IHS Energy Group

The following IHS Energy formats are available.

- IHS Energy Group 297 Well Format
- IHS Energy Group 297 Y2K Well Format
- IHS Energy Group 298 Well Format
- IHS Energy Group 298 Y2K Well Format

Data Import/Export by File : Formats : IHS Energy Group

IHS Energy Group 297 Well Format

The IHS Energy Group 297 format is used to read and distribute digital well and production data. The 297 files contain a variety of well information, including location information, formation tops, production data, perforation data, drilling data, core data, log curves, and deviation surveys. The format was developed by Petroleum Information/Dwights LLC d/b/a IHS Energy Group.

Petroleum Information and Dwights merged to become IHS Energy Group. At this time, IHS supports the 297 and 298 formats, as they are Y2K compliant. The 197 and PID (sometimes referred to as the 97 format) formats are no longer supported. The 297 files can be comma-delimited or field-delimited. Kingdom supports version 1.1 of the fixed field format. 297 files contain a well header section, followed by fixed-width fields that begin with a one or two-character record indicator.

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 297 Well Format

Format Description

The following tables describe the 297 format. You may import this type of file through **Wells > Import > Wells**, choose file type: IHSEnergy (*.pid, *.97*, *.98*, *.dp2, *.wds). You do not need to use the **Import Well Information File** text reader.

Table 10 Record Type—File Header Record

Field Description	Type	Position	Length
Record Key	alphanumeric	1	20
Data Type (“U.S. Well Data”	alphanumeric	21	20
Download Format (“297”)	alphanumeric	41	12
Version (xx_)	alphanumeric	53	4
Delimiter (comma or fixed)	alphanumeric	57	7
Write Date (YYYY/MM/DD)	alphanumeric	64	10
Count of Entities in Export File	numeric	74	6

For Y2K changes, see IHS Energy Group 297 Y2K Well Format.

Table 11 Record Type—Start Record Label

Field Description	Type	Position	Length
“START_US_WELL”	alphanumeric	1	30
UWI	alphanumeric	31	20

For Y2K changes, see IHS Energy Group 297 Y2K Well Format.

Table 12 Record Type A—General Information

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
API Number	alphanumeric	2	14
Latitude (±nn.nnnnn)	numeric	16	9
Longitude (±nnn.nnnnn)	numeric	25	10
Formation at Total Depth	alphanumeric	35	8
Producing Formation	alphanumeric	43	8
Initial Well Class	alphanumeric	51	1
Final Well Class	alphanumeric	52	1
Well Status	alphanumeric	53	6
Elevation	numeric	59	5
Elevation Reference	alphanumeric	64	2
Total Depth	numeric	66	5
Completion Date (yyyymmdd)	?	71	8
Lat/Long Source	alphanumeric	79	1

Table 13 Record Type BF—Footage Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
North/South Footage	numeric	3	5
North/South Direction	alphanumeric	8	4
East/West Footage	numeric	12	5
East/West Direction	alphanumeric	17	4
Footage Reference	alphanumeric	21	12
X Coordinate (±nnnnnnnn.nn)	numeric	33	12
Y Coordinate (±nnnnnnnn.nn)	numeric	45	12
Zone Code	alphanumeric	57	4
Projection	alphanumeric	61	1
Feet or Meters (F/M)	alphanumeric	62	1
Blank	alphanumeric	63	17

Table 14 Record Type BC—Congress and Carter Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Township Direction	alphanumeric	3	1
Township Number (xxx.x)	alphanumeric	4	5
Range Direction	alphanumeric	9	1
Range Number (xxx.x)	alphanumeric	10	5
Section or Equivalent Indictor	alphanumeric	15	3
Section or Equivalent Number (xxx.x)	alphanumeric	18	5
Spot	alphanumeric	23	8
Meridian Code	alphanumeric	31	2
Meridian Name	alphanumeric	33	17
State Code	alphanumeric	50	2
County Code	alphanumeric	52	3
Blank	alphanumeric	55	25

Table 15 Record Type BT—Texas Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Railroad District	alphanumeric	3	2
Block or League Indicator	alphanumeric	5	1
Block or League Number	alphanumeric	6	4
Block Fraction	alphanumeric	10	3
Section or Labor Indicator	alphanumeric	13	1
Section or Labor Number	alphanumeric	14	4
Section Fraction	alphanumeric	18	3
Lot Number	alphanumeric	21	4
Township Direction	alphanumeric	25	1
Township Number (xx.x)	alphanumeric	26	4
Survey Name	alphanumeric	30	16
Abstract Number	alphanumeric	46	7
State Code	alphanumeric	53	2
County Code	alphanumeric	55	3
Blank	alphanumeric	58	22

Table 16 Record Type BN—Northeast and Ohio Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Named Township	alphanumeric	3	22
Lot or Section Indicator	alphanumeric	25	1
Lot or Section Number	alphanumeric	26	5
Quadrangle Name	alphanumeric	31	20
Reference Latitude (±dd.mm.ss)	G2	51	9
Reference Longitude (±ddd.mm.ss)	G3	60	10
State Code	alphanumeric	70	2
County Code	alphanumeric	72	3
Blank	alphanumeric	75	5

Table 17 Record Type BO—Offshore Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
OCS Number	alphanumeric	3	8
Block Prefix	alphanumeric	11	1
Block Number	alphanumeric	12	6
Block Suffix	alphanumeric	18	1
Area Name	alphanumeric	19	8
UTM Quadrant	alphanumeric	27	7
State/Federal Waters Indicator	alphanumeric	34	1
Water Bottom Zone	alphanumeric	35	2
Blank	alphanumeric	37	43

Table 18 Record Type BM—Location from Monument

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Monument ID	alphanumeric	3	6
Monument Name	alphanumeric	9	37
Map distance from Monument to surface location	numeric	46	6
Azimuth (xxx.x)	numeric	52	5
Distance North or South in feet	numeric	57	5
'N' - North or 'S' – South	alphanumeric	62	1
Distance East or West in feet	numeric	63	5
'E' - East or 'W' – West	alphanumeric	68	1
Blank	alphanumeric	69	11

Table 19 Record Type C—Operator Information

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Operator Name	alphanumeric	2	23
Lease Name	alphanumeric	25	19
Well Number	alphanumeric	44	10
Permit Number	alphanumeric	54	7
Permit Date (yyyymm)	M	61	6
Field Code	alphanumeric	67	6
Province Cod	alphanumeric	73	3
Blank	alphanumeric	76	4

Table 20 Record Type DA—Miscellaneous General Information

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Bottom Hole Latitude (±nn.nnnnnn)	numeric	3	9
Bottom Hole Longitude (±nnn.nnnnn)	numeric	12	10
Field Name	alphanumeric	22	17
Platform	alphanumeric	39	22
Water Depth	numeric	61	5
Water/Ref Datum	alphanumeric	66	4
Lat/Long Source	alphanumeric	70	1
Spud Date (yyyymmdd)	D	71	8
Directional Indicator	alphanumeric	79	1

Table 21 Record Type DB—Additional Miscellaneous General Information

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
IC Number	alphanumeric	3	12
Activity Code	alphanumeric	15	1
Rig Release Date (yyyymmdd)	D	16	8
Abandoned Location Date (yyyymmdd)	D	24	8
First Report Date (yyyymmdd)	D	32	8
WRS First Report Date (yyyymmdd)	D	40	8
Last Activity Date (yyyymmdd)	D	48	8
Projected Formation	alphanumeric	56	8
Projected Depth	numeric	64	5
Initial Lahee Class	alphanumeric	69	3
Final Lahee Class	alphanumeric	72	3
Whipstock Depth	numeric	75	5

Table 22 Record Type DC—Additional Miscellaneous General Info. (Permit Filer)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Name of Permit Filer	alphanumeric	3	21

Title of Permit Filer	alphanumeric	24	21
Phone Number of Permit Filer	alphanumeric	45	14
Blank	alphanumeric	59	21

Table 23 Record Type ET—Formation Tops

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Formation Code	alphanumeric	3	8
Formation Depth	numeric	11	5
Source of Top Data	alphanumeric	16	1
Show Code	alphanumeric	17	1
Blank	alphanumeric	18	62

Table 24 Record Type EB—Formation Bottoms

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Formation Code	alphanumeric	3	8
Formation Base Depth	numeric	11	5
Source of Base Data	alphanumeric	16	1
Blank	alphanumeric	17	63

Table 25 Record Type F—Initial Potential

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Formation Code	alphanumeric	6	8
Interval Top	numeric	14	5
Interval Base	numeric	19	5
Oil Volume	numeric	24	5
Oil Rate or Description	alphanumeric	29	4
Gas Volume	numeric	33	8
Gas Rate or Description	alphanumeric	41	4
Water Volume	numeric	45	5
Water Rate or Description	alphanumeric	50	2
Flowing Tubing Pressure (ppsi)	numeric	52	5
Bottom Hole Pressure (ppsi)	numeric	57	5
Test Duration (hours)	numeric	62	6
Choke Size (64th of an inch)	numeric	68	2
Bottom Hole Temperature (°F)	numeric	70	3
Method of Production	alphanumeric	73	1
Gross Interval Note (G)	alphanumeric	74	1
Blank	alphanumeric	75	5

Table 26 Record Type FA—IP Treat

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Treatment Number	alphanumeric	6	2
Type of Treatment	alphanumeric	8	4
Interval Top	numeric	12	5
Interval Base	numeric	17	5
Volume or Weight	numeric	22	6
Measurement	alphanumeric	28	4
Amount of Propping Agent	numeric	32	6
Tons/Pounds ('TNS' or 'LBS')	alphanumeric	38	3
Formation Breakdown Pres. (ppsi)	numeric	41	5
Average Injection Rate (BBLS/min)	numeric	46	3
Type of Additive	alphanumeric	49	4
Number of Stages	alphanumeric	53	3
Propping Agent	alphanumeric	56	4

Remark	alphanumeric	60	20

Table 27 Record Type FD—Detailed Perforations

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Interval Top	numeric	6	5
Interval Base	numeric	11	5
Blank	alphanumeric	16	64

Table 28 Record Type FN—IP Narrative

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Line Number	alphanumeric	6	2
Narrative	alphanumeric	8	72

Table 29 Record Type G—Production Test

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Formation Code	alphanumeric	6	8
Interval Top	numeric	14	5
Interval Base	numeric	19	5
Oil Volume	numeric	24	5
Oil Rate or Description	alphanumeric	29	4
Gas Volume	numeric	33	8
Gas Rate or Description	alphanumeric	41	4
Water Volume	numeric	45	5
Water Rate or Description	alphanumeric	50	2
Flowing Tubing Pressure (ppsi)	numeric	52	5
Bottom Hole Pressure (ppsi)	numeric	57	5
Test Duration (hours)	numeric	62	6
Choke Size (64th of an inch)	numeric	68	2
Bottom Hole Temperature (° F)	numeric	70	3
Method of Production	alphanumeric	73	1
Gross Interval Note (G)	alphanumeric	74	1
Shut Off Type	alphanumeric	75	4
Blank	alphanumeric	79	1

Table 30 Record Type GA—PDT Treat

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Treatment Number	alphanumeric	6	2
Type of Treatment	alphanumeric	8	4
Interval Top	numeric	12	5
Interval Base	numeric	17	5
Volume or Weight	numeric	22	6
Measurement	alphanumeric	28	4
Amount of Propping Agent	numeric	32	6
Tons/Pounds ('TNS' or 'LBS')	alphanumeric	38	3
Formation Breakdown Pres. (ppsi)	numeric	41	5
Average Injection Rate (BBLS/min)	numeric	46	3
Type of Additive	alphanumeric	49	4
Number of Stages	alphanumeric	53	3
Propping Agent	alphanumeric	56	4
Remark	alphanumeric	60	20

Table 31 Record Type GD—PDT Perforations

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Interval Top	numeric	6	5
Interval Base	numeric	11	5
Blank	alphanumeric	16	64

Table 32 Record Type GD—PDT Narrative

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Line Number	alphanumeric	6	2
Narrative	alphanumeric	8	72

Table 33 Record Type H—Drill Stem Tests

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Formation Code	alphanumeric	6	8
Interval Top	numeric	14	5
Interval Bottom	numeric	19	5
Initial Hydrostatic Pressure (ppsi)	numeric	24	5
Final Hydrostatic Pressure (ppsi)	numeric	29	6
Top Choke (64th of an inch)	numeric	35	3
Bottom Hole Temperature (° F)	numeric	38	3
Cushion Amount (ft)	numeric	41	5
Cushion Type	alphanumeric	46	6
Test Indicator	alphanumeric	52	1
Oil Gravity (nn.n)	numeric	53	4
Blank	alphanumeric	57	23

Table 34 Record Type HA—Drill Stem Tests, Pipe Recovery Detail

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Recovery Amount	numeric	6	5
Unit of Measurement	alphanumeric	11	3
Description of Recovery	alphanumeric	14	7
Blank	alphanumeric	21	59

Table 35 Record Type HB—Drill Stem Tests, Materials to Surface Detail

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Amount	numeric	6	7
Unit of Measurement	alphanumeric	13	4
Type of Material	alphanumeric	17	4
Time to Surface	alphanumeric	21	6
Blank	alphanumeric	27	53

Table 36 Record Type HF—Drill Stem Tests, Flow Period

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
(Initial) Initial Flowing Pressure (ppsi)	numeric	6	5
(Initial) Final Flowing Pressure (ppsi)	numeric	11	5

(Final) Initial Flowing Pressure (ppsi)	numeric	16	5
(Final) Final Flowing Pressure (ppsi)	numeric	21	5
Initial Shut-in Pressure (ppsi)	numeric	26	5
Final Shut-in Pressure (ppsi)	numeric	31	5
Final Open Time	alphanumeric	36	5
Final Shut-in Time	alphanumeric	41	5
Blank	alphanumeric	46	34

Table 37 Record Type HN—Drill Stem Test Narrative

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Test Number	alphanumeric	3	3
Line Number	alphanumeric	6	2
Narrative	alphanumeric	8	72

Table 38 Record Type I—Core Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Core Number	alphanumeric	2	3
Core Top Depth	numeric	5	5
Core Base Depth	numeric	10	5
Recovery (nnn.nn)	numeric	15	6
Unit of Measure	alphanumeric	21	2
Formation Code	alphanumeric	23	8
Core Type	alphanumeric	31	4
Show	alphanumeric	35	4
Blank	alphanumeric	39	41

Table 39 Record Type ID—Core Depth/Interval Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Core Number	alphanumeric	3	3
Interval Number	alphanumeric	6	3
Thickness (nnnnn.n)	numeric	9	7
Top Depth	numeric	16	5
Base Depth	numeric	21	5
Lithology	alphanumeric	26	10
Blank	alphanumeric	36	44

Table 40 Record Type IN—Core Narrative Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Core Number	alphanumeric	3	3
Interval Number	alphanumeric	6	3
Core Narrative Description	alphanumeric	9	71

Table 41 Record Type J—Logs Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Run Number	numeric	2	3
Log Type	alphanumeric	5	4
Log Top Depth	numeric	9	5
Log Base Depth	numeric	14	5
Blank	alphanumeric	19	61

Table 42 Record Type J—Logs Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Run Number	numeric	2	3
Log Type	alphanumeric	5	4

Log Top Depth	numeric	9	5
Log Base Depth	numeric	14	5
Blank	alphanumeric	19	61

Table 43 Record Type K—Mud Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Weight (nnn.n)	numeric	2	5
Unit of Measurement (ppg/ppc)	alphanumeric	7	3
Depth	numeric	10	5
Blank	alphanumeric	15	65

Table 44 Record Type L—Casing Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Sequence Number	alphanumeric	2	2
Size	alphanumeric	4	9
Depth	numeric	13	5
Cement	numeric	18	5
Blank	alphanumeric	23	57

Table 45 Record Type M—Liner Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Sequence Number	alphanumeric	2	3
Size	alphanumeric	5	9
Type	alphanumeric	14	5
Cement	numeric	19	5
Liner Top	numeric	24	5
Liner Base	numeric	29	5
Blank	alphanumeric	34	46

Table 46 Record Type N—Tubing Data

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Size	alphanumeric	2	9
Depth	numeric	11	5
Blank	alphanumeric	16	54

Table 47 Record Type ON—Location Narrative

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Narrative	alphanumeric	3	77

Table 48 Record Type OA—Drilling Narrative

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Date (yyyymmdd)	D	3	8
Remarks	alphanumeric	11	69

Table 49 Record Type PF—Proposed Bottom Hole Location (Footage)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
North/South Footage	numeric	3	5
North/South Direction	alphanumeric	8	4
East/West Footage	numeric	12	5
East/West Direction	alphanumeric	17	4
Footage Reference	alphanumeric	21	12
X Coordinate (±nnnnnnnn.nn)	numeric	33	12

Y Coordinate (±nnnnnnnn.nn)	numeric	45	12
Zone Code	alphanumeric	57	4
Projection	alphanumeric	61	1
Feet or Meters (F/M)	alphanumeric	62	1
Blank	alphanumeric	63	17

Table 50 Record Type PC—Proposed Bottom Hole Location (Congressional and Carter)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Township Direction	alphanumeric	3	1
Township Number (xxx.x)	alphanumeric	4	5
Range Direction	alphanumeric	9	1
Range Number (xxx.x)	alphanumeric	10	5
Section or Equivalent Indicator	alphanumeric	15	3
Section or Equivalent Number (xxx.x)	alphanumeric	18	5
Spot	alphanumeric	23	8
Meridian Code	alphanumeric	31	2
Meridian Name	alphanumeric	33	17
State Code	alphanumeric	50	2
County Code	alphanumeric	52	3
Blank	alphanumeric	55	25

Table 51 Record Type PT—Proposed Bottom Hole Location (Texas)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Railroad District	alphanumeric	3	2
Block or League Indicator	alphanumeric	5	1
Block or League Number	alphanumeric	6	4
Block Fraction	alphanumeric	10	3
Section or Labor Indicator	alphanumeric	13	1
Section or Labor Number	alphanumeric	14	4
Section Fraction	alphanumeric	18	3
Lot Number	alphanumeric	21	4
Township Direction	alphanumeric	25	1
Township Number (xx.x)	alphanumeric	26	4
Survey Name	alphanumeric	30	16
Abstract Number	alphanumeric	46	7
State Code	alphanumeric	53	2
County Code	alphanumeric	55	3
Blank	alphanumeric	58	22

Table 52 Record Type PN—Proposed Bottom Hole Location (Northeast and Ohio)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Named Township	alphanumeric	3	22
Lot or Section Indicator	alphanumeric	25	1
Lot or Section Number	alphanumeric	26	5
Quadrangle Name	alphanumeric	31	20
Reference Latitude (±dd.mm.ss)	G2	51	9
Reference Longitude (±ddd.mm.ss)	G3	60	10
State Code	alphanumeric	70	2
County Code	alphanumeric	72	3
Blank	alphanumeric	75	5

Table 53 Record Type PO—Proposed Bottom Hole Location (Offshore)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
OCS Code/Number	alphanumeric	3	8
Block Prefix	alphanumeric	11	1
Block Number	alphanumeric	12	6
Block Suffix	alphanumeric	18	1

Area Name	alphanumeric	19	8
UTM Quadrant	alphanumeric	27	7
State/Fed Waters Indicator	alphanumeric	34	1
Water Bottom Zone	alphanumeric	35	2
Blank	alphanumeric	37	43

Table 54 Record Type QC—Actual Bottom Hole Location (Congressional and Carter)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Township Direction	alphanumeric	3	1
Township Number (xxx.x)	alphanumeric	4	5
Range Direction	alphanumeric	9	1
Range Number (xxx.x)	alphanumeric	10	5
Section or Equivalent Indicator	alphanumeric	15	3
Section or Equivalent Number (xxx.x)	alphanumeric	18	5
Spot	alphanumeric	23	8
Meridian Code	alphanumeric	31	2
Meridian Name	alphanumeric	33	17
State Code	alphanumeric	50	2
County Code	alphanumeric	52	3
Blank	alphanumeric	55	25

Table 55 Record Type QT—Actual Bottom Hole Location (Texas)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Railroad District	alphanumeric	3	2
Block or League Indicator	alphanumeric	5	1
Block or League Number	alphanumeric	6	4
Block Fraction	alphanumeric	10	3
Section or Labor Indicator	alphanumeric	13	1
Section or Labor Number	alphanumeric	14	4
Section Fraction	alphanumeric	18	3
Lot Number	alphanumeric	21	4
Township Direction	alphanumeric	25	1
Township Number (xx.x)	alphanumeric	26	4
Survey Name	alphanumeric	30	16
Abstract Number	alphanumeric	46	7
State Code	alphanumeric	53	2
County Code	alphanumeric	55	3
Blank	alphanumeric	58	22

Table 56 Record Type QN—Actual Bottom Hole Location (Northeast and Ohio)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Named Township	alphanumeric	3	22
Lot or Section Indicator	alphanumeric	25	1
Lot or Section Number	alphanumeric	26	5
Quadrangle Name	alphanumeric	31	20
Reference Latitude (±dd.mm.ss)	G2	51	9
Reference Longitude (±ddd.mm.ss)	G3	60	10
State Code	alphanumeric	70	2
County Code	alphanumeric	72	3
Blank	alphanumeric	75	5

Table 57 Record Type QO—Actual Bottom Hole Location (Offshore)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
OCS Number	alphanumeric	3	8
Block Prefix	alphanumeric	11	1
Block Number	alphanumeric	12	6
Block Suffix	alphanumeric	18	1
Area Name	alphanumeric	19	8

UTM Quadrant	alphanumeric	27	7
State/Federal Waters Indicator	alphanumeric	34	1
Water Bottom Zone	alphanumeric	35	2
Blank	alphanumeric	37	43

Table 58 Record Type R1—Proposed Bottom Hole Reference Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Measured Total Depth	numeric	3	5
True Vertical Depth	numeric	8	5
Closure	alphanumeric	13	14
N/S Offset Direction	alphanumeric	27	1
N/S Offset	numeric	28	5
E/W Offset Direction	alphanumeric	33	1
E/W Offset	numeric	34	5
State Code	alphanumeric	39	2
County Code	alphanumeric	41	3
Blank	alphanumeric	44	36

Table 59 Record Type R2—Proposed Bottom Hole Reference Narrative

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Narrative	alphanumeric	3	77

Table 60 Record Type S1—Actual Bottom Hole Reference Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	2
Measured Total Depth	numeric	3	5
True Vertical Depth	numeric	8	5
Closure	alphanumeric	13	14
N/S Offset Direction	alphanumeric	27	1
N/S Offset	numeric	28	5
E/W Offset Direction	alphanumeric	33	1
E/W Offset	numeric	34	5
State Code	alphanumeric	39	2
County Code	alphanumeric	41	3
Blank	alphanumeric	44	36

Table 61 Record Type S2—Actual Bottom Hole Reference Narrative

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Narrative	alphanumeric	3	77

Table 62 Record Type T—Deviation Surveys

Field Description	Type	Position	Length
Record Type Indication	alphanumeric	1	1
Measured Depth	numeric	2	5
Drift Angle (nnn.nn)	numeric	7	6
Survey Type	alphanumeric	13	4
Blank	alphanumeric	17	53

Table 63 Record Type U1—Directional Survey - Run Level/Survey Level

Field Description	Type	Position	Length
Record Type Indication	alphanumeric	1	2
Final Survey Company	alphanumeric	3	12
Processing Type	alphanumeric	15	1
Feet or Meters (F or M)	alphanumeric	16	1
Run Number	alphanumeric	17	2
Survey Company	alphanumeric	19	12
Survey Date (yyyymmdd)	D	31	8
Survey Type	alphanumeric	39	4
Start Depth	numeric	43	5
End Depth	numeric	48	5

Calculation Method	alphanumeric	53	2
North Reference	alphanumeric	55	1
Map Projection	alphanumeric	56	1
Zone Code	alphanumeric	57	4
North Correction	numeric	61	5
'E' or 'W'	alphanumeric	66	1
Blank	alphanumeric	67	13

Table 64 Record Type U2—Directional Survey - Point Data

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Run Number	numeric	3	3
Measured Depth	numeric	6	5
True Vertical Depth	numeric	11	8
Drift Angle	numeric	19	6
Drift Direction-Azimuth (nnn.nn)	alphanumeric	25	6
Rectangular Coordinates N/S Distance	numeric	31	8
Rectangular Coordinates N/S Direction	alphanumeric	39	1
Rectangular Coordinates E/W Distance	numeric	40	8
Rectangular Coordinates E/W Direction	alphanumeric	48	1
Projected Values (P)	alphanumeric	49	1
Depth Overlap Difference Run (O)	alphanumeric	50	1
Blank	alphanumeric	51	29

Table 65 Record Type V1—Horizontal General Information

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Lateral Hole Identification	alphanumeric	3	4
Contractor Name	alphanumeric	7	10
Maximum Angle Deviation (nnn.nn)	numeric	17	6
Buildup Radius	alphanumeric	23	1
Maximum Buildup (degrees) (nn.nn)	numeric	24	5
Maximum Building (feet)	numeric	29	5
Formation	alphanumeric	34	8
Reservoir	alphanumeric	42	11
Steered/Non-Steered	alphanumeric	53	1
Total Horizontal Displacement	numeric	54	5
Lateral Hole Length (Measured Depth)	numeric	59	5
Horizontal Length in Formation	numeric	64	5
Length of Pay	numeric	69	5
Reason Horizontally Drilled	alphanumeric	74	4
Blank	alphanumeric	78	2

Table 66 Record Type V2—Horizontal Direction Survey Data

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Lateral Hole Identification	alphanumeric	3	4
North Reference	alphanumeric	7	1
Map Projection	alphanumeric	8	1
Zone Code	alphanumeric	9	4
North Correction (nn.nn)	numeric	13	5
North Correction Direction	alphanumeric	18	1
Last Point (Measured Depth)	numeric	19	5
Intermediate Depth	numeric	24	5
Driller or Logger Depth Flag	alphanumeric	29	1
Narrative	alphanumeric	30	50

Table 67 Record Type V3F—Horizontal Kickoff Point Footage Location

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
North/South Footage	numeric	8	5
North/South Direction	alphanumeric	13	4
East/West Footage	numeric	17	5
East/West Direction	alphanumeric	22	4
Footage Reference	alphanumeric	26	12
X Coordinate (±nnnnnnnn.nn)	numeric	38	12
Y Coordinate (±nnnnnnnn.nn)	numeric	50	12
Zone Code	alphanumeric	62	4
Projection	alphanumeric	66	1
Feet or Meters (F/M)	alphanumeric	67	1
Blank	alphanumeric	68	12

Table 68 Record Type V3C—Horizontal Kickoff Point Congressional and Carter Location)

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
Township Direction	alphanumeric	8	1
Township Number (xxx.x)	alphanumeric	9	5
Range Direction	alphanumeric	14	1
Range Number (xxx.x)	alphanumeric	15	5
Section or Equivalent Indicator	alphanumeric	20	3
Section or Equivalent Number (xxx.x)	alphanumeric	23	5
Spot	alphanumeric	28	8
Meridian Code	alphanumeric	36	2
Meridian Name	alphanumeric	38	17
State Code	alphanumeric	55	2
County Code	alphanumeric	57	3
Blank	alphanumeric	60	20

Table 69 Record Type V3T—Horizontal Kickoff Point Texas Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
Railroad District	alphanumeric	8	2
Block or League Indicator	alphanumeric	10	1
Block or League Number	alphanumeric	11	4
Block Fraction	alphanumeric	15	3
Section or Labor Indicator	alphanumeric	18	1
Section or Labor Number	alphanumeric	19	4
Section Fraction	alphanumeric	23	3
Lot Number	alphanumeric	26	4
Township Direction	alphanumeric	30	1
Township Number (xx.x)	alphanumeric	31	4
Survey Name	alphanumeric	35	16
Abstract Number	alphanumeric	51	7
State Code	alphanumeric	58	2
County Code	alphanumeric	60	3
Blank	alphanumeric	63	17

Table 70 Record Type V3N—Horizontal Kickoff Point Northeast and Ohio Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
Named Township	alphanumeric	8	22
Lot or Section Indicator	alphanumeric	30	1
Lot or Section Number	alphanumeric	31	5
Quadrangle Name	alphanumeric	36	20

Reference Latitude (±dd.mm.ss)	G2	56	9
Reference Longitude (±ddd.mm.ss)	G3	65	10
State Code	alphanumeric	75	2
County Code	alphanumeric	77	3

Table 71 Record Type V3O—Horizontal Kickoff Point Offshore Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
OCS Number	alphanumeric	8	8
Block Prefix	alphanumeric	16	1
Block Number	alphanumeric	17	6
Block Suffix	alphanumeric	23	1
Area Name	alphanumeric	24	8
UTM Quadrant	alphanumeric	32	7
State/Federal Waters Indicator	alphanumeric	39	1
Water Bottom Zone	alphanumeric	40	2
Blank	alphanumeric	42	38

Table 72 Record Type V4F—Horizontal Point of Entry Footage Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
North/South Footage	numeric	8	5
North/South Direction	alphanumeric	13	4
East/West Footage	numeric	17	5
East/West Direction	alphanumeric	22	4
Footage Reference	alphanumeric	26	12
X Coordinate (±nnnnnnnn.nn)	numeric	38	12
Y Coordinate (±nnnnnnnn.nn)	numeric	50	12
Zone Code	alphanumeric	62	4
Projection	alphanumeric	66	1
Feet or Meters (F/M)	alphanumeric	67	1
Blank	alphanumeric	68	12

Table 73 Record Type V4C—Horizontal Point of Entry Congressional and Carter Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
Township Direction	alphanumeric	8	1
Township Number (xxx.x)	alphanumeric	9	5
Range Direction	alphanumeric	14	1
Range Number (xxx.x)	alphanumeric	15	5
Section or Equivalent Indictor	alphanumeric	20	3
Section or Equivalent Number (xxx.x)	alphanumeric	23	5
Spot	alphanumeric	28	8
Meridian Code	alphanumeric	36	2
Meridian Name	alphanumeric	38	17
State Code	alphanumeric	55	2
County Code	alphanumeric	57	3
Blank	alphanumeric	60	20

Table 74 Record Type V4T—Horizontal Point of Entry Texas Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
Railroad District	alphanumeric	8	2
Block or League Indicator	alphanumeric	10	1
Block or League Number	alphanumeric	11	4
Block Fraction	alphanumeric	15	3

Section or Labor Indicator	alphanumeric	18	1
Section or Labor Number	alphanumeric	19	4
Section Fraction	alphanumeric	23	3
Lot Number	alphanumeric	26	4
Township Direction	alphanumeric	30	1
Township Number (xx.x)	alphanumeric	31	4
Survey Name	alphanumeric	35	16
Abstract Number	alphanumeric	51	7
State Code	alphanumeric	58	2
County Code	alphanumeric	60	3
Blank	alphanumeric	63	17

Table 75 Record Type V4N—Horizontal Point of Entry Northeast and Ohio Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
Named Township	alphanumeric	8	22
Lot or Section Indicator	alphanumeric	30	1
Lot or Section Number	alphanumeric	31	5
Quadrangle Name	alphanumeric	36	20
Reference Latitude (±dd.mm.ss)	G2	56	9
Reference Longitude (±ddd.mm.ss)	G3	65	10
State Code	alphanumeric	75	2
County Code	alphanumeric	77	3

Table 76 Record Type V4O—Horizontal Point of Entry Offshore Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lateral Hole Identification	alphanumeric	4	4
OCS Number	alphanumeric	8	8
Block Prefix	alphanumeric	16	1
Block Number	alphanumeric	17	6
Block Suffix	alphanumeric	23	1
Area Name	alphanumeric	24	8
UTM Quadrant	alphanumeric	32	7
State/Federal Waters Indicator	alphanumeric	39	1
Water Bottom Zone	alphanumeric	40	2
Blank	alphanumeric	42	38

Table 77 Record Type V5—Horizontal Kickoff Point/Point of Entry Information Narrative

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Lateral Hole Identification	alphanumeric	3	4
Narrative	alphanumeric	7	73

Table 78 Record Type V6—Horizontal Spoke Length/Terminus

Field Description	Type	Position	Length
Record Type ID	alphanumeric	1	2
Lateral Hole Identification	alphanumeric	3	4
Spoke Length	numeric	7	5
Measured Depth of Terminus	numeric	12	5
True Vertical Depth of Terminus	numeric	17	5
Distance N/S From Surface	numeric	22	5
N/S Direction	alphanumeric	27	1
Distance E/W from Surface	numeric	28	5
E/W Direction	alphanumeric	33	1
X Coordinate (±nnnnnnn.nn)	numeric	34	12
Y Coordinate (±nnnnnnn.nn)	numeric	46	12

Meters or Feet (M/F)	alphanumeric	58	1
Blank	alphanumeric	59	21

Table 79 Record Type End Record Label

Field Description	Type	Position	Length
"END_US_WELL"	alphanumeric	1	30
UWI	alphanumeric	31	20

For Y2K changes, see IHS Energy Group 297 Y2K Well Format.

Related Topics

IHS Energy Group 297 Well Format

IHS Energy Group 297 Y2K Well Format

Two new records have been added to the Y2K formats that will better enable the management and handling of the data contained within an IHS Energy Group download. The first is a single line record of meta-data describing the contents of the download file; and the second is the incorporating of start/end record labels for each entity contained in the download file. Each item is discussed in detail below and an example of this new file structure is provided.

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 297 Y2K Well Format

File Header Record

To make the task of importing IHS Energy Group's ASCII download files easier, an identification record has been added to the output file that will indicate the content and format of the proceeding data. It is a single line of meta-data in a fixed field format, independent of the chosen format of the export file (i.e., comma or fixed field). This record is written each time that new data is added to a file. Therefore, in the case of the download being written to a new file, this record would be the first one in the file. If the data is appended to an existing file, the record will be added to the file ahead of the newly appended data—not the existing data. Please note it is possible for a single file to have several data sections that are not necessarily in sync with each other in regards to type or format. Below is the layout for the record:

Table 80 File Header Record

Item Description	Type	Position	Length	Example Contents
Record Key	alphanumeric	1	20	"IHS Energy Group"
Data Type	alphanumeric	21	20	US Well Data
US Production Data				
Download Format	alphanumeric	41	12	297, 298, DMP2…
Version (x.x)	alphanumeric	53	4	1.1 (x.x trailed by a blank)
Delimiter	alphanumeric	57	7	Fixed or Comma
Write Date (YYYY/MM/DD)	alphanumeric	64	10	2006/11/15
Entity Count	numeric	74	6	12

Start/End Record Label

A special record will mark the beginning and end of data for each entity that is exported in any of the new Y2K formats offered by IHS Energy Group. This record label will contain the well/production identifier to uniquely identify the block of data. This record is up to thirty characters long and its segments are separated by underscores.

Following each start/end record label is the unique well/production id for the entity. For US Well data, this is the UWI. For US Production data, this is the Entity ID. Start/End record labels will be devised for each data type (i.e., production & well). Initially we will create exports for US Well and US Production data. Each label can be up to thirty characters long. Below is the format for the record labels:

Table 81 US Well Data Start/End Record Label

Item Description	Type	Position	Length	Example Contents
Record Label	alphanumeric	1	30	START_US_WELL END_US_WELL
UWI	alphanumeric	31	20	999999999XX

Table 82 US Production Data Start/End Record Label

Item Description	Type	Position	Length	Example Contents
Record Label	alphanumeric	1	30	START_US_PROD END_US_PROD
Entity ID	alphanumeric	31	40	999999999XX

The format of this record will be determined by the export format chosen by the user. If the export is comma delimited, then the start/end records will be comma delimited and vice-versa for fixed field records.

Fixed-Field Format

In fixed-field exports the full length of the field, as defined in the export format definition will be used to hold the data. No special characters will be used to separate fields or indicate data types. The three types of fields for the download format are as follows:

- Text— left justified with trailing blanks added to fill the full width of the declared field size.
- Date—output as indicated on the individual export formats. If any of the three data elements (year, month, or day) are missing from the data, the appropriate number of zeros are added to bring the full length to the specified number of characters and to preserve data integrity. However, if there is no data for any of the data elements, blanks will be exported.
- Number—exported right justified with leading blanks to fill the entire declared length of the field. For explicit number fields, all places to the right of the decimal are padded with zeros to fill the full-declared precision. Zero values will be exported as a “0” value with the formatting appropriate to the field. If no value is available, the field will be blank filled.

Related Topics:

IHS Energy Group 297 Well Format
IHS Energy Group 298 Well Format
IHS Energy Group 298 Y2K Well Format

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 297 Y2K Well Format : Fixed-Field Format

IHS Energy Group 298 Well Format

The IHS Energy Group 298 (*.298) format is used to read and distribute digital well and production data. This format is Y2K compliant. The 298 files contain a variety of well information, including location information, test data, production data, and injection data. The format was developed by Petroleum Information/Dwights LLC d/b/a IHS Energy Group.

Petroleum Information and Dwights merged to become IHS Energy Group. At this time, IHS supports the 297 and 298 formats, as they are Y2K compliant. The 197 and PID (sometimes referred to as the 97 format) formats are no longer supported. The 298 can be comma-delimited or field-delimited. Kingdom supports version 1.1 of the fixed field format. 298 files contain a well header section, followed by fixed-width fields that begin with a one or two-character record indicator.

Two new records have been added to the Y2K formats that will better enable the management and handling of the data contained within an IHS Energy Group download. The first is a single line record of meta-data describing the contents of the download file; and the second is the incorporating of start/end record labels for each entity contained in the download file. Each item is discussed in detail below and an example of this new file structure is provided.

The 298 Production Export format is a revised version of the old PI 98 Production Export format. The primary emphasis in updating this record was to better organize the location records and to expand the date fields to accommodate a 4-digit year.

Highlights of the format changes are:

- File Header and Start/End records have been added to the formats. See Appendix A for more information.
- Regional location records have replaced the +A Location records: +AC (Congressional location), +AT (Texas location), +AO (Offshore location) and +AR (Regulatory record).
- Number fields with implied decimals have been replaced with explicit decimals.
- Reference direction (±) has been added to Latitude and Longitude records.
- Date fields have been expanded to a 4-digit year.

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 298 Well Format

Format Description

The following tables describe the 298 format. You may import this type of file through **Wells > Import > Wells**, choose Files of type: IHSEnergy (*.pid, *.97*, *.98*, *.dp2, *.wds). You can also import this type of file through **Wells > Import Production Data**, choose file type: IHS 298f File (*.98f). You do not need to use the **Load Well Information File Reader** dialog box.

Note: The program uses the UWI and the date as keys for importing production data. However, at times there are multiple cumulative or multiple monthly production records for the same borehole during the same time period. In this event, the perforation depths will also be used to import the multiple records. If the perforation depths are missing, then zeros will be assigned to the perforation depths so the data can still be imported.

Note: Another circumstance that can arise is when multiple boreholes are specified in a single production entity record. In order to detect which borehole the production data should be imported to, the file is scanned for the first borehole record that contains both a UWI and perforation depths. If there are no perforation depths, then the data is imported to the last UWI found in the record. If there are no UWIs, then the record is ignored.

Table 83 Record Type—File Header Record

Field Description	Type	Position	Length
Record Key	alphanumeric	1	20
Data Type	alphanumeric	21	20
Download Format	alphanumeric	41	12
Format Version (x.x_)	alphanumeric	53	4
Delimiter	alphanumeric	57	7
Write Date (YYYY/MM/DD)	alphanumeric	64	10
Entity Count	numeric	74	6

For Y2K changes, see IHS Energy Group 298 Y2K Well Format.

Table 84 Record Type—Start Record Label

Field Description	Type	Position	Length
“START_US_PROD”	alphanumeric	1	30
Entity ID	alphanumeric	31	40
Blank	alphanumeric	71	9

For Y2K changes, see IHS Energy Group 298 Y2K Well Format.

Table 85 Record Type ++—Unique ID Record

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	1
Prod ID Number	alphanumeric	4	40
File Source	alphanumeric	44	7
Blank	alphanumeric	51	29

Table 86 Record Type +A—Entity Record

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Region Code	alphanumeric	4	2
State Code	alphanumeric	6	2
Field Code	alphanumeric	8	6
County/Parish Code	alphanumeric	14	3
County/Parish Name	alphanumeric	17	8
Operator Code	alphanumeric	25	8
Primary Product Code	alphanumeric	33	1
Mode	alphanumeric	34	1
Formation Code	alphanumeric	35	8
AAPG Basin Code	alphanumeric	43	3
Coal Bed Methane Indicator	alphanumeric	46	1
Enhanced Recovery Flag	alphanumeric	47	1
Blank	alphanumeric	48	32

Table 87 Record Type +AC—Congressional and Carter Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Township Direction	alphanumeric	4	1
Township Number (xxx.x)	alphanumeric	5	5

Range Direction	alphanumeric	10	1
Range Number (xxx.x)	alphanumeric	11	5
Section or Equivalent Indictor	alphanumeric	16	3
Section or Equivalent Number (xxx.x)	alphanumeric	19	5
Spot	alphanumeric	24	8
Meridian Code	alphanumeric	32	2
Meridian Name	alphanumeric	34	17
State Code	alphanumeric	51	2
County Code	alphanumeric	53	3
Blank	alphanumeric	56	24

Table 88 Record Type +AT—Texas Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Railroad District	alphanumeric	4	2
Block or League Indicator	alphanumeric	6	1
Block or League Number	alphanumeric	7	4
Block Fraction	alphanumeric	11	3
Section or Labor Indicator	alphanumeric	12	1
Section or Labor Number	alphanumeric	13	4
Section Fraction	alphanumeric	17	3
Lot Number	alphanumeric	20	4
Township Direction	alphanumeric	24	1
Township Number (xx.x)	alphanumeric	25	4
Survey Name	alphanumeric	29	16
Abstract Number	alphanumeric	45	7
State Code	alphanumeric	52	2
County Code	alphanumeric	54	3
Blank	alphanumeric	57	23

Table 89 Record Type +AO—Offshore Location

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
OCS Number	alphanumeric	4	8
Bottom Hole Block Prefix	alphanumeric	12	1
Bottom HoleBlock Number	alphanumeric	13	6
Bottom Hole Block Suffix	alphanumeric	19	1
Area Name	alphanumeric	20	8
UTM Quadrant	alphanumeric	28	7
State/Federal Waters Indicator	alphanumeric	35	1
Water Bottom Zone	alphanumeric	36	2
Blank	alphanumeric	38	42

Table 90 Record Type +AR—Regulatory Record

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lease/Unit Code	alphanumeric	4	10
Serial Number	alphanumeric	14	11
Co-mingled Facility Code	alphanumeric	25	4
Well Sub-Completion Code	alphanumeric	29	2
Reservoir Code	alphanumeric	31	6
State Offshore Flag	alphanumeric	37	1
API Unique	alphanumeric	38	5
District Code	alphanumeric	43	2
Blank	alphanumeric	45	35

Table 91 Record Type +A#—Multiple County Record

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
County/Parish Code	alphanumeric	4	3
County/Parish Name	alphanumeric	7	8
County/Parish Code	alphanumeric	15	3
County/Parish Name	alphanumeric	18	8

County/Parish Code	alphanumeric	26	3
County/Parish Name	alphanumeric	29	8
Formation Name	alphanumeric	37	40
Blank	alphanumeric	77	3

Table 92 Record Type +B—Name Record 1

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Lease Name	alphanumeric	4	36
Operator Name	alphanumeric	40	36
Blank	alphanumeric	76	4

Table 93 Record Type +C—Name Record 2

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Field Name	alphanumeric	4	40
Date Production Started (YYYYMM)	M	44	6
Date Production Ended (YYYYMM)	M	50	6
Liquid Gravity (nn.n)	numeric	56	4
Reservoir Name	alphanumeric	60	20

Table 94 Record Type +D—Well Record

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
API Number	alphanumeric	4	15
MMS Suffix	alphanumeric	19	3
Well Number	alphanumeric	22	9
Total Well Depth	numeric	31	5
Bottom Hole Pressure	numeric	36	10
Bottom Hole Temperature (BHP)	numeric	46	10
Type Well	alphanumeric	56	2
Directional Drill Flag	alphanumeric	58	1
Well Status	alphanumeric	59	1
Michigan Permit Number	alphanumeric	60	5
Bottom Hole Calculation	alphanumeric	65	1
True Vertical Depth	numeric	66	5
Unit Well Serial Number	alphanumeric	71	8
Blank	alphanumeric	79	1

Table 95 Record Type +D!—Lat/Long Record

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Surface Latitude (±nn.nnnnn)	numeric	4	9
Surface Longitude (±nnn.nnnnn)	numeric	13	10
Surface Lat/Long Source	alphanumeric	23	1
Surface Datum	alphanumeric	24	1
Bottom Hole Latitude (±nn.nnnnn)	numeric	25	9
Bottom Hole Longitude (±nnn.nnnnn)	numeric	34	10
Bottom Hole Lat/Long Source	alphanumeric	44	1
Bottom Hole Datum	alphanumeric	45	1
Plugged Date (YYYYMM)	M	46	6
Upper Perforation Depth	numeric	52	5
Lower Perforation Depth	numeric	57	5
Blank	alphanumeric	62	18

Table 96 Record Type +E—Test Information Record 1

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Test Number	alphanumeric	4	3

Upper Perforation Depth	numeric	7	5
Lower Perforation Depth	numeric	12	5
Liquid per Day (nnnnn.n)	numeric	17	7
Gas per Day	numeric	24	6
Water per Day	numeric	30	5
Choke Size (nnn.n)	numeric	35	5
% Basic Sediment & Water (nn.n)	numeric	40	4
Flowing Tubing Pressure	numeric	44	5
Gas/Oil Ratio	numeric	49	7
Liquid Gravity (nn.n)	numeric	56	4
Final Shut-in Pressure	numeric	60	5
Gas Gravity (n.nnn)	numeric	65	5
Producing Method	alphanumeric	70	2
Test Date (YYYYMMDD)	D	72	8

Table 97 Record Type +E!—Test Information Record 2

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Test Number	alphanumeric	4	3
BHP Divided by Z-Factor	numeric	7	4
Z-Factor (n.nnn)	numeric	11	5
N-Factor (nn.nnn)	numeric	16	6
Calculated Absolute Open Flow	numeric	22	7
Cum Gas at Test Date	numeric	29	15
Casing Line Pressure	numeric	44	5
Blank	alphanumeric	49	30

Table 98 Record Type +F—Cumulative Production

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Year (YYYY)	Y	4	4
Cumulative Liquid	numeric	8	20
Cumulative Gas	numeric	28	20
Cumulative Water	numeric	48	20
Blank	alphanumeric	68	12

Table 99 Record Type +G—Monthly Production

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Date (YYYYMM)	M	4	8
Liquid Production	numeric	12	15
Gas Production	numeric	27	15
Water Production	numeric	42	15
Allowable Production	numeric	57	15
Number of Wells	numeric	72	5
Days on Production	numeric	77	2
Blank	alphanumeric	79	1

Table 100 Record Type +I—Cumulative Injection

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Year (YYYY)	Y	4	4
Cumulative Liquid Injection	numeric	8	20
Cumulative Gas Injection	numeric	28	20
Cumulative Water Injection	numeric	48	20
Blank	alphanumeric	68	12

Table 101 Record Type +J—Monthly Injection

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Date (YYYYMMDD)	D	4	8
Liquid Injection	numeric	12	15
Gas Injection	numeric	27	15

Water Injection	numeric	42	15
Number of Injection Wells	numeric	57	5
Days on Production	numeric	62	2
Blank	alphanumeric	64	16

Table 102 Record Type +K—Total Disposition for Current Month

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Date (YYYYMMDD)	D	4	8
Liquid Runs Monthly Total	numeric	12	15
Gas Runs Monthly Total	numeric	27	15
Blank	alphanumeric	42	38

Table 103 Record Type +L—Monthly Disposition by Transporter

Field Description	Type	Position	Length
Record Type Indicator	alphanumeric	1	3
Date (YYYYMMDD)	D	4	8
Run Type	alphanumeric	12	20
Transporter/Purchaser Name	alphanumeric	32	12
Run Amount	alphanumeric	44	20
Blank	alphanumeric	64	16

Table 104 Record Type: End Record Label

Field Description	Type	Position	Length
“END_US_PROD”	alphanumeric	1	30
UWI	alphanumeric	31	40

For Y2K changes, see IHS Energy Group 298 Y2K Well Format.

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 298 Well Format : Format Description

IHS Energy Group 298 Y2K Well Format

Two new records have been added to the year 2000 formats that will better enable the management and handling of the data contained within an IHS Energy Group download. The first is a single line record of meta-data describing the contents of the download file; and the second is the incorporating of start/end record labels for each entity contained in the download file. Each item is discussed in detail below and an example of this new file structure is provided.

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 298 Y2K Well Format

File Header Record

To make the task of importing the IHS Energy ASCII download files easier, an identification record has been added to the output file that will indicate the content and format of the proceeding data. It is a single line of meta-data in a fixed field format, independent of the chosen format of the export file (i.e., comma or fixed field). This record is written each that time new data is added to a file. Therefore, in the case of the download being written to a new file, this record would be the first one in the file. If the data is appended to an existing file, the record will be added to the file ahead of the newly appended data—not the existing data. Please note it is possible for a single file to have several data sections that are not necessarily coordinated with each other as to type or format.

Below is the layout for the record:

Table 105 File Header Record

Item Description	Type	Position	Length	Example Contents
Record Key	alphanumeric	1	20	"IHS Energy Group"
Data Type	alphanumeric	21	20	US Well Data
US Production Data				
Download Format	alphanumeric	41	12	297, 298, DMP2…
Version (x.x)	alphanumeric	53	4	1.1 (x.x trailed by a blank)
Delimiter	alphanumeric	57	7	Fixed or Comma
Write Date (YYYY/MM/DD)	alphanumeric	64	10	2006/11/15
Entity Count	numeric	74	6	12

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 298 Y2K Well Format : File Header Record

Start/End Record Label

A special record will mark the beginning and end of data for each entity that is exported from any of the new formats utilized by IHS Energy Group. This record label will be the internal record identifier used within the CD-ROM internal structures. These are up to thirty characters long, are all capital letters, and have segments separated by underscores. Following each start/end record label is the unique id for the entity. For US Well data, this is the UWI. For US Production data, this is the Entity ID.

Start/End record labels will be devised for each data type (i.e., production & well). Initially we will create exports for US Well and US Production data. Other labels will be created as exports for other data types are created. Each label can be up to thirty characters long. Below is the format for the record labels:.

Table 106 US Well Data Start/End Record Label

Item Description	Type	Position	Length	Example Contents
Record Label	alphanumeric	1	30	START_US_WELL END_US_WELL
UWI	alphanumeric	31	20	999999999XX

Table 107 US Production Data Start/End Record Label

Item Description	Type	Position	Length	Example Contents
Record Label	alphanumeric	1	30	START_US_PROD END_US_PROD
Entity ID	alphanumeric	31	40	999999999XX

The format of this record will be determined by the export format chosen by user. If the export is comma delimited, then the start/end records will be comma delimited and vice-versa for fixed field records.

Fixed-Field Format

In fixed-field exports the full length of the field, as defined in the export format definition will be used to hold the data. No special characters will be used to separate fields or indicate data types. The three types of fields on the download format are as follows:

- Text—written left justified with trailing blanks added to fill the full width of the declared field size.
- Date—output as indicated on the individual export formats. If any of the three data elements (year, month, or day) are missing from the data, the appropriate number of zeros are added to bring the full length to the specified number of characters and to preserve data integrity. However, if there is no data for any of the data elements, blanks will be exported.
- Number—exported right justified with leading blanks to fill the entire declared length of the field. For explicit number fields, all places to the right of the decimal are padded with zeros to fill the full-declared precision. Zero values will be exported as a “0” value with the formatting appropriate to the field. If no value is available, the field will be blank filled.

Data Import/Export by File : Formats : IHS Energy Group : IHS Energy Group 298 Y2K Well Format : Fixed-Field Format