Ground Water Data

Well Site Details

Name	Type	Length	Units	Range	Description
State ID	C	15	table		
Agency	C	10	table		
District	C	15			
Tehsil/taluk Code	C	15			
Block/Mandal Code	C	15			
Toposheet Number	N	10			topographic map id
longitude	N	6	ddmmss	61-92	
latitude	N	6	ddmmss	8-36	
Grid East	N	6	ddmmss	61-92	nationaal grid east
Grid North	N	6	ddmmss	8-36	national grid north
Well ID	C	10	table		well identification
Location details	C	50			location description
Site ID	C	22		table	
Village/Town Name	C	15			
Khasra/ Survey Number	N	6			
Hamlet Name	C	15			
Owner	C	15			
Basin	C	15			
Subbasin	C	15			
Geology	C	15			
Geomorphology	C	15			

Well Detail

Name	Type	Length	Units	Range	Description
Well ID	C	10		table	well id
Well type	C	10		table	type of well
Well Use	C	10			primary use of water
Well length	N	3+2	mmmcc		well dimension, meters,cm
Well breadth	N	3+2	mmmcc		well dimension meters,cm
Well diameter	N	4	mm		diameter in milimeter
Date first inventory	N	8	yyyymmdd		date of first inventory
Aquifer type	C	10			aquifer code
AQ thickness first	N	4+2	mmmmcc		
AQ thickness second	N	4+2	mmmmcc		
AQ thickness third	N	4+2	mmmmcc		
Total Depth	N	4+2	mmmmcc		total depth of well
Depth to water level	N	3+2	mmmcc		depth to water table
Surface elevation	N	5+2	mmmmmcc		elevation above msl
Meassuring point Elevation	N	4+2	mmmmcc		
Lifting device	C	15			
Depth to first	N	3+2	mmmcc		open well
Rock formation first	C	10			open well

Depth to second	N	3+2	mmmcc		open well
Rock formation second	C	10			open well
Depth to third	N	3+2	mmmcc		open well
Rock formation third	C	10			open well

Well Drilling Details

Name	Type	Length	Units	Range	Description
Well ID	C	10			
Well type	C	10			
Date of commencement of Drilling	N	8	yyyymmdd		
Date Drilling completion	N	8	yyyymmdd		
Drilling Agency	C	10			
Drilling method	C	15			
Drilled depth	N	4+2	mmmmcc		meters.cm
First water struck depth	N	4+2	mmmmcc		meters.cm
Water bearing zone1	N	4+2	mmmmcc		meters.cm
Water bearing zone2	N	4+2	mmmmcc		meters.cm
Water bearing zone3	N	4+2	mmmmcc		meters.cm
Water bearing zone4	N	4+2	mmmmcc		meters.cm

Well Lithology

Name	Type	Length	Units	Range	Description
Well ID	C	10			
Depth to 1	N	5	mmmcc		
Formation 1	C	15		table	
Depth to 2	N	5	mmmcc		
Formation 2	C	15		table	
Depth to 3	N	5	mmmcc		
Formation 3	C	15		table	
Depth to 4	N	5	mmmcc		
Formation 4	C	15		table	
Depth to 5	N	5	mmmcc		
Formation 5	C	15		table	
Depth to 6	N	5	mmmcc		
Formation 6	C	15		table	
Depth to 7	N	5	mmmcc		
Formation 7	C	15		table	
Depth to 8	N	5	mmmcc		
Formation 8	C	15		table	

Well Assembly

Name	Type	Length	Units	Range	Description
Well ID	C	10			
Casing type	C	15		table	
Casing Diameter	N	4	mm		
Casing position from 1	N	6	mmmmcc		

Casing position to 1	N	6	mmmmcc		
Casing position from 2	N	6	mmmmcc		
Casing position to 2	N	6	mmmmcc		
Drilling depth	N	6	mmmmcc		
Well completion depth	N	6	mmmmcc		
Drilling fluid	C	15		table	
Pilot Hole Depth	N	6	mmmmcc		
Pilot Hole Diameter	N	4	mm		
Reamed Depth	N	6	mmmmcc		
Screen Type	C	15		table	
Slots Type	C	12		table	
Screen Diameter	N	4	mm		
Screen position from 1	N	6	mmmmcc		
Screen position to 1	N	6	mmmmcc		
Screen position from 2	N	6	mmmmcc		
Screen position to 2	N	6	mmmmcc		
Screen position from 3	N	6	mmmmcc		
Screen position to 3	N	6	mmmmcc		
Slot size	N	2	??		
Gravel pack	C	1		Y/N	if gravel pack
Gravel pack position from1	N	6	mmmmcc		if gravel pack
Gravel pack position to 1	N	6	mmmmcc		if gravel pack
Gravel pack volume 1	N	3	m3		if gravel pack
Gravel pack size 1	N	2	mm		if gravel pack
Gravel pack position from2	N	6	mmmmcc		if gravel pack
Gravel pack position to 2	N	6	mmmmcc		if gravel pack
Gravel pack volume 2	N	3	m3		if gravel pack
Gravel pack size 2	N	2	mm		if gravel pack
Gravel pack position from3	N	6	mmmmcc		if gravel pack
Gravel pack position to 3	N	6	mmmmcc		if gravel pack
Gravel pack volume 3	N	3	m3		if gravel pack
Gravel pack size 3	N	2	mm		if gravel pack
Grouting	C	1		Y/N	
Grouting position from1	N	6	mmmmcc		if grouting
Grouting position to 1	N	6	mmmmcc		if grouting
Grout material 1	C	8			if grouting
Grouting position from2	N	6	mmmmcc		if grouting
Grouting position to 2	N	6	mmmmcc		if grouting
Grout material 2	C	8			if grouting
Grouting position from3	N	6	mmmmcc		if grouting
Grouting position to 3	N	6	mmmmcc		if grouting
Grout material 3	C	10			if grouting
Development method	C	15		table	

Well performance

Name	Type	Length	Unit	Range	Description
Well ID	C	10			well identification
Pumping test	C	1		Y/N	
Number of steps	N	1			
Discharge	N	4	m3/h		for each step
Drawdown	N	4	m		for each step
Aquifer loss	N	4	m		for each step
Well loss	N	4	m		for each step
Well efficiency	N	2	%		for each step
Rate of Discharge	N	7	m3/h		constant discharge test
Pumping duration	N	5	hhhmm		constant discharge test
No of observation wells	N	1			constant discharge test
Max drawdown	N	5	mmmcc		constant discharge test
Specific Capacity	N	7	m3/h/m		constant discharge test
Transmissivity	N	7	???		constant discharge test
Storativity	N	6	???		constant discharge test
Specific yield	N	4	???		constant discharge test

Ground Water - Time Series data

Water Quality Details

Name	Type	Length	Units	Range	Description
State ID	C	15		table	
Agency ID	C	10		table	
Well ID	C	10		table	
Well type	C	10		table	
Sample ID	C	10			
Date of sample	N	8	yyyymmdd		
Date of analysis	N	8	yyyymmdd		
Lab ID	C	10			identity of laboratory
Depth of sampling	N	6	mmmmcc		for each sample
pH	N	4	-log10mol/l	4-10	water acidic value
EC	N	6	micromhos/cm		electrical conductivity
CO3	N	4	mg/l		
HCO3	N	4	mg/l		
Cl	N	4	mg/l		
SO4	N	4	mg/l		
NO3	N	4	mg/l		
Ca	N	4	mg/l		
Mg	N	4	mg/l		
Na	N	4	mg/l		
K	N	4	mg/l		
F	N	4	mg/l		
Fe	N	4	mg/l		
Si	N	4	mg/l		

Water Level

Name	Type	Length	Units	Range	Description
State ID	C	15		table	
Agency ID	C	10		table	
Well ID	C	10		table	
Well type	C	10			
Elevation	N	7	m		
Date	N	8	yyyymmdd		for each measurment year,month,day
Time	N	4	hhmm		for each measurment hours,minutes
Hight of measurment point	N	5	mmmcc		for each measurment
Water level	N	5	m		for each measurment
Remarks	C	30			for each measurment

Surface Water & Meteorology Data

Catchment Data

Name	Type	Length	Units	Range	Description
General					
Catchment ID	C	10		al. num.	Code for catchment identification
Catchment name	C	30		al. num.	name of the catchment
River Basin	C	30		alpha	name of the major river basin
Tributary to	C	30		alpha	name of the major river d/s
Bank	C	1		R/L	R=right or L=left bank tributary
Longitude	N	6	ddmmss	60-99	long. of the outlet
Latitude	N	6	ddmmss	6-36	lat. of the outlet
Elevation	N	4+2	m+MSL	0-9999.99	elevation of zero flow at outlet
Basin Area	N	6+2	sq km	0-999999.99	area of catchment
Geomorphologic					
Order of the catchment	N	1	no.	1-9	Order of highest order stream
Length	N	5+2	kms	99999.99	length of main stream
Perimeter	N	5+2	kms	99999.99	perimeter of the catchment
Lc	N	5+2	kms	99999.99	length of main stream from near the centroid to outlet
Slope	N	1+5-(E)	-	-1.0 - 1.0	Hydraulic slope of the main stream
Bifurcation ratio	N	1+2	-	1.00-5.00	on 1:50,000 scale
Length ratio	N	1+2	-	1.00-5.00	-do-
Area ratio	N	1+2	-	1.00-5.00	-do-
DTM available	C	1		Y/N	is digital terrain model available
Utilisation of Potential					
Weirs/dams	N	4	no.	0-9999	number of existing weirs/dams
Off - takes	N	4	no.	0-9999	number of off-takes
Total off-take capacity	N	5+2	m^3/s	0-99999.99	total capacity
Total command area	N	7+1	ha	0-9999999.9	total of all projects
Land Use & Soil Groups					
Land use					
Urban	N	2+2	%	0 - 100	percent of total catchment area
Forest	N	2+2	%	0 - 100	percent of total catchment area
Waste land	N	2+2	%	0 - 100	percent of total catchment area
Cultivated agricultural	N	2+2	%	0 - 100	percent of total catchment area

Agricultural	N	2+2	%	0 - 100	percent of total catchment area
Water Bodies	N	2+2	%	0 - 100	percent of total catchment area
Arid & Semi arid	N	2+2	%	0 - 100	percent of total catchment area
Hydrologic Soil Group					
A	N	2+2	%	0 - 100	percent of total catchment area
B	N	2+2	%	0 - 100	percent of total catchment area
C	N	2+2	%	0 - 100	percent of total catchment area
D	N	2+2	%	0 - 100	percent of total catchment area
Reach Characteristics					
Upper reach length	N	5+2	kms	0 - 99999.99	length of the reach
Middle reach length	N	5+2	kms	0 - 99999.99	length of the reach
Lower reach length	N	5+2	kms	0 - 99999.99	length of the reach
Upper reach Slope	N	1+5	-	-1.0 - 1.0	Hydraulic slope of reach
Middle reach Slope	N	1+5	-	-1.0 - 1.0	Hydraulic slope of reach
Lower reach Slope	N	1+5	-	-1.0 - 1.0	Hydraulic slope of reach
Upper reach bed	C	20			Type of bed material
Middle reach bed	C	20			Type of bed material
Lower reach bed	C	20			Type of bed material

Station data

Name	Type	Length	Units	Range	Description
General					
State ID	C	10		table	
Agency Name	C	20		table	
Agency ID	C	10		table	
district Name	C	20		table	
Station ID	C	10		al. num.	station id
Station name	C	20		alpha	name of station
Station type	C	10		al. num.	station type
River/canal name	C	20		alpha	name of river or canal on which the station is located
latitude	N	6	ddmmss	8-36	
longitude	N	6	ddmmss	61-92	
Distance	N	6	Km		distance from station to next confluence d/s
Elevation	N	6	m+MSL		m + mean see level
Catchment area	N	6	sq km		area u/s of station for gauging station
Data transmission	C	1		M/P	Messenger, Post

Date of Establishment	N	8	yyyymmdd		
Locational					
Reference Toposheet	C	8			1:50,000 toposheet containing the outlet
Location of GTS BM	C	50			text about location of GTS BM
Level of GTS BM	N	4+3	m+MSL		level of GTS BM
Location of Musto BM	C	50			text about location of Musto BM
Level of Musto BM	N	4+3	m+MSL		level of Musto BM
location	C	100			location description of station
Accessibility	C	200			description for accessibility
Overall plan	C	20			reference of overall plan file
Detailed drawings	C	20			reference of detailed drawings file
Railway station	C	20			nearest railway station
Airport	C	20			nearest airport
Location of site office	C	60			Location of site office
Postal address	C	120			postal address of the Site office
Inspection bungalows	C	60			location of inspection bungalows
Nearby projects	C	120			statement about location of nearby projects
Nearby bridge	C	20			location of nearby bridge
Bridge length	N	6	m		length of the bridge d/s
Number of spans	N	2			number of spans in bridge
width of span	C	50			statement about width of span(s)
Controls	C	100			description of nearby controls
Type of Establishment					
Staff gauge	C	1		(Y/N)	
AWLR	C	1		(Y/N)	
Flow by Float	C	1		(Y/N)	
Flow by current meter	C	1		(Y/N)	
Flow by moving boat	C	1		(Y/N)	
Water Quality	C	1		(Y/N)	
Sediment	C	1		(Y/N)	
SRG	C	1		(Y/N)	
AGR	C	1		(Y/N)	
Met. Observatory	C	1		(Y/N)	
FCS	C	1		(Y/N)	
Evaporimeter	C	1		(Y/N)	
Staff Gauging					
Start Date	N	8	yyyymmdd	19000101-20491231	
Location of gauge line	C	50			statement

Number of gauge lines	N	1		1 - 5	
Distance of gauge lines	N	4	m	50 - 3000	distance between outer lines
Gauge zero	N	4+2	m	0 - 5000.00	above msl
Minimum level	N	2+2	m	-30.0 - 30.0	w.r.t to zero of the gauge
Maximum level	N	2+2	m	-30.0 - 99.99	w.r.t to zero of the gauge
Water level range	N	2	m	0 - 99	
Rise of stage	N	2+2	m/hr	0 - 99	maximum rate of rise of water level
Fall of stage	N	2+2	m/hr	0 - 99	maximum rate of fall of water level
Back water effects	C	1		Y/N	back water effect present or not
Tidal effects	C	1		Y/N	tidal effect present or not
Sampling interval	N	2	hr	0 - 24	
times of observation	C	20			statement for times of observations
Submission interval	N	2	days		submission interval of field data
A W L R					
Start Date	N	8	yyyymmdd	19500101-20491231	
Closure Date	N	8	yyyymmdd	19500101-20491231	
Type of gauge	C	1		F/P/B/A	Float, Pressure transducer, Bubble, Acoustic
Make	C	20			instrument make
Year of manufacture	N	4	yyyy	1950 - 2050	
Location	C	1		B/R	Bridge, River bank
Stilling well	C	1		Y/N	stilling well available
Diameter of stilling well	N	2+2	m		
Diameter of intake pipes	N	3	mm		
Check gauge inside	C	1		Y/N	check gauge in stilling well?
Check gauge outside	C	1		Y/N	check gauge outside stilling well?
Gauge zero	N	4+2	m	0 - 5000.00	w.r.t MSL
Minimum level	N	2+2	m	-30.0 - 30.0	
Maximum level	N	2+2	m	-30.0 - 99.99	
Type of recording	C	1		A/D	Analogue, Digital
Sampling interval	N	2	hr	0 - 24	
Current Meter Measurements					
Start Date	N	8	yyyymmdd	19500101-20491231	
Closure Date	N	8	yyyymmdd	19500101-20491231	
Type of meter	C	1		C/P/O	C = cup, P = propeller, o = other
Make	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Sampling interval	C	20			statement
Flow Measurements by Floats					

Start Date	N	8	yyyymmdd	19000101-20491231	
Closure Date	N	8	yyyymmdd	19000101-20491231	
Type of float	C	1		S/U/D/R	S=surface, U=subsurface, D=double, R =rod
Make	C	20			
Suspended Sediment Observations					
Start Date	N	8	yyyymmdd	19500101-20491231	
Closure Date	N	8	yyyymmdd	19500101-20491231	
Type of equipment	C	1			
Make	C	20			
Sampling interval	C	20			statement
Year of manufacture	N	4	yyyy	1950 - 2050	
Bed Sediment Observations					
Start Date	N	8	yyyymmdd	19500101-20491231	
Closure Date	N	8	yyyymmdd	19500101-20491231	
Type of equipment	C	1			
Make	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Sampling interval	C	20			statement
Water Quality Measurements					
Start Date	N	8	yyyymmdd	19500101-20491231	
Closure Date	N	8	yyyymmdd	19500101-20491231	
Make	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Sampling interval	C	20			statement
no. of parm. sampled	N	3			number of parameters sampled
Parm. Sampled name	C(d)	20			parameters being sampled
Parm. Sampled ID	C(d)	10			parameters being sampled
Parm. Sampled at Site	C(d)			Y/N	
SRG					
Start Date	N	8	yyyymmdd	19500101-20491231	
Closure Date	N	8	yyyymmdd	19500101-20491231	
Pocket Revgister	C	1		P/F	p=pocket register, f=form
Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Sampling Interval	C	20			statement
ARG					
Start Date	N	8	yyyymmdd	19000101-20491231	
Closure Date	N	8	yyyymmdd	19000101-20491231	

Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Mode of data logging	C	1		A/D	A=analog, D=digital
Sampling Interval	C	20			statement
Temperature					
Manual Observations	C	1		Y/N	
Min. / Max.	C	1		Y/N	
Pocket Revgister	C	1		P/F	p=pocket register, f=form
Sampling Interval	C	20			statement
Thermograph	C	1		Y/N	
Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Mode of data logging	C	1		A/D	A=analog, D=digital
Sampling Interval	C	20			statement
Wind Run					
Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Pocket Revgister	C	1		P/F	p=pocket register, f=form
Sampling Interval	C	20			statement
Wind Speed					
Make of Equipment	C	20			
Year of Manufacture	N	4	yyyy	1950 - 2050	
Pocket Revgister	C	1		P/F	p=pocket register, f=form
Sampling Interval	C	20			statement
Humidity					
Dry & Wet Bulb	C	1		Y/N	
Pocket Revgister	C	1		P/F	p=pocket register, f=form
Sampling Interval					
Hygrograph					
Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Mode of data logging	C	1		A/D	A=analog, D=digital
Sampling Interval	C	20			statement
Evaporation					
Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
Dia. of Evaporimeter	N	4	mm	400 - 2000	
Pocket Revgister	C	1		P/F	p=pocket register, f=form

Sampling Interval	C	20			statement
Radiation					
Sunshine Recorder	C	1		Y/N	
Make of equipment	C	20			
Year of manufacture	N	4	yyyy	1950 - 2050	
S S Globe dia.	N	3	mm		
Mode of Data logging	C	1		A/D	A=analog, D=digital
Sampling Interval	C	20			statement
Other Instrument	C	1		Y/N	
Make	C	20			specify any other instrument in use
Sampling Interval	C	20			statement

Equidistant time series data

Name	Type	Length	Units	Range	Description
State ID	C	10		table	
Agency ID	C	10		table	
Station ID	C	10		al. num.	station id
Station type	C	10		al. num.	station type
Variable/parm ID	C	2(d)	varying	alpha num.	many parameters at a station
Type	C	1(d)	I/A		Instantaneous, Accumulative
Time interval unit	N	1(d)		1/2/3/4	1-year,2-month,3-day,4-hour
Divider	N	2(d)		1-99	elements per time unit
Basic time interval	N	1(d)		1/2/3/4	2-month,3-day,4-hour,5-minute
Multiplier	N	2(d)		1-99	elements per time unit
Start Date	N	12(d)	yyyymmddhhsi	1850 - 2050	
End Date	N	12(d)	yyyymmddhhsi	1850 - 2050	
Missing value	N	6+3(d)	varying	varying	for each
Minimum	N	6+3(d)	varying	varying	likely minimum value
Maximum	N	6+3(d)	varying	varying	likely maximum value
Rise	N	6+3(d)	varying	varying	likely maximum rate of rise
Fall	N	6+3(d)	varying	varying	likely maximum rate of fall
Values	N	6+3(d)	varying	varying	value of the variable

Non-Equidistant time series data

Name	Type	Length	Units	Range	Description
State ID	C	10		table	
Agency ID	C	10		table	
Station ID	C	10		al. num.	station id
Station type	C	10		al. num.	station type
Variable/parm ID	C	2	varying	alpha num.	
Type	C	1	I/A		Instantaneous, Accumulative
Start Date	N	12	yyyymmdd hhsi	1850 - 2050	
End Date	N	12	yyyymmdd hhsi	1850 - 2050	
Missing value	N	6+3	varying	varying	
Minimum	N	6+3	varying	varying	likely minimum value
Maximum	N	6+3	varying	varying	likely maximum value
Time lable	N	12(d)	yyyymmdd hhsi	1850 - 2050	
Values	N	6+3(d)	varying	varying	value of the variable

Stage-Discharge data

Name	Type	Length	Unit	Range	Description
State ID	C	10		table	
Agency ID	C	10		table	
Station ID	C	10		al. num.	station id
Station type	C	10		al. num.	station type
Date	N	8	yyyymmdd		
Number	N	3		0 - 400	
Gauge zero	N	4+3	m+MSL		
Water level	N	4+3	m		
Discharge	N	6+2(S)	m^3/s		
Energy slope	N	1+5(E)			
Gradient	N	1+5(E)	m/hr		

Fall	N	2+2	m		
Flow width	N	4+1	m		
Wetted perimeter	N	4+1	m		
Wetted cross-section	N	6+1	m^2		
Average velocity	N	2+3	m/s		
Hydraulic radius	N	2+4	m		
Manning's n	N	1+5(E)	-	0.00001 - 0.1	

Stage-Discharge relations

Name	Type	Length	Unit	Range	Description
State ID	C	10			
Agency ID	C	10			
Station ID	C	10			
Station Type	C	10			
Start date	N	8(d)	yyyymmdd		start validity period of rating equation
End date	N	8(d)	yyyymmdd		end of validity period of rating equation
Type of rating curve	C	1		S/U/B	S=simple, U=unsteady, B=backwater
Simple rating					
Number of intervals	N	1			for each validity period
Lower boundary	N	4+3	m		for each interval
Upper boundary	N	4+3	m		for each interval
coeff a	N	2+4(e)			for each interval
coeff b	N	2+4(e)			for each interval
coeff c	N	2+4(e)			for each interval
Backwater (constant)					
Constant fall	N	2+3	m		Value of constant fall
Power	N	2+3			exponent in backwater correction
Backwater (normal)					
Lower boundary	N	4+3	m		lower boundary for backwater correction
Power	N	1+4(e)			exponent in backwater correction
coeff a	N	2+4(e)			parameters for relation {f = f(h)}
coeff b	N	2+4(e)			parameters for relation {f = f(h)}
coeff c	N	2+4(e)			parameters for relation {f = f(h)}
Unsteady flow					

Lower boundary	N	4+3	m		lower limit for unsteady flow correction
Upper boundary	N	4+3	m		Upper limit for unsteady flow correction
coeff a	N	2+4(e)			parameter for relation {1/vS = f(h)}
coeff b	N	2+4(e)			parameter for relation {1/vS = f(h)}
coeff c	N	2+4(e)			parameter for relation {1/vS = f(h)}

Sediment relations

Name	Type	Length	Unit	Range	Description
State ID	C	10		table	
Agency ID	C	10		table	
Station ID	C	10		al. num.	station id
Station type	C	10		al. num.	station type
Date	N	8	yyyymmdd		
No. of Relations	N	3			
Validity Start date	N	8	yyyymmdd		start validity period of rating equation
Validity End date	N	8	yyyymmdd		end of validity period of rating equation
Number of intervals	N	1			segments in rating curve for each period
Lower boundary	N	6	m		for each interval
Upper boundary	N	6	m		for each interval
coeff a	N	6			for each interval
coeff b	N	6			for each interval
coeff c	N	6			for each interval

Water Quality Tables

Water Quality - level 1

Name	Type	Length	Units	Range	Description
State ID	C	10			
Agency ID	C	10			
Well /Station ID	C	8			
Well /Station type	C	8			
Date of sample	N	12	yyyymmddhhmm		date and time of collection
Lab ID	C	10			identity of laboratory
Sample ID	C	10			sample sequence number
Date of test	N	8	yyyymmdd		date of lab test
Colour	N	3+0		0-100	water color
Temperature	N	5	dddnn		water temperature Celsius
Odour	N	2+0		0-10	odour
Osat	N	3+0	%	0-100	oxigen saturation percentage
pH	N	2+1	-log (H+)		water acidic value
EC	N	3+0	mS/m	0-1000	electrical conductivity
DO	N	2+1	mg/l	0-20	dissolved oxygen

Water Quality - level 2 (additional to level 1)

Name	Type	Length	Units	Range	Description
State ID	C	10			
Agency ID	C	10			
Well /Station ID	C	8			
Well /Station type	C	8			
Date of sample	N	8	yyyymmdd		date of collection
Time of sample	N	4	hhmm		time of collection (hour,minute)
Lab ID	C	10			identity of laboratory
Sample ID	C	10			sample sequence number
Date analysis	N	8	yyyymmdd		date of lab test
SS	N	3+1	mg/l	0-1000	suspended solids
DS	N	3+1	mg/l	0-1000	dissolved solids
TS	N	3+1	mg/l	0-1000	total solids
Turb	N	3+2	NTU	0-100	turbidity
Alk-phen	N	4+1	mg/l CaCO3	0-5000	alkalinity up to phenolphthalein (pH)
Alk-tot	N	4+1	mg/l CaCO3	0-5000	alkalinity up to methyl red (pH 4.3)
CO3	N	3+3	mg/l	0-1000	carbonate
HCO3	N	3+3	mg/l	0-1000	bicarbonate
Cl	N	5+0	mg/l	0-20000	chloride
SO4	N	4+0	mg/l	0-3000	sulfate
Ca	N	3+1	mg/l	0-1000	calcium
Mg	N	3+1	mg/l	0-1000	magnesium
TH	N	3+1	mg/l CaCO3	0-1000	total hardness
Na	N	4+0	mg/l	0-2000	sodium

K	N	3+1	mg/l	0-1000	potassium
NO2-N	N	1+3	mg/l	0-1	nitrite nitrogen
NO3-N	N	3+1	mg/l	0-1000	nitrate nitrogen
NH4-N	N	3+2	mg/l	0-1000	ammonium nitrogen
KjelN	N	3+1	mg/l	0-1000	kjeldahl nitrogen
oPO4-P	N	3+2	mg/l	0-100	ortho phosphate
P-tot	N	3+2	mg/l	0-100	total phosphorus
Chlf-a	N	3+1	mg/l	0-1000	chlorophyll-a
BOD3-27	N	3+1	mg/l	0-1000	biochemical oxygen demand
COD	N	3+1	mg/l	0-1000	chemical oxygen demand
Ecoli MPN	N	8+0	MPN/100ml	0-9E+07	E coliform bacteria
Tcoli MPN	N	8+0	MPN/100ml	0-9E+07	total coliforms
Tcoli mem	N	8+0	MPN/100ml	0-9E+07	total coliforms(mem)
Fcoli MPN	N	8+0	MPN/100ml	0-9E+07	fecal coliforms
Fcoli mem	N	8+0	MPN/100ml	0-9E+07	fecal coliforms(mem)
B	N	1+2	mg/l	0-9	boron
F	N	3+3	mg/l	0-1000	fluoride
AL	N	3+2	mg/l	0-100	aluminium
Fe	N	3+1	mg/l	0-1000	iron
Mn	N	3+2	mg/l	0-100	manganese
SiO2	N	3+1	mg/l	0-1000	silica

Water Quality - level 2+(additional to level 2)

Name	Type	Length	Units	Range	Description
State ID	C	10			
Agency ID	C	10			
Well /Station ID	C	8			
Well /Station type	C	8			
Date of sample	N	8	yyyymmdd		
Lab ID	C	10			identity of laboratory
Sample ID	C	10			sample sequence number
Date of test	N	8	yyyymmdd		date of lab test
Ag	N	1+3	mg/l	0-1	silver
As	N	1+3	mg/l	0-1	arsenic
Ba	N	3+3	mg/l	0-1000	barium
Cd	N	1+3	mg/l	0-1	cadmium
Cr	N	1+3	mg/l	0-1	chromium
Cu	N	1+3	mg/l	0-1	copper
Co	N	1+3	mg/l	0-1	cobalt
Hg	N	1+3	mg/l	0-1	mercury
Ni	N	1+3	mg/l	0-1	nickel
Se	N	3+3	mg/l	0-1000	selenium
Pb	N	1+3	mg/l	0-1	lead

V	N	3+3	mg/l	0-1000	vanadium
Zn	N	1+3	mg/l	0-1	zinc
CN	N	3+3	mg/l	0-1000	cyanide
det	N	3+2	mg/l	0-1000	detergents (SAAM-lai)
min oil	N	3+3	mg/l	0-1000	mineral oil

Water Quality - level 3 (additional to level 2+)

Name	Type	Length	Units	Range	Description
State ID	C	10			
Agency ID	C	10			
Well /Station ID	C	8			
Well /Station type	C	8			
Date of sample	N	8	yyyymmdd		
Lab ID	C	10			identity of laboratory
Sample ID	C	10			sample sequence number
Date of test	N	8	yyyymmdd		date of lab test
PAH	N	1+3	mg/l	0-1	poly aromatic hydrocarbon
PCB	N	1+3	mg/l	0-1	poly chlorinated biphenyls
pest	N	1+3	mg/l	0-1	pestices
phen	N	1+3	mg/l	0-1	phenolic compounds
VOX	N	1+3	mg/l	0-1	volatils haloginated hydrocarbons

Water Quality - level X

Name	Type	Length	Units	Range	Description
State ID	C	10			
Agency ID	C	10			
Well /Station ID	C	8			
Well /Station type	C	8			
Date of sample	N	8	yyyymmdd		
Lab ID	C	10			identity of laboratory
Sample ID	C	10			sample sequence number
Date of test	N	8	yyyymmdd		date of lab test
Abs	N	3+3	mg/l	0-1000	alkyl benzene sulfanate
BOD5-20	N	3+1	mg/l	0-1000	biochemical oxygen demand (5 days, 20 deg)
CO2	N	3+3	mg/l	0-1000	free carbon dioxide
DOC	N	3+1	mg/l	0-1000	Dissolved organic carbon
FStrc	N	5+0	mpn/100ml	0-1E+05	feacal streptococci
Grease	N	3+1	mg/l	0-100	grease
N-tot	N	3+3	mg/l	0-1000	total nitrogen
Org-N	N	3+3	mg/l	0-1000	organic nitrogen
Org-P	N	3+3	mg/l	0-1000	organic phosphorous
POC	N	3+3	mg/l	0-1000	particulate organic carbon
S	N	0+2	mg/l	0-0.05	selinity (hardness)
TOC	N	3+3	mg/l	0-1000	total organic carbone
TVS	N	3+0	mg/l	0-1000	total volatile solids

TotOil	N	3+3	mg/l	0-1000	total oil

Lab Data

Name	Type	Length	Units	Range	Description
State ID	C	10			
Agency ID	C	10			
Lab ID	C	10			identity of laboratory
Lab Name	C	20			
Lab Address	C	50			
Telephone No	N	10			telephone number (including town)
Lab Type	C	20			analysis made in laboratory

Sample Details

Name	Type	Length	Units	Range	Description
Sample ID	C	10			
Agency ID	C	10			
Date Collection	N	12	yyyymmddhh mm		date and time of collection
Type	C	10			code type of sample
Medium	C	10			code for medium sampled
Matrix	C	10			code for matrix sampled
Method	C	10			code for sampling method
Depth	N	6			location
Treatment	C	10			code for treatment of sample after collection
Preservation	C	10			code for preservation of sample
Project	C	10			code of the project under which sampled
Collector	C	20			collector's name

Parameter Data

Name	Type	Length	Unit	Range	Description
Param_Id	C	10			
Name	C	30			
Cat1	C	1		C/P/B	Chemical, physical, biological
Cat2	C	1		S/M/H/O	salts, metals, heavy metals, organics
Unit	C	10			reporting unit
Min	N	10			minimum value
Max	N	10			maximum value
Decimal	N	1			number of decimals
Hp-Level				I/ II/ II+/ III	analysis level under HP
Remarks	C	50			

Analysis Method

Name	Type	Length	Units	Range	Description
Parm ID	C	10			
Analysis	C	20			method of analysis
Type	C	1		P/S	P-directly measured,S-calculated from primary parameters
Accuracy	C	10			estimated accuracy (%) of reported value or absolute range in reporting units
Detect limit	C	10			detection limit, below this value, report as d.l.
Work range	C	10			range in which the analytical method works
Report range	C	10			allowed reporting range (after calculation from the work range
Reference	C	50			reference to the method (standard method mostly)

Lab Analysis

Name	Type	Length	Units	Range	Description
Lab-Anal ID	C	10			lab analysis ID
Analysis	C	20			method of analysis
Lab ID	C	10			lab ID
Sample ID	C	10			sample ID
Value	N	10			measured value
Date Received	N	8	yyyymmdd		
Date analyzed	N	8	yyyymmdd		
Filtration	C	10			code of filtration method
Digestion	C	10			code of digestion method
Project	C	10			project under which this analysis was carried out
Analyst	C	20			name of analyst
Approval Analyst	C	1		Y/N	approved by analyst
Approval Chief	C	1		Y/N	approved by chief chemist