Data Interchange Format

Version 7 for format 251
Version 6 for format 201
Version 3 for formats 105, 114, 202, 211, 212, 261, 481
Version 2 for formats 101, 108, 110, 112 and 501
Version 1 for all other formats

For the transfer of data between

Australian dairy herd improvement organisations

July 2022

Formats official from 1 July 2022

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DataGene formats for transfer of data between Australian Dairy Herd Improvement Organisations.

The Data Interchange Formats (DIF) are designed to standardise and facilitate transfer of data between DataGene, Data Processing Centres (DPCs) and other participants in the dairy herd improvement industry. The formats were implemented by DataGene and all DPCs on 1 July 1997. There have been updates in January 2000, May 2001, June 2003, September 2007, April 2012, March 2015, December 2017, February 2018, November 2020 and July 2022.

Features of the Data Interchange Formats

- In the attached formats, the Animal ID that links an animal to its traits and pedigree is the National Animal ID.
- All dates are expressed in yyyymmdd format where:
  yyyy = 4 digit year (eg. 1984, 1995, 2001)
  mm = 2 digit month (eg. 02 = February, 11 = November)
  dd = 2 digit day of the month (eg. 01, 13, 27)
  When a date is unknown, the field is space filled.
- Numeric fields are right justified and space filled
- Alpha/numeric or character fields are left justified and space filled.
- Test-day components are expressed as percentages rather than as yield in kilograms.
- Each record is identified with a record type. This enables multiple record types to be supplied in the one file if this is convenient.
- Formats developed from May 2001 onwards contain a version number as the second field in each record.

Routine transfer of Data to DataGene

- Routine dumps should include record types 101, 102, 103, 104,105, 106, 107, 108 and 112.
- DataGene requires the data sorted in the order specified in each format description. The major sort key should be record type if a file contains more than one record type.
- Routine dumps from DPCs should include a herd record (format 101), all lactations in progress and all lactations that terminated or reached 305 days since the previous dump (format 103). All test day records (format 104) must be provided for each lactation provided. A cow record (format 102) must be provided for each cow with an eligible lactation record and for all cows up to 30 months of age regardless of lactation status. Workability records (format 106), mating records (format 108) and ease of calving records (format 112) that occurred since the previous dump should also be provided with a herd record (format 101) and a cow record (format 102).
- Daily dumps are preferred.
- Routine weekly or monthly dumps are acceptable to DataGene. The data required at each dump will be negotiated between DataGene and the DPC concerned, following the principle of transferring the minimum amount of data that will ensure data integrity (a minimum of three months overlap) on both the DPC and DataGene computer systems.

Transfer of Data between DPCs or to Farm PC packages.

- Herd transfer dumps between DPCs, and to Farm PC packages, should include all data held on the system for the herd (this will typically be record types 101 - 108, 112 and 211).
- File names should contain the National Herd ID and the extension 'DIF' if various record types are included in a single file (e.g., C12345H.DIF), or the format number if separate files are provided for each record type (e.g., C12345H.102).
- All records in the file, including the last record, are to be delimited by a carriage return and line feed.

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The following formats are described in this document

Format	Data Record	Version	Page	Latest Update
101	Herd Record	2	1	14th June 2002
102	Cow Pedigree Record	1	2	9th May 2001
103	Lactation Record	1	3	9th May 2001
104	Test Day Record	1	4	9th May 2001
105	Bull Pedigree Record (incorporates NASIS file)	3	6	22nd May 2012
106	Workability Record	1	7	9th May 2001
107	Herd Test Day Production Record	1	8	9th May 2001
108	Mating Record	2	9	22nd May 2012
110	Disclosure/Non Disclosure Record	2	11	9th May 2001
111	Liveweight Record	1	12	9th May 2001
112	Calving Ease Record for a Calf	2	13	27th Feb 2018
114	Conformation Trait Record	3	15	6th Sept 2007
115	International Cow Pedigree Record	1	17	9th May 2001
116	Herd Health Record	1	18	14th June 2003
201	Bull ABVs for All Traits	6	19	4th Nov 2020
202	Cow ABVs for All Traits	3	22	4th Nov 2020
211	Cow ABVs for Production Traits	3	25	18th Nov 2014
212	Herd Mean ABVs for Production Traits	3	27	18th Nov 2014
251	Bull ABVs for All Traits (extended file)	7	29	4th Nov 2020
261	Cow ABVs for All Traits (extended file)	3	39	4th Nov 2020
401	Record for pre-printing of LTE forms	1	43	26th April 2001
481	Genotype Nominations file	3	44	22nd May 2012
501	Progeny Test Daughter Progress Report	2	45	6th Sept 2007
502	Calving Ease for Progeny Test Bulls	1	47	26th April 2001
Appendix A	**Notes of Explanation**			
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Note 2	Herdbook ID		A-4	7th May 1997
Note 3	National Animal ID		A-5	7th May 1997
Note 4	Data Processing Centre (DPC) Codes		A-7	22nd May 2012
Note 5	Termination Codes		A-8	7th May 1997
Note 6	Codes for Organisations that own bulls or request		A-9	22nd May 2012
Note 7	Health Event Codes		A-10	9th May 2001
Note 8	National Herd ID		A-11	9th May 2001
Note 9	NLIS formats (Animal Transfer and Animal Termination)		A-12	9th May 2001
Note 10	Genetic codes		A-13	22nd May 2012
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105	Bull Pedigree Record (incorporates NASIS file)	1	B-2	
110	Disclosure Record	1	B-3	
114	Conformation Trait Record	1	B-4	
201	Bull ABVs for All Traits	1	B-6	
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114	Conformation Trait Record	2	C-1	

201	Bull ABVs for All Traits	2	C-3	
501	Progeny Test Daughter Progress Report	1	C-5	
Appendix D	**Formats discontinued as from April 2012**			
105	Bull Pedigree Record (incorporates NASIS file)	2	D-3	
108	Mating Record	1	D-4	
201	Bull ABVs for All Traits	3	D-5	
211	Cow ABVs for Production Traits	1	D-7	
212	Herd Mean ABVs for Production Traits	1	D-8	
251	Bull ABVs for All Traits (extended file)	1	D-9	
Appendix E	**Formats discontinued as from March 2015**			
201	Bull ABVs for All Traits	4	E-4	
202	Cow ABVs for All Traits	1	E-7	
211	Cow ABVs for Production Traits	2	E-9	
212	Herd Mean ABVs for Production Traits	2	E-11	
251	Bull ABVs for All Traits (extended file)	5	E-12	
Appendix F	**Formats discontinued as from November 2020**			
112	Calving Ease Record	1	F-4	
201	Bull ABVs for All Traits	5	F-6	
202	Cow ABVs for All Traits	2	F-9	
251	Bull ABVs for All Traits (extended file)	6	F-11	
261	Cow ABVs for All Traits (extended file)	2	F-20	
Appendix G	Sample files for loading information			

Data Format 101 V2 Herd Record

Field No.	Field Name	Start column	Length	Numeric/ Alpha	Comments
1	Record Type	1	3	N	Value = 101
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Farmer Name and Address				
4	Full Name	12	35	A	Surname or Company name to appear first in this field to allow sorting on Farmer Name to be meaningful.
5	Line 1	47	35	A	
6	Line 2	82	35	A	
7	Line 3	117	35	A	
8	Postcode	152	4	N	
9	Farmer Phone Number	156	15	A	
	Location Details				
10	State Code	171	1	A	First digit of state postcode
11	Location Code	172	3	A	To enable herds to be grouped by Region
12	NLIS Property Identification Code	175	8	A	
13	GPS Latitude	183	8	N	Farm location using Global Positioning System
14	GPS Longitude	191	8	N	
	Herd Codes				
15	Testing Frequency	199	1	N	Value 1 = 24 hour test 2 = Alternate am/pm 3 = 3 times a day milking 4 = Other
16	Sampler	200	1	A	Value F = Farmer sampler R = Recorder sampler U = Unknown sampler C = Farmer Collection
17	DPC Code	201	1	A	Data Processing Centre - see Note 4
18	Local Herd ID	202	9	A	Local ID used by the DPC (format = State Code (1 char), Herd ID (7 char) Usage Code (1 char))

RECORD LENGTH = 210 bytes

Global Positioning System coordinates (GPS Latitude and GPS Longitude)
The GPS coordinates identify the location of the property. The units are degrees x 100000 (that is, there is an implied decimal place after the third digit). Negative signs are omitted.

Essential fields for DataGene are 1, 2, 3, 4, 8, 10, 11, 15, 16, 17. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3.

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Data Format 102 V1 Cow Pedigree Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 102
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
	Pedigree details				
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Required by DataGene if Dam ID is unavailable, and MGS is available)
	Transfer Details				See explanation below
15	Transfer-in date	113	8	N	yyyymmdd
16	National ID of Herd Transferred from	121	7	A	See Note 8
	Cow Name				
17	Long	128	40	A	
18	Short	168	16	A	
	Cow status codes				
19	Animal termination code	184	2	A	Sold and dead codes - see Note 5
20	Animal termination date	186	8	N	yyyymmdd
21	Sire verification flag	194	1	A	Value Y = yes; N = no

RECORD LENGTH = 194 bytes

Transfer of Cows between Recorded Herds

DataGene needs to have the capacity to analyse lactations with the herd in which the lactation occurs. If a cow is transferred from one herd to another, the details required are the date of transfer of a cow into a herd and the National Herd ID of her previous herd. The vast majority of cows are never transferred, and for these cows the two fields should be left blank.

Essential fields for DataGene are 1, 2, 3, 4, 7, (6 if 5 is non-blank), (21 if 12 is non-blank). Fields 11 and 12 are also required for a cow to receive an ABV. Other fields are strongly recommended. Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 103 V1 Lactation Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 103
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Calving Code	35	1	A	0 or N = normal calving; 1 or I = induced calving; 2 or A = aborted; 3 or L = induced lactation
8	Parity	36	2	N	Parity is the lactation number, if known. It is the number of lactations for the cow, whether recorded or otherwise
	Standard Lactation yields				300 or 305 day yields
9	Standard Lactation Code	38	1	N	0 = 300 days, 1 = 305 days
10	Milk	39	6	N	Litres
11	Fat	45	3	N	Kilograms
12	Protein	48	3	N	Kilograms
13	Lactose	51	3	N	Kilograms
14	Total solids	54	3	N	Kilograms
	Total lactation yields				
15	Milk	57	6	N	Litres
16	Fat	63	4	N	Kilograms
17	Protein	67	4	N	Kilograms
18	Lactose	71	4	N	Kilograms
19	Total solids	75	4	N	Kilograms
	Lactation Status Codes				
20	Termination date	79	8	N	yyyymmdd, blank if lactation in progress
21	Termination code	87	2	A	See Note 5
22	Exclusion code	89	1	A	Value A=accept; R=reject
	Production Index				
23	Milk	90	3	N	
24	Fat	93	3	N	
25	Protein	96	3	N	
26	Customised PI	99	3	N	Use this field for any form of combined PI (the same formula for all records from a given DPC)
27	Number of tests in PI	102	2	N	

RECORD LENGTH = 103 bytes

Essential fields for DataGene are 1,2,3,4,6,7,22. Field 9 is essential if yields are supplied. Other fields are strongly recommended. Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Data Format 104 V1 Test Day Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 104
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
	Test Day Information				
7	Test Date	35	8	N	yyyymmdd
8	Milk Yield	43	4	N	Units are litres x 10 (ie. 124 = 12.4 litres.)
9	Fat percentage	47	4	N	Percentage x 100 (ie. 450 = 4.50 %)
10	Protein percentage	51	4	N	Percentage x 100
11	Lactose percentage	55	4	N	Percentage x 100
12	Total solids %	59	4	N	Percentage x 100
13	Milk Urea Nitrogen (MUNs)	63	3	N	Milligrams per decilitre
14	Somatic cell count	66	5	N	Units are cell count/1000 (ie. 750 = 750,000)
15	Test day modifier	71	2	N	See note below
16	Flag for BST use	73	1	N	0=no hormone; 1=hormone treatment
17	Testing Frequency	74	1	N	Value 1 = 24 hour test 2 = Alternate am/pm (yields are expressed as 24 hour yields) 3 = 3 times a day milking 4 = Other
18	Number of days in milk yield average	75	2	N	Leave this field blank if milk yield is based on one day only. Use this field if milk yield is an average of several test days.

RECORD LENGTH = 76 bytes

Test day modifier

DataGene codes for excluding test days are:

0	Acceptable record
1	In-season (on heat)
2	Mastitis
3	Temporary Illness or Injury
4	AM or PM Sample Lost
5	Other reason for exclusion

Number of days in Milk Yield Average

Leave this field blank if milk yield is based on one day only. Use this field if milk yield is an average of several test days. For example, where daily volume measures are provided as the average of a calendar month. If milk yield is the average of more than one day, all cows in the herd should have the same test date.

Essential fields for DataGene are 1,2,3,4,6,7,8,15,16,17. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6, 7.

Data Format 105 V3 Bull Pedigree Record (incorporates NASIS file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 105
2	Record Version Number	4	1	A	Value = 3
	Bull Identity				
3	Bull National ID	5	9	A	See Note 3
	Bull Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	Local Bull ID	29	15	A	
7	Date of Birth	44	8	N	yyyymmdd
8	Bull Breed	52	4	A	See Note 1
	Pedigree Details				
9	Sire National ID	56	9	A	See Note 3
10	Dam National ID	65	9	A	See Note 3
11	MGS National ID	74	9	A	See Note 3
12	Bull name	83	40	A	
	NASIS Bull Details				
13	NASIS Primary ID	123	7	A	
14	Bull ID	130	12	A	
15	Bull Owner Code	142	3	A	See Note 6
16	International ID	145	19	A	Interbull format - see note below
17	PT Sampling Code	164	1	A	
18	Date First Semen Available	165	8	N	yyyymmdd
19	Genetic Codes	173	8x3	A	Up to 8 three-character codes - see note 10
20	NASIS Active Sire Code	197	1	A	A = active, R = restricted, W = warning of a possible conflict with the ID of another bull, blank = not active
21	Common name 1	198	12	A	Name used in marketing of bull
22	Common name 2	210	12	A	Name used in marketing of bull
23	Date Sexed Semen Available	222	8	N	yyyymmdd(blank=no sexed semen available)

RECORD LENGTH = 229 bytes

International ID

The International ID as designated by Interbull has the following format

Breed	3 characters (eg, HOL, JER, AYS, GUE)
Country	3 characters (eg, AUS, USA, CAN - see Note 2 for a full list of codes)
Sex	1 character (M or F)
Within-Country ID	12 characters (right justified, zero filled)

Essential fields for DataGene are 1, 2, 3, 8. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3.

Data Format 106 V1 Workability Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 106
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Parity	35	2	N	Parity is the lactation number, if known. It is the number of lactations produced by the cow, whether recorded or otherwise.
	Cow parameters				
8	Likability	37	1	A	See note below
9	Temperament	38	1	A	See note below
10	Milking Speed	39	1	A	See note below

RECORD LENGTH = 39 bytes

Likability
(All things being equal, would you like more cows like this one in your herd?)

A	Very Definitely (One of the best cows in the herd)
B	Definitely (Well liked cow)
C	Probably (Satisfactory cow)
D	Probably not (Do not like the cow)
E	Definitely not (Plan to sell the cow)

Temperament

A	Placid
B	Quiet
C	Average
D	Nervous
E	Very Nervous

Milking Speed

A	Very Fast
B	Fast
C	Average
D	Slow
E	Very Slow

Essential fields for DataGene are 1,2,3,4,6,8,9,10. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Data Format 107 V1 Herd Test Day Production Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 107
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
4	Herd Test Visit Date	12	8	N	yyyymmdd
	Number of Cows				
5	Total cows	20	4	N	
6	Fresh cows	24	4	N	
7	Terminated cows	28	4	N	
8	Cows cell counted	32	4	N	
	Herd Yield Averages				
9	Milk yield	36	4	N	Units are litres x 10 (ie. 124 = 12.4 litres.)
10	Fat percentage	40	4	N	Percentage x 100 (ie. 450 = 4.50 %)
11	Protein percentage	44	4	N	Percentage x 100
12	Lactose percentage	48	4	N	Percentage x 100
13	Total solids percentage	52	4	N	Percentage x 100
14	Milk Urea Nitrogen	56	3	N	Milligrams per decilitre
15	Somatic Cell Count	59	6	N	Cell Count / 1000
16	Testing Frequency	65	1	N	Value 1 = 24 hour test 2 = Alternate am/pm 3 = 3 times a day milking 4 = Other

---

RECORD LENGTH = 65 bytes

This record is not used by DataGene.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 108 V2 Mating/Preg Test Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 108
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Mating / Preg Test Details				
6	Date	27	8	N	yyyymmdd
7	Code	35	3	N	See mating codes below
8	Result	38	5	A	Free field for describing test result. For pregnancy diagnosis result (code 10,20,30), it is the number of days in calf.
	Mating Details				
9	Mating Start Date	43	8	N	yyyymmdd at herd or individual cow level
10	Fresh semen used	51	1	A	Y = Yes, N = No
11	Semen straw split	52	1	N	Indicates the number of inseminations per straw, 1 = Not split, 2 = Split into two parts, 3 = Split into three parts
12	Bull National ID	53	9	A	See Note 3
13	Semen Batch Number	62	10	A	
14	Technician Code	72	7	A	A code for each AI-Centre Technician
	Embryo Transfer Donor ID Herd ID				
15	National Herd ID	79	7	A	See Note 8
	Cow Details				
16	National Cow ID	86	9	A	See Note 3
17	Within-Herd Cow ID	95	6	N	

RECORD LENGTH = 100 bytes

Essential fields for DataGene are 1, 2, 3, 4, 6, 7, (if mating code (Field 7) = “1 - 8”, field 10,11,12 are essential - if code = “1” or “6”, field 14 is also essential - if code = “10, 20, 30”, field 8 is essential)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Mating codes on next page

Mating/Preg Test event codes

DataGene Code	Mating MNEMONIC	Mating Event Name
Mating Codes		
1	MAP	Mating-AI-Centre Technician
2	MA	Mating-AI-DIY
3	MN	Mating-Natural
4	MNC	Mating-Natural Controlled
5	ME	Mating-Embryo Implanted
6	MAPS	Mating-AI-Centre Technician – Sexed Semen
7	MAS	Mating-AI-DIY – Sexed Semen
8	MS	Mating-Sync/Intervention
Preg Test Codes		
10	PD	Pregnancy Test
18	PIN	Pregnancy Test IDEXX Not Pregnant
19	PIC	Pregnancy Test IDEXX Confirmed Pregnant
20	OS	Pregnancy Test using Confirm
30	US	Pregnancy Test using Ultrasound
Heat Observation Codes		
101	HO	Heat Observed with No Mating
102	HM	Heat - Multiple Ovulation / Flush

Data Format 110 V2 Disclosure / Non-Disclosure Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 110
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
4	Organisation with/without Authority	12	3	A	See Note 6
5	Date initiated	15	8	N	yyyymmdd
6	Disclosure	23	1	A	(Y = disclose data to Organisation, N = don't disclose data to Organisation)
7	DPC Code	24	1	A	Data Processing Centre - see Note 4 (leave blank if not provided by a DPC

RECORD LENGTH = 24 bytes

The record exists to authorise DataGene to disclose data for a herd to organisations other than the DPC which provided the data to DataGene, or to prohibit DataGene from disclosing data to other organisations.

All fields are essential for DataGene.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 111 V1 Liveweight Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 111
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Date of weighing	27	8	N	yyyymmdd
7	Liveweight	35	3	N	Units are kg
8	Condition score	38	2	N	Units are score x 10 (ie. 45 = 4.5 condition score)

RECORD LENGTH = 39 bytes

This record is not currently used by DataGene.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Data Format 112 V2 Calving Ease Record for a Calf

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 112
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Parity	35	2	N	Parity is the lactation number, if known. It is the number of lactations produced by the cow, whether recorded or otherwise.
8	Last mating date	37	8	N	yyyymmdd - see note below
9	National ID of Sire of Calf	45	9	A	See Note 3
10	National ID of Genetic Dam of Calf	54	9	A	See Note 3. Blank if same as birth mother
11	National ID of Calf	63	9	A	See Note 3
12	MISTRO Reference No.	72	9	N	Internal use only
13	Litter size	81	1	N	The number of calves born
	Calving parameters				
14	Calving Ease	82	1	A	See note below
15	Calving Code	83	1	A	0 or N=normal calving; 1 or I=induced calving; 2 or A=aborted; 3 or L=induced lactation
16	Sex of Calf	84	1	A	See note below
17	Size of Calf	85	1	A	See note below
18	Fate of Calf	86	1	A	See note below

RECORD LENGTH = 86 bytes

Birth Mother

Fields three to eight all relate to the birth mother.

Last mating Date

This is the last mating date, or estimated conception date, prior to the calving date shown in the record.

Calving Ease

System introduced 2007

A	No difficulty
B	Slight difficulty
C	Moderate difficulty
D	High difficulty

System phased out from 2007

1 or X	Unobserved - not OK
2 or K	Unobserved - OK
3 or N	Observed - no assistance
4 or E	Observed - easy pull
5 or H	Observed - very difficult

6 or S	Observed - surgical
7 or M	Observed - malpresentation

Size of Calf

H	Huge
B	Large
N	Average
S	Small
T	Tiny

Sex of Calf

F	Female
M	Male
U	Undefined

Fate of Calf

L	Live
D	Dead

Essential fields are 1,2,3,4,6,9,13,14,15,16,17,18. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Data Format 114 V3 Conformation Trait Record

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 114
2	Record Version Number	4	1	A	Value = 3
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
	Pedigree details				
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Used by DataGene if Dam ID is unavailable, and MGS is available)
	Lactation details				
15	Date of Calving	113	8	N	yyyymmdd
16	Parity	121	2	N	Lactation number
17	Date of Classification	123	8	N	yyyymmdd
	Transfer Details				See explanation below
18	Transfer-in date	131	8	N	yyyymmdd
19	National ID of Herd Transferred from	139	7	A	See Note 8
	Classification Details				
20	Classifier	146	3	A	
21	Round	149	2	N	
22	Total Score for Animal	151	2	N	
23	Total Score for Dam	153	2	N	
24	Composite Traits	155	7x2	N	See next page for trait description - range 1-18
25	Linear Traits	169	25x1	N	See next page for trait description - range 1-9
26	Condition score	194	2	N	
27	Defects and severity	196	5x3	N	Two characters for each defect, one for severity
28	Extra Composite Traits	211	7x2	N	See next page for trait description - range 40-96
29	Condition score (range 1-9)	225	1	N	Not used by DataGene
30	Condition score (score)	226	3	N	Not used by DataGene
31	Number of times scored excellent	229	2	N	Not used by DataGene

RECORD LENGTH = 230 bytes

Essential fields are 1, 2,3,4,10,11,15,16,17,24,25. All other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Field 24 Composite Traits (range 1-18)

1 Overall Type
2 Mammary System
3 Feet and Legs
4 Dairy Strength
5 Rump
6 Unspecified, contact the relevant Breed Society
7 Unspecified, contact the relevant Breed Society

Field 25 Linear Traits - Range 1-9. Note that trait 16 (Rear Leg Rear View) is a new trait in 2001, 23 (Teat Placement Rear) and trait 25 (Front End Height) are new traits in 2002, and trait 14 (Heel Depth) is a new trait in 2007.

1 Stature
2 Udder Texture
3 Bone Quality
4 Angularity
5 Muzzle Width
6 Body Length
7 Body Depth
8 Loin Strength
9 Chest Width
10 Rump Length
11 Pin Width
12 Pin Set
13 Foot Angle
14 Heel Depth
15 Rear Set of Leg
16 Rear Leg Rear View
17 Udder Depth
18 Fore Attachment
19 Rear Attachment Height
20 Rear Attachment Width
21 Centre Ligament
22 Teat Placement Fore
23 Teat Placement Rear
24 Teat Length
25 Front End Height

Field 28 Extra Composite Traits (range 40-96) - Not used by DataGene but measured on some cows.

1 Overall Type
2 Mammary System
3 Feet and Legs
4 Dairy Strength
5 Rump
6 Unspecified, contact the relevant Breed Society
7 Unspecified, contact the relevant Breed Society

Data Format 115 V1 International Cow Pedigree Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 115
2	Record Version Number	4	1	A	Value = 1
	Animal Identity				
3	National ID	5	9	A	See Note 3
	Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	International ID	29	19	A	Interbull format - see note below
7	Date of Birth	48	8	N	yyyymmdd
8	Breed	56	4	A	See Note 1
9	Name	60	40	A	
	Pedigree Details				
10	Sire National ID	100	9	A	See Note 3
11	Dam National ID	109	9	A	See Note 3
12	MGS National ID	118	9	A	See Note 3

RECORD LENGTH = 126 bytes

This record exists to capture details on foreign cows for inclusion in the pedigree of bulls and cows used in Australia.

International ID

The International ID as designated by Interbull has the following format

Breed	3 characters (eg, HOL, JER, AYS, GUE)
Country	3 characters (eg, AUS, USA, CAN - see Note 2 for a full list of codes)
Sex	1 character (M or F)
Within-Country ID	12 characters (right justified, zero filled)

Essential fields are 1, 2, 3, 6. All other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3.

Data Format 116 V1 Herd Health Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 116
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Health Event				
6	Date	27	8	N	yyyymmdd
7	Health event code	35	5	N	See Note 7 for health event codes
8	Health treatment code	40	5	N	See Note 7 for health treatment codes
9	Result	45	5	A	Free field for describing test result.
10	Anatomical Position	50	3	N	000=unspecified, 300=multiple quarters or the sum of the following variables: 001=Left, 002=Right 010=Front, 020=Rear 100=Upper, 200=Lower
11	Person Type	53	1	A	F = Farmer, V = Vet
12	Remarks	54	30	A	

RECORD LENGTH =83 bytes

Essential fields for DataGene are 1,2, 3, 4, 6, (6 or 7). Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 5, 7.

Data Format 201 V6 Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 6
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Genetic Codes	88	8x3	A	Up to 8 three-character codes (see note 10)
	Bull Details				
10	Date of Birth	112	8	N	yyyymmdd
11	Sire National ID	120	9	A	see Note 3
12	Dam National ID	129	9	A	see Note 3
13	MGS National ID	138	9	A	see Note 3
	ABV Analysis Details				
14	Breed of ABV Analysis	147	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	148	8	N	yyyymmdd
16	Source of ABV Analysis	156	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
	Balanced Performance Index (BPI)				
17	Balanced Performance Index	157	4	N	
18	Reliability BPI	161	2	N	
	ABVs for Production Traits				
19	Australian Selection Index	163	4	N	
20	Protein	167	4	N	
21	Protein Percentage	171	5	N	Two decimal places (eg, -0.12)
22	Milk	176	5	N	
23	Fat	181	4	N	
24	Fat Percentage	185	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
25	Reliability	190	2	N	
26	Number of Daughters	192	6	N	
27	Number of Herds	198	5	N	
28	Number in Herd - most Daughters	203	4	N	
29	Number in Herd - 2nd most Daughters	207	4	N	
30	Records in progress (RIP%)	211	3	N	% of daughters with < 4 test days in 1st lactation
	ABVs for Conformation Traits				
31	Overall Type	214	3	N	
32	Mammary System	217	3	N	
33	Overall Feet & Legs	220	3	N	
34	Stature	223	3	N	
35	Udder Texture	226	3	N	
36	Bone Quality	229	3	N	
37	Angularity	232	3	N	
38	Muzzle Width	235	3	N	
39	Body Length	238	3	N	
40	Body Depth	241	3	N	
41	Loin Strength	244	3	N	
42	Chest Width	247	3	N	

43	Rump Length	250	3	N	
44	Pin Width	253	3	N	
45	Pin Set	256	3	N	
46	Foot Angle	259	3	N	
47	Heel Depth	262	3	N	
48	Rear Set of Leg	265	3	N	
49	Rear Leg Rear View	268	3	N	
50	Udder Depth	271	3	N	
51	Fore Attachment	274	3	N	
52	Rear Attachment Height	277	3	N	
53	Rear Attachment Width	280	3	N	
54	Centre Ligament	283	3	N	
55	Teat Placement Fore	286	3	N	
56	Teat Placement Rear (new trait)	289	3	N	
57	Teat Length	292	3	N	
58	Condition Score	295	3	N	
	Amount of data for Conformation Traits (average of key traits)				
59	Reliability	298	2	N	
60	Number of Daughters	300	6	N	
61	Number of Herds	306	5	N	
	ABVs for Workability Traits				
62	ABV Milking Speed	311	3	N	
63	ABV Temperament	314	3	N	
64	ABV Likability	317	3	N	
	Amount of data for Workability Traits				
65	Reliability Workability Traits	320	2	N	
66	Number of Daughters	322	6	N	
67	Number of Herds	328	5	N	
	ABV and Reliability for Survival				
68	ABV Survival	333	3	N	
69	Reliability Survival	336	2	N	
	ABV for Calving Ease				
70	ABV Calving Ease	338	3	N	
	Amount of data for Calving Ease				
71	Reliability Calving Ease	341	2	N	
72	Number of Calvings	343	6	N	
73	Number of Herds	349	5	N	
	ABV for Cell Count				
74	ABV Somatic Cell Count	354	3	N	
	Amount of data for Cell Count				
75	Reliability Cell Count	357	2	N	
76	Number of Daughters	359	6	N	
77	Number of Herds	365	5	N	
	ABV for Daughter Fertility				
78	ABV Daughter Fertility	370	3	N	
	Amount of data for Daughter Fertility				
79	Reliability Daughter Fertility	373	2	N	
80	Number of Daughters	375	6	N	
81	Number of Herds	381	5	N	
	ABV for Liveweight				
82	ABV Liveweight (kg)	386	3	N	
	Amount of data for Liveweight				
83	Reliability Liveweight	389	2	N	
	Genomics Evaluation				
84	Genomics Evaluation	391	1	A	g=genomics included, blank otherwise
	Health Weighted Index (HWI)				
85	Health Weighted Index	392	4	N	
86	Reliability HWI	396	2	N	

	Sustainability Index (SI)			
87	Sustainability Index	398	4	N
88	Reliability SI	402	2	N
	ABVs for New Traits			
89	ABV Residual Survival	404	3	N
90	Reliability Residual Survival	407	2	N
91	ABV Feed Efficiency	409	5	N
92	Reliability Feed Efficiency	414	2	N
	ABV for Rump			
93	ABV Rump	416	3	N
	ABV for Dairy Strength			
94	ABV Dairy Strength	419	3	N
	ABV for Heat Tolerance			
95	ABV Heat Tolerance	422	3	N
	Amount of data for Heat Tolerance			
96	Reliability Heat Tolerance	425	2	N
97	Number of Daughters	427	6	N
98	Number of Herds	433	5	N
	ABV for Gestation Length			
99	ABV Gestation Length	438	3	N
	Amount of data for Gestation Length			
100	Reliability Gestation Length	441	2	N
101	Number of Calvings	443	6	N
102	Number of Herds	449	5	N
	ABV for Mastitis Resistance			
103	ABV Mastitis Resistance	454	3	N
	Amount of data for Mastitis Resistance			
104	Reliability Mastitis Resistance	457	2	N

RECORD LENGTH = 458 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 202 V3 Cow ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 202
2	Record Version Number	4	1	A	Value = 3
	Herd ID				
3	National Herd ID	5	7	A	See DIF Document Note 8
	Cow Identity				
4	National ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	Genetic Codes	42	8x3	A	Up to 8 three-character codes (see note 10)
	Cow Details				
9	Breed of cow	66	4	A	See Note 1
10	Date of Birth	70	8	N	yyyymmdd
11	Date of Latest Calving	78	8	N	yyyymmdd
12	Number of Lactations in ABV analysis	86	2	N	
13	Crossbreed	88	1	A	'X' if crossbreed, otherwise space
14	DPC Code	89	1	A	See Note 4
	Pedigree details				
15	Sire National ID	90	9	A	see Note 3
16	Dam National ID	99	9	A	see Note 3
17	MGS National ID	108	9	A	see Note 3
	ABV Analysis Details				
18	Breed of ABV Analysis	117	1	A	single character breed code - see Note 1
19	Date of ABV Analysis	118	8	N	yyyymmdd
20	Source of ABV Analysis	126	1	A	A = ABV, I = ABV(i)
	Balanced Performance Index (BPI)				
21	Balanced Performance Index	127	4	N	
22	Reliability BPI	131	2	N	
	ABVs for Production Traits				
23	Australian Selection Index	133	4	N	
24	Protein	137	4	N	
25	Protein Percentage	141	5	N	Two decimal places (eg, -0.12)
26	Milk	146	5	N	
27	Fat	151	4	N	
28	Fat Percentage	155	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
29	Reliability	160	2	N	
	ABVs for Conformation Traits				
30	Overall Type	162	3	N	
31	Mammary System	165	3	N	
32	Overall Feet & Legs	168	3	N	
33	Stature	171	3	N	
34	Udder Texture	174	3	N	
35	Bone Quality	177	3	N	
36	Angularity	180	3	N	
37	Muzzle Width	183	3	N	
38	Body Length	186	3	N	
39	Body Depth	189	3	N	
40	Loin Strength	192	3	N	
41	Chest Width	195	3	N	
42	Rump Length	198	3	N	

43	Pin Width	201	3	N	
44	Pin Set	204	3	N	
45	Foot Angle	207	3	N	
46	Heel Depth	210	3	N	
47	Rear Set of Leg	213	3	N	
48	Rear Leg Rear View	216	3	N	
49	Udder Depth	219	3	N	
50	Fore Attachment	222	3	N	
51	Rear Attachment Height	225	3	N	
52	Rear Attachment Width	228	3	N	
53	Centre Ligament	231	3	N	
54	Teat Placement Fore	234	3	N	
55	Teat Placement Rear (new trait)	237	3	N	
56	Teat Length	240	3	N	
57	Condition Score	243	3	N	
	Amount of data for Conformation Traits (average of key traits)				
58	Reliability	246	2	N	
	ABVs and Reliability for Workability Traits				
59	ABV Milking Speed	248	3	N	
60	ABV Temperament	251	3	N	
61	ABV Likability	254	3	N	
62	Reliability Workability Traits	257	2	N	
	ABV and Reliability for Survival				
63	ABV Survival	259	3	N	
64	Reliability Survival	262	2	N	
	ABV and Reliability for Calving Ease				
65	ABV Calving Ease	264	3	N	
66	Reliability Calving Ease	267	2	N	
	ABV and Reliability for Cell Count				
67	ABV Somatic Cell Count	269	3	N	
68	Reliability Cell Count	272	2	N	
	ABV and Reliability for Daughter Fertility				
69	ABV Daughter Fertility	274	3	N	
70	Reliability Daughter Fertility	277	2	N	
	ABV and Reliability for Liveweight				
71	ABV Liveweight (kg)	279	3	N	
72	Reliability Liveweight	282	2	N	
	Genomic Evaluation				
73	Genomic evaluation	284	1	A	g=genomics included, blank otherwise
	Health Weighted Index (HWI)				
74	Health Weighted Index	285	4	N	
75	Reliability HWI	289	2	N	
	Sustainability Index (SI)				
76	Sustainability Index	291	4	N	
77	Reliability SI	295	2	N	
	ABVs for New Traits				
78	ABV Residual Survival	297	3	N	
79	Reliability Residual Survival	300	2	N	
80	ABV Feed Efficiency	302	5	N	
81	Reliability Feed Efficiency	307	2	N	
	ABV for Rump				
82	ABV Rump	309	3	N	
	ABV for Dairy Strength				
83	ABV Dairy Strength	312	3	N	
	ABV and Reliability for Heat Tolerance				
84	ABV Heat Tolerance	315	3	N	
85	Reliability Heat Tolerance	318	2	N	
	ABV and Reliability for Gestation Length				
86	ABV Gestation Length	320	3	N	

87	Reliability Gestation Length	323	2	N
	ABV and Reliability for Mastitis Resistance			
88	ABV Mastitis Resistance	325	3	N
89	Reliability Mastitis Resistance	328	2	N

RECORD LENGTH = 329 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 211 V3 Cow ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 211
2	Record Version Number	4	1	A	Value = 3
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
	Cow Details				
8	Breed of cow	42	4	A	See Note 1
9	Date of Birth	46	8	N	yyyymmdd
10	Date of Latest Calving	54	8	N	yyyymmdd
11	Number of Lactations in ABV analysis	62	2	N	
12	Crossbreed	64	1	A	'X' if crossbreed, otherwise space
13	DPC Code	65	1	A	See Note 4
	Pedigree details				
14	Sire National ID	66	9	A	See Note 3
15	Dam National ID	75	9	A	See Note 3
16	MGS National ID	84	9	A	See Note 3
	ABV Analysis Details				
17	Breed of ABV Analysis	93	1	A	single character breed code - see Note 1
18	Date of ABV Analysis	94	8	N	yyyymmdd
19	Source of ABV Analysis	102	1	A	A=DataGene, I=Interbull
	Balanced Performance Index (BPI)				
20	Balanced Performance Index	103	4	N	
21	Reliability BPI	107	2	N	
	ABVs for Production Traits				
22	Australian Selection Index (ASI)	109	4	N	
23	Protein	113	4	N	
24	Protein Percentage	117	5	N	Two decimal places (eg, -0.12)
25	Milk	122	5	N	
26	Fat	127	4	N	
27	Fat Percentage	131	5	N	Two decimal places (eg, -0.12)
28	Reliability	136	2	N	
29	Rank in Australia on ASI within-breed	138	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
30	Rank in Australia on BPI within-breed	144	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
31	Genomic Evaluation	150	1	A	g = genomics included
	Health Weighted Index (HWI)				
32	Health Weighted Index	151	4	N	
33	Reliability HWI	155	2	N	

	Sustainability Index (SI)				
34	Sustainability Index	157	4	N	
35	Reliability SI	161	2	N	
Index Ranking					
36	Rank in Australia on HWI within-breed	163	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
37	Rank in Australia on SI within-breed	169	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.

RECORD LENGTH = 174 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 212 V3 Herd Mean ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 212
2	Record Version Number	4	1	A	Value = 3
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Herd Details				
4	DPC Code	12	1	A	See Note 4
5	Number of cows with ABVs	13	5	N	
6	Number of cows in Herd Averages	18	5	N	Number of straightbred cows whose latest calving date is within 30 months of the Date of ABV Analysis (field 9)
7	Age Class Code	23	2	A	See note below
	ABV Analysis Details				
8	Breed of ABV Analysis	25	1	A	single character breed code - see Note 1
9	Date of ABV Analysis	26	8	N	yyyymmdd
10	Source of ABV Analysis	34	1	A	A=DataGene, I=Interbull
	Herd Average ABVs for Production Traits				
11	Balanced Performance Index (BPI)	35	6	N	One decimal place (eg, -123.4)
12	Australian Selection Index (ASI)	41	6	N	One decimal place (eg, -123.4)
13	Protein	47	6	N	One decimal place (eg, -12.4)
14	Protein Percentage	53	6	N	Three decimal places (eg, -0.123)
15	Milk	59	7	N	One decimal place (eg, -1234.5)
16	Fat	66	6	N	One decimal place (eg, -12.4)
17	Fat Percentage	72	6	N	Three decimal places (eg, -0.123)
18	Rank of Herd on BPI	78	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
19	Rank of Herd on ASI	84	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
20	Health Weighted Index (HWI)	90	6	N	One decimal place (eg, -123.4)
21	Sustainability Index (SI)	96	6	N	One decimal place (eg, -123.4)
	Index Ranking				
22	Rank of Herd on HWI	102	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
23	Rank of Herd on SI	108	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.

RECORD LENGTH = 123 bytes

Note : Herd mean ABVs are supplied for the following age classes (field 7) with one record per class per breed of analysis (field 8).

Code	Class	Age at calving
2J	Junior 2	Up to 30 months

2S	Senior 2	Over 30 and up to 36 months
3J	Junior 3	Over 36 and up to 42 months
3S	Senior 3	Over 42 and up to 48 months
4J	Junior 4	Over 48 and up to 54 months
4S	Senior 4	Over 54 and up to 60 months
9M	Mature	Over 72 months
9T		All age groups combined

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 8, 7.

Data Format 251 V7 Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 7
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Genetic Codes	107	8x3	A	Up to 8 three-character codes (see note 10)
	Bull Details				
11	Date of Birth	131	8	N	yyyymmdd
12	Sire National ID	139	9	A	see Note 3
13	Dam National ID	148	9	A	see Note 3
14	MGS National ID	157	9	A	see Note 3
15	MGD National ID	166	9	A	see Note 3
16	Sire International ID	175	19	A	Interbull format
17	Dam International ID	194	19	A	Interbull format
18	MGS International ID	213	19	A	Interbull format
19	MGD International ID	232	19	A	Interbull format
	International Proof Details				
20	Type of Proof	251	2	N	Interbull codes – see note below
21	Includes Foreign Proof	253	1	A	"Y = information from another country is incorporated in national proof, N otherwise"
22	Birth Date of First Australian Daughter	254	8	N	yyyymmdd
	Balanced Performance Index (BPI)				
23	Balanced Performance Index	262	4	N	
24	Reliability BPI	266	2	N	
	Main Components of BPI (Components expressed in dollar unit values)				
25	Protein	268	4	N	
26	Milk	272	4	N	
27	Fat	276	4	N	
28	Milking Speed	280	4	N	
29	Temperament	284	4	N	
30	Residual Survival	288	4	N	
31	Somatic Cell Count	292	4	N	
32	Feed Efficiency	296	4	N	
33	Daughter Fertility	300	4	N	
34	Mammary System	304	4	N	
35	Overall Type	308	4	N	
36	Udder depth	312	4	N	
37	Pin Set	316	4	N	
	Components of Survival Index				
38	Survival	320	4	N	
39	Likability	324	4	N	
40	Overall Type	328	4	N	
41	Udder Depth	332	4	N	
42	Pin Set	336	4	N	
	Components of Liveweight				

43	Stature	340	4	N	
44	Body depth	344	4	N	
45	Chest width	348	4	N	
	ABVs for Production Traits				
46	Australian Selection Index	352	4	N	
47	Protein	356	4	N	
48	Protein Percentage	360	5	N	"Two decimal places (eg -0.12)"
49	Milk	365	5	N	
50	Fat	370	4	N	
51	Fat Percentage	374	5	N	"Two decimal places (eg -0.12)"
	Amount of data for Production Traits				
52	Reliability	379	2	N	
53	Number of Daughters	381	6	N	
54	Number of Herds	387	5	N	
55	Number of Effective Daughters	392	6	N	
56	Number in Herd - most Daughters	398	4	N	
57	Number in Herd - 2nd most Daughters	402	4	N	
58	Records in Progress (RIP%)	406	3	N	% of daughters with < 4 test days in 1st lactation
	International Daughter Numbers for Production Traits				
59	Number of Countries With Daughters	409	2	N	
60	Country With Most Daughters	411	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	414	6	N	
62	Country With Second Most Daughters	420	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	423	6	N	
64	Country With Third Most Daughters	429	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	432	6	N	
66	Country With Fourth Most Daughters	438	3	A	see note 2 for list of country codes
67	Number of Daughters in This Country	441	6	N	
68	Country With Fifth Most Daughters	447	3	A	see note 2 for list of country codes
69	Number of Daughters in This Country	450	6	N	
	ABV Analysis Details for Production Traits				
70	Breed of ABV Analysis	456	1	A	single character breed code - see Note 1
71	Date of ABV Analysis	457	8	N	yyyymmdd
72	Source of ABV Analysis	465	1	A	"A = ABV, I = ABV(i)"
73	Proof publishable	466	1	A	"P = publishable, U = unpublishable"
74	Foreign proof contribution	467	1	A	“A = Aus only, I = International only, B = both”
	ABVs for Conformation Traits				
75	Overall Type	468	3	N	
76	Overall Feet and Legs	471	3	N	
77	Mammary System	474	3	N	
78	Stature	477	3	N	
79	Udder Texture	480	3	N	
80	Bone Quality	483	3	N	
81	Angularity	486	3	N	
82	Muzzle Width	489	3	N	
83	Body Length	492	3	N	
84	Body Depth	495	3	N	
85	Chest Width	498	3	N	
86	Rump Length	501	3	N	
87	Pin Width	504	3	N	
88	Pin Set	507	3	N	
89	Foot Angle	510	3	N	
90	Rear Set of Leg	513	3	N	
91	Rear Leg Rear View	516	3	N	
92	Heel Depth	519	3	N	
93	Udder Depth	522	3	N	
94	Fore Attachment	525	3	N	

95	Rear Attachment Height	528	3	N
96	Rear Attachment Width	531	3	N
97	Centre Ligament	534	3	N
98	Teat Placement Fore	537	3	N
99	Teat Length	540	3	N
100	Loin Strength	543	3	N
101	Front End Height	546	3	N
102	Teat Placement Rear	549	3	N
103	Condition Score	552	3	N
	Amount of data for old Conformation Traits			
104	Reliability	555	2	N
105	Number of Daughters	557	6	N
106	Number of Herds	563	5	N
107	Number of Effective Daughters	568	6	N
	Amount of data for Overall Type			
108	Reliability	574	2	N
109	Number of Daughters	576	6	N
110	Number of Herds	582	5	N
111	Number of Effective Daughters	587	6	N
	Amount of data for Mammary System			
112	Reliability	593	2	N
113	Number of Daughters	595	6	N
114	Number of Herds	601	5	N
115	Number of Effective Daughters	606	6	N
	Amount of data for Stature			
116	Reliability	612	2	N
117	Number of Daughters	614	6	N
118	Number of Herds	620	5	N
119	Number of Effective Daughters	625	6	N
	Amount of data for Udder Texture			
120	Reliability	631	2	N
121	Number of Daughters	633	6	N
122	Number of Herds	639	5	N
123	Number of Effective Daughters	644	6	N
	Amount of data for Bone Quality			
124	Reliability	650	2	N
125	Number of Daughters	652	6	N
126	Number of Herds	658	5	N
127	Number of Effective Daughters	663	6	N
	Amount of data for Angularity			
128	Reliability	669	2	N
129	Number of Daughters	671	6	N
130	Number of Herds	677	5	N
131	Number of Effective Daughters	682	6	N
	Amount of data for Muzzle Width			
132	Reliability	688	2	N
133	Number of Daughters	690	6	N
134	Number of Herds	696	5	N
135	Number of Effective Daughters	701	6	N
	Amount of data for Body Length			
136	Reliability	707	2	N
137	Number of Daughters	709	6	N
138	Number of Herds	715	5	N
139	Number of Effective Daughters	720	6	N
	Amount of data for Body Depth			
140	Reliability	726	2	N
141	Number of Daughters	728	6	N
142	Number of Herds	734	5	N
143	Number of Effective Daughters	739	6	N

	Amount of data for Chest Width			
144	Reliability	745	2	N
145	Number of Daughters	747	6	N
146	Number of Herds	753	5	N
147	Number of Effective Daughters	758	6	N
	Amount of data for Rump Length			
148	Reliability	764	2	N
149	Number of Daughters	766	6	N
150	Number of Herds	772	5	N
151	Number of Effective Daughters	777	6	N
	Amount of data for Pin Width			
152	Reliability	783	2	N
153	Number of Daughters	785	6	N
154	Number of Herds	791	5	N
155	Number of Effective Daughters	796	6	N
	Amount of data for Pin Set			
156	Reliability	802	2	N
157	Number of Daughters	804	6	N
158	Number of Herds	810	5	N
159	Number of Effective Daughters	815	6	N
	Amount of data for Foot Angle			
160	Reliability	821	2	N
161	Number of Daughters	823	6	N
162	Number of Herds	829	5	N
163	Number of Effective Daughters	834	6	N
	Amount of data for Rear Set of Leg			
164	Reliability	840	2	N
165	Number of Daughters	842	6	N
166	Number of Herds	848	5	N
167	Number of Effective Daughters	853	6	N
	Amount of data for Rear Leg Rear View			
168	Reliability	859	2	N
169	Number of Daughters	861	6	N
170	Number of Herds	867	5	N
171	Number of Effective Daughters	872	6	N
	Amount of data for Udder Depth			
172	Reliability	878	2	N
173	Number of Daughters	880	6	N
174	Number of Herds	886	5	N
175	Number of Effective Daughters	891	6	N
	Amount of data for Fore Attachment			
176	Reliability	897	2	N
177	Number of Daughters	899	6	N
178	Number of Herds	905	5	N
179	Number of Effective Daughters	910	6	N
	Amount of data for Rear Attachment Height			
180	Reliability	916	2	N
181	Number of Daughters	918	6	N
182	Number of Herds	924	5	N
183	Number of Effective Daughters	929	6	N
	Amount of data for Rear Attachment Width			
184	Reliability	935	2	N
185	Number of Daughters	937	6	N
186	Number of Herds	943	5	N
187	Number of Effective Daughters	948	6	N
	Amount of data for Centre Ligament			
188	Reliability	954	2	N
189	Number of Daughters	956	6	N
190	Number of Herds	962	5	N

191	Number of Effective Daughters	967	6	N	
	Amount of data for Teat Placement Fore				
192	Reliability	973	2	N	
193	Number of Daughters	975	6	N	
194	Number of Herds	981	5	N	
195	Number of Effective Daughters	986	6	N	
	Amount of data for Teat Length				
196	Reliability	992	2	N	
197	Number of Daughters	994	6	N	
198	Number of Herds	1000	5	N	
199	Number of Effective Daughters	1005	6	N	
	Amount of data for Loin Strength				
200	Reliability	1011	2	N	
201	Number of Daughters	1013	6	N	
202	Number of Herds	1019	5	N	
203	Number of Effective Daughters	1024	6	N	
	Amount of data for Front End Height				
204	Reliability	1030	2	N	
205	Number of Daughters	1032	6	N	
206	Number of Herds	1038	5	N	
207	Number of Effective Daughters	1043	6	N	
	Amount of data for Teat Placement Rear				
208	Reliability	1049	2	N	
209	Number of Daughters	1051	6	N	
210	Number of Herds	1057	5	N	
211	Number of Effective Daughters	1062	6	N	
	Amount of data for Condition Score				
212	Reliability	1068	2	N	
213	Number of Daughters	1070	6	N	
214	Number of Herds	1076	5	N	
215	Number of Effective Daughters	1081	6	N	
	International Daughter Numbers for Conformation Traits				
216	Number of Countries With Daughters	1087	2	N	
217	Country With Most Daughters	1089	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	1092	6	N	
219	Country With Second Most Daughters	1098	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	1101	6	N	
221	Country With Third Most Daughters	1107	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	1110	6	N	
223	Country With Fourth Most Daughters	1116	3	A	see note 2 for list of country codes
224	Number of Daughters in This Country	1119	6	N	
225	Country With Fifth Most Daughters	1125	3	A	see note 2 for list of country codes
226	Number of Daughters in This Country	1128	6	N	
	ABV Analysis Details for Conformation Traits				
227	Breed of ABV Analysis	1134	1	A	single character breed code - see Note 1
228	Date of ABV Analysis	1135	8	N	yyyymmdd
229	Source of ABV Analysis	1143	1	A	"A = ABV, I = ABV(i)"
230	Proof publishable	1144	1	A	"P = publishable, U = unpublishable"
231	Foreign proof contribution	1145	1	A	“A = Aus only, I = International only, B = both”
	ABVs for Workability Traits				
232	ABV Milking Speed	1146	3	N	
233	ABV Temperament	1149	3	N	
234	ABV Likability	1152	3	N	
	Amount of data for Workability Traits				
235	Reliability Workability Traits	1155	2	N	
236	Number of Daughters	1157	6	N	
237	Number of Herds	1163	5	N	
238	Number of Effective Daughters	1168	6	N	
	International Daughter Numbers for Workability Traits				

239	Number of Countries With Daughters	1174	2	N	
240	Country With Most Daughters	1176	3	A	see note 2 for list of country codes
241	Number of Daughters in This Country	1179	6	N	
242	Country With Second Most Daughters	1185	3	A	see note 2 for list of country codes
243	Number of Daughters in This Country	1188	6	N	
244	Country With Third Most Daughters	1194	3	A	see note 2 for list of country codes
245	Number of Daughters in This Country	1197	6	N	
246	Country With Fourth Most Daughters	1203	3	A	see note 2 for list of country codes
247	Number of Daughters in This Country	1206	6	N	
248	Country With Fifth Most Daughters	1212	3	A	see note 2 for list of country codes
249	Number of Daughters in This Country	1215	6	N	
	ABV Analysis Details for Workability Traits				
250	Breed of ABV Analysis	1221	1	A	single character breed code - see Note 1
251	Date of ABV Analysis	1222	8	N	yyyymmdd
252	Source of ABV Analysis	1230	1	A	"A = ABV, I = ABV(i)"
253	Proof publishable	1231	1	A	"P = publishable, U = unpublishable"
254	Foreign proof contribution	1232	1	A	“A = Aus only, I = International only, B = both”
	ABV and Reliability for Survival				
255	Survival Solution	1233	3	N	
256	Reliability Survival Solution	1236	2	N	
257	ABV Survival	1238	3	N	
258	Reliability Survival	1241	2	N	
259	Number of Daughters	1243	6	N	
260	Number of Herds	1249	5	N	
261	Number of Effective Daughters	1254	6	N	
	International Daughter Numbers for Survival				
262	Number of Countries With Daughters	1260	2	N	
263	Country With Most Daughters	1262	3	A	see note 2 for list of country codes
264	Number of Daughters in This Country	1265	6	N	
265	Country With Second Most Daughters	1271	3	A	see note 2 for list of country codes
266	Number of Daughters in This Country	1274	6	N	
267	Country With Third Most Daughters	1280	3	A	see note 2 for list of country codes
268	Number of Daughters in This Country	1283	6	N	
269	Country With Fourth Most Daughters	1289	3	A	see note 2 for list of country codes
270	Number of Daughters in This Country	1292	6	N	
271	Country With Fifth Most Daughters	1298	3	A	see note 2 for list of country codes
272	Number of Daughters in This Country	1301	6	N	
	ABV Analysis Details for Survival				
273	Breed of ABV Analysis	1307	1	A	single character breed code - see Note 1
274	Date of ABV Analysis	1308	8	N	yyyymmdd
275	Source of ABV Analysis	1316	1	A	"A = ABV, I = ABV(i)"
276	Proof publishable	1317	1	A	"P = publishable, U = unpublishable"
277	Foreign proof contribution	1318	1	A	“A = Aus only, I = International only, B = both”
	ABV for Calving Ease				
278	ABV Calving Ease	1319	3	N	
	Amount of data for Calving Ease				
279	Reliability Calving Ease	1322	2	N	
280	Number of Calvings	1324	6	N	
281	Number of Herds	1330	5	N	
282	Number of Effective Calvings	1335	6	N	
	International Daughter Numbers for Calving Ease				
283	Number of Countries With Daughters	1341	2	N	
284	Country With Most Daughters	1343	3	A	see note 2 for list of country codes
285	Number of Daughters in This Country	1346	6	N	
286	Country With Second Most Daughters	1352	3	A	see note 2 for list of country codes
287	Number of Daughters in This Country	1355	6	N	
288	Country With Third Most Daughters	1361	3	A	see note 2 for list of country codes
289	Number of Daughters in This Country	1364	6	N	
290	Country With Fourth Most Daughters	1370	3	A	see note 2 for list of country codes

291	Number of Daughters in This Country	1373	6	N	
292	Country With Fifth Most Daughters	1379	3	A	see note 2 for list of country codes
293	Number of Daughters in This Country	1382	6	N	
	ABV Analysis Details for Calving Ease				
294	Breed of ABV Analysis	1388	1	A	single character breed code - see Note 1
295	Date of ABV Analysis	1389	8	N	yyyymmdd
296	Source of ABV Analysis	1397	1	A	"A = ABV, I = ABV(i)"
297	Proof publishable	1398	1	A	"P = publishable, U = unpublishable"
298	Foreign proof contribution	1399	1	A	“A = Aus only, I = International only, B = both”
	ABV for Somatic Cell Count				
299	ABV Somatic Cell Count	1400	4	N	
	Amount of data for Somatic Cell Count				
300	Reliability Somatic Cell Count	1404	2	N	
301	Number of Daughters	1406	6	N	
302	Number of Herds	1412	5	N	
303	Number of Effective Daughters	1417	6	N	
	International Daughter Numbers for Somatic Cell Count				
304	Number of Countries With Daughters	1423	2	N	
305	Country With Most Daughters	1425	3	A	see note 2 for list of country codes
306	Number of Daughters in This Country	1428	6	N	
307	Country With Second Most Daughters	1434	3	A	see note 2 for list of country codes
308	Number of Daughters in This Country	1437	6	N	
309	Country With Third Most Daughters	1443	3	A	see note 2 for list of country codes
310	Number of Daughters in This Country	1446	6	N	
311	Country With Fourth Most Daughters	1452	3	A	see note 2 for list of country codes
312	Number of Daughters in This Country	1455	6	N	
313	Country With Fifth Most Daughters	1461	3	A	see note 2 for list of country codes
314	Number of Daughters in This Country	1464	6	N	
	ABV Analysis Details for Somatic Cell Count				
315	Breed of ABV Analysis	1470	1	A	single character breed code - see Note 1
316	Date of ABV Analysis	1471	8	N	yyyymmdd
317	Source of ABV Analysis	1479	1	A	"A = ABV, I = ABV(i)"
318	Proof publishable	1480	1	A	"P = publishable, U = unpublishable"
319	Foreign proof contribution	1481	1	A	“A = Aus only, I = International only, B = both”
	ABV and Reliability for Liveweight				
320	ABV Liveweight	1482	4	N	
321	Reliability Liveweight	1486	2	N	
	ABV Analysis Details for Liveweight				
322	Breed of ABV Analysis	1488	1	A	single character breed code - see Note 1
323	Date of ABV Analysis	1489	8	N	yyyymmdd
324	Source of ABV Analysis	1497	1	A	"A = ABV, I = ABV(i)"
325	Proof publishable	1498	1	A	"P = publishable, U = unpublishable",
326	Foreign proof contribution	1499	1	A	“A = Aus only, I = International only, B = both”
	ABV for Cow Fertility				
327	ABV Cow Fertility	1500	4	N	Provisional
	Amount of data for Cow Fertility				
328	Reliability Cow Fertility	1504	2	N	Provisional
329	Number of Daughters	1506	6	N	
330	Number of Herds	1512	5	N	
331	Number of Effective Daughters	1517	6	N	
	International Daughter Numbers for Cow Fertility				
332	Number of Countries With Daughters	1523	2	N	
333	Country With Most Daughters	1525	3	A	see note 2 for list of country codes
334	Number of Daughters in This Country	1528	6	N	
335	Country With Second Most Daughters	1534	3	A	see note 2 for list of country codes
336	Number of Daughters in This Country	1537	6	N	
337	Country With Third Most Daughters	1543	3	A	see note 2 for list of country codes
338	Number of Daughters in This Country	1546	6	N	
339	Country With Fourth Most Daughters	1552	3	A	see note 2 for list of country codes

340	Number of Daughters in This Country	1555	6	N	
341	Country With Fifth Most Daughters	1561	3	A	see note 2 for list of country codes
342	Number of Daughters in This Country	1564	6	N	
	ABV Analysis Details for Cow Fertility				
343	Breed of ABV Analysis	1570	1	A	single character breed code - see Note 1
344	Date of ABV Analysis	1571	8	N	yyyymmdd
345	Source of ABV Analysis	1579	1	A	"A = ABV, I = ABV(i)"
346	Proof publishable	1580	1	A	"P = publishable, U = unpublishable"
347	Foreign proof contribution	1581	1	A	“A = Aus only, I = International only, B = both”
	Genomic Evaluation				
348	Genomics Evaluation	1582	1	A	g=genomics included, blank otherwise
	Health Weighted Index (HWI)				
349	Health Weighted Index	1583	4	N	
350	Reliability HWI	1587	2	N	
	Sustainability Index (SI)				
351	Sustainability Index	1589	4	N	
352	Reliability SI	1593	2	N	
	ABVs for New Traits				
353	ABV Residual Survival	1595	3	N	
354	Reliability Residual Survival	1598	2	N	
355	ABV Feed Efficiency	1600	5	N	
356	Reliability Feed Efficiency	1605	2	N	
	ABV for Rump				
357	ABV Rump	1607	3	N	
	Amount of data for Rump				
358	Reliability Rump	1610	2	N	
359	Number of Daughters	1612	6	N	
360	Number of Herds	1618	5	N	
361	Number of Effective Daughters	1623	6	N	
	ABV for Dairy Strength				
362	ABV Dairy Strength	1629	3	N	
	Amount of data for Dairy Strength				
363	Reliability Dairy Strength	1632	2	N	
364	Number of Daughters	1634	6	N	
365	Number of Herds	1640	5	N	
366	Number of Effective Daughters	1645	6	N	
	ABV for Heat Tolerance				
367	ABV Heat Tolerance	1651	3	N	
	Amount of data for Heat Tolerance				
368	Reliability Heat Tolerance	1654	2	N	
369	Number of Daughters	1656	6	N	
370	Number of Herds	1662	5	N	
371	Number of Effective Daughters	1667	6	N	
	ABV for Gestation Length				
372	ABV Gestation Length	1673	3	N	
	Amount of data for Gestation Length				
373	Reliability Gestation Length	1676	2	N	
374	Number of Calvings	1678	6	N	
375	Number of Herds	1684	5	N	
376	Number of Effective Calvings	1689	6	N	
	International Daughter Numbers for Gestation Length				
377	Number of Countries With Daughters	1695	2	N	
378	Country With Most Daughters	1697	3	A	see note 2 for list of country codes
379	Number of Daughters in This Country	1700	6	N	
380	Country With Second Most Daughters	1706	3	A	see note 2 for list of country codes
381	Number of Daughters in This Country	1709	6	N	
382	Country With Third Most Daughters	1715	3	A	see note 2 for list of country codes
383	Number of Daughters in This Country	1718	6	N	
384	Country With Fourth Most Daughters	1724	3	A	see note 2 for list of country codes

385	Number of Daughters in This Country	1727	6	N	
386	Country With Fifth Most Daughters	1733	3	A	see note 2 for list of country codes
387	Number of Daughters in This Country	1736	6	N	
	ABV Analysis Details for Gestation Length				
388	Breed of ABV Analysis	1742	1	A	single character breed code - see Note 1
389	Date of ABV Analysis	1743	8	N	yyyymmdd
390	Source of ABV Analysis	1751	1	A	"A = ABV, I = ABV(i)"
391	Proof publishable	1752	1	A	"P = publishable, U = unpublishable"
392	Foreign proof contribution	1753	1	A	“A = Aus only, I = International only, B = both”
	ABV for Mastitis Resistance				
393	ABV Mastitis Resistance	1754	3	N	
	Amount of data for Mastitis Resistance				
394	Reliability Mastitis Resistance	1757	2	N	
395	Number of Daughters	1759	6	N	
396	Number of Herds	1765	5	N	
397	Number of Effective Daughters	1770	6	N	
	International Daughter Numbers for Mastitis Resistance				
398	Number of Countries With Daughters	1776	2	N	
399	Country With Most Daughters	1778	3	A	see note 2 for list of country codes
400	Number of Daughters in This Country	1781	6	N	
401	Country With Second Most Daughters	1787	3	A	see note 2 for list of country codes
402	Number of Daughters in This Country	1790	6	N	
403	Country With Third Most Daughters	1796	3	A	see note 2 for list of country codes
404	Number of Daughters in This Country	1799	6	N	
405	Country With Fourth Most Daughters	1805	3	A	see note 2 for list of country codes
406	Number of Daughters in This Country	1808	6	N	
407	Country With Fifth Most Daughters	1814	3	A	see note 2 for list of country codes
408	Number of Daughters in This Country	1817	6	N	
	ABV Analysis Details for Mastitis Resistance				
409	Breed of ABV Analysis	1823	1	A	single character breed code-see Note 1
410	Date of ABV Analysis	1824	8	N	yyyymmdd
411	Source of ABV Analysis	1832	1	A	"A = ABV, I = ABV(i)"
412	Proof publishable	1833	1	A	"P = publishable, U = unpublishable"
413	Foreign proof contribution	1834	1	A	“A = Aus only, I = International only, B = both”

RECORD LENGTH = 1834 bytes

Type of Proof

00	unknown
11	based on first crop sampling daughters
12	based on first and second crop daughters
21	based on imported semen of proven bull (second crop daughters only)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 261 V3 Cow ABVs for All Traits (extended file)*

(*DataGene Internal Use Only)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 261
2	Record Version Number	4	1	A	Value = 3
	Herd ID				
3	National Herd ID	5	7	A	See DIF Document Note 8
	Cow Identity				
4	National ID	12	9	A	See DIF Document Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See DIF Document Note 2
7	Herdbook Number	30	12	A	See DIF Document Note 2
8	International ID	42	19	A	Interbull format – see DIF Document Note 10
9	Name	61	40	A	
10	Genetic Codes	101	15	A	Up to 8 three-character codes (see note 10
	Cow Details				
11	Breed of cow	116	4	A	See DIF Document Note 1
12	Date of Birth	120	8	N	yyyymmdd
13	Date of Latest Calving	128	8	N	yyyymmdd
14	Number of Lactations in ABV analysis			136 2 N	
15	Crossbreed	138	1	A	'X' if crossbreed, otherwise space
16	DPC Code	139	1	A	See DIF Document Note 4
	Pedigree Details				
17	Sire National ID	140	9	A	see DIF Document Note 3
18	Dam National ID	149	9	A	see DIF Document Note 3
19	MGS National ID	158	9	A	see DIF Document Note 3
20	MGD National ID	167	9	A	see DIF Document Note 3
21	Sire International ID	176	19	A	Interbull format – see DIF Document Note 10
22	Dam International ID	195	19	A	Interbull format – see DIF Document Note 10
23	MGS International ID	214	19	A	Interbull format – see DIF Document Note 10
24	MGD International ID	233	19	A	Interbull format – see DIF Document Note 10
25	Sire Nasis Bull ID	252	12	A	
26	MGS Nasis Bull ID	264	12	A	
	Rank within Australia				
27	Rank within-breed on BPI	276	6	N	
28	Rank within-breed on ASI	282	6	N	
	Balanced Performance Index (BPI)				
29	Balanced Performance Index	288	4	N	
30	Reliability BPI	292	2	N	
	ABVs for Production Traits				
31	Australian Selection Index	294	4	N	
32	Protein	298	4	N	
33	Protein Percentage	302	5	N	Two decimal places (eg, -0.12)
34	Milk	307	5	N	
35	Fat	312	4	N	
36	Fat Percentage	316	5	N	Two decimal places (eg, -0.12)
	ABV Analysis Details for Production Traits				
37	Reliability	321	2	N	
38	Breed of ABV Analysis	323	1	A	single char breed code - see DIF Document Note 1
39	Date of ABV Analysis	324	8	N	yyyymmdd
40	Source of ABV Analysis	332	1	A	A = ABV, I = ABV(i)
41	Proof publishable	333	1	A	P = publishable, U = unpublishable
42	Foreign proof contribution	334	1	A	A = Aus only, I = International only, B = both
	ABVs for Conformation Traits				
43	Overall Type	335	3	N	
44	Mammary System	338	3	N	

45	Overall Feet and Legs	341	3	N	
46	Stature	344	3	N	
47	Udder Texture	347	3	N	
48	Bone Quality	350	3	N	
49	Angularity	353	3	N	
50	Muzzle Width	356	3	N	
51	Body Length	359	3	N	
52	Body Depth	362	3	N	
53	Loin Strength	365	3	N	
54	Chest Width	368	3	N	
55	Rump Length	371	3	N	
56	Pin Width	374	3	N	
57	Pin Set	377	3	N	
58	Foot Angle	380	3	N	
59	Heel Depth	383	3	N	
60	Rear Set of Leg	386	3	N	
61	Rear Leg Rear View	389	3	N	
62	Udder Depth	392	3	N	
63	Fore Attachment	395	3	N	
64	Rear Attachment Height	398	3	N	
65	Rear Attachment Width	401	3	N	
66	Centre Ligament	404	3	N	
67	Teat Placement Fore	407	3	N	
68	Teat Placement Rear	410	3	N	
69	Teat Length	413	3	N	
70	Condition Score	416	3	N	
	ABV Analysis Details for Conformation Traits				
71	Reliability	419	2	N	
72	Breed of ABV Analysis	421	1	A	single char breed code - see DIF Document Note 1
73	Date of ABV Analysis	422	8	N	yyyymmdd
74	Source of ABV Analysis	430	1	A	A = ABV, I = ABV(i)
75	Proof publishable	431	1	A	P = publishable, U = unpublishable
76	Foreign proof contribution	432	1	A	A = Aus only, I = International only, B = both
	ABVs for Workability Traits				
77	ABV Milking Speed	433	3	N	
78	ABV Temperament	436	3	N	
79	ABV Likability	439	3	N	
	ABV Analysis Details for Workability Traits				
80	Reliability Workability Traits	442	2	N	
81	Breed of ABV Analysis	444	1	A	single char breed code - see DIF Document Note 1
82	Date of ABV Analysis	445	8	N	yyyymmdd
83	Source of ABV Analysis	453	1	A	A = ABV, I = ABV(i)
84	Proof publishable	454	1	A	P = publishable, U = unpublishable
85	Foreign proof contribution	455	1	A	A = Aus only, I = International only, B = both
	Survival Solution				
86	Survival Solution	456	3	N	
87	Reliability Survival Solution	459	2	N	
	ABV for Survival				
88	ABV Survival	461	3	N	
	ABV Analysis Details for Survival				
89	Reliability Survival	464	2	N	
90	Breed of ABV Analysis	466	1	A	single char breed code - see DIF Document Note 1
91	Date of ABV Analysis	467	8	N	yyyymmdd
92	Source of ABV Analysis	475	1	A	A = ABV, I = ABV(i)
93	Proof publishable	476	1	A	P = publishable, U = unpublishable
94	Foreign proof contribution	477	1	A	A = Aus only, I = International only, B = both
	ABV for Calving Ease				
95	ABV Calving Ease	478	3	N	
	ABV Analysis Details for Calving Ease				
96	Reliability Calving Ease	481	2	N	

97	Breed of ABV Analysis	483	1	A	single char breed code - see DIF Document Note 1
98	Date of ABV Analysis	484	8	N	yyyymmdd
99	Source of ABV Analysis	492	1	A	A = ABV, I = ABV(i)
100	Proof publishable	493	1	A	P = publishable, U = unpublishable
101	Foreign proof contribution	494	1	A	A = Aus only, I = International only, B = both
	ABV for Somatic Cell Count				
102	ABV Somatic Cell Count	495	4	N	
	ABV Analysis Details for Somatic Cell Count				
103	Reliability Somatic Cell Count	499	2	N	
104	Breed of ABV Analysis	501	1	A	single char breed code - see DIF Document Note 1
105	Date of ABV Analysis	502	8	N	yyyymmdd
106	Source of ABV Analysis	510	1	A	A = ABV, I = ABV(i)
107	Proof publishable	511	1	A	P = publishable, U = unpublishable
108	Foreign proof contribution	512	1	A	A = Aus only, I = International only, B = both
	ABV for Daughter Fertility				
109	ABV Daughter Fertility	513	4	N	
	ABV Analysis Details for Daughter Fertility				
110	Reliability Daughter Fertility	517	2	N	
111	Breed of ABV Analysis	519	1	A	single char breed code - see DIF Document Note 1
112	Date of ABV Analysis	520	8	N	yyyymmdd
113	Source of ABV Analysis	528	1	A	A = ABV, I = ABV(i)
114	Proof publishable	529	1	A	P = publishable, U = unpublishable
115	Foreign proof contribution	530	1	A	A = Aus only, I = International only, B = both
	ABV and Reliability for Liveweight				
116	ABV Liveweight	531	4	N	
	ABV Analysis Details for Liveweight				
117	Reliability Liveweight	535	2	N	
118	Breed of ABV Analysis	537	1	A	single char breed code - see DIF Document Note 1
119	Date of ABV Analysis	538	8	N	yyyymmdd
120	Source of ABV Analysis	546	1	A	A = ABV, I = ABV(i)
121	Proof publishable	547	1	A	P = publishable, U = unpublishable
122	Foreign proof contribution	548	1	A	A = Aus only, I = International only, B = both
	Has Genomics				
123	HasGenomics	549	1	A	g=genomics included, blank otherwise
124	DPC Name	550	10	A	
125	Herd Owner	560	35	A	
126	Dam Name	595	40	A	
	Health Weighted Index (HWI)				
127	Health Weighted Index	635	4	N	
128	Reliability HWI	639	2	N	
	Sustainability Index (SI)				
129	Sustainability Index	641	4	N	
130	Reliability SI	645	2	N	
	ABVs for New Traits				
131	ABV Residual Survival	647	3	N	
132	Reliability Residual Survival	650	2	N	
133	ABV Feed Efficiency	652	5	N	
134	Reliability Feed Efficiency	657	2	N	
	Index Ranking				
135	Rank in Australia on HWI within-breed	659	6	N	
136	Rank in Australia on SI within-breed	665	6	N	
	ABV for Rump				
137	ABV Rump	671	4	N	
	ABV for Dairy Strength				
138	ABV Dairy Strength	675	4	N	
	ABV and Reliability for Heat Tolerance				
139	ABV Heat Tolerance	679	4	N	
	ABV Analysis Details for Heat Tolerance				
140	Reliability Heat Tolerance	683	2	N	

	ABV and Reliability for Gestation Length				
141	ABV Gestation Length	685	4	N	
	ABV Analysis Details for Gestation Length				
142	Reliability Gestation Length	689	2	N	
143	Breed of ABV Analysis	691	1	A	single char breed code - see DIF Document Note 1
144	Date of ABV Analysis	692	8	N	yyyymmdd
145	Source of ABV Analysis	700	1	A	A = ABV, I = ABV(i)
146	Proof publishable	701	1	A	P = publishable, U = unpublishable
147	Foreign proof contribution	702	1	A	A = Aus only, I = International only, B = both
	ABV and Reliability for Mastitis Resistance				
148	ABV Mastitis Resistance	703	4	N	
	ABV Analysis Details for Mastitis Resistance				
149	Reliability Mastitis Resistance	707	2	N	
150	Breed of ABV Analysis	709	1	A	single char breed code - see DIF Document Note 1
151	Date of ABV Analysis	710	8	N	yyyymmdd
152	Source of ABV Analysis	718	1	A	A = ABV, I = ABV(i)
153	Proof publishable	719	1	A	P = publishable, U = unpublishable
154	Foreign proof contribution	720	1	A	A = Aus only, I = International only, B = both

RECORD LENGTH = 720 bytes

Sort order with all fields in ascending order: Fields 1, 2, 3, 4

Data Format 401 V1 Record for pre-printing of LTE forms

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 401
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	
5	Within-Herd Cow ID	21	6	N	
	Pedigree				
6	Sire Primary ID	27	7	A	
7	Sire National ID	34	9	A	
8	Dam National ID	43	9	A	
9	MGS National ID	52	9	A	
	Animal Attributes				
10	Breed	61	4	A	
11	Parity	65	2	N	Lactation number
12	Date of Birth	67	8	N	yyyymmdd
13	Date of Calving	75	8	N	yyyymmdd
14	AB Centre for PT daughters	83	3	A	see Note 6
15	Random number for Contemporaries	86	3	N	Range = 1 to number of contemporaries within breed within herd

RECORD LENGTH = 88 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 481 V3 Genotype Nominations File

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 481
2	Record Version Number	4	1	A	Value = 3
	Sample details				
3	Laboratory code	5	2	A	See note below
4	Lab DNA analysis requested	7	2	N	See note below
5	Electronic sample ID	9	16	A	e.g. sample bar code
6	Sample type	25	1	A	Value B = blood, E = ear plug, H = hair, S = semen (males only)
7	Date of sample	26	8	N	yyyymmdd
	Animal Details				
8	NLIS Tag Radio Frequency	34	16	A	
9	National ID	50	9	A	See DIF note 3
10	Local animal name	59	15	A	Local bull ID or within-herd cow ID
11	Sex of animal	74	1	A	Value M = male, F = female
12	National Herd ID	75	7	A	This field is essential for local females
13	DPC Code	82	1	A	Data Processing Centre - see DIF note 4
	Supplier and recipient details				
14	Genotyping service provider code	83	3	A	See DIF note 6
15	Designated recipient of results	86	70	A	Genotyping service provider code or recipient email address
16	Genotyping requested by	156	3	A	See DIF note 6

RECORD LENGTH = 158 bytes

Essential fields for all animals are 1, 2, 3, 4, 5, 9, 10, 11, 14, 15 and 16. Fields 12 and 13 are essential for females. Other fields should be provided when available.

Laboratory code

DE German samples	DK Denmark samples	VD Van Diemen Genetics samples
DP AgVic samples	FR France samples	GV Genetic Vision samples
GS GeneSeek/Neogen	IT Italy samples	WE Weatherbys samples
NL Netherlands samples	UK UK samples	ZT Zoetis samples
UQ University of Qld	US USA samples	

Lab DNA Analysis Requested

Code	Density
01	160 SNP panel (NB cannot be used for GEBV calculation)
02	9K SNP panel
03	50K SNP panel
04	80K SNP panel
06	20K SNP panel
07	11K SNP panel
08	16K SNP panel (Zoetis)
09	150K SNP panel (Zoetis)
10	25K SNP panel (GGPLD_V3)

Data Format 501 V2 Progeny test daughter progress report

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 501
2	Record Version Number	4	1	A	Value = 2
	Category				
3	Bull Owner Code	5	3	A	See note 6
4	Bull Breed	8	4	A	See note 1
5	Agreement with Farmer	12	1	A	Y or N
6	Postcode	13	4	N	
	Herd Details				
7	National Herd ID	17	7	A	See Note 8
8	DPC Code	24	1	A	Data Processing Centre - see Note 4
9	Date of Last Test	25	8	N	yyyymmdd
	PT Daughter Identity				
10	National ID	33	9	A	See Note 3
11	Within-Herd Cow ID	42	6	N	
	Pedigree				
12	Sire NASIS Primary ID	48	7	A	
13	Sire NASIS Bull ID	55	12	A	
14	Sire National ID	67	9	A	See Note 3
15	Dam National ID	76	9	A	See Note 3
16	MGS National ID	85	9	A	See Note 3
	Daughter Details				
17	Breed	94	4	A	See Note 1
18	Date of Birth	98	8	N	yyyymmdd
19	Date of Calving	106	8	N	yyyymmdd
20	Date of Termination	114	8	N	yyyymmdd blank if lactation in progress
21	Parity	122	2	N	Parity is the lactation number, if known. It is the number of lactations for the cow, whether recorded or otherwise
22	Number of Test Day Records	124	3	N	
23	Number of Cell Count Records	127	3	N	
24	Workability Scored	130	1	A	Y or N
25	Conformation Scored	131	1	A	Y or N
26	Candidate for Evaluation	132	2	N	See note below
27	Included in ABV for Yield	134	1	A	Value Y = yes; N = no
28	Included in ABV for Workability	135	1	A	Value Y = yes; N = no
29	Included in ABV for Conformation	136	1	A	Value Y = yes; N = no
30	Included in ABV for Calving Ease	137	1	A	Value Y = yes; N = no
31	Included in ABV for Cell Count	138	1	A	Value Y = yes; N = no
32	Included in ABV for Daughter Fertility	139	1	A	Value Y = yes; N = no
33	Included in ABV for Survival	140	1	A	Value Y = yes; N = no

RECORD LENGTH = 140 bytes

Candidate for Evaluation

Code	Category	Description
1	Too young	Daughter is a potential candidate but is too young
2	Yes	Daughter is suitable for evaluation of workability and type
3	Too old	Too old at first calving to be included as a “2 year old”
4	DNA test?	Sire and daughter have incompatible breed or birth date
5	Bad dates?	Birth date and calving date are too close together
6	>305 days	Too late for collection of work and type scores - daughter is too late in lactation
7	>1st lact	Too late for collection of work and type scores - daughter has completed first lactation
8	Left herd	Too late for collection of work and type scores - daughter is no longer in this herd
9	Miss DOB	Missing date of birth

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 5, 6, 7

Data Format 561 V1 Parentage Discovery Sample Description

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 561
2	Record Version Number	4	1	A	Value = 1
3	Laboratory Code	5	2	A	See note below
4	Electronic sample ID	7	16	A	e.g. sample bar code
5	Local animal name	23	15	A	Local bull ID or within-herd cow ID
6	National Animal ID	38	9	A	See DIF note 3
7	Sex of animal	47	1	A	Value M = Male; F = Female
8	Date of Birth	48	8	N	yyyymmdd
9	Date of Birth Status Flag	56	1	N	See note below
10	National Herd ID	57	7	A	See DIF note 8
11	Lab DNA Analysis Requested	64	2	N	See note below
12	Parentage Discovery Required	66	1	A	Value Y = Yes, N = No
13	Service Provider Code	67	3	A	See DIF note 6
14	Physical sample	70	1	A	**See note below**
15	Sample type	71	1	A	**See note below**
16	Third party billing code	72	3	A	**See note below**

RECORD LENGTH = 74 bytes

All fields are essential

Laboratory code

DE German samples	DK Denmark samples	VD Van Diemen Genetics samples
DP AgVic samples	FR France samples	GV Genetic Vision samples
GS GeneSeek/Neogen	IT Italy samples	WE Weatherbys samples
NL Netherlands samples	UK UK samples	ZT Zoetis samples
UQ University of Qld	US USA samples	

Date of birth status

1	Actual date of birth
2	Actual year of birth, estimated month of

Lab DNA Analysis Requested

Code	Density
1	160 SNP panel
2	9K SNP panel
3	50K SNP panel
4	80K SNP panel

Physical sample

Y	When physical sample is included to the batch
N	When physical sample is not included to the batch (retest case)

T	Tissue
N	Nasal Swab

Third party billing code

SEM	The Semex Alliance
HUS	Holstein USA

Data Format 565 V1 Parentage Discovery Report

Field No.	Field Name	Start	Length	Numeric	Comments
1	Record Type	1	3	N	Value = 565
2	Record Version Number	4	1	A	Value = 1
3	Report Type	5	1	A	Q=QA, P=Parents discovered
	Animal IDs				
4	Animal National ID	6	9	A	See DIF note 3
5	Laboratory Code	15	2	A	See note below
6	Animal Sample ID	17	16	A	e.g. sample bar code
	Sample QA and Consistency				
7	Issue Code 1	33	2	N	See note below
8	Issue Code 2	35	2	N	See note below
9	Issue Code 3	37	2	N	See note below
10	Issue Code 4	39	2	N	See note below
11	Issue Code 5	41	2	N	See note below
12	Issue Code 6	43	2	N	See note below
	Parentage Report Details				
13	Initial Report, Update or Revision	45	1	A	I=Initial; U=Update; R=Revision
14	SNP Density used to Discover Sire	46	2		See note below
15	SNP Density used to Discover Dam	48	2	A	See note below
16	Number of Previous Samples for Animal	50	2	N	
17	Discovery Herd National ID	52	7	A	See DIF note 8
18	Number of Sires Discovered	59	2	N	
19	Number of Dam Discovered	61	2	N	
	Parents Discovered				
20	Laboratory Code for Sire Sample	63	2	A	See note below
21	Sire Sample ID	65	16	A	
22	Sire National ID	81	9	A	
23	Sire Local Animal Name	90	15	A	Local bull ID
24	Sire National Herd ID	105	7	A	
25	Sire Birth Date	112	8	N	yyyymmdd
26	Laboratory Code for Dam Sample	120	2	A	See note below
27	Dam Sample ID	122	16	A	
28	Dam National ID	138	9	A	
29	Dam Local Animal Name	147	15	A	Within-Herd Cow ID
30	Dam National Herd ID	162	7	A	
31	Dam Birth Date	169	8	N	yyyymmdd
	Additional Possibility for Parents				
32	Laboratory Code for Sire Sample	177	2	A	See note below
33	Sire Sample ID	179	16	A	
34	Sire National ID	195	9	A	
35	Sire Local Animal Name	204	15	A	Local bull ID
36	Sire National Herd ID	219	7	A	

37	Sire Birth Date	226	8	N	Yyyymmdd
38	Laboratory Code for Dam Sample	234	2	A	See note below
39	Dam Sample ID	236	16	A	
40	Dam National ID	252	9	A	
41	Dam Local Animal Name	261	15	A	Within-Herd Cow ID
42	Dam National Herd ID	276	7	A	
43	Dam Birth Date	283	8	N	Yyyymmdd
44	Comment	291	255	A	

Sample Description Issues

Code	Issue description
1	Invalid laboratory code
2	Invalid sample ID
3	Invalid local ID
4	Invalid national animal ID
5	Invalid sex code
6	Invalid date of birth
7	Invalid date of birth status
8	Invalid national herd ID
9	Invalid service provider code
10	Sex of animal does not match that in the ADHIS database
11	Sample description file has more than one record for the same sample
12	Invalid SNP density code
13	Invalid value in Parentage Discovery Required field
14	Invalid DIF record type
15	Invalid DIF record version number

Density of SNPs used in discovering parents

Code	Density
1	160 SNP panel
2	9K SNP panel
3	50K SNP panel

DNA Data Issues

Code	Issue description
51	DNA data supplied was incomplete; data not used
52	DNA data quality below threshold; data not used

Joint Sample Description and DNA Data Issues

Code	Issue description
81	Sample description has not been provided
82	DNA data not received
83	DNA data provided but sample description has issues
84	Density requested in sample description does not match density of DNA data received

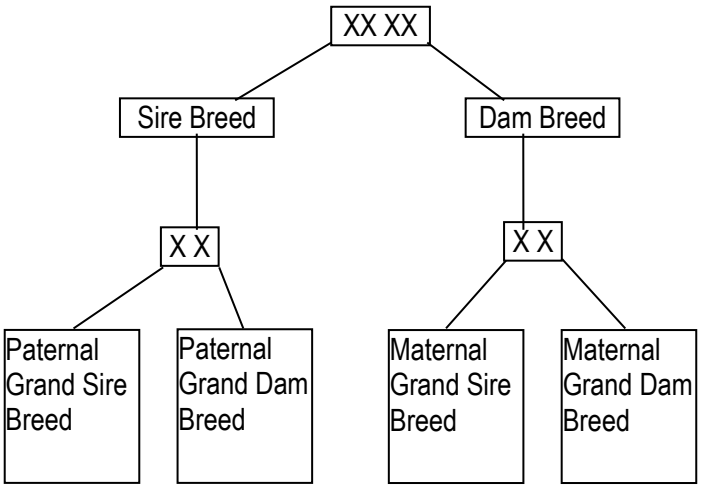
Density of SNPs used in discovering parents

Code	Density
1	160 SNP panel
2	9K SNP panel
3	50K SNP panel
4	80K SNP panel

APPENDIX A NOTES OF EXPLANATION

Note 1: Breed Codes

The breed code required is a four character string, capable of defining the parental breeds, ie.



The DataGene single alpha character breed codes are:

A	AYRSHIRE
B	BROWN SWISS
C	AUSTRALIAN COMMERCIAL DAIRY COW
D	DAIRY SHORTHORN
E	BEEF BREEDS
F	HOLSTEIN
G	GUERNSEY
H	SAHIWAL
I	ILLAWARRA
J	JERSEY
L	NORMANDE
M	MEUSE-RHINE-ISSEL
N	MONTBELIARDE
R	RED POLL
S	SIMMENTAL
U	AUSTRALIAN RED BREED
W	AUSTRALIAN FRIESIAN SAHIWAL
Z	AUSTRALIAN MILKING ZEBU
X	UNKNOWN

Example of the four alpha character breed code required by DataGene.

FFFF	`PURE' Holstein, resulting from the mating of a Holstein Bull to a Holstein cow.
FFJJ	Holstein-Jersey cross, resulting from the mating of a Holstein bull to a Jersey cow.
JJFF	Jersey-Holstein cross, resulting from the mating of a Jersey bull to a Holstein cow.
FFFJ	Three Quarter Holstein, resulting from the mating of a Holstein bull to a Holstein-Jersey cross cow.
FFXX	Holstein cross, resulting from the mating of a Holstein bull to a cow of unknown breed.
FFFX	Three Quarter Holstein, resulting from the mating of a Holstein bull to a Holstein cross cow whose sire was Holstein and whose dam was of unknown breed.

Note 2: Herdbook ID

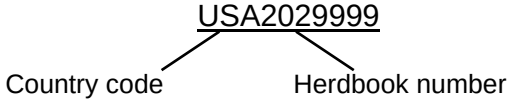
The herdbook ID has two parts. The first part is the country code which indicates to which organisation or country the herdbook number refers. The country codes used are the 3-character Interbull codes outlined in the following table.

Interbull country codes

Code	Country	Code	Country	Code	Country
ARG	Argentina	DEU	Germany	NZL	New Zealand
AUS	Australia	GBR	Great Britain	NOR	Norway
AUT	Austria	GRC	Greece	POL	Poland
BEL	Belgium	HUN	Hungary	PRT	Portugal
CAN	Canada	IRL	Ireland	SLO	Slovenia
CRO	Croatia	ISR	Israel	ZAF	South Africa
CSK	Czech Republic	ITA	Italy	ESP	Spain
DNK	Denmark	JPN	Japan	SWE	Sweden
EST	Estonia	LUX	Luxembourg	CHE	Switzerland
FIN	Finland	MEX	Mexico	USA	United States of America
FRA	France	NLD	Netherlands	DFS	Denmark, Finland, Sweden

The next part of the Herdbook ID is the herdbook number itself which is stripped of any leading zeros, left justified and space filled. Examples are :

An Australian bull AUS87777
A bull from the USA USA2029999



Note 3: National Animal ID

The National IDs for bulls and cows are permanent identifiers and are allocated by DataGene, Data Processing Centres and participating Breed Societies when an animal is first entered onto a computer system. The only time they will be changed is when fixing errors or clashes in National IDs. The National Animal ID is unique across sexes and is a nine character alpha-numeric field. The first character is always the Data Processing Code (See Note 4) for the organization that allocates the code. The formats for allocating National IDs for bulls and cows are:

		National ID first allocated by:	Allocation rules
Cows	Australian	DPC HA	Rule 3.1 Rule 3.2
Cows	Foreign	DataGene HA DPC	Rule 3.3 Not permitted, contact DataGene Not permitted, contact DataGene
Bulls	AI bulls (Australian and Foreign)	DataGene HA DPC	Rule 3.4 Rule 3.2 Not permitted, contact DataGene
Bulls	Australian Natural Breed Society bulls	HA, born 1997 or later HA, born before 1997 Other Breed Society DPC	Rule 3.2 Rule 3.5 Rule 3.5 Allocate according to the Breed Society rules above (3.2 and 3.5)
Bulls	Foreign Natural Breed Society bulls	All	Not permitted, contact DataGene
Bulls	All Natural bulls not Breed Society	DPC	Rule 3.1

Rules for allocation of National Animal IDs

Rule 3.1

National ID is CYY999999

Where C = Data Processing Centre code (See Note 4 below)
YY = Year first recorded by the Data Centre (recommended)
999999 = Sequence number within Data Centre within year (recommended).

E.g. 205001111, B06023456

Rule 3.2

National ID is H99999999

Where H = Data Processing Centre code for Holstein Association (HA)
99999999= HA Herdbook Number right justified with leading zeros

E.g. H01023456, H01111111

Rule 3.3

National ID is G02999999

Where G02 = Prefix for Foreign cows allocated by DataGene
999999 = Sequence number allocated by DataGene
E.g. G02001234, G02008912

Rule 3.4

National ID is A09999999
Where A0 = Prefix for AI bulls allocated by DataGene
9999999 = Sequence number allocated by DataGene
E.g. A00009209, A00017558

Rule 3.5

National ID is ABB999999
Where A = Prefix allocated by DataGene (“A”)
BB = Numeric breed code allocated by DataGene
999999 = Herdbook Number allocated by the relevant Breed Society with leading zeros

The valid numeric breed codes (BB) are Holstein (10), Jersey (20), Ayrshire (30), Guernsey (40), Illawarra (55), AFS (56), Dairy Shorthorn (57), Brown Swiss (58), AMZ (59), Red Poll (60), Simmental (61), MRI (62), Sahiwal (63) and Australian Red Breed (64). Please contact DataGene for numeric breed codes for other breeds.
E.g. A10079123, A64029345

Note 4: Data Processing Centre (DPC) Codes (For historical reference, codes of inactive organisations are included in this list)

2	HICO (Maffra)
3	Yarram
4	NHD
5	HICO (South Gippsland)
6	Genetics Australia (Timboon)
7	HICO (Colac)
8	Genetics Australia (Warnambool) (Western Herd)
9	Genetics Australia (Warragul) (West Gippsland)
A	DataGene
B	Bovine
C	ABS (Kyabram) (CHIS)
D	Genetics Australia (Leongatha) (VHMS)
E	AHRS
G	DataGene
H	HA
N	Dairy Express
Q	Dairy Express
R	Norco
S	ABS (South Australia) (HISCOL)
T	TDIA
U	CHIS
W	Farm West (HISWA)
X	Mistro
Y	Mistro

Note 5: Termination Codes

Termination codes apply to lactations. Subsets of the codes (the sold (S) and died (D) codes) also apply to cows. This is to facilitate recording of the fate of cows that have left the herd between lactations. Conversion of local codes to the Standard Codes may be necessary.

REQUIREMENTS FOR TERMINATION OF LACTATION CODES

Dry	DP	or	D1	Dried off, low production
	DD	or	D2	Dry due to disease or injury.
	DO	or	D3	Other
	DL	or	D4	Dried off, end of lactation
	DA	or	D5	Cow Aborted - Dried Off
Sold	S1	Low production or transferred to beef production.		
	S2	Age		
	S3	Mastitis		
	S4	Infertility		
	S5	Type Defect		
	S6	Temperament		
	S7	Ease of Milking		
	S8	Sold for dairying		
	S9	Other		
Died	X1	Milk fever		
	X2	Bloat		
	X3	Other		
	X4	EBL		
	X5	Johnes disease		
	X6	Mastitis		
	X7	Scours		
	X8	Calving difficulties		
	X9	Paralysis		
	XA	Accident		
Other	W1	Herd withdrawn		

Note 6: Codes for Organisations that own bulls or request authority for access to records held by DataGene

(For historical reference, the codes for inactive companies are included in this list)

GAC	Genetics Australia
AGR	Agri-Gene
RAB	Riverina Artificial Breeders
HIM	Herd Improvers
SEM	Semex Australia
ABS	ABS Australia
WWS	World-Wide Sires
TGS	Team Genetics
HTG	High Tech Genetics
LBS	Livestock Breeding Services
NAB	Northern Artificial Breeders
TLG	Total Livestock Genetics
TAC	Tatiara AB Centre
HBS	Hunters Bamawn Bull Farm&Semen Collections
BSI	BSI Breeding Services
CWA	Central West AB
NWG	NorthWest Genetics
HVC	Holbrook Veterinary Clinic
DDA	Darling Downs AB Centre
BOV	Bovine Semen (Aust)
COO	Coolau Downs Artificial Breeders
NAR	Australian Livestock Genetics
NEA	New England Artificial Breeders
WAB	Westralian AB Services
WAS	Woodlands Agricultural Services
ALT	Alta Genetics
HFA	Holstein Friesian Association of Australia
JER	Australian Jersey Breeders Society
CRV	CRV Australia
BOS	BOS Trading
NZG	Livestock Improvement Corporation
LIC	Livestock Improvement Corporation
LIV	Livestock Improvement Corporation
RAG	Raging Bulls
GDF	Genes Diffusion
RED	Auzred Xb
VIK	Viking Genetics
ARG	Ausred Genetics
GLS	Global Sires
CAM	Cameron Genetics
ADH	DataGene
RES	Research Organisation/Purposes
ALL	A code to cover all organisations

Note 7: Health event codes

Health event codes are maintained by DataGeneand can be downloaded from the DataGene web site (https://datagene.com.au/). The codes are used in format 116 unless specified otherwise.

Common health treatment codes are listed in the event codes Excel spreadsheet, but the code required is the APVMA registration number for the drug. For drugs not on the list (eg; new drugs), please go to the web site of the Australian Pesticides and Veterinary Medicines Authority (https://apvma.gov.au/) and search the Registered Products Database (PUBCRIS) on the Chemicals and Products page.

The first six fields in the Excel spreadsheet are:

Field No.	Field Name	Length	Numeric /Alpha	Comments
1	DataGene code	5	N	Used in formats 108 and 116
2	Event mnemonic	10	A	
3	Full name	30	A	
4	Withhold (single treatment)	3	N	Withholding period in days (12 hours = 0.5)
5	Withhold (multiple treatments)	3	N	Withholding period in days (12 hours = 0.5)
6	Event/treatment group code	2	N	See below

Event group codes

0 Mating events (format 108)
1 Reproductive problems
2 Mastitis
3 Leg problems
4 Diseases

Treatment group codes

11 Hormones
12 Antibiotics
13 Drenches
14 Vaccines
15 Mastitis
16 Uterine/Urinary
17 Alimentary
18 Anaesthetics
19 Nervous system
20 Skin preps
21 Ear nose eyes
22 Musculo skeletal
23 Metabolic and nutritional
99 Other unspecified

Note 8: National Herd ID

The National Herd ID is the standard ID identifier for herds (groups of cows) when transferring data between participants in the herd improvement industry. The National Herd ID is a unique permanent ID for that group of cows. It is issued by DPCs. It includes a check character to ensure the integrity of the data.

The National Herd ID consists of seven characters from the range A-Z and 0-9.

- The first character is the DPC Code for the DPC which issued the ID.
- The following five characters are allocated by the DPC and can follow any strategy as long as they are unique within that DPC.
- The last character is a check character and is calculated by the algorithm set out below.

Check character algorithm

1. Add the ascii value of the characters in the first, third and fifth positions and call this total x.
2. Add the ascii value of the characters in the second, fourth and sixth positions and call this total y.
3. Calculate z = x + 3y.
4. Let n = (z mod 23) + 1
5. The check character is the nth letter of the alphabet. It will be represented in upper case.

Example: Suppose the first 6 characters of the National Herd ID are C12345, then:

x = 67+50+52 = 169
y = 49+51+53 = 153
z = 169 + 3*153 = 628
n = (628 mod 23) + 1 = 8
The check character is H
The full National Herd ID is C12345H.

Note: All characters should be upper case.

Note 9: National Livestock Identification Scheme (NLIS) Formats

These formats are for the transfer of information about animal movements from DPCs to NLIS and DataGene.

Data Format NLIS1NLIS Transfer Record

	Field	Start column	Length	Numeric/ Alpha	Comments
1	NLIS ID	1	16	A	Can use RF ID in place of NLIS ID.
2	From PIC	17	8	A	
3	To PIC	25	8	A	
4	EU Vendor ID	33	7	A	
5	Transfer Date	40	10	A	Format: dd/mm/yyyy
6	From National Herd ID	50	7	A	See Note 8
7	To National Herd ID	57	7	A	See Note 8

RECORD LENGTH = 63 bytes

Fields 1 to 5 are essential for NLIS. All fields are essential for DataGene.

Data Format *NLIS2*NLIS Termination Record

	Field	Start column	Length	Numeric/ Alpha	Comments
1	NLIS ID	1	16	A	Can use rf ID in place of NLIS ID.
2	PIC	17	8	A	
3	Date	25	10	A	Format: dd/mm/yyyy
4	Reason Code	35	1	A	L – Lost/Defective Tag, D – Dead Animal.
5	Replacement NLIS ID	36	16	A	Mandatory for lost tags – can use rf ID in place of NLIS ID.

RECORD LENGTH = 51 bytes

Fields 1, 2 ,3 4 are essential. If Reason Code = “L”, field 5 is essential

Note 10: Genetic codes

The following genetic codes indicate whether an animal has tested positive or negative for a range of genetic recessives or a value for a homozygous or heterozygous genotype. Two letter codes have been updated to three-letter codes, with (where applicable) C = Carrier, F = tested free or non carrier.

Trait	Positive	Negative
BLAD	BLC	BLF
Citrullinaemia	CNC	CNF
DUMPS	DPC	DPF
Mulesfoot	MFC	MFF
CVM	CVC	CVF
Factor XI	XIC	XIF
Brachyspina	BYC	BYF
Coat Colour		
Red carrier	RDC	RDF
Black Red	BRC	
Variant Red	VRC	
A1A2	A1/A2	A11=A1A1, A12=A1A2, A22=A2A2
Polled	POS = tested true polled (homozygous PP) POC = tested carrier of polled (heterozygous Pp) POF = tested free of polled	

APPENDIX B Formats discontinued from 14th June 2003

The following formats have been replaced by version 2 formats as from 14th June 2003.

It is highly recommended that these discontinued formats not be used for data transfer, but DataGene undertakes to accept them until 14th June 2004.

Format	Data Record for discontinued formats	Version	Page	Date of Update
101	Herd Record	1	B-3	9th May 2001
105	Bull Pedigree Record (incorporates NASIS file)	1	B-4	9th May 2001
110	Disclosure Record	1	B-5	9th May 2001
114	Conformation Trait Record	1	B-6	26th April 2001
201	Bull ABVs for All Traits	1	B-8	9th May 2001

Summary of differences between Version 1 and Version 2 formats

DIF101 V2

Field 2 Record Version Number now = 2
Field 18 Local herd ID is a new field appended at the end of the record

DIF105 V2

Field 2 Record Version Number now = 2
Field 20 NASIS Active Sire Code is a new field appended at the end of the record

DIF110 V2

Field 2 Record Version Number now = 2
Field 7 DPC Code is a new field appended at the end of the record

DIF114 V2

Field 2 Record Version Number now = 2
Field 25 Linear Traits now contains 24 traits (24x1) instead of 22
Front End Height is inserted after Angularity
Teat Placement Rear is inserted after Teat Placement Fore

DIF201 V2

Field 2	Record Version Number now = 2
Fields 81-82	ABV for Liveweight and Reliability of Liveweight ABV are new fields appended at the end of the record

Data Format 101 V1 Herd Record

discontinued 14th June 2003

Field No.	Field Name	Start column	Length	Numeric/Alpha	Comments
1	Record Type	1	3	N	Value = 101
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Farmer Name and Address				
4	Full Name	12	35	A	Surname or Company name to appear first in this field to allow sorting on Farmer Name to be meaningful.
5	Line 1	47	35	A	
6	Line 2	82	35	A	
7	Line 3	117	35	A	
8	Postcode	152	4	N	
9	Farmer Phone Number	156	15	A	
	Location Details				
10	State Code	171	1	A	First digit of state postcode
11	Location Code	172	3	A	To enable herds to be grouped by Region
12	NLIS Property Identification Code	175	8	A	
13	GPS Latitude	183	8	N	Farm location using Global Positioning System
14	GPS Longitude	191	8	N	
	Herd Codes				
15	Testing Frequency	199	1	N	Value 1 = 24 hour test 2 = Alternate am/pm 3 = 3 times a day milking 4 = Other
16	Sampler	200	1	A	Value F = Farmer sampler R = Recorder sampler U = Unknown sampler C = Farmer Collection
17	DPC Code	201	1	A	Data Processing Centre - see Note 4

RECORD LENGTH = 201 bytes

Global Positioning System coordinates (GPS Latitude and GPS Longitude)
The GPS coordinates identify the location of the property. The units are degrees x 100000 (that is, there is an implied decimal place after the third digit). Negative signs are omitted.

Essential fields for DataGene are 1, 2, 3, 4, 8, 10, 11, 15, 16, 17. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3.

Data Format 105 V1 Bull Pedigree Record

discontinued 14th June 2003

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 105
2	Record Version Number	4	1	A	Value = 1
	Bull Identity				
3	Bull National ID	5	9	A	See Note 3
	Bull Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	Local Bull ID	29	15	A	
7	Date of Birth	44	8	N	yyyymmdd
8	Bull Breed	52	4	A	See Note 1
	Pedigree Details				
9	Sire National ID	56	9	A	See Note 3
10	Dam National ID	65	9	A	See Note 3
11	MGS National ID	74	9	A	See Note 3
12	Bull name	83	40	A	
	NASIS Bull Details				
13	NASIS Primary ID	123	7	A	
14	Bull ID	130	12	A	
15	Bull Owner Code	142	3	A	See Note 6
16	International ID	145	19	A	Interbull format - see note below
17	PT Sampling Code	164	1	A	
18	Date First Semen Available	165	8	N	yyyymmdd
19	Defect Codes	173	4x2	A	Up to 4 two-character codes - see note below

RECORD LENGTH = 180 bytes

International ID

The International ID as designated by Interbull has the following format

Breed	3 characters (eg, HOL, JER, AYS, GUE)
Country	3 characters (eg, AUS, USA, CAN - see Note 2 for a full list of codes)
Sex	1 character (M or F)
Within-Country ID	12 characters (right justified, zero filled)

Defect Codes

The following defect codes indicate whether an animal has tested positive or negative for the defect

Defect	Positive	Negative
BLAD	BL	TL
Citrullinaemia	CN	TC
DUMPS	DP	TD
Mulesfoot	MF	TM

Essential fields for DataGene are 1, 2, 3, 8. Other fields are strongly recommended.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3.

Data Format 110 V1 Disclosure / Non-Disclosure Record

discontinued 14th June 2003

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 110
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
4	Organisation with/without Authority	12	3	A	See Note 6
5	Date initiated	15	8	N	yyyymmdd
6	Disclosure	23	1	A	(Y = disclose data to Organisation, N = don't disclose data to Organisation)

RECORD LENGTH = 23 bytes

The record exists to authorise DataGeneto disclose data for a herd to organisations other than the DPC which provided the data to DataGene, or to prohibit DataGenefrom disclosing data to other organisations.

All fields are essential for DataGene.
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 114 V1 Conformation Trait Record

discontinued 14th June 2003

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 114
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
	Pedigree details				
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Used by DataGene if Dam ID is unavailable, and MGS is available)
	Lactation details				
15	Date of Calving	113	8	N	yyyymmdd
16	Parity	121	2	N	Lactation number
17	Date of Classification	123	8	N	yyyymmdd
	Transfer Details				See explanation below
18	Transfer-in date	131	8	N	yyyymmdd
19	National ID of Herd Transferred from	139	7	A	See Note 8
	Classification Details				
20	Classifier	146	3	A	
21	Round	149	2	N	
22	Total Score for Animal	151	2	N	
23	Total Score for Dam	153	2	N	
24	Composite Traits	155	2x2	N	Overall type and mammary system - range 1-18
25	Linear Traits	159	22x1	N	See next page for trait description - range 1-9
26	Condition score	181	2	N	
27	Defects	183	5x2	N	
28	Extra Composite Traits	193	7x2	N	See next page for trait description - range 1-18

RECORD LENGTH = 206 bytes

Essential fields
Essential fields are 1, 2,3,4,10,11,15,16,17,24,25. All other fields are strongly recommended.

Field 25 Linear Traits - Note that trait 8 (Loin Strength) is not recorded for Holsteins. Also Rear leg rear view is a new trait (2001).

1	Stature	General characters	
2	Udder texture		
3	Bone quality		
4	Angularity		
5	Muzzle width	Front end	
6	Body length		
7	Body depth		
8	Loin strength		
9	Chest width		
10	Length	Rump	
11	Pin Width		
12	Pin set		
13	Foot angle	Feet & legs	
14	Rear set		
15	Rear leg rear view		Note: new trait 2001
16	Udder depth	Mammary system	
17	Fore attachment		
18	Rear attachment height		
19	Rear attachment width		
20	Centre ligament		
21	Teat placement fore		
22	Teat length		

Field 28 Extra Composite Traits - Not used by DataGene but measured on some cows.

1	Unspecified, contact the relevant Breed Society
2	Unspecified, contact the relevant Breed Society
3	Unspecified, contact the relevant Breed Society
4	Unspecified, contact the relevant Breed Society
5	Unspecified, contact the relevant Breed Society
6	Unspecified, contact the relevant Breed Society
7	Unspecified, contact the relevant Breed Society

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 201 V1 Bull ABVs for All Traits

discontinued 14th June 2003

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 1
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Defect Codes	88	4x2	A	Up to 4 two-character codes (see format 105)
	Bull Details				
10	Date of Birth	96	8	N	yyyymmdd
11	Sire National ID	104	9	A	see Note 3
12	Dam National ID	113	9	A	see Note 3
13	MGS National ID	122	9	A	see Note 3
	ABV Analysis Details				
14	Breed of ABV Analysis	131	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	132	8	N	yyyymmdd
16	Source of ABV Analysis	140	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
	Australian Profit Ranking (APR)				
17	Australian Profit Ranking	141	4	N	
18	Reliability APR	145	2	N	
	ABVs for Production Traits				
19	Australian Selection Index	147	4	N	
20	Protein	151	4	N	
21	Protein Percentage	155	5	N	Two decimal places (eg, -0.12)
22	Milk	160	5	N	
23	Fat	165	4	N	
24	Fat Percentage	169	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
25	Reliability	174	2	N	
26	Number of Daughters	176	6	N	
27	Number of Herds	182	5	N	
28	Number in Herd - most Daughters	187	4	N	
29	Number in Herd - 2nd most Daughters	191	4	N	
30	Records in progress (RIP%)	195	3	N	% of daughters with < 4 test days in 1st lactation
	ABVs for Conformation Traits				
31	Overall Type	198	4	N	One decimal place(eg, -0.1)
32	Mammary System	202	4	N	One decimal place
33	Stature	206	4	N	One decimal place
34	Udder Texture	210	4	N	One decimal place
35	Bone Quality	214	4	N	One decimal place
36	Angularity	218	4	N	One decimal place
37	Muzzle Width	222	4	N	One decimal place
38	Body Length	226	4	N	One decimal place
39	Body Depth (new trait)	230	4	N	One decimal place
40	Chest Width	234	4	N	One decimal place

41	Rump Length	238	4	N	One decimal place
42	Pin Width	242	4	N	One decimal place
43	Pin Set	246	4	N	One decimal place
44	Foot Angle (new trait)	250	4	N	One decimal place
45	Rear Set of Leg	254	4	N	One decimal place
46	Rear Leg Rear View (provisional)	258	4	N	One decimal place
47	Udder Depth (new trait)	262	4	N	One decimal place
48	Fore Attachment	266	4	N	One decimal place
49	Rear Attachment Height	270	4	N	One decimal place
50	Rear Attachment Width	274	4	N	One decimal place
51	Centre Ligament	278	4	N	One decimal place
52	Teat Placement	282	4	N	One decimal place
53	Teat Length (new trait)	286	4	N	One decimal place
54	Loin Strength (not Holsteins)	290	4	N	One decimal place
	Amount of data for old Conformation Traits				
55	Reliability	294	2	N	
56	Number of Daughters	296	6	N	
57	Number of Herds	302	5	N	
	Amount of data for new Conformation Traits (recording commenced in 1994)				
58	Reliability	307	2	N	
59	Number of Daughters	309	6	N	
60	Number of Herds	315	5	N	
	ABVs for Workability Traits				
61	ABV Milking Speed	320	2	N	
62	ABV Temperament	322	2	N	
63	ABV Likability	324	2	N	
	Amount of data for Workability Traits				
64	Reliability Workability Traits	326	2	N	
65	Number of Daughters	328	6	N	
66	Number of Herds	334	5	N	
	ABV and Reliability for Survival				
67	ABV Survival	339	3	N	
68	Reliability Survival	342	2	N	
	ABV for Calving Ease				
69	ABV Calving Ease	344	3	N	
	Amount of data for Calving Ease				
70	Reliability Calving Ease	347	2	N	
71	Number of Calvings	349	6	N	
72	Number of Herds	355	5	N	
	ABV for Somatic Cell Count				
73	ABV Somatic Cell Count	360	4	N	Provisional
	Amount of data for Somatic Cell Count				
74	Reliability Somatic Cell Count	364	2	N	Provisional
75	Number of Daughters	366	6	N	Provisional
76	Number of Herds	372	5	N	Provisional
	ABV for Cow Fertility				
77	ABV Cow Fertility	377	4	N	Provisional
	Amount of data for Cow Fertility				
78	Reliability Fertility	381	2	N	Provisional
79	Number of Daughters	383	6	N	Provisional
80	Number of Herds	389	5	N	Provisional

RECORD LENGTH = 393 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

APPENDIX C Formats discontinued from 4th March 2008

The following formats have been replaced by later version formats as from 4th March 2008.

Format	Data Record for discontinued formats	Version	Page	Date of Update
114	Conformation Trait Record	2	C-3	8th Oct 2002
201	Bull ABVs for All Traits	2	C-5	9th May 2001
501	Progeny test daughter progress report	1	C-8	26th April 2001

Note that DIF Format 112 Calving Ease has had an increase in valid codes but no change to the format.
Also, there is a new DIF Format 251 for bull ABVs for All Traits (extended)

Summary of differences between Versions of formats

DIF114 V3

Field 2 Record Version Number now = 3
Field 24 Expanded from 2 composite traits to 7 composite traits
Field 25 Now 25 traits instead of 24 traits
Field 25 Extra linear trait Heel Depth inserted as trait 14 after Foot Angle
Field 25 Front end height moved from trait 5 to trait 25. Other traits kept in same order.
Field 27 Each defect (total 5) now has a severity code (1 = moderate, 2 = high)
Field 28 Extra composite traits are more clearly specified
New Field 29 – Condition score on 1 to 9 scale
New Field 30 – Condition score on scale used by Holstein Association
New Field 31 – Number of times scored excellent (not used by DataGene)

DIF201 V3

Field 2 Record Version Number now = 3
ABVs for Conformation traits
New Field 33 - Inserted ABV for Overall Feet & Legs between Mammary System and Stature
New Field 41 – Moved ABV for Loin Strength from the end to between Body Depth and Chest Width
New Field 47 – Inserted ABV for Heel Depth between Foot Angle and Rear Set of Leg
New Field 56 – Inserted ABV for Teat Placement Rear between Teat Placement Fore and Teat Length
New Field 58 – Condition Score

ABVs for traits other than Yield, ASI and APR are now expressed as Relative Breeding Values (RBVs) with base value of 100 and a standard deviation equal to the coefficient of variation for the trait. The field length is now 3 digits for all these traits.

'Amount of data for Conformation Traits (average of key traits)' now replaces both 'Amount of data for old Conformation Traits' and 'Amount of data for new Conformation Traits'.

DIF501 V2

Field 2 Record Version Number now = 2

New Fields 27-33 Codes to indicate if the animal is included in the ABV of the sire for yield, workability, conformation, calving ease, cell count, daughter fertility and survival traits.

Data Format 114 V2 Conformation Trait Record

discontinued 4th March 2008

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 114
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
	Pedigree details				
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Used by DataGene if Dam ID is unavailable, and MGS is available)
	Lactation details				
15	Date of Calving	113	8	N	yyyymmdd
16	Parity	121	2	N	Lactation number
17	Date of Classification	123	8	N	yyyymmdd
	Transfer Details				See explanation below
18	Transfer-in date	131	8	N	yyyymmdd
19	National ID of Herd Transferred from	139	7	A	See Note 8
	Classification Details				
20	Classifier	146	3	A	
21	Round	149	2	N	
22	Total Score for Animal	151	2	N	
23	Total Score for Dam	153	2	N	
24	Composite Traits	155	2x2	N	Overall type and mammary system - range 1-18
25	Linear Traits	159	24x1	N	See next page for trait description - range 1-9
26	Condition score	183	2	N	
27	Defects	185	5x2	N	
28	Extra Composite Traits	195	7x2	N	See next page for trait description - range 1-18

RECORD LENGTH = 208 bytes

Essential fields
Essential fields are 1, 2,3,4,10,11,15,16,17,24,25. All other fields are strongly recommended.

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Field 25 Linear Traits - Note that trait 16 (Rear leg rear view) is a new trait in 2001, and trait 5 (Front end height) and 23 (Teat placement rear) are new traits in 2002.

1	Stature	General characters	
2	Udder texture		
3	Bone quality		
4	Angularity		
5	Front End Height	Front end	(Note: new trait 2002)
6	Muzzle width		
7	Body length		
8	Body depth		
9	Loin strength		
10	Chest width		
11	Length	Rump	
12	Pin Width		
13	Pin set		
14	Foot angle	Feet & legs	
15	Rear set		
16	Rear leg rear view		(Note: new trait 2001)
17	Udder depth	Mammary system	
18	Fore attachment		
19	Rear attachment height		
20	Rear attachment width		
21	Centre ligament		
22	Teat placement fore		
23	Teat placement rear		(Note: new trait 2002)
24	Teat length		

Field 28 Extra Composite Traits - Not used by DataGene but measured on some cows.

1	Unspecified, contact the relevant Breed Society
2	Unspecified, contact the relevant Breed Society
3	Unspecified, contact the relevant Breed Society
4	Unspecified, contact the relevant Breed Society
5	Unspecified, contact the relevant Breed Society
6	Unspecified, contact the relevant Breed Society
7	Unspecified, contact the relevant Breed Society

Data Format 201 V2 Bull ABVs for All Traits

discontinued 4th March 2008

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 2
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Defect Codes	88	4x2	A	Up to 4 two-character codes (see format 105)
	Bull Details				
10	Date of Birth	96	8	N	yyyymmdd
11	Sire National ID	104	9	A	see Note 3
12	Dam National ID	113	9	A	see Note 3
13	MGS National ID	122	9	A	see Note 3
	ABV Analysis Details				
14	Breed of ABV Analysis	131	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	132	8	N	yyyymmdd
16	Source of ABV Analysis	140	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
	Australian Profit Ranking (APR)				
17	Australian Profit Ranking	141	4	N	
18	Reliability APR	145	2	N	
	ABVs for Production Traits				
19	Australian Selection Index	147	4	N	
20	Protein	151	4	N	
21	Protein Percentage	155	5	N	Two decimal places (eg, -0.12)
22	Milk	160	5	N	
23	Fat	165	4	N	
24	Fat Percentage	169	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
25	Reliability	174	2	N	
26	Number of Daughters	176	6	N	
27	Number of Herds	182	5	N	
28	Number in Herd - most Daughters	187	4	N	
29	Number in Herd - 2nd most Daughters	191	4	N	
30	Records in progress (RIP%)	195	3	N	% of daughters with < 4 test days in 1st lactation
	ABVs for Conformation Traits				
31	Overall Type	198	4	N	One decimal place(eg, -0.1)
32	Mammary System	202	4	N	One decimal place
33	Stature	206	4	N	One decimal place
34	Udder Texture	210	4	N	One decimal place
35	Bone Quality	214	4	N	One decimal place
36	Angularity	218	4	N	One decimal place
37	Muzzle Width	222	4	N	One decimal place
38	Body Length	226	4	N	One decimal place
39	Body Depth (new trait)	230	4	N	One decimal place

40	Chest Width	234	4	N	One decimal place
41	Rump Length	238	4	N	One decimal place
42	Pin Width	242	4	N	One decimal place
43	Pin Set	246	4	N	One decimal place
44	Foot Angle (new trait)	250	4	N	One decimal place
45	Rear Set of Leg	254	4	N	One decimal place
46	Rear Leg Rear View (provisional)	258	4	N	One decimal place
47	Udder Depth (new trait)	262	4	N	One decimal place
48	Fore Attachment	266	4	N	One decimal place
49	Rear Attachment Height	270	4	N	One decimal place
50	Rear Attachment Width	274	4	N	One decimal place
51	Centre Ligament	278	4	N	One decimal place
52	Teat Placement	282	4	N	One decimal place
53	Teat Length (new trait)	286	4	N	One decimal place
54	Loin Strength (not Holsteins)	290	4	N	One decimal place
	Amount of data for old Conformation Traits				
55	Reliability	294	2	N	
56	Number of Daughters	296	6	N	
57	Number of Herds	302	5	N	
	Amount of data for new Conformation Traits (recording commenced in 1994)				
58	Reliability	307	2	N	
59	Number of Daughters	309	6	N	
60	Number of Herds	315	5	N	
	ABVs for Workability Traits				
61	ABV Milking Speed	320	2	N	
62	ABV Temperament	322	2	N	
63	ABV Likability	324	2	N	
	Amount of data for Workability Traits				
64	Reliability Workability Traits	326	2	N	
65	Number of Daughters	328	6	N	
66	Number of Herds	334	5	N	
	ABV and Reliability for Survival				
67	ABV Survival	339	3	N	
68	Reliability Survival	342	2	N	
	ABV for Calving Ease				
69	ABV Calving Ease	344	3	N	
	Amount of data for Calving Ease				
70	Reliability Calving Ease	347	2	N	
71	Number of Calvings	349	6	N	
72	Number of Herds	355	5	N	
	ABV for Somatic Cell Count				
73	ABV Somatic Cell Count	360	4	N	
	Amount of data for Somatic Cell Count				
74	Reliability Somatic Cell Count	364	2	N	
75	Number of Daughters	366	6	N	
76	Number of Herds	372	5	N	
	ABV for Cow Fertility				
77	ABV Cow Fertility	377	4	N	
	Amount of data for Cow Fertility				
78	Reliability Fertility	381	2	N	
79	Number of Daughters	383	6	N	
80	Number of Herds	389	5	N	
	ABV for Liveweight				
81	ABV Liveweight (kg)	394	4	N	
	Amount of data for Liveweight				
82	Reliability Liveweight	398	2	N	

RECORD LENGTH = 399 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 501 V1 Progeny test daughter progress report

discontinued 4th March 2008

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 501
2	Record Version Number	4	1	A	Value = 1
	Category				
3	Bull Owner Code	5	3	A	See note 6
4	Bull Breed	8	4	A	See note 1
5	Agreement with Farmer	12	1	A	Y or N
6	Postcode	13	4	N	
	Herd Details				
7	National Herd ID	17	7	A	See Note 8
8	DPC Code	24	1	A	Data Processing Centre - see Note 4
9	Date of Last Test	25	8	N	yyyymmdd
	PT Daughter Identity				
10	National ID	33	9	A	See Note 3
11	Within-Herd Cow ID	42	6	N	
	Pedigree				
12	Sire NASIS Primary ID	48	7	A	
13	Sire NASIS Bull ID	55	12	A	
14	Sire National ID	67	9	A	See Note 3
15	Dam National ID	76	9	A	See Note 3
16	MGS National ID	85	9	A	See Note 3
	Daughter Details				
17	Breed	94	4	A	See Note 1
18	Date of Birth	98	8	N	yyyymmdd
19	Date of Calving	106	8	N	yyyymmdd
20	Date of Termination	114	8	N	yyyymmdd blank if lactation in progress
21	Parity	122	2	N	Parity is the lactation number, if known. It is the number of lactations for the cow, whether recorded or otherwise
22	Number of Test Day Records	124	3	N	
23	Number of Cell Count Records	127	3	N	
24	Workability Scored	130	1	A	Y or N
25	Conformation Scored	131	1	A	Y or N
26	Candidate for Evaluation?	132	2	N	See note below

RECORD LENGTH = 133 bytes

Candidate for Evaluation

Code	Category	Description
1	Too young	Daughter is a potential candidate but is too young
2	Yes	Daughter is suitable for evaluation of workability and type
3	Too old	Too old at first calving to be included as a “2 year old”
4	DNA test?	Sire and daughter have incompatible breed or birth date
5	Bad dates?	Birth date and calving date are too close together
6	>305 days	Too late for collection of work and type scores - daughter is too late in lactation
7	>1st lact	Too late for collection of work and type scores - daughter has completed first lactation
8	Left herd	Too late for collection of work and type scores - daughter is no longer in this herd

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 5, 6, 7

APPENDIX D Formats discontinued from April 2012

The following formats have been replaced by later version formats as from April 2012.

Format	Data Record for discontinued formats	Version	Page	Date of Update
105	Bull Pedigree Record (incorporates NASIS file)	2	D-3	
108	Mating record	1	D-4	
201	Bull ABVs for All Traits	3	D-5	
211	Cow ABVs for Production Traits	1	D-7	
212	Herd Mean ABVs for production Traits	1	D-8	
251	Bull ABVs for All Traits (extended file)	1, 2, 3*	D-9	

* versions 2 and 3 of dif251 have never been published

The following formats are new formats from April 2012.

202	Cow ABVs for All Traits	1		
481	Genotype Nomination	2		

Summary of differences between Versions of formats

DIF105 V3

Field 19 Genetic codes expanded to 3 characters each with new codes being implemented (note 10), and extension to a maximum of 8 codes, renaming of trait from defect to code
Field 21 Introduction of a first common name
Field 22 Introduction of a second common name
Field 23 Introduction of a field to indicate when sexed semen was first available

DIF108 V2

Field 9 Introduced Mating start date

DIF201 V4

Field 9 Genetic codes expanded to 3 characters each, and extension to a maximum of 8 with new codes being implemented (note 10), renaming of trait from defect to code
Field 84 Genomic Evaluation introduced

DIF211 V2

Field 20 Inserted APR before ASI
Field 30 APR rank inserted after ASI rank
Field 31 Genomic Evaluation introduced

DIF212 V2

Field 11 Inserted APR before ASI
Field 18 APR rank inserted before ASI rank

DIF251 V4

Note V2 and V3 were never published

Field 10	Genetic codes expanded to 3 characters each, and extension to a maximum of 8, renaming of trait from defect to code
Fields 100-211	Separate details on each conformation trait introduced
Field 344	Genomic Evaluation introduced

Data Format 105 V2 Bull Pedigree Record (incorporates NASIS file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 105
2	Record Version Number	4	1	A	Value = 2
	Bull Identity				
3	Bull National ID	5	9	A	See Note 3
	Bull Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	Local Bull ID	29	15	A	
7	Date of Birth	44	8	N	yyyymmdd
8	Bull Breed	52	4	A	See Note 1
	Pedigree Details				
9	Sire National ID	56	9	A	See Note 3
10	Dam National ID	65	9	A	See Note 3
11	MGS National ID	74	9	A	See Note 3
12	Bull name	83	40	A	
	NASIS Bull Details				
13	NASIS Primary ID	123	7	A	
14	Bull ID	130	12	A	
15	Bull Owner Code	142	3	A	See Note 6
16	International ID	145	19	A	Interbull format - see note below
17	PT Sampling Code	164	1	A	
18	Date First Semen Available	165	8	N	yyyymmdd
19	Defect Codes	173	4x2	A	Up to 4 two-character codes - see note below
20	NASIS Active Sire Code	181	1	A	A = active, W = warning of a possible conflict with the ID of another bull, blank = not active

RECORD LENGTH = 181 bytes

Data Format 108 V1 Mating Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 108
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Mating Details				
6	Date	27	8	N	yyyymmdd
7	Code	35	3	N	See mating codes below
8	Result	38	5	A	Free field for describing test result. For pregnancy diagnosis result, it is the number of days.
9	Fresh semen used	43	1	A	Y = Yes, N = No
10	Semen straw split	44	1	N	Indicates the number of inseminations per straw, 1 = Not split, 2 = Split into two parts, 3 = Split into three parts
11	Bull National ID	45	9	A	See Note 3
12	Semen Batch Number	54	10	A	
13	Inseminator Code	64	7	A	A code for each AI-Centre Technician
	Embryo Transfer Donor ID				
	Herd ID				
14	National Herd ID	71	7	A	See Note 8
	Cow Details				
15	National Cow ID	78	9	A	See Note 3
16	Within-Herd Cow ID	87	6	N	

RECORD LENGTH = 92 bytes

Essential fields for DataGene are 1, 2, 3, 4, 6, 7, 9, 10, 11 (if mating code = “1”, field 13 is essential)
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Mating event codes

DataGene Code	Mating MNEMONIC	Mating Event Name
1	MAP	Mating-AI-Centre Technician
2	MA	Mating-AI-DIY
3	MN	Mating-Natural
4	MNC	Mating-Natural Controlled
5	ME	Mating-Embryo Implanted
10	PD	Pregnancy Test
20	OS	Pregnancy Test using Confirm
30	US	Pregnancy Test using Ultrasound
101	HO	Heat Observed With No Mating
102	HM	Heat - Multiple Ovulation / Flush

Data Format 201 V3 Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 3
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Defect Codes	88	4x2	A	Up to 4 two-character codes (see format 105)
	Bull Details				
10	Date of Birth	96	8	N	yyyymmdd
11	Sire National ID	104	9	A	see Note 3
12	Dam National ID	113	9	A	see Note 3
13	MGS National ID	122	9	A	see Note 3
	ABV Analysis Details				
14	Breed of ABV Analysis	131	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	132	8	N	yyyymmdd
16	Source of ABV Analysis	140	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
	Australian Profit Ranking (APR)				
17	Australian Profit Ranking	141	4	N	
18	Reliability APR	145	2	N	
	ABVs for Production Traits				
19	Australian Selection Index	147	4	N	
20	Protein	151	4	N	
21	Protein Percentage	155	5	N	Two decimal places (eg, -0.12)
22	Milk	160	5	N	
23	Fat	165	4	N	
24	Fat Percentage	169	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
25	Reliability	174	2	N	
26	Number of Daughters	176	6	N	
27	Number of Herds	182	5	N	
28	Number in Herd - most Daughters	187	4	N	
29	Number in Herd - 2nd most Daughters	191	4	N	
30	Records in progress (RIP%)	195	3	N	% of daughters with < 4 test days in 1st lactation
	ABVs for Conformation Traits				
31	Overall Type	198	3	N	
32	Mammary System	201	3	N	
33	Overall Feet & Legs	204	3	N	
34	Stature	207	3	N	
35	Udder Texture	210	3	N	
36	Bone Quality	213	3	N	
37	Angularity	216	3	N	
38	Muzzle Width	219	3	N	
39	Body Length	222	3	N	
40	Body Depth	225	3	N	
41	Loin Strength	228	3	N	

42	Chest Width	231	3	N
43	Rump Length	234	3	N
44	Pin Width	237	3	N
45	Pin Set	240	3	N
46	Foot Angle	243	3	N
47	Heel Depth	246	3	N
48	Rear Set of Leg	249	3	N
49	Rear Leg Rear View	252	3	N
50	Udder Depth	255	3	N
51	Fore Attachment	258	3	N
52	Rear Attachment Height	261	3	N
53	Rear Attachment Width	264	3	N
54	Centre Ligament	267	3	N
55	Teat Placement Fore	270	3	N
56	Teat Placement Rear (new trait)	273	3	N
57	Teat Length	276	3	N
58	Condition Score	279	3	N
	Amount of data for Conformation Traits (average of key traits)			
59	Reliability	282	2	N
60	Number of Daughters	284	6	N
61	Number of Herds	290	5	N
	ABVs for Workability Traits			
62	ABV Milking Speed	295	3	N
63	ABV Temperament	298	3	N
64	ABV Likability	301	3	N
	Amount of data for Workability Traits			
65	Reliability Workability Traits	304	2	N
66	Number of Daughters	306	6	N
67	Number of Herds	312	5	N
	ABV and Reliability for Survival			
68	ABV Survival	317	3	N
69	Reliability Survival	320	2	N
	ABV for Calving Ease			
70	ABV Calving Ease	322	3	N
	Amount of data for Calving Ease			
71	Reliability Calving Ease	325	2	N
72	Number of Calvings	327	6	N
73	Number of Herds	333	5	N
	ABV for Cell Count			
74	ABV Somatic Cell Count	338	3	N
	Amount of data for Cell Count			
75	Reliability Cell Count	341	2	N
76	Number of Daughters	343	6	N
77	Number of Herds	349	5	N
	ABV for Daughter Fertility			
78	ABV Daughter Fertility	354	3	N
	Amount of data for Daughter Fertility			
79	Reliability Daughter Fertility	357	2	N
80	Number of Daughters	359	6	N
81	Number of Herds	365	5	N
	ABV for Liveweight			
82	ABV Liveweight (kg)	370	3	N
	Amount of data for Liveweight			
83	Reliability Liveweight	373	2	N

RECORD LENGTH = 374 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 211 V1 Cow ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 211
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
	Cow Details				
8	Breed of cow	42	4	A	See Note 1
9	Date of Birth	46	8	N	yyyymmdd
10	Date of Latest Calving	54	8	N	yyyymmdd
11	Number of Lactations in ABV analysis	62	2	N	
12	Crossbreed	64	1	A	'X' if crossbreed, otherwise space
13	DPC Code	65	1	A	See Note 4
	Pedigree details				
14	Sire National ID	66	9	A	See Note 3
15	Dam National ID	75	9	A	See Note 3
16	MGS National ID	84	9	A	See Note 3
	ABV Analysis Details				
17	Breed of ABV Analysis	93	1	A	single character breed code - see Note 1
18	Date of ABV Analysis	94	8	N	yyyymmdd
19	Source of ABV Analysis	102	1	A	A=DataGene, I=Interbull
	ABVs for Production Traits				
20	Australian Selection Index (ASI)	103	4	N	
21	Protein	107	4	N	
22	Protein Percentage	111	5	N	Two decimal places (eg, -0.12)
23	Milk	116	5	N	
24	Fat	121	4	N	
25	Fat Percentage	125	5	N	Two decimal places (eg, -0.12)
26	Reliability	130	2	N	
27	Rank in Australia on ASI within-breed	132	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.

RECORD LENGTH = 137 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 212 V1 Herd Mean ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 212
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Herd Details				
4	DPC Code	12	1	A	See Note 4
5	Number of cows with ABVs	13	5	N	
6	Number of cows in Herd Averages	18	5	N	Number of straightbred cows whose latest calving date is within 30 months of the Date of ABV Analysis (field 10)
7	Age Class Code	23	2	A	See note below
	ABV Analysis Details				
8	Breed of ABV Analysis	25	1	A	single character breed code - see Note 1
9	Date of ABV Analysis	26	8	N	yyyymmdd
10	Source of ABV Analysis	34	1	A	A=DataGene, I=Interbull
	Herd Average ABVs for Production Traits				
11	Australian Selection Index (ASI)	35	6	N	One decimal place (eg, -123.4)
12	Protein	41	6	N	One decimal place (eg, -12.4)
13	Protein Percentage	47	6	N	Three decimal places (eg, -0.123)
14	Milk	53	7	N	One decimal place (eg, -1234.5)
15	Fat	60	6	N	One decimal place (eg, -12.4)
16	Fat Percentage	66	6	N	Three decimal places (eg, -0.123)
17	Rank of Herd on ASI	72	6	N	Rank within Australia and within Breed of ABV Analysis (field 9). This rank is only for the whole herd (Age Class = 9T) and is only supplied to purchasers of the elite herd list, otherwise zero.

RECORD LENGTH = 77 bytes

Note : Herd mean ABVs are supplied for the following age classes (field 7) with one record per class per breed of analysis (field 8).

Code	Class	Age at calving
2J	Junior 2	Up to 30 months
2S	Senior 2	Over 30 and up to 36 months
3J	Junior 3	Over 36 and up to 42 months
3S	Senior 3	Over 42 and up to 48 months
4J	Junior 4	Over 48 and up to 54 months
4S	Senior 4	Over 54 and up to 60 months
9M	Mature	Over 72 months
9T		All age groups combined

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 8, 7.

Data Format 251 V1 Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 1
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Defect Codes	107	4x2	A	Up to 4 two-character codes (see format 105)
	Bull Details				
11	Date of Birth	115	8	N	yyyymmdd
12	Sire National ID	123	9	A	see Note 3
13	Dam National ID	132	9	A	see Note 3
14	MGS National ID	141	9	A	see Note 3
15	MGD National ID	150	9	A	see Note 3
16	Sire International ID	159	19	A	Interbull format
17	Dam International ID	178	19	A	Interbull format
18	MGS International ID	197	19	A	Interbull format
19	MGD International ID	216	19	A	Interbull format
	International Proof Details				
20	Type of Proof	235	2	N	Interbull codes – see note below
21	Includes Foreign Proof	237	1	A	Y = information from another country is incorporated in national proof, N otherwise
22	Birth Date of First Australian Daughter	238	8	N	yyyymmdd
	Australian Profit Ranking (APR)				
23	Australian Profit Ranking	246	4	N	
24	Reliability APR	250	2	N	
	Main Components of APR				
25	Protein	252	4	N	
26	Milk	256	4	N	
27	Fat	260	4	N	
28	Milking Speed	264	4	N	
29	Temperament	268	4	N	
30	Survival Index	272	4	N	
31	Somatic Cell Count	276	4	N	
32	Liveweight	280	4	N	
33	Daughter Fertility	284	4	N	
	Components of Survival Index				
34	Survival	288	4	N	
35	Likability	292	4	N	
36	Overall Type	296	4	N	
37	Udder Depth	300	4	N	
38	Pin Set	304	4	N	
	Components of Liveweight				
39	Stature	308	4	N	
40	Body depth	312	4	N	
41	Chest width	316	4	N	

	ABVs for Production Traits				
42	Australian Selection Index	320	4	N	
43	Protein	324	4	N	
44	Protein Percentage	328	5	N	Two decimal places (eg, -0.12)
45	Milk	333	5	N	
46	Fat	338	4	N	
47	Fat Percentage	342	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
48	Reliability	347	2	N	
49	Number of Daughters	349	6	N	
50	Number of Herds	355	5	N	
51	Effective Daughter Contribution	360	6	N	
52	Number in Herd - most Daughters	366	4	N	
53	Number in Herd - 2nd most Daughters	370	4	N	
54	Records in Progress (RIP%)	374	3	N	% of daughters with < 4 test days in 1st lactation
	International Daughter Numbers for Production Traits				
55	Number of Countries With Daughters	377	2	N	
56	Country With Most Daughters	379	3	A	see note 2 for list of country codes
57	Number of Daughters in This Country	382	6	N	
58	Country With Second Most Daughters	388	3	A	see note 2 for list of country codes
59	Number of Daughters in This Country	391	6	N	
60	Country With Third Most Daughters	397	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	400	6	N	
62	Country With Fourth Most Daughters	406	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	409	6	N	
64	Country With Fifth Most Daughters	415	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	418	6	N	
	ABV Analysis Details for Production Traits				
66	Breed of ABV Analysis	424	1	A	single character breed code - see Note 1
67	Date of ABV Analysis	425	8	N	yyyymmdd
68	Source of ABV Analysis	433	1	A	A = ABV, I = ABV(i)
69	Proof publishable	434	1	A	P = publishable, U = unpublishable
70	Foreign proof contribution	435	1	A	A = Aus only, I = International only, B = both
	ABVs for Conformation Traits				
71	Overall Type	436	3	N	
72	Mammary System	439	3	N	
73	Overall Feet and Legs	442	3	N	
74	Stature	445	3	N	
75	Udder Texture	448	3	N	
76	Bone Quality	451	3	N	
77	Angularity	454	3	N	
78	Muzzle Width	457	3	N	
79	Body Length	460	3	N	
80	Body Depth	463	3	N	
81	Loin Strength	466	3	N	
82	Chest Width	469	3	N	
83	Rump Length	472	3	N	
84	Pin Width	475	3	N	
85	Pin Set	478	3	N	
86	Foot Angle	481	3	N	
87	Heel Depth	484	3	N	
88	Rear Set of Leg	487	3	N	
89	Rear Leg Rear View	490	3	N	
90	Udder Depth	493	3	N	
91	Fore Attachment	496	3	N	
92	Rear Attachment Height	499	3	N	
93	Rear Attachment Width	502	3	N	

94	Centre Ligament	505	3	N	
95	Teat Placement Fore	508	3	N	
96	Teat Placement Rear	511	3	N	
97	Teat Length	514	3	N	
98	Condition Score	517	3	N	
	Amount of data for Conformation Traits (average of key traits)				
99	Reliability	520	2	N	
100	Number of Daughters	522	6	N	
101	Number of Herds	528	5	N	
102	Effective Daughter Contribution	533	6	N	
	International Daughter Numbers for Conformation Traits				
103	Number of Countries With Daughters	539	2	N	
104	Country With Most Daughters	541	3	A	see note 2 for list of country codes
105	Number of Daughters in This Country	544	6	N	
106	Country With Second Most Daughters	550	3	A	see note 2 for list of country codes
107	Number of Daughters in This Country	553	6	N	
108	Country With Third Most Daughters	559	3	A	see note 2 for list of country codes
109	Number of Daughters in This Country	562	6	N	
110	Country With Fourth Most Daughters	568	3	A	see note 2 for list of country codes
111	Number of Daughters in This Country	571	6	N	
112	Country With Fifth Most Daughters	577	3	A	see note 2 for list of country codes
113	Number of Daughters in This Country	580	6	N	
	ABV Analysis Details for Conformation Traits				
114	Breed of ABV Analysis	586	1	A	single character breed code - see Note 1
115	Date of ABV Analysis	587	8	N	yyyymmdd
116	Source of ABV Analysis	595	1	A	A = ABV, I = ABV(i)
117	Proof publishable	596	1	A	P = publishable, U = unpublishable
118	Foreign proof contribution	597	1	A	A = Aus only, I = International only, B = both
	ABVs for Workability Traits				
119	ABV Milking Speed	598	3	N	
120	ABV Temperament	601	3	N	
121	ABV Likability	604	3	N	
	Amount of data for Workability Traits				
122	Reliability Workability Traits	607	2	N	
123	Number of Daughters	609	6	N	
124	Number of Herds	615	5	N	
125	Effective Daughter Contribution	620	6	N	
	International Daughter Numbers for Workability Traits				
126	Number of Countries With Daughters	626	2	N	
127	Country With Most Daughters	628	3	A	see note 2 for list of country codes
128	Number of Daughters in This Country	631	6	N	
129	Country With Second Most Daughters	637	3	A	see note 2 for list of country codes
130	Number of Daughters in This Country	640	6	N	
131	Country With Third Most Daughters	646	3	A	see note 2 for list of country codes
132	Number of Daughters in This Country	649	6	N	
133	Country With Fourth Most Daughters	655	3	A	see note 2 for list of country codes
134	Number of Daughters in This Country	658	6	N	
135	Country With Fifth Most Daughters	664	3	A	see note 2 for list of country codes
136	Number of Daughters in This Country	667	6	N	
	ABV Analysis Details for Workability Traits				
137	Breed of ABV Analysis	673	1	A	single character breed code - see Note 1
138	Date of ABV Analysis	674	8	N	yyyymmdd
139	Source of ABV Analysis	682	1	A	A = ABV, I = ABV(i)
140	Proof publishable	683	1	A	P = publishable, U = unpublishable
141	Foreign proof contribution	684	1	A	A = Aus only, I = International only, B = both

	Survival Solution				
142	Survival Solution	685	3	N	
143	Reliability Survival Solution	688	2	N	
	ABV for Survival				
144	ABV Survival	690	3	N	
	Amount of data for Survival				
145	Reliability Survival	693	2	N	
146	Number of Daughters	695	6	N	
147	Number of Herds	701	5	N	
148	Effective Daughter Contribution	706	6	N	
	International Daughter Numbers for Survival				
149	Number of Countries With Daughters	712	2	N	
150	Country With Most Daughters	714	3	A	see note 2 for list of country codes
151	Number of Daughters in This Country	717	6	N	
152	Country With Second Most Daughters	723	3	A	see note 2 for list of country codes
153	Number of Daughters in This Country	726	6	N	
154	Country With Third Most Daughters	732	3	A	see note 2 for list of country codes
155	Number of Daughters in This Country	735	6	N	
156	Country With Fourth Most Daughters	741	3	A	see note 2 for list of country codes
157	Number of Daughters in This Country	744	6	N	
158	Country With Fifth Most Daughters	750	3	A	see note 2 for list of country codes
159	Number of Daughters in This Country	753	6	N	
	ABV Analysis Details for Survival				
160	Breed of ABV Analysis	759	1	A	single character breed code - see Note 1
161	Date of ABV Analysis	760	8	N	yyyymmdd
162	Source of ABV Analysis	768	1	A	A = ABV, I = ABV(i)
163	Proof publishable	769	1	A	P = publishable, U = unpublishable
164	Foreign proof contribution	770	1	A	A = Aus only, I = International only, B = both
	ABV for Calving Ease				
165	ABV Calving Ease	771	3	N	
	Amount of data for Calving Ease				
166	Reliability Calving Ease	774	2	N	
167	Number of Calvings	776	6	N	
168	Number of Herds	782	5	N	
169	Effective Calvings	787	6	N	
	International Daughter Numbers for Calving Ease				
170	Number of Countries With Daughters	793	2	N	
171	Country With Most Daughters	795	3	A	see note 2 for list of country codes
172	Number of Daughters in This Country	798	6	N	
173	Country With Second Most Daughters	804	3	A	see note 2 for list of country codes
174	Number of Daughters in This Country	807	6	N	
175	Country With Third Most Daughters	813	3	A	see note 2 for list of country codes
176	Number of Daughters in This Country	816	6	N	
177	Country With Fourth Most Daughters	822	3	A	see note 2 for list of country codes
178	Number of Daughters in This Country	825	6	N	
179	Country With Fifth Most Daughters	831	3	A	see note 2 for list of country codes
180	Number of Daughters in This Country	834	6	N	
	ABV Analysis Details for Calving Ease				
181	Breed of ABV Analysis	840	1	A	single character breed code - see Note 1
182	Date of ABV Analysis	841	8	N	yyyymmdd
183	Source of ABV Analysis	849	1	A	A = ABV, I = ABV(i)
184	Proof publishable	850	1	A	P = publishable, U = unpublishable
185	Foreign proof contribution	851	1	A	A = Aus only, I = International only, B = both

	ABV for Somatic Cell Count				
186	ABV Somatic Cell Count	852	3	N	
	Amount of data for Somatic Cell Count				
187	Reliability Somatic Cell Count	855	2	N	
188	Number of Daughters	857	6	N	
189	Number of Herds	863	5	N	
190	Effective Daughter Contribution	868	6	N	
	International Daughter Numbers for Somatic Cell Count				
191	Number of Countries With Daughters	874	2	N	
192	Country With Most Daughters	876	3	A	see note 2 for list of country codes
193	Number of Daughters in This Country	879	6	N	
194	Country With Second Most Daughters	885	3	A	see note 2 for list of country codes
195	Number of Daughters in This Country	888	6	N	
196	Country With Third Most Daughters	894	3	A	see note 2 for list of country codes
197	Number of Daughters in This Country	897	6	N	
198	Country With Fourth Most Daughters	903	3	A	see note 2 for list of country codes
199	Number of Daughters in This Country	906	6	N	
200	Country With Fifth Most Daughters	912	3	A	see note 2 for list of country codes
201	Number of Daughters in This Country	915	6	N	
	ABV Analysis Details for Somatic Cell Count				
202	Breed of ABV Analysis	921	1	A	single character breed code - see Note 1
203	Date of ABV Analysis	922	8	N	yyyymmdd
204	Source of ABV Analysis	930	1	A	A = ABV, I = ABV(i)
205	Proof publishable	931	1	A	P = publishable, U = unpublishable
206	Foreign proof contribution	932	1	A	A = Aus only, I = International only, B = both
	ABV for Daughter Fertility				
207	ABV Daughter Fertility	933	3	N	
	Amount of data for Daughter Fertility				
208	Reliability Daughter Fertility	936	2	N	
209	Number of Daughters	938	6	N	
210	Number of Herds	944	5	N	
211	Effective Daughter Contribution	949	6	N	
	International Daughter Numbers for Daughter Fertility				
212	Number of Countries With Daughters	955	2	N	
213	Country With Most Daughters	957	3	A	see note 2 for list of country codes
214	Number of Daughters in This Country	960	6	N	
215	Country With Second Most Daughters	966	3	A	see note 2 for list of country codes
216	Number of Daughters in This Country	969	6	N	
217	Country With Third Most Daughters	975	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	978	6	N	
219	Country With Fourth Most Daughters	984	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	987	6	N	
221	Country With Fifth Most Daughters	993	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	996	6	N	
	ABV Analysis Details for Daughter Fertility				
223	Breed of ABV Analysis	1002	1	A	single character breed code - see Note 1
224	Date of ABV Analysis	1003	8	N	yyyymmdd
225	Source of ABV Analysis	1011	1	A	A = ABV, I = ABV(i)
226	Proof publishable	1012	1	A	P = publishable, U = unpublishable
227	Foreign proof contribution	1013	1	A	A = Aus only, I = International only, B = both
	ABV and Reliability for Liveweight				
228	ABV Liveweight	1014	3	N	
229	Reliability Liveweight	1017	2	N	

ABV Analysis Details for Liveweight

230	Breed of ABV Analysis	1019	1	A	single character breed code - see Note 1
231	Date of ABV Analysis	1020	8	N	yyyymmdd
232	Source of ABV Analysis	1028	1	A	A = ABV, I = ABV(i)
233	Proof publishable	1029	1	A	P = publishable, U = unpublishable
234	Foreign proof contribution	1030	1	A	A = Aus only, I = International only, B = both

RECORD LENGTH = 1030 bytes

APPENDIX E Formats discontinued from 1st March 2015

The following formats have been replaced by later version formats as from 1st March 2015.

Format	Data Record for discontinued formats	Version	Page	Date of Update
201	Bull ABVs for All Traits	4	E-4	
202	Cow ABVs for All Traits	1	E-7	
211	Cow ABVs for Production Traits	2	E-9	
212	Herd Mean ABVs for Production Traits	2	E-11	
251	Bull ABVs for All Traits (extended file)*	5*	E-13	
261	Cow ABVs for All Traits (extended file)#	1		

* versions 2, 3 & 4 of dif251 have never been published
# versions 1 of dif261 has never been published

Summary of differences between Versions of formats

DIF201 V5

Field 17	Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
Field 18	APR reliability replaced with BPI reliability
Field 85	Introduction of the Health Weighted Index (HWI)
Field 86	Reliability for HWI
Field 87	Introduction of the Sustainability Index (SI)
Field 88	Reliability for SI
Field 89	Introduction of the ABV Residual Survival
Field 90	Reliability for Residual Survival
Field 91	Introduction of the ABV Feed Efficiency
Field 92	Reliability for Feed Efficieny

DIF202 V2

Field 21	Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
Field 22	APR reliability replaced with BPI reliability
Field 74	Introduction of the Health Weighted Index (HWI)
Field 75	Reliability for HWI
Field 76	Introduction of the Sustainability Index (SI)
Field 77	Reliability for SI
Field 78	Introduction of the ABV Residual Survival
Field 79	Reliability for Residual Survival
Field 80	Introduction of the ABV Feed Efficiency
Field 81	Reliability for Feed Efficiency

DIF211 V3

Field 20	Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)

Field 21 APR reliability replaced with BPI reliability
Field 30 Rank in Australia on APR has been replaced by the Rank in Australia on BPI
Field 32 Introduction of the Health Weighted Index (HWI)
Field 33 Reliability for HWI
Field 34 Introduction of the Sustainability Index (SI)
Field 35 Reliability for SI
Field 36 Introduction of the Rank in Australia on HWI
Field 36 Introduction of the Rank in Australia on SI

DIF212 V3

Field 11 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
Field 20 Introduction of the Health Weighted Index (HWI)
Field 21 Introduction of the Sustainability Index (SI)
Field 22 Rank of herd on the Health Weighted Index (HWI)
Field 23 Rank of herd on the Sustainability Index (SI)

DIF251 V6

Note V2, V3, V4 were never published

Field 23 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
Field 24 APR reliability replaced with BPI reliability
Field 30 Survival Index has been replaced by Residual Survival
Field 32 Liveweight has been replaced by Feed Efficiency
Field 34 Inclusion of Mammary System
Field 35 Inclusion of Overall Type
Field 36 Inclusion of Udder depth
Field 37 Inclusion of Pin Set

- With the above inclusions all other fields are pushed back 4 fields and 16 characters

Field 349 Introduction of the Health Weighted Index (HWI)
Field 350 Reliability for HWI
Field 351 Introduction of the Sustainability Index (SI)
Field 352 Reliability for SI
Field 353 Introduction of the ABV Residual Survival
Field 354 Reliability for Residual Survival
Field 355 Introduction of the ABV Feed Efficiency
Field 356 Reliability for Feed Efficiency

DIF261 V2 (DataGene Internal Use Only)

Note V1 was never published
Note V2 based off vJS

Field 10 Updated definition for Genetics Codes
Field 29 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
Field 30 APR reliability replaced with BPI reliability
Field 127 Introduction of the Health Weighted Index (HWI)
Field 128 Reliability for HWI
Field 129 Introduction of the Sustainability Index (SI)
Field 130 Reliability for SI

Field 131 Introduction of the ABV Residual Survival
Field 132 Reliability for Residual Survival
Field 133 Introduction of the ABV Feed Efficiency
Field 134 Reliability for Feed Efficieny
Field 135 Inclusion of Rank in Australia on HWI
Field 136 Inclusion of Rank in Australia on SI

Data Format 201 V4 Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 4
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Genetic Codes	88	8x3	A	Up to 8 three-character codes (see note 10)
	Bull Details				
10	Date of Birth	112	8	N	yyyymmdd
11	Sire National ID	120	9	A	see Note 3
12	Dam National ID	129	9	A	see Note 3
13	MGS National ID	138	9	A	see Note 3
	ABV Analysis Details				
14	Breed of ABV Analysis	147	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	148	8	N	yyyymmdd
16	Source of ABV Analysis	156	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
	Australian Profit Ranking (APR)				
17	Australian Profit Ranking	157	4	N	
18	Reliability APR	161	2	N	
	ABVs for Production Traits				
19	Australian Selection Index	163	4	N	
20	Protein	167	4	N	
21	Protein Percentage	171	5	N	Two decimal places (eg, -0.12)
22	Milk	176	5	N	
23	Fat	181	4	N	
24	Fat Percentage	185	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
25	Reliability	190	2	N	
26	Number of Daughters	192	6	N	
27	Number of Herds	198	5	N	
28	Number in Herd - most Daughters	203	4	N	
29	Number in Herd - 2nd most Daughters	207	4	N	
30	Records in progress (RIP%)	211	3	N	% of daughters with < 4 test days in 1st lactation
	ABVs for Conformation Traits				
31	Overall Type	214	3	N	
32	Mammary System	217	3	N	
33	Overall Feet & Legs	220	3	N	
34	Stature	223	3	N	
35	Udder Texture	226	3	N	
36	Bone Quality	229	3	N	
37	Angularity	232	3	N	
38	Muzzle Width	235	3	N	
39	Body Length	238	3	N	
40	Body Depth	241	3	N	
41	Loin Strength	244	3	N	

42	Chest Width	247	3	N	
43	Rump Length	250	3	N	
44	Pin Width	253	3	N	
45	Pin Set	256	3	N	
46	Foot Angle	259	3	N	
47	Heel Depth	262	3	N	
48	Rear Set of Leg	265	3	N	
49	Rear Leg Rear View	268	3	N	
50	Udder Depth	271	3	N	
51	Fore Attachment	274	3	N	
52	Rear Attachment Height	277	3	N	
53	Rear Attachment Width	280	3	N	
54	Centre Ligament	283	3	N	
55	Teat Placement Fore	286	3	N	
56	Teat Placement Rear (new trait)	289	3	N	
57	Teat Length	292	3	N	
58	Condition Score	295	3	N	
	Amount of data for Conformation Traits (average of key traits)				
59	Reliability	298	2	N	
60	Number of Daughters	300	6	N	
61	Number of Herds	306	5	N	
	ABVs for Workability Traits				
62	ABV Milking Speed	311	3	N	
63	ABV Temperament	314	3	N	
64	ABV Likability	317	3	N	
	Amount of data for Workability Traits				
65	Reliability Workability Traits	320	2	N	
66	Number of Daughters	322	6	N	
67	Number of Herds	328	5	N	
	ABV and Reliability for Survival				
68	ABV Survival	333	3	N	
69	Reliability Survival	336	2	N	
	ABV for Calving Ease				
70	ABV Calving Ease	338	3	N	
	Amount of data for Calving Ease				
71	Reliability Calving Ease	341	2	N	
72	Number of Calvings	343	6	N	
73	Number of Herds	349	5	N	
	ABV for Cell Count				
74	ABV Somatic Cell Count	354	3	N	
	Amount of data for Cell Count				
75	Reliability Cell Count	357	2	N	
76	Number of Daughters	359	6	N	
77	Number of Herds	365	5	N	
	ABV for Daughter Fertility				
78	ABV Daughter Fertility	370	3	N	
	Amount of data for Daughter Fertility				
79	Reliability Daughter Fertility	373	2	N	
80	Number of Daughters	375	6	N	
81	Number of Herds	381	5	N	
	ABV for Liveweight				
82	ABV Liveweight (kg)	386	3	N	
	Amount of data for Liveweight				
83	Reliability Liveweight	389	2	N	
	Genomics Evaluation				
84	Genomics Evaluation	391	1	A	g=genomics included, blank otherwise

RECORD LENGTH = 391 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 202 V1 Cow ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 202
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See DIF Document Note 8
	Cow Identity				
4	National ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	Genetic Codes	42	8x3	A	Up to 8 three-character codes (see note 10)
	Cow Details				
9	Breed of cow	66	4	A	See Note 1
10	Date of Birth	70	8	N	yyyymmdd
11	Date of Latest Calving	78	8	N	yyyymmdd
12	Number of Lactations in ABV analysis	86	2	N	
13	Crossbreed	88	1	A	'X' if crossbreed, otherwise space
14	DPC Code	89	1	A	See Note 4
	Pedigree details				
15	Sire National ID	90	9	A	see Note 3
16	Dam National ID	99	9	A	see Note 3
17	MGS National ID	108	9	A	see Note 3
	ABV Analysis Details				
18	Breed of ABV Analysis	117	1	A	single character breed code - see Note 1
19	Date of ABV Analysis	118	8	N	yyyymmdd
20	Source of ABV Analysis	126	1	A	A = ABV, I = ABV(i)
	Australian Profit Ranking (APR)				
21	Australian Profit Ranking	127	4	N	
22	Reliability APR	131	2	N	
	ABVs for Production Traits				
23	Australian Selection Index	133	4	N	
24	Protein	137	4	N	
25	Protein Percentage	141	5	N	Two decimal places (eg, -0.12)
26	Milk	146	5	N	
27	Fat	151	4	N	
28	Fat Percentage	155	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
29	Reliability	160	2	N	
	ABVs for Conformation Traits				
30	Overall Type	162	3	N	
31	Mammary System	165	3	N	
32	Overall Feet & Legs	168	3	N	
33	Stature	171	3	N	
34	Udder Texture	174	3	N	
35	Bone Quality	177	3	N	
36	Angularity	180	3	N	
37	Muzzle Width	183	3	N	
38	Body Length	186	3	N	
39	Body Depth	189	3	N	
40	Loin Strength	192	3	N	
41	Chest Width	195	3	N	
42	Rump Length	198	3	N	

43	Pin Width	201	3	N	
44	Pin Set	204	3	N	
45	Foot Angle	207	3	N	
46	Heel Depth	210	3	N	
47	Rear Set of Leg	213	3	N	
48	Rear Leg Rear View	216	3	N	
49	Udder Depth	219	3	N	
50	Fore Attachment	222	3	N	
51	Rear Attachment Height	225	3	N	
52	Rear Attachment Width	228	3	N	
53	Centre Ligament	231	3	N	
54	Teat Placement Fore	234	3	N	
55	Teat Placement Rear (new trait)	237	3	N	
56	Teat Length	240	3	N	
57	Condition Score	243	3	N	
	Amount of data for Conformation Traits (average of key traits)				
58	Reliability	246	2	N	
	ABVs and Reliability for Workability Traits				
59	ABV Milking Speed	248	3	N	
60	ABV Temperament	251	3	N	
61	ABV Likability	254	3	N	
62	Reliability Workability Traits	257	2	N	
	ABV and Reliability for Survival				
63	ABV Survival	259	3	N	
64	Reliability Survival	262	2	N	
	ABV and Reliability for Calving Ease				
65	ABV Calving Ease	264	3	N	
66	Reliability Calving Ease	267	2	N	
	ABV and Reliability for Cell Count				
67	ABV Somatic Cell Count	269	3	N	
68	Reliability Cell Count	272	2	N	
	ABV and Reliability for Daughter Fertility				
69	ABV Daughter Fertility	274	3	N	
70	Reliability Daughter Fertility	275	2	N	
	ABV and Reliability for Liveweight				
71	ABV Liveweight (kg)	277	3	N	
72	Reliability Liveweight	280	2	N	
	Genomic Evaluation				
73	Genomic evaluation	282	1	A	g=genomics included, blank otherwise

RECORD LENGTH = 382 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 211 V2 Cow ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 211
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Identity				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
	Cow Details				
8	Breed of cow	42	4	A	See Note 1
9	Date of Birth	46	8	N	yyyymmdd
10	Date of Latest Calving	54	8	N	yyyymmdd
11	Number of Lactations in ABV analysis	62	2	N	
12	Crossbreed	64	1	A	'X' if crossbreed, otherwise space
13	DPC Code	65	1	A	See Note 4
	Pedigree details				
14	Sire National ID	66	9	A	See Note 3
15	Dam National ID	75	9	A	See Note 3
16	MGS National ID	84	9	A	See Note 3
	ABV Analysis Details				
17	Breed of ABV Analysis	93	1	A	single character breed code - see Note 1
18	Date of ABV Analysis	94	8	N	yyyymmdd
19	Source of ABV Analysis	102	1	A	A=DataGene, I=Interbull
	Australian Profit Ranking (APR)				
20	APR	103	4	N	
21	APR reliability	107	2	N	
	ABVs for Production Traits				
22	Australian Selection Index (ASI)	109	4	N	
23	Protein	113	4	N	
24	Protein Percentage	117	5	N	Two decimal places (eg, -0.12)
25	Milk	122	5	N	
26	Fat	127	4	N	
27	Fat Percentage	131	5	N	Two decimal places (eg, -0.12)
28	Reliability	136	2	N	
29	Rank in Australia on ASI within-breed	138	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
30	Rank in Australia on APR within-breed	144	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
31	Genomic Evaluation	150	1	A	g = genomics included

RECORD LENGTH = 150 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Data Format 212 V2 Herd Mean ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 212
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Herd Details				
4	DPC Code	12	1	A	See Note 4
5	Number of cows with ABVs	13	5	N	
6	Number of cows in Herd Averages	18	5	N	Number of straightbred cows whose latest calving date is within 30 months of the Date of ABV Analysis (field 9)
7	Age Class Code	23	2	A	See note below
	ABV Analysis Details				
8	Breed of ABV Analysis	25	1	A	single character breed code - see Note 1
9	Date of ABV Analysis	26	8	N	yyyymmdd
10	Source of ABV Analysis	34	1	A	A=DataGene, I=Interbull
	Herd Average ABVs for Production Traits				
11	Australian Profit Ranking (APR)	35	6	N	One decimal place (eg, -123.4)
12	Australian Selection Index (ASI)	41	6	N	One decimal place (eg, -123.4)
13	Protein	47	6	N	One decimal place (eg, -12.4)
14	Protein Percentage	53	6	N	Three decimal places (eg, -0.123)
15	Milk	60	7	N	One decimal place (eg, -1234.5)
16	Fat	66	6	N	One decimal place (eg, -12.4)
17	Fat Percentage	72	6	N	Three decimal places (eg, -0.123)
18	Rank of Herd on APR	78	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
19	Rank of Herd on ASI	84	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.

RECORD LENGTH = 89 bytes

Note : Herd mean ABVs are supplied for the following age classes (field 7) with one record per class per breed of analysis (field 8).

Code	Class	Age at calving
2J	Junior 2	Up to 30 months
2S	Senior 2	Over 30 and up to 36 months
3J	Junior 3	Over 36 and up to 42 months
3S	Senior 3	Over 42 and up to 48 months
4J	Junior 4	Over 48 and up to 54 months
4S	Senior 4	Over 54 and up to 60 months
9M	Mature	Over 72 months
9T		All age groups combined

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 8, 7.

Data Format 251 V5 Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 5
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Genetic Codes	107	8x3	A	Up to 8 three-character codes (see note 10)
	Bull Details				
11	Date of Birth	131	8	N	yyyymmdd
12	Sire National ID	139	9	A	see Note 3
13	Dam National ID	148	9	A	see Note 3
14	MGS National ID	157	9	A	see Note 3
15	MGD National ID	166	9	A	see Note 3
16	Sire International ID	175	19	A	Interbull format
17	Dam International ID	194	19	A	Interbull format
18	MGS International ID	213	19	A	Interbull format
19	MGD International ID	232	19	A	Interbull format
	International Proof Details				
20	Type of Proof	251	2	N	Interbull codes – see note below
21	Includes Foreign Proof	253	1	A	"Y = information from another country is incorpora in national proof, N otherwise"
22	Birth Date of First Australian Daughter	254	8	N	yyyymmdd
	Australian Profit Ranking (APR)				
23	Australian Profit Ranking	262	4	N	
24	Reliability APR	266	2	N	
	Main Components of APR				
25	Protein	268	4	N	
26	Milk	272	4	N	
27	Fat	276	4	N	
28	Milking Speed	280	4	N	
29	Temperament	284	4	N	
30	Survival Index	288	4	N	
31	Somatic Cell Count	292	4	N	
32	Liveweight	296	4	N	
33	Cow Fertility	300	4	N	
	Components of Survival Index				
34	Survival	304	4	N	
35	Likability	308	4	N	
36	Overall Type	312	4	N	
37	Udder Depth	316	4	N	
38	Pin Set	320	4	N	
	Components of Liveweight				
39	Stature	324	4	N	
40	Body depth	328	4	N	
41	Chest width	332	4	N	
	ABVs for Production Traits				
42	Australian Selection Index	336	4	N	

43	Protein	340	4	N	
44	Protein Percentage	344	5	N	"Two decimal places (eg -0.12)"
45	Milk	349	5	N	
46	Fat	354	4	N	
47	Fat Percentage	358	5	N	"Two decimal places (eg -0.12)"
	Amount of data for Production Traits				
48	Reliability	363	2	N	
49	Number of Daughters	365	6	N	
50	Number of Herds	371	5	N	
51	Number of Effective Daughters	376	6	N	
52	Number in Herd - most Daughters	382	4	N	
53	Number in Herd - 2nd most Daughters	386	4	N	
54	Records in Progress (RIP%)	390	3	N	% of daughters with < 4 test days in 1st lactation
	International Daughter Numbers for Production Traits				
55	Number of Countries With Daughters	393	2	N	
56	Country With Most Daughters	395	3	A	see note 2 for list of country codes
57	Number of Daughters in This Country	398	6	N	
58	Country With Second Most Daughters	404	3	A	see note 2 for list of country codes
59	Number of Daughters in This Country	407	6	N	
60	Country With Third Most Daughters	413	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	416	6	N	
62	Country With Fourth Most Daughters	422	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	425	6	N	
64	Country With Fifth Most Daughters	431	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	434	6	N	
	ABV Analysis Details for Production Traits				
66	Breed of ABV Analysis	440	1	A	single character breed code - see Note 1
67	Date of ABV Analysis	441	8	N	yyyymmdd
68	Source of ABV Analysis	449	1	A	"A = ABV, I = ABV(i)"
69	Proof publishable	450	1	A	"P = publishable, U = unpublishable"
70	Foreign proof contribution	451	1	A	“A = Aus only, I = International only, B = both”
	ABVs for Conformation Traits				
71	Overall Type	452	3	N	
72	Overall Feet and Legs	455	3	N	
73	Mammary System	458	3	N	
74	Stature	461	3	N	
75	Udder Texture	464	3	N	
76	Bone Quality	467	3	N	
77	Angularity	470	3	N	
78	Muzzle Width	473	3	N	
79	Body Length	476	3	N	
80	Body Depth	479	3	N	
81	Chest Width	482	3	N	
82	Rump Length	485	3	N	
83	Pin Width	488	3	N	
84	Pin Set	491	3	N	
85	Foot Angle	494	3	N	
86	Rear Set of Leg	497	3	N	
87	Rear Leg Rear View	500	3	N	
88	Heel Depth	503	3	N	
89	Udder Depth	506	3	N	
90	Fore Attachment	509	3	N	
91	Rear Attachment Height	512	3	N	
92	Rear Attachment Width	515	3	N	
93	Centre Ligament	518	3	N	
94	Teat Placement Fore	521	3	N	
95	Teat Length	524	3	N	

96	Loin Strength	527	3	N
97	Front End Height	530	3	N
98	Teat Placement Rear	533	3	N
99	Condition Score	536	3	N
	Amount of data for Conformation Traits			
100	Reliability	539	2	N
101	Number of Daughters	541	6	N
102	Number of Herds	547	5	N
103	Number of Effective Daughters	552	6	N
	Amount of data for Overall Type			
104	Reliability	558	2	N
105	Number of Daughters	560	6	N
106	Number of Herds	566	5	N
107	Number of Effective Daughters	571	6	N
	Amount of data for Mammary System			
108	Reliability	577	2	N
109	Number of Daughters	579	6	N
110	Number of Herds	585	5	N
111	Number of Effective Daughters	590	6	N
	Amount of data for Stature			
112	Reliability	596	2	N
113	Number of Daughters	598	6	N
114	Number of Herds	604	5	N
115	Number of Effective Daughters	609	6	N
	Amount of data for Udder Texture			
116	Reliability	615	2	N
117	Number of Daughters	617	6	N
118	Number of Herds	623	5	N
119	Number of Effective Daughters	628	6	N
	Amount of data for Bone Quality			
120	Reliability	634	2	N
121	Number of Daughters	636	6	N
122	Number of Herds	642	5	N
123	Number of Effective Daughters	647	6	N
	Amount of data for Angularity			
124	Reliability	653	2	N
125	Number of Daughters	655	6	N
126	Number of Herds	661	5	N
127	Number of Effective Daughters	666	6	N
	Amount of data for Muzzle Width			
128	Reliability	672	2	N
129	Number of Daughters	674	6	N
130	Number of Herds	680	5	N
131	Number of Effective Daughters	685	6	N
	Amount of data for Body Length			
132	Reliability	691	2	N
133	Number of Daughters	693	6	N
134	Number of Herds	699	5	N
135	Number of Effective Daughters	704	6	N
	Amount of data for Body Depth			
136	Reliability	710	2	N
137	Number of Daughters	712	6	N
138	Number of Herds	718	5	N
139	Number of Effective Daughters	723	6	N
	Amount of data for Chest Width			
140	Reliability	729	2	N
141	Number of Daughters	731	6	N
142	Number of Herds	737	5	N

143	Number of Effective Daughters	742	6	N
	Amount of data for Rump Length			
144	Reliability	748	2	N
145	Number of Daughters	750	6	N
146	Number of Herds	756	5	N
147	Number of Effective Daughters	761	6	N
	Amount of data for Pin Width			
148	Reliability	767	2	N
149	Number of Daughters	769	6	N
150	Number of Herds	775	5	N
151	Number of Effective Daughters	780	6	N
	Amount of data for Pin Set			
152	Reliability	786	2	N
153	Number of Daughters	788	6	N
154	Number of Herds	794	5	N
155	Number of Effective Daughters	799	6	N
	Amount of data for Foot Angle			
156	Reliability	805	2	N
157	Number of Daughters	807	6	N
158	Number of Herds	813	5	N
159	Number of Effective Daughters	818	6	N
	Amount of data for Rear Set of Leg			
160	Reliability	824	2	N
161	Number of Daughters	826	6	N
162	Number of Herds	832	5	N
163	Number of Effective Daughters	837	6	N
	Amount of data for Rear Leg Rear View			
164	Reliability	843	2	N
165	Number of Daughters	845	6	N
166	Number of Herds	851	5	N
167	Number of Effective Daughters	856	6	N
	Amount of data for Udder Depth			
168	Reliability	862	2	N
169	Number of Daughters	864	6	N
170	Number of Herds	870	5	N
171	Number of Effective Daughters	875	6	N
	Amount of data for Fore Attachment			
172	Reliability	881	2	N
173	Number of Daughters	883	6	N
174	Number of Herds	889	5	N
175	Number of Effective Daughters	894	6	N
	Amount of data for Rear Attachment Height			
176	Reliability	900	2	N
177	Number of Daughters	902	6	N
178	Number of Herds	908	5	N
179	Number of Effective Daughters	913	6	N
	Amount of data for Rear Attachment Width			
180	Reliability	919	2	N
181	Number of Daughters	921	6	N
182	Number of Herds	927	5	N
183	Number of Effective Daughters	932	6	N
	Amount of data for Centre Ligament			
184	Reliability	938	2	N
185	Number of Daughters	940	6	N
186	Number of Herds	946	5	N
187	Number of Effective Daughters	951	6	N
	Amount of data for Teat Placement Fore			
188	Reliability	957	2	N

189	Number of Daughters	959	6	N	
190	Number of Herds	965	5	N	
191	Number of Effective Daughters	970	6	N	
	Amount of data for Teat Length				
192	Reliability	976	2	N	
193	Number of Daughters	978	6	N	
194	Number of Herds	984	5	N	
195	Number of Effective Daughters	989	6	N	
	Amount of data for Loin Strength				
196	Reliability	995	2	N	
197	Number of Daughters	997	6	N	
198	Number of Herds	1003	5	N	
199	Number of Effective Daughters	1008	6	N	
	Amount of data for Front End Height				
200	Reliability	1014	2	N	
201	Number of Daughters	1016	6	N	
202	Number of Herds	1022	5	N	
203	Number of Effective Daughters	1027	6	N	
	Amount of data for Teat Placement Rear				
204	Reliability	1033	2	N	
205	Number of Daughters	1035	6	N	
206	Number of Herds	1041	5	N	
207	Number of Effective Daughters	1046	6	N	
	Amount of data for Condition Score				
208	Reliability	1052	2	N	
209	Number of Daughters	1054	6	N	
210	Number of Herds	1060	5	N	
211	Number of Effective Daughters	1065	6	N	
	International Daughter Numbers for Conformation Traits				
212	Number of Countries With Daughters	1071	2	N	
213	Country With Most Daughters	1073	3	A	see note 2 for list of country codes
214	Number of Daughters in This Country	1076	6	N	
215	Country With Second Most Daughters	1082	3	A	see note 2 for list of country codes
216	Number of Daughters in This Country	1085	6	N	
217	Country With Third Most Daughters	1091	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	1094	6	N	
219	Country With Fourth Most Daughters	1100	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	1103	6	N	
221	Country With Fifth Most Daughters	1109	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	1112	6	N	
	ABV Analysis Details for Conformation Traits				
223	Breed of ABV Analysis	1118	1	A	single character breed code - see Note 1
224	Date of ABV Analysis	1119	8	N	yyyymmdd
225	Source of ABV Analysis	1127	1	A	"A = ABV, I = ABV(i)"
226	Proof publishable	1128	1	A	"P = publishable, U = unpublishable"
227	Foreign proof contribution	1129	1		“A = Aus only, I = International only, B = both”
	ABVs for Workability Traits				
228	ABV Milking Speed	1130	3	N	
229	ABV Temperament	1133	3	N	
230	ABV Likability	1136	3	N	
	Amount of data for Workability Traits				
231	Reliability Workability Traits	1139	2	N	
232	Number of Daughters	1141	6	N	
233	Number of Herds	1147	5	N	
234	Number of Effective Daughters	1152	6	N	
	International Daughter Numbers for Workability Traits				
235	Number of Countries With Daughters	1158	2	N	

236	Country With Most Daughters	1160	3	A	see note 2 for list of country codes
237	Number of Daughters in This Country	1163	6	N	
238	Country With Second Most Daughters	1169	3	A	see note 2 for list of country codes
239	Number of Daughters in This Country	1172	6	N	
240	Country With Third Most Daughters	1178	3	A	see note 2 for list of country codes
241	Number of Daughters in This Country	1181	6	N	
242	Country With Fourth Most Daughters	1187	3	A	see note 2 for list of country codes
243	Number of Daughters in This Country	1190	6	N	
244	Country With Fifth Most Daughters	1196	3	A	see note 2 for list of country codes
245	Number of Daughters in This Country	1199	6	N	
	ABV Analysis Details for Workability Traits				
246	Breed of ABV Analysis	1205	1	A	single character breed code - see Note 1
247	Date of ABV Analysis	1206	8	N	yyyymmdd
248	Source of ABV Analysis	1214	1	A	"A = ABV, I = ABV(i)"
249	Proof publishable	1215	1	A	"P = publishable, U = unpublishable"
250	Foreign proof contribution	1216	1	A	“A = Aus only, I = International only, B = both”
	ABV and Reliability for Survival				
251	Survival Solution	1217	3	N	
252	Reliability Survival Solution	1220	2	N	
253	ABV Survival	1222	3	N	
254	Reliability Survival	1225	2	N	
255	Number of Daughters	1227	6	N	
256	Number of Herds	1233	5	N	
257	Number of Effective Daughters	1238	6	N	
	International Daughter Numbers for Survival				
258	Number of Countries With Daughters	1244	2	N	
259	Country With Most Daughters	1246	3	A	see note 2 for list of country codes
260	Number of Daughters in This Country	1249	6	N	
261	Country With Second Most Daughters	1255	3	A	see note 2 for list of country codes
262	Number of Daughters in This Country	1258	6	N	
263	Country With Third Most Daughters	1264	3	A	see note 2 for list of country codes
264	Number of Daughters in This Country	1267	6	N	
265	Country With Fourth Most Daughters	1273	3	A	see note 2 for list of country codes
266	Number of Daughters in This Country	1276	6	N	
267	Country With Fifth Most Daughters	1282	3	A	see note 2 for list of country codes
268	Number of Daughters in This Country	1285	6	N	
	ABV Analysis Details for Survival				
269	Breed of ABV Analysis	1291	1	A	single character breed code - see Note 1
270	Date of ABV Analysis	1292	8	N	yyyymmdd
271	Source of ABV Analysis	1300	1	A	"A = ABV, I = ABV(i)"
272	Proof publishable	1301	1	A	"P = publishable, U = unpublishable"
273	Foreign proof contribution	1302	1	A	“A = Aus only, I = International only, B = both”
	ABV for Calving Ease				
274	ABV Calving Ease	1303	3	N	
	Amount of data for Calving Ease				
275	Reliability Calving Ease	1306	2	N	
276	Number of Calvings	1308	6	N	
277	Number of Herds	1314	5	N	
278	Number of Effective calvings	1319	6	N	
	International Daughter Numbers for Calving Ease				
279	Number of Countries With Daughters	1325	2	N	
280	Country With Most Daughters	1327	3	A	see note 2 for list of country codes
281	Number of Daughters in This Country	1330	6	N	
282	Country With Second Most Daughters	1336	3	A	see note 2 for list of country codes
283	Number of Daughters in This Country	1339	6	N	
284	Country With Third Most Daughters	1345	3	A	see note 2 for list of country codes
285	Number of Daughters in This Country	1348	6	N	
286	Country With Fourth Most Daughters	1354	3	A	see note 2 for list of country codes

287	Number of Daughters in This Country	1357	6	N	
288	Country With Fifth Most Daughters	1363	3	A	see note 2 for list of country codes
289	Number of Daughters in This Country	1366	6	N	
	ABV Analysis Details for Calving Ease				
290	Breed of ABV Analysis	1372	1	A	single character breed code - see Note 1
291	Date of ABV Analysis	1373	8	N	yyyymmdd
292	Source of ABV Analysis	1381	1	A	"A = ABV, I = ABV(i)"
293	Proof publishable	1382	1	A	"P = publishable, U = unpublishable"
294	Foreign proof contribution	1383	1	A	“A = Aus only, I = International only, B = both”
	ABV for Somatic Cell Count				
295	ABV Somatic Cell Count	1384	3	N	
	Amount of data for Somatic Cell Count				
296	Reliability Somatic Cell Count	1387	2	N	
297	Number of Daughters	1389	6	N	
298	Number of Herds	1395	5	N	
299	Number of Effective Daughters	1400	6	N	
	International Daughter Numbers for Somatic Cell Count				
300	Number of Countries With Daughters	1406	2	N	
301	Country With Most Daughters	1408	3	A	see note 2 for list of country codes
302	Number of Daughters in This Country	1411	6	N	
303	Country With Second Most Daughters	1417	3	A	see note 2 for list of country codes
304	Number of Daughters in This Country	1420	6	N	
305	Country With Third Most Daughters	1426	3	A	see note 2 for list of country codes
306	Number of Daughters in This Country	1429	6	N	
307	Country With Fourth Most Daughters	1435	3	A	see note 2 for list of country codes
308	Number of Daughters in This Country	1438	6	N	
309	Country With Fifth Most Daughters	1444	3	A	see note 2 for list of country codes
310	Number of Daughters in This Country	1447	6	N	
	ABV Analysis Details for Somatic Cell Count				
311	Breed of ABV Analysis	1453	1	A	single character breed code - see Note 1
312	Date of ABV Analysis	1454	8	N	yyyymmdd
313	Source of ABV Analysis	1462	1	A	"A = ABV, I = ABV(i)"
314	Proof publishable	1463	1	A	"P = publishable, U = unpublishable"
315	Foreign proof contribution	1464	1	A	“A = Aus only, I = International only, B = both”
	ABV for Cow Fertility				
316	ABV Cow Fertility	1465	3	N	Provisional
	Amount of data for Cow Fertility				
317	Reliability Cow Fertility	1468	2	N	Provisional
318	Number of Daughters	1470	6	N	
319	Number of Herds	1476	5	N	
320	Number of Effective Daughters	1481	6	N	
	International Daughter Numbers for Cow Fertility				
321	Number of Countries With Daughters	1487	2	N	
322	Country With Most Daughters	1489	3	A	see note 2 for list of country codes
323	Number of Daughters in This Country	1492	6	N	
324	Country With Second Most Daughters	1498	3	A	see note 2 for list of country codes
325	Number of Daughters in This Country	1501	6	N	
326	Country With Third Most Daughters	1507	3	A	see note 2 for list of country codes
327	Number of Daughters in This Country	1510	6	N	
328	Country With Fourth Most Daughters	1516	3	A	see note 2 for list of country codes
329	Number of Daughters in This Country	1519	6	N	
330	Country With Fifth Most Daughters	1525	3	A	see note 2 for list of country codes
331	Number of Daughters in This Country	1528	6	N	
	ABV Analysis Details for Cow Fertility				
332	Breed of ABV Analysis	1534	1	A	single character breed code - see Note 1
333	Date of ABV Analysis	1535	8	N	yyyymmdd
334	Source of ABV Analysis	1543	1	A	"A = ABV, I = ABV(i)"
335	Proof publishable	1544	1	A	"P = publishable, U = unpublishable"

336	Foreign proof contribution	1545	1	A	“A = Aus only, I = International only, B = both”
	ABV and Reliability for Liveweight				
337	ABV Liveweight	1546	3	N	
338	Reliability Liveweight	1549	2	N	
	ABV Analysis Details for Liveweight				
339	Breed of ABV Analysis	1551	1	A	single character breed code - see Note 1
340	Date of ABV Analysis	1552	8	N	yyyymmdd
341	Source of ABV Analysis	1560	1	A	"A = ABV, I = ABV(i)"
342	Proof publishable	1561	1	A	"P = publishable, U = unpublishable",
343	Foreign proof contribution	1562	1	A	“A = Aus only, I = International only, B = both”
	Genomic Evaluation				
344	Genomics Evaluation	1563	1	A	g=genomics included, blank otherwise

RECORD LENGTH = 1563 bytes

Type of Proof

00	unknown
11	based on first crop sampling daughters
12	based on first and second crop daughters
21	based on imported semen of proven bull (second crop daughters only)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

APPENDIX F Formats discontinued from 1st November 2020

The following formats have been replaced by later version formats as from 1st November 2020.

Format	Data Record for discontinued formats	Version	Page	Date of Update
112	Calving Ease Record	1	F-4	
201	Bull ABVs for All Traits	5	F-6	
202	Cow ABVs for All Traits	2	F-9	
251	Bull ABVs for All Traits (extended file)*	6*	F-12	
261	Cow ABVs for All Traits (extended file)#	2	F-21	

* versions 2, 3 & 4 of dif251 have never been published
# versions 1 of dif261 has never been published

Summary of differences between Versions of formats

DIF112 V2

Field 10	Introduction of National ID of Genetic Dam of Calf
Field 11	Introduction of National ID of Calf
Field 12	Introduction of MISTRO Reference No.
Field 13	Introduction of Litter size
Field 14	Calving Ease shifted down from 10 to accommodate Fields 10 to 13
Field 15	Calving Code shifted down from 11 to accommodate Fields 10 to 13
Field 16	Sex of Calf shifted down from 12 to accommodate Fields 10 to 13
Field 16	Sex of Calf Field Length changed to 1
Field 17	Size of Calf shifted down from 13 to accommodate Fields 10 to 13
Field 18	Fate of Calf shifted down from 14 to accommodate Fields 10 to 13
Field 18	Fate of Calf Field Length changed to 1

DIF201 V6

Field 93	Introduction of the ABV for Rump
Field 94	Introduction of the ABV for Strength
Field 95	Introduction of the ABV for Heat Tolerance
Field 96	Reliability for Heat Tolerance
Field 97	Number of Daughters for Heat Tolerance
Field 98	Number of Herds for Heat Tolerance
Field 99	Introduction of the ABV for Gestation Length
Field 100	Reliability for Gestation Length
Field 101	Number of Calvings for Gestation Length
Field 102	Number of Herds for Gestation Length
Field 103	Introduction of the ABV for Maternal Calving
Field 104	Reliability for Maternal Calving
Field 105	Number of Calvings for Maternal Calving
Field 106	Number of Herds for Maternal Calving

DIF202 V3

Field 82 Introduction of the ABV for Rump
Field 83 Introduction of the ABV for Strength
Field 84 Introduction of the ABV for Heat Tolerance
Field 85 Reliability for Heat Tolerance
Field 86 Introduction of the ABV for Gestation Length
Field 87 Reliability for Gestation Length
Field 88 Introduction of the ABV for Maternal Calving
Field 89 Reliability for Maternal Calving

DIF251 V7

Note V2, V3, V4 were never published

Field 357 Introduction of the ABV for Rump
Field 358 Reliability for Rump
Field 359 Number of Daughters for Rump
Field 360 Number of Herds for Heat Rump
Field 361 Number of Effective Daughters for Rump
Field 362 Introduction of the ABV for Dairy Strength
Field 363 Reliability for Dairy Strength
Field 364 Number of Daughters for Dairy Strength
Field 365 Number of Herds for Dairy Strength
Field 366 Number of Effective Daughters for Dairy Strength
Field 367 Introduction of the ABV for Heat Tolerance
Field 368 Reliability for Heat Tolerance
Field 369 Number of Daughters for Heat Tolerance
Field 370 Number of Herds for Heat Tolerance
Field 371 Number of Effective Daughters for Heat Tolerance
Field 372 Introduction of the ABV for Gestation Length
Field 373 Reliability for Gestation Length
Field 374 Number of Calvings for Gestation Length
Field 375 Number of Herds for Gestation Length
Field 376 Number of Effective Calvings for Gestation Length
Field 377 Number of Countries With Daughters
Field 378 Country With Most Daughters
Field 379 Number of Daughters in This Country
Field 380 Country With Second Most Daughters
Field 381 Number of Daughters in This Country
Field 382 Country With Third Most Daughters
Field 383 Number of Daughters in This Country
Field 384 Country With Fourth Most Daughters
Field 385 Number of Daughters in This Country
Field 386 Country With Fifth Most Daughters
Field 387 Number of Daughters in This Country
Field 388 Breed of ABV Analysis
Field 389 Date of ABV Analysis
Field 390 Source of ABV Analysis
Field 391 Proof Publishable
Field 392 Foreign Proof Contribution
Field 393 Introduction of the ABV for Maternal Calving
Field 394 Reliability for Maternal Calving
Field 395 Number of Calvings for Maternal Calving

Field 396 Number of Herds for Maternal Calving
Field 397 Number of Effective Calvings for Maternal Calving
Field 398 Number of Countries With Daughters
Field 399 Country With Most Daughters
Field 400 Number of Daughters in This Country
Field 401 Country With Second Most Daughters
Field 402 Number of Daughters in This Country
Field 403 Country With Third Most Daughters
Field 404 Number of Daughters in This Country
Field 405 Country With Fourth Most Daughters
Field 406 Number of Daughters in This Country
Field 407 Country With Fifth Most Daughters
Field 408 Number of Daughters in This Country
Field 409 Breed of ABV Analysis
Field 410 Date of ABV Analysis
Field 411 Source of ABV Analysis
Field 412 Proof Publishable
Field 413 Foreign Proof Contribution

DIF261 V3 (DataGene Internal Use Only)

Note V1 was never published
Note V2 based off vJS

Field 137 Introduction of the ABV for Rump
Field 138 Introduction of the ABV for Dairy Strength
Field 139 Introduction of the ABV for Heat Tolerance
Field 140 Reliability for Heat Tolerance
Field 141 Introduction of the ABV for Gestation Length
Field 142 Reliability for Gestation Length
Field 143 Breed of ABV Analysis
Field 144 Date of ABV Analysis
Field 145 Source of ABV Analysis
Field 146 Proof Publishable
Field 147 Foreign Proof Contribution
Field 148 Introduction of the ABV for Maternal Calving
Field 149 Reliability for Maternal Calving
Field 150 Breed of ABV Analysis
Field 151 Date of ABV Analysis
Field 152 Source of ABV Analysis
Field 153 Proof Publishable
Field 154 Foreign Proof Contribution

Data Format 112 V1 Calving Ease Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 112
2	Record Version Number	4	1	A	Value = 1
	Herd ID				
3	National Herd ID	5	7	A	See Note 8
	Cow Details				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Parity	35	2	N	Parity is the lactation number, if known. It is the number of lactations produced by the cow, whether recorded or otherwise.
8	Last mating date	37	8	N	yyyymmdd - see note below
9	National ID of Sire of Calf	45	9	A	See Note 3
	Calving parameters				
10	Calving Ease	54	1	A	See note below
11	Calving Code	55	1	A	0 or N=normal calving; 1 or I=induced calving; 2 or A=aborted; 3 or L=induced lactation
12	Sex of Calf	56	2	A	See note below
13	Size of Calf	58	1	A	See note below
14	Fate of Calf	59	2	A	See note below

RECORD LENGTH = 60 bytes

Last mating Date
This is the last mating date, or estimated conception date, prior to the calving date shown in the record.

Calving Ease

System introduced 2007

A	No difficulty
B	Slight difficulty
C	Moderate difficulty
D	High difficulty

System phased out from 2007

1 or X	Unobserved - not OK
2 or K	Unobserved - OK
3 or N	Observed - no assistance
4 or E	Observed - easy pull
5 or H	Observed - very difficult
6 or S	Observed - surgical
7 or M	Observed - malpresentation

Size of Calf

H	Huge
B	Large
N	Average
S	Small
T	Tiny

Sex of Calf

F	Female
M	Male
FF	Female Twins
MM	Male Twins
FM	One Female and One Male Twin
U	Undefined

Fate of Calf

L	Live
D	Dead
LL	Live Twins
DD	Dead Twins
LD	One Live and One Dead Twin

Essential fields for DataGene are 1,2,3,4,6,9,10,11,12,13,14. Other fields are strongly recommended. Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Data Format 201 V5 Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 5
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Genetic Codes	88	8x3	A	Up to 8 three-character codes (see note 10)
	Bull Details				
10	Date of Birth	112	8	N	yyyymmdd
11	Sire National ID	120	9	A	see Note 3
12	Dam National ID	129	9	A	see Note 3
13	MGS National ID	138	9	A	see Note 3
	ABV Analysis Details				
14	Breed of ABV Analysis	147	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	148	8	N	yyyymmdd
16	Source of ABV Analysis	156	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
	Balanced Performance Index (BPI)				
17	Balanced Performance Index	157	4	N	
18	Reliability BPI	161	2	N	
	ABVs for Production Traits				
19	Australian Selection Index	163	4	N	
20	Protein	167	4	N	
21	Protein Percentage	171	5	N	Two decimal places (eg, -0.12)
22	Milk	176	5	N	
23	Fat	181	4	N	
24	Fat Percentage	185	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
25	Reliability	190	2	N	
26	Number of Daughters	192	6	N	
27	Number of Herds	198	5	N	
28	Number in Herd - most Daughters	203	4	N	
29	Number in Herd - 2nd most Daughters	207	4	N	
30	Records in progress (RIP%)	211	3	N	% of daughters with < 4 test days in 1st lactation
	ABVs for Conformation Traits				
31	Overall Type	214	3	N	
32	Mammary System	217	3	N	
33	Overall Feet & Legs	220	3	N	
34	Stature	223	3	N	
35	Udder Texture	226	3	N	
36	Bone Quality	229	3	N	
37	Angularity	232	3	N	
38	Muzzle Width	235	3	N	
39	Body Length	238	3	N	
40	Body Depth	241	3	N	

41	Loin Strength	244	3	N	
42	Chest Width	247	3	N	
43	Rump Length	250	3	N	
44	Pin Width	253	3	N	
45	Pin Set	256	3	N	
46	Foot Angle	259	3	N	
47	Heel Depth	262	3	N	
48	Rear Set of Leg	265	3	N	
49	Rear Leg Rear View	268	3	N	
50	Udder Depth	271	3	N	
51	Fore Attachment	274	3	N	
52	Rear Attachment Height	277	3	N	
53	Rear Attachment Width	280	3	N	
54	Centre Ligament	283	3	N	
55	Teat Placement Fore	286	3	N	
56	Teat Placement Rear (new trait)	289	3	N	
57	Teat Length	292	3	N	
58	Condition Score	295	3	N	
	Amount of data for Conformation Traits (average of key traits)				
59	Reliability	298	2	N	
60	Number of Daughters	300	6	N	
61	Number of Herds	306	5	N	
	ABVs for Workability Traits				
62	ABV Milking Speed	311	3	N	
63	ABV Temperament	314	3	N	
64	ABV Likability	317	3	N	
	Amount of data for Workability Traits				
65	Reliability Workability Traits	320	2	N	
66	Number of Daughters	322	6	N	
67	Number of Herds	328	5	N	
	ABV and Reliability for Survival				
68	ABV Survival	333	3	N	
69	Reliability Survival	336	2	N	
	ABV for Calving Ease				
70	ABV Calving Ease	338	3	N	
	Amount of data for Calving Ease				
71	Reliability Calving Ease	341	2	N	
72	Number of Calvings	343	6	N	
73	Number of Herds	349	5	N	
	ABV for Cell Count				
74	ABV Somatic Cell Count	354	3	N	
	Amount of data for Cell Count				
75	Reliability Cell Count	357	2	N	
76	Number of Daughters	359	6	N	
77	Number of Herds	365	5	N	
	ABV for Daughter Fertility				
78	ABV Daughter Fertility	370	3	N	
	Amount of data for Daughter Fertility				
79	Reliability Daughter Fertility	373	2	N	
80	Number of Daughters	375	6	N	
81	Number of Herds	381	5	N	
	ABV for Liveweight				
82	ABV Liveweight (kg)	386	3	N	
	Amount of data for Liveweight				
83	Reliability Liveweight	389	2	N	
	Genomics Evaluation				
84	Genomics Evaluation	391	1	A	g=genomics included, blank otherwise

	Health Weighted Index (HWI)			
85	Health Weighted Index	392	4	N
86	Reliability HWI	396	2	N
	Sustainability Index (SI)			
87	Sustainability Index	398	4	N
88	Reliability SI	402	2	N
	ABVs for New Traits			
89	ABV Residual Survival	404	3	N
90	Reliability Residual Survival	407	2	N
91	ABV Feed Efficiency	409	5	N
92	Reliability Feed Efficiency	414	2	N

RECORD LENGTH = 415 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 202 V2 Cow ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 202
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See DIF Document Note 8
	Cow Identity				
4	National ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	Genetic Codes	42	8x3	A	Up to 8 three-character codes (see note 10)
	Cow Details				
9	Breed of cow	66	4	A	See Note 1
10	Date of Birth	70	8	N	yyyymmdd
11	Date of Latest Calving	78	8	N	yyyymmdd
12	Number of Lactations in ABV analysis	86	2	N	
13	Crossbreed	88	1	A	'X' if crossbreed, otherwise space
14	DPC Code	89	1	A	See Note 4
	Pedigree details				
15	Sire National ID	90	9	A	see Note 3
16	Dam National ID	99	9	A	see Note 3
17	MGS National ID	108	9	A	see Note 3
	ABV Analysis Details				
18	Breed of ABV Analysis	117	1	A	single character breed code - see Note 1
19	Date of ABV Analysis	118	8	N	yyyymmdd
20	Source of ABV Analysis	126	1	A	A = ABV, I = ABV(i)
	Balanced Performance Index (BPI)				
21	Balanced Performance Index	127	4	N	
22	Reliability BPI	131	2	N	
	ABVs for Production Traits				
23	Australian Selection Index	133	4	N	
24	Protein	137	4	N	
25	Protein Percentage	141	5	N	Two decimal places (eg, -0.12)
26	Milk	146	5	N	
27	Fat	151	4	N	
28	Fat Percentage	155	5	N	Two decimal places (eg, -0.12)
	Amount of data for Production Traits				
29	Reliability	160	2	N	
	ABVs for Conformation Traits				
30	Overall Type	162	3	N	
31	Mammary System	165	3	N	
32	Overall Feet & Legs	168	3	N	
33	Stature	171	3	N	
34	Udder Texture	174	3	N	
35	Bone Quality	177	3	N	
36	Angularity	180	3	N	
37	Muzzle Width	183	3	N	
38	Body Length	186	3	N	
39	Body Depth	189	3	N	
40	Loin Strength	192	3	N	
41	Chest Width	195	3	N	

42	Rump Length	198	3	N	
43	Pin Width	201	3	N	
44	Pin Set	204	3	N	
45	Foot Angle	207	3	N	
46	Heel Depth	210	3	N	
47	Rear Set of Leg	213	3	N	
48	Rear Leg Rear View	216	3	N	
49	Udder Depth	219	3	N	
50	Fore Attachment	222	3	N	
51	Rear Attachment Height	225	3	N	
52	Rear Attachment Width	228	3	N	
53	Centre Ligament	231	3	N	
54	Teat Placement Fore	234	3	N	
55	Teat Placement Rear (new trait)	237	3	N	
56	Teat Length	240	3	N	
57	Condition Score	243	3	N	
	Amount of data for Conformation Traits (average of key traits)				
58	Reliability	246	2	N	
	ABVs and Reliability for Workability Traits				
59	ABV Milking Speed	248	3	N	
60	ABV Temperament	251	3	N	
61	ABV Likability	254	3	N	
62	Reliability Workability Traits	257	2	N	
	ABV and Reliability for Survival				
63	ABV Survival	259	3	N	
64	Reliability Survival	262	2	N	
	ABV and Reliability for Calving Ease				
65	ABV Calving Ease	264	3	N	
66	Reliability Calving Ease	267	2	N	
	ABV and Reliability for Cell Count				
67	ABV Somatic Cell Count	269	3	N	
68	Reliability Cell Count	272	2	N	
	ABV and Reliability for Daughter Fertility				
69	ABV Daughter Fertility	274	3	N	
70	Reliability Daughter Fertility	277	2	N	
	ABV and Reliability for Liveweight				
71	ABV Liveweight (kg)	279	3	N	
72	Reliability Liveweight	282	2	N	
	Genomic Evaluation				
73	Genomic evaluation	284	1	A	g=genomics included, blank otherwise
	Health Weighted Index (HWI)				
74	Health Weighted Index	285	4	N	
75	Reliability HWI	289	2	N	
	Sustainability Index (SI)				
76	Sustainability Index	291	4	N	
77	Reliability SI	295	2	N	
	ABVs for New Traits				
78	ABV Residual Survival	297	3	N	
79	Reliability Residual Survival	300	2	N	
80	ABV Feed Efficiency	302	5	N	
81	Reliability Feed Efficiency	307	2	N	

RECORD LENGTH = 308 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 251 V6 Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 6
	Bull Identity				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	Herdbook ID				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Genetic Codes	107	8x3	A	Up to 8 three-character codes (see note 10)
	Bull Details				
11	Date of Birth	131	8	N	yyyymmdd
12	Sire National ID	139	9	A	see Note 3
13	Dam National ID	148	9	A	see Note 3
14	MGS National ID	157	9	A	see Note 3
15	MGD National ID	166	9	A	see Note 3
16	Sire International ID	175	19	A	Interbull format
17	Dam International ID	194	19	A	Interbull format
18	MGS International ID	213	19	A	Interbull format
19	MGD International ID	232	19	A	Interbull format
	International Proof Details				
20	Type of Proof	251	2	N	Interbull codes – see note below
21	Includes Foreign Proof	253	1	A	"Y = information from another country is incorporated in national proof, N otherwise"
22	Birth Date of First Australian Daughter	254	8	N	yyyymmdd
	Balanced Performance Index (BPI)				
23	Balanced Performance Index	262	4	N	
24	Reliability BPI	266	2	N	
	Main Components of BPI (Components expressed in dollar unit values)				
25	Protein	268	4	N	
26	Milk	272	4	N	
27	Fat	276	4	N	
28	Milking Speed	280	4	N	
29	Temperament	284	4	N	
30	Residual Survival	288	4	N	
31	Somatic Cell Count	292	4	N	
32	Feed Efficiency	296	4	N	
33	Daughter Fertility	300	4	N	
34	Mammary System	304	4	N	
35	Overall Type	308	4	N	
36	Udder depth	312	4	N	
37	Pin Set	316	4	N	
	Components of Survival Index				
38	Survival	320	4	N	
39	Likability	324	4	N	
40	Overall Type	328	4	N	
41	Udder Depth	332	4	N	
42	Pin Set	336	4	N	

	Components of Liveweight				
43	Stature	340	4	N	
44	Body depth	344	4	N	
45	Chest width	348	4	N	
	ABVs for Production Traits				
46	Australian Selection Index	352	4	N	
47	Protein	356	4	N	
48	Protein Percentage	360	5	N	"Two decimal places (eg -0.12)"
49	Milk	365	5	N	
50	Fat	370	4	N	
51	Fat Percentage	374	5	N	"Two decimal places (eg -0.12)"
	Amount of data for Production Traits				
52	Reliability	379	2	N	
53	Number of Daughters	381	6	N	
54	Number of Herds	387	5	N	
55	Number of Effective Daughters	392	6	N	
56	Number in Herd - most Daughters	398	4	N	
57	Number in Herd - 2nd most Daughters	402	4	N	
58	Records in Progress (RIP%)	406	3	N	% of daughters with < 4 test days in 1st lactation
	International Daughter Numbers for Production Traits				
59	Number of Countries With Daughters	409	2	N	
60	Country With Most Daughters	411	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	414	6	N	
62	Country With Second Most Daughters	420	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	423	6	N	
64	Country With Third Most Daughters	429	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	432	6	N	
66	Country With Fourth Most Daughters	438	3	A	see note 2 for list of country codes
67	Number of Daughters in This Country	441	6	N	
68	Country With Fifth Most Daughters	447	3	A	see note 2 for list of country codes
69	Number of Daughters in This Country	450	6	N	
	ABV Analysis Details for Production Traits				
70	Breed of ABV Analysis	456	1	A	single character breed code - see Note 1
71	Date of ABV Analysis	457	8	N	yyyymmdd
72	Source of ABV Analysis	465	1	A	"A = ABV, I = ABV(i)"
73	Proof publishable	466	1	A	"P = publishable, U = unpublishable"
74	Foreign proof contribution	467	1	A	“A = Aus only, I = International only, B = both”
	ABVs for Conformation Traits				
75	Overall Type	468	3	N	
76	Overall Feet and Legs	471	3	N	
77	Mammary System	474	3	N	
78	Stature	477	3	N	
79	Udder Texture	480	3	N	
80	Bone Quality	483	3	N	
81	Angularity	486	3	N	
82	Muzzle Width	489	3	N	
83	Body Length	492	3	N	
84	Body Depth	495	3	N	
85	Chest Width	498	3	N	
86	Rump Length	501	3	N	
87	Pin Width	504	3	N	
88	Pin Set	507	3	N	
89	Foot Angle	510	3	N	
90	Rear Set of Leg	513	3	N	
91	Rear Leg Rear View	516	3	N	

92	Heel Depth	519	3	N
93	Udder Depth	522	3	N
94	Fore Attachment	525	3	N
95	Rear Attachment Height	528	3	N
96	Rear Attachment Width	531	3	N
97	Centre Ligament	534	3	N
98	Teat Placement Fore	537	3	N
99	Teat Length	540	3	N
100	Loin Strength	543	3	N
101	Front End Height	546	3	N
102	Teat Placement Rear	549	3	N
103	Condition Score	552	3	N
	Amount of data for old Conformation Traits			
104	Reliability	555	2	N
105	Number of Daughters	557	6	N
106	Number of Herds	563	5	N
107	Number of Effective Daughters	568	6	N
	Amount of data for Overall Type			
108	Reliability	574	2	N
109	Number of Daughters	576	6	N
110	Number of Herds	582	5	N
111	Number of Effective Daughters	587	6	N
	Amount of data for Mammary System			
112	Reliability	593	2	N
113	Number of Daughters	595	6	N
114	Number of Herds	601	5	N
115	Number of Effective Daughters	606	6	N
	Amount of data for Stature			
116	Reliability	612	2	N
117	Number of Daughters	614	6	N
118	Number of Herds	620	5	N
119	Number of Effective Daughters	625	6	N
	Amount of data for Udder Texture			
120	Reliability	631	2	N
121	Number of Daughters	633	6	N
122	Number of Herds	639	5	N
123	Number of Effective Daughters	644	6	N
	Amount of data for Bone Quality			
124	Reliability	650	2	N
125	Number of Daughters	652	6	N
126	Number of Herds	658	5	N
127	Number of Effective Daughters	663	6	N
	Amount of data for Angularity			
128	Reliability	669	2	N
129	Number of Daughters	671	6	N
130	Number of Herds	677	5	N
131	Number of Effective Daughters	682	6	N
	Amount of data for Muzzle Width			
132	Reliability	688	2	N
133	Number of Daughters	690	6	N
134	Number of Herds	696	5	N
135	Number of Effective Daughters	701	6	N
	Amount of data for Body Length			
136	Reliability	707	2	N
137	Number of Daughters	709	6	N
138	Number of Herds	715	5	N
139	Number of Effective Daughters	720	6	N

	Amount of data for Body Depth			
140	Reliability	726	2	N
141	Number of Daughters	728	6	N
142	Number of Herds	734	5	N
143	Number of Effective Daughters	739	6	N
	Amount of data for Chest Width			
144	Reliability	745	2	N
145	Number of Daughters	747	6	N
146	Number of Herds	753	5	N
147	Number of Effective Daughters	758	6	N
	Amount of data for Rump Length			
148	Reliability	764	2	N
149	Number of Daughters	766	6	N
150	Number of Herds	772	5	N
151	Number of Effective Daughters	777	6	N
	Amount of data for Pin Width			
152	Reliability	783	2	N
153	Number of Daughters	785	6	N
154	Number of Herds	791	5	N
155	Number of Effective Daughters	796	6	N
	Amount of data for Pin Set			
156	Reliability	802	2	N
157	Number of Daughters	804	6	N
158	Number of Herds	810	5	N
159	Number of Effective Daughters	815	6	N
	Amount of data for Foot Angle			
160	Reliability	821	2	N
161	Number of Daughters	823	6	N
162	Number of Herds	829	5	N
163	Number of Effective Daughters	834	6	N
	Amount of data for Rear Set of Leg			
164	Reliability	840	2	N
165	Number of Daughters	842	6	N
166	Number of Herds	848	5	N
167	Number of Effective Daughters	853	6	N
	Amount of data for Rear Leg Rear View			
168	Reliability	859	2	N
169	Number of Daughters	861	6	N
170	Number of Herds	867	5	N
171	Number of Effective Daughters	872	6	N
	Amount of data for Udder Depth			
172	Reliability	878	2	N
173	Number of Daughters	880	6	N
174	Number of Herds	886	5	N
175	Number of Effective Daughters	891	6	N
	Amount of data for Fore Attachment			
176	Reliability	897	2	N
177	Number of Daughters	899	6	N
178	Number of Herds	905	5	N
179	Number of Effective Daughters	910	6	N
	Amount of data for Rear Attachment Height			
180	Reliability	916	2	N
181	Number of Daughters	918	6	N
182	Number of Herds	924	5	N
183	Number of Effective Daughters	929	6	N
	Amount of data for Rear Attachment Width			
184	Reliability	935	2	N

185	Number of Daughters	937	6	N	
186	Number of Herds	943	5	N	
187	Number of Effective Daughters	948	6	N	
	Amount of data for Centre Ligament				
188	Reliability	954	2	N	
189	Number of Daughters	956	6	N	
190	Number of Herds	962	5	N	
191	Number of Effective Daughters	967	6	N	
	Amount of data for Teat Placement Fore				
192	Reliability	973	2	N	
193	Number of Daughters	975	6	N	
194	Number of Herds	981	5	N	
195	Number of Effective Daughters	986	6	N	
	Amount of data for Teat Length				
196	Reliability	992	2	N	
197	Number of Daughters	994	6	N	
198	Number of Herds	1000	5	N	
199	Number of Effective Daughters	1005	6	N	
	Amount of data for Loin Strength				
200	Reliability	1011	2	N	
201	Number of Daughters	1013	6	N	
202	Number of Herds	1019	5	N	
203	Number of Effective Daughters	1024	6	N	
	Amount of data for Front End Height				
204	Reliability	1030	2	N	
205	Number of Daughters	1032	6	N	
206	Number of Herds	1038	5	N	
207	Number of Effective Daughters	1043	6	N	
	Amount of data for Teat Placement Rear				
208	Reliability	1049	2	N	
209	Number of Daughters	1051	6	N	
210	Number of Herds	1057	5	N	
211	Number of Effective Daughters	1062	6	N	
	Amount of data for Condition Score				
212	Reliability	1068	2	N	
213	Number of Daughters	1070	6	N	
214	Number of Herds	1076	5	N	
215	Number of Effective Daughters	1081	6	N	
	International Daughter Numbers for Conformation Traits				
216	Number of Countries With Daughters	1087	2	N	
217	Country With Most Daughters	1089	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	1092	6	N	
219	Country With Second Most Daughters	1098	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	1101	6	N	
221	Country With Third Most Daughters	1107	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	1110	6	N	
223	Country With Fourth Most Daughters	1116	3	A	see note 2 for list of country codes
224	Number of Daughters in This Country	1119	6	N	
225	Country With Fifth Most Daughters	1125	3	A	see note 2 for list of country codes
226	Number of Daughters in This Country	1128	6	N	
	ABV Analysis Details for Conformation Traits				
227	Breed of ABV Analysis	1134	1	A	single character breed code - see Note 1
228	Date of ABV Analysis	1135	8	N	yyyymmdd
229	Source of ABV Analysis	1143	1	A	"A = ABV, I = ABV(i)"
230	Proof publishable	1144	1	A	"P = publishable, U = unpublishable"
231	Foreign proof contribution	1145	1	A	“A = Aus only, I = International only, B = both”
	ABVs for Workability Traits				

232	ABV Milking Speed	1146	3	N	
233	ABV Temperament	1149	3	N	
234	ABV Likability	1152	3	N	
	Amount of data for Workability Traits				
235	Reliability Workability Traits	1155	2	N	
236	Number of Daughters	1157	6	N	
237	Number of Herds	1163	5	N	
238	Number of Effective Daughters	1168	6	N	
	International Daughter Numbers for Workability Traits				
239	Number of Countries With Daughters	1174	2	N	
240	Country With Most Daughters	1176	3	A	see note 2 for list of country codes
241	Number of Daughters in This Country	1179	6	N	
242	Country With Second Most Daughters	1185	3	A	see note 2 for list of country codes
243	Number of Daughters in This Country	1188	6	N	
244	Country With Third Most Daughters	1194	3	A	see note 2 for list of country codes
245	Number of Daughters in This Country	1197	6	N	
246	Country With Fourth Most Daughters	1203	3	A	see note 2 for list of country codes
247	Number of Daughters in This Country	1206	6	N	
248	Country With Fifth Most Daughters	1212	3	A	see note 2 for list of country codes
249	Number of Daughters in This Country	1215	6	N	
	ABV Analysis Details for Workability Traits				
250	Breed of ABV Analysis	1221	1	A	single character breed code - see Note 1
251	Date of ABV Analysis	1222	8	N	yyyymmdd
252	Source of ABV Analysis	1230	1	A	"A = ABV, I = ABV(i)"
253	Proof publishable	1231	1	A	"P = publishable, U = unpublishable"
254	Foreign proof contribution	1232	1	A	“A = Aus only, I = International only, B = both”
	ABV and Reliability for Survival				
255	Survival Solution	1233	3	N	
256	Reliability Survival Solution	1236	2	N	
257	ABV Survival	1238	3	N	
258	Reliability Survival	1241	2	N	
259	Number of Daughters	1243	6	N	
260	Number of Herds	1249	5	N	
261	Number of Effective Daughters	1254	6	N	
	International Daughter Numbers for Survival				
262	Number of Countries With Daughters	1260	2	N	
263	Country With Most Daughters	1262	3	A	see note 2 for list of country codes
264	Number of Daughters in This Country	1265	6	N	
265	Country With Second Most Daughters	1271	3	A	see note 2 for list of country codes
266	Number of Daughters in This Country	1274	6	N	
267	Country With Third Most Daughters	1280	3	A	see note 2 for list of country codes
268	Number of Daughters in This Country	1283	6	N	
269	Country With Fourth Most Daughters	1289	3	A	see note 2 for list of country codes
270	Number of Daughters in This Country	1292	6	N	
271	Country With Fifth Most Daughters	1298	3	A	see note 2 for list of country codes
272	Number of Daughters in This Country	1301	6	N	
	ABV Analysis Details for Survival				
273	Breed of ABV Analysis	1307	1	A	single character breed code - see Note 1
274	Date of ABV Analysis	1308	8	N	yyyymmdd
275	Source of ABV Analysis	1316	1	A	"A = ABV, I = ABV(i)"
276	Proof publishable	1317	1	A	"P = publishable, U = unpublishable"
277	Foreign proof contribution	1318	1	A	“A = Aus only, I = International only, B = both”
	ABV for Calving Ease				
278	ABV Calving Ease	1319	3	N	
	Amount of data for Calving Ease				
279	Reliability Calving Ease	1322	2	N	
280	Number of Calvings	1324	6	N	

281	Number of Herds	1330	5	N	
282	Number of Effective Calvings	1335	6	N	
	International Daughter Numbers for Calving Ease				
283	Number of Countries With Daughters	1341	2	N	
284	Country With Most Daughters	1343	3	A	see note 2 for list of country codes
285	Number of Daughters in This Country	1346	6	N	
286	Country With Second Most Daughters	1352	3	A	see note 2 for list of country codes
287	Number of Daughters in This Country	1355	6	N	
288	Country With Third Most Daughters	1361	3	A	see note 2 for list of country codes
289	Number of Daughters in This Country	1364	6	N	
290	Country With Fourth Most Daughters	1370	3	A	see note 2 for list of country codes
291	Number of Daughters in This Country	1373	6	N	
292	Country With Fifth Most Daughters	1379	3	A	see note 2 for list of country codes
293	Number of Daughters in This Country	1382	6	N	
	ABV Analysis Details for Calving Ease				
294	Breed of ABV Analysis	1388	1	A	single character breed code - see Note 1
295	Date of ABV Analysis	1389	8	N	yyyymmdd
296	Source of ABV Analysis	1397	1	A	"A = ABV, I = ABV(i)"
297	Proof publishable	1398	1	A	"P = publishable, U = unpublishable"
298	Foreign proof contribution	1399	1	A	“A = Aus only, I = International only, B = both”
	ABV for Somatic Cell Count				
299	ABV Somatic Cell Count	1400	4	N	
	Amount of data for Somatic Cell Count				
300	Reliability Somatic Cell Count	1404	2	N	
301	Number of Daughters	1406	6	N	
302	Number of Herds	1412	5	N	
303	Number of Effective Daughters	1417	6	N	
	International Daughter Numbers for Somatic Cell Count				
304	Number of Countries With Daughters	1423	2	N	
305	Country With Most Daughters	1425	3	A	see note 2 for list of country codes
306	Number of Daughters in This Country	1428	6	N	
307	Country With Second Most Daughters	1434	3	A	see note 2 for list of country codes
308	Number of Daughters in This Country	1437	6	N	
309	Country With Third Most Daughters	1443	3	A	see note 2 for list of country codes
310	Number of Daughters in This Country	1446	6	N	
311	Country With Fourth Most Daughters	1452	3	A	see note 2 for list of country codes
312	Number of Daughters in This Country	1455	6	N	
313	Country With Fifth Most Daughters	1461	3	A	see note 2 for list of country codes
314	Number of Daughters in This Country	1464	6	N	
	ABV Analysis Details for Somatic Cell Count				
315	Breed of ABV Analysis	1470	1	A	single character breed code - see Note 1
316	Date of ABV Analysis	1471	8	N	yyyymmdd
317	Source of ABV Analysis	1479	1	A	"A = ABV, I = ABV(i)"
318	Proof publishable	1480	1	A	"P = publishable, U = unpublishable"
319	Foreign proof contribution	1481	1	A	“A = Aus only, I = International only, B = both”
	ABV and Reliability for Liveweight				
320	ABV Liveweight	1482	4	N	
321	Reliability Liveweight	1486	2	N	
	ABV Analysis Details for Liveweight				
322	Breed of ABV Analysis	1488	1	A	single character breed code - see Note 1
323	Date of ABV Analysis	1489	8	N	yyyymmdd
324	Source of ABV Analysis	1497	1	A	"A = ABV, I = ABV(i)"
325	Proof publishable	1498	1	A	"P = publishable, U = unpublishable",
326	Foreign proof contribution	1499	1	A	“A = Aus only, I = International only, B = both”
	ABV for Cow Fertility				
327	ABV Cow Fertility	1500	4	N	Provisional
	Amount of data for Cow Fertility				

328	Reliability Cow Fertility	1504	2	N	Provisional
329	Number of Daughters	1506	6	N	
330	Number of Herds	1512	5	N	
331	Number of Effective Daughters	1517	6	N	
	International Daughter Numbers for Cow Fertility				
332	Number of Countries With Daughters	1523	2	N	
333	Country With Most Daughters	1525	3	A	see note 2 for list of country codes
334	Number of Daughters in This Country	1528	6	N	
335	Country With Second Most Daughters	1534	3	A	see note 2 for list of country codes
336	Number of Daughters in This Country	1537	6	N	
337	Country With Third Most Daughters	1543	3	A	see note 2 for list of country codes
338	Number of Daughters in This Country	1546	6	N	
339	Country With Fourth Most Daughters	1552	3	A	see note 2 for list of country codes
340	Number of Daughters in This Country	1555	6	N	
341	Country With Fifth Most Daughters	1561	3	A	see note 2 for list of country codes
342	Number of Daughters in This Country	1564	6	N	
	ABV Analysis Details for Cow Fertility				
343	Breed of ABV Analysis	1570	1	A	single character breed code - see Note 1
344	Date of ABV Analysis	1571	8	N	yyyymmdd
345	Source of ABV Analysis	1579	1	A	"A = ABV, I = ABV(i)"
346	Proof publishable	1580	1	A	"P = publishable, U = unpublishable"
347	Foreign proof contribution	1581	1	A	“A = Aus only, I = International only, B = both”
	Genomic Evaluation				
348	Genomics Evaluation	1582	1	A	g=genomics included, blank otherwise
	Health Weighted Index (HWI)				
349	Health Weighted Index	1583	4	N	
350	Reliability HWI	1587	2	N	
	Sustainability Index (SI)				
351	Sustainability Index	1589	4	N	
352	Reliability SI	1593	2	N	
	ABVs for New Traits				
353	ABV Residual Survival	1595	3	N	
354	Reliability Residual Survival	1598	2	N	
355	ABV Feed Efficiency	1600	5	N	
356	Reliability Feed Efficiency	1605	2	N	

RECORD LENGTH = 1606 bytes

Type of Proof

00	unknown
11	based on first crop sampling daughters
12	based on first and second crop daughters
21	based on imported semen of proven bull (second crop daughters only)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

Data Format 261 V2 Cow ABVs for All Traits (extended file)*

(*DataGene Internal Use Only)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 261
2	Record Version Number	4	1	A	Value = 2
	Herd ID				
3	National Herd ID	5	7	A	See DIF Document Note 8
	Cow Identity				
4	National ID	12	9	A	See DIF Document Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See DIF Document Note 2
7	Herdbook Number	30	12	A	See DIF Document Note 2
8	International ID	42	19	A	Interbull format – see DIF Document Note 10
9	Name	61	40	A	
10	Genetic Codes	101	15	A	Up to 8 three-character codes (see note 10
	Cow Details				
11	Breed of cow	116	4	A	See DIF Document Note 1
12	Date of Birth	120	8	N	yyyymmdd
13	Date of Latest Calving	128	8	N	yyyymmdd
14	Number of Lactations in ABV analysis		136	2 N	
15	Crossbreed	138	1	A	'X' if crossbreed, otherwise space
16	DPC Code	139	1	A	See DIF Document Note 4
	Pedigree Details				
17	Sire National ID	140	9	A	see DIF Document Note 3
18	Dam National ID	149	9	A	see DIF Document Note 3
19	MGS National ID	158	9	A	see DIF Document Note 3
20	MGD National ID	167	9	A	see DIF Document Note 3
21	Sire International ID	176	19	A	Interbull format – see DIF Document Note 10
22	Dam International ID	195	19	A	Interbull format – see DIF Document Note 10
23	MGS International ID	214	19	A	Interbull format – see DIF Document Note 10
24	MGD International ID	233	19	A	Interbull format – see DIF Document Note 10
25	Sire Nasis Bull ID	252	12	A	
26	MGS Nasis Bull ID	264	12	A	
	Rank within Australia				
27	Rank within-breed on BPI	276	6	N	
28	Rank within-breed on ASI	282	6	N	
	Balanced Performance Index (BPI)				
29	Balanced Performance Index	288	4	N	
30	Reliability BPI	292	2	N	
	ABVs for Production Traits				
31	Australian Selection Index	294	4	N	
32	Protein	298	4	N	
33	Protein Percentage	302	5	N	Two decimal places (eg, -0.12)
34	Milk	307	5	N	
35	Fat	312	4	N	
36	Fat Percentage	316	5	N	Two decimal places (eg, -0.12)
	ABV Analysis Details for Production Traits				
37	Reliability	321	2	N	
38	Breed of ABV Analysis	323	1	A	single char breed code - see DIF Document Note 1
39	Date of ABV Analysis	324	8	N	yyyymmdd
40	Source of ABV Analysis	332	1	A	A = ABV, I = ABV(i)
41	Proof publishable	333	1	A	P = publishable, U = unpublishable
42	Foreign proof contribution	334	1	A	A = Aus only, I = International only, B = both
	ABVs for Conformation Traits				

43	Overall Type	335	3	N	
44	Mammary System	338	3	N	
45	Overall Feet and Legs	341	3	N	
46	Stature	344	3	N	
47	Udder Texture	347	3	N	
48	Bone Quality	350	3	N	
49	Angularity	353	3	N	
50	Muzzle Width	356	3	N	
51	Body Length	359	3	N	
52	Body Depth	362	3	N	
53	Loin Strength	365	3	N	
54	Chest Width	368	3	N	
55	Rump Length	371	3	N	
56	Pin Width	374	3	N	
57	Pin Set	377	3	N	
58	Foot Angle	380	3	N	
59	Heel Depth	383	3	N	
60	Rear Set of Leg	386	3	N	
61	Rear Leg Rear View	389	3	N	
62	Udder Depth	392	3	N	
63	Fore Attachment	395	3	N	
64	Rear Attachment Height	398	3	N	
65	Rear Attachment Width	401	3	N	
66	Centre Ligament	404	3	N	
67	Teat Placement Fore	407	3	N	
68	Teat Placement Rear	410	3	N	
69	Teat Length	413	3	N	
70	Condition Score	416	3	N	
	ABV Analysis Details for Conformation Traits				
71	Reliability	419	2	N	
72	Breed of ABV Analysis	421	1	A	single char breed code - see DIF Document Note 1
73	Date of ABV Analysis	422	8	N	yyyymmdd
74	Source of ABV Analysis	430	1	A	A = ABV, I = ABV(i)
75	Proof publishable	431	1	A	P = publishable, U = unpublishable
76	Foreign proof contribution	432	1	A	A = Aus only, I = International only, B = both
	ABVs for Workability Traits				
77	ABV Milking Speed	433	3	N	
78	ABV Temperament	436	3	N	
79	ABV Likability	439	3	N	
	ABV Analysis Details for Workability Traits				
80	Reliability Workability Traits	442	2	N	
81	Breed of ABV Analysis	444	1	A	single char breed code - see DIF Document Note 1
82	Date of ABV Analysis	445	8	N	yyyymmdd
83	Source of ABV Analysis	453	1	A	A = ABV, I = ABV(i)
84	Proof publishable	454	1	A	P = publishable, U = unpublishable
85	Foreign proof contribution	455	1	A	A = Aus only, I = International only, B = both
	Survival Solution				
86	Survival Solution	456	3	N	
87	Reliability Survival Solution	459	2	N	
	ABV for Survival				
88	ABV Survival	461	3	N	
	ABV Analysis Details for Survival				
89	Reliability Survival	464	2	N	
90	Breed of ABV Analysis	466	1	A	single char breed code - see DIF Document Note 1
91	Date of ABV Analysis	467	8	N	yyyymmdd
92	Source of ABV Analysis	475	1	A	A = ABV, I = ABV(i)
93	Proof publishable	476	1	A	P = publishable, U = unpublishable
94	Foreign proof contribution	477	1	A	A = Aus only, I = International only, B = both
	ABV for Calving Ease				

95	ABV Calving Ease	478	3	N	
	ABV Analysis Details for Calving Ease				
96	Reliability Calving Ease	481	2	N	
97	Breed of ABV Analysis	483	1	A	single char breed code - see DIF Document Note 1
98	Date of ABV Analysis	484	8	N	yyyymmdd
99	Source of ABV Analysis	492	1	A	A = ABV, I = ABV(i)
100	Proof publishable	493	1	A	P = publishable, U = unpublishable
101	Foreign proof contribution	494	1	A	A = Aus only, I = International only, B = both
	ABV for Somatic Cell Count				
102	ABV Somatic Cell Count	495	4	N	
	ABV Analysis Details for Somatic Cell Count				
103	Reliability Somatic Cell Count	499	2	N	
104	Breed of ABV Analysis	501	1	A	single char breed code - see DIF Document Note 1
105	Date of ABV Analysis	502	8	N	yyyymmdd
106	Source of ABV Analysis	510	1	A	A = ABV, I = ABV(i)
107	Proof publishable	511	1	A	P = publishable, U = unpublishable
108	Foreign proof contribution	512	1	A	A = Aus only, I = International only, B = both
	ABV for Daughter Fertility				
109	ABV Daughter Fertility	513	4	N	
	ABV Analysis Details for Daughter Fertility				
110	Reliability Daughter Fertility	517	2	N	
111	Breed of ABV Analysis	519	1	A	single char breed code - see DIF Document Note 1
112	Date of ABV Analysis	520	8	N	yyyymmdd
113	Source of ABV Analysis	528	1	A	A = ABV, I = ABV(i)
114	Proof publishable	529	1	A	P = publishable, U = unpublishable
115	Foreign proof contribution	530	1	A	A = Aus only, I = International only, B = both
	ABV and Reliability for Liveweight				
116	ABV Liveweight	531	4	N	
	ABV Analysis Details for Liveweight				
117	Reliability Liveweight	535	2	N	
118	Breed of ABV Analysis	537	1	A	single char breed code - see DIF Document Note 1
119	Date of ABV Analysis	538	8	N	yyyymmdd
120	Source of ABV Analysis	546	1	A	A = ABV, I = ABV(i)
121	Proof publishable	547	1	A	P = publishable, U = unpublishable
122	Foreign proof contribution	548	1	A	A = Aus only, I = International only, B = both
	Has Genomics				
123	HasGenomics	549	1	A	g=genomics included, blank otherwise
124	DPC Name	550	10	A	
125	Herd Owner	560	35	A	
126	Dam Name	595	40	A	
	Health Weighted Index (HWI)				
127	Health Weighted Index	635	4	N	
128	Reliability HWI	639	2	N	
	Sustainability Index (SI)				
129	Sustainability Index	641	4	N	
130	Reliability SI	645	2	N	
	ABVs for New Traits				
131	ABV Residual Survival	647	3	N	
132	Reliability Residual Survival	650	2	N	
133	ABV Feed Efficiency	652	5	N	
134	Reliability Feed Efficiency	657	2	N	
	Index Ranking				
135	Rank in Australia on HWI within-breed	659	6	N	
136	Rank in Australia on SI within-breed	665	6	N	

RECORD LENGTH = 670 bytes

Sort order with all fields in ascending order: Fields 1, 2, 3, 4

APPENDIX G – Bulk Import Excel Files

There are a number of acceptable file types that are used to load information into DataGene's Centralised Data Repository.

Here are some examples. Sample version can be found on the DataGene website https://datagene.com.au/node/1451

Nomination new format – a simplified nomination format for genomic evaluations
Cow look up ID – a file used to load IDs of genomic evaluation candidates so that a complete list of national IDs can be returned.
Bulk bull import – to load bulls in a batch
Bulk cow import – to load cows in a batch
Interbull pedigree format – to load several generations of pedigree for a group of animals