Collection of Gravity Data to Aid in the Understanding of the Effects of Changes in Mantle Temperature on Melt Supply and Crustal Accretion

spatialRepresentationInfo
identificationInfo
contentInfo
distributionInfo
dataQualityInfo
dataQualityInfo
acquisitionInformation

(MI_Metadata)
fileIdentifier: EW0114_Gravity
language: eng; USA
characterSet: (MD_CharacterSetCode) utf8
hierarchyLevel: (MD_ScopeCode) series
hierarchyLevelName: Unprocessed Gravity Data Metadata
contact: *xlink: https://www.ngdc.noaa.gov/docucomp/component/7df204c0-eb7c-47de-af08-9d2afb5c15a0 title: Brian Meyer*
dateStamp: 2012-12-07
metadataStandardName: ISO 19115-2 Geographic Information - Metadata - Part 2: Extensions for Imagery and Gridded Data
metadataStandardVersion: ISO 19115-2:2009(E)
return to top

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spatialRepresentationInfo: (MD_VectorSpatialRepresentation)
geometricObjects: (MD_GeometricObjects)
geometricObjectType: (MD_GeometricObjectTypeCode) point
geometricObjectCount: 69591
return to top

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identificationInfo: (MD_DataIdentification)
citation: (CI_Citation)
title: Collection of Gravity Data to Aid in the Understanding of the Effects of Changes in Mantle Temperature on Melt Supply and Crustal Accretion
date: (CI_Date)
date: 2001-12-07
dateType: (CI_DateTypeCode) creation
abstract: This data set describes multiple geophysical parameters that were surveyed off the southern coast of Australia in late 2001 to early 2002. Parameters surveyed include magnetics, gravity, seismic, and multibeam.
purpose: The primary goal of the research program undertaken on R/V Maurice Ewing cruise EW0114 was to determine the dependence of melt supply on variations in mantle temperature at constant spreading rate and to investigate the effects of these variations on crustal accretion and the resulting crustal structure and morphology.
status: (MD_ProgressCode) completed

pointOfContact: (CI_ResponsibleParty)
individualName: James Cochran
contactInfo: (CI_Contact)
address: (CI_Address)
electronicMailAddress: jrc@ldeo.columbia.edu
role: (CI_RoleCode) principalInvestigator
resourceMaintenance: (MD_MaintenanceInformation)
maintenanceAndUpdateFrequency: (MD_MaintenanceFrequencyCode) asNeeded
descriptiveKeywords: (MD_Keywords)
keyword: OCEANS > MARINE GEOPHYSICS > MARINE GRAVITY FIELD
keyword: SOLID EARTH > GEODETICS/GRAVITY > GRAVITATIONAL FIELD
keyword: SOLID EARTH > GEODETICS/GRAVITY > GRAVITY ANOMALIES
keyword: SOLID EARTH > GEODETICS/GRAVITY > GRAVITY
type: (MD_KeywordTypeCode) theme
thesaurusName: *xlink: https://ngdc.noaa.gov/docucomp/227737d0-428b-11df-9879-0800200c9a66 title: GCMD Science Keywords*
descriptiveKeywords: (MD_Keywords)
keyword: DOC/NOAA/NESDIS/NGDC > National Geophysical Data Center, NESDIS, NOAA, U.S. Department of Commerce
type: (MD_KeywordTypeCode) dataCenter
thesaurusName: *xlink: https://ngdc.noaa.gov/docucomp/9f0de6e6-428b-11df-9879-0800200c9a66 title: GCMD Data Center Keywords*
descriptiveKeywords: (MD_Keywords)
keyword: Ocean > Southern Ocean
type: (MD_KeywordTypeCode) place
thesaurusName: *xlink: https://ngdc.noaa.gov/docucomp/82A5DD19565ACBECE040AC8C5AB41A40 title: GCMD Location Keywords*
resourceConstraints: *xlink: https://ngdc.noaa.gov/docucomp/dadd4ac3-2b9f-4db5-8603-71285b94c3d7 title: NOAA Disclaimer*
resourceConstraints: *xlink: https://ngdc.noaa.gov/docucomp/103da706-402a-41cf-adc9-e709dd0ebea5 title: Not to be used for navigation*
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language: eng; USA
topicCategory: (MD_TopicCategoryCode) geoscientificInformation
topicCategory: (MD_TopicCategoryCode) elevation
topicCategory: (MD_TopicCategoryCode) oceans
topicCategory: (MD_TopicCategoryCode) climatologyMeteorologyAtmosphere
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westBoundLongitude: 99.956
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southBoundLatitude: -50.172
northBoundLatitude: -31.942
geographicElement: (EX_BoundingPolygon)
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temporalElement: (EX_TemporalExtent) *boundingTemporalExtent*
extent:
TimePeriod: *datasetTimePeriod*
beginPosition: 2001-12-07
endPosition: 2002-01-24

return to top

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contentInfo: (MI_CoverageDescription)
attributeDescription:
RecordType: Point
contentType: (MD_CoverageContentTypeCode) auxilliaryData
dimension: (MD_Band)
descriptor: Free Air Anomaly
maxValue:
Real: 682.9
minValue:
Real: -87.4
units:
BaseUnit: *unitID*
identifier: milliGals
unitsSystem: *missing*

return to top

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distributionInfo: (MD_Distribution)
distributionFormat: (MD_Format)
name: M77T
version: 1
specification: The digital format presented, and referred to as "MGD77" or “MGD77T”, is an exchange format for marine geophysical data (bathymetry, magnetics, gravity and seismic navigation). The format is intended to be used for the transmission of data to and from a data center and may be useful for the exchange of data between marine institutions, and to be used by various software programs as an import or export format. Data is to be exchanged as files, generally a header (documentation) file and a data file for each survey operation.
distributor: (MD_Distributor)
distributorContact: *xlink: https://www.ngdc.noaa.gov/docucomp/component/A085BFDF-C10F-818D-3EA8-08330125842F title: User Services*
transferOptions: (MD_DigitalTransferOptions)
onLine: (CI_OnlineResource)
linkage: http://maps.ngdc.noaa.gov/viewers/geophysics/
name: Marine Geophysical Data
description: Map interface that can be used to access the geophysical data holdings at NGDC. To obtain specific survey, the survey id can be entered into the search dialogue and downloaded directly.
function: (CI_OnLineFunctionCode) search
return to top

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dataQualityInfo: (DQ_DataQuality)
scope: (DQ_Scope)
level: (MD_ScopeCode) series
report: (DQ_QuantitativeAttributeAccuracy)
result: (DQ_ConformanceResult)
specification: (CI_Citation)
title: Quality Report for Dataset
date: (CI_Date)
date: 2002-01-25
dateType: (CI_DateTypeCode) creation
citedResponsibleParty: (CI_ResponsibleParty)
organisationName: Lamont Doherty Earth Observatory
contactInfo: (CI_Contact)
onlineResource: (CI_OnlineResource)
linkage: http://www.marine-geo.org/tools/search/entry.php?id=EW0114
name: R/V Maurice Ewing Data Reduction Summary
description: The quality report can be found along with the cruise report and the seismic offsets under the Related Documents tab on the Lamont Doherty webpage for this cruise. The report contains information about data reduction and a summary of possible errors that occured during data collection.
function: (CI_OnLineFunctionCode) information
role: (CI_RoleCode) publisher
explanation: G
pass: true
report: (DQ_AbsoluteExternalPositionalAccuracy)
evaluationMethodDescription: Location of Gravity Ties
result: (DQ_ConformanceResult)
specification: *inapplicable*
explanation: Fremantle, Australia and Hobart, Tasmania
pass: true
report: (DQ_CompletenessOmission)
evaluationMethodDescription: Existence of Gravity Ties
result: (DQ_ConformanceResult)
specification: *inapplicable*

explanation: Two Gravity Ties reported
pass: true

return to top

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dataQualityInfo: (DQ_DataQuality)
scope: (DQ_Scope)
level: (MD_ScopeCode) series

return to top

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acquisitionInformation: (MI_AcquisitionInformation)
operation: (MI_Operation)
identifier: (MD_Identifier)
code: EW0114
status: (MD_ProgressCode) completed
parentOperation: *inapplicable*
platform: (MI_Platform)
identifier: (MD_Identifier)
code: R/V Maurice Ewing
description: The R/V Maurice Ewing was a 230-ft. research vessel that was purchased from the petroleum company Petro Canada by the Lamont Doherty Earth Observatory. The vessel was in service for fifteen years and was most well known for the ability to gather high quality multi-channel seismic information.
instrument: (MI_Instrument)
identifier: (MD_Identifier)
code: BellAerospace BGM-3
type: Gravimeter
description: BGM-3 system consists of a forced feedback accelerometer mounted on a gyrostabilized platform. Gravity measurements were taken once per minute. Observed gravity values not reported, only the free air anomaly values are present.