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261 Powells Road, LUE. NSW. 2850

I OBJECT to the proposed SVL Bowdens Project

(1)The proposal must be rejected, due to the huge impacts its proposed water useage will have on agriculture in the surrounding area, residents in the village, those dependent on reliable bore water and downstream users. My major personal concern as a landholder engaged in an agricultural business is the potential impacts on critical underground water sources on our property, most particularly our farm 50 megalitre irrigation licence. Our ability to use our land to raise cattle and sheep is entirely dependent on underground water in times of drought and I have no confidence that any make good provisions will overcome that potential loss.

The fact that this proponent has never undertaken any monitoring of our registered 50 megalitre bore only heightens my concerns.

Using modelling projections, the proponents assert that sufficient water will be sourced from within Bowdens holdings and the mine site. Actual rainfall records, meticulously kept by property owners adjacent to the proposed mine site show that the water available to the proponent from rainfall is far less and far less reliable than claimed in the proponents modelling.

When the project inevitably falls seriously short of the water it needs, where will the replacement water come from? Even a brief analysis of the rainfall figures scrupulously recorded at our property over 35 years will show that not enough reliable water can be accessed through rainfall and the modelling is not supported by historical records.

Once again the proponents have failed to make a believable case that they can source anything like an adequate volume of water from the area or anywhere else that would justify the project's approval.

The rainfall data below clearly shows that the annual Summer recorded rainfall falls well short of the modelled 75mm per month (450mm over Summer) on 21 of the past 32 Summers.

That is, only 33% of Summer rainfalls in the past 30 years has exceeded 450mms. Also, in only 84 of 204 summer months (41.1%) has the monthly total exceeded 45 mms.

Rainfall data from Mudgee Airport Weather Station (1994-2022) also indicates that the modelled projected Summer rainfall of 75 mm per month is incorrect. The mean rainfall figures are October (50.3), November (76.1), December (77.3), January (66.1), February (64.7), March (65.4).

Total = 399.9 mm. Monthly average = 66.6 mm.

The proponent will not be able to find the necessary water to conduct its operations without catastrophically depleting groundwater in the area of Hawkins Creek and Lawson Creek.

(2)I am also very concerned that the proponent consistently refuses to address very real community concerns about potential health impacts by at least establishing comprehensive baseline data for severe health risks such as lead. The proponent SVL advertises the project as a Silver mine. When the volume of Lead derived from this project is **AT LEAST 50** times that of Silver, the glossing over of the volume of lead to be extracted and the sidestepping of any health impacts is dishonest. If, as the proponent asserts, there is NO risk to health from lead at the project, then to show good faith to the community the proponent must be compelled to carry out comprehensive baseline testing before approval is granted or any work commences. Community concerns about Lead were not adequately addressed in the EIS and the data used was historic (from 2012 and 2013 in the time of KCN ownership of the project) and discredited, derided and dismissed as out of date by the proponent SVL.

(3)Another very serious aspect of this process has been that the EIS which was put on display for community comment in 2020 is markedly different to what is being put forward as a simple amendment in 2022. The community did not have access to the current model and the far more serious effects it will certainly have on surface and groundwater in this area.

The 2020 proposal included a water pipeline from the coalfields which was to supply a significant volume of water to supplement water collected on site. Community members were assured that this would relieve pressure on local

ground and surface water supplies. Some community members believed, rightly or wrongly, that this water pipeline would include a reticulated water supply system to the village of Lue. This community benefit was widely reported as being a strong reason for some Lue residents to support the project.

In the interests of giving the local community a fair opportunity to assess the real impacts of this project on the Lue community and its surrounding agricultural enterprises, an amended EIS must now be submitted by the proponent.

RESPONSE TO BOWDENS PIPELINE AMENDMENT

- Users of Surface and Groundwater: (*Page x*) ***states “this strategy would not be likely to increase the projects impacts on users of surface water and groundwater resources”.***

(1) The term “**not be likely**” engenders no confidence in the people of Lue and surrounds who rely on surface and groundwater for stock and domestic purposes that they will continue to enjoy safe and reliable water supplies. During 2018 and 2019 drought surface water supplies were severely depleted, with many dams and water storages drying up completely. Groundwater was critical for keeping stock alive. The huge volumes of water to be used annually in this proposed project, coupled with the next severe drought, will make conventional farming and grazing extremely difficult if not impossible. The projected rainfall figures used in the modelling are wildly optimistic.

In particular, the projected Summer rainfall average of 75mm per month in a 34 year period was exceeded on only 41% of the Summer months recorded since 1987. (See detailed rainfall data below)

- Impacts on other Registered Groundwater Users: (*Page xiv concedes there will be “**potential impacts** associated with the availability of groundwater for other registered groundwater users”.* The proponent concedes in (x) and (xiv) that other users will “**potentially**” be impacted. There are 106 bores located within 10 kms of the project. They are used

for stock and domestic purposes. How severe are the “potential” impacts likely to be in times of severe drought?

Enough to make a bore unusable? All the make good promises will be as nothing when the project concludes and a bore no longer produces water.

Has the proponent promised to “make good” in perpetuity?

- Drawdown: **(Page xvi): *Whilst groundwater drawdown greater than 2m is predicted at only one privately-owned registered groundwater bore Jacobs (2022) considers this prediction is the result of model conservatism***. Words to strike fear into the hearts of groundwater users –
Predicted- and if the modelling is erroneous and the prediction is in error, the groundwater users of Lue and surrounds will be bearing the burden
Considers – the opinion of a consultant which may prove to be in error
- Environmental Outcomes. **(Page xxi): *“The residual environmental outcomes are **not predicted** to impose an **unacceptable cost** to future generations*”**. Once again, a consultant is making predictions about what might happen in the future. The prediction may prove to be incorrect. How did SVL come to the conclusion that a future cost is not **“unacceptable”**?
The residents of LUE and surrounds are expected to submit to what the proponent suggests is acceptable. Loss of amenity, visual impacts, noise impacts, light, possible depletion of surface and groundwater, increased traffic and the parting gift of a massive void partially filled with what was once precious water in our underground aquifers will be their legacy. Agricultural land (currently growing a very impressive dryland sorghum crop) (See photograph below) which has sustained life for countless generations of First Nations people will be rendered agriculturally useless forever. This is absolutely unacceptable.



Dryland Sorghum crop on Price's Gully, Bowdens – 7th February 2022.

- Downstream water Users: ***Water Supply Amendment Report (Page 4):- potential impacts – the loss of baseflow on the availability of water for downstream users in the Lawson Creek water source. (Page 41) “there would be negligible change in availability of surface water for downstream users adjacent to Lawson Creek.***

Again, in times of severe drought such as in 2018 and 2019, downstream users were reliant on permanent pools fed by underground aquifers as there was no flow in Lawson Creek. Upstream diversion of underground water to the proposed mine site may well have very significant effects on downstream users. If the project were to proceed, those effects would be irreversible.

- Registered Groundwater Users. There are 106 of these within 10 kilometres of the proposed mine site. Only 24 are part of a monitoring program. My family property contains a registered bore (WAL 27907/Associated Groundwater work/Stock, Domestic/Irrigation. Sydney Basin, Murray Darling Basin). This bore has an associated 50 megalitre irrigation licence. The previous proponent KCN undertook some intermittent monitoring of this bore around 2011 -2015 and provided me with the results of that monitoring program.

Since taking over the project in 2016, the current proponent SVL, has never approached any member of my family to request access to this bore for monitoring purposes.

All 106 bores should be part of a monitoring program so there can be no dispute about the degree of loss of access to water once the proponent commences the dewatering and collection process. ***(Page 59. Referring to bores likely to be adversely effected by drawdown- “Monitoring for potential drawdown impacts at these bores would be an objective of the groundwater monitoring program for the project”.***

Clearly, monitoring of all 106 bores to clearly indicate if drawdown impacts have occurred must be required of the proponent. The proponent has stated that “Make good” provisions would be honoured by Bowdens.

As the proponent has conducted NO monitoring of WAL 27907, that drawdown impact on bore capacity would impossible to establish.

- Health Risks. Community concerns about health risks continue to be dismissed by the proponent. The refusal to undertake broad community baseline testing for lead is proof of this. In fact, the proponent states **(Page 78) “The project would make a negligible contribution to overall particulate matter exposures with no health impacts of concern during any stage of the project”.**

The use of the term “**negligible**” without any clear definition about who decides what is negligible is more serious. Current health advice is that there is NO safe level of exposure to lead. (Professor Mark Taylor, Macquarie University). “No health impacts”? Without baseline testing, this statement is nothing more than a wild guess.

- Property Values. **(Page 99.) Some impacts on property values would be expected where a property is likely to be impacted by noise, air, visual, impacts etc, albeit at levels assessed to be acceptable.**

So, property values will be affected, but that is acceptable? Acceptable to whom? SVL? Probably yes. Acceptable to the aggrieved property owner? Not so much. The proponent goes on to state” **Where these impacts are contained/mitigated, no impact to property value would be expected to occur**”. A comforting statement with no evidence to support it. There are countless stories of property owners, not close enough to a project to be bought out, living in a stranded asset, unable to sell at a fair price and wearing all the consequences of proximity to a major industrial site which was not present when the property was purchased.

Rainfall data for 261 Powells Road LUE.

Our property is 2.2kms from the Eastern edge of the proposed pit. Daily Rainfall recording commenced in 1987. These records indicate that the SVL rainfall projections stating that the area within which the proposed development lies receives an average Summer Rainfall of 75 mms per month or 450 mms for the period October – March inclusive **are wildly optimistic, unreliable and untrustworthy.**

These rainfall records show that the area received greater than 450mms over Summer on just 11 occasions from 32 Summers from 1987 -2022.

The recordings were 453,463, 474, 504,504,511,580,606,635, 637 and 676mm.

The area received less than 450 mms Summer rainfall on 21 occasions from 1987-2022.

The recordings were 239, 248, 259, 266,290, 347,352, 365, 368,372, 381, 384, 391, 400, 407,408, 409, 437, 438, 444 and =450.

Some rainfall totals for Summer were very significantly lower than 450mms.

An analysis of just the 6 months of Summer in this recording period, of a total of 204 months, shows only 84 of the 204 recorded falls greater than 75mms for the month. (Several monthly recordings were very high, including totals of 227, 218, 204,198, 195 and 181 mms).

Most concerningly, 120 months of 204 recorded falls below 75 mms for the month.

These rainfall records clearly show that rainfall in Summer months exceeds the SVL indicative average of 75mms just 41% of the time period from 1987 – 2021. I.E. $84/204 \times 100 = 41.17\%$.

Year	Month	Rainfall		Summer		Summer	
1987	Jan			Oct	91	Jan	129
	Feb			Nov	73	Feb	72
	Mar			Dec	83	Mar	21
	Apr	0					
	May					Summer	
	Jun					Total	474
	Jul	38					
	Aug						
	Sep	24					
	Oct						
	Nov					Annual	
	Dec					Total	774

Year	Month	Rainfall		Summer		Summer	
1988	Jan			Oct	5	Jan	43
	Feb			Nov	60	Feb	35
	Mar	21		Dec	59	Mar	91
	Apr						
	May	40				Summer	
	Jun	16				Total	290
	Jul						
	Aug						
	Sep						
	Oct	5					
	Nov						
	Dec					Annual	
						Total	705

Year	Month	Rainfall		Summer		Summer	
1989	Jan	43		Oct	48	Jan	77
	Feb	45		Nov	100	Feb	97
	Mar			Dec	49	Mar	29
	Apr						
	May					Summer	
	Jun					Total	400
	Jul						
	Aug	18					
	Sep	3					
	Oct						
	Nov						
	Dec					Annual	
						Total	822

Year	Month	Rainfall		Summer		Summer	
1990	Jan			Oct	67	Jan	84
	Feb			Nov	6	Feb	30
	Mar	29		Dec	39	Mar	22
	Apr						
	May	38				Summer	
	Jun	34				Total	248
	Jul						
	Aug						
	Sep	45					
	Oct						
	Nov	6					
	Dec	39				Annual	
						Total	848

Comment: two period totalling 230 days in 1990/1991 recorded 185mms. 23/10/1990-31/12/1990 = 45 mms over 70 days. 11/1/1991-10/5/1991= 140mms over 160 days

Year	Month	Rainfall		Summer		Summer	
1991	Jan			Oct	30	Jan	47
	Feb	30		Nov	21	Feb	227***
	Mar	22		Dec	107	Mar	72
	Apr	2					
	May					Summer	
	Jun					Total	504
	Jul						
	Aug	48					
	Sep	31					
	Oct	30					
	Nov	21					
	Dec					Annual	
						Total	574

Comment: Severe Winter deficit. 8/3/1991-30/8/1991=134mms over 180 days

Year	Month	Rainfall		Summer		Summer	
1992	Jan			Oct	73	Jan	41
	Feb			Nov	79	Feb	50
	Mar			Dec	103	Mar	84
	Apr	14					
	May	15				Summer	
	Jun	21				Total	450
	Jul	20					
	Aug	64					
	Sep	43					
	Oct						
	Nov					Annual	
	Dec					Total	774

Comment: Severe winter deficit. 177mms recorded in 6 months

Year	Month	Rainfall		Summer		Summer	
1993	Jan	41		Oct	108	Jan	22
	Feb	50		Nov	102	Feb	68
	Mar			Dec	29	Mar	43
	Apr	2					
	May	28				Summer	
	Jun	42				Total	372
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	778

Comment: Severe deficit. 163mms recorded in 6 months. 30/3/93-4/7/93=72mms

Year	Month	Rainfall		Summer		Summer	
1994	Jan			Oct	19	Jan	118
	Feb			Nov	87	Feb	82
	Mar	43		Dec	58	Mar	4
	Apr	15					
	May	13				Summer	
	Jun	10				Total	368
	Jul	46					
	Aug	20					
	Sep	2					
	Oct	19					
	Nov					Annual	
	Dec					Total	401

Comment: Severe Winter deficit. 168mms in 8 months

Year	Month	Rainfall		Summer		Summer	
1995	Jan			Oct	25	Jan	198
	Feb	82		Nov	72	Feb	28
	Mar	4		Dec	131	Mar	17
	Apr	3					
	May					Summer	
	Jun					Total	511
	Jul	38					
	Aug	1					
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	704

Comment: Dry spells Feb/Mar/Apr and again in Jul/Aug/Sep

Year	Month	Rainfall		Summer		Summer	
1996	Jan			Oct	60	Jan	58
	Feb			Nov	92	Feb	83
	Mar			Dec	123	Mar	37
	Apr						
	May					Summer	
	Jun					Total	453
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	963

Year	Month	Rainfall		Summer		Summer	
1997	Jan			Oct	52	Jan	55
	Feb			Nov	23	Feb	54
	Mar	37		Dec	42	Mar	33
	Apr	5					
	May	47				Summer	
	Jun	25				Total	259
	Jul	32					
	Aug	19					
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	503

Winter deficit. 165mms over 6 months

Year	Month	Rainfall		Summer		Summer	
1998	Jan			Oct	62	Jan	57
	Feb			Nov	95	Feb	14
	Mar			Dec	38	Mar	81
	Apr						
	May					Summer	
	Jun					Total	347
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	876

Year	Month	Rainfall		Summer		Summer	
1999	Jan			Oct	154	Jan	128
	Feb			Nov	51	Feb	3
	Mar			Dec	71	Mar	218
	Apr						
	May					Summer	
	Jun					Total	635
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	690

Year	Month	Rainfall		Summer		Summer	
2000	Jan			Oct	123	Jan	29
	Feb	3		Nov	140	Feb	65
	Mar			Dec	147	Mar	76
	Apr						
	May					Summer	
	Jun					Total	580
	Jul						
	Aug						
	Sep	20					
	Oct						
	Nov					Annual	
	Dec					Total	1147

Year	Month	Rainfall		Summer		Summer	
2001	Jan			Oct	93	Jan	43
	Feb			Nov	51	Feb	113
	Mar			Dec	37	Mar	28
	Apr						
	May					Summer	
	Jun					Total	365
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	628

Year	Month	Rainfall		Summer		Summer	
2002	Jan			Oct	8	Jan	10
	Feb			Nov	32	Feb	162
	Mar	28		Dec	62	Mar	52
	Apr	5					
	May	34				Summer	
	Jun	31				Total	408
	Jul	11					
	Aug	16					
	Sep	31					
	Oct	8					
	Nov	32				Annual	
	Dec	62				Total	410
2003	Jan	10					

Severe winter and spring deficit. 268mms in 11 months

Year	Month	Rainfall		Summer		Summer	
2003	Jan	10		Oct	82	Jan	22
	Feb			Nov	74	Feb	92
	Mar			Dec	55	Mar	27
	Apr						
	May	18				Summer	
	Jun					Total	352
	Jul	40					
	Aug						
	Sep	11					
	Oct						
	Nov					Annual	
	Dec					Total	710

Year	Month	Rainfall		Summer		Summer	
2004	Jan			Oct	83	Jan	20
	Feb			Nov	67	Feb	134
	Mar	27		Dec	121	Mar	69
	Apr	35					
	May	30				Summer	
	Jun	26				Total	504
	Jul	60					
	Aug	36					
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	616

Year	Month	Rainfall		Summer		Summer	
2005	Jan			Oct	72	Jan	48
	Feb			Nov	175	Feb	69
	Mar			Dec	34	Mar	11
	Apr	0					
	May	3				Summer	
	Jun					Total	409
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	796

Year	Month	Rainfall		Summer		Summer	Mills
2006	Jan			Oct	5	Jan	5
	Feb			Nov	32	Feb	115
	Mar	11		Dec	20	Mar	62
	Apr	69					
	May	2				Summer	
	Jun	30				Total	239
	Jul	65					
	Aug	18					
	Sep	22					
	Oct	5					
	Nov	32				Annual	
	Dec	20				Total	383

Comment: Dry Autumn. Winter drought. 274mms in 10 months. **7th driest year on record**
(Mudgee Rainfall statistics)

Year	Month	Rainfall	Rainfall	Summer		Summer	
		Mud Air	Mills				
2007	Jan	16	5	Oct	5	Jan	125
	Feb	81	115	Nov	115	Feb	133
	Mar	77	62	Dec	62	Mar	23
	Apr	36	23				
	May	58	60			Summer	
	Jun	127	160			Total	463
	Jul	14	21				
	Aug	35	0				
	Sep	1	0				
	Oct	26	18				
	Nov	100	125		Annual	Mud Air	Mills
	Dec	151	111		Total	702	700

Year	Month	Rainfall		Summer		Summer	
2008	Jan			Oct	88	Jan	6
	Feb			Nov	153	Feb	90
	Mar	23		Dec	76	Mar	25
	Apr	12					
	May	7				Summer	
	Jun	50				Total	438
	Jul	39					
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	840

Dry winter. 131mms in 5 months.

Year	Month	Rainfall		Summer		Summer	
2009	Jan			Oct	42	Jan	78
	Feb			Nov	28	Feb	98
	Mar	25		Dec	129	Mar	62
	Apr	24					
	May	6				Summer	
	Jun	41				Total	437
	Jul	40					
	Aug	16					
	Sep						
	Oct						
	Nov					Annual	

	Dec					Total	518
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Dry Autumn and Winter. 152mms in 6 months.

Year	Month	Rainfall		Summer		Summer	
2010	Jan			Oct	67	Jan	30
	Feb			Nov	170	Feb	32
	Mar			Dec	188	Mar	47
	Apr						
	May					Summer	
	Jun					Total	534
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	1067

Year	Month	Rainfall		Summer		Summer	
2011	Jan			Oct	38	Jan	88
	Feb			Nov	136	Feb	142
	Mar	47		Dec	75	Mar	197
	Apr	25					
	May	38				Summer	
	Jun	15				Total	676
	Jul	2					
	Aug	57					
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	598

Dry Winter. 194mm in 6 months

Year	Month	Rainfall		Summer		Summer	
2012	Jan			Oct	15	Jan	NA
	Feb			Nov	40	Feb	NA
	Mar			Dec	86	Mar	NA
	Apr						
	May					Summer	
	Jun					Total	NA
	Jul						
	Aug	7					
	Sep	43					
	Oct	15					
	Nov	40				Annual	
	Dec					Total	793

Dry Spring. 105mms in 4 months

Year	Month	Rainfall		Summer		Summer	
2013	Jan			Oct	NA	Jan	14
	Feb			Nov	NA	Feb	86
	Mar			Dec	NA	Mar	125
	Apr						
	May					Summer	
	Jun					Total	NA
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	NA

Year	Month	Rainfall		Summer		Summer	
2014	Jan			Oct	26	Jan	60
	Feb			Nov	32	Feb	23
	Mar			Dec	98	Mar	27
	Apr						
	May	23				Summer	
	Jun	42				Total	266
	Jul	38					
	Aug	24					
	Sep	24					
	Oct	26					
	Nov	32				Annual	
	Dec					Total	612

Dry winter. 209 mms in 7 months.

Year	Month	Rainfall		Summer		Summer	
2015	Jan			Oct	33	Jan	113
	Feb			Nov	80	Feb	46
	Mar			Dec	105	Mar	30
	Apr						
	May	52				Summer	
	Jun	43				Total	407
	Jul	47					
	Aug	27					
	Sep	9					
	Oct	33					
	Nov					Annual	
	Dec					Total	604

Dry winter. 211mms in 6 months.

Year	Month	Rainfall		Summer		Summer	
2016	Jan			Oct	76	Jan	43
	Feb	46		Nov	58	Feb	30
	Mar	30		Dec	33	Mar	204
	Apr	2					
	May					Summer	
	Jun					Total	444
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	886

Dry Autumn. 78mms in 3 months.

Year	Month	Rainfall		Summer		Summer	
2017	Jan			Oct	28	Jan	27
	Feb			Nov	72	Feb	111
	Mar			Dec	86	Mar	60
	Apr	31					
	May	0				Summer	
	Jun	13				Total	384
	Jul	2					
	Aug	26					
	Sep	3					
	Oct	28					
	Nov					Annual	
	Dec					Total	535

Severe winter deficit. 102mms in 7 months.

Year	Month	Rainfall		Summer		Summer	
2018	Jan			Oct	56	Jan	122
	Feb			Nov	39	Feb	9
	Mar			Dec	55	Mar	100
	Apr	19					
	May	9				Summer	
	Jun	32				Total	381
	Jul	13					
	Aug	39					
	Sep	35					
	Oct						
	Nov					Annual	
	Dec					Total	503

Severe winter deficit. 147mms in 6 months.

Year	Month	Rainfall		Summer		Summer	
2019	Jan			Oct	16	Jan	62
	Feb	9		Nov	34	Feb	78
	Mar	100		Dec	3	Mar	108
	Apr	0					
	May	15				Summer	
	Jun	7				Total	391
	Jul	1					
	Aug	9					
	Sep	37					
	Oct	16					
	Nov	34				Annual	
	Dec	3				Total	350

Severe Drought through entire year. 231mms in 11 months.

Year	Month	Rainfall		Summer		Summer	
2020	Jan			Oct	103	Jan	50
	Feb			Nov	43	Feb	78
	Mar			Dec	137	Mar	195
	Apr						
	May					Summer	
	Jun					Total	606
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	874

Year	Month	Rainfall		Summer		Summer	
2021	Jan			Oct	73	Jan	114
	Feb			Nov	163	Feb	39
	Mar			Dec	67	Mar	181
	Apr						
	May					Summer	
	Jun					Total	637
	Jul						
	Aug						
	Sep						
	Oct						
	Nov					Annual	
	Dec					Total	798