

Integrated Geological Data System

File Description

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**Integrated Geological Data System**

**General Details**

**Introduction**

The Alberta Energy Regulator (AER) Integrated Geological Data System (IGDS) contains reservoir evaluation data on a zone basis for the majority of wells in Alberta. The header information is submitted by Industry, all the geological parameters are from analysis work done by AER geologists ang geolocical technicians based on Industry submitted logs and core.

Nonconfidential interpretive geological data in the IGDS is released on a monthly basis unless the well is confidential below a certain formation. In such cases the entire well is kept confidential.

**File Content**

* Zone top and base for productive or potentially productive zones
* Porosity top and base
* Fluid interface depth, if present
* Net and gross pay thickness
* Average porosity and water saturation
* Porosity and permeability cutoff, and water resistivity, where available

**File Characteristics**

* Record Format - Fixed length
* Record Length - 300 bytes
* File Size - Exceeds 600 megabytes
* Data Format - ASCII - Tab delimited data fields
* Sequence - Ascending sequence of: 1. CPA Identifier - Bytes 01 - 13
1. Record Type - Bytes 15 - 16
2. Formation Code - Bytes 18 – 21

**Available Format**

ASCII text

* Zipped data file
* ReadMe file in Microsoft Word format

**File Availability**

The IGDS File is available monthly, quarterly, and annually.

More information is available from:

 Information Services

Alberta Energy Regulator

Suite 1000, 250-5 Street SW

Calgary, Alberta

T2P 0R4

Telephone: (403) 297-8311, option (2)

Fax: (403) 297-7040

E-mail: InformationRequest@aer.ca

**New Subscribers**

To become a subscriber of this product please email your request specifying product name and subscription frequency to InformationRequest@aer.ca , you will be asked to provide a letter of intent at the time of order

**Rights**

The AER retains the proprietary rights on all data sold.

Purchasers of AER data files are permitted to use the files to select and process data for internal or client use and to release copies of small portions of the files on computer media, that result from specialized retrievals, to their clients; copying of a complete file or a large portion of a file for resale is not permitted.

Arrangements may be made to obtain an initial copy and/or an update service for a full AER file or a substantial portion of an AER file from another purchaser, provided the supplier discusses with and receives approval from the AER Information Services Section prior to data transfer. The fee for granting such service will be based on a maximum of 75 per cent of the current rate for the file that may be obtained directly from the AER.

**Confidentiality**

All files and programs are processed to exclude confidential data. As data is released from confidential status, it is made available to purchasers of the update service.

**Disclaimer**

* The AER makes no representation, warranties or guarantees, expressed or implied, for the fitness of the data files with respect to intended use.
* The AER accepts no responsibility whatsoever for any inaccuracy, errors, or omissions in the data files.
* The AER shall not be responsible for any costs incurred by a company for the conversion, installation, or improvement of the data files.
* The AER does not guarantee the continuing availability of any data or the consistency of the transfer record format.
* Note that the IGDS is an internal working database, subject to further interpretations and changes by AER staff.

**Format Character Description**

|  |  |  |
| --- | --- | --- |
| Format Character | Definition | Description |
| 9 | Numeric | Represents any numeric character: 0 - 9. |
| A | Alphabetic | Represents any alphabetic character: A - Z. |
| C | Character | Represents any displayable character: 0 - 9, A - Z, punctuation, space, etc. |
| T | Tab (x’09’) | Represents the horizontal tab character. |
| X | Alphanumeric | Represents any alphabetic or numeric character: A - Z, 0 - 9. |
| . | Explicit Decimal Point | Indicates the position of the decimal point in a numeric field. |
| (9) | Repetition Factor | Indicates the repetition count for the format character immediately to the right. |
| Examples:1. 9999.99 - represents a numeric field with an explicit decimal point 2 digits from the right. The number 25.78 would be represented as 0025.78 in the file.
2. (35)C - represents a 35 character field containing any displayable characters: 0 - 9, A - Z, punctuation, space, etc. An example would be the well name: TALISMAN 5D CHAUVS 5-14-43-2 padded on the right with spaces to form a character field 35 characters long

  |

Note: The ‘Format’ column (column 6) of all subsequent Data File Record Format definitions contain Format Characters to define the characteristics of each data field. These characteristics include:

1. Data field length.
2. Data field composition: Alphabetic, Numeric, Alphanumeric, or any Displayable Character.
3. The location of the explicit decimal point for Numeric fields.

**Integrated Geological Data System**

**Record Format**

**Record Key Format**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 1 | [CPA Identifier](#CPA_Identifier) |  | 001-013 | 13 |  | Format detail follows |
|  |  Township  |  | 001-003 | 3 | 999 |  |
|  |  *Meridian* |  | 004-004 | 1 | 9 |  |
|  |  *Range* |  | 005-006 | 2 | 99 |  |
|  |  *Section* |  | 007-008 | 2 | 99 |  |
|  |  *Legal Subdivision* |  | 009-010 | 2 | 99 |  |
|  |  *Location Exception* |  | 011-012 | 2 | XX |  |
|  |  *Event Sequence* |  | 013-013 | 1 | 9 |  |
|  | Tab Delimiter |  | 014-014 | 1 | T |  |
| 2 | Record Type |  | 015-016 | 2 | 99 | Valid values: 00, 10, 20, 30, 40 |
|  | Tab Delimiter |  | 017-017 | 1 | T |  |
| 3 | [Formation Code](#Formation_Code) |  | 018-021 | 4 | 9999 | Value is always 0000 for [Record Type 00](#Record_Type_00_Format) |

Note: This Record Key applies to all of the following record types, and is referenced as the first element of each Record Format definition.

**Record Type 00 Format -** Basic Well Data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 1 | Record Key |  | 001-021 | 21 |  | Refer to [Record Key Format](#Record_Key_Format) for details |
|  | Tab Delimiter |  | 022-022 | 1 | T |  |
| 2 | [Unique Well Identifier](#Unique_Well_Identifier) |  | 023-041 | 19 |  | Format detail follows |
|  |  Location Exception |  | 023-024 | 2 | XX |  |
|  |  *Slash (/)* |  | 025-025 | 1 | C |  |
|  |  *Legal Subdivision* |  | 026-027 | 2 | 99 |  |
|  |  *Dash (-)* |  | 028-028 | 1 | C |  |
|  |  *Section* |  | 029-030 | 2 | 99 |  |
|  |  *Dash (-)* |  | 031-031 | 1 | C |  |
|  |  *Township* |  | 032-034 | 3 | 999 |  |
|  |  *Dash (-)* |  | 035-035 | 1 | C |  |
|  |  *Range* |  | 036-037 | 2 | 99 |  |
|  |  *W* |  | 038-038 | 1 | A |  |
|  |  *Meridian* |  | 039-039 | 1 | 9 |  |
|  |  *Slash (/)* |  | 040-040 | 1 | C |  |
|  |  *Event Sequence* |  | 041-041 | 1 | 9 |  |
|  | Tab Delimiter |  | 042-042 | 1 | T |  |
| 3 | [Well Name](#Well_Name) |  | 043-078 | 36 | (36)C |  |
|  | Tab Delimiter |  | 079-079 | 1 | T |  |
| 4 | [License Number](#License_Number) |  | 080-088 | 9 | (9)X |  |
|  | Tab Delimiter |  | 089-089 | 1 | T |  |
| 5 | [KB Elevation](#KB_Elevation) | m | 090-096 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 097-097 | 1 | T |  |
| 6 | [Well Total Depth](#Well_Total_Depth) | m | 098-104 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 105-105 | 1 | T |  |
| 7 | Blank |  | 106-300 | 195 | (195)C | Remainder of record consists of blanks |

**Record Type 10 Format** - Formation Data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 1 | Record Key |  | 001-021 | 21 |  | Refer to [Record Key Format](#Record_Key_Format) for details |
|  | Tab Delimiter |  | 022-022 | 1 | T |  |
| 2 | [Formation Name Abbrev](#Formation_Name_Abbrev) |  | 023-031 | 9 | (9)C |  |
|  | Tab Delimiter |  | 032-032 | 1 | T |  |
| 3 | [Zone Description](#Zone_Description) |  | 033-042 | 10 | (10)C |  |
|  | Tab Delimiter |  | 043-043 | 1 | T |  |
| 4 | [Evaluation Method Code](#Evaluation_Method_Code) |  | 044-044 | 1 | C |  |
|  | Tab Delimiter |  | 045-045 | 1 | T |  |
| 5 | [Pay Exception Code](#Pay_Exception_Code) |  | 046-046 | 1 | 9 |  |
|  | Tab Delimiter |  | 047-047 | 1 | T |  |
| 6 | [Oil Sands Confidence Code](#Oil_Sands_Confidence_Code) |  | 048-049 | 2 | 99 |  |
|  | Tab Delimiter |  | 050-050 | 1 | T |  |
| 7 | Blank |  | 051-300 | 250 | (250)C | Remainder of record consists of blanks |

**Record Type 20 Format** – Depth Data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 1 | Record Key |  | 001-021 | 21 |  | Refer to [Record Key Format](#Record_Key_Format) for details |
|  | Tab Delimiter |  | 022-022 | 1 | T |  |
| 2 | [Depth Type Code](#Depth_Type_Code) |  | 023-024 | 2 | 99 |  |
|  | Tab Delimiter |  | 025-025 | 1 | T |  |
| 3 | [Zone Top](#Zone_Top) | m | 026-032 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 033-033 | 1 | T |  |
| 4 | Zone Top Selection Basis Code |  | 034-034 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 035-035 | 1 | T |  |
| 5 | [Porosity Top](#Porosity_Top) | m | 036-042 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 043-043 | 1 | T |  |
| 6 | Porosity Top Selection Basis Code |  | 044-044 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 045-045 | 1 | T |  |
| 7 | Unit 1 Top | m | 046-052 | 7 | 9999.99 | See [Unit Top](#Unit_Top) definition |
|  | Tab Delimiter |  | 053-053 | 1 | T |  |
| 8 | Unit 1 Top Selection Basis Code |  | 054-054 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 055-055 | 1 | T |  |
| 9 | Unit 2 Top | m | 056-062 | 7 | 9999.99 | See [Unit Top](#Unit_Top) definition |
|  | Tab Delimiter |  | 063-063 | 1 | T |  |
| 10 | Unit 2 Top Selection Basis Code |  | 064-064 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 065-065 | 1 | T |  |
| 11 | Unit 3 Top | m | 066-072 | 7 | 9999.99 | See [Unit Top](#Unit_Top) definition |
|  | Tab Delimiter |  | 073-073 | 1 | T |  |
| 12 | Unit 3 Top Selection Basis Code |  | 074-074 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |   | 075-075 | 1 | T |  |
| 13 | [Gas/Oil Interface](#Gas_Oil_Interface) | m | 076-082 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 083-083 | 1 | T |  |
| 14 | Gas/Oil Interface Selection Basis Code |  | 084-084 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |   | 085-085 | 1 | T |  |
| 15 | [Gas/Water Interface](#Gas_Water_Interface) | m | 086-092 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 093-093 | 1 | T |  |
| 16 | Gas/Water Interface Selection Basis Code |  | 094-094 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 095-095 | 1 | T |  |

**Record Type 20 Format** – Depth Data (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 17 | [Oil/Water Interface](#Oil_Water_Interface) | m | 096-102 | 7 | 9999.99 |  |
|  | Tab Delimiter |   | 103-103 | 1 | T |  |
| 18 | Oil/Water Interface Selection Basis Code |  | 104-104 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 105-105 | 1 | T |  |
| 19 | [Water/Oil Interface](#Water_Oil_Interface) | m | 106-112 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 113-113 | 1 | T |  |
| 20 | Water/Oil Interface Selection Basis Code |  | 114-114 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |   | 115-115 | 1 | T |  |
| 21 | [Porosity Base](#Porosity_Base) | m | 116-122 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 123-123 | 1 | T |  |
| 22 | Porosity Base Selection Basis Code |  | 124-124 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 125-125 | 1 | T |  |
| 23 | [Zone Base](#Zone_Base) | m | 126-132 | 7 | 9999.99 |  |
|  | Tab Delimiter |   | 133-133 | 1 | T |  |
| 24 | Zone Base Selection Basis Code |  | 134-134 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 135-135 | 1 | T |  |
| 25 | [Bitumen Top](#Bitumen_Top) | m | 136-142 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 143-143 | 1 | T |  |
| 26 | Bitumen Top Selection Basis Code |  | 144-144 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |  | 145-145 | 1 | T |  |
| 27 | [Bitumen Base](#Bitumen_Base) | m | 146-152 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 153-153 | 1 | T |  |
| 28 | Bitumen Base Selection Basis Code |  | 154-154 | 1 | 9 | See [Selection Basis Code](#Selection_Basis_Code) definition |
|  | Tab Delimiter |   | 155-155 | 1 | T |  |
| 29 | Blank |  | 156-300 | 145 | (145)X | Remainder of record consists of blanks |

**Record Type 30 Format** – Pay Data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 1 | Record Key |  | 001-021 | 21 |  | Refer to [Record Key Format](#Record_Key_Format) for details |
|  | Tab Delimiter |  | 022-022 | 1 | T |  |
| 2 | [Pay Top Code](#Pay_Top_Code) |   | 023-024 | 2 | 99 | See [Depth Code Table](#Depth_Code_Table) |
|  | Tab Delimiter |  | 025-025 | 1 | T |  |
| 3 | [Log Pay Top Depth](#Log_Pay_Top_Depth) | m | 026-032 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 033-033 | 1 | T |  |
| 4 | [Pay Base Code](#Pay_Base_Code) |   | 034-035 | 2 | 99 | See [Depth Code Table](#Depth_Code_Table) |
|  | Tab Delimiter |  | 036-036 | 1 | T |  |
| 5 | [Log Pay Base Depth](#Log_Pay_Base_Depth) | m | 037-043 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 044-044 | 1 | T |  |
| 6 | [Pay Type Code](#Pay_Type_Code) |  | 045-046 | 2 | 99 | See [Pay Type Code Table - Numeric](#Pay_Type_Code_Table_Numeric) |
|  | Tab Delimiter |  | 047-047 | 1 | T |  |
| 7 | [Oil Sands Resource Code](#Oil_Sands_Resource_Code) |  | 048-049 | 2 | CC |  |
|  | Tab Delimiter |  | 050-050 | 1 | T |  |
| 8 | [Log Gross Pay](#Log_Gross_Pay) | m | 051-057 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 058-058 | 1 | T |  |
| 9 | [Log Net Pay](#Log_Net_Pay) | m | 059-065 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 066-066 | 1 | T |  |
| 10 | Log Net Pay Value Indicator |  | 067-067 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 068-068 | 1 | T |  |
| 11 | [True Vertical Depth Gross Pay](#True_Vertical_Depth_Gross_Pay) | m | 069-074 | 6 | 999.99 |  |
|  | Tab Delimiter |  | 075-075 | 1 | T |  |
| 12 | [True Vertical Depth Net Pay](#True_Vertical_Depth_Net_Pay) | m | 076-081 | 6 | 999.99 |  |
|  | Tab Delimiter |  | 082-082 | 1 | T |  |
| 13 | True Vertical Depth Net Pay Value Indicator |  | 083-083 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 084-084 | 1 | T |  |
| 14 | [Core Gross Pay](#Core_Gross_Pay) | m | 085-090 | 6 | 999.99 |  |
|  | Tab Delimiter |   | 091-091 | 1 | T |  |
| 15 | Core Gross Pay Value Indicator |  | 092-092 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 093-093 | 1 | T |  |
| 16 | [Core Net Pay](#Core_Net_Pay) | m | 094-099 | 6 | 999.99 |  |
|  | Tab Delimiter |  | 100-100 | 1 | T |  |

**Record Type 30 Format** – Pay Data (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 17 | Core Net Pay Value Indicator |   | 101-101 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 102-102 | 1 | T |  |
| 18 | [Oil Sands Pay Top Depth](#Oil_Sands_Pay_Top_Depth) | m | 103-109 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 110-110 | 1 | T |  |
| 19 | [Oil Sands Pay Base Depth](#Oil_Sands_Pay_Base_Depth) | m | 111-117 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 118-118 | 1 | T |  |
| 20 | [Allowable Indicator](#Allowable_Indicator) |   | 119-119 | 1 | C |  |
|  | Tab Delimiter |  | 120-120 | 1 | T |  |
| 21 | [Isopach Indicator](#Isopach_Indicator) |  | 121-121 | 1 | C |  |
|  | Tab Delimiter |  | 122-122 | 1 | T |  |
| 22 | [Assignment Area](#Assignment_Area) | ha | 123-126 | 4 | 9999 |  |
|  | Tab Delimiter |  | 127-127 | 1 | T |  |
| 23 | [Assignment Indicator](#Assignment_Indicator) |  | 128-128 | 1 | C |  |
|  | Tab Delimiter |  | 129-129 | 1 | T |  |
| 24 | [Oil Column Thickness](#Oil_Column_Thickness) | m | 130-135 | 6 | 999.99 |  |
|  | Tab Delimiter |  | 136-136 | 1 | T |  |
| 25 | Oil Column Thickness Value Indicator |  | 137-137 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 138-138 | 1 | T |  |
| 26 | [Total Assigned Pay](#Total_Assigned_Pay) | m | 139-145 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 146-146 | 1 | T |  |
| 27 | Total Assigned Pay Value Indicator |  | 147-147 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 148-148 | 1 | T |  |
| 28 | [Porosity Cutoff](#Porosity_Cutoff) | Fract | 149-152 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 153-153 | 1 | T |  |
| 29 | Porosity Cutoff Value Indicator |  | 154-154 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 155-155 | 1 | T |  |
| 30 | [Permeability Cutoff](#Permeability_Cutoff) | mD | 156-160 | 5 | 99.99 |  |
|  | Tab Delimiter |  | 161-161 | 1 | T |  |
| 31 | Permeability Cutoff Value Indicator |  | 162-162 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 163-163 | 1 | T |  |
| 32 | [Thickness Cutoff](#Thickness_Cutoff) | m | 164-167 | 4 | 99.9 |  |
|  | Tab Delimiter |  | 168-168 | 1 | T |  |

**Record Type 30 Format** – Pay Data (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 33 | Thickness Cutoff Value Indicator |  | 169-169 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 170-170 | 1 | T |  |
| 34 | [Bitumen Mass Percent Cutoff](#Bitumen_Mass_Percent_Cutoff) | Fract | 171-175 | 5 | 9.999 |  |
|  | Tab Delimiter |  | 176-176 | 1 | T |  |
| 35 | Bitumen Mass Percent Cutoff Value Indicator |  | 177-177 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 178-178 | 1 | T |  |
| 36 | [Shale Volume Cutoff](#Shale_Volume_Cutoff) | Fract | 179-182 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 183-183 | 1 | T |  |
| 37 | Shale Volume Cutoff Value Indicator |  | 184-184 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 185-185 | 1 | T |  |
| 38 | [Water Saturation Cutoff](#Water_Saturation_Cutoff) | Fract | 186-189 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 190-190 | 1 | T |  |
| 39 | Water Saturation Cutoff Value Indicator |  | 191-191 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 192-192 | 1 | T |  |
| 40 | [Porosity Average](#Porosity_Average) | Fract | 193-196 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 197-197 | 1 | T |  |
| 41 | Porosity Average Value Indicator |  | 198-198 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 199-199 | 1 | T |  |
| 42 | [Permeability Average](#Permeability_Average) | mD | 200-206 | 7 | 9999.99 |  |
|  | Tab Delimiter |  | 207-207 | 1 | T |  |
| 43 | Permeability Average Value Indicator |  | 208-208 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 209-209 | 1 | T |  |
| 44 | [Bitumen Mass Percent Average](#Bitumen_Mass_Percent_Average) | Fract | 210-214 | 5 | 9.999 |  |
|  | Tab Delimiter |  | 215-215 | 1 | T |  |
| 45 | Bitumen Mass Percent Average Value Indicator |  | 216-216 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 217-217 | 1 | T |  |
| 46 | [Shale Volume Average](#Shale_Volume_Average) | Fract | 218-221 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 222-222 | 1 | T |  |
| 47 | Shale Volume Average Value Indicator |  | 223-223 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 224-224 | 1 | T |  |

**Record Type 30 Format** – Pay Data (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 48 | [Water Saturation Average](#Water_Saturation_Average) | Fract | 225-228 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 229-229 | 1 | T |  |
| 49 | Water Saturation Average Value Indicator |  | 230-230 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 231-231 | 1 | T |  |
| 50 | [Water Resistivity](#Water_Resistivity) | Ω·m | 232-237 | 6 | 99.999 | Water Resistivity at formation temperature |
|  | Tab Delimiter |  | 238-238 | 1 | T |  |
| 51 | Water Resistivity Value Indicator |  | 239-239 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 240-240 | 1 | T |  |
| 52 | [Water Resistivity Source Code](#Water_Resistivity_Source_Code) |  | 241-241 | 1 | 9 |  |
|  | Tab Delimiter |  | 242-242 | 1 | T |  |
| 53 | [Residual Oil Saturation](#Residual_Oil_Saturation) | Fract | 243-246 | 4 | 9.99 |  |
|  | Tab Delimiter |  | 247-247 | 1 | T |  |
| 54 | Residual Oil Saturation Value Indicator |  | 248-248 | 1 | C | See [Value Indicator](#Value_Indicator) definition |
|  | Tab Delimiter |  | 249-249 | 1 | T |  |
|  | Geological Pool Data |  | 250-270 | 21 |  | Detail follows |
| 55 | [Field / Strike Area Code](#Field_Strike_Area_Code) |  | 250-253 | 4 | 9999 |  |
|  | Tab Delimiter |  | 254-254 | 1 | T |  |
| 56 | [Geological Pool Code](#Geological_Pool_Code) |  | 255-261 | 7 | (7)9 |  |
|  | Tab Delimiter |  | 262-262 | 1 | T |  |
| 57 | Gas Pool Sequence Code |  | 263-265 | 3 | 999 | See [Pool Sequence Code](#Pool_Sequence_Code) definition |
|  | Tab Delimiter |  | 266-266 | 1 | T |  |
| 58 | Oil Pool Sequence Code |  | 267-269 | 3 | 999 | See [Pool Sequence Code](#Pool_Sequence_Code) definition |
|  | Tab Delimiter |  | 270-270 | 1 | T |  |
|  | Area / Deposit Data |  | 271-283 | 13 |  | Detail follows |
| 59 | [Oil Sands Area Code](#Oil_Sands_Area_Code) |  | 271-274 | 4 | CCCC |  |
|  | Tab Delimiter |  | 275-275 | 1 | T |  |
| 60 | [Oil Sands Deposit Code](#Oil_Sands_Deposit_Code) |  | 276-282 | 7 | (7)9 |  |
|  | Tab Delimiter |  | 283-283 | 1 | T |  |
|  | Sector / Pool Data |  | 284-300 | 17 |   | Detail follows |
| 61 | [Oil Sands Sector Code](#Oil_Sands_Sector_Code) |  | 284-287 | 4 | CCCC |  |
|  | Tab Delimiter |  | 288-288 | 1 | T |  |
| 62 | [Oil Sands Pool Code](#Oil_Sands_Pool_Code) |  | 289-295 | 7 | (7)9 |  |
|  | Tab Delimiter |  | 296-296 | 1 | T |  |

**Record Type 30 Format** – Pay Data (Continued)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 63 | Oil Sands Pool Sequence Code |  | 297-299 | 3 | 999 | See [Pool Sequence Code](#Pool_Sequence_Code) definition |
|  | Tab Delimiter |  | 300-300 | 1 | T |  |

**Record Type 40 Format** – Other Evaluation Data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Element Name** | Units | **Location** | Size | **Format** | Comments |
| 1 | Record Key |  | 001-021 | 21 |  | Refer to [Record Key Format](#Record_Key_Format) for details |
|  | Tab Delimiter |  | 022-022 | 1 | T |  |
| 2 | [Formation Name Abbrev](#Formation_Name_Abbrev) |  | 023-031 | 9 | (9)C |  |
|  | Tab Delimiter |  | 032-032 | 1 | T |  |
| 3 | [Zone Description](#Zone_Description) |  | 033-042 | 10 | (10)C |  |
|  | Tab Delimiter |  | 043-043 | 1 | T |  |
| 4 | [Zone Top](#Zone_Top) | m | 044-050 | 7 | 9999.99 | Value is always True Vertical Depth |
|  | Tab Delimiter |  | 051-051 | 1 | T |  |
| 5 | [Zone Base](#Zone_Base) | m | 052-058 | 7 | 9999.99 | Value is always True Vertical Depth |
|  | Tab Delimiter |  | 059-059 | 1 | T |  |
| 6 | [Pay Type Code](#Pay_Type_Code) |  | 060-061 | 2 | CC | See [Pay Type Code Table - Alphabetic](#Pay_Type_Code_Table_Alphabetic) |
|  | Tab Delimiter |  | 062-062 | 1 | T |  |
| 7 | Blank |  | 063-300 | 238 | (238)X | Remainder of record consists of blanks |

**Integrated Geological Data System**

**Data Element Definition**

**Data Element Definition**

|  |  |
| --- | --- |
| **Data Element** | Definition |
| Allowable Indicator | Indicates if an O-38 form ‘Application For A New Well Base Allowable Or Base MRL’ has been received and evaluated. Valid values include:Blank - O-38 has not been received. 0 - O-38 has not been received.N - O-38 has not been received.Y - O-38 has been received and evaluated. |
| Assignment Area | The area surrounding a well for which reserves have been proven. The area size is interpreted taking into consideration facies, well control, and engineering studies. Assignment area is only determined for wells that are not isopached. The value is expressed in hectares. |
| Assignment Indicator | Indicates if a zone is on assignment rather than isopached. Valid values include:Blank - Assignment not used.0 - Assignment not used.J - Zone is on joint assignment – involves two or more wells within the same pool.N - Assignment not used.Y - Zone is on assignment but no assignment area is given. Used only for oil evaluations. |
| Bitumen Base | Depth assigned to the last point where the applicable cutoffs are met or exceeded for a bitumen filled zone. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Bitumen Mass Percent Average | The percent of total rock mass including matrix, shale, water, and bitumen that is due to bitumen. Calculated only for zones where total pay is assigned. The value is expressed as a fraction. |
| Bitumen Mass Percent Cutoff | Minimum bitumen mass percent required for an interval to be included as net pay. The value is expressed as a fraction. |
| Bitumen Top | Depth assigned to the first point where the applicable cutoffs are met or exceeded for a bitumen filled zone. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Core Gross Pay | All core analyzed, quantitatively and qualitatively, between pay top and pay base from core. The value is expressed in meters. |
| Core Net Pay | Pay determined by applying cutoffs to core gross pay. The value is expressed in meters. |
| CPA Identifier | The CPA Identifier or Unique Well Identifier is the standard well identification developed by the Canadian Petroleum Association. It consists of three basic components: the legal survey location, the location exception code, and the event sequence code. These together define the approximate geographic location of an entity (drill hole, catalogue identifier, etc). The identifier should be unique, however variances may occur due to the Identifier corresponding to a top-hole or bottom-hole location.  |
| Depth Type Code | A code which indicates whether the depth is a Measured Log Depth, a True Vertical Depth, or a Core Analysis Depth. All codes are described in the [Depth Type Code Table](#Depth_Type_Code_Table) found in the next section of this document. |
| Evaluation Method Code | A code which indicates the method used to calculate reservoir parameters in an evaluated zone. For example a value of 6, denoting a ‘core only’ method, is used when logs are inadequate or not present and all results are from core. All codes are described in the [Evaluation Method Code Table](#Evaluation_Method_Code_Table) found in the next section of this document. |
| Field / Strike Area Code | The official code for the Field in which a well or drill hole is licensed or drilled. A Field is a geographic area legally defined by a Field Order. A Strike Area is any area that has had some indication of hydrocarbon and has the same code and name as the Field that it contains. A Strike Area has an extent that is equal to or greater than its Field. Many Strike Areas do not contain a Field since proven reserves have not yet been assigned. Field and Strike Area outlines can be viewed by accessing the Board Order System on the AER website. |
| Formation Code | Code identifying a specific mappable rock unit. All geologic rock units are coded as formations, even though stratigraphically the unit may be a group, formation, or member. Formation codes are used to identify a rock unit for evaluation purposes and are used in creating pool codes. Formation codes and names can be queried on the AER website. |

**Data Element Definition** (Continued)

|  |  |
| --- | --- |
| **Data Element** | Definition |
| Formation Name Abbrev | The abbreviated name of a mappable rock unit. The AER codes all mappable rock units as formations, even though stratigraphically the unit may be a group, formation, or member. Formation names are used to identify a rock unit for evaluation purposes and are used in creating pool names |
| Gas / Oil Interface | Depth assigned to the gas / oil interface. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Gas / Water Interface | Depth assigned to the gas / water interface. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Geological Pool Code | A code assigned by the AER denoting a natural underground reservoir containing or appearing to contain an accumulation of oil or gas or both, separated or appearing to be separated from any other such accumulation.System specific information:A pool is uniquely identified by its Field / Pool / Sequence Code. This code is comprised of a 4 digit Field / Strike Area Code, a 7 digit Pool Code, and a 2 digit Sequence Code. The Pool Code is composed of a leading zero, a 4 digit formation code, and a 2 digit suffix. The formation code will be any formation code allowed to be a declared pool. The 2 digit suffix will have a value of between 00 and 52 for defined pools, and a 98 for undefined pools. The Sequence Code is used to ensure the uniqueness of all undefined pools. This is a system generated number between 001 and 999. Defined pools generally have a sequence of 000 unless there are multiple hydrocarbon occurrences, in which instance the Sequence Code is also used to uniquely identify these pools. These occurrences include multiple gas caps or oil legs to a pool, and multiple sands that are given the same Pool Code. Formation codes, pool codes and pool names can be queried on the AER website. Pool outlines can be viewed by accessing the Board Order System on the AER website. |
| Isopach Indicator | Indicates if total pay assigned is based on a net pay isopach evaluation as follows:Blank - Net pay isopach map not used.H - Horizontal well, net pay data not isopached.M - Net pay isopach map not used due to map space limitations, etc.N - Net pay isopach map not used.Y - Net pay isopach map used. |
| KB Elevation | The elevation of the Kelly Bushing relative to sea level. The value is expressed in meters. |
| License Number | An identifier assigned by the AER when application is made to drill a well. |
| Log Gross Pay | Pay base from logs minus pay top from logs. The value is expressed in meters. |
| Log Net Pay | Pay determined by applying cutoffs to log gross pay. The value is expressed in meters. |
| Log Pay Base Depth | Depth assigned to the base of pay in a reservoir based on log interpretation. Depth must be one of the following: Zone Base, Porosity Base, Unit 2 Top, Unit 3 Top, Gas / Oil Interface, Oil / Water Interface, Gas / Water Interface, Water / Oil Interface, or Bitumen Base. When the depth is an interface or a bitumen base, then the Pay Type must be appropriate. For example, when the Log Pay Base Depth is the Oil / Water Interface, then the Pay Type must be a 2 which denotes an oil zone. Valid pay type codes are listed in the [Pay Type Code Table - Numeric](#Pay_Type_Code_Table_Numeric) found in the next section of this document. The Log Pay Base Depth is expressed in meters. |
| Log Pay Top Depth | Depth assigned to the top of pay in a reservoir based on log interpretation. Depth must be one of the following: Zone Top, Porosity Top, Unit 1 Top, Unit 2 Top, Unit 3 Top, Gas / Oil Interface, Oil / Water Interface, Gas / Water Interface, Water / Oil Interface, or Bitumen Top. When the depth is an interface or a bitumen top, then the Pay Type must be appropriate. For example, when the Log Pay Top Depth is the Oil / Water Interface, then the Pay Type must be a 3 which denotes a water zone. Valid pay type codes are listed in the [Pay Type Code Table - Numeric](#Pay_Type_Code_Table_Numeric) found in the next section of this document. The Log Pay Top Depth is expressed in meters. |

**Data Element Definition** (Continued)

|  |  |
| --- | --- |
| **Data Element** | Definition |
| Oil Column Thickness | The thickness of the oil zone, expressed in meters, after removing rock matrix and non-oil filled porosity. Oil Column Thickness = (net pay) x (porosity) x (oil saturation). Used in oil sands evaluations. The value is expressed in meters. |
| Oil Sands Area Code | A code identifying a geographic area and specific geologic strata as declared by an Oil Sands Area Order. Hydrocarbons other than gas or coal within the declared Oil Sands Area are considered as bitumen for the purposes of AER regulations. All codes are described in the [Oil Sands Area Code Table](#Oil_Sands_Area_Code_Table) found in the next section of this document. |
| Oil Sands Confidence Code | A code identifying the quality of data and evaluation. This is required for surface mineable oil sands, and is optional for insitu oil sands accumulations. Confidence codes are automatically created for pay types: PI (01), NI (09), NP (09), ER (03), and ND (03). Refer to the Alphabetic Pay Type Code Table and Numeric Pay Type Code Table, found in the next section of this document, for a description of all pay type codes. All codes are described in the [Oil Sands Confidence Code Table](#Oil_Sands_Confidence_Code_Table) found in the next section of this document. |
| Oil Sands Deposit Code | A code identifying a specific grouping of all accumulations of bitumen within a formation, within an oil sands area. By definition oil sands deposits only occur within oil sands areas. All codes are described in the [Oil Sands Deposit Code Table](#Oil_Sands_Deposit_Code_Table) found in the next section of this document. |
| Oil Sands Pay Base Depth | Base of oil sands pay determined from computerized log analysis where cut-offs have been applied to define the pay interval. The value must fall within the interval defined by the Pay Top and Pay Base Depths. The value is expressed in meters. |
| Oil Sands Pay Top Depth | Top of oil sands pay determined from computerized log analysis where cut-offs have been applied to define the pay interval. The value must fall within the interval defined by the Pay Top and Pay Base Depths. The value is expressed in meters. |
| Oil Sands Pool Code | A code identifying a specific accumulation of bitumen within a reservoir rock physically separate from other such pools. Each pool has a unique number within an Oil Sands Sector. |
| Oil Sands Resource Code | A code indicating an oil sands reserves type obtained by applying cutoffs that define a specific reserves type (ie. in place cutoffs are used to define in place reserves, mineable cutoffs are used to define mineable reserves). All codes are described in the [Oil Sands Resource Code Table](#Oil_Sands_Resource_Code_Table) found in the next section of this document. |
| Oil Sands Sector Code | A code identifying a subdivision of an oil sands area. As of February 1, 1990, only the Cold Lake Oil Sands Area has sectors defined. Sector codes are used in a manner similar to field codes and start with the first letter of the oil sands area name. All codes are described in the [Oil Sands Sector Code Table](#Oil_Sands_Sector_Code_Table) found in the next section of this document. |
| Oil / Water Interface | Depth assigned to the oil / water interface. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Pay Base Code | A code identifying the depth at which the pay base occurs in a reservoir. Valid values for this code are shown in the [Depth Code Table](#Depth_Code_Table) found in the next section of this document. |
| Pay Exception Code | A code that allows abnormal but valid data to pass the edit requirements. All codes are described in the [Pay Exception Code Table](#Pay_Exception_Code_Table) found in the next section of this document. |
| Pay Top Code | A code identifying the depth at which the pay top occurs in a reservoir. Valid values for this code are shown in the [Depth Code Table](#Depth_Code_Table) found in the next section of this document. |
| Pay Type Code | A code identifying the type of resource (ie. gas, oil, bitumen) or the reason for the lack of resource (ie. wet, tight, not deposited). All codes are described in the [Pay Type Code Table - Alphabetic](#Pay_Type_Code_Table_Alphabetic) and the [Pay Type Code Table - Numeric](#Pay_Type_Code_Table_Numeric) found in the next section of this document. |
| Permeability Average | The average permeability calculated only for a unit or zone where total pay is assigned. The value is expressed in millidarcys. |
| Permeability Cutoff | Minimum permeability required for an interval to be included as net pay. The value is expressed in millidarcys. |

**Data Element Definition** (Continued)

|  |  |
| --- | --- |
| **Data Element** | Definition |
| Pool Sequence Code | A sequence code is used, when required, to uniquely identify individual parts of a pool, including all single well and joint assignments, of the same pay type which are assigned to the same pool. When multiple gas caps exist for an oil leg, or vise versa, at least one gas isopach and one oil isopach will have a common sequence code. Gas isopachs that require a sequence code get a gas sequence code, and oil and hydrocarbon isopachs that require a sequence code get an oil sequence code. Bitumen pools have an oil sands sequence code. |
| Porosity Average | The average porosity calculated only for a unit or zone where total pay is assigned. The value is expressed as a fraction. |
| Porosity Base | Depth assigned to the deepest point where the porosity meets or exceeds the porosity cutoff. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Porosity Cutoff | Minimum percent porosity required for an interval to be included as net pay. The value is expressed as a fraction. |
| Porosity Top | Depth assigned to the shallowest point where the porosity meets or exceeds the porosity cutoff. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Residual Oil Saturation | Percent of porosity in a gas zone that is filled with residual oil. The value is expressed as a fraction. |
| Selection Basis Code | A code identifying the source of the specific depth value. All codes are described in the [Selection Basis Code Table](#Selection_Basis_Code_Table) found in the next section of this document. |
| Shale Volume Average | The percent of rock that was formed by the consolidation of clay, mud, and silt and has a particle size less than 0.0625 mm. Calculated only for a unit or zone where total pay is assigned. The value is expressed as a fraction. |
| Shale Volume Cutoff | Maximum percent shale volume allowed for an interval to be included as net pay. The value is expressed as a fraction. |
| Thickness Cutoff | Minimum thickness required for an interval to be included as net pay. Used mainly in oil sands evaluations. The value is expressed in meters. |
| Total Assigned Pay | The proven pay assigned to a given unit or zone used to calculate in-place reserves in a pool or deposit. The value is expressed in meters. |
| True Vertical Depth Gross Pay | Pay base corrected to vertical, minus pay top corrected to vertical. The value is expressed in meters. |
| True Vertical Depth Net Pay | Pay determined by applying cutoffs to True Vertical Depth Gross Pay. The value is expressed in meters. |
| Unique Well Identifier | See definition for CPA Identifier. |
| Unit Top | Units are used for zones where up to 3 evaluations may be required for the same fluid type, using different cutoffs. An example would be one where the Unit 1 Top is the top of the conglomerate and the Unit 2 Top is the top of the sandstone. The conglomerate and sandstone are in communication and are evaluated as one zone, but different cutoffs are used resulting in 2 distinct intervals. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Value Indicator | January 2018 - No longer used and has become obsolete, therefore will be blank in all cases.Value indicators that previously had a value of 0 (to indicate a null value) will not be included in the file. |
| Water / Oil Interface | Depth assigned to the water / oil interface. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Water Resistivity | The resistivity of formation waters at formation temperature, expressed in ohm-meters. |

**Data Element Definition** (Continued)

|  |  |
| --- | --- |
| **Data Element** | Definition |
| Water Resistivity Source Code | Code indicating the source of the water resistivity value. All codes are described in the [Water Resistivity Source Code Table](#Water_Resistivity_Source_Code_Table) found in the next section of this document. |
| Water Saturation Average | The average water saturation calculated only for a unit or zone where total pay is assigned. The value is expressed as a fraction. |
| Water Saturation Cutoff | Maximum percent water saturation allowed for an interval to be included as net pay. The value is expressed as a fraction. |
| Well Name | Name assigned to the well at the time the well is licensed by the AER. |
| Well Total Depth | The total drilled depth of the well relative to the Kelly Bushing. The value is expressed in meters. |
| Zone Base | Depth assigned to the base of the zone. Zero is not valid, and denotes a null value. The value is expressed in meters. |
| Zone Description | A description identifying a specific zone within a formation. It is used to keep all evaluated formations within a wellbore unique. |
| Zone Top | Depth assigned to the top of the zone. Zero is not valid, and denotes a null value. The value is expressed in meters. |

**Integrated Geological Data System**

**Code Description**

**Depth Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 00 | Depth not available or not present |  |
| 01 | Zone top |  |
| 02 | Porosity top |  |
| 03 | Unit 1 top |  |
| 04 | Unit 2 top |  |
| 05 | Unit 3 top |  |
| 06 | Gas/Oil interface |  |
| 07 | Gas/Water interface |  |
| 08 | Oil/Water interface |  |
| 09 | Porosity base |  |
| 10 | Zone base |  |
| 11 | Bitumen top | Determined on the basis of a specific cutoff |
| 12 | Bitumen base | Determined on the basis of a specific cutoff |
| 13 | Water/Oil interface |  |

**Depth Type Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 01 | Measured Log Depth |  |
| 02 | Core Analysis Depth |  |
| 03 | Calculated True Vertical Depth |  |

**Evaluation Method Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| Blank | Unknown |  |
| 0 | Unknown | Applies to historical data only |
| 1 | Manual log evaluation |  |
| 2 | Computerized log evaluation |  |
| 3 | Programmable log evaluation |  |
| 4 | Company reported |  |
| 5 | Other |  |
| 6 | Core only |  |
| 7 | S-4 non-horizontal | Reservoir evaluation based on company completion information. Well is non-horizontal. |
| 8 | S-4 horizontal | Reservoir evaluation based on company completion information. Well is horizontal. |
| H | Horizontal |  |

**Oil Sands Area Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| Blank | Oil Sands Area Code not applicable | Conventional oil or gas evaluation |
| A001 | Athabasca Oil Sands Area |  |
| A010 | Cold Lake Oil Sands Area |  |
| A015 | Peace River Oil Sands Area 2 |  |
| A016 | Peace River Oil Sands Area 1 |  |

**Oil Sands Confidence Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 00 | No confidence code assigned |  |
| 01 | Not confident |  |
| 02 | Tolerable |  |
| 03 | Satisfactory |  |
| 04 | Good |  |
| 05 | Type well |  |
| 09 | No information |  |

**Oil Sands Deposit Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0000000 | Oil Sands Deposit Code not applicable | Conventional oil or gas evaluation |
| 0262100 | Upper Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0271000 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0275000 | Lower Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0280000 | Clearwater | Present in the Cold Lake Oil Sands Area |
| 0305000 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0306200 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0556000 | Belloy | Present in the Peace River Oil Sands Areas |
| 0611900 | Upper Debolt | Present in the Peace River Oil Sands Areas |
| 0639800 | Lower Debolt | Present in the Peace River Oil Sands Areas |
| 0640000 | Shunda | Present in the Peace River Oil Sands Areas |
| 0642000 | Pekisko | Present in the Peace River Oil Sands Areas |
| 0696000 | Nisku | Present in the Athabasca Oil Sands Area |
| 0716000 | Grosmont | Present in the Athabasca Oil Sands Area |

Note: A number of oil sands deposit codes exist in addition to those specified above, and are shown in the following table. These will be reviewed and addressed in future releases of this data file, and can be considered as interim.

**Oil Sands Deposit Code Table – Interim**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0262000 | Grand Rapids | Present in the Cold Lake Oil Sands Area |
| 0262098 | Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0262101 | Upper Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0262102 | Upper Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0262106 | Upper Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0262107 | Upper Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0262109 | Upper Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0262110 | Upper Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0262111 | Upper Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0262198 | Upper Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0271001 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271002 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271003 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271005 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271006 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271008 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271009 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271010 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271011 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271012 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0271098 | Middle Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0275001 | Lower Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0275002 | Lower Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0275003 | Lower Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0275005 | Lower Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0275006 | Lower Grand Rapids | Present in the Athabasca Oil Sands Area |
| 0275008 | Lower Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0275098 | Lower Grand Rapids | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0280001 | Clearwater | Present in the Cold Lake Oil Sands Area |

**Oil Sands Deposit Code Table – Interim** (Continued)

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0280013 | Clearwater | Present in the Cold Lake Oil Sands Area |
| 0280098 | Clearwater | Present in the Cold Lake Oil Sands Area |
| 0305001 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305002 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305003 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305006 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305007 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305008 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305009 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305010 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305012 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305014 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305015 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305016 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305017 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305018 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305019 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305020 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305022 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305023 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305024 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305025 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305026 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305027 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305028 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305029 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305030 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305031 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0305098 | Bluesky / Gething | Present in the Peace River Oil Sands Areas |
| 0306201 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306202 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306203 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306205 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306206 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |

**Oil Sands Deposit Code Table – Interim** (Continued)

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0306207 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306208 | Wabiskaw / McMurray | Present in the Athabasca Oil Sands Area |
| 0306210 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306211 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306212 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0306215 | Wabiskaw / McMurray | Present in the Athabasca Oil Sands Area |
| 0306298 | Wabiskaw / McMurray | Present in the Athabasca and Cold Lake Oil Sands Areas |
| 0611901 | Upper Debolt | Present in the Peace River Oil Sands Areas |
| 0611998 | Upper Debolt | Present in the Peace River Oil Sands Areas |
| 0639801 | Lower Debolt | Present in the Peace River Oil Sands Areas |
| 0639898 | Lower Debolt | Present in the Peace River Oil Sands Areas |
| 0640001 | Shunda | Present in the Peace River Oil Sands Areas |
| 0640098 | Shunda | Present in the Peace River Oil Sands Areas |
| 0642098 | Pekisko | Present in the Peace River Oil Sands Areas |
| 0696001 | Nisku | Present in the Athabasca Oil Sands Area |
| 0710498 | Upper Ireton | Present in the Athabasca Oil Sands Area |
| 0716001 | Grosmont | Present in the Athabasca Oil Sands Area |

**Oil Sands Resource Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| Blank | No resource code assigned |  |
| 00 | No resource code assigned |  |
| 01 | Significant |  |
| 02 | In place |  |
| 03 | Mineable |  |
| 04 | Established |  |
| 05 | Company |  |
| 09 | Core only evaluation |  |

**Oil Sands Sector Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| Blank | Oil Sands Sector Code not applicable |  |
| C001 | Frog Lake | Cold Lake Oil Sands Area |
| C002 | Lindbergh | Cold Lake Oil Sands Area |
| C003 | Saint Paul | Cold Lake Oil Sands Area |
| C004 | Saddle Lake | Cold Lake Oil Sands Area |
| C005 | Mann Lake | Cold Lake Oil Sands Area |
| C006 | Bonnyville | Cold Lake Oil Sands Area |
| C007 | Beaverdam | Cold Lake Oil Sands Area |
| C008 | Cold Lake | Cold Lake Oil Sands Area |
| C009 | Wolf Lake | Cold Lake Oil Sands Area |
| C010 | Seibert Lake | Cold Lake Oil Sands Area |
| C011 | Fisher Creek | Cold Lake Oil Sands Area |
| C012 | Primrose | Cold Lake Oil Sands Area |
| C921 | Frog Lake / Lindbergh | Cold Lake Oil Sands Area |
| C922 | Lindbergh / Saint Paul | Cold Lake Oil Sands Area |
| C924 | Frog Lake / Beaverdam | Cold Lake Oil Sands Area |
| C925 | Lindbergh / Beaverdam | Cold Lake Oil Sands Area |
| C930 | Beaverdam / Bonnyville | Cold Lake Oil Sands Area |
| C934 | Mann Lake / Seibert Lake | Cold Lake Oil Sands Area |
| C953 | Lindbergh / Beaverdam / Bonnyville | Cold Lake Oil Sands Area |
| C972 | Saddle Lake / Saint Paul / Mann Lake / Bonnyville | Cold Lake Oil Sands Area |

**Pay Exception Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0 | Normal evaluation | Default |
| 1 | Porosity-meters evaluation |  |
| 2 | Infill well S-4 evaluation | Reservoir evaluation based on company completion information. Well is within an existing pool boundary. |
| 3 | Depth exceeds TD |  |
| 4 | Depth exceeds TD and evaluation in porosity-meters |  |
| 5 | Valid intersecting zones | Applies to bitumen zone intersecting with bitumen, gas, or potential zones.  |
| 6 | Core depths present but core gross and net intervals not available |  |
| 7 | Infill wells |  |
| 8 | S-4 single well gas pool | Reservoir evaluation based on company completion information. Gas well is considered as s single well pool. |
| 9 | Historical data irregularity with intersecting zones  | Currently no longer used |

**Pay Type Code Table - Alphabetic**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| BT | Bitumen |  |
| ER | Zone completely eroded |  |
| HO | Heavy oil |  |
| ND | Not deposited |  |
| NE | Not evaluated infill well |  |
| NI | No information |  |
| NP | Not penetrated |  |
| PB | Potential bitumen |  |
| PD | Poorly developed |  |
| PG | Potential gas |  |
| PI | Poor or insufficient data |  |
| PO | Potential oil |  |
| SC | Shale filled channel |  |
| SH | Shale |  |
| TI | Tight |  |
| WT | Wet |  |

**Pay Type Code Table - Numeric**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 01 | Gas |  |
| 02 | Oil |  |
| 03 | Water |  |
| 04 | Hydrocarbon |  |
| 05 | Crude bitumen |  |
| 06 | Potential oil |  |
| 09 | Potential gas |  |
| 10 | Evaluated – no resource |  |
| 11 | Potential bitumen |  |

**Selection Basis Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0 | Unknown | Applies to historical data only |
| 1 | Core analysis |  |
| 2 | Test information |  |
| 3 | Log interpretation |  |
| 4 | Pool average |  |
| 5 | Company reported |  |
| 6 | Assumed |  |
| 7 | Total depth |  |
| 8 | Greater or less than depth indicated | Zone may extend above or below the depth indicated. |

**Water Resistivity Source Code Table**

|  |  |  |
| --- | --- | --- |
| **Code** | Description | Comments |
| 0 | Water resistivity not required |  |
| 1 | Assigned |  |
| 2 | Catalogue | Canadian Well Logging Society Catalogue |
| 3 | Water analysis |  |
| 4 | Log calculation |  |
| 5 | Core analysis |  |
| 6 | Other |  |
| 7 | Unknown |  |
| 8 | Water resistivity not used | Water saturation estimated or based on the pool average. |