

5.1.5

ч ч

III

5.2

5.2.1

SO₂ ч NO_x ч ч 5 III

5-1III

SO₂ NO_x 0.06т/a 500т/a

III

5-1 mg/m³

				Э Ю GB3095-2012
SO ₂	0.5	0.15	0.06	
NO ₂	0.2	0.08	0.04	
NO _x	0.25	0.1	0.05	
CO	10	4	1	
PM ₁₀	1	0.15	0.07	
PM _{2.5}	1	0.075	0.035	
O ₃	0.2	0.16(8h		Э Ю HJ2.2-2018 D
	0.20	1	1	
	2.0	1	1	

5.2.2

Э Ю

HJ2.2-2018 1 5.3 Л III

5.2.2.1

Э Ю HJ2.2-2018 AERSCREEN

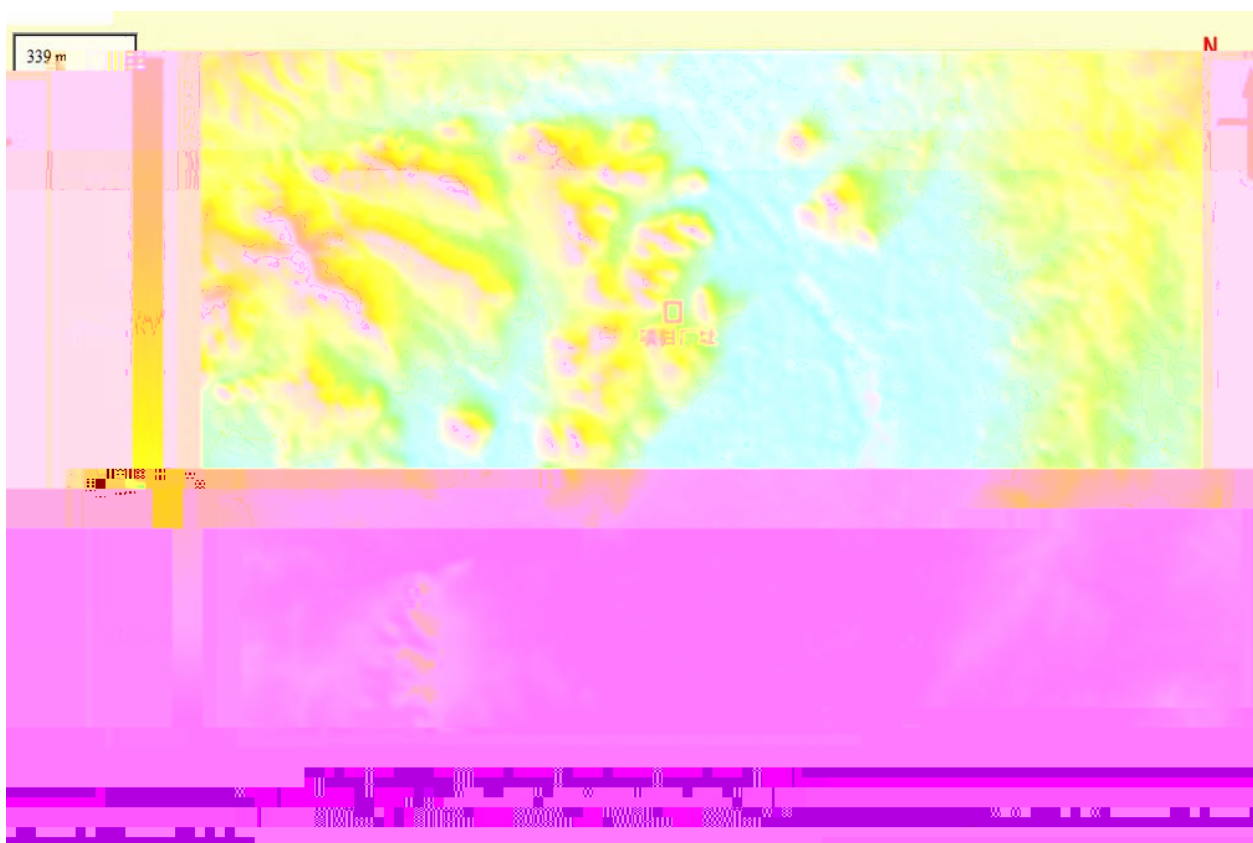
III

HJ2.2-2018 C 5-2,

5-1III

5-2

/	/		3km
		20000	
/ Ń		41.7	20
/ Ń		-16.3	
			3km
	/m	90	SRTM DEM UTM 90m
			3km
	/m	--	
	/ α	--	



5-1

5.2.1.2

Э

-

Ю HJ2.2-2018

A

P_i i t t i

10% $D_{10\%}$ III P_i

$$P_i = \frac{C_i}{C_{0i}} \times 100\%$$

P_i $\downarrow$ i %

C_i $\downarrow$ i 1h $\mu\text{g}/\text{m}^3$

C_{0i} $\downarrow$ i $\mu\text{g}/\text{m}^3$ III

AERSCREEN 5-3III

5-3

		g/m^3	m	$D_{10\%}$ m	g/m^3	%
P1		0.8246	255	$\downarrow \downarrow$	450	0.18
P2		0.1098	117	$\downarrow \downarrow$	450	0.02
		0.0469		$\downarrow \downarrow$	200	0.02
		0.1116		$\downarrow \downarrow$	2000	0.01
P4	SO ₂	0.1906	155	$\downarrow \downarrow$	500	0.04
	NO _x	1.2273		$\downarrow \downarrow$	200	0.61
		0.104		$\downarrow \downarrow$	450	0.02
		1.7511	23	$\downarrow \downarrow$	450	0.39
		1.8473		$\downarrow \downarrow$	2000	0.09

P4 P_{NOx}=0.61% 1%

1 5.3.3.2 Ψ Ψ Ψ Ψ Ψ Ψ

L

III

5.2.1.3

Θ Ю HJ2.2-2018 1 5.4.2

5km L E118 $\approx$ 34 $\acute{\text{н}}$

28.93N N35 $\approx$ 43 $\acute{\text{н}}$ 22.59N 5km III

5.2.1.4

5-4III

5-4

/m

5-5

m

m

m

m

m³/h
\$Y O
Ä Ä

□ Ä n
? &
Ä K Ä

✓ Ä n
N ä

™ (TM)

h

Ä nFO)

kg/h



											0.017
P4	33	53	148	15	0.25	78	278	7200		SO ₂	0.57
										NO _x	1.11
											7.15
P1	25m			15m	40m						

5-7

	m		m	m	m	m ³ /h	Ň	h			g/h
	X	Y									
P1	64	5	149	40	0.3	2578	30	4			1058.2
P2	33	-2	149	15	0.62	5324	20	4			0.875
											2.085
											0.085

5-8

	m		m	m		t/a	
	X	Y					
	57	3	150	31 § 16 § 15		0.0215	0.0227

5.2.5

5.2.5.1

5-9

			mg/m ³	g/h	kg/a
1	P1		6.98	17.99	65.32
2	P2		0.03	0.175	0.48
			0.08	0.417	1.14
			0.003	0.017	0.05
3	P4		7.3	0.57	4.08
		SO ₂	14.3	1.11	8
		NO _x	92	7.15	51.47

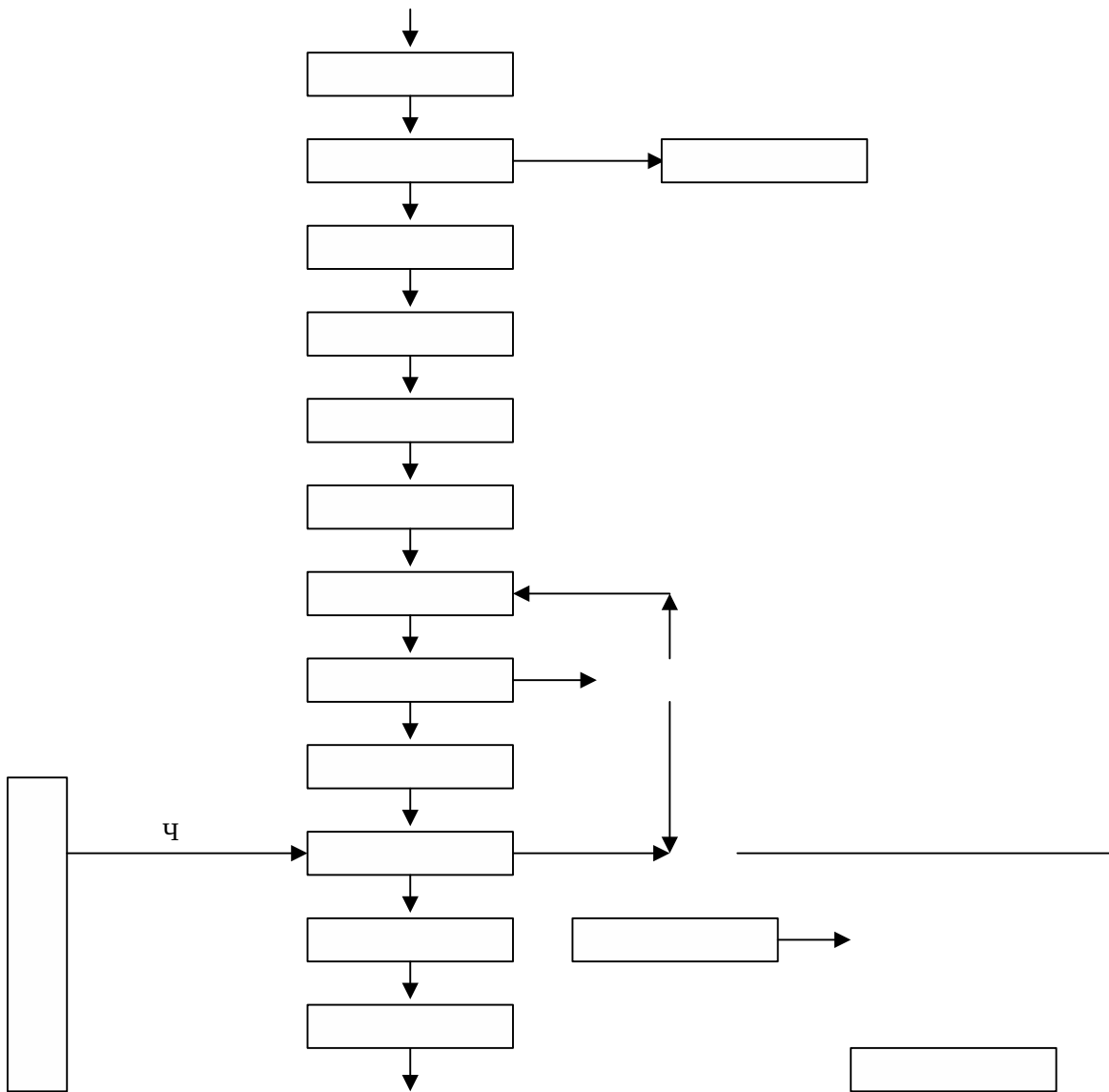
5-10

			mg/m ³	kg/a
	ψ			
î		5		Ö -

5.3

5.3.1

5.3.1.1



5.3.2.3

		11290m ³ /a				COD 5.65t/a	Ч
0.4t/a			14237.54m ³ /a			COD 7.12t/a	Ч
	0.5t/a	COD500mg/L	Ч	35mg/L		576m ³ /a	
		COD0.29t/a	Ч	0.02t/a	COD500mg/L	Ч	35mg/L III

5.3.3

5.3.3.1

III

5.3.3.2

III

5-17

					ч ч					
1	DW001	pH	K Ŝ		-	-	-	3	1 /	
2		COD	Ŝ Ŝ				RenQ-IV	3		
3			Ŝ Ŝ				WDet-5000	3		
4			Ŝ Ŝ				QTLD15131 413ECA	3		
5		SS	K Ŝ		-	-	-	3		
6			K Ŝ		-	-	-	3		

5.3.4

5.3.4.1

Ю GB18918-2002

A ч Ә

2

Ю DB 37/3416.2 ¶

2108

III

III

5.3.4.2

5-18

L

6		COD ⅥSS Ⅵ			-	-	-	DW001		

5-19

t/a

1 DW001 118 □ 34 ń 35 □ 43 ń
 25.03Ñ 26.16Ñ 2.63

					√		K						
				K			K						K
			☐		☐		K			K			
		K		√	K				K	K		K	
	K		√		√	K	K			K	K		K
K		K	K				K						

5.4

5.4.1

5.4.1.1

	Ի	Լ	III	Յ
	Ю	HJ610-2016	A	
	ն	III		
			III	
Յ	-	Ю	HJ610-2016	
	III			

5.4.1.2

		Յ	լ	Ю
HJ610-2016	3			
6	20km ²	20km ²	III	
	4-5III			

5.4.1.3

	Կ			
		III	5.12	m ³
0.0021	/km ²	4.21	m ³	0.0079
	1.14m ³	0.74	m ³	64.9
			III	
2017				
	III			
		III		
			III	
		III		
			III	
		III		III

5.4.2

5.4.2.1

	Կ	Կ	Կ	Կ	Կ
--	---	---	---	---	---

У III

III

У У У У У

У III

$\hat{y}$	Ar t
-----------	------

Ψ Ψ Ψ Ψ

¶ ¶ ¶ ¶ ¶

Ч Ч Ч Ч Ш

$$\ddot{Y} \quad t$$

У У У

Ч III

Z ř

У У

У У У У У У У

$\psi \quad \psi \quad \psi \quad \psi \quad \psi \qquad \psi \quad \psi \quad \psi$

Ч III

 $\acute{Z}$

4

III

Ч Ч Ш

 $\dot{Z}$

У

Ч Ч III

4

¶ ¶ ¶ III

Ž

Ч III 15 20mIII

1 1

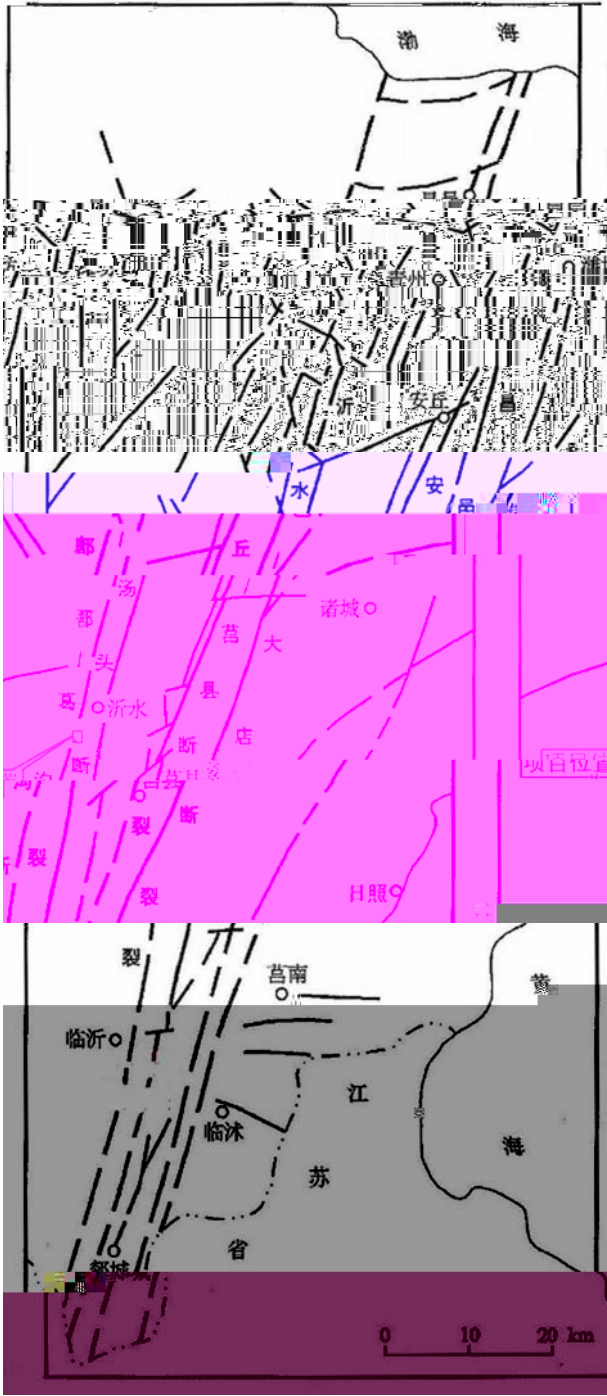
1 1

III

III

1 1

5-3III



5-3

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

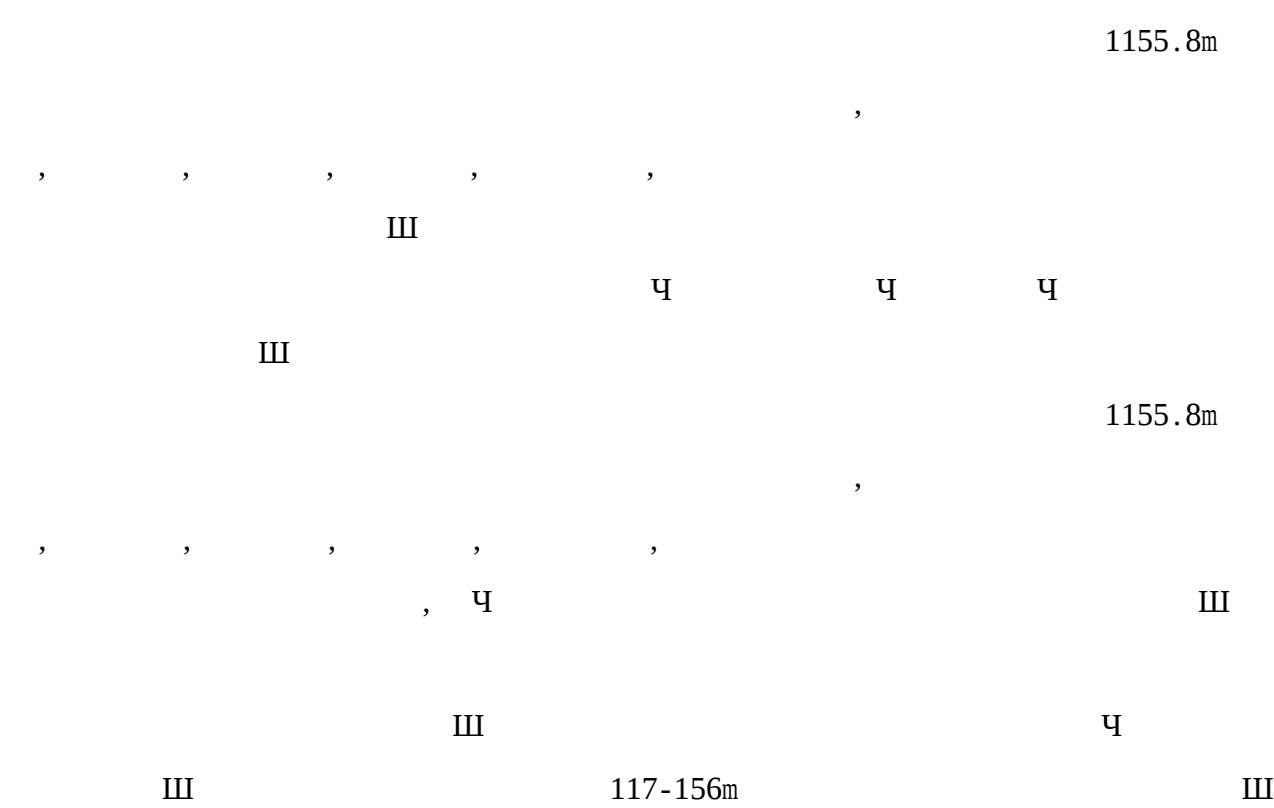
523

524

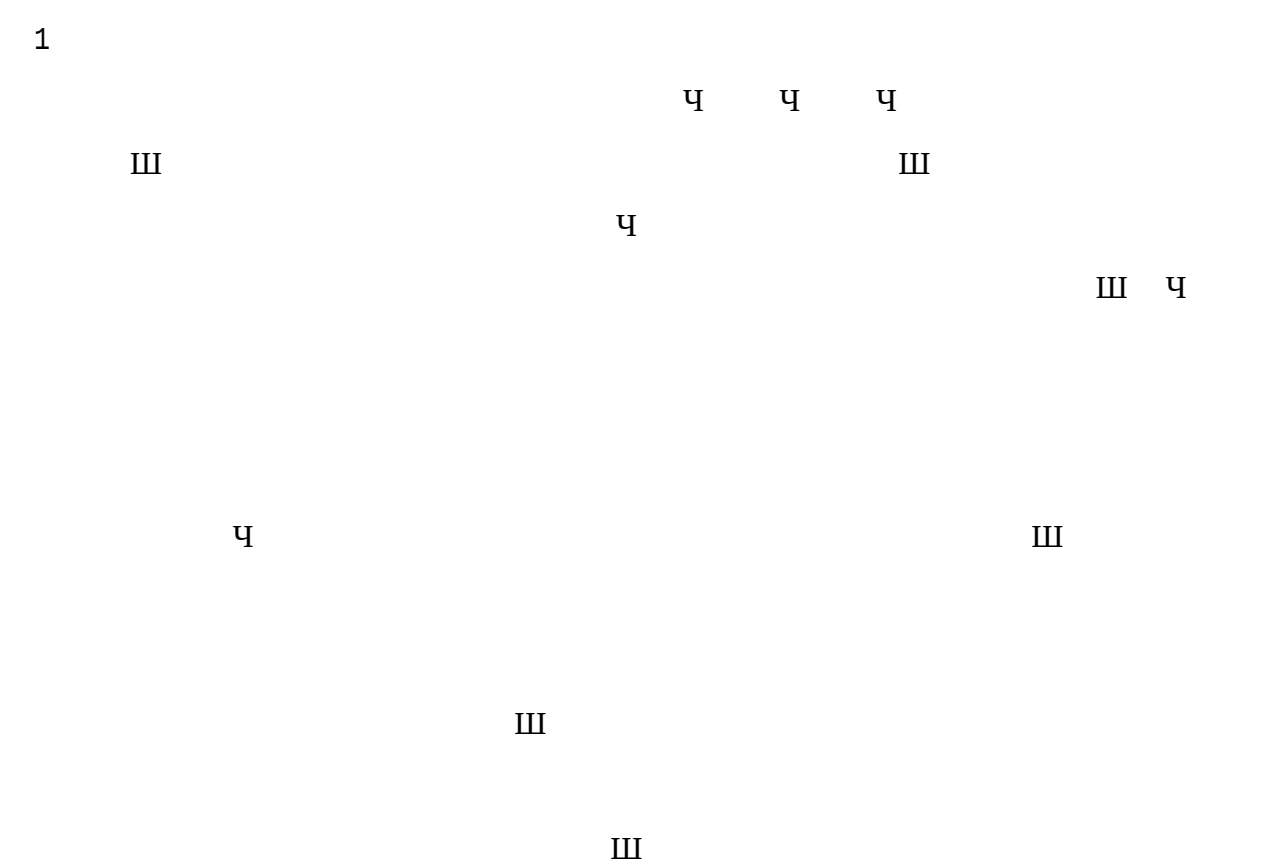
525

52

5.4.2.3

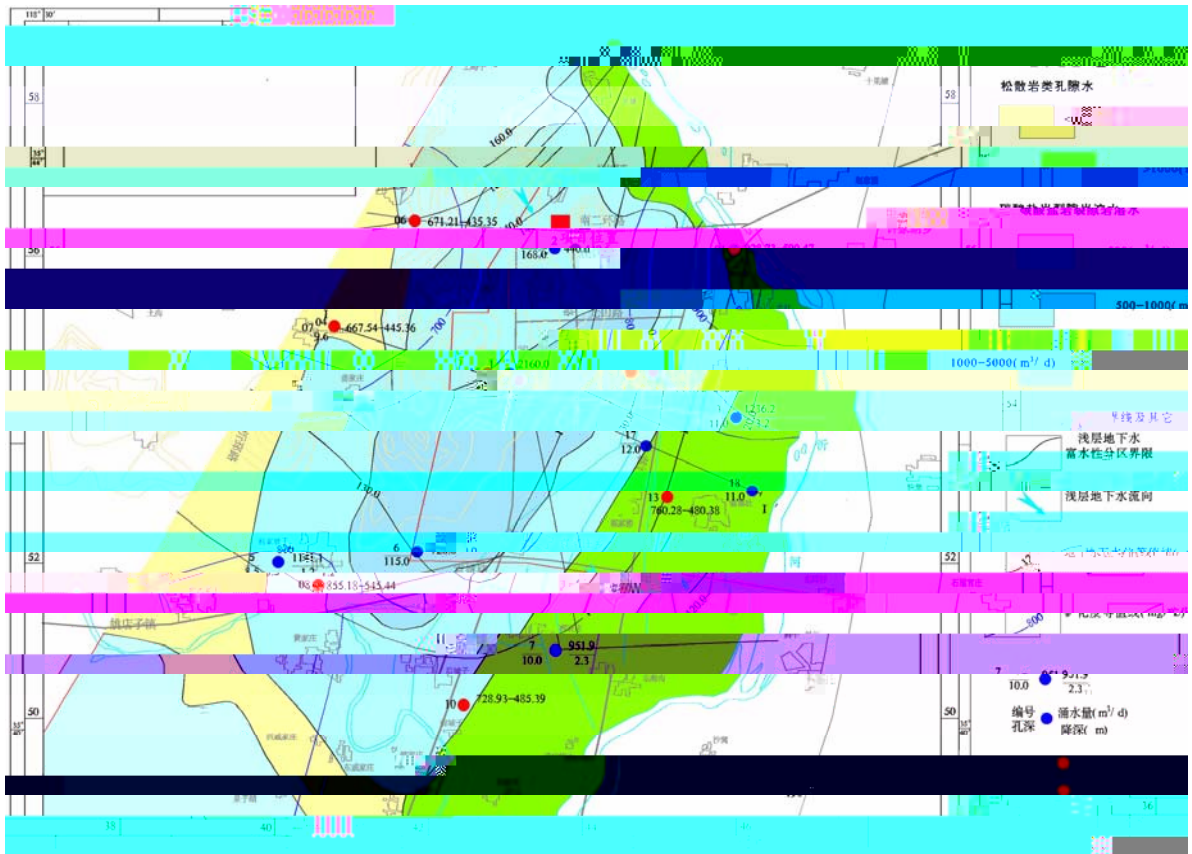


5.4.2.4



III

5-4III



5-4

5-4

III

III

2

Ч

III

Ч

Ч

III

Ч

III

ŷ

-

III

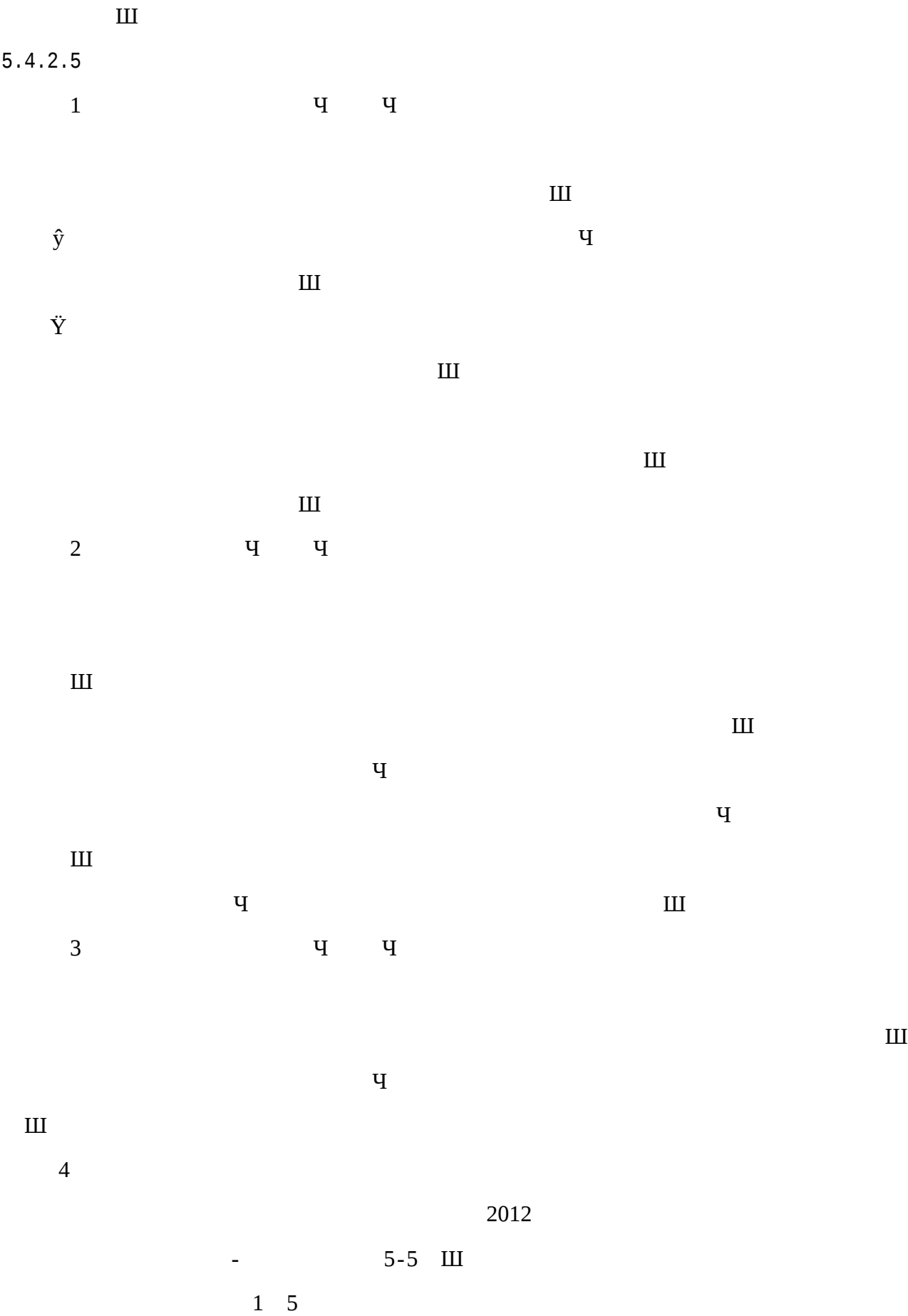
40km

1-5km

III

10-12m

15mIII

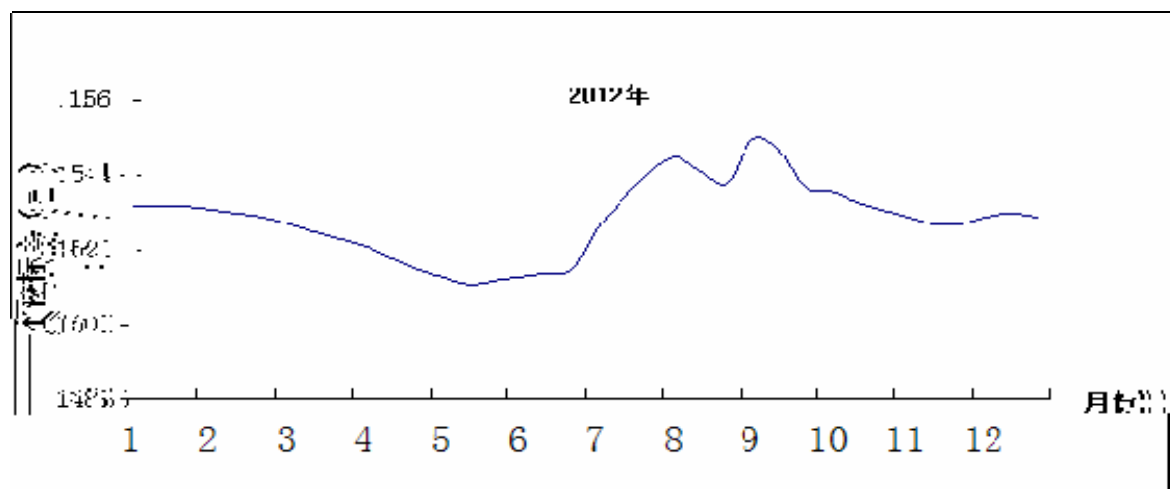


III6-9

III

III

2.0-6.0mIII



5-5

5.4.2.6

5-6 III

1

- -

-

1000mg/L

450mg/L III

2

-

-

-

1000mg/L

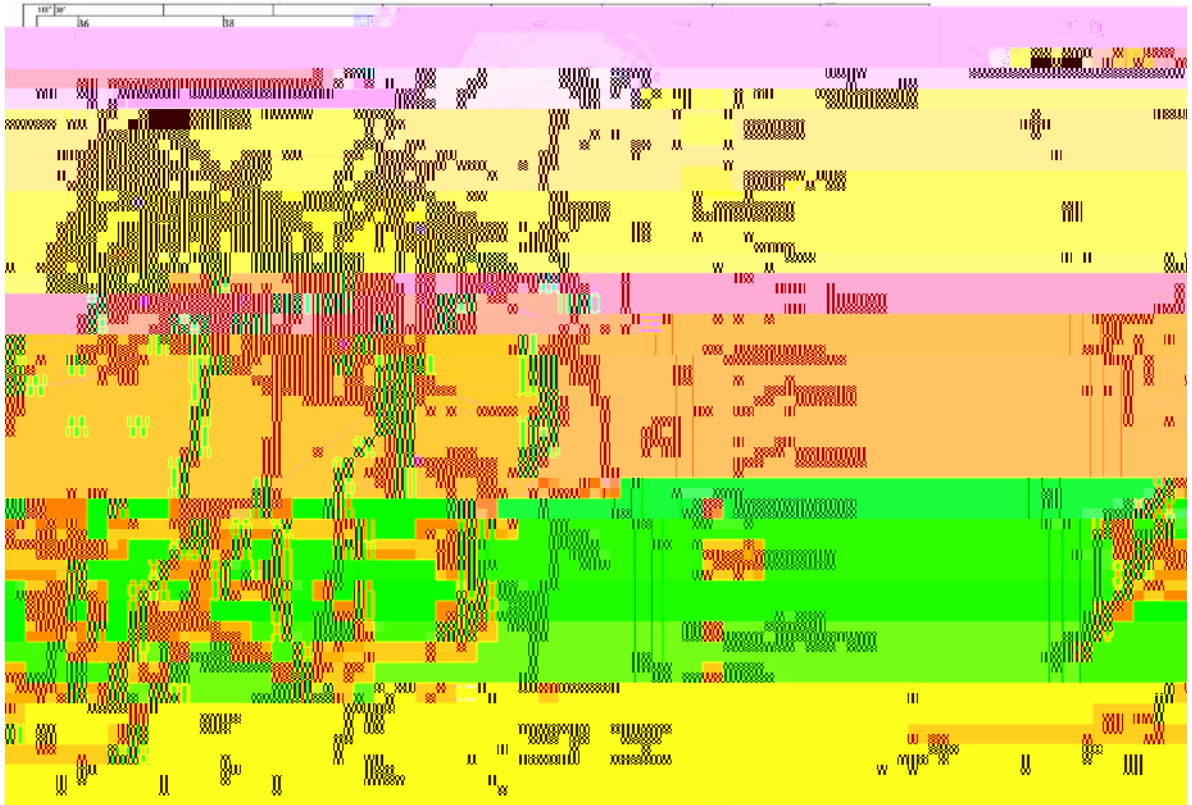
550mg/LIII

4

III

3

68.5m/d 19.5m/dIII



5-6

5.4.2.7

Э

Ю

Ч

5-7

5-12III

5.72-6.52m

0.91-2.44mIII

III

2.90-8.50m

-

Ч

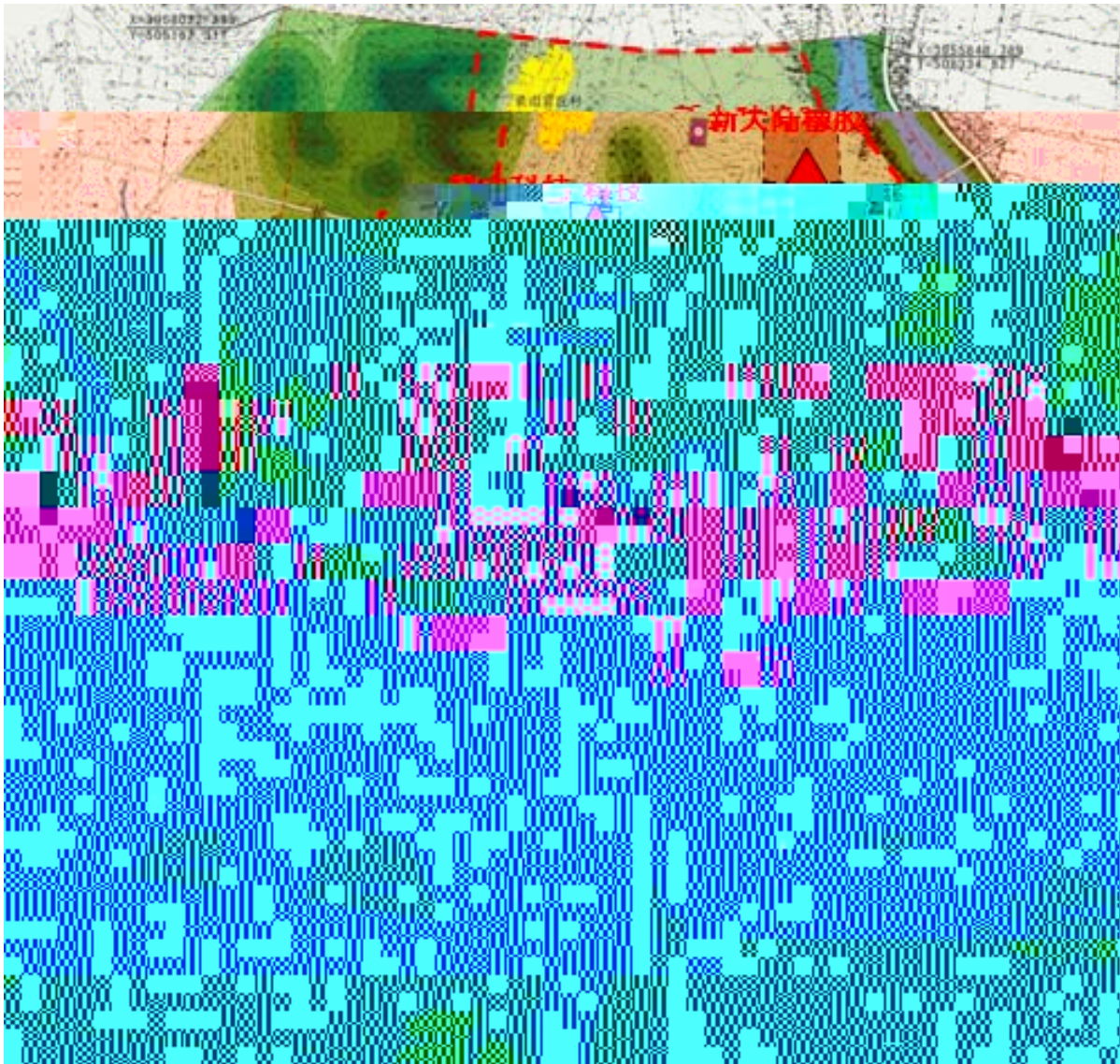
1000mIII

III

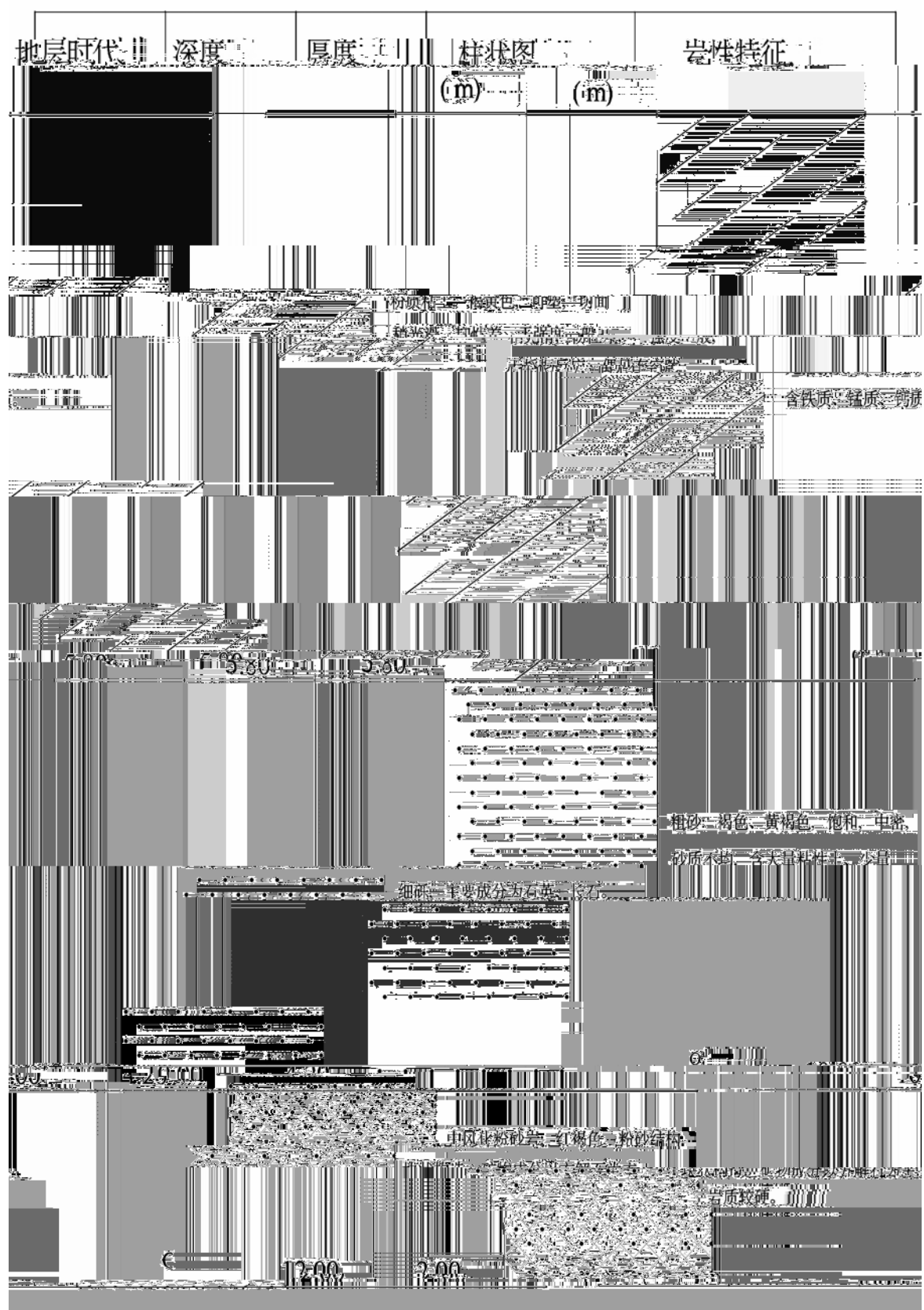
3.5-9.6m

Ч

680mIII

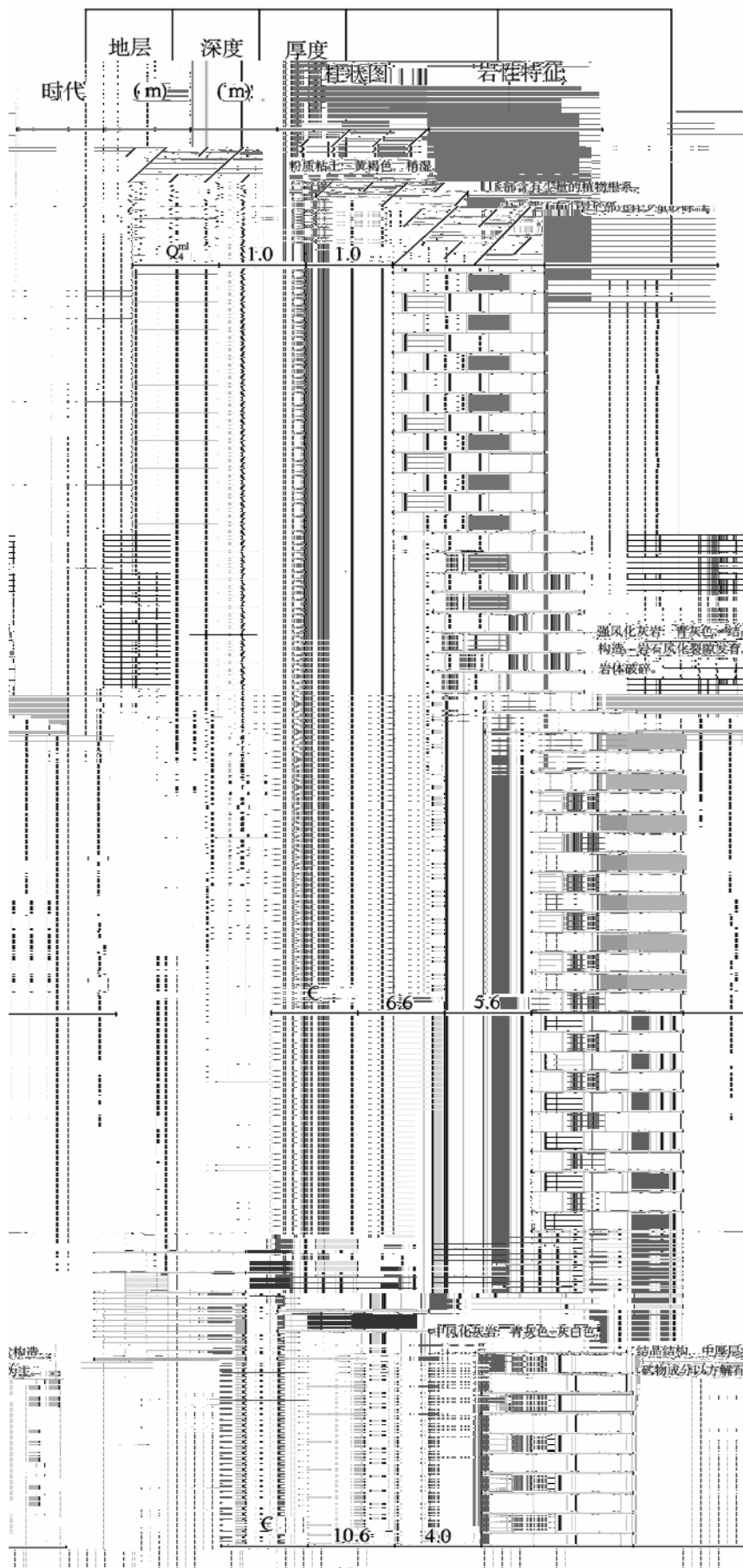


5-7

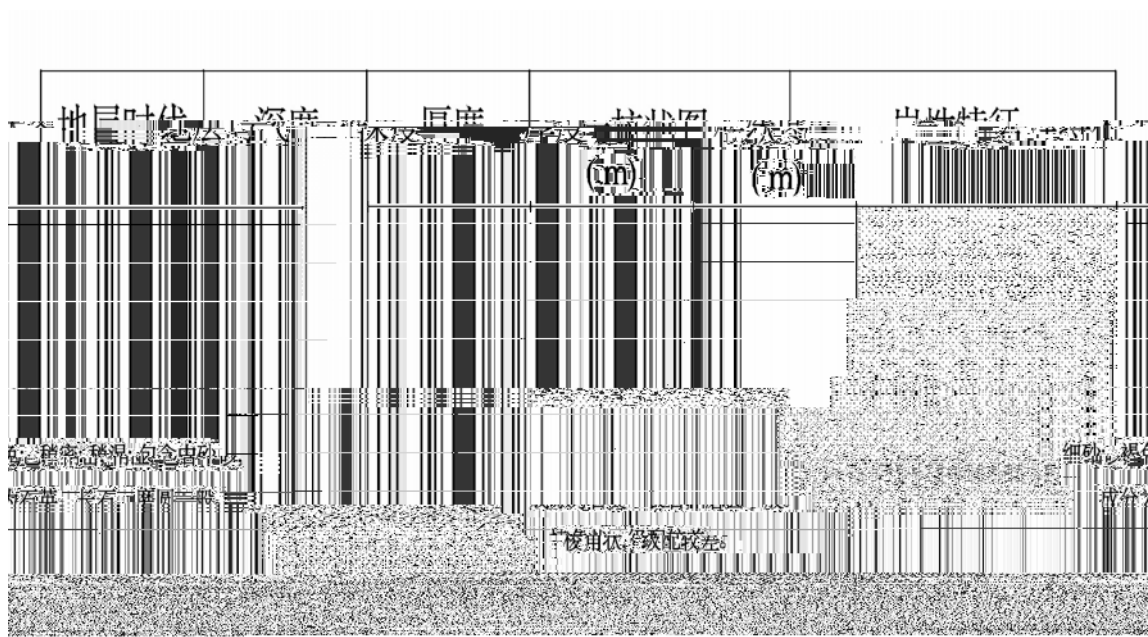


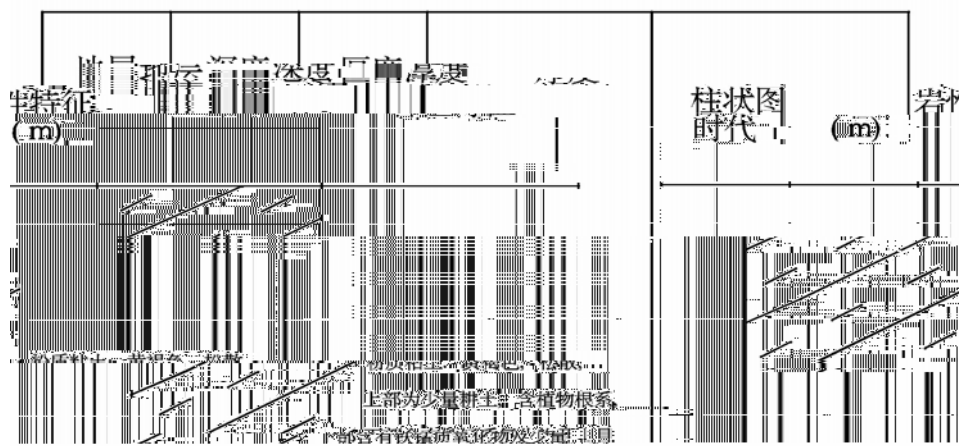
5-8





5-10





5-12

5.4.2.8

III									
3									
$\hat{y}$	Q_4^{dl+el}		Ψ		Ψ	Ψ			
	0.20	0.90m	0.55m		146.03	157.00m			
152.11m	0.20	0.90m	0.55mIII						
$\hat{y} - 1$	Q_4^{dl}								
	-		Ψ						
			0.40	0.70m,	0.53m	147.10			
154.40m	149.92m	0.40-0.70m		0.53mIII					
$\ddot{Y}$	Q_4^{dl+el}								
-			Ψ						
			III						
	0.50	0.70m	0.60m	146.40	153.90m	150.15m			
	1.00	1.10m	1.05mIII						
$\dot{Z}$	O_2								
-									
55	80%								
	Ψ		RQD						
$\bar{O}$	III		3.30	5.20m	4.24mIII				
			5-13	5-14III					
			$\dot{Z}$	III		Mb $\acute{u}$			
1.0m			10^{-4} cm/s	10^{-7} cm/s	Ψ	III			

[illegible]

5.4.3

III

III

5.4.3.1

 ϵ

Ю НН2.1-2011

 $\mathfrak{E}$

Ю НН610-2016

III

5.4.3.2

 20km^2

4-5III

5.4.3.3

Э Ю HJ610-2016 100d Ч

1000d 20 7300 III

COD IIICOD

Э Ю GB/T14848-2017 η 3mg/L

Ч Ч III

5.4.3.4

Э Ю

GB18918-2002 A III

III

III

III

COD

III

III

COD

III

COD

III

10%

COD

III

50%

10

III

III

III

5.4.3.5

Э л Ю HJ610-2016 9.7.2

Ч

III

III

5.4.3.6

1



					ч
ч					
	III				
		III			
			ч	ч	III
	III				III
2					
		III			
	x		y		
	$C(x,y,t)=\frac{m_t}{\ln\sqrt{D_LD_t}}e^{\frac{xu}{D_L}a}\llbracket K-E-W\frac{\S u\,t}{\copyright D_L}E_{\frac{1}{4}}^{\cdot 0}\rrbracket$				1
	$E\sqrt{\frac{u\,x}{D_L}+\frac{u\,y}{D_LD_T}}$				
	x,y\,\mathfrak{l}\,\mathfrak{l}				
	t\,\mathfrak{l}\,\mathfrak{l}	d			
	C(x-y,t)\,\mathfrak{l}\,\mathfrak{l}\,t	x-y		g/L	
	M\,\mathfrak{l}\,\mathfrak{l}	m			
	m_t\,\mathfrak{l}\,\mathfrak{l}		kg/d		
	u\,\mathfrak{l}\,\mathfrak{l}	m/d			
	n\,\mathfrak{l}\,\mathfrak{l}				
	D_L\,\mathfrak{l}\,\mathfrak{l}	m^2/d			
	D_T\,\mathfrak{l}\,\mathfrak{l}	y	m^2/d		
	\tilde{n}\,\mathfrak{l}\,\mathfrak{l}				
	K_0(\,\tilde{a}\,)\,\mathfrak{l}\,\mathfrak{l}				
	$W\frac{\S u\,t}{\copyright D_L}E_{\frac{1}{4}}^{\cdot}\,\mathfrak{l}\,\mathfrak{l}$				

x

2

x y l

t l d

C(x y t) l t Æ

Š

m_M l

$D_{L= L_L \ u=10 \ S \ 1.3m/d \ =13m^2/d$

4

428.5m³/a

14099.14m³/aIII3007200hччIII

COD2000mg/LCOD28198kg/a93.99kg/dIII

1

т ч ч ч Ł10%

1409.9m³/a, COD2000mg/L

чCOD9.4kg/dIII

2

50%

7049.5m³/aCOD2000mg/LIIIч

10COD469.95kgIII

5.4.3.7

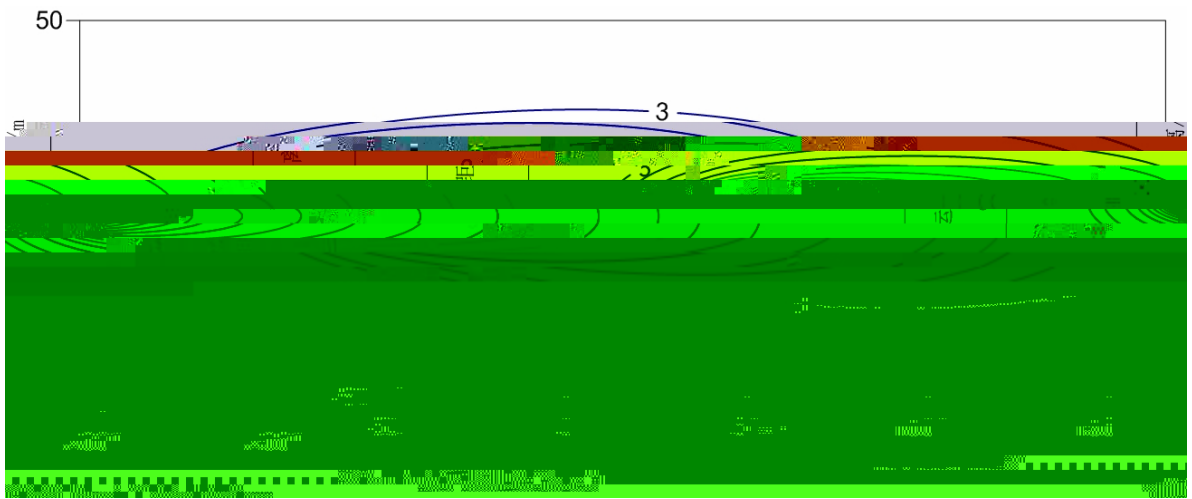
1

1

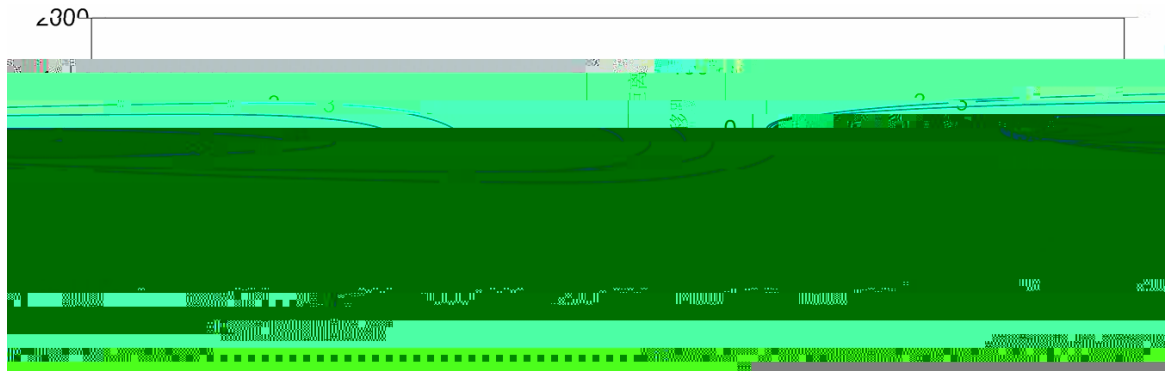
CODIIICOD

100d ч 1000d ч 7300dIIICOD

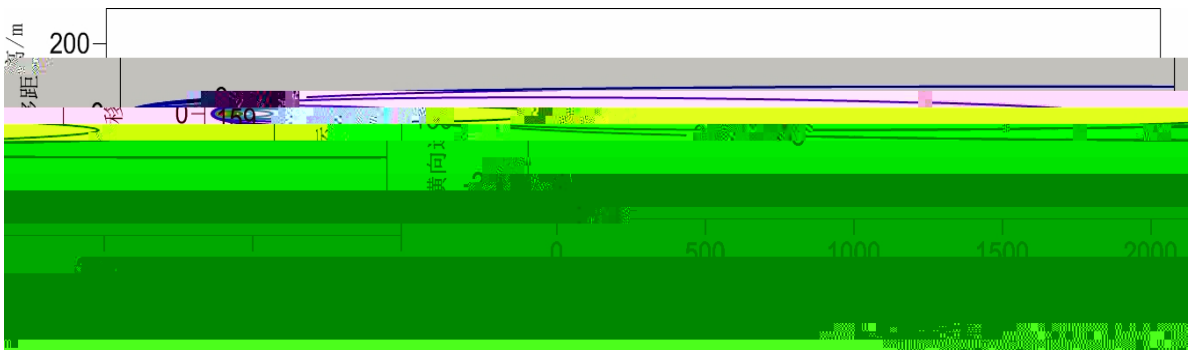
ЭЮ GB/T14848-2017 η3mg/LIII



5-15 100dCOD



5-16 1000dCOD



5-17 7300dCOD

Э Ю GB/T14848-2017 η
COD COD 100d Ч 1000d 7300d

159mg/L

Ч

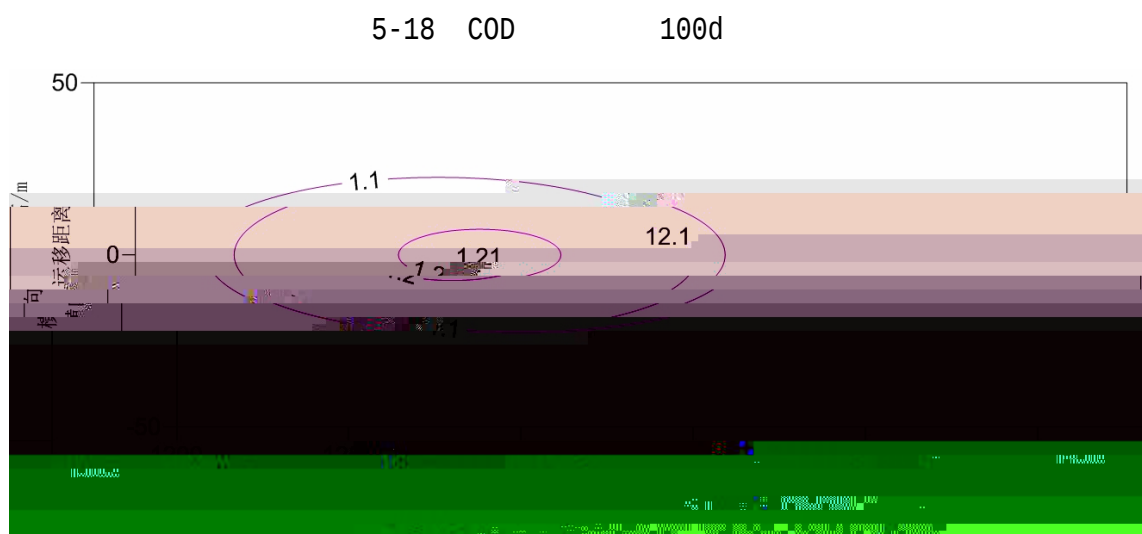
7300d

3.5km

III

III

Ⅲ Ⅲ
 Ⅲ Ⅲ
 Ⅲ
 2
 2
 COD Ⅲ COD 100d Ⅲ 1000d Ⅲ
 7300d Ⅲ COD Ⅲ
 Ⅲ GB/T14848-2017 Ⅲ 3mg/L Ⅲ
 3.5km Ⅲ 5-18 7-19 Ⅲ



III

5.4.5

5.4.5.1

5-23III

5-23

1#			1	1
2#				2
3#				3

2L

4

1

 $\hat{y}$

III

 $\ddot{Y}$

III

 $\acute{Z}$

У У

У

4

4

4

4

III

III

2

 $\hat{y}$

Э

Ю HJ/T164-2004

III

 $\ddot{Y}$

III

4

III

У III

III

III

III

4

1

III

2

У

У

4

У

У

У

У

У

У

У

У

У

III

3

У

У

У

У

У

У

У

У

III

5-24

		У У У
		У У У
		У У
		Ш
		'н Ч Ъ Ч ъ Ō Ш
	Ч	Ч Ч Ш
	Ч	Ч Ч Ш
		Ш Ш

	Ч	Ч Ш Ш	Ш
	Ч Ч	Ч Ш	Ч
		Ш Ш	Ш
		Ш Ш	Ш
		Ш	Ш
		Ш	Ш
		Ш	Ш
		Ш	Ш
		Ш	Ш

4

14

III

24

4

4

III

4

4

III

34

1

4

III

2

3

III

4

III

5

III

44

1

III

2

III

3

III

5.4.6

5.4.6.1

14 Э

1,

Ю HJ 610 2016

'n

III

24

 20km^2

Ε

1,

Ю

III

34 Э

1,

Ю НН 610-2016

6

III

44

 $\in$

Ю

(GB/T14848-2017) η

III

4

III

54

III

4

4

 $\in$

Ю GB/T14848-2017

III

64

4

III

5.4.6.2

14

III

24

4

III

	80									
	80									

$$\hat{y} = \frac{L_A(r)}{L_A(r_0)} \cdot A_{div}$$

$$L(r) = L(r_0) - 20 \lg(r/r_0)$$

$$L_A(r) = L_A(r_0) - 20 \lg(r/r_0) - 11$$

$$L_A(r) = L_A(r_0) - 20 \lg(r/r_0) - 8$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

$$L_{eq} = \frac{1}{T} \int_0^T L_{Ai} dt$$

	37.5	65		37.5	55	
	40.2	65		40.2	55	
	36	65		36	55	

	34.6	65		34.6	55	
				ψ	Θ	

Ю GB12348-2008 3

III

5-29

			t/a					
	HW06	900-408-06	3.67		ч		T	
	HW06	900-013-11	22.95		ч		T	
	HW06	900-410-06	1.8		ч	10	T	
	HW49	900-041-49	3.38		KOH		T	
	HW08	900-249-08	3.3t/			10	T, I	

5.6.2

5.6.2.1

III

Э

ч

ч

Ю

HJ2025-2012

ŷ

ч

ч

ч

III

ч

ч

ч

ч

ч

ч

ч

ч

III

Ÿ

ч

ч

ч

ч

III

ž

ч

ч

ч

III

ž

ч

ч

ч

ч

III

ž

ч

ч

ч

ч

III

5-30III

		ψ
		$\hat{y}$ $\ddot{Y}$ $\acute{Z}$ $\acute{z}$ $\dot{Z}$ $\dot{z}$ $\check{Z}$ $\check{z}$ ψ ψ

5.6.2.2

ψ

ψ

ψ

ψ

III

5.6.2.3

1

640m²III

III

Э Ю GB18597-2001

Э Ю HJ2025-2012

ŷ Э () Ю

(GB15562.2-1995)

Ÿ ,

Ž , ,

ž

Ž ,

ž ч ч ч

Ž ч , ч ,

,

ž III

2016 III

5.6.3

III

14

4

$$(\quad \quad \quad \Psi \quad \quad \quad)$$

III

24

4

4

III

34

4

III

5.7.2

14

III

4

III

24

4

III

34

4

4

4

Ч

III

4

III

44

4

4

4

4

III

III

III

III