## 19-NATURAL RESOURCES

DEE NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON HEAGE*
REF NO				NOTES ON USAGE*
1	19.1 – Veins and mineralized ar	eas; mineral resource ar	reas; metamorphic facies boundary	May also be shown in
19.1.1	Vein, veinlet, or mineralized stringer—Identity and existence certain, location accurate	••••	lineweight .25 mm color 100% red  → 8.0 mm ← H-8	black or other colors.
19.1.2	Vein, veinlet, or mineralized stringer—Identity or existence questionable, location accurate	<del>· · ? · · ? · ·</del>	→ ← .75 mm dot diameter .75 mm; spacing 4.5 mm	
19.1.3	Vein, veinlet, or mineralized stringer—Identity and existence certain, location approximate		3.625 mm →   <b>*</b> 2 2	
19.1.4	Vein, veinlet, or mineralized stringer—Identity or existence questionable, location approximate	<del>??</del>	→	
19.1.5	Vein, veinlet, or mineralized stringer—Identity and existence certain, location concealed		.5 mm .75 mm + + 2 2	
19.1.6	Vein, veinlet, or mineralized stringer—Identity or existence questionable, location concealed		≯ ¢ ≯ ¢ .75 mm .75 mm	
19.1.7	Vein, veinlet, or mineralized stringer—Showing type of mineral occurrence	Cu	Cu ~H-8 (100% black)	
19.1.8	Inclined vein, veinlet, or mineralized stringer (1st option)—Showing dip value and direction	35	tick length 35 <- HI-6 (100% black) 1.75 mm; lineweight .2 mm tick color 100% black	Place tick, arrow, or other line-symbol decoration where observation
19.1.9	Inclined vein, veinlet, or mineralized stringer (2nd option)—Showing dip value and direction	15	tick length 15 ± .875 mm 1.375 mm; 15 ± .875 mm lineweight 30°	was made. Add arrowhead or '90' to ticks showing dip if
19.1.10	Vertical or near-vertical vein, veinlet, or mineralized stringer (1st option)	<del></del>	tick length 2.5 mm; Ineweight 2.2 mm	necessary for clarity.
19.1.11	Vertical or near-vertical vein, veinlet, or mineralized stringer (2nd option)	90	90 ← HI-6 (100% black)	
19.1.12	Small, minor inclined vein, veinlet, or mineralized stringer—Showing strike and dip	70	HI-6 (100% black) 70 lineweight .25 mm; line color 100% red	May also be shown in black or other colors.
19.1.13	Small, minor vertical or near-vertical vein, veinlet, or mineralized stringer—Showing strike	+	2.5 mm +	
19.1.14	Zone of mineralized or altered rock (1st option)		pattern 405-R (at 45°)	Add labels to show specific types of alteration. May be used alone or
19.1.15	Zone of mineralized or altered rock (2nd option)		pattern 405-R in 50% red (at 45°)	may overprint other mapped units.  May also be shown in
19.1.16	Zone of mineralized or altered rock, showing high level of mineralization		pattern 119-R	black or other colors.
19.1.17	Zone of mineralized or altered rock, showing low level of mineralization		pattern 117-R	
19.1.18	Area of identified resources		lineweight .5 mm color 100% red	Usually reserved for use on special-purpose maps, not on general-
19.1.19	Area of high mineral resource potential	H	line and text color 100% red H-12  H-12  pattern 427-R  in 50% red	purpose geologic maps. Generally shown in red, but may also be shown in black or other colors
19.1.20	Area of moderate mineral resource potential	M	lineweight .3 mm  H-12 pattern 229-R (at 45°) in 50% red	in black or other colors.
19.1.21	Area of low mineral resource potential	L	lineweight .2 mm H-10	
19.1.22	Area considered to have mineral resource potential but not evaluated, mostly because of inadequate data	(N)	lineweight .2 mm H-10 dash 1.75 mm; space .5 mm	
19.1.23	Metamorphic facies boundary—Showing approximate boundary between diagnostic mineral assemblages	Greenschist Amphibolite	H-8 Greenschist diameter line and text Amphibolite color 100% red  dot dot diameter 5.5 mm, spacing 5.5 mm	May also be shown in black or other colors.

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*	
	19.2—Areas of extensively disturbed ground; surface workings; subsurface workings projected to surface				
19.2.1	Graded area—Extensive amount of mapped geologic unit has been removed		lineweight 22mm line color 100% red (at 45°)	Patterns should overlay other mapped units. Generally shown in	
19.2.2	Strip mine (1st option)		lineweight .3 mm pattern 226-K (at 45°)	black or red, but may also be shown in brown or other colors.	
19.2.3	Strip mine (2nd option)		pattern 419-R in 50% red		
19.2.4	Artificial fill—Earth materials	af	lineweight .15 mm af 20% black	Show as separately mapped units. Generally shown in	
19.2.5	Artificial fill—Human-generated refuse (landfill)	afr	lineweight .15 mm Aft Pattern 226-R (at 45°)	black or red, but may also be shown in other colors.	
19.2.6	Tailings		lineweights .125 mm draft as shown	Symbols should overlay other mapped units. Generally shown in red	
19.2.7	Mine dump (1st option)		all lineweights .125 mm dash length and spacing may vary draft as shown	or black, but may also be shown in brown or other colors.	
19.2.8	Mine dump (2nd option)		all lineweights .125 mm dash length and spacing may vary draft as shown		
19.2.9	Mine dump bench	ппппппппппппппппппппппппппппппппппппппп	.75 mm ≯l ← 1.75 mm → l ← 2.5		
19.2.10	Subsurface workings, projected to surface (1st option)		color 100% red lineweights .2 mm spacing may vary	Different symbols may be used to show differ- ent levels of workings.	
19.2.11	Subsurface workings, projected to surface (2nd option)		dash 3.0 mm; spacing .5 mm	Symbols should overlay other mapped units. Generally shown in red,	
19.2.12	Subsurface workings, projected to surface (3rd option)		dash 1.5 mm; spacing .5 mm	but may also be shown in black or other colors.	
19.2.13	Subsurface workings, projected to surface (4th option)	7	dash .5 mm; spacing .5 mm		
19.2.14	Subsurface workings, projected to surface (5th option)		long dash 2.5 mm; short dashes .5 mm; spacing .5 mm		
19.2.15	Subsurface workings, projected to surface (6th option)		long dash 4.0 mm; short dash .5 mm; spacing .5 mm		

<sup>\*</sup>For more information, see general guidelines on pages A-i to A-v.

REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
	19.3—Mini	ng and mineral explorati	on (at surface)	
19.3.1	Prospect (pit or small open cut)	X	lineweight .2 mm  X  1.75 mm	
19.3.2	Sand, gravel, clay, or placer pit	×	3.125 mm $\checkmark$ all lineweights $60^{\circ}$ $\nearrow$ 7 mm	
19.3.3	Abandoned sand, gravel, clay, or placer pit	×	→   ← 1.5 mm all lineweights .15 mm	
19.3.4	Open pit, quarry, or glory hole	*	pick 1.5 mm 1.5 mm lineweight the 25 mm, radius 1.25 mm, 3.125 mm, 3 mm; radius 1.625 mm	
19.3.5	Abandoned open pit, quarry, or glory hole	*	all lineweights .15 mm	
19.3.6	Open pit or quarry (mapped to scale)		all lineweights .25 mm hachure height .6 mm; spacing 1.5 mm	
19.3.7	Trench (generalized trace)	$\sim$	1.5 mm $\frac{\psi}{\hbar}$ length may vary all lineweights .25 mm	
19.3.8	Trench (drawn to scale)		all lineweights .25 mm hachure height .6 mm; spacing 1.5 mm	
19.3.9	Adit or tunnel entrance (1st option)	<b>&gt;</b>	all lineweights $\Rightarrow$ $\Join$ 3.5 mm .175 mm $\Rightarrow$ $\Rightarrow$ $\checkmark$ 1.5 mm $\Rightarrow$ $\Join$ 2.75 mm	Long line points in di- rection of adit or tunnel entrance at surface.
19.3.10	Approximately located adit or tunnel entrance (1st option)	>	>  \= 1.0 mm > > \=.25 mm	Map position of adit or tunnel entrance is at in- tersection of long line and two short lines.
19.3.11	Destroyed adit or tunnel entrance (1st option)	<b>&gt;</b> ······	→l≮25 mm > >l*:25 mm	and two short lines.
19.3.12	Abandoned or inaccessible adit or tunnel entrance (1st option)	>+-	all lineweights .175 mm $\rightarrow + \frac{\psi}{\hbar}$ 1.25 mm 1.75 mm $\rightarrow + \frac{\psi}{\hbar}$	
19.3.13	Adit or tunnel entrance (1st option)—Showing angle of inclination (negative value indicates downward slope)	<b>├</b> -40	>—-40 HI-6	Angle of inclination may be added to any adit or tunnel entrance symbol.
19.3.14	Adit or tunnel entrance (2nd option)	<b></b>	all   90° \>   \= 3.5 mm	Long line points in di- rection of adit or tunnel entrance at surface.
19.3.15	Approximately located adit or tunnel entrance (2nd option)	<b>\$</b>	→   <b>←</b> 1.0 mm	Map position of adit or tunnel entrance is at intersection of long line
19.3.16	Destroyed adit or tunnel entrance (2nd option)	<b>\$</b>	→I\*25 mm 	and two short lines.
19.3.17	Abandoned or inaccessible adit or tunnel entrance (2nd option)	<b>\$+-</b>	all lineweights .175 mm $\Leftrightarrow +\frac{\psi}{\hbar}$ 1.25 mm .1.75 mm $\Rightarrow   \mathbf{k}  $	
19.3.18	Adit or tunnel entrance (2nd option)—Showing angle of inclination (negative value indicates downward slope)	<b>;</b> —-50	;—-50 ∕ HI-6	Angle of inclination may be added to any adit or tunnel entrance symbol.
19.3.19	Portal	Ţ	all lineweights .175 mm  3.5 mm >   radius .75 mm	Long lines point in direction of portal entry at surface.
19.3.20	Approximately located portal	<u> </u>	→ k-1.0 mm  →k25 mm	Map position of portal entry is between the two lines, at the position
19.3.21	Destroyed portal	<u> </u>	>\\:25 mm \ \ >\\:25 mm	where the short curved lines intersect the long lines.
19.3.22	Abandoned or inaccessible portal	#	all lineweights → k-1.75 mm	
19.3.23	Portal and open cut	) <del>)</del>	all lineweights .175 mm radius .75 mm tick length .5 mm	Open cut may be added to any portal symbol.
19.3.24	Portal—Showing angle of inclination (negative value indicates downward slope)	30	∑-30 ← HI-6	Angle of inclination may be added to any portal symbol.

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REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*	
	19.3—Mining and mineral exploration (at surface) (continued)				
19.3.25	Drill hole for mineral exploration	0	lineweight .175 mm O diameter 1.5 mm		
19.3.26	Drill hole for mineral exploration—No geologic data available	O <sup>ND</sup>	o <sup>ND ← H-6</sup>		
19.3.27	Drill hole for mineral exploration—Showing name and number	O PAHUTE 2	oPAHUTE 2 <sup>∠ H-7</sup>		
19.3.28	Drill hole for mineral exploration—Showing type (DDH, diamond drill hole)	DDH <sub>O</sub>	HI-6 →DDH		
19.3.29	Drill hole for exploration of low-grade ore	ф	all lineweights $\frac{\underline{\psi}}{4.0 \text{ mm}}$		
19.3.30	Drill hole for exploration of high-grade ore	<b>+</b>	$\phi \frac{\psi}{4.0 \text{ mm}}$		
19.3.31	Inclined drill hole for mineral exploration—Showing location of collar (circle) and projected trace (dashed line) and bottom (T) of drill hole	0	all lineweights $\Rightarrow$ $k$ 1.0 mm $\longrightarrow$ 1.5 mm length may vary $\xrightarrow{\rightarrow}$ $k$ 1.5 mm	Projected trace of drill hole, angle of inclina- tion, surface altitude,	
19.3.32	Inclined drill hole for mineral exploration—Showing angle of inclination (negative value indicates downward slope)	O <sup>-65</sup> -⊣	∠ HI-6 ○ <sup>-65</sup> ⊣	and total depth may be added to any drill hole symbol.	
19.3.33	Inclined drill hole for mineral exploration—Showing surface altitude of collar (in meters)	2500 ○	HI-6 \$\sim_2500\\ \O\		
19.3.34	Inclined drill hole for mineral exploration—Showing total depth of drill hole (in meters)	O∃ <sub>TD</sub> 1000	O TD 1000 HI-6		
19.3.35	Vertical mine shaft, as shown on smaller scale or general-purpose maps		lineweight .175 mm		
19.3.36	Multiple vertical mine shafts, as shown on smaller scale or general-purpose maps				
19.3.37	Abandoned or inaccessible vertical mine shaft, as shown on smaller scale or general-purpose maps	<b>Z</b> A	<b>P</b> A <sup>←H-7</sup>		
19.3.38	Inclined mine shaft, as shown on smaller scale or general-purpose maps—Showing direction of inclination	7	all lineweights .175 mm $\P \frac{\psi}{\pi}$ 1.0 mm		
19.3.39	Inclined mine shaft, as shown on smaller scale or general-purpose maps—Showing angle of inclina- tion (negative value indicates downward slope)	7 <sub>-25</sub>	₽ <sub>-25</sub> ← HI-6		

<sup>\*</sup>For more information, see general guidelines on pages A-i to A-v.

	13-1441	URAL RESOURCES	,			
REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*		
	19.4—Mines and subsurface workings					
19.4.1	Vertical mine shaft at surface (drawn to scale), as shown on subsurface exploration maps		size may vary  ☑ Iineweight .175 mm			
19.4.2	Inclined mine shaft at surface (drawn to scale), as shown on subsurface exploration maps—Showing direction of inclination		all lineweights .175 mm lengths may vary			
19.4.3	Inclined mine shaft at surface (drawn to scale), as shown on subsurface exploration maps—Showing angle of inclination (negative value indicates downward slope)	-30	-30 ← HI-6			
19.4.4	Mine shaft, above and below level (drawn to scale), as shown on subsurface exploration maps	×	size may vary all lineweights .175 mm			
19.4.5	Bottom of mine shaft (drawn to scale), as shown on subsurface exploration maps		size may vary all lineweights .175 mm			
19.4.6	Winze or head of raise (drawn to scale), as shown on subsurface exploration maps		size may vary all lineweights ☐ .175 mm			
19.4.7	Raise or winze extending through level (drawn to scale), as shown on subsurface exploration maps	X	size may vary all lineweights .175 mm			
19.4.8	Raise or foot of winze (drawn to scale), as shown on subsurface exploration maps		size may vary all lineweights ⊠ .175 mm			
19.4.9	Crosscut tunnel or intersection of workings (drawn to scale), as shown on subsurface exploration maps		radius 1.25 mm size may vary  lineweight .175 mm			
19.4.10	Workings (drawn to scale), as shown on subsurface exploration maps		spacing may vary \(\sigma\) lineweights .175 mm			
19.4.11	Caved or otherwise inaccessible workings (drawn to scale), as shown on subsurface exploration maps	<b> </b>	all lineweights .175 mm spacing length of may vary crossbar dash 1.5 mm; spacing .5 mm			
19.4.12	Inclined workings, as shown on subsurface exploration maps (drawn to scale)—Chevrons point downslope (multiple chevrons indicate steeper slope)	<b></b>	all lineweights .175 mm  spacing 90° may vary			
19.4.13	Ore chute (drawn to scale), as shown on subsurface exploration maps		1.5 mm →   ← spacing			
19.4.14	Lagging or cribbing along drift (drawn to scale), as shown on subsurface exploration maps	000000	all lineweights .15 mm spacing $\frac{\circ \circ \circ \circ \circ \circ}{\circ \circ \circ \circ \circ \circ} \frac{\psi}{\Lambda}$ .55 mm may vary $\frac{\circ \circ \circ \circ \circ}{\circ \circ \circ \circ}$ circle diameter .75 mm, spacing .75 mm			
19.4.15	Elevation of roof or back, as shown on subsurface exploration maps	2801'	1.0 mm \(\frac{\psi}{\psi}\) \(\frac{\60^\chi}{\psi}\) all lineweights .15 mm \(\frac{\psi}{\psi}\) HI-6			
19.4.16	Elevation of floor or sill, as shown on subsurface exploration maps		$1.0 \text{ mm} \frac{\psi}{\sqrt[4]{60}}$			
19.4.17	Stoped area (drawn to scale), as shown on subsurface exploration maps (section view)		all lineweights .15 mm dash 1.5 mm; spacing .5 mm			
19.4.18	Inferred stoped area (drawn to scale), as shown on subsurface exploration maps (section view)		pattern 226-K dash .3 mm; (at 45°) dash .3 mm; spacing .3 mm			

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REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
	19.5—Oil and gas fields; w	ells drilled for hydrocarb	on exploration or exploitation	
19.5.1	Oil field—Extent defined		fill color 50% green line color 100% green	Patterned areas (extent defined) should be shown as separately
19.5.2	Oil field—Extent not yet defined		lineweight .2 mm  dash .5 mm; line color spacing .5 mm 50% green	mapped units. Outlined areas (extent not yet defined) should
19.5.3	Gas field—Extent defined		lineweight .2 mm fill color 50% red line color 100% red	overlay other mapped units. Generally shown in red and (or) green, but may
19.5.4	Gas field—Extent not yet defined		lineweight .2 mm dash 2.0 mm; spacing .5 mm	also be shown in other colors or patterns.
19.5.5	Oil and gas field—Extent defined		lineweight .2 mm pattern 426 (at 45°)	
19.5.6	Oil and gas field—Extent not yet defined		lineweight .2 mm long dash 2.0 mm; short dash .5 mm; space .5 mm	
19.5.7	Core (nonspecific depth)	•	lineweight dot diameter .5 mm 2 mm  ↑  1.75 mm    ←	May also be shown in other colors.
19.5.8	Shallow core	•		Use if both shallow and deep cores are shown on map.
19.5.9	Deep core	<b>©</b>	all lineweights .2 mm  circle diameter 2.75 mm	May also be shown in other colors.
19.5.10	Drilling well or well location for hydrocarbon exploration or exploitation	0	lineweight .2 mm O diameter 1.5 mm	Name, number, and to- tal depth may be added to any type of well sym-
19.5.11	Drill hole for hydrocarbon exploration or exploitation  —No data available	o <sup>ND</sup>	o <sup>ND ← H-6</sup>	bol. May also be shown in green (oil), red (gas), or
19.5.12	Drill hole for hydrocarbon exploration or exploitation —Showing name and number	SHELL 1-55	SHELL 1-55 <sup>∠ H-7</sup>	other colors.
19.5.13	Drill hole for hydrocarbon exploration or exploitation —Showing total depth (in meters)	<sup>1000</sup> O	HI-6 >1000 <sub>O</sub>	
19.5.14	Inclined drill hole for hydrocarbon exploration or exploitation—Showing location of collar (circle) and projected trace (dashed line) and bottom (T) of drill hole	0	all lineweights $2 \text{ nm}$ $1.0 \text{ mm}$ $2 \text{ nm}$ length of trace may vary $1.5 \text{ mm}$ $\frac{1}{\sqrt{1.5}} 1.5 \text{ mm}$	Projected trace of drill hole, angle of inclina- tion, surface altitude,
19.5.15	Inclined drill hole for hydrocarbon exploration or exploitation—Showing angle of inclination	O <del>-70</del>	0 <sup>70</sup> € HI-6	and total depth may be added to any type of well symbol.
19.5.16	Inclined drill hole for hydrocarbon exploration or exploitation—Showing surface altitude of collar (in meters)	<sup>75</sup> O	HI-6 ~ 75 O	May also be shown in green (oil), red (gas), or other colors.
19.5.17	Inclined drill hole for hydrocarbon exploration or exploitation—Showing total depth of drill hole (in meters)	O TD 650	O TD 650 HI-6	
19.5.18	Multiple wells drilled from single platform—Showing location of collar (open circle) on platform. Types of wells indicated at drill hole bottoms	O	• 4	Any type of well symbol may be shown at bottoms of drill holes.

<sup>\*</sup>For more information, see general guidelines on pages A-i to A-v.

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REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
	19.5—Oil and gas fields; wells d	rilled for hydrocarbon ex	ploration or exploitation (continued	)
19.5.19	Dry hole (nonspecific depth)	¢	all lineweights .2 mm $\frac{\psi}{\hbar}$ $\diamondsuit$ .625 mm $\Rightarrow$   $\leftarrow$ diameter 1.5 mm	May also be shown in other colors.
19.5.20	Dry hole—Showing map unit at surface (Km) and at bottom of hole (Kd). Also showing altitude at surface and total depth of hole (in meters)		all lineweights .2 mm $\diamondsuit$ $\frac{\text{Km 2809}}{\text{Kd 4996}}$	
19.5.21	Shallow dry hole	÷	<b></b>	Use if both shallow and deep dry holes are shown on map.
19.5.22	Deep dry hole	<b>©</b>	all lineweights .2 mm  Outer circle diameter 2.75 mm	May also be shown in other colors.
19.5.23	Junked hole (nonspecific depth)	¤	all lineweights .2 mm diameter 1.5 mm	May also be shown in other colors.
19.5.24	Shallow junked hole	¤	¤	Use if both shallow and deep junked holes are shown on map.
19.5.25	Deep junked hole	©	all lineweights .2 mm  O  outer circle diameter 2.75 mm	May also be shown in other colors.
19.5.26	Disposal well (nonspecific depth)	Δ	$2.0 \text{ mm} \frac{\frac{1}{4}}{4} \stackrel{60^{\circ}}{\triangle}$ $lineweight .2 \text{ mm}$	May also be shown in other colors.
19.5.27	Plugged and abandoned disposal well (nonspecific depth)	×	all lineweights .2 mm	
19.5.28	Shallow disposal well	Δ	Δ	Use if both shallow and deep disposal wells are shown on map.
19.5.29	Plugged and abandoned shallow disposal well	×	×	May also be shown in other colors.
19.5.30	Deep disposal well	<b>∅</b>	all lineweights .2 mm  Circle diameter 2.75 mm	
19.5.31	Plugged and abandoned deep disposal well	Ø	all lineweights .2 mm	
19.5.32	Salt-water disposal well (nonspecific depth)	۵	2.0 mm $\frac{\psi}{\hbar} \stackrel{60^{\circ}}{\Delta}$ all lineweights .2 mm circle diameter 1.0 mm	May also be shown in other colors.
19.5.33	Plugged and abandoned salt-water disposal well (nonspecific depth)	Ø	all lineweights .2 mm	
19.5.34	Shallow salt-water disposal well	۵	۵	Use if both shallow and deep salt-water disposal wells are shown on
19.5.35	Plugged and abandoned shallow salt-water disposal well	ø	ø	map. May also be shown in other colors.
19.5.36	Deep salt-water disposal well	<b>&amp;</b>	all lineweights .2 mm  all lineweights .2 mm outer circle diameter 2.75 mm	
19.5.37	Plugged and abandoned deep salt-water disposal well	Ø	all lineweights .2 mm    A.0 mm	
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<sup>\*</sup>For more information, see general guidelines on pages A-i to A-v.

PREF NO   DESCRIPTION   SYMBOL   CARTOGRAPHIC SPECIFICATION	May also be shown in green or other colors.
19.5.38 Oil seep    lineweight .2 mm   diameter 1.5 mm     lineweight .2 mm   diameter 1.5 mm   diamet	May also be shown in green or other colors.  Use if both shallow and deep oil wells are shown on map. May also be shown in
19.5.38 Oil seep    lineweight .2 mm   graph	May also be shown in green or other colors.  Use if both shallow and deep oil wells are shown on map. May also be shown in
19.5.49 Oil show  19.5.40 Oil well (nonspecific depth)  19.5.41 Suspended oil well (nonspecific depth)  19.5.42 Plugged and abandoned oil well (nonspecific depth)  19.5.43 Shallow oil well  19.5.44 Suspended shallow oil well  19.5.45 Plugged and abandoned shallow oil well  19.5.46 Plugged and abandoned shallow oil well	Use if both shallow and deep oil wells are shown on map.  May also be shown in
19.5.40 Oil well (nonspecific depth)  19.5.41 Suspended oil well (nonspecific depth)  19.5.42 Plugged and abandoned oil well (nonspecific depth)  19.5.43 Shallow oil well  19.5.44 Suspended shallow oil well  19.5.45 Plugged and abandoned shallow oil well  19.5.45 Plugged and abandoned shallow oil well	Use if both shallow and deep oil wells are shown on map.  May also be shown in
19.5.41 Suspended oil well (nonspecific depth)  19.5.42 Plugged and abandoned oil well (nonspecific depth)  19.5.43 Shallow oil well  19.5.44 Suspended shallow oil well  19.5.45 Plugged and abandoned shallow oil well  19.5.45 Plugged and abandoned shallow oil well	Use if both shallow and deep oil wells are shown on map.  May also be shown in
19.5.42 Plugged and abandoned oil well (nonspecific depth)  19.5.43 Shallow oil well  19.5.44 Suspended shallow oil well  19.5.45 Plugged and abandoned shallow oil well  Inneweight .2 mm	Use if both shallow and deep oil wells are shown on map.  May also be shown in
19.5.43 Shallow oil well  19.5.44 Suspended shallow oil well  19.5.45 Plugged and abandoned shallow oil well  Inneweight .2 mm inner dot	deep oil wells are shown on map. May also be shown in
19.5.45 Plugged and abandoned shallow oil well	
lineweight .2 mm inner dot	
diamatau 1 F man	
19.5.46 Deep oil well   outer circle diameter 2.75 min  outer circle diameter 2.75 min	
19.5.47 Suspended deep oil well	
19.5.48 Plugged and abandoned deep oil well	
19.5.49 Gas seep all lineweights 2 mm 90 490° 1.2 mm 41.2 mm 625 mm diameter 1.5 n	May also be shown in red or other colors.
19.5.50 Gas show  dall lineweights  2 mm  625 + 15  mm  diameter 1.5 n	nm
19.5.51 Gas well (nonspecific depth)	ım
19.5.52 Suspended gas well (nonspecific depth)  All lineweights  .2 mm  4.0 mm	
Plugged and abandoned gas well (nonspecific depth)  All lineweights .2 mm  4.0 mm	
19.5.54 Shallow gas well	Use if both shallow and deep gas wells are shown on map.
19.5.55 Suspended shallow gas well	May also be shown in red or other colors.
19.5.56 Plugged and abandoned shallow gas well	
19.5.57 Deep gas well   inner circle diameter 1.5 mm; outer circle diameter 2.75 mm  diameter 2.75 mm      inner circle diameter 2.8 mm   inner circle diameter 2.8 mm  inner circle diameter 3.8 mm  inner circle diameter 3. mm  inner circle diameter 3. mm  inner circle diameter 3. mm  inner circle diamete	's
19.5.58 Suspended deep gas well	
19.5.59 Plugged and abandoned deep gas well	
Deep gas well, plugged back and producing shallow gas    Deep gas well, plugged back and producing shallow gas	May also be shown in red or other colors.

<sup>\*</sup>For more information, see general guidelines on pages A-i to A-v.

REF NO		SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
	19.5—Oil and gas fields; wells d	rilled for hydrocarbon ex	ploration or exploitation (continued	)
19.5.61	Oil and gas seep	*	all lineweights .2 mm 90 90	May also be shown in other colors.
19.5.62	Oil and gas show	¥	all lineweights .2 mm	
19.5.63	Oil and gas well (nonspecific depth)	*	all lineweights .2 mm diameter 1.5 mm * *********************************	
19.5.64	Suspended oil and gas well (nonspecific depth)	*	all lineweights .2 mm	
19.5.65	Plugged and abandoned oil and gas well (nonspecific depth)	*	all lineweights .2 mm	
19.5.66	Shallow oil and gas well	*	*	Use if both shallow and deep oil and gas wells are shown on map.
19.5.67	Suspended shallow oil and gas well	*	*	May also be shown in other colors.
19.5.68	Plugged and abandoned shallow oil and gas well	*	*	
19.5.69	Deep oil and gas well	•	inner dot diameter 1.5 mm; outer circle diameter 2.75 mm  ##	
19.5.70	Suspended deep oil and gas well	•	all lineweights .2 mm	
19.5.71	Plugged and abandoned deep oil and gas well	₩	all lineweights .2 mm	
19.5.72	Condensate show	G	lineweight .2 mm G diameter 1.5 mm	May also be shown in other colors.
19.5.73	Condensate well (nonspecific depth)	•	lineweight .2 mm  diameter 1.5 mm	
19.5.74	Suspended condensate well (nonspecific depth)	ф	lineweight ↓ ↓ 4.0 mm ★	
19.5.75	Plugged and abandoned condensate well (nonspecific depth)	ø	lineweight 2 mm 4.0 mm	
19.5.76	Shallow condensate well	•	•	Use if both shallow and deep condensate wells are shown on map.
19.5.77	Suspended shallow condensate well	ф	•	May also be shown in other colors.
19.5.78	Plugged and abandoned shallow condensate well	ø	ø	
19.5.79	Deep condensate well	<b>③</b>	all lineweights .2 mm inner dot diameter 1.5 mm outer circle diameter 2.75 mm	
19.5.80	Suspended deep condensate well	•	all lineweights .2 mm  4.0 mm  7	
19.5.81	Plugged and abandoned deep condensate well	Ø	all lineweights .2 mm	

	IV IIAI	UNAL NESCUNCES	(oontinaca)	
REF NO	DESCRIPTION	SYMBOL	CARTOGRAPHIC SPECIFICATIONS*	NOTES ON USAGE*
	19.5—Oil and gas fields; wells d	rilled for hydrocarbon ex	ploration or exploitation (continued	)
19.5.82	Gas and condensate show	₩	all lineweights diameter 1.5 mm  ∴ 2 mm   ☆  →  →  →  ←  -625 mm	May also be shown in other colors.
19.5.83	Gas and condensate well (nonspecific depth)	;≱+	all lineweights 2 mm	
19.5.84	Suspended gas and condensate well (nonspecific depth)	*	all lineweights .2 mm  4.0 mm	
19.5.85	Plugged and abandoned gas and condensate well (nonspecific depth)	*	all lineweights .2 mm	
19.5.86	Shallow gas and condensate well	<b>≱</b>	<b>*</b>	Use if both shallow and deep gas and condensate wells are shown on
19.5.87	Suspended shallow gas and condensate well	*	*	map. May also be shown in other colors.
19.5.88	Plugged and abandoned shallow gas and condensate well	*	<b>¾</b>	
19.5.89	Deep gas and condensate well	<b>⊕</b>	inner circle diameter 1.5 mm; outer circle diameter 2.75 mm	
19.5.90	Suspended deep gas and condensate well	<	all lineweights .2 mm	
19.5.91	Plugged and abandoned deep gas and condensate well	<b>₩</b>	all lineweights .2 mm	
19.5.92	Gas storage well (nonspecific depth)	<b>*</b>	1.75 mm	May also be shown in other colors.
19.5.93	Plugged and abandoned gas storage well (nonspecific depth)	*	lineweight 2 mm	
19.5.94	Shallow gas storage well	•	<b>*</b>	Use if both shallow and deep gas storage wells are shown on map.
19.5.95	Plugged and abandoned shallow gas storage well	*	*	May also be shown in other colors.
19.5.96	Deep gas storage well	•	lineweight .2 mm   outer circle diameter 2.75 mm	
19.5.97	Plugged and abandoned deep gas storage well	<b>®</b>	all lineweights .2 mm	
19.5.98	Observation well for gas-storage field (nonspecific depth)	æ	diameter 1.5 mm ∴ all lineweights .725 mm →	May also be shown in other colors.
19.5.99	Plugged and abandoned observation well for gas- storage field [nonspecific depth]	Ø	all lineweights .2 mm	
19.5.100	Shallow observation well for gas-storage field	ņ	Ď	Use if both shallow and deep observation wells are shown on map.
19.5.101	Plugged and abandoned shallow observation well for gas-storage field	Ø	ø	May also be shown in other colors.
19.5.102	Deep observation well for gas-storage field	<b>©</b>	all lineweights .2 mm  Outer circle diameter 2.75 mm	
19.5.103	Plugged and abandoned deep observation well for gas-storage field	Ø	all lineweights .2 mm	