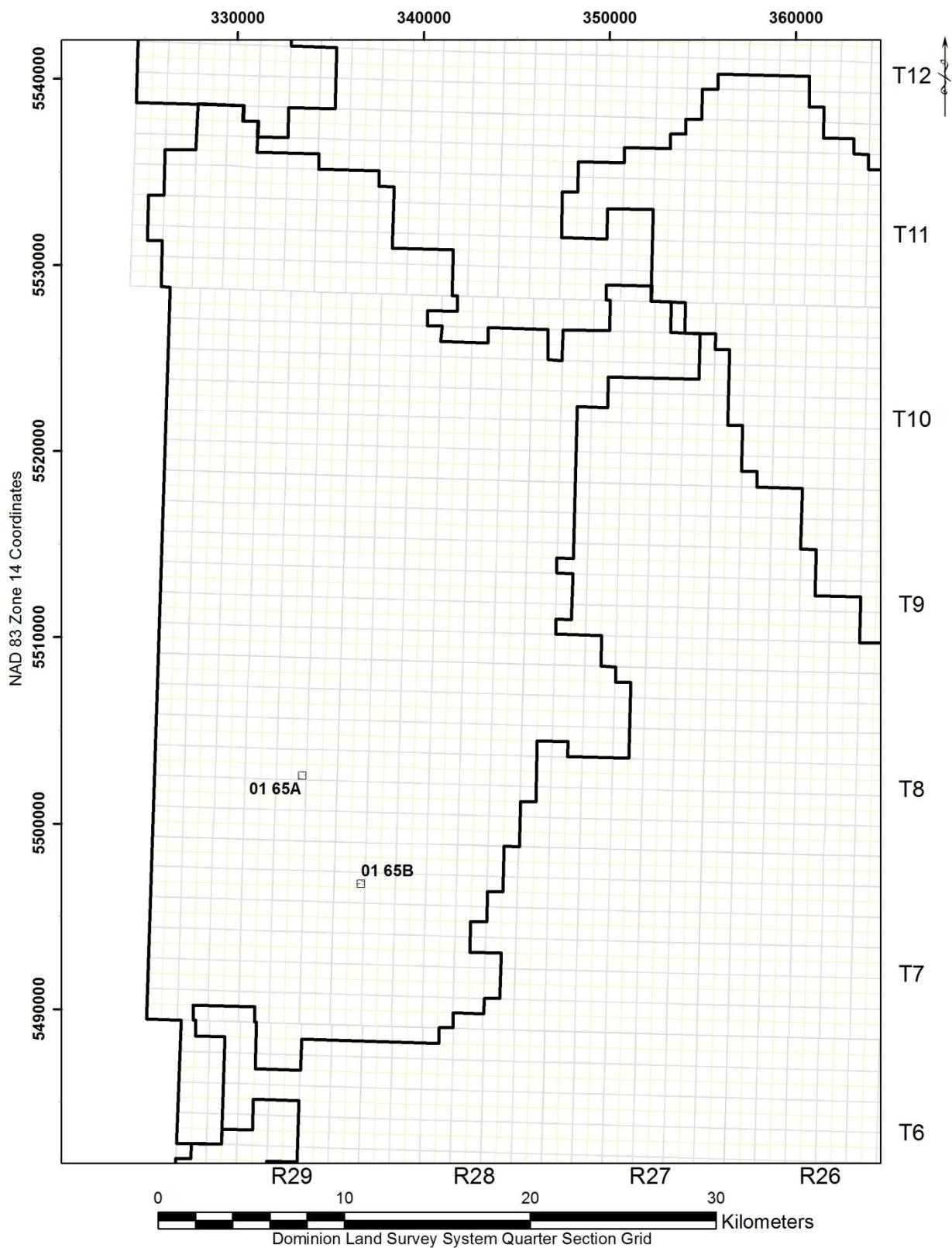


Figure 14 - Daly Sinclair Three Forks Pools (01 65A & 01 65B)

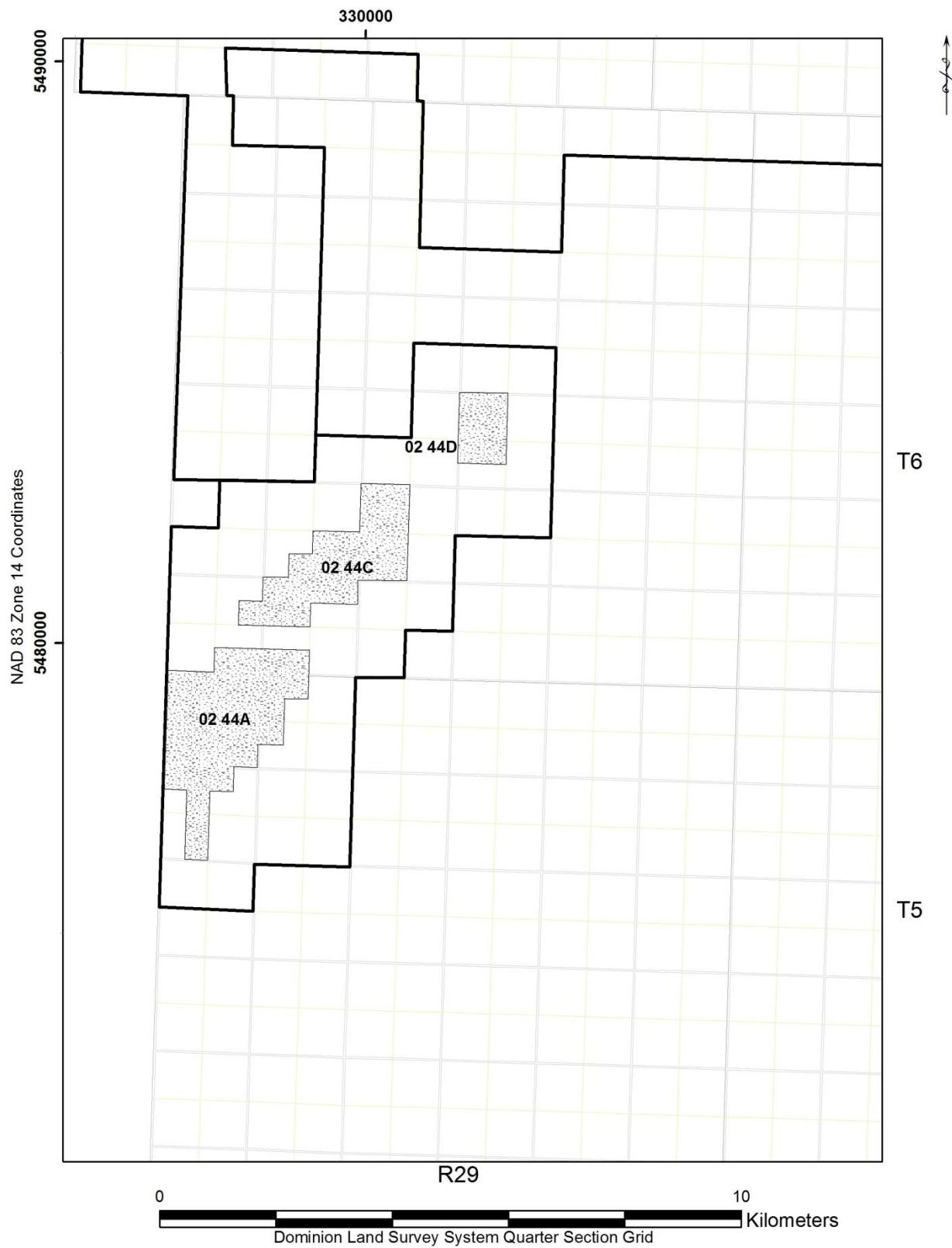


Figure 15 - Tilston Mission Canyon 1 Pools (02 44A - 02 44D)

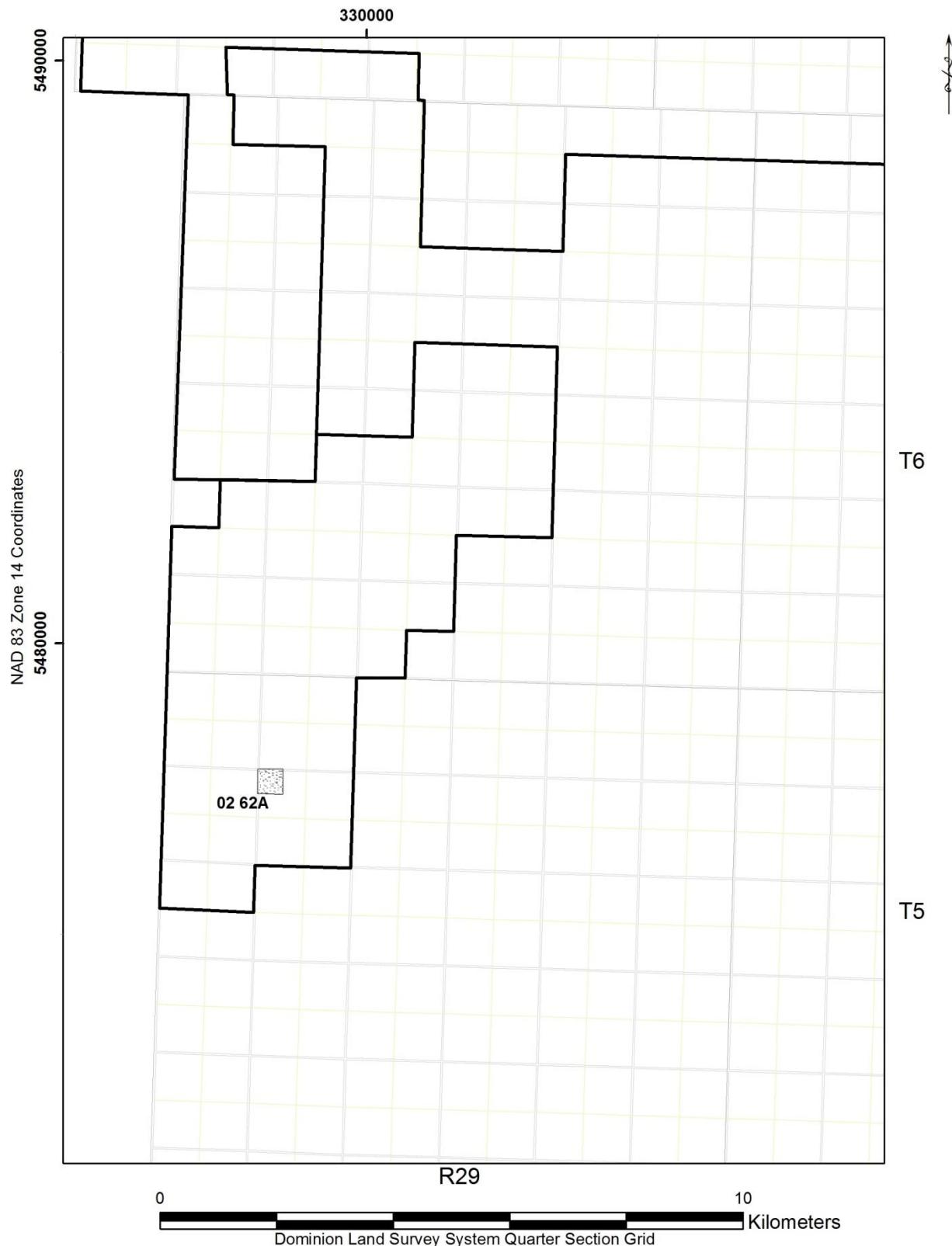


Figure 16 - Tilston Bakken-Three Forks Pools (02 62A)

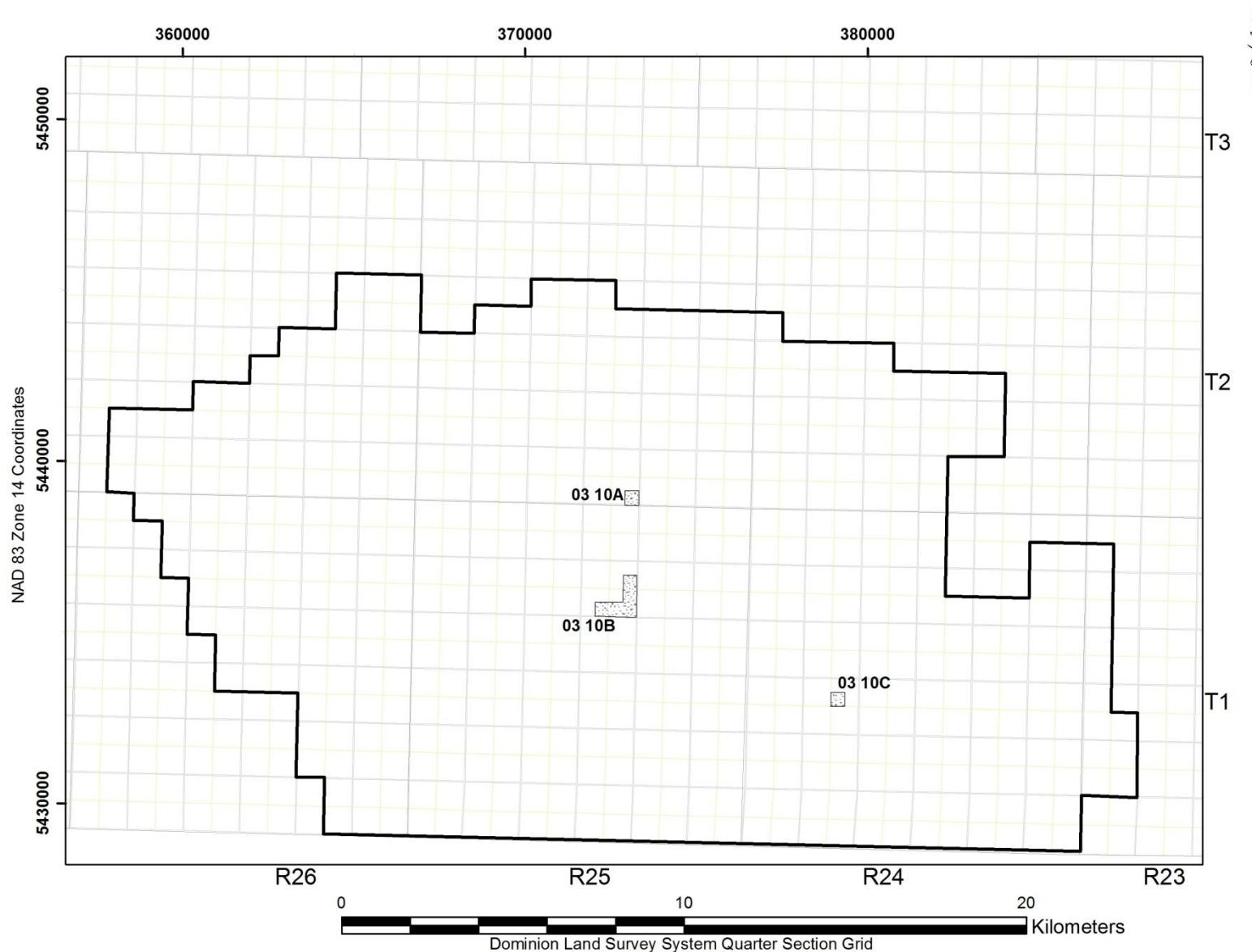


Figure 17 - Waskada Favel Pools (03 10A – 03 10C)

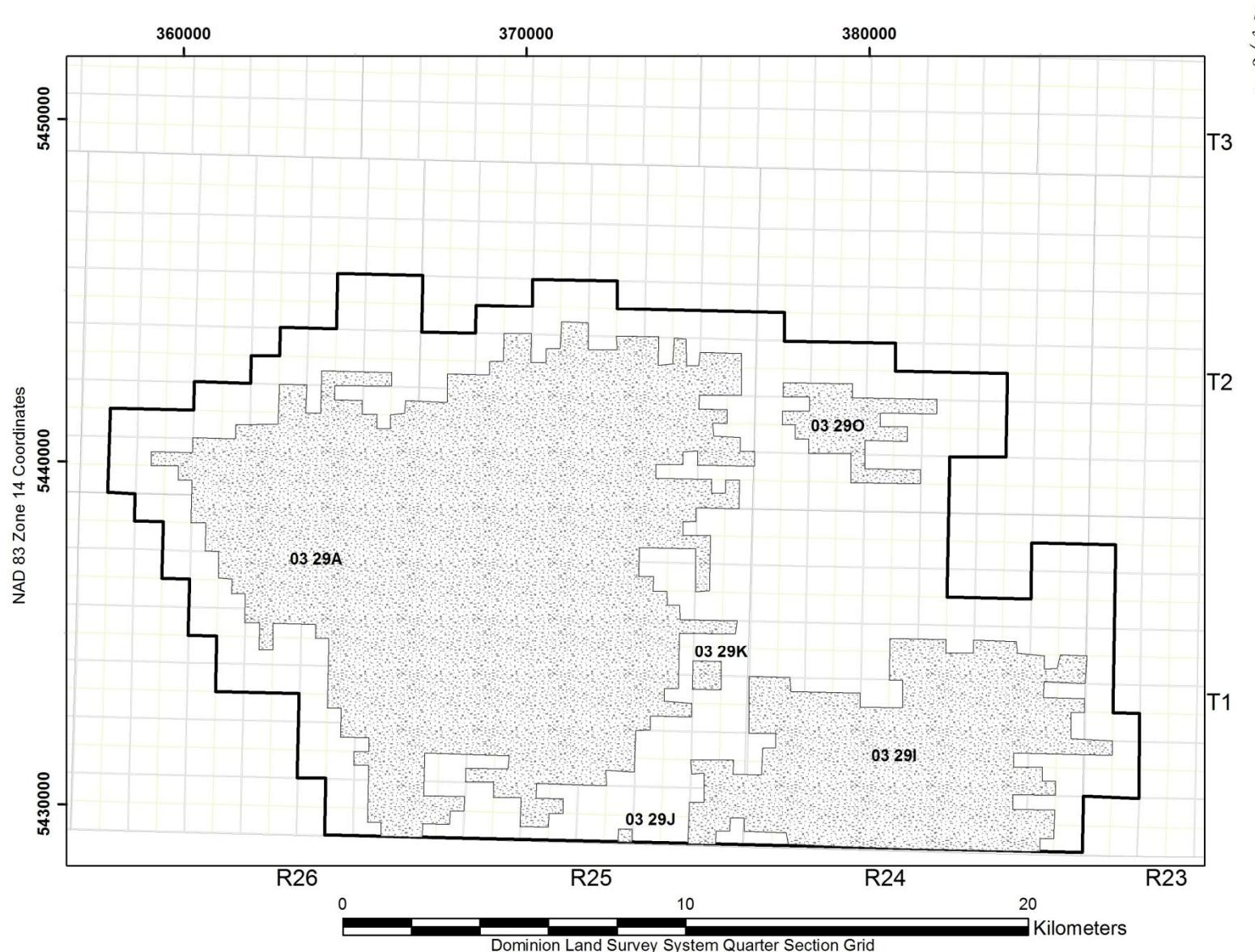


Figure 18 - Waskada Lower Amaranth Pools (03 29A – 03 29O)

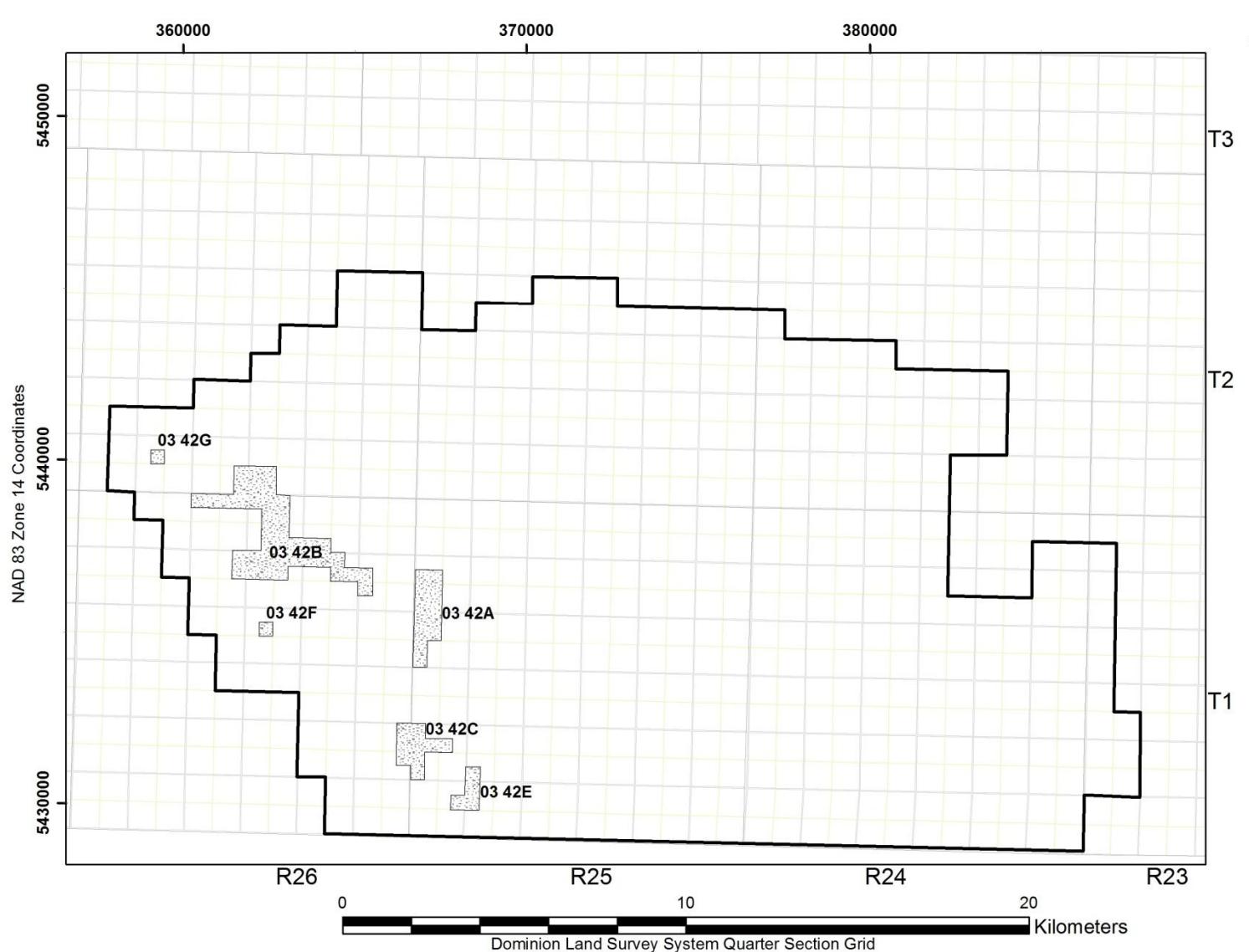


Figure 19 - Waskada Mission Canyon 3b Pools (03 42A - 03 42G)

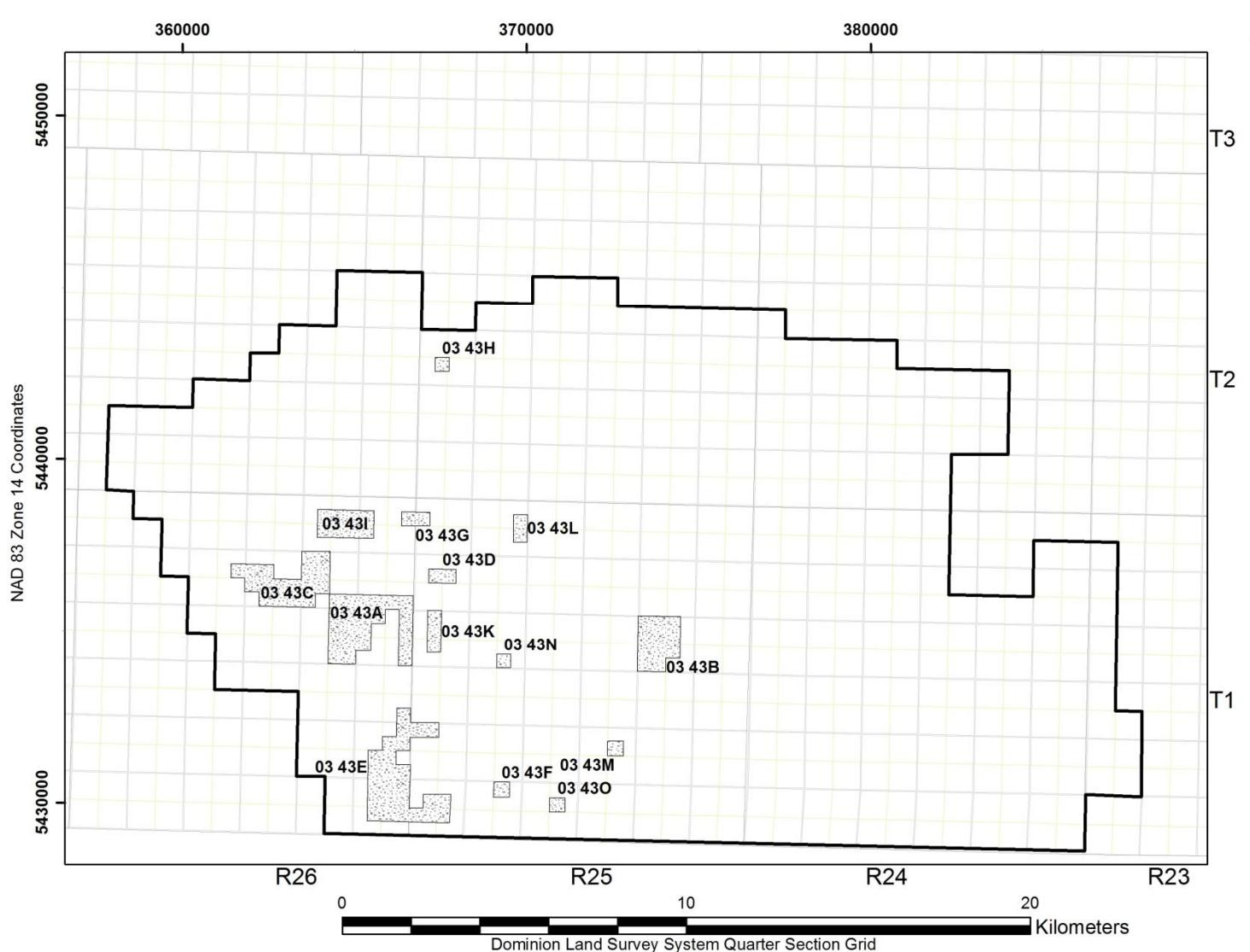


Figure 20 - Waskada Mission Canyon 3a Pools (03 43A - 03 43M)

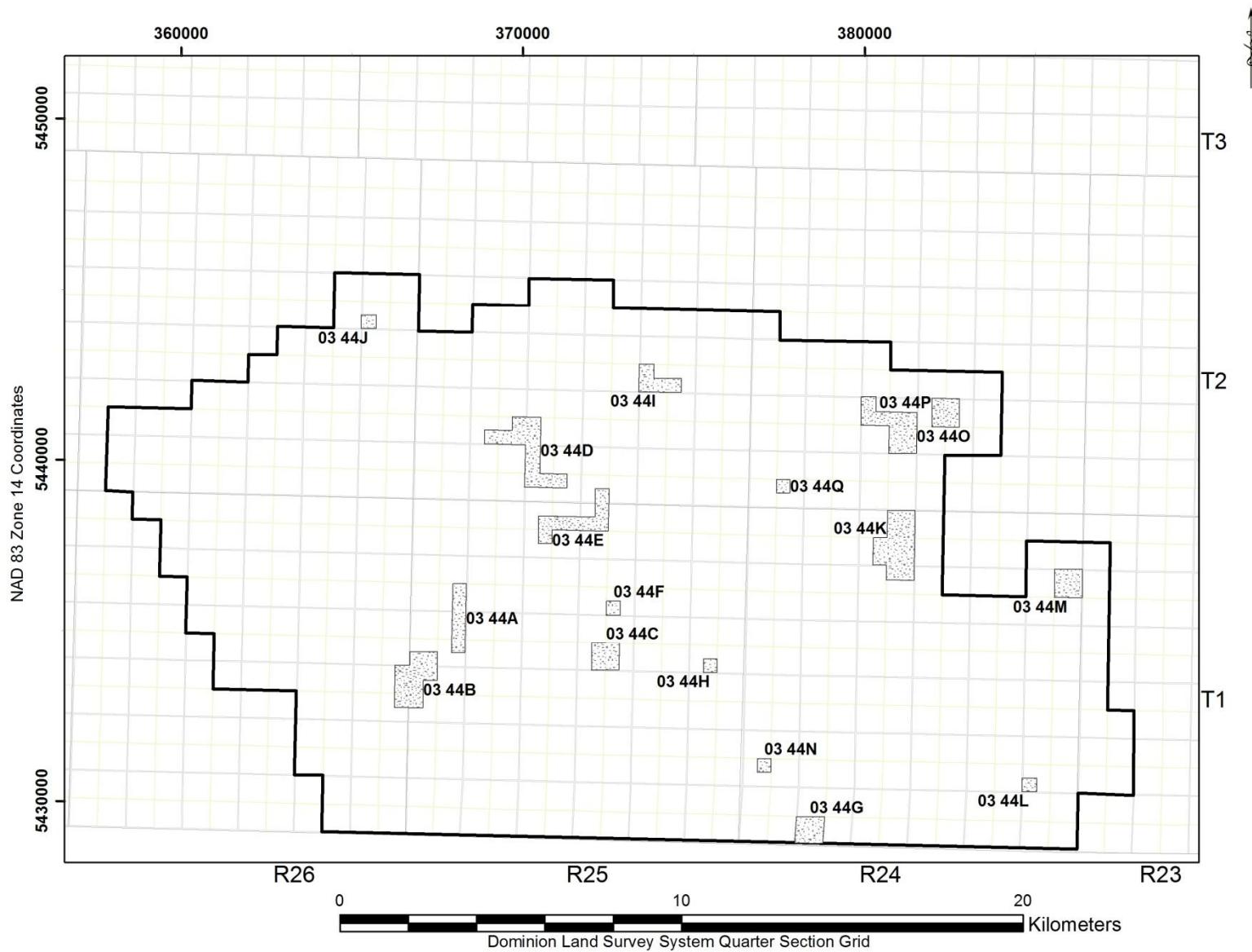


Figure 21 - Waskada Mission Canyon 1 Pools (03 44A – 03 44Q)

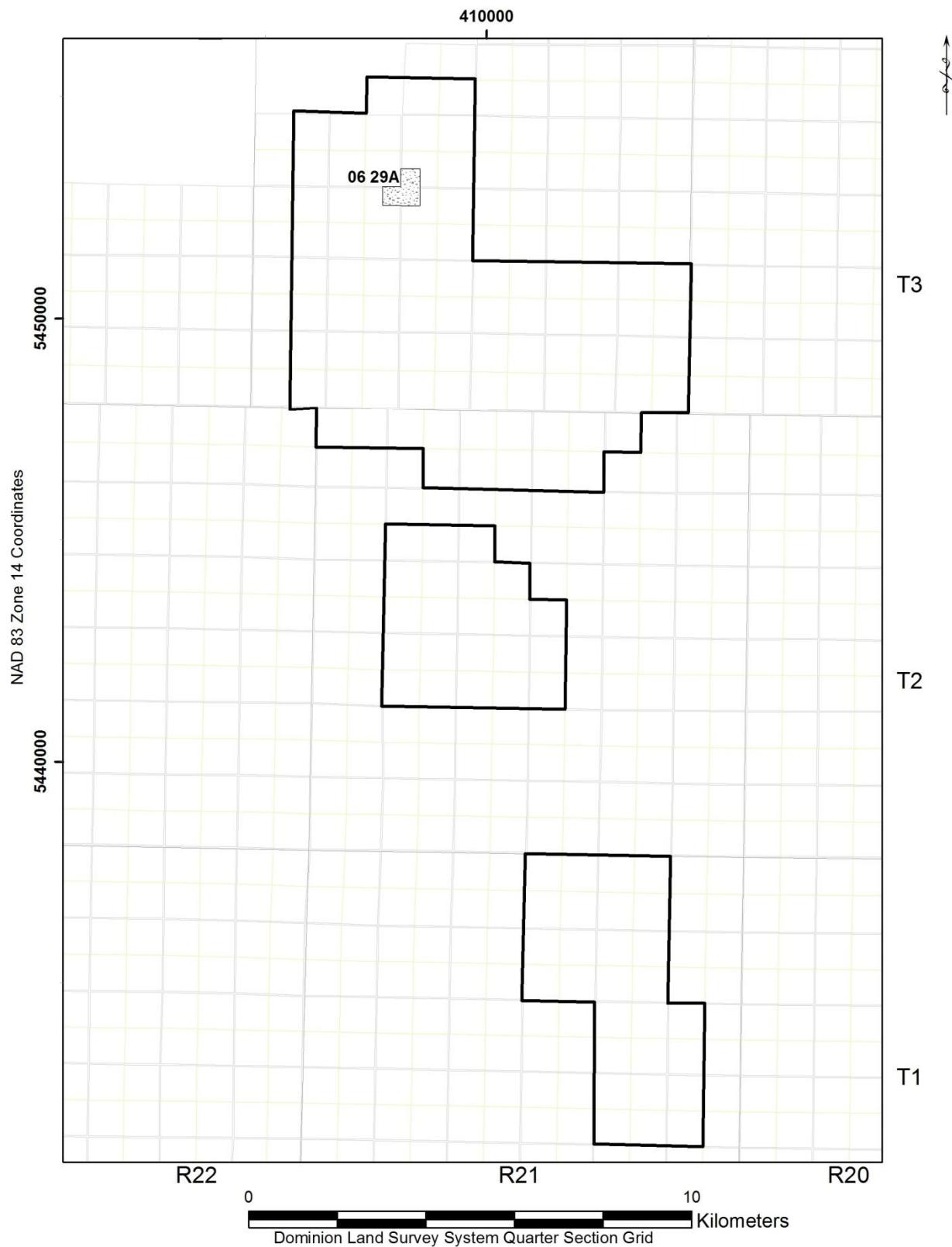


Figure 22 - Lulu Lake, Mountainside and Whitewater Lower Amaranth Pools (06 29A)

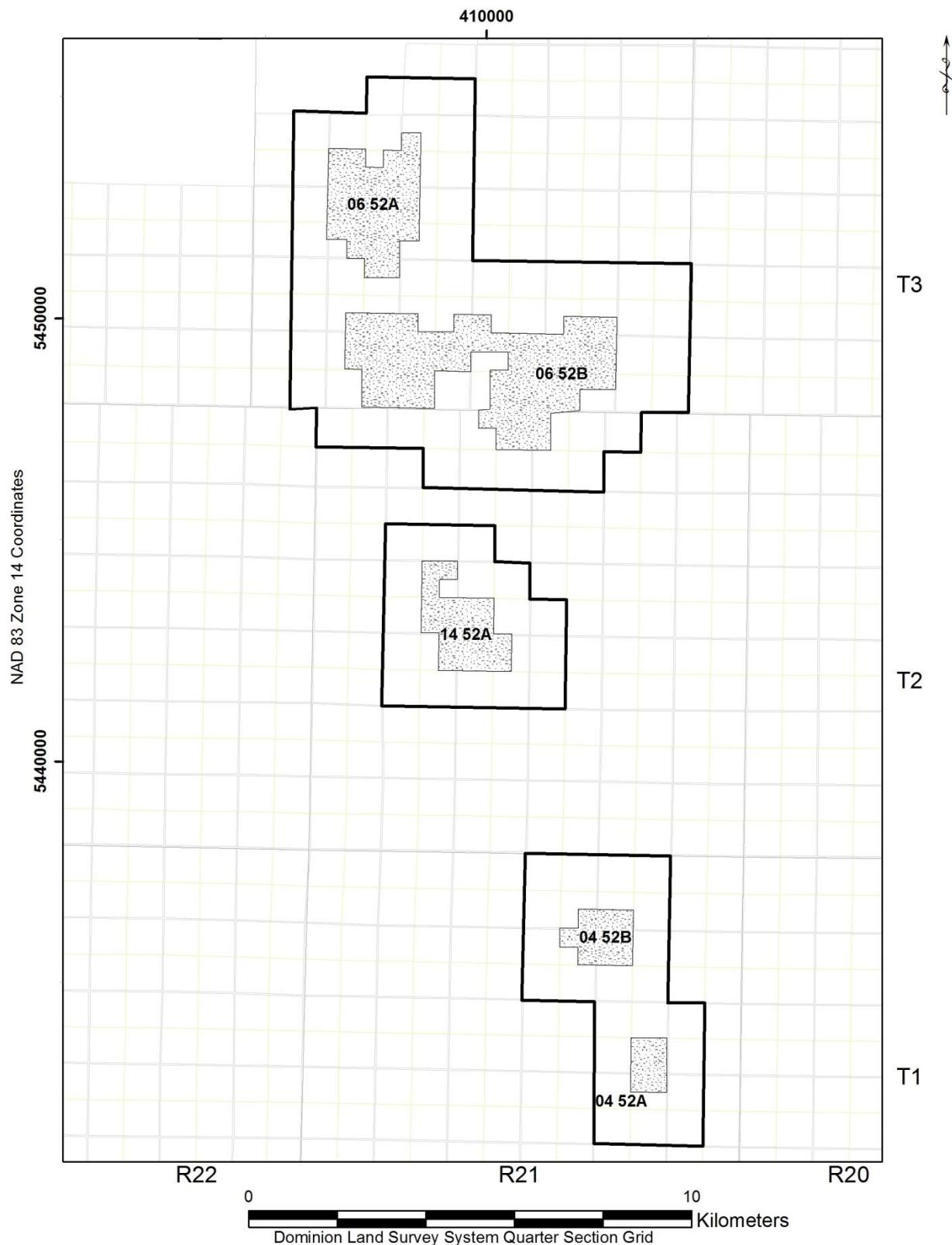


Figure 23 - Lulu Lake, Mountainside and Whitewater Lodgepole Whitewater Lake Pools (04 52A, 04 52B, 06 52A, 06 52B & 14 52A)

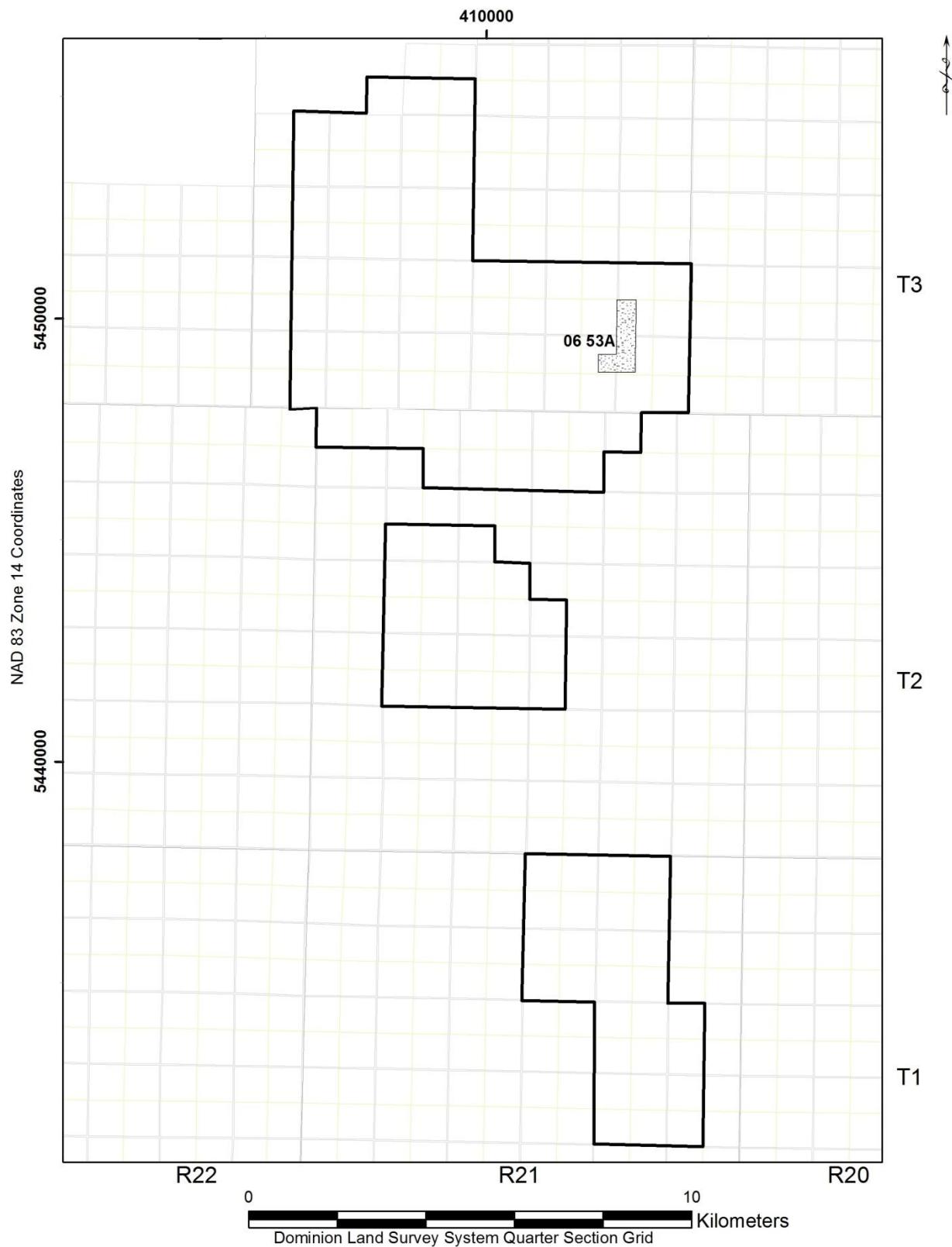


Figure 24 - Lulu Lake, Mountainside & Whitewater Lodgepole Virden Pools (06 53A)

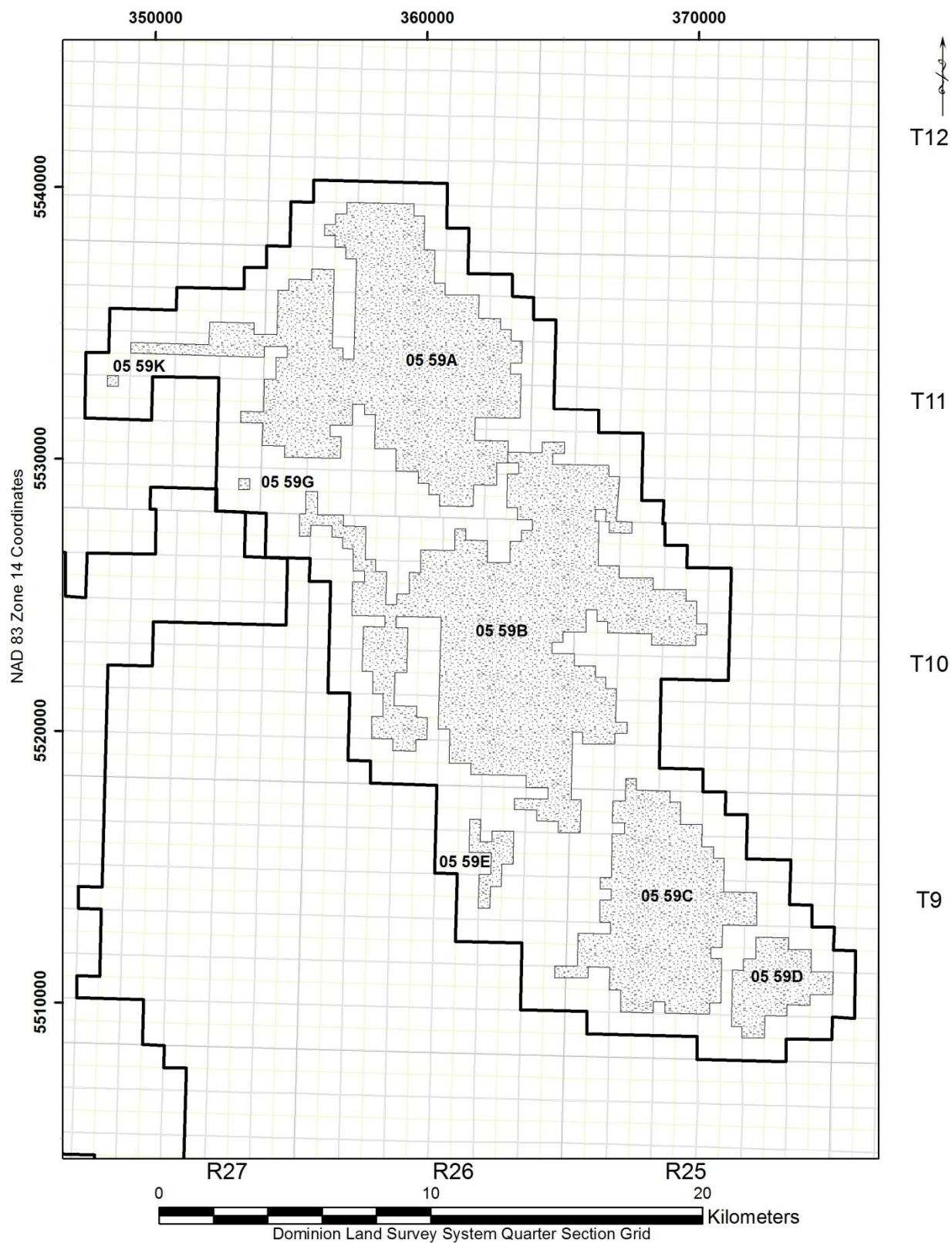


Figure 25 - Virden Lodgepole Pools (05 59A – 05 59K)

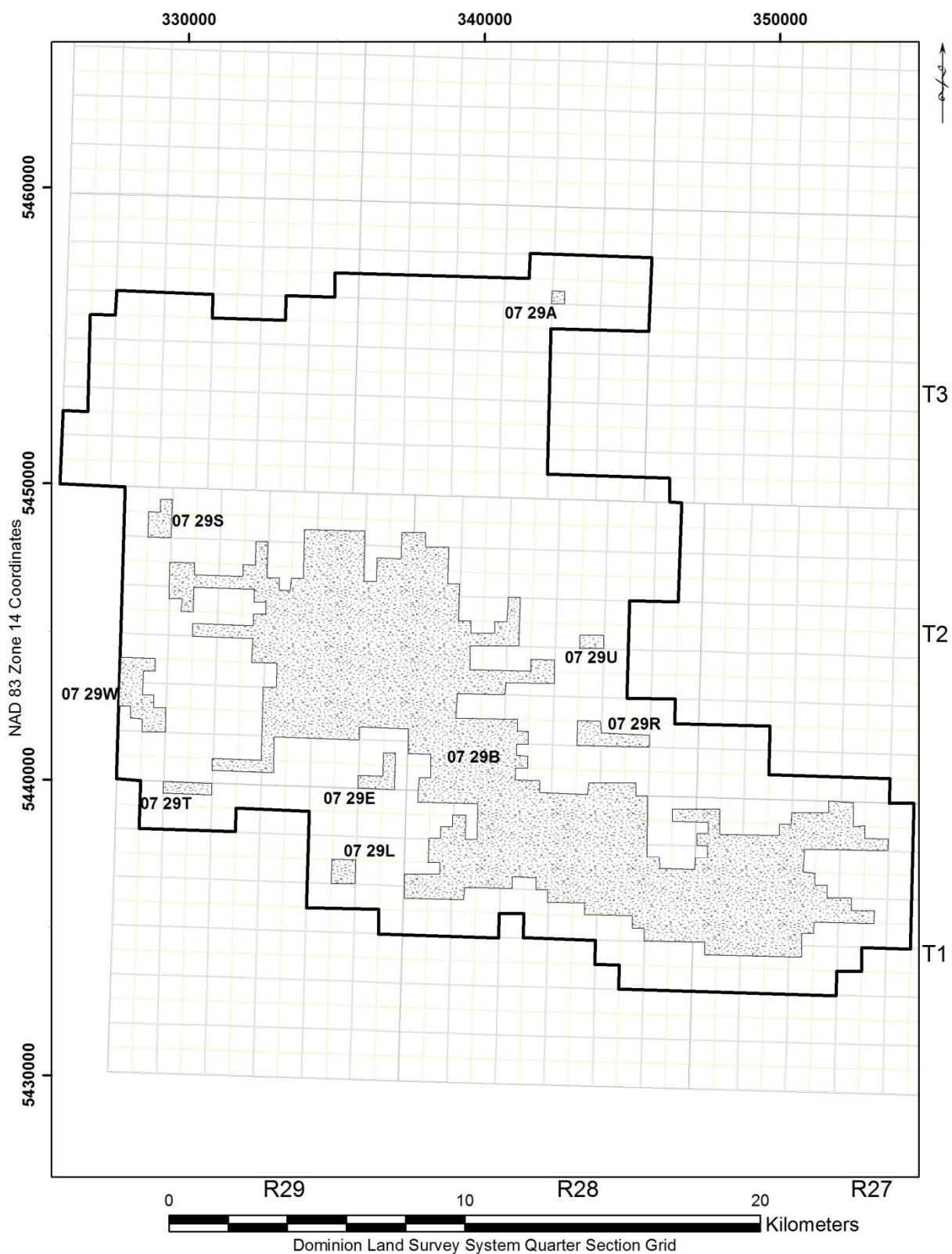
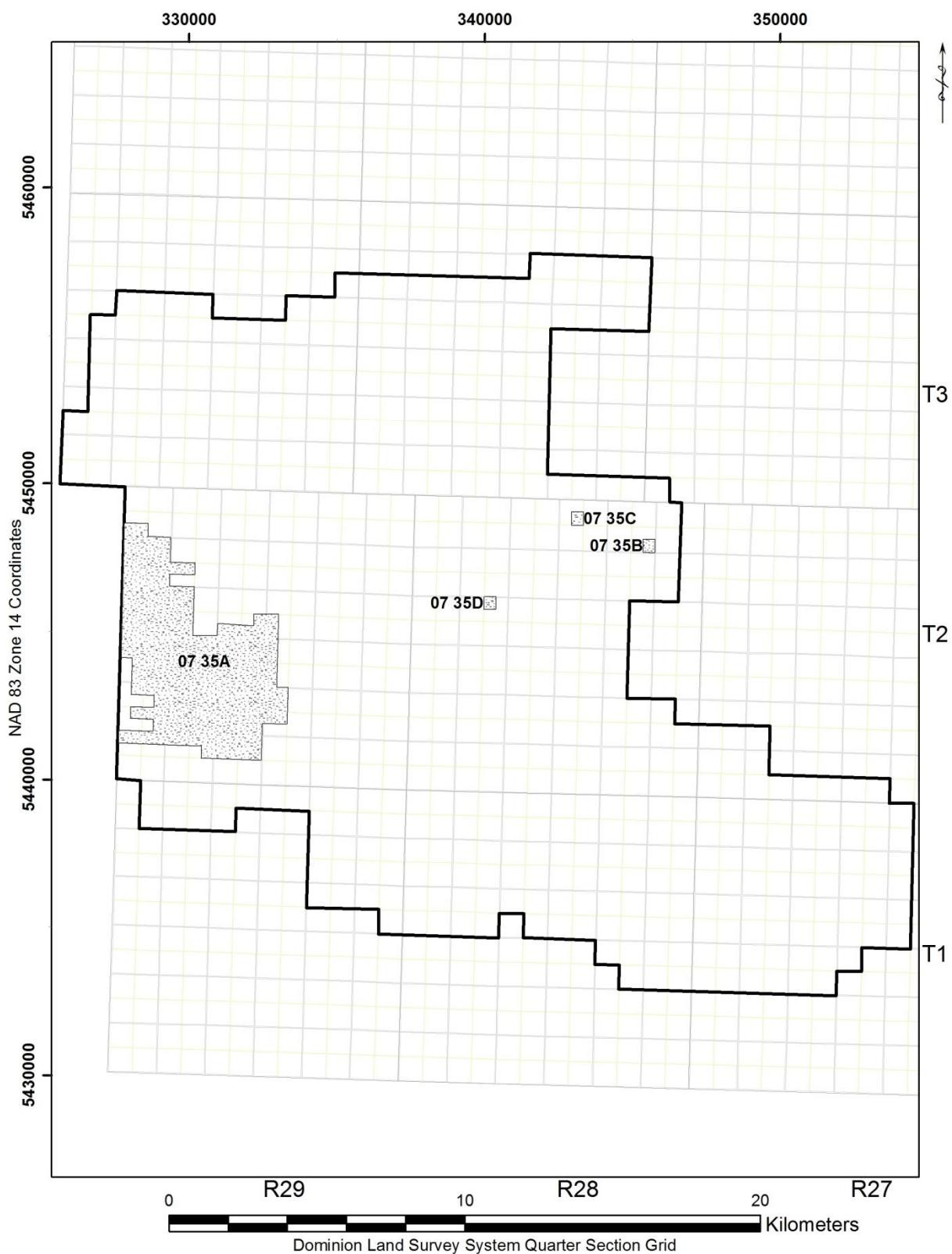


Figure 26 - Pierson Lower Amaranth Pools (07 29A – 07 29W)



**Figure 27 - Pierson Lower Amaranth – Mission Canyon 3b Pools
(07 35A – 07 35D)**

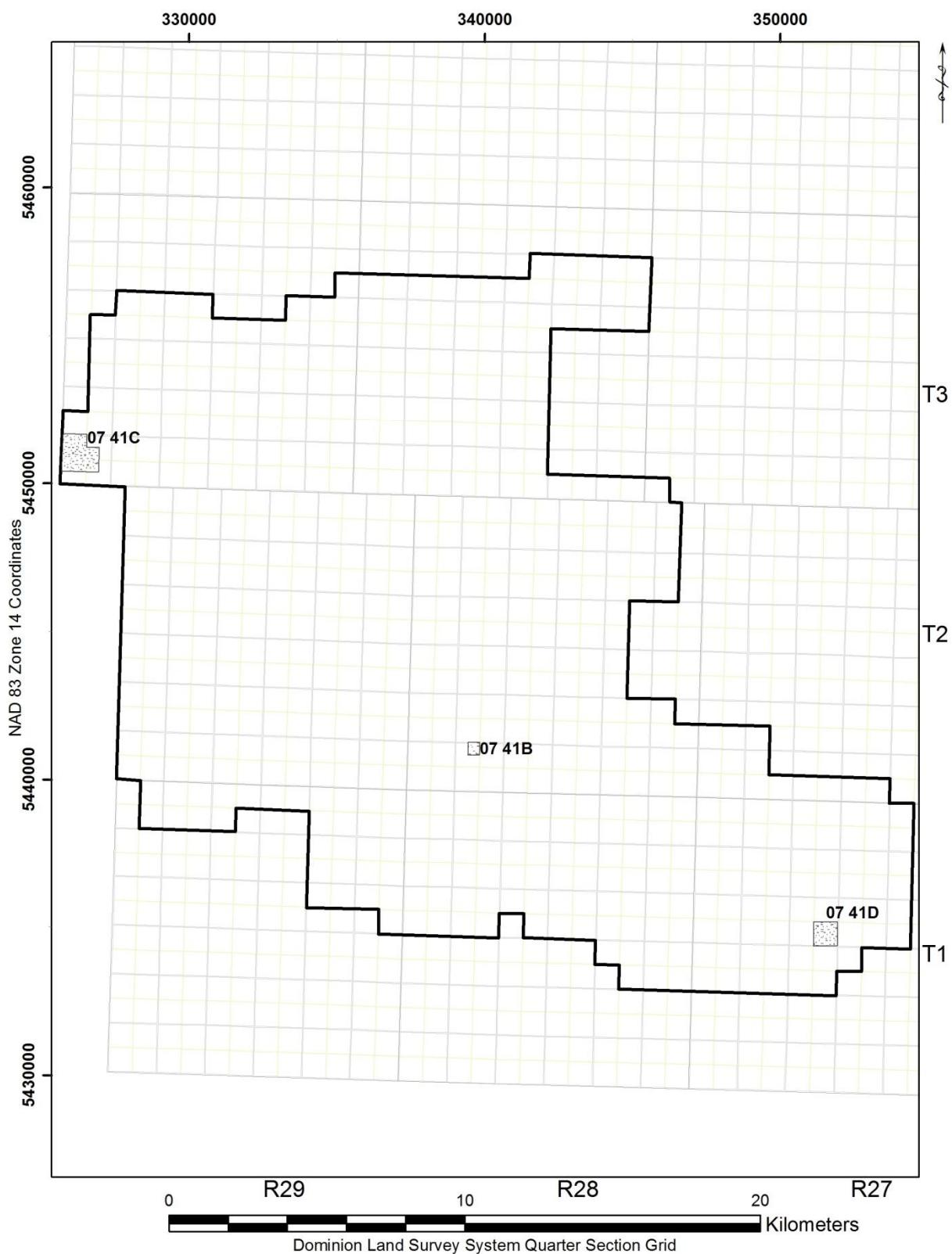


Figure 28 - Pierson Mission 3 Pools (07 41B & 07 41D)

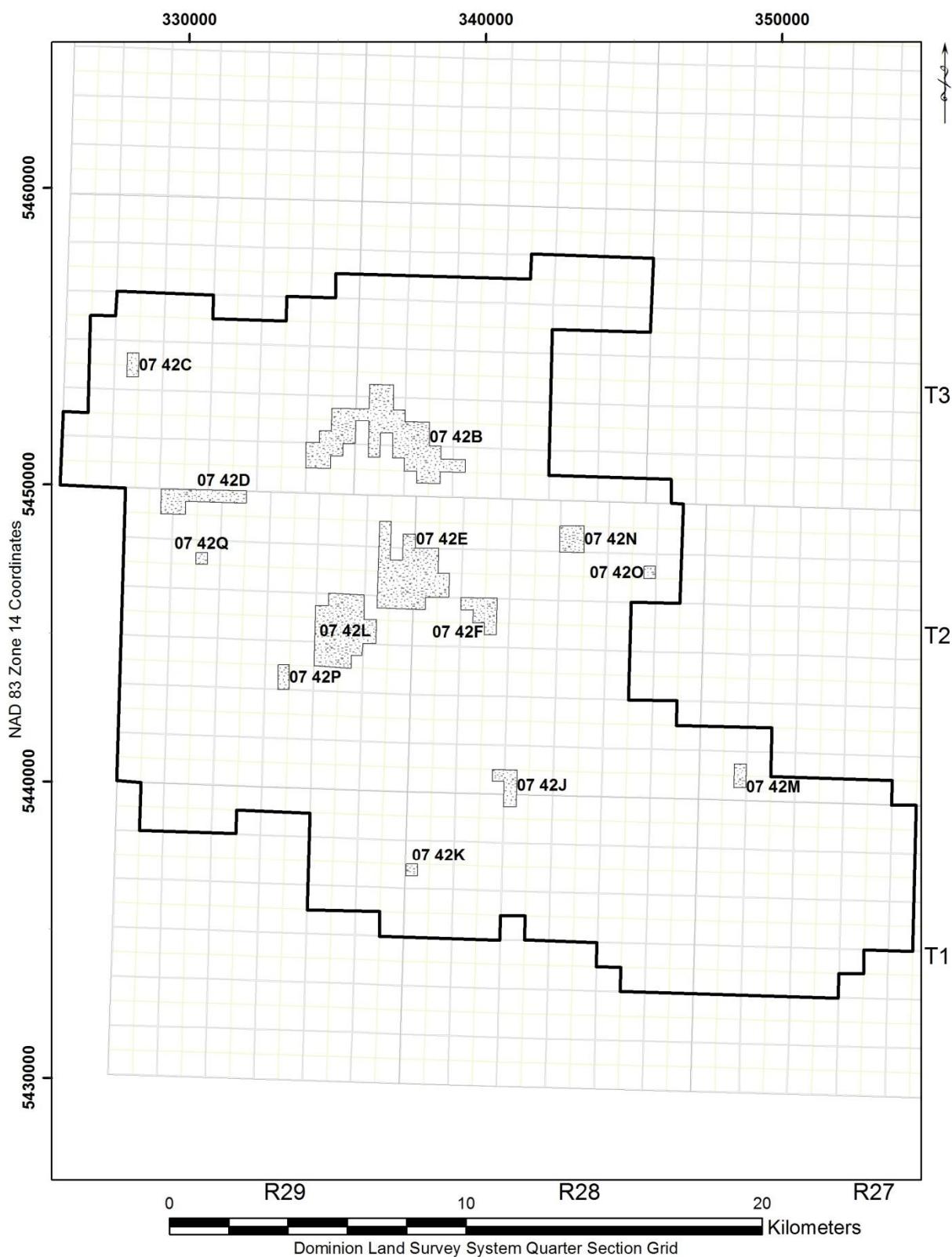


Figure 29 - Pierson Mission Canyon 3b Pools (07 42B – 07 42M)

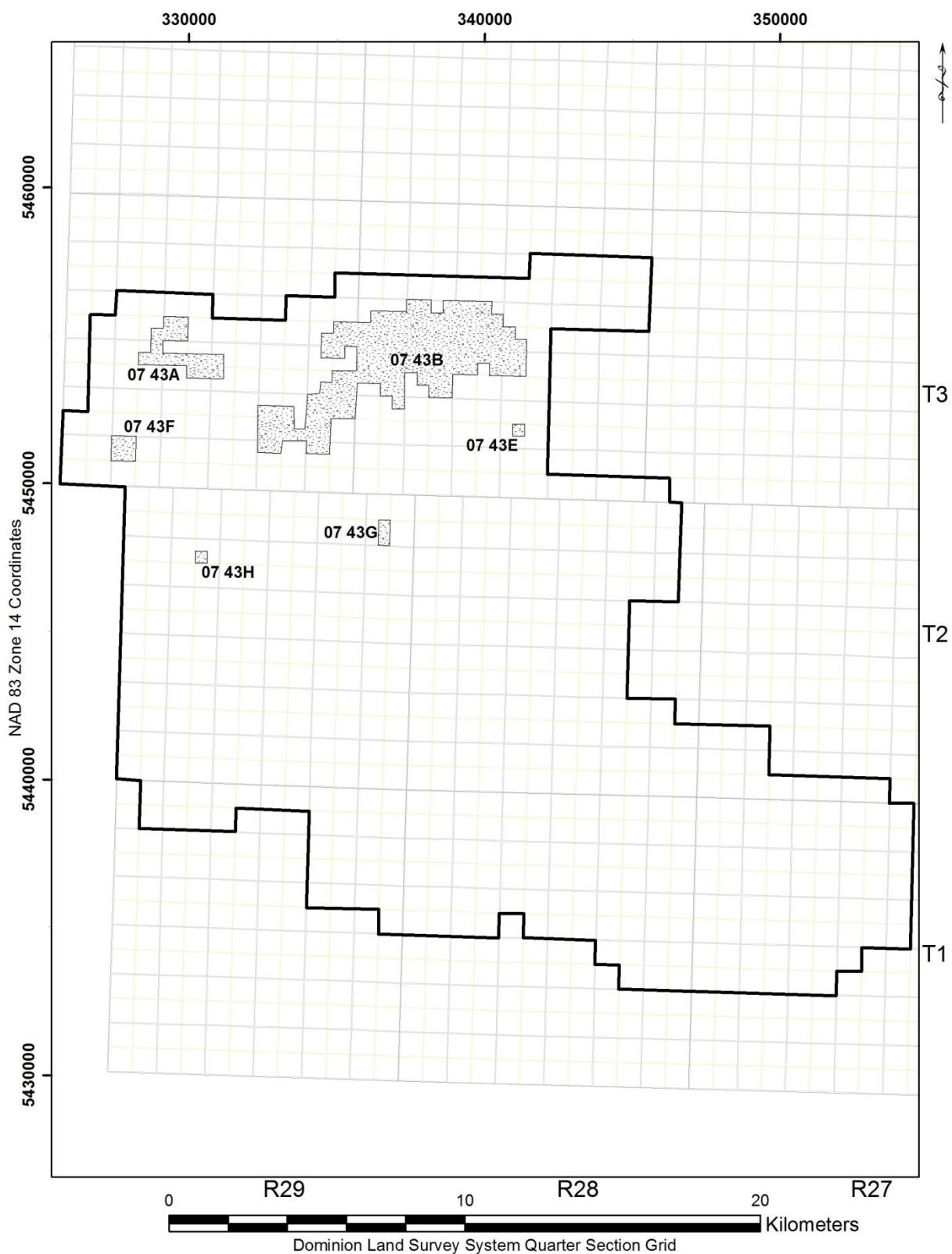


Figure 30 - Pierson Mission Canyon 3a Pools (07 43A – 07 43G)

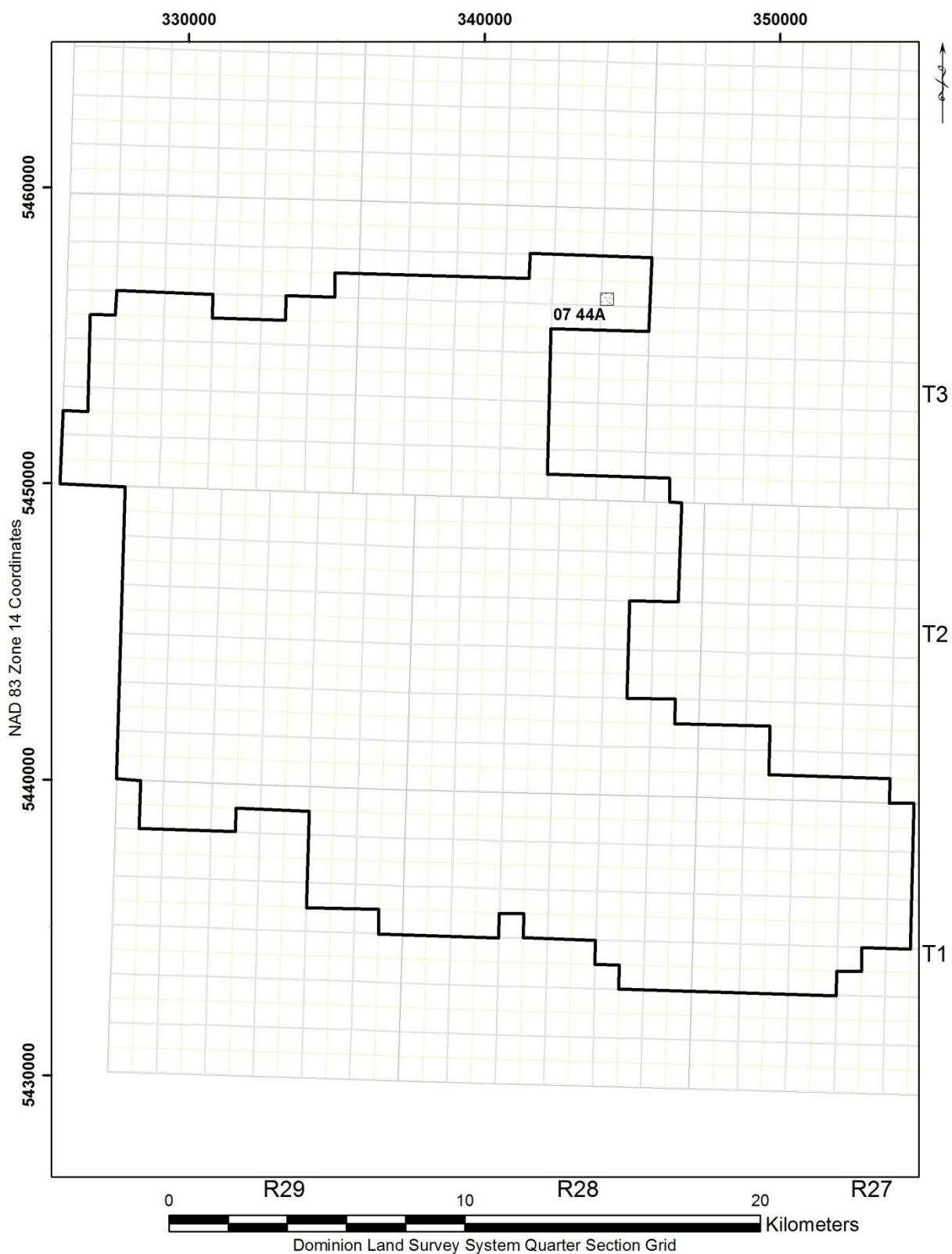


Figure 31 - Pierson Mission Canyon 1 A Pool (07 44A)

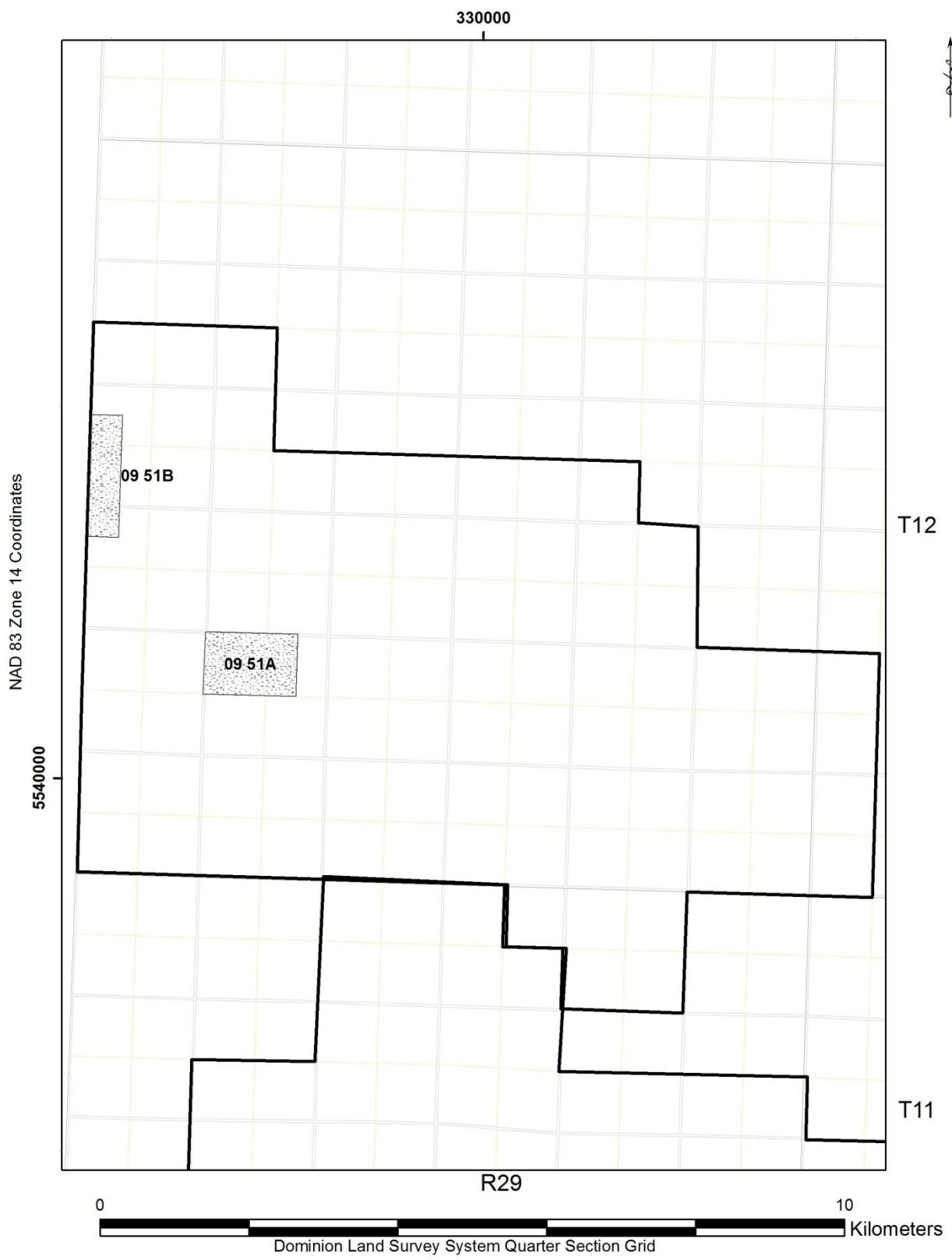


Figure 32 - Kirkella Lodgepole Dolomite Pools (09 51A – 09 51B)

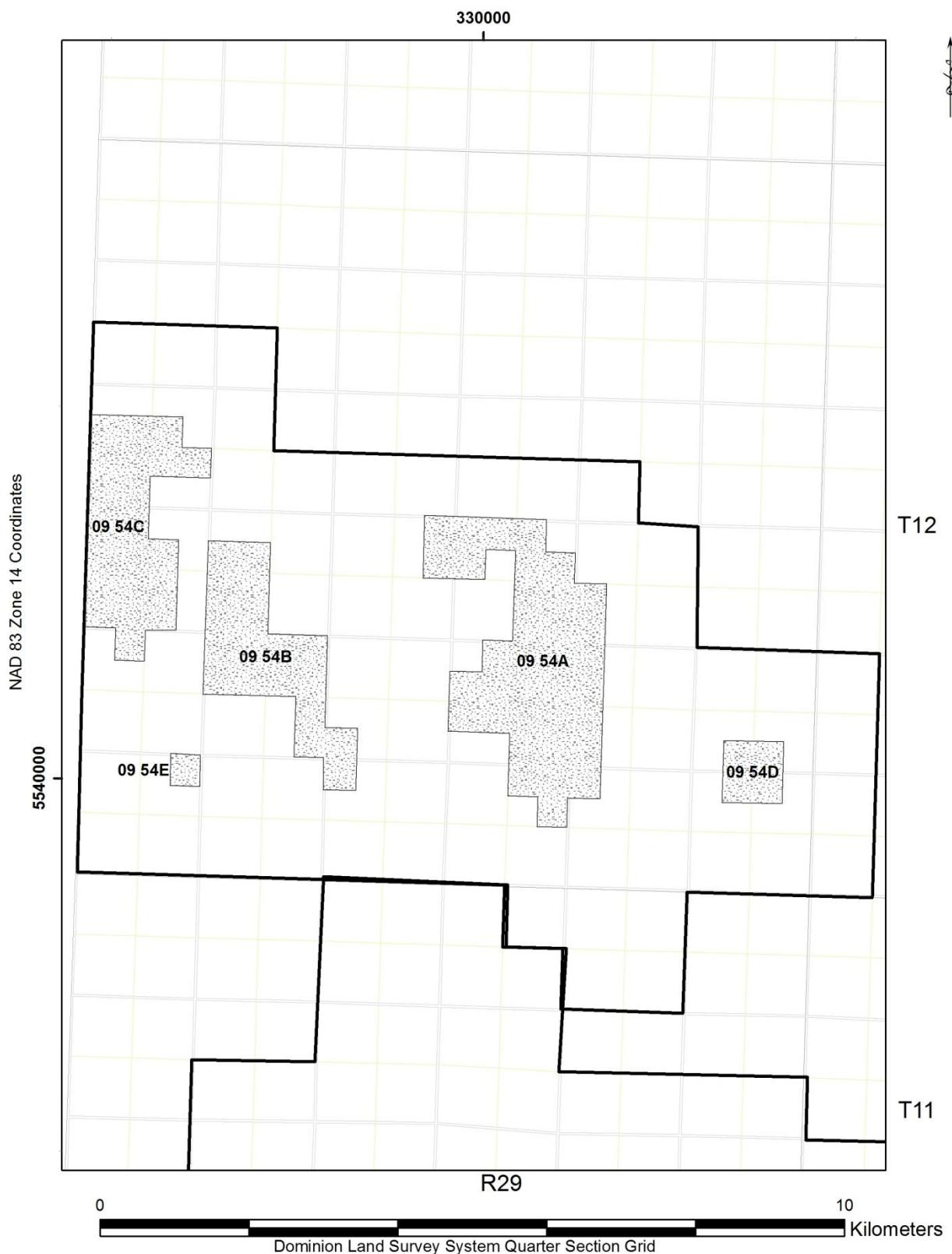


Figure 33 - Kirkella Lodgepole Daly Pools (09 54A – 09 54E)

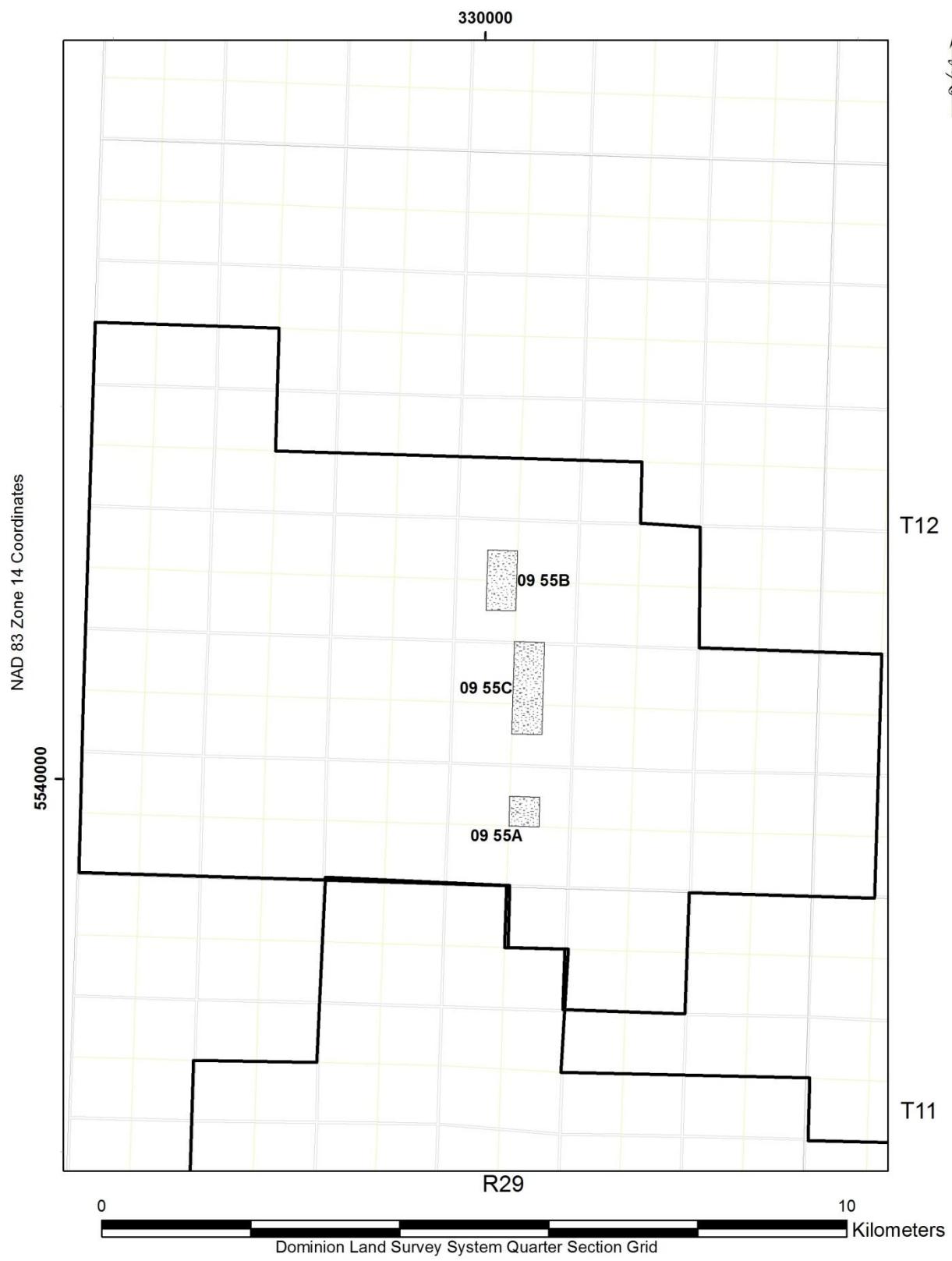


Figure 34 - Kirkella Lodgepole Crinoidal Pools (09 55A – 09 55C)

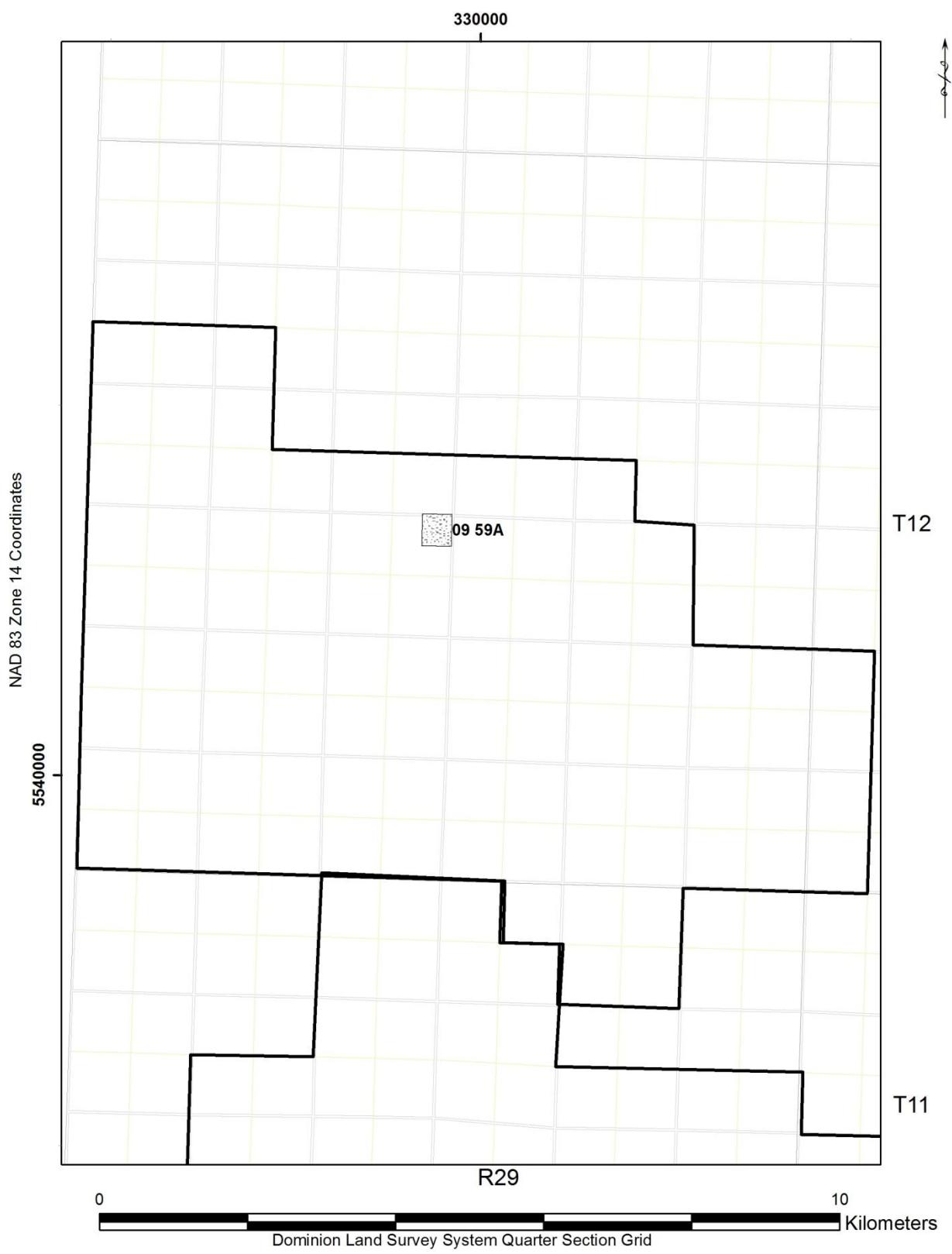


Figure 35 - Kirkella Lodgepole Pools (09 59A)

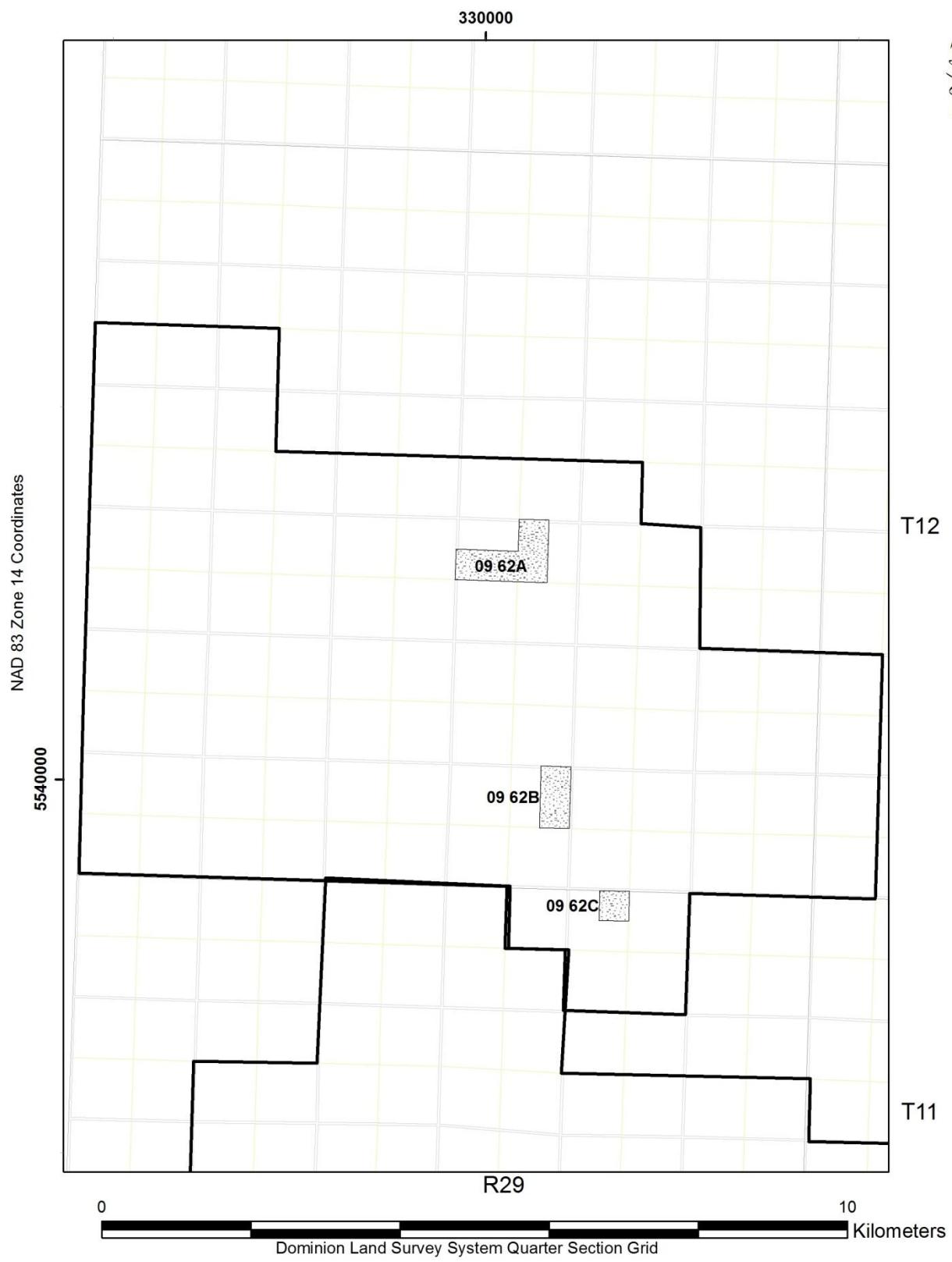


Figure 36 - Kirkella Bakken–Three Forks Pools (09 62A - 09 62C)

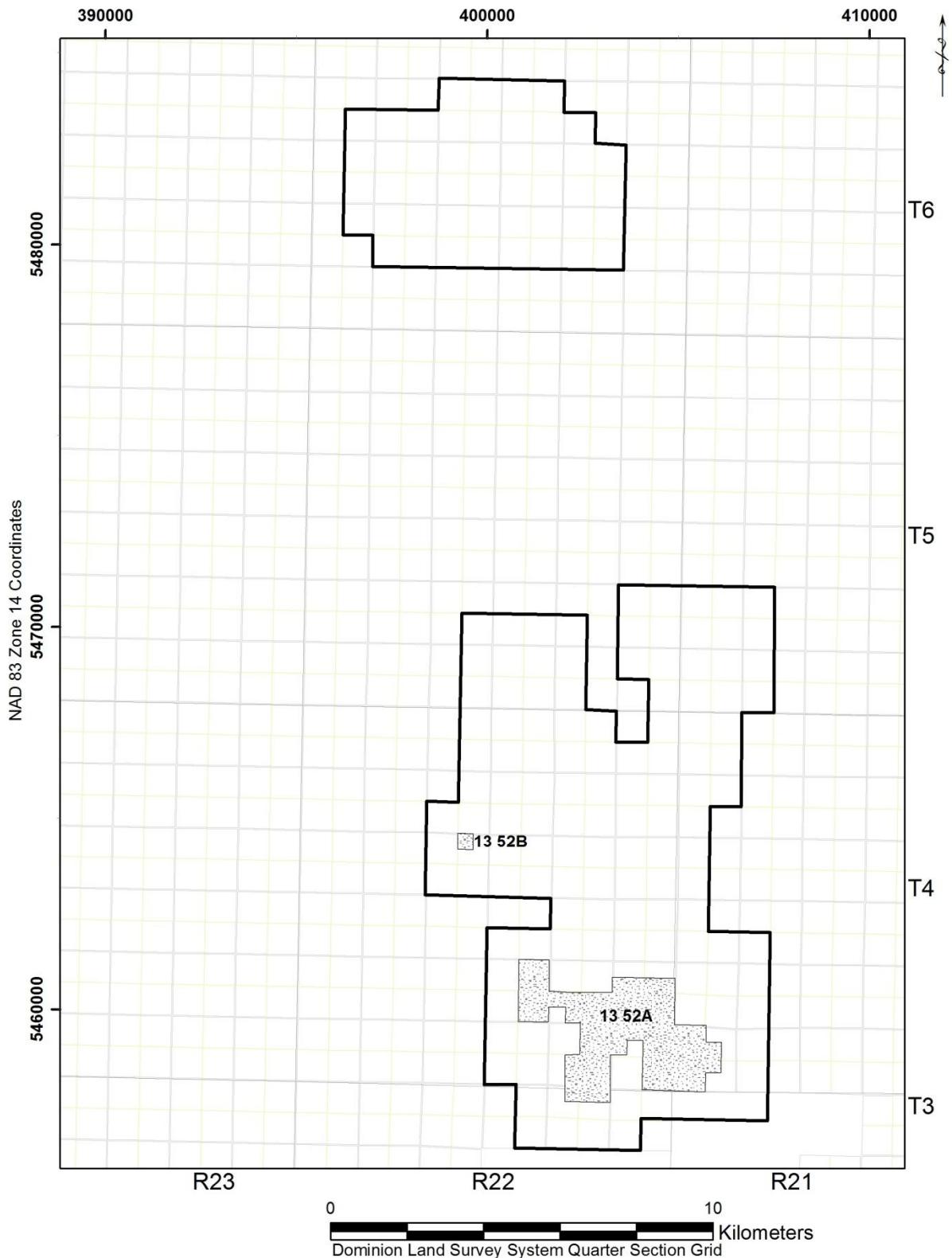
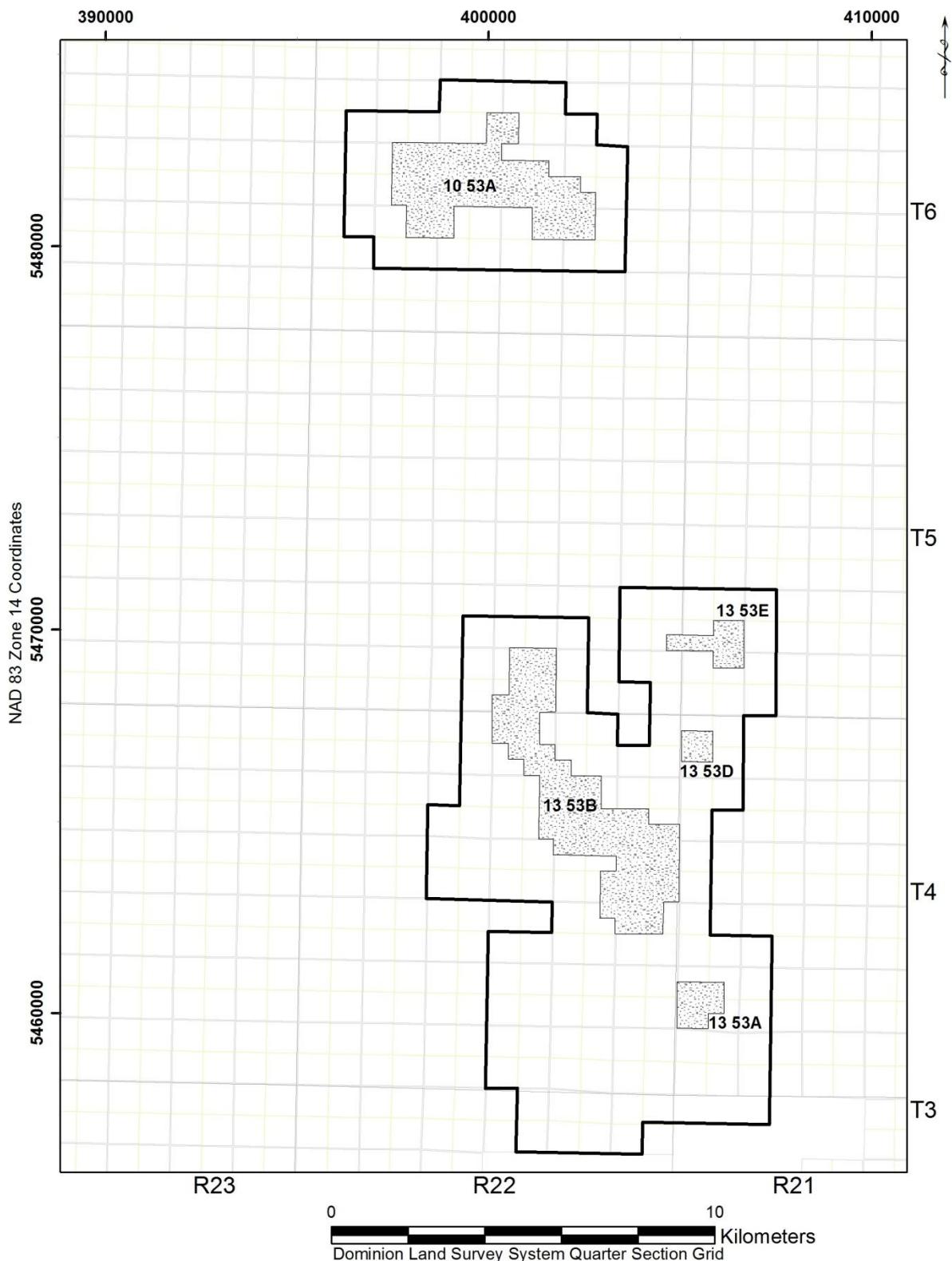
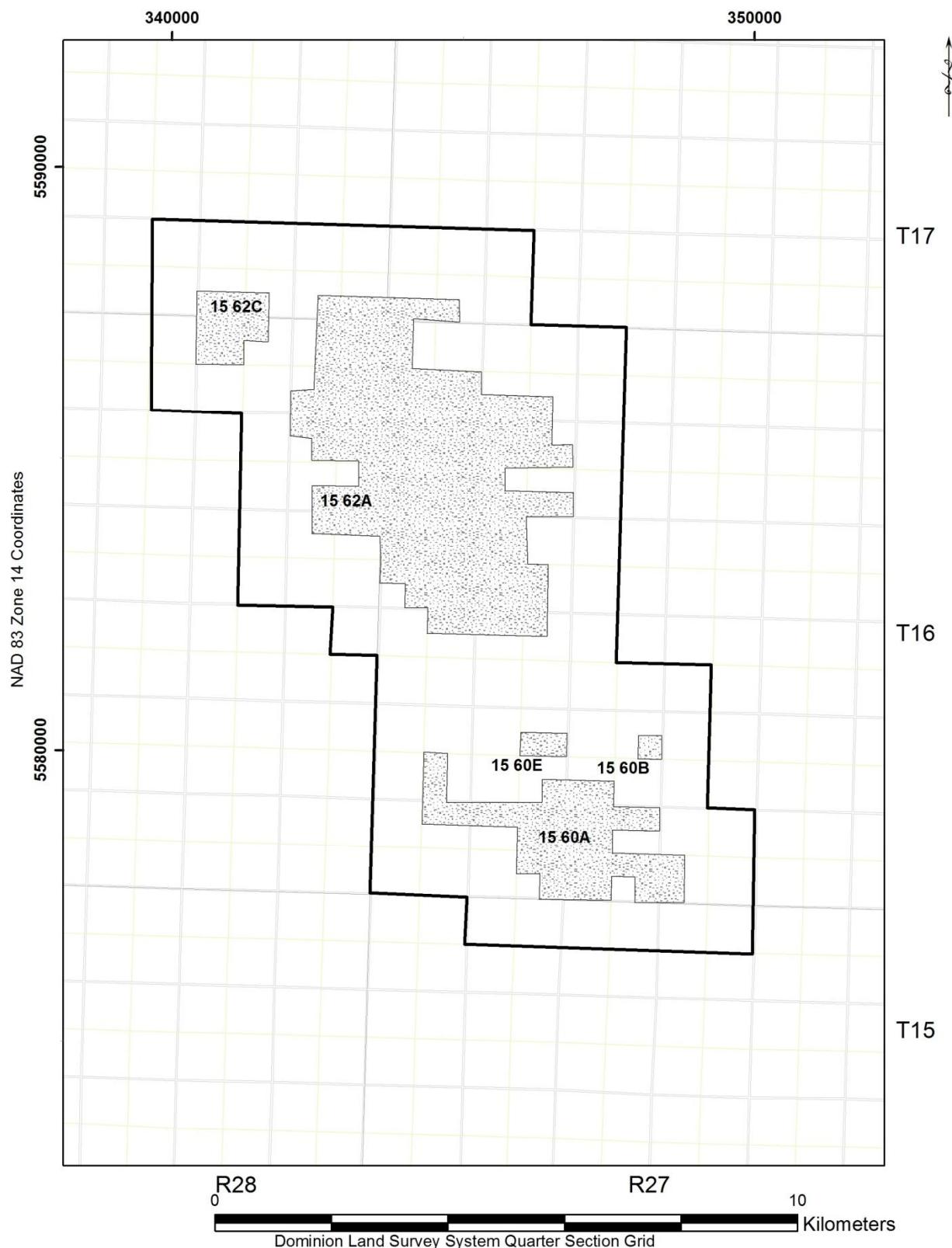


Figure 37 - Souris Hartney & Regent Lodgepole Whitewater Lake Pools (13 52A & 13 52B)



**Figure 38 - Souris Hartney & Regent Lodgepole Virden Pools
(10 53A, 13 53A-E)**



**Figure 39 - Birdtail Bakken & Bakken-Three Forks Pools
(15 60A – 15 60E & 15 62A - 15 62B)**

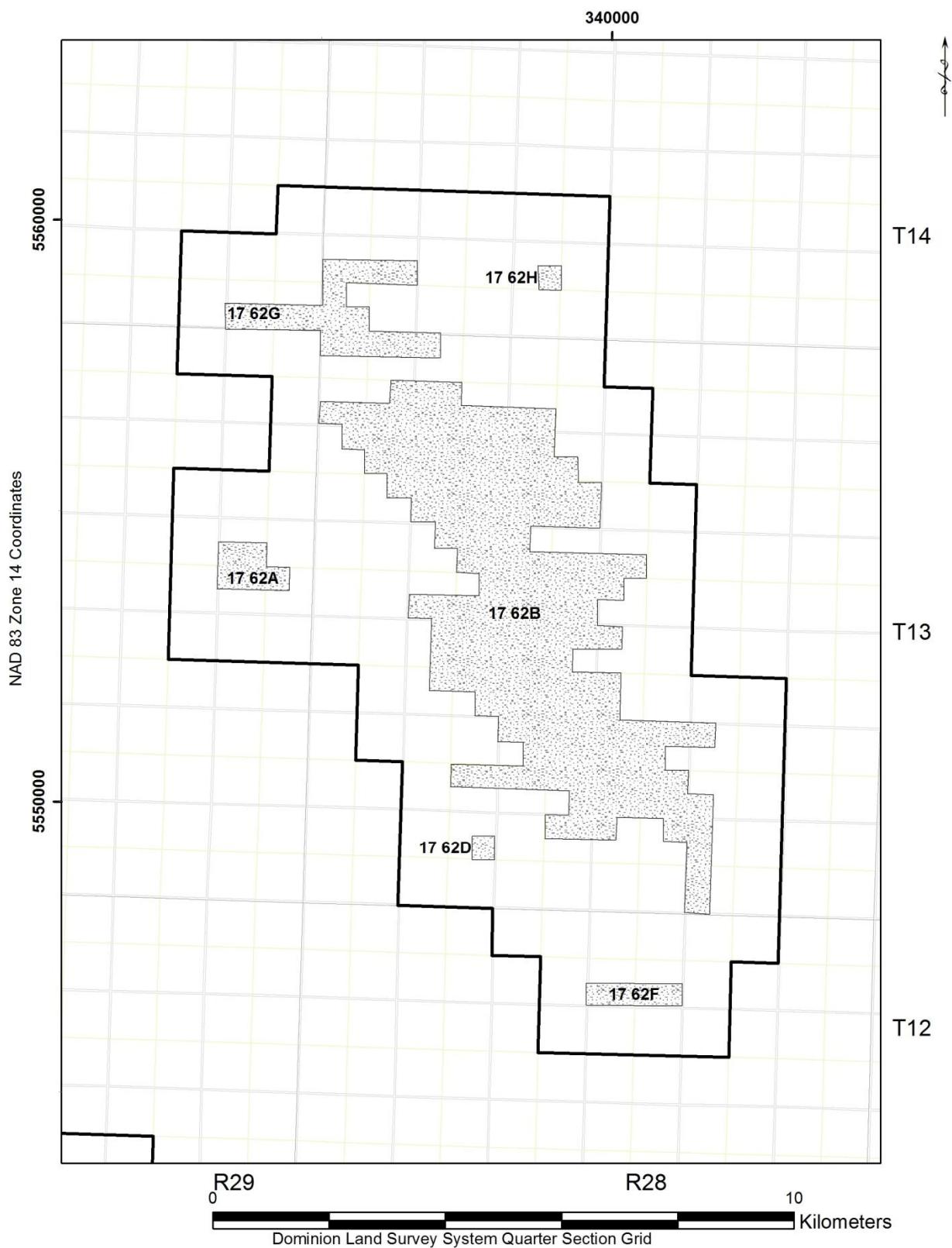


Figure 40 - Manson Bakken-Three Forks Pools (17 62A - 17 62H)

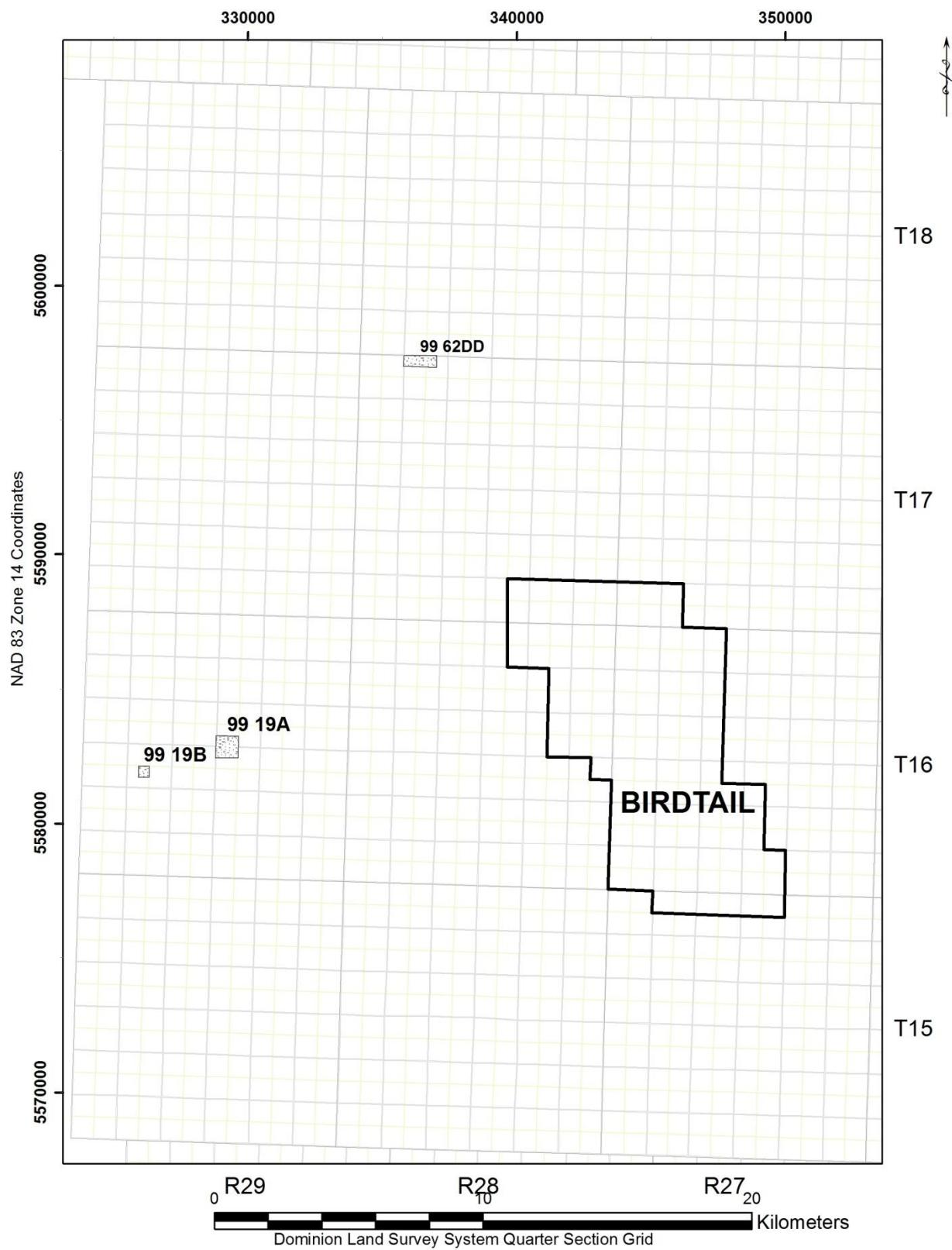


Figure 41 - Other Areas Melita A, B (99 19A & 99 19B) & Bakken-Three Forks DD Pools (99 62DD)

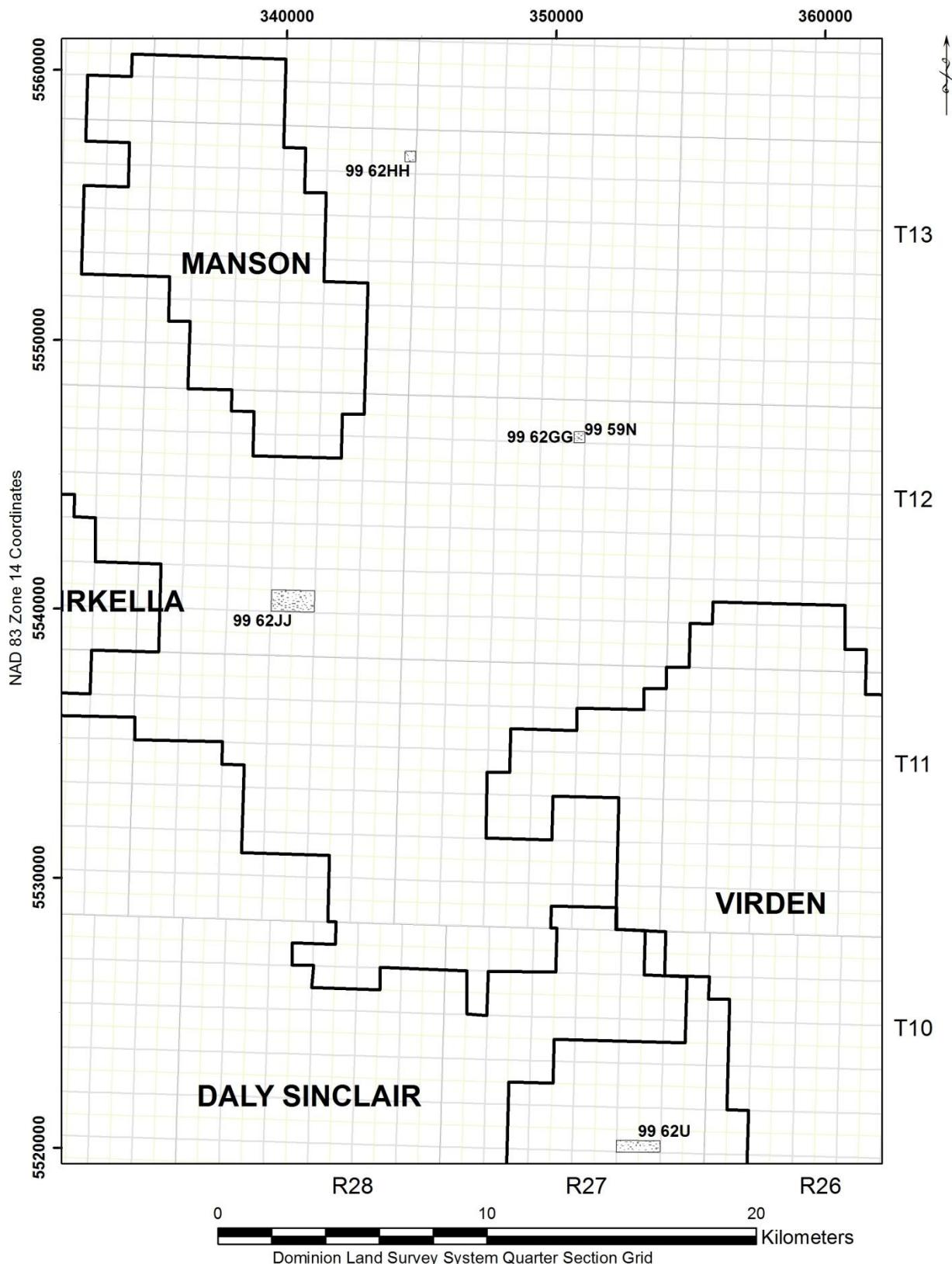
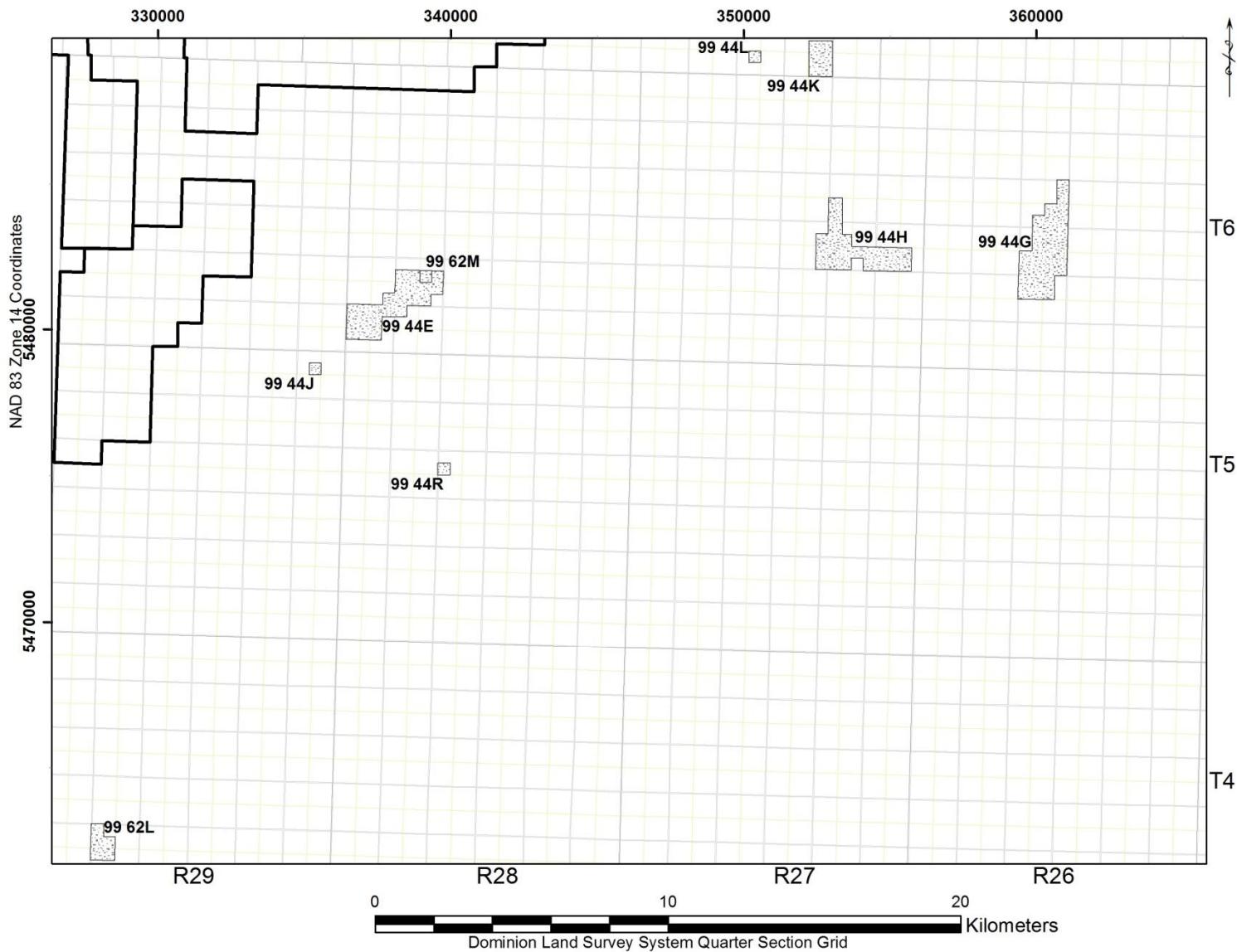


Figure 42 - Other Areas Lodgepole Undifferentiated A (99 59A), Bakken-Three Forks U, JJ & HH Pools (99 62U, JJ & 9962HH)



**Figure 43 - Other Areas Mission Canyon 1 E, G, H, J, K, L, R (99 44E, G, H, J, K, L & R)
& Bakken-Three Forks L, M (99 62L & M) Pools**

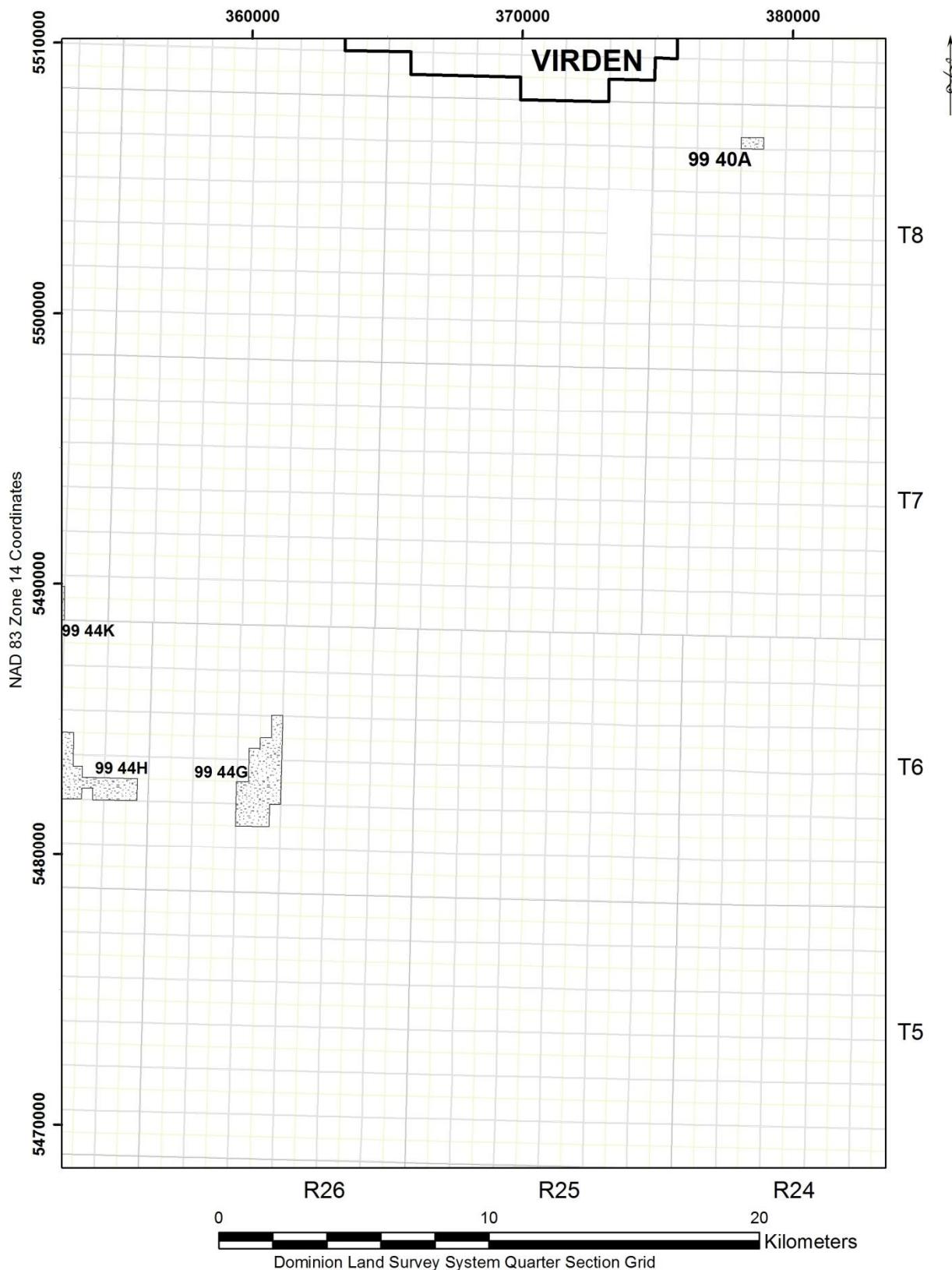


Figure 44 - Other Areas Lower Amaranth- Lodgepole A (99 40A) & Mission Canyon 1 G Pools (99 44G)

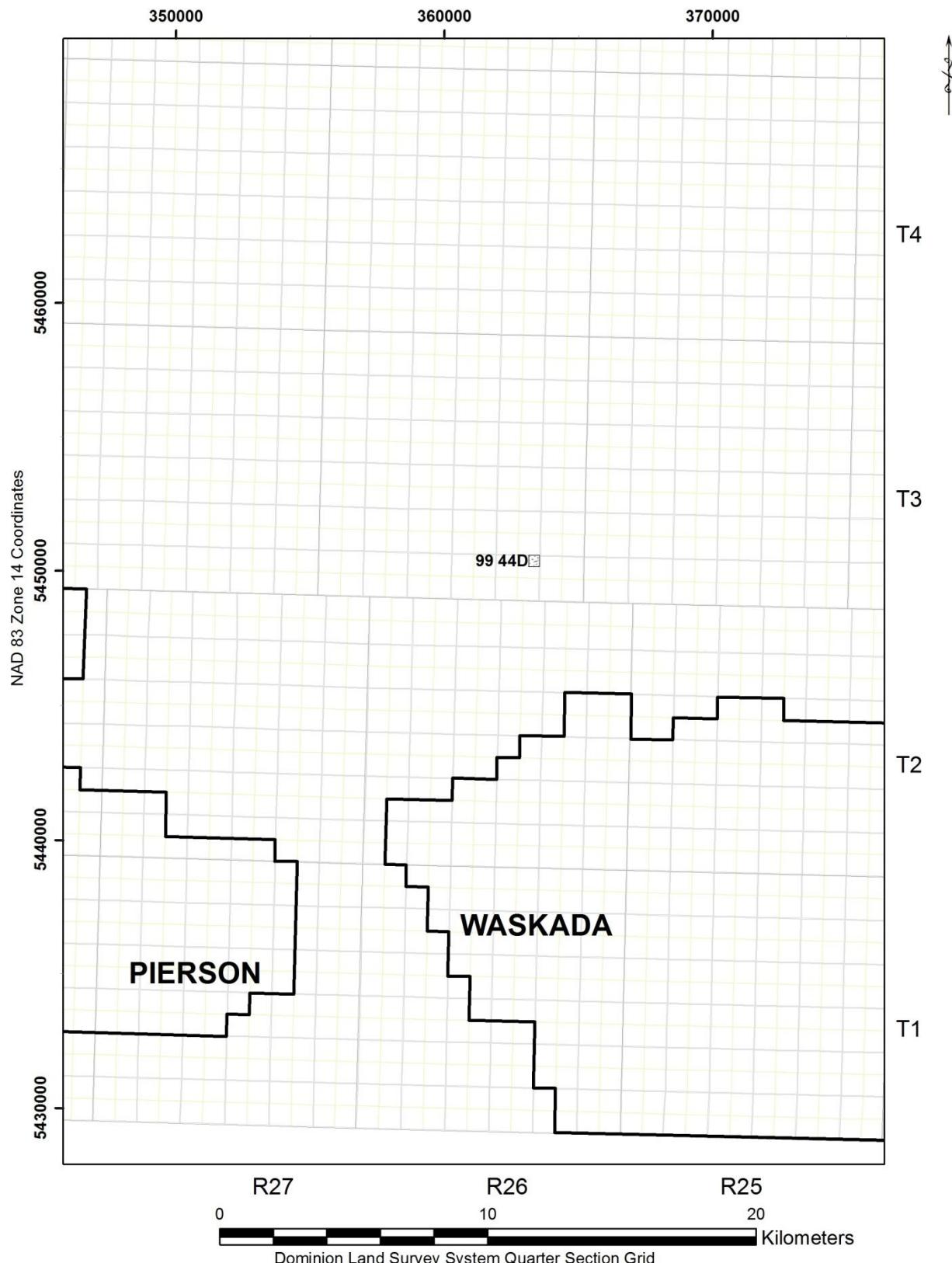


Figure 45 - Other Areas Mission Canyon 1 D Pools (99 44D)

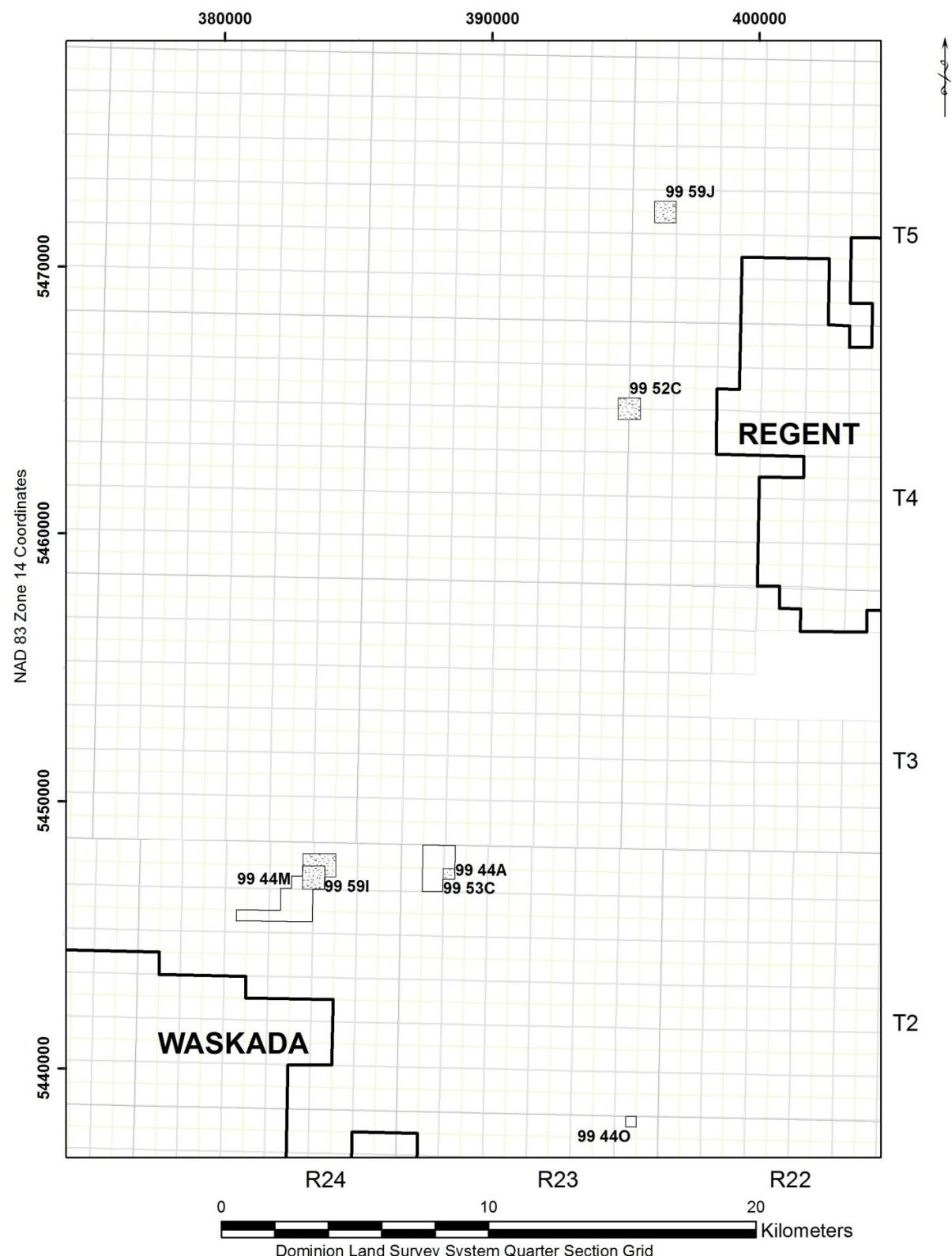


Figure 46 - Other Areas Mission Canyon 1 A, M, O, Lodgepole Whitewater Lake C, Lodgepole Virden C, Lodgepole Undifferentiated I, & J Pools (99 44A, 99 44AM, 99 44O, 99 52C, 99 53C, 99 59I & 99 59J)

APPENDIX A

Grid and scale

The grid used in all the field and pool maps within this report are in the Dominion Land Survey System (DLS) for western Canada and north is always to the top of the map. The Prairie Provinces are divided north and south into 5 areas separated by meridians, the first or Principal meridian is in Manitoba and it is denoted by W1 or WPM in all Unique Well Identifiers (UWI). The area between meridians is divided into ranges (R) each 6 miles wide, these ranges are cross-divided by township lines which run east-west six miles apart, to form townships (T) six miles square. See Figure 1.

Each Township is divided into Sections (Sec) one mile square (640 acres per section) and there are 36 sections in a Township, 6 sections wide by 6 sections high. Each Section is numbered as shown in Figure 47:

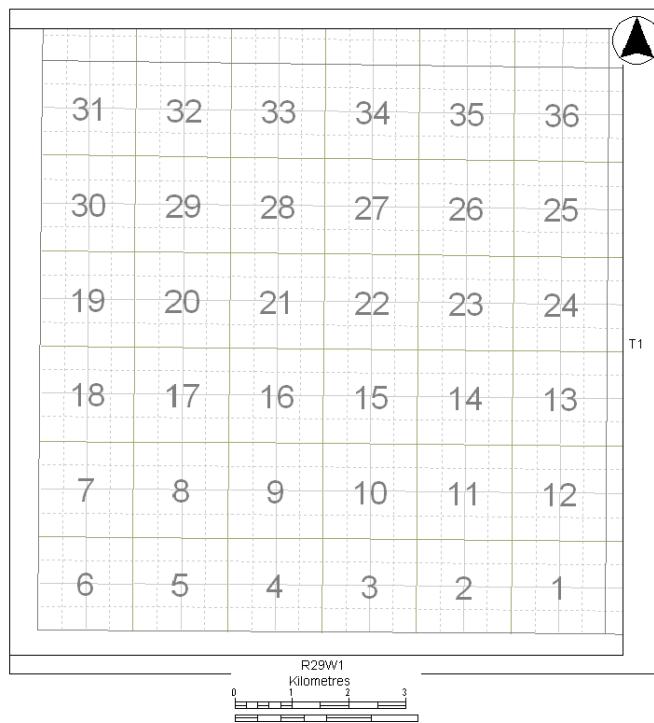


Figure 47
Sections in a Township.

Each Section is divided into 16 legal subdivisions (Lsd), 4 Lsd's wide by 4 Lsd's high, each 402.36m square or 40 acres. Pool boundaries are adjusted by Lsd. Each Lsd is numbered as shown in section 1 of Figure 46. Each section can also be split into $\frac{1}{4}$ sections as shown in Figure 49, this is important to note as field boundaries are adjusted by $\frac{1}{4}$ section. Each $\frac{1}{4}$ section consists of 4 Lsd's and a $\frac{1}{4}$ section is 804.72m square or 160 acres. A map reference is given in the format of a legal survey system reference, Lsd-Sec-Township-Range W1, i.e. 02-09-010-29W1. This is incorporated into the Unique Well Identifier (UWI) a code used to identify each oil well in Manitoba. A UWI is coded as: Survey system code Location Exception code/legal survey system/event sequence code i.e. 100/16-09-010-09W1/00. The DLS system is always represented by a designated code of 01.

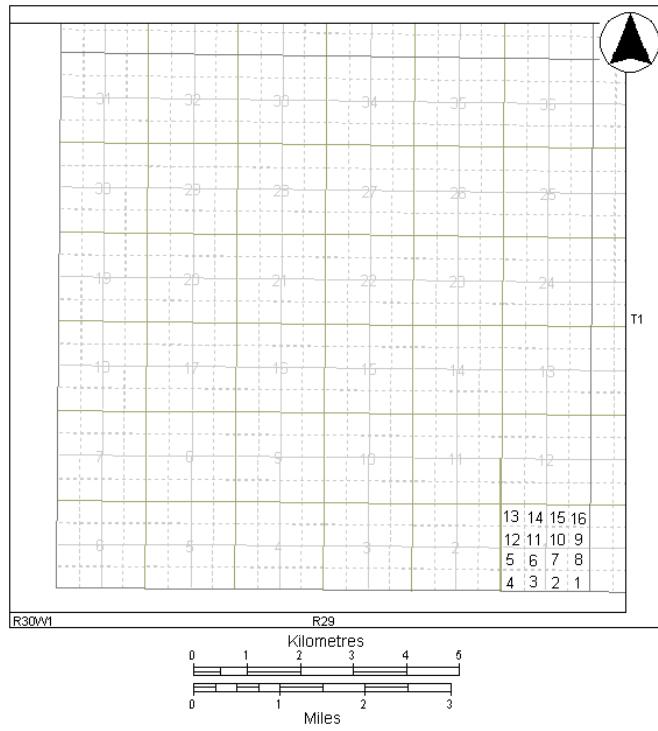


Figure 48
Legal subdivisions in a section.

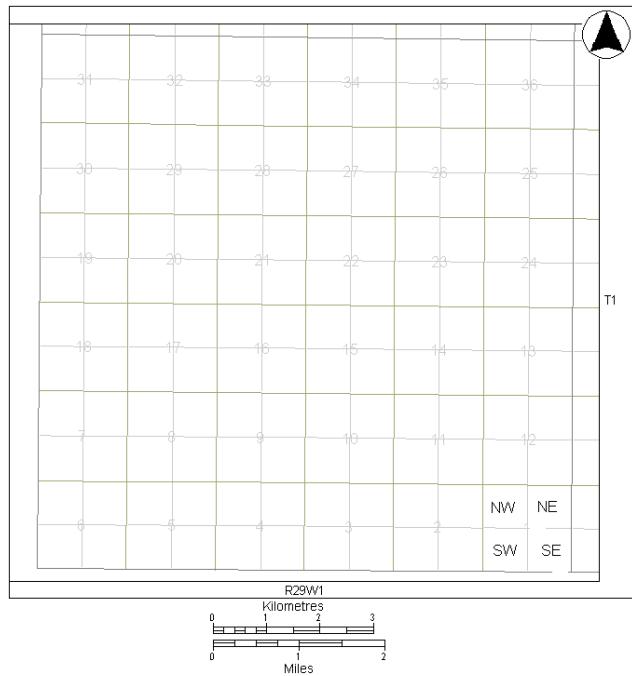


Figure 49
Quarter Section illustration.

APPENDIX B

Manitoba Pool Codes

CODE	FORMATION OR MEMBER	CODE	FORMATION OR MEMBER
10	Favel Formation		
11	Ashville Formation, Newcastle Member	59	Lodgepole, undifferentiated
15	Swan River Formation	60	Bakken Formation
19	Melita Formation	62	Bakken – Three Forks Formations
26	Triassic, undifferentiated	65	Three Forks Formation
29	Lower Amaranth, undifferentiated	71	Birdbear Formation
35	Lower Amaranth – Mission Canyon Formation, MC3b	72	Duperow Formation
39	Mississippian Undifferentiated	73	Souris River Formation
40	Lower Amaranth – Lodgepole undifferentiated	74	Dawson Bay Formation
41	Mission Canyon Formation, MC-3 Member, undifferentiated	75	Prairie Evaporite Formation
42	Mission Canyon Formation, MC-3b	76	Winnipegosis Formation (formerly 75)
43	Mission Canyon Formation, MC-3a	78	Devonian, undifferentiated (formerly 79)
44	Mission Canyon Formation, MC-1 Member	79	Silurian, Interlake Group
49	Mission Canyon Formation, undifferentiated	80	Stonewall Formation
51	Lodgepole Formation, dolomitic	81	Stony Mountain Formation
52	Lodgepole Formation, Whitewater Lake Member	82	Red River Formation
53	Lodgepole Formation, Virden Member	85	Winnipeg Formation
54	Lodgepole Formation, Daly Member	89	Ordovician, undifferentiated
55	Lodgepole Formation, Crinoidal Cruickshank facies	90	Cambrian, Deadwood Formation
56	Lodgepole Formation, Scallion Member(formerly 55)		

January 1, 2013