

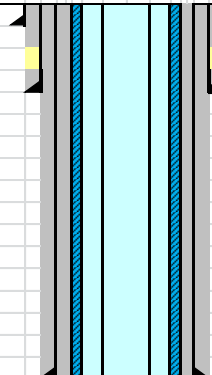
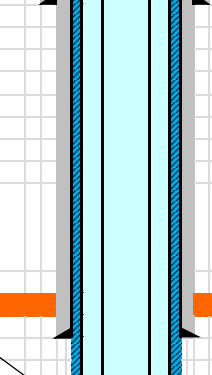
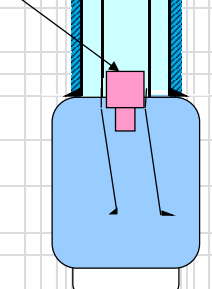
Overview mining activities

Quarterly meeting
Frisia Zout B.V. -SODM
10th of July, 2017

Contents

1. Updates BAS-1
2. Updates BAS-2
3. Abandonment BAS-2
 - Diesel balance
 - Geo-mechanical study
4. Updates BAS-3O
5. Updates BAS-4
 - Cavern end volume
 - Production strategy
6. Update Havenmond
7. Update subsidence
8. Special topics
 - Update M&R 2015
 - 2nd opinion abandonment
 - Frimakal injection
 - Frisia Self-assessment
9. Wvttk

BAS-1

Item Description	Wellhead and Xmastree BAS 1 140527	Depth	Depth	Pipe OD	Collar OD	Pipe ID
		m tvd	m ah	in	in	in
36" stove pipe		40	40	28,000		
24" x 1/2" casing		494	494	24,000		
Top cement in 18 5/8 " x 13 3/8" annulus						
18 5/8" casing		1175	1175	18,625	20,000	17,688
13.3/8" Annulus filled with diesel/brine solution as of January 2013.						
Straddle Jan 2010; Top at; 2584md Minimum ID; 3.34" Bottom at; 2589 md						
Base of Carnalite 13 3/8" casing		2522 2543	2522 2543			
				13,375	14,375	12,895
Roof height from March 2011 neck echo measurement		2567	2567			
7" Leak at ~2586 m 10 3/4" outer leaching string, internally coated 7" inner leaching string, internally coated		2587 2787	2587 2787	10,75 7,000	11,75 7,375	9,76 6,276
Sump Dec 2004		2832	2832			
Total Depth Cavern		2882	2882			

	Freshwater
	Water/Diesel Solution
	1.20s.g. brine
	Casing cement
	Carnalite

* All depths are from ground level

Status

- Maintain max pressure 10 3/4" at 232bar
- Bleed-off pressure every 4 wks
- 13 3/8" contains water, however at higher pressure then 10 3/4"

Planned

- HP-shut-in
- Optional: Frimakal injection

BAS-1

March 2017

13-15	Pressure Bleed-off
20	Re-pressurize 13 3/8" after pressure bleed-off

June 2017

20-23	Pressure bleed-off
24, 26	Re-pressurize 13 3/8" after pressure bleed-off

April 2017

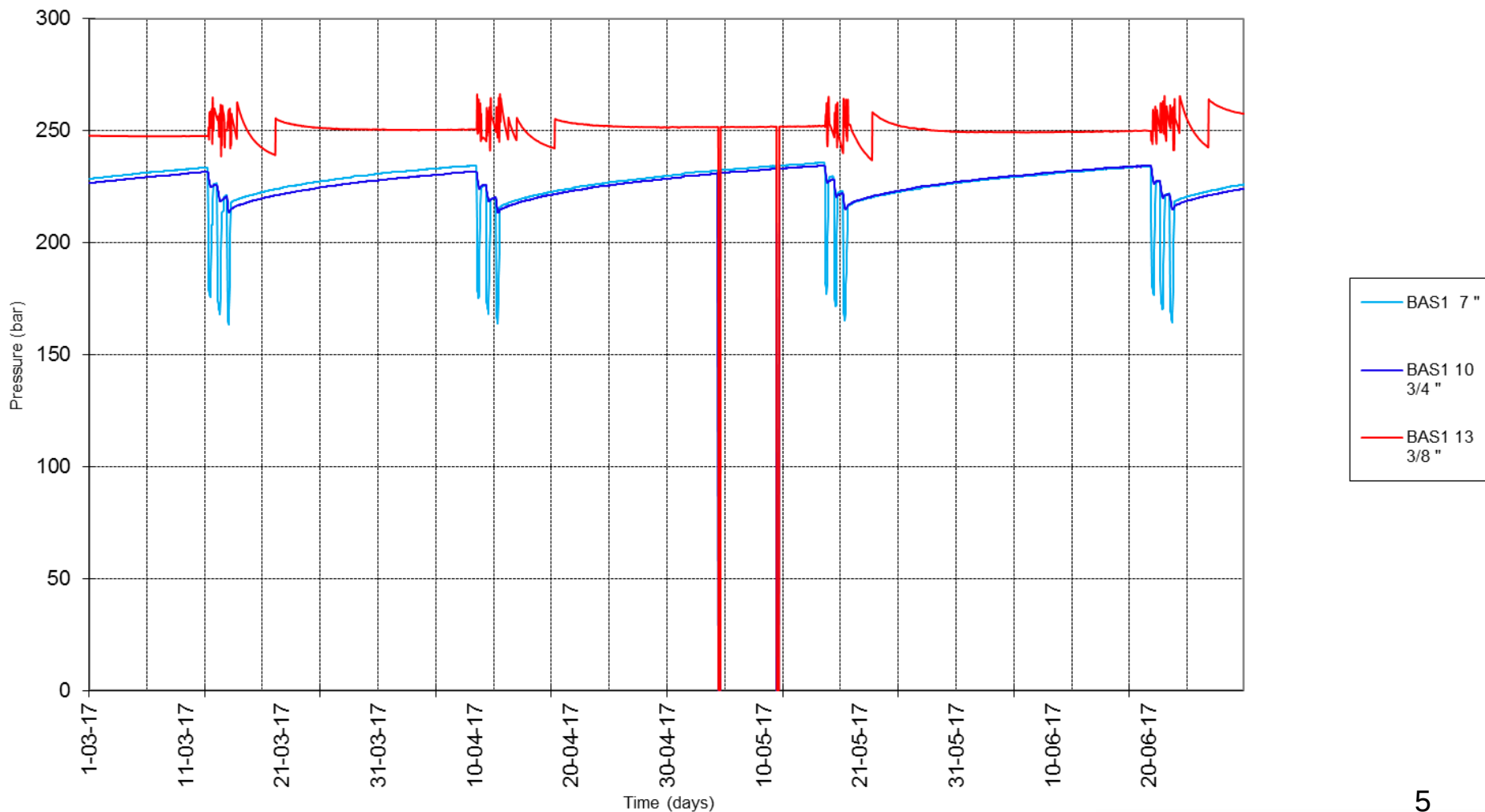
10-12	Pressure Bleed-off
14, 15, 18	Re-pressurize 13 3/8" after pressure bleed-off

May 2017

6, 12	Power outage (electricity maintenance)
17-19	Pressure bleed-off
22	Re-pressurize 13 3/8" after pressure bleed-off

BAS-1

Trends BAS-1



Item Description	Wellhead and Xmastree BAS 2	Depth	Depth	Pipe	Collar OD	Pipe ID
		GL m	GL m	OD in	in	in
Diesel in Wellhead TVD = MD - 80 m	20170616	tvd	ah			
36" stove pipe			42	28,000		
Kick-off point		391	391			
End of 20° build up		875	885			
18 5/8" casing [K55-111#] 13 3/8" DV collar 7" inner leach string, internal coated <i>Cut with mechanical cutter (10-05-2017)</i> 13 3/8" casing patch 1194,5-1200.5 (11jan97)		1133	1169 1177	18,625 1177	20,000	17,688
		1143 1164	1179 1200			
Top cement in 13 3/8" x 10 3/4" , USIT log Start of drop		1658 1719	1738 1791			
End of drop TOC 10 3/4" cement Top Zechstein (Z4) TOC cement plug TOC first 10 3/4" cement plug		2040 2158 2189 2204 2329	2119 2238 2268 2284 2409			
Inflatable BP Base of Carnalite 13 3/8" casing Possible roof		2439 2501 2522	2519 2580,4 2602	13,375 14,375	12,415	
10 3/4" outer leaching string, internally coated <i>Cut with severing shot</i>		2549	2629	10,75		
Volume 208.283m³ EM 2009						
HUD 7" pipe		2734	2814			
Lowest point of Echo 2009		2785	2865			

Status

➤ Preparations for abandonment ongoing

➤ Wireline operations performed:

➤ Perform casing integrity evaluation on 7" tubing

➤ Cut 7" up to 1179 mMD

➤ Perform cement evaluation on 13 3/8" x 10 3/4" annulus

➤ Perform casing integrity evaluation on 10 3/4" casing

➤ Cement plugs set with CT

KEY	
	1.18s.g brine
	1.15s.g brine
	1.20s.g. brine
	Casing cement
	Annular Cement
	Carnalite

March 2017

29	Pressure test wellhead seals
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April 2017

6	Winter protection diesel bleed-off
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May 2017

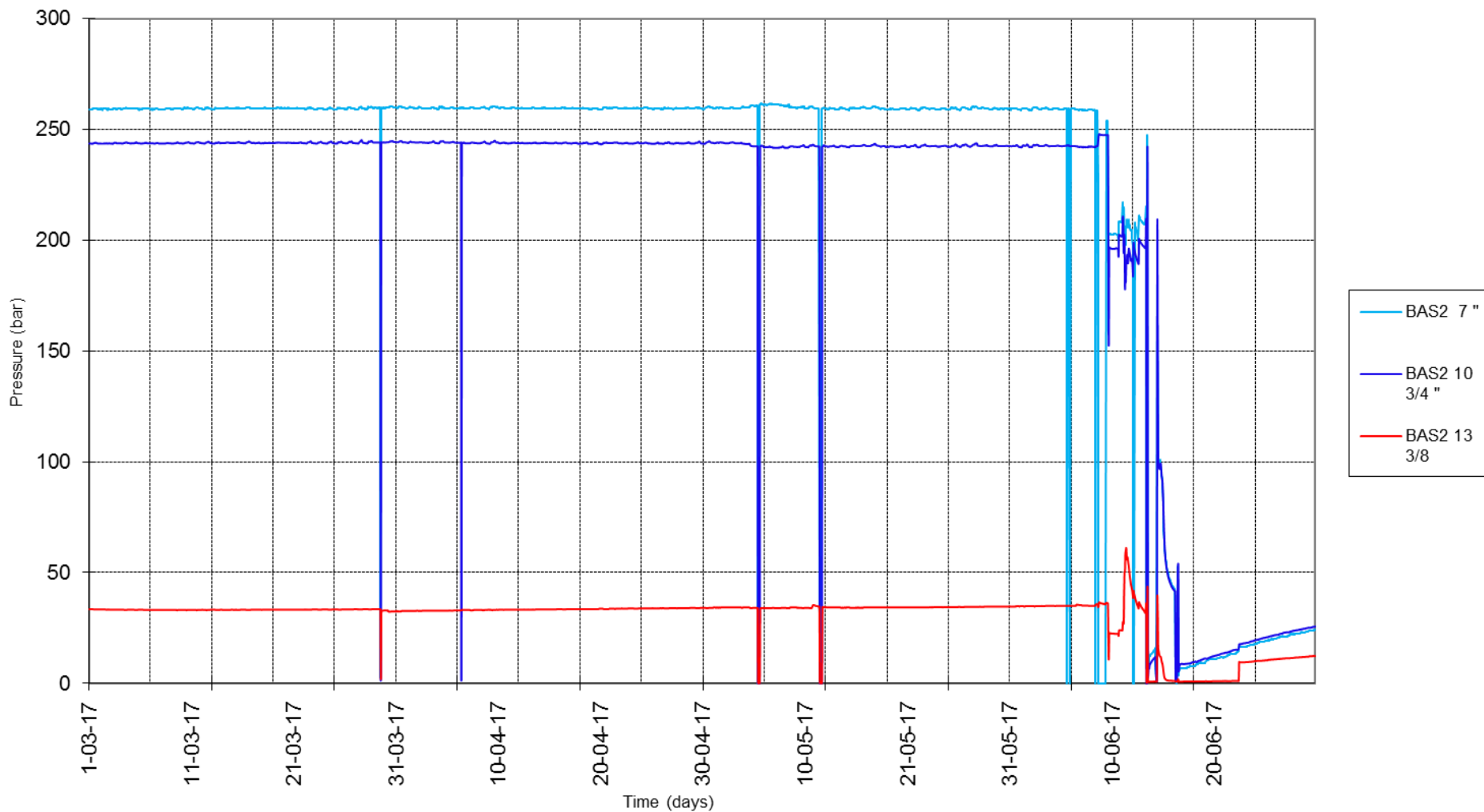
6, 12	Power outage (electricity maintenance)
3-11	Wireline cutting operations and USIT

June 2017

6-9	Wireline operations: set inflatable packer
10-17	Coiled tubing operations: set two cement plugs and pressure test
17-30	Temperature related pressure build-up
22	Re-pressurize 13 3/8" to 10 bar

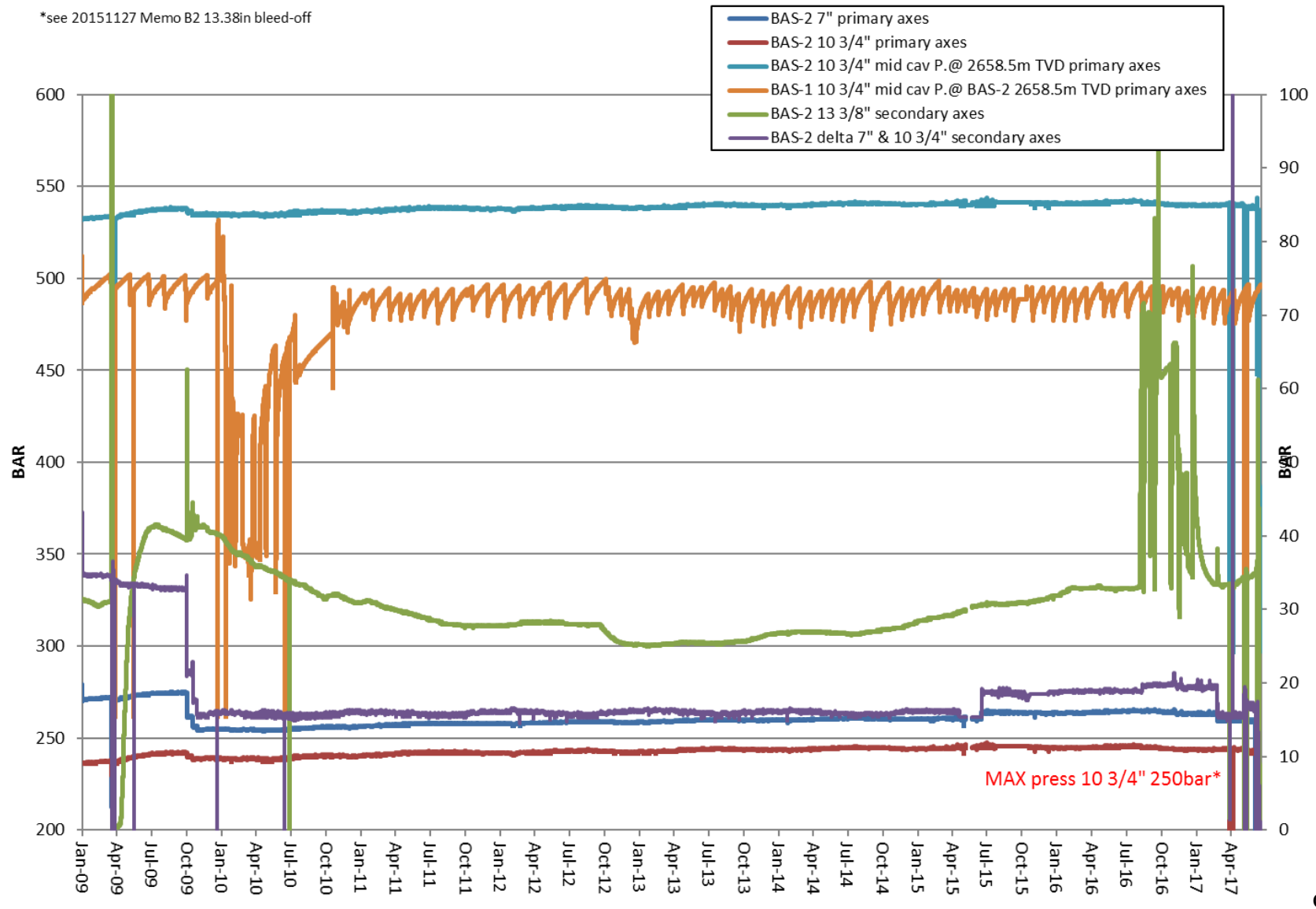
BAS-2

Trends BAS-2

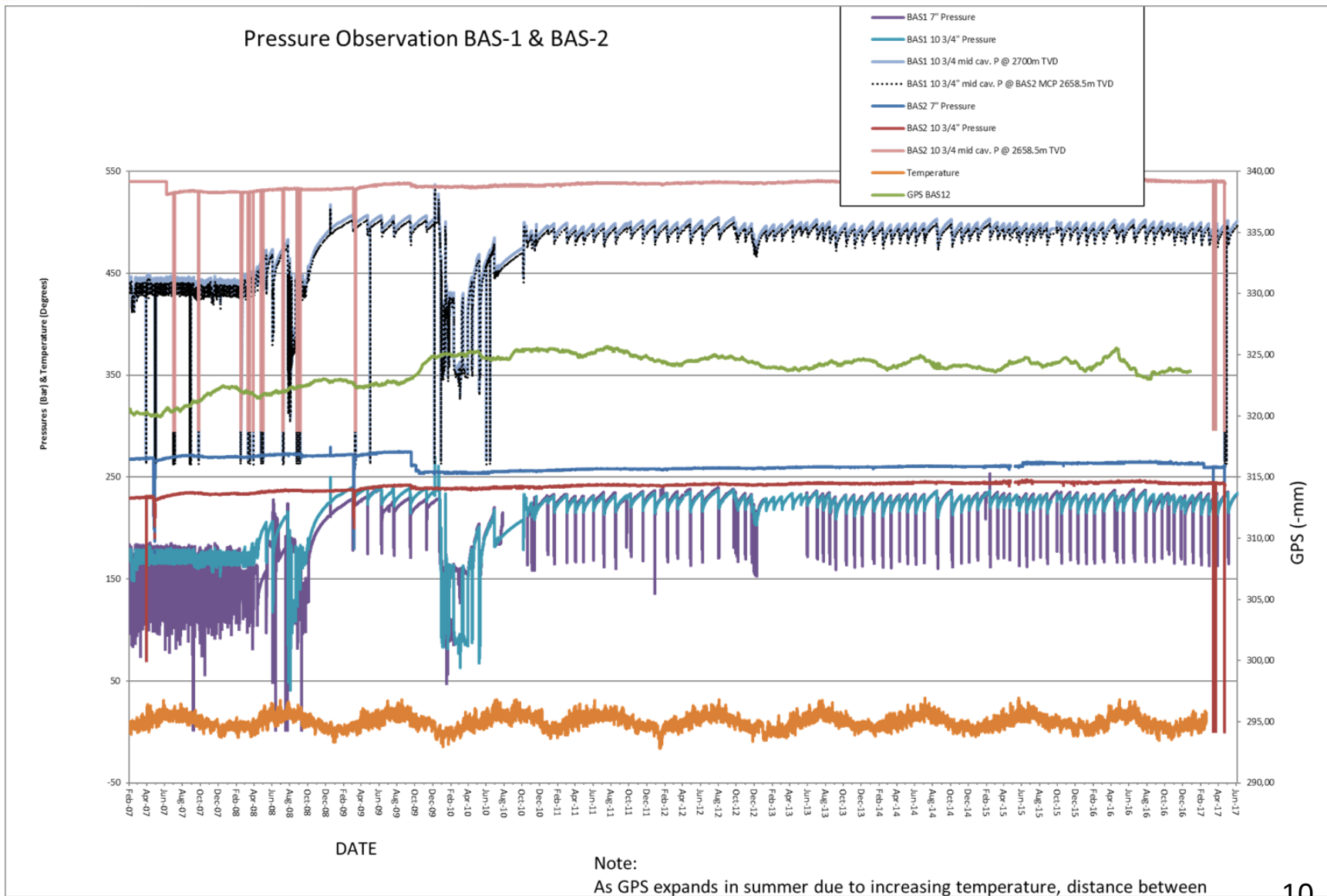


BAS-2

*see 20151127 Memo B2 13.38in bleed-off



BAS-1&2

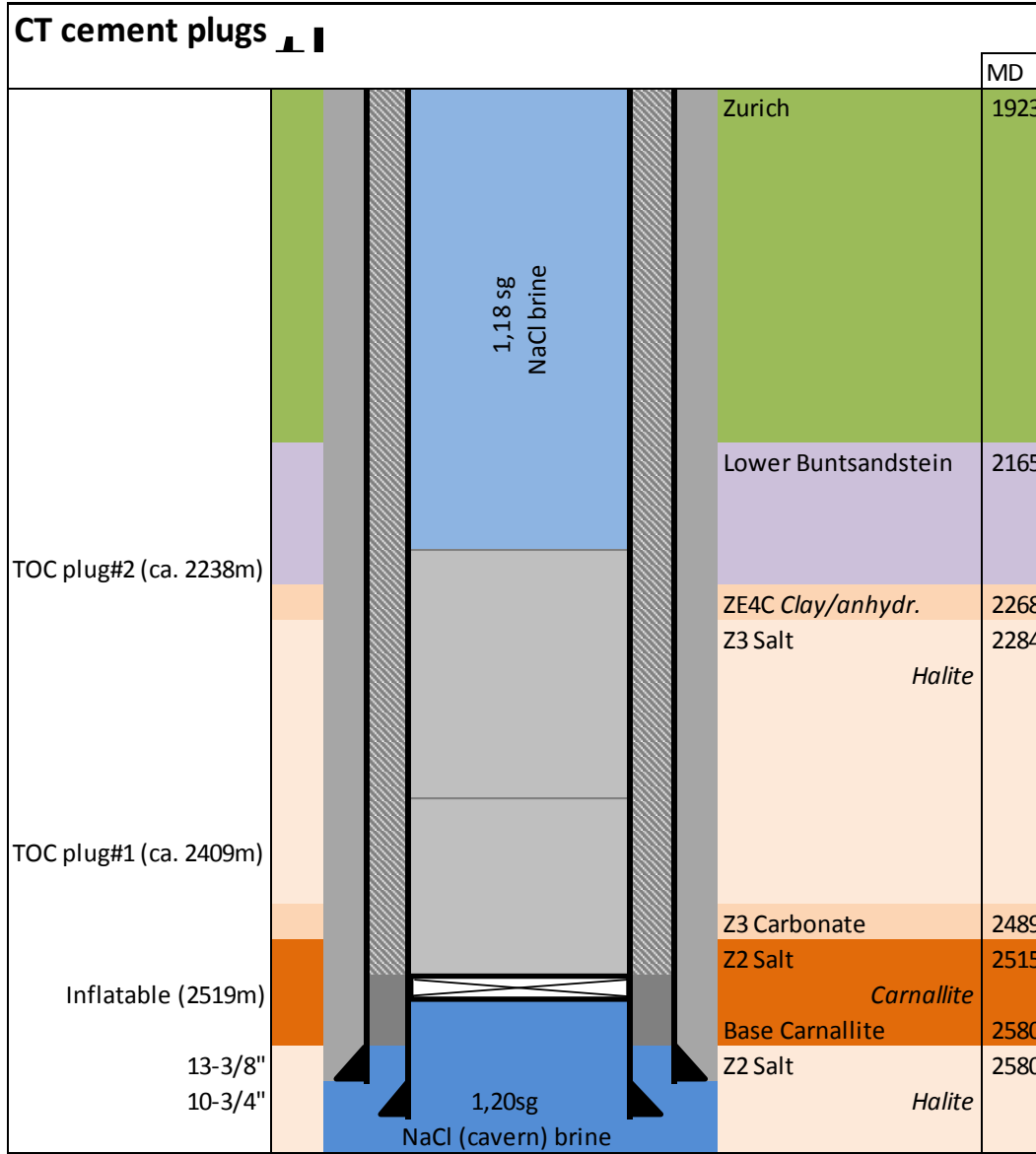


Offset BAS-12: ± 460 m.

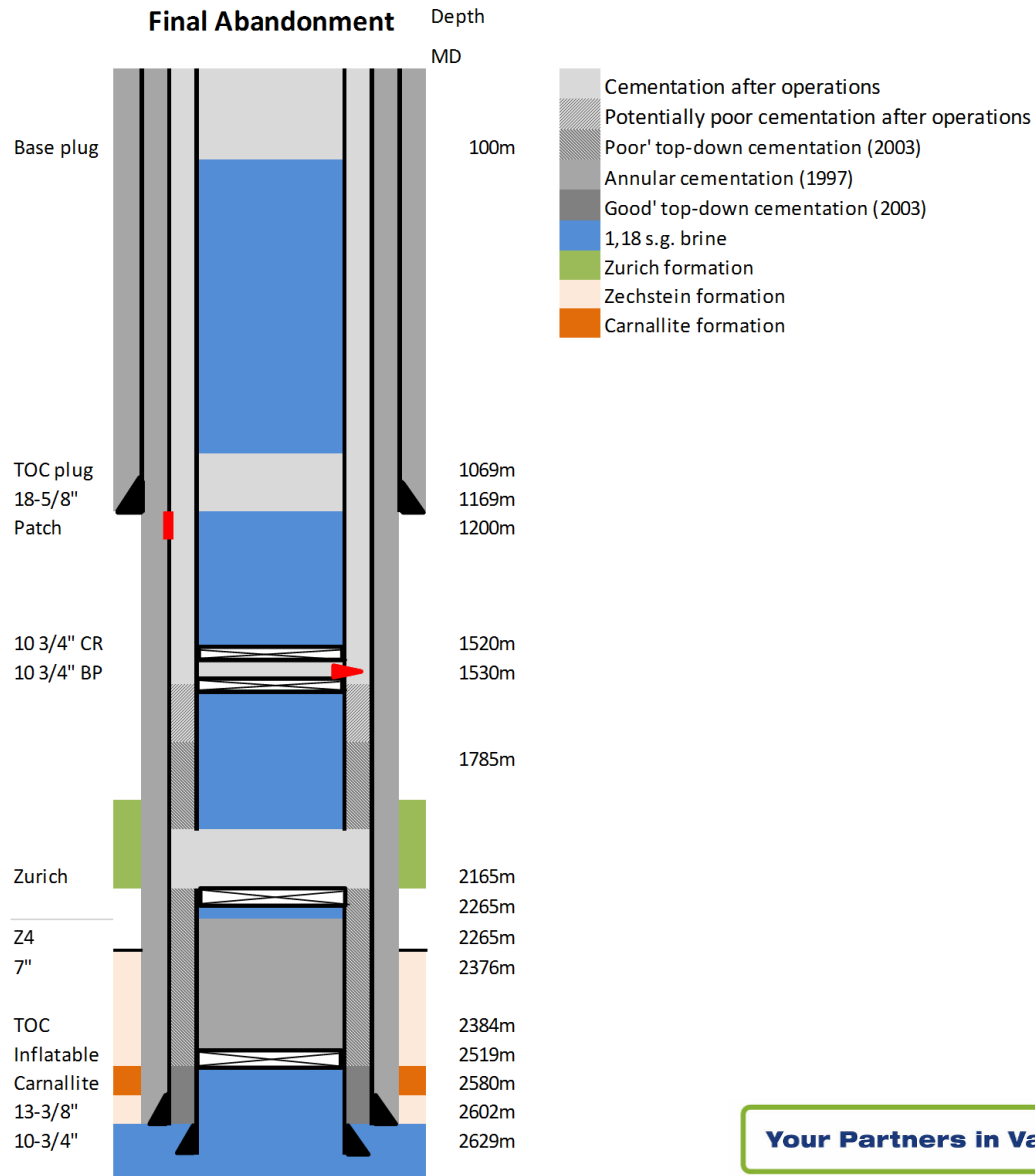
Wireline logs result

1. 7" tubing integrity
 - 0 – 1270 mMD: 0-5% wall thickness reduction (tubing placed >2001)
 - 1270 – 2377 mMD: 18-31% wall thickness reduction (original tubing)
2. 7" cutting operations
 - 7" tubing cut up to 1179 m MD and dropped in sections into the cavern
3. 13 3/8" x 10 3/4" cement evaluation (USI)
 - TOC identified at 1738 m MD
4. 10 3/4" casing integrity log
 - Average wall thickness reduction of 2%
 - Maximum wall thickness reduction of 7%

Cement plugs set



Abandonment design



Diesel balance

- February 1999 – September 2000
 - 373 m³ diesel migrated through leaking casing patch into Ommelanden Chalk trapped below the Landen Clay, no impact on the environment.
 - No horizontal migration due to limited (2.2deg) formation dip
 - For reference; diesel around the well with a radius of 63m, thickness very conservative 10cm.
- August 2016 – December 2016
 - 3,6 m³ brine migrated through leaking casing patch

Geo-mechanical study BAS-2

- Cavern size 208.000 m³
- Containment zone Lower Bunter and Z4, 113m (porosity of 5%)

	30%	Worst case	
Carnalitic brine volume	434 720	434 720	m ³
Sump pore volume	215 488	0*	m ³
Secondary porosity	7060**	7060**	m ³
Affected containment vol	4 384 640 (111m radius)	8 694 400 (156m Radius)	m ³

* Scenario as described in second opinion Prof. Dr J. Urai

** Neglected from a conservative point of view

Geo-mechanical study BAS-2

- Through buoyancy and anisotropic ($K_v/K_h \approx 1/10$) brine will stay in lower parts
- Halite precipitation in Lower Bunter will fill a maximum of 4,3% of pore volume.
- Subsidence based on migrated brine, spread over the bowl.

Geo-mechanical study BAS-2

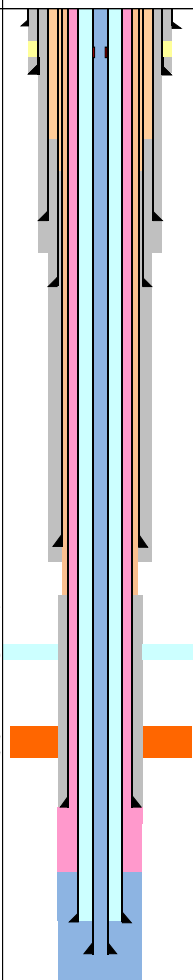
Conclusion:

1. Bunter is a vast inter-connected body well able to contain the free fluids from the cavern.
 - a) Diesel will be trapped below the zurich
 - b) Brine wil accumelate in the bottom of the Lower Bunter
2. No recrystallization by cooling of Carnalitic brine in Lower Bunter
 - a) A maximum of 4.3% of the pore volume can be filled with halite crystals

Actions:

1. Addendum to BAS-3 abandonment report to be submitted
2. Previous report “20170412_Geo-mechanical and technical aspects of BAS-2 abandonment v1.0” will be revoked.

BAS-3 Original

Item Description	Wellhead and Xmastree BAS 30	110517						Depth GL	Depth GL	Hole ID	Pipe OD	Collar OD	Pipe ID																			
		m tvd	m ah	in	in	in	in																									
36" x 1/2" WT stove pipe, welded 4.56" R type nipple profile 24" x 1/2" WT 35 ksi conductor, welded		30	30	driven	36,000	welded	35,000																									
			283				4,56																									
				28	24,000	welded	23,000																									
		379	400	28	24,000	welded	22,500																									
Top cement in 18 5/8" x 13 3/8" annulus 18 5/8" 87.5 ppf K55 Big Omega casing		1013	1753	22	18,625	20,000	17,688																									
16" 84.5 ppf C85 Hydrill		1153	1991	17 1/2	16,000	16,000	15,010																									
		<table><tr><th>Size</th><th>Weight</th><th>Capacity</th><th>Closed end Displacement</th><th>metal Displacement</th></tr><tr><th>in</th><th>ppf</th><th>l/m</th><th>l/m</th><th>l/m</th></tr><tr><td>5 1/2</td><td>17</td><td>12.13</td><td>15.33</td><td>3.20</td></tr><tr><td>9 5/8</td><td>47</td><td>38.18</td><td>46.94</td><td>8.76</td></tr><tr><td>11 3/4</td><td>65</td><td>57.82</td><td>69.96</td><td>12.55</td></tr></table>						Size	Weight	Capacity	Closed end Displacement	metal Displacement	in	ppf	l/m	l/m	l/m	5 1/2	17	12.13	15.33	3.20	9 5/8	47	38.18	46.94	8.76	11 3/4	65	57.82	69.96	12.55
Size	Weight	Capacity	Closed end Displacement	metal Displacement																												
in	ppf	l/m	l/m	l/m																												
5 1/2	17	12.13	15.33	3.20																												
9 5/8	47	38.18	46.94	8.76																												
11 3/4	65	57.82	69.96	12.55																												
		Fresh water 1.18sg NaCl Brine Diesel 0.85sg OBM Casing cement Carnalite																														
13 3/8" 68 ppf P110 VAM-TOP casing		1594	2811	16	13,375	14,375	12,415																									
TOC 14" x 11 3/4", based on SBT 19dec14		1767	3209																													
Top Zechstein (Z4 Claystone)		2082	3923																													
Top Carnalite		2355	4242																													
Bottom Carnalite		2408	4295																													
11 3/4" 65 ppf (combined grade string)		2442	4329	14	11,750	11,750	10,682																									
Blanket level @4537 mBGL (BM 11-5-2017)		2655	4541																													
9 5/8" 47# P110 SLF		2746	4633		9,625	9,625	8,681																									
5 1/2" 17# C95 TPS coated TK216		2764	4651		5,500	6,075	4,892																									
Sump (based on tag 22-2-2017)		2779	4666																													
		2846	4733																													
TD drilling																																

Status

- Indirect production mode since May 2016
 - Direct production to restart production from May 22nd to June 12th
- Last echo measurement in May 2017, measured cavern volume: 338.144 m³
- MFC log on 5 1/2" tubing → no erosion measured

Planned

- Continue indirect production
- Blanket measurements every 8-9 wk
- Workover → Change configuration inner/outer leaching string May 2018

March 2017

8, 14, 15, 26, 27	Injection stop due to condensate supply stop
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April 2017

3-5	Neckwash operations
11, 17	Injection stop due to condensate supply stop
25	Injection/production stop due to factory maintenance

May 2017

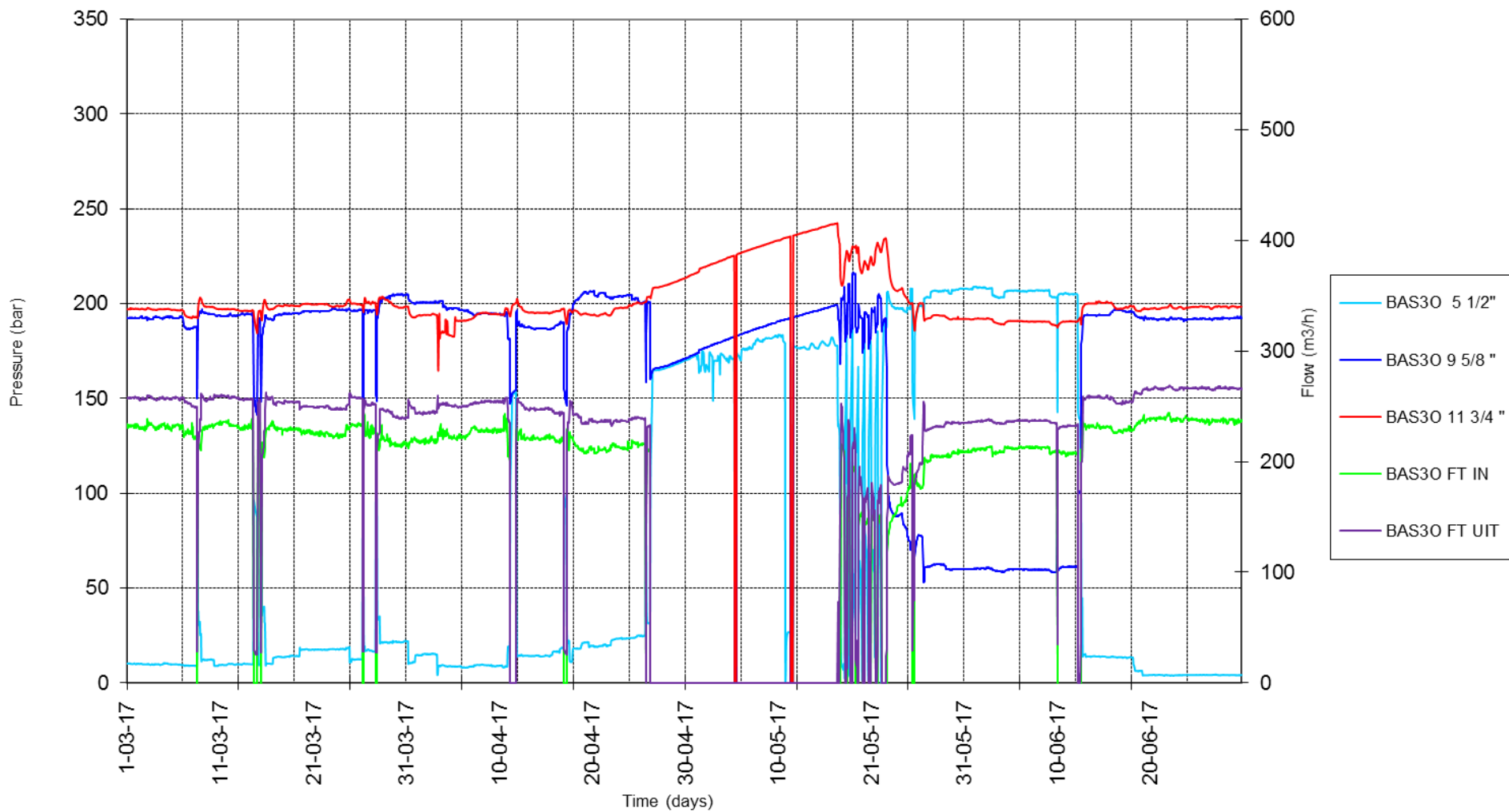
1-17	Injection/production stop due to factory maintenance
6, 12	Power outage (electricity maintenance)
11, 12	Wireline operations
17-22	Attempt start indirect production (high brine saturations)
22	Restart production (direct mode)
25	Injection stop due to water feed pressure loss

June 2017

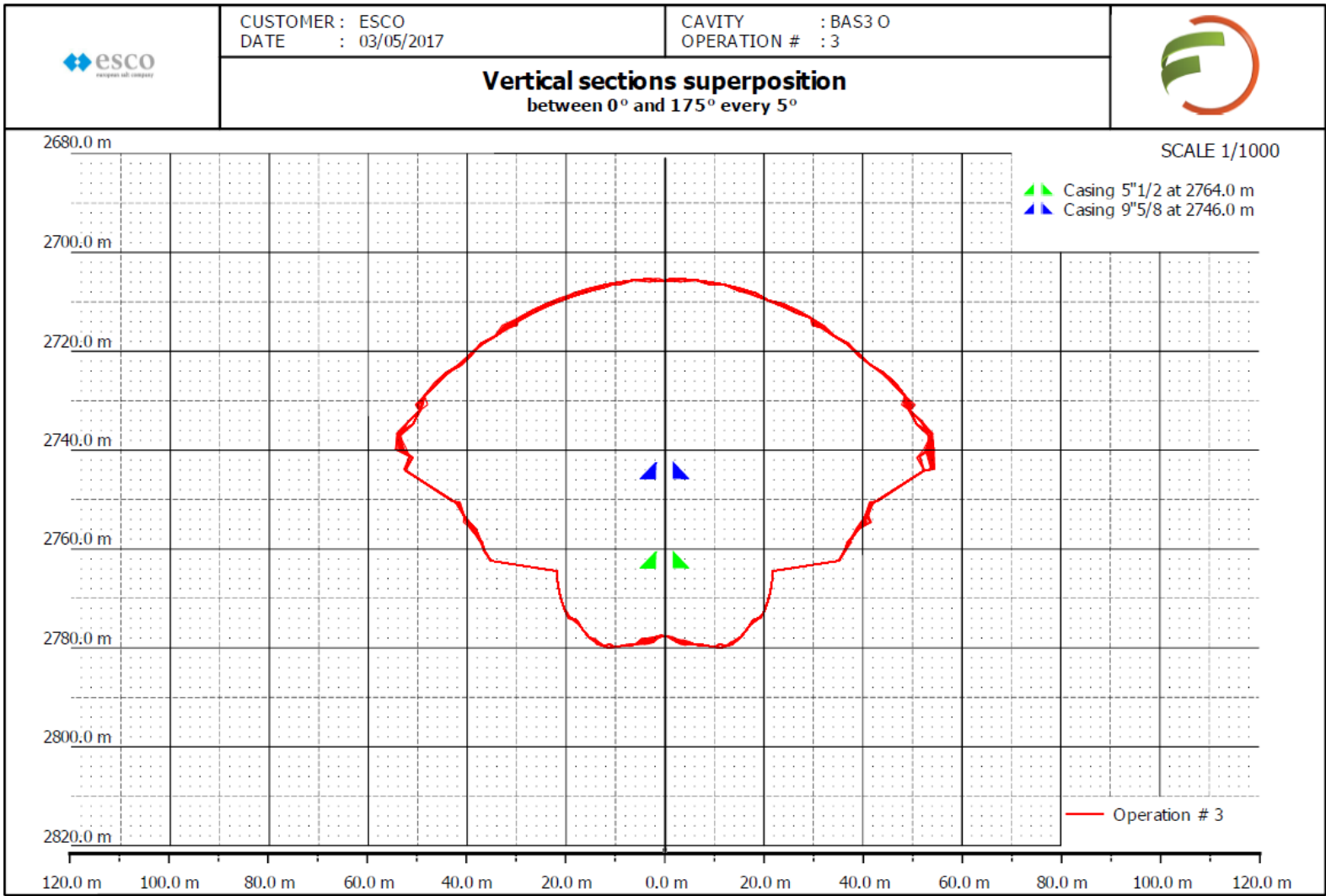
10	Injection stop due to pressure loss pump
12	Production reversed to indirect mode
14, 27	Diesel blanket injection
26	Injection stop due to malfunction at plant

BAS-30

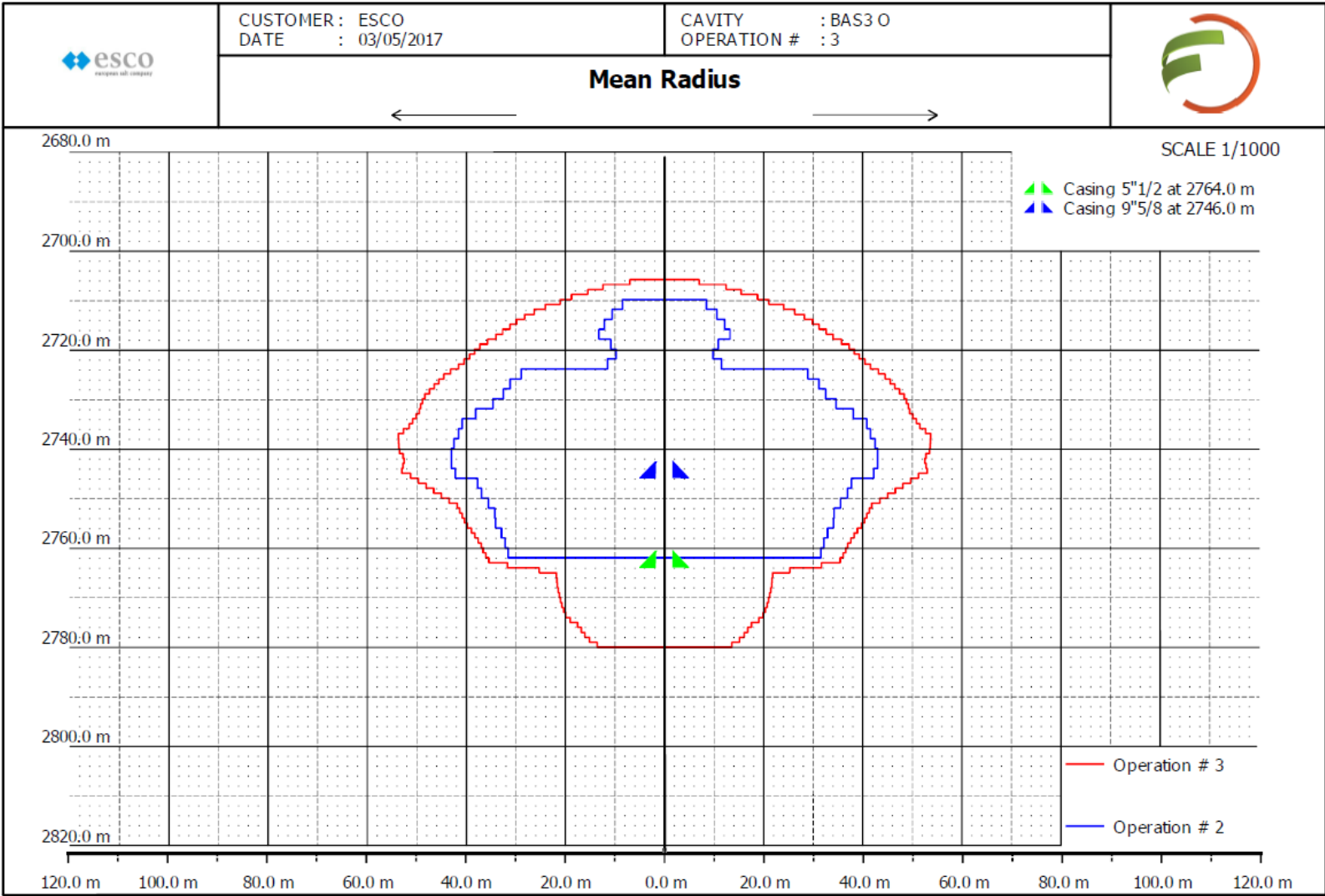
Trends BAS-30



Sonar measurement

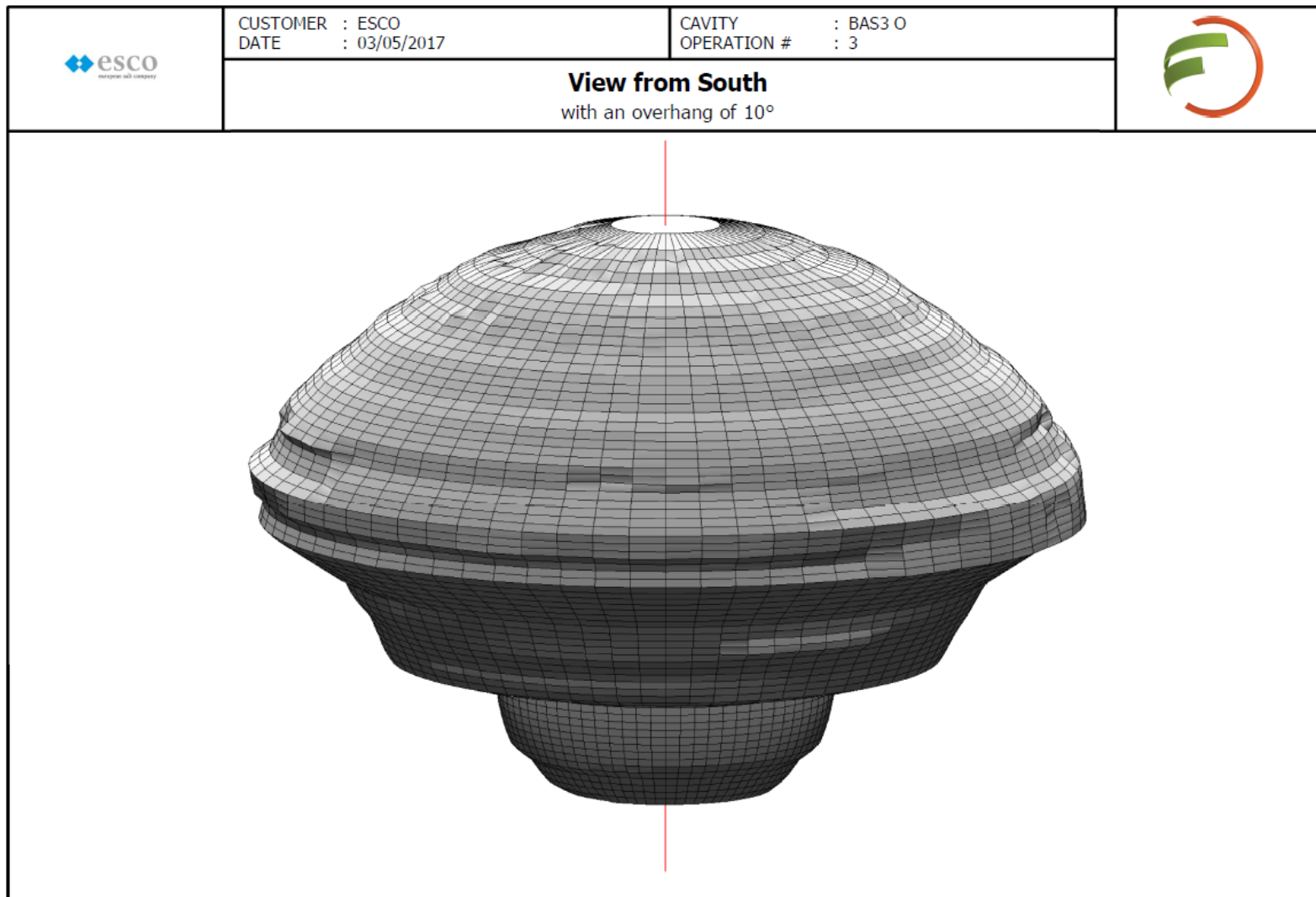


Sonar measurement

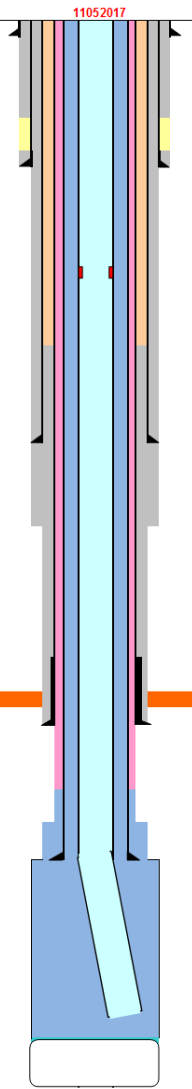


BAS-30

Sonar measurement



BAS-4

Nr.	Item Description	Wellhead and Xmastree BAS 4	Depth GL	Depth GL	Hole ID	Pipe OD	Collar OD	Pipe ID
			m tvd	m ah	in	in	in	in
1	28" x 1" X 52E conductor shoe		15	15	driven	28,000	welded	28,000
2	7" 29 ppf N80 VAM TOP inner leaching string, internally coated		139	139				
3	7" 26 ppf L80/N80Q VAM TOP inner leaching string, internally coated		168	168				
4	7" 29 ppf N80 VAM TOP inner leaching string, internally coated		405	405				
5	24" x 1/2" WT 35 ksi conductor, welded		279	279	26,00	24,000	welded	23,000
6	7" wireline profile 5.75" Otis 'RPT'		778	778				5,75
7	Top cement in 18 5/8" x 13 3/8" annulus		916	916				
8	18 5/8" 87.5 ppf K55 Big Omega casing		1126	1126	22,00	18,625	20,000	17,688
9	13 3/8" 68 ppf P110 VAM-TOP casing		1980	1980	16,00	13,375	14,375	12,415
10	14" heavy wall VAM TOP 106 ppf N80 EM (Oct 2015, Roof = 2478m) Mar 2012, Not possible to inject more diesel below 2496m -> indicating leak at that point in 11 3/4" connection. BM 21-02-2017, (2472.5 m)		2382 2410	2382 2410	16,00	14,000	14,000	12,500
11	11 3/4" 65 ppf VM 80HC, VAM F.J.L. outer leaching string, internally coated Observed HUD in 7" with Camera (11-May-2017)		2473 2508 2509	2473 2508 2509	17 1/2"	11,750	11,965	10,682
12	29-9-2016: observed unusual CCL and inclination results (0-3 degrees) from 2530m to 2543m		2530	2530				
13	7" 26 ppf N80 VAM TOP inner leaching string, internally coated.		2636	2636	17 1/2"	7,000	7,375	6,276
	Sump level Oct 2015 (EM)		2653	2653				
	Total Depth Cavern		2810	2810				

Remarks

- Leaking 'pekelleiding' repaired
- Production to restart after approval SodM
- Production to fit factory requirements
- HUD observed during WL operations
- No access to cavern
- Last (partial) sonar measurement on 7 October 2016. Estimated volume: 880.567 m³
- Current estimated cavern volume: 982.045 m³

Planned

- Continue direct leaching
- Workover October 2017
- Sonar measurement
- Blanket measurement: every 6 months
- Increase back-pressure

March 2017

6-10	Injection stop due to condensate supply stop
14, 15, 26, 27	Injection stop due to condensate supply stop
27-31	Neckwash operations

June 2017

1-30	Production / injection stop due to leakage in brine flow line
1-10	Repair brine flow line, pressure sensors 7" and 10 ¾" isolated
26	Displace 11 ¾" x 7" annulus with fresh water

April 2017

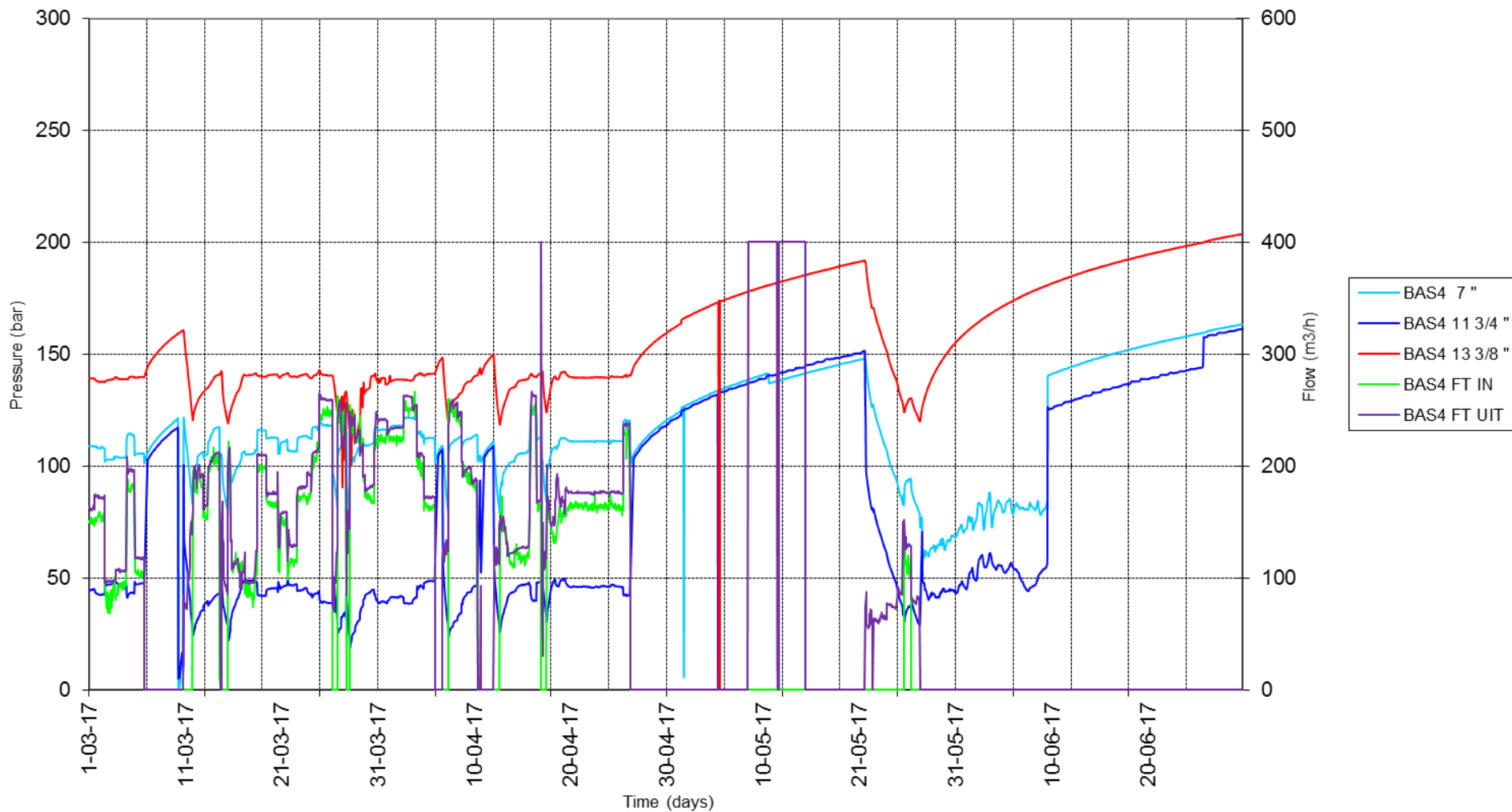
6, 11, 17	Injection stop due to condensate supply stop
25	Injection/production stop due to factory maintenance

May 2017

1-21	Injection/production stop due to factory maintenance
2, 11	Wireline operations
6, 12	Power outage (electricity maintenance)
21-25	Reduce cavern pressure in order to start injection pump
26	Injection stop due to broken break disk
27	Stop production in order to repair leak in brine flow line

BAS-4

Trends BAS-4



BAS-4

Cavern end volume

Current volume $\pm 980.000 \text{ m}^3$ (based on volume balance)

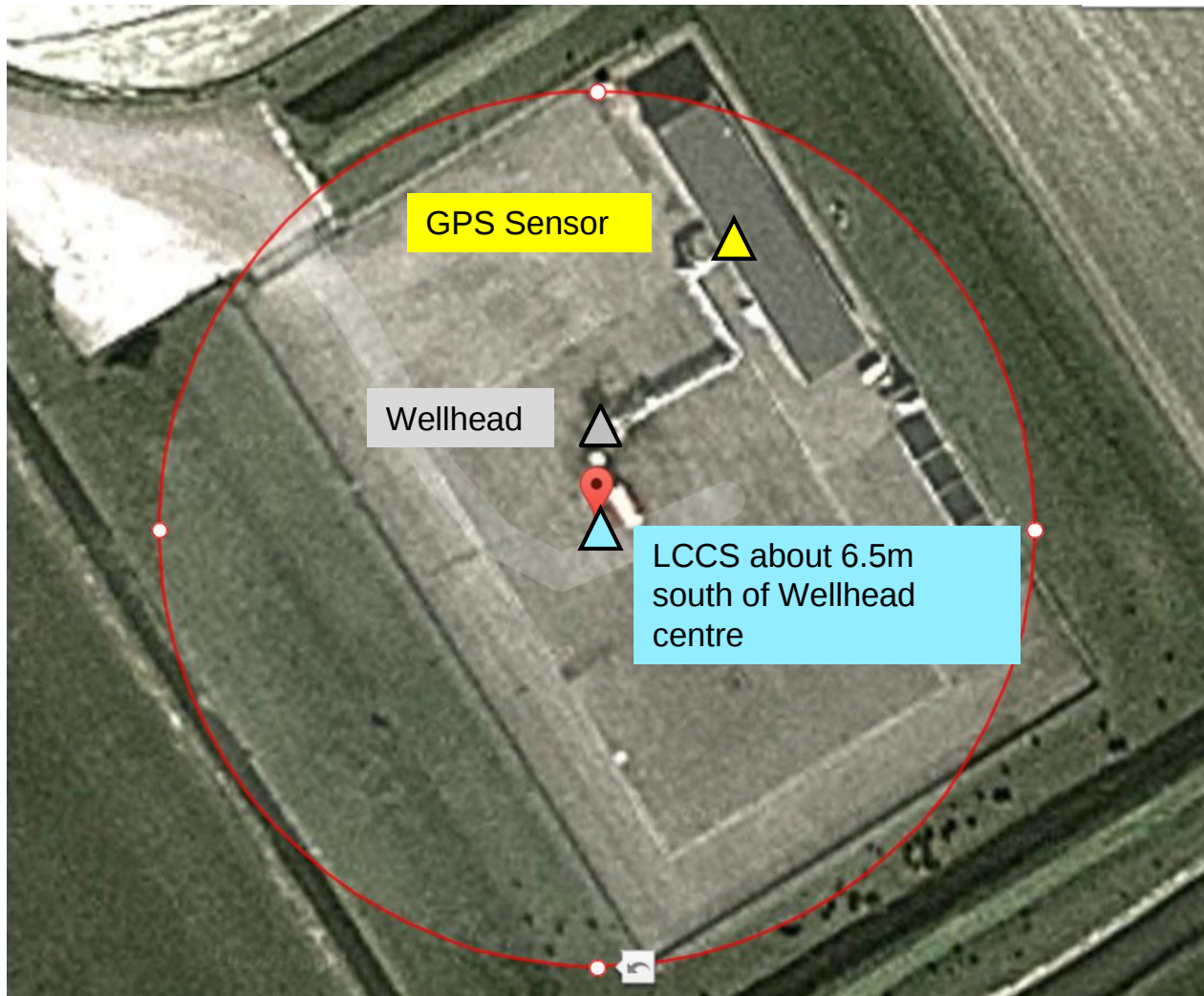
Wipla: indicative cavern volume of 500.000-1000.000m³

Winningsplan (Barradeel II):	300 mm
Current GPS:	267,3 mm
Subsidence above the cavern:	270,5 mm*

From December 2017/January 2018 onwards: High pressure Low volume production

**Based on analysis described in “Uitvoering M&R 2015”*

GPS BAS-4, Top view Cavern



2470519,35

53.224690,3

53.22469N;

3270225,69

4070111,55

4870338,96

270245,334

W2799/324

W2799/323

50

-2

Umrechnen

Dezimal- u

☐ deutsch

☒ englisch

Kartierarten

☒ Kartier

Rasterteilung

☒ Minute

☐ Quadrat

☐ Quadrat

Orte finden

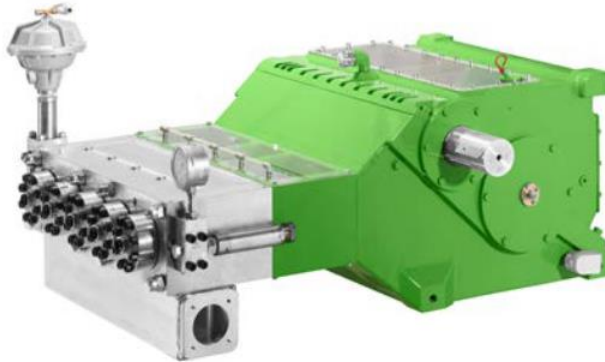
M&R Barradeel II Oct2015

Reference	Type	Difference to "Nulmeting"	Autonomous Subsidence included?
Hoogtemerk 102	Measured	245,0 mm	Yes
Hoogtemerk 103	Measured	246,0 mm	Yes
GPS Station	Measured	236,0 mm	No
Max. Subsidence	Modelled	256,6 mm	Yes

1. Autonomous subsidence around BAS-4 location: 0,7 mm p.a.
2. Difference 102/103 vs. GPS: 1,2 mm p.a.
✓ Delta of 0,5 mm p.a. (500 µm)

In case of BAS-4, the continuous GPS measurement provides the best control of the subsidence above the cavern (deepest point).
Hoogtemerk 102/103 to be used for GPS confirmation.

Operating BAS-4: 2018 - 2021



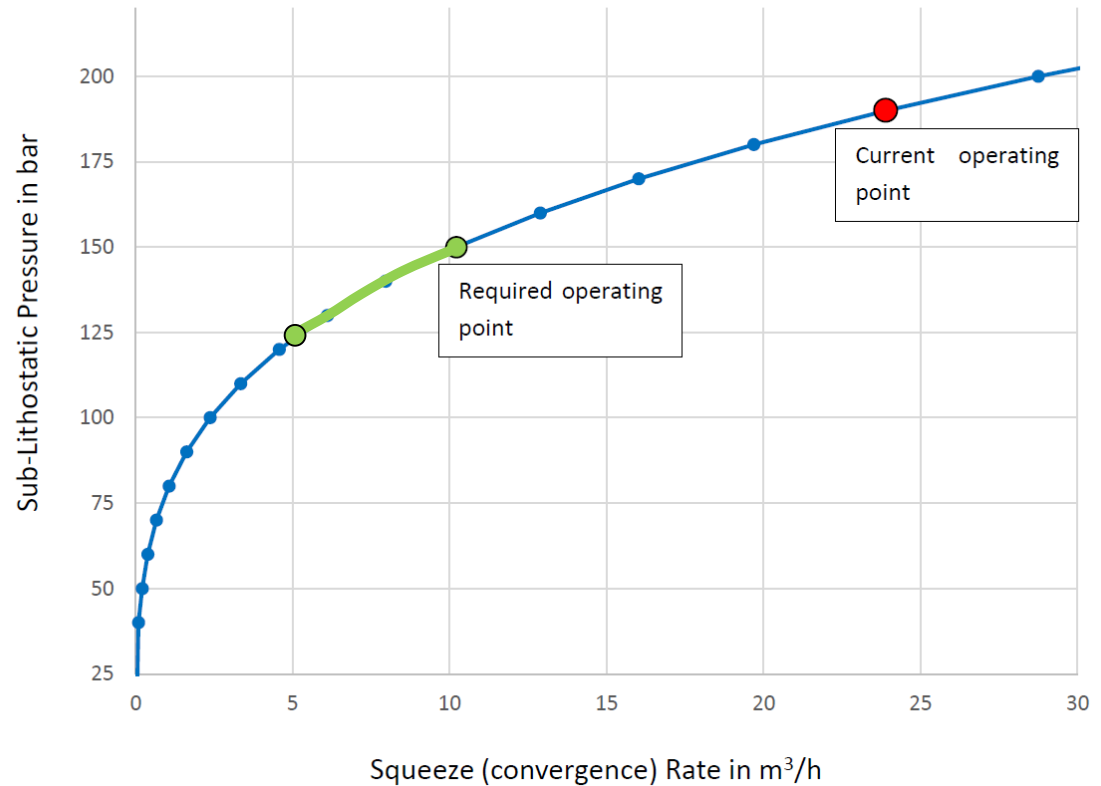
Typ/Marke	:Kamat horizontale, 5-Zylinder Hochdruck-Kolbenpumpe K80095MCII 1.4462 Duplex.
Ertrag	: Q = 2.182 L/min
Arbeitsdruck max.	: P= 190 bar
Medium	: Salzwasser
Max Temperatur des Mediums	: 50° C
Vordruck	: min. 2,0 bar
Zulässige Leistung	: N = 800 kW/1.088 PS
Aufgenommene Last	:P= 800 kW/1.088 PS

- Target: further reduction of current subsidence rate from 1,5 cm p.a. to 0,5 – 0,8 cm p.a.
- Subsidence rate depends primarily on pressure deficit cavern/formation
- Average cavern operating pressure to be increased by ca. 50 bar
- Not possible with existing injection pump, new pump operational in Q4 2017/Q1 2018

High pressure, low production

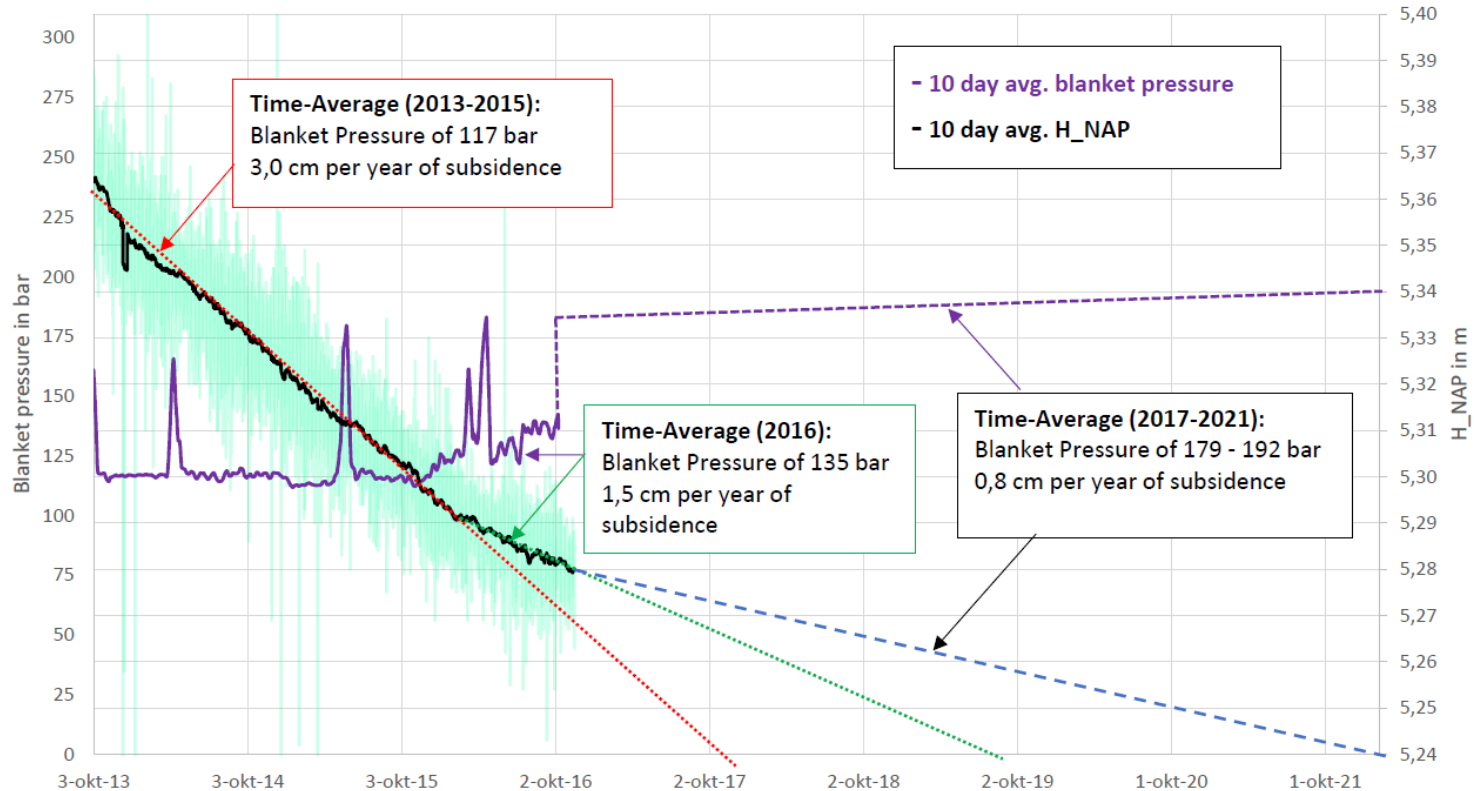
Squeeze (convergence) rate as function of sub-lithostatic pressure

- Reduced convergence/subsidence causes cavern volume growth
- Reduction of production rate from 250 m³/h to ca. 125 m³/h
- Moderate cavern growth during remaining 4 years to ~1.3 million m³ final cavern volume



BAS-4 Subsidence forecast (schematic)

BAS-4 Subsidence vs. Blanket Pressure



Subsidence above BAS-4 (schematic)

Barradeel II - BAS-4

Current Subsidence Margin (GPS)	3,30	cm
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Current Date	1-7-2017
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End Date LOP	31-12-2017
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Duration	0,5	a
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Subsidence rate LOP	1,6	cm/a
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Subsidence Margin @ End Date LOP	2,50	cm
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Start Date HOP	1-1-2018
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End Date HOP	31-12-2021
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Duartion	4,0	a
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Subsidence rate HOP	0,6	cm/a
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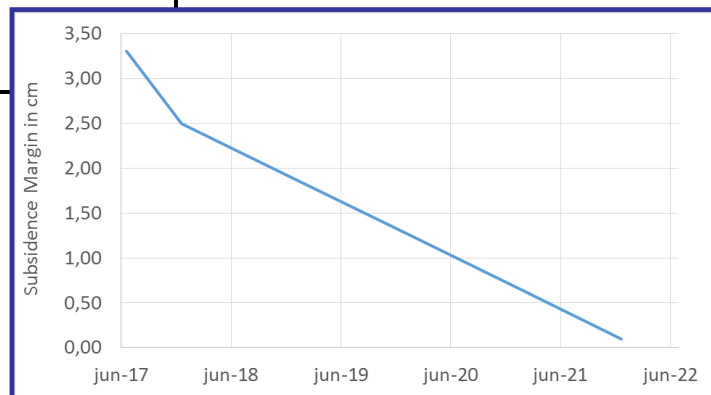
Subsidence Margin @ End Date HOP	0,10	cm
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HOP: High pressure operation

LOP: Low pressure operation

- Continuous GPS monitoring

Date	Subsidence Margin (cm)
1-7-2017	3,30
31-12-2017	2,50
31-12-2018	1,90
31-12-2019	1,30
31-12-2020	0,70
31-12-2021	0,10



Salt extraction until 2022 (estimate)

Salt extraction Barradeel II

Cumulative production to date	11.500.000
<u>Cumulative production till 31/12/2021</u>	<u>16.000.000</u>

Cavern	BAS-3-O	BAS-4	BAS-3-O + BAS-4
Remaining production in 2017	325.905	307.458	633.363
2018	657.200	310.000	967.200
2019	657.200	310.000	967.200
2020	657.200	310.000	967.200
2021	657.200	310.000	967.200
Total	2.950.000	1.550.000	4.500.000

All values in metric tones

- Barradeel II extraction limit of 16.800.000 tones
- Nearly 800.000 tones will be left behind

Cavern Volume (estimate)

Estimated Cavern Endvolume

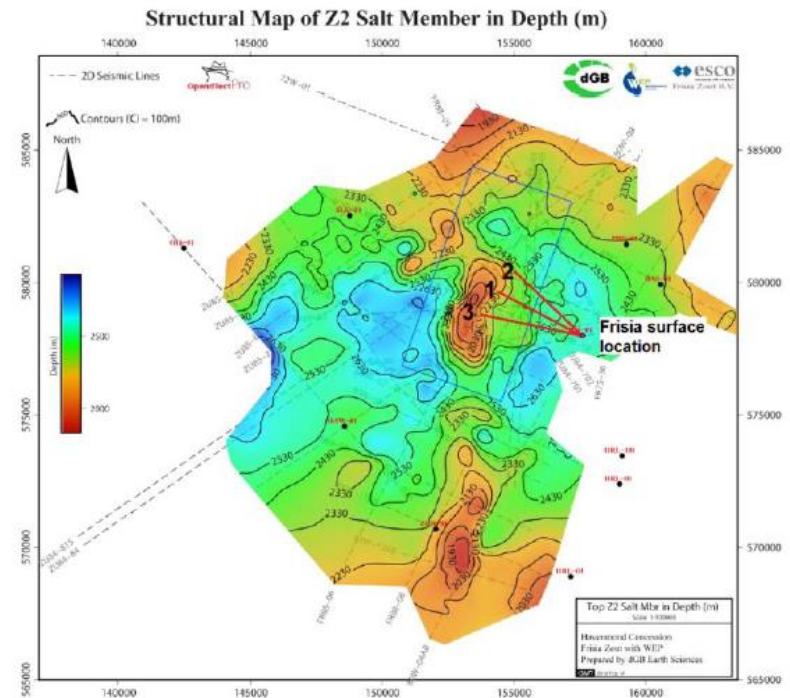
Production rate	125 m ³ /h
NaCl saturation	310 kg/m ³
Operating hours	8.000 h
Salt production p.a.	310.000.000 kg
Salt production p.a.	143.519 m ³
Convergence rate	8 m ³ /h
Convergence volume p	70.080 m ³
Cavern growth p.a.	73.439 m ³

Remaining years	4 a
Growth till 31/12/2021	293.754 m ³
Current volume	980.000 m ³
End Volume	1.273.754 m ³

- To be considered in P&A concept!

Havenmond

- Nulmeting can start, install poles Q1 2018, licenses recieved
- Geological study by dGB
- Alternative blanket fluid, under investigation
- Finalize engineering end 2017
- Start drilling end 2018



Waterpassing

M&R

➤ Addendum autonome bodemdaling bij uitvoering beeheerscyclus M&R protocol 2015

- BAS-12 ± 1.0 mm/year
- BAS-30 ± 2.8 mm/year
- BAS-4 ± 0.7 mm/year.

➤ Next measurements September 2017

➤ Subsidence winningsplan:

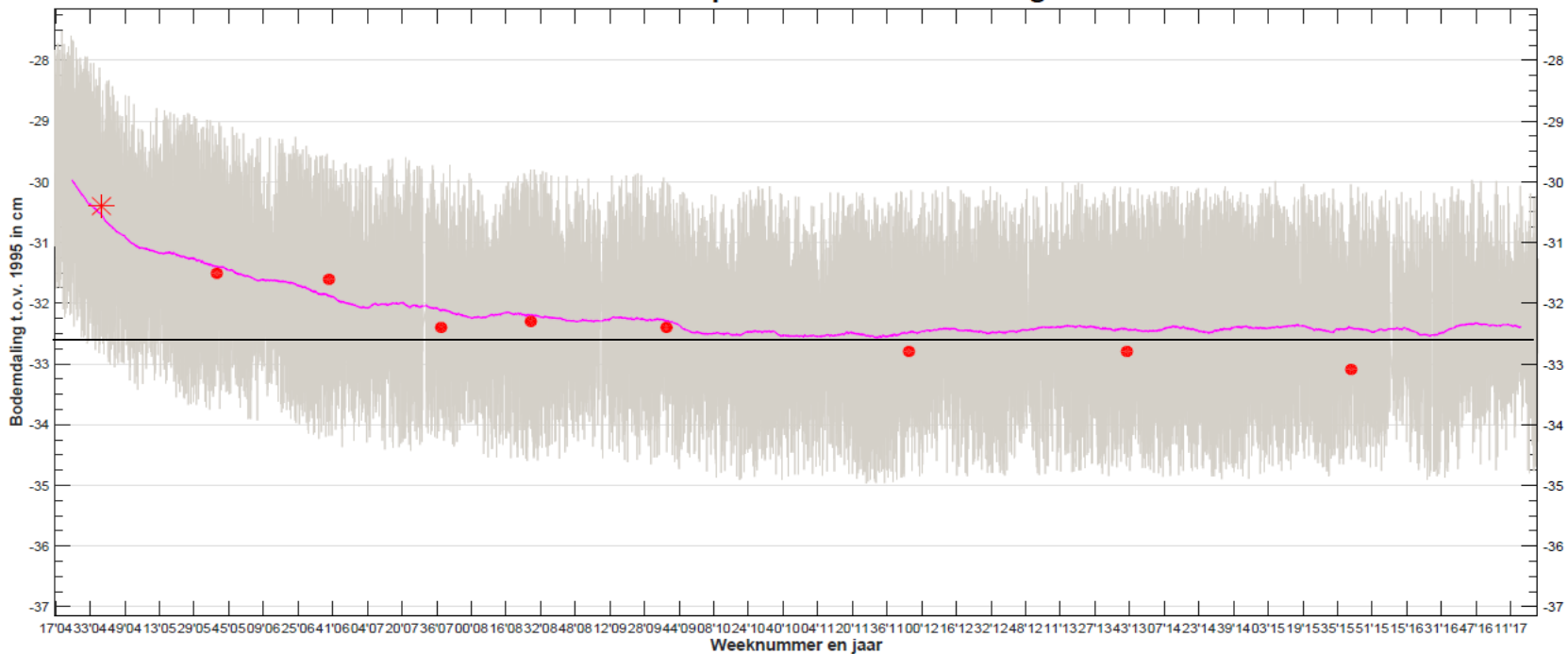
	BAS-30	BAS-4
➤ Winningsplan (Barradeel II):	300 mm	300 mm
➤ Current GPS:	165,3 mm	267,3 mm
➤ Subsidence above the cavern:	211,8 mm	270,5 mm
➤ Subsidence / year current:	3,5 mm/y	16,5 mm/y

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* Based on full previous year

GPS BAS 1/2

Bodemdaling GPS station Barradeel*
Resultaten uit permanente GPS meting***



- Moving Average 16 weken
- Gemeten bodemdaling
- * Week 40 2004 = -30.4 cm**
- Week 40 2005 = -31.5 cm**
- Week 40 2006 = -31.6 cm**

- Week 40 2007 = -32.4 cm**
- Week 29 2008 = -32.3 cm**
- Week 40 2009 = -32.4 cm**
- Week 47 2011 = -32.8 cm**
- week 44 2013 = -32.8 cm**
- week 43 2015 = -33.1 cm**

* Op basis van WEP Analyse WP 2015 bedraagt in 2015 daling van diepste punt in winningsvergunning Barradeel 1,65 cm meer dan daling van GPS-station Barradeel.

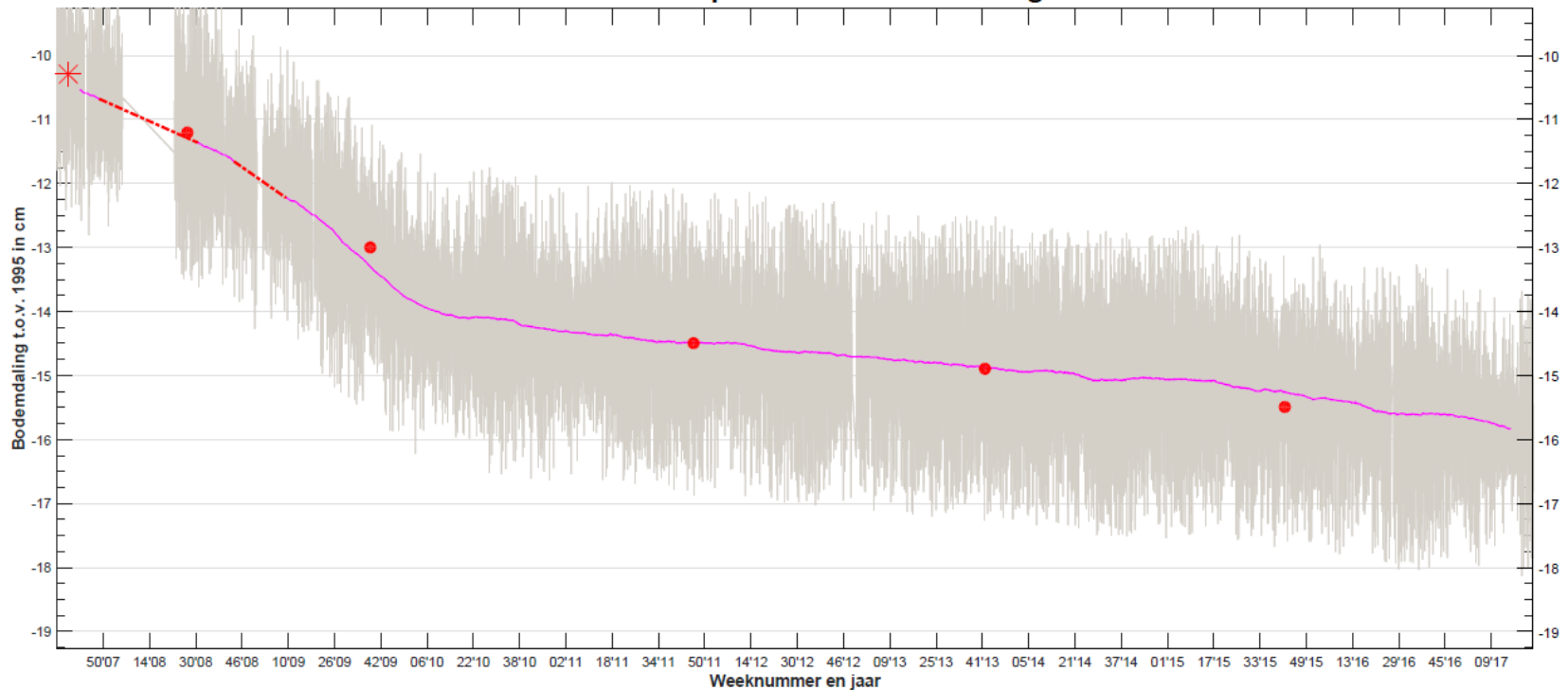
** Daling GPS station berekend uit "best fit" dalingskommen. (ref. WP 2015 Zweins, glijdende PM, 3 kommen v1.2- Dkrit 13 mm, gamma 4,3)

*** GPS is een relatieve meting tussen station Barradeel en het station te Zweins. De relatieve GPS meting is gekoppeld aan de absolute daling vastgesteld in WP 2004 (rode ster)

Bleed-off volume BAS-1: 28.000 m³ since Jan 2011

GPS BAS 3/30

Bodemdaling Barradeel II GPS station BAS-3* & BAS-3-O
Resultaten uit permanente GPS meting***



- * week 40 2007 = -10.3 cm**
- week 29 2008 = -11.2 cm**
- week 40 2009 = -13.0 cm**
- week 47 2011 = -14.5 cm**
- week 44 2013 = -14.9 cm**
- week 43 2015 = -15.5 cm**

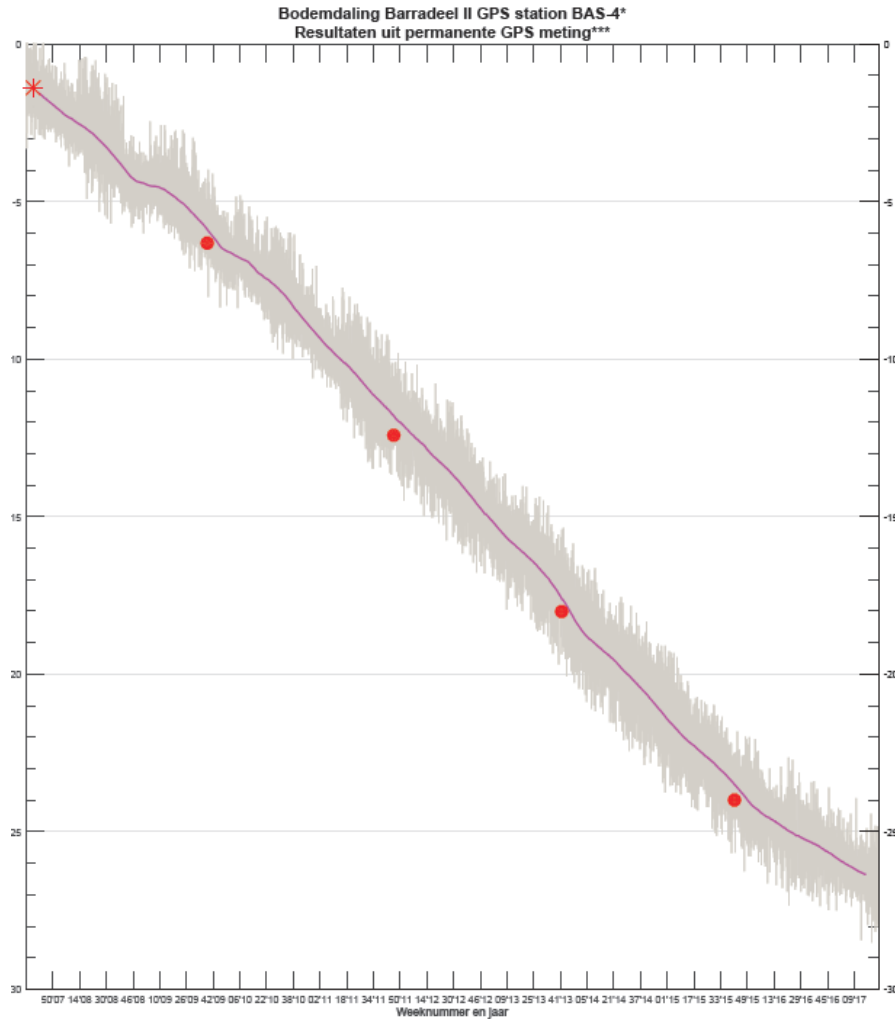
— Gemeten bodemdaling
— uitval verbinding
— Moving Average 16 weken

* Op basis van WEP Analyse WP 2015 bedraagt in 2015 bodemdaling boven caveerne BAS-3 1,95 cm meer dan daling van GPS-station BAS-3.

** Daling GPS station berekend uit "best fit" dalingskommen. (ref. WP 2015 Zweins, glijdende PM, 3 kommen v1.2- Dkrit 13 mm, gamma 4,3)

*** GPS is een relatieve meting tussen station BAS-3 en het station te Zweins. De relatieve GPS meting is gekoppeld aan de absolute daling vastgesteld in WP 2007 (rode ster)

GPS BAS-4



- * week 40 2007 = -1.4 cm**
- week 40 2009 = -6.3 cm**
- week 47 2011 = -12.4 cm**
- week 44 2013 = -18.0 cm**
- week 43 2015 = -24.0 cm**

— Gemeten bodemdaling
— Moving Average 16 weken

* Op basis van WEP Analyse WP 2015 bedraagt in 2015 bodemdaling boven caveerne BAS-4 0,3 cm meer dan daling van GPS-station BAS-4.

** Daling GPS station berekend uit "best fit" dalingskrommen. (ref. WP 2015 Zwiens, glijdende PM, 3 krommen v1.2-Dirkt 13 mm, gamma 4,3)

*** GPS is een relatieve meting tussen station BAS-4 en het station te Zwiens. De relatieve GPS meting is gekoppeld aan de absolute daling vastgesteld in WP 2007 (rode ster)

GPS logbook

6-7-2016	Alle	Defect station Zweins geen processing mogelijk van 6 juli tot 12 juli.
12-9-2016	BAS1	Onderbreking dataontvangst BAS12 van 12 tot 16 september.
5-9-2016	BAS4	Onderbreking dataontvangst BAS4 op 5 en 6 september 27 uren.

*no new entries in the logbook since
September 2016

Special topics

- Update M&R 2015

- To be submitted by FRISIA, discussion held with .

- Second opinion abandonment, review by recieved 31may

- FRISIA is reviewing second opinion

- Conclusions:

- Very small risk of strong subsidence, contamination of groundwater, sinkholes or significant seismic events.

- Wide range of uncertainty on migration rates from cavern into Buntsandstein

- Investigation into injection Frimakal into BAS-1

- Discussion with Akzo

Special topics

- Study into safety regulations “gushing wells” for salt wells
 - Implemented feedback SODM-FRISIA meeting
 - Dutch summary/conclusion
 - Height fountain
 - Wellhead design
 - Havenmond outflow

WVTTK

SODM visit FRISIA, explanation details salt leaching

Risk assesment salt industry

Next meeting 19th of October 2017, 10:00-15:00 SODM