



# **BANQUET SIRE POWER**



**Banquet Frederick F683** 



**Banquet Golding G306** 



Banquet Abode A005



Aberdeen Estate Homer H70



**Banquet Forbidabull F485** 



**Banquet Graduate G464** 



Anvil Fusion F275



Prime Juggernaut J15

# 40 BIG BOLD ANGUS BULLS

Friday 30th SEPTEMBER at 11.00am Saleyards, Mortlake Victoria **Inspection from 9.00am** 



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**DIANNA BRANSON** Mobile: 0400 944 188 Email: dee.branson@hotmail.com

of all knowi ecessive Genet Disorders





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#### **SALE INFORMATION**

#### **CHANGE OF VENUE:**

#### Our Spring Bull Sale will be held in the Saleyards, Mortlake, Victoria.

#### **INSPECTION:**

We encourage buyers to inspect the bulls prior to sale day. It allows us to assist you select the sire best suited to your needs. Phone us on 0419 884 839 and advise us of your intending visit.

Lots catalogued are available for inspection from 9.00am, Friday 30th September.

#### **FREE DELIVERY:**

Banquet offers free delivery to the buyer's nearest town on route to Adelaide, SA and Emerald, QLD and to the property within Vic.

#### **STOCK HEALTH:**

Banquet is MN2 accredited under the Bovine Johnes Disease Market Assurance Program. Certificate Number VC128. All bulls have been Vet checked by Dr Craig Wood, Terang. They have all undergone a physical examination of external genitalia and conformation. At the time of the examination involving a crush side semen assessment was performed. The crush side test involves visualisation of the penis and collection of semen. This semen is then analysed for density, mass motility and forward motility. All bulls in this catalogue were considered sound at the time of the examination. They have been vaccinated with pestiguard, vibriovac and 7 in 1. Any bulls purchased for QLD will be vaccinated against 3 day sickness and receive the 3 germ tick fever vaccination.

#### **REBATE TO OUTSIDE AGENTS:**

Outside agents accompanying a purchaser to the sale are entitled to a 5% rebate. Please refer to page 5 for further detail.

#### **AFTER SALE SERVICE:**

Banquet is renowned for excellence in providing after sales service. If in doubt, speak with us or with any one of our many satisfied clients.

#### THE BANQUET BULL GUARANTEE:

All bulls are backed by a 3 YEAR GUARANTEE. In the event of a bull proven to be infertile or incapable of natural service the vendor can either offer a suitable replacement if available or issue a credit for future sales. The credit is a pro-rata value of the bull minus the salvage value. The guarantee can only apply if the bulls' incapacity is not caused by injury or disease since taking delivery. Any claim must be accompanied by a relevant veterinary certificate. The vendor retains the right to obtain independent veterinary confirmation of any claim.

It is important to understand that normal care must be taken and good husbandry practices observed, as we cannot replace a bull that is injured or dies for any reason. As such, we recommend you insure animals against injury. A representative of an insurance service organisation will be available on sale day.

#### **RECESSIVE GENETIC CONDITIONS (see pages 30 and 31)**

All bulls in this Sale are free of AM, NH, CA and DD by parentage, or have been tested free.

#### NO CARRIER BULLS ARE BEING OFFERED FOR SALE

#### **FURTHER INFORMATION:**

Contact Stephen or Noeleen Branson by phoning or Email

0419 884 839 or 0437 029 992 banquetangus@westvic.com.au



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# **Agents' Contacts**



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#### FOREWARD

#### What an incredible place the Beef Industry is at the moment

- Returns for all classes of cattle are continuing to rise.
- Interest rates are low.
- Fuel and fertiliser prices are low
- Feed grain is cheap
- And there is grass and water and grass and water .....!

This is our opportunity to reposition our businesses and our Industry for the future. With the end of the mining boom we are seeing an influx of capital investment and labour flow into agriculture. The new, state of the art, saleyards that have just commenced operation at Yass and the proposed new cattle selling centre for the Western Districts of Victoria are just two examples of this new investment.

The Beef Industry and indeed agriculture in general, is now being recognised for what we have always known. That it is sustainable, profitable and renewable.

We should be proud that we are part of such a dynamic Industry. We have a great story to tell. We are stewards of the land, certainly the largest protectors of the environment while producing food and fibre for the sustenance of our fellow citizens. We just need to tell that story continually and loudly. Without the hearts and minds of Western Sydney and Western Melbourne there will not be any political support for our way of life.

In our euphoric state spare a thought for our friends in the Dairy Industry. Not long ago we were where they are, dreams and plans crushed and just trying to survive. I hope it doesn't last as long for them. Bad advice and bad decisions made by a few, who walk away with a golden handshake, hurt so many.

For those of us in the Beef Industry enjoy our time in the sun and never stop caring.

Noeleen, Gordon, Dianna, Hamish and I wish you all a safe and kind end to 2016. We thank you for allowing us to share in your business and look forward to working with you in the future.

# Please visit our website to view photos of these Sale Bulls. www.banquetangus.com.au

# OUTSIDE AGENT COMMISSION REBATES



5% rebate will be paid to all agents that attend and who purchase with or on behalf of their clients and settle within seven days of sale date.



2% rebate will be paid to all agents introducing clients that purchase but not accompanied by them to the sale. A written introduction must be received by the vendor 48 hours prior to the sale and accounts must be settled within 7 days of the sale date.

# SIGHT UNSEEN PURCHASING PROGRAM

# 100% satisfaction guarantee. Available to buyers who cannot attend the Sale.

For those purchasers who have discussed their requirements with us prior to the Sale we offer a 100% money back guarantee if the purchaser is not completely satisfied with their purchase. We must be notified within seven days of taking delivery. However the purchaser will be responsible for return transport costs.

### Why you need Big Bold Banquet Bulls

Banquet is a family owned and operated seedstock business focussed on making more dollars for clients. This is achieved through the greater efficiencies and productivity that Banquet genetics give.

Banquet cattle are different from a majority of Angus; bigger, more powerful, faster growing, with extra muscling capabilities and have extremely quiet temperament. Simply put, because they have the capacity to grow quickly to heavier weights, yet have adequate muscling and fat cover at domestic market weights, they allow clients the flexibility to target the most lucrative market at any time. This ensures greater profitability.

Producers, feedlotters, restockers and processors alike are targeting Banquet bloodline calves.

Banquet markets over 200 bulls annually through our annual auction sale; occasional other specific auctions and extensive private selection sales. All bulls come with Banquet's after sales support and service guarantees.

You buy more than just a bull at Banquet!



The Branson family of Noeleen, Stephen, Gordon, Dianna and Hamish take great pride in presenting their stock to you. Beyond Banquet Angus this also extends to Gordon's Banquet White Suffolks, Dianna's Banquet Brangus and Hamish's Banquet Suffolks.

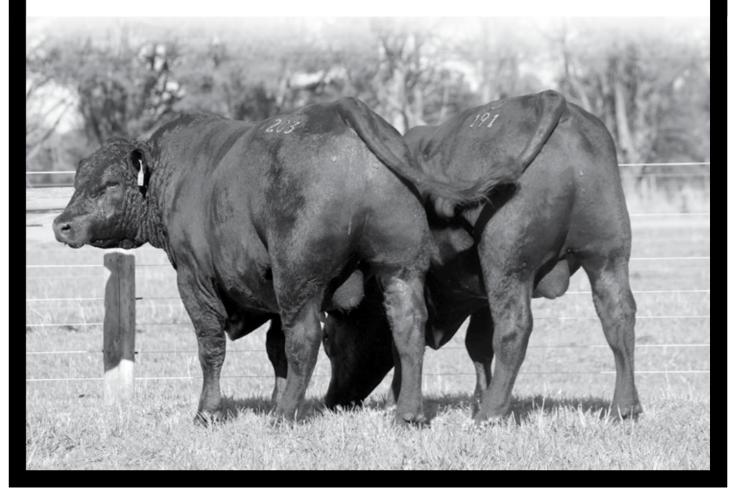
#### Why Banquet?

Banquet's focus is quite simply on making dollars for clients, through the greater efficiencies and productivity achieved from using Banquet genetics.

Banquet cattle are different from the majority of Angus. They are bigger, more powerful, faster growing, have extra muscling and quiet temperament. Ensuring they give premiums for users, whether in crossbreeding or pure breeding programs.

Simply put, cattle that grow quickly and have the capacity to keep growing through to heavier weights, yet have muscling and some finish at domestic market weights, provide greater market flexibility. Being able to target the market with the best price at any given time ensures greater profitability. Feedlotters and restockers alike are targeting Banquet bloodline calves.

All bulls come with Banquet's after sales support and service guarantees. This makes a decision to invest in Banquet genetics both profitable and wise.



#### **BANQUET FEATURE SIRES**

#### **BANQUET FREDERICK F683**

B S S Limited Design (USA) Sire: COONAMBLE Z3 Imran Rosebud U17



CA Future Direction 5321 (USA) Dam: VERMONT DREAM B272 Vermont Dream Y301

We consider Vermont Dream Y301 to be the most influential, non-Banquet bred, Dream cow. F683 is a grandson of Y301. Through his sire he brings another top cow, Imran Rosebud U17. On inspection F683 had extra extension of neck, length of body and strong loin. His progeny show these traits and his "K" and "L" calves are standouts. His first daughters are feminine with great capacity and depth. They have excellent udders and fine teats. We are now testing sons in our program.

<b>BAN</b> (	<b>)U</b>	EAL	F	EÆ

Banquet Time Frame Y135 Sire: BANQUET BALLIS B017 Banquet Mavis Y032

F710 would be the most powerful son of the mighty Ballis B017 that we have used. He is large framed and long bodied but it is his exceptional depth and muscularity that is the most striking. F710 consistently adds extra bone and muscle to his calves. Much like a Euro but maintaining the fertility and doing ability of straight Angus cattle. For the record F710 has four crosses of the Dream Family.

HOUR	DIR	DTRS	GL	Bwt	200	400	600	Mwt	Milk	SS	DC	Cwt	EMA	Rib	Rump	RBY%	IMF%
The second secon	-0.6 72%	-0.6 57%	-3.9 87%	+4.9 93%	+44 88%	-	+113 85%		+7 74%	+1.0 86%	-2.7 50%	+67 75%	+6.5 72%	-2.4 73%	-1.4 73%	+0.7 66%	+1.9 66%

#### **BANQUET ABODE A005**

Bon View Bando 598 (USA) Sire: S A F 598 BANDO 5175 (UŚA) S A F Royal Lass 1002 (USA)

**Banquet Powerpack P54** Dam: BANQUET NANNY V044 Banquet S28



Abode A005 topped our 2007 Sale when he was selected by Forres Stud for \$20,000. His influence at Forres was immense and his daughters featured at their Dispersal. We partnered with Quarterway and Shingle Hut to purchase him for \$22,000. A005 progeny have extra length, are very muscular and are slick coated.

A C C C	DIR	DTRS	GL	Bwt	200	400	600	Mwt	Milk	SS	DC	Cwt	EMA	Rib	Rump	RBY%	IMF%
A STATE STATE	-1.0	-0.9	-5.8	+6.0	+55	+99	+137	+124	+23	+3.9	-3.3	+73	+0.8	+0.4	+0.2	+0.4	+0.9
	81%	69%	94%	96%	94%	94%	94%	90%	91%	90%	60%	84%	83%	84%	84%	79%	79%

A C C A	DIR	DTRS	GL	Bwt	200	400	600	Mwt	Milk	SS	DC	Cwt	EMA	Rib	Rump	RBY%	IMF%
	-1.8	+1.4	-3.0	+5.3	+42	+75	+100	+94	+11	+1.3	-3.2	+51	+5.1	0.0	+0.1	+1.0	+0.8
	66%	51%	62%	92%	89%	89%	87%	77%	64%	84%	44%	73%	73%	72%	75%	67%	64%

#### **ANVIL FUSION F275**

WK Vegas (USA) Sire: WK REPLAY (USA) S A F Penelope P020 (USA)

We purchased the \$17,000 Fusion as our pick of a very impressive group of E.T brothers. Fusion attracted us with his strong loin, wide hindquarter and rugged head. His dam is equally impressive, she is deep bodied, soft and easy doing. Her progeny are consistently at the top end of their contemporary group. If Fusions daughters inherit the traits of Y147 they will be very valuable to our program. Fusion sons have proved very popular. J285 sold for \$15,000 in 2015 and K312 topped our 2016 Autumn Sale at \$21,000.

HQ L	DIR	DTRS	GL	Bwt	200	400	600	Mwt	Milk	SS	DC	Cwt	EMA	Rib	Rump	RBY%	IMF%
	-1.1	0.0	-0.2	+4.1	+44	+84	+106	+82	+22	+2.8	-6.5	+56	+5.2	-0.2	+0.5	+0.5	+2.1
	69%	54%	83%	92%	87%	86%	83%	78%	70%	84%	51%	74%	72%	73%	67%	67%	65%

#### **ATURE SIRES**

#### **BANQUET FORTUNE F710**

Banquet Excitement X088 Dam: BANQUET DREAM C074 Banquet Dream A037



Banquet Ballis B017 - Sire of F710

Glenoch Megaforce M16+92 Dam: TE MANIA Y147 Te Mania Lowan V70



#### **BANQUET KOORINGAL K188**

Ident: VONK188 Tattoo: SNB K188 (T&F) Born: 01/09/2014 AMFU NHFU CAFU DDFU

COONAMBLE Z3 (AI) (ET) VONF683 BANQUET FREDERICK F683 (AI) (ET) VERMONT DREAM B272 (AI) (ET)

BANQUET CAPACITY C167 (AI) VONG317 BANQUET DREAM G317 BANQUET DREAM V124 (AI) (ET)

K188 is an excellent bull to start this sale. He is thick, wide topped and very muscular. Strong headed, tight sheathed, soft skinned and exceptional temperament. The type of bull that fits many production systems. He is backed by the unequalled Dream family. In fact 3 crosses of the Dreams. His granddam, V124, produced four sale bulls selling to \$21,000 and averaging \$11,500.

HBR

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Actual Scr	otal: <b>4</b>	0 cm	Age: 2	4 months	s I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+5.0	+9	+42	+70	+97	+0.5	+52	+4.1	-2.0	+1.7
	Acc	72%	49%	67%	68%	68%	70%	56%	54%	55%	46%
		1	Fraits Observ	ed CE BWT 2	200WT(x2) 4(	00WT 600WT	SSEATEM	4 IME			

#### **BANQUET KAN TONG K380 (AI) (ET)** HBR

#### Ident: VONK380 Tattoo: SNB K380 (T&F) Born: 05/10/2014 AMFU NHFU CAFU DDFU

COONAMBLE Z3 (AI) (ET) VONF683 BANQUET FREDERICK F683 (AI) (ET) VERMONT DREAM B272 (AI) (ET)

BANQUET XPLANATION X060 (AI) (ET) VONC154 BANQUET CHAMPAGNE C154 (AI)(ET) BLACK GOLD CHAMPAGNE J031+89 (AI)(ET)

Another F683 son. Progeny of F683 featured in our February Sale and again this Spring Sale. This son shows the power, thickness and great hindquarter development we expect. K380 is a son of the mighty C154. C154 is an exceptional female with outstanding phenotype, Her sons have sold to \$32,000. Another son was used then sold privately. A flush brother to K380 has been retained and used heavily this year. C154 topped our "Belles of Banquet" Female Sale at \$30,000 to Bannaby Angus.

Actual Scro	otal: <b>3</b>	8 cm	Age: 1	23 month	is I	Purchase	r <b>:</b>			\$	
				August 2	2016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+3.6	+13	+37	+74	+89	+1.3	+52	+3.9	-0.4	+1.6
	Acc	74%	52%	68%	68%	69%	68%	58%	55%	57%	50%

Traits Observed: BWT, 200WT(x2), 400WT, 600WT, SS, FAT, EMA, IMF



**Banquet Champagne C154 – Dam of Lot 2** 

**BANQUET KOO WEE K381** 

BANQUET DUNCAN D412 (AI) VONG306 BANQUET GOLDING G306 BANQUET LASS C219	K. ha
BANQUET YELA Y346 (AI) (ET)	of
VOND549 BANQUET PRIDE D549	K:
BANQUET PRIDE A158 (AI)	ca

Actual Scrota	l: <b>36</b>	cm	Age: 1	23 month	s I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	BV	+7.5	+15	+44	+86	+114	+1.8	+57	+3.1	-1.2	+1.0
<b></b> A	сс	71%	45%	64%	64%	61%	67%	52%	50%	52%	41%

Traits Observed: CE, BWT, 200WT(x2), 400WT, 600WT, SS, FAT, EMA, IMF



Lot 3



#### Ident: VONK381 Tattoo: SNB K381 (T&F) Born: 05/10/2014 AMFU NHFU CAFU DDFU

K381 is a big power son of the big power bull, G306. He as tremendous bone, thickness and muscularity. Typical of the G306 sons he has exceptional head and jaw. Use K381 to add substance, muscularity and weight to your alves. Two half brothers have sold for \$7500 each.

Banquet Golding G306 – Sire of Lots 3, 32 & 40

#### **BANQUET KELSO K398**

HBR

#### Ident: VONK398 Tattoo: SNB K398 (T&F) Born: 06/10/2014 AMFU NHFU CAFU DDFU

#### BANQUET DAY DREAM D053 (AI) (ET) **VONH411 BANQUET HUDSON H411** FORRES WILCOOLA D107

#### BANQUET FEASIBULL F251 (AI) **VONH504 BANQUET CHAMPAGNE H504 BANQUET CHAMPAGNE F586**

K398 has a classic head - wide muzzle, hooded eye and strong poll. As expected with such an awesome head, K398 is deep bodied with enormous volume, heavy boned, soft coated and easy doing. My old Hereford breeding mates would appreciate this phenotype. K398 has an exceptional disposition. His 2 year old dam did an outstanding job of rearing him and could soon be considered elite.

Actual Scrota	l: <b>41</b>	cm	Age: 2	23 months	s I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus E	BV	+7.0	+15	+51	+97	+132	+4.7	+68	+2.5	-0.2	+1.0
A	сс	69%	40%	63%	64%	62%	67%	51%	39%	41%	34%

Traits Observed: CE, BWT, 200WT(x2), 400WT, 600WT, SS



Lot 4

#### **BANQUET KHANCOBAN K351 (AI) (ET)** 5 HBR

#### S A F 598 BANDO 5175 **VONA005 BANQUET ABODE A005 (AI) BANQUET NANNY V44**

#### BT RIGHT TIME 24J **VONC226 BANQUET DREAM C226 (AI)** BANQUET KIWI DREAM+92 (AI)

#### Ident: VONK351 Tattoo: SNB K351 (T&F) Born: 02/10/2014 AMFU NHFU CAFU DDFU

Another outstanding potential sire. Like Lot 2, K351 is from an elite Banquet cow. C226, a 24J daughter of the legendary Kiwi Dream M41, sold for \$20,000 in our "Belles of Banquet" Sale to Bannaby Angus. The sire of K351, Abode A005, topped our Sale at \$20,000 to Forres Stud. As an aged sire we repurchased him at their Dispersal for \$22,000. K351 is a long, smooth shouldered bull. He is clean skinned and athletic in his movement.

Actual Scr	otal: <b>4</b>	2 cm	Age: 1	23 month	is I	Purchase	r <b>:</b>			<b>\$</b>	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+6.0	+19	+51	+97	+137	+2.5	+70	+0.7	+0.2	+1.0
0	Acc	74%	60%	69%	69%	71%	69%	61%	59%	60%	55%
			Traits Obse	wed RWT 20	0WT(x2) 400	WT 600WT S	S FAT FMA	IME			

Traits Observed:BWT,200WT(x2),400WT,600WT,SS,FAT,EMA,IM

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BANQUET DAY DREAM D053 (AI) (ET) VONF485 BANQUET FORBIDABULL F485 (AI)(ET) BANQUET DREAM W173 (AI) (ET) BANQUET POWERLINE Y148 (AI) (ET) VOND465 BANQUET YENDI D465 (AI) BANQUET YENDI X189

Actual Scr	otal: <b>4</b>	2 cm	Age:	23 month	s I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+7.8	+7	+49	+87	+120	+2.4	+59	+6.4	-2.7	+0.7
2 tilbus	Acc	73%	49%	67%	64%	63%	55%	54%	49%	50%	45%
		1	Traits Observ	ed:CE.BWT.2	200WT(x2).40	00WT.600WT	SS.FAT.EM	1.IMF			

#### **BANQUET KIRK K383**

COONAMBLE Z3 (AI) (ET) VONF683 BANOUET FREDERICK F683 (AI)(ET) VERMONT DREAM B272 (AI) (ET) HINGAIA 469 (AI)

VONG489 BANQUET DREAM G489 (AI) (ET) VERMONT DREAM Y301 (AI) (ET)

Actual Scrotal: 38 cm			Age: 2	2: 23 months Purchaser:				\$			
August 2016 Angus Australia BREEDPLAN											
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+4.8	+12	+41	+85	+113	+1.0	+56	+3.2	-0.4	+1.7
0.00	Acc	73%	51%	68%	68%	65%	71%	57%	57%	58%	51%

Traits Observed: CE.BWT.200WT(x2).400WT.SS.FAT.EMA.IMF



#### Lot 5 13

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Ident: VONK354 Tattoo: SNB K354 (T&F) Born: 02/10/2014 AMFU NHFU CAFU DDFU For breeders who appreciate what a larger frame, deep

bodied, soft coated bull can bring to their program, K354 brings all these attributes in a very sound package. If his calves grow too quickly, sell them younger! His pedigree screams weight and muscle. His sire, Forbidabull F485, was the standout performance calf in his crop and topped our sale at \$26,000 to Onslow Angus. His calves have done the same at Onslow, Gilmandyke and Banquet. One topped our sale at \$40,000.

HBR

#### Ident: VONK383 Tattoo: SNB K383 (T&F) Born: 06/10/2014 AMFU NHFU CAFU DDFU

One of the most exciting pedigrees in this sale. K383 is by our, F683, who has bred brilliantly. His dam is an outstanding donor. She is sired by the great old Hingaia 469 and from the legend from Vermont, Dream Y301. In fact the pedigree of K383 traces twice to Y301. A half brother to K383 has been retained at Banquet.

#### **BANQUET KANISHKA K402** 8

HBR

#### Ident: VONK402 Tattoo: SNB K402 (T&F) Born: 08/10/2014 AMFU NHFU CAFU DDFU

COONAMBLE Z3 (AI) (ET) VONF683 BANQUET FREDERICK F683 (AI) (ET) VERMONT DREAM B272 (AI) (ET)

**BANQUET EVERARD E019 (AI)** VONG397 BANOUET OUEST G397 BANQUET QUEST E425 (AI)

Another of these F683 sons. Strong head with a wide muzzle. Soft skinned with a strong spine. His dam is one of our first E019 daughters in production. These E019 daughters are soft and deep with excellent udder structure and teat size.

Actual Scr	Actual Scrotal: 40 cm			Age: 23 months			r <b>:</b>		\$		
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%
Angus	EBV	+5.4	+12	+44	+82	+111	+2.3	+62	+5.4	-1.1	+1.2
2	Acc	72%	47%	67%	68%	68%	69%	55%	53%	55%	45%
Traits Observed CE BWT 200WT(x2) 400WT SS EAT EM 4 IME											

Iraits Observed:CE,BWT,200WT(x2),400WT,600WT,SS,FAT,EMA,IMI



#### Banquet Wivem D305 – Dam of Lots 9,10 & 11

#### **BANQUET KIRKWOOD K404 (AI) (ET)** 9 HBR

Ident: VONK404 Tattoo: SNB K404 (T&F) Born: 09/10/2014 AMFU NHFU CAFU DDFU

S A F 598 BANDO 5175 **VONA005 BANQUET ABODE A005 (AI) BANQUET NANNY V44** 

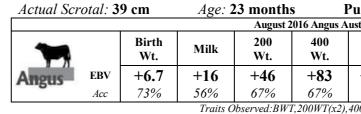
**BANOUET ABERDEEN A349 VOND305 BANQUET WIVEM D305** BANQUET WIVEM Z009 (AI)

The first of three flush brothers. They are sired by Abode A005, see Lot 5, and from the top donor, D305, who was purchased at our "Belles of Banquet" Sale by Fernleigh Stud. K404 is very stylish. He is well balanced and has a great outlook with a tremendous hip to pin. Flush brother to Lots 10 and 11.

Actual Scrotal: 40 cm			Age:	23 month	ths Purchaser:					\$		
August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+7.6	+15	+50	+88	+121	+2.4	+62	+2.6	-1.1	+0.7	
	Acc	72%	56%	67%	65%	65%	56%	56%	49%	50%	46%	
Traits Observed RWT 200WT(x2) 400WT SS FAT FMA IMF												

**BANQUET KIRK K403 (AI) (ET)** 10

S A F 598 BANDO 5175 Vona005 Banquet Abode A005 (AI) Banquet Nanny V44	A le
BANQUET ABERDEEN A349	tr
VOND305 BANQUET WIVEM D305 BANQUET WIVEM Z009 (AI)	ge



#### **BANQUET KAMPMAN K374 (AI) (ET)**

S A F 598 BANDO 5175	Tl
VONA005 BANQUET ABODE A005 (AI)	m
BANQUET NANNY V44	br
BANQUET ABERDEEN A349	an
VOND305 BANQUET WIVEM D305	in
BANQUET WIVEM Z009 (AI)	ev

Actual Scr	Actual Scrotal: 42 cm			Age: 23 months			r <b>:</b>			<b>\$</b>			
August 2016 Angus Australia BREEDPLAN													
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%		
Angus	EBV	+7.1	+15	+50	+88	+120	+2.4	+62	+2.7	-1.1	+0.7		
, mous	Acc	72%	56%	67%	64%	64%	56%	56%	49%	50%	46%		
	Traits Observed:BWT,200WT(x2),400WT,600WT,SS,FAT,EMA,IMF												

#### **BANQUET KILLARNEY K319 (AI)** 12

BANQUET DAY DREAM D053 (AI) (ET) **VONF485 BANQUET FORBIDABULL F485 (AI)(ET)** BANQUET DREAM W173 (AI) (ET)

BANQUET BUNDY B002 (AI) (ET) **VOND287 BANQUET ECLYPTA D287** BANQUET ECLYPTA W243 (AI) (ET)

Actual Scrotal: 39 cm			Age: 24 months Purchaser:					····· \$ ·····			
August 2016 Angus Australia BREEDPLAN											
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+5.4	+8	+40	+76	+105	+2.2	+51	+3.8	-2.1	+1.2
845	Асс	73%	51%	69%	69%	71%	72%	58%	58%	60%	51%

Traits Observed GL CF RWT 200WT(x2) 400WT 600WT SS FAT FMA IME

HBR

HBR

HBR

#### Ident: VONK403 Tattoo: SNB K403 (T&F) Born: 08/10/2014 AMFU NHFU CAFU DDFU

A flush brother to Lots 9 and 11. Abode A005 adds extra ength of body to his sons, K403 is no exception. This rio will have a positive influence on your herd for enerations.

ırchaseı	•		\$							
tralia BREEDPLAN										
600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%					
+113	+2.3	+57	+2.9	-0.7	+0.8					
66%	66%	57%	54%	55%	49%					
00WT.SS.FA	AT.EMA.IMF									



Ident: VONK374 Tattoo: SNB K374 (T&F) Born: 04/10/2014 AMFU NHFU CAFU DDFU

This soft skinned, strong loined young bull has excellent nuscle expression in his hindquarter. K374 is a flush rother to Lots 9 and 10. Purchase all three and be mazed at how your steers and heifers become ncreasingly uniform. Bigger lines of sale steers and more ven replacement females.



Ident: VONK319 Tattoo: SNB K319 (T&F) Born: 22/09/2014 AMFU NHFU CAFU DDFU

K319 is a rugged, muscular young bull. He is heavy boned and strong headed the attributes we expect from a Forbidabull son.

#### **BANQUET KIRWAN K375 (AI) (ET)**

Ident: VONK375 Tattoo: SNB K375 (T&F) Born: 04/10/2014 AMFU NHFU CAFU DDFU

#### WITTALOCKA X10 (AI) VOND412 BANQUET DUNCAN D412 (AI) **BANQUET DREAM A250**

#### K C F BENNETT TOTAL VONC236 BANQUET IRENE C236 (AI) (TW) BANQUET IRENE A266 (TW)

K375 is a young bull with great promise. He is an ET son of our best Bennett Total daughter and sired by the great Duncan D412. Sons and daughters of D412 and their progeny are featuring at Banquet. K375 has the typical stretch and width of the D412 progeny.

HBR

HBR

HBR

Actual Scrotal: <b>39 cm</b>			Age: 2	23 months	s l	Purchaser:				\$		
August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+7.0	+11	+46	+86	+119	+3.0	+63	+2.7	+0.4	+1.1	
1 11.9110	Acc	72%	54%	65%	63%	62%	56%	54%	49%	50%	44%	
Traits Observed: BWT, 200WT(x2), 400WT, 600WT, SS.FAT, EMA, IMF												

#### **BANQUET KOREA K396**

Ident: VONK396 Tattoo: SNB K396 (T&F) Born: 06/10/2014 AMFU NHFU CAFU DDFU

#### BANQUET DAY DREAM D053 (AI) (ET) **VONH411 BANQUET HUDSON H411** FORRES WILCOOLA D107

S CHISUM 6175 VONH492 BANOUET OUIET H492 (AI) (ET) BANQUET QUIET A172 (AI)

K396 has a pedigree fully loaded with power. He is a first calf from a 2 year old and proves there is no need to sacrifice performance. He is long bodied with tremendous volume. His dam is one of our excellent Chisum daughters. Noeleen inspected Chisum in the USA and he has been an excellent fit for our program.

Actual Scrotal: 42 cm			Age: 23 months			Purchaser:				\$		
August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+6.7	+14	+50	+90	+121	+3.6	+66	+3.3	-0.1	+0.5	
	Acc	68%	44%	61%	58%	59%	50%	49%	42%	43%	38%	
Traits Observed: CE,BWT,200WT(x2),400WT,600WT,SS,FAT,EMA,IMF												

#### **BANQUET KOJO K406** 15

Ident: VONK406 Tattoo: SNB K406 (T&F) Born: 10/10/2014 AMFU NHFU CAFU DDFU

COONAMBLE Z3 (AI) (ET) VONF683 BANQUET FREDERICK F683 (AI)(ET) VERMONT DREAM B272 (AI) (ET)

**BANQUET COBEE C084** 

**BANQUET QUEST D297** 

VONG503 BANQUET QUEST G503

K406 combines two very long bodied, fine skinned sires in F683 & C084. K406 has excellent neck extension, is refined through the shoulder and has extra length. His full brother sold for \$6000 in 2015.

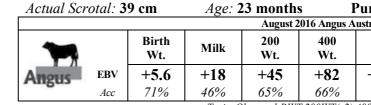
Actual Scr	Actual Scrotal: 38 cm			23 months Purchaser:					\$			
August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+6.7	+13	+47	+88	+116	+2.3	+64	+3.6	-0.6	+1.1	
	Acc	71%	48%	66%	66%	63%	69%	54%	53%	55%	45%	
Traits Observed CF RWT 200WT(x2) 400WT SS FAT FM4 IMF												

**BANQUET KENO K407** 16

WK REPLAY HBUF275 ANVIL FUSION F275 (AI) (ET) TE MANIA Y147 (AI)

BANQUET DECODER D642 (AI) **VONF491 BANQUET VICKY F491** 

BANQUET VICKY D550



Traits Observed: BWT, 200WT(x2), 400WT, SS, FAT, EMA, IMF



#### Aberdeen Estate Homer H70 – Sire of Lots 17,18 & 19

#### **BANQUET LANCELOT L087**

Ident: VONL087 Tattoo: SNB L087 (T&F) Born: 04/05/2015 AMFU NHFU CAFU DDFU

TE MANIA EMPEROR E343 (AI) AHWH70 ABERDEEN ESTATE HOMER H70 (AI) ABERDEEN ESTATE DREAM F21 (AI)(ET)	
BANQUET ADDICT A178 VONC290 BANQUET YENDI C290	

BANQUET YENDI A256 (AI) (ET)

Actual Scr	otal: 3	3 cm	Age: 16 months			Purchaser:				\$		
				August 2	2016 Angus A	ustralia BRE	EDPLAN					
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+5.0	+16	+46	+89	+115	+1.7	+61	+1.7	-1.0	+1.3	
0	Acc	61%	46%	60%	64%	60%	43%	52%	41%	44%	40%	

Traits Observed: CE, 400WT

#### Ident: VONK407 Tattoo: SNB K407 (T&F) Born: 10/10/2014 AMFU NHFU CAFU DDFU

K407 is exceptionally long. To compliment this length, K407 has a vey muscular hindquarter and strong loin. Length x muscularity = Weight!

rchase	r <b>:</b>			\$	
tralia BRE	EDPLAN				
600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
+109	+2.8	+57	+5.7	-1.2	+1.0
62%	69%	54%	52%	54%	44%
OWT SS E	AT EMA IME	,			

HBR

An outstanding bull to start this run of yearlings. L087 has an excellent head, is very deep and thick and with a soft coat. His sire, Homer H70 is long, soft coated and sires easy calving progeny. H70 has an exceptional pedigree. His sire, Emperor E343, was sold for \$91,000 an Aust record. His dam, Dream F21, is the current auction record price cow at \$48,000.

#### **BANQUET LAGGAN L127** 18

Ident: VONL127 Tattoo: SNB L127 (T&F) Born: 14/06/2015 AMFU NHFU CAFU DDFU

TE MANIA EMPEROR E343 (AI)

AHWH70 ABERDEEN ESTATE HOMER H70 (AI) ABERDEEN ESTATE DREAM F21 (AI)(ET)

BANQUET CALVERT C099 (AI) **VONF330 BANQUET DREAM F330** BANQUET DREAM B124 (AI)

L127 has tremendous length and very thick. He is strong headed and will grow! L127 has the pedigree, EBVs and shape to be a calving sire, without sacrificing performance. See Lot 17 for notes on his sire, Homer H70

Actual Scr	otal: 3	5 cm	Age:	15 month	s I	Purchaser:				\$		
				August 2	016 Angus A	ustralia BRE	EDPLAN					
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+4.2	+14	+43	+83	+110	+2.1	+54	+2.3	+0.1	+1.8	
Bers	Acc	71%	42%	62%	63%	60%	44%	51%	39%	41%	37%	
				Traits Obse	rved:CE,BW	T,200WT,400	WT					

#### **BANQUET LANDON L045** 19

Ident: VONL045 Tattoo: SNB L045 (T&F) Born: 02/04/2015 AMFU NHFU CAFU DDFU

HBR

HBR

HBR

TE MANIA EMPEROR E343 (AI) AHWH70 ABERDEEN ESTATE HOMER H70 (AI) ABERDEEN ESTATE DREAM F21 (AI)(ET)

SPRINGDALE HERCO 600 (ET) VOND401 BANQUET DREAM D401 (AI) BANQUET DREAM A246

L045 will grow into a big volume sire. He has a strong top and soft skin. His dam has produced two sons selling at \$5000 each. L045 is the last of the trio of calving ease Homer H70 sons. See Lot 17 for notes on Homer.

Actual Scr	otal: 3	8 cm	Age: 1	Age: 17 months			Purchaser:				
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+4.4	+15	+42	+82	+102	+1.5	+53	+3.4	-1.5	+1.8
, mous	Acc	71%	48%	64%	66%	62%	47%	54%	44%	46%	43%
				Traits	Observed:B	WT.400WT					

#### **BANQUET LINDEN L121** 20

#### GARRISON 8128 DYNAMITE VONG442 BANQUET GENERAL G442 (AI)(ET) **BANQUET YENDI P05**

BANQUET BALLIS B017 (AI) VONG563 BANQUET CHAMPAGNE G563 BANQUET CHAMPAGNE C154 (AI) (ET)

Ident: VONL121 Tattoo: SNB L121 (T&F) Born: 30/05/2015 AMFU NHFU CAFU DDFU

This stylish, correct young bull with an excellent shoulder is the first son of G442 to be offered. G442 is a moderate framed tough sire. His pedigree is old with incredible longevity. He is exceptionally fine skinned with a shiny coat. The dam of L121, G563, has a rich heritage. Her full brother topped our 2011 sale at \$32,000 to Toora West. C154, granddam of L121, topped our "Belles of Banquet" Female sale at \$30,000.

Actual Scr	otal: 3	5 cm	Age:	16 month	is I	Purchase	r <b>:</b>		····· \$ ·····			
				August 2	016 Angus A	ustralia BRE	EDPLAN					
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+3.3	+14	+31	+59	+79	+1.8	+38	+4.0	-0.5	+0.4	
, mbra	Acc	70%	48%	65%	64%	61%	51%	53%	43%	44%	39%	
				Traits Obse	rved:CE,BW	T,200WT,400	WT					



#### Prime Juggernaut J15 - Sire of Lots 21 & 22

21													
Iden	t: VON	L034	Tattoo: SN	B L034 (	T&F)	Born: 26/	03/2015	AMFU N	NHFU C	AFU DD	FU		
TUWHARETOA REGENT D145 (AI) (ET)CXBJ15 PRIME JUGGERNAUT J15 (AI) PRIME LOWAN F20 (AI)BANQUET BUZZ V011 (AI) VONX173 BANQUET WIVEM X173 (AI) BANQUET WIVEM T141 (AI) (ET)L034 is strong headed, muscular and should prove to b an excellent calving ease sire. His pedigree is a mix o new and old. This is the first drop of Juggernaut sons. H has growth with exceptional carcase quality traits. Th old X173 is the dam of L034. At 14.5 years she is rearin her twelth calf. Her sons have sold to \$12,500 ar averaged \$7750.Actual Scrotal: 32 cmAge: 18 monthsPurchaser:\$											a mix of sons. He raits. The is rearing		
Actual Sc	rotal: 3	2 cm	Age:							\$	·····		
-		Birth Wt.	Milk	200 Wt.	400 400 Wt.	Australia BRE 600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%		
Angus	EBV	+3.4	+20	+36	+67	+90	+0.9	+51	+7.0	-1.7	+1.6		
	Acc	74%	52%	68% Traits Obse	65%	64% 200WT(x2) 400	55% wt	56%	48%	49%	45%		
22	22 BANQUET LYNTON L042 (AI) HBR												
Ident: VONL042 Tattoo: SNB L042 (T&F) Born: 01/04/2015 AMFU NHFU CAFU DDF										FU			
Т	TUWHARETOA REGENT D145 (AI) (ET) This Juggernaut son shows excellent muscularity. He												

TO WHARETOA REDENT DI45 (AI) (ET)	1
CXBJ15 PRIME JUGGERNAUT J15 (AI) PRIME LOWAN F20 (AI)	sl
FRIME LOWAIN F20 (AI)	n
DYLEMMA RADAR W42 (AI) (ET)	e
VONC296 BANQUET LOWAN C296 (AI)	L
GV LOWAN (AI) (ET)	to

Actual Scr	Actual Scrotal: 35 cm				Age: 17 months P			Purchaser:			
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+4.3	+18	+41	+80	+104	+0.5	+55	+4.9	-1.6	+1.7
	Acc	73%	49%	67%	68%	64%	54%	56%	46%	48%	45%

Traits Observed: GL, BWT, 400WT

uggernaut son shows excellent muscularity. He should grow into a big, long sire with volume and muscle. His dam is by Radar W42 who combines exceptional calving ease and muscling. C296, dam of L042, is a very good breeder. Her sons have already sold to \$11,000.

#### **BANQUET KAMEDA K369 (AI)** 23

Ident: VONK369 Tattoo: SNB K369 (T&F) Born: 03/10/2014 AMFU NHFU CAFU DDFU

BANQUET ARROGANCE V100 (AI) VONZ137 BANQUET ZENITH Z137 (AI)(ET) GV QUIET Q15 (AI) (ET)

#### BANQUET CALVERT C099 (AI) **VONF323 BANQUET ESTER F323** BANQUET ESTER Y097 (AI)

The first son of Zenith Z137 in the sale. Z137 was reintroduced into our sire team on the performance of his 3 flush sisters. At 10 years of age they are long, fine fronted and clean coated. They are very sound, have good udders and breeding well. All traits we rate highly. This Zenith son shows the potential to breed daughters with these traits. He is deep and thick with extra capacity. A maternal type.

Actual Scr	Actual Scrotal: 38 cm			Age: 23 months			r <b>:</b>		\$			
				August 2	016 Angus A	ustralia BRE	EDPLAN					
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%	
Angus	EBV	+6.0	+11	+40	+76	+96	+1.8	+49	+3.4	-0.5	+0.1	
	Acc	70%	50%	63%	60%	59%	47%	51%	41%	43%	39%	
			Tr	aits Observea	l:GL,CE,BW	T,200WT(x2),	600WT					

**BANQUET KIRKSTALL K376** 24

HBR

HBR

Ident: VONK376 Tattoo: SNB K376 (T&F) Born: 04/10/2014 AMFU NHFU CAFU DDFU

#### BANQUET BALLIS B017 (AI) **VONF710 BANOUET FORTUNE F710 BANQUET DREAM C074**

BANQUET CALVERT C099 (AI) **VONF289 BANQUET KITE F289** BANQUET KITE C205 (AI)

The Fortune sons in this Sale show power. K376 is typical. He has a strong head and deep body wrapped in a silky skin.

Actual Scr	Actual Scrotal: 37 cm Ag				is I	Purchaser:				\$			
				August 2	016 Angus A	ustralia BRF	EDPLAN						
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%		
Angus	EBV	+5.4	+9	+36	+64	+80	+0.7	+40	+3.6	+0.4	+0.4		
	Acc	73%	47%	68%	69%	70%	71%	57%	56%	57%	46%		
	Traits Observed (CF RWT 200WT(x2) 400WT K00WT SS F4T FMA IMF												

#### **BANQUET KENYA K286 (AI)** 25

HBR

Ident: VONK286 Tattoo: SNB K286 (T&F) Born: 19/09/2014 AMFU NHFU CAFU DDF

#### BANQUET ARROGANCE V100 (AI) VONZ137 BANQUET ZENITH Z137 (AI)(ET) GV QUIET Q15 (AI) (ET)

VONE232 BANQUET ECLYPTA E232 (AI)

BANQUET ECLYPTA C220

DUNOON MIDLAND A017 (AI) (ET)

reintroduced him in our sire battery when his sisters were still in the herd, sound in the feet and udder at 10 years of age. Zenith was a large framed bull but it is the volume, width, bone and muscularity of his progeny that has been so pleasing. We have retained a son.

Zenith Z137 was purchased by Anvil Angus in 2016. We

Actual Scr	otal: 3	7 cm	Age: 24 months			Purchase	r:		\$			
				August 2	016 Angus A	ustralia BRF	EDPLAN					
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+4.9	+10	+36	+66	+81	+1.5	+44	+3.2	-0.3	+0.5	
1 11.91.5	Acc	71%	51%	63%	59%	59%	47%	51%	43%	45%	42%	
	Traits Observed: GL, CE, BWT, 200WT(x2), 400WT, 600WT, SS, FAT, EMA, IMF											

#### **BANQUET KOSCH K229** 26

Ident: VONK229 Tattoo: SNB K229 (T&F) Born: 10/09/2014 AMFU NHFU CAFU DDFU

COONAMBLE Z3 (AI) (ET) **VONF683 BANQUET FREDERICK F683 (AI)(ET)** VERMONT DREAM B272 (AI) (ET)

#### BANQUET COVERT C163 (AI) VONG414 BANQUET WIVEM G414 (AI) BANQUET WIVEM W190 (AI) (ET)

Actual Scr	otal: 3	7 cm	Age:	24 month	is I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+4.6	+9	+40	+68	+94	+1.2	+53	+6.3	-2.1	+0.8
	Acc	72%	47%	66%	65%	62%	66%	54%	51%	53%	44%
		1	Traits Observ	od · CF RWT	200WT(x2) 40	00WT 600WT	SS FAT FM	4 IME			

#### **BANQUET KENILWORTH K388 (AI)** 27

BANQUET OVER LIMIT Y035 (AI) (ET) VONA349 BANQUET ABERDEEN A349 BANQUET VICKY X109	A so d a
BANQUET DUNCAN D412 (AI)	re
VONG303 BANQUET KITE G303	0
BANQUET KITE C019	C
	al

Actual Scr	otal: 3	9 cm	Age:	23 month	is I	Purchaser:					\$		
	August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%		
Angus	EBV	+6.6	+9	+40	+75	+96	+1.4	+50	+4.5	-1.3	+1.0		
	Acc	72%	54%	66%	67%	65%	65%	56%	53%	55%	46%		

Traits Observed GL CE BWT 200WT(\*2) 400WT 600WT SS EAT EMA IME



#### Banquet Aberdeen A349 - Sire of Lot 27

Another attractive son of F683. The strength through the loin of K229 matches his EMA EBV. He is strong spined and has a soft skin and clean coated.

#### HBR

#### Ident: VONK388 Tattoo: SNB K388 (T&F) Born: 06/10/2014 AMFU NHFU CAFU DDFU

Aberdeen A349 was used at Banquet before being selected in our 2008 sale by Quarterway Angus. His daughters proved to be outstanding females. Theyre deep and thick with exceptional udders and skin type. We reintroduced A349 as an AI sire in 2013. The granddam of K388, C019, was purchased by Pheasant Creek Stud in central Queensland. Her do ability and her hair type is allowing her to flourish in that environment.

#### **BANQUET KIDMAN K476** 28

COONAMBLE Z3 (AI) (ET) **VONF683 BANQUET FREDERICK F683 (AI)(ET)** VERMONT DREAM B272 (AI) (ET)

**BANQUET WALTANNA W125 VONB163 BANQUET ESTER B163 (AI)** BANQUET ESTER Y097 (AI)

Ident: VONK476 Tattoo: SNB K476 (T&F) Born: 11/11/2014 AMFU NHFU CAFU DDFU

HBR

HBR

K476 is long bodied, has a fine shoulder for calving ease and is soft coated. K476 has a strong maternal background. His dam, B163, has produced 9 calves in 9 years and two sons have sold for \$5000. She has 3 daughters retained. Granddam of K476, Y097, produced 14 calves in 11 years, with five daughters retained. This record along with her exceptional soundness and do ability elevated Y097 into our donor program in 2016. You cant have too many daughters of exceptional females.

Actual Scrotal: 39 cm			Age: 22 months P			Purchaser:				\$		
August 2016 Angus Australia BREEDPLAN												
	Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%		
BV	+6.0	+12	+44	+88	+113	+1.7	+63	+3.1	-0.7	+1.5		
Acc	72%	52%	66%	66%	64%	65%	55%	52%	54%	47%		
		Wt. BV +6.0	Wt.         Milk           BV         +6.0         +12           acc         72%         52%	Birth Wt.         Milk         200 Wt.           BV         +6.0         +12         +44           cc         72%         52%         66%	Birth Wt.         Milk         200 Wt.         400 Wt.           BV         +6.0         +12         +44         +88           cc         72%         52%         66%         66%	Birth Wt.         Milk         200 Wt.         400 Wt.         600 Wt.           BV         +6.0         +12         +44         +88         +113           cc         72%         52%         66%         66%         64%	Birth Wt.         Milk         200 Wt.         400 Wt.         600 Wt.         Scrotal Size           BV         +6.0         +12         +44         +88         +113         +1.7           cc         72%         52%         66%         66%         64%         65%	Birth Wt.         Milk         200 Wt.         400 Wt.         600 Wt.         Scrotal Size         Carcase Wt.           BV         +6.0         +12         +44         +88         +113         +1.7         +63	Birth Wt.         Milk         200 Wt.         400 Wt.         600 Wt.         Scrotal Size         Carcase Wt.         EMA           BV         +6.0         +12         +44         +88         +113         +1.7         +63         +3.1           cc         72%         52%         66%         66%         64%         65%         55%         52%	Birth Wt.         Milk         200 Wt.         400 Wt.         600 Wt.         Scrotal Size         Carcase Wt.         EMA         Rump Fat           BV         +6.0         +12         +44         +88         +113         +1.7         +63         +3.1         -0.7           cc         72%         52%         66%         66%         64%         65%         55%         52%         54%		

'E,BWT,200WT(x2),400WT,SS,FAT,EMA,IM

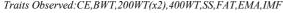
#### **BANQUET KEALY K259**

Ident: VONK259 Tattoo: SNB K259 (T&F) Born: 15/09/2014 AMFU NHFU CAFU DDFU

BANQUET XTRA BELIEF X030 (AI) VONG464 BANQUET GRADUATE G464 (AI)(ET) BANQUET JULIE W164 (AI) (ET)

BANOUET CAPACITY C167 (AI) **VONG206 BANQUET VICKY G206** BANQUET VICKY X162 (AI) (ET) Graduate G464 was lost to a freak accident. Fortunately through AI his influences at Banquet will continue. His first son was offered in February and was our second top price at \$20,000. K259 has the same volume and length.

Actual Scrotal: 43 cm			Age: 24 months			Purchaser:				\$		
August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%	
Angus	EBV	+6.4	+15	+40	+75	+102	+2.6	+50	+2.5	-0.5	+0.4	
	Acc	71%	46%	65%	65%	63%	68%	54%	50%	52%	42%	
			Traits Obs	served:CE,BV	VT,200WT(x2	2),400WT,SS,	FAT,EMA,IM	(F				

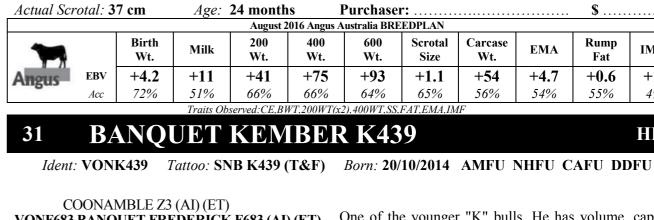




Banquet Graduate G464 – Sire of Lot 29

#### **BANQUET KEEGAN K256** 30

COONAMBLE Z3 (AI) (ET) VONF683 BANQUET FREDERICK F683 (AI)(ET) VERMONT DREAM B272 (AI) (ET)	
B C C BUSHWACKER 41-93 VONA130 BANQUET DREAM A130 (AI) BANQUET DREAM Y152 (AI) (ET)	



VONF683 BANQUET FREDERICK F683 (AI) (ET)	(
VERMONT DREAM B272 (AI) (ET)	a
BANQUET XPLANATION X060 (AI) (ET)	s
VONC164 BANQUET QUIET C164 (AI)	c
BANQUET QUIET A114 (AI)	i

Actual Scr	otal: 3	9 cm	Age: 2	23 months	s l	Purchaser:				\$				
	August 2016 Angus Australia BREEDPLAN													
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%			
Angus	EBV	+7.6	+7	+47	+85	+117	+2.3	+62	+6.0	-1.7	+1.1			
	Acc	72%	49%	65%	65%	62%	64%	54%	51%	53%	45%			
			Traits Ob	amod.CE DI	NT 200WT/~	) AOOWT SS	EAT EMA DA	(E						

Traits Observed: CE.BWT.200WT(x2).400WT.SS.FAT.EMA.IMI



#### Banquet Quiet C164 - Dam of Lot 31



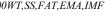
HBR

#### Ident: VONK256 Tattoo: SNB K256 (T&F) Born: 13/09/2014 AMFU NHFU CAFU DDFU

The dam of K256, A130, is one of the special old cows. At 11 years of age she has perfect feet is easy doing and a big milker. She has delivered her 11th natural calf. At last we have promoted her into the donor team. Soundness, fertility and productivity is what we value.

rchase	r <b>:</b>			\$	
ralia BRE	EDPLAN				
600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%
+93	+1.1	+54	+4.7	+0.6	+1.0
64%	65%	56%	54%	55%	49%
00WT.SS.	FAT,EMA,IM	1F			
K43	9				HBR

One of the younger "K" bulls. He has volume, capacity and great scrotal. His sire, F683, was our most dominant sire in our February Sale. His dam was a very admired donor in our "Belles of Banquet" Female Sale. And now is a donor at Heart Angus.



#### **BANQUET KURT K468** 32

HBR

HBR

Ident: VONK468 Tattoo: SNB K468 (T&F) Born: 06/11/2014 AMFU NHFU CAFU DDF

BANQUET DUNCAN D412 (AI) **VONG306 BANQUET GOLDING G306** BANQUET LASS C219

BANQUET BUNDY B002 (AI) (ET) VONF218 BANQUET OLIVIA F218 BANQUET OLIVIA B174 (AI)

K468 is thick, deep bodied and muscular, just like his sire. G306 was a standout for capacity and weight in our 2013 Autumn Sale and was purchased by Barry Pitt. This Autumn his sons featured as Lots 2 and 3. Lot 2, K031 was the heaviest bull in the Sale.

Actual Scrotal: 38 cm			Age: 22 months			Purchaser:				\$			
	August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%		
Angus	EBV	+8.3	+8	+50	+87	+119	+2.4	+62	+5.2	-1.8	+0.9		
	Acc	69%	43%	64%	64%	61%	68%	52%	52%	53%	43%		
	Traits Observed: CE.BWT.200WT(x2).400WT.SS.FAT.EMA.IMF												

#### **BANQUET KOBY K408** 33

Ident: VONK408 Tattoo: SNB K408 (T&F) Born: 11/10/2014 AMFU NHFU CAFU DDFU

BANQUET BALLIS B017 (AI) **VONF710 BANQUET FORTUNE F710 BANQUET DREAM C074** 

BANQUET CALVERT C099 (AI) VONF310 BANQUET DREAM F310 BANQUET DREAM D310

Appreciate the strength of loin in this young sire. It is expected when you combine F710,F310, D310 & V104. A powerful pedigree rich in muscularity. It is very pleasing when the EBVs match the phenotype and pedigree. K408 boasts a massive +7.3 for EMA.

Actual Scrotal: 37 cm			Age: 23 months			Purchase	r <b>:</b>	\$	\$			
August 2016 Angus Australia BREEDPLAN												
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%	
Angus	EBV	+5.3	+8	+38	+64	+89	+1.6	+44	+7.3	-0.5	+0.3	
	Acc	72%	47%	67%	67%	64%	70%	54%	55%	56%	45%	
	Traits Observed CF RWT 200WT(x2) 400WT SS FAT FMA IMF											

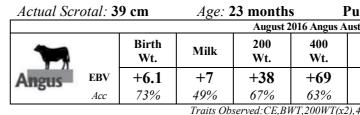


**Banquet Dream D310 – Grand Dam of Lot 33** 

#### **BANQUET KRUZ K416** 34

BANQUET BALLIS B017 (AI) **VONF710 BANQUET FORTUNE F710 BANQUET DREAM C074** 

#### **BANQUET ABERDEEN A349 VOND556 BANQUET DREAM D556** BANQUET DREAM Y400 (AI)



#### **BANQUET KALEB K459** HBR 35

BANQUET BALLIS B017 (AI)	
VONF710 BANQUET FORTUNE F710	A
BANQUET DREAM C074	b
	g
BANQUET ZAPPA Z236 (AI)	SI
VONF467 BANQUET DREAM F467 BANQUET DREAM C291 (AI) (ET)	S

Actual	Actual Scrotal: 37 cm A			Age: 22 months			r <b>:</b>		\$				
	August 2016 Angus Australia BREEDPLAN												
*		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%		
Angus	EBV	+5.6	+10	+41	+74	+98	+1.0	+51	+6.0	-1.3	+0.9		
1	Acc	72%	48%	65%	67%	64%	65%	54%	48%	49%	42%		
			Tugita Ob	comod.CE DI	WT 200WTA	(1) 100 WT CC	EATEMAIN	Œ					

Traits Observed: CE, BWT, 200WT(x2), 400WT, SS, FAT, EMA, IMP



Banquet Ballis B017 - Grand Sire of Lots 24, 33, 34, 35, 36 & 37

#### Ident: VONK416 Tattoo: SNB K416 (T&F) Born: 14/10/2014 AMFU NHFU CAFU DDFU

The sire of K416, F710, is one of our favourite sons of the prolific sire Ballis B017. F710 is long, smooth fronted and has massive volume.

urchase	r <b>:</b>			\$	
stralia BRE	EDPLAN		-		
600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
+88	+0.9	+45	+3.5	-0.7	+1.0
63%	53%	53%	46%	47%	40%
400WT,SS,	FAT,EMA,IM	lF			

#### Ident: VONK459 Tattoo: SNB K459 (T&F) Born: 02/11/2014 AMFU NHFU CAFU DDF

A full brother to K459 sold in 2015 for \$7000. Like his brother K459 is long bodied and smooth shouldered with great width in his hip to pin. F467 is double bred to the super dam Dream V104. We used four sons of V104. Her sons sold to \$30,000 and daughters to \$27,000.

#### **BANQUET KENDAL K457** 36

HBR

Ident: VONK457 Tattoo: SNB K457 (T&F) Born: 01/11/2014 AMFU NHFU CAFU DDFU

BANQUET BALLIS B017 (AI) **VONF710 BANQUET FORTUNE F710** BANQUET DREAM C074

BANQUET POWERLINE Y148 (AI) (ET) **VONE221 BANQUET WIVEM E221 (AI)** BANQUET WIVEM X168 (AI)

K457 has tremendous depth of body. This depth of flank and smoothness of the shoulder is typical of these young sons of F710. K457 is the only son of dam E221. Two daughters have been retained.

Actual Scr	otal: 3	8 cm	Age:	22 month	is I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%
Angus	EBV	+6.7	+12	+44	+83	+111	+2.4	+57	+3.1	-1.4	+0.9
	Acc	73%	48%	67%	68%	65%	69%	55%	54%	56%	46%
			Traits Oh	sorwod ·CF RI	VT 200WT(x)	2) 400WT SS	FAT FMA IM	ſF			

#### **BANQUET KEELAN K450** 37

HBR

HBR

Ident: VONK450 Tattoo: SNB K450 (T&F) Born: 25/10/2014 AMFU NHFU CAFU DDFU

BANQUET BALLIS B017 (AI) **VONF710 BANQUET FORTUNE F710 BANQUET DREAM C074** 

S A F MILLCREEK CHARISMA VONY200 BANQUET NANNY Y200 (AI) **BANQUET NANNY Q100** 

K450 is another younger "K" bull who may look better in the dark. But do not under estimate what this bull will bring to your herd with his genetic strength.

Actual Sc	rotal: <b>3</b>	6 cm	Age: 2	23 months	s I	Purchase	<b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+7.0	+8	+41	+74	+100	+1.3	+51	+2.7	-1.1	+0.5
	Acc	70%	52%	66%	66%	64%	65%	55%	53%	55%	46%
			Traits Obs	served:CE,BV	VT,200WT(x2	2),400WT,SS,	FAT,EMA,IM	(F			

#### **BANQUET KAI K436** 38

Ident: VONK436 Tattoo: SNB K436 (T&F) Born: 20/10/2014 AMFU NHFU CAFU DDFU

WK REPLAY HBUF275 ANVIL FUSION F275 (AI) (ET) TE MANIA Y147 (AI)

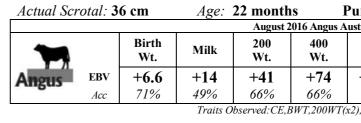
BANQUET CORTEZ C153 (AI) **VONF585 BANQUET DREAM F585** BANQUET DREAM D495 (AI)

When we look at an animal we see a combination of genetics and environment. With this young bull we don t see the best that he can be. When we look at his pedigree we see a whos who is individuals that have been dominant at Banquet. His sire, Fusion F275, sired our top seller in February. His dam combines that \$40,000 Radar W42, Matauri Stockman who sired our top price bull in 2010 and Dream Y105 a full sister to the \$50,000 Time Frame Y135. K436 is worth your consideration.

Actual Scr	otal: 3	9 cm	Age: 1	23 month	s I	Purchase	<b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+6.8	+15	+50	+97	+125	+3.3	+67	+6.2	-1.5	+1.0
	Acc	71%	49%	66%	66%	63%	69%	55%	53%	54%	45%
			Traits Obs	erved:CE,BV	VT,200WT(x2	?),400WT,SS,	FAT,EMA,IM	ſF			

#### **BANQUET KELBY K478** 39

WK REPLAY HBUF275 ANVIL FUSION F275 (AI) (ET) TE MANIA Y147 (AI)	Lil a l
BANQUET XTRA BELIEF X030 (AI) VONG262 BANQUET DREAM G262 (AI) BANQUET DREAM V193 (AI) (ET)	peo is a



#### **BANQUET KATAMATITE K394** 40

BANQUET DUNCAN D412 (AI)
VONG306 BANQUET GOLDING G306
BANQUET LASS C219
BANQUET CORTEZ C153 (AI)
VONF660 BANQUET QUIET F660
BANQUET QUIET Z146 (AI) (ET)

Actual Scr	otal: 4	0 cm	Age: 2	23 months	s I	Purchase	r <b>:</b>			\$	
				August 2	016 Angus A	ustralia BRE	EDPLAN				
		Birth Wt.	Milk	200 Wt.	400 Wt.	600 Wt.	Scrotal Size	Carcase Wt.	EMA	Rump Fat	IMF%
Angus	EBV	+6.4	+10	+44	+83	+110	+3.4	+54	+4.1	-0.5	+0.4
	Acc	71%	45%	65%	65%	62%	68%	53%	51%	53%	42%

Traits Observed: CE, BWT, 200WT(x2), 400WT, SS, FAT, EMA, IMF

#### We thank all Purchasers, **Bidders & Visitors** for their support.

#### Please join us for refreshments after the sale.

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#### HBR

#### Ident: VONK478 Tattoo: SNB K478 (T&F) Born: 12/11/2014 AMFU NHFU CAFU DDFU

ike K436, K478 would have as much chance of winning Bachelorette show as I have. But we both have great edigrees and excellent siblings. His grandmother, V193, an outstanding daughter of the legend Hingaia 469.

irchase	r <b>:</b>			\$	
stralia BRE	EDPLAN				-
600 Wt.	Scrotal Size	Carcase Wt.	ЕМА	Rump Fat	IMF%
+101	+2.7	+46	+2.7	+0.5	+1.1
63%	53%	55%	55%	56%	48%
),400WT,F.	AT,EMA,IMF	,			

HBR

Ident: VONK394 Tattoo: SNB K394 (T&F) Born: 06/10/2014 AMFU NHFU CAFU DDFU

K394 is the first son from F660. We chose G306 for her joining to add extra muscularity and thickness. K394 combines this power with the softness of F660.





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I, the buyer of animals with the following registration numbers
from
member (name) do <u>not</u> consent to Angus Australia
using my name, address and phone number for the purposes of effecting a change of registration of
the following animal(s) that I have purchased, maintaining its databases and disclosing that
information to its members on its website.

Signature: .....

Date: .....

Please forward this completed consent form to Angus Australia, Glen Innes Road, Locked Bag 11, Armidale NSW 2350. If you have any queries, please telephone 02 6772 3011 or e-mail office@angusaustralia.com.au.

scrotar Days to Cart. EMA Size Calving Wt EMA +0.5 -2.0 +52 +4.1	rt Milk +9 +13 +13 +13 +13 +15 +15 +12 +12 +12	×	400 cay Wt +70 +74 +74 +97 +97 +97 +87 +82 +82 +82 +88 +88 +88 +88 +76 +76 +90 +90	ZUD Lay         AUD Lay         AUD Lay           Wf         Wf         Wf           +42         +70         +37           +51         +97         +97           +51         +97         +86           +51         +97         +87           +51         +97         +87           +44         +86         +87           +44         +88         +87           +44         +88         +87           +46         +88         +82           +50         +88         +92           +50         +88         +46           +50         +88         +56           +46         +86         +96           +47         +88         +46           +46         +86         +46           +46         +86         +86           +46         +86         +86	Mtt         Mtt         Mtt         Mtt           +5.0         +42         +76           +5.0         +42         +76           +7.5         +44         +86           +7.0         +51         +97           +7.0         +51         +97           +7.0         +51         +97           +7.0         +51         +97           +7.0         +51         +97           +7.8         +49         +87           +7.8         +41         +85           +5.4         +41         +85           +5.4         +44         +82           +5.4         +44         +82           +5.4         +44         +82           +5.4         +44         +82           +7.1         +50         +88           +5.4         +40         +76           +5.4         +40         +76           +6.7         +47         +88           +5.0         +46         +82           +5.0         +46         +82           +5.0         +45         +82           +5.0         +46         +83           +5.0	Length         Wrt         Automay         Automay           -3.1         +5.0         +42         +70           -3.1         +5.0         +42         +70           -3.1         +5.6         +37         +74           -3.1         +5.6         +5.1         +97           -3.1         +5.6         +5.1         +97           -3.1         +5.6         +5.1         +97           -5.2         +7.8         +49         *87           -4.2         +5.4         +44         +85           -4.0         +5.4         +44         +82           -2.7         +5.4         +44         +82           -2.5         +7.6         +50         +88           -2.1         +5.4         +44         +82           -2.3         +7.1         +50         +88           -2.4         +6.7         +46         +86           -3.1         +5.4         +40         +76           -4.3         +6.7         +40         +76           -4.3         +6.7         +40         +88           -0.4         +5.6         +46         +89           -4.6	Fase International Ditrase         Concary Length Contant         Concary With Contant         Concary With With With With With With With With
+52		+9     +0.5       +13     +1.3       +15     +1.8       +15     +2.5       +19     +2.5       +12     +2.4       +12     +2.4       +12     +2.4       +12     +2.3       +15     +2.3       +15     +2.3       +15     +2.3	+97         +100         +9         +0.5           +89         +84         +13         +13           +114         +115         +15         +13           +132         +122         +15         +13           +132         +122         +15         +47           +132         +122         +19         +25           +137         +128         +19         +25           +131         +126         +12         +24           +111         +112         +12         +24           +111         +112         +12         +24           +111         +112         +12         +24           +111         +112         +116         +23           +111         +112         +116         +24           +113         +108         +16         +24           +113         +116         +15         +24           +112         +116         +15         +24           +116         +116         +16         +24           +116         +116         +16         +24           +116         +116         +16         +24           +116         +116 <th>+42         +70         +97         +100         +9         +0.5           +37         +74         +89         +84         +13         +13           +44         +86         +114         +115         +15         +13           +51         +97         +132         +122         +15         +47           +51         +97         +132         +122         +19         +2.5           +41         +87         +132         +122         +19         +2.5           +41         +87         +137         +128         +19         +2.5           +44         +88         +111         +112         +12         +2.4           +40         +88         +121         +118         +12         +2.4           +40         +88         +121         +118         +12         +2.4           +40 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		+13     +1.3       +15     +1.8       +15     +4.7       +19     +2.5       +19     +2.4       +1     +2.4       +1     +2.4       +1     +2.4       +1     +2.4       +1     +2.4       +1     +2.4       +1     +2.4       +1     +2.4       +1     +2.3       +1     +2.3       +15     +2.4       +15     +2.4	+89         +84         +13         +13         +13           +114         +115         +15         +18         +13           +132         +122         +15         +4.7         +4.7           +137         +128         +19         +2.5         +4.7           +137         +128         +19         +2.5         +4.7           +137         +128         +19         +2.5         +4.6           +113         +109         +12         +2.4         +1.0           +111         +112         +112         +2.3         +2.4           +111         +112         +118         +1.2         +2.3           +113         +108         +1.5         +2.4         +2.4           +113         +118         +1.5         +2.4         +2.4           +113         +116         +1.5         +2.4         +2.4           +120         +116         +116         +2.4         +2.4           +1105         +116         +116         +2.4         +2.4           +1105         +116         +117         +117         +3.0           +110         +111         +111         +111         +3.0		+3.6 $+37$ $+74$ $+89$ $+84$ $+13$ $+13$ $+13$ $+13$ $+7.6$ $+14$ $+86$ $+114$ $+115$ $+15$ $+47$ $+7.0$ $+51$ $+97$ $+132$ $+122$ $+15$ $+47$ $+7.0$ $+51$ $+97$ $+137$ $+128$ $+19$ $+25$ $+7.6$ $+94$ $+87$ $+120$ $+125$ $+7$ $+2.4$ $+7.8$ $+41$ $+82$ $+111$ $+112$ $+12$ $+2.4$ $+5.4$ $+84$ $+120$ $+123$ $+120$ $+12$ $+2.4$ $+5.4$ $+82$ $+111$ $+112$ $+12$ $+2.3$ $+2.4$ $+5.4$ $+82$ $+113$ $+120$ $+12$ $+2.3$ $+2.4$ $+5.7$ $+4.6$ $+88$ $+120$ $+126$ $+2.3$ $+2.4$ $+7.1$ $+50$ $+105$ $+106$ $+106$ $+2.4$	-3.1 $+3.6$ $+3.7$ $+7.4$ $+89$ $+84$ $+1.3$ $+1.3$ $+1.5$ $+7.5$ $+44$ $+86$ $+114$ $+115$ $+1.5$ $+4.7$ $-2.7$ $+7.0$ $+51$ $+97$ $+137$ $+128$ $+19$ $+2.5$ $6.6$ $6.6$ $+51$ $+97$ $+137$ $+128$ $+19$ $+2.6$ $-5.2$ $+7.8$ $+44$ $+85$ $+113$ $+126$ $+7$ $+2.4$ $-4.2$ $+4.8$ $+41$ $+85$ $+111$ $+112$ $+12$ $+1.0$ $-4.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+12$ $+2.3$ $-4.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+12$ $+2.4$ $-2.5$ $+7.6$ $+46$ $+88$ $+121$ $+118$ $+12$ $+2.4$ $-2.7$ $+6.7$ $+46$ $+88$ $+121$ $+118$ $+15$ $+2.4$ $-2.8$ $+7.1$ $+50$ $+88$ $+121$ $+118$ $+12$ $+2.4$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+12$ $+2.4$ $-2.8$ $+7.0$ $+76$ $+88$ $+116$ $+118$ $+116$ $+2.6$ $-2.5$ $+6.7$ $+40$ $+86$ $+110$ $+118$ $+13$ $+2.3$ $-2.6$ $+4.2$ $+40$ $+86$ $+110$ $+118$ $+13$ $+2.4$ $-2.5$ $+6.7$ $+40$ $+86$ $+110$ $+118$ $+13$ $+2.4$ $-2.6$ <t< td=""><td></td></t<>	
8 +52 +3.9		+15     +1.8       +15     +1.8       +15     +4.7       +19     +2.5       +7     +2.4       +12     +1.0       +12     +1.0       +15     +2.4       +15     +2.4	+114       +115       +15       +1.8         +132       +122       +15       +4.7         +137       +128       +19       +2.5         +130       +125       +7       +2.4         +113       +109       +12       +1.0         +111       +112       +12       +2.3         +111       +112       +12       +2.3         +111       +112       +12       +2.3         +111       +112       +12       +2.3         +111       +112       +12       +2.3         +113       +118       +15       +2.4         +113       +118       +15       +2.4         +113       +118       +15       +2.4         +113       +118       +15       +2.4         +113       +116       +11       +3.0         +113       +116       +11       +3.0         +110       +113       +11       +3.0         +111       +115       +14       +3.6         +111       +115       +11       +3.0         +111       +118       +11       +3.0         +1116       +11       +11       <	+44         +86         +114         +115         +15         +18           +51         +97         +132         +122         +15         +47           +51         +97         +137         +128         +19         +2.5           +49         +87         +120         +128         +19         +2.5           +49         +87         +113         +109         +12         +2.6           +41         +85         +113         +109         +12         +1.0           +41         +85         +113         +109         +12         +1.2           +46         +88         +111         +112         +12         +2.3           +46         +88         +120         +118         +16         +2.3           +40         +88         +120         +116         +12         +2.4           +40         +86         +119         +116         +12         +2.3           +40         +86         +110         +113         +11         +3.0           +40         +86         +116         +113         +11         +3.0           +40         +88         +116         +113         +13	+7.5 $+44$ $+86$ $+114$ $+115$ $+15$ $+13$ $+7.0$ $+51$ $+97$ $+132$ $+122$ $+15$ $+47$ $+6.0$ $+51$ $+97$ $+132$ $+122$ $+15$ $+47$ $+7.0$ $+51$ $+97$ $+137$ $+128$ $+19$ $+25$ $+7.8$ $+41$ $+85$ $+113$ $+109$ $+26$ $+24$ $+5.4$ $+82$ $+111$ $+112$ $+12$ $+10$ $+5.4$ $+82$ $+111$ $+112$ $+12$ $+2.4$ $+5.4$ $+82$ $+113$ $+118$ $+12$ $+2.3$ $+5.4$ $+83$ $+113$ $+118$ $+16$ $+2.3$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+2.3$ $+7.1$ $+50$ $+105$ $+105$ $+2.4$ $+2.3$ $+7.1$ $+7.0$ $+105$ $+116$ $+116$ $+12.3$	+1.5 $+7.5$ $+44$ $+86$ $+114$ $+115$ $+15$ $+18$ $+115$ $+15$ $+13$	$\cdot 1.9$ $\cdot 1.5$ $\cdot 7.5$ $\cdot 44$ $\cdot 86$ $\cdot 114$ $\cdot 115$ $\cdot 15$ $\cdot 1.8$ $\cdot 1.4$ $\cdot 2.7$ $\cdot 7.0$ $\cdot 51$ $\cdot 97$ $\cdot 132$ $\cdot 122$ $\cdot 15$ $\cdot 4.7$ $\cdot 0.9$ $\cdot 6.6$ $\cdot 6.0$ $\cdot 51$ $\cdot 97$ $\cdot 137$ $\cdot 128$ $\cdot 19$ $\cdot 2.5$ $\cdot 0.8$ $\cdot 5.2$ $\cdot 7.8$ $\cdot 499$ $\cdot 87$ $\cdot 120$ $\cdot 122$ $\cdot 4.9$ $\cdot 2.5$ $-0.8$ $\cdot 5.2$ $\cdot 7.8$ $\cdot 441$ $\cdot 852$ $\cdot 113$ $\cdot 112$ $\cdot 12$ $\cdot 2.4$ $\cdot 0.6$ $-4.0$ $\cdot 5.4$ $\cdot 441$ $\cdot 882$ $\cdot 113$ $\cdot 112$ $\cdot 122$ $\cdot 2.4$ $-0.6$ $-4.0$ $\cdot 5.4$ $\cdot 442$ $\cdot 882$ $\cdot 113$ $\cdot 112$ $\cdot 122$ $\cdot 2.4$ $\cdot 2.5$ $-7.5$ $\cdot 7.6$ $\cdot 882$ $\cdot 113$ $\cdot 112$ $\cdot 122$ $\cdot 2.4$ $\cdot 2.1$ $-2.7$ $-2.7$ $\cdot 7.6$ $\cdot 882$ $\cdot 113$ $\cdot 112$ $\cdot 122$ $\cdot 2.4$ $\cdot 2.5$ $-7.5$ $-7.6$ $\cdot 882$ $\cdot 113$ $\cdot 118$ $\cdot 122$ $\cdot 2.4$ $-1.9$ $-2.9$ $-2.9$ $-2.9$ $-2.9$ $-2.9$ $-2.9$ $-2.4$ $-2.9$ $-2.9$ $-2.6$ $-4.6$ $-4.9$ $-4.9$ $-4.9$ $-4.9$ $-1.9$ $-2.9$ $-2.9$ $-2.9$ $-2.9$ $-2.9$ $-2.9$ $-2.4$ $-1.9$ $-1.9$ $-1.9$ $-1.9$ $-1.9$ $-1.9$ $-2.4$ $-1.9$ $-1.9$ $-1.9$ $-1.9$
+57		+15     +4.7       +19     +2.5       +7     +2.4       +12     +1.0       +12     +1.0       +15     +2.4       +15     +2.4	+132       +122       +15       +47         +137       +128       +19       +25         +120       +125       +7       +24         +113       +109       +12       +10         +113       +112       +12       +23         +111       +112       +12       +24         +113       +112       +12       +23         +113       +118       +15       +24         +113       +118       +15       +24         +113       +118       +15       +24         +113       +116       +15       +24         +113       +116       +15       +24         +110       +116       +15       +24         +110       +113       +11       +30         +111       +115       +14       +36         +116       +118       +14       +36         +116       +118       +13       +23	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	+7.0 $+51$ $+97$ $+132$ $+122$ $+15$ $+4.7$ $+6.0$ $+51$ $+97$ $+137$ $+128$ $+19$ $+2.5$ $+7.8$ $+49$ $+87$ $+120$ $+128$ $+19$ $+2.5$ $+7.8$ $+41$ $+85$ $+113$ $+109$ $+12$ $+1.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+12$ $+2.4$ $+5.4$ $+42$ $+88$ $+121$ $+118$ $+12$ $+2.3$ $+5.6$ $+90$ $+88$ $+121$ $+118$ $+12$ $+2.4$ $+7.1$ $+50$ $+88$ $+121$ $+118$ $+12$ $+2.4$ $+7.1$ $+50$ $+88$ $+110$ $+116$ $+2.3$ $+2.4$ $+5.7$ $+40$ $+86$ $+110$ $+113$ $+110$ $+12.4$ $+7.0$ $+46$ $+86$ $+110$ $+113$ $+12.4$ $+5.7$	.2.7 $+7.0$ $+51$ $+97$ $+132$ $+122$ $+15$ $+4.7$ $-6.6$ $+6.0$ $+51$ $+97$ $+137$ $+128$ $+19$ $+25$ $-5.2$ $+78$ $+49$ $+87$ $+120$ $+12$ $+12$ $-4.2$ $+4.8$ $+41$ $+82$ $+111$ $+12$ $+10$ $-4.0$ $+5.4$ $+84$ $+82$ $+111$ $+12$ $+12$ $-4.0$ $+5.4$ $+86$ $+110$ $+12$ $+12$ $+2.4$ $-2.7$ $+7.6$ $+50$ $+88$ $+121$ $+112$ $+2.4$ $-2.7$ $+5.7$ $+40$ $+76$ $+102$ $+116$ $+2.3$ $-2.8$ $+7.1$ $+102$ $+116$ $+113$ $+116$ $+2.4$ $-2.7$ $+5.7$ $+40$ $+86$ $+110$ $+113$ $+2.4$ $-1.9$ $+1.2$ $+1.0$ $+1.2$ $+1.4$ $+3.6$	$\cdot 1.4$ $\cdot 2.7$ $+7.0$ $+51$ $+97$ $+132$ $+122$ $+15$ $+4.7$ $-0.9$ $\cdot 6.6$ $+6.0$ $+51$ $+97$ $+137$ $+128$ $+19$ $+25$ $-0.8$ $-5.2$ $+78$ $+49$ $+87$ $+120$ $+12$ $+24$ $-0.1$ $-4.2$ $+4.8$ $+41$ $+85$ $+113$ $+19$ $+25$ $-0.6$ $-4.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+120$ $+2.4$ $-0.5$ $-7.5$ $+7.6$ $+56$ $+88$ $+121$ $+112$ $+2.4$ $-2.1$ $-2.7$ $+5.7$ $+56$ $+88$ $+121$ $+112$ $+2.4$ $-2.1$ $-2.7$ $+7.6$ $+88$ $+121$ $+116$ $+2.4$ $-2.1$ $-2.7$ $+57$ $+40$ $+86$ $+110$ $+116$ $+2.4$ $-2.1$ $-2.7$ $+76$ $+120$ $+1$
0 +68 +2.5		+19     +2.5       +7     +2.4       +12     +1.0       +12     +2.3       +15     +2.4	+137       +128       +19       +2.5         +120       +125       +7       +2.4         +113       +109       +12       +1.0         +111       +112       +12       +2.3         +111       +112       +12       +2.3         +111       +112       +12       +2.4         +111       +112       +12       +2.3         +113       +118       +15       +2.4         +113       +118       +15       +2.4         +113       +116       +15       +2.4         +121       +118       +16       +2.3         +121       +116       +15       +2.4         +105       +916       +13       +3.0         +113       +116       +113       +11       +3.0         +116       +118       +13       +2.3       +2.3         +116       +118       +13       +3.0       +3.0	+51 $+97$ $+137$ $+128$ $+19$ $+25$ $+49$ $+87$ $+120$ $+12$ $+7$ $+2.4$ $+41$ $+85$ $+113$ $+109$ $+12$ $+1.0$ $+44$ $+82$ $+111$ $+112$ $+12$ $+2.4$ $+50$ $+88$ $+121$ $+112$ $+12$ $+2.3$ $+50$ $+88$ $+121$ $+118$ $+12$ $+2.4$ $+50$ $+88$ $+121$ $+118$ $+15$ $+2.4$ $+40$ $+86$ $+106$ $+116$ $+116$ $+2.3$ $+40$ $+86$ $+106$ $+116$ $+12$ $+2.4$ $+40$ $+86$ $+119$ $+113$ $+11$ $+3.6$ $+47$ $+88$ $+116$ $+118$ $+13$ $+2.8$ $+46$ $+80$ $+116$ $+118$ $+12$ $+2.8$ $+46$ $+80$ $+116$ $+118$ $+12$	+6.0 $+5.1$ $+9.7$ $+1.37$ $+1.28$ $+9.9$ $+3.7$ $+1.26$ $+2.5$ $+7.8$ $+49$ $+87$ $+1.20$ $+1.25$ $+7$ $+2.4$ $+4.8$ $+41$ $+85$ $+111$ $+112$ $+1.0$ $+1.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+1.2$ $+2.4$ $+7.6$ $+50$ $+88$ $+121$ $+112$ $+2.2$ $+2.4$ $+6.7$ $+46$ $+88$ $+120$ $+116$ $+12$ $+2.4$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+12$ $+2.4$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+12$ $+2.4$ $+7.0$ $+66$ $+166$ $+110$ $+113$ $+11$ $+130$ $+7.0$ $+46$ $+86$ $+110$ $+113$ $+12.3$ $+2.4$ $+7.0$ $+67$ $+100$ $+113$ $+11$ $+3$	6.6 $+6.0$ $+5.1$ $+97$ $+137$ $+128$ $+19$ $+5.5$ $-5.2$ $+7.8$ $+49$ $+87$ $+120$ $+12$ $+12$ $+24$ $-4.2$ $+54$ $+41$ $+85$ $+111$ $+112$ $+12$ $+10$ $-4.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+2.4$ $-4.0$ $+5.4$ $+40$ $+83$ $+121$ $+112$ $+2.3$ $-2.7$ $+6.7$ $+46$ $+83$ $+121$ $+118$ $+12$ $+2.4$ $-2.7$ $+5.7$ $+46$ $+83$ $+113$ $+116$ $+2.3$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+2.3$ $-2.8$ $+7.1$ $+50$ $+88$ $+121$ $+113$ $+2.4$ $-2.8$ $+7.0$ $+102$ $+116$ $+113$ $+2.3$ $-1.9$ $+2.4$ $+40$ $+86$ $+110$	0.9 $6.6$ $4.6$ $4.5$ $4.9$ $4.3$ $4.12$ $4.12$ $4.12$ $4.12$ $4.2$ $4.6$ $4.7$ $4.5$ $4.12$ $4.2$
0 +70 +0.7		+7         +2.4           +12         +1.0           +12         +2.3           +15         +2.4           +15         +2.4	+120         +125         +7         +24           +113         +109         +12         +10           +111         +112         +12         +23           +111         +112         +12         +24           +111         +112         +12         +23           +113         +118         +15         +2.4           +113         +118         +15         +2.4           +113         +116         +16         +2.3           +120         +116         +15         +2.4           +105         +99         +8         +2.2           +116         +113         +11         +3.0           +116         +113         +11         +3.0           +116         +118         +13         +2.3	+49     +87     +120     +125     +7     +24       +41     +85     +113     +109     +12     +1.0       +44     +82     +111     +112     +12     +2.3       +50     +88     +121     +118     +15     +2.4       +50     +88     +121     +118     +15     +2.4       +50     +88     +121     +118     +15     +2.4       +46     +88     +120     +116     +15     +2.4       +40     +76     +105     +99     +8     +2.2       +46     +86     +119     +113     +11     +3.0       +47     +88     +116     +113     +11     +3.0       +47     +88     +116     +118     +13     +2.3       +46     +80     +116     +118     +13     +2.3       +47     +88     +116     +118     +13     +2.3       +46     +80     +116     +115     +14     +3.6       +46     +81     +116     +13     +2.8       +46     +88     +116     +13     +2.8       +46     +80     +115     +106     +16       +46     +89     +116		-5.2 $+7.8$ $+49$ $+87$ $+120$ $+125$ $+7$ $+24$ $-4.2$ $+5.8$ $+41$ $+85$ $+113$ $+109$ $+12$ $+10$ $-4.0$ $+5.4$ $+92$ $+111$ $+112$ $+12$ $+23$ $-2.5$ $+7.6$ $+50$ $+88$ $+121$ $+112$ $+23$ $-2.7$ $+6.7$ $+46$ $+83$ $+123$ $+118$ $+15$ $+2.4$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+15$ $+2.3$ $-3.1$ $+5.4$ $+80$ $+120$ $+116$ $+116$ $+15$ $+2.4$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+15$ $+2.4$ $-3.1$ $+5.4$ $+90$ $+76$ $+102$ $+116$ $+116$ $+2.4$ $-2.8$ $+7.1$ $+50$ $+88$ $+110$ $+113$ $+11$ $+3.0$ $-4.3$ $+6.7$ $+90$ $+116$ $+118$ $+11$ $+3.0$ $-2.6$ $+6.7$ $+90$ $+116$ $+116$ $+116$ $+116$ $-2.6$ $+4.2$ $+92$ $+109$ $+106$ $+102$ $+1.7$ $-2.6$ $+3.2$ $+92$ $+102$ $+104$ $+1.6$ $+1.7$ $-2.6$ $+3.2$ $+92$ $+102$ $+104$ $+1.6$ $+1.7$ $-2.6$ $+3.2$ $+92$ $+102$ $+1.6$ $+1.7$ $+1.7$ $-2.6$ $+3.2$ $+92$ $+102$ $+1.6$ $+1.7$ $+1.7$ $-2.6$ <td>-0.8 <math>-5.2</math> <math>+7.8</math> <math>+49</math> <math>+87</math> <math>+120</math> <math>+7</math> <math>+24</math> <math>+0.1</math> <math>-4.2</math> <math>+4.8</math> <math>+41</math> <math>+85</math> <math>+113</math> <math>+109</math> <math>+12</math> <math>+10</math> <math>-0.6</math> <math>-4.0</math> <math>+5.4</math> <math>+44</math> <math>+82</math> <math>+111</math> <math>+12</math> <math>+10</math> <math>-2.5</math> <math>-3.5</math> <math>+7.6</math> <math>+50</math> <math>+88</math> <math>+121</math> <math>+12</math> <math>+23</math> <math>-2.5</math> <math>-3.7</math> <math>+567</math> <math>+46</math> <math>+83</math> <math>+113</math> <math>+16</math> <math>+23</math> <math>-2.1</math> <math>-2.7</math> <math>+6.7</math> <math>+46</math> <math>+83</math> <math>+113</math> <math>+16</math> <math>+2.3</math> <math>-1.9</math> <math>-2.8</math> <math>+7.1</math> <math>+56</math> <math>+86</math> <math>+113</math> <math>+16</math> <math>+2.3</math> <math>-1.0</math> <math>-1.9</math> <math>+7.0</math> <math>+76</math> <math>+102</math> <math>+2.4</math> <math>+2.4</math> <math>-1.0</math> <math>-1.9</math> <math>+2.6</math> <math>+88</math> <math>+112</math> <math>+113</math> <math>+2.4</math> <math>-1.0</math> <math>-1.9</math> <math>+102</math> <math>+4.7</math> <math>+86</math> <math>+110</math> <math>+113</math> <math>+2.4</math></td>	-0.8 $-5.2$ $+7.8$ $+49$ $+87$ $+120$ $+7$ $+24$ $+0.1$ $-4.2$ $+4.8$ $+41$ $+85$ $+113$ $+109$ $+12$ $+10$ $-0.6$ $-4.0$ $+5.4$ $+44$ $+82$ $+111$ $+12$ $+10$ $-2.5$ $-3.5$ $+7.6$ $+50$ $+88$ $+121$ $+12$ $+23$ $-2.5$ $-3.7$ $+567$ $+46$ $+83$ $+113$ $+16$ $+23$ $-2.1$ $-2.7$ $+6.7$ $+46$ $+83$ $+113$ $+16$ $+2.3$ $-1.9$ $-2.8$ $+7.1$ $+56$ $+86$ $+113$ $+16$ $+2.3$ $-1.0$ $-1.9$ $+7.0$ $+76$ $+102$ $+2.4$ $+2.4$ $-1.0$ $-1.9$ $+2.6$ $+88$ $+112$ $+113$ $+2.4$ $-1.0$ $-1.9$ $+102$ $+4.7$ $+86$ $+110$ $+113$ $+2.4$
.6 +59 +6.4		+12         +1.0           +12         +2.3           +15         +2.4           +16         +2.3           +15         +2.4	+113     +109     +12     +10       +111     +112     +12     +2.3       +121     +118     +15     +2.4       +113     +108     +16     +2.3       +113     +108     +16     +2.3       +120     +116     +15     +2.4       +121     +116     +15     +2.4       +105     +99     +8     +2.2       +105     +13     +11     +3.0       +111     +115     +14     +3.6       +116     +118     +13     +2.3	+41         +85         +113         +109         +12         +1.0           +44         +82         +111         +112         +12         +2.3           +50         +88         +121         +112         +12         +2.3           +50         +88         +121         +118         +15         +2.4           +50         +88         +113         +108         +16         +2.3           +46         +83         +113         +108         +16         +2.3           +40         +76         +105         +99         +8         +2.2           +46         +105         +116         +113         +11         +3.0           +47         +86         +116         +113         +11         +3.0           +47         +88         +116         +118         +13         +2.3           +46         +80         +116         +118         +3.6         +3.6           +47         +88         +116         +118         +3.6         +3.6           +46         +80         +116         +118         +13         +2.8           +46         +80         +116         +118         +13	+4.8         +41         +85         +113         +109         +12         +1.0           +5.4         +44         +82         +111         +112         +12         +2.3           +7.6         +50         +88         +121         +118         +15         +2.4           +7.6         +50         +88         +121         +118         +15         +2.3           +7.1         +50         +88         +120         +116         +15         +2.4           +7.1         +50         +88         +120         +116         +15         +2.4           +5.4         +40         +70         +88         +120         +116         +15         +2.4           +5.4         +40         +86         +119         +113         +11         +3.0           +5.7         +40         +86         +119         +113         +11         +3.0           +6.7         +40         +88         +116         +113         +11         +3.0           +5.6         +45         +82         +116         +113         +11         +3.0           +5.6         +45         +88         +116         +13         +2.3         +2.	4.2 $+4.8$ $+41$ $+85$ $+113$ $+100$ $+12$ $+10$ $4.0$ $5.4$ $+44$ $+82$ $+111$ $+12$ $+23$ $2.5$ $+7.6$ $+90$ $+88$ $+121$ $+12$ $+23$ $2.7$ $+6.7$ $+46$ $+83$ $+120$ $+16$ $+23$ $2.7$ $+6.7$ $+46$ $+83$ $+120$ $+16$ $+23$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-3.1$ $+54$ $+40$ $+76$ $+103$ $+116$ $+13$ $+13$ $-1.9$ $+7.0$ $+102$ $+113$ $+113$ $+11$ $+3.0$ $-1.9$ $+7.0$ $+116$ $+113$ $+113$ $+2.2$ $+2.4$ $-1.9$ $+7.0$ $+113$ $+113$ $+113$ $+2.2$ $+2.4$ $-1.9$ $+2.2$ $+103$ $+113$ $+113$ $+2.4$	
.1 +56 +3.2		+12 +2.3 +15 +2.4 +16 +2.3 +15 +2.4	+111         +112         +12         +23           +121         +118         +15         +24           +113         +108         +16         +2.3           +120         +116         +15         +2.4           +120         +116         +15         +2.4           +120         +116         +15         +2.4           +105         +99         +8         +2.2           +119         +113         +11         +3.0           +121         +13         +11         +3.0           +116         +118         +13         +2.3	+44         +82         +111         +12         +12         +23           +50         +88         +121         +118         +15         +24           +46         +83         +113         +108         +16         +2.3           +50         +88         +113         +108         +16         +2.3           +50         +83         +113         +106         +2.3         +2.4           +50         +88         +120         +116         +15         +2.4           +40         +76         +105         +99         +8         +2.2           +47         +86         +119         +113         +11         +3.0           +47         +88         +116         +118         +13         +2.3           +47         +88         +116         +118         +3.6         +2.8           +46         +89         +116         +118         +3.6         +2.8           +46         +89         +116         +118         +3.6         +2.8           +46         +89         +116         +118         +3.6         +2.8           +46         +89         +116         +18         +2.8	+5.4         +44         +82         +111         +112         +12         +23           +7.6         +50         +88         +121         +118         +15         +24           +6.7         +46         +83         +113         +108         +16         +23           +5.7         +46         +83         +113         +106         +15         +2.4           +7.1         +50         +88         +120         +116         +15         +2.3           +5.4         +40         +76         +88         +120         +116         +15         +2.4           +5.4         +40         +86         +119         +113         +11         +3.0           +6.7         +40         +86         +119         +113         +11         +3.0           +6.7         +47         +88         +116         +113         +13         +2.3           +6.7         +46         +89         +116         +118         +3.6         +2.8           +5.6         +45         +82         +116         +113         +13         +2.3           +4.2         +46         +89         +116         +13         +3.6         +3.6<	4.0 $+5.4$ $+44$ $+82$ $+111$ $+112$ $+23$ $+23$ $-2.5$ $+7.6$ $+50$ $+88$ $+111$ $+115$ $+24$ $+24$ $-2.5$ $+6.7$ $+46$ $+88$ $+113$ $+16$ $+23$ $-2.8$ $+7.1$ $+50$ $+88$ $+112$ $+16$ $+23$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-3.1$ $+5.4$ $+40$ $+76$ $+102$ $+116$ $+12$ $+2.4$ $-1.9$ $+7.0$ $+70$ $+76$ $+102$ $+113$ $+11$ $+3.0$ $-1.9$ $+7.0$ $+102$ $+110$ $+113$ $+113$ $+2.2$ $-1.9$ $+5.7$ $+90$ $+121$ $+113$ $+113$ $+2.2$ $-1.9$ $+1.2$ $+102$ $+116$ $+113$ $+12.6$ $+2.4$ $-1.9$ $+2.2$ $+102$ $+102$	-0.6 $-4.0$ $+5.4$ $+44$ $+82$ $+111$ $+112$ $+23$ $+23$ $-2.5$ $-5.5$ $+7.6$ $+50$ $+88$ $+113$ $+12$ $+24$ $+24$ $-2.1$ $-2.5$ $+5.7$ $+6.7$ $+46$ $+83$ $+113$ $+16$ $+23$ $-1.9$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-1.9$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-1.0$ $-1.9$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+23$ $-1.0$ $-1.9$ $+7.0$ $+121$ $+113$ $+11$ $+3.0$ $-1.0$ $-1.9$ $+2.0$ $+90$ $+121$ $+13$ $+2.0$ $-1.0$ $-2.5$ $+6.7$ $+40$ $+88$ $+116$ $+13$ $+2.0$ $-1.0$ $-2.5$ $+5.7$ $+90$ $+100$ $+116$
.5 +62 +5.4		+15 +2.4 +16 +2.3 +15 +2.4	+121     +118     +15     +24       +113     +108     +16     +23       +120     +116     +15     +24       +105     +99     +8     +2.2       +109     +113     +11     +3.0       +121     +113     +11     +3.6       +116     +118     +13     +2.3	+50     +88     +121     +118     +15     +2.4       +46     +83     +113     +108     +16     +2.3       +50     +88     +120     +116     +15     +2.4       +40     +76     +105     +99     +8     +2.2       +46     +86     +119     +113     +11     +3.0       +46     +86     +119     +113     +11     +3.0       +47     +88     +116     +118     +13     +2.3       +47     +88     +116     +118     +13     +2.3       +47     +88     +116     +118     +13     +2.3       +46     +82     +109     +95     +18     +1.3       +46     +89     +115     +106     +16     +1.7	+7.6 $+50$ $+88$ $+121$ $+118$ $+15$ $+2.4$ $+6.7$ $+46$ $+83$ $+113$ $+16$ $+2.3$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+2.4$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+2.4$ $+5.4$ $+40$ $+76$ $+102$ $+116$ $+2.2$ $+7.0$ $+46$ $+86$ $+110$ $+113$ $+11$ $+3.0$ $+6.7$ $+50$ $+90$ $+121$ $+113$ $+11$ $+3.0$ $+6.7$ $+47$ $+82$ $+116$ $+113$ $+13$ $+2.3$ $+6.7$ $+47$ $+82$ $+116$ $+118$ $+3.6$ $+5.6$ $+46$ $+89$ $+116$ $+106$ $+1.7$ $+4.2$ $+43$ $+43$ $+110$ $+102$ $+16$ $+12$ $+4.4$ $+42$ $+82$ $+1102$ $+16$ $+12$ <	-2.5 $+7.6$ $+50$ $+88$ $+121$ $+118$ $+15$ $+24$ $-2.7$ $+6.7$ $+46$ $+83$ $+113$ $+16$ $+23$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-3.1$ $+5.4$ $+40$ $+76$ $+120$ $+16$ $+23$ $-3.1$ $+5.4$ $+40$ $+76$ $+102$ $+16$ $+23$ $-1.9$ $+7.0$ $+46$ $+86$ $+102$ $+113$ $+11$ $+3.0$ $-1.9$ $+7.0$ $+76$ $+90$ $+111$ $+113$ $+12.2$ $-1.9$ $+7.0$ $+121$ $+116$ $+113$ $+12.6$ $+2.2$ $-1.9$ $+7.0$ $+110$ $+113$ $+113$ $+113$ $+12.6$ $-1.9$ $+5.0$ $+90$ $+112$ $+116$ $+12.8$ $+2.3$ $-0.4$ $+5.0$ $+40$ +80 $+110$ $+116$ <td>-2.5 <math>-3.5</math> <math>+7.6</math> <math>+50</math> <math>+88</math> <math>+121</math> <math>+118</math> <math>+15</math> <math>+24</math> <math>-2.1</math> <math>-5.7</math> <math>+6.7</math> <math>+46</math> <math>+83</math> <math>+113</math> <math>+16</math> <math>+23</math> <math>-1.9</math> <math>-2.8</math> <math>+7.1</math> <math>+50</math> <math>+88</math> <math>+120</math> <math>+16</math> <math>+23</math> <math>-1.9</math> <math>-2.8</math> <math>+7.1</math> <math>+50</math> <math>+88</math> <math>+120</math> <math>+16</math> <math>+23</math> <math>-1.0</math> <math>-1.9</math> <math>+7.1</math> <math>+50</math> <math>+86</math> <math>+119</math> <math>+11</math> <math>+30</math> <math>-1.0</math> <math>-1.9</math> <math>+7.0</math> <math>+46</math> <math>+86</math> <math>+119</math> <math>+113</math> <math>+11</math> <math>+30</math> <math>-1.0</math> <math>-2.5</math> <math>+6.7</math> <math>+40</math> <math>+86</math> <math>+116</math> <math>+11</math> <math>+30</math> <math>+2.2</math> <math>-3.0</math> <math>-2.5</math> <math>+6.7</math> <math>+40</math> <math>+86</math> <math>+116</math> <math>+114</math> <math>+3.6</math> <math>+2.6</math> <math>-3.0</math> <math>-2.5</math> <math>+6.7</math> <math>+40</math> <math>+88</math> <math>+116</math> <math>+118</math> <math>+2.8</math> <math>+2.8</math> <math>-0.9</math> <math>-0.4</math></td>	-2.5 $-3.5$ $+7.6$ $+50$ $+88$ $+121$ $+118$ $+15$ $+24$ $-2.1$ $-5.7$ $+6.7$ $+46$ $+83$ $+113$ $+16$ $+23$ $-1.9$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-1.9$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-1.0$ $-1.9$ $+7.1$ $+50$ $+86$ $+119$ $+11$ $+30$ $-1.0$ $-1.9$ $+7.0$ $+46$ $+86$ $+119$ $+113$ $+11$ $+30$ $-1.0$ $-2.5$ $+6.7$ $+40$ $+86$ $+116$ $+11$ $+30$ $+2.2$ $-3.0$ $-2.5$ $+6.7$ $+40$ $+86$ $+116$ $+114$ $+3.6$ $+2.6$ $-3.0$ $-2.5$ $+6.7$ $+40$ $+88$ $+116$ $+118$ $+2.8$ $+2.8$ $-0.9$ $-0.4$
1.7 +62 +2.6		+16 +2.3 +15 +2.4	+113     +108     +16     +2.3       +120     +116     +15     +2.4       +105     +99     +8     +2.2       +119     +113     +11     +3.0       +121     +115     +14     +3.6       +116     +118     +13     +2.3	+46     +83     +113     +108     +16     +2.3       +50     +88     +120     +116     +15     +2.4       +40     +76     +105     +99     +8     +2.2       +46     +86     +119     +113     +11     +3.0       +50     +90     +115     +11     +3.0       +47     +88     +116     +118     +13     +2.3       +45     +82     +109     +95     +18     +2.8       +46     +89     +115     +106     +16     +1.7	+6.7 $+46$ $+83$ $+113$ $+108$ $+16$ $+2.3$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+15$ $+2.4$ $+5.4$ $+40$ $+76$ $+105$ $+99$ $+8$ $+2.2$ $+7.0$ $+46$ $+76$ $+105$ $+99$ $+8$ $+2.2$ $+7.0$ $+46$ $+86$ $+119$ $+113$ $+11$ $+3.0$ $+7.0$ $+46$ $+86$ $+116$ $+113$ $+11$ $+3.6$ $+6.7$ $+50$ $+90$ $+121$ $+113$ $+11$ $+3.6$ $+6.7$ $+47$ $+88$ $+116$ $+118$ $+13$ $+2.3$ $+5.6$ $+45$ $+88$ $+116$ $+118$ $+13$ $+2.3$ $+5.6$ $+45$ $+88$ $+116$ $+118$ $+2.8$ $+2.8$ $+5.0$ $+46$ $+89$ $+116$ $+16$ $+1.7$ $+1.7$	-2.7 $+6.7$ $+46$ $+33$ $+113$ $+108$ $+16$ $+23$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+116$ $+15$ $+24$ $-3.1$ $+5.4$ $+40$ $+76$ $+105$ $+99$ $+8$ $+2.2$ $-3.1$ $+5.4$ $+40$ $+76$ $+105$ $+99$ $+8$ $+2.2$ $-1.9$ $+7.0$ $+46$ $+86$ $+119$ $+113$ $+11$ $+3.0$ $-4.3$ $+6.7$ $+97$ $+88$ $+116$ $+113$ $+3.6$ $-4.3$ $+5.6$ $+97$ $+88$ $+116$ $+13$ $+3.6$ $-0.4$ $+5.6$ $+87$ $+88$ $+116$ $+13$ $+2.8$ $-0.4$ $+5.6$ $+86$ $+102$ $+106$ $+12$ $+1.7$ $-0.4$ $+5.6$ $+88$ $+116$ $+118$ $+2.3$ $+1.7$ $-0.4$ $+4.4$ $+4.2$	-2.1 $-5.7$ $+6.7$ $+46$ $+83$ $+113$ $+16$ $+23$ $-1.9$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+23$ $-1.9$ $-2.8$ $+7.1$ $+50$ $+88$ $+120$ $+16$ $+2.2$ $-2.5$ $-3.1$ $+5.4$ $+40$ $+76$ $+102$ $+99$ $+8$ $+2.2$ $-1.0$ $-1.9$ $+7.0$ $+46$ $+96$ $+119$ $+113$ $+2.2$ $-1.0$ $-1.9$ $+7.0$ $+46$ $+86$ $+119$ $+113$ $+2.2$ $-1.0$ $-1.9$ $+7.2$ $+102$ $+116$ $+113$ $+2.2$ $-1.0$ $-1.9$ $+2.7$ $+20$ $+101$ $+118$ $+2.2$ $-1.0$ $-1.2$ $+10$ $+101$ $+118$ $+13$ $+2.3$ $-1.0$ $-1.2$ $+4.2$ $+5.6$ $+40$ $+80$ $+116$ $+118$ $+2.$
1.8 +57 +2.9		+15 +2.4	+120     +116     +15     +24       +105     +99     +8     +2.2       +119     +113     +11     +3.0       +121     +115     +14     +3.6       +116     +118     +13     +2.3	+50         +88         +120         +116         +15         +2.4           +40         +76         +105         +99         +8         +2.2           +46         +86         +119         +113         +11         +3.0           +50         +90         +121         +115         +14         +3.6           +47         +88         +116         +118         +13         +2.3           +47         +88         +116         +118         +13         +2.3           +45         +82         +116         +118         +13         +2.3           +45         +82         +116         +118         +13         +2.3           +45         +82         +109         +95         +18         +2.8           +46         +89         +115         +106         +16         +1.7	+7.1         +50         +88         +120         +116         +15         +2.4           +5.4         +40         +76         +105         +99         +8         +2.2           +7.0         +46         +86         +119         +113         +11         +3.0           +6.7         +50         +90         +119         +113         +11         +3.0           +6.7         +50         +90         +116         +113         +11         +3.0           +6.7         +50         +90         +121         +113         +14         +3.6           +6.7         +47         +88         +116         +118         +13         +2.3           +5.6         +45         +88         +116         +118         +13         +2.3           +5.6         +45         +88         +116         +118         +13         +2.3           +5.6         +45         +88         +116         +118         +13         +2.3           +4.2         +89         +116         +118         +13         +2.3         +1.7           +4.2         +83         +110         +102         +16         +1.7         +2.1	-2.8 $+7.1$ $+50$ $+88$ $+120$ $+116$ $+15$ $+24$ $-3.1$ $+5.4$ $+40$ $76$ $+102$ $+99$ $+8$ $+2.2$ $-1.9$ $+7.0$ $+46$ $+86$ $+119$ $+113$ $+11$ $+3.0$ $-1.9$ $+7.0$ $+46$ $+86$ $+119$ $+113$ $+11$ $+3.0$ $-4.3$ $+5.0$ $+40$ $+86$ $+116$ $+118$ $+3.4$ $+3.6$ $-2.5$ $+6.7$ $+47$ $+88$ $+116$ $+118$ $+3.3$ $+2.3$ $-0.4$ $+5.6$ $+47$ $+88$ $+116$ $+118$ $+2.3$ $+2.3$ $-0.4$ $+5.6$ $+49$ $+83$ $+110$ $+110$ $+1.7$ $+1.7$ $-4.0$ $+4.6$ $+4.7$ $+83$ $+100$ $+1.6$ $+1.7$ $+1.7$ $-3.3$ $+4.4$ $+4.2$ $+4.2$ $+4.2$ $+4.2$ $+4.$	
1.7 +62 +2.7			+105         +99         +8         +2.2           +119         +113         +11         +3.0           +121         +115         +14         +3.6           +116         +118         +13         +2.3	+40         +76         +105         +99         +8         +2.2           +46         +86         +119         +113         +11         +3.0           +50         +90         +121         +115         +14         +3.6           +47         +88         +116         +118         +13         +2.3           +47         +88         +116         +118         +13         +2.3           +45         +82         +116         +18         +13         +2.3           +45         +82         +109         +95         +18         +2.8           +46         +89         +115         +106         +16         +1.7	+5.4         +40         +76         +105         +99         +8         +2.2           +7.0         +46         +86         +119         +113         +11         +3.0           +6.7         +50         +90         +121         +115         +14         +3.6           +6.7         +50         +90         +121         +115         +14         +3.6           +6.7         +47         +88         +116         +118         +13         +2.3           +5.6         +45         +82         +109         +95         +18         +116           +5.6         +45         +82         +109         +95         +18         +11.7           +5.0         +46         +89         +115         +106         +16         +1.7           +4.2         +83         +110         +102         +16         +2.1         +2.1           +4.4         +4.2         +83         +10.2         +10.4         +5.1         +5.1	-3.1 $+5.4$ $+40$ $+76$ $+105$ $+99$ $+8$ $+2.2$ $-1.9$ $+7.0$ $+46$ $866$ $+119$ $+113$ $+11$ $+3.0$ $-4.3$ $+6.7$ $+50$ $+90$ $+121$ $+115$ $+14$ $+3.6$ $-4.3$ $+6.7$ $+50$ $+90$ $+121$ $+115$ $+14$ $+3.6$ $-2.5$ $+6.7$ $+47$ $+88$ $+116$ $+118$ $+13$ $+2.3$ $-0.4$ $+5.6$ $+47$ $+88$ $+116$ $+118$ $+13$ $+2.3$ $-0.4$ $+5.6$ $+47$ $+88$ $+116$ $+118$ $+13$ $+2.3$ $-4.6$ $+4.6$ $+89$ $+116$ $+106$ $+16$ $+17$ $-4.6$ $+4.2$ $+42$ $+82$ $+102$ $+16$ $+16$ $-3.3$ $+4.4$ $+42$ $+82$ $+102$ $+16$ $+16$ $-2.6$	-2.5 $-3.1$ $+5.4$ $+40$ $+76$ $+105$ $+99$ $+8$ $+2.2$ $-1.0$ $-1.9$ $+7.0$ $+46$ $+86$ $+113$ $+11$ $+3.0$ $+0.2$ $-4.3$ $+6.7$ $+50$ $+90$ $+121$ $+113$ $+11$ $+3.6$ $+0.2$ $-4.3$ $+5.7$ $+77$ $+88$ $+116$ $+118$ $+13$ $+3.6$ $-3.0$ $-2.5$ $+5.7$ $+47$ $+88$ $+116$ $+118$ $+13$ $+2.3$ $-0.9$ $-0.4$ $+5.6$ $+47$ $+88$ $+116$ $+13$ $+2.3$ $-1.8$ $-1.8$ $+110$ $+118$ $+13$ $+2.3$ $-1.1$ $-4.6$ $+96$ $+116$ $+116$ $+117$ $+1.7$ $+1.1$ $-4.6$ $+4.2$ $+4.3$ $+10$ $+102$ $+1.4$ $+2.1$ $+1.1$ $-4.6$ $+4.2$ $+4.3$ $+102$ $+$
1.1 +51 +3.8		+8 +2.2	+119         +113         +11         +3.0           +121         +115         +14         +3.6           +116         +118         +13         +2.3	+46         +86         +119         +113         +11         +3.0           +50         +90         +121         +115         +14         +3.6           +47         +88         +116         +118         +13         +2.3           +47         +88         +116         +118         +13         +2.3           +45         +82         +109         +95         +18         +2.8           +46         +89         +115         +106         +16         +1.7	+7.0         +46         +86         +119         +113         +11         +3.0           +6.7         +50         +90         +121         +115         +14         +3.6           +6.7         +47         +88         +116         +118         +13         +2.3           +6.7         +47         +88         +116         +118         +13         +2.3           +5.6         +45         +82         +109         +95         +13         +2.3           +5.6         +45         +82         +109         +95         +18         +1.3           +5.0         +46         +89         +115         +106         +16         +1.7           +4.2         +43         +83         +110         +102         +14         +2.1           +4.4         +4.2         +87         +102         +104         +15         +15	-1.9 $+7.0$ $+46$ $+86$ $+119$ $+113$ $+11$ $+3.0$ $-4.3$ $+6.7$ $+50$ $+90$ $+121$ $+115$ $+14$ $+3.6$ $-2.5$ $+6.7$ $+47$ $+88$ $+116$ $+113$ $+3.6$ $-2.5$ $+6.7$ $+47$ $+88$ $+116$ $+13$ $+2.3$ $-0.4$ $+5.6$ $+46$ $+89$ $+116$ $+16$ $+1.7$ $-4.2$ $+5.6$ $+46$ $+89$ $+110$ $+106$ $+1.7$ $-4.6$ $+4.2$ $+83$ $+110$ $+102$ $+1.7$ $+1.7$ $-3.3$ $+4.4$ $+4.2$ $+83$ $+110$ $+102$ $+1.7$ $-3.3$ $+3.4$ $+4.2$ $+83$ $+102$ $+1.4$ $+1.5$ $-3.3$ $+3.4$ $+3.2$ $+102$ $+1.4$ $+1.5$ $-3.3$ $+3.4$ $+3.2$ $+102$ $+1.4$ $+1.8$ <	-1.0         -1.9         +7.0         +46         +86         +119         +113         +11         +3.0           +0.2         -4.3         +6.7         +50         +90         +121         +115         +14         +3.6           -3.0         -2.5         +6.7         +47         +88         +116         +118         +13         +2.3           -3.0         -2.5         +6.7         +47         +88         +116         +118         +13         +2.3           -0.9         -0.4         +5.6         +45         +82         +109         +95         +18         +2.8           +1.8         -4.2         +46         +89         +115         +106         +16         +1.7           +1.1         -4.6         +89         +116         +109         +16         +1.7           +1.1         -4.6         +43         +83         +110         +102         +1.7         +1.7           +1.1         -4.6         +43         +82         +102         +104         +2.1         +1.7           +1.1         -4.6         +4.2         +82         +102         +104         +1.7         +1.7           +1.1
1.0 +63 +2.7		+11 +3.0	+121 +115 +14 +3.6 +116 +118 +13 +2.3	+50         +90         +121         +115         +14         +3.6           +47         +88         +116         +118         +13         +2.3           +45         +82         +109         +95         +18         +2.8           +46         +82         +109         +95         +18         +2.8	+6.7         +50         +90         +121         +115         +14         +3.6           +6.7         +47         +88         +116         +118         +13         +2.3           +5.6         +45         +82         +109         +95         +18         +2.3           +5.6         +45         +82         +109         +95         +18         +2.8           +5.0         +46         +89         +115         +106         +16         +1.7           +4.2         +43         +83         +110         +102         +14         +2.1           +4.4         +42         +83         +102         +16         +2.1	4.3 $+6.7$ $+50$ $+90$ $+121$ $+115$ $+14$ $+3.6$ $2.5$ $+6.7$ $+47$ $+88$ $+116$ $+113$ $+2.3$ $0.4$ $+5.6$ $+45$ $+82$ $+109$ $+95$ $+18$ $+2.3$ $0.4$ $+5.6$ $+46$ $+89$ $+116$ $+16$ $+1.7$ $4.2$ $+5.0$ $+46$ $+89$ $+110$ $+166$ $+1.7$ $4.6$ $+4.2$ $+83$ $+110$ $+106$ $+1.4$ $+2.1$ $-3.3$ $+4.4$ $+4.3$ $+83$ $+110$ $+106$ $+1.7$ $-3.3$ $+4.4$ $+4.2$ $+83$ $+100$ $+1.4$ $+1.5$ $-3.3$ $+3.4$ $+3.2$ $+302$ $+1.6$ $+1.6$ $-3.3$ $+3.4$ $+3.3$ $+3.0$ $+7.4$ $+1.4$ $+1.5$ $-3.4$ $+3.4$ $+3.6$ $+5.0$ $+7.6$ $+7.4$ $+1.6$ <	+0.2         -4.3         +6.7         +50         +90         +121         +115         +14         +36           -3.0         -2.5         +6.7         +47         +88         +116         +118         +13         +2.3           -0.9         -0.4         +5.6         +45         +82         +109         +95         +18         +2.8           +1.8         -4.2         +46         +89         +115         +106         +16         +1.7           +1.1         -4.6         +89         +115         +106         +16         +1.7           +1.1         -4.6         +83         +110         +106         +16         +1.7           +1.1         -4.6         +4.2         +83         +110         +102         +14         +2.1           +1.1         -4.6         +4.2         +82         +102         +104         +1.5         +1.5           +1.3         -3.3         +4.4         +42         +82         +102         +104         +1.5         +1.5
1.4 +66 +3.3		+14 +3.6	+116 +118 +13 +2.3	+47         +88         +116         +13         +2.3           +45         +82         +109         +95         +18         +2.8           +46         +89         +115         +106         +16         +1.7	+6.7         +47         +88         +116         +118         +13         +2.3           +5.6         +45         +82         +109         +95         +18         +2.8           +5.0         +46         +89         +115         +106         +16         +1.7           +4.2         +43         +83         +110         +102         +14         +2.1           +4.2         +43         +83         +110         +102         +16         +2.1           +4.4         +42         +83         +110         +102         +16         +2.1	-2.5         +6.7         +47         +88         +116         +118         +13         +2.3           -0.4         +5.6         +45         +82         +109         +95         +18         +2.8           -0.4         +5.6         +46         +89         +115         +106         +16         +1.7           -4.2         +5.0         +46         +89         +115         +106         +16         +1.7           -4.6         +43         +83         +110         +102         +14         +2.1           -3.3         +4.4         +42         +82         +102         +14         +1.7           -3.3         +4.4         +42         +82         +102         +14         +1.4           -2.6         +3.3         +31         +59         +79         +74         +14         +1.8           -2.6         +3.3         +36         +67         +90         +83         +20         +0.9	-3.0         -2.5         +6.7         +47         +88         +116         +18         +13         +2.3         +2.3           -0.9         -0.4         +5.6         +45         +82         +109         +95         +18         +2.8           +1.8         -4.2         +5.0         +46         +89         +115         +106         +16         +1.7           +1.1         -4.6         +43         +83         +110         +102         +14         +2.1           +1.1         -4.6         +43         +83         +110         +102         +14         +2.1           +1.1         -4.6         +42         +82         +102         +14         +2.1
2.8 +64 +3.6		+13 +2.3		+45         +82         +109         +95         +18         +2.8           +46         +89         +115         +106         +16         +1.7	+5.6         +45         +82         +109         +95         +18         +2.8           +5.0         +46         +89         +115         +106         +16         +1.7           +4.2         +43         +83         +110         +102         +14         +2.1           +4.4         +42         +83         +110         +102         +14         +2.1	-0.4         +5.6         +45         +82         +109         +95         +18         +2.8           -4.2         +5.0         +46         +89         +115         +106         +16         +1.7           -4.6         +4.2         +43         +83         +110         +102         +14         +2.1           -4.6         +4.2         +43         +83         +110         +102         +14         +2.1           -3.3         +4.4         +42         +82         +102         +104         +15         +1.5           -2.6         +3.3         +31         +59         +79         +74         +1.8         +1.8           -4.0         +3.4         +36         +67         +90         +83         +20         +0.9	-0.9         -0.4         +5.6         +45         +82         +109         +95         +18         +2.8           +1.8         -4.2         +5.0         +46         +89         +115         +106         +16         +1.7           +1.1         -4.6         +83         +110         +102         +14         +2.1           +1.1         -4.6         +43         +83         +110         +102         +14         +2.1           +1.1         -4.6         +42         +82         +102         +14         +2.1
3.3 +57 +5.7		+18 +2.8	+109 +95 +18 +2.8	+46 +89 +115 +106 +16 +1.7	+5.0         +46         +89         +115         +106         +16         +1.7           +4.2         +43         +83         +110         +102         +14         +2.1           +4.4         +42         +82         +102         +16         +1.5         +15	-4.2         +5.0         +46         +89         +115         +106         +16         +1.7           -4.6         +4.2         +43         +83         +110         +102         +14         +2.1           -3.3         +4.4         +42         +82         +102         +104         +15         +1.5           -2.6         +3.3         +31         +59         +79         +74         +14         +1.8           -4.0         +3.4         +36         +67         +90         +83         +20         +0.9	+1.8         -4.2         +5.0         +46         +89         +115         +106         +16         +1.7           +1.1         -4.6         +4.2         +43         +83         +110         +102         +14         +2.1           +1.3         -3.3         +4.4         +42         +82         +102         +104         +15         +15
4.0 +61 +1.7		+16 +1.7	+115 +106 +16 +1.7		+4.2         +43         +83         +110         +102         +14         +2.1           +4.4         +4.2         +82         +102         +16         +2.1	-4.6         +4.2         +43         +83         +110         +102         +14         +2.1           -3.3         +4.4         +42         +82         +102         +104         +15         +1.5           -3.3         +4.4         +42         +82         +102         +104         +15         +1.5           -2.6         +3.3         +31         +59         +79         +74         +14         +1.8           -4.0         +3.4         +36         +67         +90         +83         +20         +0.9	+1.1         -4.6         +4.2         +43         +83         +110         +102         +14         +2.1           +1.3         -3.3         +4.4         +42         +82         +102         +104         +15         +1.5
4.4 +54 +2.3		+14 +2.1	+110 +102 +14 +2.1	+43 +83 +110 +102 +14 +2.1	+4.4 +42 +82 +102 +104 +15 +1.5	-3.3         +4.4         +42         +82         +102         +104         +15         +1.5           -2.6         +3.3         +31         +59         +79         +74         +1.4         +1.8           -4.0         +3.4         +36         +67         +90         +83         +0.9	+1.3 -3.3 +4.4 +42 +82 +102 +104 +15 +1.5
1.3 +53 +3.4		+15 +1.5	+102 +104 +15 +1.5	+42 +82 +102 +104 +15 +1.5	CT1 CT1 10T1 70T1 701 711 1711	-2.6         +3.3         +31         +59         +79         +74         +14         +1.8           -4.0         +3.4         +36         +67         +90         +83         +20         +0.9	
2.4 +38 +4.0		+14 +1.8	+79 +74 +14 +1.8	+31 +59 +79 +74 +14 +1.8	+3.3 +31 +59 +79 +74 +14 +1.8	-4.0 +3.4 +36 +67 +90 +83 +20 +0.9	+3.3 +31 +59 +79 +74 +14 +1.8
-3.3 +51 +7.0	6.0	+20	+90 +83 +20	+36 +67 +90 +83 +20	+3.4 +36 +67 +90 +83 +20		+3.4 +36 +67 +90 +83 +20
-1.3 +55 +4.9	0.5	+99 +18 +0.5	+18	+41 +80 +104 +99 +18	+4.3 +41 +80 +104 +99 +18	+2.3 +4.3 +41 +80 +104 +99 +18	+4.3 +41 +80 +104 +99 +18
-2.3 +49 +3.4	1.8	+99 +11 +1.8	+11	+40 +76 +96 +99 +11	+6.0 +40 +76 +96 +99 +11	-2.4 +6.0 +40 +76 +96 +99 +11	+6.0 +40 +76 +96 +99 +11
-3.1 +40 +3.6	0.7	+78 +9 +0.7	6+	+36 +64 +80 +78 +9	+5.4 +36 +64 +80 +78 +9	-1.4 +5.4 +36 +64 +80 +78 +9	+5.4 +36 +64 +80 +78 +9
-1.9 +44 +3.2	1.5	+88 +10 +1.5	+10	+36 +66 +81 +88 +10	+4.9 +36 +66 +81 +88 +10	-3.7 +4.9 +36 +66 +81 +88 +10	+4.9 +36 +66 +81 +88 +10
-1.3 +53 +6.3	·1.2	+97 +9 +1.2	6+	+40 +68 +94 +97 +9	+4.6 +40 +68 +94 +97 +9	-3.4 +4.6 +40 +68 +94 +97 +9	+4.6 +40 +68 +94 +97 +9
-1.0 +50 +4.5	·1.4	+99 +9 +1.4	6+	+40 +75 +96 +99 +9	+6.6 +40 +75 +96 +99 +9	-0.6 +6.6 +40 +75 +96 +99 +9	+6.6 +40 +75 +96 +99 +9
-3.3 +63 +3.1	-1.7	+109 +12 +1.7	+12	+44 +88 +113 +109 +12	+6.0 +44 +88 +113 +109 +12	-3.8 +6.0 +44 +88 +113 +109 +12	+6.0 +44 +88 +113 +109 +12
-2.8 +50 +2.5	·2.6	+104 +15 +2.6	+15	+40 +75 +102 +104 +15	+6.4 +40 +75 +102 +104 +15	-1.1 +6.4 +40 +75 +102 +104 +15	+6.4 +40 +75 +102 +104 +15
-5.3 +54 +4.7	·1.1	+85 +11 +1.1	+11	+41 +75 +93 +85 +11	+4.2 +41 +75 +93 +85 +11	-4.3 +4.2 +41 +75 +93 +85 +11	+4.2 +41 +75 +93 +85 +11
-3.0 +62 +6.0	2.3	+122 +7 +2.3	+7	+47 +85 +117 +122 +7	+7.6 +47 +85 +117 +122 +7	-3.5 +7.6 +47 +85 +117 +122 +7	+7.6 +47 +85 +117 +122 +7
-2.7 +62 +5.2	-2.4	+113 +8 +2.4	+8	+50 +87 +119 +113 +8	+8.3 +50 +87 +119 +113 +8	+1.1 +8.3 +50 +87 +119 +113 +8	+8.3 +50 +87 +119 +113 +8
-2.7 +44 +7.3	-1.6	+86 +8 +1.6	4	+38 +64 +89 +86 +8	+5.3 +38 +64 +89 +86 +8	-2.5 +5.3 +38 +64 +89 +86 +8	+5.3 +38 +64 +89 +86 +8
-1.7 +45 +3.5	6.0	+84 +7 +0.9	+7	+38 +69 +88 +84 +7	+6.1 +38 +69 +88 +84 +7	-1.7 +6.1 +38 +69 +88 +84 +7	+6.1 +38 +69 +88 +84 +7
-2.6 +51 +6.0	·1.0	+97 +10 +1.0	+10	+41 +74 +98 +97 +10	+5.6 +41 +74 +98 +97 +10	-2.7 +5.6 +41 +74 +98 +97 +10	+5.6 +41 +74 +98 +97 +10
-3.3 +57 +3.1	-2.4	+114 +12 +2.4	+12	+44 +83 +111 +114 +12	+6.7 +44 +83 +111 +114 +12	-2.0 +6.7 +44 +83 +111 +114 +12	+6.7 +44 +83 +111 +114 +12
-2.4 +51 +2.7		+106 +8 +1.3	+8 +1.3	+41 +74 +100 +106 +8 +1.3	+7.0 +41 +74 +100 +106 +8 +1.3	-1.3 +7.0 +41 +74 +100 +106 +8 +1.3	+7.0 +41 +74 +100 +106 +8 +1.3
-4.2 +67 +6.2		+119 +15 +3.3	+15	+50 +97 +125 +119 +15	+6.8 +50 +97 +125 +119 +15	+0.3 +6.8 +50 +97 +125 +119 +15	+6.8 +50 +97 +125 +119 +15
-5.2 +46 +2.7	2.7	+94 +14 +2.7	+14	+41 +74 +101 +94 +14	+6.6 +41 +74 +101 +94 +14	-0.7 +6.6 +41 +74 +101 +94 +14	+6.6 +41 +74 +101 +94 +14
	3.4	+113 +10 +3.4	+113 +10	+44 +83 +110 +113 +10	+6.4 +44 +83 +110 +113 +10	+0.7 +6.4 +44 +83 +110 +113 +10	+0.0 +0.7 +6.4 +44 +83 +110 +113 +10
Days to Carc. EMA Calving Wt		Milk Scrotal Size	400 Day 600 Day Mat Milk Scrotal Wt Wt Cow Wt Size	200 Day         400 Day         600 Day         Mat         Scrotal           Wt         Wt         Wt         Cow Wt         Size	Birth 200 Day 400 Day 600 Day Mat Milk Scrotal Wt Wt Wt Cow Wt Scrotal	Gest         Birth         200 Day         400 Day         600 Day         Mat         Milk         Scrotal           Length         Wt         Wt         Wt         Wt         Scrotal         Size	Birth 200 Day 400 Day 600 Day Mat Milk Scrotal Wt Wt Wt Cow Wt Scrotal
					200. 71.	2 L	2 L



## **RECESSIVE GENETIC CONDITIONS**

#### **INFORMATION FOR BULL BUYERS**

This is information for bull buyers about the recessive genetic conditions, Arthrogryposis Multiplex (AM), Hydrocephalus (NH), Contractural Arachnodactyly (CA) and Developmental Duplications (DD).

#### Putting undesirable Genetic Recessive Conditions in perspective

All animals, including humans, carry single copies (alleles) of undesirable or "broken" genes. In single copy form, these undesirable alleles usually cause no harm to the individual. But when animals carry 2 copies of certain undesirable or "broken" alleles it often results in bad consequences. Advances in genomics have facilitated the development of accurate diagnostic tests to enable the identification and management of numerous undesirable or "broken" genes. Angus Australia is proactive in providing its members and their clients with relevant tools and information to assist them in the management of known undesirable genes and our members are leading the industry in their use of this technology.

#### Key point: With today's DNA tools undesirable genetic conditions can be managed!

#### What are AM, NH, CA and DD?

AM, NH, CA and DD are all recessive conditions caused by "broken" alleles within the DNA of individual animals. When a calf inherits 2 copies of the AM or NH alleles their development is so adversely affected that they will be still-born.

In other cases, such as CA and DD, calves carrying 2 copies of the broken allele may reach full-term. In such cases the animal may either appear relatively normal, or show physical symptoms that affect their health and/or performance.

*Key point: The number of reported observations of AM, NH, CA and DD calves is very low and there is certainly no need for panic.* 

#### How are the conditions inherited?

Research in the U.S. and Australia indicates that AM, NH, CA and DD are simply inherited recessive conditions. This means that a single gene (or pair of alleles) controls the condition. For this mode of inheritance two copies of the undesirable allele need to be present before the condition is seen; in which case you may get an abnormal calf. A more common example of a trait with a simple recessive pattern of inheritance is black and red coat colour.

Animals with only one copy of the undesirable allele (and one copy of the normal form of the allele) appear normal and are known as "carriers".

#### What happens when carriers are mated to other animals?

Carriers, will on average, pass the undesirable allele to a random half (50 %) of their progeny.

When a carrier bull and carrier cow is mated, there is a 25% chance that the resultant calf will inherit two normal alleles, a 50% chance that the mating will result in a carrier (i.e. with just 1 copy of the undesirable allele, and a 25% chance that the calf will inherit two copies of the undesirable gene.

If animals tested free of the undesirable gene are mated to carrier animals the condition will not be expressed at all. All calves will appear normal, but approximately half (50%) could be expected to be carriers.

Key point: For the condition to be expressed the undesirable gene needs to be present on both sides of the pedigree and both the sire and dam need to be a carrier.

#### How is the genetic status of animals reported?

DNA-based diagnostic tests have been developed which can be used to determine whether an individual animal is either a carrier or free of the alleles resulting in AM, NH, CA or DD.

Angus Australia uses advanced software to calculate the probability of (untested) animals to being carriers of AM, NH, CA or DD. The software uses the test results of any relatives in the calculations and the probabilities may change as new results for additional animals become available.

The genetic status of animals is being reported using five categories:

Т	AMF
Based on pedigree AN	AMFU
% probability	AM%
Tes	AMC
	AMA

For NH, CA and DD, simply replace AM in the above table with NH, CA or DD.

Registration certificates and the Angus Australia web-database display these codes. This information is displayed on the animal details page and can be accessed by conducting an "Animal Search" from the Angus Australia website or looking up individual animals listed in a sale catalogue.

Key point: The genetic status of an animal is subject to change and will be re- analysed and adjusted each week as DNA test results of relatives are received.

#### **Implications for Commercial Producers**

Your decision on the importance of the genetic condition status of replacement bulls should depend on the genetics of your cow herd (which bulls you previously used) and whether some female progeny will be retained or sold as breeders.

Most Angus breeders are proactive and transparent in managing known genetic conditions, endeavouring to provide the best information available.

Key point: The greatest risk to the commercial sector from undesirable genetic recessive conditions comes from unregistered bulls with unknown genetic background.

The genetic condition testing that Angus Australia seedstock producers are investing in provides buyers of registered Angus bulls with unmatched quality assurance.

For further information contact Angus Australia's Breed Development and Innovation Manager at (02) 6773 4602.

ested AM free

1 free – Animal has not been tested

the animal is an AM carrier

sted AM-Carrier

AM-Affected

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SOUTH AUSTRALIA	Richard Miller	0428 849 327	Gordon Wood	0408 813 215

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For more information contact: Ross Milne 0408 057 558 Allan Hickey 0409 675 948

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For inquiries contact Hamish Branson Phone 0419 884 839

# LOCATION: Please note this Spring Sale will be located at the Mortlake Saleyards, Mortlake, Victoria.

#### **TRAVEL TIMES:**

From - Melbourne From - Hamilton From - Ballarat 3 hours 60 mins 1.5 hours From - Warrnambool From - Geelong

#### **ACCOMMODATION:**

Dalvue Motel Terang: (03) 5592 1566 Mid City Motel Warrnambool: (03) 5562 3866

Motels are available in Warmambool, Camperdown, Hamilton or Terang. Should you require accommodation, contact us or the selling agents for bookings.

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30 mins

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