



Landgate Cadastre (SLIP)

Data Dictionaries

Cadastre (Point) (LGATE-215)
Cadastre (Line) (LGATE-216)
Cadastre (Polygon) (LGATE-217)
Retired Cadastre (Polygon) (LGATE-219)
Lodged Cadastre (Point) (LGATE-220)
Lodged Cadastre (Line) (LGATE-221)
Lodged Cadastre (Polygon) (LGATE-222)
Cadastral Control (Point) (LGATE-224)
Cadastral Control (Line) (LGATE-225)

Excludes "LAND" based cadastre layers:

Cadastre (Land) (LGATE-218)
Lodged Cadastre (Land) (LGATE-223)

June 2018

SPUR

Version: 1.1

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Amendment Register

Version	Status	Date	Author	Description of Version
Version 0.1	DRAFT	27/03/2018	Mat Moyle (ESR)	Initial draft taken from Geodata Shapefile Cadastral extracts data dictionary
Version 1.0	FINAL	18/06/2018	Todd Harris	Modified for SLIP, inclusion of extra known issues with examples. Modified existing examples
Version 1.1	FINAL	4/07/2018	Todd Harris	<ul style="list-style-type: none">• Amendment of appropriate use• Known issues Retired polygons• Addition of shapefile field names

1 OVERVIEW

1.1 Document purpose

This document describes the data contained within the Landgate SLIP Cadastral Subscription service as stored in the SLIP datastores and does not describe the web service configurations.

This document does not describe the Cadastre (Land) based datasets. Please refer to the relevant data dictionary describing “LAND” based cadastral data.

1.2 Cadastral Data (SLIP)

The cadastral data delivered via SLIP has been optimised for web service delivery and may contain extra information than those data formats as delivered via Landgate’s Geospatial Team.

Cadastre (cadastral) data is information relating to parcel boundaries. The data forms part of the Spatial Cadastral Database (SCDB) which stores spatially defined cadastral and other related information.

The main spatial elements are:

- Polygons (are building blocks of parcels of land)
- Lines (includes arcs and strings)
- Points

The information includes lodged, approved and retired cadastral boundaries and associated cadastral control data. Data families, usage types, view scales and usage codes have been included to assist visual display, symbolisation and annotation of spatial features.

The main spatial elements have unique identification numbers and textual attributes. Polygon Identification Numbers (*polygon_number*), *land_id*'s along with *pi_type* and *pi_parcel* attributes provide a linkage to Tenure information which includes property ownership and street addresses.

1.3 Datum

The Spatial Cadastral Database is stored and maintained in the datum GDA94 (epsg: 4283). Data is extracted and delivered to SLIP in this datum. All co-ordinate information contained within the data recorded in this datum.

1.4 Appropriate use

Cadastral data supplied by Landgate, is a digital representation of Western Australia’s cadastral network.

Cadastral data extracted from the SCDB to be used for information purposes only and is not guaranteed. The information should not be relied upon without further verification from the original documents. Where the information is being used for legal purposes then the original documents must be searched for all legal requirements.

1.5 Spatial Elements and Families

Landgate extracts cadastral spatial elements from the Spatial Cadastral Database in spatial element feature types of:

1. Polygon (land)

2. Line (arcs, strings)
3. Point

Within these spatial elements are families of data – which are logical groupings of a set of spatial elements. The elements and the data families available for those elements have been identified in the table below.

Family	Spatial Element
Cadastre	Polygon
	Line
	Point
Control	Line
	Point

1.6 Known Issues

The below issues must be considered when using the Cadastral dataset.

1.6.1 Crown vs Freehold Land Types (Polygon)

The **land_type** attribute **should not be used** for differentiating between freehold and Crown land.

The values of “CROWN” and “FHOLD” only refers to the type of lot (subdivision) and not the ownership or land tenure type.

Where the land_type of a polygon is “CROWN”, and is not dominated by a State administered tenure type (eg: reserve, crown lease, Unallocated crown land identifier etc) then it may be considered freehold land.

However, some freehold land is owned by a State Government entity (Commissioner of Main Roads or Minister for Housing for instance). Consider the below snippet from the **SLIP Tenure** layer (which should be used for determining ownership types).

land_name	150
land_type	FHOLD
latitude	-31.948049
lease_document_identifier	Null
lease_holder	Null
level_details	Null
lga_names	VINCENT,CITY OF PERTH
locality	Null
longitude	115.873794
lot_number	150
lot_prefix	
OBJECTID	1384552
organisation_code	MRD
organisation_type	S
part_lot_indicator	N
pi_parcel	P020932 150
pi_type	1
polygon_number	11568300
postcode	Null
premise_details	Null
proprietor_name	COMMISSIONER OF MAIN ROADS

In this example (SLIP Tenure):
land_type = FHOLD
organisation_type = S (state)
proprietor_name = COMMISSIONER OF MAIN ROADS
ie: Freehold land but owned by the State of WA. This cannot be determined from the Cadastral data.

1.6.2 Easements

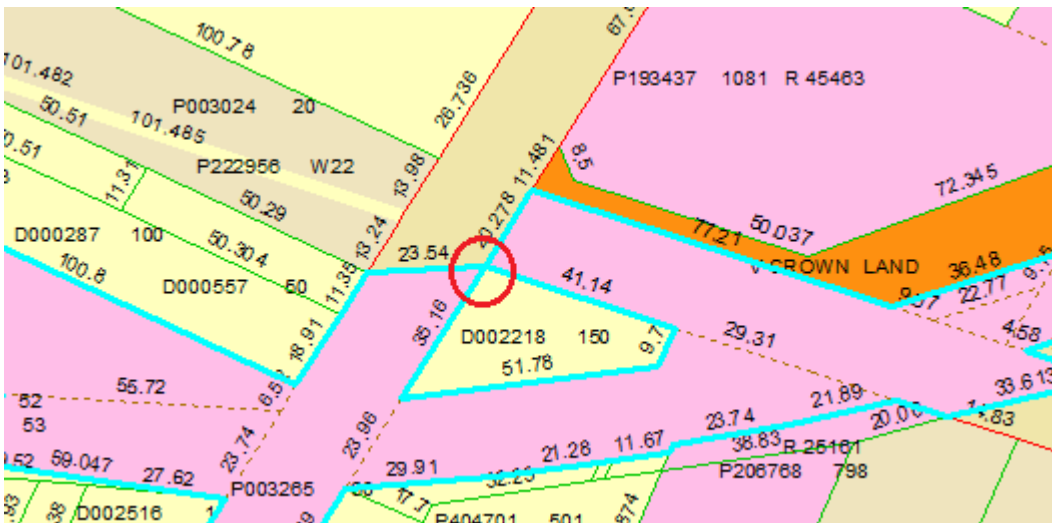
Cadastral polygon data should not be relied upon for the identification of all easements that affect land.

Where an easement comprises the full extent of a single lot/land parcel, an individual easement polygon is not captured/generated ie: if an easement covers the full extent of a land parcel / lot, a second polygon will not exist in the data that defines or indicates that an easement is apparent. This can only be attained by viewing the original documentation being the survey document and/or Certificate of Title.

Many easements that are not captured on a survey document may not be apparent in the SCDB at this time. Those easements that are not captured on a survey document can only be identified by viewing the Certificate of Title with the extent of the easement defined in the Easement document.

1.6.3 Self-intersecting polygons

The capture of cadastre does not necessarily follow sound GIS principals for polygon geometries. Cadastral land parcels will sometimes intersect. Consider the below example where the polygon self-intersect (circled red) which is **not a data anomaly** and does occur from time to time in cadastral boundary definition.



1.6.4 Dual numbering system – pi_parcel / alternate_pi_parcel

Landgate has maintained a Spatial Cadastral Database (SCDB) in various forms for over 20 years. Since 2002 the SCDB resides within our corporate system “SmartPlan”.

Traditionally the PI type referred to how a lot was created; either through a Freehold (PI type 1) or a Crown (PI type 2) subdivision, under the ‘Transfer of Land Act’ or ‘Land Act’ respectively.

Current Procedure

Since the ‘Single Registration’ system has been adopted, all new land parcels are created as ‘Lot on Plan’, i.e. only PI type 1 lots. There are no new crown allotments, or PI type 2 lots being created. In our current cadastral database, the “PI Type” is more to do with the name of the land parcel rather than the type of land being represented.

Note: Various work procedures have resulted in many of the old Crown lots being renamed as “lot on plan”, retaining the same lot number. This procedure changes these lots from PI type 2 to PI type 1, while the “Land Type” remains as Crown thereby introducing possible confusion. Under the dual numbering system, the *alternate_pi_parcel* (Crown Allotment) is retained for historical purposes.

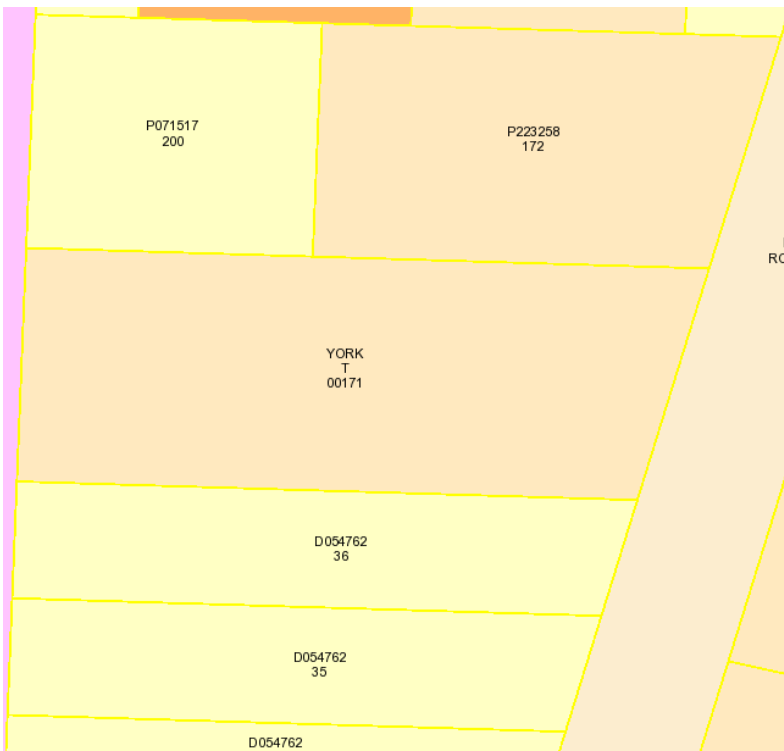
1.6.4.1 Example 1

Please refer to the example below of a portion of York Town site. Lot 172 was created as a Crown Lot on Crown Town site Plan York 14A (now called DP223258) and was originally a PI type 2 lot (Crown Allotment).

Lot 172, partially subdivided, has since been renamed as ‘Lot 172 on DP223258’; this now makes it a PI type 1, but the Land Type remains CROWN (Crown subdivision) indicated by the beige colouring below.

Lots 35 & 36 were created as lots on plan (freehold subdivision) with a PI type 1 and a Land Type of FHOLD (Freehold subdivision- shown yellow). On the Certificate of title these parcels are referred to as ‘Lots 35 & 36 on Diagram 54762’. (These lots would have been part of the original Crown Lot 169, which has since been completely subdivided.)

Please refer to the info pop-ups in the following page (ArcMap) for Lot 171 (original lot unchanged) & 172 (partial subdivision). This shows attributes stored for land parcels, please note the pi_parcel and alternate_pi_parcel and pi_types for each.



Identify

Identify from: <Top-most layer>

[-] Cadastre (Polygons) (LGATE-217) 4K
 ... 172

Location: 116.768417 -31.882776 Decimal Degrees

Field	Value
alternate_pi_parcel	YORK T 00172
alternate_pi_type	2
area_derivation_indicator	Null
area_derivation_method	KY
area_lg	2563
calculated_area	2553.306
centroid_coordinate_method	M
centroid_latitude	-31.882769
centroid_longitude	116.768463
created_date	12/11/1992
crown_survey	TP YORK 14A
land_id	3975698
land_name	172
land_type	CROWN
last_modified_date	6/15/2011
lga_names	YORK
lot_number	172
lot_prefix	
OBJECTID	564861
part_lot_indicator	N
pi_parcel	P223258 172
pi_type	1
polygon_number	453430
SHAPE	Polygon
st_area(shape)	2553.265121

Identify

Identify from: <Top-most layer>

[-] Cadastre (Polygons) (LGATE-217) 16K
 ... YORK Town Lot / Lot 171

Location: 116.768135 -31.883105 Decimal Degrees

Field	Value
alternate_pi_parcel	YORK T 00171
alternate_pi_type	2
area_derivation_indicator	Null
area_derivation_method	KY
area_lg	3898
calculated_area	3888.562
centroid_coordinate_method	M
centroid_latitude	-31.883125
centroid_longitude	116.768175
created_date	12/11/1992
crown_survey	Null
land_id	2056415
land_name	YORK Town Lot / Lot 171
land_type	CROWN
last_modified_date	10/8/2015
lga_names	YORK
lot_number	Null
lot_prefix	Null
OBJECTID	564858
part_lot_indicator	N
pi_parcel	YORK T 00171
pi_type	2
polygon_number	453426
SHAPE	Polygon

1.6.5 Retired Cadastre

Cadastral data that is retired from the current SCDB due to ongoing subdivisional activity, is not maintained. This means that where a spatial adjustment has been made to the current cadastre, the retired polygons have not been spatially adjusted to align with current cadastral boundaries and will likely not align where they once did.

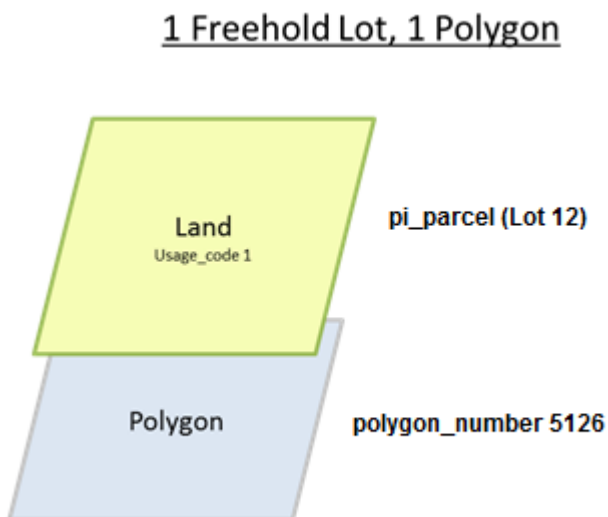
Further, retired cadastral boundaries have only been retained since the SCDB maintenance environment was upgraded in March 2002. Polygons that were retired from the current cadastral data prior to that date have not been retained.

1.6.6 Creation of Multiple Shape Features

SCDB data exported will result in the creation of multiple feature records where multiple *pi_type*'s or *pi_parcel* records exist for a single geometry (polygon). This occurs due to the need to create unique records for each *pi_type* or *pi_parcel*.

The following graphical examples are provided to help users of SCDB cadastral data to understand how these multiple features are created.

1.6.6.1 Example 2: 1 Freehold Lot, 1 polygon

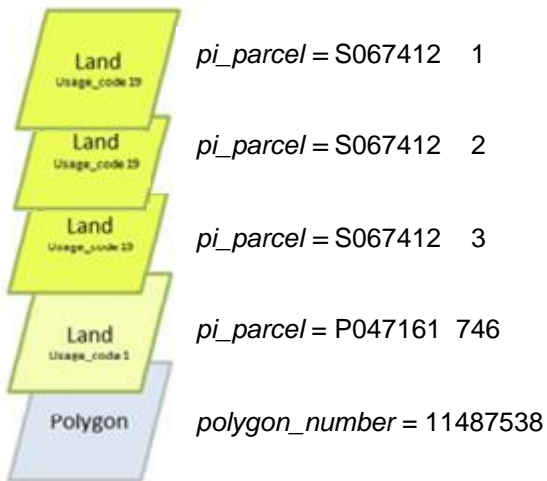


A single polygon with a single Freehold Lot (*pi_type* = 1).
Note: *usage_code* value of 1 = Freehold subdivision lot (*land_type* = FHOLD)

A single feature is created.

1.6.6.2 Example 3: Building Strata

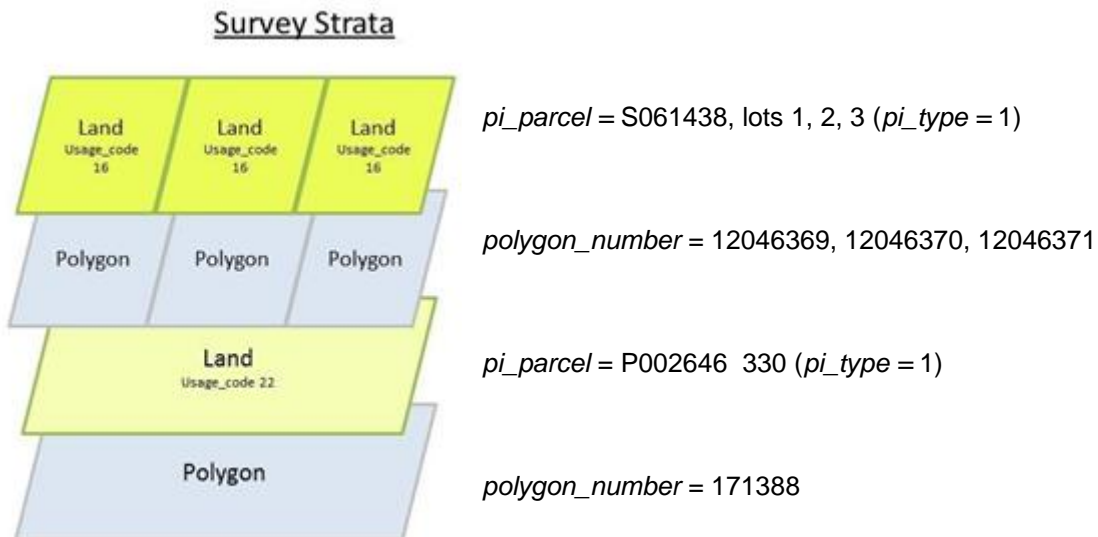
Building Strata



4 polygon features with the same *polygon_number*.
A single polygon feature for the freehold subdivision lot (*pi_type* = 1)
and
3 additional polygon features showing each of the Building Strata lots (*pi_type* = 1 also) attached to the same *polygon_number*.

Four (4) polygon features are created with the same polygon number. One for the Strata Parent Lot (*pi_parcel* = P047161 746) and one for each Strata Lot (3).

1.6.6.3 Example 6: Survey Strata



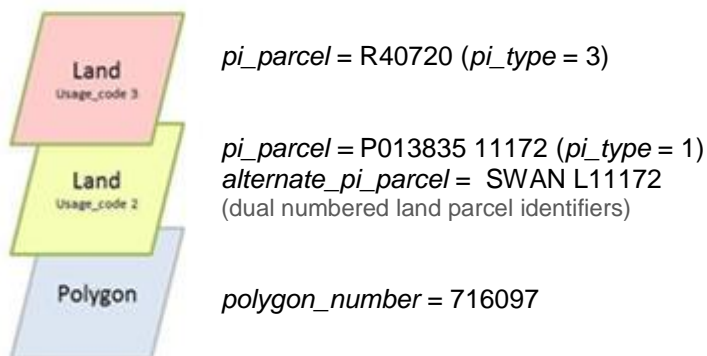
1 polygon created to show the extent of the “parent” lot of the Survey Strata.

3 separate polygons are also created for the extent of each Survey Strata lot.

Four (4) separate features will be created. One will be for the parent strata lot and one feature for each survey strata lot. Including any Common Property lots where they exist.

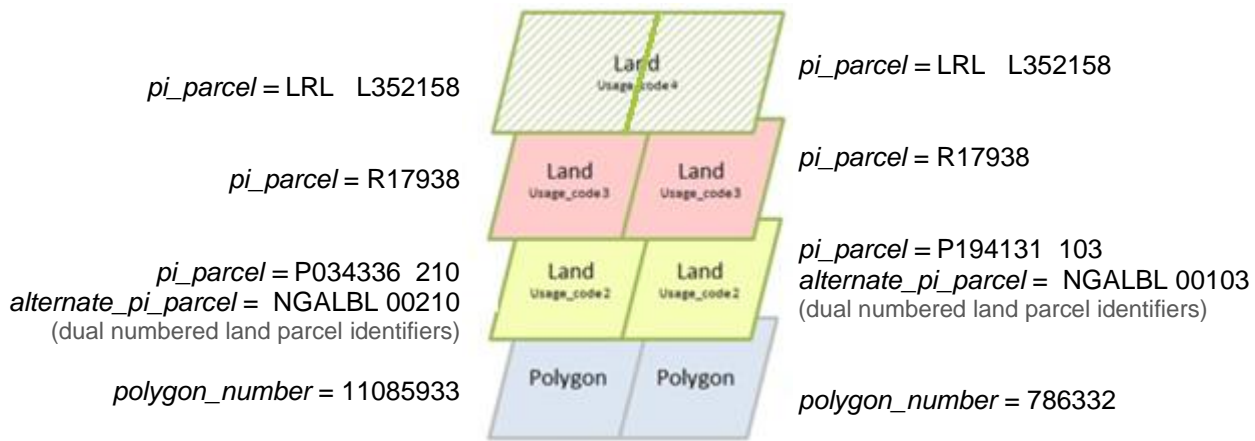
1.6.6.1 Example 7: 1 Crown Lot, 1 Reserve and 1 Polygon

1 Crown Lot, 1 Reserve, 1 Polygon



Two (2) polygon features are created here. One polygon feature for each of the *pi_types*.

1.6.6.2 Example 4: 2 Crown Allotments, 2 Reserves and 1 Lease



Six (6) separate features will be created. One for each pi_parcel (3) per polygon (2).

In the above example, the Lease whilst being 1 “land” comprises 2 polygons and therefore 2 polygon features and same pi_type and pi_parcel will be created. The Reserve is also treated the same way.

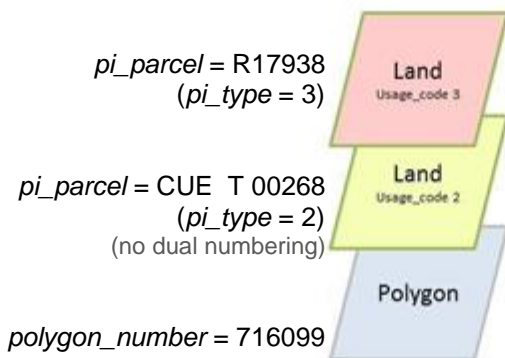
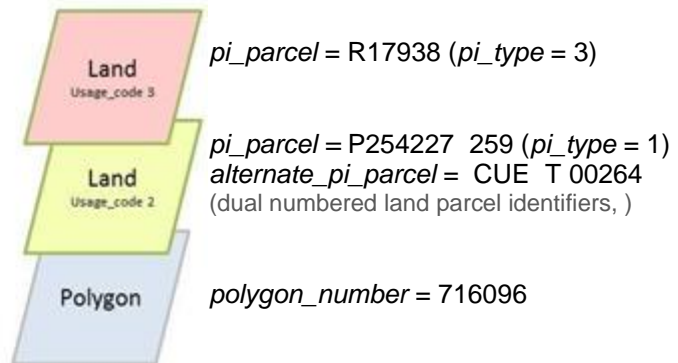
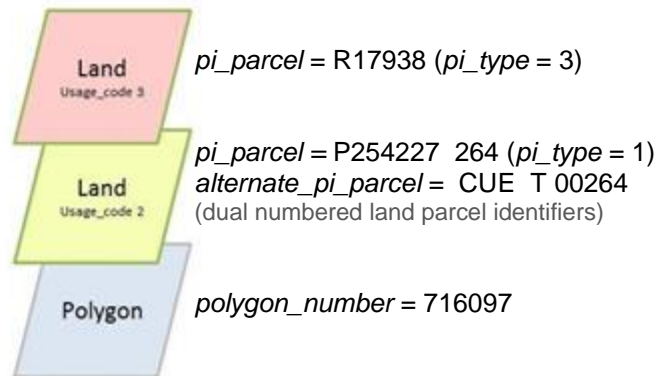
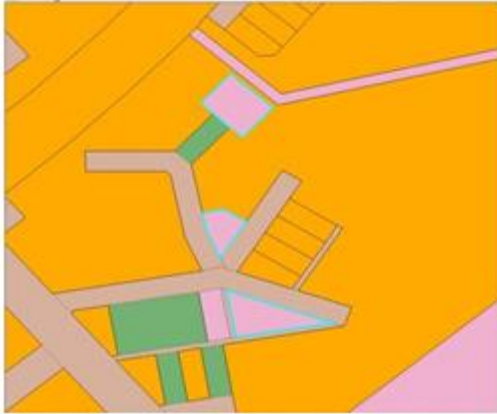
Consider a Pastoral Lease “land”, it may comprise many polygons but is considered 1 “land” and should be treated as such when interrogating the data. Polygons (of the same pi_parcel and same $land_id$) can be merged (using $land_id$) to form a single “land” multi-polygon record in the data, however the $polygon_number$ to $land_id$ relationship will be lost.

Also, in the above example, the Lease is the dominant land usage ($usage_code = 4$), the reserve is the second most dominant land usage ($usage_code = 3$) with the type 2 pi_parcel being the subservient land ($usage_code = 2$).

1.6.6.3 Example 5: 3 Polygons, 3 Crown Lots and 1 Reserve

3 Polygons, 3 Crown Lots, 1 Reserve

3 separate polygons without common boundaries and with 2 different *usage_codes* and 2 *pi_types* for each polygon



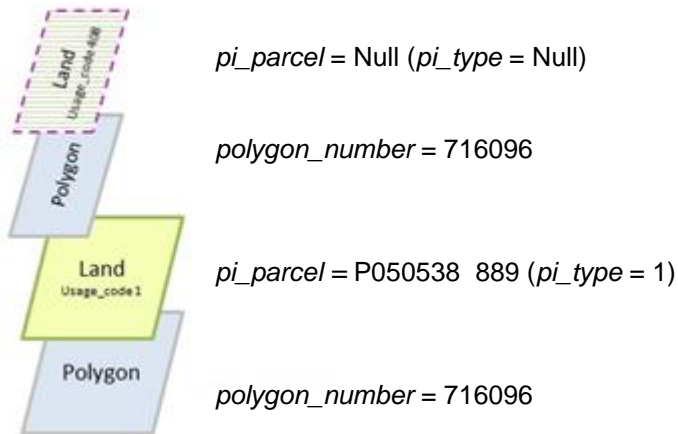
Six (6) separate features will be created for the three (3) highlighted geometries (– one for each Usage Code).

In the above example, the Reserve is the dominant land usage (*usage_code* = 3) with type 1 & 2 *pi_parcel*s being the subservient land (*usage_code* = 2).

Note: The cadastral polygon dataset does not combine polygons of the same “land” (*pi_parcel*) into a single multi-polygon record. This presents a risk to users where it is not obvious that the extent of “land” comprises multiple non-contiguous polygons/lots. This occurs regularly within the dataset. Polygons (of the same *pi_parcel*) can be merged (using *land_id*) to form a single “land” multi-polygon record in the data to mitigate risk.

Example 8: 1 Freehold Lot partially covered by an Easement

1 Freehold Lot partially covered by 1 Easement



Easements are a Cadastral Family and comprise a separate polygon where the easement does not encumber the entire lot/land parcel SCDB data. In this example, two (2) features will be provided, one for each usage type. Note: SCDB rules allow easement polygons to overlap other cadastral polygons.

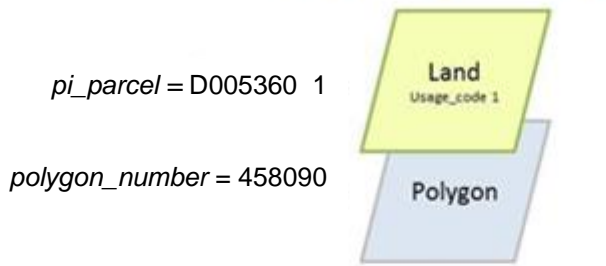
Note: Cadastral data should not be relied upon for the identification of all easements that affect land.

The SCDB does not contain all easements that are registered against land. For example, where an easement comprises the full extent of a single lot/land parcel, an individual easement polygon is not captured/generated. So in the above example, if the easement covered the full extent of the Land, a second polygon will not exist in the data and a user will not be able to identify that an easement is apparent.

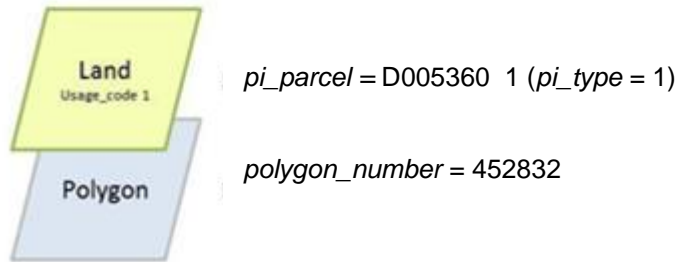
Easements that are not captured on a survey document are also not captured in the SCDB and may only be registered on the Certificate of Title.

1.6.6.4 Example 9: 1 Freehold Lot, 2 Polygons (multi-part lots)

1 Freehold Lot (with 2 parts), 2 polygons

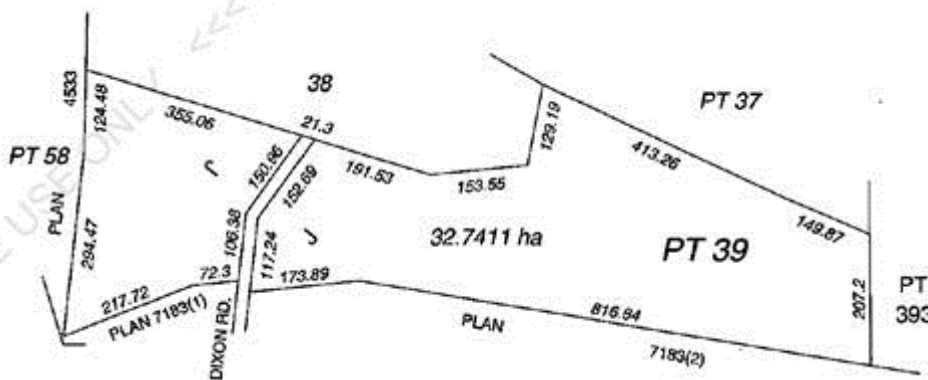


2 polygons where *pi_type* = 1 with same *pi_parcel* details and no common cadastral boundaries.



In this example, Lot 1 on D005360 is split by a road, each severance has the same *pi_parcel* but have different *polygon_numbers*. Two (2) features will be created with the same parcel identifier (lot on plan).

Note: The multi-part lot example above should not be confused with the records that have a *part_lot_indicator* in the data. Records that have a *part_lot_indicator* = Y refers to those lots that have a portion of the lot remaining following subdivision. Please refer below.



Following subdivision, only part of lot 39 remains. There are approximately 1620 part lot records within the SCDB as at June 2018. Due to changed business rules, no new multi-part lots are created in the SCDB.

2 SLIP Cadastral Data

The Data Dictionaries following have been provided within their spatial element as they have the same field attributes for the families within those elements. System generated field names resulting from vendor software/environment/platform etc have been excluded from the tables below.

2.1 Cadastre

The below table contains field names that are common across multiple cadastral polygon datasets contained with the SLIP Cadastral subscription service. In the below table, the far- right column indicates the Cadastral datasets that contain the relevant field. The below codes should be applied:

I = Cadastre (Polygon) (LGATE-217)) – integrated into the current cadastral dataset.

L = Lodged Cadastre (Polygon) (LGATE-222) – not yet integrated into current cadastre where a survey is not yet approved.

R = Retired Cadastre (Polygon) (LGATE-219) – cadastre that has been retired from the current cadastral dataset is no longer active.

ALL = the field is contained in all aforementioned Cadastral datasets.

Description: Cadastre (Polygon) (LGATE-217), Lodged Cadastre (Polygon) (LGATE-222), Retired Cadastre (Polygon) (LGATE-219)

Date Last Reviewed: June 2018

Last Reviewed By: Todd Harris (Product and Data Advisor – SPUR)

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
1	polygon_number (PIN) (polygon_nu)	Integer	SCDB generated polygon number	N	ALL
2	usage_code	Small Integer	Is a code describing the purpose of the land parcel and may be used for symbology definition.	Y	ALL

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
3	usage_description (usage_desc)	String (100)	Describes the usage_code	N	ALL
4	view_scale	String (5)	scale range values to assist with scale range definition for map view display purposes.	N	ALL
5	centroid_latitude (centroid_l)	Double	Is the latitude coordinate for the centroid of the area shape / polygon, in decimal degrees. GDA94 (epsg: 4283)	N	ALL
6	centroid_longitude (centroid_1)	Double	Is the longitude coordinate for the centroid of the area shape / polygon, in decimal degrees. GDA94 (epsg: 4283)	N	ALL
7	calculated_area (calculated)	Double	Is the area in square metres of the area shape as calculated by the SCDB maintenance environment.	N	ALL
8	polygon_area (area) (polygon_ar)	Double	Formerly "area": is the keyed in or other derived area in square metres – not necessarily the same as the <i>calculated_area</i> . The method of derivation of area is given in <i>area_derivation_method</i> .	N	ALL
10	area_derivation_method (area_deriv)	String (2)	Is the method of determining the <i>polygon_area</i> (not <i>calculated_area</i>) of the polygon or area shape.	Y	ALL

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
11	area_derivation_indicator (area_der1)	String (1)	Is a yes/no flag indicating whether or not the <i>polygon_area</i> (not <i>calculated_area</i>) uses derived, described or approximate data.	N	ALL
12	centroid_coordinate_method (centroid_c)	String (1)	The method by which the centroid of the polygon is positioned. M = Mathematically calculated position. O = Optical	N	ALL
13	created_date (date_poly_created) (created_da)	Date (36)	Date the feature was created within the dataset	N	I, L
14	last_modified_date (date_poly_modified) (last_modif)	Date (36)	The date that the feature was last modified. For a new polygon this will be the same as the date created.	N	ALL
15	date_retired (date_poly_retired) (date_retir)	Date (36)	The date that the feature was retired and no longer exists in the current cadastre. For the Retired Cadastre only. <i>Removed from Lodged and current Cadastre</i>	N	R
16	land_id (land_id_number)	Integer	An unique system generated identifier assigned to land parcels of the same parcel identifier (<i>pi_parcel</i>) eg: 3 different polygons may have the same <i>pi_parcel</i> and will therefore have the same <i>land_id</i>	N	ALL

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
17	land_type (lot_type)	String (5)	Related to <i>pi_type</i> and <i>usage_code</i> , this field assigns a land category type to polygons to enable filtering and symbology. Not to be used for differentiating between CROWN (State owned) lands and Freehold lands. The values of CROWN AND FHOLD in this context only refers to the subdivision type (Act under which the lot was created – Land Act vs Transfer of Land Act, Land Administration Act). A CROWN lot can still be Freehold. The value EASMT in this context also includes all interests and not just easements – eg: carbon rights, notifications, profit-a-prendre, etc.	Y	I, L,
18	lot_prefix	String (2)	Only applicable where a lot prefix exists (NULL for type 3 <i>pi_types</i>)	N	I, L
19	lot_number	Integer	Lot number for lot on survey parcel identifiers (blank for type 2 & 3 <i>pi_types</i>)	N	I, L
20	land_name (lot_name)	String (60)	Useful for labelling purposes and depends upon the 'Parent land parcel identifier type ' Type 1 PI: 19 (lot number) Type 2 PI: ALBANY Suburban Lot 145 (Crown Allotment) Type 3 PI: ROAD, R 41456 (Reserve), UCL (Unallocated Crown Land), L PL J961645 (Crown lease number).	N	I, L

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
21	pi_type	String (1)	A number describing the type of parcel identifier (1 = lot on plan/survey, 2 = Crown Allotment, 3 = other/miscellaneous eg. Reserve, Lease, Water, Road etc)	Y	I, L
22	pi_parcel	String (17)	Provides the full machine readable formatted land parcel identifier. Refer section 3.10 Parcel Identifiers Where <i>pi_type</i> = 2, the full Crown Allotment identifier is provided	N	ALL
23	alternate_pi_type (alternate_)	String (1)	Identifies <i>pi_type</i> for alternate_pi_parcel – always = 2 when populated. Blank where <i>pi_type</i> = 1,3	N	I, L
24	alternate_pi_parcel (alternate1)	String (17)	Provides the full machine readable formatted land parcel identifier where <i>pi_type</i> = 2 (Crown Allotments). Refer section 3.10 Parcel Identifiers This field is only populated for land where a Crown Allotment identifier still exists in the data.	N	I, L
25	part_lot_indicator (part_lot_i)	String (1)	Y/N (Yes/No) Indicates if the land parcel is a part lot following subdivision where only part of the original lot remains. There are approximately 1620 part lot records within the SCDB as at June 2018. Due to changed business rules, no new multi-part lots are created in the SCDB.	N	I, L

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
26	three_dimensional_indicator (three_dime)	String (1)	Y/N (Yes/No) Indicates if the land parcel is 3-dimensional.	N	I, L
27	survey_type (survey_typ)	String (2)	Indicates the type of survey. DP = Deposited Plan, P = Plan, D = Diagram, SP = Strata Plan (Building and Survey Strata) Blank where <i>pi_type</i> = 3	N	I, L
28	survey_number (survey_num)	Integer	The number assigned to the survey document. Blank where <i>pi_type</i> = 3	N	I, L
29	crown_survey (crown_surv)	String (50)	The original Crown Survey document (eg: CP 17947)	N	I, L
30	survey_label_text (survey_lab)	String (50)	Comprises <i>survey_type</i> and <i>survey_number</i> to assist with labelling	N	I, L
31	survey_status_code (legal_status) (survey_sta)	String (2)	A code that represents the status of a survey document (refer to survey document for legal requirements)	Y	I, L
32	survey_status_desc (survey_s_1)	String (100)	Description of the <i>survey_status_code</i>	N	I, L
33	survey_status_date (date_legal_status) (survey_s_2)	Date (36)	Date that the survey status changed to the current status.	N	I, L
34	survey_lodgement_date (survey_lod)	Date (36)	Date when the survey was lodged.	N	I, L

Ref	Field Name (former field name) (SLIP shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N	SLIP Cadastral Polygon Layers I = Current Cadastre L = Lodged R = Retired LAND = "Land" dataset
35	survey_purpose_description (survey_pur)	String (100)	Describing the purpose of the survey eg: <i>Surveyed Strata Plan (Strata Plan)</i>	N	I, L
36	lga_names (lga_name)	String (200)	The Local Government Authority area/s that the polygon/land parcel intersects	N	I, L

2.2 Cadastre (Lines) - includes cadastral control

Description: Cadastre (Lines) (LGATE-216), Cadastral Control (Lines) (LGATE-XXX), Lodged Cadastre (Lines) (LGATE-221)

Date Last Reviewed: June 2018

Last Reviewed By: Todd Harris

Ref	Field Name (former field name) (shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N
1	line_number	Integer	Is a system generated consecutive number that uniquely identifies a line	N
2	usage_code	Small Integer	Is a code describing the purpose of the line	Y
3	usage_description (usage_desc)	String (50)	Describes the usage_code for the line feature	N

Ref	Field Name (former field name) (shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N
4	surveyed_indicator (surveyed_i)	String (1)	Y = Surveyed, N = Unsurveyed	N
5	start_point_number (start_poin)	Integer	The unique point number, as contained within the Cadastral Points dataset, from which the line starts	N
6	end_point_number (end_point_)	Integer	The unique point number, as contained within the Cadastral Points dataset, at which the line ends	N
7	construct_type (construct_t)	String (1)	Is a code that determines the physical construction characteristics of a line. It determines whether additional definition information (other than the end points) is required.	Y
8	distance_value (distance_v)	Double	Is the distance in metres. For arcs it is the arc distance, for topographic strings it is the sum of the distances between consecutive string points	N
9	distance_accuracy (distance_a)	Integer	An estimate of the accuracy of the length of a line as given in DISTANCE VALUE expressed as a ratio. For example, a distance accuracy of 1000 means that the line length is expected to be accurate to plus or minus 1/1000 of its given value.	N
10	distance_datum (distance_d)	String (1)	A character code describing the datum for the distance: G = Ground Level S = Spheroid	N
11	distance_derivation (distance_1)	String (1)	Indicates how the distance value is derived and relates to the distance accuracy	Y
12	spatial_accuracy (spatial_ac)	Double	Is a value that may be used to indicate the reliability of the distance value stored for the line. It is calculated as a	N

Ref	Field Name <i>(former field name)</i> <i>(shapefile field name)</i>	Field Type (length)	Description	Associated Attribute Values Y/N
			function of calculated distance against the recorded distance.	
13	render_normal <i>(render_nor)</i>	String (5)	A concatenated character string comprising the usage code and a surveyed/unsurveyed identifier to assist with symbology definition.	N
14	view_scale	String (5)	Scale range value to assist with scale range definition for map view display purposes.	N
15	created_date <i>(date_time_created)</i> <i>(created_da)</i>	Date (36)	Date the feature was added to the system database.	N
16	last_modified_date <i>(date_time_modified)</i> <i>(last_modif)</i>	Date (36)	Date the feature was last modified. For a new line this will be the same as the date created.	N
17	lga_names <i>(lga_name)</i>	String (100)	Local Government areas that the line intersects (may contain multiple LG names).	N

2.3 Cadastre (Points) - includes cadastral control

Description: Cadastral Points (LGATE-215), Cadastral Control (Points) (LGATE-XXX), Lodged Cadastre (Points) (LGATE-220)

Date Last Reviewed: September 2017

Last Reviewed By: Landgate Data Management Group

Ref	Field Name - Shape File (former field name) (shapefile field name)	Field Type (length)	Description	Associated Attribute Values Y/N
1	point_number (point_num)	Integer	Feature identifier number	N
2	usage_code	Small Integer	Is a code describing the purpose of the line	Y
3	usage_description (usage_desc)	String (50)	Describes the usage_code for the line feature.	N
4	surveyed_indicator (surveyed_i)	String (1)	Y = Surveyed, N = Unsurveyed	N
5	render_normal (render_nor)	String (5)	A concatenated character string comprising the usage code and a surveyed/unsurveyed identifier to assist with symbology definition.	N
6	latitude	Double	Is the latitude coordinate in decimal degrees. GDA94 (epsg: 4283)	N
7	longitude	Double	Is the longitude coordinate in decimal degrees. GDA94 (epsg: 4283)	N
8	point horizontal method (coordinate_calculation_method)	String (1)	Is a code specifying how the point coordinates were created.	Y

Ref	Field Name - Shape File <i>(former field name)</i> <i>(shapefile field name)</i>	Field Type (length)	Description	Associated Attribute Values Y/N
	<i>(point_hori)</i>			
9	point_accuracy <i>(point_accu)</i>	Double	Is the perceived accuracy of a point expressed in metres. It determines how much influence the point has, or will have, on an adjustment.	N
10	reduced_level <i>(reduced_le)</i>	Double	Is the height of a point expressed as a vertical displacement in metres from Mean Sea Level (MSL).	N
11	name	String (30)	Is the optional name for a point.	N
12	view_scale	String (5)	Scale range value to assist with scale range definition for map view display purposes.	N
13	created_date <i>(date_time_created)</i> <i>(created_da)</i>	Date (36)	Date the feature was added to the system database.	N
14	last_modified_date <i>(date_time_modified)</i> <i>(last_modif)</i>	Date (36)	The date that the feature was last modified. For a new line this will be the same as the date created.	N
15	lga_names <i>(lga_name)</i>	String (100)	Local Government areas that the line intersects (may contain multiple LG names).	N

3 Attribute Values

3.1 Area Derivation Method

Field Name: area_derivation_method	
Values	Description
UN	area unavailable
CO	by coordinates
AN	by angle and distance
AZ	by mid azimuth and distance
BR	by bearing and distance
KY	by key in
SM	by summed

3.2 Horizontal Point Calculation Method

Field Name: point_horizontal_method (formerly coordinate_calculation_method)	
Values	Description
K	Keyed in (numeric entry)
D	Phase 1 Least Square Adjustment
T	Travers adjusted
L	Phase 2 Least Square Adjustment
G	Graphical construction
P	Precal
F	Transformation

3.3 Distance Derivation

Field Name: distance_derivation	
Values	Description
M	Measured
C	calculated
V	derived
D	described
A	Approximate (e.g. Scale)

3.4 View Scale

Values contained within this field relate to polygon area and have been derived to provide users with a view scale. IE: Where a feature has a view_scale = 4k, the recommended view scale range for the feature is 1:1 – 1:4000. This is designed for viewing performance for maps so to mitigate all features (approx 1.9million) drawing at whole of state scale.

Field Name: view_scale	
Values	Description
4k	Recommended view scale 1:1 – 1:4,000
16k	Recommended view scale 1:1 – 1:16,000
64k	Recommended view scale 1:1 – 1:64,000
256k	Recommended view scale 1:1 – 1:256,000
All	view scales greater than 1:1

3.5 Land Type

NOTE: NOT TO BE USED FOR DETERMINING CROWN (*lands owned by the State*) VS FREEHOLD LAND

Field Name: land_type	
Values	Description
OTHER	Surveyed land other than lots or reserves (i.e. PAW, ROW and Marine Parks)
STPLN	Strata (Building or vacant) Plan
EASMT	Easement (includes all other interests eg: carbon rights,
CROWN	Crown Allotment
ADMIN	Administrative Boundary
SSPLN	Survey Strata Lot
ROAD	Dedicated and undedicated, widenings, casement and closed roads
LEASE	Crown Lease
RESVE	Reserve
FHOLD	Freehold Lot
SVEXT	Survey Extent

3.6 Survey Status Code

Field Name: survey_status_code	
Values	Description
AN	Approved but not Dealt (freehold/crown only)
AP	Approved (strata => Registered) (freehold/crown and strata)
CA	Cancelled (freehold/crown and strata)
CC	Certified Correct (freehold/crown and strata)
CP	Certified Correct and sent to MFP (freehold/crown and strata)
ES	Examined - subject to Strata Requisition (strata => In Order for Dealings) (strata only)
IN	Indexed (SCDB) or Indexed Spatially (auto) (Field Book)
IP	Index Plan (freehold/crown only)
LA	Lapsed (strata only)
LO	Lodged (Field Book)
MP	MFP Approved
NV	Null and Void (strata only)
OA	Office Audited (Field Book)
OD	In Order for Dealings (strata => Examined) (freehold/crown and strata)
SC	Survey Correct, refer to survey advice officer (freehold/crown only)
SE	Lodged, Subject to Examination (freehold/crown and strata)
ST	Stopped
TE	Terminated (strata only)
TR	Transferred to Lands/Surveys (freehold/crown only)
UK	Unknown at take-up (survey missing) (freehold/crown only)
UR	Unregistered (freehold/crown only)
XP	Expired

3.7 Usage Code - Polygons

The usage code along with the pi_type and pi_parcel assists in establishing the land usage.

Usage Code	Description	Status I = Current Cadastre L = Lodged Cadastre	PI Type and pi_parcel refer to section 3.9 Parcel Identifier (formatting)
1	Transfer of Land Act (Type 1)	ALL	PI Type = 1
2	Land Act (Type 2) - Crown Allotment	I, R	PI Type = 2
3	Reserve (Type 3 – R)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'R'
4	Lease (Type 3 – L)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'L'
5	State Forest (Type 3 – F)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'F'
6	Unallocated Crown Land (Type 3 – V)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'V'
7	Closed Road (Type 3 – C)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'C'
8	Drain Reserve (Type 3 – D)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'D'
9	Timber Reserve (Type 3 – O)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'O'
10	Railway (Type 3 – A)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'A'

11	Water Feature (Type 3 – W)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'W'
12	Tramway (Type 3 – T)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'T'
13	Road Isolation (Type 3 – P)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'P'
14	Marine Reserve (Type 3 – M)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'M'
15	Stock Route (Type 3 – S)	I, R	PI Type = 3 and character set 1 of PI Parcel = 'X'
16	Surveyed Strata	I, R	LAND_TYPE = 'SSPLN'
17	Crown Grant in Trust	I, R	
19	Building Strata	I, R	LAND_TYPE = 'STPLN'
20	No Parcel Identifier	I, R	No PI
21	Easement Polygons	I, R	No PI
22	Parent of Survey Strata	I, R	
23	Carbon Right	I, R	
24	Tree Plantation	I, R	
25	Carbon Covenant - Burden	I, R	
26	Carbon Covenant - Benefit	I, R	
27	Contaminated Site	I, R	
28	Caveat	I, R	
29	Easement - doc	I, R	
30	Easement - LAA 144	I, R	
31	Easement in Gross - LAA 195	I, R	

32	Easement Public Access LAA 195/196	I, R	
33	Easement - STA 5D	I, R	
34	Easement - TLA 136C	I, R	
35	Easement - TLA 167A	I, R	
36	Easement - P&D 167 Reg 5	I, R	
37	Easement - P&D 167 Reg 6	I, R	
38	Easement - P&D 167 Reg 7	I, R	
39	Easement - P&D 167 Reg 8	I, R	
40	Easement - P&D 167 Reg 9	I, R	
400	Freehold Lease	I, R	
401	Memorial	I, R	
402	Notification	I, R	
403	Profit a prendre	I, R	
404	Restrictive Covenant - Benefit	I, R	
405	Restrictive Covenant - Burden	I, R	
406	Covenant - LAA 15	I, R	
407	Easement - P&D 167 Reg 5	I, R	
408	Easement - P&D 167 Reg 6	I, R	
409	Easement - P&D 167 Reg 7	I, R	
410	Easement - P&D 167 Reg 8	I, R	
411	Easement - P&D 167 Reg 9	I, R	
412	Easement - P&D 167 Reg 33(a)	I, R	
413	Easement - P&D 167 Reg 33(b)	I, R	
414	Easement - P&D 167 Reg 33(c)	I, R	

415	Easement - P&D 167 Reg 33(d)	I, R	
416	Easement - P&D 167 Reg 33(e)	I, R	

3.8 Usage Code - Lines

The table below shows the usage code attributes and description within the family types

Family	Usage Code	Description	SLIP Cadastral Lines layers I = Current L = Lodged
Cadastral	1	Road Boundary	I and L
	2	Normal Boundary	I and L
	3	Water Boundary	I and L
	4	Group Boundary	I
	5	Common Boundary	I
	6	HWM Boundary	I
	7	LWM Boundary	I
	8	Nautical Boundary	I
	11	Network Construct	I and L
	12	Poly Tie Construct	I and L
	14	3D Normal	I
	15	3D Construct	I
	21	Interest (Easement) Boundary	I and L
	22	Interest (Easement) Construct	I and L
	23	Superline	I
Control	13	RO Construct	I

	43	Non-Geodetic Connection	I
	44	Non-Geodetic Precal	I
	46	Non-Geodetic Connection GDA94	I

3.9 Usage Code - Points

The table below shows the usage code attributes and description within the family types FOR POINTS DATA

Family	Usage Code	Description	SLIP Cadastral Point layers I = Current / Control L = Lodged
Cadastral	1	Road Boundary	I and L
	2	Normal Boundary	I and L
	3	Water Boundary	I and L
	4	Group Boundary	I
	6	HWM Boundary	I
	7	LWM Boundary	I
	8	Nautical Boundary	I
	11	Network Construct	I and L
	12	Poly Tie Construct	I and L
	14	3D Normal	I
	21	Easement Boundary	I and L
	22	Easement Construct	I and L
Control	41	SSA Permanent Survey Mark	I
	42	SSA Permanent Control Mark	I
	43	Non-Geodetic Connection	I

	44	Non-Geodetic Temporary Control Mark	I
	45	Geodetic Standard Survey Mark	I
	46	Geodetic Bench Mark	I
	47	Geodetic Temporary Control Mark	I
	48	Geodetic Reference Mark	I
	49	Non-Geodetic	I

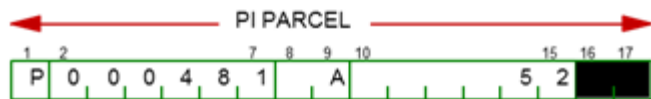
3.10 Parcel Identifiers (pi_parcel)

pi_parcel is the major part of the parcel identifier, is machine readable and is formatted to preserve legacy system compatibility. It is particularly useful when dealing with and understanding Type 2 and Type 3 parcel identifiers. There are 3 different Parcel Identifier formats identified by the **pi_type** field. These 3 different types of Parcel Identifier are referred to as (and described below):

1. Parcel Identifier Type 1 = Lot on Survey/Plan
2. Parcel Identifier Type 2 = Crown Allotment
3. Parcel Identifier Type 3 = Miscellaneous.

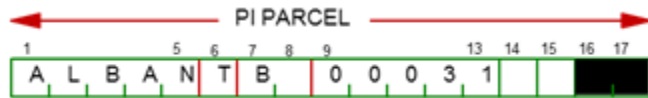
These are further described below.

3.10.1 PI TYPE 1 - pi_parcel formatting (Lot on Survey / Plan)



Character set 1	Character set 2-7	Character set 8-9	Character set 10-15	Character set 16-17
Survey Type Identifier <i>P = Plan</i> <i>D = Diagram</i> <i>S = Strata Plan</i>	Survey Number <i>A number applied to a survey document which when used with the Survey Type provides a unique reference number. This field is numeric, right-justified.</i>	Survey Section (also lot_prefix) <i>A letter or number identifying the section of the survey. This field is alpha-numeric, right justified and blank filled. It is usually blank</i>	Lot Number <i>A lot number identifies a land parcel on a survey. This field is alpha-numeric, right justified and blank filled. All new lots will be numeric but in the past various alpha and alpha-numeric lot identifiers were created. Many of these lots are still live and will remain that way so must be allowed for. There are lots in existence with identifiers such as 101, A, 3/2 etc</i>	BLANK - reserved

3.10.2 PI TYPE 2 - pi_parcel formatting (Crown Allotment)



Character set 1-5	Character set 6	Character set 7-8	Character set 9-13	Character set 14	Character set 15	Character set 16-17
<p>Crown Allotment Code</p> <p><i>The abbreviation for the name of the land district, town site, agricultural area, estate or suburban area. This field is alpha, left justified</i></p>	<p>Crown Allotment Type</p> <p>T = LOT / TOWN LOT L = LOCATION S = SUBURBAN LOT E = ESTATE LOT A = AGRICULTURAL AREA LOT</p>	<p>Prefix</p> <p><i>The alpha part of the crown allotment identifier which precedes a number or which comprises a totally alpha lot identifier.</i></p>	<p>Crown Allotment Number</p> <p><i>The numeric part of the crown allotment id. It is numeric, right-justified and zero filled</i></p>	<p>Crown Allotment Fraction</p> <p><i>Some crown allotments contain fractions. These have been coded so that only one character is required. The field contains one of the following values: blank-no fraction 1-1/4 2-1/2 3-3/4</i></p>	<p>Crown Allotment Suffix</p> <p><i>Any alpha part of the crown allotment identifier which follows the number. This field is usually blank</i></p>	<p>BLANK - reserved</p>

3.10.3 PI TYPE 3 - pi_parcel formatting (Miscellaneous)

A land parcel which cannot be assigned a survey lot or crown allotment PI will be identified by one of the miscellaneous forms of identification which is usually the dominant land tenure type.

PI Type 3 Miscellaneous	Character set 1	Character set 2-7	Character set 8-13	Character set 14-17
<p>Lease (Land Act 1933) <i>Allocated prior to 30th March 1998 (many of these lease types no longer exist)</i></p> <p>37-Leased to Commonwealth 32-Leased to Government Agencies, Local Government etc. 332-Special Leases over Reserves. 333A-Miscellaneous Leases such as:-</p> <ul style="list-style-type: none"> • Exchange of Land • Crown Grants in trust <p>338-Sold under Licence by Auction 341-Sold under Licence over the Counter 345-Leased/Sold to Homes west under licence 345A-Sold under Licence 345B-Sold under Licence 347, 353 and 386 - Conditional Purchase Leases (Agricultural) 3116 and 3117 (Special Leases) 3117AA-Conversion to freehold. 398 and 3114-Pastoral Lease</p>	L	<p>Legislation/section under which the Crown lease was granted – defines lease type and is right justified. Eg: 3 = Land Act 1933 114 = relevant section of the act</p>	Lease / License number	Blank - reserved
<p>Lease (Land Administration Act 1997) <i>Allocated post 30th March 1998</i></p> <p>RL = Reserve Lease RO = Road Lease GE = General Lease PU = Purchase Lease AB = Aboriginal Lease</p>	L	Lease type and license/lease document prefix	Lease / License document number	Blank - reserved

PI Type 3 Miscellaneous	Character set 1	Character set 2-7	Character set 8-13	Character set 14-17
SU = Subdivisional Lease GO = Government Agency Lease PL = Pastoral Lease AC = Acquisition Lease PP = Profit 'A' Prendre OP = Option to Purchase Granted LI = Licences OL = Option to Lease Granted				

Miscellaneous Types: F = State Forest M = Marine Park O = Timber Reserve R = Crown Reserve	R	Reserve number	Blank - reserved	Blank - reserved
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Miscellaneous Types: A = Railway C = Closed Road D = Drain Reserve P = Road S = Stock Route T = Tram Way V = V Crown Land (UCL) X = Unknown W = Water	V	Alpha character description for the first part of the identifier and is right justified.	Alpha character description for the second part of the identifier (may be blank), is right justified and may be abbreviated.	Blank - reserved
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