It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator		Date	1-Apr-21			
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calib	ration Record	1-Jun-21		
Model No.:	LD-5R						
Serial No.:	972778						
Equipment No.:	SA-01-07	Sensitivity	0.001 mg/m3	_			
High Volume Sa	ampler No.: <u>A-01-03</u>	Before Sensiti	vity Adjustment	735 CPM			
Tisch Calibration Orifice No.: 3864 After Sensit			ity Adjustment	735 CPM			
	Ca	libration of 1 h	r TSP				
Calibration	Laser Dust Monitor	r		HVS			
Point	Point Mass Concentration (µg/m3) X-axis			Mass concentration (µg/m <sup>3</sup> ) <b>Y-axis</b>			
1	52.0			108.0			
2	48.0			103.0			
3	41.0			96.0			
Average	47.0			102.3			
By Linear Regr Slope , mw = Correlation co	ression of Y on X 	Intere	cept, bw = -	51.5430			
	Se	t Correlation F	actor				
Particaulate Con	centration by High Volume Sampler	$(\mu g/m^3)$	ļ	102.3			
Particaulate Con	centration by Dust Meter ( $\mu g/m^3$ )		ļ	47.0			
Measureing time	e, (min)			60.0			
Set Correlation I	Factor, SCF						
SCF = [ K=Hig	h Volume Sampler / Dust Meter, (μ	g/m3) ]	2.2				

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: \_\_\_\_\_\_\_\_\_ Wong Shing Kwai

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator	Date	1-Apr-21		
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibi	ration Record	1-Jun-21
Model No.:	LD-5R				
Serial No.:	972779				
Equipment No.:	SA-01-08	Sensitivity	0.001 mg/m3	-	
High Volume Sa	ampler No.: <u>A-01-03</u>	Before Sensiti	vity Adjustment	744 CPM	
Tisch Calibration	n Orifice No.: <u>3864</u>	After Sensitivi	ity Adjustment	744 CPM	
	Ca	libration of 1 h	r TSP		
Calibration	Laser Dust Monitor	r		HVS	
Point	Mass Concentration (µg/ X-axis	′m3)	Mass concentration (µg/m <sup>3</sup> ) <b>Y-axis</b>		
1	54.0			108.0	
2	49.0			103.0	
3	43.0			96.0	
Average	48.7			102.3	
By Linear Regr Slope , mw = Correlation co	ression of Y on X 	Interd	cept, bw =	49.1209	
	Se	t Correlation F	actor		
Particaulate Con	centration by High Volume Sampler	$(\mu g/m^3)$		102.3	
Particaulate Con	centration by Dust Meter ( $\mu g/m^3$ )			48.7	
Measureing time	e, (min)			60.0	
Set Correlation I	Factor, SCF				
SCF = [ K=Hig	h Volume Sampler / Dust Meter, (µ	g/m3) ]	2.1		

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Approved by: <u>lemy Xray</u> Henry Leung

Calibrated by: Wong Shing Kwai

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator	Date	1-Apr-21		
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibi	ration Record	1-Jun-21
Model No.:	LD-5R				
Serial No.:	972780				
Equipment No.:	SA-01-09	Sensitivity	0.001 mg/m3	-	
High Volume Sa	ampler No.: A-01-03	Before Sensiti	vity Adjustment	739 CPM	
Tisch Calibratio	n Orifice No.: <u>3864</u>	After Sensitivi	ity Adjustment	739 CPM	
	Ca	libration of 1 h	r TSP		
Calibration	Laser Dust Monitor	r		HVS	
Point	Mass Concentration (µg/ X-axis	′m3)	Mas	ss concentration (µ <u>Y-axis</u>	g/m <sup>3</sup> )
1	51.0			108.0	
2	46.0			103.0	
3	42.0			96.0	
Average	46.3			102.3	
By Linear Regr Slope , mw = Correlation co	ression of Y on X 	Intere	cept, bw = -	41.1885	
	Se	t Correlation F	actor		
Particaulate Con	icentration by High Volume Sampler	(μg/m <sup>3</sup> )	ļ	102.3	
Particaulate Con	icentration by Dust Meter (µg/m <sup>3</sup> )		ļ	46.3	
Measureing time	e, (min)			60.0	
Set Correlation I	Factor, SCF				
SCF = [ K=Hig	h Volume Sampler / Dust Meter, (µ	g/m3) ]	2.2		

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: \_\_\_\_\_\_\_\_\_ Wong Shing Kwai

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	Digital Dust Indicator	Date of Calibration <u>1-Apr-2</u>				
Manufacturer:	Sibata Scientific Technology LTD.	_	Validity of Calibi	ration Record	1-Jun-21	
Model No.:	LD-5R					
Serial No.:	972781					
Equipment No.:	SA-01-10	Sensitivity	0.001 mg/m3	<u>.</u>		
High Volume Sa	ampler No.: <u>A-01-03</u>	Before Sensiti	vity Adjustment	734 CPM		
Tisch Calibratio	n Orifice No.: <u>3864</u>	After Sensitivi	ity Adjustment	734 CPM		
	Ca	libration of 1 h	r TSP			
Calibration	Laser Dust Monitor	r		HVS		
Point	Mass Concentration (µg/	/m3)	Mas	ss concentration (µ	g/m <sup>3</sup> )	
	X-axis			Y-axis		
1	60.0		108.0			
2	52.0			103.0		
3	41.0			96.0		
Average	51.0			102.3		
By Linear Reg	ession of Y on X					
Slope, mw =	0.6319	Interc	cept, bw =	70.1081		
Correlation co	oefficient* = <u>1.0000</u>					
	Se	et Correlation F	actor			
Particaulate Con	centration by High Volume Sampler	$(\mu g/m^3)$		102.3		
Particaulate Con	centration by Dust Meter ( $\mu$ g/m <sup>3</sup> )			51.0		
Measureing time	e, (min)			60.0		
Set Correlation	Factor, SCF					
SCF = [ K=Hig	h Volume Sampler / Dust Meter, (μ	g/m3) ]	2.0			

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: \_\_\_\_\_\_\_ Wong Shing Kwai



#### File No. MA16034/05/0029

Project No.	AM1 - Tin Hau	ı Temple					
Date:	10-2	Apr-21	Next Due Date:	10-Jun-21	Operator:	SK	
Equipment No.:	A-	01-05	Model No.:	GS2310	Serial No.	10599	
			Ambient Condit	ion			
Temperatu	ıre, Ta (K)	292.8	Pressure, Pa (mml	Hg)	764.9		

Orifice Transfer Standard Information								
Serial No.	3864	Slope, mc	0.05846	Intercept, bc	-0.00313			
Last Calibration Date:	Last Calibration Date: 11-Jan-21 mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$							
Next Calibration Date:	11-Jan-22		Qstd = {[∆H x	$(Pa/760) \ge (298/Ta)]^{1/2} -bc\} /$	mc			

	Calibration of TSP Sampler						
Calibration		Orfice			HVS		
Point	ΔH (orifice), in. of water	$[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$\frac{[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}}{Y-axis}$		
1	13.0	3.65	62.47	8.9	3.02		
2	9.4	3.10	53.13	6.4	2.56		
3	7.5	2.77	47.47	4.8	2.22		
4	4.8	2.22	37.98	3.1	1.78		
5	2.5	1.60	27.43	1.9	1.40		
Slope , mw = Correlation	0.0469 coefficient* =	0.9965	Intercept, bw = -	0.051	6		
*If Correlation C	Coefficient < 0.990	0, check and recalibrate.					
From the TSD E	ald Calibration C	Set Point C	alculation				
From the Deeree		urve, take Qstu – 45 CFIVI					
From the Regres	sion Equation, the	• Y Value according to		1/2			
		$\mathbf{m}\mathbf{w} \mathbf{x} \mathbf{Q}\mathbf{s}\mathbf{t}\mathbf{a} + \mathbf{b}\mathbf{w} = [\Delta \mathbf{w} \mathbf{x}]$	(Pa/760) X (29	98/1a)]			
Therefore, Se	et Point; W = ( my	$(x + y + y)^{2} x (760 / Pa) x (760 / Pa)$	Ta / 298 ) =	4.18			
Remarks:							
Conducted by:	SK Wong	Signature:	,		Date: 10 April 2021		
Checked by:	Henry Leung	Signature:	~~~7		Date: 10 April 2021		

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292.8

Temperature, Ta (K)



764.9

#### File No. MA16034/08/0029

Project No.	AM2 - Sai Tso Wan Recreat	tion Ground				
Date:	10-Apr-21	Next Due Date:	10-Jun-21	Operator:	SK	
Equipment No.:	A-01-08	Model No.:	GS2310	Serial No.	1287	
		Ambient Condit	ion			

Pressure, Pa (mmHg)

Orifice Transfer Standard Information								
Serial No.	3864	Slope, mc	0.05846	Intercept, bc	-0.00313			
Last Calibration Date:	Last Calibration Date: 11-Jan-21 mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$							
Next Calibration Date:	11-Jan-22		$Qstd = \{ [\Delta H x] \}$	(Pa/760) x (298/Ta)] <sup>1/2</sup> -bc} /	mc			

	Calibration of TSP Sampler						
Calibration		Orfice			HVS		
Point	$\Delta H$ (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	[ΔW x (P	Pa/760) x (298/Ta)] <sup>1/2</sup> Y-axis	
1	13.1	3.66	62.71	8.8		3.00	
2	9.9	3.18	54.53	6.2		2.52	
3	7.8	2.83	48.40	4.8		2.22	
4	4.9	2.24	38.38	3.2		1.81	
5	2.9	1.72	29.54	1.9		1.40	
Slope , mw = Correlation *If Correlation C	0.0474 coefficient* = Coefficient < 0.99	0.9974 0, check and recalibrate.	Intercept, bw = _	-0.024	18	_	
		Set Point C	alculation				
From the TSP Fi	ield Calibration C	urve, take Qstd = 43 CFM					
Therefore, So	et Point; W = ( my	$\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x}]$ w x Qstd + bw ) <sup>2</sup> x ( 760 / Pa ) x (	x (Pa/760) x (29 Ta / 298 ) =	98/Ta)] <sup>1/2</sup> 		_	
Remarks:							
Conducted by:	SK Wong	Signature:	- -	-	Date:	10 April 2021	
Checked by:	Henry Leung	Signature:	Xaz		Date:	10 April 2021	

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292.8

Temperature, Ta (K)



764.9

#### File No. MA16034/03/0029

Project No.	AM3 - Yau Lai Estate, Bik	Lai House				
Date:	10-Apr-21	Next Due Date:	10-Jun-21	Operator:	SK	
Equipment No.:	A-01-03	Model No.:	GS2310	Serial No.	10379	
		Ambient Condit	tion			

Pressure, Pa (mmHg)

Orifice Transfer Standard Information								
Serial No.	3864	Slope, mc	0.05846	Intercept, bc	-0.00313			
Last Calibration Date:	Last Calibration Date: 11-Jan-21 mc x Qstd + bc = $[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$							
Next Calibration Date:	11-Jan-22		$Qstd = \{ [\Delta H x] \}$	$(Pa/760) \ge (298/Ta)]^{1/2} -bc\} /$	mc			

Calibration of TSP Sampler								
Calibratica		Orfice			HVS			
Point	$\Delta H$ (orifice), in. of water	$[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	[ΔW x (Pa	/760) x (298/Ta)] <sup>1/2</sup> Y-axis		
1	13.0	3.65	62.47	8.7		2.99		
2	9.6	3.14	53.69	6.5		2.58		
3	7.8	2.83	48.40	5.3		2.33		
4	5.2	2.31	39.53	3.5		1.89		
5	2.6	1.63	27.97	2.0		1.42		
Slope , mw = Correlation *If Correlation C	Slope , mw =0.0456       Intercept, bw :0.1244         Correlation coefficient* =0.9993         *If Correlation Coefficient < 0.990, check and recalibrate.							
		Set Point C	alculation					
From the TSP Fr	ield Calibration C	urve, take Qstd = 43 CFM						
From the Regres	sion Equation, the	$\mathbf{w} \mathbf{x} \mathbf{Q} \mathbf{s} \mathbf{t} \mathbf{d} + \mathbf{b} \mathbf{w} = [\Delta \mathbf{W} \mathbf{x}]$	x (Pa/760) x (29	98/Ta)] <sup>1/2</sup>				
Therefore, So	et Point; w – ( mv	x = 0 ( $x = 0$ ) $x = 0$ ( $x = 0$ ) $x = 0$	14 / 298 ) -	4.25				
Remarks:								
Conducted by:	SK Wong	Signature:			Date:	10 April 2021		
Checked by:	Henry Leung	Signature:	Xon		Date:	10 April 2021		

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292.8

Temperature, Ta (K)

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764.9

File No. MA16034/54/0029

Project No.	AM4(A) - Cha Kwo Ling Pu					
Date:	10-Apr-21	Next Due Date:	10-Jun-21	Operator:	SK	
Equipment No.:	A-01-54	Model No.:	TE-5170	Serial No.	1536	
		Ambient Condit	ion			

Pressure, Pa (mmHg)

Orifice Transfer Standard Information							
Serial No.         3864         Slope, mc         0.05846         Intercept, bc         -0.00313							
Last Calibration Date:	Last Calibration Date: 11-Jan-21 $mc x Qstd + bc = [\Delta H x (Pa/760) x (298/Ta)]^{1/2}$						
Next Calibration Date: 11-Jan-22 $Qstd = \{[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2} - bc\} / mc$							

Calibration of TSP Sampler								
Calibration		Orfice			HVS			
Point	$\Delta H$ (orifice), in. of water	$[\Delta H x (Pa/760) x (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	[ΔW x (F	Pa/760) x (298/Ta)] <sup>1/2</sup> Y-axis		
1	13.2	3.68	62.95	8.9		3.02		
2	9.9	3.18	54.53	6.4		2.56		
3	7.5	2.77	47.47	5.0		2.26		
4	5.3	2.33	39.91	3.3		1.84		
5	3.0	1.75	30.04	1.9		1.40		
Slope , mw = Correlation *If Correlation C	Slope , mw =0.0493       Intercept, bw :0.1022         Correlation coefficient* =0.9992         *If Correlation Coefficient < 0.990, check and recalibrate.							
		Set Point (	Calculation					
From the TSP Fi	ield Calibration C	urve, take Qstd = 43 CFM						
From the Regres	From the Regression Equation, the "Y" value according to $\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x} (\mathbf{Pa}/760) \mathbf{x} (298/\mathbf{Ta})]^{1/2}$ Therefore, Set Point; W = ( mw x Qstd + bw ) <sup>2</sup> x ( 760 / Pa ) x ( Ta / 298 ) =							
Remarks:								
Conducted by:	SK Wong	Signature:			Date:	10 April 2021		
Checked by:	Henry Leung	Signature:	Xon	_	Date:	10 April 2021		

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File No. MA16034/37/0029

Project No. AM5(A) - Tseung Kwan O DSD Desilting Compound							
Date:	10-2	Apr-21	Next Due Date:	10-J	Jun-21	Operator:	SK
Equipment No.:	A-	01-37	Model No.:	GS	32310	Serial No.	1704
			Ambient Condit	ion			
Temperatu	re, Ta (K)	292.8	Pressure, Pa (mml	Ig)		764.9	

Orifice Transfer Standard Information								
Serial No.         3864         Slope, mc         0.05846         Intercept, bc         -0.00313								
Last Calibration Date:	Last Calibration Date: 11-Jan-21 $\operatorname{mc} x \operatorname{Qstd} + \operatorname{bc} = [\Delta H \times (\operatorname{Pa}/760) \times (298/\operatorname{Ta})]^{1/2}$							
Next Calibration Date: 11-Jan-22 $Qstd = \{ [\Delta H \ x \ (Pa/760) \ x \ (298/Ta) ]^{1/2} - bc \} / mc$								

Calibration of TSP Sampler								
Calibration		Orfice		HVS				
Point	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	$\frac{[\Delta W \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2}}{Y-axis}$			
1	13.1	3.66	62.71	8.9	3.02			
2	9.9	3.18	54.53	6.4	2.56			
3	8.2	2.90	49.63	5.4	2.35			
4	5.4	2.35	40.28	3.3	1.84			
5	3.0	1.75	30.04	2.0	1.43			
By Linear Regr Slope , mw = Correlation *If Correlation C	By Linear Regression of Y on X Slope , mw =0.0488 Intercept, bw :0.0762 Correlation coefficient* =0.9980 *If Correlation Coefficient < 0.990, check and recalibrate.							
		Set Point C	alculation					
From the TSP Fi	eld Calibration Cu	urve, take Qstd = 43 CFM						
From the Regres	From the Regression Equation, the "Y" value according to $\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x} (\mathbf{Pa}/760) \mathbf{x} (298/\mathbf{Ta})]^{1/2}$ Therefore, Set Point; W = ( mw x Qstd + bw ) <sup>2</sup> x ( 760 / Pa ) x ( Ta / 298 ) =							
Remarks:								
Conducted by:	SK Wong	Signature:			Date: 10 April 2021			
Checked by:	Checked by: <u>Henry Leung</u> Signature: <u></u> Date: <u>10 April 2021</u>							

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Temperature, Ta (K)

292.9

File No. MA16034/07/0028

764.7

Project No.	AM6 - Park Central				
Date:	5-Mar-21	Next Due Date:	5-May-21	Operator:	SK
Equipment No.:	A-01-07	Model No.:	GS2310	Serial No.	10592
		Ambient Condit	ion		

Pressure, Pa (mmHg)

Orifice Transfer Standard Information								
Serial No.         3864         Slope, mc         0.05846         Intercept, bc         -0.00313								
Last Calibration Date:	Last Calibration Date: 11-Jan-21 $\operatorname{mc} x \operatorname{Qstd} + \operatorname{bc} = [\Delta H x (\operatorname{Pa}/760) x (298/\operatorname{Ta})]^{1/2}$							
Next Calibration Date: 11-Jan-22 $Qstd = \{[\Delta H \ x \ (Pa/760) \ x \ (298/Ta)]^{1/2} - bc\} / mc$								

Calibration of TSP Sampler								
Colibration		Orfice			HVS			
Point	$\Delta H$ (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)] <sup>1/2</sup>	Qstd (CFM) X - axis	$\Delta W$ (HVS), in. of water	[ΔW x (Pa/760) x (298/Ta)] <sup>1/2</sup> Y-axis			
1	13.0	3.65	62.46	8.2	2.90			
2	8.9	3.02	51.69	5.9	2.46			
3	7.5	2.77	47.45	4.6	2.17			
4	4.6	2.17	37.17	3.1	1.78			
5	3.1	1.78	30.53	2.1	1.47			
By Linear Regr Slope , mw = Correlation ( *If Correlation C	By Linear Regression of Y on X Slope , mw =0.0448Intercept, bw :0.0981 Correlation coefficient* =0.9980 *If Correlation Coefficient < 0.990, check and recalibrate.							
		Set Point C	alculation					
From the TSP Fi	eld Calibration C	urve, take Qstd = 43 CFM						
From the Regres	From the Regression Equation, the "Y" value according to $\mathbf{mw} \mathbf{x} \mathbf{Qstd} + \mathbf{bw} = [\Delta \mathbf{W} \mathbf{x} (\mathbf{Pa}/760) \mathbf{x} (298/\mathbf{Ta})]^{1/2}$ Therefore, Set Point; W = ( mw x Qstd + bw ) <sup>2</sup> x ( 760 / Pa ) x ( Ta / 298 ) =							
Remarks:								
Conducted by:		Signature:			Date:			
Checked by:		Signature:			Date:			



0025247

Customer :		Object 1 :	ST-120 sound calibrator	
Cinotech Consultants Limited		Serial No. /Ref. No. : 181001608		
RM 1710, Technology Park,		Object 2 :		
18 On Lai Street, Shatin, N.T.		Serial No. /Ref. No. :		
Hong Kong				
Customer Code : SVEC09005		Manufacturer : Sour	ndtek	
Date of calibration:	05/11/2020	Certificate No .:	0025247	
Date of the recommended re-calibration:	05/11/2021	Handle by:	E0002	

#### Measuring results

	Reference value	Indication value	Deviation	Allowed deviation	Object
Γ	94.0dB	93.7dB	-0.3dB	+/- 0.3dB	1
	114.0dB	113.6dB	-0.4dB	+/- 0.5dB	1

#### Measuring equipment

index	Calibrator / Master	Traceability	
1	Master Sound Meter, SVAN949,sn:8571	IEC61672	
2	Sound Calibrator, SV30A sn:32580	IEC60942	

#### Ambient conditions

Temperature (20...26)°C Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Level Meter and 1kHz Sound Source -

#### Uncertainty

+/- 0.2 dB for probability not less than 95%.

#### Conformity

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.

5. The calibrations certificate may not be reproduced.

Measured value(s)	within the	e allowable deviation.	
Performed by	1		Approved by
	Celt		l .
Calibration Technici	an	Mr. K.L. Ng	Quality Manager
Appleone Calibration La	boratory Ltd. Rm	1309, 13/F, No.77 Wing Hong St,	Kin, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393



0025249

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong		Object 1 : Serial No. /Ref. No. : Object 2 : Serial No. /Ref. No. :	ST-120 sound calibrator 181001636
Customer Code : SVEC09005		Manufacturer : Sou	ndtek
Date of calibration: Date of the recommended re-calibration:	05/11/2020 05/11/2021	Certificate No.: Handle by:	0025249 E0002

#### Measuring results

	Reference value	Indication value	Deviation	Allowed deviation	Object
Γ	94.0dB	93.7dB	-0.3dB	+/- 0.3dB	1
	114.0dB	113.6dB	-0.4dB	+/- 0.5dB	1

#### Measuring equipment

index	Calibrator / Master	Traceability	
1	Master Sound Meter, SVAN949, sn:8571	IEC61672	
2	Sound Calibrator, SV30A sn:32580	IEC60942	

#### **Ambient conditions**

Temperature (20...26)°C

Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Level Meter and 1kHz Sound Source ...

#### **Uncertainty**

+/- 0.2 dB for probability not less than 95%.

#### **Conformity**

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.

5. The calibrations certificate may not be reproduced.

Measured value(s) within	the allowable deviation.	
Performed by		Approved by
lab		L
Calibration Technician	Mr. K.L. Ng	Quality Manager
Appleone Calibration Laboratory Ltd.	Rm1309, 13/F, No.77 Wing Hong Si	t, Kln, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393



0025917

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T. Hong Kong		Object 1 : Serial No. /Ref. No. : Object 2 : Serial No. /Ref. No. :	B&K4231 sound calibrator 2326353 / N-02-01
Customer Code : SVEC09005		Manufacturer : Bru	el & Kjaer
Date of calibration: Date of the recommended re-calibration:	22/01/2021 22/01/2022	Certificate No.: Handle by:	0025917 E0002

#### Measuring results

Reference value	Indication value	Deviation	Allowed deviation	Object
94.0dB	94.0dB	0.0dB	+/- 0.2dB	1
114.0dB	114.1dB	+0.1dB	+/- 0.2dB	1

#### Measuring equipment

index	index Calibrator / Master	
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

#### Ambient conditions

Temperature (20...26)°C

Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Level Meter and 1kHz Sound Source .

#### **Uncertainty**

+/- 0.2 dB for probability not less than 95%.

#### **Conformity**

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2.The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.

5. The calibrations certificate may not be reproduced.

Measured value(s) within the allowable deviation.

Performed by

Calibration Technician

Approved by

**Quality Manager** 



0025914

Customer :		Object 1 :	SVAN957 SLM
Cinotech Consultants Limited		Serial No. /Ref. No. :	23851 / N-08-12
RM 1710, Technology Park,		Object 2 :	Microphone
18 On Lai Street, Shatin, N.T.		Serial No. /Ref. No. :	43676
Hong Kong			
Customer Code : SVEC09005		Manufacturer : Svar	ntek
Date of calibration:	22/01/2021	Certificate No.:	0025914
Date of the recommended re-calibration: 22/01/2022		Handle by:	E0002

#### **Measuring results**

	Reference value	Indication value	Deviation	Allowed deviation	Object
	94.0dB	93.6dB	-0.4dB	+/- 1.5dB	1
Γ	114.0dB	113 5dB	-0.5dB	+/- 1.5dB	1

#### Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

#### **Ambient conditions**

Temperature (20...26)°C

Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

#### Uncertainty

+/- 0.2 dB for probability not less than 95%.

#### Conformity

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.

5. The calibrations certificate may not be reproduced.

Measured value(s)

the allowable deviation.

Performed by

Calibration Technician

Approved by

Quality Manager



0024993

Customer		Object 1 :	BSWA 308 SLM
Cinotech Consultants Limited		Serial No. /Ref. No. :	570183 / 550233
RM 1710, Technology Park,		Object 2 :	
18 On Lai Street, Shatin, N.T.		Serial No. /Ref. No. :	
Hong Kong			
Customer Code : SVEC09005		Manufacturer: BSV	VAtech
Date of calibration:	07/10/2020	Certificate No .:	0024993
Date of the recommended re-calibration:	07/10/2021	Handle by:	E0002

#### Measuring results

	Reference value	Indication value	Deviation	Allowed deviation	Object
Γ	94.0dB	93.4dB	-0.6dB	+/- 1.5dB	1
	114.0dB	113.2dB	-0.8dB	+/- 1.5dB	1

#### Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949, sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

#### Ambient conditions

Temperature (20...26)°C

Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

#### **Uncertainty**

+/- 0.2 dB for probability not less than 95%.

Appleone Calibration Laboratory Ltd.

#### **Conformity**

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. 5 The calibrations certificate may not be reproduced

5. The calibrations certificate may not be reproduced.

Measured value(s) within the allowable deviation.

Performed by
Calibration Technician Mr. K.L. Ng

Rm1309, 13/F, No.77 Wing Hong St, Kln, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393



0024995

Customer :		Object 1 :	BSWA 308 SLM
Cinotech Consultants Limited		Serial No. /Ref. No. :	570187 / 550841
RM 1710, Technology Park,		Object 2 :	
18 On Lai Street, Shatin, N.T.		Serial No. /Ref. No.	
Hong Kong			
Customer Code : SVEC09005		Manufacturer : BSV	WAtech
Date of calibration:	07/10/2020	Certificate No .:	0024995
Date of the recommended re-calibration:	07/10/2021	Handle by:	E0002

#### Measuring results

	Reference value	Indication value	Deviation	Allowed deviation	Object
Γ	94.0dB	93.1dB	-0.9dB	+/- 1.5dB	1
Г	114.0dB	113.1dB	-0.9dB	+/- 1.5dB	1

#### Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949,sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

#### **Ambient conditions**

Temperature (20...26)°C

Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

#### Uncertainty

+/- 0.2 dB for probability not less than 95%.

#### Conformity

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories. 5.The calibrations certificate may not be reproduced.

Measured value(s)

**Calibration Technician** 

the allowable deviation.

Performed by

Approved by

Mr. K.S. Ng

Quality Manager

Appleone Calibration Laboratory Ltd. Rm1309, 13/F, No.77 Wing Hong St, KIn, HKSAR

Mr. K.L. Ng

Tel: +852 2370 4437 Fax: +852 2114 0393



0024996

Customer : Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T.		Object 1 : Serial No. /Ref. No. : Object 2 : Serial No. /Ref. No. :	BSWA 308 SLM 570188 / 550850
Hong Kong			
Customer Code : SVEC09005		Manufacturer : BSV	VAtech
Date of calibration: Date of the recommended re-calibration:	07/10/2020 07/10/2021	Certificate No.: Handle by:	0024996 E0002

#### Measuring results

	Reference value	Indication value	Deviation	Allowed deviation	Object
Γ	94.0dB	92.9dB	-1.1dB	+/- 1.5dB	1
Γ	114.0dB	112.8dB	-1.2dB	+/- 1.5dB	1

#### Measuring equipment

index	Calibrator / Master	Traceability
1	Master Sound Meter, SVAN949, sn:8571	IEC61672
2	Sound Calibrator, SV30A sn:32580	IEC60942

#### **Ambient conditions**

Temperature (20...26)°C

Humidity (20...60)%RH

#### Measuring procedure

Calibrated by Type 1 Sound Calibrator with Master Sound Level Meter under 1kHz Frequency.

#### Uncertainty

+/- 0.2 dB for probability not less than 95%.

#### **Conformity**

1. The resulted values were those obtained at the time of test and applies only to the item calibrated.

2. The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains

the uncertainty of the measuring procedure and the uncertainty of the measuring system.

3. The equipment being used in this calibration are regularly calibrated by laboratory according to ISO/IEC17025.

4.HKAS has accredited this laboratory (HOKLAS 267) for specific calibration activities as listed in the HOKLAS directory of accredited laboratories.

5. The calibrations certificate may not be	reproduced.	
Measured value(s) within	the allowable deviation.	
Performed by		Approved by
let-		Mr. K.S. Ng
Calibration Technician	Mr. K.L. Ng	Quality Manager
Appleone Calibration Laboratory Ltd.	Rm1309, 13/F, No.77 Wing Hong St	, Kin, HKSAR Tel: +852 2370 4437 Fax: +852 2114 0393



#### APPLICANT: Cinotech Consultants Limited RM 1710, Technology Park, 18 On Lai Street, Shatin, N.T., Hong Kong

Test Report No.:	00092
Date of Issue:	2021-02-26
Date Received:	2021-02-17
Date Tested:	2021-02-17 to
	2021-02-25
Date Completed:	2021-02-26

#### ATTN: Mr. Henry Leung

#### **Certificate of Calibration**

#### Item for calibration

YSI EXO1 Multi-parameter Sonde	Equipment No.: SW-08-166
Manufacturer:	YSI Incorporated, a Xylem brand
Description:	Serial No.
- EXO Optical DO Sensor, Ti	17K101625
- EXO conductivity/Temperature Sensor, Ti	17H103448
- EXO Turbidity Sensor, Ti	17K100333
- EXO pH Sensor Assembly, Guarded, Ti	17B100260

#### **Test conditions:**

Room Temperature Relative Humidity : 22-25 degree Celsius : 35-70%

#### **Test Specifications:**

Performance checking for Conductivity, Temperature, pH, Dissolved oxygen (D.O.) and Turbidity

#### Method reference:

According to manufacturer instruction manual, APHA 23rd Ed 4500-O G

High Precision Chemical Testing Limited Rm 1904, Technology Park, 18 On Lai Street, Shatin, New Territories, Hong Kong



### **Test Report**

#### **Results:**

#### Conductivity performance checking

Expected Reading	Instrument Readings	Acceptance Criteria	Comment
(mS/cm)	(mS/cm)	_	
1332	1298	1265-1399	Pass
6075	6089	5771-6379	Pass
12150	12188	11543-12758	Pass

#### **Temperature performance checking**

Expected Reading (oC)	Instrument Readings (oC)	Acceptance Criteria	Comment
10.7	10.306	±2.0	Pass
25.0	24.953	±2.0	Pass
36.6	36.231	±2.0	Pass

#### pH performance checking

Expected Reading (pH unit)	Instrument Readings (pH unit)	Acceptance Criteria	Comment
4.0	4.11	$4.0 \pm 0.2$	Pass
7.0	7.10	$7.0 \pm 0.2$	Pass
10.0	10.02	$10.0 \pm 0.2$	Pass

#### **D.O.** performance checking

Expected Reading	Instrument Readings (mg/L)	Acceptance Criteria	Comment
0.00	0.15		
7.97	7.88	±0.20	Pass

#### **Turbidity performance checking**

Expected Reading(NTU)	Instrument Readings (NTU)	Acceptance Criteria	Comment
0	0.07		
10	10.76	9.0-11.0	Pass
50	51.34	45.0-55.0	Pass
124	121.17	111.6-136.4	Pass

Remark: "Instrument Readings " presents the figures shown on item under calibration / checking regardless of equipment

precision or significant figures

-----End of Report-----

PREPARED AND CHECKED BY: For and On Behalf of **High Precision Chemical Testing Limited** 

an

Laboratory Director





Certificate of Calibration

Calibration Certification Information								
Cal. Date:	January 11	, 2021	Roots	meter S/N:	438320	Та:	297	°К
Operator:	Jim Tisch					Pa:	750.1	mm Hg
Calibration	Model #:	TE-5025A	Calil	brator S/N:	3864			
							<b></b>	1
		Vol. Init	Vol. Final	ΔVol.	ΔTime	ΔΡ	ΔΗ	
	Run	(m3)	(m3)	(m3)	(min)	(mm Hg)	(in H2O)	
	1	1	2	1	1.4470	3.2	2.00	
	2	3	4	1	1.0210	6.4	4.00	
	3	5	0	1	0.9140	8.0	5.00	
	5	, / Q	0	1	0.8670	12.9	8.00	
		9	10	1	0.7140	12.3	0.00	1
			[	Data Tabula	tion			
				) Tstd			$\int AH(T_2/P_2)$	
	Vstd	Qstd	η Pstd	/\ la /		Qa		
	(m3)	(x-axis)	(y-ax	is)	Va	(x-axis)	(y-axis)	
	0.9860	0.6814	1.40	73	0.9957	0.6881	0.8899	
	0.9818	0.9616	1.99	02	0.9915	0.9711	1.2585	
	0.9797	1.0719	2.22	51	0.9893	1.0824	1.4071	
	0.9786	1.1288	2.33	37	0.9883	1.1399	1.4757	
	0.9732	1.3630	2.814	46	0.9828	1.3765	1.7798	
	OCTO	m=	2.065	115		m=	1.29348	
	USID	D=	0.003	006	QA	=0	0.00199	
			0.995	50		1-	0.55550	
	Calculations							
	Vstd=	td= ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)		Va=	∆Vol((Pa-∆	P)/Pa)		
	Qstd=	Vstd/∆Time			Qa=	Va/∆Time		
			For subsequ	ent flow ra	te calculatio	ns:		
	Qstd=	1/m (( $\sqrt{\Delta H}$	Pa Tstd Pstd Ta	-))-b)	Qa=	$1/m\left(\sqrt{\Delta H}\right)$	H(Ta/Pa))-b)	
	Standard	Conditions						
Tstd	298.15	°K				RECA	LIBRATION	
Pstd	760	mm Hg						
	ŀ	(ey			US EPA reco	ommends a	nnual recalibratio	on per 1998
ΔH: calibrat	or manome	ter reading (i	n H2O)		40 Code	ot Federal I	Regulations Part	50 to 51,
ΔP: rootsm	eter manom	eter reading	(mm Hg)		Appendix	B to Part 50	, Reference Meth	od for the
Ia: actual a	psolute tem	perature (°K)			Determina	tion of Susp	ended Particulat	e Matter in
h: intercent	arometric pi	ressure (mm	ng)		th	e Atmosphe	ere, 9.2.17, page	30
m. slope								
in siope								

isch Environmental, Inc. 45 South Miami Avenue illage of Cleves, OH 45002 <u>www.tisch-env.com</u> TOLL FREE: (877)263-7610 FAX: (513)467-9009



### **Certificate of Calibration - Wind Monitoring Station**

Description:	$\underline{Ng} \ \underline{Wah} \ \underline{Catholic} \ \underline{Seconday} \ \underline{School} \ - \ \underline{Weather} \ \underline{Stations}$
Manufacturer:	Davis Instruments
Model No.:	Davis 6152, Vantage Pro2
Serial No.:	<u>BC180522050</u>
Equipment No.:	<u>SA-03-03</u>
Date of Calibration	<u>9-Apr-21</u>
Next Due Date	<u>9-Oct-21</u>

#### 1. Performance check of Wind Speed

Wind Speed, m/s		Difference D (m/s)
Wind Speed Reading (V1)	Anemometer Value (V1)	D = V1 - V2
0.0	0.0	0.0
1.6	1.5	0.1
2.0	2.0	0.0
3.0	3.1	-0.1

#### 2. Performance check of Wind Direction

Wind Direction (°)		Difference D (°)
Wind Direction Reading (V1)	Marine Compass Value (V1)	$\mathbf{D} = \mathbf{W}1 - \mathbf{W}2$
0	0	0.0
90	90	0.0
180	180	0.0
270	270	0.0

#### **Test Specification:**

1. Performance Wind Speed Test - The wind meter was on-site calibrated against the anemometer

2. Performance Wind Direction Test - The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by: \_\_\_\_\_ Approved by: \_\_\_\_\_

Wong Shing Kwai

Henry Leung

Calibration Item:

Calibration Date:

Method Used:

Next Calibration Date:

In-house Testing Procedure No.: B3-001

Model No .:

Serial No .:

Minimate Plus Unit (Calibration with Geophone BG14852) 716A0403 BE15890 22 March 2021 22 March 2022 In-house Method B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06
*References are traceable to NIST or equiv	valent.	

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

e Dept.Calibration Instantel-BE15890 (22-03

( Au Yeung Hang Chuen, Isaac) Date: 22 March 2021

Calibration Item:

TRIAXIAL GEOPHONE (Calil

Part Number: 714A97 Serial No.: BG148 Calibration Date: 22 Mar Next Calibration Date: 22 Mar Method Used: In-house In-house Testing Procedure No.: B3-001

TRIAXIAL GEOPHONE (Calibration with main unit BE15890) 714A9701 BG14852 22 March 2021 22 March 2022 In-house Method B3-001 B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

ce Dept Calibration Instantel BG/48

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac ) Date: 22 March 2021

Calibration Item:	Linear Microphone (Calibration with main uni
	BE15890)
Model No.:	714A9801
Serial No.:	BH11455
Calibration Date:	22 March 2021
Next Calibration Date:	22 March 2022
Method Used:	In-house Method MM-002
In-house Testing Procedure No.:	MM-002

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
Linear Microphone	714A9801	BH11561
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Microphone*	4193	2677340
Low Frequency Calibrator*	42AE	105366
Bruel & Kjaer Conditional Amplifier*	269	2152173
*References are traceable to NIST or equiv	valent.	

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

e Dept Calibration Instantel-BH/1457

(Au Yeung Hang Chuen, Isaac) Date: 22 March 2021

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### **CALIBRATION CERTIFICATE**

S

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alibration Item:	Minimate Plus Unit (Calibration with Geophon
	BG16955)
Iodel No.:	716A0403
erial No.:	BE16223
alibration Date:	22 March 2021
lext Calibration Date:	22 March 2022
fethod Used:	In-house Method B3-001
n-house Testing Procedure No.:	B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

alibration Instantel-BE162

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac) Date: 22 March 2021

Calibration Item:

Part Number:

Calibration Date:

Method Used:

Serial No .:

TRIAXIAL GEOPHONE (Calibration with main unit BE16223) 714A9701 BG16955 22 March 2021 Next Calibration Date: 22 March 2022 In-house Method B3-001 In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

Dept Calibration Instantel-BG169

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac )

Date: 22 March 2021

Calibration Item:

Linear Microphone (Calibration with main unit BE16223) Model No.: 714A9801 Serial No .: BH11458 Calibration Date: 22 March 2021 Next Calibration Date: 22 March 2022 Method Used: In-house Method MM-002 In-house Testing Procedure No.: MM-002

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
Linear Microphone	714A9801	BH11561
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Microphone*	4193	2677340
Low Frequency Calibrator*	42AE	105366
Bruel & Kjaer Conditional Amplifier*	269	2152173
*References are traceable to NIST or equiv	valent	

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

ce Dept Calibration Instantel-BH/1458

(Au Yeung Hang Chuen, Isaac) Date: 22 March 2021

	Calibration Item:	Minimate Plus Unit (Calibration with Geophon
(		BG15353)
	Model No.:	716A0403
Contraction of the local division of the loc	Serial No.:	BE15891
	Calibration Date:	11 March 2021
	Next Calibration Date:	11 March 2022
	Method Used:	In-house Method B3-001
	In-house Testing Procedure No.:	B3-001

	Test References	Model	Serial No.
オイ	Blastmate III	714A0801	BA15521
ł	ISEE Triaxial Geophone	714A9701	BG14463
11	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Accelerometer*	4370	31474
A MARK	Bruel & Kjaer Charge Amplifier*	2647	2731339
1110.00	Bruel & Kjaer Conditional Amplifier*	2690	2437929
	LDS Air Cooled Vibrator	V556	92794/1
	LDS Field Power Supply	FPS10L	ARA 04/05
	LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

ervice Dept/Calibration/Instantel/BE15891 (11-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac) Date: 11 March 2021

e

Calibration Item:

Calibration Date:

Method Used:

Next Calibration Date:

Part Number:

Serial No.:

TRIAXIAL GEOPHONE (Calibration with main unit BE15891) 714A9701 BG15353 11 March 2021 11 March 2022 In-house Method B3-001 In-house Testing Procedure No.: B3-001

	Test References	Model	Serial No.
H	Blastmate III	714A0801	BA15521
X	ISEE Triaxial Geophone	714A9701	BG14463
X X	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
XXX	Bruel & Kjaer Accelerometer*	4370	31474
14-112	Bruel & Kjaer Charge Amplifier*	2647	2731339
	Bruel & Kjaer Conditional Amplifier*	2690	2437929
EL.	LDS Air Cooled Vibrator	V556	92794/1
X	LDS Field Power Supply	FPS10L	ARA 04/05
XII	LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

Dept/Calibration/Instantel/BG15353 (11-03

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

(Au Yeung Hang Chuen, Isaac) Date: 11 March 2021

	Calibration Item:	Minimate Plus Unit (Calibration with Geophone
4		BG15180)
I THE PARTY I	Model No.:	716A0403
	Serial No.:	BE15894
	Calibration Date:	1 March 2021
AT DAMA IN	Next Calibration Date:	1 March 2022
	Method Used:	In-house Method B3-001
	In-house Testing Procedure No.:	B3-001

	Test References	Model	Serial No.
TT	Blastmate III	714A0801	BA15521
	ISEE Triaxial Geophone	714A9701	BG14463
44	15MHz Function Generator*	33120A	US34003309
ALC: NO	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
イギャー	HP Distortion Meter*	339A	2025A04515
Number of States	Bruel & Kjaer Accelerometer*	4370	31474
A STATEMENT	Bruel & Kjaer Charge Amplifier*	2647	2731339
	Bruel & Kjaer Conditional Amplifier*	2690	2437929
	LDS Air Cooled Vibrator	V556	92794/1
	LDS Field Power Supply	FPS10L	ARA 04/05
	LDS Power Amplifier	PA1000L	ARA 07/06
U.			

\*References are traceable to NIST or equivalent.

R:\Service Dept\Calibration\Instantel\BE15894 (1-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

N

( Au Yeung Hang Chuen, Isaac) Date: 1 March 2021

Calibration Item:	TRIAXIAL GEOPHONE (Calibration with
	main unit BE15894)
Part Number:	714A9701
Serial No.:	BG15180
Calibration Date:	1 March 2021
Next Calibration Date:	1 March 2022
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

	Test References	Model	Serial No.
	Blastmate III	714A0801	BA15521
	ISEE Triaxial Geophone	714A9701	BG14463
1110	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
524	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Accelerometer*	4370	31474
- ALLEN	Bruel & Kjaer Charge Amplifier*	2647	2731339
	Bruel & Kjaer Conditional Amplifier*	2690	2437929
	LDS Air Cooled Vibrator	V556	92794/1
	LDS Field Power Supply	FPS10L	ARA 04/05
	LDS Power Amplifier	PA1000L	ARA 07/06
11			

\*References are traceable to NIST or equivalent.

R:\Service Dept\Calibration\Instantel\BG15180(1-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac ) Date: 1 March 2021

Calibration Item:	Linear Microphone (Calibration with main unit
	BE15894)
Model No.:	714A9801
Serial No.:	BH10228
Calibration Date:	1 March 2021
Next Calibration Date:	1 March 2022
Method Used:	In-house Method MM-002
In-house Testing Procedure No.:	MM-002

	Test References	Model	Serial No.
	Blastmate III	714A0801	BA15521
	Linear Microphone	714A9801	BH11561
	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Microphone*	4193	2677340
	Low Frequency Calibrator*	42AE	105366
	Bruel & Kjaer Conditional Amplifier*	269	2152173
*References are traceable to NIST or equivalent.			

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

Service Dept/Calibration/Instantel/BH10228 (01-03-21).

( Au Yeung Hang Chuen, Isaac ) Date: 1 March 2021

Calibration Item:	Minimate Plus Unit (Calibration with Geophone
	BG20673)
Model No.:	716A0403
Serial No.:	BE13849
Calibration Date:	11 March 2021
Next Calibration Date:	11 March 2022
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

N.V	Test References	Model	Serial No.
TTL	Blastmate III	714A0801	BA15521
	ISEE Triaxial Geophone	714A9701	BG14463
and the second	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
ALL	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Accelerometer*	4370	31474
1000	Bruel & Kjaer Charge Amplifier*	2647	2731339
	Bruel & Kjaer Conditional Amplifier*	2690	2437929
VER COLOR	LDS Air Cooled Vibrator	V556	92794/1
	LDS Field Power Supply	FPS10L	ARA 04/05
	LDS Power Amplifier	PA1000L	ARA 07/06
1			

\*References are traceable to NIST or equivalent.

Service Dept/Calibration Instantel\BE13849()1-03-21

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac) Date: 11 March 2021

Calibration Item:

Calibration Date:

Method Used:

Next Calibration Date:

Part Number:

Serial No.:

TRIAXIAL GEOPHONE (Calibration with main unit BE13849) 714A9701 BG20673 11 March 2021 11 March 2022 In-house Method B3-001 In-house Testing Procedure No.: B3-001

	Test References	Model	Serial No.
TT.	Blastmate III	714A0801	BA15521
	ISEE Triaxial Geophone	714A9701	BG14463
111	15MHz Function Generator*	33120A	US34003309
1111	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Accelerometer*	4370	31474
- Sent	Bruel & Kjaer Charge Amplifier*	2647	2731339
	Bruel & Kjaer Conditional Amplifier*	2690	2437929
	LDS Air Cooled Vibrator	V556	92794/1
	LDS Field Power Supply	FPS10L	ARA 04/05
	LDS Power Amplifier	PA1000L	ARA 07/06
100			

\*References are traceable to NIST or equivalent.

ervice Dept/Calibration/Instantel/BG20673 (11-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac ) Date: 11 March 2021

Calibration Item:	Linear Microphone (Calibration with main unit
	BE13849)
Model No.:	714A9801
Serial No.:	BH13154
Calibration Date:	11 March 2021
Next Calibration Date:	11 March 2022
Method Used:	In-house Method MM-002
In-house Testing Procedure No.:	MM-002

	Test References	Model	Serial No.
No. of the second s	Blastmate III	714A0801	BA15521
	Linear Microphone	714A9801	BH11561
	15MHz Function Generator*	33120A	US34003309
Marine and	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Microphone*	4193	2677340
	Low Frequency Calibrator*	42AE	105366
	Bruel & Kjaer Conditional Amplifier*	269	2152173
	*References are traceable to NIST or equivalent	nt.	

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

R:\Service Dept/Calibration\Instantel\BH13164 (11-03-21

( Au Yeung Hang Chuen, Isaac ) Date: 11 March 2021

Calibration Item:	Minimate Plus Unit (Calibration with Geophone
	BG16512)
Model No.:	716A0403
Serial No.:	BE13853
Calibration Date:	1 March 2021
Next Calibration Date:	1 March 2022
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

R:\Service Dept\Calibration\Instantel\BE13853 (1-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac) Date: 1 March 2021

In

Calibration Item:

Part Number:

Calibration Date:

Method Used:

Next Calibration Date:

Serial No.:

TRIAXIAL GEOPHONE (Calibration with main unit BE13853) 714A9701 BG16512 1 March 2021 1 March 2022 In-house Method B3-001 In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

R:\Service Dept\Calibration\Instantel\BG16512 (1-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac ) Date: 1 March 2021

Calibration Item:	Minimate Plus Unit (Calibration with Geophone
	BG17240)
Model No.:	716A0403
Serial No.:	BE20015
Calibration Date:	11 March 2021
Next Calibration Date:	11 March 2022
Method Used:	In-house Method B3-001
In-house Testing Procedure No.:	B3-001

	Test References	Model	Serial No.
	Blastmate III	714A0801	BA15521
ľ	ISEE Triaxial Geophone	714A9701	BG14463
11	15MHz Function Generator*	33120A	US34003309
1111	Stanford Spectrum Analyzer	SR760	41550
111111	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Accelerometer*	4370	31474
A CONTRACT	Bruel & Kjaer Charge Amplifier*	2647	2731339
The second	Bruel & Kjaer Conditional Amplifier*	2690	2437929
	LDS Air Cooled Vibrator	V556	92794/1
	LDS Field Power Supply	FPS10L	ARA 04/05
	LDS Power Amplifier	PA1000L	ARA 07/06
11			

\*References are traceable to NIST or equivalent.

ice Dept/Calibration/Instantel/BE20015 (11-03-21)

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac) Date: 11 March 2021

Calibration Item:

Calibration Date:

Method Used:

Next Calibration Date:

In-house Testing Procedure No.: B3-001

Part Number:

Serial No.:

TRIAXIAL GEOPHONE (Calibration with main unit BE20015) 714A9701 BG17240 11 March 2021 11 March 2022 In-house Method B3-001

	Test References	Model	Serial No.
Ħ	Blastmate III	714A0801	BA15521
X	ISEE Triaxial Geophone	714A9701	BG14463
XII	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
XXX	Bruel & Kjaer Accelerometer*	4370	31474
2111	Bruel & Kjaer Charge Amplifier*	2647	2731339
10.000	Bruel & Kjaer Conditional Amplifier*	2690	2437929
Ŧ	LDS Air Cooled Vibrator	V556	92794/1
X	LDS Field Power Supply	FPS10L	ARA 04/05
X	LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

Dept/Calibration/Instantel/BG17240 (11-03

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

( Au Yeung Hang Chuen, Isaac ) Date: 11 March 2021

Calibration Item:	Linear Microphone (Calibration with main unit	
	BE20015)	
Model No.:	714A9801	
Serial No.:	BH12658	
Calibration Date:	11 March 2021	
Next Calibration Date:	11 March 2022	
Method Used:	In-house Method MM-002	
In-house Testing Procedure No.:	MM-002	

1000 A	Test References	Model	Serial No.
11/1	Blastmate III	714A0801	BA15521
	Linear Microphone	714A9801	BH11561
214	15MHz Function Generator*	33120A	US34003309
	Stanford Spectrum Analyzer	SR760	41550
	Keysight Multimeter*	34470A	MY57700765
	HP Distortion Meter*	339A	2025A04515
	Bruel & Kjaer Microphone*	4193	2677340
	Low Frequency Calibrator*	42AE	105366
	Bruel & Kjaer Conditional Amplifier*	269	2152173
	*References are traceable to NIST or equivalent	nt.	

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

Service Dept/Calibration/Instantel/BH12658 (11-03-21)

( Au Yeung Hang Chuen, Isaac ) Date: 11 March 2021

Calibration	Item:

Model No .:

Serial No .:

Micromate System ISEE (Calibration with Geophone UM13703) 721A2501 UM13703 14 April 2021 Calibration Date: Next Calibration Date: 14 April 2022 Method Used: In-house Method B3-001 B3-001 In-house Testing Procedure No.:

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06

\*References are traceable to NIST or equivalent.

INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

(Au Yeung Hang Chuen, Isaac) Date: 14 April 2021

Calibration Item:

Calibration Date:

Method Used:

Next Calibration Date:

Part Number:

Serial No .:

TRIAXIAL GEOPHONE (Calibration with main unit UM13703) 721A2901 UM13703 14 April 2021 14 April 2022 In-house Method B3-001 In-house Testing Procedure No.: B3-001

Test References	Model	Serial No.
Blastmate III	714A0801	BA15521
ISEE Triaxial Geophone	714A9701	BG14463
15MHz Function Generator*	33120A	US34003309
Stanford Spectrum Analyzer	SR760	41550
Keysight Multimeter*	34470A	MY57700765
HP Distortion Meter*	339A	2025A04515
Bruel & Kjaer Accelerometer*	4370	31474
Bruel & Kjaer Charge Amplifier*	2647	2731339
Bruel & Kjaer Conditional Amplifier*	2690	2437929
LDS Air Cooled Vibrator	V556	92794/1
LDS Field Power Supply	FPS10L	ARA 04/05
LDS Power Amplifier	PA1000L	ARA 07/06
*Deferences are treachle to NUCT or equiv	alant	

'References are traceable to NIST or equivalent.

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INSTANTEL INC. hereby certifies that this unit has been calibrated and that the results are consistent with the specifications published regarding this instrument. The SENSORCHECK feature of the unit is sufficiently reliable to indicate proper operation, although it is recommended that this unit be sent to INSTANTEL or an authorized service center for regular calibration.

Authorized by:

(Au Yeung Hang Chuen, Isaac) 14 April 2021 Date: