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## 4.1 INTRODUCTION

This chapter describes the land use, tenure and infrastructure within the footprint of the rail alignment. This chapter further includes an assessment of potential impacts of the rail to existing land use and tenure and identifies mitigation measures to address potential impacts.

### 4.1.1 LEGISLATIVE AND PLANNING FRAMEWORK

#### 4.1.1.1 SPP 1/92 – Development and Conservation of Agricultural Land

SPP 1/92 provides for the protection of good quality agricultural land (GQAL) from inappropriate development. The policy principles of SPP 1/92 state that:

*“Good quality agricultural land has a special importance and should not be built on unless there is an overriding need for the development in terms of public benefit and no other site is suitable for the particular purpose”*

A detailed assessment of GQAL along the rail alignment is provided in **Chapter 4** of this Volume.

#### 4.1.1.2 SPP 2/02 – Planning and Managing Development involving Acid Sulfate Soils

The outcome of SPP 2/02 is the avoidance of the release of acid and associated metals contamination into the environment by either not disturbing Acid Sulfate Soils (ASS) when excavating or otherwise removing soil, sediment, extracting groundwater or filling land or treating, and if required, undertaking ongoing management of any disturbed ASS and drainage waters.

The SPP is relevant to areas of the proposed works below 20 m AHD. This is predominantly made up of works within the first 20 km of the rail alignment. An assessment of ASS risk to the proposed works can be found in **Chapter 4** of this Volume.

#### 4.1.1.3 SPP 1/10 – Protecting Wetlands of High Ecological Significance in Great Barrier Reef Catchments (temporary SPP)

The rail intersects areas mapped as either wetland protection or wetland management areas. Along the rail, a number of the river and creek systems, dams and drainage lines are mapped as wetlands. Most of the works associated with construction of the rail could be described as “high impact earthworks” under the

SPP1/10 and therefore any works that intersect mapped wetlands will need to address the codes contained within this Policy. An assessment of the proposed works against the individual policies of SPP 1/10 can be found in **Chapter 7** of this Volume.

### 4.1.1.4 Regional Plans

The rail falls within the areas of the Whitsunday, Hinterland and Mackay (WHAM) Region Plan and the Central Queensland Regional Plan (CQRP). Both are non-statutory documents that have been endorsed by the Queensland Government. In March 2010, the Queensland Government announced the preparation of a statutory version of the WHAM Regional Plan. In contrast to the existing non-statutory regional plan, the new regional plan will have statutory standing and provide a policy framework for the growth of the region.

WHAM covers the Whitsunday, Mackay and Isaac Regional Council areas while the CQRP incorporates the Banana Shire Council, Central Highlands Regional Council, Gladstone Regional Council, Rockhampton Regional Council and Woorabinda Aboriginal Shire Council areas.

The rail is located across sub-regions of the CQRP and WHAMS, which both list mining as major industries in the region.

### 4.1.1.5 Local Planning Schemes

The majority of the properties immediately affected by the rail are zoned as rural under the relevant planning schemes, as follows:

- properties within the Whitsunday Regional Council (WRC) (chainage KP5 – KP225 ) regulated by the Bowen Shire Planning Scheme (2006);
- properties within Isaac Regional Council (IRC) area (chainage KP225 km – KP375) regulated by the Belyando Shire Planning Scheme (2008); and
- properties within the Barcaldine Regional Council (BRC) (KP375 to KP468) regulated by the Jericho Shire Planning Scheme (2006);

Properties within the APSDA are zoned under the Development Scheme for the Abbot Point State Development Area (2008). The bulk of the rail in this area is zoned as either “Industry” or “Environmental Management / Materials Transport” Precincts.

A review of the relevant Local Government planning schemes affected by the project indicates that the works

would normally be considered assessable under the relevant planning schemes. However, as the project is declared as significant under the State Development and Public Works Organisation Act 1971, it is exempt from requiring a Material Change of Use (MCU) under relevant planning schemes. Operational Works permits under the relevant planning schemes are not considered exempt and will be obtained where required prior to the commencement of construction activities.

## 4.2 DESCRIPTION OF EXISTING ENVIRONMENT

### 4.2.1 REGIONAL SETTING

The project footprint spans the WRC (KP5 – KP225), Isaac Regional Council (IRC) (KP225 to KP375) and BRC (KP375 to KP468). The location of the rail easement in proximity to the various Regional Council boundaries is shown at **Figure 1** and **Figure 2**.

The Project falls within the WHAM and Central West (CW) Regions. The major land uses within these regions are agricultural, horticultural and extractive industries. The beef cattle industry is the predominant land use within both regions (WHAM Regional Plan, 2006 and CW Regional Plan 2009), with agriculture and horticulture industries dominating the coastal plains.

The rail commences at the APSDA. The APSDA is presently used for grazing; however, the APSDA has been established to enable the State to facilitate and effectively manage the planned development and operation of the area and associated infrastructure for industrial purposes of regional, State and national significance.

### 4.2.2 LAND USE

The extent of the rail is classified for production from relatively natural environments. Discrete parcels of land are found along the alignment and are classified as, 'Water or Production from Agriculture' (Dry Land and Irrigated) land use purposes which potentially encroach or abuts the corridor in various locations. The rail avoids areas of land classified for conservation purposes. The land use and conservation of lots intersected by the proposed alignment is shown at **Figure 3** to **Figure 6**. A general description of each section is provided below.

**KP5 to KP95 (Figure 3):** Two discrete parcels of land used for dry land and irrigated agriculture located east

of KP05 and KP20 are within close proximity to the rail corridor. A water body adjoins the rail corridor buffer area (1.6 km wide) between KP78 and KP80. An area of land used for intensive purposes (mining) encroaches on the rail buffer area and adjoins on the eastern elevation near KP80 to KP85.

Mount Aberdeen National Park is located approximately 5 km east of the rail alignment near KP35 to KP45. The Aberdeen Nature Refuge is set on two parcels of land. Both of these conservation areas are considered to be well outside the Project's buffer area. The Mount Pleasant Nature Refuge is present and conjoins to the southern extent of the Mt Aberdeen Nature Refuge, extending from KP45 to KP55.

Multiple parcels of land predominantly classified as State Forest are observed within a section of the rail line, none of which are considered to encroach upon the proposed rail alignment. The closest is classified as a Reserve located to the west KP75.

**KP95 to KP235 (Figure 4):** Discrete areas of land classified as Production from Irrigated Agriculture (Irrigated Cropping) and Water are observed to the west of approximately KP95 and KP225, respectively, however, not considered being within close proximity to the alignment. Areas of conservation do not intersect or encroach upon the alignment. The closest conservation area is a parcel of land classified as 'State Land', located to the west of KP150 and KP155.

**KP235 to KP360 (Figure 5):** Land classified as a water body encroaches on the buffer area at approximately KP290. A parcel of land classified as Production from Irrigated Agriculture and Plantations is observed to adjoin the water body on the southern elevation, but does not encroach on the buffer area; however, no areas of conservation intersect or encroach upon the alignment.

**KP360 to KP468 (Figure 6):** The rail alignment does not intersect or encroach upon any high value primary industries such as cropping or horticulture. An isolated area of land located west of the rail alignment is classified for Intensive Purposes (Mining) although it is outside the Project area. The Cudmore National Park is located approximately 20 km west of KP395. The Cudmore Resources Reserve resides between the rail alignment and Cudmore National Park. Discrete areas of Reserves, National Parks and Nature Refuges are present in the vicinity of the Project's study area; however, these do not encroach on the buffer area.

Figure 1. Regional Council Boundaries (Map 1 of 2)

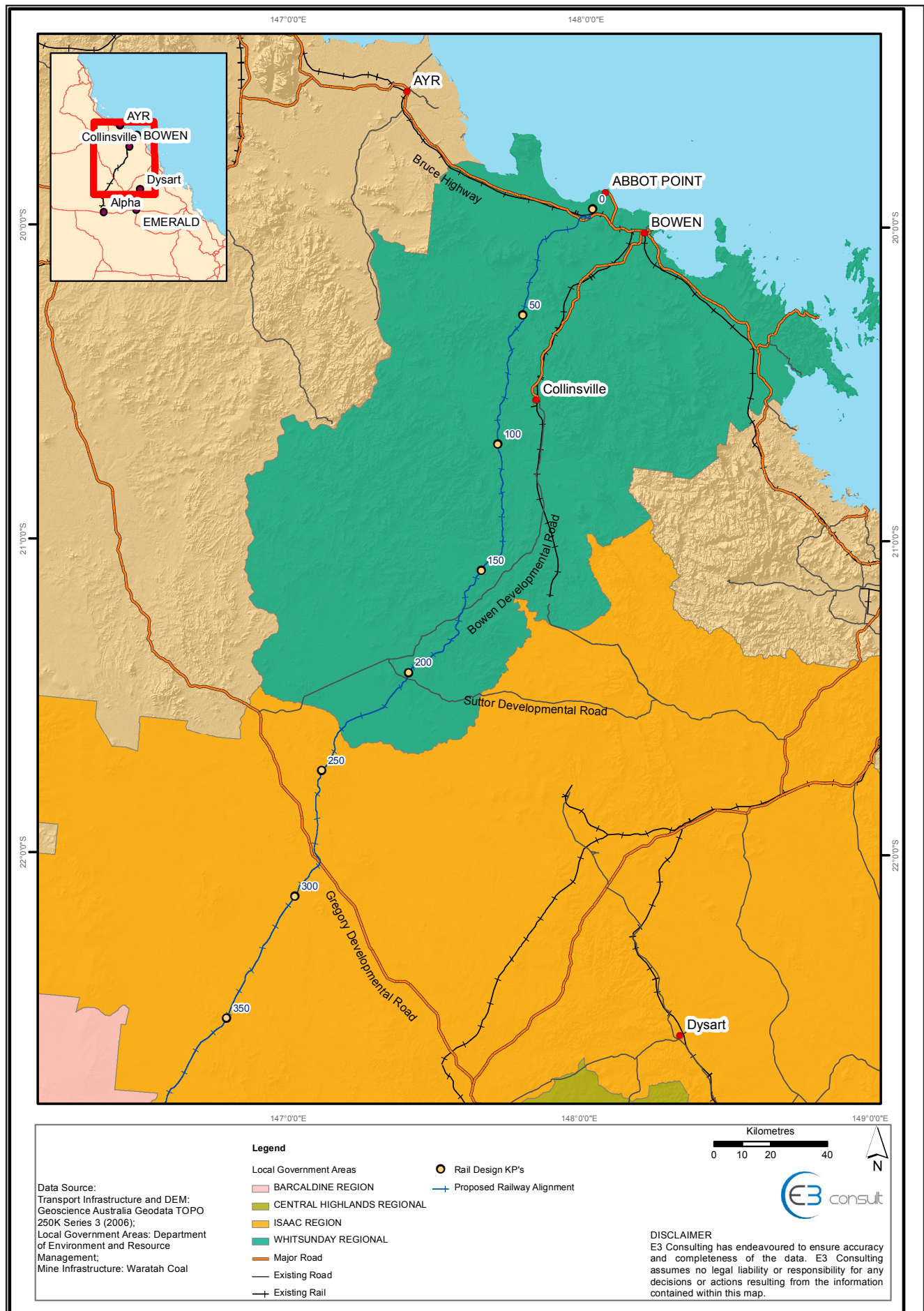




Figure 2. Regional Council Boundaries (Map 2 of 2)

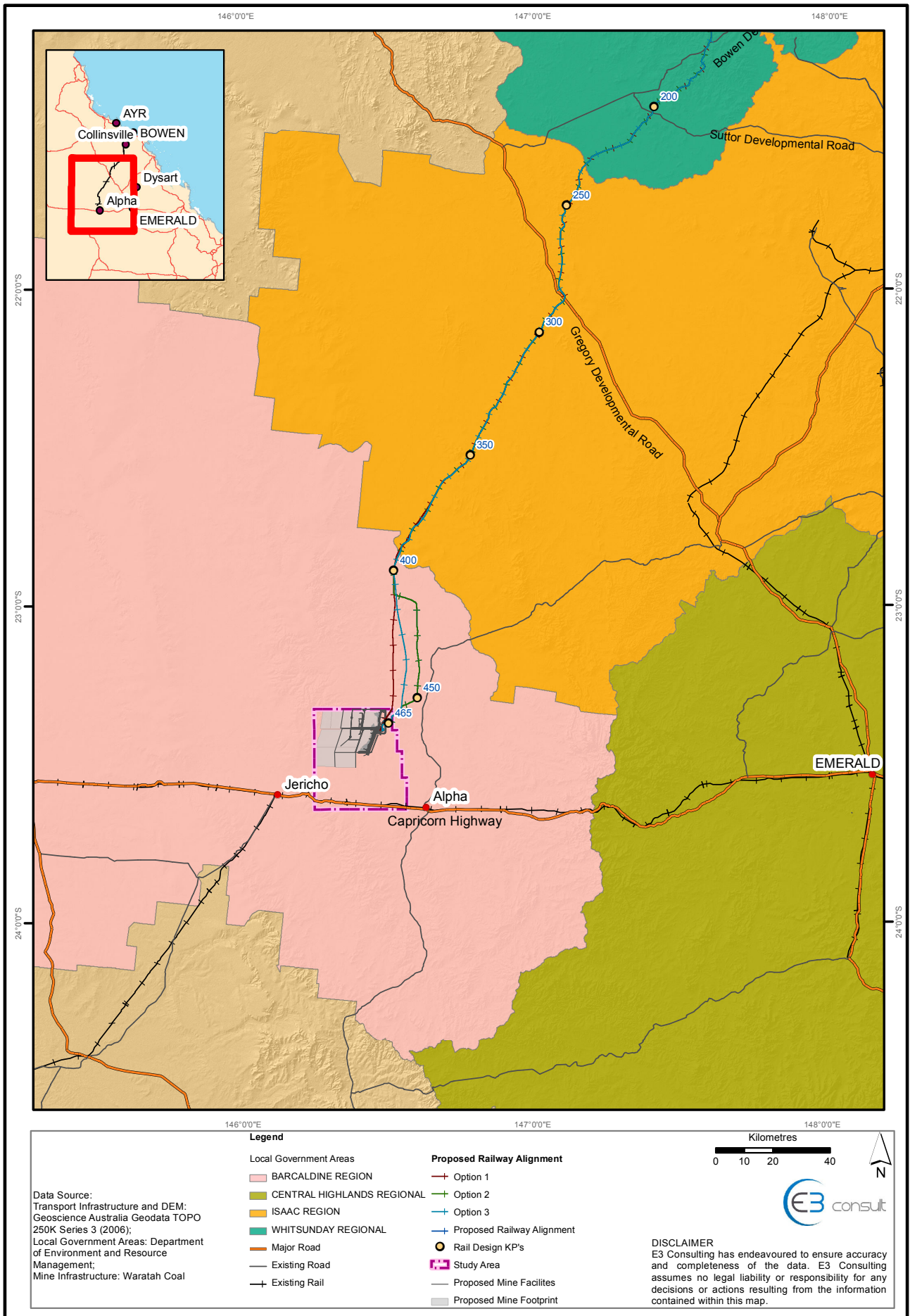


Figure 3. Rail corridor land use and conservation: KP05 to KP95 (Map 1 of 4)

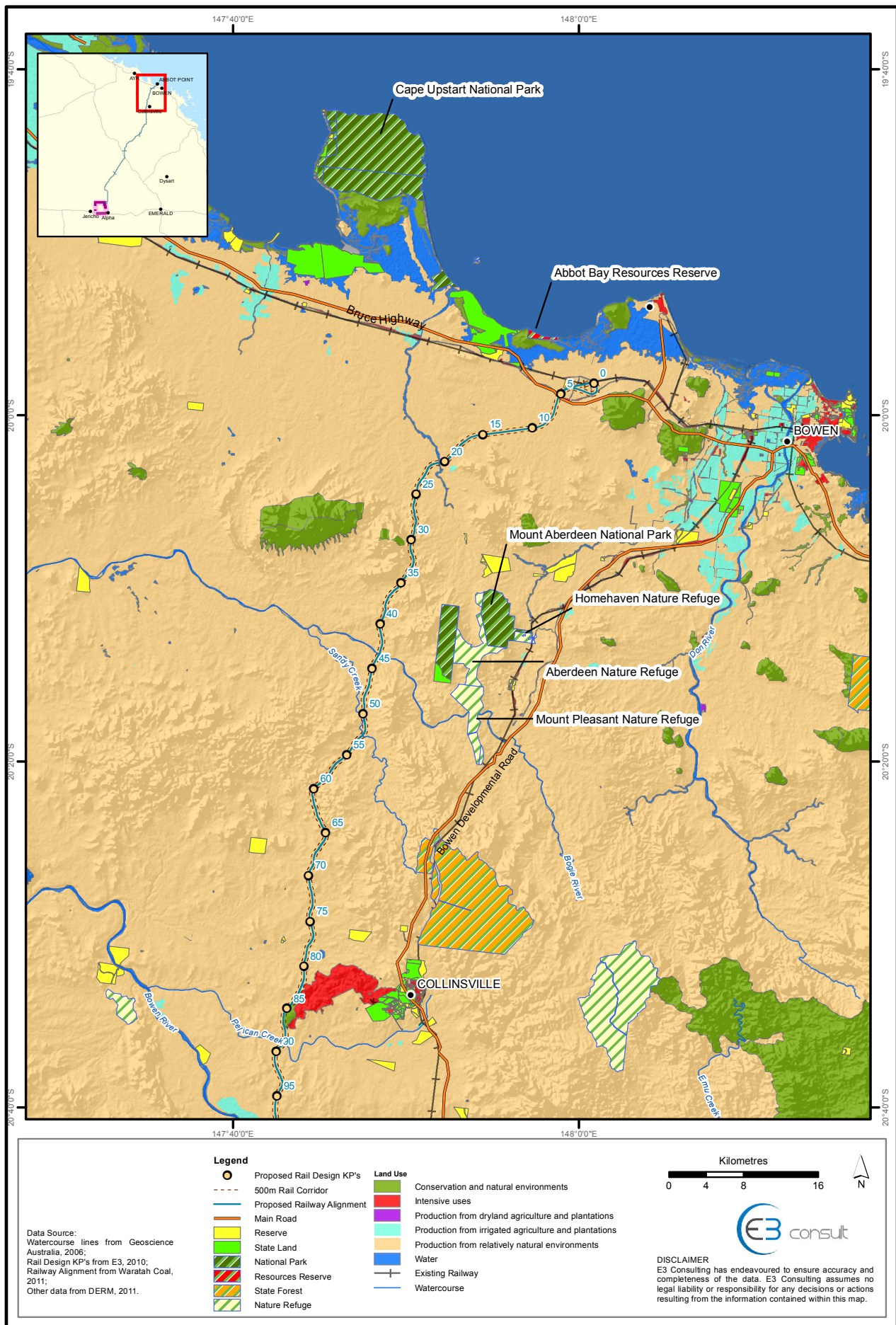




Figure 4. Rail corridor land use and conservation: KP95 to KP235 (Map 2 of 4)

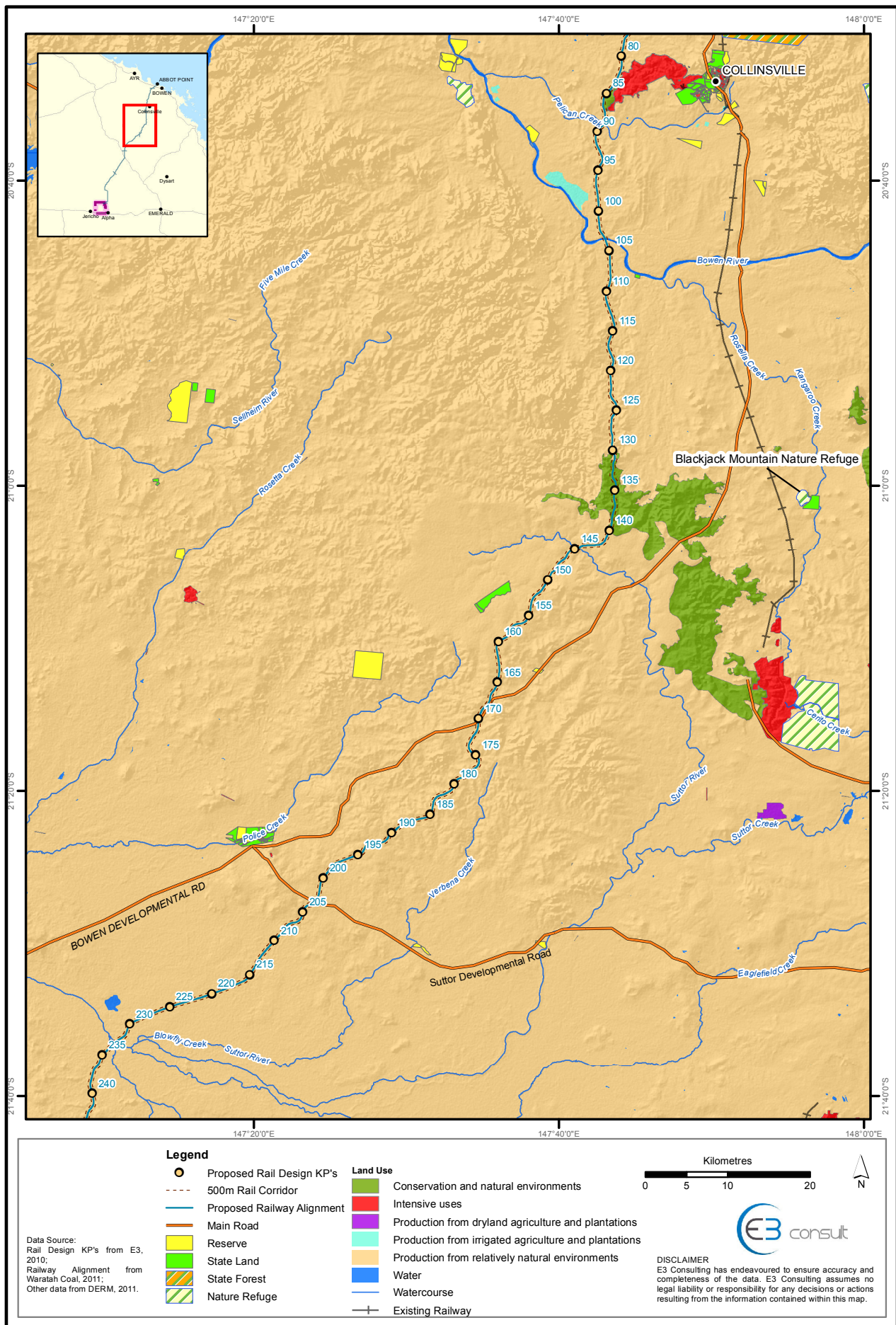




Figure 5. Rail corridor land use and conservation: KP235 to KP360 (Map 3 of 4)

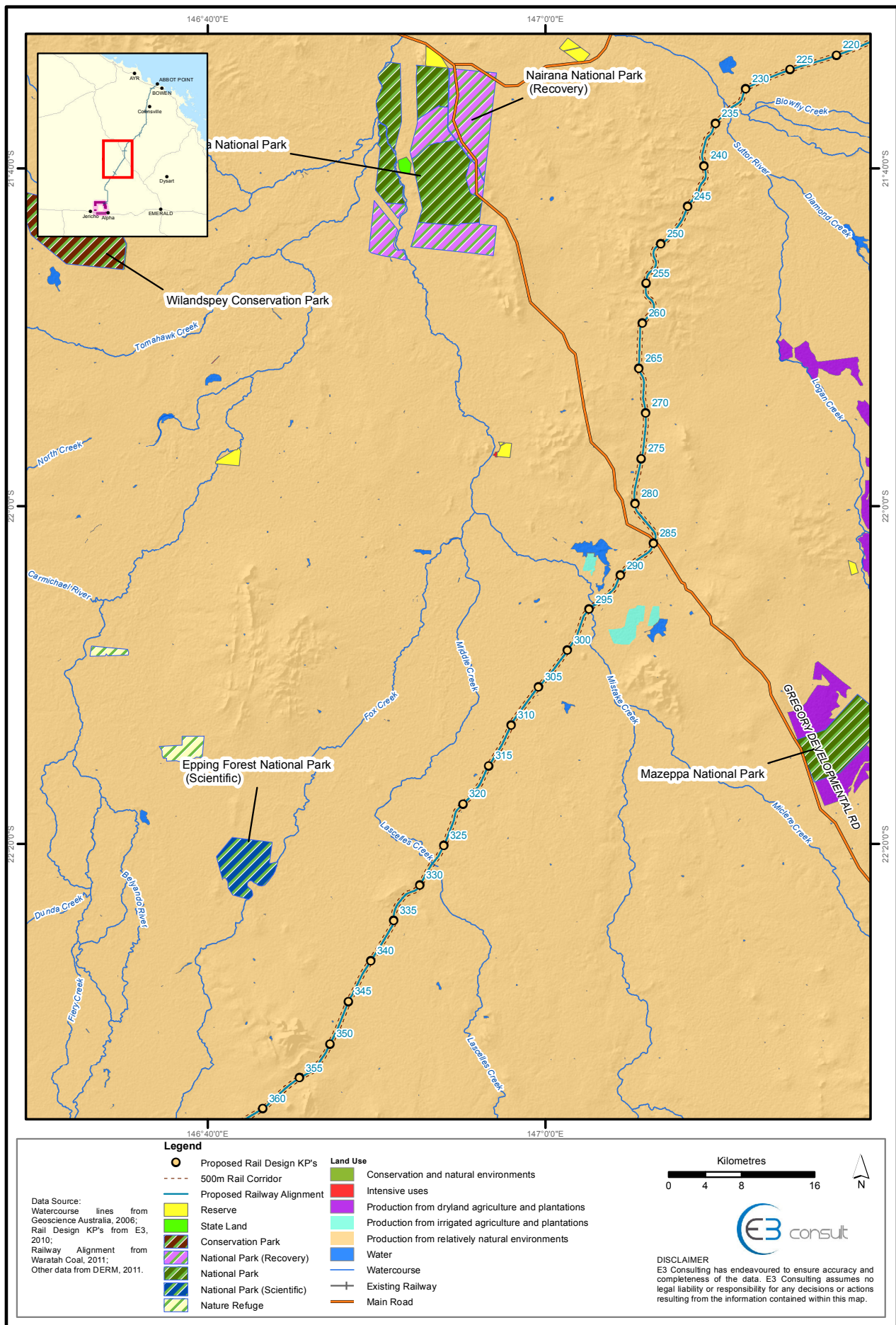
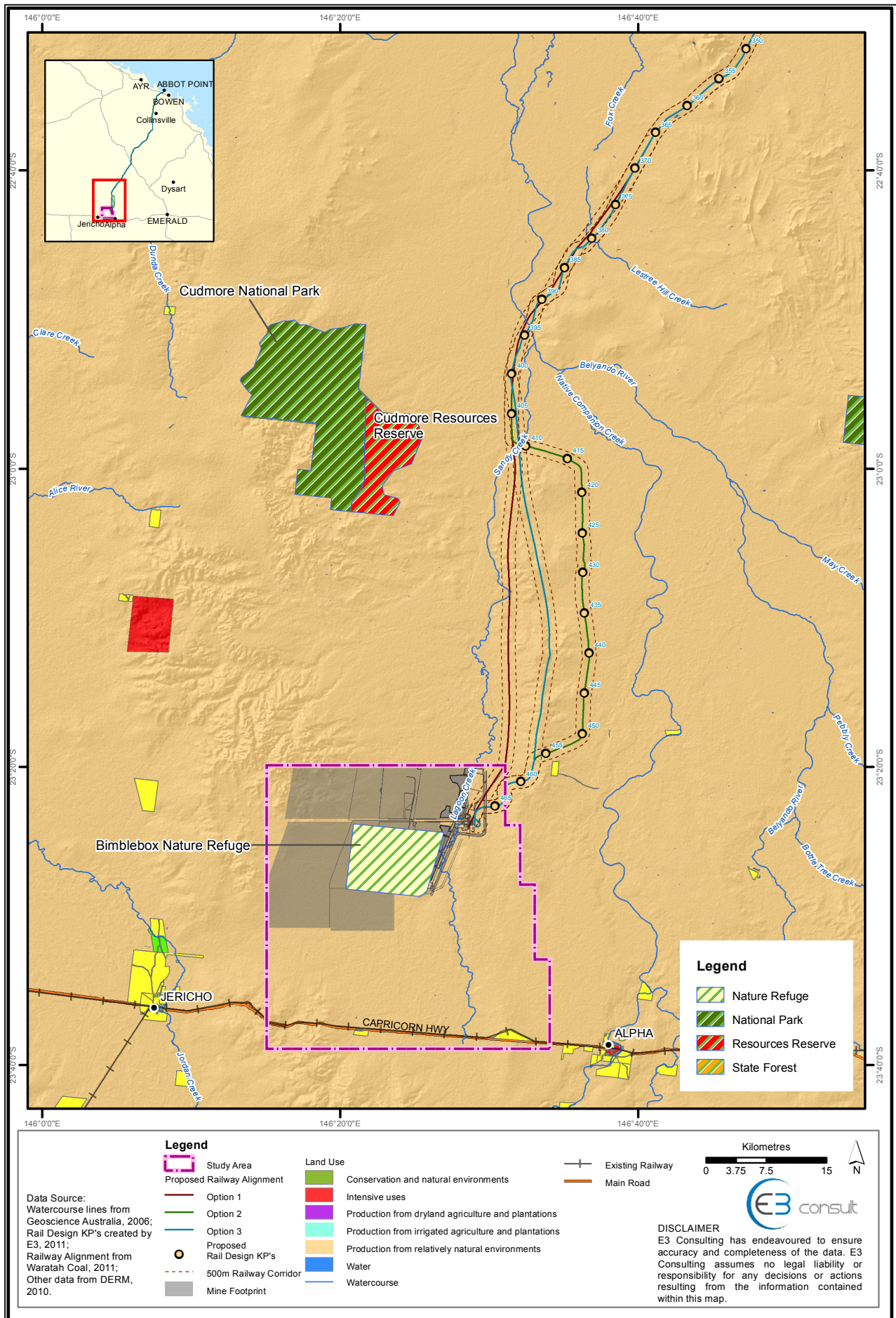


Figure 6. Rail corridor land use and conservation: KP360 to KP468 (Map 4 of 4)





### 4.2.3 LAND TENURE

The land tenure within the rail alignment is shown at **Table 1**. The majority of these land tenure are zoned as rural and administered by the relevant Planning Schemes for the Barcaldine Regional Council (BRC), Isaac Regional Council (IRC) and Whitsunday Regional Council (WRC).

A total of 49 separate allotments intersect the rail corridor between KP5 and KP460, please note, land tenure within the APSDA is the responsibility of the Coordinator General. The predominant land tenure type is leasehold which comprises some 95% of existing tenure types with freehold land comprising some 5% of tenure type. Land identified as freehold only exists between KP5 to KP95. The land tenure of lots intersected by the alignment is shown at **Figure 7** to **Figure 10**. A general description of each section is provided below.

Please note, only properties impacted by rail alignment (Option 2) are shown in **Figure 11** to **Figure 58**.

**Table 1. Land tenure: rail corridor**

LOT AND PLAN NUMBER	TENURE
Lot 24 on RP805036	Freehold
Lot 25 on SB353	Freehold
Lot 4 on SB687	Leasehold
Lot 1 on SB279	Leasehold
Lot 3 on SB514	Leasehold
Lot 13 on SP232519	Freehold
Lot 5047 on PH370	Leasehold
Lot 86 on DK154	Leasehold
Lot 3 on SP132678	Leasehold
Lot 2 on RP742329	Freehold
Lot 51 on CP852524	Leasehold
Lot 4914 on PH1791	Leasehold
Lot 17 on DK68	Leasehold
Lot 618 on PH2106	Leasehold
Lot 2 on DK232	Leasehold
Lot 2 on SP195386	Leasehold
Lot 1510 on SP171920	Leasehold
Lot 667 on PH1321	Leasehold
Lot 3615 on PH681	Leasehold
Lot 6 on SM99	Leasehold
Lot 5088 on SM101	Leasehold
Lot 3821 on PH1304	Easement

Lot 10 on BL49	Leasehold
Lot 4 on SP116046	Leasehold
Lot 3235 on PH752	Leasehold
Lot 656 on SP138788	Leasehold
Lot 5070 on PH1056	Leasehold
Lot 2 on CP882192	Leasehold
Lot 3309 on PH1532	Leasehold
Lot 5269 on PH1533	Easement
Lot 5068 on PH449	Easement
Lot 5069 on PH495	Easement
Lot 5 on RU81	Leasehold
Lot 3 on SP104491	Leasehold
Lot 1 on RU89	Leasehold
Lot 654 on PH1895	Leasehold
Lot 7 on DR34	Leasehold
Lot 3 on DR20	Leasehold
Lot 4 on DR21	Leasehold
Lot 1788 on PH886	Leasehold
Lot 681 on PH406	Leasehold
Lot 4994 on SP233100 (Options 1 & 3)	Freehold
Lot 3533 on PH56 (Options 2 & 3)	Leasehold
Lot 649 on SP232649 (Option 1)	Leasehold
Lot 1 on BF58 (Options 2 & 3)	Leasehold
Lot 2 on SP233089 (Options 2 & 3)	Leasehold
Lot 6 on BF46 (Options 2 & 3)	Leasehold
Lot 3 on CP860083 (Options 2 & 3)	Leasehold
Lot 2 on SP136836 (Options 1-3)	Leasehold

#### 4.2.3.1 Description of Tenure along the Rail Easement

**KP5 to KP95 (Figure 7):** Leasehold land is the predominant land tenure constituting approximately 75% of the land through which the rail alignment traverses. Freehold land constitutes the remaining 25% of land (the majority of freehold land is located between KP5 to KP20 with the remaining allotments observed in the vicinity of KP70 to KP90).

**KP95 to KP235 (Figure 8):** The extent of the land tenure comprises only leasehold land. No freehold land exists between KP95 to KP235.

**KP235 to KP360 (Figure 9):** The extent of the land tenure presented comprises leasehold land. No freehold land exists between KP235 to KP360.

**KP360 to KP468 (Figure 10):** The extent of the land tenure presented comprises leasehold land. No freehold land exists between KP360 to KP468.

Figure 7. Rail corridor land tenure KP05 to KP95 (Map 1 of 4)

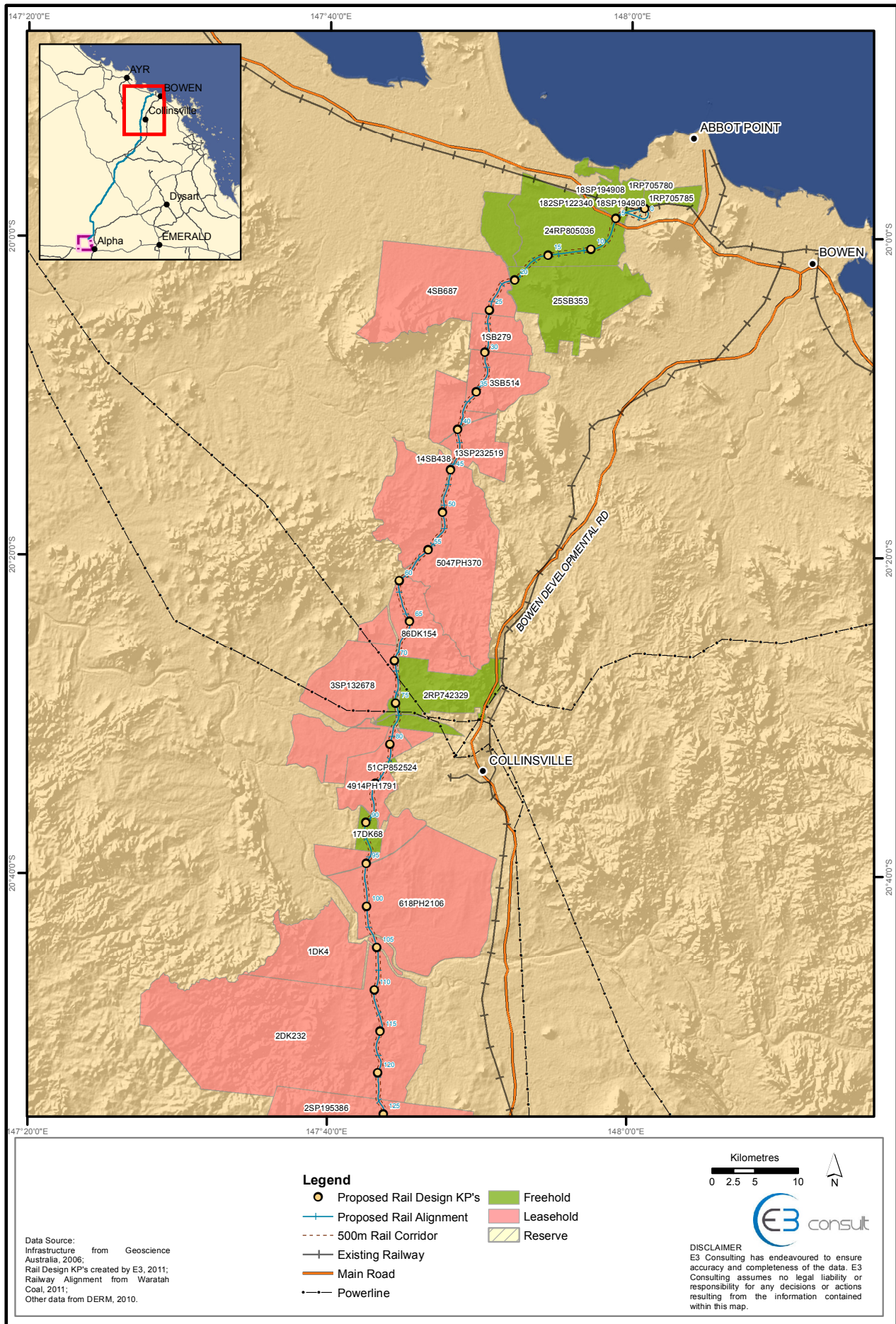




Figure 8. Rail corridor land tenure KP95 to KP235 (Map 2 of 4)

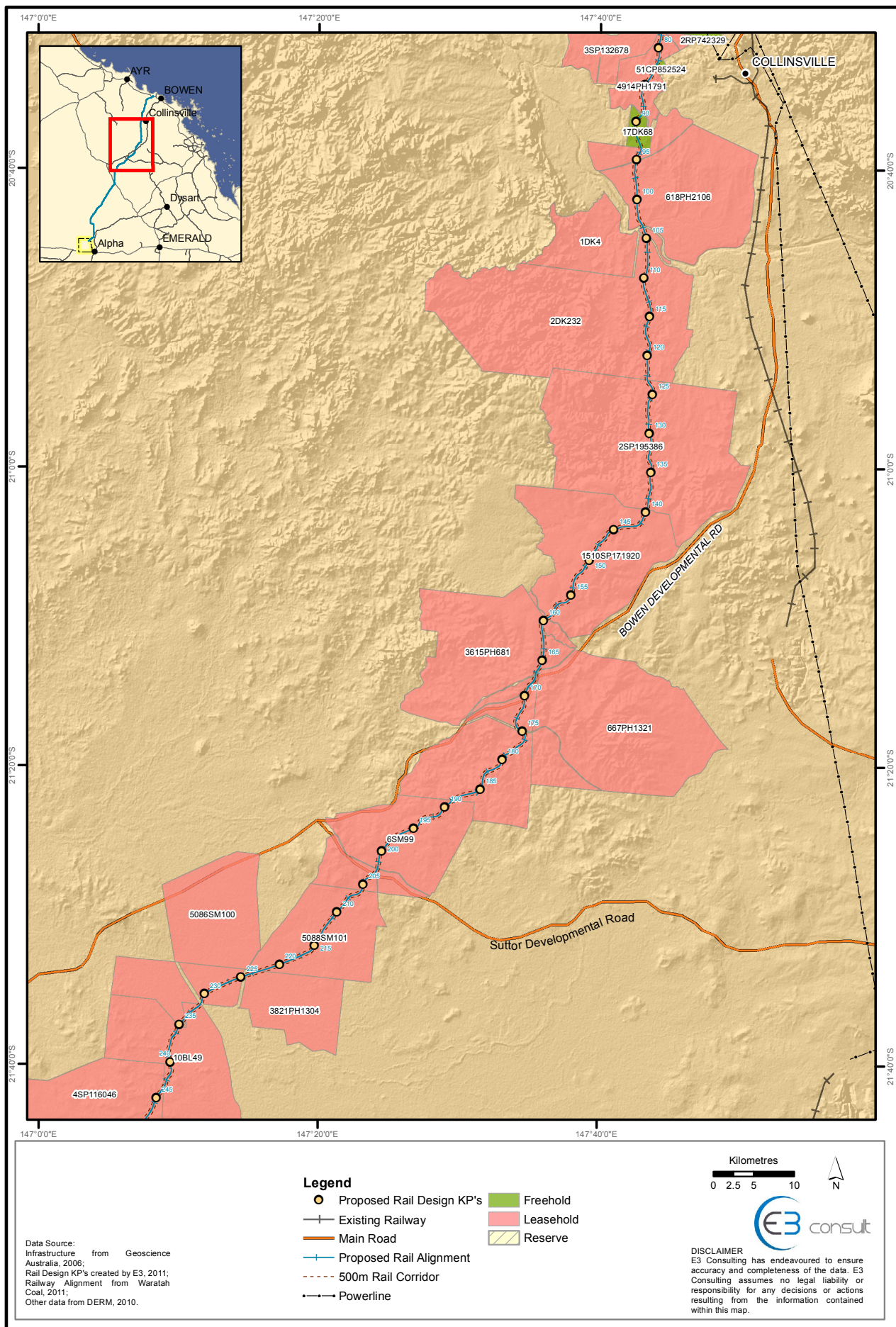




Figure 9. Rail corridor land tenure KP235 to KP360 (Map 3 of 4)

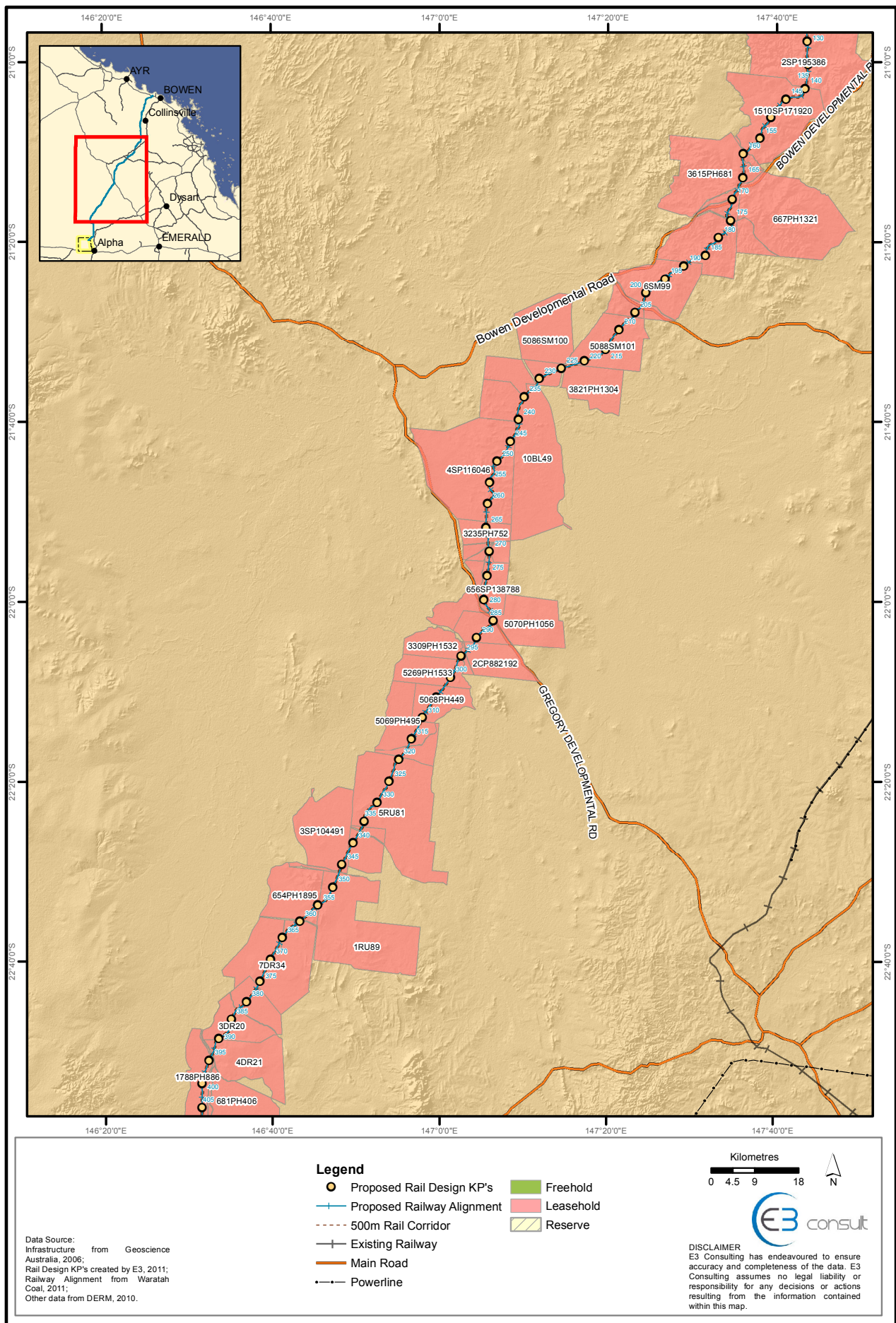




Figure 10. Rail corridor land tenure KP360 to KP468 (Map 4 of 4)

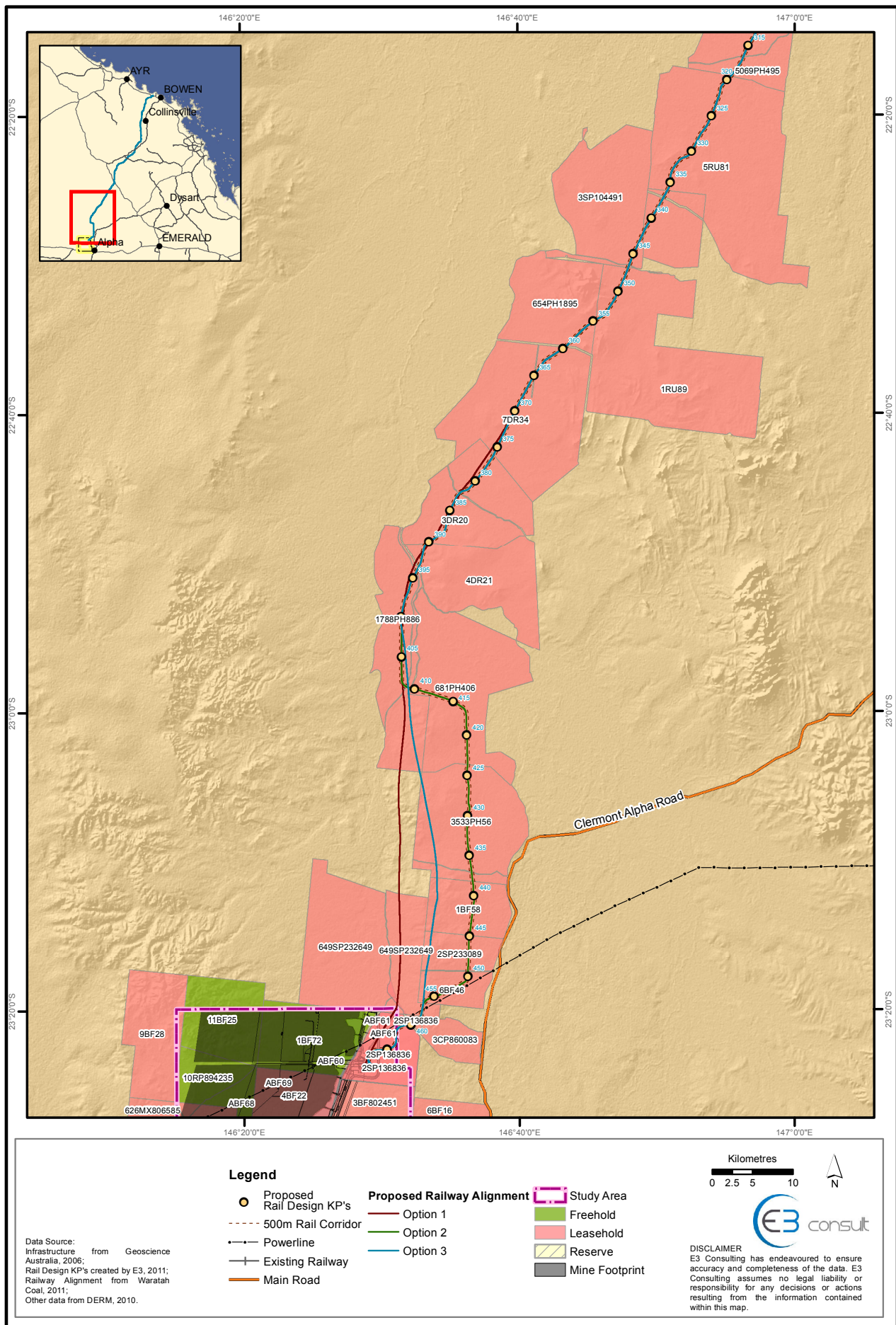




Figure 11. Proposed Property Encroachment (Figure 1 of 48)

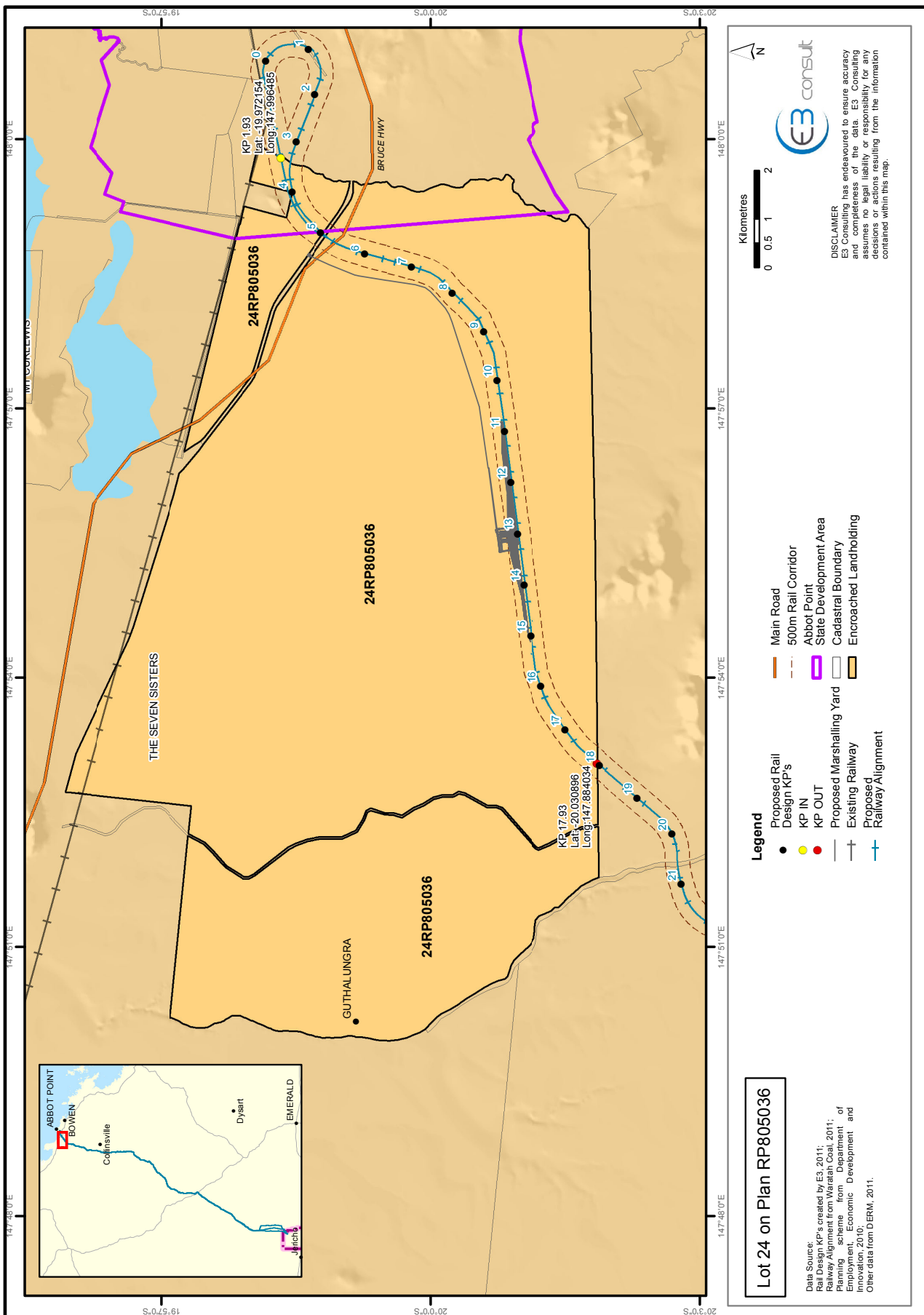


Figure 12. Proposed Property Encroachment (Figure 2 of 48)

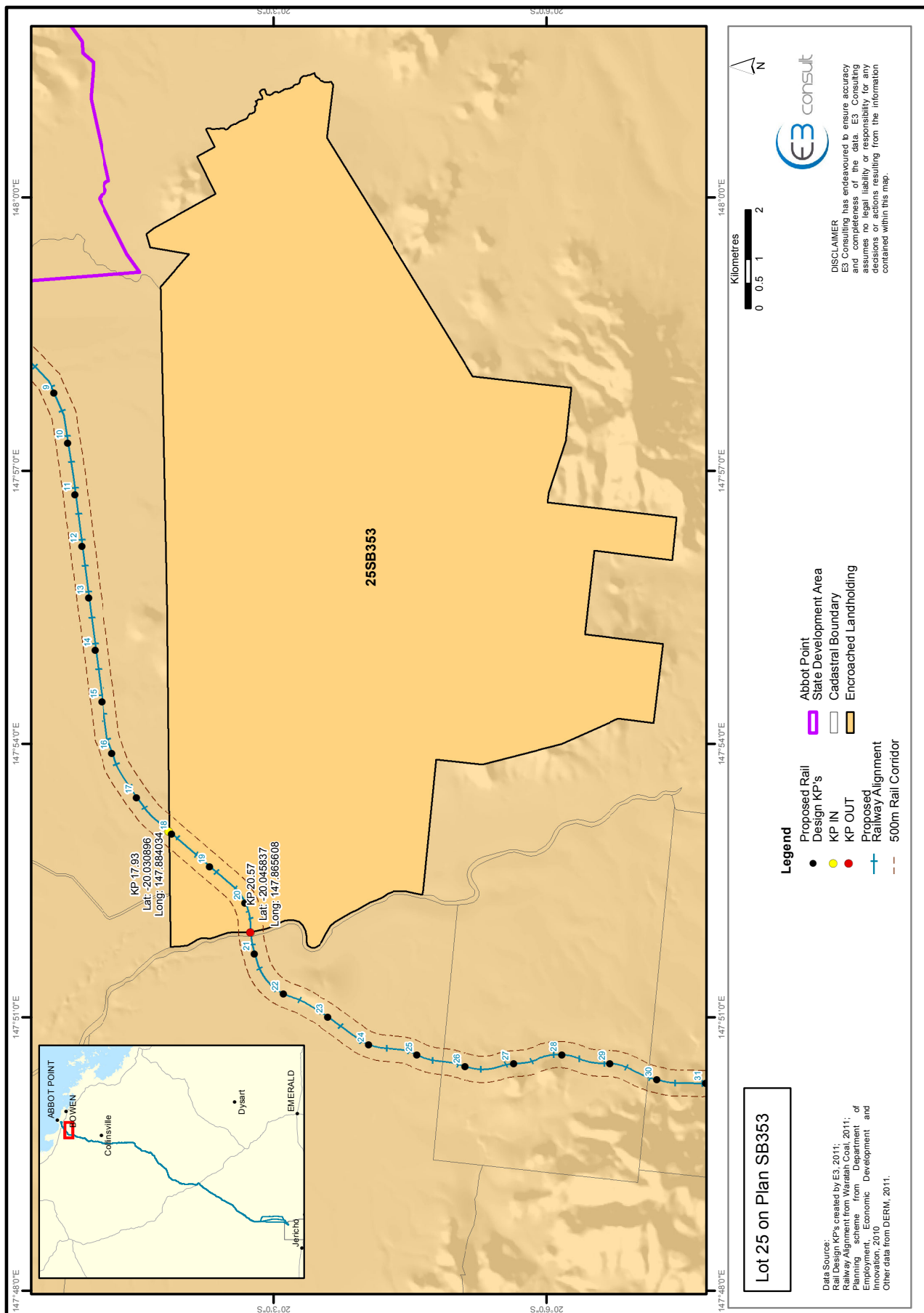


Figure 13. Proposed Property Encroachment (Figure 3 of 48)

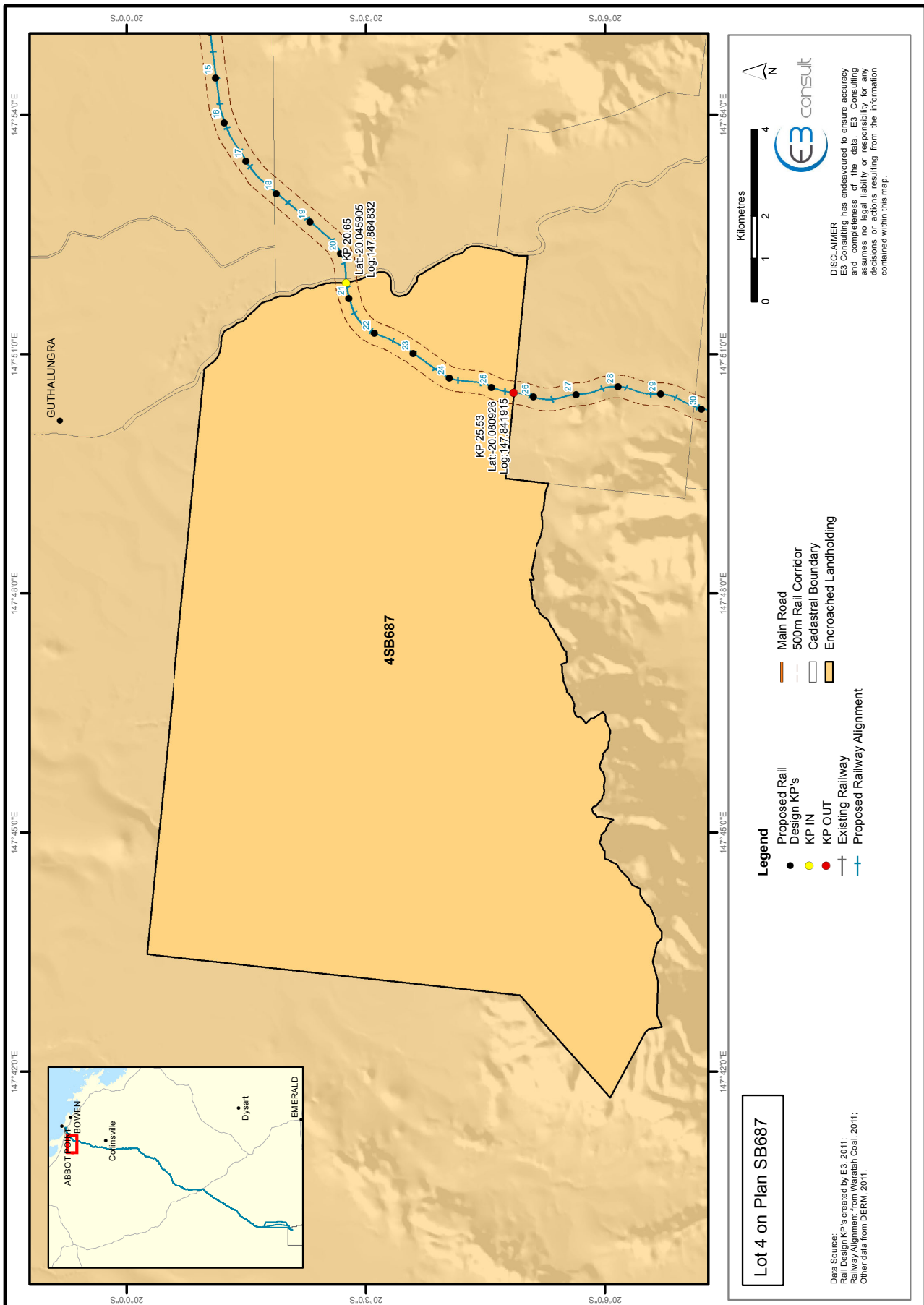


Figure 14. Proposed Property Encroachment (Figure 4 of 48)

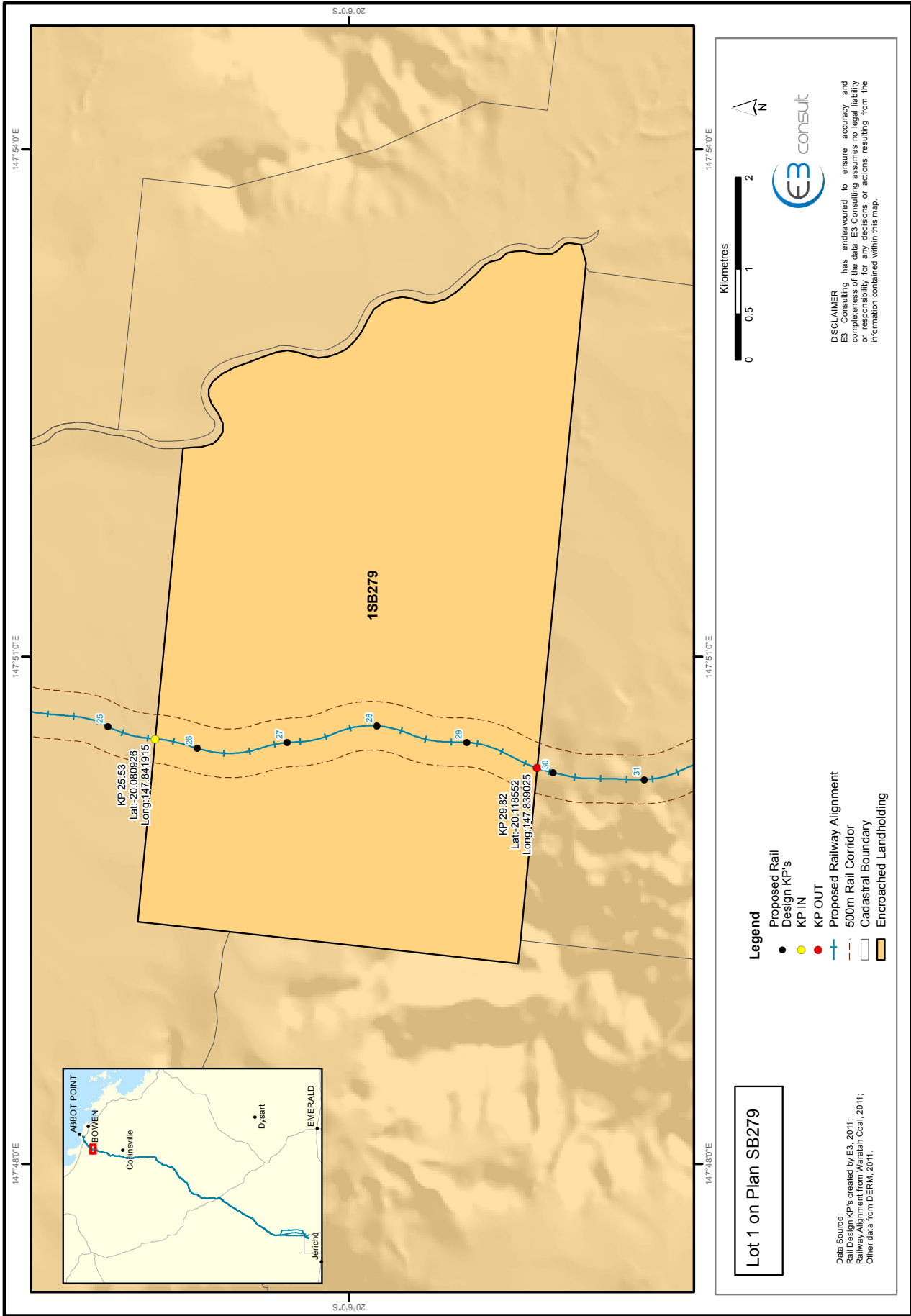


Figure 15. Proposed Property Encroachment (Figure 5 of 48)

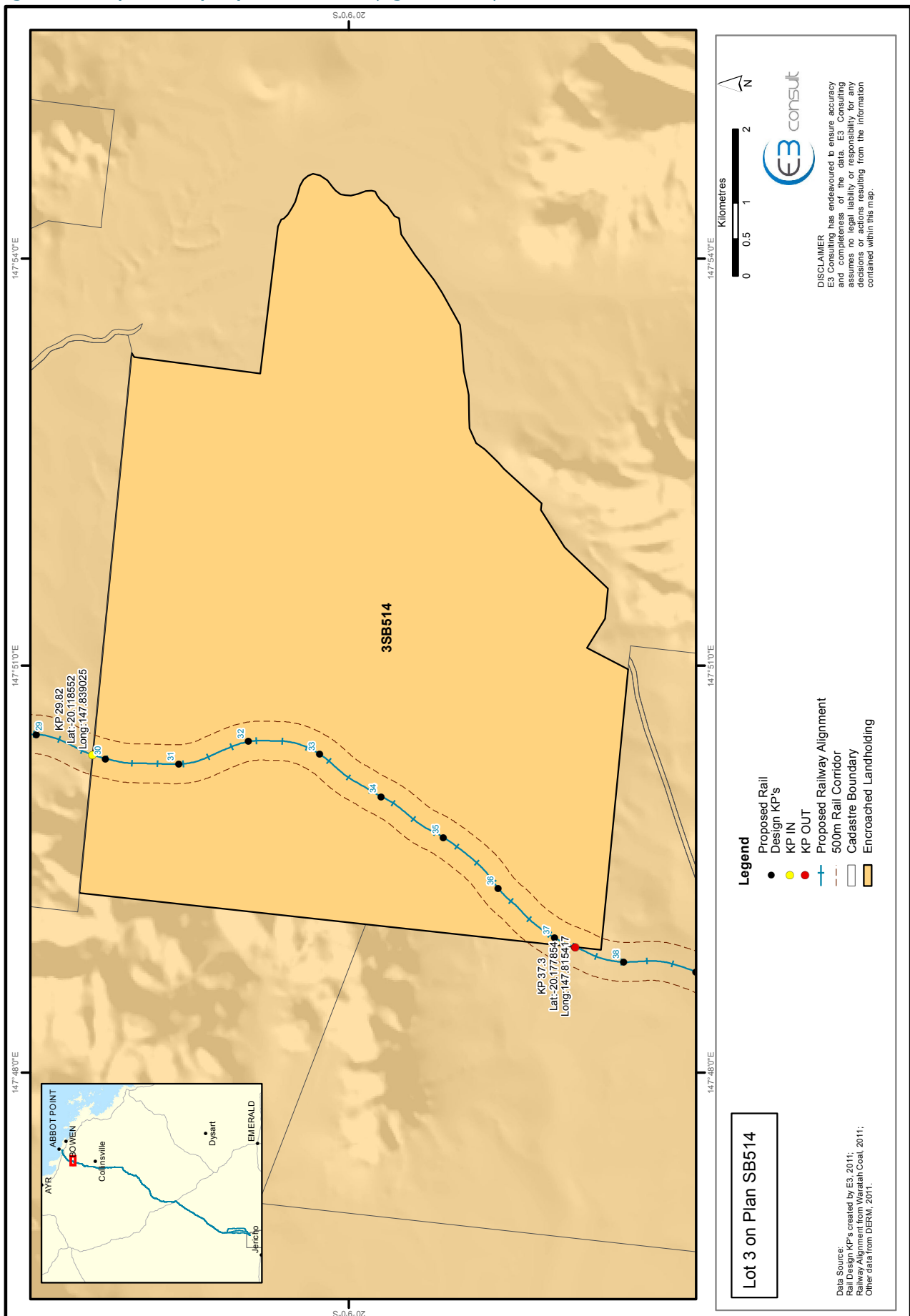


Figure 16. Proposed Property Encroachment (Figure 6 of 48)

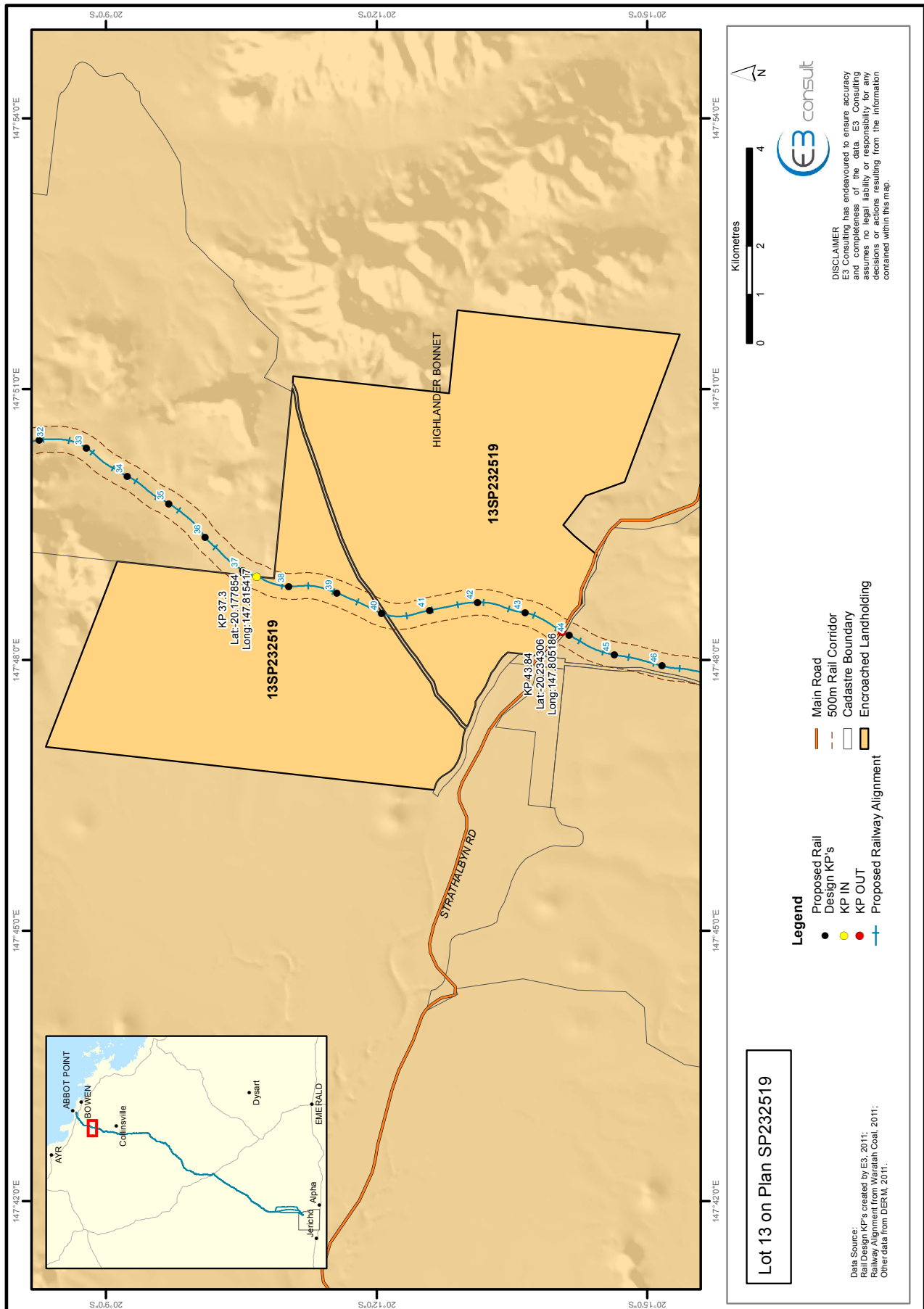




Figure 17. Proposed Property Encroachment (Figure 7 of 48)

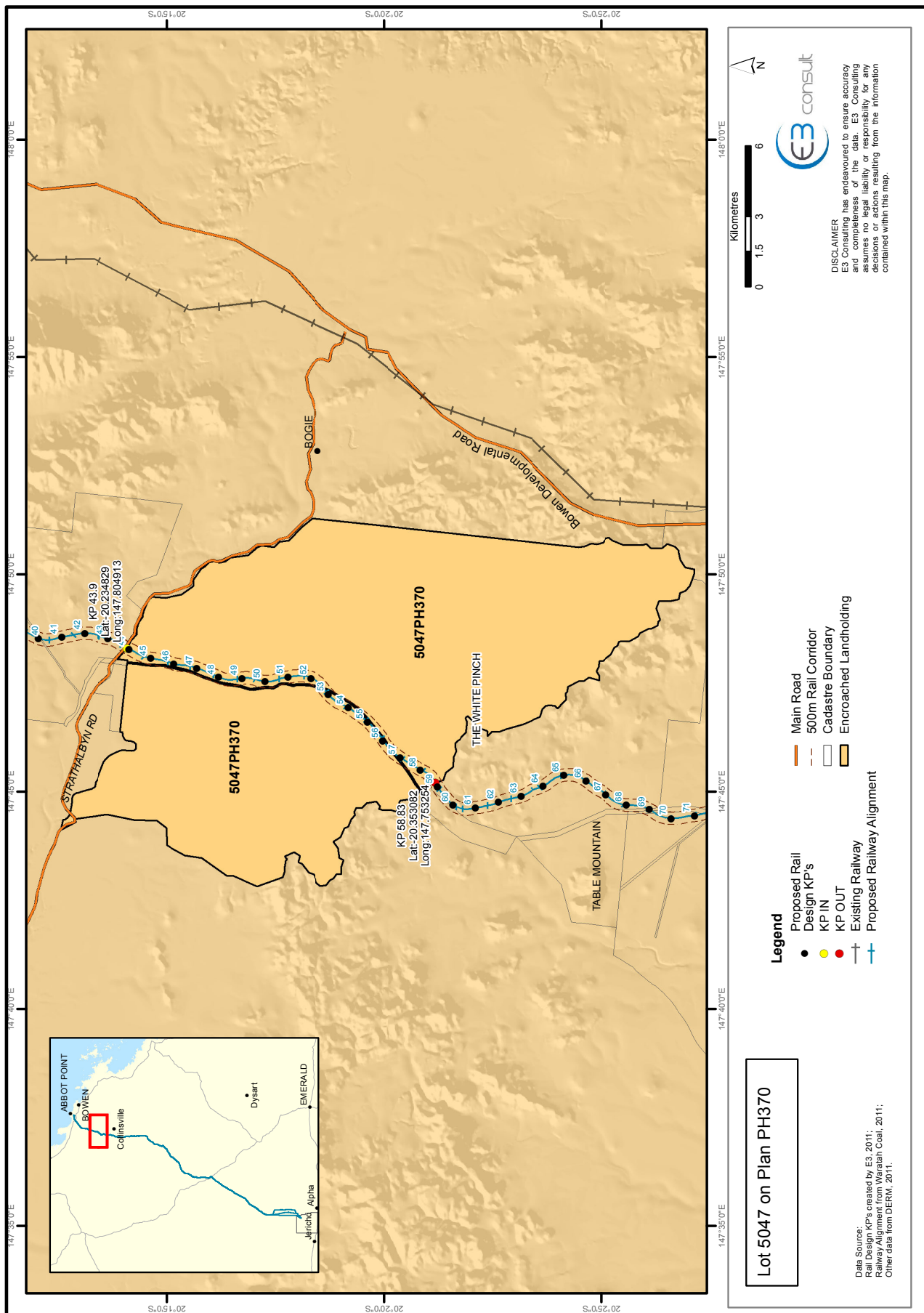




Figure 18. Proposed Property Encroachment (Figure 8 of 48)

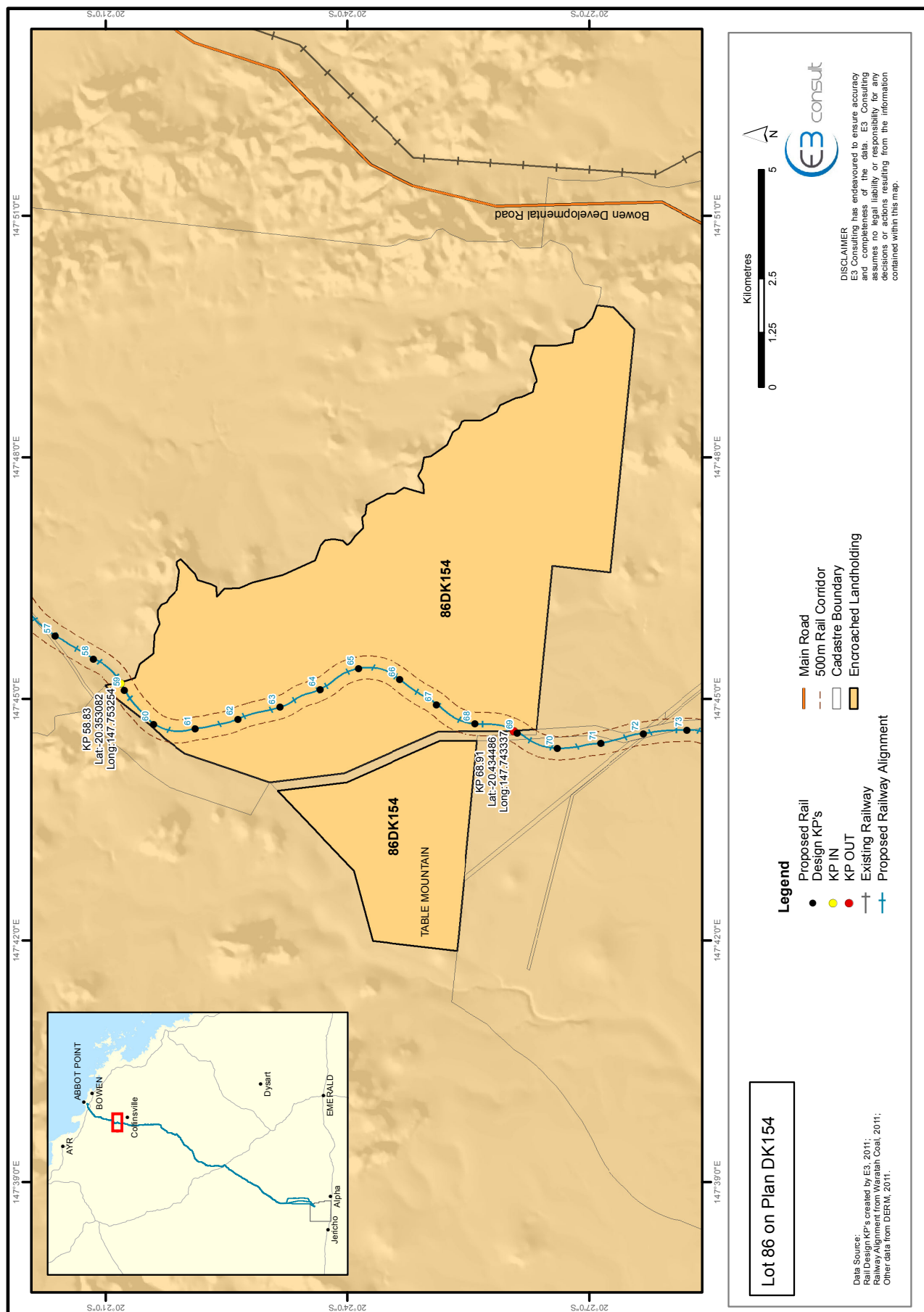


Figure 19. Proposed Property Encroachment (Figure 9 of 48)

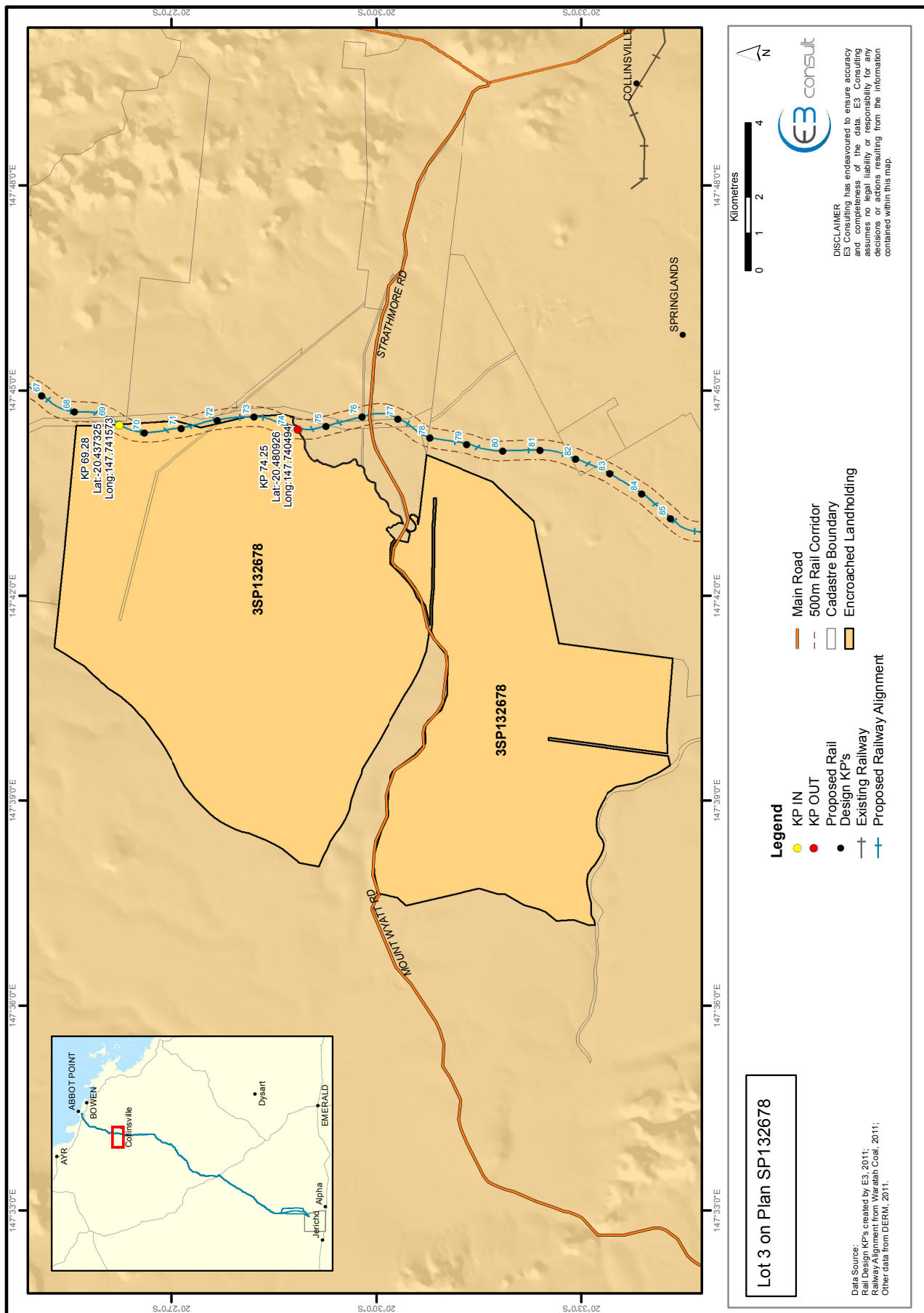


Figure 20. Proposed Property Encroachment (Figure 10 of 48)

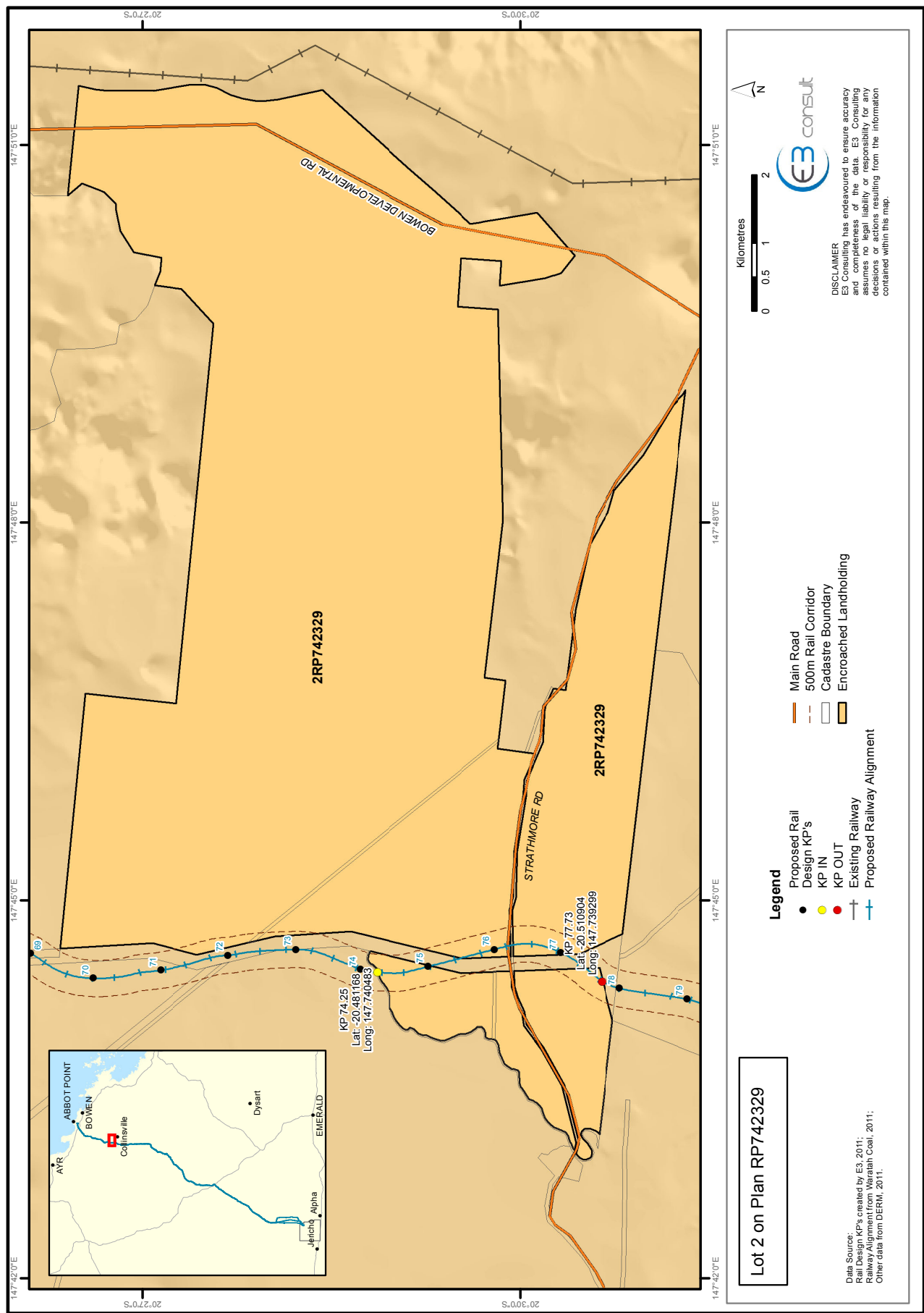


Figure 21. Proposed Property Encroachment (Figure 11 of 48)

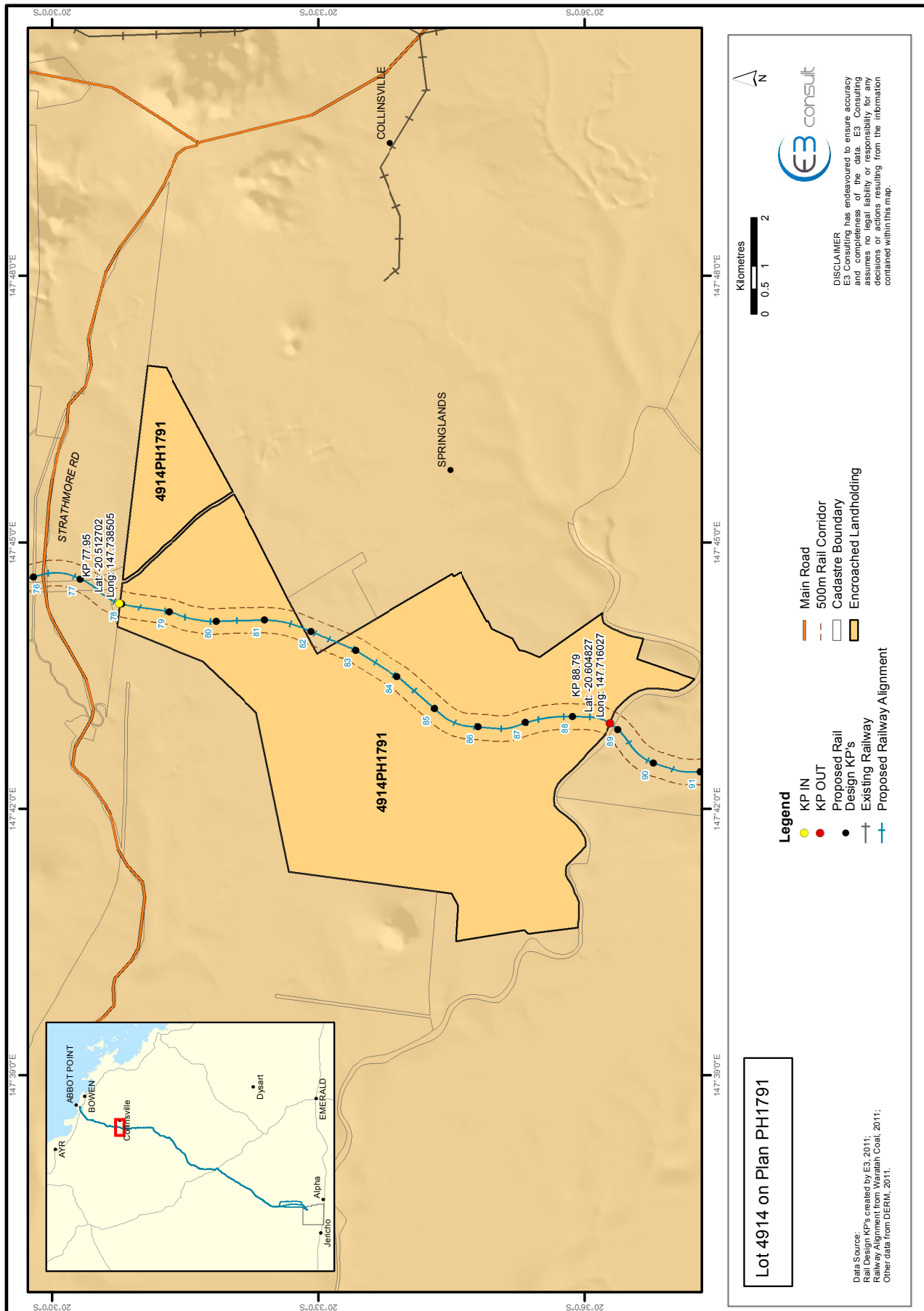


Figure 22. Proposed Property Encroachment (Figure 12 of 48)

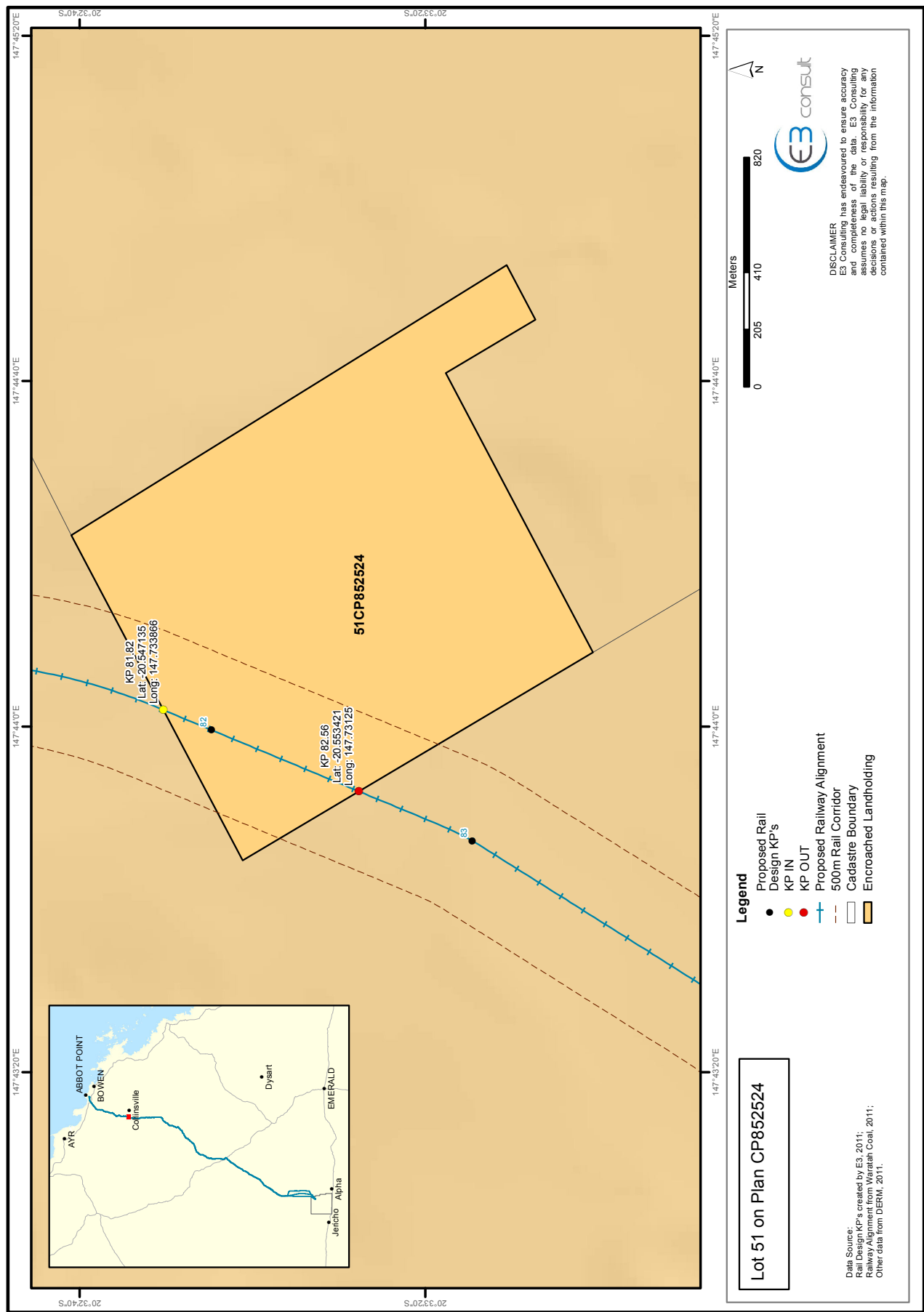


Figure 23. Proposed Property Encroachment (Figure 13 of 48)

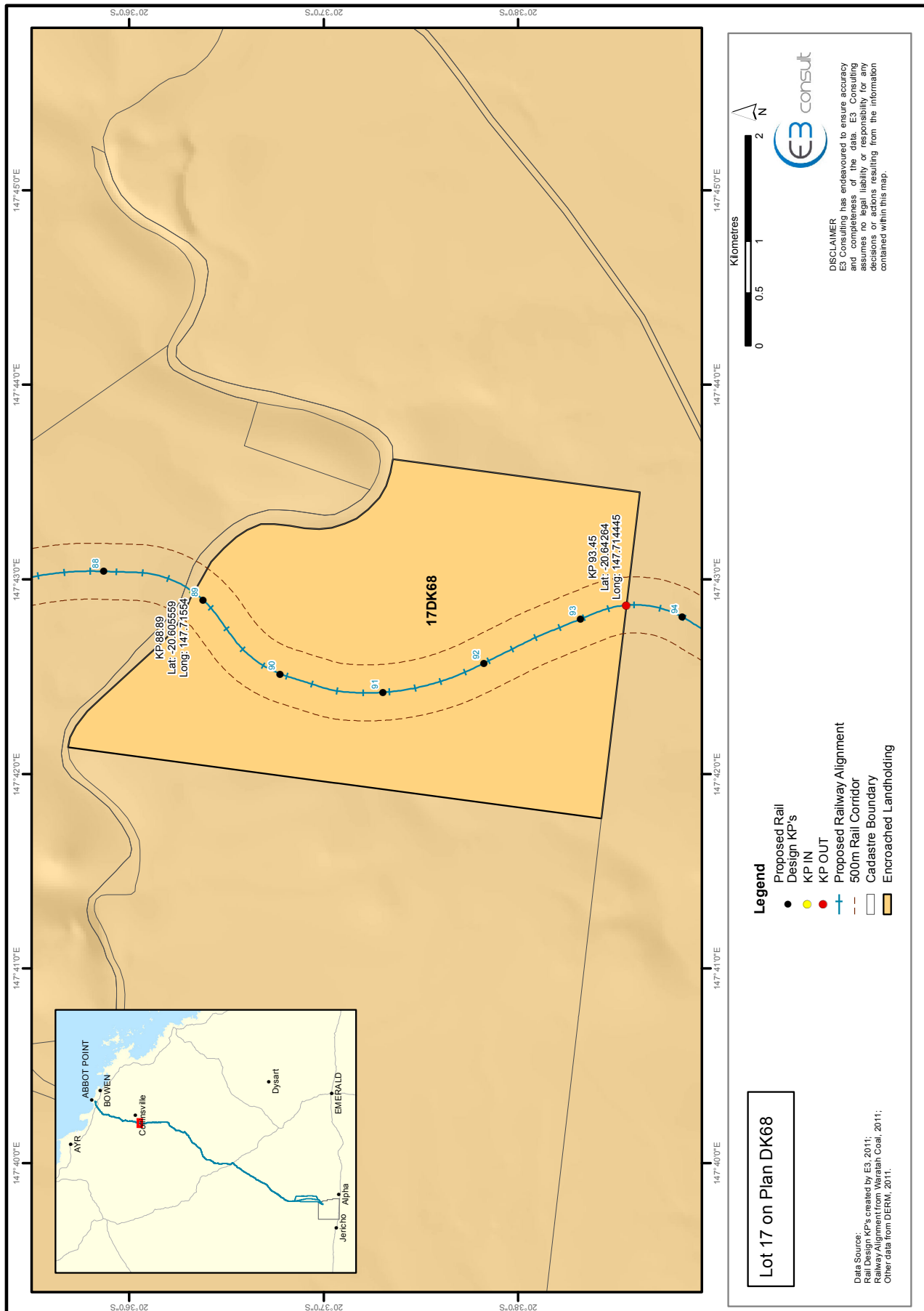




Figure 24. Proposed Property Encroachment (Figure 14 of 48)

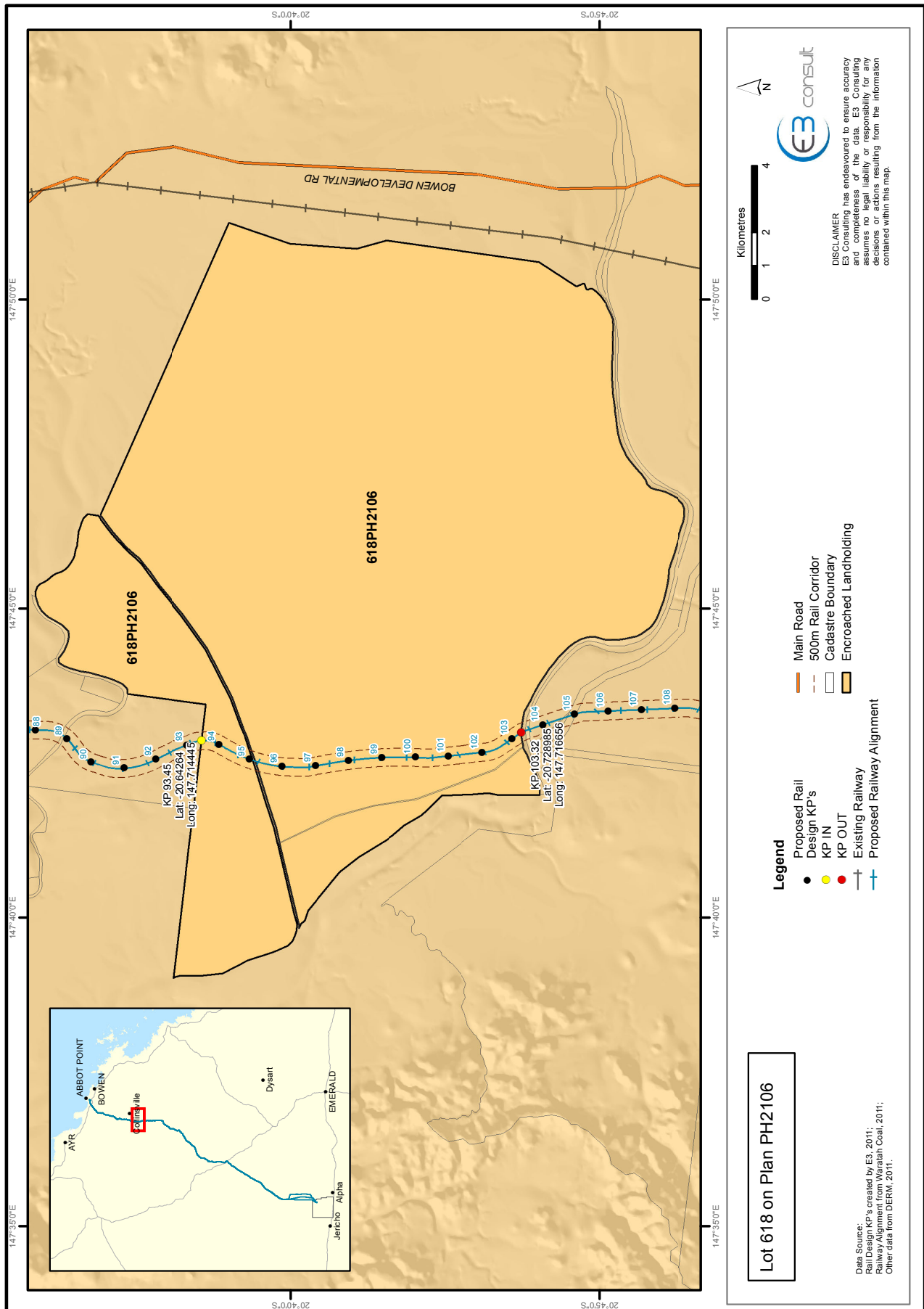




Figure 25. Proposed Property Encroachment (Figure 15 of 48)

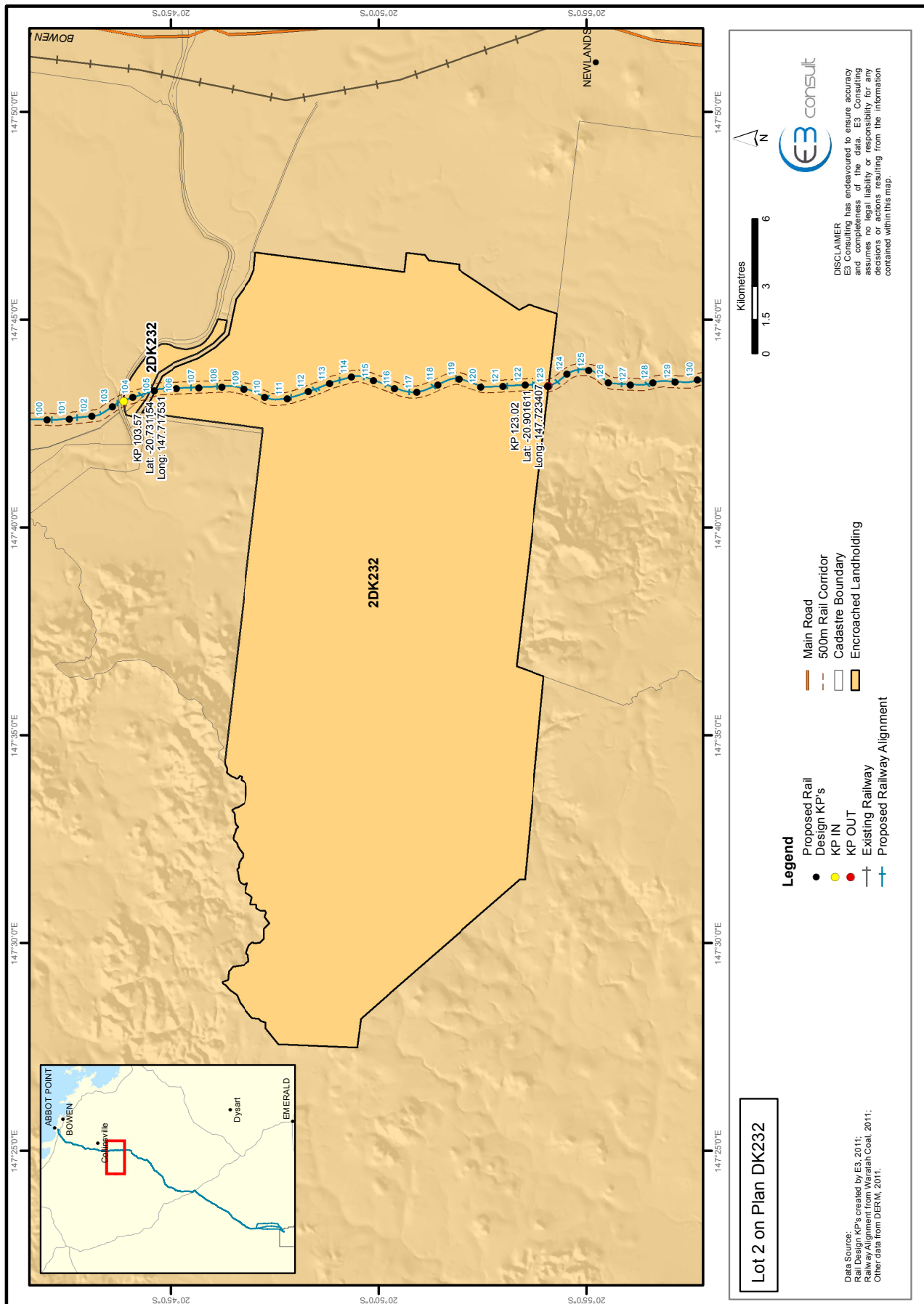


Figure 26. Proposed Property Encroachment (Figure 16 of 48)

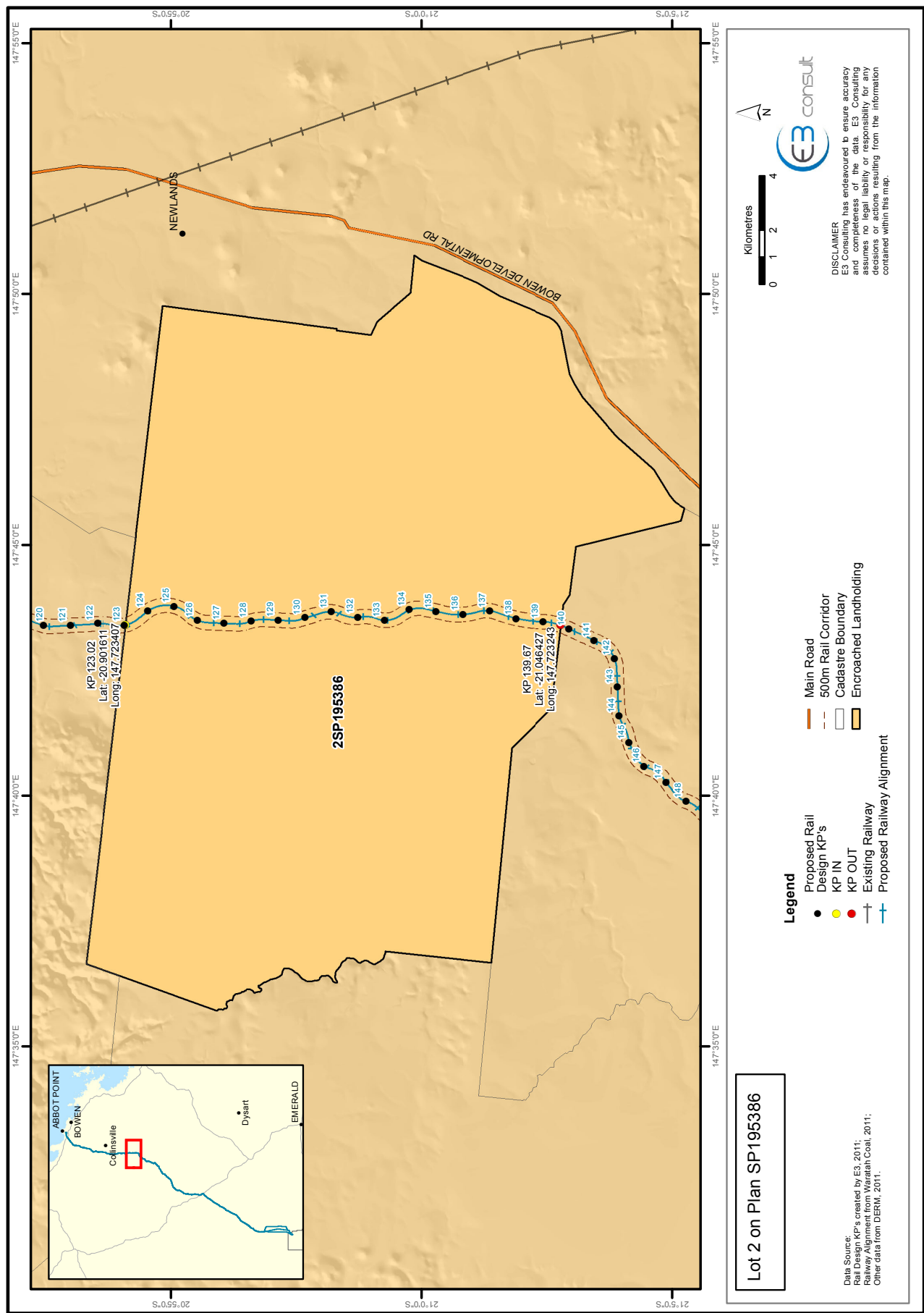


Figure 27. Proposed Property Encroachment (Figure 17 of 48)

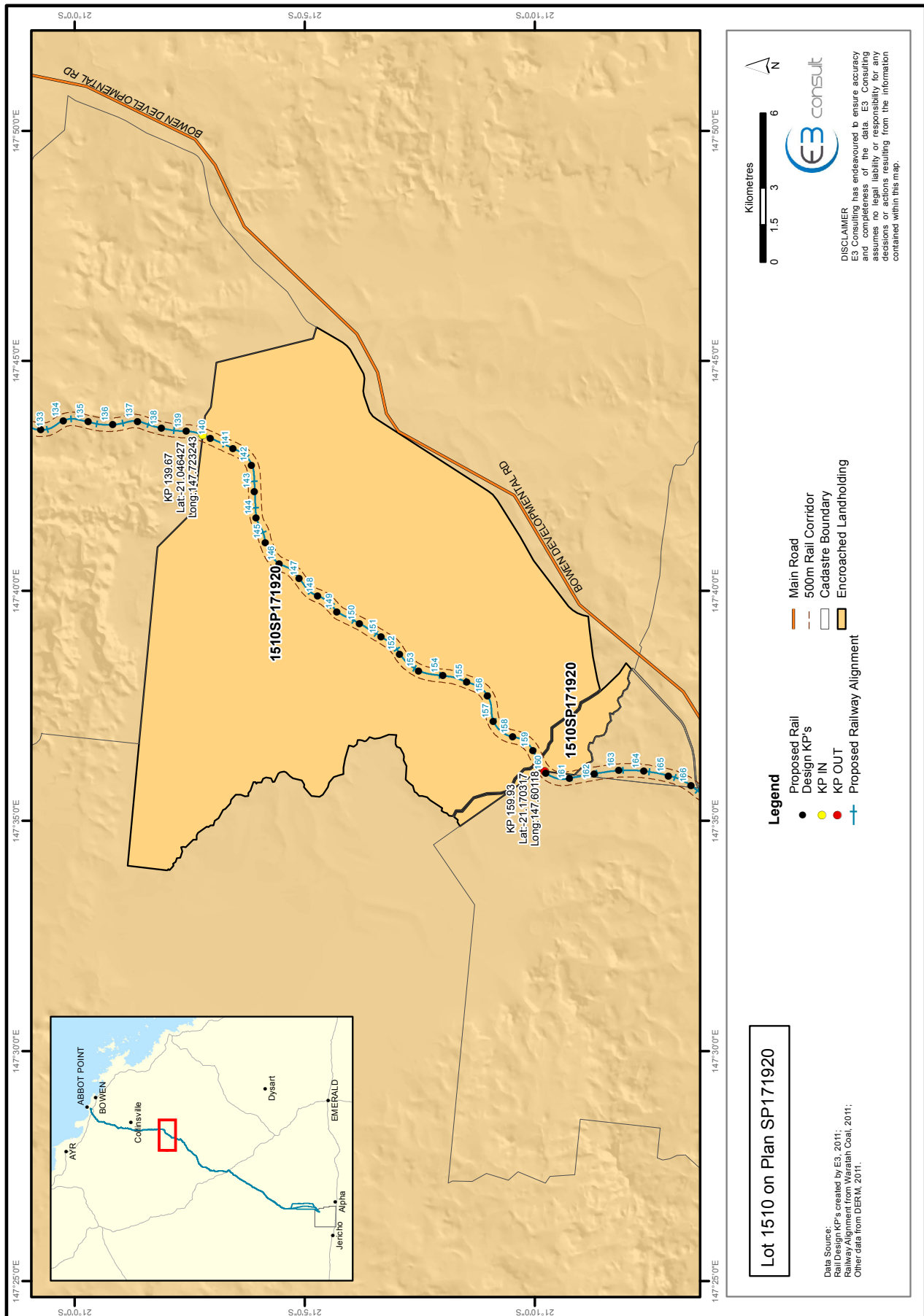


Figure 28. Proposed Property Encroachment (Figure 18 of 48)

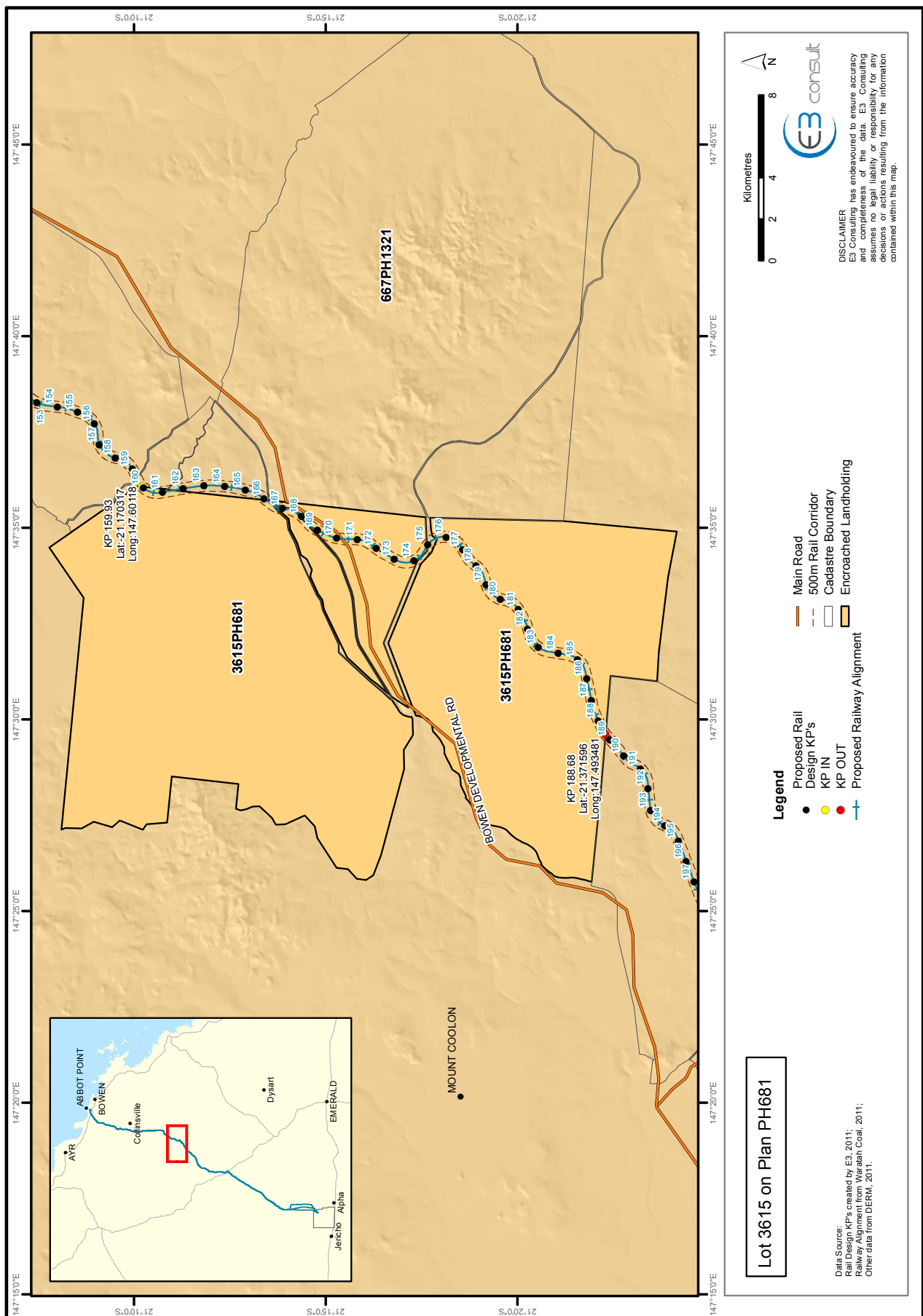


Figure 29. Proposed Property Encroachment (Figure 19 of 48)

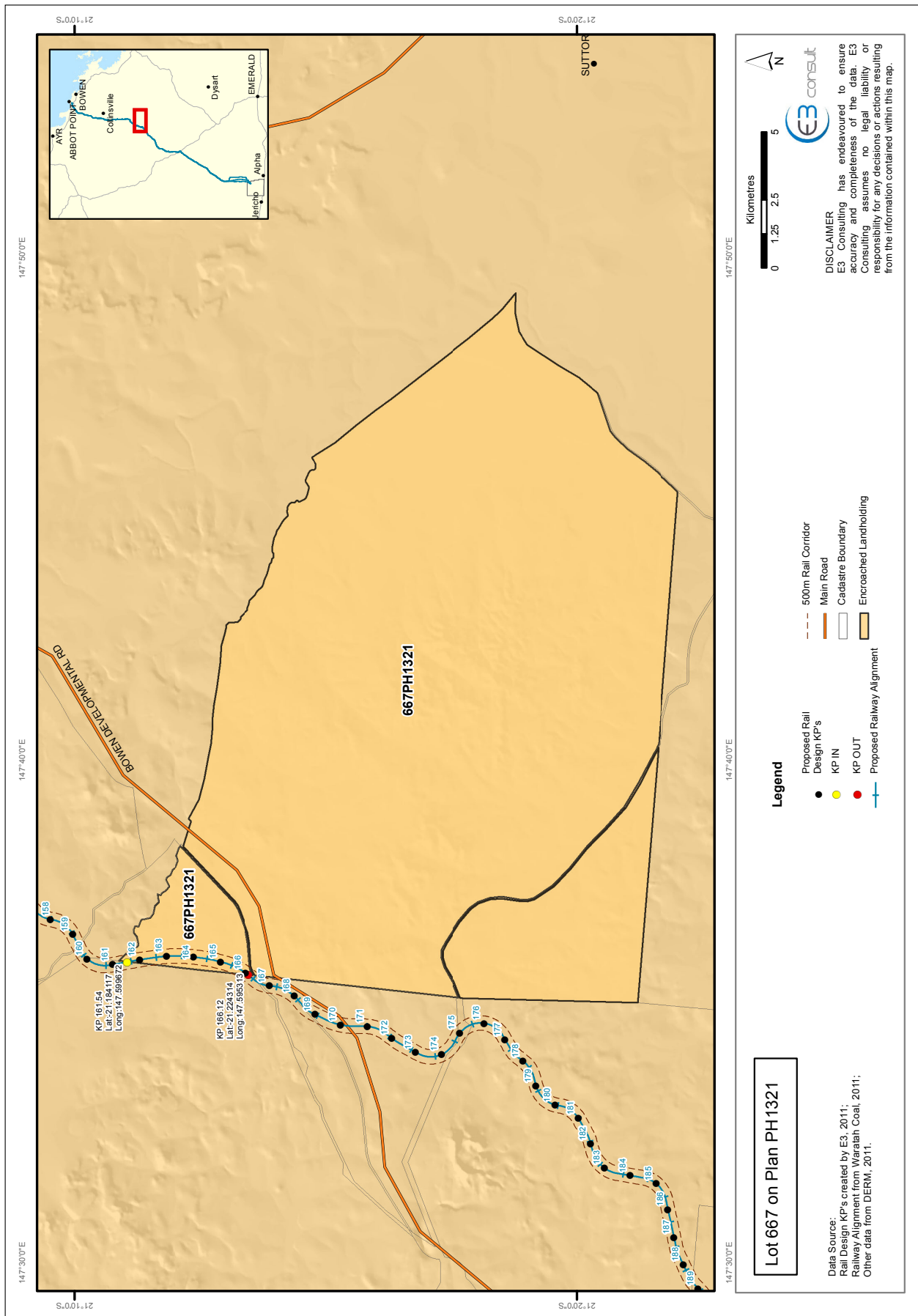




Figure 30. Proposed Property Encroachment (Figure 20 of 48)

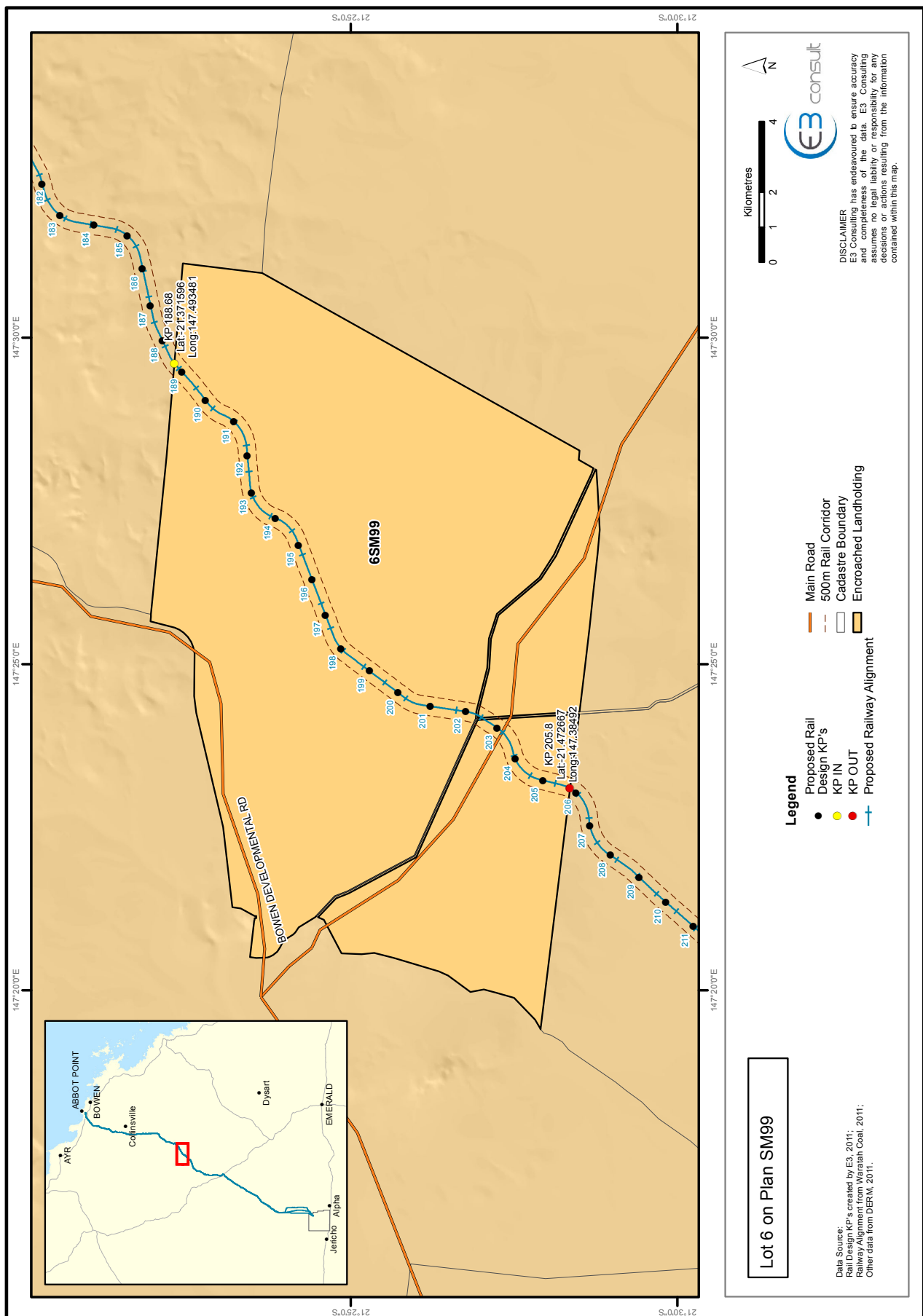




Figure 31. Proposed Property Encroachment (Figure 21 of 48)

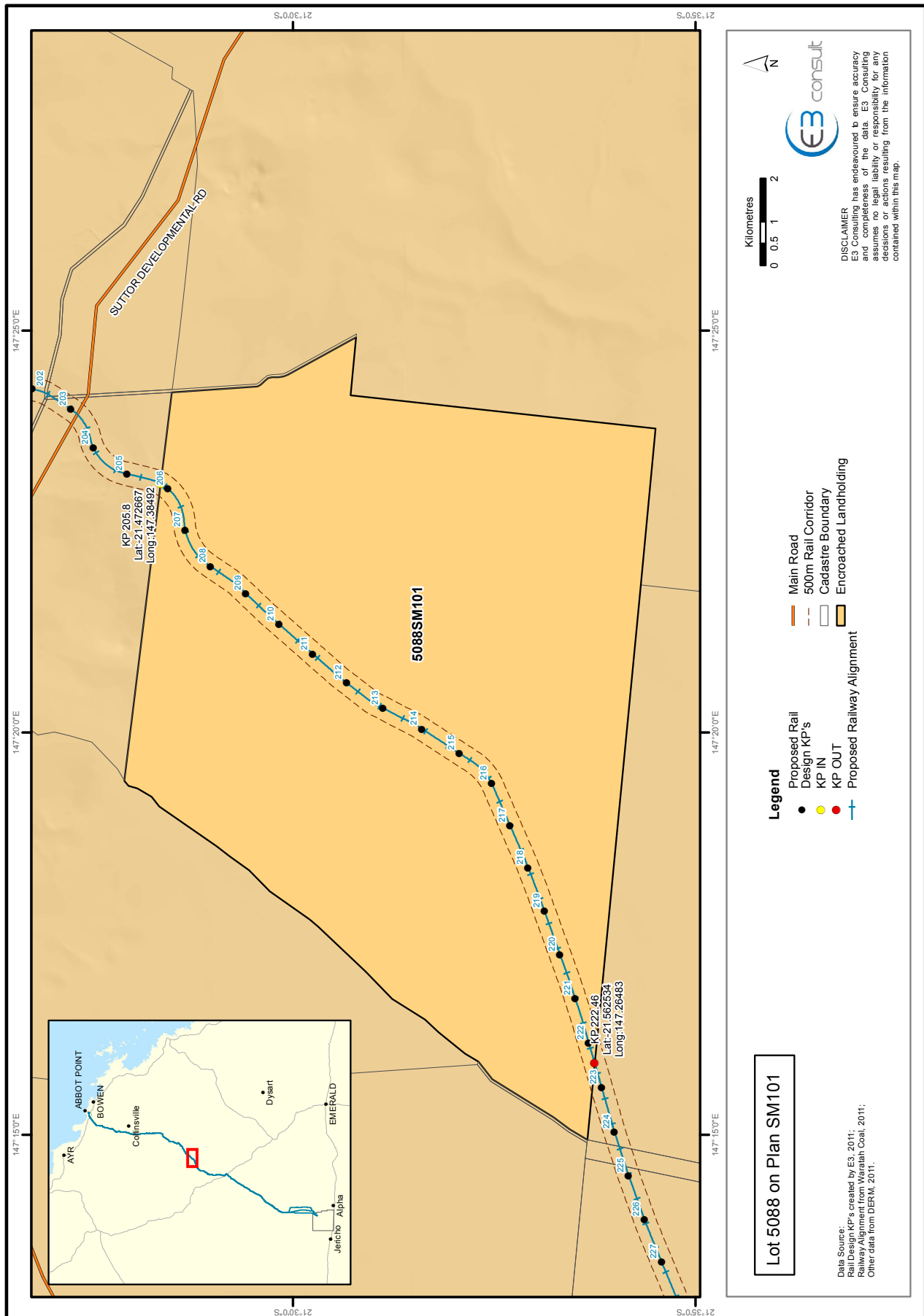


Figure 32. Proposed Property Encroachment (Figure 22 of 48)

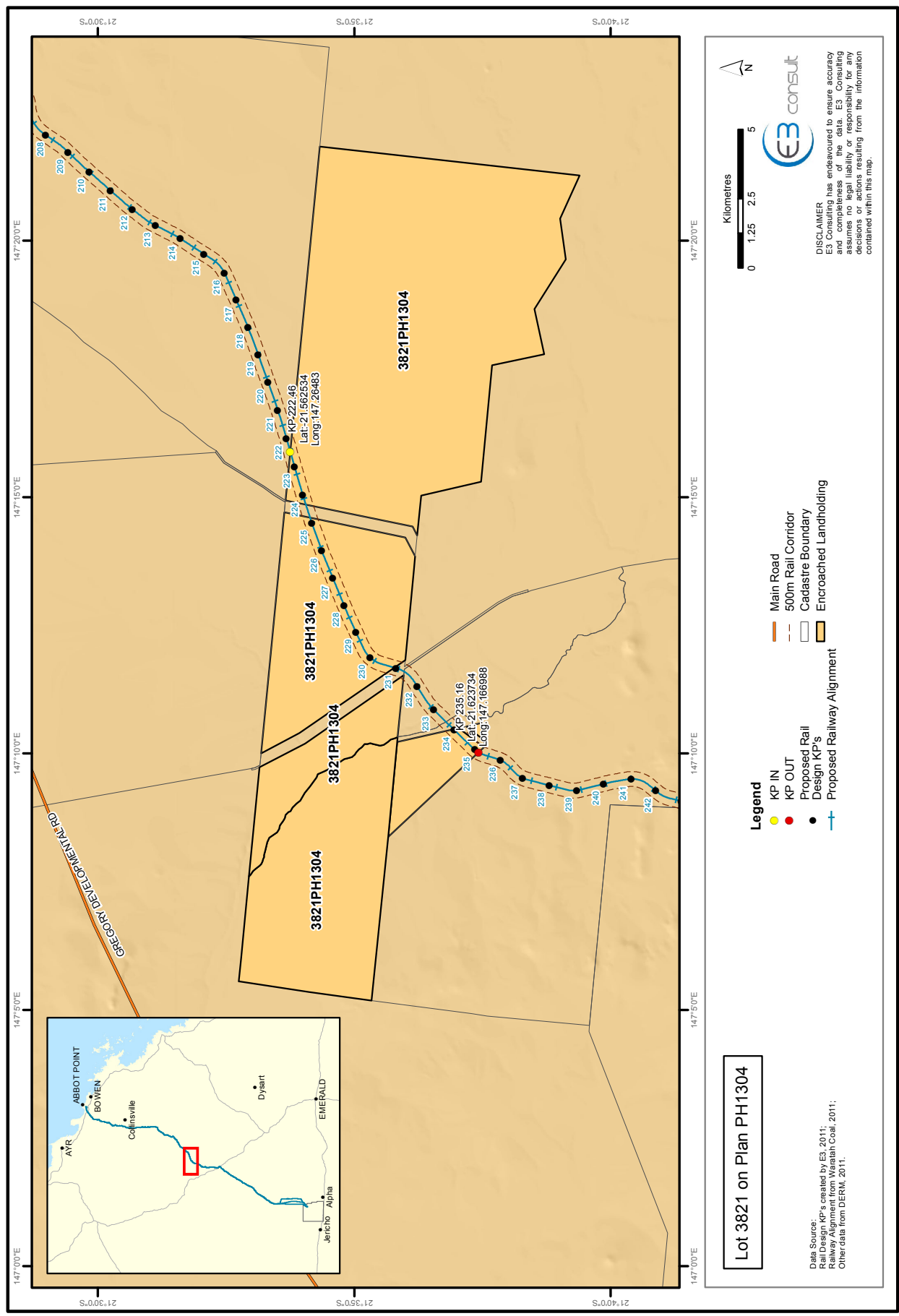


Figure 33. Proposed Property Encroachment (Figure 23 of 48)

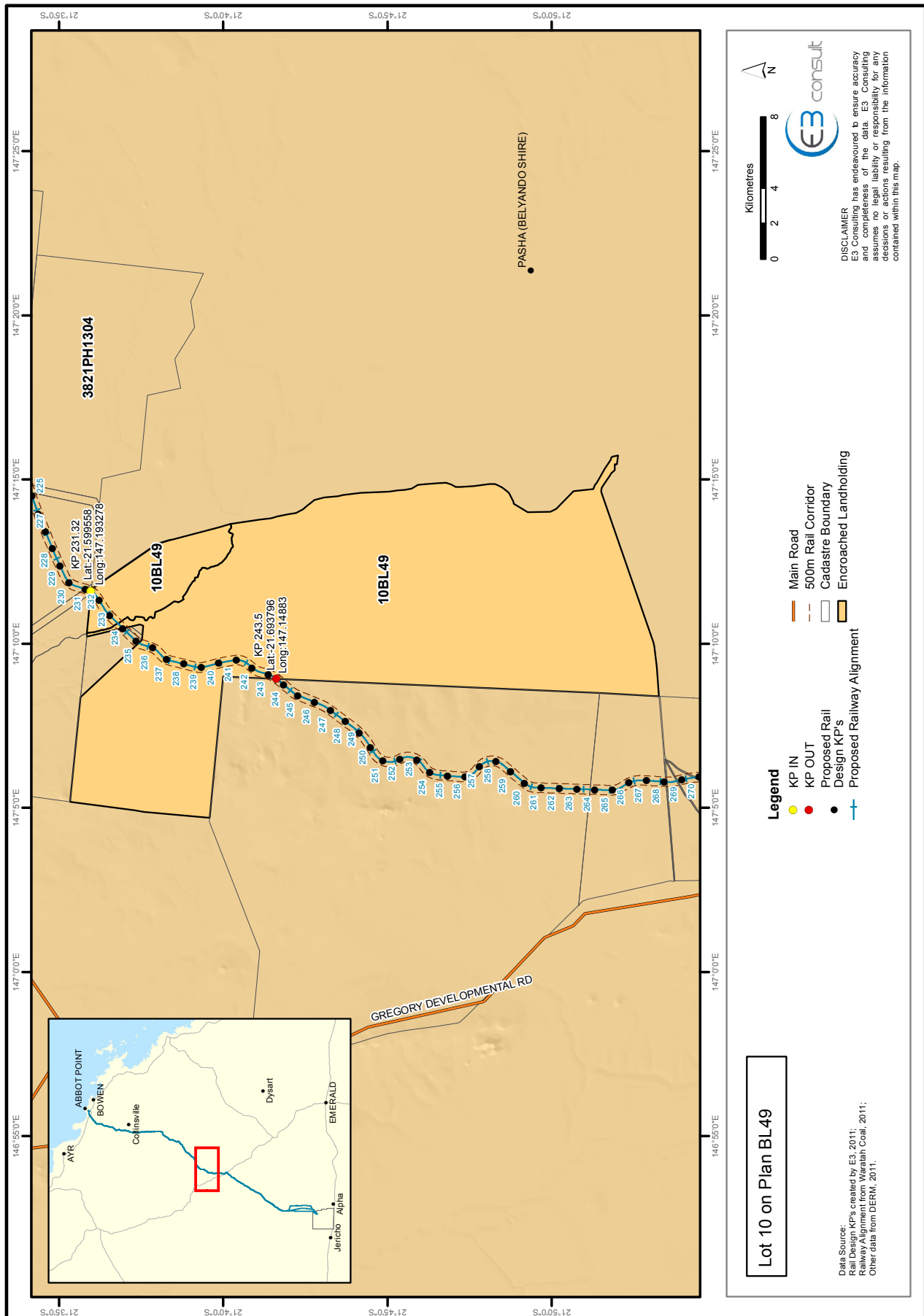




Figure 34. Proposed Property Encroachment (Figure 24 of 48)

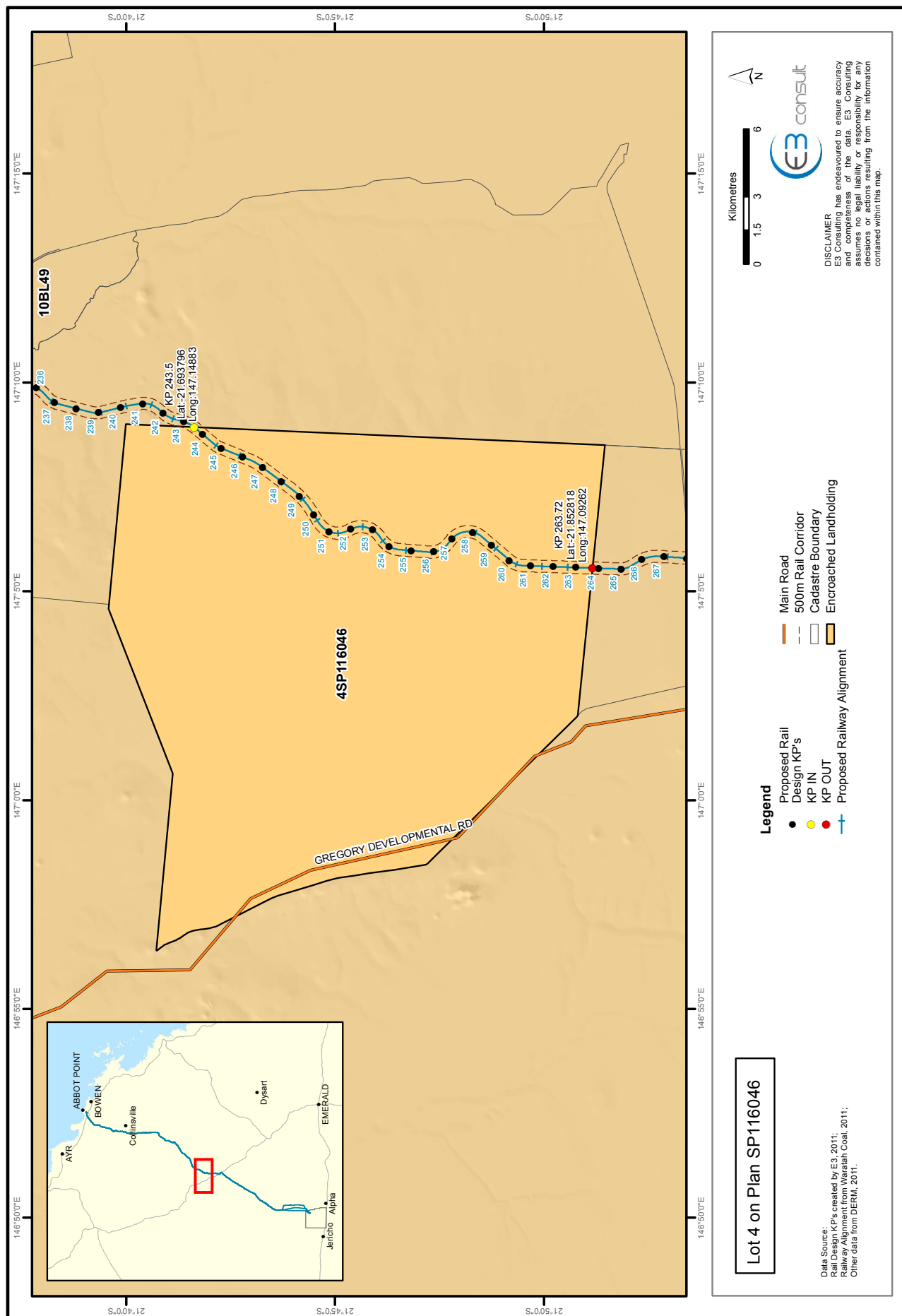


Figure 35. Proposed Property Encroachment (Figure 25 of 48)

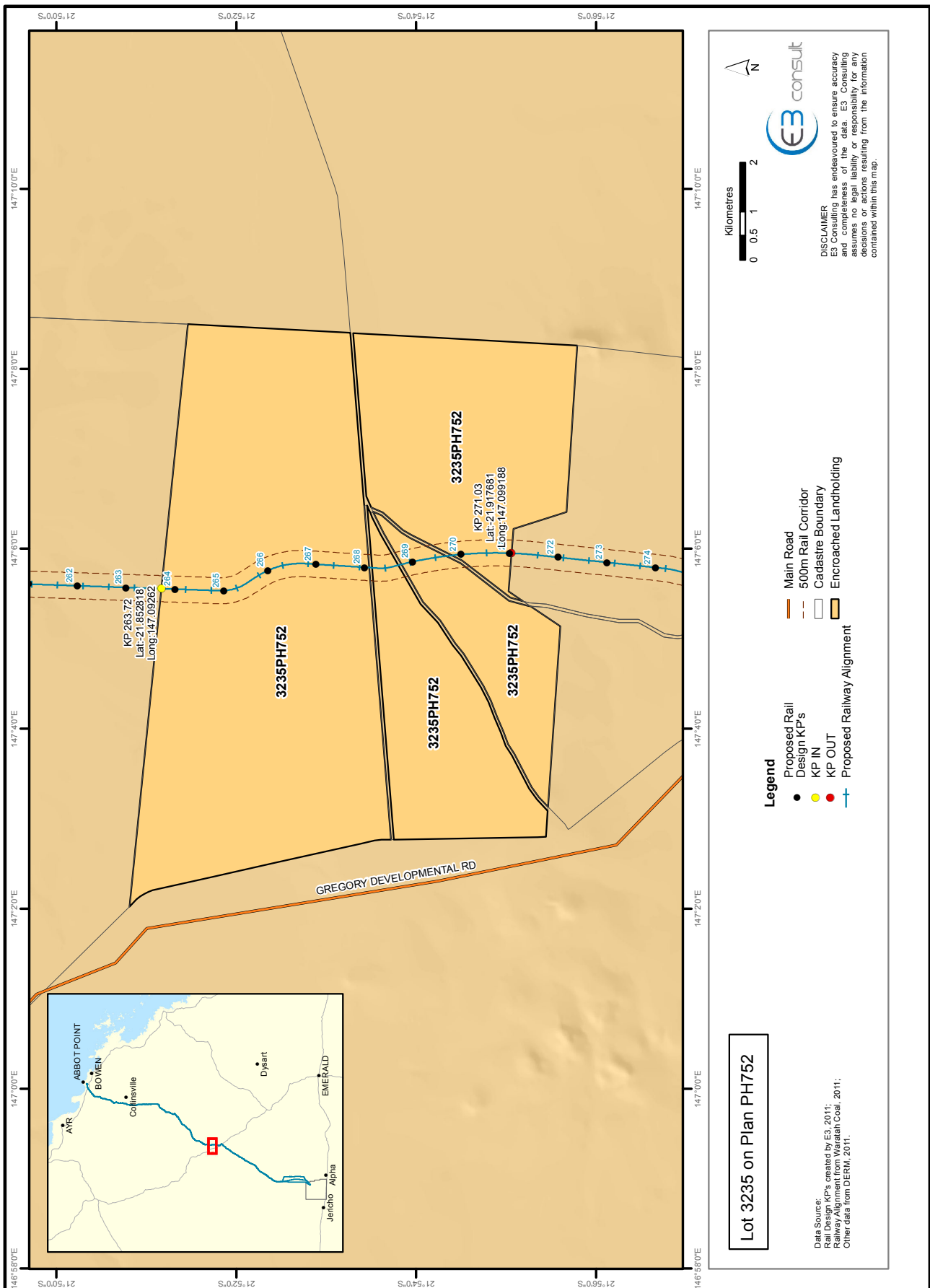


Figure 36. Proposed Property Encroachment (Figure 26 of 48)

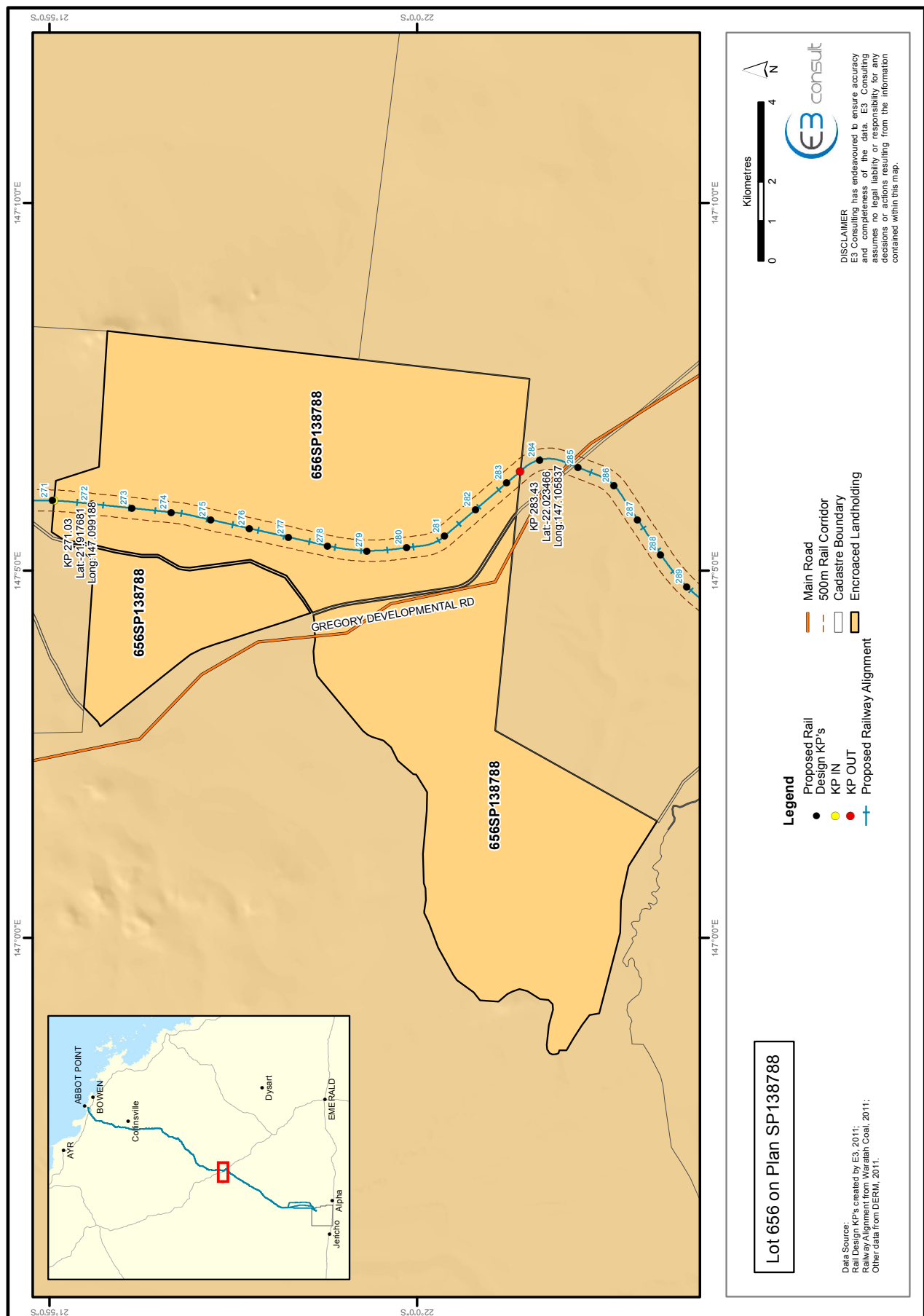




Figure 37. Proposed Property Encroachment (Figure 27 of 48)

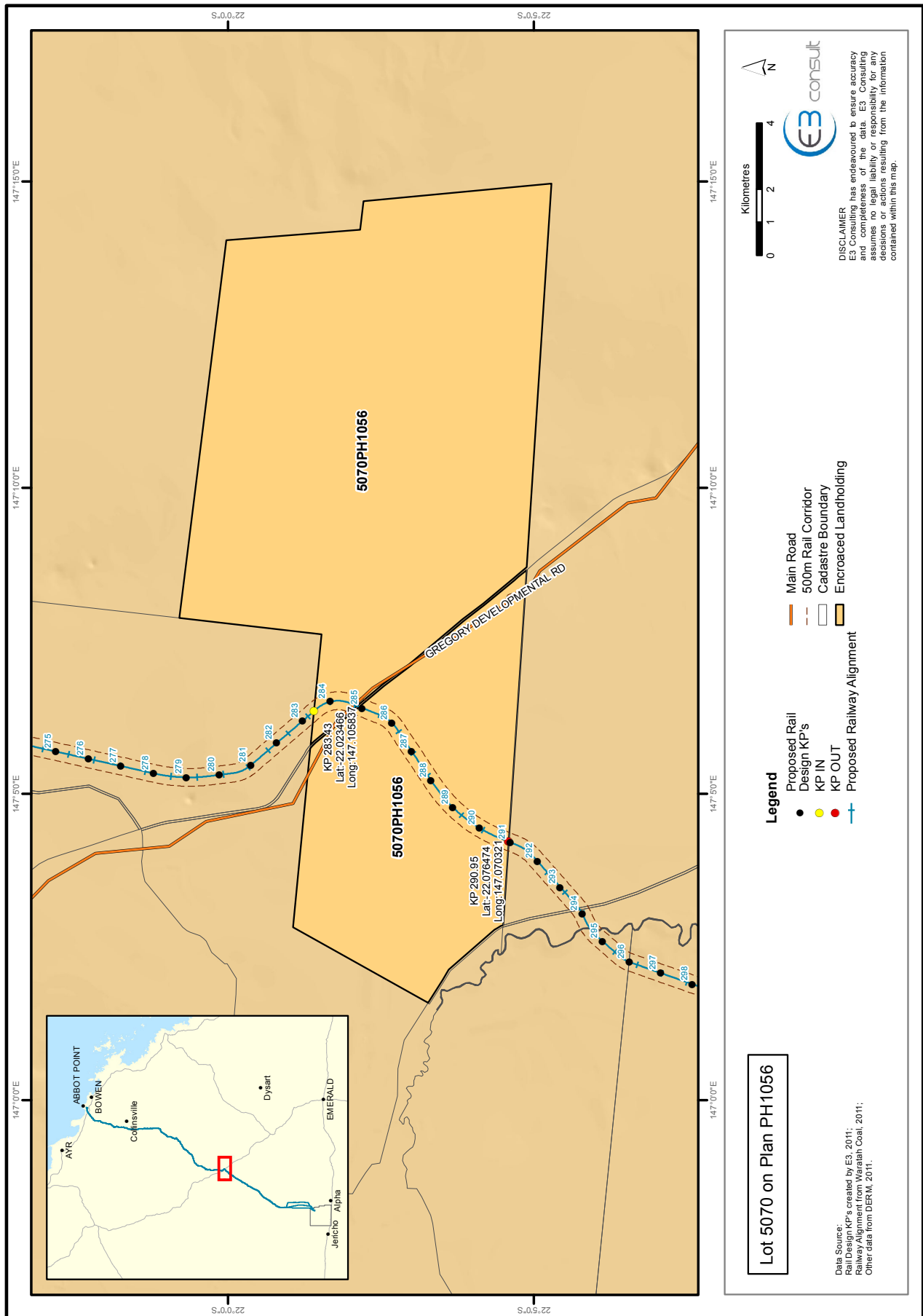


Figure 38. Proposed Property Encroachment (Figure 28 of 48)

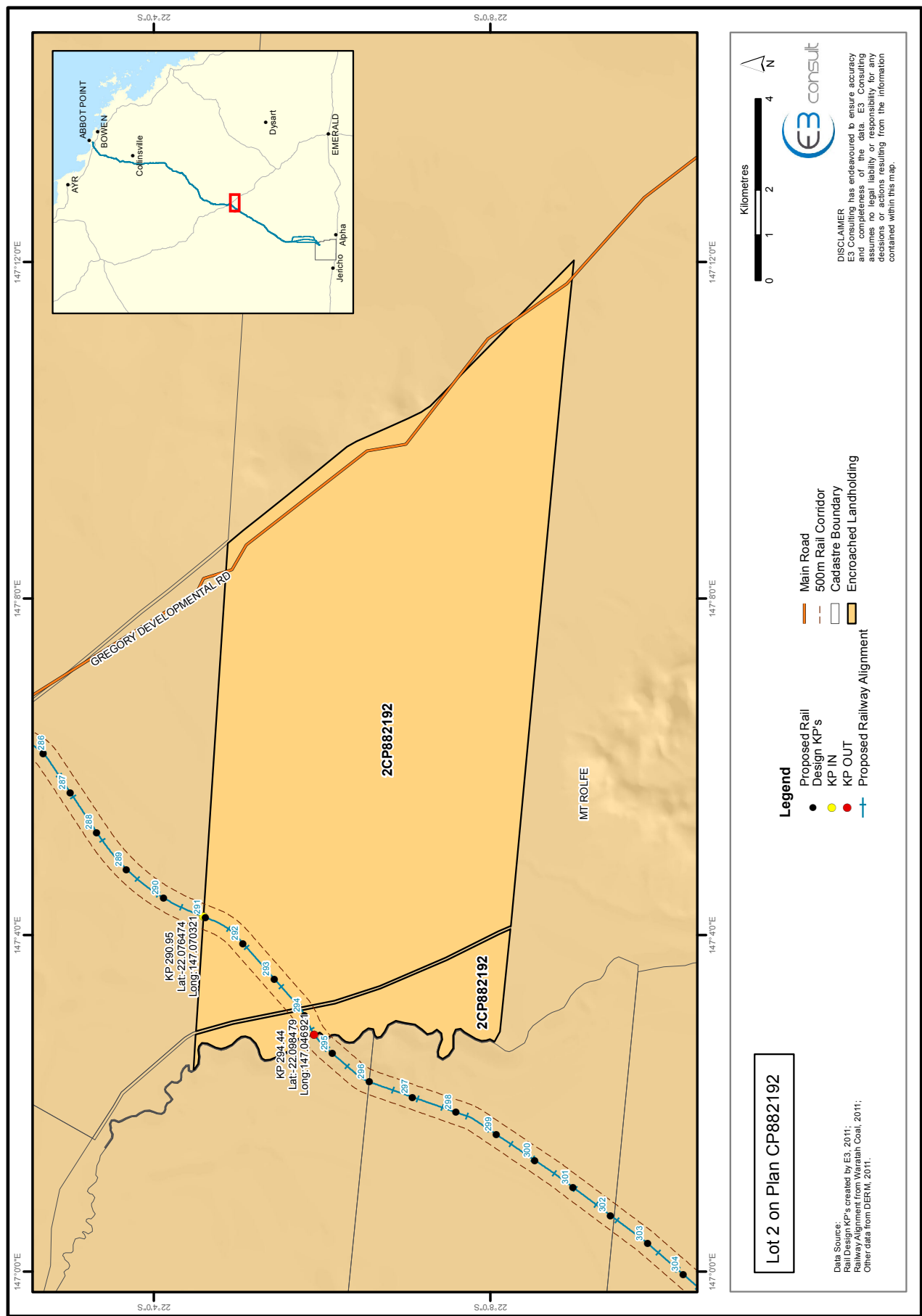


Figure 39. Proposed Property Encroachment (Figure 29 of 48)

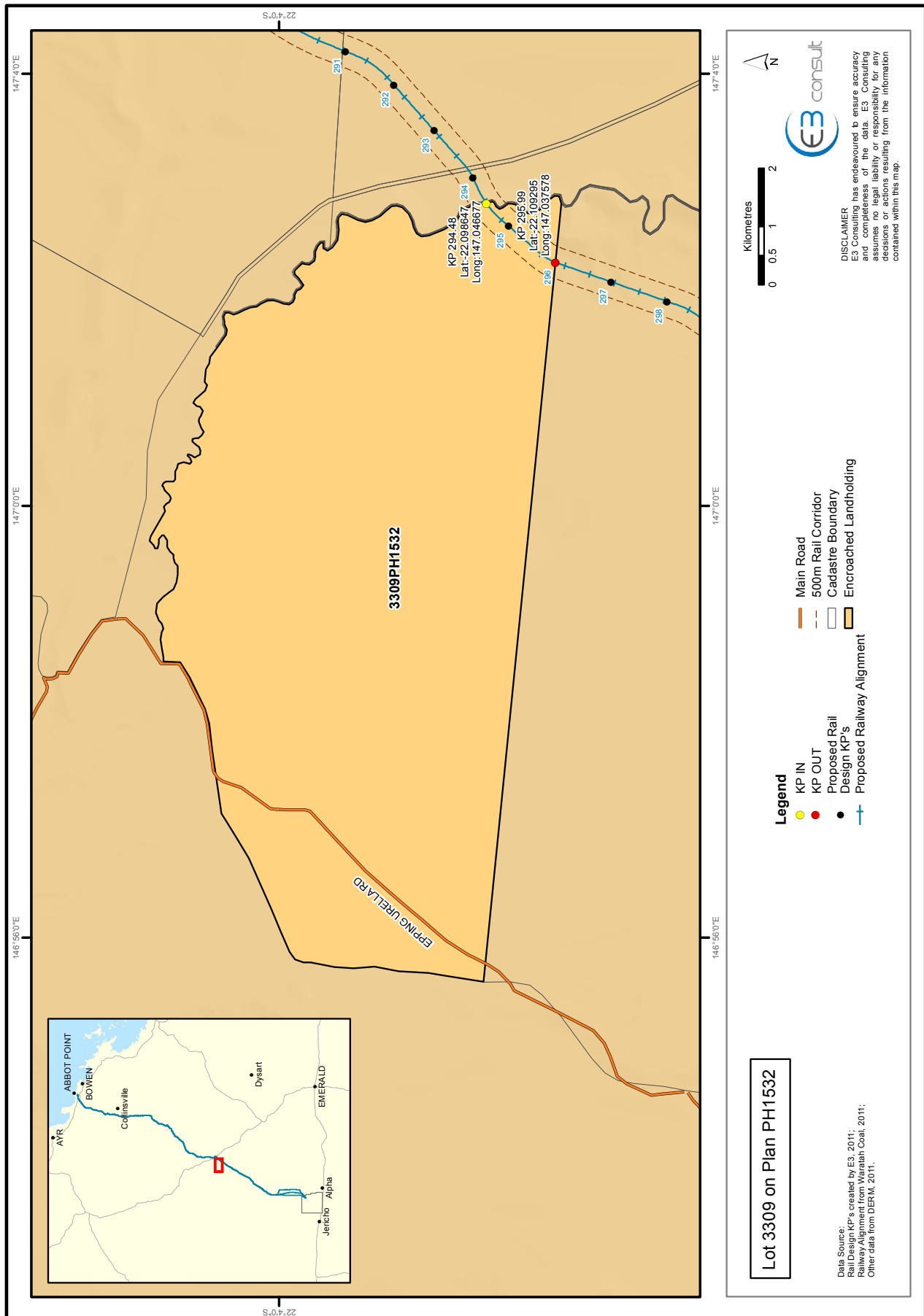




Figure 40. Proposed Property Encroachment (Figure 30 of 48)

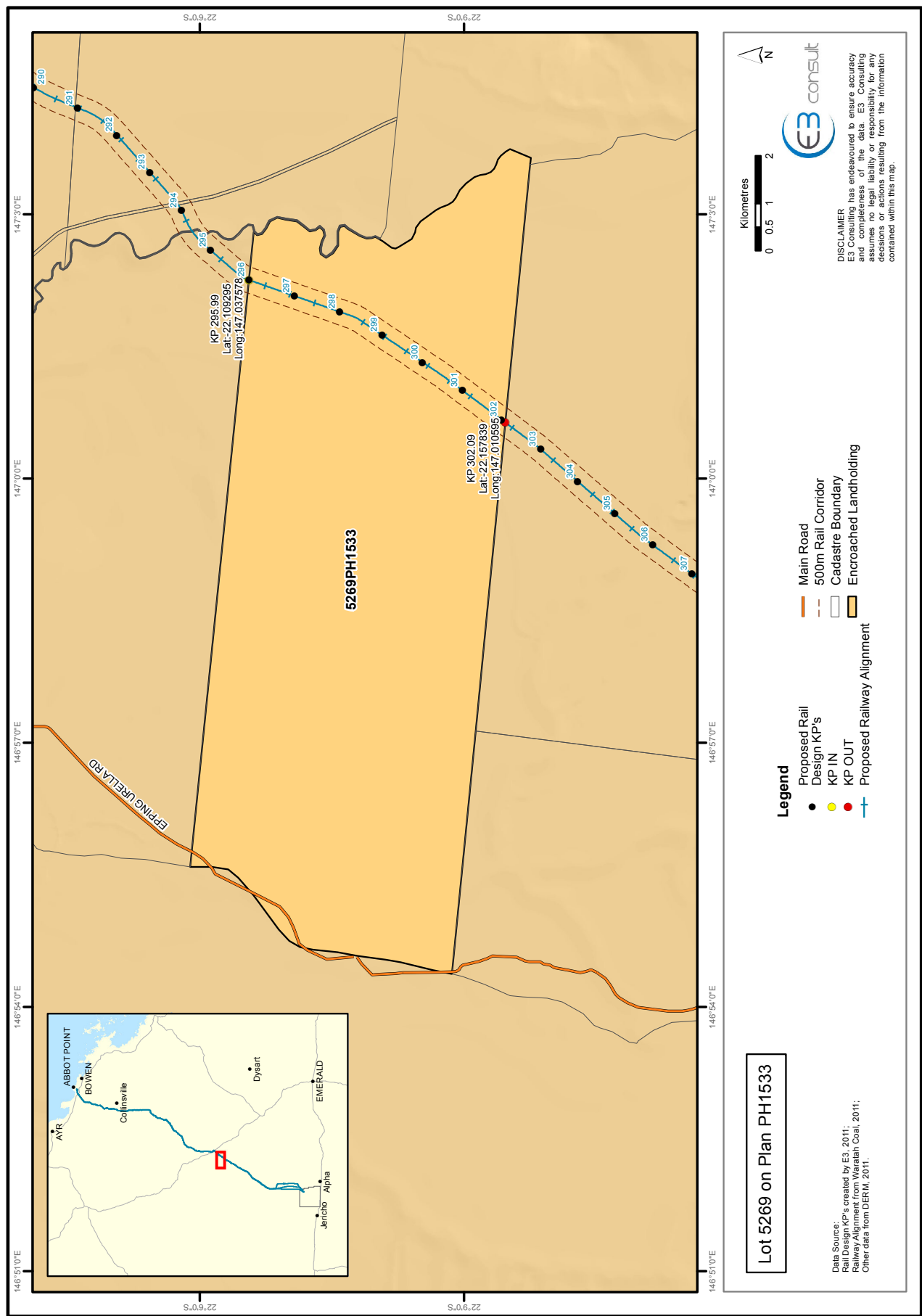


Figure 41. Proposed Property Encroachment (Figure 31 of 48)

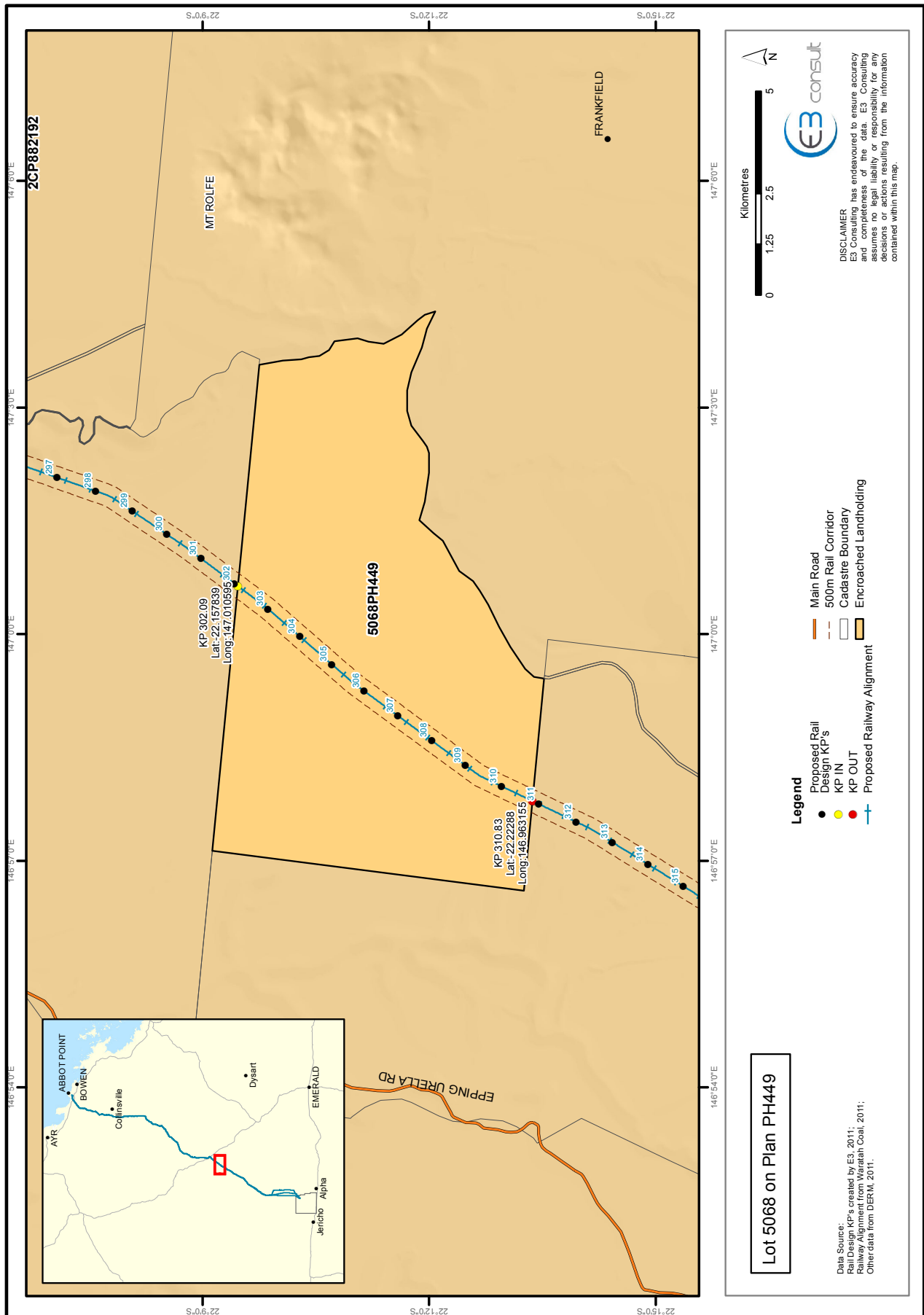


Figure 42. Proposed Property Encroachment (Figure 32 of 48)

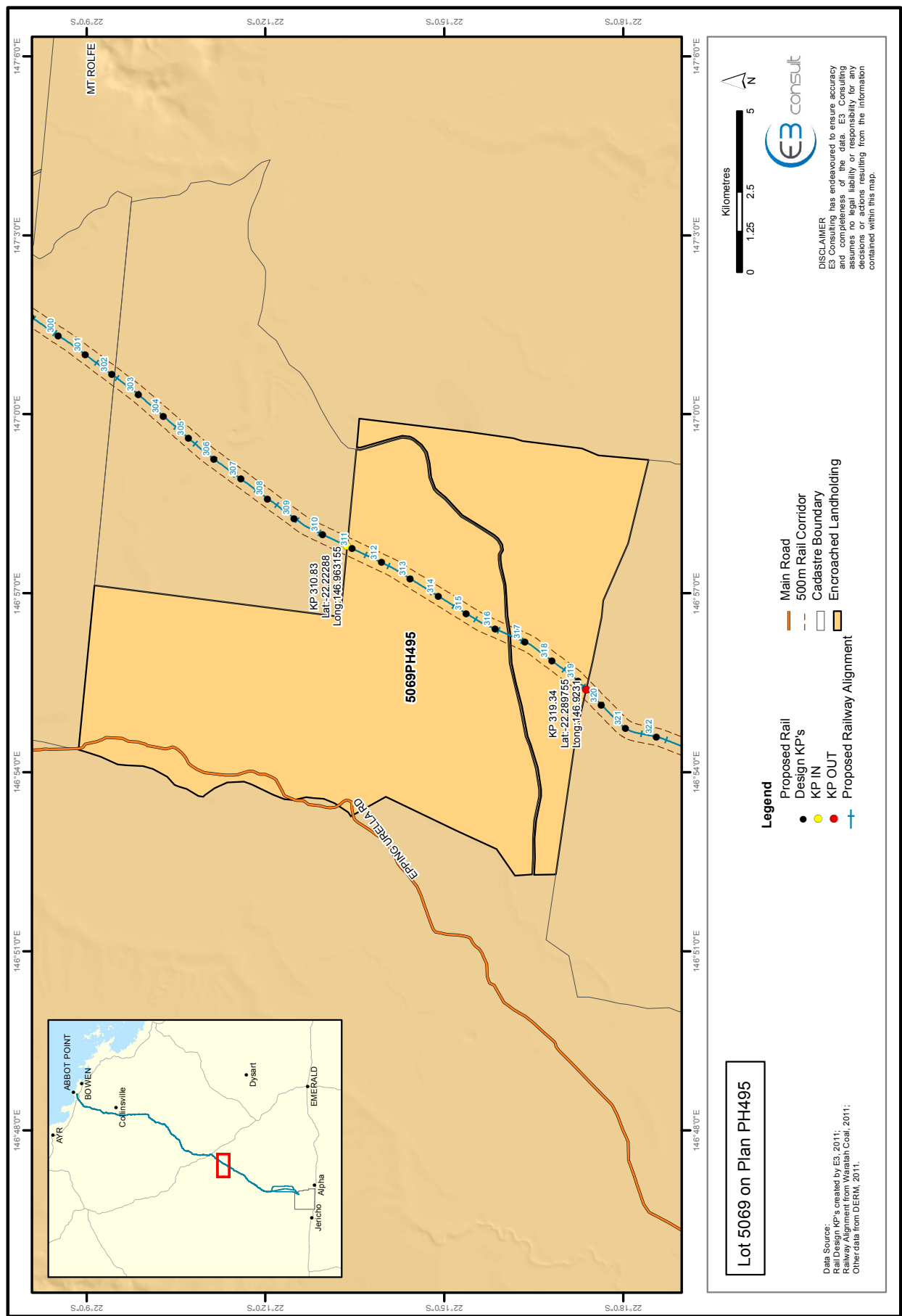


Figure 43. Proposed Property Encroachment (Figure 33 of 48)

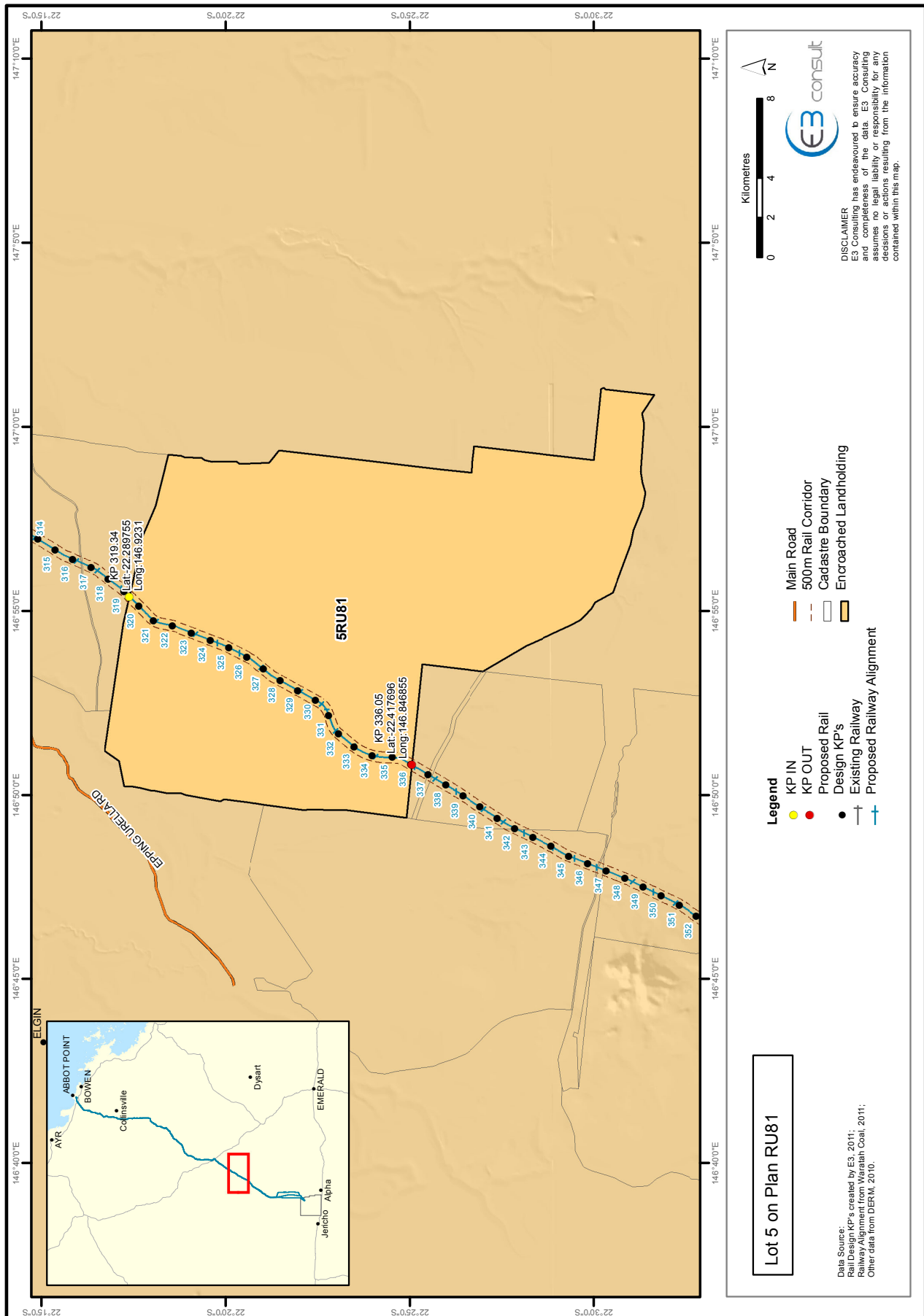




Figure 44. Proposed Property Encroachment (Figure 34 of 48)

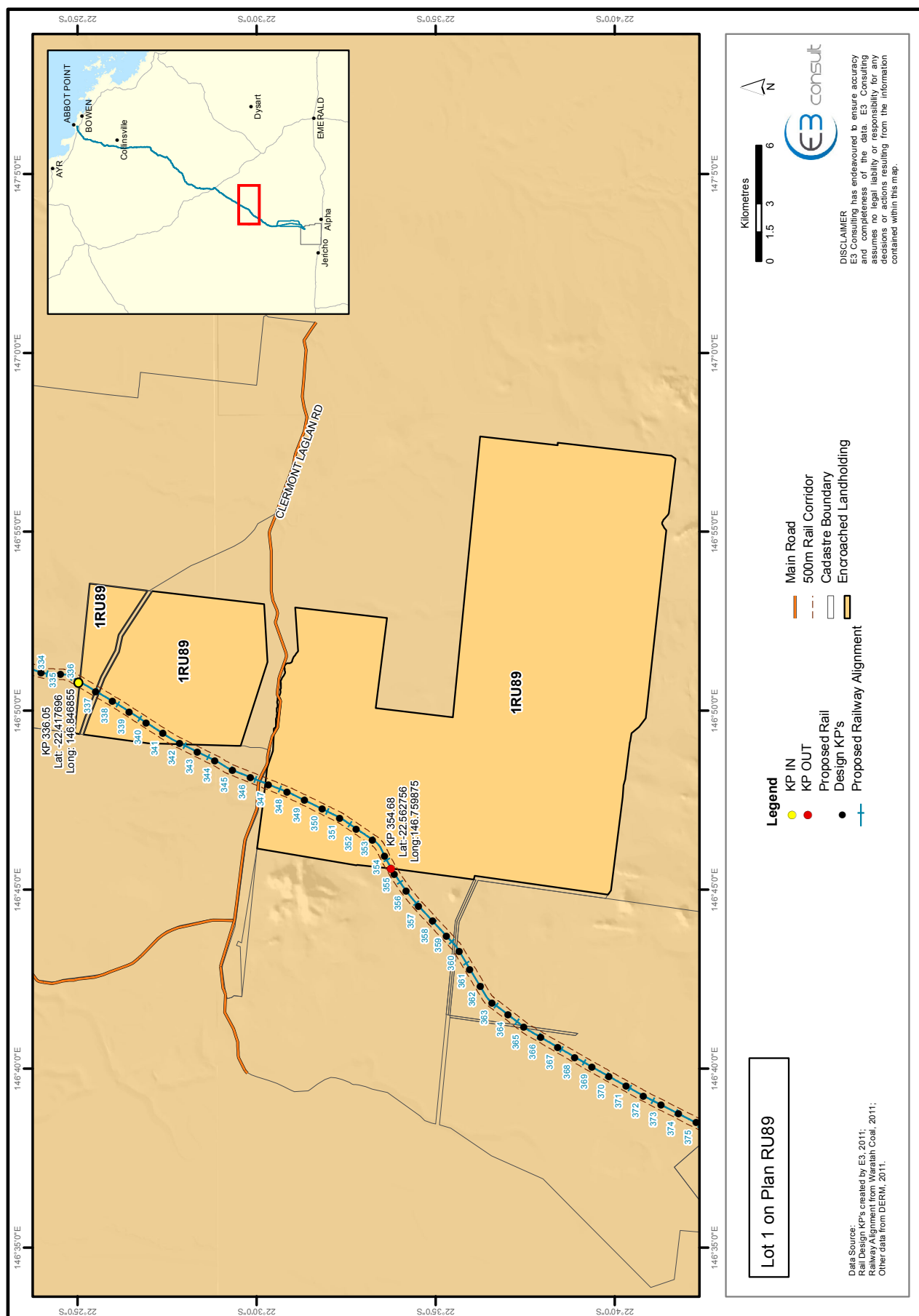


Figure 45. Proposed Property Encroachment (Figure 35 of 48)

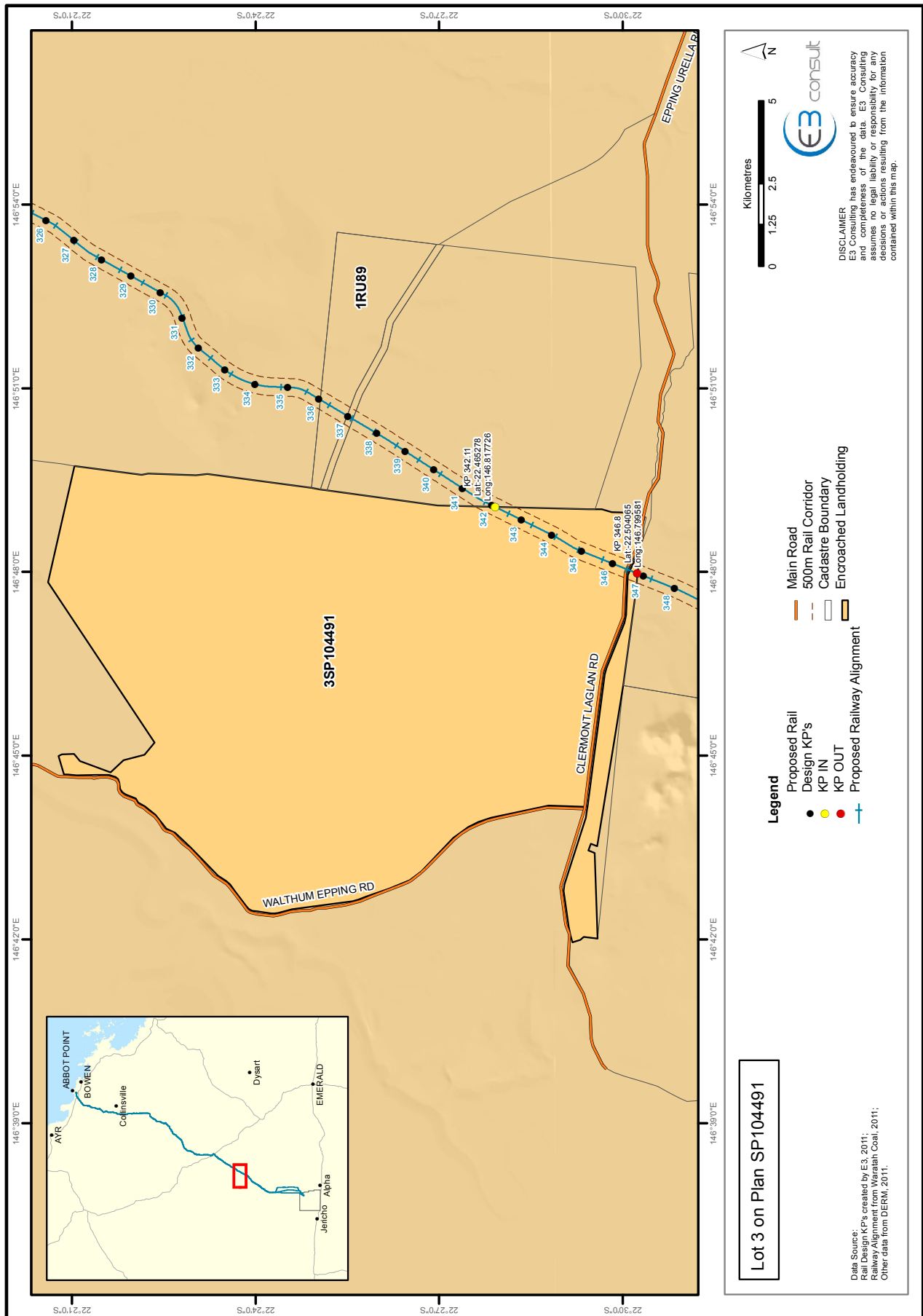


Figure 46. Proposed Property Encroachment (Figure 36 of 48)

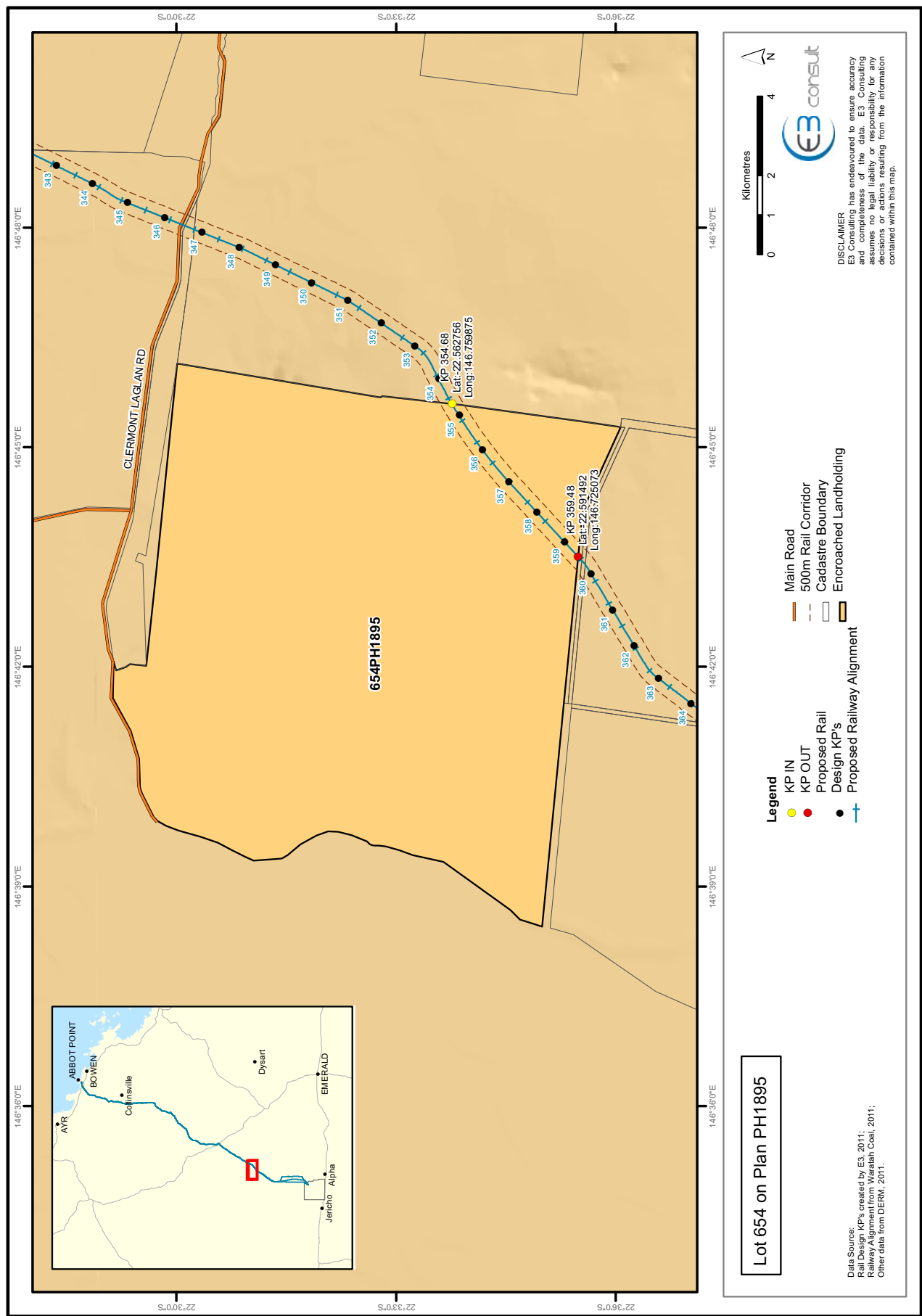


Figure 47. Proposed Property Encroachment (Figure 37 of 48)

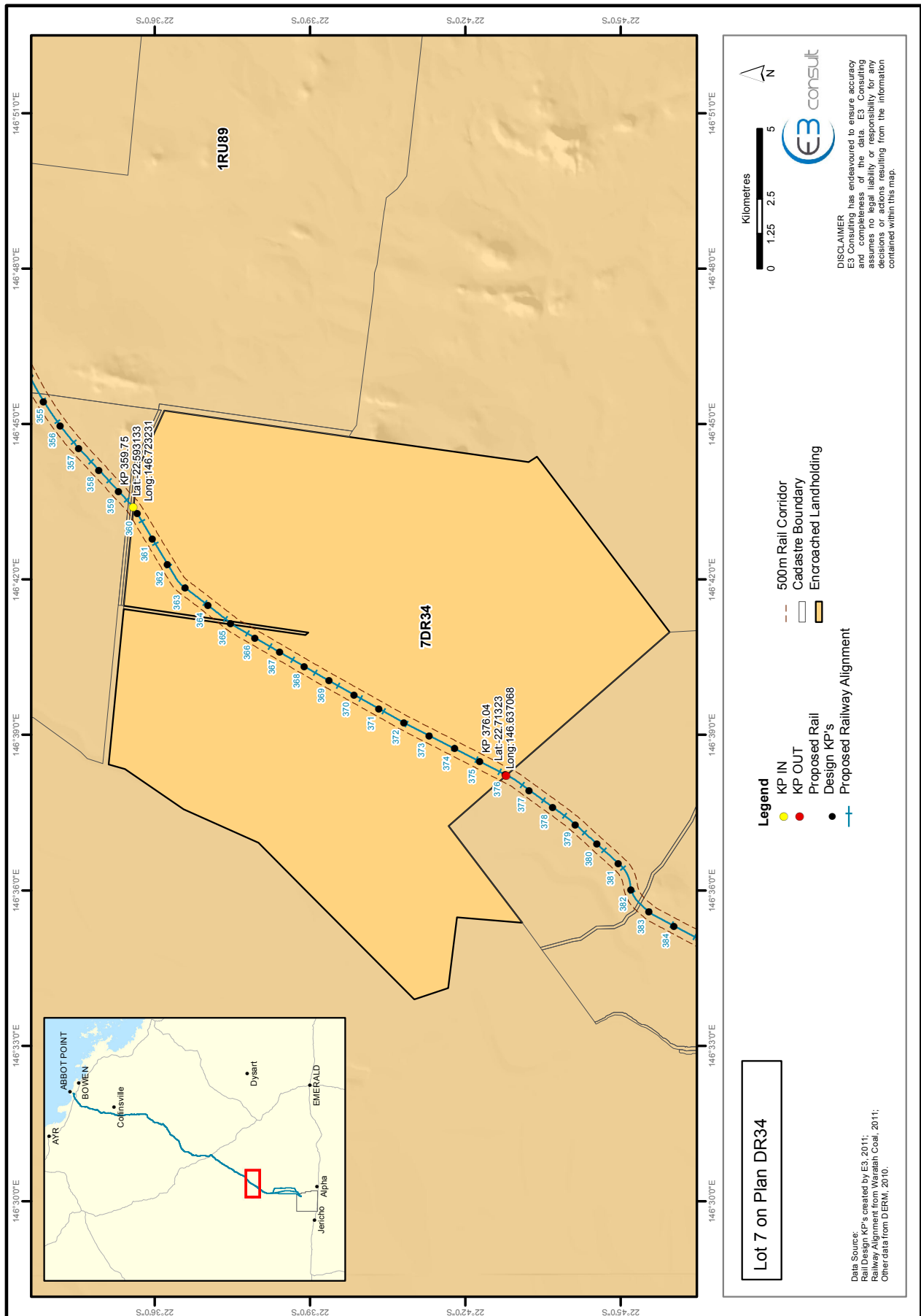




Figure 48. Proposed Property Encroachment (Figure 38 of 48)

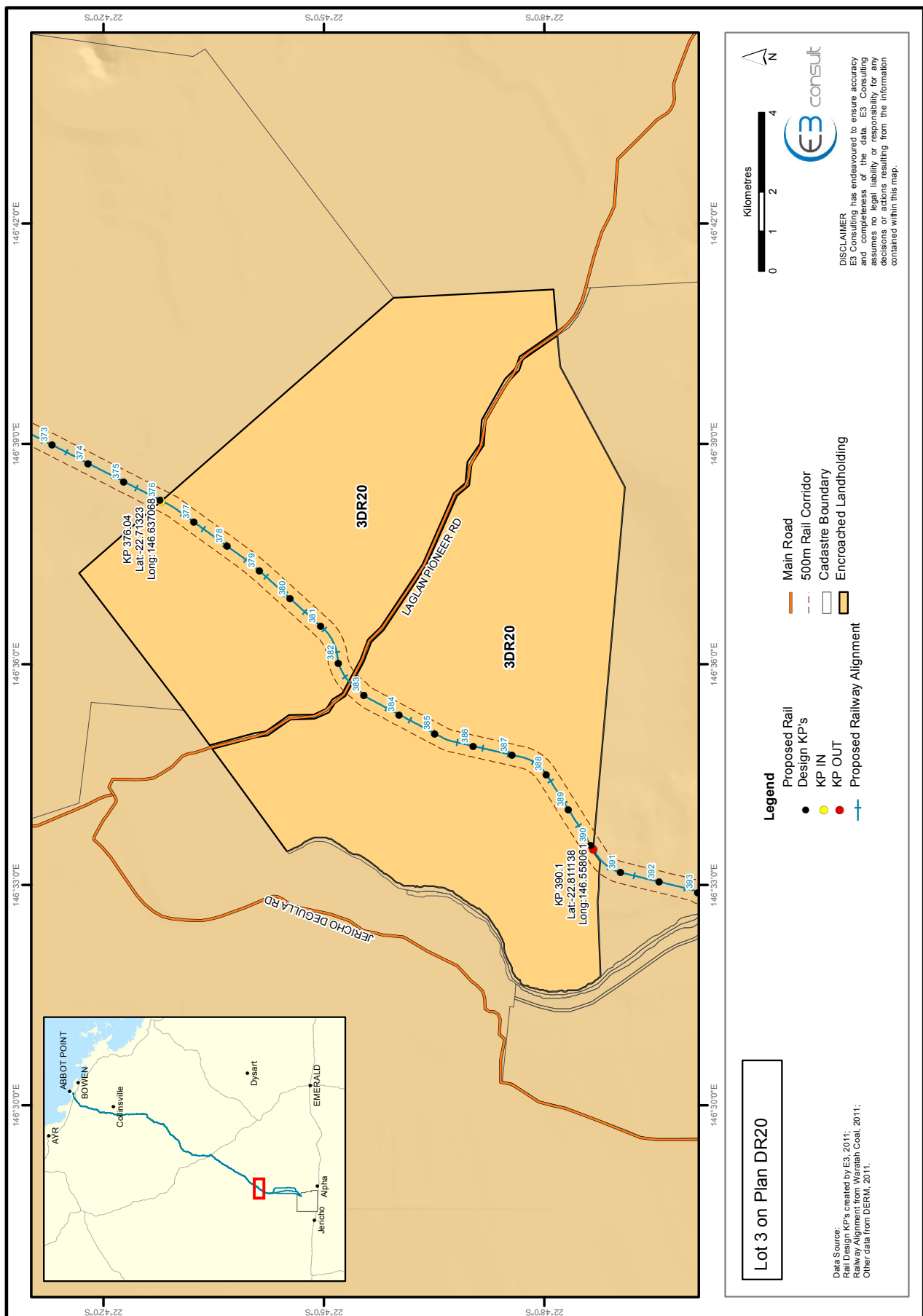


Figure 49. Proposed Property Encroachment (Figure 39 of 48)

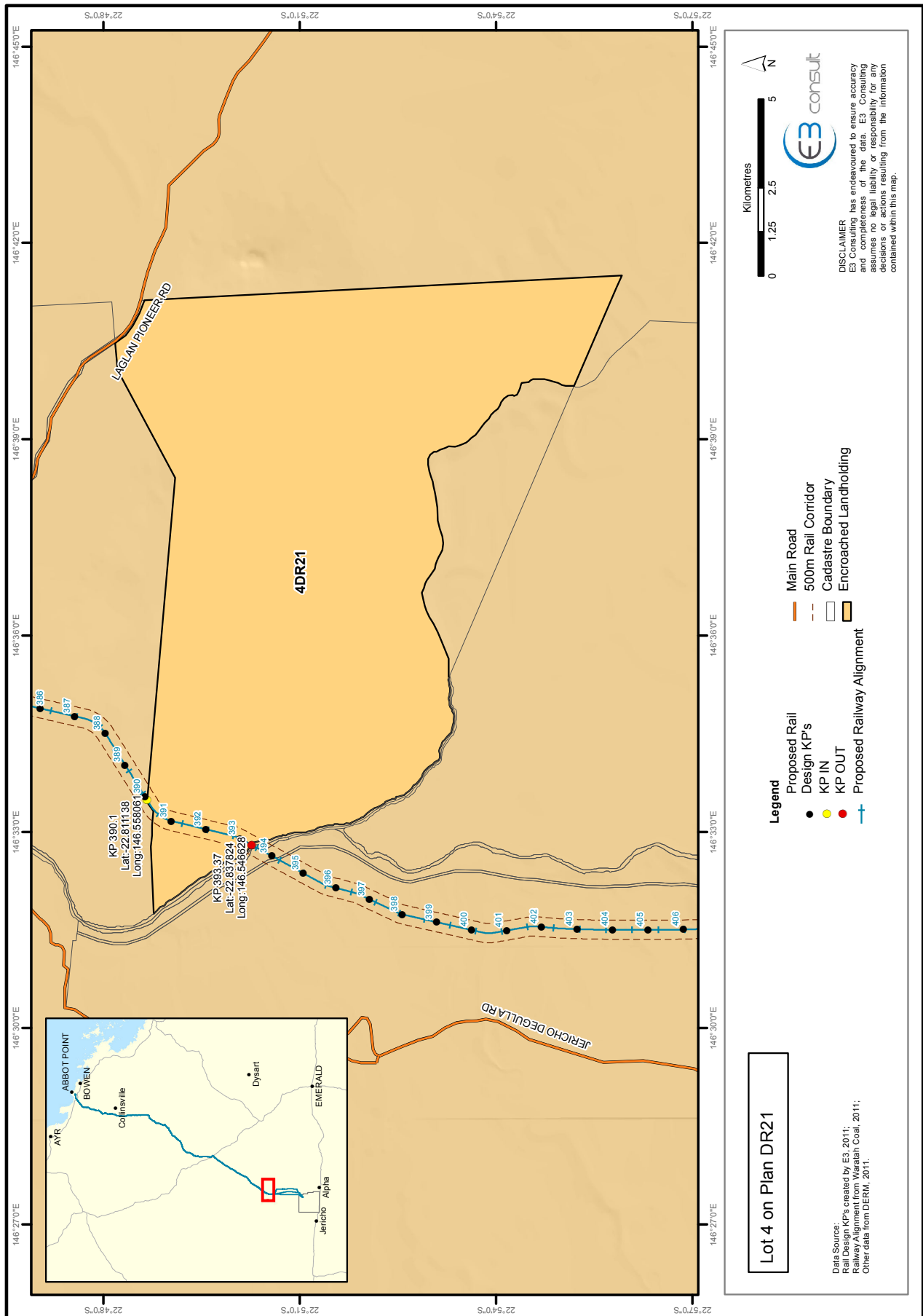


Figure 50. Proposed Property Encroachment (Figure 40 of 48)

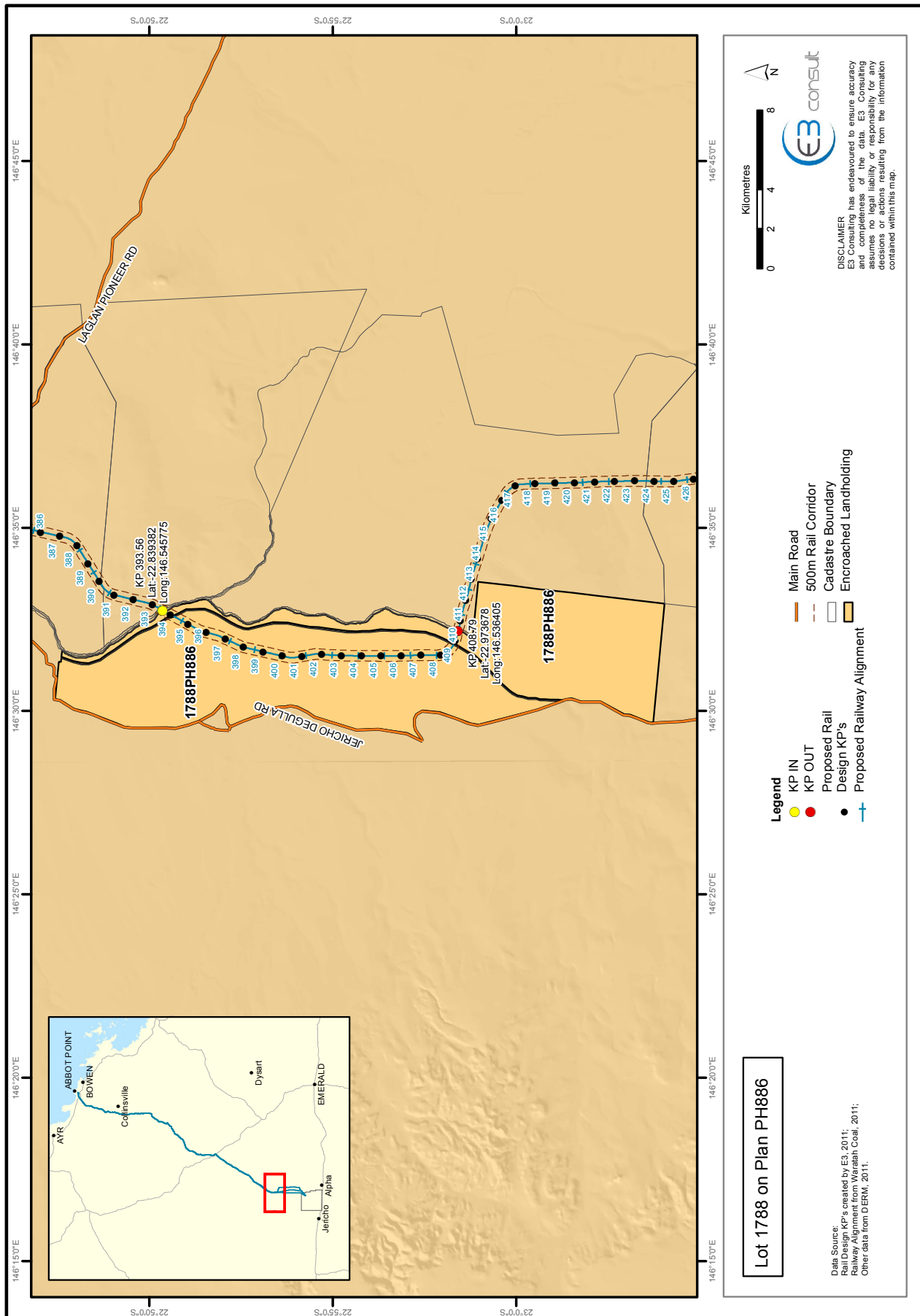


Figure 51. Proposed Property Encroachment (Figure 41 of 48)

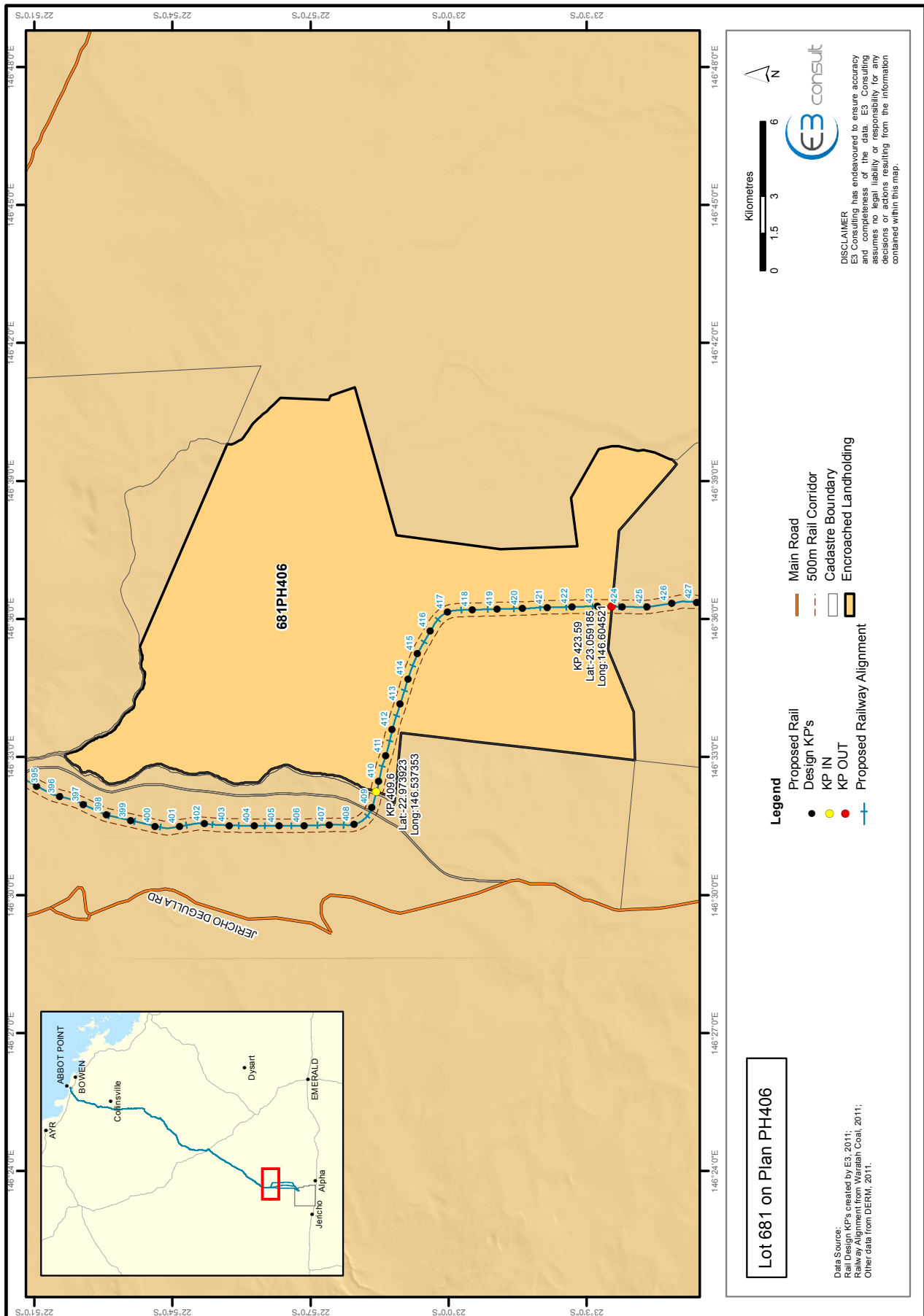




Figure 52. Proposed Property Encroachment (Figure 42 of 48)

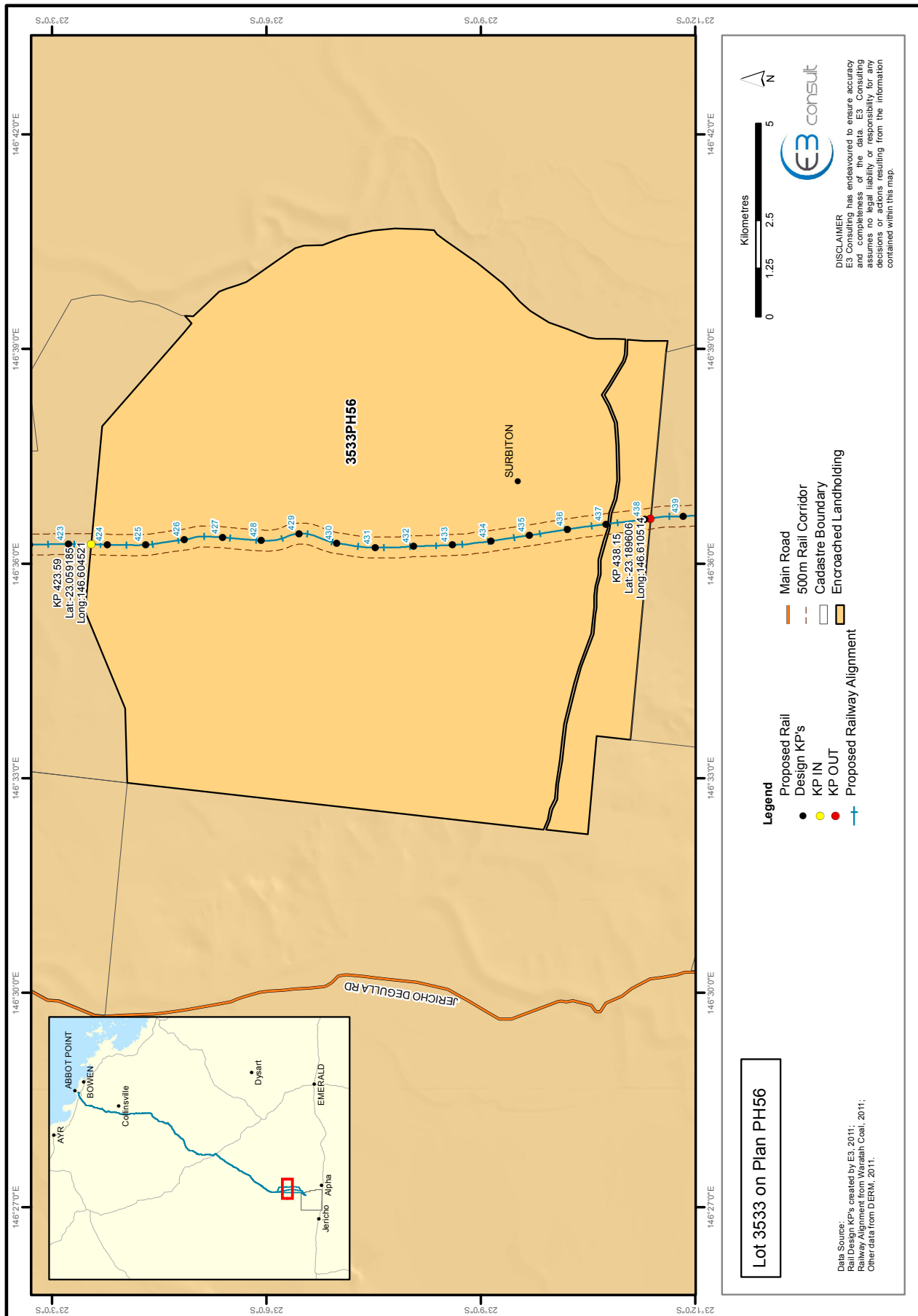


Figure 53. Proposed Property Encroachment (Figure 43 of 48)

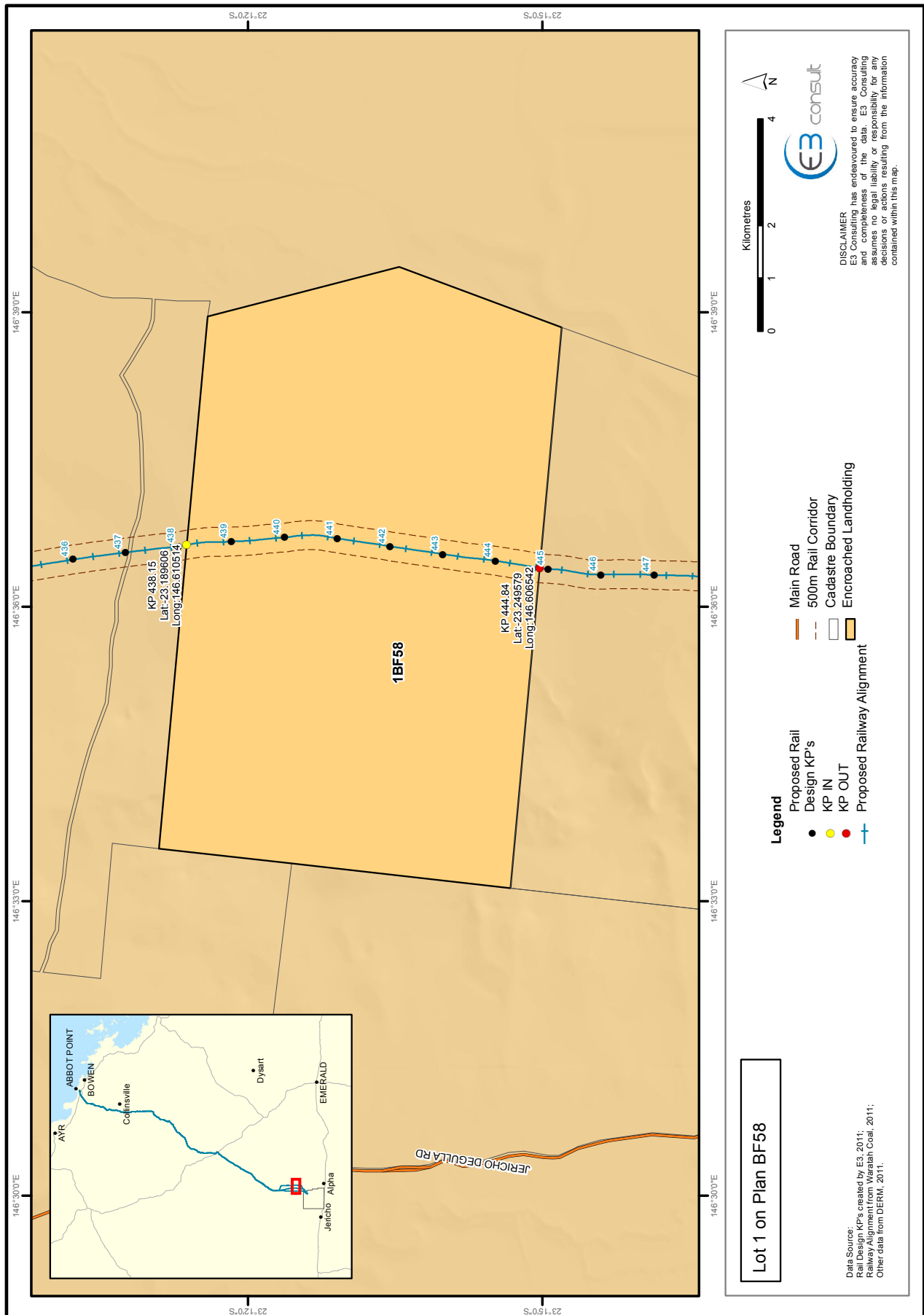


Figure 54. Proposed Property Encroachment (Figure 44 of 48)

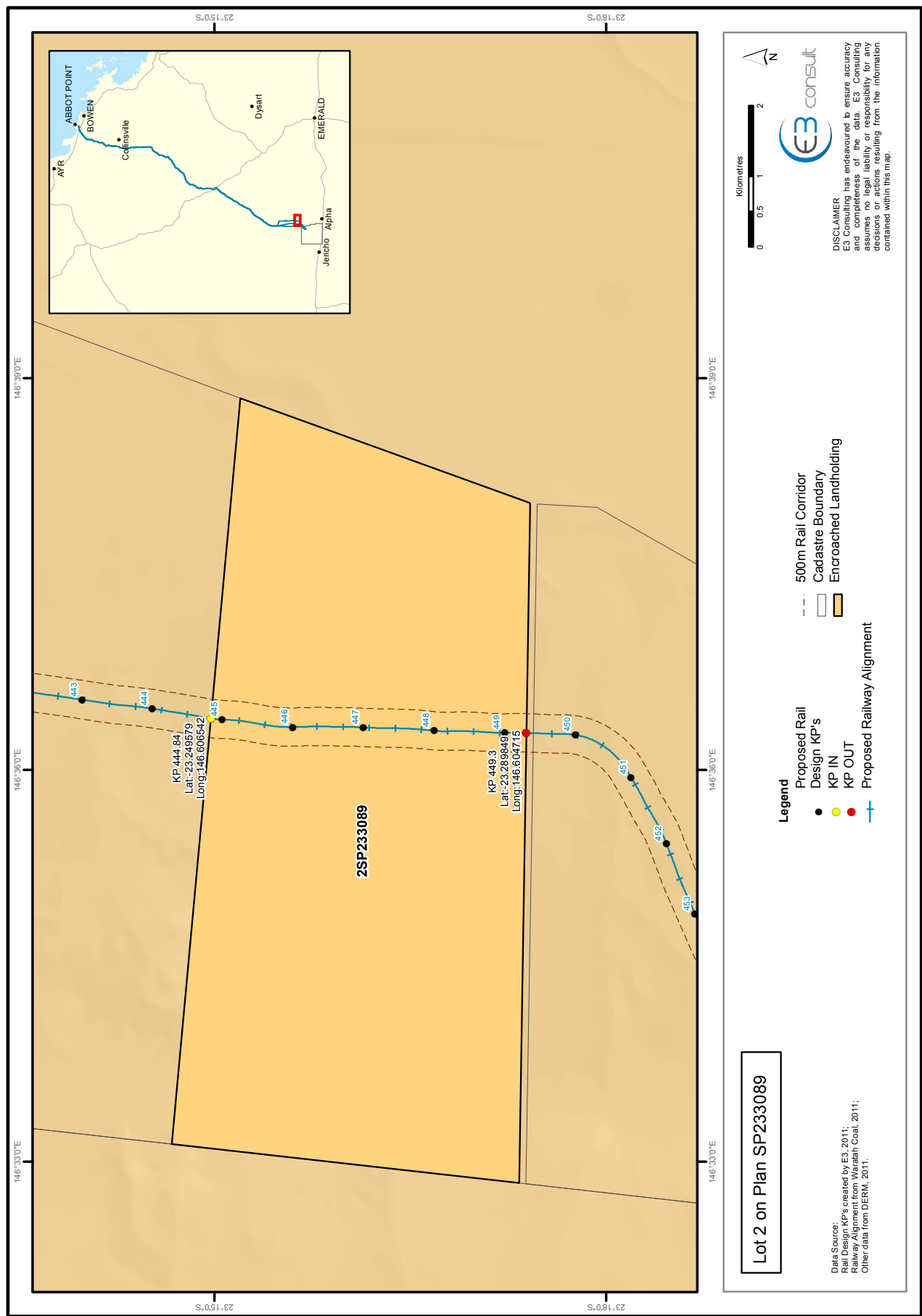


Figure 55. Proposed Property Encroachment (Figure 45 of 48)

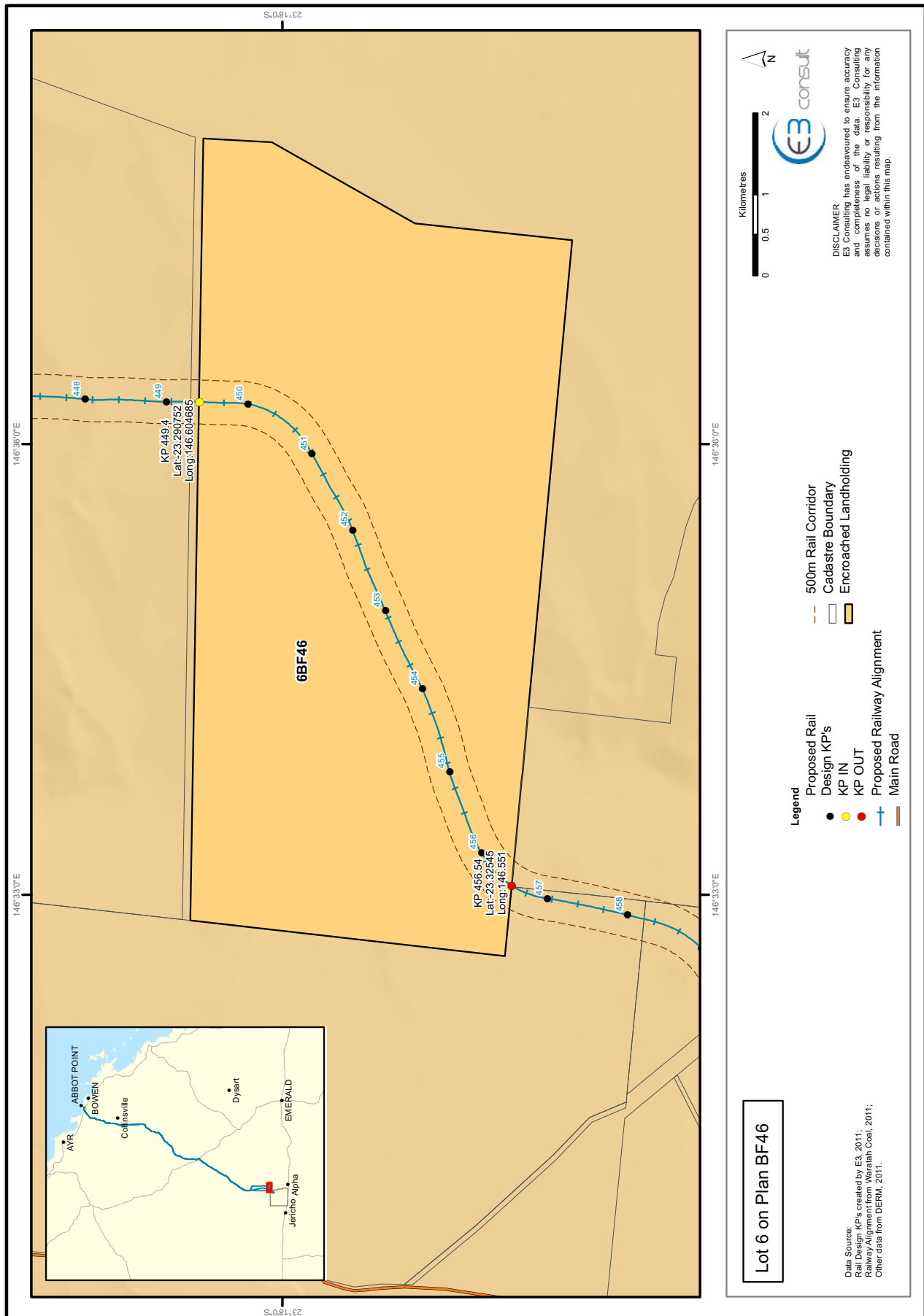




Figure 56. [N9]Proposed Property Encroachment (Figure 46 of 48)

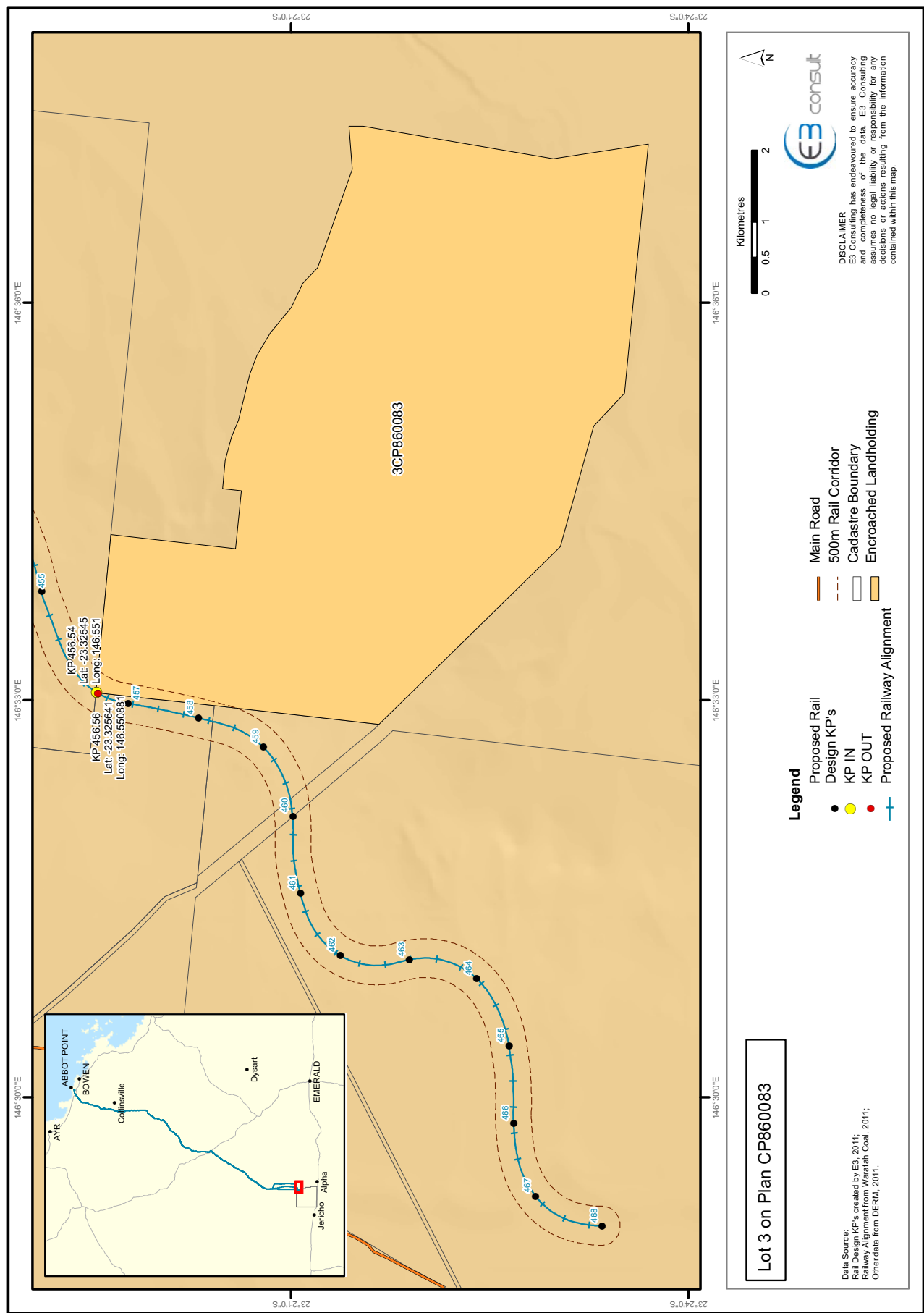


Figure 57. [N10]Proposed Property Encroachment (Figure 47 of 48)

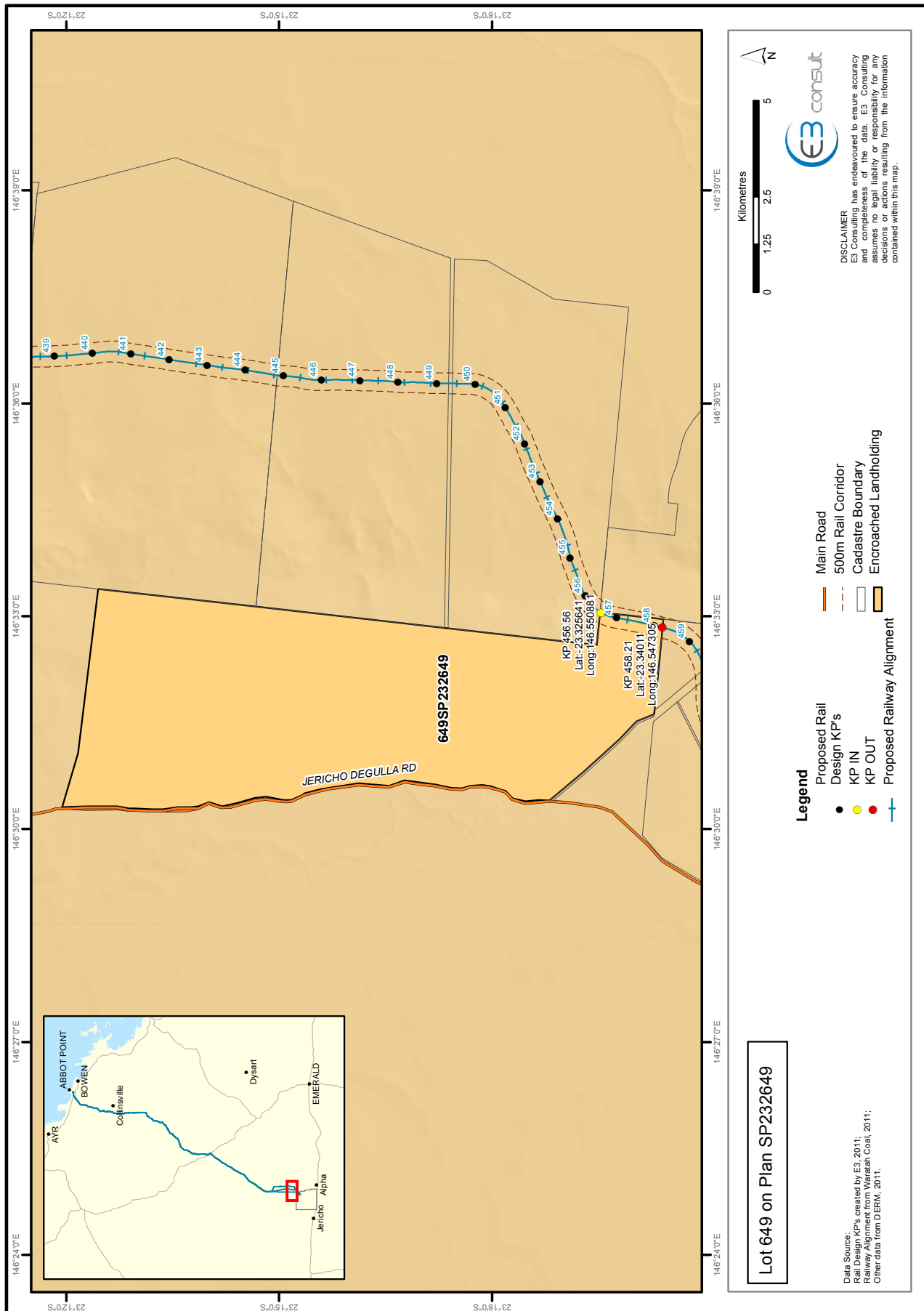
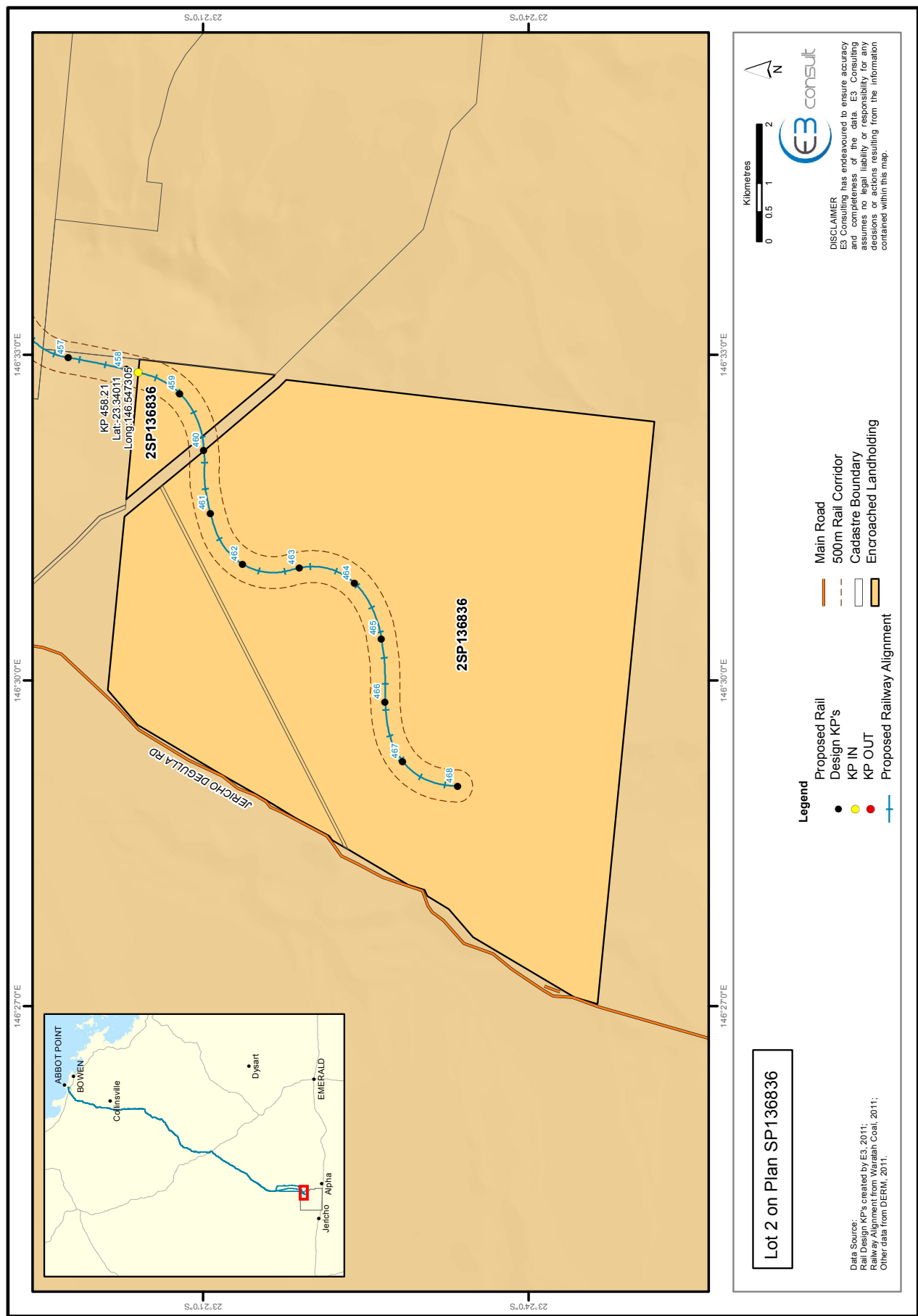


Figure 58. [N11]Proposed Property Encroachment (Figure 48 of 48)



### 4.2.3.2 Exploration Permits – (Coal) and Leases

A list of current mining leases, exploration permits and licenses occurring within and adjacent to the proposed rail corridor is provided at **Table 2**. Their locations in relation to the corridor are shown on **Figure 59** to **Figure 62**. A general description of each section is provided below.

**KP05 to KP95 (Figure 59):** EPCs occupy 100% of the land in which the rail alignment or buffer area traverses from approximately KP45 to KP95. The corridor buffer area intersects Mining Leases (ML) ML10111, ML1009 and ML1064 between KP80 and KP90, adjacent to Collinsville. All three of these leases are held by Xstrata Coal.

**KP95 to KP235 (Figure 60):** Ten EPCs directly intersect the buffer area and comprise approximately 55% of the land use in this area.

**KP235 to KP360 (Figure 61):** Four EPCs directly intersect the buffer area and comprise approximately 95% of the rail alignment in this section. The corridor also intersects Mining Lease (ML) ML70316 at KP280, this lease is held by NQM Gold 2 Pty Ltd.

**KP360 to KP468 (Figure 62):** Six EPCs occupy 100% of the corridor. Whilst they are not yet granted or shown on **Figure 14**, Hancock Coal has submitted two coal mining leases (MLA70425 and MLA70426) directly north of the mine site. Option 1 of the rail alignments passes through these areas from approximately KP410 to KP460 (existing EPC1210) refer to **Chapter 1, Volume 3** for clarification and discussion of the three rail alignment options at the mine.

**Table 2. Coal Exploration Permits and Leases: Rail Alignment**

TENURE TYPE	TENURE NO	STATUS	DATE GRANTED / LODGED	DATE EXPIRES	PRINCIPAL HOLDER	NO OF SUB BLOCKS
EPC	2500	Application Lodged	11/04/2011	N/A	Civil & Mining Resources Pty Ltd	260
EPC	2446	Application Lodged	25/03/2011	N/A	Civil & Mining Resources Pty Ltd	300
EPC	2401	Application Lodged	10/03/2011	N/A	Civil & Mining Resources Pty Ltd	300
EPC	1021	Granted	29/08/2007	28/08/2012	Conarco Minerals Pty Ltd	300
EPC	968	Granted	03/08/2006	02/08/2012	Argos (Qld) Pty Ltd	110
EPC	1700	Application Lodged	06/03/2009	NA	Xstrata Coal Qld Pty Ltd	5
EPC	639	Granted	12/12/2001	11/12/2011	QCoal Pty Ltd	23
EPC	768	Granted	29/03/2010	28/03/2015	QCoal Pty Ltd	44
EPC	1320	Application Lodged	30/05/2008	NA	North Coal Pty Ltd	45
EPC	768	Granted	29/03/2010	28/03/2015	QCoal Pty Ltd	44
EPC	773	Granted	06/03/2003	05/03/2013	Xstrata Coal Queensland Pty Ltd	39
EPC	1321	Application Lodged	02/06/2008	NA	Brothers Mining Pty Ltd	61
EPC	659	Granted (Renewal Lodged)	08/11/2004	07/11/2008	Talbot Group Exploration Pty Ltd	173
EPC	1518	Granted	03/05/2010	02/05/2014	Endocoal Limited	300
EPC	2451	Application Lodged	30/03/2011		Civil & Mining Resources Pty Ltd	300



TENURE TYPE	TENURE NO	STATUS	DATE GRANTED / LODGED	DATE EXPIRES	PRINCIPAL HOLDER	NO OF SUB BLOCKS
EPC	2169	Application Lodged	21/07/2010	N/A	Queensland Coal Investments Pty Ltd	175
EPC	1228	Application Lodged	01/02/2008	NA	Linc Energy Limited	299
EPC	1902	Application Lodged	31/08/2009	NA	Bowen Basin Coal Qld Australian Pty Ltd	300
EPC	1899	Application Lodged	31/08/2009	NA	Bowen Basin Coal Qld Australian Pty Ltd	295
EPC	1528	Granted	25/05/2010	24/05/2015	Vale Australia EA Pty Ltd	336
EPC	1898	Application Lodged	31/08/2009	NA	Bowen Basin Coal Qld Pty Ltd	300
EPC	1053	Granted	30/08/2007	29/08/2012	Waratah Coal Pty Ltd	95
EPC	1210	Granted	18/09/2009	17/09/2014	Hancock Pty Ltd	117
EPC	1040	Granted	22/06/2006	21/06/2011	Waratah Coal Pty Ltd	241
EPC	2065	Granted	15/10/2010	14/10/2012	Shadforths Civil Constructions Pty Ltd	6
EPC	1263	Granted	24/02/2010	23/02/2015	Queensland Thermal Coal Pty Ltd	300
ML	10111	Granted	16/09/1993	30/09/2014	Xstrata Coal Queensland Pty Ltd	235 ha
ML	1009	Granted	01/11/1964	31/08/2026	Xstrata Coal Queensland Pty Ltd	5455 ha
ML	1064	Granted	14/07/1994	31/10/2018	Xstrata Coal Queensland Pty Ltd	492 ha
ML	70316	Granted	16/12/2004	31/12/2019	NQM Gold 2 Pty Ltd	731.1 ha
ML	70425	Application	18/12/2009	NA	Hancock Galilee Pty Ltd	37380 ha
ML	70426	Application	18/12/2009	NA	Hancock Coal Pty Ltd	64630 ha

Figure 59. Rail Corridor – Coal Permits and Leases (Map 1 of 4)

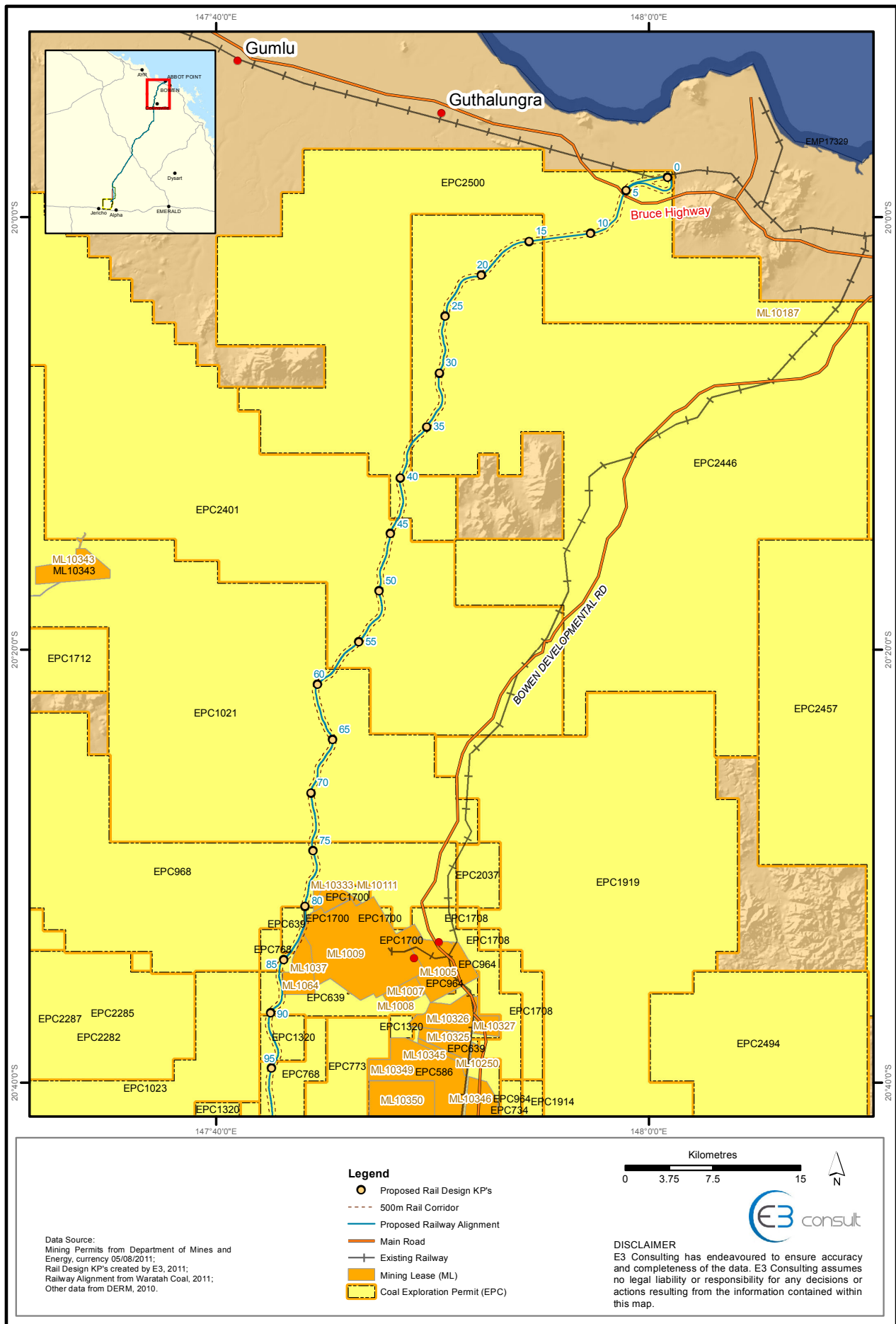


Figure 60. Rail Corridor – Coal Permits and Leases (Map 2 of 4)

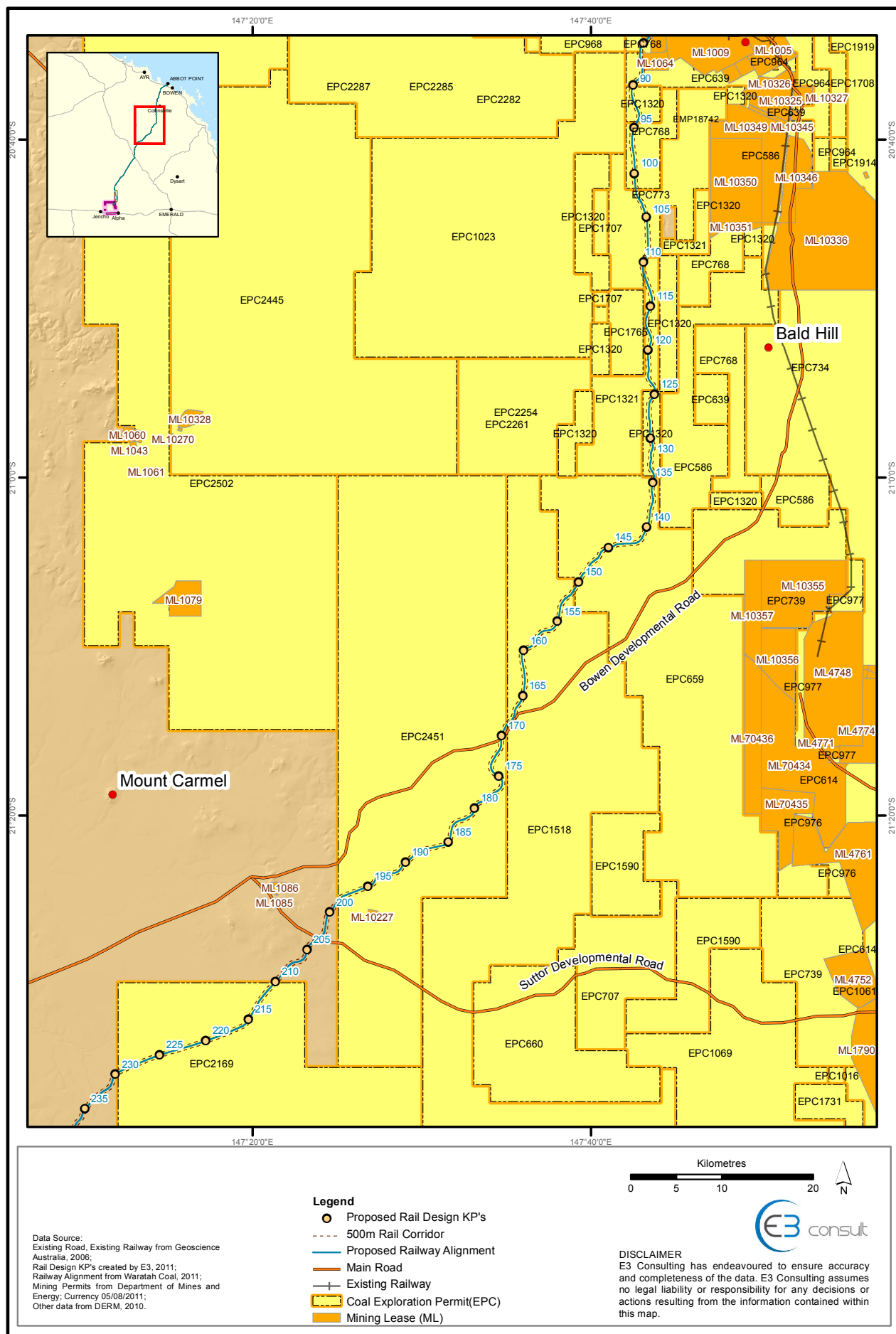


Figure 61. Rail Corridor – Coal Permits and Leases (Map 3 of 4)

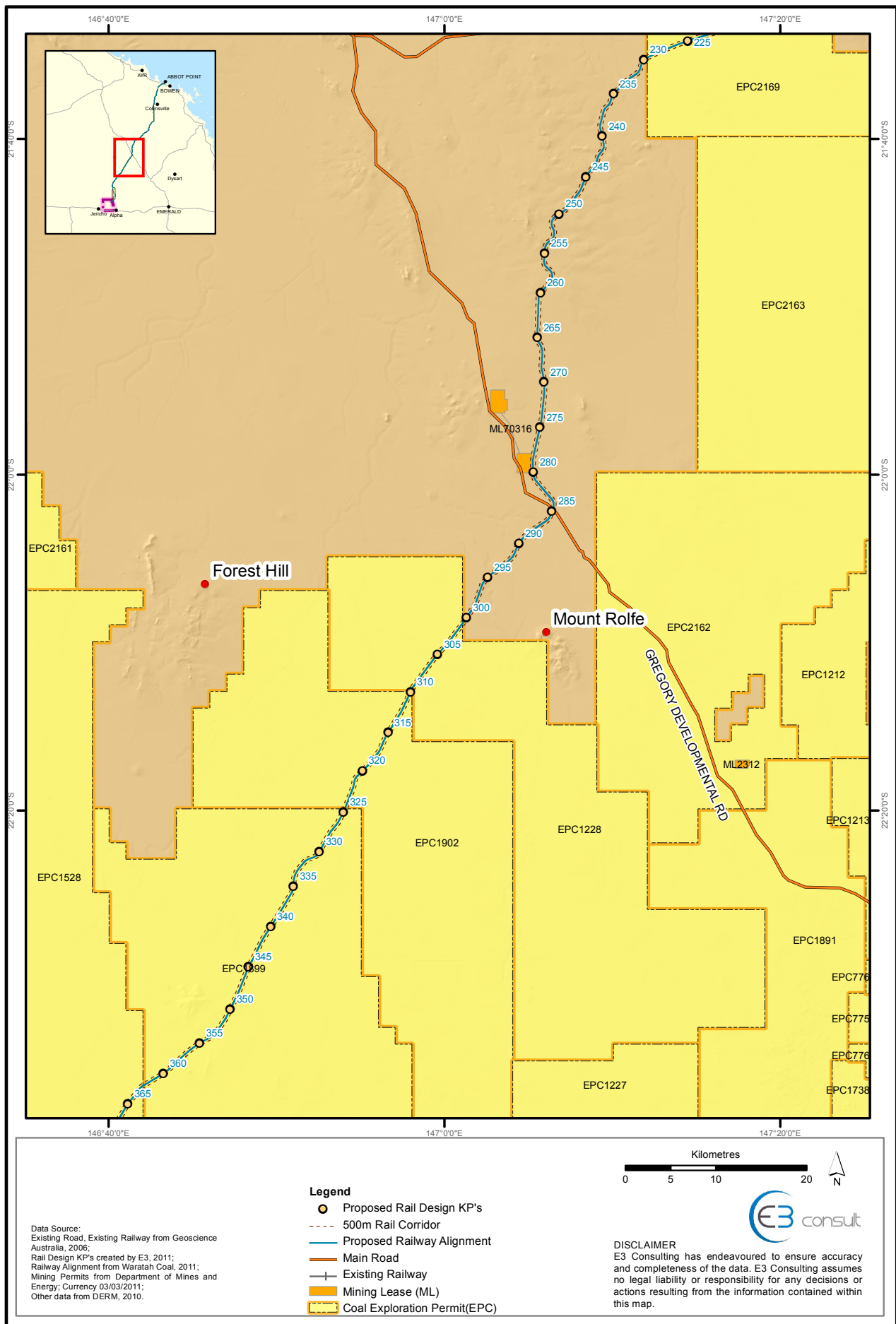
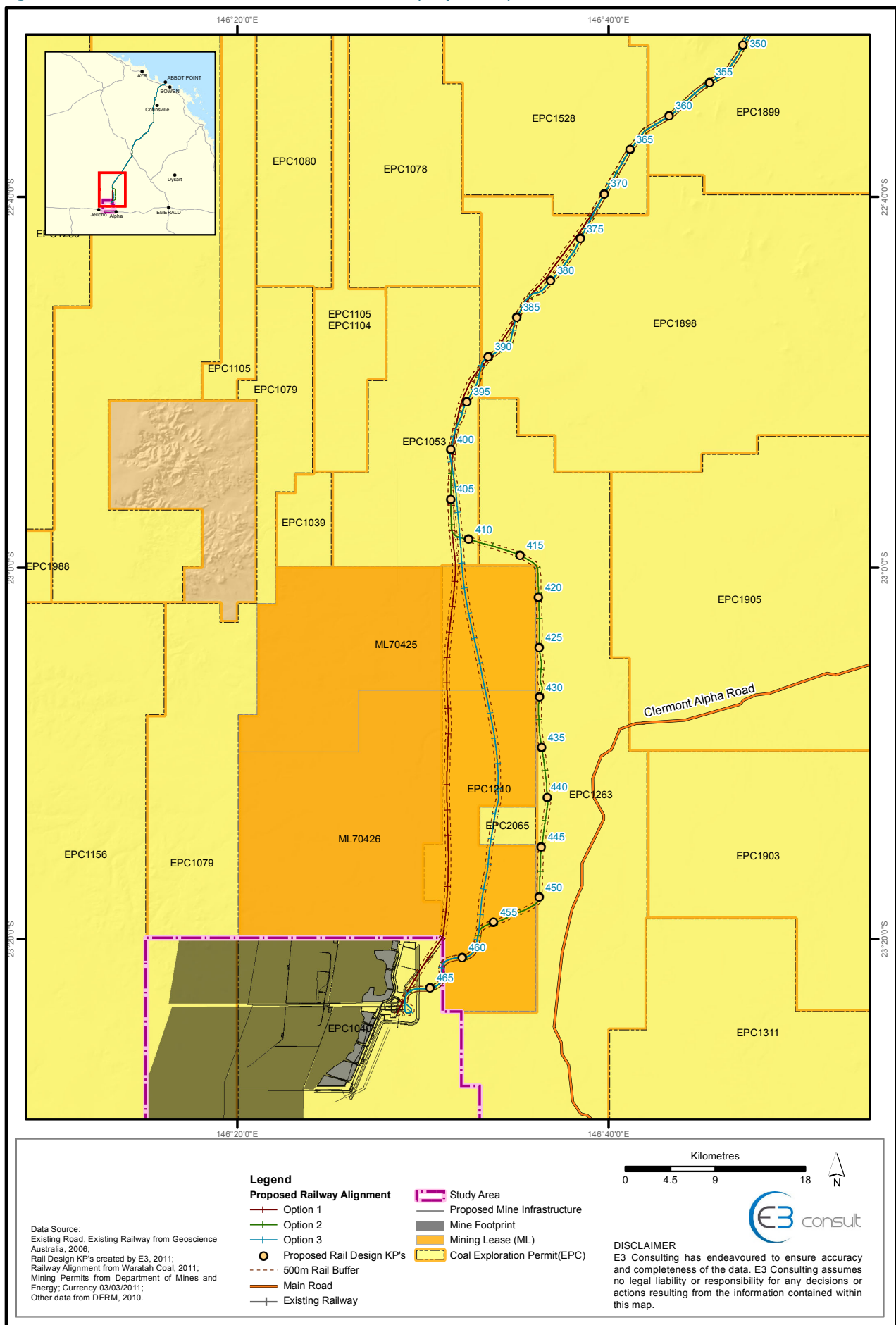


Figure 62. Rail Corridor – Coal Permits and Leases (Map 4 of 4)





### 4.2.3.3 Exploration Permits – (Minerals) and Leases

The proposed corridor traverses 28 mineral exploration tenures and leases (refer Table 3). The locations of Exploration Permits-(Minerals) (EPMs), in relation to the corridor are shown at Figure 63 to Figure 66. A general description of each section is provided below.

**KP5 to KP95 (Figure 63):** Eleven EPMs directly intersect the rail alignment or buffer area between KP45 to KP90 covering approximately 65% of the land in this section of the alignment.

**KP95 to KP235 (Figure 64):** EPMs occupy approximately 35% of the land in this section of the rail alignment.

**KP235 to KP360 (Figure 65):** EPMs occupy approximately 40% of land between KP235 to KP285. The rail alignment and associated buffer area directly intersect mining lease ML70316 at KP280. NQM Gold 2 Pty Ltd is listed as the principal holder of the lease.

**KP360 to KP468 (Figure 66):** Three EPMs all held by Waratah Coal directly intersect the rail alignment. The three EPMs occupy approximately 20% of the land through which the rail alignment traverses.

**Table 3. Exploration Permits (Minerals) and Leases: Rail Alignment**

TENURE TYPE	TENURE NO	STATUS	DATE GRANTED/ LODGED	DATE EXPIRES	PRINCIPAL HOLDER	NO OF SUB BLOCKS
EPM	19087	Application Lodged	23/02/2011	N/A	Barlyne Mining Pty Ltd	86
EPM	18568	Application Lodged	19/03/2010	NA	Conquest Mining Limited	17
EPM	13867	Granted	10/04/2003	09/04/2008	Conquest Mining Limited	19
EPM	11147	Granted	03/07/1996	31/12/2011	Conquest Mining Limited	18
EPM	10164	Granted	28/06/1994	31/12/2011	Conquest Mining Ltd	33
EPM	15805	Granted	20/02/2008	19/02/2012	Conquest Mining Ltd	26
EPM	16997	Granted	21/02/2008	20/02/2011	Basin Gold Pty Ltd	4
EPM	14171	Granted	31/01/2005	30/01/2012	Energy Minerals Pty Ltd	24
EPM	16901	Granted	07/07/2010	06/07/2012	Sexton Developments Pty Ltd	8
EPM	18271	Application Lodged	04/09/2009	N/A	Liontown Resource Limited	76
EPM	18742	Application Lodged	21/06/2010	N/A	Sexton Developments Pty Ltd	98
EPM	11971	Granted	31/08/2004	30/08/2011	Conquest Mining Pty Ltd	19
EPM	15902	Granted	13/06/2008	12/06/2013	Mt Coolon Gold Mines Pty Ltd	172
EPM	14927	Granted (Renewal Lodged)	16/06/2006	15/06/2010	Drummond West Pty Ltd	24
EPM	16446	Granted	31/05/2011	30/05/2013	Drummond West Pty Ltd	100
EPM	14934	Granted	16/06/2006	15/06/2012	Drummond West Pty Ltd	125
EPM	17641	Application Lodged	02/06/2008	NA	Zamia Resources Pty Ltd	16
EPM	17703	Application Lodged	01/07/2008	NA	Zamia Resources Pty Ltd	75
EPM	8693	Granted	06/03/1992	05/03/2012	NQM Gold 2 Pty Ltd	16
EPM	4459	Granted	23/10/1986	22/10/2011	NQM Gold 2 Pty Ltd	6

TENURE TYPE	TENURE NO	STATUS	DATE GRANTED/ LODGED	DATE EXPIRES	PRINCIPAL HOLDER	NO OF SUB BLOCKS
EPM	18583	Application Lodged	29/03/2010	29/03/2010	Zamia Resources Pty Ltd	35
EPM	14792	Granted	13/03/2006	12/03/2011	Zamia Resources Pty Ltd	35
EPM	16874	Granted	22/12/2009	21/12/2011	Waratah Coal Pty Ltd	92
EPM	17335	Granted	25/11/2004	24/11/2011	Waratah Coal Pty Ltd	4
EPM	16868	Granted	07/12/2009	06/12/2011	Waratah Coal Pty Ltd	100
EPM	16873	Granted (Renewal Lodged)	12/03/2008	11/03/2010	Waratah Coal Pty Ltd	100

Figure 63. Rail corridor – Permits (Mineral) and Leases (Map 1 of 4)

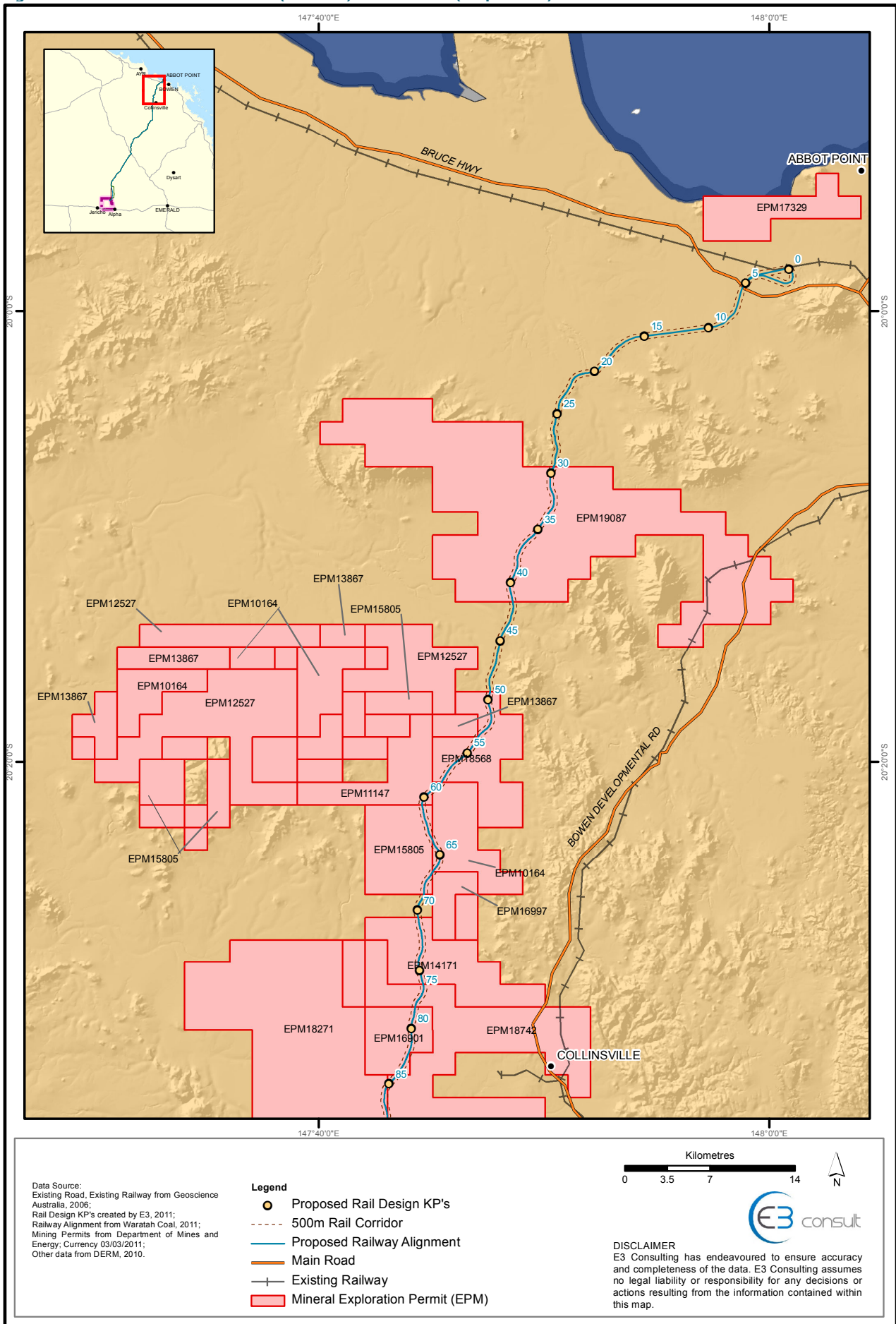
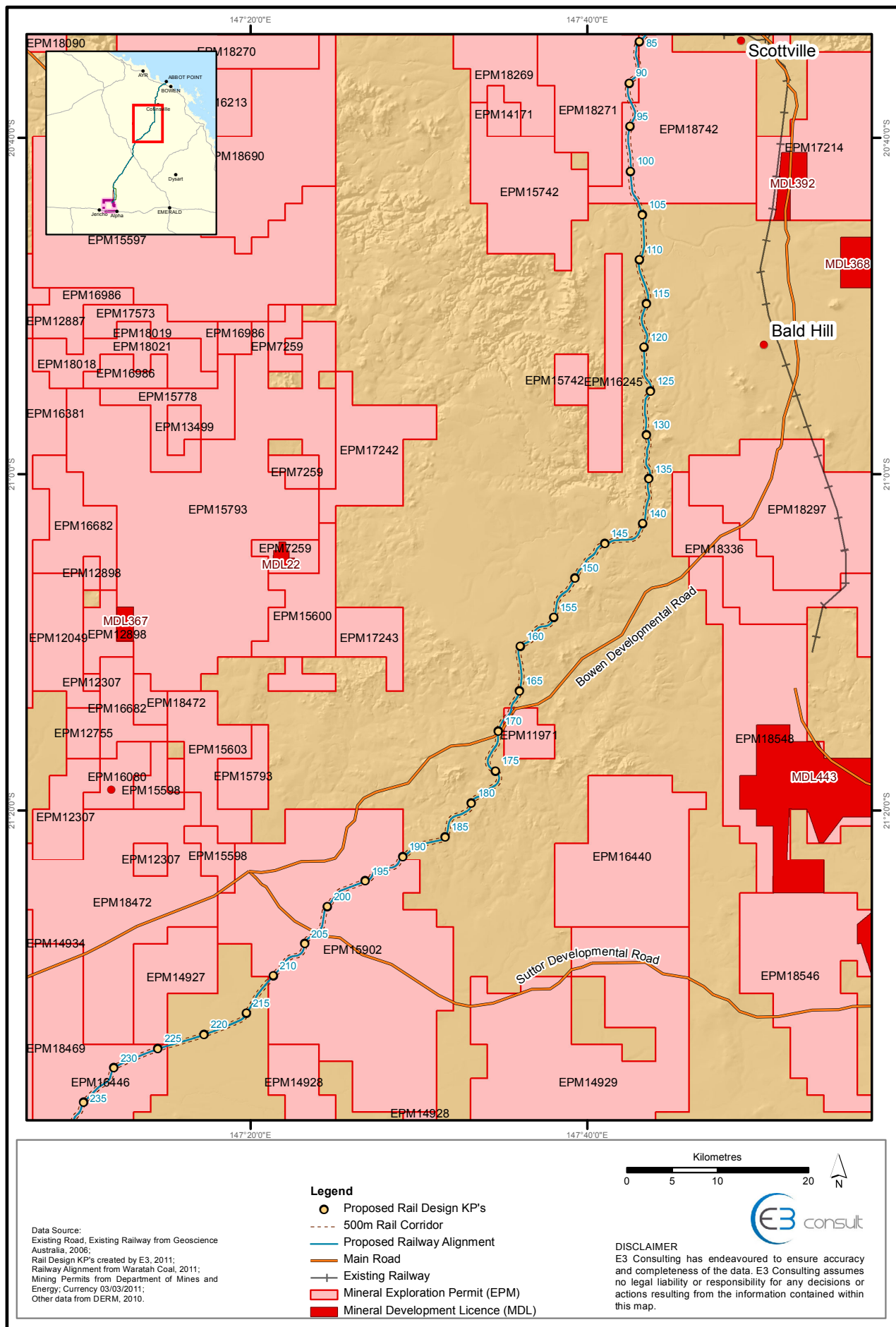


Figure 64. Rail corridor – Permits (Mineral) and Leases (Map 2 of 4)



**Figure 65. Rail corridor – Permits (Mineral) and Leases (Map 3 of 4)**

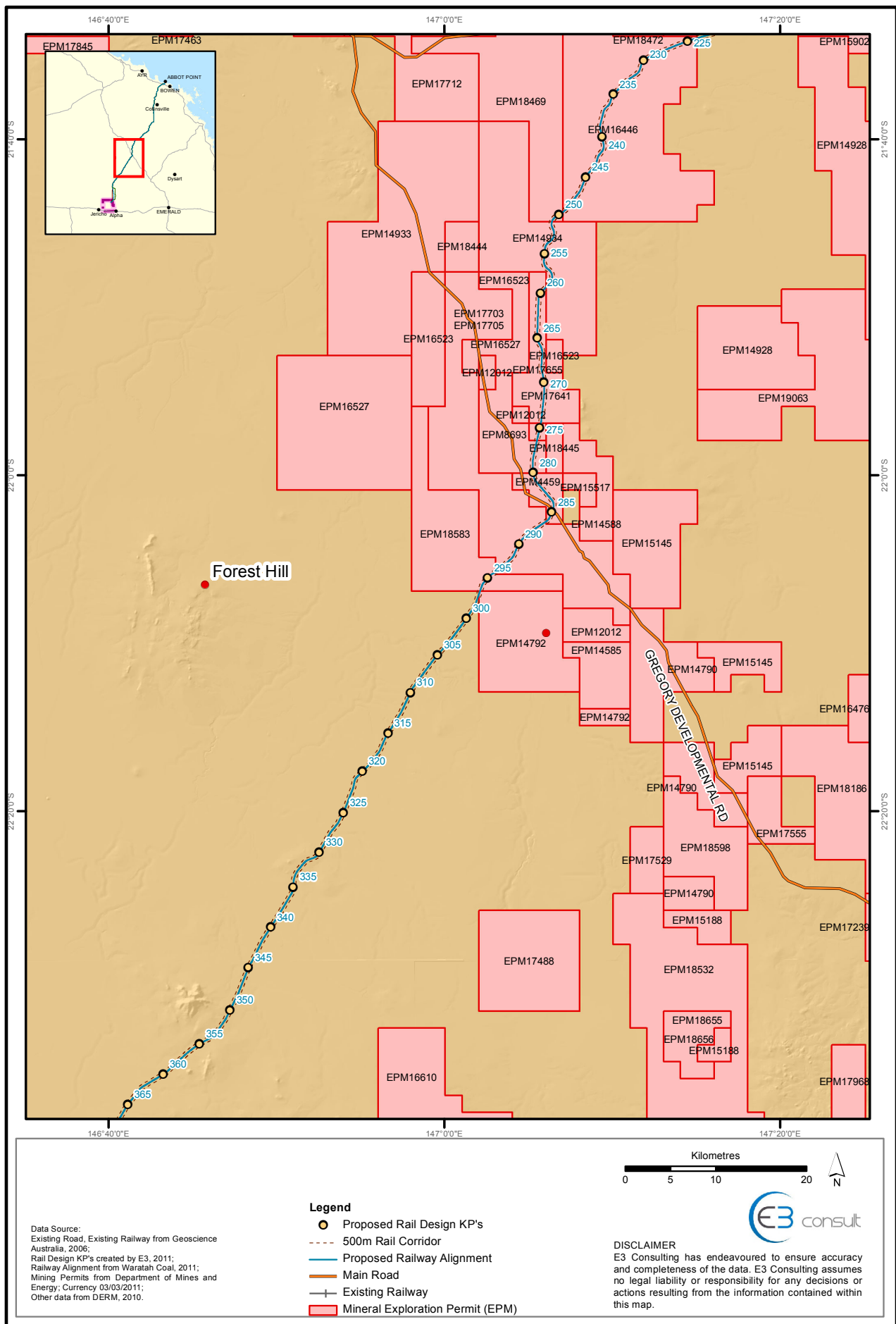
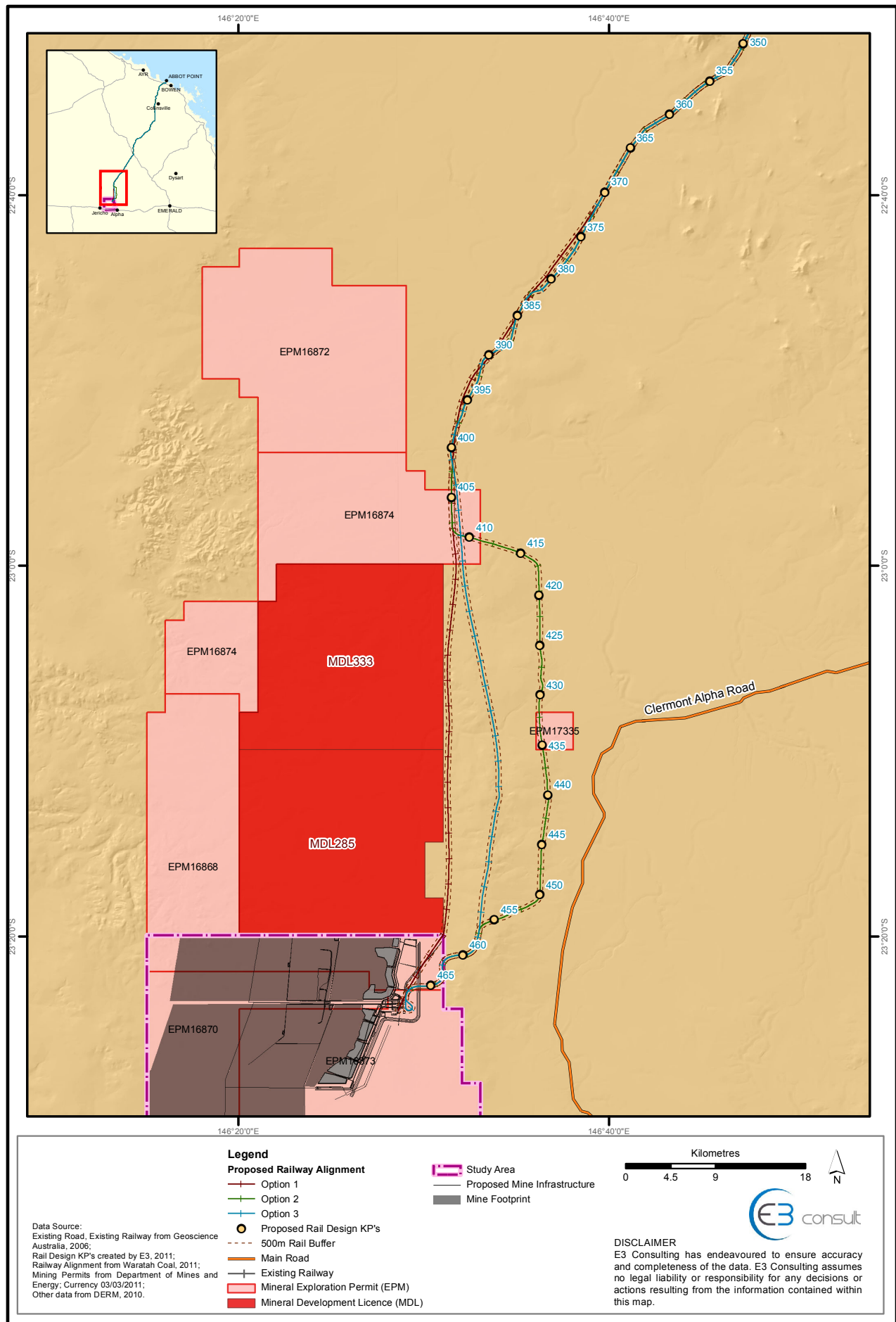




Figure 66. Rail corridor – Permits (Mineral) and Leases (Map 4 of 4)



#### 4.2.3.4 Exploration Permits – (Petroleum) and Leases

The details of the Exploration Permits (Petroleum) (EPPs) and leases that directly intersect the rail alignment are included at Table 4. A general description of each section is provided below.

**KP05 to KP95 (Figure 67):** EPPs occupy approximately 15% of the extent of the rail alignment, directly intersecting the alignment or buffer area between KP75 to KP95 (EPP688).

**KP95 to KP235 (Figure 68):** EPP688 overlies the rail alignment from approximately KP95 to KP145. EPP688 occupies approximately 35% of the extent of the rail alignment between KP95 and KP235.

**KP235 to KP370 (Figure 69):** No EPP's intersect the rail alignment between KP235 to KP370.

**KP370 to KP468 (Figure 70):** EPPs occupy approximately 90% of the land in which the rail alignment traverses, comprising two permits, EPP1044 and EPP668. EPP1044 is held by Queensland Energy Resources Pty Ltd.

**Table 4. Exploration Permits (Petroleum) and Leases: rail alignment**

TENURE TYPE	TENURE NO	STATUS	DATE GRANTED/ LODGED	DATE EXPIRES	PRINCIPAL HOLDER	NO OF SUB BLOCKS
EPP	688	Granted	26/02/2003	28/02/2019	BNG(Surat) Pty Ltd	1325
EPP	1044	Granted	25/11/2010	30/11/2022	Queensland Energy Resources Ltd	1200
EPP	668	Granted	23/04/2007	30/04/2019	Australia Pacific LNG Pty Ltd	1650

Figure 67. Rail corridor – Permits (Petroleum) and Leases (Map 1 of 4)

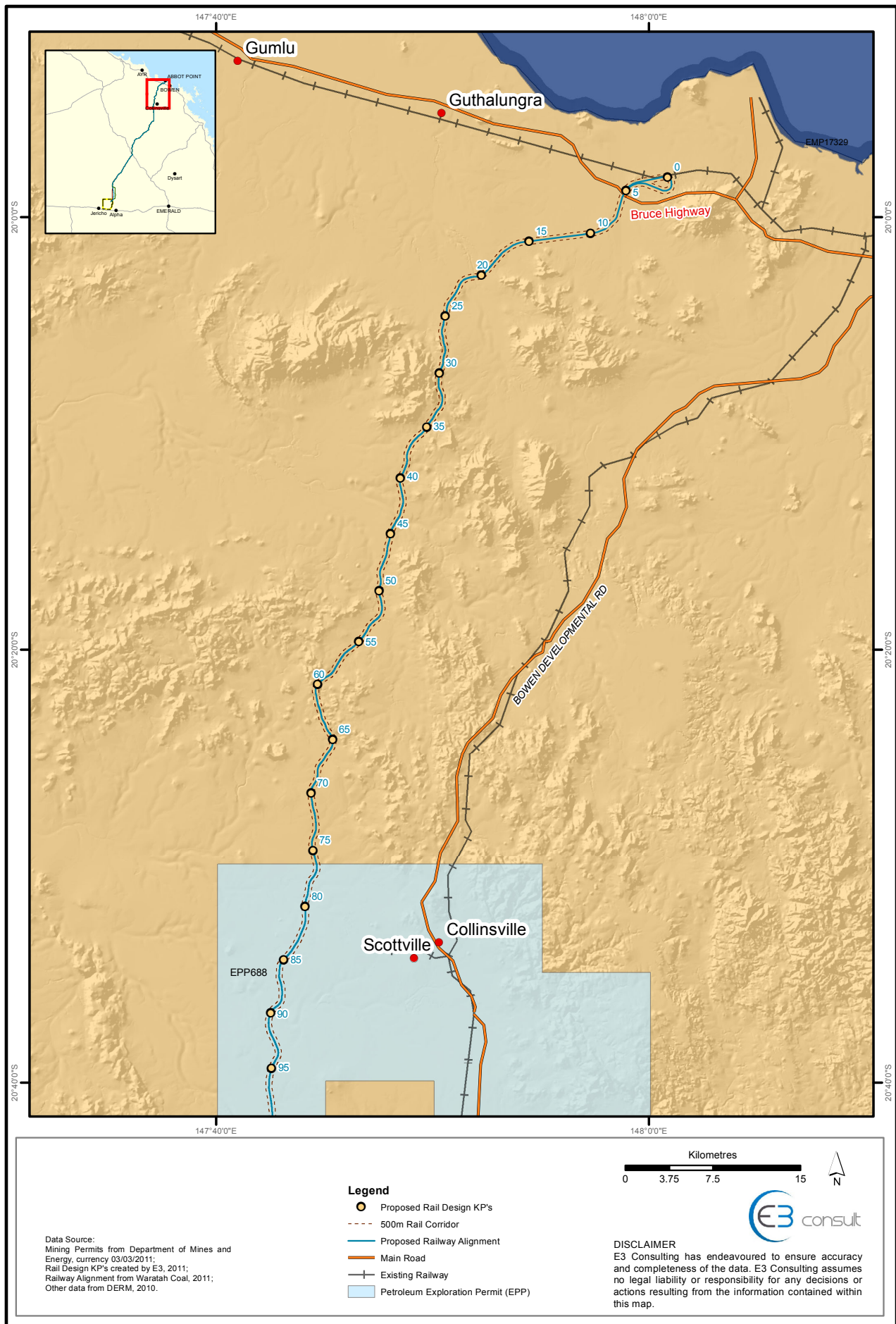


Figure 68. Rail corridor – Permits (Petroleum) and Leases (Map 2 of 4)

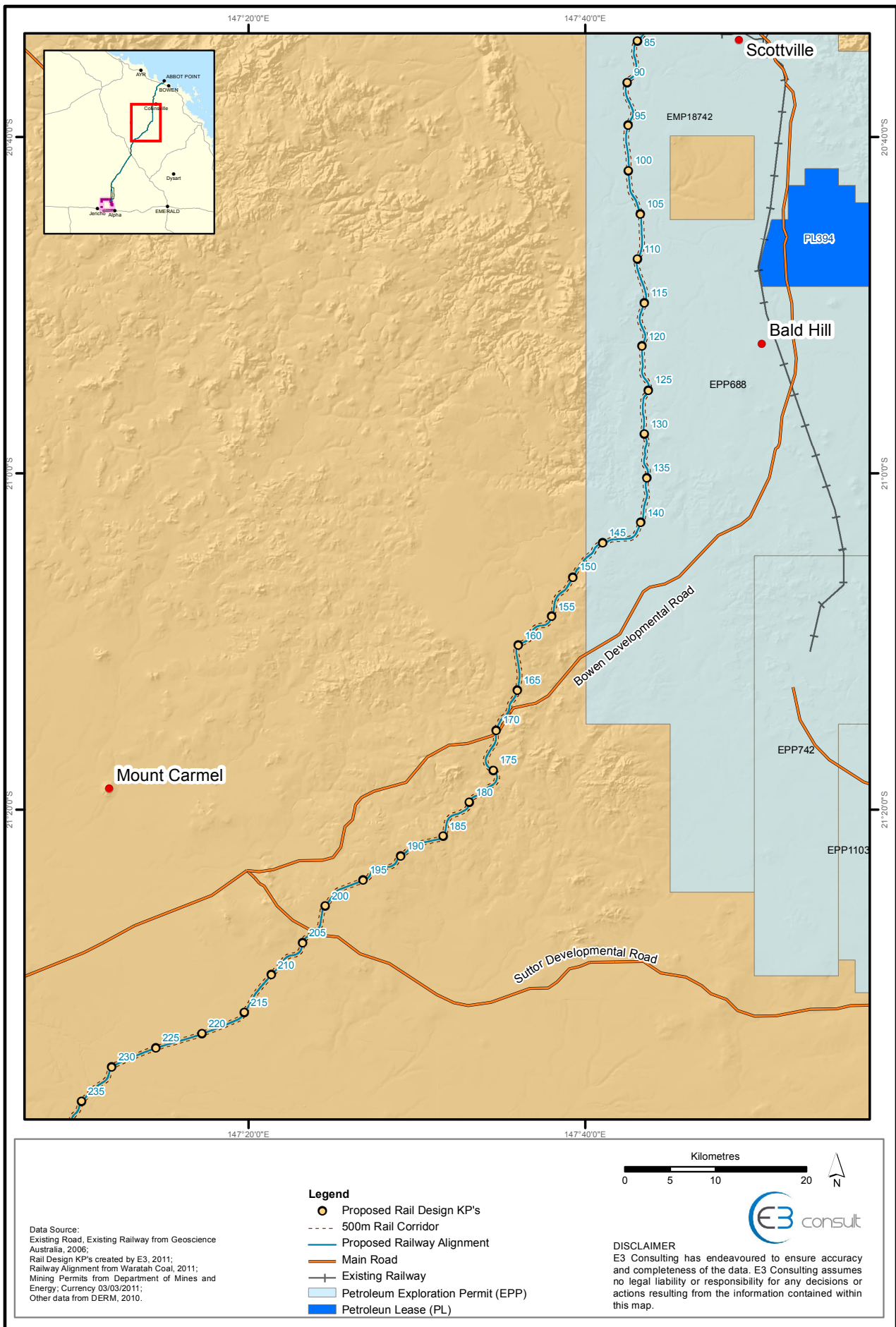




Figure 69. Rail corridor – Permits (Petroleum) and Leases (Map 3 of 4)

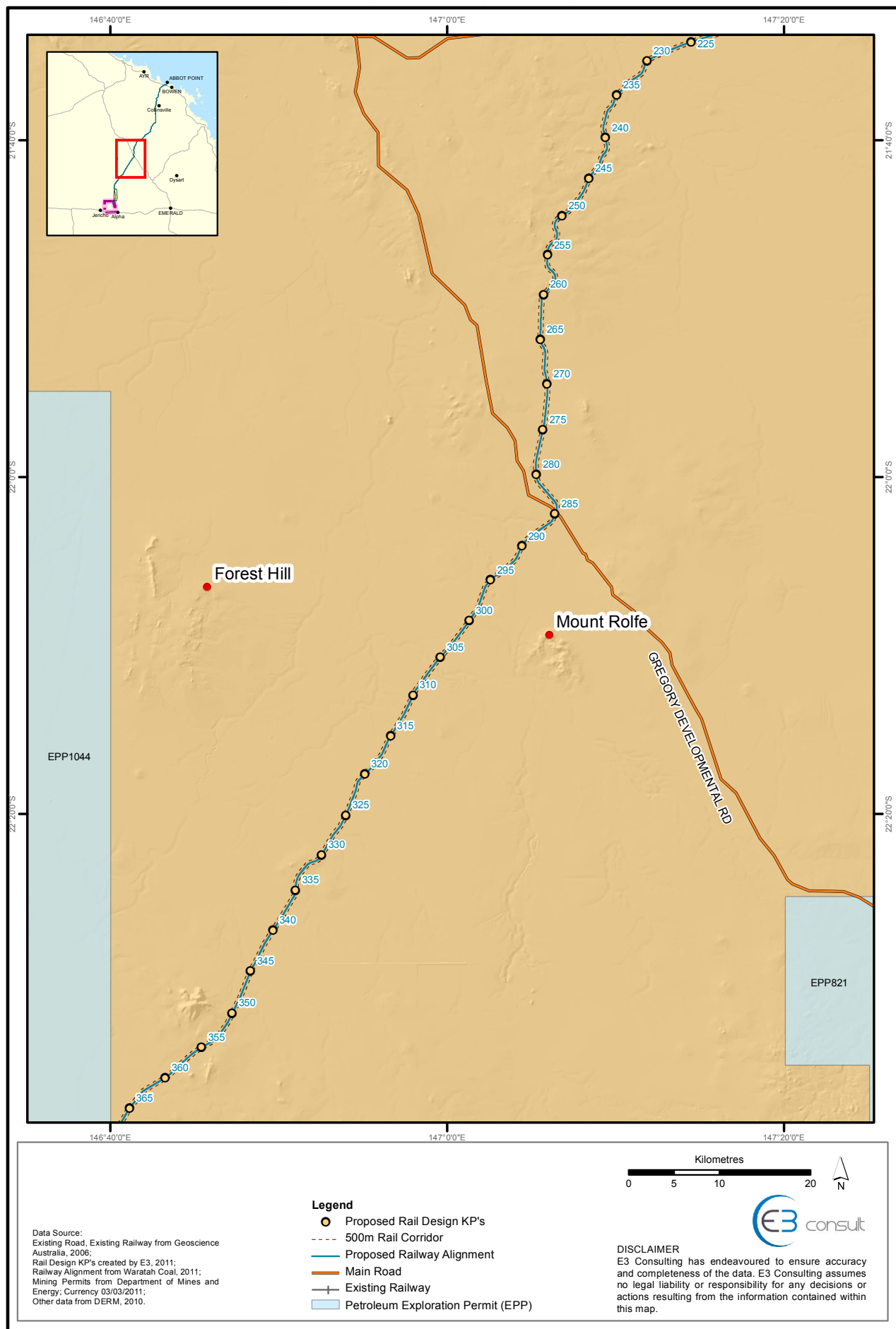
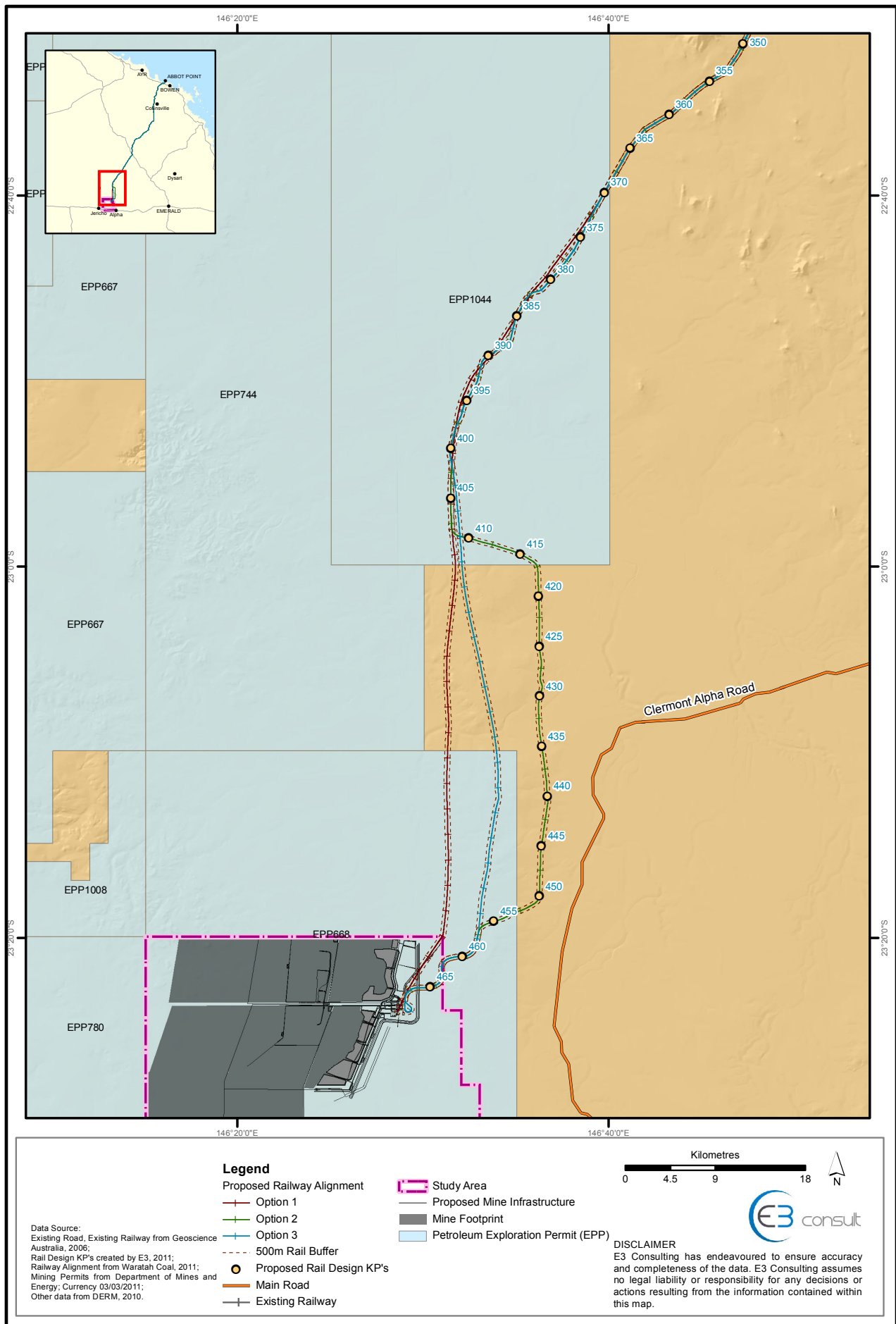




Figure 70. Rail corridor – Permits (Petroleum) and Leases (Map 4 of 4)



#### 4.2.3.5 Infrastructure, Services and Homesteads

Roads comprise the majority of infrastructure intersected by the rail alignment. Additional infrastructure including rail lines, gas pipelines, power lines, homesteads, landing areas and stock routes intersect the rail alignment to a lesser extent. The rail alignment is located some distance from local townships or residential areas (i.e. sensitive receptors). A general description of each section is provided below.

**KP5 to KP95 (Figure 71):** The existing (narrow gauge) North Coast Rail Line owned and operated by Queensland Rail (QR) runs adjacent to the rail alignment within the APSDA. The Bruce Highway intersects the rail alignment at approximately KP05.

At approximately KP45, the corridor intersects the east to west trending Strathalbyn Road which eventually meets the Bowen Development Road further east. The Eton Vale homestead is located approximately 3 km directly west of KP41, and is considered to be well outside of the Project area.

A northeast to southwest stock route intersects the rail alignment at KP40. A north to south trending stock route directly overlies the rail alignment from KP40 to KP60. Two powerlines which trend in a general northwest to southeast direction intersect the rail alignment around KP70 to KP75.

The township of Collinsville resides approximately 10 km east of KP80. Strathmore Road and Myna Road intersect the rail alignment at approximately KP75 and KP95 respectively. A landing area and the Strathmore homestead are located around the vicinity of the intersection of Strathmore and Myuna Roads, approximately 12 km west of KP77.

**KP95 to KP235 (Figure 72):** The northeast to southeast trending North Queensland Gas Pipeline and stock route traverses the rail alignment at approximately KP100. A northwest to southeast stock route directly intersects the rail alignment at KP55. The rail alignment traverses the Bowen Developmental and Suttor Developmental Roads at approximately KP165 and KP203, respectively.

The rail buffer area encroaches on the northern extent trending north to south via Glenavan Road at approximately KP195. Warrigal homestead is located outside of the Project area, approximately 2.5 km northwest of KP210.

A smaller northeast to southwest trending road identified as Stratford Road intersects the rail alignment at approximately KP225. An aircraft landing area abuts the rail alignment buffer margin around the same location at the southern extent of Stratford Road. Northwest to southeast stock route traverses the rail alignment at KP230.

**KP235 to KP360 (Figure 73):** An east to west trending unnamed road identified as Avon Road intersects the rail alignment at approximately KP268. The rail alignment crosses the Gregory Developmental Road at approximately KP285.

The Laurel Hills homestead is located at the southern extent of the unnamed road some 3 km's to the western margin of the buffer area at KP290. The Clermont Laglan Road intersects the rail alignment at KP347.

**KP360 to KP468 (Figure 74):** The rail alignment crosses the Albrow Pioneer Road at KP383 and Mirabilla homestead abuts the eastern margin of the rail alignment buffer area at approximately KP385. A predominately north to south trending stock route traverses the rail alignment at approximately KP382 and at KP397. The rail alignment traverses a brief east to west section of an unnamed road at approximately KP395.

Surbiton Wendouree and Degulla Roads are intersected by the alignment at approximately KP415 and KP420 and Hobartville homestead and an aircraft landing ground encroaches on the rail alignment near the intersection of Degulla and Hobartville Roads at approximately KP433. The rail alignment traverses the northern extent of Hobartville Road at approximately KP435 and a northeast to southwest trending power line intersects the rail alignment at approximately KP457.

#### 4.2.3.6 Native Title Claims

Registered Native Title Claims (RNTCs) and Indigenous Land Use Agreements (ILUA) held by the Jangga, Birri and Wangan and Jagalingou People are shown at **Figure 75** to **Figure 78**. These groups are recognised for the rights and interests of their land which encompasses the corridor. Approximately 90% of the total length of the rail line comprises land with RNTCs. Approximately 70% of the total length of the rail line is comprised of registered ILUAs. A general description of each section is provided below.

**KP5 to KP95 (Figure 75):** From KP5 to KP35, the rail alignment is free of RNTCs and/or ILUA. Approximately 65% of the land through which the alignment traverses comprises an RNTC on behalf of the Birri People (KP35 to KP95). An ILUA between the Birri People and a respective party overlaps the Birri People's RNTC. This ILUA comprises approximately 15% of the land through which the rail alignment traverses.

**KP95 to KP235 (Figure 76):** Approximately 60% of the area represents land over which the Birri People have submitted a RNTC. An additional 30% represents an RNTC submitted on behalf of the Jangga People. The remaining 10% of land area (from KP190 to KP205) through which the rail alignment occurs is free of any RNTC. The rail alignment traverses three ILUAs (approximately 70% of the area). The three ILUAs are held for the North Queensland Gas, Burdekin Pipelines and Local Government.

**KP235 to KP360 (Figure 77):** Approximately 95% of the rail alignment is overlain by RNTC submitted on behalf of the Jangga People (40% of area) and Wangan and Jagalingou People (55%) and corridor traverses through three ILUAs which comprise approximately 100% of this section of alignment.

**KP360 to KP468 (Figure 78):** This section is wholly located within the RNTCs of the Wangan and Jagalingou People. The alignment is located within the two registered ILUAs, namely the Wangan and Jagalingou Aboriginal Communities Project ILUA and the Kangoulou People and AusQuest Limited ILUA.

Figure 71. Rail corridor – Infrastructure (Map 1 of 4)

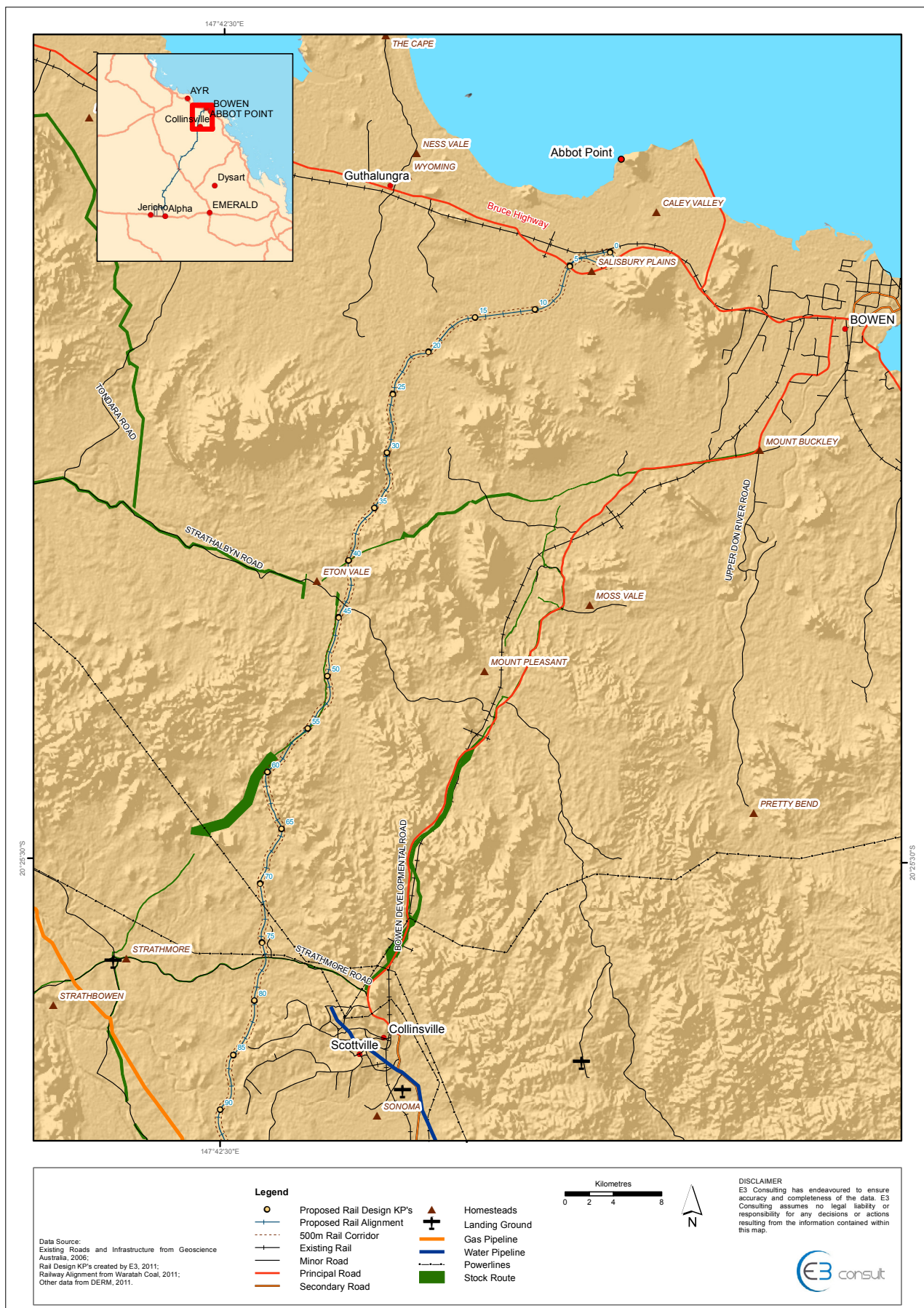




Figure 72. Rail corridor – Infrastructure (Map 2 of 4)

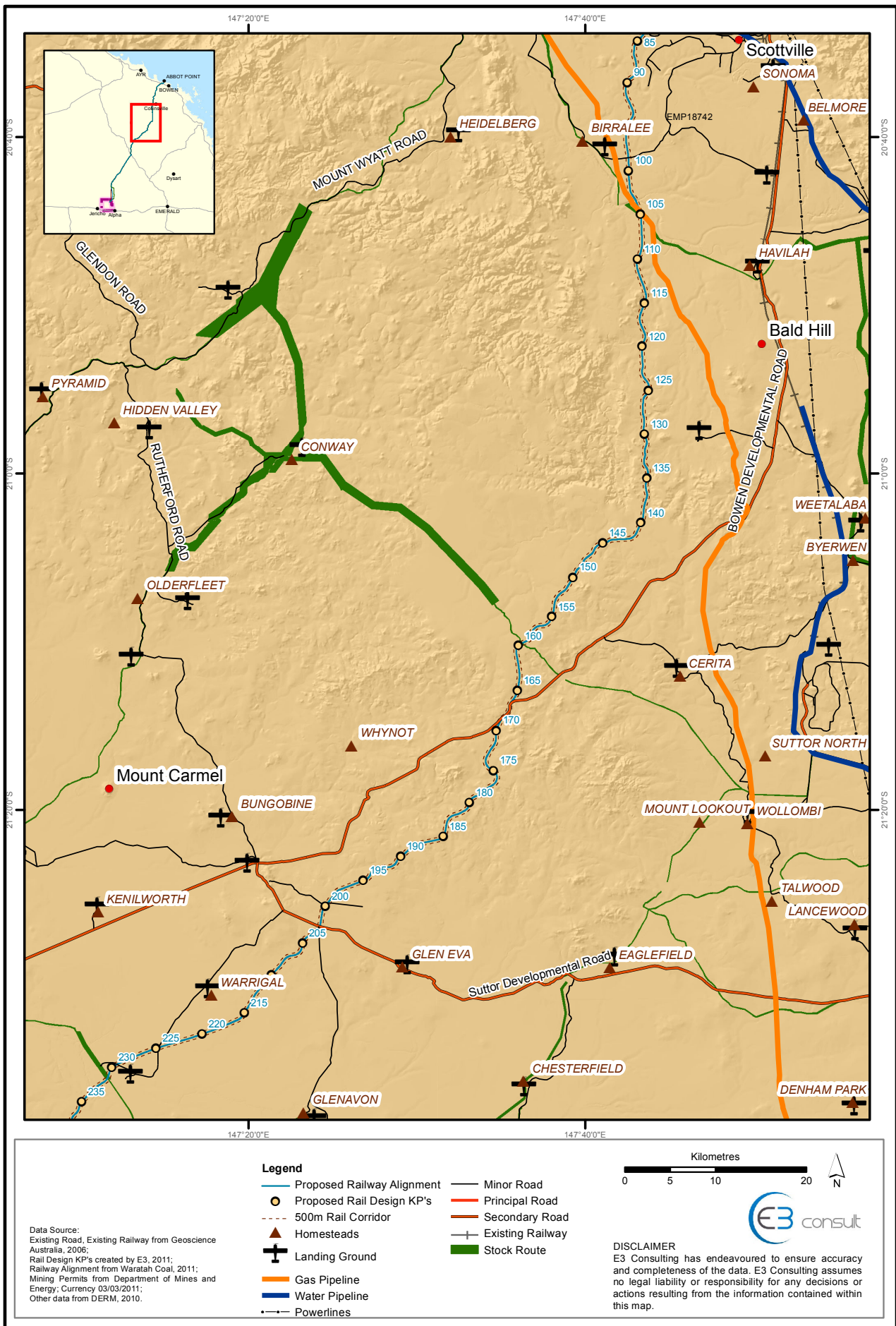




Figure 73. Rail corridor – Infrastructure (Map 3 of 4)

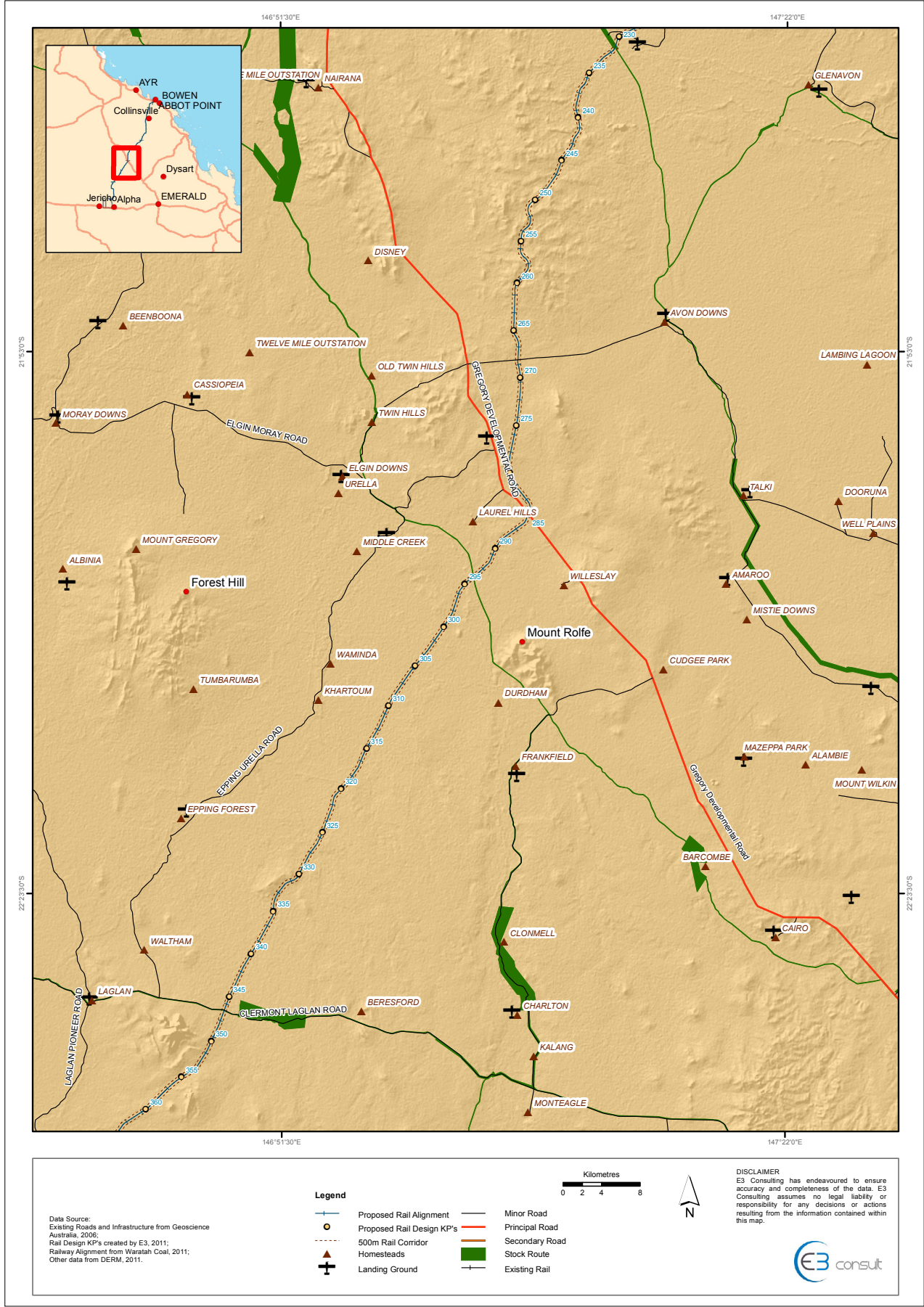


Figure 74. Rail corridor – Infrastructure (Map 4 of 4)

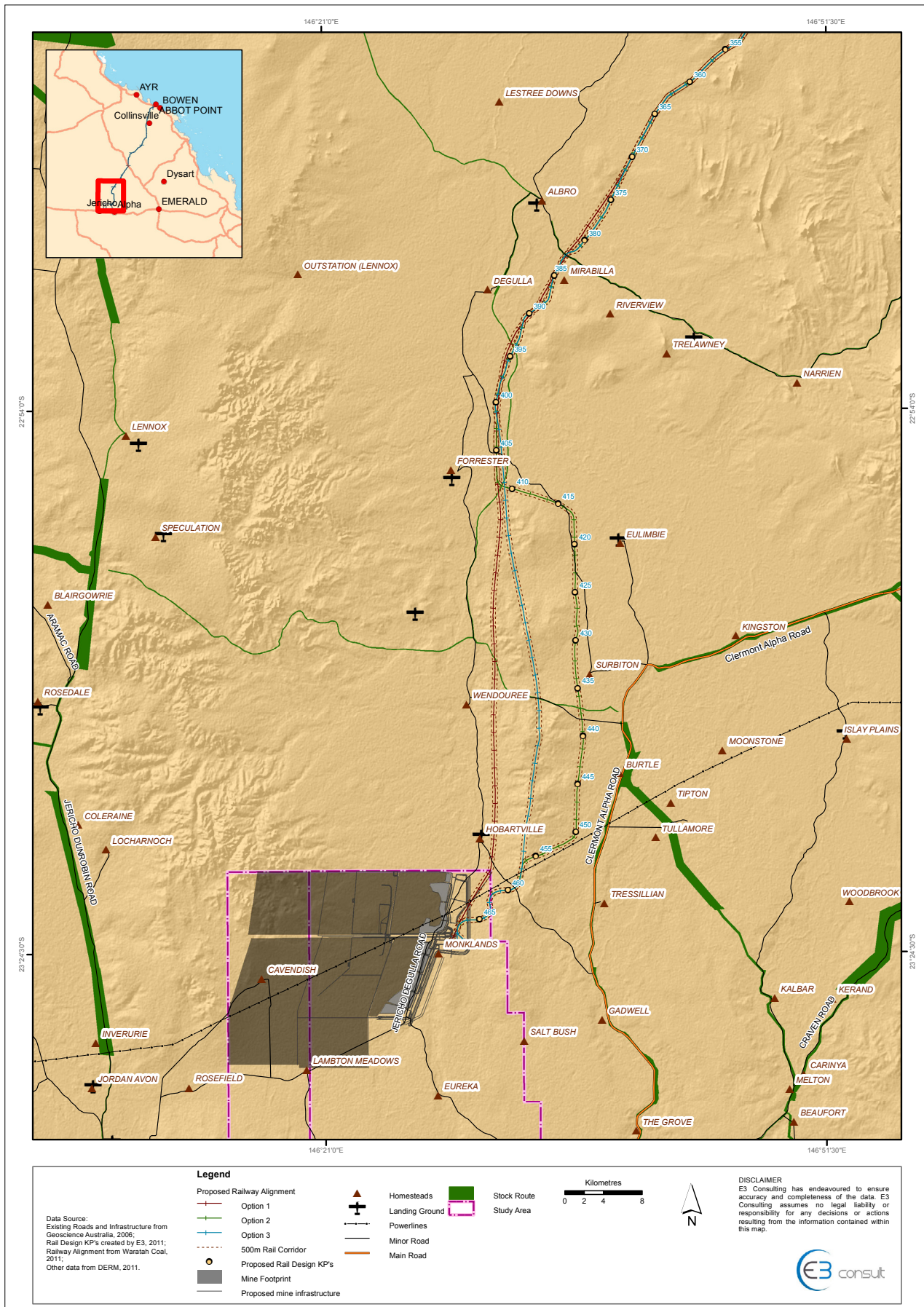




Figure 75. Rail corridor – Native title and ILUA (Map 1 of 4)

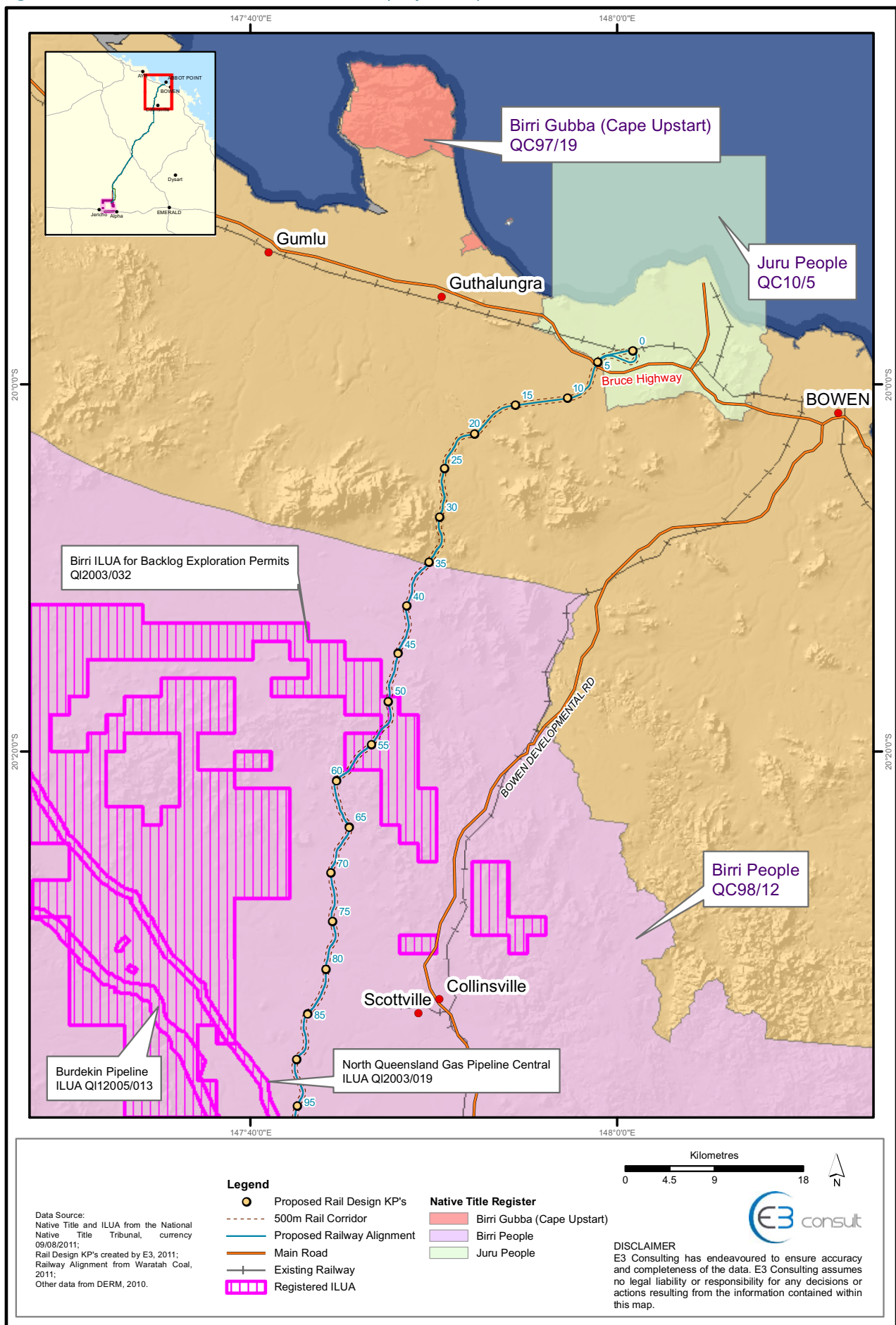


Figure 76. Rail corridor – Native title and ILUA (Map 2 of 4)

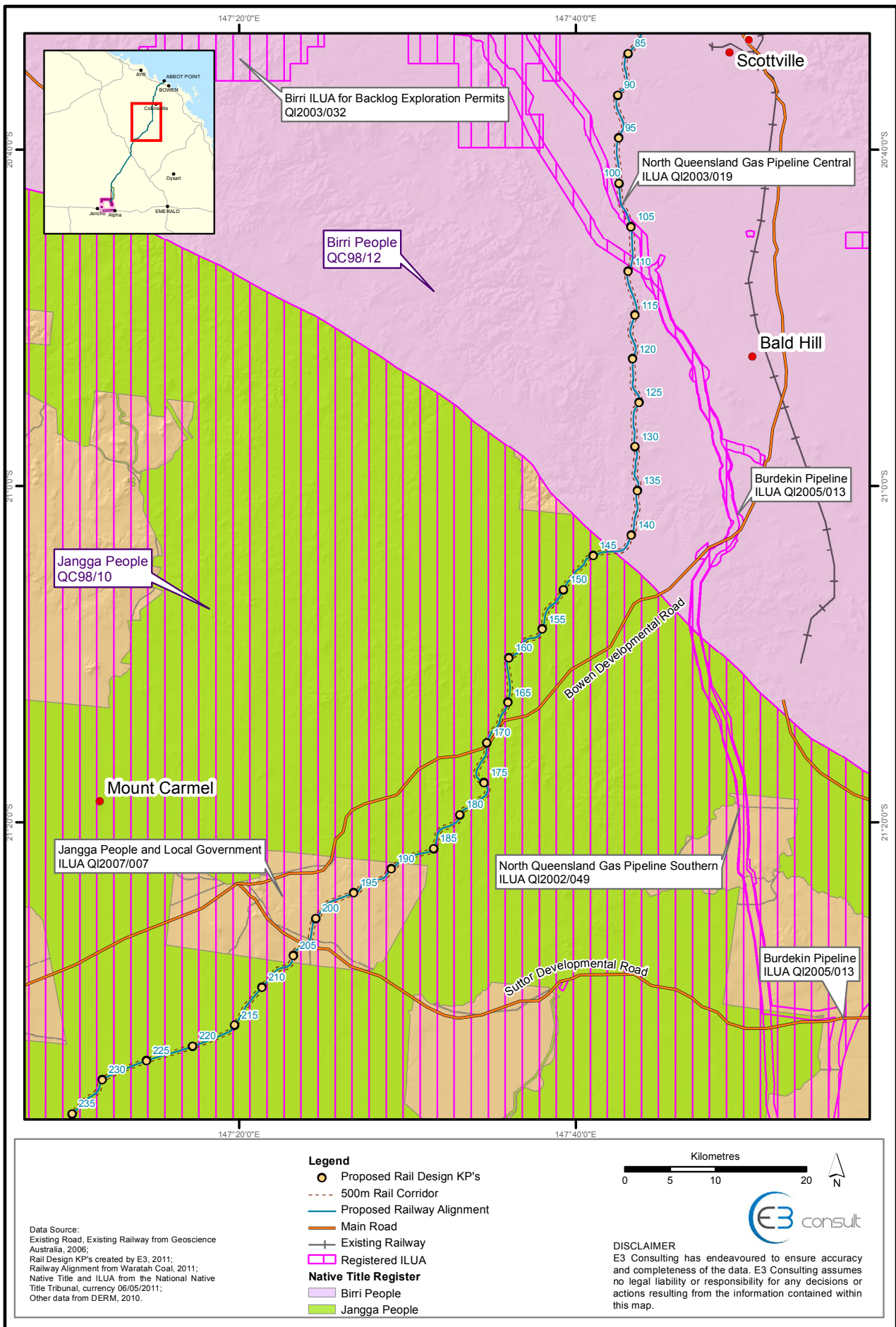


Figure 77. Rail corridor – Native title and ILUA (Map 3 of 4)

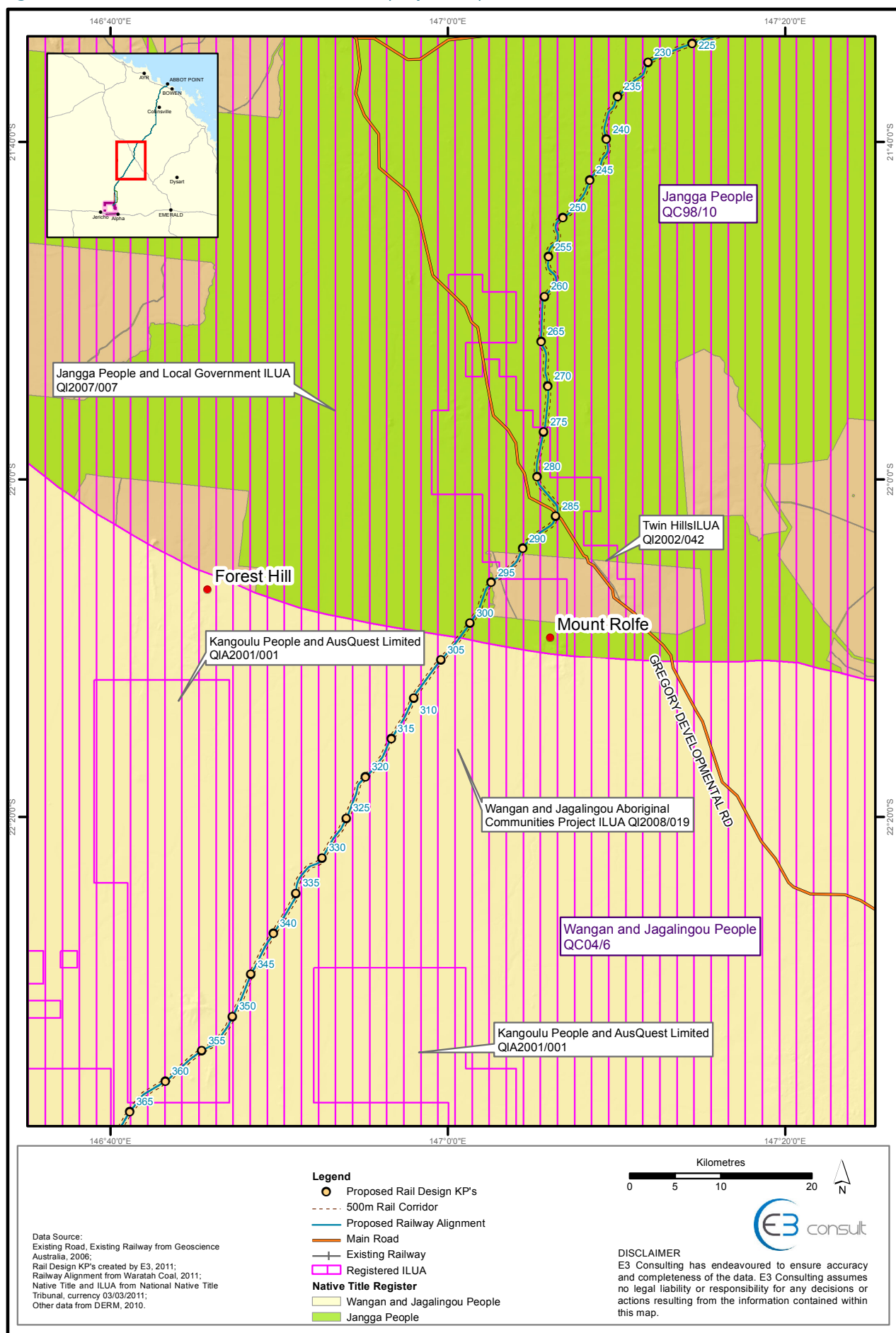
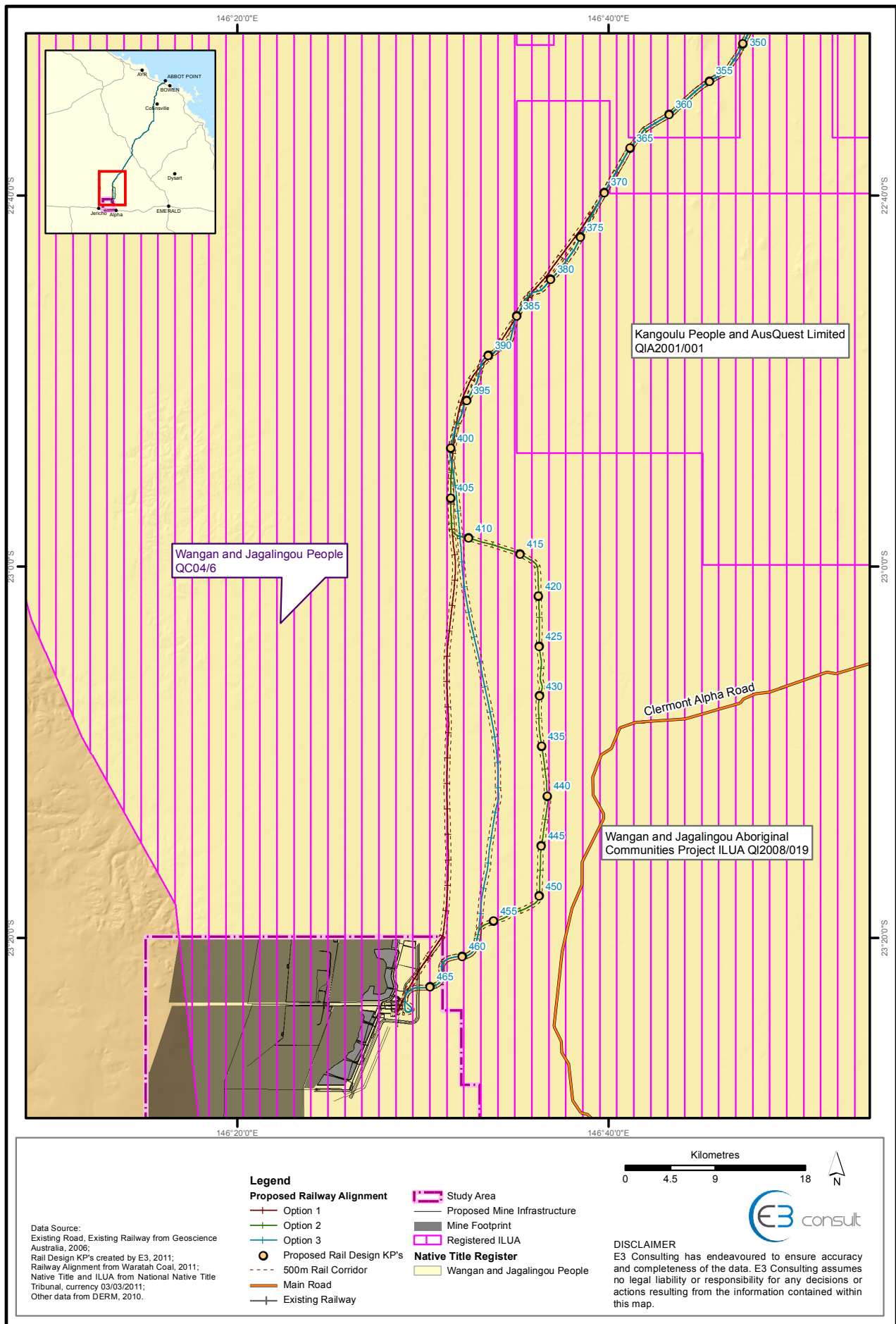




Figure 78. Rail corridor – Native title and ILUA (Map 4 of 4)



#### 4.2.4 POTENTIAL IMPACTS

##### 4.2.4.1 Land Tenure

Waratah Coal is in the process of applying to have the rail corridor declared an Infrastructure Facility of Significance (IFS) under Section 125 (1) (f) of the State Development and *Public Works Organisation Act 1971* (SDPWP Act). Waratah Coal will undertake negotiations with each tenure holder in regard to negotiating a voluntary agreement to acquire an easement for the rail corridor. Where a voluntary agreement for an easement cannot be successfully negotiated Waratah Coal will seek to request the State use its compulsory land acquisition powers to acquire land or easements for the project.

##### 4.2.4.2 Land Use

The Project intersects 47 separate allotments. The properties the rail line easement will directly impact are listed in **Table 5** and shown at **Figure 7** to **Figure 58**.

It is expected that once finalised, the easement will generally be between 50 – 100 m; however, a conservative width of 150 m for the easement has been used to estimate the area of direct impact to each property. The calculations do not include the severance areas for the loading and unloading balloons at the mine and coal terminal respectively as the land around the balloons will be used for mine and coal terminal infrastructure therefore severance of land uses is not relevant.

The area of properties directly impacted has been calculated for the preferred rail alignment (Option 2) only properties impacted by Option 1 are shown in **Table 5** but not calculated. Properties impacted by Option 3 are shown in **Table 5** but not calculated unless impacted by Option 2.

**Table 5. Directly impacted properties**

LOT / PLAN NUMBERS	PROPERTY NAME	PROPERTY LOT AREA (HA)	ALIGNMENT LENGTH THROUGH PROPERTY (KM)	APPROX. DIRECT AREA IMPACTED (HA)
24/RP805036	Salisbury Plains	10,863	12.2	182.4
25/SB353	Lenore	10,344	2.4	35.3
4/SB687	Nevada	14,070	4.8	71.7
1/SB279	Thurso Station	2,701	4.2	63.5
3/SB514	Narbethong	5,055	7.2	108.6
13/SP232519	Eton Vale	6,369	6.6	99.2
5047/PH370	Glenalpine	21,912	14.9	222.8
86/DK154	Bakara Station	5,713	7.8	117
3/SP132678	Strathmore	7,917	3.8	57.2
2/RP742329	Umina Station	7,251	4.2	63.2
4914/PH1791	Kerale	4,557	9.9	149.1
51/CP852524	Kerale	188	0.8	11.7
17/DK68	Myuna	1,150	4.1	61.1
618/PH2106	Birrilee Station	23,730	9.6	144.5
2/DK232	Havilah	40,054	19.1	286.4
2/SP195386	Figtree	43,962	16.3	243.8
1510/SP171920	Cerito	23,369	20.4	305.9
667/PH1321	Cerito	32,661	5.5	82.5
3615/PH681	Whynot	37,434	21.1	315.9
6/SM99	Mt Coolon Station	17,895	16.2	243.6
5088/SM101	Warrigal Station	13,690	16.4	246.3
3821/PH1304	Weetalaba	13,977	11.7	175.1
10/BL49	Avon Downs	32,724	8.4	126.2
4/SP116046	Disney	34,810	19.8	297

LOT / PLAN NUMBERS	PROPERTY NAME	PROPERTY LOT AREA (HA)	ALIGNMENT LENGTH THROUGH PROPERTY (KM)	APPROX. DIRECT AREA IMPACTED (HA)
3235/PH752	Old Twin Hills	7,889	7.1	106.5
656/SP138788	Old Twin Hills	32,700	12.4	186
5070/PH1056	Rossmore	17,500	7.6	114
2/CP882192	Willesley	15,000	3.4	51
3309/PH1532	Urella	18,500	1.5	22.5
5269/PH1533	Waminda	14,000	6.1	91.5
5068/PH449	Durdham	13,990	8.7	130.5
5069/PH495	Khartoum	14,240	8.5	127.5
5/RU81	Mirtna	48,800	16.8	252
1/RU89	Mirtna	35,600	18.6	279
3/SP104491	Waltham	27,300	4.7	70.5
654/PH1895	Laglan	39,300	4.8	72
7/DR34	Albro	26,471	16.3	244.5
3/DR20	Riverview	13,561	14.1	211.5
4/DR21	Riverview	14,404	3.3	49.5
1788/PH886	Forrester	42,477	15.2 (Option 2)	228
681/PH406	Surbiton	20,590	14	210
4994/SP233100	Skye	38,850	Refer to Note <sup>1</sup>	
3533/PH56	Surbiton South	19,166	14.5	217.5
649/SP232649	Hobartville	55,800	1.6 (Option 2)	24
1/BF58	Tresillian	6,966	6.7 (Option 2)	100.5
2/SP233089	Malden	7,135	4.5 (Option 2)	67.5
6/BF46	Tresillian	6,358	7.1 (Option 2)	106.5
3/CP860083	Tresillian	46,608	0.03 (Option 2)	0.45
2SP136836	Monklands	6,180	8.8 (Option 2)	132.3

Note<sup>1</sup>: Lot 4994 on SP233100 is shown as impacted by rail alignment (option 1) but the area of impact is not calculated because option 1 is not the preferred rail alignment.

The level of impacts on farming practices on these properties will depend on a number of factors including:

- the amount of land required;
- location of project infrastructure in relation to the farming practices;
- the area and duration of disruption / disturbance;
- the ability to modify farming practices to accommodate project infrastructure; and
- the type of farming activities being carried out.

As can be seen in **Figure 7** to **Figure 10** the extent to which the easement sterilises presently usable land is generally minimal when compared to the overall land area of each allotment. There will be circumstances

where allotments are fragmented and existing infrastructure (i.e. cattle runs, stockyards, fences) will require relocation. Therefore it is likely the project will impact on many of the directly affected properties through the alteration to current grazing activities.

The rail alignment including the adjacent access roads will result in development on land currently classified for production from relatively natural environments. Given the predominant classification of the land for grazing purposes across the extent of the rail alignment and the across the broader region and as there are no high value primary industry operations such as cropping or horticulture activities, the project is unlikely to have a significant adverse impact on primary industries.

#### 4.2.4.3 Exploration Permits and Leases

Multiple exploration leases either directly intersect or are in close proximity to the rail alignment. The rail would result in increased development and may result in restricted or reduced activities within these mineral resource areas.

Waratah considered the potential to sterilise known energy and mineral resources during the rail route selection process, using the following processes:

- desktop studies of resources outlined in the Department of Employment, Economic Development and Innovation (DEEDI) Interactive Resource and Tenures Maps (IRTM) database;
- identification of tenures such as MDL, MLA, Exploration Permits for Coal (EPC), Exploration Permits for Mining (EPM) that transect the corridor and undertaking consultation with the holders of granted permits;
- adjustment of the corridor on the basis of feedback received on the corridor from letters sent to all potentially impacted tenure and tenement holders
- avoidance of MLAs and MDLs except where it's was clear that lesser net sterilisation was likely than through the adjacent exploration permit areas or engineering, environmental or other constraints have resulted in the selection of the alignment; and,
- ongoing consultation with key tenure holders traversed by the rail corridor.

The rail alignment runs adjacent to MLs 10111, 1009 and 1064 from approximately KP78 to KP88 and ML 70316 at KP280. The rail alignment may require minor realignment to the west to further avoid interaction with the existing ML's.

The preferred rail alignment (Option 2) has been redesigned to limit the impact on Hancock Coal Pty Ltd (EPC1210) at approximately KP450 to KP463. Hancock Coal Pty Ltd has applied for an ML in these areas; however, these MLs are yet to be granted. The rail alignment is designed to avoid Hancock Coal's proposed

infrastructure within ML 70426. The proposed alignment is also situated immediately to the west of flood plains associated with tributaries of the Belyando River. The preferred alignment provides opportunities for other tenement holders to easily connect to Waratah Coal's rail infrastructure. Negotiations with Hancock Coal will continue to be undertaken to seek to obtain mutually satisfactory outcomes.

#### 4.2.4.4 Infrastructure, Services and Homesteads

The activities associated with the construction of rail line will temporarily increase the demands on the local transport network. The rail construction and operation is; however, not expected to compromise capacity on the existing transport network due to the existing low volumes and the provision of internal movements along the service road and / or via rail as the track is being constructed. A detailed assessment of potential impacts to the local transport network is at **Volume 3, Chapter 13** and **Volume 5, Appendix 21**.

The proposed rail line will cross under the Bruce Highway prior to entering the APSDA. The rail will also pass under various high voltage power transmission lines stemming from the Lilyvale and Collinsville Power Stations. During the construction phase there may be a need to realign or raise the powerlines to allow construction activities to be safely carried out. It is not expected that there will be significant interruptions to current power supply as a result and any disruptions or outages to existing services are expected to be minimal.

The rail crosses the North Queensland Gas Pipeline south of Collinsville. It is not expected that the rail will significantly impact upon the pipeline. To avoid impacts to the pipeline, crossings will be constructed on shallow embankments to ensure train loads will not require the pipeline to be relocated deeper. Prior to undertaking any works in close proximity to the pipeline the pipeline operator will be consulted to ensure all appropriate mitigation measures are established to ensure the safety and health of workers and the structural integrity of the pipeline.



#### 4.2.5 MITIGATION AND MANAGEMENT MEASURES

Mitigation and management measures will be developed and implemented to meet land use and planning objectives during both construction and operational phases of the corridor. These measures will be incorporated into the Rail EMP (see Volume 1, Chapter 8) and are outlined below.

##### 4.2.5.1 Land Tenure

- continue to consult with tenure holders and other relevant stakeholders to minimise the extent of disturbance to land owners or other affected persons; and
- implementing a Community Consultation Program to communicate both the potential impacts as well as benefits of the project to the broader community.

##### 4.2.5.2 Land Use

- consulting with stakeholders to identify mutually suitable locations for infrastructure;
- where possible locating all infrastructure along fence lines, property boundaries or in areas identified by tenure holders to minimise fragmentation of properties;
- where fragmentation of properties is unavoidable include crossings and underpasses into the design of the rail to maintain existing or near existing access levels;
- minimise disturbance to surrounding residents during construction and operation by putting in place best practice management measures such as ensuring construction works occur within designated hours, keeping machinery properly maintained and fitting noise reduction devices where required and using dust suppression measures such as watering down unsealed roads prior to high traffic usage;
- if required temporarily relocate residents during the construction phase where the residual impacts after implementation of mitigation measures remain elevated; and
- maintaining or relocating infrastructure such as fences and cattle grids to ensure impacts to grazing are minimised.

##### 4.2.5.3 Infrastructure

- where practicable minimise the extent of closure to or realignment of the existing road network to maintain connectivity;
- where realignment or complete closures cannot be avoided, supplementary roads will be constructed, and to the extent practicable, maintain or improve connectivity to pre-existing levels;
- a staged approach will be undertaken to ensure connectivity of infrastructure such as roads and transmission lines is maintained to reasonable levels during the construction phase;
- liaise with the utility providers to determine where infrastructure will be realigned, replaced, or retired. Retirement of such infrastructure will depend largely on the requirement for continued supply;
- where practicable, disruption of services and / or access or permanent loss to utilities to the broader community will be minimised, and where it is anticipated to occur over an extended period, secondary source (i.e. generators) will be provided; and
- at grade and grade separated crossings will be identified for the rail alignment.

#### 4.2.6 ROAD NETWORK

A Traffic Management Plan (TMP) will be implemented and will outline the traffic control devices to be developed and appropriate mitigation measures to be implemented during each phase of the project. Mitigation measures may include:

- vehicle speed and access will be limited in consultation with landowners;
- project vehicles to use designated routes;
- heavy construction vehicles should have right of way from all other vehicles;
- haulage distances should be kept to a minimum to minimise the impact to the Central Queensland road network; and
- project vehicles to comply with the Queensland and Project specific road rules at all times.

### 4.3 CONCLUSION

The proposed rail easement will have a moderate impact to land tenure and land use. The main impact will be the potential for disruption to existing land use regimes through the fragmentation of land required for the rail easement. A further potential impact will be the requirement to remove or relocate existing property infrastructure such as fences, gates, dams and irrigation systems.

Impacts associated with fragmentation of grazing land will be addressed through consultation with all tenure holders to ensure to the extent practicable that the easement is located near fence lines and property boundaries. Impacts associated with changed grazing regimes will be addressed through the relocation and / or restoration of existing infrastructure or the construction of new infrastructure to reduce the impacts to a close as is practicable to existing conditions.

With the implementation of the mitigation measures it is expected that potential impacts associated with disruptions to land use and changed grazing regimes will be minimal. Waratah Coal will liaise with all tenure holders throughout all project phases to take into consideration the requirements of all tenure holders to the extent practicable.

### 4.4 COMMITMENTS

To ensure potential impacts to land use are minimised Waratah Coal commits to:

- undertaking consultation with relevant landholders in the area of the proposed development;
- undertaking consultation with Government bodies and regulatory agencies in regard to the acquisition of the easement and the design of infrastructure within the easement;
- undertaking consultation with utility operators and resource companies regarding the location of the easement and undertaking construction activities nearby to existing utilities; and
- implementing the requirements of the EMP throughout the life of the project.