



# INVESTIGATION REPORT

JUNE 2008



## THE DRIVES SEPPELT



# GREAT WESTERN VICTORIA

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## LOCATION & BACKGROUND INFORMATION

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### SITE DETAILS

LOCATION: The Drives  
Seppelt Winery,  
36 Cemetery Road  
Great Western, Victoria, Australia 3377  
37°09'28.57"S 142°51'18.89"E  
Elevation: 258 metres

DATE/TIME: 8pm Saturday June 14th  
until 5am Sunday June 15th 2008

Local Government Area: Northern Grampians Shire  
State District: Ripon Federal Division: Wannon  
Parish: Concongella South



Great Western is situated 225 kilometres north-west of Melbourne and has a population of over 600.

### GEOLOGICAL DETAILS

Structural Zone: Stawell  
Unit Name: Stawell Granite  
Classification: Igneous (Intrusive (Granite I-type))  
Age: Devonian (Early)

Lithological Description: Hornblende-biotite granite: pale; medium to coarse grained; occasional diorite, granodiorite and hornfels xenoliths; weakly foliated; oxidised, I-type, moderately magnetic.

Mineral Region: Ararat Goldfield/Great Western - gold production (primary/alluvial) 18900kg.

There are no records of any mine workings on or under the site, but it lies within an area subjected to prospecting and mining in the past, and there is a possibility of unrecorded mine workings being present.

Source: Department of Primary Industries

### METEOROLOGICAL & ASTRONOMICAL CONDITIONS

Lunar Rise 1:53pm (14/6) Set 4.15am (15/6)  
Disc Illum: 84.65%  
Age: 11 days (Waxing gibbous)  
Distance: 399271 km

Solar: Set 5.06pm (14/6) Rise 7.35am (15/6)  
Solar X-Rays: Normal Geomagnetic Field: Quiet

Climate: Average Mean temperatures for June Max. 11.4°C Min. 4.9°C  
Average Mean rain for June 66.8mm Days 9.8



**HISTORICAL BACKGROUND**

The area of Great Western was first settled by European sheep graziers in the 1840s. After the discovery of gold the population increased dramatically and in 1856 over 60,000 miners were in the area .

Two Frenchmen, Emile Blampied (c.1837-1914) & Jean-Pierre Trouette (c.1833-1885), who met at the Daylesford diggings, established the first vineyard in the area in 1863. It was known as St.Peters.



*Joseph Best*

In 1865 Joseph Best (1830-1887) established a vineyard on his property and in 1868 employed miners to commence the excavation of tunnels to be used for the storage of wine. His brother Henry Best (1832-1913) also commenced viticulture the following year and established the Congongella vineyard which still operates as “Best’s Great Western Wines”.

Joseph died in 1887 and the property was sold to Hans William Henry Irvine in 1888 for £12,000.

Hans Irvine (1856-1922) recruited Charles Pierlot and a team of workers from France to establish a sparkling wine, over 2000 bottles being laid down in the cellars in 1890.

It was during Hans Irvine’s time at the Great Western that Mark Twain (Samuel Langhorne Clements) visited and commented about The Drives; “*The Champagne is kept in a maze of passages underground, cut in the rock to secure it at an even temperature during the three year term required. In these vaults I saw 120,000 bottles of Champagne.*”



*Hans Irvine*

The 30 years that Hans Irvine ran the winery saw great expansion and the winery earned a grand reputation worldwide, receiving numerous awards along the way.

In 1918 Hans Irvine sold the winery to B. Seppelt & Sons, a company which had been greatly expanded by his good friend and Australian wine pioneer Benno Seppelt. In 1922 Hans Irvine died in London and his body was brought back to Great Western in a lead lined casket to buried in the graveyard adjacent to the winery with his wife Mary.



*Grave of Joseph and Henry Best in the Great Western Cemetery.*



*Above: Workers at the Great Western*



*An early view of “The Drives”*



*Grave of Hans Irvine*



*An early view of the Great Western winery.*

Benno Seppelt (born Oscar Benno Pedro Seppelt 1845-1931) was the son of Joseph Ernest Seppelt (1813-1868), founder of “Seppeltsfield” in South Australia’s Barossa Valley in 1851. Joseph died on January 29th 1868 and Benno became Seppeltsfield’s manager. Benno expanded the company immensely and it was known as B. Seppelt & Sons. When Benno died in 1931 his son Oscar Benno Seppelt (1873-1963) then became chairman of the board of directors, retiring in 1939. The winery is now owned by the Foster’s Group and the Seppelt name remains synonymous with excellence in wine making worldwide.

The tunnels which make up the cellars were constructed by ex-gold miners for the purpose of wine storage. They were employed by Joseph Best in 1868 to cut through the decomposed granite. The mining term “drives” was used to identify each tunnel and the labyrinth of tunnels was collectively termed “The Drives”. The tunnels were expanded by subsequent owners and by completion in 1932 they were over 3km in length.



Some of the tunnels were opened by distinguished personalities which their namesakes reflect such as Australia’s first Governor General Lord Hopetoun in 1903 and Dame Nellie Melba in 1910.

Dame Nellie Melba’s visit was also memorable for another reason. When she wondered what it would be like to bathe in champagne, Hans Irvine arranged for a bath to be filled with 152 bottles which she apparently enjoyed despite finding it a bit cold.

One area of The Drives is known as the Brandy Nook and is where Hans Irvine produced limited quantities of a 3 star brandy. Today the Brandy Nook is used for private bins for notable persons including a former prime minister.

The various viticulture experts involved with the Great Western site throughout its history have been instrumental to its success - a tradition which continues today. The vintage wines, as well as the sites great history, are well preserved.



## HISTORICAL TIME LINE

- 1813 Joseph Ernest Seppelt was born at Wüstewaltersdorf, Lower Silesia.
- 1830 Joseph Best was born at Richmond, Surrey, England.
- 1832 Henry Best was born at Richmond, Surrey, England.
- 1840s European settlers used land at Great Western for sheep grazing.
- 1845 Benno (Oscar Benno Pedro) Seppelt was born in Lower Silesia.
- 1851 Gold discovered in Ballarat.  
Benno Seppelt commenced his winery in South Australia's Barossa Valley.
- 1856 The gold rush was in full swing on the Ararat/Great Western goldfield with over 60,000 miners trying their luck.
- 1856 Aug 2nd Hans William Henry Irvine was born in Melbourne, Australia.
- 1863 Two Frenchmen establish the first winery at Great Western.
- 1865 Joseph Best established the vineyards at Great Western.  
The Shaft House was built - this formed the original entrance to "The Drives".
- 1866 Henry Best established the Congongella vineyard.
- 1868 Jan 29th Joseph Ernest Seppelt died and was buried at Grennock.
- 1868 Work commenced on "The Drives".
- 1887 Jan 8th Joseph Best died aged 57 years.
- 1888 Hans Irvine purchased the Great Western winery.
- 1903 Australia's first Governor General, Lord Hopetoun opened the drive name in his honour.
- 1903 May 5th Colin Thomas Preece was born in Adelaide.
- 1910 Dame Nellie Melba opened the drive named in her honour.
- 1913 April 27th Henry Best died aged 80 years.
- 1915 July 18th Mary Jane Irvine, wife of Hans Irvine, died aged 66 years.
- 1916 Feb 17th Jessie A. Best, wife of Henry Best, died aged 77 years.
- 1918 Hans Irvine sold the winery to Benno Seppelt.
- 1922 July 11th Hans William Henry Irvine died in London aged 66 years.
- 1931 Benno (Oscar Benno Pedro) Seppelt died of bronchopneumonia.
- 1932 Work on "The Drives" is completed, some 64 years and over 3kms later.  
Colin Thomas Preece (1903-1979) a noted wine maker from Seppelt in the Barossa Valley moved to Victoria to manage the Great Western vineyard.
- 1979 Dec 7th Colin Thomas Preece died at Ararat and was buried in the Great Western cemetery.



*The first cellar on the Seppelt site at Great Western*



*Early view of "The Drives"*

## PREVIOUS REPORTS OF PARANORMAL ACTIVITY

The capacity of the underground cellars at Great Western is in excess of 120,000 bottles along its 6km of rack space. In recent times the number of bottles stored in “The Drives” has been reduced to 40,000 bottles and staff members say the activity seemed to increase as the quantity was reduced.

During tours which are conducted on site, staff and visitors have reported events including mists, orbs and feelings of a presence. Staff revealed that during one tour a visitor asked the guide, “what is that behind you?”. Upon turning around they watched a white mist travel along the drive. Another male staff member does not like to enter one particular area of “The Drives”.



*Photograph on display at the cellar door*

A few visitors claiming to have psychic abilities have reported various presences, including those of a young girl and a young boy. The young boy is said to have died as a result of a breathing problem and they sensed he was crying or calling for help.



*The homestead on the Seppelt site.*

The original cottage of Joseph Best, the winery’s founder, still exists on the site at the rear of the homestead. There have been reports of a figure being seen on the verandah, people sensing a presence inside and feelings of discomfort in certain rooms.

Tours conducted through the drives include a night tour which meets in the adjacent cemetery to visit the forefathers of Seppelt Great Western. The tour continues to Joseph Best’s cottage and concludes with a tour of the drives by candlelight. Pre-paid bookings are essential via the Cellar Door (03) 5361 2239.



*Area of the cellar door dedicated to the night tours with accompanying sign.*

## HISTORICAL EVENTS POSSIBLY CONNECTED WITH REPORTED GHOSTS

The great passion and dedication of the various workers throughout the history of the Great Western winery signifies a very strong connection with the site. Many of its forefathers and their families are buried in the cemetery nearby. Hans Irvine, having died in England in 1922, was brought back for burial at Great Western to his final resting place with his wife.

Being an area heavily populated during the Victorian gold rush, the miners and their families lived in overcrowded, often inhospitable conditions which resulted in many deaths. Life was very tough and death

from crime was also common. Of the few which struck it rich, there were many more which battled to survive. The Ararat/Great Western goldfield had over 60,000 present in the area at this time.

No records of deaths at the actual Seppelt site could be located however a few sudden deaths at Great Western could be connected to people associated with the site. In 1876 Emile Victor Louis Blampied died aged 2 from an accidental drowning. In 1886 Nicholas B Trouette and John Cobey died as the result of suffocation from foul air. The later incident may suggest a connection to the little boy whom mediums have reported at the drives, but it could not be verified whether the deaths actually occurred at the site.

### SITE APPRAISAL

The area of the drives is classed as being of historic importance on the Register of the National Estate (ID4127 No 2/04/172/002 Registered 21/03/1978). Covering an area of 11.75 hectares, it forms the largest underground cellar system in the Southern Hemisphere. The tunnels are between six and eight metres below the surface and are at a constant temperature of around 15°C with a high humidity, ideal for maturing wine.

Such conditions also promote the growth of the fungus known as *aspergillus niger*, sometimes referred to as “black mould”. Most people are naturally immune to the spores and they do not present a great concern, however in those susceptible, severe exposure could result in aspergillosis. The fungus grows readily on the exposed surface of the decomposed granite and the bottles in storage but has difficulty flourishing on the walls coated in concrete due to the lime content in the cement.

The mould is one which produces microbial volatile organic compounds which are responsible for the musty odor that signifies its growth. The mould crumbles into fine particles when touched and this could lead to an increased amount of orb like objects showing up on cameras. The level of moisture in the highly humid environment could also be a contributing factor in reports of orbs.



*Tunnel showing the decomposed granite walls.*



*Fungus growing on the roof of one of the tunnels.*



*Fungus growing on the walls of Jean Trouette Drive.*

Because of the granite structure and various tunnels it was known that communications were to be an issue. Despite using high powered two way radios, the nature of such UHF devices limited communications to little more than line of site. Vigils were organised with this in mind to ensure adequate communication was maintained.

The Shaft House, a small mud-brick building near the cellar door, was the original entrance to The Drives. Soil and rock from the first sections of tunnels was removed from below the surface through a six metre shaft, which was also used to transport the wine for maturing in the drives.



*External view of the shaft house (left) which was the original entrance to the drives six metres below (right).*



*The amount of wine in storage has greatly reduced from days gone by with many of the drives empty, however there were still some 40,000 bottles held in other sections.*

## EQUIPMENT

The team utilises various pieces of equipment during investigations. We also often call on the vast resources of TechRentals, a leading specialist instrument supplier and a division of the TR Corporation.

Because of the many theories surrounding paranormal phenomena, readings are taken from a large gamut of instruments in an effort to record anything that could be helpful to determine a cause - natural or otherwise.

Some of the equipment which the team may use on investigations is shown below, together with a brief description of each.



### INFRARED LASER THERMOMETERS

Infrared laser thermometers are used to monitor temperature fluctuations. Rather than recording the air temperature, they indicate the surface temperature of objects they are directed at.



### EMF DETECTORS

Electro Magnetic Field detectors are used to detect changes in the electromagnetic field which some believe may indicate paranormal activity. Conversely high EMF have been linked to causing people to feel nauseous, experience headaches, sense a presence and even hallucinate.



### STILL AND VIDEO CAMERAS



A range of still and video cameras are used including the two items displayed here. The Finepix F30 camera (left) was voted the best low light compact camera in 2006 - capable of shooting at ISO3200 at 6.3 megapixels it can minimise the necessity for a flash. Camcorders with nightshot functions are also used and their abilities may be enhanced with the addition of infrared illuminators like the one at right.



### NIGHT VISION EQUIPMENT

Night vision equipment such as monoculars, scopes, binoculars and goggles which incorporate light intensifying tubes and infrared illumination allow the observation of otherwise dark locations.

### INFRARED ILLUMINATORS

Assorted infrared illuminators are used to enhance night vision devices such as night scopes, nightshot camcorders and IR surveillance cameras. The spotlight (at right) is a rechargeable 5,000,000 candle power spotlight modified so it can emit either normal or invisible infrared light.



### PIR AND ULTRASONIC MOVEMENT DETECTORS

Passive infrared and ultrasonic movement detectors can be used in two ways - assisting to ensure any human interference can be detected or it can indicate movement where there's no apparent reason for it.



### THERMAL IMAGING CAMERAS

A range of thermal cameras may be used including the Marconi Argus 2, SAT S160, FLIR Systems E45 and InfraCam. They provide a visual picture of the temperatures present in a location and can identify the presence of animals which may be causing false reports.





### INFRARED SURVEILLANCE CAMERAS

These are interfaced into the DVR system. With in built infrared light emitting diodes they send out infrared light to which the cameras are sensitive to, but is invisible to the human eye. Wired and wireless models are used dependent on site conditions.



### SOUND AND VIBRATION RECORDERS AND ANALYSERS

A range of audio recording devices are used to capture, monitor and analyse any unusual sounds from a location.

The Svantek 912A Sound Vibration Analyser (left) is used to monitor sub-sonic noise in the frequencies of 0Hz to 20Hz. This covers the region of infrasound, which current scientific studies reveal may contribute to reports of unusual activity.

### ENVIRONMENT MONITORING EQUIPMENT



A range of monitoring equipment may be used to accurately record environmental conditions such as temperature, humidity, dew point, barometric pressure, rainfall, wind speed, wind direction and altitude.

Data is collected from multiple points and relayed back to the control station where it is charted against time and monitored for any fluctuations. Some people believe there may be fluctuations in temperature and barometric pressure when paranormal activity is experienced.

At right is a kit of 8 temperature and humidity loggers which can be used to monitor various points around a site with relative ease. Portable weather stations may also be used to record temperature, humidity and barometric pressure.



### AIRBORNE PARTICLE MONITORS

The TSI 8520 DustTrak Airborne Particle Monitor measures the quantity and size of dust particles in the air. This can aid to identification of unusual photographic results. A visible beam laser may also be used to give a quick indication of moisture and dust particles in the air as well as determining angles of light and accurate positioning of cameras.

### AIR QUALITY MONITORS

Devices like the TSI Q-Trak plus Indoor Air Quality Monitor (right) record temperature, humidity, carbon dioxide and carbon monoxide levels. Increased levels of such gases are thought to be possible contributors to reports of unusual activity. By monitoring such levels it can assist to verify or rule out their influence in reported events.



### RADIATION MONITORS



There are some documented cases where Geiger counters have indicated increased levels of radiation during reported activity.

The SE International 4 Nuclear/X-Ray Monitor (left) which monitors Alpha, Beta, Gamma and X-ray radiation may be used to record such results.

## X-10 EQUIPMENT

X-10 equipment may be used to allow control of mains devices such as lights and appliances. The DVR computer contains software that can also take control or monitor any X-10 devices including PIR detectors. Alternatively this can be configured to allow control and monitoring from a remote location.

## DVR SYSTEMS & COMPUTERS

The central control computer used at investigations is designed to match the needs of a particular site. It often incorporates a Digital Video Recording Surveillance system. Multiple computers are available enabling simultaneous investigations to take place. The DVR systems can record up to 16 cameras continually for well over 24 hours, this is extended considerably if less cameras are used or any camera is placed in motion detection mode.

The computers also provide for transferring data from digital cameras and audio devices on site, controlling X-10 equipment, recording data from environmental sensors and logging reported events into the system. Once set up the system may be monitored or controlled remotely if an internet connection is available. This allows for the control of cameras, X-10 and environment monitoring equipment off site, as well as the broadcasting of all data to a remote location.



Some products such as a thermal imaging camera may be required to be used in a mobile configuration rather than being fixed at a static location. A portable system such as the Archos AV500 or AV700 Mobile DVR may be used for this purpose or a wireless transmitter added to relay images and sound to the DVR computer.



## CUSTOMISED EQUIPMENT

We do specially construct or modify items to suit our requirements - at right is the remote unit which includes a wireless infrared camera, 48 LED infrared illuminator, ultra violet and red lights - all controlled via wireless remote. A single connection is all that's required to power the unit. The camera can pan through 300 degrees and the lights switched on or dimmed from the control desk. The ultra violet and red lights are for testing at the edges of the visible spectrum which some believe may provide a greater chance of capturing an image. Seances of old were often held in red lighting for this reason.



## PORTABLE POWER PACKS

Whilst it's always preferable to have mains power available when and where required, it doesn't always work that way.

The need for portable power is evident at many investigations and a range of 12 volt packs are often used, as well as 240 volt inverters providing mains power when it is otherwise not available.



## OTHER EQUIPMENT

A range of ancillary equipment is often used such as UHF two way radios etc... along with lot's of batteries, cables and coffee as required!



## THE INVESTIGATION

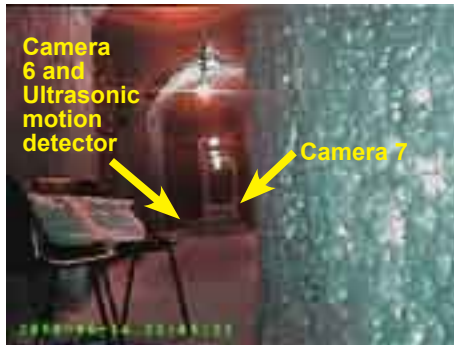
The team arrived for the investigation at 8pm on June 14th 2008 with four members attending. Andrea from Seppelt and her daughter Jordyn joined us until changing shift with Sue midway through the night.

Due to the size and layout of "The Drives" it was decided to concentrate on the areas of the highest reported activity. This chiefly consisted of the oldest section of the cellars and included the Hans Irvine, Colin Preece, Sparkling Burgundy and Charles Pierlot Drives.

Seven night vision camera's were placed in fixed positions and connected to the DVR system utilising both wired and wireless configurations.



**Camera 1**  
*Looking from control towards  
Hans Irvine Drive*



**Camera 2**  
*Looking from control  
down Colin Preece Drive*



**Camera 3**  
*Looking down Hans Irvine  
Drive*



**Camera 4**  
*Looking down Charles  
Pierlot Drive*



**Camera 5**  
*The remote camera was used to continually pan through about 300 degrees. The areas covered from left were The Shaft, Anne Marie Blampied Drive (towards control desk) and Jean Trouette Drive*



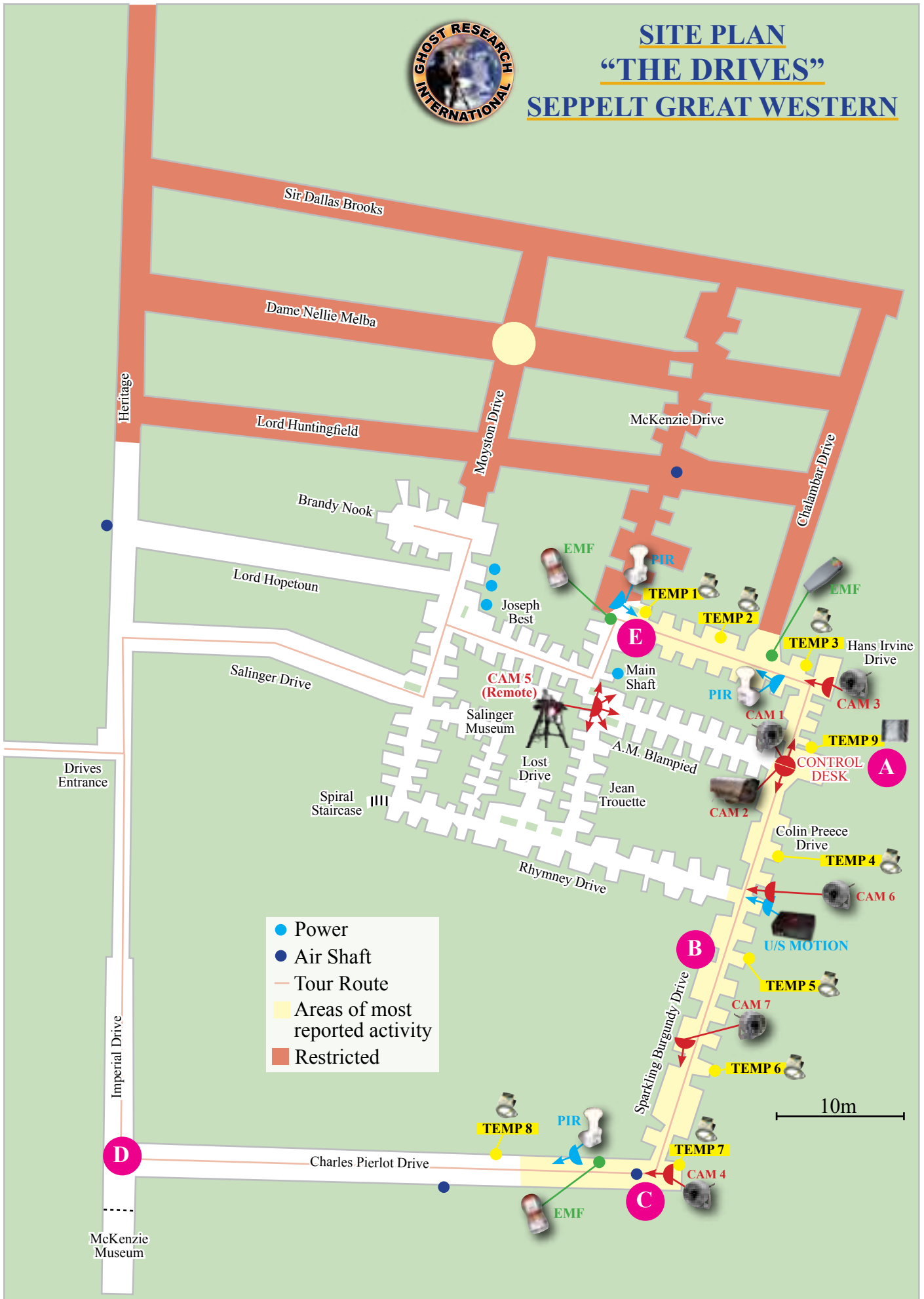
**Camera 7**  
*Looking down Sparkling  
Burgundy Drive*

Nine temperature and humidity monitors were placed at various points together with three passive infrared motion detectors, three EMF meters, and an ultrasonic motion detector. A voice recorder was placed at one end of the Hans Irvine Drive and a trigger item located in the A.M. Blampied Drive.

Additional equipment including night vision camcorder, still cameras and a thermal imaging camera were to be used at various locations throughout. The DVR began recording on all cameras at 10.45pm. There were some issues in getting the DVR system started, the high humidity level may have been a contributor.



# SITE PLAN "THE DRIVES" SEPPELT GREAT WESTERN



## PRE-INVESTIGATION EVENTS

### **15:29 Photo anomaly - Homestead**

During a research visit in the afternoon a photograph was taken of the homestead on the Seppelt site which shows an anomaly in a window. It was described as resembling a man wearing a hat.

The image was compared to another taken the same afternoon by a person standing at a slightly different angle. A similar shape appears on that image suggesting this may be caused by pareidolia contributed to by the reflections of the trees in the window pane. Pareidolia (also called matrixing) refers to the psychological phenomena where obscure and random stimulus is perceived as something more familiar. Seeing animal shapes in clouds is an example of this and the phenomenon can be visual or audible. With no collaborating data available the image has been rated “natural explanation highly likely”.

The homestead itself was not the subject of this investigation but it may be examined on a subsequent visit to look at reports of activity there.



*Above: Image taken of the homestead the afternoon before the investigation. A close up of the window shows an anomaly on the right.*

*Below: A picture captured on a different camera the same day. Taken from a different angle the “hat” like object appears in both photos.*



### **Approx. 15:30 - Reflection - Shaft House**

Someone looking through a cabinet display in the Shaft House glimpsed a reflection of a man in the glass. There were only four people present at the time, only one of which was male and enough detail was seen for the witness to state that this was not the person in the reflection.

The display case in question contains not only a mirror back and glass front, but also angled glass at approximately 45 degrees which could promote unusual reflections being observed. As there was no supportive data such as a photograph it is difficult to provide a firm explanation or further evidence, so a rating of “inconclusive” has been given.

The team left the site mid afternoon and returned for equipment set up at 8pm.

### **22:40 “Phone malfunction” - Control Desk**

After set up and site orientation were complete it was reported that a mobile phone which had previously been on for some time, switched itself off and immediately back on again. The battery showed it was fully charged.



*Above: Reflective quality displayed from the display case.*

### **23:00 “Anomaly” - Camera 5 - Shaft House area**

An area of the rock wall gave an unusual appearance when illuminated from the infrared light from DVR camera 5.

Examination of this area showed that there were variations in contrast of the rock surface causing the shape seen on the camera. It was perhaps a good example of pareidolia and how the random pattern of the rock surface could be perceived as something more familiar.



*Above: Area of rock near the shaft house.*

### **SESSION 1 - 23.30 - 00.10**

The team divided into four groups for the first vigil, these were positioned at Charles Pierlot Drive (C), Sparkling Burgundy Drive (B), Hans Irvine Drive (E) and the control desk (A).

### **23:40 - “Coldness” - Vigil Point “C” Charles Pierlot Drive**

Feelings of coldness and air becoming “thick”.

### **23:41 - “PIR Motion Indication” - Vigil Point “C” Charles Pierlot Drive**

An infrared motion detector indicated movement. This was the first of a few indications and upon examination it was determined that the high powered two way radios in use at the drives could effect the detectors if used in close proximity. As a result all detectors were moved further away and the detections ceased.



*Above: PIR motion detection in Charles Pierlot Drive.*

### **23:43 - “Groaning” - Heard from control “A”**

Three people at the control desk heard what was described as men talking or moaning. Nothing was discernible on audio recordings from instruments in use at the time.

### **23:45 - “Interference” - Jean Trouette Drive - DVR Cam 5**

Camera 5 consisted of a remote camera panning continuously in the shaft house area. At one point while pointing down Jean Trouette Drive there was considerable interference noticed. This was the only time this occurred to such an extent and was during a single sweep lasting about 15 seconds.



*Above: Interference noted on DVR Camera 5 for about 15 seconds, the third frame shows the area on the following sweep to the Jean Trouette Drive.*

### **23:45 - “Camera Issue” - Vigil Point “C” - Charles Pierlot Drive**

A digital camera in use at vigil point C would not take pictures for a short period. Moisture was noticed on the display window of a two way radio. This was the only reporting of moisture condensation in the tunnels. The dew point was 10°C which was not reached at any point of the investigation.

### **23:50 - “Strange Feeling” - Vigil Point “E” - Hans Irving Drive**

A feeling of strangeness was reported which included a sense of minor disorientation.

### 23:50 - "Weird Feelings" - Vigil Point "C" - Charles Pierlot Drive

A feeling of "weirdness" was reported - this was described as hot a "pin and needles" sensation.

### 23:51 - "Touched" - Vigil Point "C" - Charles Pierlot Drive

The person at vigil point C reporting being touched on the back of the leg - below the knee. It was a feeling of being rubbed downwards along the calf muscle.

### 23:55 - Sound check - From Vigil Point "E" - Hans Irvine Drive

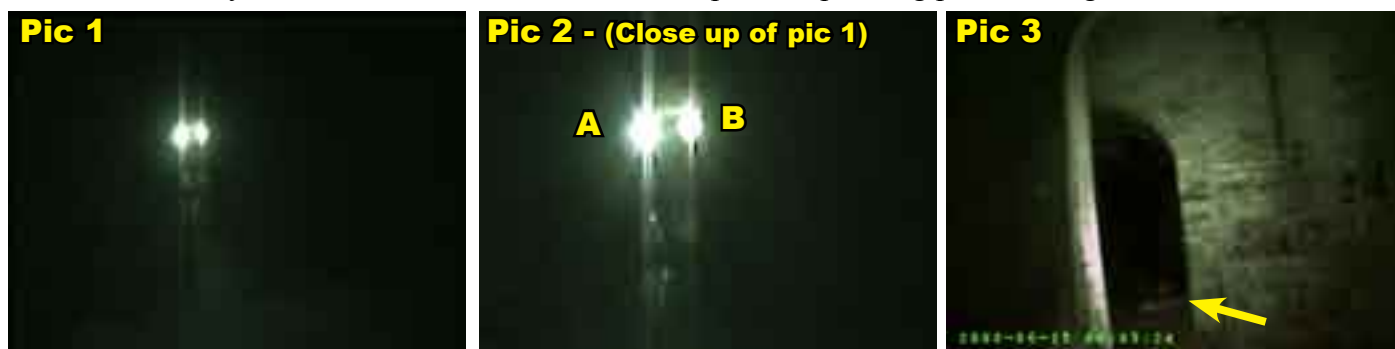
A shout was made from vigil point E to evaluate how sound may carry throughout the tunnels. The sound was heard at the control desk (A) and point B but was not heard at point C.

### 23:59 - Wind - Vigil Point "C" - Charles Pierlot Drive

A sound like wind blowing through trees was reported at vigil point C. There are two air shafts in the area of vigil point C, neither of these open near trees.

### 00:05 - "Shadow like anomaly" - Near Shaft House

A night vision camcorder in use near the shaft house recorded a shadow like anomaly while panning the area. The anomaly was not noticed at the time but was picked up during post investigation review.



Above: Shadow like anomaly caught on a camcorder near the shaft shown full frame and in close up.

Above right: Light anomaly on DVR camera 5 shortly after the camcorder footage was taken.

DVR camera 5 was panning the area of the shaft house at the time the footage was taken. During a single sweep a light anomaly was noticed (Pic 3). It is possible that this was the infrared illumination from the camcorder itself.

To analyse Pic 2 further it is necessary to examine the main element of the frame, being the light sources themselves.

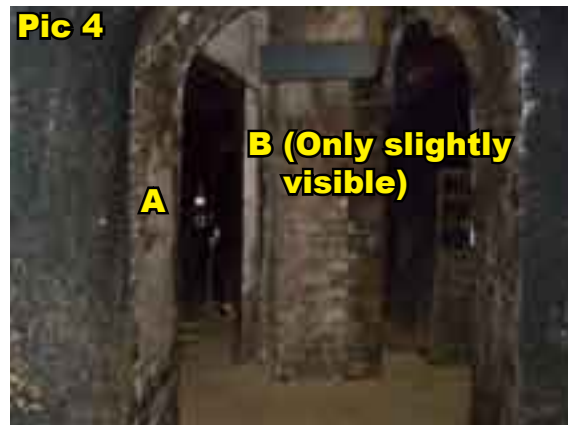
The lights visible in the image are an infrared light from DVR camera 5 (marked "A") and an incandescent light from further along Jean Trouette Drive (marked "B"). (Pic 2).

A digital picture taken on the night (Pic 4 at right) shows the area in question, taken from a standing position and slightly to the right of the video footage. In contrast, the video footage was taken from a sitting position at the end of Hans Irvine Drive (point E on the site plan).

At another time during the night a camcorder was placed at ground level in a stationary position looking into the area. Both light sources appear in that image (Pic 5 at right) and show how the angle from the camera effects the position of the more distant light from Jean Trouette Drive (B).

With the identification and positioning of the light sources established, it is necessary to examine how the camcorder itself has interpreted the lights.

The camcorder in question uses a CCD (Charge Coupled Device) image sensor in order record an image. CCD sensors tend to create a star like pattern when faced with bright light



Above: Digital photograph of the area where the shadow appeared.



Above: Earlier camcorder image.

aimed towards the camera lens. Usually this pattern has a long vertical strip running from the light source. This appears on all frames and is also noticeable earlier into the sequence when only a single light is visible. (See pic 6 at right).

Another inherent feature of many camcorder images is that they adjust the exposure to some degree in order to compensate for bright light directed at the camera. This darkens most of the image, allowing the lights source to be recorded in detail. This has of course happened in this case.

The characteristics of how direct light is imaged when it strikes the CCD sensor, forces the question of whether two light sources hitting at a similar angle would it create the effect noticed in the original footage?

This can be replicated by an image editing program such as Adobe Photoshop. An image from the camcorder of a single light source is opened, then duplicated, and placed on a new layer. The new layer is set to only lighten the first and is positioned to try and replicate the properties of the original footage. This effectively duplicates the effect of two lights positioned close together. This has been done to picture 6 above, the results of which appear below.



*Above: Early frame showing single light. The vertical strip is marked by arrows.*



*Above: A duplicate added to pic 6 and set to lighten the underlying version*



*Above: The duplicate is moved to imitate the positioning of two light sources.*



*Above: Example showing the effect of filming multiple light sources.*

It can be seen that multiple light sources shining directly at the camcorder at certain angles can achieve the optical illusion of an object blocking the light and appearing as a silhouette, very similar to the original camcorder footage (right).



*Above: Close up of pic 5 showing similar features but at a different angle.*



*Above: "Shadow like figure" from original footage.*

The effect varies with the positioning of the camcorder in relation to the lights themselves and is further demonstrated in an enlargement of another frame capture from the original footage (Pic 5) which was taken from ground level (left).

### **00:09 - “Tingling Sensation” - Vigil Point “C” - Charles Pierlot Drive**

Sensation reported - felt like “pin pricking” right arm above elbow.

Session 1 ended at 12.10am and there was a brief break before commencement of the next session. During this time a whistling sound and male murmuring was reported at the control desk. Review of audio did not reveal anything unusual although at least three people reported hearing it.

## **SESSION 2 - 1.25- 2.30**

Team members were positioned at Charles Pierlot Drive (C), Sparkling Burgundy Drive (B), the control desk (A) and a walk around was conducted with a night vision camcorder.

### **01:25 - “Unusual Sensation” - Vigil Point “C” - Charles Pierlot Drive**

An unusual feeling at the back of the neck was reported at vigil point C.

### **01:30 “Whistling Sound - Wind” - Vigil Point “B” - Sparkling Burgundy Drive**

Sound similar to wind whistling was reported. Sound equipment did not record anything unusual. Air shafts were located nearby, so it is quite possible that wind outside could generate sound down one of these shafts.

### **01:40 - “Unusual Sensation” - Vigil Point “C” - Charles Pierlot Drive**

Another unusual feeling at the back of the neck was reported at vigil point C.

### **01:40 “Coldness” - Vigil Point “B” - Sparkling Burgundy Drive**

A feeling of sudden coldness was reported. Temperature sensors in use at the time did not record any significant fluctuation in temperature.

Biorhythm monitors which measure skin temperatures suggest that certain thoughts or emotions can cause slight fluctuations in body surface temperature. These fluctuations may be perceived as a sudden general feeling of coldness. The term “gives me the chills” is probably based on this same principle.

### **01:43 & 01:48 “Footsteps” - Vigil Point “B” - Sparkling Burgundy Drive**

The sound of footsteps was reported above vigil point B which were quite noticeable. Unfortunately these were not picked up during review of audio recordings.

### **02:00 “Soft Rumbling Sound” - Vigil Point “B” - Sparkling Burgundy Drive**

Soft rumbling sound heard followed by “moaning”. These were not discernible on audio recordings.

### **02:14 “Temperature Drop” - Vigil Point “C” - Charles Pierlot Drive**

Sudden coldness reported with no drafts felt. Lasted about 2 minutes. Temperature sensors in use at the time did not record any significant fluctuation in temperature. (See note at 1.40am).

### **02:17:57 “Banging Sounds” - Vigil Point “B” - Sparkling Burgundy Drive**

Banging sounds were picked up on audio from DVR Cam 7. These were also heard by a team member at Vigil point “B”. They were not picked up on audio at the control desk and only faintly heard on audio from camera 4. They are very clear which suggests the source was close to vigil point “B”. There were two distinct “bangs” which were followed by another two identical but deeper “bangs”, seemingly in response. A cause for these could not be ascertained.

### **02:19 “Shadow” - Vigil Point “B” - Sparkling Burgundy Drive**

A shadow which resembled someone sitting on the ground halfway between vigil points A and B and leaning forward was reported. DVR Camera 2 was pointed to the general area but was quite a distance away - no unusual anomaly appeared on video footage at the time.

### **02:24 “Feeling of coldness” - Vigil Point “B” - Sparkling Burgundy Drive**

Feeling of coldness until 2.24am (See note at 1.40am).

At session end at 2:30am the humming of the control desk computer could be heard by people returning from vigils, however this seemed different from the noises previously reported. Without additional data and verification from audio recordings, it is difficult to ascertain possible sources for the various sound anomalies noted during session 2.

### SESSION 3 - 03.00- 04.00

Team members were positioned about half way along Hans Irving Drive (E) and the control desk (A).

#### **03:51 “Touching” - Hans Irving Drive**

A feeling of coldness and being touched on hair was reported from Hans Irvine Drive.

Cameras were removed from the DVR system from 3:46 through 4:11am. Session 3 ended at 4:00am.

#### **04:02 “Orb type objects” - Colin Preece Drive**

During pack up DVR camera 2 recorded a dramatic increase in orb type objects.



*Above: “Orb type objects” noticed on DVR camera 2 just after 4am*

There were various orb like anomalies recorded throughout the investigation, but those noticed a little after 4am on camera 2 were unsurpassed in frequency over such a short period of time.

Orbs are anomalies that show up often in still photos and video recordings. Most can be attributed to an out of focus insect, moisture or dust particle inside the focal point of the camera and illuminated by the camera flash or infrared lighting. This area between the lens and focal point is known as the “orb zone”.

Some believe that “true orbs” are balls of energy of ghostly origin, possibly the form taken when a spirit is moving around or about to manifest. If this is true it would be necessary to show that the object is radiating it’s own energy and displays independent and intelligent type movement.

The design of most modern digital cameras puts the flash very close to the lens opening. This arrangement actually promotes the formation of orbs as the out of focus object is also in the best position to obtain maximum illumination from the flash.

During our investigations possible orbs are noted but without any collaborating data or unusual features displayed they are generally labelled “inconclusive” at best.

Once pack up was complete we exited the drives and the team left the winery by 5.00am Sunday morning. Well over 500 still photographs and 40 hours of video footage were taken for review.



*Above: Two digital stills showing orb type objects in the Hans Irvine Drive.*

**ENVIRONMENT MONITORING RESULTS**

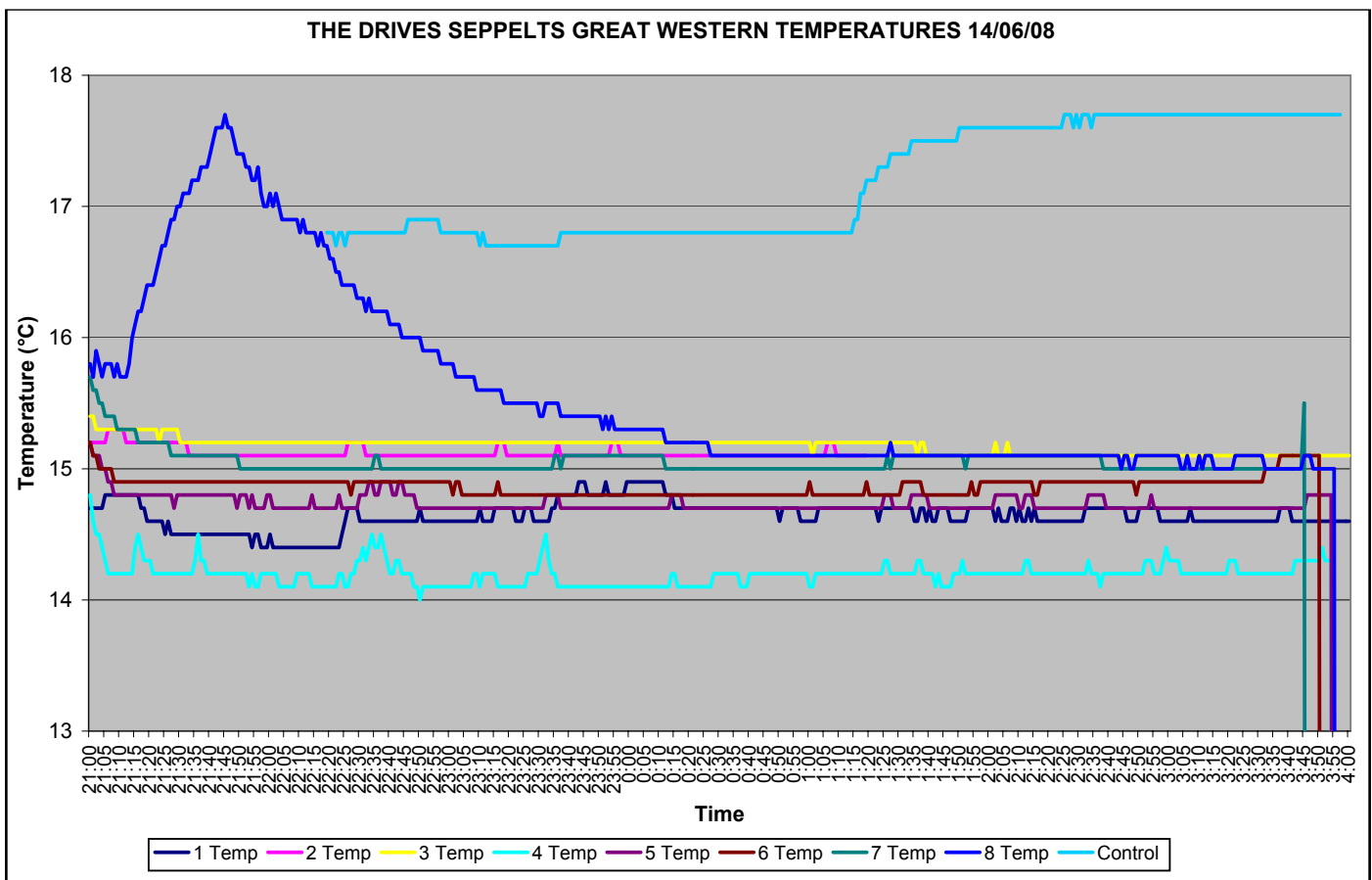
**Temperature & Humidity**

Temperature and relative humidity was recorded from various points during the investigation. The overall maximum temperature recorded was 17.7°C and minimum 14°C, making a total variance 3.7°C. The average temperature throughout the entire investigation was 15.2°C.

Total maximum humidity recorded was 104.9%, minimum 60%, variance 44.9% and average 93.6%. Dew point was 10°C which was not attained during the evening.

Figures from instruments located in specific areas provided the following data:

Location	TEMPERATURE (°C)				RELATIVE HUMIDITY (%)			
	Maximum	Minimum	Average	Variance	Maximum	Minimum	Average	Variance
1 - Hans Irvine Drive Far	14.9	14.4	14.6	0.5	92.8	88.5	91.7	4.3
2 - Hans Irvine Drive Mid	15.3	15.1	15.1	0.2	99.3	92.7	97.8	6.6
3 - Hans Irvine Drive Close	15.4	15.1	15.2	0.3	97.9	91.8	96.9	6.1
4 - Colin Preece Drive	14.8	14	14.2	0.8	95.3	88	93.2	7.3
5 - Sparkling Burgundy Drive	15.2	14.7	14.7	0.5	102.5	93.2	100.7	9.3
6 - Sparkling Burgundy Drive	15.2	14.8	14.9	0.4	104.9	91.3	102.7	13.6
7 - Cnr SB Drive & CP Drive	15.7	15	15.1	0.7	102.3	90.5	99.5	11.8
8 - Charles Pierlot Drive	17.7	15	15.6	2.7	100.8	87.6	98.2	13.2
9 - Control Desk	17.7	16.7	17.2	1	63	60	61.2	3
ALL AREAS	17.7	14	15.2	3.7	104.9	60	93.6	44.9

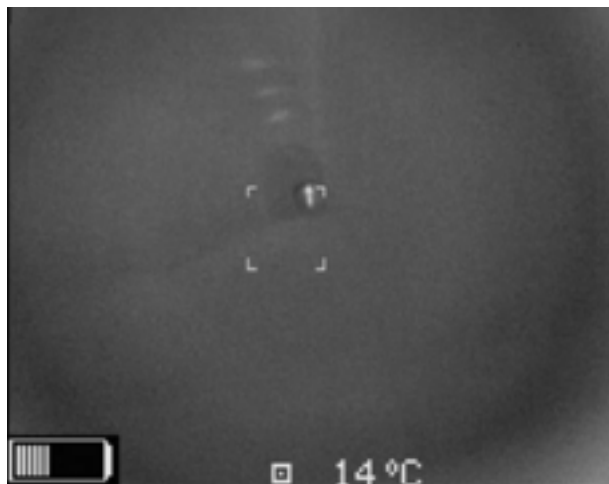


There were no sudden temperature spikes or any abnormal readings taken, most areas varied by less than 0.8°C. Only two areas varied by greater than 1°C and these also experienced the highest temperature recorded, 17.7°C. The first was Charles Pierlot Drive which has two air shafts, one each side of the sensor. It peaked about 2°C higher than all the other sensors at around 9.40pm until it dropped to match readings from other sensors by 11.45pm. The control area was consistently higher due to the equipment operating there and

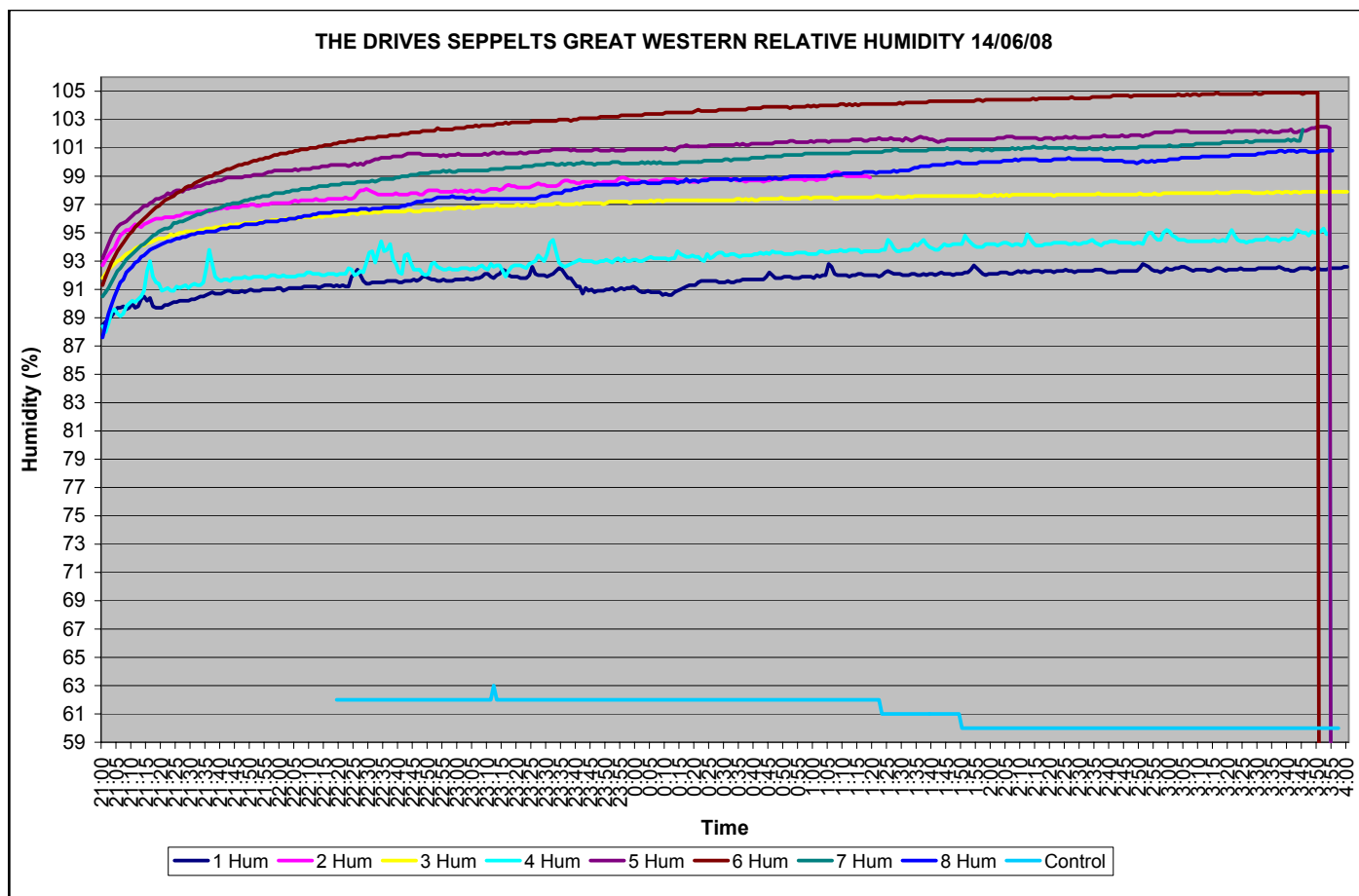
the constant presence of at least 2 people. The sensor was located on the desk with the computer and power supplies which would account for the differences in both temperature and humidity experienced at the control desk.

The constant temperature was certainly apparent in the drives and a thermal image taken in the Imperial Drive attests to this. It displays a team member located about 50 metres away but shows little change in temperature throughout that distance.

Relative humidity data was collected nine locations. The area around the control desk was considerably lower in humidity for reasons outlined above. Of those remaining the maximum recorded was 104.9%, minimum 87.6%, variance 17.3% and average 97.6%.



*Thermal image of the Imperial Drive showing little variation.*

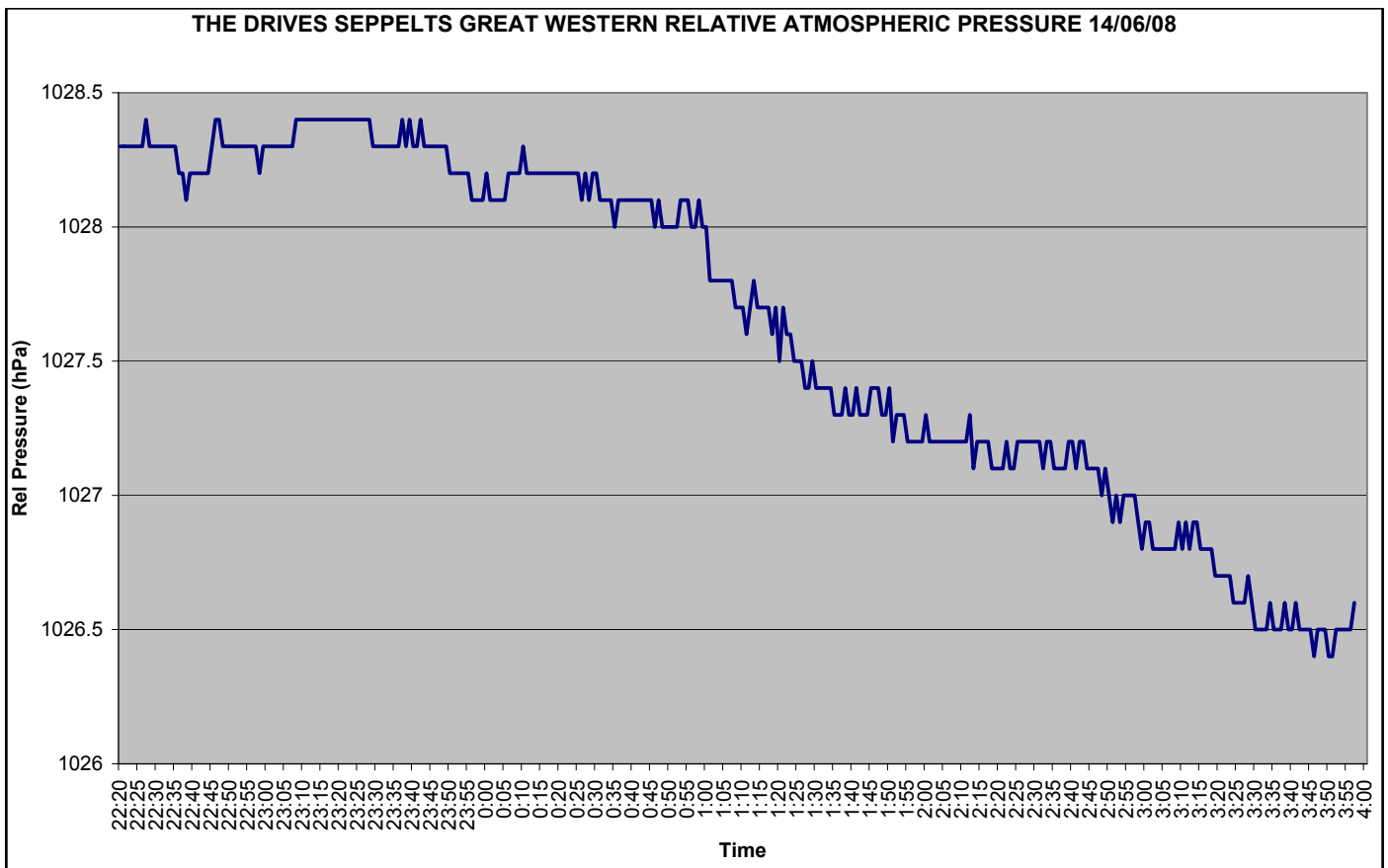


What is apparent is the high humidity noted, up to 104.9%. This is of course possible when air is cooled further after it has attained a relative humidity of 100% and there is not enough condensation nuclei (air impurities) for the water vapor to condense upon. This is termed “super-saturation”, but is often considered a misnomer. The air and vapor are quite stable and need not change unless other factors come into play. The evaporation rate equals the condensation rate and the air is in equilibrium with the liquid.

Such high relative humidity in caves and tunnels is not unusual and a state of equilibrium or “saturation” is common. Quite often the moisture will condense on the walls when other factors play a part. It is also possible that under certain conditions cloud like mists or hazes could be seen in caves or tunnels for quite natural reasons, being related to the relative humidity shifting from a point of equilibrium. The cellars of the Seppelt Great Western winery would be no exception and it would be beneficial to examine the feasibility of this, given that there have been reports of mists being seen at certain times.

## Atmospheric Pressure

The relative atmospheric pressure varied by 1.1hPa throughout the night. Maximum was 1028.4hPa and minimum 1027.3Pa, average was 1028.1hPa. No sudden substantial changes were recorded.



## Electro Magnetic Field Levels

No unusual EMF readings or sudden spikes were reported. Ambient EMF was at normal levels, increasing in some areas around electrical fixtures which is only to be expected.

**Carbon Monoxide and Carbon Dioxide Levels** - Not monitored.

**Infrasound** - Not monitored.

## Satellite Environment

The environment in which the earth is placed is monitored to identify any pattern or correlation with reported activity. Some believe that there may be an increase in activity when the earth encounters geomagnetic or solar radiation storms.

Whether the effects, if any, are on human perception of activity or indeed do promote paranormal occurrences is a matter of conjecture.

Items such as the proton flux, electron flux, averaged parallel component of the magnetic field, and readings from earth based magnetometers are released by the National Oceanic and



Atmospheric Administration and are presented on a Universal Time scale. Local time was +10 hours from UTC making the investigation between June 14th 10am to 7pm Universal Time.

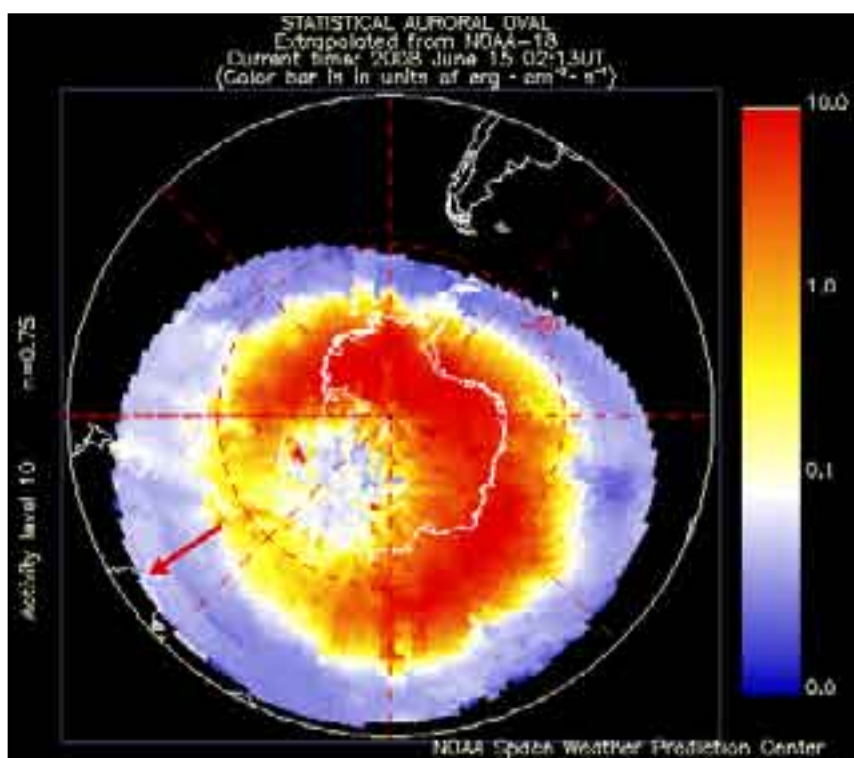
The Kp scale summarises the global level of geomagnetic activity and at 7pm Universal Time (5am June 15th local) the Kp index was 5 indicating a level G1 geomagnetic storm (NOAA Space Weather Scale). As this was at the conclusion of the investigation there were no events reported at this time.

Magnetometers on two satellites reported increases in the averaged parallel component of the magnetic field in nanoTeslas (nT).

The effect of the geomagnetic field on possible auroral activity is evident in the auroral oval which is determined from the power flux observed during the most recent polar satellite pass.

There has been suggestion that disturbances in the earth's magnetic field may be linked to reports of paranormal activity and we will continue to look for any such patterns.

Unfortunately on this occasion the timing of the investigation did not coincide with the time the disturbances were noted. Therefore we could not evaluate the theory further.



# CONCLUSIONS AND RECOMMENDATIONS

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## RATING SYSTEM

To assess reported events and/or sites a rating system is adopted that is weighted towards the skeptical viewpoint. There is no assumption made that ghosts exist. This ensures the highest rating is achieved only when all natural explanations have been eliminated. This may cause some events which may be paranormal in origin to be discarded because they *could* be caused by something natural. This viewpoint is preferred because to claim that an event is caused by something not currently widely accepted as fact, demands considerable hard evidence be provided to support the claim.

The classifications used are as follows:

Explained	All characteristics of an event can be fully satisfied by natural explanations which the evidence indicates is the actual cause.
Natural explanation highly likely	A natural explanation cannot be ruled out and remains highly likely.
Inconclusive	No conclusion can be reached due to a lack of data to enable further analysis.
Indication of possible activity	Likely natural causes have been eliminated and there remains characteristics considered unusual but a lack of more supportive data prevents a higher rating.
Evidence of activity	Solid evidence and supportive data exists that documents an event which defies all natural explanations.

It is rare to be in the “right place at the right time” together with the required equipment that allows all of the necessary to data to be available. For this reason most events fall within the second, third or fourth classifications. The Drives investigation was no exception and many reported events were rated as *inconclusive*.

While most reported events lacked the supportive data to independently verify that they occurred (eg. touching), the bangs heard were verifiable on audio recordings. Examination of all DVR cameras at this time could not attribute the sounds to any person present. The sounds displayed a pattern of “intelligence” where there was a set rest period between the knocks which was followed by a repetition with an identical rest period, suggesting a “response” to the first. The characteristics of the audio do not seem consistent with an echo. Other reported events were not picked up on audio recordings, but were reported by numerous attendees who suggested they came from an area where it could be confirmed there was no one present. Events such as these shifted the rating into the lower levels of “indications of possible activity”, however the lack of more data prevents it going further.

Indeed we can only rate according to what is experienced on the particular night of our investigation, which may be quiet in comparison to other times of reported activity. We do like to return to sites whenever possible in order to gather more data and again have the chance to be present when activity occurs.

## RECOMMENDATIONS

The investigation did reveal that it may be worthwhile to thoroughly monitor audio at the site, as there were quite a few unusual sounds documented. It may prove beneficial to concentrate heavily on this during any subsequent visit. A flow on would also be to also examine the levels of infrasound present.

While audio events did not seem to be isolated to a specific area, a sense of being touched was reported in two locations which were also the subject of previous reports. These were the Hans Irvine Drive and the corner of the Sparkling Burgundy and Charles Pierlot Drives. In these areas it may be worthwhile to have cameras focused on the people present, rather than the surrounding environment.

Although the house was not part of the investigation, it has been the centre of some reported activity and evaluation of the building and surrounds is recommended on a subsequent visit.

### SITE CLASSIFICATION

The highest rating achieved by any event on the night was “*indications of possible activity*” and so the site rating also reflects this.

Collection and examination of further data would be required to adjust this rating.

### ACKNOWLEDGEMENTS

Each investigation is conducted with the help and support of others who assist in making sure we are given the opportunity to be in the right place, at the right time and suitably equipped to capture information which may ultimately provide answers, whether they be natural or supernatural in origin.

Many of these have no official stance on the existence or otherwise of ghosts but graciously provide support to the team for conducting research into the phenomenon.

We would like to particularly acknowledge the following who provided such assistance for this investigation.



Management and staff of Seppelt Great Western winery for allowing the investigation to take place, providing information on the site, and for their hospitality during our visit.



The assistance of TechRentals, a Division of the TR Corporation, in providing additional, fully calibrated monitoring equipment.