

22 March 2014

WM Project Number: 06159-WM  
 Our Ref: AGL220314 RH\_Ltr\_SF20ComplianceResults  
 Email: tlawler@agl.com.au

Tom Lawler  
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 Lot 35, Medhurst Road  
 MENANGLE NSW 2568D2

Dear Tom

**Re: Operational noise monitoring of well site SF20**

**Introduction**

Wilkinson Murray was commissioned to conduct operational noise monitoring for the free-flowing well site Spring Farm 20 (SF20). Measurements were conducted at various locations to assess compliance at the potentially most affected residential receiver.

This letter report summarises the results of the measurements conducted on the evening of Wednesday, 19 March 2014.

**Operational Noise Criteria**

The Minister’s Conditions of Approval for the Project state the Project-specific operational noise criteria and are presented in Table 1.

**Table 1 Project-Specific Operational Noise Criteria**

Well Site	L <sub>Aeq,15min</sub> (dBA)		
	Day (7.00am – 6.00pm)	Evening (6.00pm – 10.00pm)	Night (10.00pm – 7.00am)
SF20	43	41	36

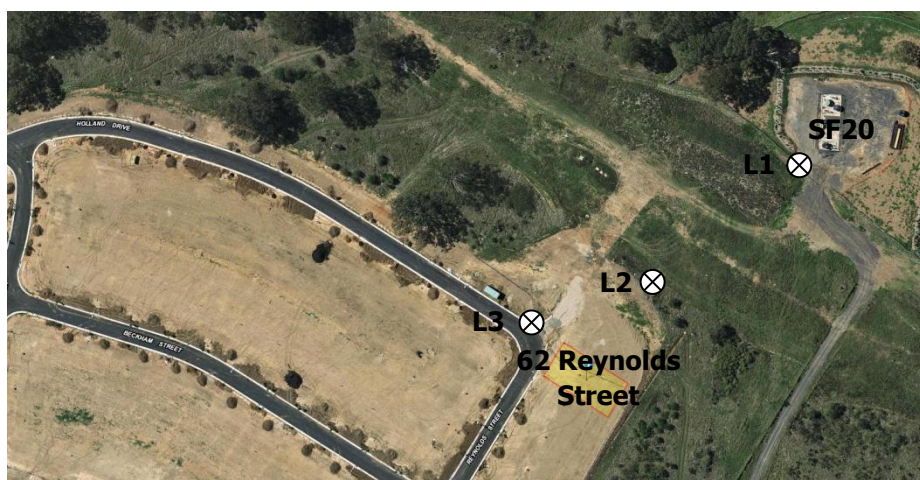
## Measurement Locations

Noise monitoring was conducted at the following measurement locations:

- L1 At outer fence of well site (approximately 15m south-west of the well).
- L2 On top of the mound located between the well site and the potentially most affected residential receiver (approximately 90m south-west of the well).
- L3 Corner of Holland Drive and Reynolds Street (approximately 130m south-west of the well). This location is representative of the easternmost point of Landcom's Spring Farm Eastern Village residential development area currently under construction and the potentially most affected residential receiver, namely the house located at 62 Reynolds Street.

Figure 1 shows the identified measurement locations.

**Figure 1 Measurement Locations**



## Monitoring Procedure

Measurements were conducted between 6.00pm and 10.00pm on Wednesday, 19 March 2014.

All measurements were conducted using a Bruel and Kjaer Type 2236 Sound Level Meter. This sound level meter conforms to Australian Standard 1259 *Acoustics - Sound Level Meters* as a Type 1 Precision Sound Level Meter which has an accuracy suitable for field and laboratory use. The A-Weighting filter of the meter was selected and the time weighting was set to "Fast". The calibration of the meter was checked before and after the measurements with a Bruel and Kjaer Type 4230 sound level calibrator and no significant drift was noted. The Bruel and Kjaer Type 2236 and Type 4230 have been laboratory calibrated within the previous two years in accordance with WM in-house Quality Assurance Procedures.

During the measurements, meteorological conditions were suitable for environmental noise monitoring (i.e. no rain and wind speeds below 5m/s). Wind speed and direction was determined using a hand-held digital anemometer.

## Measurement Results & Conclusion

Table 2 summarises the measurement results.

**Table 2 Measurement Results**

<b>Location</b>	<b>Measurement Period</b>	<b>Comments</b>	<b>Estimated L<sub>Aeq</sub> due to Well Site (dBA)</b>
L1	6.05pm – 6.10pm	Measurement dominated by well noise.	72
L2	6.12pm – 6.27pm	Well noise clearly audible most of the time, 36-38dBA	37
L3	6.29pm - 6.44pm	Well noise audible with insect and distant traffic noise, est. 26-29dBA.	28
L1	6.46pm – 6.51pm	Measurement dominated by well noise.	72
L2	6.53pm – 7.08pm	Well noise clearly audible most of the time, 36-38dBA.	37
L3	7.10pm – 7.25pm	Well noise audible with insect and distant traffic noise, est. 27-30dBA.	29
L1	7.28pm – 7.33pm	Measurement dominated by well noise.	72
L2	7.35pm – 7.50pm	Well noise clearly audible most of the time, 37-40dBA.	39
L3	8.00pm – 8.15pm	Well noise audible behind insect and distant traffic noise, est. 30-32dBA.	31
L1	8.18pm – 8.23pm	Measurement dominated by well noise.	72
L2	8.25pm – 8.40pm	Well noise clearly audible most of the time, 42-44dBA.	43
L3	8.55pm – 9.10pm	Well noise audible behind insect and distant traffic noise, est. 30-32dBA.	31
L1	9.13pm – 9.18pm	Measurement dominated by well noise.	72
L2	9.20pm – 9.35pm	Well noise clearly audible most of the time, 42-44dBA.	43
L3	9.45pm – 10.00pm	Well noise audible behind insect and distant traffic noise, est. 30-31dBA.	31

Noise results at location L1 demonstrate consistency in noise levels generated by the free-flowing well.

Based on the measurement results at L3, noise levels generated by well site SF20 are found to be well within the day, evening and night time noise criteria.

I trust this information is sufficient. Please contact us if you have any further queries.

Yours faithfully

**WILKINSON MURRAY**



**Roman Haverkamp**

Senior Engineer

**Note**

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**Quality Assurance**

We are committed to and have implemented AS/NZS ISO 9001:2008 "Quality Management Systems – Requirements". This management system has been externally certified and Licence No. QEC 13457 has been issued.

**AAAC**

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