LANTMÄTERIET

Tyngdkraft Nedladdning v1.0 - teknisk beskrivning

Dokumentversion 1.0

Gränssnittsdefinition

Åtkomstpunkt

Atomflöde Produktion	*https://api.lantmateriet.se/tyngdkraft/atom/v1*
Atomflöde Verifiering	*https://api-ver.lantmateriet.se/tyngdkraft/atom/v1*

Inspire

Information

Inspire Geology Dataspecifikation	http://inspire.ec.europa.eu/id/document/tg/ge
Inspire tekniska riktlinjer	http://inspire.jrc.ec.europa.eu/documents/Network_Services/Technical_Guidance_Download_Services_v3.1.pdf

Schema

Inspire Geology Geophysics	http://namespace.lantmateriet.se/distribution/produkter/tyngdkraft/v1/tyngdkraft-1.0.0.xsd

Specification of the DGD data exchange file format

- The file should be printed with fixed lengths for each column, but it is read using free format.
- Blanks are used as separator between the columns. Use "" for empty character fields.
- The following data types are used:
  - Number(X, Y): A decimal number with X significant digits, whereof Y decimals. Point as decimal separator, no thousands separator.
  - Boolean: T for true, F for false.
  - String: String of variable length, enclosed in quotes (").
  - String(X): String with exact length X, enclosed in quotes (")
  - Date: YYYY-MM-DD (with leading zeroes)

No	Name	Type
1	Measurement_id	Number(9)
Unique identifier for measurement. Auto incremented serial number.		
2	Current_measurement	Boolean

True if the measurement is current and should be used, otherwise false.		
3	Point	String
The name of the point in DGA (“punktnummer”). Applicable when such a point exists.		
4	Name	String
Name of the point. Sometimes/often blank, e.g. for old detail points. Non-unique.		
5	Old_id	String
Old identity used during measurement and calculation before the measurement was stored in DGD.		
6	Owner	String
Owner of the data related to the measurement. Use exactly: • LM: Lantmäteriet • SGU: Sveriges Geologiska Undersökning		
7	Rights	Number(2,0)
How to handle public access to the data. • 1: All measurements are public. • 2: Single measurements are public. • 3: Classified. Contact owner.		
8	Measured_on	Date
The date the measurement was made on, if known. Otherwise 1111-11-11.		
9	Measurement_epoch	Number(6,2)
Observation epoch in years.		
10	Project	String(4)
A four letter short code in line with the following examples: • DTC5: Detail CG5: 2012_08_Uppland • DOLD: From old detail gravity database		
11	Extra_info	String
May contain arbitrary information.		
12	Observer	Number(4,0)
ID for the main observer, or 9999 if not known.		
13	Gravimeter_manufacturer	String
Use exactly: • CG5: Scintrex CG5 • L&R: Lacoste and Romberg • WORDEN: Worden • WORDEN M: Worden Master • NORGAARD: Norgaard • BOLIDEN: The gravimeter owned by Boliden.		
14	Gravimeter_serial	String
Serial numbers (possibly with letters).		
15	Position_method	Number(2,0)

- 1: SWEPOS Network RTK/VR
- 2: Static GNSS
- 3: Float GNSS
- 4: DGPS (relative code)
- 5: Map or similar (e.g. digitised)
- 6: Absolute GNSS (absolute code)
- 99: Unknwon.

16	Height_method	Number(2,0)

- 1: SWEPOS Network RTK/VR
- 2: Static GNSS
- 3: Float GNSS
- 4: DGPS (Code)
- 5: Map or similar (e.g. digitised)
- 6: Levelling
- 7: Lake level or sea level
- 8: Trigonometric
- 9: Barometer
- 10: Depth measurement
- 11: DEM/DTM
- 99: Unknown

17	Geoid	String

Geoid model used to compute Height from Ellh. Use "" if the point have been determined without GNSS, or if it is not known.

It is not the intention that the geoid model will ever be updated for a certain measurement. It is just for information.

Use exactly:

- SWEN08_RH2000

18	Position_system	String

Reference system/frame used for Lat, Long and Ellh.

- SWEREF 99
- WGS 84

19	Latitude	Number(11,8)

Geodetic latitude. Decimal degrees.

20	Longitude	Number(12,8)

Longitude. Decimal degrees.

21	Position_sigma_hor	Number(7,3)

Standard uncertainty of the horizontal coordinates (meters).

22	Ellipsoid_h	Number(8,4)

Height above the ellipsoid. Meters. 9999.0 for instance if the point has not been determined by GNSS (e.g. levelled).

23	Height_system	String

Height system used for Height/Depth.

- RH 2000
- MSL

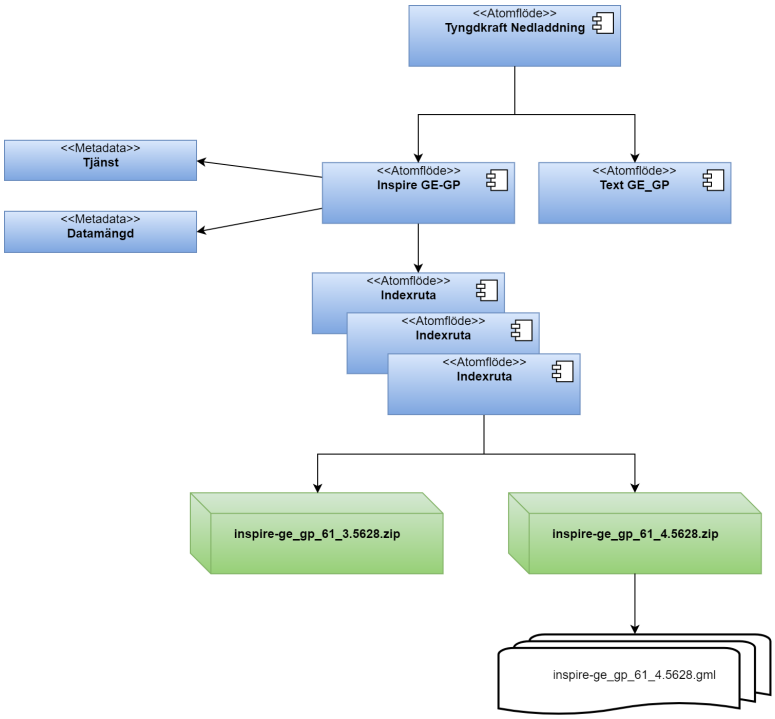
24	Height_type	String

As in the NKG gravity database: • 1: Land (on the surface) • 2: Subsurface • 3: Ocean surface • 4: Ocean submerged • 5: Ocean bottom • 6: Lake surface • 8: Lake bottom • C: Ice cap • D: Ice cap (same as C) • E: Airborne		
25	Height	Number(8,4)
Height or depth. Meters. Meaning depends on station_height_type: Height for 1, 2, 6, 8, C and E. Depth, stored positive, for 3, 4 and 5.		
26	Supplement_H	Number(8,4)
Supplemental “height” according to the NKG database. Meters. Used for the following values of the station_height_type according to: • 2: Subsurface depth (positive) • 4: Depth of the gravity measurement (positive) • 6: Depth of lake (positive) • 8: Depth of lake (positive) • C: Thickness of ice cap (positive) • E: Ground elevation Otherwise 9999.0000.		
27	Height_sigma	Number(6,3)
Standard uncertainty of the height (meters).		
28	Gravity_id	Number(3,0)
Identifier for gravity value. Unique for current measurement. Auto incremented serial number.		
29	Original	Boolean
True if the gravity value is an original measurement, false if it has been transformed.		
30	Gravity_system	String
If the gravity epoch and/or permanent tide system is different from the system definitions, then specify Gravity_epoch and Gravity_perm_tide. Use “” if unknown of original value. Use exactly: • RG 62: Non-tidal, epoch 1962.0 • RG 82: Zero tide, epoch 1982.0 • RG 2000: (Not yet, in the future after RG2000 has been released) • ABS_G: This is for points measured with AG mainly before RG2000 has been defined. Give epoch and permanent tide system below.) • IGSN 71: Mean tide, give epoch below.		
31	Gravity_epoch	Number(6,2)
In years. 9999.00 if unknown.		
32	Gravity_perm_tide	String
Permanent tide system. Use exactly: • NON-TIDAL • ZERO • MEAN		
33	Gravity	Number(10,3)

Gravity in Gravity_system with Gravity_perm_tide at Gravity_Epoch (mGal). See Height_type above for what the gravity value refers to. The IAG atmospheric correction (Moritz 1980, 0.87 mGal at sea level) is not included.		
34	Gravity_sigma	Number(5,2)
Standard uncertainty of the gravity value (mGal).		
35	Gravity_transformation	Number(2,0)
Between previous gravity system and Gravity_system. Use 99 if unknown or current value is original. • 1: NKG2005LU_g with the shift +0.025 mGal g_RG82 = g_ABS_G + -0.154*NKG2005LU_ABS* (1982-Obs_epoch) + 0.025 mGal • 2: Mikael Lilje's transformation from RG62 to RG82 derived by Mikael Lilje in 2001. A second degree polynomial, derived from 33 stations with gravity values in both systems. • 3: NKG2005LU_g with factor -0.154 and no shift		
36	Gravity_origin	Number(3,0)
Gravity_id for the gravity value the current value was transformed from. Use 0 if unknown or current value is original.		
37	Gravity_original_system	String
Gravity system used for the original measurement. Use one of the alternatives from Gravity_system.		
38	Free_air_anomaly	Number(5,2)
Free air or surface gravity anomaly (depending on Height_system).		
39	Free_air_normal_field	String
• GRS 80: Only one used in the world now, but might change in the future		
40	Free_air_surface_method	String
Method used to transfer gravity measured inside the masses to the surface. Required for Height_type 2, 4, 5 and 8. If not applicable, use "". • PREY: Only one used in Sweden/NKG now, but might change in the future		
41	Free_air_sigma	Number(5,2)
Standard uncertainty of the gravity anomaly (mGal). Computed from sigma_gravity and sigma_height. Presently sigma_hori_pos is not used here.		
42	Base_point_number	Number(4,0)
Number of base points. Use 0 if the point is a basepoint. Use 9999 if unknown.		
43	Base_points	String
A blank space separated list (e.g. "one two three") of the names of base points (“punktnummer” in DGA) used for the measurement.		

Atomflöde

Logisk struktur



Exempel

Atomflöde för tema, Inspire Geology Geophysics

Exempel

```
<feed xmlns:georss="http://www.georss.org/georss"
xmlns="http://www.w3.org/2005/Atom"
xmlns:inspire_dls="http://inspire.ec.europa.eu/schemas/inspire_dls/1.0"
xml:lang="sv">
    <id>https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp</id>
    <title>Inspire Geology Geophysics</title>
    <subtitle>Fördefinierade datamängder per indexruta för Inspire Geology
Geophysics</subtitle>
    <updated>2017-07-03T12:59:26+02:00</updated>
    <link
href="https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp"
rel="self" type="application/atom+xml" hreflang="sv" title="Detta
dokument"/>
    <link
href="http://www.geodata.se/InspireCSWProxy/csw?REQUEST=GetRecordById&amp;
SERVICE=CSW&amp;VERSION=2.0.2&amp;ELEMENTSETNAME=full&amp;OUTPUTSCHEMA=htt
p://www.isotc211.org/2005/gmd&amp;ID=69c466b6-185d-498f-8a38-684d42c03da5"
rel="describedby" type="application/vnd.iso.19139+xml" hreflang="sv"
title="Metadata, nedladdningstjänst för Inspire Geology Geophysics"/>
    <link
href="http://www.geodata.se/GeodataExplorer/GetMetaData?UUID=69c466b6-185d
-498f-8a38-684d42c03da5" rel="alternate" type="text/html" hreflang="sv"
title="Metadata, nedladdningstjänst för Inspire Geology Geophysics
```

```
(HTML)"/>
    <rights>Produkten omfattas av upphovsrätt. Avtal för användning krävs,
avgifter för användning tas ut. Användningen förutsätter
ändamålsprövning.</rights>
    <author>
        <name>Geodatasupport</name>
        <email>geodatasupport@lm.se</email>
    </author>
    <entry>

<id>https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp/61_3</id>
        <title>Inspire Geology Geophysics, 61_3</title>
        <summary>Fördefinierad datamängd Inspire Geology Geophysics,
indexruta 61_3</summary>
        <updated>2017-07-03T12:57:56+02:00</updated>

<inspire_dls:spatial_dataset_identifier_code>61_3</inspire_dls:spatial_dat
aset_identifier_code>

<inspire_dls:spatial_dataset_identifier_namespace>SE.LM.GP</inspire_dls:sp
atial_dataset_identifier_namespace>
        <link
href="https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp/61_3"
rel="alternate" type="application/atom+xml" hreflang="sv" title="Inspire
Geology Geophysics, 61_3"/>
        <category term="http://www.opengis.net/def/crs/EPSG/0/5628"
label="SWEREF99 + RH2000"/>
        <georss:polygon>13.3992179405328 55.9349761192402 13.4352342908872
55.036748927685 11.8724179391881 55.0066041015946 11.8005410078308
55.9038087823536 13.3992179405328 55.9349761192402</georss:polygon>
    </entry>
```

```
...
</feed>
```

Atomflöde för datamängd (indexruta 61_3), Inspire Geology Geophysics

Exempel

```
<feed xmlns:georss="http://www.georss.org/georss"
xmlns="http://www.w3.org/2005/Atom"
xmlns:inspire_dls="http://inspire.ec.europa.eu/schemas/inspire_dls/1.0"
xml:lang="sv">

<id>https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp/61_3</id>
    <title>Fördefinierad datamängd Inspire Geology Geophysics, 61_3</title>
    <subtitle>Fördefinierad datamängd i olika referenssystem och
format</subtitle>
    <updated>2017-07-03T12:57:56+02:00</updated>
    <link
href="https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp/61_3"
rel="self" type="application/atom+xml" hreflang="sv" title="Detta
dokument"/>
    <link
href="https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp"
rel="up" type="application/atom+xml" hreflang="sv" title="Inspire Geology
Geophysics"/>
    <link href="http://inspire.ec.europa.eu/featureconcept/GeophStation/"
rel="describedby" type="text/html" title="Featurtype GeophStation"/>
    <rights>Produkten omfattas av upphovsrätt. Avtal för användning krävs,
avgifter för användning tas ut. Användningen förutsätter
ändamålsprövning.</rights>
    <author>
        <name>Geodatasupport</name>
        <email>geodatasupport@lm.se</email>
    </author>
    <entry>

<id>https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp/61_3/data
set?srs=5628&amp;format=application/zip</id>
        <title>Inspire Geology Geophysics, 61_3 [EPSG:5628, GML]</title>
        <updated>2017-07-03T12:57:56+02:00</updated>
        <link
href="https://api.lantmateriet.se/tyngdkraft/atom/v1/inspire/ge_gp/61_3/da
taset?srs=5628&amp;format=application/zip" rel="alternate"
type="application/zip" hreflang="sv" title="inspire-ge_gp_61_3.5628.zip"
length="15989"/>
        <category term="http://www.opengis.net/def/crs/EPSG/0/5628"
label="SWEREF99 + RH2000"/>
    </entry>
</feed>
```

Datamängd GML (indexruta 61_3), Inspire Geology Geophysics

Exempel

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<wfs:FeatureCollection xmlns:sam="http://www.opengis.net/sampling/2.0"
xmlns:wfs="http://www.opengis.net/wfs/2.0"
xmlns:base="http://inspire.ec.europa.eu/schemas/base/3.3"
xmlns:dgd="http://namespace.lantmateriet.se/distribution/produkter/tyngdkr
aft/v1" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:om="http://www.opengis.net/om/2.0"
xmlns:sams="http://www.opengis.net/samplingSpatial/2.0"
xmlns:gml="http://www.opengis.net/gml/3.2"
xmlns:base2="http://inspire.ec.europa.eu/schemas/base2/2.0"
xmlns:gmd="http://www.isotc211.org/2005/gmd"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:gco="http://www.isotc211.org/2005/gco"
xsi:schemaLocation="http://namespace.lantmateriet.se/distribution/produkte
r/tyngdkraft/v1
http://namespace.lantmateriet.se/distribution/produkter/tyngdkraft/v1.0/ty
ngdkraft-1.0.0.xsd http://www.opengis.net/om/2.0
http://schemas.opengis.net/om/2.0/observation.xsd
http://www.opengis.net/samplingSpatial/2.0
http://schemas.opengis.net/samplingSpatial/2.0/spatialSamplingFeature.xsd
http://www.opengis.net/wfs/2.0 http://schemas.opengis.net/wfs/2.0/wfs.xsd
http://inspire.ec.europa.eu/schemas/base2/2.0
http://inspire.ec.europa.eu/schemas/base2/2.0/BaseTypes2.xsd"
timeStamp="2017-09-21T12:43:13" numberMatched="169" numberReturned="169">
   <wfs:boundedBy>
      <gml:Envelope srsName="urn:ogc:def:crs:EPSG::5628">
         <gml:lowerCorner>55.339896 12.677118</gml:lowerCorner>
         <gml:upperCorner>55.928008 13.414999</gml:upperCorner>
      </gml:Envelope>
   </wfs:boundedBy>
   <wfs:member>
      <dgd:GravityStation gml:id="SE.LM.GETP.121">
         <sam:sampledFeature xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
         <sam:relatedObservation>
            <om:OM_Observation gml:id="SE.LM.GETP.121.Observation">
               <om:phenomenonTime>
                  <gml:TimeInstant gml:id="SE.LM.GETP.121.phenomenonTime">
                     <gml:timePosition>1963</gml:timePosition>
                  </gml:TimeInstant>
               </om:phenomenonTime>
               <om:resultTime xlink:href="#SE.LM.GETP.121.phenomenonTime"/>
               <om:procedure>
                  <dgd:GravityProcedure>

<dgd:instrumentManufacturer>WORDEN</dgd:instrumentManufacturer>
                     <dgd:serialNumber/>
                     <dgd:basePoints/>
                  </dgd:GravityProcedure>
               </om:procedure>
               <om:observedProperty xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
               <om:featureOfInterest xlink:href="#SE.LM.GETP.121"/>
               <om:result>
```

```
                  <dgd:GravityResult>
                     <dgd:gravity>981522.97</dgd:gravity>
                     <dgd:system>RG 82</dgd:system>
                     <dgd:epoch>1982</dgd:epoch>
                     <dgd:permTide>ZERO</dgd:permTide>
                     <dgd:sigma>0.07</dgd:sigma>
                     <dgd:freeAirAnomaly>-13.04</dgd:freeAirAnomaly>
                     <dgd:freeAirSigma>0.11</dgd:freeAirSigma>
                     <dgd:freeAirNormalField>GRS
80</dgd:freeAirNormalField>
                     <dgd:freeAirSurfaceMethod/>
                  </dgd:GravityResult>
               </om:result>
            </om:OM_Observation>
         </sam:relatedObservation>
         <sams:positionalAccuracy>
            <gmd:DQ_RelativeInternalPositionalAccuracy>
               <gmd:result>
                  <gmd:DQ_QuantitativeResult>
                     <gmd:valueUnit/>
                     <gmd:value>
                        <gco:Record>0.05</gco:Record>
                     </gmd:value>
                  </gmd:DQ_QuantitativeResult>
               </gmd:result>
            </gmd:DQ_RelativeInternalPositionalAccuracy>
         </sams:positionalAccuracy>
         <sams:shape>
            <gml:Point gml:id="SE.LM.GETP.121.shape"
srsName="urn:ogc:def:crs:EPSG::5628">
               <gml:pos>55.350638 13.262382 3.97</gml:pos>
            </gml:Point>
         </sams:shape>
         <ge_gp:inspireId
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0">
            <base:Identifier>
               <base:localId>121</base:localId>
               <base:namespace>SE.LM.GETP</base:namespace>
            </base:Identifier>
         </ge_gp:inspireId>
         <ge_gp:citation
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0">
            <base2:DocumentCitation gml:id="SE.LM.GETP.121.citation">
               <base2:name>INSPIRE Data Specification on Geology –
Technical Guidelines</base2:name>
               <base2:date>
                  <gmd:CI_Date>
                     <gmd:date>
                        <gco:Date>2013-12-10</gco:Date>
                     </gmd:date>
                     <gmd:dateType>
                        <gmd:CI_DateTypeCode
codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_191
```

```
39_Schemas/resources/codelist/ML_gmxCodelists.xml"
codeListValue="publication">publication</gmd:CI_DateTypeCode>
                    </gmd:dateType>
                </gmd:CI_Date>
            </base2:date>

<base2:link>http://inspire.ec.europa.eu/id/document/tg/ge</base2:link>
          </base2:DocumentCitation>
        </ge_gp:citation>
        <ge_gp:projectedGeometry
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0"
xlink:href="#SE.LM.GETP.121.shape"/>
        <ge_gp:verticalExtent
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0" xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
        <ge_gp:distributionInfo
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0" xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
        <ge_gp:largerWork
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0" xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
        <ge_gp:relatedModel
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0" xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
        <ge_gp:platformType
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0"
xlink:href="http://inspire.ec.europa.eu/codelist/PlatformTypeValue/ground"
/>
        <ge_gp:relatedNetwork
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0" xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
        <ge_gp:stationType
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0"
xlink:href="http://inspire.ec.europa.eu/codelist/StationTypeValue/gravityS
tation"/>
        <ge_gp:stationRank
xmlns:ge_gp="http://inspire.ec.europa.eu/schemas/ge_gp/4.0" xsi:nil="true"
nilReason="http://inspire.ec.europa.eu/codelist/VoidReasonValue/Unknown"/>
        <dgd:point/>
        <dgd:name/>
        <dgd:measurementEpoch>1963</dgd:measurementEpoch>
        <dgd:owner>LM</dgd:owner>
        <dgd:project>DOLD</dgd:project>
        <dgd:positionMethod>5</dgd:positionMethod>
        <dgd:heightMethod>6</dgd:heightMethod>
        <dgd:heightType>1</dgd:heightType>
        <dgd:geoid/>
      </dgd:GravityStation>
   </wfs:member>

   ...
</wfs:FeatureCollection>
```

Datamängd DGD data exchange file (indexruta 61_3), Tyngdkraftspunkter

Exempel

```
1626 T ""             ""                "51285101"     "LM"   2 1111-11-11
1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015 "L&R"
""          5  7 ""                "SWEREF 99"      56.90019700
12.42559800    2.000  9999.0000 "RH 2000"      "1"      .1400  9999.0000
.500   1 F "RG 82"        1982.00 "ZERO"        981693.260    .07  2   0
"RG 62"          26.05 "GRS 80"   ""            .17 9999 ""
     1627 T ""             ""                "51375101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      56.93126400
12.34915100    2.000  9999.0000 "RH 2000"      "1"     2.1200  9999.0000
1.500   1 F "RG 82"        1982.00 "ZERO"        981696.870    .07  2   0
"RG 62"          27.70 "GRS 80"   ""            .47 9999 ""
     1628 T ""             ""                "51395101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      56.92559800
12.46454700    2.000  9999.0000 "RH 2000"      "1"    16.1700  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981693.040    .07  2   0
"RG 62"          28.67 "GRS 80"   ""            .08 9999 ""
     1629 T ""             ""                "51485102"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      56.98163500
12.39665300    2.000  9999.0000 "RH 2000"      "1"    15.2900  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981698.500    .07  2   0
"RG 62"          29.21 "GRS 80"   ""            .08 9999 ""
     1630 T ""             ""                "51495101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      56.98597700
12.48448300    2.000  9999.0000 "RH 2000"      "1"    29.6400  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981696.420    .07  2   0
"RG 62"          31.20 "GRS 80"   ""            .08 9999 ""
     1631 T ""             ""                "51575101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.01869000
12.34218600    2.000  9999.0000 "RH 2000"      "1"     7.8600  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981699.990    .07  2   0
"RG 62"          25.34 "GRS 80"   ""            .08 9999 ""
     1632 T ""             ""                "51595101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.03134300
12.44697800    2.000  9999.0000 "RH 2000"      "1"    34.6200  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981693.960    .07  2   0
"RG 62"          26.52 "GRS 80"   ""            .08 9999 ""
     1633 T ""             ""                "51675101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.05074500
12.30572400    2.000  9999.0000 "RH 2000"      "1"    18.2000  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981699.310    .07  2   0
```

```
"RG 62"          25.20 "GRS 80"   ""            .08 9999 ""
     1634 T ""             ""               "51685101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5 99 ""                "SWEREF 99"      57.06576900
12.38431500    2.000  9999.0000 "RH 2000"      "1"    27.0100  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981696.080    .07  2   0
"RG 62"          23.44 "GRS 80"   ""            .08 9999 ""
     1635 T ""             ""               "51695101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  5 ""                "SWEREF 99"      57.09468700
12.45676300    2.000  9999.0000 "RH 2000"      "1"    75.1200  9999.0000
1.500   1 F "RG 82"        1982.00 "ZERO"        981682.430    .07  2   0
"RG 62"          22.24 "GRS 80"   ""            .47 9999 ""
     1636 T ""             ""               "51765101"     "LM"   2
1111-11-11 1960.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1012
"WORDEN"   ""          5  6 ""                "SWEREF 99"      57.09307300
12.25154500    2.000  9999.0000 "RH 2000"      "1"    40.6300  9999.0000
.500   1 F "RG 82"        1982.00 "ZERO"        981694.860    .03  2   0
"RG 62"          24.16 "GRS 80"   ""            .16 9999 ""
     1637 T ""             ""               "51765103"     "LM"   2
1111-11-11 2000.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1012
"WORDEN"   ""          5  5 ""                "SWEREF 99"      57.09307300
12.25154500    2.000  9999.0000 "RH 2000"      "1"    40.1300  9999.0000
3.500   1 F "RG 82"        1982.00 "ZERO"        981696.350    .03  2   0
"RG 62"          25.50 "GRS 80"   ""           1.08 9999 ""
     1638 T ""             ""               "51765201"     "LM"   2
1111-11-11 2000.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1000
"WORDEN"   ""          5  5 ""                "SWEREF 99"      57.10951300
12.24815200    2.000  9999.0000 "RH 2000"      "1"     3.1300  9999.0000
3.500   1 F "RG 82"        1982.00 "ZERO"        981701.950    .03  2   0
"RG 62"          18.33 "GRS 80"   ""           1.08 9999 ""
     1639 T ""             ""               "51765301"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.12111000
12.22308300    2.000  9999.0000 "RH 2000"      "1"     4.4600  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981701.720    .07  2   0
"RG 62"          17.55 "GRS 80"   ""            .08 9999 ""
     1640 T ""             ""               "51775101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.10898900
12.30931200    2.000  9999.0000 "RH 2000"      "1"    32.6100  9999.0000
.500   1 F "RG 82"        1982.00 "ZERO"        981692.030    .07  2   0
"RG 62"          17.54 "GRS 80"   ""            .17 9999 ""
     1641 T ""             ""               "51785101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.11426000
12.38958600    2.000  9999.0000 "RH 2000"      "1"    34.7600  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981691.970    .07  2   0
"RG 62"          17.71 "GRS 80"   ""            .08 9999 ""
     1642 T ""             ""               "51795101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5  6 ""                "SWEREF 99"      57.13941800
12.48643600    2.000  9999.0000 "RH 2000"      "1"    68.4700  9999.0000
```

```
.050   1 F "RG 82"        1982.00 "ZERO"        981683.660    .07  2   0
"RG 62"          17.72 "GRS 80"   ""            .08 9999 ""
     1643 T ""             ""                "51875101"     "LM"   2
1111-11-11 1982.00 "DOLD" "Test data:Rev_Detaljbas_ver20100505_B"    1015
"L&R"      ""          5 99 ""                "SWEREF 99"      57.15210400
12.25745300    2.000  9999.0000 "RH 2000"      "1"     7.3700  9999.0000
.050   1 F "RG 82"        1982.00 "ZERO"        981699.520    .07  2   0
```

```
"RG 62"          13.69 "GRS 80"   ""            .08 9999 ""

...
```