HERITAGE ASSESSMENT SERIES 3

Buster Diggings

Heritage assessment

Marion Sutton

New Zealand Government

Department of Conservation
Te Papa Atawhai

Peer review statement

Assessment prepared by Marion Sutton, Central Otago Area Office, Department of Conservation
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Cover: Structure (function unknown) re-using riveted metal water pipes, with the stark white sediments of the Buster Diggings in the background. *Photo: Amanda Ware.*

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Buster Diggings

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Abstract

Buster Diggings is an extensive complex of high-altitude (1200 m above sea level), alluvial gold workings in the vicinity of Naseby in Central Otago. The diggings were worked from 1863 to the early 1900s and at their peak sustained a population of over 700 people. Because of their altitude and the complexity of providing an adequate water supply they were not able to be worked during winter months. Buster Diggings is managed by the Department of Conservation as an Actively Conserved Historic Place. This heritage assessment summarises the story of these diggings, including their development and decline and the people and companies and businesses that worked and serviced them. It also describes the remaining physical evidence, including the areas of gold workings and the extensive complex of water races, dams and other infrastructure required to bring sufficient water to the goldfield to work it during the spring and summer. This evidence is considered to be remarkably intact. The significance of the diggings within the context of high-altitude alluvial mining in Otago is also considered. Significance is assessed on the basis of the site's history, cultural associations and its archaeological fabric. The Buster Diggings complex is assessed as being of national significance, primarily because it is a rare and highly intact, high-altitude, alluvial mining landscape.

Key words: Buster Diggings, Central Otago, Waitaki District, alluvial gold mining, hydraulic sluicing, water race, high altitude, Actively Conserved Historic Place, New Zealand

1. Site overview

- Buster Diggings, Oteake Conservation Park; Conservation Unit No. H40107; gazetted 2009, p2123.
- Legal description: Sec 1 SO 402293.
- Accessed via Mt Buster Road, and situated on the saddle between Mt Buster and Mt Kyeburn (GPS 1383195-5022337; NZTopo50-CB16); the diggings extend northward along the saddle to the headwaters of the Otematata River (Figs 1 & 2).
- Geographically located in the former Canterbury Conservancy of the Department of Conservation (DOC), but administered by the Central Otago Area Office, Alexandra.
- Asset Management Information System (AMIS) Functional Location DS-83-300-6060 Oteake East of Hawkduns; equipment number 100091023.
- An actively conserved complex of high-altitude alluvial gold mining sites and features.
- Not currently recorded in the New Zealand Archaeological Association (NZAA) site record system.
- The diggings commence at the boundary of the Waitaki and Central Otago Districts. The majority of sites and features are located within the Rural Scenic Zone of the Waitaki District Plan (Waitaki District Council 2010). However, the diggings are not listed in the relevant appendices of this Plan or the relevant schedule of the Central Otago District Plan (Central Otago District Council 2008).

Figure 1. The location of Buster Diggings in a regional context. *Source: MapToaster*.

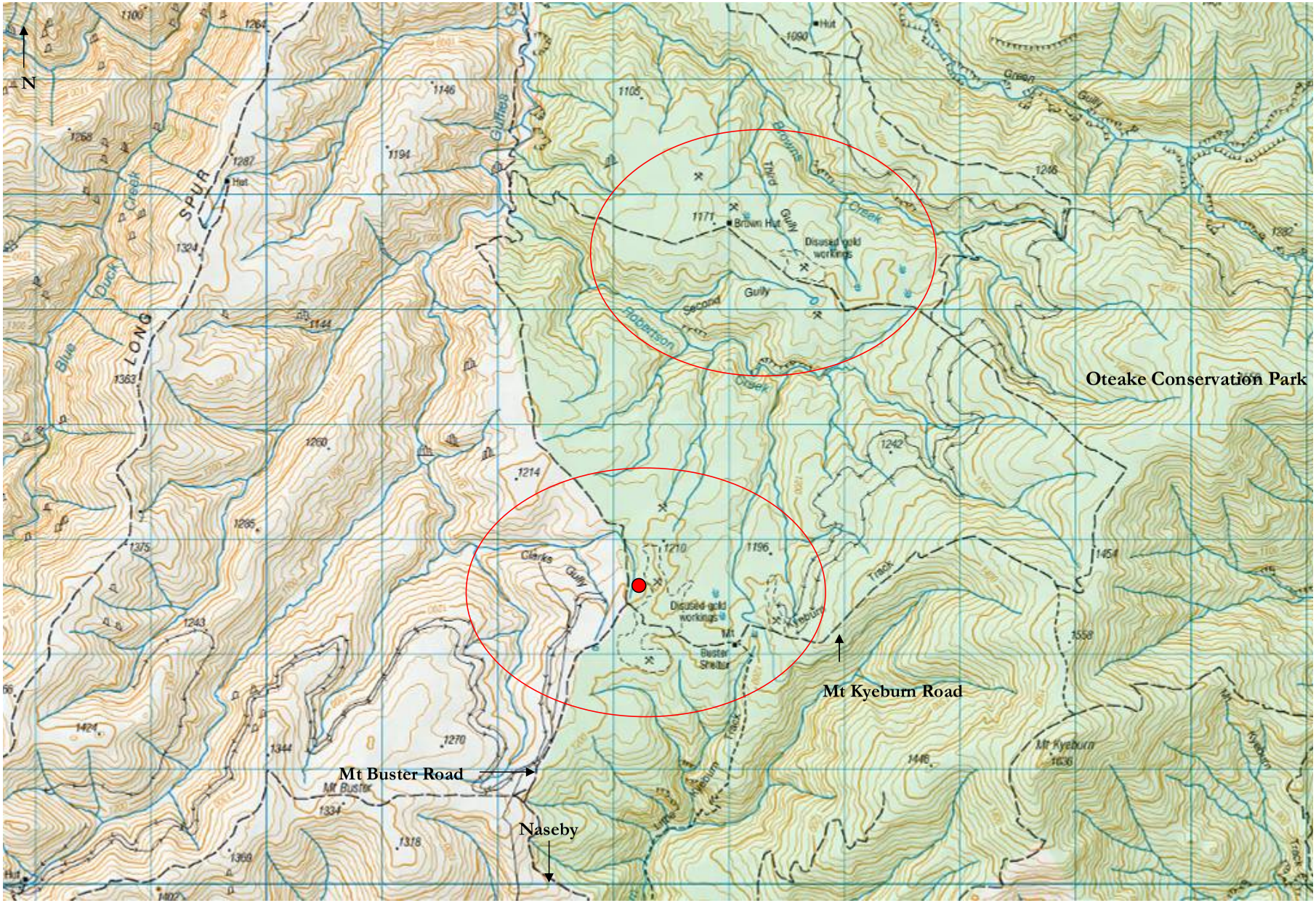

Figure 2. The Buster Diggings in relation to public conservation land (shaded green). The approximate locations of the main workings excluding the water races (red ovals) and building remains (red circle) are also shown.

2. History

2.1 Discovering gold

Gold was first discovered in the Naseby area in May 1863 (AJHR 1863)[1]. As the rush developed, groups of miners prospected the surrounding area, and in July 1863 gold was discovered on the saddle between Mt Buster and Mt Kyeburn (Fig. 2) by Samuel Clark, Nicholas Goyan, Thomas Mulvey and James McLaughlin (*Otago Daily Times* 1863a; *Mount Ida Chronicle* 1869a). These four men, who were experienced miners from the Victorian goldfields, were granted a prospecting claim of 140 feet × 74 feet in September 1863 (*Otago Daily Times* 1863a).

The gold was discovered in a small creek bed, which became known as Clarks (also spelt Clarkes) Gully, presumably after Samuel Clark[2]. The gully was described as being 3 miles long, and between July and September 1863, a mile and a half of it had been prospected (*Otago Daily Times* 1863a). The gold-bearing deposits were shallow and could easily be worked—the first sinkings were up to 3 feet (*Mount Ida Chronicle* 1869a) and some of the deposits were rich in gold (AJHR 1894)[3], with the discoverers washing 60 ounces of gold in the first week (*Mount Ida Chronicle* 1869a).

Once the shallow ground had been exhausted, miners moved onto the higher ground of the saddle, east of the Gully, where a deep run of fine quartz gravel was found (AJHR 1894). The gold was contained within a fossil beach deposit of quartz gravels, which were uplifted during the formation of the Central Otago block mountains (Bristow n.d.) The auriferous-quartz gravels extended northward along the saddle to the headwaters of the Otematata River. As such, all of the workings on the saddle stretching northward from the head of the Little Kyeburn River formed part of what became known as 'The Clarkes Field' (*Mount Ida Chronicle* 1869a) or Clarks Diggings.

2.2 Development of the diggings

Quite early on, Clarks Diggings became known as the Burster or Buster Diggings. These various names have been used throughout the years in reference to the diggings, as can be seen from the use of each name in news articles contemporary with its working. The origin of the terms Burster and Buster is unconfirmed, and it is unclear which is original or correct. John Gauld Bremner, who was one of the first storekeepers on the Mt Ida Goldfield, arriving at the Hogburn in August 1863, referred to the Mt Burster field in his memoirs (Bremner 1988)[4]. However, survey office maps produced from 1868 used the spelling Buster in reference to Mt Buster[5].

The main difficulties encountered during the development of the goldfield were its elevation, and the lack of a sufficient and continuous supply of water (AJHR 1894). At an elevation of 4000 feet, or over 1200 metres, work could only be carried out during the spring and summer months. The primary mining method employed was hydraulic sluicing, which was conducted on as large

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[1] The discovery of gold on the Hogburn led to the proclamation of the Mt Ida Goldfield.

[2] Since Samual Clark's name is spelt without an 'e' in newspaper articles contemporary with the discovery in 1863, and Clarks is the spelling used on all consulted SO maps, the spelling without the 'e' is considered correct and so is used throughout this report.

[3] Account by Alexander McKay, mining geologist, who visited the goldfield in 1894.

[4] John Gauld Bremner's memoirs were published weekly by the Mount Ida Chronicle in 1911 and were collected into a typed manuscript in the late 1940s, which was published by the Maniototo Early Settlers' Association in 1988.

[5] The spelling 'Buster' is used on all consulted SO maps: SO 4783 (dated 1868), SO 5821 (dated 1868), SO 5826 (dated 1877), SO 1132 (dated 1884) and SO 789 (dated 1918). However, the use of Burster is not unique—there is a Mt Burster in Westland National Park—and the term may ultimately be a reference to the old family name of 'Burster' (Mrs Hazel Harrison, Maniototo Early Settlers Museum, pers. comm.).

a scale as the available water supply during these months allowed (AJHR 1894). Alexander McKay, a government mining geologist who visited the goldfield in 1894, recorded that water was generally scarcer after the New Year and all work was suspended after the end of April; as a rule, work did not then resume until the following October (AJHR 1894).

From early in the field's development, the workings were concentrated in three gullies; and by November 1869, the workings were fed by a combined total of 64 miles of water race (*Mount Ida Chronicle* 1869c).

T. Goggarty and P. Greer's party occupied No. 1 Gully, i.e. Clarks Gully—labelled 'First or Clarks Gully' on SO 4783 (Fig. 3). In March 1869, this party had constructed a tunnel higher up than their previous water supply, using larger sized fluming, in order to command the head of Clarks (*Mount Ida Chronicle* 1869b). By November 1869, the party had sluiced to a depth of between 60 and 70 feet, owned 30 miles of water race, and their property included an iron store, a dwelling house and a comfortable sod hut (*Mount Ida Chronicle* 1869c). The population of the gully at this time was 25 European and 100 Chinese (*Mount Ida Chronicle* 1869c). Goggarty later bought a hotel and store at the foot of Mt Buster (Bremner 1988: 8).

William Grayson and party occupied No. 2 Gully, i.e. Robertson Creek (formerly Robinson's Gully; SO 4783 1868)—labelled 'Second Gully' and shown as a tributary of Robinson's Gully on SO 4783 (Fig. 3), where the tributaries are shown as being extensively worked. Surveyed in 1868, the party held an 8-acre claim and an extended claim of 2 roods[6] at the head of Second Gully (SO 5821 1868) (Fig. A1.1, Appendix 1). By March 1869, the party had a new water race that was fast approaching completion, having taken nearly 12 months to construct (*Mount Ida Chronicle* 1869b). By November of that year, the party of five Europeans held 12 miles of water race (*Mount Ida Chronicle* 1869c). SO 1132 (1884) shows Grayson's water race, which ran from the head of Green Gully beneath Grayson Peak (Fig. A1.2, Appendix 1).

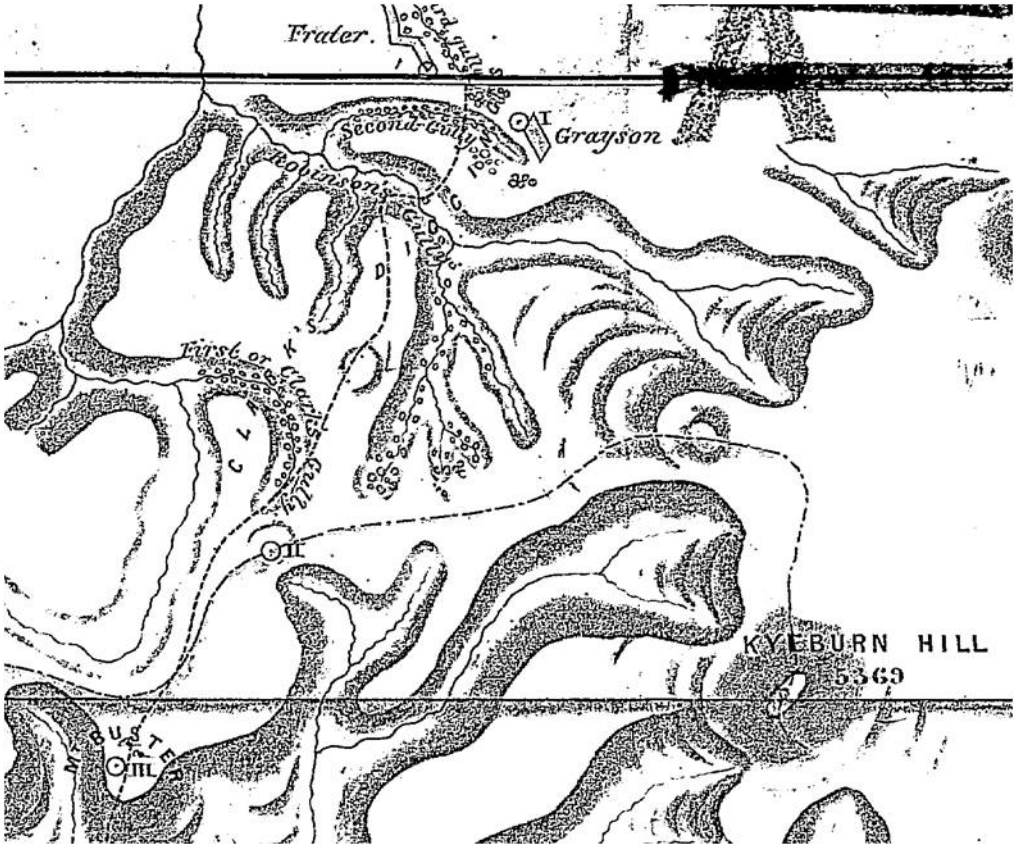

Figure 3. Extract from SO 4783 (1868): Topographical sketch of Kyeburn District, W. Arthur District Surveyor, March 1868, showing the extent of the Clarks Diggings.

[6] A rood is a measure of land equal to ¼ acre (www.thefreedictionary.com/roods).

Guffie and party occupied No. 3 Gully, i.e. Browns Creek—labelled 'Third Gully' and shown as a tributary of Browns Creek on SO 4783 (1868) (Fig. 3). The party of eight men processed 12 miles of water race across two races by November 1869 (*Mount Ida Chronicle* 1869c). When John Gauld Bremner and others set off from Mt Buster in the direction of St Bathans in 1863 in search of gold, they could see 'the tents in Third Gully' (Bremner 1988: 8).

Other parties working in November 1869 were Robinson and party, who were cutting a race from the east side of Mt Kyeburn (described as an uncertain speculation), and White and party, who held 7 miles of water race (*Mount Ida Chronicle* 1869c).

The latter party likely refers to the Cornish and Scotch Company, an early party on the field that came close to dissolving in 1875 as a result of a shareholder disagreement (*Otago Witness* 1875: 16). To buy out an out-going partner, the remainder of the party washed up a third of their tail race, recovering 35–36 pounds of gold, and paid £1,400 for his interest in early December 1875 (*Otago Witness* 1875: 16). This event demonstrates the richness of the claims at the diggings. The company survived, and in January 1877 mining lease applications that were surveyed included an application by A. White for the Cornish and Scotch Company (SO 5826 1877).

Lease applications were also surveyed in 1877 for W. Grayson & Co. and for Gottfried Fix (SO 5826 1877). These claims were all located at the head of Clarks, and the 'Old Mt Kyeburn Race' and the 'Mt Buster Race', which were dry when surveyed in January 1877, ran through each (SO 5826 1877).

Grayson & Co. were soon to move on, and in February 1878, the Grayson & Petersen claim was put up for sale by tender owing to the dissolution of the partnership (*Otago Witness* 1878: 13). The claim was put up for sale as a whole or in three one-third shares and is described in detail in the advertisement of the sale in the *Otago Witness* on 2 February 1878. It consisted of three mining leases of 2, 5 and 10 acres, respectively, with the 2-acre lease being considerably worked and the other two leases being intact. Its water was supplied in three water races—the main race, which was 14 miles long, came from the head of Green Gully (which was most likely extended post-March 1869, when Grayson and party must have moved on from Second Gully), and there were two branch races, each 1 mile in length. Other infrastructure, materials and possessions included four tail races (with gold), dams, 2600 feet of 11-inch iron fluming, 50 sheets of new galvanised 6-foot iron, a quantity of timber, canvas hose, and a sod and iron hut[7].

When Alexander McKay, government mining geologist, visited the diggings in February 1883, three groups of miners were still working the field (Hamel 1992). In 1886, Inder and Guffie[8], the Cornish and Scotch Company, William Grayson and Flynn and party were all working claims (*Otago Witness* 1886: 12). By 1889, this had declined to two groups—Inder and Guffie's company, and the Cornish and Scotch Company (AJHR 1889; Hamel 1992). Each company operated one of the two large water races that fed the diggings at the head of Clarks from the west. D. Barron's 1884 topographical plan of the Mt Buster district shows both races, labelled 'Cornish Coy's W. R.' and 'Inder & Guffie's W. R.' (SO 1132 1884; Fig. A1.2, Appendix 1). Inder and Guffie also had a race from the east, which fed a dam with water from the head of the Little Kyeburn, and a second race fed the dam from the northeast, from Browns Creek (SO 1132 1884).

In 1886, a *Mount Ida Chronicle* report, which was published in the *Otago Witness* (1886), recorded that Inder and Guffie's party were sluicing night and day on a scale of 'extraordinary magnitude'. Half an acre had been sluiced of 45 feet of wash dirt within a month, and the wash dirt situated

[7] An iron hut still existed near the end point of Grayson and Petersen's main water race at the head of Clarks Gully in September 1918 (SO 789 1918; Fig. A1.3, Appendix 1), which may have been the party's original hut. The party's main water race was recorded as being abandoned by this time.

[8] The Inder and Guffie partnership was Walter Inder and William Guffie (Sam Inders, pers. comm.)

15–20 feet from the bottom prospected at 1 dwt[9] per dish (*Otago Witness* 1886). In an 1889 mines report (AJHR 1889), Inder and Guffie's claim is said to have produced £2,000 profit per man for an 8-month season, and in 1889 they were averaging £7–8 per man per week.

In the 1891–92 season, Inder and Guffie recovered 400 ounces of gold, mostly because they were again able to work for 8 months due to a fine season (AJHR 1891). For part of this time, however, they had to tunnel through the snow along the race to get water to their claim (AJHR 1891).

The Cornish and Scotch Company stopped mining c. 1893 (Hamel 1992). The Mt Buster Mining Company was set up in 1896 (Sam Inders, pers. comm.), and was carrying on a profitable operation in the summer of 1899 (Hamel 1992). In 1901, the Mt Buster Mining Company[10] held amalgamated water rights from the 6-mile Mt Kyeburn north race, the 5-mile south race, the 6-mile Mt Domett race and the 6-mile Mt Buster race (AJHR 1902). The claim had between 5000 and 6000 feet of 11-inch pipes in use as siphons and fluming in the several races (AJHR 1902). It is also described as having 600 feet of 9-inch galvanised iron pressure-pipes that had been on the field and in use for 27 years (AJHR 1902). The claim, which employed six men (including five Taits), had sluiced faces averaging 90 feet (nearly 27.5 metres) high (AJHR 1902). The company went into liquidation in 1905, following which the claim and plant were purchased, and tributers were still working in 1906 (AJHR 1906).

Mining continued at Buster Diggings well into the 20th century, albeit on a small scale. Mr John Weatherall and Mr William Brown, residents of Kyeburn Diggings, worked at the diggings for a few months in c. 1919 (George 2010). During the 1920s, small parties or individuals did some mining on the field, but this was more in the form of fossicking, with little mining plant (George 2010). The Peart brothers constructed Brown Hut, occupied Green Gully Hut and mined in the area post-World War II.

2.3 Routes to Buster Diggings

Buster Diggings were reached by tracks from both Naseby and Kyeburn. The track from the Hogburn or Naseby cut around the shoulder of Mt Buster on a spur to the west of the present Mt Buster Road. The track from Kyeburn came from Danseys Pass Hotel via a low saddle from German Creek and up from a crossing on the Little Kyeburn. In the early stages of development, most supplies were packed up the mountain on horseback, but wagons could also get up at a struggle (George 2010). Messrs Fagin Bros, storekeepers on the field, are said to have left Kyeburn on one occasion with a heavy wagon filled with stores and 15 horses attached to it, to the amazement of onlookers (*Mount Ida Chronicle* 1869a). Mr Oscar Davis' obituary in the *North Otago Times* in May 1916 described Davis as the first wagoner to take a team of bullocks up to the Mt Buster gold rush (*North Otago Times* 1916). Bullock wagons were replaced by horse-drawn wagons when the first roads were formed (George 2010).

The routes to the Diggings from the Hogburn and Kyeburn are described in detail in the memoirs of Philip George (2010). According to George, bullock wagoners chose dry ridges when crossing unroaded country, as the steepness and narrowness of the ridges gave better footing for bullocks and more stable surfaces for the heavy wagons or drays. Sidlings were avoided where possible as vehicles would slide and capsize. By 1887, a new subsidised road to Clarks

[9] Dwt is an abbreviation for pennyweight, a unit of mass and a common weight used in the valuation and measurement of precious metals. 1 dwt is equal to exactly 1.55517384 grams (www.en.wikipedia.org/wiki/Pennyweight).

[10] According to research by Sam Inders, the original Inder and Guffie partnership was Walter Inder and William Guffie, although there is reference to a Frank Inder in the Appendices to the Journals of the House of Representatives (AJHR) publications. Sam Inders believes there was never a Frank Inders, but that the full name of Robert Inders, who married William Guffie's daughter, i.e. Robert Sheppard Franks Inder, may explain where 'Frank Inder' came from. Walter Inder was the original Inder settler in Naseby and was later mayor. It was his sons who set up the Mt Buster Mining Company in 1896.

Diggings, called the Pig and Whistle, had been constructed at a cost of £200; the old road line was considered too steep, and was of little use for getting supplies and materials on the ground (AJHR 1887).

2.4 Settlements

A petition for a new road was first submitted to the Maniototo County Council in January 1885, by 21 residents and others in Little Kyeburn and Mt Buster (Angus 1977: 39). The petitioners wanted an efficient road over the Pig and Whistle Hill leading to their residences (Angus 1977). A settlement at the foot of Mt Buster appears to have arisen soon after the discovery of gold on the saddle. Exploratory trips showed that only a small patch of auriferous ground existed on the saddle and that the goldfield was unlikely to spread, and so businesses were mainly provided at the foot of Mt Buster as opposed to at the Diggings (Bremner 1988: 8), and it was here that a small township developed—there were 700 people in the settlement at the foot of Mt Buster in 1880 (Angus 1977). John Bremner erected an iron store at the township, drawing his supplies directly from Dunedin and supplying the packers who catered for the miners on the hill, providing goods at the same price as in Naseby (Bremner 1988: 8). A Mr Jones had a refreshment place at the foot of the hill, while Goggarty, after successfully mining at the Diggings, later purchased a hotel and store at the township at the base of Mt Buster (Bremner 1988: 8–10). Some stores were present on the hill, including a Chinese store built to service the numerous Chinese miners in Clarks Gully in 1869 (*Mount Ida Chronicle* 1869c).

The memoirs of Philip George (2010) refer to other non-mining businesses connected with Buster Diggings. In addition to the Fagin brothers mentioned earlier, there was Edwin George, who had a store on the goldfield supplied from Dansey's Pass Hotel. An early stone bakery and butchery business also operated at Dick's Flat, located at the foot of Mt Buster and on the main track to the Diggings (George 2010).

2.5 Death of Sergeant Garvey

The Clarks or Buster Diggings are connected with the death of mounted sergeant Edward John Garvey in the early months of the field's operation, in September 1863. Stationed in Naseby, Garvey had been carrying out a round of inspections for the purpose of reporting on the rush to the new field and had visited Clarks to gain an account of the workings (*Mount Ida Chronicle* 1869a). Sergeant Garvey died in a gully near the junction of Hut Creek and Fraters Creek, having separated from his companions during a snow storm on 24 September. A cairn was erected in his memory at the site where his body was found. Accounts of the discovery of the Sergeant's body can be found in the *Otago Witness* (1863) and in the *Otago Daily Times* (1863b). A memorial to the mounted sergeant in the Southern Cemetery, Dunedin, states that Garvey escaped death at the Battle of Balaclava, in the Charge of the Light Brigade (25 October 1854), to die on the mountains (Bremner 1988).

3. Physical description

Clarks or Buster Diggings is a high-altitude alluvial goldfield that covers a wide area. The Diggings extend from Clarks Gully northward to Robertson and Browns Creeks, areas that were all being fed by water races and worked in the 1860s.

Figure 4. A sluiced pit and remnant pinnacle in the main body of workings at the head of Clarks Gully. *Source: Department of Lands & Survey, December 1975.*

Figure 5. Aerial view of the Buster Diggings, with the workings at the head of Clarks Gully to the centre bottom, and the workings at Robertson and Browns Creeks to the centre top of the image. Snow-covered Mt Kyeburn is east of the Clarks Gully workings. *Source: MapToaster.*

The prominent remains at the diggings (Figs 4 & 5) result from decades of hydraulic sluicing, which had commenced on the terraces between gullies and creeks by the late 1860s. However, the earliest workings, which are located in Clarks Gully, where gold was first discovered in 1863, will have included cradling and, possibly, ground sluicing. The field expanded onto the saddle east of Clarks Gully soon after, at which time the goldfield was considered to include all of the alluvial claims running from Clarks Gully northward to the headwaters of the Otematata River.

The workings in Clarks Gully are located on the Soldiers Syndicate Pastoral Occupation License (POL) and have not been inspected. The main sluicing claims and workings on the saddle to the east are located on land that was formerly part of the Kyeburn Pastoral Lease and is now part of Oteake Conservation Park. These claims have left high sluice faces and remnant pinnacles and outcrops showcasing the white-cream colour of the gravels (Fig. 6). Peter Bristow (n.d.) described the overall effect as reminiscent of a desert or moonscape[11].

Figure 6. Distinctive pinnacle or outcrop of white-cream gravel at the workings at the head of Clarks Gully in December 1975. Note the sod covering the top of the pinnacle. *Source: Department of Lands & Survey*.

The main area of workings at the head of Clarks Gully covers an area of c. 1.5 km^2. The workings at the Second and Third gullies between Robertson and Browns Creeks are more widely spaced and cover a smaller area, clearly having been subject to less work over the decades. These workings may also represent more intact remains of 1860s and 1870s sluicing, as later parties appear to have focused their work at the main area of workings at the head of Clarks Gully, particularly from the 1880s onwards.

The workings at the Second and Third gullies are similar to the main workings at Clarks, but on a much reduced scale and shallower in places. According to Peter Bristow (n.d.), a thin veneer of quartz gravels has been sluiced off to reveal a brightly coloured orange and red subsurface. The workings at the very head of these gullies appear to correspond to the claim of Grayson and party, which was being worked in 1868, while the workings to the west of Third Gully are likely the remains of Guffie and party, who also operated in the late 1860s. An old hut (named Brown Hut by DOC) that was constructed by the Peart brothers in c. 1949 using sections of pipe beaten flat, sits in the middle of the workings to the west of Third Gully.

An extensive system of water races, tail races and dams or reservoirs was constructed to provide and remove water for the sluicing. Two major races came into the workings from the west, feeding the workings at the head of Clarks Gully (Fig. 7); and another two came from the northeast, which

[11] No sketch plans associated with Peter Bristow's site inspection could be located by Shar Briden, Technical Advisor Historic (DOC).

Figure 7. Vertical photograph taken from the southern end of the workings at the head of Clarks Gully, showing features either side of Mt Buster Road. *Photo: Kevin L. Jones, April 2002.*

fed both the workings at Second and Third Gullies, and the workings at Clarks. A network of minor races also ran from gullies or storage dams to sluice faces. Major tail races ran into Guffies Creek from the main workings at the head of Clarks Gully. Tail races also discharged tailings into the Little Kyeburn (Bristow n.d.), as well as into Robertson and Browns Creeks (Fig. 8).

There has been no systematic survey of Buster Diggings to date, but an assessment of a proposed 2.5-km vehicle exclusion fence around the diggings at the head of Clarks Gully by DOC archaeologist Shar Briden (2009) identified 21 water races or tail races and sludge channels, and six prospecting pits. Aerial photographs of the diggings show numerous trial pits on un-worked ground immediately around the workings at the head of Clarks Gully. Pits are also prevalent at Second and Third Gullies, and can be seen directly off Brown Hut Road. In places, fluming can still be found and other metal remains lie scattered about the site. However, despite the historical reports on the extensive fluming and other iron materials that were required for the mining operations at the site, very little metal remains.

Distinctive features at the workings, particularly in the main area at the head of Clarks Gully are large earthen banks, particularly a large causeway or bank uphill and to the east of the main workings, partly on the alignment of the present Mt Kyeburn Road. This causeway or bank is adjacent to a large dam or reservoir, which may have been the infrastructure of Inder and Guffie's

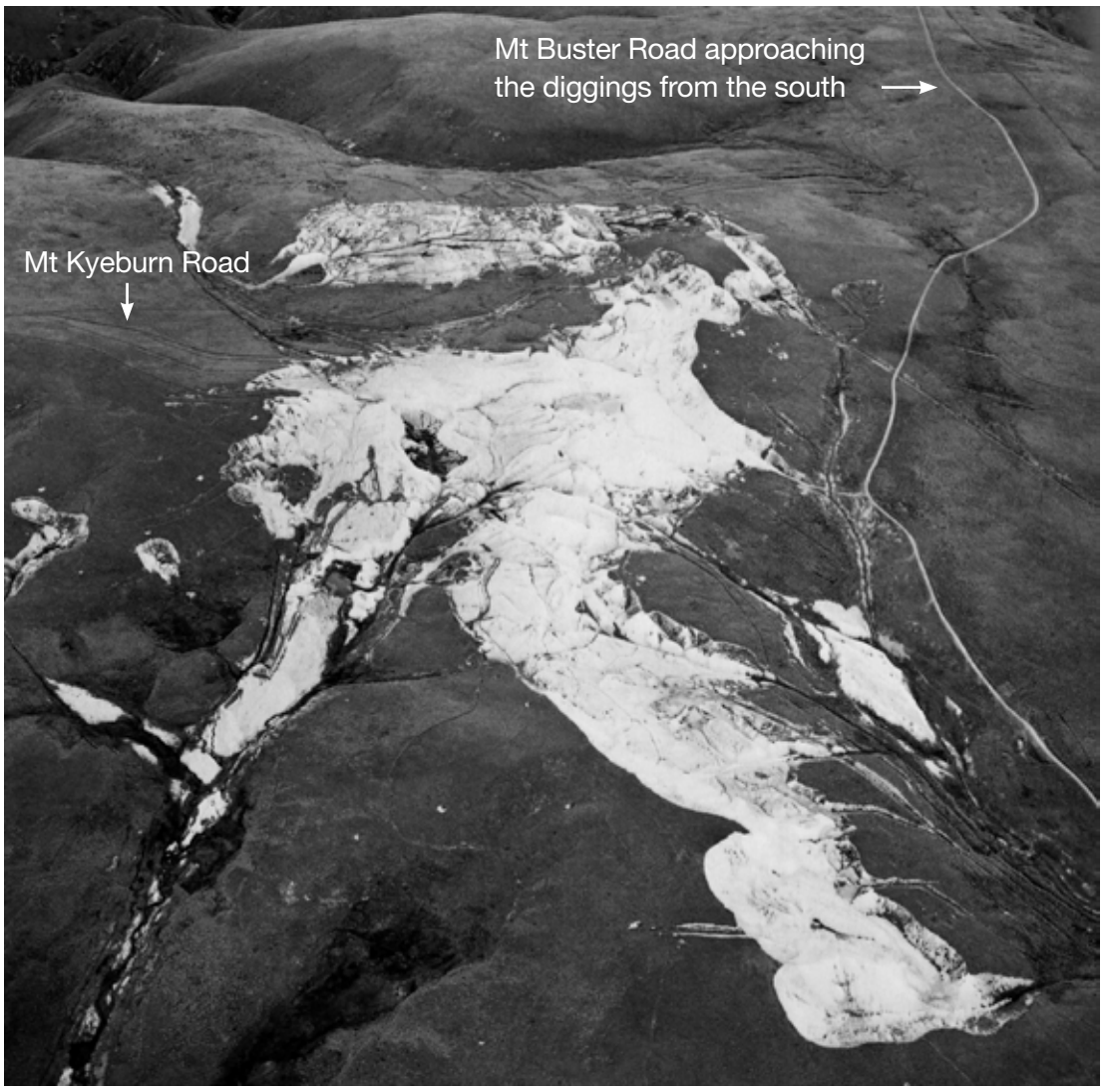

Figure 8. Oblique photograph of the largest area of workings at the head of Clarks Gully showing the network of races, in particular the network of tail races that fall in all directions to Guffies Creek, Little Kyeburn River and Robertson Creek. The view is to the south and Mt Buster Road is visible passing the workings to the right. Mt Kyeburn Road runs through the workings and is visible leaving the workings heading east. *Photo: Kevin L. Jones, April 2002.*

company, which was fed by Inder and Guffie's races from Browns Creek and the Little Kyeburn. It also feeds a myriad of water races that run downhill to the main area of workings. Other banks, such as that sheltering the present Buster Hut, also appear to feed water races that run westward to the working faces (Figs 9 & 10). Given the dependence on water from the spring snow melt, this bank is understood to have been a snow bank or snow trap, i.e. it trapped or facilitated the build up of snow, which fed the dam with water on melting. There are also other banks that may have served a similar purpose in gullies around the diggings.

None of the buildings that were once present at Buster Diggings survive, but there are traces of their remains, including materials and building platforms. Access to contemporary photographs is limited, but two that were published in *The Weekly Press* on 5 April 1899 by C. Bills (photographer) show that the buildings were constructed of corrugated iron and cob (Figs A2.2 & A2.3, Appendix 2). Furthermore, a 1932 photo of Hal Mackenzie at a hut at the Buster Diggings shows a building with more than one room (Fig. A2.4, Appendix 2), which was also constructed from corrugated iron and cob. The latter building was the last to survive at the diggings and its remains—including timber, iron and bottles—can be seen between Mt Buster Road and the main workings at the head of Clarks Gully (Fig. 11; refer to Fig. 2).

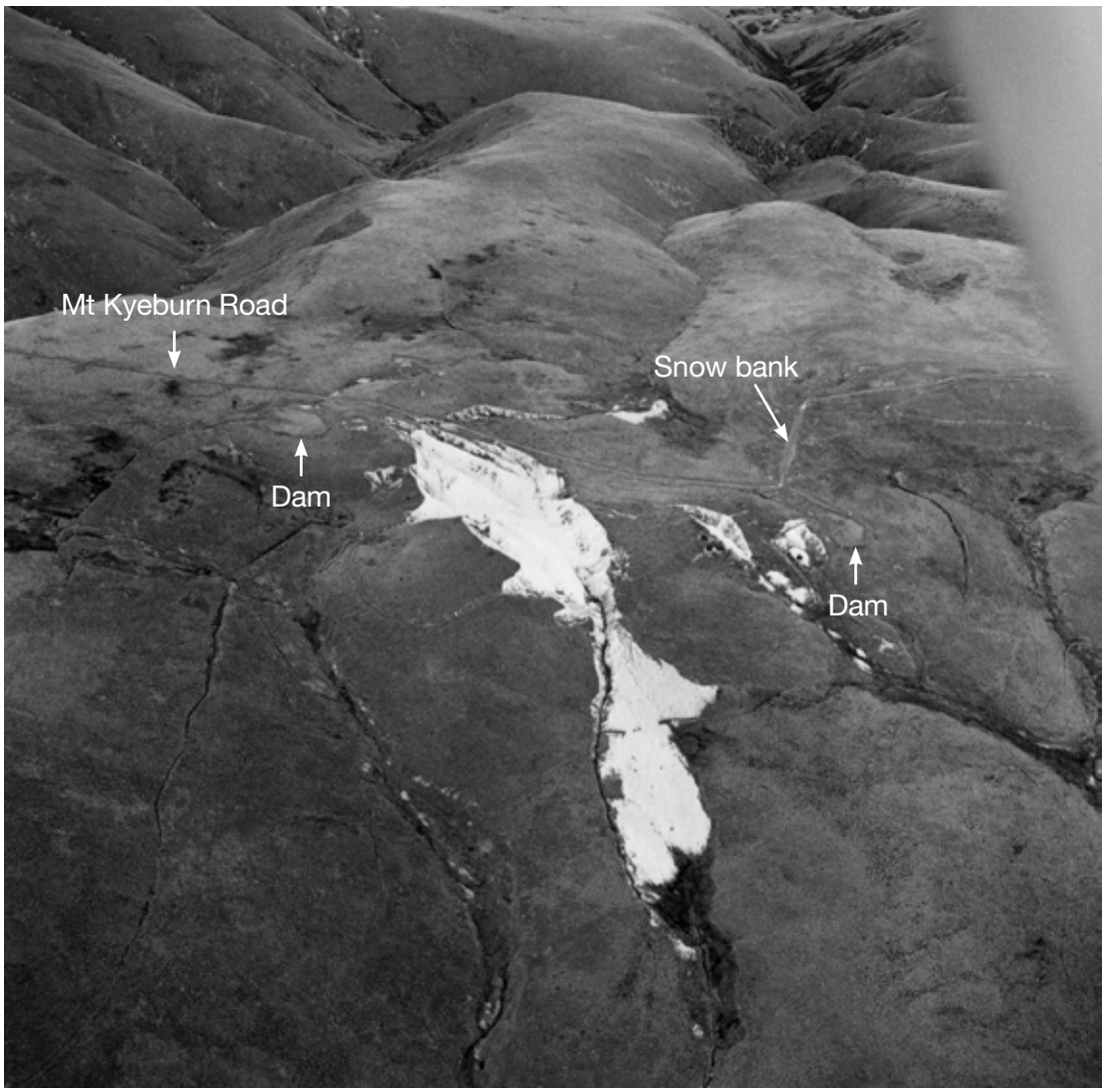

Figure 9. Oblique photograph of the workings uphill and to the east of the larger area of workings at the head of Clarks Gully. The view is to the south and Mt Kyeburn Road is visible passing through the head of the workings and follows the top of a causeway or snow bank in the top right. *Photo: Kevin L. Jones, April 2002.*

Figure 10. Aerial image showing the same general area as shown in Fig. 9, but the view is to the north. This image shows dams, snow banks and a myriad of water races running from the snow banks in the centre bottom westward to the main workings at the head of Clarks Gully. *Source: Walking Access Mapping System*.

Figure 12. The high-altitude Buster Diggings in a tussock landscape at the head of Clarks Gully, April 2008. *Photo: Amanda Ware.*

4. Cultural connections

Since the cessation of mining, one activity that appears to have occurred over time at the workings, primarily in the main area at the head of Clarks Gully, is motorbike or dirt bike riding. Photographs of the workings (taken by Department of Lands and Survey staff) in the mid 1970s show that the wide sluiced pit basins and sluice faces were being used by motorbike riders. This activity continues to occur at Buster Diggings and is actively managed by DOC.

Therefore, the diggings are likely to be a destination for bikers. However, for others, such as those on 4WD trips or tours, it is likely to be a place that is taken in as part of a wider journey. The 4WD options available in this part of Oteake Conservation Park are a through or return trip on the Mt Buster Road, and a loop option encompassing both the Mt Buster Road and the Mt Kyeburn Road. Operating concessions include Sam Inder's 'There and back discovery tours', which specialises in 4WD tours to Mt Buster and the wider Conservation Park.

Some businessmen at Buster Diggings were connected with public roles in the developing settlement at the Hogburn, or Naseby. William Guffie, of the Inder and Guffie partnership, served 20 years on the Maniototo County Council (Angus 1977) and his partner, Walter Inder, served as mayor of Naseby (Sam Inders, pers. comm.).

If not direct descendants of the businessmen and miners who worked at the Diggings, surnames connected with the diggings remain in the general locality. The Inders surname continues to be connected with businesses in the Naseby region, as well as with high-country farming in the environs of the diggings. In the sale of the lease of Run 362B in 1883, a link is made between the run and Clarks Diggings, which was then leased by the Mount Ida Pastoral Company (*Otago Witness* 1883). Walter Inder was a director in this company and initially took up the lease before surrendering it a year later (Bain 1997).

Patrick Greer, after successfully mining at Buster Diggings with T. Goggarty in the 1860s, took up land in Patearoa (Bremner 1988: 8). His descendants, who continued to farm the original property, held a ring that was fashioned from gold from the diggings and inscribed with 'G & G Gogarty and Greer' (Bremner 1988). Other miners, who went on to become successful businessmen after mining at the Buster Diggings included the Inglis brothers, who established A & T Inglis Cash Emporium on George Street, Dunedin, which developed into one of the largest department stores in the city (Bremner 1988: 10).

Buster Diggings was a multi-ethnic field. In addition to Europeans, there were a significant and sizable number of Chinese miners working in Clarks Gully in November 1869. The Chinese are also connected with other fields in the general locality, such as at Kyeburn.

5. Assessment of heritage values

5.1 Historical significance

The Clarks or Buster field formed part of the Mt Ida Goldfield, and was a relatively long-lived 'gold rush' alluvial field. It was discovered early, in 1863, and was worked well into the 1900s. In this sense, it is similar to other areas on the Mt Ida Goldfield, where numerous streams, gullies and gold-bearing ground were opened up following the discovery of gold at Coal Pit Gully and Hogburn Gully near the town of Naseby. Alluvial mining continued steadily and for many years at Naseby and the nearby Kyeburn Diggings, as well as in the wider Maniototo region.

Buster Diggings was a restricted but promising or 'extremely rich' (*Mount Ida Chronicle* 1869a) goldfield, and were it not for the lack of water, could have afforded remunerative employment for hundreds of miners, as there was sufficient gold-bearing ground (*Otago Witness* 1886). However, as was the case at other high-altitude fields, the intermittent and unreliable supply of water was the most serious drawback to the field. The lack of a reliable supply of water presented similar development issues at the Criffel Diggings; however, unlike Buster Diggings, Criffel was neither a 'gold rush' (having been prospected from the mid-1880s) nor a thriving field (Hall-Jones 2005).

Though not unique to Clarks or Buster Diggings[12], one of the features of the diggings was that no water race companies were involved in the water supply systems. Instead, the various mining parties constructed their own races and worked with their own water. This is believed to explain why the diggings did not see the same miners' strikes that occurred at the Hogburn or Naseby Diggings (*Otago Witness* 1870: 14)—a strike at the Hogburn was reported in the *Otago Witness* 'News of the Week' column on 5 February 1870, causing work to come to a standstill around Naseby, while work continued undisturbed at Clarks (*Otago Witness* 1870).

The Clarks or Buster goldfield is most historically significant as a high-altitude alluvial field (Fig. 12), and according to Jill Hamel (1992) is nationally significant. Although it is not unique and not the highest alluvial goldfield in the region, it is one of the highest-altitude large-scale alluvial mining sites in the country. Other alluvial fields at a similar altitude in Otago include Campbell Creek, Potters No. 2 and Upper Fraser River on the Old Man Range/Kopuwai, Mitre Creek and Winter Creek at the southern end of the Pisa Range, and the Criffel and Fat Boy workings at the northern end of the Pisa Range.

5.2 Physical significance

The fabric at Clarks or Buster Diggings dates back to pre-1900. Although there was continued use of the existing infrastructure into the 20th century, the main period of use was from 1863 to 1906. Much of the primary infrastructure, particularly that associated with the supply of water, was in place from the 1860s and 1870s.

[12] There were no water race companies on the Kyeburn Diggings, for example.

Figure 11. Hut remains at the workings at the head of Clarks Gully in December 1975. *Photo: Department of Lands & Survey*.

The workings in the creek beds will likely be older than those on the surrounding ground with deeper deposits. Clarks Gully in particular was worked at an early stage (1863), and Jill Hamel (1992) suggested that the remains could be a valuable type site for vegetation dating the tailings.

Evidence of the 1860s and 1870s ground sluicing has largely been modified or obliterated by the subsequent hydraulic sluicing (Bristow n.d.)—although the workings at Second and Third Gullies may represent more intact remains of early sluicing, since later parties appear to have focused on the main area of workings at the head of Clarks Gully in later decades. Nonetheless, the remains of the 1870s to early 1900s hydraulic sluicing have left a historic landscape that is replete with a full range of characteristic features, such as sluiced pit basins, sluice faces, pinnacles and outcrops, dams, snow banks, a myriad of water races and tail races, and numerous prospecting pits.

Of significance due to the dependence of the goldfield on water from winter snow melt are the 'catch-water races' (AJHR 1890) or snow banks that fed the water storage dams and water races—and according to Jill Hamel (1992), only the Criffel (on the Pisa Range) and Carrick (Carrick Range) races compare in size and altitude to the major races of the Buster Diggings from the west.

This goldfield survives largely intact, likely as a result of its location, land use and land tenure. This intactness of Buster Diggings, which includes its wider historic landscape, is noteworthy. All of the features and infrastructure that were created to supply water to the field, and to remove it, survive, with only some loss of fabric due to bulldozing and the maintenance and/or creation of 4WD roads. Although the site is accessible by vehicle, it remains remote. Pastoral farming has been the main land use on both Kyeburn Station and the Soldiers Syndicate POL. Since this is Crown land, development activities have also been controlled under relevant legislation.

The remains of a mining settlement are still visible between the Mt Buster Road and the main workings at the head of Clarks Gully (refer to Fig. 2). The low outlines of the walls are visible, as are the broken bottles and tin cans that the miners discarded, which have been subjected to fossicking by bottle hunters in the past. A fragment of an opium pipe bowl (Hamel 1992) also confirms the presence of Chinese miners at the site.

The tertiary quartz gravel deposits are an interesting geological feature at the site and, according to Peter Bristow (n.d.), the hydraulic sluicing of these gravels has produced a cultural landscape that is unparalleled anywhere else in New Zealand. Within the Otago region, similar sluiced pit basins and sluice faces of white-cream gravels do occur along the foot of the Hawkdun Range, from Kyeburn to St Bathans, where similar geological ground occurs. Significantly, however, these similar landscapes occur at lowland sites, and so there are few comparable high-altitude sites.

The Clarks or Buster goldfield does have similarities with the high-altitude alluvial mining at Mt Criffel on the Pisa Range. At 1350–1250 metres, the Criffel and Fatboy Diggings are at a similar or slightly higher elevation, with mining only having been possible for 4–5 months of the year and issues with reliable sources of water, resulting in hydraulic sluicing being used to good effect. An 1896 newspaper account of these diggings noted that the gravels at Criffel were unlike any other formation seen by the author, with the exception of the gravels at 'Mt Burster' (Otago Daily Times 1896). However, unlike the Buster Diggings, Criffel was a much later discovery, being worked from 1885 (Otago Witness 1885).

The Clarks or Buster Diggings are physically significant nationally. The combination of extensive hydraulic sluicing and distinctive white-cream quartz gravels has produced a landscape that is unique to Otago, particularly at high altitudes. Huge areas of the white-cream gravel have been sluiced away, leaving remnant pinnacles and outcrops rising out of the outwash plain of tailings (Fig. 13). While the Criffel Diggings are similar in elevation and physical appearance, they are unlike the Buster Diggings, in that the latter are largely situated on public land and are accessible to the public; and while there are more dramatic examples of sluice faces, such as the high faces at Bannockburn Sluicings Historic Reserve, DOC does not manage a comparable goldfield in such a vast and spectacular landscape.

Figure 13. A distinctive pinnacle or outcrop of white-cream gravel at the workings at the head of Clarks Gully, April 2008. Note the erosion and loss of the sod that covered the top of the pinnacle in 1975 (see Fig. 6). This photograph also shows the use of the sluiced pit and sluice faces by motorbikes and other vehicles. *Photo: Amanda Ware*.

5.3 Cultural significance

The Clarks or Buster Diggings are culturally significant locally. For decades, the diggings have been viewed and used as an attractive site for motorbike or dirt bike riding. However, as Oteake Conservation Park is becoming better known for its accessible 4WD options, historical interest in the diggings is increasing, and concessions currently include the diggings as a point of historic interest during tours of the park.

It is very easy to connect with places, features, names and events on the ground at Clarks or Buster Diggings, which may help to increase the appeal of the site to the public. The location of Sergeant Edward John Garvey's death was accurately recorded during the inquest into his death and is marked on the ground by a cairn. People now accessing the diggings via the Mt Buster Road are following the route taken by the miners from 1887 after the government subsidised the building of the Pig and Whistle road (now known as the Mt Buster Road). As similar

infrastructure was used throughout the decades of the field's use, and the infrastructure is largely intact, it is possible to locate features on the ground and to trace or follow the network of races that are recorded on SO plans from as early as 1868.

Though not the most distinctive feature of Buster Diggings, the goldfield has a significant Chinese connection. Chinese miners were present in sufficient numbers at Clarks Gully to warrant the construction of a store to specifically service them in 1869. It is recorded that 100 Chinese miners worked at Clarks Gully in November 1869 (*Mount Ida Chronicle* 1869c).

5.4 Summary of significance

In summary, the Clarks or Buster Diggings are a nationally significant high-altitude alluvial goldfield that was discovered during the 'rush' in 1863 and then worked though the settled mining era of subsequent decades to produce the distinctive sluiced remains of white-cream gravel that can be seen today. Physically, there are few, if any, comparable sites, with the exception of the Criffel Diggings on the Pisa Range, which are at a similar elevation and comprise similar white-cream gravels. Unlike the Criffel Diggings, however, the Clarks or Buster Diggings are situated on public land and so are accessible to the public. DOC does not manage a comparable goldfield in such a vast and spectacular landscape.

It is noteworthy that the diggings and their wider historic landscape survive intact, including the entire infrastructure that was required to supply and remove water to facilitate sluicing. Consequently, the diggings are easily interpretable, and with future on-site interpretation and increasing growth in usage of Oteake Conservation Park, the historical and physical features of Buster Diggings are likely to become better known.

6. Future work recommendations

The remains of Buster Diggings on the former Kyeburn Pastoral Lease have been included within Oteake Conservation Park (gazetted 2009). The diggings are accessible via the Mt Buster Road and are available for public access. Early workings downstream in Clarks Gully, as well as the two major water races that fed the workings from the west, are situated within the adjacent Soldiers Syndicate POL and are not available for general public access. Clarks Gully should be viewed as the site of the earliest mining at the Diggings, and the gully and associated water supply features to the west of the Mt Buster Road should be viewed as part of the Buster Diggings complex. In terms of the Soldiers Syndicate POL, management decisions should acknowledge the significance of the features on the POL and aim to protect their current intactness.

Similarly, with regard to an existing prospecting permit—number 53297, held by Glass Earth (New Zealand) Limited—which covers an area that includes Buster Diggings, management decisions should reflect the extensive range covered by features associated with the diggings, particularly the water supply network, and seek to protect the integrity of the diggings as a whole, which should be safeguarded against inappropriate prospecting and future mining.

The sluice faces of the main body of workings at the head of Clarks Gully are suffering from human impact, primarily as a result of vehicles, particularly motorbikes, being driven up the faces, which leaves long-term trail marks or scarring in the surface of the deposits and erodes them. DOC has acknowledged this impact and in 2009 erected a fence around the main sluice faces at the head of Clarks Gully. As the Mt Kyeburn Road runs through the workings, DOC has also established a system of controlled vehicle access on the road, to identify who is travelling through the diggings and when they are doing so. These efforts have had some success, but

have not succeeded in preventing use of the diggings by vehicles/bikes. Therefore, stronger protection measures could be investigated, (e.g. a stronger fence or the use of cameras to identify vehicle users). At a minimum, the importance of the diggings and the effects of particular uses on them need to be promoted via on-site (interpretation panel), web and hardcopy materials. Any new infrastructure brought to the site should also be in keeping with the site.

A site record should also be added to the New Zealand Archaeological Association (NZAA) site recording scheme.

7. Evaluation of sources

The primary sources used were contemporary Survey Office (SO) plans, newspaper articles and government reports in the *Appendices to the Journals of the House of Representatives* (AJHR). The details provided by these sources were supplemented with short reports prepared by archaeologists Jill Hamel (1992) and Peter Bristow (n.d.), which assessed the historic values of the Soldiers Syndicate POL and the Kyeburn Pastoral Lease, respectively, as part of the Protected Natural Areas Programme (PNAP) and tenure review process. An assessment report on fence installation by archaeologist Shar Briden (2009) identified the nature of the archaeological features around the perimeter of the main sluiced area at the head of Clarks Gully.

Contemporary photographs have been difficult to source to date. Three photographs were included in a supplement of *The Weekly Press* (1865–1928), a weekly paper of Canterbury's Press Co., on 5 April 1899, and there has been some reliance on photographs from personal collections. Nick and Carol Mackenzie of Kyeburn Station supplied a copy of a 1932 photo of Hal Mackenzie at a hut at the Diggings, and Sam Inders of the Kyeburn area supplied three photographs taken in the mid-1930s. These photographs show the nature of the buildings that once existed at the Diggings.

Specific information about access routes and the personalities who mined or operated businesses on or near the field was obtained from the memoirs of Philip George (1900–1992) and the memoirs of one of the first storekeepers at the Mt Ida Goldfield, John Gauld Bremner. These memoirs were initially supplied to Otago Conservancy, DOC, via Forest and Bird, but a copy has since been lodged in the Hocken Library, Dunedin, by his son Phil George (Jnr). John Bremner's memoirs were published by the Maniototo Early Settlers' Association in 1988.

A newspaper article reporting on the Peart brothers' mining venture on the field came to the author's attention in the later stages of writing the report. This article, which was published in the *Otago Daily Times* in mid-February 1951, has not been consulted.

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9. Additional resources

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www.wams.org.nz (Walking Access Ara Hīkoi Aotearoa)

www.paydirt.co.nz/permit_map

Appendix 1

Site plans

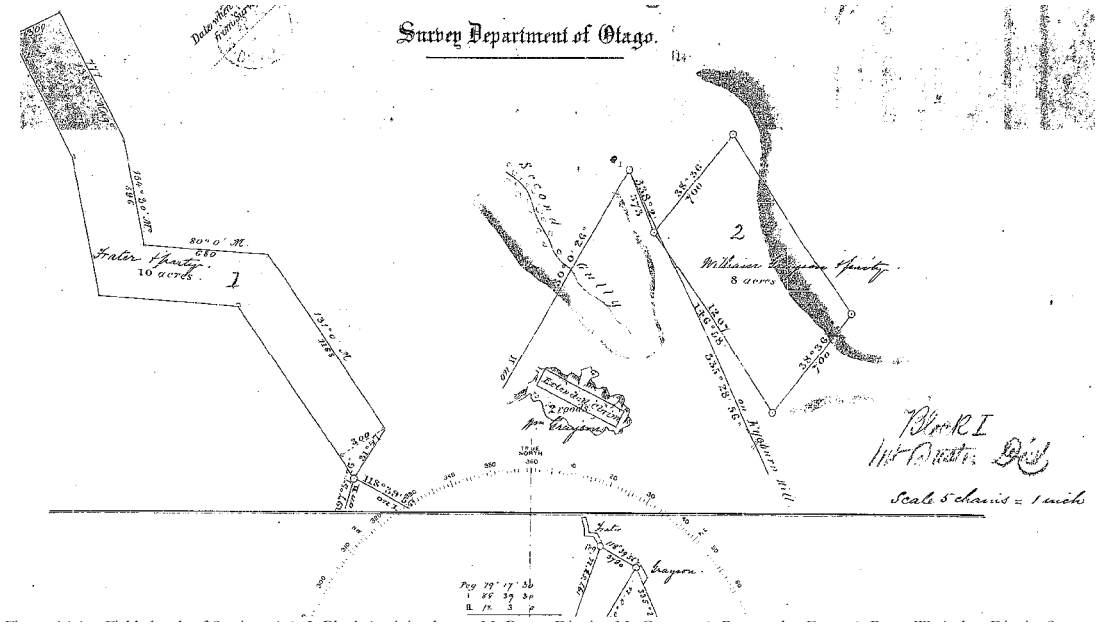

Figure A1.1. Field sketch of Sections 1 & 2, Block 1 mining leases, Mt Buster District, Mr Grayson & Party—also Frater & Party, W. Arthur District Surveyor, April 1868. *Extracted from SO 5821.*

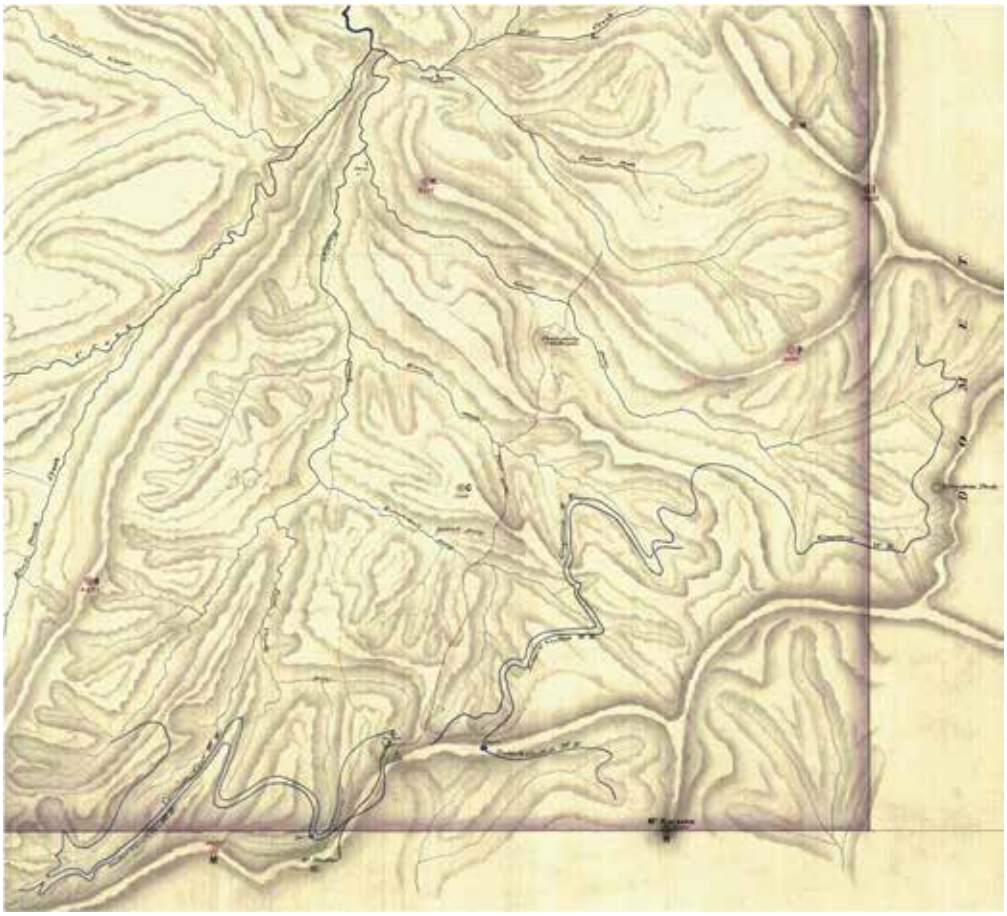

Figure A1.2. Topographical plan of the Mt Buster District, D. Barron District Surveyor, March 1884. *Extracted from SO 1132*.

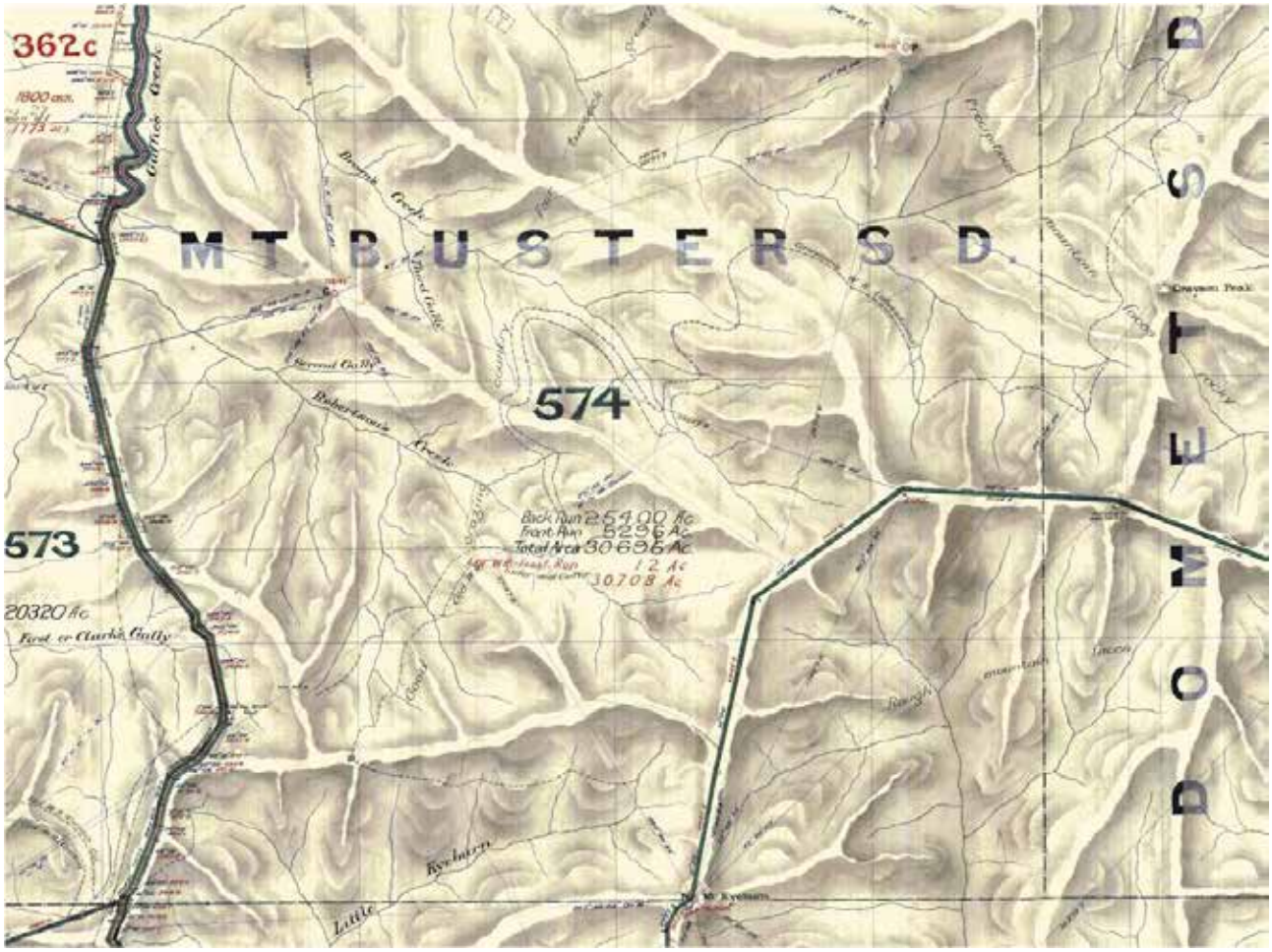

Figure A1.3. Plan of part of Kyeburn Runs 573, 574, 576, 591 and 362c, and Section 1 Bk 7 Kyeburn Survey District, W. D. Armit, September 1918. *Extracted from SO 789.*

Appendix 2

Archive photographs

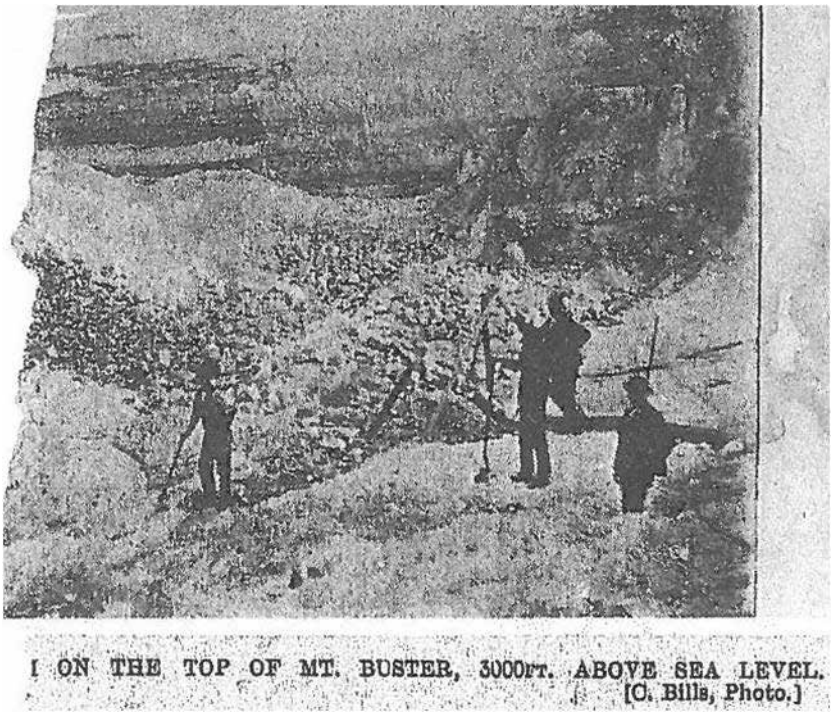

Figure A2.1. Copy of a photograph published in The Weekly Press on 5 April 1899 showing workers at the Diggings. *Photo: C. Bills.*

Figure A2.2. Copy of a photograph published in The Weekly Press on 5 April 1899 showing Mr Richard Lawer, manager of Inder's, or the Mount Buster Gold Mining Company, claim. *Photo: C. Bills.*