



# INEOS

## KEUPER GAS STORAGE PROJECT

### GEOPHYSICAL INTERPRETATION OF SEISMIC LINES IEL13-01, IEL-13-02, IEL-13-03 AND IEL-13-04 (EXTRACT)

IEL/Y/J/0003 (GK-INS41-SMP-RPT-0001-0)

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**ISSUED** (NAME, SIGNATURE)  
**B. CARLIER**

**CHECKED** (NAME, SIGNATURE)  
**C. BREHERET**

**APPROVED** (NAME, SIGNATURE)  
**B. COLCOMBET**

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**BUREAU VERITAS**  
Certification



Certified Management System

**GEOSTOCK**

2, rue des Martinets – CS 70030 – 92569 Rueil-Malmaison Cedex – France  
**Tel:** +33 1 47 08 73 00 – **Fax:** +33 1 47 08 73 73 – 434023032 RCS Nanterre  
TVA FR84434023032 – SAS au capital de 1 500 000 €

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## 1. Summary

In order to extend and confirm the knowledge of the rock salt formation (Mercia formation) on the southern section of the Holford Brinefields, approximately 18 km of 2D seismic survey was performed in November 2013. The area under assessment is located around 6 km south-east of Northwich (Cheshire, United Kingdom) in the Stublach area of the Holford Brinefields.

The objective is to assess the suitability of the geology of this southern area for the Keuper Gas Storage Project (KGSP or KGS project), a development of up to 19 underground gas storage cavities with storage capacity of up to 500 standard million cubic meters (mcm) of natural gas.

The new seismic data, provided by Tesla Exploration International Ltd (England), has been converted in depth and considered alongside earlier seismic studies:

- 4 lines (Line 1 to Line 4) of approximately 20 km overall length were shot in 2001 by DMT (Deutsche Montan Technologie, Germany); and
- 3 lines (Lines 06-05, 06-06 and 06-07) of approximately 12.7 km overall length were shot in 2006 by DMT.

In addition, all the well data issued from INEOS (top halite, top 30 feet marls and top Bollin mudstone when available) have been loaded in the Geoframe (Schlumberger) and Petrel (Schlumberger) workstations and used for the seismic interpretation.

Four seismic horizons have been picked: Top Northwich halite, G3 marly anhydritic layer, 30 feet marls and the top of Bollin mudstones (base of salt). The picking has been performed on the Pre-Stack Depth Migration (PSDM). The depth conversion of seismic sections is based on the VSP and wireline logs of the well Drakelow 2A.

The quality of seismic is fair to good. The resolution of the lines, measured by the Common Deep Point (CDP) spacing, is 10 m. The new seismic lines have been tied to the vintage seismic Line 4 (2001), but some misties have been detected for the Top of Northwich halite marker with the former survey online IEL-13-02 with former Lines 1, 2 and 4 (20 to 40 meters). However, these misties are to be expected between surveys of a different vintage and do not impact the understanding of the geology.

The following conclusions can be made concerning the structure of the geology under assessment:

- The King Street Fault (KSM) and the associated fault KSmain are the two main faults affecting the salt body. They are clearly visible and delineate the western boundary of the area suitable for gas storage.
- The seismic facies associated with King Street Fault presents a clear stratal up turn, an absence of thickening of the salt layer suggesting an early post sedimentary tectonic activity. The salt shows a homogeneity of seismic facies and an isopachous character.
- For the planned locations of the KGS project, no faulting evidence has been observed. Cavity locations are far from faults (800 m from the King Street fault system, made of KSmain and MKSF) and distant from minor faults such as BYL1 or KS2.

Three maps have been computed, based both on the interpreted seismic lines and on markers from wells that had been drilled for purposes of geological exploration, mining works, solution mining and/or gas storage.

The surface shows a north-south half syncline (direction of Cheshire graben), dipping southward and edged at the west by the King Street Fault distensive network.

In the KGS project area, the average depth of the top of Northwich Halite salt formation estimated by the seismic interpretation ranges between 320 and 500 meters below Ordnance Datum (O.D.), and the thickness of the salt is in the range 236 and 293 meters. The prognosis of the top and bottom salt depth for future cavities is listed in the following table (this table has been updated on June 2021 based on the recent acquired well data).

Planned cavity	Easting X	Northing Y	Top of Northwich halite (m/O.D.)	Top of 30 feet marls (m/O. D.)	Top of Bollin mudstone (m/O. D.)	Thickness of the salt unit (m)
H501	370280.37	369293.28	-447.6	-662.9	-730.9	283.4
H502	370787.74	369459.53	-450.0	-675.9	-730.8	280.8
H503	371332.02	369744.22	-408.9	-618.0	-662.7	253.8
H504	370832.07	369022.17	-488.0	-712.7	-778.1	290.1
H505	371002.50	369237.99	-458.2	-683.2	-743.1	285.0
H506	371300.15	369287.26	-442.5	-656.6	-712.0	269.5
H507	371103.31	368976.85	-469.2	-688.6	-747.1	277.9
H508	370195.52	370206.82	-384.0	-601.2	-664.3	280.3
H509	371075.22	370242.38	-388.7	-592.2	-630.6	241.9
H510	370590.4	369240.06	-482.4	-705.4	-773.3	290.9
H511	370978.36	370499.76	-370.1	-586.9	-630.6	260.5
H512	370914.66	368757.87	-496.6	-704.9	-769.8	273.2
H513	371186.66	368630.79	-474.2	-668.7	-733.6	259.3
H514	371368.25	368892.81	-457.3	-660.3	-715.8	258.5
H515	371605.04	369035.91	-446.9	-665.4	-714.5	267.5
H516	371578.01	369311.02	-433.5	-663.9	-710.2	276.7
H517	371574.94	369612.17	-408.4	-629.2	-670.3	261.9
H518	371749.84	369855.91	-374.6	-589.5	-631.9	257.3
H519	372023.83	369978.09	-324.5	-561.5	-618.8	294.3

## 2. Introduction

In order to confirm the geological suitability of the proposed gas storage area for development of up to 19 underground gas storage cavities with a storage capacity of up to 500 standard million cubic meters (mcm) of natural gas in the southern part of Holford Brinefields (Cheshire, England), a 2D seismic survey was carried out in November 2013 by INEOS's subcontractor, Tesla Exploration, in order to extend and confirm the available geological information (see figure 1 "Location of the survey").

The field campaign was under the supervision of a senior geophysicist from Geostock, and the processing of the seismic data has been performed by Tesla Exploration from December 2013 to January 2014.

The acquisition and processing parameters are displayed in Tesla Exploration reports:

- « 2D Seismic Survey Undertaken within Holford, Cheshire Basin » dated on November 2013 (Ref. S7412/1190),
- « Report on 2D Seismic Processing in The Cheshire Basin » dated on 2014 (Ref. S7515).

The intention of the 2D seismic was to complete the structural information about the salt formation (top, base, tectonic), in the objective to assess whether these locations are suitable for potential future gas storage in salt caverns.

The results of the seismic interpretation of the Holford Halite formation on the four new lines (2013) completes the information about the salt formation investigated in the same area by the previous seismic campaign (2001 and 2006), the existing salt cavern wells and explorations wells (Drakelow and Byley).

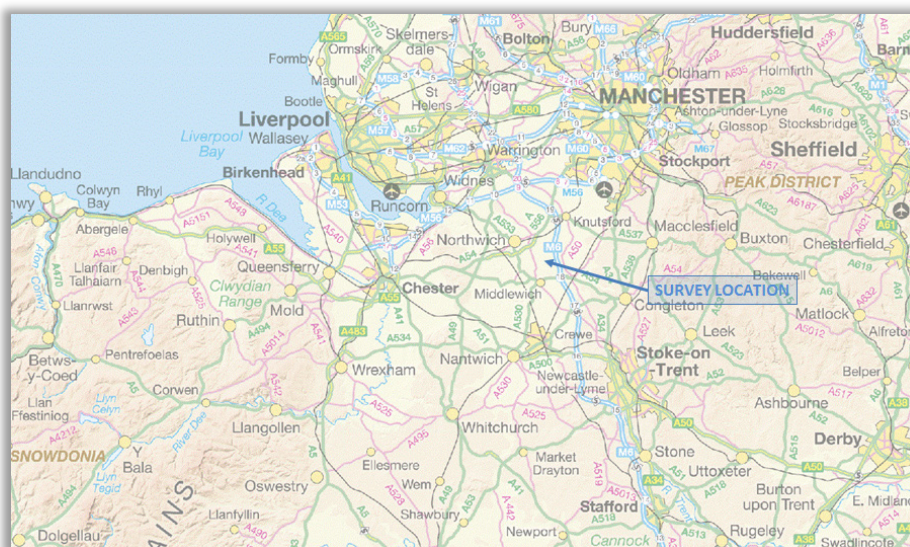
The new data has been used to refine the structural geological model of the Holford Brinefields.

The results of the seismic interpretation (isobathic maps, thickness) will be used for provisional development of the future KGS project.

### 3. Acquisition the seismic survey

#### 3.1. Location of the survey

The survey is located around 6 km South-East of Northwich (Cheshire, United Kingdom) in the Stublach area of the Holford Brinefields (Figure 1). The center of the area is at National Grid Reference SJ 716 686.



**Figure 1 - Survey location**

The survey area covers agricultural areas and is crossed by the King-Street Road (A530) and the railways in the western part. The area is relatively flat (from 30 to 45 meters above sea level) and consists mainly of farmland (Figure 2):



**Figure 2 - Typical area view**



The geological targets (down to 1000 meters), were located in open countryside, crossed by electric wire barriers and ditches.

On the west of King-Street, the Winsford Salt Mine is currently undergoing a phase of enlargement using rock blasting. The rock blasting was taken into account during the course of the seismic survey to prevent any interference to the data.

The map of the seismic line location, new (2013) and vintage (2001, 2006) is displayed in Appendix 2.

### 3.2. Acquisition parameters

Seismic vibrators were used as seismic source for the acquisition of the four profiles with an overall length of 17 840 meters. The job has been shot by Tesla Exploration from the 15<sup>th</sup> until the 23<sup>rd</sup> of November 2013.



**Figure 3 - Layout of the geophones on the field during the survey (left); Seismic vibrator on the field (right)**

Lines were shot from West to East, using two different seismic vibrators for a more effective field work. Lines 13-01 and 13-03 crossed the King Street Fault almost perpendicularly. The lines were designed in order to have two of them, line 13-02 and 13-04 crossing the central parts of the vintage lines. The lines 13-01 and 13-03 are crossing the ends of the vintage line 1 (2001).

The name and the length of the 2013 seismic lines are summarized here after:

New line	Length (receivers) [meters]	Length (CDP) [meters]	Orientation	Crossing of vintage lines
IEL-13-01	4 520	4 390	S-W	End of Line_4
IEL-13-02	4 940	4 850	N-W	Center of Line_1, Line_2, Line_4
IEL-13-03	5 180	5 110	W	End of Line_1
IEL-13-04	3 120	3 070	N-W	Center of Line_1, Line_2

The acquisition was carried out using conventional geophones. The recording system for the seismic acquisition was an Aram Aries system linked to geophones.

The main characteristics of the 2013 seismic acquisition are listed below:

- Receiver configuration
  - receiver spacing: 20 meters
  - receiver type: 2 strings of 6 geophones SM24 (10 Hz)
  - array configuration: in line over 20 m (geophone spacing 1.66 m)
- Source configuration
  - source spacing: 40 meters
  - source type: Vibroseis
  - vibration per PV: 1
  - source array: 4 sweeps, single vibrator
  - center of array: vibration point peg
  - sweep length: 10 seconds, 250 ms tapes start and end
  - sweep range : 20 Hz-180 Hz linear
- Spread configuration
  - active channels: 150
  - spread type: split spread 75/75
  - geophone array: linear, elements spacing 1.66 meter
  - minimum offset: 10 m
  - maximum offset: 1490 m
  - center of array: geophone station peg
  - fold coverage: 37.5 nominally at full offset
  - CDP distance: 10 m
  - polarity: SEG normal
- Recording configuration
  - system: Ariam Aries ver 3.105.4
  - sampling rate: 1 ms
  - record length: 3 seconds
  - low cut filter: 3 Hz
  - high cut filter: 205 Hz
  - notch filter: Out
  - storage format: SEG-Y (8058 rev.2)
  - storage medium: HP LTO II cartridge tape
  - polarity: SEG normal

## 4. Processing of the seismic survey

The seismic data has been processed by Tesla Exploration in their data processing center in Alfreton (Derbyshire, England), on Linux-Workstation with Landmark processing software « ProMAX/SeisSpace » V5000.0.3.0 and Green Mountain Millennium « Suite Refraction Statics » for the statics refraction.

The data processing was performed between December 2013 and January 2014. The final delivery of the interpreted seismic data was issued on 20<sup>th</sup> January 2014.

The lines have been processed with seismic Datum Plane 50 meters above Ordnance Datum (O.D.).

The main task of the seismic data processing was to image the top and the base of the Northwich Halite formation.

Time processing of the 2D seismic was carried out after the field data acquisition; a preliminary processing (brut stack) was performed on site to control the quality of the data and the expected objectives.

The processing report issued by Tesla Exploration is referenced.

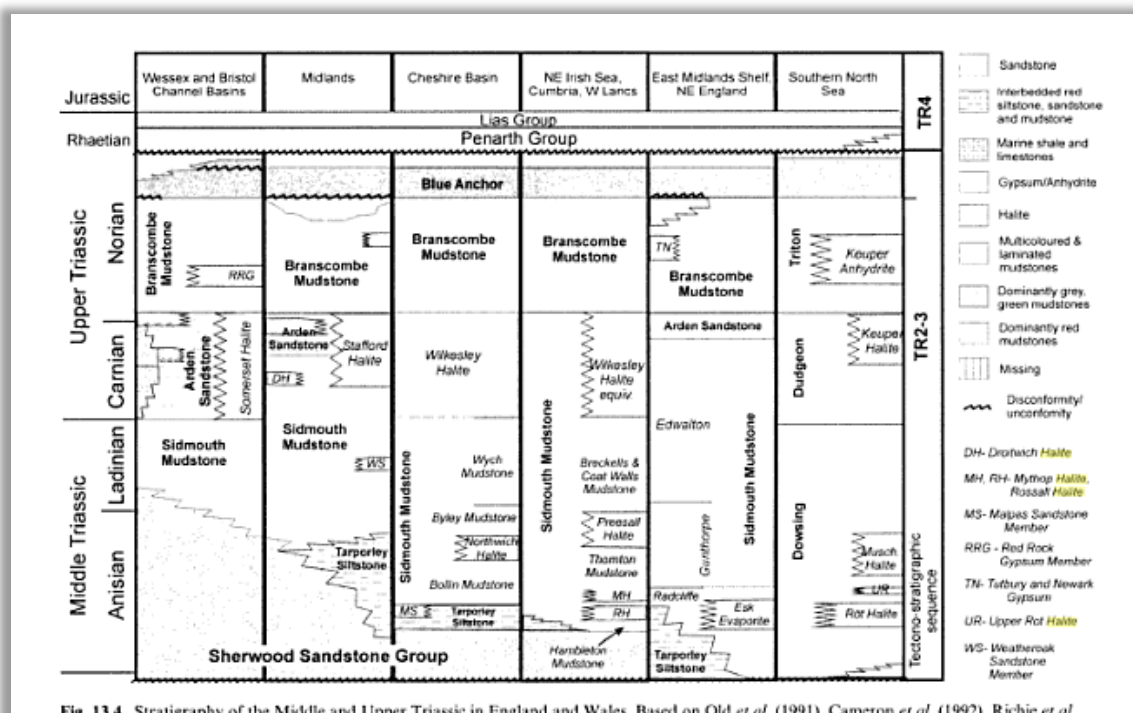
## 5. Seismic interpretation

### 5.1. Geological settings

The heart of Cheshire consists of a basin, i.e. an area which subsided, leading to accumulation of debris coming from the borders. In the case of Cheshire, this basin is a graben due to its subsidence in steps.

It is considered that this basin took shape at the same time as the salt was deposited during middle Triassic, of Anisian age (about 230 millions of years ago).

The tectonic activity along the King Street Fault took place after the sedimentation of the Northwich Halite formation. The regional stratigraphy of middle and upper Triassic is summarized in Figure 4:



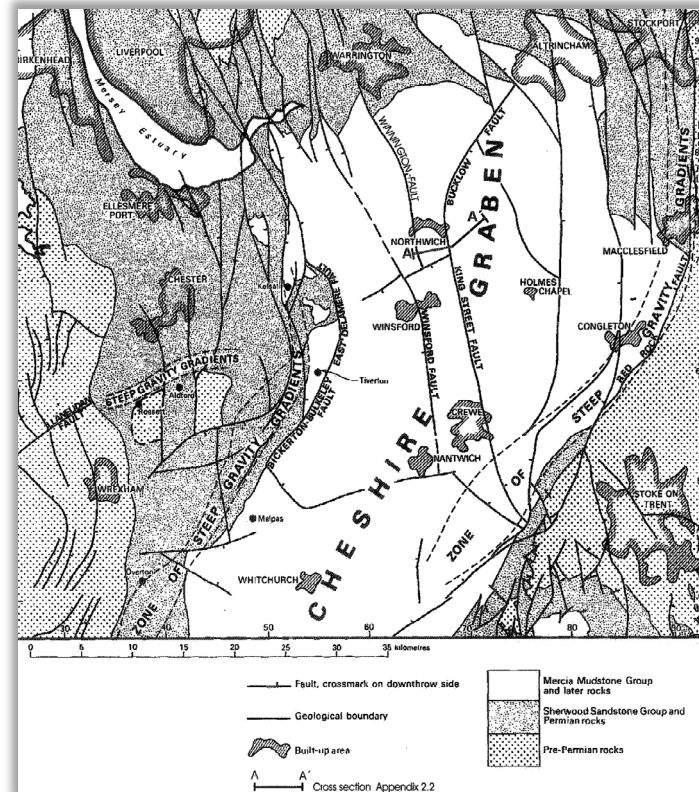
**Figure 4 - Regional stratigraphy**

Then the whole basin would have toppled over with its northern extremity higher than the southern one. The Cheshire basin is characterized by an axial thrust fault called King Street Fault and running North-south between Northwich and Nantwich.

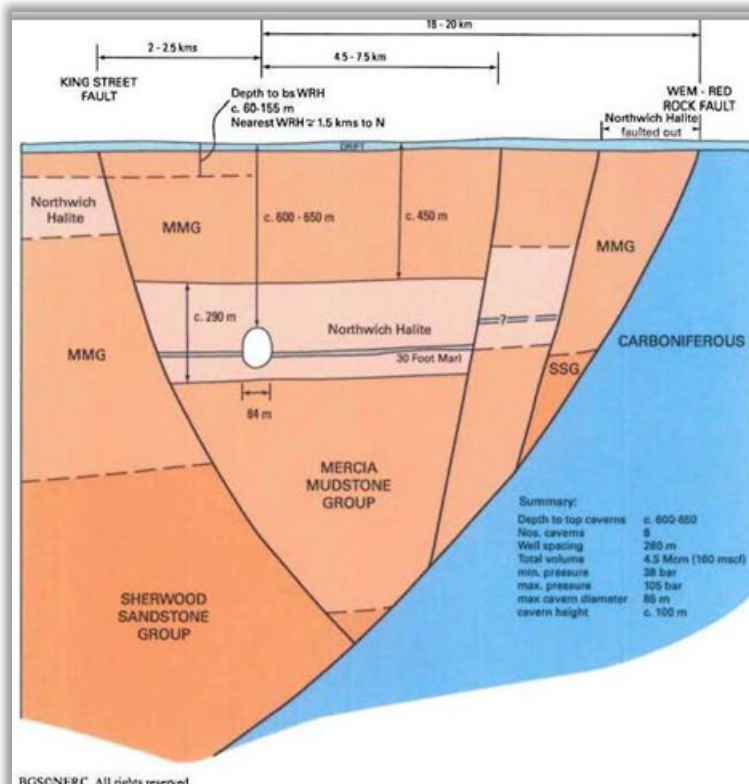
The King Street Fault shows a 200m throw and, is accompanied by parallel faults on its western side. The King Street Fault has a dip towards the east. It is considered that these faults are not active.

The whole basin has a slight dip towards the south.





**Figure 5 - The Cheshire district in its structural setting (Ref: BGS, Earp and Taylor 1986)**



**Figure 6 - BGS schematic cross-section of the basin**

## 5.2. Local stratigraphy

The various formations to be encountered from the surface to the bottom of the basin are presented in the following.

### 5.2.1. Quaternary

Drift: this formation is the result of the last glaciation glacier moraines. A moraine is an accumulation of the solids transported by the glacier at its front or on its sides. In England, the southern limit of the last glaciation glaciers was at the level of Northwich and Knutsford.

This formation consists of sands, gravels, some boulders. Sandiway area is a good example. In Drakelow area, its thickness is generally small, up to a maximum of approximately 20 m.

### 5.2.2. Triassic

Mercia Mudstone Group (MMG) of Triassic age is made of the following formations:

- Wilkesley Halite Formation: up to 400 m of salt. This formation is eroded in the studied area and present only in southern Cheshire.
- Wych-Byley Mudstone Formation: this is a mudstone which could be weathered and have some sandy layers or sandy infillings corresponding to old brook courses at the very top of it. This formation constitutes the salt upper formation. Its thickness in Drakelow area is about 430 m (up to 580 m in UK). This is a very low permeability formation, excepting the upper weathered part.
- Northwich Halite Formation: salt formation with few no-salt layers, giving in the deepest part about 22 % of no-salt. Thickness in the Drakelow area is about 300 m, which is considered to be the maximum in Cheshire.
- Bollin Mudstone formation: this is again a mudstone and it constitutes the salt bottom layer. Its thickness is up to 460 m. It is also a very low permeability formation.
- Tarporley Siltstones Formation: Its thickness is up to 270 m.
- Sherwood Sandstone Group (SSG): mainly sandstone, with several hundred-meter thickness.

### 5.2.3. Basement

Unknown formation of Carboniferous or possibly Dinantian age.

The geological cross-section of the site may be summarized by the information from the well Drakelow\_2A [D2A] (Easting: 370 890 m, Northing: 370 031 m, GL = 38.4 m/sl), located on the former line 4 and at 500 meters north of the new seismic line IEL-13-02.

System	Series	Group	Formation	Depth (m/sl)	Depth (m/GL)	Thickness (m)
Quaternary	Holocene			+38.4	0	15
	Pleistocene					
Triassic		Mercia mudstone	Wych-Byley mudstone	+23.4	-15.0	423
			Northwich halite	-339.6	-438.0	261
			Bollin mudstone	-660.1	-698.5	> 24

**Table 1 - Results of the well Drakelow 2A**

### **5.3. Available data**

In order to have homogeneous data, the seismic sections issued from the Tesla processing center have been loaded on the Geoquest Charisma workstation. They have been added to the previous vintages already interpreted of 2004 (2001 acquisition) and 2007 (2006 acquisition). Seismic datum plane is 50 m above Mean Sea Level.

The length of the survey 2013 in C.D.P. is 17.43 km.

The picking has been performed on the Post Stack Depth Migration (PSDM) depth converted seismic sections.

All the well data issued from INEOS (top halite, top 30 feet marls and top Bollin mudstone when available), have been loaded in the workstation.

Quality of seismic is fair to good. Common deep point (CDP) spacing is 10 m. The depth sampling rate is every 3 meters.

## 6. Mapping of Top Northwich salt, 30 feet marls and Bollin mudstone

The mapping of the sections is based on all the geological data available:

- the vintage (2001 and 2006) and new seismic lines (2013),
- the brine wells in the northern part of the map (North of Northing 372 000),
- the geological exploration wells Drakelow 2A and Byley,
- the mining wells, in the Winsford mine area, in the western part of the map (west of the King street fault system, i.e. approximately west of Easting 369 600).

As shown in Appendix 2, 470 well markers from 253 wells have been used, most of them for the Top Northwich salt and the 30 feet marls formation. On the East of King Street fault, only 4 wells have been drilled entirely through the Northwich Halite formation, and therefore have depths references for the top of Bollin mudstones.

The mapping of the sections has been done using the Petrel software (SCHLUMBERGER).

A shift of the seismic data of 50 meters (Datum Plane) has been applied in order to obtain a map referenced mean sea level (O.D.).

Note that the western part of the map is based on the dense information provided by the Winsford mine wells. Similarly, the Northern part of the map is based on the dense information provided by the brine mining wells. The mapping of the area of interest for the KGS project is based on the 10 seismic lines, on the 2 geological exploration wells and on the 28 gas storage wells as well as on the understanding of the geological information of the Cheshire graben.



All structural maps resulting from the seismic interpretation have been updated based on the recent acquired well data (updated structural maps results are available in Appendix 1).

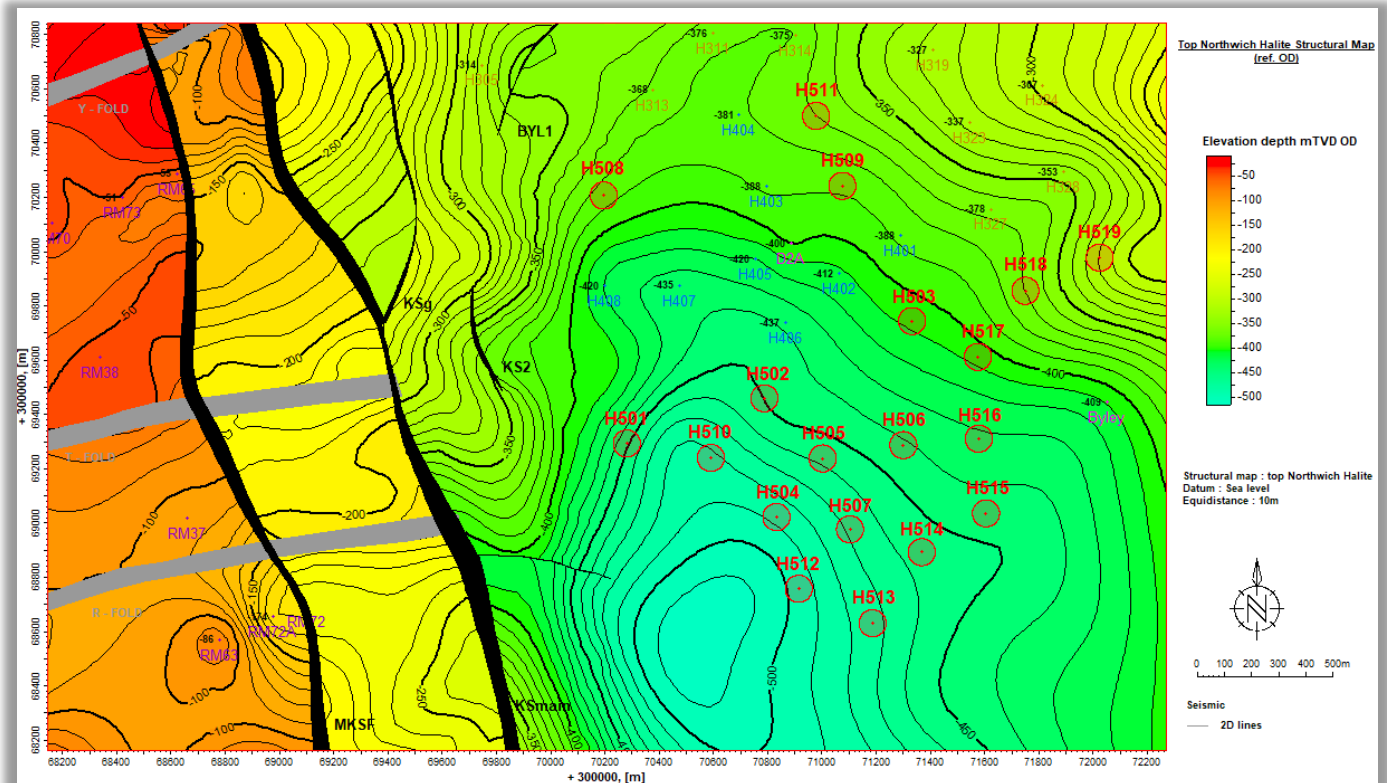
## 6.1. Top of Northwich halite isobath map

The surface shows a North-South (direction of Cheshire graben) half syncline, dipping southward and edged at the west by the King Street Fault system.

The integration between seismic and well data is good, with local discrepancies of 10 to 20 meters. The misties between line IEL-13-02 and Lines 1-2 and Line 4 of the former survey affect the map at the crossings.

The maximum depth is reached online IEL-13-01 with 510 m b.O.D. The misties between line IEL-13-02 and the former surveys appear at the crossings. The two faults KSM and KSmian are converging in the south part of the survey and delineate a tilted block parallel to the graben axis.

The map features a general North-South dipping in the target area of 7 degrees:



**Figure 7 - Top of Northwich halite isobath map (M.S.L.- B.O.D.), updated on June 2021**

The accuracy of the mapping derived from the seismic outside the seismic lines is around 10 -20 meters due to the gridding algorithm applied. The area between the faults BYL1 and BYL1C is tectonised. Some erosional phenomena may affect the paleo-surface.

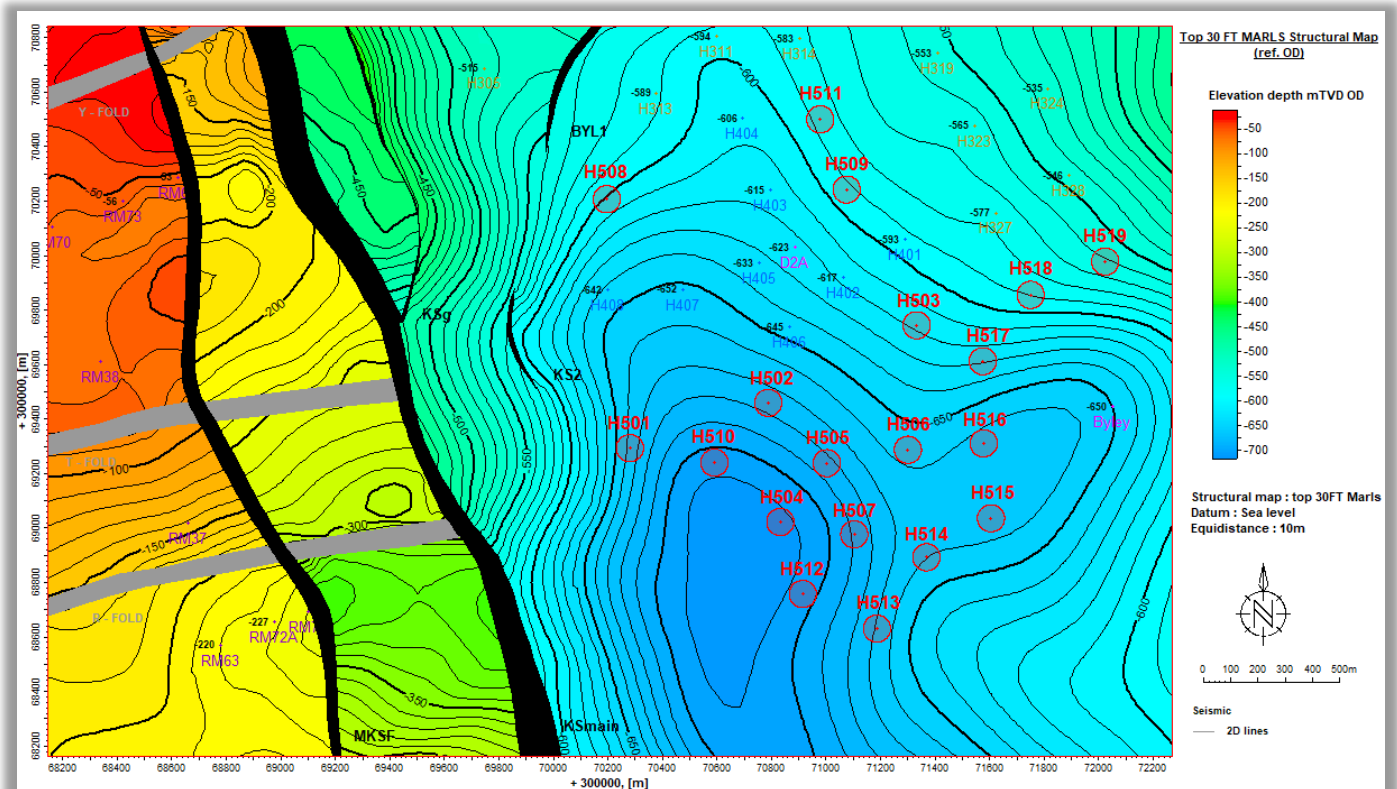
## 6.2. Top of 30 feet marls

The top of 30 feet marls is similar to the top Northwich halite. The surface shows a North-South half syncline (the direction of the Cheshire graben), a dipping southward and edged at the west by the King Street Fault system. The dip of the formation is about 7 degrees.

The KSmain fault edges the graben.

The BYL1 minor fault is south-west oriented and suggests a possible relationship with KS2 minor fault. Nevertheless, the continuity between BYL1 and KS2 has not been observed online IEL-13-02, and this hypothesis of continuity between BYL1 and KS2 minor faults is therefore not retained in this interpretation.

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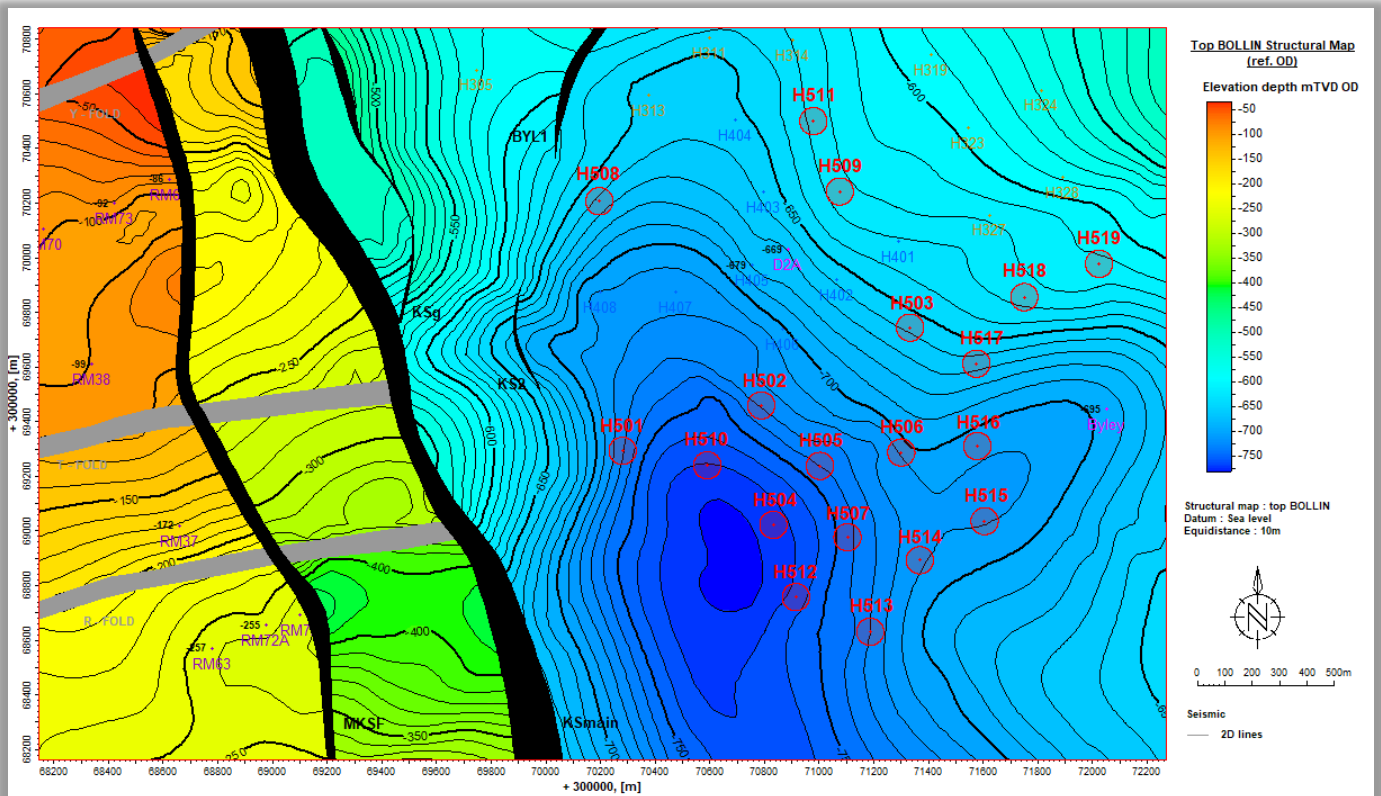
Figure 8 - Top of 30 feet marls isobath map (M.S.L.-B.O.D.), updated on June 2021



### 6.3. Top of Bollin mudstones (base of halitic formation)

The shape of the structure is the same of the previous two maps. It features a north-south oriented half syncline edged on the west by the King Street Fault tectonic complex. A relationship between BYL1 and KS2 faults is suggested.

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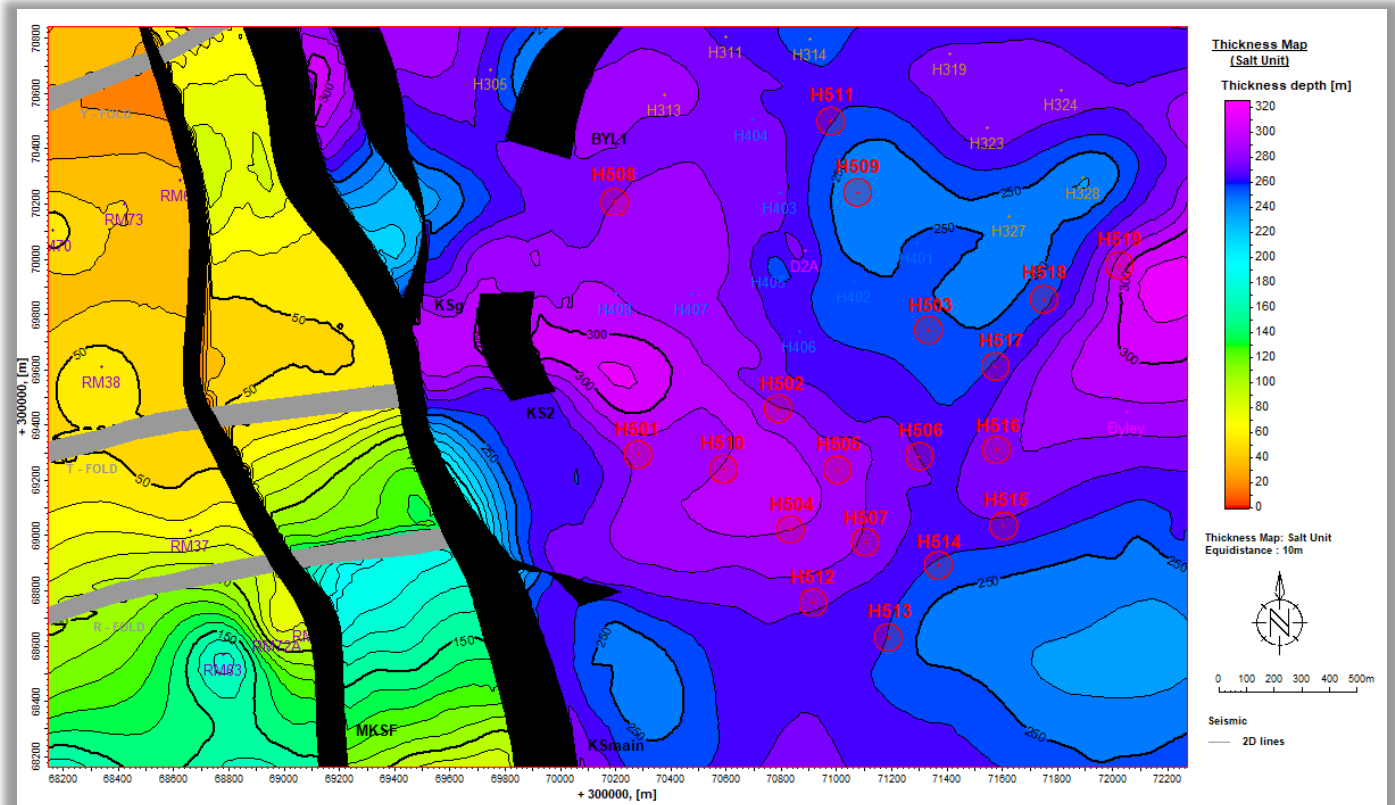
Figure 9 - Top of Bollin Mudstone isobath map (M.S.L.-B.O.D.), updated on June 2021

## 6.4. Northwich halite formation isopachous map

The faults affecting the top Bollin have been plotted on the map. The thicknesses range between 236 and 293 in the KGSP area, corresponding to the isopachous character observed on seismic.

The absence of thickening at the foot of King Street Fault system confirms a post sedimentary tectonic.

The thickness of the salt is confirmed to be sufficient for the creation of gas cavities in the chosen locations. This was expected with such kind of layered salt (continuous facies, continuity of insoluble beds): the salt layer of the KGS project is very similar to the one of the nearby Holford and Stublach gas storages.





## 7. Conclusion

Within the survey study area the new seismic data (2013) extends and confirms existing geological information of the Northwich Halite salt structure, as follows:

- The structure of the Northwich halite is located in the hanging wall block of the triassic graben. The structure is a dissymmetrical north-south syncline edged by the King Street Fault system on the west. The shape of the syncline is due to the stratal up turn of the layers along the fault due to an early post sedimentary distensive tectonic activity (upper Triassic).
- The maximum depth is 510 m for the top of salt and 750 meters for the bottom (top of Bollin mudstones).
- Two normal main faults are edging the half graben (KSM and KSmain). The central north-south minor fault BYL1 changes direction, to the south-east starting at 06-07 line and seems to be related to the much smaller KS2 minor fault (parallel to King Street Fault system). This segment although not visible online IEL-13-02 and this hypothesis is not retained in this interpretation.
- No other faults have been observed in the area of the projected new cavities.
- The Northwich halite formation presents an isopachous characteristic in the studied area. The thickness of the salt range between 236 and 293 m.
- The interbedded marls (30 feet and G3) are clearly visible on the seismic and are present throughout the studied area.

This geology is suitable for the creation of salt caverns, which can be used for gas storage under the appropriate design conditions presented in Geostock reports IEL/R/J/0002 and IEL/F/J/0001. These statements are supported by the long solution mining history at the Holford Brinefield, and the presence of the Holford and Stublach gas storage sites.

The following table summarizes the main horizons depth for the planned cavity locations.

This table has been updated based on the recent acquired well data (June 2021):

Planned cavity	Easting X	Northing Y	Top of Northwich halite (m/O.D.)	Top of 30 feet marls (m/O. D.)	Top of Bollin mudstone (m/O. D.)	Thickness of the salt unit (m)
H501	370280.37	369293.28	-447.6	-662.9	-730.9	283.4
H502	370787.74	369459.53	-450.0	-675.9	-730.8	280.8
H503	371332.02	369744.22	-408.9	-618.0	-662.7	253.8
H504	370832.07	369022.17	-488.0	-712.7	-778.1	290.1
H505	371002.50	369237.99	-458.2	-683.2	-743.1	285.0
H506	371300.15	369287.26	-442.5	-656.6	-712.0	269.5
H507	371103.31	368976.85	-469.2	-688.6	-747.1	277.9
H508	370195.52	370206.82	-384.0	-601.2	-664.3	280.3
H509	371075.22	370242.38	-388.7	-592.2	-630.6	241.9
H510	370590.4	369240.06	-482.4	-705.4	-773.3	290.9
H511	370978.36	370499.76	-370.1	-586.9	-630.6	260.5
H512	370914.66	368757.87	-496.6	-704.9	-769.8	273.2
H513	371186.66	368630.79	-474.2	-668.7	-733.6	259.3
H514	371368.25	368892.81	-457.3	-660.3	-715.8	258.5
H515	371605.04	369035.91	-446.9	-665.4	-714.5	267.5
H516	371578.01	369311.02	-433.5	-663.9	-710.2	276.7
H517	371574.94	369612.17	-408.4	-629.2	-670.3	261.9
H518	371749.84	369855.91	-374.6	-589.5	-631.9	257.3
H519	372023.83	369978.09	-324.5	-561.5	-618.8	294.3

## 8. References

- Earp and Taylor, 1986. The Cheshire district in its structural setting. BGS
- Geostock report STU-Y-J-0005, 2007. Geophysical interpretation of lines 06-05, 06-06, 06-07
- Geostock report IEL/F/J/0001, 2014. KGSP assessment of geological suitability, preliminary design and safety
- Geostock report IEL/R/J/0002, 2014. Preliminary study of gas cavern storage capacity
- Tesla report. S7412/1190, 2013. « 2d Seismic Survey Undertaken within Holford, Cheshire Basin »
- Tesla report S7515, 2013. « Report on 2D Seismic Processing in The Cheshire Basin »

# APPENDICES

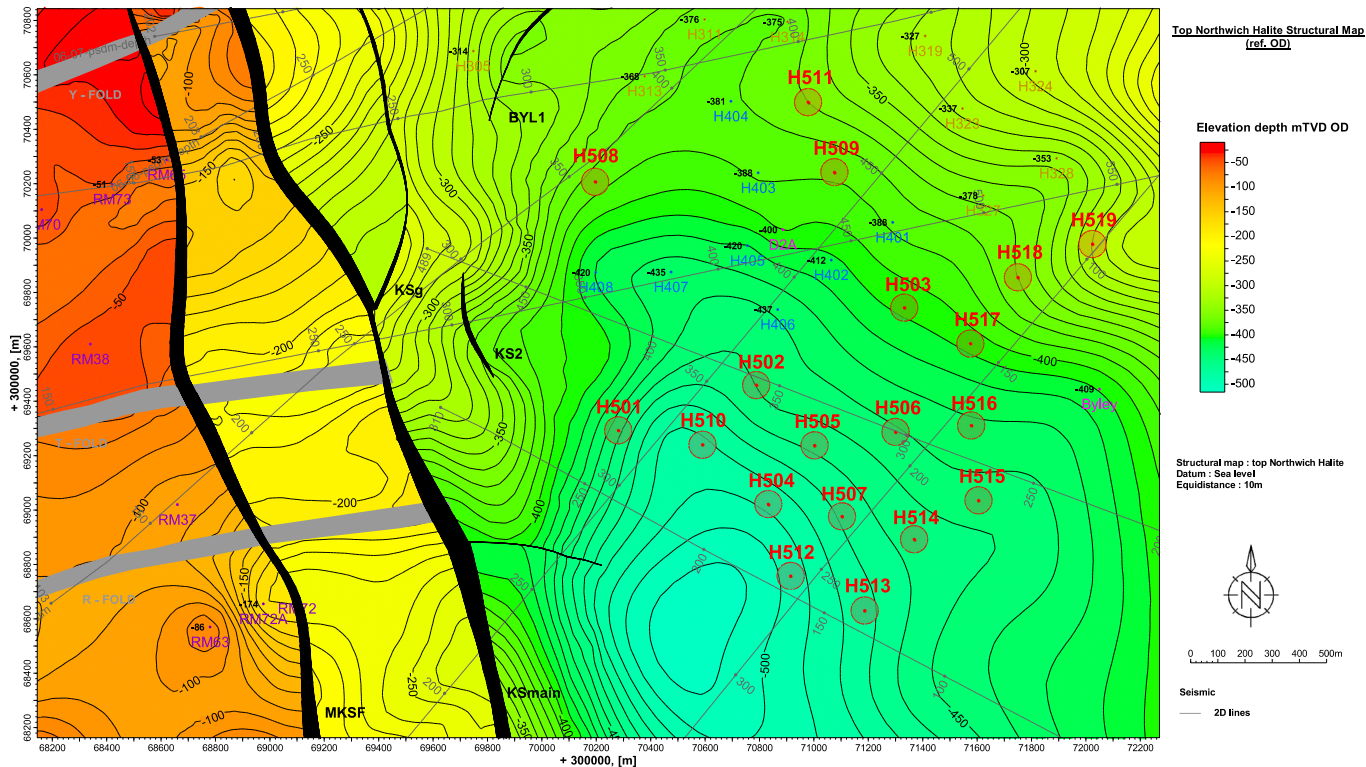
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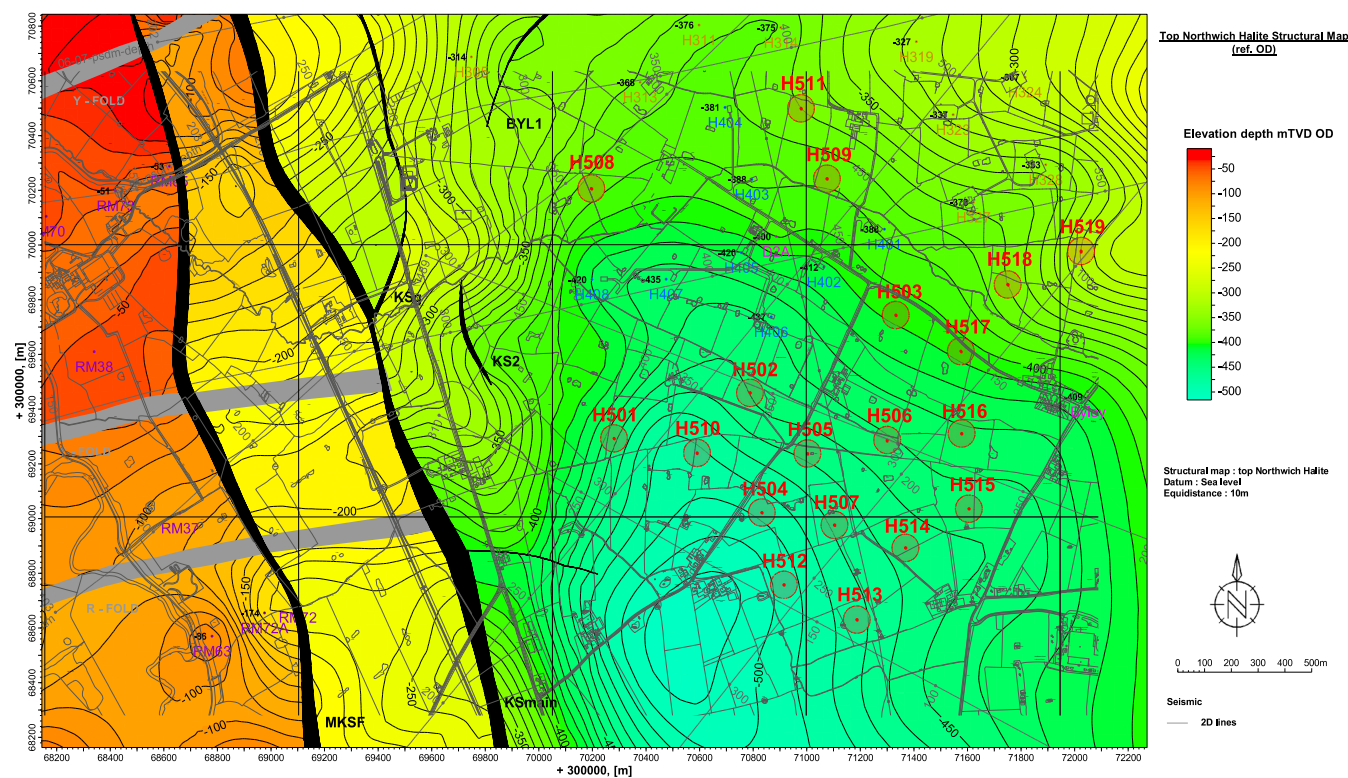
# APPENDIX 1



IEL/Y/J/0003 (GK-INS41-SMP-RPT-0001-0) | REVISION A | PAGE 25

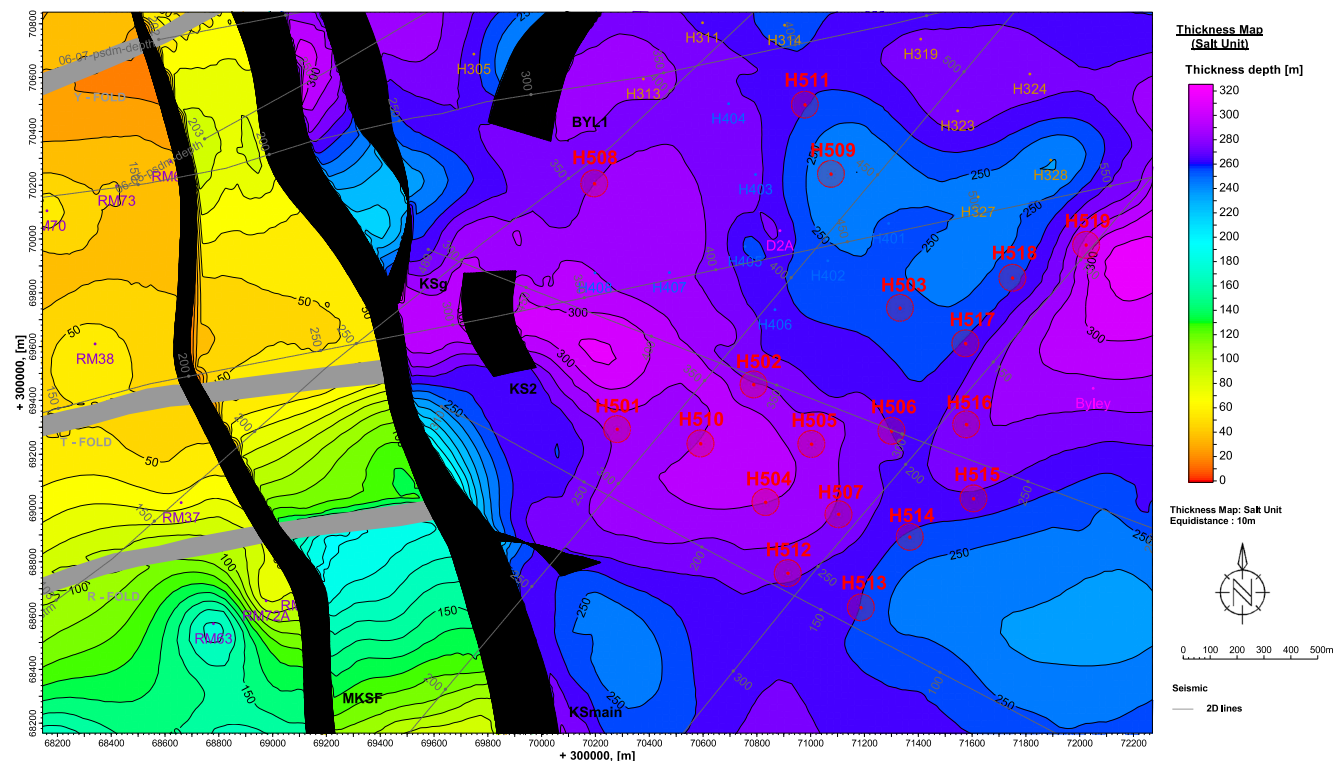
## EXTRACTS OF STRUCTURAL SEISMIC MAPS



- 1.1. TOP NORTHWICH HALITE STRUCTURAL MAP (REF. OD), UPDATED ON JUNE 2021
- 1.2. TOP NORTHWICH HALITE STRUCTURAL MAP WITH TOPOGRAPHIC MAP (REF. OD), UPDATED ON JUNE 2021
- 1.3. ISOPACHOUS MAP OF THE SALT UNIT, UPDATED ON JUNE 2021
- 1.4. ISOPACHOUS MAP OF THE SALT UNIT WITH TOPOGRAPHIC MAP, UPDATED ON JUNE 2021
- 1.5. TOP OF BOLLIN MUDSTONE ISOBATH MAP (REF. OD), REVISION JUNE 2021
- 1.6. TOP OF BOLLIN MUDSTONE ISOBATH MAP WITH TOPOGRAPHIC MAP (REF. OD), UPDATED ON JUNE 2021
- 1.7. TOP OF «30 FEET MARLS» ISOBATH MAP (REF. OD), UPDATED ON JUNE 2021
- 1.8. TOP OF «30 FEET MARLS» ISOBATH MAP WITH TOPOGRAPHIC MAP (REF. OD), UPDATED ON JUNE 2021



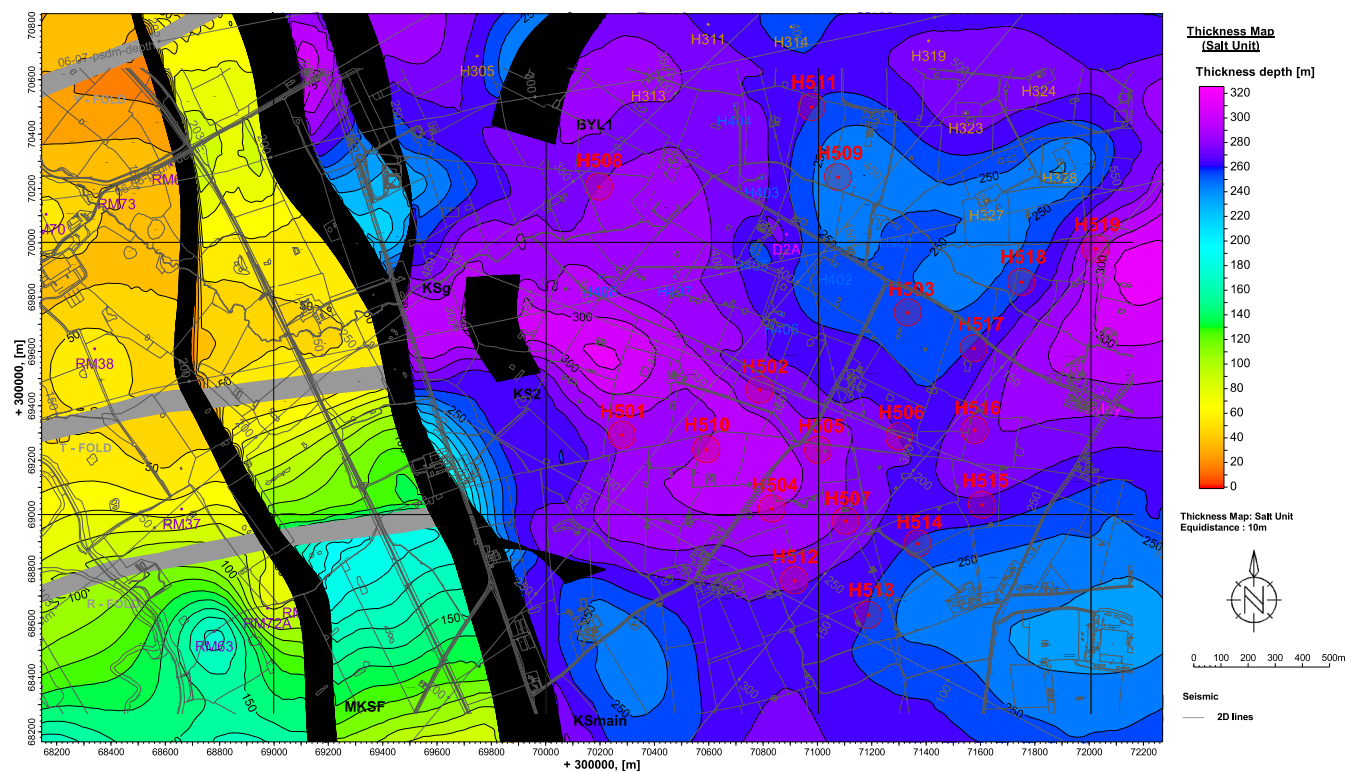




02/06/21	BCA	BCA	BCO	PREL	KEUPER GAS STORAGE PROJECT	
Date	Issued	Checked	Approved	Status		
Géostock N° : IEL/Y/P/0020a					Top Northwich Halite Structural Map with topographic map (ref. OD)	

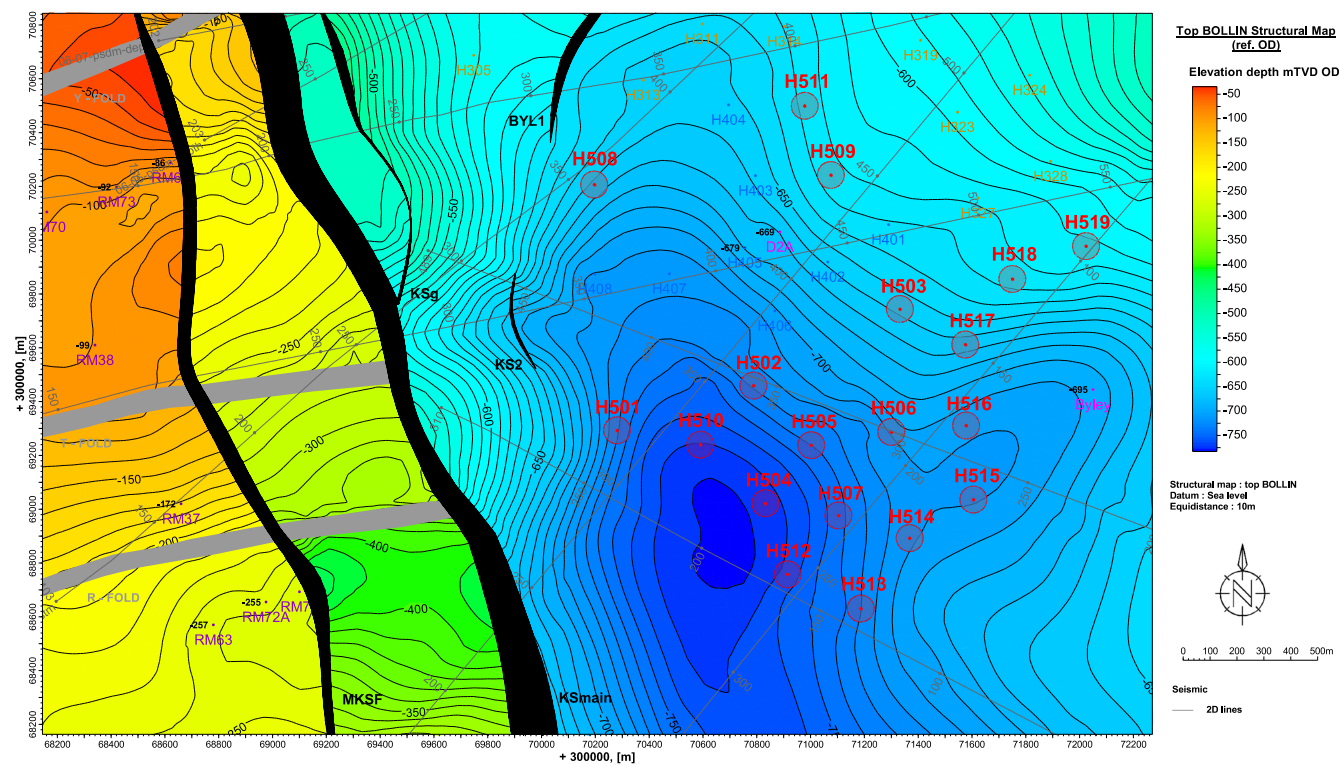




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Geostock N° : IEL/Y/P/0021a					Isopachous map of the salt unit	

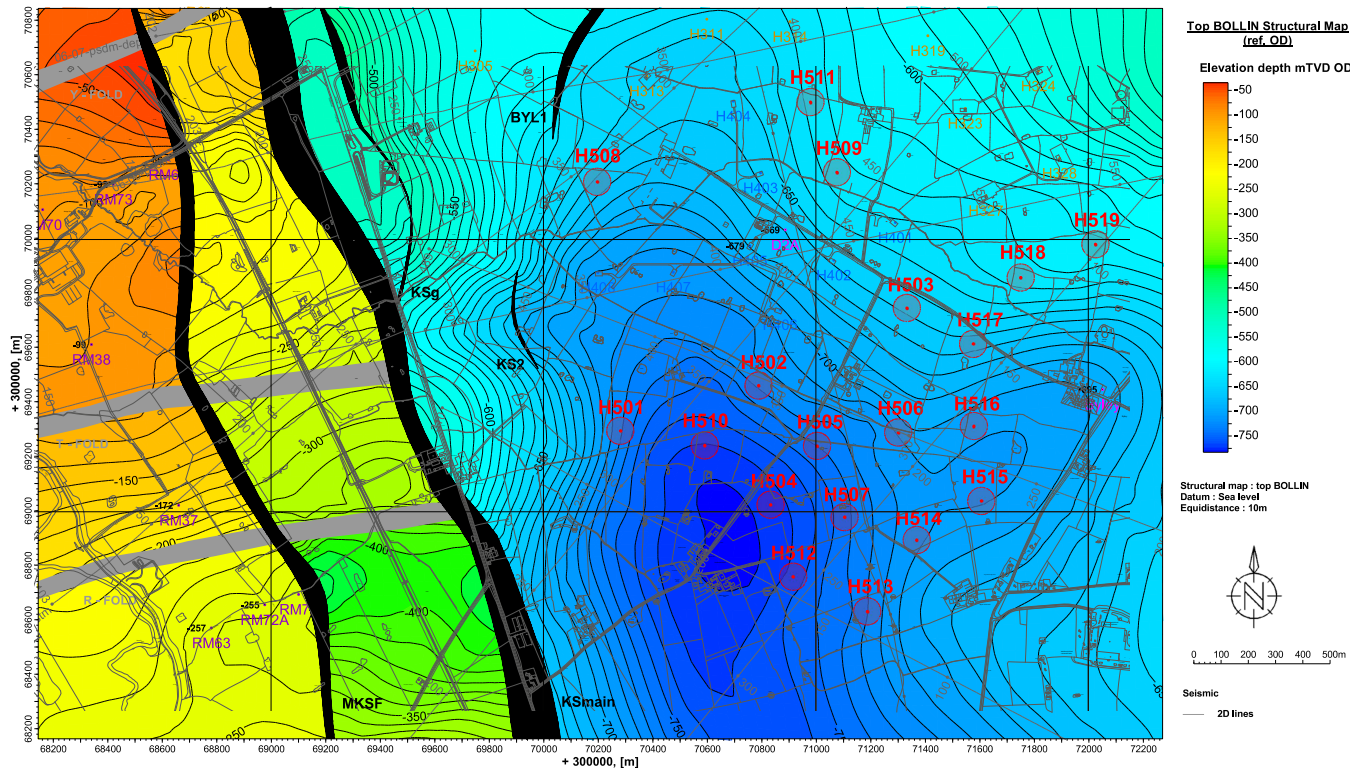




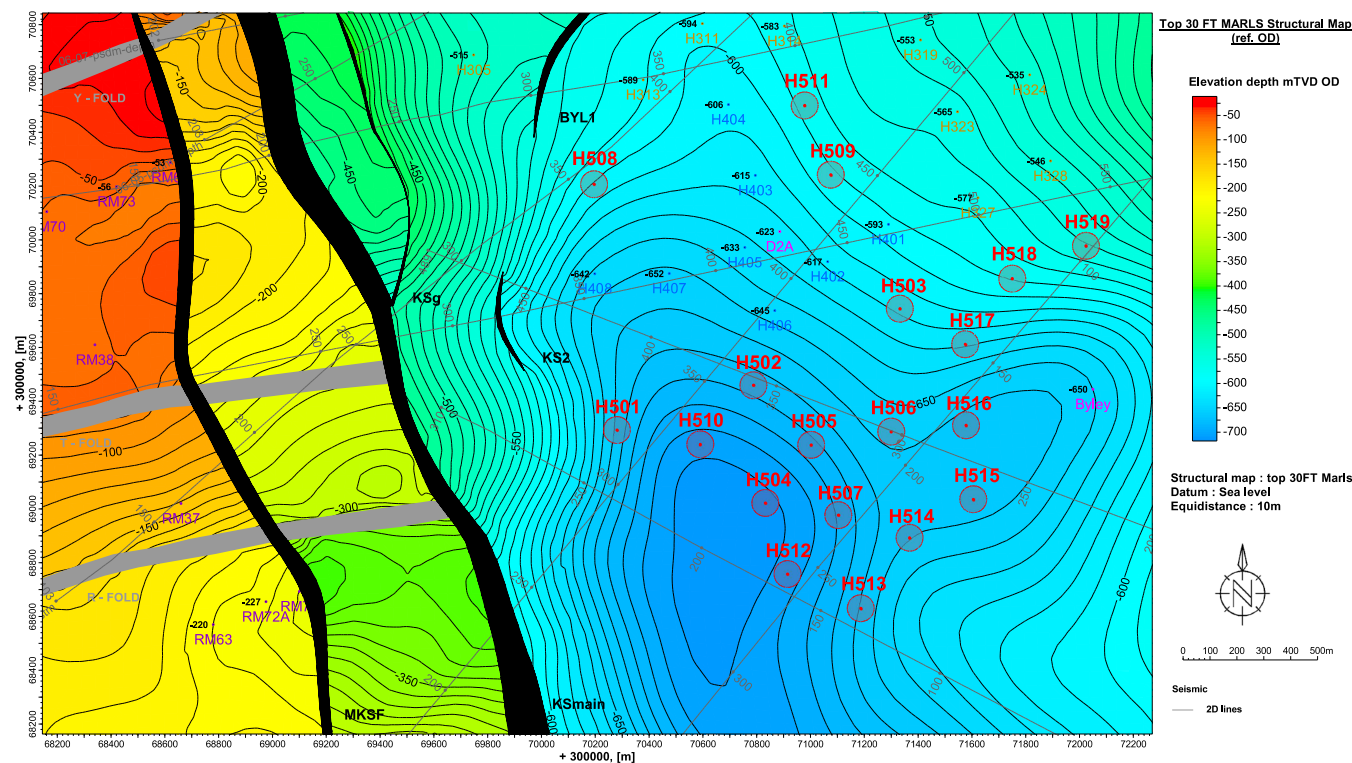
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Date	Issued	Checked	Approved	Status		
Géostock N° : IEL/Y/P/0022a					Isopachous map of the salt unit with topographic map (ref. OD)	





03/06/21	BCA	BCA	BCO	PREL	KEUPER GAS STORAGE PROJECT	
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Géostock N° : IEL/Y/P/0023a					Top of Bollin mudstone isobath map (ref. OD)	

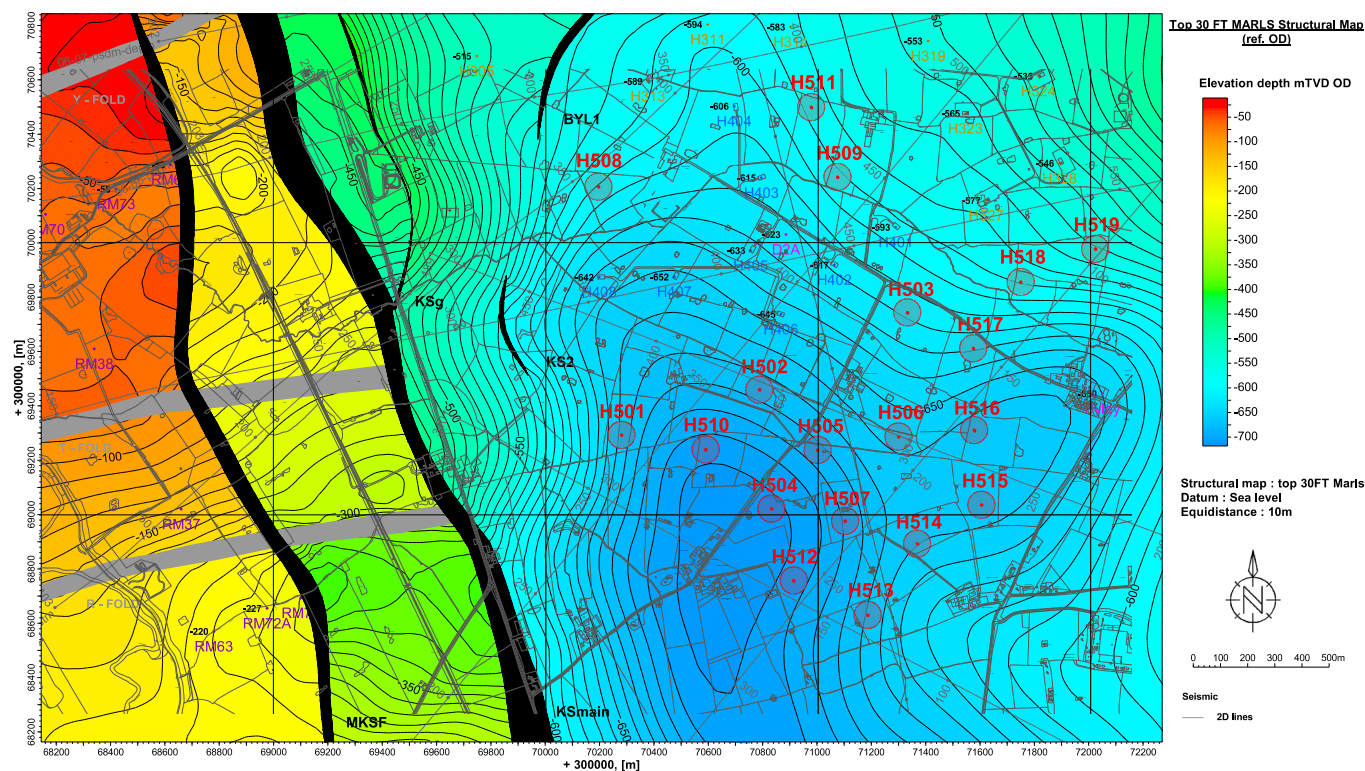




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03/06/21	BCA	BCA	BCO	PREL	KEUPER GAS STORAGE PROJECT	
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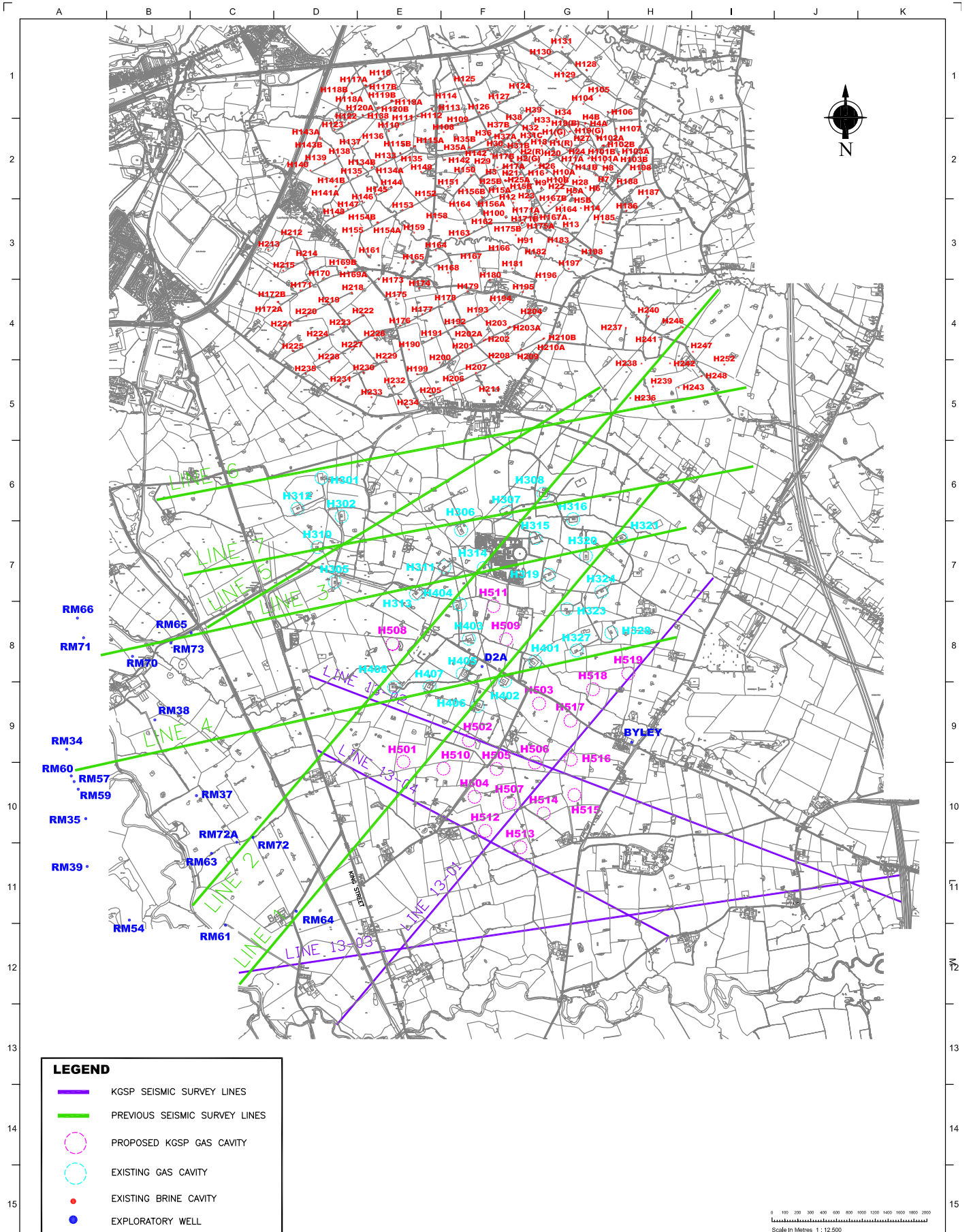
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# APPENDIX 2

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**WELL MARKERS AND SEISMIC LINES INCLUDED  
IN THE SEISMIC INTERPRETATION**



## HOLFORD BRINEFIELD - KGSP PROJECT - GEOLOGICAL STUDY AREA

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REV	ALTERATIONS	CHD	BY	DATE									REV P1

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## GEOSTOCK

2, rue des Martinets – CS 70030 – 92569 Rueil-Malmaison Cedex – France

Tél : +33 1 47 08 73 00 – Fax : +33 1 47 08 73 73 – 434023032 RCS Nanterre  
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