Case Name: Former Murgatroyd's Brine Works at Brooks Lane

Case Number: 470974

Background

An application to amend the scheduling of the Brine Pumps at Brooks Lane, Middlewich, has been received precipitated by the recent sale of land here and potential redevelopment plans of the new owners.

Asset(s) under Assessment

Facts about the asset(s) can be found in the Annex(es) to this report.

Annex	List Entry Number	Name	Heritage Category	EH Recommendation
1	1020122	Murgatroyd's Brine Works	Scheduling	Amend Schedule
2	N/A	Pump House No.5 at the former Murgatroyd's Brine Works	Scheduling	Do not add to Schedule

Visits

Date	Visit Type
14 February 2012	Full inspection

Context

An application to amend the scheduling of the Brine Pumps at Brooks Lane, Middlewich, has been received precipitated by the recent sale of land here and potential redevelopment plans of the new owners. The current scheduling map and description do not appear to match and the new owner's solicitors and the local authority would like this disparity resolving. The applicant has also requested that the scheduling be extended to include Pump House No.5 situated to the south of the existing scheduled pump house, a transformer pole located north-west of the scheduled pump house that supplied the power source for the pumping complex after the mid-C20, and a short length of transfer pipes to the north and east of the scheduled pump house which served to transfer brine from the scheduled pump house to new salt works at Elworth. The monument was originally scheduled on 25 June 2001.

Assessment

CONSULTATION

Nine consultation letters and emails were sent out to HER's, LPA's, owners and interested parties and two responses were received. Neither offered any additional information.

DISCUSSION

Annexe 1 of the government guidance "Scheduled Monuments" (March 2010) sets out the eight non-statutory criteria which are taken into account when assessing sites for scheduling. Of these the following are the most pertinent to this case:

Rarity: sites associated with the salt industry are relatively rare with fewer than a dozen being currently designated nationally of which under five are of C19 and C20 date. Of these only two, The Lion Salt Works and Remains of Part of the Alliance Salt Works (1020841 & 1160985), and the Multi-period Salt Production Works in Droitwich (1020256) retain evidence for their brine pumps, pump houses or engine houses.

Documentation: good quality modern documentation of Murgatroyd's Brine Works has been produced through an archaeological building survey being undertaken in 2011. This complements earlier maps and photographs of the site held within the Cheshire HER.

Survival: the remains of the former brine works are fragmentary yet what does survive survives well and includes both upstanding and below ground features consisting of core elements of the works comprising the brine shaft, brine pumps, two pump houses, a pump head gantry, a header tank and its brick base, electrical pumps, power distribution transformer, power house and part of the transfer pipes for moving brine to the Elworth processing plant.

Potential: this site clearly has the potential to enhance our understanding of the C19 & C20 salt extraction industry in general, and in particular how this element of the industry was developed and improved during the period of brine work's lifetime.

The former Murgatroyd's Brine Works is a rare survival of a C19 & C20 salt industry site and its national importance is reflected in the fact that it became a scheduled ancient monument in 2001. Recent archaeological building survey work has highlighted the fact that core elements of the brine works survive well and were not included within the original scheduling; these include upstanding and below ground features comprising the header tank and its brick base, electrical pumps, power distribution transformer and its supporting wooden poles, and part of the transfer pipes. As these features were key elements in the pumping and transfer of brine at this site they are considered to be of national importance and thus the scheduling should be amended to include them.

Pump House No.5 also formed part of the brine works from the early 1950s. It was a late addition to the complex, is a modest structure of minimum architectural or historic interest, and is devoid of technological innovation. Since closure of the plant it has had its brine shaft capped, all its internal features removed, and has had a large modern up-and-over door inserted in one end. Its location, some 40m to the south of the existing scheduled pump house, means that it is divorced from the main core area of brine pumping and transferring. As such the late date of this pump house, the loss of its internal features, the changes to the building since its closure, and its location away from the main core area of the brine works means that it does not meet the criteria for national importance and should not be included in the amended scheduling.

The original scheduling map did not correspond to the monument's original description, appearing to indicate that only the area containing the main pump house was scheduled. It is now considered appropriate that the scheduled map be amended to include all the upstanding and below ground features that form the core area of the nationally important brine works together with the archaeologically sensitive ground between all these features.

CONCLUSION

After examining all the records and other relevant information and having carefully considered the archaeological and historic importance of this case, the criteria for amending the Schedule entry and the map are fulfilled.

REASONS FOR DESIGNATION DECISION
The scheduling of the C19 & C20 brine extraction works should be amended for the following principal reasons:
*Inaccuracies: the list description and map are not consistent with each other
*Modernisation: the description should be updated to reflect current standards
*Inclusions: the header tank and its brick base, the electrical pumps, the power distribution transformer and its supporting wooden poles, and part of the transfer pipes adjacent to the brine plant, together with the archaeologically sensitive ground between these features, should be added to the Schedule because they are integral elements of the core area of the brine extraction and transfer activities here.

REASONS FOR DESIGNATION DECISION
The No.5 pump house at the former Murgatroyd's Brine Works is not recommended for scheduling for the following principal reasons:
* Loss of original fixtures and fittings: capping of the brine well and removal of all original machinery means that the pump house lacks the original technological equipment necessary for pumping the brine out.
* Date: the pump house is a late addition to the brine works and is a modest structure lacking technological or architectural innovation
* Group value: the pump house is divorced from the surviving main core area of the brine extraction plant.

Countersigning comments:

Agreed. An amendment should be issued to clarify the extent of the area to be protected by scheduling.

Annex 1

List Entry

List Entry Summary

This monument is scheduled under the Ancient Monuments and Archaeological Areas Act 1979 as amended as it appears to the Secretary of State to be of national importance.

Name: Murgatroyd's Brine Works

List Entry Number: 1020122

Location

Approximately 100m east of Brooks Lane, Middlewich, East Cheshire

The monument may lie within the boundary of more than one authority.

County	District	District Type	Parish
	Cheshire East	Unitary Authority	Middlewich

National Park: Not applicable to this List entry.

Grade: Not Applicable to this List Entry

Date first scheduled: 25 June 2001
Date of most recent amendment: Not applicable to this List entry.

Legacy System Information

The contents of this record have been generated from a legacy data system.

Legacy System: RSM
Legacy Number: 34588

Asset Groupings

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description

Summary of Monument

Murgatroyd's Brine Works consists of two brine pump houses, three brine pumps, a timber pump head gantry, a brine shaft, a capped brine shaft, a header tank, two external electrical pumps, a pole-mounted power distribution transformer, part of two transfer pipes and the buried remains of the original steam-power plant.

Reasons for Designation

Murgatroyd's Brine Works are scheduled for the following principal reasons:
* Survival: the remains survive well and retain both upstanding structures and below ground archaeological deposits that together illustrate the development in the pumping and transferring of brine throughout the plant's lifetime
* Rarity: the brine pumps, shaft, pump house, gantry, header tank, electrical pumps, power distribution transformer and power house are a very rare survival of a `wild' brine pumping plant that retains most of the typical features of a late 19th/20th century installation
* Documentation: a modern archaeological building survey has been undertaken which adds to the site's history.
* Potential: this site clearly has the potential to enhance our understanding of the C19 & C20 salt extraction industry in general, and in particular how this element of the industry was developed and improved during the period of brine work's lifetime.

History

Cheshire is home to the largest area of rock salt beds in Britain. Salt production was an important industry in Roman Britain and the Roman name for Middlewich was Salinae, which is taken to mean 'the salt workings'. Salt was being produced at Middlewich at the time of the Norman Conquest and by the C13 there were approximately 100 salthouses in the town, clustered around two brine pits. The Industrial Revolution saw a huge increase in salt production and in order to control the fluctuating price of salt a cartel known as the Salt Union comprising over 90% of the UK salt industry was formed in 1888. Five months after the formation of the Salt Union George Murgatroyd, a Manchester-based engineer, bought land on the edge of Middlewich and sunk a well followed by exploratory adits. A wild brine spring was found and the Murgatroyd Mid-Cheshire Salt Works Company was formed in 1889.

At its most basic level a C19 or early C20 brine extraction plant would generally comprise a mine with shafts and/or levels, pumps for drainage and/or extracting the brine, a pump house and a power house for providing power for operating the pumps. Additional features such as pump head gantries, header tanks and electrical power transformers may also be present.

A building survey of Murgatroyd's Brine Works carried out by Oxford Archaeology North in January 2011 identified six phases of development which reflect the expansion of Murgatroyd's and the plant's evolution from steam to electric brine extraction:

1) 1890-1931: construction of the shaft, timber gantry, original pump house and power house or steam engine house.
2) 1932-1946: remodelling and expansion of the complex including construction of a new pump house to replace the earlier one and the introduction of a new pump.
3) 1947-1952: construction of a header tank and pipe for pumping brine to a new brine processing plant at Elworth 2.5 miles away together with the introduction two electric pumps located in an asbestos-roofed structure on the north-western side of the new header tank. This period also saw the erection of a pole-mounted power distribution transformer.
4) 1953-1964: insertion of a new pump to replace the original steam-powered pump and extension of the pump house at its eastern end. Demolition of the original steam power house in 1952-3.
5) 1965-1977: installation of a submersible brine pump, which also fed brine into the header tank.
6) Post-1977: the site was sold to Congleton Borough Council for redevelopment. In June 2001 the surviving brine pumps, timber pump head gantry, the brine shaft, and the building enclosing the pumps and lower part of the gantry were scheduled together with an area immediately to the south of the pump house where buried remains of the C19 power house are considered to survive.

Details

Pump House

This is a single-storey, multi-phase building enclosing brine pumps for raising the brine to the surface, inspection hatches and the lower part of the timber head gantry. It is aligned east-west, measures approximately 12m by 5m, and is built largely of brick but with timber stud framing supporting asbestos sheeting on part of the south elevation. The roof is pitched and of asbestos sheeting. The western gable is the only original gable wall and it contains the original access, now boarded, which was afforded through a double door beneath a two-rowlock segmentally-arched brick lintel. The north elevation has an original window opening, now boarded, beneath a lintel of similar design to that above the west gable door. There is a wide central doorway with asbestos cladding over an earlier timber door. The doorway retains its original lintel formed of a single I-section steel beam. Adjacent to this door a brick base for a large brine storage tank has

been inserted into the fabric of the pump house. The eastern gable is entirely rebuilt in buff-coloured brickwork and contains a small brick outshut that was formerly a porch or cloakroom to the pump house. The outshut has a door in its south end and a blocked doorway in its north end. The south elevation has an off-centre door that gives access though the timber stud framing into the building. There is a boarded window in the asbestos sheeting to the right of this door and a boarded window beneath a modern concrete lintel to the left of the door.

Brine Pumps

Consisting of two deep well pumps positioned atop the brine shaft and a third submersible centrifugal pump situated within the brine shaft. The two deep well pumps are both replacement pumps and were inserted in 1932 and 1953 respectively with the western pump being the earliest. They were supplied by John Thom Ltd of Walkden, Manchester, with the earlier pump retaining the Mather and Platt Ltd maker's plate on its electric motor. Both are set upon heavy cast bearings supported on a concrete floor. The pumps have working barrels or cylinders of 0.25m diameter and a piston stroke of 0.9m and carried brine into the header tank. The working barrel is attached to 61m of 0.25m diameter bore cast iron rising main. Below the barrel is 30m of 0.15m diameter bore mild steel suction pipe or tail pipe. This long tail pipe reaches deep down into the brine and serves two purposes: it draws brine from the lowest possible level where the brine is the densest and unaffected by surface water seepage, and it also allows for considerable variation in working level. The submersible pump was manufactured by Jas Beresford, model 3KT S13-5 and was installed in 1965. It is a three-stage centrifugal pump rated at 45,500 litres per hour of brine at 40m head consuming 12.5 hp. Its integral motor is rated at 13.0 hp.

Brine Shaft

Access to the brine was obtained via a rectangular shaft about 100m deep. The upper 18m of the shaft - the well head - is approximately 2.44m square and is timber-lined with pitched pine boards. The lower portion of the shaft is 1.2m square and, being driven through solid marl and rock salt, is unlined.

Timber Pump Head Gantry

The pump head gantry was constructed in 1890 and reinforced with mild steel cross bracing in 1952. It is approximately 2m square at the base and stands astride the two deep well pumps. It rises through the roof of the pump house to a height of about 9.6m.

Header Tank

Supported on a brick base measuring about 3.8m by 2.45m. It is constructed from welded steel sheeting and is supported by three transverse I-section steel joists. A central rectangular boarded window in the east wall of the tank base originally formed a doorway affording access into the interior of the base. A metal fixed ladder gives external access onto the top of the brine tank. Access into the tank base is now from the pump house. It contains two brine pipes together with electrical components associated with the operation of the electric transfer pumps and the pumping of brine to the Elworth works.

External Electrical Pumps

These are located on stone bases on a concrete platform measuring about 4.1m by 3.8m which abuts the northern side of the brine tank base. The two 'Gwynne' electric motor pumps equipped with 'Glenfield' control valves have pipes leading into the brine tank structure and electrical ducting into both the header tank structure and the pump house. A temporary structure which formerly housed the electric pumps has recently been removed.

Power Distribution Transformer

Situated a short distance to the north-west of the pump house and consisting of two timber poles, one about 6m tall the other about 7m tall, situated about 1.3m apart and connected by two metal struts, the lower one of which supports an electrical transformer box.

Power House

A former boiler house built to power the original steam pumps. It was an irregularly-shaped building located immediately south of the pump house and measured about 16m by 10m. Although the building was

demolished in 1952-3 important buried remains of the footings for the building, engine and boiler are considered likely to survive.

Extent of Scheduling
This includes the pump house together with its brine pumps, brine shaft and pump head gantry, the header tank and its brick base, the two external electric pumps and the concrete base upon which they sit, the power distribution transformer and its supporting poles, the buried remains of the power house lying immediately south of the pump house, and a short length of the buried remains of the transfer pipes used for moving brine from the header tank to the processing plant at Elworth. This area includes a 2m margin beyond the buried remains of the power house, a 2m margin beyond the west side of the pump house, a 2m margin beyond the west and north sides of the power distribution transformer and its supporting poles, and a 2m boundary beyond the west and north sides of the buried remains of the transfer pipes all of which are considered essential for the support and preservation of these features. The eastern side of the area is delineated by property boundaries.
Pump House no 5, some 40m to the south of the core pump house, is not included in the scheduling.
Exclusions
All modern buildings, modern ground surfaces and property boundaries are excluded from the scheduling, the ground beneath these features, however, is included.

Selected Sources

Brine Pumphouse Brooks Lane Middlewich, 1890

Cheshire County Council Sites and Monuments Record, 1995

Murgatroyd's Salt & Chemical Company LTD., 1954

Personal Communication with George Twigg, 2000

Thomas, J.R., Brine Supply and Brine Pumping, 1972

Oxford Archaeology North, Murgatroyd's Brine Works, Middlewich, Cheshire; Archaeological Building Survey, Building Survey, 2011, Cheshire HER

Map

National Grid Reference: SJ7089665989

The above map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - 1020122_2.pdf

Former List Entry

List Entry Summary

This monument is scheduled under the Ancient Monuments and Archaeological Areas Act 1979 as amended as it appears to the Secretary of State to be of national importance.

Name: Brine pumps at Brooks Lane

List Entry Number: 1020122

Location
No address description available

The monument may lie within the boundary of more than one authority.

National Park: Not applicable to this List entry.

Grade: Not Applicable to this List Entry

Date first scheduled: 25 June 2001
Date of most recent amendment: Not applicable to this List entry.

Legacy System Information

The contents of this record have been generated from a legacy data system.

Legacy System: RSM
Legacy Number: 34588

Asset Groupings

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description

Summary of Monument
Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation
Salt has been produced from inland brine sources from at least the Iron Age onwards in both Worcester and Cheshire. Initially, natural brine springs and pits were used, but by the late Middle Ages pumps were inserted into brine pits to increase the supply. In the late 17th century, the monopoly of the salt boroughs (which controlled the natural brine springs and wells) was broken, and new shafts were sunk at other locations to pump to the surface the `wild' underground brines (formed by ground water percolating through rock-salt beds). Through the 18th and 19th centuries, pumped `wild' brine continued

to be the main source for salt production, and (from the 19th century) for salt based chemical industries. Pumping technology developed in step with that of the mining engines, from horse-power via the steam powered beam engine to more sophisticated steam-powered pumps, and finally to the use of diesel and electrical pumps.
The pumping of `wild' brine was phased out in the 20th century, due to the subsidence problems that it caused, and replaced by `controlled brine pumping', a process in which water is passed down boreholes into dry rock-salt beds, and the resultant brine pumped up again, creating localised cavities in the salt bed that do not result in surface subsidence.
The Brooks Lane brine pumps, shaft, and headgear are a very rare survival of a `wild' brine pumping installation, retaining most of the typical features of a late 19th/20th century installation.

History

Legacy Record - This information may be included in the List Entry Details.

Details

The monument includes Murgatroyd's Salt Works brine pumping station which is situated 100m east of Brooks Lane, Middlewich. The monument includes the brine pumps, timber pump head gantry, the brineshaft, the building enclosing the pumps and gantry and the site of the 19th century powerhouse immediately to the south.
The Brooks Lane area of Middlewich overlies a number of beds of rock salt. A natural brine formed in the uppermost of these beds, at a depth of 60m below present ground surface. It was this source of brine that was pumped by the various salt works in the vicinity of Brooks Lane.
Access to the brine was obtained via a rectangular shaft 100m deep with a horizontal adit approximately 22m long, driven in a north westerly direction 60m below the surface. The upper 18m of the shaft is 2.4 sq m and fully lined with pitch pine timbers. The lower portion is 1.2 sq m and, being driven through solid marl and rock salt, is unlined. Brine was raised to the surface by means of three pumps. Two are deep well pumps and the third is a submersible three stage centrifugal pump, all of which operated in the shaft.
The two deep well pumps in the shaft were manufactured by John Thom. The first was installed in 1932 and the second in 1953. The pumps have a working barrel or cylinder of 9.5in and a piston stroke of 36in. The working barrel is attached to 200ft of 10in bore cast iron rising main. Below the barrel is 100ft of 6in bore mild steel suction pipe or tail pipe. The long tail pipe reaching deep down into the brine serves two purposes: it draws brine from the lowest possible level where the brine is the densest and unaffected by surface water seeping in, and it also allows for considerable variation in working level. The submersible pump was manufactured by Jas Beresford, model 3KT S13-5, a three stage centrifugal pump rated at 10,000 gallons per hour of brine at 132ft head consuming 12.5 hp. The integral motor is rated at 13.0 hp. This pump was installed in 1965. The original timber head gantry, constructed in 1890 and reinforced with mild steel cross-bracing in 1952, measures approximately 2 sq m at the base and is approximately 16.5m high. This was used during maintenance and repair work on the pumps. The building enclosing the timber head gantry and brine pumps is a gabled brick and asbestos structure with a corrugated asbestos roof supported on steel trusses. The building is orientated east-west, measures approximately 11m by 5m and is the product of a number of phases of construction work. The western portion of the building is of dark red brick. In the southern elevation of this fabric is a small segmental arched window with a concrete sill which accommodates a wooden framed window. This is repeated in the northern elevation of this fabric. In the western elevation is a large segmental arched doorway, measuring approximately 1.8m wide and 2.4m high. This fabric is thought to represent the remains of a free-standing structure of c.1890-1900, complete save its original roof. The remainder of the building consists of asbestos and a buff brick fabric. The south elevation of the remaining fabric consists of corrugated asbestos cladding within which are two large wooden framed windows. The eastern elevation is of a buff brick, against which a low porch of buff

brick, with a lean-to corrugated asbestos roof has been constructed. The north elevation is largely obscured by vegetation. Cut into the fabric of the east end is a brick plinth upon which a header tank rests. Butted against the north west elevation of the plinth is a lean-to structure of corrugated asbestos cladding. The original power supply for the brine pumps was situated in a timber building immediately to the south of the pumps. This building, measuring approximately 16m by 9m and orientated north to south, housed a horizontal steam engine and a Cornish boiler. This building was demolished in 1952-3, but the footings for the building, engine and boiler are thought to remain below the present ground level.
The shaft for the brine pumps was sunk by G L Murgatroyd on his own land in 1889, striking a plentiful supply of brine. By 1890 Murgatroyd's Ammonia Soda and Salt Syndicate was formed and a large ammonia-soda works was constructed. Murgatroyd's death in 1894 led to the break up of the sydicate and Ivan Levinstein, chairman of the Syndicate, aquired the salt works which continued to trade under the Murgatroyd name. Following Ivan Levinstein's death in 1916, the works passed to his son, Herbert, who was also the Managing Director of the British Dyestuffs Corporation, which in turn became part of ICI in 1927. Following the World War II, Herbert Levinstein obtained financial support from the Government's Finance Corporation to set up Murgatroyd's Salt and Chemical Company. This company, which began production in 1950, continued to use the brine pumps at the Brooks Lane site where an additional pump was installed in 1953. The company later became part of BP chemicals. Pumping of brine at the Brooks Lane site ceased in 1977 as part of the County Council's policy to eliminate `wild' brine pumping. Following the end of brine pumping, the site was sold to Congleton Borough Council and the pumps retained as the last remnant of salt making in Middlewich.
Excluded from the scheduling are the brick and concrete structure with a pitched roof immediately to the south of the brine pumps, the portacabin immediately to the west of the brine pumps, the electicity pylon to the north east of the brine pumps and all fencing, although the ground beneath them is included.

MAP EXTRACT
The site of the monument is shown on the attached map extract.
It includes a 2 metre boundary around the archaeological features, considered to be essential for the monument's support and preservation.

Selected Sources

Brine Pumphouse Brooks Lane Middlewich, 1890

Cheshire County Council Sites and Monuments Record, 1995

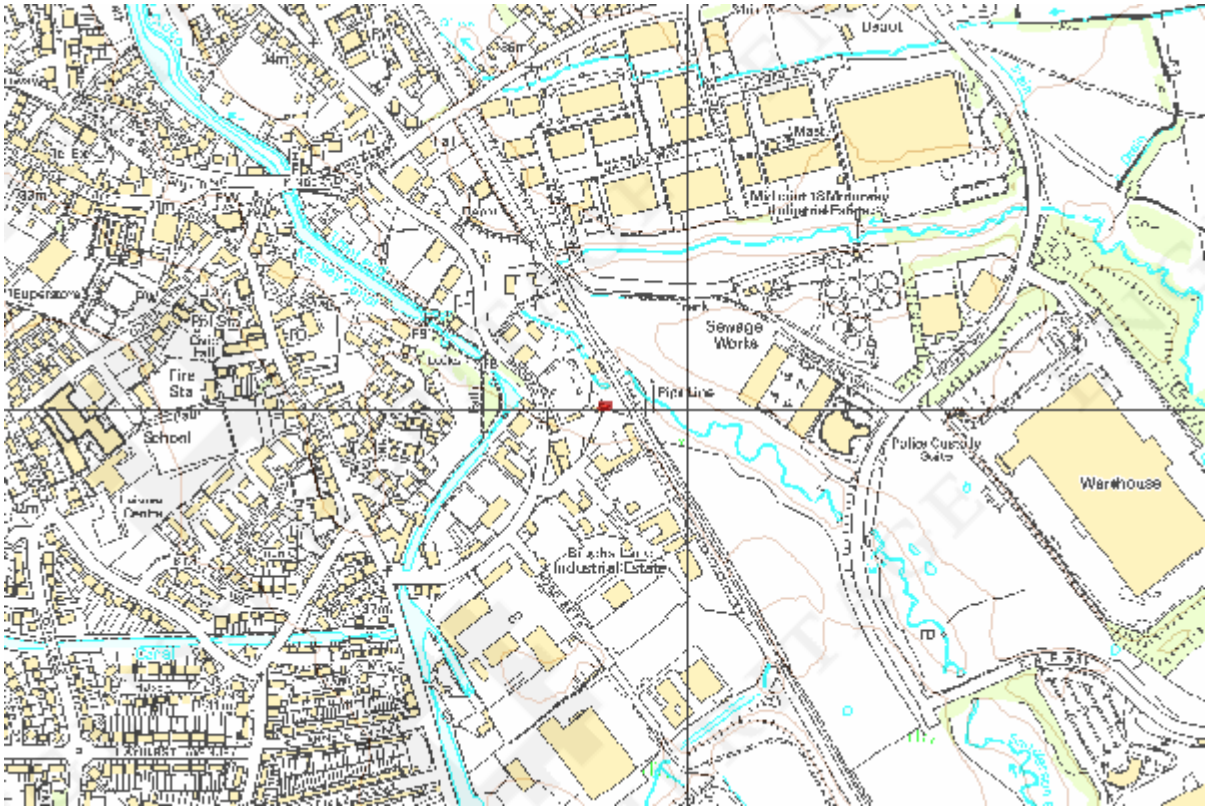
Murgatroyd's Salt & Chemical Company LTD., 1954

Personal Communication with George Twigg, 2000

Thomas, J.R., Brine Supply and Brine Pumping, 1972

Map

National Grid Reference: SJ 70887 66010



The above map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - 1020122_1.pdf

Annex 2

Factual Details

Name: Pump House No.5 at the former Murgatroyd's Brine Works

Location: East of Brooks Lane, Middlewich, East Cheshire

County	District	District Type	Parish
	Cheshire East	Unitary Authority	Middlewich

History
Cheshire is home to the largest area of rock salt beds in Britain. Salt production was an important industry in Roman Britain and the Roman name for Middlewich was Salinae, which is taken to mean 'the salt workings'. Salt was being produced at Middlewich at the time of the Norman Conquest and by the C13 there were approximately 100 salthouses in the town, clustered around two brine pits. The Industrial Revolution saw a huge increase in salt production and in order to control the fluctuating price of salt a cartel known as the Salt

Union comprising over 90% of the UK salt industry was formed in 1888. Five months after the formation of the Salt Union George Murgatroyd, a Manchester-based engineer, bought land on the edge of Middlewich and sunk a well followed by exploratory adits. A wild brine spring was found and the Murgatroyd Mid-Cheshire Salt Works Company was formed in 1889.

At its most basic level a C19 or early C20 brine extraction plant would generally comprise a mine with shafts and/or levels, pumps for drainage and/or extracting the brine, a pump house and a power house for providing power for operating the pumps. Additional features such as pump head gantries, header tanks and electrical power transformers may also be present.

A building survey of Murgatroyd's Brine Works carried out by Oxford Archaeology North in January 2011 identified six phases of development which reflect the expansion of Murgatroyd's and the plant's evolution from steam to electric brine extraction:

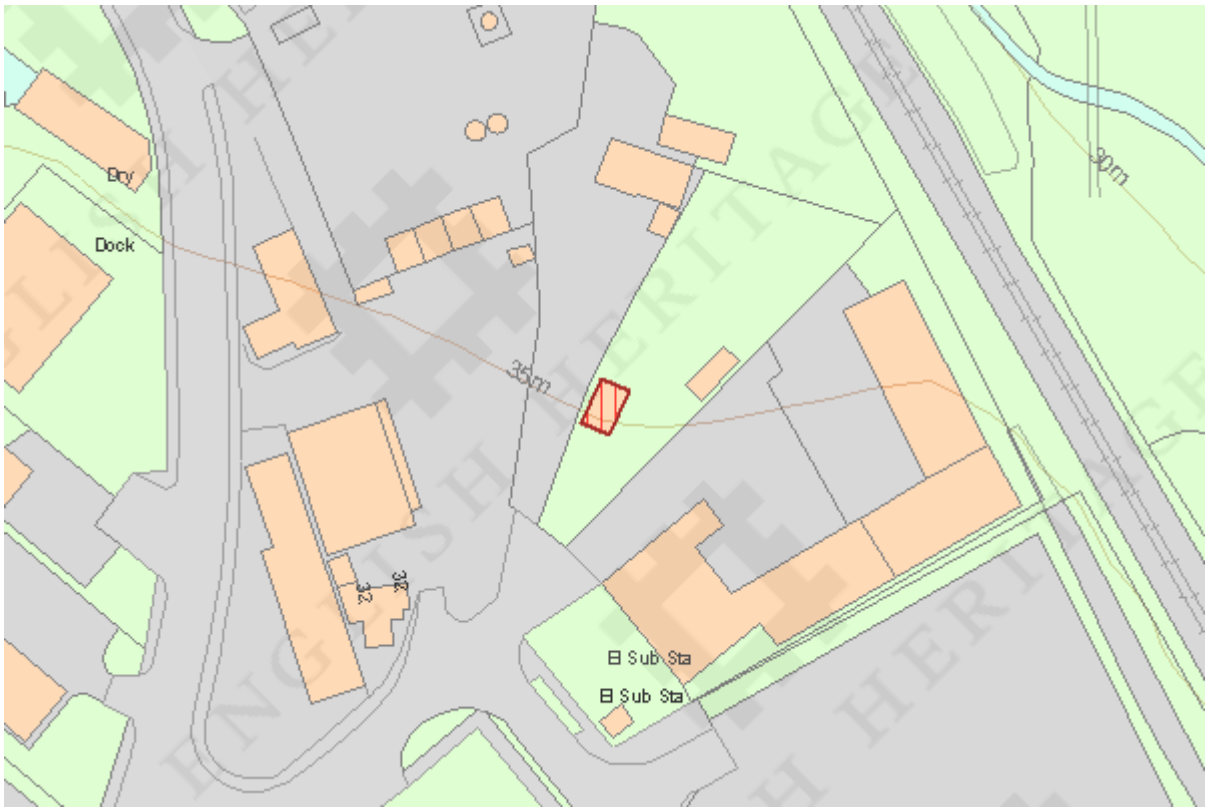
1) 1890-1931: construction of the shaft, timber gantry, original pump house and power house or steam engine house.
2) 1932-1946: remodelling and expansion of the complex including construction of a new pump house to replace the earlier one and the introduction of a new pump.
3) 1947-1952: construction of a header tank and pipe for pumping brine to a new brine processing plant at Elworth 2.5 miles away together with the introduction two electric pumps located in an asbestos-roofed structure on the north-western side of the new header tank. This period also saw the construction of Pump House No.5 and erection of a pole-mounted power distribution transformer and the cons
4) 1953-1964: insertion of a new pump to replace the original steam-powered pump and extension of the pump house at its eastern end. Demolition of the original steam power house in 1952-3.
5) 1965-1977: installation of a submersible brine pump, which also fed brine into the header tank.
6) Post-1977: the site was sold to Congleton Borough Council for redevelopment the pump removed from Pump House No.5 and the borehole capped. In June 2001 the surviving brine pumps, timber pump head gantry, the brine shaft, and the building enclosing the pumps and lower part of the gantry were scheduled together with an area immediately to the south of the pump house where buried remains of the C19 power house are considered to survive.

Details
Pump House No 5 is an early 1950s-built single-storey structure aligned NNE-SSW that measures about 6.5m by 4.5m. It is built of brick with a pitched roof of asbestos sheeting. The south gable elevation has a large modern metal up-and-over door. Both long elevations have two rectangular openings. The north gable elevation has a metal door close to its left corner. The interior wasn't visited but it is reported that the pump has been removed and the brine shaft capped.

Selected Sources
Cheshire County Council SMR, 1994
Brine Pumphouse Brooks Lane Middlewich, 1890
Brine Supply and Brine Pumping, 1972
Murgatroyd;s Salt & Chemical Company LTD, 1954
Personal Communication with George Twigg, 2000
Oxford Archaeology North, Murgatroyd's Brine Works, Middlewich, Cheshire; Archaeological Building Survey, Building Survey, 2011, Cheshire HER

Map

National Grid Reference: SJ7087465962



The above map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - 1409064_1.pdf