

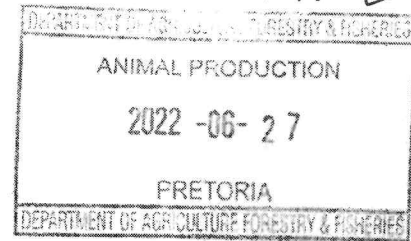


agriculture,  
forestry & fisheries

Department:  
Agriculture, Forestry and Fisheries  
REPUBLIC OF SOUTH AFRICA

ABS 4/4/2023  
17/7/2023 invoiced.

Permit: ✓  
Geno ✓  
Verslag ✓  
DNA: ✓



VETERINARY MASTER PERMIT NO: NO MASTER

VALID FROM: 2022/06/27  
EXPIRY DATE: 2022/12/26

IMPORTATION OF SEMEN: AUTHORISATION NO. S0202/22-1

(Issued in terms of section 16 of the Animal Improvement Act, 1998)

Expiry date: 2022/12/26 for Authorization No. S0202/22-1

Authorization is hereby granted to: ABS SOUTH AFRICA.

of: PO BOX 1143, CAPE GATE, 7562.

for the importation BOVINE semen of the ANGUS breed  
from (country of origin): USA.

Semen will be cleared by:  
ABS SOUTH AFRICA.

| Name of Animals          | Reg. No. | Number of doses |
|--------------------------|----------|-----------------|
| BIEBER SPARTAN E639      | 3762927  | 50              |
| SQUARE B TRUE NORTH 8052 | 19405246 | 50              |

ABS GLOBAL INC, 1525 RIVER ROAD DEFOREST, WI 53532, USA.

TOTAL: 100

CONDITION

- Certification by the exporting country that the number of unfrozen (live) spermatozoa per dose complies with the minimum amount specified on the reverse side of this document.
- DNA profiles must be provided to the Registrar of Animal Improvement, and the relevant Breeders Society before release from quarantine, if not available at time of importation.

This authorization is subject to the compliance with the veterinary requirements set out in the attached permit and is also subject thereto that the intended importation meets with all the provisions of the said Act. This authorization does not exempt the importer from the provisions of any other law. This authorization may be withdrawn by the Registrar should any false information be discovered in the application. This authorization is also not transferable. Imported semen shall under no circumstances be transferred, sold, given or donated to any other person or body unless prior written approval from the Registrar has been obtained. Any such approval shall be considered as new application for the importation of semen.

REGISTRAR: ANIMAL IMPROVEMENT

DATE: 2022/06/27

# AMERICAN ANGUS ASSOCIATION

3201 Frederick Ave., Saint Joseph, Missouri 64506-2997

PHONE: 816-383-5100

## PERFORMANCE PEDIGREE

Parentage: SNP

Genomic: Angus GS

Parents Qualified

NAME OF ANIMAL

SQUARE B TRUE NORTH 8052

SEX

Bull

L. EAR

8052

R. EAR BIRTH DATE

8052 8/16/2018

REGISTRY NO.

AAA +\*19405246

TAG NO.

8052

Square B Ranch & Cattle Wasilla AK

OWNERS

R & L Angus Westmoreland KS

ABS Global Inc De Forest WI

Lonker Cattle Company Fresno CA

MEMBER CODE

A-1305070

A-456101

A-1058214

A-1063013

[ AMF-CAF-D2F-DDF-M1F-NHF-OHF-OSF-RDF ]

As of 5/25/2022

|   | Production EPD |      |     |      |      |     |     |       |     |      |       |       | Maternal EPD |     |      |     |     |     | Carcass EPD |      |     |       |          |          |
|---|----------------|------|-----|------|------|-----|-----|-------|-----|------|-------|-------|--------------|-----|------|-----|-----|-----|-------------|------|-----|-------|----------|----------|
|   | CED            | BW   | WW  | YW   | RADG | DMI | YH  | SC    | Doc | Claw | Angle | PAP   | HP           | CEM | Milk | MW  | MH  | SEN | CW          | Marb | RE  | Fat   | C Grp/Pg | U Grp/Pg |
| I | +17            | -2.2 | +54 | +105 | +28  | +80 | -3  | +1.38 | +23 | +43  | +48   | +15   | +14.3        | +11 | +33  | +17 | -6  | -2  | +23         | +99  | +61 | +0.47 |          | 79       |
| n | .74            | .91  | .88 | .82  | .42  | .42 | .77 | .80   | .80 | .66  | .66   | .34   | .29          | .35 | .35  | .46 | .45 |     | .53         | .47  | .47 | .47   |          | 224      |
| S | +8             | +3   | +56 | +106 | +27  | +73 | -4  | +9.3  | +13 | +32  | +41   | +1.28 | +15.1        | +5  | +27  | +16 | -6  | +2  | +21         | +61  | +58 | +0.17 | 3        | 476      |
| i | .91            | .97  | .95 | .92  | .55  | .55 | .91 | .92   | .88 | .78  | .77   | .47   | .54          | .71 | .65  | .54 | .56 |     | .61         | .57  | .55 | .58   | 11       | 1429     |
| r | +5             | +1.7 | +73 | +125 | +28  | +79 | +5  | +1.67 | +32 | +32  | +40   | +2.72 | +15.3        | +3  | +27  | +36 | +1  | -8  | +52         | +73  | +89 | +0.10 |          | 10       |
| e | .53            | .74  | .70 | .66  | .43  | .43 | .67 | .67   | .61 | .55  | .55   | .31   | .46          | .52 | .54  | .54 | .49 |     | .54         | .50  | .49 | .49   |          | 27       |

O C C PAXTON 730P

AAA #\*14940735

COLEMAN CHARLO 0256

AAA #\*16879074 [RDF]

SIRE

BOHI ABIGALE 6014

AAA +15353355

S A V RAINFALL 6846

AAA +\*18578963 [RDF]

S A V 8180 TRAVELER 004

AAA #13512009 [RDF]

S A V BLACKCAP MAY 4136

AAA \*14739095

S A V MAY 2397

AAA #\*14140872

KMK ALLIANCE 6595 I87

AAA #13346328

CONNEALY CONSENSUS

AAA #\*15513367

DAM

BLINDA OF CONANGA 004

AAA 14220093

ELBANNA OF CONANGA 1209

AAA 17029025

CONNEALY FORWARD

AAA #\*15491633

ELBASTA OF CONANGA 9703

AAA 16449958

ELBA OF CONANGA 3761

AAA #15475857

|   | SValues |         |         |
|---|---------|---------|---------|
|   | \$M \$W | \$F \$G | \$B \$C |
| I | +86     | +66     | +129    |
| n | +71     | +63     | +253    |
| S | +89     | +68     | +115    |
| i | +64     | +48     | +238    |
| r | +103    | +101    | +158    |
| e | +82     | +58     | +308    |

# Pathfinder + Embryo Transplant \* Parents Qualified

|                                                                                                                          | PRODUCTION  |              |             |             |             |             |             |             |             |       |             |       | MATERNAL    |            |             |             | ULTRASOUND  |             |             |             |             |             |             |             |  |
|--------------------------------------------------------------------------------------------------------------------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------------|-------|-------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--|
|                                                                                                                          | CALV EASE   |              | BIRTH WT    |             | WEAN WT     |             | YEAR WT     |             | YEAR HT     |       | YEAR SC     |       | CALV EASE   |            | WEANING     |             | % IMF       |             | RIBEYE      |             | FAT         |             | RUMP FAT    |             |  |
|                                                                                                                          | HERDS PROG. | IND. OR AVE. | HERDS PROG. | CONT. RATIO | HERDS PROG. | CONT. RATIO | HERDS PROG. | CONT. RATIO | HERDS PROG. | RATIO | HERDS PROG. | RATIO | HERDS DAUS. | PROG. AVG. | HERDS DAUS. | PROG. RATIO | HERDS PROG. | CONT. RATIO | HERDS PROG. | CONT. RATIO | HERDS PROG. | CONT. RATIO | HERDS PROG. | CONT. RATIO |  |
| Ind                                                                                                                      |             |              |             |             |             |             |             |             |             |       |             |       |             |            |             |             |             |             |             |             |             |             |             |             |  |
| Prog                                                                                                                     | 102         |              | 162         |             | 106         | 59          | 43          | 76          | 11          |       | 18          |       |             |            |             |             | 39          |             | 39          |             | 39          |             | 39          |             |  |
|                                                                                                                          | 353         | 1.0          | 1086        | 97          | 779         | 98          | 376         | 98          | 64          | 99    | 141         | 100   |             |            |             |             | 245         | 103         | 245         | 101         | 245         | 101         | 245         | 101         |  |
| Stab                                                                                                                     | 461         |              | 743         |             | 547         | 43          | 304         | 38          | 82          |       | 136         |       | 85          | 231        | 68          | 187         | 185         |             | 185         |             | 185         |             | 184         |             |  |
|                                                                                                                          | 2315        | 1.0          | 5724        | 100         | 4534        | 100         | 2164        | 100         | 457         | 99    | 813         | 100   | 231         | 1.1        | 168         | 100         | 1456        | 104         | 1456        | 99          | 1457        | 96          | 1454        | 96          |  |
| Dam                                                                                                                      | 1           |              | 2           |             | 2           | 162         | 2           | 95          |             |       |             |       | 4           | 17         | 4           | 43          | 5           |             | 5           |             | 5           |             | 5           |             |  |
|                                                                                                                          | 1           | 1.0          | 4           | 100         | 4           | 108         | 4           | 106         |             |       |             |       | 17          | 1.1        | 18          | 103         | 29          | 99          | 29          | 104         | 29          | 91          | 29          | 91          |  |
| Herd                                                                                                                     | 4           |              | 14          |             | 13          | 343         | 5           | 230         | 2           |       | 3           |       | 7           | 275        | 16          | 1154        | 4           |             | 4           |             | 4           |             | 4           |             |  |
|                                                                                                                          | 142         | 1.0          | 822         | 100         | 813         | 103         | 591         | 102         | 196         | 100   | 333         | 101   | 275         | 1.0        | 290         | 100         | 428         | 100         | 427         | 101         | 427         | 98          | 428         | 98          |  |
| Calving Ease: 1. No Assistance 2. Some Assistance 3. Mechanical Assistance 4. Caesarean Section 5. Abnormal Presentation |             |              |             |             |             |             |             |             |             |       |             |       |             |            |             |             |             |             |             |             |             |             |             |             |  |

Calving Ease: 1. No Assistance 2. Some Assistance 3. Mechanical Assistance 4. Caesarean Section 5. Abnormal Presentation



REQUESTED BY:

ABS Global Inc De Forest WI

MEMBER

CODE A-1058214

FILE NO. X83832

2

DATE

PRINTED 5/25/2022

*Mark A. McCully*

Mark A. McCully  
Chief Executive Officer

1058214

# AMERICAN ANGUS ASSOCIATION

3201 Frederick Ave., Saint Joseph, Missouri 64506-2997

PHONE: 816-383-5100

## PERFORMANCE PEDIGREE

| NAME OF ANIMAL           | SEX  | REGISTRY NO.                          | DATE CALVED | LEFT EAR | RIGHT EAR |
|--------------------------|------|---------------------------------------|-------------|----------|-----------|
| SQUARE B TRUE NORTH 8052 | Bull | AAA 19405246                          | 8/16/2018   | 8052     | 8052      |
| BREEDER                  |      | [AMF-CAF-D2F-DDF-M1F-NHF-OHF-OSF-RDF] |             |          |           |

Square B Ranch & Cattle Wasilla AK

| SIRE | NAME OF ANIMAL          | SEX | REGISTRY NO.                | DATE CALVED | LEFT EAR | RIGHT EAR |
|------|-------------------------|-----|-----------------------------|-------------|----------|-----------|
|      | O C C FOCUS 813F        |     | AAA +12739373               |             |          |           |
|      | O C C PAXTON 730P       |     | AAA #*14940735[AMF-CAF-XF]  |             |          |           |
|      | O C C BLACKBIRD 736K    |     | AAA 13776651                |             |          |           |
|      | COLEMAN CHARLO 0256     |     | AAA #+*16879074[AMF-CAF-XF] |             |          |           |
|      | SITZ TRAVELER 8180      |     | AAA #11367940[AMF-CAF-XF]   |             |          |           |
|      | BOHI ABIGALE 6014       |     | AAA +15353355               |             |          |           |
|      | S A V ABIGALE 6062      |     | AAA 12554427[OHF]           |             |          |           |
|      | S A V RAINFALL 6846     |     | AAA +*18578963[AMF-CAF-XF]  |             |          |           |
|      | SITZ TRAVELER 8180      |     | AAA #11367940[AMF-CAF-XF]   |             |          |           |
|      | S A V 8180 TRAVELER 004 |     | AAA #13512009[AMF-CAF-XF]   |             |          |           |
|      | BOYD FOREVER LADY 8003  |     | AAA +13050778               |             |          |           |
|      | S A V BLACKCAP MAY 4136 |     | AAA *14739095[CAF]          |             |          |           |
|      | S A F 598 BANDO 5175    |     | AAA #+12350821[CAC-AMF-XF]  |             |          |           |
|      | S A V MAY 2397          |     | AAA #+14140872[CAF]         |             |          |           |
|      | S A V MAY 7238          |     | AAA 12819816[CAF-DDF]       |             |          |           |
|      | SITZ ALLIANCE 6595      |     | AAA #12310707[AMF-CAF-XF]   |             |          |           |
|      | KMK ALLIANCE 6595 187   |     | AAA #13346328[AMF-CAF-XF]   |             |          |           |
|      | G A R EXT 916           |     | AAA #+12921677[AMF]         |             |          |           |
|      | CONNEALY CONSENSUS      |     | AAA #*15513367[DDF]         |             |          |           |
|      | RITO 616 OF 4B20 6807   |     | AAA #12530601[AMF-CAF-XF]   |             |          |           |
|      | BLINDA OF CONANGA 004   |     | AAA 14220093                |             |          |           |
|      | BLEND OF CONANGA 129    |     | AAA 13676181                |             |          |           |
|      | ELBANNA OF CONANGA 1209 |     | AAA 17029025                |             |          |           |
|      | CONNEALY ONWARD         |     | AAA #*14216491[AMF-CAF-XF]  |             |          |           |
|      | CONNEALY FORWARD        |     | AAA #*15491633[AMF-CAF-XF]  |             |          |           |
|      | BECKY LEE OF CONANGA 74 |     | AAA 14845051[AMF]           |             |          |           |
|      | ELBASTA OF CONANGA 9703 |     | AAA 16449958                |             |          |           |
|      | MYTTY IN FOCUS          |     | AAA #*13880818[AMF-CAF-XF]  |             |          |           |
|      | ELBA OF CONANGA 3761    |     | AAA #15475857[CAF]          |             |          |           |
|      | ELBA OF CONANGA 6133 17 |     | AAA +14527856[CAF]          |             |          |           |

DAM

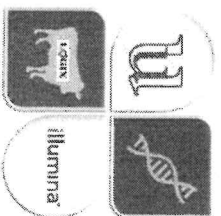


FILE NO. X83832

3

*Mark A. McCully*  
Mark A. McCully  
Chief Executive Officer

1058214



# Unistel Medical Laboratories Genetic Report

BOVINESNP50-24 v3 BeadChip

ABS South Africa

Animal Tested:

Angus  
29AN2144  
14021U001

Sample type:

Semen

| Description      | Mutations                   | Status              | Description               | Mutations Tested                 | Status                                                                   |
|------------------|-----------------------------|---------------------|---------------------------|----------------------------------|--------------------------------------------------------------------------|
| Coat colouration | MC1R - e                    | E+/E+               | Meat                      | Calpain 1 - 316                  | G/C                                                                      |
|                  | MC1R - ED                   | Ed/Ed               | Tenderness                | Calpain 1 - 4751                 | C/C                                                                      |
|                  | Dun Dexter Dilution (TYPR1) | +/+                 |                           | Calpain 1 - 530                  | G/G                                                                      |
|                  | Silver Dilution type 1      | +/+                 |                           | Calpastain - 282                 | G/C                                                                      |
|                  | Silver Dilution type 2      | +/-                 |                           | Calpastain - 2870                | A/G                                                                      |
| Myostatin Status | Myostatin C313Y             | Clear               | Milk status               | Calpastain - 2959                | A/A                                                                      |
|                  | Myostatin E226X             | Clear               |                           | Beta Casein - 245                | A1/A2                                                                    |
|                  | Myostatin E291X             | Clear               |                           | Beta Casein - 411                | B/B                                                                      |
|                  | Myostatin nt419             | Clear               |                           | Kappa Casein - 352               | A/A                                                                      |
|                  | Myostatin nt821             | Clear               |                           | Kappa Casein - 467               | A/A                                                                      |
|                  | Myostatin Q204X             | Clear               |                           | Kappa Casein - 470               | A/B                                                                      |
|                  | Myostatin D182N             | Clear               |                           | Kappa Casein - 506               | A/B                                                                      |
| POMPE Status     | Myostatin F94L              | Clear               |                           | Kappa Casein - 526               | A/A                                                                      |
|                  | Myostatin S105C             | Clear               | Milk quality              | Growth Hormone F279Y             | Increased milk, casein & lactose yield;<br>decreased protein & fat yield |
|                  | E7 mutation                 | Clear               |                           | Growth Hormone 2141              | Decreased milk protein & fat yield                                       |
| Hornedness       | E13 mutation                | Clear               |                           | Growth Hormone 2291              | Normal milk fat yield, fat & protein %                                   |
|                  | E18 mutation                | Clear               |                           | ABCG2 - protein yield milk       | Normal fat, protein & milk yield; normal<br>fat & protein %              |
| Heat Tolerance   | SLICK                       | No added resistance | Eye Disorders             | AcylCoA - milk fat percentage    | Normal fat, protein & milk yield. Normal<br>fat & protein %              |
| Bone Disorder    | Pinkeye resistance          | Reduced risk 8-13%  |                           | Trimethylaminuria excess in milk | Clear                                                                    |
|                  | Osteopetrosis               | Clear               |                           | Yellow milk fat                  | Normal yellow fat                                                        |
| Breed mutations  | Alpha Mannosidosis 961      | Clear               | Developmental Duplication | Mulefoot (P1647L)                | Clear                                                                    |
|                  | Neuropathic hydrocephalus   | Clear               |                           |                                  |                                                                          |
|                  | Developmental Duplication   | Clear               |                           |                                  |                                                                          |
|                  | Mulefoot (P1647L)           | Clear               |                           |                                  |                                                                          |

Disclaimer: Unistel reports these results on the premise that the biological samples received are from the individuals nominated by the carrier/trader/requester. This certificate replaces all previous issued certificates. While every effort is made to prevent incorrect results, Unistel Medical Laboratories does not accept any responsibility for any losses that may occur as a result of human or technical error. Should gross negligence be proven, the claim shall not exceed the value of the contract.

# Batch Detail Report

Created : 2023-06-30

Batch : 14021U  
 Owner : ABS South Africa  
 Farm :  
 Account : ABSSA1  
 Origin : PRIVATE  
 Invoice To : Owner

| SAMPLE    | ANIMAL                                               | SPECIES | BREED      | DAM | SIRE | TEST    | Tissue Type | RESULT                | INVOICE |
|-----------|------------------------------------------------------|---------|------------|-----|------|---------|-------------|-----------------------|---------|
| 14021U001 | 29ANZ144 (SQUARE B<br>TRUE NORTH<br>29ANZ144) (M,23) | CATTLE  | ANGUS (23) |     |      | SNP50_C | Semen Straw | IG50 :<br>IGENITY 50K |         |

Report Date : 28-Jul-2023 11:35

Page : 1

Unistel report these results on the premise that the biological samples received are from the individuals nominated by the owner/ breeder/ requestee. This Certificate replaces all previously issued certificates.  
**Disclaimer:** While every reasonable effort is made to prevent faulty results, Unistel Medical Laboratories do not accept any responsibility for any losses that may occur as a result of human or technical error. The results relate only to the samples tested. Should gross negligence be proven, the claim shall not exceed the value of the contract  
**Please note:** some STR profiles used in parentage analysis may have been sourced from another laboratory. While every reasonable effort is made to prevent incorrect results, Unistel Medical Laboratories does not accept any responsibility for parentage mismatches due to incompatible marker scoring strategies between laboratories. Unistel Medical Laboratories participates in ISAG comparison testing and therefore incorporates international scoring standards in the generation of our STR profiles.

CHARNÉ ROSSOUW  
 DIVISION MANAGER

## DNA Report

Unistel Medical Laboratories (Pty) Ltd

An Associated Company of The Unistel Group

**Tel:** Main Switchboard - 021 007 5617  
**Email:** info@unistelmedical.co.za

|                      |                         |
|----------------------|-------------------------|
| <b>Test Method :</b> | Fragment Analysis (STR) |
| <b>Batch No :</b>    | 12761U                  |
| <b>Sample # :</b>    | 12761U004               |
| <b>Ownername :</b>   | ABS South Africa        |

|                          |                          |
|--------------------------|--------------------------|
| <b>Tag No :</b>          | SQUARE B TRUE NORTH 8052 |
| <b>Animal Name :</b>     | SQUARE B TRUE NORTH 8052 |
| <b>Microchip # :</b>     |                          |
| <b>Animal Species :</b>  | CATTLE                   |
| <b>Animal Breed :</b>    | ANGUS                    |
| <b>Registration Id :</b> |                          |
| <b>Birth Date :</b>      | 2015-02-04               |
| <b>Gender :</b>          | Male                     |
| <b>DNA Ref. No :</b>     |                          |
| <b>Tissue Type</b>       | Semen Straw              |

| Marker   | Allele1 | Allele2 |
|----------|---------|---------|
| BM1818   | 262     | 270     |
| BM1824   | 182     | 188     |
| BM2113   | 125     | 125     |
| CSRM60   | 104     | 104     |
| CSSM66   | 183     | 197     |
| ETH10    | 215     | 219     |
| ETH225   | 148     | 150     |
| ETH3     | 117     | 125     |
| ILSTS006 | 288     | 288     |
| INRA23   | 206     | 208     |
| SPS115   | 248     | 260     |
| TGLA122  | 143     | 161     |
| TGLA126  | 115     | 115     |
| TGLA227  | 89      | 97      |
| TGLA53   | 160     | 168     |

**Created date:** 11-Apr-2023 12:45

**Received date:** 30-Mar-2023 10:37

**Report date:** 09-May-2023 14:05

DNA profile analysed to ISAG specification(2021/2022)

Page 1

Unistel report these results on the premise that the biological samples received are from the individuals nominated by the owner/ breeder/ requestee. This Certificate replaces all previously issued certificates.

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**CHARNÉ ROSSOUW**  
DIVISION MANAGER



Neogen Geneseeq Operations  
4131 N. 48th Street  
Lincoln, Nebraska 68504  
geneseeqinfo@neogen.com

## STR Certificate

### Report Details:

Customer: ABS-Beef  
Date Issued: 5/26/2022

### Results:

| Marker Name | Result  |
|-------------|---------|
| BM1818      | 262/270 |
| BM1824      | 182/188 |
| BM2113      | 125/125 |
| ETH10       | 215/219 |
| ETH225      | 148/150 |
| ETH3        | 117/125 |
| INRA23      | 206/208 |
| SPS115      | 248/260 |
| TGLA122     | 143/161 |
| TGLA126     | 115/115 |
| TGLA227     | 89/97   |
| TGLA53      | 160/168 |

### Animal Details:

Animal ID: 29AN2144  
Barcode: 21518021478  
Reg No: AAA19405246  
Animal Name: SQUARE B TRUE NORTH

I affirm that the above test results are correct to the best of my knowledge:

Jiansheng Qiu Ph.D., Director of Quality Systems

All data included in this report is subject to Neogen's Terms and Conditions which is available at <https://gslims.neogen.com/web/GSTermsAndConditions.pdf>