

Expedition 905, Hole C9010G X-RAY CT scan image snapshot date:

Information

The 3D X-ray CT images for whole-round core sections are the first measurement to be done on board. Whole-core photography and X-ray imaging provide information about surface features and internal structure. The resolution of CT scanning is under 0.35 mm and allows 5 mm depth for beam width. The computed tomography (CT) scan provides 3D evidence of fractures, vugs, fault structure, sedimentary structure and methane hydrates without disturbing the sample. A pure water standard piece and air is used for calibrate giving CT-values. It requires about 5 minutes to scan each 1.5 m section of core.

Image file

Each ZIP file corresponds to a section and the filename of a ZIP file consists of section identifier. A ZIP file contains DICOM files of [axial](#) images as well as a reformatted [coronal](#) image. Each DICOM file has DICOM header with image data. Pixel data are compressed without any losses by JPEG2000 in the DICOM files (See *Section 8.2.4. JPEG 2000 image compression in Digital Imaging and Communications in Medicine (DICOM) Part 5: Data Structures and Encoding* distributed in [DICOM Homepage](#)).

Software Utilitys - They are not support by CDEX. -

- “[OsiriX](#) is an image processing software dedicated to DICOM images (".dcm" / ".DCM" extension) produced by imaging equipment (MRI, CT, PET, PET-CT, SPECT-CT, Ultrasounds, ...).”
- “[GDCM](#) is an open source DICOM library. It is meant to deal with DICOM files (as specified in part 10 of the DICOM standard).” Command line tool [gdcmconv](#) can convert encapsulated DICOM to RAW by issuing a command like `gdcmconv --raw compressed.dcm uncompressed.dcm`.

lost data

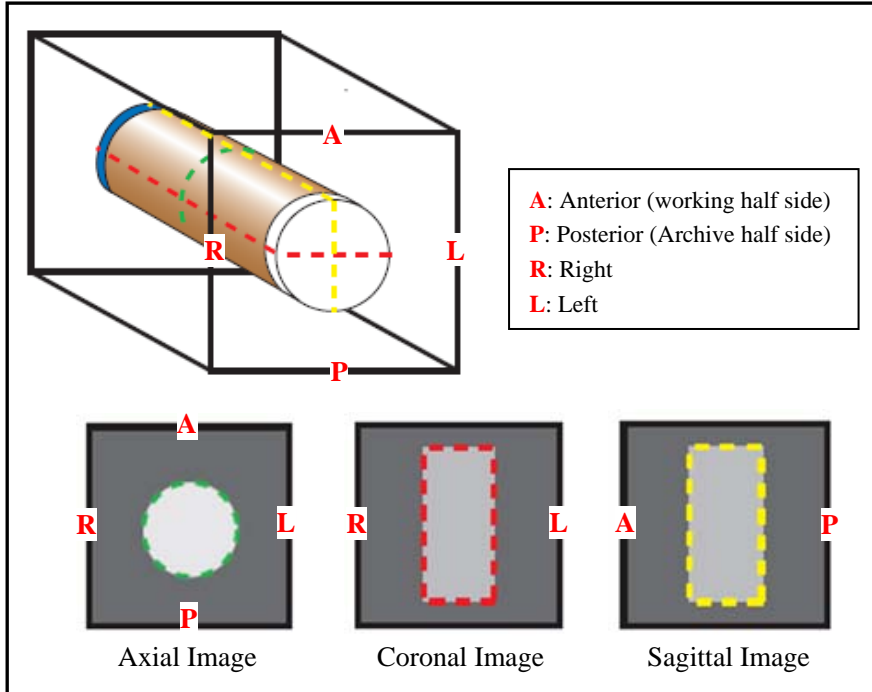
Axial images for some sections were mistaken to archive while they were measured. Empty files whose names end with .lost indicate such sections.

Data Index

Section	Top CSF-A (m)	Bottom CSF-A (m)	Curated Length (m)	Coronal Image	Axial Image Set (length in bytes)
905-C9010G-1H-1	0.000	1.405	1.405	dcm / png	zip (280M)
905-C9010G-1H-2	1.405	2.810	1.405	dcm / png	zip (284M)
905-C9010G-1H-3	2.810	4.220	1.410	dcm / png	zip (279M)
905-C9010G-1H-4	4.220	5.625	1.405	dcm / png	zip (278M)
905-C9010G-1H-5	5.625	6.545	0.920	dcm / png	zip (189M)
905-C9010G-1H-CC	6.545	6.800	0.255	dcm / png	zip (53M)
905-C9010G-2H-1	80.000	81.435	1.435	dcm / png	zip (324M)
905-C9010G-2H-2	81.435	82.375	0.940	dcm / png	zip (199M)
905-C9010G-2H-3	82.375	82.750	0.375	dcm / png	zip (80M)
905-C9010G-2H-CC	82.750	82.805	0.055	dcm / png	zip (13M)
905-C9010G-3H-1	82.810	83.690	0.880	dcm / png	zip (195M)
905-C9010G-3H-CC	83.690	83.780	0.090	dcm / png	zip (24M)
905-C9010G-4H-1	86.080	87.095	1.015	dcm / png	zip (226M)
905-C9010G-4H-2	87.095	88.500	1.405	dcm / png	zip (293M)
905-C9010G-4H-3	88.500	89.910	1.410	dcm / png	zip (307M)
905-C9010G-4H-4	89.910	91.320	1.410	dcm / png	zip (291M)
905-C9010G-4H-5	91.320	92.630	1.310	dcm / png	zip (274M)
905-C9010G-4H-6	92.630	94.030	1.400	dcm / png	zip (304M)

Section	Top CSF-A (m)	Bottom CSF-A (m)	Curated Length (m)	Coronal Image	Axial Image Set (length in bytes)
905-C9010G-4H-7	94.030	95.445	1.415	dcm / png	zip (299M)
905-C9010G-4H-8	95.445	96.655	1.210	dcm / png	zip (265M)
905-C9010G-4H-CC	96.655	96.760	0.105	dcm / png	zip (26M)
905-C9010G-5H-1	95.580	96.980	1.400	dcm / png	zip (312M)
905-C9010G-5H-2	96.980	97.980	1.000	dcm / png	zip (217M)
905-C9010G-5H-3	97.980	98.550	0.570	dcm / png	zip (124M)
905-C9010G-5H-4	98.550	99.960	1.410	dcm / png	zip (303M)
905-C9010G-5H-5	99.960	101.370	1.410	dcm / png	zip (300M)
905-C9010G-5H-6	101.370	102.775	1.405	dcm / png	zip (296M)
905-C9010G-5H-7	102.775	104.185	1.410	dcm / png	zip (297M)
905-C9010G-5H-8	104.185	105.585	1.400	dcm / png	zip (298M)
905-C9010G-5H-CC	105.585	105.885	0.300	dcm / png	zip (67M)
905-C9010G-6X-1	169.760	171.200	1.440	dcm / png	zip (331M)
905-C9010G-6X-2	171.200	171.920	0.720	dcm / png	zip (160M)
905-C9010G-6X-CC	171.920	172.185	0.265	dcm / png	zip (62M)
905-C9010G-7X-CC	174.460	174.710	0.250	dcm / png	zip (60M)
905-C9010G-8X-CC	179.160	179.450	0.290	dcm / png	zip (68M)
905-C9010G-9X-CC	179.560	179.865	0.305	dcm / png	zip (76M)
905-C9010G-10X-CC	184.260	184.270	0.010	none	none
905-C9010G-11X-1	188.960	189.260	0.300	dcm / png	zip (71M)
905-C9010G-11X-CC	189.260	189.510	0.250	dcm / png	zip (57M)
905-C9010G-12X-1	193.660	193.985	0.325	dcm / png	zip (72M)
905-C9010G-12X-CC	193.985	194.390	0.405	dcm / png	zip (92M)
905-C9010G-14X-CC	201.260	201.465	0.205	dcm / png	zip (52M)
905-C9010G-15X-CC	205.960	206.090	0.130	dcm / png	zip (31M)
905-C9010G-16X-CC	210.660	210.975	0.315	dcm / png	zip (73M)
905-C9010G-17X-1	215.360	216.765	1.405	dcm / png	zip (312M)
905-C9010G-17X-2	216.765	218.215	1.450	dcm / png	zip (326M)
905-C9010G-17X-CC	218.215	218.585	0.370	dcm / png	zip (84M)
905-C9010G-18X-1	220.060	221.465	1.405	dcm / png	zip (301M)
905-C9010G-18X-2	221.465	222.065	0.600	dcm / png	zip (135M)
905-C9010G-18X-CC	222.065	222.415	0.350	dcm / png	zip (76M)
905-C9010G-19X-CC	224.760	225.670	0.910	dcm / png	zip (198M)
905-C9010G-20X-CC	229.460	229.920	0.460	dcm / png	zip (107M)
905-C9010G-21X-1	234.160	235.165	1.005	dcm / png	zip (220M)
905-C9010G-21X-2	235.165	235.935	0.770	dcm / png	zip (170M)
905-C9010G-21X-CC	235.935	236.005	0.070	dcm / png	zip (16M)

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The concept of axial image, coronal image, and sagittal image