Technical Document BA24017

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	Application number	Legal land description
Approval 🛛 Registration 🗆 Authorization _	BA24017	SE 21-62-3 W5M
Amendment Amendment		

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.

20 20 Date of signing

E (n

Signa	ture		
	2		
	12	C	

Print name

Corporate name (if applicable)

GENERAL INFORMATION REQUIREMENTS

Proposed facilities		Dimensions (m) (length, width, and depth)
46× 180	layerburn	180'x 46' 55 m x 14 m
	aux room (cooler, office etc.)	20'x 46' 9 m x 14 m

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
hogbarn	40'X 120'	12 m x 36 m
2	54 x 84	16 m x 26 m
3.	40' X 200'	12 m x 61 m
NRCB USE ONLY		
Confirmed existing C	FO	

Last updated September 11, 2023



Existing facilities continued	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Gtarp stud.	30'X72 '	9 m x 22 m (each
manure pad for shulters.	180'X 70'	55 m x 21 m
		11111
		638533



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

	i0 /		
estruction completion date for proposed facilit litional information	ties 110Vem5	er 2025	
Would like to start	Arris with	dirtwork.	
Would like to start	19. 00		
Application to change actors when	vovor opplioant ve	uld like te keen eene	
Application to change category how	wever applicant wo	ould like to keep some	9
grandfathered faciliities as they ma	ly be repurposed to	or poultry or other in t	ine arondfothoroc
future. As there is no MDS issues I	nave carried thes	e facilities forward as	grandiathered
vestock numbers: Complete only if livestock numb estock numbers increase in your Part 2 application, iority 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
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number	Total
Available in the Schedule 2 of the Part 2 Matters	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	
Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	decrease in number (if applicable)	

Last updated September 11, 2023



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 <u>not</u> 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).
- 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 _____

Signed this $\underline{20}$ day of	January , 20 25.		Signature of Applicant or Agent
Last updated September 11, 2023	Note: consumption	will go down	a lot.

Application Page 4 of 15 BA24017 TD Page 4 of 19



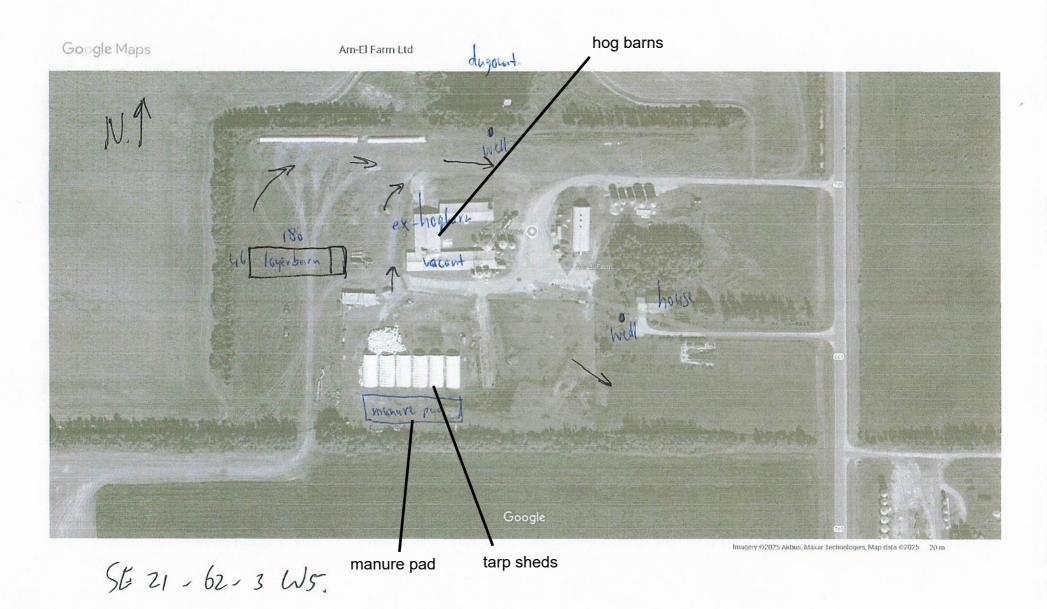
Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

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.
- 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 <u>not</u> 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*).
- 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



Alberta



View in Imperial Export to Excel

499067

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.

GIC Weil ID GoA Well Tag No. Drilling Company Weil ID Date Report Received

Owner Name NANNINGA, ARNOLD Address NEERLANDIA Town Province Country Postal Controperation Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Addrisoal Description Location 1/4 or LSD SEC TWP RGE W of MER Lot Block Plan Addrisoal Description Measured from Boundary of	WN (D		8	iccuracy. The i	tiomation or	this report will be	retatheo in a p	udiic gatabas	e.		Date Report Received	
NANNINGA_ARNOLD NEERLANDIA Location 14 42 3 S Measured from Bundary of m from m from GPS Coordinates in Docimal Degrees (MD 93) Latitude 54374062 Elevation m Diffiling Information Method of Drilling Rotacy m from Mage Elevation Obtained Nat Obtained Measurement in Metric New Wall Depth from 10.24 Stot City Type of Work New Wall Measurement in Metric New Wall Yield Test Summary New Wall Measurement in Metric Trate Depth Ottobe Finished Weit Depth State Umin Trate Depth Ottobe Finished Weit Depth State Date State Ottober State State Weit Call point State Ottober State State Ottober State 10.24 Shake Diameter cmin Tool (Depth Ottober Finished Weit Depth State Totale State Ottober State Ottober State Ottober Totale State Ottober State Ottober Finished Weit Depth State Hale State Ottober State Ottober Finished Weit Depth State Larght Measurement In Measurement In State Ottober State Ottober State Ottober Finished Weit Depth State Larght State Ottober State State Ottober Finished Weit Depth State State Ottober Finished Weit Depth State State (Total State Ottober Finished Weit Depth State Sta	Well Identi	fication and L	ocation									Measurement in N
SE 21 82 3 5 Measured from Boundary of 					DIA		Town			Province	Country	Postal Co
Wessured from Boundary of m Bom m Bom m Bom GPS Coordinates in Docume Organos (PAD 58) Latitude 5437402 How Location Oblained Mep Conglisted -114,383304 How Location Oblained Mep Edivation	.ocation						Lot	Block	Plan	Additio	nal Description	
In tom How Couling How Elocation Obtained Map Net Obtained Net Obtained Drilling Information Type of Work Map Type of Work Net Obtained Net Obtained Drilling Information Net Obtained Map Type of Work Network Network Standard Measurement In Metric At 8 Sixt Clay Standard State Water Level (m) 201/05/08 17.28 State State State Water Level (m) 201/05/08 17.23 State State State Clay 10.34 State 152.40 State Clay State OO :	Measured fr				<u> </u>	GPS Coordir		-	• •			
milling Map Not Obtained hilling information atoms of Drilling obtains Type of Work New Well Type of Work New Well Yield Test Summary Measurement in Metric Yield Test Summary Measurement in Metric Granution Log petch from Water Level (m) Static Weter Level (m) Static Weter Level (m) 4.88 Soft Gay Static Measurement in Metric Test Date Water Removal Rate (L/min) Static Weter Level (m) 10.34 Shale Total Depth Diand Finished Well Depth Static Bete End Date 110.34 Shale Total Depth Diand Finished Well Depth Static Date Coll Depth Diand Finished Well Depth Static Date 110.34 Shale Total Depth Diand Finished Well Depth Static Date Date Out Total 110.34 Shale Static Casing (I septilicable) Well Totakness: Out 3 Date 110.34 Shale Static Casing (I septilicable) Well Totakness: Out 3 Date 110.34 Shale Static Casing (I septilicable) Well Totakness: Out 3 Date Static Casing (I septilicable) Staticasing (Lower 2 Staticasing (Lower 2 <td></td> <td></td> <td>m from</td> <td></td> <td></td> <td></td> <td></td> <td> Longit</td> <td>ude <u>-114.3</u></td> <td>83304</td> <td></td> <td></td>			m from					Longit	ude <u>-114.3</u>	83304		
Milling Information Bethod of Drilling Overset Woll Use Somatic & Stock Type of Work New Woll Somatic & Stock Measurement in Metric Septh from Webr Lithoday Description Measurement in Metric Ass Soft Clay Sold Shade 110.34 Shade 110.34 Shade 117.2.40 Shade Shade Soft Clay 117.2.40 Shade Well Completion Measurement in Metric Well Completion Measurement in Metric 117.2.40 Shade Shade Soft Clay 117.2.40 Shade Well Completion Measurement in Metric User from (m) To (m) State State Well Trickness: Other User from (m) To (m) State State Baneter (m) From (m) State (m) State Baneter (m) From (m) Well Trickness: Other Baneter (m) From (m) Well Trickness: Other			m from				n Obtained					ned
New Well ************************************					I	Мар					Not Obtained	
New Weil Proposed Weil Vee Commation Log Measurement in Metric Formation Log Measurement in Metric 61.40 Shate 76.50 Sandstone 110.34 Shate 122.40 Shate 132.40 Shate 132.40 Shate 132.40 Shate 110.34 Shate 110.34	Drilling Info	ormation										
Demestic As Stock		Drilling					rk					
Depth from Water Lithology Description rpand lead (m) Bearing Recommanded Pump Rate 13.64 L/min 4.88 Soft Clay 56.69 63.40 Shale State 76.50 Sandstone 17.28 56.69 110.34 Shale Well Completion Measurement in N 76.50 Sandstone 2001/05/06 17.28 56.69 110.34 Shale 2001/05/07 2001/05/06 2001/05/06 110.34 Shale 2001/05/07 2001/05/06 2001/05/07 2001/05/06 110.34 Shale Shale Date tisz.40 m 2001/05/07 2001/05/07 2001/05/06 110.34 Shale Shale Date tisz.40 m 2001/05/07 2001/05/06 2001/05/07 2001/05/06 110.34 Shale Shale Date tisz.40 m State Communicate provide the point start Date the p								-				
reiund level (m) Bearing i 4.88 Soft Clay 5.30 Sandstone 110.34 Shale 137.83 Sandstone 132.40 Shale 147.83 Sandstone 132.40 Shale 5.40 m 5.40	ormation	Log			Me	asurement in	Metric	Yield Tes	t Summai	У		Measurement in N
4.88 Soft Clay 2001/05/08 17.28 56.69 63.40 State Meil Completion Measurement in N 76.50 Sandstone Total Deph Dilled Finished Weil Deph Start Deate End Date 10.34 State State 2001/05/08 2001/05/07 2001/05/07 177.83 Sandstone Dilled Finished Weil Deph Start Deate End Date End Date 152.40 State State 2001/05/07 2001/05/07 2001/05/07 152.40 State State State 2001/05/07 2001/05/07 2001/05/07 152.40 State State State 2001/05/08 17.28 State 2001/05/07 152.40 State State State 2001/05/07 2001/05/07 2001/05/07 152.40 State State State 2001/05/08 14.12 cm State 152.40 152.40 Starteo Casting (if explicable) Weil Taketmass : 0.635 cm 152.40 m State O: 152.40 m State State State Other State State O: 152.40 m 160.0	Depth from	Water	Litholog	gy Descriptio	n			Recomme	nded Pump	Rate	13.64 L/min	
63.40 Shale 76.50 Sandstone 110.34 Shale 147.83 Sandstone 152.40 Shale 2021/05007 2001/05007	round leve	l (m) Bearing	1			-		Test Di	ate Wa	ter Removal	Rate (L/min) St	atic Water Level (m)
76.50 Sandstorre 110.34 Shale 147.83 Sandstorre 152.40 Shale 20010500 20010500 2000 Stat Date 2010 Date 2010 Stat Date 2010 Date	4.88		Soft C	lay				2001/05	/08	17.2	8	56.69
110.34 Shale 147.83 Sandstone 152.40 Shale 152.40 Shale 152.40 Shale 152.40 Shale 152.40 Shale 152.40 Shale 152.40 State 152.40 State 152.40 State 152.40 State 152.40 State 152.40 Well Casing/Liner Plastic Size OD: 111.13 Control State OD: 11.13 Well Thickness: 0.476 cm Well Thickness: 0.476 cm Bottom at: 152.40 m Parforations Diameter or Site Width Stot Length Hole or Site Feren (m) To (m) Con) Con) Interaction Partorated by Machine Annual Seal Driven Plastic Type At (m) Screen Type Site Size (cm) Stree OD: 0.00 cm From (m) Forent (m) To (m) Stat Size (cm)	63.40		Shale					Well Con	npletion			Measurement in N
110.34 Snake 147.83 Sindsone 152.40 Shale Borehole Diameter (cm) 152.40 Shale Borehole 0.00 Surface Casing (if applicable) Well Casing/Liner Pleaste Size OD: 147.83 Size OD: 152.40 Mell Thickness: 152.40 Mell Thickness: 152.40 Mell Thickness: 163.81 Top at : 110.34 147.83 110.34 147.83 110.34 147.83 110.34 147.83 110.34 147.83 110.34 14	76.50	·	Sands	stone				•	th Drilled F	inished Wel	•	
137.03 Soluzione 132.40 Shale Diameter (cm) From (m) 0.00 152.40 Steel Size OD : 141.12 Casing/Liner Steel Size OD : 141.12 Size OD : Wall Thickness : 0.478 cm Wall Thickness : 0.478 cm Bottom at : 152.40 m Perforations Bottom at : Diameter or Six Width Stot Width Stot Length Hole or Six Thernell(cm) 110.34 147.83 0.00 m 109.73 m Annutar Seal Diven Partorated by Machine Annutar Seal Diven Placed from 0.00 m Other Seals Type Stereon Type Size (cm) Attachment	110.34	ļ	Shale	1							2001/05/07	2001/05/08
132.40 State 0.00 152.40 Well Casing/Liner Plastic Plastic Stee OD : 14.12 cm Size OD : 11.43 cm Well Thickness : 0.478 cm Well Thickness : 0.653 cm Bottom at : 12.19 m Top at : 4.88 m Bottom at : 12.19 m Top at : 4.88 m Bottom at : 152.40 m Well Thickness : 0.60 cm Healt Parforations Diameter or Slot Width Slot Length Hole or Slot Parforated by Machine Annular Seal Driven Plasced from 109.73 m Amount	147.83		Sands	stone								
Surface Casing (if applicable) Well Casing/Liner Steel Size OD: 11.43 cm. Well Thickness: 0.478 cm. Well Thickness: 0.635 cm. Bottom at: 12.19 m. Top at: 4.88 m. Bottom at: 12.19 m. Top at: 4.88 m. Bottom at: 152.40 m. Bottom at: 152.40 m. Perforations Diameter or Sice Width Stot Length Hole or Slot Parforated by Machine Annual result 7.62 Top at: 4.88 m. Parforated by Machine Annount	152.40		Shale					Dian				
Steel Plastic Size OD: 14.12 cm Will Thickness: 0.635 cm Bottom at: 12.19 m Bottom at: 12.19 m Bottom at: 12.19 m Bottom at: 152.40 m Bottom at: 12.19 m Bottom at: 152.40 m Bottom at: 152.40 m Perforations Diameter or Slot Width Diameter or Slot Width Stot Length Hole or Slot From (m) To (m) Cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Nanular Seal Driven Palaced from _0.00 m to _109.73 m Amount								Surface C		onlicable)		
Wall Thickness: 0.478 cm Wall Thickness: 0.635 cm Bottom at: 12.19 m Top at: 4.88 m Bottom at: 12.19 m Top at: 4.88 m Bottom at: 152.40 m Bottom at: 152.40 m Parforations Diameter or Slot Width Stat Length Hole or Slot From (m) To (m) (cm) Interval(cm) 110.34 7.62 Parforated by Machine Annular Seal Driven Placed from 0.00 m to 109.73 m Amount												
Bottom at: 12.19 m Top at: 4.88 m Bottom at: 152.40 m Perforations Diameter or Slot Width Stot Length Hole or Slot From (m) To (m) (cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Annutar Seal Driven Placed from								S	ize OD :	14.12 cr	n Size OL	D: <u>11.43 cm</u>
Bottom at: 152.40 m Perforations Diameter or Slot Width Stot Length Hole or Slot From (m) To (m) (cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Annular Seal Driven Placed from								Wall Thio	ckness :	0.478 cr	n Wall Thicknes	s : 0.635 cm
Perforations Diameter or Slot Width Slot Length Hole or Slot From (m) To (m) (cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Annular Seal Driven Placed from 0.00 m to 109.73 m Amount								Bo	ttom at :	12.19 m	Тор а	
Diameter or Site Width Stot Length Hole or Slot From (m) To (m) (cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Annular Seal Driven Placed from											Bottom a	<i>it :</i> 152.40 m
Slot Width Slot Length Hole or Slot From (m) To (m) (cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Annular Seal Driven Placed from 0.00 m to 109.73 m Amount								Perforatio	ons	Diamate		
From (m) To (m) (cm) Interval(cm) 110.34 147.83 0.318 7.62 Perforated by Machine Annular Seal Driven Placed form												Hole or Slot
Perforated by Machine Annular Seal Driven Placed from) (cm) (cm)	Interval(cm)
Annular Seal Driven Placed from								110.34	147.8	3 0.31	8	7.62
Placed from to Amount Other Seals Type At (m) Screen Type Size OD :OOD cm From (m) To (m) Slot Size (cm) Attachment Top Fittings Bottom Fittings Pack Type Grain Size Amount Contractor Certification Warme of Journeyman responsible for drilling/construction of well								Perforated	iby Ma	achine		
Placed from								Annular S	Seal Drive	n		
Other Seals Type At (m) Screen Type Size OD :								Placed	from	0.00 m	o <u>109.73 m</u>	
Type At (m) Screen Type Size OD :OOD cm Size OD :OOD cm From (m) To (m) Slot Size (cm) Attachment Attachment Top Fittings Bottom Fittings Pack Type Type Grain Size Amount Certification No								Am	ount			
Screen Type Size OD :								Other Sea	ls			
Size OD :OOD cm From (m) To (m) Slot Size (cm) Attachment Top Fittings Bottom Fittings Pack Type Grain Size Amount Contractor Certification large of Journeyman responsible for drilling/construction of well Certification No									Тур	e .		At (m)
Size OD :OOD cm From (m) To (m) Slot Size (cm) Attachment Top Fittings Bottom Fittings Pack Type Grain Size Amount Contractor Certification Varme of Journeyman responsible for drilling/construction of well Certification No												
From (m) To (m) Slot Size (cm) Attachment								•	•			
Attachment Bottom Fittings Pack Type Grain Size Amount Contractor Certification Name of Journeyman responsible for drilling/construction of well Certification No											_	
Top Fittings Bottom Fittings Pack Type Grain Size Amount Contractor Certification Name of Journeyman responsible for drilling/construction of well Certification No								Fr	om (m)		To (m)	Slot Size (cm)
Top Fittings Bottom Fittings Pack Type Grain Size Amount Contractor Certification Name of Journeyman responsible for drilling/construction of well Certification No								Atta	chment			
Pack Type Grain Size Amount Contractor Certification Vame of Journeyman responsible for drilling/construction of well Certification No								Top	Fittings		Bottom Fitting	
Type Grain Size Amount Contractor Certification Name of Journeyman responsible for drilling/construction of well Certification No												
Contractor Certification lame of Journeyman responsible for drilling/construction of well Certification No											Grain Size	
Contractor Certification Name of Journeyman responsible for drilling/construction of well Certification No												
Name of Journeyman responsible for drilling/construction of well Certification No							_ [_]					
Name of Journeyman responsible for drilling/construction of well Certification No												
	Contractor	Certification					_					
INKNOWN NA DRILLER 1			onsible for	r drilling/cons	truction of	well				n No		
									•			
Company Name Copy of Well report provided to owner Date approval holder sign IAHAR, VERN DRILLING SERVICES			SERVICE	S					Copy of W	əll rəport pro	vided to owner Date	approval holder sign

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

499067

GIC Well ID GoA Well Tag No.

Drilling Company Well ID Date Report Received 2001/07/31

			•		uns report will be n	064100 #10 p	0040 020000	50.		Date Report Re	ceived	2001/07/31
Well Identif	ication and L	ocation								-	Μ	easurement in Met
Owner Name NANNINGA,			Address NEERLAND	DIA		Town			Province	Coun	try	Postal Code
Location	1/4 or LSD SE	SEC 21	TWP 62	RGE 3	W of MER 5	Lot	Block	Plan	Additic	onal Description		
Measured fro		f m from m from			GPS Coordin Latitude <u>5</u> How Location Map	4.374062	•	•		Elevation How Elevation Not Obtained		
Additional I	nformation										M	easurement in Met
ls Artesian	om Top of Cas				cm	Is	s Flow Con		led			
	Rate		L/min					Descr	ibe		<u> </u>	
	ded Pump Rate				13.64 L/min		-	Yes		Depth	r	n
Recomment	deo Pump Intal	ke Depin (137.16 m	туре	SUB		Make	Model (Outpu	t Ratina	1
Remedial	Action Taker		e	Gas	Depin			G	seopnysical Lo	g Taken		
	I Comments or		OM TOP OF	CASING -	TO GROUND LE		Sample Co	ollected fo	Submitted t		ubmitted	to ESRD
	I Comments or		OM TOP OF	CASING -	TO GROUND LE		Sample Co		or Potability	Sround Level		to ESRD
DRILLER R	el Comments or		e		FO GROUND LE 				or Potability Taken From (Dep	s		
DRILLER R Yield Test Test Date 2001/05/08 Method of I Re Depth With	Water Remova Type A emoval Rate	ANCE FR Start Tim 12:00 AM al ir 15	e 1 17.28 L/min 52.40 m	Statio	c Water Level			1	or Potability Taken From (Dep	Ground Level th to water level Elapsed Time Minutes:Sec 0:00 35:00	M	easurement in Me
DRILLER R Yield Test Test Date 2001/05/08 Method of I Re Depth With If water rem	I Comments or EPORTS DIST Water Remova Type A emoval Rate	ANCE FR Start Tim 12:00 AM al ir 1 15 s < 2 hour	e 1 17.28 L/min 52.40 m	Statio	c Water Level			1	or Potability Taken From (Dep	Sround Level th to water level Elapsed Time Minutes:Sec 0:00 35:00 40:00 50:00 60:00	M	easurement in Mel Recovery (m) 152.40 91.44 83.82 68.58 59.44

Contractor Certification Name of Journeyman responsible for drilling/construction of well UNKNOWN NA DRILLER	Certification No 1	
Company Name MAHAR, VERN DRILLING SERVICES	Copy of Well report provided to owner	Date approval holder signed

Page: 2/2 Application Page 8 of 15 BA24017 TD Page 8 of 19

house

Alberta

GOWN ID

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 364867

GIC Well ID GoA Well Tag No. Drilling Company Well ID Date Report Received

1988/08/10

Well Identificat	ion and L	ocation									Measurement in Metric
<i>Owner Name</i> NANNINGA, ARI	NOLD		Address RR1 BARR	HEAD		Town			Province	Country	Postal Code T0G 0E0
Location 1/4 SE	or LSD	SEC 21	TWP 62	RGE 3	W of MER 1 5	Lot	Block	Plan	Addition	nal Description	
Measured from E		f m from m from			GPS Coordinate Latitude <u>54.3</u> How Location OL Map	74062	-	s (NAD 83 ude <u>-114.</u> :		Elevation How Elevation Ob Not Obtained	
Drilling Informa	tion										
Method of Drillin Rotary					<i>Type of Work</i> New Well						
Proposed Well (Domestic & Stoc											
Formation Log				Me	asurement in Mel	ric	Yield Tes	t Summa	iry		Measurement in Metric
Depth from ground level (m)	Water Bearing	Litholo	gy Description				Recomme Test Da		p Rate ater Removal	31.82 L/min Rate (L/min)	Static Water Level (m)
20.73		Soft C	lay				1988/07	/19	31.8	2	43.28
74.07	!	Hard				ו ד	Well Corr	pletion			Measurement in Metric
78.03	Yes	Water	Bearing Sand	stone			•	h Drilled	Finished Well	•	
86.87		Shale	• •				146.30 m			1988/07/1	8 1988/07/19
97.54	Yes	Water	Bearing Sand	stone		_	Borehole	ator ()			
133.50	; ;	Shale						eter (cm) 0.00		From (m) 0.00	<u>To (m)</u> 146.30
146.30	· Yes	Water	Bearing Sand	sone			Steel Si Wall Thic Bot Perforation From (m) 73.15 Perforated Annular S Placed I Ann Other Seal Screen Ty Si From Attac	ze OD : tom at : ins 146.3 by M Beal Drive from but to find the cont ts Typ ze OD : type ze OD : oun (m) thment	Diamete Slot W 0 0.31 lachine en & Welded I 0.00 m_0	n Wall Thickr Tc Botton er or Idth Slot Length) (cm) 8 Ring o 8 Ring o n To (m) Bottom Fitt	OD : 11.43 cm ness : 0.635 cm p at : 24.38 m m at : 146.30 m Hole or Slot Interval(cm) 7.62
Contractor Cer Name of Journey		nsible fo	r drillina/consti	ruction of w	vell			Certificatio	n No		
UNKNOWN NA I								1			
Company Name MAHAR, VERN [DRILLING	SERVICE	ES					Copy of W	fell report pro	vided to owner Da	ate 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

364867

GIC Well ID GoA Well Tag No. Drilling Company Well ID Date Report Received 1988/08/10

	ARNOLD 1/4 or LSD SE		Address RR1 BARR								Measurement in Me
NANNINGA, A	1/4 or LSD SE										
	SE		RRI DARR	HEAD		Town			Province	Country	Postal Code T0G 0E0
Measured from	Bauadaau a	SEC 21	TWP 62	RGE 3	W of MER 5	Lot	Block	Plan	Additio	nal Description	
-		f m from m from			GPS Coordin Latitude <u>5</u> How Locatior Map	4.374062	•	•	· .	Elevation How Elevation Ol Not Obtained	
Additional Inf		ing to Grou	und Level		cm		-				Measurement in Me
ls Artesian F		-				ls	s Flow Con		d		
Recommende	ed Pump Rate	9			31.82 L/min 0.00 m					Depth	 H.P Rating)
Remedial A	counter Saline Action Taker. Comments or			DS) Gas	Depth				nfected Upon ophysical Log Submitted to Potability	Completion g Taken b ESRD	mitted to ESRD
Yield Test								Та		Ground Level	Measurement in Mel
Test Date 1988/07/19		Start Time 12:00 AM		Statio	c Water Level 43.28 m			nping (m)		Elapsed Time Minutes:Sec	Recovery (m)
Method of W Ren Depth Withdr If water remov	Type <u>P</u> noval Rate rawn From	ump 3 9	1.44 m	ly ly							
Water Divert	ed for Drillir	ng									
Water Source				Am	ount Taken L				Diversio	n Date & Time	

Contractor Certification		
Name of Journeyman responsible for drilling/construction of well	Certification No	
UNKNOWN NA DRILLER	1	
Company Name	Copy of Well report provided to owner	Date approval holder signed
MAHAR, VERN DRILLING SERVICES		

Printed on 1/28/2025 10:36:27 AM

Page: 2 / 2 Application Page 10 of 15 BA24017 TD Page 10 of 19



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)

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) Proposed 1: layer burn

	d 2:		Proposed 1: <u>layer burn</u> Proposed 3:					
				lities		No.	NRCB USE ONLY	
Facili	ty and environmental risk information	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	YES NO YES with exemption	Not in flood plain	
Same Same	How many springs are within 100 m of the manure storage facility or manure collection area?	0	no			YES NO	None known	
Surface water information	How many water wells are within 100 m of the manure storage facility or manure collection area?	۱	0			YES NO YES with exemption	confirmed	
Surf inf	What is the shortest distance from the manure collection or storage facility to a surface water body?	7500	>500			YES NO	seasonal drainage 700r	
rater tion	(e.g., lake, creek, slough, seasonal) What is the depth to the water table?		>5			YES NO	Confirmed	
Groundwater information	What is the depth to the groundwater resource/aquifer you draw water from?	200'	300 '			YES NO YES with exemption	74.07 m ID 364867	

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



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				
See Decision Summary BA24017 for explanation of ERST.							

ERST for existing facilities

Facility	Groundwater score	Surface water score	File number
Tarp shelters	Low	Low	BA24017
Manure pad	Low	Low	BA24017
Hog barns	Low	Low	BA24017

ERST related comments:



NRCB USE ONLY		WATER INFORMATI	ON				
Well IDs:	ID 499067						
	ID 364867						
Surface water rel	atod concorns from di	rectly affected parties or refe	orral agoncios:				
		ectly affected parties or refe					
Water wells	N/A	ectly affected parties of fele	Tal agencies.				
		ana kasukamanta analiadu		n required: 🛛 YES 🗆 NO			
		ance requirements applied:		n required: YES NO			
Surface water							
If applicable, exe	mption for 30 m dista	nce requirements applied:	YES IN Condition	n required: 🛛 YES 🗌 NO			
Water Well Exe	mption Screening To						
Wate	er Well ID	Preliminary Screening Score	Secondary Screening Score	Facility			
Groundwater or surface water related comments:							



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

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

	NRCB USE ONLY						
Neighbour name(s)	Legal land description	Distance (m)	Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
in 118 (b. D.	MINIE 62-3 125	487	Ag	Cat 1	362	N/A	Yes
Matto Chur Manninga	NE 16 62-3 (US	524	Ag	Cat 1	403	N/A	Yes
Arnol & Liz Manninga	NE 21 62-3 (US	1230	Ag	Cat 1	1146 m	N/A	Yes
Janssen Killer	SU 22 62 2 (1)5	650	Ag	Cat 1	567 m	N/A	Yes
Karlen + Evelyn Arikke Matt Harsen	NW 22 62-345	050	Ag	Cat 1	951 m	N/A	Yes

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

				NACD US	DE ONLI
Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	Usable area (ha)	Agreement attached (if required)
Arn/El Farm	NE16-62-3 WS	45	grey		A CONTRACTOR OF CONTRACTOR
BEM Van Duh	SE21-62-3-WS	50	grey		
ArnEl Farm	NE 14 - 62 - 3 WS	64	grey		
			Total	159 ha	

* 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)



NRCB USE ONLY									
MINIMUM DISTANC	E SEPARATI	ON							
Methods used to determine Margin of error (if applicab	e distance (if appl le): <u>N/A</u>	licable): _	Google	e earth					
Requirements (m): Catego	_{ry 1:} 296 m	Ca	tegory 2	394 m	0	Category 3:	493 m	Category 4:_789 m	
Technology factor:							□ YES	NO	
Expansion factor:							□ YES	NO	
MDS related concerns from	directly affected	parties o	or referra	l agencie	es:			NO NO	
LAND BASE FOR MA	NURE AND	сомро	ST AP	PLICAT	ΓΙΟΝ				
Land base required:	92 ha grey w	ooded							
Land base listed:	159 ha								
Area not suitable:	unsuitable ac	reage a	Iready	remove	ed				
Available area	159 ha				Requir	rement met	t: 🗹 YES		
Land spreading agreement	s required:	☐ YES	□∕ No						
Manure management plan:		☐ YES	🗹 NO		If yes	s, plan is at	tached:	3	
PLANS									
Submitted and attached co	nstruction plans:		□ YES	M NO	ma	p of bar	n locatio	n	
Submitted aerial photos:			🗹 YES	□ NO					
Submitted photos:			□ YES	🛛 NO					
GRANDFATHERING									
Already completed:			□ YES	🛛 NO [🗆 N/A				
If already completed, see _									



~

and the second sec



NRCB USE ONLY							
ALL SIGNATURES IN FILE	!	YES C	ОИС				
DATES OF APPROVAL OFF	ICER SITE VI	SITS					
January 29, 2025							
December 5, 2024							
	MUNICIDALI	TIEC AN			CENCIES	-	
CORRESPONDENCE WITH Date deeming letters sent: Februa		TIES AN	ID REFERRA		GENCIES	•	
Municipality: Barrhead Count							
/		. /					
Vetter sent resp	onse received	M writter	n/email		verbal		no comments received
Alberta Health Services: $\sqrt{n/3}$	а						
□ letter sent □ respo	onse received	u writter	n/email		verbal		no comments received
Alberta Environment and Parks:	□ N/A						
☑ letter sent □ respo	onse received	u writter	ı/email		verbal	Ø	no comments received
Alberta Transportation:	□ N/A						
V letter sent	onse received	🛛 writter	ı/email		verbal		no comments received
Alberta Regulatory Services:	N/A						
□ letter sent □ respo	onse received	uritter	n/email		verbal		no comments received
Other: Apex Utilities					🗆 N/	/A	
. /	onse received	□ writter	ı/email		verbal	,	no comments received
			,	_			
Other:					🗆 N/	/A	
□ letter sent □ respo	onse received	u writter	n/email		verbal		no comments received



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

SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities -

2.

(complete a copy of this section for EACH barn, feedlot, and storage facility for solid manure, composting materials, or compost with **Concrete liner** a concrete liner)

Facility description / name (as indicated on site plan)

1. layer barn

Manure	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	NRCB USE ONLY Estimated storage capacity (m ³)
1.	180 ¹ (55 m)	46 [/] (14 m)	liner is above grade.	
2.				
			TOTAL CAPACITY	9 month storage available

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. The AOPA requirements for STMS are set out in the NRCB Short-Term Solid Manure Storage Requirements Fact Sheet.

Surface water control systems

Describe the run-on and runoff control system

manure storage is in the barn, under a roof

Liner protection

Describe how the physical integrity of the liner will be maintained



NRCB USE ONL	Y	120			
	Requirements	met:	Ø	YES	NO

Last updated February 26, 2021



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

SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities -Concrete liner (cont.)

Concrete liner details				
Concrete thickness	Method of sulphate protection:			
_ 11	Te			
5	Tso or similar			
Concrete strength	Concrete reinforcement size and spacing			
,25 mpa	10 mm rubar @ 16" spacing			
Concrete requirements can be found in Technical Guideline A Guideline minimums: Solid manure: 25MPa (D) Solid manure (wet): 30MPa (C) Method of sulphate protection: Type 50 or Type 10 with fly ash or equivalent Additional information (attach as required)	V V			
NRCB USE ONLY				
Nine month manure storage volume requirements met	YES YES WITH STMS NO			
Depth to water table: >5 m	Requirements met: YES INO			
Depth to Uppermost groundwater resource:74 m	Requirements met: YES INO			
ERST completed: See ERST page for details				
Surface water control systems Requirements met: YES NO Details/comments:				
Concrete liner details Applicant to provide de	ocumentation confirming concrete information.			
Leakage detection system required: TYES VNO If yes	s, please explain why.			

Last updated February 26, 2021