Part 2 — Technical Requirements

NRCB Natural Resources Conservation Board

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY	Application number	Legal land description
☐ Approval ☐ Registration ☒ Authorization ☐ Amendment	BA24007	NE 1-49-27 W4

APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act* (AOPA), and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.

I, the applicant, or applicant's agent, have read and understand the statements above, and I acknowledge that the information provided in this application is true to the best of my knowledge.

July 12, 2024
Date of signing

[redacted]
Signature

Peeters Farms Ltd.
Corporate name (if applicable)

Petrus Peeters
Print name

GENERAL INFORMATION REQUIREMENTS

Proposed facilities: list all proposed confined feeding operation facilities and their dimensions. Indicate whether any of the proposed facilities are additions to existing facilities. (attach additional pages if needed)

Proposed facilities	Dimensions (m) (length, width, and depth)
Construct Freestall Barn #3	125 x 51
Construct New Milk House	80 x 25

Existing facilities: list **ALL** existing confined feeding operation facilities and their dimensions

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Milk house facility	20.5 x 46.5	
Free stall barn 1	20.5 x 95	
Free stall barn 2	20.5 x 95	

NRCB USE ONLY

Confirmed existing CFO

Last updated September 11, 2023

Part 2 — Technical Requirements

NRCB Natural Resources Conservation Board

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

Existing facilities continued	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Shelter	16.5 x 19	
Manure Storage lagoon	80 x 80 x 4.4	
Heifer facility	125 x 25	
Solid Maure Storage #1	25 x 25	
Solid Manure Storage #2	25 x 25	

Part 2 — Technical Requirements

NRCB Natural Resources Conservation Board

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

If a new facility is replacing an old facility, please explain what will happen to the old facility and when. ☐ **N/A**

Old facility will be used for equipment storage & to house replacements and dries.

front of old milkhouse to storage

Construction completion date for proposed facilities November 2026

Additional information

No change in permitted animal numbers or manure production

Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

Livestock category and type (Available in the Schedule 2 of the Part 2 Matters Regulation)	**Permitted number**	**Proposed increase or decrease in number (if applicable)**	**Total**
Milking cows + Dries + Replacements	460	0	460

Part 2 — Technical Requirements

NRCB Natural Resources Conservation Board

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING *WATER ACT* LICENCE
issued by Alberta Environment and Protected Areas (EPA) for a confined feeding operation (CFO)
Date and sign one of the following four options

OPTION 1: Applying through the NRCB for both the AOPA permit and the *Water Act* licence

I **DO** want my water licence application coupled to my AOPA permit application.

Signed this ____day of _____, 20____. _____
Signature of Applicant or Agent

OPTION 2: Processing the AOPA permit and *Water Act* licence separately

1. I (we) acknowledge that the CFO will need a new water licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. I (we) request that the NRCB process the AOPA application **independently of** EPA's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant the *Water Act* licence application.
5. I (we) acknowledge that any such construction or livestock populating will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water licence application number(s) _____

Signed this ____ day of _____, 20____. _____
Signature of Applicant or Agent

OPTION 3: Additional water licence not required

1. I (we) declare that the CFO will not need a new licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. **Provide**: Water license number(s) or water conveyance agreement details _____
   00176369-00-00 , 00144749-00-00 , 00144732-00-00

Signed this 12 day of July, 2024. 124d4c69-1df7-4ba5-b446-c60e6b7bb0b0 Digitally signed by 124d4c69-1df7-4ba5-b446-c60e6b7bb0b0 Date: 2024.07.12 22:29:41 -06'00'
Signature of Applicant or Agent

[redacted]

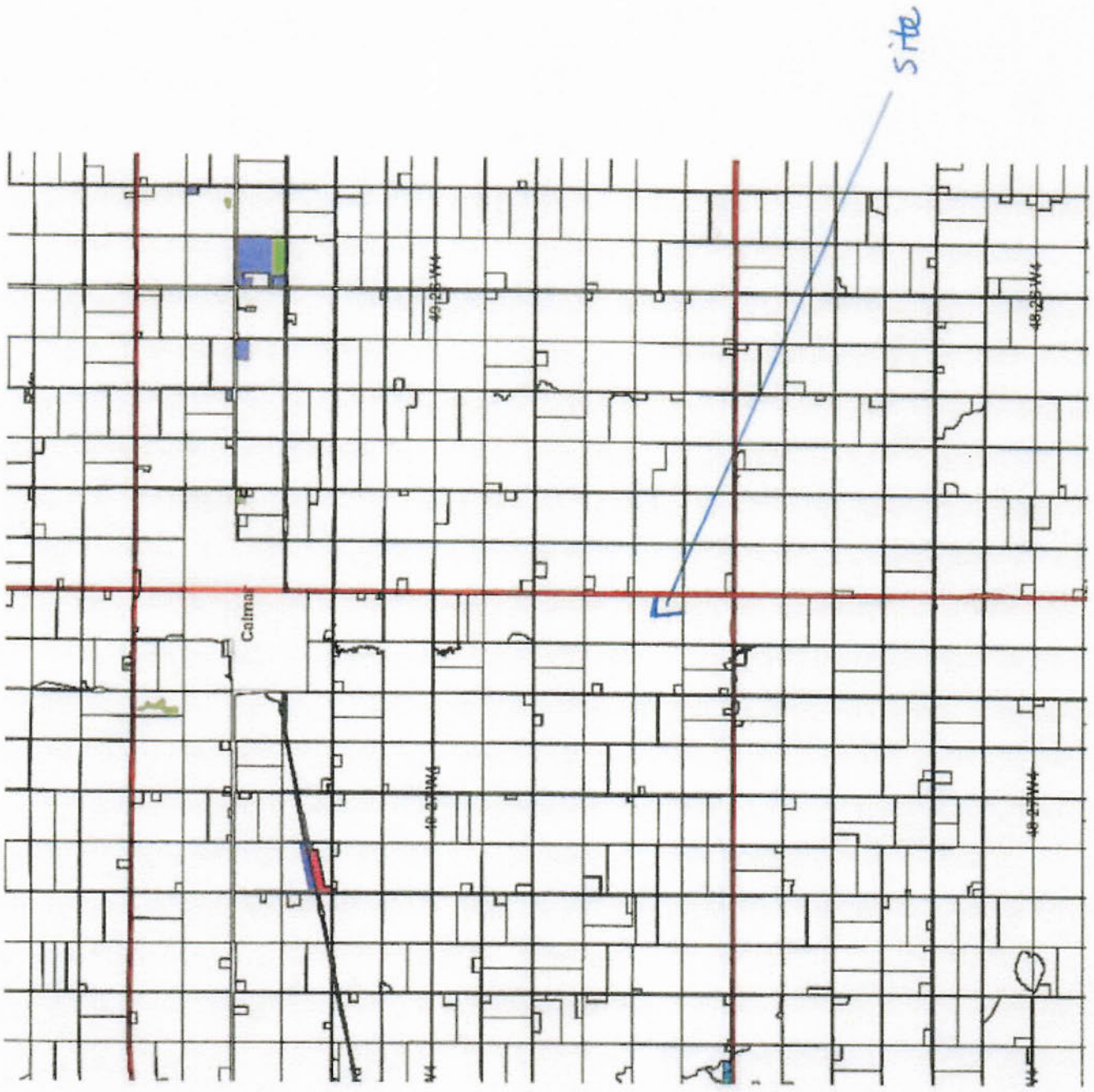
OPTION 4: Uncertain if *Water Act* licence is needed; acknowledgement of risk (for existing CFOs only)

1. At this time, I (we) do not know whether a new water licence is needed from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. If a new *Water Act* licence is needed, I (we) request that the NRCB process the AOPA application **independently of** EPA's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with additional livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant my *Water Act* licence application, if a new water licence is needed.
5. I (we) acknowledge that any such construction or livestock increase will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide**: Water license number(s) or water conveyance agreement details _____

   _____

Signed this _____ day of _____, 20____. _____

Signature of Applicant or Agent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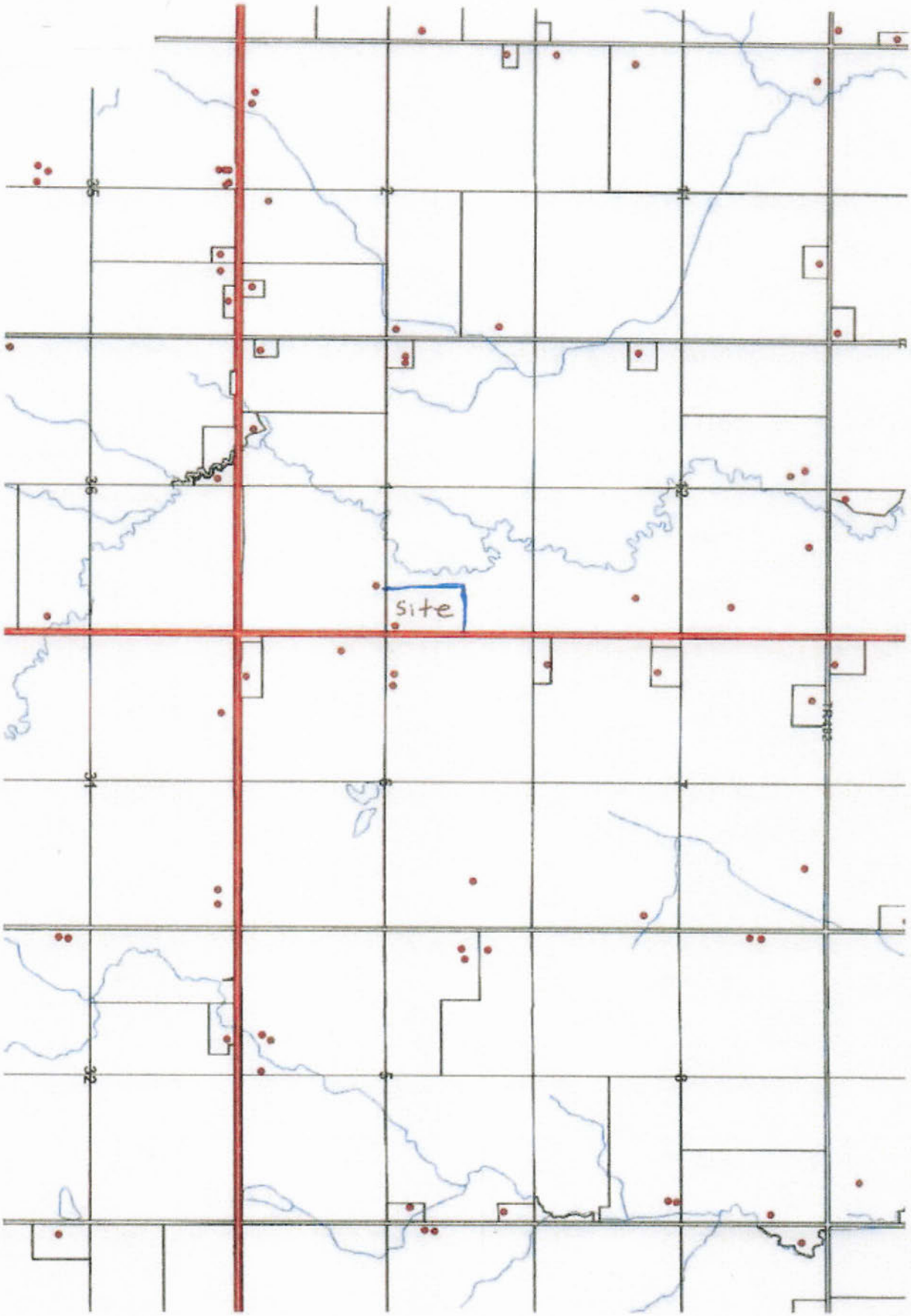
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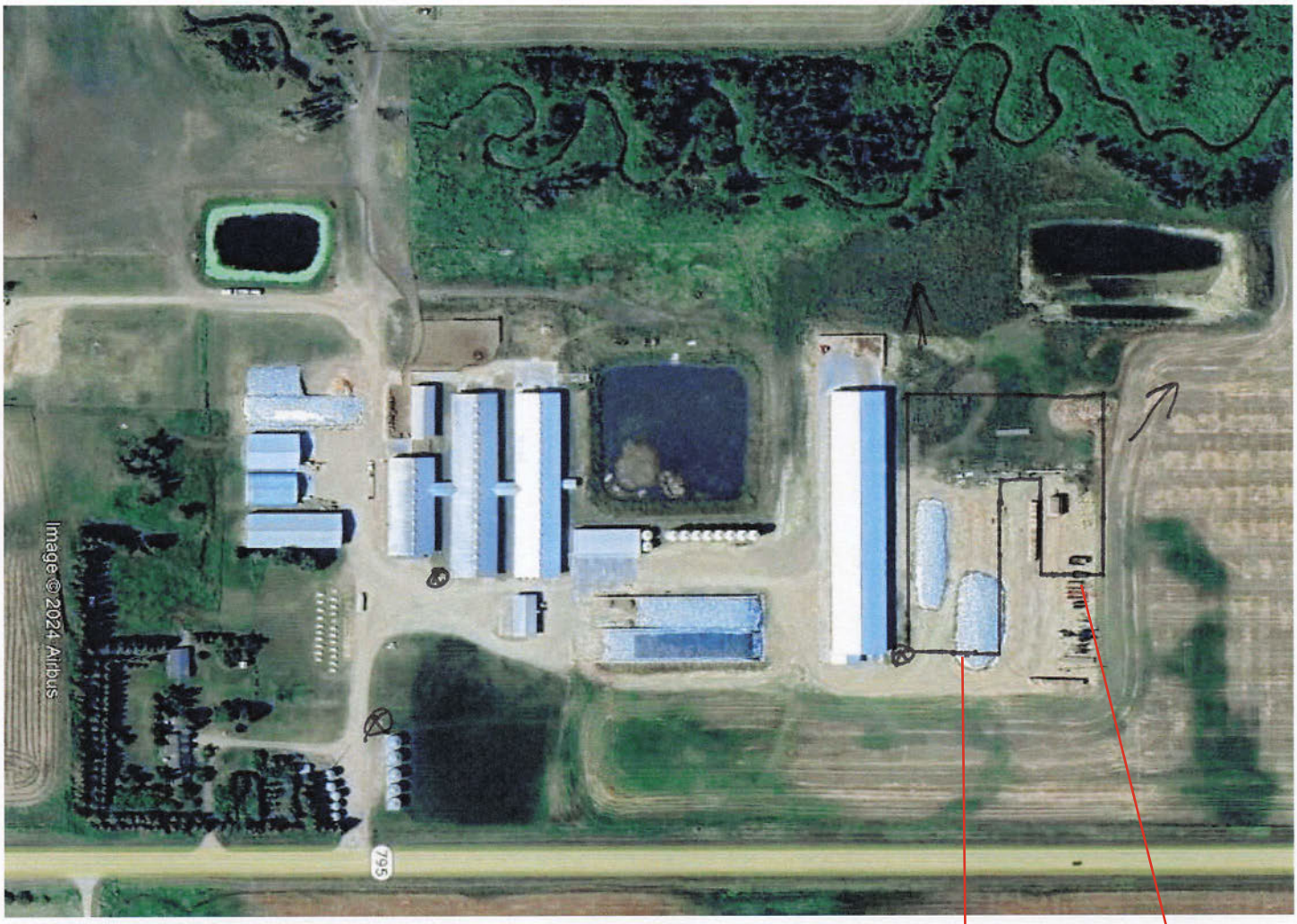
Image © 2024 Airbus
795
dairy barn #3
milk house

NE-1-49-27-W4
Leduc County
S
W
N
E
HWY 795
house
well
Feed storage
Dug-out
runoff
runoff
1
2
Feed storage
existing manure Storage
run off
Heifer facility
Freestall Barn Proposed
runoff
milk house
Proposed
run off

Part 2 — Technical Requirements

NRCB Natural Resources Conservation Board

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

GENERAL ENVIRONMENTAL INFORMATION

(complete this section for the worst case of the existing facility which is the closest to water bodies or water wells and for each of the proposed facilities)

Facility description / name *(as indicated on site plan)*

Existing: Existing Facilities **Proposed 1:** Free stall barn

Proposed 2: milk house **Proposed 3:**

Facility and environmental risk information		Facilities				NRCB USE ONLY	
		Existing	Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments
Flood plain information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	☒ >1 m ☐ ≤ 1 m	☒ >1 m ☐ ≤ 1 m	☒ >1 m ☐ ≤ 1 m	☐ > 1 m ☐ ≤ 1 m	☑ YES ☐ NO ☐ YES with exemption	Not in flood plain
Surface water information	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0	0		☑ YES ☐ NO ☐ YES with exemption	None known
	How many water wells are within 100 m of the manure storage facility or manure collection area?	2	1	1		☐ YES ☐ NO ☑ YES with exemption	ID 2086326
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	>100	>100	>100		☑ YES ☐ NO ☐ YES with exemption	67 m to Conjuring creek
Groundwater information	What is the depth to the water table?	6.3	6.3	6.3		☑ YES ☐ NO ☐ YES with exemption	Confirmed
	What is the depth to the groundwater resource/aquifer you draw water from?	33	33	33		☑ YES ☐ NO ☐ YES with exemption	27.48 m

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)

see permit # BA 09004

Part 2 — Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY

ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for **proposed** facilities

Facility	Groundwater score	Surface water score	File number
Dairy barn	Low	Low	BA24007

ERST for **existing** facilities

Facility	Groundwater score	Surface water score	File number
Young stock barn	Low	Low	BA20008
Solid manure storage pad	Low	Low	BA20008
Dairy barn 1	Low	Low	BA20008
Dairy barn 2	Low	Low	BA20008
EMS	Low	Low	BA20008
Shelter and pen	Low	Low	BA20008

ERST related comments:

Part 2 — Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY

WATER WELL AND SURFACE WATER INFORMATION

Well IDs: ID 296950 _____ _____

ID 2086326 _____ _____

Surface water related concerns from directly affected parties or referral agencies: ☐ YES ☑ NO

Groundwater related concerns from directly affected parties or referral agencies: ☐ YES ☑ NO

Water wells ☐ N/A

If applicable, exemption for 100 m distance requirements applied: ☑ YES ☐ NO Condition required: ☐ YES ☑ NO

Surface water ☑ N/A

If applicable, exemption for 30 m distance requirements applied: ☐ YES ☐ NO Condition required: ☐ YES ☐ NO

Water Well Exemption Screening Tool ☐ N/A

Water Well ID	Preliminary Screening Score	Secondary Screening Score	Facility
ID 2086326	Low exemption likely	N/A	Dairy barn

Groundwater or surface water related comments:

dairy

Alberta

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial | **Export to Excel**

GOWN ID

GIC Well ID 296950
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2001/08/15

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PETERS, PETE	P.O. BOX 89 RR4, CALMAR				T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	9	1	49	27	4				

Measured from Boundary of
182.88 m from South
106.68 m from East

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.201281 Longitude -113.807096
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Drilling Information

Method of Drilling
Rotary

Proposed Well Use
Domestic

Type of Work
New Well

Formation Log

Measurement in Metric

Depth from ground level (m)	Water Bearing	Lithology Description
0.91		Black Topsoil
6.10		Clay
8.53		Sandy Clay
10.67		Sand & Coal
11.28		Coal
19.81		Sandy Shale
24.38		Gray Sandy Shale
27.43		Shale & Coal
33.53		Gray Shale
35.05		Black Fractured Shale
39.01		Shale
40.23		Limestone
45.72		Green Shale
47.24		Coarse Grained Sand & Sandstone
50.90		Shale
52.73		Shale & Sandstone Ledges
57.91		Green Shale

Yield Test Summary

Measurement in Metric

Recommended Pump Rate 36.37 L/min

Test Date	Water Removal Rate (L/min)	Static Water Level (m)
2001/02/27	38.64	17.89

Well Completion

Measurement in Metric

Total Depth Drilled	Finished Well Depth	Start Date	End Date
57.91 m		2001/02/18	2001/02/27

Borehole

Diameter (cm)	From (m)	To (m)
0.00	0.00	57.91

Surface Casing (if applicable)
Plastic
Size OD : 15.24 cm
Wall Thickness : 0.991 cm
Bottom at : 29.26 m

Well Casing/Liner
Plastic
Size OD : 11.43 cm
Wall Thickness : 0.734 cm
Top at : 27.43 m
Bottom at : 57.91 m

Perforations

From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval(cm)
33.53	39.62	0.102		6.35

Perforated by Saw

Annular Seal Bentonite Chips/Tablets
Placed from 0.00 m to 29.26 m
Amount

Other Seals

Type	At (m)

Screen Type
Size OD : 0.00 cm

From (m)	To (m)	Slot Size (cm)

Attachment
Top Fittings Bottom Fittings

Pack
Type Grain Size
Amount

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
UNKNOWN NA DRILLER

Certification No
1

Company Name
SNETLER WATER WELL DRILLING LTD.

Copy of Well report provided to owner *Date approval holder signed*

Alberta Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GOWN ID

GIC Well ID 296950
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2001/08/15

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PETERS, PETE	P.O. BOX 89 RR4, CALMAR				T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	9	1	49	27	4				

Measured from Boundary of
182.88 m from South
106.68 m from East

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.201281 Longitude -113.807096
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Additional Information

Measurement in Metric

Distance From Top of Casing to Ground Level cm
Is Artesian Flow
Rate L/min
Is Flow Control Installed
Describe

Recommended Pump Rate 36.37 L/min
Recommended Pump Intake Depth (From TOC) 30.48 m
Pump Installed
Depth m
Type
Make
H.P.
Model (Output Rating)

Did you Encounter Saline Water (>4000 ppm TDS)
Depth m
Gas
Depth m
Remedial Action Taken
Well Disinfected Upon Completion
Geophysical Log Taken
Submitted to ESRD
Sample Collected for Potability
Submitted to ESRD

Additional Comments on Well
DRILLER REPORTS DISTANCE FROM TOP OF CASING TO GROUND LEVEL: 20".

Yield Test

Taken From Ground Level
Measurement in Metric

Test Date	Start Time	Static Water Level
2001/02/27	12:00 AM	17.89 m

Method of Water Removal
Type Pump
Removal Rate 38.64 L/min
Depth Withdrawn From 30.48 m

If water removal period was < 2 hours, explain why

Depth to water level Pumping (m)	Elapsed Time Minutes:Sec	Recovery (m)
17.88	0:00	19.14
18.42	1:00	19.16
19.00	2:00	19.19
19.48	3:00	19.21
19.53	4:00	19.24
19.60	5:00	19.27
19.66	6:00	19.30
19.72	7:00	19.33
19.78	8:00	19.35
19.84	9:00	19.42
19.93	10:00	19.45
19.94	12:00	19.49
19.99	14:00	19.50
20.02	16:00	19.55
20.05	20:00	19.59
20.05	25:00	19.63
20.08	30:00	19.66
20.15	35:00	19.69
20.15	40:00	19.71
20.16	50:00	19.73
20.18	60:00	19.75
20.19	75:00	19.80
20.19	90:00	19.79
20.28	105:00	19.81
20.31	120:00	19.83

Water Diverted for Drilling

Water Source	Amount Taken	Diversion Date & Time
	L	

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
UNKNOWN NA DRILLER

Certification No
1

Company Name
SNETLER WATER WELL DRILLING LTD.

Copy of Well report provided to owner
Date approval holder signed

dairy barn

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial | Export to Excel

GOWN ID

GIC Well ID 1576065
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2012/12/03

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PEETERS DAIRY LTD.	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203262 Longitude -113.811514
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Drilling Information

Method of Drilling
Combination

Proposed Well Use
Domestic & Stock

Type of Work
New Well

Formation Log

Measurement in Metric

Depth from ground level (m)	Water Bearing	Lithology Description
10.67		Clay
12.50		Shale
17.07		Sandstone
17.37		Coal
23.16		Siltstone
23.77		Coal
39.93		Shale
43.28		Siltstone
46.63		Shale
48.16		Sandstone
52.43		Shale
57.00		Sandstone
64.01		Shale

Yield Test Summary

Measurement in Metric

Recommended Pump Rate 36.37 L/min

Test Date	Water Removal Rate (L/min)	Static Water Level (m)
2012/09/27	31.82	22.12

Well Completion

Measurement in Metric

Total Depth Drilled	Finished Well Depth	Start Date	End Date
64.01 m	64.01 m	2012/09/18	2012/09/18

Borehole

Diameter (cm)	From (m)	To (m)
20.02	0.00	30.48
13.03	30.48	64.01

Surface Casing (if applicable)
Plastic
Size OD : 15.24 cm
Wall Thickness : 0.991 cm
Bottom at : 30.48 m

Well Casing/Liner
Plastic
Size OD : 11.43 cm
Wall Thickness : 0.699 cm
Top at : 27.43 m
Bottom at : 64.01 m

Perforations

From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval(cm)
51.82	57.91	0.160		15.24

Perforated by Saw

Annular Seal Bentonite Chips/Tablets
Placed from 0.00 m to 30.48 m
Amount 3.00 Bags

Other Seals

Type	At (m)
Driven	30.48
Shale Trap	30.48

Screen Type
Size OD : cm

From (m)	To (m)	Slot Size (cm)

Attachment
Top Fittings
Bottom Fittings

Pack
Type
Grain Size
Amount

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
DARREN PAPLEY

Certification No
5896A

Company Name
PAPLEY DRILLING LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2012/11/15

Water Well Drilling Report

View in Imperial | Export to Excel

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

GOWN ID

GIC Well ID 1576065
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2012/12/03

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PEETERS DAIRY LTD.	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203262 Longitude -113.811514
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Additional Information

Measurement in Metric

Distance From Top of Casing to Ground Level 45.72 cm
Is Artesian Flow
Rate L/min

Is Flow Control Installed
Describe

Recommended Pump Rate 36.37 L/min
Recommended Pump Intake Depth (From TOC) 47.24 m

Pump Installed Yes Depth 47.24 m
Type Submersible Make H.P. 0.5
Model (Output Rating) 7 GPM

Did you Encounter Saline Water (>4000 ppm TDS) Depth m
Gas Depth m

Well Disinfected Upon Completion Yes
Geophysical Log Taken
Submitted to ESRD

Remedial Action Taken

Sample Collected for Potability Submitted to ESRD

Additional Comments on Well

COMBINATION ROTARY AIR & MUD DRILLING, PROPOSED WELL USE - FARM, ANNULAR SEAL - ALSO CUTTINGS

Yield Test

Measurement in Metric

Test Date	Start Time	Static Water Level
2012/09/27	1:00 PM	22.12 m

Method of Water Removal

Type PUMP
Removal Rate 31.82 L/min
Depth Withdrawn From 47.24 m

If water removal period was < 2 hours, explain why

TESTED @ 7 GPM FROM 0 TO 16 MINS AND @ 8 GPM FROM 16 TO 120 MINS

Taken From Top of Casing
Depth to water level

Pumping (m)	Elapsed Time Minutes:Sec	Recovery (m)
22.12	0:00	29.92
23.19	1:00	27.64
24.23	2:00	26.21
25.07	3:00	25.17
25.70	4:00	24.31
26.06	5:00	23.70
26.44	6:00	23.34
26.75	7:00	23.06
27.03	8:00	22.91
27.23	9:00	22.78
27.46	10:00	22.71
27.81	12:00	22.66
28.04	14:00	22.63
28.19	16:00	22.61
28.50	18:00	22.58
28.75	20:00	22.58
29.11	25:00	22.56
29.31	30:00	22.48
29.41	35:00	22.45
29.59	40:00	22.45
29.67	50:00	22.43
29.67	60:00	22.40
29.74	75:00	22.35
29.79	90:00	22.33
29.89	105:00	22.30
29.92	120:00	22.27

Water Diverted for Drilling

Water Source	Amount Taken		Diversion Date & Time
TOWN	6364.53	L	2012/09/18 11:00 AM

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
DARREN PAPLEY

Certification No
5896A

Company Name
PAPLEY DRILLING LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2012/11/15

house

Alberta

Water Well Drilling Report

View in Imperial | Export to Excel

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

GOWN ID

GIC Well ID 1577059
GoA Well Tag No. A7277
Drilling Company Well ID
Date Report Received 2024/01/05

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PEETERS DAIRY LTD.	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203271 Longitude -113.811531
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Drilling Information

Method of Drilling
Combination

Proposed Well Use
Domestic & Stock

Type of Work
New Well

Formation Log

Measurement in Metric

Depth from ground level (m)	Water Bearing	Lithology Description
17.07		Clay
17.37		Coal
21.64		Shale
24.38		Sandstone
40.54		Shale
56.39		Interbedded Shale & Sandstone
57.91		Shale

Yield Test Summary

Measurement in Metric

Recommended Pump Rate 45.46 L/min

Test Date	Water Removal Rate (L/min)	Static Water Level (m)
2023/11/23	45.46	24.26

Well Completion

Measurement in Metric

Total Depth Drilled	Finished Well Depth	Start Date	End Date
57.91 m	57.91 m	2023/10/11	2023/10/11

Borehole

Diameter (cm)	From (m)	To (m)
20.00	0.00	22.86
13.02	22.86	57.91

Surface Casing (if applicable)
Plastic
Size OD : 15.24 cm
Wall Thickness : 0.991 cm
Bottom at : 22.86 m

Well Casing/Liner
Plastic
Size OD : 11.43 cm
Wall Thickness : 0.554 cm
Top at : 21.34 m
Bottom at : 57.91 m

Perforations

From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval(cm)
39.62	57.91	0.159	15.24	

Perforated by Saw

Annular Seal Bentonite Chips
Placed from 0.00 m to 22.86 m
Amount 50.00 Pounds

Other Seals

Type	At (m)
Driven	22.86
Shale Trap	22.86

Screen Type
Size OD : cm

From (m)	To (m)	Slot Size (cm)

Attachment
Top Fittings Bottom Fittings

Pack
Type Grain Size
Amount

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
DARREN PAPLEY

Certification No
5896A

Company Name
PAPLEY DRILLING LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2023/11/30

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GOWN ID

GIC Well ID 1577059
GoA Well Tag No. A7277
Drilling Company Well ID
Date Report Received 2024/01/05

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PEETERS DAIRY LTD.	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203271 Longitude -113.811531
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Additional Information

Measurement in Metric

Distance From Top of Casing to Ground Level 45.72 cm
Is Artesian Flow
Rate L/min
Is Flow Control Installed
Describe

Recommended Pump Rate 45.46 L/min
Recommended Pump Intake Depth (From TOC) 33.53 m
Pump Installed Yes
Type Submersible
Depth 33.53 m
Make
H.P. 0.5
Model (Output Rating) 10 GPM

Did you Encounter Saline Water (>4000 ppm TDS)
Depth m
Gas
Depth m
Remedial Action Taken
Well Disinfected Upon Completion Yes
Geophysical Log Taken
Submitted to ESRD

Sample Collected for Potability
Submitted to ESRD

Additional Comments on Well
ANNULAR SEAL ALSO CONTAINS CUTTINGS.

Yield Test

Taken From Top of Casing
Measurement in Metric

Test Date	Start Time	Static Water Level
2023/11/23	1:00 PM	24.26 m

Method of Water Removal
Type Pump
Removal Rate 45.46 L/min
Depth Withdrawn From 33.53 m

If water removal period was < 2 hours, explain why

Depth to water level Pumping (m)	Elapsed Time Minutes:Sec	Recovery (m)
24.75	1:00	24.66
24.93	2:00	24.57
25.05	3:00	24.51
25.05	4:00	24.51
25.12	5:00	24.44
25.12	6:00	24.44
25.18	7:00	24.44
25.18	8:00	24.44
25.18	9:00	24.44
25.21	10:00	24.44
25.21	12:00	24.38
25.24	14:00	24.38
25.24	16:00	24.38
25.27	18:00	24.38
25.27	20:00	24.35
25.33	25:00	24.35
25.36	30:00	24.35
25.36	35:00	24.32
25.42	40:00	24.32
25.45	50:00	24.29
25.48	60:00	24.29
25.48	75:00	24.26
25.51	90:00	24.26
25.51	105:00	24.26
25.54	120:00	24.26

Water Diverted for Drilling

Water Source	Amount Taken		Diversion Date & Time
TOWN	7273.75	L	2023/10/11 8:00 AM

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
DARREN PAPLEY

Certification No
5896A

Company Name
PAPLEY DRILLING LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2023/11/30

house

Alberta

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GOWN ID

GIC Well ID 1576815
GoA Well Tag No. A4696
Drilling Company Well ID
Date Report Received 2021/10/29

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PETE PETERS DAIRY	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203271 Longitude -113.811531
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Drilling Information

Method of Drilling
Combination

Proposed Well Use
Domestic & Stock

Type of Work
New Well

Formation Log

Measurement in Metric

Depth from ground level (m)	Water Bearing	Lithology Description
14.63		Clay
16.76		Sand & Coal
23.47		Shale
24.08		Coal
32.92		Shale & Sandstone
39.93		Shale
43.89		Sandstone
47.24		Shale
56.39		Sandstone
57.91		Shale

Yield Test Summary

Measurement in Metric

Recommended Pump Rate 54.55 L/min

Test Date	Water Removal Rate (L/min)	Static Water Level (m)
2021/07/28	54.55	23.41

Well Completion

Measurement in Metric

Total Depth Drilled	Finished Well Depth	Start Date	End Date
57.91 m	57.91 m	2021/07/26	2021/07/26

Borehole

Diameter (cm)	From (m)	To (m)
20.00	0.00	23.16
13.02	23.16	57.91

Surface Casing (if applicable)
Plastic
Size OD : 15.24 cm
Wall Thickness : 0.991 cm
Bottom at : 23.16 m

Well Casing/Liner
Plastic
Size OD : 11.43 cm
Wall Thickness : 0.544 cm
Top at : 21.34 m
Bottom at : 57.91 m

Perforations

From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval(cm)
39.62	57.91	0.159	15.24	

Perforated by Saw

Annular Seal Bentonite Chips
Placed from 0.00 m to 23.16 m
Amount 100.00 Pounds

Other Seals

Type	At (m)
Driven	23.16
Shale Trap	23.16

Screen Type
Size OD : cm

From (m)	To (m)	Slot Size (cm)

Attachment
Top Fittings Bottom Fittings

Pack
Type Grain Size
Amount

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
DARREN PAPLEY

Certification No
5896A

Company Name
PAPLEY DRILLING LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2021/08/23

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial | **Export to Excel**

GOWN ID

GIC Well ID 1576815
GoA Well Tag No. A4696
Drilling Company Well ID
Date Report Received 2021/10/29

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PETE PETERS DAIRY	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203271 Longitude -113.811531
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Additional Information

Measurement in Metric

Distance From Top of Casing to Ground Level 45.72 cm
Is Artesian Flow
Rate L/min
Is Flow Control Installed
Describe

Recommended Pump Rate 54.55 L/min
Recommended Pump Intake Depth (From TOC) 30.48 m
Pump Installed Yes
Type Submersible
Depth 30.48 m
Make
H.P. 0.75
Model (Output Rating) 10 GPM

Did you Encounter Saline Water (>4000 ppm TDS)
Depth m
Gas
Depth m
Remedial Action Taken
Well Disinfected Upon Completion Yes
Geophysical Log Taken
Submitted to ESRD
Sample Collected for Potability
Submitted to ESRD

Additional Comments on Well

CUTTINGS INCLUDED IN ANNULAR SEAL. CONFIRMED WELL DISINFECTED UPON COMPLETION WITH DRILLER 2021-12-02.

Yield Test

Measurement in Metric

Test Date	Start Time	Static Water Level
2021/07/28	1:00 PM	23.41 m

Method of Water Removal

Type Pump
Removal Rate 54.55 L/min
Depth Withdrawn From 30.48 m

If water removal period was < 2 hours, explain why

Taken From Top of Casing
Depth to water level

Pumping (m)	Elapsed Time Minutes:Sec	Recovery (m)
24.51	1:00	24.60
24.78	2:00	24.38
24.93	3:00	24.23
25.02	4:00	24.14
25.12	5:00	24.14
25.18	6:00	24.08
25.21	7:00	24.05
25.27	8:00	24.02
25.30	9:00	23.99
25.30	10:00	23.96
25.33	12:00	23.90
25.39	14:00	23.84
25.45	16:00	23.80
25.48	18:00	23.77
25.48	20:00	23.74
25.54	25:00	23.68
25.57	30:00	23.62
25.57	35:00	23.59
25.60	40:00	23.56
25.63	50:00	23.50
25.66	60:00	23.50
25.69	75:00	23.47
25.69	90:00	23.44
25.73	105:00	23.41
25.76	120:00	23.41

Water Diverted for Drilling

Water Source	Amount Taken		Diversion Date & Time
TOWN	7273.75	L	2021/07/26 9:00 AM

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
DARREN PAPLEY
Certification No
5896A
Company Name
PAPLEY DRILLING LTD.
Copy of Well report provided to owner
Yes
Date approval holder signed
2021/08/23

neiter

Alberta

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GOWN ID

GIC Well ID 2086326
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2020/11/05

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PEETERS DAIRY	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	9	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203130 Longitude -113.807340
How Location Obtained
Hand held autonomous GPS 20-30m

Elevation 747.37 m
How Elevation Obtained
Hand held autonomous GPS 20-30m

Drilling Information

Method of Drilling
Rotary - Air

Proposed Well Use
Domestic

Type of Work
New Well

Formation Log

Measurement in Metric

Depth from ground level (m)	Water Bearing	Lithology Description
11.58		Clay
12.80		Gray Sandstone
15.24		Gray Shale
17.68		Coal
22.25		Gray Sandstone
28.96		Gray Shale
50.60		Gray Shale & Sandstone Ledges
53.64	Yes	Gray Sandstone
60.96		Gray Shale

Yield Test Summary

Measurement in Metric

Recommended Pump Rate 68.19 L/min

Test Date	Water Removal Rate (L/min)	Static Water Level (m)
2020/09/22	136.38	25.39

Well Completion

Measurement in Metric

Total Depth Drilled	Finished Well Depth	Start Date	End Date
60.96 m	60.96 m	2020/09/22	2020/09/22

Borehole

Diameter (cm)	From (m)	To (m)
22.23	0.00	23.47
12.70	23.47	60.96

Surface Casing (if applicable)
Plastic
Size OD : 15.24 cm
Wall Thickness : 0.993 cm
Bottom at : 23.47 m

Well Casing/Liner
Plastic
Size OD : 11.43 cm
Wall Thickness : 0.602 cm
Top at : 12.19 m
Bottom at : 60.96 m

Perforations

From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval(cm)
48.77	53.34	1.270		30.48

Perforated by Drill

Annular Seal Bentonite Chips
Placed from 0.00 m to 23.47 m
Amount 200.00 Pounds

Other Seals

Type	At (m)
Drive Shoe	23.47

Screen Type
Size OD : cm

From (m)	To (m)	Slot Size (cm)

Attachment
Top Fittings
Bottom Fittings

Pack
Type
Grain Size
Amount

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
RILEY PEARSON

Certification No
83061A

Company Name
BLACK DOG DRILLING & ENV SERV. LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2020/09/22

Alberta Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GOWN ID

GIC Well ID 2086326
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2020/11/05

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
PEETERS DAIRY	P.O. BOX 89	CALMAR	ALBERTA	CANADA	T0C 0V0

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	9	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203130 Longitude -113.807340
How Location Obtained
Hand held autonomous GPS 20-30m

Elevation 747.37 m
How Elevation Obtained
Hand held autonomous GPS 20-30m

Additional Information

Measurement in Metric

Distance From Top of Casing to Ground Level 91.44 cm
Is Artesian Flow
Rate L/min
Is Flow Control Installed
Describe

Recommended Pump Rate 68.19 L/min
Recommended Pump Intake Depth (From TOC) 48.77 m
Pump Installed Depth m
Type Make H.P.
Model (Output Rating)

Did you Encounter Saline Water (>4000 ppm TDS) Depth m
Gas Depth m
Remedial Action Taken
Well Disinfected Upon Completion Yes
Geophysical Log Taken
Submitted to ESRD

Sample Collected for Potability Submitted to ESRD

Additional Comments on Well

Yield Test

Taken From Top of Casing
Measurement in Metric

Test Date	Start Time	Static Water Level
2020/09/22	2:20 PM	25.39 m

Method of Water Removal
Type Air
Removal Rate 136.38 L/min
Depth Withdrawn From 60.96 m

If water removal period was < 2 hours, explain why

Pumping (m)	Elapsed Time Minutes:Sec	Depth to water level Recovery (m)
	0:00	60.96
	1:00	45.26
	2:00	37.64
	3:00	33.99
	4:00	32.19
	5:00	31.09
	6:00	30.27
	7:00	29.69
	8:00	29.26
	9:00	28.90
	10:00	28.62
	12:00	27.98
	14:00	27.40
	16:00	26.70
	18:00	26.24
	20:00	25.88
	25:00	25.66
	30:00	25.51
	35:00	25.45
	40:00	25.42
	50:00	25.39
	60:00	25.39
	75:00	25.39
	120:00	25.39

Water Diverted for Drilling

Water Source	Amount Taken	Diversion Date & Time
SHOP	9092.18 L	2020/09/21 3:00 PM

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
RILEY PEARSON

Certification No
83061A

Company Name
BLACK DOG DRILLING & ENV SERV. LTD.

Copy of Well report provided to owner
Yes

Date approval holder signed
2020/09/22

house

Alberta

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GIC Well ID 100318
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1983/06/06

GOWN ID

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
IWANIKA	CALMAR				

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203253 Longitude -113.811522
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Drilling Information

Method of Drilling
Rotary

Proposed Well Use
Stock

Type of Work
New Well

Formation Log

Measurement in Metric

Depth from ground level (m)	Water Bearing	Lithology Description
9.14		Clay
10.67		Sand
14.63		Shale
15.24		Coal
19.81		Shale
20.73		Sandstone
28.04		Shale
28.65		Sandstone
35.97		Shale
37.19		Sandstone
38.40		Shale
39.32		Sandstone
40.23		Shale

Yield Test Summary

Measurement in Metric

Recommended Pump Rate 0.00 L/min

Test Date	Water Removal Rate (L/min)	Static Water Level (m)
1982/11/25	27.28	3.96

Well Completion

Measurement in Metric

Total Depth Drilled	Finished Well Depth	Start Date	End Date
40.23 m		1982/11/25	1982/11/25

Borehole

Diameter (cm)	From (m)	To (m)
0.00	0.00	40.23

Surface Casing (if applicable)
Galvanized Steel
Size OD : 11.43 cm
Wall Thickness : 0.000 cm
Bottom at : 40.23 m

Well Casing/Liner
Size OD : 0.00 cm
Wall Thickness : 0.000 cm
Top at : 0.00 m
Bottom at : 0.00 m

Perforations

From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval(cm)

Perforated by

Annular Seal Formation Packer
Placed from 0.00 m to 12.80 m
Amount

Other Seals

Type	At (m)

Screen Type
Size OD : 0.00 cm

From (m)	To (m)	Slot Size (cm)

Attachment
Top Fittings Bottom Fittings

Pack
Type Grain Size
Amount

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
UNKNOWN NA DRILLER

Company Name
BURGESS, GEORGE WELL DRILLING LTD.

Certification No
1

Copy of Well report provided to owner *Date approval holder signed*

Water Well Drilling Report

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

View in Imperial **Export to Excel**

GIC Well ID 100318
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1983/06/06

GOWN ID

Well Identification and Location

Measurement in Metric

Owner Name	Address	Town	Province	Country	Postal Code
IWANIKA	CALMAR				

Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description
	NE	1	49	27	4				

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 53.203253 Longitude -113.811522
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

Additional Information

Measurement in Metric

Distance From Top of Casing to Ground Level cm
Is Artesian Flow
Rate L/min
Is Flow Control Installed
Describe

Recommended Pump Rate 0.00 L/min
Recommended Pump Intake Depth (From TOC) 12.19 m
Pump Installed Yes
Type SUB
Depth m
Make
H.P. 1/2
Model (Output Rating)

Did you Encounter Saline Water (>4000 ppm TDS)
Depth m
Gas
Depth m
Well Disinfected Upon Completion
Geophysical Log Taken
Remedial Action Taken
Submitted to ESRD

Sample Collected for Potability
Submitted to ESRD

Additional Comments on Well

Yield Test

Taken From Ground Level
Measurement in Metric

Test Date	Start Time	Static Water Level	Depth to water level: Pumping (m)	Elapsed Time Minutes:Sec	Recovery (m)
1982/11/25	12:00 AM	3.96 m			

Method of Water Removal

Type Bailer
Removal Rate 27.28 L/min
Depth Withdrawn From 5.49 m

If water removal period was < 2 hours, explain why

Water Diverted for Drilling

Water Source	Amount Taken	Diversion Date & Time
	L	

Contractor Certification

Name of Journeyman responsible for drilling/construction of well
UNKNOWN NA DRILLER

Certification No
1

Company Name
BURGESS, GEORGE WELL DRILLING LTD.

Copy of Well report provided to owner

Date approval holder signed

Part 2 — Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB Natural Resources Conservation Board

DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

	Neighbour name(s)	Legal land description	Distance (m)	NRCB USE ONLY: Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
1	Hammermeister	NW-6-49-26-4	450	Ag	Cat 1	365 m	N/A	Yes*
2	Fandrick	SW-7-49-26-4	600	Ag	Cat 1	464 m		Yes
3	Armstrong	SW-7-49-26-4	470	Ag	Cat 1	504 m		Yes
4	Davidson	SE-12-49-26-4	866	Ag	Cat 1	914 m		Yes

*MDS exemption See Decision Summary Section 9

LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	NRCB USE ONLY: Usable area (ha)	Agreement attached (if required)
			Total		

N/A application not for an increase in permitted livestock

* If you are **not** the registered landowner, you must attach copies of land use agreements signed by all landowners.

** Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 Manure Spreading Regulations)

*** Brown, dark brown, black, grey wooded, or irrigated

Additional information (attach any additional information as required)

795
795
Image © 2021 Airbus

Part 2 — Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY

MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): Google earth

Margin of error (if applicable): +/- 3 m

Requirements (m): Category 1: 473 m Category 2: 630 m Category 3: 788 m Category 4: 1261 m

Technology factor: ☐ YES ☑ NO

Expansion factor: ☐ YES ☑ NO

MDS related concerns from directly affected parties or referral agencies: ☐ YES ☑ NO

MDS exemption (SAR section 5(c)(ii)) as proposed dairy barn is located further away than existing CFO facilities. See Decision Summary Section 9.

LAND BASE FOR MANURE AND COMPOST APPLICATION

Land base required: N/A not for an increase in permitted livestock

Land base listed:

Area not suitable:

Available area Requirement met: ☐ YES ☐ NO

Land spreading agreements required: ☐ YES ☐ NO

Manure management plan: ☐ YES ☐ NO If yes, plan is attached: ☐

PLANS

Submitted and attached construction plans: ☑ YES ☐ NO

Submitted aerial photos: ☑ YES ☐ NO

Submitted photos: ☐ YES ☑ NO

GRANDFATHERING

Already completed: ☑ YES ☐ NO ☐ N/A

If already completed, see BA03023

Part 2 — Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY

ALL SIGNATURES IN FILE ☑ YES ☐ NO

DATES OF APPROVAL OFFICER SITE VISITS

August 8, 2024	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: August 13, 2024

Municipality: Leduc County

☑ letter sent ☑ response received ☑ written/email ☐ verbal ☐ no comments received

Alberta Health Services: N/A

☐ letter sent ☐ response received ☐ written/email ☐ verbal ☐ no comments received

Alberta Environment and Parks: ☐ N/A

☑ letter sent ☐ response received ☐ written/email ☐ verbal ☑ no comments received

Alberta Transportation: ☐ N/A

☑ letter sent ☐ response received ☐ written/email ☐ verbal ☑ no comments received

Alberta Regulatory Services: ☐ N/A

☑ letter sent ☑ response received ☐ written/email ☑ verbal ☐ no comments received

Other: _____ ☐ N/A

☐ letter sent ☐ response received ☐ written/email ☐ verbal ☐ no comments received

Other: _____ ☐ N/A

☐ letter sent ☐ response received ☐ written/email ☐ verbal ☐ no comments received

LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner

*(complete a copy of this section for **EACH** proposed in-barn liquid manure storage facility with a concrete liner)*

Facility description / name *(as indicated on site plan)*

1. Freestall Barn
2. _____
3. _____

Manure storage capacity *(use one row in the table for **EACH** in-barn storage. Attach additional pages if you require more rows)*

	Length (m)	Width (m)	Total depth (m)	Depth below ground level (m)	**NRCB USE ONLY** Calculated storage capacity (m^3)
1.	125	51	3	3	cross over pit to 1 manure pit 9 m x 9 m x 3 m
2.					
3.					
				TOTAL CAPACITY	243 m3. Manure pit

Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness: 6 inch	Method of sulphate protection: T 50 or Similar	
	Concrete strength: 30 mpa	Concrete reinforcement size and spacing: 18" on Center	
In-barn manure pit floors	Concrete thickness: 6 inch	Method of sulphate protection: T 50	
	Concrete strength: 32 mpa	Concrete reinforcement size and spacing: 18"	
In-barn manure pit walls	Concrete thickness: 6 inch	Method of sulphate protection: T 50	
	Concrete strength: 32 mpa	Horizontal reinforcement size and spacing: 18"	Vertical reinforcement size and spacing: 18"

LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner (cont.)

Describe how the joints at the junction of the pit walls, pit floors and any other joints will be sealed

Sikaflex or Similar

Describe sealing practices for piping, etc. that penetrates the liner

Sikaflex or Similar

Concrete requirements can be found in Technical Guideline Agdex 096-93
Guideline minimums:
Solid manure: 25MPa (D)
Solid manure (wet): 30MPa (C)
Liquid manure: 32MPa (B)
Category A is required to be engineered
Method of sulphate protection:
Type 50 or Type 10 with fly ash or equivalent

NRCB USE ONLY

Requirements met: ☑ YES ☐ NO

Condition required: ☑ YES ☐ NO

Additional information

NRCB USE ONLY

Liquid manure storage volume calculator attached: ☐ YES ☑ NO

Depth to water table: >6 m — Requirements met: ☑ YES ☐ NO

Depth to uppermost groundwater resource: 27.48 m — Requirements met: ☑ YES ☐ NO

ERST completed: ☑ see ERST page for details

Concrete liner requirements

Leakage detection system required: ☐ YES ☑ NO If yes, please explain why

Applicant to provide documentation confirming concrete information.

Last updated February 26, 2021

E
N
S
W
Feed alley
Stalls
Stalls
Freestall barn
Stalls
Feed alley
Milk house
Straw pack
Manure Pit
30' x 30'