

## WQX User Call July 22, 2021

There were approximately 32 participants.

Agenda:

- 1) WQX Web Enhancements and Bugfixes
- 2) WQX Status Report
- 3) Water Quality Portal Project Status Report
- 4) Open Discussion

- 1) **WQX Web Enhancements and Bugfixes** – In early July an enhancement/bug fix was released to WQX Web. The following is included in the release:
- a) Updated stylesheet and elements for **processing report** Organization, NAAS\_ID, Submission Date, Status
  - b) **Element Picklist** updated with datatype, hover over definitions, and mandatory elements BOLD ITALIC, reported in the Data Exchange Template - data dictionary
  - c) WQX Web API enhancement: A feature that was once only available in the GUI is now available in the **Import\_Log.xlsx** to report "Imported Records" by Entity and Total, Valid, New, Existing

Name
<a href="#">WQX Submission 74745 Update.zip</a>
<a href="#">Export Log.xlsx</a>
<a href="#">Import Log.xlsx</a>
<a href="#">Physical Chemical Template.xlsx</a>

- d) **QA Reviewer:** WQX Web allows data submitters to update/change existing data with a Result Status as Preliminary (not published) or “published” via the Portal
  - a. Activity and Results, System Import Configuration #10: Update Result Status (Template)
- e) **WQX Web Menu, Bugfixes:** Improved search for the Characteristic ie. “pH” and Taxon in the review results search tool. Search supports (Contains, Start With, Ends With, and Equals).
- f) **Domain Value Services, GetDomainValues:** Domain value services supporting individual domains, single domain file, and domain library.
- g) **QAQC Framework:** Development/BETA deployment available via Node and CDX
  - i. Review Measure Unit Table (below) and Converted/Target Unit with Conversion Factor for errors (see Table 1)
  - ii. Report Filenames registered: QCResults.zip: (QAQCResults.csv) and QCLocations.zip: (QAQCLocations.csv)
    - Will include both Summary details and record details

- iii. Reference Tables (lat/long and characteristics)
  - iv. Valid Result Measure Value range for each characteristic
  - v. NEW Function for Converted Units and Converted Measure Values
- h) Helpdesk Quick Tips:
- Method Identifiers** formatted as decimal maybe impacted by the default number format that Excel applies when you type a number. For the most part, numbers that are formatted with the General format are displayed just the way you type them. However, the General format rounds the numbers with decimals. (".0") and removes leading zeros from picklist values.
- i. Analytical Method / Context registered in WQX  
 USEPA ~ 1000.0, USEPA ~ 1002.0, USEPA ~ 2000.0, USEPA ~ 2002.0, USEPA ~ 2004.0, USEPA ~ 2006.0, USEPA ~ 2007.0, USEPA ~ 2019.0, USEPA ~ 2021.0, USEPA ~ 300.0, USEPA ~ 366.0, USEPA ~ 440.0, USEPA ~ 445.0, USEPA ~ 446.0, USEPA ~ 447.0, USEPA ~ 909.0, USEPA ~ 912.0

Completed Release Production	Pending Release
6/22/21	
Analytical Method ✓, Sample Preparation Method ✓,	Sample Collection Method?, and Lab Sample Preparation Method?

ii. QAQC GUIDANCE:

Characteristic	Unit
Dissolved Oxygen Saturation	%
Dissolved Oxygen	%
Oxygen	Sample Fraction=Dissolved
Specific Conductance	uS/cm, range 5 thru 5000
Specific Conductivity	uS/cm, range 5 thru 5000

Freshwater Explorer Threshold

- i) Alternative Metadata Elements (schema 3.0):
  - ACTIVITY ActivityLocationDescriptionText, ACTIVITY CollectionDescriptionText, RESULT CharacteristicNameUserSupplied, RESULT ResultSamplingPointCommentText

The QA Workgroup found users have submitted the same laboratory results under varying characteristic names over the years. For example, an organization might submit results using "Oxygen" with metadata fraction Dissolved one year and "Dissolved Oxygen" the next year, when both were collected and analyzed the same way. When initiating each data submission, it's good practice to download the organization's data from the WQP at waterqualitydata.us to find how results were previously reported. Verify the lab analyzed samples using the same methods, and that its appropriate to continue reporting the same way. The QA Workgroup identified duplicate or synonymous names in the WQX characteristic list, including "Oxygen" with fraction Dissolved w Unit % or % saturation and "Dissolved Oxygen" with unit %. The unit % saturation has been retired. Please use unit %

as a replacement for unit % saturation. This guidance promotes consistency when submitting data and reduced confusion and ambiguity for secondary data users.

## 2) WQX Status Report

Request SME Review Domain Table Measurement Unit (see enclosed Table 1)

## 3) Water Quality Portal Status Report

**NOTICE:** Local Virtual Protected Network (VPN) firewall rules may impact user connectivity to Portal services and MS Outlook. Disconnecting from the VPN allows access to secure https website and services (such as the Portal).

### a) Data Refresh Cycle

Outlined in two steps are the weekly WQX data exchange events and Portal refresh schedule.

Step 1: WQX transforms an Oracle database to Postgres database then makes the files accessible via the web.

The following logs are EPA's WQX Data exchange event logs:

- [https://www3.epa.gov/storet/download/storetw/wqx\\_dump\\_alltables\\_Weekly\\_pgsdp.log](https://www3.epa.gov/storet/download/storetw/wqx_dump_alltables_Weekly_pgsdp.log)
- [https://www3.epa.gov/storet/download/storetw/wqx\\_dump\\_alltables\\_rowcount.log](https://www3.epa.gov/storet/download/storetw/wqx_dump_alltables_rowcount.log)
- NEW [https://www3.epa.gov/storet/download/storetw/wqx\\_dump\\_ETLrun.log](https://www3.epa.gov/storet/download/storetw/wqx_dump_ETLrun.log)

Scheduled Weekly WQX Data exchange Events:

- EPA WQX Monday exchange event@2am, data is published Wednesday via the Portal
- EPA WQX Wednesday exchange event@2am, data is published Friday via the Portal
- EPA WQX Friday exchange event@2am, data is published Monday via the Portal

Step 2: The Portal will receive this data exchange transfer and process and publish the data in 2-3 business days.

The Portal Team is currently developing a web site service to report the processing status of each data provider.

## 4) OPEN DISCUSSION

Table 1: Measurement Unit

MSUNT_UI_D	MSUNT_CD	MSUNT_DESC	MSUNT_LAST_CHANGE_DATE	USR_UID_LAST_CHANGE	MSUNT_TARGET_CD	CONVERSION_FACTOR	CONVERSION_COEFFICIENT
157	#/100 gal	Concentration Solution, Number per 100 gallons	26-Jul-06	1	#/100 ml	0.000264172	0
349	#/100L	Concentration Solution, Number per 100 liters	28-Jan-14	1	#/100 ml	1000	0
151	#/100ml	Concentration Solution, Number per hundred milliliters	26-Jul-06	1	#/100 ml	1	0
307	#/10l	Concentration Solution, Number per 10 liters	10-Jan-12	1	#/100 ml	0.01	0
158	#/500 ml	Concentration Solution, Number per 500 milliliters	26-Jul-06	1	#/100 ml	0.2	0
212	#/acre	Concentration Solution, Number per acre	26-Jul-06	1	#/m2	0.000247104	0
339	#/cm	Concentration Solution, Number per centimeter	19-Feb-13	1	#/cm	1	0
154	#/cm2	Concentration Solution, Number per square centimeter	26-Jul-06	1	#/m2	10000	0
152	#/cm3	Concentration Solution, Number per cubic centimeter	26-Jul-06	1	#/100 ml	100	0
149	#/dl	Concentration Solution, Number per deciliter	26-Jul-06	1	#/100 ml	1	0
210	#/ft2	Concentration Solution, Number per square foot	26-Jul-06	1	#/m2	10.76391042	0
699	#/g	Number per gram	1-Oct-19	7140	#/g	1	0
208	#/ha	Concentration Solution, Number per hectare	26-Jul-06	1	#/m2	0.0001	0
209	#/in2	Concentration Solution, Number per square inch	26-Jul-06	1	#/m2	1550.0031	0
207	#/km2	Concentration Solution, Number per square kilometer	26-Jul-06	1	#/m2	0.000001	0
150	#/l	Concentration Solution, Number per liter	26-Jul-06	1	#/100 ml	0.1	0
206	#/m2	Concentration Solution, Number per square meter	26-Jul-06	1	#/m2	1	0
153	#/m3	Concentration Solution, Number per cubic meter	26-Jul-06	1	#/100 ml	0.0001	0
213	#/mi2	Concentration Solution, Number per square mile	26-Jul-06	1	#/m2	3.86102E-07	0

148	#/ml	Concentration Solution, Number per milliliter	26-Jul-06	1	#/100 ml	100	0
375	#/um <sup>3</sup>	Concentration Solution, Number per cubic micrometer	9-May-16	1	#/um <sup>3</sup>	1	0
211	#/yd <sup>2</sup>	Concentration Solution, Number per square yard	26-Jul-06	1	#/m <sup>2</sup>	1.1959 90046	0
223	%	Concentration Percentage, Percent	26-Jul-06	1	%	1	0
256	% CaCO <sub>3</sub>	Concentration Percentage, Percent calcium carbonate	26-Jul-06	1	% CaCO <sub>3</sub>	1	0
225	% by vol	Concentration Percentage, Percent by volume	26-Jul-06	1	% by vol	1	0
224	% by wt	Concentration Percentage, Percent by weight	26-Jul-06	1	% by wt	1	0
28	% cover	Concentration Percentage, Percent Cover	26-Jul-06	1	% Cover	1	0
353	% passing	Concentration Percentage, Percent passing sieve	31-Mar-14	1	% passing	1	0
326	% recovery	Concentration Percentage, Percent of recovery	11-Jan-12	1	% recovery	1	0
354	% saturation	Concentration Percentage, % saturation	10-Sep-14	1	% saturation	1	0
41	% sediment	Concentration Percentage, % target/clean sed mix which produces response	26-Jul-06	1	% sediment	1	0
363	% solids	Concentration Percentage, Percent of solids	13-Jan-15	1	% solids	1	0
172	0/00	Concentration Percentage, Parts per thousand	26-Jul-06	1	ug/kg	10000 00	0
166	ADMI value	Picklist or Choicelist, American Dye Manufacturers Institute Color Value (5 to 250 units Pt-Co)	26-Jul-06	1	ADMI value	1	0
301	AU	Turbidity, Attenuation Unit	3-Mar-11	1	AU	1	0
132	Angst	Length Distance, Angstroms	26-Jul-06	1	in	3.9370 1E-09	0
68	BTU	Energy, British Thermal Units	26-Jul-06	1	kcal	0.2519 95761	0
302	BU	Turbidity, Backscatter Unit	3-Mar-11	1	BU	1	0
338	CCE/100ml	Concentration Solution, Calibrator Cell Equivalents per 100 Milliliters	20-Dec-12	1	CCE/100ml	1	0
147	CFU	Concentration Solution, Colony Forming Units	26-Jul-06	1	CFU	1	0

659	CU	Picklist or Choicelist, One color unit (CU) is equivalent to one Hazen unit and to one Pt-Co unit	9-Aug-19	100	PCU	1	0
110	Deg	Direction or angle, degrees	26-Jul-06	1	Deg	1	0
295	FAU	Turbidity, Formazine Attenuation Units	3-Mar-11	1	FAU	1	0
294	FBU	Turbidity, Formazin Backscatter Unit	3-Mar-11	1	FBU	1	0
296	FNMU	Turbidity, Formazin Nephelometric Multibeam Unit	3-Mar-11	1	FNMU	1	0
297	FNRU	Turbidity, Formazin Nephelometric Ratio Unit	3-Mar-11	1	FNRU	1	0
298	FNU	Turbidity, Formazin Nephelometric Unit	3-Mar-11	1	FNU	1	0
75	FTU	Turbidity, Formazin Turbidity Units	26-Jul-06	1	FTU	1	0
309	Granules	Weight Mass, Granule count of substance in pan or tailings	11-Jan-12	1	Granules	1	0
234	Imp gal	Volume, Imperial gallons	26-Jul-06	1	m3	0.0045 4609	0
104	JCU	Light Intensity, Jackson Candle Units	26-Jul-06	1	JCU	1	0
76	JTU	Turbidity, Jackson Turbidity Units	26-Jul-06	1	JTU	1	0
67	Joules	Energy, Joules	26-Jul-06	1	kcal	0.0002 38846	0
336	KOhm/cm	Electric Resistivity, Kilo ohm per centimeter	24-May-12	1	KOhm/cm	1	0
343	Kg/m3-1000	Density, Kilograms per cubic meter minus one thousand	27-Sep-13	1	Kg/m3-1000	1	0
340	L/mg-cm	Concentration Solution, Liters per milligram-centimeter	19-Feb-13	1	L/mg-cm	1	0
72	Langleys	Energy Intensity, Langleys (cal/sq cm)	26-Jul-06	1	Langleys	1	0
293	MFL	Concentration Solution, Million Fibers per Liter fiber size > 10u	3-Mar-11	1	MFL	1	0
146	MPN	Concentration Solution, Most Probable Number	26-Jul-06	1	MPN	1	0
277	MPN/100g	Concentration Solution, Most Probable Number per 100 grams	2-Feb-10	1	MPN/g	100	0
262	MPN/100ml	Concentration Solution, Most Probable Number per 100 milliliters	26-Jul-06	1	MPN/100ml	1	0
292	MPN/g	Concentration Solution, Most Probable Number per gram	4-Aug-10	1	MPN/g	1	0
337	MSC	Concentration Solution, Mean Standing Crop	24-May-12	1	MSC	1	0

131	MT/km 2/yr	Viscosity, Metric tons per square kilometer per year	26-Jul-06	1	mg/m 2/day	2.7378 50787	0
320	Mgal	Volume, Million gallons	11-Jan- 12	1	m3	3785.4 12	0
329	Millimo lar	Flow, Millimolar	11-Jan- 12	1	Milli molar	1	0
111	Min	Direction or angle, minutes	26-Jul-06	1	Deg	0.0166 66667	0
97	Molal	Concentration Molar, Molal	26-Jul-06	1	Mole/ l	1	0
96	Molar	Concentration Molar, Molar	26-Jul-06	1	Mole/ l	1	0
94	Mole/l	Concentration Molar, Moles per liter	26-Jul-06	1	Mole/ l	1	0
300	NTMU	Turbidity, Nephelometric Turbidity Multibeam Unit	3-Mar- 11	1	NTM U	1	0
299	NTRU	Turbidity, Nephelometric Turbidity Ratio Unit	3-Mar- 11	1	NTRU	1	0
103	NTU	Turbidity, Nephelometric Turbidity Units	26-Jul-06	1	NTU	1	0
1	None	Quantity, None	26-Jul-06	1	None	1	0
95	Normal	Quantity, Normal	26-Jul-06	1	meq/ L	1000	0
33	PCU	Picklist or Choicelist, Platinum Cobalt Units (color) - American Public Health Association Color Scale, APHA = Pt-Co = Hazen Color	26-Jul-06	1	PCU	1	0
168	PSS	Concentration Solution, Practical Salinity Scale	26-Jul-06	1	PSS	1	0
341	PSU	Electrical conductivity, Practical Salinity Unit - It is equivalent to per thousand or (o/00) or to g/kg	24-May- 12	1	ug/kg	10000 00	0
58	Pascal	Pressure, Pascal units	26-Jul-06	1	g/m2	101.97 16213	0
214	Plate cnt	Quantity, Plate Count	26-Jul-06	1	Plate cnt	1	0
366	RFU	Light Intensity, Relative Fluorescence Units	14-Dec- 15	1	RFU	1	0
304	RLU	Light Intensity, Relative light units	18-Oct- 11	1	RLU	1	0
360	RmV	Power, Relative millivolts	2-Dec-14	1	RmV	1	0
165	S/m	Electric Resistivity, Siemens per meter	26-Jul-06	1	uS/c m	10000	0
112	Sec	Direction or angle, seconds	26-Jul-06	1	Deg	0.0002 77778	0
175	T.U.	Concentration Solution, Tritium Unit	26-Jul-06	1	pCi/L	3.22	0

173	TON	Picklist or Choicelist, Threshold Odor Number	26-Jul-06	1	TON	1	0
171	TU	Toxic Units, dividing 100% by the LC50 (% effluent	26-Jul-06	1	TU	1	0
267	TUc	Toxic Units, chronic	22-Jun-09	1	TUc	1	0
57	Torr	Pressure, Torr units(vacuum)	26-Jul-06	1	g/m2	13595.09806	0
63	Watts	Power, Watts	26-Jul-06	1	mw	0.000001	0
245	ac	Area, Acres	26-Jul-06	1	m2	4046.856422	0
235	ac-ft	Volume, Acre-feet	26-Jul-06	1	m3	1233.489	0
539	ac-in	Volume, Acre-inches	13-Nov-17	100	ac-in	1	0
62	amps	Electrical current, amperes	26-Jul-06	1	amps	1	0
56	atm	Pressure, atmospheres	26-Jul-06	1	g/m2	10332274.53	0
331	bar	Pressure, Bar	24-May-12	1	kg/m2	10197.16213	0
321	bbl	Volume, Barrel equals 31.50 gallons, 119.24 liters	11-Jan-12	1	l	0.008386448	0
282	beaufort	Movement Force, Wind force (beaufort unit)	19-Jul-10	1	beaufort	1	0
69	cal	Energy, calories	26-Jul-06	1	kcal	0.001	0
312	cal/cm2/hr	Viscosity, Calories per square centimeter per hour	11-Jan-12	1	cal/cm2/hr	1	0
459	cd	Light Intensity, Candela	6-Mar-17	100	cd	1	0
114	cfm	Flow, Cubic feet per minute	19-Dec-12	1	cfs	0.016666667	0
113	cfs	Flow, Cubic feet per second	7-Mar-13	1	cfs	1	0
290	cfu/100g	Concentration Solution, Colony Forming Units per 100 grams	19-Jul-10	1	cfu/100g	1	0
164	cfu/100ml	Concentration Solution, Colony Forming Units per 100 Milliliters	26-Jul-06	1	cfu/100ml	1	0
285	cfu/10ml	Concentration Solution, Colony Forming Units per 10 Milliliters	19-Jul-10	1	cfu/100ml	10	0
328	cfu/gdw	Concentration Solution, Colony Forming Units per gram dryweight	11-Jan-12	1	cfu/gdw	1	0
361	cfu/ml	Concentration Solution, Colony Forming Units per Milliliters	17-Dec-14	1	cfu/ml	1	0
135	cm	Length Distance, Centimeters	26-Jul-06	1	in	0.393700787	0



191	cm/sec	Speed Velocity, Centimeters per second	26-Jul-06	1	m/sec	0.01	0
237	cm2	Area, Square centimeters	26-Jul-06	1	m2	0.0001	0
204	cm3	Volume, Cubic centimeters	26-Jul-06	1	m3	0.000001	0
519	cm3/g	Concentration Solution, Cubic centimeters per gram	31-Oct-17	100	cm3/g	1	0
118	cm3/hr	Flow, Cubic centimeters per hour	26-Jul-06	1	cfs	9.80963E-09	0
252	cm3/l	Concentration Solution, Cubic centimeters per liter	26-Jul-06	1	mm3/l	1000	0
117	cm3/min	Flow, Cubic centimeters per minute	26-Jul-06	1	cfs	5.88578E-07	0
116	cm3/sec	Flow, Cubic centimeters per second	26-Jul-06	1	cfs	3.53147E-05	0
355	code	Picklist or Choicelist, Please see <a href="http://waterdata.usgs.gov/nwis/qwdata?codes_table26_help#62955">http://waterdata.usgs.gov/nwis/qwdata?codes_table26_help#62955</a>	10-Sep-14	1	code	1	0
145	count	Quantity, Count	26-Jul-06	1	count	1	0
356	counts/sec	Concentration Solution, Counts per second	10-Sep-14	1	count/s/sec	1	0
286	d/h/m/s	Time, Days/hours/minutes/seconds	19-Jul-10	1	d/h/m/s	1	0
219	days	Time, Days	26-Jul-06	1	minutes	1440	0
333	decibar	Pressure, Decibar	24-May-12	1	decibar	1	0
246	deg C	Temperature, Degrees Celsius (Centigrade)	26-Jul-06	1	deg C	1	0
247	deg F	Temperature, Degrees Fahrenheit	26-Jul-06	1	deg C	0.555555556	-32
248	deg K	Temperature, Degrees Kelvin	26-Jul-06	1	deg C	1	-273.15
202	dl	Volume, Deciliters	26-Jul-06	1	m3	0.0001	0
136	dm	Length Distance, Decimeters	26-Jul-06	1	in	3.937007874	0
249	dm2	Area, Square decimeters	26-Jul-06	1	m2	0.01	0
311	dpm/100l	Concentration Solution, Disintegrations per minute per 100 liters	11-Jan-12	1	dpm/100l	1	0
279	dpm/g	Radiation, Decay per minute per gram	6-May-10	1	dpm/g	1	0
46	drips/min	Flow, Drips per minute	26-Jul-06	1	drips/min	1	0
203	drops	Volume, Drops	26-Jul-06	1	drops	1	0
266	eq/L	Concentration Solution, Equivalentents per Liter	24-Apr-09	1	eq/L	1	0

107	fc/ft2	Light Intensity, foot candles per square foot	26-Jul-06	1	lm/m 2	10.763 91042	0
342	fg/kg	Concentration Percentage, Femtogram/kilogram	5-Sep-13	1	fg/kg	1	0
43	fibers/l	Concentration Solution, Fibers per liter	26-Jul-06	1	fibers /l	1	0
274	fraction	Concentration Percentage, Fraction of sample total	24-Nov-09	1	fracti on	1	0
140	ft	Length Distance, Feet	26-Jul-06	1	in	12	0
105	ft-candles	Light Intensity, foot candles	26-Jul-06	1	lm/m 2	10.763 91042	0
71	ft-lbs	Energy, foot pounds	26-Jul-06	1	kcal	0.0003 23832	0
199	ft/day	Speed Velocity, Feet per day	26-Jul-06	1	m/sec	3.5277 8E-06	0
195	ft/min	Speed Velocity, Feet per minute	26-Jul-06	1	m/sec	0.0050 8	0
194	ft/sec	Speed Velocity, Feet per second	26-Jul-06	1	m/sec	0.3048	0
242	ft2	Area, Square feet	26-Jul-06	1	m2	0.0929 0304	0
229	ft3	Volume, Cubic feet	26-Jul-06	1	m3	0.0283 16847	0
115	ft3/day	Flow, Cubic feet per day	26-Jul-06	1	cfs	1.1574 1E-05	0
270	ft3/sec	Flow, Cubic feet per second	24-Nov-09	1	cfs	1	0
6	g	Weight Mass, Grams	26-Jul-06	1	g	1	0
263	g/cm2	Concentration Solution, Grams per square centimeters	13-Dec-07	1	ug/c m2	10000 00	0
26	g/cm3	Density, Grams per cubic centimeter	26-Jul-06	1	ug/l	10000 00000	0
186	g/day	Flow Mass, Grams per day	26-Jul-06	1	lb/da y	0.0022 04623	0
185	g/hr	Flow Mass, Grams per hour	26-Jul-06	1	lb/da y	0.0529 10952	0
86	g/kg	Concentration Percentage, Grams per kilogram	26-Jul-06	1	ug/kg	10000 00	0
47	g/l	Concentration Solution, Grams per liter	26-Jul-06	1	ug/l	10000 00	0
80	g/m2	Concentration Solution, Grams per square meter	26-Jul-06	1	g/m2	1	0
129	g/m2/day	Viscosity, Grams per square meter per day	26-Jul-06	1	mg/m 2/day	1000	0
128	g/m2/hr	Viscosity, Grams per square meter per hour	26-Jul-06	1	mg/m 2/day	24000	0

20	g/m3	Concentration Solution, Density, Grams per cubic meter	26-Jul-06	1	ug/l	1000	0
101	g/m3/day	Viscosity, Grams per cubic meter per day	26-Jul-06	1	mg/m3/day	1000	0
100	g/m3/hr	Viscosity, Grams per cubic meter per hour	26-Jul-06	1	mg/m3/day	24000	0
184	g/min	Flow Mass, Grams per minute	26-Jul-06	1	lb/day	3.1746 5712	0
48	g/ml	Concentration Solution, Grams per milliliter	26-Jul-06	1	ug/l	10000 00000	0
183	g/sec	Flow Mass, Grams per second	26-Jul-06	1	lb/day	190.47 94272	0
499	g/stalk	Concentration Solution, Grams per stalk	2-Aug-17	100	g/stalk	1	0
233	gal	Volume, Fluid gallons	26-Jul-06	1	m3	0.0037 85412	0
125	gal/day	Flow, Gallons per day	26-Jul-06	1	cfs	1.5472 3E-06	0
124	gal/hr	Flow, Gallons per hour	26-Jul-06	1	cfs	3.7133 5E-05	0
123	gal/min	Flow, Gallons per minute	26-Jul-06	1	cfs	0.0022 28009	0
122	gal/sec	Flow, Gallons per second	26-Jul-06	1	cfs	0.1336 80556	0
720	geu/100ml	Genomic Equivalent Units per 100 milliliters	3-Jan-20	3880	geu/100ml	1	0
718	geu/g	Genomic Equivalent Units per gram	6-Jan-20	3880	geu/g	1	0
255	gpg	Concentration Solution, Grains per gallon	26-Jul-06	1	ug/l	17118. 06007	0
358	gpm	Flow, Gallons per minute ***deprecated***use gal/min	9-Feb-21	100	cfs	0.0022 28009	0
73	gpm/ft	Drawdown capacity, gallons per minute per foot	26-Jul-06	1	gpm/ft	1	0
308	grains	Weight Mass, Grains	11-Jan-12	1	g	0.0647 9891	0
240	ha	Area, Hectares	26-Jul-06	1	m2	10000	0
218	hours	Time, Hours	26-Jul-06	1	minutes	60	0
66	hp	Power, horsepower	26-Jul-06	1	mw	0.0007 46	0
139	in	Length Distance, Inches	26-Jul-06	1	in	1	0
283	in/day	Speed Velocity, Inches per day	19-Jul-10	1	in/day	1	0
241	in2	Area, Square inches	26-Jul-06	1	m2	0.0006 4516	0

228	in3	Volume, Cubic inches	26-Jul-06	1	m3	1.6387 1E-05	0
54	inH2O	Pressure, inches of water	26-Jul-06	1	g/m2	25399. 99983	0
227	inHg	Pressure, inches of mercury	26-Jul-06	1	g/m2	14314 64.189	0
70	kcal	Energy, kilocalories	26-Jul-06	1	kcal	1	0
7	kg	Weight Mass, Kilograms	26-Jul-06	1	g	1000	0
81	kg/m2	Concentration Solution, Kilograms per square meter	26-Jul-06	1	kg/m 2	1	0
21	kg/m3	Density, Kilograms per cubic meter	26-Jul-06	1	ug/l	10000 00	0
259	kg/t CaCO3	Concentration Solution, Kilograms per Ton calcium carbonate	26-Jul-06	1	kg/t CaCO 3	1	0
322	kgal	Volume, 1000 gallons	11-Jan- 12	1	m3	3.7854 12	0
138	km	Length Distance, Kilometers	26-Jul-06	1	in	39370. 07874	0
196	km/hr	Speed Velocity, Kilometers per hour	26-Jul-06	1	m/sec	0.2777 77778	0
193	km/sec	Speed Velocity, Kilometers per second	26-Jul-06	1	m/sec	1000	0
239	km2	Area, Square kilometers	26-Jul-06	1	m2	10000 00	0
198	knots	Speed Velocity, Nautical miles per hour	26-Jul-06	1	m/sec	0.5144 44444	0
64	kw	Power, kilowatts	26-Jul-06	1	mw	0.001	0
200	l	Volume, Liters	26-Jul-06	1	m3	0.001	0
45	l/day	Flow, Liters per day	26-Jul-06	1	cfs	4.0873 5E-07	0
121	l/hr	Flow,Liters per hour	26-Jul-06	1	cfs	9.8096 3E-06	0
120	l/min	Flow,Liters per minute	26-Jul-06	1	cfs	0.0005 88578	0
119	l/sec	Flow,Liters per second	26-Jul-06	1	cfs	0.0353 14667	0
9	lb	Weight Mass, Pounds	26-Jul-06	1	g	453.59 237	0
130	lb/acre/ yr	Viscosity, Pounds per acre per year	26-Jul-06	1	mg/m 2/day	0.3068 71065	0
190	lb/day	Flow Mass, Pounds per day	26-Jul-06	1	lb/da y	1	0
721	lb/ft2	pounds per square foot	2-Nov- 20	1	lb/ft2	1	0
305	lb/ft3	Density, Pounds per cubic foot	6-Dec-11	1	lb/ft3	1	0

189	lb/hr	Flow Mass, Pounds per hour	26-Jul-06	1	lb/da y	24	0
74	lb/in	Tension, pounds per inch displacement	26-Jul-06	1	lb/in	1	0
188	lb/min	Flow Mass, Pounds per minute	26-Jul-06	1	lb/da y	1440	0
187	lb/sec	Flow Mass, Pounds per second	26-Jul-06	1	lb/da y	86400	0
316	lbs/kgal	Concentration Solution, Pounds/kilogallon	11-Jan-12	1	lbs/kg al	1	0
108	lm/ft2	Light Intensity, lumens per square foot	26-Jul-06	1	lm/m 2	10.763 91042	0
325	lm/m2	Light Intensity, lumens per square meter	11-Jan-12	1	lm/m 2	1	0
372	loc-sec	Direction or angle, Locational seconds (latitude/longitude)	1-Mar-16	1	loc- sec	1	0
106	lumens	Light Intensity, lumens	26-Jul-06	1	lm/m 2	10.763 91042	0
137	m	Length Distance, Meters	26-Jul-06	1	in	39.370 07874	0
367	m-1	Concentration Solution, Inverse meters or per meters	19-Jan-16	1	per m	1	0
192	m/sec	Speed Velocity, Meters per second	26-Jul-06	1	m/sec	1	0
288	m/y	Time, Month/year	19-Jul-10	1	m/y	1	0
238	m2	Area, Square meters	26-Jul-06	1	m2	1	0
281	m2/km 2	Square meters per square kilometers	14-Jun-10	1	m2/k m2	1	0
205	m3	Volume, Cubic meters	26-Jul-06	1	m3	1	0
162	m3/hr	Flow, Cubic meters per hour	26-Jul-06	1	cfs	0.0098 09631	0
161	m3/min	Flow, Cubic meters per min	26-Jul-06	1	cfs	0.5885 77833	0
44	m3/sec	Flow, Cubic meters per second	26-Jul-06	1	cfs	35.314 67	0
345	mCi	Weight Mass, MilliCuries	8-Jan-14	1	mCi	1	0
324	mCi/km 2	Concentration Solution, MilliCuries per square kilometer	11-Jan-12	1	mCi/k m2	1	0
317	mEq/10 0g	Concentration Percentage, Milli-equivalents per 100 gram	11-Jan-12	1	mEq/ 100g	1	0
32	mS/cm	Electric Resistivity, Milli-Siemens per Centimeter	26-Jul-06	1	uS/c m	1000	0
559	mS/m	Electric Resistivity, Milli-Siemens per Meter	7-Dec-17	7140	mS/m	1	0
347	mSv	Radiation, MilliSievert	8-Jan-14	1	mSv	1	0
35	mV	Power, Millivolts	26-Jul-06	1	volts	0.001	0
30	meq/L	Density, Milli-equivalents per Liter	26-Jul-06	1	mg/l	1	0

11	metric ton	Weight Mass, Metric tons	26-Jul-06	1	g	10000 00	0
5	mg	Weight Mass, Milligrams	26-Jul-06	1	g	0.001	0
373	mg N/l	Concentration Solution, mg nitrogen in one liter of water or milligrams per liter Nitrogen	24-Mar-16	1	mg N/l	1	0
278	mg/cm <sup>2</sup>	Concentration Solution, Milligrams per square centimeters	12-Feb-10	1	ug/c m <sup>2</sup>	1000	0
25	mg/cm <sup>3</sup>	Density, Milligrams per cubic centimeter	26-Jul-06	1	ug/l	10000 00	0
182	mg/day	Flow Mass, Milligrams per day	26-Jul-06	1	lb/da y	2.2046 2E-06	0
90	mg/g	Concentration Percentage, Milligrams per gram	26-Jul-06	1	ug/kg	10000 00	0
181	mg/hr	Flow Mass, Milligrams per hour	26-Jul-06	1	lb/da y	5.2911 E-05	0
85	mg/kg	Concentration Percentage, Milligrams per kilogram	26-Jul-06	1	ug/kg	1000	0
15	mg/l	Concentration Solution, Milligrams per liter	26-Jul-06	1	ug/l	1000	0
258	mg/l CaCO <sub>3</sub>	Concentration Solution, Milligrams per liter calcium carbonate	26-Jul-06	1	mg/l CaCO <sub>3</sub>	1	0
679	mg/l/hr	Viscosity, Milligrams per liter per hour	14-Aug-19	7140	mg/m 3/day	41.666 6667	0
79	mg/m <sup>2</sup>	Concentration Solution, Milligrams per square meter	26-Jul-06	1	g/m <sup>2</sup>	0.001	0
127	mg/m <sup>2</sup> /day	Viscosity, Milligrams per square meter per day	26-Jul-06	1	mg/m 2/day	1	0
102	mg/m <sup>2</sup> /hr	Viscosity, Milligrams per square meter per hour	26-Jul-06	1	mg/m 2/day	24	0
19	mg/m <sup>3</sup>	Density, Milligrams per cubic meter	26-Jul-06	1	ug/l	1	0
99	mg/m <sup>3</sup> /day	Viscosity, Milligrams per cubic meter per day	26-Jul-06	1	mg/m 3/day	1	0
98	mg/m <sup>3</sup> /hr	Viscosity, Milligrams per cubic meter per hour	26-Jul-06	1	mg/m 3/day	24	0
180	mg/min	Flow Mass, Milligrams per minute	26-Jul-06	1	lb/da y	0.0031 74657	0
49	mg/ml	Concentration Solution, Milligrams per milliliter	26-Jul-06	1	ug/l	10000 00	0
179	mg/sec	Flow Mass, Milligrams per second	26-Jul-06	1	lb/da y	0.1904 79427	0
177	mgal/month	Flow, Millions of gallons per month	26-Jul-06	1	cfs	0.0508 32971	0
178	mgal/year	Flow, Millions of gallons per year	26-Jul-06	1	cfs	0.0042 36081	0

126	mgd	Flow, Millions of gallons per day	26-Jul-06	1	cfs	1.5472 28652	0
59	mho/cm	Electrical conductivity, mhos per centimeter	26-Jul-06	1	uS/cm	10000 00	0
142	mi	Length Distance, Miles	26-Jul-06	1	in	63360	0
244	mi <sup>2</sup>	Area, Square miles	26-Jul-06	1	m <sup>2</sup>	25899 88.11	0
276	micron	Weight Mass, Micron	15-Dec-09	1	in	3.9370 1E-05	0
332	millibar	Pressure, Millibar	24-May-12	1	kg/m <sup>2</sup>	10.197 16213	0
217	minutes	Time, Minutes	26-Jul-06	1	minutes	1	0
201	ml	Volume, Milliliters	26-Jul-06	1	m <sup>3</sup>	0.0000 01	0
50	ml/l	Concentration Percentage, Milliliters per liter	26-Jul-06	1	mm <sup>3</sup> /l	1000	0
362	ml/l/hr	Viscosity, Milliliters per liter per hour	5-Jan-15	1	ml/l/hr	1	0
479	ml/m <sup>3</sup>	Concentration Percentage, Milliliters per cubic meter	22-May-17	100	ml/m <sup>3</sup>	1	0
359	ml/min	Flow, Milliliters per minute	2-Dec-14	1	ml/min	1	0
134	mm	Length Distance, Millimeters	26-Jul-06	1	in	0.0393 70079	0
236	mm <sup>2</sup>	Area, Square millimeters	26-Jul-06	1	m <sup>2</sup>	0.0000 01	0
323	mm <sup>3</sup>	Volume, Cubic millimeters	11-Jan-12	1	m <sup>3</sup>	0.0000 00001	0
251	mm <sup>3</sup> /l	Concentration Percentage, Cubic millimeters per liter	26-Jul-06	1	mm <sup>3</sup> /l	1	0
55	mmH <sub>2</sub> O	Pressure, millimeters of water	26-Jul-06	1	mmH <sub>2</sub> O	1	0
53	mmHg	Pressure, millimeters of mercury	26-Jul-06	1	mmHg	1	0
303	mmhos/cm	Electrical conductivity, millimhos per centimeter	27-Sep-11	1	mmhos/cm	1	0
319	mmol/L	Concentration Molar, Millimoles per liter	11-Jan-12	1	mmol/L	1	0
52	mmol/kg	Concentration Percentage, Millimoles per kilogram	26-Jul-06	1	mmol/kg	1	0
253	mmol/m <sup>2</sup> /dy	Viscosity, Millimoles per square meter per day	26-Jul-06	1	mmol/m <sup>2</sup> /dy	1	0
51	mmol/m <sup>2</sup> /hr	Viscosity, Millimoles per square meter per hour	26-Jul-06	1	mmol/m <sup>2</sup> /dy	24	0

344	mmol/ mg	Concentration Molar, Millimoles per milligram	20-Nov- 13	1	mmol /mg	1	0
221	months	Time, Months	26-Jul-06	1	minut es	43830	0
265	mosm/ kg	Concentration Molar, Milliosmole per kg	3-Jul-08	1	mosm /kg	1	0
197	mph	Speed Velocity, Miles per hour	26-Jul-06	1	m/sec	0.4470 4	0
346	mrem	Radiation, MilliRem, one thousands of a rem (roentgen equivalent man)	8-Jan-14	1	mSv	0.01	0
40	mrem/ day	Radiation, Millirems per day	26-Jul-06	1	mrem /day	1	0
39	mrem/ yr	Radiation, Millirems per year	26-Jul-06	1	mrem /day	0.0027 37851	0
215	ms	Time, Milliseconds	26-Jul-06	1	minut es	1.6666 7E-05	0
65	mw	Power, megawatts	26-Jul-06	1	mw	1	0
176	nCi/L	Concentration Solution, Nanocuries per liter	26-Jul-06	1	pCi/L	1000	0
3	ng	Weight Mass, Nanograms	26-Jul-06	1	g	0.0000 00001	0
327	ng/cm2	Concentration Solution, Nanograms per square centimeter	11-Jan- 12	1	ug/c m2	0.001	0
23	ng/cm3	Density, Nanograms per cubic centimeter	26-Jul-06	1	ug/l	1	0
88	ng/g	Concentration Percentage, Nanograms per gram	26-Jul-06	1	ug/kg	1	0
83	ng/kg	Concentration Percentage, Nanograms per kilogram	26-Jul-06	1	ug/kg	0.001	0
13	ng/l	Density, Nanograms per liter	26-Jul-06	1	ug/l	0.001	0
77	ng/m2	Concentration Solution, Nanograms per square meter	26-Jul-06	1	g/m2	0.0000 00001	0
351	ng/m2/ day	Viscosity, Nanograms per square meter per day	28-Jul-17	1	ng/m 2/day	1	0
17	ng/m3	Density, Nanograms per cubic meter	26-Jul-06	1	ug/l	0.0000 01	0
280	ng/ml	Density, Nanograms per milliliter	4-Jun-10	1	ng/ml	1	0
133	nm	Length Distance, Nanometers	26-Jul-06	1	in	3.9370 1E-08	0
289	nm-1	Concentration Solution, Inverse nanometers or per nanometers ***deprecated***use per nm	19-Jul-10	1	per nm	1	0
143	nmi	Length Distance, Nautical miles	26-Jul-06	1	in	72913. 38588	0



250	nmi2	Area, Square nautical miles	26-Jul-06	1	m2	34299 04	0
268	nmol/g DW/h	Viscosity, Nanomoles per gram dry weight per hour	24-Nov-09	1	nmol/ g DW/h	1	0
271	nmol/h r/g	Viscosity, Nanomoles per hour per gram	24-Nov-09	1	nmol/ hr/g	1	0
163	nmol/k g	Concentration Molar, Nanomoles per Kilogram	26-Jul-06	1	mmol/ /kg	0.0000 01	0
371	nmol/m 3	Concentration Molar, Nanomoles per cubic meter	29-Jan-16	1	nmol/ m3	1	0
144	nu	Concentration Percentage, Number or gage	26-Jul-06	1	None	1	0
315	ohm	Electrical resistance, ohms (symbol: $\Omega$ )	11-Jan-12	1	ohm	1	0
365	ohm- cm	Electric Resistivity, ohms - centimeter (symbol: $\Omega$ cm)	15-Apr-15	1	ohm- m	0.01	0
378	ohm-m	Electric Resistivity, ohms - meter (symbol: $\Omega$ m). Ohm-meter is a unit of resistivity	7-Dec-17	100	ohm- m	1	0
8	oz	Weight Mass, Ounces	26-Jul-06	1	g	28.349 52313	0
368	pCi	Weight Mass, Picocuries	19-Jan-16	1	pCi	1	0
36	pCi/L	Concentration Solution, Picocuries per Liter	26-Jul-06	1	pCi/L	1	0
37	pCi/g	Concentration Percentage, Picocuries per gram	26-Jul-06	1	pCi/g	1	0
34	pCi/m2	Concentration Solution, Picocuries per square meter	26-Jul-06	1	pCi/m 2	1	0
38	pCi/m3	Concentration Solution, Picocuries per cubic meter	26-Jul-06	1	pCi/L	0.001	0
155	pCi/ml	Density, Picocuries per milliliter	26-Jul-06	1	pCi/L	1000	0
739	pct modern	Percent modern	14-Apr-20	7140	pct mode rn	1	0
42	per m	Concentration Solution, Inverse meter or per meter	26-Jul-06	1	per m	1	0
357	per mil	Concentration Percentage, Parts per thousand	16-Feb-17	100	ug/kg	10000 00	0
509	per nm	Concentration Solution, Inverse nanometers or per nanometers	9-Feb-21	1	per nm	1	0
257	pfu/100 ml	Concentration Solution, Plaque Forming Units per 100 Milliliters	26-Jul-06	1	pfu/1 00ml	1	0
2	pg	Weight Mass, Picograms	26-Jul-06	1	g	1E-12	0
22	pg/cm3	Density, Picograms per cubic centimeter	26-Jul-06	1	ug/l	0.001	0

87	pg/g	Concentration Percentage, Picograms per gram	26-Jul-06	1	ug/kg	0.001	0
82	pg/kg	Concentration Percentage, Picograms per kilogram	26-Jul-06	1	ug/kg	0.0000 01	0
12	pg/l	Density, Picograms per liter	26-Jul-06	1	ug/l	0.0000 01	0
27	pg/m2	Concentration Solution, Picograms per square meter	26-Jul-06	1	g/m2	1E-12	0
16	pg/m3	Density, Picograms per cubic meter	26-Jul-06	1	ug/l	0.0000 00001	0
350	phi	Weight Mass, Krumbein Phi Scale	5-Sep-13	1	phi	1	0
314	pmc	Radiation, Percent modern carbon	11-Jan-12	1	pmc	1	0
352	pmol/mg/min	Viscosity, Picomoles per milligram per minute	31-Mar-14	1	pmol/mg/min	1	0
91	ppb	Concentration Percentage, Parts per billion	26-Jul-06	1	ug/kg	1	0
620	ppbv	Concentration Percentage, Parts per billion by volume	31-May-18	100	ug/kg	11	0
92	ppm	Concentration Percentage, Parts per million	26-Jul-06	1	ug/kg	1000	0
619	ppmv	Concentration Percentage, Parts per million by volume	31-May-18	100	ug/kg	1000	0
261	ppt	Concentration Percentage, Parts per trillion	26-Jul-06	1	ug/kg	0.001	0
93	ppth	Concentration Percentage, Parts per thousand	26-Jul-06	1	ug/kg	10000 00	0
369	psf	Concentration Solution, Pounds per square foot	19-Jan-16	1	psf	1	0
226	psi	Pressure, pounds per square inch	26-Jul-06	1	g/m2	70306 9.58	0
231	pt	Volume, Fluid pints	26-Jul-06	1	m3	0.0004 73177	0
232	qt	Volume, Fluid quarts	26-Jul-06	1	m3	0.0009 46353	0
216	seconds	Time, Seconds	26-Jul-06	1	minutes	0.0166 66667	0
260	tCaCO3/Kt	Concentration Solution, Tons of calcium carbonate per kiloton	26-Jul-06	1	tCaCO3/Kt	1	0
10	tons	Weight Mass, Short tons	26-Jul-06	1	g	90718 4.74	0
159	tons/acre ft	Concentration Solution, Tons per acre feet	26-Jul-06	1	ug/l	73546 2.3673	0
156	tons/day	Flow Mass, Tons per day	26-Jul-06	1	lb/day	2000	0

719	tsc/100 ml	Target Sequence Copy per 100 milliliters	3-Jan-20	3880	tsc/100ml	1	0
717	tsc/g	Target Sequence Copy per gram	6-Jan-20	3880	tsc/g	1	0
439	uE/m2/s	Viscosity, Microeinsteins per square meter per second	24-Feb-17	100	uE/m2/s	1	0
109	uE/m2/sec	Viscosity, Photosynth. radiation, micro-Einsteins/sq.meter/sec	26-Jul-06	1	uE/m2/sec	1	0
364	uL	Volume, Microliters	9-Apr-15	1	uL	1	0
31	uS/cm	Electric Resistivity, Micro-Siemens per Centimeter	26-Jul-06	1	uS/cm	1	0
334	uW/cm2	Power, Micro-watts per square centimeter	4-Jun-12	1	uW/cm2	1	0
29	ueq/L	Density, Micro-equivalents per Liter	26-Jul-06	1	ueq/L	1	0
4	ug	Weight Mass, Micrograms	26-Jul-06	1	g	0.000001	0
639	ug/100 cm2	Concentration Solution, micrograms per 100 square cm	17-Jul-18	7140	ug/cm2	0.01	0
579	ug/PUF	Concentration Solution, micrograms per polyurethane foam sample	31-Jan-18	100	ug/PUF	1	0
291	ug/cart	Concentration Solution, Micrograms per cartridge	19-Jul-10	1	ug/cart	1	0
306	ug/cm2	Concentration Solution, Micrograms per square centimeters	27-Dec-11	1	g/m2	0.01	0
160	ug/cm2/day	Viscosity, Micrograms per square centimeter per day	26-Jul-06	1	mg/m2/day	10	0
24	ug/cm3	Density, Micrograms per cubic centimeter	26-Jul-06	1	ug/l	1000	0
89	ug/g	Concentration Percentage, Micrograms per gram	26-Jul-06	1	ug/kg	1000	0
269	ug/g DW/hr	Viscosity, Micrograms per gram dry weight per hour	24-Nov-09	1	ug/g DW/hr	1	0
275	ug/hr/g	Viscosity, Micrograms per hour per gram	7-Dec-09	1	ug/hr/g	1	0
84	ug/kg	Concentration Percentage, Micrograms per kilogram	26-Jul-06	1	ug/kg	1	0
14	ug/l	Density, Micrograms per liter	26-Jul-06	1	ug/l	1	0
78	ug/m2	Concentration Solution, Micrograms per square meter	26-Jul-06	1	g/m2	0.000001	0
348	ug/m2/hr	Viscosity, Micrograms per square meter per hour	28-Jul-17	1	ug/m2/hr	1	0
18	ug/m3	Density, Micrograms per cubic meter	26-Jul-06	1	ug/l	0.001	0

374	ug/ml	Density, Micrograms per milliliters	28-Apr-16	1	ug/ml	1	0
580	ug/net	Concentration Solution, micrograms per net sample	31-Jan-18	100	ug/net	1	0
581	ug/scrubbie	Concentration Solution, micrograms per scrubbie sample	31-Jan-18	100	ug/scrubbie	1	0
582	ug/wipe	Concentration Solution, micrograms per wipe sample	31-Jan-18	100	ug/wipe	1	0
370	um3	Volume, Cubic micrometers	19-Jan-16	1	um3	1	0
376	um3/100ml	Concentration Percentage, Cubic micrometer per 100 milliliters	9-May-16	1	um3/100ml	1	0
272	um3/cm2	Concentration Solution, Cubic microns per square cm	24-Nov-09	1	um3/cm2	1	0
174	um3/l	Concentration Percentage, Cubic microns per liter	26-Jul-06	1	mm3/l	0.000000001	0
273	um3/ml	Concentration Percentage, Cubic microns per ml	24-Nov-09	1	um3/ml	1	0
310	umho	Electrical conductance, micro-mhos	11-Jan-12	1	umho	1	0
60	umho/cm	Electrical conductivity, micro-mhos per centimeter	26-Jul-06	1	uS/cm	1	0
169	umol	Weight Mass, Micromoles	26-Jul-06	1	umol	1	0
318	umol/L	Concentration Molar, Micromoles per liter	11-Jan-12	1	umol/L	1	0
167	umol/S/m2	Viscosity, Micromoles per siemen per square meter	26-Jul-06	1	umol/S/m2	1	0
264	umol/g	Concentration Percentage, Micromoles per gram	27-Feb-08	1	umol/kg	0.001	0
330	umol/kg	Concentration Molar, Micromoles per kilogram	7-Mar-12	1	umol/kg	1	0
170	umol/m2/s	Viscosity, Micromolesr square meter per second	26-Jul-06	1	umol/m2/s	1	0
254	units/cm	Concentration Solution, Units per centimeter, for UV absorbance	26-Jul-06	1	units/cm	1	0
61	volts	Power, Electro-motive force, volts	26-Jul-06	1	volts	1	0
220	weeks	Time, Weeks	26-Jul-06	1	minutes	10080	0
287	y/m/d	Time, Year/month/day	19-Jul-10	1	y/m/d	1	0
141	yd	Length Distance, Yards	26-Jul-06	1	in	36	0
243	yd2	Area, Square yards	26-Jul-06	1	m2	0.83612736	0

230	yd3	Volume, Cubic yards	26-Jul-06	1	m3	0.7645 44858	0
222	years	Time, Years	26-Jul-06	1	minutes	52596 0	0