

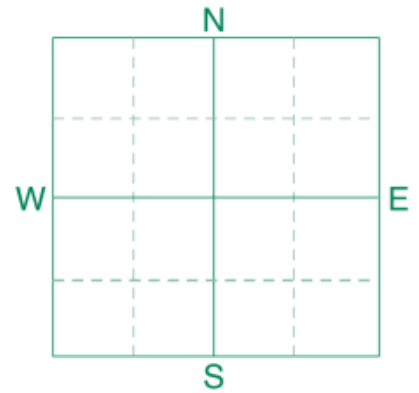


GJ Chemical Co.^{LTd.}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **1**
 SAMPLE ID **1**
 FIELD NAME **BLUE CLAY**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **5** QTR **S1/2** ACRES **320**
 PREV. CROP **Oats**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298883** BOX # **57**
 LAB # **NW54158**

Date Sampled

Date Received **08/19/2021**

Date Reported **08/20/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice			3rd Crop Choice					
		VLow	Low	Med	High	Corn-Grain		Soybeans			Canola-bu					
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL			YIELD GOAL					
						140 BU		45 BU			50 BU					
	0-24"					SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			SUGGESTED GUIDELINES					
						Band/Maint.		Band/Maint.			Band/Maint.					
	Olsen	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		LB/ACRE	APPLICATION				
Phosphorus	52 ppm					N	140	N	***		N	147				
Potassium	735 ppm					P ₂ O ₅	15	P ₂ O ₅	10	Band (Starter)*	P ₂ O ₅	10	Band (Starter)*			
Chloride						K ₂ O	10	K ₂ O	0		K ₂ O	0				
Sulfur	0-6" 6-24"	*****				Cl		Cl			Cl					
						S	0	S	0		S	10	Band			
Boron						B		B			B					
Zinc	3.10 ppm					Zn	0	Zn	0		Zn	0				
Iron						Fe		Fe			Fe					
Manganese						Mn		Mn			Mn					
Copper						Cu		Cu			Cu					
Magnesium						Mg		Mg			Mg					
Calcium						Lime		Lime			Lime					
Sodium						Soil pH		Buffer pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Org.Matter	8.0 %											% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)						0-6" 7.4		6-24" 8.3								
Sol. Salts																

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

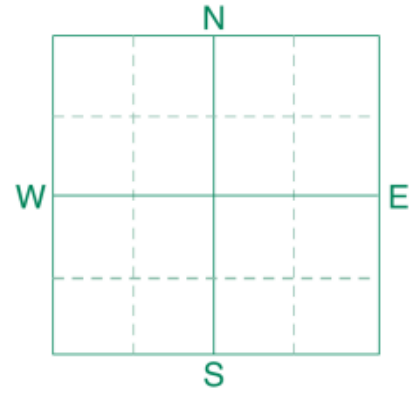


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SOIL TEST REPORT

FIELD ID **2**
 SAMPLE ID
 FIELD NAME **Nickel**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **5** QTR **NW** ACRES **80**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298897** BOX # **2263**
 LAB # **NW77212**

Date Sampled

Date Received **09/09/2021**

Date Reported **09/10/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice									
		VLow	Low	Med	High	Barley			Wheat-Spring			Corn-Grain									
Nitrate	0-6" 6-24"	66 lb/acre 81 lb/acre		*****				YIELD GOAL			YIELD GOAL			YIELD GOAL							
	0-24"	147 lb/acre		*****				90 BU			60 BU			140 BU							
			*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES								
			*****				Band/Maint.			Band/Maint.			Band/Maint.								
Phosphorus	Olsen	28 ppm		*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION						
	Potassium	573 ppm		*****				N	10		N	15		N	21						
Chloride				*****				P ₂ O ₅	42	Band *	P ₂ O ₅	38	Band *	P ₂ O ₅	52	Band *					
					*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (2x2) *				
Sulfur	0-6" 6-24"	28 lb/acre 36 lb/acre		*****				Cl			Cl			Cl							
	Boron			*****				S	5	Band (Trial)	S	5	Band (Trial)	S	5	Band (Trial)					
Zinc		2.03 ppm		*****				B			B			B							
Iron				*****				Zn	0		Zn	0		Zn	0						
Manganese				*****				Fe			Fe			Fe							
Copper				*****				Mn			Mn			Mn							
Magnesium				*****				Cu			Cu			Cu							
Calcium				*****				Mg			Mg			Mg							
Sodium				*****				Lime			Lime			Lime							
Org.Matter		5.8 %		*****				Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)				*****													% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6"	0.48 mmho/cm		*****				0-6" 7.5													
	6-24"	0.49 mmho/cm		*****				6-24" 7.9													

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

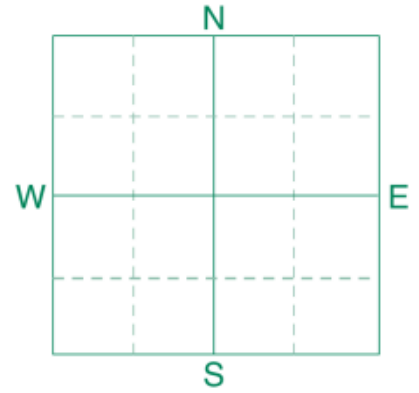


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SOIL TEST REPORT

FIELD ID **3**
 SAMPLE ID
 FIELD NAME **RM**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **5** QTR **NE** ACRES **180**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298898** BOX # **2367**
 LAB # **NW77837**

Date Sampled

Date Received **09/10/2021**

Date Reported **09/10/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Oats			Wheat-Spring			Barley		
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
						140 BU			70 BU			90 BU		
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.			Band/Maint.		
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
Olsen	32 ppm	*****				N	117		N	166		N	117	
Phosphorus						P ₂ O ₅	35	Band *	P ₂ O ₅	44	Band *	P ₂ O ₅	42	Band *
Potassium	587 ppm	*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*
Chloride						Cl			Cl			Cl		
Sulfur	0-6" 6-24"	*****				S	0		S	0		S	0	
Boron						B			B			B		
Zinc	2.12 ppm	*****				Zn	0		Zn	0		Zn	0	
Iron						Fe			Fe			Fe		
Manganese						Mn			Mn			Mn		
Copper						Cu			Cu			Cu		
Magnesium						Mg			Mg			Mg		
Calcium						Lime			Lime			Lime		
Sodium														
Org.Matter	6.8 %	*****												
Carbonate(CCE)						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
									% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 6-24"	*****				0-6"	7.5							
						6-24"	8.0							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

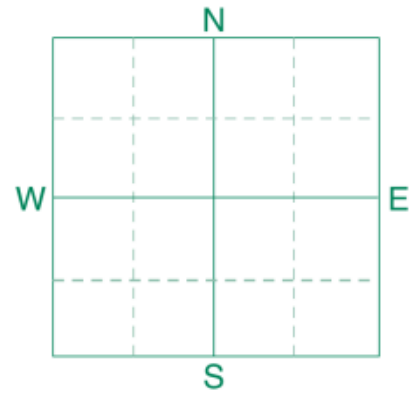


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SOIL TEST REPORT

FIELD ID **4**
 SAMPLE ID **FRIESEN**
 FIELD NAME **FRIESEN**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **6** QTR **NW** ACRES **160**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392563** BOX # **5060**
 LAB # **NW130638**

Date Sampled

Date Received **09/30/2021**

Date Reported **10/04/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	15 lb/acre 12 lb/acre				Canola-bu		Wheat-Spring		Oats				
						YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24"	27 lb/acre				50 BU		70 BU		140 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band/Maint.		Band/Maint.		Band/Maint.				
Olsen	31 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	624 ppm					N	133	N	147	N	98			
Potassium						P ₂ O ₅	45 Band *	P ₂ O ₅	44 Band *	P ₂ O ₅	35 Band *			
Chloride						K ₂ O	0	K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*			
Sulfur	0-6" 6-24"	18 lb/acre 54 lb/acre				Cl		Cl		Cl				
Boron						S	15 Band	S	5 Band (Trial)	S	5 Band (Trial)			
Zinc	1.69 ppm					B		B		B				
Iron						Zn	0	Zn	0	Zn	0			
Manganese						Fe		Fe		Fe				
Copper						Mn		Mn		Mn				
Magnesium						Cu		Cu		Cu				
Calcium						Mg		Mg		Mg				
Sodium						Lime		Lime		Lime				
Org.Matter	5.2 %					Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.56 mmho/cm 0.55 mmho/cm				0-6" 7.8 6-24" 8.4								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

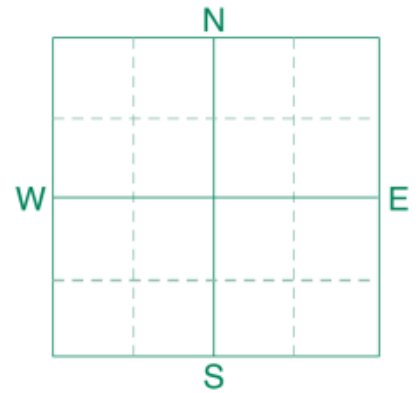


GJ Chemical Co.^{LLC}

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 Northwood: (701) 587-6010
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SOIL TEST REPORT

FIELD ID **5**
 SAMPLE ID
 FIELD NAME **MUELLER**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **4** QTR **N1/2** ACRES **320**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298876** BOX # **338**
 LAB # **NW55598**

Date Sampled

Date Received **08/21/2021**

Date Reported **08/23/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice			3rd Crop Choice					
		VLow	Low	Med	High	Corn-Grain		Soybeans			Canola-bu					
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL			YIELD GOAL					
		*****				140 BU		45 BU			50 BU					
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			SUGGESTED GUIDELINES					
		*****				Band/Maint.		Band/Maint.			Band/Maint.					
	Olsen	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		LB/ACRE	APPLICATION				
Phosphorus		*****				N	109	N	***		N	116				
Potassium		*****				P ₂ O ₅	15	P ₂ O ₅	10	Band (Starter)*	P ₂ O ₅	10	Band (Starter)*			
Chloride		*****				K ₂ O	10	K ₂ O	0		K ₂ O	0				
	0-6" 6-24"	*****				Cl		Cl			Cl					
Sulfur		*****				S	7	S	7	Band (Trial)	S	17	Band			
Boron		*****				B		B			B					
Zinc		*****				Zn	0	Zn	0		Zn	0				
Iron		*****				Fe		Fe			Fe					
Manganese		*****				Mn		Mn			Mn					
Copper		*****				Cu		Cu			Cu					
Magnesium		*****				Mg		Mg			Mg					
Calcium		*****				Lime		Lime			Lime					
Sodium		*****				Soil pH		Buffer pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Org.Matter		*****										% Ca	% Mg	% K	% Na	% H
Carbonate(CCE)		*****				0-6" 7.5		6-24" 8.3								

Sol. Salts		*****														

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

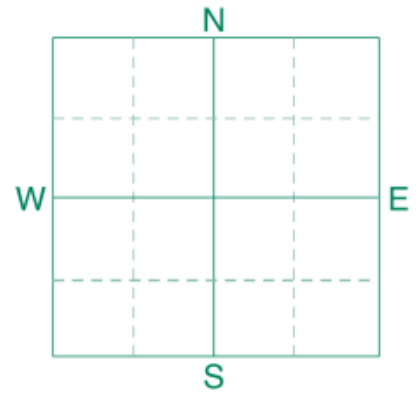


GJ Chemical Co.^{Inc.}

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SOIL TEST REPORT

FIELD ID **6 NORTH**
 SAMPLE ID
 FIELD NAME **COLONY**
 COUNTY
 TWP **3** RANGE **4E**
 SECTION **9** QTR **N1/2** ACRES **320**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392586** BOX # **3469**
 LAB # **NW114140**

Date Sampled

Date Received **09/25/2021**

Date Reported **09/28/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring			Corn-Grain			Oats				
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
						70 BU			140 BU			140 BU				
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
						Band/Maint.			Band/Maint.			Band/Maint.				
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Olsen Phosphorus	49 ppm	*****				N	155		N	119		N	106			
Potassium	856 ppm	*****				P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	15	Band (2x2)*	P ₂ O ₅	15	Band (Starter)*		
Chloride						K ₂ O	0		K ₂ O	0		K ₂ O	0			
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl				
						S	0		S	0		S	0			
Boron						B			B			B				
Zinc	6.83 ppm	*****				Zn	0		Zn	0		Zn	0			
Iron						Fe			Fe			Fe				
Manganese						Mn			Mn			Mn				
Copper						Cu			Cu			Cu				
Magnesium						Mg			Mg			Mg				
Calcium						Lime			Lime			Lime				
Sodium						Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Org.Matter	6.8 %	*****				Buffer pH			% Ca	% Mg	% K	% Na	% H			
Carbonate(CCE)						0-6" 7.7										
Sol. Salts	0-6" 0.7 mmho/cm 6-24" 0.76 mmho/cm	*****				6-24" 8.3										

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

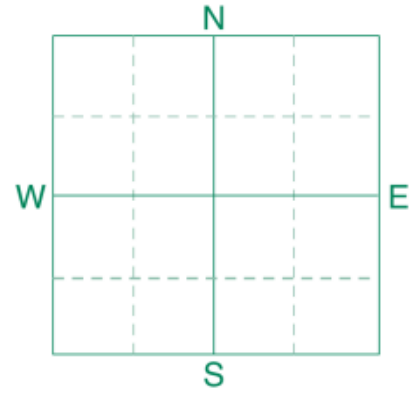


GJ Chemical Co.^{Inc.}

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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **6 SE**
 SAMPLE ID
 FIELD NAME **COLONY**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **9** QTR **SE** ACRES **160**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392585** BOX # **3528**
 LAB # **NW114139**

Date Sampled

Date Received **09/25/2021**

Date Reported **09/28/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice						
		VLow	Low	Med	High	Wheat-Spring			Corn-Grain			Oats						
Nitrate	0-6" 6-24"	10 lb/acre 6 lb/acre	*****															
	0-24"	16 lb/acre																
Olsen	52 ppm	*****				N	158		N	122		N	109					
Phosphorus						P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	15	Band (2x2)*	P ₂ O ₅	15	Band (Starter)*				
Potassium	714 ppm	*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (2x2)*	K ₂ O	10	Band (Starter)*				
Chloride						Cl			Cl			Cl						
Sulfur	0-6" 6-24"	38 lb/acre 54 lb/acre	*****			S	0		S	0		S	0					
Boron						B			B			B						
Zinc	6.74 ppm	*****				Zn	0		Zn	0		Zn	0					
Iron						Fe			Fe			Fe						
Manganese						Mn			Mn			Mn						
Copper						Cu			Cu			Cu						
Magnesium						Mg			Mg			Mg						
Calcium						Lime			Lime			Lime						
Sodium																		
Org.Matter	6.6 %	*****																
Carbonate(CCE)						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)									
									% Ca	% Mg	% K	% Na	% H					
	0-6" 6-24"	0.64 mmho/cm 0.7 mmho/cm	*****			0-6" 7.8 6-24" 8.3												
Sol. Salts																		

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

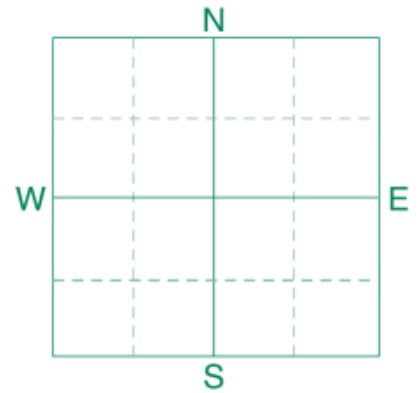


GJ Chemical Co.^{LTG}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **6 SW**
 SAMPLE ID
 FIELD NAME **Home SW**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **9** QTR **SW** ACRES **80**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392580** BOX # **3528**
 LAB # **NW114138**

Date Sampled

Date Received **09/25/2021**

Date Reported **09/28/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Wheat-Spring			Corn-Grain			Oats		
Nitrate	0-6" 12 lb/acre					YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24" 12 lb/acre	*****				70 BU			140 BU			140 BU		
	0-24" 24 lb/acre					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.			Band/Maint.		
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Olsen Phosphorus	38 ppm	*****				N	150		N	114		N	101	
Potassium	719 ppm	*****				P ₂ O ₅	44	Band *	P ₂ O ₅	52	Band *	P ₂ O ₅	35	Band *
Chloride						K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (2x2) *	K ₂ O	10	Band (Starter)*
Sulfur	0-6" 62 lb/acre 6-24" 228 lb/acre	*****				Cl			Cl			Cl		
Boron						S	0		S	0		S	0	
Zinc	2.32 ppm	*****				B			B			B		
Iron						Zn	0		Zn	0		Zn	0	
Manganese						Fe			Fe			Fe		
Copper						Mn			Mn			Mn		
Magnesium						Cu			Cu			Cu		
Calcium						Mg			Mg			Mg		
Sodium						Lime			Lime			Lime		
Org.Matter	6.5 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Carbonate(CCE)						Buffer pH			% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 0.7 mmho/cm 6-24" 0.93 mmho/cm	*****				0-6" 7.9								
		*****				6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

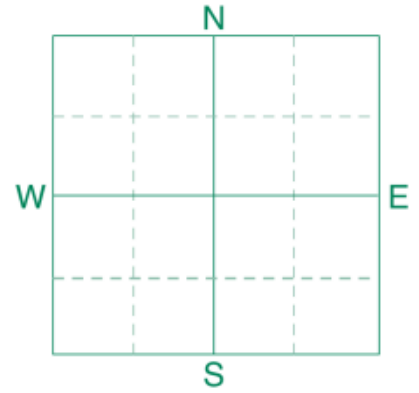


GJ Chemical Co.^{LTG}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **7S**
 SAMPLE ID
 FIELD NAME **DEARBORN**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **10** QTR **S1/2** ACRES **300**
 PREV. CROP **Barley**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298866** BOX # **5759**
 LAB # **NW50098**

Date Sampled

Date Received **08/14/2021**

Date Reported **08/16/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Canola-bu			Corn-Grain					
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
						50 BU			140 BU					
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.					
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
Olsen	40 ppm	*****				N	132		N	125		N		
Phosphorus						P ₂ O ₅	45	Band *	P ₂ O ₅	52	Band *	P ₂ O ₅		
Potassium	656 ppm	*****				K ₂ O	0		K ₂ O	10	Band (2x2) *	K ₂ O		
Chloride						Cl			Cl			Cl		
Sulfur	0-6" 6-24"	*****				S	15	Band	S	0		S		
Boron						B			B			B		
Zinc	3.05 ppm	*****				Zn	0		Zn	0		Zn		
Iron						Fe			Fe			Fe		
Manganese						Mn			Mn			Mn		
Copper						Cu			Cu			Cu		
Magnesium						Mg			Mg			Mg		
Calcium						Lime			Lime			Lime		
Sodium														
Org.Matter	6.1 %	*****												
Carbonate(CCE)						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
									% Ca	% Mg	% K	% Na	% H	
						0-6" 7.9								
Sol. Salts	0-6" 6-24"	*****				6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

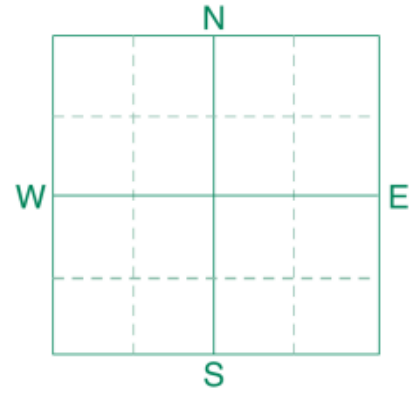


GJ Chemical Co.^{LTd.}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **7N**
 SAMPLE ID **Dearborn**
 FIELD NAME **DEARBORN**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **10** QTR **N1/2** ACRES **320**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3414311** BOX # **506**
 LAB # **NW150500**

Date Sampled

Date Received **10/06/2021**

Date Reported **10/08/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Wheat-Spring			Canola-bu					
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
		*****				70 BU			50 BU					
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
		*****				Band/Maint.			Band/Maint.					
Olsen	36 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Phosphorus	615 ppm	*****				N	107		N	93		N		
Potassium	615 ppm	*****				P ₂ O ₅	44	Band *	P ₂ O ₅	45	Band *	P ₂ O ₅		
Chloride		*****				K ₂ O	10	Band (Starter)*	K ₂ O	0		K ₂ O		
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl		
Boron		*****				S	0		S	10	Band	S		
Zinc	4.55 ppm	*****				B			B			B		
Iron		*****				Zn	0		Zn	0		Zn		
Manganese		*****				Fe			Fe			Fe		
Copper		*****				Mn			Mn			Mn		
Magnesium		*****				Cu			Cu			Cu		
Calcium		*****				Mg			Mg			Mg		
Sodium		*****				Lime			Lime			Lime		
Org.Matter	5.7 %	*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
Carbonate(CCE)		*****							% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 6-24"	*****				0-6"	7.4							
		*****				6-24"	8.2							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

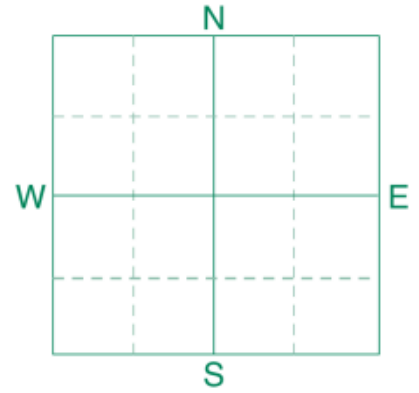


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
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SOIL TEST REPORT

FIELD ID **8**
 SAMPLE ID **SILO**
 FIELD NAME **SILO**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **11** QTR **W1/2** ACRES **340**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3414312** BOX # **1370**
 LAB # **NW155332**

Date Sampled

Date Received **10/07/2021**

Date Reported **10/11/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice					
		VLow	Low	Med	High										
Nitrate	0-6" 6-24"	65 lb/acre 81 lb/acre		*****				Canola-bu							
								YIELD GOAL		YIELD GOAL					
	0-24"	146 lb/acre						50 BU							
								SUGGESTED GUIDELINES		SUGGESTED GUIDELINES					
								Band/Maint.							
Olsen		36 ppm		*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION				
Phosphorus								N	29	N					
Potassium		688 ppm		*****				P ₂ O ₅	45 Band *	P ₂ O ₅					
Chloride								K ₂ O	0	K ₂ O					
Sulfur	0-6" 6-24"	30 lb/acre 60 lb/acre		*****				Cl		Cl					
								S	15 Band	S					
Boron								B		B					
Zinc		5.40 ppm		*****				Zn	0	Zn					
Iron								Fe		Fe					
Manganese								Mn		Mn					
Copper								Cu		Cu					
Magnesium								Mg		Mg					
Calcium								Lime		Lime					
Org.Matter		6.7 %		*****											
Carbonate(CCE)								Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)			
										% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"	0.65 mmho/cm		*****				0-6"	7.3						
	6-24"	0.44 mmho/cm		*****				6-24"	8.3						

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

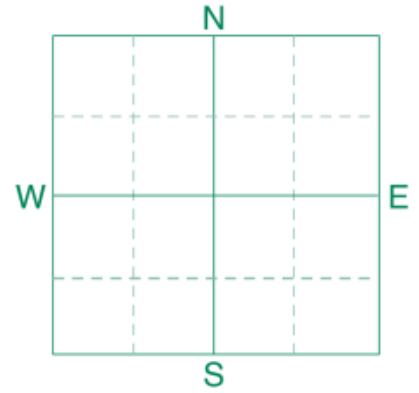


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
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SOIL TEST REPORT

FIELD ID **9**
 SAMPLE ID **9**
 FIELD NAME **SHELBY**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **11** QTR **SE** ACRES **160**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298877** BOX # **735**
 LAB # **NW61244**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 6-24"	41 lb/acre 42 lb/acre				Soybeans		Canola-bu		YIELD GOAL			
						YIELD GOAL		YIELD GOAL		YIELD GOAL			
	0-24"	83 lb/acre				45 BU		50 BU					
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
						Band/Maint.		Band/Maint.					
Olsen	40 ppm				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	598 ppm				N	***	N	92	N				
Potassium	598 ppm				P ₂ O ₅	34 Band *	P ₂ O ₅	45 Band *	P ₂ O ₅				
Chloride					K ₂ O	0	K ₂ O	0	K ₂ O				
Sulfur	0-6" 6-24"	42 lb/acre 108 lb/acre				Cl		Cl		Cl			
Boron						S	0	S	15 Band	S			
Zinc	2.63 ppm					B		B		B			
Iron						Zn	0	Zn	0	Zn			
Manganese						Fe		Fe		Fe			
Copper						Mn		Mn		Mn			
Magnesium						Cu		Cu		Cu			
Calcium						Mg		Mg		Mg			
Sodium						Lime		Lime		Lime			
Org.Matter	7.6 %					Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)			
Carbonate(CCE)						Buffer pH			% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.84 mmho/cm 0.73 mmho/cm				0-6" 7.2							
						6-24" 8.2							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

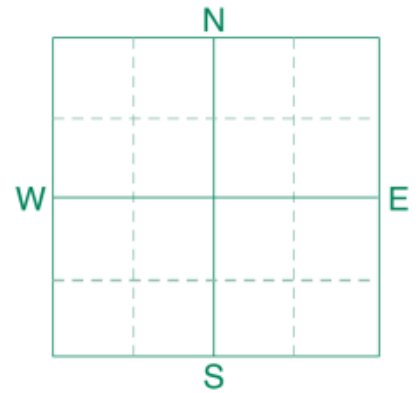


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Soil Analysis by Agvise Laboratories
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SOIL TEST REPORT

FIELD ID **10**
 SAMPLE ID
 FIELD NAME **HEINRICKS**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **15** QTR **S part** ACRES **290**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298902** BOX # **6024**
 LAB # **NW86357**

Date Sampled

Date Received **09/14/2021**

Date Reported **09/15/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice								
		VLow	Low	Med	High	Barley		Oats		Wheat-Spring								
Nitrate	0-6" 6-24"	28 lb/acre 39 lb/acre		*****				YIELD GOAL		YIELD GOAL								
	0-24"	67 lb/acre		*****				90 BU		140 BU		70 BU						
	SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES							
	Band/Maint.		Band/Maint.		Band/Maint.		Band/Maint.		Band/Maint.		Band/Maint.							
		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION						
Phosphorus	Olsen	34 ppm		*****				N	73		N	73		N	122			
Potassium		726 ppm		*****				P ₂ O ₅	42	Band *	P ₂ O ₅	35	Band *	P ₂ O ₅	44	Band *		
Chloride							K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*			
Sulfur	0-6" 6-24"	44 lb/acre 78 lb/acre		*****				Cl			Cl			Cl				
Boron							S	0		S	0		S	0				
Zinc		4.05 ppm		*****				B			B			B				
Iron							Zn	0		Zn	0		Zn	0				
Manganese							Fe			Fe			Fe					
Copper							Mn			Mn			Mn					
Magnesium							Cu			Cu			Cu					
Calcium							Mg			Mg			Mg					
Sodium							Lime			Lime			Lime					
Org.Matter		6.8 %		*****				Soil pH		Buffer pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)													% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 6-24"	0.66 mmho/cm 0.58 mmho/cm		*****				0-6"	7.8									
							6-24"	8.4										

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

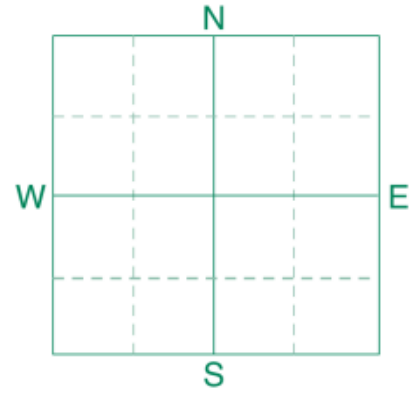


GJ Chemical Co.^{LTd.}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **11**
 SAMPLE ID
 FIELD NAME **Zimmer**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **15** QTR **N1/2** ACRES **320**
 PREV. CROP **Barley**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298867** BOX # **48**
 LAB # **NW54157**

Date Sampled

Date Received **08/19/2021**

Date Reported **08/20/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Canola-bu			Corn-Grain					
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
						50 BU			140 BU					
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.					
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
Olsen	18 ppm	*****				N	161		N	154		N		
Phosphorus		*****				P ₂ O ₅	45	Band *	P ₂ O ₅	52	Band *	P ₂ O ₅		
Potassium	543 ppm	*****				K ₂ O	0		K ₂ O	10	Band (2x2) *	K ₂ O		
Chloride						Cl			Cl			Cl		
Sulfur	0-6" 6-24"	*****				S	20	Band	S	5	Band	S		
						B			B			B		
Boron						Zn	0		Zn	0		Zn		
Zinc	2.60 ppm	*****				Fe			Fe			Fe		
Iron						Mn			Mn			Mn		
Manganese						Cu			Cu			Cu		
Copper						Mg			Mg			Mg		
Magnesium						Lime			Lime			Lime		
Calcium						Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Sodium						Buffer pH			% Ca	% Mg	% K	% Na	% H	
Org.Matter	5.1 %	*****				0-6" 7.9								
Carbonate(CCE)						6-24" 8.4								
Sol. Salts														

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

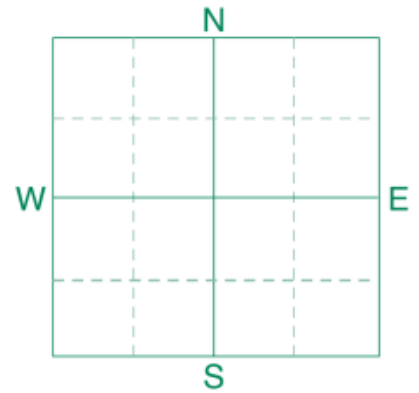


GJ Chemical Co.^{LLC}

Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **12**
 SAMPLE ID **ZIMMER**
 FIELD NAME **ANGUS**
 COUNTY
 TWP **4** RANGE **3E**
W1/2
 SECTION **16** QTR **OF** ACRES **160**
W1/2



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298875** BOX # **338**
 LAB # **NW55597**

Date Sampled

Date Received **08/21/2021**

Date Reported **08/23/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice					
		VLow	Low	Med	High										
Nitrate	0-6" 6-24"	21 lb/acre 33 lb/acre		*****				Canola-bu		Soybeans		YIELD GOAL			
	0-24"	54 lb/acre						50 BU		45 BU		YIELD GOAL			
								SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
								Band/Maint.		Band/Maint.					
									LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Olsen		24 ppm		*****				N	121	N	***	N			
Phosphorus								P ₂ O ₅	45	Band *	P ₂ O ₅	34	Band *	P ₂ O ₅	
Potassium		719 ppm		*****				K ₂ O	0		K ₂ O	0		K ₂ O	
Chloride								Cl			Cl			Cl	
Sulfur	0-6" 6-24"	32 lb/acre 42 lb/acre		*****				S	15	Band	S	0		S	
Boron								B			B			B	
Zinc		3.74 ppm		*****				Zn	0		Zn	0		Zn	
Iron								Fe			Fe			Fe	
Manganese								Mn			Mn			Mn	
Copper								Cu			Cu			Cu	
Magnesium								Mg			Mg			Mg	
Calcium								Lime			Lime			Lime	
Sodium															
Org.Matter		6.4 %		*****											
Carbonate(CCE)								Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
											% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.73 mmho/cm 0.73 mmho/cm		*****				0-6" 7.9							
								6-24" 8.5							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

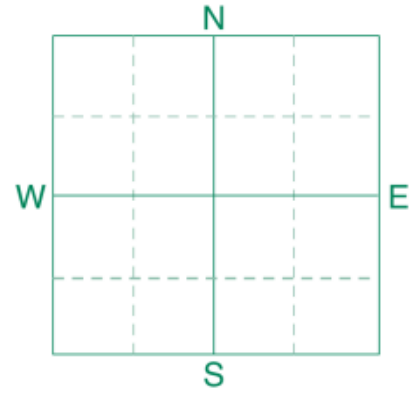


GJ Chemical Co.^{Inc.}

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SOIL TEST REPORT

FIELD ID **13**
 SAMPLE ID **GREG**
 FIELD NAME **GREG**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **3** QTR **W1/2** ACRES **320**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298900** BOX # **2263**
 LAB # **NW77213**

Date Sampled

Date Received **09/09/2021**

Date Reported **09/10/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring			Barley			Oats				
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
						60 BU			80 BU			140 BU				
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
						Band/Maint.			Band/Maint.			Band/Maint.				
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		
Olsen Phosphorus	19 ppm	*****				N	138		N	100		N	116			
Potassium	604 ppm	*****				P ₂ O ₅	38	Band *	P ₂ O ₅	38	Band *	P ₂ O ₅	35	Band *		
Chloride						K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*		
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl				
Boron						S	0		S	0		S	0			
Zinc	2.58 ppm	*****				B			B			B				
Iron						Zn	0		Zn	0		Zn	0			
Manganese						Fe			Fe			Fe				
Copper						Mn			Mn			Mn				
Magnesium						Cu			Cu			Cu				
Calcium						Mg			Mg			Mg				
Sodium						Lime			Lime			Lime				
Org.Matter	5.6 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH			% Ca	% Mg	% K	% Na	% H			
Sol. Salts	0-6" 6-24"	*****				0-6"	7.8									
						6-24"	8.4									

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K2O = 40 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

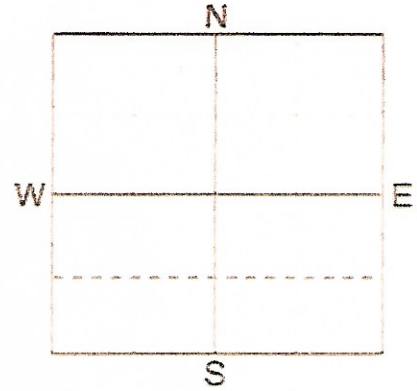


GJ Chemical Co.

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SOIL TEST REPORT

FIELD ID 14
 SAMPLE ID
 FIELD NAME CATELLIER
 COUNTY
 TWP 4 RANGE 3E
 SECTION 13 QTR SW ACRES 160
 PREV. CROP Canola-bu



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: GJ2069
GJ CHEMICAL
PO BOX 63
ARNAUD, MB ROA 0B0

REF # 2965310 BOX # 10038
 LAB # NW98360

Date Sampled

Date Received 09/22/2020

Date Reported 9/24/2020

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
				Barley		Oats		Wheat-Spring	
			YIELD GOAL		YIELD GOAL		YIELD GOAL		
			90 BU		140 BU		70 BU		
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
			Band/Maint.		Band/Maint.		Band/Maint.		
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Nitrate	0-6" 76 lb/acre 6-24" 33 lb/acre		N	31	N	31	N	80	
Phosphorus	Olsen 44 ppm		P ₂ O ₅	15	P ₂ O ₅	15	P ₂ O ₅	15	
Potassium	669 ppm			Band (Starter)*		Band (Starter)*		Band (Starter)*	
Chloride			K ₂ O	10	K ₂ O	10	K ₂ O	10	
	0-6" 64 lb/acre 6-24" 42 lb/acre			Band (Starter)*		Band (Starter)*		Band (Starter)*	
Sulfur			Cl		Cl		Cl		
Soron			S	0	S	0	S	0	
Zinc	3.19 ppm		B		B		B		
Iron			Zn	0	Zn	0	Zn	0	
Manganese			Fe		Fe		Fe		
Copper			Mn		Mn		Mn		
Magnesium			Cu		Cu		Cu		
Calcium			Mg		Mg		Mg		
Sodium			Lime		Lime		Lime		
Org. Matter	6.7 %		Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)		
Carbonate(CCE)			Buffer pH				% Ca	% Mg	% K
	0-6" 1.06 mmho/cm 6-24" 0.75 mmho/cm						% Na	% H	
Sci. Salts			0-6" 7.4 6-24" 8.3						

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

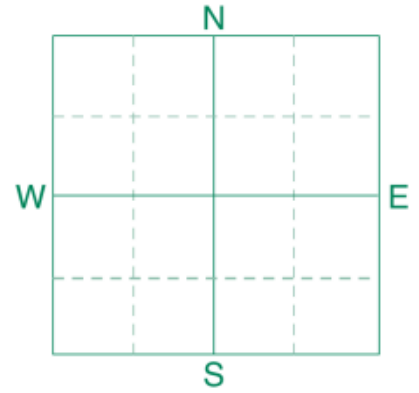


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SOIL TEST REPORT

FIELD ID **16**
 SAMPLE ID
 FIELD NAME **SIEMENS**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **32** QTR **NW** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3414317** BOX # **1441**
 LAB # **NW159463**

Date Sampled

Date Received **10/08/2021**

Date Reported **10/12/2021**

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow Low Med High							
Nitrate	0-6" 6-24"	77 lb/acre 48 lb/acre							
	0-24"	125 lb/acre							
Olsen	14 ppm								
Phosphorus									
Potassium	548 ppm								
Chloride									
Sulfur	0-6" 6-24"	14 lb/acre 54 lb/acre							
Boron									
Zinc	1.99 ppm								
Iron									
Manganese									
Copper									
Magnesium									
Calcium									
Sodium									
Org.Matter	5.2 %								
Carbonate(CCE)									
Sol. Salts	0-6"	0.85 mmho/cm							
	6-24"	0.69 mmho/cm							
			Canola-bu						
			YIELD GOAL		YIELD GOAL		YIELD GOAL		
			50 BU						
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
			Band/Maint.						
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
			N	50	N		N		
			P ₂ O ₅	45 Band *	P ₂ O ₅		P ₂ O ₅		
			K ₂ O	0	K ₂ O		K ₂ O		
			Cl		Cl		Cl		
			S	17 Band	S		S		
			B		B		B		
			Zn	0	Zn		Zn		
			Fe		Fe		Fe		
			Mn		Mn		Mn		
			Cu		Cu		Cu		
			Mg		Mg		Mg		
			Lime		Lime		Lime		
Soil pH		Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)				
					% Ca	% Mg	% K	% Na	% H
0-6" 7.6									
6-24" 8.3									

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

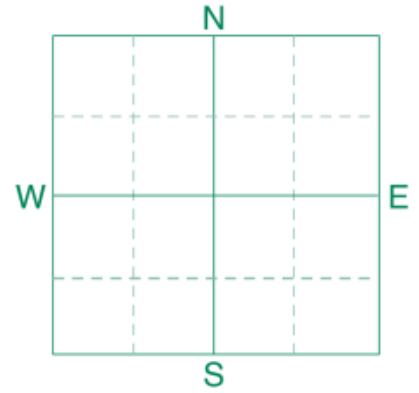


GJ Chemical Co.^{Inc.}

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SOIL TEST REPORT

FIELD ID **17**
 SAMPLE ID **HOPE**
 FIELD NAME **HOPE**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **6** QTR **NE** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3414318** BOX # **507**
 LAB # **NW150501**

Date Sampled

Date Received **10/06/2021**

Date Reported **10/08/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 6-24"	41 lb/acre 36 lb/acre		*****				Canola-bu					
								YIELD GOAL		YIELD GOAL			
	0-24"	77 lb/acre						50 BU					
								SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
								Band/Maint.					
Olsen	21 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Phosphorus	456 ppm	*****				N	98	N		N			
Potassium						P ₂ O ₅	45 Band *	P ₂ O ₅		P ₂ O ₅			
Chloride						K ₂ O	0	K ₂ O		K ₂ O			
Sulfur	0-6" 6-24"	34 lb/acre 48 lb/acre		*****				Cl		Cl			
Boron								S	15 Band	S			
Zinc	1.77 ppm	*****				B		B		B			
Iron								Zn	0	Zn			
Manganese								Fe		Fe			
Copper								Mn		Mn			
Magnesium								Cu		Cu			
Calcium								Mg		Mg			
Sodium								Lime		Lime			
Org.Matter	6.7 %	*****											
Carbonate(CCE)						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
									% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.87 mmho/cm 0.67 mmho/cm		*****				0-6" 7.1					
								6-24" 8.0					

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

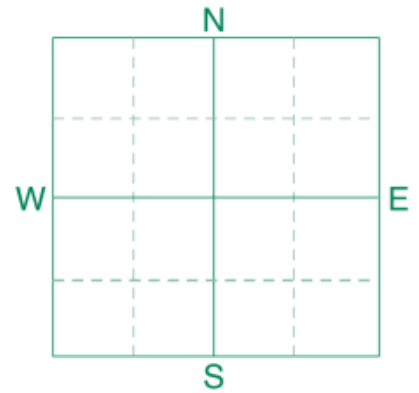


GJ Chemical Co.^{LTd.}

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SOIL TEST REPORT

FIELD ID **18**
 SAMPLE ID
 FIELD NAME **GERHARD**
 COUNTY
 TWP **3** RANGE **3E**
 SECTION **31** QTR **NE** ACRES **150**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392555** BOX # **5055**
 LAB # **NW130637**

Date Sampled

Date Received **09/30/2021**

Date Reported **10/04/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow	Low	Med	High	Corn-Grain		Wheat-Spring		Canola-bu		
Nitrate	0-6" 6-24"	20 lb/acre	9 lb/acre			YIELD GOAL		YIELD GOAL		YIELD GOAL		
	0-24"	29 lb/acre				140 BU		70 BU		50 BU		
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
						Band/Maint.		Band/Maint.		Band/Maint.		
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Olsen Phosphorus	23 ppm				N	109	N	145	N	131		
Potassium	622 ppm				P ₂ O ₅	52 Band *	P ₂ O ₅	44 Band *	P ₂ O ₅	45 Band *		
Chloride					K ₂ O	10 Band (2x2) *	K ₂ O	10 Band (Starter) *	K ₂ O	0		
Sulfur	0-6" 6-24"	114 lb/acre	102 lb/acre		Cl		Cl		Cl			
Boron					S	0	S	0	S	10 Band		
Zinc	1.76 ppm				B		B		B			
Iron					Zn	0	Zn	0	Zn	0		
Manganese					Fe		Fe		Fe			
Copper					Mn		Mn		Mn			
Magnesium					Cu		Cu		Cu			
Calcium					Mg		Mg		Mg			
Sodium					Lime		Lime		Lime			
Org.Matter	6.7 %				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)			
Carbonate(CCE)					Buffer pH			% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.85 mmho/cm	0.7 mmho/cm		0-6" 7.7	6-24" 8.3						

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

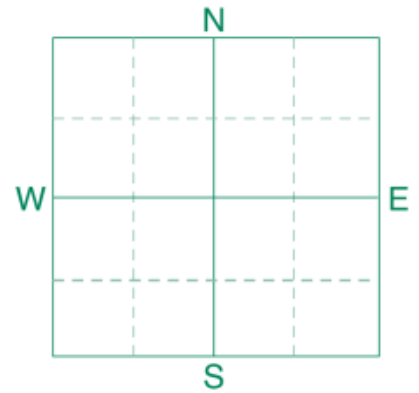


GJ Chemical Co.^{Inc.}

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SOIL TEST REPORT

FIELD ID **19**
 SAMPLE ID
 FIELD NAME **19**
 COUNTY **2E**
 TWP **26** RANGE **4**
 SECTION **19** QTR ACRES **480**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298905** BOX # **1808**
 LAB # **NW74293**

Date Sampled

Date Received **09/08/2021**

Date Reported **09/09/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High	Oats		Barley		Wheat-Spring			
Nitrate	0-6" 6-24"	21 lb/acre 33 lb/acre				YIELD GOAL		YIELD GOAL		YIELD GOAL			
	0-24"	54 lb/acre				140 BU		90 BU		70 BU			
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
						Band/Maint.		Band/Maint.		Band/Maint.			
Olsen	24 ppm				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus					N	86	N	86	N	135			
Potassium	565 ppm				P ₂ O ₅	35 Band *	P ₂ O ₅	42 Band *	P ₂ O ₅	44 Band *			
Chloride					K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*			
Sulfur	0-6" 6-24"	120 +lb/acre 90 lb/acre			Cl		Cl		Cl				
Boron					S	0	S	0	S	0			
Zinc		1.65 ppm			B		B		B				
Iron					Zn	0	Zn	0	Zn	0			
Manganese					Fe		Fe		Fe				
Copper					Mn		Mn		Mn				
Magnesium					Cu		Cu		Cu				
Calcium					Mg		Mg		Mg				
Sodium					Lime	0	Lime	0	Lime	0			
Org.Matter	6.9 %				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)					Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.87 mmho/cm 0.78 mmho/cm			0-6" 6.3								
					6-24" 7.7								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

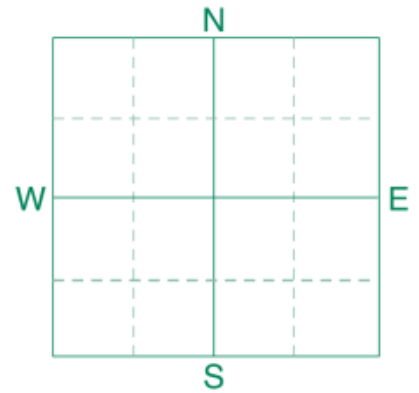


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **20**
 SAMPLE ID
 FIELD NAME **GHISLAIN**
 COUNTY
 TWP **4** RANGE **2E**
 SECTION **27** QTR **NE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298903** BOX # **897**
 LAB # **NW61251**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring			Barley			Oats				
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
		*****				70 BU			90 BU			140 BU				
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
		*****				Band/Maint.			Band/Maint.			Band/Maint.				
Phosphorus	Olsen	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
		*****				N	126		N	77		N	77			
Potassium		*****				P ₂ O ₅	44	Band *	P ₂ O ₅	42	Band *	P ₂ O ₅	35	Band *		
Chloride		*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*		
	0-6" 6-24"	*****				Cl			Cl			Cl				
Sulfur		*****				S	0		S	0		S	0			
Boron		*****				B			B			B				
Zinc		*****				Zn	0		Zn	0		Zn	0			
Iron		*****				Fe			Fe			Fe				
Manganese		*****				Mn			Mn			Mn				
Copper		*****				Cu			Cu			Cu				
Magnesium		*****				Mg			Mg			Mg				
Calcium		*****				Lime	0		Lime	0		Lime	0			
Sodium		*****														
Org.Matter		*****														
Carbonate(CCE)		*****														
Sol. Salts	0-6"	*****				Soil pH	Buffer pH		Cation Exchange Capacity			% Base Saturation (Typical Range)				
	6-24"	*****				0-6" 6.2						% Ca	% Mg	% K	% Na	% H
		*****				6-24" 7.6										

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

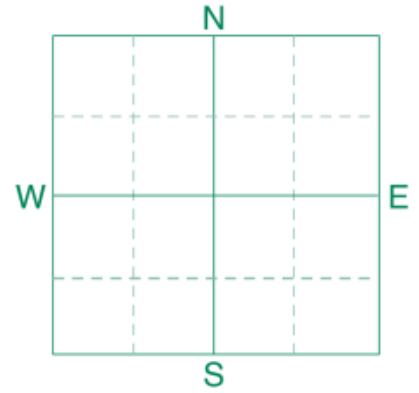


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Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
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SOIL TEST REPORT

FIELD ID **21**
 SAMPLE ID
 FIELD NAME **BLUFF**
 COUNTY
 TWP **4** RANGE **2E**
 SECTION **23** QTR **SW** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3414319** BOX # **513**
 LAB # **NW150762**

Date Sampled

Date Received **10/06/2021**

Date Reported **10/09/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	36 lb/acre 27 lb/acre				Canola-bu				YIELD GOAL				
						YIELD GOAL				YIELD GOAL				
						50 BU								
	0-24"	63 lb/acre				SUGGESTED GUIDELINES				SUGGESTED GUIDELINES				
						Band/Maint.				SUGGESTED GUIDELINES				
Olsen	18 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	662 ppm	*****				N	112	N		N				
Potassium		*****				P ₂ O ₅	45 Band *	P ₂ O ₅		P ₂ O ₅				
Chloride						K ₂ O	0	K ₂ O		K ₂ O				
Sulfur	0-6" 6-24"	18 lb/acre 24 lb/acre				Cl		Cl		Cl				
Boron						S	15 Band	S		S				
Zinc	1.21 ppm	*****				B		B		B				
Iron						Zn	0	Zn		Zn				
Manganese						Fe		Fe		Fe				
Copper						Mn		Mn		Mn				
Magnesium						Cu		Cu		Cu				
Calcium						Mg		Mg		Mg				
Sodium						Lime	0	Lime		Lime				
Org.Matter	6.6 %	*****				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.61 mmho/cm 0.61 mmho/cm				0-6" 6.4								
						6-24" 7.6								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

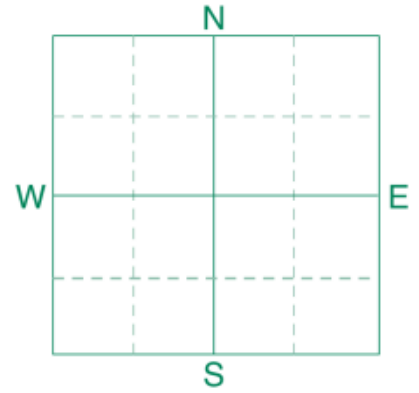


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Soil Analysis by Agvise Laboratories
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SOIL TEST REPORT

FIELD ID **22**
 SAMPLE ID
 FIELD NAME **MARSH**
 COUNTY
 TWP **4** RANGE **2E**
 SECTION **22** QTR **SE** ACRES **1600**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298904** BOX # **2446**
 LAB # **NW80704**

Date Sampled

Date Received **09/11/2021**

Date Reported **09/13/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Wheat-Spring			Barley			Oats		
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
		*****				70 BU			80 BU			140 BU		
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
		*****				Band/Maint.			Band/Maint.			Band/Maint.		
	Olsen	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Phosphorus	44 ppm	*****				N	149		N	84		N	100	
Potassium	738 ppm	*****				P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	15	Band (Starter)*
Chloride		*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl		
Boron		*****				S	0		S	0		S	0	
Zinc	3.28 ppm	*****				B			B			B		
Iron		*****				Zn	0		Zn	0		Zn	0	
Manganese		*****				Fe			Fe			Fe		
Copper		*****				Mn			Mn			Mn		
Magnesium		*****				Cu			Cu			Cu		
Calcium		*****				Mg			Mg			Mg		
Sodium		*****				Lime	0		Lime	0		Lime	0	
Org.Matter	7.2 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Carbonate(CCE)		*****				Buffer pH			% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 6-24"	*****				0-6"	6.5							
		*****				6-24"	7.4							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K2O = 40 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

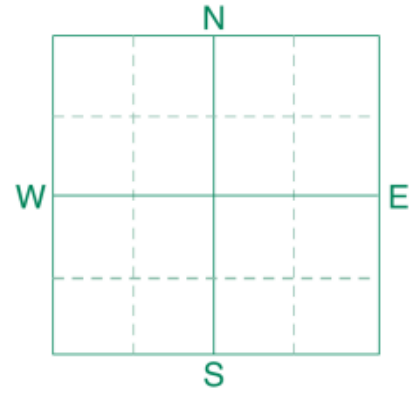


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SOIL TEST REPORT

FIELD ID **23**
 SAMPLE ID
 FIELD NAME **LAM**
 COUNTY
 TWP **4** RANGE **2E**
 SECTION **14** QTR **N80 OF NW** ACRES **80**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298874** BOX # **338**
 LAB # **NW55596**

Date Sampled

Date Received **08/21/2021**

Date Reported **08/23/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow	Low	Med	High							
Nitrate	0-6" 6-24"	50 lb/acre 33 lb/acre				Canola-bu		Soybeans		YIELD GOAL		
		*****				YIELD GOAL		YIELD GOAL		YIELD GOAL		
	0-24"	83 lb/acre				50 BU		45 BU				
		*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
Phosphorus	Olsen	48 ppm				Band/Maint.		Band/Maint.				
		*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Potassium		660 ppm				N	92	N	***	N		
Chloride		*****				P ₂ O ₅	10	P ₂ O ₅	10	P ₂ O ₅		
		*****					Band (Starter)*		Band (Starter)*			
Sulfur	0-6" 6-24"	26 lb/acre 36 lb/acre				K ₂ O	0	K ₂ O	0	K ₂ O		
		*****				Cl		Cl		Cl		
Boron		*****				S	15	S	5	S		
Zinc		3.61 ppm				B		B		B		
Iron		*****				Zn	0	Zn	0	Zn		
Manganese		*****				Fe		Fe		Fe		
Copper		*****				Mn		Mn		Mn		
Magnesium		*****				Cu		Cu		Cu		
Calcium		*****				Mg		Mg		Mg		
Sodium		*****				Lime	0	Lime	0	Lime		
Org.Matter		7.7 %				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)		
Carbonate(CCE)		*****				Buffer pH		% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.77 mmho/cm 0.62 mmho/cm				0-6"	6.6					
		*****				6-24"	7.9					

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

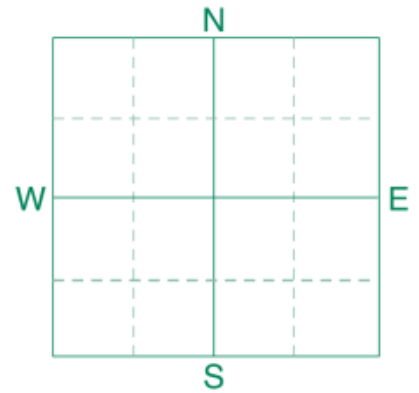


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SOIL TEST REPORT

FIELD ID **24**
 SAMPLE ID
 FIELD NAME **JUNGBLUTH**
 COUNTY
 TWP **4** RANGE **2E**
E 240
 SECTION **15** QTR **OF** ACRES **240**
N1/2



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298873** BOX # **335**
 LAB # **NW55595**

Date Sampled

Date Received **08/21/2021**

Date Reported **08/23/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice						
		VLow	Low	Med	High	Canola-bu			Soybeans			YIELD GOAL						
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL						
		*****				50 BU			45 BU									
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES						
		*****				Band/Maint.			Band/Maint.									
Phosphorus	Olsen	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION					
		*****				N	75		N	***		N						
Potassium		*****				P ₂ O ₅	10	Band (Starter)*	P ₂ O ₅	10	Band (Starter)*	P ₂ O ₅						
Chloride		*****				K ₂ O	0		K ₂ O	0		K ₂ O						
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl						
		*****				S	15	Band	S	5	Band (Trial)	S						
Boron		*****				B			B			B						
Zinc		*****				Zn	0		Zn	0		Zn						
Iron		*****				Fe			Fe			Fe						
Manganese		*****				Mn			Mn			Mn						
Copper		*****				Cu			Cu			Cu						
Magnesium		*****				Mg			Mg			Mg						
Calcium		*****				Lime	0		Lime	0		Lime						
Org.Matter		*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)						
Carbonate(CCE)		*****				Buffer pH			% Ca	% Mg	% K	% Na	% H					
Sol. Salts	0-6"	*****				0-6"	6.2											
	6-24"	*****				6-24"	7.5											

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
 Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

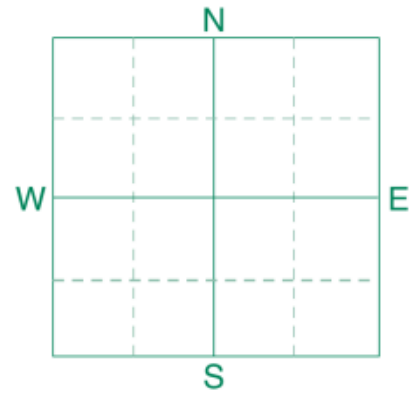


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SOIL TEST REPORT

FIELD ID **25**
 SAMPLE ID
 FIELD NAME **LORNE**
 COUNTY
 TWP **1** RANGE **3E**
 SECTION **21** QTR **E1/2** ACRES **320**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392564** BOX # **4247**
 LAB # **NW122225**

Date Sampled

Date Received **09/28/2021**

Date Reported **09/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Barley			Wheat-Spring			Oats		
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
						90 BU			70 BU			140 BU		
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.			Band/Maint.		
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
Olsen Phosphorus	9 ppm	*****				N	113		N	162		N	113	
Potassium	382 ppm	*****				P ₂ O ₅	42	Band *	P ₂ O ₅	44	Band *	P ₂ O ₅	35	Band *
Chloride						K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl		
Boron						S	0		S	0		S	0	
Zinc	0.81 ppm	*****				B			B			B		
Iron						Zn	0		Zn	0		Zn	0	
Manganese						Fe			Fe			Fe		
Copper						Mn			Mn			Mn		
Magnesium						Cu			Cu			Cu		
Calcium						Mg			Mg			Mg		
Sodium						Lime			Lime			Lime		
Org.Matter	5.8 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Carbonate(CCE)						Buffer pH			% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6" 6-24"	*****				0-6"	8.1							
						6-24"	8.2							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

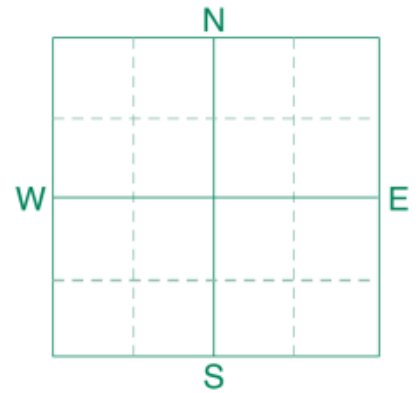


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SOIL TEST REPORT

FIELD ID **26**
 SAMPLE ID
 FIELD NAME **CASPER**
 COUNTY
 TWP **1** RANGE **3E**
 SECTION **22** QTR **N1/2 & SE** ACRES **480**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3392579** BOX # **3469**
 LAB # **NW114137**

Date Sampled

Date Received **09/25/2021**

Date Reported **09/28/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High	Corn-Grain		Wheat-Spring		Oats			
Nitrate	0-6" 6-24"	10 lb/acre 6 lb/acre	*****										
	0-24"	16 lb/acre				YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL	YIELD GOAL		
						140 BU	70 BU	140 BU	140 BU	140 BU	140 BU		
						SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES	SUGGESTED GUIDELINES		
						Band/Maint.	Band/Maint.	Band/Maint.	Band/Maint.	Band/Maint.	Band/Maint.		
Phosphorus	Olsen	10 ppm	*****										
Potassium		510 ppm	*****										
Chloride													
Sulfur	0-6" 6-24"	22 lb/acre 360 +lb/acre	*****										
Boron													
Zinc		0.85 ppm	*****										
Iron													
Manganese													
Copper													
Magnesium													
Calcium													
Sodium													
Org.Matter		5.9 %	*****										
Carbonate(CCE)													
Sol. Salts	0-6"	0.6 mmho/cm	*****			Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
	6-24"	0.86 mmho/cm	*****			0-6" 8.1			% Ca	% Mg	% K	% Na	% H
						6-24" 8.4							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 52 K2O = 32 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

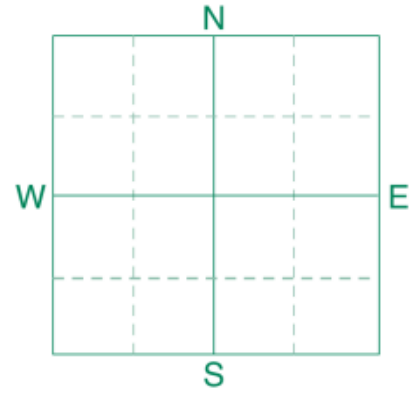


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
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SOIL TEST REPORT

FIELD ID **27**
 SAMPLE ID
 FIELD NAME **DENNIS**
 COUNTY
 TWP **1** RANGE **3E**
 SECTION **15** QTR **NE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298907** BOX # **1504**
 LAB # **NW70245**

Date Sampled

Date Received **09/03/2021**

Date Reported **09/07/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring		Barley		Oats				
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL				
			11 lb/acre 6 lb/acre			70 BU		80 BU		140 BU				
	0-24"		17 lb/acre			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band/Maint.		Band/Maint.		Band/Maint.				
	Olsen	8 ppm	*****			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus		457 ppm	*****			N	172	N	107	N	123			
Potassium			*****			P ₂ O ₅	44 Band *	P ₂ O ₅	38 Band *	P ₂ O ₅	36 Band *			
Chloride			*****			K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*			
Sulfur	0-6" 6-24"	38 lb/acre 318 lb/acre	*****			Cl		Cl		Cl				
Boron			*****			S	0	S	0	S	0			
Zinc		0.81 ppm	*****			B		B		B				
Iron			*****			Zn	0	Zn	0	Zn	0			
Manganese			*****			Fe		Fe		Fe				
Copper			*****			Mn		Mn		Mn				
Magnesium			*****			Cu		Cu		Cu				
Calcium			*****			Mg		Mg		Mg				
Sodium			*****			Lime		Lime		Lime				
Org.Matter		5.4 %	*****			Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)			*****			Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.66 mmho/cm 0.84 mmho/cm	*****			0-6" 8.1								
			*****			6-24" 8.4								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K2O = 40 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

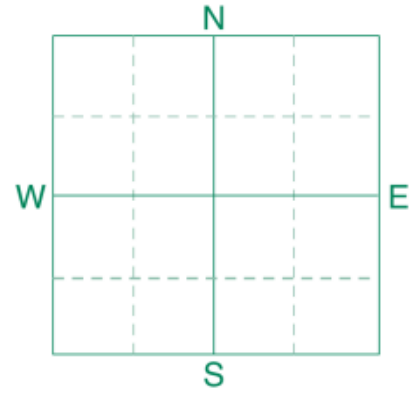


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **28**
 SAMPLE ID
 FIELD NAME **BECKER**
 COUNTY
 TWP **1** RANGE **3E**
 SECTION **14** QTR **NW** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298908** BOX # **1504**
 LAB # **NW70246**

Date Sampled

Date Received **09/03/2021**

Date Reported **09/07/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring		Barley		Oats				
Nitrate	0-6" 6-24"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL				
		*****				70 BU		80 BU		140 BU				
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
		*****				Band/Maint.		Band/Maint.		Band/Maint.				
Phosphorus	Olsen	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
		*****				N	128	N	63	N	79			
Potassium	565 ppm	*****				P ₂ O ₅	44 Band *	P ₂ O ₅	38 Band *	P ₂ O ₅	35 Band *			
Chloride		*****				K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*			
	0-6" 6-24"	*****				Cl		Cl		Cl				
Sulfur	62 lb/acre 360 +lb/acre	*****				S	0	S	0	S	0			
Boron		*****				B		B		B				
Zinc	0.68 ppm	*****				Zn	0	Zn	0	Zn	0			
Iron		*****				Fe		Fe		Fe				
Manganese		*****				Mn		Mn		Mn				
Copper		*****				Cu		Cu		Cu				
Magnesium		*****				Mg		Mg		Mg				
Calcium		*****				Lime		Lime		Lime				
Sodium		*****												
Org.Matter	5.1 %	*****												
Carbonate(CCE)		*****												
Sol. Salts	0-6"	*****				Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)				
	6-24"	*****				0-6" 8.1				% Ca	% Mg	% K	% Na	% H
	1.79 mmho/cm	*****				6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 38 K2O = 40 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

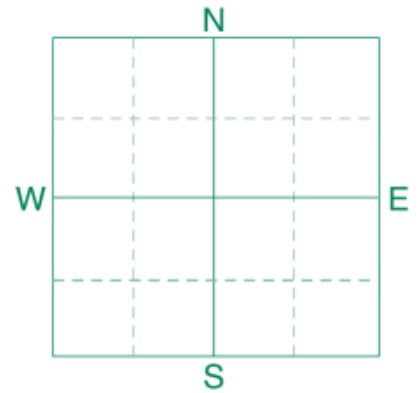


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **29**
 SAMPLE ID
 FIELD NAME **LANGE**
 COUNTY
 TWP **1** RANGE **3E**
 SECTION **15** QTR **S1/2** ACRES **320**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298909** BOX # **1504**
 LAB # **NW70247**

Date Sampled

Date Received **09/03/2021**

Date Reported **09/07/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice					
		VLow	Low	Med	High	Barley			Wheat-Spring			Oats					
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL					
						90 BU			70 BU			140 BU					
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES					
						Band/Maint.			Band/Maint.			Band/Maint.					
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Olsen	18 ppm	*****				N	108		N	157		N	108				
Phosphorus						P ₂ O ₅	42	Band *	P ₂ O ₅	44	Band *	P ₂ O ₅	35	Band *			
Potassium	398 ppm	*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*			
Chloride						Cl			Cl			Cl					
Sulfur	0-6" 6-24"	*****				S	0		S	0		S	0				
Boron						B			B			B					
Zinc	0.68 ppm	*****				Zn	0		Zn	0		Zn	0				
Iron						Fe			Fe			Fe					
Manganese						Mn			Mn			Mn					
Copper						Cu			Cu			Cu					
Magnesium						Mg			Mg			Mg					
Calcium						Lime			Lime			Lime					
Sodium						Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Org.Matter	5.1 %	*****															
Carbonate(CCE)																	
Sol. Salts	0-6" 6-24"	*****				0-6" 8.1			6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

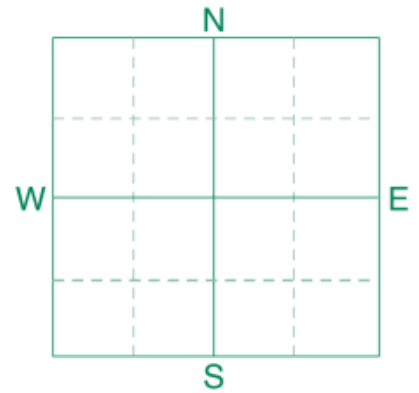


GJ Chemical Co.^{Inc.}

Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
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SOIL TEST REPORT

FIELD ID **30**
 SAMPLE ID
 FIELD NAME **PORT**
 COUNTY
 TWP **1** RANGE **3E**
 SECTION **10** QTR **NW** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298910** BOX # **1808**
 LAB # **NW74294**

Date Sampled

Date Received **09/08/2021**

Date Reported **09/09/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Wheat-Spring			Barley			Oats		
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
						70 BU			90 BU			140 BU		
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.			Band/Maint.		
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Olsen	21 ppm	*****				N	158		N	109		N	109	
Phosphorus		*****				P ₂ O ₅	44	Band *	P ₂ O ₅	42	Band *	P ₂ O ₅	35	Band *
Potassium	543 ppm	*****				K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*
Chloride		*****				Cl			Cl			Cl		
Sulfur	0-6" 6-24"	*****				S	0		S	0		S	0	
Boron						B			B			B		
Zinc	0.90 ppm	*****				Zn	0		Zn	0		Zn	0	
Iron						Fe			Fe			Fe		
Manganese						Mn			Mn			Mn		
Copper						Cu			Cu			Cu		
Magnesium						Mg			Mg			Mg		
Calcium						Lime			Lime			Lime		
Sodium						Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Org.Matter	5.4 %	*****				Buffer pH			% Ca	% Mg	% K	% Na	% H	
Carbonate(CCE)						0-6" 8.0								
Sol. Salts	0-6" 6-24"	*****				6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

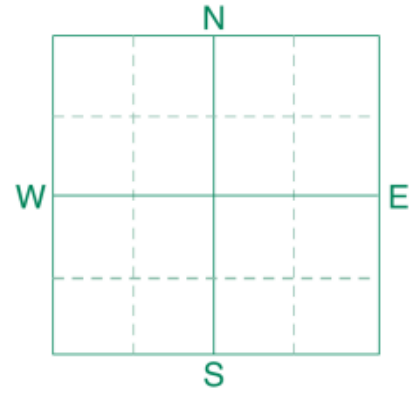


GJ Chemical Co.^{LTG}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **N32**
 SAMPLE ID
 FIELD NAME
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **27** QTR **SEC** ACRES **320**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298878** BOX # **794**
 LAB # **NW61245**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 6-24"	19 lb/acre 36 lb/acre				Soybeans		Canola-bu		YIELD GOAL			
		*****				YIELD GOAL		YIELD GOAL		YIELD GOAL			
	0-24"	55 lb/acre				45 BU		50 BU					
		*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
		*****				Band/Maint.		Band/Maint.					
Olsen	15 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Phosphorus	534 ppm	*****				N	***	N	120	N			
Potassium	534 ppm	*****				P ₂ O ₅	34 Band *	P ₂ O ₅	45 Band *	P ₂ O ₅			
Chloride		*****				K ₂ O	0	K ₂ O	0	K ₂ O			
Sulfur	0-6" 6-24"	26 lb/acre 138 lb/acre				Cl		Cl		Cl			
		*****				S	5 Band (Trial)	S	15 Band	S			
Boron		*****				B		B		B			
Zinc	1.34 ppm	*****				Zn	0	Zn	0	Zn			
Iron		*****				Fe		Fe		Fe			
Manganese		*****				Mn		Mn		Mn			
Copper		*****				Cu		Cu		Cu			
Magnesium		*****				Mg		Mg		Mg			
Calcium		*****				Lime		Lime		Lime			
Sodium		*****											
Org.Matter	6.6 %	*****											
Carbonate(CCE)		*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
		*****							% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.61 mmho/cm 0.81 mmho/cm				0-6" 7.8							
		*****				6-24" 8.3							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K20 = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K20 = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

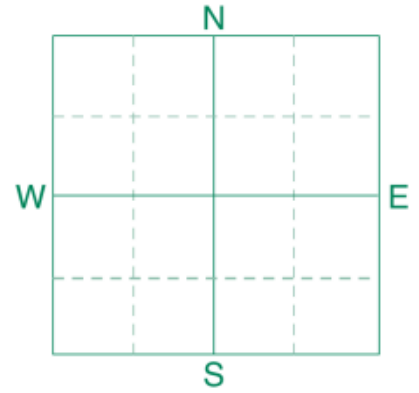


GJ Chemical Co.^{LTG}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **S32**
 SAMPLE ID
 FIELD NAME
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **27** QTR **Sec** ACRES **320**
 PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298879** BOX # **756**
 LAB # **NW61246**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice					
		VLow	Low	Med	High										
Nitrate	0-6" 6-24"	*****				Soybeans		Canola-bu		YIELD GOAL					
						YIELD GOAL		YIELD GOAL		YIELD GOAL					
	0-24"					45 BU		50 BU							
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES					
						Band/Maint.		Band/Maint.							
Olsen	22 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION				
Phosphorus						N	***	N	148	N					
Potassium	461 ppm	*****				P ₂ O ₅	34 Band *	P ₂ O ₅	45 Band *	P ₂ O ₅					
Chloride						K ₂ O	0	K ₂ O	0	K ₂ O					
Sulfur	0-6" 6-24"	*****				Cl		Cl		Cl					
	58 lb/acre 114 lb/acre	*****				S	0	S	10 Band	S					
Boron						B		B		B					
Zinc	2.74 ppm	*****				Zn	0	Zn	0	Zn					
Iron						Fe		Fe		Fe					
Manganese						Mn		Mn		Mn					
Copper						Cu		Cu		Cu					
Magnesium						Mg		Mg		Mg					
Calcium						Lime		Lime		Lime					
Sodium															
Org.Matter	7.7 %	*****													
Carbonate(CCE)						Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)					
										% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"	*****				0-6"	7.5								
	6-24"	*****				6-24"	8.4								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

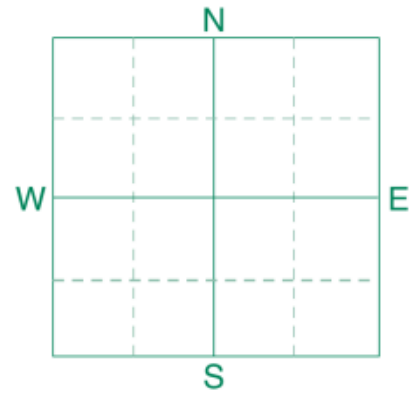


GJ Chemical Co.^{LLC}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **SW33**
 SAMPLE ID
 FIELD NAME **SW33**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **22** QTR **SW** ACRES **160**
 PREV. CROP **Oats**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298887** BOX # **738**
 LAB # **NW61250**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	41 lb/acre 75 lb/acre				Canola-bu		Soybeans		YIELD GOAL				
	0-24"	116 lb/acre				YIELD GOAL		YIELD GOAL		YIELD GOAL				
						50 BU		45 BU						
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band/Maint.		Band/Maint.						
Olsen	36 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	606 ppm	*****				N	59	N	***	N				
Potassium		*****				P ₂ O ₅	45 Band *	P ₂ O ₅	34 Band *	P ₂ O ₅				
Chloride		*****				K ₂ O	0	K ₂ O	0	K ₂ O				
Sulfur	0-6" 6-24"	30 lb/acre 126 lb/acre				Cl		Cl		Cl				
Boron						S	15 Band	S	5 Band (Trial)	S				
Zinc	2.53 ppm	*****				B		B		B				
Iron		*****				Zn	0	Zn	0	Zn				
Manganese		*****				Fe		Fe		Fe				
Copper		*****				Mn		Mn		Mn				
Magnesium		*****				Cu		Cu		Cu				
Calcium		*****				Mg		Mg		Mg				
Sodium		*****				Lime		Lime		Lime				
Org.Matter	7.2 %	*****				Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)		*****				Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.85 mmho/cm 0.83 mmho/cm				0-6" 7.6								
						6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

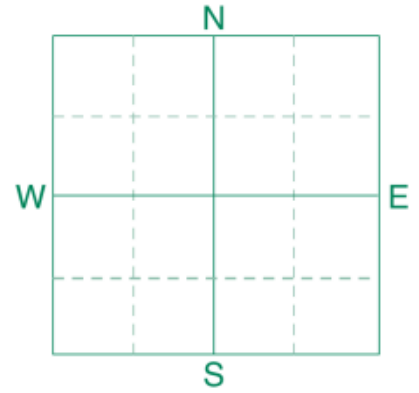


GJ Chemical Co.^{LTd.}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **SE33**
 SAMPLE ID
 FIELD NAME **SE33**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **22** QTR **SE** ACRES **160**
 PREV. CROP **Oats**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298886** BOX # **761**
 LAB # **NW61249**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice					
		VLow	Low	Med	High										
Nitrate	0-6" 6-24"	21 lb/acre 27 lb/acre		*****				Canola-bu		Soybeans					
	0-24"	48 lb/acre						YIELD GOAL		YIELD GOAL					
								50 BU		45 BU					
								SUGGESTED GUIDELINES		SUGGESTED GUIDELINES					
								Band/Maint.		Band/Maint.					
Olsen		38 ppm		*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION				
Phosphorus								N	127	N	***				
Potassium		651 ppm		*****				P ₂ O ₅	45	Band *	P ₂ O ₅	34	Band *		
Chloride								K ₂ O	0		K ₂ O	0			
Sulfur	0-6" 6-24"	56 lb/acre 150 lb/acre		*****				Cl		Cl		Cl			
								S	10	Band	S	0			
Boron								B		B		B			
Zinc		2.69 ppm		*****				Zn	0	Zn	0	Zn			
Iron								Fe		Fe		Fe			
Manganese								Mn		Mn		Mn			
Copper								Cu		Cu		Cu			
Magnesium								Mg		Mg		Mg			
Calcium								Lime		Lime		Lime			
Sodium															
Org.Matter		6.4 %		*****											
Carbonate(CCE)								Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)			
Sol. Salts	0-6" 6-24"	0.8 mmho/cm 0.79 mmho/cm		*****						% Ca	% Mg	% K	% Na	% H	
								0-6" 7.8							
								6-24" 8.3							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.

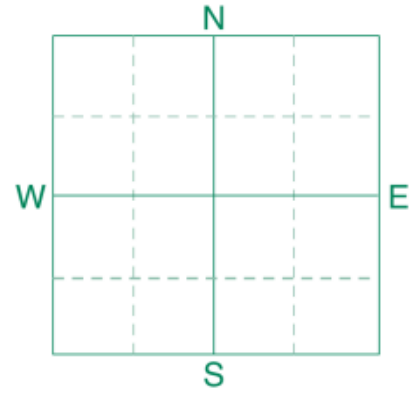


GJ Chemical Co.^{LLC}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **33NW**
 SAMPLE ID
 FIELD NAME **33NW**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **22** QTR **NW** ACRES **160**
 PREV. CROP **Oats**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298884** BOX # **715**
 LAB # **NW61247**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 6-24"	37 lb/acre 54 lb/acre				Canola-bu		Soybeans		YIELD GOAL				
		*****				YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24"	91 lb/acre				50 BU		45 BU						
		*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
		*****				Band/Maint.		Band/Maint.						
Olsen	12 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Phosphorus	476 ppm	*****				N	84	N	***	N				
Potassium		*****				P ₂ O ₅	45 Band *	P ₂ O ₅	34 Band *	P ₂ O ₅				
Chloride		*****				K ₂ O	0	K ₂ O	0	K ₂ O				
Sulfur	0-6" 6-24"	20 lb/acre 96 lb/acre				Cl		Cl		Cl				
		*****				S	15 Band	S	5 Band (Trial)	S				
Boron		*****				B		B		B				
Zinc	1.74 ppm	*****				Zn	0	Zn	0	Zn				
Iron		*****				Fe		Fe		Fe				
Manganese		*****				Mn		Mn		Mn				
Copper		*****				Cu		Cu		Cu				
Magnesium		*****				Mg		Mg		Mg				
Calcium		*****				Lime		Lime		Lime				
Sodium		*****												
Org.Matter	6.4 %	*****				Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)		*****								% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	0.77 mmho/cm 0.78 mmho/cm				0-6" 7.7								
		*****				6-24" 8.3								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

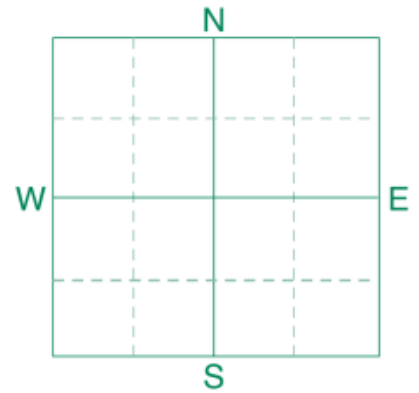


GJ Chemical Co.^{LTd.}

Soil Analysis by Agvise Laboratories
 (<http://www.agvise.com>)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **33NE**
 SAMPLE ID
 FIELD NAME **33NE**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **22** QTR **NE** ACRES **160**
 PREV. CROP **Oats**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298885** BOX # **750**
 LAB # **NW61248**

Date Sampled

Date Received **08/28/2021**

Date Reported **08/30/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 6-24"	57 lb/acre 27 lb/acre				Canola-bu		Soybeans		YIELD GOAL			
	0-24"	84 lb/acre				YIELD GOAL		YIELD GOAL		YIELD GOAL			
						50 BU		45 BU					
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
						Band/Maint.		Band/Maint.					
Olsen	8 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Phosphorus	452 ppm					N	91	N	***	N			
Potassium						P ₂ O ₅	45 Band *	P ₂ O ₅	36 Band *	P ₂ O ₅			
Chloride						K ₂ O	0	K ₂ O	0	K ₂ O			
Sulfur	0-6" 6-24"	58 lb/acre 96 lb/acre				Cl		Cl		Cl			
Boron						S	10 Band	S	0	S			
Zinc	0.95 ppm					B		B		B			
Iron						Zn	1 Band	Zn	1 Band	Zn			
Manganese						Fe		Fe		Fe			
Copper						Mn		Mn		Mn			
Magnesium						Cu		Cu		Cu			
Calcium						Mg		Mg		Mg			
Sodium						Lime		Lime		Lime			
Org.Matter	6.2 %					Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)			
Carbonate(CCE)						Buffer pH			% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 6-24"	1.0 mmho/cm 0.71 mmho/cm				0-6" 7.7							
						6-24" 8.4							

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

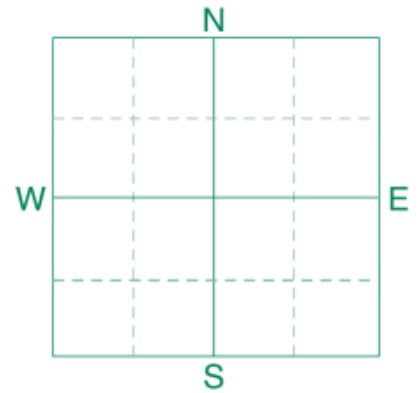


GJ Chemical Co.^{LTd.}

Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
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SOIL TEST REPORT

FIELD ID **34**
 SAMPLE ID
 FIELD NAME
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **23** QTR **S1/2** ACRES **320**
 PREV. CROP **Barley**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3298865** BOX # **5319**
 LAB # **NW46384**

Date Sampled

Date Received **08/05/2021**

Date Reported **08/06/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice						
		VLow	Low	Med	High	Wheat-Spring			Soybeans			Canola-bu						
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL						
						70 BU			45 BU			50 BU						
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES						
						Band/Maint.			Band/Maint.			Band/Maint.						
						LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION					
Olsen	24 ppm	*****				N	156		N	***		N	142					
Phosphorus						P ₂ O ₅	44	Band *	P ₂ O ₅	34	Band *	P ₂ O ₅	45	Band *				
Potassium	424 ppm	*****				K ₂ O	10	Band (Starter)*	K ₂ O	0		K ₂ O	0					
Chloride						Cl			Cl			Cl						
Sulfur	0-6" 6-24"	*****				S	0		S	0		S	15	Band				
Boron						B			B			B						
Zinc	2.14 ppm	*****				Zn	0		Zn	0		Zn	0					
Iron						Fe			Fe			Fe						
Manganese						Mn			Mn			Mn						
Copper						Cu			Cu			Cu						
Magnesium						Mg			Mg			Mg						
Calcium						Lime			Lime			Lime						
Sodium						Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)			
Org.Matter	5.4 %	*****																
Carbonate(CCE)																		
Sol. Salts	0-6" 6-24"	*****				0-6"	8.1		6-24"	8.6								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 34 K2O = 53 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them. Soybean may respond to nitrogen if soybean history is limited and less than 60 lb/acre nitrate-N is present.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 45 K2O = 23 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

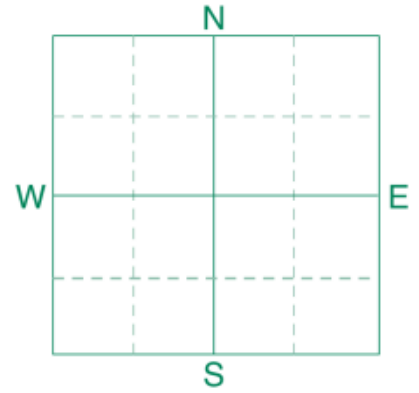


GJ Chemical Co.^{LTG}

Soil Analysis by Agvise Laboratories
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SOIL TEST REPORT

FIELD ID **35**
 SAMPLE ID
 FIELD NAME **Doug section**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **17** QTR **W1/2** ACRES **240**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3501144** BOX # **10490**
 LAB # **NW183419**

Date Sampled

Date Received **10/20/2021**

Date Reported **10/26/2021**

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow Low Med High	Corn-Grain		Wheat-Spring		Barley		
Nitrate	0-6" 6-24"	38 lb/acre 48 lb/acre	YIELD GOAL		YIELD GOAL		YIELD GOAL		
	0-24"	86 lb/acre	150 BU		70 BU		90 BU		
			SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
			Band/Maint.		Band/Maint.		Band/Maint.		
			LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
Olsen	8 ppm	*****	N	94	N	103	N	54	
Phosphorus			P ₂ O ₅	56 Band *	P ₂ O ₅	44 Band *	P ₂ O ₅	42 Band *	
Potassium	621 ppm	*****	K ₂ O	10 Band (2x2) *	K ₂ O	10 Band (Starter) *	K ₂ O	10 Band (Starter) *	
Chloride			Cl		Cl		Cl		
Sulfur	0-6" 6-24"	26 lb/acre 54 lb/acre	S	5 Band (Trial)	S	5 Band (Trial)	S	5 Band (Trial)	
Boron			B		B		B		
Zinc	0.57 ppm	*****	Zn	2 Band	Zn	0	Zn	1 Band	
Iron			Fe		Fe		Fe		
Manganese			Mn		Mn		Mn		
Copper			Cu		Cu		Cu		
Magnesium			Mg		Mg		Mg		
Calcium			Lime		Lime		Lime		
Sodium									
Org.Matter	5.7 %	*****	Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)		
Carbonate(CCE)			Buffer pH				% Ca	% Mg	% K
							% Na	% H	
			0-6"	7.5					
Sol. Salts	0-6" 6-24"	0.79 mmho/cm 0.7 mmho/cm	6-24"	8.3					

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 56 K2O = 35 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

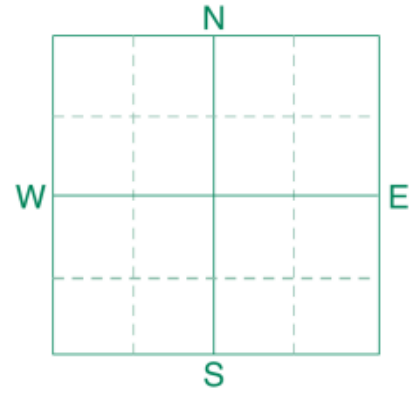


GJ Chemical Co.^{LTG}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
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SOIL TEST REPORT

FIELD ID **36**
 SAMPLE ID
 FIELD NAME **Hildy quarter**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **18** QTR **SE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3501161** BOX # **10438**
 LAB # **NW183420**

Date Sampled

Date Received **10/20/2021**

Date Reported **10/21/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring		Oats		Barley				
Nitrate	0-6"	*****				YIELD GOAL		YIELD GOAL		YIELD GOAL				
	6-24"	*****				70 BU		140 BU		90 BU				
	0-24"	*****				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
		*****				Band/Maint.		Band/Maint.		Band/Maint.				
Phosphorus	Olsen	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
		*****				N	100	N	51	N	51			
Potassium	604 ppm	*****				P ₂ O ₅	44 Band *	P ₂ O ₅	35 Band *	P ₂ O ₅	42 Band *			
Chloride		*****				K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*	K ₂ O	10 Band (Starter)*			
	0-6"	*****				Cl		Cl		Cl				
Sulfur	6-24"	*****				S	5 Band (Trial)	S	5 Band (Trial)	S	5 Band (Trial)			
Boron		*****				B		B		B				
Zinc	0.86 ppm	*****				Zn	0	Zn	0	Zn	0			
Iron		*****				Fe		Fe		Fe				
Manganese		*****				Mn		Mn		Mn				
Copper		*****				Cu		Cu		Cu				
Magnesium		*****				Mg		Mg		Mg				
Calcium		*****				Lime		Lime		Lime				
Sodium		*****												
Org.Matter	7.1 %	*****												
Carbonate(CCE)		*****												
Sol. Salts	0-6"	*****				Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)				
	6-24"	*****				0-6" 7.0				% Ca	% Mg	% K	% Na	% H
		*****				6-24" 8.1								

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.
Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* May respond to starter P & K, even on high soil tests. Crop nutrient removal: P205 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

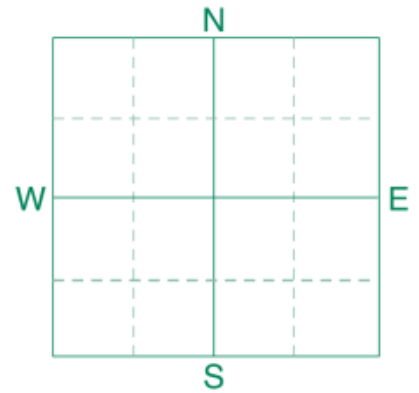


GJ Chemical Co.^{LTB}

Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **37**
 SAMPLE ID
 FIELD NAME **Hildy Marsh**
 COUNTY
 TWP **4** RANGE **3E**
 SECTION **7** QTR **N80 of NW** ACRES **70**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
BLUE CLAY FARMS

SUBMITTED BY: **GJ2069**
GJ CHEMICAL
PO BOX 63
ARNAUD, MB **ROA OBO**

REF # **3501163** BOX # **10438**
 LAB # **NW183421**

Date Sampled

Date Received **10/20/2021**

Date Reported **10/21/2021**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Wheat-Spring			Oats			Barley				
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
						70 BU			140 BU			90 BU				
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
						Band/Maint.			Band/Maint.			Band/Maint.				
							LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		
Olsen Phosphorus	15 ppm	*****				N	149		N	100		N	100			
Potassium	497 ppm	*****				P ₂ O ₅	44	Band *	P ₂ O ₅	35	Band *	P ₂ O ₅	42	Band *		
Chloride						K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (Starter)*		
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl				
Boron						S	5	Band (Trial)	S	5	Band (Trial)	S	5	Band (Trial)		
Zinc	0.85 ppm	*****				B			B			B				
Iron						Zn	0		Zn	0		Zn	0			
Manganese						Fe			Fe			Fe				
Copper						Mn			Mn			Mn				
Magnesium						Cu			Cu			Cu				
Calcium						Mg			Mg			Mg				
Sodium						Lime			Lime			Lime				
Org.Matter	6.2 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH			% Ca	% Mg	% K	% Na	% H			
Sol. Salts	0-6" 6-24"	*****				0-6"	7.1									
						6-24"	7.6									

Crop 1: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 44 K2O = 26 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 2: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 35 K2O = 27 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.

Crop 3: *CAUTION: Seed-placed fertilizer can cause injury.* Previous crop nitrogen credit: 15 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 42 K2O = 45 AGVISE Band/Maintenance guideline will build P & K test levels to the medium range over several years and then maintain them.