

From: [Tim Wells](#)
To: [Plan Hearings](#)
Subject: PC7 - Evidence of Timothy Cameron Wells
Date: Friday, 17 July 2020 4:29:43 pm
Attachments: [T.C.Wells- PC7 Evidence.pdf](#)

Hi

Please find attached evidence of Timothy Cameron Wells on behalf of Carleton Dairies Ltd.

Submitter ID: 273

Kind regards
Tim Wells
021829891

BEFORE THE CANTERBURY REGIONAL COUNCIL

In the matter of the Resource Management Act 1991

And

In the matter a submission by **Carleton Dairies Limited** in relation to proposed Plan Change 7 of the Canterbury Land & Water Regional Plan

Submitter ID PC7-273

STATEMENT OF EVIDENCE OF TIMOTHY CAMERON WELLS

17th JULY 2020

Introduction

1. My name is Timothy Cameron Wells.
2. I am a financial services professional currently employed by ANZ Bank New Zealand Ltd as Relationship Manager for farming customers in Canterbury and am also company director of Waimakariri Irrigation Ltd (WIL) and my family farming business Carleton Dairies Ltd. I hold a Bachelor of Commerce in Agribusiness and Post Graduate Certificate in Commerce from Lincoln University. I have over 17 years financial services industry experience with ANZ, Standard & Poor's Ratings Services (London & Melbourne) and ASB Bank. My position at ASB had a focus on the financing of irrigation schemes and most of my career has specialised in agriculture finance. I am also a current member of the Institute of Directors.
3. I have a strong understanding of agriculture, corporate finance, economics and management of water resources. I am very familiar with the Waimakariri Irrigation scheme and groundwater resources in the Waimakariri district. I have studied the economic and social benefits and environmental impact of the scheme that was commissioned 1999 in both high school and university projects. Our inter-generational family farming business utilises both groundwater and WIL water. I have been responsible for managing the consenting process for our groundwater resource including preparing resource consent applications and Assessment of Environmental Effects.
4. I'm actively involved in the local community and am a keen sportsman that competes in local triathlon, multisport and running events. I have played cricket and rugby for local clubs in Oxford and am currently coaching the Oxford Division 1 Rugby team.
5. Carleton Dairies Ltd (CDL) is a 450ha family dairy farming business 6km South East of Oxford township owned by the Wells family. The property was converted to a dairy farm from sheep and cropping in 2008. The Wells family have been farming this property since 1950 and have been farming in the district since the late 1800's. The current property has been irrigated from groundwater since the 1960's and became a shareholder Waimakariri Irrigation Ltd (WIL) in 1997. CDL also leases another 120ha nearby and owns a 15ha support block at Cust.
6. All my family members are actively involved in the running of the farm business and my brother Phil Wells is the dairy farm manager and sister Julie Wells is a director of CDL and farm business manager. My parents Kevin and Helen are also directors of CDL and live on the property.
7. CDL (submitter ID PC7-273) provided a submission on proposed plan change 7 of the Canterbury Land and Water Regional Plan.

Scope of Evidence

My evidence provides:

6. An overview of our farming operation and environmental compliance requirements;
7. The implications and effects of the proposed rule framework;
8. Insight into the financial vulnerability of farmers from effect of PC7 on farm valuations, debt levels and financial viability.

6.0 - OUR FARMING OPERATION

6.1 As previously noted, Carleton Dairies Ltd (CDL) is a 450ha family dairy farming business 6km South East of Oxford township owned by the Wells family. The property was converted to a dairy farm from sheep and cropping in 2008. CDL also leases another 120ha nearby and owns a 15ha support block at Cust. We employ eight full time equivalents and our annual Farm Working Expenses are about \$2.0m most of which gets spent in the Waimakariri District to businesses in the agricultural service industry.

6.2 CDL has resource consents to take and use groundwater (CRC155618, CRC183360), discharge dairy effluent (CRC15612) and land use for farming (CRC174943).

6.3 The irrigation system is 65% Waimakariri Irrigation Ltd water and 35% groundwater. The groundwater resources also provide backup when Waimakariri River is on restrictions.

6.4 CDL supplies Synlait and is Lead With Pride™ certified CDL operates Good Management Practice with equivalent of an 'A' Farm Environment Plan audit. We have invested in excess of \$1.0m over the last 5 years in the following sustainability initiatives.

- Centre pivot development from Roto Rainer system to improve water efficiency and reduce Nutrient loss
- Soil moisture monitoring equipment and technology
- Biodiversity projects and significant areas of native plantings
- Planting of diverse pasture species such as Plantain to mitigate N leaching
- Reducing nitrogen fertiliser inputs
- Effluent system upgrade and extension

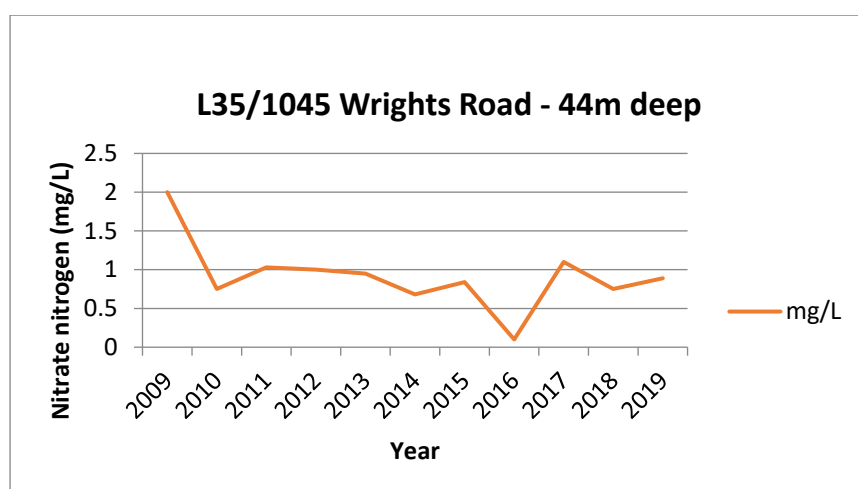


Native plants are thriving at the first planting site established 11 years ago by Helen, Phil and Julie Wells to beautify a dairy shed area.

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7.0 – EFFECT OF PC7

- 7.1 I am very concerned about the economic and social impact of the plan on the district, as it currently stands it will impact on land values, viability of farms and mental health of farmers.
- 7.2 I am strongly supportive of catchment wide solutions – all farmers in Waimakariri are in this together and not supportive on the very granular approach proposed by the Nitrate Priority Area, Sub Areas and Run-off priority area that divides the district and creates winners and losers in the community.
- 7.3 Farming in the district needs to remain viable so that farmers can continue to make infrastructure and technology investments to improve environmental outcomes.
- 7.4 There is a lack of in-depth economic research into the effect of the proposed plan change. Agriculture is a major contributor to the economic prosperity of the Waimakariri District in terms of income from exports, direct employment and service industry. The proposed long-term restrictions on farming will have a flow on effect to the wider community.
- 7.5 Limited evidence from hard data to support the thesis that the nitrate problem in the zone is being caused by intensive agriculture under irrigation. According ECAN Technical Report No. R16/48 Oct 2016 “Average groundwater nitrate-N concentrations for Eyre and Cust subzones have not been as high under WIL irrigation as they were in the early 1990s before the scheme began”²
- 7.6 Lack of long-term monitoring of water quality to clearly define the extent of water quality problems. E.g. Regular monitoring of Silverstream has only been undertaken since 2008 but there are gaps in the data.
- 7.7 Our own annual monitoring of bore (L35/1045) on our property indicates no adverse trends in nitrate levels. Since dairy conversion in 2008 nitrates levels have remained well below drinking water standards (11.3mg/l) and freshwater policy statement (6.9mg/l) thresholds.



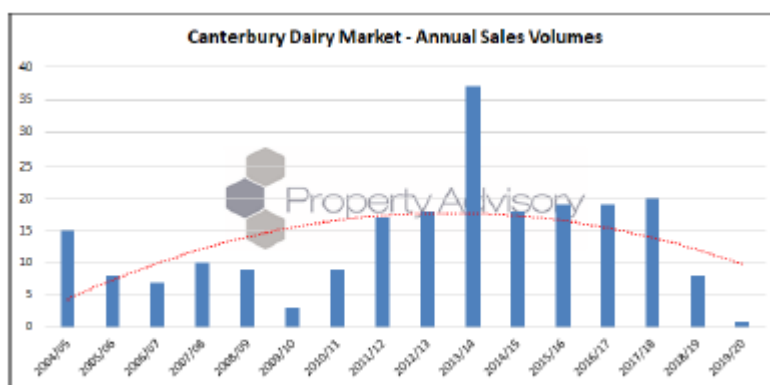
Refer appendices - Testing is undertaken annually by Waimakariri District Council Water Testing Services with results analysed by Hill Laboratories.

- 7.8 The proposed Nitrogen loss reductions are based on a groundwater model that has a high level of uncertainty and is not backed up by robust science and therefore should not be relied upon for plan changes.
- 7.9 The proposed Nitrogen loss reductions in Table 8-9 beyond 2030 are potentially unachievable.
- 7.10 Dairy farms in the Nitrate Priority Area are being unfairly targeted with long-term Nitrate loss reductions when there are many dairy farms around Carleton, Starvation Hill, Rangiora, Ohoka that are in the run-off priority area that only need to meet GMP. These catchments include a lot of swamp land that has been drained that feeds into drains and tributaries of water bodies in Nitrate Priority Area (NPA) such as Cust River, Cust Main Drain and Eyre River. Farming activities, nutrient run-off and leaching in these catchments will be affecting ground and surface water quality outcomes downstream in the NPA.
- 7.11 Proposed winter grazing thresholds are unpractical and unfair as it restricts land use options for low nitrate emission farms. Farmers need to feed stock alternative feeds to pasture over winter due to limited grass growth. Forage crops are a suitable form of feed from an animal health and systems stand point. The proposal to limit winter grazing to maximum of 5ha for 100ha farms or 5% of area for larger farms encourages more productive land in the district to be subdivided into lifestyle blocks and increases compliance (resource consent applications) costs for smaller already uneconomic size farms.

8.0 FINANCIAL VULNERABILITY OF FARMERS

Negative effect on valuations and equity position

- 8.1 The slowdown in the Canterbury dairy farm market has been caused by a combination of tightening environmental regulations, risks from mycoplasma bovis disease, restrictions on foreign investment, tightening in bank credit appetite and lending criteria and lack of confidence in financial performance of Fonterra.
- 8.2 The current Canterbury dairy farm property market is characterised by a very low volume of sales and a disconnect between vendor price expectations and prospective purchaser offers.



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8.3 Colliers Canterbury Dairy Farm Market Index for their model 186ha dairy farm with centre pivot irrigation from reliable groundwater has reduced 16.8% from the market peak in early 2015.⁴ Depending on factors such as the quality of the farm infrastructure, soils, irrigation water supply and zone-specific environmental regulations market evidence indicates land values have fallen in the range of 10 – 30% since early 2015.

8.4 The proposed long-term nutrient loss reductions for Waimakariri Nutrient Allocation Zone are more severe than other zones and will likely result in significant further reduction in land values.

“The Canterbury Land and Water Plan has introduced the concept of Good Management Practice, improving the environmental performance of many Canterbury dairy farmers. Smarter use of fertiliser, winter cropping, increasing effluent areas and irrigation monitoring have all led to some positive gains often at a low financial cost.

Dairy farmers within the Selwyn Waihora Nutrient Allocation Zone are required to reduce nitrogen loss to water by 30 percent beyond Good Management Practice from 2022, whilst dairy farms within the Hinds Hekeao Plains area of the Ashburton Nutrient Allocation Zone are required to progressively reduce their discharge beyond Good Management Practice by 15 percent by 2025, 25 percent by 2030 and 36 percent by 2035, limited to an overall nitrogen loss floor off 20 kg N per hectare. Staged reductions are also proposed in the Waimakariri Nutrient Allocation Zone with reductions of up to 90% by 2080 in specific priority areas within the catchment.

*Reductions beyond Good Management Practice may require a combination of reducing production and farm infrastructure changes. The uncertainty of future production, together with the requirement for additional on farm investment has limited the appeal of dairy farms within these areas. If future nutrient reductions cannot be met, under a dairying land use, land use change to the next best alternate use may be required for some farms. **This would result in significant reduction in the value of the dairy specific improvements and underlying land values if profitability were to be impacted.**”⁴*

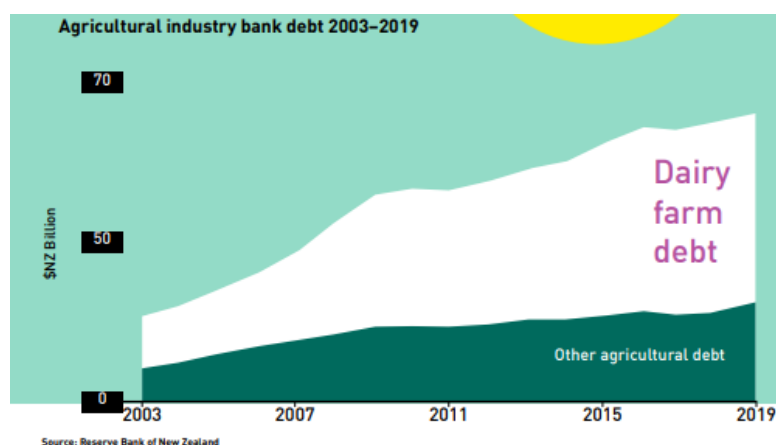
“It should be noted that the operative LWRP does not require operators to reduce losses to their ‘Baseline GMP’ until 1 July 2020, so many operators do not yet know what effect GMP will have on their operations / production.

Further reduction targets beyond this level may necessitate land use change in the medium term, and have a detrimental impact on the economic viability of farming operations in nitrogen sensitive areas.”³

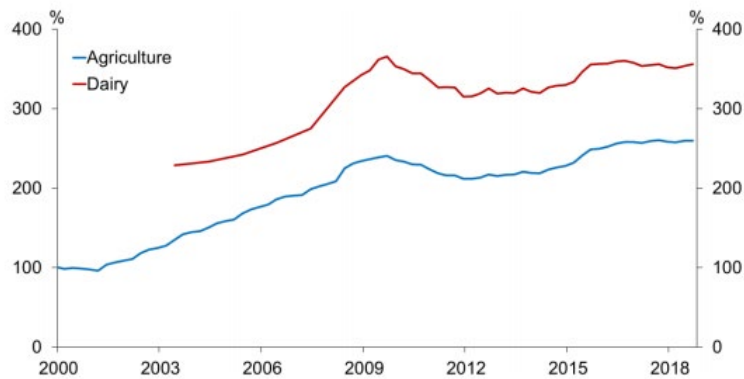
*“The Canterbury dairy market is presently characterised by very low levels of liquidity, and reduced buyer demand. This is largely a result of structural changes to the market (OIO rules, banking sector regulations, increased environment restrictions). In this context, the main limiting factor of the subject property is it’s scale / weight of capital, which lies beyond the everyday market liquidity range (say \$6.0 - \$10.0m) and its locality outside of both the preferred Mid / Central Canterbury areas of Canterbury. **In addition, a number of dairy farm properties have been marketed across the Waimakariri Plains this season, with none transacting at this point.** We are aware of offer levels however which provides a useful benchmark for assessing the value of the subject property, although. **The considerable uncertainty around changes to nutrient management rules via PC7 has restricted both the dairy and irrigated farm market.**”³*

Agriculture industry debt levels

- The Waimakariri Irrigation scheme was commissioned in 1999 and farmers have invested heavily in farm infrastructure to maximise productivity from the irrigation water. This has resulted in significant investment in dairy farming infrastructure, efficient spray irrigation, on farm water storage and development of groundwater resources as back up to Waimakariri River water.
- Because of the relatively modern irrigation systems and associated investment in farm infrastructure debt levels in the Waimakariri District are considered to be above average.
- Total agriculture debt in New Zealand is \$62.8 billion and has risen 270% in the past 20 years.⁵ (approximately same timeframe that WIL has been operating)



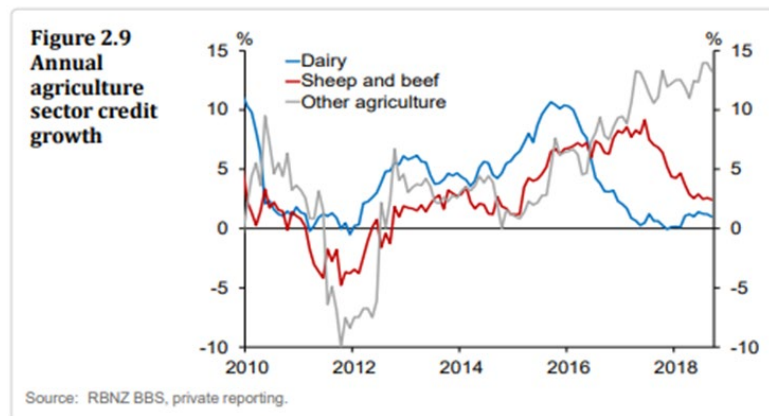
Agriculture sector debt-to-income ratio



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Source: Reserve Bank of New Zealand

- In the 2017-18 season dairy farmers on average had a debt-to-asset ratio of 50.7%. However 24% had a debt-to-asset ratio > 70% and 4% had a debt to asset ratio > 90%.⁵
- Agricultural sector credit growth has slowed significantly to the dairy and sheep and beef sectors because of banking industry regulation, declining land values and perceived structural risks to the dairy sector such as environmental regulation and climate change.



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- High debt levels in the agriculture sector leave farm businesses in Waimakariri district financially vulnerable to severe long-term environmental restrictions on nutrient losses because of decline in land values and weakening equity positions affecting access to capital from banks. Financial viability and cash flow will also be affected by lower productivity from farms.

Conclusions

- CDL support a catchment wide approach for all farms in Waimakariri district. 15% reduction for Dairy and 5% for all other below GMP by 2030. Remove long term reductions and delete Table 8-9. Remove Nitrate Priority Area and sub-areas and Run-off priority Area from planning maps. Any future reductions beyond 2030 should be based on the outcomes of water quality monitoring undertaken up to 2030. Focus on practical solutions and environmental outcomes through farm environment plan process such as irrigation efficiency and reliability, effluent management, biodiversity and facilitating localised catchment management. (e.g. improved riverbed and drain management to replace gorse, broom and willows with indigenous species).
- CDL are supportive of the “WIL solutions package” particularly increased water quality monitoring, manage aquifer recharge and targeted stream augmentation.
- Manage aquifer recharge (MAR) has already been successfully trialled at Silverstream and WIL has held consents to augment the groundwater surrounding the Eyre River since its inception. CRC952571.1 allows WIL to discharge Waimakariri water into the bed of the Eyre River at a rate of up to 3 cubic metres per second. These initiatives can be expanded similar to Hinds/Hekao MAR projects to mitigate water quality issues.
- The current water quality monitoring regime undertaken by Environment Canterbury and Waimakariri District Council is inadequate (i.e. low number of monitoring sites and gaps in data) and there is a lack of evidence from hard data to support the proposed severe long-term nutrient restrictions on farmers.
- The proposed Nitrogen loss reductions are based on a groundwater model that has a high level of uncertainty and is not backed up by robust science and therefore should not be relied upon for plan changes and environmental regulation.
- CDL is supportive of improved water quality outcomes in the Waimakariri zone and environmental sustainability. We strongly oppose severe long-term restrictions on farming activities and N-loss reductions below GMP driven ultimately by Overseer modelling which has high variability.
- We believe that winter grazing permitted activity rules that apply in other nutrient allocation zones as per Plan Change 5 to the CLWRP 5.44A should be maintained and are fair and can be practically implemented by farmers under existing farm management systems.

The area permitted for winter grazing under PC5 5.44A

- 10 hectares for property less than 100 hectares
 - 10% of the area for property between 100 hectares and 1,000 hectares
 - 100 hectares for any property greater than 1,000 hectares
-
- Our evidence from registered valuation firms, and data from Reserve Bank and Ministry of Primary industries shows that farmers in the Waimakariri district are financially vulnerable because of high debt levels in dairy sector, decline in land values and weakening equity positions affecting access to capital from banks. Farm businesses need to remain financially

viable to make the necessary investment in infrastructure and farm systems to achieve proposed N- loss reductions to 2030.

- Increased financial risk and environmental compliance burdens for farmers will have negative effects on mental health of farmer, families and the wider community.
- Shareholders of WIL need certainty for the future to have the confidence to support scheme water storage that will increase their irrigation water charges and may require equity investment. Scheme water storage will help facilitate water quality mitigation measures from MAR and TSA.

References:

1. Hill, D (2019) Dairy farm planting projects proliferate – Otago Daily Times 31 July 2019
2. Scott, L. Wong, R. Sungsoo K. (2016) Environment Canterbury Technical Report No. R16/48 Oct 2016 – The current state of groundwater quality in the Waimakariri CWMS Zone
3. Oxnam, D. (2020) Property Advisory - Carleton Dairies Limited – Registered Valuation May 2020
4. Petersen, G. (2020) Colliers International Dairy Property Market Review – Canterbury March 2020
5. O'connor, D (2020) <https://www.beehive.govt.nz/release/new-scheme-financially-distressed-farmers>
6. Ministry of Primary Industries (2019) Situation and Outlook for Primary Industries December 2019
7. Orr, A (2018) Reserve Bank of New Zealand – Financial Stability Report November 2018

Appendices:



Hill Laboratories

TRIED, TESTED AND TRUSTED

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Certificate of Analysis

Page 1 of 2

Client: Waimakariri District Council Contact: Darryn Williams C/- Waimakariri District Council Private Bag 1005 Rangiora 7440	Lab No: 2260583 Date Received: 17-Oct-2019 Date Reported: 22-Oct-2019 Quote No: 71593 Order No: Client Reference: Carleton Dairies Submitted By: Darryn Williams	88P-Qv1
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Sample Type: Aqueous		
Sample Name:		SD19600 - L35/1045 17-Oct-2019 3:30 pm
Lab Number:		2260583.2
Individual Tests		
Nitrite-N	g/m ³	< 0.002
Nitrate-N	g/m ³	0.89
Nitrate-N + Nitrite-N	g/m ³	0.89
Faecal Coliforms	MPN / 100mL	< 1
Total Coliforms and E.Coli		
Total Coliforms	MPN / 100mL	4
Escherichia coli	MPN / 100mL	2

Summary of Methods

The following table(s) give a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

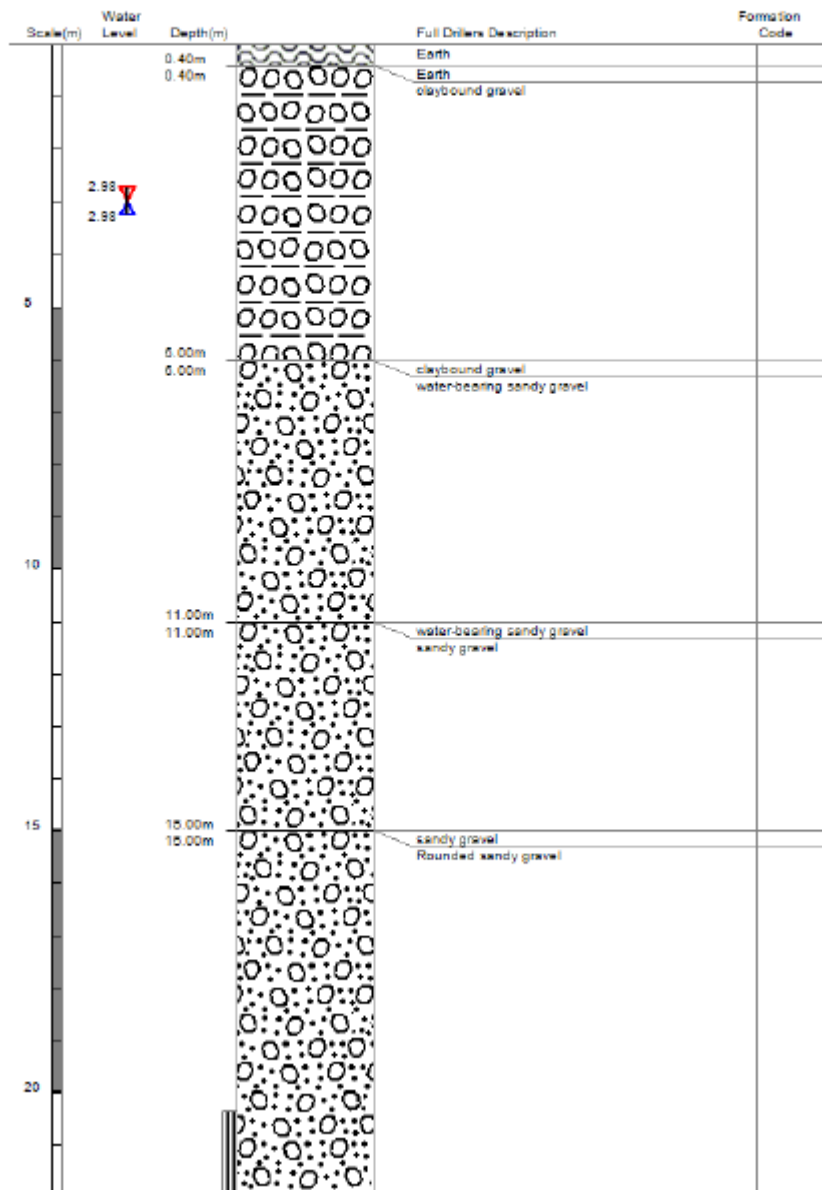
Sample Type: Aqueous			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Filtration, Unpreserved	Sample filtration through 0.45µm membrane filter. Performed at Hill Laboratories - Chemistry, 101c Waterloo Road, Christchurch.	-	2
Nitrite-N	Filtered sample from Christchurch. Automated Azo dye colorimetry, Flow injection analyser. APHA 4500-NO ₂ -I (modified) 23 rd ed. 2017.	0.002 g/m ³	2
Nitrate-N	Calculation: (Nitrate-N + Nitrite-N) - NO ₂ N. In-House.	0.0010 g/m ³	2
Nitrate-N + Nitrite-N	Filtered sample from Christchurch. Total oxidised nitrogen. Automated cadmium reduction, flow injection analyser. APHA 4500-NO ₂ -I (modified) 23 rd ed. 2017.	0.002 g/m ³	2
Faecal Coliforms	MPN count in LT Broth at 35°C for 48 hours, EC Broth at 44.5°C for 24 hours. Analysed at Hill Laboratories - Microbiology, 101c Waterloo Road, Christchurch. APHA 9221 B & E 23 rd ed. 2017.	1 MPN / 100mL	2
Total Coliforms and E.Coli			
Total Coliforms	MPN count using Colliert (incubated at 35°C for 24 hours), or Colliert 18 (incubated at 35°C for 18 hours). Analysed at Hill Laboratories - Microbiology, 101c Waterloo Road, Homby, Christchurch. APHA 9223 B 23 rd ed. 2017.	1 MPN / 100mL	2
Escherichia coli	MPN count using Colliert (incubated at 35°C for 24 hours), or Colliert 18 (incubated at 35°C for 18 hours). Analysed at Hill Laboratories - Microbiology, 101c Waterloo Road, Homby, Christchurch. APHA 9223 B 23 rd ed. 2017.	1 MPN / 100mL	2




This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked *, which are not accredited.

Borelog for well L35/1045 page 1 of 2

Grid Reference (NZTM): 1537908 mE, 5202589 mN
 Location Accuracy: 2 - 15m
 Ground Level Altitude: 199.9 m +MSD Accuracy: < 0.5 m
 Driller: McMillan Drilling Ltd
 Drill Method: Rotary Rig
 Borelog Depth: 44.0 m Drill Date: 24-Jun-2009



Bore or Well No	L35/1045	 Environment Canterbury Regional Council <i>Kaunihera Taiao ki Waitaha</i>	
Well Name	WRIGHTS ROAD		
Owner	Carleton Dairies Limited & Mr K C Wells & Mr W J A		
Well Number	L35/1045	File Number	CO6C/02154
Owner	Carleton Dairies Limited & Mr K C Wells & Mr W J A	Well Status	Active (exist, present)
Street/Road	WRIGHTS ROAD	NZTM Grid Reference	BW22:37908-02588
Locality	OXFORD	NZTM X and Y	1537908 - 5202588
Location Description		Location Accuracy	2 - 15m
CWM& Zone	Waimakariri	Use	Irrigation,
Groundwater Allocation Zone	Eyre	Water Level Monitoring	—
Depth	44.00m	Water Level Count	1
Diameter	250mm	Initial Water Level	3.14m below MP
Measuring Point Description	ToC	Highest Water Level	2.64m above MP
Measuring Point Elevation	200.28m above MSL (Lyttelton 1937)	Lowest Water Level	2.64m above MP
Elevation Accuracy	< 5 m	First reading	27 Aug 2013
Ground Level	0.34m below MP	Last reading	27 Aug 2013
Strata Layers	8	Calc Min 80%	12.81m below MP (Estimated)
Aquifer Name		Aquifer Tests	1
Aquifer Type		Yield Drawdown Tests	6
Drill Date	24 Jun 2009	Max Tested Yield	35 l/s
Driller	McMillan Drilling Ltd	Drawdown at Max Tested Yield	7 m
Drilling Method	Rotary Rig	Specific Capacity	7.93 l/s/m
Casing Material		Last Updated	06 Apr 2017
Pump Type		Last Field Check	27 Aug 2013
Water Use Data	Yes		

Screens

Screen No.	Screen Type	Top (m)	Bottom (m)	Slot Size (mm)	Slot Length (mm)	Diameter (mm)	Leader Length (mm)
1	Stainless steel	20.34	26.34				

Step Tests

Step Test Date	Step	Yield	Yield GPM	DrawDown	Step Duration
24 Jun 2009	1	15.2293682	201	1.92	0
24 Jun 2009	2	18.56316	245	2.65	0
24 Jun 2009	3	21.97272	289.999969	3.52	0
24 Jun 2009	4	27.1249447	358	4.645	0
24 Jun 2009	5	31.5194874	415.999969	5.745	0